OMB Approval Number: 2700-0042

SOLICITATION, OFFER AND AWARD	1. THIS CONTRACT IS A RATED ORDER UNDER DPAS (15 CFR 350) ➤	RATING DO-C9	PAGE 1 OF

2. CONTRACT NO.	3. SOLICITATION NO.	4. TYPE OF SOLICITATION	5. DATE ISSUED	6. REQUISITION/PURCHASE NO.
NNJ08JA02C	NNJ07157099R	☐ SEALED BID (IFB) ☒ NEGOTIATED (RFP)		4200231802

7. ISSUED BY CODE BJ3

NASA LYNDON B. JOHNSON SPACE CENTER
2101 NASA Parkway
Attn: Kelly R. Wilcutt, Mail code BJ3
Houston, TX 77058-3696

8. ADDRESS OFFER TO *(If other than Item 7)- if delivered other than hand-carried or commercial delivery service offers:*
NASA LYNDON B. JOHNSON SPACE CENTER
2101 NASA Parkway
Building 111, Mail Code: BD35
Houston, TX 77058-3696

APPROVED
CSC PROCUREMENT OFFICER
12/26/07
DATE

NOTE: In sealed bid solicitations "offer" and "offeror" mean "bid" and "bidder"

SOLICITATION

9.

10. FOR INFORMATION CALL: ➤	A. NAME	B. TELEPHONE NO. *(NO COLLECT CALLS)* AREA CODE	NUMBER	EXT.	C. EMAIL ADDRESS
	Kelly R. Wilcutt, Contracting Officer	281	244-7890		kelly.r.wilcutt@nasa.gov

11. TABLE OF CONTENTS

(X)	SEC.	DESCRIPTION	PAGE(S)	(X)	SEC.	DESCRIPTION	PAGE(S)
		PART I – THE SCHEDULE				PART II – CONTRACT CLAUSES	
☒	A	SOLICITATION/CONTRACT FORM		☒	I	CONTRACT CLAUSES	
☒	B	SUPPLIES OR SERVICES AND PRICES/COSTS				PART III – LIST OF DOCUMENTS, EXHIBITS AND OTHER ATTACH.	
☒	C	DESCRIPTION/SPECS./WORK STATEMENT		☒	J	LIST OF ATTACHMENTS	
☒	D	PACKAGING AND MARKING				PART IV – REPRESENTATIONS AND INSTRUCTIONS	
☒	E	INSPECTION AND ACCEPTANCE		☒	K	REPRESENTATIONS, CERTIFICATIONS AND	
☒	F	DELIVERIES OR PERFORMANCE				OTHER STATEMENTS OF OFFERORS	
☒	G	CONTRACT ADMINISTRATION DATA		☒	L	INSTRS., CONDS., AND NOTICES TO OFFERORS	
☒	H	SPECIAL CONTRACT REQUIREMENTS		☒	M	EVALUATION FACTORS FOR AWARD	

OFFER *(Must be fully completed by offeror)*

Item 12 does not apply if the solicitation includes the provisions at 52.214-16, Minimum Bid Acceptance Period.

12. In compliance with the above, the undersigned agrees, if this offer is accepted within 180 calendar days *(60 calendar days unless a different period is inserted by the offeror)* from the date for receipt of offers specified above, to furnish any or all items upon which prices are offered at the price set opposite each item, delivered at the designated point(s), within the time specified in the schedule.

13. DISCOUNT FOR PROMPT PAYMENT ➤N/A *(See Section I, clause No. 52-232-8)*	10 CALENDAR DAYS %	20 CALENDAR DAYS %	30 CALENDAR DAYS %	___ CALENDAR DAYS %

14. ACKNOWLEDGMENT OF AMENDMENTS *(The offeror acknowledges receipt of amendments to the SOLICITATION).* For offerors and related documents numbered and dated:	AMENDMENT NO	DATE	AMENDMENT NO	DATE
	001	19 Oct 2006	003	9 Nov 2006
	002	25 Oct 2006	See continuation page	

15. NAME AND ADDRESS OF OFFEROR	CODE 1JGQ2	FACILITY 1JGQ2	16. NAME AND TITLE OF PERSON AUTHORIZED TO SIGN OFFER
CSC Applied Technologies LLC **6500 West Fwy, Ste. 600** **Fort Worth, TX 76116**			**Jeff Beauford** **Director of Contracts and Procurement**

15B. TELEPHONE NO. *(Include area code)*	15C. CHECK IF REMITTANCE ADDRESS IS DIFFERENT FROM ABOVE – ENTER	17. SIGNATURE	18. OFFERDATE
817-570-2877	☒ SUCH ADDRESS IN SCHEDULE		20 Sep 2007

AWARD *(To be completed by Government)*

19. ACCEPTED AS TO ITEMS NUMBERED	20. AMOUNT	21. ACCOUNTING AND APPROPRIATION
	67,420,997	

22. AUTHORITY FOR USING OTHER THAN FULL AND OPEN COMPETITION	23. SUBMIT INVOICES TO ADDRESS SHOWN IN: *(4 copies unless otherwise specified)* ➤	ITEM
☐ 10 U.S.C. 2304(c) ( ) ☐ 41 U.S.C. 253(c) ( )		

24. ADMINISTERED BY *(If other than Item 7)*	CODE	25. PAYMENT WILL BE MADE BY	CODE

26. NAME OF CONTRACTING OFFICER *(Type or print)*	27. UNITED STATES OF AMERICA	28. AWARD DATE
Kelly R. Wilcutt, Contracting Officer	*(Signature of Contracting Officer)*	JAN 03 2008

IMPORTANT – Award will be made on this Form, or on Standard Form 26, or by other authorized official written notice.

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(End of Section)

SECTION B

SUPPLIES OR SERVICES AND PRICES/COSTS

CLAUSES THAT PERTAIN TO THE CONTRACT IN GENERAL:

B.1 LISTING OF CLAUSES INCORPORATED BY REFERENCE

No FAR By-reference clauses in Section B.1

B.2 SUPPLIES AND/OR SERVICES TO BE FURNISHED

(a) General

This contract is for facilities support services for the Johnson Space Center (JSC) including those facilities at JSC, Ellington Field (EF), and the Sonny Carter Training Facility (SCTF) using a hybrid of cost-reimbursement, firm-fixed-price, and Indefinite Delivery/Indefinite Quantity (ID/IQ) contracting method. Facilities support services includes maintenance, operations, design, construction, configuration control, work control, environmental labor (operators/laborers) and rigging. The Contractor shall provide all resources (except as may be expressly stated in this Contract as furnished by the Government) necessary to provide facilities operations and management in accordance with the Statement of Work (SOW) in Section J-1 of this Contract. The services to be performed under the terms and conditions of this Contract will be acquired as detailed below:

(b) Routine Cost-Reimbursable Services – Annexes 1, 2, 3, 6, and 7 of the SOW describe facilities support services work that is routinely required and for which accurate workload requirements are specified.

(c) Non-Routine Cost-Reimbursable Services – Annex 4 of the SOW allows the Government to acquire on a cost-reimbursable, ID/IQ basis additional services within the general scope of facilities support services work that either are not routine in nature or for which an accurate workload estimate does not exist at the time of contract award.

(d) Non-Routine Fixed-Price Services – Annex 5 of the SOW allows the Government to acquire additional services such as construction services, design engineering, Facility Condition Assessment (FCA), and painting on a fixed-price, ID/IQ basis.

(End of Clause)

NOTE: The following clauses B.3 - B.7 lay-out the values and funding levels for this hybrid Contract. For Contract value purposes, B.3 and B.4 do not include the values for ID/IQ Annexes 4 and 5. Furthermore, B.6, and B.7 are for purposes of determining ID/IQ values for Annexes 4 and 5 only:

B.3 ESTIMATED COST, AWARD FEE, and FIXED-FEE (not including ID/IQ Annexes 4 and 5)

The estimated cost of Annexes 1, 2, 3, 6, and 7 is $63,604,714.

The maximum available award fee is $1,419,151.

The maximum available fixed-fee is $2,397,132.

The total estimated cost, maximum award fee and maximum fixed-fee is $67,420,997.

Reference: Base Period, Years 1 and 2.

(End of Clause)

B.4 CONTRACT FUNDING (NFS 1852.232-81) (JUN 1990) (not including Annexes 4 and 5)

This clause identifies the amount of funds allotted by the Government for purposes of payment of costs incurred by the Contractor to perform the services identified in Annexes 1, 2, 3, 6, and 7 of this Contract and covers the following estimated period of performance:

(a) For purposes of payment of cost, exclusive of fee, in accordance with the Limitation of Funds clause, the total amount allotted by the Government to this Contract is $ 10,000.00 . This allotment is for Annexes 1, 2, 3, 6, and 7 of this Contract and covers the following estimated period of performance:

(b) An additional amount of $ 0 is obligated under this Contract for payment of fee.

(End of Clause)

B.5 PHASE-IN FIRM FIXED PRICE

Phase- In activities: 1/7/08 through 2/29/08: $0.00.

(End of Clause)

B.6 CUMULATIVE VALUE AND FUNDING FOR COST-REIMBURSABLE TASK ORDERS (ANNEX 4)

This clause identifies the estimated cost/award-fee as well as funding for task orders issued under Annex 4. Paragraph (a) will be updated on a periodic basis to reflect the value of issued task orders. Paragraph (b) represents the funding level and will be updated on a periodic basis to increase the funding level. The ID/IQ value identified on each task order represents the amount subject to the Limitation of Funds clause.

(a) The estimated cost of Annex 4 is $_____. The maximum available award fee is $_____. The fixed-fee is $____. The total estimated cost, maximum award fee, and fixed-fee are $_____.

This allotment covers Task Orders X through X, from _____, 20XX through _____, 20XX.

(b) For purposes of payment of cost, exclusive of fee, in accordance with the Limitation of Funds clause, the total amount allotted by the Government for Task Orders is $_____. An additional amount of $_____ is obligated under this contract for payment of fee, for a total of $_____.

(End of Clause)

B.7 CUMULATIVE VALUE FOR FIRM-FIXED-PRICE DELIVERY ORDERS (ANNEX 5)

This clause identifies the total fixed-price to be paid to the Contractor for acceptable performance of all services described in issued delivery orders along with the funding level. This clause will be updated on a periodic basis to reflect the value of issued delivery orders.

The total firm-fixed-price of Delivery Orders X through X is $_____.

(End of Clause)

B.8 INDEFINITE DELIVERY/INDEFINITE QUANTITY (ID/IQ) (ANNEXES 4 and 5)

The following values are applied throughout the life of the contract and therefore represent the aggregate sum for the minimum and maximum values on a cumulative basis:

(a) The guaranteed minimum contract value of work that will be ordered under this contract per contract year is as follows:

Annex 4: Cost reimbursable Task Orders: $200,000. Cumulatively: $_____ through Contract Year ___.

Annex 5: Firm-fixed-price Delivery Orders: $200,000. Cumulatively: $_____ through Contract Year ___.

(b) The maximum contract value of work that will be ordered under this contract per contract year is as follows:

Annex 4: Cost-reimbursable Task Orders: $15,000,000. Cumulatively: $_____ through Contract Year ___.

Annex 5: Firm-fixed-price Delivery Orders: $15,000,000. Cumulatively: $_____ through Contract Year ___.

(c) If the Government orders supplies or services in excess of the minimum but not up to the maximum, this circumstance shall not constitute the basis for an equitable adjustment to any contract price, estimated cost, or fee.

(End of Clause)

B.9 ID/IQ RATE TABLE FOR NON ROUTINE COST REIMBURSABLE ORDERS ANNEX 4

This table identifies the labor categories and labor rates for which the Government will order non-routine cost reimbursable services per Annex 4 of the SOW.

The pricing of ID/IQ delivery orders for this contract shall be in accordance with the negotiated and fully burdened average labor rates as shown in the table below. These rates are fully burdened but without fee/profit. Note that the bottom of the tables allow for indirect rates applied if applicable. For example, an application of a material handling rate on materials. In addition, these tables include a line for a maximum fee rate/profit percent that may be proposed on task orders.

FOIA EXEMPTION b4

SECTION C

SPECIFICATIONS – STATEMENT OF WORK

SEE SECTION J-A:
FACILITIES STATEMENT OF WORK

[END OF SECTION]

SECTION D

PACKAGING AND MARKING

D.1 LISTING OF CLAUSES INCORPORATED BY REFERENCE

No FAR By-reference clauses in Section D.1

D.2 PACKAGING, HANDLING, AND TRANSPORTATION (NFS 1852.211-70) (SEP 2005)

(a) The Contractor shall comply with NPG 6000.1E, "Requirements for Packaging, Handling, and Transportation for Aeronautical and Space Systems, Equipment, and Associated Components", dated April 26, 1999, as may be supplemented by the statement of work or specifications of this contract, for all items designated as Class I, II, or III.

(b) The Contractor's packaging, handling, and transportation procedures may be used, in whole or part, subject to the written approval of the Contracting Officer, provided (1) the Contractor's procedures are not in conflict with an requirements of this contract, and (2) the requirements of this contract shall take precedence in event of any conflict with the Contractor's procedures.

(c) The Contractor must place the requirements of this clause in all subcontracts for items that will become components of deliverable Class I, II, or III items.

(End of clauses)

[END OF SECTION]

SECTION E

INSPECTION AND ACCEPTANCE

CLAUSES THAT PERTAIN TO THE CONTRACT IN GENERAL:

E.1 LISTING OF CLAUSES INCORPORATED BY REFERENCE

NOTICE: The following solicitation provisions and/or Contract clauses pertinent to this section are hereby incorporated by reference:

I. FEDERAL ACQUISITION REGULATION (FAR) (48 CFR CHAPTER 1)

CLAUSE NUMBER	DATE	TITLE
52.246-4	AUG 1996	INSPECTION OF SERVICES - FIXED-PRICE
52.246-5	APR 1984	INSPECTION OF SERVICES - COST-REIMBURSEMENT
52.246-16	APR 1984	RESPONSIBILITY FOR SUPPLIES

II. NASA FEDERAL ACQUISITION REGULATION SUPPLEMENT (NFS) (48 CFR CHAPTER 18)

CLAUSE NUMBER	DATE	TITLE

No NASA FAR By-reference clauses in Section E. 1

E.2 INSPECTION AND ACCEPTANCE (JSC 52.246-90) (JUN 1991) (ANNEXES 1, 2, 3, 6 and 7)

Final inspection and acceptance shall be accomplished by the CO or his/her duly authorized representative at NASA Lyndon B. Johnson Space Center.

(End of clause)

E.3 INSPECTION AND ACCEPTANCE OF ID/IQ TASK ORDERS (ANNEX 4)

I. Inspection and Acceptance of Task Orders

Unless otherwise specified, the Government may accept, as promptly as practicable after completion and inspection, all work required by a Task Order (TO) or that portion of the work the CO determines can be accepted separately.

II. Daily Inspections

a. Notify the COTR at least 2 business days prior to any test or concrete placement. Inspection will be made after notification that all items have been installed for the test or concrete placement. Should the inspection reveal that corrective measures are required or that the work is not complete, an additional 1

day will be allowed for the Government to complete its inspection after all work has been corrected.

b. Notify the COTR at least 1 business day in advance of backfilling or encasing so that final location and elevations can be recorded by Government survey. Failure to provide such notification may require reopening of a trench to obtain survey data and further backfilling.

III. Inspection Notification

Notify the CO in writing upon completion of each individual TO. Provide 1 day advance notice of the date the work will be fully completed and ready for final inspection. If the Government requires a means of access to perform a complete inspection before work is covered up, the Contractor shall provide such access. (e.g. Scaffold, man lift, ladder, etc.). The Government has the responsibility to respond within a reasonable time to inspect and accept the work.

IV. Acceptance

The COTR will perform acceptance. The CO may designate a different Government Agent as the authorized representative. The Contractor will be notified by a written notice or by a copy of the delegation of authority if a different representative is designated. The acceptance of ID/IQ work will be based on whether the completed work satisfies the requirements identified in the TO.

(End of clause)

E.4 INSPECTION AND ACCEPTANCE OF ID/IQ DELIVERY ORDERS (ANNEX 5)

Unless otherwise specified, the Government may accept, as promptly as practicable after completion and inspection, all work required by a Delivery Order (DO) or that portion of the work the CO determines can be accepted separately.

I. Daily Inspections

a. Notify the COTR at least 2 business days prior to any test or concrete placement. Inspection shall be made after notification that all items have been installed for the test or concrete placement. Should the inspection reveal that corrective measures are required or that the work is not complete, an additional 1 day shall be allowed for the Government to complete its inspection after all work has been corrected.

b. Notify the COTR at least 1 business day in advance of backfilling or encasing so that final location and elevations can be verified by Government inspection. Failure to provide such notification may require reopening of a trench to obtain survey data and further backfilling, all at the Contractor's expense.

II. Inspection Notification

Notify the CO in writing or via the SPICE WAD Tracking System upon completion of each individual DO.

Provide 1 day advance notice of the date the work will be fully completed and ready for final inspection. If the Government requires a means of access to perform a complete inspection before work is covered up, the Contractor shall provide such access. (e.g. Scaffold, man lift,

ladder, etc.). The Government has the responsibility to respond within a reasonable time to inspect and accept the work.

III. Acceptance

The COTR will perform acceptance. The CO may designate a different Government agent as an authorized representative. The acceptance of ID/IQ work will be based on whether the completed work satisfies the final design package or non-design DO, description of work that meets the customer's requirements. Maintenance activation, when applicable to a DO, shall be completed before the Government will make final acceptance.

(End of clause)

E.5 MATERIAL INSPECTION AND RECEIVING REPORT 1852.246-72 (AUG 2003)

a. At the time of each delivery to the Government under this Contract, the Contractor shall furnish a Material Inspection and Receiving Report (DD Form 250 series) prepared in 4 copies, and 1 original.

b. The Contractor shall prepare the DD Form 250 in accordance with NASA FAR Supplement 1846.6. The Contractor shall enclose the copies of the DD Form 250 in the package or seal them in a waterproof envelope, which shall be securely attached to the exterior of the package in the most protected location.

c. When more than one package is involved in a shipment, the Contractor shall list on the DD Form 250, as additional information, the quantity of packages and the package numbers. The Contractor shall forward the DD Form 250 with the lowest numbered package of the shipment and print the words "CONTAINS DD FORM 250" on the package.

(End of clause)

CLAUSES THAT PERTAIN TO CONSTRUCTION ONLY:

E.6 LISTING OF CLAUSES INCORPORATED BY REFERENCE

NOTICE: The following solicitation provisions and/or Contract clauses pertinent to this section are hereby incorporated by reference:

I. FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1)

CLAUSE NUMBER	DATE	TITLE
52.246-12	AUG 1996	INSPECTION OF CONSTRUCTION
52.246-13	AUG 1996	DISMANTLING, DEMOLITION, OR REMOVAL OF IMPROVEMENTS

II. NASA FEDERAL ACQUISITION REGULATION SUPPLEMENT (NFS) (48 CFR CHAPTER 18)

CLAUSE NUMBER	DATE	TITLE

No NFS By-reference clauses in Section E. 6

[END OF SECTION]

SECTION F

DELIVERIES OR PERFORMANCE

CLAUSES THAT PERTAIN TO THE CONTRACT IN GENERAL:

F.1 LISTING OF CLAUSES INCORPORATED BY REFERENCE

NOTICE: The following solicitation provisions and/or Contract clauses pertinent to this section are hereby incorporated by reference:

I. FEDERAL ACQUISITION REGULATION (FAR) (48 CFR CHAPTER 1)

CLAUSE NUMBER	DATE	TITLE
The following clauses apply to SOW Annexes 4 and 5 only:		
52.242-15	AUG 1989	STOP-WORK ORDER
52.242-17	APR 1984	GOVERNMENT DELAY OF WORK
The following clause applies to SOW Annexes 1, 2, 3, 6, and 7 only:		
52.242-15	AUG 1989	STOP-WORK ORDER (ALTERNATE I) (APR 1984)
52.247-34	NOV 1991	F.O.B. DESTINATION

II. NASA FEDERAL ACQUISITION REGULATION SUPPLEMENT (NFS) (48 CFR CHAPTER 18)

CLAUSE NUMBER	DATE	TITLE

No NASA By-reference clauses in Section F.1.

III. FULL TEXT CLAUSES

F.2 COMPLETION OF WORK

All work required under this Contract, including submission of all reports, shall be completed on or before February 28, 2010.

(End of clause)

F.3 PHASE-IN AND PHASE-OUT

a. Contractor Phase-In: The services provided by this Contract are vital to the *Government's overall effort,* and continuity must be maintained at a consistently high level without interruption. The Contractor is expected to meet full performance requirements from the start date of the base Contract period. The Phase-In period shall be approximately 53 calendar days prior to the start date of the base Contract period. Office space will not be provided by the Government

during the Phase-In period. The Contractor shall support a weekly meeting with the preceding Contractor(s) to discuss/identify problems or areas requiring attention during this Phase-In period. The Contractor shall accomplish Phase-In in accordance with Section J.

b. Contractor Phase-Out: Phase-out activities shall be accomplished in accordance with FAR 52.237-3, Continuity of Services.

(End of clause)

F.4 OPTION TO EXTEND COMPLETION DATE

The Government may require the Contractor to continue to perform services under this Contract. The CO may exercise this option or term(s) by issuance of a unilateral Contract modification 30 days or more before the completion date set forth in Section F. Should the option or term(s) be exercised, the resultant Contract will include all terms and conditions of the basic Contract as it exists immediately prior to the exercise of the option or term(s), except for the following changes:

I. These are pre-priced options and award-terms that apply to Plan A if it is implemented in accordance with Clause H.10:

YEAR 3: 3/1/2010 – 2/28/2011

1. B.3, entitled "Estimated Cost, Award-Fee, and Fixed-Fee" shall be modified to increase the estimated cost by $_32,703,351_ to $_96,308,065_ and to increase maximum available fixed fee by $_1,962,201_ to $__4,359,333_. The total estimated cost, maximum award fee and maximum fixed fee is $_102,086,549_.
2. F.2, entitled "Completion of Work" shall be modified to extend the Completion Date to February 28, 2011.
3. B.8, entitled "Indefinite Delivery/Indefinite Quantity (ID/IQ) shall be modified to reflect the increase to the minimum value by $200,000 for both Annexes 4 and 5 and the increase to the maximum value by $15,000,000 for both Annexes 4 and 5.
4. B.9, entitled "Pre-priced Items" for Year 3 shall become effective.

YEAR 4: 3/1/2011 – 2/28/2012

1. B.3, entitled "Estimated Cost, Award-Fee, and Fixed-Fee" shall be modified to increase the estimated cost by $_33,458,315_ to $_129,766,380_ and to increase the maximum available fixed fee by $_2,007,498_ to $_6,366,831_. The total estimated cost, maximum award fee and maximum fixed fee is $_137,552,362_.
2. F.2, entitled "Completion of Work" shall be modified to extend the Completion Date to February 28, 2012.
3. B.8, entitled "Indefinite Delivery/Indefinite Quantity (ID/IQ) shall be modified to reflect the increase to the minimum value by $200,000 for both Annexes 4 and 5 and the increase to the maximum value by $15,000,000 for both Annexes 4 and 5.
4. B.9, entitled "Pre-priced Items" for Year 4 shall become effective.

YEAR 5: 3/1/2012 – 2/28/2013

1. B.3, entitled "Estimated Cost, Award-Fee, and Fixed-Fee" shall be modified to increase the estimated cost by $_34,323,711_ to $_164,090,091_ and to increase the maximum available fixed fee by $_2,059,423_ to $_8,426,254_. The total estimated cost, maximum award fee and maximum fixed fee is $_173,935,496_.
2. F.2, entitled "Completion of Work" shall be modified to extend the Completion Date to February 28, 2013.
3. B.8, entitled "Indefinite Delivery/Indefinite Quantity (ID/IQ) shall be modified to reflect the increase to the minimum value by $200,000 for both Annexes 4 and 5 and the increase to the maximum value by $15,000,000 for both Annexes 4 and 5.
4. B.9, entitled "Pre-priced Items" for Year 5 shall become effective.

YEAR 6: 3/1/2013 – 2/28/2014

1. B.3, entitled "Estimated Cost, Award-Fee, and Fixed-Fee" shall be modified to increase the estimated cost by $_35,127,432_ to $_199,217,523_ and to increase the maximum available fixed fee by $_2,107,646_ to $_10,533,900_. The total estimated cost, maximum award fee and maximum fixed fee is $_211,170,574_.
2. F.2, entitled "Completion of Work" shall be modified to extend the Completion Date to February 28, 2014.
3. B.8, entitled "Indefinite Delivery/Indefinite Quantity (ID/IQ) shall be modified to reflect the increase to the minimum value by $200,000 for both Annexes 4 and 5 and the increase to the maximum value by $15,000,000 for both Annexes 4 and 5.
4. B.9, entitled "Pre-priced Items" for Year 6 shall become effective.

YEAR 7: 3/1/2014 – 2/28/2015

1. B.3, entitled "Estimated Cost, Award-Fee, and Fixed-Fee" shall be modified to increase the estimated cost by $_35,878,179_ to $_235,095,702_ and to increase the maximum available fixed fee by $_2,152,691_ to $_12,686,591_. The total estimated cost, maximum award fee and maximum fixed fee is $_249,201,444_.
2. F.2, entitled "Completion of Work" shall be modified to extend the Completion Date to February 28, 2015.
3. B.8, entitled "Indefinite Delivery/Indefinite Quantity (ID/IQ) shall be modified to reflect the increase to the minimum value by $200,000 for both Annexes 4 and 5 and the increase to the maximum value by $15,000,000 for both Annexes 4 and 5.
4. B.9, entitled "Pre-priced Items" for Year 7 shall become effective.

YEAR 8: 3/1/2015 – 2/28/2016

1. B.3, entitled "Estimated Cost, Award-Fee, and Fixed-Fee" shall be modified to increase the estimated cost by $_36,624,957_ to $_271,720,659_ and to increase the maximum available fixed fee by $_2,197,498_ to $_14,884,089_. The total estimated cost, maximum award fee and maximum fixed fee is $_288,023,899_.

2. F.2, entitled "Completion of Work" shall be modified to extend the Completion Date to February 28, 2016
3. B.8, entitled "Indefinite Delivery/Indefinite Quantity (ID/IQ) shall be modified to reflect the increase to the minimum value by $200,000 for both Annexes 4 and 5 and the increase to the maximum value by $15,000,000 for both Annexes 4 and 5.
4. B.9, entitled "Pre-priced Items" for Year 8 shall become effective.

YEAR 9: 3/1/2016 – 2/28/2017

1. B.3, entitled "Estimated Cost, Award-Fee, and Fixed-Fee" shall be modified to increase the estimated cost by $_37,386,440_ to $_309,107,099_ and to increase the maximum available award fee by $_2,243,186_ to $_3,662,337_. The total estimated cost, maximum award fee and maximum fixed fee is $_327,653,525_.
2. F.2, entitled "Completion of Work" shall be modified to extend the Completion Date to February 28, 2017.
3. B.8, entitled "Indefinite Delivery/Indefinite Quantity (ID/IQ) shall be modified to reflect the increase to the minimum value by $200,000 for both Annexes 4 and 5 and the increase to the maximum value by $15,000,000 for both Annexes 4 and 5.
4. B.9, entitled "Pre-priced Items" for Year 9 shall become effective.

YEAR 10: 3/1/2017 – 2/28/2018

1. B.3, entitled "Estimated Cost, Award-Fee, and Fixed-Fee" shall be modified to increase the estimated cost by $_38,158,070_ to $_347,265,169_ and to increase the maximum available award fee by $_2,289,485_ to $_5,951,822_. The total estimated cost, maximum award fee and maximum fixed fee is $_368,101,080_.
2. F.2, entitled "Completion of Work" shall be modified to extend the Completion Date to February 28, 2018.
3. B.8, entitled "Indefinite Delivery/Indefinite Quantity (ID/IQ) shall be modified to reflect the increase to the minimum value by $200,000 for both Annexes 4 and 5 and the increase to the maximum value by $15,000,000 for both Annexes 4 and 5.
4. B.9, entitled "Pre-priced Items" for Year 10 shall become effective.

II. These are pre-priced options that apply to Plan B if it is implemented in accordance with Clause H.10:

YEAR 3: 3/1/2010 – 2/28/2011

1. B.3, entitled "Estimated Cost, Award-Fee, and Fixed-Fee" shall be modified to increase the estimated cost by $_32,703,351_ to $_96,308,065_ and to increase the maximum available award fee by $_1,962,201_ to $_3,862,372_. The total estimated cost, maximum award fee and maximum fixed fee is $_102,086,549_.
2. F.2, entitled "Completion of Work" shall be modified to extend the Completion Date to February 28, 2011.

3. B.8, entitled "Indefinite Delivery/Indefinite Quantity (ID/IQ) shall be modified to reflect the increase to the minimum value by $200,000 for both Annexes 4 and 5 and the increase to the maximum value by $15,000,000 for both Annexes 4 and 5.
4. B.9, entitled "Pre-priced Items" for Year 3 shall become effective.

YEAR 4: 3/1/2011 – 2/28/2012

1. B.3, entitled "Estimated Cost, Award-Fee, and Fixed-Fee" shall be modified to increase the estimated cost by $_33,458,315_ to $_129,766,380_ and to increase the maximum available award fee by $_2,007,498_ to $_5,869,870_. The total estimated cost, maximum award fee and maximum fixed fee is $_137,552,362_.
2. F.2, entitled "Completion of Work" shall be modified to extend the Completion Date to February 28, 2012.
3. B.8, entitled "Indefinite Delivery/Indefinite Quantity (ID/IQ) shall be modified to reflect the increase to the minimum value by $200,000 for both Annexes 4 and 5 and the increase to the maximum value by $15,000,000 for both Annexes 4 and 5.
4. B.9, entitled "Pre-priced Items" for Year 4 shall become effective.

YEAR 5: 3/1/2012 – 2/28/2013

1. B.3, entitled "Estimated Cost, Award-Fee, and Fixed-Fee" shall be modified to increase the estimated cost by $_34,323,711_ to $_164,090,091_ and to increase the maximum available award fee by $_2,059,423_ to $_7,929,293_. The total estimated cost, maximum award fee and maximum fixed fee is $_173,935,496_.
2. F.2, entitled "Completion of Work" shall be modified to extend the Completion Date to February 28, 2013.
3. B.8, entitled "Indefinite Delivery/Indefinite Quantity (ID/IQ) shall be modified to reflect the increase to the minimum value by $200,000 for both Annexes 4 and 5 and the increase to the maximum value by $15,000,000 for both Annexes 4 and 5.
4. B.9, entitled "Pre-priced Items" for Year 5 shall become effective.

III. These are pre-priced options and award-terms that apply to Plan C if it is implemented in accordance with Clause H.10:

YEAR 4: 3/1/2011 – 2/28/2012

1. B.3, entitled "Estimated Cost, Award-Fee, and Fixed-Fee" shall be modified to increase the estimated cost by $_33,458,315_ to $_129,766,380_ and to increase the maximum available award fee by $_2,007,498_ to $_3,426,649_. The total estimated cost, maximum award fee and maximum fixed fee is $_137,552,362_.
2. F.2, entitled "Completion of Work" shall be modified to extend the Completion Date to February 28, 2012.
3. B.8, entitled "Indefinite Delivery/Indefinite Quantity (ID/IQ) shall be modified to reflect the increase to the minimum value by $200,000 for both Annexes 4 and 5

and the increase to the maximum value by $15,000,000 for both Annexes 4 and 5.

4. B.9, entitled "Pre-priced Items" for Year 4 shall become effective.

YEAR 5: 3/1/2012 – 2/28/2013

1. B.3, entitled "Estimated Cost, Award-Fee, and Fixed-Fee" shall be modified to increase the estimated cost by $_34,323,711_ to $_164,090,091_ and to increase the maximum available award fee by $_2,059,423_ to $_5,486,072_. The total estimated cost, maximum award fee and maximum fixed fee is $_173,935,496_.
2. F.2, entitled "Completion of Work" shall be modified to extend the Completion Date to February 28, 2013.
3. B.8, entitled "Indefinite Delivery/Indefinite Quantity (ID/IQ) shall be modified to reflect the increase to the minimum value by $200,000 for both Annexes 4 and 5 and the increase to the maximum value by $15,000,000 for both Annexes 4 and 5.
4. B.9, entitled "Pre-priced Items" for Year 5 shall become effective.

YEAR 6: 3/1/2013 – 2/28/2014

1. B.3, entitled "Estimated Cost, Award-Fee, and Fixed-Fee" shall be modified to increase the estimated cost by $_35,127,432_ to $_199,217,523_ and to increase the maximum available award fee by $_2,107,646_ to $_7,593,718_. The total estimated cost, maximum award fee and maximum fixed fee is $_211,170,574_.
2. F.2, entitled "Completion of Work" shall be modified to extend the Completion Date to February 28, 2014.
3. B.8, entitled "Indefinite Delivery/Indefinite Quantity (ID/IQ) shall be modified to reflect the increase to the minimum value by $200,000 for both Annexes 4 and 5 and the increase to the maximum value by $15,000,000 for both Annexes 4 and 5.
4. B.9, entitled "Pre-priced Items" for Year 6 shall become effective.

YEAR 7: 3/1/2014 – 2/28/2015

1. B.3, entitled "Estimated Cost, Award-Fee, and Fixed-Fee" shall be modified to increase the estimated cost by $_35,878,179_ to $_235,095,702_ and to increase the maximum available award fee by $_2,152,691_ to $_9,746,409_. The total estimated cost, maximum award fee and maximum fixed fee is $_249,201,444_.
2. F.2, entitled "Completion of Work" shall be modified to extend the Completion Date to February 28, 2015.
3. B.8, entitled "Indefinite Delivery/Indefinite Quantity (ID/IQ) shall be modified to reflect the increase to the minimum value by $200,000 for both Annexes 4 and 5 and the increase to the maximum value by $15,000,000 for both Annexes 4 and 5.
4. B.9, entitled "Pre-priced Items" for Year 7 shall become effective.

YEAR 8: 3/1/2015 – 2/28/2016

1. B.3, entitled "Estimated Cost, Award-Fee, and Fixed-Fee" shall be modified to increase the estimated cost by $_36,624,957_ to $_271,720,659_ and to increase the maximum available award fee by $_2,197,498_ to $_11,943,907_. The total estimated cost, maximum award fee and maximum fixed fee is $_288,023,899_.
2. F.2, entitled "Completion of Work" shall be modified to extend the Completion Date to February 28, 2016.
3. B.8, entitled "Indefinite Delivery/Indefinite Quantity (ID/IQ) shall be modified to reflect the increase to the minimum value by $200,000 for both Annexes 4 and 5 and the increase to the maximum value by $15,000,000 for both Annexes 4 and 5.
4. B.9, entitled "Pre-priced Items" for Year 8 shall become effective.

YEAR 9: 3/1/2016 – 2/28/2017

1. B.3, entitled "Estimated Cost, Award-Fee, and Fixed-Fee" shall be modified to increase the estimated cost by $_37,386,440_ to $_309,107,099_ and to increase the maximum available award fee by $_2,243,186_ to $_14,187,093_. The total estimated cost, maximum award fee and maximum fixed fee is $_327,653,525_.
2. F.2, entitled "Completion of Work" shall be modified to extend the Completion Date to February 28, 2017.
3. B.8, entitled "Indefinite Delivery/Indefinite Quantity (ID/IQ) shall be modified to reflect the increase to the minimum value by $200,000 for both Annexes 4 and 5 and the increase to the maximum value by $15,000,000 for both Annexes 4 and 5.
4. B.9, entitled "Pre-priced Items" for Year 9 shall become effective.

YEAR 10: 3/1/2017 – 2/28/2018

1. B.3, entitled "Estimated Cost, Award-Fee, and Fixed-Fee" shall be modified to increase the estimated cost by $_38,158,070_ to $_347,265,169_ and to increase the maximum available award fee by $_2,289,485_ to $_16,476,578_. The total estimated cost, maximum award fee and maximum fixed fee is $_368,101,080_.
2. F.2, entitled "Completion of Work" shall be modified to extend the Completion Date to February 28, 2018
3. B.8, entitled "Indefinite Delivery/Indefinite Quantity (ID/IQ) shall be modified to reflect the increase to the minimum value by $200,000 for both Annexes 4 and 5 and the increase to the maximum value by $15,000,000 for both Annexes 4 and 5.
4. B.9, entitled "Pre-priced Items" for Year 10 shall become effective.

F.5 SHIPPING INSTRUCTIONS

All documentation shall be shipped to the addresses cited in the associated Data Requirements Description (DRD) documents.

Shipment of all other items shall be as follows:

Parcel Post Shipments and Freight Shipments
Ship to: NASA Johnson Space Center
Building 421/Central Receiving
2101 NASA Parkway
Houston, TX 77058-3696

Mark for: Accountable Property Officer (if applicable)
Mark with: Purchase Request No. _____
Contract Number: NNJ08JA02C

For reissue to: (NOTE to Contractor: on shipping form please annotate the intended recipient at final destination)

_____
(Name) (Mail Code) (Bldg.) (Rm.)

(End of clause)

F.6 BILLS OF LADING (1852.247-73) (JUN 2002)

The purpose of this clause is to define when a commercial bill of lading or a government bill of lading is to be used when shipments of deliverable items under this Contract are F.O.B. origin.

a. Commercial Bills of Lading. All domestic shipments shall be made via commercial bills of lading (CBLs). The Contractor shall prepay domestic transportation charges. The Government shall reimburse the Contractor for these charges if they are added to the invoice as a separate line item supported by the paid freight receipts. If paid receipts in support of the invoice are not obtainable, a statement as described below must be completed, signed by an authorized company representative, and attached to the invoice.

"I certify that the shipments identified below have been made, transportation charges have been paid by (company name), and paid freight or comparable receipts are not obtainable.

Contract or Order Number: _____
Destination: _____."

b. Government Bills of Lading.

1. International (export) and domestic overseas shipments of items deliverable under this Contract shall be made by Government bills of lading (GBLs). As used in this clause, "domestic overseas" means non-continental United States, i.e. Hawaii, Commonwealth of Puerto Rico, and possessions of the United States.

2. At least 15 days before shipment, the Contractor shall request in writing GBLs from: Sylvia Hanagriff, Transportation Branch, 2101 NASA Parkway, Mail Code JB, Houston, TX 77058. If time is limited, requests may be by telephone: 281-483-3208. Requests for GBLs shall include the following information:

(i) Item identification/ description.
(ii) Origin and destination.
(iii) Individual and total weights.
(iv) Dimensional Weight.
(v) Dimensions and total cubic footage.
(vi) Total number of pieces.
(vii) Total dollar value.
(viii) Other pertinent data.

(End of clause)

CLAUSES THAT PERTAIN TO CONSTRUCTION ONLY:

F.7 LISTING OF CLAUSES INCORPORATED BY REFERENCE

NOTICE: The following solicitation provisions and/or Contract clauses pertinent to this section are hereby incorporated by reference:

I. FEDERAL ACQUISITION REGULATION (FAR) (48 CFR CHAPTER 1)

CLAUSE NUMBER	DATE	TITLE
52.211-10	APR 1984	COMMENCEMENT PROSECUTION AND COMPLETION OF WORK
52.242-14	APR 1984	SUSPENSION OF WORK

CLAUSES THAT PERTAIN TO ARCHITECT AND ENGINEER ONLY:

F.8 LISTING OF CLAUSES INCORPORATED BY REFERENCE

NOTICE: The following solicitation provisions and/or Contract clauses pertinent to this section are hereby incorporated by reference:

I. FEDERAL ACQUISITION REGULATION (FAR) (48 CFR CHAPTER 1) CLAUSE

NUMBER	DATE	TITLE
52.242-14	APR 1984	SUSPENSION OF WORK

II. NASA FEDERAL ACQUISITION REGULATION SUPPLEMENT (NFS) (48 CFR CHAPTER 18)

CLAUSE NUMBER	DATE	TITLE

No NASA By-reference clauses in Section F. 8

[END OF SECTION]

SECTION G

CONTRACT ADMINISTRATION DATA

CLAUSES THAT PERTAIN TO THE CONTRACT IN GENERAL:

G.1 LISTING OF CLAUSES INCORPORATED BY REFERENCE

NOTICE: The following solicitation provisions and/or Contract clauses pertinent to this section are hereby incorporated by reference:

I. FEDERAL ACQUISITION REGULATION (FAR) (48 CFR CHAPTER 1)

CLAUSE NUMBER	DATE	TITLE

No FAR By-reference clauses in Section G.1.

II. NASA FEDERAL ACQUISITION REGULATION SUPPLEMENT (NFS) (48 CFR CHAPTER 18)

CLAUSE NUMBER	DATE	TITLE
1852.227-70	MAY 2002	NEW TECHNOLOGY
1852.227-86	DEC 1987	COMMERCIAL COMPUTER SOFTWARE-LICENSING
1852.242-73	NOV 2004	NASA CONTRACTOR FINANCIAL MANAGEMENT REPORTING
1852.245-70	JUL 1997	CONTRACTOR REQUESTS FOR GOVERNMENT-OWNED EQUIPMENT
1852.245-72	MAR 1989	LIABILITY FOR GOVERNMENT PROPERTY FURNISHED FOR REPAIR OR OTHER SERVICES

G.2 SECURITY/BADGING REQUIREMENTS FOR FOREIGN NATIONAL VISITORS AND EMPLOYEES/REPRESENTATIVES OF FOREIGN CONTRACTORS (JSC 52.204-91) (JAN 2006)

a. An employee of a domestic Johnson Space Center (JSC) Contractor or its subcontractor who is not a U.S. citizen (foreign national) may not be admitted to the JSC site for purposes of performing work without special arrangements. In addition, all employees or representatives of a foreign JSC Contractor/subcontractor may not be admitted to the JSC site without special arrangements. For employees as described above, advance notice must be given to the Security Office of the host installation [JSC or White Sands Test Facility (WSTF)] at least 3 weeks prior to the scheduled need for access to the site so that instructions on obtaining access may be provided. Contractors should be aware that approval for access to the site and issuance of a badge

may take much longer than three weeks and sufficient lead time must be allowed to accommodate the approval process.

b. All visit/badge requests for persons described in (a) above must be entered in the NASA Foreign National Management System (NFNMS) for acceptance, review, concurrence and approval purposes. When an authorized company official requests a JSC or WSTF badge for site access, he/she is certifying that steps have been taken to ensure that its Contractor or subcontractor employees, visitors, or representatives will not be given access to export-controlled or classified information for which they are not authorized. The authorized company officials shall serve as the Contractor's representative(s) in certifying that all visit/badge request forms are processed in accordance with JSC and WSTF security and export control procedures. No foreign national, representative, or resident alien Contractor/subcontractor employee shall be granted access into JSC or WSTF until approved and processed through the NFNMS. Unescorted access will not be granted unless a favorable National Agency Check (NAC) has been completed by the JSC Security Office, and an approved NASA Foreign National Visitor Security/Technology Control Plan (STTCP), (previously called the Access Control Plan) has been submitted and approved.

c. The Contractor agrees that it will not employ, for the performance of work onsite at JSC or WSTF, any individuals who are not legally authorized to work in the United States. If the JSC or WSTF Industrial Security Specialist or the CO has reason to believe that any employee of the Contractor may not be legally authorized to work in the United States and/or on the Contract, the Contractor may be required to furnish copies of Form I-9 (Employment Eligibility Verification), U.S. Department of Labor Application for Alien Employment Certification, and any other type of employment authorization document.

The Contractor agrees to provide the information requested by the JSC or WSTF Security Office in order to comply with NASA policy directives and guidelines related to foreign visits to NASA facilities so that (1) the visitor/employee/ representative may be allowed access to JSC or other NASA Centers for performance of this Contract, (2) required investigations can be conducted, and (3) required annual or revalidation reports can be submitted to NASA Headquarters. All requested information must be submitted in a timely manner in accordance with instructions provided by JSC or any other Center to be visited.

(End of clause)

G.3 JSC HAZARDOUS MATERIALS USE (JSC 52.223-92) (DEC 1999)

a. This clause is JSC-unique, and the requirements are in addition to any U.S. Environmental Protection Agency, U.S. Occupational Safety and Health Administration, or other state or Federal regulation or statute. Therefore, the following requirements do NOT supersede any statutory or regulatory requirements for any entity subject to this clause.

b. "Hazardous materials," for the purposes of this clause, consist of the following:

(1) Those materials defined as "highly hazardous chemicals" in Occupational Safety and Health Administration Process Safety Management Regulation, 29 Code of Federal Regulation 1010.119, without regard for quantity.

(2) Those "extremely hazardous substances" subject to the emergency planning requirements in the Environmental Protection Agency Emergency Planning and Community Right-to-Know Regulation, 40 Code of Federal Regulation 355, Part 355, without regard for quantity.

(3) Those "hazardous substances" subject to the release notification requirements under Environmental Protection Agency's Emergency Planning and Community Right-to-Know Regulation, 40 Code of Federal Regulation 302.4, without regard for quantity.

(4) Any radioisotope material or device that produces ionizing radiation.

(5) Any Class II, III, or IV laser as defined by the American National Standards Institute No. Z136.1 (1986).

(6) Any explosive or any pyrotechnics.

(7) Any pesticide.

c. The Contractor shall develop and maintain an inventory listing the identity and quantity of hazardous materials stored or used onsite at JSC for the performance of the Contract.

d. The Contractor shall ensure that the proper training of its employees in the use and inherent hazards of these materials is accomplished prior to use.

e. The Contractor shall notify the JSC Occupational Health and Test Support Office (SD13) prior to any initial use or different application of these materials.

f. The Contractor shall use all hazardous materials properly and take all necessary precautions to ensure no harm is done to humans or the environment.

g. The Contractor shall insert the substance of this clause, including this Paragraph F with appropriate changes of designations of the parties, in subcontracts under which hazardous materials will be utilized, or may reasonably be expected to be utilized, onsite at JSC.

h. In the event the Contractor fails or refuses to comply with any aspect of this clause, such failure or refusal may be considered a material breach of this Contract.

(End of clause)

G.4 SUBMISSION OF INVOICES FOR FIXED-PRICE SERVICES

a. Invoices for services provided in accordance with SOW Annex 5 of this Contract shall be submitted to:

NASA Lyndon B. Johnson Space Center
Attn: Kelly R. Wilcutt/CO
Mail Code BJ3
2101 NASA Parkway
Houston, TX 77058-3696

b. Invoices for payment for ID/IQ services provided under SOW Annex 5 of this Contract:

Not more frequently than twice per month, the Contractor shall submit an invoice (original and 2 duplicate originals) for all delivery order work completed and accepted by the Government and for which payment has not already been

requested or made. For each delivery order, upon demonstrating to the Government that work has been performed and receipt by the Government of required submittals, the Contractor shall obtain written acceptance from the Government prior to requesting payment. The Contractor shall not invoice for any delivery order prior to acceptance of the work by the Government. If, in the case of construction, the Government, at its sole discretion, agrees to make progress payments, they will be made in accordance with the clause at NFS 1852.232-82. All requests for progress payments shall include written evidence of Government acceptance of all work for which the Contractor is requesting payment. If multiple service orders are authorized using a single delivery order to be scheduled later by the COTR, the Contractor may request payment as frequently as permitted by this clause for service orders completed and accepted by the Government since the last invoice.

A properly submitted invoice for ID/IQ requirements shall at a minimum provide the following:

A copy of the Government acceptance documentation for each delivery order.

A columnar summary of all delivery orders for which payment is being requested. For each delivery order, this summary should include the delivery order number, a brief title or description, and the amount for which payment is requested.

A grand total of all the delivery orders for which payment is being sought.

(End of clause)

G.5 SUBMISSION OF VOUCHERS FOR PAYMENT

a. All requests for reimbursement of allowable, allocable and reasonable costs incurred in accordance with the terms of this Contract to perform services required by SOW Annexes 1, 2, 3, 4, 6, and 7 as well as all requests for payment of fee shall adhere to the following:

b. The designated billing office for cost vouchers for purposes of the Prompt Payment clause of this Contract is indicated below. Public vouchers for payment of costs shall include a reference to the number of this Contract.

c. (1) If the Contractor is authorized to submit interim cost vouchers directly to the NASA paying office, the original voucher should be submitted to:

NASA Johnson Space Center
Attn: LF/Financial Management Division
2101 NASA Parkway
Houston, TX 77058

(2) For any period that the Defense Contract Audit Agency has authorized the Contractor to submit interim cost vouchers directly to the Government paying office, interim vouchers are not required to be sent to the Auditor, and are considered to be provisionally approved for payment, subject to final audit.

(3) Copies of vouchers should be submitted as directed by the CO.

d. If the Contractor is not authorized to submit interim cost vouchers directly to the paying office as described in paragraph (b), the Contractor shall prepare and submit vouchers as follows:

(1) One original Standard Form (SF) 1034, SF 1035, or equivalent Contractor's attachment to:

Defense Contract Audit Agency
Dallas Branch Office
6500 West Freeway, Suite 217
Fort Worth, TX 76116

(2) Five copies of SF 1034, SF 1035A, or equivalent Contractor's attachment to the following offices by insertion in the memorandum block of their names and addresses:

(i) Copy 1 NASA CO

(ii) Copy 2 Auditor

(iii) Copy 3 Contractor

(iv) Copy 4 Contract administration office; and

(v) Copy 5 Project Management Office.

(3) The CO may designate other recipients as required.

e. Public vouchers for payment of fee shall be prepared similarly to the procedures in paragraphs (b) or (c) of this clause, whichever is applicable, and be forwarded to:

NASA Johnson Space Center
Attn: Kelly R. Wilcutt/CO
Mail Code: BJ3
2101 NASA Parkway
Houston, TX 77058

This is the designated billing office for fee vouchers for purposes of the Prompt Payment clause of this Contract.

f. In the event that amounts are withheld from payment in accordance with provisions of this Contract, a separate voucher for the amount withheld will be required before payment for that amount may be made.

(End of clause)

G.6 IDENTIFICATION OF EMPLOYEES (JSC 52.242-92) (OCT 2006)

At all times while on Government property, the Contractor, subcontractors, their employees and agents shall wear badges which will be issued by the NASA Badging & Visitor Control Office, located in Building 110 at the Johnson Space Center (JSC), or at the Main Gate at the White Sands Test Facility (WSTF). JSC employee and visitor badges will be issued only between the hours of 6:00 a.m. to 7:30 p.m., Monday through Friday, and 7:00 am to 4:00 pm on Saturday and Sunday. WSTF employee badges will be issued only between the hours of 8 a.m. to 2 p.m., Monday through Friday. WSTF visitor badges will be issued on a 7-day a week, 24-hour a day basis. Resident aliens and foreign nationals/representatives shall be issued green foreign national badges.

Each individual who wears a badge shall be required to sign personally for the badge. The Contractor shall be held accountable for issued badges and all other related items and must assure that they are returned to the NASA Badging & Visitor Control Offices upon completion of work under the Contract in accordance with Security Management

Directive (SMD) 500-15, "Security Termination Procedures." Failure to comply with the NASA Contractor termination procedures upon completion of the work (e.g., return of badges, keys, CAA cards, clearance terminations, JSC Public Key Infrastructure (PKI)/special program deletions, etc.) may result in final payment being delayed.

(End of clause)

G.7 REPAIR OF GOVERNMENT PROPERTY

When removal of Government-owned property from its place of use for repair is necessary, the Contractor must prepare a JSC Form 1318 prior to removing the equipment. The form and instructions regarding its use are available from the Equipment Management Section, Building 419. The repaired Government property is to be returned to the location from which it was removed unless otherwise directed by the Government.

(End of clause)

G.8 AWARD FEE FOR SERVICE CONTRACTS (NFS 1852.216-76) (JUN 2000)

a. The Contractor can earn award fee from a minimum of zero dollars to the maximum stated in Clause B.3 "Estimated Cost, Award-Fee, and Fixed Fee."

b. Beginning 6 months after the effective date of this Contract, the Government shall evaluate the Contractor's performance every 6 months to determine the amount of award fee earned by the Contractor during the period. The Contractor may submit a self-evaluation of performance for each evaluation period under consideration. These self-evaluations will be considered by the Government in its evaluation. The Government's Fee Determination Official (FDO) will determine the award fee amounts based on the Contractor's performance in accordance with Section J. The plan may be revised unilaterally by the Government prior to the beginning of any rating period to redirect emphasis.

c. The Government will advise the Contractor in writing of the evaluation results. The JSC Financial Management Division will make payment based on issuance of unilateral modification by the CO.

d. After 85 percent of the potential award fee has been paid, the CO may direct the withholding of further payment of award fee until a reserve is set aside in an amount that the CO considers necessary to protect the Government's interest. This reserve shall not exceed 15 percent of the total potential award fee.

e. The amount of award fee which can be awarded in each evaluation period is limited to the amounts set forth in Section J, Attachment C. Award fee which is not earned in an evaluation period cannot be reallocated to future evaluation periods.

f. (1) Provisional award fee payments will be made under this Contract pending the determination of the amount of fee earned for an evaluation period. If applicable, provisional award fee payments will be made to the Contractor on a monthly basis. The total amount of award fee available in an evaluation period that will be provisionally paid is the lesser of 70 percent or the prior period's evaluation score.

(2) Provisional award fee payments will be superseded by the final award fee evaluation for that period. If provisional payments exceed the final evaluation score, the Contractor will either credit the next payment voucher for the

amount of such overpayment or refund the difference to the Government, as directed by the CO.

(3) If the CO determines that the Contractor will not achieve a level of performance commensurate with the provisional rate, payment of provisional award fee will be discontinued or reduced in such amounts as the CO deems appropriate. The CO will notify the Contractor in writing if it is determined that such discontinuance or reduction is appropriate.

(4) Provisional award fee payments will not be made prior to the first award fee determination by the Government.

g. Award fee determinations are unilateral decisions made solely at the discretion of the Government.

(End of clause)

G.9 DESIGNATION OF NEW TECHNOLOGY REPRESENTATIVE AND PATENT REPRESENTATIVE (NFS 1852.227-72) (JUL 1997)

a. For purposes of administration of the clause of this Contract entitled "New Technology" or "Patent Rights--Retention by the Contractor (Short Form)," whichever is included, the following named representatives are hereby designated by the CO to administer such clause:

Title	Office Code	Address (including zip code)
New Technology Representative	AT/Technology Transfer & Commercialization Office	NASA Johnson Space Center, Houston, TX 77058
Patent Representative	AL/Patent Representative	NASA Johnson Space Center, Houston, TX 77058

b. Reports of reportable items, and disclosure of subject inventions, interim reports, final reports, utilization reports, and other reports required by the clause, as well as any correspondence with respect to such matters, should be directed to the New Technology Representative unless transmitted in response to correspondence or request from the Patent Representative. Inquires or requests regarding disposition of rights, election of rights, or related matters should be directed to the Patent Representative. This clause shall be included in any subcontract hereunder requiring a "New Technology" clause or "Patent Rights--Retention by the Contractor (Short Form)" clause, unless otherwise authorized or directed by the CO. The respective responsibilities and authorities of the above-named representatives are set forth in 1827.305-370 of the NASA FAR Supplement.

(End of clause)

G.10 TECHNICAL DIRECTION (NFS 1852.242-70) (SEP 1993)

a. Performance of the work under this Contract is subject to the written technical direction of the Contracting Officer Technical Representative (COTR), who shall be specifically appointed by the CO in writing in accordance with NASA FAR Supplement 1842.270. "Technical direction" means a directive to the Contractor that approves approaches, solutions, designs, or refinements; fills in details or

otherwise completes the general description of work or documentation items; shifts emphasis among work areas or tasks; or furnishes similar instruction to the Contractor. Technical direction includes requiring studies and pursuit of certain lines of inquiry regarding matters within the general tasks and requirements in Section C of this Contract.

b. The COTR does not have the authority to, and shall not, issue any instruction purporting to be technical direction that –

(1) Constitutes an assignment of additional work outside the statement of work;

(2) Constitutes a change as defined in the changes clause;

(3) Constitutes a basis for any increase or decrease in the total estimated Contract cost, the fixed fee (if any), or the time required for Contract performance;

(4) Changes any of the expressed terms, conditions, or specifications of the Contract; or,

(5) Interferes with the Contractor's rights to perform the terms and conditions of the Contract.

c. All technical direction shall be issued in writing by the COTR.

d. The Contractor shall proceed promptly with the performance of technical direction duly issued by the COTR in the manner prescribed by this clause and within the COTR's authority. If, in the Contractor's opinion, any instruction or direction by the COTR falls within any of the categories defined in paragraph (b) of this clause, the Contractor shall not proceed but shall notify the CO in writing within 5 working days after receiving it and shall request the CO to take action as described in this clause. Upon receiving this notification, the CO shall either issue an appropriate Contract modification within a reasonable time or advise the Contractor in writing within 30 days that the instruction or direction is:

(1) Rescinded in its entirety; or

(2) Within the requirements of the Contract and does not constitute a change under the changes clause of the Contract, and that the Contractor should proceed promptly with its performance.

(e) A failure of the Contractor and CO to agree that the instruction or direction is both within the requirements of the Contract and does not constitute a change under the changes clause, or a failure to agree upon the Contract action to be taken with respect to the instruction or direction, shall be subject to the Disputes clause of this Contract.

(f) Any action(s) taken by the Contractor in response to any direction given by any person other than the CO or the COTR shall be at the Contractor's risk.

(End of clause)

G.11 <u>INSTALLATION-ACCOUNTABLE GOVERNMENT PROPERTY (NFS 1852.245-71) (NOV 2004) (ALT I) (NOV 2004)</u>

a. The Government property described in the clause at G.14 "1852.245-77, List of Installation-Accountable Property and Services", shall be made available to the Contractor on a no-charge basis for use in performance of this Contract. This

property shall be utilized only within the physical confines of the NASA installation that provided the property. Under this clause, the Government retains accountability for, and title to, the property, and the Contractor assumes the following user responsibilities:

(1) NPR 4200.1, NASA Equipment Management Manual

(2) NPR 4200.2, NASA Equipment Management Procedures and Guidelines for Property Custodians

(3) NPR 4300.1, NASA Personal Property Disposal Procedures and Guidelines

(4) NPR 4100.1, NASA Materials Inventory Management Manual. JSC will provide the Contractor with all applicable regulations, handbooks, and other materials that may be required.

(5) JPG 5151.2, Johnson Space Center Support Contractor Procedures and Guidelines

The Contractor shall establish and adhere to a system of written procedures for compliance with these user responsibilities. Such procedures must include holding employees liable, when appropriate, for loss, damage, or destruction of Government property.

b. (1) The official accountable recordkeeping, physical inventory, financial control, and reporting of the property subject to this clause shall be retained by the Government and accomplished by the installation Supply and Equipment Management Officer (SEMO) and Financial Management Officer. If this Contract provides for the Contractor to acquire property, title to which will vest in the Government, the following additional procedures apply:

(i) The Contractor shall not utilize the installation's central receiving facility for receipt of Contractor-acquired property. However, the Contractor shall provide listings suitable for establishing accountable records of all such property received, on a quarterly basis, to the CO and the Supply and Equipment Management Officer;

(ii) The Contractor shall furnish a copy of each purchase order, prior to delivery by the vendor, to the installation central receiving area:

(iii) The Contractor shall establish a record of the property as required by FAR 45.5 and 1845.5 and furnish to the Industrial Property Officer a DD Form 1149 Requisition and Invoice/Shipping Document (or installation equivalent) to transfer accountability to the Government within 5 working days after receipt of the property by the Contractor. The Contractor is accountable for all Contractor-acquired property until the property is transferred to the Government's accountability.

(iv) Contractor use of Government property at an off-site location and off-site subcontractor use require advance approval of the CO and notification of the SEMO. The Contractor shall assume accountability and financial reporting responsibility for such property. The Contractor shall establish records and property control procedures and maintain the property in accordance with the requirements of FAR Part 45.5 until its return to the installation.

(2) After transfer of accountability to the Government, the Contractor shall continue to maintain such internal records as are necessary to execute the user responsibilities identified in paragraph (a) and document the acquisition, billing, and disposition of the property. These records and supporting documentation shall be made available, upon request, to the SEMO and any other authorized representatives of the CO.

(End of clause)

G.12 FINANCIAL REPORTING OF NASA PROPERTY IN THE CUSTODY OF CONTRACTORS (NFS 1852.245-73) (OCT 2003)

a. The Contractor shall submit annually a NASA Form (NF) 1018, NASA Property in the Custody of Contractors, in accordance with the provisions of 1845.505-14, the instructions on the form, subpart 1845.71, and any supplemental instructions for the current reporting period issued by NASA.

b. (1) Subcontractor use of NF 1018 is not required by this clause; however, the Contractor shall include data on property in the possession of subcontractors in the annual NF 1018.

(2) The Contractor shall mail the original signed NF 1018 directly to the cognizant NASA Center Deputy Chief Financial Officer, Finance, unless the Contractor uses the NF 1018 Electronic Submission System (NESS) for report preparation and submission.

(3) One copy shall be submitted (through the Department of Defense (DOD) Property Administrator if Contract administration has been delegated to DOD) to the following address: JB3/Property and Equipment Branch and LF63/Property Accounting, unless the Contractor uses the NF 1018 Electronic Submission System (NESS) for report preparation and submission.

c. (1) The annual reporting period shall be from October 1 of each year through September 30 of the following year. The report shall be submitted in time to be received by October 15. The information contained in these reports is entered into the NASA accounting system to reflect current asset values for agency financial statement purposes. Therefore, it is essential that required reports be received no later than October 15. Some activity may be estimated for the month of September, if necessary, to ensure the NF 1018 is received when due. However, Contractors procedures must document the process for developing these estimates based on planned activity such as planned purchases or NASA Form 533 (NF 533 Contractor Financial Management Report) cost estimates. It should be supported and documented by historical experience or other corroborating evidence, and be retained in accordance with FAR Subpart 4.7, Contractor Records Retention. Contractors shall validate the reasonableness of the estimates and associated methodology by comparing them to the actual activity once that data is available, and adjust them accordingly. In addition, differences between the estimated cost and actual cost must be adjusted during the next reporting period. Contractors shall have formal policies and procedures, which address the validation of NF 1018 data, including data from subcontractors, and the identification and timely reporting of errors. The objective of this validation is to ensure that information reported is accurate and in compliance with the NASA FAR Supplement. If errors are discovered on NF 1018 after submission, the Contractor shall contact the cognizant NASA Center

Industrial Property Officer (IPO) within 30 days after discovery of the error to discuss corrective action.

(2) The CO may, in NASA's interest, withhold payment until a reserve not exceeding $25,000 or 5 percent of the amount of the Contract, whichever is less, has been set aside, if the Contractor fails to submit annual NF 1018 reports in accordance with 1845.505-14 and any supplemental instructions for the current reporting period issued by NASA. Such reserve shall be withheld until the CO has determined that NASA has received the required reports. The withholding of any amount or the subsequent payment thereof shall not be construed as a waiver of any Government right.

d. A final report shall be submitted within 30 days after disposition of all property subject to reporting when the Contract performance period is complete in accordance with (b)(1) through (3) of this clause.

(End of clause)

G.13 LIST OF GOVERNMENT-FURNISHED PROPERTY (NFS 1852.245-76) (OCT 1988)

For performance of work under this Contract, the Government will make available Government property identified in Section J – H, on a no-charge-for-use basis. The Contractor shall use this property in the performance of this Contract at JSC, and at other location(s), as may be approved by the CO. Under the Government property clauses of this Contract, the Contractor is accountable for the identified property.

(End of clause)

G.14 LIST OF INSTALLATION-ACCOUNTABLE PROPERTY AND SERVICES (NFS 1852.245-77) (JUL 1997)

In accordance with the clause at 1852.245-71, Installation-Accountable Government Property, the Contractor is authorized use of the types of property and services listed below, to the extent they are available, in the performance of this contract within the physical borders of the installation which may include buildings and space owned or directly leased by NASA in close proximity to the installation, if so designated by the CO.

(a) Office space, work area space, and utilities. Government telephones are available for official purposes only; pay telephones are available for contractor employees for unofficial calls.

(b) General- and special-purpose equipment, including office furniture.

(1) Equipment to be made available is listed in Attachment Section J-H.
The Government retains accountability for this property under the clause at 1852.245-71, Installation-Accountable Government Property, regardless of its authorized location.

(2) If the Contractor acquires property, title to which vests in the Government pursuant to other provisions of this contract, this property also shall become accountable to the Government upon its entry into Government records as required by the clause at 1852.245-71, Installation-Accountable Government Property.

(3) The Contractor shall not bring to the installation for use under this contract any property owned or leased by the Contractor, or other property that the Contractor is accountable for under any other Government contract, without the Contracting Officer's prior written approval.

(c) Supplies from stores stock.

(d) Publications and blank forms stocked by the installation.

(e) Safety and fire protection for Contractor personnel and facilities.

(f) Installation service facilities:

f.1 Office Automation Information Technology (OAIT) onsite only: Generally, this includes access to personal computers, fax machines, scanners, copiers, and printers. This includes help desk support and training in the use of these systems.

f.2 Disposal Services: Disposal services for excess onsite and offsite Contractor-held/Government-owned property.

f.3 Pickup and Delivery of Official Mail: Within the Center and to and from the Albert Thomas Post Office, provided the mail is properly sealed and stamped. Such mail will be picked up or dropped from only one point as designated by JSC or, if preferred, JSC will provide a box in the central mailroom for the Contractor to pick up and deposit its mail.

f.4 Use of JSC Calibration Laboratory: The contractor shall utilize the services of the JSC Calibration Laboratory to the maximum extent practicable for calibration of all instruments (Government property or contractor property) utilized under this contract, the total cost for maintenance of which would otherwise be a direct charge to the Government.

(g) Medical treatment of a first-aid nature for Contractor personnel injuries or illnesses sustained during on-site duty.

(h) Cafeteria privileges for Contractor employees during normal operating hours.

(i) Building maintenance for facilities occupied by Contractor personnel.

(j) Moving and hauling for office moves, movement of large equipment, and delivery of supplies. Moving services shall be provided on-site, as approved by the Contracting Officer.

(k) The user responsibilities of the Contractor are defined in paragraph (a) of the clause at 1852.245-71, Installation-Accountable Government Property.

(End of clause)

G.15 SMALL BUSINESS SUBCONTRACTING GOALS (JSC 52.219-90) (OCT 2006)

For purposes of this clause, the terms, "HUBZone Small Business Concern," "Small Disadvantaged Business Concern," "Service-Disabled, Veteran-Owned Small Business Concern, "Veteran-Owned Small Business Concern,"" "Women-Owned Small Business Concern," and "Historically Black College or University (HBCU)" are defined in paragraph 2.101 of the Federal Acquisition Regulation.

The total small business goal, expressed as a percent of total contract value including options, is 15 percent. The small business percentage goal includes the following goals expressed as a percent of total contract value:

Small Disadvantaged Business Concerns	7 percent
Woman-Owned Small Business Concerns	2 percent
HUBZone Small Business Concerns	1 percent
Veteran-Owned Small Business Concern	1 percent
Service-Disabled, Veteran-Owned Small Business Concern	1 percent
HBCU's (includes other minority institutions)	1 percent

(End of clause)

G.16 SECURITY REQUIREMENTS FOR JSC SPECIAL ACCESS PROGRAMS

The Contractor shall ensure that all employees, subcontractors, and agents assigned to the Information Technology (I/T) Program, and personnel requiring security clearances or access to security areas (limited, restricted, closed), meet established screening requirements in accordance with NPG 1620.1, JMI 1620.1D and Security Management Directive No.500-9.

(End of clause)

G.17 ADVANCED AGREEMENT ON PAYMENT OF PHASE IN COSTS:

The Contractor shall be entitled to payment for the phase-in period (starting 53 calendar days before the Contract start date) in the Firm-Fixed-Price amount of $0.00, to be received in payments as identified in the offeror's proposal. The Contractor shall propose a payment plan based on its Transition Plan approach that includes no payments and does not exceed the above Firm-Fixed-Price. The proposed payment milestones and measurable criteria is as follows:

Payment milestones are not applicable. Phase-In is provided at no cost to the Government.

Payment will be based on the Contracting Officer's Technical Representative (COTR) concurrence that each milestone has been accomplished and as evidence of the CO's approval of the invoice.

(End of clause)

G.18 CLAUSES THAT PERTAIN TO CONSTRUCTION ONLY:

CLAUSE NUMBER	DATE	TITLE
1852.232-82	MAR 1989	SUBMISSION OF REQUESTS FOR PROGRESS PAYMENTS

[END OF SECTION]

SECTION H

SPECIAL CONTRACT REQUIREMENTS

CLAUSES THAT PERTAIN TO THE CONTRACT IN GENERAL:

H.1 LISTING OF CLAUSES INCORPORATED BY REFERENCE

NOTICE: The following solicitation provisions and/or Contract clauses pertinent to this section are hereby incorporated by reference:

A. FEDERAL ACQUISITION REGULATION (FAR) (48 CFR CHAPTER 1)

CLAUSE NUMBER	DATE	TITLE

No FAR By-reference clauses in Section H.1

B. NASA FEDERAL ACQUISITION REGULATION SUPPLEMENT (NFS) (48 CFR CHAPTER 18)

CLAUSE NUMBER	DATE	TITLE
1852.208-81	NOV 2004	RESTRICTIONS ON PRINTING AND DUPLICATING
1852.223-70	APR 2002	SAFETY AND HEALTH
1852.223-75	FEB 2002	MAJOR BREACH OF SAFETY OR SECURITY
1852.223-76	JUL 2003	FEDERAL AUTOMOTIVE STATISTICAL TOOL (FAST) REPORTING
1852.225-70	FEB 2000	EXPORT LICENSES
1852.242-72	AUG 1992	OBSERVANCE OF LEGAL HOLIDAYS (ALTERNATE II) (OCT 2000)

H.2 TASK ORDERING PROCEDURE (NFS 1852.216-80) (OCT 1996) (ANNEX 4)

A. Only the CO may issue task orders to the Contractor on Form 940, providing specific authorization or direction to perform work within the scope of the Contract and as specified in the schedule. The Contractor may incur costs under this Contract in performance of task orders and task order modifications issued in accordance with this clause. No other costs are authorized unless otherwise specified in the Contract or expressly authorized by the CO.

B. Prior to issuing a task order, the CO shall provide the Contractor with the following data:

(a) A functional description of the work identifying the objectives or results desired from the contemplated task order.

(b) Proposed performance standards to be used as criteria for determining whether the work requirements have been met.

(c) A request for a task plan from the Contractor to include the technical approach, period of performance, appropriate cost information, and any other information required to determine the reasonableness of the Contractor's proposal.

C. Within 7 calendar days after receipt of the CO's request, the Contractor shall submit a task plan conforming to the request.

D. After review and any necessary discussions, the CO may issue a task order to the Contractor containing, as a minimum, the following:

(a) Date of the order.

(b) Contract number and order number.

(c) Functional description of the work identifying the objectives or results desired from the task order, including special instructions or other information necessary for performance of the task.

(d) Performance standards, and where appropriate, quality assurance standards.

(e) Maximum dollar amount authorized (cost and fee or price). This includes allocation of award fee among award fee periods, if applicable.

(f) Any other resources (travel, materials, equipment, facilities, etc.) authorized.

(g) Delivery/performance schedule including start and end dates.

(h) If Contract funding is by individual task order, accounting and appropriation data.

E. The Contractor shall provide acknowledgment of receipt to the CO within 2 calendar days after receipt of the task order.

F. If time constraints do not permit issuance of a fully defined task order in accordance with the procedures described in paragraphs (a) through (d), a task order which includes a ceiling price may be issued.

G. The CO may amend tasks in the same manner in which they were issued.

H. In the event of a conflict between the requirements of the task order and the Contractor's approved task plan, the task order shall prevail.

(End of clause)

H.3 <u>TASK ORDERS –PROPOSALS (ANNEX 4):</u>

A. Proposal

In developing the cost proposals required for each task plan, the Contractor shall use the loaded labor rates found in Clause B.9. This Annex 4 is cost reimbursable and, as such, costs associated with work performed via this Annex must be derived using methods described in pertinent Contract clauses for cost reimbursable work. Each task plan shall identify the estimated quantity, rate(s) and proposed cost of each labor classification the Contractor believes will be required to complete the task order. Each task plan shall also identify the estimated types, quantities, and cost of all material and other non-labor resources. For all proposed direct costs, the Contractor shall provide the basis of

its estimate. For each task order, the Government reserves the right to conduct fact finding and discussions as required to reach agreement on a reasonable estimate cost (direct or indirect) and fee.

B. Inspection and Acceptance (see Clause E. 3 in Section E of the Contract)

(End of clause)

H.4 METHOD OF PLACING DELIVERY ORDERS (DO) (ANNEX 5)

A. DOs may be placed only by the CO. DOs will be in writing on Form 1429 or orally, followed by written confirmation. DOs will be numbered "1," second will be Number "2", and each succeeding DO will be numbered consecutively.

B. Each DO placed against this Contract shall consist of the following information: (A) delivery order number and Contract number; (B) place of delivery or performance (including consignee); (C) item/items ordered, including quantity, unit price, and amount of each; (D) date of order, and required delivery date; (E) name of person placing order; (F) funding and appropriation data; (G) Procurement placement code; (H) total amount; (I) signature of the CO.

C. Amendments to orders may be issued in the same manner as original orders. Each order or amended order shall contain a citation of funds from which payment for the supplies or services ordered shall be made.

(End of clause)

H.5 DELIVERY ORDERS – ORDERING AND PROPOSALS (ANNEX 5)

A. DO or RFP Issuance

When DO work is required, the CO will issue a DO in accordance with Clause B.10 for pre-priced work, or will issue a Request for Proposal (RFP) for non-pre-priced work (Clause B.11). The RFP may be in the form of a letter or WAD (Work Authorization Document). An RFP will contain, at a minimum, a scope of work and schedule for the required services. For non-pre-priced work, an ID/IQ DO will be issued upon the acceptance of the Contractor's proposal in response to the RFP, or after the conclusion of negotiations.

B. Proposal

Upon receipt of each RFP from the CO, the Contractor shall prepare and submit a DO proposal to the Government. The Contractor's proposal shall consist of a detailed cost estimate, project schedule, and other information details or plans required by the DO description of the work, and the necessary documentation to indicate that adequate engineering and planning to accomplish the work has been done. This documentation includes a sketch or written document describing the work that the estimate was based upon. Preparation of proposals by the Contractor shall not constitute an obligation by the Government to issue a DO for performance, nor is the RFP to be construed as the Contractor's authority to commence work.

(a) Contractor proposals shall be submitted per the cost estimate procedures and hierarchy described in paragraph C.

(b) Proposals shall include subcontracted services per the above a-b, only if the RFP includes work that is not: a Pre-Priced Task, specific to a Unit Price Book (UPB) line item, included in a Bare Labor Rates, as set out in Section B.

(c) Proposals shall include vendor quotes as set out for Equipment Rental and Materials and subcontractor quotes when requested by the Government. The Contractor shall provide a minimum of 3 subcontractor bids, or the documents required to demonstrate price reasonableness in accordance with its approved purchasing system. Subcontractor proposals shall be part of the proposal package submitted to the Government.

(d) If required by the Government, prior to proposal submission, the Contractor shall respond to the needs of the Government by visiting the proposed work site (any location within 75 miles of JSC) in the company of the ID/IQ COTR, Project Manager and/or customer to further define the scope of work. Upon establishment of the scope of the work, the Contractor shall prepare a proposal to accomplish the task.

(e) Transmit proposals electronically, by means of SPICE software system or by email, when so directed by the Government. The software used to prepare such proposal submissions shall be Microsoft Windows compatible. Submit a minimum of 3 hard copies of all proposals.

(f) Upon estimate review and funding approval, the estimate becomes part of the final specifications for installation. The quality of components described in the estimate shall be delivered and installed. Any change or replacement of component quality shall require approval by the Government.

(g) Detailed proposals shall be submitted within the period specified by the "classifications" stated on each RFP. Due dates for proposals are based on the urgency of the Government's need for the required services and will be stated as one of the following "classifications:"

Class I (Urgent): A complete proposal is required within 5 calendar days of receipt of an RFP.

Class II (Routine): A complete proposal is required within 14 calendar days of receipt of an RFP.

Class III (Complex or Construction Value of $25,000 or greater): A complete proposal is required within 20 calendar days of receipt of an RFP.

(1) If the Contractor can not meet the requested schedule, notify the Government within 2 days of RFP receipt and explain the reason(s) why. Propose an alternate schedule, subject to approval by the Government.

(2) When the cost proposal is subsequent to the Contractor performing a design for the same project, then the proposal's delivery schedule is part of the final engineering design package schedule and shall follow the requirements of Annex 5.

C. Cost-Estimates

Cost Estimates are to be prepared based on a pricing hierarchy per paragraph L.

Use the Means Electronic Cost Data Bases and computerized estimating software to prepare all cost-estimates for ID/IQ proposals. Provide copies, documentation, and support of this automated estimating system software to the Government.

D. Means Cost and Non Pre-Priced Work Coefficients

(a) Coefficient factors shall include the price elements specified below. Accordingly, the following shall not be separately priced in submitted proposals:

(1) Bin materials such as those described per paragraph D. (e),
(2) Administrative support and coordination for compliance with environmental regulations,
(3) Compliance with health and safety laws,
(4) Permits,
(5) Licenses and fees,
(6) Protection and moving of Government property,
(7) Administrative and clerical support,
(8) Submittals,
(9) Proposal preparation,
(10) Price quotation,
(11) Work area clean up,
(12) All non regulated material waste and excess materials removal and disposal,
(13) Work related safety signs,
(14) Project management and supervision,
(15) Quality control,
(16) Office management and equipment,
(17) Depreciation of equipment,
(18) Tools,
(19) Office equipment,
(20) Employee payroll taxes and benefits,
(21) Insurance,
(22) Overtime, weekend, and holiday premiums,
(23) Shift differential,
(24) Fluctuations of ID/IQ work within the ranges permitted in this Contract,
(25) Risk of poor subcontractor performance and re-performance,
(26) Other risks of doing business,
(27) Memberships,
(28) Profit,
(29) Corporate headquarters expenses of any type,
(30) Markups for management of subcontractors,
(31) Transportation of people or equipment within or between the JSC facilities,
(32) Updating the electrical panel database including replacement of field panel schedule.

(b) In addition, the following conditions shall not be separately priced in submitted proposals as they are performance expectations of work management and/or code requirements:

(1) Work in phases,

(2) Work in areas restricted by security,

(3) Work in occupied areas,

(4) Working through/above ceiling grids or below raised computer floor. (Excluding removal of asbestos containing material),

(5) Work in congested space,

(6) Allowances for utility and equipment outages, including lockout/tagout and circuit verification in the field,

(7) Work in critical areas,

(8) Safety and Health Training.

(c) The following items listed in the Means Unit Price sections shall also be included in the coefficients, if required, and shall not be separately priced in submitted proposals:

Section	Title
01100	Summary
01200	Price & Payment Procedures
01300	Administrative Requirements
01510	Temporary Utilities
01520	Construction Facilities
01530	Temporary Construction
01540	Construction Aids
01550	Vehicular Access and Parking
01560	Barriers & Enclosures
01580	Project Sign
01740	Clean up

(d) In addition to the above listed Means Unit Price items, the following Non-Means items shall be included in the Contractor's coefficients and shall not be separately priced in submitted proposals:

(1) All equipment and labor costs for work up to 15 feet above finished floors. (e.g., Ladders, man-lifts, rolling scaffolds, etc.),

(2) Dumpster and loading charges for delivery orders with a total bare price of less than $25,000,

(3) Equipment costs for traffic cones, caution tape, safety tape, and personal protective equipment (e.g. fire and chemical resistant clothing, respirators, gloves, face masks, environmental suits, safety glasses, etc.),

(4) Equipment and labor costs for regular vacuums, HEPA vacuums and other cleanup work,

(5) Equipment costs for small, commonly used tools. (e.g. hand tools, drills, meters, small portable equipment, etc.).

(e) Bin materials and supplies are the minor materials and supplies that are incidental to the job. Examples of bin materials and supplies include but are not limited to: solder, flux, electrical connectors, electrical tape, fuses, nails, screws, bolts, nuts, washers, spacers, masking tape, sand paper, solvent, cleaners, lubricants, grease, oil, rags, mops, glue, epoxy, spackling compound, joint tape, plumbers tape and compound, clips, welding rods, heat sinks, touch up paint, plumbing and refrigeration fittings.

E. Subcontracted Work Coefficient

This coefficient factor shall include all Contractor costs associated with the administration of the subcontract including, but not limited to:

(a) Administrative and clerical support to solicit a subcontractor proposal and to prepare a proposal for the Government,

(b) Subcontractor procurement,

(c) Management and supervision of the subcontractor,

(d) Training the subcontractor for work on-site and safety,

(e) Inspection, quality control, and any work associated with acquiring and ensuring properly performed work,

(f) Coordination of rework and warranty work is correctly completed.

F. Materials and Equipment Rental (MER) Coefficient

This coefficient factor shall include all costs related to securing materials and equipment leases to complete tasks directed on DO's. No other coefficient shall be applied to these items. The MER coefficient shall include all costs related to administrative support; procurement support including proposal preparation, solicitation of proposals, evaluation of proposals, placement of orders, tracking and expediting of purchase orders, receiving, handling, and storage of material, and lease acquisition. Routine bin materials shall not be included in this coefficient.

G. Cost-Estimates for Unit Price Book (UPB) Work

(a) The basis for the Contractor's cost-estimate shall be the prices published by the R. S. Means Company, Inc., herein after referred to as Means. Means publications are available from the following source: R.S. Means Company, Inc., 100 Construction Plaza, P.O. Box 800, Kingston, MA 02364-0800, Telephone: 1-800-448-8182. Estimates and proposals shall be based on the edition of the R.S. Means Cost Data Publications current at the time of Contract award and the respective quarterly updates. The Means Facilities Construction Cost Data, and the Means Facilities Maintenance and Repair Cost Data Publications shall be used for construction and maintenance and repair respectively. The Means Cost Data shall be used to determine the required trades, labor hours, materials (type, quantity, and base price), and the equipment type usage and price necessary to submit a detailed cost

proposal to the Government. The Government will only be obligated to pay the lowest price derived from the various pricing methodologies described in this Annex.

(b) The means Bare Costs for material, labor, and equipment, shall be adjusted by each CSI division per the City Cost Index (as published in the Reference Section of Means) for Houston, Texas, and the appropriate Contractor coefficient factor (see Section B). The resulting value shall be the fixed price value of the DO issued to the Contractor. Pricing methods and procedures in the Reference Section of the Means book shall be applied to applicable unit prices in the Unit Price Section.

(c) The Contractor shall only apply the MER coefficient to costs related to securing materials and equipment leases. No other coefficient shall be applied to these items.

(d) The "remove and relocate" cost of an existing item shall be 115 percent of the Means bare labor cost of installation for a new item of the same type.

(e) The demolition cost of an existing item shall be as indicated by Means, or if there is no itemized Means demolition cost, the demolition cost shall be 40 percent of the Means bare labor cost of installation for a new item of the same type.

(f) Estimates shall not utilize R .S. Means "Minimum" line items. JSC is considered one location where the Contractor resides.

(g) R.S Means based estimates shall not separately itemize "foreman" or safety "man watch" labor. Means already includes these under the crew mix, when Means deems them necessary.

H. Cost-Estimates for Non-Pre-priced Labor Rate Work

(a) Non-pre-priced work shall be priced per the following procedures:

Labor: Shall be priced per labor rates.

Prepare the estimate with a detailed line-item-by-line-item breakdown of each type craft hour required to accomplish the necessary work. The Contractor's fixed Bare Labor Rate shall be used first to calculate the Contractor's total labor cost. If one does not exist in Section B, the Contractor shall propose a reasonable Bare Labor Rate. The Non Pre-Priced Coefficient factor in Section B shall then be applied to the total bare labor costs.

(b) Material & Equipment Rental:

In each proposal, submit line-item detail of the types and quantities of rental materials and equipment required to complete the proposed task. The number of units and each unit's cost shall be provided for each piece of equipment or material. If the proposed cost for any individual item of material or equipment exceeds $5,000, provide competitive vendor quotes to support the proposed cost of that line item, unless otherwise directed by the Government. For all proposed lease equipment, provide the name and number of leasing company with the proposals. Furthermore, use competition to the maximum extent practicable in the acquisition of material or equipment regardless of its estimated value. The MER coefficient factor in Section B shall then be applied to the total cost of the materials and

equipment. For leased materials and equipment in a subcontractor's bid, only the Subcontract coefficient shall be applied to the subcontractor's quoted price.

(c) Material Purchase:

In each proposal, submit line-item detail of the types and quantities of materials required to complete the proposed task. The number of units and each unit's cost shall be provided for each piece of equipment or material. If the proposed cost for any individual item of material or equipment exceeds $5,000, provide competitive vendor quotes to support the proposed cost of that line item, unless otherwise directed by the Government. The non Pre-Priced coefficient factor shall then be applied to the total cost of the materials.

I. Subcontracted Services

For proposals based in part or solely upon subcontractor quote(s), the FC Contractor shall apply the Subcontract coefficient to the entire subcontractor quote(s).

J. Estimate for Expedited Construction (Cost Reimbursable)

During the customer walkthrough, the Contractor shall establish if the requestor has a need for expedited construction. Both the Contractor and requestor must agree to this date.

The base estimate shall be developed as if construction will be per the regular delivery schedule described in Table 5-2. The Contractor shall then add an expedited surcharge which will be itemized separately without any application of coefficients.

NOTE: The expedited schedule is only approved on funding of the surcharge.

K. Estimate Revisions

Submit revised estimate to the Government within 5 days after estimate review for all projects with a construction value less than $50,000 and within 10 days for all projects with a construction value greater than $50,000.

L. Pricing Information

When preparing a proposal, the pricing hierarchy must be applied in the following order:

(a) Price using Pre-priced Tasks - First, the Contractor shall include the appropriate services or products that were pre-priced under this Contract. When ordering only pre-priced services or products, the CO will issue a completed DO specifying the number of units, expected delivery date (as stated in each applicable line item), and the scope of work. Discussions (negotiations) will not be required. Pre-priced work is not subject to the application of the Contractor coefficient factors.

(b) Price using Unit Price Book (UPB) - Second, the Contractor shall include the appropriate services or products that can be priced per the appropriate R. S. Means Cost Data Publication. The cost estimate for this work shall be as described in paragraph G. The proposal prices shall be based on the latest edition of UPB in effect at the time the estimate is developed. UPB work is subject to application of the UPB Means Coefficient Factor. When a full UPB

code is utilized in an estimate the element description and costs can not be changed from the UPB publication.

(c) Price using Non-Pre-priced Tasks and Labor Rates - Third, the Contractor shall include the appropriate services or products that are not pre-priced or covered by any UBP. The cost estimate for this work shall be as described in paragraph H.

(d) Price using Subcontract Prices - Items not priced according to the first three categories shall be priced in accordance with paragraph I. Notwithstanding the Contractor's right to subcontract delivery order work, the Contractor agrees to use pre-established prices contained in Section B to the extent any delivery order proposal can be developed, in total or in part, using one or more pre-established Section B prices. Similarly, all delivery order proposal estimates developed using labor hours shall be based upon the pre-established Bare Labor Rate contained in Section B regardless of whether the labor is to be provided by the Contractor or a subcontractor. The Contractor shall prepare all proposal estimates using the hierarchy above whether or not it plans to subcontract the work. In addition, prior to awarding a delivery order, the Government may occasionally request the Contractor to develop a proposal based upon competitive subcontractor quotes or bids that had previously been estimated in accordance with the hierarchy above.

The Government may negotiate the Contractor's estimates. In the event the parties are unable to agree on the price of a proposal, or on any other matter concerning the proposal, the CO will unilaterally determine the price or the matter at issue. Any such determinations will be subject to the "Dispute" clause of this Contract.

For any particular DO RFP, application of all pricing methods may be necessary to complete the required pricing. Clearly identify by hierarchy within each proposal, and clearly indicate the application of City of Houston cost index and, as applicable, the various names and type of coefficient factors applied. Table 1.0 "Coefficient Use" clarifies when each coefficient shall be applied.

Coefficient Use

Table 1.0

Type of Work	Means Coefficient	Non Pre-priced Coefficient	Materials & Equipment Rental Coefficient	Subcontracted Work Coefficient	None
Pre-priced work					X
All Government Furnished Materials					X
Performance and Payment Bonds					X
Means Labor	X				
Means Materials and equipment rental/leases			X		
Total Bare Labor Costs (Per Schedule 's proposed rates)		X			

Non Pre-priced Labor		X			
ontractor Labor, material and equipment and other.				X	
Non Pre-priced Material and equipment rental/leases			X		

The Government may furnish any materials associated with work in an RFP. When furnished, the Contractor shall not include any cost for such materials in its proposal. The Contractor shall also not apply a coefficient factor to any Government-furnished materials.

The Government may, at its discretion, provide final design packages to 3rd party ID/IQ Contractors for cost proposals and possible construction award.

M. Inspection and Acceptance of Delivery Orders (see Clause E. 4 in Section E of the Contract).

(End of clause)

H.6 REPRESENTATIONS, CERTIFICATIONS, AND OTHER STATEMENTS OF OFFERORS

This Contract incorporates Section K, Representations, Certifications, and Other Statements of Offerors, as set forth in the Contractor's proposal submitted in response to solicitation number NNJ07157099R for NASA Johnson Space Center Facility Support Services dated 20 Sep 2007, by reference, with the same force and effect as if it were given in full text.

(End of clause)

H.7 PROVIDING FACILITY ITEMS (JSC 52.245-97) (FEB 2003)

The purpose of this clause is to set forth the parties' intent regarding their respective responsibilities for providing facility items under this Contract. The parties accordingly agree as follows:

(a) "Provide," as used in this clause, has the same meaning as set forth in NASA FAR Supplement 1845.301. "Facilities," as used in this clause, has the same meaning as set forth in FAR 45.301.

(b) The Government shall provide to the Contractor the facilities identified in Section J-H for use in performance of this Contract.

(c) The Contractor shall replace any of the existing facilities identified in (b) above that reach the end of their useful life during the Contract period or which are beyond economical maintenance or repair, if the facilities are still needed for Contract performance. Such replacements shall be made with Contractor-owned facilities and shall be accounted for in accordance with the Contractor's disclosed accounting practices.

(d) The Contractor shall not acquire facility items for the Government, unless specifically authorized by the Contract or consent has been obtained in writing from the CO pursuant to FAR 45.302-1(a). The Contractor agrees to

provide all facilities necessary for performance of this Contract except as provided in (b) above.

(End of clause)

The following clause applies to the extent the Contractor acquires capital equipment for use in the performance of SOW Annexes 1, 2, 3, 4, 6, and 7.

H.8 CAPITAL EQUIPMENT

The parties agree that depreciation of any capital equipment acquired by the Contractor to use in performance of services under Annex 5 shall not be an allowable cost under the Contract.

(a) Introduction: The parties recognize the Contractor may, from time to time during the basic period of performance of this Contract, purchase equipment for the purpose of performing work described in the SOW. Any such capital equipment will be capitalized and depreciated in accordance with the Contractor's established cost accounting practices and procedures, which must be in conformance to any applicable requirements and standards of this Contract.

(b) Contractor Records: The Contractor agrees to maintain complete records of capital equipment that is subject to this clause. Such records shall include date of purchase, purchase price; depreciation schedule, and amount of depreciation recorded from time to time. The Contractor further agrees to make these records available to the CO promptly upon the latter's request, along with the Contractor's best estimate of the undepreciated balance of each equipment item.

(c) Right to Purchase: The parties agree that if the Government does not extend the Contract beyond the base period of performance, or does not thereafter Contract with the Contractor for the performance of the same, or substantially the same services contemplated by this Contract, the Contractor will, upon request by the CO, transfer title to any equipment identified by the CO from the records reference above, to either (a) the Government, or (b) a successor Contractor.

(d) If a request for transfer of title to the Government, the Government agrees to recognize as allowable costs under the Contract, for identified capital equipment, so much of the cost of the equipment that has not been depreciated as of the end of the Contract period of performance. Payment of such undepreciated balances will be no later than 30 days after transfer of title.

(End of clause)

H.9 KEY PERSONNEL AND FACILITIES (NFS 1852.235-71) (MAR 1989)

A. The personnel and/or facilities listed below are considered essential to the work being performed under this Contract. Before removing, replacing, or diverting any of the listed or specified personnel or facilities, the Contractor shall (1) notify the CO reasonably in advance and (2) submit justification (including proposed substitutions) in sufficient detail to permit evaluation of the impact on this Contract.

B. The Contractor shall make no diversion without the CO's written consent; provided that the CO may ratify in writing the proposed change, and that ratification shall constitute the CO's consent required by this clause.

C. The list of personnel and/or facilities (shown) may, with the consent of the contracting parties, be amended from time to time during the course of the Contract to add or delete personnel and/or facilities.

(End of clause)

H.10 AWARD FEE/AWARD TERM

In order to motivate excellent performance by the Contractor, an Award Fee/Award Term (AF/AT) Performance Evaluation Plan has been included in Section J of this Contract. This plan enables the Contractor to earn fee or additional period(s) of performance (called "term") based upon evaluation of Contractor performance indicated in the AF/AT Performance Evaluation Plan.

I. Period of Performance:

A. Base Period: The Contract base period for this Contract is 2 years (24 months). NOT

B. E: For purposes of the Government's evaluation of the base period, only the first 9 months of the base period is considered a Cost-Plus-Award-Fee (CPAF) period where performance is rated but no award-term will be earned. The subsequent 12 months (months 10 through 21) will be a Cost-Plus-Fixed-Fee (CPFF) period and evaluated for award-term purposes only. The period of performance beyond the base period may be extended by the implementation of Plan A or Plan B.

B. Plan A: Plan A inaugurates the Award-Term feature on the Contract by awarding a 2-year term (Contract Years Three and Four) and may be implemented upon earning a rating of "very good" or above based upon evaluation of Contractor performance between months 10 through 21 of the base period. The Contract type under Plan A is CPFF, except the final 24 months under Plan A which will be CPAF. Under Plan A, the total period of performance shall not exceed 10 years.

C. Plan B: In the event that the Contractor receives an evaluation below "very good" based upon the evaluation of Contractor performance between months 10 through 21 of the base period, Plan B may be implemented and months 22 through 24 will be converted to CPAF. In addition, a 1-year CPAF period (Contract Year 3) will be exercised in order for the Government to immediately begin a re-competition. Under Plan B, the total period of performance is not anticipated to exceed 3 years (base period plus this 1-year period); however, additional years

may be exercised at the discretion of the Government, if needed, for purposes of allowing time to re-compete the procurement. Absolutely no unearned award-term incentive will be available to be earned during Plan B.

The Contractor will continue to perform to the terms and conditions as set forth in this Contract. Plan B will be CPAF.

D. Plan C "Safety-net": In the event that the Contractor does not perform "excellent" in any of the award-term years (Contract Years Three through Eight), Plan C may be implemented which will result in a 1-year CPAF period; however, additional years may be exercised by the Government, if needed, for purposes of allowing time to re-compete the procurement. Under Plan C, the total period of performance shall not exceed that which is authorized by the Contracting Officer. Absolutely no unearned award-term incentive will be available to be earned during Plan C.

The Contractor will continue to perform to the terms and conditions as set forth in this Contract. Plan C will be CPAF.

II. Implementation of Plan A or B

The Government may extend the term of this Contract by written notice to the Contractor within 30 days before expiration of the base period provided that the Government has given the Contractor a preliminary written notice of its intent to implement Plan A or B at least 45 days before the Contract expires. The preliminary notice does not commit the Government to the exercise of an option.

III. Award Fee/Award Term Performance Evaluation Plan (AF/AT PEP)

The AF/AT PEP will provide for evaluation of the Contractor's performance against the evaluation factors described in the PEP and serve as the basis for any award-fee/award-term determinations. The AF/AT PEP may be revised by the Government and re-issued to the Contractor 15 days prior to the commencement of any evaluation period. An Award Determination Official (ADO) will be appointed by the Government and is responsible for the overall award-fee/award- term determinations.

IV. Award-Fee/Award-Term Evaluation Factors

Award-fee/award-term evaluation factors are defined in the AF/AT PEP. Any changes, deletions, or additions to the evaluation factors for a specific period may be made unilaterally by the Government and will be provided in writing to the Contractor 15 days prior to the commencement of the award-fee/award-term period.

The Contractor's performance against the defined award-fee/award-term evaluation factors for the period will be the basis for the Government's determination of any earned award-fee/award-term. Award-fee/award-term evaluation factors defined for a period are contingent upon the Contractor meeting the evaluation factors as outlined in the AF/AT PEP

V. Award Fee/Award Term Administration

Any award determination will equate to an award-fee payment for any period(s) or term(s) subject to award-fee (see Plan A, B, or C above). Under Plan A, an award determination will equate to the possible award of an additional award-term year. The award-term decision will be comprised of two successive "interim" evaluations. These interim evaluations will then be jointly considered for an annual determination.

VI. Award Fee/Award Term Determinations

As prescribed in the AF/AT PEP, the evaluated score will translate into award-fee earned or award-term "year" earned based on the evaluated performance.

VII. Cancellation

Award-terms that have been earned and awarded are subject to the "Termination" and "Limitation of Funds" clauses of this Contract. Cancellation of an earned award-term period that has not yet been awarded will not entitle the Contractor to any termination settlement or any other compensation. The Government may cancel any unearned award-term periods by providing written notice, preliminary or otherwise, to the Contractor not less than 30 days before the Contract period of performance expires.

VIII. Review Process

The Contractor may request a review of the annual award-fee/award-term decision. The request shall be submitted in writing to the CO within 7 days after notification of the award-term decision. The ADO will review any award-fee/award-term decision. Decisions by the ADO are considered "Final" and are not subject to further internal reviews or appeals.

IX. Award Term Earned

If an annual award term evaluation results in the earning of additional term, a unilateral modification will be executed by the Government to reflect the increase to the period of performance and total Contract value. In no event will the Contract exceed the 10-year period of performance via the award-fee/award-term process.

(End of clause)

H.11 ASSOCIATE CONTRACTOR AGREEMENT (ACA)

A. The success of the Center Operations Directorate (COD) is dependent on the efforts of multiple Contractors. The Facilities Contractor is a key participant. The other Contracts of the key participating "associate" Contractors are:

Logistics Operations Contract	NNJ08JA01C
Grounds Contract	NNJ08JA03C
Custodial Contract	NNJ08JB96C
Environmental Contract	NNJ08JB01C
ESPC Contract (Energy Savings Performance Contract)	NAS 9-99075
MSOC Contract (Mission Support Operations Contract)	NAS 9-03056
JIMMS Contract (JSC Information Management and Media Services Contract)	NNJ04JA52C
JETS Contract (JSC Enabling Technologies Services Contract)	NNJ04JA53C
ODIN Contract/Delivery Order 3	NNJ05JA19D
ODIN Contract/Delivery Order 4	Contract Number TBD - will be awarded in 2007
PAMMS Contract (Printing and Mailroom Management Services Contract)	NNJ04JA65B
NSOC Contract (Neutral Buoyancy Laboratory Space	NAS 9-02102

Vehicle Mock-up Facility Operations Contract)	
JSC Security Contract	NAS9-01055

Under the aforementioned Contracts, the Contractors will provide the necessary technical and operational processes and services required to support Center Operations.

B. In order to achieve the efficient and effective mission support required of center operations, the Contractor shall establish the means for coordination and exchange of information with associate Contractors. The information to be exchanged shall be that required by the associate Contractors in the execution of their respective Contract requirements. The associate Contractors are strongly encouraged to seek out and foster cooperative efforts and goodwill in a manner that will benefit center operations with increased safety, efficiency, and productivity.

C. Given the unique role of this Contract for maintenance and operations of the JSC, the Contractor will engage in cooperative relationships that facilitate effective management of overall center operations. This joint cooperation will be evaluated as part of the Contract award-fee/award-term process, as defined in the Award-Fee/Award-Term Performance Evaluation Plan identified in Section J of this Contract. Successful performance of the Contractor will be determined by the Government's assessment of the overall and combined performance of the requirements of the associate Contracts. This clause will be effective from the Contract start date throughout the duration of the Contract.

D. To ensure successful operability of the Center, the associate Contractors shall establish formal guidelines to address coordination, cooperation, and communication. All program elements shall work in a coordinated fashion. Each associate Contractor shall establish the means for the exchange of such data and communications as needed in order to keep other project elements fully informed.

(End of clause)

H.12 LIMITATION OF FUNDS (FIXED-PRICE CONTRACT) (MAR 1989) (NFS 1852.232-77)

A. Of the total price of items ____ through _____, the sum of $___ is presently available for payment and allotted to this Contract. It is anticipated that from time to time additional funds will be allocated to the Contract in accordance with the following schedule, until the total price of said items is allotted:

SCHEDULE FOR ALLOTMENT OF FUNDS	
Date	Amounts

B. The Contractor agrees to perform or have performed work on the items specified in paragraph (a) of this clause up to the point at which, if this Contract is terminated pursuant to the Termination for Convenience of the Government clause of this Contract, the total amount payable by the Government (including amounts payable for subcontracts and settlement costs) pursuant to paragraphs (f) and (g) of that clause would, in the exercise of reasonable judgment by the Contractor,

approximate the total amount at the time allotted to the Contract. The Contractor is not obligated to continue performance of the work beyond that point. The Government is not obligated in any event to pay or reimburse the Contractor more than the amount from time to time allotted to the Contract, anything to the contrary in the Termination for Convenience of the Government clause notwithstanding.

C. (1) It is contemplated that funds presently allotted to this Contract will cover the work to be performed until ____.

(2) If funds allotted are considered by the Contractor to be inadequate to cover the work to be performed until that date, or an agreed date substituted for it, the Contractor shall notify the CO in writing when within the next 60 days the work will reach a point at which, if the Contract is terminated pursuant to the Termination for Convenience of the Government clause of this Contract, the total amount payable by the Government (including amounts payable for subcontracts and settlement costs) pursuant to paragraphs (f) and (g) of that clause will approximate 75 percent of the total amount then allotted to the Contract.

(3) (i) The notice shall state the estimate when the point referred to in paragraph (c)(2) of this clause will be reached and the estimated amount of additional funds required to continue performance to the date specified in paragraph (c)(1) of this clause, or an agreed date substituted for it.

(ii)The Contractor shall, 60 days in advance of the date specified in paragraph (c)(1) of this clause, or an agreed date substituted for it, advise the CO in writing as to the estimated amount of additional funds required for the timely performance of the Contract for a further period as may be specified in the Contract or otherwise agreed to by the parties.

(4) If, after the notification referred to in paragraph (c)(3)(ii) of this clause, additional funds are not allotted by the date specified in paragraph (c)(1) of this clause, or an agreed date substituted for it, the CO shall, upon the Contractor's written request, terminate this Contract on that date or on the date set forth in the request, whichever is later, pursuant to the Termination for Convenience of the Government clause.

D. When additional funds are allotted from time to time for continued performance of the work under this Contract, the parties shall agree on the applicable period of Contract performance to be covered by these funds. The provisions of paragraphs (b) and (c) of this clause shall apply to these additional allotted funds and the substituted date pertaining to them, and the Contract shall be modified accordingly.

E. If, solely by reason of the Government's failure to allot additional funds in amounts sufficient for the timely performance of this Contract, the Contractor incurs additional costs or is delayed in the performance of the work under this Contract, and if additional funds are allotted, an equitable adjustment shall be made in the price or prices (including appropriate target, billing, and ceiling prices where applicable) of the items to be delivered, or in the time of delivery, or both.

F. The Government may at any time before termination, and, with the consent of the Contractor, after notice of termination, allot additional funds for this Contract.

G. The provisions of this clause with respect to termination shall in no way be deemed to limit the rights of the Government under the default clause of this

Contract. The provisions of this Limitation of Funds clause are limited to the work on and allotment of funds for the items set forth in paragraph (a) of this clause. This clause shall become inoperative upon the allotment of funds for the total price of said work except for rights and obligations then existing under this clause.

H. Nothing in this clause shall affect the right of the Government to terminate this Contract pursuant to the Termination for Convenience of the Government clause of this Contract.

(End of clause)

CLAUSES THAT PERTAIN TO CONSTRUCTION ONLY:

H.13 LISTING OF CLAUSES INCORPORATED BY REFERENCE

NOTICE: The following solicitation provisions and/or Contract clauses pertinent to this section are hereby incorporated by reference:

I. FEDERAL ACQUISITION REGULATION (FAR) (48 CFR CHAPTER 1)

CLAUSE NUMBER	DATE	TITLE
52.236-2	APR 1984	DIFFERING SITE CONDITIONS
52.236-3	APR 1984	SITE INVESTIGATION AND CONDITIONS AFFECTING THE WORK
52.236-5	APR 1984	MATERIAL AND WORKMANSHIP
52.236-7	NOV 1991	PERMITS AND RESPONSIBILITIES
52.236-8	APR 1984	OTHER CONTRACTS
52.236-9	APR 1984	PROTECTION OF EXISTING VEGETATION, STRUCTURES, EQUIPMENT, UTILITIES, AND IMPROVEMENTS
52.236-10	APR 1984	OPERATIONS AND STORAGE AREAS
52.236-11	APR 1984	USE AND POSSESSION PRIOR TO COMPLETION
52.236-12	APR 1984	CLEANING UP
52.236-13	NOV 1991	ACCIDENT PREVENTION (ALTERNATE I) (NOV 1991)
52.236-14	APR 1984	AVAILABILITY AND USE OF UTILITY SERVICES
52.236-15	APR 1984	SCHEDULES FOR CONSTRUCTION CONTRACTS
52.236-17	APR 1984	LAYOUT OF WORK
52.236-21	FEB 1997	SPECIFICATIONS AND DRAWINGS

II. NASA FEDERAL ACQUISITION REGULATION SUPPLEMENT (NFS) (48 CFR CHAPTER 18)

CLAUSE NUMBER	DATE	TITLE

No NASA By-reference clauses in H.13.

H.14 EXTENDED WARRANTIES-CONSTRUCTION

Any extended warranty or guarantee required by the specifications shall be constructed as being in addition to the 1-year warranty required by clause 52.246-21, Warranty of Construction.

(End of Clause)

H.15 SUPERINTENDENCE BY THE CONTRACTOR (FAR 52.236-6) (APR 1984)

At all times during performance of this Contract and until the work is completed and accepted, the Contractor shall directly superintend the work or assign and have on the worksite a competent superintendent who is satisfactory to the CO and has authority to act for the Contractor.

(End of clause)

H.16 CLAUSES THAT PERTAIN TO ARCHITECT AND ENGINEER ONLY:

No FAR or NFS By-reference clauses in Section H.16

[END OF SECTION]

CONTRACT CLAUSES

CLAUSES THAT PERTAIN TO THE CONTRACT IN GENERAL:

I.1 LISTING OF CLAUSES INCORPORATED BY REFERENCE

NOTICE: The following solicitation provisions and/or Contract clauses pertinent to this section are hereby incorporated by reference:

I. FEDERAL ACQUISITION REGULATION (FAR) (48 CFR CHAPTER 1)

CLAUSE NUMBER	DATE	TITLE
52.202-1	JUL 2004	DEFINITIONS (Other than Construction)
52.203-3	APR 1984	GRATUITIES
52.203-5	APR 1984	COVENANT AGAINST CONTINGENT FEES
52.203-6	SEP 2006	RESTRICTIONS ON SUBCONTRACTOR SALES TO THE GOVERNMENT
52.203-7	JUL 1995	ANTI-KICKBACK PROCEDURES
52.203-8	JAN 1997	CANCELLATION, RECISION, AND RECOVERY OF FUNDS FOR ILLEGAL OR IMPROPER ACTIVITY
52.203-10	JAN 1997	PRICE OR FEE ADJUSTMENT FOR ILLEGAL OR IMPROPER ACTIVITY
52.203-12	SEP 2005	LIMITATION ON PAYMENTS TO INFLUENCE CERTAIN FEDERAL TRANSACTIONS
52.204-2	AUG 1996	SECURITY REQUIREMENTS
52.204-4	AUG 2000	PRINTING/COPYING DOUBLE-SIDED ON RECYCLED PAPER
52.204-7	JUL 2006	CENTRAL CONTRACTOR REGISTRATION
52.204-9	NOV 2006	PERSONAL IDENTITY VERIFICATION OF CONTRACTOR PERSONNEL
52.208-8	APR 2002	HELIUM REQUIREMENT FORECASTS AND REQUIRED SOURCES FOR HELIUM
52.208-9	JUN 2006	CONTRACTOR USE OF MANDATORY SOURCES OF SUPPLY
52.209-6	SEP 2006	PROTECTING THE GOVERNMENT'S INTEREST WHEN SUBCONTRACTING WITH CONTRACTORS DEBARRED, SUSPENDED, OR PROPOSED FOR DEBARMENT
52.211-5	AUG 2000	MATERIAL REQUIREMENTS
52.211-15	SEP 1990	DEFENSE PRIORITY AND ALLOCATION REQUIREMENTS
52.215-2	JUN 1999	AUDIT AND RECORDS - NEGOTIATION
52.215-8	OCT 1997	ORDER OF PRECEDENCE - UNIFORM CONTRACT FORMAT

52.215-11	OCT 1997	PRICE REDUCTION FOR DEFECTIVE COST OR PRICING DATA – MODIFICATIONS
52.215-13	OCT 1997	SUBCONTRACTOR COST OR PRICING DATA – MODIFICATIONS
52.215-14	OCT 1997	INTEGRITY OF UNIT PRICES
52.215-17	OCT 1997	WAIVER OF FACILITIES CAPITAL COST OFMONEY
52.215-21	OCT 1997	REQUIREMENTS FOR COST OR PRICING DATA OR INFORMATION OTHER THAN COST OR PRICING DATA – MODIFICATIONS
52.216-7	DEC 2002	ALLOWABLE COST AND PAYMENT
52.216-18	OCT 1995	ORDERING (fill in para. (a) March 1, 2008 through, through February 28, 2010 respectively or as modified by exercising of option(s) at Clause F.4.)
52-219-4	JUL 2005	NOTICE OF PRICE EVALUATION PREFERENCE FOR HUBZONE SMALL BUSINESS CONCERNS
52.219-8	MAY 2004	UTILIZATION OF SMALL BUSINESS CONCERNS
52.219-9	SEP 2006	SMALL BUSINESS SUBCONTRACTING PLAN (ALTERNATE II) (JAN 99)
52.219-16	JAN 1999	LIQUIDATED DAMAGES – SUBCONTRACTING PLAN
52.219-23	SEP 2005	NOTICE OF PRICE EVALUATION ADJUSTMENT FOR SMALL DISADVANTAGED BUSINESS CONCERNS (b) (1) 10%; (c)___ Offeror elects to waive the adjustment.
52.219-25	OCT 1999	SMALL DISADVANTAGED BUSINESS PARTICIPATION PROGRAM – DISADVANTAGED STATUS AND REPORTING
52-222-1	FEB 1997	NOTICE TO THE GOVERNMENT OF LABOR DISPUTES
52.222-3	JUN 2003	CONVICT LABOR
52.222-4	JUL 2005	CONTRACT WORK HOURS AND SAFETY STANDARDS ACT OVERTIME COMPENSATION
52.222-19	JAN 2006	CHILD LABOR - COOPERATION WITH AUTHORITIES AND REMEDIES
52.222-20	DEC 1996	WALSH-HEALEY PUBLIC CONTRACTS ACT
52.222-21	FEB 1999	PROHIBITION OF SEGREGATED FACILITIES
52.222-26	MAR 2007	EQUAL OPPORTUNITY
52.222-35	SEP 2006	AFFIRMATIVE ACTION FOR SPECIAL

		DISABLED AND VIETNAM ERA VETERANS
52.222-36	JUN 1998	AFFIRMATIVE ACTION FOR WORKERS WITH DISABILITIES
52.222-37	SEP 2006	EMPLOYMENT REPORTS ON DISABLED VETERANS AND VETERANS OF THE VIETNAM ERA
52.222-41	JUL 2005	SERVICE CONTRACT ACT OF 1965, AS AMENDED
52.222-43	NOV 2006	FAIR LABOR STANDARDS ACT AND SERVICE CONTRACT ACT - PRICE ADJUSTMENT (MULTIPLE YEAR AND OPTION CONTRACTS)
52.223-5	AUG 2003	POLLUTION PREVENTION AND RIGHT TO KNOW INFORMATION
52.223-9	AUG 2000	CERTIFICATION AND ESTIMATE OF PERCENTAGE OF RECOVERED MATERIAL CONTENT FOR EPA - DESIGNATED PRODUCTS
52.223-10	AUG 2000	WASTE REDUCTION PROGRAM
52.223-12	MAY 1995	REFRIGERATION EQUIPMENT AND AIR CONDITIONERS
52.223-14	AUG 2003	TOXIC CHEMICAL RELEASE REPORTING
52.225-13	FEB 2006	RESTRICTIONS ON CERTAIN FOREIGN PURCHASES
52.227-1	JUL 1995	AUTHORIZATION AND CONSENT
52.227-2	AUG 1996	NOTICE AND ASSISTANCE REGARDING PATENT AND COPYRIGHT INFRINGEMENT
52.227-16	JUN 1987	ADDITIONAL DATA REQUIREMENTS
52.228-7	MAR 1996	INSURANCE-LIABILITY TO THIRD PERSONS
52.228-8	MAY 1999	LIABILITY AND INSURANCE-LEASED MOTOR VEHICLES

The following 2 clauses (52.228-5 and 52.229-3) entitled "Insurance – Work on a Government Installation," "Federal, State, and Local Taxes," and "Taxes — only apply to fixed-price services under SOW Annex 5:

52.228-5	JAN 1997	INSURANCE - WORK ON A GOVERNMENT INSTALLATION
52.229-3	APR 2003	FEDERAL, STATE, AND LOCAL TAXES

The following 2 clauses (52.230-2 and 52.230-6) entitled "Cost Accounting Standards," and "Administration of Cost Accounting Standards" respectively only applies to cost-reimbursable services under SOW Annexes 1, 2, 3, 4, 6, and 7:

52.230-2	APR 1998	COST ACCOUNTING STANDARDS
52.230-6	APR 2005	ADMINISTRATION OF COST ACCOUNTING STANDARDS

The following 3 clauses (52.232-1, 52.232-8, and 52.232-11) entitled "Payments," "Discounts for Prompt Payment," and "Extras" respectively only apply to fixed-price services under SOW Annex 5:

52.232-1	APR 1984	PAYMENTS
52.232-8	FEB 2002	DISCOUNTS FOR PROMPT PAYMENT
52.232-11	APR 1984	EXTRAS
52.232-17	JUN 1996	INTEREST
52.232-22	APR 1984	LIMITATION OF FUNDS
52.232-23	JAN 1986	ASSIGNMENT OF CLAIMS
52.232-25	OCT 2003	PROMPT PAYMENT (ALT I) (FEB 2002)
52.232-34	MAY 1999	PAYMENT BY ELECTRONIC FUNDS TRANSFER - OTHER THAN CENTRAL CONTRACTOR REGISTRATION
52.233-1	JUL 2002	DISPUTES (ALTERNATE I) (DEC 1991)
52.233-3	AUG 1996	PROTEST AFTER AWARD (ALTERNATE I) (JUN 1985)
52.237-2	APR 1984	PROTECTION OF GOVERNMENT BUILDINGS, EQUIPMENT, AND VEGETATION
52.237-3	JAN 1991	CONTINUITY OF SERVICES
52.239-1	AUG 1996	PRIVACY OR SECURITY SAFEGUARDS
52.242-1	APR 1984	NOTICE OF INTENT TO DISALLOW COSTS
52.242-3	MAY 2001	PENALTIES FOR UNALLOWABLE COSTS
52.242-4	JAN 1997	CERTIFICATION OF FINAL INDIRECT COSTS
52.242-13	JUL 1995	BANKRUPTCY

The following clause (52.243-1) entitled "Changes—Fixed Price (Alternate II)" only applies to fixed price services under SOW Annex 5:

52.243-1	AUG 1987	CHANGES--FIXED PRICE (ALTERNATE II) (APR 1984)

The following clause (52.243-2) entitled "Changes—Cost-Reimbursement (Alternate II)" only applies to cost reimbursable services under SOW Annexes 1, 2, 3, 4, 6, and 7:

52.243-2	AUG 1987	CHANGES—COST-REIMBURSEMENT (ALTERNATE II)(APR 1984)
52.243-7	APR 1984	NOTIFICATION OF CHANGES
52.244-6	MAR 2007	SUBCONTRACTS FOR COMMERCIAL ITEMS AND COMMERCIAL COMPONENTS
52.246-25	FEB 1997	LIMITATION OF LIABILITY—SERVICES
52.247-1	FEB 2006	COMMERICAL BILL OF LADING NOTATIONS
52.248-1	FEB 2000	VALUE ENGINEERING

The following 2 clauses (52.249-2 and 52.249-8) entitled "Termination for Convenience of the Government (Fixed Price)," and "Default (Fixed-Price Supply and Service)" respectively only apply to services provided under SOW Annex 5:

52.249-2	MAY 2004	TERMINATION FOR CONVENIENCE OF THE GOVERNMENT (FIXED PRICE)
52.249-8	APR 1984	DEFAULT (FIXED-PRICE SUPPLY AND SERVICE)

The following clause (52.249-6) entitled "Termination (Cost-Reimbursement)" applies to services provided under SOW Annexes 1, 2, 3, 4, 6, and 7:

52.249-6	MAY 2004	TERMINATION (COST-REIMBURSEMENT)
52.251-1	APR 1984	GOVERNMENT SUPPLY SOURCES
52.251-2	JAN 1991	INTERAGENCY FLEET MANAGEMENT SYSTEM (IFMS) VEHICLES AND RELATED SERVICES
52.252-2	FEB 1998	CLAUSES INCORPORATED BY REFERENCE
52.253-1	JAN 1991	COMPUTER GENERATED FORMS

II. NASA FAR SUPPLEMENT (NFS) (48 CFR CHAPTER 18)

CLAUSE NUMBER	DATE	TITLE
1852.216-75	DEC 1988	PAYMENT OF FIXED FEE
1852.216-89	JUL 1997	ASSIGNMENT AND RELEASE FORMS
1852.219-74	SEP 1990	USE OF RURAL AREA SMALL BUSINESSES
1852.219-75	MAY 1999	SMALL BUSINESS SUBCONTRACTING REPORTING
1852.219-76	JUL 1997	NASA 8 PERCENT GOAL
1852.219-77	MAY 1999	NASA MENTOR-PROTÉGÉ PROGRAM
1852.219-79	MAR 1999	MENTOR REQUIREMENTS AND EVALUATION
1852.223-74	MAR 1996	DRUG-AND ALCOHOL-FREE WORKFORCE
1852.223-76	JUL 2003	FEDERAL AUTOMOTIVE STATISTICAL TOOL REPORTING
1852.228-75	OCT 1988	MINIMUM INSURANCE COVERAGE
1852.236-73	DEC 1988	HURRICANE PLAN
1852.237-70	DEC 1988	EMERGENCY EVACUATION PROCEDURES
1852.237-72	JUN 2005	ACCESS TO SENSITIVE INFORMATION
1852.237-73	JUN 2005	RELEASE OF SENSITIVE INFORMATION
1852.243-71	MAR 1997	SHARED SAVINGS
1852.245-73	OCT 2003	FINANCIAL REPORTING OF NASA PROPERTY IN THE CUSTODY OF CONTRACTORS
1852.245-75	MAR 1989	TITLE TO EQUIPMENT

I.2 APPROVAL OF CONTRACT (FAR 52.204-1) (DEC 1989)

This Contract is subject to the written approval of the Procurement Officer and shall not be binding until so approved.

(End of clause)

I.3 INDEFINITE QUANTITY (FAR 52.216-22) (OCT 1995)

(a) This is an indefinite-quantity Contract for the supplies or services specified and effective for the period stated, in the Schedule. The quantities of supplies and services specified in the Schedule are estimates only and are not purchased by this Contract.

(b) Delivery or performance shall be made only as authorized by orders issued in accordance with the Ordering clause. The Contractor shall furnish to the Government, when and if ordered, the supplies or services specified in the Schedule up to and including the quantity designated in the Schedule as the "maximum." The Government shall order at least the quantity of supplies or services designated in the Schedule as the "minimum."

(c) Except for any limitations on quantities in the Order Limitations clause or in the Schedule, there is no limit on the number of orders that may be issued. The Government may issue orders requiring delivery to multiple destinations or performance at multiple locations.

(d) Any order issued during the effective period of this Contract and not completed within that period shall be completed by the Contractor within the time specified in the order. The Contract shall govern the Contractor's and Government's rights and obligations with respect to that order to the same extent as if the order were completed during the Contract's effective period, provided, that the Contractor shall not be required to make any deliveries under this Contract after February 28, 2010.

(End of clause)

I.4 STATEMENT OF EQUIVALENT RATES FOR FEDERAL HIRES (FAR 52.222-42) (MAY1989)

In compliance with the Service Contract Act of 1965, as amended, and the regulations of the Secretary of Labor (29 CFR Part 4), this clause identifies the classes of service employees expected to be employed under the Contract and states the wages and fringe benefits payable to each if they were employed by the contracting agency subject to the provisions of 5 U.S.C. 5341 or 5332.

This Statement is for Information Only:

It is not a Wage Determination

Employee Class Monetary Wage--Fringe Benefits

See SF98 in Section J-E "Wage Determination Service Contract"

(End of clause)

I.5 HAZARDOUS MATERIAL IDENTIFICATION AND MATERIAL SAFETY DATA (FAR 52.223-3) (JAN 1997) ALT I (JUL 1995)

(a) "Hazardous material," as used in this clause, includes any material defined as hazardous under the latest version of Federal Standard No. 313 (including revisions adopted during the term of the Contract).

(b) The offeror must list any hazardous material, as defined in paragraph (a) of this clause, to be delivered under this Contract. The hazardous material shall be properly identified and include any applicable identification number, such as National Stock Number or Special Item Number. This information shall also be included on the Material Safety Data Sheet submitted under this Contract.

Material

(If none, insert "None") Identification No.

[to be completed by the offeror]

None _____ _____

_____ _____

_____ _____

(c) This list must be updated during performance of the Contract whenever the Contractor determines that any other material to be delivered under this Contract is hazardous.

(d) The apparently successful offeror agrees to submit, for each item as required prior to award, a Material Safety Data Sheet, meeting the requirements of 29 CFR 1910.1200(g) and the latest version of Federal Standard No. 313, for all hazardous material identified in paragraph (b) of this clause. Data shall be submitted in accordance with Federal Standard No. 313, whether or not the apparently successful offeror is the actual manufacturer of these items. Failure to submit the Material Safety Data Sheet prior to award may result in the apparently successful offeror being considered non-responsible and ineligible for award.

(e) If, after award, there is a change in the composition of the item(s) or a revision to Federal Standard No. 313, which renders incomplete or inaccurate the data submitted under paragraph (d) of this clause, the Contractor shall promptly notify the CO and resubmit the data.

(f) Neither the requirements of this clause nor any act or failure to act by the Government shall relieve the Contractor of any responsibility or liability for the safety of Government, Contractor, or subcontractor personnel or property.

(g) Nothing contained in this clause shall relieve the Contractor from complying with applicable Federal, State, and local laws, codes, ordinances, and regulations (including the obtaining of licenses and permits) in connection with hazardous material.

(h) The Government's rights in data furnished under this Contract with respect to hazardous material are as follows:

(1) To use, duplicate and disclose any data to which this clause is applicable. The purposes of this right are to:

(i) Apprise personnel of the hazards to which they may be exposed in using, handling, packaging, transporting, or disposing of hazardous materials,

(ii) Obtain medical treatment for those affected by the material; and,

(iii) Have others use, duplicate, and disclose the data for the Government for these purposes.

(2) To use, duplicate, and disclose data furnished under this clause, in accordance with subparagraph (h)(1) of this clause, in precedence over any other clause of this Contract providing for rights in data.

(3) The Government is not precluded from using similar or identical data acquired from other sources.

(i) Except as provided in paragraph (i)(2), the Contractor shall prepare and submit a sufficient number of Material Safety Data Sheets (MSDS's), meeting the requirements of 29 CFR 1910.1200(g) and the latest version of Federal Standard No. 313, for all hazardous materials identified in paragraph (b) of this clause.

(4) For items shipped to consignees, the Contractor shall include a copy of the MSDS's with the packing list or other suitable shipping document, which accompanies each shipment. Alternatively, the Contractor is permitted to transmit MSDS's to consignees in advance of receipt of shipments by consignees, if authorized in writing by the CO.

(5) For items shipped to consignees identified by mailing address as agency depots, distribution centers or customer supply centers, the Contractor shall provide one copy of the MSDS's in or on each shipping container. If affixed to the outside of each container, the MSDS's must be placed in a weather resistant envelope.

(End of clause)

I.6 DRUG-FREE WORKPLACE (FAR 52.223-6) (MAY 2001)

(a) *Definitions.* As used in this clause-

"Controlled substance" means a controlled substance in schedules I through V of section 202 of the Controlled Substances Act (21 U.S.C. 812) and as further defined in regulation at 21 CFR 1308.11 - 1308.15.

"Conviction" means a finding of guilt (including a plea of *nolo contendere*) or imposition of sentence, or both, by any judicial body charged with the responsibility to determine violations of the Federal or State criminal drug statutes.

"Criminal drug statute" means a Federal or non-Federal criminal statute involving the manufacture, distribution, dispensing, possession, or use of any controlled substance.

"Drug-free workplace" means the site(s) for the performance of work done by the Contractor in connection with a specific Contract where employees of the Contractor are prohibited from engaging in the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance.

"Employee" means an employee of a Contractor directly engaged in the performance of work under a Government Contract. "Directly engaged" is defined to include all direct cost employees and any other Contractor employee who has other than a minimal impact or involvement in Contract performance.

"Individual" means an offeror/Contractor that has no more than one employee including the offeror/Contractor.

(b) The Contractor, if other than an individual, shall within 30 days after award (unless a longer period is agreed to in writing for Contracts of 30 days or more performance duration), or as soon as possible for contracts of less than 30 days performance duration-

(1) Publish a statement notifying its employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the Contractor's workplace and specifying the actions that will be taken against employees for violations of such prohibition;

(2) Establish an ongoing drug-free awareness program to inform such employees about

(i) The dangers of drug abuse in the workplace,

(ii) The Contractor's policy of maintaining a drug-free workplace,

(iii) Any available drug counseling, rehabilitation, and employee assistance programs; and

(iv) The penalties that may be imposed upon employees for drug abuse violations occurring in the workplace.

(3) Provide all employees engaged in performance of the Contract with a copy of the statement required by paragraph (b)(1) of this clause.

(4) Notify such employees in writing in the statement required by paragraph (b)(1) of this clause that, as a condition of continued employment on this Contract, the employee will,

(i) Abide by the terms of the statement; and

(ii) Notify the employer in writing of the employee's conviction under a criminal drug statute for a violation occurring in the workplace no later than 5 days after such conviction.

(5) Notify the CO in writing within 10 days after receiving notice under subdivision (b)(4)(ii) of this clause, from an employee or otherwise receiving actual notice of such conviction. The notice shall include the position title of the employee.

(6) Within 30 days after receiving notice under subdivision (b)(4)(ii) of this clause of a conviction, take one of the following actions with respect to any employee who is convicted of a drug abuse violation occurring in the workplace,

(i) Taking appropriate personnel action against such employee, up to and including termination; or

(ii) Require such employee to satisfactorily participate in a drug abuse assistance or rehabilitation program approved for such purposes by a Federal, State, or local health, law enforcement, or other appropriate agency; and

(7) Make a good faith effort to maintain a drug-free workplace through implementation of paragraphs (b)(1) though (b)(6) of this clause.

(c) The Contractor, if an individual, agrees by award of the Contract or acceptance of a purchase order, not to engage in the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance while performing this Contract.

(d) In addition to other remedies available to the Government, the Contractor's failure to comply with the requirements of paragraph (b) or (c) of this clause may, pursuant to FAR 23.506, render the Contractor subject to suspension of Contract payments, termination of the Contract or default, and suspension or debarment.

(End of clause)

I.7 OZONE-DEPLETING SUBSTANCES (FAR 52.223-11) (MAY 2001)

(a) *Definition.* "Ozone-depleting substance," as used in this clause, means any substance the Environmental Protection Agency designates in 40 CFR part 82 as-

(1) Class I, including, but not limited to, chlorofluorocarbons, halons, carbon tetrachloride, and methyl chloroform; or

(2) Class II, including, but not limited to, hydrochlorofluorocarbons.

(b) The Contractor shall label products which contain or are manufactured with ozone-depleting substances in the manner and to the extent required by 42 U.S.C. 7671j (b), (c), and (d) and 40 CFR part 82, Subpart E, as follows:

Warning
Contains (or manufactured with, if applicable) *_____, a substance(s) which harm(s) public health and environment by destroying ozone in the upper atmosphere.

The Contractor shall insert the name of the substance(s).

(End of clause)

I.8 RIGHTS IN DATA - GENERAL (52.227-14) (JUN 1987) (AS MODIFIED BY NFS 1852-227-14)

(a) Definitions. "Computer software," as used in this clause, means computer programs, computer databases, and documentation thereof. "Data," as used in this clause, means recorded information, regardless of form or the media on which it may be recorded. The term includes technical data and computer software. The term does not include information incidental to Contract administration, such as financial, administrative, cost or pricing, or management information.

"Form, fit, and function data," as used in this clause, means data relating to items, components, or processes that are sufficient to enable physical and functional interchangeability, as well as data identifying source, size, configuration, mating, and attachment characteristics, functional characteristics, and performance requirements; except that for computer software it means data identifying source, functional characteristics, and performance requirements but specifically excludes the source code, algorithm, process, formulae, and flow charts of the software.

"Limited rights," as used in this clause, means the rights of the Government in limited rights data as set forth in the Limited Rights Notice of subparagraph (g)(2) if included in this clause.

"Limited rights data," as used in this clause, means data (other than computer software) that embody trade secrets or are commercial or financial and confidential or privileged, to the extent that such data pertain to items, components, or processes developed at private expense, including minor modifications thereof.

"Restricted computer software," as used in this clause, means computer software developed at private expense and that is a trade secret; is commercial or financial and is confidential or privileged; or is published copyrighted computer software, including minor modifications of such computer software.

"Restricted rights," as used in this clause, means the rights of the Government in restricted computer software, as set forth in a Restricted Rights Notice of subparagraph (g)(3) if included in this clause, or as otherwise may be provided in a collateral

agreement incorporated in and made part of this Contract, including minor modifications of such computer software.

"Technical data," as used in this clause, means data (other than computer software), which are of a scientific or technical nature.

"Unlimited rights," as used in this clause, means the right of the Government to use, disclose, reproduce, prepare derivative works, distribute copies to the public, and perform publicly and display publicly, in any manner and for any purpose, and to have or permit others to do so.

(b) Allocation of rights.

(1) Except as provided in paragraph (c) of this clause regarding copyright, the Government shall have unlimited rights in,

(i) Data first produced in the performance of this Contract;

(ii) Form, fit, and function data delivered under this Contract;

(iii) Data delivered under this Contract (except for restricted computer software) that constitute manuals or instructional and training material for installation, operation, or routine maintenance and repair of items, components, or processes delivered or furnished for use under this Contract; and

(iv) All other data delivered under this Contract unless provided otherwise for limited rights data or restricted computer software in accordance with paragraph (g) of this clause.

(2) The Contractor shall have the right to,

(i) Use, release to others, reproduce, distribute, or publish any data first produced or specifically used by the Contractor in the performance of this Contract, unless provided otherwise in paragraph (d) of this clause;

(ii) Protect from unauthorized disclosure and use those data which are limited rights data or restricted computer software to the extent provided in paragraph (g) of this clause;

(iii) Substantiate use of, add or correct limited rights, restricted rights, or copyright notices and to take other appropriate action, in accordance with paragraphs (e) and (f) of this clause; and

(iv) Establish claim to copyright subsisting in data first produced in the performance of this Contract to the extent provided in subparagraph (c)(1) of this clause.

(c) Copyright

(1) Data first produced in the performance of this Contract. Unless provided otherwise in paragraph (d) of this clause, the Contractor may establish, without prior approval of the CO, claim to copyright subsisting in scientific and technical articles based on or containing data first produced in the performance of this Contract and published in academic, technical or professional journals, symposia proceedings or similar works. The prior, express written permission of the CO is required to establish claim to copyright subsisting in all other data first produced in the performance of this Contract. When claim to copyright is made, the Contractor shall affix the applicable copyright notices of 17 U.S.C. 401 or 402 and acknowledgment of Government sponsorship (including Contract number) to the data when such data

are delivered to the Government, as well as when the data are published or deposited for registration as a published work in the U.S. Copyright Office. For data other than computer software, the Contractor grants to the Government and others acting on its behalf, a paid-up, nonexclusive, irrevocable worldwide license in such copyrighted data to reproduce, prepare derivative works, distribute copies to the public, and perform publicly and display publicly, by or on behalf of the Government. For computer software, the Contractor grants to the Government and others acting in its behalf, a paid-up nonexclusive, irrevocable, worldwide license in such copyrighted computer software to reproduce, prepare derivative works, and perform publicly and display publicly by or on behalf of the Government.

(2) Data not first produced in the performance of this Contract. The Contractor shall not, without prior written permission of the CO, incorporate in data delivered under this Contract any data not first produced in the performance of this Contract and which contains the copyright notice of 17 U.S.C. 401 or 402, unless the Contractor identifies such data and grants to the Government, or acquires on its behalf, a license of the same scope as set forth in subparagraph (c)(1) of this clause; provided, however, that if such data are computer software the Government shall acquire a copyright license as set forth in subparagraph (g)(3) of this clause if included in this Contract or as otherwise may be provided in a collateral agreement incorporated in or made part of this Contract.

(3) Removal of copyright notices. The Government agrees not to remove any copyright notices placed on data pursuant to this paragraph (c), and to include such notices on all reproductions of the data.

(d) Release, publication and use of data.

(1) The Contractor shall have the right to use, release to others, reproduce, distribute, or publish any data first produced or specifically used by the Contractor in the performance of this Contract, except to the extent such data may be subject to Federal export control or national security laws or regulations, or unless otherwise provided in this paragraph of this clause or expressly set forth in this Contract.

(2) The Contractor agrees that to the extent it receives or is given access to data necessary for the performance of this Contract, which contain restrictive markings, the Contractor shall treat the data in accordance with such markings unless otherwise specifically authorized in writing by the CO.

(3) (i) The Contractor agrees not to establish claim to copyright, publish or release to others any computer software first produced in the performance of this Contract without the CO's prior written permission.

(ii) If the Government desires to obtain copyright in computer software first produced in the performance of this Contract and permission has not been granted as set forth in paragraph (d)(3)(i) of this clause, the CO may direct the Contractor to assert, or authorize the assertion of, claim to copyright in such data and to assign, or obtain the assignment of, such copyright to the Government or its designated assignee.

(iii) Whenever the word "establish" is used in this clause, with reference to a claim to copyright, it shall be construed to mean "assert".

(e) Unauthorized marking of data. (1) Notwithstanding any other provisions of this Contract concerning inspection or acceptance, if any data delivered under this Contract

are marked with the notices specified in subparagraph (g)(2) or (g)(3) of this clause and use of such is not authorized by this clause, or if such data bears any other restrictive or limiting markings not authorized by this Contract, the CO may at any time either return the data to the Contractor, or cancel or ignore the markings. However, the following procedures shall apply prior to canceling or ignoring the markings.

(i) The CO shall make written inquiry to the Contractor affording the Contractor 30 days from receipt of the inquiry to provide written justification to substantiate the propriety of the markings;

(ii) If the Contractor fails to respond or fails to provide written justification to substantiate the propriety of the markings within the 30-day period (or a longer time not exceeding 90 days approved in writing by the CO for good cause shown), the Government shall have the right to cancel or ignore the markings at any time after said period and the data will no longer be made subject to any disclosure prohibitions.

(iii) If the Contractor provides written justification to substantiate the propriety of the markings within the period set in subdivision (e)(1)(i) of this clause, the CO shall consider such written justification and determine whether or not the markings are to be cancelled or ignored. If the CO determines that the markings are authorized, the Contractor shall be so notified in writing. If the CO determines, with concurrence of the head of the contracting activity, that the markings are not authorized, the CO shall furnish the Contractor a written determination, which determination shall become the final agency decision regarding the appropriateness of the markings unless the Contractor files suit in a court of competent jurisdiction within 90 days of receipt of the CO's decision. The Government shall continue to abide by the markings under this subdivision (e)(1)(iii) until final resolution of the matter either by the CO's determination becoming final (in which instance the Government shall thereafter have the right to cancel or ignore the markings at any time and the data will no longer be made subject to any disclosure prohibitions), or by final disposition of the matter by court decision if suit is filed.

(2) The time limits in the procedures set forth in subparagraph (e)(1) of this clause may be modified in accordance with agency regulations implementing the Freedom of Information Act (5 U.S.C. 552) if necessary to respond to a request there under.

(3) This paragraph (e) does not apply if this Contract is for a major system or for support of a major system by a civilian agency other than NASA and the U.S. Coast Guard agency subject to the provisions of Title III of the Federal Property and Administrative Services Act of 1949.

(4) Except to the extent the Government's action occurs as the result of final disposition of the matter by a court of competent jurisdiction, the Contractor is not precluded by this paragraph (e) from bringing a claim under the Contract Disputes Act, including pursuant to the Disputes clause of this Contract, as applicable, that may arise as the result of the Government removing or ignoring authorized markings on data delivered under this Contract.

(f) Omitted or incorrect markings. (1) Data delivered to the Government without either the limited rights or restricted rights notice as authorized by paragraph (g) of this clause, or the copyright notice required by paragraph (c) of this clause, shall be deemed to have been furnished with unlimited rights, and the Government assumes no liability for the

disclosure, use, or reproduction of such data. However, to the extent the data has not been disclosed without restriction outside the Government, the Contractor may request, within 6 months (or a longer time approved by the CO for good cause shown) after delivery of such data, permission to have notices placed on qualifying data at the Contractor's expense, and the CO may agree to do so if the Contractor,

(i) Identifies the data to which the omitted notice is to be applied,

(ii) Demonstrates that the omission of the notice was inadvertent,

(iii) Establishes that the use of the proposed notice is authorized; and

(iv) Acknowledges that the Government has no liability with respect to the disclosure, use, or reproduction of any such data made prior to the addition of the notice or resulting from the omission of the notice.

(2) The CO may also (i) permit correction at the Contractor's expense of incorrect notices if the Contractor identifies the data on which correction of the notice is to be made, and demonstrates that the correct notice is authorized, or (ii) correct any incorrect notices.

(g) Protection of limited rights data and restricted computer software. (1) When data other than that listed in subdivisions (b)(1)(i), (ii), and (iii) of this clause are specified to be delivered under this Contract and qualify as either limited rights data or restricted computer software, if the Contractor desires to continue protection of such data, the Contractor shall withhold such data and not furnish them to the Government under this Contract. As a condition to this withholding, the Contractor shall identify the data being withheld and furnish form, fit, and function data in lieu thereof. Limited rights data that are formatted as a computer database for delivery to the Government are to be treated as limited rights data and not restricted computer software.

(2) (3) [Reserved]

(h) Subcontracting. The Contractor has the responsibility to obtain from its subcontractors all data and rights therein necessary to fulfill the Contractor's obligations to the Government under this Contract. If a subcontractor refuses to accept terms affording the Government such rights, the Contractor shall promptly bring such refusal to the attention of the CO and not proceed with subcontract award without further authorization.

(i Relationship to patents. Nothing contained in this clause shall imply a license to the Government under any patent or be construed as affecting the scope of any license or other right otherwise granted to the Government.

Alternate III (Jun 1987)AMENDED. As prescribed in 27.409(d), insert the following subparagraph (g)(3)(i) in the clause:

(g)(3)

(i) Notwithstanding subparagraph (g)(1) of this clause, the contract may identify and specify the delivery of restricted computer software, or the Contracting Officer may require by written request the delivery of restricted computer software that has been withheld or would otherwise be withholdable. If delivery of such computer software is so required, the Contractor may affix the following "Restricted Rights Notice" to the computer software and the Government will thereafter treat the computer software, subject to paragraphs (e) and (f) of this clause, in accordance with the Notice:

Restricted Rights Notice (Jun 1987)

(a) This computer software is submitted with restricted rights under Government Contract No. NNJ08JA02C. It may not be used, reproduced, or disclosed by the Government except as provided in paragraph (b) of this Notice or as otherwise expressly stated in the contract. Source code for restricted rights software will not be provided and the Government, and any entity that the Government gives access to the software, shall not attempt to gain access to the source code through any means.

(b) This computer software may be --

(1) Used or copied for use in or with any computers at NASA Johnson Space Center (JSC) for the purposes of JSC facility support services;

(2) Used or copied for use in a backup computer if any computer for which it was acquired is inoperative;

(3) Reproduced for safekeeping (archives) or backup purposes;

(4) Modified, adapted, or combined with other computer software, provided that the modified, combined, or adapted portions of the derivative software incorporating restricted computer software are made subject to the same restricted rights;

(5) Disclosed to and reproduced for use by support service Contractors in accordance with subparagraphs (b)(1) through (4) of this clause, provided the Government makes such disclosure or reproduction subject to these restricted rights; and

(6) Used or copied for use in or transferred to a replacement computer.

(c) Notwithstanding the foregoing, if this computer software is published copyrighted computer software, it is licensed to the Government, without disclosure prohibitions, with the minimum rights set forth in paragraph (b) of this clause.

(d) Any other rights or limitations regarding the use, duplication, or disclosure of this computer software are to be expressly stated in, or incorporated in, the contract.

(e) This Notice shall be marked on any reproduction of this computer software, in whole or in part.

(End of notice)

(ii) Where it is impractical to include the Restricted Rights Notice on restricted computer software, the following short-form Notice may be used in lieu thereof:

Restricted Rights Notice Short Form (Jun 1987)

Use, reproduction, or disclosure is subject to restrictions set forth in Contract No. _____ (and subcontract, if appropriate) with _____ (name of Contractor and subcontractor).

(End of notice)

(iii) If restricted computer software is delivered with the copyright notice of 17 U.S.C. 401, it will be presumed to be published copyrighted computer software licensed to the Government without disclosure prohibitions, with the minimum rights set forth in paragraph (b) of this clause, unless the Contractor includes the following statement with such copyright notice: "Unpublished -- rights reserved under the Copyright Laws of the United States."

(End of clause)

I.9 SUBCONTRACTS (FAR 52.244-2) (JUN 2007)

(a) Definitions. As used in this clause--

"Approved purchasing system" means a Contractor's purchasing system that has been reviewed and approved in accordance with Part 44 of the Federal Acquisition Regulation.

"Consent to subcontract" means the CO's written consent for the Contractor to enter into a particular subcontract.

"Subcontract" means any Contract, as defined in FAR Subpart 2.1, entered into by a subcontractor to furnish supplies or services for performance of the prime Contract or a subcontract. It includes, but is not limited to, purchase orders, and changes and modifications to purchase orders.

(b) This clause does not apply to subcontracts for special test equipment when the Contract contains the clause at FAR 52.245-18, Special Test Equipment.

(c) When this clause is included in a fixed-price type Contract, consent to subcontract is required only on unpriced Contract actions (including unpriced modifications or unpriced delivery orders), and only if required in accordance with paragraph (d) or (e) of this clause.

(d) If the Contractor does not have an approved purchasing system, consent to subcontract is required for any subcontract that,

(1) Is of the cost-reimbursement, time-and-materials, or labor-hour type; or

(2) Is fixed-price and exceeds--

(i) For a Contract awarded by the Department of Defense, the Coast Guard, or the National Aeronautics and Space Administration, the greater of the simplified acquisition threshold or 5 percent of the total estimated cost of the Contract; or

(ii) For a Contract awarded by a civilian agency other than the Coast Guard and the National Aeronautics and Space Administration, either the simplified acquisition threshold or 5 percent of the total estimated cost of the Contract.

(e) If the Contractor has an approved purchasing system, the Contractor nevertheless shall obtain the CO's written consent before placing the following subcontracts:

All Contracts for transportation, storage, treatment, disposal, or recycling of solid waste.

(f)(1) The Contractor shall notify the CO reasonably in advance of placing any subcontract or modification thereof for which consent is required under paragraph (c), (d), or (e) of this clause, including the following information:

(i) A description of the supplies or services to be subcontracted,

(ii) Identification of the type of subcontract to be used,

(iii) Identification of the proposed subcontractor,

(iv) The proposed subcontract price,

(v) The subcontractor's current, complete, and accurate cost or pricing data and Certificate of Current Cost or Pricing Data, if required by other Contract provisions,

(vi) The subcontractor's Disclosure Statement or Certificate relating to Cost Accounting Standards when such data are required by other provisions of this Contract,

(vii) A negotiation memorandum reflecting,

(A) The principal elements of the subcontract price negotiations,

(B) The most significant considerations controlling establishment of initial or revised prices,

(C) The reason cost or pricing data were or were not required,

(D) The extent, if any, to which the Contractor did not rely on the subcontractor's cost or pricing data in determining the price objective and in negotiating the final price,

(E) The extent to which it was recognized in the negotiation that the subcontractor's cost or pricing data were not accurate, complete, or current; the action taken by the Contractor and the subcontractor; and the effect of any such defective data on the total price negotiated,

(F) The reasons for any significant difference between the Contractor's price objective and the price negotiated; and,

(G) A complete explanation of the incentive fee or profit plan when incentives are used. The explanation shall identify each critical performance element, management decisions used to quantify each incentive element, reasons for the incentives, and a summary of all trade-off possibilities considered.

(2) The Contractor is not required to notify the CO in advance of entering into any subcontract for which consent is not required under paragraph (c), (d), or (e) of this clause.

(g) Unless the consent or approval specifically provides otherwise, neither consent by the CO to any subcontract nor approval of the Contractor's purchasing system shall constitute a determination--

(1) Of the acceptability of any subcontract terms or conditions;

(2) Of the allowability of any cost under this Contract; or

(3) To relieve the Contractor of any responsibility for performing this Contract.

(h) No subcontract or modification thereof placed under this Contract shall provide for payment on a cost-plus-a-percentage-of-cost basis, and any fee payable under cost-reimbursement type subcontracts shall not exceed the fee limitations in FAR 15.404-4(c)(4)(i).

(i) The Contractor shall give the CO immediate written notice of any action or suit filed and prompt notice of any claim made against the Contractor by any subcontractor or vendor that, in the opinion of the Contractor, may result in litigation related in any way to this Contract, with respect to which the Contractor may be entitled to reimbursement from the Government.

(j) The Government reserves the right to review the Contractor's purchasing system as set forth in FAR Subpart 44.3.

(k) Paragraphs (d) and (f) of this clause do not apply to the following subcontracts, which were evaluated during negotiations:

M1 Support Services LP

Anadarko Industries LLC

Envirotech Engineering And Consulting, Inc.

MRI Technologies

(End of clause)

The following clause FAR 52.245-2 applies to firm-fixed-price services in SOW Annex 5:

I. 10 GOVERNMENT PROPERTY (FIXED-PRICE CONTRACTS) (FAR 52.245-2) (MAY 2004)

(a) *Government-furnished property.*

(1) The Government shall deliver to the Contractor, for use in connection with and under the terms of this contract, the Government-furnished property described in the Schedule or specifications together with any related data and information that the Contractor may request and is reasonably required for the intended use of the property (hereinafter referred to as "Government-furnished property").

(2) The delivery or performance dates for this contract are based upon the expectation that Government-furnished property suitable for use (except for property furnished "as is") will be delivered to the Contractor at the times stated in the Schedule or, if not so stated, in sufficient time to enable the Contractor to meet the contract's delivery or performance dates.

(3) If Government-furnished property is received by the Contractor in a condition not suitable for the intended use, the Contractor shall, upon receipt of it, notify the Contracting Officer, detailing the facts, and, as directed by the Contracting Officer and at Government expense, either repair, modify, return, or otherwise dispose of the property. After completing the directed action and upon written request of the Contractor, the Contracting Officer shall make an equitable adjustment as provided in paragraph (h) of this clause.

(4) If Government-furnished property is not delivered to the Contractor by the required time, the Contracting Officer shall, upon the Contractor's timely written request, make a determination of the delay, if any, caused the Contractor and shall make an equitable adjustment in accordance with paragraph (h) of this clause.

(b) *Changes in Government-furnished property.*
(1) The Contracting Officer may, by written notice, (i) decrease the Government-furnished property provided or to be provided under this contract, or (ii) substitute other Government furnished property for the property to be provided by the

Government, or to be acquired by the Contractor for the Government, under this contract. The Contractor shall promptly take such action as the Contracting Officer may direct regarding the removal, shipment, or disposal of the property covered by such notice.
(2) Upon the Contractor's written request, the Contracting Officer shall make an equitable adjustment to the contract in accordance with paragraph (h) of this clause, if the Government has agreed in the Schedule to make the property available for performing this contract and there is any—

(i) Decrease or substitution in this property pursuant to paragraph (b)(1) of this clause; or
(ii) Withdrawal of authority to use this property, if provided under any other contract or lease.

(c) *Title in Government property.*
(1) The Government shall retain title to all Government-furnished property.
(2) All Government-furnished property and all property acquired by the Contractor, title to which vests in the Government under this paragraph (collectively referred to as "Government property"), are subject to the provisions of this clause. However, special tooling accountable to this contract is subject to the provisions of the Special Tooling clause and is not subject to the provisions of this clause. Title to Government property shall not be affected by its incorporation into or attachment to any property not owned by the Government, nor shall Government property become a fixture or lose its identity as personal property by being attached to any real property.
(3) Title to each item of facilities and special test equipment acquired by the Contractor for the Government under this contract shall pass to and vest in the Government when its use in performing this contract commences or when the
Government has paid for it, whichever is earlier, whether or not title previously vested in the Government.
(4) If this contract contains a provision directing the Contractor to purchase material for which the Government will reimburse the Contractor as a direct item of cost under this contract—

(i) Title to material purchased from a vendor shall pass to and vest in the Government upon the vendor's delivery of such material; and
(ii) Title to all other material shall pass to and vest in the Government upon—
    (A) Issuance of the material for use in contract performance;
    (B) Commencement of processing of the material or its use in contract performance; or
    (C) Reimbursement of the cost of the material by the Government, whichever occurs first.

(d) *Use of Government property.*
The Government property shall be used only for performing this contract, unless otherwise provided in this contract or approved by the Contracting Officer.

(e) *Property administration.*
(1) The Contractor shall be responsible and accountable for all Government property provided under this contract and shall comply with Federal Acquisition Regulation (FAR) Subpart 45.5, as in effect on the date of this contract.

(2) The Contractor shall establish and maintain a program for the use, maintenance, repair, protection, and preservation of Government property in accordance with sound industrial practice and the applicable provisions of Subpart 45.5 of the FAR.

(3) If damage occurs to Government property, the risk of which has been assumed by the Government under this contract, the Government shall replace the items or the Contractor shall make such repairs as the Government directs.
However, if the Contractor cannot effect such repairs within the time required, the Contractor shall dispose of the property as directed by the Contracting Officer. When any property for which the Government is responsible is replaced or repaired, the Contracting Officer shall make an equitable adjustment in accordance with paragraph (h) of this clause.

(4) The Contractor represents that the contract price does not include any amount for repairs or replacement for which the Government is responsible. Repair or replacement of property for which the Contractor is responsible shall be accomplished by the Contractor at its own expense.

(f) *Access.*
The Government and all its designees shall have access at all reasonable times to the premises in which any Government property is located for the purpose of inspecting the Government property.

(g) *Risk of loss.*
Unless otherwise provided in this contract, the Contractor assumes the risk of, and shall be responsible for, any loss or destruction of, or damage to, Government property upon its delivery to the Contractor or upon passage of title to the Government under paragraph (c) of this clause. However, the Contractor is not responsible for reasonable wear and tear to Government property or for Government property properly consumed in performing this contract.

(h) *Equitable adjustment.*
When this clause specifies an equitable adjustment, it shall be made to any affected contract provision in accordance with the procedures of the Changes clause. When appropriate, the Contracting Officer may initiate an equitable adjustment in favor of the Government. The right to an equitable adjustment shall be the Contractor's exclusive remedy. The Government shall not be liable to suit for breach of contract for—

(1) Any delay in delivery of Government-furnished property;
(2) Delivery of Government-furnished property in a condition not suitable for its intended use;
(3) A decrease in or substitution of Government furnished property; or
(4) Failure to repair or replace Government property for which the Government is responsible.

(i) *Government property disposal.*
Except as provided in paragraphs (i)(1)(i), (i)(2), and (i)(8)(i) of this clause, the Contractor shall not dispose of Government property until authorized to do so by the Plant Clearance Officer.

(1) *Scrap (to which the Government has obtained title under paragraph (c) of this clause).*
(i) *Contractor with an approved scrap procedure.*—(A) The Contractor may dispose of scrap resulting from production or testing under this contract without Government approval. However, if the scrap requires demilitarization or is sensitive property, the Contractor shall submit the scrap on an inventory disposal schedule.
(B) For scrap from other than production or testing the Contractor may prepare scrap lists in lieu of inventory disposal schedules (provided such lists are consistent with the approved scrap procedures), except that inventory disposal schedules shall be submitted for scrap aircraft or aircraft parts and scrap that—

(1) Requires demilitarization;
(2) Is a classified item;
(3) Is generated from classified items;
(4) Contains hazardous materials or hazardous wastes;
(5) Contains precious metals; or
(6) Is dangerous to the public health, safety, or welfare.
(ii) *Contractor without an approved scrap procedure.*
The Contractor shall submit an inventory disposal schedule for all scrap.

(2) *Pre-disposal requirements.*
When the Contractor determines that a property item acquired or produced by the Contractor, to which the Government has obtained title under paragraph (c) of this clause, is no longer needed for performance of this contract, the Contractor, in the following order of priority:

(i) May purchase the property at the acquisition cost.
(ii) Shall make reasonable efforts to return unused property to the appropriate supplier at fair market value (less, if applicable, a reasonable restocking fee that is consistent with the supplier's customary practices).
(iii) Shall list, on Standard Form 1428, Inventory Disposal Schedule, property that was not purchased under paragraph (i)(2)(i) of this clause, could not be returned to a supplier, or could not be used in the performance of other Government contracts.

(3) *Inventory disposal schedules.*
(i) The Contractor shall use Standard Form 1428, Inventory Disposal Schedule, to identify—
(A) Government-furnished property that is no longer required for performance of this contract, provided the terms of another Government contract do not require the Government to furnish that property for performance of that contract; and
(B) Property acquired or produced by the Contractor, to which the Government has obtained title under paragraph (c) of this clause, that is no longer required for performance of that contract.
(ii) The Contractor may annotate inventory disposal schedules to identify property the Contractor wishes to purchase from the Government.
(iii) Unless the Plant Clearance Officer has agreed otherwise, or the contract requires electronic submission of inventory disposal schedules, the Contractor shall prepare separate inventory disposal schedules for—

(A) Special test equipment with commercial components;
(B) Special test equipment without commercial components;
(C) Printing equipment;

(D) Computers, components thereof, peripheral equipment, and related equipment;
(E) Precious Metals;
(F) Non-nuclear hazardous materials or hazardous wastes; or
(G) Nuclear materials or nuclear wastes.

(iv) Property with the same description, condition code, and reporting location may be grouped in a single line item. The Contractor shall describe special test equipment in sufficient detail to permit an understanding of the special test equipment's intended use.

(4) *Submission requirements.*
The Contractor shall submit inventory disposal schedules to the Plant Clearance Officer no later than—
(i) Thirty days following the Contractor's determination that a Government property item is no longer required for performance of the contract;
(ii) Sixty days, or such longer period as may be approved by the Plant Clearance Officer, following completion of contract deliveries or performance; or
(iii) One hundred twenty days, or such longer period as may be approved by the Plant Clearance Officer, following contract termination in whole or in part.

(5) *Corrections.*
The Plant Clearance Officer may require the Contractor to correct an inventory disposal schedule or may reject a schedule if the property identified on the schedule is not accountable under this contract or is not in the quantity or condition indicated.

(6) *Post-submission adjustments.*
The Contractor shall provide the Plant Clearance Officer at least 10 working days advance written notice of its intent to remove a property item from an approved inventory disposal schedule. Unless the Plant Clearance Officer objects to the intended schedule adjustment within the notice period, the Contractor may make the adjustment upon expiration of the notice period.

(7) *Storage.*
(i) The Contractor shall store the property identified on an inventory disposal schedule pending receipt of disposal instructions. The Government's failure to provide disposal instructions within 120 days following acceptance of an inventory disposal schedule might entitle the Contractor to an equitable adjustment for costs incurred to store such property on or after the 121st day.
(ii) The Contractor shall obtain the Plant Clearance Officer's approval to remove Government property from the premises at which the property is currently located prior to receipt of final disposition instructions. If approval is granted, any costs incurred by the Contractor to transport or store the property shall not increase the price or fee of any Government contract. The storage facility shall be appropriate for assuring the property's physical safety and suitability for use. Approval does not relieve the Contractor of any liability under this contract for such property.

(8) *Disposition instructions.*
(i) If the Government does not provide disposition instructions to the Contractor within 45 days following acceptance of a scrap list, the Contractor may dispose of the listed scrap in accordance with the Contractor's approved scrap procedures.

(ii) The Contractor shall prepare for shipment, deliver f.o.b. origin, or dispose of Government property as directed by the Plant Clearance Officer. The Contractor shall remove and destroy any markings identifying the property as Government property prior to disposing of the property.
(iii) The Contracting Officer may require the Contractor to demilitarize the property prior to shipment or disposal. Any equitable adjustment incident to the Contracting Officer's direction to demilitarize Government property shall be made in accordance with paragraph (h) of this clause.

(9) *Disposal proceeds.*
The Contractor shall credit the net proceeds from the disposal of Government property to the price or cost of work covered by this contract or to the Government as the Contracting Officer directs.

(10) *Subcontractor inventory disposal schedules.*
The Contractor shall require a subcontractor that is using property accountable under this contract at a subcontractor-managed site to submit inventory disposal schedules to the Contractor in sufficient time for the Contractor to comply with the requirements of paragraph (i)(4) of this clause.

(j) *Abandonment of Government property.*
(1) The Government will not abandon sensitive Government property without the Contractor's written consent.
(2) The Government, upon notice to the Contractor, may abandon any non-sensitive Government property in place at which time all obligations of the Government regarding such abandoned property shall cease.
(3) The Government has no obligation to restore or rehabilitate the Contractor's premises under any circumstances; however, if Government-furnished property is withdrawn or is unsuitable for the intended use, or if other Government property is substituted, then the equitable adjustment under paragraph (h) of this clause may properly include restoration or rehabilitation costs.

(k) *Communications.*
All communications under this clause shall be in writing.

(l) *Overseas contracts.*
If this contract is to be performed outside of the United States and its outlying areas, the words "Government" and "Government-furnished" (wherever they appear in this clause) shall be construed as "United States Government" and "United States Government-furnished," respectively.

(End of clause)

Alternate I (Apr 1984). As prescribed in 45.106(b)(2), substitute the following paragraph (g) for paragraph (g) of the basic clause:
(g) *Limited risk of loss.* (1) The term "Contractor's managerial personnel," as used in this paragraph (g), means the Contractor's directors, officers, and any of the Contractor's managers, superintendents, or equivalent representatives who have supervision or direction of—

(i) All or substantially all of the Contractor's business;
(ii) All or substantially all of the Contractor's operation

at any one plant or separate location at which the contract is being performed; or

(iii) A separate and complete major industrial operation connected with performing this contract.

(2) The Contractor shall not be liable for loss or destruction of, or damage to, the Government property provided under this contract (or, if an educational or nonprofit organization, for expenses incidental to such loss, destruction, or damage), except as provided in paragraphs (g)(3) and (g)(4) of this clause.

(3) The Contractor shall be responsible for loss or destruction of, or damage to, the Government property provided under this contract (including expenses incidental to such loss, destruction, or damage)—

(i) That results from a risk expressly required to be insured under this contract, but only to the extent of the insurance required to be purchased and maintained, or to the extent of insurance actually purchased and maintained, whichever is greater;

(ii) That results from a risk that is in fact covered by insurance or for which the Contractor is otherwise reimbursed, but only to the extent of such insurance or reimbursement;

(iii) For which the Contractor is otherwise responsible under the express terms of this contract;

(iv) That results from willful misconduct or lack of good faith on the part of the Contractor's managerial personnel; or

(v) That results from a failure on the part of the Contractor, due to willful misconduct or lack of good faith on the part of the Contractor's managerial personnel, to establish and administer a program or system for the control, use, protection, preservation, maintenance, and repair of Government property as required by paragraph (e) of this clause.

(4)(i) If the Contractor fails to act as provided in subdivision (g)(3)(v) of this clause, after being notified (by certified mail addressed to one of the Contractor's managerial personnel) of the Government's disapproval, withdrawal of approval, or non-acceptance of the system or program, it shall be conclusively presumed that such failure was due to willful misconduct or lack of good faith on the part of the Contractor's managerial personnel.

(ii) In such event, any loss or destruction of, or damage to, the Government property shall be presumed to have resulted from such failure unless the Contractor can establish by clear and convincing evidence that such loss, destruction, or damage—

(A) Did not result from the Contractor's failure to maintain an approved program or system; or

(B) Occurred while an approved program or system was maintained by the Contractor.

(5) If the Contractor transfers Government property to the possession and control of a subcontractor, the transfer shall not affect the liability of the Contractor for loss or destruction of, or damage to, the property as set forth above. However, the Contractor shall require the subcontractor to assume the risk of, and be responsible for, any loss or destruction of, or damage to, the property while in the subcontractor's possession or control, except to the extent that the subcontract, with the advance approval of the Contracting Officer, relieves the subcontractor from such liability. In the absence of such approval, the subcontract shall contain appropriate provisions requiring the return of all Government property in as good condition as when received, except for reasonable wear and tear or for its use in accordance with the provisions of the prime contract.

(6) Upon loss or destruction of, or damage to, Government property provided under this contract, the Contractor shall so notify the Contracting Officer and shall communicate

with the loss and salvage organization, if any, designated by the Contracting Officer. With the assistance of any such organization, the Contractor shall take all reasonable action to protect the Government property from further damage, separate the damaged and undamaged Government property, put all the affected Government property in the best possible order, and furnish to the Contracting Officer a statement of—

(i) The lost, destroyed, or damaged Government property;

(ii) The time and origin of the loss, destruction, or damage;

(iii) All known interests in commingled property of which the Government property is a part; and

(iv) The insurance, if any, covering any part of or interest in such commingled property.

(7) The Contractor shall repair, renovate, and take such other action with respect to damaged Government property as the Contracting Officer directs. If the Government property is destroyed or damaged beyond practical repair, or is damaged and so commingled or combined with property of others (including the Contractor's) that separation is impractical, the Contractor may, with the approval of and subject to any conditions imposed by the Contracting Officer, sell such property for the account of the Government. Such sales may be made in order to minimize the loss to the Government, to permit the resumption of business, or to accomplish a similar purpose. The Contractor shall be entitled to an equitable adjustment in the contract price for the expenditures made in performing the obligations under this paragraph (g)(7) in accordance with paragraph
(h) of this clause. However, the Government may directly reimburse the loss and salvage organization for any of their charges. The Contracting Officer shall give due regard to the Contractor's liability under this paragraph (g) when making such equitable adjustment.

(8) The Contractor represents that it is not including in the price and agrees it will not hereafter include in any price to the Government any charge or reserve for insurance (including any self-insurance fund or reserve) covering loss or destruction of, or damage to, Government property, except to the extent that the Government may have expressly required the Contractor to carry such insurance under another provision of this contract.

(9) In the event the Contractor is reimbursed or otherwise compensated for any loss or destruction of, or damage to, Government property, the Contractor shall use the proceeds to repair, renovate, or replace the lost, destroyed, or damaged Government property, or shall otherwise credit the proceeds to equitably reimburse the Government, as directed by the Contracting Officer.

(10) The Contractor shall do nothing to prejudice the Government's rights to recover against third parties for any loss or destruction of, or damage to, Government property. Upon the request of the Contracting Officer, the Contractor shall, at the Government's expense, furnish to the Government all reasonable
assistance and cooperation (including the prosecution of suit and the execution of instruments of assignment in favor of the Government) in obtaining recovery. In addition, where a subcontractor has not been relieved from liability for any loss or destruction of, or damage to, Government property, the Contractor shall enforce for the benefit of the Government the liability of the subcontractor for such loss, destruction, or damage.

(End of clause)

<u>The following clauses FAR 52.245-5 and FAR 52.245-19 applies to SOW Annexes 1, 2, 3, 4, 6, and 7:</u>

I. 11 GOVERNMENT PROPERTY (COST-REIMBURSEMENT,TIME AND- MATERIAL, OR LABOR-HOUR CONTRACTS) (FAR 52.245-5) (MAY 2004)

(a) *Government-furnished property.*
(1) The term "Contractor's managerial personnel," as used in paragraph (g) of this clause, means any of the Contractor's directors, officers, managers, superintendents, or equivalent representatives who
have supervision or direction of—

(i) All or substantially all of the Contractor's business;
(ii) All or substantially all of the Contractor's operation at any one plant, or separate location at which the contract is being performed; or
(iii) A separate and complete major industrial operation connected with performing this contract.

(2) The Government shall deliver to the Contractor, for use in connection with and under the terms of this contract, the Government-furnished property described in the Schedule or specifications, together with such related data and information as the Contractor may request and as may be reasonably required for the intended use of the property (hereinafter referred to as "Government-furnished property").

(3) The delivery or performance dates for this contract are based upon the expectation that Government-furnished property suitable for use will be delivered to the Contractor at the times stated in the Schedule or, if not so stated, in sufficient time to enable the Contractor to meet the contract's delivery or performance dates.

(4) If Government-furnished property is received by the Contractor in a condition not suitable for the intended use, the Contractor shall, upon receipt, notify the Contracting Officer, detailing the facts, and, as directed by the Contracting Officer and at Government expense, either effect repairs or modification or return or otherwise dispose of the property. After completing the directed action and upon written request of the Contractor, the Contracting Officer shall make an equitable adjustment as provided in paragraph (h) of this clause.

(5) If Government-furnished property is not delivered to the Contractor by the required time or times, the Contracting Officer shall, upon the Contractor's timely written request, make a determination of the delay, if any, caused the Contractor and shall make an equitable adjustment in accordance with paragraph (h) of this clause.

(b) *Changes in Government-furnished property.*
(1) The Contracting Officer may, by written notice,
(i) decrease the Government-furnished property provided or to be provided under this contract or
(ii) substitute other Government-furnished property for the property to be provided by the Government or to be acquired by the Contractor for the Government under this contract. The Contractor shall promptly take such action as the Contracting Officer may direct regarding the removal, shipment, or disposal of the property covered by this notice.

(2) Upon the Contractor's written request, the Contracting Officer shall make an equitable adjustment to the contract in accordance with paragraph (h) of this clause, if the Government has agreed in the Schedule to make such property available for performing this contract and there is any—

(i) Decrease or substitution in this property pursuant to paragraph (b)(1) of this clause; or
(ii) Withdrawal of authority to use property, if provided under any other contract or lease.

(c) *Title.*
(1) The Government shall retain title to all Government-furnished property.
(2) Title to all property purchased by the Contractor for which the Contractor is entitled to be reimbursed as a direct item of cost under this contract shall pass to and vest in the Government upon the vendor's delivery of such property.
(3) Title to all other property, the cost of which is reimbursable to the Contractor, shall pass to and vest in the Government upon—

(i) Issuance of the property for use in contract performance;
(ii) Commencement of processing of the property for use in contract performance; or
(iii) Reimbursement of the cost of the property by the Government, whichever occurs first.

(4) All Government-furnished property and all property acquired by the Contractor, title to which vests in the Government under this paragraph (collectively referred to as "Government property"), are subject to the provisions of this clause. Title to Government property shall not be affected by its incorporation into or attachment to any property not owned by the Government, nor shall Government property become a fixture or lose its identity as personal property by being attached to any real property.

(d) *Use of Government property.*
The Government property shall be used only for performing this contract, unless otherwise provided in this contract or approved by the Contracting Officer.

(e) *Property administration.*
(1) The Contractor shall be responsible and accountable for all Government property provided under the contract and shall comply with Federal Acquisition Regulation (FAR) Subpart 45.5, as in effect on the date of this contract.

(2) The Contractor shall establish and maintain a program for the use, maintenance, repair, protection, and preservation of Government property in accordance with sound business practice and the applicable provisions of FAR Subpart 45.5.

(3) If damage occurs to Government property, the risk of which has been assumed by the Government under this contract, the Government shall replace the items or the Contractor shall make such repairs as the Government directs.
However, if the Contractor cannot effect such repairs within the time required, the Contractor shall dispose of the property as directed by the Contracting Officer. When any property for which the Government is responsible is replaced or repaired, the

Contracting Officer shall make an equitable adjustment in accordance with paragraph (h) of this clause.

(f) *Access.*
The Government and all its designees shall have access at all reasonable times to the premises in which any Government property is located for the purpose of inspecting the Government property.

(g) *Limited risk of loss.*
(1) The Contractor shall not be liable for loss or destruction of, or damage to, the Government property provided under this contract or for expenses incidental to such loss, destruction, or damage, except as provided in paragraphs (g)(2) and (g)(3) of this clause.
(2) The Contractor shall be responsible for loss or destruction of, or damage to, the Government property provided under this contract (including expenses incidental to such loss, destruction, or damage)—

(i) That results from a risk expressly required to be insured under this contract, but only to the extent of the insurance required to be purchased and maintained or to the extent of insurance actually purchased and maintained, whichever is greater;
(ii) That results from a risk that is in fact covered by insurance or for which the Contractor is otherwise reimbursed, but only to the extent of such insurance or reimbursement;
(iii) For which the Contractor is otherwise responsible under the express terms of this contract;
(iv) That results from willful misconduct or lack of good faith on the part of the Contractor's managerial personnel; or
(v) That results from a failure on the part of the Contractor, due to willful misconduct or lack of good faith on the part of the Contractor's managerial personnel, to establish and administer a program or system for the control, use, protection, preservation, maintenance, and repair of Government property as required by paragraph (e) of this clause.

(3)(i) If the Contractor fails to act as provided by subdivision (g)(2)(v) of this clause, after being notified (by certified mail addressed to one of the Contractor's managerial personnel) of the Government's disapproval, withdrawal of approval, or non-acceptance of the system or program, it shall be conclusively presumed that such failure was due to willful misconduct or lack of good faith on the part of the Contractor's managerial personnel.
(ii) In such event, any loss or destruction of, or damage to, the Government property shall be presumed to have resulted from such failure unless the Contractor can establish by clear and convincing evidence that such loss, destruction, or damage—

(A) Did not result from the Contractor's failure to maintain an approved program or system; or
(B) Occurred while an approved program or system was maintained by the Contractor.

(4) If the Contractor transfers Government property to the possession and control of a subcontractor, the transfer shall not affect the liability of the Contractor for loss or destruction of, or damage to, the property as set forth above. However, the Contractor shall require the subcontractor to assume the risk of, and be responsible for, any loss or destruction of, or damage to, the property while in the subcontractor's possession or control, except to the extent that the subcontract, with the advance approval of the Contracting Officer, relieves the subcontractor from such liability. In the absence of such approval, the subcontract shall contain appropriate provisions requiring the return of all Government property in as good condition as when received, except for reasonable wear and tear or for its use in accordance with the provisions of the prime contract.

(5) Upon loss or destruction of, or damage to, Government property provided under this contract, the Contractor shall so notify the Contracting Officer and shall communicate with the loss and salvage organization, if any, designated by
the Contracting Officer. With the assistance of any such organization, the Contractor shall take all reasonable action to protect the Government property from further damage, separate the damaged and undamaged Government property, put all the affected Government property in the best possible order,
and furnish to the Contracting Officer a statement of—

(i) The lost, destroyed, or damaged Government property;
(ii) The time and origin of the loss, destruction, or damage;
(iii) All known interests in commingled property of which the Government property is a part; and
(iv)The insurance, if any, covering any part of or interest in such commingled property.

(6) The Contractor shall repair, renovate, and take such other action with respect to damaged Government property as the Contracting Officer directs. If the Government property is destroyed or damaged beyond practical repair, or is damaged and so commingled or combined with property of others (including the Contractor's) that separation is impractical, the Contractor may, with the approval of and subject to any conditions imposed by the Contracting Officer, sell such property for the account of the Government. Such sales may be made in order to minimize the loss to the Government, to permit the resumption of business, or to accomplish a similar purpose. The Contractor shall be entitled to an equitable adjustment in the contract price for the expenditures made in performing the obligations under this paragraph (g)(6) in accordance with paragraph (h) of this clause. However, the Government may directly reimburse the loss and salvage organization for any of their charges. The Contracting Officer shall give due regard to the Contractor's liability under this paragraph (g) when making any such equitable adjustment.

(7) The Contractor shall not be reimbursed for, and shall not include as an item of overhead, the cost of insurance or of any reserve covering risk of loss or destruction of, or damage to, Government property, except to the extent that the Government may have expressly required the Contractor to carry such insurance under another provision of this contract.

(8) In the event the Contractor is reimbursed or otherwise compensated for any loss or destruction of, or damage to, Government property, the Contractor shall use the proceeds to repair, renovate, or replace the lost, destroyed, or damaged Government

property or shall otherwise credit the proceeds to, or equitably reimburse, the Government, as directed by the Contracting Officer.

(9) The Contractor shall do nothing to prejudice the Government's rights to recover against third parties for any loss or destruction of, or damage to, Government property. Upon the request of the Contracting Officer, the Contractor shall, at the Government's expense, furnish to the Government all reasonable assistance and cooperation (including the prosecution of suit and the execution of instruments of assignment in favor of the Government) in obtaining recovery. In addition, where a subcontractor has not been relieved from liability for any loss or destruction of, or damage to, Government property, the Contractor shall enforce for the benefit of the Government the liability of the subcontractor for such loss, destruction, or damage.

(h) *Equitable adjustment.*
When this clause specifies an equitable adjustment, it shall be made to any affected contract provision in accordance with the procedures of the Changes clause. When appropriate, the Contracting Officer may initiate an equitable adjustment in favor of the Government. The right to an equitable adjustment shall be the Contractor's exclusive remedy. The Government shall not be liable to suit for breach of contract for—

(1) Any delay in delivery of Government-furnished property;
(2) Delivery of Government-furnished property in a condition not suitable for its intended use;
(3) A decrease in or substitution of Government-furnished property; or
(4) Failure to repair or replace Government property for which the Government is responsible.

(i) *Government property disposal.*
Except as provided in paragraphs (i)(1)(i), (i)(2), and (i)(8)(i) of this clause, the Contractor shall not dispose of Government property until authorized to do so by the Plant Clearance Officer.

(1) *Scrap.*
(i) *Contractor with an approved scrap procedure.*
(A) The Contractor may dispose of scrap resulting from production or testing under this contract without Government approval. However, if the scrap requires de-militarization or is sensitive property, the Contractor shall submit the scrap on an inventory disposal schedule.

(B) For scrap from other than production or testing, the Contractor may prepare scrap lists in lieu of inventory disposal schedules (provided such lists are consistent with the approved scrap procedures), except that inventory disposal schedules shall be submitted for scrap aircraft or aircraft parts and scrap that—

(1) Requires demilitarization;
(2) Is a classified item;
(3) Is generated from classified items;
(4) Contains hazardous materials or hazardous wastes;
(5) Contains precious metals; or
(6) Is dangerous to the public health, safety, or welfare.

(ii) *Contractor without an approved scrap procedure.*
The Contractor shall submit an inventory disposal schedule for all scrap.

(2) *Pre-disposal requirements.*
When the Contractor determines that a property item acquired or produced by the Contractor, to which the Government has obtained title under paragraph (c) of this clause, is no longer needed for performance of this contract, the Contractor, in the following order of priority:

(i) May purchase the property at the acquisition cost.
(ii) Shall make reasonable efforts to return unused property to the appropriate supplier at fair market value (less, if applicable, a reasonable restocking fee that is consistent with the supplier's customary practices).
(iii) Shall list, on Standard Form 1428, Inventory Disposal Schedule, property that was not purchased under paragraph (i)(2)(i) of this clause, could not be returned to a supplier, or could not be used in the performance of other Government contracts.

(3) *Inventory disposal schedules.*
(i) The Contractor shall use Standard Form 1428, Inventory Disposal Schedule, to identify—
(A) Government-furnished property that is no longer required for performance of this contract, provided the terms of another Government contract do not require the Government to furnish that property for performance of that contract; and
(B) Property acquired or produced by the Contractor, to which the Government has obtained title under paragraph (c) of this clause, that is no longer required for performance of that contract.
(ii) The Contractor may annotate inventory disposal schedules to identify property the Contractor wishes to purchase from the Government.
(iii) Unless the Plant Clearance Officer has agreed otherwise, or the contract requires electronic submission of inventory disposal schedules, the Contractor shall prepare separate inventory disposal schedules for—
(A) Special test equipment with commercial components;
(B) Special test equipment that does not contain commercial components;
(C) Printing equipment;
(D) Computers, components thereof, peripheral equipment, and related equipment;
(E) Precious Metals;
(F) Non-nuclear hazardous materials or hazardous wastes; or
(G) Nuclear materials or nuclear wastes.

(iv) Property with the same description, condition code, and reporting location may be grouped in a single line item. The Contractor shall describe special test equipment in sufficient detail to permit an understanding of the special test equipment's intended use.

(4) *Submission requirements.*
The Contractor shall submit inventory disposal schedules to the Plant Clearance Officer no later than—
(i) Thirty days following the Contractor's determination that a Government property item is no longer required for performance of the contract;

(ii) Sixty days, or such longer period as may be approved by the Plant Clearance Officer, following completion of contract deliveries or performance; or
(iii) One hundred twenty days, or such longer period as may be approved by the Plant Clearance Officer, following contract termination in whole or in part.

(5) *Corrections.*
The Plant Clearance Officer may require the Contractor to correct an inventory disposal schedule or may reject a schedule if the property identified on the schedule is not accountable under this contract or is not in the
quantity or condition indicated.

(6) P*ost-submission adjustments.*
The Contractor shall provide the Plant Clearance Officer at least 10 working days advance written notice of its intent to remove a property item from an approved inventory disposal schedule. Unless the Plant Clearance Officer objects to the intended schedule adjustment within the notice period, the Contractor may make the adjustment upon expiration of the notice period.

(7) *Storage.*
(i) The Contractor shall store the property identified on an inventory disposal schedule pending receipt of disposal instructions. The Government's failure to provide disposal instructions within 120 days following acceptance of an inventory disposal schedule, might entitle the Contractor to an equitable adjustment for costs incurred to store such property on or after the 121st day.

(ii) The Contractor shall obtain the Plant Clearance Officer's approval to remove Government property from the premises at which the property is currently located prior to receipt of final disposition instructions. If approval is granted, any costs incurred by the Contractor to transport or store the property shall not increase the price or fee of any Government contract. The storage facility must be appropriate for assuring the property's physical safety and suitability for use. Approval does not relieve the Contractor of any liability under this contract for such property.

(8) *Disposition instructions.*
(i) If the Government does not provide disposition instructions to the Contractor within 45 days following acceptance of a scrap list, the Contractor may dispose of the listed scrap in accordance with the Contractor's approved scrap procedures.
(ii) The Contractor shall prepare for shipment, deliver f.o.b. origin, or dispose of Government property as directed by the Plant Clearance Officer. The Contractor shall remove and destroy any markings identifying the property as Government property prior to disposing of the property.
(iii) The Contracting Officer may require the Contractor to demilitarize the property prior to shipment or disposal. Any equitable adjustment incident to the Contracting Officer's direction to demilitarize Government property shall be made in accordance with paragraph (h) of this clause.

(9) *Disposal proceeds.*
The Contractor shall credit the net proceeds from the disposal of Government property to the cost of work covered by this contract, or to the Government as directed by the Contracting Officer.

(10) *Subcontractor inventory disposal schedules.*
The Contractor shall require a subcontractor that is using property accountable under this contract at a subcontractor-managed site to submit inventory disposal schedules to the Contractor in sufficient time for the Contractor to comply with the requirements of paragraph (i)(4) of this clause.

(j) *Abandonment of Government property.*
(1) The Government will not abandon sensitive Government property without the Contractor's written consent;
(2) The Government, upon notice to the Contractor, may abandon any non-sensitive Government property in place at which time all obligations of the Government regarding such abandoned property shall cease.
(3) The Government has no obligation to restore or rehabilitate the Contractor's premises under any circumstances; however, if Government-furnished property is withdrawn or is unsuitable for the intended use, or if other Government property is substituted, then the equitable adjustment under paragraph (h) of this clause may properly include restoration or rehabilitation costs.

(k) *Communications.* All communications under this clause shall be in writing.

(l) *Overseas contracts.*
If this contract is to be performed outside the United States and its outlying areas, the words "Government" and "Government-furnished" (wherever they appear in this clause) shall be construed as "United States Government" and "United States Government-furnished," respectively.

(End of clause)

I. 12 GOVERNMENT PROPERTY FURNISHED "AS IS" (FAR 52.245-19) (APR 1984)

(a) The Government makes no warranty whatsoever with respect to Government property furnished "as is," except that the property is in the same condition when placed at the f.o.b. point specified in the solicitation as when inspected by the Contractor pursuant to the solicitation or, if not inspected by the Contractor, as when last available for inspection under the solicitation.

(b) The Contractor may repair any property made available on an "as is" basis. Such repair will be at the Contractor's expense except as otherwise provided in this clause. Such property may be modified at the Contractor's expense, but only with the written permission of the Contracting Officer. Any repair or modification of property furnished "as is" shall not affect the title of the Government.

(c) If there is any change in the condition of Government property furnished "as is" from the time inspected or last available for inspection under the solicitation to the time placed on board at the location specified in the solicitation, and such change will adversely affect the Contractor, the Contractor shall, upon receipt of the property, notify the Contracting Officer detailing the facts and, as directed by the Contracting Officer, either (1) return such property at the Government's expense or otherwise dispose of the property or

(2) effect repairs to return the property to its condition when inspected under the solicitation or, if not inspected, last available for inspection under the solicitation. After completing the directed action and upon written request of the Contractor, the Contracting Officer shall equitably adjust any contractual provisions affected by the return, disposition, or repair in accordance with the procedures provided for in the Changes clause of this contract. The foregoing provisions for adjustment are the exclusive remedy available to the Contractor, and the Government shall not be otherwise liable for any delivery of Government property furnished "as is" in a condition other than that in which it was originally offered.
(d) Except as otherwise provided in this clause, Government property furnished "as is" shall be governed by the Government Property clause of this contract.

(End of clause)

I.13 LIMITATION OF LIABILITY - HIGH-VALUE ITEMS (52.246-24) (FEB 1997)

(a) Except as provided in paragraphs (b) through (e) below, and notwithstanding any other provision of this Contract, the Contractor shall not be liable for loss of or damage to property of the Government (including the supplies delivered under this Contract) that,

(1) Occurs after Government acceptance of the supplies delivered under this Contract; and

(2) Results from any defects or deficiencies in the supplies.

(b) The limitation of liability under paragraph (a) above shall not apply when a defect or deficiency in, or the Government's acceptance of, the supplies results from willful misconduct or lack of good faith on the part of any of the Contractor's managerial personnel. The term "Contractor's managerial personnel," as used in this clause, means the Contractor's directors, officers, and any of the Contractor's managers, superintendents, or equivalent representatives who have supervision or direction of,

(1) All or substantially all of the Contractor's business,

(2) All or substantially all of the Contractor's operations at any one plant, laboratory, or separate location at which the Contract is being performed; or

(3) A separate and complete major industrial operation connected with the performance of this Contract.

(c) If the Contractor carries insurance, or has established a reserve for self-insurance, covering liability for loss or damage suffered by the Government through purchase or use of the supplies required to be delivered under this Contract, the Contractor shall be liable to the Government, to the extent of such insurance or reserve, for loss of or damage to property of the Government occurring after Government acceptance of, and resulting from any defects or deficiencies in, the supplies delivered under this Contract.

(d)(1) This clause does not diminish the Contractor's obligations, to the extent that they arise otherwise under this Contract, relating to correction, repair, replacement, or other relief for any defect or deficiency in supplies delivered under this Contract.

(2) Unless this is a cost-reimbursement Contract, if loss or damage occurs and correction, repair, or replacement is not feasible or desired by the Government, the Contractor shall, as determined by the CO,

(i) Pay the Government the amount it would have cost the Contractor to make correction, repair, or replacement before the loss or damage occurred;

(ii) Provide other equitable relief.

(e) This clause shall not limit or otherwise affect the Government's rights under clauses, if included in this Contract, that cover,

(1) Warranty of technical data,

(2) Ground and flight risks or aircraft flight risks; or

(3) Government property.

(End of clause)

1.14 OMBUDSMAN (NFS 1852.215-84) (OCT 2003) ALT I (JUN 2000)

(a) An ombudsman has been appointed to hear and facilitate the resolution of concerns from offerors, potential offerors, and Contractors during the pre-award and post-award phases of this acquisition. When requested, the ombudsman will maintain strict confidentiality as to the source of the concern. The existence of the ombudsman is not to diminish the authority of the CO, the Source Evaluation Board, or the selection official. Further, the ombudsman does not participate in the evaluation of proposals, the source selection process, or the adjudication of formal Contract disputes. Therefore, before consulting with an ombudsman, interested parties must first address their concerns, issues, disagreements, and/or recommendations to the CO for resolution.

(b) If resolution cannot be made by the CO, interested parties may contact the installation ombudsman:

NASA Lyndon B. Johnson Space Center
Attn: Lucy V. Kranz - Associate Director (Management)
Mail Code: AC
2101 NASA Parkway
Houston, TX 77058
Phone: 281-483-7683
Fax: 281-483-2200
E-mail address: lucy.v.kranz@nasa.gov

Concerns, issues, disagreements, and recommendations which cannot be resolved at the installation may be referred to the NASA OMBUDSMAN, the Director of the Contract Management Division, at 202-358-0445, facsimile 202-358-3083, e-mail james.a.balinskas@nasa.gov. Please do not contact the OMBUDSMAN to request copies of the solicitation, verify offer due date, or clarify technical requirements. Such inquiries shall be directed to the CO or as specified elsewhere in this document.

(c) If this is a task or delivery order Contract, the ombudsman shall review complaints from Contractors and ensure they are afforded a fair opportunity to be considered, consistent with the procedures of the Contract.

