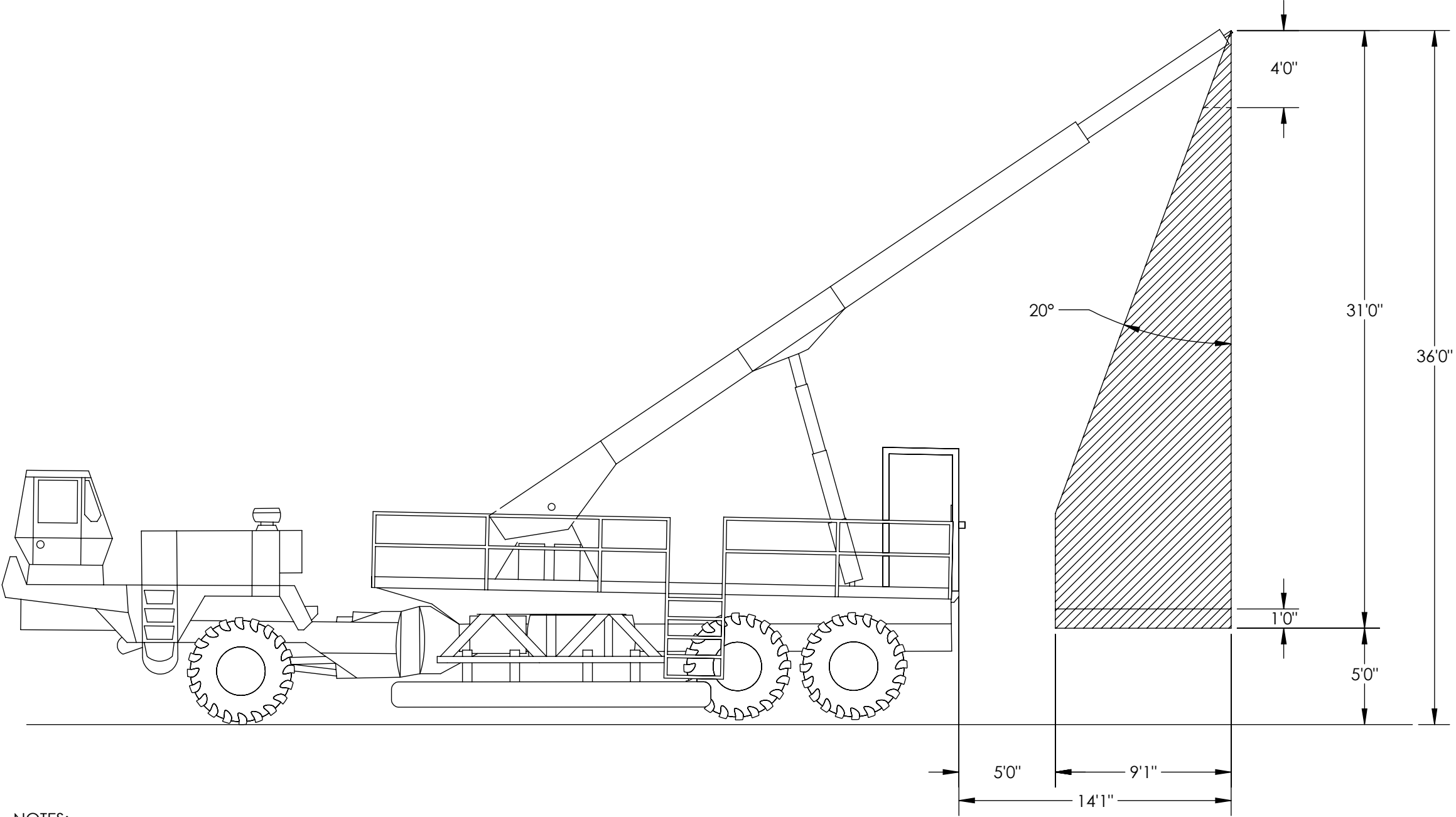


- NOTES:
1. 5' MINIMUM CLEARANCE REQUIRED BETWEEN PAYLOAD AND GROUND SURFACE
 2. 4' MINIMUM CLEARANCE REQUIRED BETWEEN PIN AND ROTATOR/SWIVEL (IF APPLICABLE)
 3. LOWEST 1' OF PAYLOAD ENVELOPE FOR NON-RIGID ANTENNA ONLY

