

ENG- Work Instruction	SITE PLAN WORK INSTRUCTIONS			Number: ENG-I-MP01	
Unit Issuing: Engineering	Approved by: Site Svcs Br Manager	Initial Issue Date: 10/01/09	Page: 1 of 19	Revision: 4 Eff Date: 03/29/24	

TABLE OF CONTENTS

PURPOSE.....	1
SCOPE AND APPLICABILITY	2
PROCESS.....	3
1. GENERAL SITING REQUIREMENTS.....	3
1.1. General Siting Criteria	4
1.1.1 Security.....	4
1.1.2 Fire Protection Setbacks.....	4
1.1.3 Utility and Storm Drainage Corridor Guidelines	5
1.1.4 Roads	5
1.1.5 Minimum NASA Railroad Clearance Requirements.....	6
1.1.6 Explosive Quantity Distance (QD) Safety Clearance Requirements.....	6
1.1.7 Radio Frequency (RF) Emissions	7
1.1.8 Impact Limit Lines (ILL).....	8
1.1.9 Lines of Sight (LOS).....	8
1.1.10 Airfield Constraints.....	9
1.1.11 Environmental Requirements.....	9
2. SITE PLAN PROCEDURES.....	10
2.1. Requester Submits Request.....	10
2.1.1 MP Reviews Request Package.....	10
2.1.2 Site Plan Approval/Disapproval	14
2.2. Project Completion/Closeout.....	14
2.2.1 Notify Impacted BOSS Departments.....	14
2.2.2 Update Base Maps	15
RECORDS	16
AFFECTED DIVISIONS/OFFICES.....	16
FUNCTIONAL ROLES AND RESPONSIBILITIES.....	16
REFERENCE DOCUMENTS	17
ACRONYMS	17
DEFINITIONS	18
REVISION RECORD.....	19
DOCUMENT APPROVALS.....	19

PURPOSE

The purpose of this document is to establish the Base Operations & Spaceport Services Contract (BOSS) instructions and guidelines for coordination and approval of the site

plans used by BOSS in order to identify potential constraints and their respective resolutions in a consistent and comprehensive manner, and to establish the policy for KSC personnel and contractors in requesting and obtaining site planning support.

NASA Spaceport Integration and Center Planning and Development Directorates requires approval of all development on KSC property, including the off-site, leased properties with non-NASA customers, and remote properties that are operated by KSC. Site planning, in the context of these work instructions, provides the means of locating a proposed land-use or facility. The process sets forth a routine by which management can measure an individual project's consistency with long range planning and budgeting efforts, maximize efficient use of existing resources, reduce the potential for costly redesigns and otherwise provide the opportunity for an informed decision to be made by the approving authority.

NASA construction on Space Force property and Space Force construction on NASA property requires an Space Force approved site plan in addition to a NASA approved site plan. Planners will instruct requesters with NASA construction on Space Force property to coordinate through the Space Force community planner.

SCOPE AND APPLICABILITY

A site plan is required for, but not limited to, all of the following:

- New facilities and construction
- Easements
- Relocating, modifying, or extending existing facilities (includes such items as equipment pads, ramps, loading docks, antennas/dishes, and other permanent structures)
- Government Utilities (outside of the established utility corridor)
- Commercial Utilities
- Expansion of utility corridors and easements
- Utility systems that cross the Banana River or Indian River
- Utilities that cross under the Crawlerway, SLF, or railroad
- Groundwater wells (including Saint Johns River Water Management District monitoring wells)
- Potable water wells
- Septic tanks and drain fields
- Drainage ditches and stormwater management systems
- Solar arrays and wind generators
- Permanent tanks, pumps and generators
- Equipment (such as transformers, switch boxes, lift stations, showers and eyewashes)
- Radars and emitters
- New Quantity Distance (QD) site plans – QD site plans are initiated by Safety and carried through a partial siting process detailed below.
- Antennae and cell phone towers