(End of clause)

I.15 PAYMENT FOR OVERTIME PREMIUMS (FAR 52.222-2) (JUL 1990)

(a) The use of overtime is authorized under this Contract if the overtime premium does not exceed $480,228 or the overtime premium is paid for work:

(1) Necessary to cope with the emergencies such as those resulting from accidents, natural disasters, breakdowns of production equipment, or occasional production bottlenecks of a sporadic nature,

(2) By indirect-labor employees such as those performing duties in connection with administration, protection, transportation, maintenance, standby plant protection, operation of utilities, or accounting,

(3) To perform tests, industrial processes, laboratory procedures, loading or unloading of transportation conveyances, and operations in flight or afloat that are continuous in nature and cannot reasonably be interrupted or completed otherwise; or,

(4) That will result in lower overall costs to the Government,

(i) Any requests for estimated overtime premiums that exceeds the amount specified above shall include all estimated overtime for Contract completion and shall:

(1) Identify the work unit; *e.g.,* department or section in which the requested overtime will be used, together with present workload, staffing, and other data of the affected until sufficient to permit the CO to evaluate the necessity for the overtime;

(2) Demonstrate the effect that denial of the request will have on the Contract delivery or performance schedule;

(3) Identify the extent to which approval of overtime would affect the performance or payments in connection with other Government Contracts, together with identification of each affected Contract; and

(4) Provide reasons why the required work cannot be performed by using multi-shift operations or by employing additional personnel.

(End of clause)

I.16 SECURITY REQUIREMENTS FOR UNCLASSIFIED INFORMATION TECHNOLOGY RESOURCES (NFS 1852.204-76) (MAY 2007)

(a) The Contractor shall be responsible for Information Technology security for all systems connected to a NASA network or operated by the Contractor for NASA, regardless of location. This clause is applicable to all or any part of the Contract that includes information technology resources or services in which the Contractor must have physical or electronic access to NASA's sensitive information contained in unclassified systems that directly support the mission of the Agency. This includes information technology, hardware, software, and the management, operation, maintenance, programming, and system administration of computer systems, networks, and telecommunications systems. Examples of tasks that require security provisions include:

(1) Computer control of spacecraft, satellites, or aircraft or their payloads,

(2) Acquisition, transmission or analysis of data owned by NASA with significant replacement cost should the Contractor's copy be corrupted; and

(3) Access to NASA networks or computers at a level beyond that granted the general public, e.g. bypassing a firewall.

(b) The Contractor shall provide, implement, and maintain an IT Security Plan. This plan shall describe the processes and procedures that will be followed to ensure appropriate security of IT resources that are developed, processed, or used under this Contract. The plan shall describe those parts of the Contract to which this clause applies. The Contractor's IT Security Plan shall be compliant with Federal laws that include, but are not limited to, the Computer Security Act of 1987 (40 U.S.C. 1441 et seq.) and the Government Information Security Reform Act of 2000. The plan shall meet IT security requirements in accordance with Federal and NASA policies and procedures that include, but are not limited to:

(1) OMB Circular A-130, Management of Federal Information Resources, Appendix III,

Security of Federal Automated Information Resources,

(2) NASA Procedures and Guidelines (NPR) 2810.1, Security of Information Technology; and

(3) Chapter 3 of NPR 1620.1, NASA Security Procedural Requirements.

(c) Within 30 days after Contract start, the Contractor shall submit for NASA approval an IT Security Management and Program Plan. This plan must be consistent with and further detail the approach contained in the offeror's proposal or sealed bid that resulted in the award of this Contract and in compliance with the requirements stated in this clause. The plan, as approved by the CO, shall be incorporated into the Contract as a compliance document.

(d)(1) Contractor personnel requiring privileged access or limited privileged access to systems operated by the Contractor for NASA or interconnected to a NASA network shall be screened at an appropriate level in accordance with NPR 2810.1, Section 4.5; NPR 1620.1, Chapter 3; and paragraph (d)(2) of this clause. Those Contractor personnel with non-privileged access do not require personnel screening. NASA shall provide screening using standard personnel screening National Agency Check (NAC) forms listed in paragraph (d)(3) of this clause, unless Contractor screening in accordance with paragraph (d)(4) is approved. The Contractor shall submit the required forms to the NASA Center Chief of Security (CCS) within fourteen (14) days after Contract award or assignment of an individual to a position requiring screening. The forms may be obtained from the CCS. At the option of the Government, interim access may be granted pending completion of the NAC.

(2) Guidance for selecting the appropriate level of screening is based on the risk of adverse impact to NASA missions. NASA defines three levels of risk for which screening is required (IT-1 has the highest level of risk):

(i) IT-1 - Individuals having privileged access or limited privileged access to systems whose misuse can cause very serious adverse impact to NASA missions. These systems include, for example, those that can transmit commands directly modifying the behavior of spacecraft, satellites or aircraft.

(ii) IT-2 - Individuals having privileged access or limited privileged access to systems whose misuse can cause serious adverse impact to NASA missions. These systems include, for example, those that can transmit commands directly modifying the behavior of payloads on spacecraft, satellites or aircraft; and those that contain the primary copy of "level 1" data whose cost to replace exceeds one million dollars.

(iii) IT-3 - Individuals having privileged access or limited privileged access to systems whose misuse can cause significant adverse impact to NASA missions. These systems include, for example, those that interconnect with a NASA network in a way that exceeds access by the general public, such as bypassing firewalls; and systems operated by the Contractor for NASA whose function or data has substantial cost to replace, even if these systems are not interconnected with a NASA network.

(3) Screening for individuals shall employ forms appropriate for the level of risk as follows:

(i) IT-1: Fingerprint Card (FC) 258 and Standard Form (SF) 85P, Questionnaire for Public Trust Positions;

(ii) IT-2: FC 258 and SF 85, Questionnaire for Non-Sensitive Positions; and

(iii) IT-3: NASA Form 531, Name Check, and FC 258.

(4) The CO may allow the Contractor to conduct its own screening of individuals requiring privileged access or limited privileged access provided the Contractor can demonstrate that the procedures used by the Contractor are equivalent to NASA's personnel screening procedures. As used here, equivalent includes a check for criminal history, as would be conducted by NASA, and completion of a questionnaire covering the same information as would be required by NASA.

(5) Screening of Contractor personnel may be waived by the CO for those individuals, who have proof of,

(i) Current or recent national security clearances (within last three years),

(ii) Screening conducted by NASA within last three years; or

(iii) Screening conducted by the Contractor, within last three years, that is equivalent to the NASA personnel screening procedures as approved by the CO under paragraph (d)(4) of this clause.

(e) The Contractor shall ensure that its employees, in performance of the Contract, receive annual IT security training in NASA IT Security policies, procedures, computer ethics, and best practices in accordance with NPR 2810.1, Section 4.3 requirements. The Contractor may use web-based training available from NASA to meet this requirement.

(f) The Contractor shall afford NASA, including the Office of Inspector General, access to the Contractor's and subcontractors' facilities, installations, operations, documentation, databases and personnel used in performance of the Contract. Access shall be provided to the extent required to carry out a program of IT inspection, investigation and audit to safeguard against threats and hazards to the integrity, availability and confidentiality of NASA data or to the function of computer systems operated on behalf of NASA, and to preserve evidence of computer crime.

(g) The Contractor shall incorporate the substance of this clause in all subcontracts that meet the conditions in paragraph (a) of this clause.

(End of clause)

CLAUSES THAT PERTAIN TO CONSTRUCTION ONLY:

I.17 <u>LISTING OF CLAUSES INCORPORATED BY REFERENCE</u>

NOTICE: The following solicitation provisions and/or Contract clauses pertinent to this section are hereby incorporated by reference:

I. FEDERAL ACQUISITION REGULATION (FAR) (48 CFR CHAPTER 1)

CLAUSE NUMBER	DATE	TITLE
52.202-1	APR 1984	DEFINITIONS
52.222-6	JUL 2005	DAVIS-BACON ACT
52.222-7	FEB 1988	WITHHOLDING OF FUNDS
52.222-8	FEB 1988	PAYROLLS AND BASIC RECORDS
52.222-9	JUL 2005	APPRENTICES AND TRAINEES
52.222-10	FEB 1988	COMPLIANCE WITH COPELAND ACT REQUIREMENTS
52.222-11	JUL 2005	SUBCONTRACTS (LABOR STANDARDS)
52.222-12	FEB 1988	CONTRACT TERMINATION-DEBARMENT
52.222-13	FEB 1988	COMPLIANCE WITH DAVIS-BACON AND RELATED ACT REGULATIONS
52.222-14	FEB 1988	DISPUTES CONCERNING LABOR STANDARDS
52.222-15	FEB 1988	CERTIFICATION OF ELIGIBILITY
52.222-27	FEB 1999	AFFIRMATIVE ACTION COMPLIANCE REQUIRED FOR CONSTRUCTION
52.228-2	OCT 1997	ADDITIONAL BOND SECURITY
52.228-11	FEB 1992	PLEDGES OF ASSETS
52.228-15	NOV 2006	PERFORMANCE AND PAYMENT BONDS – CONSTRUCTION
52.232-27	SEP 2005	PROMPT PAYMENT FOR CONSTRUCTION CONTRACTS
52.243-4	JUN 2007	CHANGES
52.246-21	MAR 1994	WARRANTY OF CONSTRUCTION
52.248-3	SEP 2006	VALUE ENGINEERING CONSTRUCTION
52.249-2	MAY 2004	TERMINATION FOR CONVENIENCE OF THE GOVERNMENT (FIXED PRICE) (ALTERNATE I) (CONSTRUCTION)(SEP 1996)

II. NASA FAR SUPPLEMENT (NFS) (48 CFR CHAPTER 18)

CLAUSE NUMBER	DATE	TITLE
1852.209-72	DEC 1988	COMPOSITION OF THE CONTRACTOR

I.18 BUY AMERICAN ACT - CONSTRUCTION MATERIALS (52.225-9) (JAN 2005)

(a) Definitions. As used in this clause,

"Component" means any article, material, or supply incorporated directly into construction materials. "Construction material" means an article, material, or supply brought to the construction site by the Contractor or a subcontractor for incorporation

into the building or work. The term also includes an item brought to the site preassembled from articles, materials, or supplies. However, emergency life safety systems, such as emergency lighting, fire alarm, and audio evacuation systems, that are discrete systems incorporated into a public building or work and that are produced as complete systems, are evaluated as a single and distinct construction material regardless of when or how the individual parts or components of those systems are delivered to the construction site. Materials purchased directly by the Government are supplies, not construction material.

"Cost of components" means,

(1) For components purchased by the Contractor, the acquisition cost, including transportation costs to the place of incorporation into the end product (whether or not such costs are paid to a domestic firm), and any applicable duty (whether or not a duty-free entry certificate is issued); or

(2) For components manufactured by the Contractor, all costs associated with the manufacture of the component, including transportation costs as described in paragraph (1) of this definition, plus allocable overhead costs, but excluding profit. Cost of components does not include any costs associated with the manufacture of the end product.

"Domestic construction material" means,

(1) An un-manufactured construction material mined or produced in the United States; or

(2) A construction material manufactured in the United States, if the cost of its components mined, produced, or manufactured in the United States exceeds 50 percent of the cost of all its components. Components of foreign origin of the same class or kind for which non-availability determinations have been made are treated as domestic.

"Foreign construction material" means a construction material other than a domestic construction material.

"United States" means the 50 States and the District of Columbia, U.S. territories and possessions, Puerto Rico, the Northern Mariana Islands, and any other place subject to U.S. jurisdiction, but does not include leased bases.

(b) Domestic preference. (1) This clause implements the Buy American Act (41 U.S.C. 10a - 10d) and the Balance of Payments Program by providing a preference for domestic construction material. The Contractor shall use only domestic construction material in performing this Contract, except as provided in paragraphs (b)(2) and (b)(3) of this clause.

(2) This requirement does not apply to the construction material or components listed by the Government as follows,

None

(3) The CO may add other foreign construction material to the list in paragraph (b)(2) of this clause if the Government determines that,

(i) The cost of domestic construction material would be unreasonable. The cost of a particular domestic construction material subject to the requirements of the Buy American Act is unreasonable when the cost of such material exceeds the cost of

foreign material by more than 6 percent. For determination of unreasonable cost under the Balance of Payments Program, the CO will use a factor of 50 percent;

(ii) The application of the restriction of the Buy American Act or Balance of Payments Program to a particular construction material would be impracticable or inconsistent with the public interest; or

(iii) The construction material is not mined, produced, or manufactured in the United States in sufficient and reasonably available commercial quantities of a satisfactory quality.

(c) Request for determination of inapplicability of the Buy American Act or Balance of Payments Program. (1)(i) Any Contractor request to use foreign construction material in accordance with paragraph (b)(3) of this clause shall include adequate information for Government evaluation of the request, including,

(A) A description of the foreign and domestic construction materials,

(B) Unit of measure,

(C) Quantity,

(D) Price,

(E) Time of delivery or availability,

(F) Location of the construction project,

(G) Name and address of the proposed supplier; and

(H) A detailed justification of the reason for use of foreign construction materials cited in accordance with paragraph (b)(3) of this clause.

(ii) A request based on unreasonable cost shall include a reasonable survey of the market and a completed price comparison table in the format in paragraph (d) of this clause.

(iii) The price of construction material shall include all delivery costs to the construction site and any applicable duty (whether or not a duty-free certificate may be issued).

(iv) Any Contractor request for a determination submitted after Contract award shall explain why the Contractor could not reasonably foresee the need for such determination and could not have requested the determination before Contract award. If the Contractor does not submit a satisfactory explanation, the CO need not make a determination.

(2) If the Government determines after Contract award that an exception to the Buy American Act or Balance of Payments Program applies and the CO and the Contractor negotiate adequate consideration, the CO will modify the Contract to allow use of the foreign construction material. However, when the basis for the exception is the unreasonable price of a domestic construction material, adequate consideration is not less than the differential established in paragraph (b)(3)(i) of this clause.

(3) Unless the Government determines that an exception to the Buy American Act or Balance of Payments Program applies, use of foreign construction material is noncompliant with the Buy American Act or Balance of Payments Program.

(d) Data. To permit evaluation of requests under paragraph (c) of this clause based on unreasonable cost, the Contractor shall include the following information and any applicable supporting data based on the survey of suppliers:

(End of clause)

I.19 PATENT INDEMNITY - CONSTRUCTION CONTRACTS (FAR 52.227-4) (APR 1984)

Except as otherwise provided, the Contractor agrees to indemnify the Government and its officers, agents, and employees against liability, including costs and expenses, for infringement upon any United States patent (except a patent issued upon an application that is now or may hereafter be withheld from issue pursuant to a Secrecy Order under 35 U.S.C. 181) arising out of performing this Contract or out of the use or disposal by or for the account of the Government of supplies furnished or work performed under this Contract.

(End of clause)

CLAUSES THAT PERTAIN TO ARCHITECT AND ENGINEER ONLY:

I.20 LISTING OF CLAUSES INCORPORATED BY REFERENCE

NOTICE: The following solicitation provisions and/or Contract clauses pertinent to this section are hereby incorporated by reference:

I. FEDERAL ACQUISITION REGULATION (FAR) (48 CFR CHAPTER 1)

CLAUSE NUMBER	DATE	TITLE
52.243-1	AUG 1987	CHANGES - FIXED PRICE (ALT III) (APR 1984)

II. NASA FAR SUPPLEMENT (NFS) (48 CFR CHAPTER 18)

CLAUSE NUMBER	DATE	TITLE

No NFS By-reference clauses in Section I. 17

[END OF SECTION]

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ATTACHMENT J-A
STATEMENT OF WORK

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1.0 ADMINISTRATIVE SUPPORT

1.1 General Information

1.1.1 Annex Description

This Annex identifies the Administrative Support Services that cannot be identified with a single annex or may be related to the performance of services throughout this Contract. Even though this Annex contains certain guidelines, the Contractor has the responsibility to establish a management program to efficiently and effectively use, to the full advantage, the facilities and equipment provided by the Government.

1.1.2 Land and Utilities

The Government will furnish all available land and utilities as defined below, to the Contractor for performance of work defined in this Contract.

1.1.2.a. Land: In the event insufficient, Government furnished facilities are provided, as determined by the Contracting Officers Technical Representative (***COTR**), the Government will make available to the Contractor land suitable for temporary buildings or trailers. Lay down areas and storage areas will be provided to the Contractor upon request and availability. Modifications/alterations, such as fencing, temporary buildings, or trailers will be allowed only with the approval of the ***COTR** prior to installation and according to the Center's current standards. When open areas are provided, the Contractor shall ensure the areas are actively utilized and are free of any rubbish, construction debris, tools, scaffolding, equipment, and materials that may be a safety threat for slips, trips, and falls. The Contractor shall make every resource effort to ensure their operations do not distract from the overall appearance of the site.

1.1.2.b. Utilities: The Government will provide all utilities for Government furnished facilities assigned to the Contractor for the performance of services identified in this Contract. The Contractor shall exercise reasonable efforts to conserve energy per ****JA Management Guidance 8836.1, Johnson Space Center's (*JSC's) Energy Conservation Policy**. The Center's telephone system will be made available to the Contractor for official Government business. The Contractor shall be responsible for non-contract related and personal long distance toll charges.

1.1.3 Definitions and Acronyms

Definitions and acronyms used throughout this Contract are identified in Tables 1-1 and 1-2. Words that have specific meaning in the context of this Contract Statement of Work (SOW) have been **Bolded** and "*" and further defined in Table 1-1. Webster's Ninth New Collegiate Dictionary will be used for defining words not specifically addressed. Items that have been **Bolded** and "**" are located in the ***JSC** Technical Reference Library (***TRL**).

1.1.4 Records, Reports, and Submittals

The Contractor shall maintain all records and documentation necessary to substantiate that all services have been accomplished as specified and shall support all Government audits with documentation retrieval as scheduled by the Government. Additional records, reports, and submittals required by the Government are identified in each applicable annex section.

Records, reports, and submittals and all associated documentation are to be maintained and provided as required in the various Section C, Statement of Work Annexes and Section J, Data Requirements List (DRL's) and Data Requirement Documents (DRD's). To accomplish this, the Contractor shall plan, implement, and maintain a comprehensive record, reports, and submittal management process that facilitates continual Government electronic access to all documentation records, reports, and submittals. The data items formatted in the databases, reports, and documents existing on the effective date of this Contract illustrate the frequency, category and activity description to be maintained in the electronic database. They are included for reference and to establish minimum requirements.

Selected records, reports and submittals are required by the Government via DRD's. Submittals may include, plans, procedures, Standard Operating Procedures (SOP's) and are identified in the separate annexes. Selected records, reports and submittals are further defined as:

1.1.4.a. Records: All logs, records, files, databases, workload data, etc., identified in the annexes shall be maintained throughout the life of the Contract and as otherwise may be required by law or regulatory authority. Records shall be available for review by the ***COTR** and auditors or other Contractors with oversight responsibility, and upon termination of the Contract, shall be turned over to the Government. All records shall contain supporting documentation to provide a complete audit trail. The Contractor shall maintain records, logs, databases, reports, data for all Section C Statement of Work requirements, including actual number of units of work performed for each respective Contract line item workload unit, for each fiscal and Contract year.

1.1.4.b. Reports: Selected reports and outline instructions for the development of the format are contained on individual DRD's in Section J,. Due dates are specified for each separate report. When the due date falls on a Saturday, Sunday, or holiday, the report is due by 8 a.m. local

time the next business day. Reports shall be electronically available unless otherwise specified. The Contractor shall develop reporting formats, to be reviewed and approved by the Government, that are electronically available and retrievable per Annex 6. Proposed changes to required forms will be submitted to the ***COTR** for consideration and approval.

1.1.4.c. Submittals: Detailed plans, manufacturer's installation, testing and product data, and other submittals that are required on an infrequent or one-time basis are identified in the applicable annexes, and as required per Task Order (TO) or Delivery Order (DO) requirements. Typically, the required submittals require the Contractor to propose or define his/her plan or methodology of providing a specified service. Updates are required whenever changes to the stated plan occur. Selected submittals and outline instructions for the development of the format are contained in individual DRD's in Section J. Due dates are specified for each separate submittal. When the due date falls on a Saturday, Sunday, or holiday, the submittal is due by 8 a.m. local time the next business day. Unless otherwise specified, the Contractor shall develop other submittal formats, with NASA concurrence, which is electronically available and retrievable per Annex 6.

1.1.5 Contractor Personnel

1.1.5.a. Contractor Attire

Contractor personnel shall:

1) Wear attire that is suited to the work or situation being performed.

2) Wear personnel protective equipment required by workplace hazard analyses performed by the Contractor as required by the Occupational Safety and Health Administration (OSHA).

3) Crafts and personnel required to perform work at multiple locations at ***JSC** shall wear easily identifiable uniforms that display the name of the Contractor on the front of the shirts.

1.1.6 Directives

Center Operations Directorate (COD) Enforcement of Directives: ***JSC** and COD will issue and enforce directives, manuals, guidelines and instructions which establish policies and guidelines for organizations and persons on site (***JSC**, Ellington Field (EF), and Sonny Carter Training Facility (SCTF)) or utilizing site facilities/services

1.1.7 Restrictions, Limitations and Special Conditions

a. In performance of work under this Contract, the Contractor shall create and implement a sequence of procedures that will identify; means of access, space for storage of materials and equipment, use of approaches, corridors, elevators and stairways, and other similar accommodations as required. Since space for storage is limited in work areas, the majority of storage must be outside or at the Contractor's assigned area on ***JSC** grounds. Only materials to be used for work under this Contract may be stored at assigned areas or work areas. Delivery and storage of materials and equipment shall be made to minimize interference with Government operations and personnel.

b. Building and work areas may be occupied during performance of work under the Contract. In the execution of work, the Contractor shall operate in a manner to not create unscheduled downtime in all occupied areas, computer rooms, mechanical rooms, laboratories, electrical and telephone equipment areas. Any required interruptions of operations shall be scheduled through the Work Control Center (WCC). The Contractor shall plan and comply with the appropriate personnel entry restrictions to secure facilities to accomplish work identified in this contract.

c. Furniture and Portable Office Equipment: For all work that requires furniture and portable office equipment in the immediate work areas to be moved, relocated, and replaced to the original position, the Facility Contractor shall coordinate with the Logistics Contractor as identified in the Associate Contractor Agreement (ACA), as required in clause H. The Logistics Contractor will be responsible for work that involves furniture and portable office equipment moves.

Facility Contractor Support: If the work required will not allow furniture and portable equipment to be replaced to its original location, new locations will be coordinated with the requestor and the Logistics Contractor. The Facilities Contractor shall cover items that remain in place within the area of Contract operations and protect the items against damage or loss. The Facilities Contractor shall have to pay for materials lost or damaged when performing all fixed price work.

d. The Contractor shall, at all times, keep the work, office, shop, and warehouse areas, including storage areas, free from accumulations of waste materials to provide a safe work environment. Each work and project site shall be cleaned up at the end of each day. All debris (whether blown in or Contractor generated) on the job site shall be packaged up and disposed of properly. All materials shall be stacked and secured to prevent wind gusts from blowing materials around the site. If the ***COTR** deems that the site is unsightly, or that there are unsafe conditions

from clutter or other causes, the ***COTR** may instruct the Contractor to immediately stop work and repair/clean up the site. All surfaces not directly associated with the project requirements shall be returned to original condition at the conclusion of the project this includes grass, dirt, sprinkler systems, etc.

e. During the performance of the work, the Contractor shall maintain a clean worksite which may require removal from the work premises any rubbish, tools, scaffolding, equipment, and materials that are not the property of the Government. The clean worksite will provide the Contractor with a work area to efficiently, effectively, and safely perform work identified in the Statement of Work (SOW).

f. The Contractor shall be responsible for obtaining any necessary licenses and permits, and for complying with any Federal, State, and Local Laws, codes, and regulations applicable to the performance of the work. The Contractor shall also be responsible for all materials delivered and work performed until completion and acceptance of the entire work, except for any completed unit of work, which may have been accepted under the Contract.

g. The Government may undertake or award other Contracts for additional work at or near the site of the work under this Contract. The Contractor shall fully cooperate with the other Contractors and with Government employees as identified in the ACA, as required in section H, and shall carefully adapt scheduling and performance of the work under this Contract to accommodate the additional work, heeding any direction that may be provided by the ***COTR**. If this coordination causes a schedule slippage, the ***COTR** shall be notified.

h. To avoid damage to Government property, the Contractor shall preserve and protect all structures, facilities, utilities, equipment, and vegetation (such as trees, shrubs, and grass) on or adjacent to the work site, which are not to be removed and which do not unreasonably interfere with the work required under this Contract. The Contractor shall only remove trees when specifically authorized by the ***COTR**, and shall avoid damaging vegetation that will remain in place. If any limbs or branches of trees are broken during Contract performance, or by the careless operation of equipment, or by workmen, the Grounds Contractor shall be contacted by WCC to remove debris and trim those limbs or branches with a clean cut and paint the cut with a tree pruning compound. The Contractor shall protect, from damage, all existing improvements and utilities at or near the work site and on adjacent property of a third party, the locations of which are made known to or should be known by the Contractor. The Contractor shall promptly repair any damage to facilities, at no cost to the Government, including those that are the property of a third party, resulting from failure to comply with the requirements of this Contract or failure to exercise reasonable care in performing the work.

i. Unless noted on drawings or otherwise specified, new work in extension or adjacent to existing conditions shall correspond to existing work, in respect to material, workmanship and finish. Existing work that is cut, drilled, altered, removed or temporarily removed by the Contractor and replaced in order to perform work under the Contract, shall match existing work except where indicated or specified otherwise. Structural members shall not be altered without certified structural analysis and approval of the ***COTR**

j. The Contractor shall use only established roadways, or use temporary roadways constructed by the Contractor when and as authorized by the ***COTR**. When it is necessary to cross curbs or sidewalks, the Contractor shall protect them from damage. The Contractor shall repair any damaged curbs, sidewalks, or roads at no cost to the Government, including those that are the property of a third party, resulting from failure to comply with the requirements of this Contract or failure to exercise reasonable care in performing the work.

k. The Contractor shall comply with the terms and conditions of all environmental permit requirements and other authorizing documents (see ****Environmental Regulatory Permits**) held by the Government.

l. Work shall be in compliance with all applicable Federal, State, and Local laws, permits and permit conditions, Presidential Executive Orders, and NASA procedures. All maintenance of environmental systems and equipment shall be conducted in accordance with Annex 2, existing Operations and Maintenance (O&M) manuals and procedures, and all regulatory requirements.

m. This Contract does not include the management of the following: radioactive, pyrotechnics, and medical and infectious wastes and materials.

n. Work performed for this SOW shall be subject to all ***JSC** permits and applicable external and internal regulatory requirements.

o. The Contractor shall plan and comply with appropriate personnel entry restrictions to secure facilities to accomplish the work called for in this Annex.

p. All personnel performing construction, maintenance, and repair work within any ***JSC** facility shall sign in and out on the Facility

Managers (FM) building work log. Sign in/out is required for occupancy/evacuation purposes and shall be done for each separate activity even if performed on the same workday.

q. Shuttle ***Mission** restrictions are listed per Space Transportation System (****STS) Fact Sheet**.

r. Utility procedures are required per ****Utility Procedure Policy - JA MG 8410.02A** before performing any utility outage or service.

s. All work must be coordinated with Facility Manager approval through WCC.

t. Unique locations such as tunnels, user confined spaces, and other spaces will require confined space training and access. ***JSC** has both OSHA and ***JSC** confined space requirements.

u. ***JSC** has additional requirements in regard to OSHA lock out tag out. See Job Performance Requirement (JPR) 1700.

v. Scheduled maintenance and repair may be required to be performed after normal business hours (2nd and 3rd shifts) and over weekends. Examples: above ceiling work, work that could impact routine occupant activity, outages, asbestos abatement.

w. During maintenance or repair activities, if nearby or adjacent equipment is found needing service, then the craft personnel shall follow the procedures to install a Service Request Tag as detailed in CLIN 3.2.6 in Annex 3.

x. The Contractor shall be aware that NASA has requirements to utilize Leadership in Energy and Environmental Design (LEED) technology on modifications to existing facilities and all new facilities. Building 27 is built to LEED standards. Building 2N has been renovated to LEED standards. These facilities require unique repair, operations and maintenance.

y. Asbestos exists in some ***JSC** buildings, consequently, some maintenance and repair work will require OSHA Class I - III Asbestos Abatement.

1.1.7.1 Material Requirements

All materials, parts, and equipment shall be of equal quality or better than the existing and shall comply with the Industrial Standards and Codes in this Contract. The Contractor shall provide a system to review the parts replaced meets the manufacturer's requirements. All replacement items shall comply with energy efficient requirements per Paragraph 1.3, unless the system is not compatible with this type. Upon replacing any item or equipment which has maintenance and equipment identification stickers/tags affixed, the Contractor shall ensure a similar sticker/tag is affixed to the replacement item. The sticker/tags installed on equipment are provided for 3 functions and shall be capable of barcode scanning. The functions are to obtain elog data, maintenance ID tag that identifies required maintenance on the equipment, and equipment identification label (i.e. AH-45-1).

1.1.7.2 Covered Chutes

All chutes and containers for refuse and similar material shall be covered at all times or of such a design to fully confine the material to prevent the dissemination of dust and debris.

1.1.7.3 Trucking

The Contractor shall load all trucks leaving the site with loose debris in a manner that will prevent materials from leaving the confines of the truck. Onsite street cleaning to a broom clean condition shall be maintained on streets and crosswalks following any loose debris or material dropped from the bed or tires of trucks (e.g., mud) used by the Contractor.

1.1.7.4 Elevators

Any temporary use of an existing elevator shall be by arrangement with the appropriate Facility Manager (FM) and subject to their controls. Such use will be of an intermittent nature. The Contractor shall provide and maintain suitable and adequate protection covering for the elevator machinery, the hatchway entrance, and the interior of the elevator during the period of temporary use. Loads in excess of the rated capacity of the elevator will not be permitted. On completion of the work, the Contractor shall remove the protection coverings together with any resultant dirt and debris, and leave the equipment in a condition at least equal to that in which it was found.

1.1.7.5 Vehicles

The Contractor shall provide and maintain the vehicles used to convey Contractor personnel, materials, and tools on ***JSC** streets. The Contractor is responsible to provide all necessary vehicles for the performance of this Contract such as: electrical high line truck, man lifts, fork lifts, front end loaders, and flat bed trucks. Vehicles for conveyance shall be street legal and acceptable for use on public highways, including U.S. interstates. In addition, these vehicles shall be subject to the ****JSC 27996, Vehicle Code**. Parking of Contractor equipment, trucks, etc., shall be as approved and permitted by ***JSC** Security.

1.1.7.6 Beneficial Occupancy

a. The Government shall have the right to take possession of or use any completed or partially completed part of the work. Before taking possession of or using any work, the ***COTR** shall furnish the Contractor a list of items of work remaining to be performed or corrected on those portions of the work that the Government intends to take possession of or use. However, failure of the

*COTR to list any item of work shall not relieve the Contractor of responsibility for complying with the terms of the Contract. The Government's possession or use shall not be deemed as acceptance of any work under the Contract. Acceptance of work will not be completed by the Government until all work, including punch list and maintenance activation, is complete.

b. While the Government has such possession or use, the Contractor shall be relieved of the responsibility for the loss of or damage to the work resulting from the Government's possession or use. If prior possession or use by the Government delays the progress of the work or causes additional expense to the Contractor, an equitable adjustment may be made in the applicable DO price at the time of completion.

1.1.7.7 Work by Others

During the Contract, there will be various construction Contracts being performed at *JSC. These Contracts will be administered outside of this Contract.

The Contractor shall perform adequate scheduling and planning to continue all Contract work in full cooperation with these projects.

1.1.7.8 Deferral Codes

Deferral codes shall be used to identify work performed by the contractor which is not completed on schedule. Refer to Table 2-2 for maintenance work and Table 5-1 and 5-2 for Design and Construction projects at *JSC.

Government Caused: The following deferral explanations and related codes will be used when work actions cannot be accomplished due to Government interference. Re-performance as a result of Government caused delays shall be coordinated through the *COTR.

Access Denied: Access to a particular building, area, or equipment is denied or prevented by the Government, preventing accomplishment of a work action. Report code "GA" and reschedule.

Access Obstructed: The work cannot be accomplished as access to the equipment is physically obstructed (e.g., new wall constructed around the equipment, the equipment is installed preventing access, etc.) and further Government action is required to obtain access. Report code "GO" and reschedule unless notified by the *COTR to suspend maintenance actions.

Equipment not in Place: The work cannot be accomplished as the equipment has been, or is being, removed, replaced, modified, placed in storage, or never installed in the system. Report code "GE" and reschedule, unless notified by the *COTR to suspend maintenance actions.

Action Invalid: The requested action is inappropriate for the situation and the work cannot be performed. Report code "GI" and reschedule unless notified by the *COTR to suspend the work.

Safety Hazard: The action, equipment, or operation will present a safety hazard. Report code "GS" and reschedule unless notified by the *COTR to suspend work.

Contractor Caused: Any uncompleted maintenance actions not meeting one of the deferral codes above shall be coded "CC" for Contractor Caused and rescheduled.

1.1.8 Information Technology Systems

It is at the discretion of the Contractor to utilize the Government provided systems or to initiate new systems for the purpose of increasing efficiency and to meet Contract requirements. However, the new systems shall parallel and act in the same manner as the Government provided systems. If the Contractor proposes to deviate from the existing systems, all proposals shall be submitted in writing, through the *COTR, for approval prior to implementation.

In the event the Contractor uses leased software, the Contractor is required to prepay the lease for one year beyond the end of the Contract. The lease shall allow and license the Government and the follow-on Contractor to use the software. Upon termination of the Contract, return to the Government all current source/compiled programs, documentation, data, or similar software data, in a usable format.

1.1.9 General Meeting Participation

The Contractor shall participate in meetings with NASA, *JSC customers, and/or *JSC Contractors to facilitate the objectives as identified in the SOW. The Contractor will be expected to participate with appropriate technical disciplines or management. Examples of these meetings are: control boards, incident investigations, status briefings, continuous improvement activities, operations reviews, special review committees/boards external to *JSC conducting meetings at *JSC, scheduling meetings, quality reviews, customer tagups, and safety meetings. The *COTR will request Contractor attendance even though the meetings may be called by NASA or *JSC customers. These meetings will be held at or in close proximity to *JSC.

1.1.10 Radio Communications

The Government will issue to the Contractor 127 hand held units and 6 base stations for use at *JSC. The radios will be issued with batteries, battery chargers and base stations identified as Government furnished equipment. The Contractor is responsible for purchase and replacement of batteries for all the radios. Replacement batteries must meet manufacturer's requirements. The Contractor shall properly dispose of batteries. The Contractor will return the radios to the Government for maintenance or repair.

Damage resulting from accidents, unauthorized transportation between sites, neglect, misuse, causes other than ordinary use, and loss or theft of any radio shall be reported to the Government in a survey report.

No radio transmissions are permitted in Buildings, 4 South, 5, 7, 30MOW, 30 South, 35, Energy Systems Test Area (ESTA) and posted buildings that indicate that no radio transmissions are allowed in that building or specified areas. The radio must be turned off before entry to these buildings and areas.

1.1.11 Applicable Documents List

Applicable documents used throughout this contract are identified in Table 1-3 Applicable Documents List.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
1.2	Work Management and Control			
	Ensure all requests for work are received and processed	***Man and operate** a WCC 24 hours a day, 7 days a week independent from the Operations Control Center (OCC) in order to receive, input, categorize, prioritize, schedule, track and document all work on facilities at ***JSC**. All WCC services shall be available, i.e. an answering service is not acceptable. Utilize existing methods for the ***JSC** customers to contact WCC, (e.g., phone contact, electronic email address, web address) to request work and obtain the status of work requested.	365 Days **80,000 Work Orders**	WCC accurately receives, processes, and documents all work on time.
		For all work requested, WCC shall record in the Computerized Maintenance Management System **(*CMMS) Database** sufficient information for effective and efficient disposition of work such as: the work order number, requester's name, requesting organization, location of work, category or classification, date requested, schedule, and any Government tracking number associated with requested work. (e.g. Work Authorization Documents (WAD) or Construction of Facilities (CoF) project number, Hazard Abatement Tracking System (HATS) number). All work status shall be updated and available on the web, to the Government, by 7:00 a.m. the next workday after completion of any and all actions up to and including rework or closeout and warranty.		See above.
		a. Receive all work requests and provide to the requester at the time of request the work order number and schedule based on the appropriate Contract Line Item Number (CLIN) or classification of work. Accurately schedule and classify work per this Contract (e.g., Emergency, Urgent, Routine, or Deferred work). Input work description into the ***CMMS Database** at the time of the request. Should the requestor and Contractor not agree to classification; the Contractor shall respond based on requester classification. The Contractor can pursue reclassification. Definitions of work classifications are defined in Annex 2, Table 2-1.		All work received and accurately recorded and maintained in the ***CMMS Database**. Receive and accurately schedule work on time. Notify customer of schedule and work order number at time of request.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		b. For work requested through the WCC that is not specifically covered by a Contract CLIN, notify the requester that the work is being submitted to the ***COTR**. Submit the following to the ***COTR** within 24 hours of request: 1. Description of work requested. 2. Description of the Contractor work to be performed to satisfy the request. 3. Identify the cost for a task order per Annex 4 within 5 days of the request. In the case of emergency work, mitigate and respond per CLIN 2.3.2, Non Specified Equipment Emergency Response.		Work not specifically covered in Contract is accurately determined and submitted to the ***COTR** on time. Mitigate and respond to all emergency work assigned as specified.
		c. The work order number given to the work requester shall remain the same regardless of the project/task phasing or the number and kinds of crafts assigned. Each work order number shall provide a cradle-to-grave audit trail until all the work requested is completed. Numbers shall be consecutive and accounted for at all times in order to track, schedule, status, etc., all work requested. Original work order numbers must remain open until all work is completed. Any closed work order found not to be completed must be reopened and re-worked utilizing the original work order number. Re-work phased work or continued work shall not be opened under a different work order number. The Contractor shall clearly establish Work Order Parent/Child relationships. The Child Work Order is described as the original Parent Work Order Number with an alphabet at the end to cover the various parts or stages of work (i.e. Study, Memorandum of Understanding (MOU), design, estimating, construction, re-work, etc.). For example, if the Parent Work Order Number is 496485, then Child Work Order Numbers could be 496485A, 496485B, 496485C, etc.		Accurate scope of work provided on time. At any given time the Government and customer requestors will know work number and status of the performance of the work.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		d. Update and maintain the required ***CMMS Database** fields whenever a change occurs, (e. g., changes in classification, funding availability, schedule, location, etc.). Information shall be available and current for Government review 24 hours a day, 7 days a week.		Work only performed with a work order number. All ***CMMS Database** inputs are accurate and on time. On time is within 24 hours of change.
		e. Notify the requestor, respective FM, and Alternate FM of work scheduled at least 48 hours prior to commencement of work. This notification shall be face to face, by email, or by phone message. Work shall not commence until work has been scheduled and the outage approval, if required, has been received. Emergency situations shall be handled as required real time. The FM shall be notified as soon as possible of the emergency response.		Notice of scheduled work provided on time and accurately. Required approval is obtained before work starts.
		f. Provide notice of completion of work to the requestor within 24 hours after work completion. The notice shall include the work order number, work performed, completion date, etc. This notification may be accomplished electronically.		Notice of completed work provided on time and accurately.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		g. Track and document all work in the ***CMMS Database**. Record the date and time of work accomplished, quality control inspection date where applicable and required fields within the ***CMMS Database** to provide a complete audit trail of work accomplished such that at any given time the Government and customer requestors will know work number and status of the performance of the work. Update and maintain the work order completion information in the ***CMMS Database** for inclusion in specified reports or metrics as required by this Contract or as directed by the ***COTR**.		All data is complete within the ***CMMS Database**. All data inputs are accurate and on time. On time is within 24 hours of change.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
1.3	Facilities	Government furnished facilities: Government furnished facilities or portions thereof, to be provided to the Contractor, are identified in the ****List of Contractor Facility Floor Plans** and ****Drawings of Contractor Facility Floor Plans**. The Contractor may modify/alter, at no cost to the Government, the facilities per existing Center standards and shall provide engineered design of proposed changes to the ***COTR** for approval, and shall only proceed with the modifications with the approval of the Contracting Officer. Any modifications of facilities that affect utility consumption are to be made in accordance with the National Energy Policy Act 2004 and all subsequent legislation and Executive Orders that pertain to Energy and Water Conservation. Documentation identifying compliance with energy conservation requirements shall accompany requests for facility modification to the ***COTR**.		
1.3.1	Building Manager Designate a Building Manager	Designate a Building Manager to manage activities necessary for maintenance of each Government furnished facility in which the Contractor is the sole occupant (e.g., Buildings 321, 323, 325, 327, 329, 330,). NOTE: Government furnished facilities are identified in ****List of Contractor Facility Floor Plans** and ****Drawings of Contractor Facility Floor Plans.** Coordinate applicable Contractor operations with the NASA FM (for joint use facilities). Perform FM duties in the Government furnished facilities. NOTE: Reference the ****Facility Managers Handbook** for a list of FM duties and responsibilities.	105,248 Square Feet	Building managers perform effective FM duties.
1.3.2	Maintain Facilities Maintain Government furnished facilities	Ensure Contractor occupied and controlled facilities (e.g., Buildings 321, 323, 325, 327,329, 330) are maintained in a clean and safe condition and exercise reasonable care, security, and protection of same. Comply with all applicable Life Safety Codes, Fire Protection, Energy and Water Conservation Directives and Uniform Building Codes during occupation or use of facilities.		No instances of unsecured facilities, safety violation, fire protection discrepancy, or energy or water conservation regulation violation.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		Maintain physical security of all assigned facilities, including locking the facility when unoccupied, and provided keys. Establish a Key Control Program that provides a complete audit trail of all keys issued.		Issued keys shall be accounted for at all times.
1.3.3	Facilities Utilization Records Maintain facilities utilization records	Maintain Facilities Utilization Records by indicating the Contract functions, personnel, and use of Government furnished facilities redlined on Facility Housing Plans (FHP).		Records are accurate and revisions submitted on time.
		Provide and maintain floor plans showing accurate locations of Contract functions in the various Government furnished facilities. Contract functions shall be identified by Annex and sub-Annex level on drawings.		
		Revisions are submitted to the *COTR within 15 days of each revision.	As required per changes	
1.4	Contractor Work Area Cleaning Maintain safe, orderly, and clean work areas and Government furnished facilities	Perform housekeeping to keep areas safe, orderly and clean in all work areas, staging areas, and Government furnished facilities.		All work and material staging areas and facilities are kept orderly in appearance, safe, and clean.
		Keep work areas, and Government furnished facilities and areas in which the Contractor operates and maintains, free of debris, accumulation of unorganized parts and supplies, dust, lubricants, unused tools, abandoned equipment, etc. Clean up work and project sites at the end of each day.		
		Keep shops, lay down areas, mechanical rooms, and warehouse areas broom clean and free of any debris, scrap, litter, refuse, or unorganized storage.		No accumulations past 90 days.
		Materials shall be removed within 30 days after identification for excess or disposal.		
		Keep all areas free of accumulations of material being staged for processing to excess, refuge, or disposal.		

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
1.5	Installation Accountable Government Property (IAGP) Maintain Installation Accountable Government Property	Perform maintenance and repair on IAGP, defined in Section J. Major repair or replacement for IAGP shall be defined as the lessor of 50 percent of the replacement cost or $5000 per occurrence. Contact the ***COTR** with documented price proposal to identify all repairs exceeding 50 percent of the replacement cost for further analyses and resolution. Perform all repairs necessary to keep the equipment being 100 percent available to perform its intended function and provide necessary output. Maintain complete historical and current documentation of IAGP and material inventories as listed in Section J. Provide annual accounting of all items to ***COTR**.	Per Section J 1 Report	Equipment to be available to perform its intended functions and output during its operating period.
1.6	Quality Assurance (QA)			
1.6.1	QA Program Provide, implement, and maintain a proactive quality program	The Contractor shall establish, implement, and maintain a QA Program that complies with the requirements of ANSI/ISO/ASCQ Q9001-2000. NOTE: Third party certification/registration is not required. Provide continual electronic access to all QA process documentation, such as: work methods, standard operation procedures, quality manual, and corrective action tracking system. For all quality assurance program audits performed, the Contractor shall establish and maintain accessible records to provide clear evidence of conformity of requirements and of the effective operation of the QA program. A Quality Assurance Manager (QAM) shall be identified and stationed at ***JSC** to ensure an efficient and effective QA Program. The QAM shall be responsible for overall management of the QA Program and shall have authority to act in all Quality Assurance matters for the Contractor. The QAM shall report directly to the Contractor's onsite management authority or offsite upper management. The QAM shall not have any other duties in addition to quality control. The QAM shall be responsible for reporting on performance of the Contractor's QA program.	1 Program	QA program meets the QA plan and Contract requirements. QA program is compliant with ISO 9001-2000. Audit results, associated corrective action plans, and records are provided on time. QAM monthly reports accurately reflect QA program and ISO 9001 performance.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		The QAM shall be onsite during ***Core Hours** during Contract performance. At no time during ***Core Hours** shall the QAM be a single point of failure. An alternate QAM shall be identified in the QA plan and the requirements for the alternate shall be the same as for the designated QAM.		QAM or designated alternate available at all times.
		By the 10th of each month, measure and report QA program performance, customer satisfaction metrics, and "high visibility" area metrics and corrective action status. "High Visibility" metrics are Safety, Special Events, WCC, ***CMMS Database**, Environmental Operations Services, Maintenance and Repair, Operations, Construction, and Engineering. Establish a system to retrieve and report customer feedback and metrics to effectively improve delivered products and services.	12 Reports	All reports are submitted accurately and on time.
1.6.2	QA Plan Develop and update QA Plan	Submit a QA plan that is compliant with ANSI/ISO/ASQ Q9001-2000. The initial plan shall be prepared in accordance with DRD AN-1-3, Quality Assurance Plan and is subject to Government review and approval.	1 Plan	QA plan is compliant with ANSI/ISO/ASQ Q9001-2000. Plan was prepared in accordance with DRD AN-1-3.
		Update and maintain the QA plan to ensure it remains compliant with ANSI/ISO/ASQ Q9001-2000.		QA plan remains compliant all with ISO 9001 requirements.
		Perform QA in accordance with the Contractor's approved QA plan attached in Section J.		QA is performed per the QA plan.
1.6.3	Customer Satisfaction Metrics	Customer satisfaction metrics shall be obtained through an automated electronic query upon completion of work orders for work performed in Annexes 1 through 7.	Monthly	Customer Satisfaction Metric Reports are accurate and posted in the Store Front.
		The customer satisfaction survey will be created by the contractor. The ***COTR** must approve the survey questions.		Customers are satisfied.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
1.7	Safety and Health			
1.7.1	Safety and Health Program Implement the Contractor Safety and Health Program in accordance with *JSC requirements	Develop, implement, and maintain a unified safety and health program for all Contract team members according to the Contractor developed plan in CLIN 1.7.2. The program shall be based upon the latest revision of the **JPR 1700.1, JSC Safety and Health Handbook. Upon Government approval of any revision to the Safety and Health plan, the program shall be updated within 30 days.	1 Safety and Health Program	Program meets all OSHA and NASA requirements and is updated on time per the revised Safety and Health plan.
1.7.2	Safety and Health Plan Establish and implement a Safety and Health Plan	Establish, maintain, and implement a Safety and Health Plan in accordance with DRD AN-1-1, Safety and Health Plan. Implement the plan as approved by the Government. Review and update the plan *Annually per DRD AN-1-1 or when directed by the CO.	1 Safety and Health Plan	Plan fully implemented as approved and in complete accordance with NASA safety and health requirements.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
1.7.2.1	Safety and Health Training Program	The Contractor (prime or its partners and subcontractors) shall develop, implement, and maintain a unified safety and health training program that is integral to the Contractor's Safety and Health Program. As a minimum the Contractors Safety and Health training program shall : a. Flow down to all subcontractors and sub-tier subcontractors. b. Meet OSHA and Federal requirements for its employees its partners and subcontractors. c. Include the ***JSC** required Safety and Health training prior to site access. d. Include validation method that ensures all employees including subcontractor employees meet all Safety and Health Training requirements. e. Include a method to validate the prime's and subcontractor's employees' comprehension of the Contractor's Safety and Health training. f. Include validation of craft skill and qualification levels for electricians, pipe fitters, scaffold erectors, pressure system workers, plant and plant system maintenance workers and operators, plumbers, and welders. g. Include a proactive means to encourage employees and subcontractor employees to apply for training. h. Includes recognition for employees and subcontractor employees that put into practice Safety and Health training. i. Be included in the Contractors Safety and Health Plan CLIN 1.7.2.	1 Program	Training records are readily available for each employee. All employees and subcontractor's employees have the minimum required Safety and Health awareness training required for site access. No example of employees being allowed to work with expired training or inadequate Safety and Health training and skill validation. Employees are trained and pre-qualified to perform work in their respective skill.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
1.8	Energy and Water Conservation			
1.8.1	Energy and Water Conservation Program Implement Energy and Water Conservation Management Plan.	Implement an energy and water conservation program per the requirements in ****JSC's Energy and Water Conservation and Management Plan** and a Heating/Ventilation/Air Conditioning (HVAC) seasonal equipment adjustment program per the requirements in ****HVAC Seasonal Adjustment Planning Process.** When the Utility Management and Operation Action Team updates these programs, along with the ****Annual Plan for Management of JSC's Kilo-Volt Amps (kVA) Demand** document, implement all three per the yearly updates.	365 days plus ***Yearly** update	Documents are correctly and continuously implemented.
1.8.2	Utility Management and Operation Action Team Maintain operational documents for Energy and Water Conservation Management.	Establish a Utility Management and Operation Action Team (UMOAT) to develop and maintain on-going operational documents for ***JSC's** Energy and Water Conservation Management. The team shall meet bi-weekly for 1-1/2 hours to establish the contractor's methods, processes and management responsibilities for developing on-going energy and water conservation procedures and operational and management measures at ***JSC**. The team shall review and address the contents of the following documents: a. ****JSC's Energy and Water Conservation and Management Plan** b. ****HVAC Seasonal Adjustment Planning Process** c. ****Annual Plan for Management of JSC's kVA Demand.** The team's final determinations shall be used to continually update each operational document. The government shall approve the completed, ***Yearly** updates before implementation. The first team meeting shall occur within 60 days after contract start (not including phase-in period). A complete review and update of each document shall occur by the end of each contract year.	26 meetings	Team updates accurately address the contents of the required documents. Updated documents maintain on-going operations that meet ***JSC's** Energy and Water Conservation requirements. Each document is updated by the end of each contract year.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		The team shall be co-chaired by the contractor's energy manager and **JSC's** Energy Manager. The contractor's Energy Manager shall organize the contractor's members to serve on the UMOAT. The team's membership shall consist of the personnel necessary to address the contents of the documents referenced above.		
1.8.3	Energy Efficiency and Water Conservation Team (EEWCT) Identify future approaches to accomplish energy and water reductions.	Establish an Energy Efficiency and Water Conservation Team (EEWCT) to identify, evaluate, develop, and submit future energy efficiency and water conservation opportunities to meet statutory and Presidential requirements that apply to ***JSC.** The EEWCT shall meet weekly for 1 hour and shall be co-chaired by ***JSC's** Energy Manager and contractor's Energy Manager. Provide the contractor personnel necessary to carry out the requirements of the ****Energy Efficiency Team Charter** and the enclosed responsibilities of the EET members. The first team meeting shall occur 60 days after contract start (not including phase-in period).	52 Meetings	The necessary personnel are provided and the EEWCT charter is met.
1.8.4	HVAC Baseline Status Database	Develop a system which identifies and documents the operational hours or operational limits changes on HVAC equipment and lighting at ***JSC**. The system shall include a formal procedure that: a. Approves requested operational requirements of new or deactivated HVAC or lighting systems, b. Provides justification for those requested requirements on an annual basis, c. Updates the HVAC Baseline Status database on a monthly basis. d. Update the HVAC Baseline Status database within 14 working days of notification due to any operational change, equipment replacement, addition, or deletion.		System accurately, and on time, documents operational conditions of HVAC equipment and lighting ***JSC.**

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		The database shall contain electronic versions of ***JSC's** FHP's, updated by this contract. Each FHP in the database affected by the following shall show: a. The HVAC equipment on the FHP, and the area served by each unit, b. The respective operational capacities and limits, the corresponding hours of operation, the temperature settings for seasonal operations, and the On/Off status, c. All lighting panels with their corresponding operational hours and KW ratings, d. For the Mall buildings, include equipment capacities, locations, set points, and interlocks, e. The amount of energy saved or used by HVAC or lighting operational changes. See ****Y2K-HVAC & Lighting Baseline Status Report.** NOTE: This report is presently in paper form only. The Government shall have full time, web access to the database and shall be able use it to produce reports showing the above data sorted by building, piece of equipment, the equipment's operational status, or condition.		The correct FHP's are in the database and accurately identify the requirements.
1.8.5	Freeze Protection Plan DRD AN-1-2	a. Maintain and update ****Freeze Protection Plan** per DRD AN-1-2. An example of this plan is identified as ****Freeze Protection Plan.** Update the plan with incorporated changes on October 1.	One Plan	Complete and update plan on time.
		b. Perform a freeze protection survey ***Annually**. Survey all site equipment and facilities in September to identify all exterior exposed piping, hose bibbs and equipment which require insulation for freeze protection. Implement freeze protection requirements of equipment identified in survey and updated DRD AN-1-2.	One survey	Survey performed on time. Piping or equipment protected from freeze damage.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
1.8.6	Operational Parameter Document Control System (DCS)	Develop a document control system (DCS) that will provide an orderly management of operational hours or operational limits changes on HVAC equipment and lighting at ***JSC**. The DCS shall include a formal procedure that: a. Uses Operational Change Orders (OCO) and Limit Change Orders (LCO) to collect and request changes to equipment settings, b. Approves requested operational requirements of new or deactivated HVAC or lighting systems within 5 working days. NOTE: OCO's must be submitted to the ***JSC** Energy Manger for activating new HVAC equipment and deactivated equipment. c. Provides justification for operational changes requested for a year or more.		DCS accurate, and on time; manages operational hours or operational limits changes.
		Establish and implement a work instruction per ****Facility HVAC and Lighting Operational Baseline Development and Change Notification Process**, that provides: a. OCO/LCO forms to modify existing operational parameters and account for energy usage changes on HVAC equipment and lighting systems. b. A centralized operations base that serves as a focal point to receive and approve submissions of OCO's/LCO's. c. A method of justification for OCO's/LCO's that deviate from established *JSC Work Instruction for energy conservation guidelines. d. A method of providing temporary HVAC service for operational changes required for less than 72 hours.		Implements a work instruction that meets performance requirements.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
1.8.7	Procurement of Energy Star Rated Equipment	When it is life cycle cost effective, purchase energy consuming goods or products that earn the ENERGY STAR and that meet the ENERGY STAR specifications for energy efficiency (see http://www.energystar.gov). When ENERGY STAR products are not listed or available, purchase products that are in the upper 25 percent of energy efficiency as designated by FEMP (see http://www.eere.energy.gov/femp/technologies/eeproducts.cfm).		Products purchased meet energy efficiency designated by FEMP.
1.9	Functional Metrics	Develop, acquire, maintain, record, and report all contract performance metrics. These metrics are further defined in the referenced ****DRD MO-1-3, Functional Metrics.**	12 Reports	Metrics reports are accurate and received on time.
		Update metrics reports by the 10th of each month and per dates required in DRD MO-1-3. Provide continuous electronic access to the updated reports via the Local Area Network (LAN).		Report data is electronically available continuously.
1.10	Environmental Programs			
1.10.1	Environmental Requirements Ensure all activities are in compliance with all applicable requirements	The Contractor shall ensure that all work performed and equipment used to fulfill the requirements of this contract are in compliance with all Federal, State, and local regulations and public laws, including the Energy Policy Act of 2005 and Executive Orders 13101, 13123, and 13148. The Contractor shall also ensure that all work performed under this contract is in compliance with all applicable NASA and JSC directives, procedures and policies including NPR 8570.1, Energy Efficiency and Water Conservation; JPD 8500.1, ***JSC's** Environmental Excellence Policy; JPR 8500.1, *JSC Environmental Compliance Procedural Requirements; JPR 8550.1, JSC Environmental Management System and associated referenced documents; JPR 8553.1, ***JSC's** Energy and Water Conservation 5-Year Plan; and J69W-03, Energy Conservation, Draft NPR 8820.4 Center Pollution Prevention Program.		All Contractor activities performed and equipment used are compliant with Environmental Laws, Regulations, and Executive Orders identified in Applicable Documents List, Table 1-3.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		The Contractor shall provide data on affirmative procurement, waste reduction activity, energy efficient product procurement, and ozone depleting substances in accordance with DRD AN-1-7, Environmental and Energy Consuming Product Compliance Reports.		
		The Government remains the owner and operator of record for all environmental activities conducted at NASA owned properties unless otherwise documented in a signed agreement between NASA and the Contractor. The Contractor is advised that activities performed at ***JSC** and associated facilities are subject to Federal, state and local regulatory agency inspections to review compliance with environmental laws and regulations.		
		For ***JSC** issues, JSC's Environmental Office will be the single point of contact with Federal and state regulatory agencies and their representatives unless otherwise directed by the Contracting Officer or the Environmental Office. This includes correspondence, permit applications, on-site inspections, and other similar items to regulatory agencies. The Contractor will fully cooperate with any representative from any regulatory agency who may visit the job site and will provide immediate notifications to the ***COTR** and JSC Environmental Office in order for the ***COTR** or a representative of the Environmental Office to accompany them on any inspections (as practicable).		
		The Contractor will complete, maintain, and make available to the Contracting Officer, JSC Environmental Office, JSC Energy Manager, or regulatory agency personnel all documentation required under applicable laws and regulations to demonstrate environmental compliance. The Contractor will immediately notify by telephone, facsimile, and e-mail the ***COTR** and JSC Environmental Office if a Notice of Violation or other notice of noncompliance is issued to the Contractor.		All Contractor activities are included in Center program compilations.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		The Contractor will be responsible for all damages to persons or property resulting from Contractor fault or negligence as well as for the payment of any civil fines or penalties which may be assessed by any Federal, State or local regulatory agency as a result of the Contractor's violation of any applicable law, regulation, or NASA policy that implements requirements to meet any law or regulation. Should a Notice of Violation, Notice of Noncompliance, Notice of Deficiency, or similar regulatory agency notice be issued to the Government as a facility owner/operator on account of the actions or inactions of the Contractor or one of its subcontractors in the performance of work under this contract, the Contractor will fully cooperate with the Government in correcting any problems and defending against regulatory assessment of any civil fines or penalties arising out of such actions or inactions.		
1.10.2	Environmental Management System (EMS) Comply with all ***JSC** EMS requirements	All ***JSC** work will be conducted in compliance with ***JSC's** Environmental Management System (EMS). This includes identifying all contractor aspects (activities, services and products that have environmental impacts) in accordance with ***JSC** documented procedures. In general, these activities are broadly defined and not task-level. These aspects shall be evaluated by the Contractor in accordance with JPR 8553.1 prior to initiating new work and reviewed ***Annually** and updated as needed. All aspects shall be controlled through procedures or engineering controls or other appropriate methods to maintain compliance with ***JSC** requirements and goals.		All work complies with ***JSC's** EMS.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		These controls shall be documented in accordance with the Common Work Instruction (CWI) ****JE9W-06 EMS Aspect/Impact Assessment and Environmental Management Program (EMP) Process**. Corrective action shall be taken in accordance with the EMS when environmental nonconformance or noncompliance is identified. All equipment shall be maintained, calibrated, and repaired adequately in order to prevent an environmental nonconformance or noncompliance. All record-keeping and reporting required by ***JSC** directives and procedures will be maintained or submitted, as described in the applicable directives or procedures. All on-site contractor activities and personnel are subject to the ***JSC** EMS and associated compliance and audit reviews by NASA personnel.		
1.10.3	Affirmative Procurement Comply with all affirmative procurement requirements regarding purchasing materials containing recycled content	In order to meet the Government's goals for greening the government; such as reducing the quantity and toxicity of pollutants used and released to the environment, reducing the amount of solid waste placed in landfills, and conserving resources through reduction of energy and water usage; the Contractor shall incorporate the following into all activities performed. The Contractor shall use environmentally preferable alternatives when selecting materials, equipment and processes wherever they will meet performance requirements and are of comparable cost to other alternatives. Environmentally preferable is defined as utilizing or enhancing conservation of resources (energy, water, renewable and non-renewable resources) and/or generating reduced quantity of or less toxic pollutants (ozone depleting substances, hazardous wastes, air pollutants). Comparable costs are defined as costing no more than 10 percent more than virgin material or alternatives.		All items on the CPG list procured by the Contractor meet the minimum recycled content requirements, unless a waiver was received prior to purchase. All required information is accurately tracked and provided on time.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		The Contractor shall use life cycle costing, including environmental costs for energy and water usage, waste disposal, regulatory oversight and permitting, and ultimate disposal, for use in decision-making when selecting materials, equipment and processes in accordance with NASA Procedures Requirements (NPR) 8570.1 and Draft NPR 8820.4.		
		The Contractor shall proactively implement procedures and processes to reduce the amount of solid waste (trash) generated by its activities.		
		The Contractor shall comply with affirmative procurement requirements for all products identified on the Environmental Protection Agency (EPA's) Comprehensive Procurement Guideline (CPG) list (http://www.epa.gov/epaoswer/non-hw/procure/products.htm) that are procured by the Contractor for the performance of all contract requirements in accordance with Federal Acquisition Regulation (FAR) 52.223-4, FAR 52.223-9, FAR 52.223-10, and JPR 8550.1 Chapter 12. This means that if the Contractor purchases items on the CPG list, they shall contain the recommended recycled content or there must be a valid waiver in place as described in JPR 8550.1, Chapter 12.		
		Contractors shall track the purchase of all items listed on the EPA's CPG list whether they contain recycled content or not.		

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		The Contractor shall implement an internal waiver process that reviews and approves or disapproves each product purchased by the Contractor that does not meet minimum affirmative procurement requirements prior to the procurement of a non-conforming product. The waiver process shall include all the elements of the JSC Affirmative Procurement Waiver Process (JPR 8550.1, Chapter 12). All waiver requests and approval/disapprovals shall be documented and maintained for at least 2 contract years. The Contractor's waiver process is subject to audit or review by the ***COTR** and the Environmental Office to determine if it meets all essential requirements. If the Contractor chooses not to implement an internal waiver process, then all purchases of CPG items shall follow the JSC waiver process described in JPR 8550.1, Chapter 12. The Contractor shall comply with United States Department of Agricultural (USDA) 7 CFR part 2902, Guidelines for Designating Biobased Products for Federal Procurement. This includes all the elements listed above for EPA CPG listed items.		

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
1.10.4	Ozone Depleting Substances (ODS)	The Contractor shall comply with Federal procurement regulations, including FAR 23.803, EPA Clean Air Act regulations Title VI, and JSC requirements (JPR 8550.1 Chapter 5) concerning the procurement, handling, reporting, disposal, and elimination of ozone depleting substances (ODS) or ODS containing equipment In accordance with Clean Air Act (CAA), the Contractor shall maximize the substitution of safe alternatives to ODS to the extent practicable in subcontracts, solicitations, specifications and purchase descriptions for all applications identified in EPA Significant New Alternative Policy (SNAP): http://www.epa.gov/ozone/snap/index.html Unless a specific Waiver for Essential Uses (as referenced in JPR 1700.1 Chapter 9) has been approved, Contractor procurements: (1) may not include any specification, standard, drawing, or other document that requires the use of an ODS in the design, manufacture, test, operation, or maintenance of any system, subsystem, item, component, or process; and (2) may not include any specification, standard, drawing, or other document that establishes a requirement that can only be met by use of an ODS. The Contractor shall ensure that all Contractor employees complies with applicable CAA requirements for servicing ODS refrigerant containing equipment, including the use of EPA certified technicians and the use of EPA certified and registered recovery/recycling units. Intentional venting of ODS refrigerants and substitutes into the atmosphere is prohibited. All refrigerant leaks or releases greater than 25 lbs shall be immediately reported to the JSC Environmental Office by telephone, facsimile, and e-mail. The Contractor shall comply with CAA and JSC requirements for safe disposal of ODS refrigerant containing equipment. The Contractor shall contact JSC Environmental Office 30 days prior to disposal of any refrigerants removed or reclaimed from its facilities or equipment, including as part of a contract, trade, or donation.	75 Items	All required information is tracked, accurate and provided on time.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
1.10.5	Polychlorinated Biphenyls (PCB) Track equipment containing PCB	Identify and track each piece of equipment operated or controlled by the Contractor that contains PCB in concentrations of 1 mg/l or greater and comply with all regulatory requirements, as applicable. NOTE: This CLIN applies to equipment located at ***JSC** that contains PCB's prior to the Contractor involvement as identified in the ****PCB Containing Equipment Inventory List**.	75 Items	All required information is tracked, accurate and provided on time. All regulatory requirements are followed.
1.10.6	Participate in Recycling Programs Participate fully in all ***JSC** recycling programs	All on-site Contractor personnel shall place appropriate unused or discarded materials into ***JSC's** recycling programs, including: scrap metal, batteries (lead, nickel/cadmium, silver, mercury), fluorescent lamps, mixed paper, cardboard, pallets, aluminum cans, and any other material where on-site recycling is available. In addition, all ***JSC** Contractor personnel must not impede or degrade ***JSC's** recycling programs by improper waste or material disposal by placing non-recyclables or trash in recycling bins. All other municipal solid waste is to be placed in appropriate waste containers.		All personnel place recyclable discarded materials into ***JSC's** recycling programs.
1.11	Emergency Management Program Plan, develop, manage, and accomplish Contractor SOP's of the ****JSC's Emergency Preparedness Plan**	Establish and implement an Emergency Management Program to ensure compliance with the Emergency Preparedness (EP) Plan for JSC, EF, and SCTF (excludes White Sands Test Facility). Program shall be inclusive of all required EP Annexes, Appendices, and SOP's that pertain to the Center Plan. Accomplish plan per DRD AN-1-4, **** JSC's Emergency Preparedness Plan.** Develop an EP Plan that conforms with ****JSC's Emergency Preparedness Plan JSC-05900**. Provide update to the ***JSC** plan, as required, and update SOP's on a***Yearly** basis for all annexes or appendices which pertain to the Contractor's scope of responsibilities.	1 Plan with ***Annual** updates	Contractor's program is in compliance with ***JSC's** Emergency Management Program across all Contract functions. Plan and SOP's are kept current.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
1.12	Contract Review Meeting Report Contract cost and workload data	Present and explain the cost data reported on National Aeronautics and Space Administration (NASA) Form 533, created in accordance with **DRD MO-1-4**, with the ***JSC** COD management, Procurement Office, Resource Analyst, and others. Clearly communicate cost and workload variances to explain actual costs, estimates, trends, etc. Provide any additional data required to effectively demonstrate the Contractor's cost management effort, including ongoing cost improvement ideas, threats not in the current Estimate At Completion (EAC), traces from the last EAC, etc. Report all numerical data, such as planning, EAC's, Contract change proposals, etc., in terms of the Government fiscal year (October 1 - September 30) as well as Contract year (if they are different). Based upon the funding plan communicated by the Government, accurately produce an annual technical and cost plan consistent with the funding for that fiscal year. Support the Government's annual 5 year budget process by providing cost estimates, analyses, technical impact statements and decision packages as required. NOTE: Each monthly meeting is expected to last approximately four hours.	12 Meetings	Presented cost data is accurate, organized per the DRD MO-1-4 required format, and variances are clearly explained. Requirements identified are accurately met on time. Assistance is promptly and reliably provided as specified..
1.13	Configuration Control and Permitting			
1.13.1	Engineering Drafting Support Services	Engineering drafting services provided over and above the requirements for engineering designs (CLIN 5.2)	See Below	See Below.
1.13.2	Standard Detail Drafting Ensure accurate update of standard Computer Aided Design (CAD) engineering drawings	Accurately create or update the standard Computer Aided Design (CAD) engineering drawing details to match redlined information provided by the Government within 2 weeks of assignment. Reference the****Standard Details** and the ****CAD Standards Manual, JSCM 8822.**	25 Drawings	Accurately update the standard details on time.
1.13.3	Miscellaneous Design Drafting Support Accurate drafting services for all design tasks	Perform drafting services for tasks given by the Government. Accurately revise, the ****Ordering of Permanent Signs**, the appropriate master facility drawings, Master Utility Plan (MUP), CoF project drawings, etc., to match redlined information provided. Accurately update tasks within 3 to 14 days. NOTE: The exact schedule for each task shall be given when the task is assigned.	120 Drawings	Accurately update drafting tasks on time.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
1.13.4	CAD File Format Support for Architect-Engineer (A-E)/Other Contracts Ensure Architect-Engineer CAD file review	Provide review of CAD file format received by the Government from outside Contractors or Architect-Engineer (A-E) firms. A sampling of CAD files will be reviewed for compatibility with the Government's CAD system. Provide written suggestions within 5 days of each request to assure the outside A-E creates the best files possible to be read by the Contractor's system when the project is as built. NOTE: The majority of the CAD file formats presently received from outside A-E firms is Auto-Cad format.	5 Reviews	CAD file format review provided when requested. Suggestions to assure accurate outside A-E files provided within 5 days.
1.13.5	Ensure Electronic File Distribution of Drawings	Provide and deliver electronic file copies of the latest standard details, FHP's, and CAD as built drawings as designated by the Government. Provide the files in the most compatible format available for the receiver's CAD System to read and modify.	Distribute 1,100 files	Files delivered in the proper format.
1.13.6	Update Electronic Panel Schedule Database	Maintain and update the electronic schedule database. Install a paper copy of the updated panel schedule in the field panel when the panel is modified.	500.Updates	Database maintained and panel schedules are accurate.
1.13.7	Submittal Shop Drawing Review Provide miscellaneous equipment and detail drawings to the Government	Conduct miscellaneous shop drawing and submittal reviews during construction as directed by the Government ensuring designed facility modifications meet the Government's requirements. Ensure shop drawings and submittals are reviewed by Contractor's registered professional engineers. Allow 36 hours minimum for Government review. The Government shall have final review and approval of all comments and changes of the shop drawings and submittals made by the Contractor.	15 Reviews	Reviews of submittal drawings are accurate.
1.13.8	Redline Verification Review Ensure redline documentation for construction projects	For open competitive bid construction projects by the Government with a value greater than $50,000, participate with the Government in two redline verification reviews to ensure the construction redlines are clear and complete as the project progresses to ensure accurate updates of the master facility drawings. Record discrepancies and indicate where clarification is required to produce accurate redlines.	30 Projects	Accurately document problems with redline discrepancies and clarity.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
1.13.9	SPECSINTACT System Maintenance Ensure NASA's SPECINSTAT Software System is maintained and updated	Maintain and update NASA's SPECSINTACT software system to produce project specifications for Government bid projects. Maintain on line accessibility and retrieval of the latest Mastertext, Submasters, and the SPECSINTACT index for use by the Government. Assist the Government with questions concerning: SPECSINTACT, historical projects, or the software system. This assistance also includes such actions as: researching past project specifications to identify content for possible reuse or correction, and researching specifications to locate specific design criteria, standards, and references.	365 days of on line accessibility	SPECSINTACT software system is accurately maintained, updated, and on line accessibility and retrieval are properly provided. Accurate assistance is provided as specified.
		a. Update the software twice a year per the latest SPECSINTACT software version. Perform within 30 days of receiving the latest software from the Government. Maintain back version of the software, user guides, etc., for a minimum of 3 years and be able to complete a specification package started 3 years before.	2 SPECSINTACT Software updates	Software updates are accurate and available on time. Accurately maintain the ability to process 3 year old specifications.
		b. Update the Mastertext twice a year per the latest SPECSINTACT format and text changes received from the Government. Review all Submasters affected by the latest Mastertext changes. (See **Specsintact Mastertext Index** for list of Submasters.) Update the Submasters to match the changed format. Submit, to the Government for review, copies of the text changes in the Mastertext along with copies of the latest affected Submaster text. Perform all updates, reviews, and copy submissions within 30 days of receiving the latest Mastertext updates.	2 Mastertext and Submaster updates	Mastertext and Submaster updates, reviews, and copy submissions are accurate and on time.
1.13.10	SPECSINTACT Working Team (SWT) Meeting Support Participate in monthly SWT meetings	Coordinate and participate in monthly SWT meetings, which include: addressing and resolving inaccuracies with the specification text and processing system. Recommend improvements, offer advice, and act as a resource to substantiate the validity of suggestions made by the team.	12 Meetings	All SWT meetings are supported as specified.

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1.13.11	Process SPECSINTACT Text Changes Ensure text changes are incorporated	Incorporate text changes recommended by the SWT, complete on-line ****Change Control Request Form 1620**, obtain the proper Government signatures, and mail it to the Kennedy Space Center (KSC) within 2 weeks of Government requests.	30 Changes	Text changes are accurately incorporated and processed on time.
1.13.12	Specification Production Ensure project specifications are created and updated	For construction projects between $200,000 and $500,000, create and edit project specifications using CCB NASA SPECSINTACT software and text. Each new or edited project specification shall be based upon Government furnished marked up specifications at various stages of design. Complete each new or edited specification along with the Project Report capability contained in the SPECSINTACT System within 5 days of receipt.	30 Edits	The new or edited specification is accurate and on time.
		Evaluate the Government furnished marked up specifications and proofread before editing begins to ensure a full understanding of what and how the specification is to be edited to assure the final specification is accurate and complete. The edited specification shall be reviewed for elements including: spelling, sentence structure, punctuation, clarity, unresolved references, submittals or sections and accuracy.		The edited product is accurate and on time.
		Retain each SPECSINTACT master text version a minimum of 3 years and be able to complete a specification package started 3 years before.		Accurately maintain the ability to process 3 years old specifications.
1.13.13	Facility Housing Plans Provide accurate Facility Housing Plan (FHP) drawings	Update FHP drawings, facility drawings, the Computerized Maintenance Management System ***CMMS Database**, and the Electrical Equipment (EE) database to reflect current room numbers and location of walls and partitions within Government and Government-leased buildings. Provide the data linking necessary for communication between the FHP's and the Space Utilization Management System (SUMS) Database in the Government provided and shared database.	See Below	FHP accurately represents the current architectural configuration of the area. FHP is accurately linked to SUMS or equivalent system.
		Format each update according to the ****Facility Housing Standards for Drawings**, and all room numbers shall be legible when photocopied.		

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		a. Field Check Updates - Perform field inspections of ***JSC** onsite and offsite facilities per the ****FHP Field Check Schedule** to and redline mark FHP drawings for architectural, physical room size, physical shape, and room number changes. Additionally verify space type usage of rooms in the buildings. Accurately update FHP's, facility drawings, the ***CMMS Database**, and the EE database, to reflect current configurations resulting from the field inspections, wall modifications and room number changes identified during inspections. Updates to be within 7 days of completed Field Check Inspection. Field check all onsite and offsite buildings at least once a year. Revised FHP drawings shall be provided on 8-1/2" x11" and 17" x 22" plots. Plot drawings to the following scale: 1/32" = 1'-0" for 8-1/2" x 11" 1/16" = 1'-0" for 17" x 22." Maintain one original copy of each size plot for own use and provide one original copy of each size plot to the Government. The Govemment shall be notified of any incorrect or missing room numbers.	525 Drawings	Field check all onsite and offsite buildings within schedule. Updates to drawings and databases are within schedule.
		Update the ****FHP Field Check Schedule** when buildings are added to or deleted from ***JSC**. Changes to the schedule, for reasons other than the addition or deletion of a building, are allowed only with the prior approval of the Government. Provide the Government a copy of the new schedule whenever the schedule is changed. Provide schedule changes to the Government within 7 days.		Provide schedule changes to the Government within schedule.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		b. Redline updates - Update FHP drawings per redlined drawings provided by the Government from bid construction work or from organizational modifications submitted by site customers. Field verify that red lines are accurate. Perform updates within 7 days of request by the Government.	75 Drawings	Accurately update FHP drawings within schedule.
		c. Construction updates - Create new or update existing FHP drawings affected by construction projects performed by this Contract. At the end of design, when construction is required as part of a furniture move, provide a preliminary FHP in electronic and hard copy to the Contracting Officer (CO) representing the future wall configuration.	80 Drawings	Accurately update FHP drawings to reflect final configuration with in schedule
		Accurate preliminary drawings are provided electronically within 1 day of the Government approving final design. Accurate hard copies of preliminary drawings are provided to the Government within 7 days of final design. Once construction is complete, field verify the actual wall configuration and update the "preliminary" FHP to reflect final configuration. Perform field verification within 7 days of construction completion. Provide final FHP to the Government within 7 days of field verification.		Accurately update FHP drawings to reflect final configuration with in schedule. Provide accurate final FHP drawing to the Government on time.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		d. Based on updates pertaining to (a) or (b) above, if changes to room number configurations are identified during field inspections or via red line drawings, assign room numbers, as outlined in the ***JSC** Master Plan, to reflect the new configurations. Based on updates pertaining to (c) above, if changes to room number configurations are necessary due to the construction of new facilities or modifications to existing facilities, assign room numbers as outlined in the ***JSC** Master Plan, to A-E designs, In house designs, Project Managers, etc., to reflect the new configurations. Assign room numbers due to modifications in room configurations, as identified by field inspections, red lined drawings, or construction updates, within 7 days of error identification or as requested by the Government. Assign room numbers due to the addition of a new building at 60 percent design completion. NOTE: Customer requests for room number changes will be concurred on by the Government prior to assignment.	200 room number assignments	Room numbers are accurately assigned within schedule and as outlined in the ***JSC** Master Plan.
		e. Distribute Updated FHP Drawings - Distribute updated individual FHP drawings to the Government and to an established ****FHP Distribution List** within 7 days of updates. Distribution to be via electronic file sent via email. Maintain and update the distribution list currently in Microsoft Excel. Personnel, drawing type, and quantity distribution changes to this list will be provided by the Government. The distribution list shall be kept current within 1 day of receipt of changes.	100 Requests	Distribute accurately updated FHP drawings to the Government and to an established ****FHP Distribution List** within schedule. Update ****FHP Distribution List** within schedule.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		f. Distribute FHP Document - Assemble updated FHP drawings into the existing FHP Document, produce multiple copies and distribute to the Government and to an established ****FHP Distribution List**. Copies shall be legible and shall be provided on 3 hole paper. Provide updated FHP Documents on Management Information System (Store Front) see Table 6-2 to link to the Planning and Integration Office Web site.	100 FHP Documents	Distribute FHP Documents to the Government and to an established ****FHP Distribution List** within schedule. Provide updated FHP Documents on Store Front
		All FHP drawing updates completed prior to November 30 of each year shall be included in the document.		
		The Government will review and approve the assembled document before reproduction and distribution. Changes to the distribution list require prior approval by the Government.		Document available for Government review and approval.
		The first 100 documents shall be initially distributed by January 15 of each year. Distribute the remaining 100 as requested.		
		Provide the FHP Document to the Government and other site customers upon request. Customer requests shall be met within 72 hours.		
		Maintain one original copy and 25 stock copies for inspection by the Government.		
1.13.14	Fire Evacuation Plans (FEP) Provide newly created or updated FEP	Create, update, and maintain ****Facility Evacuation Plan Example** as requested by the Government.	See Below	FEP Drawings are accurately created, updated, and maintained.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		a. Update FEP Drawings - Maintain and update FEP Drawings. Coordinate with Facility Managers to identify location and placement of key evacuation and safety features in all facilities located at ***JSC** to ensure the FEP's accurately reflect the facility layout. Perform field inspections to verify locations of fire hose cabinets; pull stations, and fire extinguishers. Modify existing FEP Drawings based on the FHP's to include key evacuation symbols.	35 Drawings	
		Accurately update FEP Drawings within 14 days of request by Facility Manager or the completion of redline updates performed in CLIN 1.13.15 that affect the FEP. Fire Safety items shall be properly located on FEP Drawings. Where appropriate, FEP data shall be consistent with FHP data.		FEP Drawings are accurately updated within schedule.
		Create and maintain a current list to document current FEP Drawing status. List to be in Microsoft Excel, and is to be provided monthly to the CO, in electronic file via email.	12 Files	List is kept current and available for inspection by the Government.
		Plot the updated FEP Drawings to an appropriate scale to fit the existing 18" x 24" black wood frames located in the facilities. Provide FM with finished plot.		Full plots fit within existing frames.
		b. Create New FEP - Provide one original plot mounted in 18" x 24" black wood frame for new FEP installations. Mount the FEP to the wall of the facility. Coordinate location with FM.	15 Drawings	FEP Drawings are properly mounted within schedule.
		FEP shall be properly mounted on the wall of the facility within 14 days of request by the FM and shall not hinder surrounding areas.		
		c. Provide updated FEP Drawings on Management Information System (Store Front) see Table 6-2 to link to the Planning and Integration Office Web site. FEP update to be complete within 7 days of FHP update.	75 Drawings	Update and provide on Store Front within schedule.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
1.13.15	Master Facility Drawing Updates Ensure accurate master facility drawings	Provide accurate NASA master facility drawings to reflect field conditions. a. Accurately review, revise, create, and update all affected NASA master facility drawings to accurately reflect the field conditions upon completion of any facility modification or new construction work. Update drawings when a facility modification or new construction results in a change to Government property such as: facilities, electrical and climate control systems, controls, plumbing, utilities, roads, and grounds. As build the color coding of the electrical wiring servicing equipment and panels shown on the one line diagrams and panel schedules. See ****Electrical Panel Board Update.** As build to the level of detail presently found on the master facility drawings. Review and research all available sources including redlines, shop drawings, submittals, existing master facility drawings, CAD or hard copies, and field checks to determine those affected by each facility modification. See ****Master Facility Drawing** examples. As build all constructed projects within 90 days of construction field completion as determined by the Contractor. As building of all construction projects with a construction value greater than $500,000 or designs not performed by the Contractor will be addressed in Annex 4 or as directed by the Government. b. Once the master facility drawings have been updated, deliver final design drawings, redlines, any new master drawings, and the updated masters to the Engineering Drawing Control Center (EDCC) within 3 days of drawing completion or CO review approval. All updates shall be formatted per the ****Facility Type Drawing and Documentation Procedures Manual, JSCM 8823.2**, and the ****CAD Standards Manual for Facility Drawings, JSCM 8822.**	2,500 drawings	Accurate update of all master facility drawings and final delivery of drawings on schedule.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		c. Provide a monthly report showing a project's ongoing as building status and verification that completion met the schedule. The report shall cover all as building work performed on the Contract. Provide reports by the 10th of the month.	12 Reports	Reports are accurate and on schedule.
1.13.16	Cable Permits Issue Cable Permits	Perform review of construction drawings created by other Contractors. Ensure installation, rerouting, or removal of cables, conduits, etc., from buildings or the site's tunnel system meets ***JSC's** facility criteria. Upon design review approval, issue a building or tunnel access permit within 1 day. Upon design review rejection, provide a written explanation to the requester within 1 day. Accurately document all requests for permit and their disposition.	40 Tunnel permits	Accurately review construction drawings and issue documentation on schedule.
1.13.17	Inspect Cable Changes Ensure inspections for cable permits are issued	Perform three inspections per permit issued for each installation, modification, and removal of cables, conduits, etc., by other Contractors. Notify the Government within one ***Workday** when the other Contractor does not perform the work as shown on the drawings for which a permit was issued.	120 Inspections	Inspections are accurate and on time. Work violations inspected and reported to the Government.
		The first inspection shall take place when the initial permit is requested to ensure the route picked by the other installation Contractor is reasonable and workable. The second inspection shall take place between 40 and 60 percent of installation completion, and the third inspection within 1 day of work completion per the installation schedule.		
		For tunnel inspections, adhere to the ***JSC** Tunnel Entry requirements. For building inspections, adhere to all codes and regulations necessary to enter the ceiling plenum where asbestos is present.		All requirements for tunnel and ceiling plenum entry are followed.
		Establish and maintain a database which tracks all site cable, conduit, routing information, cable owner, etc., within 3 days of any cable work completion. ****Tunnel Cable Database Record.**	1 database	Database is current and accurate.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
1.13.18	Facilities Engineering Library (*FEL) Operate and maintain the ***FEL**.	Operate and maintain the ***FEL**. The library shall be a central point of current information available full time during ***core hours** for use by Government and the Contractor personnel to aid in obtaining information regarding the site, facilities, and equipment. The library is not intended to replace the Contractor's administrative or management operations or obligations and, as such, material established in the library shall not be checked out to personnel for extended periods of time (30 days maximum).	Nothing additional.	
		a. Provide experienced individuals capable of assisting library customers. Man and operate the ***FEL** during ***core hours** for authorized access.		
		b. The library shall be located at JSC in Building 45. Maintenance and Operations manual documentation is located in Building 327 and the facility plants. The Government will provide, as Government Furnished Property (GFP), facilities, and office space including utilities, office furniture, and workstation modules. The Contractor shall ensure that adequate space (seating and table space) is made available for customers who elect to review material in the library.	Nothing additional.	Organized, neat, library environment effectively utilizing GFP.
		c. The library collection shall be a comprehensive resource. At the start of this Contract, the Government will provide the Contractor with the existing data and documentation that is in the ***TRL** and the ***FEL**. No classified material shall be maintained in the ***FEL**. ***FEL** contents are not for public distribution. The library shall be open to all individuals possessing valid ***JSC** ID badges. The library merger of the ***FEL** and ***TRL**'s shall be completed within 60 days after contract start. The Contractor shall obtain the current updated version of the reference ***TRL** documents to store in the ***FEL**. All document postings shall be accomplished in 30 calendar days.	Twelve months.	Comprehensive library collection, systematically organized, and updates on time.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		Provide and maintain complete historical and current documentation such as: **Hardcopy – stored at B-45, B-327 & Plants** O&M manuals Breakdown – 327 versus plant locations Contract specified reports and plans – w/ 5 year historical All CLIN and DRD deliverable hardcopy reports FCA Inspection reports CLIN 5.4 **Electronic – posted on Store Front web site** Contract specific referenced FEL documents and reports. **Functions** Receive, document and store any Government furnished document, such as: CoF – Preliminary Engineering Reports, Engineering Studies, Project Specifications, Final Design Analysis (including requirements document and all design calculations), National Environmental Protection Agency checklist, and Environmental Assessment (when supplied) WAD – any associated documentation the Government provides Convert hardcopy documents to electronic format (pdf) O&M manuals - scan all hardcopies and post on web site Convert and post 20 percent per year of Building 45 ***FEL** content – hardcopy destroyed after posting. Scan and post 100 percent of all documentation as received during each Contract year.		

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		Streamline and convert ***FEL** documents stored in Building 327. The Contractor shall review all documents. Separate into two categories: prioritized for scanning and disposal. The Government must approve all documentation before scanning or disposal. Approved documentation shall be posted on Store Front web site. Plant O&M documentation shall be electronically scanned for posting on Store Front web site. Hard copy documents shall remain at Buildings 24, 28, 48, 221, 322, 319. Provide the following for effective, timely and quality ***FEL** management and administration. Requirements shall include, but are not limited to: a. Organization by shelving and/or filing for easy access and retrievability. b. Maintain electronic searchable data base of ***FEL** hard copy and electronic contents. Minimum search fields shall include: building, project number, work authorization number, title and/or description, date received or last updated, check out status information of ***FEL** hard copy documents – date, person etc., type and location. c. All document postings shall be accomplished in 30 calendar days. d. All documents stored in the ***FEL** hard copy or electronic are the property of the Government. e. Inventory control of library materials shall provide for maintaining hard copy documents and electronic files from loss. Perform an annual wall-to-wall inventory to validate that all documents listed in the data base are accounted for in hard copy or electronic form. Report inventory findings to ***COTR**.		

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		f. Provide scanning equipment sufficient to meet the 20 percent conversion workload. Provide quarterly status report of scanning status. Report to include by document title the quantities of beginning, newly added, and scanned; g. Operation of the ***FEL** to allow patrons access for self-guided usage. Government furnished PC station and printer for access of electronic EL data. h. Providing a check out/loan of material outside the ***FEL** and acceptance of reservations for ***FEL** materials. i. Availability of materials during ***Core Hours**.		
1.14	Real Property Accounting	Process ****Real Property Transaction Vouchers (NF 1045)** to reflect additions and deletions to the site's asset accounts due to facility changes made on site.	150 Vouchers	Asset record values are reported accurately.
1.14.1	Maintain Accountability Records Ensure changes to site's asset accounts are recorded in Real Property Accounting System (RPAS)	Update and maintain the JSC Real Property Accounting System (RPAS), Real Property Inventory (RPI), or approved equivalent database and all hard copy historical files necessary to document all asset value changes. Provide programming and system support for the RPAS used in the Information Technology (IT) section of this contract. Support includes questions, trouble shooting, and assistance in printing. Prepare and review all documentation to accurately capitalize expense costs associated with real estate including: new construction, maintenance, repairs, additions, extensions, relocations, disposals, leases, permits, agreements, out-grants, and in-grants. Evaluate construction redline drawings, transfer documents, and periodic reports from the Government-furnished Financial Management Report and the Information Management Accounting Systems (IMAS), and other related documentation to assist in ascertaining the actual cost data and identification numbers required for real property accountability. This includes creation of new accounts for new real property.		

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		Report asset record values in accordance with NASA **Financial Management Manual 9250; **NPR 8800.15A, Real Estate Management Program Implementation Manual; **NASA Policy Directive (NPD) 8800.14C, **Policy for Real Property Management; and **Real Property Inventory (RPI)/Facility Utilization System User Guide. Provide final documentation for accounting transactions for Realty Officer Certification.		Reports are on time, clear, and accurate.
		Provide field inspection to verify all work related to facility improvement or disposal and equipment installation or removal shown on supporting documentation agrees with actual state of existence. Complete field inspections, recording, and adjustments resulting from inspection and recordings to include any adjustments resulting from inspection within 30 days of receipt of construction and financial from the *COTR. See **Completion Notification Documentation Package (NF Form 1046 and JSC Form 1478).	Quantities as determined	All field equipment has correct identification tags. All recording and adjustments completed on time.
		Maintain and update the RPAS and any existing NASA Headquarters databases for real property such as,: Annual Reports of Real Property Owned by the United States, Quarterly Inventory Detail Listing, Annual Inventory Reports, Annual Replacement Values using the *JSC and NASA Real Property Data Base (RPDB) Systems, Annual Unneeded, Underutilized-Properties, Annual Facilities Summary, Annual Real Property Growth Quarterly Voucher Register, Quarterly General Ledger, Quarterly Card Control Register, Annual In-grant and Out-grant, Monthly Construction In-Progress, and Monthly Construction Work-In-Progress. See **Real Property Report Sample.		
1.14.2	Account Reconciliation Ensure an accurate account of the quarterly and semi-annual in-house reconciliation	Maintain account accuracy with quarterly in-house and semi-annual reconciliation with Financial Management for all real property under the jurisdiction of *JSC at its Houston and Palmdale, California locations. This also includes facilities acquired by the *JSC Exchange Council through non-appropriated funds. Complete backlog within 30 days from notification of financial completion.	500 Subsidiary accounts	Account accuracy maintained and backlog is completed on time.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
1.14.3	Real Property Inventory for Collateral Equipment Perform a 3 year inventory and report of collateral equipment	Perform a 3 year facility equipment inventory cycle per the latest Government schedule to accurately indicate all existing equipment and prepare a report to indicate the current ****Annual Installed Equipment Inventory Report**. At the end of 3 years, the Contractor shall prepare and maintain a new 3 year, Facility Equipment Inventory cycle. The ***COTR** will approve this schedule prior to implementation. Schedule total inventory for monthly segments and completed within the 3 year cycle.	700 Line items	Existing equipment accurately inventoried and tagged on time.
1.14.4	Inventory Tagging Ensure label and tag of all installed (collateral) equipment valued over $5,000	Label and tag all installed (collateral) equipment and maintain inventory control lists of all collateral equipment valued over $5,000 within 30 days of installation. Current tagged inventory is given in CLIN 1.14.3. Remove, as part of the 3 year inventory cycle, any existing inventory tags on items valued at less than $5,000.	50 Items tagged	New equipment accurately tagged on time. Inventory <$5,000 correctly detagged.
		Update inventory lists and make available for inspection by the Government. Present for annual certification. NOTE: Field verification by the Government shall include matching of the equipment serial numbers, manufacturer identification, and location within the facility to the inventory listing.		Inventory lists are current and available for inspection by the Government.
1.14.5	Records Research Ensure complete Government forms for disposal of real property Ensure accurate content in real property forms	Perform technical researches in the RPAS and hardcopy historical files and prepare required Government forms for the disposal of real property, declarations of non-utilization of real property, land asset changes, NASA and General Accounting Office Inspections, Executive Order (EO) Surveys and other Agency, Center, and Directorate reviews. Conduct reviews in accordance with **** EO 12512, Federal Property Management Regulation (FPMR) 101-47.8** and other specific Government direction.	50 Researches	No violations during review. Accurately complete and on time.
		Provide response of existing information within 1 day.		Accurate response of existing information retrieved on time.
		Provide response of chart generation within 3 days and specified times for general report production.		Accurate response of chart generation on time.

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		Records research support includes: attending meetings and Video Teleconferences (VITS); handling research and inquiries for real property tech support, record research, creation, discovery, and preparation; and information request.		Timely and accurate support.
1.14.6	Real Property Accounting System (RPAS) Data Entry Ensure accurate data entry to ***JSC's** RPAS	Ensure accurate entry of data to ***JSC's** RPAS including posting, editing, creating accounts, and generating the reports specified above to maintain a correct RPAS. Operating Instructions are published for operation of the menu-driven database. Create operational procedures as systems are developed and maintained by the Contractor for all real property records maintenance. The ****RPAS Sample Sheets** represent the data screens the Contractor completes per voucher. ****Real Property Accounting System User's Guide**.	150 Voucher entries	Data maintained in RPAS is accurate.
		Enter data by close of business of the last workday of each month. Error checks shall be correct, and records shall balance in accordance with established RPAS methods.		Records are accurate and changes are made on time.
		Maintain records consistent with quarterly, semi-annual, and annual Financial Management primary accounts. Document operational procedure changes made by the Contractor within 2 weeks.		
		Maintain the NASA Headquarters RPDB and prepare information used for data entry to generate the site's current replacement value. Operating instructions are provided by NASA Headquarters for data maintenance and reporting functions. Convert entries in database by the Contractor from the Center RPAS. **** Real Property Inventory – Facility Utilization System User Guide**.		
1.14.7	Update Real Estate Drawings and Facility Master Plans Ensure updates to real estate drawings	Maintain and update the ***JSC**/EF/SCTF real estate drawings and facility master plans upon receipt of supporting documentation. Accurate updates shall be completed within 30 days of receipt of supporting documents.	4 Updates	Updates are accurate and completed on time.
1.15	Rigging and Heavy Hauling	The Contractor shall perform Rigging Requests for Maintenance and Operations activities and the Logistics Contractor.		

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		Class 1 Rigging Request: Rigging required to prevent bodily harm to an individual or to prevent further damage to NASA/JSC or Contractor equipment, test facility or building with the response time to be 15 minutes or less.	3 class 1 requests	
		Class 2 Rigging Request: Rigging to be performed that is requested by the customer for a task that must be accomplished in less than 2 ***Workdays**.	10 class 2 requests	
		Class 3 Rigging Request: Rigging to be performed when no specific time is requested by the customer where the Contractor has up to 2 full ***Workdays** from notification or longer if specified by the Customer.	190 class 3 requests	
		Before each work order is accomplished the Contractor must accurately verify the following requirements necessary to accomplish the work: a. Description of the task, b. Location where the task is to be performed, c. Whether lift is critical or non-critical, d. Characteristics of the items to be moved or lifted (such as weight or dimensions), e. Any facility restrictions that may be in effect, f. Points of contact of organization requesting work, g. Time frame to complete task, h. Identify on work order between institutional and program requests.		
		The Contractor shall provide lift plans in accordance with ****JPR 1700.1, JSC Safety and Health Handbook** and NASA-STD-8719.9, Standard for Lifting Devices and Equipment.		
		NOTE: Critical lifts are defined in ****NASA-STD-8719.9 (Standard for Lifting Devices and Equipment)** and JPD 8719.1, JSC Material Handling Policy.		
		The Contractor shall coordinate civilian police escorts when required by City, County, State, or NASA organizations. Coordinate with ***JSC** Security when hauling oversize loads to and from ***JSC**. Secure all		

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		permits necessary for oversize loads when required by City, County, and State in sufficient time to preclude delays. The Contractor shall survey the route before hauling oversize or overweight loads to ensure overhead clearance from traffic and electrical lines. If clearance is not sufficient, the Contractor shall coordinate to have all work performed required to accomplish this task. The Contractor shall provide this information to the ***COTR** 5 days prior to the scheduled move date, unless a fewer number of calendar days is agreed on by both the Contractor and the ***COTR**. The Contractor shall provide assistance in the assembly and disassembly, installation and dismantling, placement, and removal of equipment to include the installing and removal of fasteners (bolts, screws, etc.) when requested by customer.		
1.15.1	Load Tests	The Contractor shall comply with the ****NASA-STD-8719.9, Standard for Lifting Devices and Equipment**, and ****JPR 1700.1, JSC Safety and Health Handbook**. a. Complete load tests at customer's request for Class 2 tasks. b. Schedule and complete load tests for general support.		
1.15.2	Lifting Equipment Listing	The Contractor shall maintain a spreadsheet of all Government owned (institutional and program) material lifting and handling equipment and lifting components certified for material lifting and handling. Spreadsheet to be accessible to the Government.		Spreadsheet is complete and accessible

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1.16	Personnel Qualifications Provide properly trained and qualified personnel	Ensure a sufficient number of personnel are qualified to perform the volume and types of work requiring specific knowledge and skill as identified in all performance requirements of the Facilities SOW. Personnel qualifications identified in this section do not relieve the contractor from the responsibility of performing the work identified in the SOW. Ensure compliance with all industry standards, Federal, State, and Local laws regarding licenses, certifications, and training of employees performing the specified services.	Contractor Specified	Personnel are fully qualified to hold the position designated.
1.16.1	Certified Operators and Crafts Provide properly trained and certified operators and craft personnel	Ensure operator and craft personnel are trained and certified for systems, equipment, and process they operate. Document all operator and craft personnel training and certification. Provide adequate drills and exercises in conjunction with the Contractor's Safety and Health and QA program that confirm operators' knowledge, skills, safety, and understanding of operational requirements. Drills, certification, testing, and scheduling are the Contractor's responsibility. This documentation is per **JPR 1700.1, Safety and Health Handbook (Chapter 10.4 Facility Baseline Documentation) requiring training to qualify personnel to operate facilities that are critical, hazardous, or have very complex systems. Reference the following qualification documents: **Qualification Standard for Central Heating & Cooling Plant Chief Operators.** **Central Heating and Cooling Plant Qualification Standard for Operators and Chief Operators – Phase 1,2,3 and 4.** **Qualification Standard for Field Chief Operators.** Ensure operators exercise due care while operating equipment and accomplish appropriate pre-operational inspections of the equipment.		

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
1.16.2	Emergency Preparedness Personnel Provide properly trained and qualified Emergency Preparedness Personnel	Provide all required (e.g., plumbers, electricians, heavy equipment operators) and Emergency Response Personnel that are properly trained to the appropriate training level specified in OSHA 29CFR1910.120 and 29CFR1910.1200 and Hazardous Materials Waste Operations and Emergency Response training specified in ****JSC Emergency Preparedness Plan, JSC-05900**. Training shall be provided and updated at least ***Annually** and as required by regulation for all new employees.		
1.16.3	Crewman Personnel Certification Ensure personnel operating lifting equipment are properly trained and certified	All personnel hired to work under this Contract as crane (mobile and facility cranes), forklift, and other equipment types defined in ****NASA-STD-8719.9 (Standard For Lifting Devices and Equipment)**, shall be properly trained and certified prior to operating equipment for ***JSC** programs. Operator training and certifications are identified in ****NASA-STD-8719.9, **JPD 8719.1 (*JSC Material Handling Policy)**, and the ****JPR 1700.1, JSC Safety and Health Handbook**. All Contractor personnel in the above crafts shall have the appropriate ***JSC** certifications upon Contract start, except where it is impractical to be so certified. Thereafter, the Contractor shall notify the ***COTR** or appropriate assigned functional area, requesting certification/recertification of appropriate personnel prior to certification expiration. A ****JSC Form 1464 (Certification For Lifting program Hardware)** will be provided by the Government to each certified employee after the employee satisfactorily completes a written examination, operational demonstration (for initial certification only), or proficiency examination (for recertification) as appropriate.		

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
1.16.4	Energy Manager Manage Contractor's energy and water conservation program	Onsite ***Daily (D)** Energy Manager to serve as a focal point for all energy matters and to manage and monitor energy and water consumption and conservation. Manage Contractor's Energy and Water Conservation Program (CLIN 1.8). The individual shall be an Association of Energy Engineers (AEE) certified Energy Manager or a Licensed Texas Professional Engineer. The Energy Manager shall not share duties of any other position. The Energy Manager shall be proficient in the following areas: a. Fundamentals of building energy systems, b. Building energy codes and applicable professional standards, c. Energy accounting and analysis, d. Life cycle cost methodology, e. Fuel supply and pricing, f. Instrumentation for energy consumption and metrics, g. LEED design, maintenance, commissioning experience, h. Chiller and boiler plant operations.		
1.16.5	Environmental Training Complete all environmental training required by pertinent regulations or NASA policy	All on-site Contractor personnel shall complete environmental training specified and provided by the JSC Environmental Office for the type of work conducted. In general, this training should be between 1 (office workers) and 6 (employees performing or supervising multiple potential pollutant generating activities) hours per year.		All personnel are trained as required by regulation and/or *JSC policy. Training records are accurate, complete and easily accessible. All required training records are turned over to the Government at the completion of the Contract.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
1.16.6	Licensed Professional Engineer The Contractor shall maintain Licensed Professional Engineer registration in the State of Texas	The Contractor shall maintain Licensed Professional Engineer registration in the State of Texas, with minimum of 5 years of experience working in their discipline. Supervisor/Leads shall have the ability to seal and sign the final design product of the discipline personnel under their supervision. Provide at least one each: Electrical, Mechanical, and Civil (Structural) registered professional engineer and registered architect to seal the drawings for their engineering discipline. Engineering personnel shall perform design and trouble shooting for maintenance and repair work The Contractor shall maintain engineering degree or licensed professional engineer registration with 5 years minimum experience in their technical discipline on file for Government review.		
1.16.7	Drafting Personnel The Contractor shall maintain drafting personnel with minimum of an Associate Engineering Technology Degree plus 2 years experience or minimum 5 years experience equivalent.	The Contractor shall maintain drafting personnel with minimum of an AEE Technology Degree plus 2 years experience or minimum 5 years experience equivalent. Ensure drafting personnel has general knowledge of MicroStaton 5.0 or higher software and latest version of AutoCad and manual drafting expertise, personal computer operations, construction practices, the ability to accurately read construction drawings, electrical schematics, control schematics, and recognize building components including: architectural, mechanical, electrical, civil and structural disciplines. The Contractor shall ensure personnel have effective oral and written communication skills for interfacing with site customers.		
1.16.8	Real Property Personnel	The Contractor shall provide personnel with 3 years specialized experience in Government real estate transactions and real property practices, terms and accounting practices, knowledge of facility type equipment and components for identification purposes, and a willingness to expand expertise in these areas. Personnel shall also be able to read construction drawings and have general knowledge of construction practices, computer operation, and standard software packages such as: Microsoft Word, Mail, Excel, PowerPoint, and TruForm. Effective oral and written communication skills for interfacing with customers are necessary.		

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1.16.9	Nitrogen Delivery Personnel	Nitrogen delivery personnel must have a Commercial Driver's License and be Cryovac Mechanic certified prior to delivery.		
1.16.10	Journeyman Linemen Provide and use journeyman linemen or equivalent title to perform operations and services on the electrical transmission/distribution system and the 15kV facility switches	A Journeyman Linemen shall have successfully completed an apprenticeship training program. Specific experience shall include cable splicing, switchgear and line work, breakers, meters, transformers, and relays testing and calibration on high voltage.		
1.16.11	Plant/Operations Engineers Provide and use qualified personnel to perform duties of plant/operations engineers	Engineers shall have successfully completed a 4 year Mechanical, Electrical, or Civil Engineering or Engineering Technology, Science, Mathematics or Physics program with a minimum of a Bachelor's degree and 3 years experience in plant operations in plants with similar facilities equipment as ***JSC**. Engineers shall hold a current certification from Texas Commission on Environmental Quality (TCEQ) as a Visible Emission Evaluator. Engineers shall have full certification within 6 months after contract award. See the following document for details of the certification process for Operations Engineers: ****Utilities Operator Training/Qualifications Process**		
1.16.12	Journeyman Boiler Operators Provide and use journeyman boiler operators and chiller plant operators or equivalent titled personnel to operate the central plant boilers and the OCC	Journeyman Boiler Operators shall have successfully completed a 4 year technical training program or have two years specific experience with steam boilers in a plant similar in size and type as those at *JSC. Central Heating and Cooling Plant, Auxiliary Plant, and OCC operators shall have successfully completed a 4 year technical training program or have two years experience in operating a plant similar in size and type as those at *JSC. Technical training may include an accredited technical training program or a recognized, established apprenticeship program. Boiler operators and chiller plant operators shall have full certification within 6 months after contract award.		

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
1.16.13	Water/Wastewater Operator Provide and use Certified Water Operators	Water/Wastewater operators shall have the training and certification as required by the TCEQ to operate a non-transient, non-community public water/wastewater system. A Journeyman shall have successfully completed a 4 year technical training program. Technical training may include an accredited technical training program or a recognized, established apprenticeship program. Specific experience shall include detailed working experience and knowledge of transmitters, switches, thermocouples, controllers, relays, calibration and all instrumentation and control of pneumatic, electro-pneumatic, electrical, and mechanical devices and systems. Operators shall have licenses required by the State of Texas. Operators shall have and maintain the certification required by the Title 30 Texas Administrative Code (TAC), Chapter 290.		
1.16.14	Electronic Technicians Provide and use journeyman electronic technicians or equivalent-titled personnel to perform operation or services on microprocessor and electronic systems or components and plant equipment	An electronic technician shall have successfully completed a 4 year technical training program. Technical training may include an accredited technical training program or a recognized, established apprenticeship program. Specific experience shall include detailed working experience and knowledge of electronics, microprocessors and interface systems, computer logic, communications, programmable logic controllers, instrumentation devices, controllers, traffic light systems, and automatic doors.		
1.16.15	Instrumentation Control Engineers Provide and use instrumentation control engineers or equivalent titled personnel to perform operations services and field programming on the EMCS Building Control Systems	Engineers shall have successfully completed a 4 year engineering degree from an accredited university with a Bachelor of Science in Electrical Engineering (BSEE) or equivalent degree and at least 3 years experience with Programmable Logic Controller (PLC's), Energy Management Systems, communications, programming of field devices (PLC's, Building Control Systems, etc.), and HVAC controls and instrumentation.		

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
1.16.16	Computer Programmer/System Analyst Provide and use computer programmer/system analyst or equivalent title personnel to perform operations and services on Energy Management Computer Systems	Programmers shall have at least four years experience and a strong background in PC applications environment. Programmers shall be very proficient in PC Windows applications (Excel, Access database, database queries), Dynamic Data Exchange (DDE) protocols, data manipulation and programming to develop application programs, databases, reports, trends, listings for performance monitoring, data collection and energy management requirements/support. Additionally, programmers shall have network programming knowledge necessary to setup and retrieve data on multiple shared data bases from different platforms. Programmers shall have strong background in the above-mentioned computer applications programming utilizing tools. Familiarity with engineering principles and mathematical statistics is required.		
1.16.17	Electrical Manager Provide and use electrical manager with the qualifications, technical knowledge, demonstrated experience and skills required to efficiently manage, supervise, operate and maintain the *JSC electrical transmission, distribution, and facility systems	The electrical manager shall have successfully completed a 4 year technical degree from an accredited engineering college, have a minimum of 5 years of experience, and be a registered engineer. Specific experience of 15 years in the operation and management of 120V to 138kV utility or large industrial electrical systems including generation may be substituted for a technical degree. Specific experience shall include design and cost estimating; knowledge and ability to generate and modify electrical and geographical system utility maps, one-line drawings, and shop drawings; perform trouble shooting and repair; system load and fault current analysis; relay coordination; tests and measurement; system operation and switching including operation of SCADA system and centrally located back-up generators.		
1.16.18	Journeyman Electricians Provide and use journeyman electricians or equivalent titled personnel to perform operations and services on the *JSC electrical distribution system	A Journeyman Electrician shall have successfully completed an apprenticeship program. Specific experience shall include cable-splicing, switchgear and line work, breakers, meters, transformers, relays/circuit breaker testing, and calibration of systems less than 12kV.		

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
1.16.19	Journeyman Power Plant Operators Provide and use journeyman power plant operators or equivalent titled personnel to operate the Emergency Power Building	Journeyman Power Plant Operators shall have successfully completed a 4 year technical training program or have three years journeyman specific experience with power systems in a plant similar in size and type as those at *JSC. Technical training may include an accredited technical training program or a recognized, established apprenticeship program. Power plant operators shall have an interim operation certification at the end of the phase in period and full certification within 6 months after award. See the following documents for details of the certification process for power plant operators.		
1.16.20	Plant/Site Water Chemist	A Chemist shall have successfully completed a 4 year course from an accredited university with a minimum of a bachelor's degree or have completed a four year technical training program with two years specific experience in water treatment. Technical training may include an accredited technical training program or a recognized, established apprenticeship program. Specific experience shall be in water treatment, analysis, report writing, and laboratory tests of boiler feed water, steam quality, condenser water, condensate return, closed loop heating/cooling water systems, and makeup water quality. A Chemist shall be knowledgeable of all aspects of water treatment to maintain water quality, chemical levels, and chemical feed rates, blow down rates, required to maintain system water quality and chemical treatment levels within the specific guidelines to insure the integrity of the site/plant piping and equipment.		

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
1.16.21	Electrical Personnel Provide Journeyman Electricians, or equivalent title, to perform maintenance and repair and construction actions	A Journeyman Electrician shall have successfully completed a 4 year technical program. Technical training may include either an accredited technical training program or a recognized, established apprenticeship program or training may be substituted with progressive "hands-on" experience specifically in the power generator/distribution area on a year-for-year basis, with at least 2 years at an apprentice level. Specific experience shall include cable splicing, switchgear and line work, breakers, meters, transformers, and relays testing and calibration, and electrical generator work on power generator/distribution power systems. The qualifications identified above are required for individuals working on power generator/distribution systems.		
1.16.22	Diesel Personnel Provide Journeyman Diesel Mechanics, or equivalent title, to perform maintenance and repair actions	A Journeyman Diesel Mechanic shall have successfully completed a 4 year technical program. Technical training may include an accredited technical training program or a recognized, established apprenticeship program. Training may be substituted with progressive "hands on" experience specifically in the diesel power generation area on a year-for-year basis, with at least 2 years at an apprentice level. The qualifications identified above are required for individuals working on diesel generators and associated equipment.		
1.16.23	Refrigeration Personnel Provide Journeyman Refrigeration Mechanics, or equivalent title, to perform maintenance and repair actions	A Journeyman Refrigeration Mechanic shall have successfully completed a 4 year technical program. Technical training may include an accredited technical training program or recognized, established apprenticeship program. Training may be substituted with progressive "hands on" experience specifically in the air conditioning and refrigeration area on a year-for-year basis, with at least 2 years at an apprentice level. Personnel shall meet the Environmental Protection Agency (EPA) requirements of 40 CFR 82.161. The qualifications identified above are required for individuals working on direct expansion HVAC and refrigeration equipment.		

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
1.16.24	Backflow Prevention Assembly Tester Provide certified personnel to perform testing of all backflow prevention assemblies	Recognized testers shall meet the TCEQ requirements for training and obtain the accredited tester classification for "Backflow Prevention Assembly Tester" to test and repair backflow prevention assemblies on any domestic, commercial, industrial or irrigation system. NOTE: In accordance with the TCEQ, the test reports and records shall follow their format. The TCEQ states that the "Test and Maintenance report shall be retained for a minimum of 3 years. The public water supplier shall provide these records to the commission staff for inspection upon request."		
1.16.25	Breaker Tester Complete an accredited course covering breakers, relay and switchgear testing and maintenance	A Breaker Tester shall complete an accredited course covering breakers, relay and switchgear testing and maintenance Accredited courses shall meet or exceed the International Electrical Testing Association (NETA) standards. Certification is current for 1 year. Additional follow-up is required ***Annually**. The qualifications identified above are required for individuals working on electrical breakers.		

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
1.16.26	Predictive Testing & Inspection (PT&I) Personnel Requirements	The following minimum standards shall be met by personnel performing PT&I work: A manager of the vibration program shall maintain a Vibration Level III American Society of Nondestructive Testing (ASNT) Certification. Vibration data collecting personnel shall maintain Vibration Level I ASNT Certification and vibration analysts shall maintain Vibration Level II ASNT Certification. A manager of the Thermography program shall maintain an ASNT Level III Certification. Infrared Thermography scanning personnel shall maintain Thermography Analyst Level I ASNT Certification, and infrared Thermography Analysts shall maintain Thermography Analyst Level II ASNT Certification. An internal qualifications training program for the proper use of laser alignment equipment, airborne ultrasonic scanner, ultrasonic thickness detector, battery monitoring systems, and collection and analysis of lubricants and insulating oil shall be developed by the Contractor as per the equipment manufacturer's recommendations. Similar qualifications and requirements standards shall be established as new technologies are implemented at ***JSC**, EF, and SCTF. A program shall be in place to ensure current qualifications are maintained and refresher courses pursued as needed in all predictive technology areas.		

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
1.16.27	Pipe Fitter Provide Journeyman Pipe Fitter to perform maintenance and repair	A Journeyman Pipe Fitter shall have successfully completed a 4 year technical program. Technical training shall include an accredited apprenticeship program. Training may be substituted with progressive "hands-on" experience specifically in the power generator/distribution or chiller/boiler plant areas on a year-for-year basis, with at least 2 years at an apprentice level. Specific experience shall include knowledge of processes and piping systems, instrumentation, controls, and calibration of instruments that are used in the steam, compressed air and chilled water processes in the *JSC plants or site mechanical rooms where air handlers and other facility equipment provide air conditioning. Personnel shall have knowledge of pneumatic/direct digital or programmable controllers, transmitters, primary flow and pressure elements with experience and knowledge to analyze a failed system and implement the necessary repairs.		

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
1.16.28	Chief Environmental Operator	Chief Environmental Operator shall have: a. Initial 40 hour OSHA Hazardous Waste Operations and Emergency Response (HAZWOPER) training, b. A minimum of five consecutive years of OSHA Hazwoper refresher training and certification c. A minimum of five years RCRA training d. Department of Transportation (DOT) Hazardous Material certification in accordance with regulations Specific experience shall include detailed working experience and knowledge of environmental systems and facilities including: a. Memtek Pretreatment System, b. Groundwater Treatment System, c. Building 358 ISW Storage Facility, d. Department of Transportation (DOT) Hazardous Materials/Waste Containment and Storage Facilities and Structures. See the following documents for details of requisite working knowledge: ****SOPs for Environmental Activities, **Groundwater Treatment System O&M Manual, **SPCC Plans.**		Certification and experience history are on file for ***COTR** review and approval.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
1.16.29	Environmental Operator	Environmental Operator shall have: a. Initial 40 hour OSHA Hazwoper training, b. A minimum of two consecutive years of OSHA Hazwoper refresher training and certification, c. A minimum of two years RCRA training, d. Department of Transportation (DOT) Hazardous Material certification in accordance with regulations. Specific experience shall include detailed working experience and knowledge of environmental systems and faculties including: a. Memtek Pretreatment System, b. Groundwater Treatment System, c. Building 358 ISW Storage Facility, d. Department of Transportation (DOT) Hazardous Materials/Waste Containment and Storage Facilities and Structures. See the following documents for details of requisite working knowledge: ****SOPs for Environmental Activities, **Groundwater Treatment System O&M Manual, **SPCC Plans.**		Certification and experience history are on file for ***COTR** review and approval.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
1.16.30	Environmental Laborer	Environmental Laborers shall have: a. Initial 40 hour OSHA Hazwoper training, b. A minimum of two consecutive years of OSHA Hazwoper refresher training and certification, c. A minimum of two years Resource Conservation and Recovery Act (RCRA) training, d. Department of Transportation (DOT) Hazardous Material certification in accordance with regulations. Specific experience shall include detailed working experience and knowledge of environmental systems and faculties including: a. Building 358 Industrial Solid Waste (ISW) Storage Facility, b. EF ISW Storage Facility, c. Satellite Accumulations Areas, d. Forklift Operation. See the following documents for details of requisite working knowledge: **SOPs for Environmental Activities, **EF Waste Receipt Log, Building 358 Waste Receipt Log, Forms 27 and 1161.		Certification and experience history are on file for *COTR review and approval.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
1.16.31	Environmental Operations Supervisor	Shall have a B.S. Degree in Environmental Science/Management or Environmental or Chemical Engineering, Chemistry, or other related science degree. Demonstrate 5 years continuous and recent work experience as an effective supervisor of operations of a large quantity industrial waste generating facility. Demonstrate knowledge of laws, standards, and guidance materials and possess recent work experience with TCEQ, Texas State Department of Health Services (TSDHS), EPA Region VI, OSHA, and DOT. Also demonstrate experience directing spill response teams and managing spill response resources, managing stormwater, treatment systems and Spill Prevention, Control and Countermeasures (SPCC) field operations. Demonstrate current HAZWOPER training. Responsible for signing hazardous waste manifests on behalf of *JSC and El Paso Forward Operating Location (EPFOL)).		
1.16.32	Safety, Health, and Environmental (SHE) Manager	Minimum B.S. Degree required preferably in Environmental or Chemical Engineering, Chemistry, or other related science. Shall have no less than a minimum of 5 years continuous work experience as an SHE Manager at a large, multi-employer and multi-discipline federal aerospace and/or commercial manufacturing facility, operating as a large quantity generator of hazardous wastes. Shall possess and demonstrate no less than 15 years of total continuous experience in multiple, major, SHE programs with a demonstrated record of continual improvement. Shall demonstrate that they have recent Texas environmental experience working with the TCEQ, TSDHS, EPA Region VI, OSHA, DOT, and local regulatory agency laws, standards, and guidance materials.		
1.16.33	Library Technician	Provide a library technician to oversee Facilities Engineering Library (*FEL) operations and program development. The library technician shall have 2 years of specialized experience in library operations, management and enhancement. The library technician shall also have computer and scanning skills to accomplish required electronic media conversion.		

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
1.16.34	Manager/Computer System Administrator Qualification Perform operations and services on Computer Systems	Computer Systems Administrator shall have completed at least a 2 year degree and have 4 years total combined experience working as a system administrator/in a PC applications environment. Shall be very knowledgeable in administrative procedures and SQL 2000 DBA tools and queries. Shall be very proficient in SQL databases and PC Windows applications (Excel, Access database) , Dynamic Data Exchange (DDE) protocols, data manipulation and programming to develop application programs, databases, database queries, reports, trends, listings for performance monitoring, data collection and energy management requirements/support. Additionally, shall have network programming knowledge necessary to setup and retrieve data on multiple shared data bases from different platforms. Shall have strong background in the above-mentioned computer applications programming utilizing tools. Familiarity with engineering principles and mathematical statistics is required.		
1.17	Records, Reports, and Submittals			
1.17.1	Safety and Health Plan DRD AN-1-1	Provide the safety and health plan in accordance with AN-1-1.	1 Plan	All requested data is accurately collected, identified and reported on time.
1.17.2	Freeze Protection Plan DRD AN-1-2	Develop the ****Freeze Protection Plan** to prevent damage to the facilities and equipment at ***JSC** from the effects of freezing weather. DRD AN-1-2.	1 Report	Report is accurate and reported on time.
1.17.3	Quality Assurance Plan DRD AN-1-3	Provide the QAP in accordance with the requirements of DRD AN-1-3.	1 Report	Report is accurate and reported on time.
1.17.4	JSC Emergency Preparedness Plan DRD AN-1-4	The Contractor is to develop a plan that parallels ****JSC's Emergency Preparedness Plan**.	1 Report	Report is accurate and reported on time.
1.17.5	Wage/Salary and Fringe Benefits Data Provide Wage/Salary and Fringe Benefits Data DRD AN-1-5	Provide Wage/Salary and Fringe Benefits Data as identified in Section J, DRD AN-1-5..	1 Report	All requested data is accurately collected, identified and reported on time.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
1.17.6	Contract Management Plan DRD AN-1-6	Provide a comprehensive management plan.	1 Plan	Plan is accurate and reported on time.
1.17.7	Environmental and Energy Consuming Products Compliance Reports DRD AN-1-7	The Contractor shall provide this report to identify waste reduction and affirmative procurement implementation.		
1.17.8	Mission Readiness Plan and Procedure. DRD AN-3-8	Provide, maintain and update the ****Mission Readiness Plan and Procedure.**	Per DRD	Accurate information available for each ***Mission.**
1.17.9	JSC, Ellington Field, and Sonny Carter Training Facility Potable Water Flushing Plan DRD AN-3-9	Provide, maintain and update a JSC, Ellington Field, and Sonny Carter Training Facility Potable Water Flushing Plan.	Per DRD	All fire hydrants scheduled and flushed per schedule.
1.17.10	O&M Manuals for Water Supply Systems at JSC, Ellington Field, and Sonny Carter Training Facility DRD AN 3-10	Provide, maintain and update O&M Manuals for Water Supply Systems at JSC, Ellington Field, and Sonny Carter Training Facility.	Per DRD	
1.17.11	Notification of Potential Labor Dispute and Contingency Strike Plan Provide notification of potential labor disputes DRD AR-1-1	Provide a Notification of Potentials Labor Dispute and Contingency Strike Plan as identified in DRD AR-1-7. The plan will be Contractor initiated at the first indication of potential labor unrest.		Reason for labor unrest and contingency steps accurately identified and on time.
1.17.12	Security Reporting Requirements Provide a security reporting requirements DRD AR-1-2	Provide a security report that provides information as identified in DRD AR-1-2.		All requested data is accurately collected, identified and reported on time.
1.17.13	IT Security Plan DRD AR-1-3	Provide an IT security plan to ensure the implementation or maintenance of IT systems follows Government policies to reduce the vulnerability of the Government to IT security risks.		Plan is accurate and on time.
1.17.14	EMCS Alarm Management Plan DRD AR-3-4	Provide a plan to define the responsibilities and actions of the Contractor required to identify new actions and to maintain a manageable EMCS alarm activity.		Plan is accurate and on time.

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1.17.15	Reprocurement Data DRD AR-1-5	Provide content and format requirements for delivery to NASA of all analytical models, tools, supporting documentation, equipment, data items and resource/cost information used to perform future re-procurement activities.		Plan is accurate and on time.
1.17.16	Small Business Subcontracting Plan DRD AR-1-6	Provide a subcontractor plan in accordance with FAR Clause 52.219-9.		Plan is accurate and on time.
1.17.17	Government Property Management Plan DRD AR-1-7	Describe the method of administering Government personal property		Plan is accurate and on time.
1.17.18	Water Utility Report DRD MO-3-1	All sampling of corrosion inhibitors shall be recorded and results shall be recorded in the monthly *Water Utility Report	12 Reports	Accurate report provided on time
1.17.19	Monthly Safety Statistics DRD MO-1-2	Provide safety and health metrics.	12 Reports	All requested data is accurately collected, identified and reported on time.
1.17.20	Functional Metrics DRD MO-1-3	The Contractor shall provide metrics for designated functional requirements.	12 Reports	Report is accurate and reported on time.
1.17.21	NF533 Cost and Data Report Collect and deliver Contract cost and workload data DRD MO-1-4	Prepare NASA Form 533 cost reports monthly in accordance with DRD MO-1-4 to project Contract costs and hours to ensure that dollar and labor resources match Contract requirements. Provide a cost data report for all the Contractor work per DRD MO-1-4, Cost Data Report. Reports shall be delivered monthly by the 10th of the month.	12 Reports	All requested data is accurately collected, identified and reported on time.
1.17.22	Monthly Energy Reports DRD MO-1-5	Provide monthly energy reports.	12 Reports	All requested data is accurately collected, identified and reported on time.
1.17.23	Subcontracting Reports Provide annual subcontracting report DRD SA-1-1	Provide a subcontracting report as identified in DRD SA-1-1.	1 Report	All requested data is accurately collected, identified and reported on time.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
1.17.24	Workload Data Collection Report Collect contract workload data DRD SA-1-2	Provide workload data collection for all identified work types per DRD SA-1-2 , Workload Data Collection. The compiled annual report covering the entire Contract year shall be delivered 60 days after the completion of the Contract year.	1 Report	All requested data is accurately collected, identified and reported on time.
1.17.25	Master Facility Drawing Updates	Provide monthly reports on project's ongoing as building status	12 Reports	
1.17.26	Installation-Accountable Government Property (IAGP)	Maintain complete historical and current documentation of IAGP and material inventories as listed in Section J. Provide annual accounting of all items to the ***COTR**.	1 Report	
1.17.27	Customer Satisfaction Metric Reports	Customer satisfaction metrics shall be obtained through an automated electronic query upon completion of work orders for work performed in Annexes 2 through 7.		
1.17.28	Open Work List (OWL)	Develop and maintain ****Open Work List (OWL) for Mission Readiness**. Maintain report updated continuously. Provide to the ***COTR** twice a month prior to Annex tag up meetings.	1 Report provided 24 times	Maintain OWL updated and provided on time.
1.17.29	Flash Report	A ****Flash Report** shall be prepared and distributed within two hours of any reported incidents such as major utility failure, equipment failure adversely affecting personnel work environment or support equipment, spills or safety hazards. ****Flash Report** shall be distributed to a specific distribution email list.		****Flash Report** is accurate and prepared and distributed on time.
1.17.30	Morning Report	Produce Morning Report ***Daily (D7)** covering all ***JSC** individual systems, facilities and utilities and shall be electronically posted by 7 a.m., detailing the activities at or about: Weather, Heating/Cooling Plants, Tunnel System, Mission Control Power Plant, High Voltage System, Water Production/Distribution, Sonny Carter Training Facility, Ellington Field, and Other Locations/Systems.	One Morning Report per day – covering all systems and open work orders	Morning reports are complete and posted on time.
1.17.31	Annual Report	Develop annual report in the 12th month of the Contract year containing the following: repair work order number, work order report date, status of work order and associated fire hydrant or valve marker number.	1 Report	

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
1.17.32	Quarterly Reconciliation Report Report additions, deletions, and changes of task instructions and equipment to ***CMMS Database**.	Ensure the quarterly reconciliation of all maintenance activations of new, replaced, or repaired equipment to the ***CMMS Database** through the submittal of the Quarterly Reconciliation Report. This report outlines the Contractor's submittal of PM/PT task instruction changes to the Government for review and approval. A sample of some of the data contained in this report can be found in ****COD PM 2005 Reconciliation Data**.	Quarterly	The submittal of the report correctly identifying all changes is accurate and on time.

TABLE 1-1
DEFINITIONS

Annually - Service is accomplished once during each 12 month period of the Contract, at intervals of 11 to 13 months. Synonymous with ***Yearly**.

Annual Work Plan (AWP) - A plan prepared on an annual basis prior to the start of the applicable fiscal year that systematically lays out the maintenance and repair work to be accomplished.

As-Building - Master facility drawings that accurately represent existing conditions in the field.

Backlog of Maintenance and Repair (BMAR) - NASA Headquarters defined term for the unfunded future facilities maintenance projects required to bring facilities and collateral equipment to a condition that meets acceptable facilities maintenance standards. This does not include any backlog of Annex 2 maintenance and repair work unless specifically approved as deferred by the Government.

Bare Cost - The applicable sum of labor wage rate (including employer paid fringe benefits), material and equipment cost, without overhead and profit applied.

Benchmark - A standard against which something is measured.

Building Manager - A Contractor employee designated by the Contractor to perform Alternate Facility Manager duties in each Government furnished facility in which the Contractor is the sole or primary occupant.

Bulk - For purposes of this Contract, bulk is defined as any material, container, or packaging with an internal volume greater than 119 gallons.

Center Operations User Equipment (UE/JA) - Those pieces of user equipment that the Center Operations Directorate has an agreement to provide maintenance and repair.

Chlorofluorocarbons (CFC's) - A family of chemicals used in refrigerants in some commercial air conditioning and refrigeration systems and in other applications.

Clean up - Maintaining any work area during and upon completion of work. It is inclusive of removal of unwanted debris and things such as the removal of dirt from the roads, sidewalks and parking lots at ***JSC**. It also includes the replacement of any damaged property or plant life disturbed during any type of work.

Coefficient Factor – Means cost (normal work hours) - The multiplier for overhead and profit applied to a Means determined labor rate when work is performed during core hours.

Coefficient Factor – Means cost (other than normal work hours) - The multiplier for overhead, profit and employees' salary adjustment applied to a Means determined labor rate when work is performed during non-core hours.

Coefficient Factor – Non-Pre-priced work (normal work hours) - The multiplier for overhead and profit applied to a labor rate, that is not identified in Means, when work is performed during core hours.

Coefficient Factor – Non-Pre-priced work (other than normal work hours) - The multiplier for overhead, profit and employees' salary adjustment applied to a labor rate, that is not identified in Means, when work is performed during non-core hours.

Coefficient Factor (subcontracted work and materials and equipment) - The multiplier for overhead and profit applied to subcontracted work, and materials and equipment costs.

Collateral Equipment - Encompasses building type equipment and built in equipment, large substantially affixed equipment/property that is normally acquired and installed as part of a facility project as described below:

Building Type Equipment - Equipment normally required making a facility useful and operable. It is built in or affixed to the facility in such a manner that removal would impair the usefulness, safety, or environment of the facility. Such equipment includes elevators, heating, ventilating, and air conditioning systems, transformers, compressors, and other like items generally accepted as being an inherent part of a building or structure and essential to its utility. It also includes general building systems and subsystems such as electrical, plumbing, pneumatic, fire protection, and control and monitoring systems.

Built in Large, Substantially Affixed Equipment - A term used in connection with facility projects of any type, other than building type equipment, that is to be built in, affixed to, or installed in real property in such a manner that the installation cost, including special foundations or unique utilities service, or the facility restoration work required after its removal is substantial.

Computerized Maintenance Management System (CMMS) Database - A set of computer software modules, hardware, and equipment databases containing facility utilities and structures data with the capability to process the data for Section C Functions. These maintenance related functions include:

a. Work Input Control.

b. Job Estimating.

c. Work Scheduling and Tracking.

d. Facility/Equipment Inventory.

e. Facility/Equipment History.

f. Building Operations and Maintenance (including the normal ***CMMS Database** functions).

g. Preventive Maintenance.

h. Predictive Maintenance.

i. Facility Inspection and Assessment.

j. Material Management.

k. Utilities Management.

Condition Assessment - Condition assessment is the inspection and documentation of the material condition of facilities, structures, utilities, and equipment, as measured against the applicable maintenance standard. It provides the basis for long range maintenance planning as well as annual work plans and budgets.

Construction - Any and all field work for the purpose of constructing new facilities, and modifying, rehabilitating, repairing or demolition of existing facilities. Construction schedules are to incorporate ***Missions** such as: Shuttle Transportation System (STS), International Space Station (ISS), Constellation and simulation schedules, outages, and any other known restrictions.

Consumables - Expendable material and/or supplies used on a recurring basis.

Continuous Inspection - A program of periodic, scheduled inspections of facilities and equipment to determine their condition with respect to specified standards.

Continuous Unit - For purposes of this Contract, continuous unit is defined as an uninterrupted segment of a specified unit. Uninterrupted means no more than 25 feet between connecting sections of the same unit. For example: A chain link fence separated by a 12' gate is a continuous unit with sections; a gravel road intersected by a 24' paved road is a continuous unit; a sidewalk intersected by a 24' driveway is a continuous unit.

Contractor Acquired Property - Material, supplies, and/or equipment that is procured or otherwise acquired by the Contractor, to which the Government has title.

Contractor Furnished Property (CFP) - Material, supplies, and/or equipment provided or acquired by the Contractor and in the possession of the Contractor, to which the title remains with the Contractor until installed or utilized in performance of Contract services.

Current Replacement Value (CRV) - Approximate cost to replace an existing facility in its present form. NASA calculates CRV by escalating facility and collateral equipment acquisition cost, and any incremental book value changes of $1,000 or more to present year dollars using the Engineering News Record (ENR) Building Cost Index (BCI). The NASA Real Property Database Program or NASA approved equivalent is used in performing the required calculations.

Customer - A stakeholder with valid requirements for work under this Annex. Examples of customers are: the work requestor, site organizations like Safety, Pressure Systems, Security, Occupational Health, and ***JSC** programs and projects offices.

Critical Spares - Critical spares are standby stock held for emergencies in specific critical facilities for which there is no recurring demand. They must be immediately available to prevent delay which might result in loss, damage, destruction of property, or danger to life or mission due to an interruption of operations. Critical spares and their stock levels are Contractor recommended and approved by the ***COTR**. ***Mission Critical** items are those critical spares that have been identified as necessary to have available in the warehouse at all times. These parts are not for general purpose repairs.

Criticality Class Codes - See RCM Criticality Class Codes.

Daily (D) – For metric tracking: Service is accomplished at intervals of 22 to 26 hours. For operating and staffing: Monday through Friday (excluding holidays), during each 12 month period of the Contract (not including Saturday and Sunday).

Daily, 7 days a week (D7) - For metric tracking: Service is accomplished once during each day of the Contract, at intervals of 22 to 26 hours. For operating and staffing: Monday through Sunday, during each 12-month period of the Contract.

Day - For purposes of this Contract, a day is defined as one calendar day unless otherwise specified.

Debris - For purposes of this Contract, debris is defined as any trash, wastepaper, garbage, gum, or other matter lying scattered about which is foreign to its surroundings; e.g., leaves/rocks in lawns, branches in roads, or other items not placed or intended for the given location.

Deferral Codes - Codes used by the Contractor that indicate the reason for a delay in work accomplishment. The codes cover both Government and Contractor caused delays.

Design - This term is used to encompass both preliminary design and final design for facility projects.

Direct Digital Control (DDC) - A control loop in which a digital controller periodically updates a process as a function of a set of measured control variables using a given set of control algorithms. For example, DDC signals from a central computer can be converted to a voltage or pneumatic signal to operate an actuator to perform necessary mechanical functions.

Directed Services - Government ordered work on unscheduled Contractor service work that may include, maintenance, corrective maintenance, repair, alterations, modernization, new capability construction, engineering, and other support service work.

TABLE 1-1
DEFINITIONS

Disposition - The disposal, treatment, recycling or offsite storage of any industrial solid waste. This does not include storage in an authorized, onsite facility.

Document – Any (paper or electronic format): reports, submittals, plans, logs, lists, records, analytical results, photographs, maps, O & M manuals and procedures.

Drawings - Graphic data, including drawings as defined in MIL-STD 100A and prepared in accordance with MIL-STD-1000, Category D, aperture cards in accordance with MIL-C-9877, and graphs or diagrams in accordance with industry standards and industry specifications on which details are represented with sufficient information to define completely, directly, or by reference the end result for use in the selection, procurement, and manufacture of the item required.

Dust Free - The result of work the Contractor accomplishes to keep work areas such as data processing, research and medical equipment areas, etc., protected from damage and accumulation of dust.

EF Aprons – EF aprons in this annex refers to the concrete airplane travelways, just outside and adjacent to the airplane hangars that are used for temporary parking and movement of aircraft.

End Result - Includes all necessary actions to accomplish a requirement.

Energy Monitoring and Control System (EMCS) - A computerized system for monitoring and controlling remote systems through an integrated system of network controls.

Enterprise Building Integrator (EBi) - The Honeywell energy management system.

Facility Contract (FC) - A multi-function ***JSC** Contract providing Center operating services for ***JSC**, Ellington Field and Sonny Carter Training Facility.

Facility Manager (FM) - The responsible Government person, a point of contact for the onsite safety and health of a building and its occupants (building "superintendent").

Final Design Package (FDP) - A FDP includes: Final ***MOU**, design drawings (manually drawn or created by CAD) including the signed original drawings, the specifications, final design analysis, engineering calculations, a copy of the relevant catalog cut sheets, previous design review comments including the Contractor's response recording resolution of each review comment, and final construction cost estimate.

Fiscal Year (FY) - An accounting period of 12 months. NASA fiscal year extends from October 1 through September 30 of the following year.

Grounds Care - Grounds care is the maintenance of lawns, shrubs, trees, sprinklers, right-of-ways and open fields, drainage ditches, other similar improvements to land, and pest control when performed outside of buildings. The maintenance tasks include mowing, spreading fertilizer, trimming hedges and shrubs, clearing ditches, snow removal, and related work. Included in this category is the cost of maintaining grounds care equipment such as mowers and tractors.

Holidays - Federal holidays include New Year's Day, Martin Luther King, Jr. Day; Presidents' Day; Memorial Day; Independence Day, Labor Day; Columbus Day; Veterans' Day; Thanksgiving Day; and Christmas Day.

Immediate/Immediately - For purposes of this Contract, immediately means with no interval of time or delay. Immediate response shall comply with training received through Emergency Vehicle Operators Course (EVOC) Training.

Industrial Solid Waste (ISW) - Waste that is regulated by TAC 335, includes all hazardous wastes, Toxic Substance Control Act wastes, mixed radioactive waste, or any other waste that is similar to wastes incidental to any process of industry or manufacturing. Includes TNRCC Class 1, Class 2 and Class 3 Wastes.

In-House - For purposes of this Contract, "in-house" labor includes all labor performed by prime Contractor employees or employees of subcontractors permanently involved with functions identified in this Contract. "In-house" labor does not include labor resulting from one time contracts/services.

Installation - An installation is geographically contiguous property owned by NASA ***JSC**. EF and SCTF are each installations since they are not contiguous.

Interim Design Package - An interim design review package includes: design analysis with the ***MOU**, engineering calculations, construction schedule, design drawings (manually drawn or created by CAD), previous design review comments including the Contractor's response recording resolution of each review comment, specifications, and a copy of the relevant catalog cut sheets.

Johnson Space Center (JSC) - For purposes of this Contract, Johnson Space Center (***JSC**) includes JSC, Ellington Field (EF), and Sonny Carter Training Facility (SCTF) unless otherwise stated to exclude one or more of the facilities. (***JSC** is excluded from Table of Contents and Titles).

Landscaped Areas - Areas at ***JSC** that are maintained as a flowerbed with flowers, small ornamental trees, azaleas or other shrubs and are mulched, are weed free, and have landscape timber borders.

Life Cycle Costs (LCC) - A form of economic analysis that considers the total cost of owning, operating, and maintaining building and equipment over its useful life. LCC's are the sum of the present value of:

a. Investment costs less salvage values, at the end of the useful life.

b. Nonfuel operation and maintenance costs.

c. Replacement costs less salvage costs, of replaced building systems.

d. Energy costs.

All life cycle costing analyses of energy related projects shall be performed using the energy cost projections and discount rates provided by the National Institute of Standards and Technology in support of Department of Energy responsibilities under the most current version of 10 CFR, Part 436, Subpart A.

Line Item - An individually identifiable record (e.g. equipment, data, task) or occurrence of the Contract.

Litter - Trash, wastepaper, garbage, or other matter lying scattered about which is foreign to its surroundings.

Man and Operate - This term is used for systems requiring continuous staffing during the operational period provided in the Performance Requirements column. Personnel may also operate other systems within the immediate vicinity for which they are qualified.

Maintenance - Day-to-day, periodic, scheduled, or unscheduled work required to preserve a piece of equipment, a system, or a real property facility in a condition that it may be effectively used for its intended purpose and availability. Maintenance may require painting and/or repainting.

Master Facility Drawings - Drawings, hard copy or electronic, that act as the official record of the site's facilities and have not been vectorized.

Memorandum of Understanding (*MOU) - Document developed by the Contractor indicating that the Contractor has adequately identified the project requirements of the requestor and Government.

Mission - This term is used to designate the time period Launch minus 12 hours through Landing plus 4 hours, unless otherwise specified, during which flight support activities take place at the Johnson Space Center ***JSC**. During the Shuttle Mission period, there are restrictions imposed on operations, and maintenance activities associated with most of the utility systems. Typical restrictions are detailed on each Mission Fact Sheet. See ****STS Fact Sheet**. Mission restrictions are imposed on operations and maintenance activities during the continuous International Space Station Complex Phase Periods which are reviewed and approved a week in advance at the weekly Readiness Integration Meeting.

Mission Critical - Stock that is necessary to provide support to the Manned Space Flight Program.

Mission Variable Facility - Specialized facilities supporting energy intensive activities directly related to the level of mission activity, such as Building 49, Building 222, etc. The National Energy Conservation Policy Act (NECPA) allows for exempting these facilities from the Federal Energy Reduction Goals.

Mitigate/Mitigation - For purposes of this Contract, mitigation includes arresting the immediate problem/situation and repairing, or restoring the piece of equipment, property, or system to an acceptable condition such that it may be utilized for its intended purpose. Repairs may be temporary; however, temporary repairs shall not create an unsafe environment, allow additional damage to incur, or result in higher, unusual costs to the Government in terms of additional wear and tear on property/equipment, excessive use of utilities, etc.

Mobile Support Equipment (MSE) - Government owned mobile equipment that is maintained, repaired, and fueled by the Facilities Contractor and may be made available for use by the Government, other Government Contractors, or the Facilities Contractor. A portion of the MSE is engine driven. A detailed list of MSE is provided in Section J.

Monitor - This term is used to delineate system activities other than actual operations that require periodic staffing. Activities include operator surveillance of system parameters and visual checks for damage, abnormal conditions, leaks, etc., and the associated initiation of corrective actions. The Government requires that these activities be accomplished by trained personnel with ability to recognize and take appropriate actions for abnormal conditions and evidence of potential problems.

Monthly (M) - For metric tracking, service is accomplished once during each calendar month of the Contract , at intervals of 28 to 32 days during each 12 month period of the Contract.

Non-Bulk - For purposes of this Contract, non-bulk includes material, containers or packaging with an internal volume less than 119 gallons.

Nondestructive – nondestructive for this annex means no adverse affect to the integrity of the surface and structure. No penetrations shall be made and the inspection area shall not be destroyed or altered in any manner.

Non Specified Equipment (NSE) - Non-specified equipment that is not specified in the Contract and will have maintenance and repair provided, if required, by a Task Order.

On Line Access - Immediate and direct access by local area network using Government computers to databases generated for the purposes of Contract requirements with the capability to compile and generate reports.

Operate - This term is used for systems that require periodic operational activities but not continuous staffing. Personnel may be available for other contract activities.

Operating Procedure (OP) - This is a standing procedure that provides step-by-step instructions to operate utility systems. The Contractor shall maintain, update or generate new OP's as needed. OP's require Contracting Officer

(CO) approval for any updates, or new OP's and shall be maintained in electronic format easily accessible to the Government.

Outage - The planned or unintentional interruption or termination of a utility service such as electricity, water, steam, chilled water, or communication.

Paved Areas - Includes all paved off street areas intended for vehicular usage, including parking lots, piers, hardstand areas, access roads and entranceways to parking areas and buildings, turn arounds, loading/unloading areas, including loading dock areas, etc.

Pre-Designated Staging Area (PSA) - Temporary areas established for the collection of regulated substances, awaiting pickup to a retention/treatment facility. PSA's are not designated as retention facilities/locations.

Predictive Testing & Inspection (PT&I) - Trend performance and analytical data. PT&I is the use of advanced technology to assess machinery condition. It replaces maintenance scheduled at arbitrary times or usage intervals with maintenance that is scheduled only when the condition of the equipment requires it. The PT&I data obtained allows for planning and scheduling corrective maintenance or repairs in advance of failure. PT&I utilizes primarily non-invasive techniques and inspection activities for facility utilities and structure items that generally require more sophisticated means to identify maintenance requirements than those of Preventive Maintenance.

Pre-Expended Bin Material - Includes all normally stocked, common use items inherently used by craftsman during the performance of their jobs. Pre-expended material will include all items with an extended price up to $25 per line item, before tax.

Preventive Maintenance (PM) - Also called time based maintenance or interval based maintenance. PM is the planned, scheduled periodic inspection, adjustment, cleaning, lubrication, parts replacement, and minor repair of equipment and systems for which a specific operator is not assigned. PM consists of many checkpoint activities on items that, if disabled would interfere with an essential Center operation, endanger life or property, or involve high cost or long lead time for replacement.

Proactive Maintenance (PAM) - It seeks to reduce the need for maintenance through better design, better installation, precision balance and alignment, and root cause failure analysis.

Procedure – Any (paper or electronic format): documented record of how work is to be accomplished to meet the requirements. Includes work methods (WM), standard operating procedures (SOP), system level procedure (SLP), or work instruction (WI).

Programmed Maintenance (PGM) - Programmed maintenance are those maintenance tasks whose cycle exceeds one year, such as painting a building every fifth year. (This category is different from PM in that if a planned cycle is missed, the original planned work still remains to be accomplished, whereas in PM only the next planned cycle is accomplished instead of doing the work twice, such as two lubrications, two adjustments, or two inspections.)

Project Manager (PM) - An assigned Government personnel responsible for oversight and coordination of the Contractors ***MOU**, interim, and final design package.

Property Administrator - Authorized representative of the Contracting Officer who is assigned to administer the Contract requirements and obligations relating to Government property.

Quarterly (Q) - For metric tracking: Service is accomplished once during each three calendar months of the Contract during each 12 month period of the Contract.

Raster Master Drawings - Master facility drawings that have been scanned into an electronic format.

Reactive Maintenance - Often referred to as breakdown maintenance or "run to failure (RTF)." Reactive maintenance or equipment repairs are performed only when the deterioration in a machine's condition causes a functional failure. A high percentage of unplanned maintenance work, high replacement part inventories, and the inefficient use of maintenance personnel typify this strategy.

Ready for Issue - In a usable condition and available for immediate use.

Real Property - Any interest in land and anything permanently attached to it, including structures, fixtures, and their improvements.

Recurring Work - Work which is performed under the Contract which is not a part of the Scheduled Maintenance and Repair Program and is required an undetermined number of times during the year, but is required at least once. This work will be accomplished as required. An example is implementation of the Hurricane Plan which will be performed (partially) once per year at the start of hurricane season with the resumption and completion of the plan carried out dependent on the number of storms which threaten the Texas Gulf Coast.

Recycled - Includes use, reuse, or reclamation of a discarded material.

Refuse - Discarded garbage, ashes, debris, branches and limbs, waste material, sand blast grit, etc. Wet refuse includes vegetable wastes and animal bones, fat, scraps, etc., resulting from food consumption and preparation. Refuse does not include infectious or hazardous waste or bulky refuse such as appliances, furniture, trees and large branches, large auto parts, etc.

Regulated Substances (RS) - For purposes of this Contract, regulated substances includes any substance regulated by environmental regulations such as hazardous wastes, industrial wastes hazardous material, recyclables, and Toxic Substance Control Act (TOSCA) material.

TABLE 1-1
DEFINITIONS

Reliability Centered Maintenance (RCM) - RCM is a day to day maintenance strategy that logically incorporates into a maintenance program the proper mix of reactive, preventive, predictive, and proactive maintenance practices. Rather than being independent, the four maintenance categories draw upon their respective strengths to maximize facility and equipment operability and efficiency while minimizing required maintenance time, materials, and, consequently, costs.

Reliability Centered Maintenance (RCM) Analysis – A Government requested lengthy, craft and engineer involved rigorous analysis and report based on a detailed failure modes and effects and includes probabilities of failure and system reliability calculations. The report shall be as outlined in ****NASA Reliability Centered Maintenance Guide for Facilities and Collateral Equipment**. The analysis is used to determine appropriate maintenance tasks to address each of the identified failure modes. An RCM analysis is only initiated by the Government through a Task Order request per Annex 4.

Reliability Centered Maintenance (RCM) Criticality Class Codes –

Class I – ***Mission** Critical: Class 1 facilities or systems are based on the presence of at least one of the following criteria: The loss of the facility or system would impact a launch, the loss of a facility or system would restrict or prohibit a spacecraft landing, or would require a ***Mission** to be cut short or cause a ***Mission** objective to be lost or restricted, or, an existence of a potential or existing environmental, Occupational Health, or safety issue that would have grave consequences.

Class II – Site Critical: Class II facilities or systems are ones where the loss of the facility or system would severely limit the intended function, use or capacity, could impact a very large number of people or could have a large economic impact. A system example is a piece of equipment that has a very high cost or long lead procurement time required for replacement.

Class III – ***Mission** Support: Class III facilities or systems are ones that are costly to maintain but do not directly impact a ***Mission**. Facilities and systems seriously impacting other operations and cost (for example, steam trap monitoring for energy conservation) may be within this classification.

Class IV – Program Support: Facilities or systems that have a history of significantly impacting ***Mission** or maintenance costs are included as Class IV. These items shall be evaluated periodically to determine whether routine Predictive Testing and Inspection techniques are cost effective and warranted for the facility or utility.

Class V – Site Support: Class V facilities or systems are ones that have no direct site utility or ***Mission** impact. This is the lowest criticality class code level that Predictive Testing and Inspection is performed on. Most equipment or systems in this category are isolated systems, have impact on a minimum number of personnel or affect a small portion of a facility, structure, or utility.

Repair - Work required to restore a facility system or component thereof, including ***Collateral Equipment**, to a condition equivalent to its originally intended and designed capacity, efficiency, or capability. It includes the equivalent replacements of utility systems and ***Collateral Equipment** necessitated by incipient or actual breakdown. Repair includes adjustment, overhaul, relabeling, reprocessing, painting, repainting or replacement of constituent parts or materials that have deteriorated by action of the elements or usage, have been damaged, regardless of the cause, or have not been corrected through maintenance. Repair may include replacement of obsolete equipment to restore the facility to an operational condition. Example: repair does include services such as tank cleanings, etc., due to unsatisfactory testing, inspections, or scheduled maintenance; however, repair does not include upgrades identified as building deficiencies (e.g., safety or fire inspections, new laws, etc.).

Root Cause Analysis - A detailed technical procedure performed on an item of equipment that is having repeated breakdowns or is experiencing excessive wear. It is also performed when a safety, Occupational Health, or environmental incident occurs.

Roof mounted appurtenances – roof mounted appurtenances for this annex includes, but is not limited to: antennas, data sensors, and microwave dishes. For actual list of items, see roof mounted appurtenance inspection section in ****Roof Inspection Annual Report** located in ***TRL**.

Scheduled Maintenance (SM) - The planned, routine, repeatable, or scheduled maintenance work on specified significant structures, facilities and utilities or systems (SFUSS) and components thereof. Scheduled maintenance work has a Contractor limit of liability as defined in Annex 2.

Semi-Annually (S) - Service is accomplished two times at intervals of 160 to 200 days during each 12 month period of the Contract.

Service Request Tag (SRT) - This term is used to identify a tag to be attached to a faulty piece of equipment or component affecting a system. The intent of the SRT is to identify the failure, mitigate any hazards, inform other personnel in the field, as well as, provide a means of tracking known problems until corrective work orders are initiated. The SRT's shall be tracked in the CMMS system with associated corrective work orders.

Shift - The period of time defined as one third of a 24 hour day.

Shipment - Physical distribution/movement and storage functions associated with commodities identifiable to specific documentation.

Signs - Written and displayed communications required by law, regulation, or otherwise mandated by NASA to inform personnel at ***JSC** of work related or safety information.

TABLE 1-1
DEFINITIONS

Special Purpose Equipment - A wide variety of non-specified equipment.

Specified Significant - The ***JSC** defined line item in a listing that indicates specific structures, facilities and utilities or their respective systems thereof such as: systems, equipment, component on which the Contractor shall perform SM work to result in the delivery of specified reliability, availability, function, redundancy and output.

Space Program Integrated Contracts Environment (SPICE) Software - An integrated web based database application for use by NASA and associated Contractors and subcontractors. The application is used for managing contractual/financial and performance data for multiple NASA Contracts. SPICE integrates data management processes for several major NASA centers and Contractor sites.

SPICE WAD Tracking System - A standardized electronic process used for the authorization, preparation and execution of ***WAD** work requests. The system tracks site customer requests, ***MOU's**, design requirements, statuses, costs, and funding authorizations. System information is used to generate***WAD** performance metrics.

Standing Work - Work which is performed under the Contract which is not a part of the Scheduled Maintenance and Repair Program and is required a pre-determined number of times during the year. The schedule can be specifically called out as in, once per hour or may be left to the Contractor, as in, once ***Annually**. An example is implementation of the Fall/Winter Setback Plan which always occurs once per year during the fall of the year.

Structures, Facilities, Utilities, Systems, and Subsystems (SFUSS) - The physical plant of ***JSC**; further defined in CLIN 2.1.5.

System Definitions - See Table 3-1 which contains the detailed system descriptions with operational outputs and listed system components. The Contractor shall follow the operational requirements as detailed by system outputs. The listed system components may not be all inclusive but attempts to describe elements that support the primary system. Components shall be repaired as per Annex 2 whether or not they have a maintenance identification number.

Total Cost - The ***Bare Cost** plus the contractor overhead and profit.

Trouble Desk - A work reception desk operated 24 hours a day, seven days a week by the Contractor for receiving, screening, and coordinating emergency/service calls.

User Equipment (UE) - Those systems or equipment that are required for test setups or in conducting operations unique to a particular facility or to accommodate the requirements of a particular test program, project or program.

Utility Procedure (UP) - This is a one time per operation, Contractor generated, Government approved document that provides step-by-step instructions to establish responsibility and control system configuration changes. It provides details such as lockout/tagout, switch operation, valve operation, coordination, etc. See ****Utility Procedure Policy - JA MG 8410.02A**

Work Authorization Document (*WAD) - A document prepared by the ***JSC** organization customers that initiates facility modifications or new capabilities. The ***WAD's** can be used to initiate studies, designs, construction, maintenance or Requests for Proposals. The work is accomplished via Delivery Order (DO), Task Order (TO), or Contract Work Order (WO) with appropriate funding when required.

Weekly – For metric tracking, service is accomplished at intervals of 6 to 8 days, once during each 7 day period of the Contract, for operating and staffing: Monday through Sunday, during each 12 month period of the Contract.

Work Control Center (WCC) - The central organizational point for receipt, tracking, and management of work generated from all sources.

Workday - For purposes of this Contract, a ***Workday** is defined as one calendar day from Monday through Friday, inclusive, excluding ***Holidays**.

Yearly – For metric tracking, service is accomplished once during each 12 month period of the Contract. Synonymous with ***Annually**. For operating and staffing: 12 calendar months.

TABLE 1-2
ACRONYMS AND ABBREVIATIONS

A	Annually
ABO	Aviation Breathing Oxygen
AC	Alternating Current
ACA	Associate Contractor Agreement
ACM	Asbestos Containing Material
ACR	Allowance Change Request
ADA	American Disabilities Act
ADP	Automated Data Processing
A/E	Architectural & Engineering
AEE	Association of Energy Engineers
AEI	Air Emissions Inventory
AES	Automated Estimated System
AGST	Above Ground Storage Tank
AIA	American Institute of Architects
AIDS	Acquired Immune Deficiency Syndrome
AIM	Automated Industrial Monitoring and Control
AIS	Automated Information Security
AMD	Average Monthly Demand
AME	Applied Management Engineering
AMS	Air Management System
ANSI	American National Standards Institute
ANST	American Society of Nondestructive Testing
AQL	Acceptable Quality Level
ASCAN	Astronaut Candidate
ASHRAE	American Society of Heating, Refrigeration, and Air Conditioning Engineers
ASME	American Society of Mechanical Engineers
ASQ	American Society for Quality
AST	Aboveground Storage Tank
ASTM	American Society of Testing and Materials
AWCS	Agency Wide Coding Structure
AWP	Annual Work Plan
AWWA	American Water Works Association
BCS	Building Control System
BLCC	Building Life Cycle Cost
BMAR	Backlog of Maintenance and Repair
BMP	Best Management Practice
BNA	Building Network Adapter
BOD	Beneficial Occupancy Date
BPA	Blanket Purchase Agreement
BSEE	Bachelor of Science in Electrical Engineering
BTU	British Thermal Unit
BUP	Building Unit Point
CAA	Clean Air Act
CAD	Computer Aided Design
CAMEO	Computer Aided Management of Emergency Operations
CAP	Contractor Acquired Property
CARE	Computer Aided Regulation Engineering
CCB	Construction Criteria Base
CD	Compact Disc
CDO	Contractor Duty Officer
CDPA	Control Document Production Area
CDR	Contract Discrepancy Report
CEMS	Continuous Emissions Monitoring System
CEQ	Council for Environmental Quality
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act

TABLE 1-2
ACRONYMS AND ABBREVIATIONS

CFC	Chlorofluorocarbon
CFE	Contractor Furnished Equipment
CFM	Contractor Furnished Material
CFP	Contractor Furnished Property
CFR	Code of Federal Regulations
CGA	Cylinder Gas Audit
CGM	Computer Graphics Metafile
CI	Continuous Improvement
CLCWA	Clear Lake City Water Authority
CLIN	Contract Line Item Number
CM&R	Corrective Maintenance and Repair
CMMS	Computerized Maintenance Management System
CO	Contracting Officer
COB	Close of Business
COD	Center Operations Directorate
CoF	Construction of Facilities
COMSEC	Communication Security
CONTAR	Container Trailer Vans
COP	Coefficient of Performance
COTR	Contracting Officer's Technical Representative
COTS	Commercial off the Shelf
CPG	Comprehensive Procurement Guideline
CPM	Critical Path Method
CPU	Central Processing Unit
CRN	Change Request Notification
CRT	Cathode Ray Tube
CRV	Current Replacement Value
CSCS	Central Security Control System
CSI	Construction Standard Institute
CSO	Computer Security Official
CSSUPB	Construction Support Service Unit Price Book
CT	Current Transformer
CTS	Central Telephone System
CWA	Clean Water Act
CWI	Common Work Instruction
D	Daily
D7	Daily, 7 days a week
DAHS	Data Acquisition and Handling System
DAMES	Defense Automatic Addressing System Center Asynchronous Message Entry System
DAO	Designated Approving Official
DAR	Daily Activity Report
DC	Direct Current
DCS	Document Control System
DDC	Direct Digital Control
DDE	Dynamic Data Exchange
DEC	Digital Equipment Corporation
DESTRANS	NASA Supply Management System Destination Transaction
DFAR	Department of Defense Federal Acquisition Regulation
DLA	Defense Logistics Agency
DLSC	Defense Logistics Service Center
DO	Delivery Order
DOD	Department of Defense
DOE	Department of Energy
DOI	Division Operating Instructions
DOL	Department of Labor

TABLE 1-2
ACRONYMS AND ABBREVIATIONS

DOT	Department of Transportation
DP	Distribution Panel
DRD	Data Requirements Description
DRL	Data Requirements List
DRMO	Defense Reutilization and Marketing Office
DV	Designated Verification
EA	Environmental Assessment (NEPA related)
EAC	Estimate at Completion
Ebi	Enterprise Building Integrator
EBS	Environmental Baseline Survey
ECLSS	Environmental Control and Life Support Systems
ECM	Energy Control Manager
ECN	Equipment Control Number
EDCC	Engineering Drawing Control Center
EE	Electrical Equipment
EEWCT	Energy Efficiency and Water Conservation Team
EF	Ellington Field
EHL	Environmental Health Lab
EHS	Environmental, Health, and Safety
EIA	Electronic Industry Association
EIN	Equipment Identification Number
EIQ	Emissions Inventory Questionnaire
EIS	Environmental Impact Statement (NEPA Related)
EMCS	Energy Management and Control System
EMD	Electro Motive Division
EMP	Environmental Management Program
EMS	Environmental Management System
EO	Executive Order
EOC	Emergency Operations Center
EOQ	Economic Order Quantity
EORB	EMCS Operations Review Board
EP	Emergency Preparedness
EPA	Environmental Protection Agency
EPASS	Electronic Pass and Security System
EPCRA	Emergency Planning & Community Right-to-know Act
EPFOL	El Paso Forward Operating Location
EPS	Engineering Performance Standards
ERD	Environmental Resource Document
ERT	Emergency Response Team (NASA *JSC)
ESA	Endangered Species Act
ESD	Electrostatic Discharge
ESO	Environmental Services Office (NASA *JSC)
ESRB	EMCS System Review Board
EST	Energy System Test
ESTA	Energy Systems Test Area
EVOC	Emergency Vehicle Operators Course
EWS	Emergency Warning System
FA	Facility Activation
FAR	Federal Acquisition Regulation
FBR	Fixed Budget Rate
FC	Facilities Contractor
FCA	Facility Condition Assessment
FCB	Facility Control Board
FCC	Federal Communications Commission
FCR	Flight Control Room
FCS	Federal Catalog System

TABLE 1-2
ACRONYMS AND ABBREVIATIONS

FDP	Final Design Package
FEDLOG	Federal Logistics Data on Compact Disc
FEL	Facility Engineering Library
FEP	Fire Evacuation Plan
FHP	Facility Housing Plans
FIFO	First In, First Out
FIFRA	Federal Insecticide, Fungicide, and Rodenticide Act
FM	Facility Manager
FMD	Financial Management Division
FMEA	Failure Mode and Effects Analysis
FMIS	Facilities Management Information System
FMS	Facility Maintenance Support
FOB	Free on Board
FPMR	Federal Property Management Regulations
FRR	Flight Readiness Review
FY	Fiscal Year
G	Gravity
G&A	General and Administrative
GAO	General Accounting Office
GBL	Government Bill of Lading
GCT	Gas Cylinder Tracking
GE	General Electric
GFE	Government-Furnished Equipment
GFM	Government-Furnished Material
GIS	Geographic Information System
GNS	Guidance and Navigation Simulator
GPM	Gallons per minute
GPO	Government Printing Office
GPS	Government Provided Software
GSA	General Services Administration
GSE	Ground Support Equipment
H2S	Hydrogen Sulfide
HAP	Hazardous Air Pollutant
HATS	Hazard Abatement Tracking System
HAZMAT	Hazardous Material
HAZWOPER	Hazardous Waste Operations and Emergency Response
HCFC	Hydro chlorofluorocarbon
HEPA	High-Efficiency Particulate Arresting
HFD	Houston Fire Department
HMI	Hazardous Material Inventory
HMIS	Hazardous Materials Information System
HQ	Headquarters
HSWA	Hazardous and Solid Waste Amendments
HTH	Calcium Hypochlorite
HV	High Voltage
HVAC	Heating/Ventilation/Air Conditioning
HWO	Hazardous Waste Operator
IAGP	Installation – Accountable Government Property
IATA	International Air Transport Association
IAW	In Accordance With
ICAO	International Civil Aviation Organization
ID	Identification
ID/IQ	Indefinite Delivery Indefinite Quantity
IEEE	Institute of Electrical and Electronic Engineers
IM	Inventory Manager/Management
IMAS	Information Management Accounting System

TABLE 1-2
ACRONYMS AND ABBREVIATIONS

IMPACC	Integrated Monitoring Protection And Control Communications
INS	Institutional Network System
IPG	Inspection Preparation Guidelines (Air Emission Inventory related)
IQ	Indefinite Quantity
IRM	Information Resources Management
ISC	Integration Support Contract
ISD	Information Systems Directorate
ISO	International Standards Organization
ISS	International Space Station
ISW	Industrial Solid Waste
IT	Information Technology
IWPTP	Industrial Waste Pre-Treatment Plant
JB7	Transportation Branch Mail Code
JHB	Johnson Space Center Handbook
JMG	Johnson Management Guidance
JPD	Johnson Space Center Policy Directive
JPG	Johnson Space Center Procedures and Guidelines
JPR	Job Performance Requirement
JSC	Johnson Space Center
JSCI	Johnson Space Center Instruction
JSCM	Johnson Space Center Manual
JSCMD	Johnson Space Center Management Directive
JSCMI	Johnson Space Center Management Issuances
JSCS	Johnson Space Center Standard
KSC	Kennedy Space Center
kV	Kilo-Volt
KVA	Kilo-Volt Amps
KWH	Kilowatt Hours
LAN	Local Area Network
LAU/LDU	National Stock Number Add User/Delete User
LCC	Life Cycle Costs
LCO	Limit Change Order
LDD	Lost, Damaged, or Destroyed Property
LDR	Land Disposal Restrictions
LED	Light Emitting Diode
LEED	Leadership in Energy and Environmental Design
LEPC	Local Emergency Planning Committee
LMR	Land Mobile Radio
LOE	Level of effort
LOEP	List of Effective Pages
LOGRUN	Logistics Remote Users Network
LP	Lighting Panel
LWDC	Lost Workday Case
M	***Monthly**
MA	Maintenance Activation
M2	Every 2 Months
M4	Every 4 Months
M18	Every 18 Months
M24	Every 24 Months
M36	Every 36 Months
M48	Every 48 Months
M60	Every 60 Months
MAWP	Maximum Allowable Working Pressure
MBTU	Million British Thermal Units
MCC	Mission Control Center

TABLE 1-2
ACRONYMS AND ABBREVIATIONS

MCCC	Mission Control Center Complex
MCL	Maximum Contaminant Level
MCRR	Modification, Construction, Rehabilitation and Repair
MDP	Main Distribution Panel
MER	Material and Equipment Rental
METASYS	Johnson Control SCADA Product
M-F	Monday Though Friday
MG/L	Milligram per Liter
MGPD	Million Gallons Per Day
MHE	Material Handling Equipment
MIL/FED	Military/Federal
MIL-STD	Military Standard
MIPR	Military Interagency Purchase Request
MIS	Material Information Sheet
MMT	Material Movement Ticket
MOD	Missions Operations Directorate
MOU	Memorandum of Understanding
MOW	Mission Operations Wing
MRO	Material Release Order
MRR	Mission Readiness Review
MSDS	Material Safety Data Sheet
MSE	Mobile Support Equipment
MUFFIN	Multi-Use File for Interagency News
MUP	Master Utility Plan
MUR	Monthly Utility Report
MUTCB	Manual of Uniform Traffic Control Devices
MW	Monitoring Well
NABER	National Association of Business and Educational Radio
NAC	National Agency Check
NAESA	National Association of Elevator Safety Authorities
NAICS	National Industry Classification System
NASA	National Aeronautics and Space Administration
NAVFAC	Naval Facilities Engineering Command
NBL	Neutral Buoyancy Laboratory
NCA	Noise Control Act
NEC	National Electrical Code
NEIS	NASA Environmental Information Systems
NEMS	NASA Equipment Management System
NEPA	National Environmental Policy Act
NESHAP	National Emissions Standards for Hazardous Air Pollutants
NETA	International Electrical Testing Association
NETS	NASA Environmental Tracking System
NFPA	National Fire Protection Association
NHB	NASA Handbook
NICET	National Institute for Certificate of Engineering Technology
NIOSH	National Institute of Occupational Safety and Health
NMI	NASA Management Instruction
NOD	Notice of Deficiency (TNRCC/TDH/EPA)
NOR	Notice of Registration
NOV	Notice of Violation (TNRCC/TDH/EPA)
NOx	Nitrogen Oxide
NPD	NASA Policy Directive
NPDES	National Pollutant Discharge Elimination Permit

TABLE 1-2
ACRONYMS AND ABBREVIATIONS

NPDMS	NASA Property Disposal Management System
NPG	NASA Procedures and Guidelines
NPR	NASA Procedures Requirements
NRC	National Response Center
NRCA	National Roofing Contractors Association
NRP	NASA Resource Protection
NS	Safety and Test Operations Division
NSE	Non Specified Equipment
NSMS	NASA Supply Management System
NSN	National Stock Number
NSPS	New Source Performance Standards
NTIA	National Telecommunication Information Administration
NTP	Notice to Proceed
O&M	Operations and Maintenance
O/W	Oil/Water
O2	Oxygen
OCC	Operations Control Center
OCO	Operational Change Order
ODS	Ozone Depleting Substances
OIG	Office of Inspector General
OMB	Office of Management and Budget
OMOH	Occupation Medicine/Occupation Health
OP	Operational Procedure
OQAD	Operation Quality Assurance Division
OS&D	Overages, Shortages, and Damages
OSHA	Occupational Safety and Health Administration
OWL	Open Work List
P&I	Piping and Instrumentation
P2	Pollution Prevention
PACM	Potential ACM
PAM	Proactive Maintenance
PAO	Public Affairs Office
PC	Personal Computer
PCB	Polychlorinated Biphenyl
PDA	Personal Data Assistants
PDDAC	Power Demand and Acquisition System
PEAF	Pre Case Exposed Aggregate Faced
PGM	Programmed Maintenance
PHD	Plant Historian Data
PI	Permit Information
PLC	Programmable Logic Controller
PM	Preventive Maintenance
PM	Project Manager
PM/PT	Preventive Maintenance/Predictive Testing
PMI	Preventive Maintenance Inspection
PO	Purchase Order
POTW	Publicly Owned Treatment Works
PP	Power Panel
PPA	Pollution Prevention Act
PPB	Parts Per Billion
PPE	Personal Protective Equipment
PPM	Parts Per Million
PPOA	Pollution Prevention Opportunity Assessments
PPP/P3	Pollution Prevention Plan
PQP	Personnel Qualification Program
PR	Post Required

TABLE 1-2
ACRONYMS AND ABBREVIATIONS

PRVS	Pressure Reducing Valve Station
PSA	Pre-designated Staging Area
PSCN	Program Support Communications Network
PSI	Pounds per square inch
PSIG	Pounds per square inch gauge
PSMO	Pressure System's Manager's Office
PST	Petroleum Storage Tank
PT	Potential Transformer
PT&I	Predictive Testing & Inspection
PTOA	Pretreated Outside Air
PTR	Patrol Requirement
PWTRL	Public Works Technical Reference Library
PWUPB	Public Works Unit Price Book
Q	Quarterly
QA	Quality Assurance
QA/QC	Quality Assurance/Quality Control
QAE	Quality Assurance Evaluator
QAM	Quality Assurance Manager
QC	Quality Control
R	Repair
R&U	Redistribution and Utilization
RACM	Regulated Asbestos Containing Material
RATA	Relative Accuracy Test Audit
RCFA	Root-Cause Failure Analysis
RCM	Reliability Centered Maintenance
RCPA	Remote Control Point Adjustment
RCRA	Resource Conservation and Recovery Act
RFI	RCRA Facility Investigation
RFP	Request for Proposal
RIM	Readiness Integration Meeting
RMP	Risk Management Plan
ROD	Report of Discrepancy
ROM	Rough Order of Magnitude
RP	Receptacle Panel
RPAS	Real Property Accounting System
RPDB	Real Property Data Base
RPI	Real Property Inventory
RS	Regulated Substances
RTD	Remote Terminal Devices
RTU	Remote Terminal Unit
RVI	Random Vehicle Inspections
RVP	Reid Vapor Pressure
S	Semi-Annually
S&E	Sedimentation and Erosion
SA	Semi-Annually
SAIL	Shuttle Avionics Integration Laboratory
SSCBA	Self Conrained Breathing Apparatus
SCADA	Supervisory Control and Data Acquisition
SCTF	Sonny Carter Training Facility
SDWA	Safe Drinking Water Act
SEMO	Supply and Equipment Management Officer
SF	Standard Form
SFM	Simplified File Maintenance
SFUSS	Structure, Facilities, Utilities, Systems and Subsystems
SHE	Safety, Health, and Environmental
SM	Scheduled Maintenance

TABLE 1-2
ACRONYMS AND ABBREVIATIONS

SMS	Security Management System
SMSF	Shuttle Mission Simulator Facility
SNAP	Significant New Alternative Policy
SOP	Standard Operating Procedure
SOS	Security Operations System
SOW	Statement of Work
SP	Special Purpose
SPCC	Spill Prevention, Control and Countermeasures
SPECSINTACT	Specifications-Kept-In-Tact
SPF	Software Production Facility
SPICE	Space Program Integrated Contracts Environment
SPME	Special Purpose Mobile Equipment
SPSF	Shuttle Procedures Simulation Facility
SQL	Structured Query Language
SR&QA	Safety, Reliability, and Quality Assurance
SRT	Service Request Tag
SSP	Space Shuttle Program
STA	Site Critical Areas
STEERS	State of Texas Environmental Electronic Reporting System
STIC	Scientific and Technical Information Center
STP	Sewage Treatment Plant
STS	Space Transportation System
SUMS	Space Utilization Management System
SWMU	Solid Waste Management Unit
SWPPP	Storm Water Pollution Prevention Plan
SWT	SPECSINTACT Working Team
TAC	Texas Administrative Code
TAHPA	Texas Asbestos Health Protection Act
TARVAN	Trailer Vans
TCEQ	Texas Commission on Environmental Quality
TCLEOSE	Texas Commission on Law Enforcement Officer Standards and Education
TDH	Texas Department of Health
TDY	Temporary Duty
TEGD	Technical Enforcement Guidance Document
TFBR	Technical Feedback Report
TIFL	Transportation Inbound Freight Log
TNRCC	Texas Natural Resources Conservation Commission
TO	Task Order
TPDES	Texas Pollutant Discharge Elimination System
TRI	Toxic Release Inventory (EPA/TNRCC)
TRL	Technical Reference Library
TRRP	Texas Risk Reduction Program
TSCA	Toxic Substance Control Act
TSD	Treatment Storage Disposal
TSDHS	Texas State Department Health Services
TSDR	Commercial Treatment, Storage, Disposal, or Recycling Facility
TVP	True Vapor Pressure
TX	Texas
U.S.	United States
U.S.C.	United States Code
UCS	Utility Control System
UE	User Equipment
UE/JA	Center Operations User Equipment
UES	United Environmental Services
UMOAT	Utility Management and Operations Action Team

TABLE 1-2
ACRONYMS AND ABBREVIATIONS

UP	Utility Procedure
UPB	Unit Price Book
UPM	Uninterruptible Power Supply Module
UPS	Uninterruptible Power Supplies
UPV	Unfired Pressure Vessels
USDA	US Department of Agriculture
US GOVT	United States Government
USPS	United States Postal Service
UST	Underground Storage Tank
UTM	Universal Transverse Mercator
VATF	Vibration and Acoustic Test Facility
VAX	Virtual Address Extension
VIP	Very Important Person
VITS	Video Teleconferences
VMS	Virtual Memory System
VOC	Volatile Organic Compound
VSMF	Visual Search Micro Film
VTE	Vertical Transportation Equipment
W	Weekly
W2	Every two weeks
WAD	Work Authorization Document
WCC	Work Control Center
WETF	Weightless Environment Training Facility
WIS	Waste Information Sheet
WQIA	Water Quality Improvement Act
Y2K	Year 2000

Table 1-3
APPLICABLE DOCUMENTS LIST

Environmental Laws, Regulations, and Executive Orders

The Contractor shall comply with all applicable Federal, State and Local Environmental Laws and implementing regulations and ordinances, in effect on the date of Contract award except as otherwise noted, including, the applicable portions of the documents cited below. Includes applicable and pertinent regulatory guidance documents and cited references to industry standards. This list is meant to be comprehensive though not exhaustive or necessarily complete.

Mandatory Federal Laws and Regulations, as Applicable

ADA, Americans with Disabilities Act

Archeological Resources Protection Act, 42 U.S.C. 1996

Archeological and Historic Preservation Act, 42 U.S.C. 470aa-mm

Bald Eagle Protection Act, 16 U.S.C. 668-668d

Clean Water Act (CWA), 33 U.S.C. 21, et seq.

Clean Air Act (CAA), 42 U.S.C. 7401, et seq.

Coastal Zone Management Act of 1972, 16 U.S.C. 1451, et seq.

Coastal Barrier Resources Act, 16 U.S.C. 3501, et seq.

Comprehensive Environmental Response, Compensation, and Liability Act 42 U.S.C. 9601 (CERCLA), et seq.

Department of Transportation (DoT) Regulations

Emergency Planning and Community Right-to-know Act (EPCRA), 42 U.S.C. 11001, et seq.

Endangered Species Act (ESA), 16 U.S.C. 1531, et seq.

Energy Policy and Conservation Act, 42 U.S.C. 6374, et seq.

Energy Policy Act of 1992, Public Law 102-486

Farmland Protection Policy Act, 7 U.S.C. 4201, et. seq.

Federal Energy Management Improvement Act of 1988, Public Law 100-615.

Federal Facilities Compliance Act of 1992, 42 U.S.C. 6961 et seq.

Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), 7 U.S.C. 136, et seq.

Federal Land Policy and Management Act, (FLPMA)

Federal Water Pollution Control Act, 1976

Fish and Wildlife Coordination Act, 16 U.S.C. 661-66c.

Historic Sites, Buildings, and Antiquities Act of 1935, 16 U.S.C. 461, et seq.

Migratory Bird Treaty Act, 16 U.S.C. 703 4321, et seq.

National Emissions Standards for Asbestos, 40 CFR Part 61, Subpart M

National Environmental Policy Act (NEPA), 42 U.S.C. 4321, et seq., and Council for Environmental Quality (CEQ) implementing NEPA

National Historic Preservation Act, 16 U.S.C. 470 et seq.

National Energy Conservation Policy Act, 42 U.S.C. 8251-8287

National Monuments Act

Native American Graves Protection and Repatriation Act, 42 U.S.C

3001-3013.

Noise Control Act (NCA) of 1972

Occupational Health and Safety Act of 1970, 29 U.S.C.A. 651

et seq.

Oil Pollution Prevention Act of 1990, 33 U.S.C. 2701 et seq.

Pollution Prevention Act of 1990 (PPA), 42 U.S.C. 13101 et seq.

Resource Conservation and Recovery Act (RCRA), 42 U.S.C. 6901 et seq., as amended by the Hazardous and Solid Waste Amendments (HSWA), 1984

Rivers and Harbors Act, 33 U.S.C. 403 et seq.

Safe Drinking Water (SDWA), 42 U.S.C. 300f et seq.

Toxic Substances Control Act (TSCA), 15 U.S.C. 2601 et seq.

Water Quality Improvement Act (WQIA) of 1974

Wild and Scenic Rivers Act, 16 U.S.C. 1271 et seq.

Wilderness Act, 16 U.S.C. 1131 et seq.

Tal. . .-3
APPLICABLE DOCUMENTS LIST

State Environmental Laws

Texas Environmental Quality

Code Annotated, Title 30

Texas Health Services Code Annotated, Title25

Executive Orders (EO)

EO 11514 (Amended by EO 11991) Protection and Enhancement of Environmental Quality

EO 11593 Protection and Enhancement of the Cultural Environment

EO 11870 Environmental Safeguards on Activities for Animal Damage Control on Federal Lands

EO 11988 Floodplain Management

EO 11990 Protection of Wetlands

EO 12088 (Amended by EO 12580) Federal Compliance with Pollution Control

EO 12148 Federal Emergency Management

EO 12759 (Sections 3, 9, and 10) Federal Energy Management

EO 12843 Procurement Requirements and Policies for Federal Agencies for Ozone-Depleting Substances

EO 12844 Federal Use of Alternative Fueled Vehicles

EO 12845 Requiring Federal Agencies to Purchase Energy Efficient Computers

EO 12856 Federal Compliance with Right-to-Know Laws and Pollution Prevention Requirements

EO 12873 Federal Acquisition, Recycling and Waste Prevention

EO 12898 Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations

EO 12902 Energy Efficiency and Water Conservation at Federal Facilities

EO 12969 Federal Acquisition and Community Right-to-Know

EO 13016 Amendment to Executive Order 12580

EO 13101 Greening the Government Through Waste Prevention, Recycling, and Federal Acquisition

EO 13123 Greening the Government Through Efficient Energy Management

EO 13134 Developing and Promoting Biobased Products and Bioenergy

EO 13148 Greening the Government through Leadership in Environmental Management

EO 13149 Greening the Government through Federal Fleet and Transportation Efficiency

OMB Circulars

OMB Circular A-11: Preparation and Submission of Budget Estimates

OMB Circular A-106: Reporting Requirements in Connection with the Prevention, Control, and Abatement of Environmental Pollution at existing Federal Facilities

NASA Environmental Policy Directives/Letters

NASA Policy for Procurement of Office Paper, December 1994

*JSC Management Directives

JPR 1700.1 Revision I JSC Safety and Health Handbook

JPR 8550.1, JSC Environmental Compliance Procedural Requirements

NASA Facilities Management Directives

8820.2 Facilities Project Implementation Handbook

ANNEX 2
MAINTENANCE AND REPAIR
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2 MAINTENANCE AND REPAIR

2.1 General Information

2.1.1 Annex Description

This Annex identifies the routine ***Scheduled Maintenance** (SM) and Repair (R) requirements for specified Structures, Facilities, Utilities, Systems and Subsystem components (SFUSS), Mobile Support Equipment (MSE), User Equipment (UE), and IAGP.

2.1.2 Background

JSC** is a large and complex site and the Contractor shall use full advantage of the equipment and facilities provided by the Government to keep all identified equipment providing their intended functions, outputs, and availability. The Contractor will be provided the NASA-JSC** Scheduled Maintenance Database, which includes:

a) The initial MAXIMO preventative maintenance task database,

b) All required scheduled maintenance task instructions,

c) An equipment inventory including buildings and systems with six categories of equipment,

d) All mandated CMMS fields,

e) Levels of criticality for repairs.

The ***CMMS Database** establishes the minimum quantity and frequency for each scheduled Preventive Maintenance (PM) task for the buildings, systems, sub-systems and equipment. Descriptions of systems and components are provided in Table 2-3.

Equipment categories for maintenance and repair are as follows:

a) Center Operations User Equipment (UE/JA),

b) SFUSS,

c) IAGP,

d) Mobile Support Equipment (MSE),

e) UE,

f) Non Specified Equipment (NSE).

2.1.3 Additional Contract Support

The SM and R programs shall include, but not be limited to: all labor, materials, equipment, tools and other contract services such as transportation, rigging, engineering, operations, and reporting necessary to accomplish maintenance and repair. The programs also include, but are not limited to, planning, implementing, accomplishing, recording, and reporting on all facets of maintenance and repair in the CMMS.

2.1.4 SFUSS Descriptions

SFUSS includes the general descriptions below:

a) Structures (S): A structure is a constructed unit established for a designated objective. Structures that are part of or inside a facility are included under Facility (F). For purposes of this Contract, the following are defined as examples of structures:

(1) Environmental: Vaults, containment berms.

(2) Civil: Fences, gates, Pre-cast Exposed Aggregate Faced (PEAF) panel enclosures, bridges, sluice gates, memorial and Rocket Park displays, flagpoles, weather towers, antenna towers, refuse collection and compaction structures.

b) Facilities (F): A facility is an enclosed structure to protect personnel, material, or equipment from the elements and to provide associated work or storage space. A facility includes the utility systems inside the facility to a point of interface as defined in Table 2-3. The facility is defined to extend to five feet from the facility on each utility system or as otherwise defined.

(1) Civil (C): Includes roll-up and automatic doors, domestic hot water, potable water, sanitary and storm sewer, natural gas, fire protection water, roofs, doors, windows, flooring (coatings and coverings), stairs and stairwells, interior walls, ceilings, and partitions, foundation, structural system, building shell, including PEAF panels, external attachments such as walkway covers, overhangs, barge and loading docks.

(2) Electrical (E): Includes138kV transmission systems, 15kV distribution systems, emergency lighting system, emergency power backup systems, general area lighting, parking lot lighting, street lighting, Mall area lighting, grounding, lightning protection, Energy Management and Control Systems, secondary distribution system, fire protection and security system, exterior lighting systems, traffic control signals and lighting, solar powered public announcement system, obstruction and warning lighting system, central telecommunication systems, Intercom systems, and radio monitoring systems.

(3) Mechanical (M): Includes systems for Heating Ventilation and Cooling (HVAC), compressed air, chilled water, steam/condensate return, heating hot water, exhaust, refrigeration systems, water chillers, boilers, cooling towers, water treatment systems and support equipment.

(4) Environmental (X): Includes various combinations of utility or facilities units, i.e., tanks and collection systems, vaults, containment berms and impoundments, groundwater treatment systems, and waste treatment systems. These facility units and systems are highly regulated by numerous EPA and State environmental laws and regulations and therefore shall be maintained to meet these regulatory requirements. For all environmental structures, facilities, utilities, and systems, the Contractor will conduct Preventive Maintenance tasks in accordance with ***JSC** approved PM's.

(5) Other (O): Includes elevators, cranes, and hoists.

c) Utilities (U): A utility is a system for collecting or distributing services between a common point and specific locations both above and below ground. They are characterized by the assignment of site code of 998 in the System field in the ***CMMS Database**. The division between facility and utility occurs at five feet from the facility for piping systems or as defined in the respective definition.

d) System (S): Table 2-3 contains the detailed system descriptions and system components. Note: The purpose of the listed system components is to describe the elements that support the primary system not to provide an exhaustive list of system hardware. Components shall be repaired per Annex 2 regardless if they have a maintenance identification number or not.

2.1.5 Location of Services

Maintenance and Repair services are required at ***JSC**. The Contractor shall be provided with a wide variety of facilities and work areas from which to base their operations. See ****List of Contractor Facility Floor Plans** and ****Drawings of Contractor Facility Floor Plans.**

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
2.2	Scheduled Maintenance (SM)			
2.2.1	Implement the CMMS Scheduled Maintenance Plan Ensure the CMMS Database is accurately input into Maximo	Maintain systems and components required to support the systems defined in System and Component Descriptions, Table 2.3. Conduct system verification, ensure proper system operation, and ensure that all maintenance task instructions are properly loaded into Maximo.	1 Database	All system modules are effectively transitioned and operate correctly.
2.2.2	Accomplish Scheduled Maintenance Ensure performance of the PM tasks in the ***CMMS Database**	Accomplish all UE/JA, SFUSS, MSE and IAGP maintenance tasks in the ***CMMS Database**. Tasks shall be performed within the windows specified in Table 2-2 for each applicable maintenance frequency. Provide outage/operation support for maintenance work. This may include writing utility procedures and scheduling outages. Maintain, update, report, and reconcile the ***CMMS Database** for changes to the PM task statements as directed under Maintenance Activation, CLIN 2.4.1.	** **COD PM 2005 Reconciliation Data**	All tasks accomplished on schedule and at industry standard quality or better.
2.2.3	Equipment Inventories and Database Update Verify/Validate an accurate CMMS Equipment Database	Conduct a comprehensive physical field inventory of all facility equipment at ***JSC**. The inventory will be complete within 90 days of Contract start. There are approximately 12,600 items in the database. Update the ***CMMS Database** as required to correct errors or anomalies identified during the inventory within 60 days of inventory completion. Identify equipment configuration changes, errors, or deficiencies in the existing facility structures and utility inventories, and recommend changes and/or improvements to the ***CMMS Database**. Re-label and install new bar code tags on equipment where the tags are missing or not readable, through reconciliation incorporate changes into the ***CMMS Database**. See CLIN 2.4.2 for reconciliation process details.	1 inventory in year 1	All equipment accurately identified and accounted for. Updates are correct and made on time.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
2.2.4	Equipment Identification Maintain an accurate equipment identification program	Maintain an accurate CMMS Equipment Database to:	12,600 pieces of equipment	Timely and accurate data and identification.
		Ensure accurate Maintenance Identification (ID) Numbers.		
		Ensure accurate Equipment Numbers.		
		Facilitate Replacing missing Tags.		
		Accurately identify new or replacement equipment.		
		Ensure Capturing Database Information.		
		Maintain an ****Equipment Number List** which tracks equipment numbers in the ***CMMS Database** for all newly installed, relocated, and removed equipment. Distribute correct numbers to site customers within one day of request.		All equipment is tagged.
		Populate the equipment data fields within 14 days (Horsepower, capacities, etc.) in the ***CMMS Database**.		Equipment data field inputs are complete, accurate, and timely.
		Ensure that all equipment and database include matching maintenance ID tags.		
		Equipment data must correlate with the Facility Condition Assessment Database maintained by the Contractor.		All equipment is accurately tagged and matches data base inputs.
		Replace tags found missing (as part of other duties) within two days of discovery.		Tags correctly replaced on time.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
2.2.5	Pressure Systems Support Ensure accurate inspection and certification of Pressure Systems	Provide required support as scheduled by the Pressure System Management Office to ensure that all SFUSS pressure vessels and pressurized systems are certified as required by **JPR1710.13C - Design Inspection and Certification of Pressure Vessels and Pressure Systems**. For items in the system see **Pressure Systems Inventory**. NOTE: Support includes, but is not limited to, providing crafts and utility procedures to accompany the Pressure Systems Inspector and includes removing, bench testing and re-installing relief valves, removing and reinstalling tube bundles etc. and other disassemble/assembly work to facilitate inspection tasks. This support also includes WCC support in tracking and other paperwork to ensure an audit trail.		All pressurized systems and pressure vessels are effectively and safely maintained in compliance with JPR1710.13C.
		a. Provide support for Class I Pressure Vessel Inspections.	564 Inspections	Inspections accurate and on time.
		b. Provide support for Class II Pressure Vessel Inspections.	22 Inspections	Inspections accurate and on time.
		c. Provide support for Class III Pressure Vessel Inspections.	95 Inspections	Inspections accurate and on time.
		d. Provide Relief Valve Certification and vessel/system proof testing support.	565 Certifications	Certifications accurate and on time.
		e. Provide Flex Hose Certification support.	46 Certifications	Certifications accurate and on time.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
2.2.6	Light/Lamp Replacement Incandescent and fluorescent lights and lamps are replaced when burned out or flickering	Provide and replace burned out or flickering light bulbs/lamps with same type, wattage/voltage. Clean fixtures, globes, reflectors, covers, diffusers, and plastic side panels when lamps are replaced and clean any adjacent areas that become contaminated with foreign material, including dust, dirt, or cleaning product residue. Complete bulb/lamp replacement within 5 ***Workdays**. Place burned out bulbs and lamps into box labeled "Universal Waste". Lamps shall be collected and recycled in accordance with environmental requirements. Provide and replace perimeter lighting and roadway components lighting components with the same type, wattage/voltage. The minimum in-service luminance values shall meet ANSI-IESRP-8 for Roadway Lighting.	20,000 fixtures at ***JSC**	Lighting meets workplace and perimeter lighting safety and security requirements.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
2.3	Repair			
2.3.1	Repair Equipment and Systems identified in the ***CMMS Database** Ensure accurate repairs	Perform all repair work required for systems, equipment and components identified in the ***CMMS Database** and described in System and Component Descriptions, Table 2-3. Respond and repair per Table 2-1. Provide engineering, design, and analysis, as needed, for any repair or replacement of equipment and systems to meet the original intended output and/or function. All repairs shall meet the latest codes and energy guidelines. Replacement components shall meet original manufacturer requirements. Provide outage/operation support for repair work. Provide repairs as follows: a. For all facilities equipment in the ***CMMS Database**: Proceed with repairs. If repairs are anticipated to exceed 66 percent of the replacement cost of the equipment, notify the ***COTR** for authorization to replace the equipment (also see Section H.5). b. For equipment not included in the ***CMMS Database**, but identified as Facilities Equipment and components, proceed with repairs. Add the equipment to the ***CMMS Database** through reconciliation. c. For all user equipment whether or not included in the ***CMMS Database**, the repairs for this equipment shall be accomplished by ID/IQ process as specified in Annex 4.	****Repair Work Order History**	Minimize system downtime by the timely and effective repair of facility equipment. Response to the failure and equipment repairs are performed within less than or equal to duration of the requirement in Table 2.1. Repair plan used where required.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		d. For all facilities equipment in the ***CMMS Database** or facility/utility systems, repairs that exceed $200,000 *Bare Cost per occurrence shall be performed under either Annex 4 or Annex 5 at the Governments direction. All preliminary investigations shall be Annex 2 work. Identify this Annex 4 work as facility repair in ***CMMS Database**.		
		e. Repair plans shall be submitted for work that will not be performed within the timeframe given in Table 2-1. The plan shall include, at a minimum, the name and work order number of the task, the justification for the delay and the scheduled completion date.		Repair plans submitted with adequate detail.
2.3.2	Non Specified Equipment Emergency Response Correct Emergency Situations on Non Specified Equipment	Respond to, mitigate, and fix, non specified equipment requiring emergency repair. Includes cleanup actions resulting from an emergency situation, moving of equipment, furniture, etc., to preclude further damage to the property, and follow-up checks to ensure reliability of services (e.g. lights work properly after a kitchen fire, etc.). When situations occur outside the Contractor's control, which prevent the work from being mitigated, approval to suspend emergency work shall be obtained from the ***COTR.** Perform work up to an estimated cost of $500 ***Bare Cost** per occurrence. Individual TO per Annex 4 will be issued for amounts exceeding that level. Authorization shall be obtained from the ***COTR** prior to exceeding the $500 cost estimate.	200 Emergency calls	Response to the emergency and remediation including equipment repairs are performed within less than or equal to duration of the requirement in Table 2.1. No work beyond the approval level without a TO or Verbal approval of the ***COTR**.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		Once the emergency has been mitigated, remaining work shall be reclassified to the appropriate classification and considered new work. Provide the ***COTR** with the scope of work for mitigated or completed work within 24 hours of request.		Accurate data provided within the required time frame.
2.3.3	Critical Spare Parts Management and Utilization Ensure Availability of Correct Spare Parts for Critical Equipment	Recommend to the Government the critical spares that need to be purchased for all new equipment or equipment that has changed in criticality of use. When equipment is removed from ***JSC**, the Contractor shall recommend changes to the critical spares system. All approved critical spare parts will be procured, received, and warehoused per the Logistics contract. The contractor shall coordinate with the Logistics contract in the biannual re-justification of the critical spares. Inspect all critical spares and catalog annually and provide a condition assessment report. This report shall identify items which require maintenance or replacement. The Government will review and provide Task Orders at their discretion for the identified maintenance and repair. Critical spare parts are intended to be used to expedite repairs in critical systems and should not be used as inventory for non critical systems. The Contractor should only request acquisition of new critical spare materials for the purposes of replenishing critical spare inventory or meeting a new critical spare requirement.	2500 Line items	Critical Spare Parts Inventory is accurate. Critical spares are in inventory and available when needed.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
2.4	Maintenance Activation (MA) and Reconciliation Programs			
	Information	MA is the process by which equipment additions, deletions and changes are incorporated into the maintenance and operations functions.		
		Reconciliation is the process by which the associated baseline contract work levels and estimate values are reviewed and changed.		
2.4.1	MA Program	Implement a MA program to ensure correct Scheduled Maintenance Task Instructions are assigned/written, Government approved and added to the ***CMMS Database** and the equipment is accurately input.		Updates are correct and made on time.
	Ensure a seamless transition from construction work to site Maintenance and Operations responsibility	Make all necessary changes and updates to equipment data and task instructions to the ***CMMS Database** by the 10th of each month.		
		Execute the program for all installations of new equipment as part of repair, service orders, or other work authorization methods estimated to cost under $500,000.	1000 Pieces of equipment	
		New equipment can be either new capability equipment or replacement equipment or configuration changes.		
		NOTE: MA for work estimated to cost greater than $500,000 shall be priced per ID/IQ in Annex 5.		
		Required performance actions in the program include the following types of action:		
		MA-1 Preventative Maintenance/Predicative Testing (PM/PT) task instruction selection and update of ***CMMS Database** using pre-existing standard preventative maintenance task instruction.		Appropriate PM/PT task is selected and implemented.
		MA-2 PM/PT development for new preventative maintenance task instruction. Application of maintenance actions, manufacturer's recommendations, change bulletins, and reliability centered maintenance strategies.		PM/PT task is developed per latest technical instructions and correctly implemented.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		MA-3 Ensure that all PM/PT development maintains the manufacturer's warranty in full effect for its scheduled duration. May require interim PM/PT before a pre-existing standard task instruction can be used.		PM/PT task is appropriately developed to maintain warranty.
		MA-4 Ensure proper equipment tagging and database entry.		Equipment is properly tagged and entered into database.
		MA-5 Perform thermograph baseline scans. Baseline documentation shall be completed within 15 days of Beneficial Occupancy Date (BOD).		Baseline testing is correctly accomplished and documented on time.
		MA-6 Perform vibration baseline testing. Baseline documentation shall be completed within 15 days of BOD.		Baseline testing is correctly accomplished and documented on time.
		MA-7 Perform additional baseline testing as needed per type of equipment (other than thermograph or vibration). Baseline documentation shall be completed within 15 days of BOD.		Baseline testing is appropriately identified, accurately performed, and documented on time.
		MA-8 Perform and support BOD walkthroughs of Contractor work or other Contractor construction to ensure newly installed equipment is identified.		Walkthroughs are performed and all new equipment correctly identified.
		MA-9 Ensure that the appropriate personnel are correctly trained on new equipment/systems installed by any Contractor and that the appropriate personnel attend provided training for equipment, facilities, or systems provided/installed by other Contractors.		Training on new equipment is completed.
		MA-10 Provide outage, operations, and operational support for all work classes per CLIN 3.1.3.		Necessary support provided.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		MA-11 Update O&M manuals. Ensure new O&M manuals are acquired for new equipment/system installations.		O&M manuals acquired and/or updated.
		MA-12 Develop and execute supporting Utility Procedures.		Utility Procedure (UP's) accurately developed and provided on time.
		MA-13 Update ***FEL** as required. Catalog and place all appropriate documentation into ***FEL** within 15 days after BOD.		***FEL** updated accurately and on time.
		MA-14 Update panel schedule database. Updates are for electrical panels, motor control centers, switchboard and switchgear.		Panel schedule database updated accurately.
		NOTE: This is separate from the National Electric Code that requires immediate field updates on units at time of change.		
		MA-15 Update the (Facility Condition Assessment) FCA database for new and replacement equipment. Update within 4 weeks of Government acceptance of equipment change by installation or repair.		FCA database updated accurately.
		MA-16 Monitor and verify any work performed to ensure additions, deletions, and/or changes to equipment are identified and incorporated into the ***CMMS Database**. All updates are posted by the 10th of each month.		Equipment additions and deletions tracked accurately.
		MA-17 Continually track all task instruction and equipment additions or deletions for quarterly reconciliation.		Task instruction additions and deletions tracked accurately.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
2.4.2	Reconciliation of CMMS Task Instructions Process additions, deletions and changes of task instructions to ***CMMS Database**	Ensure the reconciliation of all maintenance activations of new, replaced or repaired equipment to the ***CMMS Database**. This process outlines the Contractor's submittal of PM/PT task instruction changes to the Government for review and approval. The Contractor shall immediately initiate and execute PM/PT task instructions after BOD if they are required for proper maintenance and operation prior to the quarterly reconciliation.		Timely and accurate execution of changes required for proper maintenance and operation.
2.5	Warranty Program Develop and maintain a warranty program	Develop and maintain a warranty program for warranties received for the Government that includes, but is not limited to the following areas: all warranties for facilities, structures, utilities, construction, and equipment that have been transferred to the property accounts of the Government regardless of the source of the warranty.		Warranties are accurately tracked and benefits enforced as needed.
		a. Administer the warranty program. For construction projects, the normal warranty period is 1 year from the BOD. The warranty period for some items (typically landscape planting) will be less and others (termite protection, roofs, metal wall panels and certain equipment, etc.) will be longer. Warranty information will be provided before BOD and shall be maintained in the ***FEL** for all Contractor originated work. Data fields shall be established and updated in the ***CMMS Database** to track facilities or equipment under warranty within 15 days following BOD.	500 Warranties	Warranty data accurately and completely input into the ***CMMS Database**.
		b. Identify warranty on failed hardware and notify warrantor. Notification may be by telephone, but shall be confirmed in writing, with a copy provided to the CO. If a warranty discrepancy creates an emergency or urgent condition, the Contractor shall correct the emergency or urgent condition without regard to warranty provisions.		Timely notification of Warrantor and CO on corrective warranty actions.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		c. Track response from the warrantor. If the warrantor fails to take corrective action within 14 days (or the construction contract response time, if less) or takes corrective action but fails to correct the discrepancy, the Contractor shall document this in writing to the warrantor, and within one ***Workday** provide a copy to the CO. When corrective actions require long lead times (due to parts and material), the Contractor shall obtain an estimated completion date from the warrantor and shall follow-up based on that date in lieu of the 14 ***Day** specified above.		Written notification to CO of warrantor nonconformance and on time.
		d. Perform final notification to the Warrantor if they fail to correct discrepancy within 28 ***Days** of initial contact. If the response to the final request is positive, the warrantor shall be allowed 7 additional ***Days** to take appropriate action before requesting CO assistance. If at any time, the warrantor declines responsibility under a warranty to the Government, the CO should be notified in writing within one ***Workday**.		Final written notification to warrantor on time.
		e. Notification to CO of completed warranty work. Monitor warranty work and ensure satisfactory completion. Completed warranty work shall be reported to the CO in writing within 5 ***Workdays** of completion.		Accurate notification to CO on time.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
2.6	Availability of Equipment, Systems, and Components. Track Availability of equipment, systems, and components	Track and report downtime to identify problem areas of all systems, equipment, and components at JSC, EF, and SCTF. a. Modify the ***CMMS Database** system to include two additional fields to track downtime (time and date stamps) and failure codes. b. Electronically post by the 10th of the following month, a review of availability data from the ***CMMS Database** indicating: Monthly percent availability by system for a running twelve months, monthly percent availability of systems by building for the last three months, identification of any decreasing availability trend of any one system, and identification of any building with decreasing systems availability trend.	12 posted reviews	Time/Date stamps accurately recorded in a timely manner. Reports are complete and accurate and posted on time. Overall facility availability is minimized due to tracking of and evaluation of systems, equipment, and components' downtime.
2.7	Maintenance Evaluation of Elogs Review and Analyze Elog Data for anomalies.	Perform a monthly review and analysis of all electronic Elog data workbooks and post review findings and actions taken by the 10th of the month to identify performance issues, hardware anomalies, and potential degradation in the equipment. The review shall include checks for completeness and accuracy by a qualified engineer or operator. Any anomalies in readings must be immediately investigated and verified. All confirmed anomalies that require repairs or potential operational hazards must result in an immediate repair work order with the appropriate classification (emergency, urgent or routine).	12 posted reviews	Reviews are timely, thorough, and complete. Anomalies are investigated and verified adequately to ensure that hardware degradation doesn't occur due to unreported anomalies. All required corrective action taken as required by repair classification.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
2.8	Maintenance Engineering Support Engineering design and trouble shooting for maintenance and repair work	Provide engineering personnel onsite ***Daily (D)** with listed disciplines for to perform maintenance, modification, trouble shooting, design, and repair of Structures, Facilities, Utilities, Systems and Subsystem components. Disciplines should cover at least the following: electrical, mechanical, structural, civil, architectural.		Timely troubleshooting and repair of failures to minimize downtime.

Table 2-1
Work Classification continued

WORK CLASSIFICATION	RESPONSE TIME	RESPONSE	REPAIR	RECLASSIFICATION
Emergency	15 minutes JSC 30 minutes SCTF/EF	Continuous until complete.	Until complete.	Can only be reclassified if ***COTR** approves conditions for reclassification and repair plan schedule.
Urgent	4 hours	Continuous until potential of unsafe or hazardous condition is mitigated.	Not to exceed 10 days total from time of incident knowledge. Includes material acquisition.	Can only be reclassified to routine if ***COTR** approves repair plan.
Routine	24 hours	Continuous if required until potential of unsafe or hazardous condition is mitigated.	Not to exceed 30 days total from time of incident knowledge. Includes material acquisition.	Can only be reclassified to deferred if ***COTR** approves conditions for deferral and repair plan schedule.
Deferred	Response per original classification until reclassification is approved	Mitigation per original classification until reclassification is approved.	Per ***COTR** approval of Contractor repair plan.	Upon ***COTR** approval for cancellation.

Work Classification – The work classification shown in the table above applies to repair. The work classification is generated after a screening conversation with the requester. The requester must be provided a clear definition of each of the classifications as described below. All work needed to complete the repair including any maintenance needs to be performed per the initial repair time classification. If the requestor and the Contractor do not agree to the classification, the Contractor shall respond based on requester classification. The Contractor can pursue reclassification as per process defined.

Work Classification Code Definitions – Emergency - Any work needed to correct failures, incidents or events that constitute a danger to personnel, property, and compliance to health, safety, environmental regulations or the ***JSC** mission. Examples: immediate safety hazard, site security, major loss of utilities, emergency lighting system (or units), night time loss of parking or street lights, failures at Mission Control Center Complex (MCCC)/Building 48 during shuttle flights, water treatment failure, traffic signals, material spill, elevator control room HVAC, major work stoppage, Building 1 water system alarms etc.

Urgent - Maintenance or repair work required to reinstate the facility to normal operating conditions. Repair condition does not pose an immediate danger to personnel, property, or ***JSC** mission. If not responded to, could result in an emergency situation. Examples: potential unsafe condition, minor loss of utilities, equipment used for energy management or savings equipment, potential work stoppage.

Routine - Facilities maintenance work that can be scheduled routinely within the capability of the facilities maintenance organization. Complete in order of receipt, subject to availability of resources, and consolidate by facility or zone or as directed to obtain efficiency of operation. Examples (but not limited to): minor relamping, dripping faucet, noisy belt.

Table 2-1
Work Classification continued

Deferred - Maintenance or repair work that may be safely, operationally and economically postponed; could not be completed within the specified urgent or routine times due to materials availability, work site access, funds shortage or conditions outside of the control of the maintenance organization. Classification to defer requires reclassification process as defined.

Response Times by Classification – Time from incident knowledge to arrival at incident scene. Knowledge includes, but is not limited to: remote indication, operator finds, call-in or email to OCC or WCC, etc.

Repair Times – Maximum allowed time for completed and or expedited repairs. Time from incident knowledge to completed repair. Knowledge includes, but is not limited to: remote indication, finds, call-in or email to OCC or WCC, etc. Repair is the completed maintenance or repair of original problem.

Reclassification – Repair work must proceed per original classification until reclassification or deferral is approved by ***COTR**. The Contractor must submit a request to the ***COTR** containing the following:

a) Impact statement of not completing repair per original classification,
b) Reasonable justification and cause for the inability to meet the original classification,
c) Repair plan including scheduled completion date.

Upon reclassification, the Contractor shall notify the requester of the new classification, the rationale, and the new repair plan schedule.

Table 2 - 2
MAINTENANCE SCHEDULING WINDOWS

Maintenance Frequency	Window (Days)
Daily (D)	Must be done on day scheduled.
Weekly (W)	Must be accomplished between Sunday and following Saturday of week scheduled. Next scheduled date to be 7 days from original day scheduled.
Every 2 Weeks (W2)	Must be accomplished three days prior or three days after original day scheduled. Next scheduled date to be 14 days from original day scheduled.
Monthly (M)	Must be accomplished seven days prior or seven days after original day scheduled. Next scheduled date to be 30 days from original day scheduled.
Every 2 Months (M2)	Must be accomplished fifteen days prior or fifteen days after original day scheduled. Next scheduled date to be 60 days from original day scheduled.
Quarterly (Q)	Must be accomplished twenty one days prior or twenty one days after original day scheduled. Next scheduled date to be 3 months from original day scheduled.
Every 4 Months (M4)	Must be accomplished thirty days prior or thirty days after original day scheduled. Next scheduled date to be 4 months from original day scheduled.
Semi-Annually (SA)	Must be accomplished thirty days prior or thirty days after original day scheduled. Next scheduled date to be 6 months from original day scheduled.
Annually (A)	Must be accomplished thirty days prior or thirty days after original day scheduled. Next scheduled date to be 12 months from original day scheduled.
Every 18 Months (M18)	Must be accomplished thirty days prior or thirty days after original day scheduled. Next scheduled date to be 18 months from original day scheduled.
Every 24 Months (M24)	Must be accomplished thirty days prior or thirty days after original day scheduled. Next scheduled date to be 24 months from original day scheduled.
Every 36 Months (M36)	Must be accomplished thirty days prior or thirty days after original day scheduled. Next scheduled date to be 36 months from original day scheduled.
Every 48 Months (M48)	All M48 PM tasks are to be accomplished over a five year period. Schedule must accomplish 25% of tasks per year over the five years. Collateral PM tasks should make use to total building outage whenever possible. Last performed dates in CMMS may need to be rescheduled to meet this requirement.
Every 60 Months (M60)	All M60 PM tasks are to be accomplished over a five year period. Schedule must accomplish 20 percent of tasks per year over the five years. NOTE: total electrical outages must schedule all high and low voltage PM tasks so that building is taken down only once in five years. Collateral mechanical PM tasks should make use to total building outage whenever possible. Last performed dates in CMMS may need to be rescheduled to meet this requirement.

The intent of this table is to provide a window of performance to allow the Contractor to manage workload.

NOTE: Any change to the next scheduled date of performance must be reviewed and approved by the CO before changing CMMS.

ADD TO CLIN. An overall plan for the 3, 4, and 5 year PM tasks shall be developed in the first six months of the Contract to establish a firm schedule. Plan to be developed by the Contractor and submitted at the end of the first six months of the first year to the Contract. Deliver to CO for review and approval. Initial Work Plan for Long Term PM's.

Table 2 - 3
System and Component Descriptions

Table 2-3 contains the detailed system descriptions and system components. The system components may not be all inclusive.

	CMMS SYSTEM CODE	DEFINITIONS
		Mechanical Systems
1.01	CLC	Chilled Water
1.02	HAC	HVAC
1.03	CLT	Cooling Towers
1.04	CAR	Compressed Air
1.05	SCR	Steam & Condensate
1.06	EXH	Exhaust & Ventilation
1.07	REF	Refrigeration
1.08	HWH	Hot Water Heating
1.09	SFS	Site Fuel Systems (used to be DFS Diesel Fuel System)
1.10	UHR	Space Heating
1.11	PSW	Process Water
1.12	STE	Cafeteria
1.13	HBC	Hyperbaric Chamber
		Electrical System
2.01	HVT	Site Electrical 138kV Transmission
2.02	MVD	Site Electrical 15kV Distribution
2.03	8DG	Building 48 D&BX Power
2.04	8BG	Building 48 B Power
2.05	8AG	Building 48 A&AX Power
2.06	ELT	Exterior Lighting
2.07	STC	Site Traffic Control
2.08	EMC	Energy Management and Control
2.09	SDE	Secondary Distribution Equipment
2.10	LTG	Lighting (General Area)
2.11	ELS	Emergency Lighting
2.12	OWL	Obstruction and Warning Lighting
2.13	LPS	Lightning Protection
2.14	GND	Grounding
2.15	CTS	Central Telecommunications Systems (CTS)
2.16	EPB	Emergency Power Backup
2.17	EWS	Emergency Warning
2.18	SIS	Site Intercom
2.19	FPS	Fire Protection and Security

Table 2 - 3
System and Component Descriptions

Table 2-3 contains the detailed system descriptions and system components. The system components may not be all inclusive but attempts to describe elements that support the primary system.

	CMMS System Code	Definitions
		Civil System
3.01	PWR	Potable Water
3.02	SNS	Sanitary Sewer
3.03	SWS	Storm Sewer
3.04	NGS	Natural Gas
3.05	FFP	Fire Protection
3.06	DHW	Potable Hot Water
3.07	TIS	Turf Irrigation
3.08	SIT	Facility Interior
3.09	SET	Facility Exterior
3.10	RUD	Doors & Barriers
3.11	FGT	Fences & Gates
3.12	RPD	Public Displays
3.13	RDW	Roadways and Parking Lots
3.14	SDW	Sidewalks
		Environmental System
4.01	WTC	Waste Tank Collection
4.02	VLT	Vaults
4.03	CSA	Container Storage Areas
4.04	CTB	Containment Berms
4.05	WWI	Wastewater Impoundments
4.06	GTS	Groundwater Treatment
4.07	PLW	Plating Waste Pretreatment
4.08	CEM	Continuous Emissions Monitor
		Other Systems
5.01	ELE	Elevators
5.02	LDV	Lifting Devices
		User System
6.01	UEE	User Equipment

Table 2 - 3
System and Component Descriptions

1.0 Mechanical

#	System Code	System	Definition
1.01	CLC	**Chilled Water**	
1.01.A		A. Description	Production – Water chillers at *JSC consist of large central plant systems (up to 2000 tons) and individual packaged systems serving specific selected facilities. The central plants, Buildings 24 and 28, provide chilled water internally and through the utility tunnel or direct buried to the mall buildings for use as HVAC or process cooling. The emergency power building, Building 48 provides chilled water internally and through the utility tunnel to the Mission Control Center (MCC) Buildings (30L, 30M and 30S) to be used in HVAC cooling. The chiller auxiliary support equipment in Buildings 24, 28, and 48, is the equipment/components required to support the operation of a plant chilled water system or can be configured as a backup to provide chilled water when the plant chilled water systems not available. Distribution/Use – The chilled water piping system contains approximately eight miles of primary supply and return piping that connects the central/auxiliary plants to the mall facilities and Building 48. This system includes the direct buried chilled water supply and return feeds from both Building 24 and 28 that connect in the tunnel. The Building 48 chilled water distribution system provides chilled water supply and return to the MCC and helps feed the tunnel system when necessary. The Building 48 system can either produce chilled water or redirect Buildings 24 and 28 chilled water as required. Closed loop cooling systems are those systems that use a chilled water heat exchanger to provide a secondary cooling water loop to provide cleaner cooling water for sensitive/critical equipment.
1.01.B		B. Components	Production – The system components include chilled water pump, filter, evaporator, condenser and economizer section, electric motor or steam turbine driver, gear box, compressor, oil return units, control panels and the field control systems, heat exchangers, pumps, surface condensers, hot well pumps, piping, refrigerant piping, refrigerant valves, instrumentation including PLC's, flow devices, probes, delta-Pressure switches, pneumatic controls, etc., makeup water tanks, side stream filters, compression tanks, freon recovery units, and freon boil off vessels. Distribution/Use – The tunnel/direct buried chilled water system may include but are not limited to the following: piping, cathodic protection system, insulation and aluminum jacketing, air vents, valves and associated brass tags, instrumentation including flow devices, probes, delta-Pressure switches, etc. All chilled water systems include the chilled water system inside the facilities. The components of the chilled water system may include, but not be limited to, pumps, strainers, instrumentation including flow devices, probes, delta-Pressure switches, etc., gauges, controls, orifice plates and other flow elements, compression tanks, control valves and associated controls, valves, fittings, pipe, labels and insulation. Closed loop cooling systems may contain, but not be limited to, any combination of heat exchangers, pumps, piping, fittings, labels, valves, flow indicators, compression tanks, strainers, filters, auto air eliminators, insulation, instrumentation, and controls.
1.02	HAC	**HVAC**	
1.02.A		A. Description	That system which supplies conditioned air to a space or facility, to maintain required temperature humidity conditions.

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System and Component Descriptions

1.02.B		B. Components	The system components include chilled water, direct expansion, and Pre-Treated Outside Air (PTOA's) units that are in interior and exterior locations including, but not limited to, mechanical rooms, computer rooms, general office areas, laboratories, roofs, vaults, high bays, and ceiling plenums. This may also include, but not be limited to, central station units, portable spot coolers, window units, D/X split systems, fan coil units, condenser units, package units, and floor mounted computer room type units. Components shall be defined as, but not limited to, coil (chilled water and refrigerant), fan, constant and variable frequency drive units, motor drive, belts, filters, control valves, reboilers, condensate collection pans and piping, hot water coils, steam traps, steam coils, refrigerant coils, gas fired furnace section, overflow protection devices, humidity control heaters (hot water and electric) and instrumentation, humidifiers, accelerometers, compressor and associated instrumentation and controls, gauges and other instrumentation and controls specific to the air handler systems including flow devices, probes, delta-Pressure switches, etc., air distribution systems such as mixing boxes, variable air terminals, fans, heaters, ducting, dampers ,and insulation.
1.03	CLT	**Cooling Towers**	
1.03.A		A. Description	Cooling towers/condenser/cooling water systems are heat rejection systems that provide cooling water for condensing refrigerants in HVAC/Chillers or other cooling applications.
1.03.B		B. Components	The system components include cooling towers, heat exchangers, piping, filters, fittings, labels, fans, gear boxes, variable frequency drive controllers, flow elements, basins, pumps, valves, fire detection and protection equipment, chemical feed pumps, chlorine supply system, chemical treatment systems, side stream filtration, controls, accelerometers, and instrumentation including flow devices, probes, delta-Pressure switches, etc.
1.04	CAR	**Compressed Air**	
1.04.A		A. Description	Production – Buildings 24 and 28 provides dry, oil-free compressed air internally and through the tunnel or direct buried to the site buildings to be used as instrument or shop air. Building 48 shall provide dry compressed air internally through the tunnel for Building 30M if the central plant cannot provide sufficient quantity or pressure. Included are systems that supply and distribute dry, compressed breathing air to the building for use as breathing air. Also included are starting air systems that supply and deliver starting air to starting air motors on diesel engines. Distribution/Use – The compressed air distribution system is a piping network approximately four miles in length, both tunnel and direct buried, that connects the central/auxiliary plant outputs to the ***JSC** facilities and the Building 48 output to the MCC. The Building 24 compressed air system is an automated expander package with lead/lag compressor operation based on the utility tunnel demand. The system utilizes a small high pressure compressor to pressurize a high pressure surge vessel to provide for demand load changes above baseline operation. The compressed air systems are defined to include the compressed air system inside the facility described as instrument, shop, plant, and breathing air. All ***JSC** facilities are equipped with either an independent control/shop or breathing air compressor or have a backup control air compressor when supplied with plant air. There are two basic types of air compressors for the buildings: control air and shop air. Mall buildings have backup control air compressors that start when tunnel air is lost to the building. The outlying buildings with pneumatic controls have their own control air compressors and many have shop air compressors. There is one building air compressor per mall building except for Building 30M which has three and Building 30S which has none.
1.04.B		B. Components	The system components include air compressors of all types (all plants and facilities), air receiver tanks, high pressure receiver tank, air dryers of any type, filters, piping, automated expander package, cooling systems,

Table 2 - 3
System and Component Descriptions

			pumps, instrumentation, including flow devices, probes, delta-Pressure switches, etc., controls, relief valves, check valves, associated gauges, pressure regulating stations, oilers, condensate traps; pressure protective devices; valves; fittings; and labels, cathodic protection systems, pressure regulating stations, filter stations.
1.05	SCR	**Steam & Condensate**	
1.05.A		A. Description	Production - The Building 24 steam system provides steam through the utility tunnel and provide for condensate return to and from the site buildings. This steam is utilized for at the facilities for domestic hot water, space heating, humidification and process uses. Some ***JSC** buildings have low-pressure steam boilers for heating and high-pressure steam boilers for test applications. Distribution/Use - The utility tunnel steam supply/condensate return system is a piping system approximately three and one half miles in total length that connects the Building 24 output to the ***JSC** mall facilities. In the facility the steam is reduced in pressure as required and distributed to the point of use. The system includes that portion that collects and returns condensate produced from the steam system. The condensate is collected in condensate return units or through tunnel steam traps and returned to the plant from the mall facilities through the tunnel return condensate piping system.
1.05.B		B. Components	The system components include storage tanks, deaerator vessels, condensate pumps, boiler feed water pumps, hot well pumps, plant boilers, pressure reducing/de-superating stations, chemical storage tanks, chemical feed pumps, water softener, water de-alkalizer vessel, steam traps, condensate return units, natural gas scrubber, fuel oil supply pumps fuel oil storage tank, feed water economizers, low NOx burners and controls, building 1 pressure trip valves, boiler oxygen trim controls, other boiler controls and instrumentation, plant master pressure controllers that control the boiler master loop, steam/condensate/chemical/, and fuel piping, gas meters for the boilers, condensate flow meters, make-up water meters, piping, insulation including aluminum jacketing, supports, expansion joints, instrumentation, flow devices, probes, delta-Pressure switches, etc., pressure reducing/regulating stations, gauges, hot water converter vessels; boilers; steam coils in outside air units; humidifiers, reboilers; relief valves and pressure protective devices; valves; fittings, pumps, condensate traps, valves; fittings, flash tanks, and labels.
1.06	EXH	**Exhaust & Ventilation**	
1.06.A		A. Description	Those facility systems that: (1) exhaust heat, fumes, odors or other contaminants from within the facility, (2) provide air flow to remove paint fumes from the painting booth facilities (3) exhaust smoke from a facility to provide personnel protection from combustion products, (4) supply fresh air make-up to meet indoor air quality requirements and (5) maintain required pressure in the facility.
1.06.B		B. Components	The system components include exhaust fans, ducts, dampers, stacks, fume hoods, flow benches, kitchen hoods, fire dampers, fire extinguishing equipment, shop hoods, perchloric acid hoods, wash down systems, paint booths, controls, instrumentation, inlet blowers and all associated components, bird screens, filters and filter banks and associated parts, exhaust blowers and all associated components, associated controls, instrumentation and gauges, control air system and related components, heaters, smoke exhaust fans, fresh air fans, insulation, water scrubbers, dust/sawdust collection systems, flow measurement devices and labels.
1.07	REF	**Refrigeration**	
1.07.A		A. Description	Those systems and components that provide low temperature environments for the preservation of food, photographic products, medical specimens, and other items as required. Included in this are the ice machines, central water coolers, and refrigerated drinking fountains and water coolers, at ***JSC**.
1.07.B		B. Components	Refrigeration systems include but not limited to, Walk-in/Reach-in Coolers, Walk-in/Reach-in Freezers, Refrigerators, Freezers, Film Vaults, Thermal Chambers, ice machines, central water coolers, and refrigerated drinking fountains and bottled water coolers, refrigerant piping and components, dryers, mufflers, compressors, condensers, control systems, fans, and filters.

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System and Component Descriptions

1.08	HWH	**Hot Water Heating**	
1.08.A		A. Description	Those systems that produce, supply, and distribute hot water within the building for use in the HVAC systems. These include 1) low pressure steam by electric or, gas fired boilers 2) hot water by electric or gas fired boiler and 3) site steam through hot water converter.
1.08.B		B. Components	The system components include all types of boilers, hot water converters, coils, pumps, compression tanks, strainers, instrumentation including flow devices, probes, delta-Pressure switches, etc., gauges, controls, orifice plates and other flow elements, valves, control valves, relief valves, fittings, pipe, labels and insulation.
1.09	DFS	**Site Fuel Systems**	
1.09.A		A. Description	***JSC** utilizes diesel, gasoline, and E85 fuels for operation of mobile and stationary equipment. The diesel system which stores and supplies diesel fuel for use in engines and in steam boilers. The diesel fuel storage at JSC consists of above ground tanks at Building 24, 42, 48, 207, 300 area, and E245. The gasoline/E85 systems stores and supplies fuel for use in mobile equipment such as selected vehicles, pumps, and generators. NOTE: 3 CTS generators. 6 tunnel generators. Stationary generators at Buildings 8, 25, 32, 37, 44, 259, 343, 347, E920 and E990. Numerous portable pumps, etc.
1.09.B		B. Components	The system components include fuel storage tanks, pumps, piping, fill pumps, recirculating pumps, supply pumps, valves, environmental controls, containments, level measurement devices, flow indicators, flow elements, pressure regulators, gauges, fittings, and pipe. There is a diesel/gasoline supply truck which is a Government Furnished Equipment item. The E85 fueling station is located at Building 417.
1.10	UHR	**Space Heating**	
1.10.A		A. Description	That system which provides space heat for personnel and equipment.
1.10.B		B. Components	The system components include hot water heaters, catalytic heaters, hot water coils, gas fired heaters, steam heaters, electric heaters, piping, valves, PLC's, controllers, pneumatic control systems, conduit, electrical system, thermostats, VAV boxes, terminal boxes, mixing boxes, reheat sections, fans, motors, belts, insulation and aluminum jacket, vents, relief valves, and blowers.
1.11	PSW	**Process Water**	
1.11.A		A. Description	Process water systems are those ***JSC** systems that provide water at closely controlled conditions for consumption in designated processes. These systems may include, but are not limited to, deionized water system, process hot water, and process chilled water. The ***JSC** deionized water system is that system that produces and distributes deionized, generated water at the reverse osmosis system in Building 9, and distributed through a PVC piping system in the tunnel to and through several laboratory facilities at ***JSC**. The deionized water system provides water that is 90 percent pure of salts and the process hot and chilled water systems provide filtered water that is heated or cooled for specific purposes.
1.11.B		B. Components	The system components include a reverse osmosis unit, polishing bottles, heat exchangers, boilers, pumps, piping, compression tanks, fittings, labels, valves, chillers, zero discharge system, flow elements, strainers, filters, instrumentation, controls, gauges, labels, holding tanks, meters, and insulation.
1.12	STE	**Cafeteria**	
1.12.A		A. Description	The kitchen and cafeteria equipment used in food preparation or service.
1.12.B		B. Components	This equipment is defined as including, but not limited to, all or any combination of the following: (1) Steam tables, (2) Ovens, (3) Griddles and cook tops, (4) Ranges, (5) Ice Makers, (6) Steamers, (7) Kettles, (8)

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System and Component Descriptions

			Dishwashers, (9) Conveyors, (10) Toasters, (11) refrigeration equipment and other built-in equipment normally associated with food preparation.
1.13	HBC	**Hyperbaric Chamber**	
1.13.A		A. Description	The hyperbaric and hypobaric chambers utilized for human testing at elevated pressures, as well as for emergency repressurization of divers and/or for reduced pressure for suited test subjects. Subsequently, its proper operation and functional reliability are of paramount importance as a life safety issue. Chambers are located at both *JSC and SCTF.
1.13.B		B. Components	The system components include the physical chambers and their attachments, generator, internal electrical, lighting, breathing air compressor, vacuum pump, reserve breathing air storage, the communication system/intercom, as well as the chamber's ancillary valves and piping.

Table 2 - 3
System and Component Descriptions

2.0 Electrical

#	System Type	System	Definition
2.01	HVT	**Site Electrical 138 Kilo-Volt (kV) Transmission**	
2.01.A		A. Description	Two local utility 138 kV transmission lines serve a closed ring buss feeding the four site power step/down transformers. The tubular aluminum ring buss has six 2000 ampere SF6 gas circuit breakers. Each circuit breaker and transformer can be isolated by an array of sixteen air break switches. There are three 138 kv/15 kV step down transformers (with auto load tap changers), which provide the primary power to the site. There is one 138 kv/15kv step-down transformer with auto load tap changer, which services large test loads. The control panel and protective relay panel are located in an adjacent building. The system starts at the local utility transmission line connections to the wave traps and ends at the substation transformers secondary bushings. It encompasses all control, measurement and protection circuits associated with the system and is enclosed in a fenced in area including five space condition buildings with three gates. Control and monitoring cables between buildings are direct buried and in duct walk cable trays.
2.01.B		B. Components	The system components include the ring bus, circuit breakers, air break switches, transformers, transformer grounding resistors, auto load tap changers, protective relaying circuits, control wiring, switches, control panels, metering and instrumentation that is remotely recorded by the EMCS Energy Manager software or manually recorded to provide energy management data, connecting and structural buss supports Potential Transformer (PT's), Current Transformer (CT's), CT & PT supports, batteries, battery chargers, Uninterruptible Power Supplies (UPS's), manual transfer switches, automatic transfer switches, grounding mat, lightning masts, fence and gates. Substation yard comprised.of washed river rock, concrete duct walk cable trays with French drains.
2.02	MVD	**Site Electrical 15 kV Distribution**	
2.02.A		A. Description	15KV Distribution - The four 138 kv/15kv transformers provide input to the 15 kV distribution system. Each transformer feeds a 15 kV switchgear line up. The four line ups are 500 MVA indoor metalclad switchgear located in individual climate controlled buildings. The four switchgear assemblies contain four main breakers, four tie breakers, and thirty six feeder breakers. The tie breakers allow for the isolation of the four primary power transformers. The switchgear assemblies have automatic rollover between the station Alternating Current (AC) services. Additionally, the Direct Current (DC) services are configured so that they have multiple feeds. Two of the switchgear assemblies and the tie breakers are provided with remote control panel switching and status. All are provided with Supervisory Control and Data Acquisition (SCADA) control and monitoring. There are four 4,800 kvar capacitor banks for power factor correction, one attached to each of the primary power switchgear line up. The feeders are divided between overhead on wooden poles, cable in duct banks and armored cable in the utility tunnel. Some of the feeders have distribution switches that provide alternate feeder selection for downstream distribution. The distribution system starts at the 138kV/15kV step down transformer and extends to the input of the 15 kV facility switches. 15kv Switching Facilities - Air, gas or oil 15 kV switch assemblies. System begins at the input of the 15kV facility switch and extends to the input of the medium voltage transformer. 15kv Medium Voltage Transformers - 15 kV transformers begin with the primary bushings of the transformer and extend to the secondary bushings.

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System and Component Descriptions

2.02.B		B. Components	15kv Distribution - The system components include switchgear, circuit breakers, bus, meters, control wiring, batteries, battery chargers, transfer switches, control panels, capacitors/switches, cable, cable splices, demountable cable terminations, duct banks, cable trays, manholes, sump pumps, poles, cross arms, insulators fuses, distribution switches, service/control power/instrument transformers, grounding system relays, SCADA, transducers, fences, reactors, fused disconnects, lightning arrestors, static cables, ground rods, power monitors, splice shields, strip heaters automatic transfer switches and manual transfer switches. Metering and instrumentation that is remotely recorded by the Energy Management and Control System (EMCS) Energy Manager software or manually recorded to provide energy management data. 15kv Switching Facilities - The system components include air, gas or oil 15 kV switches. Fuse enclosures, fuses, fuse holders, heater strips, secondary breakers, thermostat controls, and control circuits. Fault indicators with associated equipment. 15kv Medium Voltage Transformers - The system components include 15 kV transformers - dry type, mineral oil filled, biofluid, silicon oil filled and other less flammable fluid filled. Associated hardware - gauges, fans, fan motors, heater strips, meters, current transformers, potential transformers, nitrogen tanks and regulators, secondary breakers, control circuits, thermostat controls, drain/fill valves, relief valves and ground resistors.
2.03	8DG	**Building 48 D thru BX Power**	
2.03.A		A. Description	Electric power generation/distribution system that provides normal and standby power for Building 48 ancillary electrical loads and provides standby power for Building 30S. The system starts at the D buss metal clad switchgear and extends to the Building 48 loads and the load side of the Building 30S BX switchgear. It also includes the engine/generators and associated controls, all protective systems, and measurement systems. The system has 6.9 kV/60 Hz/ 3 phase, two buss, nominal 2800 kW per buss, sourced from either utility transformers or diesel driven generators with uninterrupted transfer between transformers and generators. Provides voltage step down from 6900 volts to 480 volts to serve B buss and loads. Output limited to source nameplate data. It also provides power to B30S BX loads including UPS AX11 and UPS AX 21. Reference drawings E-48-32, E-30S-12, E-30S-13, E30S-15.
2.03.B		B. Components	The system components include: Power circuits including medium and low voltage current carrying and switching components, by which electrical power is generated, delivered and used. Includes generators, transformers, disconnect switches, circuit breakers, power fuses, cables, buss ducts, switchgear, MCC's, and load banks. Metering circuits including instrument transformers, ammeters, voltmeters, frequency meters, wattmeters, varmeters, elapsed time meters, which measure and compute operating parameters. Protective relaying circuits including instrument transformers, and protective devices that operates for abnormal operating parameters. Control circuits including DC power supplies, control power transformers, instrument transformers, fuses, switches, relays, governors, regulators, rheostats, potentiometers, transducers, synchronizers, control panels, batteries, chargers panels and SCADA.

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System and Component Descriptions

2.04	8BG	**Building 48 B Power**	
2.04.A		A. Description	Electric power generation/distribution system that provides normal and standby source for Building 48 A Power, Building 30M Tech loads, and Building 30M select facility loads. The system starts at the B bus metal enclosed switchgear and extends to the loads for Building 30M it finds at the line side of the secondary distribution device in the facility. The system also includes engine/generators and associated controls, protective systems and measurement systems. The system has 480 V/60 Hz/3 phase one triple generator bus, two nominal 1300 kW source busses, two load busses. Source buss fed from either utility transformers or diesel driven generators with uninterrupted transfer between transformers and generators. Output limited to source nameplate data. It provides power to UPS A1 and A2. Reference drawing E-48-32 and E-48-42.
2.04.B		B. Components	The system components: Power circuits include all low voltage current carrying and switching components by which electrical power is generated, delivered, and used. Includes generators, disconnect switches, circuit breakers, power fuses, contactors, cable, buss ducts, switchgear, MCC's, heaters and load banks. Metering circuits include instrumentation transformers, ammeters, voltmeters, frequency meters, wattmeters, varmeters, elapsed time meters, which measure or compute operating parameters. Protective Relaying circuits include instrument transformers, and protective devices which operate for abnormal operating parameters. Control circuits include DC power supplies, control power transformers, instrument transformers, fuses, switches, relays, governors, regulators, rheostats, potentiometers, transducers, synchronizers, control panels, batteries, chargers, and SCADA.
2.05	8AG	**Building 48 A&AX Power**	
2.05.A		A. Description	System that provides continuous power for the Building 30M critical loads. The system starts at the input to the "A" and "AX" power UPS's and extends to the secondary distribution devices. The "A" power UPS consists of four modules. The "B" power UPS consists of two modules. The system has continuous 480V/60 Hz/three phase, four buss, nominal 500 kW per buss, output from either UPS or directly from B power if UPS fails. The "A" power UPS consists of four modules. The "Ax" power UPS consists of two modules.
2.05.B		B. Components	The system components include low voltage current carrying and switching components by which electrical power is generated, delivered and used; dual redundant UPS's , Uninterruptible Power Supply Module (UPM's), batteries, disconnect switches, bypass switches, capacitors, circuit breakers, power fuses, cables , buss ducts, and switchgear. Metering circuit components include instrument transformers, ammeters, voltmeters, frequency meters, wattmeters, varmeters, lapsed time meters, which measure or compute operating parameters. Protective relaying circuit components include instrument transformers, and protective devices, which operate for abnormal operating parameters.

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System and Component Descriptions

			Control circuit components include DC power supplies, control power transformers, instrument transformers, fuses, switches, relays, transducers, control panels, batteries, battery monitoring systems, chargers panels and SCADA.
2.06	ELT	**Exterior Lighting**	
2.06.A		A. Description	The system which comprises the exterior lighting for roadways, Mall Area, parking area's, flag pole lighting, Center roadway sign, flood lighting in parking and ramp areas. (See General Site Plan Exterior Lighting Drawings and Master Utility Plans). The system starts at secondary circuit breaker serving street lighting circuit up to and including lighting standards.
2.06.B		B. Components	The system components include lamps, reflectors, ballasts, lens, light poles, conductors, grounding, conduit, associated hardware (hardware associated with lamps, reflectors, ballasts, lens, light poles, conductors, and conduit for exterior lighting), low voltage power circuits and switching components, control circuits and control devices (photo-cells, time-clocks, hand-off-automatic switches.), and energy efficient roadway and parking lot lighting.
2.07	STC	**Site Traffic Control**	
2.07.A		A. Description	That system which comprises the site traffic control and site pedestrian crosswalk warning devices
2.07.B		B. Components	The system components include lamps, Light Emitting Diode (LED) lamps, reflectors, lens, batteries, signs, conduit, conductors, and associated fittings and hardware to traffic signal heads, controllers, sensor loop detectors, pedestrian crosswalk warning devices and solar powered traffic speed control system for pedestrian crosswalk zone warning signs.
2.08	EMC	**Energy Management and Control**	
2.08.A		A. Description	Honeywell's Enterprise Buildings Integrator (EBi) is the site Energy Management Control System (EMCS) that monitors and controls the electrical power, steam, chilled water, utility air, and building HVAC systems at *JSC. The EMCS is, in addition, an energy management and control system designed to monitor and control various parameters of utility systems and equipment in buildings and facilities. By monitoring the equipment controlled by EMCS field devices, the EMCS acts as an effective management tool for monitoring and controlling energy consumption, utility operations, operational and maintenance activities. The EBi system integrates the databases and operation of numerous control systems at *JSC into a single front end interface located in the building 24 OCC. The SCTF facilities utilities and HVAC systems are controlled and monitored through a separate EMCS and personal computer (PC) interface also located in the Building 24 OCC called System 20/20 marketed by Automatic Logic Corporation and currently supported by United Environmental Services (UES) Corporation. The Honeywell EBi system runs on a Windows 2000 Platform using Dell Domain Servers. These servers communicate with Honeywell XL5000 family controllers and other third party PLC's and devices. The following is a list of systems connected to EBi: 1. The Honeywell Building Control System is a microprocessor based Direct Digital Control (DDC) unit (XL5000 family controllers) that provides the interface to monitor and control building HVAC and site utilities and provides data to the Man-Machine Host Honeywell System known as EBi for energy management, maintenance and operations support. The controllers are daisy chained from building to building using Honeywell C-Bus and integrated to EBi through terminal servers or a Building Network Adapter (BNA). The Excel controllers uses DDC programmable software to maintain and regulate buildings /utilities environment by using algorithms to determine what the conditions are and what points must do to achieve the desired conditions. Honeywell's Computer Aided Regulation Engineering (CARE) software is used to program the

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System and Component Descriptions

			controller for points, databases, processes, algorithms etc. 2. The Metasys Building Control System is a building energy management and control system. The Metasys is a distributed system accomplishing standalone control, supervisory control and information management. These systems hardware architecture links integrated electronic modules and controllers over three types of networks and provides access to users through a variety of interface devices. The Metasys systems currently provide the interface to monitor control, and supervise HVAC and building functions and provides data to the front end EBi system through a third party software interface. The Metasys system uses propriety software to maintain processes. 3. PLC's systems are microprocessor based units that provide the interface to monitor and control standalone HVAC units and dedicated site utilities in the facilities and provides data to the front end EBi system through a third party software interface. These third party PLC controllers are implemented on a variety of platforms, which include Allen-Bradley PLC, Modicon PLC, Woodward PLC. 4. Automated System 20/20 Building Control System - The automatic logic system – System 20/20, is a building energy management and control system. The system provides for distributed architecture accomplishing stand-alone control, supervisory control, and information management. The System 20/20 provides the capability to monitor, control, and maintain buildings total HVAC, plant and lighting environment at the SCTF. The system begins at the System 20/20 front end PC located in Building 24 and extends to all controllers and instrumentation located in at the SCTF. 5. Miscellaneous Power Monitoring Systems – These include Mint Integrated Monitoring Protection and Control Communications (IMPACC) Westinghouse System, Power Demand and Acquisition System (PDDAC), and Exide Uninterruptible Power System (UPS). The IMPACC and PDDAC systems are used to read electrical subsystem data. 6. CTS Interface System- Monitors Central Telephone HVAC and power for Ellington and Building 420. The Honeywell System begins at the EBi front end in the Building 24 OCC to the XL5000 family controllers. The System 20/20 begins at building 24 OCC and extends to all controllers and instrumentation located at SCTF. For all other systems or devices that interface to EBi those systems begin at the RS232 Terminal Servers to field subsystems/devices and extend to all field sensor/control instrumentation or devices.
2.08.B		B. Components	The EMCS system is comprised of all equipment connected to the EBi or System 20/20 Automated Logic Control System. For all building controllers, PLC's, subsystems or devices listed in 1.2.08.A, the components are defined to include, but not limited to, chassis, LED status lights, power supplies , terminal blocks, microprocessor, memory, disk drives, analog /digital interface boards, communication boards, communication cards installed in three Dell Domain Workstations, repeaters, terminal servers/modems, batteries, connectors, wiring, software/firmware residing on field systems to perform control and monitoring of field points and configurations, operator interface devices and software for maintenance management, RS232 interfaces, Honeywell C-Buss, application specific controllers (AHU, VAV,UNT), Metasys LAN's (N1,N2,L2) , Network control units, Metasys network terminal, and Metasys Maintenance Stations and software. The controls and instrumentation components are, but not limited to, the following: electrical, electronic, electro-pneumatic, and mechanical equipment: thermocouples, Remote Terminal Devices (RTD's), pressure, flow and temperature (transmitters/switches/indicators/controllers), position indicators, Remote Control Point Adjustment (RCPA's), level controllers, transducers, signal conditioners, watts and phase angle transmitters, voltage transmitters, control and acquisition relays, flow meters, pH meters and analyzers, conductivity meters, thermostats and

Table 2 - 3
System and Component Descriptions

			humidistats, alarm systems, control valves, freeze stats and controls, humidifiers, mixing boxes, control wiring, terminal strips, transformers, transducers, pneumatic solenoids, modems, data transmission lines, power supplies, field status panels, water detection sensors, and associated equipment.
2.09	SDE	**Secondary Distribution Equipment**	
2.09.A		A. Description	Secondary Distribution System - That system which comprises the secondary distribution equipment, other than service entrance equipment, defined to include motor control centers, load centers, meter panels or centers, and molded-case circuit breaker distribution panels (Power Panel (PP), Main Distribution Panel (MDP), Distribution Panel (DP), Lighting Panel (LP) and Receptacle Panel (RP) classified panels)). System extends from the line side of the secondary distribution equipment to the end load. Step transformers within facilities, manholes and electrical enclosures. Secondary Bussing Systems - That system which provides all medium and low voltage bussing systems between the building transformer secondary bushings or subfed from another source or building via a secondary service and the building main disconnecting means including but not limited to: air or sandwich busduct, busway, cable bus, overhead secondary drops, and conduit/wire systems. Secondary service to electrical manholes. Secondary Main Disconnecting Means - That system, comprised of the 480 Volt or 120/208 Volt main disconnecting means, protection and switching, which includes, but is not limited to, Switchboards, Switchgears of the indoor, outdoor, drip-proof, protected aisle and common aisle variety of metal-clad switchgear; motor control centers, and load-centers, meter panels or centers, and molded-case circuit breaker distribution panels (PP, MDP, DP classified panels) and their components for voltage transformation, metering, circuit switching, and system protection in the Secondary Electrical Distribution Systems. System begins at line side of main disconnecting means and extends to the line side of the secondary distribution equipment.
2.09.B		B. Components	Secondary Distribution System - The system components include main protective devices, enclosures, bus bar and terminal connections, disconnects, fuses, contactors, motor overload relays, pilot and miscellaneous control devices, interlocks, conductors, electric interconnections, meters and accessories and manual and automatic transfer switches with associated monitoring and control equipment. Secondary Bussing Systems - The system components include bus bar, straight lengths, elbows, tees, tap boxes, power take offs, plugs, housings or raceways, insulation, heater strips, hangers and other mounting hardware and fittings. Secondary Main Disconnecting Means - The system components include assembled indoor or outdoor equipment, switching, interrupting, control, metering including kWh metering and instrumentation that is remotely recorded by the EMCS or manually recorded to provide energy management or Energy Control Manager (ECM) data, protective and regulating devices, together with their supporting structure(s), enclosure(s), conductors, electric interconnections and accessories; grounding, buss, buss supports, and heaters. Examples of these systems are switches (automatic and manual), motor control centers, load-centers, meter panels or centers, and molded-case circuit breaker distribution panels (PP, MDP, DP classified panels) in the Secondary Electrical Distribution System.

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System and Component Descriptions

2.10	LTG	**Lighting (General Area)**	
2.10.A		A. Description	The system which comprises the facility or structure interior general area lighting and exterior perimeter lighting from the panel board to the end-user. Also included in the system are the lighting contactors with reset pushbuttons installed in various Mechanical and Electrical room/closets and hallways for control of office lighting. Note: General area lighting is also located in the JSC underground tunnel system.
2.10.B		B. Components	The system components include fixtures, lamps, reflectors, ballasts, lens, diffusers, guards, lighting contactors, push buttons, fuses, switches, mounting hangers and hardware, conductors, conduit, and controls. It also includes circadian lighting systems, ballpark lighting, recreational field lighting and roadway signs, including crosswalk signs. Lighting is located in general offices, hi-bays, laboratories, cafeterias, etc. The lamp types vary and include halogen, incandescent, fluorescent, High Intensity Discharge lighting fixtures (mercury, metal-halide, high-pressure sodium, and low-pressure sodium).
2.11	ELS	**Emergency Lighting**	
2.11.A		A. Description	The system which comprises the life safety lighting including, but not limited to, emergency lighting units (i.e. wall-mounted), emergency lighting systems, exit lighting, stairwell and egress lighting.
2.11.B		B. Components	The system components include lamps, reflectors, ballasts, lens, batteries, cords, conduit, fuses, conductors, circuit cards, receptacles, and light poles, controls and LED's.
2.12	OWL	**Obstruction and Warning Lighting**	
2.12.A		A. Description	The system comprised of the obstruction lighting systems (aircraft warning lights on water tower, office buildings roofs, laboratory buildings roofs, shop buildings roofs, antenna towers, and aircraft hangar roofs). System extends from source circuit breaker through lighting fixture.
2.1.2.B		B. Components	The system components include lamps, reflectors, ballasts, lens, and light poles, fixtures, fixture hardware, conduit, fuses, conductors, cords, and controls.
2.13	LPS	**Lightning Protection**	
2.13.A		A. Description	The system comprised of the lightning protection and detection systems for all facilities and structures including substations, technical equipment buildings, towers, antennas, masts, fuel storage tanks, metal buildings, metal sheds, and stacks. System extends from the connection point to the earth electrode subsystem to the highest masted point of the aerial lightning protection subsystem.
2.13.B		B. Components	The components include air terminals; roof conductors, down conductors, ground rods, exothermically welded connections, lightning masts, mechanical fastener connections, surge arrestors and suppressors, all separately mounted shielding systems, and overhead ground wires.
2.14	GND	**Grounding**	
2.14.A		A. Description	That system comprised of the facility ground system.
2.14.B		B. Components	The system components that include ground rods, grounding conductors, counterpoise, bonds, connections, and test wells.
2.15	CTS	**CTS**	
2.15.A		A. Description	That system which provides electrical power for the CTS and the Program Support Communications Network (PSCN).
2.15.B.		B. Components	The system components include motor control centers, automatic transfer switches, manual transfer switches, disconnect switches, circuit breakers, panel boards, monitoring systems, collateral cooling equipment, transformers, battery banks, battery chargers, generator, voltage regulators and exciters, motors, uninterruptible power supplies, and inverters.

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System and Component Descriptions

2.16	EPB	**Emergency Power Backup**	
2.16.A		A. Description	That system which serves as an emergency source for supplying power to critical loads in the event of loss of a service interruption or loss of power.
2.16.B		B. Components	The system components include storage batteries, generator sets, UPS's (energy storage batteries, rectifiers, inverters, and associated controls), transfer switching devices, relay synchronizing, protective and auxiliary devices, fuel tanks, alarms and controls, conductors, wiring components, and grounds. Generators are located at Buildings 3, 8, 9, 10, 15, 17, 29, 30A, 32, 37, 44, 259, 343N, E260, E920 and E990.
2.17	EWS	**Emergency Warning**	
2.17.A		A. Description	Emergency Warning Systems are stand-alone pole mounted systems strategically located at *JSC that are programmed to generate loud warning sounds to alert *JSC personnel that a particular hazard is about to occur or has occurred. The system is also used as a public address system.
2.17.B		B. Components	The system components include poles, strobe lights, speakers, solar panels, control cabinet (electronics), antennas, batteries, ground rods, lightning rods, lightning protection down conductors, lightning protection connectors and fasteners, portable computer, portable computer transmitter/receive antenna, portable hand held control panel, and field and communication wiring and PC computer interface.
2.18	SIS	**Site Intercom**	
2.18.A		A. Description	Site Intercom Systems are used by OCC and the Emergency Operations Center (EOC) to communicate to field tunnel and mechanical rooms' locations.
2.18.B		B. Components	The system components include amplifiers, impedance transformers, speakers, telephone stations, switches relays, conductors, cords, conduits, lamps, and wire.
2.19	FPS	**Fire Protection and Security**	
2.19.A		A. Description	The cable system for fire protection and security both above ground on poles, and underground in duct bank.
2.19.B		B. Components	The system components include cable, cable clamps, messengers, tie-off insulators, tie-wraps, pole hardware, and cable identifiers.

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System and Component Descriptions

3.0 Civil

#	System Type	System	Definition
3.0	PWR	**Potable Water**	
3.01		A. Description	Production - This is the system that provides production, pressurization, treatment, and distribution of the *JSC site potable water system. This system begins at the property line and continues through to the point of use. The *JSC site normally operates on surface water provided by contract through Clear Lake City Water Authority (CLCWA). Two water wells provide backup supply to the site in the event that surface water is unavailable due to poor quality or low quantity. This utility system includes ground and elevated storage of *JSC site potable water. Exhaust fans are on top of the 1,000,000-gallon ground storage tank to remove methane gas when well water is used. The elevated storage tank and each of the ground storage tanks have their own impressed current cathodic protection systems in place and a separate cathodic protection system protects the bases of both ground storage tanks. Distribution/Use - This utility system provides for the distribution of potable and fire water to all facilities at *JSC. This system supplies water not considered potable water to systems that are not considered facilities such as turf irrigation or fire protection devices. The system provides potable water to restrooms, sinks, showers, drinking fountains, etc. and includes supply piping to domestic hot water systems, fire water systems, and make up supplies to mechanical equipment. The system provides for the distribution of potable water at EF and SCTF. This system begins at the point of the backflow preventers at the property line and continues through to the point of use. This system also includes appurtenances that the water system supplies that are not considered facilities such as turf irrigation and fire protection.
3.01.B		B. Components	The system components include the following facility components, appurtenances and equipment which it supplies: Generation systems including wells with associated pumps, motors; natural gas engines with associated battery charger and casing; piping, cathodic protection, valves, vents and vent screens, air lines, gages and drip oilers. Also, system components include the piping, fittings, meters and instrumentation flush valves between the wells and the ground storage tanks. Tank components include structural framing, gages, drainpipes, site level gages, cathodic protection including its power source, anodes, support cables, screens, vents and paint systems. The tank controls include pressure sensing lines, a Clayton control valve, and tank high and low level alarms. Piping inside the elevated storage tank is also included. Cathodic protection components include anodes, rectifiers, flotation buoys, collector cables and other associated components. The booster pump system includes electric and natural gas booster pumps, piping, Clayton control valves, gate valves, fittings, strainers, gages, insulation, freeze protection devices, hose bibbs, sampling taps, automated faucets, flush valves, labels and meters including the digital readout panel and meter totalizer inside Building 322 and the paper circle chart recorder for logging the booster pump operations and surface water flow times. The control system includes a PLC at Building 322 for booster pump controls, alarms, tank level controls, and gages.

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System and Component Descriptions

			The chemical treatment system components include, but are not limited to, chemical feed pumps, chemical analyzers, a PLC for controls, leak detection devices, chemical storage tanks and drum containments, building ventilation system, associated piping, valves, fittings, freeze protection devices, labels, insulation, scales, alarm devices for leaks, a bulk storage tank and drums. The water analysis panel components includes pen recorders to monitor chlorine levels, low level alarms on the drums (ammonia and corrosion inhibitor) and bulk tank (sodium hypochlorite), leak detectors for the ammonia and sodium hypochlorite, and flow meters with associated pen recorders. Facility components include pneumatic tanks, surge tanks, pressure boosting pumps, level controls and alarms, piping and piping insulation (up to and including backflow preventers), labels, fittings and valves. Facility appurtenances including backflow preventers, strainers, relief valves, surge arresters, pressure reducing valves, water hammer arresters, air eliminators, water filters, timers and control valves, and pressure gages. Facility equipment includes water chillers, drinking fountains, safety showers, eyewashes, Jacuzzi's, showers, sinks, janitorial sinks, and other sinks, hose bibbs, automated faucets and associated hardware for listed equipment. Portable eyewashes are also included in this definition. The piping system includes all piping, valves, fittings, valve boxes, valve markers, insulation and labeled marker posts. Associated appurtenances include backflow preventers, eyewashes, safety showers, hose reels, wash racks, truck fill lines, gages, and meters. See drawings C-SITE-312 Water District 100 Area, C-SITE-313 Water District 200 Area, and C-SITE-314 and EF Utility Prints for number of valves.
3.02	SNS	**Sanitary Sewer**	
3.02.A		A. Description	The system that provides wastewater removal from the point of origination through the interconnected system of gravity lines and manholes to the lift stations where it is routed through an interconnected system of force mains, gravity lines and manholes to the *JSC property line. The Space Center Houston Visitor Center also sends *JSC wastewater through their own pumping station, which is maintained by their personnel. Lift stations are equipped with dual pumps for redundancy and the *JSC piping system also has some versatility for outages by changing valve configurations.
3.02.B		B. Components	The system components include the following facility components, appurtenances, and equipment which is connected to it: Facility components include grinder pumps, all drain, sewer and vent piping connected to the sanitary sewer system from sinks, drinking fountains, floor drains, and misc. equipment. Facility appurtenances include alarms, grease traps at cafeterias, and oil-water separators. Facility equipment includes restroom water closets, urinals, and associated flush valves and hardware. The sanitary sewer pumping system is defined to include, but is not limited to, wet wells, dry wells, pumps and associated grease lines and appurtenances, pump motors, sump pumps, automated flush valves, controls, PLC's, alarms piping with in the lift station, valves, check valves, vents, air relief valves, comminutors, blowers, air compressors, and natural gas engine. The components include meters, wastewater manholes, process water manholes, force mains, cleanouts and gravity lines.
3.03	SWS	**Storm Sewer**	
3.03.A		A. Description	The system defined as the storm water collection system that collects onsite surface drainage and facility roof drainage and conveys it to the appropriate drainage ditch system that further conveys the storm water offsite.

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System and Component Descriptions

			Also included as contributing to the overall system is the Building 29 dewatering wells, and sump pumps located at Building 14, the weigh station north of Building 420, elevator pits, tunnel, and electrical manholes.
3.03.B		B. Components	The system components include drainage inlets and grates, sluice gates, manholes and covers, concrete and metal collection piping, swales, ditches, concrete aprons and associated energy dissipating structures, headwalls, corrugated metal culverts including inserts and concrete box culverts. Special attention shall be given to depressed loading dock area storm water removal systems (especially at Building 14 which has the potential to flood a portion of the building if not adequately operating during a heavy rain event) to assure timely removal of storm water in the case of heavy rains. The facility storm water removal system is defined to include, but is not limited to, the following facility components: Roof drains, drain lead flashing, pipes, insulation, labels, fittings, loggia ledge drains and associated piping, fittings and insulation, area inlet drains, inlet boxes, manholes, and all other miscellaneous drains and associated components which are connected to this system. It also includes associated pumps and piping which are designed to remove storm water from facilities. In this case, "associated pumps" refers to sump pumps that are located in the driveway depressions at the loading docks of some of the 400 area (logistics/warehousing) buildings. Also included in this system is the gutter and building downspout system.
3.04	NGS	**Natural Gas**	
3.04.A		A. Description	The facility system provides for the distribution of natural gas from the point of entry to the sites at the metering station to equipment such as space heaters, hot water heaters, boilers, gas engines, cafeteria equipment, test equipment and laboratory equipment. The point of entry for *JSC is right after the gas metering station (Building 340) and the point of entry for EF and SCTF is the user's side of the meter. The gas system piping continues from the regulator stations to the buildings, where the pressure is reduced further at the building regulators to the pressure required by the equipment that it serves. The *JSC facility natural gas systems consists of all piping from a point five feet outside the facility, including the building regulator, up to the equipment which it serves including generators, laboratory equipment, boilers, hot water heaters, heaters and test equipment. Natural gas is also provided to three water booster pumps at Building 322, one deep well turbine pump at well #4, and one raw lift pump at Building 223.
3.04.B.		B. Components	The system components include piping, pipe wrapping, associated fittings, building regulator stations, gages, valves, identification markers and labels, blow offs, regulators, valve stations, relief valves, cathodic protection system, isolation unions and anodes, meters, instrumentation and gas scrubbers (Building 24). *JSC site has approximately 45,000 linear feet of pipe and associated valves, regulators, meters and cathodic protection. See drawing C-Site-700 for system layout. EF has 3,000 linear feet of pipe and associated valves. SCTF has 1,000 linear feet of pipe.
3.05	FFP	**Fire Protection**	
3.05.A		A. Description	The facility firewater protection system is the system that provides water for fire protection in the *JSC facilities. The water supply system for fire protection at *JSC and SCTF is part of the potable water distribution system. The *JSC fire protection contractor does a major part of the fire protection system tests, operations and planned maintenance. Also, fire protection is the utility system that provides for storage, pumping and distribution of firewater at EF, which is a deluge system for most of the site, and a concentrated foam system at EF Hangar 990. There is also a deluge system on the Building 48 cooling tower.
3.05.B		B. Components	The system components of the utility fire water distribution system include post indicator valves, fire hydrants,

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System and Component Descriptions

			foam fire suppression equipment, deluge system piping and associated valves, piping, wet pipe sprinkler systems, and pipes on dry sprinkler systems, valves outside cabinets and booster pumps on standpipe systems, insulation, freeze protection devices, labels, and meters. The components of the EF deluge firewater storage system include, but are not limited to the following, two 150,000 gallon ground storage tanks with associated vents, paint coatings, alarms, screens, piping, controls and control valves, motors and diesel engines, pumps and pump controllers, foam generation system, piping, gate valves and post indicator valves, fittings, backflow preventers, insulation and labels, underground valve pits, and associated freeze protection devices.
3.06	DHW	**Potable Hot Water**	
3.06.A		A. Description	The **JSC facility system that provides for the generation and distribution of domestic hot water to restrooms, sinks, janitorial closets, cafeteria equipment, shower facilities, eyewashes, EF wash rack and tempered water to safety showers.
3.06.B		B. Components	The system components include hot water generators (steam, natural gas, instantaneous or electric), hot water heaters (electric or gas), insulation, instrumentation, burners, coils, steam traps, thermostats, controls, filters, relief valves and pressure protective devices, trace heat strips (Building 30S), in line recirculating pumps, hot water distribution piping, labels, valves and fittings.
3.07	TIS	**Turf Irrigation**	
3.07.A		A. Description	This system provides for the irrigation of turf areas and Mall ponds at **JSC.
3.07.B		B. Components	The system components include backflow preventers and valve boxes, solenoid valves, gate valves, quick couplers, quick connects, pop-up heads, automatic timers, mall aeration pumps, and controllers.
3.08	SIT	**Facility Interior**	
3.08.A		A. Description	The facility interior system provides the architectural structure that allows **JSC occupants and user equipment to fully function in the performance of their duties.
3.08.B		B. Components	The system components include fire doors, personnel doors, computer flooring and associated support grid, floor surfaces including surface coatings, carpet tiles, floor tiles, ceiling tiles, support grid, walls, acoustical panels, handrails, steps, floors, walls, ceilings, doors, stairs, handrails, chair rails, cove base molding, interior glass windows, doors, door hardware, projection screens, projection screens, and permanently mounted auditorium and viewing room chairs. The stage curtain components consist of the stage curtain, mounting hardware and operating mechanisms used to move the curtain. Any other components that are permanently affixed to the facility interior.
3.09	SET	**Facility Exterior**	
3.09.A		A. Description	The facility exterior system provides an architectural protection from the elements and prevents the internal environment from being adversely affected. This system provides for weatherproofing of the facility from rain and inclement weather.
3.09.B		B. Components	The system components include any portion of the building exterior system which are either unsafe or compromise the waterproofing integrity or security of the system. It includes all exterior glass systems, doors, windows, surface painting, window seals and frames, exterior doors and seals, sheet metal roofing and siding, fasteners, PEAF panel walls and joints, other miscellaneous wall construction, loggia ledges, facility roofs, roof and loggia drains, roof fasteners, parapets, associated roof hoods, roof appurtenances, and any wall and roof penetrations. Also; down spouts and gutters, flashing, coping, gravel stops, pitch pockets, penetrations, drains, caulk, antennas and microwave dishes. Any other components that are permanently affixed to the facility exterior. Includes vehicular inspection stations.

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System and Component Descriptions

3.10	RUD	**Doors & Barriers**	
3.10.A		A. Description	All *JSC rolling metal-coiled doors, interior or exterior automatic personnel doors, horizontal or vertical sliding doors that provide ingress and egress of personnel or large equipment at facilities. This includes the interior high-speed roll-up curtain in Building 421, coiling hurricane shutters, accordion metal security gates and strip curtains. Security equipment pop-up bollards, tire shredders and cross arms.
3.10.B		B. Components	The system components include rolling metal coiled and large, interior and exterior, horizontal or vertical sliding door systems includes all of the door hardware, controls, mechanical components and operating mechanisms. This includes components of the interior high-speed roll-up curtain in Building 421 and coiling hurricane shutters. Component parts include, but are not limited to, motors, gearbox, clutch assembly, cables, sheaves, labels, safety boot take-up reel, control box, forward and reversing relays, start-stop stations, limit switches or worm-gear, sliding door frames/rails, counterweights, caging, roller suspension tracks, travel blocks etc., and electronics microprocessor controllers, detectors (motion, safety beams, sensitivity sensors, motors, switches, relays etc). American Disabilities Act (ADA) automatic personnel door equipment including operating mechanisms and control buttons. Security tire shredder mechanisms. Pop-up security bollard systems. Automated cross arm systems at security guard stations. Mechanical cross arms.
3.11	FGT	**Fences & Gates**	
3.11.A		A. Description	Fencing refers to the perimeter security fence system and other internal fence systems utilized to secure areas at *JSC including associated gates. Secured areas include, but is not limited to, recreational areas (ball fields and batting cages), Gilruth Recreational Center, 30/48 complex, Mall area, facility electrical substations, site electrical substation (Building 221), various PEAF panel enclosures, barge dock, Satellite Farm, radio facility (Building 347), Central Heating Cooling Plant (Building 24), Rocket Park, water wells, natural gas station (Building 340), water storage tanks (Building 319/322), Child Care Center, and ESTA.
3.11.B		B. Components	The system components include fixed security bollards and associated chains, security staple bollards, chain link fencing, mounting and support hardware, barbed wire and all components associated with the operation of gates including locking mechanisms and automated operating mechanisms to provide a system of continuous area security. Automated gate system for Space Center Houston tram. West gate remote operated gate system including status signal roadway sign.
3.12	RPD	**Public Displays**	
3.12.A		A. Description	Public displays include the static Rocket Display viewed by visitors to *JSC, the permanently mounted flagpoles at *JSC, the memorial tree grove (located east of Building 110) signage, the historical memorial displays located outside of Building 2, outside of Building 30M, at Rocket Park and attached to the east side of Building 5N outside the high bay, and the large *JSC entrance signs located on NASA Parkway, at the Second Street entrance. Saturn Lane sign for Rocket Park. Third Street entrance sign – gate status sign.
3.12.B		B. Components	The system components include the Rocket Park display consisting of the static Rocket Display, mounting hardware and signage, and associated hardware along with pedestrian travel areas including roped stanchions. The flagpole system includes the flagpoles, flag mounting rope and all of the hardware and mechanical components necessary to provide continuous safe, reliable and easy operation of the flagpole assembly. Components of the memorial displays and entrance signs include the plaques, letters, logos, and mounting and display hardware.
3.13	RDW	**Roadways and Parking Lots**	
3.13.A		A. Description	Roadways are vehicle passageway surfaced with concrete or asphalt.

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System and Component Descriptions

			Parking lots are designated areas for vehicle parking. Concrete aprons for aircraft operations.
3.13.B		B. Components	The system components include concrete and asphalt surfaces, curbs, curb and area inlet drains, seal coating, striping, slip resistant pedestrian crosswalks, porcelain lane buttons, reflectors, apron tie downs and wheel stops.
3.14	SDW	**Sidewalks**	
3.14.A		A. Description	Sidewalks are pedestrian passageways surfaced with pea gravel or broom brushed concrete. Sidewalks include other pedestrian walkways such as running tracks, bridges, building steps, loading docks, wheel chair ramps, and service ramps
3.14.B		B. Components	Passageways surfaced with pea gravel or broom brushed concrete and joint caulking. Other pedestrian walkways such as running tracks, bridges, building steps, loading docks, wheel chair ramps, and service ramps.

4.0 Environmental

#	System Type	System	Definition
4.01	WCT	**Waste Tank Collection**	
4.01.A		A. Description	The waste collection system including tanks, piping, leak detection and overfill protection systems and all associated equipment for the collection of wastes from the photographic lab, the metal finishing/cleaning labs for storage prior to disposal/treatment off-site or treatment onsite.
4.01.B		B. Components	The system components include tanks and all tank appurtenances, piping, double-walled piping, quick disconnects, pumps, valves, aerators, gratings, pH meters, electrodes, leak detection cables, tank level sensors, sump high level sensors, flow indicators/totalizers, level controls, main panels for alarms, visual level indicators, heaters, piping insulation, overfill containers, compressors, carbon absorption canisters, tank identification labels, outside visual alarm indicator light, leak detection systems, and panel zones, tank system identification labels, safety showers and eyewash stations.
4.02	VLT	**Vaults**	
4.02.A		A. Description	Vaults are the in ground concrete structures which house waste collection tanks.
4.02.B		B. Components	Structure components include, but are not limited to, concrete walls, and floors, chemical resistant coatings on walls and flooring, drain caps, gratings/coverings, roof, doors, locks, stairways, vents, ventilation fans, air vents, lighting, safety bollards, tire stops, electrical components, warning signs, identification labels, safety showers and eyewash stations.
4.03	CSA	**Container Storage Areas**	
4.03.A		A. Description	Areas used for the accumulation or storage of containers holding wastes.
4.03.B		B. Components	The system components include bracing, roof, louvers, lighting, forklift pathways, tie downs, fences, locks, gates, signs, audible telephone bells, safety showers and eyewash stations.
4.04	CTB.	**Containment Berms**	
4.04.A		A. Description	Containment Berms are used to provide secondary or tertiary containment for areas storing or accumulating wastes in tanks or containers.
4.04.B		B. Components	Containment structures include, but are not limited to, concrete (or other construction materials) floors and sides, coatings or liners, drain caps, and gratings, safety showers and eyewash stations.

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System and Component Descriptions

4.05	WWI	**Wastewater Impoundments**	
4.05.A		A. Description	Wastewater impoundments are in-ground imperviously lined concrete structures and all appurtenances used to collect process or storm water prior to discharge to the sanitary sewer and with the ability to provide aeration.
4.05.B		B. Components	The wastewater impoundments include, but are not limited to, the concrete structure, liners, pumps, aerators, diffusers, blowers, piping, dewatering pumps and handrails, safety showers and eyewash stations.
4.06	GTS.	**Groundwater Treatment**	
4.06.A		A. Description	The system that provides the collection, treatment and disposition of contaminated groundwater.
4.06.B		B. Components	The system components include the extraction wells; submersible pumps, flow meters, sample ports, electrical panels, piping and insulation; piping and insulation, the air stripping towers, air stripper packing, carbon adsorption units, pumps, strainers, valves, fan blowers, liquid probes, level indicators, high level alarms/shut offs systems, three-way valves, tanks and all appurtenances, leak detection sight glass, catwalks, stairways, tank labels and identification labels, vents, stripper skid, sumps, pneumatic tank, electrical switches and panels, lighting; wet well, low level/pressure alarm, pressure switches, motors, covers; backflow preventers, warning lights, transformer and guide wires, system identification labels, safety showers and eyewash stations.
4.07	PLW.	**Plating Waste Pretreatment**	
4.07.A		A. Description	The system that provides for the collection, treatment and disposition of Preclean and plating type wastewaters.
4.07.B		B. Components	The system components include tanks, pumps, mixers, dust collector, valves, level controls, switches, filters, membranes modules, filter press, filter cloths, filter bags, piping, pH probes and meters, ORP probes and meters, flow meters, instruments, metering pumps, regulators, alarms, lamps, relays, timers, probes, recorder, paper, sensors, gaskets, o-rings, batteries, strainers.
4.08	CEM	**Continuous Emissions Monitor**	
4.08.A		A. Description	The system that provides for the sampling, conditioning, analysis, and recording of emissions data from the Building 222-1 Nebraska boiler.
4.08.B		B. Components	The continuous emissions monitor includes dual redundant Nox analyzers, oxygen (O2) analyzer, in-stack sample probes, sampling lines, sample conditioning, pumps, filters, data acquisition system KVB Enertec NT-DAHS.

5.0 Other Equipment

#	System Type	System	Definition
5.01	ELE	**Elevators**	
5.01.A		A. Description	Electric/traction/hydraulic elevators are vertical transportation systems designed for the movement of personnel and freight between the various floors, or working levels of multi-story buildings. The passenger/freight cars of electric/traction elevators are suspended by wire ropes, which pass over a powered

Table 2 - 3
System and Component Descriptions

			sheave, and terminate at a set of counterweights. The prime mover, or drive machinery, is generally located near the top of the elevator car shaft, or hoist way. In short, electric/traction elevators lift and lower a car which is suspended in the hoist way. The passenger/freight cars of hydraulic elevators are affixed atop, and are raised and lowered by, a telescoping hydraulic cylinder. This cylinder moves up or down in proportion to the increase or decrease in the oil pressure inside the cylinder. Increases in oil pressure result from an electric motor driven pump forcing oil into the hydraulic jack, or cylinder, which is typically buried in the earth beneath the building's elevator pit. Decreases in oil pressure result from the controlled opening of a valve, which allows the oil to return from the jack to the supply reservoir. The hydraulic pumping assembly is generally located in a machine room near the elevator pit or hoist way. In short, hydraulic elevators move a car by pushing it up through the hoist way. A dumbwaiter is defined as a hoisting and lowering mechanism with a car of limited capacity and size which moves in guides in a vertical direction and is used exclusively for the transport of materials between floors, or levels of a building. Dumbwaiters shall never be utilized for the movement of personnel.
5.01.B		B. Components	The system components include buffers, car enclosures, gates, doors, car frames and platforms, hydraulic pumping units, tanks, exhaust fans, hydraulic cylinders and casings, sheaves, counterweights, drive machines, governors, operating devices, controls, telephones, lighting, light diffusers, emergency brakes, safeties, floor covering, suspension ropes, guide rails, hoist way guards and covers, indicator lights and signaling devices, machine rooms, pits, wiring, piping, and ducts, hoist way guards and covers, indicator lights and signaling devices, wiring, piping, and ducts.
5.02	LDV	**Lifting Devices**	
5.02.A		A. Description	Generally, a system shall be defined as a crane if it has been so designed as to possess the capability not only to lift a load in the vertical axis, but to move that load along any horizontal axis, as well. Generally, a system shall be defined as a hoist if it has been so designed as to possess the capability to lift a load in the vertical axis only, but cannot move that load along any horizontal axis. Generally, a system shall be defined as a switchgear hoist if it has been designed and installed so as to perform the sole function of lifting components from panels, cabinets and other installations housing electrical switchgear. Generally, a system is defined as a lift if it has a manually, electrically, hydraulically, or pneumatically driven platform or cage which travels along a substantially vertical axis which is controlled by some mechanical means, such as rails, guides, telescoping frame, or similar. It typically consists of a simple manual winch is mounted to a frame. Such lifts may be designed, operated, and maintained as personnel lifts, as freight lifts, or as test article positioners. They may also be designed to be portable, or may be more permanently affixed to a building or other structure.
5.02.B		B. Components	The system components include crane. Hoist, switchgear hoist and lift designs vary significantly according to location and application. Component definition shall be generally described as, but shall not be limited to, any or all of the following system elements: (1) Cranes - hooks, blocks, wire ropes or chains, sheaves, lifting drive systems, braking systems, trolleys, trolley drive systems, bridge structures, tracks and rails, motors, reduction gears, electrical buss tracks and pickup shoes, pneumatic motors, air supplies, control systems, limit switches and safeties, and any other ancillary elements associated with a crane, its supporting structure, or its power supply; (2) hoists - hooks, blocks, wire ropes or chains, sheaves, lifting drive systems, braking systems, motors, reduction gears, pneumatic motors, air supplies, control systems, limit switches and safeties, and any other ancillary elements associated with a hoist, its supporting structure, or its power supply; (3) switchgear hoists - hooks, blocks, wire ropes or chains, sheaves, lifting drive systems, reduction gears, safeties, frames, and any other ancillary elements associated with a lifting device or its supporting structure; and (4) lifts - wire ropes, sheaves, lifting drive systems, braking systems, hydraulic pumps and motors, pneumatic and hydraulic cylinders, electric motors, reduction gears, pneumatic motors, air supplies, control systems, limit switches and safeties, and any other ancillary elements associated with a particular lift,

Table 2 - 3
System and Component Descriptions

			its supporting structure, or its power supply.

6.0 User Equipment

#	System Type	System	Definition
6.01	UEE	**User Equipment**	
6.01.A		A. Description	Those pieces of specific equipment which fulfill a user requirement in the facility. This equipment supports test or other specialized task. Equipment is owned and operated by the users.
6.01.B		B. Components	The equipment includes vacuum pumps, refrigeration equipment, chillers, boilers, film processors, printers, water pumps, and cooling towers. The components shall include the listed, numbered piece of equipment only and not be inclusive of peripheral or support piping, wiring, equipment or other ancillary hardware. Other components which might be included as parts of a particular system in which the User Equipment is installed, yet are not integral parts of the specific piece of equipment, are not included in this definition. Such parts and components are "ancillary hardware. For the most part, these components are not COD owned and operated.

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3 OPERATIONS

3.1 General Information

3.1.1 Annex Description

This Annex identifies the day-to-day operations, standing, recurring, and miscellaneous services that the Contractor is required to perform to support ***JSC** utility systems. Even though specific guidelines/requirements and minimum standards have been established, the services to be performed will rely heavily on knowledgeable, experienced individuals capable of safely and efficiently operating the utility systems. The Contractor shall operate the established utility systems, providing cost effective usage. Services addressed in this Annex include maintenance operations but do not include Repair or SM services (See Annex 2).

3.1.2 Minimum Standards

Systems shall be continuously available for operation. They shall be operated to achieve the output as described in this annex. All operator field checks that note anomalies are to be reported for repair by the use of Service Request Tags.

3.1.3 Operations Guidelines for This Annex

Major configuration changes or changes which place a utility system in an abnormal configuration, shall normally be accomplished with an approved UP. However, if the change is accomplished with an Operational Procedure (OP), then the utility procedure is not required.

The ***COTR** or delegate may at its discretion require the Contractor to operate the systems at a level that is not defined in the Annex 3 CLINs.

Visual checks require a check sheet to document time/date, items visually checked, conditions found, actions taken, and identification of personnel performing the checks.

Operations of all systems shall be in accordance with O&M manuals, Operation and Utility Procedures.

The Contractor shall perform all electrical power systems switching and provide necessary operations support according to written utility procedures.

Lineman support shall be provided for all ***JSC** maintenance, repair, inspection, testing, special events and construction projects including MA, up to an initial construction value of $500,000. For projects greater than $500,000, lineman support shall be separately priced per Annex 5. See CLIN 5.3.2.

The operation of all ***JSC** utility systems includes the activities necessary to configure systems for maintenance, repair, inspection, testing, special events and construction, and return systems to operational status following reconfiguration and maintenance/repair outages.

Operational support (Operators and Engineering) shall be provided for all ***JSC** maintenance, repair, inspection, testing, special events and all construction projects despite the construction value. Operations and lineman support includes all actions necessary for support of all Facilities Contractor, non-Facilities Contractor or ***JSC** user requirements identified above.

Operators shall perform operational maintenance tasks that are prescribed in the ***CMMS Database**, including: boiler pre-flight checks, chiller balance piston checks, cooling tower water treatment sampling and testing, building air compressor testing, diesel engine cooling water tests, power generator operation, potable water exercising, natural gas valve exercising, and fire hydrant flushing.

The operation of all utility systems includes the activities and operational support necessary to comply with the testing requirements of the ****JSC Pressure System Inventory/Recall System Status Report, **JPR 1710.13C Design, Inspection and Certification of Pressure Vessels and Pressure Systems,** and American Society of Mechanical Engineers (ASME) I and IV, ANSI-B31.1 and National Board of Boiler Inspectors. All systems shall be free of leaks.

The utility systems located in Buildings 24, 28, 30S, 30L, 30MOW, 40, 48, 221, 319, 322, 339, 341, all mechanical rooms, manholes, lift stations, and the utility tunnel have special access requirements.

The Contractor shall meet LEED operations and maintenance requirements for the JSC facilities that have been updated to the LEED standard. Operations shall include system outages and reconfigurations. Removals from service, drain, secure, tagout and return to service as defined in Operational Procedures (OP), UP or Task Instruction.

During ***Daily (D7)** operations, inspections, monitoring or data recording the contractor shall note any abnormal operational characteristics and immediately initiate corrective action.

Operators shall continually be attentive to potential problems and initiate corrective action in a timely manner.

The Contractor shall utilize secondary containment systems installed or supplied by the Government for all fuel offloading and transfer operations in accordance with the ****JSC Spill Prevention, Control, and Countermeasure Plan.**

The Contractor shall reference the ***CMMS Database** for specific listing of all tagged equipment.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
3.2	Operations			
3.2.1	Plant/Production Operations			
3.2.1.1	Steam and Condensate Return			
3.2.1.1.1	Boiler and Condensate Return System ***Man and Operate** the Building 24 Central Plant Steam Boiler and Condensate Return System	***Man and Operate** the Building 24 boiler and condensate return system 24/7 separate from the OCC. Continuously supply and satisfy the site load with 400 pounds per square inch gauge (PSIG) superheated steam to the plant header system and reduce the high pressure steam to 100 PSIG +/- 10 PSIG in the summer. Adjust the output pressure as required in the heating season to maintain 100 PSIG at Building 35 to meet the building load requirements. Ensure plant output steam has approximately 30 degrees F superheat leaving the plant pressure reducing/de-superheating stations. Maintain one additional boiler available to be placed in service at all times as a warm standby boiler. This is an N+1 operational requirement. N +1 identifies equipment availability based on boiler load with one standby boiler. De-aerate condensate return at Building 24 and chemically treat so that phosphate is within 15-25 mg/liter and sulfite within 20-40 mg/liter prior to use in any of the plant boilers. Verify condensate return units and all steam traps are operating properly by ensuring that condensate return is at least 85 percent of supply. Treat supply steam to the site with amines so that condensate water pH is maintained between 8-9 pH to ensure pipe integrity.	1 System	System is available and operational, and output maintained per identified requirements.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		Check condensate return water quality for hardness with a laboratory color change test once a shift. Ensure that potable water used as a makeup in the condensate system is softened to less than 2 mg./liter, maximum hardness. Monitor the boiler and condensate return systems for continuous supply. Steam production systems in ***JSC** buildings not served by the Central Plant shall be capable of supplying continuous steam as required to satisfy the ****HVAC Seasonal Adjustment Planning Process**. Run all 3 power boilers on fuel oil prior to each shuttle ***Mission** for 1 hour as per ****Mission Readiness Plan and Procedure**.	6 ***Missions**	Boilers operated per mission requirements.
		Acknowledge and clear all boiler alarms within 5 minutes of occurrence.		Boiler alarms responded to and cleared on time.
3.2.1.1.2	Standing Work			
3.2.1.1.2.a	Building 24 Central Plant Steam/Boiler System Read and Record Meters/Gauges to Monitor Building 24 Central Plant Steam/Boiler System Conditions and Production	Observe and record data logs for all boilers and steam systems to maintain system performance data for evaluation. Data for each log shall be stored electronically in a worksheet in the ****Elog Excel Workbooks**. Logs as specified below: a. Hot Loop Water Analysis Log ***Daily (D7)** - Test water quality and record readings every 4 hours. b. *JSC Building 24 Boiler Log ***Daily (D7)** - Record each operating boiler reading every 4 hours. c. *JSC Building 24 Steam Plant Data Log ***Daily (D7)** - Record each reading every 4 hours. d. *JSC Chief Operator's Log ***Daily (D7)** - Record each reading on intervals as shown in worksheet.	365 days and four logs ***Daily (D7)**	Data is accurate, collected and recorded on time.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
3.2.1.2	Electrical Plant			
3.2.1.2.1	138 kV JSC Site Electrical Substation Inspect and Operate the 138kV JSC Site Electrical Substation	Operate the 138 kV substation so that it steps down the utility power and provides four separate 12.47kV, 3 phase, 60 Hz, sources to the inputs of the site electrical 15kV distribution system.	1 Substation	Appropriate power level provided to the site electrical 15kV distribution system.
		Ref: ****Building 221 JSC Electrical Substation Site Distribution System Operating Procedure**		
		Maintain the ring buss to provide a method of isolating sections with either manual switching or through coordinated protective relaying circuits.		
		Note: The output of the four primary transformers is regulated. Substation yard provides step potential protection.		
		Support within one hour an unscheduled switching or emergency problem investigation. Qualified linemen shall be available to perform the investigation.		Timely evaluation and resolution of the problem.
		Support local electric utility whenever needed to isolate their transmission lines.		
		Operate system through switching using written UP's, via radio and recorded by radio traffic recorder in the OCC, to ensure standard processes and procedures are followed by field support.		Procedures are accurately followed and performance of them is fully documented.
		Maintain all configuration changes on drawing E-JSC-9A in Building 221E to show current configuration within 1 hour following switching activity.		Configuration drawing E-JSC-9A updated accurately and on time.
		Perform visual inspection ***Daily (D7)** of the 138kV ring bus down to the high side of the transformers, including local electric utility equipment. Qualified personnel shall perform inspection. Maintain check sheets for 24 months in Building 221.		System is inspected by qualified personnel. Check sheets are accurate and available.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
3.2.1.2.2	Building 48 Power Systems Operate Building 48 "A", "B" and "D" Power Systems	Provide continuous power and meet Buildings 48 and 30 loads. These shall be sourced from either utility transformers or diesel driven generators. There shall be uninterrupted transfer between transformers and generators.	3 Systems	Building 30 and 48 power requirements are met and transfer operations are smooth and uninterrupted.
		Provide continuous certified operations engineer support during all ***Mission** periods. The operations engineer shall be stationed at Building 48 during these periods ***Daily (D7)** and shall provide dedicated ***Mission** support for the duration of the ***Mission**.	6 ***Missions**	Continuous certified resident Operations Engineer support in Building 48 for all ***Mission** periods.
		Operate standby generators each week for 1 hour in an integrity test run for operational availability. Comply with 30TAC 117.206(i) Operating Restrictions and 30TAC 117.219(f)(10) Records of Operation. During the first week, use Buildings 30M and 30S as load; during the alternate week, use 100 percent load bank for load. Operate generators for severe weather support (See ****JA Management Guidance 8460.01, "Mission Operations Support, Diesel Engine Operation"**) and for an outage or loss of commercial power. Verify generators start up when required. Physically check equipment within 5 minutes of start up operations when operations personnel are in the building. Auto start procedures shall allow for a maximum 15 minute time period to physically check equipment.	Weekly run	Engine generators are fully checked out and verified to be functioning.
		Minimize air pollutant emissions and fuel consumption by limiting engine operations to 120 hours ***Annually** per engine.		Engine operations limited to 600 hours ***Annually** per engine.
		Only operate engines for testing, training, maintenance, emergency situations, or standby weather support services. In no case shall engines be operated for more than 600 hours ***Annually** per engine on a 12 month rolling average or for baseload generation or peak shaving.		

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		Provide a certified operator to safely start and parallel the "B" and "D" system generators upon notification by the Mission Operations Directorate (MOD) Facility Control, COD, or for impending adverse weather conditions within five miles of the site. During requested or weather related operations, the certified operator shall be stationed at Building 48, ready to operate the "B" and "D" power system generators.		
		Continually monitor the system throughout the operation period to ensure uninterrupted services. At the end of the operation, ensure generators are shut down and all auxiliary systems/equipment are properly reset for automatic start up.		
		Operate all on line UPS systems continuously. Building 48 has two systems with two modules each. Building 30 has two systems with one module each.	4 Systems	
		Provide continuous, resident certified operator support during all engine runs and ***Mission** periods.		Continuous, resident certified operator support provided during all engine runs and ***Mission** periods.
3.2.1.2.3	Building 48 Power Generators and UPS Monitor Building 48 "B" and "D" Power Generators and "A" Power UPS	Perform ***Daily (D7)** visual checks of Building 48 "B" and "D" Power Generators and "A" Power UPS systems by certified personnel to ensure continued availability of the equipment. Monitor "B" and "D" Power Generator sets and "A" and "AX" Power UPS's ***Daily (D7)** by certified personnel.	4 Systems	Power generator sets and UPS's monitored ***Daily (D7)** by certified personnel.
		Repair work may be halted and the generators or UPS left in an "out of service" status only by permission of the ***COTR**.		
		Maintain separate check sheets for each system for 12 months.		Check sheets are properly maintained.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
3.2.1.2.4	Standing Work			
3.2.1.2.4.a	Shuttle Mission Support Provide Shuttle ***Mission** Support	Provide ***Mission** Support Services for six Shuttle ***Missions** per year. NOTE: See ****Shuttle Flight Schedule.** Provide comprehensive facility review to evaluate facility systems' readiness to support real time ***Mission** operations for Space Shuttle ***Mission.**	6 ***Missions**	Continuous qualified operations engineering support for all Shuttle support.
		Provide the following ***Mission** support: 1. Ensure work is performed per requirements of the ****Mission Readiness Plan and Procedure** and ****STS Fact Sheet** per ***Mission.**		Work is complete and performed on time.
		2. Support ***Mission** related meetings, prepare presentation on facility status and COD readiness to support the ***Mission**, and provide COD representation to:		***Mission** related meetings supported.
		a. Readiness Integration Meeting (RIM) (1 hour) and Facility Control Board (FCB) meetings (2 hours) during alternate weeks. Reference ****Building 30/48 Facility Control Board Charter**.	52 RIM and 12 FCB meetings	See above.
		b. ***Daily (D7)** MOD ***Mission** meetings (30 minutes). Present the Building 48 Energy Report and Daily Planned Work Report.	365 Days	See above.
		c. ***Mission** (MRR) (1 ½ hours) at 7 days prior to each ***Mission.** Reference ****COD Flight Readiness Review.**	6 Meetings	See above.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		Develop and maintain Open Work List (OWL) to ensure work in progress that could have an impact on the mission readiness of the Building 30/48 complex is tracked and resolved. Maintain report updates. Provide to the ***COTR** twice a month prior to Annex tag up meetings. The OWL shall contain the following: a. Line item number, b. System/Facility, c. Action, d. Scope, e. Utility Procedure Status, f. Outage Status, g. Original Completion Date, h. Scheduled Completion Date, i. Person in Charge, j. Priority Level, k. Area of Emphasis, l. Overall Status, m. Schedule Status. See ****Open Work List for Mission Readiness.**	1 report provided 24 times	OWL is accurately updated and provided on time. Shuttle ***Mission** or ISS support is complete and timely per the plan. No impact to mission readiness due to open work items.
		Correct open work items that could impact mission readiness of the Building 30/48 complex.		
		Sign readiness statement for Contractor readiness to support the ***Mission**. Provide initial review at L-4 weeks to Facility Management and Operations Division.		
		Provide status of Criticality 1 OWL items in meetings with COD ***Mission** Management. This meeting is per ***Mission.**	6 ***Missions**	Status accurately identifies the status of the Criticality 1 open items.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		Provide the following as configured utility system drawings 3 days prior to each ***Mission**: Drawings E-JSC-8, E-JSC-9, E-JSC-9A, C-Civil-300, C-Site-312, -313, -314, -315; PI-T-1, -2, -3, -4, -5, -6; C-Site-700.	14 Drawings	Utility system drawings provided accurately document the system configuration and are on time.
		Buildings 30/48 FCB: Provide one certified Operations Engineer and one Operations Manager for membership to the monthly Buildings 30/48 FCB's. NOTE: The board meeting is held with representatives from COD and MOD to review the end-to-end facility configuration supplying Buildings 30 and 48 backup power and cooling to the user power distribution units and workstations in Buildings 30M and 30S.	One 2 hour FCB meetings per month 3 ongoing FCB subcommittee assignments	See above.
		Make recommendation for the facility reliability and integrity improvements and review requirements documentation, testing specifications, and evaluation system configurations.		Recommendations are technically complete and increase facility reliability and integrity.
		Resolve corrective actions and action items that are the Contractor's functional responsibility resulting from the FCB, and provide status reports. Support FCB subcommittee assignments from FCB. See ****Building 30/48 Facility Control Board Charter**.		Corrective actions are appropriate for effective, efficient, and timely resolution. Reporting is accurate and on time.
3.2.1.2.4.b	Preflight Checkout of Power Systems Perform Preflight Checkout of Building 48 "A", "B", and "D" Power Systems	Ensure all Building 48 "A", "B", and "D" Power System components are functional and ready to support flight activities. Provide the required operations documentation as per ****Mission Readiness Plan and Procedure.**	6 ***Missions**	Abnormalities reported and appropriate corrective action initiated on time.
		Complete checkout and be prepared to support each ***Mission** at launch minus 12 hours.		Systems are ***Mission** support ready on time.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		Prepare and submit a ****Mission Readiness Plan and Procedure** to the ***COTR** for each ***Mission.**	6 Plans	****Mission Readiness Plan and Procedure** is accurate, complete and on time.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
3.2.1.2.4.c	Power Systems Meters Read and Record Meters to Monitor Building 48 "A", "B", and "D" Power Systems	Read meters and record data with frequency stated for operating UPS, "B" and "D" power systems to monitor the status and condition of the system. Maintain data at Building 48 continuously available for Government review. Data for each log shall be stored electronically in a worksheet in the ****Elog Excel Workbooks**. Logs as specified below: Building 48 A-1 UPS Log - ***Daily (D7)**. Record readings every 8 hours. Building 48 A-2 UPS Log - ***Daily (D7)**. Record readings every 8 hours. Building 48 Electro Motive Division (EMD) Diesel Engine Operating Log - One record per operating engine, ***Daily (D7)**. Record readings every hour. Building 48 "D" Power Log-A - ***Daily (D7)**. Record readings every 8 hours; during ***Missions**, record readings every 2 hours. Building 48 "D" Power Log-B - ***Daily (D7)**. Record readings every 8 hours; during ***Missions**, record readings every 2 hours.	365 days and five logs ***Daily (D7)**	Data is obtained on time and reviewed for abnormalities. Data is available continuously in Building 48.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
3.2.1.2.5	Recurring Work			
3.2.1.2.5.a	Kilowatt Hours Meters Read and Record Metering Data to Monitor and Report Power Consumption	Upon coordination with local electrical utility provider, electronically record local utility provided data and kilowatt hours (kWh) meter readings at Buildings 221 and 47 to support monthly utility bill validation. Each month, electronically record the accumulated kilowatt hours, four on-peak high values, and four off-peak high values in the EBi system. Coordinate reset of the kilowatt hour accumulators and on/off peak recorders in the EBi system. Post electronically the same day of reading. Maintain electronic historical record for 5 years. NOTE: Meters 8300 and 8301 are at Building 221. Southwestern Bell meter is at Building 47.	12 readings of 16 values	Readings reported to the ***COTR** and electronically recorded on time. Resetting of EBi accomplished correctly and on time. Historical data accurately maintained and electronically posted and available to the Government on time.
3.2.1.2.5.b	Power Protective Devices Function test all Building 48 "B" and "D" Power Protective Devices	Functionally test "B" and "D" systems ***Annually**, including engine over speed, low oil pressure, high temperature, protective relays, and circuit breakers to verify system operability. Functionally test "A" system, including protective relays, circuit breakers, static by-pass and alarms to verify system operability.	***Annual** test of 3 systems	Functional tests performed according to procedure.
3.2.1.2.5.c	Output Capacity Verify Output Capacity of Building 48 "B" and "D" Power Generators	***Annually** load bank each generator to 100 percent capacity for 2 hours. Monitor and record operating parameters to ensure that the appropriate output capacity is being provided. Comply with 30TAC 117.206(i), Operating Restriction and 30TAC 117.219(f) (10), Records of Operation. Coordinate outside ***Mission** period. NOTE: Air-cooled load banks are switchable onto bus.	***Annual** test of 5 generators	Output capacity of power generators verified per procedures. Testing is completed ***Annually** and outside ***Mission** period.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
3.2.1.2.5.d	Power Recorders in Buildings 221 and 48 Operate and Maintain Power Recorders and Charts	Operate and maintain recorder located in Building 221 in operational condition to ensure continued documentation of performance data. Maintain and update to current software version. Provide the ***COTR** with a copy of access software. Record date, time, and location on each chart and maintain on file at the location for 2 years. Notify the ***COTR** of all voltage disturbances ***Immediately** during business hours weekdays and by email all other times. Operate and maintain electronic recorders located in Building 48 in operational condition. Maintain and update to current software version in recorders and access software. Provide the ***COTR** with a copy of access software. Record date, time, and location on each data file. Maintain data files at the location for 2 years. Notify the ***COTR** of all voltage disturbances ***Immediately** during business hours weekdays and by email all other times.	Continuous operation of five recorders	Recorders are available continuously. Records and data files are dated and retained per requirement. The ***COTR** is notified of disturbances ***Immediately**. Recorders are continuously operational and properly maintained.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
3.2.1.3	Chiller/Chilled Water Production			
3.2.1.3.1	Heating and Cooling Plant Chilled Water Production Systems ***Man and Operate** the Building 24 Central Heating and Cooling Plant and the Building 28 Auxiliary Chiller Plant Chilled Water Production Systems	***Man and Operate** the Building 24 heating and cooling plant 24/7 separate from the OCC. During mission support periods, the Building 24 system must be available to immediately support the additional load from the MCC if necessary. Operate the chilled water systems to ensure that chilled water is continuously supplied to facilities to satisfy the load. Have two spare chilled water systems immediately available for service at all times. This is an N+2 availability operational requirement. N +2 identifies equipment availability based on chiller load with two standby chillers. This availability does not include Building 48 chillers. Continually monitor the chilled water production systems to ensure that chilled water temperatures and flows are maintained. Immediately resolve any failure of the monitoring system capabilities to assure normal monitoring and desired chilled water supply is continuously available to ***JSC**. Operate the chilled water systems to provide the most cost effective operation based on lowest dollars/ton operational cost per chiller. Operations shall provide for chilled water system outages and minimum runtime for less efficient chillers. Acknowledge and clear all chilled water or cooling water alarms within 5 minutes of occurrence (15 minutes for Building 28 alarms if no operators are present at alarm initiation). Repair freon leaks within 30 days of discovery.		System is available and operational, and output supports the facility loads.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		Continuously meet the plant and facility loads with the condenser/cooling water systems.		
		Provide condenser water to the plants at 86 – 90 degrees F on design days at 80 degrees F wet bulb temperature while utilizing an optimum number of cooling tower cells.		
		Maintain accurate and timely records on refrigerant acquisition, use, and equipment leak rates. Maintain records down to the equipment level.		Refrigerant records are maintained accurately and regulations followed.
3.2.1.3.2	Building 48 Chilled Water Production System Operate and Monitor the Building 48 Emergency Power Building Chilled Water Production System	Operate the Building 48 chilled water system to ensure that the MCC load is met during ***Mission** support periods and that chilled water is provided at 44 degrees F +/- 1 degree.		During ***Mission** support periods, continual coverage of the chilled water system is provided.
		Operate the chilled water systems to ensure that chilled water is continuously supplied to facilities to satisfy the load.		System is available and operational.
		One chiller shall be maintained in a standby condition available to be placed into immediate service with one chiller down for maintenance/repair and with a two chiller load.		Adherence to energy guidelines and directives is demonstrated.
		During mission periods, the Building 24 and 28 systems must be available to immediately support the additional load from the MCC if necessary.		
		The roof mounted back up water chiller at the central plant shall be available at all times to support critical air handler 24-6 operation in the event of a plant chilled water outage.		
		Continually monitor the chilled water production system to ensure that chilled water temperatures and flows are maintained. Immediately resolve any failure of the monitoring system capabilities to assure normal monitoring and desired chilled water supply is available to ***JSC**.		
		Repair freon leaks within 30 days of discovery.		

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		Operate the Building 48 chilled water system or use the Buildings 24 and 28 chilled water system during non-***Mission** periods to provide chilled water to Buildings 30L, 30M, and 30S at the most cost effective and energy efficient operation based on lowest dollars/ton operational cost per chiller. Operate the chilled water production system to accomplish minimum runtimes for the Building 48 chillers.		Chillers provide the required chilled water output to meet the Building 30L, 30M, and 30S requirements.
		During ***Mission** periods, operate the Building 48 chilled water system 24 hours a day with continual coverage. Configure the system to provide support and backup capacity to Buildings 30L, 30M, and 30S.		
		Acknowledge and clear all chilled water or cooling water alarms within 5 minutes of occurrence (15 minutes if no operators are present at alarm initiation).		Alarms are cleared within the required time frame.
		Maintain accurate and up-to-date records on refrigerant acquisition, use, and equipment leak rates. Maintain records down to the equipment level.		Refrigerant records are maintained accurately and regulations are followed.
3.2.1.3.3	Standing Work			
3.2.1.3.3.a	Chilled Water System Meters/Gauges Read and record Buildings 24, 28, and 48 Chilled Water Systems Meters and Gauges	Read meters and gauges for operating chillers and cooling tower systems to monitor conditions and production. Collect and record data with frequency stated in the following logs: Data for each log shall be stored electronically in a worksheet in the ****Elog Excel Workbooks**. Logs as specified below: a. Building 24 Chiller Motor Log - One record per operating chiller, ***Daily (D7)**. Record data every 2 hours. b. Building 24 Chiller Steam Turbine Log - One record per operating chiller, ***Daily (D7)**. Record data every 2 hours.	365 Days and 14 logs	Data is accurately collected, recorded, and evaluated for anomalies on time.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		c. *JSC Building 24 Chiller Log - One record per operating chiller, ***Daily (D7)**. Record data every 2 hours.		
		d. *JSC Building 24 Refrigeration Plant Data Log - ***Daily (D7)**. Record data every 2 hours.		
		e. *JSC Chief Operator's Log - ***Daily (D7)**. Record each reading on intervals as shown on form.		
		f. Building 24 Refrigerant Tracking Log - Record data as required whenever refrigerants are transferred.		
		g. *JSC Building 28 Chiller Log - One record per operating chiller, ***Daily (D7)**. Record data every 8 hours.		
		h. Building 28 Chiller Motor Log and Building 28 Refrigeration Plant Log - One record per operating chiller, ***Daily (D7)**. Record information every 8 hours.		
		i. Building 28 Refrigerant Tracking Log - Record data as required whenever refrigerants are transferred.		
		j. Building 48 Chiller Log - Chiller No. 1 - One record per operating chiller, ***Daily (D7)**. Record data every 8 hours for non-***Mission**, every 2 hours for ***Mission**.		
		k. Building 48 Chiller Log - Chiller No. 2 - One record per operating chiller, ***Daily (D7)**. Record data every 8 hours for non-***Mission**, every 2 hours for ***Mission**.		
		l. Building 48 Chiller Log for Chiller No. 3/4 - One record per operating chiller, ***Daily (D7)**. Record data every 8 hours for non-***Mission**, every 2 hours for ***Mission**.		

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		m. Building 48 Heating & Cooling Log - One record per operating piece of equipment, ***Daily (D7).** Record data every 8 hours for non-***Mission**, every 4 hours for ***Mission**. n. Building 48 Refrigerant Tracking Log - Record data as required whenever refrigerants are transferred. All data shall be available to the Government within 4 hours of data collection.		
3.2.1.3.3.b	Condenser Water Treatment Execute the Condenser Water Treatment Program for the Central Plant, Building 24, the Auxiliary Chiller Plant, Building 28, and the Emergency Power Building 48	Operate the condenser/cooling water systems to satisfy the plan and/or facility loads and provide condenser water to the plants at 86 – 90 degrees F on design days at 80 degrees F wet bulb temperatures while utilizing an optimum number of cooling tower cells. Provide a water treatment program to maintain mild steel corrosion rates less than 2.0 mils per year and copper corrosion rates less than .2 mils per year. The program shall treat the water and tower areas to inhibit algae and biological growth. Maintain an aggressive treatment program when any bacterial growth is detected that poses potential harm to personnel or equipment as determined by the ***JSC** Occupational Health Office until the algae/bacteria growth is destroyed. Maintain condenser water quality within the chemical limits as specified on *JSC Form 1426, Water Analysis Log for Cooling Towers in Buildings 24, 28 or 48.	365 Days	System is continuously available. Treatment program inhibits corrosion and controls biological growth.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		Record all water quality readings for the cooling tower systems to monitor condenser water quality against known standards. See the following for minimum data to be collected and made available to the Government: Data for each log shall be stored electronically in a worksheet in the ****Elog Excel Workbooks**. Logs as specified below: Water Analysis Log - Building 24 - ***Daily (D7)**. Test water quality and record data every 8 hours. Water Analysis Log for Cooling Tower - Building 28 - ***Daily (D7)**. Test water quality and record data every 8 hours. Water Analysis Log for Cooling Towers - Building 48 - One record per operating cooling tower, ***Daily (D7)**. Test water quality and record data every 8 hours.		Water quality readings are accurate, on time, and available for Government access.
3.2.1.4	Potable Water			
3.2.1.4.1	Water Treatment System Operate JSC Water Treatment System to Maintain Water Quality	Operate and monitor the chemical treatment equipment 24 hours a day to ensure that the water quality meets operational requirements and TCEQ Chapter 290 standards for chemical dosages and quality control of bacteria. Treat water on a continuous basis. Provide all chemicals associated with water treatment and analysis. Chemicals used shall be equivalent in salient characteristics to those for which the facility was designed. Maintain a minimum 7 day supply of treatment chemicals. Respond to alarms within 15 minutes and start remedial action to clear alarms within 30 minutes. Respond and mitigate per Annex 2 Table 2-1.		Water Treatment System is operated continuously and output is correctly maintained. Timely response to all alarms and corrective action appropriately addresses treatment failure.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		Achieve chloramine and corrosion inhibitor levels designated in OP's and as specified in Title 30 TAC, Chapter 290.		Sampling accomplished on time and corrosion rates do not exceed recommended levels.
		Obtain chlorine and corrosion inhibitor analysis samples at the water plant a minimum of two times per 8 hour shift (separated by a minimum of 3 hours between readings) to document chemical control. Obtain corrosion inhibitor samples in the distribution system ***Daily (D7).**		
		All sampling of corrosion inhibitors shall be recorded and results shall be recorded in the monthly ****Water Utility Report**.	12 Reports	
3.2.1.4.2	Water Storage System Operate ***JSC** Water Storage System to Maintain Water Quantity	Operate the water storage system to maintain levels in the ground storage tanks No. 339 and No. 341 between 24 and 30 feet and to achieve an average site pressure of 68 psi from the elevated storage tank No. 40.	1 System	Water levels and pressure maintained per specifications.
		Maintain exhaust fans on top of the one million gallon ground storage tank to remove 100 percent of methane gas from the tank.		Response to anomalies and Corrective action is complete and timely.
		Ensure backflow preventers are located throughout system to protect the system from contamination per TCEQ standards.		
		Test and repair backflow preventers with an accredited TCEQ or designated agents.		
		Inspect water storage system annually and disinfect to provide potable water per AWWA and TCEQ standards.		
		Implement a cathodic protection system that prevent deterioration of the metal structures and verify the functionality of the system through testing.		
		Flush the emergency supply line ***Monthly** to maintain in a ready to use condition and prior to each use, flush the surface water supply line as needed to maintain water quality.		

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		Respond to water storage system alarms within 5 minutes and start remedial action within 15 minutes. Respond and mitigate per Annex 2 Table 2-1.		
3.2.1.4.3	Water Pumping System Operate ***JSC** Pumping System and Controls to Maintain Water Pressure and Quantity	Maintain pumps to be capable of pumping 2500 gallons per minute flow on electric drive and 2000 gallons per minute flow on natural gas drive. Operate the booster pump system to maintain the 68 psi reference pressure except during operation of the emergency supply line when the site is provided with pressure from the CLCWA.		Required water pressure and quantity maintained during operational hours.
		Maintain operability of the five potable water boosting pumps to ensure water capacity is maintained. Monitor the pumps, check gallons per minute (GPM) flow, and record all information in the ****Water Operator's Log**.	1 Log	Logs are accurately maintained. Pumps are operating nominally.
		Manually operate each pump and gas engine for no less than 15 minutes each week as a check for functional availability.		Pumping system tested per scheduled.
3.2.1.4.4	Operate JSC Water Wells Operate ***JSC** Water Wells to Maintain Operability of Water Generation System	Operate water well #4 so that it provides 1500 gallons of water per minute. Operate water well #2 so that is provides 1000 gallons of water per minute.		Water wells maintained and operated per requirements.
		Flush each of the two wells a minimum of 2 hours every other week, prior to anticipated surface water outages, and for monthly sampling, to maintain water quality.		Wells flushed per schedule for outages, and sampling.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
3.2.1.4.5	Standing Work			
3.2.1.4.5.a	Water Plant Meters Read and Record Water Plant Meters to Monitor Consumption	Collect and record all water quality/flow readings for the site water system. Data for each log shall be stored electronically in a worksheet in the ****Elog Excel Workbooks.** Logs as specified below: Water Treatment Plant Instrument Readings - Two readings ***Daily (D7)**. Record readings at midnight. Operational Log - Natural Gas Engines - Building 322 - Eight readings ***Daily (D7)** (record start and stop readings). Record readings when engines are run. Flowmeter Readings, Potable and Deionized Water - Record readings first day of each month and ***Daily (D7)** when pumps are operated. NOTE: A meter is installed on the incoming surface water line from CLCWA and the outgoing pressurized line. All recorded data shall be available to the Government within 4 hours of collection unless otherwise stated.	365 Days and three ***Daily (D7) logs**	All data is collected, accurate, and recorded on time.
3.2.1.4.5.b	Water Plant Operations Log Maintain ****Water Operator's Log** of Water Plant and Water Well Operations	Maintain the ****Water Operator's Log**, recording ***Daily (D7)** each ***Shift**, maintenance and checks performed. Information to be included: a. Status of valve configuration, b. Equipment status, c. Outages scheduled and status, d. Alarm status, e. Run time,	365 Days	Log is complete, updated on time and available for review.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		f. GPM checks of pumps, g. Quantities of chemicals used per shift, feed rates, dosages, h. All water quality tests conducted, i. Storage tank levels, j. Meter readings operator activities.		
		Maintain the ****Water Operator's Log** including such information as: Date and hours of run time when flushing to ditch. Pumping level, meter reading, alarm status, disinfection quantities, log of tank ventilation when using as a site generated source. Make logs continuously available at Building 322. Copy daily logs sheets for the calendar month and send hard copy to the ***COTR** by the 10th of the following month.	365 Days, one log book, and monthly copy	
3.2.1.4.5.c	Water Chart Recorder Maintain the Building 322 Chart Recorder and Water Flow Charts	Ensure the ***Daily (D7)** change out of the water chart recorder. Maintain time and date stamped records on file in Building 322 for no less than 2 years. Ensure continuous operation and recording.	365 Days	Recorder available at all times. Historical data is accurately dated and maintained.
3.2.1.4.5.d	Well Drawdown Test Perform Well Drawdown Test	Perform a drawdown test of each well ***Annually**. Document well yield, capacity, pumping level, static level, and recovery. Report the test data in that month's ****Water Utility Report**. NOTE: One test per well each year. Site has two wells. Test of each well shall be performed one week apart.	2 tests per year and findings reported	Each well tested ***Annually** and results reported in the ****Water Utility Report**.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
3.2.1.5	Compressed Air			
3.2.1.5.1	Compressed Air System ***Man and Operate** the Building 24 Central Heating and Cooling Plant, Building 28 Auxiliary Chilled Water Plant, and Building 48 Emergency Power Utility and Plant Compressed Air Systems	Operate the Building 24 plant air system to satisfy the site load and supply oil fee compressed air at 105 PSIG to the site buildings. Compressor output shall provide oil free compressed air at a nominal 125 PSIG +/- 3 PSIG with a maximum dew point of -40 degrees F +/- 5 degrees F or as directed by the government. Operate the Building 28 plant air system compressor at 124 PSIG +/- 3 PSIG with a maximum dew point of – 40 degrees +/- 5 degrees F. Maintain the compressed air system to ensure oil free air with a -40°F dew-point air quality. The Buildings 24 and 28 plant compressed air systems shall have one additional utility air compressor system immediately available to be placed in service at all times as a standby compressor. Operate the Building 48 plant air system at 150 PSIG +/- 3 PSIG. During non-***Mission** support periods, ***Man and Operate** the Building 48 compressed air system operations as necessary to maintain continuous output. During ***Mission** support, provide 24 hour a day continual coverage to maintain continuous output. The starting air system for the power engines shall deliver dry, compressed air whenever needed at 150 PSIG +/- 5 PSIG or as directed by the Government. Provide 24 hours a day continual coverage of the Building 24 compressed air system operations to maintain continuous output. Field check the entire Building 28 compressed air system once per shift.		Site load is always satisfied. Required air quality is maintained at all times.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		Maintain the desiccant dryer system dew point air output.		
		Replace desiccant heater elements, or make repairs as required to the desiccant dryer system as required to maintain system performance.		
		Acknowledge and clear all compressed air system alarms within 5 minutes of occurrence (15 minutes for Building 28 alarms if no operators are present at alarm initiation).		
		Perform a ***Daily (D7)** physical/visual check of all of the compressed air systems including air compressors, cooling systems, dryers, etc. to identify potential problem areas.		Anomalies are identified and quickly resolved before system performance is impacted.
		Correct all anomalies.		
3.2.1.5.2	Compressed Air System Meters/Gauges	Record all air quality readings for the compressed air systems to monitor air quality and system parameters.		All data is collected, accurate, recorded on time and anomalies noted.
	Read and Record Buildings 24, 28, and 48 Compressed Air System Meters and Gauges	Data for each log shall be stored electronically in a worksheet in the ****Elog Excel Workbooks**.		
		Logs are as specified below:		
		Utility Air System Log – Building 24 - ***Daily (D7)**		
		Utility air Compressor Log – building 24 - ***Daily (D7)**. One record per operating air compressor. Record readings every 2 hours.		
		Utility Air System Log – Building 28 - ***Daily (D7)**. Record readings every 8 hours.		
		Heating & Cooling Log – Building 48 - ***Daily (D7)**. One record per operation piece of equipment.		
		All data available to the Government within 4 hours of data collection.		

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
3.2.1.6	OCC and EMCS			
3.2.1.6.1	OCC ***Man and Operate** the OCC	***Man and Operate** the OCC. The duties performed in the OCC shall include: Continuously monitor the EMCS 24 hours/day, seven days/week, to provide continuous operation, control, and surveillance support utilizing the Honeywell EBi and the SCTF System 20/20 Man-Machine Graphics Systems to ensure systems are operational and any anomalies are identified.		The OCC is effectively controlling and monitoring the systems.
		Initiate operator response within 15 minutes from notification of the event in accordance with Table 2-1 for all failures, incidents, interruptions of utility service, or events classified as emergency and all other responses shall be within 1 hour from notification of the event. Notify the ***COTR**, the affected building or area FM, and any personnel that the ***COTR** requests to be notified, by telephone, of any unscheduled outages, reduction in capacity of equipment, or malfunction that could seriously impact the site facilities. Develop and maintain an updated online version, with Government access, a list of personnel that the ***COTR** identifies need to be notified of a utility interruption. Revisions shall be made to the list within 24 hours of notification of changes from the ***COTR,** FM's and other appropriate representatives. A ****Flash Report** shall be prepared and distributed to the ***COTR** within two hours of any reported incidents such as major utility failure, equipment failure adversely affecting personnel work environment or support equipment, spills or safety hazards. Initiate utility configuration changes to support operation/maintenance/energy activities (e.g., street lights, equipment or utility time clocks, equipment shutdown or startup, etc).	One per incident event	The corrective action for the utility interruptions and failures is effective and timely. Notifications are performed promptly and describe the failure clearly. ****Flash Report** is accurate and prepared and distributed on time.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		Operate the base radio communication for operations support. The trunk radio system is located in Building 347. NOTE: Base stations are located in Buildings 24 (OCC), 327 (WCC), and 48 (Operations).	Radio system. 400 calls per day	Radio communications are available to support all operations.
		Coordinate and track site outages for repair, maintenance and construction. Maintain working copy of all executed UPs.	500 UP's	Outages are accurately tracked and UP's are maintained.
		Document and track the steps in UP's while being executed to ensure the steps are completed in the proper order.		UP's are completely performed to and accurately tracked.
		Issue tag numbers for lockout/tagout tags. Perform system lock out per the latest lockout/tagout procedure and policy as provided by NASA safety.		No lockout/tagout violations.
		Operator's log shall include significant *JSC activities and plant operations.		Operator's log shall include required input
		Answer telephone inquires for daily activities.	80 calls per day	Inquiries are accurately answered and quickly responded to.
		Maintain HVAC Energy Conservation and Lighting Exceptions log and post in electronic format on the Store Front.		Log is complete and posted on time.
		Maintain and implement the Operational Parameter and Document Control System as developed by Utility Management and Operation Action Team in CLIN 1.8.2.		All functions meet or exceed plan expectations.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		Produce a Morning Report ***Daily (D7)** covering all ***JSC** individual systems, facilities and utilities and shall be electronically posted by 7 a.m. Content should address the current status of the following: Weather, Heating/Cooling Plants, Tunnel System, Mission Control Power Plant, High Voltage System, Water Production/Distribution, SCTF, EF, and other locations/systems. The report shall include the status of equipment operations, problems or repairs. Problems shall remain on the list until resolved and updates on actions and current status shall be daily. Each separate system or location identified shall have a link to a daily morning extract from MAXIMO listing all open work orders with request date and target completion date. Contractor is to maintain a three year history of the Morning Reports and post in electronic format on the Store Front. NOTE: Reports generated over the weekend and on non-workdays will be presented in a consolidated report on the following workday.	One Morning Report per day - covering all systems and open work orders	Morning reports accurately depict the current facility status, are complete and posted on time.
		Maintain ***Daily (D7)** logs for OCC activities, Operator Dispatch Log, lockout/tagout Log and Tunnel Log.		Logs are complete and accurate.
		Track and assign tunnel badge authorizations.		
		Coordinate facilities support 24 hours/day, seven days/week. During Shuttle ***Missions**, operate per restrictions listed in the ****STS Fact Sheet**.		
		The Contractor may be directed by the ***COTR** to operate the OCC in exception to the above operating procedures due to emergencies, inclement weather, energy conservation, safety, mission constraints or user requirements.		

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		Initiate utility system changes in response to customer complaints received by WCC (i.e., hot/cold calls).	2,500 Hot/Cold calls	Data electronically posted on time.
		Input hot/cold call status data to PC application at time of trouble call.		
		Respond to customer complaint by adjusting HVAC temperature levels within 2 hours of customer's initial call, as approved by the ***COTR**, to meet customer needs and sustain a comfortable work environment. Temperature ranges shall comply with the ***JSC** Energy Conservation Program while allowing maximum benefit for the customer.		Hot/Cold calls adjustments made on time and within temperature guidelines.
		Temperatures shall not be adjusted outside of Government defined temperature range without the ***COTR's** approval.		Customer calls are completely documented and posted on time.
		Initiate repairs per Annex 2.		Analysis is thorough and recommendations result in a reduction in complaints.
		Document customer calls received and action taken. Electronically post data within 30 minutes of each call or any action or feedback.		Quarterly reports are complete and on time.
		Quarterly analyze hot/cold complaints to identify corrective actions such as air duct changes, air handler changes, mixing boxes, temperature controls, etc.		
		Provide quarterly hot/cold call report that includes the following: a. Record of all hot/cold calls, b. Corrective actions taken, c. Engineering review of hot/cold calls, d. Provide recommended corrective actions.		
		NOTE: See sample ****Hot Cold Call Field Log** for minimum data to be collected and electronically maintained.		

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
3.2.1.6.2	EMCS Man, Monitor and Operate the EMCS (Honeywell EBi) and SCTF System20/20 (Automated Solutions)	OCC shall continuously monitor the EMCS 24 hours/day, seven days/week, to provide continuous operation, control, and surveillance support utilizing the Honeywell EBi and the SCTF System 20/20 Man-Machine Graphics Systems.	2 Systems	System is fully operational and operated by personnel who are knowledgeable of the utility systems accessed by the EMCS and EMCS hardware and software operations.
		OCC shall monitor site energy usage and shall assure that the site equipment is performing within the EMCS guidelines established for energy conservation. Adjust systems ***Daily (D7)** by OCC when they are operating outside the EMCS guidelines to return them to original operational parameters. The OCC may make temporary adjustments outside the EMCS guidelines to provide customer satisfaction. Initiate repair actions ***Immediately** whenever site equipment that directly supports EMCS is identified as not functioning. Load shed per ****Annual Plan for Management of JSC's KVA Demand** when an emergency request to curtail demand load is received from the electric utility supplier. NOTE: The two workstations manned by the OCC operators in Building 24 are the only two work stations that can execute these files.	10 work stations	Sequence files executed within 5 minutes of prompt. Adjustments are made effectively and quickly. Repair actions are effective and timely. Load shedding is performed to the appropriate level per the plan.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		Maintain and modify equipment runtime schedules to support utility energy management and mission support requirements. Execute approved equipment runtime schedule changes or overrides of equipment. Maintain and modify facility HVAC operational and lighting controls in accordance with HVAC Baseline Status Database, CLIN 1.8.4.		
		NOTE: Facility Managers will submit an OCO whenever operational hours for covered equipment change for their building and where the change is longer than 72 hours. All long term changes to be made in XL5000 family controllers are implemented by Honeywell.		
		NOTE: Facility Managers will submit a Limit Change Order (LCO) whenever operational limits for covered equipment change for their building and where the change is longer than 72 hours. All long term changes to be made in XL5000 family controllers are implemented by Honeywell.		
		EMCS controlled exterior lighting shall be turned on no earlier than 10 minutes before dusk and turned off no later than 10 minutes after dawn.		
		Implement ***Daily (D7)** control changes as required to support site loads and operations.		Change requests are submitted to the ***COTR** for approval prior to implementation.
		Initiate utility configuration changes to support operations, maintenance, energy, and EMCS activation activities.		
		Submit change request to the ***COTR** for approval prior to any hardware, software or firmware changes. Submit any change that would establish a new electrical demand peak to the ***COTR** for approval prior to implementation.		

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		Initiate system set point adjustments to accommodate changing field controls. Additional requirements and guidance are listed in HVAC Baseline Status Database, CLIN 1.8.4.	18,000 points (**JSC Point List)	Response and remedial action to alarms performed on time.
		Maintain a flat line point alarm file, i.e., add points to flat line file on EBi system to achieve alarm optimization and improve visibility of field problem related to instrumentation, etc. Delete flat line points from file when points are deleted from EBi real-time database.		Responses are prompt and remedial actions are timely and complete.
		Monitor and respond to alarm conditions generated via EBi, SCTF System 20/20, or phone system messages from user based control system. Acknowledge critical alarms within 1 minute and start remedial action immediately. Acknowledge non-critical alarms within 5 minutes and start remedial action within 8 minutes.		
		Report malfunctions and breakdowns of SCTF System 20/20 and EMCS/EBi controlled or monitored systems and equipment, PLC's, Metasys, Woodward, XL 5000 controllers, critical points, points that effect HVAC comfort, mission variables, equipment damage, and Energy points in the Morning Report. Reference CLIN 3.2.1.6.1.a.		Reports are timely and complete.
		Maintain and update ***Daily (D7)**, an electronic spreadsheet of EMCS/EBi malfunctions and a historical spreadsheet of anomalies that have been restored. Provide the Government continuous access to EMCS/EBi electronic spreadsheets.		
		Maintain an audit trail of hardware problems using Access EMCS support database. Provide discrepancy inputs to EMCS Operations Review Board (EORB).		

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		Maintain an EMCS Tagin/Tagout status report for any point that is not required to be alarmed due to being placed out of service for energy conservation, hardware malfunctions, maintenance, and installation. Equipment placed out of service shall have associated alarm points tagged out within 1 hour and tagged in within 1 hour of equipment being placed back into service. Reference DRD AR-3-4, ****EMCS Alarm Management Plan.**		
		Ensure all data programs, reports, trends, and man-machine displays are accurate and functional. Report all non-conformance problems and discrepancies electronically via the ****EMCS Review Item Disposition Tracker Database** to EORB. Report any EMCS alarms older than 5 ***Workdays**. Any EMCS alarms older than 5 ***Workdays** shall be reviewed by the board for corrective actions. No more than five discrepancies shall exist on the EMCS man-machine operator's interfaces unless noted and approved in the EORB process. Discrepancies requiring action by the Contractor shall be no older than 2 weeks unless approved by the ***COTR**.		Discrepancies reported and cleared accurately on time.
		Ensure set points and point limits are configured as specified in available documentation and XL 5000 family controllers. Track permanent set point and limit changes in an electronic file.		
		Maintain sensor inhibit process for any point which is not required to be alarmed 24 hours a day (e.g., when equipment is shutdown).		
		Input data to EMCS support programs and databases.		

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
3.2.1.6.3	EMCS Software Manage the EMCS Software	Manage the EMCS software in compliance with International Standards Organization (ISO) 9001-2000 standards and NASA STD-2201-93 guidelines per Contractors Quality Assurance (QA) Plan. Areas of management include but are not limited to; quality assurance, quality engineering, reliability, verification/validation, and data control, configuration/change control, license agreements, maintenance, records, training, servicing, audits, backup, handling, storage, packaging, testing, acceptance, nonconformance reporting, corrective actions, safety, and security. NOTE: Honeywell is responsible for all of the above relative to EBi, Energy Manager software and XL 5000 family controller software.	365 Days	EMCS software managed according to stated standards and guidelines.
		Additionally, manage all software, databases and firmware developed, supplied, maintained or operated for or in support of the EMCS systems with the exception of the EBi System Software Energy Manager Software, XL 5000 family Controller software and all third party driver software on workstations/servers. Provide license agreement to the *COTR for all new or revised vendor software within 1 week of software delivery. The purchase of the Honeywell CARE software used to interface from Honeywell Ebi to the XL 5000 family field controllers is Honeywell's responsibility. NOTE: Includes all building controllers, Allen Bradley PLC's, Metasys, Liebert controllers, Power Demand Data Acquisition Control System, CTS; Westinghouse Mint Impacc; Excide UPS, Woodward PLC; Smart Field Instrumentation software.		Software management plan and license agreements submitted to the *COTR on time.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		Review and concur on test plans and test scripts of all software integration or any modifications to EBi software changes specified in this contract. Forward test plans to the ***COTR** for approval 1 week prior to formal testing. Provide field support for testing and verification of points due to software changes. Support EMCS testing for new systems, databases, programs, field changes, and projects.		Test plans are processed and submitted to the ***COTR** for approval on time. Testing and verification support available.
		Return all controller interface program software in a fully operational format at the end of the contract.		
3.2.1.6.4	EBi Workstation Support Provide EMCS Programming Support at EBi Workstation	Provide EMCS programming support consisting of: Provide configuration management of changes on the Honeywell's EBi system and on the EBi operator workstations.		Programming support provided for EMCS software and applications.
		Modify point parameters for alarm management and energy conservation (i.e., set-points, tagin/tagout, off/on scan, flat-line, limit changes). Exception: alarm inhibits are Honeywell's responsibility to make changes. The Contractor is to inform Honeywell of changes to be made as required by DRD AR-3-4 ****EMCS Alarm Management Plan.**		
		Modify load shedding parameters (i.e., runtime schedules, overrides, on peak/off peak). Honeywell makes all permanent changes, The Contractor makes all temporary changes.		
		Accomplish programming support, file/database updates, for the following EMCS support programs, reports, trends, and databases.		Programming support is effective at maintaining the database, program and report needs.
		Energy management reports, trends, and software data statistical models.		

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		Hot/Cold Calls Field Log. Alarm monitoring Performance DRD AR-3-4 ****EMCS Alarm Management Plan.** HVAC Equipment and Lighting Status Report. Monthly Utility Report. Quarterly Energy Report. Operational Change Order. Sensor Inhibit Report DRD AR-3-4, ****EMCS Alarm Management Plan**. Building Unit Point (BUP) Hardware Malfunction (Access data base). Discrepancy Form Tracking System. Field Engineering Database (Access)		
		Design and implement new database file structures and relations to meet requirements for database expansion and efficient report generation.		
		Ensure all software applications shall use EBi on a Microsoft Windows Platform, Access database, and/or Excel spreadsheets.		EMCS databases and programs are available to the Government at all times.
		Make all EMCS databases and programs available electronically for Government access on a continuous basis.		
		Ensure all software development and modifications adhere to ISO 9001-2000 standards.		
		Submit to the ***COTR**, for approval, any changes to reports, files, graphics and databases that change the functionality of the application prior to use.		Software and application changes are submitted to the ***COTR** for approval prior to use.
		Perform modification of configuration parameters and graphics within 5 working days unless an extension is granted by ***COTR**.		

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
3.2.1.6.5	EMCS Building Control Systems Support Provide EMCS Programming and Support for the EMCS Building Control Systems or Field Devices Interfaces	Maintain all application software developed for building control devices and all microprocessor field interface devices under this contract (except Honeywell EBi Energy Manager and XL 5000 family controller software). Perform point definitions, database modifications, ladder logic changes, field set ups, optimization algorithms, analyzing and testing, upgrades to licenses, restore software/firmware in event of failure to maintain an effective building control system. All software development and modification shall adhere to ISO 9001-2000 standards.	1 System	All software development and modification is timely, effective, and adheres to the ISO 9001-2000 standard.
		Honeywell is responsible for updating applicable Honeywell Excel family controllers whenever set points, runtime schedules, or other parameters in EBi that are permanently changed. NOTE: Update requires saving controller software and is Honeywell's responsibility. Update site traffic controller parameters when configuration change is prompted. Provide five configuration changes per year as needed. ***Annually** update and sync traffic zone flasher time clocks. Review and concur on test plans and operations documents as needed to ensure that there is not any negative impact to the current system and its operation. Provide qualified technical personnel to support EMCS software/hardware development and testing activities, make recommendations for development of EMCS software projects and EMCS system configuration, provide review of requirements and design documentation, establish testing specifications, and evaluate system configurations for efficiency and effectiveness.		Program maintained with no loss of software or data integrity.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
3.2.1.6.6	Standing Work			
3.2.1.6.6.a	Action Item File Maintain Action Item File	Update the action items file for the EMCS to include requests for field configuration changes or provide status of EMCS tasks monitored. Review weekly with the EORB.	Weekly	Action item file accurately updated and reviewed with the ***COTR** on time.
3.2.1.6.6.b	Operating Set Point Limits Maintain Winter/Summer and Operating Set Point Limits	Ensure limits for points are properly configured to operate facilities and utilities in a safe, efficient, and energy conserving mode. Update files whenever points are added or deleted from EMCS Systems. Provide winter and summer reports identifying point, type, number of times the point went into alarm, date/time of alarm, temperature, limits, and set point, if applicable, for each review period. Include recommendations for all points needing alarm limit adjustments and field changes. Submit to EORB.	365 Days and 52 report(s)	Operating set point limits are accurately configured on time. Reports are accurate and on time.
3.2.1.6.6.c	Monitoring and Control Systems Perform Function Test of the Monitoring and Control Systems Connected to EBi Supervisory Systems	Perform field checks and testing to ensure EMCS controls and monitoring points function properly from the field to the EBi man machine interface. Ensure all points exercised in the field or at the EBi interface function properly, data values are correct, alarms are generated in EBi, and interface devices are configured and operate at optimum performance levels. Maintain a continuous electronic log that includes changes and updates for all devices for each building.	365 Days and one log	Systems are accurately tested. ***Yearly** schedule of testing and monthly reports are accurate and provided to the ***COTR** on time.
		Provide a ***Annual** schedule to test each EMCS Building Control System (BCS) or groups of EMCS points to the EORB for approval within first 60 days of contract start. NOTE: Schedules to test each BCS System are subject to change due to ***Mission** support.	1 Schedule	Schedule is complete and shows all of the key milestones.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		Test each EMCS BCS ***Annually**. Develop a ***Monthly** test report that includes all verifications, adjustments, cancellations, and field worksheets. Provide the report to the EORB within 3 days of the end of each month. Provide an electronic copy of EBi event log 5 days after completing BCS test.		
3.2.1.6.6.d	EMCS Operations Review Board Support the EORB	Provide technical input and system assessment to the EORB for the purpose of reviewing EMCS System status, issues, discrepancies, and any corrective actions. Resolve EMCS corrective actions and actions items (e.g., alarms, limits, databases, hardware/software, etc). The Contractor's EORB representative shall maintain action item file, prepare minutes and presentations, and provide status reports.	1 Meeting per week	EORB has current knowledge of EMCS System status, issues and corrective actions. Corrective actions and actions items processed accurately and review board supporting data provided.
3.2.1.6.7	Recurring Work			
3.2.1.6.7.a	Preflight Checkout Review Preflight Checkout of EMCS Computer Systems	Ensure all EMCS devices are functional and ready to support ***Mission**. See ****EMCS Mission Readiness Checklist** for minimum data to be collected and electronically recorded. Report any abnormal operational characteristics to the ***COTR** and the COD ***Mission** Manager no later than 3 days prior to launch.	6 ***Missions** per year	Preflight checkout of EMCS computer systems performed accurately. Anomalies reported to the ***COTR** and the COD ***Mission** Manager on time.
3.2.1.6.7.b	EBi Historical/Event File Media Maintain EBi Historical/Event File Media	Notify ***COTR** ***Immediately** when computer alarm prompts EMCS operator that the historical/event files are nearing capacity limit. Reference CLIN 3.2.1.6.1. Ensure logging to historical or event files are continuous with no loss of data. NOTE: One historical and one event file systems.	365 Days	Notifications completely identify the problem and are done on time. Continuous logging to event files systems with no loss of data.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
3.2.1.6.7.c	System Printers Maintain and Service EMCS Printers	Ensure printers operate properly and provide continuous monitoring capabilities. Replace paper and ink and provide cleaning as necessary to ensure continued printing operations.	Any printer attached to EMCS equipment	No loss of data due to lack of printer maintenance or service.
3.2.1.7	Fuel System			
3.2.1.7.1	Site Fuel System Operate the Site Fuel System	Procure fuel based on anticipated usage to support ***JSC** operations and to maintain minimum capacity levels set by the Government. Notify the ***COTR** and Buildings 24 and 48 FM's no later than 24 hours prior to scheduled delivery and within 2 hours after actual delivery of fuel to the FM's building.	90,000 gallons per year	Adequate levels of fuel are maintained in the diesel storage tanks.
		Receive, off load, and store fuel in existing storage tanks. Inspect each bulk delivery of fuel to ensure that transport vessel is vapor tight. Inspect hoses for visible leaks and terminate transfer if leak is observed. Operator shall obtain and submit fuel samples from each truck for analysis to ensure that the fuel meets the Government's standard. The fuel should be No. 2-D S500 grade low sulfur and conform to American Society of Tests and Measurement (AST)M D975-05 "Standard Specification for Diesel Fuel Oils" and TCEQ regulations (Texas Administrative Code, Title 30, Part 1, Chapter 114, Subchapter H).	Elog deliveries	Maintain the quality of the fuel in the 100,000 tank. Fuel meets the proper requirements.
		Perform diesel fuel tank sampling/receipt analysis for each delivery to demonstrate conformance with all of the properties in ASTM D975 Table 1 for each delivery.		
		Record delivery time/date, quantity dispensed to diesel tank, and results of fuel sample analysis. Log results into spreadsheet within 3 ***Workdays.**		
		Maintain 80 percent or above level in all storage tanks at all times. Maintain Building 48 tanks full 3 days prior to launch.		

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		Provide fuel transfer of transfer diesel fuel from the Building 24 tank to the Building 48 tanks or to support other site diesel equipment as required utilizing the Government furnished fuel tank truck with a capacity of 3600 gallons of diesel fuel and 900 gallons of gasoline as required.		
3.2.1.7.2	Fuel Oil Monitoring Read Meters and Gauges to Monitor Buildings 24 and 48 Fuel Oil Usage, Storage, Quality, and Leakage	Read Buildings 24 and 48 gauges and record data on all pertinent fuel oil storage, delivery, consumption, and leakage in the system. Data for each log shall be stored electronically in a worksheet in the ****Elog Excel Workbooks**. Logs as specified below: Building 48 Electronic Logs - Building 48 - ***Daily (D7)**. Record data within four hours of collection. Building 24 Electronic Fuel Oil Log - Building 24 - ***Daily (D7)**. Record data within four hours of collection. The Contractor shall submit to the ***COTR** an electronic monthly Fuel Oil Consumption Status Report.	365 days and two ***Daily (D7)** logs 12 Reports	Data is complete and recorded on time.
3.2.1.7.3	Ethanol E85 Fuel Dispensing Unit	Receive, off load, and store fuel in existing storage tank. Inspect each bulk delivery of fuel to ensure that the transport vessel is vapor tight. Inspect hoses for visible leaks and terminate transfer if leak is observed. Record delivery time/date, and quantity dispensed to Ethanol E85 tank, delivery truck ID number, and date of last truck leak test from truck placard. Note: At ***JSC**, there is a 1,000 gallon above ground tank with fuel dispensing unit for Ethanol E85 fuel located at Building 417. The fuel will be Government furnished.	365 Days	Safe fuel transfer and storage. Data record is timely, complete, and accurate.
3.2.1.7.4	Ethanol E85 Fuel System Recordkeeping	Data for this log shall be stored electronically in a worksheet in the ****Elog Excel Workbooks.** Update Ethanol E85 Fuel System Consumption Log - Building 417 - ***Daily (D7)**. Record data within four hours of collection.		Record is complete and on time.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
3.2.2	Distribution			
3.2.2.1	Steam and Condensate Return			
3.2.2.1.1	Tunnel Steam Distribution System Operate and Manage the Tunnel Steam Distribution System	Operate the system so that it continuously supplies steam from the plant production system to the facilities and returns condensate from the facilities to the plant. Deliver adequate quantity and quality of steam to the buildings from the tunnel to meet facility requirements. Maintain all tunnel steam/condensate system zones in service at all times to ensure a continuous supply of steam and return of condensate from mall buildings. Only brief exceptions of this requirement will be permitted in an effort to locate potable water hardness leaks, repair failed condensate return units, or as required by a utility procedure. Distribution systems other than the tunnel system shall provide the quantity and quality of steam required for the end use.		System is available and operational, and output maintained as required.
3.2.2.1.2	Inspect Steam Distribution System Monitor Steam Distribution System	Conduct a visual inspection ***Quarterly** of all accessible steam components, (expansion joints, steam and condensate lines, steam valves, traps, valve tags, and pipe insulation) to identify potential problem areas. Verify steam trap operation by use of infrared scan during inspection. Ensure all steam/condensate valves are in an operable state with no actuators missing and all valves, traps, etc. labeled with brass tags containing the valve station number and pressure systems inventory information.	4 Inspections	Entire system is thoroughly inspected and problem areas clearly documented.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
3.2.2.2	Electrical Distribution			
3.2.2.2.1	Site 15kV Distribution System Operation Manage and operate the Site 15kV Distribution System	Provide 12.47kV, 3 phase, 60 Hz voltage to the facility 15kV switches. Provide step down from site electrical 15kV distribution to the secondary distribution level voltages.		Uninterrupted voltage and appropriate step down to the secondary distribution voltages.
		Perform system switching by phased closed transition of loads between feeders.		
		Operate system through switching using written UP's, via radio and recorded by radio traffic recorder in the OCC, to ensure standard processes and procedures are followed by field support.		Procedures are accurately followed and performance of them is fully documented.
		Coordinate with the environmental Contractor to coordinate testing and draining of the electrical substation containment pits when needed.		Containment pits are drained and maintained for safety.
		Linemen shall be available on site within 1 hour of notification for non-scheduled switching or emergency problem investigation.		
		Maintain all configuration changes on configuration drawing E-JSC-9 and E-JSC-9A in Building 221E within 1 hour of switching change.		Configuration drawings accurately updated on time.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
3.2.2.2.2	Site 15kV Distribution System Inspection Inspect the Building 221 15kV ***JSC Electrical Distribution System**	Perform visual inspection of the Building 221 15kV Distribution System once every 24 hours using qualified linemen and trained roving operator. Inspect for visual damage or abnormal conditions from ground level and while systems are energized. Within Building 221 and yard, inspect ***Daily (D7)** from the secondary side of the 138 kV transformers to the output side of the 15kV feeder breakers, including all associated relaying, metering, AC and DC power, capacitor banks, switchgear, breakers, batteries, chargers, Utility provider metering equipment, and any other related equipment in the buildings and yard at Building 221. Outside Building 221 buildings and yard (including the underground system at Building 221), inspect ***Quarterly** overhead and underground feeders, cable trays, manholes, sump pumps, wooden distribution poles, overhead transformers, and associated hardware. Record inspection reports ***Daily (D7)**. Maintain check sheets for 24 months in Building 221. Reference Drawings: E-JSC-9 & 9A.		Complete inspections performed on time by qualified personnel. Check sheets accurately maintained at Building 221.
3.2.2.2.3	EF and SCTF Electrical Distribution Systems Inspect the EF and SCTF Electrical Distribution Systems	Inspect the EF and SCTF electrical distribution systems ***Quarterly** from metering points to the line side of the facility transformers, including switchgear, circuit breakers, buss, overhead and underground feeders, manholes, meters, wooden poles, overhead transformers, and fuses. Inspect for visual damage or abnormal conditions from ground level and while systems are energized. NOTE: The EF system is composed of five small services from the local electric utility provider. The SCTF system is composed of three services from the local electric utility provider.	4 Inspections	Complete inspections performed on time by qualified personnel.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		Record inspection reports on check sheets and retain for 24 months in Building 221 to maintain accurate system condition documentation.	4 Check sheets	Check sheets accurately maintained.
3.2.2.2.4	Exterior Lighting System Inspect the Exterior Lighting System	Ensure the street lighting and mall lighting systems are free of any condition that impacts overall light system output. Examples of this include inoperable lamps, broken or missing lens, broken or bent poles, rusting, broken or deformed pole base plates, broken missing or deformed anchor bolts, broken missing or deformed handhold or base covers, broken or bent luminarie arm, and broken or detached external ground wires. Ensure identification numbers are intact and legible. Replace illegible identification numbers, renumber, or add new numbers, as necessary, to ensure proper identification. Inspect the entire system every two weeks at ground level with systems energized. Maintain the programs of the Metasys controllers and all individual building timers to correct time within 36 hours following the beginning and end of Daylight Saving Time. NOTE: The system is operated by a combination of EMCS, photo cells, and timers and has up to ten different types of fixtures. NOTE: Approximately 38 circuits; 1200 poles.	26 Inspections	System components are safe, operative, and properly configured and labeled.
3.2.2.2.5	Standing Work			
3.2.2.2.5.a	System Meters and Gauges Read and Record Building 221 System Meters and Gauges	Read, record, and make available the following electrical system data for evaluating loading and operational usage and identifying any anomalies. Post data electronically in ****Elog Excel Workbooks** according to the following:		Data recorded accurately with frequency stated and electronically posted on time.
		Record ***Daily (D7)** at 1:00 p.m. the kilowatt-hour voltage, and current readings on the 15kV distribution system at Building 221. Include the individual ampere readings on each of the 138kV transformer lightning arrestors. Post data electronically within 4 hours of collection.	261 Records	

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		Record ***Quarterly** the electrical loads on all metered distribution transformers at the JSC site and post in ****Elog Excel Workbooks** under worksheets: Operating Data - Electrical Substations – Indoors and Operating Data - Electrical Substations-Outdoors. Ensure data is recorded within 3 consecutive weekdays between the hours of 12:00 noon and 3:00 p.m and posted within 3 days of collection. Initiate urgent repair for any meters found to broken or non-operational.	8 Records	System components are safe, operative, and properly configured and labeled.
3.2.2.2.5.b	Dranetz Recorder Monitor and Service Dranetz Recorder	Monitor and maintain operability of the five channel recorder equipment located in Building 221A ***Daily (D7)** to ensure data is properly recorded. Report via email all sags, surges, lows, impulses and other disturbances verbally to the ***COTR** by close of business (COB) of the following day. Maintain recorder paper and ink as needed to provide continuous maximum detail monitoring.	365 Days	Recorder available for use at all times.
3.2.2.2.5.c	Building 221 Area Control Access to the Building 221 Area	Control access and verify personnel are logged into the fenced area of the Building 221 Substation. Maintain records of personnel accessing the controlled area. Secure the area and lock gates when area is unattended. NOTE: The Building 221 area consists of the buildings making up the ***JSC** site 138/12kV electrical substation, including the fenced area.	365 Days	Substation access is limited to authorized personnel.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
3.2.2.3	Chilled Water			
3.2.2.3.1	Chilled Water Distribution System Operate the Chilled Water Distribution System	Operate the chilled water systems so that they can be controlled at each HVAC system to meet the requirements for cold deck temperatures as specified in the ****HVAC Seasonal Adjustment Planning Process** and to meet building temperature and humidity requirements. Ensure closed loop cooling systems meet the equipment requirements for flow, temperature, and capacity.		Chilled water distribution system is operational and available per requirements.
3.2.2.3.2	Tunnel Chilled Water Distribution Inspect Tunnel Portion of Chilled Water Distribution System	Perform a visual inspection of the entire system ***Quarterly**, including accessible chilled water components, insulation, brass tags (piping and valves), etc. to identify potential problem areas.	4 Inspections	Entire system is thoroughly inspected on time and problem areas are clearly identified.
3.2.2.4	Potable Water			
3.2.2.4.1	Water Distribution System Operate and Monitor the Water Distribution System	Perform all applicable water system requirements identified in the Title 30 TAC Chapter 290 regulations for potable water distribution systems. Provide for the continuous supply of potable water/firewater protection per National Fire Protection Association (NFPA) including annual exercising of fire hydrants, lubricating per manufacturer's recommendations and annual greasing of fire hydrant caps. Provide for the continuous supply of firewater protection to the facilities as designed based on a supply pressure of 68 pounds per square inch (PSI). NOTE: ***JSC**: 107,000 linear feet of pipe and associated valves and turf irrigation system, EF: 10,400 linear feet of pipe, SCTF: approximately 1,000 linear feet of pipe.		Required output and functionality of the water distribution system is maintained.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		Maintain the EF deluge system used for the storage, pumping and distribution of firewater for most of the site along with a concentrated foam system at EF Hangar 990.		
		Provide the mall fish ponds with sufficient quantity of make-up water to keep the fish alive through water change out, overcome evaporation quantities and maintain the water level to allow free water flow through the connecting pond canal at all times.		
		Flush the ***JSC** water distribution system per the ****Fire Hydrant Flushing Procedure**. Additional flushing of the potable water distribution system may be required in areas where Occupational Health sampling which has identified insufficient disinfectant residual, or due to customer complaints of taste, color or odor.		Flushing is implemented on time and plan requirements. Minimum chloramines residuals are maintained.
		Provide response within 30 minutes of receipt of complaint. Document all flushing activities. Record the fire hydrant number, building number, location, dates and times of flushing, and the chlorine residuals before and after flushing. Send a copy of additional flushing documentation to the ***COTR**.		
		Perform all flushing in a controlled manner to minimize impacts of pressure fluctuation in the system.		
		Post data within 8 hours of collection per each occurrence.	Per Occurrence	Log is accurate and on time.
3.2.2.4.2	Standing Work			
3.2.2.4.2.a	Water Distribution System Activities Log Maintain a Daily Log of Operator Water Distribution System Activities	Maintain a ***Daily (D7)** log of operator Water Distribution System activities that includes the following information: status of valve configuration, equipment status (if out of service), and status of outages. Ensure log is available continuously at Building 322.	365 Days	Log is accurate, on time and available continuously at Building 322.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
3.2.2.4.2.b	In-Ground and Above-Ground Valves Function Test ***JSC** Fire Hydrants and In-Ground and Above-Ground Valves for Operational Availability	***Annually** test the operation of all ***JSC** fire hydrants to full flow to ensure hydrant operates properly. NOTE: Test shall include the removal and reinstallation of all caps.	***Annual** system fire hydrant test	Fire hydrant testing accomplished ***Annually**. Accurate final report of discrepancies and test results provided on time.
		***Annually** perform functional test of all in-ground and above ground valves. Ensure there are no missing identification labels on fire hydrants or valve marker posts. Ensure all valve markers and protection bollards are straight. Develop ***Annual** report in the 12th month of the contract year containing the following: repair work order number, work order report date, status of work order and associated fire hydrant or valve marker number, provide electronically to the ***COTR**. Coordinate all work through WCC to avoid user or ***Mission** impacts.	***Annual** system valve test 1 Report	Testing is complete and accurate to identify functionality of in ground and above ground valves. All identification and markings are clearly marked.
3.2.2.5	Sanitary Sewer Pumping and Collection			
3.2.2.5.1	Sanitary Sewer Pumping and Distribution System Operate and Monitor the Sanitary Sewer Pumping and Distribution System	Continuously remove wastewater at the designed flow rates from all components of the building which are tied into this system. Ensure ***JSC** gravity flow portion of the system provides for continuous flow of wastewater through the pipes in accordance with the existing field conditions such as slope and size of pipe without impact to the system and facilities. Ensure ***JSC** forced main portion of the system removes wastewater without impact to the system and facilities. A minimum of one pump shall be available for operation at each lift station.	3 Systems	Waste water is removed efficiently from the facilities. Emergency response is quick and effective. Anomalies quickly identified and appropriate notifications made.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		Operate and monitor Building 223 wet wells and associated equipment. Two pumps shall be available to pump at a combined flow of 350 GPM. Ensure natural gas engine provides 600 GPM at suction lift from the bottom of the wet well. Provide onsite operator support (24 hours/***Daily (D7)** to accomplish routine activities and respond to emergencies. Inspect lift station wet well levels and alarms, test operability of pumps, inspect dry well sides (inspect from ground level only without confined space entry) to ensure uninterrupted service once every 8 hours. Alternate pumps as needed to ensure operability. Respond to the remote high level alarm on Lift Station 2 within 15 minutes and start remedial action within 30 minutes. NOTE: Building 223 has two wet wells with a common pipe and four electric pumps and one natural gas driven engine. The wet wells are used as holding basins to control flow discharge to the CLCWA Sewage Treatment Plant (STP).	Approximately 14,000 inspections	Lift stations inspected on time. Alarms response and remedial action initiated on time.
3.2.2.5.2	Standing Work			
3.2.2.5.2.a	JSC and EF Operator Activities Log Maintain Daily Log of JSC and EF Operator Activities	Maintain ***Daily (D7)** log of JSC and EF operator activities to include a list of scheduled outages on wastewater equipment and equipment abnormalities noted during inspections for evaluation and assessment of nominal system operability. Post log within 8 hours of data collection.	365 Days	Required data recorded accurately and posted on time.
3.2.2.5.2.b	Distribution System Meters and Rainfall Monitor *JSC Distribution System Meters and Rainfall Total	Read meters and record in wastewater operator log ***Daily (D7)**. Read, record, and empty rainfall gauge located at Building 322 ***Daily (D7)** and posted within 8 hours. NOTE: Two meters at Building 358 and west of Building 207.	365 Days	Required data recorded accurately and posted electronically on time.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
3.2.2.5.3	Recurring Work			
3.2.2.5.3.a	Grease Traps and Oil/Water Separators Pump out Grease Traps and Oil/Water Separators	Pump out grease traps quarterly at ***JSC** Buildings 3, 11, 207, and 211 cafeterias. Pump out ***JSC** and EF oil/water separators for disposal. Pump out as necessary (no less than ***Annually**) to ensure tanks do not exceed 80 percent capacity. Ensure pumping actions prevent spillage and have minimal impact on customers. NOTE: Four ***JSC** grease traps. Four manifests per quarter. Three oil/water separators at ***JSC** Buildings 329, 320, and 417; eight oil/water separators at EF. Complete and sign the Solid/Special Waste Manifest on behalf of the Government, for each quantity of waste removed from each grease trap onsite to ensure appropriate documentation of the performance of the task. Provide the Transporter, Secondary Transporter and Disposer copies of the manifest to the transporter to accompany the waste. Deliver the generator and Health Department copies to the ***JSC** Environmental Office within 2 workdays of signing the manifest. Notify the ***JSC** Environmental Office at least two work days prior to schedule grease trap pump outs. NOTE: Grease trap waste is considered a regulated substance and disposal shall be managed as industrial solid waste. See Annex 7 Environmental.	16 grease trap pump outs No less than 12 oil/water separator pump outs	Tanks and separators are pumped out on time and do not exceed 80 percent capacity. Manifests are processed and copies distributed accurately and on time.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
3.2.2.5.4	Storm Sewer System Operate and Monitor the Storm Sewer System	Maintain clear passages for conveyance of the maximum amount of storm water to the property line in the most expedient manner but within the system's designed capacity. Maintain a supply of de-watering and sump pumps so they are available when pumping is required to support removal of storm sewer effluent. Repair any discrepancies in ditch linings, inlet boxes, appurtances, piping, or slabs that prevent proper drainage.		Efficient drainage and removal of storm water through the system.
3.2.2.6	Compressed Air			
3.2.2.6.1	Compressed Air Distribution System Operation Operate and Monitor the Compressed Air Distribution System	Operate the system to ensure continuous supply of compressed air from the point of production to point of use at the required quantity and pressure. The instrument air pressure shall be regulated to a nominal 20 PSIG +/- 1 PSIG. The breathing air system shall deliver dry, compressed breathing air to the building at 150 PSIG +/- 3 PSIG, certified for breathing and conforming to sampling per American National Standard Commodity Specification for Air, Compressed Gas Association, Inc.		Continuous output of compressed air is maintained.
3.2.2.6.2	Inspect Compressed Air Distribution System	Perform a visual check ***Quarterly** of all components of the Compressed Air Distribution System to identify problems or potential problem areas. Ensure all missing or illegible component tags are replaced.	4 Inspections	Entire system is thoroughly inspected ***Quarterly**. All system components are clearly and appropriately labeled.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
3.2.2.7	Natural Gas			
3.2.2.7.1	Natural Gas Distribution System Operate and Monitor the Natural Gas Distribution System	Provide for natural gas to and through the facilities regulator at the designed rate and pressure based on the designated regulator settings and each individual building's usage. Monitor the system for proper operating pressure, check the condition of above ground piping and relief valves, monitor the system for leaks, and support system outages. Provide onsite operator support (24 hours/***Daily (D7)** to accomplish routine activities and respond to emergencies.	3 Systems	System operated to meet availability and operational requirements. System anomalies quickly identified and resolved.
3.2.2.7.2	Standing Work			
3.2.2.7.2.a	Daily Log Maintain Daily Log of JSC and EF Operator Activities	Maintain the Natural Gas Distribution System log to include status of valve configuration if other than normal, meter readings, equipment configuration status (if out of service), outages scheduled, Service Request Tag (SRT) items and other pertinent information to ensure that system status is appropriately documented for review and identification of anomalous system conditions. Post data and log events ***Daily (D7)** during the same work shift in which they occur.	1 Log	Data is recorded on time and available continuously.
3.2.2.7.2.b	Distribution System Meters Read Distribution System Meters at ***JSC** to Monitor and Report Consumption	Data for each log shall be stored electronically in a worksheet in the ****Elog Excel Workbooks**. As specified below: Gas meter locations and frequencies as noted. Building 340 - two meters (main metering station)' record monthly, the first workday of the month. Building 24 - two meters; record monthly, the first workday of the month. Building 222 - two meters; record monthly, the first workday of the month. Buildings 211, 227, 260, 350, 47, 416, and 420-one meter each; record monthly, the first workday of the month.	228 meter readings	Data is accurately recorded and posted on time.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		EF – five meters; record monthly, the first workday of the month. SCTF – one meter; record monthly, the first workday of the month. NOTE: Ensure data is available to the Government within 4 hours of collection. NOTE: Building 340 and Building 24 meters are also tied to EBi monitoring system.		
3.2.2.7.2.c	Natural Gas Distribution System Check the Natural Gas Distribution System for Leaks and Function Test Valves	Perform ***Annual** inspection of the Natural Gas Distribution System for leaks and manually operate each natural gas valve to ensure it operates properly. Ensure any missing identification labels are replaced. Ensure all valve markers and protection bollards are straight. NOTE: Reference drawing C-SITE-700 Natural Gas Distribution System for ***JSC** and EF Master Utility Plan (MUP's) for number of valves.	1 system inspection	Inspections performed according to schedule and data recorded in the log. All system components are clearly and appropriately labeled. No leaks in the system.
3.2.3	Facility			
3.2.3.1	Steam and Condensate Return			
3.2.3.1.1	Steam and Condensate Return System Operate and Monitor Steam and Condensate Return System	Continuously supply steam from the plant production system to the facilities and return condensate from the facilities to the plant. Supply steam as required to satisfy the ****HVAC Seasonal Adjustment Planning Process**. Check steam and condensate return system once a week for leaks and deterioration to ensure continued system operability to the desired output.	52 system inspections	System maintains continuous steam and condensate return system function and output.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		Visually inspect the steam pressure reducing stations, steam reboiler systems, hot water generators, hot water converters and associated piping, traps, and condensate return units to evaluate proper operation, leaks, inoperative valves, deterioration, and pressure settings. Ensure all steam/condensate valves are in an operable state with no actuators missing and all valves, traps, etc. labeled with brass tags containing the valve station number and pressure systems inventory information. All steam/condensate valves. Reset pressures as necessary to meet Government set point requirements. Provide operations support for boiler and steam systems outages, and reconfigurations. Remove from service, drain, secure, tagout and return to service any anomalous components.		
3.2.3.1.2	Low Pressure Steam Boiler Systems Monitor and maintain the Low Pressure Steam Boiler Systems	Continuously supply steam from the plant production system to the facilities and return condensate from the facilities to the plant. Supply steam as required to satisfy the **HVAC **Seasonal Adjustment Planning Process.** Check low pressure steam boilers once a week for leaks and deterioration. Visually inspect the steam pressure reducing stations, steam reboiler systems and associated piping, traps, and condensate return units *for* proper operation, leaks, inoperative valves, deterioration, and pressure settings. Reset pressures as necessary to meet Government set point requirements.	52 system inspections	System operated to meet availability and operational requirements.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
3.2.3.2	Electrical			
3.2.3.2.1	15kV Facility Switches Operate 15kV Facility Switches	Perform open and closed transition 15kV switching for single phase and three phase sectionalizing, isolation of equipment, and load management. Step down from site electrical 15kV distribution to the secondary distribution level voltages (voltage phase to phase ranging from 6900, 690, 480, 208). Operate the 15kV facility switches for maintenance support, isolation of faults, and redistribution of loads using written UP's. Execute switch operations using two-way radio control or as directed by the ***COTR**. Update the 'mark up' drawing of E-JSC-9, E-JSC-9A, and E-JSC-8 within 1 hour after configuration changes occur. Post the configuration drawings in Building 221E. Ensure linemen are available for operational support of Building 222 15kv system for user testing. Provide linemen within one hour to support unscheduled operations, emergency switching, or problem investigation to minimize system impacts. Redistribute 15kv distribution feeder loads twice ***Annually**. Redistribute building loads at the direction of the ***COTR**. Switch capacitor bank configuration such that half of each of the three capacitor banks are on for a 6 month cycle.		Switch operations efficiently and effectively performed according to UP's. Configuration drawings "mark ups" completed on time and available for review. Redistribution of building and capacitor loads accomplished.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
3.2.3.2.2	JSC Secondary Distribution Equipment Operate the ***JSC** Secondary Distribution Equipment to Maintain Required Availability	Operate to name plate ratings on continuous loads without exceeding the maximum hot-spot temperature rise on 60 cycle equipment, providing for the given indoor and outdoor environmental conditions. Operate, control, and protect low voltage distribution equipment. Provide service entrance, power, and lighting distribution to meet security and lighting requirements. Maintain fault isolation devices where protection is currently provided. Ensure qualified electricians are available on site during the first and second shifts ***Daily (D7)**. Ensure electricians are available to support scheduled operations or outages and to isolate electrical systems during operations, construction, or investigations. Ensure electricians are available within one hour to support unscheduled operations, emergency switching, or problem investigation. NOTE: The Low Voltage Systems include the facility main disconnect means, secondary distribution systems, emergency systems, and general lighting. Perform operations using UP's where applicable. Ensure that written UP's are used when isolating facilities or equipment that has dual sources. Comply with 30TAC 117.206(i), Operating Restrictions, and 30TAC 117.219(f) (10), Records of Operations.		System operated to achieve maximum availability and operational hours.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
3.2.3.2.3	Standing Work			
3.2.3.2.3.a	Power Generators Test CTS and Emergency Power Generators	Provide emergency back up power that, upon failure or outage of the normal source, automatically provides power to critical devices and equipment whose failure to operate satisfactorily would jeopardize health and safety of personnel or cause equipment damage. Test CTS and Emergency Power generators to ensure equipment starts up and comes on-line as required. Once a week, manually or automatically operate the equipment for 1 hour. Comply with 30TAC 117.206(i) Operating Restrictions and 30TAC 117.219(f) (10) Records of Operation.	17 Generators 884 tests	Equipment properly tested on schedule.
3.2.3.2.3.b	Electrical Power Loads Read and Record Electrical Power Loads in the MCC Complex	Read and record data for MCC electrical power loads at Building 48. See following forms for minimum data to be collected every 4 hours ***Daily (D7)** and electronically recorded within 4 hours of collection. Data for each log shall be stored electronically in a worksheet in the ****Elog Excel Workbooks**. As specified below: a. Building 30S Switchgear. b. A-1 Power Load Log Buildings 30M & 48. c. A-2 Power Load Log Buildings 30M & 48. d. Building 30S UPS.	365 Days 4 Worksheet logs	Accurate data collected and electronically posted on time.
3.2.3.2.4	Electrical Power Systems Loads Transfer Transfer Loads in MCC for Operation Load Balance and Maintenance Support	Transfer loads using OP's or UP's on the Electrical Power Systems in the MCC for maintenance support work and for operational requirements such as load redistribution for load balancing.	Per occurrence	Loads are accurately switched.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
3.2.3.3	HVAC			
3.2.3.3.1	HVAC Systems Operate and Monitor the ***JSC** Facility HVAC Systems	Operate the system so that temperatures are maintained per personnel comfort and/or equipment requirements. Operate and maintain the system so that the equipment performs to its original design parameters for air quality and air exchanges. Control by local set point or automated program the discharge air temperatures from HVAC units. Provide indoor air quality such that visual inspection of the supply air ducts, diffusers, and cooling coil section (including coil, pan, piping, insulation and walls), of the air handler shall reveal no biological growth, algae, fungus, mildew, etc. Control chilled water systems to meet cold deck temperature requirements as specified in the ****HVAC Seasonal Adjustment Planning Process**. Ensure operation personnel are available to support HVAC Facility Systems outages and reconfigurations. Remove from service, drain, secure, tag-out and return to service. Reconfigure equipment as required to support special requirements, additional hours, and construction or outage tasks. Install and operate spot coolers, including condensate removal, for short term (less than 6 months) facility configuration changes and system failures. Operators to record on/off times as executed for above operation. Submit records for inclusion for the monthly utility report as detailed in MO-1-5, Monthly Energy Reports.		System is available and operational, and output maintained as required.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		Adjust equipment to maintain correct output and operating parameters. Restart equipment as required following fire alarm activation. Maintain accurate and timely records on refrigerant acquisition, use, and equipment leak rates. Maintain records down to the equipment level. Adhere to all EPA regulations and standards including 40CFR 82.156. Ensure the ***COTR** has been notified for extension requests.		Refrigerant records are accurate and meet referenced requirements.
3.2.3.3.2	Standing Work			
3.2.3.3.2.a	MCC Complex HVAC System Read and Record Meters/Gauges	Read gauges and record data every 4 hours ***Daily (D7)** for all pertinent MCC HVAC Systems. Electronically record data within 4 hours of collection. Data for each log shall be stored electronically in a worksheet in the ****Elog Excel Workbooks**. As specified below: a. Building 30 Mission Operations Wing (MOW) Operation Log. b. Building 30 MOW & MAW Operation Log. c. Building 30S Air Conditioning Log. Any abnormal operational characteristics immediately initiate corrective action.	365 Days 3 Logs	Data recorded accurately, on time and posted on time.
3.2.3.3.2.b	Hot Water Converters and Boilers Monitor and Inspect Hot Water Converters and Boilers	Deliver hot water (80 – 180 degree F) to the facility from the hot water converter or boiler as required by the ****HVAC Seasonal Adjustment Planning Process.** Monitor the ***JSC** hot water converter systems and ***JSC**/EF hot water boilers to ensure that temperatures and pressures are per guidelines. Monitor monthly during heating season or year round where dehumidification is required.	365 Days	Hot water converter systems temperatures and pressures are maintained.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		***Weekly** inspect the hot water converter systems and hot water boilers for leaks and deterioration. Verify steam traps are functional. Verify no natural gas leaks exist in the boiler systems. Natural gas leaks shall be immediately made safe upon discovery.		Inspections completed weekly on time.
		***Weekly** analyze and record data. Add appropriate water treatment as needed. Post data electronically within 8 hours of collection. Data for each log shall be stored electronically in a worksheet in the ****Elog Excel Workbooks**. a. Hot Loop Water Analysis	***Weekly** log	Accurate data electronically posted on time. Water treatment is added at the appropriate times.
3.2.3.3.2.c	JSC Humidifiers Inspect Humidifier Systems at ***JSC**	Inspect the ***JSC** humidifier systems monthly during heating season for proper operation, leaks, and calcium buildup.	6 Inspections per humidifier	Systems inspected on time.
3.2.3.4	Potable Water and Domestic Hot Water			
3.2.3.4.1	Potable Water and Domestic Hot Water Systems Operate and Monitor Facility Potable Water and Domestic Hot Water Systems	Provide domestic hot water temperature per Federal Regulation Reference NHB 8831.2 latest version. The system shall provide pressure and quantity to the fixtures to meet International Building Code Standard. Provide water that meets TCEQ Chapter 290 standards. Ensure Potable Water System operator support is available 24 hours a day to accomplish routine activities and respond to emergencies.		Potable water and domestic hot water distribution systems operation hours and outputs are maintained.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		***Weekly** inspect the potable water and domestic hot water systems for leaks and deterioration. Verify steam traps are functional. Verify no natural gas leaks exist in the hot water heater systems. Natural gas leaks shall be immediately made safe upon discovery. Ensure backflow preventers are located throughout system to protect the system from contamination per TCEQ standards. Test and repair backflow preventers with an accredited TCEQ or designated agent. Testing of the backflow preventers located at the EF property lines shall also be coordinated with the City of Houston.	***Weekly** inspections of each system	Inspections completed weekly on time. Potable water and domestic hot water distribution systems operation hours and outputs are maintained.
		Read Water Distribution System meters on the last day of each month. Record reading, date, time, location, and meter number. Information: One meter at ***JSC** (Building 426), six meters at EF, two at SCTF.		Records are accurate and performed on time.
3.2.3.4.2	Water Operations Log Maintain a ***Daily (D7)** Water Operations Log	Maintain a ***Daily (D7)** water operations log of operator maintenance and operator checks performed, including equipment status, if out of service; alarms; outages scheduled; visual checks accomplished; and SRT items identified.	365 Days	Log is accurate and available continuously.
3.2.3.5	Compressed Air			
3.2.3.5.1	Compressed Air Systems Operate the Facility Compressed Air Systems.	Provide compressed air that is regulated to a nominal 20 PSIG +/- 1 PSIG. The breathing air system shall deliver dry, compressed breathing air to the building at 150 PSIG +/- 3 PSIG certified for breathing and conforming to sampling per American National Standard Commodity Specification for Air, Compressed Gas Association, Inc. (ANSI/CGA G-7.1-1989)		Systems operated to achieve availability requirements.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		Monitor data acquisition points using systems performance to verify proper control and operation. Reconfigure equipment for special requirements or support. Provide operations support for facility compressed air systems outages and reconfigurations.		
		Tag out, secure, depressurize, etc., and return to service, the compressed air systems as defined in UP, OP or maintenance task statement to support system or component repairs and maintenance.		
3.2.3.5.2	Facility Compressed Air Systems Inspect Facility Compressed Air Systems	Inspect the facility compressed air systems ***Quarterly** to ensure system is operating properly.	***Quarterly** inspections of systems	Systems inspected on time to ensure continued proper system performance.
3.2.3.5.3	Backup Control Compressed Air System Functional test the Backup Control Compressed Air System	Test the mall buildings control air compressor systems ***Annually** to verify automatic start up when a loss of tunnel air pressure occurs, proper operation of the air dryer, adequate air pressure, and flow from building system to support all control functions as required. Test shall be run for 24 hours to verify system.		System testing complete and performed on time. Back up system available.
		Post data electronically within 24 hours on the Store Front.		Data accurate, complete and posted on time.
3.2.3.6	Natural Gas			
3.2.3.6.1	Natural Gas Distribution System Operate and inspect ***JSC** Facility Natural Gas Distribution Systems	Provide for natural gas to and through the facilities' regulator at the designed rate and pressure based on the designated regulator settings and each individual building's usage.		System operated efficiently and within the hardware requirements.
		Monitor the system and equipment for proper operating pressure.		
		Inspect the system ***Quarterly** for leaks. Initial the check sheet and record the date of inspection. Immediately mitigate any conditions posing imminent danger to life, health or property.	Inspect systems ***Quarterly**	Equipment inspected on time. No leaks in the system.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
3.2.3.6.2	JSC Natural Gas Distribution System Log Maintain Natural Gas Distribution System Log of operator activities	Update the Natural Gas Distribution System log ***Daily (D7)** to include status of valve configuration (if other than normal), equipment configuration status (if out of service), visual checks accomplished, SRT items identified, and outages scheduled. Ensure log is accurate and continuously available.	1 Log	Log is updated on time, accurate, and available continuously.
3.2.3.7	Fuel Systems			
3.2.3.7.1	Mobile, Portable and Stationary Equipment Tanks Maintain CTS Emergency Generators Tanks and other portable and stationary equipment tanks, such as pumps, generators, etc	Provide, deliver fuel to, and fill the tanks of each CTS generator and other stationary generators, tunnel generators, mobile equipment and pumps as needed. Maintain fuel levels such that activity is not interrupted. The gasoline/E85 systems stores and supplies fuel for use in mobile equipment such as selected vehicles, pumps, and generators. This CLIN does not include fueling for Building 24 and Building 48 large tanks. Respond to customer request for refueling and fuel testing within 2 hours.	600 gallons gasoline and 5000 gallons diesel	Fuel levels provide uninterrupted operations. Refueling is accomplished on time.
3.2.3.8	Utility Support			
3.2.3.8.1	Recurring Work			
3.2.3.8.1.a	Utility Systems, Excavation and Boring Permits Receive, review, approve and process requests for excavation and boring permits. Locate, identify, and mark utility systems upon request	Receive, review, approve and process requests for excavation and boring permits to ensure that there is no impact to utility systems due to excavation and boring activities as per ****Excavation and Boring Permit Process.**		No impact to utility systems due to excavation and boring activities.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		Locate, identify, and mark utilities within 3 workdays of the request. Use detectors, meters, and instrumentation to ensure that all potential hazards and position conflicts are identified visually in the field with paint, flags, and/or tape. Inform the project of the marking standard used to identify hazards or position conflicts. Provide the project performing the excavation or boring, drawings identifying the expected utilities and locations.	75 utility markings	Utility systems marked within 3 days of request.
3.2.3.8.1.b	Utility System Operation Manuals, OP's and Equipment Documentation Develop, update, and maintain utility system operation manuals, OP's, and equipment documentation	Develop or provide revised documentation as needed within 6 months of contract start date and ***Annually** thereafter. The Contractor shall maintain and update within 3 months of any changes thereafter. All operational procedures, processes, and instructions when updated shall be written in a JSC Work Instruction format. There are to be no use of specific company or personnel names, only position titles or descriptions. All Government references shall be generic to position titles or descriptions whenever possible. After the ***COTR** approves new and updated OP's, the Contractor shall electronically maintain and post. Plant/system documentation shall be maintained and updated as required by ****JPR 1700.1, JSC Safety and Health Handbook,** (Chapter 10.4 Facility Baseline Documentation). Update the OP's, drawings, task instructions, Operations and Maintenance Manuals and other baseline documentation for the following production, distribution, and facility systems as configuration changes are made:	***Annual** revision or whenever configuration changes	Documentation and procedures for all specified systems are accurate and updated on time. Facility Baseline Documentation is maintained and available for review by the ***COTR**.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		Steam, Boiler and Condensate return. Building 221, Building 48, high voltage and site electrical systems. Chilled water systems. Potable water systems. Compressed air systems. Cooling towers. Refrigeration systems. EMCS systems. OCC systems. Fuel systems. Hot water heating. Sanitary sewer systems. Natural gas systems. Low voltage electrical systems. HVAC systems. Maintain Facility Baseline Documentation available for review by the ***COTR**.		

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
3.2.3.9	Miscellaneous Systems			
3.2.3.9.1.	Exhaust and Ventilation	Supply/exhaust the required quantity and balance of air per required current design parameters and as required per American Society of Heating, Refrigeration, and Air Conditioning Engineers (ASHRAE) standards. Provide air flow for paint booth ventilation systems per OSHA 190.107, Spray Finishing Using Flammable and Combustible Materials. Verify required fans and amperes are functioning and in the correct field positions based on location of smoke/fire alarms. Securely fasten and maintain water tight all roof mounted fan units. Properly label system components to identify power sources or any hazardous conditions.		
3.2.3.9.2	Fire Protection and Security Provide support to JSC fire protection and security	Provide bucket truck and personnel to install, remove, repair or re-arrange alarm/security cables on overhead distribution systems as needed to keep fire protection and security systems operational. Provide batteries for electrical outages of fire protection systems. Accompany fire technicians on monthly or periodic testing of fire protection systems.		
3.2.3.9.3	Process Water Provide process water for site applications	Provide chilled and hot process water at closely controlled conditions for consumption in designated processes per the designated location's pressure, quantity and quality requirements. Produce and distributed de-ionized, generated water to meet the requirements of *JSC Laboratory facilities. The de-ionized water shall be 90 percent free of salts.		Water provided meet's customer's usage and quality requirements.
3.2.3.10	Mechanical Room Inspections	Visually inspect quarterly all ***JSC** mechanical rooms to coincide with ***Quarterly** building inspection tracking system inspections. There are approximately 300 mechanical rooms at ***JSC**.	***Quarterly** inspections of all mechanical rooms	All mechanical rooms inspected and logged 4 times a year.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
	Provide safety walkthroughs and proactive inspections for reliability and operability	Inspect for damaged or potentially failing equipment or components of the following: HVAC systems along with all other utility and facility equipment. General area lighting – relamp or repair. Take the following actions: Keep mechanical room areas broom clean and free of any debris, scrap, litter, refuse, or unorganized storage, remove any improperly stored materials, cleanup – call in work order as needed and initiate repairs per annex 2. Log inspection on sign in sheet posted on back of entry door. Perform weekly inspections called for per CLIN's: 3.2.3.1.1 – Steam and condensate return systems. 3.2.3.1.2 – Low pressure boilers. 3.2.3.3.2.b – Hot water converter systems. 3.2.3.4.1 – Potable water and domestic hot water systems.		Mechanical rooms maintained in a safe and clean condition.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
3.2.4	Service Request Tag (SRT)			
3.2.4.1	Identification of Failures Identification of failures and potential points of failure. Initiate appropriate response and notification	During the day to day operations, log recording, maintenance tasks, inspections and system tests of the Plant/Production, Utility Distribution and Facility systems; respond to failures or potential failures with the following actions so that hazards are properly mitigated and quickly resolved: a. Immediate mitigation of any conditions posing imminent danger to life, health or property. b. Initiate installation of SRT with assigned work order number. c. Initiate corrective action through request of repair work order. d. Report failure through appropriate notification per classification. e. Deliver top page of SRT to OCC. Securely fasten bottom page on equipment. The Contractor is responsible for supplying two part SRT's as needed.	Approximately 2000	Hazards properly mitigated. Initiation of SRT. Work order requested in a timely manner.
3.2.4.2	Classification of SRT's	Identify failure or potential failure by appropriate definition and include classification in work order comments in CMMS.		Correctly classify failures and record in CMMS.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		The following are failure classifications that are used to identify the criticality of a failure by its location and the level of functionality lost due to the failure. **Class A** Failures in Plant/Production systems listed in CLIN's 3.2.1.1 thru 3.2.1.7.4 (Buildings 24, 28, 48, 221, & 322 complex) that result in loss of system functionality, interruption of production. Failures in Utility Distribution systems listed in CLIN's 3.2.2.1 thru 3.2.2.7.2.c that result in loss of utility service to any Critical Building or Critical Area as defined in ****Mission Readiness Plan and Procedure** or limits the capability to deliver utility to any Critical Building or Critical Area as defined in ****Mission Readiness Plan and Procedure**. Failures in the Facility systems listed in CLIN's 3.2.3.1 thru 3.2.3.7.1 that result in total loss of function in any Critical Building or Critical Area as defined in ****Mission Readiness Plan and Procedure** or in the SCTF.		Notifications made correctly.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		Class B Failures in Plant/Production systems listed in CLIN's 3.2.1.1 thru 3.2.1.7.4 (Buildings 24, 28, 48, 221, & 322 complex) that result in reduced capacity, loss or redundancy, forced equipment shut down, equipment unavailable, or equipment available for emergency only. Failures in Utility Distribution systems listed in CLIN's 3.2.2.1 thru 3.2.2.7.2.c that result in loss of utility service to any non-critical facility or loss of service redundancy to any facility. Failures in the Facility systems listed in CLIN's 3.2.3.1 thru 3.2.3.7.1 that result in loss of function in any non critical facility or loss of redundancy system in Critical Facility or Critical Area as defined in ****Mission Readiness Plan and Procedure**. **Class C** All other Plant/Production, Distribution, and Facility system failures that are not Class A or Class B are included in this classification.		
3.2.4.3	Notification of the COTR	Report failures based on appropriate failure classification. Failures are actual or potential failures.		Notifications are made on time and per the stated requirement.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		Class A Failures shall be reported directly, person-to-person, to the ***COTR** by telephone in no less than 2 hours. If the ***COTR** cannot be reached, the problem will be reported directly person-to-person to the alternate ***COTR**. In addition to the person-to-person contact, a follow-up email will be sent to the ***COTR**. Class B Failures shall be reported to the ***COTR** through the Morning Report. Additionally, during core hours, an email will be sent to the ***COTR**. Class C Failures will be posted in the CMMS by generation of a work order.		

ANNEX 4
NON-ROUTINE SERVICES
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4 Non-Routine Services

4.1 General Information

4.1.1 Annex Description

Under this Annex the Government may acquire a broad range of services within the general scope of the Contract. Services of a type similar to those described in Annexes 1-3, 5-7 of this Contract, subject to the ID/IQ order limitations specified in Section B, shall be construed as being within the general scope of this Contract.

4.1.2 Task Ordering Procedure

The process for cost estimates, issuance and acceptance of task orders or work completed on task orders for cost-reimbursable ID/IQ work is described in the TO Procedure clause in Section H. The Contracting Officer's request for a task plan in accordance with paragraph (b) of the TO Procedure does not create an obligation by the Government to issue a task order. All services and products should be delivered per the TO. Work ordered under this Annex shall begin upon issuance of a properly executed TO unless otherwise stated in the task order.

4.2 Maintenance And Repair (M&R)

4.2.1 General Information

Under this section, the Government may acquire services to maintain and repair UE, and NSE.

4.2.2 Preventative Maintenance of User Equipment

On approximately an annual basis, the Government anticipates reviewing its requirements relative to UE and making any necessary or appropriate changes, additions or deletions. The newly updated list of equipment requiring services under this Annex will be provided to the Contractor with a request for a task plan. Preparation of a task plan under this Annex shall include the following:

a. Development of a proposed UE Maintenance Schedule/Plan (see ****UE Maintenance Schedule/Plan Sample**) per the UE list provided with the request for a task plan. The maintenance tasks within the schedule/plan shall be based upon the following hierarchy:

   1) Use of task instructions already in existence under this Contract that appropriately provides the maintenance required.

   2) If no task instruction exists for a particular maintenance requirement, the Contractor shall propose one or more new task instructions that provide the appropriate maintenance required. Create the new task instruction using:

      a. First, existing maintenance data within the CMMS or hardcopy data,

      b. Second, manufacturer's recommended maintenance data,

      c. Third, Government provided maintenance data.

b. Provide a cost estimate for the PM task within each task order plan request. This estimate shall be detailed enough to identify the estimated costs for each piece of equipment for which preventive maintenance is being requested. Further, each cost estimate shall include:

   1) Creating any new PM task instructions,

   2) Within 14 days of TO issuance, providing the final UE Maintenance Schedule/Plan denoting each PM task for each piece of equipment, a copy of each PM task instruction, and the start date the scheduled work might be performed.

   3) Within 14 days of TO issuance, accurately updating the CMMS to reflect the new requirement(s).

4.2.3 Repair of User Equipment and Non-Specified Equipment

The Government anticipates frequent requests for the repair of UE and NSE. Some of the equipment for which repair is requested may be identified in the aforementioned listings of equipment requiring preventive maintenance. However, it should be noted that requests may also be received for repairs to equipment which is not listed, or for which there is no routine preventive maintenance. As with the PM work described in 4.2.2, a cost estimate shall be provided for each repair task. Each estimate shall clearly identify the exact equipment being repaired, and shall provide the best estimated labor and materials costs, based upon the anticipated repairs.

4.3 Miscellaneous Services

4.3.1 General Information

This section identifies the performance requirements for miscellaneous services. The Contractor shall furnish the required miscellaneous services upon issuance of a properly executed TO.

4.3.2 Engineering Studies

The Contractor shall perform studies such as feasibility studies, special engineering investigations and analysis, environmental studies, existing condition studies, analysis of future requirements, conceptual project design studies, energy conservation studies, field investigation, engineering analysis, research of master facility drawings, and all engineering necessary to produce reports, studies and planning documents.

Reports shall be clear, concise, complete, and describe all supporting data used for the final conclusion. The Contractor shall provide correct analysis of problem or issue, and sound engineering recommendations. All reports shall be prepared under the supervision of a registered professional engineer and the completed version shall bear the seal and signature of the responsible registered engineer.

4.3.3 Design

The Contractor shall provide an ****Engineering Design Package** per instructions in Annex 5, Section 5.2, for either Contractor construction or use for open competitive bid by the Government. The Government will provide the scope of work for the design. The Contractor will provide a construction cost estimate based upon the final design. The format for this estimate shall be in accordance with instructions outlined in Section H.

4.3.4 Drill Borings

The Contractor shall provide drilling services that includes obtaining soil, earth core and/or groundwater samples for analysis, installing monitor well(s) for periodic sampling of ground water, and plugging and abandoning or removing monitor wells.

4.3.5 Scanning Support

The Contractor shall provide scanning capability for:

a. Standard and legal size paper at a speed of 50-pages per minute (minimum).

b. "C" size drawings.

c. "F" size drawings (can be onsite or offsite).

NOTE: The vast majority of scanning work can be accomplished either onsite or offsite at the Contractor's discretion. However, there are some drawings of a secure nature that must be scanned onsite.

Intergraph and AutoCAD software shall be able to read the electronic files of the "F" size drawings.

4.3.6 Asbestos Services

The Contractor shall perform asbestos services that include conducting surveys to identify and evaluate presence of asbestos containing materials (ACM) in facilities and equipment for its abatement by removal, encapsulation, or enclosure, in support of new projects, modifications, and renovations/demolitions.

4.3.7 Review of Engineering Designs

The Contractor shall participate in engineering design reviews of Government selected construction projects greater than $500,000 not covered by Annex 5 for the purpose of assessing impact to JSC unique facility conditions, operational and maintenance requirements and compliance with other regulatory requirements. There are typically 30 percent, 60 percent, 90 percent and final design reviews depending on scope and magnitude of the project.

The Contractor shall provide written comments of the engineering design drawings and specifications. The review shall provide input in regards to field conditions, maintenance tasks, and operational guidelines unique to ***JSC**. Additional requirements may include markups of project drawings for clarification and attending design review meetings.

The engineering design reviews shall evaluate the design to ensure compliance with local, State, and Federal Codes, ***JSC**/NASA standards, Sustainability, Maintainability, Constructability, and LEED certification requirements.

4.3.8 Reliability Centered Maintenance Analysis

The Contractor shall perform a RCM analysis of Government identified systems, equipment, or components per ****NASA Reliability Centered Maintenance Guide for Facilities and Collateral Equipment.**

4.3.9 Special Events

The Contractor shall support identified ***JSC** annual special events. The Contractor shall provide a Project Team Lead for each event to act as a single-point of contact to ensure event progress monitoring and problem mitigation. The specific special event requirements will be provided by the ***COTR** at the time each event is planned, coordinated and in process.

4.3.10 Spill Clean Up

The Contractor shall provide or acquire emergency chemical spill/release response, containment, and clean up support services as requested by the Government in the Task Order.

4.3.11 Rigging and Heavy Hauling

The Contractor shall provide support for any of the following types of Rigging Requests.

Class 1 Rigging Request: Rigging support required to prevent bodily harm to an individual or to prevent further damage to NASA/JSC or Contractor equipment, test facility or building with the response time to be 15 minutes or less.

Class 2 Rigging Request: Rigging support to be performed that is requested by the customer for a task that must be accomplished in less than 2 ***Workdays**.

Class 3 Rigging Request: Rigging support to be performed when no specific time is requested by the customer where the Contractor has up to 2 full ***Workdays** from notification.

Before each work order is accomplished the Contractor must accurately verify the following requirements necessary to accomplish the work:

a. Description of the task,

b. Location where the task is to be performed,

c. Whether lift is critical or non-critical,

d. Characteristics of the items to be moved or lifted (such as weight or dimensions),

e. Any facility restrictions that may be in effect,

f. Points of contact of organization requesting work,

g. Time frame to complete task,

h. Identify on work order between institutional and program requests.

The Contractor shall provide lift plans in accordance with ****JPR 1700.1, JSC Safety and Health Handbook, **NASA-STD-8719.9, Standard for Lifting Devices and Equipment**, and ****JPR 8719.1, JSC Material Handling Policy**.

The Contractor shall coordinate civilian police escorts when required by City, County, State, or NASA organizations. Coordinate with ***JSC** Security when hauling oversize loads to and from ***JSC**. Secure all permits necessary for oversize loads when required by City, County, and State in sufficient time to preclude delays.

The Contractor shall survey the route before hauling oversize or overweight loads to ensure overhead clearance from traffic and electrical lines. If clearance is not sufficient, the Contractor shall coordinate to have support required to accomplish this task. The Contractor shall provide this information to the ***COTR** 5 days prior to the scheduled move date, unless a fewer number of calendar days is agreed on by both the Contractor and the ***COTR**.

The Contractor shall provide assistance in the assembly and disassembly, installation and dismantling, placement, and removal of equipment to include the installing and removal of fasteners (bolts, screws, etc.) when requested by customer.

ANNEX 5
Engineering Design, Construction, and Other Facility Support Services
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ANNEX 5
Engineering Design, Construction, and Other Facility Support Services

5. Engineering Design, Construction, and Other Facility Support Services

5.1 General Information

5.1.1 Annex Description

This Annex defines the firm-fixed price, ID/IQ portion of this Contract. The services to be provided include the management, planning, accomplishment, and QA of a broad variety of Delivery Orders (DO). Management of DO's shall be processed through the Space Program Integrated Contracts Environment (SPICE) ***WAD** tracking system software. These services shall be furnished on an as needed basis, in response to DO's, which are issued and authorized by the CO per Section H.

5.1.2 Services Acquired Under IQ Provisions

The Government may acquire services under this Annex when:

a. Purchasing services specifically described in this Annex,

b. Procuring unspecified services that fall within the broad scope of the entire Facilities Contract.

If the Government requires services in categories "a." or "b." above, the requirements shall be included in the DO issued by the Government.

5.1.3 DO Ordering and Proposals

When DO work is required, the CO will issue a DO for pre-priced work, or will issue a Request for Proposal (RFP) in accordance with Section B, Labor Rates Table, for work that has not been identified as pre-priced in this Annex or Section B. The RFP may be in the form of a letter or ***WAD**. An RFP will contain, at a minimum, a scope of work and schedule for the required services. For non pre-priced work, an indefinite quantity (IQ) DO will be issued upon the acceptance of the Contractor's proposal in response to the RFP, or after the conclusion of negotiations. Further DO ordering, proposal, inspection, and acceptance are outlined in Section H.

5.2 Engineering Design

This section identifies the facilities engineering design support services required by the Government. Engineering design work which is required to support any of the completion form annexes is not covered within this Annex's scope.

Days called out in the Engineering Design Annex are to be considered calendar days except where specifically called out as ***Workday**.

Management of designs shall be processed through the SPICE software system. The methodology of how engineering design and construction activities are sequenced is further described in the ****Work Request Process** document.

Engineering studies shall be funded as Annex 4 TO's.

ID/IQ designs that are funded by Annex 5 DO's or Annex 4 TO's have total cost limitations for the design, field investigation, reproduction and others as set by the FAR and the recommendations set forth by regulated substances (RS) Means for new and existing facilities.

The design costs for projects with a construction valued at $200,000 or less shall be as determined by the Contractor's proposed pre-price design values. The pricing for pre-priced Engineering Designs is outlined in Section B. The design costs for projects with a construction value greater than $200,000 shall be negotiated.

The Contractor shall submit the ID/IQ design or study cost estimate to the Government along with the ***MOU**.

All designs and studies shall be prepared under the supervision of a professional engineer registered in the State of Texas and shall bear the seal and signature of the responsible registered engineer for each discipline worked. All designs and studies shall be in compliance with Federal, State, Local, and ***JSC** requirements and regulations. The Contractor shall coordinate designs with the site customer, Government Project Manager (PM), and the appropriate ***JSC** organizations including the site Safety, Pressure Systems, Environmental, Fire Protection, and Occupational Health offices to ensure the ***MOU** and design satisfy the identified requirements. The Contractor shall retain sole responsibility for ensuring all designs comply with applicable regulations and also ensure all designs meet American Society of heating, Refrigeration, and Air Conditioning Engineers (ASHRAE) 90.1 2004, and National Energy Policy Act of 2005. The Contractor shall incorporate the requirements of LEED technologies on all facility modifications with a construction value of $500,000 or greater, and at a minimum, the Contractor shall attain a silver LEED rating for the project, but shall strive for a gold LEED rating. For all projects with a construction value less than $500,000 the Contractor shall strive for a basic LEED rating.

The final design package must contain adequate details and specifications to be of sufficient quality for competitive bidding.

5.2.1 Memorandum of Understanding (***MOU**)

The Contractor shall develop accurate facility modification documentation to meet site customer requests.

The Contractor must coordinate and conduct a pre-design walk-through within 5 days of receipt of the ***WAD** request as needed. The Contractor shall invite the Government PM and the customer to attend the walk-through. The requirement for the pre-design walk-through may be waived at the discretion of the

Government if the project's simplicity does not warrant a pre-design walk-though.

The Contractor shall coordinate with appropriate Government personnel, site customers, and Contractor personnel to develop all requirements, perform field investigations, research facility drawings, and perform an engineering analysis to determine the facility modifications, new construction, or both necessary to meet the site customer requirements. The analysis includes a review of Reliability Centered Maintenance (RCM) strategies, Life-Cycle Costs (LCC), good engineering practices, safety requirements, job hazard analysis, environmental impacts, occupational health requirements, asbestos abatement, hazardous waste generation, secondary containment, lead paint abatement, sustainability, maintainability, constructability, a narrative on design assumptions and engineering approach, etc.

The Contractor shall determine the construction cost range and schedule completion for the final design package per Table 5-2. The Government shall determine the projects' complexity. The ***MOU** construction bare cost ranges shall be as indicated below:

$0 – $2,500

$2,501 – $5,000

$5,001 – $10,000

$10,001 –$25,000

$25,001 – $50,000

$50,001 – $100,000

$100,001 – $150,000

$150,001 - $200,000

Over $200,000

a. ***MOU** shall be clear, concise, and completed with all required information to clearly define design requirements. Develop performance requirements within the ***MOU** to specify pass-fail criteria for the final design package.

b. Submit ***MOU**, construction cost range, and schedule completion for the final design package to the Government and site customer via the SPICE WAD tracking system and electronic mail per the schedule below:

1. Provide ***MOU** within 7 days receipt of the ***WAD** request when the facility project estimated construction value is less than $2,500.

2. Provide ***MOU** within 10 days receipt of the ***WAD** request when the facility project estimated construction value is between $2,500 and $25,000.

3. Provide ***MOU** within 15 days receipt of the ***WAD** request when the facility project estimated construction value is greater than $25,000.

c. If requirements change during the design, the Contractor shall review the project to determine if the construction cost range or schedule are still valid. All changes must be reflected in the project ***MOU** and the Government and site customer updated within 3 days of change discovery as to the scope change and the basis for the change. Any increases in the construction cost range or schedule will require a revised ***MOU** submitted to the Government and the site customer within 3 days of change discovery.

d. The Contractor shall conduct bi-weekly meetings with the ***COTR** to present the status of the ***MOU**, designs, studies, construction cost ranges or estimates, as-building status, and construction in work. Meetings shall cover all engineering work performed on the Contract.

The Contractor shall obtain Government and customer approval of the ***MOU** and continue per the Engineering Design Schedule.

NOTE: Final design package timetable (Table 5-1) includes the ***MOU**, Design and Cost Estimate development times. The final design package timetable begins when the ***WAD** request is submitted to the Contractor from the Government. The final design package timetable excludes the Government's ***MOU** review and design review times. The final design package timetable is complete when the Government receives all deliverables that constitute a final design package.

5.2.2 Final Design Package (FDP)

The Contractor shall develop an accurate FDP that reflects the ***MOU**.

a. The Contractor shall provide the FDP that meets the customer's requirements identified by the***MOU**. All designs shall be in accordance with NASA Handbook ****Facility Project Implementation Guide - NPR 8820.2E.** The Contractor shall ensure all designs are compliant with ASHRAE 90.1 2004, and subsequent mandated legislation. In addition, the Contractor shall ensure that for all designs for a construction value of > $50,000, an environmental checklist showing National Environmental Policy Act (NEPA) Compliance is completed.

b. The Contractor shall produce copies of the FDP. The Contractor shall deliver one set of the final design drawings and specifications to the site customer and two copies of the FDP to the PM per the schedule on Table 5-2.

c. The Contractor shall receive and record design engineering review comments either on ****Design Review Comment Form** or as entered into SPICE for all interim or final design review comments by the Government. For the comments which do not violate codes or policies

and both parties agree are correct, the Contractor shall incorporate them into the design package without further direction from the Government. In the event the parties are unable to agree on the technical design comments, the CO will unilaterally determine the matter at issue. The Contractor shall respond to all design and cost estimating comments as directed by the Government within 5 days after review for all projects with a construction value less than $50,000 and within 5-10 days for all projects with a construction value greater than $50,000.

d. Following Government acceptance of the final design and cost estimate, the Contractor shall obtain approval signatures with the appropriate ***JSC** organizations, which include: ***JSC** Site Safety, Pressure Systems, Environmental, Fire Protection, Occupational Health, etc., ensuring each design meets all appropriate codes and regulations.

e. The Contractor shall, at no cost to the Government, correct any construction or performance problems that may arise due to errors or omissions from designs performed by the Contractor.

f. The Contractor shall maintain and update the Government furnished specifications as required to produce designs. The Contractor shall update the specifications per changes to Government furnished SWG Policies (see ****SWG Policies Sample**), Government furnished SPECSINTACT Submasters (See ****SPECSINTACT Master Text Index**), or the Construction Criteria Base (CCB) NASA SPECSINTACT Master Text, whichever is the latest and most applicable.

The Contractor shall format all engineering design construction drawings per the ****Facility Type Drawing and Documentation Procedures Manual, Johnson Space Center Manual (JSCM) 8823.2** and the CAD Standards Manual 8822. The Contractor shall utilize the Government furnished specification book as required to produce designs for Contractor use.

5.2.3 Design Reviews

The Government may request one interim review on projects with a construction value up to $50,000. The Government may request a maximum of three interim design reviews, for example: at 30 percent, 60 percent, and 90 percent for all projects with a construction value greater than $50,000. Design review and construction ***WAD** processing templates are outlined in Table 5-2.

For each design review, the Contractor shall provide the design package electronically (via the SPICE ***WAD** tracking system) to the customer, Government PM, and the appropriate ***JSC** organizations which include: the site safety, pressure systems, environmental, fire protection, Occupational Health etc., to obtain acknowledgement of receipt notification from the reviewers via the SPICE ***WAD** tracking system, or email. For each design review, the Contractor shall also provide 1 hard copy of the design package to the site customer and 2 hard copies to the PM.

For the 100 percent design review package, the Contractor shall provide, to the PM, the cost estimate electronically via the SPICE ***WAD** tracking system and 2 hard copies. The Contractor shall also provide an itemized cost estimate electronically via the SPICE ***WAD** tracking system to the customer, without the proprietary coefficients being displayed.

The Government typically provides its review comments within 7 days of receiving the design package for all projects with a construction value up to $50,000 and within 14 days for all projects with a construction value greater than $50,000.

5.2.3.1 Upon request, the Contractor shall provide professional engineering services to perform technical reviews of CoF level (with a construction value greater than $500,000) design project that are designed by other outside contractors or A-E firms for NASA. Provide written comments within 14 days of each request.

5.2.4 Design Schedules

a. Routine Design Schedules.

See Table 5-2 for Routine Design Schedules. This table outlines the calendar day requirements for milestones and the delivery of different design and construction products. The final design package schedule excludes the Government's ***MOU** review and design review times.

The final design package schedule excludes the Government's ***MOU** review and design review times.

b. Expedited Design Schedules.

Periodically, high priority or emergency design tasks will be assigned by the Government requiring the Contractor to deliver a design earlier than the schedules called for in this Annex. The Contractor shall notify the PM within 1 ***Workday** after concurrence of the ***MOU** if the Contractor cannot deliver the design at the earlier date without impacting the schedule of any other design work assigned to them. The Government, at its discretion, may negotiate the cost of an accelerated design outside the pre priced design cost tables.

c. Design Extensions.

If a ***WAD** design cannot be completed by the contractual Final Design Package (FDP) due date, due to reasons outside of the Contractor's control, then the Contractor must submit a ***WAD** Extension Request via the SPICE ***WAD** Tracking System prior to the FDP due date. The extension request must be approved by the customer, the Government Project Manager (PM) and the CO in order to modify the ***WAD** FDP due date. If the extension request is not approved, the project will be considered late if the contractual FDP due date is not met. Acceptable reasons for design extensions include:

a. Inadequate as-built drawings must be updated first.

b. Cannot get access to the facility.

c. Waiting for information from the customer.

d. Customer changed the scope of work.

e. Waiting on information or support from vendor or a non Facilities Contract contractor.

f. Other project priority (The Contractor shall identify which ***WAD** was given priority and how many days it was accelerated before the contractual due date. The number of days the extended ***WAD** is slipped shall not exceed the number of days the priority ***WAD** is accelerated. ***WAD's** shall not be slipped to work CoF level projects. Safety related ***WAD's** that will mitigate HATS or Close Calls shall not be slipped for other priority projects.)

g. Mission restriction.

h. Hold for Government convenience.

i. Overly complex project.

j. Other (Delay Outside of the Contractor's Control)

5.2.5 Field Design Correction

The Contractor shall provide field design corrections for site and facility conditions that could not be discovered and mitigated during engineering field investigations during the design process.

The Contractor shall perform requirements gathering, field investigation, and engineering analysis, as required, to correct problems found in the field during construction, resolve discrepancies, and ensure facility modifications or new construction meet the Government's requirements. The Contractor shall notify the Government of all construction changes before deviating from the drawings funded for construction. The Contractor shall notify the Government within 24 hours of any field problem. The Contractor shall perform field check and problem analysis, and submit a solution, along with any necessary drawing modifications, to the Government within 48 hours of problem discovery for Government review and concurrence. The Contractor shall notify the Government of all construction deviations made from the drawings funded for construction.

5.3 Construction

The Contractor shall, upon receipt of a DO, furnish Construction Support Services (this may include special projects such as CoF, modification, construction, rehabilitation and repair (MCRR) or other projects designated by the Government). The work required extends beyond a conventional, single construction effort, in that it involves the planning, scheduling, coordinating, accomplishing, and procuring of material for a fluctuating load of unrelated construction tasks.

The Contractor shall perform Pre-priced Construction Tasks as defined in Table 5.3.

The DO shall outline the work schedule or it shall be completed per the ***WAD** Process timeline outlined in Table 5-2. Work starts upon receipt of either a DO or a Notice to Proceed (NTP) from the CO.

NOTE: On a case-by-case bases, the Government may negotiate the schedules above if typical material delivery times do not support DO completion.

If, for any reason, the construction completion schedule cannot be met, the Contractor shall notify the ***COTR**. The notification shall include a clear reason for the delay, impacts of the delay to both customer and Contractor, and a proposed completion date and time. The Government will review the proposed completion date. If the Government does not approve the Contractor's proposed completion date, then the DO completion due date will not change, and the project will be considered late if the completion due date is not met.

For any DO for construction work with a bare cost exceeding $25,000, the Contractor shall obtain performance bonds for the appropriate payments selected by the ***COTR** as prescribed in FAR 28.102-2. For this purpose, and for purpose of the "Additional Bond Security" clause FAR 52.228-2, the terms "original contract price" and "contract price" in the referenced FAR paragraphs shall be deemed to refer to the price of the DO. The Contractor shall include in the pricing proposals, in response to DO's for construction work with bare costs exceeding $25,000, the price of performance and payment bonds as a separate expense. Such expense shall be additive to the total price of the work and shall not be subject to the application of any coefficient factor.

Any ISW hazardous and other TCEQ regulated waste generated from customer funded facilities projects shall be managed (picked up, accumulated & processed) under Environmental Annex 7.

5.3.1 Warranties

Warranty enforcement shall remain with the Contractor and shall be documented within the electronic database for warranted equipment installed during the construction project. Comply with CLIN 2.5.

5.3.2 Linemen Support of Construction Activities

Linemen performing as operators in support of construction ordered through this Annex shall be covered in CLIN 3.1.3. CLIN 3.1.3 also covers lineman support for construction projects up to $500K. For construction projects above $500K, lineman support shall be separately priced in each proposal.

5.3.3 Contractor Construction Liability

All construction rework caused by construction errors or unacceptable workmanship shall be corrected at no expense to the Government. For projects both designed and constructed by the Contractor, all construction rework caused by design errors shall also be corrected at no expense to the Government.

5.3.4 Specific Safety and Health Plan

The Contractor shall provide the Government a site specific Safety and Health Plan/Job Hazard Analysis for all special projects prior to issuance of the NTP (includes plans for subcontractors). The Contractor shall inform the Government whether the subcontractors intend to provide their own plan or use the plan of the Contractor. If the subcontractor intends to use the plan of the Contractor, the subcontractor shall provide a letter signed by the head of that firm stating their intention. If the subcontractor intends to provide their own, a copy shall be provided to the Government through the Contractor.

5.3.5 Pre-Construction Conference

The Government will conduct a pre-construction conference prior to any special project over $500,000. The Contractor shall ensure that the required documents are delivered either prior to or on the day of the conference. The Contractor shall ensure that each document references the contract number and project title. The following is a list of those documents most commonly required:

a. SF 1413 for each Subcontractor	(Original and 2 copies)
b. Schedule of Values	(Original and 3 copies)
c. Construction Progress Chart/Critical Path Method (CPM)	(Original and 3 copies)
d. List of Suppliers	(Original and 2 copies)
e. Apprentice Certificates (Prime)	(One Copy)
*f. Material Safety Data Sheets	(One Copy)
*g. Tax Exempt Form	(One Copy)
*h. Insurance Certificate	(Original and 1 copy)
*i. Performance/Payment Bonds	(Original and 1 copy)
*j. Quality Control Plan (see specs)	(Original and 1 copy)
k. Site Specific Safety and Health Plan	(Original and 6 copies)

*if needed

The CO will issue a DO to allow the Contractor time to prepare paperwork, etc. The official NTP is contingent upon the Government's receipt and approval of documents. No construction work called out in the DO shall begin until the official NTP is issued by the CO. A modification to the DO will transmit the official NTP and completion date.

ANNEX 5
Engineering Design, Construction, and Other Facility Support Services

Table 5-1. Design Workload Per Year

Construction Cost Range	Historical Number Of Designs	Final Design Package Completion Schedule
$0 - $2,500	180	20 days
$2,501 - $5,000	61	30 days
$5,001 - $10,000	54	40 days
$10,001 - $25,000	51	50 days
$25,001 - $50,000	24	70 days
$50,001 - $100,000	15	85 days
$100,001 - $150,000	7	100 days
$150,001 - $200,000	4	100 days
$200,001 - $500,000	4	Negotiated

NOTE:

1) The purpose of this table is to state the schedule requirements for each of the construction cost range design categories and to provide information on the historical design workload.

2) The above FDP Completion Schedule begins when the ***WAD** is received by the Contractor per CLIN 5.2, and it ends when the final design package (including the cost estimate) is delivered to the Government. This schedule is in calendar days and it excludes the Government's ***MOU** review and design review times.

3) Historically, distribution of work has been 35 percent Architectural, 35 percent Electrical, 20 percent Mechanical, and 10 percent Structural/Civil.

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Engineering Design, Construction, and Other Facility Support Services

TABLE 5-2. ***WAD** Process Timeline

The purpose of this table is to define the Government's expectation of key milestones and intervals in the design and construction project schedule. All of the milestones (***WAD** issuance, Walk thru and ***MOU** development and review, Design, FDP, and Construction) are defined in Sections 5.2 and 5.3. All units are in Calendar days.

WAD PROCESS TIMELINE

Project Construction Dollar Value	*WAD Issuance*	Walk-Thru & MOU Dev.	*MOU Review*	Design	*Typical # of Interim Design Reviews*	*Total Interim Design Review Time*	Cost Est.	**Contractor's Total FDP Time**	***Final Design & Cost Estimate Review***	*Customer's Anticipated Des. Time*	*Funding*	**Construction Duration**	Customer's Anticipated Total Project Time
$0 - $2,500	*3*	**7**	*7*	8	*0*	*0*	5	**20**	*7*	*37*	*17*	**20**	74
$2,501 - $5,000	*3*	10	*7*	15	*0*	*0*	5	**30**	*7*	*47*	*17*	**20**	84
$5,001 - $10,000	*3*	10	*7*	25	*0*	*0*	5	**40**	*7*	*57*	*17*	**30**	104
$10,001 - $25,000	*3*	10	*7*	35	*1*	*7*	5	**50**	*7*	*74*	*17*	**30**	121
$25,001 - $50,000	*3*	15	*7*	48	*1*	*7*	7	**70**	*7*	*94*	*17*	**45**	156
$50,001 - $100,000	*3*	15	*7*	56	*2*	*28*	14	**85**	*14*	*137*	*17*	**60**	214
$100,001 - $150,000	*3*	15	*7*	71	*3*	*42*	14	**100**	*14*	*166*	*17*	**75**	258
$150,001 - $200,000	*3*	15	*7*	71	*3*	*42*	14	**100**	*14*	*166*	*17*	**90**	273
Over $200,001	*3*	15	*7*	Neg	*3*	*42*	14	**Neg**	*14*	Negotiated	*17*	**Neg**	Neg

Note: The Contractor's Individual ***MOU** Development, Design and Cost Estimating Times are flexible but their total cumulative time shall not exceed the Contractor's Total FDP delivery time stated within Table 5-1.

If the Government takes more or less time to perform the ***MOU** Reviews and Design Reviews than anticipated in the above table, the Contractor's maximum allowable Total FDP time will **not** change, but the Customer's Anticipated Design Time shall be modified to indicate a change in overall schedule.

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Engineering Design, Construction, and Other Facility Support Services

Table 5-3

Miscellaneous Pre-Priced Services

	ITEM	UNIT	ACTIVITY DESCRIPTION
a.	Cap floor receptacle	Each	Verify circuit written on receptacle. Lockout/tag out breaker. Remove receptacle and tombstone, and hold for future reuse. Cap exposed wires with wire nuts and leave in place. Cover hole with 3-5/8" ø low profile, stainless steel floor plate, flush mounted with brushed finish. Update the panel schedule within the panel, and update the Panel Schedule Database.
b.	Activate existing floor receptacle	Each	Trace and verify circuit. Lockout/tag out breaker. Remove existing cover plate and provide and install 4"x4"x3" high stainless steel receptacle tombstone with two 5-2 duplex receptacles, brown. Provide #12 AWG wiring, as needed to connect receptacles to existing circuit. Label tombstone with panel and circuit numbers in indelible black ink. Update the panel schedule within the panel, and update the Panel Schedule Database.
c.	Install new floor receptacle	Each	Drill concrete floor deck at location above existing electrical duct. Trace and verify circuit. Lockout/tag out breaker. Provide and install 4"x4"x3" high stainless steel receptacle tombstone with two 5-2 duplex receptacles, brown. Provide #12 AWG wiring, as needed to connect receptacles to existing circuit. Label tombstone with panel and circuit numbers in indelible black ink. Update the panel schedule within the panel, and update the Panel Schedule Database.
d.	Install new floor receptacle on asbestos vinyl tile	Each	Perform appropriate procedures and wet drill concrete floor deck at location above existing electrical duct. Wet wipe area of hole to contain asbestos tile shavings. Dispose of materials per proper asbestos procedures. Trace and verify circuit. Lockout / tag out breaker. Provide and install 4"x4"x3" high stainless steel receptacle tombstone with two 5-2 duplex receptacles, brown. Provide #12 AWG wiring, as needed to connect receptacles to existing circuit. Label tombstone with panel and circuit numbers in indelible black ink. Update the panel schedule within the panel, and update the Panel Schedule Database.
e.	Construct two sided gyp board wall, up to 10'-0" high	Square Foot	Provide and install 25 ga., 3-5/8" metal stud wall with 5/8" thick sheetrock on each side. Attach metal wall track to floor with power-actuated fasteners through vinyl tile at 24" on center. Attach metal wall track to ceiling grid with minimum # 10 sheet metal screws at 24" on center. Studs and wallboard shall be cut full floor-to-ceiling height with vertical joints over studs. Tape and float all joints with a minimum of two applications of finishing compound. Fill screw depressions with a minimum of three coats of joint compound. Provide light texture to finished walls. Provide 4" black rubber base cove on each side. Paint with 1 coat Health Spec Low Odor latex primer and 2 finish coats of Health Spec Low Odor latex enamel, minimum 1.5 mils thickness per coat. Brush or roller only. Connect new wall to existing structures where required. Notify the Government of any need for a new project to modify the existing fire detection and suppression systems per

Table 5-3

Miscellaneous Pre-Priced Services

			the requirements of the National Fire Protection Association (NFPA) codes and standards due to the installation of the new walls.
f.	Paint existing interior metal, masonry or gypsum board walls or ceilings	Square Foot	Repair surface defects and damage to leave wall smooth and ready for painting. Sand existing surface to roughen to enhance bond and wipe clean. Paint with 2 finish coats of Health Spec Low Odor latex enamel, minimum 1.5 mils thickness per coat. Brush or roller only.
g.	Paint existing metal or wood door	Square Foot	Sand existing door and door frame to roughen surface and wipe clean. Paint door and door frame with 2 finish coat Health Spec Low Odor latex enamel, minimum of 1.3 mils thickness. Brush or roller only.
h.	Install new 3' x 7' Door, hardware and frame in new wall		Provide and install: A steel door frame (knock down, 16 gauge steel, up to 5-3/4" D, 7'-0" H, 3'-0" W, sgl) in a new wall; A wood door (architectural, flush, interior, 5 ply, birch face, with solid wood core 3'-0"x7'-0"; Three hinges (full mortise, hi frequency, steel base, 4-1/2" x 4-1/2", us26); A doorstop (holder & bumper, floor or wall); and Door hardware (Mortise lockset, cast knob & sectal trim, keyed, office/entrance/apt, max). Finish gypsum wall around the door frame. Sand existing door and door frame to roughen surface and wipe clean. Paint door and door frame with 2 finish coat Health Spec Low Odor latex enamel, minimum of 1.3 mils thickness per coat. Brush or roller only.
i.	Install new 3' x 7' Door, hardware and frame in existing wall	Each	Verify that the new door location will not disrupt any existing electrical or piping systems within the existing wall. Cutout and demo an opening in the wall to accommodate a new 3' x 7' door. Cut back the existing sheetrock, studs & track, 3/8" sheetrock & wood required for the reveal around the door frame. Provide and install: A steel door frame (knock down, 16 gauge steel, up to 5-3/4" D, 7'-0" H, 3'-0" W, sgl); A wood door (architectural, flush, interior, 5 ply, birch face, with solid wood core 3'-0"x7'-0"; Three hinges (full mortise, hi frequency, steel base, 4-1/2" x 4-1/2", us26); A doorstop (holder & bumper, floor or wall); and Door hardware (Mortise lockset, cast knob & sectal trim, keyed, office/entrance/apt, max). Finish gypsum wall around the door frame as needed (Tape and float all joints with a minimum of two applications of finishing compound. Fill screw depressions with a minimum of three coats of joint compound. Provide light texture to finished walls. Paint with 1 coat Health Spec Low Odor latex primer and 2 finish coats of Health Spec Low Odor latex enamel, minimum 1.5 mils thickness per coat. Brush or roller only.). Sand existing door and door frame to roughen surface and wipe clean. Paint door and door frame with 2 finish coat Health Spec Low Odor latex enamel, minimum of 1.3 mils thickness per coat. Brush or roller only.
j.	Substitute a Solid Wood Walnut Door Instead of a Birch Door	Each	Pre-price materials only adder to h & i to provide a Solid Wood, Walnut Door (architectural, flush, 5 ply, Walnut face, with solid wood core 3'-0"x7'-0" in-lieu of a Birch face door 3'-0"x7'-0"; Do not paint the Walnut Door.
k.	Install keyed lock in a door	Each	Purchase and install a mortise lockset, (Schlage L Series L9456, trim 03, 626 finish, Primus cylinder (furnished by government) and meet ANSI 156.13, Series 1000, Grade 1 standard). Modify solid core wood door as necessary to accept mortise lockset. Coordinate with the NASA JSC locksmith for them to install the Primus cylinder.
l.	Provide and install mortise Cypher lock in a door	Each	Purchase and install a Sargent 8276 electronic Cypher lock with lever style handles. Modify existing door mortise in solid core wood door to accept Cypher lock. Sand existing door to roughen surface and wipe clean. Paint door with 1 finish coat Health Spec Low Odor latex enamel, minimum of 1.3 mils thickness per coat. Brush or roller only. Coordinate with the NASA *JSC locksmith for them to program the cypher lock.

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Miscellaneous Pre-Priced Services

m.	Install new 12"x12" vinyl tile	Square Foot	Remove existing floor covering, carpet or vinyl tile. Clean residual material from floor and prep for new adhesive. Patch small (< 2"ø) deformations in concrete floor with grout. Provide and install 1/8" thick marbleized vinyl floor tile. Wash and wax floor upon completion.
m1.	Install new 9"x9" vinyl tile	Square Foot	Perform appropriate procedures and remove the existing asbestos containing 9"x9" vinyl tile and the asbestos containing mastic adhesive from the floor. Dispose of materials per proper asbestos procedures. Prep the floor for new adhesive. Patch small (< 2"ø) deformations in concrete floor with grout. Provide and install 1/8" thick marbleized vinyl floor tile (If necessary, cut new 12"x12" vinyl tile to match the size of the existing surrounding 9"x9" vinyl tile. Wash and wax floor upon completion.
n.	Remove/replace exposed aggregate concrete sidewalk	Square Foot	Saw cut 4" thick concrete sidewalk at each end of section to be replaced. Demolish old concrete. Provide 2" thick cement stabilized sand base. Provide # 3 dowels x 8" long at 24" on center at existing concrete interfaces. Pour 4" thick sidewalk using 3,000 psi concrete with W2.9 x W2.9 x 4" x 4" wire mesh sheets. Rolled material unacceptable. Provide ¾" sealed expansion joints at each end of work and every 30' of sidewalk length. Redwood joint material with zip strip for sealant placement is acceptable. Seal expansion joints with 1-part self-leveling, moisture curing polyurethane traffic grade sealant. Provide tooled contraction joint every 5' of sidewalk length. Provide matching river rock for exposed aggregate finish.
o.	Remove/replace broom finish concrete sidewalk	Square Foot	Saw cut 4" thick concrete sidewalk at each end of section to be replaced. Demolish old concrete. Provide 2" thick cement stabilized sand base. Provide # 3 dowels x 8" long at 24" on center at existing concrete interfaces. Pour 4" thick sidewalk using 3,000 psi concrete with W2.9 x W2.9 x 4" x 4" wire mesh sheets. Rolled material is unacceptable. Provide ¾" sealed expansion joints at each end of work and every 30' of sidewalk length. Redwood joint material with zip strip for sealant placement is acceptable. Seal expansion joints with 1-part self-leveling, moisture curing polyurethane traffic grade sealant. Provide tooled contraction joint every 5' of sidewalk length. Provide light broom finish on sidewalk.
p.	Install new 4" deep, broom finish concrete sidewalk	Square Foot	Remove sod and soil to appropriate depth and provide forms. Provide 2" thick cement stabilized sand base. Provide # 3 dowels x 8" long at 24" on center when connecting to existing concrete interfaces. Pour 4" thick sidewalk using 3,000 psi concrete with W2.9 x W2.9 x 4" x 4" wire mesh sheets. Rolled material is unacceptable. Provide ¾" sealed expansion joints at each end of work and every 30' of sidewalk length. Redwood joint material with zip strip for sealant placement is acceptable. Seal expansion joints with 1-part self-leveling, moisture curing polyurethane traffic grade sealant. Provide tooled contraction joint every 5' of sidewalk length.

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Miscellaneous Pre-Priced Services

			Provide light broom finish on sidewalk.
q.	Hang government furnished fire extinguisher	Each	Provide 6" x 6" x 1/8" thick aluminum plate with 3/8" hole in center. Attach plate to sheetrock or block wall with a minimum of 4 ~ # 10 screws utilizing wall anchors. Hang government furnished fire extinguisher bracket from center hole and hang government furnished fire extinguisher. Provide 4" x 10" wall mounted fire extinguisher sign. Mount with screws.
r.	Government furnished pictures (4'x3' max.)		**(Note: The following activities are mutually exclusive except when indicated otherwise in the step descriptions themselves.)**
r.2	Install government furnished pictures	Each	Install Government Furnished Picture on metal wall or sheetrock wall with a minimum of 1 ~ # 10 screw utilizing dry wall anchors and standard metal picture hangar.
r.3	Remove government furnished pictures	Each	Remove the picture from the sheetrock or metal wall. Remove the screws and/or anchoring devices from the wall. Patch the wall using putty to fill the holes.
r.4	Re-locate government furnished pictures		Perform procedures for r.3 and r. 2 combined.
s.	3'x2' White Board		**(Note: The following activities are mutually exclusive except when indicated otherwise in the step descriptions themselves.)**
s.1	Purchase 3'X2' White Board	Each	Purchase a Marker (White) Board 3'W x 2'H, Solid Oak, Natural Finish, Faced Melamine w/ Full Length Marker rail, Mounting Hardware and 1- eraser.
s.2	Install 3'X2' White Board	Each	Install the board on sheetrock or metal wall with a minimum of 4 ~ # 10 screws (sheet metal screws for metal wall, or screws utilizing dry wall anchors for sheetrock wall) along vertical sides of board, 2 per side.
s.3	Remove 3'X2' White Board	Each	Remove the board from the sheetrock or metal wall. Remove the screws and/or anchoring devices from the wall. Patch the wall using putty to fill the holes.
s.4	Re-locate 3'x2' White Board	Each	Perform procedures for s.3 and s.2 combined.
t.	4'x3' White Board		**(Note: The following activities are mutually exclusive except when indicated otherwise in the step descriptions themselves.)**
t.1	Purchase 4'x3' White Board	Each	Purchase a 4'W x 3'H wood trimmed dry erase board, white with oak frame and marker tray.
t.2	Install 4'x3' White Board	Each	Install the board on sheetrock or metal wall with a minimum of 4 ~ # 10 screws (sheet metal screws for metal wall or screws utilizing dry wall anchors for sheetrock wall) along vertical sides of board, 2 per side.
t.3	Remove 4'x3' White Board	Each	Remove the board from the sheetrock or metal wall. Remove the screws and/or anchoring devices from the wall. Patch the wall using putty to fill the holes.
t.4	Re-locate 4'x3' White Board	Each	Perform procedures for t.3 and t.2 combined.
u.	6'x4' White Board		**(Note: The following activities are mutually exclusive except when indicated otherwise in the step descriptions themselves.)**
u.1	Purchase 6'x4' White Board	Each	Purchase a 6'W x 4'H wood trimmed dry erase board, white with oak frame and marker tray.
u.2	Install 6'x4' White Board	Each	Install the board on sheetrock or metal wall with a minimum of 4 ~ # 10 screws (sheet metal screws for metal wall or screws utilizing dry wall anchors for sheetrock wall) along vertical sides of board, 2 per side.
u.3	Remove 6'x4' White Board	Each	Remove the board from the sheetrock or metal wall. Remove the screws and/or anchoring devices from the wall. Patch the wall using putty to fill the holes.
u.4	Re-locate 6'x4' White Board	Each	Perform procedures for u.3 and u.2 combined.
v.	3'x2' Bulletin Board		**(Note: The following activities are mutually exclusive except when indicated otherwise in the step descriptions themselves.)**
v.1	Purchase 3'x2' Bulletin Board	Each	Purchase a Bulletin Board – 3'W x 2'H, Solid Oak, Natural Finish, w/ dense fiberboard back.
v.2	Install 3'x2' Bulletin Board	Each	Install the board on sheetrock or metal wall with a minimum of 4 ~ # 10 screws (sheet metal screws for metal wall or

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Miscellaneous Pre-Priced Services

			screws utilizing dry wall anchors for sheetrock wall) along vertical sides of board, 2 per side.
v.3	Remove 3'x2' Bulletin Board	Each	Remove the board from the sheetrock or metal wall. Remove the screws and/or anchoring devices from the wall. Patch the wall using putty to fill the holes.
v.4	Re-locate 3'x2' Bulletin Board	Each	Perform procedures for v.3 and v.2 combined.
w.	4'x3' Bulletin Board		**(Note: The following activities are mutually exclusive except when indicated otherwise in the step descriptions themselves.)**
w.1	Purchase 4'x3' Bulletin Board	Each	Purchase a Bulletin Board - 6'W x 4'H, Solid Oak, Natural Finish, w/ dense fiberboard back.
w.2	Install 4'x3' Bulletin Board	Each	Install the board on sheetrock or metal wall with a minimum of 4 ~ # 10 screws (sheet metal screws for metal wall or screws utilizing dry wall anchors for sheetrock wall) along vertical sides of board, 2 per side.
w.3	Remove 4'x3' Bulletin Board	Each	Remove the board from the sheetrock or metal wall. Remove the screws and/or anchoring devices from the wall. Patch the wall using putty to fill the holes.
w.4	Re-locate 4'x3' Bulletin Board	Each	Perform procedures for w.3 and w.2 combined.
x.	6'x4' Bulletin Board		**(Note: The following activities are mutually exclusive except when indicated otherwise in the step descriptions themselves.)**
x.1	Purchase 6'x4' Bulletin Board	Each	Purchase a Bulletin Board - 6'W x 4'H, Solid Oak, Natural Finish, w/ dense fiberboard back.
x.2	Install 6'x4' Bulletin Board	Each	Install the board on sheetrock or metal wall with a minimum of 4 ~ # 10 screws (sheet metal screws for metal wall or screws utilizing dry wall anchors for sheetrock wall) along vertical sides of board, 2 per side.
x.3	Remove 6'x4' Bulletin Board	Each	Remove the board from the sheetrock or metal wall. Remove the screws and/or anchoring devices from the wall. Patch the wall using putty to fill the holes.
x.4	Re-locate 6'x4' Bulletin Board	Each	Perform procedures for x.3 and x.2 combined.
y.	3'x2' Fabric Board		**(Note: The following activities are mutually exclusive except when indicated otherwise in the step descriptions themselves.)**
y.1	Purchase 3'x2' Fabric Board	Each	Purchase a Fabric Board - 3'W x 2'H, 3" radius corners, Designer Fabric, Edge Wrapped, Cork Center w/Hardboard Back. A hangar kit is supplied with the board.
y.2	Install 3'x2' Fabric Board	Each	Install the hangar kit on the sheetrock or metal wall with the 2 screws (screws are supplied in the hangar kit). Install the board on the hangar kit.
y.3	Remove 3'x2' Fabric Board	Each	Remove the board from the hangar kit. Remove the screws and hangar kit from the wall. Patch the wall using putty to fill the holes.
y.4	Re-locate 3'x2' Fabric Board	Each	Perform procedures for y.3 and y.2 combined.
z.	4'x3' Fabric Board		**(Note: The following activities are mutually exclusive except when indicated otherwise in the step descriptions themselves.)**
z.1	Purchase 4'x3' Fabric Board	Each	Purchase a Fabric Board - 4'W x 3'H, 3" radius corners, Designer Fabric, Edge Wrapped, Cork Center w/Hardboard Back. A hangar kit is supplied with the board.
z.2	Install 4'x3' Fabric Board	Each	Install the hangar kit on the sheetrock or metal wall with the 2 screws (screws are supplied in the hangar kit). Install the board on the hangar kit.
z.3	Remove 4'x3' Fabric Board	Each	Remove the board from the hangar kit. Remove the screws and hangar kit from the wall. Patch the wall using putty to fill the holes.
z.4	Re-locate 4'x3' Fabric Board	Each	Perform procedures for z.3 and z.2 combined.
aa.	6'x4' Fabric Board		**(Note: The following activities are mutually exclusive except when indicated otherwise in the step descriptions themselves.)**
aa.1	Purchase 6'x4' Fabric Board	Each	Purchase a Fabric Board - 6'W x 4'H, 3" radius corners, Designer Fabric, Edge Wrapped, Cork Center w/ Hardboard Back. Two hangar kits are supplied with the board.
aa.2	Install 6'x4' Fabric Board	Each	Install the two hangar kits on the sheetrock or metal wall with the 2 screws on each hangar kit (screws are supplied in

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			the hangar kits). Install the board on the two hangar kits.
aa.3	Remove 6'x4' Fabric Board	Each	Remove the board from the hangar kits. Remove the screws and hangar kits from the wall. Patch the wall using putty to fill the holes.
aa.4	Re-locate 6'x4' Fabric Board	Each	Perform procedures for aa.3 and aa.2 combined.
bb.	8'x4' Fabric Board		**(Note: The following activities are mutually exclusive except when indicated otherwise in the step descriptions themselves.)**
bb.1	Purchase 8'x4' Fabric Board	Each	Purchase a Fabric Board - 8'W x 4'H, 3" radius corners, Designer Fabric, Edge Wrapped, Cork Center w/Hardboard Back. Two hangar kits are supplied with the board.
bb.2	Install 8'x4' Fabric Board	Each	Install the two hangar kits on the sheetrock or metal wall with the 2 screws on each hangar kit (screws are supplied in the hangar kits). Install the board on the two hangar kits.
bb.3	Remove 8'x4' Fabric Board	Each	Remove the board from the hangar kits. Remove the screws and hangar kits from the wall. Patch the wall using putty to fill the holes.
bb.4	Re-locate 8'x4' Fabric Board	Each	Perform procedures for bb.3 and bb.2 combined.
cc.	4'x3' Magnetic Board		**(Note: The following activities are mutually exclusive except when indicated otherwise in the step descriptions themselves.)**
cc.1	Purchase 4'x3' Magnetic Board	Each	Purchase a Magnetic Board - 4'W x 3'H.
cc.2	Install 4'x3' Magnetic Board	Each	Install the board on sheetrock or metal wall with a minimum of 4 ~ # 10 screws (sheet metal screws for metal wall or screws utilizing dry wall anchors for sheetrock wall) along vertical sides of board, 2 per side.
cc.3	Remove 4'x3' Magnetic Board	Each	Remove the board from the sheetrock or metal wall. Remove the screws and/or anchoring devices from the wall. Patch the wall using putty to fill the holes.
cc.4	Re-locate 4'x3' Magnetic Board	Each	Perform procedures for cc.3 and cc.2 combined.
dd.	6'x4' Magnetic Board		**(Note: The following activities are mutually exclusive except when indicated otherwise in the step descriptions themselves.)**
dd.1	Purchase 6'x4' Magnetic Board	Each	Purchase a Magnetic Board - 6'W x 4'H.
dd.2	Install 6'x4' Magnetic Board	Each	Install the board on sheetrock or metal wall with a minimum of 4 ~ # 10 screws (sheet metal screws for metal wall or screws utilizing dry wall anchors for sheetrock wall) along vertical sides of board, 2 per side.
dd.3	Remove 6'x4' Magnetic Board	Each	Remove the board from the sheetrock or metal wall. Remove the screws and/or anchoring devices from the wall. Patch the wall using putty to fill the holes.
dd.4	Re-locate 6'x4' Magnetic Board	Each	Perform procedures for dd.3 and dd.2 combined.
ee.	Asbestos Abatement Procedures		**(Note: For JPR Procedures below, Reference JSC Safety and Health Handbook (JPR 1700.1, Revision I, July 2002) , Part 12 Asbestos Control Requirements Chapter 12.1 Introduction to Asbestos Control).**
ee.1	JPR #I-1 Asbestos Abatement Procedures	Square Foot	Large scale removal of structural or ceiling insulation (Spray Applied Insulation (SAI) fireproofing or acoustical) (>3 sq ft contiguous or >160 sq ft cumulative).
ee.2	JPR #I-2 Asbestos Abatement Procedures	Square Foot	Small scale removal of structural or ceiling insulation (SAI or acoustical) (1 to 3 sq ft contiguous and <160 sq ft cumulative).
ee.3	JPR #I-3 Asbestos Abatement Procedures	10 Square Inches	Spot removal of structural or ceiling insulation (SAI or acoustical) (<1 sq ft contiguous and <160 sq cumulative, or waste exceeds capacity of standard waste bag).
ee.4	JPR #II-1 Asbestos Abatement Procedures	Square Foot	Removal of or modification to asbestos vinyl tile flooring (Friable material; airborne concentrations >0.01 f/cc).
ee.5	JPR #II-2 Asbestos Abatement Procedures	Square Foot	Removal of or modification to asbestos vinyl tile flooring (Airborne concentrations <0.01 f/cc).
ee.6	JPR #III-4 Asbestos Abatement Procedures	Square Foot	Removing/replacing of Asbestos Containing Material (ACM) or non-ACM ceiling tile(s) below ceiling plenum in buildings with spray-applied asbestos insulation/fireproofing (SAI) (ceiling opening <32 sq ft.

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ee.7	JPR #III-5 Asbestos Abatement Procedures	Square Foot	Removing ACM ceiling tiles in Buildings without SAI (waste limited to one standard waste bag)(ceiling opening of <32 sq ft).
ee.8	JPR #III-7 Asbestos Abatement Procedures	10 Square Inches	Spot removal of SAI (<1 sq ft contiguous and <160 sq cumulative) (waste limited to one standard waste bag).
ee.9	JPR #III-10 Asbestos Abatement Procedures	Square Foot	Removing/replacing of non-ACM ceiling tile(s) below ceiling plenum in buildings with spray-applied asbestos insulation/fireproofing (SAI) (ceiling opening >32 sq ft).
ee.10	JPR #III-11 Asbestos Abatement Procedures	Square Foot	Removing ACM ceiling tiles (Waste limited to one standard waste bag) (Ceiling opening > 32 sq ft).
ff.	Hurricane Plan Support		
ff.1	Hurricane Plan Review	Each	a. The Contractor shall participate in the review and update of the ****JSC-05900 Appendix 2 Attachment A Hurricane/Severe Weather Plan** which is one section of the ***JSC** Emergency Preparedness Plan. The Contractor shall participate in reviews of the plan to identify and document improvements and required changes. In addition, the Contractor shall initially develop and update his/her Emergency Preparedness and Participation Plan to be supportive of the Center's plan.
ff.2	Provide Water	Each	b. The Contractor shall flush and fill nine 200 gallon water storage containers 30 days prior to the start of hurricane season in Building 30M second and third floor mechanical room. The Contractor shall flush and fill four 500 gallon potable water tanks at Level 4 located in Building 30M second floor mechanical room.
ff.3	Support for Hurricane Level 5	Each	c. The Contractor shall provide personnel and support for Hurricane Level 5 as per the ****JSC-05900 Appendix 2 Attachment A Hurricane/Severe Weather Plan.**
ff.4	Support for Hurricane Level 4	Each	d. Upon notification from the Government's Hurricane Rideout Team Captain, the Contractor shall accomplish all Level 4 activities per the current ****JSC-05900 Appendix 2 Attachment A Hurricane/Severe Weather Plan.** These tasks additionally include inventory and replenishing supplies in the hurricane van and the EOC. The Contractor shall maintain operational readiness of the van. The Contractor shall advise the ***COTR** and Hurricane Rideout Team Captain in writing of Level 4 activities completion and capabilities for performing Levels 3 through 1 activities.
ff.5	Participate in Hurricane Exercise	Each	e. The Contractor shall participate in the Hurricane Exercise. This exercise will walk through the ****JSC-05900 Appendix 2 Attachment A Hurricane/Severe Weather Plan** and develop lessons learned and revisions to plans. This may include the mobilization of supplies and equipment. The exercise includes ***Daily (D7)** meetings for approximately one week.
ff.6	Support for Hurricane Levels 3 and 2	Each	f. The Contractor shall provide personnel and support for Hurricane Level 3 & 2 preparation and rideout teams as per the ****JSC-05900 Appendix 2 Attachment A Hurricane/Severe Weather Plan.**

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gg.	Power Washing	100 Sq ft	Perform power washing of identified surfaces to include sidewalks, walkways and steps located in the Central and Engineering Mall Areas of ***JSC**. This task includes pressure washing of surfaces utilizing approved cleaning agents. In addition, this may include the Central and Engineering Mall Area Building perimeter first floor level exterior washing. This task involves the washing of dirt and algae from exterior walls (excluding Pre-Cast Exposed Aggregate Faced) doorways and windows.
hh.	Site Sweeping	JSC site	Perform sweeping of asphalt and concrete parking lots, roadways, and Central Mall walkways at ***JSC**. This task shall utilize Government furnished street sweeper. Cleaning actions shall not damage the integrity of the surface being cleaned or surrounding areas and shall have minimal impact on customers.
ii.1	Facility Condition Assessment (FCA)		FCA is the compilation of field inspections and accompanying prioritized inspection reports for all facilities, structures, and utilities located at ***JSC**. The Contractor shall perform all inspections per ****Facilities Maintenance Management - NPR 8831.2D**. For a sample report, see ****Sanitary Sewer TV Manhole Inspection 2005.**
ii.2	FCA Inspections – Roofs	Each	The Contractor shall develop an annual inspection schedule, visually inspect all ***JSC** roofs including roof mounted appurtenances, and produce an accurate prioritized inspection report that is provided to the Government. This report shall identify all maintenance elements and repair required to protect the facilities from leaks, facilitate preservation of roof conditions, and prevent degradation. a. The Contractor shall perform a comprehensive visual roof inspection. This inspection shall be performed in accordance with the National Roofing Contractors Association (NRCA) Maintenance Guidelines. Key inspection items shall include items such as: flashing, coping, gravel stops, pitch pockets, penetrations, drains, caulk and all notated defects of roofing. This shall include inspection of all roof mounted appurtenances. Inspect to ensure stability and protection from wind damage. The inspection checklist shall include items such as: building number, tag number, location and description of appurtenance, and all other available identification tag information. b. The Contractor shall perform nondestructive roof inspections. A current proven effective nondestructive inspection method shall be used to inspect 20 percent of 1,749,000 square feet of built up roofs. c. The Contractor shall provide the Government a written report identifying all observed defects, and including a prioritized repair list compiled by building. The inspection report shall contain the comprehensive visual and nondestructive inspection findings. d. The data contained in the inspection report shall be incorporated into the FCA database within four weeks of the report submittal. NOTE: Many roofs at ***EF** and ***JSC** are over 30 years old. Typical roof types include but are not limited to: shingle, hypalon, asphalt built up roofs, pitch built up roofs, concrete, sheet metal, fiberglass, polyurethane foam on sheet metal, and other coatings on sheet metal roofs. NOTE: There are about 200 roof mounted appurtenances.

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ii.3	FCA Inspection - Building Exteriors	Each	The Contractor shall develop an annual inspection schedule, visually inspect all *JSC building exteriors, and produce an accurate prioritized inspection report. This report shall identify all maintenance elements and repairs relative to the condition of the building exterior. a. The Contractor shall perform comprehensive visual inspection. Inspect the condition of the building exteriors. Key types of building exterior inspection items shall include: caulking condition, siding, walls, windows, and loggia ledge coatings. All facility component defects identified shall have an appropriate repair work order generated. b. The Contractor shall produce an accurate prioritized inspection report and provide it to the Government. All defects shall be identified in the report, and it should include a prioritized list supplemented with adequate drawings to accurately describe the inspected discrepancy. c. The data contained in the inspection report shall be incorporated into the FCA Database within four weeks of report submittal. NOTE: There are approximately 195 buildings. The buildings at *JSC, EF, and SCTF consist mainly of Pre-cast Exposed Aggregate Faced Panels or sheet metal siding. There are a few buildings of other construction such as brick, cement block, or spray applied aggregate facing.
ii.4	FCA Inspection - Roads, Parking Areas and EF Aprons	Each	The Contractor shall develop an annual inspection schedule, visually inspect all *JSC roads and parking areas including aprons at EF, and produce an accurate prioritized inspection report that is provided to the Government. This report shall identify all maintenance elements and repairs required to provide safe driving surfaces for personnel vehicles, safe travel surfaces for airplanes at EF, and to enhance the service life of the road and parking areas. a. The Contractor shall perform comprehensive visual inspection of all paved roads and parking areas including aprons at EF. Use low vehicle volume days, such as weekends, to obtain adequate condition data in parking areas. Key inspection items shall include: inspection of deteriorated asphalt or concrete surfaces including stabilized limestone shoulders, low ponding areas, inadequately sealed curb and apron joints, broken or missing wheel stops, surface crack sealing, pot holes, and seal coating for roads and parking areas. b. All defects shall be identified in a report, including work order numbers for component repairs, and that includes a prioritized list along with accurate identification of the discrepancy locations on the road and parking area annual plan drawings. c. The data contained in the inspection report shall be incorporated into the FCA Database within four weeks of report submittal. NOTE: There are 772,600 square yards of paved surfaces and 58,500 square yards of EF aprons.
ii.5	FCA Inspection – Sidewalks	Each	The Contractor shall develop an annual inspection schedule, visually inspect all *JSC sidewalks and produce an accurate prioritized inspection report that is provided to the Government. This report shall identify all maintenance elements and repairs required to preserve the integrity of the sidewalk systems and provide safe travel areas for pedestrian travel. a. The Contractor shall perform comprehensive visual inspection of all sidewalks. Key inspection items shall include items such as: vertical separations of greater than one half inch between slabs, missing joint caulking,

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joint caulking extruding from the walking surface, surfaces requiring patching or crack repair, and areas needing replacement to preclude a trip hazard for pedestrians. All facility component defects identified shall have an appropriate repair work order generated.

b. All defects shall be identified in a report, including work order numbers for component repairs, and that includes a prioritized list along with accurate identification of the discrepancy locations on the sidewalk annual plan drawings.

c. The data contained in the inspection report shall be incorporated into the FCA Database within four weeks of report submittal.

NOTE: There is a total of 573,600 square feet of sidewalks.

ii.6	FCA Inspection – Fences	Each	The Contractor shall develop an annual inspection schedule, visually inspect all ***JSC** fences and produce an accurate prioritized inspection report that is provided to the Government. This report shall identify all maintenance elements and repairs required to preserve the integrity of the fence systems and provide for site security. a. The Contractor shall perform comprehensive visual inspection of all fences. Key inspection items shall include: washouts under fence fabric or around support posts, loose or damaged chain link fabric, and rusted or deteriorated components. This inspection shall include ease of operation and functionality of perimeter security gates. All facility component defects shall have an appropriate repair work order generated. b. All defects shall be identified in a report, including work order numbers for component repairs, and that includes a prioritized list along with accurately identifying the discrepancy locations on the fence plan drawing. Inspections shall be performed c. The data contained in the inspection report shall be incorporated into the FCA Database within four weeks of report submittal. NOTE: Fencing is located for security purposes around the perimeter of the ***JSC** Site and around some internal secure areas. There is a total of 86,200 linear feet of fences.
ii.7	FCA Inspection - Sanitary Sewer System	Each	The Contractor shall develop an annual inspection schedule, visually inspect all *JSC sanitary sewer manholes, perform television inspection of the trunk lines and produce an accurate prioritized inspection report that is provided to the Government. This report shall identify all maintenance elements and repairs required to ensure that the sanitary sewer system maintains continuous operation, and system is free from degradation, obstructions, and infiltration. a. Manholes/Lift Stations –The Contractor shall perform a comprehensive visual inspection of all sanitary sewer manholes and lift stations. Key inspection items shall include: leaks, loose mortar or bricks, evidence of sand infiltration, and any slip liner deficiencies. All facility component defects shall have an appropriate repair work order generated. NOTE: The total number of manholes is 246. b. Trunk lines – The Contractor shall perform nondestructive inspection of one fifth of the underground gravity trunk lines using television inspection. Building laterals are not included in the television inspection. All facility

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			component defects shall have an appropriate repair work order generated. All defects from the television inspection and visual manhole inspection shall be identified in one inspection report that includes a prioritized list along with accompanying accurately annotated drawings of discrepancies in the entire system. All of the component repairs shall also be included in this report along with associated work order numbers. Use the existing Sanitary Sewer Collection System numbering scheme for manhole identification. Copies of the television tapes and photographs shall also be included. Television tapes shall be in color, all manholes shown shall be labeled with the appropriate number and a counter with the linear footage shall be visible on the tape. c. The data contained in the inspection report shall be incorporated into the FCA Database within four weeks. NOTE: Trunk lines and building laterals total 104,700 linear feet.
ii.8	FCA Inspection - Storm Water Collection System	Each	The Contractor shall develop an annual inspection schedule, visually inspect all *JSC storm water collection system components, and produce a prioritized inspection report that is provided to the Government. This report shall identify all maintenance items and repairs required to ensure continuous conveyance of storm water from collection points onsite to the property lines. a. Perform comprehensive visual inspections of entire storm water collection systems. Key inspection items shall include: extraneous vegetation, debris or accumulated silt on any portion of the system (including requirements for periodic drag lining of earthen drainage ditches to maintain capacity), ponding areas requiring the construction of swales, culverts that need straightening or cleaning, area inlets obstructed by debris on top or inside, localized sink holes around any storm water collection system or structure, collapsed buried piping, deteriorated manholes or inlets, eroded earthen embankments, and cracks or joints in concrete drainage structures that need to be repaired or sealed. All facility component defects identified shall have an appropriate repair work order generated. b. All defects shall be identified in an inspection report, including work order numbers for component repairs, and that includes a prioritized list along with accompanying accurately annotated drawings of discrepancies in the entire system. Use the existing Storm Water Collection System annual plan drawings including numbering scheme for identification. c. The data contained in the inspection report shall be incorporated into the FCA Database within four weeks of report submittal. NOTE: The components of the Storm Water Collection System include: drainage inlets, manholes, concrete and metal piping, swales, ditches, concrete aprons and associated energy dissipating structures, headwalls, corrugated metal culverts including inserts and concrete box culverts. There are 177,200 LF of storm water systems.
ii.9	FCA Inspection – Facilities, Utilities, and Structures	Each	The Contractor shall develop an inspection schedule to visually inspect all ***JSC** facilities, utilities, and structure system components, and produce a prioritized facility condition inspection report. This report shall identify all maintenance items and repairs required to ensure continuous conveyance of facilities, utilities, and structures. a. The schedule shall inspect a Government identified groupings of the facilities, utilities, and structures which

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			will include 20% of these items per year. See Table 5-4 for building groupings. b. All defects shall be identified in a Facility Condition Report including work order numbers for component repairs, and that includes a prioritized list along with accompanying accurately annotated drawings of discrepancies in the entire system. c. The Contractor shall document and maintain FCA inspection results in a database within four weeks of the report submittal.
jj.1	Painting		Painting and markings shall be legible and able to perform the intended function. Painting activities shall be planned and performed to have minimal impact on traffic flow and facility users and no impact on storm water quality. Activities shall include all necessary safety warning signs and barriers as required protecting site personnel. Close coordination of these activities with the Security Contractor is necessary to assure proper traffic control.
jj.2	Crosswalk Painting	Square foot	The Contractor shall use standard reflectorized highway marking paint with sufficient non skid additive to minimize pedestrian slip potential during inclement weather. Any crosswalks with insufficient non skid as determined by pedestrian feedback from Close Calls or Contractor Customer Feedback Forms or with paint that deteriorates before one year service shall be repainted by the Contractor. As a minimum, paint shall conform to Federal Specification TT-P-1952D Paint, Traffic and Airfield Marking, Waterborne.
jj.3	Street and Parking Lot Markings	Linear foot	The Contractor shall paint street markings and parking lot markings with items such as: verbiage, symbols, graphics, handicap logos, center lines, fire lanes, and safety cross hatch marks. This also includes apron markings at EF and helipad markings at *JSC. Using reflectorized standard highway paint, paint all street traffic control markings and parking lot markings. Lines shall be straight and follow existing patterns and site standards unless otherwise directed by the Government.
jj.4	Water and Gas System Appurtances	Device	The Contractor shall paint (a) fire hydrants and post indicator valves, (b) water and gas valve covers and identification markers, (c) exposed gas piping, and (d) exterior yellow protection bollards used to protect the aforementioned items. Water valve covers and associated identification markers shall be painted white. Post indicator valves shall be painted red. All exterior yellow protection bollards, gas valve covers and associated identification markers, exposed gas piping, and fire hydrants shall be painted yellow. Identification markers shall be re-stenciled with the identification number in block letters so that they are easily identified. The Contractor shall identify any water or gas valves that have missing, damaged or deteriorated identification posts.
jj.5	Exterior and Miscellaneous Painting	Square foot	The Contractor shall perform exterior and miscellaneous painting. The Contractor shall paint to match either the existing paint or as directed by Government. This task includes the following tasks such as: surface preparation, primer, corrosion protection, paint, tools, miscellaneous materials, tarps, number of coats, security area coordination and clean up. NOTE: The areas to be painted may include walls, doors, stairwells, trim, canopies, buildings, conex boxes, wooden railings, etc.

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jj.6	Security Bollards and Staples Painting	Bollard/ Staple	The Contractor shall perform painting of all security (a) bollards, and (b) staples including bollard chains. Surface preparation as required prior to painting of surfaces. The Contractor must match to existing color and use epoxy paint.
kk.1	Traffic Control, Warning and Hazard Signs		Traffic control, warning, and hazard signs include the following type signs: informational, traffic, pedestrian, security, hazard, health, handicap, and safety.
kk.2	Reserved Parking Space Designations (Stenciled)	Each	The Contractor shall re-stencil reserved parking space designations. This effort shall be closely coordinated with the Security Contractor for blocking off adequate space for work access and to assure proper labeling of spaces
kk.3	Reserved Parking Space Designations (Reattach Metal Name Plates)	Each	Where reserved parking spaces have metal nameplate holders permanently attached to the concrete curbs, the Contractor shall securely re-attach the existing metal nameplate as needed.
kk.4	Reserved Parking Space Designations (Replace or Provide New Metal Name Plates)	Each	Where reserved parking spaces need metal nameplate holders permanently attached to the concrete curbs, the Contractor shall replace damaged or missing metal nameplate holders, or provide new permanently mounted metal nameplate holders for reserved parking spaces.
kk.5	Re-secure Loose Existing Traffic Signs	Each	The Contractor shall securely refasten loose traffic control signs.
kk.6	Replace Traffic Control Signs	Each	New traffic control signs shall be installed in Government designated locations. The Contractor shall remove old signs from existing posts and install new signs that are Manual of Uniform Traffic Control Devices (MUTCD), compliant highly reflectorized standard highway department type (or appropriate standard for the category supplied such as diamond grade) and they shall be securely fastened to the existing mounting location.
kk.7	Provide New Traffic Control Signs and Mounting Posts	Each	The Contractor shall install new traffic control signs with posts. New traffic control signs, including mounting posts, shall be installed in designated locations. Signs shall be highly reflectorized standard highway department type and shall be securely fastened to the posts. Signposts shall be standard size for the attached sign and set in concrete.
kk.8	Permanently Mounted Road Surface Markers	Each	The Contractor shall maintain the permanently mounted road surface reflectorized buttons and ceramic markers to support their intended functions. Missing or broken markers shall be replaced within 30 ***Workdays** from the day reported or found.
kk.9	Interior and Exterior Warning and Hazard Signs	Each	The Contractor shall replace interior and exterior warning and hazard signs. Primary locations are physical plants, electrical substations and areas of buildings with mechanical and electrical equipment. Following safety signage standards, the signs shall be securely fastened in the appropriate locations. The sign size and material shall be specified by the Government.
ll.	PEAF Panel Rehabilitation	100 square foot	The Contractor shall perform exterior PEAF panel rehabilitation. This task includes the following types of work: pressure wash exterior to a clean uniform surface, utilize approved cleaning agents, coat loggia ledge gravel stops, patch as required, seal surface, remove and replace all backer rod and caulk in joints, rigging, and clean up area. Close coordination of these activities with the Security and Environmental Contractor is necessary.

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mm.	Nitrogen Delivery	Delivery	The Contractor shall deliver liquefied nitrogen and recharge tube trailers within 4 hours of request and gaseous nitrogen within 8 hours of request. Coordinate deliveries with appropriate Facility Managers. Keep a log of location and quantity of deliveries, delivery of nitrogen to tanks/dewars, and recharging gaseous Nitrogen Tube Trailers. Nitrogen pre-priced amounts are outlined in Section B. NOTE: The average delivery is approximately 1,500 gallons. Tanks range from approximately 600 to 1600 gallons in size.

Table 5-4
FCA Building Grouping

CY 1, 6	7	14	15	18	38	40	90	102	103	204	207	210	211	228	229	241	250	260	261	263	267
	420	E266	E273	E276	E277	E278	E380	E990	E991	E992	E993	E994									
CY 2, 7	301	302	304	305	320	321	322	323	324	325	326	327	328	329	330	332	333	334	335	336	337
	338	339	340	341	342	343	348	349	350	351	352	353	354	355	356	357	358	920	924	925	
CY 3, 8	1	2	3	8	9	10	11	12	45	46	59	105	110	111	269	319	359	361	380	381	382
	383	384	412	413	415	416	417	418	419	420	421	422	423	424	425						
CY 4, 9	16	17	24	25	28	30	31	32	34	35	37	39	41	42	43	44	48	49	50	56	57
	221	223	259	T584	T585	T586	T587	T588	T589	Tunnel	27										
CY 5, 10	4	5	29	33	36	220	222	225	226	227	230	231	232	262	264	265	266	268	269	E135	E136
	E137	E138	E139	E140	E142	E150	E151	E245	E247	E248	E260	E261	E263	E263	E265	E267	E270	E271	E272	E279	

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6 INFORMATION TECHNOLOGY

6.1 General information

6.1.1 Annex Description

This Annex identifies the Information Technology (IT) Support Services that cannot be identified with a single Annex or may be related to the performance of services throughout this Contract. Even though this Annex contains certain guidelines, the Contractor has the responsibility to establish a management program that is effective, innovative, and uses to full advantage the facilities and equipment provided by the Government.

6.1.2 Information Technology Systems

The Contractor shall use the existing Government provided CMMS and the SPICE ***WAD** Tracking System. Other than these two aforementioned systems, the Contractor shall, at their discretion, determine whether to utilize other Government provided systems (i.e. software and hardware) or to initiate new systems for the purpose of increasing efficiency and to meet Contract requirements. However, the new systems must parallel and act in the same manner as the Government provided systems. If the Contractor proposes to deviate from the existing systems, including workstations (CLIN 6.1.5), all proposals shall be submitted in writing, through the Contract CO, for approval prior to purchase or implementation.

If the Contractor elects to provide a new system rather than use the existing Government system, the new system will become the property of the Government. However, if the system software/hardware is leased, it shall be the responsibility of the Contractor to prepay the lease, including technical support, for one year after the end of this Contract. The Government shall have administrative access rights to all Contractor operated systems except for the Contractor's payroll and personnel systems. See **TABLE 6-3**Operational Software Listing Part 1.

6.1.3 Special Rights for Licensed Software

In the event the Contractor uses licensed software, the Contractor shall obtain a prepaid license, including technical support, for Government use, for 1 year beyond the end of the Contract.

6.1.4 Hardware Configuration

General: The IT System consists of:

a. Installation provided hardware.

b. A computer room with 24 hour cooling is included as part of the space provided to the Contractor.

c. A ***JSC** Institutional Network System (INS) linking all onsite computer systems via Ethernet with 1G Base-T cabling, site PC's have 100 base cards.

d. Installation provided off-the-shelf programming software (some Contractor maintained and/or upgraded).

e. Installation provided systems, which include programs, databases, online systems and report generating programs (some Contractor maintained and/or upgraded).

f. Contractor provided systems.

g. IT hardware.

h. Installation operated Web Based Applications.

These installation-provided systems are integrated with and necessary for the performance of the overall Contract. See Table 6-3, for a listing of off-the-shelf programming software and systems. The Government does not warrant that the equipment, as currently configured, is optimal for the needs of this Contract. The Contractor may modify the configuration of this equipment to meet the needs of this Contract except for the workstations in CLIN 6.1.5.

6.1.5 Government Provided Computer Services

The Government will provide computer services up to 141 seats (workstations) including monitors, keyboards, compact disc (CD) ROM, mice, and network cards. These services are equivalent to those provided for Civil Servants. The service provides for workstations to be refreshed on a 3 year cycle, loaded with a recent version of a Windows based operating system and a standard version of Microsoft Office, antivirus software, and various viewers. The Contractor shall provide any miscellaneous hardware over and above what is provided with a standard seat. The Contractor shall provide any workstations required above the quantity listed above.

NOTE: The Government will provide the network connection for each Contractor PC.

NOTE: The Government provided workstations will come with software indicated above and 6.1.7 Standard Software Installation/Usage. The Contractor shall be responsible for loading this Government provided software or Contractor provided software on Contractor user workstations.

6.1.6 Workstation Hardware and Software Audits/Push, Pull or Automatic Updates of Software

a. The Government uses an automated electronic equipment auditing system of all computer workstations (hardware and software) connected to the network. The Contractor will be provided access to the data for their computer workstations.

b. The Government also uses an automated process to push, pull, or do automatic upgrades to workstations (Security Management System (SMS) Client). For example, the Government does automatic periodic upgrades of the virus definitions. The Contractor shall expeditiously accommodate these upgrades and audits.

c. A continuous improvement (CI) Benchmark program will periodically run on all Government and Contractor workstations that limits (locks down) some capabilities of the workstation. This program does register changes on the workstation to reduce the IT risk to the Center Infrastructure.

d. Workstations powered on are automatically shut down each Saturday morning. This is to allow workstations to have software patched when users logon to the network.

6.1.7 Standard Software Installation/Usage

The Contractor shall use software that is compatible with the Center standard (type and version) to permit the flow of information back and forth with other COD elements with minimal impact. Use a software load on the computer workstations that is compatible with the software used by other COD elements.

NOTE: Each of the existing user computer workstations is configured with the Center standard software, including a recent version of Microsoft Windows XP with access to the server based administrative applications (Microsoft Office, Web Browsers, and the Center Electronic Mail System). The Government will provide an email account for each Government provided workstation that can be used by Contractor personnel.

NOTE: It is illegal to pirate software. Contractor personnel shall not use the Government Internet system for non-Government related business or personal use.

6.1.8 Network Connections

The Government will provide the network interface for all Government provided and Contractor provided workstations, with one exception. The exception is that no workstations with modems shall be connected to the Center network.

6.1.9 Server Based Storage

6.1.9.1 Server Based Storage for General Use Applications

Government supplied space will be provided for server based general use applications and databases. The Government will perform administrative functions for these servers. Reasonable amounts of storage will be provided to the Contractor.

6.1.9.2 Server Based Storage for General Web Applications

Space will be provided on Government servers for server based web applications and databases. The Contractor is required to follow policy guidelines including: NIST 800-37; NPD 2810.1C NASA Information Security Policy; NPR 2810.1 – Security of Information Technology, Johnson Space Center Policy Directive (JPD) 2800 1A - *JSC IT Program, JPD 2800.4 - IT Program Management, Johnson Space Center Procedures and Guidelines (JPG) 2800.3 - *JSC IT Product Implementation Guidelines, Requirements, and Standards; and JPG 2810.1B – *JSC IT Security Handbook. The Government will perform server administrative functions for these servers. The Contractor shall be responsible for all of the data/data input. Storage will be provided to the Contractor (reasonable sizes).

6.1.9.3 Maintenance (Clean Up And Removal Of Old Files)/Usage

The Contractor shall cooperate with the Government to remove/archive old files from Government supplied space that are needed only for historical reasons. The intent is to provide reasonable storage, and yet be able to enforce reasonable storage housekeeping rules. Server space is provided to accommodate necessary Contractor operations; however, the server storage shall only to be used for current needs.

6.1.10 Printer Support

General use networked black and white laser/impact printers will be made available to the Contractor. These printers will be maintained and replaced with current Center standard equipment by the Government as the printers become obsolete. The requirement for providing networked printers does not include any buildings/locations where the total number of users in the area (building floor) is 5 or less. For areas (building floors) with 5 or less users, it shall be the Contractor's responsibility to provide local direct connect or local shared printers.

Any additional printers shall be the responsibility of the Contractor. The Contractor shall be responsible for all CMMS networked impact printers/special use (personnel, payroll, etc. where privacy concerns might preclude the use of network printers by other users).

The Contractor shall provide all printer consumables (toner, inkjet ink, ribbons, paper, etc.). The consumables shall be compatible with the printers.

6.1.11 Data Integrity

The Contractor shall design and maintain databases to have data field integrity. This requires that the field used shall be the right type (i.e. numbers for number fields, dates for date fields, etc.). Text fields shall not be used for fields that should be another type to maintain data integrity.

The Contractor shall ensure all data entered into the system is appropriate, accurate, and current. The database shall be configured to use predetermined values. Data restriction parameters include: end dates that occur before start dates, input values outside maximum or minimum margins, wrong data types, leaving required fields blank, nonsensical/garbled input (i.e. hju$!jdl4fjg), etc. In Maximo, the Contractor shall provide, at a minimum, data as indicated in Table 6-1, CMMS Specified Field Definitions. Original work order numbers must remain open until all work is completed. Any closed work order found not to be completed must be reopened and re-worked utilizing the original work order number. Re-work, phased work or follow-on work shall be considered Child work orders and shall not be opened under a different work order number. The Contractor shall clearly establish Work Order Parent/Child relationships. The Child Work Order is described as the original Parent Work Order Number with an alphabet at the end to cover the various parts or stages of work (i.e. study, Memorandum of Understanding, design, estimating, construction, re-work, etc.). For example, if the Parent Work Order Number is 496485, then Child Work Order Numbers could be 496485A, 496485B, 496485C, etc.

The Contractor shall incorporate quality processes to identify errors. All errors, whether found by the Contractor or the Government, shall be corrected by the Contractor and reported in the Monthly Data Exception Reports.

The Contractor shall produce the Monthly Data Exception Reports covering all databases that the Contractor shall be responsible for, especially in the CMMS (Maximo). This report shall provide evidence of data and field validation by sampling 3-5 percent of ALL database field entries (representative of each table) that occurred within each month, reporting data abnormalities/anomalies such as misapplied data or blanks in required fields and resultant corrections. Reports shall be posted electronically to the Store Front no later than the 10th of each month for the previous month.

6.1.12 Building Number Standard

Maintain building data integrity in all databases by using a standard method to reference buildings. The Contractor must use the building numbers as specified by the Government.

Buildings shall be related in the database(s) structure using a 7 character fixed length designation. Examples are as follow:

J*001**

J*009NW

JT585**

E*990**

S*920L*

NOTE: The first character represents the site "J" for Johnson Space Center, "E" for Ellington Field, and "S" for the Sonny Carter Training Facility at Ellington Field. The second character represents the building prefix with "T" for Temporary and an "*" for "No Prefix". Characters 3, 4, and 5 are the building number with leading zeros to pad the data. The last two characters are the suffix with "**" as "no suffix" for the character spacing and either on suffix followed by an "*" or a two letter suffix. It is intended that the users will see the generic number for a building (example 1, 2, 3, 4S, 11, 30S).

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
6.2	Government Furnished IT Applications Support			
	Provide IT Support for the Government Furnished IT Systems	Provide IT support for the Government furnished systems described in Table 6-3 Operational Software Listing. Ensure that data entered into the systems are appropriate, accurate, and current. Call the Information Systems Directorate (ISD) help desk when there is a system access problem. Advise the ***COTR** if there are repeated breakdowns or the system has an unscheduled outage of more than 4 hours.	365 ***Days**	Agency wide applications are used exclusively.
6.3	CMMS	Reference Table 6-1 for the CMMS Specified Field Definitions		
6.3.1	Provide IT Support for the CMMS Accurately Track and Document all Contract Work	Provide IT support for the CMMS system. Provide IT assistance to the CMMS administrator. Maintain, control and protect "key" data/information to ensure the integrity of the CMMS program. This data shall include: master equipment inventory, preventive and predictive data, task, the work element codes, criticality code, the schedule dates, start dates, completed dates, ***Total Cost**, ***Bare Cost,** maintenance, and other current data in fields of the database. Write reports, query the databases, perform quality checks, and trouble shoot database problems. All standard Maximo reports shall be available real time for Government access. The Government shall have access to all fields in the CMMS and be able to generate their own reports (Crystal reports) when desired. Provide routine IT support and training to Government employees that need to use the CMMS data. Maintain a set of user manuals (and/or equivalent online help) in the Facility Engineering Library (***FEL**). Provide software utilities to permit the Government to export data to Excel, Access, CSV, TSV, etc. Using the CMMS program, provide ***Daily (D7)** reports in electronic web based format for work schedules, including scheduled maintenance, repair, construction, and outages. Upon breakdowns, work with the Systems Administrator to fix the problem and advise the ***COTR** of all scheduled actions to bring the system back online.	365 ***Days**	CMMS is fully functional and data is accurate. Training for Government employees is available when requested. CMMS accessibility to Contractor operated systems. Backups are performed daily.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
6.3.2	Maintain the CMMS Database Ensure the CMMS Program Remains Accurate and Up-to-Date	Identify report and incorporate changes, errors, deficiencies, or recommended improvement to the CMMS program to ensure the program remains accurate and up-to-date. This includes providing programming support on a continual basis to "troubleshoot," correct minor programming bugs, etc. NOTE: To encourage improvement and effectiveness, the Contractor's work force shall be encouraged to identify improvements or changes to the CMMS program. As a minimum, this includes work that is reasonably visible to any Contractor personnel performing any related service. Evaluate proposed changes identified by the ***COTR**. Perform actions necessary to identify change, research (including field verification to validate the information), develop associated maintenance documentation (e.g., annual maintenance plans and schedule, PM and PT&I maintenance work description for each task, critical spares data, etc.) and to submit to the ***COTR** for consideration and approval. Submit proposed changes in electronic format. NOTE: Contractor proposed recommendations will be subject to Government approved format and shall include proposed maintenance documentation changes. No changes shall be made to the CMMS system without the Government's System Administrator's prior approval. The Government reserves the right to make changes to the CMMS system or configuration at any time. Keep change documentation current and submit changes to the ***COTR** within 14 ***Days** of: a) completion of work performed under the terms of this Contract, b) notification of change; or c) first observation of change, whichever is first; and d) ensure changes include all backup or supporting documentation.	365 ***Days**	Program changes submitted within 14 ***Days**. CMMS program available continuously.
		Provide, implement, and maintain the necessary process analysis, data gathering, and reporting software to meet Contract requirements (DRD's, reports, metrics, etc.). Provide online connectivity to the Government and integrate the data with CMMS.	Method of performance to be determined by the Contractor	CMMS data accessible to Government at all times.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
6.3.3	Maintain History Files Maintain History Files to Reflect All Contract Services	Maintain history files. History files include: FCA, MA, PT&I, PM, and repair, databases, records, and logs. Assume management of existing online history files from the preceding Contractors and create and incorporate new history files. Continue maintaining files and data fields for all services provided under the terms of this Contract; e.g., maintenance and repair actions, construction and alteration projects, inspection results, PT&I data, PT&I baselines, PT&I trends, equipment condition, MA, accomplished PM, etc. Ensure and maintain a filing/maintenance system that provides quick and easy access to existing files. All previous data must be incorporated and accessible. Maintain online access to files, ensure that hard copies are easily obtainable with no loss of pertinent data. Submit improvement recommendations to the ***COTR** for approval.	365 ***Days**	Files are recorded, accurate, and current. Files are complete, centrally located, and readily available for review or obtained via hard copy at all times.
6.3.4	Personal Data Assistants (PDA's) for CMMS Field Support	The Government will furnish and administer the wireless Mobile Maximo PDA system. This system currently consists of 30 wireless handheld PDA's with barcode scanner capability and the related software. The Contractor's craftsmen shall utilize these PDA's in the field to receive work orders and input information into the Government owned CMMS (Maximo). The Contractor shall maintain the handheld units according to the manufacturer's recommendations and specifications. The Government may increase or decrease the number of Government provided PDA's, and make software configuration changes, and version updates at its discretion. The Contractor shall assist the Government's CMMS System Administrator in maintaining and updating the Mobile Maximo software.		

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
6.4	EMCS Support			
	EMCS Database Support	Provide IT support to manage the EMCS databases that support day-to-day operations of the EMCS system (excludes hardware such as Remote Terminal Unit (RTU's), Metasys hubs, Woodward Smart 3000, etc.). The Contractor shall maintain existing Microsoft Access and Excel data status files. The Contractor will monitor the day to day operations on the Excel 5000. NOTE: The EMCS is primarily a real time system that is used for control of facilities (HVAC, boilers, chillers, power, etc.) and is partially the responsibility of the Contractor, the Honeywell Contractor and other Contractors. For the sake of clarity, the operations support for this system is primarily covered in the EMCS Operations section of the Contract Annex 3, (Also see Table 6-3 *Operational Software Listing). Honeywell is responsible for the software and hardware from the Excel 5000 to the EBi servers in Building 24. Honeywell's software responsibility includes programming, upgrades and maintaining the archive for control loops.	365 ***Days**	IT support of day-to-day operations/database support of Contractor users is provided. Databases are formatted correctly.
6.5	System Operations/Maintenance			
		Maintain and operate IT systems while ensuring the programs are functioning properly and in the same manner as the programs provided. Maintain and protect all IT systems and maintain data integrity in all databases and other programs/systems. Upon termination of the Contract, return to the Government all current source/compiled programs, documentation, data, or similar software data, in a usable format consistent to the manner in which the Government originally provided it. Maintain installation provided systems separately from the Contractor's proprietary systems such as the Contractor's financial management, personnel and other like systems. Upon breakdowns, advise the ***COTR** of all scheduled actions to bring the system back online.	365 ***Days**	Contractor operated IT systems accessible at all times.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
6.6	Online System Access and Support			
6.6.1	Provide, Maintain, and Support Government Access to all Existing Contractor Operated Online Computer Systems	Provide, maintain, and support continuous Government online access to all Facilities Contractor operated computer systems (except payroll and personnel) including: Contract required databases, data, records, plans, metrics, schedules, and history, and to all Government provided applications and databases. Access shall be compatible with server configurations and loads such that COD users may utilize, analyze, and extract data, etc. Notify the ***COTR** in case of system failure and provide status updates to the ***COTR** every four hours. Scheduled downtime for short periods of up to 4 hours to allow for upgrades, repairs and maintenance are acceptable exceptions to "continuous" online access. Where possible, these periods should be in the evening after ***Core Hours**. NOTE: Systems with online support: See Table 6-3 **Operational Software Listing.**	365 ***Days**	Government access to any required data in any system or database is maintained. Contractor operated systems accessible at all times.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
6.6.2	Web Based Management Information System	Provide a Web Based Management Information System (Store Front) on ***JSC** web servers which display the required data as shown in Table 6-2. This Web Based Store Front shall be available to all ***JSC** employees and it shall also provide them access to the CMMS Queries. The data shall be maintained for access by the ***JSC** user community (see Table 6-2 for restricted data) and the Contractor. The webpage Store Front shall be linked into the CMMS database. The webpage Store Front shall be capable of making multiple Boolean logic queries into the CMMS database searching every field in the CMMS database pertaining to work orders. Queries may be by work order number, work authorization document (WAD) number, delivery order number, task order number, request for proposal (RFP) number, building number, room number, site (JSC campus, Ellington Field, Sonny Carter Training Facility), work type, work order stage, CLIN, annex, status, stage, equipment identification number, maintenance identification number, customer/requestor name, cost, dates [Contractor receipt date, requested completion date, target (start/completion) dates, scheduled (start/completion) dates, actual (start/completion) dates], safety close call and/or HATS number, key words in the work order title or project description, etc. The system shall be capable of making multiple queries that shall look for work order matches that contain, starts with, ends with, are equal to, are greater than, are less than, are greater than or equal to, are less than or equal to, are not equal to, or are between the inquirer's input values. The web page shall be updated to display the latest reports, plans, metrics, procedures, etc., within 3 ***Workdays**. All other data, (e.g. work orders) shall be updated as required to keep the data current and meaningful. The Contractor shall modify the Store Front links to reflect reports as requested by the Government.	365 ***Days**	Data shall be accurate, understandable and available.
		Identify report and incorporate changes, errors, deficiencies, or recommended improvement to the Store Front to ensure it remains accurate and up-to-date. This includes providing programming support on a continual basis to "troubleshoot," correct minor programming bugs, etc.	365 ***Days**	Program changes submitted within 14 ***Days**. Store Front program available continuously.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		NOTE: To encourage improvement and effectiveness, the Contractor's work force shall be encouraged to identify improvements or changes to the Store Front. Evaluate proposed changes identified by the ***COTR**. Perform actions necessary to identify the change including research, and submit to the ***COTR** for consideration and approval. Submit proposed changes in electronic format to the ***COTR**. No changes shall be made to the Store Front system without the Government's System Administrator's prior approval. The Government reserves the right to make changes to the Store Front System or configuration at any time. Keep change documentation current and submit changes to the ***COTR** within 14 ***days** of: a) completion of work performed under the terms of this Contract, b) notification of change; or c) first observation of change, whichever is first; and d) ensure changes include all backup or supporting documentation. CSC's Web Based Management Information System (store front) is provided by an integrated solution set of software called AppliedInsight. At the end of the contract, AppliedInsight shall remain fully functional on the ***JSC** web servers and NASA, shall have a license, with restricted rights as defined in Alternate III to FAR Clause 52.227-14 in Section I of this contract, for continued use of AppliedInsight.		
6.7	Facility CAD System/Space Utilization			
6.7.1	CAD Software Support	Provide support for the CAD software versions used to support the Facility CAD System. Support includes: response to questions, trouble shooting problems, installing the server application, installing the client application and assistance in printing. Provide application support within 8 hours of the request. Maintain the capability for the current and two previous CAD software versions of all CAD drawings.	200 Hours	Requested programming support provided at all times. Support provided within 8 hours of request.
6.7.2	CAD Software Licenses	Provide 2 AutoCAD licenses (latest version) and maintain 5 concurrent MicroStation user licenses (latest version) exclusively for use by the Government. NOTE: The Government will provide 23 MicroStation licenses at Contract start.	2 AutoCAD licenses	Correct number of concurrent licenses is provided.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		Upgrade existing licenses within 6 months after a new version is released. NOTE: The Contractor shall increase the number of MicroStation licenses as needed to adequately perform the CAD drafting requirements identified in Annex 5.		Upgrades are provided within 6 months of release.
6.7.3	Computer Graphics Metalife (CGM) Viewing Support/Facility Drawing Database	Maintain the databases for all facility drawings and FHP. Update the databases within 5 ***Workdays** after each drawing is updated. If the drawing being updated is needed to provide current information about a particular facility, update the database in real time. Convert any updated drawings at least once a week to CGM format and place them in a predetermined location on a designated server. NOTE: The existing conversion is presently being done with an automated process (macro) that has minimal user effort. The Contractor shall maintain an automated conversion capability.	365 ***Days**	CGM files are available within 5 ***Workdays** after update.
6.7.4	Space Utilization Management System Programming Support Data Entry Ensure Data Entry Assistance	Provide programming support for SUMS including response to questions, trouble shooting problems, and assistance in printing. Support shall be provided within 8 hours of the request. The space utilization software shall be the following: ESRI software release 9.X – ArcGIS, ArcGIS Server, SDE, and IMS Oracle Version 10.X Enterprise – Oracle Database, Oracle Application Server, Oracle HTML DB. The space utilization system also uses MicroStation as a component. Create new or modify existing reports on an as needed basis.	40 Hours	Programming support provided within 8 hours of request.
6.8	Other Applications			
6.8.1	Barcode Scanners Support and Maintenance	Provide barcode scanner capability that includes all hardware, software, and support capability. This capability shall be available and fully operational at the start of the Contract. Write the menus, maintain, and load all bar code scanners and the scanners used by the ***JSC** security forces on another Contract. Provide all maintenance for the barcode scanners, docking units, and power supplies. NOTE: The support shall be for 12 scanners. The scanners are multipurpose devices that can be used on several systems by activating a different menu.	365 ***Days** 365 ***Days**	Barcode scanner capability fully operational at start of Contract. Menu updates are available within 5 ***Workdays** of request.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
6.8.2	Oil Analysis Data	Maintain and operate the existing oil analysis data. Provide a new capability to make the oil analysis data available on the web within the first 6 months of the Contract. Data shall be updated within 7 ***Days** of data collection.	365 ***Days**	Applications are available within 6 months of Contract start. Data is accurate and timely.
6.8.3	Thermography Data	Maintain and operate the existing thermography data. Provide a new capability to make the thermography data available on the web within the first 6 months of the Contract. Data shall be updated within 7 ***Days** of data collection.	365 ***Days**	Applications are available within 6 months of Contract start. Data is accurate and timely.
6.8.4	Vibration Data	Maintain and operate the existing Vibration Data Application. Keep the software current within 6 months of the issuance of new version. Data shall be updated within 7 ***Days** of data collection. Within 6 months of the start of the Contract, provide a new capability to have a web based database that shall list the vibration data that is being accumulated. Additionally, link all equipment items to the equipment numbers in the CMMS system. Provide a user friendly interface that shall permit a CMMS user to determine if vibration data is available.	365 ***Days**	Applications are available within 6 months of Contract start. Data is accurate and timely.
6.8.5	Real Property Database	Provide programming and system support for RPAS used in Annex 1. Support shall include: responding to questions, trouble shooting problems and assistance in printing. Provide support within 2-4 hours of the request. The exact schedule for each task shall be given when the task is assigned.	40 Hours	No occurrences of failure to provide programming support when requested. Support provided within 2-4 hours of request.
6.8.6	WinEst/Means	Maintain the server-based application of WinEst and the means cost data using clients/icons on user work stations. Maintain the current copy (and one version back) of the WinEst estimating applications and current yearly and quarterly updates of Means Electronic Cost Databases. Provide 5 concurrent licenses for Government use. The Contractor's computerized estimating software shall be compatible with Microsoft Windows and WinEst Pro Plus, by WinEstimator, Inc estimating software or equal. NOTE: Presently, there are 12 licenses being used for Contractor and Civil Servant support.	40 Hours	Applications are available when server access is available. Most current version of software is available.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
6.8.7	FCA Database	Document and maintain FCA inspection results in a database. The existing data is maintained in a product leased by the present Contractor from Applied Management Engineering (AME) Inc. of Virginia Beach, VA 23452, Phone 757-498-4400 and Web page http://www.ame.net/. Update the database within four weeks of any of the following condition changes to reflect current equipment status resulting from: construction projects, changes due to repairs or replacements through maintenance, ongoing continual inspection information generated from preventive maintenance tasks and predictive testing and inspection tasks, scheduled FCA inspections as requested by the Government. The Government shall have continuous direct electronic access of the database.	365 ***Days**	Database updated within 4 weeks of any facility condition change.
6.8.8	NetDAHS Data Acquisition System	Maintain the server based application of GE NetDAHS and historical data accessible on user work stations. Maintain active Technical/Software Support Service agreement with GE Energy. Provide 5 concurrent licenses for Government use.	40 Hours	Application is available when server access is available. Most current version of the software is available.
6.8.9	Global Positioning System (GPS) devices and laptops	Provide and install Global Positioning System (GPS) devices and laptops in the crafts' vehicles. The GPS shall track the location of the work performed and time spent at each. The laptops shall be networked to the Mobile MAXIMO system to allow the crafts to receive updated work status, initiate requisitions, review catalogs for parts, manual information and detailed procedures, and complete work in conjunction with the Mobile MAXIMO handhelds.		The laptops accurately receive updated work status, initiate requisitions, review catalogs for parts, manual information and detailed procedures.
6.9	IT Security	Ensure Contractor-operated systems and data remain secure at all times. Backup daily all applications and data stored on Government furnished Contractor operated servers or Contractor furnished Contractor operated servers.		Systems and data is secure.
6.9.1	Computer Security Manager	Ensure Contractor operated systems and data remain secure at all times. Backup daily all applications and data stored on Government furnished Contractor operated servers or Contractor furnished Contractor operated servers.	365 ***Days**	CSM is appointed in writing. CSM experience and background commensurate with task. CSM passes background checks.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
6.10	Documentation/IT Help Support			
6.10.1	IT Help Support	Provide and maintain ***Daily (D)** IT help support capability for routine IT issues. Provide access via phone (human, voicemail, pager, electronic mail, and web page). This support shall be separate from the normal facility type support provided for site facility issues (e.g. IT help for CAD or WinEst software questions). Provide initial response to calls within 4 hours. Maintain a database that documents all issues that are not addressed within one ***Workday**. Provide access to this data to NASA IT personnel. Track outstanding issues by user, person initiating the call, date, time, resolution, date resolved, and time resolved. Put the issues on the web with Government access. Workload is 8 hours a day 5 days a week. Cooperate with and interface with the site seat Contractor for IT problems. NOTE: The site has a seat Contractor that users can call to resolve IT issues. If the issue is not the responsibility of the seat Contractor then the problem is forwarded to the responsible group. It is expected that the Contract users shall normally call the seat Contractor for issues that the seat Contractor is responsible for and the Contract users shall normally call the Contractor IT support for those systems for which the Contractor is responsible.	52 Weeks	Response is within 4 hours. Track help requests and put on web.
		Provide a continuous ***Daily (D7)** emergency IT help support capability to handle emergency IT issues. Provide access via a pager and cell phone. Provide the name of a prime and two alternate contacts to call that can address emergency IT problems. Designate a permanent prime and alternate contact that can address emergency IT security issues.	365 ***Days**	List is posted in the facility helpdesk. IT help support phone message provides correct numbers for emergencies. Prime and alternate contact has been designated in writing to COD OCSM and one is available at all times

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
6.10.2	Documentation Maintenance/Update for Major Systems Continually Update and Maintain all Computer System Documentation for all Contractor Provided and Operated Systems	Provide and maintain copies of all updated computer system documentation (i.e., enhancements, modifications and version upgrades) for major systems (CMMS, EMCS, and Scanner System). Keep all documentation in neatly bound volumes with title covers and tables of contents. Maintain a copy of all updated manuals in the ***FEL**. Validate all documentation no less than once every six months. Update documentation within two weeks of change implementation.	365 ***Days**	All documentation is current and accessible.
		Run Manuals: Ensure all system operator manuals, job flow configurations, and other flow charts are updated and validated, including batch programming manuals and instructions.	Method of performance to be determined by the Contractor	Audit shows run manuals are up to date.
		Terminal Operation Manuals: Ensure all online systems operated by both the Government and the Contractor have detailed narrative descriptions, system flow charts, menu flow charts, access codes and other pertinent user information. Provide a point of contact to answer questions in case of system problems.	Method of performance to be determined by the Contractor	Audit shows terminal operation manuals are up to date.
		Data Element Dictionary: Ensure data element dictionaries contain comprehensive listings by data of all fields including field name, length, character type, etc. Provide revisions to all documentation when changes occur.	Method of performance to be determined by the Contractor	Audit shows that data element dictionary is up to date.
		System Configurations: Provide and maintain system configuration flow charts that accurately portray all functions, links, and relationships between the different components. Hardware Configuration: Accurately reflects all terminals, connections, modem communication links, mainframe and ancillary supports, and other supplementary items. Databases and Program Configuration: Provide a relational diagram and associated documentation that explains the relationships between the programs, databases, and other components.	Method of performance to be determined by the Contractor	All system configurations are accurate and current with a complete audit trail of all changes/updates.
		Program Listings: Provide a hard copy of source programs. Provide revisions to all programs when changes occur.	Method of performance to be determined by the Contractor	All source programs are current and accessible.

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		Programmer Manuals: Ensure all programmer maintenance manuals provide detailed information about the original program requirement, flow chart of program development, hard copy of source programs, etc. NOTE: These manuals are developed for the purpose of aiding future programmers in the organization and philosophy of the existing program.	Method of performance to be determined by the Contractor	Manuals are maintained and updated as changes occur.
6.10.3	Documentation, Minor Systems	Maintain a folder, or other data as appropriate on the minor applications (i.e., applications other than CMMS, EMCS, and Scanner System) that are supported by the IT group. Maintain a database that lists each supported application, the owner, organization, number of users, description, support method, how to get access, server where application is stored, etc.	365 ***Days**	Database of supported applications are available to the COD IT personnel via read only access to the database or a web page.
6.10.4	Documentation, Minor Applications	Perform a yearly survey to list the minor applications that are being used by the Contractor (i.e. these are applications that are not normally supported by the IT group) to ascertain whether the data in the applications is being properly protected and location of data. Requirement is to list user, owner, description, type (Access2003, Excel 2003, etc.).	1 Survey	List is available to COD IT Personnel.
6.10.5	**Computer System Administrator Certification**	Achieve and maintain current certifications for all individuals who perform tasks on Facilities Contract IT systems as a system administrator or have authority to perform tasks normally performed by the system administrator. This certification, referred to as the NASA System Administrator Security Certification, is a Government-funded assessment to verify that system administrators are able to demonstrate knowledge in: 1. System administration for the operating systems for which they have responsibility. 2. The understanding and application of Network and Internet Security. **A system administrator responsible for multiple operating systems must be certified in each system.**	365 Days	

ITEM NO.	CLIN TITLE/OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		A system administrator is one who provides IT services, network services, files storage, web services, etc. to someone else other than themselves and takes or assumes the responsibility for the security and administrative controls of that service or machine. A lead system administrator has responsibility for information technology security (ITS) for multiple computers or network devises represented within a system; ensuring all devices assigned to them are kept in a secure configuration (patched/mitigated); and ensuring that all other system administrators under their lead understand and perform IT security duties. NOTE - An individual that has full access or arbitrative rights on a system or machine that is only servicing themselves does not constitute a "system administrator" since they are only providing or accepting responsibility for their system. An individual that only services themselves is not required to obtain a system administrator certification."		

Table: EQUIPMENT

FIELD NAME	CURRENT TYPE	CURRENT FIELD LENGTH	COMMENTS
ASSETNUM	ALN	15	Equipment Asset Number/View name MODELNUM (ASSETNUM) General group from manufacture
AVGMETERUNIT	DECIMAL	15	Average Meter Units Per ***Day**
AVGMETERUNIT2	DECIMAL	15	METER 2 AVERAGE
BINNUM	ALN	8	Bin Number (Rotable Equipment).
BUDGETCOST	AMOUNT	10	Budgeted Cost Of Work For The Year
CALNUM	UPPER	8	Calendar Code
CHANGEBY	UPPER	18	Last Modified By
CHANGEDATE	DATETIME	10	Last Modified Date
CHILDREN	YORN	1	Has children
CLASSIFICATION	ALN	10	Equipment Class (Table Name-List Name)
CLASSSTRUCTUREID	UPPER	20	Class Structure Identifier
DESCRIPTION	ALN	50	Equipment Short Description (One Line)/View name DESCRIPTION Air Handler, Chiller, etc. Consistent with the noun descriptor first and the primary pertinent information following a comma and if needed secondary pertinent information following a comma. (Air Handler, PTOA) (Tank, Hot Water, Gas)
DISABLED	YORN	1	Is this record active
EQ1	ALN	20	Facility ID or Equipment ID (same thing)/View name EQUIPMENTID Smart number used for quick identification and recognition of equipment. Assigned by design engineering. Contains three codes. First code indicates the type of equipment. The second code represents the building the equipment is in
EQ10	ALN	10	Jurisdiction/View name JURISDICTION Used to indicate past Union and Non-Union work jurisdiction set by precedence. One of 3 values: GP, IAM, SCA
EQ11	ALN	10	Equipment Organization
EQ12	AMOUNT	10	Equipment Extra Field #12
EQ13	ALN	10	Equipment Extra Field #13
EQ14	ALN	10	Equipment Extra Field #14
EQ15	DECIMAL	19	PKGFTR/Limit of Financial Liability for Repairs. Multiplied by $5000.00 per factor
EQ16	DATETIME	10	Purchase Date/View name PURCHDATE Original Purchase date
EQ17	ALN	10	Operating Status/View name OPERATING STATUS Used when the INSERVICE field has a N for equipment being in service. Examples: OOSMR – Out of Service Major Repair, OOSMB – Mothballed, OOSOB – Obsolete to be excessed, OOSEC – Energy Conservation
EQ18	UPPER	5	Collateral/View name COLLATERAL (N or C) Collateral or Non-Collateral
EQ19	DATETIME	10	Equipment Extra Field #19
EQ2	ALN	30	Model Number
EQ20	DECIMAL	15	Equipment Extra Field #20
EQ21	ALN	10	Equipment Extra Field #21

EQ22	YORN	1	Equipment Extra Field #22
EQ23	DATETIME	10	Equipment Extra Field #23
EQ24	DECIMAL	15	Equipment Extra Field #24
EQ3	ALN	15	System/View name SYSTEM Contract labeled system, Codes used are identified in Section J, Attachment N, Exhibit N-1 Table 1.0. This code allows running of metrics report to assess availability/reliability of contact systems
EQ4	ALN	10	EQ Type/View name EQTYPE Alpha legend that indicates the equipment being described. Examples: (CHP – Chilled Water Pump, AHU – Air Handler Unit, HWG, Hot Water Generator) , allows grouping of similar items to run metrics for group failure analysis
EQ5	ALN	50	Facility ID Description
EQ6	ALN	10	System Type/View name SYSTEMTYPECODE M Mechanical, E-Electrical, X-Environmental, O-Other, UE-User Equipment etc
EQ7	ALN	15	Extra Equipment Location Information
EQ8	ALN	10	Mission Critical
EQ9	ALN	10	Safety Notes/View name SAFETY (Y or N) If Y then equipment is a safety critical item (e.g. elevator, man rated crane)
EXTERNALREFID	ALN	10	External Reference ID
FAILURECODE	UPPER	8	Indicates Top Level Failure Hierarchy
GLACCOUNT	ALN	15	GL Account Code for the Equipment/View name GLACCOUNT Contractor Defined
IMPORTDELTAMETER1	YORN	1	Is the imported meter reading a delta? No indicates an absolute value
IMPORTDELTAMETER2	YORN	1	Is the imported meter reading a delta? No indicates an absolute value
INHERITMETER1CHANG	YORN	1	Should meter1 be changed by the amount that its parent equipment's meter1 was changed by? If YES - and parent increased by 100 - then this equipment's meter1 is increased by 100. If NO - do not update meter1 when the parent equipment's meter1 is updated
INHERITMETER2CHANG	YORN	1	Should meter2 be changed by the amount that its parent equipment's meter2 was changed by? If Yes - and parent increased by 100 - then this equipment's meter1 is increased by 100. If NO - do not update meter2 when the parent equipment's meter2 is updated
INSTALLDATE	DATE	4	Installation Date/View name INSTALLDATE Building Occupancy Date
INVCOST	AMOUNT	10	Cost on WO or PO Line items flagged as CHARGESTORE
ISRUNNING	YORN	1	Equipment Status (Running-Not Running)/View name ISRUNNING (Y or N) If N then operating status (OPERATINGSTATUS) should be used to indicate why
ITEMNUM	UPPER	30	Inventory Item Number
LDKEY	INTEGER	4	Long Description Key
LOCATION	UPPER	15	Equipment Location/View name LOCATION Alpha numeric to indicate building as follows: S*924** or JT585**. The * is used as a placeholder to allow proper sorting. Includes physical location, Room, Floor, O/S
MANUFACTURER	UPPER	20	Manufacturer/View name MANUFACTURER Manufacturers name
METER1WEIGHTPRCNT	DECIMAL	5	The weight of the meter1 reading when calculating the Avg.Units/***Day** value
METER2WEIGHTPRCNT	DECIMAL	5	The weight of the meter2 reading when calculating the Avg.Units/***Day** value
METERLABEL1	ALN	10	METER 1 LABEL

CMMS SPECIFIED FIELD DEFINITIONS
TABLE 6-1
Reference CLIN 6.3

METERLABEL2	ALN	10	METER 2 LABEL
METERREADING	DECIMAL	15	Service Hours-Mileage
METERREADING2	DECIMAL	15	METER 2 READING
METERUNIT1	ALN	10	METER 1 UNITS
METERUNIT2	ALN	10	METER 2 UNITS
ORGID	UPPER	8	Organization Identifier
OWNERSYSID	ALN	10	Owner System ID
PARENT	UPPER	15	Parent Equipment Number
PRIORITY	INTEGER	4	Equipment Priority - copied to Work Order when entered
PURCHASEPRICE	AMOUNT	10	Purchase Price/View name PURCHASEPRICE Original purchase cost If available
READINGDATE	DATETIME	10	Last Usage Reported Date
READINGDATE2	DATETIME	10	Date of meter reading 2
REPLACECOST	AMOUNT	10	Replacement Cost
ROLLOVER1	DECIMAL	15	Point at which meter 1 returns to 0. This is the maximum number that the meter can accommodate
ROLLOVER2	DECIMAL	15	Point at which meter 2 returns to 0. This is the maximum number that the meter can accommodate
ROTSUSPACCT	ALN	15	Rotating Repairs Suspense Account
SERIALNUM	UPPER	30	Equipment Serial Number/View name SERIALNUM Unique ID code from manufacture
SITEID	UPPER	8	Site Identifier/View name SITEID ELL (Ellington Field), JSC (Johnson Space Center), SCTF (Sonny Carter Training Facility)
SOURCESYSID	ALN	10	Source System ID
STATUSDATE	DATETIME	10	Equipment Status Date
TOTALCOST	AMOUNT	10	Total Cost
TOTDOWNTIME	DURATION	8	Total Downtime
TOTUNCHARGEDCOST	AMOUNT	10	Uncharged Cost Total
UNCHARGEDCOST	AMOUNT	10	Uncharged Cost
VENDOR	UPPER	20	Manufacturer-Vendor Code
WARRANTYEXPDATE	DATE	4	Warranty Expiration Date/View name WARRANTYDATE Typically One year past Building Occupancy date
YTDCOST	AMOUNT	10	Year To Date Cost

Table: JOB PLAN

CALENDAR	UPPER	8	Calendar to determine shift work is to be done on
CREWID	ALN	8	View name CREW ID for a given crew within a craft
DESCRIPTION	ALN	254	One Line Short Description Of Job Plan
DOWNTIME	YORN	1	Does the Equipment have to be down for this Work Order Y or N
INTERRUPTABLE	YORN	1	Is this WO allowed to be stopped and restarted during resource scheduling
JP1	ALN	10	Job Plan Extra Field 1
JP10	DATETIME	10	Extra Field
JP11	ALN	10	Extra Field - Crossover Field from WORKORDER.WOJP6
JP12	ALN	10	Extra Field - Crossover Field from WORKORDER.WOJP7
JP13	ALN	10	Extra Field - Crossover Field from WORKORDER.WOJP8
JP14	AMOUNT	10	Extra Field - Crossover Field from WORKORDER.WOJP9
JP15	DATETIME	10	Extra Field - Crossover Field from WORKORDER.WOJP10
JP16	ALN	10	Job Plan Specific Extra Field #16
JP17	ALN	10	Job Plan Specific Extra Field #17
JP18	ALN	10	Job Plan Specific Extra Field #18
JP19	ALN	10	Job Plan Specific Extra Field #19
JP2	ALN	10	Job Plan Extra Field 2
JP20	ALN	10	Job Plan Specific Extra Field #20
JP21	ALN	10	Job Plan Specific Extra Field #21
JP22	ALN	10	Job Plan Specific Extra Field #22
JP23	AMOUNT	10	Job Plan Specific Extra Field #23
JP24	DATETIME	10	Job Plan Specific Extra Field #24
JP25	DECIMAL	15	Job Plan Specific Extra Field #25
JP26	DECIMAL	15	Job Plan Specific Extra Field #26
JP27	ALN	10	Job Plan Specific Extra Field #27
JP28	ALN	10	Job Plan Specific Extra Field #28
JP29	INTEGER	4	Job Plan Specific Extra Field #29
JP3	AMOUNT	10	Job Plan Extra Field 3
JP30	YORN	1	Job Plan Specific Extra Field #30
JP4	ALN	10	Job Plan Extra Field 4
JP5	INTEGER	4	Job Plan Extra Field 5
JP6	ALN	10	Extra Field
JP7	ALN	10	Extra Field
JP8	ALN	10	Extra Field
JP9	AMOUNT	10	Extra Field
JPDURATION	DURATION	8	Duration Of Job Plan In Hours/View name JPDURATION =number of workers X hours/person
JPNUM	UPPER	10	Unique Identifier For Job Plan/View name JPNUM
LABORCODE	UPPER	15	Lead Craft For The Job Plan
LDKEY	INTEGER	4	Long Description Key
ORGID	UPPER	8	Organization Identifier
PRIORITY	INTEGER	4	Priority of job (1=Emergency; 2=Urgent; 3=Routine; 4=Govt. Specified or Deferred)
SITEID	UPPER	8	Site Identifier
SUPERVISOR	UPPER	15	Supervisor of job/View name SUPERVISOR

CMMS SPECIFIED FIELD DEFINITIONS
TABLE 6-1
Reference CLIN 6.3

Table: JOBLABOR

JPNUM	UPPER	10	Reference For Job plan Table
LABORCODE	UPPER	15	Identification Number For Craft
CRAFTQTY	INTEGER	4	Quantity Of Craft For An Operation
LABORHRS	DURATION	8	Labor Hours Required For A Job Plan Operation

CMMS SPECIFIED FIELD DEFINITIONS
TABLE 6-1
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Table: PM

ADJNEXTDUE	YORN	1	Adjust the next due date after generation
APPLYMASTERPMTOEQ	YORN	1	Create equipment PM's associated with the Master P
APPLYMASTERPMTOLOC	YORN	1	Create location PM's associated with the Master PM
CALENDAR	UPPER	8	Calendar to determine shift work is to be done on
CHANGEBY	UPPER	18	Person Who Entered Modified PM
CHANGECHILDSTATUS	YORN	1	Flags whether the children of a work order should change status with it
CHANGEDATE	DATETIME	10	Date PM Last Changed
CREWID	ALN	8	ID for a given crew within a craft
DESCRIPTION	ALN	254	One Line Short Description Of PM
DOWNTIME	YORN	1	View name DOWNTIME/Does the Equipment have to be down to perform Work Order Y or N
EQNUM	UPPER	15	Unique Identifier For Equipment/View name EQNUM links to EQUIPMENT table
EXTDATE	DATE	4	If Extended Date supplied it overrides Next Due Date
FIRSTDATE	DATE	4	First Start Date
FREQUENCY	INTEGER	4	Frequency In ***Days**
FREQUNIT	UPPER	8	Frequency Units ***DAYS** WEEKS MONTHS or YEARS/View name FREQUNIT Cyclic time based code that allows the CMMS to generate this work again after each completion on the next correctly scheduled date. See Contract reference for Deferred Maintenance codes for the appropriate frequency codes
GLACCOUNT	ALN	15	GL Account/View name GLACCOUNT Contractor Defined
HASCHILDREN	YORN	1	Y if PM has children or N if it has no children PM's
INTERRUPTABLE	YORN	1	Is WO allowed to be stopped and restarted during resource scheduling
ISMASTERPM	YORN	1	Is this a Master PM
JPNUM	UPPER	10	Unique Identifier For Jobplan/View name JPNUM Unique ID for instruction assigned to perform task
JPSEQINUSE	YORN	1	Does This PM Use Jobplan Sequence
LASTCOMPDATE	DATE	4	Last Completion Date / View name LASTCOMPDATE
LASTMETERDATE	DATETIME	10	Date Of Meter Reading At Last Work Order
LASTMETERDATE2	DATETIME	10	Date of last Meter2 reading
LASTMETERREADING	DECIMAL	15	Meter Reading At Last Work Order
LASTMETERREADING2	DECIMAL	15	Meter2 reading at last Work Order
LASTSTARTDATE	DATE	4	Last Target Start Date
LDKEY	INTEGER	4	Long Description Key
LEADTIME	INTEGER	4	Defines the lead time in ***Days** required for the PM
LOCATION	UPPER	15	Location of PM
MASTERPM	UPPER	8	Identifies the Master PM to this PM
MASTERPMITEMNUM	UPPER	30	Identifies the Item used when creating PM's associated with the Master PM
METERFREQUENCY.	DECIMAL	15	Elapse Of Miles-Hours Before Generate WO
METERFREQUENCY2	DECIMAL	15	Elapse of Miles or Hours before Generate WO
NEXTDATE	DATE	4	Next WO Generation Date (***Days**)/View name NEXTDATE. Next date that a Work Order has to be created in the CMMS for this activity
ORGID	UPPER	8	Organization Identifier
OVERRIDEMASTERUPD	YORN	1	Should the Master PM be able to update this PM
PARENT	UPPER	8	PMNUM of this PM's parent
PM1	ALN	10	ASSIGNED LABOR GROUP/View name WOASSIGN MNTQUE Contractor Defined
PM10	ALN	10	PM Extra Field #10
PM11	ALN	10	PM extra field #18

PM12	ALN	10	PM extra field #19
PM13	ALN	10	PM extra field #20
PM14	AMOUNT	10	PM extra field #21
PM15	INTEGER	4	PM extra field #22
PM16	YORN	1	PM extra field #23
PM17	ALN	10	Extra field #17. Crossed over to WorkOrder.WOPM6
PM18	DECIMAL	15	Extra field #18. Crossed over to WorkOrder.WOPM7
PM2	ALN	10	NASA PM TYPE (A, W, SA)
PM3	ALN	10	PM Extra Field 3
PM4	DATETIME	10	PM Extra Field 4
PM5	DECIMAL	15	PM Extra Field 5
PM6	ALN	10	PM Extra Field #6
PM7	ALN	10	PM Extra Field #7
PM8	ALN	10	PM Extra Field #8
PM9	AMOUNT	10	PM Extra Field #9
PMCOUNTER	INTEGER	4	Number Of PM's Generated Since First Start
PMEQ1	ALN	10	Extra Field Copied From Equipment
PMEQ2	DATETIME	10	PM Extra Field #11
PMEQ3	DECIMAL	15	PM Extra Field #12
PMJP1	ALN	10	PM Extra Field #13
PMJP10	DATETIME	10	Extra Field - Crossover Field from JOBPLAN.JP15
PMJP2	ALN	10	PM Extra Field #14
PMJP3	ALN	10	PM Extra Field #15
PMJP4	AMOUNT	10	PM Extra Field #16
PMJP5	DATETIME	10	PM Extra Field #17
PMJP6	ALN	10	Extra Field - Crossover Field from JOBPLAN.JP11
PMJP7	ALN	10	Extra Field - Crossover Field from JOBPLAN.JP12
PMJP8	ALN	10	Extra Field - Crossover Field from JOBPLAN.JP13
PMJP9	AMOUNT	10	Extra Field - Crossover Field from JOBPLAN.JP14
PMNUM	UPPER	8	Unique Identifier For PM
PRIORITY	INTEGER	4	Priority Of PM WO
ROUTE	UPPER	8	Identifies the route associated with the PM
SEASONENDDAY	SMALLINT	2	Identifies the season end day of a PM
SEASONENDMONTH	UPPER	16	Identifies the season end month of a PM
SEASONSTARTDAY	SMALLINT	2	Identifies the seasonal start day of a PM
SEASONSTARTMONTH	UPPER	16	Identifies the seasonal start month of a PM
SITEID	UPPER	8	Site Identifier
STORELOC	UPPER	15	Secondary Default Store location for WP Material line items
SUPERVISOR	UPPER	15	Supervisor of job
UPDEXTDATE	YORN	1	Will Master PM Update Extended Date on PM's associated with the Master PM
UPDJPSEQUENCE	YORN	1	Will Master PM Update Job Plan Sequence on PM's associated with the Master PM
UPDMETER1	YORN	1	Will Master PM Update Meter 1 on PM's associated with the Master PM
UPDMETER2	YORN	1	Will Master PM Update Meter 2 on PM's associated with the Master PM
UPDSEASONALDATES	YORN	1	Will Master PM Update Seasonal Dates on PM's associated with the Master PM
UPDSTARTDATE	YORN	1	Will Master PM Update Start Date on PM's associated with the Master PM
UPDTIMEBASEDFREQ	YORN	1	Will Master PM Update Time Based Frequency on PM's associated with the Master PM

USEFREQUENCY	YORN	1	Tells the Generate WO function that the frequency for a lower level PM should be checked when determining if all of the PM's in the hierarchy should be generated
USETARGETDATE	YORN	1	Use Last Target Start Date
WORKTYPE	UPPER	5	Type Of WO/View name WORKTYPE (PM=SM) Scheduled Maintenance.
WOSEQUENCE	INTEGER	4	WO Sequence number. Copied to WorkOrder. WOSequence
WOSTATUS	UPPER	8	Identifies the initial status of generated work orders

Table: WORKORDER

ACTFINISH	DATETIME	10	Actual Finish date of this work order
ACTLABCOST	AMOUNT	10	Actual Labor Cost
ACTLABHRS	DURATION	8	Actual Labor Hours
ACTMATCOST	AMOUNT	10	Actual Material Cost
ACTSERVCOST	AMOUNT	10	Total actual service cost against this work order
ACTSTART	DATETIME	10	Actual Start date of this work order
ACTTOOLCOST	AMOUNT	10	Actual Tool Cost
APISEQ	ALN	50	Column used by ERP-Integration (APIs)
CALCPRIORITY	INTEGER	4	Calculated Work Priority
CALENDAR	UPPER	8	Calendar to determine shift work is to be done on
CHANGEBY	UPPER	18	Modified By
CHANGECHILDSTATUS	YORN	1	Flags whether the children of the work order should change status with it
CHANGEDATE	DATETIME	10	Last Modified Date
CHARGESTORE	YORN	1	Indicates whether charges on the WO should be added to the equipment
CONTRACT	UPPER	8	Equipment Service Contract
CREWID	ALN	8	ID for a given crew within an craft
DESCRIPTION	ALN	254	Work Order Description
DISABLED	YORN	1	Is this record active
DOWNTIME	YORN	1	Does the Equipment have to be down for this work order
EQLOCPRIORITY	INTEGER	4	Equipment priority copied from EQUIPMENT table
EQNUM	UPPER	15	Equipment Number/View name MAINTID Unique record combination of number and/or alpha characters identified as the specific level that individual maintenance records must be kept
ESTATAPPRLABCOST	AMOUNT	10	Estimate at time of Approval of the labor costs for the WO
ESTATAPPRLABHRS	DURATION	8	Estimate at time of Approval of all the labor hours for the WO
ESTATAPPRMATCOST	AMOUNT	10	Estimate at time of Approval of all materials cost for the WO
ESTATAPPRSERVCOST	AMOUNT	10	Estimate at time of Approval of service cost for the WO
ESTATAPPRTOOLCOST	AMOUNT	10	Estimate at time of Approval of all tools cost for the WO
ESTDUR	DURATION	8	Estimated Work Order Duration
ESTLABCOST	AMOUNT	10	Estimated Labor Cost
ESTLABHRS	DURATION	8	Estimated Labor Hours
ESTMATCOST	AMOUNT	10	Estimated Material Cost
ESTSERVCOST	AMOUNT	10	Total estimated service cost against this work order
ESTTOOLCOST	AMOUNT	10	Estimated Tool Cost
EXPDONE	ALN	25	Column used by ERP-Integration (API's)
EXTERNALREFID	ALN	10	External Reference ID
FAILDATE	DATETIME	10	Actual Failure Date
FAILURECODE	UPPER	8	Indicates Top level of a Failure Hierarchy
FINCNTRLID	UPPER	8	Financial Control Identifier

CMMS SPECIFIED FIELD DEFINITIONS
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FOLLOWUPFROMWONUM	UPPER	10	If this work order is a follow up work order to a prior one, then this column contains the originating work order number (PARENT WORK ORDER)
GENERATEDFORPO	UPPER	8	Work order for PO
GENFORPOLINEID	INTEGER	4	POLINEID number that required the work
GLACCOUNT	ALN	15	GL Account
HASCHILDREN	YORN	1	Y if WO has children N if it has no children
HASFOLLOWUPWORK	YORN	1	Indicates if there is follow up work for this work order
HISTORYFLAG	YORN	1	History Flag
INSPECTOR	UPPER	15	Inspector responsible for this work
INTERID	ALN	50	Column used by ERP-Integration (APIs)
INTERRUPTABLE	YORN	1	Is this WO allowed to be stopped and restarted during resource scheduling
ISTASK	YORN	1	Is the work order a task
JPNUM	UPPER	10	Job Plan Number
LDKEY	INTEGER	4	Long Description Key
LEADCRAFT	UPPER	15	Lead Craft
LOCATION	UPPER	15	Equipment Location
MEASUREDATE	DATETIME	10	Date/Time when measurement was taken or when observation was taken
MEASUREMENTVALUE	DECIMAL	15	Recorded Measurement
MIGCHANGEID	ALN	50	Column used by ERP-Integration (API's)
OBSERVATION	ALN	8	Describes an inspection observation of equipment or location by an inspector
ORGID	UPPER	8	Organization Identifier
OUTLABCOST	AMOUNT	10	Outside Labor Cost
OUTMATCOST	AMOUNT	10	Outside Material Cost
OUTTOOLCOST	AMOUNT	10	Outside Tool Cost
OWNERSYSID	ALN	10	Owner System ID
PARENT	UPPER	10	Parent Work Order Number (TOP LEVEL ROUTE OR TOP TASK)
PHONE	ALN	20	The phone number of the person reporting the work order
PMDUEDATE	DATE	4	From the original Next Due Date of the PM
PMEXTDATE	DATE	4	From the Extended Date of the PM
PMNEXTDUEDATE	DATE	4	From the next Due Date of the PM
PMNUM	UPPER	8	Preventive Maintenance Number
POINTNUM	UPPER	8	The point number for which this measurement is being taken
PROBLEMCODE	UPPER	8	Reason for failure
REMDUR	DURATION	8	Estimated time to complete work order
REPORTDATE	DATETIME	10	The date work order was reported
REPORTEDBY	ALN	18	The person reporting this work order
RESPONDBY	DATETIME	10	A Calculated field specifying when by a breakdown should be responded to
SCHEDFINISH	DATETIME	10	Schedule Finish date-from the Scheduler
SCHEDSTART	DATETIME	10	Schedule Start date-from the Scheduler
SENDERSYSID	ALN	50	Column used by ERP-Integration (API's)
SITEID	UPPER	8	Site Identifier
SOURCESYSID	ALN	10	Source System ID
STATUS	UPPER	8	Work Order Status
STATUSDATE	DATETIME	10	Work Order Status Date
SUPERVISOR	UPPER	15	Supervisor of work order
TARGCOMPDATE	DATETIME	10	Target Completion Date

CMMS SPECIFIED FIELD DEFINITIONS
TABLE 6-1
Reference CLIN 6.3

TARGSTARTDATE	DATETIME	10	Target Start Date
TASKID	INTEGER	4	Work Order Task Identifier
WFACTIVE	YORN	1	Is work flow active on this work order? N if work order has no WFID and N if work flow has been suspended
WFID	INTEGER	4	Work Flow ID
WO1	ALN	15	SRT NUMBER
WO10	ALN	40	CUSTOMER POC
WO11	ALN	6	Control Code
WO12	ALN	15	RFP NUMBER
WO13	ALN	20	Task Plan Number
WO14	DATETIME	10	Work Order specific Extra Field #14
WO15	DECIMAL	15	Work Order specific Extra Field #15
WO16	DECIMAL	15	Work Order specific Extra Field #16
WO17	ALN	1	CRITICAL LIFT
WO18	ALN	15	WAD NUMBER
WO19	ALN	250	DEFERRAL CODE
WO2	ALN	10	SO LEVEL
WO20	YORN	1	Extra Field - Rework
WO3	ALN	10	PRODUCTION METERS
WO4	ALN	10	QA CONTRL
WO5	ALN	10	SAFETY TYPE
WO6	ALN	10	DO OR TO NUMBER
WO7	ALN	10	SAFETY REFERENCE NUMBER
WO8	ALN	50	COMMENTS
WO9	YORN	1	NASA REQUEST
WOASSIGNMNTQUEUEID	UPPER	8	Identifier of the Labor Group
WOEQ1	ALN	20	EQUIPMENT ID
WOEQ10	ALN	10	JURISDICTION
WOEQ11	ALN	10	EQUIPMENT ORGANIZATION
WOEQ12	AMOUNT	10	Extra Field Copied From Equipment
WOEQ13	DATETIME	10	Extra Field
WOEQ14	DECIMAL	15	Extra Field
WOEQ2	ALN	30	Extra Field Copied From Equipment
WOEQ3	ALN	15	SYSTEM
WOEQ4	ALN	10	EQTYPE
WOEQ5	ALN	50	Extra Field Copied From Equipment
WOEQ6	ALN	10	SYSTEM TYPE
WOEQ7	ALN	15	EXTRA EQ LOCATION
WOEQ8	ALN	10	Extra Field Copied From Equipment
WOEQ9	ALN	10	Extra Field Copied From Equipment
WOJO1	ALN	10	Extra Field
WOJO2	ALN	10	Extra Field
WOJO3	ALN	10	Extra Field
WOJO4	DECIMAL	15	Extra Field
WOJO5	ALN	10	Extra Field
WOJO6	ALN	10	Extra Field

WOJO7	ALN	10	Extra Field
WOJO8	ALN	10	Extra Field
WOJP1	ALN	10	Extra Field
WOJP10	DATETIME	10	Extra Field - Crossover Field from JOBPLAN.JP15 or PM.PMJP10 if the Work Order is generated from a PM
WOJP2	ALN	10	Extra Field
WOJP3	ALN	10	Extra Field
WOJP4	AMOUNT	10	Extra Field
WOJP5	DATETIME	10	Extra Field
WOJP6	ALN	10	Extra Field - Crossover Field from JOBPLAN.JP11 or PM.PMJP6 if the Work Order is generated from a PM
WOJP7	ALN	10	Extra Field - Crossover Field from JOBPLAN.JP12 or PM.PMJP7 if the Work Order is generated from a PM
WOJP8	ALN	10	Extra Field - Crossover Field from JOBPLAN.JP13 or PM.PMJP8 if the Work Order is generated from a PM
WOJP9	AMOUNT	10	Extra Field - Crossover Field from JOBPLAN.JP14 or PM.PMJP9 if the Work Order is generated from a PM
WOL1	ALN	10	Extra Field
WOL2	ALN	10	Extra Field
WOL3	AMOUNT	10	Extra Field
WOL4	DATETIME	10	Extra Field
WOLABLNK	UPPER	15	Labor Code Link
WOLO1	ALN	10	Extra Field
WOLO10	INTEGER	4	Extra Field
WOLO2	ALN	10	Extra Field
WOLO3	ALN	10	Extra Field
WOLO4	ALN	10	Extra Field
WOLO5	ALN	10	Extra Field
WOLO6	AMOUNT	10	Extra Field
WOLO7	DATETIME	10	Extra Field
WOLO8	DECIMAL	15	Extra Field
WOLO9	ALN	10	Extra Field
WONUM	UPPER	10	Work Order Number/Key number field that identifies unique record of maintenance or repair
WOPM1	ALN	10	LABORGROUP FROM PM TABLE
WOPM2	ALN	10	PM TYPE FROM PM TABLE (A, W, SA)
WOPM3	ALN	10	Extra Field
WOPM4	AMOUNT	10	Extra Field
WOPM5	ALN	10	Extra Field
WOPM6	ALN	10	Crossover field from PM.PM17
WOPM7	DECIMAL	15	Crossover field from PM.PM18
WOPRIORITY	INTEGER	4	Work Order Priority
WORKLOCATION	UPPER	15	Identifier of the Work Location that is to be responsible for the work
WORKTYPE	UPPER	5	Work Order Type
WORTS1	ALN	10	Crossover field from Route_Stop.RTS1
WORTS2	ALN	10	Crossover field from Route_Stop.RTS2
WORTS3	ALN	10	Crossover field from Route_Stop.RTS3
WORTS4	DATETIME	10	Crossover field from Route_Stop.RTS4

CMMS SPECIFIED FIELD DEFINITIONS
TABLE 6-1
Reference CLIN 6.3

WORTS5	DECIMAL	15	Crossover field from Route_Stop.RTS5
WOSEQUENCE	INTEGER	4	Indicates sequence to execute Work Orders of a given WO hierarchy
WOWQ1	ALN	1	Extra crossover field from workassignmntqueue table
WOWQ2	ALN	1	Extra crossover field from workassignmntqueue table
WOWQ3	ALN	1	Extra crossover field from workassignmntqueue table

Web Based Management Information System (Store Front)
Required Links
TABLE 6-2

The Contractor shall provide a Web Based Management Information System on *JSC web servers which displays the required data as shown in this table. The data shall be maintained for access by all *JSC employees (see below for restricted data) and the Contractor. (Reference CLIN 6.6.2)_

Contractor Organization Chart*

Metrics – All metrics related to this Contract
Examples include:
- All MO-1-3 metrics
- Metrics for high visibility Items
- Contractor created metrics
- Result from customer surveys

Reports - All reports requested within this Contract
Examples include:
- Mishap reports*
- Daily reports*
- Flash reports*
- Utility Interruption Notification Listing
- Spill reports
- Operations logs
- Open constraints (MCC)
- Morning Report
- Archival Morning Report

Plans - All plans requested within this Contract
Examples include:
- FCA plan
- Hurricane plan
- Environmental compliance plan
- Mission readiness plan
- Contractor Safety Plan

Schedule Information - All schedule-related information requested within this Contract
Examples include:
- Inspection schedules*
- Maintenance schedules (daily/weekly/monthly)*
- Maintenance annual work plan*
- Outages*
- Crane certifications*
- Mission Control Daily Work Schedule

Procedures - All procedures information requested within this Contract
Examples include:
- Work methods
- Utility procedures
- Lock Out/Tag Out Information System (LOTOIS)
- Mission exceptions*
- Hot work permits
- Tunnel access*
- Confined space access*
- Digging/Excavation and boring permits*

Safety - All safety related information requested within this Contract
Examples include:
- Safety procedures
- Safety inspection reports (internal/external)
- Corrective action plans*
- Lost work day cases*
- Mishaps*
- OSHA recordables*

Work Orders – All data related to open and closed work orders
Examples include:
- CMMS queries*
- SPICE WAD Tracking System*
- Move requests*

Quality Control - All quality control information requested within this Contract
Examples include:
- Quality control plan
- ISO procedures/work methods
- Inspection reports (internal/external)
- Corrective action plans*
- Contractor Incident Critique

Facility Data – Facility Related Data
Specific items are:
- CRITERS
- Panel Schedule Database*
- Tunnel Cable Database*
- EDCC Facility Drawings*
- Equipment/System List*
- Technical Reference Library
- PT&I Analysis Data

Who to Call
NASA (Information to be provided by the Government)
- Managers
- Maintenance and Operations
- Environmental
- Logistics
- Grounds
- Information Technology

<u>Contractor</u>
- Managers
- Maintenance and Operations
- Environmental
- Logistics
- Grounds
- Information Technology

*Accessible to all *JSC/EF/SCTF employees. All others are accessible by COD/Contractor personnel only.

NOTE: All data requested electronically within the Contract scope of work that fits the identified categories above shall be placed on this website.

NOTE: The exact location of information to be placed on this website may vary based upon CO direction.

TABLE 6-3

Operational Software Listing

Reference CLIN 6.2

PART 1, IT SYSTEMS

SOFTWARE NAME	REVISION	PURPOSE	LICENSES	PRODUCT NAME	MANUFACTURER	ASSET_TYPE
Actuate	5	Reporting Software for Maximo	165	ACTUATE	Actuate	WebApp
AppliedInsight (To be replaced by the Contractor's Storefront)		Web Portal of Contractor Information		IIS	MICROSOFT	WebApp
AppliedInsight_DB (To be replaced by the Contractor's Storefront)		Database for Contractor information portal		SQL_SERVER	MICROSOFT	Database
Cable_Tunnel_App		Web front-end for cable tunnel database		COLDFUSION	MACROMEDIA	WebApp
CableDB		Cable Tunnel Database		COLDFUSION	MACROMEDIA	Database
CALLDESK		Database for tracking all calls made to WCC		SQL_SERVER	MICROSOFT	Database
Compliance Suite	4.210	Training database system	1	UNEXE	NONE	Client
Contractor_Workload_Stat Sys		Contractor Workload Status System database - Tracks NEMS and R&U reports		ACCESS	MICROSOFT	Database
CRITERS		Critical Equipment Readiness System		COLDFUSION	MACROMEDIA	WebApp
CRITERS_DB		Database for Critical Equipment Status System		SQL_SERVER	NONE	Database
CRYSTAL	10.0.0.533	Report Writing Software	5	CRYSTAL	CRYSTAL DECISIONS	Report
Descartes		Imaging system		UNEXE	BENTLEY	Client
Dolphin		Excel files that contain readings of boilers, chillers, etc for Operations in B24, B28, B48, B30S, B221	1	EXCEL	MICROSOFT	SpreadSheet

TABLE 6-3

Operational Software Listing

Reference CLIN 6.2

SOFTWARE NAME	REVISION	PURPOSE	LICENSES	PRODUCT NAME	MANUFACTURER	ASSET_TYPE
Dranetz		This software is used to monitor the condition of the electricity at B48	1	DranetzPCInfoNode	Dranetz	Client
ECNtags		Equipment Control number log		ACCESS	MICROSOFT	Database
EZBuilder		Software to build handheld applications for property		EZ_Builder	Intermec	Client
Facility Center	7.1	Space Utilization management software	10	UNEXE	Tririga	Client
FAC-TRAC		WCC CALLDESK		COLDFUSION	MACROMEDIA	WebApp
FCIS	5.7	Facility Condition Information System	1	UNEXE	AME	Database
FedLog	2006	Application for researching stock numbers	1	UNEXE	NONE	Client
HotCold		Logging hot and cold calls for the OCC		ACCESS	MICROSOFT	Database
Hurricane		Database for Hurricane mobile application that accesses damages after a hurricane		SQL_SERVER	MICROSOFT	Database
Hurricane_Mobile		Mobile application to access damages after a hurricane		VISUAL_CE	Syware	Client
IBM MAXIMO Adapter for Microsoft Project	Release 6	Interface with Microsoft Project (client version only)	10	UNEXE	MRO	Client
JSCMX51		Database for Maximo		SQL_SERVER	MICROSOFT	Database
LOTOIS	1.2	Lock Out Tag Out Information System		UNEXE		Database

TABLE 6-3

Operational Software Listing

Reference CLIN 6.2

SOFTWARE NAME	REVISION	PURPOSE	LICENSES	PRODUCT NAME	MANUFACTURER	ASSET_TYPE
MasterTrend		MasterTrend vibration system	8	DBASE	NONE	Database
Maximo	6.21	Computerized Maintenance Management System	135	Maximo	MRO	WebApp
Microstation	8 2004	CAD suite for engineering	25	UNEXE	BENTLEY	Client
MOBILE_Maximo	6	Mobile solution for Maximo. Allows crafts to receive work orders and input information via PDAs.	35	UNEXE	Syclo	Client
NEMS_INVENTORY	3.1	Application for tracking all NEMS Property		EZ_Builder	Intermec	Client
Odyssey_Client	4.0	Software to allow handhelds to connect wirelessly to the JSC network	30	UNEXE	FUNK	Client
Panel Schedule		Web front-end for all electrical equipments		COLDFUSION	MACROMEDIA	WebApp
Paneldb_App		Access front-end for panel schedule database		ACCESS	MICROSOFT	Client
PanelSched		Database for all electrical equipments		SQL_SERVER	MICROSOFT	Database
PC-InfoNode	3.2.32	Power monitoring system	1	IIS	DRANETZ	WebApp
PDF_Composer		To turn microstation drawing files into PDF documents		UNEXE	BENTLEY	Client
R_UDocLog		Log of R&U Documents		ACCESS	MICROSOFT	Database

TABLE 6-3

Operational Software Listing

Reference CLIN 6.2

SOFTWARE NAME	REVISION	PURPOSE	LICENSES	PRODUCT NAME	MANUFACTURER	ASSET_TYPE
Recrystallize Pro	10.0.8	Web Publishing Wizard for Crystal Reports	5	IIS	MICROSOFT	WebApp
Redline		Reviewing existing drawing files from Microstation		UNEXE	BENTLEY	Client
RPAS		Real Property Accounting System		DBASE	NONE	Database
Smart3000		SCADA Black start for breaker circuitry, MCC's monitoring	1	UNEXE	WOODWARD	Client
SPECSNTACT		Specifications Kept Intact		UNEXE	NONE	Client
SQL SERVER 2000	8.00.818	Database Server Software	enterprise	SQL_SERVER	DATAVIZ	Database
StressTEL		Ultrasonic testing equipment. Used for taking ultrasonic thickness measurements of equipment				Client
Suite995	7.7	Includes multiple applications for manipulating PDFs	25	UNEXE	Software995	Client
Facility Engineering (*FEL) Library Web page		Web front-end for ***FEL**		COLDFUSION	MACROMEDIA	WebApp
Thermocam		Thermal Imaging Reporter; a PDF generator. Takes thermal images and converts them to PDF	1	UNEXE	FLIR	Report
Transportation Manager	Release 2	Fleet Scheduled Maintenance and Management	135	MAXIMO	MRO	WebApp
Facility Engineering (*FEL) Library database		Database for tracking books for ***FEL**		SQL_SERVER	MICROSOFT	Database

TABLE 6-3

Operational Software Listing

Reference CLIN 6.2

SOFTWARE NAME	REVISION	PURPOSE	LICENSES	PRODUCT NAME	MANUFACTURER	ASSET_TYPE
UINL		Web front-end for utility interruption notification list		COLDFUSION	MACROMEDIA	WebApp
UINL-COLD		Database for Utility Interruption Notification List		SQL_SERVER	MICROSOFT	Database
VisualCE	8.1	Software to build handheld applications		VISUAL_CE	Syware	Client
WebControl	3.0	Monitoring control system for HVAC at SCTF, LMF, NBL		UNEXE	UES	WebApp
WinEst	8.0	WinEstimator is the estimating application for Construction estimations	12	UNEXE	NONE	Client
SPICE WAD Tracking System		Automated Workflow Project Management Tool (Initiates Work Requests, Tracks Status, Records Correspondence, Develops Metrics, Repository for Designs Estimate, Forms, etc.)		SQL_SERVER	Bastion Technologies	WebApp
Metasys PMI	12.01	Metasys Person Machine Interface Programming Tool	2	Metasys PMI	Johnson Controls Inc.	
JC Basic	12.01	Metasys JC Basic Programming Tool	1	JC Basic	Johnson Controls Inc.	
GPL	12.01	Metasys Graphical Programming Language Tool	1	GPL	Johnson Controls Inc.	
Metasys PMI	9.01	Metasys Person Machine Interface Programming Tool	1	Metasys PMI	Johnson Controls Inc.	
WinPro - Configuration Tools	7.01	Metasys Configuration Tools	2	WinPro - Configuration Tools	Johnson Controls Inc.	

TABLE 6-3

Operational Software Listing

Reference CLIN 6.2

SOFTWARE NAME	REVISION	PURPOSE	LICENSES	PRODUCT NAME	MANUFACTURER	ASSET_TYPE
XI584 Portable Operator's Terminal	1.4.2	Honeywell Portable Operators Terminal software	1	XI584 Portable Operator's Terminal	Honeywell	
SETVAV	3.73	ASI VAV Programming/Engineering Tool	1	SETVAV	ASI Controls	
IMPACC - Modbus Gateway Interface	6.5	Software to interface to IMPACC kWH Meters	1	IMPACC - Modbus Gateway Interface	Cutler Hammer	
Rosemount Analytical Inc. - 1500	11	Boiler Controls Programming Tool	1	Rosemount Analytical Inc. - 1500	Westinghouse	
RS Logix 5	6	Allen Bradley PLC5 Programming Tool	1	RS Logix 5	Rockwell	
Cimplicity Machine Edition	4	GE Fanuc PLC Programming Tool	1	Cimplicity Machine Edition	GE Fanuc Automation	
ProWORXNxT	2.2	Modicon PLC Programming Tool	1	ProWORXNxT	Schneider Electric	
AB Panelview Transfer Utility	5.15	Upload/Download Panelview databases	1	AB Panelview Transfer Utility	Rockwell	
DirectSOFT32	4.0 Build 25	Security Bollard PLC Programming Tool	1	DirectSOFT32	Automation Direct	
RSLinx Lite	2.42	Allen Bradley Communication Software	1	RSLinx Lite	Rockwell	
Power Demand Data Acquisition Subsystem	2	Monitor site energy demand				
EMCS Applications						
Only Hot and Cold 2000.mdb		Used by Operations to keep track of hot/cold calls		Access	Microsoft	
EMCS Support DB.mdb		Used by EMCS/OCC to track EBi malfunctions, tunnel entries and		Access	Microsoft	

TABLE 6-3

Operational Software Listing

Reference CLIN 6.2

SOFTWARE NAME	REVISION	PURPOSE	LICENSES	PRODUCT NAME	MANUFACTURER	ASSET_TYPE
		energy conservation exceptions				
RID Tracker DB.mdb		Keeps status on EMCS action items.		Access	Microsoft	
Field Engineering DB.mdb		Contains EMCS transmitter data including calibration info		Access	Microsoft	
Metasys DDL files for buildings 1, 4S, 16, 29 and 49		Used for remote control/monitoring of Metasys control systems		Metasys PMI	Johnson Controls Inc.	
Metasys DDL files for buildings 30S/30M		Used for remote control/monitoring of Metasys control systems		Metasys PMI	Johnson Controls Inc.	
Metasys controller databases for buildings 1, 4S, 16, 18, 29 and 49		HVAC/Lighting controls		WinPro - Configuration Tools	Johnson Controls Inc.	
Metasys controller databases for buildings 30S/30M		HVAC Controls		WinPro - Configuration Tools	Johnson Controls Inc.	
AB databases for B24/28 Electric chillers and Plant PLC		Control B24/28 Electric chillers		RS Logix 5	Rockwell	
AB Panelview Databases for B24 Electric chillers		Local control/monitoring of B24 Electric chillers		AB Panel Builder (No Copy)	Rockwell	
AB Database for B24 UAC Xceed panel		B24 UAC Sequencing		RS Logix 500 (No Copy)		
AB PLC5 database for B221 Electrical Substation		B221 electrical substation monitoring		RS Logix 5	Rockwell	
B322 Water Treatment Plant PLC database		B322 Water treatment plant monitor and control		ProWORXNxT	Schneider Electric	
PLC Database for DE-48-7 and DE-48-9		B48 DE-48-7 and DE-48-9 control		Cimplicity Machine Edition	GE Fanuc Automation	

TABLE 6-3

Operational Software Listing

Reference CLIN 6.2

SOFTWARE NAME	REVISION	PURPOSE	LICENSES	PRODUCT NAME	MANUFACTURER	ASSET_TYPE
Databases for Security Bollards		Control of Security Bollards		DirectSOFT32	Automation Direct	

The Government reserves the right to add to or modify the contractor supported Operational Software List as necessary.

TABLE 6-3

Operational Software Listing

Reference CLIN 6.2

PART 2, IT SYSTEM DESCRIPTIONS

GENERAL DESCRIPTION

The IT applications mentioned below shall be used during the performance of this Contract and are described in various levels of detail. In general, they are described in more detail where the Contractor shall be totally responsible for the system (operations, programming, system administration, etc.) and in far less detail where the Contractor is a user of the system. Where the Contractor is a user of the system, the effort is described in more detail in other parts of the Contract with the associated activity. Note: The format chosen is intended to be informative as relates to the use of the application. Specific details such as "lines of code" or equivalent metrics have not been included, since they have little relevance to the work that is to be performed. All software systems described below shall be accessible via a link from the Contractor provided Store Front software.

IBM MAINFRAME APPLICATIONS

SYSTEMS DESCRIBED

NASA Equipment Management System (NEMS)

This is an Agency Wide Equipment Management System used by all NASA Centers to track NASA owned on-site equipment. This system is hosted on Mainframe Computers at the Marshall Space Flight Center. Contractor interface is via Government provided 3270 Terminal Emulation using PC's connected to the Center network.

DATABASE SERVER BASED APPLICATIONS STRUCTURED QUERY LANGUAGE ((SQL) SERVER OR EQUIVALENT) - LARGER DATABASE APPLICATIONS - LOCAL CODE

Server Based Applications - Smaller Database Applications - Local Code – Miscellaneous Applications

These applications are a mixture of small applications in database (Access), or spreadsheets (Excel). These are the files that may be used locally by the user groups performing day-to-day contract activities. These applications will be provided to the Contractor for use as the Contractor sees fit. The usefulness of these generic type applications will depend on how the Contractor chooses to perform the contract tasks. The applications are not listed or described further.

SPECIAL SYSTEMS (Larger)

SYSTEMS DESCRIPTIONS

EMCS

This JSC managed EMCS provides the control, acquisition of the site energy systems, primarily the two main chiller plants, substation, the power generation building supporting mission controls complex (Building 30), the mall building systems (Air Handling Units, Hot and Chilled Water pumps, etc.). The application design and major system upgrades are provided by JSC. The Contractor shall be responsible for day-to-day operations, determining alarm and control set points, application repair, all field maintenance including RTU, Johnson Control SCADA Product (METASYS), PLC's, etc.

CMMS

The Contractor shall be responsible for all day-to-day data management of this system, including providing assistance to the System Administrator and developing reports in support of the computerized maintenance management system that is run on the NASA provided Maximo Commercial off the Shelf (COTS) software and located on a Government provided server.

TABLE 6-3

Operational Software Listing

Reference CLIN 6.2

SPECIAL SYSTEMS (Smaller)

SYSTEMS DESCRIPTIONS

Facility CAD System

The Contractor shall be responsible for all day-to-day management and control of this system including all installations, setup, macros, and symbols, in support of the facility drawing system (all as-builts and drawings prepared by the Contractor). The system includes thousands of facility drawings that were produced or have been converted to MicroStation/AutoCAD. This system results in permanent records being produced. Hard copy/electronic files are provided to NASA for permanent record management. The Contractor provides the electronic files in two formats. One is provided with all references as a permanent record, and the second is a single file format with designated layers turned on to support a site wide access facility drawings (managed by others).

FHP's

These are drawings of each of the floors of the onsite or directorate managed offsite facilities. These drawings are in a Geographic Information System (GIS) environment. Each of these drawings is linked to a GIS-related database used by NASA in support of the space utilization system managed by *JSC. All application programming, support, reports, and the like are provided by the Contractor. The Contractor provides the support to produce additional files to support site Internet access of a single file that has only defined layering turned on. The Contractor provides the support to produce additional files to support a single file that has only defined layering turned on.

SPECSINTACT

This is an Agency wide PC based system that is used for the preparation of facility specifications. The Contractor shall be responsible for day to day operations in support of the typing, administrative, and clerical support for the preparation of these facility construction contract specifications.

WinEst/Means

This is a COTS application that the contractor maintains for use by the contractor and NASA for making construction estimates of work to be performed.

SERVER BASED APPLICATIONS - (SMALLER APPLICATIONS - COTS APPS)

SYSTEMS DESCRIPTIONS

These are three Contractor managed systems that document/analyze thermography, vibration, oil sample data in support of facility maintenance/operations

Thermography Analysis (THERMOCAM)

Thermal Imaging Reporter; a PDF generator. Takes thermal images and converts them to PDF.

Vibration Analysis (MASTERTREND)

MasterTrend vibration analysis system to identify potential bearing failures of rotating equipment.

Oil Spectral Analysis (OILANALYSISINC)

Spectrochemical analysis of the equipment lubricant to determine viscosity, particle count and chemical brake down.

SPECIAL FACILITY/UTILITY APPS

SCADA Building 48

This is SCADA system that supports the monitoring/control of the Woodward equipment on the diesels in Building 48. Data from this system is interfaced with the EMCS for remote monitoring. This is an integral part of the diesel controls and the Building 48 systems that are described elsewhere in the documentation.

TABLE 6-3

Operational Software Listing

Reference CLIN 6.2

WinEst/Means

This is a COTS application that the contractor maintains for use by the contractor and NASA for making construction estimates of work to be performed.

WAD Tracking System

The WAD Tracking System is a Governnent managed web based application that is used to initiate and track all Facility Work Requests. The Contractor shall be responsible for inputting project information, project status and summary costs for Design, Construction and Maintenance into the CMMS and WAD tracking systems. NASA will link the data between the CMMS and the WAD tracking Systems.

Panel Schedules

The panel schedule application is a Government owned Access database with SQL Server access. The Contractor shall manage the existing Panel Schedule Database and maintain the web access capability of the on-line search function based on the Building and Room Number. The information on the Panel Schedule shall include the building number, panel ID Name, panel location, panel manufacturer's name, breaker type, individual breaker amperages, individual circuit conductor colors, and individual circuit room numbers.

Tunnel Cable Database

The Tunnel Cable Database application is a Government owned Access database with SQL Server access. The Contractor shall manage the existing tunnel cable database and maintain the web access capability of the on-line search function.

CRITERS

CRITERS is a Government owned, real-time online critical equipment readiness Access database with SQL server access that generates reports on Critical Systems at *JSC. The Contractor shall manage the existing CRITERS Database and maintain the web access capability reports generation function. The Critical Systems are the Chilled Water Distribution System, the Steam Distribution System, the Water Distribution System, the Utility Air Distribution System, and the Environmental Systems. The critical components of each system (buildings and equipment) and the state of readiness (condition) for each shall be listed or graphically shown. The reports for each component shall show the CMMS (Maximo) equipment ID, maintenance ID, status, comments, associated work order numbers, the number of ***Days** the equipment is operational, and the percent of the time the equipment is operational.

NetDAHS

This is a COTS application for a continuous emissions monitoring system on the boiler at Building 222. This server-based application is to be maintained by the Facilities Contractor, who shall provide the data to the Government and other contractors as needed for environmental management reporting.

ANNEX 7
ENVIRONMENTAL PROGRAM
TABLE OF CONTENTS

7.0	**Environmental Program**	**7, 1**
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7 ENVIRONMENTAL PROGRAM

7.1 General Information

7.1.1 Annex Description

The operation activities identified in this Annex are in support of ***JSC's** Environmental Program to protect human life, the environment and property, and minimize pollutants that are generated. This Contract, the JSC Facilities Contract, includes the responsibilities for field operator and laborer environmental services. The responsibility for establishing and enforcing overall environmental policy for ***JSC** in included in the JSC Environmental Contract.

For the purposes of this Annex, core hours are defined as 7:30 am to 5:00 pm Monday through Friday, excluding holidays. The Contractor shall be present onsite and shall conduct all work required by this Annex during core hours, unless specified. Personnel shall be available via telephone, pager, or cellular phone after hours, weekends, and holidays to respond within 30 minutes to all emergencies, spills, releases and other environmental issues as may arise.

Table 7-1 is provided to differentiate the responsibilities of the Facilities Contractor from the Environmental Contractor.

ITEM NO.	CLIN TITLE / OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
7.2	Environmental Operations Compliance Ensure Compliance with Environmental Regulations	Create and make available for inspection to the ***COTR** and any Federal, State, and local environmental authority upon demand, all documents as required by Contract, including those that demonstrate compliance with environmental laws. All such documents shall be maintained and accessible for the life of the Contract, provided to the ***COTR** upon request or per Contract requirements and turned over to the ***COTR** upon completion or termination of the Contract. This requirement applies to all documents throughout Annex 7 Environmental Operations. All regulatory ***Documents** and supporting documents are Government property and shall be available upon demand to inspect for environmental compliance. Track data required for all documents and develop and submit all required documents.		Documents are complete, accurate, maintained, and readily accessible.
7.2.1	Notification and Mitigation for Non-Compliances Promptly Notify ***COTR** and Mitigate All Environmental Non-Compliances	All non-compliances or noncompliant conditions shall be reported to the ***COTR** within 24 hours by phone or facsimile and by email. Initiate appropriate action to mitigate the problem ***Immediately**. For the purpose of mitigating, reducing or eliminating environmental non-compliances and the potential for enforcement action, create and maintain a log of all non-compliances or problems including but not limited to: date, which was notified, nature of problem, location of problems, and corrective action taken. Logs shall be maintained electronically in excel or other format approved by the ***COTR**. Update log within 1 work day of receipt of updated information. NOTE: Repairs for all environmental systems shall be performed as an "emergency repair" in accordance with Annex 2.	Method of performance to be determined by the Contractor	All noncompliance's reported accurately and timely. Logs are complete, accurate, maintained, and readily accessible.

ITEM NO.	CLIN TITLE / OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
7.2.2	Compliance Audits and Inspections Participate and Assist in Regulatory Audits and Inspections	Participate, assist, and support compliance audits and inspections, and external audits and assessments as they occur at ***JSC**. Perform pre-inspections prior to scheduled regulatory inspections or NASA functional assessments to identify and correct any deficiencies. Provide access to all documents or information to inspectors and auditors. Provide copies of all requested documents to auditors and inspectors. Initiate immediate correction of all noted or cited deficiencies, violations, or non-conformances. NOTE: Typical audits and inspections at ***JSC** and EF are 2 to 3 work days in duration. Once every 3 years environmental functional reviews occur and last up to 8 work days (the next review is scheduled for Spring 2010).	Six inspections Three internal EMS audits Two external EMS Audits One external audit Four pre-audit checklists	Pre-inspections are conducted and all problems accurately identified and corrected on time. All documents are available upon request. Copies are provided upon request. Action is taken immediately for problems identified during inspections and audits. All documents and databases are complete, accurate and accessible at all times.
7.3	Industrial Solid Waste Management Program Manage all ISW in Compliance with all Applicable Requirements	Provide pick up of all industrial solid waste generated at ***JSC**. Major elements of this program include: a) waste pickup b) waste stream administration, tracking, recordkeeping, operation and inspection of container storage areas, tanks, satellite accumulation areas, and waste treatment systems. All work must be conducted in accordance with existing procedures ****SOPs for Environmental Activities**. Provide a copy of any new or revised procedure to the ***COTR** 15 ***Days** prior to becoming effective. Track data required for all documents and develop and submit all required documents.	One Program	No instances of violation of current regulations. No deviations from procedures. ***COTR** receives on time notification of new or revised procedures.
7.3.1	Waste Pickup Provide Containers and Pickup ISW on Schedule	Pick up ISW from any generator onsite at ***JSC**. Waste is generated from activities sitewide and shall be moved to designated storage areas at ***JSC**. Use ***JSC** forms, methods and procedures (Form 27 and Form 1161), see **** Miscellaneous Environmental Documents** and ****SOPs for Environmental Activities**.	1,920 Pickups	All required documentation and forms are complete, accurate, and readily accessible.

ITEM NO.	CLIN TITLE / OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		All wastes are picked up from satellite accumulation areas and placed in designated storage areas within 72 hours of request.		Waste pickups are completed on time.
		Provide generators of waste at ***JSC** the appropriate type, size and number of containers as requested within 72 hours.	1080 Containers	Appropriate containers are provided on time.
		Institute a container reuse program to minimize the purchase of new containers, as appropriate.		Containers are reused.
7.3.2	Accomplish Waste Tracking	Accomplish waste tracking. All ISW generated at ***JSC** shall be tracked in order to know how wastes are managed from generation to ***Disposition**. This includes the following information: a) date pickup of waste was requested, b) the building and room number or tank number, as applicable, c) the organization where the waste originated, d) where the waste is currently stored, e) the amount of waste picked up on a daily basis (in pounds), f) the amount of waste stored in each tank on a daily basis (listed in pounds and gallons), g) how it was managed (e.g., container type, whether it was combined or moved once received), h) common name of waste, i) Texas Waste Code Number, j) date received at storage facility; when and how it was ***Dispositioned**, k) manifest or bill of lading number; and, l) Information that demonstrates that all wastes are removed in accordance with the <90-***Day** regulation. This information shall be tracked on a ***Daily (D5)** basis for Building 358 container storage area in the Building 358 Waste Receipt Log and for EF on the EF Waste Receipt Log (****Miscellaneous Environmental Documents**).	See Above	All required information on all ISW generated is complete, accurate and accessible at all times. Documents are complete, accurate and accessible at all times.

ITEM NO.	CLIN TITLE / OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
7.3.3	Maintain Waste Satellite Accumulation Areas Maintain ISW Satellite Waste Accumulation Areas in Compliance with Regulations and Requirements	Mark the delineation of all routine or permanent satellite accumulation areas at ***JSC** with signs, paint or tape. If multiple satellite accumulation areas are adjacent or in close proximity to one another, mark each with a designator (name or number). Maintain these markings so that they are visible and clearly delineated and identified at all times.	150 Satellite accumulation areas	All satellite accumulation areas are identified by markings and names or numbers at all times. All non-compliances and problems are corrected on time. Corrective actions are effective in eliminating non-compliance or problem.
7.3.4	Operate all ISW Storage Facilities	Operate all ISW storage and <90-***Day** accumulation facilities (containers and tanks) at ***JSC** and EF according to Federal, State and local regulations; and O&M Manuals ****SOPs for Environmental Activities**. This includes: all required inspections, inventory control, recordkeeping, labeling, segregation, container type/condition, containment management, and keeping the official operating record of the ISW facilities. Facilities shall be operated at all times to stay below regulatory limits and to remove wastes from tanks so that tanks never go into high-level alarm. Tank wastes must be removed within every 90 days. Non-hazardous waste accumulation and storage areas and tanks shall be operated in accordance with equivalent hazardous waste requirements. The Building 358 container storage area must be manned from 8:00 am to 3:30 pm ***Daily (D)**. Building 358 and EF container storage facilities must be secured and locked any time there is no one on duty at the facility. All accumulation and storage facilities including berms, containments, tanks and vaults must be clean, properly marked, and in operational status and integrity at all times. Exterior surfaces must be free of dirt and stains and all coatings must be maintained. If any cracks, coating deterioration or other problems are found, initiate corrective repairs in accordance with Annex 2. Document all findings on ISW inspection logs.	Two Container storage areas 7 Tanks	Facilities are operated in compliance with regulatory requirements and SOP's at all times. Tanks are operational at all times. Tank wastes are managed so that there is no instance of high level alarm. Tank wastes are removed within 90 ***Days**. Documents and databases are complete, accurate and accessible. Building 358 storage facility is manned during required hours. Container storage areas are locked when no one is on duty. No evidence of dirt, stains or deteriorated coatings on exteriors of tanks, vaults, berms, and containment structures. No instance of structures or cracks or deterioration of coatings is found on ISW containment berms. All findings are documented.

ITEM NO.	CLIN TITLE / OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
7.3.5	Perform ISW Tank Cleaning and Integrity Testing	Perform the annual tank integrity testing on each ISW storage tank to ensure that the tanks are not leaking. The interior of each tank shall be cleaned prior to integrity testing. Cleaning includes: removing tanks from service, pumping out of all wastes, removing and ***Disposition** of any built up sludge or sediment, and cleaning lines and drains. If problems are found during testing, cleaning or inspection, initiate corrective repairs in accordance with Annex 2.	7 Tank tests	Each ISW tank is tested for integrity on time. Effective repairs are completed on time and they correct the problem or non-compliance.
		Develop, maintain and submit to the ***COTR** a cleaning procedure for cleaning all ISW tanks and associated piping based on input and requirements from the ***COTR**.		
7.3.6	Waste Treatment System Operate Waste Treatment System in Compliance with Requirements	Operate and inspect system, and prepare and maintain supporting ***Documents**, in accordance with regulatory requirements, manufacturers' instructions and documented procedures for the system.	One Pretreatment system	No instance of unscheduled system downtime.
		Metal Finishing Waste Pretreatment System: Operate the system in accordance with the Memtek O&M Manual, Memtek Filter Press O&M Manual, or current manuals and ****SOPs for Environmental Activities**, and the Clear Lake City Water Authority Sanitary Sewer Ordinance (see ****Miscellaneous Environmental Documents)**.		No instances of discharged wastewater exceeding effluent limits or Clean Water Act requirements.
		Treatment system shall be fully operational ***Daily (D7)**. All treatment shall be completed within 24 hours of generation by the metal finishing shop and as often as needed to prevent tank overflows.	20,000 Gallons treated	No instance of tanks overflowing.
		Inspect system ***Daily (D7)**. All inspections are performed in accordance with SOP's and regulatory requirements. All information collected for inspections are accurately documented.		100 percent accuracy of inspections and documentation logs.
7.3.7	Prepare Shipments for Transportation and Disposition of ISW	Prepare wastes for transportation and disposition of all ISW generated at ***JSC**. This includes: a. Preparing shipments for transportation and disposition in accordance with all regulations and Commercial Treatment, Storage, Disposal, or Recycling Facility (TSDR) requirements, b. Preparing and signing all manifests, bills of lading, required supporting documents, forms and certifications, and providing appropriate copies to the ***COTR**, c. Ensuring that all DOT requirements are in place prior to transporting ISW offsite.	2.5 Million pounds of ISW generated	All ISW is prepared for shipment and transported in accordance to applicable regulations, TSDR requirements, ***JSC** policy and Contract requirements.

ITEM NO.	CLIN TITLE / OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		Inspect and escort all trucks, containers or tankers provided by the JSC Environmental Contract waste transporter to ensure they are clean. Reject any trucks that are not clean. Provide the transporter with all required loading, transporting, unloading, and safety equipment related to shipment of ISW generated at ***JSC.**	See Above	All trucks, tankers and containers provided by waste transporter for shipments of ISW completely and accurately inspected prior to use and certified clean.
		All trucks shall be weighed in and out at the onsite scale at Building 417A for shipments of ***JSC** ISW.		All trucks of transported ISW are accurately weighed.
			See Above	Requested trucks and containers are provided on time
7.3.8	Lab Packing Services Support and Conduct Lab Packing services for ISW generated at ***JSC**	Support and conduct lab pack ISW generated at ***JSC** as directed by the ***COTR**. Lab pack services include: providing containers and packing materials, sorting and compiling waste containers in appropriate containers, labeling drums, preparing manifests and all other shipping documents if directed.	Two shipments per month totaling 15, 000 pounds per year	All required lab pack services are provided. All required documents are complete, accurate and readily accessible at all times.
7.4	Maintain Building 222 CEMS	Maintain the Building 222 CEMS to comply with all regulatory requirements. Requirements are listed in Building 222 Boiler Permit No. C-19670, Operating Permit #O-01552 ****Environmental Regulatory Permits,** and Work Method WM-1040-025 Operate, Maintain, and Test B222 CEMS ****SOPs for Environmental Activities.**	One CEMS system	Building 222 CEMS complies with all regulatory and permit requirements.
		CEMS shall be operational at all times except for scheduled maintenance.		No unscheduled CEMS downtime.
		NOTE: CEMS includes: dual redundant NOx and oxygen (02) analyzers, in stack sample probes, sampling lines, sample conditioning, pumps, filters, data acquisition system General Electric (GE) Energy Net-Data Acquisition and Handling System (DAHS).		
		a. As instructed by the ***COTR**, perform trouble-shooting and repair of the system if analyzers do not pass calibration checks.	As Needed	CEMS are inspected on time and for all required items.

ITEM NO.	CLIN TITLE / OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
7.5	Water Pollution Control and Prevention Program Control and prevent Storm Water and Sewer Discharges in Compliance with All Applicable Requirements at ***JSC**	Control and prevent water pollution. Major elements of this program include: storm water management, sanitary sewer discharge investigation, and miscellaneous tasks.		No instances of violation of regulations.
		Ensure that all elements of the water quality field program meet all requirements of the latest applicable Federal, State, and local, regulations, policies, directives, permits, plans, and all Contract provisions. ****Environmental Regulatory Permits**. Programs and procedures shall be updated to include new or revised requirements.		
		All work must be conducted in accordance with existing procedures associated with water quality field program ****SOPs for Environmental Activities**. Provide a copy of any proposed new or revised procedure to the ***COTR**.		No deviations from procedures. ***COTR** receives on time notification of proposed new or revised procedures.
		Any noncompliance(s) shall be reported to the ***COTR** in accordance with Annex 7.2.1 requirements.		
		Maintain all ***Documents** for review upon request by the ***COTR**.		All logs and inspection data are complete, accurate, maintained and available upon request.
7.5.1	Sanitary Sewer Discharge Field Program Provide Field Support of Sanitary Sewer Discharges at ***JSC**	Open manhole covers, gratings, or other access points to allow for inspections, sampling, and field investigations of sanitary sewer discharges performed by others as requested.	12 Inspections and investigations	All inspections and investigations are fully supported
7.5.2	Storm Water Field Program Perform Storm Water Field Program for ***JSC**	Inspect and manage storm water to meet the requirements of Texas Pollutant Discharge Elimination System (TPDES) rules and ***JSC** policies and requirements. This includes: taking action required by and ensuring compliance with the ****JSC Storm Water Pollution Prevention Plan (SWPPP), **EF SWPPP**. This also includes: maintaining and cleaning containments.		All activities are compliant with regulatory requirements and the appropriate SWPPP at all times.

ITEM NO.	CLIN TITLE / OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		Inspect and manage rainfall accumulations for all containments at ***JSC** where hazardous wastes and hazardous materials are stored, as required. Inspection and management includes: a. Visual inspection and, where corrosive materials may be present, sample for pH prior to releasing accumulated uncontaminated rainfall so that rainwater is removed within 24 hours of the rain event ending, b. Replacing drain caps and closing valves immediately or pumping out contaminated rainwater and dispositioning it appropriately, c. Cleaning containments for the removal of contaminants, debris, and refuse, d. Providing notice to the ***COTR** where noncompliances are found, e. All inspections are performed during daylight hours. Maintain ***Documents** related to storm water management, including but not limited to: date, time, location, person conducting inspection, and actions taken.	150 Containments	Containments are accurately and completely inspected. Rainwater is properly removed from containments on time. Containments are free of contamination, debris, and refuse at all times. Corrective action is initiated. Documents are complete, accurate and accessible at all times.
7.5.3	SPCC Field Program Implement a SPCC Field Program	Implement a SPCC field program that meets the requirements of 40 CFR Part 112 and ***JSC** policies and the SPCC plans ****Spill Prevention, Control and Countermeasure Plan (SPCC)** (*JSC Emergency Response Plan Addendum 40 Code of Federal Regulations (CFR) Part 112 Oil Pollution Prevention) at ***JSC** and **EF**. This includes: conduct all inspections to identify, initiate and implement corrective actions, and provide for spill containment as required by SPCC plan.		100 percent compliance with regulatory requirements and SPCC plan.

ITEM NO.	CLIN TITLE / OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		Conduct all inspections and perform all duties listed on inspection logs within the ****Spill Prevention, Control and Countermeasure Plan** (*JSC Emergency Response Plan Addendum 40 CFR Part 112 Oil Pollution Prevention) and complete all inspection logs. When problems are identified, notify the ***COTR** in accordance with Annex 7.2.1. NOTE: The ***JSC** SPCC plan applies to the following: petroleum tanks, standby generators, portable generators, portable compressors, fuel truck(s), container storage areas, grease traps, oil water separators, transfer units, and oil filled electrical equipment. The EF SPCC plan will address petroleum tanks, ground support equipment such as air start units, compressors, standby generators, tugs, fuel bowsers, gas tanks, and oil filled electrical equipment. Inspection frequency is specified in the SPCC plan and occurs daily, weekly, monthly, or quarterly, based on type of equipment.	6,000 Inspections per year	Documents are complete, accurate, maintained, and readily accessible. All inspections are conducted. Logs are complete, accurate, maintained and readily accessible.
7.5.4	Operation and Maintenance of Impoundments	a. Perform annual cleaning of the Building 222 cooling water impoundment within 3 weeks of request. Pond is cleaned on an annual basis. Cleaning includes: pumping the water to the sanitary sewer, arranging and coordinating for sampling of sediments by the ***COTR**, removing the built up sediment utilizing a vacuum truck provided by the ***COTR** for offsite disposal. Sediment disposal from the cleaning shall be managed by the ***COTR**.	One Impoundment cleaning	Cleaning completed on time with no incidents of damage or customer complaints.
		b. Operate the 10,000 gallon and the 500,000 gallon impoundments at Building 358.	Two Impoundments	Specified maximum volume levels are not exceeded at all times.
		Operation of the impoundments includes: a. Ensuring a level in the impoundment such that water can be collected at all times, b. Ensuring all water discharged to the sanitary sewer (from the impoundments) meets the Clear Lake City Water Authority Sanitary Sewer Ordinance discharge limits found in ****Miscellaneous Environmental Documents**, c. Making sure that the impoundments do not overflow;		Discharges meet limits set in Clear Lake City Water Authority Sanitary Sewer Ordinance.

ITEM NO.	CLIN TITLE / OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		d. Aerating waste waters, pumping waste waters to sewer, and operating the underliner dewatering system. Any waste water that does not meet the discharge limits after aeration or other operations must be disposed of at an authorized offsite facility. All activities must be documented in an operating log on a ***Daily (D7)** basis. Addition of any waste water other than from normal sources to the impoundment must be approved by the ***COTR** prior to collection. NOTE: The small impoundment collects all storm water and pad wash down water from the Building 358 facility. These impoundments are scheduled for removal in FY2007.		Impoundments are operational at all times and do not overflow. Documents are complete, accurate and accessible at all times. No unauthorized discharges are made to the impoundments.
		e. Clean accumulated sediments from three water knives at Building 10. Perform annual cleaning of each water knife at Building 10 within 3 weeks of request. Water knives are cleaned on an annual basis. This includes arranging and coordinating for sampling of sediments by the ***COTR** and removing the built up sediment utilizing vacuum truck and ancillary equipment provided by the ***COTR** for offsite disposal. Sediment disposal from the cleaning shall be managed by the ***COTR**.	Three Cleanings	Cleaning completed on time with no incidents of damage or customer complaints.
7.6	Ground Water Protection Program Operate the Ground Water Treatment System in Accordance with all Applicable Requirements	Operate, inspect, perform recordkeeping and documentation, in accordance with regulatory requirements, manufacturer's instructions and documented procedures for the systems.		No instances of violation of requirements.
		All work must be conducted in accordance with existing procedures ****SOPs for Environmental Activities** associated with groundwater program. Provide a copy of any new or revised procedure to the ***COTR** 15 ***Days** prior to becoming effective. Any noncompliance shall be reported to the ***COTR** in accordance with Annex 7.2.1 requirements.		No deviations from procedures. Effective repairs are initiated on time to correct problem or non-compliance. ***COTR** receives on time notification of new or revised procedures.

ITEM NO.	CLIN TITLE / OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		Groundwater Treatment System: Operate the system in accordance with the ****Groundwater Treatment System O&M Manual,** and current SOP Operation of the Building 383 Groundwater Treatment System, ****SOPs for Environmental Activities, and** Clear Lake City Water Authority Sanitary Sewer Ordinance found in the ****Miscellaneous Environmental Documents**. Ensure that the system is maintained to prevent and remove calcium carbonate scale build up so that maximum efficiency and effectiveness of the system is achieved. System shall be fully operational 7 days per week.		No instances of system not operating due to scale build up. No instances of system not operating due to preventative maintenance not being performed. No instances of waste water exceeding effluent limits or Clean Water Act requirements being discharged to sewer. No instances of tank overflows.
		Inspect the groundwater treatment system ***Daily (D7)**. Components or items to be inspected includes the following: all extraction wells, air stripper towers, tanks, pumps, carbon adsorption units, fans, motors, valves, all flow meters, pressure gauges, piping and insulation, outer well casing, electrical panels and all electrical equipment (alarms, etc.) to ensure proper operation in accordance with ****Groundwater Treatment System O&M Manual**. All ***Documents** are accurate. If problems are found during inspection, initiate corrective repairs in accordance with Annex 2. Data shall also be maintained electronically in excel spreadsheet or other format approved by the ***COTR**. Spreadsheet shall be updated ***Daily (D7)**. NOTE: Ground water inspections are not included in ISW program inspection requirements.	One Inspection log completed 365 ***Days** One Excel spreadsheet completed 365 ***Days**	No instance of inspection log not completed for each component on a daily basis. No instances of inaccurate inspection logs or spreadsheet information. Effective repairs are performed on time to correct problem or non-compliance. Spreadsheet is complete, accurate, maintained, and readily accessible.
7.7	Emergency Spill Response Provide Spill Response	Provide emergency response for chemical spills/releases of regulated hazardous wastes and materials at ***JSC**. Asbestos spill/release response shall include cleanup, removal, AC) and potential ACM (PACM) to eliminate, minimize or mitigate potential adverse exposures of personnel to asbestos. All responses shall be in accordance with (IAW) all ***JSC** Emergency Response Plans and Management Directives. ****Hazardous Substance Release/Spills**, ***JSC** Emergency Response Plan, ****Environmental Regulatory Permits**. Response personnel shall mobilize immediately upon notification of a spill and begin conducting spill scene containment and response actions:	60 Chemical spills 60 Asbestos spill cleanups	Mobilize immediately to begin on scene response within 15 minutes notice of all spills at ***JSC** and 30 minutes at EF and SCTF, using EPA, TCEQ and OSHA protocols. Preventive and corrective actions are effective in preventing or cleaning up spills and releases.

ITEM NO.	CLIN TITLE / OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
		a. Within 15 minutes of notification of a spill at ***JSC**, b. Within 30 minutes of notification of a spill at EF and SCTF. Workload data does not include any spills or releases caused by this Contract. All costs associated with response to spills or releases caused by this Contract shall be paid by the Contractor. Responses to this Contract's spills and releases shall be managed in the same manner that all other spills and releases are managed, except for cost. NOTE: TCEQ reportable spills average =5/year. Historically, chemical spills consist of 40-50 small and incidental chemical spills, 10 moderate spills, and 0-5 large spills annually, and approximately 40–60 small asbestos spill cleanups. See ****Spill Response Historical Record.**		
7.7.1	Establish Emergency Response Team Establish an Emergency Spill Response Team to Respond to All Spills of Regulated Hazardous Wastes and Materials Found on ***JSC** Sites	Support and accomplish chemical and asbestos spill response at any ***JSC** location 24 hours a day, 7 days a week, 365 days per year. Spill team shall include a competent lead supervisor manager (Environmental-Safety-OccHealth professional) sufficiently knowledgeable of the hazards (chemicals, asbestos, etc.) presented at the spill scene to ensure worker safety (e.g. determining proper personal protective equipment (PPE), respirator cartridge selection, etc.) and serve as the spill scene incident commander unless or until relieved or the spill site is released as "clean". Level B protective gear training is required; which includes: ability to don full face mask and respirator with self-contained breathing apparatus (SCBA) supplied air.	Quantities as determined, see above	The team shall respond to all spill calls. All team members shall be trained IAW all applicable and appropriate regulations and NASA policies. Response available 24 hours per day, 365 days/year.

ITEM NO.	CLIN TITLE / OUTCOME	PERFORMANCE REQUIREMENTS	ANNUAL WORKLOAD DATA	PERFORMANCE EVALUATION CRITERIA
7.7.2	Respond to Spills and Releases Respond and Clean Up Spills and Releases of Regulated Materials	The Emergency Spill Response Team shall respond to all spills and releases of regulated wastes and materials. Immediately notify: a. The EOC at x-33333, or x-34658; or EF X44444, b. The ***COTR** by telephone and/or pager, c. For asbestos spill/releases, also contact the Occupational Medicine/Occupational Health (OMOH) Contractor at x-36726. Perform cleanup and removal of spilled material and contamination, dispose of material generated during cleanup, and decontaminate personnel, equipment, and all property affected by the spilled material in accordance with all applicable EPA and OSHA protocols. d) Notify the FM or other appropriate person that the spill emergency has been terminated; area is cleaned, and suitable for occupancy.	Quantities as determined, see above	Respond IAW *JSC Emergency Response Plan, 29 CFR 1910, 40 CFR, 30 TAC 335. No failures to notify the EOC, Environmental Office and the OMOH Contractor of spills/releases at ***JSC** facilities. All wastes shall be managed IAW Annex 7. Cleanup shall be completed (contaminants reduced to within limits allowed by applicable regulations) prior to leaving the spill site.
7.7.3	Spill Equipment and Supplies Provide all Equipment, Supplies, and Materials Necessary for Spill Response Activities	Maintain adequate materials necessary for spill response activities in accordance with the ****JSC and EF SPCC's** and ensure that adequate supplies are transported to each spill scene as necessary. Includes equipment and supplies for use by emergency personnel for the decontamination of responders and victims/bystanders (example: disposable kiddies pools, 1-5 gallon pump-up H2O sprayers with neutralizing agents, etc.) Adequate supplies shall be available to support 24 hour/day spill response. Required reference materials shall be maintained as part of the inventory; e.g., guidebooks, blank forms or permits, material safety data sheet (MSDS's), chemical reference manuals.	Quantities as determined, see above	Inventory and equipment shall be maintained in adequate quantity and type to respond to any spill that may occur at ***JSC**. Transport for spill supplies shall be available at all times to support spill response efforts.

Facilities-Environmental Contract Matrix

Table 7-1

Function	Facilities - Annex 7	Environmental Contract
Env Operations Compliance	7.2 Primary responsibility for compliance in all Annex 7 activities and operations. Notifies *JSC Environmental Office and Environmental Contractor of non-compliances & spills.	Environmental Compliance Program – Primary responsibility for sitewide compliance oversight, auditing, assessing regulated programs, operations & activities.
ISW (Hazwaste program)	7.3 Primary day to day responsibility for administration of ISW. Provides compatible waste accumulation containers to waste pickup from generators to manifesting and dispositioning waste offsite to a TSDR.	Waste Management – Responsible for site wide oversight, auditing, and assessing compliance. Obtain and hold subcontracts for waste transporters & TSDR's. Audits waste transporters and TSDR's for selection and approval. Provides technical assistance to waste generators.
B222 CEMS (Air program)	7.4 Maintain Continuous Emissions Monitoring System equipment at B222 to support EA Arcjet operations with no unscheduled downtime.	Permit Compliance Activities for Boiler 222-1A – Responsible for arranging, notifying and performing periodic regulatory tests, CGA & RATA, prepares and submits reports for submittal to the TCEQ. Maintains TCEQ permits and ensures compliance with permit conditions.
Water Program	7.5 Containments (RCRA, Stormwater, & SPCC) – Visual field inspections, completes checklists/logs for pollutants/releases. Drains containments after rainfall events. Sanitary sewerage - provides access for sampling, spill response, & assists with sewerage overflows & cross connections. Impoundment Mnt - Periodic removal of sludges & sediments. Performs overflow prevention, routes effluent to sanitary sewer.	Water Programs – assures overall compliance for storm water, SPCC, sanitary discharges, and with site wide sewer ordinance & permits, maintains and updates required plans (SPCC & SWPPP), arranges sampling of regulated discharges, prepares reports for submittal to external agencies and responsible for assuring compliance with applicable drinking water regulations.
Ground Water Protection	7.6 Primary responsibility for operating the groundwater treatment system (currently offline during innovative technology remediation demonstration	Environmental Treatment Systems – Primary responsibility to ensure regulatory compliance on the Facilities Contract maintenance & operation of the Groundwater Treatment & Memtek systems. Responsible for periodic system evaluation of efficiency, effectiveness, and opportunities for optimization.
Emergency Spill Response	7.7 Primary responsibility as 1st responder to all chemical & asbestos spill/releases for mitigation, containment and/or cleanup. Provides qualified, trained, spill response team personnel to OSHA Level B. Maintains and stocks the Spill Trailer. Coordinates and assists JSC Emergency Response Team. Provides spill info to Environmental Contractor.	Responsible for responding to provide technical assistance/support, chemical identification, PPE selection, participating as part of the Emergency Response Team and ICS, assess spills for making regulatory notifications and follow-up reports, assess spill for follow-on remediation & preparing TRRP reports, identifying similar areas on site to prevent recurrences.

Facilities-Environmental Contract Matrix

Table 7-1

Function	Facilities - Annex 7	Environmental Contract
General Environmental Information	7.1 Operator and laborer responsibilities for environmental field operations services.	Implementation of compliance, restoration, pollution prevention and conservation environmental programs requiring planning & program management; studies; investigations; evaluations; consultations; conceptual design; value engineering; and optimization of environmental treatment systems. Included programs are:Environmental Compliance Management; Industrial Solid Waste (ISW);Air Quality; Water Pollution Control and Prevention; Lead (Pb) & Asbestos; Petroleum Storage Tanks (PST); Groundwater Protection; Emergency Response;Pollution Prevention and Sustainability/Resource Conservation; Training, Toxic Substances Control Act (TSCA), Recycling, ODSs, Affirmative Procurement, Design Review & Construction Support, GIS and Training
Environmental Mgt System and Compliance	7.2 Make environmental regulatory documents available upon request for demonstrating compliance. Notify the COTR & *JSC Environmental Office of noncompliant conditions within 24 hours.	Environmental Management (System) and Compliance -Administer elements of *JSC's Environmental Management System (EMS) and Environmental Compliance Program. Participate in external inspections (*regulatory agencies & NASA HQ) and conduct general and focused internal compliance audits and inspections.
Air Quality Program	7.2 Report non-compliant conditions to the *COTR and *JSC Environmental Office.	Perform technical activities, analyses and oversight to ensure compliance with all applicable regulations governing air quality. This includes activities such as operations of air monitoring systems, data collection, updating and maintaining records, Clean Air Act (CAA) permit compliance, preparing facility emission inventories, making visible emission readings, and other activities as required by air permits and federal, state, and local air quality regulations.

Facilities-Environmental Contract Matrix

Table 7-1

Function	Facilities - Annex 7	Environmental Contract
Asbestos & Lead (Pb)	7.2 Report non-compliant conditions to the ***COTR** and *JSC Environmental Office. 7.7 Element of primary responsibility for emergency spill/release response.	Primary responsibility for administering the asbestos/lead program for ensuring that all JSC project and O&M activities are compliant with TSDHS, EPA NESHAPS and TSCA requirements. Identify, assess, and track in a database for use by ESH-FMOD-OMOH-FM's the condition of asbestos at JSC for awareness & prioritizing abatement actions.
Petroleum Storage Tanks (PST)	NA (Task orders may be place by the government for PST maintenance	Performs technical activities and analyses in support of the management of petroleum storage tanks (including associated piping) and perform evaluations & make recommendations for upgrades of cathodic protection and corrosion control systems. Develop and maintain a log of all PSTs records, track all maintenance & construction activities, regulatory notifications- registrations, status & closures.
Sustainability/Pollution Prevention Program	NA	Primary responsibility for developing and implementing an aggressive and comprehensive Sustainability and Pollution Prevention (S/P2) program to minimize the generation of wastes, water pollutants and air emissions at ***JSC**
Recycling, Municipal Solid Waste Disposal, Affirmative Procurement	NA	Primary responsibility for assisting the JSC Environmental Office with meeting agency and Center recycling goals, locating vendors, providing technical knowledge, and investigating partnering opportunities with outside businesses or Agencies. Conduct study to optimize solid waste disposal operations at JSC. Manage the Affirmative Procurement waiver process for ***JSC**.
Environmental Support to Design Reviews and Construction Program	NA	Support and develop design work, planning and programming, project management, project scoping, studies, investigations, evaluations, conceptual design, value engineering and operation, monitoring, and optimization of environmental treatment or control systems. The contract shall be involved in activities such as preparation of contract plans, specifications, scheduling, cost estimates, and preparation of operating and design manuals. The major objective of a design project shall be the complete design of a practical and effective system(s) which meets the objectives of the project, maintains regulatory compliance, and incorporates pollution prevention initiatives.

ATTACHMENT J-B
CONTRACTOR PLANS

ATTACHMENT J-C
AWARD-FEE/AWARD-TERM PLAN

FACILITIES CONTRACT

AWARD-FEE/AWARD-TERM

PERFORMANCE EVALUATION PLAN

Award-Fee/Award-Term Performance Evaluation Plan

I. Introduction

In accordance with the provisions of the Federal Acquisition Regulation (FAR), the NASA FAR Supplement (NFS), and the Johnson Space Center's (JSC) policies and procedures, this plan covers the administration of the award-fee/award-term provisions of the Facilities Contract.

The available award-fee/award-term periods are shown in Table 1.0, 1.1, and 1.2. The award-fee/award-term will be determined by the Award Determination Official (ADO) in accordance with this plan.

NASA may unilaterally change aspects of this plan by providing the Contractor written notices of the changes prior to the beginning of the evaluation period to which the changes apply. Changes may be made to the plan during a period if mutually agreed to by both parties.

II. Organization Structure for Award-Fee/Award-Term Administration

The purpose of the award-fee/award-term incentive is to motivate the Contractor to provide excellent performance during the life of the contract. This incentive is designed to foster long-term relationships by rewarding Contractors with additional period(s) of performance in compensation for achieving desired objectives at a higher level of performance and reduced costs. For this contract, it is possible that the Contractor may earn up to a 10 year period of performance without further competition (see proposed award-term format chart at end of this plan).

A. Performance Evaluation Board (PEB) Integration Team (PEB IT)

The PEB IT is responsible for assessing Contractor performance against the award-fee/award-term factors in Table 2.0 and 2.1.

The PEB IT will conduct the formal award-fee/award-term evaluation at the end of each evaluation period. In addition, the PEB IT will conduct interim performance evaluations midway (also known as the "mid-term review" which is 3 months into a 6-month period) through each evaluation period. The PEB IT will discuss any specific areas where the Contractor has excelled and areas where future emphasis is necessary.

At the end of each evaluation period, the PEB IT will prepare a report that will include:

1) A recommendation as to the numeric score,
2) An adjective rating for the Contractor's performance for the evaluated period.

The report will be forwarded to the PEB.

B. Performance Evaluation Board

The PEB will review the evaluation and recommendation of the PEB IT as to whether the Contractor's performance is deserving of award-fee or award of additional Contract term. The PEB will submit its evaluation and recommendation to the ADO.

C. ADO

Primary ADO responsibilities are as follows:

1) After considering available pertinent information and the PEB's recommendation, the ADO will determine the numeric score and adjective rating earned for each evaluation period. The average of these ratings for the two 6 month evaluation periods shall then be averaged to determine the award-fee or award term.

2) The Contracting Officer (CO) will notify the Contractor of the ADO's determination for the award-fee/award-term. Additionally, the CO will provide the PEB findings to the Contractor. The Contractor will be afforded the opportunity to submit exceptions to the evaluations, conclusions, or award-fee/award-term recommendations of the PEB, and supporting reasons for such exceptions. The Contractor's submission must be made in writing and must be submitted through the CO to the ADO within seven calendar days from the date of the Contractor's receipt of the PEB's findings and award-fee/award-term recommendation.

3) If additional award-term is earned, the CO will issue a Contract modification extending the Contract period of performance in accordance with the ADO's determination and the terms and conditions of the Contract, or

4) If additional award-fee is earned, the CO will issue a Contract modification awarding the fee earned in accordance with the ADO's determination and the terms and conditions of the Contract.

III. Evaluation Requirements

A. Evaluation Periods

Award-Fee/Award-Term Structure:

1) Base Period: The contract base period for this contract is 2 years (24 months). NOTE: For purposes of the Government's evaluation of the base period, the first 9 months of the base period is considered a Cost-Plus-Award-Fee (CPAF) period where performance is rated but no award-term will be earned. The subsequent 12 months (months 10 through 21) will be a Cost-Plus-Fixed-Fee (CPFF) period and evaluated for award-term purposes only. The period of performance beyond the base period may be extended by the implementation of Plan A or Plan B.

2) Plan A: Plan A inaugurates the award-term feature on the contract by awarding a 2-year term (Contract Years Three and Four) and may be implemented upon earning a rating of "very good" or above based upon evaluation of contractor performance between months 10 through 21 of the base period. The contract type under Plan A is CPFF, except the final 24 months Plan A which will be CPAF. Under Plan A, the total period of performance shall not exceed 10 years.

3) Plan B: In the event that the contractor receives an evaluation below "very good" based upon the evaluation of contractor performance between months 10 through 21 of the base period, Plan B may be implemented and months 22 through 24 will be converted to CPAF. In addition, a 1-year CPAF period (Contract Year Three) will be exercised in order for the Government to immediately begin a re-competition. Under Plan B, the total period of performance is not anticipated to exceed 3 years (base period plus this 1-year period); however, additional years may be exercised at the discretion of the Government, if needed, for the purpose of

allowing time to re-compete the procurement. Absolutely no unearned award-term incentive will be available to be earned during Plan B.

4) Plan C "Safety-net": In the event that the contractor does not perform "excellent" in any of the award-term years (Contract Years Three through Eight); Plan C may be implemented which will result in a 1-year CPAF period. However, additional years may be exercised by the Government, if needed, for the purpose of allowing time to re-compete the procurement. Under Plan C, the total period of performance shall not exceed that which is authorized by the Contracting Officer. Absolutely no unearned award-term incentive will be available to be earned during Plan C.

(TABLE 1.0) DISTRIBUTION SCHEDULE FOR AWARD-FEE/AWARD-TERM (PLAN A)

Contract Year	Period No.	Evaluation Period	Duration	Contract Type	Available Fee
Year 1	Initial Period	9 months	3/1/08 – 11/30/08	Award-Fee	$1,892,201
Year 1	Period 1	3 months	12/1/08 – 2/28/09	Fixed-Fee	
Year 2	Period 1	3 months	3/1/09 – 5/31/09	Fixed-Fee	
Year 2	Period 2	6 months	6/1/09 – 11/30/09	Fixed-Fee	$1,924,082
Year 2	Period 3	3 months	12/1/09 – 2/28/10	Fixed-Fee	
Year 3	Period 3	6 months	3/1/10 – 8/31/10	Fixed-Fee	
Year 3	Period 4	6 months	9/1/10 – 2/28/11	Fixed-Fee	$1,962,201
Year 4	Period 5	6 months	3/1/11 – 8/31/11	Fixed-Fee	
Year 4	Period 6	6 months	9/1/11 – 2/28/12	Fixed-Fee	$2,007,498
Year 5	Period 7	6 months	3/1/12 – 8/31/12	Fixed-Fee	
Year 5	Period 8	6 months	9/1/12 – 2/28/13	Fixed-Fee	$2,059,423
Year 6	Period 9	6 months	3/1/13 – 8/31/13	Fixed-Fee	
Year 6	Period 10	6 months	9/1/13 – 2/28/14	Fixed-Fee	$2,107,646
Year 7	Period 11	6 months	3/1/14 – 8/31/14	Fixed-Fee	
Year 7	Period 12	6 months	9/1/14 – 2/28/15	Fixed-Fee	$2,152,691
Year 8	Period 13	6 months	3/1/15 – 8/31/15	Fixed-Fee	
Year 8	Period 14	6 months	9/1/15 – 2/28/16	Fixed-Fee	$2,197,498
Year 9	Period 15	6 months	3/1/16 – 8/31/16	Award-Fee	
Year 9	Period 16	6 months	9/1/16 – 2/28/17	Award-Fee	$2,243,186
Year 10	Period 17	6 months	3/1/17 – 8/31/17	Award-Fee	
Year 10	Period 18	6 months	9/1/17 – 2/28/18	Award-Fee	$2,289,485

(TABLE 1.1) DISTRIBUTION SCHEDULE FOR AWARD-FEE/AWARD-TERM (PLAN B)

Contract Year	Period No.	Evaluation Period	Duration	Contract Type	Available Fee
Year 1	Initial Period	9 months	3/1/08 – 11/30/08	Award-Fee	$1,892,201
Year 1	Period 1	3 months	12/1/08 – 2/28/09	Fixed-Fee	
Year 2	Period 1	3 months	3/1/09 – 5/31/09	Fixed-Fee	$1,924,082
Year 2	Period 2	6 months	6/1/09 – 11/30/09	Fixed-Fee	
Year 2	Period 3	3 months	12/1/09 – 2/28/10	Award-Fee	
Year 3	Period 3	6 months	3/1/10 – 8/31/10	Award-Fee	$1,962,201
Year 3	Period 4	6 months	9/1/10 – 2/28/11	Award-Fee	

NOTE: If Plan B is implemented, the last year will encompass a 15-month award-fee year. Therefore, the remaining 3 months of the last contract year will be converted to award-fee. Additional years may be exercised at the discretion of the Government, if needed, for purposes of allowing time to re-compete the procurement (see Clause H.10).

(TABLE 1.2) DISTRIBUTION SCHEDULE FOR AWARD-FEE/AWARD-TERM (PLAN C)

Contract Year	Period No.	Evaluation Period	Duration	Contract Type	Available Fee
Year 1	Initial Period	9 months	3/1/08 – 11/30/08	Award-Fee	$1,892,201
Year 1	Period 1	3 months	12/1/08 – 2/28/09	Fixed-Fee	
Year 2	Period 1	3 months	3/1/09 – 5/31/09	Fixed-Fee	$1,924,082
Year 2	Period 2	6 months	6/1/09 – 11/30/09	Fixed-Fee	
Year 2	Period 3	3 months	12/1/09 – 2/28/10	Fixed-Fee	
Year 3	Period 3	6 months	3/1/10 – 8/31/10	Fixed-Fee	$1,962,201
Year 3	Period 4	6 months	9/1/10 – 2/28/11	Fixed-Fee	
Year 4	Period 5	6 months	3/1/11 – 8/31/11	Award-Fee	
Year 4	Period 6	6 months	9/1/11 – 2/28/12	Award-Fee	$2,007,498
Year 5	Period 7	6 months	3/1/12 – 8/31/12	Award-Fee	
Year 5	Period 8	6 months	9/1/12 – 2/28/13	Award-Fee	$2,059,423
Year 6	Period 9	6 months	3/1/13 – 8/31/13	Award-Fee	
Year 6	Period 10	6 months	9/1/13 – 2/28/14	Award-Fee	$2,107,646
Year 7	Period 11	6 months	3/1/14 – 8/31/14	Award-Fee	
Year 7	Period 12	6 months	9/1/14 – 2/28/15	Award-Fee	$2,152,691
Year 8	Period 13	6 months	3/1/15 – 8/31/15	Award-Fee	
Year 8	Period 14	6 months	9/1/15 – 2/28/16	Award-Fee	$2,197,498
Year 9	Period 15	6 months	3/1/16 – 8/31/16	Award-Fee	
Year 9	Period 16	6 months	9/1/16 – 2/28/17	Award-Fee	$2,243,186
Year 10	Period 17	6 months	3/1/17 – 8/31/17	Award-Fee	
Year 10	Period 18	6 months	9/1/17 – 2/28/18	Award-Fee	$2,289,485

NOTE: If Plan C is implemented, the last year will encompass a 15-month award-fee year.

Therefore, the last 3 months of the current contract year and the following contract year earned will be converted to award-fee. In addition, the Government may exercise a CPAF contract year(s) for purposes of re-competition (see Clause H.10).

B. Award-Fee Evaluation Factors and Weighted Values

The performance factors to be evaluated are listed below. The evaluation criteria for each factor are shown below in Table 2.0:

(TABLE 2.0)
AWARD FEE FACTORS AND WEIGHTED VALUES

Factor No.	Factor	Factor Weight (Total = 100%)
1	Technical	50%
2	Cost	25%
3	Small Business Goals – Socio Economic Participation	15%
4	Safety, Health, and Environmental	10%

The award fee evaluation will have the following composition – 30 percent of the factor's evaluation will be based on AOEs and subjective evaluations; 70 percent of the evaluation will be based on weighted metrics defined in each of the factor's referenced evaluation metric tables. In addition, the Government will weight the metrics for evaluation purposes prior to each evaluation period. AOEs and the metric weightings will be provided to the Contractor fifteen days prior to the evaluation period. Where AOEs are not provided for the specific evaluation factor, 100 percent of that factor's evaluation will be based on the referenced metrics.

C. Evaluation Criteria for Award-Fee Performance Evaluation Factors

See Table 5.0 Award Fee Performance Evaluation

Factor 1: Technical Performance (Weight = 50 percent)

The technical performance factor will be used to evaluate the effectiveness of the technical program areas of the Contract.

The technical performance award-fee/award-term evaluation factors will be used to measure the performance of the Contractor in meeting the requirements of the Statement of Work (SOW) in areas of the quality of work products, and meeting schedule milestones. See Table 5.0 – Technical Performance Evaluation Factors.

Factor 2: Cost (Weight = 25 percent)

The cost performance factor will be used to evaluate the effectiveness of cost control in support of the technical and business areas of the Contract. See Table 5.0 – Cost Performance Evaluation Factors.

Factor 3: Small Business Goals – Socio Economic Participation (Weight = 15 percent)

The subcontracting performance factor will be used to assess if the Contractor has met the small business subcontracting goals of the Contract. . See Table 5.0 – Small Business Goals – Socio Economic Participation Performance Evaluation Factors.

Factor 4: Safety, Health, and Environmental (Weight = 10 percent)

The safety, health, and environmental performance factor will be used to measure the Contractor's effectiveness in meeting the safety, health, and environmental requirements of the Contract. See Table 5.0 – Safety, Health, and Environmental Performance Evaluation Factors.

D. Award-Fee Scoring

Each individual evaluation factor will be measured and given a score based on the criteria in the Table 3.0. Then each score is multiplied by a weighting and all weighted scores added together to determine the overall grade for the award-term. An adjective rating will be assigned based on Table 4.0 – Award-Fee/Award-Term Score Conversion Chart.

E. Award-Term Evaluation Factors and Weighted Values

The performance factors to be evaluated are listed below. The evaluation criteria for each factor are shown below in Table 2.1:

(TABLE 2.1)
AWARD TERM FACTORS AND WEIGHTED VALUES

Factor No.	Factor	Factor Weight (Total = 100%)
1	Technical	50%
2	Management (including cost control)	25%
3	Small Business Goals – Socio Economic Participation	15%
4	Safety, Health, and Environmental	10%

The award term evaluation will have the following composition – 30 percent of the factor's evaluation will be based on AOEs and subjective evaluations; 70 percent of the evaluation will be based on weighted metrics defined in each of the factor's referenced evaluation metric tables. The Government will weight the metrics for evaluation purposes prior to each evaluation period. AOEs and the metric weightings will be provided to the Contractor fifteen days prior to the evaluation period. Where AOEs are not provided for the specific evaluation factor, 100 percent of that factor's evaluation will be based on the referenced metrics.

F. Evaluation Criteria for Award-Term Performance Evaluation Factors

See Table 6.0 Award Term Performance Evaluation

Factor 1: Technical Performance (Weight = 50 percent)

The technical performance factor will be used to evaluate the effectiveness of the technical program areas of the Contract.

The technical performance award-fee/award-term evaluation factors will be used to measure the performance of the Contractor in meeting the requirements of the Statement of Work (SOW) in areas of the quality of work products, and meeting schedule milestones. See Table 6.0 – Technical Performance Evaluation Factors.

Factor 2: Management (including cost control) (Weight = 25 percent)

The management performance factor will be used to evaluate the effectiveness of management and cost control in support of the technical and business areas of the Contract.

Award-term requires a cost-gate be met for the Contractor to earn an additional term. The cost-gate is a target that the Contractor must meet before an additional term may be awarded. The cost-gate is based on the total contract value, as modified through Contract changes, if any. The Contractor must meet or under-run cost for the period before an award-term determination can take place. The total contract value will be established for annual periods and tied to the associated 6-month evaluation periods. If an agreement between the Government and the Contractor on the total contract value is not reached, the Government will unilaterally determine the total contract value and apprise the Contractor.

See Table 6.0 – Management Performance Evaluation Factors.

Factor 3: Small Business Goals – Socio Economic Participation (Weight = 15 percent)

The subcontracting performance factor will be used to assess if the Contractor has met the small business subcontracting goals of the Contract. . See Table 6.0 – Small Business Goals – Socio Economic Participation Performance Evaluation Factors.

Factor 4: Safety, Health, and Environmental (Weight = 10 percent)

The safety, health, and environmental performance factor will be used to measure the Contractor's effectiveness in meeting the safety, health, and environmental requirements of the Contract. See Table 6.0 – Safety, Health, and Environmental Performance Evaluation Factors.

G. Award-Term Scoring

Each individual evaluation factor will be measured and given a score based on the criteria in the Table 3.0. Then each score is multiplied by a weighting and all weighted scores added together to determine the overall grade for the award-term. An adjective rating will be assigned based on Table 4.0 – Award-Fee/Award-Term Score Conversion Chart.

H. Major Breach of Safety and Security – Award Fee/Award Term

In the event of a major breach of safety or security at any time under this contract the resultant award fee/award term score will be "0 – poor/unsatisfactory rating."

(TABLE 3.0)
EVALUATION SCALE DEFINITIONS FOR AWARD FEE/AWARD TERM

Adjective Rating	Grade Range	Narrative Description of Performance
Excellent	91 – 100	Of exceptional merit; exemplary performance in a timely, efficient, and economical manner; very minor (if any) deficiencies with no adverse effect on overall performance.
Very Good	81 – 90	Very effective performance, fully responsive to contract requirements accomplished in a timely, efficient, and economical manner for the most part. Only minor deficiencies.
Good	71 – 80	Effective performance; fully responsive to contract requirements; reportable deficiencies, but with little identifiable effect on overall performance.
Satisfactory	61 – 70	Meets or slightly exceeds minimum acceptable standards; adequate results. Reportable deficiencies with identifiable, but not substantial, effects on overall performance.
Poor/Unsatisfactory	60 and below	Does not meet minimum acceptable standards in one or more areas; remedial action required in one or more areas; deficiencies in one or more areas which adversely affect overall performance.

(TABLE 4.0)
AWARD-FEE/AWARD-TERM SCORE CONVERSION CHART

Weighted Performance Score	Adjectival Rating	Percentage of Available Award Fee
100	Excellent	100%
99		99%
98		98%
97		97%
96		96%
95		95%
94		94%
93		93%
92		92%
91		91%
90	Very Good	90%
89		89%
88		88%
87		87%
86		86%
85		85%
84		84%
83		83%
82		82%
81		81%
80	Good	80%
79		79%
78		78%
77		77%
76		76%
75		75%
74		74%
73		73%
72		72%
71		71%
70	Satisfactory	70%
69		69%
68		68%
67		67%
66		66%
65		65%
64		64%
63		63%
62		62%
61		61%
60 and below	Poor/Unsatisfactory	0.0

(TABLE 5.0) Award Fee Performance Evaluation *Performance Evaluation Factors – Award Fee*								
#	*Weighting Factor %*	*Factor*	*Poor Score = 60 or below*	*Satisfactory Score = 70*	*Good Score = 80*	*Very Good Score = 90*	*Excellent Score = 100*	*Surveillance Method*
T-1		Employees possess current required technical skills, qualifications, certifications, and training	Less than 90% of employees current with all indicated skills and certifications with no operational impact	Not Applicable		90% to 94% of employees current with all indicated skills and certifications with no operational impact	95% to 100% of employees current with all indicated skills and certifications with no operational impact	Management metric # 1 from DRD MO-1-3
T-2		Customer Satisfaction based on Customer Surveys not generated through SPICE	Less than 85%- customer satisfaction rating and 100% of poor scores are followed up with customer.	85% to 87% customer satisfaction rating and 100% of poor scores are followed up with customer.	88% to 90% customer satisfaction rating and 100% of poor scores are followed up with customer.	91% to 94% customer satisfaction rating and 100% of poor scores are followed up with customer.	95% to 100% customer satisfaction rating and 100% of poor scores are followed up with customer.	Management metric # 2 from DRD MO-1-3

(TABLE 5.0) Award Fee Performance Evaluation *Performance Evaluation Factors – Award Fee*								
#	*Weighting Factor %*	*Factor*	*Poor Score = 60 or below*	*Satisfactory Score = 70*	*Good Score = 80*	*Very Good Score = 90*	*Excellent Score = 100*	*Surveillance Method*
T-3		DRD's and Reports	Less than 80% of the reports completed on time and any deficiency with notable adverse compliance or operational impact	80% to 83% of the reports completed on time with no compliance or operational impact or liability	84% to 88% of the reports completed on time with no compliance or operational impact or liability	89% to 94% of the reports completed on time with no compliance or operational impact or liability	95% to 100% of the reports completed on time with no compliance or operational impact or liability	Management metric # 3 from DRD MO-1-3
T-4		Meet target closure deadlines for technical and administrative actions of environmental nonconformances and noncompliances associated with Contractor activities in the Center-wide environmental problem reporting system (CATS-PRS)	Less than 85% of records in CATS-PRS closed during the reporting period are closed by the target closure deadline	85% to 89% of records in CATS-PRS closed during the reporting period are closed by the target closure deadline	90% to 93% of records in CATS-PRS closed during the reporting period are closed by the target closure deadline	94% to 97% of records in CATS-PRS closed during the reporting period are closed by the target closure deadline	5 or fewer contractor activities identified in a six-month period that are not under EMS control Greater or equal to 98% of records in CATS-PRS closed during the reporting period are closed by the target closure deadline	Management metric # 4 from DRD MO-1-3

(TABLE 5.0) Award Fee Performance Evaluation *Performance Evaluation Factors – Award Fee*								
#	*Weighting Factor %*	*Factor*	*Poor Score = 60 or below*	*Satisfactory Score = 70*	*Good Score = 80*	*Very Good Score = 90*	*Excellent Score = 100*	*Surveillance Method*
T-5		The Contractor's performance causing Unplanned Outages during Core Hours of the Storefront data (based on total number of outage hours from monthly metrics)	Storefront links are unavailable for more than 24 hours due to unplanned outages	All storefront links are available with less than 24 hours of unplanned outages	All storefront links are available with less than 16 hours of unplanned outages	All storefront links are available with less than 8 hours of unplanned outages	All storefront links are available with less than 4 hours of unplanned outages	Management metric # 5 from DRD MO-1-3
T-6		Contractor administered IT Systems (non Storefront) Availability	IT Systems (non-storefront) are unavailable for more than 24 hours due to unplanned outages	All (non-storefront) IT Systems are available with less than 24 hours of unplanned outages	All IT Systems (non-storefront) are available with less than 16 hours of unplanned outages	All IT Systems (non-storefront) are available with less than 8 hours of unplanned outages	All IT Systems (non-storefront) are available with less than 4 hours of unplanned outages	Management metric # 6 from DRD MO-1-3

(TABLE 5.0) Award Fee Performance Evaluation
Performance Evaluation Factors – Award Fee

#	*Weighting Factor %*	*Factor*	*Poor Score = 60 or below*	*Satisfactory Score = 70*	*Good Score = 80*	*Very Good Score = 90*	*Excellent Score = 100*	*Surveillance Method*
T-7		Task Orders	Less than 85% of all scheduled Task Orders are completed on or before the scheduled due dates	85% to 89% of all scheduled Task Orders are completed on or before the scheduled due dates	90% to 94% of all scheduled Task Orders are completed on or before the scheduled due dates	95% to 97% of all scheduled Task Orders are completed on or before the scheduled due dates with minimal Backlogged (non-deferred) Task Orders still opened from previous months.	98% to 100% of all scheduled Task Orders are completed on or before the scheduled due dates with minimal Backlogged (non-deferred) Task Orders still opened from previous months.	Management metric # 8 from DRD MO-1-3

(TABLE 5.0) Award Fee Performance Evaluation
Performance Evaluation Factors – Award Fee

#	*Weighting Factor %*	*Factor*	*Poor Score = 60 or below*	*Satisfactory Score = 70*	*Good Score = 80*	*Very Good Score = 90*	*Excellent Score = 100*	*Surveillance Method*
T-8		Engineering Design (Schedule) % on time	Less than 85% of all scheduled Design projects are completed on or before the scheduled due dates	85% to 89% of all scheduled Design projects are completed on or before the scheduled due dates	90% to 94% of all scheduled Design projects are completed on or before the scheduled due dates	95% to 97% of all scheduled Design projects are completed on or before the scheduled due dates, or 100% of all scheduled Design projects are completed on or before the scheduled due dates with minimal Backlogged (non-deferred) Design projects still opened from previous month	98% to 100% of all scheduled Design projects are completed on or before the scheduled due dates. No Late Designs for the given month and minimal Backlogged (non-deferred) Designs still opened from previous months.	SPICE calculation of (# of Design projects completed on time / # of Design projects due for the given month) x (Contractual time (days) based on average final construction cost / average actual design time) minus the # of backlogged (non-deferred) design projects from the previous months

(TABLE 5.0) Award Fee Performance Evaluation *Performance Evaluation Factors – Award Fee*								
#	*Weighting Factor %*	*Factor*	*Poor Score = 60 or below*	*Satisfactory Score = 70*	*Good Score = 80*	*Very Good Score = 90*	*Excellent Score = 100*	*Surveillance Method*
T-9		Non-Design Delivery Orders (Schedule)	Less than 85% of all scheduled non-design delivery orders are completed on or before the scheduled due dates	85%-89% of all scheduled non-design delivery orders are completed on or before the scheduled due dates	90%-94% of all scheduled non-design delivery orders are completed on or before the scheduled due dates	95% to 97% of all scheduled non-design delivery orders are completed on or before the scheduled due dates, or 100% of all scheduled non-design delivery orders are completed on or before the scheduled due dates with minimal Backlogged (non-deferred) non-design delivery orders still opened from previous month	98% to 100% of all scheduled non-design delivery orders are completed on or before the scheduled due dates. No Late non-design delivery orders for the given month and minimal Backlogged (non-deferred) non-design delivery orders still opened from previous months.	SPICE calculation of (# of non-design delivery orders completed on time / # of non-design delivery orders due for the given month) x (Contractual time (days) based on average final cost / average actual time) minus the # of backlogged (non-deferred) non-design delivery orders from the previous months
T-10		Customer Satisfaction based on SPICE generated Customer Surveys	Less than 60%- customer satisfaction rating	60% to 69% customer satisfaction rating.	70% to 79% customer satisfaction rating	80% to 89% customer satisfaction rating.	90% to 100% customer satisfaction rating.	SPICE generated

(TABLE 5.0) Award Fee Performance Evaluation *Performance Evaluation Factors – Award Fee*								
#	*Weighting Factor %*	*Factor*	*Poor Score = 60 or below*	*Satisfactory Score = 70*	*Good Score = 80*	*Very Good Score = 90*	*Excellent Score = 100*	*Surveillance Method*
T-11		The Contractor's performance of scheduled maintenance tasks (based on average of monthly metrics)	Less than 85% of the scheduled maintenance tasks completed	85% to 89% of the scheduled maintenance tasks performed in the window of opportunity	90% to 94% of the scheduled maintenance tasks performed in the window of opportunity	95% to 97% of the scheduled maintenance tasks performed in the window of opportunity	98% to100% completion of all scheduled maintenance tasks completed on time	DRD MO-1-3 Facility Engineering monthly metric B-5
T-12		The ratio Preventive Maintenance Cost (PM&PTI) to Repair Cost in percentage of total PM, PTI & CM cost. PM% : R%	Less than 60%/40%	60%/40%	70%/30%	75%/25%	80%/20%	DRD MO-1-3 Facility Engineering monthly metric B-3
T-13		The Contractor's performance of equipment repairs: UTC (based on average of monthly metrics)	Less than 85% of repair work completed on time	85% to 89% of repair work completed on time	90% to 94% of repair work completed on time	95% to 97% of repair work completed on time	98% to 100% repair work completed on time	DRD MO-1-3 Facility Engineering monthly metric B-9
T-14		The Contractor's performance of equipment repairs RTC (based on average of monthly metrics	Less than 85% repair work completed on time	85% to 90% repair work completed on time	90% to 94% repair work completed on time	95% to 97% repair work completed on time	98% to 100% repair work completed on time	DRD MO-1-3 Facility Engineering monthly metric B-10

(TABLE 5.0) Award Fee Performance Evaluation *Performance Evaluation Factors – Award Fee*								
#	*Weighting Factor %*	*Factor*	*Poor Score = 60 or below*	*Satisfactory Score = 70*	*Good Score = 80*	*Very Good Score = 90*	*Excellent Score = 100*	*Surveillance Method*
T-15		The Contractor's performance causing Unplanned Outages in Critical Buildings (based on total number of outages from all monthly metrics)	More than 1	N.A.	One	N.A.	Zero	DRD MO-1-3 Facility Engineering monthly metric B-14-a
T-16		The Contractor's performance causing Unplanned Outages in Non-Critical Buildings (based on total number of outages from monthly metrics)	More than 3	Three	Two	One	Zero	DRD MO-1-3 Facility Engineering monthly metric B-14-b

(TABLE 5.0) Award Fee Performance Evaluation *Performance Evaluation Factors – Award Fee*								
#	*Weighting Factor %*	*Factor*	*Poor Score = 60 or below*	*Satisfactory Score = 70*	*Good Score = 80*	*Very Good Score = 90*	*Excellent Score = 100*	*Surveillance Method*
T-17		The Contractor's performance of Mission Support	More than three deficiencies in mission support.	Three deficiencies in mission support.	Two deficiencies in mission support.	One deficiency in mission support.	All mission support provided without deficiencies.	COD Mission Manager evaluation of mission support in regard to critical power checkout, casualty drills, mission readiness checklist, update or baseline documentation, and no work performed without mission exception.
T-18		Operational availability of equipment all specified in the Facilities Morning Report	Less than 80% average availability	80% to 84% average availability	85% to 89% average availability	90% to 94% average availability	95% to 100% average availability	DRD MO-1-3 Facility Engineering monthly metric B-15
T-19		System output requirements of chilled water, steam and compressed air production systems.	Failing to meet any of the specified production system output requirements.	Pass Fail Evaluation Factor			100% of specified production system output requirements.	COTR review of the Daily Morning Report

(TABLE 5.0) Award Fee Performance Evaluation *Performance Evaluation Factors – Award Fee*								
#	*Weighting Factor %*	*Factor*	*Poor Score = 60 or below*	*Satisfactory Score = 70*	*Good Score = 80*	*Very Good Score = 90*	*Excellent Score = 100*	*Surveillance Method*
T-20		Spills and releases (excluding asbestos) caused by the Facilities Contractor	5 or more spills per month or more than 1 reportable spill in a six-month period	4 or fewer spills per month or 1 reportable spill in a six-month period	3 or fewer spills per month or 1 reportable spill in a six-month period	2 or fewer spills per month and no reportable spills in a six-month period	1 or fewer spills per month and no reportable spills in a six-month period	DRD MO-1-3 Environmental monthly metric C-1
T-21		Environmental Systems Operations	Equipment unavailability impacts users' requirements	Pass Fail Evaluation Factor			100% operational availability to meet users' requirements	COTR review of the Daily Morning Report
T-22		Re-design/Re-estimate (SPICE generated)	Less than 60% of the final design projects do not require Re-design/Re-estimate	60% to 69% of the final design projects do not require Re-design/Re-estimate	70% to 79% of the final design projects do not require Re-design/Re-estimate	80% to 89% of the final design projects do not require Re-design/Re-estimate	90% to 100% of the final design projects do not require Re-design/Re-estimate	SPICE calculation of (Number of cost estimates minus the number of re-estimates)/Number of cost estimates for the given month

(TABLE 5.0) Award Fee Performance Evaluation
Performance Evaluation Factors – Award Fee

#	*Weighting Factor %*	*Factor*	*Poor Score = 60 or below*	*Satisfactory Score = 70*	*Good Score = 80*	*Very Good Score = 90*	*Excellent Score = 100*	*Surveillance Method*
S-1		The contractor's Days away case rate (DACR), Days Away plus Restricted duty plus job Transfer rate (DART), and Total Recordable Incident Rate (TRIR) must meet OSHA rates of their peers in the North America Industry Classification category of the contract as described in 1.a, 1.b, and 1.c.	1 or more of 1.a, 1.b, or 1.c is graded as poor.	At least two of 1.a, 1.b, and 1.c are scored as satisfactory, and none are scored as poor.	Average of 1.a, 1.b, and 1.c is a good score and none are scored as poor.	At least two of 1.a, 1.b, and 1.c achieve an excellent score, and the third achieves a good or very good score.	1.a, 1.b, and 1.c all achieve an excellent score	COTR and Safety and Mission Assurance Review of contractor supplied data per DRD MO-1-2
S-1.a		DACR	Greater than 100% of the industry average	Greater than 50% but less than 100% of the industry average	Less than 50% of the Industry Average	Less than 40% of the Industry average	Less than 25% of the Industry Average	See 1

(TABLE 5.0) Award Fee Performance Evaluation *Performance Evaluation Factors – Award Fee*								
#	*Weighting Factor %*	*Factor*	*Poor Score = 60 or below*	*Satisfactory Score = 70*	*Good Score = 80*	*Very Good Score = 90*	*Excellent Score = 100*	*Surveillance Method*
S-1.b		DART	Greater than 150% of the industry average	Less than 150% of the industry average	Less than 100% of the industry average	Less than 75% of the industry average	50% or less of the Industry Average	See 1
S-1.c		TRIR	Greater than 150% of the industry average	Less than 150% of the industry average	Less than 100% of the industry average	Less than 75% of the industry average	50% or less of the Industry Average	See 1
S-2		Property Damage arising directly from contractor operations, failure to protect government assets or property, or as owner of record for property.	One or more Type A or B mishap or more than 1 type C mishap or total damage equal to or greater than $30,000	No type A or B; no more than 1 type C; or less than $30,000 in total damage	No type A, B, or C mishaps and less than $15,000 in total damage	No type A, B, or C mishaps and less than $5,000 in total damage	No property damage	COTR and Safety and Mission Assurance Review of contractor supplied data per DRD MO-1-2
S-3		OSHA Violations (any violation may result in a zero on incentive fee)	≥ 1 violation	PASS FAIL Evaluation Factor			No violations	COTR and Safety and Mission Assurance Review of contractor supplied data per DRD MO-1-2

(TABLE 5.0) Award Fee Performance Evaluation *Performance Evaluation Factors – Award Fee*								
#	*Weighting Factor %*	*Factor*	*Poor Score = 60 or below*	*Satisfactory Score = 70*	*Good Score = 80*	*Very Good Score = 90*	*Excellent Score = 100*	*Surveillance Method*
S-4		Federal, State, and Local environmental violations (any violation may result in a zero on incentive fee)	≥ 1 violation	PASS FAIL Evaluation Factor			No violations	COTR and Safety and Mission Assurance Review of contractor supplied data per DRD MO-1-2

(TABLE 5.0) Award Fee Performance Evaluation *Performance Evaluation Factors – Award Fee*								
#	*Weighting Factor %*	*Factor*	*Poor Score = 60 or below*	*Satisfactory Score = 70*	*Good Score = 80*	*Very Good Score = 90*	*Excellent Score = 100*	*Surveillance Method*
S-5		Documented cases of noncompliance (not resulting in a mishap as defined in NPR 8621.1 revision B) with the approved Safety and Health Plan as described in DRD AN-1-1 and determined by the Risk Assessment Code (RAC) Matrix listed in JPR 1700.1, JSC Safety and Health Handbook (a poor rating means automatic zero on performance incentive fee; otherwise, 25% of score is affected by this rating)	1 RAC 1 or RAC 2 case or multiple cases of any kind	1 RAC 3 or RAC 4 case	Not available		No cases of noncompliance	COTR and Safety and Mission Assurance Review of data provided in DRD-MO-1-2, plus review of overall program, close calls, etc.

(TABLE 5.0) Award Fee Performance Evaluation *Performance Evaluation Factors – Award Fee*								
#	*Weighting Factor %*	*Factor*	*Poor Score = 60 or below*	*Satisfactory Score = 70*	*Good Score = 80*	*Very Good Score = 90*	*Excellent Score = 100*	*Surveillance Method*
SDB-1		The contractor met the small business subcontracting goals as defined in Clause H-8 of the contract. (40%)	Majority of goals are not being met and the contractor is not demonstrating reasonable efforts to meet the goal during the current evaluation period	Majority of goals are not being met but the contractor is demonstrating efforts to improve during the current evaluation period	Majority of goals are being met but there are minor negative trends for the current evaluation period	Majority of goals are exceeded by 5% in current evaluation period	Majority of goals are exceeded by 20% in current evaluation period	CO, CS, or Small Business Specialist review of Contractor supplied data on SF 294
SDB-2		The contractor met the small disadvantaged business subcontracting goals as defined in Clause H-8 of the contract. (14%)	Majority of goals are not being met and the contractor is not demonstrating reasonable efforts to meet the goal during the current evaluation period	Majority of goals are not being met but the contractor is demonstrating efforts to improve during the current evaluation period	Majority of goals are being met but there are minor negative trends for the current evaluation period	Majority of goals are exceeded by 5% in current evaluation period	Majority of goals are exceeded by 20% in current evaluation period	CO, CS, or Small Business Specialist review of Contractor supplied data on SF 294

(TABLE 5.0) Award Fee Performance Evaluation *Performance Evaluation Factors – Award Fee*								
#	*Weighting Factor %*	*Factor*	*Poor Score = 60 or below*	*Satisfactory Score = 70*	*Good Score = 80*	*Very Good Score = 90*	*Excellent Score = 100*	*Surveillance Method*
SDB-3		The contractor met the women-owned small business subcontracting goals as defined in Clause H-8 of the contract. (14%).	Majority of goals are not being met and the contractor is not demonstrating reasonable efforts to meet the goal during the current evaluation period	Majority of goals are not being met but the contractor is demonstrating efforts to improve during the current evaluation period	Majority of goals are being met but there are minor negative trends for the current evaluation period	Majority of goals are exceeded by 5% in current evaluation period	Majority of goals are exceeded by 20% in current evaluation period	CO, CS, or Small Business Specialist review of Contractor supplied data on SF 294
SDB-4		The contractor met the HubZone subcontracting goals as defined in Clause H-8 of the contract. (8%)	Majority of goals are not being met and the contractor is not demonstrating reasonable efforts to meet the goal during the current evaluation period	Majority of goals are not being met but the contractor is demonstrating efforts to improve during the current evaluation period	Majority of goals are being met but there are minor negative trends for the current evaluation period	Majority of goals are exceeded by 5% in current evaluation period	Majority of goals are exceeded by 20% in current evaluation period	CO, CS, or Small Business Specialist review of Contractor supplied data on SF 294

(TABLE 5.0) Award Fee Performance Evaluation *Performance Evaluation Factors – Award Fee*								
#	*Weighting Factor %*	*Factor*	*Poor Score = 60 or below*	*Satisfactory Score = 70*	*Good Score = 80*	*Very Good Score = 90*	*Excellent Score = 100*	*Surveillance Method*
SDB-5		The contractor met the veteran-owned small business subcontracting goals as defined in Clause H-8 of the contract. (12%).	Majority of goals are not being met and the contractor is not demonstrating reasonable efforts to meet the goal during the current evaluation period	Majority of goals are not being met but the contractor is demonstrating efforts to improve during the current evaluation period	Majority of goals are being met but there are minor negative trends for the current evaluation period	Majority of goals are exceeded by 5% in current evaluation period	Majority of goals are exceeded by 20% in current evaluation period	CO, CS, or Small Business Specialist review of Contractor supplied data on SF 294
SDB-6		The contractor met the service-disabled veteran-owned small business subcontracting goals as defined in Clause H-8 of the contract. (6%)	Majority of goals are not being met and the contractor is not demonstrating reasonable efforts to meet the goal during the current evaluation period	Majority of goals are not being met but the contractor is demonstrating efforts to improve during the current evaluation period	Majority of goals are being met but there are minor negative trends for the current evaluation period	Majority of goals are exceeded by 5% in current evaluation period	Majority of goals are exceeded by 20% in current evaluation period	CO, CS, or Small Business Specialist review of Contractor supplied data on SF 294

(TABLE 5.0) Award Fee Performance Evaluation *Performance Evaluation Factors – Award Fee*								
#	*Weighting Factor %*	*Factor*	*Poor Score = 60 or below*	*Satisfactory Score = 70*	*Good Score = 80*	*Very Good Score = 90*	*Excellent Score = 100*	*Surveillance Method*
SDB-7		The contractor met the Historically Black College or University/Minority Institution subcontracting goals as defined in Clause H-8 of the Contract. (6%).	Majority of goals are not being met and the contractor is not demonstrating reasonable efforts to meet the goal during the current evaluation period	Majority of goals are not being met but the contractor is demonstrating efforts to improve during the current evaluation period	Majority of goals are being met but there are minor negative trends for the current evaluation period	Majority of goals are exceeded by 5% in current evaluation period	Majority of goals are exceeded by 20% in current evaluation period	CO, CS, or Small Business Specialist review of Contractor supplied data on SF 294
C-1		Cost overrun of 15% or more	Costs 14% overrun to 10% overrun cost target	Costs 9.5% overrun to 5% overrun cost target	Costs 4.5% overrun to 2% below cost target	Costs 3-8% below cost target	Utilize JSC standard cost evaluation chart for Award Fee period only	10

(TABLE 6.0) Award Term Performance Evaluation *Performance Evaluation Factors – Award term*								
#	*Weighting Factor %*	*Factor*	*Poor Score = 60 or below*	*Satisfactory Score = 70*	*Good Score = 80*	*Very Good Score = 90*	*Excellent Score = 100*	*Surveillance Method*
M-1		Employees possess current required technical skills, qualifications, certifications, and training	Less than 90% of employees current with all indicated skills and certifications with no operational impact	Not Applicable		90% to 94% of employees current with all indicated skills and certifications with no operational impact	95% to 100% of employees current with all indicated skills and certifications with no operational impact	Management metric # 1 from DRD MO-1-3
M-2		Customer Satisfaction based on Customer Surveys not generated through SPICE	Less than 85%- customer satisfaction rating and 100% of poor scores are followed up with customer.	85% to 87% customer satisfaction rating and 100% of poor scores are followed up with customer.	88% to 90% customer satisfaction rating and 100% of poor scores are followed up with customer.	91% to 94% customer satisfaction rating and 100% of poor scores are followed up with customer.	95% to 100% customer satisfaction rating and 100% of poor scores are followed up with customer.	Management metric # 2 from DRD MO-1-3

(TABLE 6.0) Award Term Performance Evaluation *Performance Evaluation Factors – Award term*								
#	*Weighting Factor %*	*Factor*	*Poor Score = 60 or below*	*Satisfactory Score = 70*	*Good Score = 80*	*Very Good Score = 90*	*Excellent Score = 100*	*Surveillance Method*
M-3		DRD's and Reports	Less than 80% of the reports completed on time and any deficiency with notable adverse compliance or operational impact	80% to 83% of the reports completed on time with no compliance or operational impact or liability	84% to 88% of the reports completed on time with no compliance or operational impact or liability	89% to 94% of the reports completed on time with no compliance or operational impact or liability	95% to 100% of the reports completed on time with no compliance or operational impact or liability	Management metric # 3 from DRD MO-1-3

(TABLE 6.0) Award Term Performance Evaluation *Performance Evaluation Factors – Award term*								
#	*Weighting Factor %*	*Factor*	*Poor Score = 60 or below*	*Satisfactory Score = 70*	*Good Score = 80*	*Very Good Score = 90*	*Excellent Score = 100*	*Surveillance Method*
M-4		Meet target closure deadlines for technical and administrative actions of environmental nonconformances and noncompliances associated with Contractor activities in the Center-wide environmental problem reporting system (CATS-PRS)	Less than85% of records in CATS-PRS closed during the reporting period are closed by the target closure deadline	85% to 89% of records in CATS-PRS closed during the reporting period are closed by the target closure deadline	90% to 93% of records in CATS-PRS closed during the reporting period are closed by the target closure deadline	94% to 97% of records in CATS-PRS closed during the reporting period are closed by the target closure deadline	5 or fewer contractor activities identified in a six-month period that are not under EMS control Greater or equal to 98% of records in CATS-PRS closed during the reporting period are closed by the target closure deadline	Management metric # 4 from DRD MO-1-3
M-5		The Contractor's performance causing Unplanned Outages of the Storefront data (based on total number of outages from monthly metrics)	Storefront links are unavailable for more than 24 hours due to unplanned outages	All storefront links are available with less than 24 hours of unplanned outages	All storefront links are available with less than 16 hours of unplanned outages	All storefront links are available with less than 8 hours of unplanned outages	All storefront links are available with less than 4 hours of unplanned outages	Management metric # 5 from DRD MO-1-3

(TABLE 6.0) Award Term Performance Evaluation *Performance Evaluation Factors – Award term*								
#	*Weighting Factor %*	*Factor*	*Poor Score = 60 or below*	*Satisfactory Score = 70*	*Good Score = 80*	*Very Good Score = 90*	*Excellent Score = 100*	*Surveillance Method*
M-6		Contractor administered IT Systems (non Storefront) Availability	IT Systems (non-storefront) are unavailable for more than 24 hours due to unplanned outages	All (non-storefront) IT Systems are available with less than 24 hours of unplanned outages	All IT Systems (non-storefront) are available with less than 16 hours of unplanned outages	All IT Systems (non-storefront) are available with less than 8 hours of unplanned outages	All IT Systems (non-storefront) are available with less than 4 hours of unplanned outages	Management metric # 6 from DRD MO-1-3
M-7		Task Orders	Less than 85% of all scheduled Task Orders are completed on or before the scheduled due dates	85% to 89% of all scheduled Task Orders are completed on or before the scheduled due dates	90% to 94% of all scheduled Task Orders are completed on or before the scheduled due dates	95% to 97% of all scheduled Task Orders are completed on or before the scheduled due dates with minimal Backlogged (non-deferred) Task Orders still opened from previous months.	98% to 100% of all scheduled Task Orders are completed on or before the scheduled due dates with minimal Backlogged (non-deferred) Task Orders still opened from previous months.	Management metric # 8 from DRD MO-1-3

(TABLE 6.0) Award Term Performance Evaluation *Performance Evaluation Factors – Award term*								
#	*Weighting Factor %*	*Factor*	*Poor Score = 60 or below*	*Satisfactory Score = 70*	*Good Score = 80*	*Very Good Score = 90*	*Excellent Score = 100*	*Surveillance Method*
M-8		Engineering Design (Schedule) % on time	Less than 85% of all scheduled Design projects are completed on or before the scheduled due dates	85% to 89% of all scheduled Design projects are completed on or before the scheduled due dates	90% to 94% of all scheduled Design projects are completed on or before the scheduled due dates	95% to 97% of all scheduled Design projects are completed on or before the scheduled due dates, or 100% of all scheduled Design projects are completed on or before the scheduled due dates with minimal Backlogged (non-deferred) Design projects still opened from previous month	98% to 100% of all scheduled Design projects are completed on or before the scheduled due dates. No Late Designs for the given month and minimal Backlogged (non-deferred) Designs still opened from previous months.	SPICE calculation of (# of Design projects completed on time / # of Design projects due for the given month) x (Contractual time (days) based on average final construction cost / average actual design time) minus the # of backlogged (non-deferred) design projects from the previous months

(TABLE 6.0) Award Term Performance Evaluation
Performance Evaluation Factors – Award term

#	*Weighting Factor %*	*Factor*	*Poor Score = 60 or below*	*Satisfactory Score = 70*	*Good Score = 80*	*Very Good Score = 90*	*Excellent Score = 100*	*Surveillance Method*
M-9		Non-Design Delivery Orders (Schedule)	Less than 85% of all scheduled non-design delivery orders are completed on or before the scheduled due dates	85%-89% of all scheduled non-design delivery orders are completed on or before the scheduled due dates	90%-94% of all scheduled non-design delivery orders are completed on or before the scheduled due dates	95% to 97% of all scheduled non-design delivery orders are completed on or before the scheduled due dates, or 100% of all scheduled non-design delivery orders are completed on or before the scheduled due dates with minimal Backlogged (non-deferred) non-design delivery orders still opened from previous month	98% to 100% of all scheduled non-design delivery orders are completed on or before the scheduled due dates. No Late non-design delivery orders for the given month and minimal Backlogged (non-deferred) non-design delivery orders still opened from previous months.	SPICE calculation of (# of non-design delivery orders completed on time / # of non-design delivery orders due for the given month) x (Contractual time (days) based on average final cost / average actual time) minus the # of backlogged (non-deferred) non-design delivery orders from the previous months

(TABLE 6.0) Award Term Performance Evaluation
Performance Evaluation Factors – Award term

#	*Weighting Factor %*	*Factor*	*Poor Score = 60 or below*	*Satisfactory Score = 70*	*Good Score = 80*	*Very Good Score = 90*	*Excellent Score = 100*	*Surveillance Method*
M-10		Customer Satisfaction based on SPICE generated Customer Surveys	Less than 60%- customer satisfaction rating	60% to 69% customer satisfaction rating.	70% to 79% customer satisfaction rating	80% to 89% customer satisfaction rating.	90% to 100% customer satisfaction rating.	SPICE generated
T-1		The Contractor's performance of scheduled maintenance tasks (based on average of monthly metrics)	Less than 85% of the scheduled maintenance tasks completed	85% to 89% of the scheduled maintenance tasks performed in the window of opportunity	90% to 94% of the scheduled maintenance tasks performed in the window of opportunity	95% to 97% of the scheduled maintenance tasks performed in the window of opportunity	98% to100% completion of all scheduled maintenance tasks completed on time	DRD MO-1-3 Facility Engineering monthly metric B-5

(TABLE 6.0) Award Term Performance Evaluation
Performance Evaluation Factors – Award term

#	*Weighting Factor %*	*Factor*	*Poor Score = 60 or below*	*Satisfactory Score = 70*	*Good Score = 80*	*Very Good Score = 90*	*Excellent Score = 100*	*Surveillance Method*
T-2		The ratio Preventive Maintenance Cost (PM&PTI) to Repair Cost in percentage of total PM, PTI & CM cost. PM% : R%	Less than 60%/40%	60%/40%	70%/30%	75%/25%	80%/20%	DRD MO-1-3 Facility Engineering monthly metric B-3
T-3		The Contractor's performance of equipment repairs: UTC (based on average of monthly metrics)	Less than 85% of repair work completed on time	85% to 89% of repair work completed on time	90% to 94% of repair work completed on time	95% to 97% of repair work completed on time	98% to 100% repair work completed on time	DRD MO-1-3 Facility Engineering monthly metric B-9
T-4		The Contractor's performance of equipment repairs RTC (based on average of monthly metrics	Less than 85% repair work completed on time	85% to 90% repair work completed on time	90% to 94% repair work completed on time	95% to 97% repair work completed on time	98% to 100% repair work completed on time	DRD MO-1-3 Facility Engineering monthly metric B-10

(TABLE 6.0) Award Term Performance Evaluation
Performance Evaluation Factors – Award term

#	*Weighting Factor %*	*Factor*	*Poor Score = 60 or below*	*Satisfactory Score = 70*	*Good Score = 80*	*Very Good Score = 90*	*Excellent Score = 100*	*Surveillance Method*
T-5		The Contractor's performance causing Unplanned Outages in Critical Buildings (based on total number of outages from all monthly metrics)	More than 1	N.A.	One	N.A.	Zero	DRD MO-1-3 Facility Engineering monthly metric B-14-a
T-6		The Contractor's performance causing Unplanned Outages in Non-Critical Buildings (based on total number of outages from monthly metrics)	More than 3	Three	Two	One	Zero	DRD MO-1-3 Facility Engineering monthly metric B-14-b

(TABLE 6.0) Award Term Performance Evaluation
Performance Evaluation Factors – Award term

#	*Weighting Factor %*	*Factor*	*Poor Score = 60 or below*	*Satisfactory Score = 70*	*Good Score = 80*	*Very Good Score = 90*	*Excellent Score = 100*	*Surveillance Method*
T-7		The Contractor's performance of Mission Support	More than three deficiencies in mission support.	Three deficiencies in mission support.	Two deficiencies in mission support.	One deficiency in mission support.	All mission support provided without deficiencies.	COD Mission Manager evaluation of mission support in regard to critical power checkout, casualty drills, mission readiness checklist, update or baseline documentation, and no work performed without mission exception.
T-8		Operational availability of equipment all specified in the Facilities Morning Report	Less than 80% average availability	80% to 84% average availability	85% to 89% average availability	90% to 94% average availability	95% to 100% average availability	DRD MO-1-3 Facility Engineering monthly metric B-15
T-9		System output requirements of chilled water, steam and compressed air production systems.	Failing to meet any of the specified production system output requirements.	Pass Fail Evaluation Factor			100% of specified production system output requirements.	COTR review of the Daily Morning Report

(TABLE 6.0) Award Term Performance Evaluation
Performance Evaluation Factors – Award term

#	*Weighting Factor %*	*Factor*	*Poor Score = 60 or below*	*Satisfactory Score = 70*	*Good Score = 80*	*Very Good Score = 90*	*Excellent Score = 100*	*Surveillance Method*
T-10		Spills and releases (excluding asbestos) caused by the Facilities Contractor	5 or more spills per month or more than 1 reportable spill in a six-month period	4 or fewer spills per month or 1 reportable spill in a six-month period	3 or fewer spills per month or 1 reportable spill in a six-month period	2 or fewer spills per month and no reportable spills in a six-month period	1 or fewer spills per month and no reportable spills in a six-month period	DRD MO-1-3 Environmental monthly metric C-1
T-11		Environmental Systems Operations	Equipment unavailability impacts users' requirements	Pass Fail Evaluation Factor			100% operational availability to meet users' requirements	COTR review of the Daily Morning Report
T-12		Re-design/Re-estimate (SPICE generated)	Less than 60% of the final design projects do not require Re-design/Re-estimate	60% to 69% of the final design projects do not require Re-design/Re-estimate	70% to 79% of the final design projects do not require Re-design/Re-estimate	80% to 89% of the final design projects do not require Re-design/Re-estimate	90% to 100% of the final design projects do not require Re-design/Re-estimate	SPICE calculation of (Number of cost estimates minus the number of re-estimates)/Number of cost estimates for the given month

(TABLE 6.0) Award Term Performance Evaluation
Performance Evaluation Factors – Award term

#	*Weighting Factor %*	*Factor*	*Poor Score = 60 or below*	*Satisfactory Score = 70*	*Good Score = 80*	*Very Good Score = 90*	*Excellent Score = 100*	*Surveillance Method*
S-1		The contractor's Days away case rate (DACR), Days Away plus Restricted duty plus job Transfer rate (DART), and Total Recordable Incident Rate (TRIR) must meet OSHA rates of their peers in the North America Industry Classification category of the contract as described in 1.a, 1.b, and 1.c.	1 or more of 1.a, 1.b, or 1.c is graded as poor.	At least two of 1.a, 1.b, and 1.c are scored as satisfactory, and none are scored as poor.	Average of 1.a, 1.b, and 1.c is a good score and none are scored as poor.	At least two of 1.a, 1.b, and 1.c achieve an excellent score, and the third achieves a good or very good score.	1.a, 1.b, and 1.c all achieve an excellent score	COTR and Safety and Mission Assurance Review of contractor supplied data per DRD MO-1-2
S-1.a		DACR	Greater than 100% of the industry average	Greater than 50% but less than 100% of the industry average	Less than 50% of the Industry Average	Less than 40% of the Industry average	Less than 25% of the Industry Average	See 1

(TABLE 6.0) Award Term Performance Evaluation
Performance Evaluation Factors – Award term

#	*Weighting Factor %*	*Factor*	*Poor Score = 60 or below*	*Satisfactory Score = 70*	*Good Score = 80*	*Very Good Score = 90*	*Excellent Score = 100*	*Surveillance Method*
S-1.b		DART	Greater than 150% of the industry average	Less than 150% of the industry average	Less than 100% of the industry average	Less than 75% of the industry average	50% or less of the Industry Average	See 1
S-1.c		TRIR	Greater than 150% of the industry average	Less than 150% of the industry average	Less than 100% of the industry average	Less than 75% of the industry average	50% or less of the Industry Average	See 1
S-2		Property Damage arising directly from contractor operations, failure to protect government assets or property, or as owner of record for property.	One or more Type A or B mishap or more than 1 type C mishap or total damage equal to or greater than $30,000	No type A or B; no more than 1 type C; or less than $30,000 in total damage	No type A, B, or C mishaps and less than $15,000 in total damage	No type A, B, or C mishaps and less than $5,000 in total damage	No property damage	
S-3		OSHA Violations (any violation may result in a zero on incentive fee)	≥ 1 violation	PASS FAIL Evaluation Factor			No violations	COTR and Safety and Mission Assurance Review of contractor supplied data per DRD MO-1-2

(TABLE 6.0) Award Term Performance Evaluation *Performance Evaluation Factors – Award term*								
#	*Weighting Factor %*	*Factor*	*Poor Score = 60 or below*	*Satisfactory Score = 70*	*Good Score = 80*	*Very Good Score = 90*	*Excellent Score = 100*	*Surveillance Method*
S-4		Federal, State, and Local environmental violations (any violation may result in a zero on incentive fee)	≥ 1 violation	PASS FAIL Evaluation Factor			No violations	COTR and Safety and Mission Assurance Review of contractor supplied data per DRD MO-1-2

(TABLE 6.0) Award Term Performance Evaluation
Performance Evaluation Factors – Award term

#	*Weighting Factor %*	*Factor*	*Poor Score = 60 or below*	*Satisfactory Score = 70*	*Good Score = 80*	*Very Good Score = 90*	*Excellent Score = 100*	*Surveillance Method*
S-5		Documented cases of noncompliance (not resulting in a mishap as defined in NPR 8621.1 revision B) with the approved Safety and Health Plan as described in DRD AN-1-1 and determined by the Risk Assessment Code (RAC) Matrix listed in JPR 1700.1, JSC Safety and Health Handbook (a poor rating means automatic zero on performance incentive fee; otherwise, 25% of score is affected by this rating)	1 RAC 1 or RAC 2 case or multiple cases of any kind	1 RAC 3 or RAC 4 case	Not available		No cases of noncompliance	COTR and Safety and Mission Assurance Review of data provided in DRD MO-1-2, plus review of overall program, close calls, etc.

(TABLE 6.0) Award Term Performance Evaluation
Performance Evaluation Factors – Award term

#	*Weighting Factor %*	*Factor*	*Poor Score = 60 or below*	*Satisfactory Score = 70*	*Good Score = 80*	*Very Good Score = 90*	*Excellent Score = 100*	*Surveillance Method*
SDB-1		The contractor met the small business subcontracting goals as defined in Clause H-8 of the contract. (40%)	Majority of goals are not being met and the contractor is not demonstrating reasonable efforts to meet the goal during the current evaluation period	Majority of goals are not being met but the contractor is demonstrating efforts to improve during the current evaluation period	Majority of goals are being met but there are minor negative trends for the current evaluation period	Majority of goals are exceeded by 5% in current evaluation period	Majority of goals are exceeded by 20% in current evaluation period	CO, CS, or Small Business Specialist review of Contractor supplied data on SF 294
SDB-2		The contractor met the small disadvantaged business subcontracting goals as defined in Clause H-8 of the contract. (14%)	Majority of goals are not being met and the contractor is not demonstrating reasonable efforts to meet the goal during the current evaluation period	Majority of goals are not being met but the contractor is demonstrating efforts to improve during the current evaluation period	Majority of goals are being met but there are minor negative trends for the current evaluation period	Majority of goals are exceeded by 5% in current evaluation period	Majority of goals are exceeded by 20% in current evaluation period	CO, CS, or Small Business Specialist review of Contractor supplied data on SF 294

(TABLE 6.0) Award Term Performance Evaluation
Performance Evaluation Factors – Award term

#	*Weighting Factor %*	*Factor*	*Poor Score = 60 or below*	*Satisfactory Score = 70*	*Good Score = 80*	*Very Good Score = 90*	*Excellent Score = 100*	*Surveillance Method*
SDB-3		The contractor met the women-owned small business subcontracting goals as defined in Clause H-8 of the contract. (14%).	Majority of goals are not being met and the contractor is not demonstrating reasonable efforts to meet the goal during the current evaluation period	Majority of goals are not being met but the contractor is demonstrating efforts to improve during the current evaluation period	Majority of goals are being met but there are minor negative trends for the current evaluation period	Majority of goals are exceeded by 5% in current evaluation period	Majority of goals are exceeded by 20% in current evaluation period	CO, CS, or Small Business Specialist review of Contractor supplied data on SF 294
SDB-4		The contractor met the HubZone subcontracting goals as defined in Clause H-8 of the contract. (8%)	Majority of goals are not being met and the contractor is not demonstrating reasonable efforts to meet the goal during the current evaluation period	Majority of goals are not being met but the contractor is demonstrating efforts to improve during the current evaluation period	Majority of goals are being met but there are minor negative trends for the current evaluation period	Majority of goals are exceeded by 5% in current evaluation period	Majority of goals are exceeded by 20% in current evaluation period	CO, CS, or Small Business Specialist review of Contractor supplied data on SF 294

(TABLE 6.0) Award Term Performance Evaluation
Performance Evaluation Factors – Award term

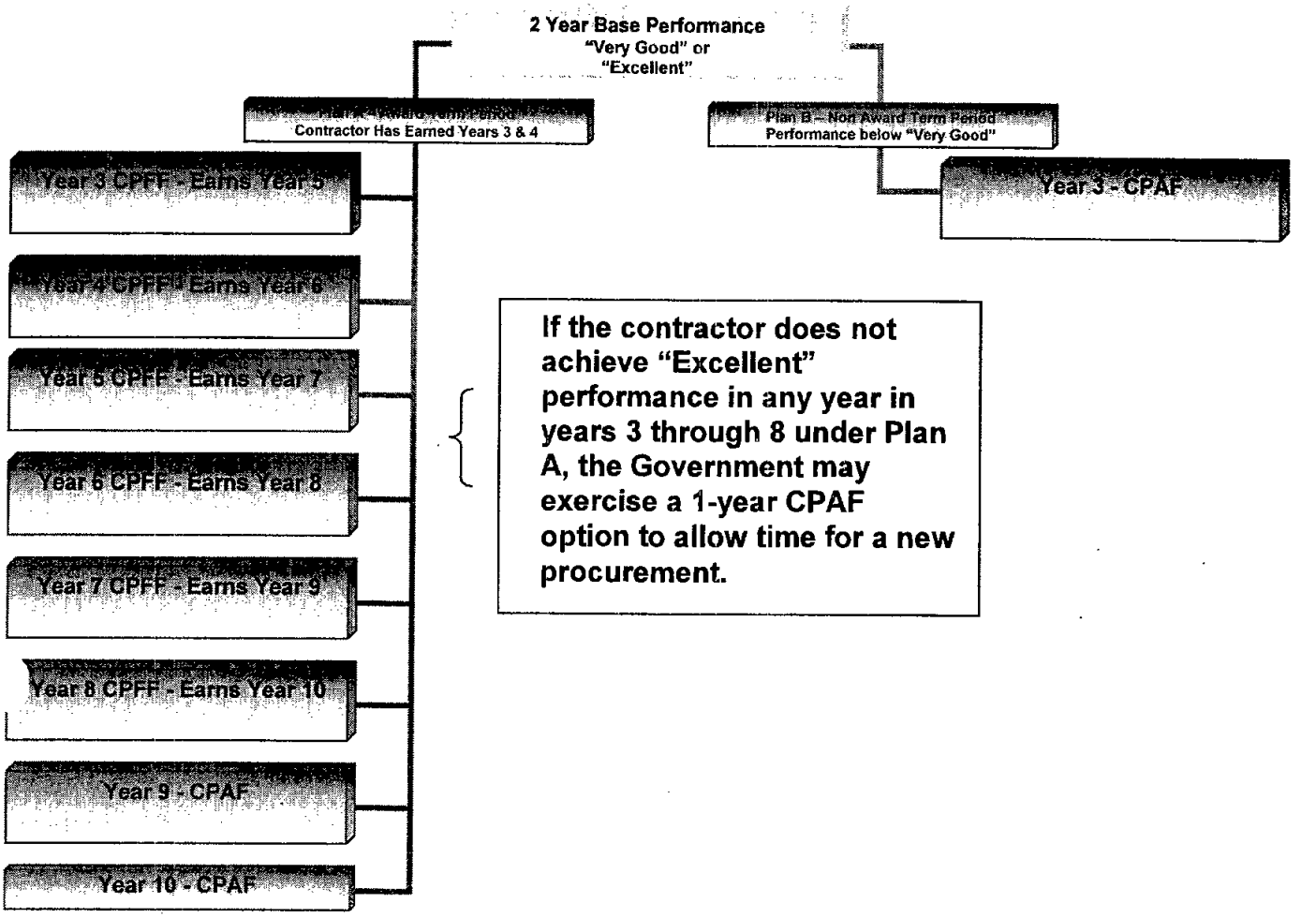
#	*Weighting Factor %*	*Factor*	*Poor Score = 60 or below*	*Satisfactory Score = 70*	*Good Score = 80*	*Very Good Score = 90*	*Excellent Score = 100*	*Surveillance Method*
SDB-5		The contractor met the veteran-owned small business subcontracting goals as defined in Clause H-8 of the contract. (12%).	Majority of goals are not being met and the contractor is not demonstrating reasonable efforts to meet the goal during the current evaluation period	Majority of goals are not being met but the contractor is demonstrating efforts to improve during the current evaluation period	Majority of goals are being met but there are minor negative trends for the current evaluation period	Majority of goals are exceeded by 5% in current evaluation period	Majority of goals are exceeded by 20% in current evaluation period	CO, CS, or Small Business Specialist review of Contractor supplied data on SF 294
SDB-6		The contractor met the service-disabled veteran-owned small business subcontracting goals as defined in Clause H-8 of the contract. (6%)	Majority of goals are not being met and the contractor is not demonstrating reasonable efforts to meet the goal during the current evaluation period	Majority of goals are not being met but the contractor is demonstrating efforts to improve during the current evaluation period	Majority of goals are being met but there are minor negative trends for the current evaluation period	Majority of goals are exceeded by 5% in current evaluation period	Majority of goals are exceeded by 20% in current evaluation period	CO, CS, or Small Business Specialist review of Contractor supplied data on SF 294

(TABLE 6.0) Award Term Performance Evaluation
Performance Evaluation Factors – Award term

#	*Weighting Factor %*	*Factor*	*Poor Score = 60 or below*	*Satisfactory Score = 70*	*Good Score = 80*	*Very Good Score = 90*	*Excellent Score = 100*	*Surveillance Method*
SDB-7		The contractor met the Historically Black College or University/Minority Institution subcontracting goals as defined in Clause H-8 of the contract. (6%).	Majority of goals are not being met and the contractor is not demonstrating reasonable efforts to meet the goal during the current evaluation period	Majority of goals are not being met but the contractor is demonstrating efforts to improve during the current evaluation period	Majority of goals are being met but there are minor negative trends for the current evaluation period	Majority of goals are exceeded by 5% in current evaluation period	Majority of goals are exceeded by 20% in current evaluation period	CO, CS, or Small Business Specialist review of Contractor supplied data on SF 294

APPENDIX 1: PROPOSED AWARD-TERM FORMAT

Proposed Award-Term Format



ATTACHMENT J-D
DATA REQUIREMENTS LISTINGS AND DATA REQUIREMENTS DESCRIPTION

JSC DATA REQUIREMENTS LISTINGS (DRL)
(Based on JSC-STD-123)

PART III - LIST OF DOCUMENTS, EXHIBITS, AND OTHER ATTACHMENTS

SECTION J - LIST OF ATTACHMENTS

ATTACHMENT D – DATA REQUIREMENTS LISTINGS

TABLE OF CONTENTS

DOCUMENT	DESCRIPTION	FREQUENCY	PAGE
DRL	DATA REQUIREMENTS LISTING		
	DRL Identification		
AN-1-1	Safety and Health Plan	Annual	J-56
AN-1-2	Freeze Protection Plan	Annual	J-56
AN-1-3	Quality Assurance Plan	Annual	J-56
AN-1-4	JSC Emergency Preparedness Plan	Annual	J-57
AN-1-5	Wage/Salary and Fringe Benefits Data	Annual	J-57
AN-1-6	Contract Management Plan	Annual	J-57
AN-1-7	Environmental and Energy Consuming Products Compliance Reports	Annual	J-58
AN-3-8	Mission Readiness Plan and Procedure	Annual	J-58
AN-3-9	JSC, Ellington Field, and Sonny Carter Training Facility Potable Water Flushing Plan	Annual	J-58
AN-3-10	O&M Manuals for Water Supply Systems at JSC, Ellington Field, and Sonny Carter Training Facility	Annual	J-58
AN-1-11	Information Technology (IT) Security Management Program Plan	Annual	J-59
AN-1-12	Information Technology (IT) Capital Planning and Investment Control (CPIC) Document	Annual	J-59
AR-1-1	Notification of Potential Labor Dispute and Contingency Strike Plan	As Required	J-59
AR-1-2	Security Reporting Requirements	As Required	J-59
AR-1-3	N/A		
AR-3-4	EMCS Alarm Management Plan	As Required	J-60
AR-1-5	Reprocurement Data	As Required	J-60
AR-1-6	Small Business Subcontracting Plan	As Required	J-60
AR-1-7	Government Property Management Plan	As Required	J-61
MO-3-1	Water Utility Report	Monthly	J-61
MO-1-2	Monthly Safety Statistics	Monthly	J-61
MO-1-3	Functional Metrics	Monthly	J-61
MO-1-4	NF533 Cost and Data Reporting	Monthly	J-62
MO-1-5	Monthly Energy Reports	Monthly	J-62
SA-1-1	Subcontracting Reports	Bi-Annually	J-62
SA-1-2	Workload Data Collection Report	Bi-Annually	J-62

JSC DATA REQUIREMENTS LISTING (DRL)

(based on JSC-STD-123)

a. Title of Contract, Project, SOW, etc.	b. Contract/RFP No.	c. DRL Date/Mod Date
Facilities Contract	NNJ08JA02C	01-31-01

1. Line item no.	2. DRD Title	3. Frequency	4. As-of-Date	5. 1st subm. Date	6. Copies	a. type	b. number
AN-1-1	Safety and Health Plan	Annual				Mixed	4 + 1

7. Data type: [X] (1) Written approval [ ] (2) Mandatory Submittal [ ] (3) Submitted upon request

8. Distribution *(Continue on a blank sheet if needed)*
JSC Occupational Safety Branch (1 hard copy, 1 electronic copy)
JSC Occupational Health Officer (1 hard copy)
JSC Environmental Services Office (1 hard copy)
JSC Emergency Preparedness Office (1 hard copy)
JA Safety Manager (1 hard copy, 1 electronic copy)

9. Remarks
Copies with proposal as provided in RFP instructions; distribute to those in block 8 after Government approval. Amend to Contract by Contract mod.

1. Line item no.	2. DRD Title	3. Frequency	4. As-of-Date	5. 1st subm. Date	6. Copies	a. type	b. number
AN-1-2	Freeze Protection Plan	Annual				Mixed	2

7. Data type: [ ] (1) Written approval [X] (2) Mandatory Submittal [ ] (3) Submitted upon request

8. Distribution *(Continue on a blank sheet if needed)*
Contracting Officer (1electronic copy and 1 hard copy)

9. Remarks
30 days after the end of each Contract year

1. Line item no.	2. DRD Title	3. Frequency	4. As-of-Date	5. 1st subm. Date	6. Copies	a. type	b. number
AN-1-3	Quality Assurance Plan	Annual				Mixed	2 + 2

7. Data type: [X] (1) Written approval [ ] (2) Mandatory Submittal [ ] (3) Submitted upon request

8. Distribution *(Continue on a blank sheet if needed)*
JSC Occupational Safety Branch (1 hard copy, 1 electronic copy)
Contracting Officer

9. Remarks
20 hard copies due with proposal submission
20 hard copies & 1 electronic copy due 15 days before Contract start
5 hard copies & 1 electronic copy 15 days

JSC DATA REQUIREMENTS LISTING (DRL)

(based on JSC-STD-123)

1. Line item no.	2. DRD Title	3. Frequency	4. As-of-Date	5. 1st subm. Date	6. Copies	a. type	b. number
AN-1-4	JSC Emergency Preparedness Plan	Annual				Mixed	1 + 1

7. Data type: [X] (1) Written approval [ ] (2) Mandatory Submittal [ ] (3) Submitted upon request

8. Distribution *(Continue on a blank sheet if needed)*
Contracting Officer (1electronic copy and 1 hard copy)

9. Remarks

1. Line item no.	2. DRD Title	3. Frequency	4. As-of-Date	5. 1st subm. Date	6. Copies	a. type	b. number
AN-1-5	Wage/Salary and Fringe Benefits Data	Annual				Mixed	1 + 1

7. Data type: [ ] (1) Written approval [X] (2) Mandatory Submittal [ ] (3) Submitted upon request

8. Distribution *(Continue on a blank sheet if needed)*
Contracting Officer (1electronic copy and 1 hard copy)
JSC Labor Relations Officer (1 electronic and 1 hard copy)

9. Remarks

1. Line item no.	2. DRD Title	3. Frequency	4. As-of-Date	5. 1st subm. Date	6. Copies	a. type	b. number
AN-1-6	Contract Management Plan	Annual				Print	2

7. Data type: [X] (1) Written approval [ ] (2) Mandatory Submittal [ ] (3) Submitted upon request

8. Distribution *(Continue on a blank sheet if needed)*
Contracting Officer (1 electronic copy and 1 hard copy)

9. Remarks

JSC DATA REQUIREMENTS LISTING (DRL)

(based on JSC-STD-123)

1. Line item no.	2. DRD Title	3. Frequency	4. As-of-Date	5. 1st subm. Date	6. Copies	a. type	b. number
AN-1-7	Environmental and Energy Consuming Products Compliance Reports	Annual				Mixed	3 + 1

7. Data type: ☐ (1) Written approval ☒ (2) Mandatory Submittal ☐ (3) Submitted upon request

8. Distribution *(Continue on a blank sheet if needed)*
JSC Occupational Safety Branch (1 hard copy)
JSC Occupational Health Officer (1 hard copy)
JSC Environmental Office (2 hard copies, 1 electronic copy)
Contracting Officer (1electronic copy and 1 hard copy)

COTR (1 hard copy)

9. Remarks

1. Line item no.	2. DRD Title	3. Frequency	4. As-of-Date	5. 1st subm. Date	6. Copies	a. type	b. number
AN-3-8	Mission Readiness Plan and Procedure	Annual				Mixed	1 + 1

7. Data type: ☒ (1) Written approval ☐ (2) Mandatory Submittal ☐ (3) Submitted upon request

8. Distribution *(Continue on a blank sheet if needed)*
Contracting Officer (1 electronic copy and 1 hard copy)

9. Remarks

1. Line item no.	2. DRD Title	3. Frequency	4. As-of-Date	5. 1st subm. Date	6. Copies	a. type	b. number
AN-3-9	JSC, Ellington Field, and Sonny Carter Training Facility Potable Water Flushing Plan	Annual				Mixed	2

7. Data type: ☐ (1) Written approval ☒ (2) Mandatory Submittal ☐ (3) Submitted upon request

8. Distribution *(Continue on a blank sheet if needed)*
Contracting Officer (1 electronic copy and 1 hard copy)

9. Remarks

1. Line item no.	2. DRD Title	3. Frequency	4. As-of-Date	5. 1st subm. Date	6. Copies	a. type	b. number
AN-3-10	O&M Manuals for Water Supply Systems at JSC, Ellington Field, and Sonny Carter Training Facility	Annual				Mixed	See Block

7. Data type: ☐ (1) Written approval ☒ (2) Mandatory Submittal ☐ (3) Submitted upon request

8. Distribution *(Continue on a blank sheet if needed)*
Contracting Officer (1 electronic copy and 1 hard copy)

9. Remarks

JSC DATA REQUIREMENTS LISTING (DRL)

(based on JSC-STD-123)

1. Line item no.	2. DRD Title	3. Frequency	4. As-of-Date	5. 1st subm. Date	6. Copies	a. type	b. number
AN-1-11	Information Technology (IT) Security Management Program Plan	Annual	August 2007			Electronic	3+1

7. Data type: ☐ (1) Written approval ☒ (2) Mandatory Submittal ☐ (3) Submitted upon request

8. Distribution *(Continue on a blank sheet if needed)*
Contracting Officer (1 electronic copy + 1 hard copy)
COTR (1 electronic copy)
JSC Chief Information Officer (CIO) Representative to Procurement(1 electronic copy)

9. Remarks
Initial submission 30 days after contract start
Approval 60 days after contract start

1. Line item no.	2. DRD Title	3. Frequency	4. As-of-Date	5. 1st subm. Date	6. Copies	a. type	b. number
AN-1-12	Information Technology (IT) Capital Planning and Investment Control (CPIC) Document	Annual	August 2007			Mixed	2+1

7. Data type: ☐ (1) Written approval ☒ (2) Mandatory Submittal ☐ (3) Submitted upon request

8. Distribution *(Continue on a blank sheet if needed)*
Contracting Officer (1 electronic copy and 1 hard copy)
JSC Chief Information Officer (CIO) Representative to Procurement (1 electronic copy)

9. Remarks

1. Line item no.	2. DRD Title	3. Frequency	4. As-of-Date	5. 1st subm. Date	6. Copies	a. type	b. number
AR-1-1	Notification of Potential Labor Dispute and Contingency Strike Plan	As Required				Mixed	4

7. Data type: ☐ (1) Written approval ☒ (2) Mandatory Submittal ☐ (3) Submitted upon request

8. Distribution *(Continue on a blank sheet if needed)*
Contracting Officer (1 electronic copy and 1 hard copy)
JSC Contract Labor Relations Officer (1 electronic copy and 1 hard copy)

9. Remarks

1. Line item no.	2. DRD Title	3. Frequency	4. As-of-Date	5. 1st subm. Date	6. Copies	a. type	b. number
AR-1-2	Security Reporting Requirements	As Required				Mixed	2

7. Data type: ☐ (1) Written approval ☒ (2) Mandatory Submittal ☐ (3) Submitted upon request

8. Distribution *(Continue on a blank sheet if needed)*
COTR (1 electronic copy and 1 hard copy)
JSC Security Office (1 electronic copy and 1 hard copy)

9. Remarks

JSC DATA REQUIREMENTS LISTING (DRL)

(based on JSC-STD-123)

1. Line item no.	2. DRD Title	3. Frequency	4. As-of-Date	5. 1st subm. Date	6. Copies	a. type	b. number
AR-1-3	N/A						

7. Data type: ☐ (1) Written approval ☐ (2) Mandatory Submittal ☐ (3) Submitted upon request

8. Distribution *(Continue on a blank sheet if needed)*

9. Remarks

1. Line item no.	2. DRD Title	3. Frequency	4. As-of-Date	5. 1st subm. Date	6. Copies	a. type	b. number
AR-3-4	EMCS Alarm Management Plan	As Required				Mixed	3

7. Data type: ☐ (1) Written approval ☒ (2) Mandatory Submittal ☐ (3) Submitted upon request

8. Distribution *(Continue on a blank sheet if needed)*
Contracting Officer (1 electronic copy and 1 hard copy)

9. Remarks

1. Line item no.	2. DRD Title	3. Frequency	4. As-of-Date	5. 1st subm. Date	6. Copies	a. type	b. number
AR-1-5	Reprocurement Data	As Required					

7. Data type: ☐ (1) Written approval ☒ (2) Mandatory Submittal ☐ (3) Submitted upon request

8. Distribution *(Continue on a blank sheet if needed)*
Contracting Officer (1 electronic copy and 1 hard copy)

9. Remarks

1. Line item no.	2. DRD Title	3. Frequency	4. As-of-Date	5. 1st subm. Date	6. Copies	a. type	b. number
AR-1-6	Small Business Subcontracting Plan	As Required				Mixed	See Block

7. Data type: ☒ (1) Written approval ☐ (2) Mandatory Submittal ☐ (3) Submitted upon request

8. Distribution *(Continue on a blank sheet if needed)*
Contracting Officer (1 electronic copy and 1 hard copy)

9. Remarks
Initial submission with the proposal.

JSC DATA REQUIREMENTS LISTING (DRL)

(based on JSC-STD-123)

1. Line item no.	2. DRD Title	3. Frequency	4. As-of-Date	5. 1st subm. Date	6. Copies	a. type	b. number
AR-1-7	Government Property Management Plan	As Required				Mixed	See Block 9

7. Data type: [X] (1) Written approval [ ] (2) Mandatory Submittal [ ] (3) Submitted upon request

8. Distribution *(Continue on a blank sheet if needed)*
Contracting Officer (1 electronic copy and 1 hard copy)

9. Remarks
Initial submission with the proposal.

1. Line item no.	2. DRD Title	3. Frequency	4. As-of-Date	5. 1st subm. Date	6. Copies	a. type	b. number
MO-3-1	Water Utility Report	Monthly				Mixed	2

7. Data type: [ ] (1) Written approval [X] (2) Mandatory Submittal [ ] (3) Submitted upon request

8. Distribution *(Continue on a blank sheet if needed)*
Contracting Officer (1 electronic copy and 1 hard copy)

9. Remarks

1. Line item no.	2. DRD Title	3. Frequency	4. As-of-Date	5. 1st subm. Date	6. Copies	a. type	b. number
MO-1-2	Monthly Safety Statistics	Monthly				Mixed	4

7. Data type: [ ] (1) Written approval [X] (2) Mandatory Submittal [ ] (3) Submitted upon request

8. Distribution *(Continue on a blank sheet if needed)*
JSC Safety and Test Operations Division (1 electronic copy and 1 hard copy)
Contracting Officer (1 electronic copy and 1 hard copy)
COTR (1 electronic copy and 1 hard copy)

9. Remarks

1. Line item no.	2. DRD Title	3. Frequency	4. As-of-Date	5. 1st subm. Date	6. Copies	a. type	b. number
MO-1-3	Functional Metrics	Monthly				Mixed	See DRD

7. Data type: [ ] (1) Written approval [X] (2) Mandatory Submittal [ ] (3) Submitted upon request

8. Distribution *(Continue on a blank sheet if needed)*
Contracting Officer (1 electronic copy and 1 hard copy)
COTR (1 electronic copy and 1 hard copy)

9. Remarks

JSC DATA REQUIREMENTS LISTING (DRL)

(based on JSC-STD-123)

1. Line item no.	2. DRD Title	3. Frequency	4. As-of-Date	5. 1st subm. Date	6. Copies	a. type	b. number
MO-1-4	NF533 Cost and Data Reporting	Monthly				Print	2

7. Data type: ☐ (1) Written approval ☒ (2) Mandatory Submittal ☐ (3) Submitted upon request

8. Distribution *(Continue on a blank sheet if needed)*
LF6 Cost Accounting (1 electronic copy and 1 hard copy)
BJ Contracting Officer (1 electronic copy and 1 hard copy)
L13 Budget/Program Analyst (1 electronic copy and 1 hard copy)
COTR (1 electronic copy and 1 hard copy)

9. Remarks

1. Line item no.	2. DRD Title	3. Frequency	4. As-of-Date	5. 1st subm. Date	6. Copies	a. type	b. number
MO-1-5	Monthly Energy Reports	Monthly				Mixed	2

7. Data type: ☐ (1) Written approval ☒ (2) Mandatory Submittal ☐ (3) Submitted upon request

8. Distribution *(Continue on a blank sheet if needed)*
Contracting Officer (1 electronic copy and 1 hard copy)
COTR (1 electronic copy and 1 hard copy)

9. Remarks
See DRD references for details

1. Line item no.	2. DRD Title	3. Frequency	4. As-of-Date	5. 1st subm. Date	6. Copies	a. type	b. number
SA-1-1	Subcontracting Reports	Bi-Annually	April 30, 2008			Mixed	4

7. Data type: ☐ (1) Written approval ☒ (2) Mandatory Submittal ☐ (3) Submitted upon request

8. Distribution *(Continue on a blank sheet if needed)*
Contracting Officer (1 electronic copy and 1 hard copy)
COTR (1 electronic copy and 1 hard copy)

9. Remarks

1. Line item no.	2. DRD Title	3. Frequency	4. As-of-Date	5. 1st subm. Date	6. Copies	a. type	b. number
SA-1-2	Workload Data Collection Report	Bi-Annually	April 30, 2008			Elect	1

7. Data type: ☐ (1) Written approval ☒ (2) Mandatory Submittal ☐ (3) Submitted upon request

8. Distribution *(Continue on a blank sheet if needed)*
LF6 Cost Accounting (1 electronic copy and 1 hard copy)
BJ Contracting Officer (1 electronic copy and 1 hard copy)
L13 Budget/Program Analyst (1 electronic copy and 1 hard copy)
COTR (1 electronic copy and 1 hard copy)

9. Remarks

JSC DATA REQUIREMENTS DESCRIPTION (DRD)
(based on JSC-STD-123)

PART III – LIST OF DOCUMENTS, EXHIBITS, AND OTHER ATTACHMENTS

SECTION J – LIST OF ATTACHMENTS

ATTACHMENT D – DATA REQUIREMENTS DESCRIPTION

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DOCUMENT	DESCRIPTION	FREQUENCY	PAGE
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	DRD Identification		
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AN-1-2	Freeze Protection Plan	Annual	J-73
AN-1-3	Quality Assurance Plan	Annual	J-74
AN-1-4	JSC Emergency Preparedness Plan	Annual	J-76
AN-1-5	Wage/Salary and Fringe Benefits Data	Annual	J-77
AN-1-6	Contract Management Plan	Annual	J-82
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AR-1-1	Notification of Potential Labor Dispute and Contingency Strike Plan	As Required	J-93
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AR-1-3	N/A		
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SA-1-2	Workload Data Collection Report	Bi-Annually	J-142

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1. DRD Title	2. Current Version Date	3. DRL Line	RFP/Contract No. (Procurement completes)
Safety and Health Plan	06/07 (replaces 06/06 version)	AN-1-1	NNJ08JA02C

4. Use (Define need for, intended use of, and/or anticipated results of data)
Establishes Safety, Health, and Environmental Compliance Plan for Contractors providing support to JSC organizations ***The Office of Primary Responsibility for this DRD is the JSC Safety and Test Operations Division

5. DRD Category: *(check one)*		Technical		Administrative	X	SR&QA

6. References *(Optional)*	7. Interrelationships *(e.g., with other DRDs) (Optional)*
OSHA TED 8.4, Voluntary Protection Plan (VPP) Policies and Procedures Manual JSC 17773, Instructions for Preparation of Hazard Analysis for JSC Ground Operations JPR 1700.1 JSC Safety and Health Handbook	Safety and Health Program Self Evaluation

OSHA TED 8.4, Voluntary Protection Plan (VPP) Policies and Procedures Manual
JSC 17773, Instructions for Preparation of Hazard Analysis for JSC Ground Operations
JPR 1700.1 JSC Safety and Health Handbook

Frequency of Submission. Initial submission with the proposal. Upon NASA approval, the Contractor's Safety, Health, and Environmental Compliance Plan become a Contractual Requirement.

Distribution: After the plan is approved by NASA, the CO will retain the plan in the Contract file. The Contractor will send additional copies to each of the following:
Contracting Officer (1 hard copy, 1 electronic copy)
NS/Safety and Test Operations Division (2 hard copies, 1 electronic copy)
JSC Occupational Health Officer (1 hard copy)
JSC Environmental Services Office (1 hard copy)
JSC Emergency Preparedness Office (1 hard copy)
JA Safety Manager (1 hard copy, 1 electronic copy)

Subsequent Revisions to the Plan: Review the plan ***Annually** or as directed by the CO. The plan shall be updated to meet the latest OSHA, JSC, and VPP requirements. Provide a copy of the updated plan with the changes highlighted to the distribution list above at the start of each Contract year. If no changes are required after the annual review, notify the individuals in the distribution list in writing to that affect.

Other Deliverables: The requirements for this plan as detailed in the instructions on plan content below include instructions for specific reports and data to be submitted to the Government. These instructions are to be included in the plan and represent contractual commitments by the Contractor to provide this information.

Format:

1. Cover page - to include as a minimum, the signatures of Contractor's project manager and designated safety official, NASA COTR, JSC Occupational Safety Branch, JA Safety Manager, and the NASA Contracting Officer. Other signatures may be required at the discretion of the Government.

2. Table of Contents. See content below.

3. Body of plan - as required. Contractor's format is acceptable but should be aligned with the elements of the content below.

4. When preparing its plan, the Offeror/Contractor is expected to review all the items below and tailor its plan accordingly. The plan will clearly identify those resources to be provided by the Contractor and proposed resources to be provided by the Government. This review and supporting rationale is to be made available to the Government

as part of this plan. It can be documented as a checklist or outline, inserted directly in the body of the plan, or in any format developed by the Contractor that clearly conveys the results of this review including the basis for any underlying assumptions.

Details:

MANAGEMENT LEADERSHIP AND EMPLOYEE PARTICIPATION

1.1 Policy: Provide the Contractor's safety, health, and environmental compliance policy statement with the plan. Compare the Contractor's policy statement with those of NASA and OSHA and discuss any differences.

1.2 Goals and Objectives

1.2.1 Describe specific annual safety and health goals and objectives to be met.

1.2.2 Describe methods to be used, if any, to improve on the Days Away Case Rate (DACR), the Total Recordable Injury Rate (TRIR), and the total Days Away plus Restricted Duty plus Job Transfer (DART).

1.3 Management Leadership

1.3.1 Describe management's procedures for implementing its sustaining commitment to safety, health, and environmental compliance through visible management activities and initiatives including a commitment to exercise management prerogatives to ensure workplace safety and health. Describe processes and procedures to making this visible in all Contract and subcontract activities and products. Include a statement from the project manager or designated safety official indicating that the plan will be implemented as approved and that the project manager will take personal responsibility for its implementation.

1.4 Employee Involvement

1.4.1 Describe procedures to promote, implement, and sustain employee (e.g., non-supervisory) involvement in safety, health, and environmental compliance program development, implementation and decision-making. Describe the scope and breadth of employee participation to be achieved so that approximate safety and health risk areas of the Contract are equitably represented. Describe methods to be used to obtain employee buy in and address the behavioral aspects of safety.

1.5 Assignment of Responsibility

1.5.1 Describe line and staff responsibilities for safety and health program implementation. Identify any other personnel or organization that provides safety services or exercises any form of control or assurance in these areas. State the means of communication and interface concerning related issues used by line, staff, and others (such as documentation, concurrence requirements, committee structure, sharing of the work site with NASA and other Contractors, or other special responsibilities and support). As a minimum, the Contractor will identify the following:

1.5.2 Safety Representative - identify by title, the individual who will be trained and certified in accordance with JPR 1700.1 to be responsive to Center-wide safety, health, environmental, and fire protection concerns and goals, and who will participate in meetings and other activities related to the JSC Safety and Health program.

1.5.3 Company Physician/Occupational Injury/illness case manager - identify a point of contact who is responsible for the transfer or receipt of company medical data and who will be the primary contact for the company in the event any employee suffers a work related injury or illness (such as the company physician) by name, address, and telephone number to the JSC Clinic, mail code SD22. This will facilitate communication of medical data to Contractor management. Prompt notification to the JSC Occupational Health/Clinic shall be given of any changes that occur in the identity of the point of contact.

1.5.4 Building Fire Wardens - provide a roster of fire wardens at the start of each Contract year (their names, telephone numbers and pagers, and mail codes). Contractor fire wardens are needed to facilitate the JSC fire safety program, including coordination of related issues with NASA facility managers and emergency planning and response officials and their representatives. Fire wardens will be trained in accordance with JPR 1700.1. The Roster shall be maintained by letter to the JSC Occupational Safety, mail code NS2, with copies to the Contracting Officer and the

Contracting Officers Technical Representative. The initial letter shall be received by the Government not later than 15 days after contract start.

1.5.5 Designated Safety Official - identify by title the official(s) responsible for implementation of this plan and all formal contacts with regulatory agencies and with NASA.

1.6 Provision of Authority

1.6.1 Describe consistency of the plan for compliance with applicable NASA and JSC requirements and contractual direction as well as applicable Federal, State, and Local regulations and how compliance will be maintained throughout the life of the contract.

1.7 Accountability

1.7.1 Describe procedures for ensuring that management and employees will be held accountable for implementing their tasks in a safe, healthful, and environmentally compliant manner. The use of traditional and/or innovative personnel management methods (including discipline, motivational techniques, or any other technique that ensures accountability) will be referenced as a minimum and described as appropriate.

1.8 Program Evaluation. The program evaluation consists of:

1.8.1 (Reserved)

1.8.2 A written self-evaluation report to be delivered two times per year, at the start of each contract year and at the mid point of the contract year. The self evaluation shall be provided for the Contractor performance evaluation. The self-evaluation shall follow the VPP program evaluation report format found in OSHA TED 8.4, Voluntary Protection Programs (VPP) Policies and Procedures Manual, Appendix D, "Annual Submissions", as mandated by the cognizant OSHA regional office. Contractors who have submitted a written self-evaluation as a VPP site may submit their original report to OSHA in lieu of writing a new self-evaluation provided that all action plans and status are updated. The ser-evaluation shall as a minimum cover the elements of the approved safety and health plan.

1.9 Miscellaneous Reports. The Contractor will acknowledge the following as standing requests of the Government and to be handled as described below.

1.9.1 Roster of Terminated Employees. Identify personnel terminated by the contractor. Send to the JSC Occupational Health Officer, no later than 30 days after the end of each contract year. At the contractor's discretion, the report may be submitted for personnel changes during the previous year or cumulated for all years. Information required:

a. Date of report, Contractor identity, and Contract number.

b. For each person listed, provide name, social security number, and date of termination.

c. Name, address, and telephone number of Contractor representative to be contacted for questions or other information.

1.9.2 Material Safety Data Sheets (MSDS). The Contractor shall prepare and/or deliver MSDS for hazardous materials brought onto Government property or included in products delivered to the Government. This data is required by the Occupational Safety and Health Administration (OSHA) regulation, 29 CFR 1910.1200, "Hazard Communication", EPA "Emergency Planning and Community Right-to-Know (EPCRA, ref. 40 CFR 302, 311, 312); and the Texas Department of Health (TDH, ref. Chapters 505-507 of the Health and Safety Code), and Federal Standard 313 (or FED-STD-313), "Material Safety Data, Transportation Data and Disposal Data for Hazardous Materials Furnished to Government Activities", as revised. 1 copy of each MSDS will be sent upon receipt of the material for use on NASA property to the JSC Central Repository, Occupational Health and Test Support, along with information on new or changed locations and/or quantities normally stored or used. If the MSDS arrive with the material and is needed for immediate use, the MSDS shall be delivered to the Central Repository by close of business of the next working day after it enters the site.

1.9.3 Hazardous Materials Inventory. The Contractor shall compile an inventory report of all hazardous materials it has located on Government property not less than ***Quarterly**, and which is within the scope of 29 CFR 1910.1200, "Hazard Communication"; and Federal Standard 313 (or FED-STD-313), "Material Safety Data, Transportation Data

and Disposal Data for Hazardous Materials Furnished to Government Activities", as revised. The call for this annual inventory and instructions for delivery will be issued by the JSC Occupational Health and Test Support Office, mail code SD13. This information shall use the format used by JSC for chemical inventory compilation to provide the following:

a. The identity of the material (product number, chemical, manufacturer, and NSN as available.

b. The location of the material by building, room and area/cabinet number.

c. The quantity of each material normally kept at each location (number of containers, container size, type container, unit of measure, conversion factor, storage temp & pressure, physical state/form, specific gravity, total pounds).

d. Peak quantity stored.

e. Actual or estimated rate of annual usage of each chemical.

1.10 Government Access to Safety and Health Program Documentation

1.10.1 The Contractor shall recognize, in its plan, that all safety, health, and environmental documentation (including relevant personnel records) be available for inspection or audit at the Government's request. Electronic access by the Government to this data is preferred as long as Privacy Act requirements are met and Government safety and health professionals and their representatives have full and unimpeded access for review and audit purposes. For Contractor activities conducted on NASA property, the Contractor will identify what records will made available to the Government in accordance with the criteria of OSHA as implemented in JPR 1700.1, "JSC Safety and Health Handbook", as revised. For the purpose of this plan, safety, health, and environmental compliance documentation includes but is not limited to: logs, records, minutes, procedures, checklists, statistics, reports, analyses, notes, or other written or electronic document which contains in whole or in part any subject matter pertinent to safety, health, environmental protection, or emergency preparedness.

1.11 Review and Modification of Safety Requirements

1.11.1 The Contractor may be requested to participate in the review and modification of safety requirements that are to be implemented by the Government including any referenced documents therein. This review activity will be implemented at the direction of the NASA ***COTR** in accordance with established NASA directives and procedures.

1.12 Procurement

1.12.1 Identify procedures used to assure that procurements are reviewed for safety, health and environmental compliance considerations and that specifications contain appropriate safety criteria and instructions. Set forth authority and responsibility to assure that safety tasks are clearly stated in subcontracts.

1.12.2 Certified Professional Resources

1.12.2.1 Discuss your access to certified professional resources for safety, health, and environmental protection. Discuss their roles in motivation/awareness, worksite analysis, hazard prevention and control, and training.

2.1 Worksite Analysis

2.1.1 Contractor worksite hazards shall be systematically identified through a combination of surveys, analyses, and inspections of the workplace, investigations of mishaps and close calls, and the collection and trend analysis of safety and health data such as: records of occupational injuries and illnesses, findings and observations from preventive maintenance activities, reports on hazardous substance spills and inadvertent releases to the environment, facilities related incidents related to partial or full loss of systems functions; etc. Describe how hazards identified by any of the techniques identified below shall be ranked, processed, and mitigated in accordance with JPR 1700.1. All hazards on NASA property, which are immediately dangerous to life or health, shall be reported immediately to the Occupational Safety Office. All safety engineering products that address operations, equipment, etc., on NASA property will be subject to JSC Safety and Test Operations Division review and concurrence unless otherwise waived by the JSC Occupational Safety Office.

2.2 Industrial Hygiene

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2.2.1 Describe your industrial hygiene program and how it will be coordinated with the JSC Government provided resources for industrial hygiene. In the event corporate resources are used to determine workplace exposures, copies of all monitoring data shall be provided to JSC Occupational Health within 15 days of receipt of results. (Note: Industrial hygiene services are NOT provided by the government for this procurement.)

2.3 Hazard Identification

2.3.1 Describe the procedures and techniques to be utilized to compile an inventory of hazards associated with the work to be performed on this Contract. This inventory of hazards shall address the work specified in this Contract as well as operations and work environments in the vicinity or in close proximity to Contract operations. The results will be reported to the Government in a manner suitable for inclusion in facilities baseline documentation as a permanent record of the facility. Specific techniques to be considered include:

2.3.1.1 Comprehensive Survey - A wall to wall" engineering assessment of the Contractor's worksite, which includes the Government furnished facilities and the immediate vicinity in which a work task will be performed. This assessment encompasses facilities, equipment, processes, and materials (including wastes TNRCC/EPA solid and hazardous, radioactive, explosives, medical-infectious-biological).

2.3.1.2 Change (Pre-use) Analysis - Typically addresses modifications in facilities, equipment, processes, and materials (including waste); and related procedures for operations and maintenance. Change analyses periodically will be driven by new or modified regulatory and NASA requirements.

2.3.1.3 Hazard Analysis - May address facilities, systems/subsystems, operations, processes, materials (including waste), and specific tasks or jobs. Analyses and report formats will be in accordance with JSC 17773, "Preparing of Hazard Analyses for JSC Ground Operations."

2.3.1.4 The Contractors safety plan will describe the flow of the findings of the comprehensive survey of hazards into hazard analyses and job hazard analyses and subsequently into controls such as design, operations, processes, procedures, performance standards, and training. The contractor will discuss its approach to notify NASA and other parties external to the contract work of its identified hazards and subsequent analyses and controls.

2.4 Inspections

2.4.1 Routine Inspections - Includes assignments, procedures, and frequency for regular inspection and evaluation of work areas for hazards and accountability for implementation of corrective measures. The Contractor will describe administrative requirements and procedures for control of and regularly scheduled inspections for fire and explosion hazards. The Contractor has the option, in lieu of this detail, to identify policies and procedures with the stipulation that the results (including findings) of inspections conducted on NASA property or involving Government furnished property will be documented in safety program evaluations or the monthly Accident/Incident Summary reports. Inspections will identify:

a. Discrepancies between observed conditions and current requirements, and,

b. New (not previously identified) or modified hazards.

2.4.2 Protective Equipment - Set forth procedures for obtaining, inspecting, and maintaining all appropriate protective equipment, as required, or reference written procedure pertaining to this subject. Set forth methods for keeping records of such inspections and maintenance programs.

2.4.3 Employee Reports of Hazards - Identification of methods to encourage employee reports of hazardous conditions (e.g., close calls) and analyze/abate hazards. The Contractor will describe steps it will take to create reprisal-free employee reporting with emphasis on management support for employees and describe methods to be used to incorporate employee insights into hazard abatement and motivation/awareness activities.

2.5 Accident and Record Analysis

2.5.1 Mishap Investigation – identification of methods to assure the reporting and investigation of mishaps including corrective actions implemented to prevent recurrence. The Contractor will describe the methods to be used to report and investigate mishaps on NASA property and on Contractor or third party property. The Contractor will describe its procedures for implementing immediate notification of NASA using the call tree in 2.5.1.a below. The use

of the quick incident reports found at the lower center of the home page of the NASA Incident Reporting Information System (IRIS) at https://nasa.ex3host.com/iris/newmenu/login.asp and use of NASA forms as specified in JPR1700.1 or any alternate forms used by Contractor. The contingency plan will emphasize timely notification of NASA; preliminary and formal investigation procedures; exercise of jurisdiction over a mishap investigation involving NASA and other contractor personnel; preparation and submission of a formal report to NASA; follow up of corrective actions; communication of lessons learned to NASA; and solutions to minimize duplications in reporting and documentation including use of alternate forms, etc. The Contractor will discuss its procedures for immediate notification requirements for fires, hazardous materials releases, and other emergencies. The Contractor will include appropriate details to address the following:
Note: the NASA Form 1627 is not attached since it is a three part carbonless form not conducive to reproduction. This form can be obtained from JSC's Printing Services.

a. The Contractor will include a mishap contingency plan as part of the Safety and Health Plan which meets the requirements of NPR 8621.1B, "NASA Procedural Requirement for Mishap and Close Call Reporting, Investigating, and Recordkeeping", and JPR 1700.1, **"**JSC Safety and Health Handbook.** The plan will identify the method of notifying NASA in the advent of a type A or B mishap or C property damage mishap and close call with equivalent likely potential so NASA may take custody of the mishap scene and initiate its investigation as soon as it is safe following the mishap. The contingency plan will clearly identify the Government investigation as taking precedence over any contractor investigation. The Contractor will immediately contact the JSC Safety and Test Operations Division at 281-483-4900 for guidance when a Type A or B mishap or Type C property damage mishap occurs in the course of performing work on a NASA Contract in whole or in part. Such immediate notifications plus all other notification will be documented using the quick incident tables ("health" for injuries and "safety" for property damage) at the IRIS home page.

b. For Type C injuries and all lower level mishaps, the Contractor will perform its own investigation and submit a report to NASA in accordance with the requirements of NPR 8621.1. The Contractor will ensure that NASA is promptly notified of any Type D mishap so that NASA provides a civil servant to oversee the investigation in an ex officio capacity prior to start of any formal investigation. All initial reports and selected follow up reporting will be accomplished using IRIS.

c. When a NASA investigation is required, witnesses will be identified and their names and contact information provided to NASA investigator but witness statement must be requested and collected by NASA. Such statements will be retained by the Government as part of the mishap file in accordance with NPR 8621.1.

d. The Contractor will deliver to NASA mishap reports which shall include the data specified in NPR 8621.1 for the level of mishap. NASA approval and endorsements will be required as specified in NPR 8621.1 and included in the approved Safety and Health Plan.

2.5.2 Trend Analysis – Describe approach to performing trend analysis of data (occupational injuries and illnesses; facilities, systems, and equipment performance; maintenance findings; etc.). Discuss methods to identify and abate common causes indicated by trend analysis. In support of site-wide trend analysis to be performed by the Government, the Contractor will discuss method of providing data as follows.

a. Accident/Incident Summary Report - The Contractor shall prepare and deliver Accident/Incident Summary Reports as specified on JSC Form 288, "Accident/Incident Statistics" as revised. All new and open mishaps, including vehicle accidents, incidents, injuries, fires, and close calls shall be described in summary form along with current status. Negative reports are also required monthly. Report frequency is monthly; date due is the 10th days of the month following each month reported. Report to be delivered to the JSC S & MA Directorate through the Safety and Test Operations Division, mail code NS2, by fax to 281-244-0426 or by attaching to an e-mail and transmitting to mishcaps@ems.jsc.nasa.gov.

b. Log of Occupational Injuries/Illnesses

i. For each establishment on and off NASA property that performs work on this Contract, the Contractor shall deliver, to the Government, a copy of its annual summary of occupational injuries and illnesses (or equivalent) as described in Title 29, Code of Federal Regulations, Subpart 1904.5. A copy of all summaries as required above under Contractor's cover letter. If the Contractor is exempt by regulation from maintaining and publishing such logs, equivalent data in Contractor's format is acceptable (such as loss runs from insurance carrier) which contains the data required by JSC Form 288.

ii. Data shall be compiled and reported by calendar year and provided to the Government within 45 days after the end of the year to be reported (e.g. not later than February 15 of the year following).

3. Hazard Prevention and Control

3.1 Identified hazards must be eliminated or controlled. In the multiple employer environment of the Center, it is required that hazards including discrepancies and corrective actions be collected in a Center wide information system (Hazard Abatement Tracking System (HATS) for risk management purposes. Describe your approach to implementing this requirement.

3.2 Appropriate Controls

3.2.1 Discuss approach to consideration and selection of controls. Discuss use of hazard reduction precedence sequence (see JPR 1700.1). Discuss approach to identifying and accepting any residual risk. Discuss implementation of controls including verifying effectiveness. Discuss scope of coverage (hazardous chemicals, equipment, discharges, waste, energies, etc.). Discuss need for coordination with safety, health, environmental services, and emergency authorities at NASA.

3.3 Hazardous Operations and Processes

3.3.1 Establish methods for notification of personnel when hazardous operations and processes are to be performed in their facilities or when hazardous conditions are found to exist during the course of this Contract. JPR 1700.1 will serve as a guide for defining, classifying, and prioritizing hazardous operations; 29 CFR 1910.119 will be the guide for hazardous processes. Develop and maintain a list of hazardous operations and processes to be performed during the life of this Contract. The list of hazardous operations and processes will be provided to JSC as part of the plan for review and approval. JSC and the Contractor will decide jointly which operations and processes are to be considered hazardous, with JSC as the final authority. Before hazardous operations or processes commence, the Contractor will develop a schedule to develop written procedures with particular emphasis on identifying the job safety steps required. NASA will have access on request to any Contractor data necessary to verify implementation. For all identified operations or processes that may have safety or health implications outside Contract operations, the Contractor shall identify such circumstances to the JSC Occupational Safety Branch and Occupational Health and Test Support Office who will provide additional instructions for further NASA management review and approval.

3.4 Written Procedures

3.4.1 Identification of methods to assure that the relevant hazardous situations and proper controls are identified in documentation such as inspection procedures, test procedures, etc., and other related information. Describe methods to assure that written procedures are developed for all hazardous operations, including testing, maintenance, repairs, and handling of hazardous materials and hazardous waste. Procedures will be developed in a format suitable for use as safety documentation (such as a safety manual) and be readily available to personnel as required to correctly perform their duties.

3.5 Hazardous Operations Permits

3.5.1 Identify facilities, operations and/or tasks where hazardous operations permits will be required as specified in JPR 1700.1 such as confined space entry, hot work, etc. Set forth guidance to adhere to established NASA JSC procedures. Clearly state the role of the safety group or function to control such permits.

3.6 Operations Involving Potential Asbestos Exposures

3.6.1 Set forth method by which compliance is assured with JSC Asbestos Control Program as established in JPR 1700.1, as revised, and JPG 8800.1, "Asbestos Control Manual," as revised.

3.7 Operations Involving Exposures to Toxic or Unhealthful Materials

3.7.1 Such operations must be evaluated by the JSC Occupational Health Office and must be properly controlled as advised by same. JSC Occupational Health Office must be notified prior to initiation of any new or modified operation potentially hazardous to health.

3.8 Environmental Operations & Activities – See DRD AN-1-7

3.9 Baseline Documentation

3.9.1 Discuss the Contractor's responsibilities for maintaining facilities baseline documentation in accordance with JSC requirements. The Contractor will implement any facilities baseline documentation tasks (including safety engineering) as provided in the Contractor's plan approved by NASA or as required by Government direction.

3.10 Preventive Maintenance

3.10.1 Discuss approach to preventive maintenance. Describe scope, frequency, and supporting rationale for your preventive maintenance program including facilities and/or equipment to be emphasized or de-emphasized. Discuss methods to promote awareness in the NASA community (such as alerts, safety flashes, etc.) when preventive maintenance reveals design or operational concerns in facilities and equipment (and related processes where applicable).

3.11 Medical (Occupational Healthcare) Program

3.11.1 Discuss the Contractor's medical surveillance program and injury/illness case management to evaluate personnel and workplace conditions to identify specific health issues and prevent degradation of personnel health as a result of occupational exposures. Discuss approach to Cardiopulmonary Resuscitation (CPR), first aid, and, return to work policies and the use of Government provided medical and emergency facilities for the initial treatment of occupational injuries/illnesses.

3.12. Hazard

3.12.1 Hazard Correction and Tracking

3.12.1.1 Discuss your system for correcting and tracking safety, health, and environmental hazards with particular emphasis on integration with JSC's Hazard Abatement Process (found on line @ http://www.srqa.jsc.nasa.gov/HATS/). (The scope is restricted to establishments at JSC, Sonny Carter Training Facility, and Ellington Field.) This includes the following:

3.12.1.2 Personnel Awareness of Hazards. Discuss your approach to communicate unsafe conditions and approved countermeasures to your employees. Discuss your approach to communicating such conditions to the Government and other Contractors whose personnel may be exposed to such unsafe conditions. Discuss communications with FM's. Discuss use of the NASA Lessons Learned Information System for both obtaining lessons from other sources and as a repository for lessons learned during performance of the Contract.

3.12.1.3 Interim and Final Abatement Plans - Describe how you will approach interim and final abatement of hazards. Describe how you will provide data to the JSC HATS for all hazards within Contractor-occupied facilities that are not finally abated (all interim and final abatement actions completed) within 30 days of discovery. Discuss your approach to posting such plans using JSC Form 1240, "JSC Notice of Safety or Health and Action Plan", or equivalent. Discuss compatibility of your system with JSC's role of facility managers in abatement planning, implementation, and verification.

3.13 Disciplinary System

3.13.1 Describe your system for ensuring safety and health discipline in your personnel (including subcontractors). Describe your approach to modifying personnel behaviors when personnel are exhibiting discrepant safety and health performance.

3.14 Emergency Preparedness

3.14.1 Discuss approach to emergency preparedness and contingency planning which addresses fire, explosion, inclement weather, environmental spill/releases, etc. Discuss compliance with 29 CFR 1910.120 (HAZWOPER) and role in JSC Incident Command System (see JPR 1700.1 for details). Discuss methods to be used for notification of JSC emergency forces including emergency dispatcher, safety hotline, director's safety hotline, etc. Discuss establishment of pre-planning strategies through procedures, training, drills, etc. Discuss methods to verify emergency readiness.

4. Safety and Health Training

JSC DATA REQUIREMENTS DESCRIPTION (DRD)
(Based on JSC-STD-123)

4.1 Describe the Contractor's training program including identification of responsibility for training employees to assure understanding of safe work practices, hazard recognition, and appropriate responses for protective and/or emergency countermeasures, including training to meet Federal, State, and Local regulatory requirements. In doing so, the Contractor will factor parallel requirements found in other mandates such as environmental protection (example: 29 CFR 1910.38 for emergency action plans and fire prevention plans versus EPA Resource Conservation & Recovery Act (RCRA) and Emergency Planning and Community Right-to-Know (EPCRA)). Describe approach to identifying training needs including traceability to exercises such as job safety analyses, performance evaluation profiles, hazard analyses, mishap investigations, trend analyses, etc. Describe approach to training personnel in the proper use and care of personal protective equipment (PPE). Discuss tailoring of training towards specific audiences (management, supervisors, and employees) and topics (safety orientation for new hires, specific training for certain tasks or operations). Discuss approach to ensure that training is retained and practiced. Discuss personnel certification programs. Certifications should include documentation that training requirements and physical conditions have been satisfied (examples include physical examination, testing, and on-the-job performance). Address utilization of JSC safety and health training resources (such as asbestos worker training/certification, hazard communication, confined space entry, lockout/tagout, etc.) as appropriate with particular emphasis on programs designed for the multiple employer work environment on NASA property. All training materials and training records will be provided to NASA, and other Federal, state, and local agencies for their review upon request. If the Contractor wishes to train their personnel in any regulatory mandated training, an agreement will be secured with JSC Occupational Safety Branch and Occupational Health and Test Support office prior to beginning training. The agreement will ensure that safety and health training resources available from NASA are utilized where appropriate.

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123)

1. DRD Title	2. Current Version Date	3. DRL Line Item No.	RFP/Contract No. (Procurement completes)
Freeze Protection Plan	3-29-01	AN-1-2	NNJ08JA02C

4. Use (Define need for, intended use of, and/or anticipated results of data)
The Contractor will use this plan to prevent damage to the facilities and equipment at JSC, EF and SCTF from the effects of freezing weather.

5. DRD Category: *(check one)* [x] Technical [ ] Administrative [ ] SR&QA

6. References *(Optional)*
None.

7. Interrelationships *(e.g., with other DRDs) (Optional)*

8. Preparation Information (Include complete instructions for document preparation)

Scope: Plan is to be put into effect by the Contractor on confirmed forecast of below 32 degrees F for more than 4 hours.

Frequency: Due to the ***COTR** October 1 of each year for review and approval.

Distribution: One electronic copy and two hard copies to the ***COTR**. Electronic disk copies must be a Microsoft Windows Product, i.e. Excel, Word or MS Project.

Format: Per the details below.

Details: See Freeze Protection Plan. Current plan is to be updated by the Contractor prior to the plans due date for inclusion of SCTF.

References: None

Maintenance: Update plan on a ***Yearly** basis for inclusion of equipment/system changes or additions as well as modified or newly constructed facilities.

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123)

1. DRD Title	2. Current Version Date	3. DRL Line Item No.	RFP/Contract No. (Procurement completes)
Quality Assurance Plan	Per RFP	AN-1-3	NNJ08JA02C

4. Use (Define need for, intended use of, and/or anticipated results of data)
Description/Use - The Quality Plan is used to document the specific details of the Contractor's Quality Management System (QMS) related to a specific product or process

5. DRD Category: *(check one)*		Technical		Administrative	X	SR&QA

6. References *(Optional)*	7. Interrelationships - All performance requirements,
SOW Ref: 1.6.2	Latest version of ANSI/ISO/ASQ Q 9001-2000

8. Preparation Information (Include complete instructions for document preparation)

Scope: A Contract specific Quality Plan shall be prepared which identifies activities performed both on-site and off-site of JSC to ensure the quality products and services. The Quality Plan is to be submitted with the Contractor's proposal. The plan shall be approved by the Contracting Officer concurrent with Contract award.

Format: The Quality Plan format shall match the elements of the ANSI/ISO/ASQC Q9001 – 2000 standard.

Contents: The Quality Plan shall address each element of the ANSI/ISO/ASQC Q9001 – 2000 standard to the degree specified in the requirements identified below.

Maintenance: Revisions shall be incorporated by change page or complete reissue.

Distribution: Distribution as specified below plus additions per Contracting Officer's letter,

a. Initial – As specified in Proposal Instructions,

b. Final – Contracting Officer, ***COTR**, Facility Project Managers, Branch Chief, NASA Quality Assurance,

c. Update – Contracting Officer, ***COTR**, Facility Project Managers, Branch Chief, NASA Quality Assurance.

Requirements:

i. Identify the methods, procedures, and controls that shall be used to ensure the quality, quantity, and timeliness of the required Contract requirements.

ii. Explain how training shall be provided to personnel responsible for quality assurance, quality engineering and software quality assurance on-site at JSC, including JSC processes for Discrepancy Reporting and WAD's.

iii. Explain in detail how in-line quality assurance (Quality Assurance, Quality Engineering, and Software Quality Assurance) shall be performed on-site at JSC. Include discussion of specific allocation of responsibilities, authority and resources.

iv. Describe how controlled work instructions shall be provided to all applicable employees, on and off-site at ***JSC**.

v. Explain how timely review of technical documents that affect quality and changes thereto shall be performed.

vi. Describe participation including responsibilities/activities in design reviews.

vii. Explain how quality aspects are ensured and fully included in all designs and are continuously maintained in the fabricated articles and during operations.

viii. Explain and ensure how quality requirements are implemented and satisfied throughout all phases of Contract performance, including preliminary and engineering design, development, subcontracting,

JSC DATA REQUIREMENTS DESCRIPTION (DRD)
(Based on JSC-STD-123)

fabrication, processing, assembly, inspection, test, checkout, packaging, shipping, storage, maintenance, field use, flight preparations, flight operations, and post-flight analysis, as applicable, on and off-site ***JSC**.

ix. Explain how to ensure, monitor, measure, and control the quality of products produced by the Contractor and subcontractors. Explain how to ensure that products, which do not conform to product requirements, are identified and controlled to prevent their unintended use or delivery.

x. Describe the methodology for inspection and test planning (economical and effective use of personnel, facilities and equipment) for both off and on-site.

xi. Describe the methodology/criteria for assigning itinerate or resident quality assurance personnel at subcontractor or supplier facilities.

xii. Explain how the monitoring and measuring, and cross-utilization of personnel will be performed to assure that Contract products and services shall not be negatively affected.

xiii. Describe your techniques, procedures, and mechanisms to ensure quality output despite schedule and/or priority pressures.

xiv. Provide and explain the schedule, including milestones, outlining your plan on accomplishing ANSI/ISO/ASQ Q 9001-2000 compliance within one year of the Contract award date.

xv. Explain how inspection or other activities necessary for ensuring that purchased product meets specified purchase requirements shall be established.

xvi. Explain how to verify that all personnel performing work affecting product quality are competent as a result of appropriate education, training, skills, and experience. In addition, explain the system that shall be used to monitor and maintain this level of personnel competency required during the duration of the Contract.

xvii. Describe the responsibilities and requirements for planning and conducting audits (internal and external), and for reporting results and maintaining records.

xviii. Explain the process of involvement in waivers and deviations when quality assurance is affected.

xix. Explain the methods for measuring the achievement of your quality objectives.

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123)

1. DRD Title	2. Current Version Date	3. DRL Line Item No.	RFP/Contract No. (Procurement completes)
JSC Emergency Preparedness Plan	2000	AN-1-4	NNJ08JA02C

4. Use (Define need for, intended use of, and/or anticipated results of data)
Develop plan for providing support for ***JSC **Emergency Preparedness Plan JSC-05900** and applicable appendices. Develop SOPs as required. This is an OSHA requirement and the Contractor shall have a plan in place that outlines their responsibilities in the event of an emergency.

5. DRD Category: *(check one)*		Technical		Administrative	X	SR&QA

6. References *(Optional)*	7. Interrelationships *(e.g., with other DRDs) (Optional)*

8. Preparation Information (Include complete instructions for document preparation)

Scope: Develop an Emergency Preparedness Plan (EPP) and SOPs required to implement the EPP. Perform annual reviews of the plan to identify and document improvements and required changes. The plan is to parallel the Center's plan and the Contractor must maintain, update, and implement the plan in response to changing site conditions, changes to the Center's plan and polices, or changes in federal or state regulations.

Frequency: Plan is due to the CO 30 days after start of Contract for review and approval and ***Yearly** in March thereafter.

Distribution: One hard copy and one electronic disk to the CO.

Format: Per the following outline presented in the Center's ****Emergency Preparedness Plan JSC-05900.**

Details: See ****Emergency Preparedness Plan JSC-05900.**

References: None

Maintenance: ***Annually** updated. Certification of annual review is required.

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123)

1. DRD Title	2. Current Version Date	3. DRL Line Item No.	RFP/Contract No. (Procurement completes)
Wage/Salary and Fringe Benefits Data		AN-1-5	NNJ08JA02C

4. USE (Define need for, intended use of, and/or anticipated results of data)					
The Wage/Salary and Fringe Benefits Data will be used by the NASA CO and the Contract Labor Relations Office to provide the necessary data for submittal of Standard Form (SF) 98, Notice of Intention to Make a Service Contract and Response to Notice, to the Department of Labor, and to assist in the monitoring of Service Contract Act compliance.					
5. DRD Category: *(check one)*		Technical	X	Administrative	SR&QA
6. References *(Optional)*	7. Interrelationships *(e.g., with other DRDs) (Optional)*				
	FAR 52.222-41				
8. Preparation Information (Include complete instructions for document preparation)					

DISTRIBUTION: B__/Contracting Officer
BA2/Contract Labor Relations Officer

INITIAL SUBMISSION: 30 days following start of the Contract.

SUBMISSION FREQUENCY: ***Annually**, 90 days prior to the anniversary date of the Contract.

DATA PREPARATION INFORMATION:

SCOPE: The Wage/Salary and Fringe Benefits Data must be submitted by the Contractor, and any subcontractors which are subject to the provisions of the Service Contract Act, to the Contracting Federal Agency. This requirement is in accordance with FAR regulations 22.1007 and 22.1008.

APPLICABLE DOCUMENTS: None

CONTENTS: The Wage/Salary and Fringe Benefits Data should contain the data included in the enclosed DRD forms, titled "Wage/Salary Rate Information", "Fringe Benefit for Service Employees", and "Fringe Benefits per Collective Bargaining Agreement". The Wage/Salary Rate Information shall contain a listing of all exempt and nonexempt labor classifications working on the Contract. Separate forms should be utilized for classifications working in different geographic areas and for each subcontractor. Wage determination numbers, appropriation labor organization names, and subcontractor names, must be reflected. All nonexempt labor classifications must be matched to wage determination classes or to Collective Bargaining Agreement (CBA) classifications for represented classes. Annotate exempt or nonexempt and union or nonunion. The current hourly rates should reflect the actual lowest and highest paid employees, along with a computed average rate. State the number of employees working in each category. Separate Fringe Benefit forms should be completed for nonrepresented classifications and for each separate CBA. A separate form must be completed for the prime and each subcontractor. Three hard copies and one electronic copy of each. Collective Bargaining Agreement are required if organized labor is represented on your Contract.

FORMAT: The Wage/Salary and Fringe Benefits Data should be in a format substantially the same as enclosed with this DRD. (Forms 2, 3, and 3A)

MAINTENANCE: Changes shall be incorporated as required by change page or complete reissue.

JSC DATA REQUIREMENTS DESCRIPTION (DRD)
(Based on JSC-STD-123)

FORM 2

WORK SHEET FOR SF-98 DATA
WAGE RATE INFORMATION

Illustration of required data

WAGE CONTRACTORS LABOR CLASSIFICATION	DETERMINATION CLASSIFICATION	EXEMPT OR NON EXEMPT	UNION OR NON UNION	CURRENT HOURLY RATE	MYE NO. OF EMPL.
Project Manager	Not Required	E	N	$25.00	1
Supervisor	Not Required	E	N	$20.00	1
Electrical Engineer	Not Required	E	N	$16.5 0- $20.00	3
Technician, Jr	Elect Tech Main 1	N	U	$12.78 - $15.50	12
Technician, Sr.	Elect Tech Main II	N	U	$18.20 - $20.00	4
Secretary	Secretary I	N	N	$11.11 - $12.50	2
File Clerk	General Clerk I	N	N	$8.29	1
Clerical Data Entry	Word Processor I	N	N	$9.25 – $10.90	1

Submit data in the above illustrated format for all labor classifications used, or planned to be used, on this Contract. All Contract labor classifications must be matched to wage determination classes listed in CBA's represented classes or classes shown in WD 94-2516 for nonrepresented classes.

JSC DATA REQUIREMENTS DESCRIPTION (DRD)
(Based on JSC-STD-123)

FORM 3

FRINGE BENEFITS PER COLLECTIVE BARGAINING AGREEMENT

For period from _____ to _____

Contractor:

Contract Number:

Number of employees in bargaining unit _____

Total number of employees on Contract _____

1. Shift Differential: (Describe any pay over and above base rates for 2nd, 3rd, weekend, or other shifts.)

2. Health and Welfare Items and Other Fringe Items: (Indicate whether or not coverage is provided to employees and state current average hourly cost per employee covered by a Collective Bargaining Agreement.)

Item	Coverage Provided (Yes or No)	Average Hourly Cost
a. Life Insurance		
b. Accidental Death		
c. Disability		
d. Medical and Hospital		
e. Dental		
f. Retirement Plan		
g. Savings/Thrift Plan		
h. Sick Leave		
i. Tuition		
j. Other (Describe)		
TOTAL		

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123)

FORM 3

1. Paid Absences:

	Service Requirement	Days per Year
a. Vacation		
b. Holiday		
c. Sick Leave		
d. Jury Leave		
e. Funeral Leave		
f. Military Leave		
g. Other (Describe)		

1. Severance Pay: (Briefly describe terms and amounts.)

2. Other Fringe Benefits: (Describe any other fringe benefits not included above, and show average hourly cost.)

3. Premium Pay: (Discuss all premium pay provisions not previously shown on this form.)

Signature of Company Representative

Date

JSC DATA REQUIREMENTS DESCRIPTION (DRD)
(Based on JSC-STD-123)

FORM 3A

FRINGE BENEFITS FOR SERVICE EMPLOYEES

For period from _____ to _____

Contractor:

Number of nonexempt employees on Contract: _____

Total number of employees on Contract: _____

1. Health and Welfare Items and Other Fringe Items:
(Indicate whether or not coverage is provided to employees and state current average hourly cost per service employee.)

Item	Coverage Provided	Average Hourly Cost
a. Life Insurance		
b. Accidental Death		
c. Disability		
d. Medical and Hospital		
e. Dental		
f. Retirement Plan		
g. Savings/Thrift Plan		
h. Sick Leave		
i. Tuition Reimbursement		
j. Other (Describe)		

1. Paid Absences

	Service Requirement	Days per Year
a. Vacation		
b. Holidays		
c. Sick Leave		
d. Jury Leave		
e. Funeral Leave		
f. Military Leave		
g. Other (Describe)		

_____ _____
Signature of Company Representative Date

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123)

1. DRD Title	2. Current Version Date	3. DRL Line Item No.	RFP/Contract No. NNJ08JA02C
Contract Management Plan		AN-1-6	

4. Use (Define need for, intended use of, and/or anticipated results of data)
To describe the Contractor's management organization, approach, and systems.

5. DRD Category: *(check one)*		Technical	X	Administrative		SR&QA

6. References *(Optional)*	7. Interrelationships *(e.g., with other DRDs) (Optional)*

8. Preparation Information (Include complete instructions for document preparation)

Scope: The Contract management plan shall describe the Contractor organizational structure, Contract and subcontract management approach, and management systems that will be used to ensure technical, schedule, and cost performance. The plan shall be comprehensive in nature and integrate all management systems of the prime, any subcontractors, any significant vendors, any teaming or partnering arrangements, and associate Contractor agreements (ACA).

Content: The Contract management plan shall address the Contractor's processes for work planning, estimating, authorization, and execution of ordered services. The management plan shall also address scheduling of work, budget allocation, cost data accumulation, and completion for task management. The plan shall address systems engineering, project management, and integration approaches, including lines of responsibility and authority for controlling, reporting, and reviewing work. The Contract management and communications channels at all levels of the organization, including between Contractors, any subcontractors, and NASA personnel shall also be addressed.

Frequency: Initial submission with the proposal. **Annually** updated for review and approval.

Distribution: One hard copy and one electronic disk to the CO.

Format

Details:

References: None

Maintenance:

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123)

1. DRD Title	2. Current Version Date	3. DRL Line Item No.	RFP/Contract No. NNJ08JA02C
Environmental and Energy Consuming Products Compliance Reports	01/18/2007	AN-1-7	

4. Use (Define need for, intended use of, and/or anticipated results of data)
Used to complete ***JSC**'s required annual report to NASA HQ on affirmative procurement, waste reduction, energy efficient product procurement, and ozone depleting substances.

5. DRD Category: *(check one)*		Technical	X	Administrative		SR&QA

6. References *(Optional)*	7. Interrelationships *(e.g., with other DRDs) (Optional)*
JPR 8550.1, JPR 8553.1	

8. Preparation Information (Include complete instructions for document preparation)

Scope: Used to complete ***JSC**'s required annual report to NASA HQ on required waste reduction and affirmative procurement implementation.

Frequency: The reports shall be updated ***Annually** and a report provided to the ***JSC** Environmental Office on January 15 ***Yearly**.

Distribution: One hard copy and one electronic disk to the CO.

Format: See details below.

Details:

I. Annual Affirmative Procurement Report

The Contractor shall track and report each January 15 to the JSC Environmental Office the following information regarding the purchase by the Contractor (including subcontracts) of all products on the U. S. Environmental Protection Agency's Comprehensive Procurement Guideline list and items on the USDA Farm Bill Biobased list:

a. The total amount of each item purchased during the previous fiscal year in $,

b. The total amount of each listed item purchased during the previous fiscal year that contained at least the minimum recommended percenatges of recycled content or biobased content during the fiscal year in $,

c. The total amount of each listed item purchased during the previous fiscal year that contained some recycled content or biobased content but less than the minimum recommended percentages of recycled content or biobased content during the fiscal year in $,

d. The number of waivers and the name of the item each waiver was requested for submitted to the Environmental Office during the previous fiscal year,

e. The total amount purchased for each waivered item during the previous fiscal year in $, and

f. A narrative explanation of constraints for purchasing each item that did not meet affirmative procurement or biobased content requirements during the previous fiscal year.

II. Waste Reduction Activity Report

The Contractor shall track and report each January 15 to the JSC Environmental Office any new process improvements or programs undertaken by the Contractor (or subcontractors) that have contributed to waste reduction during the previous fiscal year. Waste reduction means increasing the percent of waste material diverted from the landfill. This may be accomplished through source reduction or by increasing reuse and recycling of items that would normally go to the landfill (trash). The information will be included in JSC's annual report to NASA HQ on waste reduction activities. Limit responses to one page or less per item. The response should include a description of the activity, the materials or wastes reduced, an estimated volume or weight of reduction, and a contact name and phone number for a person knowledgeable about the reduction activity.

FOR CONSTRUCTION/FACILITY MOD CONTRACTS ONLY

The Contractor shall track and report to the JSC Environmental Office the total weight in pounds of material sent to the landfill (this does not include shipments managed and paid for by the Environmental Office or their support contractor) and the total number of pounds of material recycled by media (scrap metal, wood, concrete, soil). The report is due within 30 days of completion of all waste generating and recycling activities or of final waste shipments associated with the project and in no case later than completion of the contract.

JSC DATA REQUIREMENTS DESCRIPTION (DRD)
(Based on JSC-STD-123)

III. Annual Energy Efficiency Product Procurement Report
The Contractor shall report to the JSC Energy Manager, on January 15 of each year, information on purchases of energy consuming products made by the Contractor (including subcontracts) beginning upon contract start. This includes the purchase of premium efficiency motors and efficiency lighting covered by the Energy Policy Act of 2005. The report shall provide the following:

a. A list of all energy consuming products purchased during the previous fiscal year.
b. The total purchase cost of each item on the list.
c. A designation of which items were Energy Star or Federal Energy Management Program (FEMP)-sanctioned.
d. For each Energy Star or FEMP-sanctioned product purchased, provide:
   i. The simple payback value as determined by the contractor's life cycle cost analysis.
   ii. The annual savings in dollars and BTUs due to the purchase of the item
e. Metrics which show the effectiveness of the contractor's purchases
   i. Percentage of purchased products that are Energy Star and FEMP-sanctioned against the total number of energy consuming products purchased.
   ii. Total dollar value of the purchased products that are Energy Star and FEMP-sanctioned against the total dollar value of all energy consuming products purchased.

IV. Ozone Depleting Substances (ODS) Reports
The Contractor shall track and report each January 15 to the JSC Environmental Office the following information for the previous fiscal year related to ODS equipment that the contractor purchases, owns, operates, maintains, or repairs on-site:

a. A list of the names of all EPA-Certified service technicians employed and their certification dates
b. A list of any ODS recovery/recycling equipment that will be used and copy of the 40 CFR 82.162 EPA registration
c. A list of any refrigeration/air conditioning units with a full charge of more than 50 pounds, not previously reported, including
   i. any identifying equipment numbers
   ii. the location of the equipment (building/room)
   iii. the owning organization or contract name and number
   iv. a narrative description of the equipment.
   v. refrigeration or air conditioning equipment with a full charge of > 50 pounds, permanently removed from service during the year.

References: None

Maintenance: Update the report ***Annually** for presentation to the ***JSC** Environmental Office on January 15.

JSC DATA REQUIREMENTS DESCRIPTION (DRD)
(Based on JSC-STD-123)

1. DRD Title	2. Current Version Date	3. DRL Line Item No.	RFP/Contract No. (Procurement completes)
Mission Readiness Plan and Procedure	None	AN-3-8	NNJ08JA02C

4. Use (Define need for, intended use of, and/or anticipated results of data)
This plan defines the work effect allowed and necessary and the controls put in place to assure compliance with NASA requirements.

5. DRD Category: *(check one)*	X	Technical		Administrative		SR&QA

6. References *(Optional)*	7. Interrelationships *(e.g., with other DRDs) (Optional)*
See TRL references below	See Annex 4

8. Preparation Information (Include complete instructions for document preparation)

Scope: The Mission Readiness Plan and Procedure shall address all support services and individual operating policies within the functional responsibility of the Contract including Maintenance, Operation, Construction, and Procurement. Coordinate with other Contracts for Logistics, Environmental, and Grounds.

Frequency: The plan shall be updated at least once per year or more often if flight support requirements change.

Distribution: The plan shall be submitted to NASA for approval 60 days from award of Contract. Utilize existing plan from previous Contract until this new plan has been reviewed and approved. Submit in electronic format to the ***COTR**. Upon approval, post electronically on storefront.

Details: Provide a Contractors Mission Readiness Plan and Procedure that spells out the functions (pre-mission, during mission, and post mission), buildings, support requirements, personnel, and operational plans that will be used to provide day-to-day and emergency support to the Shuttle flight program. The plan shall include operating policies for mission support, listings of facilities requiring special attention, Contractor functional interfaces, mission staffing support, and activity task lists. The plan will define the general operating policies and supporting plans of the Contract, the implementation and management of the general operating procedures and supporting plans and tasks for Mission Readiness. The plan shall address the period from 30 days prior to launch to 1 day after landing (T-30 to L+1). For Shuttle Flights, the critical period requiring Mission Exceptions is defined as T-7 to L+0. The plan shall include all reference documents, quality records, Operations Directives, general operating procedures, and standing operating procedures.

The Mission Readiness Plan and Procedure shall include a general statement as to the purpose of the plan to define support services of the Contractor for Mission Support.

The Mission Readiness Plan and Procedure shall also include the General Maintenance and Operations Policy. As a minimum, the Mission Readiness Plan and Procedure shall detail the following:

a. Prime and backup utilities to include Buildings 24, 28, and 48/30M. For planning purposes the MCCC is defined as the mission operation wings of 30M and 30S,

b. All operating procedures, Mission Readiness Checklists, and Mission Rules,

c. Representatives for all Mission readiness meetings defined in Annex 4,

d. Maintenance of all mission related correspondence and documentation,

e. Staffing, Manning, and Leave coordination during T-30 to L+1. Explain how the Plant Operations Engineers for each shuttle mission are to be scheduled for rotating shift work and tour of duty from T-14 to L+4 (required per the COD Space Shuttle Mission Support Plan),

f. Normal equipment configuration,

g. Configuration adjustments to accommodate the JSC Hurricane/Severe Weather Plan,

h. Health Stabilization support to be provided in accordance with the JSC Flight Crew Health Stabilization

Program (FCHSP) from T-14 through crew departure.

i. Review and maintenance of mission critical spares,

j. Procurement activities to ensure that the mission critical support requirements are met. Explain how your organization will ensure mission critical parts required for preventive maintenance and repairs are met. This explanation shall include expediting actions to ensure timely purchase, delivery, and receipt,

k. A complete listing of Mission Critical/Sensitive Buildings. (See **STS Fact Sheet in the TRL).

The General Operating Policy shall include the Management responsibilities specific to Mission Support for the Project Manager, Division Managers, Work Control Supervisors, Craft Superintendents, Plant Operations Engineers, Operators, and craft personnel. Individual Operating Policies for Maintenance, Operations, and Construction shall be incorporated into the General Operating Philosophy and shall include the following:

a. Maintenance Operating Policy: Identify the review process and supervisory control of maintenance activities for daily maintenance activities scheduled before and during the mission period. Control of maintenance activities shall include a daily review of all tasks performed by the Contractor in mission critical areas or areas which could potentially interrupt utility services to mission critical areas,

b. Operations Policy: Identify training requirements of both Operations Engineers and Operators for the MCC and Power Plant. Indicate how the Contractor will monitor and control the utility systems in Buildings 30M and 30S and coordinate with the operators. Detail the startups and shutdown restrictions and coordination requirements. Explain how you will monitor and control restricted operations. Restricted operations will include identification of large motor startups and high voltage switching activities at a minimum,

c. Construction Operating Policy: Explain how you will notify, monitor, inspect, and control all construction activities within mission periods. All on-site construction support and subcontractors must be included in the Operating Policy. Restrictions for construction activity shall be detailed, and include the minimum restrictions in accordance with the **STS Fact Sheet. Policy shall address excavation, boring, and lifting activities.

References:

Center Operations Space Shuttle Mission Support Plan dated June, 2000, for items that need to be in the Mission Readiness Plan and Procedure called for in this DRD. The plan shall include the activities, functions, assignments, and action items listed in the plan as well as any new items based on future facility changes or the Contract requirements.

Memorandum of Understanding and Standard Interface Plan Between Center Operations Directorate and Mission Operations Directorate dated March 19, 2001 in the delineation of responsibilities, procedures, and working relationships between COD and MOD relative to the various services provided by COD. See **Mission Readiness Plan and Procedure for Space Shuttle** BRSP Work Method, WM-2200-003 dated January 1, 2000.

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123)

1. DRD Title	2. Current Version Date	3. DRL Line Item No.	RFP/Contract No. (Procurement completes)
JSC, Ellington Field, and Sonny Carter Training Facility Potable Water Flushing Plan	1/30/01	AN-3-9	NNJ08JA02C

4. Use (Define need for, intended use of, and/or anticipated results of data)
This plan will be used to document the required flushing and sampling program.

5. DRD Category: *(check one)*	x	Technical		Administrative		SR&QA

6. References *(Optional)*	7. Interrelationships

8. Preparation Information (Include complete instructions for document preparation)

Scope: The purpose of this plan is to identify the fire hydrants and buildings which shall be flushed and to establish a schedule and flushing criteria.

Frequency: Initial plan shall be submitted within 30 days of Contract start. Subsequent plans shall be submitted within 15 days of a plan update.

Distribution: One electronic copy to the ***COTR**.

Details:

This plan shall identify the fire hydrants and buildings which will be flushed to meet TCEQ Chapter 290 Rules and Regulations for Public Water Systems established criteria for flushing of potable water distribution systems. This includes the flushing of all dead end lines monthly and flushing of the system as needed to keep the required disinfectant residuals. The plan for the JSC distribution system shall provide for disinfectant levels which exceed TCEQ Regulations. A minimum chloramine residual of 2.0 parts per million in all points of the distribution system and 1.0 parts per million in the buildings shall be maintained at JSC. Levels at EF and SCTF shall meet TCEQ standards. It shall also include sampling of chlorine residuals to document required sampling locations for the monthly operational report. Operational prints, master utility plans, the existing flushing program, and task instructions are available for reference. The plan shall incorporate American Water Works Association recommendations for implementation and optimization of distribution flushing programs.

The plan shall include the schedule and location to be flushed, and shall encompass daily, weekly, and long term flushing requirements. It shall include the development of log sheets to be used for daily activities which will provide for the chlorine residual analysis to be documented, along with the dates, times, and locations flushed.

References: TCEQ standards.

Maintenance: Maintain and update plan annually. Initial plan shall be updated within 30 days after system configuration changes with subsequent plans submitted within 15 days of a plan change.

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123)

1. DRD Title	Current Version Date	DRL Line Item No.	RFP/Contract No. (Procurement completes)
O&M Manuals for Water Supply Systems at JSC, Ellington Field, and Sonny Carter Training Facility	1/30/01	AN-3-10	NNJ08JA02C

4. Use (Define need for, intended use of, and/or anticipated results of data)
These manuals serve as operational guidelines, documentation, and instruction for operation of the water distribution system.

5. DRD Category: *(check one)*	x	Technical		Administrative		SR&QA

6. References *(Optional)*	7. Interrelationships

8. Preparation Information (Include complete instructions for document preparation)

Scope: The purpose of this report is to establish the requirement for maintaining up-to-date O&M manuals for the Water Supply Systems at JSC, EF, and SCTF.

Frequency: Initial manuals to be updated and submitted within 6 months of Contract start. Update all major system changes within 3 months. Review and update ***Annually**.

Distribution: One hard copy and one electronic copy to the CO upon each update.

Details: There are currently three volumes of ****Operational and Maintenance Manuals for the Water Supply System at JSC, EF, and SCTF Part I, Part II, and Part III.** All information in the manuals shall be kept up-to-date to reflect the most current operational conditions, operational procedures, and equipment.

References: None.

Maintenance: O&M manuals to be electronically developed and maintained.

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123)

1. DRD Title	2. Current Version Date	3. DRL Line Item No.	RFP/Contract No. (Procurement completes)
Information Technology (IT) Security Management Program Plan	August 2007	AN-1-11	NNJ08JA02C

4. Use (Define need for intended use of, and/or anticipated results of data)
The Contractor shall be responsible for information technology security for all systems connected to a NASA network or operated by a NASA Contractor. This plan will ensure Contractor awareness and compliance with NASA regulations.

5. DRD Category: *(check one)*		Technical	X	Administrative		SR&QA

6. References *(Optional)*	7. Interrelationships *(e.g., with other DRDs) (Optional)*

8. Preparation Information (Include complete instructions for document preparation)

Data Type: 1 Written Approval by the Contracting Officer is required before contractor implementation of the IT Security Management Program Plan.

Scope: The Contractor shall submit an IT security management program plan for its unclassified technology information resources. This program plan shall describe the processes and procedures that will be followed to ensure appropriate security of IT resources that are developed, processed, or used under this contract. The Contractor's IT security management program plan shall be compliant with the IT security requirements in accordance with Federal and NASA policies as referenced in OMB Circular A-130 (Management of Federal Information Resources), NPR 2810.1A (Security of Information Technology), and NPR 1620.1 (Security Procedures and Guidelines). See the CIO-Procurement Website for any supporting documentation.

a) IT SECURITYPLAN(S)

The Contractor shall have a line manager who is responsible for the Contractor's systems in accordance with the definitions set forth in NPR 2810.1A. The IT security plan shall be kept up to date as changes to the baseline configuration of the system occur and shall be documented in the IT Security Plan.

Note: An IT Security Plan is specific to a system or group of systems, while an IT Security Management Program Plan is defined as the elements a Contractor has outlined to meet the IT Security requirements for interfacing with other Contractors and NASA, training requirements and meeting the requirements in NPR 2810.1A. This is really an IT Security Management Program Plan.

b) TRAINING

Per NPD 2810.1A, the Contractor shall provide evidence that periodic IT security awareness training has been met for all on-site contractors. The Contractor shall submit periodic reports (as requested by the CO) detailing the overall status of the annual training program. The Annual training program is defined as the period from Oct. 1st through Sept. 30th.

c) INFORMATION ON EMPLOYEES IN SENSITIVE AIS POSITIONS/ASSIGNMENTS REPORT

The Contractor shall submit an annual report on employees in sensitive IT positions/assignments which shall include information for personnel screening as required by the NASA Procurement Information Circular (PIC) 02-04, NPR 2810.1A, and NPR 1600.1 on position risk. This report shall be compiled annually. A list of all lead system administrators shall be updated by September 30 every year. This list will be used to ensure the Contractor, as outlined in PN 04-03, has met the system administrator certification requirements.

d) SYSTEM ADMINISTRATORS

Within 30 days after contract award or notification from the Contracting Officer that a plan is required, system administrators will be identified and their names submitted to the Contracting Officer and CIO Representative for Procurement. Following initial submittal of System Administrators, a list of all lead system administrators will be updated by September 30 every year.

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123)

Format: Electronic Format consistent with NPR 2810.1A

Submission:

i. Initial – 30 days after contract start
ii. Approval - 60 days after contract start
iii. Frequency - Annually

Distribution:

__/COTR
B_/Contract Specialist
IM/Chief Information Officer (CIO) Representative to Procurement, Attn. IM/Ric Slater

Maintenance: Revisions shall be incorporated by change page or complete reissue.

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123)

1. DRD Title	2. Current Version Date	3. DRL Line Item No.	RFP/Contract No. (Procurement completes)
Information Technology (IT) Capital Planning and Investment Control (CPIC) Document	August 2007	AN-1-12	NNJ08JA02C

4. Use (Define need for intended use of, and/or anticipated results of data)
To document the Contractor's compliance with Federal and NASA IT CPIC Planning and Reporting regulations

5. DRD Category: *(check one)*		Technical	X	Administrative		SR&QA

6. References *(Optional)*	7. Interrelationships *(e.g., with other DRDs) (Optional)*

8. Preparation Information (Include complete instructions for document preparation)

SCOPE: The Contractor's IT CPIC document shall describe the contractor's IT CPIC process, which includes development and submittal of the IT Program Operating Plan (POP), Information Resources Management (IRM) Plans, IT Management Plan, IT Standards, 508 Compliance, and document the Contractor's compliance with Federal and NASA IT planning and reporting regulations and requirements. See the CIO-Procurement Website for any supporting documentation for this DRD.

CONTENT: IT CPIC Process Document
The Contractor shall document the establishment of the Contractor's process for compliance with the IT CPIC requirements, the IT POP, NASA PIC 05-01, as well as all updates and/or replacements to those. The Contractor shall coordinate with the JSC CIO office for the latest documented process and documents. The IM POC is Ric Slater, 281-483-7723. Before implementation, written approval by the Contracting Officer is required of the Contractor's IT CPIC processes. The IT CPIC Process Document shall be incorporated into the contract as a compliance document. The Contractor shall address the contractor's evaluation and selection of JSC IT Standards that will meet their requirements. The Contractor shall use a JSC standard or Organizational standard. Requirements that cannot be met sufficiently by a JSC organizational standard will require submitting a new IT Standard per the approved process.

• IT POP
The Contractor's IT POP shall comply with IT POP requirements as published on the JSC CFO web site. The Contractor's IT POP shall contain IT investment data and budget formulation information.
The Contractor's IT POP shall address IT security, Contractor resource requirements, and IT system descriptions.

• IRM FY Plans
The Contractor shall comply with IT fiscal year planning as published on the JSC CIO website. The Contractor shall coordinate with the JSC CIO Office for the latest process requirement changes.
The Contractor's IRM FY Plan shall contain IT investment data and budget formulation information for the "next" fiscal year.
The Contractor's plan shall address IT security, Contractor resources requirements, and IT system descriptions.

• Contractor IT Standards
The Contractor's IT standards shall be submitted to the Contracting Officer for approval, and will be a contract compliance document. The IT standards, when approved, will be posted by NASA and will reside on the IRD (JSC CIO) web site and will be under Institutional Resources Directorate (IRD)/JSC Chief Information Officer (CIO) configuration management.
The Contractor shall document changes to the approved Contractor standards by submitting a JSC Form 1209, *Document Change Request* with the change which identifies the standard to change, an updated table with the change, and the reason for the change.
NASA will document the Contractor's current IT Standards on the IRD (JSC CIO) web site.

• Compliance with Section 508 of the Rehabilitation Act
The Contractor shall address Section 508 requirements compliance in accordance with NASA PIC 05-01 entitled "Electronic and Information Technology Accessibility" prior to the procurement of Electronic and Information Technology (EIT). Specifically, enclosures are included in the PIC, one or more of which shall be provided to the

JSC DATA REQUIREMENTS DESCRIPTION (DRD)
(Based on JSC-STD-123)

Contracting Officer when such looks like it wrapped on you procurements are executed. This applies to any EIT procurement covered by Section 508.
The Contractor shall address how all EIT acquisitions were assessed for compliance with the 508 Accessibility Standards if different from the flowchart in the PIC's enclosure 2, "EIT Market Research Template."
All Contractor IT acquisitions shall be accompanied with the PIC 05-01 enclosure 2, "EIT Market Research Template."

FORMAT: IT CPIC documentation shall be delivered in native format and be compatible with JSC standard software loads. This can be found on the CIO-Procurement Website.

Submission:

i. Initial – 30 days after contract start

ii. Approval - 60 days after contract start

iii. Frequency – Annually

Distribution:

__/COTR
B_/Contract Specialist
IM/Chief Information Officer (CIO) Representative to Procurement, Attn. IM/Ric Slater

MAINTENANCE: Annual

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123)

1. DRD Title	2. Current Version Date	3. DRL Line Item No.	RFP/Contract No. (Procurement completes)
Notification of Potential Labor Dispute and Contingency Strike Plan		AR-1-1	NNJ08JA02C

4. USE (Define need for, intended use of, and/or anticipated results of data)
The Notification of Potential Labor Dispute and Contingency Strike Plan will be used by the NASA CO and the Contract Labor Relations Office to facilitate the coordination of activities between the Contractor and the affected NASA operational directorates to ensure that necessary steps are taken to prepare for any potential strike situations and to prevent the disruption of work.

5. DRD Category: *(check one)*		Technical	X	Administrative		SR&QA

6. References *(Optional)*	7. Interrelationships *(e.g., with other DRDs) (Optional)*
	FAR 52.222.1

8. Preparation Information (Include complete instructions for document preparation)

DISTRIBUTION: B__/Contracting Officer
BA2/Connie Pritchard, Contract Labor Relations Officer

INITIAL SUBMISSION: Start of Contract.

SUBMISSION FREQUENCY: As required.

DATA PREPARATION INFORMATION:

SCOPE: A Notification of Potential Labor Dispute must be submitted at the first indication of potential labor unrest and 45 days prior to the expiration of any collective bargaining agreement. The notification shall describe the situation that has the potential of impacting the Contract and provide the corrective actions initiated. A Contingency Strike Plan must be submitted at Contract start and updated if there is any indication of a potential labor unrest or potential picketing activity. The Notification of Potential Labor Dispute and the Contingency Strike Plan are required for the prime and any subcontractors supporting this Contract.

APPLICABLE DOCUMENTS: None

CONTENTS: The Notification of Potential Labor Dispute shall describe the situation that has the potential of impacting the timely performance of the Contract, it should provide the planned negotiation dates with organized labor, and describe other corrective actions initiated. Notification should be made prior to the expiration of collective bargaining agreements, prior to any significant changes to existing working conditions or pay practices, or any situation that could impact the performance of the Contract through labor unrest. The Contingency Strike Plan shall describe the Contractor's plan for assuring the timely performance of the work under this Contract during a strike or work stoppage. As a minimum, contents should include: information on implementation of the strike plan, a pre-strike checklist for managers and supervisors, a description of how critical work will be performed, an organization chart of the strike committee membership, phone numbers of key management personnel, and standards of conduct policies during the strike.

FORMAT: Contractor format is acceptable.

MAINTENANCE: Changes shall be incorporated as required by change page or complete reissue.

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123)

1. DRD Title	2. Current Version Date	3. DRL Line Item No.	RFP/Contract No. (Procurement completes)
Security Reporting Requirements	2/16/01	AR-1-2	NNJ08JA02C

4. Use (Define need for, intended use of, and/or anticipated results of data) Identifies reporting requirements to Security which affect the Contractor's facility and/or personnel and also ensures compliance with applicable NASA and DOD security regulations involving industrial, information, personnel and administrative/program security.

5. DRD Category: *(check one)*		Technical	X	Administrative		SR&QA

6. References *(Optional)*	7. Interrelationships *(e.g., with other DRDs) (Optional)*

8. Preparation Information (Include complete instructions for document preparation)

A. Provide the following information, in writing (reports, letters, and notification), in accordance with the security regulations identified as applicable documents in paragraph C. of this DRD:

1. Personnel Security:

1.1 Change in an employee's status who is participating in JSC special access programs such as the IT Security Program (i.e., name, marital status, citizenship, death, termination of employment, different position or work assignment/ relocation, employee becomes a representative of a foreign interest, etc.).

1.2 Adverse information reports on all non-US employees and employees participating in the IT programs at JSC (i.e., criminal activity, psychological counseling, positive drug testing results, alcohol abuse/DUI/DWI, etc.).

1.3 Copies of any written reports submitted to the FBI regarding information coming to the Contractor's attention concerning actual, probable, or possible espionage, sabotage, or subversive activities at any of the Contractor's locations.

1.4 Any "ACI" (Administratively Controlled Information) and/or "FOUO" (For Official Use Only) information released outside a Contractor's facility, except to NASA representatives.

1.5 Suspicious contacts -- efforts by any individual to obtain illegal or unauthorized access to export controlled data, and all contacts by employees with JSC special program access with known or suspected intelligence officers from any country, or any contact which suggests that the employees concerned may be the target of an attempted exploitation by the intelligence services of another country.

2. Administrative/Physical Security:

In compliance with established internal procedures, the Contractor FSO or security manager shall submit a "Contractor Termination Letter" to the JSC Security Office for each affected employee which includes the return of the referenced property or certification that the following Government property was returned or destroyed and/or program participation was canceled:

2.1 Badge(s).

2.2 CAA (Controlled Access Area) Card(s).

2.3 Decal(s).

2.4 Key(s).

2.5 Employee's Participation in Reserved Carpool Program (Identify reserved carpool space number) _____.

3. Other Reportable Incidents (Information Required):

3.1 Felonies committed by Contractor personnel.

JSC DATA REQUIREMENTS DESCRIPTION (DRD)
(Based on JSC-STD-123)

3.2 Espionage or Sabotage.

3.3 Bombing incidents at Contractor facilities, or threats which severely impact the Contract or Center activities.

3.4 Actual demonstrations/strikes (in or outside JSC gates) or planned demonstrations or strikes where violence involving Contractor personnel is threatened.

3.5 Workplace violence (shootings or other violent acts.)

3.6 Any type of incident occurring on NASA/JSC property which results in the death of a person.

3.7 Security related incidents in which the media has become involved and negative publicity is expected.

3.8 An adverse event in an automated systems environment that would be of concern to NASA management due to potential public interest, embarrassment, interruption to computer/network services or protective controls, damage, disaster, discovery of a new vulnerability, etc.

3.9 Threats against NASA property and personnel.

3.10 Threats that impact NASA missions.

3.11 Any other type of incident that might have security implications.

B. The requested information (reports, letters, notification) identified in A. shall be mailed/delivered to the Chief, JSC Security Office, Mail Code JA14.

C. Applicable Documents

1. NPG 1620.1, NASA Security Procedures and Guidelines.

2. JSCM 1600D, JSC Security Manual.

3. SMD 500-9, Personnel Security Screening.

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123)

1. DRD Title	2. Current Version Date	3. DRL Line Item No.	RFP/Contract No. (Procurement completes)
EMCS Alarm Management Plan	5/23/96	AR-3-4	NNJ08JA02C

4. Use (Define need for, intended use of, and/or anticipated results of data)

5. DRD Category: *(check one)*	X	Technical		Administrative		SR&QA

6. References *(Optional)*	7. Interrelationships *(e.g., with other DRDs) (Optional)*

8. Preparation Information (Include complete instructions for document preparation)

The purpose of this plan will be to define the responsibilities and actions of the Contractor required to identify new actions and to maintain a manageable EMCS alarm activity.

General Information: Maintenance, energy conservation, construction activities, or changing operational modes require modifications in the EMCS point characteristics. The tagout/tagin, sensor inhibit, and limit change functions serve as a mechanism to modify the point characteristics and minimize alarms generated by EMCS computer system. The EMCS system allows for some points to inhibit others from generating alarms. Points are normally inhibited when equipment is shut down. An ancillary function of the inhibit process is to allow points to be tagged out such that they cannot generate any alarms. Tagged out or Inactive points are screened out of alarm reporting process; all other processing for the point proceeds as normal. The limit change function modifies the point at which alarm occurs.

Purpose: The Alarm Management Plan shall detail the primary objectives to minimize alarm activity without impacting safety, equipment damage, operations, and maintenance requirements specified in the Contract.

Contents: The Contractor shall prepare, submit, implement, accomplish, and maintain an EMCS Alarm Management plan (EAM). The plan shall be submitted to NASA for approval 60 days from award of Contract. The plan shall facilitate all data, reports, applications, procedures, and logs being functional 4 months after Contract start date. The EAM plan shall detail all plans, procedures, and processes the Contractor shall implement, accomplish, and maintain to provide the intended results of the EAM requirements. The plan shall list implementation schedule including all milestone elements by description and providing start and completion dates for each. The plan shall detail methods, procedures, processes, and controls that will be implemented and further accomplished to meet the intent of SOW in Annex 3.2.1.6.2 titled Man and Operate the EMCS – Two systems Honeywell EBI and SCTF System 20/20.

The plan will address the following additional requirements, as a minimum:
Identify all methods, procedures, processes, and controls you will use to:

a. Ensure a clean and manageable alarm file,

b. Manage EMCS alarm activities in accordance with SOW requirements,

c. Implement/maintain modifications to EMCS points when field conditions require change,

d. Reduce and report to the EMCS Operations Review Board (EORB) repetitive or nuisance alarms,

e. Control/limit only authorized personnel to modify point-operating characteristics. Note: All changes to limits and to critical points or systems shall be approved by ***COTR**,

f. Maintain and update existing SOP's for Sensor Inhibit, Sensor/Control, Tagout/Tagin, and Limit Changes,

g. Identify, control, and track equipment monitored by EMCS when placed out of service due to maintenance, equipment failures of energy management system, operational mode changes, facility activation, and construction activities,

h. Operate EMCS to assure operators are in control of equipment,

i. Respond to alarms based on type and category, corrective actions; provide notifications, and document/control changes,

j. Determine the optimum selection criteria (inhibit, tagout, change limits) to modify the point characteristics based on identified anomalies,

k. Maintain a minimal amount of alarms. Provide plan to minimize: (a) alarm acknowledgments per Operator Change Shift, (b) outstanding alarm list, and (c) Alarm Tagout list,

l. Acknowledge and respond to alarm conditions (critical, non-critical) within the alarm operational time limit requirements of the SOW,

m. Maintain the electronic files for Government access.

The Contractor EAM plan must provide alarm management data, reports, and application processes to support the activities, configuration management, and metrics necessary to comply with requirements stated in this DRD. All data, reports, applications, and programs shall be implemented within 4 months of Contract start date.

Maintenance: The Contractor shall continuously maintain electronic on-line access to the data required in this DRD. All data, reports, applications, and logs shall be available for on-line Government access. All data elements, applications, and reports shall be maintained in Microsoft Access data. All data or reports shall be maintained to provide historical data necessary to review an audit trail of all activities, changes, additions, or deletions. Update all data, files, reports, and programs when action requires alarm management configuration changes at time of occurrence.

Report Requirements: All reporting requirements will be submitted to the Government in an electronic format. Report requirements are as follows:

Tagin/Tagout Activity Report shall be required at the first EORB meeting of each month and shall contain the following information:

a. Disabled point,

b. Point description,

c. Date/time point was disabled,

d. Identification of operator disabling point,

e. Reason for point being disabled,

f. Estimated date point is to be returned to service,

g. Date of point enabled (tagged in),

h. Identification of operator enabling point,

i. Action taken to restore point to service.

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123)

1. DRD Title	2. Date of current version	3. DRL Line Item No.	RFP/Contract No. (Procurement completes
Reprocurement Data	4/26/2005	AR-1-5	RFP# NNJ08JA02C
4. Use *(Define need for, intended use of, and/or anticipated results of data)*			5. DRD Category *(check one)*
Provide content and format requirements for delivery to NASA of all analytical models, tools, supporting documentation, equipment, data items and resource/cost information used to perform future re-procurement activities.			☐ Technical ☒ Administrative ☐ SR&QA
6. References *(Optional)*	7. Interrelationships *(e.g., with other DRDs) (Optional)*		
8. Preparation Information *(Include complete instructions for document preparation)*			

1.0 Description/Use - Provide content and format requirements for delivery to NASA of all analytical models, tools, supporting documentation, equipment, data items and resource/cost information used to perform future re-procurement activities. Data contained in Paragraph 4.2.1, "Labor Resources", Paragraph 4.2.2, "Non-labor Resources", and Paragraph 4.2.3 may be marked "Proprietary Data" and "Competition Sensitive". Data contained in Paragraph 4.2.4, "Technical and Process Information" may be disclosed to competing offerors in the future.

2.0 Submission:

2.1 Initial/Final – One deliverable at the CO's direction.

2.2 Approval – N/A.

2.3 Submission Frequency - No periodic submissions required per this DR (this does not relieve the requirement for periodic or incremental deliveries per other DRs.)

3.0 Applicable Documents: None.

4.0 Data Preparation Information:

4.1 Scope – Analytical models, unique tools, supporting documentation, equipment and resource/cost information shall be submitted in accordance with this DR.

4.2 Content – Data package containing the following:

4.2.1 Labor resources:

4.2.1.1 List of all direct labor skills by labor category, segregated by current work breakdown structure (WBS).

4.2.1.2 An estimate of the number of indirect labor skills such as business or computer support normally charged through an indirect expense pool or through a service center expense.

4.2.1.3 Current annual average wage rates for each labor category and when these wages were last adjusted for escalation. Also indicate whether any adjustments are projected to be made prior to contract expiration.

4.2.1.4 The number of FTE's (Full Time Equivalents) and the estimated number of productive hours for each labor category currently on contract, segregated by current WBS.

4.2.1.5 Seniority level of all skills on the current contract.

4.2.2 Non-labor resources:

4.2.2.1 List of all materials, equipment, travel, supplies, etc., and the incurred annual cost by WBS. Only include significant items that are used to perform the technical requirements of this contract.

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123)

4.2.2.2 Provide a discussion associated with the major items identified above, such as the materials estimate includes a prompt payment discount of TBD percent due to large volume discounts you have negotiated with your vendors.

4.2.3 The projected liability cost associated with unused accrued paid leave associated with non-exempt personnel. Provide a copy of any Collective Bargaining Agreements in place and a current status of any upcoming negotiations with a union.

4.2.4 Technical and Process Information:

DRD's entitled:
Contract Management Plan

4.3 Format: Electronic. Organizational format of the supporting documentation shall be the contractor's format.

5.0 Maintenance - All models/tools and data items shall be maintained electronically. All documentation developed to support the use of each model/tool and data items shall also be maintained electronically. Both the models and the supporting documentation shall be updated as necessary to perform the assessments for which they were developed.

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123)

1. DRD Title	2. Current Version Date	3. DRL Line Item No.	RFP/Contract No. (Procurement completes)
Small Business Subcontracting Plan		AR-1-6	NNJ08JA02C

4. USE (Define need for, intended use of, and/or anticipated results of data)					
To provide a subcontractor plan in accordance with FAR Clause 52.219-9.					
5. DRD Category: *(check one)*		Technical	X	Administrative	SR&QA
6. References *(Optional)*		7. Interrelationships *(e.g., with other DRDs) (Optional)*			
8. Preparation Information (Include complete instructions for document preparation)					

The Contractor shall submit a Small Business Subcontracting Plan in accordance with FAR Clause 52.219-9.

Frequency: Initial submission with the proposal.

Distribution: 1 Electronic copy and 1 hard copy to the Contracting Officer

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123)

1. DRD Title	2. Current Version Date	3. DRL Line Item No.	RFP/Contract No. (Procurement completes)
Government Property Management Plan	Per RFP	AR-1-7	NNJ08JA02C

4. Use (Define need for, intended use of, and/or anticipated results of data)						
To describe the method of administering Government personal property.						
5. DRD Category: *(check one)*		Technical	X	Administrative		SR&QA
6. References *(Optional)*			7. Interrelationships *(e.g., with other DRDs) (Optional)*			
Clause 52.245-5						
8. Preparation Information (Include complete instructions for document preparation)						

DISTRIBUTION: Electronic distribution to JB/Industrial Property Officer.

INITIAL SUBMISSION: Due 30 days after contract award.

SUBMISSION FREQUENCY: Initial, with updates as required.

SCOPE: The Government Property Management plan defines the contractor's use, maintenance, repair, protection, and preservation of Government personal property. It shall describe the contractor's approach to receiving, handling, stocking, maintaining, protecting, and issuing Government property. The Plan should include interaction and Department/Office responsibilities. The delegated Property Administrator will request detailed procedures after contract start.

APPLICABLE DOCUMENTS: Federal Acquisition Regulation (FAR) Part 45 NASA FAR Supplement (NFS) Part 1845.

CONTENTS: This plan shall reference those policies and procedures, which constitute the contractor's Property Management Manual and shall include at a minimum the following categories:

Property Management	Acquisition	Receiving
Identification	Records	Movement
Storage	Physical Inventories	Reports
Consumption	Utilization	Maintenance
Subcontractor	Control Disposition	Contractor Closeout

Reconcile Contractor Records with Financial Records
Center-Unique Considerations

FORMAT: Contractor format is acceptable; electronic format and availability as required Contracting Officer's letter.

MAINTENANCE: Changes shall be incorporated by change pages or complete reissue.

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123)

1. DRD Title	2. Current Version Date	3. DRL Line Item No.	RFP/Contract No. (Procurement completes)
Water Utility Report	1/30/01	MO-3-1	NNJ08JA02C

4. Use (Define need for, intended use of, and/or anticipated results of data)
This report will provide the Government with the information needed to initiate TCEQ required reports and documentation and to assess the operability of the water utility system.

5. DRD Category: *(check one)*	x	Technical		Administrative		SR&QA

6. References *(Optional)*	7. Interrelationships

8. Preparation Information (Include complete instructions for document preparation)

Scope: The purpose of this report is to document all information associated with the water plant and distribution system.

Frequency: Monthly.

Distribution: One electronic copy to the *COTR.

Details: **Water Utility Report.

This report shall document all the information associated with the water plant and distribution system. The report shall summarize activities from the water operator's log. It shall include meter readings, log information, inspection information, chemical treatment records, and sample analysis. It shall include copies of all flushing logs as required by the approved flushing program. Any new water connections/disconnections shall be noted along with all system outages and any significant maintenance activities. The report shall note all inspections and information associated with meeting the requirements of TECQ Chapter 290 Rules and Regulations for Public Water Systems. Submit one electronic copy of the report to the CO by the 10th of each month for the previous month's activity.

References: None.

Maintenance: Monthly report and data used to generate the report shall be archived by the Contractor for the duration of the Contract. Last 12 months of data archived shall be turned over to Government at the end of the Contract.

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123)

1. DRD Title	2. Current Version Date	3. DRL Line Item No.	RFP/Contract No. (Procurement completes)
Monthly Safety Statistics	01/2001	MO-1-2	NNJ08JA02C

4. Use (Define need for, intended use of, and/or anticipated results of data)					
Establishes selected Safety and Health Program metrics ***The Office of Primary Responsibility for this DRD is the JSC Safety and Test Operations Division					
5. DRD Category: *(check one)*		Technical		Administrative	X SR&QA
6. References *(Optional)*			7. Interrelationships *(e.g., with other DRDs) (Optional)*		
			DRD SA-1-1		
8. Preparation Information (Include complete instructions for document preparation)					

Frequency of Submission: Monthly by 10th of month following month being reported unless noted otherwise.

Distribution:
JSC Occupational Safety Branch (1 electronic copy including photographs, drawings, etc., in web-ready format such as HTML or JPG).
JSC Occupational Health Officer (1 electronic copy).
Contracting Officer's Technical Representative (COTR) (1 electronic copy).
JA Safety Manager (1 electronic copy).

Format: Excel spreadsheet or in tables compatible with MS Word.

Definitions: Refer to JPR 1700.1, JSC Safety and Health Handbook and OSHA requirements for definitions of terms below.

Content:

I. Management Commitment and Employee Involvement.

Date of Management Safety Committee Meeting		Type/Title of Meeting		No. of Managers attending		No. of Supervisors attending		No. of Non-Supervisory personnel attending	
This month	Year to date			This month	Year to date	This month	Year to date	This month	Year to date

Include copies of minutes

No. of Employee Safety Meeting		Type/Title of Meeting	No. of Employees attending		No. of Managers/Supervisors attending	
This month	Year to date		This month	Year to date	This month	Year to date

Include copies of minutes

II. Worksite Analysis. Refer to JPR 1700.1, JSC Safety and Health Handbook for definitions of terms.

Division	No. of Hazard Analyses				No. of Job Safety Analyses				No. of Routine Inspections			
	Required		Performed		Required		Performed		Required		Performed	
	This month	Year to Date	This month	Year to Date	This month	Year to Date	This month	Year to Date	This month	Year to Date	This month	Year to Date

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123)

Total													

III. Hazard Prevention and Control - hazards below were found during routine and special inspections, close calls, mishap investigations, etc., and require correction.

No. of Hazards found			No. of Hazards closed <30 days			No. of Hazards open <30 days	No. of Hazards open >30 days			No. of Hazards closed >30 days			No. of JF1240s in place
Prior to month	This month	Year to date	Prior to month	This month	Year to date		Prior to month	This month	Year to date	Prior to month	This month	Year to date	

Attach copies (electronic acceptable if sent by e-mail) of JF 1240's including monthly updates. Mark JF 1240's where abatement has been completed as closed.

IV. Safety and Health Training - List courses specific to safety and health (such as Hazard Communication, Confined Space entry, HAZWOPER, system safety, job safety analysis, etc.) Do not include job proficiency course work where safety is an issue (such as radiography, welding, painting, etc.)

Course Title	No. to be Trained	No. Trained	On Schedule

V. Statistical Information Contractor Safety and Health Program - The Contractor shall prepare and deliver monthly statistical information as specified on JSC Form 288, "Statistical Information Contractor Safety and Health Program", as revised. Negative reports are also required monthly. Report to be delivered to the JSC Safety and Test Operations Division through the Occupational Safety Branch by fax to 281-483-3801 or electronically as instructed by representatives of the Occupational Safety Branch.

VI. Safety and Health Lessons Learned - Obtain Lessons Learned from Contractor for possible publication in NASA Lessons Learned Information System (LLIS).

Criteria for Selecting Lessons Learned - Uncommon insight arising from any event or observation that will benefit from sharing with a larger community of interested parties. Lessons learned are intended to prevent recurrence of undesirable events and to allow NASA and its team members to capitalize to the greatest extent practical on unique successes. Provide lessons learned 30 days after triggering event or 30 days after mishap investigation or hazard analysis/evaluation is completed.

Content:

Subject - one line subject of the lesson.

Lesson Learned - usually one sentence that describes insight gained.

Description of Event - narrative of what happened.

Recommendations - may be an action plan, suggestion, etc., that was adopted at event source.

Supporting documentation - as needed to give clear picture of lesson (photographs, illustrations, drawings, etc.).

Contact name and e-mail address (for follow up by Government prior to publication of lesson).

Definitions. Refer to NASA LLIS at http://llis.gsfc.nasa.gov/ for definitions of terms used.

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123)

1. DRD Title	2. Current Version Date	3. DRL Line Item No.	RFP/Contract No. (Procurement completes)
Functional Metrics	Per RFP	MO-1-3	NNJ08JA02C

4. Use (Define need for, intended use of, and/or anticipated results of data)
Established SOW functional performance metrics and documents trends. Assures compliance with Contract requirements.

5. DRD Category: *(check one)*		Technical	X	Administrative		SR&QA

6. References *(Optional)*	7. Interrelationships *(e.g., with other DRDs) (Optional)*

8. Preparation Information (Include complete instructions for document preparation)

Scope: The Contractor shall plan, implement, accomplish, and submit all metric requirements in this DRD for designated functional requirements. Functional requirements include all work requirements specified in Section J of the Contract. These metric and reporting requirements are in addition to on-line electronic data, reports, and submittals that are required in the various technical annexes of Section J. The Contractor shall evaluate these metric data and take all steps necessary for the improvement of any required performance, quality, and/or efficiency that the Contractor fails to meet. This evaluation and its effectiveness shall assure the COTR compliance with the Contract requirements. The Contractor may propose metrics he deems would be meaningful to include in this DRD.

Some metrics identified in the DRD will be used to evaluate the Contractor's performance. Incidents not caused by or are not the responsibility of the Facilities Contractor will not be used in the evaluation of the Contractor.

Frequency of Data Reporting: The Contractor shall continuously maintain electronic on-line access to the most recent data required in this DRD. The access shall be formally reported by the 10th of each month.

The Contractor shall submit data, records, and reports required by this DRD via hard copies once per month, or as otherwise may be noted, during entire Contract period. This hardcopy and electronic copy shall be due to Government on the 10th of each month, or as otherwise noted.

Distribution: Submit 1 hard copy and 1 electronic copy of all data requirements to the CO, ***COTR**, and JSC Occupational Safety Branch as detailed in the DRD for specific metrics. The metrics shall also be posted to the COD web homepage.

Format: The Contractor and the ***COTR** shall jointly agree on the format of data and reporting. See the end of this DRD for the Metric Standard for JSC report format and example metric. Minor changes in format and content shall be expected from time to time to improve use, application and meaningfulness of metrics. Electronic format to be on Microsoft Windows based software. Data elements are to be reported and maintained in Microsoft Excel. The data shall be put on the Contractor's homepage in a manner such that all metrics can be easily accessed in a single location and they shall be linked or posted to the COD homepage.

Supporting Data and Metrics: The Contractor shall maintain and provide Government electronic on-line access to the back-up detail data that supports all DRD requirements. For example the data will have: work elements data, equipment ID, criticality class code, building number, customer, annex, functional area etc., and is expected to be available, such that analysis and trending to various focused levels and detail may be achieved. The intent is that other on-line data be accessible that readily supports all data submitted with this DRD and that the Government shall have full and unlimited access to that data.

Metric Reports and Submittals: The Contractor shall prepare, submit, and maintain the following metrics.

Note: All fields of data are to be provided:

Table of Contents

I. Management
  A. Monthly Metrics
II. Facility Engineering
  A. Additional Monthly Metrics
  B. Maintenance and Operations

C. Environmental

III. Metric Format Requirement

I. Management

A. Monthly Metrics

1. Employee Training - - Bar chart of the following tasks per month (Y Axis) for most recent 6 months (X Axis).
   a. Total # of Employees requiring training for certification
   b. Number of Employees trained for certifications on Time

Status color based on percentage of personnel trained for certifications.
- = E = 95% to 100%
- = V = 90% to 94%
- = G = N/A
  = S = N/A
- = P = Less than 90%

2. Customer Satisfaction - - Bar chart of the following tasks per month (Y Axis) for most recent 6 months (X Axis).
   a. Total # of satisfaction cards sent to customers of Work Orders
   b. Number of satisfaction cards returned

Status color based on percentage of customer satisfaction.
- = E = 95% to 100%
- = V = 91% to 94%
- = G = 88% to 90%
- = S = 85% to 87%
- = P = Less than 85%

3. DRD's and Reports - - Bar chart of the following tasks per month (Y Axis) for most recent 6 months (X Axis). This excludes environmental DRD's and reports.
   a. Total # of DRD's and Reports to Be Completed
   b. Number of DRD's and Reports Completed on Time
   c. Total # of DRD's and Reports Completed Late
   d. Average Number of Days to Complete Late DRD's and Reports
   e. Total # of Open DRD's and Reports that are Late
   f. Average Number of Days Late DRD's and Reports are Open
   g. Total # Deferred DRD's and Reports

Status color based on percentage of DRD's and reports performed on time:
- = E = 95% to 100%
- = V = 89% to 94%
- = G = 84% to 88%
  = S = 80% to 83%
- = P = Less than 80%

4. Meet target closure deadlines for technical and management actions of environmental nonconformances and noncompliances - Bar chart of the following tasks per month (Y Axis) for most recent 6 months (X Axis).
   a. Total # of records in CATS-PRS to Be Completed
   b. Number of CATS-PRS Completed on Time

5. Store Front Availability – Bar chart of the availability of the Store Front per month (Y Axis) for most recent 6 months (X Axis). This metric indicates the percentage of time the Store Front is available to JSC users during Core Hours (excluding down times that the Government concurs were caused by events outside of the Contractor's control).
   a. Percent of Availability = (100-# of unplanned outage hours during the month)/100

- = E = 96% to 100%
- = V = 92% to 95%
- = G = 84% to 91%

= S = 76% to 83%
- = P = Less than 76%

6. IT Systems Availability (Non-Store Front) – Bar chart of the availability of the IT Systems (Non-Store Front) per month (Y Axis) for the most recent 6 months (X Axis). This metric indicates the percentage of time the IT Systems (Non-Store Front) are available to JSC users during Core Hours (excluding down times that the Government concurs were caused by events outside of the Contractor's control).
   a. Percent of Availability = (100-# of unplanned outage hours during the month)/100

- = E = 96% to 100%
- = V = 92% to 95%
- = G = 84% to 91%
  = S = 76% to 83%
- = P = Less than 76%

7. Monthly Data Exception Report – Bar chart of the timeliness of the delivery of the report on the CMMS exceptions and corrections per month (Y Axis) for the most recent 6 months (X Axis).
   a. Percent of Ontime Delivery = (100 - # of days that pass after the 10th of the month before the corrections and exception report is delivered) for the given month) / 100

- = E = 100%
- = V = 95% to 99%
- = G = 90% to 94%
  = S = 85% to 89%
- = P = Less than 85%

8. Task Order – Bar chart of the timeliness of the completion of task orders per month (Y Axis) for the most recent 6 months (X Axis).
   a. Percent of Ontime Completion of Task Orders = The # of Task Orders Completed On Time / The # of Task Orders Due for the given month – the # of Backlogged (Non-deferred) Task Orders / 100
   - = E = 98% to 100%
   - = V = 95% to 97%
   - = G = 90% to 94%
     = S = 85% to 89%
   - = P = Less than 85%

II. Facility Engineering:

A. Additional Monthly Metrics

In addition to the metrics specifically identified below, submit 10 monthly metrics for CLIN's within Annexes 1 – 7. These 10 metrics will be developed in coordination with the Government. These metrics will be indicative of performance schedule (timeliness), and quality of required services for the Facility Management and Operations Division. These metrics will become a basis for trending areas needing improvement, as well as reflective of the overall functional performance of the Contractor in the facility engineering functions. Some metrics may be added or changed as Contract focus is changed before each new performance evaluation period; however, no more than 10 of these additional metrics will be required to be submitted on a monthly basis at any one time. All metrics will be based on data available in existing databases or already required to be collected elsewhere in the Contract.

1. TBD
2. TBD
3. TBD
4. TBD
5. TBD
6. TBD
7. TBD
8. TBD
9. TBD
10. TBD

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123)

The Contractor shall implement maintenance metrics using definitions as defined in NPR 8831.2D and as may be further defined in the Public Works Annexes and this DRD. The Contractor CMMS shall incorporate tracking, status, history costing, and other requests in SOW for all work elements by equipment ID, system, unit, facility, facility class code, and other requirements in SOW.

Types of Maintenance Work Elements

PM - Preventive Maintenance Task
PT&I - Predictive Testing & Inspection Task
TC - Trouble Calls (ETC + RTC + UTC) Task
ETC - Emergency Trouble Calls
RTC - Routine Trouble Calls
UTC Urgent Trouble Calls
R - Repairs (RPM + RPT + SRT+ RU) Task
RPM - Repairs as Results of PM Task
RPT - Repairs as Results of PT&I Task
SRT - Repairs as Results from Operator or other field discovery
RU - Other Repairs Task

B. Maintenance and Operations

1. SFUSS – Bar Chart - PM Cost, PTI Cost, and Repair Cost, (Y Axis) by Month (X Axis) compiled for most recent 12 months.

2. SFUSS – Bar Chart - Cumulative PM Cost, Cumulative PTI Cost, Cumulative Repair (Y Axis) for Contract Year to Date and Last 12 Months (X Axis).

3. SFUSS – Stacked Bar Chart with PM&PTI Cost Percentage and Repair Cost Percentage, (Y Axis) by Month (X Axis) compiled for most recent 12 months. Percentage is of monthly total PM, PTI, and Repair cost based on repair costs of equipment with PM and PTI tasks. Indicate ratio of PM&PTI cost % : Repair cost %.

   Status based on PM&PTI% to Repair%
   - = E = 80% : 20%
   - = V = 75% : 25%
   - = G = 70% : 30%
   - = S = 60% : 40%
   - = P = PM&PTI% less than 60%

4. SFUSS – Stacked Bar Chart with Maintenance (PM&PTI) Cost as a ratio of the total Operations and Maintenance (Annex 2 and 3) Cost compiled for the most recent 12 months. . Percentage is of monthly total PM, PTI and monthly total Operation and Maintenance cost. Indicate ratio [PM&PTI cost % : Operation and Maintenance cost %].

5. SFUSS Maintenance Performed on Time – Bar chart of the following tasks per month (Y Axis) for most recent 6 months (X Axis). Indicate percentage performed on time.
   a. Total # of PM's Scheduled to be completed
   b. Total # of PM's Completed on time
   c. Total # of PM's Completed late
   d. Average # of Days to Complete Late PM's
   e. Total # of Open PM's that are Late
   f. Average # of Days Late PM's are Open
   g. Total # of Non-Performed PM's
   h. Total # Deferred Work Orders

   Status color based on percentage of maintenance tasks performed on time:
   - = E = 98% to 100%
   - = V = 95% to 97%
   - = G = 90% to 94%
   - = S = 85% to 89%
   - = P = Less than 85%

JSC DATA REQUIREMENTS DESCRIPTION (DRD)
(Based on JSC-STD-123)

6. SFUSS Service Request Tag Work Orders - Bar chart of the following tasks per month (Y Axis) for most recent 6 months (X Axis).
   a. Total # of Repairs Scheduled to Be Completed
   b. Number of Repairs Completed on Time
   c. Total # of Repairs Completed Late
   d. Average Number of Days to Complete Late Repairs
   e. Total # of Open Repairs that are Late
   f. Average Number of Days Late Repairs are Open
   g. Total # Deferred Work Orders

7. SFUSS Repairs resulting from either PM or PT&I - Bar chart of the following tasks per month (Y Axis) for most recent 6 months (X Axis).
   a. Total # of Repairs Scheduled to Be Completed
   b. Number of Repairs Completed on Time
   c. Total # of Repairs Completed Late
   d. Average Number of Days to Complete Late Repairs
   e. Total # of Open Repairs that are Late
   f. Average Number of Days Late Repairs are Open
   g. Total # Deferred Work Orders

8. Emergency Trouble Call Work Orders - Bar chart of the following tasks per month (Y Axis) for most recent 6 months (X Axis).
   a. Total # of Repairs to Be Completed
   b. Number of Repairs Completed on Time
   c. Total # of Repairs Completed Late
   d. Average Number of Days to Complete Late Repairs
   e. Total # of Open Repairs that are Late
   f. Average Number of Days Late Repairs are Open
   g. Total # Deferred Work Orders

9. Urgent Trouble Call Work Orders - Bar chart of the following tasks per month (Y Axis) for most recent 6 months (X Axis).
   a. Total # of Repairs to Be Completed
   b. Number of Repairs Completed on Time
   c. Total # of Repairs Completed Late
   d. Average Number of Days to Complete Late Repairs
   e. Total # of Open Repairs that are Late
   f. Average Number of Days Late Repairs are Open
   g. Total # Deferred Work Orders

   Status color based on percentage performed on time:
   - = E = 98% to 100%
   - = V = 95% to 97%
   - = G = 90% to 94%
   - = S = 85% to 89%
   - = P = Less than 85%

10. Routine Trouble Call Work Orders - Bar chart of the following tasks per month (Y Axis) for most recent 6 months (X Axis).
    a. Total # of Repairs to Be Completed
    b. Number of Repairs Completed on Time
    c. Total # of Repairs Completed Late
    d. Average Number of Days to Complete Late Repairs
    e. Total # of Open Repairs that are Late
    f. Average Number of Days Late Repairs are Open
    g. Total # Deferred Work Orders

    Status color based on percentage performed on time:
    - = E = 98% to 100%
    - = V = 95% to 97%
    - = G = 90% to 94%

= S = 85% to 89%
- = P = Less than 85%

11. User Equipment Maintenance Performed on Time – Bar chart of the following tasks per month (Y Axis) for most recent 6 months (X Axis). Indicate percentage performed on time.
    a. Total # of PM's Scheduled to be completed
    b. Total # of PM's Completed on time
    c. Total # of PM's Completed late
    d. Average # of Days to Complete Late PM's
    e. Total # of Open PM's that are Late
    f. Average # of Days Late PM's are Open
    g. Total # of Non-Performed PM's
    h. Total # Deferred Work Orders

12. User Equipment Repairs Performed on Time – Bar chart of the following tasks per month (Y Axis) for most recent 6 months (X Axis). Indicate percentage performed on time.
    a. Total # of Repairs Scheduled to be completed
    b. Total # of Repairs Completed on time
    c. Total # of Repairs Completed late
    d. Average # of Days to Complete Late Repairs
    e. Total # of Open Repairs that are Late
    f. Average # of Days Late Repairs are Open
    g. Total # Deferred Work Orders

13. Hot/Cold Call Response – Bar chart of the following calls (Y Axis – left) for most recent 12 months (X Axis). Line showing percentage of on time responses (Y Axis – right).
    a. Total number of calls
    b. Number of calls responded to on time

14. Unplanned Outages Related to Contractor in Critical Buildings - Line chart of the following calls (Y Axis – left) for most recent 12 months (X Axis). (Critical buildings as per STS Fact Sheet) Examples of impacts: interruption of high voltage, HVAC, chilled water, control power, loss of data, loss of facility use, impact to mission, or extra effort by government required to return to pre-incident status.
    a. Number of unplanned outages with impacts in Critical Buildings
       Status color based on number of events:
       - = E = Zero
       - = V = N.A.
       - = G = One
       - = S = N.A.
       - = P = More than one

    b. Number of unplanned outages with impacts in Non-Critical Buildings
       Status color based on number of events:
       - = E = Zero
       - = V = One
       - = G = Two
       - = S = Three
       - = P = More than three

15. Operational Availability of Equipment status as posted in Daily Morning Report – Bar chart indicating the average daily percent availability (Y Axis) for the most recent 12 months (X Axis). Operationally available is defined as one of the following: Online, Standby – Full Use, or Standby – Partial Use.
    Status color based on percentage availability:
    - = E = 95% to 100%
    - = V = 90% to 94%
    - = G = 85% to 89%
    - = S = 80% to 84%
    - = P = Less than 80%

JSC DATA REQUIREMENTS DESCRIPTION (DRD)
(Based on JSC-STD-123)

C. Environmental

Monthly Metrics

In addition to the metrics specifically identified below, submit 5 monthly metrics. These five metrics will be developed in coordination with the Government. These metrics will be indicative of performance schedule (timeliness), and quality of required services for the Environmental Office. These metrics will become a basis for trending areas needing improvement, as well as reflective of the overall performance of the Contractor in the environmental service functions. Some metrics may be added or changed as Contract focus is changed before each new performance evaluation period; however, no more than 5 of these additional metrics will be required to be submitted on a monthly basis at any one time.

1. Spills and Releases
   COSS Spills and Releases. Submit monthly.
   a. Number of spills or releases and quantity in pounds due to COSS activities, for month and calendar year-to-date. Chart to indicate trending for past 12 month period.
   b. Number of spills or releases due to COSS activities required to be reported to regulatory agencies, for month and calendar year-to-date. Chart to indicate trending for past 12 month period.
   c. Compare number and quantity of spills and releases to previous calendar year. Chart to indicate annual trending.

2. Groundwater Treatment Metrics. Develop and submit monthly metrics in database with charts that summarize the operations of the Groundwater Treatment System and includes the following:
   a. Volume of groundwater removed per well by month and year-to-date.
   b. Volume of groundwater treated in the air stripping systems by month and year-to-date.
   a. Quantity of waste generated, disposed of or reclaimed by type per month and year-to-date, for example carbon filter waste, waste from cleaning the system.
   b. Number of days and the dates the system was non-operational including reason codes for down time.
   c. Date the system was put back in service. Include a description of each maintenance activity performed and a list of all materials used and equipment installed and/or repaired.

3. Affirmative Procurement.
   Affirmative Procurement for COSS Purchases. Submit quarterly for a and b, annually for
   a. % of each EPA designated item purchased with recycled content for quarter and fiscal year-to-date.
   b. Number of waivers requested and number granted for quarter and fiscal year-to-date.
   c. Compare percentages for each EPA designated item to previous year and baseline year (fiscal year 02 or year set by JSC Environmental TMR. Chart to indicate trending for past 12 month period.

4. Environmental Training. Submit monthly.
   a. Number of individuals needing required environmental training by class name (e.g., EMS Responsibilities for JSC Employees, storm water pollution prevention, ISW, SPCC, EMS).
   b. Percentage of persons trained compared to targeted persons in Section A above. Chart to indicate trending over all COSS contract years.

5. ISW Pickup Performance. Submit monthly.
   a. Bar chart of the number of ISW pickups (Y-axis) for the percentage picked up on time (within 72 hours) for the most recent 12 months

   Status color based on percentage performed on time:
   E = 98 - 100 %
   V = 96 - 97 %
   G = 95 %
   S = NA
   P = Less than 95 %

2. Waste Treatment System Metrics. Develop metrics in a spreadsheet. The metrics shall summarize the operations of the Waste Treatment systems and includes the following by treatment system:
   a. Total number of gallons transferred to the Memtek System.
   b. Total number of gallons actually treated in the Memtek System.

c. The number of gallons remaining in rinse tank after each batch.
d. The flow rates through each tank.
e. The number of gallons discharged to the sanitary sewer.
f. The date and the quantity of waste generated in the filter press.
g. The date and the quantity of waste removed from the filter press.

III Metric Format Requirement

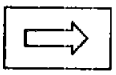
A. Guidelines for Contractor Metrics (CM)

Chart Content/Format

Each chart must contain the following contents: (italic describes input)

a. Top left: *Chart title*

b. Top left below Chart title: *Status Arrow* – direction indicates direction of metric trend from previous month and color indicates metric status level (see description in d below).

= Increasing  = Steady or No change = Decreasing

c. Below title, upper left corner adjacent to stop light symbol indicating status:
   a. ID: *Metric Number*
   b. Provided For: *DRD or other*
   c. Owner: *Responsible Individual*

d. Below the Status Arrow indicate the status level range by *color* based on Evaluation Factor
   - = E = aa% *Or other evaluation ranges as applicable.*
   - = V = bb% *If no evaluation factor, no status arrow required, data only.*
   - = G = cc%
   - = S = dd%
   - = P = ee%

e. Centered above the chart block and just right and lower than the Chart Title, place a metric chart description statement.
   a. Metric Description: *Details used to establish metric. Any other associated information. Specific fields used from CMMS. Specific reports used to generate data. Etc.*

f. Top right: *NASA Contract Number*

g. Central area of page: *Chart*

h. Bottom of page: *Legend and supporting data grid*

- Chart Style
  Each chart must follow the following style:
  a. Font: Arial
  b. Font Size: Must be readable on the website
  c. Background: White

- File Types & Versions
  Each chart must be of one of the following file types (XP current Windows site standard): Hyper Text Markup Language (.htm, .html), Word (.doc), Excel (.xls), PowerPoint (.ppt) or Adobe Acrobat Reader (.pdf). Do Not Use: Project, Cricket – Non-JSC Standard Load Software.

- Graphics
  Each chart should use file types gif or jpg. Avoid using tif or bmp if large in size.

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123)

- Sample Chart

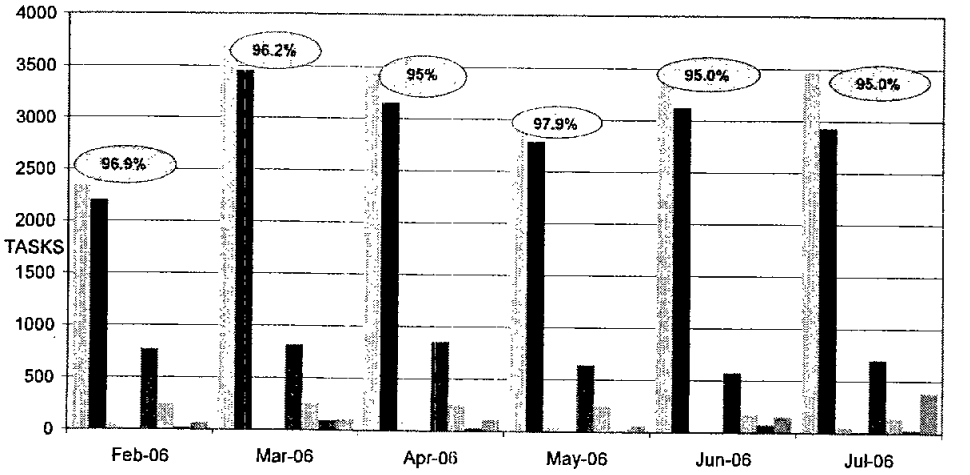
Performance Metric Title

NASA Contract Number
Date Presented

Metric Description: Details used to establish metric. Any other associated information.

ID: Metric Number
Provided For: DRD or other
Owner: Responsible Individual

= E = aa%
= V = bb%
= G = cc%
= S = dd%
= P = ee%
Based on Evaluation Factor Ranges



	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06
Total # of ZZZ to Be Completed	2344	3699	3441	2907	3445	3471
Total # of ZZZ On Time	2205	3457	3154	2787	3122	2931
Total # of ZZZ Completed Late	46	2	79	38	20	52
Avg # of Days to Complete Late ZZZ	5.9	3	2.9	2.6	3.6	11.4
Total # of Open ZZZ that are Late	767	814	855	642	574	705
Avg # of Days Late ZZZ are Open	245	247	250	246	169	143
Total # of Non-Performed ZZZ	18	97	29	9	74	31
Total # Deferred Work Orders	64	100	108	58	153	380

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123)

1. DRD Title	2. Current Version Date	3. DRL Line Item No.	RFP/Contract No. (Procurement completes)
NF533 Cost and Data Reporting	July 19, 2001	MO-1-4	NNJ08JA02C

4. Use (Define need for, intended use of, and/or anticipated results of data)
To collect costs and workload data for all Contract work.

5. DRD Category: *(check one)*		Tech	X	Administrative		SR&QA

6. References *(Optional)*	7. Interrelationships *(e.g., with other DRDs) (Optional)*
None	None

8. Preparation Information (Include complete instructions for document preparation)

Scope:

To collect costs and workload data for all Contract work.

Frequency:

The due dates for the NF533M and NF533Q reports are outlined in Chapter 3 of NPR 9501.2D. The following is a summary of the NF533 due date requirements.

NF533 Report	Due Date
NF533M	Due no later than the 10th working day after the end of the Contractor's accounting month, but no later than the 18th calendar day of the month (which ever is sooner.)
NF533Q	Due not later than the 15th day of the month proceeding the quarter being reported.

The due dates reflect the date the NF533 reports are received by personnel on the distribution list, not the date the reports are generated or mailed by the contractor. It is critical that the NF533 reports are submitted in a timely manner to ensure adequate time for NASA to analyze and record the cost into the NASA accounting system.

Distribution: Electronic files for distribution need to be in excel format, also need 1 flat file compatible with SAP for automatic downloading distributed to FMD:

Contact Names TBD:
LF Cost Accounting (1 electronic copy and 1 hard copy of signed original, also 1 flat file)
BJ Contracting Officer (1 electronic copy and 1 hard copy with original signature)
LI Budget/Program Analyst (1 electronic copy and 1 hard copy of signed original)
JA Technical (8 electronic copies for Annex managers/COTR, and 1 hard copy of signed original to COTR)

Format:

As indicated in details below.

Details:

I. GENERAL DIRECTION FROM THE JSC FINANCIAL MANAGEMENT DIVISION (FMD)

The NASA Form 533 (NF533) reports provide data necessary for the following:

1. Projecting costs and hours to ensure that dollar and labor resources realistically support project and program schedules.
2. Evaluating contractors' actual cost and fee data in relation to negotiated contract value, estimated costs, and budget forecast data.
3. Planning, monitoring, and controlling project and program resources.
4. Accruing cost in NASA's accounting system, providing program and functional management information, and resulting in liabilities reflected on the financial statements.

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123)

Cost is a financial measurement of resources used in accomplishing a specified purpose, such as performing a service, carrying out an activity, acquiring an asset, or completing a unit of work or project. NASA Procedural Requirements (NPR) 9501.2D entitled "NASA Contractor Financial Management Reporting," or its most current revision, identifies the cost reporting requirements for a contract.

NASA is required by law to maintain accrual accounting, which requires cost to be reported in the period in which benefits are received, without regard to time of payment. Examples of accrual accounting for common cost elements reported on the NF533 follow:

Cost Elements	Definitions
Labor	Reported to NASA as hours are incurred.
Equipment & Materials (commercial off the shelf)	Generally reported to NASA when received and accepted by the Contractor.
Manufactured Equipment	Defined as any equipment that is produced to specific requirements that make it useless to anyone else without rework. Cost should be reported to NASA as the equipment is being manufactured. The straight-line method for estimating accrued costs or the use of supplemental information obtained from the vendor are acceptable methods used to calculate the cost accrual amount.
Leases	Reported to NASA using a proration over the life of the lease.
Travel	Reported to NASA as costs are incurred.
Subcontracts	Actual and estimated costs reported by prime Contractors shall include subcontractors' incurred costs for the same accounting period. Where subcontract costs are material, they should be separately identified on NF533 reports. The prime Contractor shall include in the total cost of each subdivision of work the accrued cost (including fee, if any) of related subcontractor effort. Subcontractors should, therefore, be required to report cost to the prime Contractor, using the accrual method of accounting. If the G&A and fee reported by a subcontractor are at the total subcontractor level, these costs must be allocated to specific sub- divisions of work. Data submitted by the subcontractor should be structured similar to the prime Contractor's NF533 to enable the prime Contractor to properly report to NASA. For Firm Fixed Price subcontracts with a Contract value greater than $500,000, the prime Contractor is required to document the methodology used to generate the subcontractor costs reported and provide this information to the CO and Center Deputy Chief Financial Officer (Finance).
Unfilled Orders	Reported as the difference between the cumulative cost incurred to date and amounts obligated to suppliers and subcontractors (may or may not be required monthly).
Fee	Should be accrued as earned using a consistent and auditable method to determine the amount. For example: an acceptable method would be to use historical data to determine the amount to accrue each month. Fee should be reported on the NF533 following the "Total Cost" line. Award fee must be reported by the following categories: Base Fee, Fee Earned, Interim Fee, Provisional Fee, Potential Additional Fee, and Total Fee. If any of the above fee categories do not pertain, they should not be included in the NF533.
Prompt Payment Discounts	Cumulative cost reported to NASA should be the full incurred cost. The prompt payment discount amount taken should be reported as a separate line item on the NF533 below the cumulative cost amounts for the contract.

The NF533 reports are the official cost documents used at NASA for cost type, price re-determination, and fixed price incentive contracts. The data contained in the reports must be auditable using Generally Accepted Accounting Principles. Supplemental cost reports submitted in addition to the NF533 must be reconcilable to the NF533.

The due dates for the NF533M and NF533Q reports are outlined in Chapter 3 of NPR 9501.2D. The following is a summary of the NF533 due date requirements.

NF533 Report	Due Date

JSC DATA REQUIREMENTS DESCRIPTION (DRD)
(Based on JSC-STD-123)

NF533M	Due not later than the 10th working day after the end of the Contractor's accounting month, but no later than the 18th calendar day of the month (whichever is sooner).
NF533Q	Due not later than the 15th day of the month proceeding the quarter being reported.

The due dates reflect the date the NF533 reports are received by personnel on the distribution list, not the date the reports are generated or mailed by the Contractor. It is critical that the NF533 reports are submitted in a timely manner to ensure adequate time for NASA to analyze and record the cost into the NASA accounting system.

Uncompensated overtime hours worked should be reported on NF533 reports as a separate line item per attached format example.

An initial NF533 report is required in the NF533Q format to be used as a baseline for the life of the Contract. The initial (baseline) NF533Q report shall be submitted by the Contractor within 30 days after authorization to proceed has been granted. The initial report shall reflect the original Contract value detailed by negotiated reporting categories and shall be the original Contract baseline plan. In addition to the initial (baseline) report, monthly NF533 reporting shall begin no later than 30 days after the incurrence of cost.

Column 7b (planned cost incurred/hours worked for the month) and 7d (cumulative planned cost incurred/hours worked) of the NF533M represent the negotiated baseline plan for the Contract. There may not be a relationship between the estimates provided in columns 8 of the NF533M to columns 7b and 7d. Columns 7b and 7d represent the legally binding Contract negotiated baseline plan plus all authorized changes.

Short and long-term cost estimates, which include all data entered in columns 8 and 9a on the NF533M and NF533Q reports, shall be based on the most current and reliable information available.

Prior period cost adjustments should be reported in column 7a and 7c of NF533M and column 7a of the NF533Q with a note in the narrative discussing the reasons for and amounts of the adjustments.

Monthly NF533 reporting is no longer required once the Contract is physically complete, provided the final cost report includes actual cost only (no estimates or forecasts). The Contractor must continue to submit monthly NF533 reports as long as estimates for the following period are included. If the final cost of a Contract changes after the submission of the "final" Contractor cost report, the Contractor must submit a revised NF533 report in the month the cost change is recognized.

Electronic NF533 Requirement

In addition to submitting the NF533M or NF533Q in a hardcopy format, the Contractor shall submit the NF533 electronically by the same due date as the hardcopy. The data shall be submitted via email using both the Government prescribed flat file format (see attached Agency Defined File Format for an example of the layout details) and excel format and shall include the following header information from the hardcopy.

Data Element	Description
Contract Number	NASA assigned contract number
Modification Number	Latest definitive modification Number
Accrual Date	Date the data was generated for
Report Period End Date	Period ending date of the NF533
Operating Days	Number of operating days for the current NF533
Date Received/Submitted	Date the report is submitted
CCR Format	Monthly (NF533M) or Quarterly (NF533Q)
Cost Unit of Measure	Unit of measure used to report cost on the report NF533
HR/WYE Unit of Measure	Unit of measure used to report Hours/Work Year Equivalents (WYE's) on the NF533 report
Authorized Contractor Representative	Name of Contractor Approving Officer
Authorized Contractor Representative Date Signed	Date the NF533 is approved and signed by the authorized Contractor Representative
Monthly Grand Total Cost Incurred (7a)	Grand Total Actual Monthly cost for the prior month (column 7a on the NF533)
Monthly Grand Total HR/WYE (7a)	Grand Total Actual monthly hours/WYE's for the prior month (column 7a on the NF533)

JSC DATA REQUIREMENTS DESCRIPTION (DRD)
(Based on JSC-STD-123)

Monthly Grand Total Cost Planned (7b)	Prior month planned cost (column 7b on the NF533)
Grand Total Cost Incurred ITD (7c)	Grand total contract cost from Inception to Date (ITD) (column 7c on the NF533)
Grand Total Planned Cost (7d)	Grand total planned contract cost (column 7d on the NF533)
Grand Total Estimated Cost (8a)	Grand total current month cost estimate (column 8a on the NF533)
Grand Total Estimated HR/WYE (8a)	Grand total current month HR/WYE estimate (column 8a on the NF533)
Grand Total Next Month Estimated Cost (8b)	Grand total next month cost estimate (column 8b on the NF533)
Grand Total Balance of Contract (8c)	Contract Balance for the remaining estimate to complete
Grand Total Contractor Estimate (9a)	Contractor estimate to complete entire scope of contract
Grand Total Contract value (9b)	Contractor distribution of contract value by the reporting categories
Grand Total Unfilled Orders Outstanding (10)	Unfilled order outstanding at the end of the reporting period

The flat file will contain detail information for each Reporting Category (RC). A RC correlates to a task order, delivery order, or Work Breakdown Structure (WBS) and is the level at which cost is reported. Each RC can have Sub-Reporting Category line items (detailed cost elements) that add up to a RC. The Contractor is required to coordinate with the NASA Resource Analyst assigned to the Contract in order to establish and maintain the RC the Contractor shall use to comply with this data requirement. The chart below describes the data elements to be included in this section of the flat file (see attached Agency Defined File Format for specific layout details).

Data Element Name	Description
Reporting Category (RC)	Task, Delivery Order, Work Breakdown Structure
Cost Incurred for Month (7a)	Prior month actual cost incurred for each RC (column 7a on NF533)
HR/WYE Incurred for Month (7a)	Prior month actual HR/WYE incurred for each RC (column 7a on NF533)
Contract prior month planned cost (7b)	Planned cost for prior month for each RC (column 7b on NF533)
Contract ITD cost (7c)	Contract ITD cost for each RC (column 7c on NF533)
Contract planned ITD cost (7d)	Contract planned ITD cost for each RC (column 7d on NF533)
Current month estimated cost (8a)	Cost estimate for the current month for each RC (column 8a on NF533)
Current month estimated HR/WYE (8a)	HR/WYE estimate for the current month for each RC (column 8a on NF533)
Next month estimated cost (8b)	Estimated cost for next month for each RC (column 8b on NF533)
Balance of Contract	Balance of contract for the remaining estimate to complete for each RC (column 8c on NF533)
Contractor Estimate	Contractor estimate for the total estimate to complete entire scope of contract for each RC (column 9a on NF533)
Contract Value	Contract value based upon contract modifications for each RC (column 9c on NF533)
Unfilled orders outstanding	Unfilled orders outstanding at the end of the reporting period for each RC (column 10 on NF533)
Reporting Category level	Used by NASA's accounting system to determine the RC level
Reporting Category Identifier	Identifies if the RC is a actual Reporting Category or a Sub-Reporting

The flat file (see Attachment A below) shall be saved as a text file with no extension (do not include .txt after the file name) and named in strict accordance with the specific format described in the attached Agency Defined File Format document.

JSC DATA REQUIREMENTS DESCRIPTION (DRD)
(Based on JSC-STD-123)

II. SPECIFIC CONTRACT FORMATS:

The reporting requirements outlined in this DRD shall include the following deliverables found in Section TBD. The NF533M forms are shown in the following exhibit (NF533Q forms can be found in ****NASA Contractor Financial Management Reporting**, NASA Procedures and Guidelines (NPG) 9501.2D).

All financial data for EAC's, threats, contract changes, proposals, etc. are required to be in both fiscal year and Contract year. Summary level for GFY is acceptable for contract changes/proposals.

The attached sample formats, Exhibits B-D, are examples of the proposed structure and format of the NF533 for this Contract and are intended to closely, though not exactly, represent the final version. Supplements may be added or deleted, but are intended to be representative of the overall burden on the contractor.

A) NF533 (see Exhibits B1-5):

1) Narrative
2) NF533M and Q roll up summary for the Contract
3-7) Subtotal by annex for Annex 1, 2, 3, 6, 7,
8) Subtotal for Annex 2 (only) identified by key contract line items (CLIN),
9-10) Supplemental report showing cost by task/delivery order for Annex 4/5.

B) Assorted financial supplement reports to be included with the NF533M and covered at TBD monthly reviews (See Exhibits C1-6):

1) Contractor analysis of subcontractor 533's (if applicable),
2) Baseline/Actual variance analysis by GFY, CY, and cumulative Contract, and variance to trend. Numbers provided by annex and total Contract element of cost, and written variance analysis provided by annex and by element of cost if there is at least a 10 percent delta to baseline,
3) Historical annex percent to total by element of cost,
4) FY and cumulative EAC changes from previous month – drivers,
5) Current month actual vs. previous month estimate for current month - variance explanations,
6) hreats chart of significant items pending that are not in EAC.

C) Assorted procurement related supplement reports to be included with the NF533M and covered at TBD monthly reviews (See Exhibits D1-5):

1) List of Contract modifications to date,
2) List of Contract invoices to date,
3) Limitation of funds,
4) Reconciliation of changes,
5) Listing of pending changes.

JSC DATA REQUIREMENTS DESCRIPTION (DRD)
(Based on JSC-STD-123)

EXHIBITS A-D

A) EXAMPLE FLAT FILE FOR FMD DISTRIBUTION

File names must be provided in a specific format. Each file name will begin with the SAP 2 Character Center abbreviation listed below. The Contract number and date will be included in the file name as well. Below is a sample:

MACFPS001_NAS00-0001_yyyy_mm_dd

SAP 2 Charter Center Abbreviations

Headquarters	HQ	Dryden	DR
Marshall	MA	Goddard	GO
Ames	AM	Stennis	ST
Glenn	GL	Johnson	JO
Langley	LA	Kennedy	KE

Example File Format

Header (Non-Repeating Segment)

CCR Extension Data Element	Description	Contractor Initial Data Mapping	NF 533 Required/Optional	OTHER CCR Required/Optional	Field Name	St Pos	EndPos	Len	Formt
HEADER:									
Record Type	Used by eGate to determine record type	'HD' for Header	Required	Required	RECORD_TYPE	1	2	2	CHAR
Contract Number	Contract Number (1b)	Header field—submitted with CONTRACTOR data or defaulted by interface or extension	Required	Required	CONTRACT_NUMBER	3	12	10	CHAR
	Latest definitive Modification Number(CR8197)				MOD_NUMBER	13	18	6	CHAR
Accrual Date	Date the data was generated for. Used by SAP as part of Oracle table key	Accrual Date. MM01YYYY, where MM is the Accrual Month and YYYY is the fiscal year	Required	Required	ACCRUAL_DATE	19	26	8	DATE MM01YYYY

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123)

CCR Extension Data Element	Description	Contractor Initial Data Mapping	NF 533 Required/Optional	OTHER CCR Required/Optional	Field Name	St Pos	EndPos	Len	Formt
Report Period End Date	Report Period End Date is a date(2)	Header field—submitted with CONTRACTOR data or defaulted by interface or extension	Required	Required	REP_END_DATE	27	34	8	DATE
Operating Days	Operating days (2).	Header field—submitted with CONTRACTOR data	Required	Optional unless Required by contract	OPER_DAYS	35	40	6	NUMERIC
Date Received	Date Received (1d)	System Date upon which the cost data is loaded into the CCR Extension	Required	Required	DATE_REC	41	48	8	DATE
CCR Format	'M' for Monthly and 'Q' for Quarterly (SIR2047)	Submitted with CONTRACTOR data	Required	Required	CCR_FORMAT	49	49	1	CHAR
Cost Unit of Measure	Cost Unit of Measure (SIR2047)	Submitted with CONTRACTOR data	Required	Required	COST_UOM	50	51	2	CHAR
HR/WYE Unit of Measure	Hour/Work-Year-Equivalent Unit of Measure (SIR2047)	Submitted with CONTRACTOR data	Required	Required	HR_WYE_UOM	52	53	2	CHAR
	Authorized Contractor Representative – Name of Contractor Approving Officer (CR 8197)				AUTH_SIGNATURE	54	78	25	CHAR
	Authorized Contractor Representative Date Signed – Date CCR is approved/signed by authorized contractor representative(CR 8197)				AUTH_SIGNATURE_DATE	79	86	8	DATE MMDDYYYY
Grand Total Cost Incurred Month (7a)	The Grand Total Contract Prior Month Actual Dollars Column 7a reports actual costs for the prior month.	Submitted with CONTRACTOR data	Required.	Optional. Only required if lower detailed line item data is submitted in monthly batch file.	GT_COST_INCUR_MONTH	87	99	13	CURRENCY (2)
Grand Total	The Grand Total	Submitted with	Required if detailed	Required if detailed	GT_HRWYE_PRI	100	109	10	NUMERIC(1)

JSC DATA REQUIREMENTS DESCRIPTION (DRD)
(Based on JSC-STD-123)

CCR Extension Data Element	Description	Contractor Initial Data Mapping	NF 533 Required/Optional	OTHER CCR Required/Optional	Field Name	St Pos	EndPos	Len	Formt
HR/WYE (7a)	Contract Prior Month Actual Hours Column 7a reports actual HR or WYE for the prior month.	CONTRACTOR data	line item data is submitted in monthly batch file.	line item data is submitted in monthly batch file.	OR_MONTH				
	The Grand Total Contract Prior Month Planned Dollars Column (7b) reports planned costs for the prior month. (CR8197)				GT_COST_PLANNED_MONTH	110	122	13	CURRENCY (2)
Grand Total Cost Incurred ITD (7c)	The Grand Total Contract Cost Dollars Column 7c which represents Contract Cost Inception to Date	Submitted with CONTRACTOR data	Required. Does not require detailed line item data if provided from Cost Incurred Month (7a)	Required if detailed line item data is provided for this column	GT_ITD_COST	123	135	13	CURRENCY (2)
	Grand Total Cotract Planned Cost Dollars Column (7d) which represents Planned Contract Cost Inception to Date(CR 8197)				GT_COST_PLANNED_ITD	136	148	13	CURRENCY (2)
Grand Total Estimated Cost (8a)	The Grand Total Contract Estimated Cost for first upcoming month, or Current Month Estimate for cost.	Submitted with CONTRACTOR data	Required	Required if detailed line item data is provided for this column	GT_EST_COST	149	161	13	CURRENCY (2)
Grand Total HR/WYE (8a)	The Grand Total Contract Estimated Hours for first upcoming month, or Current Month Estimate for HR/WYE.	Submitted with CONTRACTOR data	Required if detailed line item data is provided for this column	Required if detailed line item data is provided for this column	GT_HRWYE_FIRST_MONTH	162	171	10	NUMERIC (1)
Grand Total Next Month Estimated	The Grand Total Contract Estimated Cost for second	Submitted with CONTRACTOR data	Required if detailed line item data is provided for this	Required if detailed line item data is provided for this	GT_NEXT_MONTH_EST	172	184	13	CURRENCY (2)

JSC DATA REQUIREMENTS DESCRIPTION (DRD)
(Based on JSC-STD-123)

CCR Extension Data Element	Description	Contractor Initial Data Mapping	NF 533 Required/Optional	OTHER CCR Required/Optional	Field Name	St Pos	EndPos	Len	Formt
Cost (8b)	upcoming month or Next Month Estimate for cost.		column	column					
	Grand Total Balance of Contract for the remaining estimate to complete (CR 8197)				GT_BALANCE_CONTRACT	185	197	13	CURRENCY (2)
	Grand Total Contractor Estimate for the total estimate to complete entire scope of contract (CR 8197)				GT_BALANCE_CONTRACTOR_ESTIMATE	198	210	13	CURRENCY (2)
	Grand Total Contract Value based upon Contract Modifications (CR 8197)				GT_CONTRACT_VALUE	211	223	13	CURRENCY (2)
	Grand Total Unfilled Orders Outstanding at end of reporting period (CR 8197)				ST_UNFILLED ORDERS	224	236	13	CURRENCY (2)

JSC DATA REQUIREMENTS DESCRIPTION (DRD)
(Based on JSC-STD-123)

Example File Format

Detail (Repeating Segment)

CCR Extension Data Element	Description	Contractor Initial Data Mapping	NF 533 Required/Optional	OTHER CCR Required/Optional	Field Name	St Pos	End Pos	Len	Format
CCR DETAIL LINE ITEMS:									
Record Type	'DM' for Monthly column 7a Detail; 'DQ' for ITD Column 7c Detail	"RD" for Detail	Required	Required	RECORD_TYPE	1	2	2	CHAR
Reporting Category	Reporting Category (6)	Line item field— submitted with CONTRACTOR data	Required	Required	SERV_ORD_CAT	3	26	24	CHAR
Cost Incurred Month (7a)	Prior Month incurred costs (ACTUALS) for given category.	Line item field— submitted with CONTRACTOR data	Required if detailed line item data is not provided from Cost Incurred Month (7c)	Determined by contract requirement- data from Column 7a, 7c or 8a	COST_INCUR_MONTH	27	39	13	CURRENCY (2)
HR/WYE Incurred Month (7a)	Prior month incurred hours worked [Actuals] for given category..	Line item field— submitted with CONTRACTOR data	Optional unless Required by contract for WYE calculation	Optional unless Required by contract for WYE calculation	HRWYE_INCUR_MONTH	40	49	10	NUMERIC (1)
	Contract Prior Month Planned Dollars Column (7b) reports planned costs for the prior month (CR 8197)				COST_PLANNED_MONTH	50	62	13	CURRENCY (2)
	Contract Cost Dollars Column (7c) which represents Contract Cost Inception to Date (CR 8197)				CUR_COST_INCUR_ITD	63	75	13	CURRENCY (2)
	Contract Planned Cost Dollars Column (7d) which represents				COST_PLANNED_ITD	76	88	13	CURRENCY (2)

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123)

CCR Extension Data Element	Description	Contractor Initial Data Mapping	NF 533 Required/Optional	OTHER CCR Required/Optional	Field Name	St Pos	End Pos	Len	Format
	Planned Contract Cost Inception to Date (CR 8197)								
Current Month Estimated Cost (8a)	Estimated costs for first upcoming month for given category.	Line item field—submitted with CONTRACTOR data	Required.	Determined by contract requirement- data from Column 7a, 7c or 8a	CUR_MONTH_EC	89	101	13	CURRENCY (2)
HR/WYE Current Month Estimate (8a)	Estimated hours for first upcoming month for given category. Will only be needed if labor hours are required to be submitted electronically per contract.	Line item field—submitted with CONTRACTOR data	Optional unless Required by contract for WYE calculation	Optional unless Required by contract for WYE calculation	HRWYE_CUR_MONTH_EST	102	111	10	NUMERIC (1)
Next Month Estimated Cost (8b)	Estimated costs for second upcoming month for given category.	Line item field—submitted with CONTRACTOR data	Required unless not part of Contract scope	Required unless not part of Contract scope	NEXT_MONTH_EC	112	124	13	CURRENCY (2)
	Balance of Contract for the remaining estimate to complete (8c) (CR 8197)				BALANCE_CONTRACT	125	137	13	CURRENCY (2)
	Contractor Estimate for the total estimate to complete entire scope of contract (9a) (CR 8197)				CONTRACTOR_ESTIMATE	138	150	13	CURRENCY (2)
	Contract Value based upon Contract Modifications (CR 8197)				CONTRACT_VALUE	151	163	13	CURRENCY (2)
	Unfilled Orders Outstanding at end of reporting period (CR 8197)				UNFILLED ORDERS	164	176	13	CURRENCY (2)

JSC DATA REQUIREMENTS DESCRIPTION (DRD)
(Based on JSC-STD-123)

CCR Extension Data Element	Description	Contractor Initial Data Mapping	NF 533 Required/Optional	OTHER CCR Required/Optional	Field Name	St Pos	End Pos	Len	Format
	Used by SAP to determine Reporting Category Level (1.1.2.2.1) (CR 8197)				REPORTING_LEVEL	177	206	30	CHAR
	Fill in an "X" if record is a Reporting Category. Otherwise, leave blank for Sub-Reporting Category Line Items and Element of Cost detail records. This field is used by SAP to determine if the record is a Reporting Category. (CR 8197)				REPORTING_CAT_INDICATOR	207	207	1	CHAR

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123)

Example File Format
Sub-Reporting Category Line Items – Repeating Segment

Field Name	Start Pos	End Pos	Length	Format	Variable Repetition (?,*,+,n-n)	Description
SUB_RECORD_TYPE	1	2	2	CHAR		'SM' for Monthly column 7a Detail; 'SQ' for ITD column Detail
SUB_REP_CAT	3	26	24	CHAR		Reporting Category
SUB_COST_INCUR_MONTH	27	39	13	CURRENCY (2)		Prior month incurred costs (Actuals) for given category.
SUB_HRWYE_INCUR_MONTH	40	49	10	NUMERIC (1)		Prior month incurred hours worked (Actuals) for given category.
SUB_COST_PLANNED_MONTH	50	62	13	CURRENCY (2)		Contract Prior Month Planned Dollars Column **(7b)** reports planned costs for the prior month.
SUB_CUR_COST_INCUR_ITD	63	75	13	CURRENCY (2)		Contract Cost Dollars Column **(7c)** which represents Contract Cost Inception to Date.
SUB_COST_PLANNED_ITD	76	88	13	CURRENCY (2)		Contract Planned Cost Dollars Column **(7d)** which represents Planned Contract Cost Inception to Date.
SUB_CUR_MONTH_EC	89	101	13	CURRENCY (2)		Estimated costs for first upcoming month for given category **(8a)**.
SUB_HRWYE_CUR_MONTH_EST	102	111	10	NUMERIC (1)		Estimated hours for first upcoming month for given category. Will only be needed if labor hours are required to be submitted electronically per contract **(8a)**.
SUB_NEXT_MONTH_EC	112	124	13	CURRENCY (2)		Estimated costs for second upcoming month for given category **(8b)**.
SUB_BALANCE_CONTRACT	125	137	13	CURRENCY (2)		Balance of Contract for the remaining estimate to complete **(8c)**.
SUB_CONTRACTOR_ESTIMATE	138	150	13	CURRENCY (2)		Contractor Estimate for the total estimate to complete entire scope of contract **(9a)**.
SUB_CONTRACT_VALUE	151	163	13	CURRENCY (2)		Contract Value based upon Contract Modifications **(9b)**.
SUB_UNFILLED_ORDERS	164	176	13	CURRENCY (2)		Unfilled Orders Outstanding at end of reporting period.
REPORTING_LEVEL	177	206	30	CHAR		Used by SAP to determine Reporting Category Level (1.1.2.2.1) **(CR 8197)**.
REPORTING_CAT_INDICATOR	207	207	1	CHAR		Fill in an "X" if record is a Reporting Category. Otherwise, leave Blank for Sub-Reporting Category Line Items and Element of Cost detail records. This field is used by SAP to determine if the record is a Reporting Category. **(CR 8197)**

JSC DATA REQUIREMENTS DESCRIPTION (DRD)
(Based on JSC-STD-123)

Example File Format
533 Agency FILE RECORD LAYOUT (Element of Cost Detail – Repeating Segment (CR8197))

Field Name	Start Pos	End Pos	Length	Format	Variable Repetition (?,*,+,n-n)	Description
RECORD_TYPE	1	2	2	CHAR		**'EM'** for Monthly column 7a Detail; **'EQ'** for ITD column Detail
EOC_REP_CAT	3	26	24	CHAR		Reporting Category
EOC _COST_INCUR_MONTH	27	39	13	CURRENCY (2)		Prior month incurred costs (Actuals) for given category.
EOC _HRWYE_INCUR_MONTH	40	49	10	NUMERIC (1)		Prior month incurred hours worked (Actuals) for given category.
EOC _COST_PLANNED_MONTH	50	62	13	CURRENCY (2)		Contract Prior Month Planned Dollars Column **(7b)** reports planned costs for the prior month.
EOC _CUR_COST_INCUR_ITD	63	75	13	CURRENCY (2)		Contract Cost Dollars Column **(7c)** which represents Contract Cost Inception to Date.
EOC _COST_PLANNED_ITD	76	88	13	CURRENCY (2)		Contract Planned Cost Dollars Column **(7d)** which represents Planned Contract Cost Inception to Date.
EOC _CUR_MONTH_EC	89	101	13	CURRENCY (2)		Estimated costs for first upcoming month for given category **(8a)**.
EOC _HRWYE_CUR_MONTH_EST	102	111	10	NUMERIC (1)		Estimated hours for first upcoming month for given category. Will only be needed if labor hours are required to be submitted electronically per contract **(8a)**.
EOC _NEXT_MONTH_EC	112	124	13	CURRENCY (2)		Estimated costs for second upcoming month for given category **(8b)**.
EOC _BALANCE_CONTRACT	125	137	13	CURRENCY (2)		Balance of Contract for the remaining estimate to complete **(8c)**.
EOC _CONTRACTOR_ESTIMATE	138	150	13	CURRENCY (2)		Contractor Estimate for the total estimate to complete entire scope of contract **(9a)**.
EOC _CONTRACT_VALUE	151	163	13	CURRENCY (2)		Contract Value based upon Contract Modifications **(9b)**.
EOC _UNFILLED_ORDERS	164	176	13	CURRENCY (2)		Unfilled Orders Outstanding at end of reporting period.
REPORTING_LEVEL	177	206	30	CHAR		Used by SAP to determine Reporting Category Level (1.1.2.2.1) **(CR 8197)**.
REPORTING_CAT_INDICATOR	207	207	1	CHAR		Fill in an "X" if record is a Reporting Category. Otherwise, leave Blank for Sub-Reporting Category Line Items and Element of Cost detail records. This field is used by SAP to determine if the record is a

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123)

Field Name	Start Pos	End Pos	Length	Format	Variable Repetition (?,*,+,n-n)	Description
						Reporting Category. **(CR 8197)**

Example File Format

Trailer (provides the number of header & detail records sent from the contractor/vendor/center in order to verify the receipt of complete data after transmission)

CCR Extension Data Element	Description	Contractor Initial Data Mapping	NF 533 Required/Optional	OTHER CCR Required/Optional	Field Name	Start Pos	End Pos	Length	Format
TRAILER:									
Record Type	Used by eGate to determine record type	"TL" for Trailer	Required	Required	RECORD_TYPE	1	2	2	CHAR
Record Count	Count of the number of Detail records sent to process (Detail Only)	Trailer field submitted with CONTRACTOR data	Required	Required	RECORD_COUNT	3	9	7	NUMERIC
	Value of spaces				FILLER	10	207	198	CHAR

JSC DATA REQUIREMENTS DESCRIPTION (DRD)
(Based on JSC-STD-123)

B NF533 Exhibits (see Exhibits B1-10).

B-1 Narrative Section.

B-2 Roll up summary by contract element of cost and annex.

B3 Subtotal by annex for Annex 1, 2, 3, 6, 7.

B4 Subtotal for Annex 2 (only) identified by key contract line items (CLIN).

B5 Supplemental report showing cost by task/delivery order for Annex 4/5.

JSC DATA REQUIREMENTS DESCRIPTION (DRD)
(Based on JSC-STD-123)

C Assorted financial supplement reports to be included with the NF533M and covered at TBD monthly reviews (See Exhibits C1-6).

Contractor analysis of subk 533 is also required at monthly meetings (if receive a 533).

C-1 Baseline/Actual variance analysis by GFY, CY, and cumulative Contract, and variance to trend. Numbers provided by annex and total Contract element of cost, and written variance analysis provided by annex and by element of cost if there is at least a 10 percent delta to baseline.

C-2 Historical annex percent to total by element of cost.

C-3 GFY and cumulative EAC changes from previous month – drivers.

C-4 Current month actual vs. previous month estimate for current month - variance explanations.

C-5 Threats chart of significant items pending that are not in EAC.

JSC DATA REQUIREMENTS DESCRIPTION (DRD)
(Based on JSC-STD-123)

D Assorted procurement supplement reports to be included with the NF533M and covered at TBD monthly reviews (See Exhibits D1-5).

D-1 List of Contract modifications to date.

D-2 List of Contract invoices to date.

D-3 Limitation of funds.

D-4 Reconciliation of changes.

D-5 Listing of pending changes.

References:

****NASA Contractor Financial Management Reporting, NASA Procedures and Guidelines (NPG) 9501.2C**

JSC DATA REQUIREMENTS DESCRIPTION (DRD)
(Based on JSC-STD-123)

EXHIBIT B-1
This is an opportunity to speak to the customer to help use the 533:

Disclosures
Any ground rules/clarifications
Accounting Period Schedule for next 12 Months
Definitions/Generic calculations for each element of cost used in 533 (ex. Hours, OD Cost, OH, G&A, etc.)
Methodology for estimates
Prior period adjustments made during current period
ETC.

Jan	x	xx	xx/xx/xx	xx/xx/xx
Feb	x	xx	xx/xx/xx	xx/xx/xx
Mar	x	xx	xx/xx/xx	xx/xx/xx
April	x	xx	xx/xx/xx	xx/xx/xx
May	x	xx	xx/xx/xx	xx/xx/xx
June	x	xx	xx/xx/xx	xx/xx/xx
July	x	xx	xx/xx/xx	xx/xx/xx
August	x	xx	xx/xx/xx	xx/xx/xx
September	x	xx	xx/xx/xx	xx/xx/xx
October	x	xx	xx/xx/xx	xx/xx/xx
November	x	xx	xx/xx/xx	xx/xx/xx
December	x	xx	xx/xx/xx	xx/xx/xx

DEFINITIONS:

OPD:

EQUIVALENT PERSONS (EP):
LABOR HOURS:

Total Straight Time (ST) Hours:
Total Overtime Hours:
Total Labor Hours:

STRAIGHT TIME HOURS:
OVERTIME HOURS:
TOTAL DIRECT HOURS:

Subcontractor (Subc) ST Hours:
Subcontractor (Subc) Overtime Hours:
Paid Leave Hours:

LABOR COST:

SUBCONTRACTS (Major):

OTHER DIRECT COST:

Materials:
Subcontracts (Minor):
Other Direct Cost:

OVERHEAD (Indirect Cost):

TOTAL COST INPUT:

G&A:

Subtotal Cost:

JSC DATA REQUIREMENTS DESCRIPTION (DRD)
(Based on JSC-STD-123)

FEE:

Total:

Unfilled Orders Pending:

COST ESTIMATING:

CURRENT PROJECTIONS:

JSC DATA REQUIREMENTS DESCRIPTION (DRD)
(Based on JSC-STD-123)

EXHIBIT B-2: TOTAL PROGRAM SUMMARY by ANNEX/WBS

533M - TOTAL PROGRAM SUMMARY	MONTHLY FINANCIAL MANAGEMENT REPORT SUMMARY: CONTRACT PERIOD x/xx-x/xx		2. REPORT FOR MONTI OPERATING DAYS
TO: **NASA JSC** **ATTN: CONTRACTING OFFICER**	FROM: **CONTRACTOR X**		**a. COST**
1. DESCRIPTION OF CONTRACT — a. TYPE		b. CONTRACT NO. AND LATEST DEFINITIZED AMENDMENT NO. **NAS x- xxxxx Mod xxx xx/xx/2005**	4. FUND LIMITATION (CF
c. SCOPE OF WORK **NAME OF CONTRACT**		d. AUTH. CONTR. REP (Signature) DATE **PROGRAM MANAGER**	**Invoice #xx (thru xx/xx/x**

6. HOURS/COST ELEMENT						8. ESTIMATED COST/HOURS		
	MONTHLY BASELINE (xxx 20xx)	**MONTHLY ACTUAL (xxx 20xx)**	**CUMULATIVE BASELINE (CONTRACT)**	**CUMULATIVE ACTUAL (CONTRACT)**	**CUMULATIVE ACTUAL (GFY)**	**Next Mo. ESTIMATE (xxx 20xx)**	**2 Mo. Out ESTIMATE (xxx 20xx)**	**3 Mo. Ou ESTIMAT (xxx 20x**
#	xx	xx				xx	xx	xx

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123)

	Oper Days >								
Annex / WBS 1	Work Year Equiv (WYEs)								
Admin	TOTAL DIRECT HOURS								
	TOTAL COST (W/ FEE)								
Annex / WBS 2	Work Year Equiv (WYEs)								
Maint	TOTAL DIRECT HOURS								
	TOTAL COST (W/ FEE)								
Annex / WBS 3	Work Year Equiv (WYEs)								
Ops	TOTAL DIRECT HOURS								
	TOTAL COST (W/ FEE)								
Annex / WBS 4	Work Year Equiv (WYEs)								
ID/IQ - Task Orders	TOTAL DIRECT HOURS								
	TOTAL COST (W/								

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123)

	FEE)								
Annex / WBS 5	Work Year Equiv (WYEs)								
ID/IQ - Del Orders	TOTAL DIRECT HOURS								
	TOTAL COST (W/ FEE)								
Annex / WBS 6	Work Year Equiv (WYEs)								
IT	TOTAL DIRECT HOURS								
	TOTAL COST (W/ FEE)								
Annex / WBS 7	Work Year Equiv (WYEs)								
Envir Ops	TOTAL DIRECT HOURS								
	TOTAL COST (W/ FEE)								
TOTAL COST (W/ FEE)									
WORK YEAR EQUIVALENTS (WYEs)									

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123)

1. DRD Title	2. Current Version Date	3. DRL Line Item No.	RFP/Contract No. (Procurement completes)
Monthly Energy Reports	5-2-06	MO-1-5	NNJ08JA02C

4. Use (Define need for, intended use of, and/or anticipated results of data)
Report is to be used for accountability of energy use, trending of energy costs environmental compliance for air emissions, evaluation of the energy program and for the development of the Quarter Energy Consumption and Cost Report.

5. DRD Category: *(check one)*	X	Technical		Administrative		SR&QA

6. References *(Optional)*	7. Interrelationships *(e.g., with other DRDs) (Optional)*
None	

8. Preparation Information (Include complete instructions for document preparation)

Scope: The purpose of the monthly metric report is to account for the energy delivered to ***JSC**, develop metrics for HQ evaluation of the program and identify the energy usage of facilities and systems. Data from this report is also used to develop the required Quarterly Energy Consumption and Cost Report to HQ. The Quarterly Energy Consumption and Cost Report must provide energy consumption data on various facilities and systems at the Center.

Frequency: Monthly. Due date is 30 days following the end of the previous month. The additional information required for the Quarterly Energy Consumption and Cost Report is due quarterly of the Fiscal Year.

Data Content: Monthly report contains data from the previous month. The quarterly report contains data and costs from the previous three months.

Distribution: Place the report on the web-based Management Information System (store front) by the due date above.

Format: Use the current ****Monthly Utility Report** and the ****Quarterly Energy Consumption and Cost Report** as a guideline and follow the outlines presented in the details below. All electronic data is to be Microsoft Excel format.

Details: The following represents the plans general requirements and acceptable format.

(a) Letter of transmittal.

(b) Section I - Electrical Supply, Generation and Usage Report

1) Daily and monthly totals of kWH supplied to JSC, Feeder JSC-615,
2) Daily and monthly totals of kVA supplied to JSC,
3) Daily and monthly totals of kWH used by Feeders 1-2, 2-3, 3-00, 4-2 and 5-2,
4) Daily and monthly summation of kWH used by Feeders 1-2, 2-2, 3-00, 4-2 and 502,
5) Daily and monthly ratio comparison of Feeder usage vs. kWH supplied to JSC. (percentage +/- tolerance),
6) Daily and monthly totals of kWH produced by each generator in Building 48. (Gens 01, 02, 03, 07 and 09),
7) Daily and monthly run times for each generator in Building 48,
10) Monthly percent of usage of each standby emergency power generators.

Section II - Natural Gas and Usage Report

1) Daily and monthly totals of natural gas supplied to JSC,
2) Daily and monthly totals of natural gas used by Building 24,
3) Monthly totals of natural gas used by Buildings 47, 222, 227, 260, 350, 416 and 420,
4) Monthly summation of natural gas used by Buildings 24, 47, 222, 227, 260, 350, 416 and 420,
5) Monthly ratio comparison of building natural gas usage vs. natural gas supplied to JSC. (percentage +/- tolerance).

JSC DATA REQUIREMENTS DESCRIPTION (DRD)
(Based on JSC-STD-123)

Section III - B#24 Natural Gas/Fuel Oil usage and Steam Production

1) Daily and monthly natural gas usage, fuel oil usage and operational hours for each boiler in Building 24,
2) Daily and monthly summation of natural gas usage, fuel oil usage and operational hours for the boilers in Building 24,
3) Daily and monthly steam production for each boiler when fired by natural gas,
4) Daily and monthly steam production for each boiler when fired by fuel oil,
5) Daily and monthly summation of steam production by all boilers,
6) Daily and monthly ratios for steam produced/natural gas usage and steam produced/fuel oil usage,
7) Monthly total of natural gas used by all boilers,
8) Monthly total of fuel oil used by all boilers,
9) Total average ratio of # of steam/scf of natural gas,
10) Total average ratio of # of steam/gal. of fuel oil.

Section IV - B#24 Refrigeration Production and Energy Usage Report

1) Daily and monthly totals of refrigeration (chilled water in tons) produced and operational hours for each of Building 24, Chillers #1 thru #7. A daily max., min. and avg. db/wb must be compiled and listed for each day of the month,
2) Daily and monthly summation of total refrigeration (chilled water in tons) produced by B#24 Chillers along with a monthly db/wb average,
3) Daily and monthly totals of energy used for each Chiller. Chillers #1 thru #3 will reflect steam usage (lbs) while Chillers # 4 thru #7 will reflect kWH usage,
4) Daily and monthly summation of total steam (lbs) and kWH used by the Chillers,
5) Daily and monthly COPs (lbs of steam/tn) for each steam chiller,
6) Daily and monthly COPs (kWH/tn) for each electric chiller,
7) Monthly overall average COP (lbs of steam/tn) for all the steam chillers,
8) Monthly overall average COP (kWH/tn) for all the electric chillers,
9) Monthly total of refrigeration (chilled water in tons) produced by steam and the corresponding percentage of total production,
10) Monthly total of refrigeration produced (chilled water in tons) by electricity and the corresponding percentage of total production,
11) Monthly total of all refrigeration (chilled water in tons) produced.

Section V - B#28 Refrigeration Production and Energy Usage Report.

1) Daily and monthly totals of refrigeration (chilled water in tons) produced and operational hours for each of Building 28, Chillers #1 and 2. A daily max., min. and avg. db/wb must be compiled and listed for each day of the month,
2) Daily and monthly summation of total refrigeration (chilled water in tons) produced by Building 28 Chillers along with a monthly db/wb average,
3) Daily and monthly totals of kWH used for each Chiller,
4) Daily and monthly summation of total kWH used by the Chillers,
5) Daily and monthly COPs (kWH/tn) for each electric chiller,
6) Monthly overall average COP (kWH/tn) for the electric chillers,
7) Monthly total of refrigeration (chilled water in tons) produced.

Section VI - B#48 Refrigeration Production and Energy Usage Report

1) Daily and monthly totals of refrigeration (chilled water in tons) produced and operational hours for each of Building 48, Chillers #1 #2 and #3. A daily max., min. and avg. db/wb must be compiled and listed for each day of the month,
2) Daily and monthly summation of total refrigeration (chilled water in tons) produced by Building 48 chillers along with a monthly db/wb average,
3) Daily and monthly totals of refrigeration (chilled water in tons) provided by Building 24/Building 28 to Building 48. A daily max., min. and avg. db/wb must be compiled and listed for each day of the month,
4) Daily and monthly summation of total refrigeration (chilled water in tons) provided by Building 24/Building 28 for Building 48. A daily max., min. and avg. db/wb must be compiled and listed for each day of the month,
5) Daily and monthly totals of kWH used for each Chiller and provided by Building 48 diesel generators,

6) Daily and monthly totals of kWH used for each Chiller and provided by Building 221 the electric substation,
7) Daily and monthly summation of total kWH used by the Chillers provided by Building 48 diesel generators,
8) Daily and monthly summation of total kWH used by the Chiller provided by Building 221,
9) Daily and monthly COPs (kWH/tn) for each electric chiller,
10) Monthly overall average COP (kWH/tn) for the electric chillers,
11) Monthly total of refrigeration (chilled water in tons) produced by Building 48 chillers,
12) Monthly total of refrigeration (chilled water in tons) provided by Building 24/Building 28,
13) Monthly total of kWH provided by Building 48,
14) Monthly total of kWH provided by Building 221.

Section VII - Electrical feeder Power Distribution Report

1) Daily and monthly kWH of Feeder 1-2 and sub-feeders 1-5, 1-6, 1-7, 1-8, 1-10, 1-11 and 1-12,
2) Daily and monthly kWH of feeder 2-2 and sub-feeders 2-2, 2-6, 2-7, 2-8, 2-11 and 2-12,
3) Daily and monthly kWH of feeder 3-00 and sub-feeders 3-1, 3-2, 3-3 and 3-4,
4) Daily and monthly kWH of feeder 4-2 and sub-feeders 4-4, 4-5, 4-12 and 4-13,
5) Daily and monthly kWH of feeder 5-2 and sub-feeders 5-4, 5-5, 5-6, 5-9, 5-10 and 5-12,
6) Daily and monthly summations of kWH on Feeder 1-2 and sub-feeders 1-5, 1-6, 1-7, 1-8, 1-10, 1-11 and 1-12,
7) Daily and monthly summations of kWH on feeder 2-2 and sub-feeders 2-2, 2-6, 2-7, 2-8, 2-11 and 2-12,
8) Daily and monthly summations of kWH on feeder 3-00 and sub-feeders 3-1, 3-2, 3-3 and 3-4,
9) Daily and monthly summation of kWH on feeder 4-2 and sub-feeders 4-4, 4-5, 4-12 and 4-13,
10) Daily and monthly summation kWH on feeder 5-2 and sub-feeders 5-4, 5-5, 5-6, 5-9, 5-10 and 5-12,
11) Daily and monthly ratio comparisons of feeder kWH usage and sub-feeder usage (percentage plus or minus tolerance).

Section VIII - Building Electrical Power Usage Report

1) Daily and monthly summation of kWH usage for Buildings 1, 2, 3, 4N, 4S, 5, 5S, 7, 7A, 8, 9, 9A, 9B, 9C, 10, 11, 12, 13, 14, 15, 16, 16A, 17, 24, 28, 30A, 30M, 30S, 31, 32, 32A, 33, 34, 35, 36, 37, 44, 45, 46, 49, 222 and 260,
2) Monthly kWH usage for Buildings 110, 207, 210, 225, 226, 227, 229, 241, 322, 327, 330, 342, 343, 383, 420, 421 and 422,
3) Daily and monthly summation of BTU usage for Buildings 1, 2, 3, 4N, 4S, 5, 5S, 7, 7A, 8, 9, 9A, 9B, 9C, 10, 11, 12, 13, 14, 15, 16, 16A, 17, 24, 28, 30A, 30M, 30S, 31, 32, 32A, 33, 34, 35, 36, 37, 44, 45, 46and 49.
*For Building 30M use only kWH supplied for Building 221.
**For Buildings 222 and 260 only monthly numbers are required.

Section IX - Mall Building Chilled Water Usage Report

1) Daily and monthly summation of chilled water usage for Buildings 1, 2, 3, 4N, 4S, 5, 5S, 7, 7A, 8, 9, 9A, 9B, 9C, 10, 11, 12, 13, 14, 15, 16, 16A, 17, 24, 28, 30A, 30M, 30S, 31, 32, 32A, 33, 34, 35, 36, 37, 44, 45, 46and 49 (express in tons),
2) Daily and monthly summation of BTU usage for Buildings 1, 2, 3, 4N, 4S, 5, 5S, 7, 7A, 8, 9, 9A, 9B, 9C, 10, 11, 12, 13, 14, 15, 16, 16A, 17, 24, 28, 30A, 30M, 30S, 31, 32, 32A, 33, 34, 35, 36, 37, 44, 45, 46and 49.
*Current meters are to be read on a continuous basis. Hourly averages are to be computed and then summed to obtain daily consumption.
**For Building 30M use only chilled water supplied from Building 24/Building 28.

Section X - Mall Building Steam Usage Report

1) Daily and monthly summation of steam usage for Buildings 1, 2, 3, 4N, 4S, 5, 5S, 7, 7A, 8, 9, 9A, 9B, 9C, 10, 11, 12, 13, 14, 15, 16, 16A, 17, 24, 28, 30A, 30M, 30S, 31, 32, 32A, 33, 34, 35, 36, 37, 44, 45, 46and 49 (express in lbs. of steam),
2) Daily and monthly summation of BTU usage for Buildings 1, 2, 3, 4N, 4S, 5, 5S, 7, 7A, 8, 9, 9A, 9B, 9C, 10, 11, 12, 13, 14, 15, 16, 16A, 17, 24, 28, 30A, 30M, 30S, 31, 32, 32A, 33, 34, 35, 36, 37, 44, 45, 46 and 49, 4N.

*For Building 30M use steam supplied from Building 24.

*Current meters are to be read on a continuous basis. Hourly averages are to be computed and then summed to obtain daily consumption.

Section XI - Potable Water System Report

No change in format is required.

Section XII - Waste Water System and Monthly Rainfall Report

No change in format is required.

Section XIII - Ellington Field Utility Usage Report

No change in format is required.

Section XIV - Refrigerant Supply and Usage report

No change in format is required.

Section XV: SCTF Usage Report

1) Monthly total of kWH Usage,
2) Monthly total of scf of natural gas usage,
3) Monthly total of potable water usage,
4) Monthly total of gals of sanitary sewage.

Maintenance of Report: Monthly report and data used to generate the report shall be archived.

Quarterly Energy and Water Consumption and Cost Report

Format: Format must follow the outline presented in the details below.

Details: The following represents the plans general requirements and acceptable format.

Page 1: Cover letter of transmittal, see ** **NASA Quarterly Energy Consumption Report.**

Page 2: Same as current report. See ** **NASA Quarterly Energy Consumption Report.**

Page 3: This page must contain the following information.

a) Total kWH consumption in BTUs for Building 24 chillers for the reporting period,
b) Total kWH consumption in BTUs for Building 28 chillers for the reporting period,
c) Total steam consumption in BTUs for the Building 24 Steam chillers for the reporting period,
d) Total fuel oil consumption in BTUs for the Building 48 Diesel Generators for the reporting period,
e) Total chilled water production in BTUs for the Building 24 the electric chillers for the reporting period,
f) Total chilled water production in BTUs for Building 28 electric chillers for the reporting period,
g) Total chilled water production in BTUs for Building 24 Steam chillers for the reporting period,
h) Total kWH produced by Building 48 generators for the reporting period,
i) Total natural gas consumption in BTUS for Building 24 boilers for the reporting period,
j) Total steam production in BTUS for Building 24 boilers for the reporting period,
k) Total kWH consumption in BTUs for Building 48 Electric chillers for the reporting period,
l) Total chilled water production in BTUs for Building 48 for the reporting period.

See ** **NASA Quarterly Energy Consumption Report.**

Please note that legislation drives the contents of this report. It may be subject to change due to data requests from HQ. This report was altered 2 (two) times since 1996.

References: MO-1-3

JSC DATA REQUIREMENTS DESCRIPTION (DRD)
(Based on JSC-STD-123)

1. DRD Title	2. Current Version Date	3. DRL Line Item No.	RFP/Contract No. (Procurement completes)
Subcontracting Reports		SA-1-1	NNJ08JA02C
4. USE (Define need for, intended use of, and/or anticipated results of data)			
To collect subcontract data			
5. DRD Category: *(check one)*	Technical	X Administrative	SR&QA
6. References *(Optional)*	7. Interrelationships *(e.g., with other DRDs) (Optional)*		
8. Preparation Information (Include complete instructions for document preparation)			

The Contractor shall utilize Standard Form (SF) 294, Subcontracting Report for Individual Contracts, and SF 295, Summary Subcontractor Report, in accordance with FAR clause 52.219-9 and NASA FAR Supplement 18-52.219-75.

Frequency: 30 days after the end of the reporting period.

Distribution: This data shall be entered electronically into the Electronic Subcontracting Reporting System (eSRS).

JSC DATA REQUIREMENTS DESCRIPTION (DRD)

(Based on JSC-STD-123)

1. DRD Title	2. Current Version Date	3. DRL Line Item No.	RFP/Contract No. (Procurement completes)
Workload Data Collection Report	Per RFP	SA-1-2	NNJ08JA02C

4. Use (Define need for, intended use of, and/or anticipated results of data)
To provide workload data collection for all identified work.

5. DRD Category: *(check one)*		Technical	X	Administrative		SR&QA

6. References *(Optional)*	7. Interrelationships *(e.g., with other DRDs)*
None	None

8. Preparation Information (Include complete instructions for document preparation)

Scope: The purpose of this report is to provide a record of the actual effort expended on the Contractor. Data for this DRD will be collected at the CLIN level for Maintenance and Repair, Annex 2, as identified in the table below and at the sub annex level for all other annexes identified in the table. This data will be used to scope the follow-on Contract as well as to monitor current Contract status.

Frequency: The report shall be submitted by April 20 and October 20 of each Contract year reflecting the data for the previous 6 months.

Distribution: One electronic and one hardcopy to the ***COTR**.

Format: The data shall be presented using Microsoft Excel or Access. See the table shown below for format.

Details: Items that are to be included in the report by year are: a) the types of personnel classifications performing the work, b) the number of hours expended by year for each classification, c) the cost of material purchased and subcontract effort to perform the work. The costs shown are to be bare costs only without any markups. Subcontractors/team members that perform continuous annex functions at ***JSC** during the life of this Contract shall also provide the same information (a, b, and c above). All other subcontractors with an intermittent presence at ***JSC** shall provide cost data only for the Subcontractor/Vender column. In case of any conflict as to whether a Contractor has a continuous presence, the CO will make a determination.

Maintenance: The report shall be reviewed with the Government yearly to determine scope increases or decreases.

ATTACHMENT J-E
WAGE DETERMINATION SERVICE CONTRACT

Wage Determination – Services

Nonexempt Service Employees

The attached Department of Labor Wage Determination Number 2005-2516 is incorporated into this solicitation for employees performing nonunion nonexempt services on this Contract.

A large portion of the current workforce is represented by organized labor. In accordance with Section 4c of the Service Contract Act, a Contractor shall pay any service employee (regardless of whether or not such employee was employed under the predecessor Contract) wages and fringe benefits provided for under a collective bargaining agreement (CBA). The Department of Labor has recognized the wages and benefits of the four CBA's between CSC (incumbent Contractor) and organized labor. Those wage determinations are 2006-493, 2006-494, 2006-495 and 2006-496.

To assist you in the preparation of this proposal, copies of the current CBA's between the incumbent Contractor and organized labor is available for review in the Technical Reference Library.

STANDARD FORM 98

January 1996

U.S. DEPARTMENT OF LABOR

EMPLOYMENT STANDARDS ADMINISTRATION

NOTICE OF INTENTION TO MAKE A SERVICE CONTRACT AND RESPONSE TO NOTICE

(See Instructions on Reverse)

1. NOTICE NO. 46516

Memorandum

MAIL TO:

Administrator
Wage and Hour Division
U.S. Department of Labor
Washington, DC 20210

2. Estimated solicitation date *(use numerals)*

Month	Day	Year
10	06	06

3. Estimated date bids or proposals to be opened or negotiations begun *(use numerals)*

Month	Day	Year
12	18	06

4. Date contract performance to begin *(use numerals)*

Month	Day	Year
12	18	07

5. PLACE(S) OF PERFORMANCE

Harris County, TX

6. SERVICES TO BE PERFORMED *(describe)*

II: Facilities Contract
Contract Period: ~~12/01/07~~ to 11/30/08
3/1/08 – 2/28/09

7. INFORMATION ABOUT PERFORMANCE

A. [X] Services now performed by a contractor
B. [ ] Services now performed by Federal employees
C. [ ] Services not presently being performed

8. IF BOX A IN ITEM 7 IS MARKED, COMPLETE ITEM 8 AS APPLICABLE

a. Name and address of incumbent contractor

CSC Applied Technologies
6500 W. Freeway, Suite 600
Fort Worth, TX 76116

b. Number(s) of any wage determination(s) in incumbent's contract

WD 1994-2516, WD 2006-196, WD 2006-197,
WD 2006-198, WD 2006-201

c. Name(s) of union(s) if services are being performed under collective bargaining agreement(s). ***Important:*** Attach copies of current applicable collective bargaining agreements

List of Unions Attached (Attachment A)

9. OFFICIAL SUBMITTING NOTICE

SIGNED:	DATE
Original signed by	06/15/07
TYPE OR PRINT NAME	**TELEPHONE NO.**
Connie R. Pritchard Contract Labor Relations Officer	281-483-4121

10. TYPE OR PRINT NAME AND TITLE OF PERSON TO WHOM RESPONSE IS TO BE SENT AND NAME AND ADDRESS OF DEPARTMENT OR AGENCY, BUREAU, DIVISION, ETC.

NASA Johnson Space Center

Connie R. Pritchard, Mail Code BA2
2101 NASA Parkway
Houston, TX 77058

RESPONSE TO NOTICE
(by Department of Labor)

A. [X] The attached wage determination(s) listed below apply to procurement.
WD 2005-2516 Rev 4, WD 2006-493
WD 2006-494 , WD 2006-495,
WD 2006-496

B. [ ] As of this date, no wage determination applicable to the specified locality and classes of employees is in effect.

C. [ ] From information supplied, the Service Contract Act does not apply *(see attached explanation)*.

D. [ ] Notice returned for additional information *(see attached explanation)*

Signed:_____
(U.S. Department of Labor)

_____
(Date)

98-103 COMPUTER-GENERATED 1/96

List of Unions

Attachment A

(SF98 - 8c)

1. CBA between East West Enterprises and the International Association of Machinists and Aerospace Workers, Local 1786, District 37, dated October 1, 2004 through September 30, 2007. (WD2006-493)*.

2. CBA between Computer Sciences Corporation, Applied Technology Division and the International Union of Operating Engineers, Local 347, dated April 1, 2005 through August 31, 2008. (WD2006-494)**.

3. CBA between prime Contractor DynCorp Technical Services, LLC, a CSC company and the General Presidents' Project Maintenance Agreement, effective March 28, 2002 through February 29, 2008. (WD2006-495)***.

4. CBA between CSC – Applied Technology Division and the International Union of Operating Engineers, Local 347, dated April 1, 2006 through March 30, 2009. (WD2006-496)****.

(Revised July 2006)

STANDARD FORM 98a February 1973 U.S. DEPARTMENT OF LABOR Employment Standards Administration	NOTICE OF INTENTION TO MAKE A SERVICE CONTRACT AND RESPONSE TO NOTICE (Attachment A)	11. Notice No. NASA 46516
12. CLASSES OF SERVICE EMPLOYEES TO BE EMPLOYED ON CONTRACT Harris County, TX, Nonexempt/Nonunion, WD 2005-2516	13. NUMBER OF EMPLOYEES IN EACH CLASS	14. HOURLY WAGE RATE THAT WOULD BE PAID IF FEDERALLY EMPLOYED
Secretary, II	1	GS-5 $15.26
Secretary, III	5	GS-6 $17.01
Personnel Assistant, II	1	GS-5 $15.26
Accounting Clerk, III	3	GS-5 $15.26
General Clerk, III	5	GS-4 $13.64
Computer Operator, IV	1	GS-7 $18.90
Supply Technician	1	GS-7 $18.90
Order Clerk, I	1	GS-2 $11.13
Material Coordinator	1	WG-7 $18.43
Electronic Technician, Maint., III	1	WG-10 $22.03
Engineering Technician, III	1	GS-5 $15.26
Drafter/CAD Operator, II	4	GS-5 $15.26
Harris County, TX, Nonexempt/Union, CBA with IAM&AW, Local 1786, District 37 WD 2006-493 *		
Electrician *	3	Per CBA $24.99
Electrician, Lead *	1	Per CBA $26.24
Cyo/Vac Mechanic, PTI Level 1 *	1	Per CBA $25.99
Cryo/Vac Mechanic *	3	Per CBA $24.99
Refrigeration Mechanic (HVAC) *	2	Per CBA $24.99
Boiler System Mechanic, PTI Level 2 *	0	Per CBA $26.49
Welder/Systems Mechanic *	1	Per CBA $24.99
Machine Tool Repairman/Hydraulics *	3	Per CBA $24.99
Machine Tool Repairman/Hydraulics, Lead *	1	Per CBA $26.24
Electronic Technician *	2	Per CBA $24.99
P.T.I. Technician *	1	Per CBA $25.99

FORM 98a February 1973 U.S. DEPARTMENT OF LABOR Employment Standards Administration	NOTICE OF INTENTION TO MAKE A SERVICE CONTRACT AND RESPONSE TO NOTICE (Attachment A)	11. Notice No. NASA 46516
12. CLASSES OF SERVICE EMPLOYEES TO BE EMPLOYED ON CONTRACT Harris County, TX, Nonexempt/Union, CBA with IAM&AW, Local 1786, District 37 WD 2006-493 *	13. NUMBER OF EMPLOYEES IN EACH CLASS	14. HOURLY WAGE RATE THAT WOULD BE PAID IF FEDERALLY EMPLOYED
Sewing Machine/System Mechanic P.T.I Level 2 *	2	Per CBA $26.49
Heavy Equipment Mechanic *	0	Per CBA $24.99
Cooling Tower/Systems Mechanic *	0	Per CBA $24.99
Crane Maintenance/Systems Mechanic *	1	Per CBA $24.99
Engine/Generator Mechanic. Ld *	0	Per CBA $26.24
Mechanic/Technician, Ld *	1	Per CBA $26.24
Toolroom Attendant, Ld *	1	Per CBA $19.99
Toolroom Attendant *	1	Per CBA $18.74
Harris County, TX, Nonexempt/Union, CBA with IUOE, Local 347 WD 2006-494 **		
Chief Roving Operator **	1	Per CBA $25.84
Chief Operator, B-24 **	4	Per CBA $25.72-25.96
Chief Operator, Field **	4	Per CBA $25.72-25.96
UCS Operator **	6	Per CBA $25.48-25.96
Environmental Operator **	1	Per CBA $24.71
Lab Technician **	1	Per CBA $24.75
Operator, B-24 **	4	Per CBA $23.03-24.59
Relief Operator **	10	Per CBA $21.70-24.59
Roving Operator **	4	Per CBA $24.35-24.47
Training Chief Operator **	2	Per CBA $26.57
Chief Operator, Environmental **	1	Per CBA $25.96
Harris County, TX, Nonexempt/Union, CBA with AFL-CIO General Presidents Agreement – Bldg Trades WD 2006-495 ***		
Iron Worker ***	2	Per CBA $20.23
Iron Worker, Foreman ***	0	Per CBA $21.48
Carpenter Apprentice ***	1	Per CBA $19.89
Carpenter ***	2	Per CBA $22.10
Carpenter, Foreman ***	2	Per CBA $23.55
Laborer ***	10	Per CBA $16.49
Laborer, Foreman ***	1	Per CBA $17.54

FORM 98a February 1973 U.S. DEPARTMENT OF LABOR Employment Standards Administration	NOTICE OF INTENTION TO MAKE A SERVICE CONTRACT AND RESPONSE TO NOTICE (Attachment A)	11. Notice No. NASA 46516
12. CLASSES OF SERVICE EMPLOYEES TO BE EMPLOYED ON CONTRACT Harris County, TX, Nonexempt/Union, CBA with AFL-CIO--GPPMA- Bldg. Trades WD 2006-495 ***	13. NUMBER OF EMPLOYEES IN EACH CLASS	14. HOURLY WAGE RATE THAT WOULD BE PAID IF FEDERALLY EMPLOYED
Electrical Lineman ***	1	Per CBA $23.98
Electrical Lineman, Foreman ***	1	Per CBA $26.22
Millwright ***	3	Per CBA $23.79
Millwright General Foreman ***	1	Per CBA $25.79
Millwright, Foreman ***	1	Per CBA $25.05
Millwright, Foreman PT&I ***	1	Per CBA $25.79
Pipefitter ***	16	Per CBA $24.26
Pipefitter, Foreman ***	5	Per CBA $25.26 – 26.20
Pipefitter, General Foreman ***	1	Per CBA $27.90
Pipefitter, PT&I ***	2	Per CBA $25.26
Pipefitter, Apprentice	1	Per CBA $17.47
Electrician ***	18	Per CBA $22.05
Electrician, Foreman ***	3	Per CBA $23.15 – 23.81
Electrician, General Foreman ***	1	Per CBA $25.36
Electrician PT&I***	1	Per CBA $23.05
Insulator, Asbestos Abatement ***	3	Per CBA $18.62
Insulator, Asbestos Abatement Foreman***	1	Per CBA $19.97
Driver Truck (Heavy) ***	2	Per CBA $18.27
Heavy Equipment Operator (Riggers) ***	3	Per CBA $20.03
Heavy Equipment Operator General Foreman (Riggers)***	1	Per CBA $23.03
Roofer***	2	Per CBA $17.31
Roofer, Foreman ***	1	Per CBA $18.44
Painter***	3	Per CBA $15.00
Painter, Foreman ***	1	Per CBA $15.25
Painter, Apprentice ***	1	Per CBA $13.50
Plumber ***	7	Per CBA $22.92
Plumber, Foreman ***	3	Per CBA $24.42
Plumber, Apprentice ***	1	Per CBA $17.68
Operating Engineers (Riggers) ***	1	Per CBA $21.53
Operator Heavy Equipment ***	2	Per CBA $20.03
Sheetmetal Worker ***	2	Per CBA $22.13

FORM 98a February 1973 U.S. DEPARTMENT OF LABOR Employment Standards Administration	NOTICE OF INTENTION TO MAKE A SERVICE CONTRACT AND RESPONSE TO NOTICE (Attachment A)	11. Notice No. NASA 46516

12. CLASSES OF SERVICE EMPLOYEES TO BE EMPLOYED ON CONTRACT Harris County, TX, Nonexempt/Union, CBA with IUOE, Local 347 (Work Control) - continued – WD 2006-496 ****	13. NUMBER OF EMPLOYEES IN EACH CLASS	14. HOURLY WAGE RATE THAT WOULD BE PAID IF FEDERALLY EMPLOYED
Call Desk Operator ****	4	Per CBA $17.03
Scheduler ****	2	Per CBA $20.38 – 21.32
Production Control Clerk ****	0	Per CBA $19.22
Lead Scheduler ****	1	Per CBA $30.31

REGISTER OF WAGE DETERMINATION UNDER THE SERVICE CONTRACT ACT

By direction of the Secretary of Labor

U.S. DEPARTMENT OF LABOR
EMPLOYMENT STANDARDS ADMINISTRATION
WAGE AND HOUR DIVISION
WASHINGTON D.C. 20210

William W. Gross Director	Division of Wage Determinations	Wage Determination No.: CBA-2006-493 Revision No.: 1 Date of Last Revision: 6/19/2007

State: Texas

Area: Harris County

Employed on NASA Johnson Space Center for Special Purpose Equipment on the Facilities support services contract.

Collective Bargaining Agreement between contractor: East West Enterprises and the International Association of Machinists and Aerospace Workers, District 37, Local 1786, effective 10/1/2004 through 9/30/2007 and amended on 6/15/2007.

In accordance with Section 2(a) and 4(c) of the Service Contract Act, as amended, employees employed by the contractor(s) in performing services covered by the Collective Bargaining Agreement(s) are to be paid wage rates and fringe benefits set forth in the current collective bargaining agreement and modified extension agreement(s).

REGISTER OF WAGE DETERMINATION UNDER
THE SERVICE CONTRACT ACT
By direction of the Secretary of Labor

U.S. DEPARTMENT OF LABOR
EMPLOYMENT STANDARDS ADMINISTRATION
WAGE AND HOUR DIVISION
WASHINGTON D.C. 20210

William W. Gross
Director

Division of
Wage Determinations

Wage Determination No.: CBA-2006-494
Revision No.: 0
Date of Last Revision: 7/19/2006

State: Texas

Area: Harris County

Employed on NASA Johnson Space Center for Operations and Maintenance of Facilities Systems on the Facilities support services Contract.

Collective Bargaining Agreement between Contractor: Computer Sciences Corporation, Applied Technology, and the International Union of Operating Engineers, Local 347, effective 4/1/2005 through 8/31/2008 and amended on 3/31/2005.

In accordance with Section 2(a) and 4(c) of the Service Contract Act, as amended, employees employed by the contractor(s) in performing services covered by the Collective Bargaining Agreement(s) are to be paid wage rates and fringe benefits set forth in the current collective bargaining agreement and modified extension agreement(s).

REGISTER OF WAGE DETERMINATION UNDER
THE SERVICE CONTRACT ACT
By direction of the Secretary of Labor

U.S. DEPARTMENT OF LABOR
EMPLOYMENT STANDARDS ADMINISTRATION
WAGE AND HOUR DIVISION
WASHINGTON D.C. 20210

William W. Gross
Director

Division of
Wage Determinations

Wage Determination No.: CBA-2006-495
Revision No.: 1
Date of Last Revision: 7/17/2007

State: Texas

Area: Harris County

Employed on NASA Johnson Space Center for Project Maintenance and Repair on the Facilities support services Contract.

Collective Bargaining Agreement between Contractor: DynCorp Technical Services, LLC, a CSC company, and the General Presidents' Project Maintenance Agreement, effective 3/28/2002 through 2/29/2008.

In accordance with Section 2(a) and 4(c) of the Service Contract Act, as amended, employees employed by the contractor(s) in performing services covered by the Collective Bargaining Agreement(s) are to be paid wage rates and fringe benefits set forth in the current collective bargaining agreement and modified extension agreement(s).

SCHEDULE "A"

GENERAL PRESIDENT'S PROJECT AGREEMENT (Dated 07-01-07)

	Current Rate	Annual Rate Change Date	Foreman Differential Per Hour	H & W	Pension	Other	Effective Date of Change
Asbestos Workers	$19.37	06/01/06	F $1.00	5.04	2.91	0.21	06/01/07
Bricklayers	$21.00	01/01/06	F. $1.25, GF $3.00	4.50	1.65	0.38	01/01/06
Carpenters	$22.65	04/01/06	F $1.70, GF $2.20	4.25	1.70	0.28	04/06/07
Electrical : Linemen	$25.06	09/01/06	F $2.34, GF $3.02	4.75	6.27	1.00	09/01/06
Electrical: Wiremen	$23.05	08/30/06	F1 5%, F2 8%, GF 15%	4.30	2.42	1.07	08/30/06
Iron Workers	$20.13	06/01/06	F1 $1.25, GF $2.25	2.70	1.00	1.77	06/01/07
Laborers	$16.92	04/01/06	F. $1.05	1.85	1.24	0.25	04/06/07
Millwrights	$24.26	04/01/06	F $1.00 GF $1.50	4.25	1.60	4.44	09/01/06
Painters	$16.50	07/01/06	F $1.00, GF $2.00	3.85	2.25	0.30	07/01/07
Pipe Fitters	$25.47	04/01/06	F1 $1.50, F2 $2.50, GF $5.09	4.12	4.88	0.40	05/09/07
Plumbers	$23.64	04/01/06	F $1.50, LF $1.75, GF $3.00	3.98	4.15	2.62	04/06/07
Roofers	$17.31	04/01/06	F $1.13	2.27	1.50		05/01/06
Sheet metal Workers	$23.13	04/01/06	F1 $1.00, F2 $1.50, F3 $2.00, F4 $2.25, GF $2.75	4.07	4.29	0.52	04/01/07
Operators:							
Heavy Equipment	$32.51	04/01/05	F $.75, GF $1.50	4.30	3.00	0.30	02/16/07
Operating Engineer	$32.51	04/01/05	F $.75, GF $1.50	4.30	3.00	0.30	02/16/07
Teamsters:							
Material Checkers	$19.17	04/01/06	F $.93		4.50		04/01/06
Heavy Truck Driver	$18.27	04/01/06	F $.75		4.50		04/01/06

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By direction of the Secretary of Labor

U.S. DEPARTMENT OF LABOR
EMPLOYMENT STANDARDS ADMINISTRATION
WAGE AND HOUR DIVISION
WASHINGTON D.C. 20210

William W. Gross
Director

Division of
Wage Determinations

Wage Determination No.: CBA-2006-496
Revision No.: 0
Date of Last Revision: 7/19/2006

State: Texas

Area: Harris County

Employed on NASA Johnson Space Center for Work Control Operations on the Facilities support services Contract.

Collective Bargaining Agreement between Contractor: CSC Applied Technology Division, and the International Union of Operating Engineers, Local 347, effective 4/1/2006 through 3/30/2009.

In accordance with Section 2(a) and 4(c) of the Service Contract Act, as amended, employees employed by the contractor(s) in performing services covered by the Collective Bargaining Agreement(s) are to be paid wage rates and fringe benefits set forth in the current collective bargaining agreement and modified extension agreement(s).

REGISTER OF WAGE DETERMINATIONS UNDER
THE SERVICE CONTRACT ACT
By direction of the Secretary of Labor

U.S. DEPARTMENT OF LABOR
EMPLOYMENT STANDARDS ADMINISTRATION
WAGE AND HOUR DIVISION
WASHINGTON D.C. 20210

William W. Gross
Director

Division of
Wage Determinations

Wage Determination No.: 2005-2516
Revision No.: 4
Date of Revision: 05/29/2007

State: Texas

Area: Texas Counties of Austin, Brazoria, Chambers, Colorado, Fort Bend, Galveston, Grimes, Harris, Houston, Jackson, Lavaca, Liberty, Madison, Matagorda, Montgomery, San Jacinto, Trinity, Walker, Waller, Washington, Wharton

****Fringe Benefits Required Follow the Occupational Listing****

OCCUPATION CODE – TITLE	MINIMUM WAGE RATE
01000 - Administrative Support and Clerical Occupations	
01011 - Accounting Clerk I	12.52
01012 - Accounting Clerk II	14.06
01013 - Accounting Clerk III	15.73
01020 - Administrative Assistant	22.76
01040 - Court Reporter	18.01
01051 - Data Entry Operator I	11.36
01052 - Data Entry Operator II	14.32
01060 - Dispatcher, Motor Vehicle	15.40
01070 - Document Preparation Clerk	12.98
01090 - Duplicating Machine Operator	12.98
01111 - General Clerk I	10.80
01112 - General Clerk II	12.97
01113 - General Clerk III	14.88
01120 - Housing Referral Assistant	20.55
01141 - Messenger Courier	10.86
01191 - Order Clerk I	13.36
01192 - Order Clerk II	15.24
01261 - Personnel Assistant (Employment) I	13.79
01262 - Personnel Assistant (Employment) II	16.50
01263 - Personnel Assistant (Employment) III	17.63
01270 - Production Control Clerk	18.50
01280 - Receptionist	10.93
01290 - Rental Clerk	14.34
01300 - Scheduler, Maintenance	15.92
01311 - Secretary I	15.92
01312 - Secretary II	17.73
01313 - Secretary III	20.55
01320 - Service Order Dispatcher	14.63
01410 - Supply Technician	22.76
01420 - Survey Worker	15.53
01531 - Travel Clerk I	12.30
01532 - Travel Clerk II	13.36
01533 - Travel Clerk III	14.18
01611 - Word Processor I	11.45
01612 - Word Processor II	14.09
01613 - Word Processor III	16.27
05000 - Automotive Service Occupations	
05005 - Automobile Body Repairer, Fiberglass	24.80

05010 - Automotive Electrician	22.66
05040 - Automotive Glass Installer	21.68
05070 - Automotive Worker	20.91
05110 - Mobile Equipment Servicer	19.27
05130 - Motor Equipment Metal Mechanic	24.53
05160 - Motor Equipment Metal Worker	20.91
05190 - Motor Vehicle Mechanic	24.53
05220 - Motor Vehicle Mechanic Helper	18.48
05250 - Motor Vehicle Upholstery Worker	19.84
05280 - Motor Vehicle Wrecker	20.91
05310 - Painter, Automotive	22.66
05340 - Radiator Repair Specialist	22.88
05370 - Tire Repairer	14.40
05400 - Transmission Repair Specialist	25.17
07000 - Food Preparation and Service Occupations	
07010 - Baker	10.04
07041 - Cook I	9.17
07042 - Cook II	9.89
07070 - Dishwasher	8.11
07130 - Food Service Worker	8.41
07210 - Meat Cutter	12.36
07260 - Waiter/Waitress	7.97
09000 - Furniture Maintenance and Repair Occupations	
09010 - Electrostatic Spray Painter	16.65
09040 - Furniture Handler	11.74
09080 - Furniture Refinisher	16.09
09090 - Furniture Refinisher Helper	13.74
09110 - Furniture Repairer, Minor	15.29
09130 - Upholsterer	16.65
11000 - General Services and Support Occupations	
11030 - Cleaner, Vehicles	9.12
11060 - Elevator Operator	7.71
11090 - Gardener	13.35
11122 - Housekeeping Aide	7.71
11150 - Janitor	8.17
11210 - Laborer, Grounds Maintenance	10.63
11240 - Maid or Houseman	7.27
11260 - Pruner	8.17
11270 - Tractor Operator	12.47
11330 - Trail Maintenance Worker	10.63
11360 - Window Cleaner	8.92
12000 - Health Occupations	
12010 - Ambulance Driver	12.93
12011 - Breath Alcohol Technician	14.22
12012 - Certified Occupational Therapist Assistant	19.58
12015 - Certified Physical Therapist Assistant	20.24
12020 - Dental Assistant	14.22
12025 - Dental Hygienist	31.09
12030 - EKG Technician	23.12
12035 - Electroneurodiagnostic Technologist	23.12
12040 - Emergency Medical Technician	14.22
12071 - Licensed Practical Nurse I	15.57
12072 - Licensed Practical Nurse II	17.47
12073 - Licensed Practical Nurse III	18.81
12100 - Medical Assistant	12.40
12130 - Medical Laboratory Technician	13.94
12160 - Medical Record Clerk	13.21
12190 - Medical Record Technician	16.02

12195 - Medical Transcriptionist	14.44
12210 - Nuclear Medicine Technologist	28.64
12221 - Nursing Assistant I	7.08
12222 - Nursing Assistant II	9.82
12223 - Nursing Assistant III	10.62
12224 - Nursing Assistant IV	12.40
12235 - Optical Dispenser	15.26
12236 - Optical Technician	13.64
12250 - Pharmacy Technician	14.41
12280 - Phlebotomist	13.30
12305 - Radiologic Technologist	22.89
12311 - Registered Nurse I	24.51
12312 - Registered Nurse II	30.20
12313 - Registered Nurse II, Specialist	32.08
12314 - Registered Nurse III	37.96
12315 - Registered Nurse III, Anesthetist	39.12
12316 - Registered Nurse IV	43.48
12317 - Scheduler (Drug and Alcohol Testing)	18.90
13000 - Information and Arts Occupations	
13011 - Exhibits Specialist I	19.30
13012 - Exhibits Specialist II	24.74
13013 - Exhibits Specialist III	28.94
13041 - Illustrator I	17.60
13042 - Illustrator II	22.56
13043 - Illustrator III	26.40
13047 - Librarian	23.29
13050 - Library Aide/Clerk	9.87
13054 - Library Information Technology Systems Administrator	20.94
13058 - Library Technician	13.25
13061 - Media Specialist I	14.80
13062 - Media Specialist II	16.56
13063 - Media Specialist III	18.46
13071 - Photographer I	13.93
13072 - Photographer II	17.60
13073 - Photographer III	22.56
13074 - Photographer IV	26.40
13075 - Photographer V	30.06
13110 - Video Teleconference Technician	13.83
14000 - Information Technology Occupations	
14041 - Computer Operator I	14.80
14042 - Computer Operator II	16.62
14043 - Computer Operator III	18.46
14044 - Computer Operator IV	22.60
14045 - Computer Operator V	23.90
14071 - Computer Programmer I (1)	21.12
14072 - Computer Programmer II (1)	26.16
14073 - Computer Programmer III (1)	27.62
14074 - Computer Programmer IV (1)	27.62
14101 - Computer Systems Analyst I (1)	27.62
14102 - Computer Systems Analyst II (1)	27.62
14103 - Computer Systems Analyst III (1)	27.62
14150 - Peripheral Equipment Operator	14.80
14160 - Personal Computer Support Technician	22.60
15000 - Instructional Occupations	
15010 - Aircrew Training Devices Instructor (Non-Rated)	27.12
15020 - Aircrew Training Devices Instructor (Rated)	32.81
15030 - Air Crew Training Devices Instructor (Pilot)	35.70
15050 - Computer Based Training Specialist / Instructor	25.70
15060 - Educational Technologist	28.73

15070 - Flight Instructor (Pilot)	35.70
15080 - Graphic Artist	23.11
15090 - Technical Instructor	20.19
15095 - Technical Instructor/Course Developer	24.70
15110 - Test Proctor	17.73
15120 - Tutor	17.73
16000 - Laundry, Dry-Cleaning, Pressing And Related Occupations	
16010 - Assembler	8.49
16030 - Counter Attendant	8.49
16040 - Dry Cleaner	9.00
16070 - Finisher, Flatwork, Machine	8.49
16090 - Presser, Hand	8.49
16110 - Presser, Machine, Drycleaning	8.49
16130 - Presser, Machine, Shirts	8.49
16160 - Presser, Machine, Wearing Apparel, Laundry	8.49
16190 - Sewing Machine Operator	11.55
16220 - Tailor	12.42
16250 - Washer, Machine	9.32
19000 - Machine Tool Operation and Repair Occupations	
19010 - Machine-Tool Operator (Tool Room)	16.65
19040 - Tool and Die Maker	19.20
21000 - Materials Handling And Packing Occupation	
21020 - Forklift Operator	12.84
21030 - Material Coordinator	18.50
21040 - Material Expediter	18.50
21050 - Material Handling Laborer	12.26
21071 - Order Filler	10.55
21080 - Production Line Worker (Food Processing)	12.84
21110 - Shipping Packer	12.49
21130 - Shipping/Receiving Clerk	12.49
21140 - Store Worker I	9.57
21150 - Stock Clerk	13.57
21210 - Tools and Parts Attendant	13.58
21410 - Warehouse Specialist	12.84
23000 - Mechanics and Maintenance and Repair Occupations	
23010 - Aerospace Structural Welder	26.66
23021 - Aircraft Mechanic I	25.39
23022 - Aircraft Mechanic II	26.66
23023 - Aircraft Mechanic III	27.99
23040 - Aircraft Mechanic Helper	19.88
23050 - Aircraft, Painter	20.15
23060 - Aircraft Servicer	22.11
23080 - Aircraft Worker	23.30
23110 - Appliance Mechanic	16.65
23120 - Bicycle Repairer	13.91
23125 - Cable Splicer	22.30
23130 - Carpenter, Maintenance	18.58
23140 - Carpet Layer	15.92
23160 - Electrician, Maintenance	26.51
23181 - Electronics Technician Maintenance I	17.50
23182 - Electronics Technician Maintenance II	21.33
23183 - Electronics Technician Maintenance III	24.17
23260 - Fabric Worker	15.00
23290 - Fire Alarm System Mechanic	17.43
23310 - Fire Extinguisher Repairer	14.40
23311 - Fuel Distribution System Mechanic	19.17
23312 - Fuel Distribution System Operator	16.33
23370 - General Maintenance Worker	15.46

23380 - Ground Support Equipment Mechanic	25.39
23381 - Ground Support Equipment Servicer	22.11
23382 - Ground Support Equipment Worker	23.30
23391 - Gunsmith I	13.67
23392 - Gunsmith II	15.79
23393 - Gunsmith III	17.67
23410 - Heating, Ventilation and Air-Conditioning Mechanic	20.06
23411 - Heating, Ventilation and Air Conditioning Mechanic (Research Facility)	20.93
23430 - Heavy Equipment Mechanic	17.43
23440 - Heavy Equipment Operator	17.43
23460 - Instrument Mechanic	17.67
23465 - Laboratory/Shelter Mechanic	16.81
23470 - Laborer	10.62
23510 - Locksmith	16.65
23530 - Machinery Maintenance Mechanic	20.08
23550 - Machinist, Maintenance	20.16
23580 - Maintenance Trades Helper	13.58
23591 - Metrology Technician I	17.67
23592 - Metrology Technician II	18.44
23593 - Metrology Technician III	19.22
23640 - Millwright	20.25
23710 - Office Appliance Repairer	16.65
23760 - Painter, Maintenance	16.65
23790 - Pipefitter, Maintenance	19.33
23810 - Plumber, Maintenance	18.87
23820 - Pneudraulic Systems Mechanic	17.67
23850 - Rigger	17.67
23870 - Scale Mechanic	15.92
23890 - Sheet-Metal Worker, Maintenance	17.43
23910 - Small Engine Mechanic	15.92
23931 - Telecommunications Mechanic I	21.33
23932 - Telecommunications Mechanic II	22.28
23950 - Telephone Lineman	21.09
23960 - Welder, Combination, Maintenance	17.43
23965 - Well Driller	17.67
23970 - Woodcraft Worker	17.67
23980 - Woodworker	11.30
24000 - Personal Needs Occupations	
24570 - Child Care Attendant	9.68
24580 - Child Care Center Clerk	12.06
24610 - Chore Aide	6.36
24620 - Family Readiness and Support Services Coordinator	11.05
24630 - Homemaker	15.41
25000 - Plant and System Operations Occupations	
25010 - Boiler Tender	21.14
25040 - Sewage Plant Operator	17.00
25070 - Stationary Engineer	21.14
25190 - Ventilation Equipment Tender	14.33
25210 - Water Treatment Plant Operator	16.65
27000 - Protective Service Occupations	
27004 - Alarm Monitor	14.82
27007 - Baggage Inspector	10.14
27008 - Corrections Officer	18.04
27010 - Court Security Officer	18.04
27030 - Detection Dog Handler	17.90
27040 - Detention Officer	18.04
27070 - Firefighter	17.90
27101 - Guard I	10.14

27102 - Guard II	17.90
27131 - Police Officer I	23.33
27132 - Police Officer II	25.99
28000 - Recreation Occupations	
28041 - Carnival Equipment Operator	10.69
28042 - Carnival Equipment Repairer	11.24
28043 - Carnival Equipment Worker	8.25
28210 - Gate Attendant/Gate Tender	13.64
28310 - Lifeguard	12.15
28350 - Park Attendant (Aide)	15.26
28510 - Recreation Aide/Health Facility Attendant	11.13
28515 - Recreation Specialist	16.21
28630 - Sports Official	12.15
28690 - Swimming Pool Operator	14.41
29000 - Stevedoring/Longshoremen Occupational Services	
29010 - Blocker and Bracer	16.16
29020 - Hatch Tender	16.16
29030 - Line Handler	16.16
29041 - Stevedore I	15.12
29042 - Stevedore II	17.29
30000 - Technical Occupations	
30010 - Air Traffic Control Specialist, Center (HFO) (2)	36.37
30011 - Air Traffic Control Specialist, Station (HFO) (2)	25.08
30012 - Air Traffic Control Specialist, Terminal (HFO) (2)	27.62
30021 - Archeological Technician I	19.34
30022 - Archeological Technician II	23.15
30023 - Archeological Technician III	28.63
30030 - Cartographic Technician	28.67
30040 - Civil Engineering Technician	27.30
30061 - Drafter/CAD Operator I	19.18
30062 - Drafter/CAD Operator II	23.15
30063 - Drafter/CAD Operator III	25.80
30064 - Drafter/CAD Operator IV	29.47
30081 - Engineering Technician I	16.59
30082 - Engineering Technician II	20.41
30083 - Engineering Technician III	22.83
30084 - Engineering Technician IV	28.28
30085 - Engineering Technician V	36.15
30086 - Engineering Technician VI	41.85
30090 - Environmental Technician	27.24
30210 - Laboratory Technician	21.72
30240 - Mathematical Technician	28.67
30361 - Paralegal/Legal Assistant I	17.80
30362 - Paralegal/Legal Assistant II	21.38
30363 - Paralegal/Legal Assistant III	26.62
30364 - Paralegal/Legal Assistant IV	29.59
30390 - Photo-Optics Technician	28.67
30461 - Technical Writer I	18.90
30462 - Technical Writer II	23.12
30463 - Technical Writer III	26.42
30491 - Unexploded Ordnance (UXO) Technician I	23.12
30492 - Unexploded Ordnance (UXO) Technician II	27.97
30493 - Unexploded Ordnance (UXO) Technician III	34.42
30494 - Unexploded (UXO) Safety Escort	23.12
30495 - Unexploded (UXO) Sweep Personnel	23.12
30620 - Weather Observer, Combined Upper Air or Surface Programs (3)	19.79
30621 - Weather Observer, Senior (3)	23.99

31000 - Transportation/Mobile Equipment Operation Occupations

31020 - Bus Aide	10.16
31030 - Bus Driver	15.48
31043 - Driver Courier	11.91
31260 - Parking and Lot Attendant	8.34
31290 - Shuttle Bus Driver	12.98
31310 - Taxi Driver	9.54
31361 - Truckdriver, Light	12.98
31362 - Truckdriver, Medium	15.34
31363 - Truckdriver, Heavy	16.39
31364 - Truckdriver, Tractor-Trailer	16.39

99000 - Miscellaneous Occupations

99030 - Cashier	9.10
99050 - Desk Clerk	10.65
99095 - Embalmer	21.55
99251 - Laboratory Animal Caretaker I	9.03
99252 - Laboratory Animal Caretaker II	10.11
99310 - Mortician	24.04
99410 - Pest Controller	13.78
99510 - Photofinishing Worker	10.43
99710 - Recycling Laborer	11.24
99711 - Recycling Specialist	13.71
99730 - Refuse Collector	10.03
99810 - Sales Clerk	11.41
99820 - School Crossing Guard	8.29
99830 - Survey Party Chief	20.96
99831 - Surveying Aide	14.35
99832 - Surveying Technician	18.13
99840 - Vending Machine Attendant	10.91
99841 - Vending Machine Repairer	13.10
99842 - Vending Machine Repairer Helper	11.19

ALL OCCUPATIONS LISTED ABOVE RECEIVE THE FOLLOWING BENEFITS:

HEALTH & WELFARE: Life, accident, and health insurance plans, sick leave, pension plans, civic and personal leave, severance pay, and savings and thrift plans. Minimum employer contributions costing an average of $3.16 per hour computed on the basis of all hours worked by service employees employed on the contract.

VACATION: 2 weeks paid vacation after 1 year of service with a contractor or successor; 3 weeks after 5 years, and 4 weeks after 15 years. Length of service includes the whole span of continuous service with the present contractor or successor, wherever employed, and with the predecessor contractors in the performance of similar work at the same Federal facility. (Reg. 29 CFR 4.173)

HOLIDAYS: HOLIDAYS: A minimum of ten paid holidays per year, New Year's Day,
Martin Luther King Jr's Birthday, Washington's Birthday, Memorial Day, Independence Day, Labor Day, Columbus Day, Veterans' Day, Thanksgiving Day, and Christmas Day. (A contractor may substitute for any of the named holidays another day off with pay in accordance with a plan communicated to the employees involved.) (See 29 CFR 4174)

THE OCCUPATIONS WHICH HAVE PARENTHESES AFTER THEM RECEIVE THE FOLLOWING BENEFITS (as numbered):

1) Does not apply to employees employed in a bona fide executive, administrative, or professional capacity as defined and delineated in 29 CFR 541. (See CFR 4.156)

2) APPLICABLE TO AIR TRAFFIC CONTROLLERS ONLY - NIGHT DIFFERENTIAL: An employee is entitled to pay for all work performed between the hours of 6:00 P.M. and 6:00 A.M. at the rate of basic pay plus a night pay differential amounting to 10 percent of the rate of basic pay.

3) WEATHER OBSERVERS - NIGHT PAY & SUNDAY PAY: If you work at night as part of a regular tour of duty, you will earn a night differential and receive an additional 10% of basic pay for any hours worked between 6pm and 6am. If you are a full-time employed (40 hours a week) and Sunday is part of your regularly scheduled workweek, you are paid at your rate of basic pay plus a Sunday premium of 25% of your basic rate for each hour of Sunday work which is not overtime (i.e. occasional work on Sunday outside the normal tour of duty is considered overtime work).

HAZARDOUS PAY DIFFERENTIAL: An 8 percent differential is applicable to employees employed in a position that represents a high degree of hazard when working with or in close proximity to ordinance, explosives, and incendiary materials. This includes work such as screening, blending, dying, mixing, and pressing of sensitive ordance, explosives, and pyrotechnic compositions such as lead azide, black powder and photoflash powder. All dry-house activities involving propellants or explosives. Demilitarization, modification, renovation, demolition, and maintenance operations on sensitive ordnance, explosives and incendiary materials. All operations involving regrading and cleaning of artillery ranges.

A 4 percent differential is applicable to employees employed in a position that represents a low degree of hazard when working with, or in close proximity to ordance, (or employees possibly adjacent to) explosives and incendiary materials which involves potential injury such as laceration of hands, face, or arms of the employee engaged in the operation, irritation of the skin, minor burns and the like; minimal damage to immediate or adjacent work area or equipment being used. All operations involving, unloading, storage, and hauling of ordance, explosive, and incendiary ordnance material other than small arms ammunition. These differentials are only applicable to work that has been specifically designated by the agency for ordance, explosives, and incendiary material differential pay.

** UNIFORM ALLOWANCE **

If employees are required to wear uniforms in the performance of this contract (either by the terms of the Government contract, by the employer, by the state or local law, etc.), the cost of furnishing such uniforms and maintaining (by laundering or dry cleaning) such uniforms is an expense that may not be borne by an employee where such cost reduces the hourly rate below that required by the wage determination. The Department of Labor will accept payment in accordance with the following standards as compliance:

The contractor or subcontractor is required to furnish all employees with an adequate number of uniforms without cost or to reimburse employees for the actual cost of the uniforms. In addition, where uniform cleaning and maintenance is made the responsibility of the employee, all contractors and subcontractors subject to this wage determination shall (in the absence of a bona fide collective bargaining agreement providing for a different amount, or the furnishing of contrary affirmative proof as to the actual cost), reimburse all employees for such cleaning and maintenance at a rate of $3.35 per week (or $.67 cents per day). However, in those instances where the uniforms furnished are made of "wash and wear" materials, may be routinely washed and dried with other personal garments, and do not require any special treatment such as dry cleaning, daily washing, or commercial laundering in order to meet the cleanliness or appearance standards set by the terms of the Government contract, by the contractor, by law, or by the nature of the work, there is no requirement that employees be reimbursed for uniform maintenance costs.

The duties of employees under job titles listed are those described in the "Service Contract Act Directory of Occupations", Fifth Edition, April 2006, unless otherwise indicated. Copies of the Directory are available on the Internet. A links to the Directory may be found on the WHD home page at http://www.dol.gov/esa/whd/ or through the Wage Determinations On-Line (WDOL) Web site at http://wdol.gov/.

REQUEST FOR AUTHORIZATION OF ADDITIONAL CLASSIFICATION AND WAGE RATE {Standard Form 1444 (SF 1444)}

Conformance Process:

The contracting officer shall require that any class of service employee which is not listed herein and which is to be employed under the contract (i.e., the work to be performed is not performed by any classification listed in the wage determination), be classified by the contractor so as to provide a reasonable relationship (i.e., appropriate level of skill comparison) between such unlisted classifications and the classifications listed in the wage determination. Such conformed classes of employees shall be paid the monetary wages and furnished the fringe benefits as are determined. Such conforming process shall be initiated by the contractor prior to the performance of contract work by such unlisted class(es) of employees. The conformed classification, wage rate, and/or fringe benefits shall be retroactive to the commencement date of the contract. {See Section 4.6 (C)(vi)} When multiple wage determinations are included in a contract, a separate SF 1444 should be prepared for each wage determination to which a class(es) is to be conformed.

The process for preparing a conformance request is as follows:

1) When preparing the bid, the contractor identifies the need for a conformed occupation) and computes a proposed rate).

2) After contract award, the contractor prepares a written report listing in order proposed classification title), a Federal grade equivalency (FGE) for each proposed classification), job description), and rationale for proposed wage rate), including information regarding the agreement or disagreement of the authorized representative of the employees involved, or where there is no authorized representative, the employees themselves. This report should be submitted to the contracting officer no later than 30 days after such unlisted class(es) of employees performs any contract work.

3) The contracting officer reviews the proposed action and promptly submits a report of the action, together with the agency's recommendations and pertinent information including the position of the contractor and the employees, to the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, for review. (See section 4.6(b)(2) of Regulations 29 CFR Part 4).

4) Within 30 days of receipt, the Wage and Hour Division approves, modifies, or disapproves the action via transmittal to the agency contracting officer, or notifies the contracting officer that additional time will be required to process the request.

5) The contracting officer transmits the Wage and Hour decision to the contractor.

6) The contractor informs the affected employees.

Information required by the Regulations must be submitted on SF 1444 or bond paper.

When preparing a conformance request, the "Service Contract Act Directory of Occupations" (the Directory) should be used to compare job definitions to insure that duties requested are not performed by a classification already listed in the wage determination. Remember, it is not the job title, but the required tasks that determine whether a class is included in an established wage determination. Conformances may not be used to artificially split, combine, or subdivide classifications listed in the wage determination.

Wage Determination - Construction

Davis Bacon General Wage Decision

Harris County, TX

Construction Type: Building

TX20030125 dated 06/22/07

The following pages reflect the wages and fringe benefit requirements for new construction work performed on this Contract.

SECTION J ATTACHMENT E
WAGE DETERMINATION

General Decision Number: TX070125 06/22/2007 TX125

Superseded General Decision Number: TX20030125

State: Texas

Construction Type: Building

County: Harris County in Texas.

BUILDING CONSTRUCTION PROJECTS (does not include single family homes or apartments up to and including 4 stories). (Use current highway general wage determination for Paving & Utilities incidental to Building Construction for Harris County

Modification Number	Publication Date
0	02/09/2007
1	02/16/2007
2	04/27/2007
3	05/11/2007
4	05/18/2007
5	06/22/2007

* ASBE0022-002 06/01/2007

	Rates	Fringes
Asbestos Worker/Insulator (Including application of all insulating materials, protective coverings, coatings and finishing to all type of mechanical systems).....	$ 19.37	8.16

BOIL0074-002 08/08/2006

	Rates	Fringes
BOILERMAKER.....	$ 23.47	13.91

CARP0551-001 04/01/2005

	Rates	Fringes
Carpenter (Including Acoustical Ceiling Work).....	$ 19.50	5.93

ELEC0716-002 08/30/2006

	Rates	Fringes
Electrician (Including Pulling Wire and Low Voltage Wiring and Installation of Fire Alarms, Security		

SECTION J ATTACHMENT E
WAGE DETERMINATION

Systems, Telephones, and Computers.).....	$ 23.05	7.66

ELEV0031-001 01/01/2005

	Rates	Fringes
Elevator Mechanic.....	$ 28.40	12.115+a

FOOTNOTES: a.- Employer contributes 8% of basic hourly rate for over 5 years' service and 6% of basic hourly rate for 6 months to 5 years' service as Vacation Pay Credit. Paid Holidays: New Year's Day; Memorial Day; Independence Day; Labor Day; Thanksgiving Day; Friday after Thanksgiving Day; Christmas Day

PLAS0079-001 07/01/2004

	Rates	Fringes
Plasterer.....	$ 19.42	1.00

PLUM0068-003 04/01/2007

	Rates	Fringes
Plumbers (Excluding HVAC Pipe)...	$ 25.70	8.69

* PLUM0211-004 05/09/2007

	Rates	Fringes
Pipefitters (HVAC Pipe Only).....	$ 25.47	9.66

SFTX0669-001 01/01/2005

	Rates	Fringes
Sprinkler Fitter, Fire.....	$ 22.62	10.50

SHEE0054-004 04/01/2007

	Rates	Fringes
Sheet metal worker (Including HVAC Duct and System Installation).....	$ 23.13	8.88

SUTX2005-010 03/24/2005

	Rates	Fringes
Asbestos Abatement Worker (Ceilings, Floors, & Walls Only).....	$ 14.00	0.00

SECTION J ATTACHMENT E
WAGE DETERMINATION

Bricklayer.....	$ 18.00	0.00
Cement Mason/Concrete Finisher...	$ 12.83	0.00
Drywall Finisher.....	$ 12.13	1.01
Drywall Hanger (Includes Installing Metal Studs).....	$ 12.96	1.59
Formbuilder/Formsetter.....	$ 11.82	0.00
Glazier.....	$ 14.92	2.78
Insulator (Batt and Foam).....	$ 10.00	0.00
Ironworkers:		
Reinforcing.....	$ 12.06	0.00
Structural.....	$ 15.68	0.00
Laborers:		
Common.....	$ 9.29	0.00
Mason Tender Brick.....	$ 10.13	0.00
Mason Tender Cement.....	$ 9.86	0.00
Pipelayer.....	$ 12.35	0.00
Plaster Tender.....	$ 12.90	2.51
Lather.....	$ 16.90	3.61
Painter (Brush, Roller, and Spray).....	$ 11.17	0.00
Pipefitters (Excluding HVAC Pipe).....	$ 19.20	8.23
Power Equipment Operator:		
Asphalt Paver.....	$ 13.50	0.25
Backhoe.....	$ 12.54	0.00
Crane.....	$ 17.95	3.56
Forklift.....	$ 15.46	5.15
Slab & Wall Saw.....	$ 15.54	3.83
Roofer.....	$ 11.51	0.57
Tile Finisher.....	$ 12.00	0.43
Tile Setter.....	$ 15.70	1.09
Truck Driver.....	$ 10.78	1.57

SECTION J ATTACHMENT E
WAGE DETERMINATION

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.
==========

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29 CFR 5.5(a)(1)(ii)).

In the listing above, the "SU" designation means that rates listed under the identifier do not reflect collectively bargained wage and fringe benefit rates. Other designations indicate unions whose rates have been determined to be prevailing.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

* an existing published wage determination
* a survey underlying a wage determination
* a Wage and Hour Division letter setting forth a position on a wage determination matter
* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations.
Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7).
Write to:

Wage and Hour Administrator
U.S. Department of Labor

SECTION J ATTACHMENT E
WAGE DETERMINATION

200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board).
Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

END OF GENERAL DECISION

ATTACHMENT J-F
CONTROLLED ACCESS AREAS (CAA's)

SECTION J, ATTACHMENT F
EXHIBIT D-1, CONTROLLED ACCESS AREAS (CAA'S)

CAA	RESPONSIBLE ORGANIZATION	TITLE
B-30A	DA	Building 30 Administration Wing
B-46	GA	Central Computer Facility
B-46W	GA	Central Computer Facility (Week-end access)
B-48	JA	Emergency Power Building
CDPA	DA	Controlled DATA Processing Area (Building 35, 1st floor, south side)
CEF	JA	COMSEC Equipment Facility (Classified Area) (Building 30 MCC, RM. 118A)
DVIS	DA	Digital Voice Intercom Subsystem (Building 30 MCC, RMS. 127 & 127A)
EOC	JA	Emergency Operation Center (Building 30A, RM. 3100)
FCR2	DA	Flight Control Room (Building 30 MCC, RMS. 230 & 231)
IPS	DA	Integrated Planning System (Building 30S, 5th Floor)
MCC	DA	Mission Control Center (Building 30 MOW & Building 30S)
MDM	DA	Multiplexer/Demultiplexer (Building 30S, RM. 5326)
SCTF	SP	Sonny Carter Training Facility (SCTF)
NBL	SP	SCTF Neutral Buoyancy Lab
LMF	SP	SCTF Light Manufacturing Facility
SDIL	OA	SCTF Software Development & Integration Lab MBF Level III Lab – Mission Bldg Facility SVF Level II Lab - Software Verification Facility PSPF Level II Lab – Prime Software Production Facility
SDPC	DA	Shuttle Data Processing Center (Building 30 MCC, RM. 112)
SMS/GNS/SSTF	DA	Shuttle Mission Simulator (SMS) Building 5N Guidance/Navigation System (GNS) (Building 35, 1st Floor, North) Space Shuttle Training Facility (SSTF) (Building 5S)
SPF	DA	Software Production Facility (Building 30A, RMS. 1077, 2069, & 3069)
SSCF	DA	Space Station Computer Facility (Building 30S, 5th Floor)
WFCR	DA	White Flight Control Room (Building 30S, RM 2306)

ATTACHMENT J-G
RESERVED

ATTACHMENT J-H
GOVERNMENT FURNISHED PROPERTY

PART III - LIST OF DOCUMENTS, EXHIBITS, AND OTHER ATTACHMENTS

SECTION J - LIST OF ATTACHMENTS

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SECTION J
ATTACHMENT H
IAGP

ECN	ITEM NAME	MFG	MODEL NUMBER	SERIAL NUMBER	CUST ACCT NO	USER NO	COST	BLDG	ROOM	ACQUIRE DATE
1651868	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0889	JS7	DC3338	$3,475	JS-221	100	5/23/2002
1651867	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0888	JS7	DC0238	$3,475	JS-221	100	5/23/2002
1446933	RATIOMETER, TRANSFORMER DIGITA	ELECTRICAL TESTING INSTRUMENTS	DXR2000	3047	JP	DC3338	$7,200	JS-221A	100	10/22/1996
1446941	REFLECTOMETER, DIGITAL TIME	HDW ELECTRONICS INC	T3000	96D007	JP	DC3338	$11,000	JS-221A	100	10/4/1996
1237070	TESTER, BATTERY IMPEDANCE	AVO BIDDLE INSTRUMENTS FMLY	246001	2022	JP	DC3338	$5,295	JS-221A	100	10/1/1992
0681180	GENERATOR, TM	ILI CORP	60D347	6086/60D347	JP	DC8840	$14,429	JS-24	OUTSD	2/4/1983
1651808	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0789	JS7	DC3889	$3,475	JS-24	105A	6/3/2002
1651811	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0792	JS7	DC9793	$3,475	JS-24	105A	6/3/2002
1651825	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0856	JS7	DC0326	$3,475	JS-24	208	6/3/2002
1651826	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0857	JS7	DC0326	$3,475	JS-24	208	6/3/2002
1651827	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0858	JS7	DC0326	$3,475	JS-24	208	6/3/2002
1651831	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0862	JS7	DC0326	$3,475	JS-24	208	6/3/2002
1651835	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0866	JS7	DC0326	$3,475	JS-24	208	6/3/2002
2080880	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	C99DXT358L	761ACN0075	JS7	DC0326	$4,596	JS-24	203	6/26/2002
2522887	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0860	JS7	DC0326	$3,475	JS-24	208	6/3/2002
2522888	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0864	JS7	DC0326	$3,475	JS-24	208	6/3/2002
1651807	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0788	JS7	DC2514	$3,475	JS-24	208A	6/3/2002
1651810	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0791	JS7	DC4133	$3,475	JS-24	105A	6/3/2002
1553688	PROCESSOR CENTRAL, ADP	MONITOR TECHNOLOGY CORP	MS2000	9C005-G3-080	JP	DC3977	$16,850	JS-30S	53M15	11/5/1996
1006474	COMPRESSOR, BREATHING AIR	INGERSOL-RAND SMALL COMPRESSOR	BAP20TH3	30T678268	JP	DC8840	$7,043	JS-32	OUTSD	4/5/1991
1651816	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ1013	JS7	DC5456	$3,475	JS-32	2202	6/3/2002
1651813	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0794	JS7	DC6526	$3,475	JS-32	2202	6/3/2002
1651814	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ1009	JS7	DC5931	$3,475	JS-32	2202	6/3/2002

SECTION J
ATTACHMENT H
IAGP

ECN	ITEM NAME	MFG	MODEL NUMBER	SERIAL NUMBER	CUST ACCT NO	USER NO	COST	BLDG	ROOM	ACQUIRE DATE
1006030	CALIBRATOR, VOLTAGE	FLUKE CORP	5100B	5110008	JP	DC6219	$11,450	JS-32	2202A	10/22/1990
1651824	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0855	JS7	DC6219	$3,475	JS-32	2202A	6/3/2002
1651815	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ1012	JS7	DC2599	$3,475	JS-32	2202	6/3/2002
1651812	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0793	JS7	DC2996	$3,475	JS-32	2202	6/3/2002
1651751	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0943	JS7	DC6937	$3,475	JS-321	102A	5/31/2002
1651785	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0806	JS7	DC2412	$3,475	JS-321	110	6/3/2002
1651690	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0359	JS7	DC4738	$3,475	JS-321	110	5/23/2002
1651849	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ1031	JS7	DC3652	$3,475	JS-321	110	6/3/2002
1652335	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H094DF9PW7BN	326CCJ0852	JS7	DC3652	$3,475	JS-321	110	5/16/2002
0271474	TESTER INSULATION	AVO BIDDLE INSTRUMENTS FMLY	MEGGER	G3126	JP	DC3652	$5,300	JS-321	110	8/5/1986
2080862	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	C99DXT358L	761ACN0057	JS7	DC2517	$4,596	JS-321	102B	6/26/2002
1651692	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0361	JS7	DC8976	$3,475	JS-323	102A	5/23/2002
1651776	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0797	JS7	DC5231	$3,475	JS-323	102A	6/3/2002
1651774	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0795	JS7	DC7463	$3,475	JS-323	102A	6/3/2002
1651756	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0950	JS7	DC5615	$3,475	JS-323	102A	5/31/2002
1651761	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0955	JS7	DC9198	$3,475	JS-323	102A	5/31/2002
1651780	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0801	JS7	DC5950	$3,475	JS-323	102A	6/3/2002
1617772	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0937	JS7	DC4503	$3,475	JS-323	102A	5/31/2002
1651760	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0954	JS7	DC8446	$3,475	JS-323	110	5/31/2002
1651765	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0992	JS7	DC8804	$3,475	JS-323	102A	6/3/2002
1651758	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0952	JS7	DC0007	$3,475	JS-323	102A	5/31/2002
1651694	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0363	JS7	DC1717	$3,475	JS-323	102A	5/23/2002
1651749	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0941	JS7	DC4378	$3,475	JS-323	102A	5/31/2002

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1651784	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0805	JS7	DC3811	$3,475	JS-323	102A	6/3/2002
1651781	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0802	JS7	DC0008	$3,475	JS-323	102A	6/3/2002
1651759	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0953	JS7	DC1538	$3,475	JS-323	102A	5/31/2002
1651769	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0998	JS7	DC9443	$3,475	JS-323	102A	6/3/2002
1651786	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0807	JS7	DC2757	$3,475	JS-323	102	6/3/2002
2099487	TOTAL STATION, ROBOTIC	TRIMBLE NAVIGATION LTD	5605DR2004	63520340	JP	DC3705	$30,535	JS-323	113	9/26/2001
1651783	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0804	JS7	DC5481	$3,475	JS-323	102A	6/3/2002
2522877	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0800	JS7	DC3354	$3,475	JS-323	102A	6/3/2002
1651753	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0945	JS7	DC2327	$3,475	JS-323	102A	5/31/2002
1651782	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0803	JS7	DC0003	$3,475	JS-323	102A	6/3/2002
1651768	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0997	JS7	DC2545	$3,475	JS-323	102A	6/3/2002
1651750	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0942	JS7	DC0010	$3,475	JS-323	102A	5/31/2002
1651771	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ1000	JS7	DC2397	$3,475	JS-323	102A	6/3/2002
1651764	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0958	JS7	DC8219	$3,475	JS-323	102B	5/31/2002
1651744	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0936	JS7	DC0898	$3,475	JS-323	102A	5/31/2002
1651775	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0796	JS7	DC9469	$3,475	JS-323	102A	6/3/2002
1651777	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0798	JS7	DC6902	$3,475	JS-323	102A	6/3/2002
1651844	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ1026	JS7	DC5110	$3,475	JS-323	102A	6/3/2002
1651747	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0939	JS7	DC7945	$3,475	JS-323	102A	5/31/2002
1651743	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0935	JS7	DC0004	$3,475	JS-323	102A	5/31/2002
1651691	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0360	JS7	DC6790	$3,475	JS-323	102A	5/23/2002
1651762	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0956	JS7	DC7020	$3,475	JS-323	102A	5/31/2002
1651746	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0938	JS7	DC3854	$3,475	JS-323	102A	5/31/2002

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1651752	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0944	JS7	DC7922	$3,475	JS-323	102A	5/31/2002
1651773	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ1005	JS7	DC1994	$3,475	JS-323	102A	6/3/2002
1651767	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0994	JS7	DC5978	$3,475	JS-323	102A	6/3/2002
2080871	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	C99DXT358L	761ACN0066	JS7	DC5737	$4,596	JS-323	102	6/26/2002
1651866	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0887	JS7	DC5259	$3,475	JS-323	102A	5/23/2002
1651689	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0762	JS7	DC5258	$3,475	JS-323	102A	5/23/2002
1651757	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0951	JS7	DC0011	$3,475	JS-323	102A	5/31/2002
1651688	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0774	JS7	DC6957	$3,475	JS-323	102A	5/23/2002
1650742	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0871	JS7	DC0607	$3,475	JS-323	103A	6/3/2002
1651755	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0949	JS7	DC0006	$3,475	JS-323	102A	5/31/2002
1651754	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0946	JS7	DC2475	$3,475	JS-323	102A	5/31/2002
1651741	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0933	JS7	DC1164	$3,475	JS-323	102A	5/31/2002
1651766	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0993	JS7	DC4943	$3,475	JS-323	102A	6/3/2002
1651742	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0934	JS7	DC5070	$3,475	JS-323	102A	5/31/2002
1651772	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ1003	JS7	DC2517	$3,475	JS-323	102A	6/3/2002
1651841	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0872	JS7	DC9468	$3,475	JS-325	100	6/3/2002
1651864	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0885	JS7	DC2477	$3,475	JS-325	103A	5/23/2002
1651788	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0809	JS7	DC3638	$3,475	JS-325	100	6/3/2002
1651865	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0886	JS7	DC6998	$3,475	JS-325	103A	5/23/2002
1651789	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0810	JS7	DC0000	$3,475	JS-325	100	6/3/2002
1651793	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0814	JS7	DC4534	$3,475	JS-325	100	6/3/2002
1651843	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0874	JS7	DC6474	$3,475	JS-325	100	6/3/2002
1651838	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0869	JS7	DC9933	$3,475	JS-325	103A	6/3/2002

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1651796	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0777	JS7	DC9505	$3,475	JS-325	100	6/3/2002
1651787	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0808	JS7	DC3199	$3,475	JS-325	100	6/3/2002
1651842	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0873	JS7	DC3383	$3,475	JS-325	100	6/3/2002
1651795	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0776	JS7	DC5333	$3,475	JS-325	100	6/3/2002
1651794	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0775	JS7	DC3479	$3,475	JS-325	100	6/3/2002
1651839	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0870	JS7	DC1228	$3,475	JS-325	103A	6/3/2002
1651792	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0813	JS7	DC9458	$3,475	JS-325	100	6/3/2002
1617773	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0811	JS7	DC4584	$3,475	JS-325	100	6/3/2002
0681065	DIGITAL TRANSFORMER RATIOMETER	PELSUE T A CO	PELAIRE-M	7053339	JP	DC3338	$9,976	JS-326	LAYDN	4/27/1981
0728385	GENERATOR GASOLINE ENGINE	HONDA MOTOR CO LTD	EMS400	GE400-1049404	JP	DC8840	$1,250	JS-326	LAYDN	1/5/1985
0728386	GENERATOR GASOLINE ENGINE	HONDA MOTOR CO LTD	EMS 400	GE400-1049408	JP	DC8840	$1,250	JS-326	LAYDN	10/5/1985
0304492	GENERATOR, DIESEL, MULTIQUIP	MULTIQUIP INC	10KW	2780763	JP	DC8840	$6,145	JS-326	LAYDN	9/2/1986
0225092	GENERATOR, TM	UNITED STATES MOTORS CORP	S200D18	340504	JP	DC8840	$35,371	JS-326	LAYDN	2/11/1986
0681175	GENERATOR, TM	ILI CORP	40D345	2278	JP	DC8840	$16,104	JS-326	LAYDN	4/27/1981
0721737	GENERATOR, TM	CUMMINS ENGINE CO	NT855G2	IC0K14OO1FS032564	JP	DC8840	$37,288	JS-326	LAYDN	1/4/1985
0304491	GENERATOR, TM, GAS, MULTIQUIP	MULTIQUIP INC	25KW	3312834	JP	DC8840	$9,896	JS-326	LAYDN	9/2/1986
0151849	GENERATOR, TM, PORT	ONAN CORP	400.ODFN/4XR/29626C	I860839306	JP	DC8840	$55,771	JS-326	LAYDN	3/24/1987
1744155	GENERATOR, TRAILER MOUNTED	GENERAC CORP	96A04791S	2030411	JP	DC8840	$16,530	JS-326	LAYDN	1/23/1997
1299131	LIFT, PERSONNEL	GENIE INDUSTRIES	DPL30	1592-3678-F	JP	DC8840	$8,899	JS-326	LAYDN	5/4/1993
1735250	PERSONNEL LIFT PORTABLE-48FEET	UPRIGHT INC	68004-001	15124	JP	DC8840	$10,796	JS-326	LAYDN	1/24/1997
1237444	TRAILER, GENERATOR DIESEL	POWR GARD GENERATOR CORP	TS75	E921893	JP	DC8840	$20,555	JS-326	LAYDN	10/20/1992
1237443	TRAILER, GENERATOR PORTABLE	POWR GARD GENERATOR CORP	TS130	H923909	JP	DC8840	$30,004	JS-326	LAYDN	10/20/1992
1237445	TRAILER, GENERATOR PORTABLE	POWR GARD GENERATOR CORP	TS50	H923908	JP	DC8840	$17,860	JS-326	LAYDN	10/20/1992

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1651901	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0980	JS7	DC1741	$3,475	JS-326	102	6/3/2002
1651905	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0948	JS7	DC6867	$3,475	JS-326	102	6/3/2002
1651906	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0991	JS7	DC0001	$3,475	JS-326	102	6/3/2002
1651902	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0981	JS7	DC9229	$3,475	JS-326	102	6/3/2002
2084172	ANALYZER, POWERPLATFORM PORTAB	DRANETZ TECHNOLOGIES F-DRANETZ	PP1/P	PP10VB51	JP	DC0814	$23,206	JS-326	102	5/7/2003
1553687	PROCESSOR CENTRAL, ADP	MONITOR TECHNOLOGY CORP	MS2000	9C005-G3-082	JP	DC3977	$16,850	JS-327	110	11/5/1996
1651809	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0790	JS7	DC3977	$3,475	JS-327	110	6/3/2002
2080874	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	C99DXT358L	761ACN0069	JS7	DC4679	$4,596	JS-327	100	6/26/2002
1651848	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ1030	JS7	DC2567	$3,475	JS-327	110	6/3/2002
1651869	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0890	JS7	DC9313	$3,475	JS-327	110A	5/23/2002
1651770	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0999	JS7	DC2467	$3,475	JS-327	110	6/3/2002
2080882	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	C99DXT358L	761ACN0077	JS7	DC3811	$4,596	JS-328	100	6/26/2002
1651847	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ1029	JS7	DC8840	$3,475	JS-329	102	6/3/2002
1651797	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0778	JS7	DC3740	$3,475	JS-329	103	6/3/2002
2522893	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0781	JS7	DC3891	$3,475	JS-329	103	6/3/2002
1651819	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ1019	JS7	DC7996	$3,475	JS-329	107	6/3/2002
1651846	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ1028	JS7	DC2873	$3,475	JS-329	110	6/3/2002
1651817	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ1016	JS7	DC9761	$3,475	JS-329	103	6/3/2002
1651798	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0779	JS7	DC2649	$3,475	JS-329	103	6/3/2002
1651801	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0782	JS7	DC6414	$3,475	JS-329	103	6/3/2002
1651822	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ1024	JS7	DC9299	$3,475	JS-329	103	6/3/2002
1651805	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0786	JS7	DC0549	$3,475	JS-329	103	6/3/2002
1651836	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0867	JS7	DC9693	$3,475	JS-329	103	6/3/2002

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2084171	ANALYZER, POWERPLATFORM PORTAB	DRANETZ TECHNOLOGIES F-DRANETZ	PP1/P	PP10VB50	JP	DC0814	$23,206	JS-329	106	5/7/2003
1651820	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ1022	JS7	DC9513	$3,475	JS-329	103	6/3/2002
1617779	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ1023	JS7	DC4209	$3,475	JS-329	103	6/3/2002
1651803	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0784	JS7	DC6609	$3,475	JS-329	103	6/3/2002
1651823	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ1025	JS7	DC9760	$3,475	JS-329	107	6/3/2002
1651799	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0780	JS7	DC4879	$3,475	JS-329	103	6/3/2002
1651804	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0785	JS7	DC5264	$3,475	JS-329	103	6/3/2002
1651806	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0787	JS7	DC0013	$3,475	JS-329	103	6/3/2002
1651904	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0947	JS7	DC1505	$3,475	JS-329	103	6/3/2002
1651860	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ1042	JS7	DC6635	$3,475	JS-330	112	5/23/2002
2148284	DRILL, GRASS	TRUAX COMPANY INC	FLEX-II	2353	JP	DC3705	$13,306	JS-333	LAYDN	9/26/2005
1651845	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ1027	JS7	DC8579	$3,475	JS-342	100	6/3/2002
0681121	TEST SET CIRCUIT BREAKER	AVO MULTI-AMP CORP/MULTI-AMP	CB225	12837	JP	DC0814	$5,406	JS-342	100	4/27/1981
1446916	CLEANER, WATER JET	SPARTAN MANUFACTURING CORP	777TRAILER JET	IH9SJBIXRM118162	JP	DC8840	$14,950	JS-417	OUTSD	10/28/1996
2146502	MANLIFT	SIMON AERIALS INC F-KRAUSE MFG	MPH60	NS116521-00	JP	DC8840	$88,976	JS-417	LAYDN	6/8/2005
2148240	LOADER/BACKHOE	DEERE AND CO	710G	T0710GX951200	JP	DC3705	$110,929	JS-417	LAYDN	9/8/2005
2148283	SWEEPER, STREET	JOHNSTON MADVAC	142A101T	SA92VM40852068990	JP	DC3705	$80,845	JS-417	OUTSD	9/26/2005
1651889	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0995	JS7	DC4544	$3,475	JS-420	110	5/23/2002
1652046	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ1086	JS7	DC3815	$3,475	JS-420	110	6/4/2002
0040507	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0987	JS7	DC0002	$3,475	JS-420	110	5/23/2002
1651888	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0990	JS7	DC4449	$3,475	JS-420	110	5/23/2002
1651886	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0988	JS7	DC0012	$3,475	JS-420	110	5/23/2002
1651887	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0989	JS7	DC4545	$3,475	JS-420	110	5/23/2002

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ECN	ITEM NAME	MFG	MODEL NUMBER	SERIAL NUMBER	CUST ACCT NO	USER NO	COST	LBLDG	ROOM	ACQUIRE DATE
2522901	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7BN	326CCJ1134	JS7	DC4161	$3,475	JS-420	110	6/4/2002
1651890	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0996	JS7	DC5345	$3,475	JS-420	110	5/23/2002
2147886	SYSTEM, RECEIVER	TRIMBLE NAVIGATION LTD	45905-00	4527253310	JP	DC3705	$15,360	JS-45	P01	10/31/2005
2143582	DISPLAY UNIT	NETWORK TECHNOLOGY CORP	RACKMUX-1024	446 RACKMUX-1024	JM16	DC4033	$1,611	JS-46	300	9/24/2004
2512660	SERVER, ADP	COMPAQ COMPUTER CORP	PROLIENT DL-380	EAGTDN33	JM16	DC4033	$7,999	JS-46	300	9/24/2004
2147368	TAPE DRIVE UNIT	QUANTUM CO	TR-S23B4-YF	RTF3100109	JM16	DC4033	$5,292	JS-46	300	9/24/2004
2157855	SERVER, ADP	DELL COMPUTER CORP F-PC'S LTD	ESM	JT6N481	JP	DC9938	$2,358	JS-46	300	8/15/2005
1651832	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0863	JS7	DC0308	$3,475	JS-48	104	6/3/2002
1651834	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0865	JS7	DC0327	$3,475	JS-48	104A	6/3/2002
2080863	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	C99DXT358L	761ACN0058	JS7	DC0327	$4,596	JS-48	107	6/26/2002
0681123	TEST SET CIRCUIT BREAKER	AVO MULTI-AMP CORP/MULTI-AMP	CB7150	19966	JP	DC0814	$15,200	JS-48	HIBAY	3/21/1974
1008849	TEST SET, CIRCUIT BREAKER	AVO MULTI-AMP CORP/MULTI-AMP	CB8160	74473-001/1	JP	DC0814	$32,975	JS-48	HIBAY	10/31/1991
1651828	RECEIVER-TRANSMITTER RADIO	MOTOROLA COMMUNICATIONS GROUP	H09RDF9PW7N	326CCJ0859	JS7	DC3167	$3,475	JS-48	104	6/3/2002

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BAR CODE NO.	OLD PROP NO	[illegible]	SERIAL NO	MODEL NO	MFG	BLDG	ROOM	LICENSE NO/PLATE NO	CALIBRATION NO	MAINTENANCE ID	ACCOUNT NO	COST
4663	NONE	AIR COMPRESSOR	L10/10/0200074	PIN4B227E	SPEEDAIRE	321	110B				JCDC1	$475.00
4452	NONE	AIR COMPRESSOR	L10/10100071	PIN4B227E	SPEEDAIRE	321	110A				JCDC1	$475.00
3930	1002759	AIR COMPRESSOR	103070	185DPQ	SULLAIR CORP	JS-326A	LDY	NA00531T		311047	JCDC3	$10,787.00
3151	NONE	AIR COMPRESSOR	L5300200018	3JR85D	WESTWARD	321	110				JCDC1	$366.00
2285	PA6642	AIR COMPRESSOR	180205	LCTGH	ITT PNEUMATIC	JS-32	2202				JCDC8	$119.00
0968	NONE	AIR COMPRESSOR	L710200053	4B227E	SPEEDAIRE	321	110A				JCDC1	$525.00
0544	NONE	AIR COMPRESSOR	L7102	4B227E	SPEEDAIRE	JS-325	102				JCDC1	$440.00
2431	JSC4110	AIR COMPRESSOR, PORTABLE, 7.5 GAL	707	1836	LION	JS-321	120				JCDC3	$225.00
3161	1116159	AIR CONDITIONER	2J638586	M14-2011	CHRYSLER CP HAMTRAMCK ASSY	325	PSHOP			311262	JCDC4	$1,200.00
3792	0158111	AIR CONDITIONER PORTABLE	8840673	15SFU	NIPPONDENSO CO	261	122			158111	JCDC4	$1,914.00
3285	G020278	AIR CONDITIONER PORTABLE	10880090	20HFU1	NIPPONDENSO CO	7	1020B			310905	JCDC4	$3,452.00
3173	1237476	AIR CONDITIONER PORTABLE	3920012	20HFU1	NIPPONDENSO CO	JS-325	102				JCDC4	$3,196.00
2407	1237477	AIR CONDITIONER PORTABLE	9910023	10SFU	NIPPONDENSO CO	JS-325	102			1237477	JCDC4	$2,900.00
0971	1237475	AIR CONDITIONER PORTABLE	3920039	20HFU1	NIPPONDENSO CO	JS-325	102			310904	JCDC4	$3,196.00
4172	NONE	AIR FILTER, PORTABLE, HEPA	H01Q4967	FA700	ADVANCED CONTAINMENT SYSTEMS INC	JS-325	102				JCDC1	$680.00
4171	NONE	AIR FILTER, PORTABLE, HEPA	H01Q4972	FA700	ADVANCED CONTAINMENT SYSTEMS INC	JS-325	102				JCDC1	$680.00
4170	NONE	AIR FILTER, PORTABLE, HEPA	H01Q4963	FA700	ADVANCED CONTAINMENT SYSTEMS INC	JS-32	LDY				JCDC1	$680.00
3888	PA7096	AIR HAMMER KIT	261558	FP1010	FLORIDA PNEU	329	UPSTAIRS PARTS RM				JCDC6	$57.00
4000	0158977	AIR PURIFICATION SYSTEM	2081	MACH I	CRITICAL SYSTEM	JS-32	LDY			310217	JCDC3	$1,480.00
3902	0076851	AIR PURIFICATION SYSTEM	2379	MACH II	CRITICAL SYSTEM	JS-325	102			76851	JCDC3	$1,915.00

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3900	0074336	AIR PURIFICATION SYSTEM	NONE	MACH 1	CRITICAL SYSTEM	JS-325	102				JCDC3	$1,335.00
1836	0078486	AIR PURIFICATION SYSTEM	500-4772	1541	CRITICAL SYSTEM	JS-CONEX YD	CONEX2			78486	JCDC3	$4,032.00
1771	0158976	AIR PURIFICATION SYSTEM	2084	MACH I	CRITICAL SYSTEM	JS-325	102			310216	JCDC3	$1,480.00
1407	0149975	AIR PURIFICATION SYSTEM	NONE	16	CRITICAL SYSTEM	226	CONEX				JCDC3	$7,525.00
1405	G095856	AIR PURIFICATION SYSTEM	5975	MACH II	PULLMAN/HOLT CP F-PULMAN VAC	326	CONEX				JCDC3	$1,150.00
0448	G095855	AIR PURIFICATION SYSTEM	5978	MACH II	PULLMAN/HOLT CP F-PULMAN VAC	JS-326A	LDY				JCDC3	$1,150.00
4508	1006473	ALARM GAS AUTOMATIC	18685	260	MINE SAFETY APPLIANCES CO DBA	JS-24	105		M33311		JCDC4	$1,395.00
1048	BR0700	ALARM, PORTABLE, COMBUSTABLE GAS & OXYGEN	NONE	261	UNKNOWN	321	110A		M202149		JALN1	$3,930.14
3127	PA7607	AMMETER	251A	MS1	MULTIAMP CORP	JS-329	106		M46155		JCDC6	$395.00
4406	PA2077	AMMETER, CLAMP-ON	97302229	RS3	AMPROBE	327	112		M203427		JCDC2	$50.00
2584	PA2075	AMMETER, CLAMP-ON	9100503	RS3JP	AMPROBE	325	LOCKER 9				JCDC4	$100.00
2459	PA2085	AMMETER, CLAMP-ON	NONE	NONE	AMPROBE	327	110		M172762		JCDC2	$48.00
0958	0726629	AMMETER/VOLT RECORDING	85155032	S22906-1	ESTERLINE-ANGUS INSTRUMENT CP	JS-231	TRLM				JCDC6	$3,778.00
0787	PA1325	AMP METER	NONE	ACD7	AMPROBE	JS-329	106				JCDC4	$50.00
3171	PA1646	AMPLIFIER, AIR	NONE	NONE	UNKNOWN	321	202				JCDC8	$100.00
4490	NONE	AMPROBE	NONE	RS-3	AMPROBE	325	LOCKER				JCDC6	$109.00
4472	NONE	AMPROBE	NONE	RS-3	AMPROBE	JS-321	TRUCK				JCDC6	$107.00
4465	NONE	AMPROBE	NONE	RS-3	AMPROBE						JCDC6	$107.00
3347	NONE	AMPROBE	NONE	RS-3	ADVANCED TEST PRODUCTS	321	110B				JCDC1	$121.00
1595	PA2012	AMPROBE	NONE	RS3	FLUKE	329	107				JCDC6	$207.00
1157	NONE	AMPROBE	NONE	RS-3	AMPROBE	325	LOCKER				JCDC6	$107.00

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1156	NONE	AMPROBE	NONE	RS-3	AMPROBE						JCDC6	$107.00
0704	NONE	AMPROBE	NONE	RS-3	AMPROBE	JS-321	110A				JCDC6	$109.00
0308	NONE	AMPROBE	NONE	RS-3	AMPROBE	325	TRUCK				JCDC6	$109.00
0306	NONE	AMPROBE	NONE	RS-3	AMPROBE	325	LOCKER				JCDC6	$109.00
3813	FD6001	AMPROBE / ROTATION METER	122484	RS3	AMPROBE	328	TRUCK		M45862		JCDC1	$100.00
2962	FD6008	AMPROBE / ROTATION METER	1403312	RS3	AMPROBE	JS-321	TRUCK		M39353		JCDC1	$100.00
2960	FD7006	AMPROBE, CLAMP-ON	4931016	80IKW	FLUKE	JS-321	TRUCK		M39120		JCDC1	$100.00
2522	PA1322	AMPROBE, CLAMP-ON	922093	9ACD7	AMPROBE	24	105H				JCDC4	$100.00
1605	PA1653	AMPROBE, CLAMP-ON	919919	RS3SG	AMPROBE	329	TRUCK				JCDC6	$50.00
1176	FD7009	AMPROBE, CLAMP-ON	4910032	80IKW	FLUKE	321	110B		M45866		JCDC1	$100.00
0794	FD7007	AMPROBE, CLAMP-ON	4931015	80IKW	FLUKE	321	104		M45867		JCDC1	$100.00
0309	PA1252	AMPROBE, CLAMP-ON	NONE	RS3SG	UNKNOWN	JS-321	110A				JCDC1	$100.00
0290	PA1650	AMPROBE, CLAMP-ON	NONE	UNKNOWN	AMPROBE	321	110B		M168876		JCDC1	$100.00
4478	NONE	AMPROBE/PROMAX	230510026135	RG5000	RECOVERY UNIT	JS-321	TRUCK				JCDC4	$891.97
1057	PA7115	AMPTECTOR TESTER	NONE	S14OD481G03	WESTENHOUSE	321	TOOL RM		M203371		JCDC1	$296.00
2453	BR0929	ANALYZER	812135	A343	CSI	327	110				JCDC2	$0.00
1564	BR0791	ANALYZER	F984110	DT315AFB	SHIMPO	JS-329	106				JCDC2	$0.00
1560	1237438	ANALYZER	8000LA164(362)	2228012	DRANETZ TECHNOLOGIES F-DRANETZ	327	102B				JBDC1	$8,590.00
3216	0681069	ANALYZER POWERLINE DISTURBANCE	686159361	606-3	DRANETZ TECHNOLOGIES F-DRANETZ	JS-329	106		M203883	310302	JCDC1	$5,120.00
1880	0681125	ANALYZER POWERLINE DISTURBANCE	936217372	606-3	DRANETZ TECHNOLOGIES F-DRANETZ	JS-329	106			310301	JCDC8	$5,830.00

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1230	0681070	ANALYZER POWERLINE DISTURBANCE	936219362	606-3	DRANETZ TECHNOLOGIES F-DRANETZ	329	106		M203882		JCDC6	$5,830.00
1168	0681341	ANALYZER POWERLINE DISTURBANCE	936218372	606-3	DRANETZ TECHNOLOGIES F-DRANETZ	JS-329	106				JCDC1	$5,830.00
2845	PA2566	ANALYZER, BRANCH CIRCUIT	NONE	ST1D	SURETEST	JS-321	110A		M172276		JCDC1	$100.00
2843	PA2654	ANALYZER, BRANCH CIRCUIT	NONE	NONE	NONE	JS-321	110A		M172275		JCDC1	$100.00
3101	PA1040	ANALYZER, CAPACITOR-INDUCTOR	3430354M	LC53	SENCORE	JS-329	106		M172586		JCDC6	$806.00
1497	PA1074	ANALYZER, CAPACITOR-INDUCTOR	NONE	LC53	SENCORE	JS-329	106				JCDC6	$806.00
1501	PA1584	ANALYZER, PHOTO FLASH	NONE	UT1	PHOTRONICS	JS-329	106				JCDC6	$795.00
1154	PA2522	ANALYZER, WIRING	NONE	ST1D	SURETEST	JS-321	110A				JCDC1	$100.00
1152	PA2523	ANALYZER, WIRING	NONE	ST1D	SURETEST	JS-321	110A				JCDC1	$100.00
4430	0842709	ANALYZER, CAPACITOR	6036345M	LC77	SENCORE INC	32	2202A		M172313		JCDC8	$1,687.00
4160	NONE	ANALYZER, CHLORINE	1270513901	FX-1000P	FOXCROFT	329	106				JCDC6	$1,759.00
4431	1237589	ANALYZER, COMBUSTION	WH0501	300	BACHARACH INC F-BACHARACH INST	336	100		M164967		JCDC6	$3,096.00
1538	1170471	ANALYZER, COMBUSTION	WL0501	300	BACHARACH INC F-BACHARACH INST	325	PSHOP		M201835		JCDC4	$3,220.00
1570	BR0102	ANALYZER, MACHINER, 2-CHANNEL	727115	21202	UNKNOWN	327	110		M172193		JCDC2	$13,495.00
2776	BRP0110	ANALYZER, MACHINERY	NONE	NONE	CSI	327	110				JCDC2	$13,495.00
2781	BR0138	ANALYZER, MACHINERY, 1-CHANNEL	722211	21201	UNKNOWN	327	110		M172194		JCDC2	$13,495.00
2780	BR0925	ANALYZER, MACHINERY, 1-CHANNEL	910269	21021	UNKNOWN	327	110		M173940		JCDC2	$13,495.00
2779	BR0137	ANALYZER, MACHINERY, 1-CHANNEL	722204	21201	UNKNOWN	327	110		M172195		JCDC2	$13,495.00
2778	BR0926	ANALYZER, MACHINERY, 1-CHANNEL	910271	21021	UNKNOWN	327	110		M173944		JCDC2	$13,495.00
3146	1606301	ANALYZER, NOX	569779081	CF311A	HORIBA INSTRUMENTS INC	329	106			1606301	JCDC6	$5,208.00
4148	NONE	ANALYZER, OXYGEN	NONE	3300PA	TELEDYNE INSTRUMENTS	329	106				JCDC6	$2,495.00

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1153	PA2521	ANALYZER, WIRING	NONE	ST1D	SURETEST	JS-321	110A				JCDC1	$100.00
0541	NONE	ANEMOMETER	330794	RVAT	ALNOR	321	110B				JCDC3	$672.00
0594	JSC4771	ANVIL, SMALL HOLE	NONE	NONE	UNMARKED	329	110 / TOOL CHEST 6				JCDC4	$100.00
1080	PA1143	APPARATUS, BREATHING, PRESSURE DEMAND	MG 012990	74771	UNKNOWN	321	TOOL RM				JCDC6	$754.00
1697	1446943	ARC REFLECTION METHOD FILTER	96F00S	M219SW	HDW ELECTRONICS INC	JS-221A	100				JCDC7	$7,140.00
4861	JSC3406	ATTACHMENT, FORKLIFT, DRUM	NONE	NONE	UNKNOWN	326B	LDY				JCDC6	$275.00
4861	JSC3407	ATTACHMENT, FORKLIFT, DRUM	NONE	UNKNOWN	UNKNOWN	JS-326D	LDY				JCDC6	$275.00
3243	PA1494	AUGER KIT, SEWER, 1/2"	A0265	90505	CRAFTSMAN	321	104				JCDC1	$100.00
2428	1553680	AUGER MACHINE, CABLE AND SEWER	C45640	100	SPARTAN TOOL DIV OF HEICO INC	325	PSHOP			1553680	JCDC4	$1,480.00
2507	1170131	AUGER MACHINE, PIPE AND SEWER	C39463	100RODOMATIC	SPARTAN TOOL DIV OF HEICO INC	325	PSHOP				JCDC4	$1,025.00
2504	1553681	AUGER MACHINE, SEWER ELECTRIC	D01ABG	1065	SPARTAN TOOL DIV OF HEICO INC	JS-325	102				JCDC4	$2,995.00
2998	PA7979	AUGER, DRAIN CLEANER	59705	VREBW6	GENERAL	JS-321	110A				JCDC1	$100.00
4456	PA1739	AUGER, SEWER	HCV0470	NONE	SKIL	325	PLUMBSHOP				JCDC4	$100.00
4295	NONE	AUGER, SEWER	496C505100348	700	MILWAUKEE	321	110				JCDC1	$500.00
4294	NONE	AUGER, SEWER	496C404170100	700	MILWAUKEE	321	110				JCDC1	$500.00
4293	NONE	AUGER, SEWER	496C404170096	700	MILWAUKEE	321	110				JCDC1	$500.00
3000	PA7020	AUGER, SEWER	HC17319	81596	BLACK & DECKER	JS-321	110A				JCDC1	$158.00
4454	NONE	AUGER, SEWER, ELECTRIC	DSVY0879	6355-GWS	GENERAL WIRE SPRING CO	321	110B				JCDC1	$353.99
2967	NONE	AUGER, SEWER, ELECTRIC	DSVY0878	6355-GWS	GENERAL WIRE SPRING CO	JS-CONEX YD	CONEX3				JCDC1	$353.99
1058	JSC5580	AUTO TRANSFORMER	NONE	W5MT3	VARIAC	321	UPSTAIRS				JCDC4	$250.00
3128	JSC3428	AUTO TRANSFORMER, VARIAC	NONE	W5MT3	GENERAL	JS-329	106				JCDC6	$250.00

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2508	NONE	BACKFLOW PREVENTER, TEST KIT	82347	TK9A	WATTS	JS-231	UPSTAIRS		M205832		JCDC1	$790.00
0722	JSC5380	BACKFLOW PREVENTOR	71508	NONE	ORANGE RES	321	110		M201875		JCDC4	$790.00
3372	NONE	BACKFLOW VALVE TESTER	0130255	TK-9A	WATTS	JS-325	100				JCDC1	$790.00
2123	1914585	BALANCE ANALYTICAL	B59769	PC4400-S2	METTLER INSTRUMENT CORP	24	104				JCDC16	$1,500.00
2123	1914585	BALANCE ANALYTICAL	B59769	PC4400-S2	METTLER INSTRUMENT CORP	24	104				JCDC16	$1,500.00
2462	PA2003	BALANCER, VOLUME AIR	NONE	VA105	T S I INC	327	110		M172306		JCDC2	$300.00
2854	JSC3676	BALOMETER	9590	6465CFM	ALNOR	JS-321	110B		M42317		JCDC1	$100.00
2420	JSC3635	BALOMETER	11398	6465CMH	ALNOR	JS-325	183A		M203095		JCDC1	$100.00
4919	NONE	BAND SAW	678J405500 868	6230	MILWAUKEE	321	110				JCDC1	$280.19
4246	NONE	BAND SAW, PORTABLE	181998A5081	17724	PORTER CABLE	321	110				JCDC1	$267.00
4245	NONE	BAND SAW, PORTABLE	181996A5081	17724	PORTER CABLE	JS-321	110				JCDC1	$267.00
4920	NONE	BANDSAW	678J405511 822	6230	MILWAUKEE	321	110				JCDC1	$280.19
4908	NONE	BANDSAW	457F24053602	6225	MILWAUKEE	321	110				JCDC1	$258.42
4907	NONE	BANDSAW	487F405360256	6225	MILWAUKEE	321	110				JCDC1	$258.42
0427	1299190	BANDSAW	11221	5Z412	WILTON CORP WILTON TOOL DIV	JS-326D	SHED			1299190	JCDC1	$1,176.00
4241	NONE	BANDSAW KIT	106685AD0014	7724	PORTER-CABLE	JS-321	110				JCDC1	$2,163.00
2798	1294752	BANDSAW, METAL CUTTING	B45717	3020-0010	NANTUNG MACHINE TOOL WORKS	JS-329	100				JCDC3	$2,230.00
1544	1353466	BAR FOLDER	34274	55	ROPER WHITNEY INC F-PECK STOW&	JS-321	120				JCDC1	$3,775.00
3056	JSC4510	BAR, SPREADER, 50,000#	VBT501220	NONE	VERSABAR	JS-417	LDY				JBDC7	$100.00
3055	JSC4509	BAR, SPREADER, 50,000#	VBT50814B	NONE	VERSABAR	JS-417	LDY				JBDC7	$100.00
2120	JSC3032	BASE, DRILL, MAGNETIC	578506	674	BLACK & DECKER	JS-24	105				JCDC4	$100.00

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BAR CODE NO	OLD PROP NO	DESCRIPTION	SERIAL NO	MODEL NO	MFG	BLDG	ROOM	LICENSE PLATE NO	CALIBRATION NO	MAINTENANCE ID	ACCOUNT NO	COST
3068	JSC4599	BASKET, MANLIFT, 1000#	NONE	NONE	UNKNOWN	JS-417	LDY				JBDC7	$100.00
3088	JSC4578	BASKET, WEIGHT, 6900#	NONE	NONE	UNKNOWN	420	LYD				JBDC7	$100.00
2277	0083006	BATH REFRIGERATED LIQUID	NONE	RB5	TECHNE INC	JS-32	2202				JCDC8	$2,299.00
0680	PA2674	BATH, PARTS CLEANING	F96	PL36A	GRAYMILLS	JS-48	100				JCDC4	$100.00
2404	0682854	BATTERY MODULE	1802	602-20	BELHAM ENGINEERING CORP	JS-24	202				JCDC7	$1,200.00
2403	0682853	BATTERY MODULE	1801	602-20	BELHAM ENGINEERING CORP	JS-24	202				JCDC7	$1,200.00
2497	NONE	BATTERY, DRILL HAMMER	040173010	TE6A	HILTI	JS-321	110A				JCDC1	$931.77
3063	JSC3466	BATTERY, HYDROMETER	NONE	NONE	NOMAD	JS-147	LDY				JCDC6	$125.00
1581	PA1611	BEADER, 24 GAUGE	33512	581	PEXTO	329	MACHINE SHOP				JCDC3	$490.00
3261	JSC4104	BEADER, SHEET METAL	NONE	NONE	PEXTO	JS-321	100				JCDC3	$300.00
1549	JSC4103	BEADER, SHEET METAL	M2764	622E	PEXTO	JS-321	100				JCDC3	$300.00
1550	1006649	BEADER/CRIMPER, DEEP THROAT	32964	617	ROPER WHITNEY INC F-. PECK STOW&	321	SSHOP				JCDC1	$2,533.00
3820	FD1120	BENDER, CABLE	NONE	350	THOMAS & BETTS	JS-321	110A				JCDC1	$100.00
1441	1553677	BENDER, CONDUIT	ABL0057NH	855	GREENLEE TOOL CO	321	102				JCDC1	$5,988.00
1358	JSC3721	BENDER, HYDRAULIC, 3/4" -- 2"	NONE	1818	GREENLEE	JS-323H	CONX				JCDC1	$100.00
1328	1988729	BENDER, TUBE	HH23611NB	884	GREENLEE TOOL CO	321	SHED				JCDC1	$4,780.00
2545	JSC3126	BENDER, TUBING, 1/2"	NONE	NONE	IMPERIAL	24	105				JCDC4	$100.00
1421	JSC3675	BENDER, TUBING, 3/4"	NONE	NONE	RIDGID	321	104				JCDC1	$100.00
0327	0715361	BENDING MACH PIPE-CONDUIT	NONE	1818-G1	GREENLEE TOOL CO	325	ESHOP				JCDC8	$1,631.00
2146	G095850	BENDING MACHINE PIPE W/TABLE	NONE	881CT	GREENLEE TOOL CO	JS-321	100				JCDC1	$9,287.00
3741	JSC3201	BICYCLE	NONE	RETROGLIDE	RALEIGH	JS-325	100				JCDC5	$217.00

BAR CODE NO	OLD PROP NO	NOUN	SERIAL NO	MODEL NO	MFGR	BLDG	ROOM	LICENSE PLATE NO	CALIBRATION NO	MAINTENANCE ID	ACCOUNT NO	COST
2394	PA1168	BIN, PARTS CLEANING W/MOTOR	NONE	NONE	UNKNOWN	24	UPSTAIRS				JCDC4	$100.00
3911	0681259	BLAST CLEANING MACHINE	381	VR3A	PAULI AND GRIFFIN CO INC	JS-326B	LYD				JCDC3	$5,250.00
1218	JSC4774	BLOCK, WITH LATCH	603831	HS21B	UNKNOWN	JS-321	110B				JCDC1	$100.00
1219	PA1686	BLOCK, WITH LATCH, 6"	864425	T941B	MCKISSICK	JS-321	110B				JCDC1	$100.00
2919	NONE	BLOWER, BACK PACK	EC049G921248 11	RBL500	MAKITA	JS-326B	100				JCDC1	$426.55
1710	NONE	BLOWER, BACK PACK	EC049G921247 54	RBL500	MAKITA	JS-342	100				JCDC3	$426.55
2715	PA2706	BLOWER, HEATER	35596	9504	ALLEGRO	326A	CAGE				JCDC6	$645.00
3138	JSC3429	BLOWER, HOT AIR	NONE	2Z789	DAYTON	420	100A				JCDC6	$150.00
0945	BRSP0585	BLOWER, LEAF	NONE	NONE	UNKNOWN	321	110B				JCDC3	$150.00
0695	PA1736	BLOWER, PORTABLE	6249	1000	UNKNOWN	321	110B				JCDC3	$90.00
0470	NONE	BLOWER, PORTABLE	E810202	SVBE8	AIR SYSTEMS INC	24	100				JCDC4	$733.10
0321	PA1733	BLOWER, PORTABLE	2324	1000	PELSUE	JS-CONEX YD	CONEX12				JCDC8	$100.00
0320	PA1732	BLOWER, PORTABLE	6247	1000	UNKNOWN	325	UPSTAIRS				JCDC8	$100.00
0322	PA2673	BLOWER, VACUUM	3594	690	GREENLEE	JS-0301	4272				JCDC8	$100.00
2296	PA1782	BOX, BREAK OUT	NONE	T702	FORURSTATE	JS-32	2202AB				JCDC8	$149.00
2432	1446981	BRAKE BOX PAN UNIVERSAL	305553	BP0612B	CHICAGO PRECISION PRODUCTS	JS-321	120			310193	JCDC1	$1,100.00
2433	1353430	BRAKE, HAND	326147T	SB812	CHICAGO DRIES	JS-321	120			310192	JCDC1	$4,850.00
1082	PA1233	BREATHING APPARATUS	NONE	NONE	SURVIVAIR	JS-321	110B				JCDC4	$100.00
1076	0016939	BREATHING APPARATUS SELF-CONTD	KT6G0102	9840-40	SURVIVAIR DIV OF U S DIVERS	321	110B			29822	JCDC1	$1,403.00
1075	0224977	BREATHING APPARATUS SELF-CONTD	NONE	MARK2SCBA	SURVIVAIR DIV OF U S DIVERS	JS-321	110B				JCDC6	$1,486.00
1074	0224976	BREATHING APPARATUS SELF-CONTD	NONE	MARK2SCBA	SURVIVAIR DIV OF U S DIVERS	321	110B				JCDC1	$1,486.00

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1073	0224978	BREATHING APPARATUS SELF-CONTD	NONE	MARK2SCBA	SURVIVAIR DIV OF U S DIVERS	JS-321	110B				JCDC6	$1,486.00
1072	0016937	BREATHING APPARATUS SELF-CONTD	KT6G0066	9840-40	SURVIVAIR DIV OF U S DIVERS	321	110B			28737	JCDC1	$1,403.00
1071	0016938	BREATHING APPARATUS SELF-CONTD	KT6G0135	9840-40	SURVIVAIR DIV OF U S DIVERS	321	110B			29821	JCDC1	$1,403.00
0981	0016934	BREATHING APPARATUS SELF-CONTD	KT6G0203	9840-40A	SURVIVAIR DIV OF U S DIVERS	383A	SPTLR			28734	JALN1	$1,403.00
0979	0016936	BREATHING APPARATUS SELF-CONTD	KT6G0092	9840-40	SURVIVAIR DIV OF U S DIVERS	383	SPTLR			311052	JALN1	$1,403.00
0614	BR0988	CABINET, ACID/FLAMMABLE	NONE	NONE	UNKNOWN	JS-325	LDY				JBDC5	$594.83
2390	PA1330	CABINET, BLAST CLEANING	1899	3Z984	DAYTON	JS-325	102				JCDC3	$894.00
2477	PA1095	CABINET, CORROSIVE	NONE	40881	RUEMELIN	JS-329	110				JCDC3	$995.00
1850	NONE	CABINET, CORROSIVE	NONE	CRA47	EAGLE	JS-326A	100				JCDC3	$613.00
1849	NONE	CABINET, CORROSIVE	NONE	CRA47	EAGLE	JS-326A	100				JCDC3	$613.00
1804	JSC5152	CABINET, CORROSIVE, 5'	NONE	NONE	UNKNOWN	JS-329	OUTSIDE				JCDC6	$668.00
0299	0299467	CABINET, ELECTRICAL EQUIPMENT	NONE	NONE	MASSCOMP	24	202				JCDC7	$1,700.00
3014	JSC4487	CABINET, FILING	NONE	NONE	NONE	JS-420	112A				JBDC3	$100.00
3013	JSC4489	CABINET, FILING	NONE	NONE	NONE	JS-420	112A				JBDC3	$100.00
3012	JSC4490	CABINET, FILING	NONE	NONE	NONE	JS-420	112A				JBDC3	$100.00
3011	JSC4488	CABINET, FILING	NONE	NONE	NONE	JS-420	112A				JBDC3	$100.00
4089	NONE	CABINET, FLAMMABLE	NONE	1947	EAGLE MFG	JS-325	LDY				JCDC6	$600.00
4088	NONE	CABINET, FLAMMABLE	NONE	1947	EAGLE MFG	JS-329	OUTSIDE				JCDC6	$600.00
4082	NONE	CABINET, FLAMMABLE	NONE	1947	EAGLE MFG	JS-329	OUTSIDE				JCDC6	$600.00
4081	NONE	CABINET, FLAMMABLE	NONE	1947	EAGLE MFG	JS-329	OUTSIDE				JCDC6	$600.00
3636	NONE	CABINET, FLAMMABLE	NONE	1947	EAGLE	326	LDY				JCDC3	$679.28

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BAR CODE NO.	OLD PROP NO	NOUN	SERIAL NO	MODEL NO	MFG	BLDG	ROOM	LICENSE PLATE NO	CALIBRATION NO	MAINTENANCE ID	ACCOUNT NO	COST
3627	NONE	CABINET, FLAMMABLE	NONE	1947	EAGLE	JS-326	OUTSIDE				JCDC3	$679.28
3019	JSC4486	CABINET, FLAMMABLE	NONE	NONE	JUST-RITE	JS-420	112				JBDC3	$273.00
2924	NONE	CABINET, FLAMMABLE	NONE	1960	EAGLE	JS-326A	100				JCDC3	$748.55
0221	JSC3838	CABINET, FLAMMABLE	NONE	NONE	JUST-RITE	JS-417	104				JBDC5	$725.00
3140	JSC3430	CABINET, FLAMMABLE, 2 CU. FT.	NONE	NONE	JUST-RITE	JS-329	106				JCDC6	$266.00
1806	JSC5150	CABINET, FLAMMABLE, 3'	NONE	NONE	UNKNOWN	JS-329	OUTSIDE				JCDC6	$535.00
2451	JSC3777	CABINET, FLAMMABLE, 3 FOOT	NONE	NONE	JUST-RITE	327	110				JCDC2	$450.00
2388	JSC3129	CABINET, FLAMMABLE, 4'	NONE	NONE	EAGLE	JS-24	100				JCDC4	$100.00
2282	JSC3362	CABINET, FLAMMABLE, 4'	NONE	NONE	EAGLE	JS-32	2202				JCDC8	$100.00
1735	JSC3167	CABINET, FLAMMABLE, 4'	NONE	NONE	EAGLE	JS-28	FLOOR				JCDC4	$100.00
2377	JSC5108	CABINET, FLAMMABLE, 5	NONE	NONE	A&A SHEET METAL	383	SHED				JALN1	$725.00
2757	JSC4106	CABINET, FLAMMABLE, 5'	NONE	1932	EAGLE	JS-321	120				JCDC3	$668.00
2350	JSC3016	CABINET, FLAMMABLE, 5'	NONE	CAA47	A&A SHEET METAL	JS-358	LDY				JALN1	$725.00
2102	JSC3130	CABINET, FLAMMABLE, 5'	NONE	NONE	SECUR ALL	JS-24	105H				JCDC4	$100.00
2072	JSC3015	CABINET, FLAMMABLE, 5'	NONE	CAA47	A&A SHEET METAL	JS-358	LDY				JALN1	$725.00
1959	JSC5147	CABINET, FLAMMABLE, 5'	NONE	NONE	UNKNOWN	JS-329	OUTSIDE				JCDC6	$668.00
1958	JSC5146	CABINET, FLAMMABLE, 5'	NONE	NONE	UNKNOWN	JS-329	OUTSIDE				JCDC6	$668.00
1957	JSC5145	CABINET, FLAMMABLE, 5'	NONE	NONE	UNKNOWN	JS-329	OUTSIDE				JCDC6	$668.00
1956	JSC5149	CABINET, FLAMMABLE, 5'	NONE	NONE	UNKNOWN	JS-329	OUTSIDE				JCDC6	$668.00
1955	JSC5148	CABINET, FLAMMABLE, 5'	NONE	NONE	UNKNOWN	JS-329	OUTSIDE				JCDC6	$668.00
1853	JSC3398	CABINET, FLAMMABLE, 5'	NONE	25602	EAGLE	JS-326A	100				JCDC6	$668.00

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BAR CODE NO	OLD PROP NO	NOUN	SERIAL NO	MODEL NO	MFG	BLDG	ROOM	LICENSED PLATE NO	CALIBRATION NO	MAINTENANCE ID	ACCOUNT NO	COST
1852	JSC3400	CABINET, FLAMMABLE, 5'	NONE	25602	EAGLE	JS-326A	100				JCDC6	$668.00
1851	JSC3399	CABINET, FLAMMABLE, 5'	NONE	25602	EAGLE	JS-326A	100				JCDC6	$668.00
1805	JSC5151	CABINET, FLAMMABLE, 5'	NONE	NONE	UNKNOWN	329	SHED				JCDC6	$668.00
1737	JSC3170	CABINET, FLAMMABLE, 5'	NONE	NONE	UNKNOWN	JS-28	FLOOR				JCDC4	$100.00
0610	JSC4272	CABINET, FLAMMABLE, 5'	NONE	NONE	UNKNOWN	JS-329	110				JCDC3	$266.00
3327	JSC3017	CABINET, FLAMMABLE, 6'	NONE	CAA47	A&A SHEET METAL	JS-150EL	LDY				JALN1	$725.00
2071	JSC3014	CABINET, FLAMMABLE, 6'	NONE	CAA47	A&A SHEET METAL	JS-358	LDY				JALN1	$725.00
0615	BRSP0994	CABINET, HAZ-MAT	NONE	A145	SECURALL	JS-325	LDY				JCDC3	$275.00
2401	1987432	CABINET, INSTRUMENT	2R0132	NONE	MODULAR COMPUTER SYSTEMS INC	JS-24	202				JCDC7	$13,669.00
2105	NONE	CABINET, LOCK OUT STATION	NONE	30372	LAB SAFETY SUPPLY	329	BAY				JCDC3	$140.00
4041	NONE	CABINET, SAFETY STORAGE	NONE	A190-YELLOW	A&A SHEET METAL PRODUCT	325	100				JCDC3	$1,038.00
2799	JSC4255	CABINET, STORAGE	NONE	NONE	SECUR ALL	JS-329	108				JCDC3	$400.00
1839	JSC4394	CABINET, STORAGE	NONE	NONE	UNKNOWN	Conex yard	CONEX #2				JCDC3	$200.00
3961	NONE	CABLE CUTTER	NONE	0190MTN	HK PORTER	329	100				JCDC3	$119.00
3109	NONE	CABLE FAULT FINDER	10001204628	SHORTSTOP 1001	JTE	JS-329	106				JCDC6	$399.00
4248	NONE	CABLE ROUTER, PORTER	1663816A5011	690LR/1001	PORTER CABLE	JS-321	110B				JCDC1	$171.00
3329	BRSP0699	CALIBRATION CHECK, GAS	NONE	NONE	UNKNOWN	321	110B				JCDC1	$200.00
1526	JSC3431	CALIBRATION CHECK, GAS	5862	484674	MINE SAFETY	JS-329	106				JCDC6	$200.00
3210	0236160	CALIBRATION DIGITAL	A58905SP	1040SP10	TRANSMATION INC	JS-321	110A		M203353	311126	JCDC1	$1,095.00
1886	PA1024	CALIBRATION KIT, PNEUMATIC	NONE	900-002	ROBERT SHAW	321	110B		M173847		JCDC8	$100.00
0920	JSC4649	CALIBRATION KIT, PNEUMATIC	9811	900002	ROBERT SHAW	325	LOCKER 4				JCDC4	$100.00

BAR CODE NO	OLD PROP NO	NOUN	SERIAL NO	MODEL NO	MANUF	BLDG	ROOM	LICENSE PLATE NO	CALIBRATION NO	MAINTENANCE ID	ACCOUNT NO	COST
0875	JSC3042	CALIBRATION KIT, PNEUMATIC	NONE	MQP800	HONEYWELL	JS-48	100				JCDC4	$100.00
2529	1353241	CALIBRATION, DRY BLOCK	3808714	DB300AF	TECHNE /CAMBRIDGE/ LTD	JS-321	110A		M46383		JCDC4	$2,795.00
2524	1353240	CALIBRATION, PRESSURE 0-200	34394	T740	AMTEK ELECTRONICS INC	24	105H		M46384		JCDC4	$1,290.00
4151	NONE	CALIBRATOR, DIGITAL PNEUMATIC	0511172	WALLYBOX65	WIKA	JS-24	105H				JCDC1	$3,637.00
4481	NONE	CALIBRATOR, MILLIAMP	10808302	1342	ALTEK IND	321	110B		M205896		JCDC8	$478.20
4480	NONE	CALIBRATOR, MILLIAMP	10808311	1342	ALTEK IND	321	110B		M205897		JCDC8	$478.20
2513	PA8096	CALIBRATOR, MILLIAMP	B27274	92861028	TRANSMATION	24	105H				JCDC4	$100.00
0745	PA1072	CALIBRATOR, MINI-BUCK (W/ CASE)	M-7009	M5	A P BUCK	420	100A				JCDC6	$990.00
4423	PA2471	CALIBRATOR, MINITEMP	7586507	1064P	TRANSMATION	JS-24	105H		M46743		JCDC4	$100.00
2512	PA6981	CALIBRATOR, MINITEMP	1061A32543JF	1061	TRANSMATION	JS-24	105H		M165259		JCDC4	$100.00
2863	PA7217	CALIBRATOR, MINI-TEMP	A40593TF	1061	TRANSMATION	JS-32	2202		M172912		JCDC8	$100.00
2862	PA7081	CALIBRATOR, MINI-TEMP	A30712TF	1061	TRANSMATION	JS-32	2202AB		M172320		JCDC8	$219.00
2860	PA7080	CALIBRATOR, MINI-TEMP	A30715TF	1061	TRANSMATION	32	2202A		M172319		JCDC8	$219.00
2335	PA1504	CALIBRATOR, MINI-TEMP	10614213117	1061	TRANSMATION	JS-32	055		M173497		JCDC8	$200.00
2292	JSC3328	CALIBRATOR, MINI-TEMP	B24881KF	1061	TRANSMATION	JS-32	2202AB		M172321		JCDC8	$100.00
1180	PA7067	CALIBRATOR, MINITEMP, PDS	A429291F	1061	TRANSMATION	JS-321	110A		M172367		JCDC1	$100.00
3106	NONE	CALIBRATOR, MULTI-AMP	10847806	334A	ALTEK IND	JS-329	106		M205751		JCDC6	$769.00
4504	1008808	CALIBRATOR, MULTI-FUNCTION	99563	720390	BIDDLE INSTR F-JAMES BIDDLE CO	32	2202		M172915		JCDC8	$3,300.00
1879	1237037	CALIBRATOR, MULTI-FUNCTION	1904	720390	BIDDLE INSTR F-JAMES BIDDLE CO	JS-32	2202		M173270		JCDC8	$3,650.00
1494	0681043	CALIBRATOR, MULTIMETER	1150	2600	SIMPSON ELECT F-AMER GAGE	JS-329	106			681043	JCDC6	$1,458.00
2530	1008839	CALIBRATOR, PNEUMATIC	NONE	65-125	WALLACE AND TIERNAN DIV	JS-321	110B		M201906		JCDC4	$2,444.00

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1228	1237452	CALIBRATOR, PNEUMATIC	099206-200	CPS200	AMETEK INC MANSFIELD&GREEN DV	32	2202		M173846		JCDC8	$1,165.00
1881	PA1023	CALIBRATOR, PNEUMATIC, PORTABLE	JJ10976	FA235	WALLACE & TIERNAN	JS-32	2202		M173848		JCDC1	$100.00
3134	PA1079	CALIBRATOR, PNEUMATIC, PORTABLE, SERI	YY10367	FU4882	WALLACE & TIERNAN	420	100A		M20352		JCDC6	$775.00
1078	PA1580	CALIBRATOR, PNEUMATIC, PRECISION	MM18906	FA235	WALLACE & TIERNAN	JS-321	110B		M56685		JCDC1	$150.00
1056	PA1019	CALIBRATOR, PNEUMATIC, PRESSURE	NONE	FU4882	WALLACE & TIERNAN	JS-321	110B		M173843		JCDC1	$100.00
2528	0072199	CALIBRATOR, PNEUMATIC, PORTABLE	AM01391	65-120	WALLACE AND TIERNAN DIV	JS-24	105H		M42617		JCDC4	$1,547.00
2273	NONE	CALIBRATOR, PORTABLE	0302001	6444-P	SCIENTIFIC	32	2202				JCDC8	$12,200.00
2330	NONE	CALIBRATOR, PRESSURE	518994-04000	5442P	AMETEK	JS-32	2202				JCDC8	$1,625.00
1882	1446910	CALIBRATOR, PRESSURE	BA56502	SERIES65-125	WALLACE AND TIERNAN DIV	321	110B		M165260		JCDC4	$2,897.00
4427	PA1166	CALIBRATOR, TEMPERATURE	A83006	1064PSN	TRANSMATION	JS-24	105H		M203494		JCDC4	$100.00
2527	PA2469	CALIBRATOR, UNIVERSAL, RTD	7578409	1074	TRANSMATION	24	105H		M46742		JCDC4	$100.00
2661	0722243	CALIBRATOR, VOLTAGE	A37071	1040	TRANSMATION INC	JS-32	2202AB		M202311	311129	JCDC1	$1,050.00
2859	0722244	CALIBRATOR, VOLTAGE	A44745	1040	TRANSMATION INC	JS-329	106		M202313	311127	JCDC8	$1,050.00
2523	1008813	CALIBRATOR, VOLTAGE	B85855SP	1040	TRANSMATION INC	24	SHOP			311128	JCDC4	$1,510.00
0752	PA2581	CALIPER	363909	MAXCAL	NSK JAPAN	329	TOOLBAG				JCDC6	$184.00
2697	NONE	CALIPER, DIAL	NONE	120A6	STARRETT	321	110B				JCDC6	$109.00
0855	PA2582	CALIPER, DIAL	363854	MAXCAL	NSK JAPAN	329	107				JCDC6	$184.00
0525	PA7103	CALIPER, DIAL	NONE	120	STARRETT	329	110 / TOOL CHEST 5				JCDC6	$99.00
0472	JSC4808	CALIPER, DIAL	NONE	NONE	FOWLER	329	SERVICE TRUCK				JCDC4	$100.00
4050	NONE	CALIPER, ELECTRONIC, DIGITAL	03141511	721	STARRETT	327	110				JCDC1	$177.00
4369	NONE	CAMERA, DIGITAL	5UA37822	FINEPIX A345	FUJI FILM	327	112				JCDC2	$150.00

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4368	NONE	CAMERA, DIGITAL	5UA66798	FINEPIX A345	FUJI FILM	327	112				JCDC2	$150.00
4367	NONE	CAMERA, DIGITAL	5UA50478	FINEPIX A345	FUJI FILM	327	112				JCDC2	$150.00
1488	BR3003	CAMERA, DIGITAL	274552	MVCFD7	UNKNOWN	JS-24	208A				JCDC2	$629.00
1483	NONE	CAMERA, DIGITAL	343859	MVCFD200	SONY	JS-330	106B				JCDC9	$624.20
1311	NONE	CAMERA, DIGITAL	KCKAJ21009316	DX3600	KODAK	323	104				JCDC1	$328.00
1310	NONE	CAMERA, DIGITAL	KCKA22300486	DX4900	KODAK	323	104				JCDC1	$458.00
1189	BRSP3004	CAMERA, DIGITAL	274551	MVCFD7	UNKNOWN	321	110B				JCDC2	$629.00
0419	NONE	CAMERA, DIGITAL	KJCAV218001109	DX4900	KODAK	323	104				JCDC1	$458.00
0282	NONE	CAMERA, DIGITAL	1504381	MVCFD75	SONY	327	112				JCDC13	$447.30
0281	NONE	CAMERA, DIGITAL	1504372	MVCFD75	SONY	327	102B				JCDC13	$447.30
3284	NONE	CAMERA, DIGITAL (CA)	343825	MVCFD200	SONY	330	114				JCDC5	$624.24
1476	NONE	CAMERA, DIGITAL (JH)	344054	MVCFD200	SONY	330	114A				JCDC5	$624.24
1300	NONE	CAMERA, DIGITAL (JR)	343824	MVCFD200	SONY	JS-325	202B				JCDC5	$624.24
1477	NONE	CAMERA, DIGITAL (TP)	344059	MVCFD200	SONY	JS-325	202B				JCDC5	$624.24
0418	NONE	CAMERA, DOCK	6B5465	N137	KODAK CO	323	SHOP				JCDC1	$129.00
1567	1553682	CAMERA, INFARED	1414	RADIANCE PM	AMBER ENGINEERING INC	327	110				JCDC2	$54,900.00
0985	1237073	CAMERA, STILL VIDEO	10082574	RC250	CANON CAMERA CO INC	327	110				JCDC2	$600.00
2469	NONE	CAMERA, THERMA CAM	15220211	PM695NTSC	FLIR SYSTEMS	327	110				JCDC2	$43,304.00
0983	1446903	CAMERA, VIDEO X14 DIGITAL ZOOM	K5WA23115	PV1Q3050	PANASONIC	327	110				JCDC2	$649.00
4311	NONE	CART	NONE	4500-88	RUBBERMAID	321	110				JCDC1	$123.00
4310	NONE	CART	NONE	4520-88	RUBBERMAID	321	110				JCDC1	$135.00

SECTION J
ATTACHMENT H
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BAR CODE NO	OLD PROP NO	NOUN	SERIAL NO	MODEL NO	MFG	BLDG	ROOM	LICENSE PLATE NO	CALIBRATION NO	MAINTENANCE ID	ACCOUNT NO	COST
3822	JSC3682	CART	NONE	NONE	RUBBERMAID	323H	LEAN-TO				JCDC1	$100.00
0313	PA1997	CART	NONE	NONE	BRENMAN	48	FLOOR				JCDC8	$100.00
3169	JSC4635	CART, 2-SHELF	NONE	NONE	LITTLE GIANT	325	OUTSIDE				JCDC6	$100.00
2480	JSC5144	CART, 2-SHELF	NONE	4520	RUBBERMAID	329	MACHINE SHOP				JCDC6	$100.00
0906	JSC3021	CART, 2-SHELF	NONE	NONE	UNKNOWN	JS-48	100				JCDC4	$100.00
0278	JSC4645	CART, 2-SHELF	NONE	NONE	RUBBERMAID	JS-342	100				JCDC3	$100.00
2796	PA1405	CART, 2-SHELF, 4-WHEEL	NONE	NONE	LITTLE GIANT	JS-329	cage				JCDC3	$100.00
2391	JSC3131	CART, 2-SHELF, 4-WHEEL	NONE	NONE	UNKNOWN	24	103				JCDC4	$100.00
2359	JSC3005	CART, 2-SHELF, 4-WHEEL	NONE	NONE	UNKNOWN	358	LDY				JALN1	$100.00
0630	JSC4396	CART, 2-SHELF, W/ 2 DRAWERS	NONE	NONE	UNKNOWN	JS-329	cage				JCDC3	$100.00
2475	JSC5418	CART, 2-WHEEL	NONE	UNKNOWN	UNKNOWN	326B	LDY				JCDC3	$50.00
3386	JSC3718	CART, 2-WHEEL, WIRE	NONE	911	GREENLEE	JS-323H	CONX				JCDC1	$100.00
0309	NONE	CART, 3-SHELF	NONE	NONE	CANON	JS-321	110A				JBDC5	$140.00
2271	JSC3361	CART, 4-WHEEL	NONE	NONE	LITTLE GIANT	JS-32	2202				JCDC8	$100.00
3300	PA2474	CART, CARRYING	NONE	800	TRI CART	327	110				JCDC2	$110.00
2769	PA2473	CART, CARRYING	NONE	800	TRI CART	327	110				JCDC2	$110.00
2450	PA2472	CART, CARRYING	NONE	800	TRI CART	327	110				JCDC2	$110.00
3282	JSC3010	CART, CRT	NONE	NONE	RUBBERMAID	JS-358	LDY				JALN1	$100.00
2915	JSC3688	CART, CRT	NONE	NONE	RUBBERMAID	JS-326D	SHED				JCDC1	$100.00
2655	JSC3691	CART, CRT	NONE	NONE	RUBBERMAID	JS-321	110A				JCDC1	$100.00
2500	JSC4085	CART, CRT	NONE	NONE	RUBBERMAID	JS-321	LDY				JCDC1	$100.00

BAR CODE NO	OLD PROP NO	ITEM NOUN	SERIAL NO	MODEL NO	MFG	BLDG	ROOM	LICENSE PLATE NO	CALIBRATION NO	MAINTENANCE ID	ACCOUNT NO	COST
2078	JSC3009	CART, CRT	NONE	NONE	RUBBERMAID	JS-358	LDY				JALN1	$100.00
1325	JSC3727	CART, CRT	NONE	NONE	RUBBERMAID	321	OUTSIDE				JCDC1	$100.00
1324	JSC3729	CART, CRT	NONE	NONE	RUBBERMAID	323	LDY				JCDC1	$100.00
1731	JSC3169	CART, CYLINDER	NONE	NONE	HARPER	JS-28	FLOOR				JCDC4	$100.00
0910	JSC3022	CART, CYLINDER	NONE	NONE	HARPER	48	100				JCDC4	$100.00
3405	PA1414	CART, FURNITURE, 4-WHEEL	NONE	NONE	UNKNOWN	JS-24	100				JCDC4	$100.00
3487	JSC4317	CART, LIGHT	NONE	NONE	UNKNOWN	JS-417	HIBAY				JBDC4	$100.00
3184	PA1193	CART, LIGHT	NONE	3Z8078	RUBBERMAID	JS-321	UPSTAIRS				JCDC3	$284.00
0880	JSC3035	CART, MAIL, 2-SHELF	NONE	NONE	BONUS	48	FLOOR				JCDC4	$100.00
1732	0681079	CART, PNEUMATIC TEST	NONE	SHOP	FOXBORO CO THE	JS-28	FLOOR				JCDC4	$1,038.00
0325	NONE	CART, QUARTZ LIGHT	NONE	PUL1000QCD	FOSTORIA	JS-325	102				JCDC8	$369.80
0324	NONE	CART, QUARTZ LIGHT	NONE	PUL1000QCD	FOSTORIA	JS-325	102				JCDC8	$369.80
0323	NONE	CART, QUARTZ LIGHT	NONE	PUL1000QCD	FOSTORIA	JS-325	102				JCDC8	$369.80
2452	PA7134	CART, UTILITY, 2-SHELF	NONE	NONE	BRENNAN	327	110				JCDC2	$200.00
2806	JSC5159	CART, UTILITY, STEEL, 2-SHELF	NONE	4520	RUBBERMAID	JS-342	100				JCDC3	$120.00
2323	PA7187	CASE, CIRCUIT, BRD	NONE	NONE	JENSEN	JS-32	2202A				JCDC8	$159.00
2322	PA7188	CASE, CIRCUIT, BRD	NONE	NONE	JENSEN	JS-32	2202A				JCDC8	$159.00
3269	NONE	CD-RW DRIVE, EXTERNAL	5BBN10BA9H	CDRW6402E XT	IOMEGA	JS-48	104A				JCDC13	$238 70
2580	PA2315	CHAIN FALL, 1/2-TON	NONE	622	C & M	325	PSHOP				JCDC4	$100.00
1216	BR0209	CHAIN FALL, 3/4 TON	NONE	BK9708	COFFING CO	321	110B				JCDC1	$100.00
2122	0681327	CHAMBER ENVIRONMENTAL HUMIDITY	NONE	986-943	CURTIN MATHESON SCIENTIFIC INC	JS-24	104				JCDC16	$1,846.00

BARCODE NO	OLD PROP NO	ITEM UNKNOWN	SERIAL NO	MODEL NO	MFG NAME	BLDG	ROOM	LICENSE PLATE NO	CALIBRATION NO	MAINTENANCE ID	ACCOUNT NO	COST
2122	0681327	CHAMBER ENVIRONMENTAL HUMIDITY	NONE	986-943	CURTIN MATHESON SCIENTIFIC INC	JS-24	104				JCDC16	$1,846.00
2502	JSC3386	CHARGER, BASE, MULTI STATION	NONE	NTN4668A	MOTOROLA	JS-325	183A				JCDC8	$100.00
3810	JSC3385	CHARGER, BASE, SINGLE STATION	NONE	NTN1174A	MOTOROLA	JS-358	LDY				JCDC8	$100.00
2443	JSC3630	CHARGER, BASE, SINGLE STATION	NONE	NTN1174A	MOTOROLA	JS-327	110				JCDC2	$130.00
1681	JSC3318	CHARGER, BASE, SINGLE STATION	NONE	NTN1174A	MOTOROLA	221	100				JCDC7	$130.00
0676	JSC3220	CHARGER, BASE, SINGLE STATION	NONE	NTN4633C	MOTOROLA	48	104				JCDC17	$120.00
0676	JSC3220	CHARGER, BASE, SINGLE STATION	NONE	NTN4633C	MOTOROLA	48	104				JCDC17	$120.00
2734	JSC3388	CHARGER, BATTERY	600220142	6002	UNKNOWN	326B	GEN SHOP				JCDC6	$342.00
0612	JSC4335	CHARGER, BATTERY	NONE	NTN1174A	MOTOROLA	417	106				JBDC4	$130.00
0602	JSC4262	CHARGER, BATTERY	952351	DW9106	DEWALT	329	108				JCDC3	$155.50
2858	PA1029	CHARGER, BATTERY, 4-PACK	863217	1004	TRANSMATION	JS-32	2202AB				JCDC8	$100.00
3328	NONE	CHARGER, BATTERY, SINGLE UNIT	NONE	NTN1873	MOTOROLA	330	112				JALN1	$50.00
4001	NONE	CHARGING BASE	DCB03179	9000376	HAND HELD PRODUCTS	24	103				JCDC17	$165.00
4001	NONE	CHARGING BASE	DCB03179	9000376	HAND HELD PRODUCTS	24	103				JCDC17	$165.00
0902	NONE	CHARGING BASE	DCB03228	9000376	HAND HELD PRODUCTS	24	UPSTAIRS				JCDC17	$165.00
0902	NONE	CHARGING BASE	DCB03228	9000376	HAND HELD PRODUCTS	24	UPSTAIRS				JCDC17	$165.00
4339	NONE	CHEST, TOOL BOX	NONE	GS4990R4	INDUSTRIAL DELTA	321	110				JCDC1	$295.00
4338	NONE	CHEST, TOOL BOX	NONE	GS4990R4	INDUSTRIAL DELTA	321	110				JCDC1	$295.00
4337	NONE	CHEST, TOOL BOX	NONE	GS4990R4	INDUSTRIAL DELTA	321	110				JCDC1	$295.00
4336	NONE	CHEST, TOOL BOX	NONE	GS4990R4	INDUSTRIAL DELTA	321	110				JCDC1	$295.00
4335	NONE	CHEST, TOOL BOX	NONE	GS4990R4	INDUSTRIAL DELTA	321	110				JCDC1	$295.00

BAR CODE NO.	OLD PROP NO	ITEM NOUN	SERIAL NO	MODEL NO	MFG	BLDG	ROOM	LICENSE PLATE NO	CALIBRATION NO	MAINTENANCE ID #	ACCOUNT NO	COST
4334	NONE	CHEST, TOOL BOX	NONE	GS4990R4	INDUSTRIAL DELTA	321	110				JCDC1	$295.00
0329	NONE	CHLORINE TEST KIT	223103	CN66T	UNKNOWN	24	DOWNSTAIRS				JCDC7	$100.00
3948	PA2663	CIRCUIT GUARD, PORTABLE	NONE	UNKNOWN	UNKNOWN	329	SHOP				JCDC3	$100.00
0279	NONE	CIRCUIT GUARD, PORTABLE, GFI	NONE	E41978	HUBBELL	321	110B				JCDC1	$138.00
4910	NONE	CIRCULAR SAW	316125	DW3192	DEWALT	321	110				JCDC1	$122.00
4909	NONE	CIRCULAR SAW	406774	DW3192	DEWALT	321	110				JCDC1	$122.00
4019	NONE	CLAMP METER, TRUE	94602220	335	FLUKE	325	100				JCDC3	$226.00
1516	PA1420	CLEANER, ULTRASONIC	NONE	B52H	BRANSON	JS-329	106				JCDC6	$800.00
4043	NONE	CLEANER, SEWER/DRAIN	10096	300	SPARTAN TOOL	325	100				JCDC1	$2,500.00
2736	1345835	CLEANER, ULTRASONIC	3-5084-95	DHA1000	BRANSON CLEANING EQUIPMENT CO	JS-326D	100				JCDC6	$2,499.00
4268	NONE	CLEANING MACHINE, SEWER, DRAIN	11620	300	SPARTAN	JS-325	102				JCDC1	$2,282.00
0600	1006057	CLEANING MACHINE, TUBE	2690	200	CONCO INC	48	HI BAY				JCDC4	$5,650.00
2532	JSC3132	CLEANING SYSTEM, ULTRASONIC, "QUANTREX	97339301160	Q280H	L & R	JS-24	105				JCDC4	$100.00
1404	1299213	CLEANING TOOL, PIPE	2839	NONE	VICTAULIC TOOL CO	JS-321	110				JCDC1	$2,786.00
3381	NONE	COAT, NOMEX	NONE	NBN4857250 M	NOMEX	323	SHOP				JCDC1	$213.50
3380	NONE	COAT, NOMEX	NONE	NBN4857250 M	NOMEX	323	SHOP				JCDC1	$213.50
0344	NONE	COAT, NOMEX	NONE	NBN4857250 M	NOMEX	323	SHOP				JCDC1	$213.50
1217	PA2588	COM-A-LONG	NONE	UNKNOWN	UNKNOWN	321	110B				JCDC1	$200.00
1212	PA8090	COM-A-LONG	NONE	NONE	NONE	321	110B				JCDC4	$200.00
0834	PA8091	COM-A-LONG	8181	Y150	JET	32	6TH FLOOR				JCDC6	$241.00
1209	PA5298	COM-A-LONG, 1-1/2 TO 3-TON	7676	M503639	TUGIT	321	100				JCDC1	$100.00

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BAR CODE NO	OLD PROPERTY NO	NOUN	SERIAL NO	MODEL NO	MANUFACTURER	BLDG	ROOM	LICENSE PLATE NO	CALIBRATION NO	MAINTENANCE ID	ACCOUNT NO	COST
3299	JSC4470	COM-A-LONG, CHAIN, 1-1/2 TON	MA3713RE	MA30	COFFING CO	420	112				JBDC7	$100.00
1215	BR0819	COM-A-LONG, 1 TON	NONE	622	C & M	321	110B				JCDC1	$200.00
4090	NONE	COMMUNICATOR, PROTO	11005824	375	EMERSON PROCESS MGMT	JS-24	105H				JCDC1	$3,876.00
4915	NONE	COMPACT REFRIGERATOR	NONE	GMR04AAMB B	GENERAL ELECTRIC	329	107				JCDC6	$215.13
3113	JSC3432	COMPARATOR, LOGIC	81187	2074A	BUGTRAP	JS-329	106				JCDC6	$425.00
3110	PA1647	COMPARATOR, LOGIC	81193	2000C	BUGTRAP	JS-329	106				JCDC6	$399.00
0940	0681103	COMPRESSOR, AIR	223565	71T	INGERSOLL-RAND CO	329	OUTSIDE				JCDC6	$1,073.00
3929	0269923	COMPRESSOR, AIR, PORTABLE	004-91253DHF	185DPQ2WP E	SULLAIR CORP	JS-326A	100	NA00515T			JCDC3	$8,826.00
4863	0074742	COMPRESSOR, AIR, TRL MTD	163885U87173	130	INGERSOLL-RAND CO	JS-326A	LDY	NA00491T		22463	JCDC6	$8,161.00
3928	0714668	COMPRESSOR, AIR, TRL MTD	NONE	185	SULLAIR CORP	326	LDY	NA00529T			JCDC3	$8,628.00
3927	0275730	COMPRESSOR, AIR, TRL MTD	156541	P185	SULLAIR CORP	JS-329	OUTSIDE	NA00517T			JCDC3	$8,927.00
3575	0719222	COMPRESSOR, AIR, TRL MTD	3119X129	Q185DP-E	LEROI DIV DRESSER IND F-WAYNE	326	LDY	NA00482T		20942	JCDC3	$9,556.00
0454	0075151	COMPRESSOR, AIR, TRL MTD	164559U87367	P250W-D	INGERSOLL-RAND CO	326A	LDY	NA00488T			JCDC6	$11,494.00
4865	0726897	COMPRESSOR, AIR, TRLMTD	21-293214	350-0	MACKENZIE LABORATORIES INC	JS-326A	LDY	NA00489T		21032	JCDC4	$4,672.00
2928	0681110	COMPRESSOR, AIR,TRL MTD	NONE	1669	WORTHINGTON COMPRESSORS INC	JS-326A	LDY	NA00536T		311220	JCDC6	$3,285.00
3543	1237016	COMPRESSOR, HORIZONTAL	104-110123	QUINCY QT6-30K12	COLT INDUSTRIES INC QUINCY	JS-417	HIBAY			310201	JBDC4	$2,258.00
1693	0715319	CONTAINER, SHIPPING, STORAGE	N1CB6657	DC110B	HUGHES AIRCRAFT CO	JS-221	OUTSIDE				JCDC7	$1,650.00
1692	0715318	CONTAINER, SHIPPING, STORAGE	Y6798	DC110B	HUGHES AIRCRAFT CO	JS-221	OUTSIDE				JCDC7	$1,650.00
1521	JSC3433	CONTROLLER, VOLTAGE	522386	2603	COLE-PARMER	JS-329	106				JCDC6	$200.00
3331	1297867	CONTROLLER, PROGRAMMABLE LOGIC	STOIT1HH	1785L11BC	BRADLEY TELCOM CORP	4S	10M2				JCDC7	$15,478.00
1712	PA2332	COOKER, TAR	L12219401334	5Z032C	REEVES	326A	LDY				JCDC3	$239.00

SECTION J
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BAR CODE NO	OLD PROP NO	NOUN	SERIAL NO	MODEL NO	MFG	BLDG	ROOM	LICENSE PLATE NO	CALIBRATION NO	MAINTENANCE ID	ACCOUNT NO	COST
3286	0076076	COOLING UNIT	5850199	20HFU	NIPPONDENSO CO	7	2007				JCDC4	$2,615.00
4928	NONE	CORDLESS DRILL	312A50603	0622-20	MILWAUKEE	321	110				JCDC1	$243.92
4918	NONE	CORDLESS DRILL	31A50551 1607	0612-20	MILWAUKEE	321	110				JCDC1	$162.31
4917	NONE	CORDLESS DRILL	311A50547 0367	0612-20	MILWAUKEE	321	110				JCDC1	$162.31
4916	NONE	CORDLESS DRILL	311A505511608	0612-20	MILWAUKEE	321	110				JCDC1	$162.31
4139	NONE	CORDLESS, DRILL	900165	DC988	DEWALT	321	110				JCDC1	$289.00
3132	PA6474	COUNTER, UNIVERSAL	5565	7026	SIMPSON	JS-329	106		M205181		JCDC6	$415.00
4509	0715336	COUNTER, UNIVERSAL, PLUG-IN	B165050	DC503	TEKTRONIX INC F-PENTRIX CORP	32	2202A		M172311		JCDC8	$1,050.00
3558	1926806	CRANE	5492053	5440	THERN INC	JS-417	HI BAY				JBDC4	$1,759.00
3085	1117400	CRANE, FLOOR, HYDRAULIC, 2000LB	91G82582	HP18R	RUGER EQUIP INC F-STRATTON EQ	418	LDY				JBDC7	$3,376.00
2116	0681316	CRANE, FLOOR, PORTABLE	64E5800	HP3A	RUGER EQUIP INC F-STRATTON EQ	JS-24	100			310981	JCDC4	$1,099.00
1715	0681284	CRANE, FLOOR, PORTABLE, 2000LB	NONE	1809	OWATONNA TOOL CO DBA OTC SPX	JS-342	100				JCDC6	$1,150.00
4035	NONE	CRANE, HYDRAULIC 2 TON	NONE	106200	JET EQUIP	JS-24	100				JCDC1	$351.00
4231	NONE	CRANE, MOBILE 1 TON	55040449969	3ZC72K	WESTWARD	JS-326D	OUTSIDE				JCDC1	$430.00
2419	PA7600	CRIMP HEAD, HYDRAULIC	NONE	13642M	THOMAS & BETTS	325	100				JCDC8	$100.00
3353	FD3003	CRIMPER	NONE	WT145A	THOMAS & BETTS	JS-321	110B		M46681		JCDC1	$100.00
2844	FD3002	CRIMPER	NONE	WT145A	THOMAS & BETTS	JS-321	110B		M46690		JCDC1	$100.00
2839	FD3004	CRIMPER	NONE	WT145A	THOMAS & BETTS	JS-321	110B		M46680		JCDC1	$100.00
2416	PA1861	CRIMPER	NONE	NONE	NATL TELEPONE	JS-325	183A				JCDC6	$100.00
0848	PA1922	CRIMPER	NONE	UNKNOWN	NONE	325	ESHOP				JCDC6	$100.00
0847	PA1969	CRIMPER	NONE	NONE	NATL TELEPONE	JS-325	183A				JCDC6	$100.00

BAR CODE NO	OLD FROR NO	NOUN	SERIAL NO	MODEL NO	MFG	BLDG	ROOM	LICENSE PLATE NO	CALIBRATION NO	MAINTENANCE ID	ACCOUNT NO	COST
2791	PA1093	CRIMPER, 24 GAUGE	NONE	101	HYDRO CRANE	JS-326B	LYD				JCDC3	$575.00
0596	PA1980	CRIMPER, MICROPRESS	NONE	UNKNOWN	UNKNOWN	329	SHOP				JCDC3	$200.00
1580	PA1612	CRIMPER, SHEET METAL	33512	581	PEXTO	JS-329	200				JCDC3	$519.00
2243	0039059	CRIMPING SYSTEM W/PUMP HYD	NONE	TBM12	THOMAS AND BETTS CORP	JS-321	110B				JCDC1	$1,210.00
2676	NONE	CRIMPING TOOL	NONE	ERG2001	THOMAS & BETTS	24	BAY				JCDC16	$129.00
2676	NONE	CRIMPING TOOL	NONE	ERG2001	THOMAS & BETTS	24	BAY				JCDC16	$129.00
0545	NONE	CRIMPING TOOL	NONE	ERG2001	THOMAS & BETTS	321	110B				JCDC1	$129.00
2979	JSC3636	CUTTER, BOLT, 4'	NONE	NONE	HKP	JS-321	110B				JCDC1	$100.00
3961	NONE	CUTTER, CABLE	NONE	019MTN	H K PORTER	329	108				JCDC3	$175.00
3351	NONE	CUTTER, CABLE	NONE	3590FS	H K PORTER	323	C110B				JCDC1	$144.00
2608	NONE	CUTTER, CABLE	NONE	764	GREENLEE	323	SHOP				JCDC1	$283.15
0426	NONE	CUTTER, CABLE	NONE	764M4	GREENLEE	323	SHOP				JCDC1	$283.15
2979	JSC3638	CUTTER, CABLE, RATCHET	NONE	NONE	GREENLEE	321	104				JCDC1	$100.00
0303	NONE	CUTTER, CABLE, RATCHET	NONE	45207	GREENLEE	321	110B				JCDC8	$315.00
0270	NONE	CUTTER, CABLE, RATCHET	NONE	UNKNOWN	RIDGID	321	104				JCDC1	$100.00
2977	JSC3639	CUTTER, CABLE, RATCHET, MEDIUM	NONE	764	GREENLEE	JS-231	UPSTAIRS				JCDC1	$100.00
3352	JSC3642	CUTTER, CABLE, RATCHET, SMALL	NONE	NONE	KLEIN TOOL	321	104				JCDC1	$100.00
2535	NONE	CUTTER, GASKET	NONE	100K37	ALLPAX	JS-24	100				JCDC4	$236.00
3196	1236625	CUTTER, HYDRAULIC, CABLE	102017	WHC2000	ENTERPAC	JS-321	202				JCDC1	$1,230.00
4078	NONE	CUTTER, PORTABLE, METAL	53806	2802B	STEEL MAX	325	100				JCDC1	$600.00
3926	1006026	CUTTER, ROOF	NONE	SERIES190400	REEVES ROOFING CO	326A	LDY				JCDC3	$1,700.00

BAR CODE NO	OLD PROP NO	DESCRIPTION	SERIAL NO	MODEL NO	MFG	BLDG	ROOM	LICENSE PLATE NO	CALIBRATION NO	MAINTENANCE ID	ACCOUNT NO	COST
3925	JSC5168	CUTTER, ROOF	NONE	NONE	REEVES	326B	CAGE				JCDC3	$875.00
1548	JSC4109	CUTTER, ROOF	5165	0601B	PEXTO	JS-321	100				JCDC3	$40.00
3924	PA1163	CUTTER, TILE	PC18188	1069	REEVES	326B	CAGE				JCDC3	$875.00
0608	NONE	CUTTER, TILE	NONE	H76	BENO J GUNDLACH CO	JS-321	110B				JCDC1	$215.05
2774	PA1681	CUTTER, TUBING	NONE	2501	KELLY	327	110				JCDC1	$100.00
1111	PA1682	CUTTER, TUBING	NONE	2501	KELLY	321	110B				JCDC1	$100.00
1390	0224735	CUTTING MACHINE PORTABLE	X85K-15954	CM79	UNION CARBIDE CORP LINDE DIV	323	LDY				JCDC1	$1,130.00
3206	PA2645	CYCLE-PAC	9317913	2090	THERMA FLO	JS-321	UPSTAIRS				JCDC4	$100.00
2777	BR0113	DATA COLLECTOR, VIDEO	723093	9005	UNKNOWN	327	100A				JCDC2	$15,000.00
1569	BR0112	DATA COLLECTOR, VIDEO	720656	9005	UNKNOWN	327	100A				JCDC2	$15,000.00
3199	PA6289	DECADE BOX	NONE	UNKNOWN	UNKNOWN	JS-231	UPSTAIRS				JCDC1	$100.00
2311	PA1225	DECADE BOX	482	DA743X	DIAL-AN-OHM	32	2202A		M173418		JCDC8	$100.00
2310	PA6007	DECADE BOX	NONE	UNKNOWN	NONE	32	2202A		M173417		JCDC6	$100.00
1864	PA5293	DECADE BOX, RESISTANCE	8084	1433W	GENERAL RESIS	JS-32	2202		M173458		JCDC8	$360.00
1862	PA5294	DECADE BOX, RESISTANCE	18067	1433W	GENERAL RESIS	JS-32	2202		M169575		JCDC8	$360.00
2082	PA1100	DEGREASER BIN	17201	PL50	PETERSON	329	SHED				JCDC6	$798.00
3180	NONE	DEHUMIDIFIER	212111888	DC75	OASIS	321	110B				JCDC1	$1,019.15
3164	JSC4812	DEHUMIDIFIER	JN21200271	WED50P1	WESTINGHOUSE	JS-321	UPSTAIRS				JCDC1	$100.00
3165	NONE	DEHUMIDIFIER, PORTABLE	130000260	11393GRU8	TRITON	321	110B				JCDC1	$1,195.00
1506	PA1597	DESOLDERING STATION, VAC KIT	NONE	V581	PLATO	JS-329	106				JCDC6	$593.00
1525	PA1070	DESOLDERING UNIT	NONE	4024	UNGAR	329	106				JCDC6	$486.00

BARCODE NO	OLD PROP NO	NOUN	SERIAL NO	MODEL NO	MFG	BLDG	ROOM	LICENSE PLATE NO	CALIBRATION NO	MAINTENANCE ID	ACCOUNT NO	COST
1592	PA1643	DETECTER, LEAK, HALOGEN	NONE	H10B	MARSH INSTRUMENTS	329	TRUCK				JCDC6	$229.00
4542	0842845	DETECTOR	2108	3768	UNKNOWN	JS-321	110B			842845	JCDC4	$1,300.00
4244	NONE	DETECTOR, GAS	G924535F05	4LP87	FIVESTAR	321	110				JCDC1	$2,203.00
1619	NONE	DETECTOR, GAS	100100179605	TIF8800A	TIF	JS-24	205				JCDC1	$278.00
1179	FD8001	DETECTOR, GAS	AK108030	501AK	C G TRACER	JS-321	110A				JCDC1	$250.00
1178	NONE	DETECTOR, GAS, COMBUSTIBLE	NONE	TIF800A	TIF	JS-321	110A				JCDC1	$239.00
4061	NONE	DETECTOR, GROUND CURRENT	11672	NONE	STB ELECTRICAL	JS-321	110B				JCDC1	$1,930.00
1685	0332951	DETECTOR, HEAT, INFRA RED	NONE	R2HR	RAYTEK INC DIV OF OPTICAL	221	LINE SHACK		M202212		JCDC7	$2,745.00
1607	PA2515	DETECTOR, LEAK	NONE	RLDH10G	J C	329	TRUCK				JCDC6	$1,960.00
1389	NONE	DETECTOR, LEAK	AH01H0006	H10PM	JOHNSON CONTROL	323	SHOP				JCDC1	$417 60
2510	JSC3133	DETECTOR, LEAK, HALOGEN	NONE	5650A	TIF INSTRUME	JS-321	110B				JCDC4	$100.00
1183	PA7604	DETECTOR, LEAK, HALOGEN	H10	UNKNOWN	GENERAL	JS-321	110A				JCDC1	$100.00
0505	JSC3134	DETECTOR, LEAK, HALOGEN	NONE	5650A	TIF IND	JS-321	110A		M168906		JCDC4	$100.00
4042	NONE	DETECTOR, LEAK, ELECTRONIC	NONE	L5780B	LEAK SEEKER	325	100				JCDC1	$210.00
4030	NONE	DETECTOR, LEAK, HALOGEN	NONE	TIFXL-1A	TIF	327	110				JCDC1	$170.00
4029	NONE	DETECTOR, LEAK, HALOGEN	NONE	TIFXL-1A	TIF	JS-24	105H				JCDC1	$170.00
1531	NONE	DETECTOR, LEAK, HALOGEN	217380020549	TIFRX1	TIF	JS-325	LOCKER				JCDC4	$267.00
3278	0726638	DETECTOR, LEAK, TEST	62G233	938-41	VARIAN ASSOC PALO ALTO VAC DIV	329	100			311148	JCDC6	$12,535.00
2887	JSC3646	DETECTOR, METAL	22337	M95	FISHER	JS-321	110B				JCDC1	$100.00
0237	JSC3645	DETECTOR, METAL	13035	FX3	FISHER	380	100				JCDC1	$100.00
3129	JSC3434	DETECTOR, STANDARD LEAK, HELIUM	144GO	25643	BELL & HOWELL	JS-329	106				JCDC6	$200.00

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0477	JSC3198	DIAL INDICATOR, 9 PC	NONE	645	STARRETT	24	UPSTAIRS				JCDC4	$100.00
1974	PA1165	DIAPHRAGM PUMP	242214	FD4	CONSTR MACH	JS-326A	100				JCDC6	$100.00
2883	JSC3664	DIE SET, KNOCKOUT	NONE	735	GREENLEE	321	104				JCDC1	$100.00
2850	JSC3666	DIE SET, KNOCKOUT, PNEUMATIC	NONE	767	GREENLEE	JS-321	110A				JCDC1	$100.00
1698	1446942	DIGIPHONE	960104	T16/9	HDW ELECTRONICS INC	JS-221A	100				JCDC7	$3,100.00
1857	1744153	DIRT TAMPER	679207981	VPA1750	WACKER CORP	323	LDY				JCDC1	$1,530.00
3478	1237074	DISPLAY UNIT	317126	KV8AD11	SONY CORP	327	110				JCDC2	$695.00
3474	0081005	DISPLAY UNIT	93M04614S	JC1404HMA	NEC TECHNOLOGIES	32	2202A				JCDC8	$528.00
3283	1299130	DOCK, MOBIL W/TOW BAR	3-93-6264	ME167030	MAGLINER	JS-358	LDY			1299130	JALN1	$6,820.00
1577	JSC5158	DOLLY, 2-WHEEL	NONE	NONE	UNKNOWN	JS-329	110				JCDC6	$100.00
0900	JSC4652	DOLLY, 2-WHEEL	NONE	NONE	DAYTON	325	PSHOP				JCDC4	$100.00
2550	JSC3200	DOLLY, BARREL	NONE	NONE	WESCO	JS-24	100				JCDC4	$100.00
2107	JSC3197	DOLLY, BARREL	NONE	NONE	WESCO	JS-24	100				JCDC4	$100.00
3067	JSC4831	DOLLY, CART, EQUIPMENT	NONE	NONE	UNKNOWN	420	112				JBDC7	$100.00
3027	JSC4615	DOLLY, CART, EQUIPMENT	NONE	NONE	UNKNOWN	JS-420	112A				JBDC7	$100.00
3026	JSC4617	DOLLY, CART, EQUIPMENT	NONE	NONE	UNKNOWN	JS-420	112A				JBDC7	$100.00
3025	JSC4616	DOLLY, CART, EQUIPMENT	NONE	NONE	UNKNOWN	420	112				JBDC7	$100.00
3024	JSC4867	DOLLY, CART, EQUIPMENT	NONE	NONE	UNKNOWN	JS-420	112A				JBDC7	$100.00
3022	JSC4872	DOLLY, CART, EQUIPMENT	NONE	NONE	UNKNOWN	JS-420	112A				JBDC7	$100.00
3021	JSC4870	DOLLY, CART, EQUIPMENT	NONE	NONE	UNKNOWN	JS-420	112A				JBDC7	$100.00
3009	JSC4614	DOLLY, CART, EQUIPMENT	NONE	NONE	UNKNOWN	420	112				JBDC7	$100.00

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BAR CODE NO	OLD PROP NO	[illegible]	SERIAL NO	MODEL NO	[illegible]	BLDG	ROOM	LICENSE PLATE NO	CALIBRATION NO	MAINTENANCE ID	ACCOUNT NO	COST
3002	JSC4606	DOLLY, CART, EQUIPMENT	NONE	NONE	UNKNOWN	420	114				JBDC7	$100.00
2706	JSC4605	DOLLY, CART, EQUIPMENT	NONE	NONE	UNKNOWN	420	112				JBDC7	$100.00
2705	JSC4873	DOLLY, CART, EQUIPMENT	NONE	NONE	UNKNOWN	JS-420	112A				JBDC7	$100.00
2704	JSC4618	DOLLY, CART, EQUIPMENT	NONE	NONE	UNKNOWN	420	112				JBDC7	$100.00
2786	JSC3461	DOLLY, CYLINDER	NONE	NONE	UNKNOWN	JS-329	110				JCDC6	$115.00
2115	JSC3199	DOLLY, CYLINDER	NONE	NONE	ANTHONY	JS-24	200				JCDC4	$100.00
2113	JSC4668	DOLLY, CYLINDER	NONE	NONE	ANTHONY	JS-24	200				JCDC4	$100.00
2103	JSC3182	DOLLY, CYLINDER	NONE	NONE	HARPER	24	100				JCDC4	$100.00
1584	PA2038	DOLLY, CYLINDER	NONE	400	GERRARD & CO	JS-329	200				JCDC3	$74.00
1416	JSC3713	DOLLY, CYLINDER	NONE	NONE	UNKNOWN	JS-328	HIBAY				JCDC1	$100.00
0688	JSC3024	DOLLY, CYLINDER	NONE	NONE	HUSKY	JS-48	100				JCDC4	$100.00
3346	JSC3405	DOLLY, DRUM	NONE	NONE	UNKNOWN	326B	GEN SHOP				JCDC6	$130.00
2369	JSC3020	DOLLY, DRUM	JV14200	240003	WESCO	JS-358	CONEX				JALN1	$130.00
1730	JSC3180	DOLLY, DRUM	NONE	NONE	WESCO	JS-28	FLOOR				JCDC4	$100.00
1704	JSC5554	DOLLY, DRUM	NONE	NONE	WESCO	JS-28	FLOOR				JCDC4	$100.00
1700	JSC3168	DOLLY, DRUM	NONE	NONE	WESCO	JS-28	FLOOR				JCDC4	$100.00
0683	JSC3023	DOLLY, DRUM	NONE	NONE	WESCO	JS-48	100				JCDC4	$100.00
3003	JSC3333	DOLLY, FURNITURE	NONE	NONE	STEVENS APP	JS-420	112A				JBDC3	$150.00
2098	JSC3004	DOLLY, LARGE, 2-WHEEL	NONE	NONE	UNKNOWN	JS-358	CONX				JALN1	$100.00
4271	NONE	DOLLY, WIRE WHEEL	NONE	911	GREENLEE	JS-325	102				JCDC1	$257.00
4457	NONE	DRAIN CLEANER	496Q502130165	6571	MILWAUKEE	321	110B				JCDC4	$325.00

BAR CODE NO	OLD PROP NO	EQUIPMENT NOUN	SERIAL NO	MODEL NO	MANUFACTURER	BLDG	ROOM	LICENSE PLATE NO	CALIBRATION NO	MAINTENANCE ID	ACCOUNT NO	COST
1131	NONE	DRAIN CLEANER	496C502130143	6571	MILWAUKEE	JS-321	110B				JCDC1	$325.00
4117	NONE	DRAIN GUN KIT, PORTABLE	20350	K39	RIDGID	JS-321	110B				JCDC1	$277.00
4333	NONE	DRILL	905321	DW246	DEWALT	420	101C				JCDC6	$138.00
4087	NONE	DRILL	NONE	DW246	DEWALT	JS-321	110				JCDC1	$171.00
3946	JSC5454	DRILL	NONE	UNKNOWN	UNKNOWN	JS-321	4296				JCDC1	$135.00
3707	NONE	DRILL	532B599503236	2341	MILWAUKEE	JS-321	4296				JCDC1	$0.00
2899	NONE	DRILL	00045329	TE6S	HILTI	321	TOOL RM				JCDC1	$476.41
2437	NONE	DRILL	00423457	DX350	HILTI	323	SHOP				JCDC1	$472.50
1622	PA1391	DRILL	689284114	NONE	MILWAUKEE	321	SMSHOP				JCDC3	$150.00
1063	PA2091	DRILL	NONE	TE74	HILTI	JS-321	110A				JCDC6	$897.00
2804	JSC4260	DRILL PRESS	1329804	17600	DELTA	JS-329	108			011580	JCDC3	$363.00
2735	PA1106	DRILL PRESS	12383	27958	WILTON	JS-326D	OUTSIDE				JCDC6	$695.00
2434	PA6021	DRILL PRESS	1407142	17600	DELTA	JS-321	120				JCDC3	$360.00
1496	JSC3435	DRILL PRESS	NONE	210	DREMEL	329	104				JCDC6	$350.00
0301	NONE	DRILL PRESS	908A90302	412022	MILWAUKEE	JS-0301	183A				JCDC8	$1,951.21
1181	0840082	DRILL PRESS MAGNETIC BASE	87220006	1556	BLACK AND DECKER /US/ INC	321	110B			22364	JCDC3	$1,280.00
2283	PA1714	DRILL PRESS, 1/4"	NONE	5Z146A	DAYTON	JS-32	2202				JCDC8	$100.00
1495	PA6034	DRILL PRESS, 1/4"	NONE	NONE	HAMMER CO	329	106				JCDC6	$425.00
1615	JSC3463	DRILL PRESS, MAGNETIC	JC11535	L2RP	UNKNOWN	JS-321	110A				JCDC6	$350.00
2482	PA1091	DRILL PRESS, RADIAL	1325539	15120	ROCKWELL	JS-329	110			011561	JCDC6	$929.00
2109	JSC3140	DRILL PRESS, TABLE	NONE	NONE	DELTA	JS-342	CAGE				JCDC4	$100.00

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BAR CODE NO.	OLD PROP NO	[illegible]	SERIAL NO	MODEL NO	MFG	BLDG	ROOM	LICENSE PLATE NO	CALIBRATION NO	MAINTENANCE ID	ACCOUNT NO	COST
3244	FD128	DRILL, 1/2"	491121399	11011	MILWAUKEE	JS-321	110A				JCDC1	$100.00
2613	FD143	DRILL, 1/2"	723B494340114	02381	MILWAUKEE	321	102B				JCDC1	$100.00
2536	JSC3183	DRILL, 1/2"	42890	768	ROCKWELL	JS-24	100				JCDC4	$100.00
2268	FD137	DRILL, 1/2"	75613874	2391	MILWAUKEE	321	CAGE				JCDC1	$100.00
2264	FD119	DRILL, 1/2"	49116106	11011	MILWAUKEE	321	CAGE				JCDC1	$100.00
22013158	FD145	DRILL, 1/2"	723B494340095	02381	MILWAUKEE	JS-321	110A				JCDC1	$100.00
1533	PA1805	DRILL, 1/2"	DJ465874	6650	SKIL	325	LOCKER 12				JCDC4	$100.00
0740	PA1810	DRILL, 1/2"	DJ465816	6650	SKIL	329	110				JCDC6	$78.00
0648	FD136	DRILL, 1/2"	75613873	2391	MILWAUKEE	321	CAGE				JCDC1	$100.00
0431	FD140	DRILL, 1/2"	756B494200152	2391	MILWAUKEE	328	TRUCK				JCDC1	$100.00
2238	FD351	DRILL, 3/4"	31796	18541	MILWAUKEE	321	110B				JCDC1	$100.00
3709	FD160	DRILL, 3/8"	689A494260370	02281	MILWAUKEE	JS-321	110A				JCDC1	$100.00
3704	FD129	DRILL, 3/8"	689297142	2281	MILWAUKEE	JS-321	110A				JCDC1	$100.00
3696	FD158	DRILL, 3/8"	689A494260381	02281	MILWAUKEE	JS-321	105				JCDC1	$100.00
3241	FD108	DRILL, 3/8"	4301107351	02221	MILWAUKEE	JS-321	11				JCDC1	$225.00
2829	FD149	DRILL, 3/8"	4301122108	2221	MILWAUKEE	JS-321	110A				JCDC1	$100.00
2540	PA1265	DRILL, 3/8"	4739	1317	BLACK & DECKER	JS-24	100				JCDC4	$100.00
2267	FD146	DRILL, 3/8"	NONE	2221	MILWAUKEE	321	CAGE				JCDC1	$100.00
2266	FD105	DRILL, 3/8"	NONE	NONE	MILWAUKEE	321	CAGE				JCDC1	$100.00
2205	FD106	DRILL, 3/8"	NONE	621HD	PORTER CABLE	JS-321	110A				JCDC1	$210.00

BAR CODE NO	OLD PROP NO	[illegible]	SERIAL NO	MODEL NO	[illegible]	BLDG	ROOM	DRIVER'S LICENSE PLATE NO	CALIBRATION NO	MAINTENANCE ID	ACCOUNT NO	COST
2204	FD148	DRILL, 3/8"	68941603	2281	MILWAUKEE	JS-321	110A				JCDC1	$100.00
2203	FD111	DRILL, 3/8"	10699	NONE	BLACK & DECKER	JS-321	110A				JCDC1	$100.00
2196	FD131	DRILL, 3/8"	NONE	2221	MILWAUKEE	JS-321	110A				JCDC1	$100.00
2194	FD154	DRILL, 3/8"	689A94260423	02281	MILWAUKEE	JS-321	110A				JCDC1	$100.00
2193	FD132	DRILL, 3/8"	105602	621HD	PORTER CABLE	JS-321	110A				JCDC1	$100.00
2192	FD110	DRILL, 3/8"	4301119107	2221	MILWAUKEE	321	110B				JCDC1	$100.00
1440	FD114	DRILL, 3/8"	4301122068	2221	MILWAUKEE	321	104				JCDC1	$100.00
0778	FD113	DRILL, 3/8"	NONE	NONE	PORTER CABLE	321	110B				JCDC1	$100.00
2541	FD332	DRILL, 3/8" DRIVE	NONE	7190	BLACK & DECKER	JS-24	100				JCDC4	$100.00
0869	PA2226	DRILL, 3/8" DRIVE	DK054505	6635	SKIL	48	KNAACKBOX				JCDC4	$100.00
0929	PA2113	DRILL, 3/8", 12-VOLT	784B494332992	03981	MILWAUKEE	JS-24	105H				JCDC4	$100.00
1124	NONE	DRILL, ANGLE	88333	DW160	DEWALT	JS-321	4296				JCDC1	$148.00
1126	PA2232	DRILL, ANGLE, 1 /4"	493A394490248	11011	MILWAUKEE	JS-321	4296				JCDC3	$243.00
2186	FD331	DRILL, ANGLE, 1/2"	491256404	10011	MILWAUKEE	JS-0627	1465				JCDC1	$100.00
2185	FD333	DRILL, ANGLE, 1/2"	36150	135009	BLACK & DECKER	321	100				JCDC1	$100.00
1113	JSC4210	DRILL, ANGLE, 1/2"	NONE	NONE	ARDTROL ELEC	421	103				JCDC1	$225.00
2210	FD147	DRILL, ANGLE, 3/8"	582A496400680	DA3000R	MAKITA	JS-321	110A				JCDC1	$100.00
3168	1353393	DRILL, BREAKER, GAS	460858	PIONJAR120	BERMA	JS-325	102				JCDC1	$4,725.00
4517	NONE	DRILL, CORDLESS	179844	DW983	DEWALT	JS-321	TRUCK				JCDC4	$214.00
4514	NONE	DRILL, CORDLESS	NONE	DW983	DEWALT	JS-321	TRUCK				JCDC4	$259.86
4479	NONE	DRILL, CORDLESS	82506	DW983	DEWALT	JS-321	TRUCK				JCDC4	$214.00

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4442	NONE	DRILL, CORDLESS	2100205601	DW987	DEWALT	321	110B				JCDC3	$245.00
4321	NONE	DRILL, CORDLESS	NONE	262	DEWALT	321	110				JCDC1	$262.00
4320	NONE	DRILL, CORDLESS	NONE	262	DEWALT	JS-321	TRUCK				JCDC1	$262.00
4307	NONE	DRILL, CORDLESS	132129	DX460	HILTI	321	110				JCDC1	$767.00
4305	NONE	DRILL, CORDLESS	773173	DC759	DEWALT	JS-417	104				JCDC4	$199.92
4200	NONE	DRILL, CORDLESS	828669	DC759KA	DEWALT	JS-321	TRUCK				JCDC1	$190.00
4199	NONE	DRILL, CORDLESS	828632	DC759KA	DEWALT	JS-321	100				JCDC1	$190.00
4112	NONE	DRILL, CORDLESS	326971	DC988	DEWALT	JS-321	100				JCDC3	$292.00
4111	NONE	DRILL, CORDLESS	327766	DC988	DEWALT	323	100				JCDC3	$292.00
4110	NONE	DRILL, CORDLESS	327777	DC988	DEWALT	JS-321	TRUCK				JCDC3	$292.00
4109	NONE	DRILL, CORDLESS	327728	DC988	DEWALT	JS-321	4296				JCDC3	$292.00
4108	NONE	DRILL, CORDLESS	327784	DC988	DEWALT	323	100				JCDC3	$292.00
4107	NONE	DRILL, CORDLESS	327767	DC988	DEWALT	JS-323	100				JCDC3	$292.00
4106	NONE	DRILL, CORDLESS	327768	DC988	DEWALT	JS-920L	HIBAY				JCDC3	$292.00
4105	NONE	DRILL, CORDLESS	327004	DC988	DEWALT	JS-32	045				JCDC3	$292.00
4104	NONE	DRILL, CORDLESS	326995	DC988	DEWALT	JS-920L	HIBAY				JCDC3	$292.00
4098	NONE	DRILL, CORDLESS	706478	DC987	DEWALT	JS-321	DL44				JCDC1	$265.60
4091	NONE	DRILL, CORDLESS	NONE	DW983K-2	DEWALT	325	100				JCDC1	$199.00
4076	NONE	DRILL, CORDLESS	NONE	DW987K-2	DEWALT	24	UPSTAIRS				JCDC1	$280.00
4075	NONE	DRILL, CORDLESS	NONE	DW983K-2	DEWALT	325	100				JCDC1	$260.00
4074	NONE	DRILL, CORDLESS	NONE	DW983K-2	DEWALT	325	100				JCDC1	$260.00

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BARCODE NO	OLD PROP NO	[illegible]	SERIAL NO	MODEL NO	MFG	BLDG	ROOM	LICENSE/ PLATE NO	CALIBRATION DUE	MAINTENANCE ID	ACCOUNT NO	COST
4054	NONE	DRILL, CORDLESS	NONE	DW983	DEWALT	325	100				JCDC1	$205.00
4053	NONE	DRILL, CORDLESS	NONE	DW987	DEWALT	325	100				JCDC1	$281.00
3947	NONE	DRILL, CORDLESS	210305	DW987	DEWALT	321	110B				JCDC3	$260.00
2754	NONE	DRILL, CORDLESS	202379	DW983	DEWALT	321	110B				JCDC4	$214.00
2497	BR3009	DRILL, CORDLESS	NONE	NONE	DEWALT	24	DOWNSTA IRS				JCDC4	$100.00
2254	NONE	DRILL, CORDLESS	NONE	DX460	HILTI	321	110B				JCDC1	$519.75
2215	NONE	DRILL, CORDLESS	NONE	DX460	HILTI	323	SHOP				JCDC1	$519.75
1824	NONE	DRILL, CORDLESS	2100205619	DW987	DEWALT	321	110B				JCDC6	$245.00
1824	NONE	DRILL, CORDLESS	210332	DW987	DEWALT	321	110B				JCDC6	$260.00
1409	NONE	DRILL, CORDLESS	94499	DW989	DEWALT	328	TRUCK				JCDC1	$293.00
1120	NONE	DRILL, CORDLESS	210331	DW987	DEWALT	421	103				JCDC1	$260.00
1066	NONE	DRILL, CORDLESS	973120	DW983	DEWALT						JCDC1	$229.00
0942	NONE	DRILL, CORDLESS	2100205600	DW987	DEWALT	321	110B				JCDC3	$245.00
0931	NONE	DRILL, CORDLESS	202394	DW983	DEWALT	321	110B				JCDC4	$214.00
0781	NONE	DRILL, CORDLESS	202368	DW983	DEWALT	JS-329	108				JCDC4	$214.00
0549	NONE	DRILL, CORDLESS	952A50120410	52220	MILWAUKEE	321	110B				JCDC6	$252.00
0430	NONE	DRILL, CORDLESS	NONE	DX460	HILTI	323	SHOP				JCDC1	$519.75
2964	NONE	DRILL, CORDLESS, 18 VOLT	NONE	DW987K-2	DEWALT	323	100				JCDC1	$268.00
2442	NONE	DRILL, CORDLESS, 18 VOLT	985-386	DW987	DEWALT	JS-321	120				JCDC1	$270.50
1394	NONE	DRILL, CORDLESS, 18 VOLT	985-360	DW987	DEWALT	323	C110B				JCDC1	$270.50
2223	NONE	DRILL, CORDLESS, 1/2"	79211	DW239	DEWALT						JCDC1	$189.00

BARCODE NO	OLD PROPERTY NO	DESCRIPTION	SERIAL NO	MODEL NO	MANUFACTURER	BLDG	ROOM	LICENSE PLATE NO	CALIBRATION NO	MAINTENANCE CARD ID	ACCOUNT NO	COST
1498	PA2688	DRILL, CORDLESS, 1/2"	39932	DW991	DEWALT	JS-329	106				JCDC6	$129.00
3697	NONE	DRILL, CORDLESS, 18V	NONE	DW987	DEWALT						JCDC1	$278.34
3236	NONE	DRILL, CORDLESS, 18V	NONE	DW987	DEWALT	321	TRUCK				JCDC1	$278.34
1442	NONE	DRILL, CORDLESS, 18V	NONE	DW987	DEWALT						JCDC1	$278.34
0269	NONE	DRILL, CORDLESS, 18V	NONE	DW987	DEWALT						JCDC1	$278.34
2975	NONE	DRILL, CORDLESS, 19 VOLT	NONE	DW987K-3	DEWALT	323	100				JCDC1	$268.00
2974	NONE	DRILL, CORDLESS, 20 VOLT	NONE	DW987K-4	DEWALT	323	100				JCDC1	$268.00
1434	NONE	DRILL, CORDLESS, 20 VOLT	NONE	DW987K-5	DEWALT	323	100				JCDC1	$268.00
3886	PA1846	DRILL, CORDLESS, 3/8"	DJ659371	2735	SKIL	JS-321	4296				JCDC6	$142.00
1088	BR20041	DRILL, CORDLESS, 3/8"	302314	MDW954	DEWALT	321	110B				JCDC1	$100.00
0528	BRSP20043	DRILL, CORDLESS, 3/8"	302309	DW954	DEWALT	JS-321	DL44				JCDC1	$100.00
0982	PA2451	DRILL, CORDLESS, VSR, 3/8"	92933	DW991	DEWALT	JS-321	110				JCDC2	$208.00
2892	FD002	DRILL, CORE	NONE	4130	MILWAUKEE	JS-321	110				JCDC1	$968.00
2889	FD001	DRILL, CORE	344	DD250E	HILTI	JS-325	102				JCDC1	$968.00
3721	NONE	DRILL, DRIVER	18084	DW929	DEWALT	323	SHOP				JCDC1	$205.90
3379	NONE	DRILL, DRIVER	18085	DW929	DEWALT	323	SHOP				JCDC1	$205.90
3231	NONE	DRILL, DRIVER	18086	DW929	DEWALT	323	SHOP				JCDC1	$205.90
2261	NONE	DRILL, DRIVER	18087	DW929	DEWALT	321	100				JCDC1	$205.90
1122	NONE	DRILL, DRIVER, 1/2"	952A501520420	52220	MILWAUKEE	421	103				JCDC1	$252.00
2901	1353384	DRILL, ELECTRIC	500062279	TE74	HILTI INC	328	100				JCDC1	$1,240.00
1947	1345797	DRILL, ELECTRIC	500094691	TE74	HILTI INC	JS-321	4296			310305	JCDC3	$1,650.00

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BARCODE NO	OLD PROP NO	DESCRIPTION	SERIAL NO	MODEL NO	MFG	BUILDING	ROOM	LICENSE PLATE NO	CALIBRATION	MAINTENANCE ID	ACCOUNT NO	COST
3334	JSC4323	DRILL, ELECTRIC, 1/2"	24729	2672	BLACK & DECKER	417	102				JBDC4	$225.00
0542	NONE	DRILL, ELECTRIC, 1/2"	978A502190083	23520	MILWAUKEE	321	110B				JCDC1	$148.00
3565	PA7077	DRILL, ELECTRIC, 3/8"	NONE	NONE	BLACK & DECKER	417	LYD				JBDC4	$100.00
0785	PA5182	DRILL, ELECTRIC, 3/8"	35781	756	RYOBI	JS-321	110A				JCDC3	$100.00
5353	NONE	DRILL, HAMMER	587216	180	DEWALT	321	110				JCDC1	$262.00
4361	NONE	DRILL, HAMMER	565397	DC988	DEWALT	321	110				JCDC1	$263.00
4360	NONE	DRILL, HAMMER	587109	DC988	DEWALT	321	110				JCDC1	$263.00
4356	NONE	DRILL, HAMMER	587202	DC988	DEWALT	321	110				JCDC1	$263.00
4355	NONE	DRILL, HAMMER	587238	DC988	DEWALT	321	110				JCDC1	$263.00
4354	NONE	DRILL, HAMMER	587095	DC988	DEWALT	321	110				JCDC1	$263.00
4079	NONE	DRILL, HAMMER	330339	TE76-ATC	HILTI	JS-CONEX YD	CONEX3				JCDC1	$1,414.00
2969	NONE	DRILL, HAMMER	0600242091	TE15C	HILTI	323	SHOP				JCDC1	$914.60
2438	NONE	DRILL, HAMMER	06000231368	TE15C	HILTI	323	SHOP				JCDC1	$584.80
2260	NONE	DRILL, HAMMER	142719	DW989	DEWALT	323	SHOP				JCDC1	$293.00
2259	NONE	DRILL, HAMMER	142605	DW989	DEWALT	323	SHOP				JCDC1	$293.00
2159	NONE	DRILL, HAMMER	142720	DW989	DEWALT	323	C110B				JCDC1	$293.00
2151	NONE	DRILL, HAMMER	95198	DW989	DEWALT	323	SHOP				JCDC1	$292.00
1428	NONE	DRILL, HAMMER	95195	DW989	DEWALT	36	TRUCK				JCDC1	$292.00
1410	NONE	DRILL, HAMMER	95206	DW989	DEWALT	328	CONEX				JCDC1	$292.00
0669	NONE	DRILL, HAMMER	NONE	TE15C	HILTI	321	110B				JCDC8	$584.80
0618	NONE	DRILL, HAMMER	06000231364	TE15C	HILTI	323	SHOP				JCDC1	$584.80

BAR CODE NO	OLD PROP NO	DESCRIPTION	SERIAL NO	MODEL NO	MFG	BLDG	ROOM	LICENSE PLATE NO	CALIBRATION NO	MAINTENANCE ID	ACCOUNT NO	COST
0429	NONE	DRILL, HAMMER	142718	DW989	DEWALT	328	920				JCDC1	$293.00
2999	FD340	DRILL, MAGNETIC, W/BASE	505420520	4297-1	MILWAUKEE	JS-321	110A				JCDC1	$100.00
2212	FD342	DRILL, MAGNETIC, W/BASE	60527427	4297-1	MILWAUKEE	321	104				JCDC1	$100.00
2539	PA1010	DRILL, PNEUMATIC, TUBE EXPANDER	2434	1000	AIRETOOL	JS-24	100				JCDC4	$100.00
1536	NONE	DRILL, REVERSING	1520	DW140	DEWALT	JS-325	100				JCDC1	$233.00
2468	PA2398	DRILL, RIGHT ANGLE, 1/2"	5321616253	2341	MILWAUKEE	327	100A				JCDC2	$150.00
0994	PA2396	DRILL, RIGHT ANGLE, 1/2"	5321616239	2341	MILWAUKEE	327	110				JCDC2	$150.00
0930	PA2399	DRILL, RIGHT ANGLE, 1/2"	5321616232	2341	MILWAUKEE	24	105H				JCDC4	$100.00
1402	0563432	DRILL, ROUND COLUMN HD	19932	MDP14	LEBLOND MAKINO MACHINE TOOL CO	JS-328	HIBAY				JCDC1	$2,998.00
1554	NONE	DRILL/DRIVE KIT, 18V	968562	DW987	DEWALT						JCDC3	$265.09
0700	NONE	DRILL/DRIVER, CORDLESS	381881	DW987	DEWALT	321	110B				JCDC4	$269.00
2948	NONE	DRILL/HAMMER, CORDLESS	476972	DW987K-2	DEWALT	323	C110B				JCDC1	$258.00
2157	NONE	DRILL/HAMMER, CORDLESS	130235	DW987K-4	DEWALT	323	C110B				JCDC1	$294.00
1427	NONE	DRILL/HAMMER, CORDLESS	147424	DW987K-2	DEWALT	323	C110B				JCDC1	$294.00
1426	NONE	DRILL/HAMMER, CORDLESS	171349	DW987K-5	DEWALT	323	C110B				JCDC1	$294.00
0422	NONE	DRILL/HAMMER, CORDLESS	1417420	DW987K-3	DEWALT	323	C110B				JCDC1	$294.00
1934	1002733	DRILLING MACHINE, UPRIGHT	9266605986	3B	CINCINNATI MILACRON F-CINCINN-	JS-329	110			25440	JCDC6	$5,900.00
1354	JSC3678	DRIVER SET, KNOCKOUT	NONE	7306	GREENLEE	JS-323H	CONX				JCDC1	$100.00
2361	JSC3209	DRUM GRAB	13600	NONE	WESCO	JS-358	LDY				JBDC5	$426.00
3559	NONE	DRUM LIFT	NONE	SLD85	WESCO	JS-417	104				JBDC4	$125.00
4502	PA1942	DRUM, CABLE	NONE	100	SPARTAN	JS-325	LDY				JCDC4	$100.00

BAR CODE NO	OLD PROP NO	[illegible]	[illegible]	MODEL NO	[illegible]	BLDG	ROOM	LICENSE PLATE NO	CALIBRATION NO	MAINTENANCE ID	ACCOUNT NO	COST
2506	PA1941	DRUM, CABLE	NONE	100	SPARTAN	325	PLUMBSHOP				JCDC3	$100.00
2505	JSC4639	DRUM, CABLE	NONE	100	SPARTAN	JS-325	LDY				JCDC3	$100.00
0941	1996140	DRYER, COMPRESSED AIR	NPR100A11500 02010	PR100-115	HANKISON CORP	JS-329	OUTSIDE				JCDC4	$1,182.00
1188	PA1202	DYNAMOMETER	AP19740	TYPE 10	DILLON & CO	321	110B		M173999		JCDC4	$100.00
3294	NONE	EASY LASER	NONE	12-0212	DAMALINI AB	JS-325	LOCKER				JCDC2	$535.50
0701	NONE	EASY LASER	NONE	12-0213	DAMALINI AB	327	110				JCDC2	$535.50
3494	PA2400	EDGER, SHEET METAL	5321616237	CGJF	MILWAUKEE	JS-3519	101				JBDC4	$150.00
0363	JSC3087	END STANDARD, 10"	NONE	NONE	STARRETT	JS-329	110		M172560		JCDC6	$15.00
0364	JSC3088	END STANDARD, 11"	NONE	NONE	STARRETT	JS-329	110		M172561		JCDC6	$18.00
0365	JSC3089	END STANDARD, 12"	NONE	NONE	STARRETT	JS-329	110		M172562		JCDC6	$18.00
0359	JSC3094	END STANDARD, 14"	NONE	NONE	STARRETT	JS-329	110		M172563		JCDC6	$20.00
0366	JSC3090	END STANDARD, 15"	NONE	NONE	STARRETT	JS-329	110		M172564		JCDC6	$20.00
0367	JSC3091	END STANDARD, 16"	NONE	NONE	STARRETT	JS-329	110		M172565		JCDC6	$25.00
0368	JSC3092	END STANDARD, 17"	NONE	NONE	STARRETT	JS-329	110		M172566		JCDC6	$25.00
0369	JSC3093	END STANDARD, 18"	NONE	NONE	STARRETT	JS-329	110		M172567		JCDC6	$30.00
0358	JSC3095	END STANDARD, 19"	NONE	NONE	STARRETT	JS-329	110		M172568		JCDC6	$30.00
0353	JSC3081	END STANDARD, 2"	NONE	NONE	STARRETT	JS-329	110		M172554		JCDC6	$5.00
0357	JSC3096	END STANDARD, 20"	NONE	NONE	STARRETT	JS-329	110		M172569		JCDC6	$35.00
0356	JSC3097	END STANDARD, 21"	NONE	NONE	STARRETT	JS-329	110		M172570		JCDC6	$35.00
0355	JSC3098	END STANDARD, 22"	NONE	NONE	STARRETT	JS-329	110		M172571		JCDC6	$40.00
0354	JSC3099	END STANDARD, 23"	NONE	NONE	STARRETT	JS-329	110		M172572		JCDC6	$40.00

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BAR CODE NO	OLD PROP NO	ITEM DESCRIPTION	SERIAL NO	MODEL NO	MANUFACTURER	BUILDING	ROOM	LICENSE PLATE NO	CALIBRATION NO	MAINTENANCE ID	ACCOUNT NO	COST
0352	JSC3082	END STANDARD, 5"	NONE	NONE	STARRETT	JS-329	110		M172555		JCDC6	$10.00
0351	JSC3083	END STANDARD, 6"	NONE	NONE	STARRETT	JS-329	110		M172556		JCDC6	$10.00
0360	JSC3084	END STANDARD, 7"	NONE	NONE	STARRETT	JS-329	110		M172557		JCDC6	$12.00
0361	JSC3085	END STANDARD, 8"	NONE	NONE	STARRETT	JS-329	110		M172558		JCDC6	$12.00
0362	JSC3086	END STANDARD, 9"	NONE	NONE	STARRETT	JS-329	110		M172559		JCDC6	$15.00
3198	0673802	ENGRAVING MACHINE PANTOGRAPH	8048576	IRX-KIV	NEW HERMES INC MACHINE DIV	325	PSHOP				JCDC3	$1,361.00
2305	PA7059	ERASER, EPROM	60328	PE24T	SPECTROLINE	JS-32	2202A				JCDC8	$100.00
2294	JSC3331	ERASER, EPROM	5471	BUV3A	BYTEK	JS-32	2202AB				JCDC8	$100.00
1129	NONE	EXTRACTOR SET, SCREW & PIPE, RIDGIT #25	NONE	25	GROVES	JS-321	110B				JCDC1	$323.00
3554	NONE	EXTRACTOR, SCREW SET	NONE	NONE	NONE	JS-417	HIBAY				JBDC4	$100.00
2740	JSC3383	EYE WASH STATION	NONE	NONE	UNKNOWN	325	ESHOP				JCDC8	$100.00
2801	JSC4264	EYE WASH STATION, PORTABLE	NONE	NONE	FEND ALL CO	JS-329	100				JCDC3	$47.00
2073	PA2618	EYEWASH STATION, PORTABLE 10 GAL	NONE	CHALLENGE R VI	ENCON	JS-CONEX YD	CONEX16				JALN1	$500.00
1557	NONE	FACSIMILE MACHINE	U60073E2J342 115	MFC9700	BROTHER	JS-327	106				JCDC13	$669.00
2787	BR0197	FAN	NONE	UNKNOWN	UNKNOWN	JS-329	110				JCDC3	$300.00
2495	NONE	FAN	NONE	UNKNOWN	UNKNOWN	329	MACHINE SHOP				JCDC3	$300.00
2124	PA2659	FAN	NONE	UNKNOWN	DAYTON	JS-24	100				JCDC1	$300.00
0972	NONE	FAN, 24"	NONE	ACU24P	TPI CORP	321	110B				JCDC1	$258.40
0833	JSC4111	FAN, 30"	69	LISLE	PECK & STOW	JS-321	120				JCDC3	$350.00
0766	JSC4277	FAN, 30"	NONE	NONE	FASCO	JS-329	100				JCDC3	$108.00
2800	BR0581	FAN, 36"	C98	TPC4213	UNKNOWN	329	MACHINE SHOP				JCDC1	$300.00

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BAR CODE NO.	OLD PROP NO	[illegible]	SERIAL NO	MODEL NO	[illegible]	[illegible]	ROOM	LICENSE PLATE NO	CALIBRATION ID NO	MAINTENANCE ID	ACCOUNT NO	COST
0765	JSC4278	FAN, 36"	NONE	NONE	FASCO	JS-329	100				JCDC3	$108.00
1996	PA1884	FAN, 48"	NONE	UNKNOWN	UNKNOWN	329	SHOP				JCDC3	$300.00
1964	NONE	FAN, AIR CIRCULATOR	NONE	30CFD	SCHAEFER	JS-326A	100				JCDC3	$250.00
4416	NONE	FAN, PEDESTAL	NONE	1HP24H	TPI IND	329	BAY				JCDC6	$210.00
2397	NONE	FAN, PEDESTAL	NONE	SCH30CF2	SCHAEFER	JS-329	108				JCDC3	$250.00
2396	NONE	FAN, PEDESTAL	NONE	SCH30CF1	SCHAEFER	JS-24	100				JCDC3	$250.00
2114	NONE	FAN, PEDESTAL	NONE	SCH30CF0	SCHAEFER	JS-48	100				JCDC3	$250.00
4040	NONE	FAN, PEDESTAL 30"	NONE	VS2430FP	SCGAEFER	325	100				JCDC3	$179.00
4039	NONE	FAN, PEDESTAL 30"	NONE	VS2430FP	SCHAEFER	325	100				JCDC3	$179.00
2121	JSC3142	FAN, PEDESTAL, 24"	F942	4M196	DAYTON	24	DOWNSTA IRS				JCDC4	$100.00
3567	JSC4301	FAN, PEDESTAL, 30"	NONE	NONE	FRIGID	JS-420	112A				JBDC4	$220.00
3505	JSC4305	FAN, PEDESTAL, 30"	NONE	NONE	UNKNOWN	417	MSHOP				JBDC4	$220.00
3501	JSC4303	FAN, PEDESTAL, 30"	NONE	NONE	UNKNOWN	417	SHOP				JBDC4	$220.00
2385	JSC4259	FAN, PEDESTAL, 30"	1G30005256	G3091	UNKNOWN	JS-24	100				JCDC3	$220.00
2118	JSC3141	FAN, PEDESTAL, 30"	L942	4M197	DAYTON	JS-342	CAGE				JCDC4	$100.00
1767	JSC4716	FAN, PEDESTAL, 30"	NONE	NONE	AIR MASTER	JS-329	cage				JCDC6	$220.00
1766	JSC4715	FAN, PEDESTAL, 30"	NONE	NONE	AIR MASTER	JS-329	cage				JCDC6	$220.00
1729	JSC3178	FAN, PEDESTAL, 30"	NONE	NONE	PATTON	28	FLOOR				JCDC4	$100.00
1400	JSC4211	FAN, PEDESTAL, 30"	NONE	NONE	UNKNOWN	JS-328	HIBAY				JCDC3	$220.00
0947	JSC4306	FAN, PEDESTAL, 30"	NONE	NONE	UNKNOWN	JS-417	HIBAY				JBDC4	$220.00
0943	JSC4258	FAN, PEDESTAL, 30"	NONE	NONE	PATTON	JS-329	100				JCDC3	$108.00

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BARCODE NO	OLD PROP NO	[illegible]	SERIAL NO	MODEL NO	MFG	SHOP	ROOM	LICENSE PLATE NO	CALIBRATION NO	MAINTENANCE ID	ACCOUNT NO	COST
0941	JSC3365	FAN, PEDESTAL, 30"	NONE	UNKNOWN	PATTON	JS-329	OUTSIDE				JCDC8	$100.00
0917	JSC4669	FAN, PEDESTAL, 30"	NONE	NONE	PATTON	JS-48	100				JCDC4	$100.00
0591	PA248	FAN, PEDESTAL, 30"	NONE	NONE	UNKNOWN	262B	1000				JCDC5	$220.00
3507	NONE	FAN, SHOP	20205	PB488	TPI CORP	JS-417	HIBAY				JBDC4	$691.00
3506	NONE	FAN, SHOP	NONE	PB48B	TPI IND	JS-417	101				JBDC4	$691.00
3500	NONE	FAN, SHOP	NONE	PB48B	TPI IND	JS-417	HIBAY				JBDC4	$691.00
1768	NONE	FAN, WALL, 24"	NONE	ACU24W	TPI IND	JS-329	110				JCDC6	$220.36
2326	0672280	FILING CABINET LEG 5DR LOCKED	15569-2546	NONE	MOSLER SAFE CO	JS-32	2205				JCDC7	$440.00
3402	0270043	FILTER DRYER	HF-48245	04D016-5616-010	HILLIARD CORPORATION THE	326A	TRLR				JCDC6	$7,606.00
4143	NONE	FILTER, HEPA	21180	OF61ZHE	ATRIX INTERNATIONAL	321	110				JCDC1	$185.00
4142	NONE	FILTER, HEPA	21155	OF61ZHE	ATRIX INTERNATIONAL	JS-32	LDY				JCDC1	$185.00
0905	1353474	FILTER, LUBE/OIL	NONE	FEC	BC&T FILTRATION INC	JS-48	100			1353474	JCDC17	$1,738.00
0905	1353474	FILTER, LUBE/OIL	NONE	FEC	BC&T FILTRATION INC	JS-48	100			1353474	JCDC17	$1,738.00
3904	0224980	FILTRATION SYSTEM ASBESTOS	2648	MT3	MICRO-TRAK INC	JS-321	TRUCK			310657	JCDC3	$2,330.00
3903	0224979	FILTRATION SYSTEM ASBESTOS	2644	MT3	MICRO-TRAK INC	JS-325	102			310656	JCDC3	$2,330.00
3377	NONE	FISH TAPE	NONE	50166	KLEIN	321	C110B				JCDC1	$139.00
2972	NONE	FISH TAPE	NONE	50166	KLEIN	321	C110B				JCDC1	$139.00
2952	NONE	FISH TAPE	NONE	50166	KLEIN	321	C110B				JCDC1	$139.00
2902	NONE	FISH TAPE	NONE	50166	KLEIN	321	C110B				JCDC1	$139.00
2153	NONE	FISH TAPE	NONE	50166	KLEIN	321	C110B				JCDC1	$139.00
1102	BR3696	FISH TAPE	NONE	540100	GREENLEE	421	103				JCDC1	$140.00

BAR CODE NO	OLD PROP NO	EQUIPMENT NOUN	SERIAL NO	MODEL NO	MFG	BLDG	ROOM	LICENSE PLATE NO	CALIBRATION NO	MAINTENANCE ID	ACCOUNT NO	COST
1090	BR3694	FISH TAPE	NONE	540100	GREENLEE	321	TRUCK				JCDC1	$140.00
0397	NONE	FISH TAPE	NONE	50166	KLEIN	321	C110B				JCDC1	$139.00
2743	JSC3379	FISH TAPE, NYLON, 50'	NONE	NONE	GB	JS-321	110B				JCDC8	$100.00
0668	JSC3380	FISH TAPE, STEEL, 100'	NONE	NONE	GREENLEE	325	ESHOP				JCDC8	$100.00
3383	NONE	FISH TAPE, FIBERGLASS	NONE	540100	GREENLEE	323	SHOP				JCDC1	$143.00
3376	NONE	FISH TAPE, FIBERGLASS	NONE	540100	GREENLEE	323	SHOP				JCDC1	$143.00
3375	NONE	FISH TAPE, FIBERGLASS	NONE	540100	GREENLEE	323	SHOP				JCDC1	$143.00
2905	NONE	FISH TAPE, FIBERGLASS	NONE	540100	GREENLEE	323	SHOP				JCDC1	$143.00
2904	NONE	FISH TAPE, FIBERGLASS	NONE	540100	GREENLEE	323	SHOP				JCDC1	$143.00
2903	NONE	FISH TAPE, FIBERGLASS	NONE	540100	GREENLEE	323	SHOP				JCDC1	$143.00
2174	NONE	FISH TAPE, FIBERGLASS	NONE	540100	GREENLEE	323	SHOP				JCDC1	$143.00
0706	NONE	FISH TAPE, FIBERGLASS	NONE	540100	GREENLEE	323	SHOP				JCDC1	$143.00
2728	JSC3394	FLARE SET, TUBING	NONE	NONE	GOULD	326D	TRUCK				JCDC6	$212.00
1604	JSC3078	FLARE SET, TUBING	NONE	NONE	UNKNOWN	329	TRUCK 1				JCDC6	$212.00
0538	NONE	FLARING TOOL	NONE	275-FS	GRAINGER	321	110B				JCDC4	$103.00
2767	NONE	FLASHLIGHT, MAG CHARGER	NONE	4V026V	LUMAPRO	327	110				JCDC2	$140.00
2448	NONE	FLASHLIGHT, MAG CHARGER	NONE	4V026V	LUMAPRO	327	110				JCDC2	$140.00
2447	NONE	FLASHLIGHT, MAG CHARGER	NONE	4V026A	LUMAPRO	327	110				JCDC2	$140.00
2446	NONE	FLASHLIGHT, MAG CHARGER	NONE	4V026V	LUMAPRO	358	LDY				JCDC2	$140.00
2445	NONE	FLASHLIGHT, MAG CHARGER	NONE	4V026A	LUMAPRO	327	110				JCDC2	$140.00
2444	NONE	FLASHLIGHT, MAG CHARGER	NONE	4V026V	LUMAPRO	327	110				JCDC2	$140.00

BAR CODE NO	OLD PROP NO	NOUN	SERIAL NO	MODEL NO	MFG	BLDG	ROOM	LICENSE PLATE NO	CALIBRATION NO	MAINTENANCE ID	ACCOUNT NO	COST
4666	PA2158	FLUKE 77	42890827	77	FLUKE	32	2202		M46103		JCDC8	$100.00
2093	1446936	FORKLIFT	7BM00860	DP30	CATERPILLAR INDUSTRIAL INC	JS-358	LDY			1446936	JALN1	$22,686.00
2501	1446911	FORKLIFT, DIESEL	5BM00652	DP25	CATERPILLAR INDUSTRIAL INC	JS-417	HIBAY			1446911	JCDC3	$20,030.00
1547	0716239	FORMING MACHINE	AG54691	NONE	LOCKFORMER CO	JS-321	120			310602	JCDC1	$1,198.00
4212	NONE	FREEZER, UPRIGHT	WB51629973	24042	KENMORE	325	100				JCDC6	$575.00
0458	1006056	FREON RECYCLE/RECLAIMING SYSTEM	AD89000016	SGL2191/220	ENER CRAFT	326A	LDY			310321	JCDC6	$17,493.00
3131	PA1260	FUNCTION GENERATOR	94701999	3310A	HEWLETT PACKARD	420	100A				JCDC6	$597.00
2321	JSC3327	FUNCTION GENERATOR	B091757	FG501	TEKTRONIX	JS-32	2202A		M172312		JCDC8	$100.00
1281	JSC5483	GAGE	NONE	NONE	MARSH INSTRUMENTS	JS-321	110B		M33873		JCDC4	$100.00
1280	JSC4753	GAGE	NONE	NONE	MARSH INSTRUMENTS	321	110A				JCDC4	$100.00
1278	JSC4746	GAGE	NONE	NONE	MARSH INSTRUMENTS	321	110A		M96977		JCDC4	$100.00
1277	JSC4742	GAGE	NONE	NONE	MARSH INSTRUMENTS	321	110A				JCDC4	$100.00
1265	JSC4711	GAGE	NONE	NONE	MARSH INSTRUMENTS	321	110A				JCDC4	$100.00
1262	JSC5482	GAGE	NONE	NONE	MARSH INSTRUMENTS	321	110A		M22454		JCDC4	$100.00
1260	JSC5481	GAGE	NONE	NONE	MARSH INSTRUMENTS	JS-321	110B		M22451		JCDC4	$100.00
1259	JSC5489	GAGE	NONE	NONE	MARSH INSTRUMENTS	321	110A		M44953		JCDC4	$100.00
1256	JSC5488	GAGE	NONE	NONE	MARSH INSTRUMENTS	JS-321	110B		M37684		JCDC4	$100.00
1255	JSC5486	GAGE	NONE	NONE	MARSH INSTRUMENTS	JS-321	110B		M23578		JCDC4	$100.00
1253	JSC5477	GAGE	NONE	NONE	MARSH INSTRUMENTS	JS-321	110B		M34461		JCDC4	$100.00
1246	JSC5485	GAGE	NONE	NONE	MARSH INSTRUMENTS	JS-321	110B		M39912		JCDC4	$100.00
1242	JSC5487	GAGE	NONE	NONE	MARSH INSTRUMENTS	JS-321	110B		M53346		JCDC4	$100.00

BAR CODE NO	OLD PROP NO	DESCRIPTION	SERIAL NO	MODEL NO	MFG	BLDG	ROOM	LICENSE PLATE NO	CALIBRATION NO	MAINTENANCE ID	ACCOUNT NO	COST
1237	JSC5474	GAGE	NONE	NONE	MARSH INSTRUMENTS	JS-321	110B		M55639		JCDC4	$100.00
1234	JSC4704	GAGE	NONE	NONE	MARSH INSTRUMENTS	JS-321	110B		M96987		JCDC4	$100.00
1231	PA5487	GAGE	NONE	NONE	WALLACE & TIERNAN	JS-321	110B				JCDC4	$100.00
3135	PA6056	GAGE IONIZATION THERM	1600	7B21TC2R	TELEVAC	420	100A				JCDC6	$475.00
0511	NONE	GAGE SET	NONE	621C	IMPERIAL	321	110B				JCDC4	$125.00
0510	NONE	GAGE SET	NONE	621C	IMPERIAL	321	110B				JCDC4	$125.00
1264	JSC3438	GAGE, 0-100 PSI	NONE	33004	U S GAGE	JS-321	110B		M164827		JCDC1	$173.00
1252	JSC3439	GAGE, 0-1000 PSI	NONE	33010	U S GAGE	JS-321	110B		M21052		JCDC6	$50.00
1244	JSC3440	GAGE, 0-15 PSI	NONE	508	U S GAGE	JS-321	110B		M164829		JCDC6	$50.00
2727	PA1512	GAGE, COMPRESSION TESTER	NONE	MT3509	SNAP-ON	326D	GEN SHOP				JCDC6	$173.00
0884	PA6165	GAGE, CRANKSHAFT, DISTORTION	NONE	696B	STARRETT	JS-48	100				JCDC4	$100.00
0482	JSC4673	GAGE, DEPTH	NONE	NONE	STARRETT	24	UPSTAIRS				JCDC4	$100.00
0476	JSC4671	GAGE, DEPTH	NONE	NONE	CRAFTSMAN	24	UPSTAIRS				JCDC4	$100.00
0475	JSC4672	GAGE, DEPTH	NONE	NONE	CRAFTSMAN	24	UPSTAIRS				JCDC4	$100.00
1186	PA7531	GAGE, HEIGHT: 0-19"	454	NONE	L S STARRETT	JS-321	110A				JCDC1	$100.00
1248	JSC4743	GAGE, INTERNAL SYPHON	NONE	JACKET	U S GAGE	JS-321	110B		M165885		JCDC1	$100.00
4412	BRSP0297	GAGE, PRESSURE	NONE	0-100	U S GAGE	321	110B		M173558		JCDC4	$100.00
1269	JSC4763	GAGE, PRESSURE	NONE	0-30000	MCDANIELS	JS-321	110B		M164293		JCDC1	$100.00
1266	JSC4765	GAGE, PRESSURE	132240408	NONE	PERMA CAL	JS-321	110B		M165882		JCDC1	$100.00
1254	PA5474	GAGE, PRESSURE	NONE	DURAGAUGE	ASHCROFT	JS-321	110B		M23583		JCDC1	$50.00
1236	JSC4712	GAGE, PRESSURE	NONE	PO300	ASHCROFT	JS-321	110B		M37680		JCDC1	$100.00

SECTION J
ATTACHMENT H
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BAR CODE NO	OLD PROP NO	EQUIPMENT NOUN	SERIAL NO	MODEL NO	MANUFACTURER	BLDG	ROOM	LICENSE PLATE NO	CALIBRATION NO	MAINTENANCE ID	ACCOUNT NO	COST
1232	PA5489	GAGE, PRESSURE	NN10128	FA234	UNKNOWN	JS-321	110B		M31267		JCDC1	$100.00
1077	PA1080	GAGE, PRESSURE	YY14127	62A125WD	WALLACE & TIERNAN	JS-24	105H		M20351		JCDC6	$985.00
0519	BRSP0298	GAGE, PRESSURE	NONE	0-60	U S GAGE	321	110B		M173559		JCDC4	$100.00
0292	PA5488	GAGE, PRESSURE	FA234	C16825	WALLACE & TIERNAN	JS-32	2202				JCDC6	$100.00
1263	JSC4963	GAGE, PRESSURE, 0-100 PSI	NONE	A100PG	MARSH INSTRUMENTS	JS-321	110B		M165876		JCDC1	$100.00
1251	JSC4960	GAGE, PRESSURE, 0-1000 PSI	NONE	0-1000	U S GAUGE	321	100		M23579		JCDC1	$100.00
1274	JSC4956	GAGE, PRESSURE, 0-10000 PSI	148751301	101NTM17B2 1	PERMA CAL	JS-321	110A		M96968		JCDC6	$50.00
1273	JSC4710	GAGE, PRESSURE, 0-10000 PSI	19032	C10KPG	U S GAUGE	JS-321	110A		M96975		JCDC4	$336.00
4408	JSC4738	GAGE, PRESSURE, 0-200 PSI	NONE	DURAGAUGE	ASHCROFT	329	UPSTAIRS		M22452		JCDC6	$202.00
1247	JSC4957	GAGE, PRESSURE, 0-200 PSI	NONE	A10	UNKNOWN	JS-321	110B		M31266		JCDC1	$100.00
1233	JSC4708	GAGE, PRESSURE, 0-200 PSI	NONE	A200PG	U S GAGE	JS-321	110B		M53344		JCDC1	$100.00
1267	JSC5491	GAGE, PRESSURE, 0-2000 PSI	NONE	100-3S	MARSH INSTRUMENTS	321	110A		M203354		JCDC1	$100.00
1235	JSC5449	GAGE, PRESSURE, 0-250 PSI	NONE	0-250	U S GAUGE	JS-321	110B		M203162		JCDC1	$100.00
1258	JSC4756	GAGE, PRESSURE, 0-30 PSI	NONE	DURAGAUGE	ASHCROFT	JS-321	110B		M165873		JCDC6	$190.00
1257	JSC3475	GAGE, PRESSURE, 0-30 PSI	Q8643	0-30	ASHCROFT	329	107		M39914		JCDC6	$190.00
1245	JSC4762	GAGE, PRESSURE, 0-30 PSI	NONE	8410015	UNKNOWN	JS-321	110B		M165880		JCDC1	$100.00
1243	JSC4707	GAGE, PRESSURE, 0-300 PSI	NONE	C300PG	H O TRERICE	JS-321	110B		M165878		JCDC6	$238.00
1278	JSC4740	GAGE, PRESSURE, 0-3000 PSI	NONE	0-3000	GREER HYDRAULIC	JS-321	TLRM		M165888		JCDC1	$100.00
1271	JSC4962	GAGE, PRESSURE, 0-3000 PSI	NONE	0-3000	STAR-MARTIN	JS-321	110B		M37687		JCDC6	$148.00
1270	JSC4759	GAGE, PRESSURE, 0-3000 PSI	NONE	C3KPG	U S GAGE	JS-321	110B		M22455		JCDC1	$100.00
1268	JSC4748	GAGE, PRESSURE, 0-3000 PSI	NONE	30002000	MATHESON	JS-321	110B		M165890		JCDC1	$100.00

BAR CODE NO	OLD PROP NO	ITEM NOUN	SERIAL NO	MODEL NO	MFG	BLDG	ROOM	LICENSE PLATE NO	CALIBRATION REQ NO	MAINTENANCE ID	ACCOUNT NO	COST
1238	JSC5476	GAGE, PRESSURE, 0-30000 PSI	NONE	RIC6D4	MARSH INSTRUMENTS	JS-321	110B		M55640		JCDC1	$100.00
1385	JSC3473	GAGE, PRESSURE, 0-400 PSI	Q4901	0-400	ASHCROFT	JS-321	110A		M43884		JCDC1	$100.00
1374	JSC4967	GAGE, PRESSURE, 0-400 PSI	NONE	H211PCA	MARSH INSTRUMENTS	321	110A		M33345		JCDC1	$100.00
1279	JSC4758	GAGE, PRESSURE, 0-4000 PSI	NONE	NCG	CHEMETRON CO	321	100		M96962		JCDC1	$100.00
4415	JSC5005	GAGE, PRESSURE, 0-5000 PSI	NONE	0-5000	UNKNOWN	325	PSHOP		M31034		JCDC4	$100.00
1375	JSC3472	GAGE, PRESSURE, 0-600 PSI	NONE	0-600	MARSH INSTRUMENTS	JS-321	110A		M164618		JCDC1	$100.00
1370	JSC3476	GAGE, PRESSURE, 0-600 PSI	NONE	0-600	MARSH INSTRUMENTS	JS-321	110A		M46431		JCDC1	$100.00
1282	JSC4959	GAGE, PRESSURE, 0-6000 PSI	NONE	6KPG	ASHCROFT	JS-321	110B		M96986		JCDC6	$175.00
1275	JSC4703	GAGE, PRESSURE, 30", 200 PSI	NONE	D300200	U S GAGE	JS-321	110B		M31030		JCDC1	$100.00
1239	JSC4761	GAGE, PRESSURE, ABSOLUTE	HH09926	129800MA	WALLACE & TIERNAN	JS-321	110B		M53349		JCDC1	$100.00
0734	JSC4702	GAGE, PRESSURE, ABSOLUTE	JJ14275	233300APA	WALLACE & TIERNAN	329	107		M53348		JCDC6	$50.00
1240	JSC4701	GAGE, PRESSURE, AMMONIA	NONE	D300300	U S GAGE	JS-321	110B		M165875		JCDC6	$190.00
1249	JSC4705	GAGE, PRESSURE, AMMONIA, 300 PSI	NONE	NASAP18590	U S GAGE	JS-321	110B		M31029		JCDC1	$100.00
1600	PA1400	GAGE, PRESSURE, MAGNIHELIC, DIFFERENTIAL	NONE	2001CAV	DWYER INSTRUMENT	329	106		M172328		JCDC6	$43.00
1187	PA1399	GAGE, PRESSURE, MAGNIHELIC, DIFFERENTIAL	NONE	2001CAV	DWYER INSTRUMENT	JS-321	110B		M172335		JCDC1	$100.00
2298	PA1026	GAGE, PUSH/PULL, DIAL	3458	DPPH100	CHATILLION	32	2202AB		M172315		JCDC8	$100.00
2456	PA8130	GAGE, VACUUM	861	VT6S2	TELEDYNE	327	110				JCDC2	$100.00
0509	NONE	GAGE, VACUUM, DIGITAL	4041770602	VG64	SUPCO	321	110B				JCDC4	$132.00
2464	1008838	GAGE, WALL THICKNESS	3485	621	J B ENGINEERING INC	327	110		M172187		JCDC2	$1,665.00
2673	NONE	GAS MONITOR/DETECTOR DRAGER		ACCURO		JS-321	110A				JCDC1	$400.00
3794	0670092	GENERATOR	M3513-020	3650	AMETEK INC F-BLACK & DECKER	JS-326A	LDY			670092	JBDC4	$1,048.00

BARCODE NO	OLD PROP NO	ITEM DESCRIPTION	SERIAL NO	MODEL NO	MFG	BLDG	ROOM	LICENSE PLATE NO	CALIBRATION NO	MAINTENANCE ID	ACCOUNT NO	COST
2733	1446928	GENERATOR	EZCQ3000609	EB11000	HONDA MOTOR CO LTD	JS-326A	LDY			29266	JCDC6	$3,820.00
0445	1446929	GENERATOR	EZCQ3000364	EB11000	HONDA MOTOR CO LTD	JS-326A	LDY			29265	JCDC6	$3,820.00
3881	1446937	GENERATOR 5KW GAS PORT ON WHLS	1380233	ELITE140	ONAN CORP	JS-326A	LDY			1446937	JCDC6	$1,573.00
3879	1446940	GENERATOR 5KW GAS PORT ON WHLS	1380231	ELITE140	ONAN CORP	JS-326A	LDY			1446940	JCDC6	$1,573.00
3344	1446939	GENERATOR 5KW GAS PORT ON WHLS	1380232	ELITE140	ONAN CORP	JS-326A	LDY			1446939	JCDC6	$1,573.00
0444	1446938	GENERATOR 5KW GAS PORT ON WHLS	1380234	ELITE140	ONAN CORP	326D	SHOP			29262	JCDC6	$1,573.00
3326	1299207	GENERATOR PORTABLE GAS	91K76	EMT	MASTER MECHANIC MFG CO	383	CONEX				JALN1	$541.00
1686	0727325	GENERATOR PORTABLE GAS	C03180	3W177	DAYTON ELECTRIC MFG CO	JS-221	LINE SHACK			310232	JCDC7	$480.00
0973	0018455	GENERATOR PULSE	B011159	PG507	TEKTRONIX INC F-PENTRIX CORP	32	2202A		M172316		JCDC8	$2,826.00
3008	0719392	GENERATOR SET	H843454	PS5036DV	T & J MFG INC	420	112			719392	JBDC7	$722.00
3689	1299192	GENERATOR SET, GASOLINE ENGINE	1162872	3W740	DAYTON ELECTRIC MFG CO	326A	LDY				JCDC6	$654.00
0298	0806926	GENERATOR TIME CODE/READER	2164	9300-100	DATUM INC F-PERIPHERAL	JS-24	202				JCDC16	$1,350.00
0298	0806926	GENERATOR TIME CODE/READER	2164	9300-100	DATUM INC F-PERIPHERAL	JS-24	202				JCDC16	$1,350.00
2713	1351655	GENERATOR, GASOLINE	E860820112	3.0DJA-IE2236U	ONAN CORP	JS-326A	LDY				JCDC6	$6,000.00
1752	1351653	GENERATOR, GASOLINE	E860820107	3.0DJA-IE2236U	ONAN CORP	JS-326A	100			26644	JCDC6	$6,000.00
1751	1351656	GENERATOR, GASOLINE	E860820111	3.0DJA-IE2236U	ONAN CORP	JS-326A	100			26642	JCDC6	$6,000.00
1750	1351654	GENERATOR, GASOLINE	E860820108	3.0DJA-IE2236U	ONAN CORP	JS-326A	LDY	NA00561T		26645	JCDC6	$6,000.00
0443	1299033	GENERATOR, GASOLINE	1310059	6EGHEB3801 8A	ONAN CORP	JS-326A	LDY			310919	JCDC6	$1,829.00
1327	1299014	GENERATOR, PORTABLE	266605	5MM65	KOHLER CO ENGINE PLANT DIV	JS-326A	LDY			310654	JCDC1	$1,297.00
0446	1237076	GENERATOR, PORTABLE	832972	PR06000E	ONAN CORP	JS-32	LDY			310921	JCDC6	$1,829.00
0447	1006045	GENERATOR, PORTABLE GAS	W30625	3W232F	DAYTON RELIABLE TOOL AND MFG	JS-326A	LDY			310234	JCDC6	$1,850.00

BAR CODE NO	OLD PROP NO	EQUIPMENT NOUNCLATURE	SERIAL NO	MODEL NO	MFG	BLDG	ROOM	LICENSE & PLATE NO	CALIBRATION NO	MAINTENANCE ID	ACCOUNT NO	COST
4765	1872673	GENERATOR, POWER PLANT CONTROL	13187	ASP2X11.5	BOEING CO	JS-326A	100				JCDC6	$45,500.00
2454	1237448	GENERATOR, TONE	NONE	UP2000	U E SYSTEMS INC	327	110A				JCDC2	$1,501.00
4898	NONE	GENIE LIFT	GL-8	NONE	LK GOODWIN	321	110				JCDC1	$1,540.26
0274	PA2689	GFI	NONE	PS150S	PASS/SEYMOUR	321	110B				JCDC3	$129.00
3312	NONE	GRINDER	98300 200225E	DW402	DEWALT	JS-417	HIBAY				JBDC4	$88.00
3311	NONE	GRINDER	98299 200225E	DW402	DEWALT	JS-417	HIBAY				JBDC4	$88.00
1413	NONE	GRINDER, 2"	803E402210094	5194	MILWAUKEE	323	SHOP				JCDC1	$208.20
2669	NONE	GRINDER, 4"	326432	DW402	DEWALT	321	110				JCDC1	$100.00
2488	JSC4717	GRINDER, 6"	NONE	NONE	UNKNOWN	329	110				JCDC6	$98.00
2384	PA1523	GRINDER, 6"	NONE	4Z672B	DAYTON	24	DOWNSTA IRS				JCDC4	$100.00
2747	PA1770	GRINDER, ANGLE	18174	4049	BLACK & DECKER	JS-325	110				JCDC3	$100.00
1621	PA1704	GRINDER, ANGLE	627779	2750	BLACK & DECKER	JS-321	110A				JCDC3	$125.00
0518	NONE	GRINDER, ANGLE	302103	DW818	DEWALT	321	110B				JCDC4	$129.00
2577	PA8097	GRINDER, ANGLE, 2-6"	5096	611290	BLACK & DECKER	325	LOCKER 8				JCDC4	$100.00
3495	PA6065	GRINDER, ANGLE, 4-1/2"	4380781	4049	BLACK & DECKER	417	101				JBDC4	$154.00
2592	PA2627	GRINDER, ANGLE, 4-1/2"	10661	2750G	BLACK & DECKER	24	TRUCK				JCDC4	$100.00
2586	PA1870	GRINDER, ANGLE, 4-1/2"	11564	101	SNAP-ON	325	SHOP / TOOLBOX				JCDC4	$100.00
1411	JSC5567	GRINDER, ANGLE, 4-1/2"	627358999	6145	MILWAUKEE	421	103				JCDC1	$100.00
2234	FD506	GRINDER, ANGLE, 9"	70335531	6072	MILWAUKEE	JS-321	110A				JCDC1	$100.00
2197	FD516	GRINDER, ANGLE, 9"	70350072	6072	MILWAUKEE	JS-321	110A				JCDC1	$100.00
2381	JSC3143	GRINDER, BENCH	NONE	NONE	INGERSOLL RAND	JS-24	100				JCDC4	$100.00

BARCODE NO	OLD PROP NO	NOUN	SERIAL NO	MODEL NO	MFG	BLDG	ROOM	LICENSE PLATE NO	CALIBRATION NO	MAINTENANCE ID	ACCOUNT NO	COST
2486	PA1094	GRINDER, CARBIDE TOOL	NONE	UNKNOWN	UNKNOWN	JS-329	110				JCDC3	$100.00
4287	NONE	GRINDER, DIE	20051349	DW887	DEWALT	321	110				JCDC1	$131.00
3723	NONE	GRINDER, DIE	803E402160216	5194	MILWAUKEE	323	SHOP				JCDC1	$208.20
3318	PA2090	GRINDER, DIE	NONE	4292	BLACK & DECKER	JS-417	101				JBDC4	$97.00
2472	NONE	GRINDER, DIE	669D403010026	5192	MILWAUKEE	321	110B				JCDC1	$236.00
1121	NONE	GRINDER, DIE	675D402400251	5196	MILWAUKEE	JS-321	110B				JCDC1	$310.00
0738	PA2009	GRINDER, DIE, 2"	669A493520266	5192	MILWAUKEE	329	110				JCDC6	$201.00
2231	FD518	GRINDER, END	20030	760	ROCKWELL	JS-321	110A				JCDC1	$100.00
2478	PA1096	GRINDER, HEAVY-DUTY, 10"	62810	SPL	STANDARD	JS-329	100				JCDC3	$864.00
1414	NONE	GRINDER, SANDER	762E401420291	6140	MILWAUKEE	323	SHOP				JCDC1	$106.00
1397	NONE	GRINDER, SANDER	762E401420278	6140	MILWAUKEE	323	SHOP				JCDC1	$106.00
2228	FD533	GRINDER, STRAIGHT, 3"	676B495100351	NONE	MILWAUKEE	JS-321	110A				JCDC1	$100.00
2227	FD532	GRINDER, STRAIGHT, 3"	676B49510003	NONE	MILWAUKEE	JS-321	110A				JCDC1	$100.00
2909	JSC3717	GRINDER/BUFFER	1266	8100W	BALDOR	JS-321	100				JCDC1	$100.00
2232	FD504	GRINDER/SANDER, ANGLE, 4-1/2"	70335548	6072	MILWAUKEE	JS-321	110A				JCDC1	$100.00
2436	JSC4112	GRINDER/SANDER, DISK, 7"	64A	NONE	THOR	JS-321	100				JCDC3	$175.00
2226	FD529	GRINDER/SANDER, DISK, 7"	39734	662	PORTER CABLE	JS-321	110A				JCDC1	$100.00
2180	FD526	GRINDER/SANDER, DISK, 7"	39707	662	PORTER CABLE	JS-321	110B				JCDC1	$100.00
1395	FD528	GRINDER/SANDER, DISK, 7"	39672	662	PORTER CABLE	JS-328	HIBAY				JCDC1	$100.00
2225	FD513	GRINDER/SANDER, STRAIGHT, 3"	6763959	5211	MILWAUKEE	JS-321	110A				JCDC1	$100.00
2224	FD515	GRINDER/SANDER, STRAIGHT, 3"	6763957	5211	MILWAUKEE	JS-321	110A				JCDC1	$100.00

SECTION J
ATTACHMENT H
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BAR CODE NO	OLD PROP NO	NOUN	SERIAL NO	MODEL NO	MFG	BLDG	ROOM	LICENSE PLATE NO	CALIBRATION NO	MAINTENANCE ID	ACCOUNT NO	COST
2795	PA1090	GRINDING MACHINE	62809	SPL	STANDARD	JS-329	MACHINE SHOP				JCDC3	$864.00
2793	0681304	GRINDING MACHINE, FLOOR MOUNTED	52510463	10N	BROWN AND SHARPE MFG CO	JS-329	110			310168	JCDC6	$5,695.00
3531	0716013	GRINDING MACHINE, VALVE FACE	11721	VR200CM	SNAP-ON TOOLS CORP	JS-3519	101			311037	JCDC3	$1,564.00
1860	0673813	GRINDING MACHINE, VALVE FACE	3179785	6	BLACK AND DECKER /US/ INC	326A	LDY			310147	JCDC6	$1,367.00
2237	JSC6276	GRIP, POWER/SUCTION CUP	217739	N4950	WOODS	JS-321	110A				JCDC1	$100.00
2236	FD100	GRIP, POWER/SUCTION CUP	211115	N4950	WOODS	JS-321	110A				JCDC1	$40.00
2176	FD1001	GROOVER, IN-PLACE	59847	914	RIDGID	321	110B				JCDC1	$400.00
1396	1299214	GROOVING TOOL, PIPE	8699	VE260	VICTAULIC TOOL CO	JS-328	HIBAY				JCDC1	$3,624.00
3908	PA1145	GROUND FAULT SENTRY	183750	1670	WOODHEAD CO	321	104				JCDC1	$100.00
2676	1237008	GROUTING MACHINE-MUD JACKING	913810	HJ15D	AIR PLACEMENT EQUIPMENT CO INC	JS-326B	LDY			26290	JCDC3	$10,285.00
4299	NONE	GUN COMBO	330734	TE76PATC	HILTI	JS-321	110				JCDC1	$1,536.00
1092	JSC4214	GUN, AIRLESS	NONE	NONE	UNKNOWN	321	110B				JCDC3	$140.00
3236	FD102	GUN, ANCHOR	50436/87	DX36M	HILTI	JS-321	4296				JCDC1	$625.00
3234	FD112	GUN, ANCHOR	330134	DX350	HILTI	321	104				JCDC1	$100.00
2221	JSC6283	GUN, ANCHOR	2323940010013 9790	DXA41	HILTI	JS-321	100				JCDC1	$100.00
2218	FD104	GUN, ANCHOR	NONE	DX600	HILTI	321	110A				JCDC1	$900.00
1412	JSC6280	GUN, ANCHOR	140020	DX600N	HILTI	328	LDY				JCDC1	$100.00
3997	PA2577	GUN, CAULK, PNEUMATIC	NONE	740	WAGNER	JS-321	110A				JCDC1	$100.00
2990	PA2565	GUN, CAULK, PNEUMATIC	NONE	740	WAGNER	JS-321	110A				JCDC1	$100.00
1099	JSC4215	GUN, CAULK, PNEUMATIC	NONE	NONE	UNKNOWN	321	110B				JCDC3	$140.00
4317	NONE	GUN, CHIPPING, ELECTRIC	02210500626	47606	CHICAGO ELECTRIC POWER TOOL	JS-321	110B				JCDC1	$182.95

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BAR CODE NO	OLD PROP NO	[illegible]	SERIAL NO	MODEL NO	[illegible]	BLDG	ROOM	LICENSE PLATE NO	CALIBRATION NO	MAINTENANCE ID	ACCOUNT NO	COST
4316	NONE	GUN, CHIPPING, ELECTRIC	02210500582	47606	CHICAGO ELECTRIC POWER TOOL	JS-321	110B				JCDC1	$182.95
4315	NONE	GUN, CHIPPING, ELECTRIC	02210500386	47606	CHICAGO ELECTRIC POWER TOOL	JS-321	110B				JCDC1	$182.95
4314	NONE	GUN, CHIPPING, ELECTRIC	02210500508	47606	CHICAGO ELECTRIC POWER TOOL	JS-321	110B				JCDC1	$182.95
4313	NONE	GUN, CHIPPING, ELECTRIC	02210500461	47606	CHICAGO ELECTRIC POWER TOOL	JS-321	110B				JCDC1	$182.95
2219	FD107	GUN, DISPENSER, POLYFOAM	NONE	CB120	HILTI	JS-321	110A				JCDC1	$144.00
1091	0332150	GUN, HAND, ELECTROSTATIC	C1410	AS4000	GRACO INC F-GRACO LUBER	321	110B				JCDC1	$2,845.00
4055	NONE	GUN, HEAT	NONE	VT-750C	MASTER APPLIANCE CORP	JS-321	110A				JCDC1	$115.00
4051	NONE	GUN, HEAT	NONE	VT-750C	MASTER APPLIANCE CORP	325	100				JCDC1	$115.00
3821	FD206	GUN, HEAT	NONE	HG751B	MASTER APPLIANCE	321	104				JCDC1	$100.00
3695	NONE	GUN, HEAT	747106947	8977	MILWAUKEE	323	SHOP				JCDC1	$113.00
3240	NONE	GUN, HEAT	747106952	8977	MILWAUKEE	323	SHOP				JCDC1	$113.00
2913	FD204	GUN, HEAT	NONE	HG751B	MASTER APPLIANCE	321	104				JCDC1	$100.00
2763	NONE	GUN, HEAT	199A2464	898820	MILWAUKEE	321	110B				JCDC3	$225.07
2521	PA1629	GUN, HEAT	NONE	UNKNOWN	UNKNOWN	JS-24	105H				JCDC3	$100.00
2496	FD207	GUN, HEAT	NONE	HG751B	MASTER APPLIANCE	321	CAGE				JCDC1	$100.00
1709	PA2483	GUN, HEAT	731189023	8975	MILWAUKEE	342	PAINT SHOP				JCDC3	$117.00
0744	JSC4795	GUN, POP RIVET	NONE	NONE	UNMARKED	32	6TH FLOOR/ TC #3				JCDC6	$200.00
0489	JSC3125	GUN, POP RIVET	NONE	MR88	PARKER	24	105H				JCDC4	$100.00
3229	FD1016	GUN, SCREW	1935467P4	TKD5000	HILTI	JS-321	110A				JCDC1	$160.00
2208	FD1004	GUN, SCREW	600052E	6801DBV	MAKITA	JS-321	110A				JCDC1	$160.00
2206	FD1014	GUN, SCREW	1934807P4	TKD5000	HILTI	JS-321	110A				JCDC1	$160.00

BAR CODE NO	OLD PROP NO	NOUN	SERIAL NO	MODEL NO	MFG	BLDG	ROOM	LICENSE PLATE NO	CALIBRATION NO	MAINTENANCE ID	ACCOUNT NO	COST
2203	FD1011	GUN, SCREW	600051E	6801DBV	MAKITA	321	104				JCDC1	$210.00
0694	PA2536	GUN, SLAG (SET)	1206	1217	CRONATRON	JS-48	100				JCDC4	$100.00
1718	JSC4236	GUN, SPRAY, CONVENTIONAL	NONE	NONE	DEVILBISS	342	CAGE				JCDC3	$220.00
1717	JSC4237	GUN, SPRAY, CONVENTIONAL	NONE	NONE	DEVILBISS	342	CAGE				JCDC3	$220.00
1103	JSC4235	GUN, SPRAY, CONVENTIONAL	NONE	NONE	DEVILBISS	321	110B				JCDC1	$220.00
1098	JSC4241	GUN, SPRAY, CONVENTIONAL	NONE	NONE	DEVILBISS	321	110B				JCDC1	$220.00
1097	JSC4242	GUN, SPRAY, CONVENTIONAL	NONE	NONE	DEVILBISS	321	110B				JCDC1	$220.00
1096	JSC4240	GUN, SPRAY, CONVENTIONAL	NONE	NONE	DEVILBISS	321	110B				JCDC1	$220.00
1095	JSC4239	GUN, SPRAY, CONVENTIONAL	NONE	NONE	DEVILBISS	321	110B				JCDC1	$220.00
1093	JSC4238	GUN, SPRAY, CONVENTIONAL	NONE	NONE	DEVILBISS	321	110B				JCDC1	$220.00
1593	PA2692	GUN, THERMAL	2443800101001 5	Q51439	RAYTEK	329	107				JCDC6	$199.00
2688	PA1359	HALOGEN LEAK DETECTOR		H-10B		JS-321	110A				JCDC1	$295.00
4214	NONE	HAMMER, AIR	04252P	4CA21	DAYTON	JS-321	110A				JCDC1	$362.00
4213	NONE	HAMMER, AIR	04180P	4CA21	DAYTON	JS-321	110A				JCDC1	$362.00
4202	NONE	HAMMER, CHIPPING	NONE	ACA21	DAYTON	JS-321	110A				JCDC1	$362.00
4201	NONE	HAMMER, CHIPPING	NONE	ACA21	DAYTON	JS-321	110A				JCDC1	$362.00
1105	NONE	HAMMER, CHIPPING	G02C10137	2A1SA	INGERSOLL RAND	JS-321	110B				JCDC1	$495.00
2241	PA2309	HAMMER, CHIPPING, PNEUMATIC	ME15210	NONE	INGERSOLL RAND	321	104				JCDC1	$100.00
4330	NONE	HAMMER, DRILL	565421	DC988	DEWALT	321	110				JCDC1	$262.00
4329	NONE	HAMMER, DRILL	565289	DC988	DEWALT	321	110				JCDC1	$262.00
4328	NONE	HAMMER, DRILL	587092	DC988	DEWALT	321	110				JCDC1	$262.00

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BAR CODE NO	OLD PROP NO	ITEM DESCRIPTION	SERIAL NO	MODEL NO	MFG	BLDG	ROOM	LICENSE PLATE NO	CALIBRATION NO	MAINTENANCE ID	ACCOUNT NO	COST
4291	NONE	HAMMER, DRILLING	00098370	TE76-ATC	HILTI	321	110				JCDC1	$1,449.00
4257	NONE	HAMMER, ELECTRIC	EGL19982	5400	EAGLE MORLIN MFG	321	110				JCDC1	$743.00
4256	NONE	HAMMER, ELECTRIC	EGL19589	5400	EAGLE MORLIN MFG	321	110				JCDC1	$743.00
4094	NONE	HAMMER, MINI	28730609363211	TE15C	HILTI	325	100				JCDC6	$885.00
1059	1446832	HAMMER, PNEUMATIC	73741	TE22P	HILTI INC	321	110B				JCDC1	$1,074.00
4496	PA2098	HAMMER, ROTARY	NONE	TE74	HILTI	JS-325	100				JCDC3	$100.00
3233	FD214	HAMMER, ROTARY	523827	TE22	HILTI	321	104				JCDC1	$100.00
2900	FD200	HAMMER, ROTARY	6579378	TE72	HILTI	321	104				JCDC1	$100.00
2898	FD205	HAMMER, ROTARY	402539H3	TE22	HILTI	321	104				JCDC1	$100.00
2895	FD195	HAMMER, ROTARY	711983	TE22	HILTI	321	TRUCK				JCDC1	$100.00
2256	FD225	HAMMER, ROTARY	0900163831	TE24	HILTI	321	104				JCDC1	$100.00
2220	FD199	HAMMER, ROTARY	6786213	TE22	HILTI	321	104				JCDC1	$100.00
2154	FD196	HAMMER, ROTARY	13660D2	TE52	HILTI	321	104				JCDC1	$100.00
1433	FD218	HAMMER, ROTARY	73121	TE24	HILTI	321	104				JCDC1	$100.00
1089	JSC5442	HAMMER, ROTARY	688A197090169	5347	MILWAUKEE	321	110B				JCDC1	$100.00
1061	PA2677	HAMMER, ROTARY	NONE	TE5A	HILTI	321	110B				JCDC1	$100.00
0432	FD213	HAMMER, ROTARY	7833861	TE22	HILTI	328	TRUCK				JCDC1	$100.00
2896	FD223	HAMMER, ROTARY, CORDLESS	215455	TE10A	HILTI	321	110B				JCDC1	$100.00
2498	FD220	HAMMER, ROTARY, CORDLESS	154409	TE10A	HILTI	321	110B				JCDC1	$100.00
2986	FD3006	HAND PUNCH	NONE	UNKNOWN	UNKNOWN	JS-321	110A				JCDC1	$100.00
2923	PA1638	HAND TRUCK, PLATFORM, 750#	54618	WPL542222	WESCO	JS-326A	100				JCDC6	$536.00

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BAR CODE NO	OLD PROP NO	[illegible]	SERIAL NO	MODEL NO	[illegible]	BLDG	ROOM	LICENSE PLATE NO	CALIBRATION NO	MAINTENANCE ID	ACCOUNT NO	COST
1391	NONE	HAND TRUCK, SINGLE CYL	NONE	59-PN-SC	ANTHONY	323	C110B				JCDC1	$233.17
1128	NONE	HARNESS				JS-328	CONEX				JCDC1	$100.00
0522	NONE	HARNESS	0754997	87148	MILLER	321	110B				JCDC8	$163.39
0521	NONE	HARNESS	0754995	87148	MILLER	321	110B				JCDC8	$163.39
0520	NONE	HARNESS	0754991	87148	MILLER	321	110B				JCDC8	$163.39
1225	NONE	HARNESS FULL BODY	NONE	1000054	SALA	JS-321	110B				JCDC1	$107.00
0540	NONE	HARNESS FULL BODY	NONE	1000054	SALA	321	110B				JCDC1	$107.00
0539	NONE	HARNESS FULL BODY	NONE	1000054	SALA	JS-321	110B				JCDC1	$107.00
0606	PA2676	HARNESS, SAFETY	156582	TE15	HILTI	329	108				JCDC3	$372.00
2263	PA2539	HARNESS, SELF-RETRACTING	NONE	64	SINCO	321	110A				JCDC1	$100.00
2421	PA6515	HEAD, INSTALLING	8107068	13642	THOMAS & BETTS	JS-325	183A				JCDC8	$100.00
0764	NONE	HEARING MUFFS	00248494132	23320	HELLBERG	321	110B				JCDC6	$212.00
0537	NONE	HEARING MUFFS	00248494149	23320	HELLBERG	321	110B				JCDC6	$212.00
4158	NONE	HEAT GUN	NONE	VT-750L	MASTOR APPLIANCE CORP	321	110				JCDC1	$116.00
4157	NONE	HEAT GUN	NONE	VT-750L	MASTOR APPLICANCE CORP	JS-321	110A				JCDC1	$116.00
2119	JSC3144	HEATER, 2-WHEEL	NONE	NONE	REDDY	JS-326A	LDY				JCDC4	$100.00
2490	PA1527	HEATER, BEARING	NONE	UNKNOWN	UNKNOWN	JS-329	110				JCDC3	$100.00
0495	PA1200	HEATER, ELECTRIC, PORTABLE	NONE	3E217A	DAYTON	JS-325	102				JCDC4	$100.00
0878	PA1464	HEATER, PIPE, PLASTER	NONE	NONE	UNKNOWN	48	FLOOR				JCDC4	$100.00
2742	1553604	HEATER, PORTABLE ELEC BEARING	NONE	SC	MORTON JAMES INC	325	ESHOP				JCDC8	$1,082.00
0677	PA1199	HEATER, PORTABLE, ELECTRIC	NONE	3E217A	DAYTON	48	FLOOR				JCDC4	$100.00

BAR CODE NO	OLD PROP NO	ITEM DESCRIPTION	SERIAL NO	MODEL NO	MFG	BLDG	ROOM	LICENSE PLATE NO	CALIBRATION DATA NO	MAINTENANCE ID	ACCOUNT NO	COST
2719	JSC3415	HEATER, PORTABLE, OIL-FIRED	NONE	NONE	DAYTON	JS-326A	LDY				JCDC6	$159.00
0709	JSC3371	HEATER, PVC	NONE	NONE	GREENLEE	325	ESHOP				JCDC8	$100.00
2269	JSC3360	HEATER, ROD	NONE	HSJ	CHROM-ALOY	32	2202				JCDC8	$100.00
1896	JSC3359	HEATER, ROD	NONE	HSJ	CHROM-ALOY	32	2202				JCDC8	$100.00
3698	NONE	HEPAVAC	11688	SCT	BLUE LAKE PRODUCT	321	C110B				JCDC1	$167.45
0617	NONE	HEPAVAC	11629	SCT	BLUE LAKE PRODUCT	321	C110B				JCDC1	$167.45
0500	PA1717	HEXDRIVER SET	NONE	NONE	PROTO	24	TRUCK				JCDC4	$100.00
2248	JSC3667	HOG HEAD	78333	141	RIDGID	321	104				JCDC1	$100.00
1220	PA2442	HOIST	B17305	L3020D11	DBI/SALA	JS-321	110B				JCDC4	$241.00
2921	0274855	HOIST ASSEMBLY	6149974	190-N	SMITH HOIST MFG CO INC	JS-326A	LDY				JCDC3	$3,175.00
4346	NONE	HOIST CHAIN, 1 1/2 TON	YCK3972	42X46	DAYTON	325	110				JCDC1	$244.00
4345	NONE	HOIST CHAIN, 1 1/2 TON	YCK3948	42X46	DAYTON	325	110				JCDC1	$244.00
4344	NONE	HOIST CHAIN, 1 1/2 TON	YCK3946	42X46	DAYTON	325	110				JCDC1	$244.00
4342	NONE	HOIST CHAIN, 1 TON	NONE	SERIES 622	CM CORP	325	110				JCDC1	$198.00
4341	NONE	HOIST CHAIN, 1 TON	NONE	SERIES 622	CM CORP	325	110				JCDC1	$198.00
4340	NONE	HOIST CHAIN, 1 TON	NONE	SERIES 622	CM CORP	325	110				JCDC1	$198.00
1211	PA8092	HOIST, 1-1/2 TON	8132	L90	JET	JS-321	110B				JCDC6	$241.00
1210	PA8093	HOIST, 1-1/2 TON	8132	L90	JET	JS-321	110B				JCDC6	$241.00
1714	1446912	HOIST, 20 FT	4768	Z200	SUMMER MFG INC	JS-326B	LDY				JCDC4	$2,280.00
3008	PA1340	HOIST, 2-TON	A691HR	646	CYCLONE	JS-420	112				JBDC7	$615.00
2551	JSC4674	HOIST, 5-TON	NONE	NONE	YALE	JS-24	200				JCDC4	$100.00

BAR CODE NO.	OLD PROP NO	PROPERTY NOUN	SERIAL NO	MODEL NO	MFG	BLDG	ROOM	LICENSE PLATE NO	CALIBRATION NO	MAINTENANCE ID	ACCOUNT NO	COST
2424	PA2589	HOIST, CHAIN, 1/2 TON	NONE	622	UNKNOWN	JS-321	110B				JCDC1	$100.00
3065	JSC4473	HOIST, CHAIN, 1-TON	SA829MA	CYCLONE	C & M	JS-420	112				JBDC7	$100.00
1214	PA2586	HOIST, CHAIN, 3/4-TON	NONE	LSB1500A	COFFING CO	JS-321	110B				JCDC6	$138.00
1213	NONE	HOIST, CHAIN, 3-TON	YN0011	LHH3B15	COFFING CO	JS-321	110B				JCDC4	$488.00
1769	JSC4153	HOIST, GRIP	394307839	6E730	VANGUARD	Conex yard	EV CRAFTS #6				JCDC3	$161.00
2195	FD151	HOLE SHOOTER	689A4943602380	NONE	MILWAUKEE	JS-321	110A				JCDC1	$100.00
2189	FD322	HOLE-HAWG	362675	16751	MILWAUKEE	JS-321	110A				JCDC1	$100.00
1515	0681037	HOOD FUME LABORATORY	22509	59011	LABCONCO CORP	329	106				JCDC6	$1,386.00
1953	1237068	HOOD, WELDING FUME-PORTABLE	NONE	300SE	ROBINSON	JS-CONEX YD	CONEX9				JCDC3	$1,695.00
2423	NONE	HOT SUIT HOOD	NONE	NBN48723	NOMEX	JS-325	100				JCDC1	$153.00
0424	NONE	HOT SUIT HOOD	NONE	NBN48723	NOMEX	323	SHOP				JCDC1	$153.00
0420	NONE	HOT SUIT HOOD	NONE	NBN48723	NOMEX	323	SHOP				JCDC1	$153.00
0343	NONE	HOT SUIT HOOD	NONE	NBN48723	NOMEX	323	SHOP				JCDC1	$153.00
0342	NONE	HOT SUIT HOOD	NONE	NBN48723	NOMEX	323	SHOP				JCDC1	$153.00
0318	NONE	HOT SUIT HOOD	NONE	NBN48723	NOMEX	323	SHOP				JCDC1	$153.00
4905	NONE	HUMIDIFIER	NONE	3LA779940	AIR KING	24	105A				JCDC16	$130.00
4905	NONE	HUMIDIFIER	NONE	3LA779940	AIR KING	24	105A				JCDC16	$130.00
4904	NONE	HUMIDIFIER	NONE	3LA779940	AIR KING	24	105A				JCDC16	$130.00
4904	NONE	HUMIDIFIER	NONE	3LA779940	AIR KING	24	105A				JCDC16	$130.00
4903	NONE	HUMIDIFIER	NONE	3LA779940	AIR KING	24	105A				JCDC16	$130.00
4903	NONE	HUMIDIFIER	NONE	3LA779940	AIR KING	24	105A				JCDC16	$130.00

BAR CODE NO	OLD PROP NO	NOUNCLATURE	SERIAL NO	MODEL NO	MFG	BLDG	ROOM	LICENSE PLATE NO	CALIBRATION NO	MAINTENANCE ID	ACCOUNT NO	COST
4902	NONE	HUMIDIFIER	NONE	3LA779940	AIR KING	24	105A				JCDC16	$130.00
4902	NONE	HUMIDIFIER	NONE	3LA779940	AIR KING	24	105A				JCDC16	$130.00
2517	JSC3147	HUMIDITY CALCULATING KIT	NONE	NONE	STORTZ	24	DOWNSTAIRS				JCDC4	$100.00
0872	PA6574	HUMIDITY INSTRUMENT	610	UNKNOWN	HONEYWELL	JS-48	100				JCDC1	$100.00
4190	NONE	HYGROMETER, DIGITAL	NONE	485-2	DWYER	321	110				JCDC1	$271.80
4932	NONE	IMPACT WRENCH	2006 0649	DW292	DEWALT	321	110				JCDC1	$176.03
2483	0557181	INDICATOR DIGITAL DISPLAY	D706687	200AD/PIM	ANILAM ELECTRONICS INC	JS-329	110				JCDC6	$1,418.00
0887	JSC3029	INDICATOR SET, DIAL, 5-PC	NONE	NONE	STARRETT	JS-48	100				JCDC4	$100.00
2546	JSC3038	INDICATOR SET, DIAL, 8-PC	NONE	NONE	CENTRAL	24	100				JCDC4	$100.00
0893	PA1476	INDICATOR, DIAL	NONE	NONE	UNKNOWN	JS-48	100				JCDC4	$100.00
0471	PA1722	INDICATOR, DIAL	NONE	NONE	UNKNOWN	48	FLOOR / TOOLCHEST				JCDC4	$100.00
2587	PA6872	INDICATOR, TEMPERATURE	2914	450	DORIC	325	LOCKER 9		M165258		JCDC4	$100.00
4451	PA1557	INDICATOR, TEMPERATURE & HUMIDITY	457150	HM34	VAISALA	321	110B		M203311		JCDC8	$495.00
2865	0158102	INDICATOR, TEMPERATURE, DIGITAL	4320010	2180A	FLUKE JOHN MFG CO INC	32	2202A		M36863		JCDC8	$1,969.00
0996	PA2502	INFLATOR, GLOVE	NONE	G99	SALISBURY	327	100A				JCDC2	$170.00
2463	1237072	INFRARED SYSTEM	72072	193260	AGEMA INFRARED SYSTEMS	327	100A			310020	JCDC2	$38,877.00
2519	JSC3136	INSTRUMENT, HUMIDITY GRAPH	7200164	THDX	DICKSON	24	105H				JCDC4	$100.00
2518	JSC3135	INSTRUMENT, HUMIDITY/TEMPERATURE	NONE	610	TESTO	JS-24	105H				JCDC4	$100.00
4541	0844316	INTERFACE	1	RIU1.0	ZENDEX CORP	JS-420	1M1				JCDC8	$2,527.00
2400	0682856	INTERFACE CONTROL W/CABINET	8982-015	4811-66	MODULAR COMPUTER SYSTEMS INC	JS-24	202				JCDC7	$5,100.00
2324	0722169	INTERFACE TROUBLESHOOTER SYST	3655038	9000A-8088	FLUKE JOHN MFG CO INC	32	2202A				JCDC8	$1,995.00

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BAR CODE NO	OLD PROP NO	EQUIPMENT DESCRIPTION	SERIAL NO	MODEL NO	MFG	BLDG	ROOM	LICENSE PLATE NO	CALIBRATION NO	MAINTENANCE ID	ACCOUNT NO	COST
3564	JSC4308	INTERRUPTER, GROUND FAULT, PORTABLE	NONE	GFP20	ARROW/HART	417	SHOP				JBDC4	$225.00
1951	PA1561	INTERRUPTER, GROUND FAULT, PORTABLE	NONE	PS150S	PASS/SEYMOUR	329	WELDSHOP				JCDC3	$82.51
0932	PA2125	INTERRUPTER, GROUND FAULT, PORTABLE	NONE	NONE	UNKNOWN	JS-24	105H				JCDC4	$100.00
0739	PA2583	INTERRUPTER, GROUND FAULT, PORTABLE	NONE	1062	ERICSON	32	6TH FLOOR/ TC #3				JCDC6	$125.00
3999	NONE	JACK HAMMER	4121	NONE	CHICAGO PNEUMATIC	321	110B				JCDC1	$100.00
2852	NONE	JACK HAMMER	4123	NONE	CHICAGO PNEUMATIC	JS-321	110B				JCDC1	$100.00
1108	PA2236	JACK HAMMER, 2"	NONE	NONE	INGERSOLL RAND	JS-325	102				JCDC3	$545.00
3189	PA6131	JACK STAND	NONE	NONE	GREENLEE	JS-325	102				JCDC1	$150.00
3183	JSC5434	JACK STAND	NONE	NONE	GREENLEE	JS-325	102				JCDC1	$150.00
3182	JSC5436	JACK STAND	NONE	NONE	GREENLEE	JS-325	102				JCDC1	$150.00
1574	JSC5435	JACK STAND	NONE	NONE	GREENLEE	JS-325	102				JCDC1	$150.00
0877	JSC3039	JACK, FLANGE	NONE	FJ 20	WILLIAMS	JS-48	100				JCDC4	$100.00
0497	JSC3185	JACK, FLANGE	NONE	FJ 20	WILLIAMS	JS-24	100				JCDC4	$100.00
3542	NONE	JACK, FLOOR, 5-TON	NONE	ATD7390	ATD TOOLS INC	JS-417	HIBAY				JBDC4	$440.26
2199	JSC3699	JACK, HYDRAULIC	NONE	NONE	INGERSOLL RAND	321	104				JCDC1	$100.00
2190	JSC3698	JACK, HYDRAULIC	NONE	NONE	INGERSOLL RAND	JS-321	110A				JCDC1	$100.00
3018	JSC4548	JACK, HYDRAULIC, 100-TON	NONE	NONE	UNKNOWN	JS-420	112A				JBDC7	$100.00
1364	JSC3716	JACK, JUMPING, PNEUMATIC	NONE	NONE	UNKNOWN	323	CONEX				JCDC1	$100.00
1363	JSC3715	JACK, JUMPING, PNEUMATIC	NONE	NONE	UNKNOWN	323	CONEX				JCDC1	$100.00
0878	PA2393	JACK, PALLET	NONE	RAYNGER ST 2L	RAYTEK	48	107				JCDC4	$100.00
2426	NONE	JACK, PORTABLE, 5 TON	NONE	5CR55H	ENERPAC	321	110B				JCDC1	$500.00

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BAR CODE NO	OLD PROP NO	DESCRIPTION	SERIAL NO	MODEL NO	MFG	BLDG	ROOM	LICENSE PLATE NO	CALIBRATION NO	MAINTENANCE ID	ACCOUNT NO	COST
0939	PA2511	JACK, PROPOWER HY-DUAL	NONE	UNKNOWN	ENERPAC	24	UPSTAIRS				JCDC4	$200.00
4128	NONE	JIG SAW, ORBITAL	78284	DW317	DEWALT	JS-420	101D				JCDC6	$99.00
1362	0158815	JOINTER COMBINATION STAND 6"	NONE	50	FURNAS ELECTRIC CO	323	CONEX				JCDC1	$1,112.00
2988	FD410	JOINTER/SPLINER, BISCUIT	9734	3380	BLACK & DECKER	321	104				JCDC1	$100.00
2922	0681245	KETTLE HEATING BITUMEN 265 GAL	D13583	RK265	REEVES ROOFING CO	JS-326A	100				JCDC3	$3,414.00
0977	0040149	KEYBOARD, DIAGNOSTIC	129	MDK864	WHELEN ENGINEERING CO INC	32	2202				JCDC8	$1,047.00
2792	0681303	KEYSEATING MACHINE	K783264	K	MORRISON D C CO THE	JS-329	110				JCDC6	$4,443.00
0681	PA1204	KNAACK BOX	NONE	UNKNOWN	UNKNOWN	JS-48	100				JCDC3	$100.00
2150	NONE	KNOCKOUT SET	K010096	UNKNOWN	GREENLEE	321	104				JCDC1	$100.00
2851	FD8007	KNOCKOUT, HYDRAULIC	NONE	78065B	GREENLEE	JS-321	110A				JCDC1	$100.00
1435	FD8009	KNOCKOUT, HYDRAULIC	NONE	78065B	GREENLEE	JS-920L	HIBAY				JCDC1	$100.00
2963	NONE	LABELING SYSTEM, PORTABLE	U60267-62J487482	PT-1900/1910	BROTHER	321	TRUCK				JCDC1	$121.00
2954	NONE	LABELING SYSTEM, PORTABLE	U60267-E3J641855	PT1910	BROTHER	323	100				JCDC1	$129.00
1298	PA1727	LABELING SYSTEM, PORTABLE	NA20402211	LABELIZER1	BRADY	321	100				JCDC1	$100.00
4187	NONE	LADDER	NONE	NONE	GRAINGER	321	110				JCDC1	$150.00
4186	NONE	LADDER	NONE	NONE	GRAINGER	321	110				JCDC1	$150.00
4185	NONE	LADDER	NONE	NONE	GRAINGER	JS-44	2JCN				JCDC1	$150.00
4184	NONE	LADDER	NONE	NONE	GRAINGER	JS-13	1JCW				JCDC1	$150.00
4183	NONE	LADDER	NONE	NONE	GRAINGER	321	110				JCDC1	$150.00
4182	NONE	LADDER	NONE	NONE	GRAINGER	JS-5	1JCE1				JCDC1	$150.00
4181	NONE	LADDER	NONE	NONE	GRAINGER	321	110				JCDC1	$150.00

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BARCODE NO	OLD PROP NO	[illegible]	SERIAL NO	MODEL NO	[illegible]	BLDG	ROOM	LICENSE PLATE NO	CALIBRATION NO	MAINTENANCE ID	ACCOUNT NO	COST
4180	NONE	LADDER	NONE	NONE	GRAINGER	321	110				JCDC1	$150.00
4179	NONE	LADDER	NONE	NONE	GRAINGER	JS-420	122				JCDC1	$150.00
4178	NONE	LADDER	NONE	NONE	GRAINGER	JS-35	1JCS				JCDC1	$150.00
4177	NONE	LADDER	NONE	NONE	GRAINGER	321	110				JCDC1	$150.00
4176	NONE	LADDER	NONE	NONE	GRAINGER	JS-227	11JC				JCDC1	$150.00
4175	NONE	LADDER	NONE	NONE	GRAINGER	JS-24	1MRM				JCDC1	$150.00
4174	NONE	LADDER	NONE	NONE	GRAINGER	JS-15	1JCE				JCDC1	$150.00
4173	NONE	LADDER	NONE	NONE	GRAINGER	321	110				JCDC1	$150.00
4133	NONE	LADDER, 20'	NONE	d7120-2	WERNER	321	110A				JCDC1	$271.00
4131	NONE	LADDER, 8'	NONE	7408	WERNER	JS-321	TRUCK				JCDC1	$168.00
4468	NONE	LADDER, 10'	NONE	6210	GRAINGER	JS-321	109				JCDC6	$193.35
4277	NONE	LADDER, 10'	NONE	7410	WERNER	JS-321	110				JCDC1	$204.00
4132	NONE	LADDER, 10'	NONE	7410	WERNER	JS-4032	3898				JCDC1	$215.00
0925	NONE	LADDER, 10'	NONE	7310	GRAINGER	JS-CONEX YD	CONEX16				JCDC1	$193.35
3897	NONE	LADDER, 12'	NONE	7312	GRAINGER	JS-326A	LDY				JCDC1	$233.96
2427	NONE	LADDER, 12'	NONE	7312	GRAINGER	JS-920L	HIBAY				JCDC6	$233.96
4034	NONE	LADDER, 14'	NONE	T7414	WERNER	325	100				JCDC1	$375.00
4033	NONE	LADDER, 14'	NONE	T7414	WERNER	JS-325	102				JCDC1	$375.00
4032	NONE	LADDER, 14'	NONE	T7414	WERNER	JS-326A	LDY				JCDC1	$375.00
0543	NONE	LADDER, 16'	NONE	D62161	WERNER	321	110B				JCDC1	$200.00
4252	NONE	LADDER, 4'	NONE	7404	WERNER	JS-325	102				JCDC1	$112.00

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BAR CODE NO	OLD PROP NO	ITEM DESCRIPTION	SERIAL NO	MODEL NO	MANUFACTURER	BLDG	ROOM	LICENSE PLATE NO	CALIBRATION NO	MAINTENANCE ID	ACCOUNT NO	COST
4251	NONE	LADDER, 4'	NONE	7404	WERNER	JS-325	102				JCDC1	$112.00
2935	JSC4464	LADDER, 4'	NONE	FP1004	LOUISVILLE LADDER	JS-150EL	LDY				JBDC5	$200.00
4273	NONE	LADDER, 6'	NONE	7406	WERNER	321	110				JCDC1	$128.00
4272	NONE	LADDER, 6'	NONE	7406	WERNER	321	110				JCDC1	$128.00
4250	NONE	LADDER, 6'	NONE	7406	WERNER	325	110				JCDC1	$144.00
4249	NONE	LADDER, 6'	NONE	7406	WERNER	325	110				JCDC1	$144.00
4209	NONE	LADDER, 6'	NOEN	7406	WERNER	321	102				JCDC1	$142.00
4208	NONE	LADDER, 6'	NONE	7406	WERNER	JS-321	100				JCDC1	$142.00
4207	NONE	LADDER, 6'	NONE	7406	WERNER	321	102				JCDC1	$142.00
4156	NONE	LADDER, 6'	NONE	7306	WERNER	321	110				JCDC1	$102.00
4155	NONE	LADDER, 6'	NONE	7306	WERNER	321	110				JCDC1	$102.00
4154	NONE	LADDER, 6'	NONE	7306	WERNER	JS-920L	HIBAY				JCDC1	$102.00
4470	NONE	LADDER, 8'	NONE	6208	WERNER	JS-920L	HIBAY				JCDC1	$103.00
4276	NONE	LADDER, 8'	NONE	7408	WERNER	JS-325	102				JCDC1	$161.00
4253	NONE	LADDER, 8'	NONE	7408	WERNER	325	110				JCDC1	$193.00
4221	NONE	LADDER, 8'	NONE	6208	WERNER	JS-329	OUTSIDE				JCDC6	$155.00
4210	NONE	LADDER, 8'	NONE	7408	WERNER	JS-358	TRUCK				JCDC1	$191.00
4195	NONE	LADDER, 8'	NONE	7308	WERNER	321	110				JCDC1	$160.00
4194	NONE	LADDER, 8'	NONE	7308	WERNER	JS-321	110				JCDC1	$160.00
4193	NONE	LADDER, 8'	NONE	7308	WERNER	JS-321	110				JCDC1	$160.00
4140	NONE	LADDER, 8'	NONE	6208	WERNER	321	110				JCDC1	$107.00

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BAR CODE NO	OLD PROP NO	NOUN	SERIAL NO	MODEL NO	MFG	BLDG	ROOM	LICENSE PLATE NO	CALIBRATION NO	MAINTENANCE ID	ACCOUNT NO	COST
4049	NONE	LADDER, 8'	NONE	6208	WERNER	325	100				JCDC1	$112.00
4047	NONE	LADDER, 8'	NONE	6208	WERNER	325	100				JCDC1	$110.00
0792	NONE	LADDER, 8'	NONE	6208	WERNER	323	C110B				JCDC1	$103.00
1739	JSC3179	LADDER, ALUMINUM, 10'	NONE	NONE	LOUISVILLE LADDER	28	FLOOR				JCDC4	$100.00
2395	JSC3165	LADDER, ALUMINUM, 12'	NONE	NONE	LOUISVILLE LADDER	JS-24	200				JCDC4	$100.00
1341	JSC3050	LADDER, ALUMINUM, 14'	NONE	NONE	LOUISVILLE LADDER	48	FLOOR				JCDC4	$100.00
0699	JSC3161	LADDER, ALUMINUM, 6'	NONE	NONE	LOUISVILLE LADDER	JS-24	200				JCDC4	$100.00
0326	JSC3175	LADDER, ALUMINUM, 6'	NONE	NONE	LOUISVILLE LADDER	28	FLOOR				JCDC4	$100.00
0316	JSC3162	LADDER, ALUMINUM, 6'	NONE	T7206	WERNER	24	DOWNSTA IRS				JCDC4	$100.00
0488	JSC3196	LADDER, ALUMINUM, 8'	NONE	FS100	LOUISVILLE LADDER	24	100				JCDC4	$100.00
0846	NONE	LADDER, CAGE	NONE	NONE	GUIDE FABRICATORS						JCDC1	$1,229.00
4275	NONE	LADDER, EXTENSION	NONE	D6216-2	WERNER	JS-325	102				JCDC1	$152.00
4274	NONE	LADDER, EXTENSION	NONE	D6216-2	WERNER	321	110				JCDC1	$152.00
4254	NONE	LADDER, EXTENSION	NONE	D6216-2	WERNER	JS-325	102				JCDC1	$178.00
3319	NONE	LADDER, EXTENSION	NONE	D6020	WERNER	323	SHOP				JCDC1	$167.00
2880	NONE	LADDER, EXTENSION	5693008	D62322	WERNER	321	110B				JCDC3	$259.50
1855	NONE	LADDER, EXTENSION	5693904	D62242	WERNER	326A	CAGE				JCDC6	$184.50
0620	NONE	LADDER, EXTENSION	NONE	D6020	WERNER	JS-321	110				JCDC1	$167.00
0531	NONE	LADDER, EXTENSION	5770617	D71202	WERNER.	321	110B				JCDC3	$337.00
1831	NONE	LADDER, EXTENSION, 16'	NONE	06216-2	WERNER	323	C110B				JCDC1	$166.00
0944	JSC3076	LADDER, EXTENSION, 18'	NONE	71242	UNKNOWN	329	TRUCK 1				JCDC6	$450.00

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BAR CODE NO	OLD PROP NO	NOUNCLATURE	SERIAL NO	MODEL NO	MFG	BLDG	ROOM	LICENSE PLATE NO	CALIBRATION NO	MAINTENANCE ID	ACCOUNT NO	COST
3152	NONE	LADDER, EXTENSION, 20'	NONE	D7120-2	WERNER	JS-231	110				JCDC1	$245.00
0864	NONE	LADDER, EXTENSION, 20'	NONE	F4145	LOUISVILLE	321	C110B				JCDC1	$180.00
0863	NONE	LADDER, EXTENSION, 24'	NONE	D6224-2	WERNER	325	100				JCDC3	$219.47
1342	JSC5263	LADDER, FIBERGLASS	NONE	UNKNOWN	UNKNOWN	321	104				JCDC1	$100.00
4031	NONE	LADDER, FIBERGLASS 10'	NONE	7410	WERNER	321	110				JCDC3	$210.00
4028	NONE	LADDER, FIBERGLASS 10'	NONE	6210	WERNER	JS-48	HIBAY				JCDC3	$173.00
2393	JSC3145	LADDER, FIBERGLASS, 10'	NONE	FS1010	LOUISVILLE LADDER	24	DOWNSTA IRS				JCDC4	$100.00
2164	JSC3769	LADDER, FIBERGLASS, 10'	NONE	NONE	GREEN BULL	323H	LDY				JCDC1	$100.00
1346	JSC3765	LADDER, FIBERGLASS, 10'	NONE	7210	WERNER	323H	LDY				JCDC1	$100.00
2918	JSC3711	LADDER, FIBERGLASS, 12'	NONE	NONE	LOUISVILLE LADDER	JS-326B	100				JCDC1	$100.00
3385	JSC3774	LADDER, FIBERGLASS, 6'	NONE	6206	WERNER	JS-150EL	LDY				JCDC1	$100.00
2499	JSC3776	LADDER, FIBERGLASS, 6'	NONE	6206	WERNER	323H	LDY				JCDC1	$100.00
0859	JSC3760	LADDER, FIBERGLASS, 8'	NONE	6208	WERNER	323H	LDY				JCDC1	$100.00
2549	JSC4675	LADDER, PLATFORM SAFETY, 12-STEP	NONE	NONE	BALLYMORE	JS-24	200				JCDC4	$100.00
1736	JSC3171	LADDER, PLATFORM SAFETY, 15-STEP	NONE	NONE	JOHNSON CONTROL	JS-28	FLOOR				JCDC4	$100.00
1043	JSC4309	LADDER, PLATFORM SAFETY, 7-STEP	NONE	NONE	UNKNOWN	JS-420	112				JBDC4	$254.25
1043	JSC3859	LADDER, SAFETY, 4-STEP	NONE	NONE	EGA INC	JS-420	112A				JBDC5	$231.00
4469	NONE	LADDER, STEP, 12'	NONE	FS1512	LOUISVILLE LADDER	321	110A				JCDC1	$121.00
3384	NONE	LADDER, STEP, 12'	NONE	7312	WERNER	323	SHOP				JCDC1	$194.50
1369	NONE	LADDER, STEP, 12'	NONE	7312	WERNER	JS-321	TLRM				JCDC1	$194.50
1343	NONE	LADDER, STEP, 12'	NONE	7312	WERNER	323	SHOP				JCDC1	$194.50

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BARCODE NO	OLD PROP NO	ITEM DESCRIPTION	SERIAL NO	MODEL NO	MFR	BLDG	ROOM	LICENSE PLATE NO	CALIBRATION NO	MAINTENANCE ID	ACCOUNT NO	COST
4516	NONE	LADDER, STEP, 4'	NONE	T7404	GRAINGER	JS-321	110				JCDC6	$120.00
4474	NONE	LADDER, STEP, 4'	NONE	T6204	WERNER	321	110B				JCDC6	$124.00
4484	NONE	LADDER, STEP, 8'	NONE	FS1508	LOUISVILLE LADDER	321	110A				JCDC1	$121.00
4482	NONE	LADDER, STEP, 8'	NONE	FS1508	LOUISVILLE LADDER	321	110B				JCDC1	$121.00
3291	NONE	LADDER, STEP, 8'	NONE	FS1508	LOUISVILLE LADDER	32	TRUCK				JCDC1	$121.00
3280	NONE	LADDER, STEP, 8'	NONE	FS1508	LOUISVILLE LADDER	JS-48	HIBAY				JCDC1	$121.00
2968	NONE	LADDER, STEP, 8'	NONE	FS1508	LOUISVILLE LADDER	321	110B				JCDC1	$121.00
0937	NONE	LADDER, STEP, 8'	NONE	FS1508	LOUISVILLE LADDER	321	110B				JCDC1	$121.00
0926	NONE	LADDER, STEP, 8'	NONE	FS1508	LOUISVILLE LADDER	JS-321	TRUCK				JCDC2	$121.00
0918	NONE	LADDER, STEP, 8'	NONE	FS1508	LOUISVILLE LADDER	JS-28	FLOOR				JCDC1	$121.00
0504	NONE	LADDER, STEP, 8'	NONE	FS1508	LOUISVILLE LADDER	321	110B				JCDC1	$121.00
0656	JSC3164	LADDER, WOOD, 14'	NONE	NONE	OK LEAGUE	24	DOWNSTAIRS				JCDC4	$100.00
0275	JSC3760	LADDER, WOOD, 4'	NONE	NONE	WERNER	323H	LEAN-TO				JCDC1	$100.00
0685	JSC5447	LADDER, WOOD, FIBERGLASS, 10'	NONE	NONE	OK IND	JS-48	HIBAY				JCDC4	$100.00
0912	JSC5448	LADDER, WOOD, FIBERGLASS, 8'	NONE	NONE	OK IND	48	100				JCDC4	$100.00
0693	NONE	LADDER,STEP, 10'	NONE	FS1510	LOUISVILLE LADDER	JS-321	TRUCK				JCDC2	$121.00
1117	NONE	LAMINATE TRIMMER	549555A1072	7301	PORTER CABLE	JS-321	4296				JCDC1	$150.00
4417	PA6011	LAMINATOR	NONE	GBC	GBC	JS-321	110A				JCDC6	$100.00
4135	NONE	LASER BEAM	NONE	MPS	LASER MARK	325	100				JCDC1	$222.00
1565	BR0932	LASER, ALIGNMENT HEAD	907842	B8210	UNKNOWN	327	110		M173941		JCDC2	$10,995.00
3272	BR0111	LASER, ALIGNMENT UNIT	726135	B8000DC	UNKNOWN	327	110		M173407		JCDC2	$10,995.00

BARCODE NO	OLD PROP NO	DESCRIPTION	MACHINE NO	MODEL NO	MANUFACTURER	BLDG	ROOM	LICENSE PLATE NO	CALIBRATION NO	MAINTENANCE ID	ACCOUNT NO	COST
2838	0076437	LASER, ROTATING W/SENSOR	P10006	RL10	TOPCON INSTRUMENT CP OF AMER	JS-321	110A			311106	JCDC1	$2,850.00
1499	0715347	LATHE, BENCH JEWELERS	A01205	ACAY	LEVIN LOUIS AND SON INC	329	106			310588	JCDC6	$1,110.00
2489	0558779	LATHE, ENGINE MANUAL	1802	HLVH	HARDINGE BROS INC	JS-329	110			1917	JCDC6	$7,438.00
1575	0681297	LATHE, ENGINE MANUAL	NONE	CL170E	SOUTH BEND LATHE CO INC	JS-329	110				JCDC6	$7,989.00
2485	0559804	LATHE, ENGINE MANUAL LAB	77358164	EE	WCI MACHINE TOOL F-BULLARD CO	JS-329	110			1838	JCDC6	$20,957.00
2487	0558834	LATHE, TRACER 2-AXIS	325/2102	MK50	TRUE-TRACE DV THIEM INDUS	JS-329	100			311130	JCDC6	$6,695.00
0998	0806939	LENS, INFRARED 20 DEGREES	6370	IR-LENS	AGEMA INFRARED SYSTEMS	327	110			806939	JCDC2	$7,450.00
2837	JSC6306	LEVEL	665104	NA24	WILD LEICA	JS-321	110A				JCDC1	$100.00
1430	FD7003	LEVEL	110006	RL10	UNKNOWN	321	104				JCDC1	$100.00
2250	1353431	LEVEL, LASER	3446	1142XL	SPECTRA PHYSICS	JS-321	110B		M172732		JCDC1	$4,365.00
0986	JSC3627	LEVEL, TRIPOD-MOUNTED	NONE	3047	BOGEN	327	110				JCDC2	$400.00
1222	NONE	LIFE LINE	B33761	3103020	SALA	JS-321	110B				JCDC1	$220.00
1221	NONE	LIFE LINE	B33712	3103020	SALA	JS-321	110B				JCDC1	$220.00
2392	JSC4689	LIFT	NONE	UNKNOWN	UNKNOWN	24	DOWNSTAIRS				JCDC4	$200.00
2106	0843660	LIFT HYDRAULIC	988	400A60	MORSE MFG CO INC	JS-24	100				JCDC4	$1,095.00
0907	0843659	LIFT HYDRAULIC	988	400A60	MORSE MFG CO INC	JS-48	100				JCDC8	$1,095.00
0684	0271497	LIFT HYDRAULIC	8401	C74	LEE ENGINEERING CO	JS-48	100			271497	JCDC17	$2,591.00
0684	0271497	LIFT HYDRAULIC	8401	C74	LEE ENGINEERING CO	JS-48	100			271497	JCDC17	$2,591.00
2790	JSC5155	LIFT, HYDRAULIC, 1-TON	4284	721	ECONOMY	JS-329	110			011573	JCDC6	$452.00
2476	PA6222	LIFT, HYDRAULIC, 1-TON	4284	721	ECONOMY	JS-48	100				JCDC6	$452.00
0908	PA6113	LIFT, MANUAL, 2000#	NONE	NONE	METRO	JS-48	HIBAY				JCDC4	$100.00

BAR CODE NO	OLD PROP NO	NOUN	SERIAL NO	MODEL NO	MFG	BLDG	ROOM	LICENSE PLATE NO	CALIBRATION NO	MAINTENANCE ID	ACCOUNT NO	COST
3809	JSC3160	LIFT, MANUAL, 4-WHEEL	NONE	NONE	UNKNOWN	JS-358	OUTSIDE				JCDC4	$100.00
0713	JSC3159	LIFT, OVERHEAD, PORTABLE, 1-TON	701130	1AW10098	SPANCO	JS-24	100				JCDC4	$100.00
4230	NONE	LIFT, PERSONNEL	0900024833	30AM	JLG INDUSTRIES	JS-326A	100				JCDC1	$6,166.00
1963	1007869	LIFT, PERSONNEL	1592-3544F	DPL30	GENIE INDUSTRIES	326B	LDY			26254	JCDC3	$8,575.00
1962	1237597	LIFT, PERSONNEL	3891-1182-S	AWP30	GENIE INDUSTRIES	323	LDY			310389	JCDC1	$5,609.00
1749	1170121	LIFT, PERSONNEL	3891-985S	AWP30	GENIE INDUSTRIES	JS-326A	100			310388	JCDC1	$4,987.00
0883	1353298	LIFT, PERSONNEL	3190-2553-S	PLI19	GENIE INDUSTRIES	JS-417	101			1353298	JCDC4	$3,400.00
2873	G020082	LIFT, PERSONNEL DUAL	1590-3142F	DPL36	GENIE INDUSTRIES	JS-326A	LDY				JCDC3	$10,829.00
4282	NONE	LIFT, SCISSOR	NONE	RGER30EA	LIFT-RITE	JS-325	102				JCDC1	$2,394.00
3537	BRSP0054	LIFT, SHOP, HYDRO	NONE	PR611755E97B	JOHN BARNES	JS-417	101				JBDC4	$250.00
3198	NONE	LIGHT STAND	NONE	PUL1000QCD	FOSTORIA	321	110B				JCDC1	$402.50
3186	NONE	LIGHT STAND	NONE	PUL1000QCD	FOSTORIA	321	202				JCDC1	$402.50
3178	NONE	LIGHT STAND	NONE	PUL1000QCD	FOSTORIA	JS-325	102				JCDC1	$402.50
2685	NONE	LIGHT STAND				JS-325	102				JCDC3	$200.00
0708	NONE	LIGHT STAND	NONE	PUL1000QCD	FOSTORIA	JS-325	102				JCDC1	$402.50
3130	PA8082	LIGHT, TEST, STROBE	NONE	NONE	UNKNOWN	420	100A				JCDC6	$720.00
4522	NONE	LIGHT, TIMING	NONE	4A650	UNKNOWN	321	100				JCDC1	$1,060.55
3387	JSC4827	LIGHTCART, QUARTZ	NONE	PUL1000QCA	FOSTORIA	JS-325	102				JCDC1	$100.00
3191	NONE	LIGHTCART, QUARTZ	NONE	2V807G	GRAINGER	JS-325	102				JCDC1	$351.00
3187	NONE	LIGHTCART, QUARTZ	NONE	2V807G	GRAINGER	JS-325	102				JCDC1	$351.00
3177	PA2005	LIGHTCART, QUARTZ	NONE	NONE	FOSTORIA	JS-325	102				JCDC4	$100.00

BAR CODE NO	OLD PROP NO	EQUIPMENT DESCRIPTION	SERIAL NO	MODEL NO	MANUFACTURER	BLDG	ROOM	LICENSE/ TRIAL NO	CALIBRATION NO	MAINTENANCE ID	ACCOUNT NO	COST
3176	NONE	LIGHTCART, QUARTZ	NONE	2V807G	GRAINGER	JS-325	102				JCDC1	$351.00
3174	NONE	LIGHTCART, QUARTZ	NONE	2V807G	GRAINGER	JS-325	102				JCDC1	$351.00
2684	JSC4821	LIGHTCART, QUARTZ	NONE	PUL1000QCA	FOSTORIA	JS-325	102				JCDC1	$100.00
2402	JSC3374	LIGHTCART, QUARTZ	NONE	PUL1000QCA	FOSTORIA	JS-24	202				JCDC8	$100.00
4912	NONE	LIPPED SHELF CART	NONE	4520-88	RUBBERMAID	321	110				JCDC1	$135.00
4911	NONE	LIPPED SHELF CART	NONE	4520-88	RUBBERMAID	321	110				JCDC1	$125.00
3145	0842890	LOAD ELECTRONIC	27101128	PLZ152W	KIKUSUI ELECTRONICS CORP	JS-329	107				JCDC6	$1,020.00
1568	1446838	LOCATOR, PIPE AND CABLE	2180	940	XTRON	327	110				JCDC2	$2,950.00
3120	PA1642	LOGIC TESTER KIT	NONE	546A	HEWLETT PACKARD	JS-329	106				JCDC6	$910.00
1524	PA1924	LOGO HEAD PRINTER TESTER	NONE	NONE	FABRICATED	JS-329	106				JCDC6	$400.00
2878	G021266	MACHINE LINE STRIPPING	G03135	33-9080-83-5402	BINKS MFG CO	326B	LDY			310145	JCDC3	$2,431.00
1545	JSC4101	MACHINE, BREAK, 2'	11328	24	DREIS & KRUM	JS-321	120				JCDC3	$400.00
4875	JSC4102	MACHINE, BREAK, 4'	109176	416	DREIS & KRUM	JS-321	120				JCDC3	$600.00
2752	PA2341	MACHINE, WELDING, AC/DC	KF810583	902781	MILLER	JS-325	110				JCDC3	$100.00
1706	1353275	MAKER, SIGN	426686	LC7	GERBER SCIENTIFIC PRODUCTS	JS-342	100				JCDC3	$3,595.00
2465	PA1533	MANOMETER, DIGITAL	1D3911448	4751	DWYER INSTRUMENT	327	100A		M172307		JCDC2	$352.00
0997	BR00951	MANOMETER, DIGITAL	NONE	475MARKIII	UNKNOWN	327	110		M173886		JCDC2	$0.00
0888	JSC3031	MEASURING TOOL, FUEL ROD	8339610	NONE	EMD	48	100				JCDC4	$100.00
3124	PA1219	MEGGE /OHM METER	6199	210359	BIDDLE CO	420	100A		M31169		JCDC6	$530.00
3985	PA6305	MEGGER	NONE	MARKIII	BIDDLE CO	JS-221	LINE SHACK		M200394		JCDC7	$155.00
3212	PA1953	MEGGER	NONE	212159	BIDDLE CO	JS-321	110A		M42010		JCDC8	$100.00

BAR CODE NO.	OLD PROP NO	NOUN	SERIAL NO	MODEL NO	MFG	BLDG	ROOM	LICENSE PLATE NO	CALIBRATION NO	MAINTENANCE ID	ACCOUNT NO	COST
2848	FD5100	MEGGER	1006	212359	BIDDLE CO	321	110B		M39798		JCDC1	$100.00
2825	FD5106	MEGGER	C8308	250241	BIDDLE CO	321	104				JCDC1	$100.00
2163	FD5103	MEGGER	1034	212359	BIDDLE CO	321	110B		M36007		JCDC1	$100.00
0913	PA1999	MEGGER	NONE	212159	BIDDLE CO	JS-321	110A		M44431		JCDC1	$100.00
1159	PA2239	MEGGER/INSULATION TESTER/OHM METER	NONE	212159	BIDDLE CO	321	110B		M44361		JCDC1	$100.00
2494	PA1088	METAL ROWER	NONE	UNKNOWN	UNKNOWN	JS-329	200				JCDC3	$100.00
3123	0722760	METER ,IMPEDANCE DIGITAL	2031284253	253	ELECTRO SCIENTIFIC IND F-BROWN	JS-329	106				JCDC6	$1,295.00
0642	JSC3646	METER BOX	AFJD	4651-0100	MILWAUKEE	JS-19319	19319				JCDC1	$100.00
1895	JSC3354	METER, AIR	NONE	460	DWYER INSTRUMENT	32	2202				JCDC8	$100.00
1894	JSC3350	METER, AIR	NONE	460	DWYER INSTRUMENT	32	2202				JCDC8	$100.00
1893	JSC3352	METER, AIR	NONE	460	DWYER INSTRUMENT	32	2202				JCDC8	$100.00
1892	JSC3355	METER, AIR	NONE	460	DWYER INSTRUMENT	32	2202				JCDC8	$100.00
1891	JSC3351	METER, AIR	NONE	460	DWYER INSTRUMENT	32	2202				JCDC8	$100.00
1890	JSC3353	METER, AIR	NONE	460	DWYER INSTRUMENT	32	2202				JCDC8	$100.00
4071	NONE	METER, AIR FLOW	NONE	DCL5K	DC LITE	330	106				JCDC1	$1,038.00
2455	PA2542	METER, AIR VELOCITY	NONE	11801	UNIFLOW	327	110		M172192		JCDC2	$575.00
1887	PA1912	METER, AIR VELOCITY	NONE	6006AP	ALNOR	JS-32	2202		M41363		JCDC8	$100.00
1511	PA2629	METER, AIR VOLUME & TEMPERATURE	113320	100VT	DAVIS	JS-321	110A		M172214		JCDC1	$100.00
4465	NONE	METER, CLAMP-ON	122462	RS3	AMPROBE	321	110B				JCDC4	$115.00
4432	NONE	METER, CLAMP-ON	112662	RS3	AMPROBE	321	110B		M206410		JCDC4	$115.00
3211	PA2073	METER, CLAMP-ON	NONE	RS3JP	AMPROBE	329	TOOLBAG		M207585		JCDC1	$48.00

BAR CODE NO	OLD PROP NO	ITEM NOUN	SERIAL NO	MODEL NO	MANUFACTURER	BLDG	ROOM	LICENSE PLATE NO	CALIBRATION NO	MAINTENANCE ID	ACCOUNT NO	COST
1512	NONE	METER, CLAMP-ON	79808627	336	FLUKE	420	100A		M205774		JCDC6	$278.00
0816	PA2078	METER, CLAMP-ON	NONE	RS3JP	AMPROBE	329	106				JCDC6	$100.00
0809	NONE	METER, CLAMP-ON	109830	RS3	AMPROBE	326D	100		M206409		JCDC1	$115.00
0702	NONE	METER, CLAMP-ON	8179159	333	FLUKE	321	110B				JCDC1	$128.00
1507	PA2681	METER, CONDUCTIVITY	NONE	C0150	HACH	JS-329	106				JCDC7	$540.00
2525	PA1983	METER, DEWPOINT, AUTOMATIC	NONE	NONE	SHAW	329	106				JCDC4	$100.00
4407	NONE	METER, DIGITAL	82360195	112	FLUKE	321	110B		M206464		JCDC1	$140.00
2732	NONE	METER, DIGITAL	82360196	112	FLUKE	321	110B		M206465		JCDC1	$140.00
2675	NONE	METER, DIGITAL	82360194	112	FLUKE	321	110B		M206466		JCDC1	$140.00
1277	JSC5493	METER, DIGITAL	NONE	UNKNOWN	UNKNOWN	329	107		M203157		JCDC4	$150.00
0857	PA1916	METER, DIGITAL CAPACITANCE	90905177	CM20A	BECKMAN	329	TRUCK				JCDC6	$140.00
3121	PA8078	METER, DIGITAL, HUMIDITY	K30931	44457F	EXTECH	JS-329	106		M31373		JCDC6	$150.00
1368	NONE	METER, ELECTRIC CHARGING	154820026584	TIF9025	TIF	323	SHOP				JCDC1	$305.21
0735	PA2458	METER, HUMIDITY	20195092466	RH21F	OMEGA VAC	329	107		M164404		JCDC6	$100.00
3119	0224946	METER, IMPEDANCE DIGITAL	H21612	253	ELECTRO SCIENTIFIC IND F-BROWN	JS-329	106				JCDC6	$1,295.00
1883	PA1939	METER, KILOWATT HOUR	NONE	KW1103AV	TIF IND	JS-32	2202		M203322		JCDC8	$100.00
1855	PA1938	METER, KILOWATT HOUR	NONE	KW110-AV	TIF IND	JS-326A	LDY		M203321		JCDC8	$100.00
1870	PA2640	METER, LIGHT	NONE	DS2000	SYLVANIA	JS-32	2202				JCDC8	$100.00
1151	PA2642	METER, LIGHT	NONE	DS2000	SYLVANIA	JS-321	110A		M172350		JCDC1	$205.00
1150	PA2644	METER, LIGHT	NONE	DS2000	SYLVANIA	JS-321	110A		M172359		JCDC1	$205.00
1149	PA2639	METER, LIGHT	NONE	DS2000	SYLVANIA	JS-321	110A		M172352		JCDC1	$205.00

BAR CODE NO	OLD FED NO	[illegible]	SERIAL NO	MODEL NO	[illegible]	BLDG	ROOM	[illegible]	CALIBRATION [illegible]	MAINTENANCE [illegible]	ACCOUNT NO	COST
1148	PA2454	METER, LIGHT	NONE	DS2000	SYLVANIA	JS-321	110A		M172360		JCDC1	$205.00
1147	PA2637	METER, LIGHT	NONE	DS2000	SYLVANIA	321	110B		M203288		JCDC1	$100.00
1146	PA2376	METER, LIGHT	NONE	DS2000	SYLVANIA	321	110B		M172354		JCDC1	$205.00
2458	PA2255	METER, PHASE INDICATOR	9403	PS18031	SPERRY PRODUCTS	327	110				JCDC2	$76.00
1143	PA2265	METER, PHASE INDICATOR	9309C	PS18031	SPERRY PRODUCTS	JS-321	110A		M172375		JCDC1	$100.00
1138	PA2259	METER, PHASE INDICATOR	9403C	PS18031	SPERRY PRODUCTS	JS-321	110A		M172376		JCDC1	$100.00
1163	PA6918	METER, PHASE ROTATION	NONE	560400	BIDDLE INSTRUMENT	JS-321	110A				JCDC4	$150.00
2842	FD7103	METER, PHASE SEQUENCE	NONE	K3	KNOPP	JS-321	110A		M43202		JCDC1	$100.00
2841	FD7104	METER, PHASE SEQUENCE	NONE	K3	KNOPP	JS-321	110A		M43203		JCDC1	$100.00
2840	FD7105	METER, PHASE SEQUENCE	NONE	K6	KNOPP	321	TRUCK		M172576		JCDC1	$100.00
2148	PA2308	METER, PHASE SEQUENCE	NONE	K3	KNOPP	JS-321	110B		M172374		JCDC1	$100.00
1827	PA2300	METER, PHASE SEQUENCE	NONE	K3	KNOPP	321	110B		M172369		JCDC1	$100.00
1438	FD7100	METER, PHASE SEQUENCE	NONE	K3	KNOPP	JS-321	TRUCK		M172577		JCDC1	$100.00
1142	PA2524	METER, PHASE SEQUENCE	NONE	K3	KNOPP	JS-321	110A		M172384		JCDC1	$100.00
1141	PA2295	METER, PHASE SEQUENCE	NONE	K3	KNOPP	JS-321	110A				JCDC8	$100.00
1140	FD7101	METER, PHASE SEQUENCE	NONE	K3	KNOPP	JS-321	110A		M172575		JCDC1	$90.00
1139	PA2305	METER, PHASE SEQUENCE	NONE	K3	KNOPP	JS-321	110A		M172372		JCDC1	$100.00
1137	JSC3441	METER, PHASE SEQUENCE	NONE	K3	KNOPP	321	110B				JCDC1	$173.00
1136	FD7102	METER, PHASE SEQUENCE	NONE	K6	KNOPP	JS-321	110B		M172578		JCDC1	$90.00
1135	JSC3442	METER, PHASE SEQUENCE	NONE	K3	KNOPP	JS-231	UPSTAIRS				JCDC1	$100.00
0737	PA2301	METER, PHASE SEQUENCE	NONE	K3	KNOPP	329	107		M172370		JCDC6	$173.00

BAR CODE NO	OLD PROPERTY NO	DESCRIPTION	SERIAL NO	MODEL NO	MFG	BLDG	ROOM	LICENSE PLATE NO	CALIBRATION NO	MAINTENANCE ID	ACCOUNT NO	COST
1145	JSC3158	METER, PRESSURE, UNIVERSAL	126964	DPM 2 PLUS	BIOTEK	JS-321	110A		M203163		JCDC4	$100.00
4493	NONE	METER, PROSESS	8460001	787	FLUKE	JS-24	105H				JCDC4	$597.80
1688	NONE	METER, SNAP AROUND	2200607	380942	EXTECH	221	100				JCDC7	$393.71
4067	NONE	METER, SOUND LEVEL	5819	DB3060MK	METROSONICS	JS-330	HALL				JCDC1	$1,300.00
2556	PA1699	METER, TEMPERATURE, DIGITAL KJ	5570806	52	FLUKE	48	104				JCDC17	$189.00
2556	PA1699	METER, TEMPERATURE, DIGITAL KJ	5570806	52	FLUKE	48	104				JCDC17	$189.00
0754	PA2477	METER, VOLT/OHM	64681282	79	FLUKE	329	TRK #1/TOOL BAG				JCDC6	$100.00
1503	PA1183	METER, VOLT/OHM: ANALOG	NONE	260	SIMPSON	JS-329	106		M170357		JCDC1	$100.00
1523	JSC3458	METER, VU	1889	NONE	UNKNOWN	JS-329	106				JCDC6	$100.00
4020	NONE	METTER, MILLIOHM	NONE	380560	EXTECH	JS-329	106				JCDC6	$449.00
1170	1345800	MICRO OHMMETER	58834	5600	AEMC CORP	JS-321	110A		M42745		JCDC1	$2,495.00
1169	1345799	MICRO OHMMETER	62896	5600	AEMC CORP	JS-321	110A		M46911		JCDC1	$2,495.00
4422	JSC5501	MICROMANOMETER	LM7484	530	UNKNOWN	24	105H				JCDC1	$250.00
1872	PA1537	MICROMANOMETER	LM3670	530	ALNOR	321	110B		M173426		JCDC8	$495.00
1702	JSC3046	MICROMANOMETER	LM7484	530	ALNOR	48	LOCKER				JCDC4	$100.00
0523	NONE	MICROMETER	NONE	141233	MITUTOYO	321	110B				JCDC6	$151.00
0524	PA5214	MICROMETER SET, 0 -- 6 INCH	NONE	9HT38609	CRAFTSMAN	329	110 / TOOL CHEST 5				JCDC6	$233.00
0479	JSC4676	MICROMETER SET, 9-PC	NONE	224SETA	STARRETT	24	UPSTAIRS				JCDC4	$100.00
2548	JSC3187	MICROMETER SET, INSIDE	NONE	NONE	SCHERRTUMICO	24	100				JCDC4	$100.00
2547	JSC3186	MICROMETER SET, INSIDE	NONE	823D	STARRETT	24	100				JCDC4	$100.00
0373	JSC3102	MICROMETER, 10"	NONE	TSD EMB TYPE 436	STARRETT	JS-329	106		M172533		JCDC6	$200.00

BARCODE NO	OLD BARCODE NO	[illegible]	[illegible]	MODEL NO	[illegible]	BUDGET	ROOM	LICENSE PLATE NO	CALIBRATION NO	MAINTENANCE PAID	ACCOUNT NO	COST
0372	JSC3103	MICROMETER, 11"	NONE	TSD EMB TYPE 436	STARRETT	JS-329	106		M172534		JCDC6	$230.00
0370	JSC3104	MICROMETER, 12"	NONE	TSD EMB TYPE 436	STARRETT	JS-329	106		M172535		JCDC6	$240.00
0371	JSC3105	MICROMETER, 13"	NONE	TSD EMB TYPE 436	STARRETT	JS-329	106		M172536		JCDC6	$250.00
0376	JSC3106	MICROMETER, 14"	NONE	TSD EMB TYPE 436	STARRETT	JS-329	106		M172537		JCDC6	$260.00
0377	JSC3107	MICROMETER, 15"	NONE	TSD EMB TYPE 436	STARRETT	JS-329	106		M172538		JCDC6	$270.00
0378	JSC3108	MICROMETER, 16"	NONE	TSD EMB TYPE 436	STARRETT	JS-329	106		M172539		JCDC6	$280.00
0379	JSC3109	MICROMETER, 17"	NONE	TSD EMB TYPE 436	STARRETT	JS-329	106		M172540		JCDC6	$290.00
0380	JSC3110	MICROMETER, 18"	NONE	TSD EMB TYPE 436	STARRETT	JS-329	106		M172541		JCDC6	$295.00
0381	JSC3111	MICROMETER, 19"	NONE	TSD EMB TYPE 436	STARRETT	JS-329	106		M172542		JCDC6	$300.00
0382	JSC3112	MICROMETER, 20"	NONE	TSD EMB TYPE 436	STARRETT	JS-329	106		M172543		JCDC6	$320.00
0383	JSC3113	MICROMETER, 21"	NONE	TSD EMB TYPE 436	STARRETT	JS-329	106		M172544		JCDC6	$330.00
0885	PA6116	MICROMETER, 2-12"	NONE	NONE	BROWN & SHARP	JS-48	100				JCDC4	$100.00
0384	JSC3114	MICROMETER, 22"	NONE	TSD EMB TYPE 436	STARRETT	JS-329	106		M172545		JCDC6	$340.00
0935	JSC3115	MICROMETER, 23"	NONE	TSD EMB TYPE 436	STARRETT	JS-329	106		M172546		JCDC6	$350.00
0936	JSC3116	MICROMETER, 24"	NONE	TSD EMB TYPE 436	STARRETT	JS-329	106		M172547		JCDC6	$360.00
0375	JSC3100	MICROMETER, 8"	NONE	TSD EMB TYPE 436	STARRETT	JS-329	110		M172532		JCDC6	$170.00
0374	JSC3101	MICROMETER, 9"	NONE	TSD EMB TYPE 436	STARRETT	JS-329	106		M172531		JCDC6	$190.00
0481	JSC4678	MICROMETER, INSIDE	NONE	680A	LUFKIN RULE	24	UPSTAIRS				JCDC4	$100.00
0480	JSC4677	MICROMETER, INSIDE	NONE	NONE	SCHERRTUMICO	24	UPSTAIRS				JCDC4	$100.00
0501	JSC3157	MICROMETER, OUTSIDE, 1"	NONE	NONE	STARRETT	24	DOWNSTAIRS				JCDC4	$100.00
0483	JSC4679	MICROMETER, OUTSIDE, 3-4"	NONE	NONE	STARRETT	24	UPSTAIRS				JCDC4	$100.00

BAR CODE NO	OLD PROP NO	DESCRIPTION	SERIAL NO	MODEL NO	MANUFACTURER	BLDG	ROOM	LICENSE PLATE NO	CALIBRATION NO	MAINTENANCE ID	ACCOUNT NO	COST
1144	PA7234	MICROSCANNER	NONE	E AUTOZERO	EXERGEN CORP	JS-321	110A		M172348		JCDC1	$100.00
0650	NONE	MICROTORK TORQUE	NONE	D9M44593	CRAFTSMAN	321	110B				JCDC8	$116.00
2484	0558792	MILLING MACHINE KNEE TYPE	108256	12BR2J	BRIDGEPORT MACHINES	JS-329	110			23197	JCDC6	$9,340.00
4868	0157227	MIXER CONCRETE PORTABLE	287051	9CM	STONE CONSTRUCTION EQUIPMENT	JS-326A	100			26296	JCDC3	$2,195.00
3202	JSC4226	MONITOR, CARBON MONOXIDE	5180	ISA44RAL	ENMET	JS-321	UPSTAIRS				JCDC3	$300.00
0984	JSC3626	MONITOR, COLOR, LCD	5001025	FDLX40	SONY	327	110				JCDC2	$280.00
1505	NONE	MONITOR, GAS	GS18440302	PASSPORT5STAR	MSA	321	110B		M205773		JCDC1	$2,204.26
1801	JSC4144	MOTOR, BLOWER	NONE	487884	MINE SAFETY	Conex yard	EV CRAFTS #4				JCDC3	$150.00
1800	JSC4148	MOTOR, BLOWER	NONE	487884	MINE SAFETY	Conex yard	EV CRAFTS #4				JCDC3	$150.00
1799	JSC4142	MOTOR, BLOWER	NONE	487884	MINE SAFETY	Conex yard	EV CRAFTS #4				JCDC3	$150.00
1798	JSC4133	MOTOR, BLOWER	NONE	487884	MINE SAFETY	Conex yard	EV CRAFTS #4				JCDC3	$150.00
1797	JSC4135	MOTOR, BLOWER	NONE	487884	MINE SAFETY	Conex yard	EV CRAFTS #4				JCDC3	$150.00
1796	JSC4146	MOTOR, BLOWER	NONE	487884	MINE SAFETY	Conex yard	EV CRAFTS #4				JCDC3	$150.00
1795	JSC4140	MOTOR, BLOWER	NONE	487884	MINE SAFETY	Conex yard	EV CRAFTS #4				JCDC3	$150.00
1794	JSC4138	MOTOR, BLOWER	NONE	487884	MINE SAFETY	Conex yard	EV CRAFTS #4				JCDC3	$150.00
1793	JSC4132	MOTOR, BLOWER	NONE	487884	MINE SAFETY	Conex yard	EV CRAFTS #4				JCDC3	$100.00
1792	JSC4137	MOTOR, BLOWER	NONE	W3266	3M	Conex yard	EV CRAFTS #4				JCDC3	$150.00
1791	JSC4149	MOTOR, BLOWER	NONE	487884	MINE SAFETY	Conex yard	EV CRAFTS #4				JCDC3	$150.00
1790	JSC4134	MOTOR, BLOWER	NONE	487884	MINE SAFETY	Conex yard	EV CRAFTS #4				JCDC3	$150.00

BAR CODE NO	OLD PROP NO	NOUN	SERIAL NO	MODEL NO	MFR	BLDG	ROOM	LICENSE PLATE NO	CALIBRATION NO	MAINTENANCE ID	ACCOUNT NO	COST
1789	JSC4150	MOTOR, BLOWER	NONE	487884	MINE SAFETY	Conex yard	EV CRAFTS #4				JCDC3	$150.00
1788	JSC4136	MOTOR, BLOWER	NONE	487884	MINE SAFETY	Conex yard	EV CRAFTS #4				JCDC3	$150.00
1787	JSC4139	MOTOR, BLOWER	NONE	487884	MINE SAFETY	Conex yard	EV CRAFTS #4				JCDC3	$150.00
1786	JSC4145	MOTOR, BLOWER	NONE	487884	MINE SAFETY	Conex yard	EV CRAFTS #4				JCDC3	$150.00
1785	JSC4126	MOTOR, BLOWER	NONE	W3266	3M	Conex yard	EV CRAFTS #4				JCDC3	$150.00
1784	JSC4400	MOTOR, BLOWER	NONE	W3266	3M	Conex yard	EV CRAFTS #4				JCDC3	$150.00
1783	JSC4122	MOTOR, BLOWER	NONE	W3266	3M	Conex yard	EV CRAFTS #4				JCDC3	$150.00
1782	JSC4130	MOTOR, BLOWER	NONE	W3266	3M	Conex yard	EV CRAFTS #4				JCDC3	$150.00
1781	JSC4128	MOTOR, BLOWER	NONE	W3266	3M	Conex yard	EV CRAFTS #4				JCDC3	$150.00
1780	JSC4124	MOTOR, BLOWER	NONE	W3266	3M	Conex yard	EV CRAFTS #4				JCDC3	$150.00
1779	JSC4129	MOTOR, BLOWER	NONE	W3266	3M	Conex yard	EV CRAFTS #4				JCDC3	$150.00
1778	JSC4127	MOTOR, BLOWER	NONE	UNKNOWN	UNKNOWN	329	SHOP				JCDC3	$150.00
1777	JSC4399	MOTOR, BLOWER	NONE	W3266	3M	Conex yard	EV CRAFTS #4				JCDC3	$150.00
1776	JSC4123	MOTOR, BLOWER	NONE	W3266	3M	Conex yard	EV CRAFTS #4				JCDC3	$150.00
1775	JSC4131	MOTOR, BLOWER	NONE	W3266	3M	Conex yard	EV CRAFTS #4				JCDC3	$150.00
1774	JSC4125	MOTOR, BLOWER	NONE	W3266	3M	Conex yard	EV CRAFTS #4				JCDC3	$150.00
2926	0715358	MOTOR-GENERATOR TRLMTD	NONE	242-C/D	ONAN CORP	JS-326B	LYD	NA00537T			JCDC6	$5,038.00
4420	JSC5579	MULTI-AMP	NONE	PL2000	AVO	321	110B				JCDC6	$200.00

SECTION J
ATTACHMENT H
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BAR CODE NO	OLD PROP NO	NOUN	SERIAL NO	MODEL NO	MFG	BLDG	ROOM	LICENSE PLATE NO	CALIBRATION NO	MAINTENANCE ID	ACCOUNT NO	COST
1049	PA6288	MULTI-AMP	511A	MS1A	MULTIAMP CORP	321	TOOL RM				JCDC1	$200.00
4520	NONE	MULTIMETER	82060166	112	FLUKE	JS-321	TRUCK				JCDC4	$158.00
4518	NONE	MULTIMETER	81890319	112	FLUKE	321	110B				JCDC4	$158.00
4486	NONE	MULTIMETER	81140453	112	FLUKE	JS-321	TRUCK				JCDC8	$148.00
4482	NONE	MULTIMETER	81050538	FLK873	FLUKE	321	110B		M205758		JCDC4	$315.00
4476	NONE	MULTIMETER	82060167	112	FLUKE	JS-321	TRUCK				JCDC4	$158.00
4466	NONE	MULTIMETER	81030328	FLK873	FLUKE	JS-321	TRUCK		M205755		JCDC8	$315.00
4447	1006070	MULTIMETER	5110008	8505A	FLUKE JOHN MFG CO INC	JS-321	110A		M173420		JCDC8	$3,495.00
4261	NONE	MULTIMETER	NONE	112	FLUKE	321	110				JCDC1	$199.00
4260	NONE	MULTIMETER	NONE	112	FLUKE	321	110				JCDC1	$199.00
4065	NONE	MULTIMETER	NONE	FLUKE 177	FLUKE	321	110B				JCDC1	$234.00
4045	NONE	MULTIMETER	85340573	179	FLUKE	325	LOCKER				JCDC1	$219.00
4044	NONE	MULTIMETER	85340572	179	FLUKE	325	100				JCDC1	$219.00
3457	NONE	MULTIMETER	81230504	112	FLUKE	321	110B				JCDC6	$149.00
3309	NONE	MULTIMETER	20019032	ATD5599	ATD TOOLS INC	417	SHOP				JBDC4	$124.00
2871	NONE	MULTIMETER	81890317	112	FLUKE	321	110B				JCDC8	$125.00
2864	NONE	MULTIMETER	82700840	177	FLUKE	32	TRUCK				JCDC8	$228.00
2333	NONE	MULTIMETER	82700838	177	FLUKE	JS-32	2202				JCDC8	$228.00
2309	NONE	MULTIMETER	8270025	E112G	FLUKE	32	2202A				JCDC8	$158.00
1826	NONE	MULTIMETER	80906234	336	FLUKE	321	110B				JCDC6	$288.00
1598	PA2476	MULTIMETER	NONE	79	FLUKE	329	107		M165798		JCDC6	$100.00

BAR CODE NO	OLD PROP NO	DESCRIPTION	SERIAL NO	MODEL NO	MFG	BLDG	ROOM	LICENSE PLATE NO	CALIBRATION NO	MAINTENANCE ID	ACCOUNT FUND	COST
1561	NONE	MULTIMETER	81230503	112	FLUKE	321	110B		M205869		JCDC1	$149.00
1002	NONE	MULTIMETER	81230505	112	FLUKE	321	110B				JCDC6	$149.00
0974	0806938	MULTIMETER	DM5531093	97	FLUKE JOHN MFG CO INC	329	106		M203323		JCDC6	$1,795.00
0934	NONE	MULTIMETER	81050535	FLK873	FLUKE	321	110B		M205754		JCDC1	$315.00
0933	NONE	MULTIMETER	82060165	112	FLUKE	321	110B				JCDC4	$158.00
0771	NONE	MULTIMETER	80400094	112	FLUKE	325	LOCKER		M205868		JCDC1	$149.00
0770	NONE	MULTIMETER	81050536	FLK873	FLUKE	321	110B		M205753		JCDC4	$315.00
0592	BRSP20010	MULTIMETER	76150610	FLK873	FLUKE	JS-48	100				JCDC3	$250.00
0548	NONE	MULTIMETER	81050537	FLK873	FLUKE	321	110B		M205756		JCDC4	$315.00
0547	NONE	MULTIMETER	81030332	FLK873	FLUKE	321	110B		M205757		JCDC4	$315.00
0517	NONE	MULTIMETER	81980065	112	FLUKE	321	110B				JCDC4	$158.00
0516	NONE	MULTIMETER	81980072	112	FLUKE	321	110B				JCDC4	$158.00
0514	NONE	MULTIMETER	82060163	112	FLUKE	321	110B				JCDC4	$158.00
0512	NONE	MULTIMETER	82060164	112	FLUKE	321	110B				JCDC4	$158.00
0508	NONE	MULTIMETER	81140452	112	FLUKE	321	110B				JCDC8	$148.00
0507	NONE	MULTIMETER	81140440	112	FLUKE	321	110B				JCDC8	$148.00
0305	NONE	MULTIMETER	81050539	FLK873	FLUKE	325	LOCKER		M205752		JCDC4	$315.00
4665	JSC3469	MULTIMETER, DIGITAL	68570167	87	FLUKE	329	106		M173425		JCDC6	$100.00
4560	PA2177	MULTIMETER, DIGITAL	47931097	23	FLUKE	32	2202		M172206		JCDC6	$100.00
4511	PA2175	MULTIMETER, DIGITAL	45280632	77	FLUKE	329	104		M172419		JCDC8	$100.00
4488	PA2187	MULTIMETER, DIGITAL	44690791	77	FLUKE	JS-321	110A		M201876		JCDC8	$100.00

BARCODE NO	OLD PROPNO	[illegible]	SERIAL NO	MODEL NO	[illegible]	[illegible]	[illegible]	[illegible]	CALIBRATION NO	MAINTENANCE ID	ACCOUNT NO	COST
4448	0156003	MULTIMETER, DIGITAL	4192277	8842A-09	FLUKE JOHN MFG CO INC	JS-321	110B		M172272		JCDC8	$1,245.00
3960	FD7004	MULTIMETER, DIGITAL	5355024	27	FLUKE	JS-321	LDY		M35769		JCDC1	$100.00
3497	JSC4321	MULTIMETER, DIGITAL	40905666	OTC700	OTC	JS-417	HIBAY				JBDC4	$125.00
3496	PA2167	MULTIMETER, DIGITAL	44430989	77	FLUKE	JS-417	HIBAY		M173453		JCDC1	$100.00
3374	FD7017	MULTIMETER, DIGITAL	496099	27	FLUKE	321	104		M33167		JCDC1	$100.00
2959	FD7015	MULTIMETER, DIGITAL	5335041	27	FLUKE	JS-321	110B		M36240		JCDC1	$100.00
2950	JSC6308	MULTIMETER, DIGITAL	4960091	27	FLUKE	JS-321	110A		M36894		JCDC1	$100.00
2583	PA2101	MULTIMETER, DIGITAL	45170138	23	FLUKE	325	TRUCK 92				JCDC4	$100.00
2378	PA2181	MULTIMETER, DIGITAL	45080626	77	FLUKE	383	CONEX		M46160		JCDC8	$100.00
2152	FD7002	MULTIMETER, DIGITAL	5355020	27	FLUKE	JS-321	TRUCK		M35767		JCDC1	$100.00
1517	PA2180	MULTIMETER, DIGITAL	42610060	77	FLUKE	321	110B		M46105		JCDC1	$100.00
1509	JSC3470	MULTIMETER, DIGITAL	34663937	77	FLUKE	JS-329	106		M46379		JCDC8	$100.00
1445	JSC6302	MULTIMETER, DIGITAL	5005044	27	FLUKE	JS-321	110A				JCDC1	$100.00
1422	FD7010	MULTIMETER, DIGITAL	5330009	27	FLUKE	321	104		M36244		JCDC1	$100.00
1155	PA1189	MULTIMETER, DIGITAL	NONE	270	SIMPSON	321	110B				JCDC1	$100.00
0995	PA2186	MULTIMETER, DIGITAL	NONE	23	FLUKE	327	110		M172197		JCDC2	$169.00
0858	PA2143	MULTIMETER, DIGITAL	47931020	23	FLUKE	329	TRUCK				JCDC6	$130.00
0815	PA2138	MULTIMETER, DIGITAL	NONE	23	FLUKE	JS-321	110				JCDC6	$128.00
0789	FD7013	MULTIMETER, DIGITAL	5335043	27	FLUKE	JS-321	110A		M36241		JCDC1	$100.00
0649	FD7012	MULTIMETER, DIGITAL	5335042	27	FLUKE	JS-321	TRUCK		M36242		JCDC1	$100.00
3348	PA2033	MULTIMETER, DIGITAL, TRUE RMS	NONE	87	FLUKE	329	104		M172761		JCDC2	$349.00

BAR CODE NO	OLD PROP NO	NOUN	SERIAL NO	MODEL NO	MFGR	BLDG	ROOM	LICENSE PLATE NO	CALIBRATION NO	MAINTENANCE ID	ACCOUNT NO	COST
2600	PA2485	MULTIMETER, DIGITAL, TRUE RMS	65010590	87	FLUKE	48	LOCKER		M166225		JCDC8	$100.00
2422	JSC3387	MULTIMETER, DIGITAL, TRUE RMS	NONE	87	FLUKE	325	100				JCDC6	$100.00
1510	PA2171	MULTIMETER, DIGITAL, TRUE RMS	57851048	77	FLUKE	JS-329	106		M170380		JCDC1	$100.00
0741	PA2460	MULTIMETER, DIGITAL, TRUE RMS	64410243	87	FLUKE	329	110				JCDC6	$300.00
0706	PA2568	MULTIMETER, DIGITAL, TRUE RMS	65960849	87	FLUKE	325	LOCKER 9		M169173		JCDC4	$100.00
3118	NONE	MULTIMETER, GRAPHIC	78860249	87III	FLUKE	329	106		M205759		JCDC6	$348.00
0757	NONE	MULTIMETER, GRAPHIC	D18050110	867	FLUKE	JS-329	106		M205784		JCDC6	$994.00
4538	NONE	MULTIMETER, TRUE RMS	NONE	112	FLUKE						JCDC6	$158.00
4492	NONE	MULTIMETER, TRUE RMS	NONE	112	FLUKE	JS-325	TRUCK				JCDC6	$158.00
4491	NONE	MULTIMETER, TRUE RMS	NONE	112	FLUKE	321	110B				JCDC6	$158.00
4487	NONE	MULTIMETER, TRUE RMS	NONE	112	FLUKE	321	110B		M207430		JCDC1	$158.00
4073	NONE	MULTIMETER, TRUE RMS	86020685	112	FLUKE	321	110B				JCDC1	$149.00
4072	NONE	MULTIMETER, TRUE RMS	86020686	112	FLUKE	321	110B				JCDC1	$149.00
1158	NONE	MULTIMETER, TRUE RMS	NONE	112	FLUKE	24	100				JCDC1	$158.00
0703	NONE	MULTIMETER, TRUE RMS	NONE	112	FLUKE	JS-32	045				JCDC6	$158.00
0672	NONE	MULTIMETER, TRUE RMS	NONE	112	FLUKE	321	110B				JCDC6	$158.00
0307	NONE	MULTIMETER, TRUE RMS	NONE	112	FLUKE	325	TRUCK				JCDC6	$158.00
4471	NONE	MULTIMETER, TRUE-RMS	80670084	112ESFP	FLUKE	321	110B				JCDC8	$149.00
4211	NONE	MULTIMETER, TRUE-RMS	89000301	112	FLUKE	JS-420	TRUCK				JCDC1	$135.00
3147	PA1071	MULTIMETER, VOLT/OHM	NONE	270	SIMPSON	JS-329	106				JCDC6	$100.00
2826	FD5202	MULTIMETER, VOLT/OHM	NONE	260	SIMPSON	321	110B		M54509		JCDC1	$100.00

SECTION J
ATTACHMENT H
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BARCODE NO	CILT PROP NO	[illegible]	SERIAL NO	MODEL NO	[illegible]	BLDG	ROOM	LICENSE PLATE NO	CALIBRATION NO	MAINTENANCE DEPT	ACCOUNT NO	COST
1504	PA1212	MULTIMETER, VOLT/OHM	NONE	260	SIMPSON	JS-329	106		M169175		JCDC1	$100.00
3795	1739122	MULTIPLEX UNIT 32	64	MX2000RMU32	MONITORING TECHNOLOGY CORP	30S	53M17				JCDC2	$6,475.00
2601	1739123	MULTIPLEX UNIT 32	62	MS2000RMU32	MONITORING TECHNOLOGY CORP	30S	53M16				JCDC2	$6,475.00
0991	1739124	MULTIPLEX UNIT 32	63	MS2000RMU32	MONITORING TECHNOLOGY CORP	327	TPRM				JCDC2	$6,475.00
2406	0844315	MULTIPLEXER	1	CIM1.0	ZENDEX CORP	24	202				JCDC7	$2,865.00
0989	1553685	MULTIPLEXER	25	MS2000RMU2	MONITOR TECHNOLOGY CORP	327	TPRM				JCDC2	$3,625.00
0988	1553686	MULTIPLEXER	24	MS2000RMU2	MONITOR TECHNOLOGY CORP	327	TPRM				JCDC2	$3,625.00
3292	FD409	NIBBLER, 16-GAUGE	709A494270041	6805	MILWAUKEE	JS-321	100				JCDC1	$100.00
4303	NONE	NOTEBOOK, LAPTOP	D0D881	PP11L	DELL	JS-330	118C				JCDC9	$1,632.00
1876	JSC3349	NT UNIT	124774	10-NTU10201	METASYS	32	2202				JCDC8	$100.00
1696	0553645	OHMMETER	351	2957A	ASSOCIATED RESEARCH INC	JS-221A	100		M203369		JCDC7	$1,550.00
3116	PA1585	OHMMETER, CLIP-ON	204012	RS35G	AMPROBE	JS-329	106		M164830		JCDC6	$50.00
4357	NONE	OILER	NONE	418	RIDGID	321	110				JCDC1	$220.00
2893	NONE	OILER, PIPE THREADING	NONE	418HD	RIDGID	JS-231	UPSTAIRS				JCDC1	$215.00
2247	NONE	OILER, PIPE THREADING	NONE	418HD	RIDGID	JS-231	UPSTAIRS				JCDC1	$215.00
4926	NONE	OMEGAVAC W/HEPPA	26408	VACOMEGACT	OMEGAVAC	321	110				JCDC1	$199.95
4925	NONE	OMEGAVAC W/HEPPA	26387	VACOMEGACT	OMEGAVAC	321	110				JCDC1	$199.95
0398	NONE	OMEGAVAC W/HEPPA	26388	VACOMEGACT	OMEGAVAC	321	110				JCDC1	$199.95
2318	1008842	OSCILLOSCOPE	B017326	2232	TEKTRONIX INC F-PENTRIX CORP	32	2202A		M173421		JCDC8	$4,695.00
2867	0681086	OSCILLOSCOPE DUAL TRACE	710377	475	TEKTRONIX INC F-PENTRIX CORP	32	2202A		M172271		JCDC8	$4,160.00
0694	0681085	OSCILLOSCOPE DUAL TRACE	709963	475	TEKTRONIX INC F-PENTRIX CORP	32	2202A		M172911		JCDC8	$4,160.00

BAR CODE NO	OLD PROP NO	DESCRIPTION	SERIAL NO	MODEL NO	MFG	BLDG	ROOM	LICENSE PLATE NO	CALIBRATION NO	MAINTENANCE ID	ACCOUNT NO	COST
0315	0681344	OSCILLOSCOPE DUAL TRACE	B263727	475	TEKTRONIX INC F-PENTRIX CORP	48	104A				JCDC8	$2,900.00
1508	0018456	OSCILLOSCOPE W/OPTIONS	B012921	2246A	TEKTRONIX INC F-PENTRIX CORP	329	106				JCDC6	$2,655.00
1573	1545862	OVEN MICROWAVE	NONE	CP55	THERMADOR WASTE KING	JS-329	107				JCDC6	$1,095.00
0328	JSC3154	OVEN, ROD	NONE	PP10	DRYROD	24	DOWNSTAIRS				JCDC4	$100.00
2997	JSC6272	OVEN, ROD, PORTABLE	NONE	NONE	PHOENIX	321	104				JCDC1	$100.00
2429	JSC4640	OVEN, WELDING ROD	14X3	16	THELCO	JS-325	110				JCDC4	$100.00
1713	NONE	PAINT STRIPER	20930113	3100GXC	TITAN	JS-342	100				JCDC3	$3,132.00
0074	JSC3781	PALLET JACK, MANUAL, 4500#	54372	BLACK JACK	EQUIP AMERIC	JS-417	101				JBDC5	$900.00
4886	JSC5055	PALLET, DRUM, HAZMAT	NONE	NONE	MENASHA	JS-358	LDY				JALN1	$100.00
4544	JSC5037	PALLET, DRUM, HAZMAT	NONE	NONE	MENASHA	JS-358	OUTSIDE				JALN1	$150.00
3790	JSC5035	PALLET, DRUM, HAZMAT	NONE	NONE	MENASHA	JS-150EL	LDY				JALN1	$150.00
3789	JSC5013	PALLET, DRUM, HAZMAT	NONE	NONE	MENASHA	JS-150EL	LDY				JALN1	$150.00
3788	JSC5051	PALLET, DRUM, HAZMAT	NONE	NONE	MENASHA	JS-150EL	LDY				JALN1	$150.00
3787	JSC5019	PALLET, DRUM, HAZMAT	NONE	NONE	MENASHA	JS-150EL	LDY				JALN1	$150.00
3786	JSC5096	PALLET, DRUM, HAZMAT	NONE	NONE	MENASHA	JS-150EL	LDY				JALN1	$150.00
3785	JSC5057	PALLET, DRUM, HAZMAT	NONE	NONE	MENASHA	JS-150EL	LDY				JALN1	$150.00
3784	JSC5017	PALLET, DRUM, HAZMAT	NONE	NONE	MENASHA	JS-150EL	LDY				JALN1	$150.00
3783	JSC5089	PALLET, DRUM, HAZMAT	NONE	NONE	UNKNOWN	358	LEAN-TO				JALN1	$150.00
3782	JSC5030	PALLET, DRUM, HAZMAT	NONE	NONE	MENASHA	JS-150EL	LDY				JALN1	$150.00
3781	JSC5052	PALLET, DRUM, HAZMAT	NONE	NONE	MENASHA	ELL	LEAN-TO				JALN1	$150.00
3780	JSC5020	PALLET, DRUM, HAZMAT	NONE	NONE	MENASHA	358	LEAN-TO				JALN1	$150.00

BAR CODE NO	OLD PROP NO	ACCOUNT	SERIAL NO	MODEL NO	MFG	BLDG	ROOM	LICENSE PLATE NO	CALIBRATION NO	MAINTENANCE ID	ACCOUNT NO	COST
3779	JSC5046	PALLET, DRUM, HAZMAT	NONE	NONE	MENASHA	ELL	LEAN-TO				JALN1	$150.00
3778	JSC5104	PALLET, DRUM, HAZMAT	NONE	NONE	MENASHA	JS-150EL	LDY				JALN1	$150.00
3777	JSC5043	PALLET, DRUM, HAZMAT	NONE	NONE	MENASHA	JS-150EL	LDY				JALN1	$150.00
3776	JSC5097	PALLET, DRUM, HAZMAT	NONE	NONE	MENASHA	ELL	LEAN-TO				JALN1	$150.00
3773	JSC5015	PALLET, DRUM, HAZMAT	NONE	NONE	MENASHA	JS-150EL	LDY				JALN1	$150.00
3772	JSC5048	PALLET, DRUM, HAZMAT	NONE	NONE	MENASHA	ELL	LEAN-TO				JALN1	$150.00
3771	JSC5107	PALLET, DRUM, HAZMAT	NONE	NONE	MENASHA	JS-150EL	LDY				JALN1	$150.00
3770	JSC5073	PALLET, DRUM, HAZMAT	NONE	NONE	MENASHA	358	LEAN-TO				JALN1	$150.00
3769	JSC5105	PALLET, DRUM, HAZMAT	NONE	NONE	MENASHA	JS-150EL	LDY				JALN1	$150.00
3768	JSC5102	PALLET, DRUM, HAZMAT	NONE	NONE	MENASHA	JS-150EL	LDY				JALN1	$150.00
3767	JSC5082	PALLET, DRUM, HAZMAT	NONE	NONE	MENASHA	JS-150EL	LDY				JALN1	$150.00
3322	JSC5022	PALLET, DRUM, HAZMAT	NONE	NONE	MENASHA	JS-358	LDY				JALN1	$150.00
3321	JSC5092	PALLET, DRUM, HAZMAT	NONE	NONE	MENASHA	JS-358	LDY				JALN1	$150.00
3320	JSC5067	PALLET, DRUM, HAZMAT	NONE	NONE	MENASHA	JS-358	LDY				JALN1	$150.00
2376.	JSC5071	PALLET, DRUM, HAZMAT	NONE	NONE	MENASHA	JS-358	LDY				JALN1	$150.00
2376	JSC5099	PALLET, DRUM, HAZMAT	NONE	NONE	MENASHA	JS-358	OUTSIDE				JALN1	$150.00
2375	JSC5059	PALLET, DRUM, HAZMAT	NONE	NONE	MENASHA	JS-358	LDY				JALN1	$150.00
2374	JSC5038	PALLET, DRUM, HAZMAT	NONE	NONE	MENASHA	358	LEAN-TO				JALN1	$150.00
2373	JSC5033	PALLET, DRUM, HAZMAT	NONE	NONE	MENASHA	JS-358	LDY				JALN1	$150.00
2372	JSC5090	PALLET, DRUM, HAZMAT	NONE	NONE	MENASHA	JS-358	LDY				JALN1	$150.00
2371	JSC5014	PALLET, DRUM, HAZMAT	NONE	NONE	MENASHA	JS-358	LDY				JALN1	$150.00

BAR CODE NO	OLD PROP NO	EQUIPMENT NOUN	SERIAL NO	MODEL NO	MFG	BLDG NO	ROOM NO	LICENSE PLATE NO	CALIBRATION NO	MAINTENANCE ID	ACCOUNT NO	COST
2370	JSC5072	PALLET, DRUM, HAZMAT	NONE	NONE	MENASHA	JS-358	LDY				JALN1	$150.00
2368	JSC5094	PALLET, DRUM, HAZMAT	NONE	NONE	MENASHA	JS-358	LDY				JALN1	$150.00
2367	JSC5062	PALLET, DRUM, HAZMAT	NONE	NONE	MENASHA	JS-358	LDY				JALN1	$150.00
2365	JSC5023	PALLET, DRUM, HAZMAT	NONE	NONE	MENASHA	JS-358	OUTSIDE				JALN1	$150.00
2363	JSC5068	PALLET, DRUM, HAZMAT	NONE	NONE	MENASHA	JS-358	LDY				JALN1	$150.00
2362	JSC5040	PALLET, DRUM, HAZMAT	NONE	NONE	MENASHA	JS-358	LDY				JALN1	$150.00
2360	JSC5106	PALLET, DRUM, HAZMAT	NONE	NONE	MENASHA	JS-358	LDY				JALN1	$150.00
2358	JSC5103	PALLET, DRUM, HAZMAT	NONE	NONE	MENASHA	JS-358	LDY				JALN1	$150.00
2357	JSC5080	PALLET, DRUM, HAZMAT	NONE	NONE	MENASHA	JS-358	LDY				JALN1	$150.00
2356	JSC5078	PALLET, DRUM, HAZMAT	NONE	NONE	MENASHA	JS-358	LDY				JALN1	$150.00
2355	JSC5041	PALLET, DRUM, HAZMAT	NONE	NONE	MENASHA	JS-358	LDY				JALN1	$150.00
2354	JSC5028	PALLET, DRUM, HAZMAT	NONE	NONE	MENASHA	JS-358	LDY				JALN1	$150.00
2353	JSC5018	PALLET, DRUM, HAZMAT	NONE	NONE	MENASHA	JS-358	LDY				JALN1	$150.00
2352	JSC5098	PALLET, DRUM, HAZMAT	NONE	NONE	MENASHA	JS-358	LDY				JALN1	$150.00
2351	JSC5091	PALLET, DRUM, HAZMAT	NONE	NONE	MENASHA	JS-358	OUTSIDE				JALN1	$150.00
2349	JSC5027	PALLET, DRUM, HAZMAT	NONE	NONE	MENASHA	JS-358	LDY				JALN1	$150.00
2348	JSC5034	PALLET, DRUM, HAZMAT	NONE	NONE	MENASHA	JS-358	LDY				JALN1	$150.00
2345	JSC5044	PALLET, DRUM, HAZMAT	NONE	NONE	MENASHA	JS-358	LDY				JALN1	$150.00
2344	JSC5032	PALLET, DRUM, HAZMAT	NONE	NONE	MENASHA	JS-358	LDY				JALN1	$150.00
2343	JSC5010	PALLET, DRUM, HAZMAT	NONE	NONE	MENASHA	JS-358	LDY				JALN1	$150.00
2342	JSC5056	PALLET, DRUM, HAZMAT	NONE	NONE	MENASHA	JS-358	LDY				JALN1	$150.00

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BARCODE NO	OLD PROP NO	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2341	JSC5042	PALLET, DRUM, HAZMAT	NONE	NONE	MENASHA	JS-358	LDY				JALN1	$150.00
2097	JSC5081	PALLET, DRUM, HAZMAT	NONE	NONE	MENASHA	358	LEAN-TO				JALN1	$150.00
2095	JSC5086	PALLET, DRUM, HAZMAT	NONE	NONE	MENASHA	JS-358	OUTSIDE				JALN1	$150.00
2094	JSC5085	PALLET, DRUM, HAZMAT	NONE	NONE	MENASHA	JS-358	LDY				JALN1	$150.00
2092	JSC5050	PALLET, DRUM, HAZMAT	NONE	NONE	MENASHA	JS-358	LDY				JALN1	$150.00
2091	JSC5087	PALLET, DRUM, HAZMAT	NONE	NONE	MENASHA	JS-358	LDY				JALN1	$150.00
2090	JSC5047	PALLET, DRUM, HAZMAT	NONE	NONE	MENASHA	JS-358	LDY				JALN1	$150.00
2089	JSC5063	PALLET, DRUM, HAZMAT	NONE	NONE	MENASHA	JS-358	LDY				JALN1	$150.00
2088	JSC5066	PALLET, DRUM, HAZMAT	NONE	NONE	MENASHA	JS-358	LDY				JALN1	$150.00
2087	JSC5025	PALLET, DRUM, HAZMAT	NONE	NONE	MENASHA	JS-358	LDY				JALN1	$150.00
2086	JSC5039	PALLET, DRUM, HAZMAT	NONE	NONE	MENASHA	JS-358	LDY				JALN1	$150.00
2085	JSC5093	PALLET, DRUM, HAZMAT	NONE	NONE	MENASHA	JS-358	LDY				JALN1	$150.00
2084	JSC5095	PALLET, DRUM, HAZMAT	NONE	NONE	MENASHA	JS-358	LDY				JALN1	$150.00
2083	JSC5084	PALLET, DRUM, HAZMAT	NONE	NONE	MENASHA	358	LDY				JALN1	$150.00
2081	NONE	PALLET, DRUM, HAZMAT	NONE	NONE	MENASHA	JS-358	LDY				JALN1	$150.00
2080	JSC5079	PALLET, DRUM, HAZMAT	NONE	NONE	MENASHA	JS-358	LDY				JALN1	$150.00
2079	NONE	PALLET, DRUM, HAZMAT	NONE	NONE	MENASHA	JS-358	LDY				JALN1	$150.00
2077	JSC5011	PALLET, DRUM, HAZMAT	NONE	NONE	MENASHA	JS-358	LDY				JALN1	$150.00
2076	JSC5060	PALLET, DRUM, HAZMAT	NONE	NONE	MENASHA	JS-358	LDY				JALN1	$150.00
2075	JSC5075	PALLET, DRUM, HAZMAT	NONE	NONE	MENASHA	JS-358	LDY				JALN1	$150.00
2074	JSC5045	PALLET, DRUM, HAZMAT	NONE	NONE	MENASHA	JS-358	LDY				JALN1	$150.00

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BAR CODE NO	OLD PROP NO	DESCRIPTION	SERIAL NO	MODEL NO	MFG	BLDG	ROOM	LICENSE PLATE NO	CALIBRATION NO	MAINTENANCE ID	ACCOUNT NO	COST
2069	JSC5012	PALLET, DRUM, HAZMAT	NONE	NONE	MENASHA	JS-358	LDY				JALN1	$150.00
2067	JSC5083	PALLET, DRUM, HAZMAT	NONE	NONE	MENASHA	JS-358	LDY				JALN1	$150.00
2066	JSC5061	PALLET, DRUM, HAZMAT	NONE	NONE	MENASHA	JS-358	LDY				JALN1	$150.00
2065	JSC5031	PALLET, DRUM, HAZMAT	NONE	NONE	MENASHA	JS-358	LDY				JALN1	$150.00
2064	JSC5076	PALLET, DRUM, HAZMAT	NONE	NONE	MENASHA	JS-358	LDY				JALN1	$150.00
2063	JSC5069	PALLET, DRUM, HAZMAT	NONE	NONE	MENASHA	JS-358	LDY				JALN1	$150.00
2062	NONE	PALLET, DRUM, HAZMAT	NONE	NONE	MENASHA	JS-358	LDY				JALN1	$150.00
2061	JSC5054	PALLET, DRUM, HAZMAT	NONE	NONE	MENASHA	JS-358	LDY				JALN1	$150.00
2667	BR0837	PANDUIT CRIMPERS		CT-1551M		321	110B				JCDC1	$100.00
1107	NONE	PAVING BREAKER	NONE	MX90	INGERSOLL-RAND	JS-325	102				JCDC1	$1,100.00
1106	NONE	PAVING BREAKER	G01L31784	MX60	INGERSOLL RAND	JS-321	110A				JCDC1	$1,005.00
3276	NONE	PDA,CLIE, HAND HELD	2893803040150 34	PEGNR70V	SONY	327	102A				JCDC13	$812.48
2325	0715308	PHASE SHIFTER	82-7933	PR33603	MULTI-AMP CP F-POW-R-SAFE TOOL	JS-32	2203A				JCDC8	$3,595.00
2270	0681071	PHASEMETER	6130322	314	DRANETZ TECHNOLOGIES F-DRANETZ	JS-32	2202		M203885		JCDC8	$1,595.00
4349	NONE	PIPE BENDER	NONE	NONE	GREEN LEAF	321	110				JCDC1	$970.00
1132	NONE	PIPE THREADER SET	NONE	36475	RIDGID	321	110B				JCDC1	$491.00
4350	NONE	PIPE TRISTAND	NONE	NONE	GREEN LEAF	321	110				JCDC1	$381.00
4312	NONE	PLANE WOOD, PORTABLE, ELECTRIC	366418	DW680 PA6-G30	MCMASTER	321	110				JCDC1	$170.00
2914	JSC6277	PLANE, PORTABLE	29123	126	PORTER CABLE	321	104				JCDC1	$100.00
2175	JSC5564	PLANE, PORTABLE	37048	126	PORTER CABLE	JS-321	110A				JCDC1	$100.00
2492	JSC4269	PLANER	1345851	37315	ROCKWELL	JS-329	108				JCDC3	$250.00

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0607	PA6229	PLANER, ELECTRIC	123925	126	ROCKWELL	329	108				JCDC3	$95.00
2879	2078695	PLATFORM SERVICING MBL	F052190N	SPL2660	ECONOMY ENGINEERING CO	JS-417	101			310313	JCDC3	$18,645.00
0553	1007884	PLATFORM, PERSONNEL LIFT	F0392682	FL2-700GS0	LIFTING TECHNOLOGIES	JS-336	HIBAY			310597	JCDC8	$3,945.00
0119	NONE	POCKET PC	6036574	700	INTERMEC	JS-330	118C				JBDC5	$1,730.00
4931	NONE	POLY CART LIGHT DUTY	NONE	4520-88	RUBBERMAID	321	102				JCDC1	$131.00
1064	JSC5575	PORTABLE TEST SET	NONE	PT54	SIEMENS	JS-321	110B				JCDC4	$100.00
2233	FD527	PORT-A-CABLE	3967	NONE	UNKNOWN	JS-321	110A				JCDC1	$100.00
0502	PA6742	PORT-A-POWER	NONE	PH39	ENERPAC	48	KNAACKBOX				JCDC4	$100.00
0898	JSC3033	PORT-A-POWER HEAD 1"	NONE	NONE	POWER TRAM	JS-48	100				JCDC4	$100.00
3016	JSC4545	PORT-A-POWER, 50-TON	AG4W851	P80	ENERPAC	420	112				JBDC7	$100.00
3015	JSC4546	PORT-A-POWER, 50-TON	AG4W853	P80	ENERPAC	420	112				JBDC7	$100.00
3909	1988696	POT, SAND	K4062	6.5	SCHMIDT MFG INC	326	LDY			310985	JCDC3	$1,580.00
3908	1988697	POT, SAND	K4066	6.5	SCHMIDT MFG INC	326	LDY			310986	JCDC3	$1,580.00
3901	0156207	POT, SAND	K-1987	6.5	SCHMIDT MFG INC	JS-326B	LDY			310987	JCDC3	$1,565.00
4402	NONE	POWER BATTERY CABINET	PVO434	WR3OAO100 NI-VA	EMERGENCY LIGHTING POWER EQPMT	JS-327	110				JCDC2	$9,929.00
4401	NONE	POWER BATTERY CABINET	PVO440-B	WR3OAO100 NI-VA	EMERGENCY LIGHTING POWER EQPMT	JS-327	110				JCDC2	$9,929.00
4400	NONE	POWER BATTERY CABINET	PVO440-A	WR3OAO100 NI-VA	EMERGENCY LIGHTING POWER EQPMT	JS-327	110				JCDC2	$9,929.00
4399	NONE	POWER BATTERY CABINET	PVO440-C	WR3OAO100 NI-VA	EMERGENCY LIGHTING POWER EQPMT	JS-327	110				JCDC2	$9,929.00
4398	NONE	POWER BATTERY CABINET	PVO435	WR3OR5800T I	EMERGENCY LIGHTING POWER EQPMT	JS-327	110				JCDC2	$9,929.00
4397	NONE	POWER BATTERY CABINET	PVO429	WR5OR5800T I	EMERGENCY LIGHTING POWER EQPMT	JS-327	110				JCDC2	$12,276.00
4396	NONE	POWER BATTERY CABINET	PVO439-C	WR5OAO100 NI-VA	EMERGENCY LIGHTING POWER EQPMT	JS-327	110				JCDC2	$12,276.00

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4395	NONE	POWER BATTERY CABINET	PVO432	WR5OAO100 NI-VA	EMERGENCY LIGHTING POWER EQPMT	JS-327	110				JCDC2	$12,276.00
4394	NONE	POWER BATTERY CABINET	PVO430-A	WR5OAO100 NI	EMERGENCY LIGHTING POWER EQPMT	JS-327	110				JCDC2	$12,276.00
4393	NONE	POWER BATTERY CABINET	PVO430-B	WR5OAO10NI	EMERGENCY LIGHTING POWER EQPMT	JS-327	110				JCDC2	$12,276.00
4390	NONE	POWER BATTERY CABINET	PVO438	WR5OR25001 NI	EMERGENCY LIGHTING POWER EQPMT	JS-327	110				JCDC2	$12,779.00
4389	NONE	POWER BATTERY CABINET	PVO439-B	WR5ORA100 N-VA	EMERGENCY LIGHTING POWER EQPMT	JS-327	110				JCDC2	$12,779.00
4388	NONE	POWER BATTERY CABINET	PVO439-A	WR5OA0100N I-VA	EMERGENCY LIGHTING POWER EQPMT	JS-327	110				JCDC2	$12,779.00
4387	NONE	POWER BATTERY CABINET	PVO431	WR5OR2500 NI	EMERGENCY LIGHTING POWER EQPMT	JS-327	110				JCDC2	$12,779.00
4385	NONE	POWER BATTERY CABINET	PVO433	WR5ORS800 TI-VA	EMERGENCY LIGHTING POWER EQPMT	JS-327	110				JCDC2	$12,779.00
4384	NONE	POWER BATTERY CABINET	PVO439-F	WR5OAO100 NI-VA	EMERGENCY LIGHTING POWER EQPMT	JS-327	110				JCDC2	$12,779.00
4392	NONE	POWER BATTERY CABINET "POWER BATTERY CABINET POWER BATTERY CABINET	PVO439-E	WR5OAO100 NI-VA	EMERGENCY LIGHTING POWER EQPMT	JS-327	110				JCDC2	$12,276.00
4391	NONE	POWER BATTERY CABINET POWER BATTERY CABINET	PVO438	WR018R2500 1N	EMERGENCY LIGHTING POWER EQPMT	JS-327	110				JCDC2	$12,779.00
4386	NONE	POWER BATTERY CABINET POWER BATTERY CABINET	PVO439-D	WR5OAO100 NI-VA	EMERGENCY LIGHTING POWER EQPMT	JS-327	110				JCDC2	$12,779.00
4352	NONE	POWER DRIVE	EE316291005	700	RIDGID	321	110				JCDC1	$1,142.00
2581	JSC4655	POWER DRIVE	6610448S	NONE	TOLEDO	325	CAGE				JCDC3	$100.00
3313	JSC3326	POWER SUPPLY	B030902	PS503	TEKTRONIX	32	2202A		M172318		JCDC8	$100.00
3144	JSC3444	POWER SUPPLY	J289	2013125	SOLA	329	106				JCDC6	$100.00
3143	JSC3443	POWER SUPPLY	B0112	2013060	SOLA	329	106				JCDC6	$100.00
3142	JSC3445	POWER SUPPLY	NONE	NONE	TRIPLETT	JS-329	106				JCDC6	$100.00
3141	PA1075	POWER SUPPLY	52085	PR3815	KEPCO	329	106				JCDC6	$100.00
2470	1299105	POWER SUPPLY	413008	556-193-162	AGEMA INFRARED SYSTEMS	327	110				JCDC2	$1,495.00
2320	JSC3325	POWER SUPPLY	B020194	PS5012	TEKTRONIX	JS-32	2202A		M172317		JCDC8	$100.00

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2319	1237018	POWER SUPPLY	B012313	TM5006A	TEX-TRONIX	JS-32	2202A		M172322		JCDC8	$1,195.00
1054	NONE	POWER SUPPLY	NONE	3650S	POWER DESIGNS	321	TOOL RM				JCDC1	$100.00
0992	1553689	POWER SUPPLY	9E296-G1-006	R321PS	MONITOR TECHNOLOGY CORP	327	TPRM				JCDC2	$2,000.00
2312	PA8021	POWER SUPPLY, DC	2431823	1601	B K PRECISIO	JS-32	2202A				JCDC8	$100.00
2306	PA8020	POWER SUPPLY, DC	2431745	1601	B K PRECISIO	32	2202A				JCDC8	$100.00
1530	PA8052	POWER SUPPLY, DC	75202439A	22121	MICRONTA	325	LOCKER 3		M204699		JCDC4	$100.00
3126	PA1220	POWER SUPPLY, REGULATED, DC	28061279	PAD556L	KIKUSUI	JS-329	106				JCDC6	$100.00
2520	JSC3338	POWER SUPPLY, REGULATED, DC	4020100	PR363	KENWOOD	24	105H				JCDC4	$100.00
2402	0682852	POWER SUPPLY, UNINTERRUPTIBLE	1800	UPS-25-11	CLARY CORP	24	202				JCDC7	$2,125.00
4286	NONE	POWER SUPPLY, UNITERRUPTIBLE	NONE	24XL	T-APC UPS	329	106				JCDC6	$359.00
4285	NONE	POWER SUPPLY, UNITERRUPTIBLE	NONE	750XL	T-APC UPS	329	106				JCDC6	$459.00
4326	NONE	POWER WAVE	NONE	WRD0A0100N 1	DP ELECTRONIC	32	2202A				JCDC8	$8,619.00
4325	NONE	POWER WAVE	NONE	WR50D0400N 1	DP ELECTRONIC	32	2202A				JCDC8	$10,995.00
2794	0681294	PRESS ARBOR HAND OPERATED	1095	37K	WILSON K R INC	JS-329	110			11575	JCDC6	$1,579.00
1065	NONE	PRESSURE INDICATOR, DIFFERENTIAL	247C004946	247C	BARTON	JS-321	110B		M205812		JCDC4	$1,518.82
3807	1170643	PRINTER, ADP	3048A71437	33449A	HEWLETT PACKARD	JS-325	202B				JCDC5	$1,397.00
3806	1007232	PRINTER, ADP	3033A34619	33449A	HEWLETT PACKARD	JS-325	202B				JCDC5	$1,414.00
3477	1236619	PRINTER, ADP	1CMBCBF1563 4	KX-P112FI	PANASONIC	48	100				JCDC17	$2,500.00
3477	1236619	PRINTER, ADP	1CMBCBF1563 4	KX-P112FI	PANASONIC	48	100				JCDC17	$2,500.00
3473	1294915	PRINTER, ADP	JPBK085061	C2001A	HEWLETT PACKARD	JS-32	2203				JCDC8	$1,385.00
3095	NONE	PRINTER, ADP	MY331P03Y	5550	HEWLETT PACKARD	JS-420	114				JCDC2	$159.00

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2828	PA2386	PRINTER, ADP	312735	IDPRO	BRADY	321	110B				JCDC1	$100.00
2678	1162291	PRINTER, ADP	3048A80466	33449A	HEWLETT-PACKARD CO	325	202B				JCDC8	$1,397.00
2297	0842408	PRINTER, ADP	2743S12142	2225D	HEWLETT-PACKARD CO	JS-32	2202AB				JCDC8	$650.00
1742	NONE	PRINTER, ADP	D3J457276	HL-1441	BROTHER	222	100				JCDC6	$299.98
1559	NONE	PRINTER, ADP	3327214	Z4MTM	ZEBRA	327	106				JCDC13	$1,299.00
1556	NONE	PRINTER, ADP	USJNK40191	C8051A	HEWLETT PACKARD	JS-327	106				JCDC13	$1,998.00
1518	NONE	PRINTER, ADP	D3J457233	HL-1440	BROTHER	JS-329	106				JCDC6	$299.98
1482	NONE	PRINTER, ADP	MY27S1C038	C8954BR	UNKNOWN	JS-330	106A				JCDC2	$159.00
1432	NONE	PRINTER, ADP	05510441193	Z55SE	LEXMARK	323	100				JCDC1	$150.00
1368	NONE	PRINTER, ADP	05510441197	Z55SE	LEXMARK	323	100				JCDC1	$150.00
1304	NONE	PRINTER, ADP	CNBFB04766	2300	HEWLETT PACKARD						JCDC1	$738.00
0138	NONE	PRINTER, ADP	CNBR710013	Q1342A	HEWLETT PACKARD	417	106				JBDC4	$295.00
4240	NONE	PRINTER, MONOCOLOR	GDMGL511910 8694	ACN00078644 7	BRADY	321	110				JCDC1	$2,163.00
1312	NONE	PRINTER, PHOTO	FBCB00994	S9000	CANON	323	C110B				JCDC1	$449.90
4298	NONE	PRINTER, TIME/DATE	196246	776N-3	WIDMER TIME	JS-422	108				JCDC3	$699.00
1475	NONE	PRINTER/SCANNER/COPIER/FAX	2420088639	X63	LEXMARK INT	JS-325	202A				JCDC5	$189.00
1297	JSC5576	PROBE, AC/DC IMPULSE	NONE	A1112143	BMI	321	110B				JCDC1	$100.00
1296	JSC5577	PROBE, AC/DC IMPULSE	NONE	A1112122	BMI	321	110B				JCDC1	$100.00
1295	JSC5578	PROBE, AC/DC IMPULSE	NONE	A1112129	BMI	JS-321	110B				JCDC1	$100.00
2487	NONE	PROBE, CONTOUR	2860	B310BDC	PARKER	327	110				JCDC2	$679.00
1293	PA1595	PROBE, CURRENT	NONE	A1123122	BMI	JS-321	110B				JCDC1	$100.00

BAR CODE NO	OLD PROP NO	DESCRIPTION	SERIAL NO	MODEL NO	MFG	BLDG	ROOM	LICENSE PLATE NO	CALIBRATION NO	MAINTENANCE NO	ACCOUNT NO	COST
1292	PA1594	PROBE, CURRENT	NONE	A1123148	BMI	JS-321	110B				JCDC1	$100.00
1291	PA1596	PROBE, CURRENT	NONE	A1123116	BMI	JS-321	110B				JCDC1	$100.00
1167	PA1718	PROBE, CURRENT	6333000	78100	FLUKE	JS-321	110A				JCDC4	$100.00
2461	BR0930	PROBE, INFRARED, TEMP	849009	510B	CSI	327	110				JCDC2	$0.00
4283	NONE	PROFILER, AEROSOL PARTICULATE	E4616	AEROCET531	MET ONE	JS-321	110A				JCDC1	$3,289.00
2249	JSC6156	PROJECTOR,OVERHEAD	506781	2100AJAT	MINN	330	101A				JCDC9	$100.00
4503	PA7629	PSYCHROMETER, BATTERY OPERATED	NONE	CP147	ENV TECTONIC	JS-32	2202		M47115		JCDC8	$100.00
1532	PA6453	PSYCHROMETER, BATTERY OPERATED	NONE	CP147	ENV TECTONIC	325	TRUCK 92				JCDC4	$100.00
1185	PA6454	PSYCHROMETER, BATTERY OPERATED	NONE	CP147	ENV TECTONIC	JS-321	110A		M172324		JCDC1	$79.00
1184	PA7628	PSYCHROMETER, BATTERY OPERATED	NONE	CP147	ENV TECTONIC	JS-321	110A				JCDC1	$100.00
4084	NONE	PSYCHROMETER, DIGIRAL	03120325	THWDZ	AMPROBE	JS-321	TRUCK				JCDC1	$210.00
4083	NONE	PSYCHROMETER, DIGITAL	03120333	THWDZ	AMPROBE	JS-325	LOCKER				JCDC1	$210.00
1694	0332607	PULLER CABLE W/FORCE GAUGE	VT350459	6001-M2	GREENLEE TOOL CO	221	100				JCDC7	$1,514.00
3390	0716249	PULLER POWER CABLE	NZ3010060	686	GREENLEE TOOL CO	321	SHED			310420	JCDC1	$2,340.00
3887	JSC3409	PULLER SET	NONE	NONE	SNAP-ON	326D	TRUCK				JCDC6	$260.00
3481	PA2403	PULLER SET	NONE	CJ20005B	SNAP-ON	JS-417	101				JBDC4	$260.00
2534	JSC3049	PULLER SET	NONE	NONE	PROTO	JS-24	100				JCDC4	$100.00
0871	JSC3040	PULLER SET	NONE	NONE	PROTO	JS-24	100				JCDC4	$100.00
0854	PA1671	PULLER SET, BEARING	NONE	NONE	PROTO	329	SHOP				JCDC6	$260.00
4874	JSC3153	PULLER SET, GEAR COUPLING	NONE	NONE	OTC	24	TRUCK				JCDC4	$100.00
1283	NONE	PULLER, 10-TON	NONE	4234B	STANLEY	321	110B				JCDC1	$184.00

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2552	JSC4680	PULLER, BEARING, LARGE	NONE	NONE	LOCAL	24	UPSTAIRS				JCDC4	$100.00
4068	NONE	PUMP	NONE	6400000	DRAGER	330	106				JCDC1	$310.00
1104	PA2361	PUMP	NONE	NONE	NONE	336	110A				JCDC1	$100.00
4069	NONE	PUMP, HIGH FLOW	NONE	800883	GILIAN	330	106				JCDC1	$457.00
1978	1008811	PUMP, 2-IN WHEELED	11579	ADX300	ACME PUMPS AND WELLPOINTS INC	358	LDY			1008811	JCDC3	$1,932.00
3547	NONE	PUMP, AIR TRANSFER	NONE	82230	LINCOLN	417	SHOP				JBDC4	$598.00
3884	PA1215	PUMP, BARREL, ELECTRIC	V390136	B40	SERFILCO	326D	GEN SHOP				JCDC6	$578.00
0573	PA6456	PUMP, BARREL, MANUAL	119702412	NONE	TOKHEIM	326D	GEN SHOP				JCDC6	$54.00
1968	0715364	PUMP, CENTRIFUGAL	5786044	8402/VH4D	GORMAN-RUPP CO THE	JS-417	HIBAY			310400	JCDC3	$2,961.00
1967	1002737	PUMP, CENTRIFUGAL	762508/6024310	82H2	GORMAN-RUPP CO THE	326A	LDY				JCDC3	$1,700.00
3389	0715277	PUMP, CENTRIFUGAL POWERED	766446	82H2AENLD	GORMAN-RUPP INDUSTRIES	326A	LDY				JCDC3	$11,645.00
2346	1002739	PUMP, CENTRIFUGAL POWERED	738810	82H2AENLD	GORMAN-RUPP INDUSTRIES	JS-358	OUTSIDE				JCDC3	$1,645.00
1975	0681105	PUMP, CENTRIFUGAL TRLMT	6036741	84B2/VH42	GORMAN-RUPP CO THE	JS-417	HIBAY	NA00554T		20569	JCDC3	$4,100.00
1976	1914568	PUMP, CENTRIFUGAL TRLMTD	756657	84B2-VH4D	GORMAN-RUPP CO THE	326A	LDY	NA00553T		310401	JCDC3	$4,100.00
1520	PA1127	PUMP, CENTRIFUGAL, MAGNETIC	2061479	TE3MDHC	LITTLE GIANT	JS-329	106				JCDC6	$145.00
2720	JSC4998	PUMP, DRUM, WITH SHUTOFF SPIGOT	P2601	31/25343	TUTHILL	10	SPECIAL PURPOSE				JCDC6	$196.00
4247	NONE	PUMP, FERTILIZER	275076	YBSYS	BRIGGS & STRATTON	JS-326A	LDY				JCDC1	$384.00
2855	JSC3751	PUMP, FOOT	NONE	767	GREENLEE	JS-321	110A				JCDC1	$100.00
1326	1353329	PUMP, GAS ENGINE	82252-0337-01	3P613A	TEEL INDUSTRIAL	JS-323H	LDY			311067	JCDC1	$1,190.00
0873	JSC3044	PUMP, HAND	7583904	1099PNP	TRANSMATION	JS-24	105H				JCDC4	$100.00
4070	NONE	PUMP, HIGH FLOW	NONE	800883	GILIAN	330	106				JCDC1	$457.00

BAR CODE NO	OLD PROP NO	ITEM DESCRIPTION	SERIAL NO	MODEL NO	MFG	BLDG	ROOM	LICENSE PLATE NO	CALIBRATION NO	MAINTENANCE ID	ACCOUNT NO	COST
2945	1553678	PUMP, HYDRAULIC	50182927	960SAPS	GREENLEE TOOL CO	JS-321	100			310421	JCDC1	$24,070.00
3951	PA2510	PUMP, HYDRAULIC, PORTA-POWER	NONE	P141	ENERPAC	329	110				JCDC3	$152.00
1334	1353338	PUMP, HYDROSTATIC TEST	114397	M6C17FB86A	RICE HYDRO EQUIPMENT MFG CO	323	LDY			310970	JCDC1	$1,056.00
1182	PA2336	PUMP, KIT, BELLOWS, HAND-OPERATED	NONE	ARHLFU08	DRAGER	JS-321	110A				JCDC4	$100.00
1816	PA1492	PUMP, MOTOR ASSY	120610000	5600-0003	JABSCO	Conex yard	CONEX #10				JCDC6	$652.00
0601	JSC3172	PUMP, OIL	NONE	NONE	VIKING	28	FLOOR				JCDC4	$100.00
2423	JSC4647	PUMP, OIL, REFRIGERATION	NONE	NONE	UNMARKED	325	LOCKER 3				JCDC4	$100.00
1973	1007815	PUMP, SUCTION-DISC-TRL MTD	DM2182	55A70-W	C H AND E MFG CO	JS-326A	100				JCDC3	$4,479.00
1972	1996137	PUMP, SUCTION-DISC-TRL MTD	DM2183	55A70-W	C H AND E MFG CO	JS-326A	100	NA00558T			JCDC3	$4,479.00
1971	1987405	PUMP, SUCTION-DISC-TRL MTD	3600355-LV1A003	A4DD	ACME PUMPS AND WELLPOINTS INC	JS-326A	100				JCDC3	$6,052.00
3890	JSC6273	PUMP, SUMP, 1/2-HP	376337191	2P35476688	TEEL	321	104				JCDC1	$100.00
2257	FD604	PUMP, SUMP, 1/2-HP	421953	16794	ABS	JS-321	110A				JCDC1	$100.00
0644	FD05	PUMP, SUMP, 1/2-HP	D20708	CD5W	ABS	321	110A				JCDC1	$200.00
2258	FD003	PUMP, SUMP, 1/3-HP	611311F94B	3P511S	TEEL	JS-321	110A				JCDC1	$187.00
4234	NONE	PUMP, TEEL	050225YA43034	1P855	DAYTON	JS-326A	LDY				JCDC1	$418.00
4233	NONE	PUMP, TEEL	050225YA43031	1P855	DAYTON	325	110				JCDC1	$418.00
4232	NONE	PUMP, TEEL	0912321062E1	1P946	DAYTON	JS-326A	LDY				JCDC1	$384.00
4321	NONE	PUMP, TRASH	NONE	NONE	UNKNOWN	321	110				JCDC1	$100.00
2379	JSC3006	PUMP, TUBE, TYGON	AB5751695	575392	LITTLE GIANT	358	CONEX #2				JALN1	$250.00
3885	PA1669	PUMP, TYGON	AC7800061	LG302	LITTLE GIANT	329	UPSTAIRS PARTS RM				JCDC6	$344.00
1977	0681191	PUMP, UNIT CENTRIFUGAL	578245	4C7	ITT MARLOW	JS-326A	100				JCDC3	$2,932.00

BAR CODE NO	OLD PROP NO	NOUN	SERIAL NO	MODEL NO	MFGR	BLDG	ROOM	LICENSE PLATE NO	CALIBRATION NO	MAINTENANCE ID NO	ACCOUNT NO	COST
4237	NONE	PUMP, VACUUM	11030112101	RL-8	REFCO	321	110				JCDC1	$372.00
4077	NONE	PUMP, VACUUM	254061	15600	COOL TECH	JS-325	TRUCK				JCDC1	$391.00
1817	PA2513	PUMP, VACUUM	NONE	1850Z	THERMAL	Conex yard	#10				JCDC6	$315.00
1814	JSC4772	PUMP, VACUUM	56923	1402	WELCHDUOSEAL	JS-329	110				JCDC6	$390.00
1748	0150493	PUMP, VACUUM	87-0446N5717-1	KDH65	KINNEY VACUUM CO	JS-28	FLOOR				JCDC4	$5,995.00
0487	1299089	PUMP, VACUUM	1290235004	D2A	LEYBOLD-HERAEUS VACUUM PRODUCT	48	CAGE				JCDC4	$1,022.00
2239	JSC3755	PUMP, VACUUM, 1/6-HP	193	1VBF25M100X	GASTEC CORP	JS-321	110B				JCDC1	$100.00
4475	PA2616	PUMP, VACUUM, 6 CFM	75348	15600	ROBINAIR	321	110B				JCDC3	$100.00
2425	JSC4648	PUMP, VACUUM, 6 CFM	1440	15600	ROBINAIR	JS-325	100				JCDC4	$100.00
1823	PA2333	PUMP, VACUUM, 6 CFM	82667	15600	ROBINAIR	329	104				JCDC6	$359.00
1387	JSC6300	PUMP, VACUUM, 6 CFM	7884	15600	ROBINAIR	JS-328	101				JCDC1	$100.00
3139	JSC3446	PUMP, VACUUM, HAND	NONE	6130-0010	NALGENE	420	100A				JCDC6	$225.00
0453	0156267	PUMP, VACUUM, PORTABLE	08(2553)	15030	SEALED POWER CORP ROBINAIR DIV	326	LDY				JCDC4	$2,054.00
2418	0715524	PUMPING UNIT HYDRALIC	117500	13600	THOMAS AND BETTS CORP	325	ESHOP			715524	JCDC8	$2,261.00
2246	0332159	PUMPING UNIT HYDRAULIC	117069	13600	THOMAS AND BETTS CORP	321	104			311102	JCDC1	$2,541.00
2245	1353415	PUMPING UNIT HYDRAULIC	1909S00062	13600	THOMAS AND BETTS CORP	JS-321	110			311103	JCDC1	$1,723.00
0640	0722167	PUMPING UNIT HYDRAULIC	118236	13600	THOMAS AND BETTS CORP	321	C110B			311104	JCDC1	$1,280.00
2417	1353436	PUMPING UNIT, HYDRAULIC, ELECT	0604U00121	C	THOMAS AND BETTS	325	ESHOP			311098	JCDC8	$1,725.00
2973	FD8006	PUNCH DIE SET	NONE	UNKNOWN	GREENLEE	321	104				JCDC1	$150.00
1130	NONE	PUNCH DRIVER, HYDRAULIC, KNOCKOUT	H5282831UDA BM441428UD	7646	GREENLEE	JS-321	110A				JCDC1	$868.79
2853	FD8010	PUNCH SET, HYDRAULIC, KNOCK OUT	BG813381NB	7506	GREENLEE	JS-321	110A				JCDC1	$100.00

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1614	PA2227	PUNCH SET, KNOCKOUT, W/ HYDRAULIC DRIVER	NONE	7310 SB	UNKNOWN	329	UPSTAIRS PARTS RM				JCDC6	$110.00
2784	JSC3120	PUNCH, HOLE	NONE	NONE	WHITNEY	JS-329	110				JCDC3	$2.00
2884	JSC3673	PUNCH, STUD	NONE	710	GREENLEE	JS-321	110B				JCDC1	$100.00
2849	JSC3674	PUNCH, STUD	NONE	710	GREENLEE	321	104				JCDC1	$100.00
2833	PA2019	PUNCH, WHITNEY, 1/2" X 1/2", KIT	NONE	20L	WHITNEY	JS-321	110A				JCDC1	$100.00
3062	JSC4491	RACK, CHAIN FALL/COME-ALONG	NONE	NONE	UNKNOWN	420	LDY				JBDC7	$100.00
1041	JSC4501	RACK, WALL, 30'	NONE	NONE	UNKNOWN	JS-420	114				JBDC7	$100.00
1223	JSC4779	RATCHET, 1"	NONE	84002	WRIGHT	321	TOOL RM				JCDC1	$100.00
1223	JSC4778	RATCHET, 3/4"	NONE	NONE	UNKNOWN	JS-321	TLRM				JCDC1	$100.00
2420	PA2018	RATCHET, KNOCKOUT, PUNCH DRIVER	NONE	1804	INTERPAC	325	100				JCDC8	$100.00
4243	NONE	RATCHET, PIPE THREAD	NONE	36475	RIDGID	321	110				JCDC1	$544.00
4242	NONE	RATCHET, PIPE THREAD	NONE	36475	RIDGID	321	110				JCDC1	$544.00
2729	PA1340	RATCHET, PNEUMATIC, 3/8"	NONE	FAP7012C	SNAP-ON	326D	GEN SHOP				JCDC6	$192.00
4219	NONE	RECEIVER, CIRCUIT SEEKER	NONE	2011/00521	GREENLEE	JS-321	110A				JCDC1	$532.00
4217	NONE	RECEIVER, CIRCUIT SEEKER	NONE	2011/00521	GREENLEE	JS-24	105H				JCDC1	$532.00
4215	NONE	RECEIVER, CIRCUIT SEEKER	NONE	2011/00521	GREENLEE	JS-321	110A				JCDC1	$531.00
1613	1008807	RECEIVER, GFL	1000E01991	LS1000	HEATH CO	JS-321	110B				JCDC6	$1,475.00
2834	0805720	RECEIVER, LASER LEVEL	7900	2075	SPECTRA-PHYSICS CORP LASER DIV	JS-321	110A		M172607		JCDC1	$980.00
4458	NONE	RECEIVING SET, TV/VCR	G2AA13564	PV2542	PANASONIC	327	106				JCDC13	$496.40
1053	JSC3335	RECORDER	306820	THA8-24F	DICKSON	32	2202		M43457		JCDC8	$100.00
1046	0673762	RECORDER INK WRITING	NONE	M413B	ESTERLINE-ANGUS INSTRUMENT CP	321	110B		M203881		JCDC1	$3,995.00

BAR CODE NO	OLD PROP NO	PROPERTY NOUN	SERIAL NO	MODEL NO	MFR	BUILDING	ROOM	LICENSE PLATE NO	CALIBRATION PROG NO	MAINTENANCE ID	ACCOUNT NO	COST
0957	0673763	RECORDER INK WRITING	NONE	MS413B	ESTERLINE-ANGUS INSTRUMENT CP	JS-231	TRLM				JCDC6	$3,650.00
4513	PA6633	RECORDER, A/C VOLT, AMMETER	20138	LAV21	MITCHELL INS	329	107		M172292		JCDC6	$310.00
1171	PA7729	RECORDER, A/C VOLT, AMMETER	610378	LAV21	AMPROBE	JS-329	106		M172290		JCDC6	$240.00
4327	NONE	RECORDER, CHART	0535456794970 0001	CAPP230274	HONEYWELL	32	2202				JCDC8	$1,640.00
4038	NONE	RECORDER, FLEX DECK	91000776	TLC3216HDA	GYYR	325	100				JCDC3	$500.00
4506	BRSP20005	RECORDER, TEMP/HUM	203816	THV97	DICKSON	32	2202		M203026		JCDC1	$200.00
1600	PA1111	RECORDER, TEMPERATURE	33004	T8200R	AMPROBE	329	TRUCK 1		M165800		JCDC6	$500.00
0755	NONE	RECORDER, TEMPERATURE	NONE	510718	LT8200RFE						JCDC6	$650.00
4525	1237079	RECORDER, TEMPERATURE/HUMIDITY	9233877026001	DR450T2200-00-001-0	METRUM INFORMATION STORAGE	30M	116				JCDC16	$1,441.00
4525	1237079	RECORDER, TEMPERATURE/HUMIDITY	9233877026001	DR450T2200-00-001-0	METRUM INFORMATION STORAGE	30M	116				JCDC16	$1,441.00
4512	PA1579	RECORDER, TEMPERATURE/HUMIDITY	4003576022	6120X21KLIIIII 87	BROWN & SHARP	JS-329	106		M202312		JCDC8	$100.00
4507	PA7247	RECORDER, TEMPERATURE/HUMIDITY	28994	23508	DICKSON	32	2202		M46611		JCDC4	$100.00
4450	JSC5009	RECORDER, TEMPERATURE/HUMIDITY	NONE	1227005	BACHARACH	32	2202		M173859		JCDC8	$540.00
1889	PA6512	RECORDER, TEMPERATURE/HUMIDITY	NONE	12R	FOXBOROUGH	JS-321	110		M173864		JCDC8	$100.00
4449	PA1148	RECORDER, THERMO-HUMIDOGRAPH	85A15924	5691265A153	BRISTOL BABC	32	2202A		M202300		JCDC8	$100.00
2509	PA6908	RECORDER, THERMO-HUMIDOGRAPH	84A902	5691265A153	BRISTOL BABC	24	105H				JCDC4	$100.00
1047	PA6907	RECORDER, THERMO-HUMIDOGRAPH	84A901	5691265A153	BRISTOL BABC	321	TOOL RM		M33174		JCDC8	$100.00
1172	PA6599	RECORDER, VOLT/AMP, AC	20296	LAV 21	AMPROBE	321	110B				JCDC1	$100.00
3205	1237019	RECOVERY	OZB15023	1986	AMERICAN THERMAFLO CORP	JS-321	110B				JCDC1	$1,236.00
2749	BRSP0751	RECOVERY MACHINE	NONE	UNKNOWN	UNKNOWN	JS-321	TRUCK				JCDC4	$450.00
1809	PA2653	RECOVERY SYSTEM, REFRIGERANT	9229832	4000	THERMA FLO	Conex yard	CONEX #10				JCDC6	$480.00

BAR CODE NO	OLD PROP NO	DESCRIPTION	SERIAL NO	MODEL NO	MANUFACTURER	BLDG	ROOM	LICENSE PLATE NO	CALIBRATION NO	MAINTENANCE ID	ACCOUNT NO	COST
1808	PA2652	RECOVERY SYSTEM, REFRIGERANT	9317947	4000	THERMA FLO	Conex yard	CONEX #10				JCDC6	$480.00
4284	NONE	RECOVERY UNIT	05-21118	714-202-G1	INFICON	329	107				JCDC6	$725.00
4238	NONE	RECOVERY UNIT	01051935	GS TWIN	APPIAN	JS-358	TRUCK				JCDC1	$689.00
1386	NONE	RECOVERY UNIT	1341	25150A	ROBINAIR	323	SHOP				JCDC1	$620.03
3204	1446909	RECOVERY UNIT, FREON	9346462	4000	AMERICAN THERMAFLO CORP	JS-321	110B			311268	JCDC1	$1,295.00
1815	1299129	RECOVERY UNIT, FREON	1292-67	AGT15/30	HASKEL INC F-HASKEL ENGR &	326	CONEX #10			1299129	JCDC6	$5,241.00
1813	0156231	RECOVERY UNIT, FREON	86241-61	RR24	APPLIED ECOLOGICAL SYSTEMS	326	CONEX			310049	JCDC6	$1,074.00
1812	1446931	RECOVERY UNIT, FREON	9349459	4000	AMERICAN THERMAFLO CORP	326	CONEX#10			1446931	JCDC6	$1,330.00
1811	1353352	RECOVERY UNIT, FREON	9310532	4000	AMERICAN THERMAFLO CORP	326	CONEX			310035	JCDC6	$1,594.00
1810	1446930	RECOVERY UNIT, FREON	9348740	4000	AMERICAN THERMAFLO CORP	326	CONEX			1446930	JCDC6	$1,330.00
4906	NONE	RECOVERY UNIT, REFRIGERANT	502005	25175B	ROBINAIR	325	103				JCDC3	$761.00
4080	NONE	RECOVERY UNIT, REFRIGERANT	JR1330	2000	BACHARACH	JS-325	TRUCK				JCDC1	$656.00
3162	JSC3731	REEL STAND	NONE	683	GREENLEE	JS-325	102				JCDC1	$100.00
4870	NONE	REEL, HOSE	20307004	5P607	REELCRAFT	JS-326D	TRUCK				JCDC6	$575.00
4869	NONE	REEL, HOSE	20307004	5P607	REELCRAFT	JS-326D	TRUCK				JCDC6	$575.00
3539	NONE	REEL, HOSE	169859	8156	ATD TOOLS INC	417	OUTSIDE				JBDC4	$244.07
3535	NONE	REEL, HOSE	169847	8156	ATD TOOLS INC	JS-417	HIBAY				JBDC4	$244.07
3534	NONE	REEL, HOSE	169848	8156	ATD TOOLS INC	JS-417	HIBAY				JBDC4	$244.07
2803	JSC4270	REEL, HOSE	NONE	UNKNOWN	UNKNOWN	JS-329	100				JCDC3	$240.00
3914	PA1416	REFRIGATION UNIT, TRAILER	NONE	SP8424	TRAILFRAME	JS-326A	LDY				JCDC3	$500.00
4900	NONE	REFRIGERANT LEAK DETECTOR	NONE	DTEK-SELECT	INFICON	325	110				JCDC3	$488.44

BARCODE NO	OLD PROP NO	DESCRIPTION	SERIAL NO	MODEL NO	MFG	REPOS	ROOM	LICENSE PLATE NO	CALIBRATION NO	MAINTENANCE ID	ACCOUNT NO	COST
4899	NONE	REFRIGERANT LEAK DETECTOR	NONE	DTEK-SELECT	INFICON	325	110				JCDC3	$488.44
4901	NONE	REFRIGERANT RECOVERY	04081185	4508221	REFCO	325	110				JCDC3	$818.57
490	NONE	REFRIGERANT RECOVERY	502005	25175B	ROBIN AIR	325	103				JCDC3	$761.22
4048	NONE	REFRIGERATOR	TF736212	GTS18ACME RWW	GE	JS-325	110				JCDC1	$435.00
3563	JSC6215	REFRIGERATOR, MECHANICAL, FOOD	LA05010019	RTG174	WESTINGHOUSE	JS-417	1CSE				JBDC4	$100.00
3541	JSC6204	REFRIGERATOR, MECHANICAL, FOOD	LA43304103	MRT17CRBZ2	WESTINGHOUSE	JS-417	106				JBDC4	$100.00
2917	JSC6220	REFRIGERATOR, MECHANICAL, FOOD	LA10210350	RTG174	WESTINGHOUSE	JS-0301	183A				JCDC8	$100.00
2805	JSC6185	REFRIGERATOR, MECHANICAL, FOOD	11468371QD	RB170AV	MAGIC CHEF	JS-329	100				JCDC4	$100.00
2755	JSC6208	REFRIGERATOR, MECHANICAL, FOOD	LA3304191	MRT17CRBZ2	WESTINGHOUSE	321	SMSHOP				JCDC3	$100.00
2399	JSC6218	REFRIGERATOR, MECHANICAL, FOOD	KT39034292	RB17KNOAL	MAGIC CHEF	JS-24	202				JCDC16	$480.00
2399	JSC6218	REFRIGERATOR, MECHANICAL, FOOD	KT39034292	RB17KNOAL	MAGIC CHEF	JS-24	202				JCDC16	$480.00
1617	BRSP0846	REFRIGERATOR, MECHANICAL, FOOD	NONE	UNKNOWN	UNKNOWN	329	SHOP				JCDC3	$300.00
1590	JSC6199	REFRIGERATOR, MECHANICAL, FOOD	NONE	UNKNOWN	UNKNOWN	JS-329	107				JCDC4	$300.00
1588	JSC6194	REFRIGERATOR, MECHANICAL, FOOD	NONE	UNKNOWN	UNKNOWN	329	107				JCDC4	$300.00
1528	JSC6219	REFRIGERATOR, MECHANICAL, FOOD	LA05010026	RTG174	WESTINGHOUSE	325	PSHOP				JCDC3	$100.00
1306	JSC6214	REFRIGERATOR, MECHANICAL, FOOD	KT39034322	RB17KNOAL	MAGIC CHEF	323	110				JCDC1	$100.00
0283	JSC6192	REFRIGERATOR, MECHANICAL, FOOD	LA33417512	MRT17CRAWO	FRIGIDAIRE	327	HALL				JCDC2	$100.00
2272	JSC3342	REGULATOR, VOLTAGE, AUTOMATIC	NONE	SVRS88104CU	STABILINE	JS-32	2202				JCDC8	$100.00
3335	JSC4330	REMOVER, STUD	NONE	NONE	UNKNOWN	417	SHOP				JBDC4	$40.00
0449	1299178	REMOVER, TILE, INFRARED	1417	1E1753	RITTAL CORP	JS-329	106				JCDC3	$3,406.00
0613	JSC4634	RESEATING SET	NONE	NONE	CHICAGO SPEC	325	PLB SHP/CHST #1				JCDC4	$100.00

BAR CODE NO	OLD PROP NO	PROPERTY NOUN DESCRIPTION	SERIAL NO	MFG MODEL NO	MFG	BLDG	ROOM	LICENSE PLATE NO	CALIBRATION REQ NO	MAINTENANCE ID	ACCOUNT NO	COST
2514	JSC3151	RESISTANCE SUBSTITUTION	0892761884	236A	PHIPPS BIRD	JS-24	105H				JCDC4	$100.00
0874	JSC3045	RESISTANCE SUBSTITUTION	0892758-884	236A	PHIPPS BIRD	JS-48	100				JCDC4	$100.00
3200	1008823	RESISTOR, DECADE BOX	631	RDS63A	GENERAL RESISTANCE INC	JS321	110B				JCDC1	$1,225.00
2331	PA6008	RESISTOR, DECADE BOX	11766	1433	GENERAL	32	2202		M173463		JCDC8	$100.00
1865	0224867	RESISTOR, DECADE BOX	417	RDS63A	GENERAL RESISTANCE INC	JS-32	2202		M173456		JCDC8	$1,150.00
1863	PA6019	RESISTOR, DECADE BOX	110	1433W	GENERAL RESIS	JS-32	2202		M173459		JCDC8	$100.00
1861	1237478	RESISTOR, DECADE BOX	668	RDS63-A	GENERAL RESISTANCE INC	JS-32	2202		M173460		JCDC8	$1,225.00
1083	PA1142	RESPIRATOR, AIR, 5-MINUTE	NONE	74771	MINE SAFETY	321	TOOL RM				JCDC1	$100.00
1081	PA1144	RESPIRATOR, AIR, 5-MINUTE	NONE	74771	MINE SAFETY	JS-321	110B				JCDC1	$100.00
0527	NONE	RESPIRATOR, PURIFYING	NP18201	MB14	NEOTERIK	JS-321	110B				JCDC6	$242.00
4159	NONE	RIG, ACETYLENE	NONE	KL550-4	UNIWELD	321	110				JCDC1	$267.00
0856	JSC3077	RIG, OXYGEN/ACETYLENE, SIZE B	NONE	NONE	UNKNOWN	329	TRUCK 1				JCDC6	$200.00
3892	JSC3411	RING COMPRESSOR	NONE	NONE	DETROIT	326D	TRUCK				JCDC6	$150.00
3891	JSC3410	RING COMPRESSOR	NONE	NONE	DETROIT	326D	TRUCK				JCDC6	$150.00
3890	JSC3413	RING COMPRESSOR, LARGE	NONE	NONE	UNKNOWN	326D	TRUCK				JCDC6	$150.00
3889	JSC3412	RING COMPRESSOR, SMALL	NONE	NONE	UNKNOWN	326D	TRUCK				JCDC6	$150.00
2985	FD3006	RIVETING TOOL KIT	NONE	UNKNOWN	UNKNOWN	JS-19319	19319				JCDC1	$100.00
1695	0726758	RODDER DUCT TRAILER MTD	85-79	51000	CONDUX INTERNATIONAL INC	221	100			726758	JCDC7	$4,935.00
3005	JSC4479	ROLL-A-LIFT, 1-TON, SET OF TWO	19384 (ON BOTH)	M4	SKARNES,INC.	420	112				JBDC7	$100.00
3004	JSC4579	ROLL-A-LIFT, 1-TON, SET OF TWO	34144 (ON BOTH)	M4	SKARNES,INC.	420	112				JBDC7	$100.00
3546	NONE	ROLLER CHANGER	XDP16037	EXBTC18	EXIDE	417	MSHOP				JBDC4	$300.00

BAR CODE NO	OLD PROPNO	[illegible]	SERIAL NO	MODEL NO	MFG	BLDG	ROOM	LICENSE PLATE NO	CALIBRATION NO	MAINTENANCE ID	ACCOUNT NO	COST
1546	1353429	ROLLER, SEAM	5020294	20GA-STD	THE FLAGLER CORP	321	SHMTL				JCDC1	$4,045.00
2213	NONE	ROTOZIP	6908	REBEL TYPE 3	ROTOZIP TOOL CORP	321	C110B				JCDC1	$156.00
2161	NONE	ROTOZIP KIT	1702	REBEL	ROTOZIP TOOL CORP	321	C110B				JCDC1	$156.00
4281	NONE	ROUTER	1663821A5011	1001-T2	PORTER CABLE	JS-321	110A				JCDC1	$158.00
2912	JSC6293	ROUTER	253135	6902	PORTER CABLE	JS-321	110A				JCDC1	$100.00
2911	FD208	ROUTER	353327	6902	PORTER CABLE	321	101				JCDC1	$100.00
2200	FD209	ROUTER	231029	7301	PORTER CABLE	JS-321	110B				JCDC1	$100.00
2198	JSC6288	ROUTER	41213	6902	PORTER CABLE	321	101				JCDC1	$100.00
1116	NONE	ROUTER	137103	DW621	DEWALT	JS-321	110B				JCDC1	$213.79
0605	PA7047	ROUTER	NONE	90099M	BOSCH	329	108				JCDC3	$154.00
2199	FD201	ROUTER, OFFSET	61162	7301	PORTER CABLE	321	110A				JCDC1	$100.00
3239	FD301	SANDER, BELT	54485	504	PORTER CABLE	321	101				JCDC1	$100.00
2182	FD306	SANDER, BELT	115671	503	PORTER CABLE	JS-321	110A				JCDC1	$100.00
2177	FD307	SANDER, BELT	115646	503	PORTER CABLE	321	110B				JCDC1	$100.00
0604	PA1876	SANDER, BELT	115894	360	PORTER CABLE	329	108				JCDC3	$196.00
0603	PA7048	SANDER, BELT, DUSTLESS, HD	55084	360	PORTER CABLE	329	108				JCDC3	$154.00
2170	JSC3737	SANDER, DISC, 20"	4158954A7CN	213C	STATE	JS-321	101				JCDC1	$100.00
2230	FD524	SANDER, DUSTLESS	51122	2750	BLACK & DECKER	JS-321	110A				JCDC1	$100.00
2229	FD523	SANDER, DUSTLESS	51176	2750	BLACK & DECKER	JS-321	110A				JCDC1	$100.00
3703	JSC4860	SANDER, FINISH	973480	B04550	MAKITA	JS-321	110A				JCDC1	$100.00
2181	JSC4853	SANDER, FLUSH PLATE	561	M225EDC	DESCO, INC.	JS-321	110A				JCDC1	$100.00

BAR CODE NO	OLD PROP NO	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	ACCOUNT NO	COST
2179	FD309	SANDER, ORBITAL	182952	505	PORTER CABLE	JS-321	110A				JCDC1	$100.00
1109	NONE	SANDER, PALM ORBIT	NONE	DW420	DEWALT	JS-321	110A				JCDC1	$150.00
2479	PA1097	SANDER, UPRIGHT, 4"	NONE	D20	STATE	JS-329	110				JCDC3	$768.00
4263	NONE	SAW	A18A60507029 2	6519-22	MILWAUKEE	321	110				JCDC1	$144.00
4099	NONE	SAW KIT, JIG, ORBITAL	891044	DW321	DEWALT	JS-321	TRUCK				JCDC1	$159.99
4280	NONE	SAW KIT, JIGSAW, ORBITAL	NONE	DW321	DEWALT	JS-321	110A				JCDC1	$137.00
4279	NONE	SAW KIT, JIGSAW, ORBITAL	NONE	DW321	DEWALT	JS-321	110A				JCDC1	$137.00
4228	NONE	SAW KIT, JIGSAW, ORBITAL	850279	DW321	DEWALT	321	110B				JCDC1	$137.00
4227	NONE	SAW KIT, JIGSAW, ORBITAL	851266	DW321	DEWALT	JS-321	110B				JCDC1	$137.00
2493	1237020	SAW, 10" TILTING ARBOR	92B08341	34-806	DELTA INT'L MACH'Y F-POWER	JS-329	108				JCDC3	$1,789.00
4434	1446833	SAW, 14" GAS POWERED	213602	SQ65/14	DIAMANT BOART AMERICA INC	321	110B			1446833	JCDC1	$1,249.00
4309	NONE	SAW, BAND	175876A5020	7724	PORTA BAND	321	110				JCDC1	$266.00
4306	NONE	SAW, BAND	0506102	7020M	WILTON	JS-328	101				JCDC1	$4,581.00
3812	FD803	SAW, BAND	NONE	UNKNOWN	MILWAUKEE	328	TRUCK				JCDC1	$250.00
2961	NONE	SAW, BAND	457E402090618	6225	MILWAUKEE	JS-321	11				JCDC1	$269.25
2439	NONE	SAW, BAND	457E401460022	6225	MILWAUKEE	323	SHOP				JCDC1	$269.25
2167	NONE	SAW, BAND	457E401460021	6225	MILWAUKEE	323	SHOP				JCDC1	$269.25
1537	NONE	SAW, BAND	678H40214099 1	6230	MILWAUKEE	JS-325	100				JCDC4	$319.00
1446	NONE	SAW, BAND	678H40211082 3	6230	MILWAUKEE	321	C110B				JCDC1	$287.00
1329	FD822	SAW, BAND	445113	3Z990	WILTON	JS-329	110				JCDC1	$100.00
0791	NONE	SAW, BAND	678H40211081 3	6230	MILWAUKEE	JS-321	110B				JCDC1	$287.00

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1361	FD821	SAW, BAND, 7" - 9"	94F88306	28245	DELTA	323	CONEX				JCDC1	$100.00
2481	0561020	SAW, BAND, METAL CUTTING	146 641797	1612-U	DOALL CO	JS-329	110			6172	JCDC6	$1,461.00
1942	1002731	SAW, BAND, METAL CUTTING	1079	81M3M	ARMSTRONG-BLUM MFG CO	JS-329	110				JCDC6	$13,361.00
1579	0681018	SAW, BAND, METAL CUTTING W/BASE	NONE	230	FORREST MFG CO	JS-329	110				JCDC6	$2,045.00
4498	PA1499	SAW, BAND, PORTABLE	NONE	725	PORTER CABLE	325	PLUMBSH OP				JCDC3	$100.00
2253	FD828	SAW, BAND, PORTABLE	678A494160575	6230	MILWAUKEE	JS-321	11				JCDC1	$100.00
1884	PA8014	SAW, BAND, PORTABLE	457191096	6225	MILWAUKEE	JS-32	2202				JCDC8	$100.00
0869	PA1550	SAW, BAND, PORTABLE	398560	725	PORTER CABLE	JS-24	100				JCDC4	$100.00
1115	BR0765	SAW, BAND, PORTABLE, HEAVY DUTY	678E499464795	6230	UNKNOWN	321	104				JCDC1	$250.00
2993	NONE	SAW, BANDSAW, PORTABLE	673J403430388	6230	MILWAUKEE	321	110				JCDC1	$325.00
2149	NONE	SAW, BANDSAW, PORTABLE	6785403430386	6230	MILWAUKEE						JCDC1	$325.00
3197	NONE	SAW, CHAIN	NONE	NONE	UNKNOWN	321	202				JCDC1	$150.00
3006	JSC4485	SAW, CHAIN, 24"	NONE	NONE	MCCULLOCH	JS-420	112A				JBDC7	$100.00
2440	NONE	SAW, CHOP	467019	DW871	DEWALT	323	SHOP				JCDC1	$226.00
4296	NONE	SAW, CIRCULAR	917586	DW378G	DEWALT	321	110				JCDC1	$138.00
4264	NONE	SAW, CIRCULAR	433115	DW368	DEWALT	JS-321	110A				JCDC1	$113.00
4163	NONE	SAW, CIRCULAR	983B805180924	6390-20	MILWAUKEE	JS-321	DL86				JCDC1	$135.00
4100	NONE	SAW, CIRCULAR	9838B04380974	6390-0	MILWAUKEE	321	110				JCDC1	$147.00
3232	JSC6301	SAW, CIRCULAR	640320	1654	BOSCH	JS-321	110A				JCDC1	$100.00
2984	FD615	SAW, CIRCULAR	2670323	1654	BOSCH	321	104				JCDC1	$100.00
2982	FD612	SAW, CIRCULAR	2670316	1654	BOSCH	321	104				JCDC1	$100.00

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2764	FD607	SAW, CIRCULAR	1278	3027-09	BLACK & DECKER	321	104				JCDC1	$100.00
0534	NONE	SAW, CIRCULAR	983B402234205	6390-20	MILWAUKEE	JS-32	045				JCDC1	$162.00
1114	NONE	SAW, CIRCULAR, 7 1/2"	983B401520246	4WP31	MILWAUKEE	JS-321	110B				JCDC1	$167.00
2831	NONE	SAW, CIRCULAR, 7 1/4"	983B403391600	6390-20	MILWAUKEE						JCDC1	$150.00
2165	NONE	SAW, CIRCULAR, 7 1/4"	983B403391599	6390-20	MILWAUKEE						JCDC1	$150.00
2171	0224916	SAW, CIRCULAR, TABLE TYPE	85051127	34-763	DELTA INT'L MACH'Y F-POWER	JS-321	105			224916	JCDC1	$1,599.00
4229	NONE	SAW, CONCRETE	663356	157864	HONDA	JS-325	102				JCDC1	$1,715.00
1979	1237592	SAW, CONCRETE	128095	PAC111-13H	TARGET INDUSTRIES INC	326	LDY			26292	JCDC3	$1,795.00
0772	PA1154	SAW, CUT-OFF	575935088	BTS11	WACKER CORP.	321	110B				JCDC3	$713.00
4433	PA2415	SAW, JIG	NONE	7349	PORTER CABLE	JS-321	110A				JCDC3	$93.00
2217	NONE	SAW, JIG	67384200206E	DW321K	DEWALT	323	SHOP				JCDC1	$153.00
2216	NONE	SAW, JIG	57896200215E	DW321K	DEWALT	323	SHOP				JCDC1	$153.00
1425	FD414	SAW, JIG	0601582534VS	1582VS	BOSCH	JS-321	110A				JCDC1	$100.00
2835	FD610	SAW, MITER	295126E	LS1020	MAKITA	JS-321	110A				JCDC1	$100.00
2797	PA1716	SAW, MITER, COMPOUND, 10"	9145	36220	UNKNOWN	JS-329	108				JCDC3	$245.00
2944	NONE	SAW, MITRE	40392	DW708	DEWALT	323	SHOP				JCDC1	$616.00
2714	JSC3474	SAW, PANEL	8120045	S3A86TY4	DEWALT	JS-326A	LDY				JCDC3	$1,000.00
2214	FD406	SAW, PANEL	1294	KS226	KETT	421	103				JCDC1	$65.00
2802	1237453	SAW, RADIAL ARM 18-INCH	92155512	33-421	DELTA	JS-329	108			25443	JCDC3	$4,455.00
4162	NONE	SAW, RECIPROCATING	916H605060879	6537-22	MILWAUKEE	JS-321	DL44				JCDC1	$171.00
3998	FD711	SAW, RECIPROCATING	6311019222	6507	MILWAUKEE	321	104				JCDC1	$100.00

BAR CODE NO	OLD PROP NO	NOUN	SERIAL NO	MODEL NO	MFG	BLDG	ROOM	LICENSE PLATE NO	CALIBRATION NO	MAINTENANCE ID	ACCOUNT NO	COST
2992	FD704	SAW, RECIPROCATING	876066	6507	MILWAUKEE	JS-321	110A				JCDC1	$100.00
2971	NONE	SAW, RECIPROCATING	65172	DW938	DEWALT	321	C110B				JCDC1	$260.00
2441	NONE	SAW, RECIPROCATING	65195	DW938	DEWALT	321	C110B				JCDC1	$260.00
2265	FD709	SAW, RECIPROCATING	631990648	6507	MILWAUKEE	321	CAGE				JCDC1	$100.00
2261	NONE	SAW, RECIPROCATING	65200	DW938	DEWALT	JS-321	110A				JCDC1	$260.00
2178	FD721	SAW, RECIPROCATING	631A394122434	6507	MILWAUKEE	JS-321	100				JCDC1	$100.00
2160	NONE	SAW, RECIPROCATING	65172	DW938	DEWALT	JS-321	100				JCDC1	$260.00
1551	NONE	SAW, RECIPROCATING	971C30202043 9	651520	MILWAUKEE	321	110B				JCDC3	$268.00
0895	PA1421	SAW, RECIPROCATING	43454	3103	BLACK & DECKER	JS-48	100				JCDC4	$100.00
2949	NONE	SAW, RECIPROCATING, CORDLESS	942008	DW938	DEWALT						JCDC1	$282.40
0619	NONE	SAW, RECIPROCATING, CORDLESS	941571	DW938	DEWALT	JS-920L	HIBAY				JCDC1	$282.40
4437	JSC5402	SAW, SAWZALL	NONE	UNKNOWN	UNKNOWN	329	WELDSHO P				JCDC1	$100.00
3702	FD717	SAW, SAWZALL	117864	635	PORTER CABLE	JS-321	110B				JCDC1	$100.00
2995	FD713	SAW, SAWZALL	129806	635	PORTER CABLE	JS-321	110A				JCDC1	$100.00
2994	FD723	SAW, SAWZALL	89562	737	PORTER CABLE	321	104				JCDC1	$100.00
2991	FD725	SAW, SAWZALL	78615	737	PORTER CABLE	JS-321	110A				JCDC1	$100.00
2898	FD722	SAW, SAWZALL	NONE	UNKNOWN	MILWAUKEE	JS-321	TRUCK				JCDC1	$100.00
2701	FD715	SAW, SAWZALL	125964	635	PORTER CABLE	321	104				JCDC1	$100.00
2610	FD724	SAW, SAWZALL	124568	737	PORTER CABLE	JS-321	110A				JCDC1	$100.00
2255	FD714	SAW, SAWZALL	129807	635	PORTER CABLE	JS-329	106				JCDC1	$100.00
1543	NONE	SAW, SAWZALL	981B602161000	652121	MILWAUKEE	321	110B				JCDC4	$199.00

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1535	NONE	SAW, SAWZALL	981B602161007	652121	MILWAUKEE	JS-325	100				JCDC4	$199.00
1128	NONE	SAW, SAWZALL	916H39943057 6	653722	MILWAUKEE	328	TRUCK				JCDC1	$0.00
1127	NONE	SAW, SAWZALL	916H39943104 5	653722	MILWAUKEE	321	TRUCK				JCDC1	$304.00
0742	JSC3057	SAW, SCROLL	NONE	NONE	UNKNOWN	32	6TH FLOOR				JCDC6	$176.50
4036	NONE	SAW, SPIRAL	4347	REBO1 TYPE2	ROTOZIP	JS-321	110B				JCDC6	$112.00
4495	NONE	SAWALL	42728	DW938	DEWALT	JS-325	100				JCDC4	$277.80
4363	NONE	SAWZALL	861627	DC385	DEWALT	321	110				JCDC1	$263.00
4362	NONE	SAWZALL	518180	DC385	DEWALT	321	110				JCDC1	$263.00
4204	NONE	SAWZALL KIT	A18B60521189 0	30437	MILWAUKEE	JS-321	4296				JCDC1	$144.00
4203	NONE	SAWZALL KIT	A18B60521138 4	30437	MILWAUKEE	JS-321	4296				JCDC1	$144.00
3765	JSC4504	SCALE, 2500#	AN36045	NONE	DILLON & CO	420	112		M54487		JBDC7	$100.00
2364	NONE	SCALE, DRUM	C22549	1124	FAIRBANKS	358	LDY				JALN1	$575.00
2366	NONE	SCALE, DRUM, PORTABLE	22509	1124	FAIRBANKS	JS-358	LDY				JALN1	$575.00
4093	NONE	SCALE, ELECTRONIC	080311000849	9010A	ADVANCED TEST PRODUCTS	325	100				JCDC1	$212.00
1935	JSC4714	SCALE, FLOOR	NONE	NONE	UNKNOWN	JS-329	cage				JCDC6	$150.00
0288	JSC4651	SCALE, HD 250#	NONE	NONE	PELOUZE	JS-321	110B				JCDC4	$100.00
1821	PA1811	SCALE, REFRIGERANT	NONE	TIF950	TIF IND	Conex yard	CONEX #10				JCDC6	$390.00
1610	PA2514	SCALE, REFRIGERANT	C593918	CC800	CPS	329	TRUCK				JCDC6	$389.00
1500	PA2611	SCALE, REFRIGERANT	C589639	CC800	CPS	JS-329	106				JCDC1	$100.00
3397	JSC4657	SCALE, UTILITY, HD	NONE	P2505	PELOUZE	JS-321	TRUCK				JCDC4	$100.00
2753	PA2437	SCALE, UTILITY, HD	NONE	P250S	PELOUZE	325	PIPE CAGE				JCDC4	$100.00

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0732	JSC4658	SCALE, UTILITY, HD	NONE	P250S	PELOUZE	JS-321	TRUCK				JCDC4	$100.00
0485	PA2726	SCALE, UTILITY, HD	G3	P250S	PELOUZE	JS-48	100				JCDC4	$100.00
2387	1299195	SCALE, WEIGHING 5000 LB 4'X4'	H193035	FNX445000M	FAIRBANKS SCALES	JS-24	100			1299195	JCDC16	$1,937.00
2387	1299195	SCALE, WEIGHING 5000 LB 4'X4'	H193035	FNX445000M	FAIRBANKS SCALES	JS-24	100			1299195	JCDC16	$1,937.00
1481	NONE	SCANNER, ADP	CN24NBD1BP	C9870A	HEWLETT PACKARD	330	106				JCDC9	$110.00
1191	1170133	SCANNER, ADP	20001764	CYCLOPS330	MINOLTA CAMERA CO LTD	JS-321	110A				JCDC1	$3,064.00
3105	PA1086	SCANNER, INFRARED	NONE	II	EXERGEN CORP	JS-329	106		M204413		JCDC6	$555.00
4419	PA1982	SCANNER, LEAK DETECTOR, REFRIGERANT	NONE	69464	YELLOWJACKET	JS-321	110B				JCDC1	$100.00
2172	NONE	SCISSOR LIFT	GS3053816	GS1930	GENIE	323	C110B				JCDC1	$8,995.00
1070	1170101	SCOPE, POWER 4-CHANNEL	4148	4800	BMI	321	110B		M203820	300039	JCDC1	$11,950.00
3378	NONE	SCREW DRIVER, DRYWALL	146C503170755	6742-20	MILWAUKEE	JS-321	110A				JCDC1	$102.00
3373	NONE	SCREW DRIVER, DRYWALL	146C503310245	6742-20	MILWAUKEE	JS-321	11				JCDC1	$102.00
0777	NONE	SCREW DRIVER, DRYWALL	146C503210397	6742-20	MILWAUKEE						JCDC1	$102.00
1119	PA6810	SCREW SHOOTER	45093429	6798	MILWAUKEE	321	110B				JCDC3	$134.00
4086	NONE	SEEKER, LEAK	N383334	LS790B	CPS PRODUCTS	JS-325	LOCKER				JCDC1	$105.00
4085	NONE	SEEKER, LEAK	N383343	LS790B	CPS PRODUCTS	JS-321	TRUCK				JCDC1	$105.00
3087	G096069	SEMITRAILER, FLAT-BED	FWC581701	PB52-40	FRUEHAUF CORP HOBS DIV	JS-420	LDY	NA00494T		310366	JBDC6	$5,450.00
3090	G096068	SEMITRAILER, LOW BED	NONE	C2	FRUEHAUF CORP	JS-420	LDY	NA00493T		310365	JBDC7	$3,657.00
3916	0665747	SEMITRAILER, LOW-BED	78137	PFL10	DEMCO INC	JS-326A	LDY	NA00475T		311283	JCDC3	$3,867.00
0967	0681107	SEMITRAILER, TANK LN2	NONE	60XC107	SOUTHERN ORDANCE IND F-WESTERN	356	LDY	NA00465T			JCDC6	$57,000.00
0461	0554887	SEMITRAILER, TANK LOX	133	32A-4	AIR PRODUCTS AND CHEMICALS INC	356	LDY	NA00499T		554887	JCDC6	$44,340.00

BAR CODE NO	OLD PROP NO	NOUN	SERIAL NO	MODEL NO	MANUFACTURER	BLDG	ROOM	LICENSE PLATE NO	CALIBRATION NO	MAINTENANCE ID	ACCOUNT NO	COST
0460	0563591	SEMITRAILER, TANK LOX	1025	32A-4	AIR PRODUCTS AND CHEMICALS INC	356	LDY	NA00508T		15354	JCDC6	$41,166.00
1954	0716619	SEMITRAILER, VAN	N-4729	SFV2-30SS	MILLER TRAILERS INC	326	LDY	NA00495T		310671	JCDC6	$3,096.00
4526	1237078	SENSOR, TEMPERATURE/HUMIDITY	R27729	HT205W	ROTRONICS INSTRUMENT	30M	116			310979	JCDC16	$1,140.00
4526	1237078	SENSOR, TEMPERATURE/HUMIDITY	R27729	HT205W	ROTRONICS INSTRUMENT	30M	116			310979	JCDC16	$1,140.00
4297	NONE	SERVER	FCF12BT846	5325301719	SNAP APPLIANCE	330	118C				JCDC9	$630.00
1699	1920350	SERVER, COMMUNICATION	AG045NZZ78	DSRVF-BA	DIGITAL EQUIPMENT CORP	221	221A			1920350	JCDC7	$5,276.00
1055	JSC4331	SERVICE SET, 3-IN-1	NONE	OTC7249	OTC	321	TOOL RM				JCDC3	$100.00
0990	1353379	SHAFT, VERTICAL ALIGNMENT	51	207	DESIGN ASSISTANCE CORP	327	TPRM				JCDC2	$1,563.00
2457	1446897	SHAKER TABLE, PORT CALIBRATION	1053	DI823	DYNAMIC INSTRUMENTS INC	327	110A		M203352	1446897	JCDC2	$2,500.00
2279	PA2000	SHARPENING STONE	NONE	UNKNOWN	UNKNOWN	JS-32	2202				JCDC3	$100.00
2235	FD407	SHEAR, METAL	36700076	601500134	BOSCH	321	104				JCDC1	$100.00
1624	NONE	SHEAR,18G	96917200203E	DW890	DEWALT	JS-321	4296				JCDC1	$205.00
2756	0716246	SHEARING MACH PLATE SQUARING	P3-380	1096	WYSONG AND MILES CO	JS-321	120				JCDC1	$7,899.00
2474	0563475	SHEARING MACHINE	45100	0608SL	LODGE AND SHIPLEY CO	JS-329	110			25446	JCDC6	$17,748.00
1582	1170205	SHEARING MACHINE	8698	636	FORREST MFG CO	JS-329	110			25445	JCDC3	$1,260.00
2473	JSC4720	SHEER, CIRCLE CUTTING	B03	W456	BEVERLYSHEAR	JS-329	110				JCDC6	$250.00
4137	NONE	SHREDDER, PAPER	NONE	POWERHOUSE C14	FELLOWS	JS-330	115A				JCDC9	$367.00
0698	NONE	SLEEVE, HOT SUIT	72820	602100001	NORTH	321	110B				JCDC1	$240.00
0697	NONE	SLEEVE, HOT SUIT	72832	602100001	NORTH	321	110B				JCDC1	$240.00
0696	NONE	SLEEVE, HOT SUIT	NONE	602100001	NORTH	321	110B				JCDC1	$240.00
4852	NONE	SLING, 20'	BL-1	NONE	BISHOP LIFTING	JS-420	114				JBDC7	$200.00

BAR CODE NO	OLD PROP NO	NOUN	SERIAL NO	MODEL NO	MFG	BLDG	ROOM	LICENSE PLATE NO	CALIBRATION NO	MAINTENANCE ID	ACCOUNT NO	COST
4851	NONE	SLING, 20'	BL-2	NONE	BISHOP LIFTING	JS-420	114				JBDC7	$200.00
4849	NONE	SLING, 20'	BL-4	NONE	BISHOP LIFTING	JS-420	114				JBDC7	$200.00
4850	NONE	SLING, 20'	BL-3	NONE	BISHOP LIFTINIG	JS-420	114				JBDC7	$200.00
3302	JSC4518	SLING, WIRE ROPE, 1" X 10'	NONE	NONE	UNKNOWN	420	112				JBDC7	$100.00
3061	JSC4519	SLING, WIRE ROPE, 1" X 10'	NONE	NONE	UNKNOWN	JS-417	SHED				JBDC7	$100.00
3059	JSC4520	SLING, WIRE ROPE, 1" X 10'	NONE	NONE	UNKNOWN	JS-417	LDY				JBDC7	$100.00
1033	JSC4521	SLING, WIRE ROPE, 1" X 10'	NONE	NONE	UNKNOWN	JS-420	114				JBDC7	$100.00
3301	JSC4524	SLING, WIRE ROPE, 1" X 16'	NONE	NONE	UNKNOWN	420	112				JBDC7	$100.00
3060	JSC4522	SLING, WIRE ROPE, 1" X 16'	NONE	NONE	UNKNOWN	JS-417	SHED				JBDC7	$100.00
3058	JSC4523	SLING, WIRE ROPE, 1" X 16'	NONE	NONE	UNKNOWN	JS-417	LDY				JBDC7	$100.00
3049	JSC4525	SLING, WIRE ROPE, 1" X 16'	NONE	NONE	UNKNOWN	420	LYD				JBDC7	$100.00
3044	JSC4515	SLING, WIRE ROPE, 1-1/2" X 10'	NONE	NONE	UNKNOWN	JS-420	114				JBDC7	$100.00
3042	JSC4517	SLING, WIRE ROPE, 1-1/2" X 10'	NONE	NONE	UNKNOWN	JS-420	114				JBDC7	$100.00
3041	JSC4516	SLING, WIRE ROPE, 1-1/2" X 10'	NONE	NONE	UNKNOWN	JS-420	114				JBDC7	$100.00
3040	JSC4535	SLING, WIRE ROPE, 1-1/4" X 10'	NONE	NONE	UNKNOWN	JS-420	114				JBDC7	$100.00
3039	JSC4537	SLING, WIRE ROPE, 1-1/4" X 10'	NONE	NONE	UNKNOWN	JS-420	114				JBDC7	$100.00
3038	JSC4536	SLING, WIRE ROPE, 1-1/4" X 10'	NONE	NONE	UNKNOWN	JS-420	114				JBDC7	$100.00
3037	JSC4534	SLING, WIRE ROPE, 1-1/4" X 10'	NONE	NONE	UNKNOWN	JS-420	114				JBDC7	$100.00
3048	JSC4532	SLING, WIRE ROPE, 1-1/4" X 16'	NONE	NONE	UNKNOWN	JS-420	114				JBDC7	$100.00
3047	JSC4533	SLING, WIRE ROPE, 1-1/4" X 16'	NONE	NONE	UNKNOWN	JS-420	114				JBDC7	$100.00
3046	JSC4530	SLING, WIRE ROPE, 1-1/4" X 16'	NONE	NONE	UNKNOWN	JS-420	114				JBDC7	$100.00

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BARCODE NO	OLD PROP NO	DESCRIPTION	SERIAL NO	MODEL NO	MFG	BLDG	ROOM	LICENSE PLATE NO	CALIBRATION NO	MAINTENANCE ID	ACCOUNT NO	COST
3045	JSC4531	SLING, WIRE ROPE, 1-1/4" X 16'	NONE	NONE	UNKNOWN	JS-420	114				JBDC7	$100.00
3333	JSC4529	SLING, WIRE ROPE, 3/4" X 10'	NONE	NONE	UNKNOWN	JS-420	114				JBDC7	$100.00
3050	JSC4528	SLING, WIRE ROPE, 3/4" X 10'	NONE	NONE	UNKNOWN	JS-420	114				JBDC7	$100.00
1036	JSC4527	SLING, WIRE ROPE, 3/4" X 10'	NONE	NONE	UNKNOWN	JS-417	LDY				JBDC7	$100.00
1035	JSC4526	SLING, WIRE ROPE, 3/4" X 10'	NONE	NONE	UNKNOWN	JS-417	SHED				JBDC7	$100.00
3051	JSC4538	SLING, WIRE ROPE, 3/4" X 16'	NONE	NONE	UNKNOWN	420	114				JBDC7	$100.00
1043	JSC4540	SLING, WIRE ROPE, 3/4" X 16'	NONE	NONE	UNKNOWN	420	112				JBDC7	$100.00
1037	JSC4539	SLING, WIRE ROPE, 3/4" X 16'	NONE	NONE	UNKNOWN	420	112				JBDC7	$100.00
1034	JSC4541	SLING, WIRE ROPE, 3/4" X 16'	NONE	NONE	UNKNOWN	JS-420	114				JBDC7	$100.00
0623	NONE	SNAKE, THONGS, 48"	NONE	NONE	KETCH-ALL	417	100				JBDC4	$106.00
1290	JSC5443	SOCKET SET	NONE	UNKNOWN	CRAFTSMAN	JS-19319	19319				JCDC1	$100.00
0890	JSC5446	SOCKET SET, 1/2"	NONE	UNKNOWN	UNKNOWN	48	100				JCDC4	$100.00
3793	JSC4319	SOCKET SET, 1/2" DRIVE, 13-PC	NONE	NONE	CRAFTSMAN	JS-417	HIBAY				JBDC4	$105.00
0496	JSC4681	SOCKET SET, 1/2" DRIVE, 30 PC	NONE	NONE	J S TOOL CO	24	UPSTAIRS				JCDC4	$100.00
0886	JSC3058	SOCKET SET, 1/2" DRIVE, 30-PC	NONE	NONE	UNKNOWN	JS-48	100				JCDC4	$100.00
1609	JSC3080	SOCKET SET, 1/2", STANDARD, 25 PC.	NONE	NONE	UNKNOWN	329	104				JCDC6	$260.00
0881	JSC3059	SOCKET SET, 3/4" DRIVE, 8-PC	NONE	NONE	UNKNOWN	JS-381	100				JCDC4	$100.00
4405	PA5130	SOCKET SET, 3/8" DRIVE	NONE	34775	UNKNOWN	329	TOOLBOX				JCDC3	$100.00
0889	JSC3337	SOCKET SET, 3/8" DRIVE, 21-PC	NONE	NONE	UNKNOWN	JS-48	100				JCDC4	$100.00
3336	JSC4320	SOCKET SET, 3/8" DRIVE, 22-PC	NONE	NONE	CRAFTSMAN	JS-417	HIBAY				JBDC4	$159.75
0876	JSC3041	SOCKET SET, 3/8" DRIVE, 23-PC	NONE	NONE	UNKNOWN	JS-381	100				JCDC4	$100.00

BARCODE NO.	OLD PROP NO	ITEM DESCRIPTION	SERIAL NO	MODEL NO	MFG	BLDG	ROOM	LICENSE PLATE NO	CALIBRATION NO	MAINTENANCE ID	ACCOUNT NO	COST
1608	JSC3079	SOCKET SET, 3/8" STANDARD,25 PC.	NONE	NONE	CRAFTSMAN	329	TRUCK 1				JCDC6	$159.75
0987	JSC3628	SOCKET SET, 3/8", 15-PC	NONE	NONE	PROAMERICA	327	110				JCDC2	$143.00
3228	PA1524	SOCKET SET, CROWFOOT	NONE	GIT3673	GRANCO IND	321	CAGE				JCDC1	$100.00
3002	PA2538	SOCKET SET, CROWFOOT	NONE	NONE	GRANCO IND	JS-420	114				JCDC1	$100.00
3552	PA1852	SOCKET SET, IMPACT	NONE	PIT22030B	SNAP-ON	JS-417	101				JBDC4	$156.00
2382	JSC3189	SOCKET SET, IMPACT, 1", 12-PC	NONE	NONE	INGERSOLL RAND	JS-24	100				JCDC4	$100.00
0892	JSC3056	SOCKET SET, IMPACT, 1", 7-PC	NONE	NONE	UNKNOWN	JS-48	100				JCDC4	$100.00
0882	JSC3053	SOCKET SET, IMPACT, 1", 7-PC	NONE	NONE	UNKNOWN	48	FLOOR				JCDC4	$100.00
0327	JSC3190	SOCKET SET, IMPACT, 1", 7-PC	NONE	NONE	INGERSOLL RAND	24	FLOOR				JCDC4	$100.00
2731	JSC3395	SOCKET SET, IMPACT, 1/2" DRIVE, DEEP	NONE	NONE	UNKNOWN	326D	TRUCK				JCDC6	$111.00
0474	JSC4682	SOCKET SET, IMPACT, 25-PC	NONE	NONE	SNAP-ON	JS-24	200				JCDC4	$100.00
0891	JSC3034	SOCKET SET, IMPACT, 3/4" DRIVE, 18-PC	NONE	NONE	UNKNOWN	JS-48	100				JCDC4	$100.00
1733	JSC3177	SOCKET SET, IMPACT, 3/4" DRIVE, 4-PC	NONE	NONE	SNAP-ON	JS-28	FLOOR				JCDC4	$100.00
3557	PA1314	SOCKET SET, IMPACT, 3/8"	NONE	FAR7012C	UNKNOWN	417	TOOLBOX				JBDC4	$177.00
0478	JSC4683	SOCKET SET, IMPACT, 3/8" DRIVE, 31 PC	NONE	NONE	SNAP-ON	24	UPSTAIRS				JCDC3	$100.00
2868	0304489	SOLDERING STATION	6068	150	PACE INC	32	2202A				JCDC8	$1,295.00
2314	1345803	SOLDERING-DESOLDERING STATION	415325	PPS85	PACE INC	JS-32	2202A				JCDC8	$1,075.00
1000	BR0931	SONIC SCAN PACKAGE, 8 PC	903211	700000	UNKNOWN	327	110		M173942		JCDC2	$4,200.00
2386	1739121	SPECTROPHOTOMETER	961000000593	DR2010	HACH CO	24	HI BAY				JCDC7	$1,595.00
4308	NONE	SPECTROPHOTOMETER, PORTABLE	050800007623	DR2400	HACH	24	205				JCDC16	$2,265.00
4308	NONE	SPECTROPHOTOMETER, PORTABLE	050800007623	DR2400	HACH	24	205				JCDC16	$2,265.00

BAR CODE NO	OLD PROP NO	[illegible]	SERIAL NO	MODEL NO	[illegible]	BLDG	ROOM	LICENSE PLATE NO	CALIBRATION NO	MAINTENANCE ID	ACCOUNT NO	COST
1747	JSC3173	SPILL SCOOTER	NONE	5205	ENPAC	28	FLOOR				JCDC4	$100.00
0911	JSC3174	SPILL SCOOTER	NONE	5205	ENPAC	48	FLOOR				JCDC4	$100.00
3201	1353398	SPOT COOLING SYSTEM, PORTABLE	2940027	15SFU1	NIPPONDENSO OF LOS ANGELES	JS-329	110				JCDC1	$2,775.00
0970	1353396	SPOT COOLING SYSTEM, PORTABLE	5940187	10SFU1	NIPPONDENSO OF LOS ANGELES	321	110B			310906	JCDC4	$2,120.00
0466	0153790	SPRAYER, ELECTROSTATIC UNIT W/ATT	19219	2	RANSBURG CORP	326	LDY			310948	JCDC3	$6,930.00
1711	1007885	SPRAYER, PAINT AIRLESS	A6403	231002	GRACO INC F-GRACO LUBER	JS-342	100			310404	JCDC3	$2,364.00
0763	PA1755	SPRAYER, WATER SPRAY SNAKE	92535507	2100	FLOJET	329	114				JCDC3	$250.00
0621	PA1754	SPRAYER, WATER SPRAY SNAKE	93132096	2100	FLOJET	JS-342	CAGE				JCDC3	$250.00
3400	NONE	SPRING REMOVAL TOOL KIT	NONE	905-121	FEBCO	325	100				JCDC4	$201.16
1224	PA1923	STAKON	NONE	NONE	THOMAS & BETTS	321	110B				JCDC1	$150.00
4359	NONE	STAND, PIPE	NONE	460	RIDGID	321	110				JCDC1	$420.00
4358	NONE	STAND, PIPE	NONE	460	RIDGID	321	110				JCDC1	$420.00
2723	NONE	STATIC DISCHARGE REEL	NONE	EDR50	IER	JS-326D	TRUCK				JCDC3	$215.00
3104	PA2682	STATION, SOLDER	NONE	WTCPT	WELLER MFG.	329	106				JCDC6	$100.00
2869	PA8045	STATION, SOLDER	8197	PRC150	PACE	32	2202A				JCDC8	$100.00
2313	PA8072	STATION, SOLDER	6271	SA10115	OK IND	JS-32	2202A				JCDC8	$100.00
2717	1345801	STEAM CLEANER, PORTABLE	C251330694	5Z170	DAYTON APPLIANCE PARTS CO	JS-326A	LDY				JCDC6	$1,662.00
2515	PA1004	STEAMTECTOR	NONE	UNKNOWN	BOSTON BELL	JS-321	110A				JCDC1	$250.00
4421	NONE	STEEL BINDER	306022	1201	GERRARD & CO	321	110B				JCDC1	$297.25
1705	1353437	STENCIL CUTTING MACHINE	NONE	3172	MARSH STENCIL MACHINE CO	JS-342	CAGE				JCDC3	$2,200.00
1502	0804438	STEROSCOPE	NONE	31-35-28385B	CAMBRIDGE INSTR F-IMAGE ANALY	329	106				JCDC6	$1,820.00

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BAR CODE NO	OLD PROPERTY NO	DESCRIPTION	SERIAL NO	MODEL NO	MFG	BLDG	ROOM	LICENSE PLATE NO	CALIBRATION NO	MAINTENANCE CODE ID	ACCOUNT NO	COST
2894	JSC3651	STILT, DRYWALL	NONE	NONE	I A M	JS-231	UPSTAIRS				JCDC1	$100.00
2891	JSC3652	STILT, DRYWALL	NONE	NONE	I A M	JS-231	UPSTAIRS				JCDC1	$100.00
4372	NONE	STORAGE CHEST	NONE	2408 CLASSIC	KNAACK	323	100				JCDC3	$312.00
2980	JSC3747	STORY POLE, 7'	NONE	6500	DIETZGEN	JS-321	110B				JCDC1	$100.00
0647	JSC3748	STORY POLE, 7'	NONE	6500	DIETZGEN	321	104				JCDC1	$100.00
2774	BR0150	STROBE KIT	749004	B444001	CSI	327	110				JCDC2	$0.00
2775	PA2055	STROBOSCOPE, DIGITAL	22069403	DT315EB	SHIMPO	JS-329	106				JCDC2	$695.00
1563	PA2105	STROBOSCOPE, DIGITAL	22169405	DT315EB	SHIMPO	327	100A				JCDC2	$100.00
1175	PA2056	STROBOSCOPE, DIGITAL	22069403	DT315EB	SHIMPO	JS-321	110A				JCDC2	$695.00
1174	PA7137	STROBOSCOPE, DIGITAL	50400122	DT301	SHIMPO	JS-321	110A		M44083		JCDC17	$395.00
1174	PA7137	STROBOSCOPE, DIGITAL	50400122	DT301	SHIMPO	JS-321	110A		M44083		JCDC17	$395.00
3122	PA7173	STROBOSCOPE, DIGITAL, AC-115	50500035	DT301	SHIMPO	420	100A		M42347		JCDC6	$100.00
1173	PA8115	STROBOSCOPE, DIGITAL, AC-115	50200161	DT301	SHIMPO	JS-321	110A		M43855		JCDC6	$495.00
3923	1006035	SWEEPER, ROOF	NONE	130200	REEVES ROOFING CO	326A	LDY				JCDC3	$1,700.00
3338	JSC3397	SWITCH, STARTER, REMOTE	NONE	NONE	UNKNOWN	326D	GEN SHOP				JCDC6	$150.00
3137	PA1073	SWITCHER	NONE	HSR410	HUNTRON	420	100A				JCDC6	$721.00
3102	PA1077	SWITCHER	31005855	HSR410	HUNTRON	329	106				JCDC6	$721.00
0916	PA7176	TACHOMETER, PHOTO, DIGITAL	5751	DT36M	PIONEER	48	104				JCDC17	$300.00
0916	PA7176	TACHOMETER, PHOTO, DIGITAL	5751	DT36M	PIONEER	48	104				JCDC17	$300.00
2886	FD8101	TACKER, ELECTRIC	NONE	NONE	UNKNOWN	421	103				JCDC1	$100.00
0416	1008804	TAMPER, ASPHALT/STABILIZER	650501554	VPA1350W	WACKER CORP	326	LDY			26291	JCDC3	$1,696.00

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BARCODE NO	OLD PROP NO	ITEM DESCRIPTION	SERIAL NO	MODEL NO	MFG	BLDG	ROOM	LICENSE PLATE NO	CALIBRATION NO	MAINTENANCE ID	ACCOUNT NO	COST
1367	1353407	TAMPER, GROUND	2712999	R270	M B W INC	323	LDY			310634	JCDC1	$2,045.00
1336	1353408	TAMPER, GROUND	2713001	R270	M B W INC	417	OUTSIDE			310635	JCDC1	$2,045.00
1858	1237077	TAMPER, PORTABLE	3500469	R450	M B W INC	JS-326A	100			26293	JCDC3	$1,944.00
3193	JSC4178	TAMPER, W/ 5' HANDLE	NONE	NONE	UNKNOWN	JS-321	110				JCDC1	$125.00
2716	PA1488	TANK, AIR	NONE	22635	UNKNOWN	JS-326A	LDY				JCDC6	$123.00
3345	JSC3408	TANK, FUEL, 100-GALLON W/PUMP	NONE	NONE	UNKNOWN	JS-326	040				JCDC6	$150.00
3882	PA1657	TAP & DIE SET, METRIC	NONE	952001	CRAFTSMAN	326D	GEN SHOP				JCDC6	$256.00
0747	JSC3448	TAP & DIE SET, METRIC	NONE	TDM117	BLUE POINT	329	106				JCDC6	$300.00
3883	PA1656	TAP & DIE SET, STANDARD	NONE	952311	CRAFTSMAN	326D	GEN SHOP				JCDC6	$249.00
4332	NONE	TAP DIE SET	NONE	NONE	WESTWARD	321	110				JCDC1	$201.00
4331	NONE	TAP/DIE SET	NONE	NONE	WESTWARD	321	110				JCDC1	$201.00
4153	NONE	TAPE DRIVE	CJF06003B	TRS23BA-EY	QUANTUM	329	106				JCDC6	$3,127.00
1578	JSC4764	TAPER SHANK DRILLS & REAMER SET	NONE	NONE	UNKNOWN	JS-329	110				JCDC6	$100.00
2207	FD1025	TAPPER, KWIK	3575531T3	TKT2000	HILTI	JS-321	110A				JCDC1	$200.00
2836	0806902	TELESCOPE, SURVEYING	A33041	TL20DE	TOPCON INSTRUMENT CP OF AMER	JS-321	110A				JCDC1	$2,166.00
1519	JSC3450	TEMP-BATH	135023	BO11	YAMATO	420	100A				JCDC6	$200.00
4485	NONE	TENSIONER, PUSHBAR	C1204	B2A0	RAPZ	321	110B				JCDC1	$395.95
1876	PA1578	TERMINAL	NONE	UNKNOWN	UNKNOWN	JS-32	2202				JCDC8	$150.00
3112	JSC3451	TERMINAL, BRAIN	F490HA264928	BT100	YOKOGAWA	JS-329	106				JCDC6	$300.00
2516	JSC3150	TERMINAL, BRAIN	F492EB998U648	BT200S1	YOKOGAWA	JS-24	105H				JCDC4	$100.00
1871	JSC3345	TERMINAL, HAND HELD	97061389	HHTAAEFNB	FOXBOROUGH	32	2202				JCDC8	$100.00

BAR CODE NO	OLD PROP NO	DESCRIPTION	SERIAL NO	MODEL NO	MANUFACTURER	BLDG	ROOM	LICENSE PLATE NO	FOR BEATION NO	MAINTENANCE ID	ACCOUNT NO	COST
2857	PA1796	TERMINAL, SERVICE	NONE	0200247	LIEBERT	32	2202				JCDC8	$100.00
1877	JSC3348	TERMINAL, SERVICE	9246	ASZTU1000	METASYS	32	2202				JCDC8	$100.00
0868	PA1936	TERMINAL, SERVICE	NONE	1A16702G1	LIEBERT	48	LOCKER				JCDC4	$100.00
1875	JSC3346	TERMINAL, TRANSMITTER	25109	NONE	BAILEY	JS-32	2202				JCDC8	$100.00
2281	JSC3574	TEST BOARD, ETASYS	NONE	NONE	METASYS	JS-32	2202				JCDC7	$5,000.00
3107	PA2278	TEST BOX, FIELD	NONE	387562	ACU-RITE	JS-329	106				JCDC6	$380.00
0689	1446904	TEST KIT, DIGITAL	NONE	TVRMS2	GENERAL ELECTRIC CORP	48	HI BAY				JCDC8	$2,020.00
4418	1008850	TEST SET, CIRCUIT LOAD	74473-003/1	PA2505K	MULTI-AMP CP F-POW-R-SAFE TOOL	JS-321	110B				JCDC1	$3,075.00
2291	0682803	TEST SET, DATA TERMINAL	21	7653850-1	SCI SYSTEMS INC	JS-32	2202AB				JCDC8	$7,320.00
2295	1008835	TEST SET, MICROPROCESSOR	5355003	9000A6809	FLUKE JOHN MFG CO INC	JS-32	2202AB				JCDC8	$1,850.00
1684	0681064	TEST SET, OIL AND GLOVE DIELEC	750941	0G-100	E I L INSTRUMENTS INC	JS-221	OUTSIDE				JCDC7	$2,295.00
1045	1299147	TEST SET, PORTABLE	92125004	PTS4	SIEMENS CORP	321	110B		M204370		JCDC1	$4,300.00
1080	0715317	TEST SET, RELAY	22008	SR75	MULTI-AMP CP F-POW-R-SAFE TOOL	321	110B				JCDC1	$5,530.00
2537	PA1049	TEST SET, SEMICONDUCTOR DEVICE	21403782	HTR1005B1S	HUNTRON	JS-24	100				JCDC8	$100.00
3296	NONE	TESTER, ANTI-FREEZE	NONE	4510S31	THERMOMETER	JS-417	101				JBDC4	$100.00
1067	PA7252	TESTER, BACK FLOW PREVENTER	NONE	890	MIDWEST	JS-321	110B		M164606		JCDC4	$100.00
2744	PA2218	TESTER, BATTERY LOAD	NONE	4Z581C	DAYTON	JS-0301	183A				JCDC8	$100.00
2677	1739120	TESTER, CIRCUIT BREAKER	121060-001/2	PS9160	AVO INTERNATIONAL	JS-48	100				JCDC8	$44,300.00
4123	NONE	TESTER, ELECTRICAL	87480009	T5-1000	FLUKE	321	110				JCDC1	$107.00
4122	NONE	TESTER, ELECTRICAL	87480013	T5-1000	FLUKE	321	110				JCDC1	$107.00
4121	NONE	TESTER, ELECTRICAL	87480012	T5-1000	FLUKE	JS-325	TRUCK				JCDC1	$107.00

BAR CODE NO.	OLD PROP NO	DESCRIPTION	SERIAL NO	MODEL NO	MANUFACTURER	BLDG	ROOM	LICENSE PLATE NO	CALIBRATION NO	MAINTENANCE NO	ACCOUNT NO	COST
4120	NONE	TESTER, ELECTRICAL	87480011	T5-1000	FLUKE	321	110				JCDC1	$107.00
4119	NONE	TESTER, ELECTRICAL	87480010	T5-1000	FLUKE	321	110				JCDC1	$107.00
4118	NONE	TESTER, ELECTRICAL	87470532	T5-1000	FLUKE	JS-321	105				JCDC1	$107.00
4026	NONE	TESTER, ELECTRICAL	94190263	T5-1000	FLUKE	325	100				JCDC3	$115.00
4025	NONE	TESTER, ELECTRICAL	84390398	T5-1000	FLUKE	329	104				JCDC3	$115.00
4024	NONE	TESTER, ELECTRICAL	84170280	T5-1000	FLUKE	321	110B				JCDC3	$115.00
4023	NONE	TESTER, ELECTRICAL	84190261	T5-1000	FLUKE	325	100				JCDC3	$115.00
4022	NONE	TESTER, ELECTRICAL	84190265	T5-1000	FLUKE	JS-32	2202A				JCDC3	$115.00
4021	NONE	TESTER, ELECTRICAL	84380026	T5-1000	FLUKE	JS-358	065				JCDC3	$115.00
1162	0039056	TESTER, GROUND RESISTANCE	763810031093	250302	BIDDLE INST	321	110B		M42744		JCDC1	$1,597.00
2299	PA7066	TESTER, IC	30002109	HSR210	HUNTRON	32	2202AB				JCDC8	$100.00
1050	1353330	TESTER, INSULATION	63681003	218800	BIDDLE INSTR F-JAMES BIDDLE CO	321	110B		M42746		JCDC1	$9,750.00
1493	1006007	TESTER, INTERGRATED CIRCUIT	86000140	AR6000	AMERICAN RELIANCE	329	106				JCDC6	$1,295.00
1689	PA2519	TESTER, PHASE	NONE	T4032311	CHANCE	JS-221	LINE SHACK				JCDC7	$12.00
2531	NONE	TESTER, PNEUMATIC, PORTABLE	UNKNOWN	T-740	UNKNOWN	JS-48	100				JCDC4	$100.00
2526	1353406	TESTER, PRESSURE DEAD WEIGHT	HL-4901	HL10-1	AMETEK INC MANSFIELD&GREEN DV	24	105H		M203320		JCDC4	$2,395.00
0978	0715307	TESTER, PRESSURE DEAD WEIGHT	7542	T-10	AMETEK INC MANSFIELD&GREEN DV	JS-32	2202		M173461		JCDC8	$1,000.00
1051	JSC4332	TESTER, PRESSURE, COOLING SYSTEM	NONE	ST270	STANT	321	TOOL RM				JCDC3	$200.00
2531	1299196	TESTER, PRESSURE, PORTABLE DIG	069 347-200	NONE	AMETEK INC MANSFIELD&GREEN DV	24	105H		M46348		JCDC4	$1,260.00
1690	JSC3320	TESTER, PROOF	1195003	PT5000	H D ELECTRIC	221E	LINE SHACK				JCDC7	$200.00
3108	PA1085	TESTER, TUBE, ELECTRON	15300108	539C	HICKOK	JS-329	106				JCDC6	$895.00

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BAR CODE NO	OLD PROP NO	ITEM DESCRIPTION	SERIAL NO	MODEL NO	MANUFACTURER	BLDG	ROOM	EQUIPMENT PLATE NO	CALIBRATION NO	MAINTENANCE ID	ACCOUNT NO	COST
4424	PA2470	TESTER, VACUUM	NONE	UNKNOWN	UNKNOWN	24	105H				JCDC16	$100.00
4424	PA2470	TESTER, VACUUM	NONE	UNKNOWN	UNKNOWN	24	105H				JCDC16	$100.00
2882	FD8110	TESTER, VOLTAGE	NONE	NONE	HASTINGS	JS-321	110A				JCDC1	$100.00
2881	FD8113	TESTER, VOLTAGE	NONE	NONE	HASTINGS	JS-321	110A				JCDC1	$100.00
0921	PA2340	TESTER, VOLTAGE, "WIGGY"	NONE	VT16610	SQUARE D	325	PSHOP		M172345		JCDC4	$100.00
3136	PA1217	TESTER, VOLTAGE, DC	4765	VS11N	ELECTRONIC	420	100A		M21498		JCDC1	$100.00
4505	PA1043	THERMOGRAPH	NONE	UNKNOWN	UNKNOWN	321	110B		M173858		JCDC1	$100.00
4259	NONE	THERMOMETER	NONE	51/52II	FLUKE	321	110				JCDC1	$139.00
4258	NONE	THERMOMETER	NONE	51/52II	FLUKE	321	110				JCDC1	$139.00
1606	PA1688	THERMOMETER	5520177	52	FLUKE	329	TRUCK				JCDC6	$188.00
1599	PA1689	THERMOMETER	5520174	52KJ	FLUKE	329	107		M165801		JCDC1	$188.00
1381	NONE	THERMOMETER	81080046	52II	FLUKE	323	104				JCDC1	$227.77
0849	NONE	THERMOMETER	NONE	IR610	METERMAN						JCDC6	$12,380.00
0753	PA1690	THERMOMETER	5425311	52	FLUKE	329	TRK #1/TOOL BAG				JCDC6	$188.00
4515	NONE	THERMOMETER, DIGITAL	C426370	SH66A	COOPER	JS-321	TRUCK				JCDC4	$172.98
4477	NONE	THERMOMETER, DIGITAL	C431552	SH66A	COOPER	JS-321	TRUCK				JCDC4	$172.98
4429	PA8107	THERMOMETER, DIGITAL	4595286	52	FLUKE	32	2202		M34071		JCDC8	$100.00
4428	PA1907	THERMOMETER, DIGITAL	NONE	52	FLUKE	JS-24	105H		M165833		JCDC4	$100.00
3371	PA1962	THERMOMETER, DIGITAL	5820181	52	FLUKE	JS-32	2202		M173427		JCDC8	$100.00
2687	PA8111	THERMOMETER, DIGITAL	4595289	52	FLUKE	JS-32	2202		M173447		JCDC8	$100.00
2579	PA1543	THERMOMETER, DIGITAL	5345201	52	FLUKE	325	TRUCK 92				JCDC4	$100.00

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BAR CODE NO	OLD PROP NO	[illegible]	SERIAL NO	MODEL NO	[illegible]	BLDG	ROOM	LICENSE PLATE NO	CALIBRATION NO	MAINTENANCE ID	ACCOUNT NO	COST
2276	PA7843	THERMOMETER, DIGITAL	1166	47014400	INSTRUMENT LAB	JS-32	2202				JCDC8	$100.00
1888	PA1666	THERMOMETER, DIGITAL	NONE	TYPE K	ELECTRO-THER	JS-32	2202				JCDC8	$100.00
1555	PA8105	THERMOMETER, DIGITAL	4475633	52	FLUKE	32	2202		M173431		JCDC8	$100.00
0769	NONE	THERMOMETER, DIGITAL	81240015	50S	FLUKE	24	BAY				JCDC16	$107.00
0769	NONE	THERMOMETER, DIGITAL	81240015	50S	FLUKE	24	BAY				JCDC16	$107.00
0593	NONE	THERMOMETER, DIGITAL	81260010	50S	FLUKE	24	BAY				JCDC5	$107.00
0494	NONE	THERMOMETER, DIGITAL	81240014	50S	FLUKE	24	BAY				JCDC16	$107.00
0494	NONE	THERMOMETER, DIGITAL	81240014	50S	FLUKE	24	BAY				JCDC16	$107.00
0491	NONE	THERMOMETER, DIGITAL	81200001	50S	FLUKE	24	BAY				JCDC16	$107.00
0491	NONE	THERMOMETER, DIGITAL	81200001	50S	FLUKE	24	BAY				JCDC16	$107.00
0490	NONE	THERMOMETER, DIGITAL	81240016	50S	FLUKE	24	BAY				JCDC16	$107.00
0490	NONE	THERMOMETER, DIGITAL	81240016	50S	FLUKE	24	BAY				JCDC16	$107.00
4278	NONE	THERMOMETER, INFRARED	NONE	65	FLUKE	321	110				JCDC1	$262.00
4192	NONE	THERMOMETER, INFRARED	NONE	RAYNGER ST	RAYTEK	JS-325	LOCKER				JCDC1	$171.00
4191	NONE	THERMOMETER, INFRARED	NONE	RAYNGER ST	RAYTEK	JS-321	TRUCK				JCDC1	$171.00
3125	PA1087	THERMOMETER, INFRARED	1055	D500F	EXERGEN CORP	JS-329	106		M204595		JCDC6	$695.00
1703	JSC4690	THERMOMETER, MERCURY	NONE	NONE	M & W USA	28	DOWNSTA IRS				JCDC4	$100.00
0866	JSC3146	THERMOMETER, MERCURY	NONE	NONE	M & W USA	24	DOWNSTA IRS				JCDC4	$100.00
3114	PA7116	THERMOMETER, THERMOCOUPLE	459758	450AET	OMEGA VAC	JS-329	106		M23759		JCDC6	$296.00
2240	FD801	THREADER, PIPE	1085547	700	RIDGID	321	110B				JCDC1	$100.00
1449	FD802	THREADER, PIPE	1069691	700	RIDGID	JS-321	110A				JCDC1	$100.00

BAR CODE NO	OLD PROPERTY NO	ITEM DESCRIPTION	SERIAL NO	MODEL NO	MFG	BLDG	ROOM	LICENSE PLATE NO	CALIBRATION NO	MAINTENANCE PLAN ID	ACCOUNT NO	COST
1393	1553676	THREADING MACHINE	EC10478I95	535	RIGID TOOL CO	328	100				JCDC1	$3,128.00
2104	1744154	THREADING MACHINE, PIPE	EB11920B97	1224	RIGID TOOL CO	JS-24	100				JCDC4	$4,991.00
2718	0156338	THREADING MACHINE, PIPE W/STAND	7606617	300	RIDGE TOOL CO (DISCONTINUED)	326A	LDY				JCDC6	$1,760.00
2783	0681274	THREADING MACHINE, PIPE-BOLT	702TK176	729TK-176	TELEDYNE OSTER	329	100				JCDC6	$3,836.00
2782	0681273	THREADING MACHINE, PIPE-BOLT	716SR108	716SR	TELEDYNE OSTER	JS-329	100				JCDC6	$5,746.00
1741	0673800	THREADING MACHINE, PIPE-BOLT	360554	535	EMERSON ELEC CO RIDGE TOOL DIV	222	SHOP				JCDC6	$2,042.00
2589	PA1753	THREADING SET, PIPE, EXTERNAL	NONE	NONE	REED	329	SHOP				JCDC4	$100.00
0450	1446908	TILE REMOVER, INFRARED	5511	DELTA T/6	DELTA INT'L MACH'Y F-POWER	JS-325	102			1299178	JCDC3	$8,500.00
3488	JSC4307	TIRE MACHINE	NONE	NONE	UNKNOWN	417	SHOP				JBDC4	$3,000.00
4351	NONE	TOOL BOX	NONE	NONE	UNKNOWN	321	110				JCDC1	$318.00
2491	PA1786	TOOL BOX	NONE	UNKNOWN	UNKNOWN	329	MACHINE SHOP				JCDC3	$250.00
3509	NONE	TOOL BOX, BOTTOM	NONE	4107	STACK-ON	JS-417	HIBAY				JBDC4	$619.00
3504	NONE	TOOL BOX, BOTTOM	NONE	4105	STACK-ON	JS-417	101				JBDC4	$619.00
3508	NONE	TOOL BOX, TOP	NONE	4105	STACK-ON	JS-417	HIBAY				JBDC4	$439.00
3503	NONE	TOOL BOX, TOP	NONE	4105	STACK-ON	417	MSHOP				JBDC4	$439.00
2766	JSC3778	TOOL CABINET, 9-DRAWER	NONE	NONE	VIDMAR	327	110				JCDC2	$400.00
0879	PA2111	TOOL CASE, ELECTRONIC	NONE	GC382	XCELITE	48	LOCKER 57				JCDC4	$100.00
4236	NONE	TOOL CHEST, 12 DRAWER	NONE	J45000	PROTO	321	110				JCDC1	$395.00
2789	JSC4793	TOOL CHEST, 19-DRAWER	NONE	NONE	CRAFTSMAN	JS-329	110				JCDC6	$300.00
1734	PA1926	TOOL CHEST, 6-DRAWER	NONE	NONE	STACK-ON	JS-28	FLOOR				JCDC4	$100.00
4235	NONE	TOOL CHEST, 8 DRAWER	NONE	J45008	PROTO	321	110				JCDC1	$395.00

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BAR CODE NO	OLD TRON NO	[illegible]	SERIAL NO	MODEL NO	MFG	BLDG	RM	LICENSE PLATE NO	CALIBRATION NO	MAINTENANCE ID	ACCOUNT NO	COST
2317	PA7005	TOOL KIT, ELECTRONIC	NONE	U87LDXPJTX 87	JENSEN	JS-32	2202A				JCDC8	$100.00
2308	PA7249	TOOL KIT, ELECTRONIC	NONE	JTK87	JENSEN	32	2202A				JCDC8	$100.00
2301	PA7006	TOOL KIT, ELECTRONIC	NONE	U87LDXPJTX 87	JENSEN	JS-32	2202A				JCDC8	$100.00
1177	PA8067	TOOL KIT, ELECTRONIC	NONE	JTK87	JENSEN	JS-321	110A				JCDC8	$100.00
1052	JSC4818	TOOL SET, ALIGNMENT, HORIZONTAL, 14-P	291194	AT1104	UNKNOWN	321	TOOL RM				JCDC2	$26.00
0733	PA1279	TOOL, COMPRESSING	NONE	TBM6	UNKNOWN	329	UPSTAIRS PARTS RM				JCDC6	$109.00
2607	PA2672	TOOL, COMPRESSION, HYDRAULIC	NONE	EP 410	NICOPRESS	329	UPSTAIRS PARTS RM				JCDC6	$996.00
0506	JSC4390	TOOL, PISTON DRIVE	NONE	DX400	HILTI	321	100				JCDC3	$375.00
1708	PA1481	TOOL, SCALING & CHIPPING	73569	727G1	PORTER CABLE	342	PAINT SHOP				JCDC3	$420.00
3092	JSC4506	TOOLBOX, LARGE, BLUE (IN RM 112)	NONE	NONE	UNKNOWN	JS-417	LDY				JBDC7	$100.00
1541	NONE	TORCH KIT	NONE	NONE	GENTEC	321	110B				JCDC4	$248.40
0597	PA6904	TORCH, METAL SPRAY	NONE	CW1600	CRONATRON	329	110				JCDC3	$449.00
2953	NONE	TRACER	NONE	201100521	GREENLEE	323	SHOP				JCDC1	$510.00
2885	FD5003	TRACER, CIRCUIT, HOT	17547	P23	PASAR	321	104		M172581		JCDC1	$100.00
2745	PA1577	TRACER, CURRENT (TWO COMPONENTS)	16232	P26	AMPROBE	JS-0301	183A				JCDC8	$100.00
2746	JSC3384	TRACER, CURRENT, KIT	NONE	T10	AMPROBE	JS-0301	183A				JCDC8	$100.00
2847	FD5002	TRACER, OPEN	28831	0T1000-A	PASAR	321	104		M172580		JCDC1	$100.00
1166	PA1894	TRACER, TIC	NONE	TIF100	TIF INDUSTRI	JS-321	110A		M172382		JCDC1	$100.00
1165	PA1896	TRACER, TIC	NONE	TIF100	TIF INDUSTRI	JS-321	110A		M172379		JCDC1	$100.00
1164	PA1895	TRACER, TIC	NONE	TIF100	TIF INDUSTRI	JS-321	110A		M172380		JCDC1	$100.00
3103	0842788	TRACKER ELECTRONIC	22A05385	2000A	HUNTRON INSTRUMENTS INC	JS-329	106				JCDC6	$1,755.00

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BARCODE NO	OLD PROP NO	EQUIPMENT DESCRIPTION	SERIAL NO	MODEL NO	MANUFACTURER	BLDG	ROOM	LICENSE PLATE NO	CALIBRATION NO	MAINTENANCE ID	ACCOUNT NO	COST
3625	1119307	TRACTOR 1710	UL14413	AL312A	FORD MOTOR CO TRACTOR AND IMPL	JS-42	100			1119307	JCDC1	$7,412.00
4873	0074770	TRACTOR TOW	CT-311-656008	CT40	CLARK EQUIPMENT CO	JS-326	LDY			311283	JBDC4	$14,559.00
4867	G023167	TRACTOR W/FRONT LOADER	2XB01407	916	CATERPILLAR TRACTOR CO	326	LDY			310189	JCDC3	$69,861.00
4866	G023172	TRACTOR W/LOADER/BACKHOE	U323963T	416	CATERPILLAR TRACTOR CO	JS-420	OUTSIDE	NA000035			JCDC3	$37,500.00
0417	0714670	TRACTOR, CRAWLER DOZER	28575	D31P-16	MADE IN JAPAN	JS-326B	LDY			310610	JCDC3	$45,411.00
1961	0075216	TRAILER W/LOAD BANKS	3168940	NONE	AVTRON MANUFACTURING INC	326A	LDY	NA00530T		310053	JCDC6	$16,119.00
3921	1170204	TRAILER, CARGO	1WC200G22N2 018623	EW1622	WELLS CARGO INC	JS-32	LDY	NA00474T		311190	JCDC3	$3,996.00
3920	0269880	TRAILER, CARGO	1WC200G24G2 009781	EW1624	WELLS CARGO INC	JS-32	LDY	NA00478T		311189	JCDC3	$3,740.00
3919	0269881	TRAILER, CARGO	1WC200G24G2 009797	EW1624	WELLS CARGO INC	JS-326B	100	NA00477T		311188	JCDC3	$3,820.00
3915	1299153	TRAILER, CARGO	IWC200C11P20 21575	TW101	WELLS CARGO INC	JS-326A	LDY	NA00473T			JCDC6	$1,982.00
2920	1299157	TRAILER, CARGO	IWC200J26N20 19461	EW2024	WELLS CARGO INC	JS-32	LDY	NA00479T		311187	JCDC3	$5,129.00
0975	0074619	TRAILER, CARGO	5012	3500#	GEN TRUCK MFG CO OF HOUSTON	JS-32	YARD	NA00464T		310378	JCDC3	$3,300.00
0467	1914558	TRAILER, CARGO	1WC200J26P2 020550	EW2022	WELLS CARGO INC	326	LDY	NA00498T		311186	JCDC6	$4,630.00
3913	1237439	TRAILER, CONSTRUCTION	17VP1222NB01 0733	TC1264-80	TRAILMATE	JS-36	040	NA00550T		311123	JCDC3	$1,740.00
3089	G023164	TRAILER, DROP FRAME FLOAT	1L01B4822K10 84378	FL75DF	LUFKIN INDUSTRIES INC	JS-420	LDY	NA00526T		310606	JBDC7	$18,000.00
3917	1170206	TRAILER, F/1/8 SCL MKUP	NONE	NONE	LYNDON B JOHNSON SPACE CENTER	JS-326A	LDY	NA00527T		310609	JCDC3	$10,900.00
3811	0725239	TRAILER, FOUR WHEEL	NONE	41	INTERNATIONAL HARVESTER CO	326	LDY	NA00498T		725239	JCDC3	$1,194.00
3091	G023165	TRAILER, LOW-BOY 22FT	K9E22327K100 55449	HRGP3-50T	KALYN INC	JS-420	LDY	NA00492T		310528	JBDC7	$33,610.00
3922	1987429	TRAILER, UTILITY	NONE	NONE	FALCON TRAILERWORKS	JS-326B	LDY	NA00472T			JCDC3	$1,465.00
1001	1353378	TRAINER, ASSEMBLY DEVICE	57	208	DESIGN ASSISTANCE CORP	327	110				JCDC2	$1,563.00
3133	JSC3454	TRANSFORMER, VOLTAGE, FREQ: 60 HZ	NONE	CVN	SOLA	JS-329	106				JCDC6	$125.00

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BARCODE NO	OLD PROP NO	DESCRIPTION	SERIAL NO	MODEL NO	MFG	FLDOT	PROD	LICENSE PLATE NO	CALIBRATION NO	WO/TL TRANSFER NO	ACCOUNT NO	COST
0536	NONE	TRANSMITTER	10RD433HCTX 2USA400855	HCTX251265	RADIO DETECTION	JS-329	100				JCDC1	$1,825.00
0535	NONE	TRANSMITTER	10RD400PDL2 BA1USA187709	PDL2BA1	RADIO DETECTION	JS-329	100				JCDC1	$2,295.00
4220	NONE	TRANSMITTER, CIRCUIT SEEKER	NONE	2011/00521	GREENLEE	JS-321	110A				JCDC1	$532.00
4218	NONE	TRANSMITTER, CIRCUIT SEEKER	NONE	2011/00521	GREENLEE	JS-24	105H				JCDC1	$532.00
4216	NONE	TRANSMITTER, CIRCUIT SEEKER	NONE	2011/00521	GREENLEE	JS-321	110A				JCDC1	$532.00
0956	1008806	TRANSMITTER, GFL	1000E01991	LS1000	HEATH CO	JS-321	110B				JCDC6	$1,475.00
0793	1170110	TRANSMITTER, LASER LEVEL	807	2044R	SPECTRA-PHYSICS CORP LASER DIV	328	101		M172606		JCDC1	$980.00
2413	1446907	TREADING MACHINE, PIPE	EAM12995J96	535	RIGID TOOL CO	JS-325	100			311281	JCDC4	$3,498.00
3905	0304482	TRENCHER W/BACKFILL BLADE	5B1996	1420	CHARLES MACHINE WORKS INC THE	JS-326B	LYD			21707	JCDC3	$7,552.00
1522	PA7653	TRENDICATOR, DIGITAL	43321	400A	DORIC	JS-329	106				JCDC6	$345.00
2771	PA1943	TRIPOD, CAMERA	NONE	3236	BOGEN	327	110				JCDC2	$110.00
2304	0722168	TROUBLESHOOTER MICRO SYSTEM	3530012	9010A	FLUKE JOHN MFG CO INC	JS-32	2202AA			310348	JCDC8	$3,990.00
2722	1291619	TRUCK, AERIAL	1GBL7H1JXPJ1 03613	CHEV KODIAK	GENERAL MOTORS CORP	326A	LDY	NA000026		1291619	JCDC6	$65,857.00
1822	PA2324	TRUCK, ALUMINUM, APPLIANCE	NONE	W910101604	UNKNOWN	Conex yard	CONEX #10				JCDC6	$204.00
1820	PA1995	TRUCK, CYLINDER, SINGLE	NONE	MG37038	UNKNOWN	Conex yard	CONEX #10				JCDC6	$147.00
1818	PA1994	TRUCK, CYLINDER, SINGLE	NONE	MG37038	UNKNOWN	Conex yard	CONEX #10				JCDC6	$147.00
3083	0843189	TRUCK, FORK LIFT	JD02091N	844T34	LULL CORP F-LULL ENGINEERING	JS-417	LDY	NA00506T		310607	JBDC7	$84,070.00
3053	1118864	TRUCK, FORK LIFT	Y685-0037-8450K0F	C500YS80D	CLARK EQUIP CO INDUS TRUCK DIV	JS-417	LDY			1118864	JBDC7	$24,364.00
2059	G023169	TRUCK, FORK LIFT	37W8484	V80E	CATERPILLAR INDUSTRIAL INC	JS-417	HIBAY			310184	JBDC3	$31,745.00
3057	G023168	TRUCK, FORK LIFT 15 TON	72Y1490	V300B	CATERPILLAR INDUSTRIAL INC	JS-417	HIBAY			310186	JBDC7	$72,880.00
3576	0683914	TRUCK, FORK LIFT, DIESEL	AFC87695	ACP40PS	ALLIS-CHALMERS INDUS TRUCK DV	JS-420	OUTSIDE			30757	JCDC3	$13,098.00

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BAR CODE NO	OLD PROP NO	ITEM DESCRIPTION	SERIAL NO	MODEL NO	MANUFACTURER	BLDG	ROOM	LICENSE PLATE NO	CALIBRATION NO	MAINTENANCE ID	ACCOUNT NO	COST
3086	1118932	TRUCK, FORK LIFT, DIESEL	HWIGGINSWL C912255	WD306V	WIGGINS LIFT CO INC	JS-417	LDY			1118932	JBDC7	$60,628.00
3084	0722081	TRUCK, FORK LIFT, DIESEL	N405421	GDP150HAJU BT093	YALE MATERIALS HANDLING CORP	JS-420	OUTSIDE			722081	JBDC7	$38,426.00
2916	G021114	TRUCK, FORK LIFT, DIESEL	236529A	FD20T10	KOMATSU MFG CO LTD	JS-328	101			310541	JCDC3	$15,647.00
3295	0562999	TRUCK, FORK LIFT, ELECTRIC	ST-20-42-206	ST20	CLARK EQUIP CO INDUS TRUCK DIV	JS-417	HIBAY			310196	JBDC7	$3,546.00
0346	0665720	TRUCK, FORK LIFT, ELECTRIC	NONE	20R30TF	RAYMOND CORP THE	JS-417	HIBAY			310949	JBDC5	$11,728.00
3579	0274854	TRUCK, FORK LIFT, GAS	5AC00558	V40S5A	CATERPILLAR TRACTOR CO	JS-342	100			310191	JCDC6	$16,400.00
4289	NONE	TRUCK, HAND	NONE	4ZJ34	DAYTON	JS-420	OUTSIDE				JBDC6	$240.00
2606	JSC3295	TRUCK, HAND, HEAVY DUTY, 2-WHEEL	NONE	NONE	HARPER	JS-420	OUTSIDE				JBDC6	$285.00
2389	PA2262	TRUCK, PALLET, MANUAL	NONE	L2000U	BT	JS-24	100				JCDC4	$100.00
1738	PA1951	TRUCK, PLATFORM	NONE	2506T41	BROUMAN	JS-28	FLOOR				JCDC4	$100.00
1960	NONE	TRUCK, TRASH	NONE	9922T1	RUBBERMAID	JS-329	OUTSD				JCDC3	$575.00
1807	NONE	TRUCK, TRASH	NONE	9922T1	RUBBERMAID	JS-329	OUTSD				JCDC3	$575.00
0812	NONE	TRUCK, TRASH	NONE	4716	RUBBERMAID	323	100				JCDC1	$330.29
0811	NONE	TRUCK, TRASH	NONE	4716	RUBBERMAID	323	LDY				JCDC1	$281.00
0803	NONE	TRUCK, TRASH	NONE	4716	RUBBERMAID	323	100				JCDC1	$330.29
0802	NONE	TRUCK, TRASH	NONE	NONE	RUBBERMAID	323	100				JCDC1	$281.00
0720	NONE	TRUCK, TRASH	NONE	4716	RUBBERMAID	JS-326A	100				JCDC1	$229.00
0425	NONE	TRUCK, TRASH	NONE	NONE	RUBBERMAID	323	100				JCDC1	$281.00
2347	JSC3012	TUB, HAZMAT	NONE	NONE	UNKNOWN	JS-358	LDY				JALN1	$281.25
2070	JSC3013	TUB, HAZMAT	NONE	NONE	EAGLE	JS-358	LDY				JALN1	$281.25
2068	JSC3011	TUB, HAZMAT	NONE	NONE	UNKNOWN	JS-358	LDY				JALN1	$281.25

BARCODE NO	OLD PROP NO	EQUIPMENT DESCRIPTION	SERIAL NO	MODEL NO	MFG NAME	BLDG	ROOM	LICENSE PLATE NO	CALIBRATION NO	MAINTENANCE CODE ID	ACCOUNT NO	COST
3227	PA1986	TUBING, SHUT-OFF, 3/4 X 1-1/4", KIT	NONE	651	UNKNOWN	JS-321	110A				JCDC1	$100.00
0999	1237446	ULTRASONIC UNIT, PORTABLE	16745	UP2000	U E SYSTEMS INC	327	106A		M172189		JCDC2	$2,905.00
1620	PA8154	UNISHEAR	84700177	1506	BOSCH	321	120/METAL SHOP				JCDC3	$366.00
1118	PA7194	UNISHEAR	601507034	1507	BOSCH	JS-321	4296				JCDC3	$469.00
2907	0269945	VAC-U-RIG CO-UNITS	685	4135	MILWAUKEE ELECTRIC TOOL CORP	JS-321	110A			310675	JCDC1	$1,094.00
4302	NONE	VACUUM	060500164889	C2094	HOOVER	321	110				JCDC1	$186.00
4301	NONE	VACUUM	060500164882	C2094	HOOVER	321	110				JCDC1	$186.00
4300	NONE	VACUUM	060500164858	C2094	HOOVER	321	110				JCDC1	$186.00
4537	NONE	VACUUM CLEANER	15702	OMEGAVAC	ATRIX INT INC	JS-32	LDY				JCDC1	$235.00
4524	NONE	VACUUM CLEANER	15701	OMEGAVAC	ATRIX INT INC	JS-321	110B				JCDC1	$235.00
4292	NONE	VACUUM CLEANER	NONE	UL2S250	SHOP VAC INDUSTRIAL	321	110				JCDC1	$293.00
3242	NONE	VACUUM CLEANER	11678	OMEGAVAC	ATRIX INTL	321	C110B				JCDC1	$239.21
2966	NONE	VACUUM CLEANER	NONE	086325C	ROYAL	JS-321	TRUCK				JCDC1	$115.00
2946	NONE	VACUUM CLEANER	11686	OMEGAVAC	ATRIX INTL	321	C110B				JCDC1	$239.21
2888	NONE	VACUUM CLEANER	NONE	086325C	ROYAL	323	SHOP				JCDC1	$115.00
2251	NONE	VACUUM CLEANER	NONE	086325C	ROYAL	323	SHOP				JCDC1	$115.00
1949	NONE	VACUUM CLEANER	NONE	62095E	DAYTON	321	110B				JCDC3	$618.00
1841	JSC5546	VACUUM CLEANER	10527	GS80	NILFISK	Conex yard	CONEX #7				JCDC3	$419.00
1618	NONE	VACUUM CLEANER	NONE	62095E	DAYTON	JS-321	110				JCDC3	$618.00
0830	NONE	VACUUM CLEANER	NONE	QL6251C	SHOP-VAC	JS-CONEX YD	CONEX17				JCDC1	$202.27
0609	NONE	VACUUM CLEANER	17134	OMEGAVAC	ATRIX INT INC	321	110B				JCDC1	$197.60

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0533	NONE	VACUUM CLEANER	15697	OMEGAVAC	ATRIX INT INC	JS-326B	100				JCDC1	$235.00
0532	NONE	VACUUM CLEANER	15705	OMEGAVAC	ATRIX INT INC	JS-32	LDY				JCDC1	$235.00
0530	NONE	VACUUM CLEANER	15276	OF622HE	OMEGA VAC	JS-321	110B				JCDC3	$235.00
0297	PA2516	VACUUM CLEANER	NONE	UNKNOWN	HOOVER	JS-24	202				JCDC4	$150.00
0276	NONE	VACUUM CLEANER	17129	OMEGAVAC	ATRIX INT INC	321	110B				JCDC1	$197.60
1843	JSC4167	VACUUM CLEANER, 12.5 AMP	R072224	86A5B	PULLMAN	Conex yard	EV CRAFTS #6				JCDC3	$167.75
2770	PA2095	VACUUM CLEANER, 6.6 AMP, "LEAD-USE ONLY	OV04179348	OV1000	ULTIVAC	JS-321	110B				JCDC2	$325.00
1707	PA2094	VACUUM CLEANER, 6.6 AMP, "LEAD-USE ONLY	OV04179344	OV1000	ULTIVAC	JS-342	CAGE				JCDC3	$325.00
1846	JSC4157	VACUUM CLEANER, INDUSTRIAL, 8 AMP	80738365	C80380	HAKO	Conex yard	EV CRAFTS #6				JCDC3	$165.25
1845	JSC4158	VACUUM CLEANER, INDUSTRIAL, 8 AMP	80738364	C80380	HAKO	Conex yard	EV CRAFTS #6				JCDC3	$165.25
3203	PA8079	VACUUM CLEANER, PORTABLE	98718	HP33P	CADILLAC	JS-231	UPSTAIRS				JCDC1	$100.00
4923	NONE	VACUUM EXPRESS	P 7991	VACEXP04	EXPRESS VAC	321	110				JCDC1	$131.00
4924	NONE	VACUUM EXPRESS HEPPA	P 7990	VACEXP04	EXPRESS VAC	321	110				JCDC1	$131.00
0397	NONE	VACUUM EXPRESS HEPPA	P 7992	VACEXP04	EXPRESS VAC	321	110				JCDC1	$131.00
2748	NONE	VACUUM PUMP	249635	15600	ROBINAIR	321	110B				JCDC6	$388.54
1539	NONE	VACUUM PUMP	NONE	PRO	SHOP VAC	321	110B				JCDC1	$106.00
4864	1236879	VACUUM SYSTEM	91-1540D6820-2	CB4027LP	KINNEY VACUUM CO	JS-326A	100			1236879	JCDC6	$13,938.00
4147	NONE	VACUUM, HEPA	M02D61265	1010D AF AS	MASTERCRAFT	JS-325	102				JCDC1	$398.00
4146	NONE	VACUUM, HEPA	P02B50665	NONE	ARAMSCO	JS-32	LDY				JCDC1	$413.00
4145	NONE	VACUUM, HEPA	M01F48939	101055DAFPH	MASTERCRAFT	JS-325	102				JCDC1	$398.00

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0626	JSC4187	VACUUM, INDUSTRIAL, TWO-STAGE, 15-GAL	NONE	6Z095	DAYTON	JS-325	102				JCDC3	$615.00
2555	JSC4685	VACUUM, INDUSTRIAL, TWO-STAGE, 3-HP	NONE	3Z709C	DAYTON	24	UPSTAIRS				JCDC4	$100.00
4144	NONE	VACUUM, POWERFLITE	NONE	SPF21	SHP	329	100				JCDC1	$399.00
3382	JSC5257	VACUUM, SHOP VAC, 20 GALLON, 7.5 AMP	NONE	3Z579	DAYTON	321	104				JCDC1	$100.00
4130	NONE	VACUUM, UPRIGHT	0234065641	SC888	SANITAIRE EUREEKA	JS-321	110				JCDC1	$245.00
4129	NONE	VACUUM, UPRIGHT	0444004070	SC888	SANITAIRE EUREEKA	JS-321	110A				JCDC1	$245.00
4127	NONE	VACUUM, UPRIGHT	0427001055	SC888	SANITAIRE	JS-321	110B				JCDC1	$245.00
4444	NONE	VACUUM, WET/DRY	NONE	4TR14A	DAYTON	321	110B				JCDC3	$192.00
4239	NONE	VACUUM, WET/DRY	NONE	3UP80A	DAYTON	JS-321	110				JCDC1	$342.00
4138	NONE	VACUUM, WET/DRY	NONE	10091B	DAYTON	JS-CONEX YD	CONEX3				JCDC1	$161.00
4037	NONE	VACUUM, WET/DRY	NONE	EYE23	DAYTON	JS-CONEX YD	CONEX3				JCDC6	$233.00
3155	NONE	VACUUM, WET/DRY	NONE	4TR14A	DAYTON	321	110B				JCDC1	$192.00
3150	NONE	VACUUM, WET/DRY	NONE	4TR14A	DAYTON	JS-321	110				JCDC1	$192.00
2582	JSC4700	VACUUM, WET/DRY	NONE	2Z9726	DAYTON	JS-325	110				JCDC4	$100.00
0215	NONE	VACUUM, WET/DRY	NONE	4TR12	DAYTON	JS-336	100				JCDC4	$205.00
2557	JSC3770	VACUUM, WET/DRY, 25-GALLON	NONE	6Z769B	DAYTON	JS-328	HIBAY				JCDC1	$100.00
2252	JSC5258	VACUUM, WET/DRY, 55-GALLON	NONE	3Z709A	DAYTON	321	104				JCDC1	$100.00
4169	NONE	VACUUM, WET/DRY, HEPA	P05E89854	P41512WAFA R	ARAMSCO	321	110				JCDC1	$650.00
4168	NONE	VACUUM, WET/DRY, HEPA	P05E89857	P41512WAFA R	ARAMSCO	JS-32	LDY				JCDC1	$650.00
4167	NONE	VACUUM, WET/DRY, HEPA	P05D89098	P41512WAFA R	ARAMSCO	JS-32	LDY				JCDC1	$650.00
4166	NONE	VACUUM, WET/DRY, HEPA	P05D89095	P41512WAFA R	ARAMSCO	JS-32	LDY				JCDC1	$650.00

BAR CODE NO	OLD PROPERTY NO	[illegible]	[illegible]	SERIAL NO	MODEL NO	[illegible]	BLDG	ROOM	LICENSE PLATE NO	CALIBRATION NO	MAINTENANCE [illegible]	ACCOUNT NO	COST
4165	NONE	VACUUM, WET/DRY, HEPA	P05D89096	P41512WAFA R	ARAMSCO		JS-325	102				JCDC1	$650.00
4164	NONE	VACUUM, WET/DRY, HEPA	P05E89855	P41512WAFA R	ARAMSCO		JS-32	LDY				JCDC1	$650.00
1297	PA1532	VELOMETER	NONE	8100	UNKNOWN		JS-321	110A		M39393		JCDC1	$100.00
2772	JSC6102	VIDEO CASSETTE PLAYER	70538044D5	VHR5428	SANYO		327	110				JCDC2	$100.00
3270	1237075	VIEWFINDER	193226	DXF501	AGEMA INFRARED SYSTEMS		327	110				JCDC2	$3,200.00
2286	JSC3344	VISE, 5" JAW	NONE	NONE	WILTON		JS-32	2202				JCDC8	$100.00
2274	JSC3343	VISE, 5" JAW	NONE	NONE	WILTON		JS-32	2202				JCDC8	$100.00
3297	JSC4313	VISE, 6"	NONE	NONE	UNKNOWN		417	SHOP FLOOR				JBDC4	$120.00
1576	JSC5163	VISE, 6"	NONE	101059	UNKNOWN		JS-329	110				JCDC6	$120.00
1572	JSC5165	VISE, 6"	NONE	101059	UNKNOWN		JS-329	cage				JCDC6	$120.00
0780	JSC5164	VISE, 6"	NONE	101059	UNKNOWN		JS-329	110				JCDC6	$120.00
0821	JSC4642	VISE, CHAIN, TRIPOD	NONE	NONE	UNKNOWN		JS-CONEX YD	CONEX16				JCDC4	$100.00
3388	JSC3740	VISE, PIPE, PLASTER CORE, TRIPOD-MOUNT	NONE	NONE	RIDGID		321	ELECT. CAGE				JCDC1	$100.00
1331	JSC3739	VISE, PIPE, PLASTER CORE, TRIPOD-MOUNT	NONE	NONE	RIDGID		321	ELECT. CAGE				JCDC1	$100.00
1330	JSC3738	VISE, SUPPORT, PIPE, TRIPOD	NONE	NONE	RIDGID		323H	METAL SHOP				JCDC1	$100.00
1066	1353353	VOLTMETER	852	MARK II	H D ELECTRIC CO		321	110B				JCDC1	$1,215.00
1970	0275722	WASHER W/HOSE	112424	535	ALKOTA CLEANING SYSTEMS INC		JS-326A	100				JCDC3	$2,838.00
4206	NONE	WASHER, PRESSURE	10188077	GP3000-0M0C	CHORE MASTER		JS-320	100				JCDC6	$1,105.00
4125	NONE	WASHER, PRESSURE	10167663	GP30000MVC	CHORE MASTER		JS-326A	LDY				JCDC1	$940.00
4124	NONE	WASHER, PRESSURE	10167664	GP30000MVC	CHORE MASTER		JS-326A	LDY				JCDC1	$940.00
3540	NONE	WASHER, PRESSURE	PO50221543	HOT215021D	LANDA		JS-417	HIBAY				JBDC4	$2,750.00

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1856	G023166	WASHER, PRESSURE	8906741	WS2500GHNS	SIMPSON CLEANING SYSTEMS INC	326	LDY				JCDC3	$2,695.00
3577	1237006	WASHER, PRESSURE 3000PSI	190624	CW30040MGH	MI-T-M CORP	JS-326A	100			310654	JCDC1	$1,900.00
3906	1996139	WASHER, TRLMTD, GAS/ENG	6111658	V465D	BAUMAC INTERNATIONAL	326B	LDY	NA00481T		20999	JCDC3	$9,604.00
3942	NONE	WATER COOLER	020620441	CBMAKVC	HALSEY TAYLOR	342	100				JCDC3	$240.00
3561	NONE	WATER COOLER	NONE	NONE	OASIS	417	SHOP				JBDC4	$250.00
2287	JSC4987	WATER COOLER	8534179900	EBA11D	OASIS	32	2202				JCDC1	$354.00
1719	NONE	WATER COOLER	020620442	CBMAKVC	HALSEY TAYLOR	329	HI BAY				JCDC3	$240.00
0451	JSC4099	WATER SYSTEM	NONE	1019	MINIWATER	329	STRUCTURAL				JCDC3	$513.00
3082	JSC4564	WEIGHT, TEST, 5000#	NONE	NONE	UNKNOWN	JS-417	LDY				JBDC7	$100.00
3081	JSC4565	WEIGHT, TEST, 5000#	NONE	NONE	UNKNOWN	JS-417	LDY				JBDC7	$100.00
1008	JSC4563	WEIGHT, TEST, 5000#	NONE	NONE	UNKNOWN	JS-417	LDY				JBDC7	$100.00
1007	JSC4562	WEIGHT, TEST, 5000#	NONE	NONE	UNKNOWN	JS-417	LDY				JBDC7	$100.00
3080	JSC4567	WEIGHT, TEST, 5100#	NONE	NONE	UNKNOWN	JS-417	LDY				JBDC7	$100.00
3079	JSC4566	WEIGHT, TEST, 5100#	NONE	NONE	UNKNOWN	JS-417	LDY				JBDC7	$100.00
3070	JSC4568	WEIGHT, TEST, 5600#	NONE	NONE	UNKNOWN	JS-147	LDY				JBDC7	$100.00
3072	JSC4569	WEIGHT, TEST, 5800#	NONE	NONE	UNKNOWN	JS-147	LDY				JBDC7	$100.00
3069	JSC4570	WEIGHT, TEST, 5800#	NONE	NONE	UNKNOWN	420	112				JBDC7	$131.00
3075	JSC4571	WEIGHT, TEST, 6800#	NONE	NONE	UNKNOWN	420	LYD				JBDC7	$100.00
3073	JSC4573	WEIGHT, TEST, 6900#	NONE	NONE	UNKNOWN	JS-147	LDY				JBDC7	$100.00
3071	JSC4572	WEIGHT, TEST, 6900#	NONE	NONE	UNKNOWN	JS-417	LDY				JBDC7	$100.00
3077	JSC4574	WEIGHT, TEST, 7000#	NONE	NONE	UNKNOWN	420	LYD				JBDC7	$100.00

BAR CODE NO.	OLD PROPINE	[illegible]	SERIAL NO.	MODEL NO.	[illegible]	[illegible]	ROOM	LICENSE PLATE NO.	CALIBRATION [illegible] NO.	MAINTENANCE [illegible]	ACCOUNT NO.	[illegible] COST
3076	JSC4575	WEIGHT, TEST, 7000#	NONE	NONE	UNKNOWN	JS-147	LDY				JBDC7	$100.00
3074	JSC4576	WEIGHT, TEST, 7000#	NONE	NONE	UNKNOWN	JS-147	LDY				JBDC7	$100.00
2788	1446807	WELDER, 200AMP	KF809451	MILLERMATIC250	MILLER ELECTRIC MFG CO	329	103A			311284	JCDC3	$1,400.00
3502	NONE	WELDER, AC/DC	LC216637	THUNDERBOLTXL	MILLER	JS-417	HIBAY				JBDC4	$499.00
4862	0681164	WELDER, ARC TRL MTD	JB508999	250D	MILLER ELECTRIC MFG CO	JS-326A	LDY	NA00559T		310666	JCDC6	$5,804.00
3932	0681185	WELDER, ARC TRL MTD	JB476498	20	MILLER ELECTRIC MFG CO	JS-326A	LDY	NA00533T			JCDC3	$2,000.00
3931	0681187	WELDER, ARC TRL MTD	HJ148003	B1G20	MILLER ELECTRIC MFG CO	JS-326A	LDY	NA00535T			JCDC3	$2,266.00
2927	0269949	WELDER, ARC TRL MTD	JG045572	44D	MILLER ELECTRIC MFG CO	326A	LDY	NA00532T		25600	JCDC6	$10,196.00
2925	0726867	WELDER, ARC TRL MTD	JF890843	BIG20	MILLER ELECTRIC MFG CO	JS-326A	LDY	NA00547T		26295	JCDC3	$4,024.00
1965	0716259	WELDER, ARC TRL MTD	JB578685	902-536	MILLER ELECTRIC MFG CO	JS-326A	100	NA00486T		310659	JCDC1	$4,200.00
1419	0716258	WELDER, ARC TRL MTD	A-988999	SA200F163	LINCOLN ELECTRIC CO	JS-32	OUTSIDE	NA00485T		310599	JCDC1	$5,190.00
2758	JSC4115	WELDER, ARC, 12K	NONE	2.5ADDR24PA	MILLER	321	120				JCDC3	$300.00
0748	NONE	WELDER, CUTTER	FJ83544	3840834	VICTOR	321	110B				JCDC3	$355.00
1345	0224643	WELDER, MACHINE, ELECTRIC	JF938338	901788	MILLER ELECTRIC MFG CO	JS-135E	1357			310660	JCDC1	$1,253.00
2762	0158839	WELDER, MACHINE, ELECTRIC, PORTABLE	JH216330	902-889	MILLER ELECTRIC MFG CO	JS-321	100			310668	JCDC3	$2,208.00
3536	NONE	WELDER, MIG	LC226435	MILLERMATIC135	MILLER	417	SHOP				JBDC4	$649.00
3955	JSC4116	WELDER, PIN	53250	PBFS14	DURO-DRIVE	321	120				JCDC3	$200.00
2609	JSC3659	WELDER, READY	288	905CA23664	KAMWELD	JS-321	110A				JCDC1	$100.00
2987	FD1201	WELDER, SPOT	KA740700	MSW41	MILLER	JS-321	110A				JCDC1	$100.00
2761	JSC4117	WELDER, SPOT	848009	2Z543	DAYTON	JS-321	100				JCDC3	$360.00
1289	PA2535	WELDER, SPOT	NONE	2Z543	DAYTON	JS-321	110B				JCDC3	$100.00

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0831	1008810	WELDER, SPOT	53251	PBFS14	DURO DYNE CORP	321	CONEX				JCDC3	$1,779.00
2435	1006025	WELDER, SPOT/PEDESTAL MOUNTED	KA865712	SSW2020ATT	MILLER SPECIAL TOOLS DIV OF	JS-321	120				JCDC3	$2,664.00
1540	NONE	WELDING MACHINE	LB297250	903643	MILLER	321	110B				JCDC4	$995.00
1418	1008809	WELDING MACHINE	A1177147	WP225G7	LINCOLN ELECTRIC CO	JS-326D	SHED			310601	JCDC1	$2,369.00
1417	1170130	WELDING MACHINE	A1190224	WP225G7	LINCOLN ELECTRIC CO	JS-326D	SHED	NA00502T		310600	JCDC1	$2,369.00
1398	1446826	WELDING MACHINE	KF926219	300	MILLER WELDING	JS-328	HIBAY			310672	JCDC1	$1,797.00
1322	1446827	WELDING MACHINE	KF927124	300	MILLER WELDING	JS-323H	LDY			310673	JCDC1	$1,797.00
2760	0156924	WELDING MACHINE, ARC	JH246174	MM200	MILLER ELECTRIC MFG CO	JS-321	100			310669	JCDC3	$1,322.00
2759	0722062	WELDING MACHINE, ARC ELECTRIC	JE782800	DIALARC HF-P	MILLER ELECTRIC MFG CO	321	SHMTL				JCDC1	$1,322.00
1323	0158916	WELDING MACHINE, ARC ELECTRIC	JH235345	DIALARC-HF	MILLER ELECTRIC MFG CO	JS-323H	LDY			158916	JCDC1	$1,320.00
2785	1002732	WELDING MACHINE, HELIARC	JG065288	300	MILLER ELECTRIC MFG CO	JS-329	110				JCDC6	$3,357.00
1559	1914559	WHEEL BARROW MOTORIZED	73061507	30252	BRIGGS AND STRATTON CORP	326A	LDY			310152	JCDC3	$1,653.00
1534	NONE	WHEEL PULLER	516991	HP2	POSI LOCK	JS-325	100				JCDC4	$189.84
1285	NONE	WHEEL PULLER SET	NONE	5MF78	GRAINGER	JS-321	110B				JCDC1	$259.00
4319	NONE	WHEELBARROW, DUAL WHEEL	NONE	4GU62	AMES TRUE TEMPER	JS-325	102				JCDC1	$146.00
4318	NONE	WHEELBARROW, DUAL WHEEL	NONE	4GU62	AMES TRUE TEMPER	JS-325	102				JCDC1	$146.00
0822	NONE	WINCH	17844	DB1300021	SALE	JS-CONEX YD	CONEX16				JCDC4	$2,575.00
0980	1345802	WINCH SYSTEM W/TRIPOD	10156	94121881	B D IND	383	SPTLR			310136	JALN1	$2,258.00
1869	PA1572	WINDSPEED INDICATOR	NONE	UNKNOWN	UNKNOWN	JS-32	2202				JCDC3	$100.00
3010	JSC4507	WORKBENCH	NONE	NONE	UNKNOWN	JS-420	OUTSIDE				JBDC7	$100.00
0687	PA1858	WORKBENCH, MOBILE	NONE	MB12542	STACK-ON	JS-48	100				JCDC4	$100.00

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BAR CODE NO.	OLD PROP NO.	NOUN	SERIAL NO.	MODEL NO.	MFG	RADIO	ROOM	LICENSE PLATE NO.	CALIBRATION NO.	MAINTENANCE ID	ACCOUNT NO.	COST
0686	PA1857	WORKBENCH, MOBILE	NONE	MB12542	STACK-ON	JS-48	100				JCDC4	$100.00
1133	JSC4781	WRENCH, COMBO, 2-1/4", "SUPER WRENCH"	NONE	NONE	UNKNOWN	JS-321	110B				JCDC6	$151.00
1288	JSC4783	WRENCH, COMBO, 2-1/8"	NONE	NONE	UNKNOWN	JS-321	110B				JCDC1	$100.00
1134	JSC4782	WRENCH, COMBO, 2-1/8"	NONE	NONE	UNKNOWN	321	100				JCDC1	$100.00
0484	JSC4686	WRENCH, COMBO, 2-1/8"	NONE	NONE	WILLIAMS	24	UPSTAIRS				JCDC4	$100.00
2985	JSC3670	WRENCH, COMBO, 2-3/8"	NONE	NONE	PROTO	321	104				JCDC1	$100.00
2981	JSC3671	WRENCH, COMBO, 2-3/8"	NONE	NONE	PROTO	321	TOOL RM				JCDC1	$100.00
1287	JSC4784	WRENCH, COMBO, 2-3/8"	NONE	NONE	UNKNOWN	JS-321	110B				JCDC1	$100.00
1286	JSC4785	WRENCH, COMBO, 2-3/8"	NONE	NONE	UNKNOWN	JS-321	110B				JCDC1	$100.00
3195	JSC4817	WRENCH, COMPOUND, PIPE, 48", SET	NONE	NONE	UNKNOWN	321	202				JCDC1	$100.00
3548	JSC4316	WRENCH, CRESCENT, 24"	NONE	NONE	CRESCENT	JS-417	102				JBDC4	$106.00
4441	PA1369	WRENCH, IMPACT	NONE	UNKNOWN	UNKNOWN	329	WELDSHOP				JCDC3	$100.00
4141	NONE	WRENCH, IMPACT	988430	DW292	DEWALT	321	110				JCDC1	$176.74
4126	NONE	WRENCH, IMPACT	984681	S4027562	DEWALT	325	103				JCDC1	$175.00
2751	PA6997	WRENCH, IMPACT	94277	651309	BLACK & DECKER	JS-325	110				JCDC3	$100.00
2242	FD906	WRENCH, IMPACT	680	712A4	INGERSOLL RAND	JS-321	110A				JCDC1	$100.00
2188	FD902	WRENCH, IMPACT	3689	1710A1	INGERSOLL RAND	321	104				JCDC1	$100.00
2187	FD901	WRENCH, IMPACT	6097	1710A1	INGERSOLL RAND	321	104				JCDC1	$100.00
2184	FD903	WRENCH, IMPACT	42313	2670	BLACK & DECKER	JS-321	110A		M42313		JCDC1	$100.00
2183	FD904	WRENCH, IMPACT	37848	2670	BLACK & DECKER	JS-321	110A				JCDC1	$100.00
1112	NONE	WRENCH, IMPACT	01107K	CP746	CHICAGO PNEUMATIC	JS-321	110B				JCDC1	$134.00

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ATTACHMENT H
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BARCODE NO	OLD PROP NO	[illegible]	SERIAL NO	MODEL NO	[illegible]	BLDG	ROOM	LICENSE PLATE NO	CALIBRATION INC	MAINTENANCE INTERVAL	ACCOUNT NO	COST
0546	NONE	WRENCH, IMPACT	NONE	244A	INGERSOLL RAND	321	110B				JCDC4	$224.75
4347	NONE	WRENCH, IMPACT 3/4	0507426	4CA51	DAYTON	325	110				JCDC1	$244.00
3553	PA1302	WRENCH, IMPACT, 1/2"	2103	2705A1	INGERSOLL RAND	417	TOOLBOX				JBDC4	$64.00
3489	JSC4334	WRENCH, IMPACT, 1/2"	A97089316	NONE	INGERSOLL RAND	JS-417	101				JBDC4	$180.00
2725	PA1284	WRENCH, IMPACT, 1/2"	10848	2705A1	INGERSOLL RAND	326D	GEN SHOP				JCDC6	$64.00
2544	PA2044	WRENCH, IMPACT, 1/2"	76881	6513	BLACK & DECKER	JS-24	100				JCDC4	$100.00
2533	JSC3048	WRENCH, IMPACT, 1/2"	NONE	831	AIRETOOL	24	FLOOR				JCDC4	$100.00
0616	PA1370	WRENCH, IMPACT, 1/2"	16723	2214	BLACK & DECKER	417	TOOLBOX				JCDC4	$100.00
3490	NONE	WRENCH, IMPACT, 3/4"	NONE	2141	INGERSOL RAND	JS-417	HIBAY				JBDC4	$399.00
2730	PA1286	WRENCH, IMPACT, 3/4"	NONE	232199	MASTE POWER	329	106				JCDC6	$218.00
2543	JSC4687	WRENCH, IMPACT, 3/4"	NONE	NONE	BLACK & DECKER	JS-24	100				JCDC4	$100.00
2542	JSC3195	WRENCH, IMPACT, 3/4"	NONE	NONE	UNKNOWN	JS-24	100				JCDC4	$100.00
2537	JSC3193	WRENCH, IMPACT, 3/4"	NONE	NONE	SIOUX	JS-24	100				JCDC4	$100.00
1701	JSC3139	WRENCH, IMPACT, 3/4"	A97C27901	2920P	INGERSOLL RAND	JS-24	100		M203496		JCDC4	$100.00
0473	JSC4688	WRENCH, IMPACT, 3/4"	6199A129	772	CHICAGO PNEUMATIC	24	UPSTAIRS				JCDC4	$100.00
0498	PA2494	WRENCH, IMPACT, 3/4", PNEUMATIC	AVC22060	261	INGERSOLL RAND	JS-24	200				JCDC4	$100.00
0428	NONE	WRENCH, IMPACT, HD, ELECTRIC	2848	DW296	DEWALT	323	C110B				JCDC1	$218.70
2538	PA1242	WRENCH, IMPACT, PNEUMATIC, 1"	B4HJ	1712B2	INGERSOLL RAND	24	100				JCDC4	$100.00
2726	JSC3396	WRENCH, OPEN, 2-3/8"	NONE	NONE	PROTO	326D	TRUCK				JCDC6	$125.00
3959	JSC4643	WRENCH, PIPE, 48"	NONE	NONE	RIDGE TOOL	325	TLCHST#1				JCDC3	$100.00
1079	JSC4643	WRENCH, PIPE, 48"	NONE	NONE	RIDGID	JS-321	110B				JCDC1	$100.00

SECTION J
ATTACHMENT H
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BARCODE NO	SBD PROP NO	DESCRIPTION	SERIAL NO	MODEL NO	MANUFACTURER	BLDG	ROOM	LICENSE PLATE NO	CALIBRATION NO	MAINTENANCE ID	ACCOUNT NO	COST
0289	JSC4628	WRENCH, PIPE, 48"	NONE	NONE	RIDGID	JS-325	110				JCDC4	$100.00
4539	JSC5437	WRENCH, SOCKET	NONE	NONE	SNAP-ON	JS-321	110A		M20349		JCDC4	$100.00
3486	PA6969	WRENCH, TORQUE	NONE	1753DF	CONSOLIDATED	JS-417	101		M57775		JBDC4	$36.00
2827	JSC5594	WRENCH, TORQUE	NONE	UNKNOWN	KLEIN TOOL	JS-321	110B		M165538		JCDC1	$100.00
2822	JSC5591	WRENCH, TORQUE	NONE	UNKNOWN	UNKNOWN	JS-321	110B		M35500		JCDC1	$100.00
2821	JSC6312	WRENCH, TORQUE	226598	57035	KLEIN TOOL	JS-321	110A		M165539		JCDC1	$100.00
1452	JSC6313	WRENCH, TORQUE	225930	HDR1200I	UNKNOWN	JS-321	110A		M165541		JCDC1	$100.00
1451	JSC4991	WRENCH, TORQUE	NONE	57035	KLEIN TOOL	JS-321	110A		M35501		JCDC1	$100.00
1450	JSC5590	WRENCH, TORQUE	NONE	UNKNOWN	UNKNOWN	JS-321	110A		M35497		JCDC1	$100.00
1208	PA7056	WRENCH, TORQUE	NONE	UNKNOWN	SNAP-ON	JS-321	110A				JCDC1	$100.00
1207	PA7125	WRENCH, TORQUE	NONE	6004DF	CONSOLIDATED	321	110B		M23575		JCDC4	$100.00
1197	JSC3460	WRENCH, TORQUE	NONE	QJR217C	SNAP-ON	JS-321	110A		M20350		JCDC6	$85.00
0413	JSC5592	WRENCH, TORQUE	NONE	UNKNOWN	KLEIN TOOL	321	110B		M165542		JCDC1	$100.00
0412	JSC5593	WRENCH, TORQUE	NONE	UNKNOWN	UNKNOWN	JS-321	110A				JCDC1	$100.00
4425	JSC3181	WRENCH, TORQUE, 1/2"	NONE	2503DF	CONSOLIDATED	24	DOWNSTAIRS		M203326		JCDC4	$100.00
3342	PA2429	WRENCH, TORQUE, 1/2"	NONE	TE6FUA	SNAP-ON	326D	GEN SHOP		M46430		JCDC6	$70.00
3337	PA5084	WRENCH, TORQUE, 1/2"	NONE	2503DF	CONSOLIDATED	326D	GEN SHOP		M23574		JCDC6	$106.00
1206	PA2248	WRENCH, TORQUE, 1/2"	MG2772	FH150FRN	UTICA TOOL CO	JS-321	110A		M44370		JCDC1	$100.00
1205	PA1677	WRENCH, TORQUE, 1/2"	A845138	G63290	J S TOOL CO	JS-321	110A		M38341		JCDC1	$100.00
1204	PA2245	WRENCH, TORQUE, 1/2"	MG2449	FH150FRN	UTICA TOOL CO	JS-321	110A		M44371		JCDC1	$100.00
1203	PA2246	WRENCH, TORQUE, 1/2"	MG2733	FH150FRN	UTICA TOOL CO	JS-321	110A		M44369		JCDC1	$100.00

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ATTACHMENT H
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BAR CODE NO	OLD REF NO	NOUN	SERIAL NO	MODEL NO	MFG	BLDG	ROOM	LICENSE PLATE NO	CALIBRATION NO	MAINTENANCE NO	ACCOUNT NO	COST
1202	PA2614	WRENCH, TORQUE, 1/2"	NONE	CH75F	UTICA TOOL CO	321	110B		M164966		JCDC1	$104.00
1201	PA2244	WRENCH, TORQUE, 1/2"	MG2789	FH150FRN	UTICA TOOL CO	321	110B		M44368		JCDC1	$100.00
1199	PA6968	WRENCH, TORQUE, 1/2"	NONE	2503DF	CONSOLIDATED	JS-321	110A		M23573		JCDC1	$39.00
4446	PA2404	WRENCH, TORQUE, 1/4"	NONE	361SM	CONSOLIDATED	JS-321	110A		M46260		JCDC2	$78.00
1194	PA1678	WRENCH, TORQUE, 1/4"	NONE	301SM	CONSOLIDATED	JS-321	110A		M38338		JCDC1	$100.00
1193	PA1679	WRENCH, TORQUE, 1/4"	PZ1567	3015M	CONSOLIDATED	JS-321	110A		M38339		JCDC8	$100.00
1006	JSC3457	WRENCH, TORQUE, 10"	850026827	QJR217C	SNAP-ON	JS-329	106				JCDC6	$200.00
4445	JSC5194	WRENCH, TORQUE, 3/8"	NONE	750	JO LINE TOOL	JS-221A	100		M200600		JCDC7	$100.00
1200	PA1675	WRENCH, TORQUE, 3/8"	NONE	NONE	K & D	JS-321	110A		M38345		JCDC6	$45.00
1198	PA2252	WRENCH, TORQUE, 3/8", FLEX-HEAD	NONE	2954	K D TOOLS	321	110B		M44366		JCDC8	$100.00
1196	PA2253	WRENCH, TORQUE, 3/8", FLEX-HEAD	NONE	2954	K D TOOLS	48	ESHOP		M44365		JCDC8	$100.00
1195	JSC4770	WRENCH, TORQUE, GAUGE: 2-40 OZ/IN	11513	651C3	UNKNOWN	JS-321	110A		M203289		JCDC1	$100.00
0797	FD8011	WRENCH, TORQUE, KIT	NONE	HDR200I	KLEIN TOOL	321	110B		M164753		JCDC1	$100.00
0783	FD8012	WRENCH, TORQUE, KIT	58762	HDR200I	KLEIN TOOL	321	104		M164754		JCDC1	$100.00
0300	NONE	WRENCH, VALVE WHEEL	NONE	W2201	DOVER	24	DNSTR				JCDC16	$135.00
0300	NONE	WRENCH, VALVE WHEEL	NONE	W2201	DOVER	24	DNSTR				JCDC16	$135.00
										TOTAL L/I: 109		$42,856.03

BARCODE NO	NOUN	SERIAL NO	MODEL NO	MFG	BLDG	ROOM	COST	COMMENTS
4586	COMPUTER, POCKET	SSA0118G17G	1PPPT8846-R3BZ10WW	SYMBOL TECH	JS-326D	100	$1,363.14	MAXIMO EQUIPMENT
3454	COMPUTER, POCKET	SSA0118G18R	1PPPT8846-R3BZ10WW	SYMBOL TECH	JS-326D	100	$1,363.14	MAXIMO EQUIPMENT
4607	COMPUTER, POCKET	SSA0118G17P	1PPPT8846-R3BZ10WW	SYMBOL TECH	JS-419	165	$1,363.14	MAXIMO EQUIPMENT

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ATTACHMENT H
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BAR CODE NO	OLD PROP NO	NOUN	SERIAL NO	MODEL NO	NUMBER	BLDG	ROOM	LICENSE PLATE NO	CALIBRATION NO	MAINTENANCE ID	ACCOUNT NO	COST
4606	COMPUTER, POCKET	SSA0118G156	1PPPT8846-R3BZ10WW	SYMBOL TECH	JS-329	202A	$1,363.14	MAXIMO EQUIPMENT				
4598	COMPUTER, POCKET	SSA0118G167	1PPPT8846-R3BZ10WW	SYMBOL TECH	JS-330	108	$1,363.14	MAXIMO EQUIPMENT				
3453	COMPUTER, POCKET	SSA0118G198	1PPPT8846-R3BZ10WW	SYMBOL TECH	JS-330	108	$1,363.14	MAXIMO EQUIPMENT				
4605	COMPUTER, POCKET	SSA0118G15D	1PPPT8846-R3BZ10WW	SYMBOL TECH	JS-330	108C	$1,363.14	MAXIMO EQUIPMENT				
4597	COMPUTER, POCKET	SSA0118G19D	1PPPT8846-R3BZ10WW	SYMBOL TECH	JS-330	108C	$1,363.14	MAXIMO EQUIPMENT				
4599	COMPUTER, POCKET	SSA0118G152	1PPPT8846-R3BZ10WW	SYMBOL TECH	JS-330	108	$1,363.14	MAXIMO EQUIPMENT				
4601	COMPUTER, POCKET	SSA0118G13K	1PPPT8846-R3BZ10WW	SYMBOL TECH	JS-330	108B	$1,363.14	MAXIMO EQUIPMENT				
4608	COMPUTER, POCKET	SSA0118G18T	1PPPT8846-R3BZ10WW	SYMBOL TECH	JS-330	108	$1,363.14	MAXIMO EQUIPMENT				
3455	COMPUTER, POCKET	SSA0118G166	1PPPT8846-R3BZ10WW	SYMBOL TECH	JS-330	108	$1,363.14	MAXIMO EQUIPMENT				
4596	COMPUTER, POCKET	SSA0118G18W	1PPPT8846-R3BZ10WW	SYMBOL TECH	JS-330	108B	$1,363.14	MAXIMO EQUIPMENT				
4594	COMPUTER, POCKET	SSA0118G146	1PPPT8846-R3BZ10WW	SYMBOL TECH	JS-330	108B	$1,363.14	MAXIMO EQUIPMENT				
3456	COMPUTER, POCKET	SSA0118G17N	1PPPT8846-R3BZ10WW	SYMBOL TECH	JS-330	108B	$1,363.14	MAXIMO EQUIPMENT				
3450	COMPUTER, POCKET	SSA0118G13H	1PPPT8846-R3BZ10WW	SYMBOL TECH	JS-419	165	$1,363.14	MAXIMO EQUIPMENT				
4600	COMPUTER, POCKET	SSA0118G16B	1PPPT8846-R3BZ10WW	SYMBOL TECH	JS-329	106	$1,363.14	MAXIMO EQUIPMENT				
3452	COMPUTER, POCKET	SSA0118G13A	1PPPT8846-R3BZ10WW	SYMBOL TECH	JS-329	107	$1,363.14	MAXIMO EQUIPMENT				
4590	COMPUTER, POCKET	SSA0118G18J	1PPPT8846-R3BZ10WW	SYMBOL TECH	JS-329	106	$1,363.14	MAXIMO EQUIPMENT				
4591	COMPUTER, POCKET	SSA0118G197	1PPPT8846-R3BZ10WW	SYMBOL TECH	JS-329	202A	$1,363.14	MAXIMO EQUIPMENT				
4595	COMPUTER, POCKET	SSA0118G13G	1PPPT8846-R3BZ10WW	SYMBOL TECH	JS-329	106	$1,363.14	MAXIMO EQUIPMENT				
4588	COMPUTER, POCKET	SSA0118G18N	1PPPT8846-R3BZ10WW	SYMBOL TECH	JS-419	165	$1,363.14	MAXIMO EQUIPMENT				
3451	COMPUTER, POCKET	SSA0118G14D	1PPPT8846-R3BZ10WW	SYMBOL TECH	JS-330	118	$1,363.14	MAXIMO EQUIPMENT				
4602	COMPUTER, POCKET	SSA0118G17L	1PPPT8846-R3BZ10WW	SYMBOL TECH	JS-330	118	$1,363.14	MAXIMO EQUIPMENT				

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ATTACHMENT H
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BAR CODE NO	OLD PROPAN[illegible]	[illegible] ENGINE [illegible]	SERIAL NO	MODEL NO	[illegible] INFO	[illegible]	[illegible] COST	LICENSE PLATE NO	CALIBRATION [illegible] NO	MAINTENANCE [illegible] ID	ACCOUNT NO	COST
4603	COMPUTER, POCKET	SSA0118G15F	1PPPT8846-R3BZ10WW	SYMBOL TECH	JS-330	118	$1,363.14	MAXIMO EQUIPMENT				
4604	COMPUTER, POCKET	SSA0118G172	1PPPT8846-R3BZ10WW	SYMBOL TECH	JS-330	118	$1,363.14	MAXIMO EQUIPMENT				
4587	COMPUTER, POCKET	SSA0118G16D	1PPPT8846-R3BZ10WW	SYMBOL TECH	JS-330	118	$1,363.14	MAXIMO EQUIPMENT				
4592	COMPUTER, POCKET	SSA0118G195	1PPPT8846-R3BZ10WW	SYMBOL TECH	JS-330	118	$1,363.14	MAXIMO EQUIPMENT				
4593	COMPUTER, POCKET	SSA0118G18U	1PPPT8846-R3BZ10WW	SYMBOL TECH	JS-330	118	$1,363.14	MAXIMO EQUIPMENT				
4589	COMPUTER, POCKET	SSA0118G18K	1PPPT8846-R3BZ10WW	SYMBOL TECH	JS-330	118	$1,363.14	MAXIMO EQUIPMENT				

ATTACHMENT J-I
PERSONAL IDENTITY VERIFICATION (PIV) CARD ISSUANCE PROCEDURES

FACILITIES CONTRACT

PERSONAL IDENTITY VERIFICATION (PIV)

CARD ISSUANCE PROCEDURES

PIV Card Issuance Procedures

The purpose of this procedure is to implement the contractor credentialing requirements of Homeland Security Presidential Directive 12 (HSPD-12, "Policy for a Common Identification Standard for Federal Employees and Contractors, and Federal Information Processing Standards Publication (FIPS PUB) Number 201, "Personal Identity Verification (PIV) of Federal Employees and Contractors".

Reference: FAR clause 52.204-9, Personal Identity Verification of Contractor Personnel and NASA PIC 06-01 dated January 18, 2006.

FIPS 201 Appendix A graphically displays the following procedure for the issuance of a PIV credential.

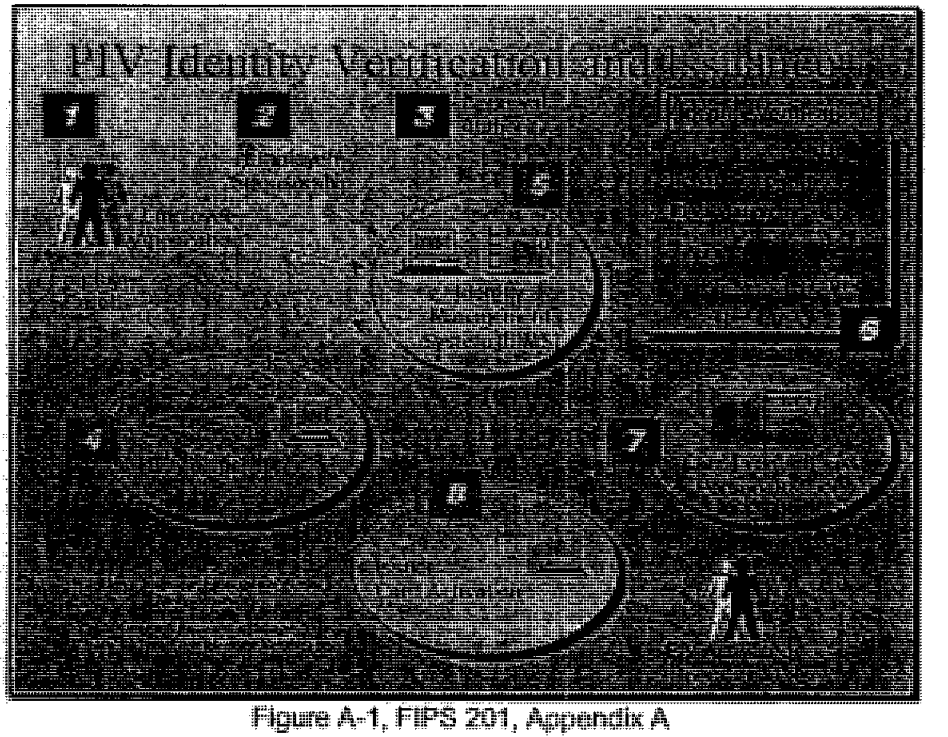

Figure A-1, FIPS 201, Appendix A

The following steps describe the procedures for the NASA Personal Identity Verification Card Issuance (PCI) of a PIV credential:

Step 1:

The Contractor's Corporate Security Officer (CSO), Program Manager (PM), or Facility Security Officer (FSO) submits a formal letter that provides a list of contract employees (applicant) names requesting access to the NASA Contracting Officer's Technical Representative (COTR). In the case of a foreign national applicant, approval through the NASA Foreign National Management System (NFNMS) must be obtained for the visit or assignment before any processing for a PIV credential can take place. Further, if the foreign national is not under a contract where a COTR has been officially designated, the foreign national will provide the information directly to their visit/assignment host, and the host sponsor will fulfill the duties of the COTR mentioned herein. In each case, the letter shall provide notification of the contract or foreign national employee's (hereafter the "applicant") full name (first, middle and last), social security number (SSN) or NASA Foreign National Management System Visitor Number if the

foreign national does not have a SSN, and date of birth. If the contract employee has a current satisfactorily completed National Agency Check with Inquiries (NACI) or an equivalent or higher degree of background investigation, the letter shall indicate the type of investigation, the agency completing the investigation, and date the investigation was completed. Also, the letter must specify the risk/sensitivity level associated with the position in which each applicant will be working (NPR 1600.1, §4.5 is germane) Further, the letter shall also acknowledge that contract employees may be denied access to NASA information or information systems based on an unsatisfactory background investigation/adjudication.

After reviewing the letter for completeness and concurring with the risk/sensitivity levels, the COTR/host must forward the letter to the Center Chief of Security (CCS). The CCS shall review the OPM databases (e.g., DCII, PIP, et al.), and take appropriate steps to validate the applicant's investigation status. Requirements for a NACI or other investigation shall be initiated only if necessary.

Applicants who do not currently possess the required level of background investigation shall be directed to the e-QIP web site to complete the necessary background investigation forms online. The CCS shall provide to the COTR/host information and instructions on how to access the e-QIP for each contract or foreign national employee requiring access.

Step 2:

Upon acceptance of the letter/background information, the applicant will be advised that in order to complete the investigative process, he or she must appear in-person before the authorized PIV registrar and submit two forms of identity source documents in original form. The identity source documents must come from the list of acceptable documents included in Form I-9, Employment Eligibility Verification, one which must be a Federal[1] or State issued picture identification. Fingerprints will be taken at this time. The applicant must appear no later than the entry on duty date.

When the applicant appears, the registrar will electronically scan the submitted documents; any document that appears invalid will be rejected by the registrar. The registrar will capture electronically both a facial image and fingerprints of the applicant. The information submitted by the applicant will be used to create or update the applicant identity record in the Identity Management System (IDMS).

Step 3:

Upon the applicant's completion of the investigative document, the CCS reviews the information, and resolves discrepancies with the applicant as necessary. When the applicant has appeared in person and completed fingerprints, the package is electronically submitted to initiate the NACI. The CCS includes a request for feedback on the NAC portion of the NACI at the time the request is submitted.

Step 4:

Prior to authorizing physical access of a contractor employee to a federally-controlled facility or access to a Federal information system, the CCS will ensure that a check has been performed with the National Crime Information Center (NCIC) and Interstate Identification Index. In the case of a foreign national, a national check of the Bureau of Immigration and Customs Enforcement (BICE) database will be performed for each applicant. If this process yields negative information, the CCS will immediately notify the COTR/host of the determination regarding access made by the CCS.

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[1] A non-PIV government identification badge, including the NASA Photo Identification Badge, MAY NOT BE USED for the original issuance of a PIV vetted credential.

Step 5:

Upon receipt of the completed NAC, the CCS will update IDMS from the NAC portion of the NACI and indicate the result of the suitability determination. If an unsatisfactory suitability determination is rendered, the COTR will advise the contractor that the employee is being denied physical access to all federally-controlled facilities and Federal information systems.

Based on a favorable NAC and NCIC/III or BICE check, the CCS will authorize the issuance of a PIV federal credential in the Physical Access Control System (PACS) database. The CCS, based on information provided by the COTR/host, will determine what physical access the applicant should be granted once the PIV issues the credential.

Step 6:

Using the information provided by the applicant during his or her in-person appearance, the PIV card production facility creates and instantiates the approved PIV card for the applicant with an activation date commensurate with the applicant's start date.

Step 7:

The applicant proceeds to the credential issuance facility to begin processing for receipt of his/her federal credential.

The applicant provides to the credential issuing operator proof of identity with documentation that meets the requirements of FIPS 201 (DHS Employment Eligibility Verification (Form I-9) documents. These documents **must** be the same documents submitted for registration.

The credential issuing operator will verify that the facial image, and optionally reference finger print, matches the enrollment data used to produce the card. Upon verification of identity, the operator will locate the employee's record in the PACS database, and modify the record to indicate the PIV card has been issued. The applicant will select a PIN for use with his or her new PIV card. Although root data is inaccessible to the operator, certain fields (hair color, eye color, et al.) may be modified to more accurately record the employee's information.

The applicant proceeds to a kiosk or other workstation to complete activation of the PIV card using the initial PIN entered at card issuance.

ALTERNATIVE FOR APPLICANTS WHO DO NOT HAVE A COMPLETED AND ADJUDICATED NAC AT THE TIME OF ENTRANCE ON DUTY

Steps 1 through 4 shall be accomplished for all applicants in accordance with the process described above. If the applicant is unable to appear in person until the time of entry on duty, or does not, for any other reason, have a completed and adjudicated NAC portion of the NACI at the time of entrance on duty, the following interim procedures shall apply.

1. If the documents required to submit the NACI have not been completed prior to EOD, the applicant will be instructed to complete all remaining requirements for submission of the investigation request. This includes presentation of I-9 documents and completion of fingerprints, if not already accomplished. If the applicant fails to complete these activities as prescribed in NPR 1600.1 (Chapters 3 & 4), it may be considered as failure to meet the conditions required for physical access to a federally-controlled facility or access to a Federal information system, and result in denial of such access.

2. Based on favorable results of the NCIC, the applicant shall be issued a temporary NASA identification card for a period not-to-exceed six months. If at the end of the six month period the NAC results have not been returned, the agency will at that time make a determination if an additional extension will be granted for the temporary identification card.

3. Upon return of the completed NAC, the process will continue from Step 5.