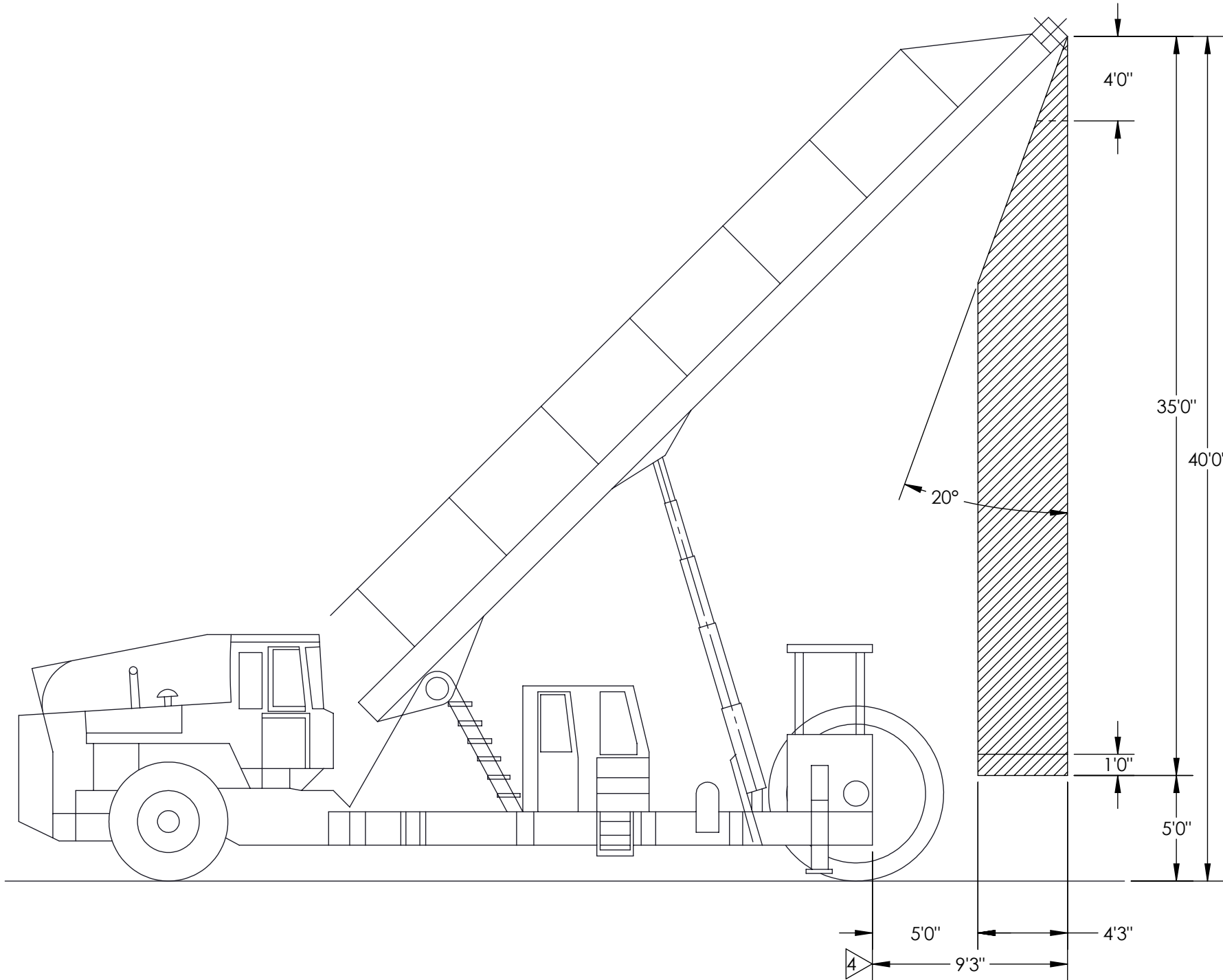
COLUMBIA SCIENTIFIC BALLOON FACILITY					
TOLERANCES	DECIMAL .XX ± .01 .XXX ± .005	DRAWN BY: J. Lang	DATE: 3/3/2005	Antarctica Launch Vehicle, Max Height	
	FRACTIONAL ± 1/32	CHECKED BY: E. Klein	DATE: 3/3/2005		
	ANGULAR ± .05	APPROVED BY: E. Klein	DATE: 3/3/2005	DWG. NO. OM-300-170-0-SW	REV. B
SCALE: 1:75		SHEET: 1 OF 1		PROJECT NAME: BOSS (Max Launch Height)	
NOT QUALIFIED FOR MANNED FLIGHT		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		MATERIAL:	