- Airspace obstructions
- Fences and gates or modifications
- Bollards, barricades and access changes
- Roads, parking, bridges, sidewalks and other impervious surfaces
- Trailers and storage boxes (including temporary conex boxes & POL's)
- Construction trailers, material staging areas and lay down yards
- Concrete slabs (25 sq ft or greater, or any size if not associated with an existing structure)
- Gazebos
- Event tents (in place 30 days or more)
- Signs and markers, displays, memorials, statues (not to include DOT (Department of Transportation) traffic signs)
- Docks and boat ramps
- Levees, dunes and wetland mitigation (add, remove or modify)
- Construction or modification of previously undisturbed areas
- Cut, fill or grading
- Change of land use

Site plans are not required for:

- Repair or replacement within existing footprint without land use change
- Utilities within the established utility corridor (unless installation is for commercial company and an agreement will be required)
- Equipment bollards not limiting vehicle access
- DOT approved road signs
- Temporary event or way-finding signs
- Event tents (in place less than 30 days)
- Temporary storage boxes, located a minimum of 25' from other structures, in place less than 30 days (outside of hurricane season)
- Re-paving existing roads
- Local environmental groundwater monitoring wells.
- Lighting in Parking Lots

The NASA Site Planning Officer in the Spaceport Integration Directorate reserves the right to determine the need for a site plan or to dismiss the requirement for a site plan on a case by case basis.

PROCESS

1. GENERAL SITING REQUIREMENTS

KSC NASA Center Planning and Development Directorate reserves the right to review for siting any and all plans for new construction or modifications to existing structures on KSC property (which includes, the Visitor Information Center, the Merritt Island Wildlife

Refuge and the Canaveral National Seashore, leased properties with non-NASA customers, and the off-site, remote properties that are operated by KSC).

1.1. General Siting Criteria

The following siting criteria are general in nature. Site specific minimum clearance requirements can be increased or decreased at the discretion of the approval authority or pertinent coordinating office.

Placing new facilities within existing developed areas is preferred over undeveloped areas.

Reuse of existing areas should group facilities of like function together.

1.1.1 Security

Within secured areas, there is a minimum distance requirement of 33' from any facility to the nearest fence and 33' from the fence to the brush line.

When siting a fence line for a NASA critical asset, the fence shall be 50' from the asset (facility) and a 33' clear zone will be maintained on the interior and exterior of the fence.

1.1.2 Fire Protection Setbacks

Fire protection clearance for parking from buildings, fire hydrants and other protection practices for buildings and trailers are set forth in the following Fire Protection Association (NFPA) documents:

- NFPA 80 A – Recommended Practice for Protection of Buildings from Exterior Fire Exposers
- NFPA 501A – Standard for Fire Safety Criteria for Manufactured Home Installations, Sites, and Communities
- NFPA 30 – Flammable and Combustible Liquids Code

The preliminary distances shown below are used to construct initial site plans for coordinating offices to review and revise if necessary.

1.1.2.1. Trailers

A 25' clearance is required between all trailers, adjacent buildings, and conex boxes.

A 50' setback is required between trailers and adjacent woods (vegetation greater than or equal to 10' in height).

A 25' setback is required between trailers and adjacent brush (vegetation less than 10' in height).

An 18" to 3' clearance is required between a trailer or conex box to a curb to ensure mowing and maintenance can be performed.

No parking within 33' of any trailer.

1.1.2.2. Buildings

A 25' setback is required between adjacent buildings.

For parking/building separation distances, force protection standards govern; see security siting guidelines.

No parking within 33' of any building.

1.1.2.3. Fire Protection Utilities

A 15' clear area is required around fire hydrants.

1.1.3 Utility and Storm Drainage Corridor Guidelines

Main roads (Kennedy Parkway, NASA Causeway, Saturn Causeway, Phillips Parkway, the SLF Tow Way and the Crawler Way) have a setback of 100 feet from the edge of pavement. This property will be preserved for utilities and storm water drainage systems. Construction of facilities, including paved parking lots, is discouraged within main road utility setbacks.

Secondary roads have a utility and storm water drainage system setback of 50 feet. Construction of facilities, including paved parking lots, is prohibited within secondary road setbacks.

Government utility systems to be constructed within the established utility corridor setbacks, and which do not cross the Indian River or Banana River, do not require a siting.

All commercial utility systems require a siting, as well as an easement.

All utility systems, governmental and commercial, which cross the Indian River or Banana River, require a siting.

All utility systems to be constructed outside the established utility corridor setbacks, and which do not provide direct service to an existing facility, require a siting.

All utility systems that provide direct service to an existing facility do not normally require a siting.

1.1.4 Roads

Main roads (Kennedy Parkway, NASA Causeway, Saturn Causeway, Phillips Parkway, SLF Tow Way, and the Crawler Way) allow government utilities to be located within a 100' setback from the edge of pavement without an approved site plan.

Secondary roads allow government utilities to be located within a 50' setback from the edge of pavement without an approved site plan.

1.1.5 Minimum NASA Railroad Clearance Requirements

The Florida Department of Transportation sets rail clearance guidelines, which can be found in the FDOT web site at Florida State Dept of Transportation.

Construction of facilities, including paved parking lots, is prohibited within 20' from the center of any portion of straight track.

Curved track or track which involves larger than normal railcars, requires a calculation of the required clearance, based on specific conditions.

1.1.6 Explosive Quantity Distance (QD) Safety Clearance Requirements

NASA Safety develops the various radiuses of hazards that BOSS Master Planning (MP) uses to restrict and guide site planning. (AFSPCM 91-710 Range Safety User Requirements Manual) BOSS MP retains copies of the approved safety explosive site plans in the GIS, which are referred to during site coordination and planning activities.

1.1.6.1. Interline Distance (IL)

IL distance is the minimum distance between two buildings with different missions or programs, which contain explosive material. Buildings must be sited outside of this distance to avoid chain reaction explosions. If two buildings from the same program are sited within each other's IL distances, then Safety adds the explosive potentials and the QD Arc is extended out to reflect this new distance.

1.1.6.2. Inhabited Building Distance (IBD)

IBD is the minimum distance to be maintained from any building or site that contains or is designed to contain explosives to a building or site occupied by personnel not related to the hazardous operation. IBD shall be the largest of the distances required for protection against ground shock, debris and air blast.

1.1.6.3. Intermagazine (IM) Distance

IM distance is the minimum distance allowed between two explosives locations. This distance is expected to prevent simultaneous detonation. This distance cannot be waived.

1.1.6.4. Public Transportation Route (PTR)

A PTR is any street, road, highway, navigable stream, or passenger railroad (including roads on a military reservation) that are used routinely, by either the general public or installation personnel not involved with explosives-related programs, for through traffic. Installation personnel who are not involved in munitions-related operations are to be provided PTR protection while traveling on base roads.

A PTR Arc is the minimum distance allowed between an explosive commodity and a public transportation route. No unrelated operation personnel shall penetrate or violate

a PTR Arc. PTR Arcs set the maximum acceptable risk in terms of distance. These arcs are based on the explosive weight, public vs. military personnel, and stationary or moving objects within the path of a potential explosion.

1.1.7 Radio Frequency (RF) Emissions

The RF environment at the Spaceport involves many NASA departments, organizations and contractors. Therefore, BOSS MP relies on the site plan review comments to identify RF issues, constraints and restrictions. At a minimum, the following organizations are sent site plans to review RF issues:

- Safety - NASA Safety, Occupational Health & Environment, Institutional Safety & Quality Branch
- KSC Radio Frequency Spectrum Manager, to obtain a Radio Frequency Authorization per KNPR 2570.1
- MESO Health Physics Office, to obtain a Radiation Use Authorization Per KNPR 1860.2
- Electro-Magnetic Environmental Effects working group

1.1.7.1. Potential Radiation Hazards

Proposed instrumentation emitting RF (radiation hazard) must be analyzed for all potential impacts that the new instrumentation will have on personnel, facilities, equipment, launch vehicles and spacecraft. The three categories of potential radiation hazards are:

- Biological limits
- Resource protection limits (such as extremely sensitive spacecraft)
- Pyrotechnic (explosive ordnance) limits (Radiation Transmitter Arc) which describes a radius of hazard for ordnance, primarily electronic explosive detonated ordnance.

1.1.7.2. Types of RF Emitters

Various high-powered radio frequency (RF) emitters are used in support of launch operations. These emitters include radar, command, weather, navigation (GPS), timing and communication systems. Their function is to support launch vehicle tracking, vehicle command, air and sea traffic control, surveillance, meteorology and satellite operations.

The following critical information must be obtained from RF emitters:

- Frequency (MHz)
- Gain (dB)
- Transmitter Power (W)
- Average & Peak Power.

1.1.7.3. Minimum Safe Distances

Based on the above information, NASA Safety Explosives will calculate the minimum safe distance from the emitter to an explosive material for exposed and non-exposed conditions.

1.1.7.4. RF Exposure Limits

In addition, payload hardware and spacecraft can be damaged by exposure to RF energy. Maximum RF exposure limits are set by each program, which cannot be exceeded without written acceptance. At minimum, the KSC and CCSFS Spectrum Managers should be contacted.

1.1.8 Impact Limit Lines (ILL)

The BOSS Master Planning Office uses the 45SW/SEOE ILL Maps, which are a compilation of active vehicle ILL's. BOSS MP refers to the provided ILL maps during site coordination and planning activities.

ILL's are the boundaries within which trajectory constraints and flight termination systems are used to define the areas that these systems protect from falling debris and hazardous impact overpressures generated by errant launch vehicles. Each launch is analyzed by Flight Analysis (45SW/SEOE) to determine the impact limit lines and safety concerns, including hazards occurring during a normal launch and the loss or destruction of a vehicle after launch.

Facilities inside of the ILL cannot be protected by flight termination action and, therefore, are subject to somewhat greater risk than facilities outside the ILL. Mission essential and wing essential personnel are permitted within the ILL's provided that the collective risk does not exceed acceptable standards. With Wing Safety and Wing Commander approval, non-essential personnel may be permitted within the ILL's. The risk evaluation for personnel within the ILL depends not only on the calculated location of the ILL itself, but also the risk expectation for the vehicle. Vehicles with a history of reliability problems or new vehicles without a launch history typically equate to higher expected casualty (EC) rates and may result in decisions to evacuate wing essential and non-essential personnel within the ILL. (EWR 127-1)

NASA defines an ILL as, a "line defining a limit beyond which a missile/spacecraft or specified portions thereof will not be allowed to impact [the ground or buildings]." (KNPR 8715.3).

1.1.9 Lines of Sight (LOS)

BOSS MP constructs visual; Range Safety TV (RSTV); Command Destruct; video and still frame camera; radar and microwave signal LOS Maps for KSC from NASA, SF and contractor data. BOSS MP refers to the LOS maps during site coordination and planning activities.

A line of sight is a line or cone shaped area drawn from an instrument to its target, which transverses the installation at varying heights and is free from obstructions.

General requirements for LOS have been established, however, precise siting restrictions, such as a proposed building height, must be calculated for each case where line of sight is a concern.

It is important to ensure that new construction does not interfere with range instrumentation systems' LOS. Such interference could result in numerous malfunctions up to and including launch failure. Likewise, when a new range instrumentation system is installed or relocated on KSC or CCSFS, the site selected must include an analysis of any and all potential impacts the new instrumentation will have on personnel, facilities, equipment, launch vehicles and spacecraft.

If the analysis indicates the site selected may create a LOS hazard and the instrumentation is required for Range Safety, then the site could still be selected. In this case, actual measurements would be made upon installation of the instrumentation and adjustments would be made in the hardware and/or software of the instrumentation so that no biological, resource protection, or pyrotechnic limits are violated. These adjustments to the instrumentation's azimuth, elevation, or transmitter power operational parameters must not reduce the instrumentation's contribution to the Range Safety function.

1.1.10 Airfield Constraints

Airfields and heliports require certain clear areas to minimize the risk of injury or damage in case of an aircraft malfunction or mishap. Airfield constraints are set forth in the following FAA documents:

- CFR 14, Part 77 – Objects Affecting Navigable Airspace
- AC 70/7460-1K, FAA Advisory Circular – Obstruction Marking and Lighting

Support documents are referenced within these main documents.

1.1.11 Environmental Requirements

General requirements for environmental issues have been established; however, precise siting restrictions/clearances are site dependent and must be evaluated for each case.

1.1.11.1. Wildlife Habitat

All construction activities should maintain a 25' buffer from scrub-jay habitat. Mitigation is required when endangered species habitat is permanently disturbed.

All construction activities should maintain a 2600' buffer from active Bald Eagle nests. Construction can be authorized during the non-nesting months (summer).

All sitings on Merritt Island National Wildlife Refuge must be reviewed by the Wildlife Manager (USFWS).

1.1.11.2. Wetlands & Coast

All construction activities and facilities should maintain a 25' buffer from wetlands.

When facilities are placed in or near wetland areas, the hierarchy of decision-making is first, to avoid the wetlands, second, to minimize wetland impacts, and third, to mitigate for unavoidable impacts. Mitigation is required when wetlands are disturbed.

All construction activities along the coast should be a minimum of 150' from the landward edge of the current dune line, unless work consists of dune restoration.

All sitings in coastal areas must be reviewed by the Canaveral National Seashore (NPS).

1.1.11.3. Archaeological Sites

Construction within archaeological sites is to be avoided.

Proposed construction within moderate and high zones of archaeological potential (ZAP) will require additional site specific surveys before construction.

1.1.11.4. Hazardous Waste

All construction activities and facilities should maintain a 25' buffer from identified solid waste management units (SWMU) and potential release locations (PRL).

2. SITE PLAN PROCEDURES

The following procedures are codified under NASA Site Plan guidance found in KDP-KSC-P-1303 Site Planning.

2.1. Requester Submits Request

A project requester submits a complete site plan request package to BOSS Work Control, to include the following:

- Completed BOSS Electronic Work Request Form (EWRS), found at <https://ewrs.ksc.nasa.gov/>.
- Detailed description and justification of the proposed use/function
- Sketch or drawing illustrating all proposed facilities and infrastructure information regarding hazardous or explosive material
- Identification of any special security requirements
- Requester name, phone number, and email address
- Technical contact name, phone number, and email address (where applicable).

BOSS Work Control assigns a WON and the project is routed to the BOSS MP supervisor and MP Administrator.

2.1.1 MP Reviews Request Package

MP administrator as assigned planner receives the request and reviews it. The site plan is entered into the Site Planning Application at <https://spa.ksc.nasa.gov>. All pertinent information about the project is recorded into the new site plan record.

A determination of status is made: No Siting Required or Open.

2.1.1.1. No Siting Required

A site plan is not needed if the scope of work is within the allowable planning guidelines, or is unrelated to MP's area of responsibility. BOSS Project Controls is notified of the project status, Maximo is updated, and the project is removed from MP's project list.

2.1.1.2. Open

A site plan is required, complete site plan request package has arrived and all preliminary data is reviewed for completeness. A site plan folder is created on the MP share for all related documents, maps, drawings, and emails.

2.1.1.3. Contact the Requester

The assigned planner contacts requester (or technical contact) and discusses any information that is not complete or requires clarification. If the project includes NASA construction on Space Force Property, the planner must notify the requester that an Space Force approved site plan must also be obtained. The requester is instructed to contact the Space Force Community Planner for instruction. SF POC: Frederick Boateng, Phone 321-494-5280 Email: frederick.boateng@spaceforce.mil.

2.1.1.4. Engineering Documents

The planner obtains from the design engineer any civil drawing(s) pertinent to the proposed project.

2.1.1.5. Cartography Support

MP supervisor or the lead project planner assigns a cartographer for each site plan. The cartographer will use a template format for the site plan drawings. Completed maps are saved to the electronic file.

2.1.1.6. Site Visit

Once all verbal information is gathered from the requester, a site visit may be necessary including meeting with pertinent stakeholders. The site plan information is checked. BOSS's GIS Base Maps are verified and revisions are submitted as necessary. The planning team shall review and/or complete the appropriate Job Hazard Analysis form (SHP-F-3100). The planning team is also responsible to note/report any newly discovered job hazards and update the form as necessary.

2.1.1.7. Reviewers

Project reviewers are selected based on NASA office of functional responsibility and type of project. Additional reviewers will be required for most site plans. The following reviewers receive every site plan package:

- Site Plan Requester
- NASA Planner (NASA Master Planning)
- NASA Real Property Officer
- BOSS Real Property Office
- KSC Fire Prevention Chief
- NASA Safety and Security
- NASA Engineering (NE Office)
- NEMCON Environmental.
- SF Community Planner
- Surrounding Facility Manager(s)

2.1.1.8. Development Constraints

Review the site plan development constraints. If a serious constraint is identified, contact the affected operational office and coordinate the proposal with them prior to sending the site plan package out for review. Development constraints include the following:

- Is the proposed siting in compliance with Environmental Impact Analysis Policy (EIAP)? BOSS MP will either receive results of the EIA or notification of a Categorical Exclusion "CATEX", which signifies an insignificant environmental impact.
- Does the proposed site or construction area overlay an installation restoration program (IRP); designated site or solid waste management unit (SWMU) site?
- Is the proposed siting on designated wetlands or flood plains?
- Does the proposed project have the potential to affect threatened or endangered species or critical habitats?
- Will the project affect eligible/designated/suspected archaeological or historical site(s)?
- Is the proposed siting a new program and does the program have an approved program introduction?
- Is proposed site within a compatible noise area?
- Does facility siting meet airfield clearance requirements (is it an obstruction)?
- Does the proposed siting impact an existing line of sight?
- Is the proposed siting located outside explosive safety clear zones (i.e. inhabited building distance)?
- Does the proposed project generate a radiation/transmitter arc, or does an arc affect it?
- Does the proposed site have appropriate setbacks (security or fire protection)?

- Does the construction require excessive site work?
- Are utilities readily available and adequate?
- Do utilities have to be installed or relocated?
- Does the proposed siting have program operational conflicts?

2.1.1.9. Pre- Site Plan Review

Initial site plan concurrence is required from the NASA Center Planning team prior to site plan review/distribution which is sent by email.

The following NASA-AD POCs are emailed for approval on this email: David Thorpe, Jennifer Krouchick, Velyjha Southern.

2.1.1.10. Request For Site Plan Review

The planner prepares the review request package, to include the following:

- Request for site plan review document
- Comment log
- Location, detail maps
- Other supporting documents

The planner sends the review request package to all selected reviewers by email.

2.1.1.11. Reviewer Comments

Responses will be returned by email. Reviewers shall reply with one of the following:

- Concur - No Comments
- Concur - Subject to Comments
- Non-concur (see comments).

Upon receipt of those responses, the planner will log the pertinent information in the site plan comment log located in the Site Planning Application. The planner will review the comments and address all issues raised.

For "Concur - Subject to Comments" and "Non-Concur" replies, the planner will log the response under BOSS Action to Comments field in the comment log and suggest remedy under BOSS Recommendation. Additionally, the planner will forward all "Concur - Subject to Comments" and "Non-Concur" replies to the site plan requester as they are received.

Small issues raised should be addressed to the fullest extent possible. Major issues, which might require a re-siting, shall be coordinated with the NASA Site Planning Officer for guidance.

POC NASA Site Planning Officer: Gail Fazio SI-C20, 321-861-4610, or gail.l.fazio@nasa.gov

2.1.1.12. Site Plan Review Request Reminder

Responses not received by the due date indicated in the review request package will require a follow up reminder. Reminders will be sent by email.

If no response is received by the due date indicated in the reminder, the planner will assume that the reviewer concurs without comments.

2.1.2 Site Plan Approval/Disapproval

Approval authority is indicated by means of a formal document signed by the NASA Site Planning Officer and submitted back to BOSS Master Planning.

2.1.2.1. Obtaining Site Plan Approval/Disapproval

Upon receipt of all coordinating offices response and the completion of the site plan comment log, the planner prepares the formal submittal package, to include:

- Avoid Verbal Orders (AVO) – Cover Page
- Site plan location & detail maps
- Request for site plan review
- Site plan comment log

The formal submittal package is delivered to the NASA Site Planning Officer for their review and formal approval.

The MP Planner updates the Site Planning Application's site plan status (approved or disapproved), associated date, and name of the person who authorized the status change.

2.1.2.2. Notice of Approval/Disapproval

The planner sends a copy of the signed site plan package to the project requester by email.

The NASA Site Planning Officer notifies the appropriate NASA managers.

2.2. Project Completion/Closeout

2.2.1 Notify Impacted BOSS Departments

BOSS MP forwards a copy of the approved site plan to the following groups via e-mail.

- Project requester
- BOSS Real Property
- Project Services
- BOSS Design Engineering
- BOSS GIS
- BOSS Configuration Management (ksc-boss-cm-receipt-desk@mail.nasa.gov)

2.2.2 Update Base Maps

Approved site plans' footprints are entered onto Master Planning's GIS Site Plan Project Map and identified as "Future Development".

Upon receipt of BOSS Real Property's Add Notice, the Master Planning GIS Site Plan Project Map is then revised to reflect the new facility and the site plan notice is moved to the historic site plan layer.

RECORDS

Record	Responsible Organization
Site Plans	Site Services
SHP-F-3100 Job Hazard Analysis Form	Site Services

AFFECTED DIVISIONS/OFFICES

Engineering Services
FSEU and OM&E
Logistics
Program Management
Project Integration Office

MANAGEMENT ROLES AND RESPONSIBILITIES

BOSS Program Manager: Ensures BOSS compliance to the requirements stated in this procedure. Reviews and approves or disapproves waiver requests written against this standard.

Division Manager: Ensures compliance within the Division to the requirements stated in this procedure.

Branch Manager: Ensures compliance at the branch level to the requirements stated in this procedure.

FUNCTIONAL ROLES AND RESPONSIBILITIES

Drafting Support: Cartographer uses a template format to prepare the site plan drawings/maps. Performs field visits with the planner, compares area against the existing GIS base map, then makes the necessary corrections.

BOSS Planner: Receives site plan request package from BOSS work control and reviews it, enters request into the Site Planning Application and determines if siting is required. Requests cartography support. Communicates with requester. Performs field visits, prepares site plan documents, coordinates with reviewers, and tracks responses. Prepares formal submittal package and obtains approval/disapproval signature from NASA planner. Sends notice of approval or disapproval to pertinent offices. Reviews utility locate/excavation permit requests.

BOSS Work Control: Tier 1 receives Electronic Work Request (EWR) reviews and modifies where required. Then forwards the project to WCC Tier 2 for review and WON creation.

BOSS Work Control Center: Assigns a WON and routes the projects to the appropriate departments.

NASA Site Planning Officer (Spaceport Integration and Services Organization, Infrastructure Branch SI-C2): Serves as the approval authority for all NASA site plans.

Requester: Submit Electronic Work Request (EWR) by logging in to the Electronic Work Request System (EWRs). The EWR is then forwarded to BOSS Work Control Center. Provide additional information or clarification to BOSS planner (if no technical contact is designated).

Reviewers: Analyzes site plan documents for their respective organizations and expertise then provides concurrence, comments or non-concurrence to the BOSS planner.

Technical Contact: Indicated by the requester on support request form. Provides additional information or clarification to BOSS planner.

REFERENCE DOCUMENTS

The following documents are referenced in this instruction:

Document Number	Title
AC 70/7460-1K	FAA Advisory Circular Obstruction Marking & Lighting
AFSPCM 91-710	Range Safety User Requirements Manual
CFR 14, Part 77	Objects Affecting Navigable Airspace
EWR-127-1	Eastern and Western Range Safety Requirements
KDP-KSC-P-1303	Site Planning
KNPR 1860.2	KSC Non Ionizing Radiation Protection Program
KNPR 2570.1	KSC Radio Frequency Spectrum Management Procedural Requirements
KNPR 8715.3	KSC Safety Practices Procedural Requirements
KSC Form 19-15	Support Request
KSC Form 21-608	Environmental Checklist
NFPA 80A	Recommended Practice for Protection of Buildings from Exterior Fire Exposers
NFPA 501A	Standard for Fire Safety Criteria for Manufactured Home Installations, Sites, and Communities
NFPA 30	Flammable and Combustible Liquids Code
NNK08OC01C	Institutional Services Contract, PWS 4.4 Master Planning Support

ACRONYMS

SF - Space Force

BOSS - Base Operations & Spaceport Services Contract

DOT - Department of Transportation

EC - Expected Casualty

EIAP - Environmental Impact Analysis Policy (EIAP)

ESR - Electronic Support Request

FAA - Federal Aviation Administration
GIS - Geographic Information System
GPS - Global Positioning Satellite
IBD - Inhabited Building Distance
IL - Interline Distance
ILL - Impact Limit Line
IM - Inter-magazine Distance
IRP - Installation Restoration Program
KSC - Kennedy Space Center
LOS - Line of Sight
MP - Master Planning
NASA - National Aeronautics and Space Administration
NFPA - National Fire Protection Association
NPS - National Park Service
PRL - Potential Release Location
PTR - Public Transportation Route
QD - Quantity Distance
RF - Radio Frequency
RSTV - Range Safety Television
SLF - Shuttle Landing Facility
SR - Support Request
SWMU - Solid Waste Management Unit
USFWS - United States Fish and Wildlife Service
WON - Work Order Number
ZAP - Zone of Archaeological Potential

DEFINITIONS

Approving Authority: Pertinent NASA office that has the authority to approve/disapprove a site plan, specifically the NASA Site Planning Officer in the Spaceport Integration Office.

Approval Process: The authorized process described by the section titled "Site Plan Procedures."

Constraints: Limitations to siting as set forth in the section titled "Siting Guidelines."

Coordinating Offices: Those NASA and contractor offices that the NASA Site Planning Officer has authorized for site plan evaluation.

Facility: Structure or system uniquely identified by a number and accounted for in the Real Property records. Facility numbers are assigned to, but not limited to structures, utility distribution components, and pavements.

Formal Submittal Package: The set of documents delivered by the planner to NASA Site Planning Officer for review and formal approval, which shall include the following

documents: Site plan location and detail maps request for site plan review; site plan comment log; and approval/disapproval signature page.

Site Planning Application: The KSC application which is used by the all MP staff to record record site plan project information and coordinate review/approval. This application is maintained by the EAST2 contract.

Review Request Package: The set of documents sent by the planner to the site plan reviewers for review and concurrence/comments, which shall include the following documents: request for site plan review; location map, and detail map.

Site Plan: A scaled development plan which illustrates proposed facilities such as buildings, paving, utilities, fences, lighting, storm water systems etc. on a specific parcel of land, with associated documentation detailing planned use, special constraints evaluated, and compliance with NASA planning documents.

Site Plan Request Package: An application for siting, submitted by the requester to BOSS Work Control, which shall include the following information: a completed formal work request document using the Electronic Work Request System (EWRs); a detailed description and justification of the proposed use/function; a sketch or drawing illustrating all proposed facilities and infrastructure; information regarding any hazardous or explosive material; identification of any special security requirements; a point-of-contact name, phone number, and email address; and a technical contact name, phone number, and email address (where applicable).

REVISION RECORD

Revision Number	Change Description	Date
0	Initial release	10/21/2009
1	Clarify when a site plan is required.	01/23/2012
2	Minor revisions, update submission process, contact info	09/02/16
3	Minor revisions to align with BOSS Contract	2/10/20
4	Minor revisions, updates to POCs	3/29/2024

DOCUMENT APPROVALS

4/2/2024

 Marc Dixon

Marc Dixon
Branch Manager, Site Services
Signed by: Marc Dixon (affiliate)

3/29/2024

 Glenn Walters

Glenn Walters
GIS & Site Planning Lead, Site Services
Signed by: Glenn Walters (affiliate)