NOTES:

1. 5' MINIMUM CLEARANCE REQUIRED BETWEEN PAYLOAD AND GROUND SURFACE
2. 4' MINIMUM CLEARANCE REQUIRED BETWEEN PIN AND ROTATOR/SWIVEL (IF APPLICABLE)
3. LOWEST 1' OF PAYLOAD ENVELOPE FOR NON-RIGID ANTENNA ONLY

COLUMBIA SCIENTIFIC BALLOON FACILITY					
TOLERANCES	DECIMAL .XX ± .01 .XXX ± .005	DRAWN BY: J. Lang	DATE: 3/3/2005	Antarctica Launch Vehicle, 36' Height	
	FRACTIONAL ± 1/32	CHECKED BY: E. Klein	DATE: 3/3/2005		
	ANGULAR ± .05	APPROVED BY: E. Klein	DATE: 3/3/2005	DWG. NO. OM-300-171-SW	REV. B
SCALE: 1:75		SHEET: 1 OF 1		PROJECT NAME: BOSS (36' Launch Height)	
NOT QUALIFIED FOR MANNED FLIGHT		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		MATERIAL:	




BOOM HEIGHT	CLEARANCE
25'	20'
30'	17'
35'	13'6"
40' AS SHOWN	9'3" AS SHOWN
41'	8'

NOTES:

- 5' MINIMUM CLEARANCE REQUIRED BETWEEN PAYLOAD AND GROUND SURFACE
- 4' MINIMUM CLEARANCE REQUIRED BETWEEN PIN AND ROTATOR/SWIVEL (IF APPLICABLE)
- LOWEST 1' OF PAYLOAD ENVELOPE FOR NON-RIGID ANTENNA ONLY
- SEE BOOM HEIGHT / LATERAL CLEARANCE TABULATION FOR ALTERNATE PIN HEIGHTS (SUBTRACT 3' IF PAYLOAD IS WIDER THAN WHEEL SPAN = 18'6")

COLUMBIA SCIENTIFIC
BALLOON FACILITY



TOLERANCES

DECIMAL
.XX ± .01
.XXX ± .005

FRACTIONAL
± 1/32

ANGULAR
± .05

DRAWN BY:
J. Lang

CHECKED BY:
E. Klein

APPROVED BY:
E. Klein

DATE:
3/3/2005

DATE:
3/3/2005

DATE:
3/3/2005

TITLE:
Big Bill (MLV) Launch Vehicle

DWG. NO.
OM-300-173-SW

REV.
B

SCALE:
1:75

SHEET:
1 OF 1

PROJECT NAME:
MLV (Palestine & Ft. Sumner)

NOT QUALIFIED
FOR
MANNED FLIGHT

UNLESS OTHERWISE
SPECIFIED DIMENSIONS
ARE IN INCHES

MATERIAL: