



















































# 42" x 54" Type 2 Orion Standard Cab

**NOTICE**  
The cab dimensions provided based on a PLAM cab.  
For Masonry or Drywall Entrance Details, refer to drawings on pages 45-50

**IMPORTANT**  
Finished hoistway dimensions must include the drywall. Determine the fire rating of the hoistway and the type and layers of sheet rock. Build only from the final shop drawings specific to your installation.

ORION MRL-4254 (2)

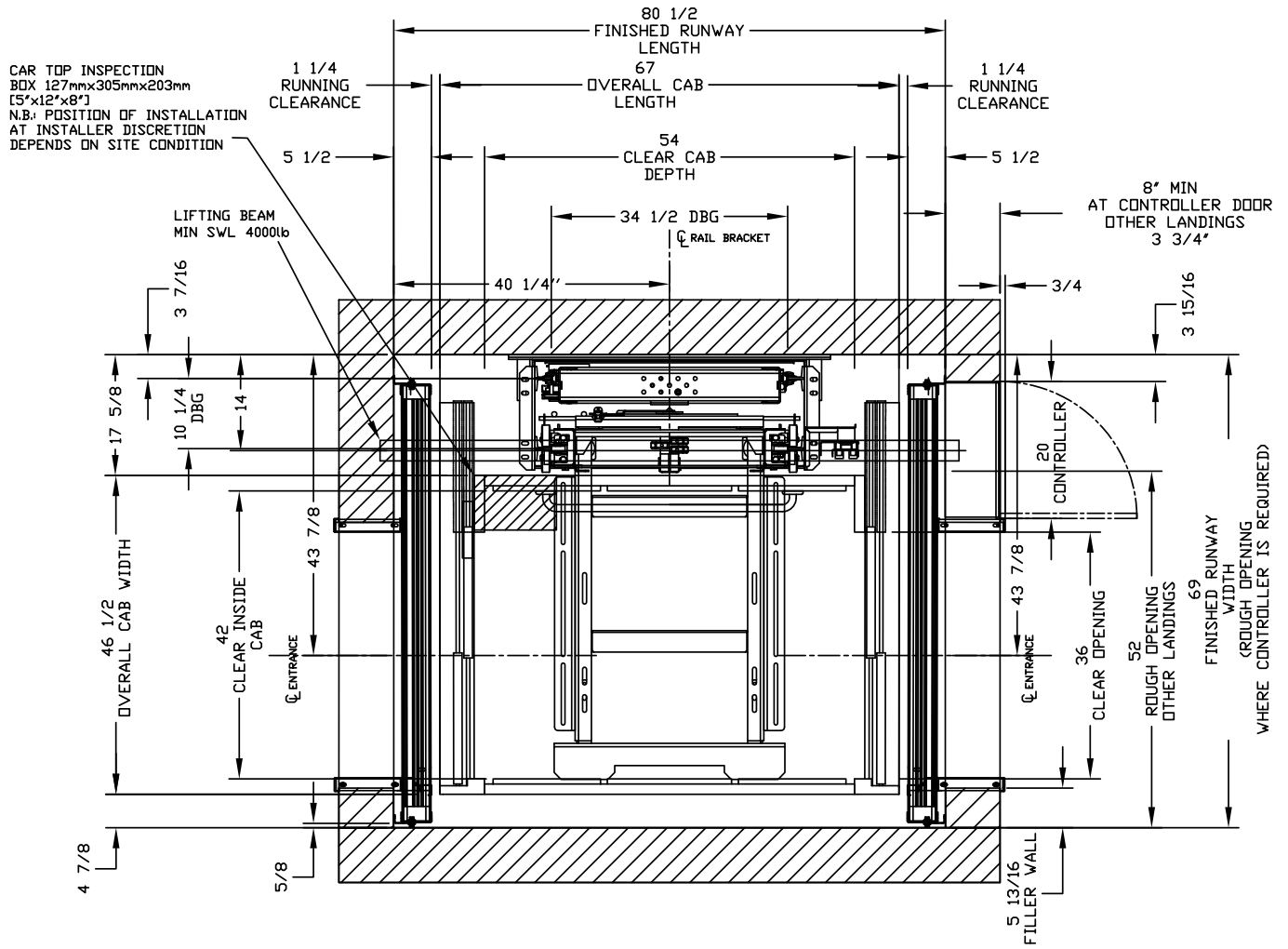


Figure 14: 42" x 54" Orion Cab Type 2

# 42" x 60" Type 1L Orion Standard Cab

**NOTICE**  
 The cab dimensions provided based on a PLAM cab.  
 For Masonry or Drywall Entrance Details, refer to drawings on pages 45-50

**IMPORTANT**  
 Finished hoistway dimensions must include the drywall. Determine the fire rating of the hoistway and the type and layers of sheet rock. Build only from the final shop drawings specific to your installation.

ORION MRL-4260 (1L)

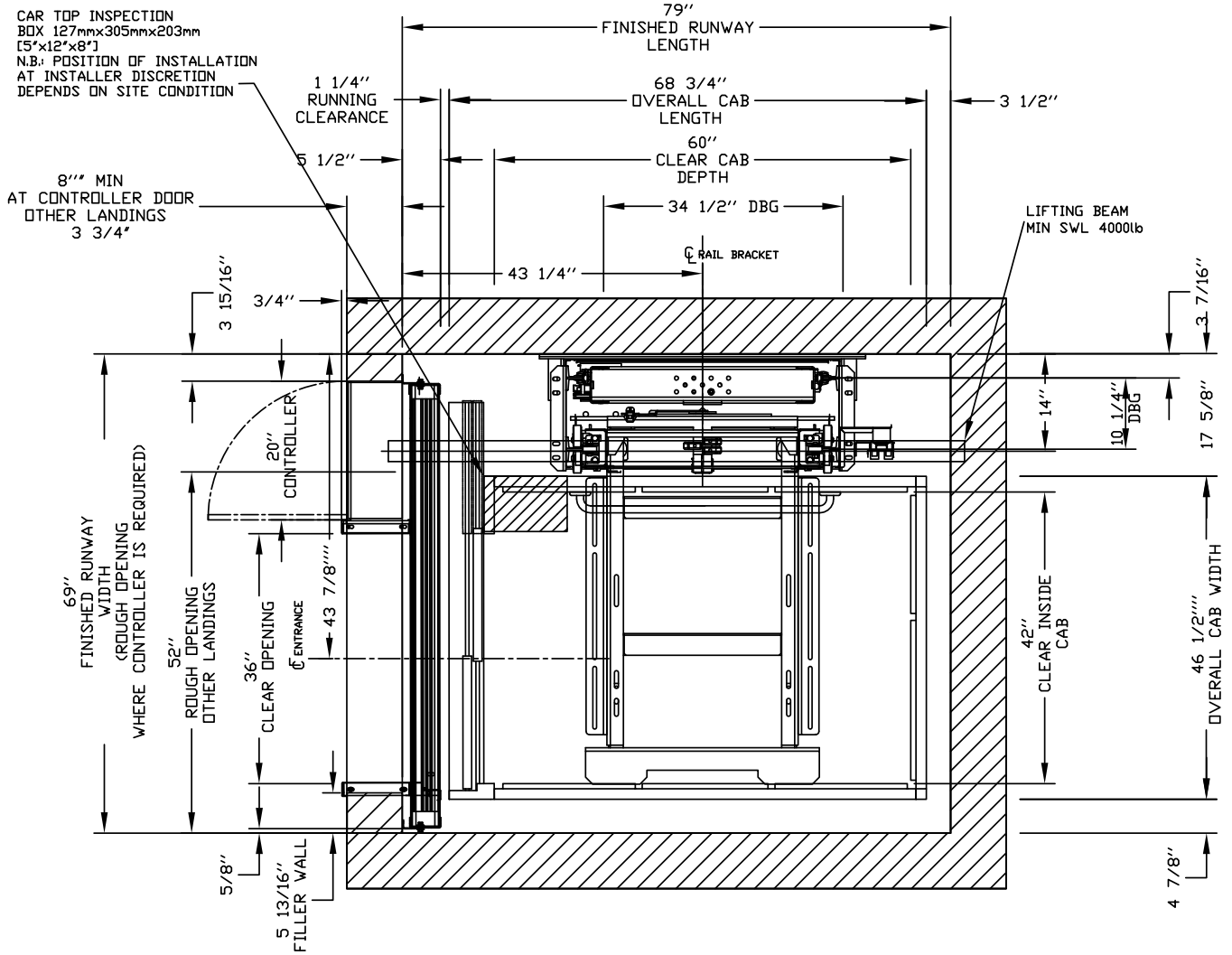


Figure 15: 42" x 60" Orion Cab Type 1L



# 42" x 60" Type 2 Orion Standard Cab

**NOTICE**  
 The cab dimensions provided based on a PLAM cab.  
 For Masonry or Drywall Entrance Details, refer to drawings on pages 45-50

**IMPORTANT**  
 Finished hoistway dimensions must include the drywall. Determine the fire rating of the hoistway and the type and layers of sheet rock. Build only from the final shop drawings specific to your installation.

ORION MRL-4260 (2)

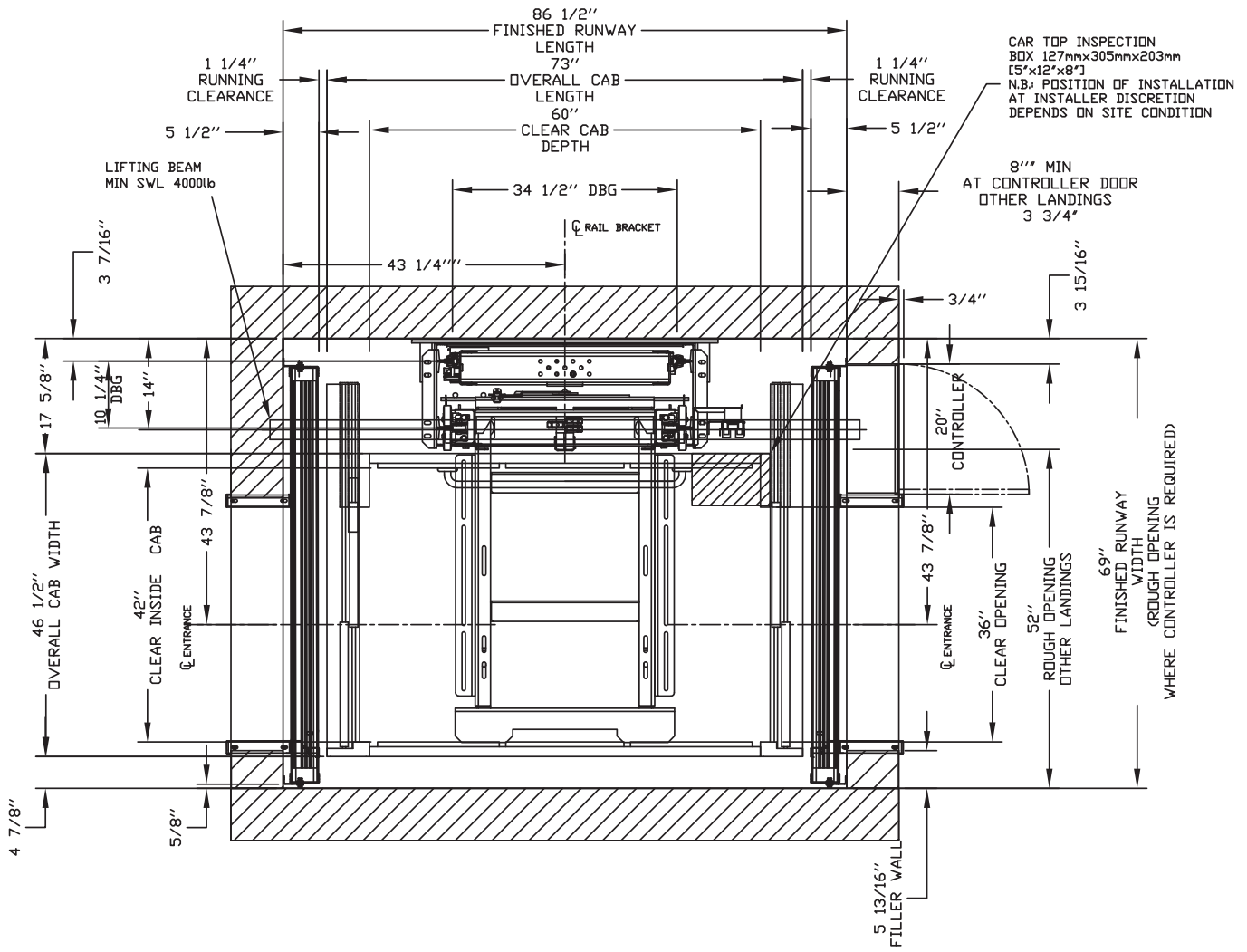


Figure 17: 42" x 60" Orion Cab Type 2



# 48" x 54" Type 1R Orion Standard Cab

**NOTICE**  
 The cab dimensions provided based on a PLAM cab.  
 For Masonry or Drywall Entrance Details, refer to drawings on pages 45-50

**IMPORTANT**  
 Finished hoistway dimensions must include the drywall. Determine the fire rating of the hoistway and the type and layers of sheet rock. Build only from the final shop drawings specific to your installation.

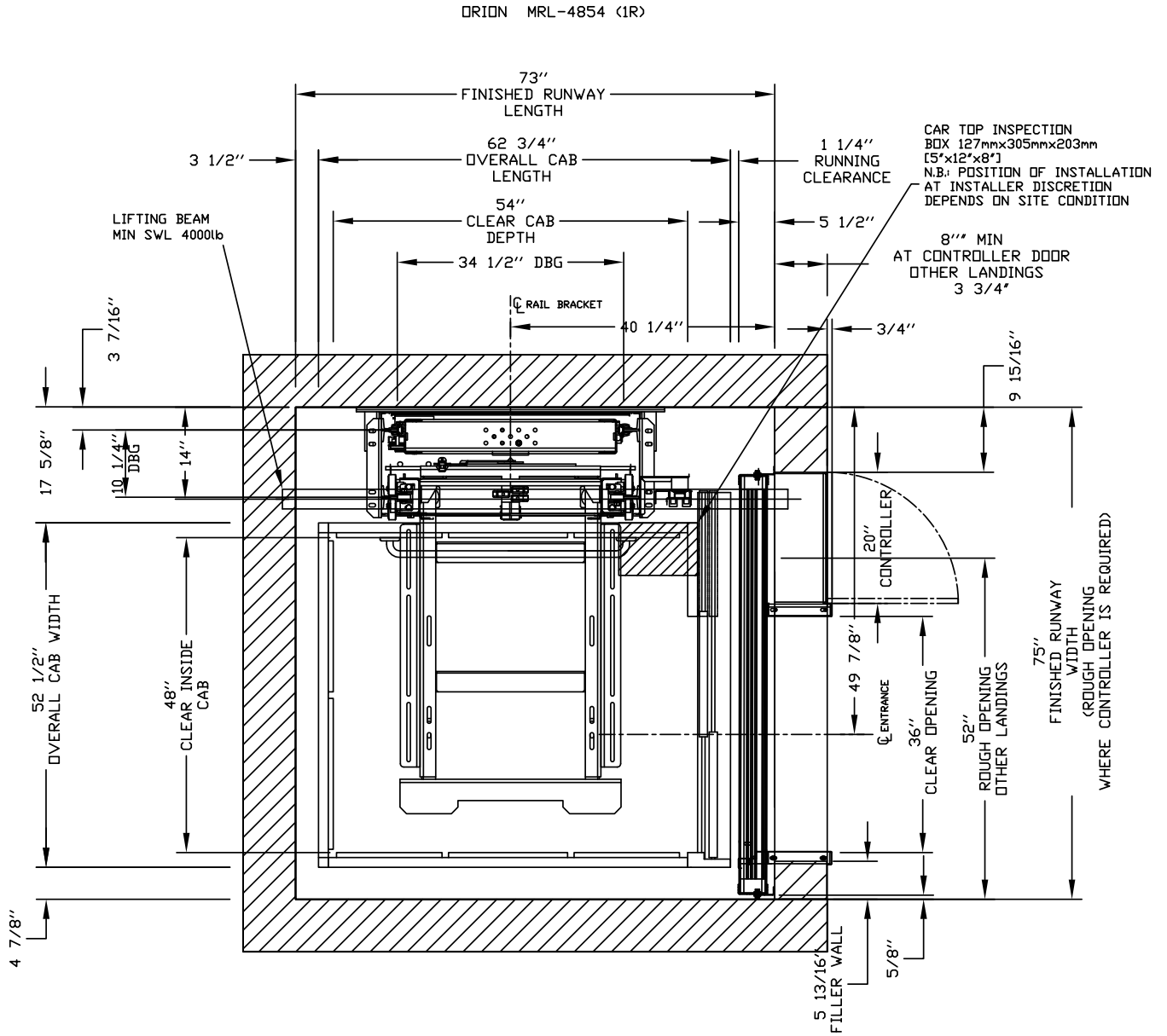


Figure 19: 48" x 54" Orion Cab Type 1R

# 48" x 54" Type 2 Orion Standard Cab

**NOTICE**  
 The cab dimensions provided based on a PLAM cab.  
 For Masonry or Drywall Entrance Details, refer to drawings on pages 45-50

**IMPORTANT**  
 Finished hoistway dimensions must include the drywall. Determine the fire rating of the hoistway and the type and layers of sheet rock. Build only from the final shop drawings specific to your installation.

ORION MRL-4854 (2)

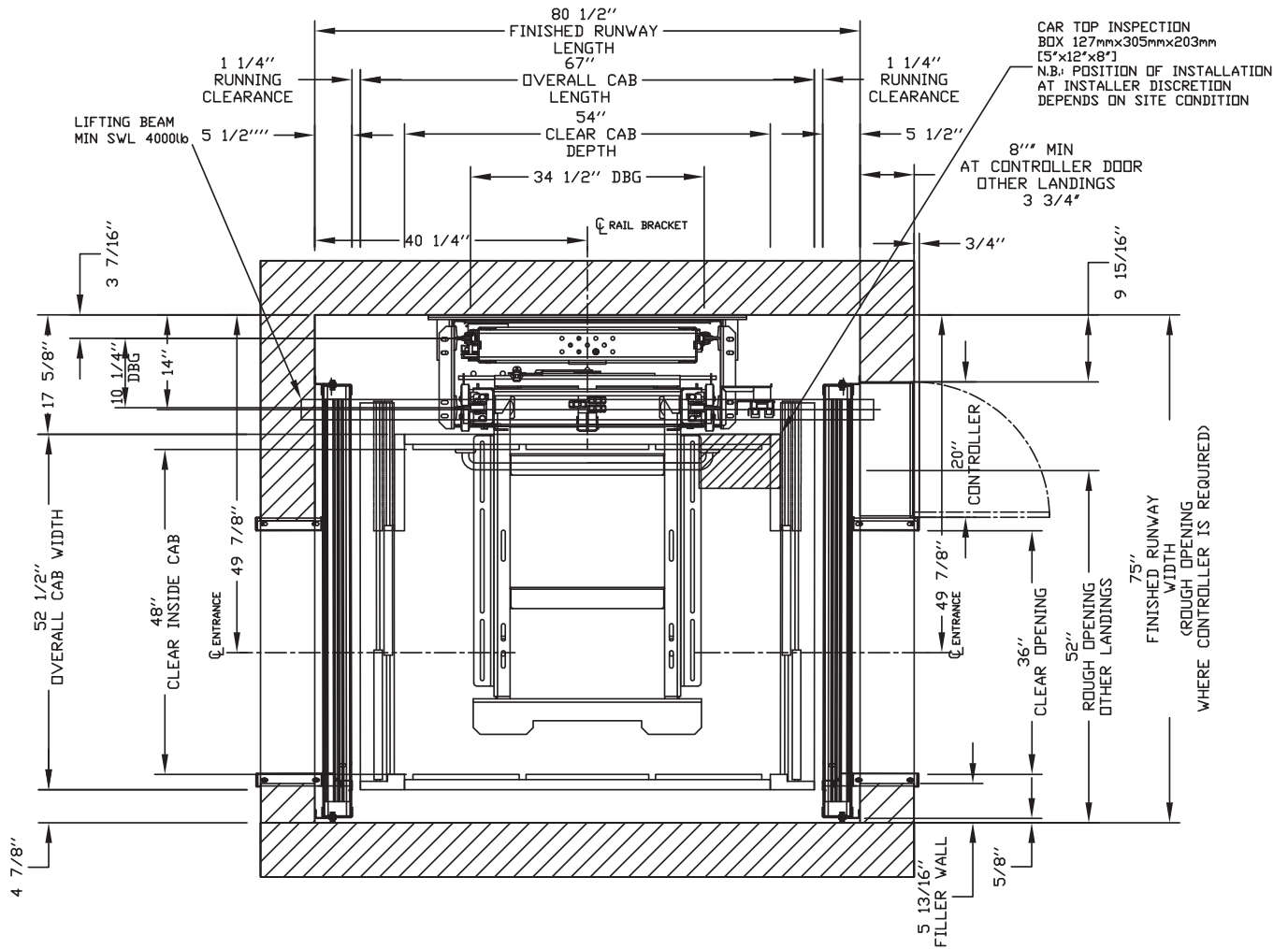


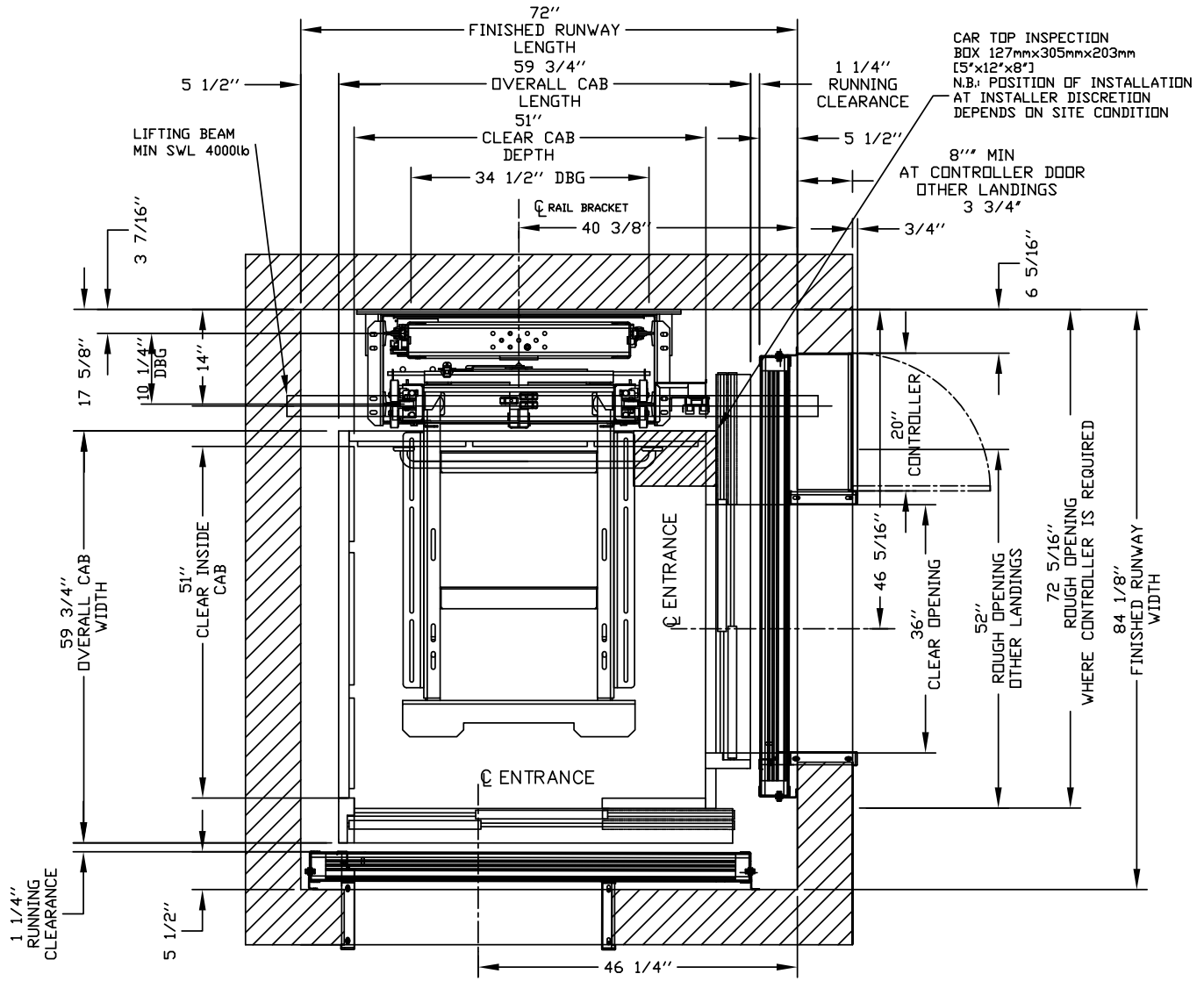
Figure 20: 48" x 54" Orion Cab Type 2

# 51" x 51" Type 3 Orion Standard Cab

**NOTICE**  
 The cab dimensions provided based on a PLAM cab.  
 For Masonry or Drywall Entrance Details, refer to drawings on pages 45-50

**IMPORTANT**  
 Finished hoistway dimensions must include the drywall. Determine the fire rating of the hoistway and the type and layers of sheet rock. Build only from the final shop drawings specific to your installation.

ORION MRL-5151 (3)



For Masonry or Drywall

Figure 21: 51" x 51" Orion Cab Type 3

# 51" x 51" Type 4 Orion Standard Cab

**NOTICE**  
 The cab dimensions provided based on a PLAM cab.  
 For Masonry or Drywall Entrance Details, refer to drawings on pages 45-50

**IMPORTANT**  
 Finished hoistway dimensions must include the drywall. Determine the fire rating of the hoistway and the type and layers of sheet rock. Build only from the final shop drawings specific to your installation.

ORION MRL-5151 (4)

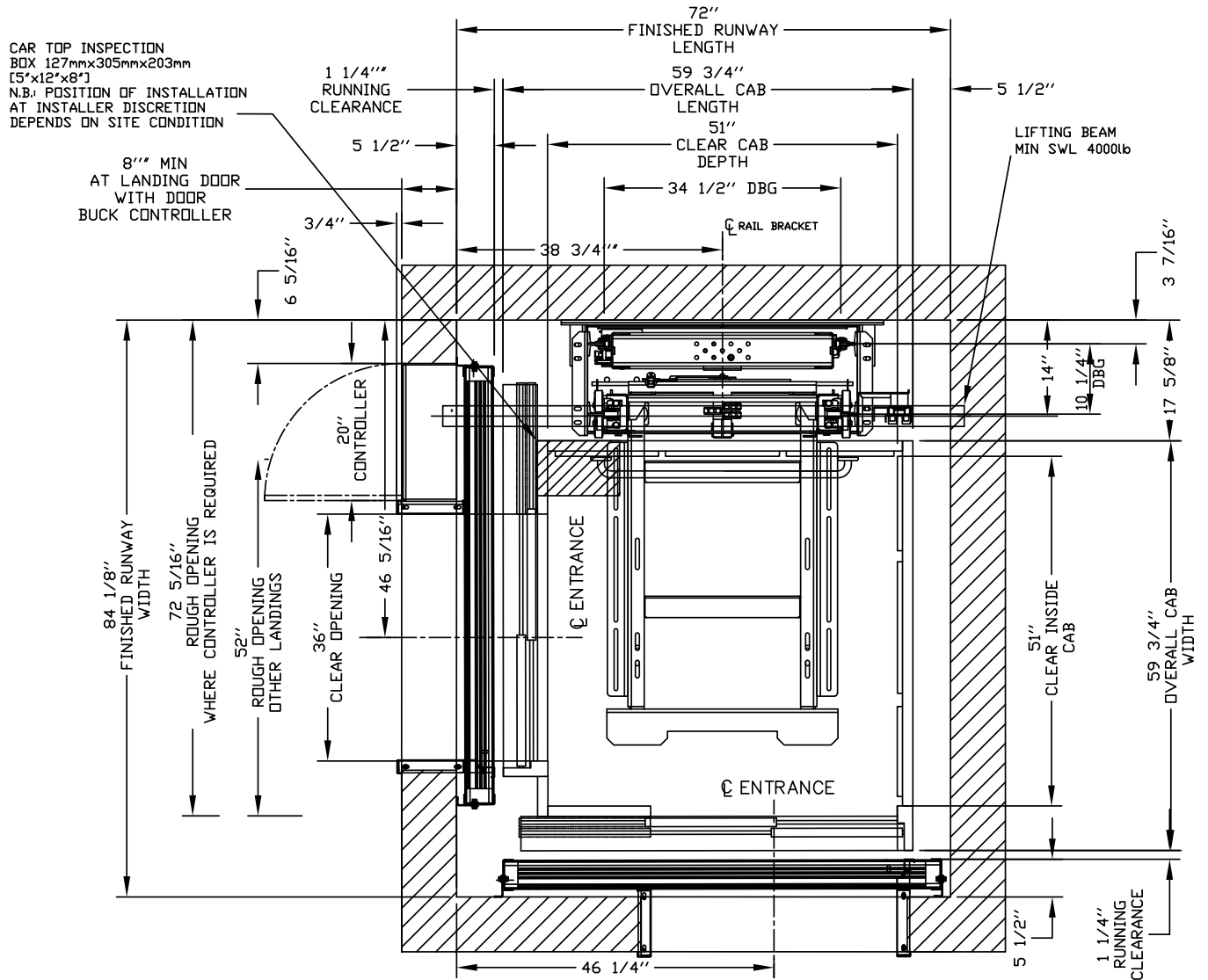


Figure 22: 51" x 51" Orion Cab Type 4



## 42" x 60" Type 1R Orion Steel Cab

**NOTICE**  
 The cab dimensions provided based on a PLAM cab.  
 For Masonry or Drywall Entrance Details, refer to drawings on pages 45-50

**IMPORTANT**  
 Finished hoistway dimensions must include the drywall. Determine the fire rating of the hoistway and the type and layers of sheet rock. Build only from the final shop drawings specific to your installation.

ORION STEEL CAB MRL-4260 (1R)

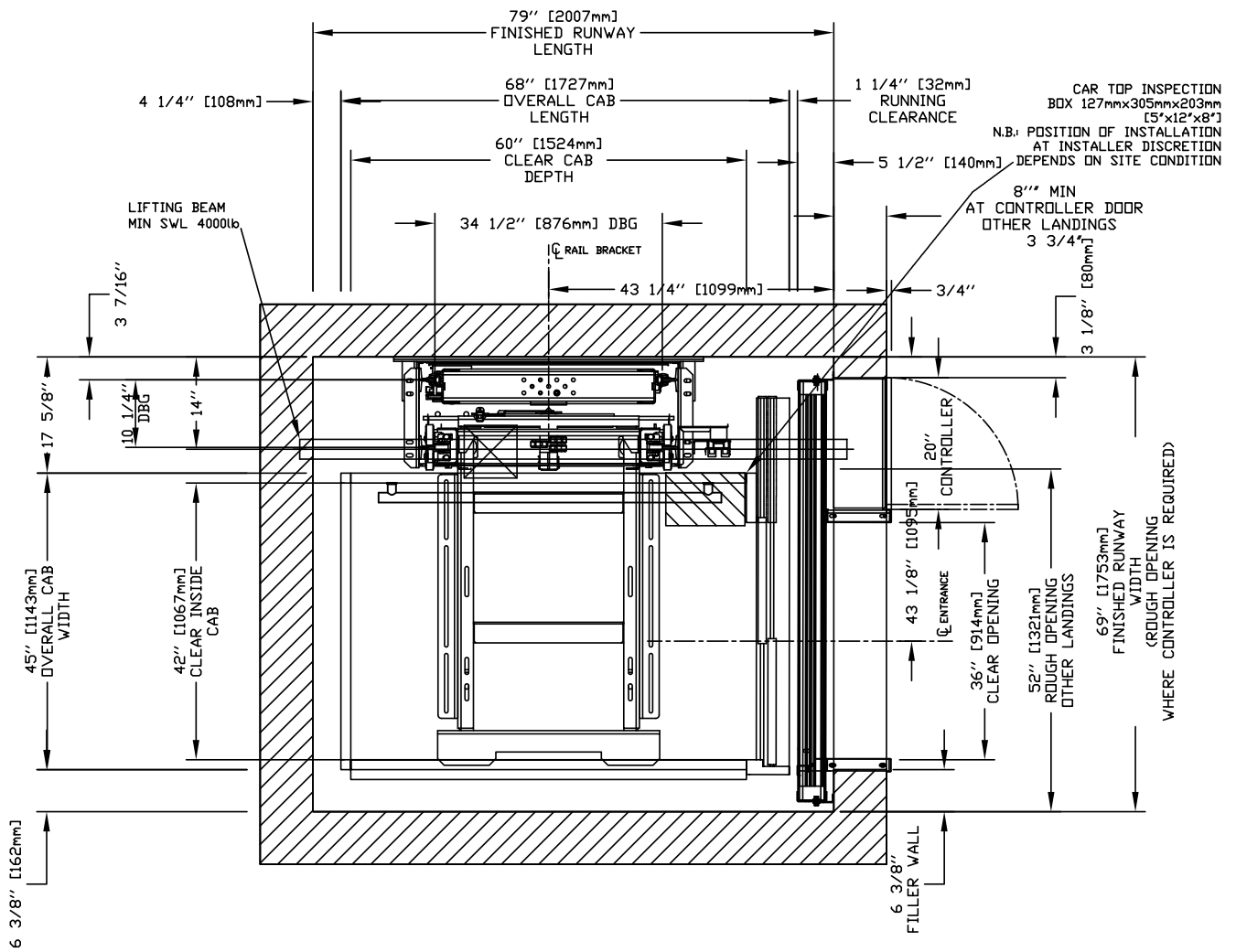


Figure 24: 42" x 60" Orion Steel Cab Type 1R

## 42" x 60" Type 2 Orion Steel Cab



**NOTICE**

The cab dimensions provided based on a PLAM cab.  
For Masonry or Drywall Entrance Details, refer to drawings on pages 45-50



**IMPORTANT**

Finished hoistway dimensions must include the drywall. Determine the fire rating of the hoistway and the type and layers of sheet rock. Build only from the final shop drawings specific to your installation.

ORION STEEL CAB MRL-4260 (2)

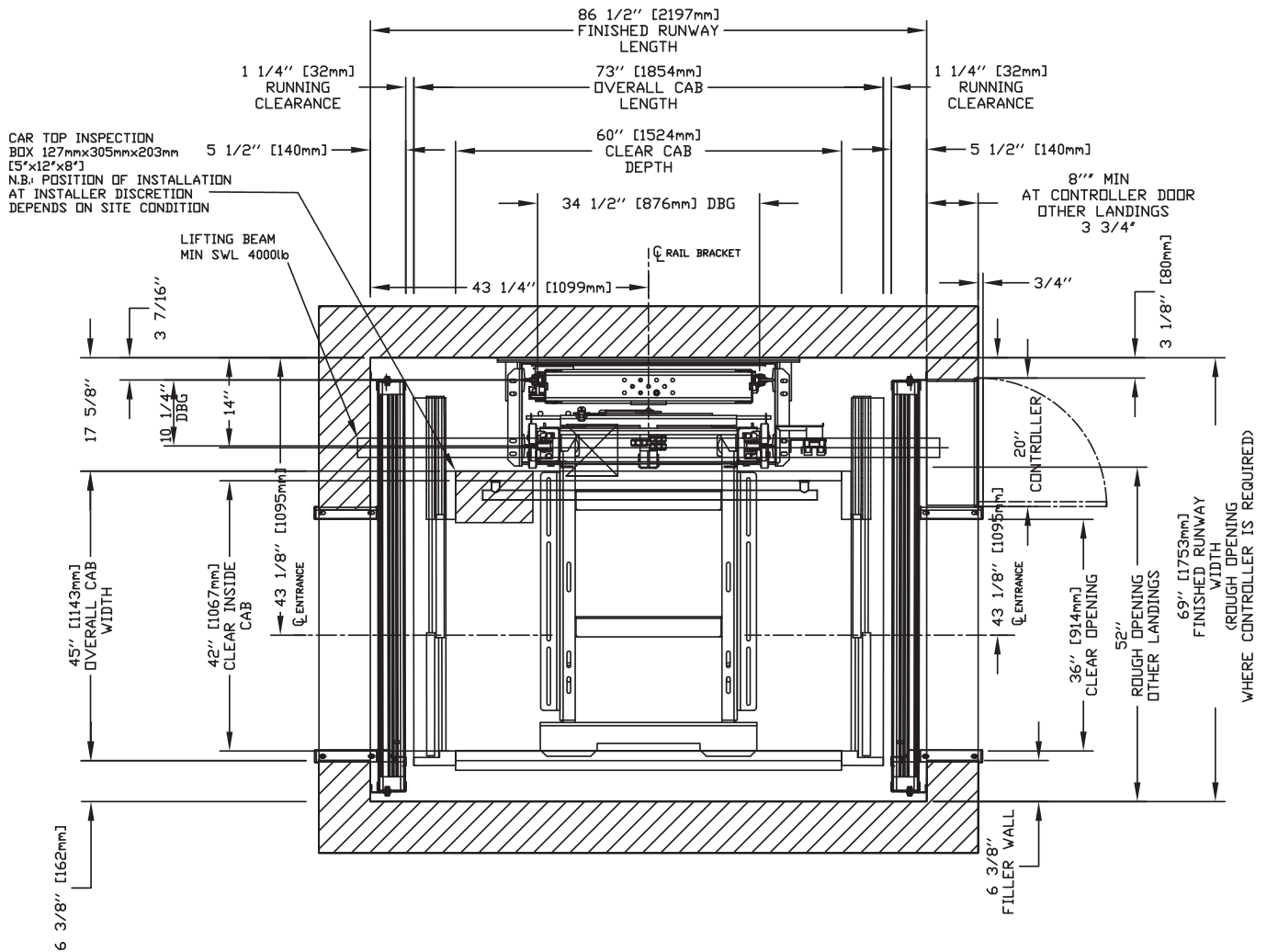


Figure 25: 42" x 60" Orion Steel Cab Type 2

# 48" x 54" Type 1L Orion Steel Cab

**NOTICE**  
 The cab dimensions provided based on a PLAM cab.  
 For Masonry or Drywall Entrance Details, refer to drawings on pages 45-50

**IMPORTANT**  
 Finished hoistway dimensions must include the drywall. Determine the fire rating of the hoistway and the type and layers of sheet rock. Build only from the final shop drawings specific to your installation.

ORION STEEL CAB MRL-4854 (1L)

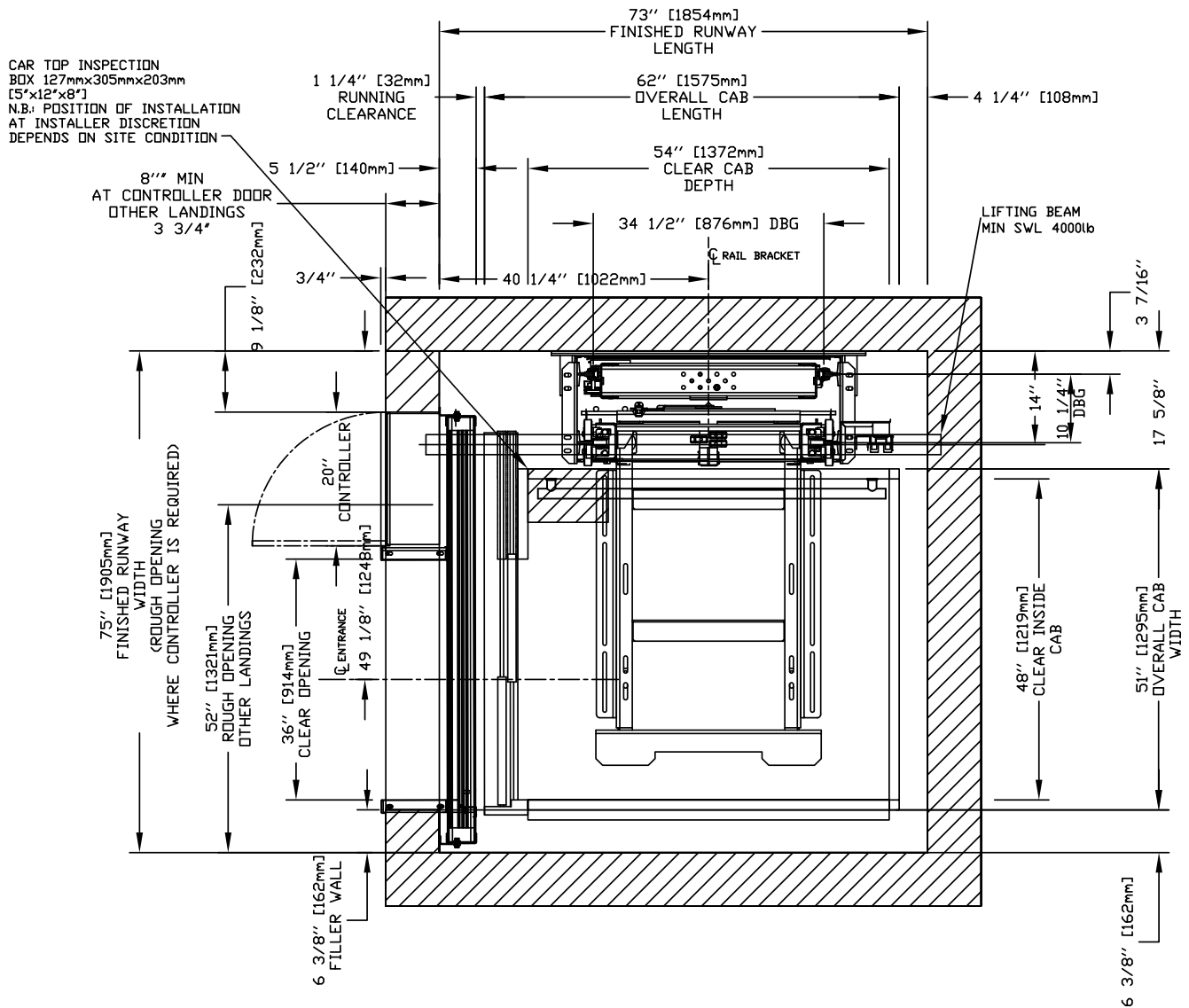


Figure 26: 48" x 54" Orion Steel Cab Type 1L

# 48" x 54" Type 1R Orion Steel Cab

**NOTICE**  
 The cab dimensions provided based on a PLAM cab.  
 For Masonry or Drywall Entrance Details, refer to drawings on pages 45-50

**IMPORTANT**  
 Finished hoistway dimensions must include the drywall. Determine the fire rating of the hoistway and the type and layers of sheet rock. Build only from the final shop drawings specific to your installation.

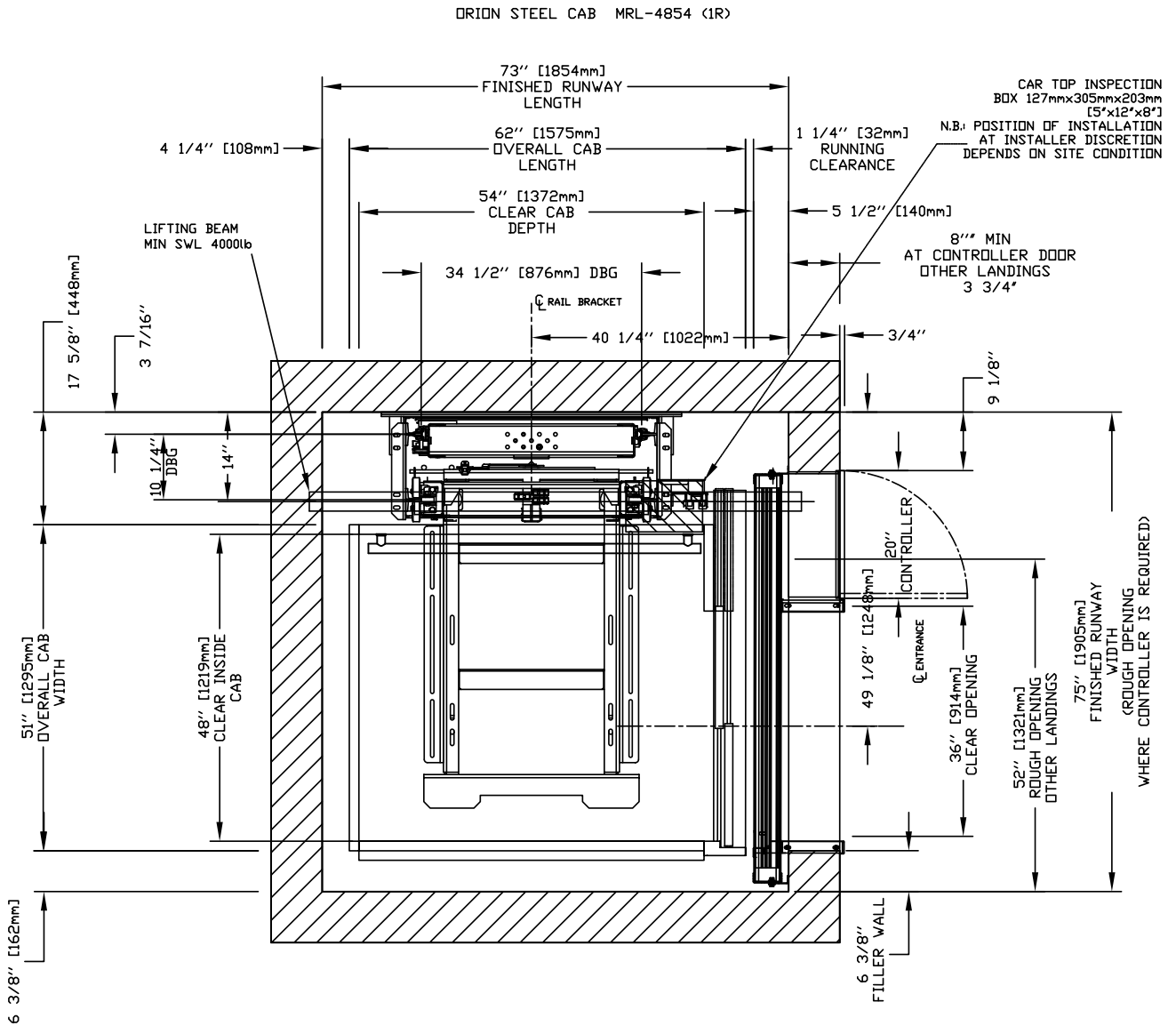


Figure 27: 48" x 54" Orion Steel Cab Type 1R

# 48" x 54" Type 2 Orion Steel Cab

**NOTICE**  
The cab dimensions provided based on a PLAM cab.  
For Masonry or Drywall Entrance Details, refer to drawings on pages 45-50

**IMPORTANT**  
Finished hoistway dimensions must include the drywall. Determine the fire rating of the hoistway and the type and layers of sheet rock. Build only from the final shop drawings specific to your installation.

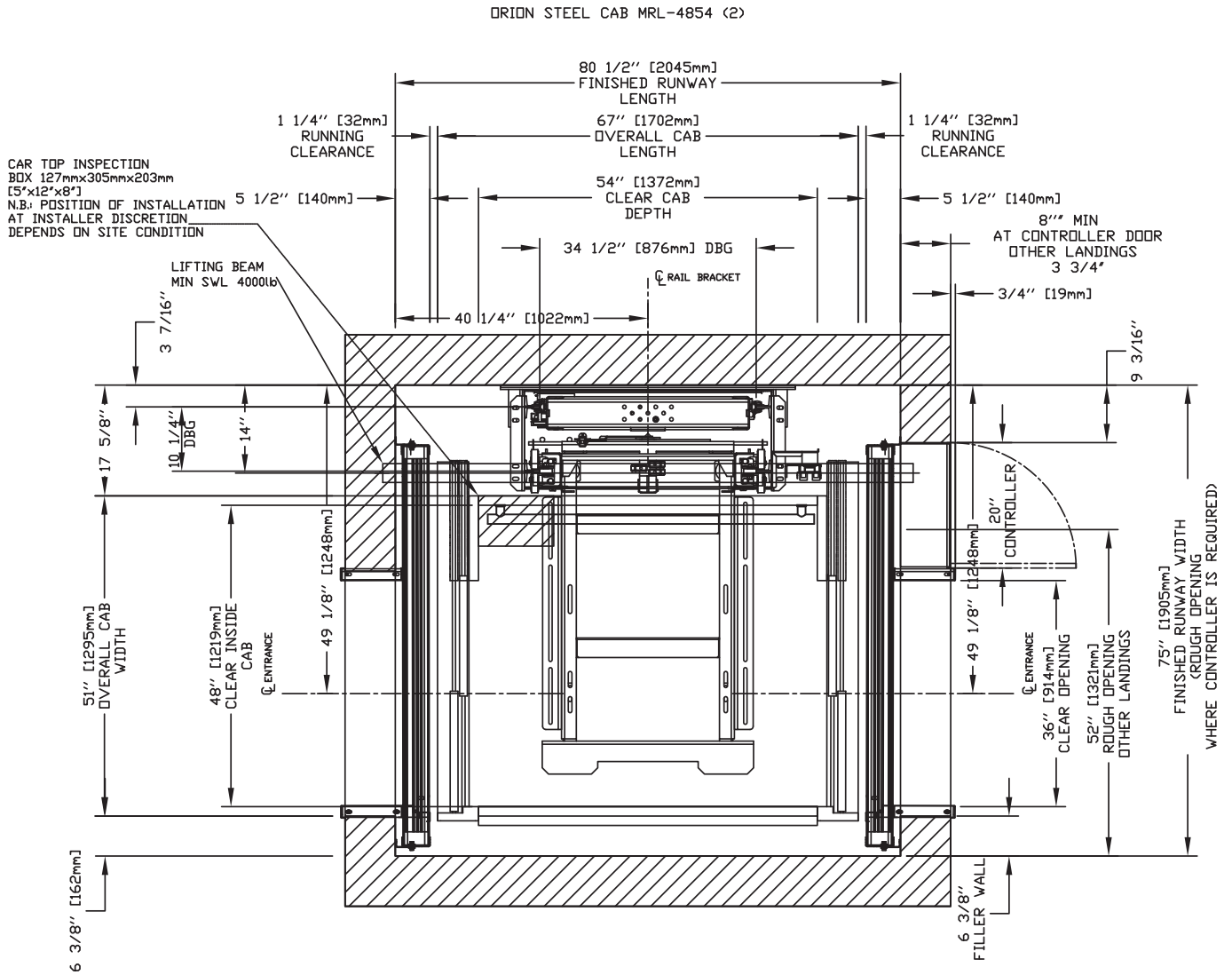
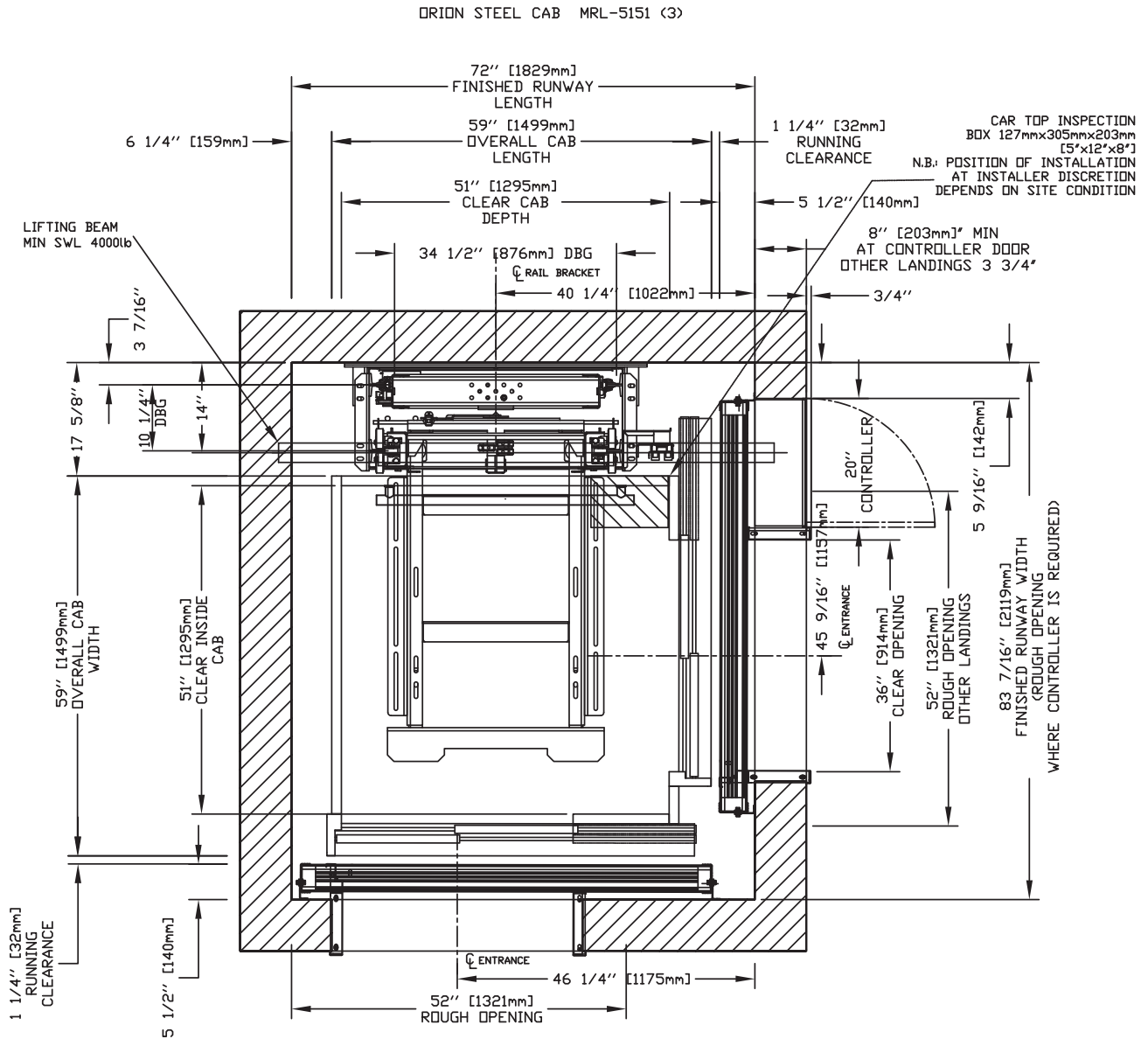


Figure 28: 48" x 54" Orion Steel Cab Type 2

# 51" x 51" Type 3 Orion Steel Cab

**NOTICE**  
 The cab dimensions provided based on a PLAM cab.  
 For Masonry or Drywall Entrance Details, refer to drawings on pages 45-50

**IMPORTANT**  
 Finished hoistway dimensions must include the drywall. Determine the fire rating of the hoistway and the type and layers of sheet rock. Build only from the final shop drawings specific to your installation.



For Masonry or Drywall

Figure 29: 42" x 54" Orion17 Cab Type 3

# 51" x 51" Type 4 Orion Steel Cab

**NOTICE**  
 The cab dimensions provided based on a PLAM cab.  
 For Masonry or Drywall Entrance Details, refer to drawings on pages 45-50

**IMPORTANT**  
 Finished hoistway dimensions must include the drywall. Determine the fire rating of the hoistway and the type and layers of sheet rock. Build only from the final shop drawings specific to your installation.

ORION STEEL CAB MRL-5151 (4)

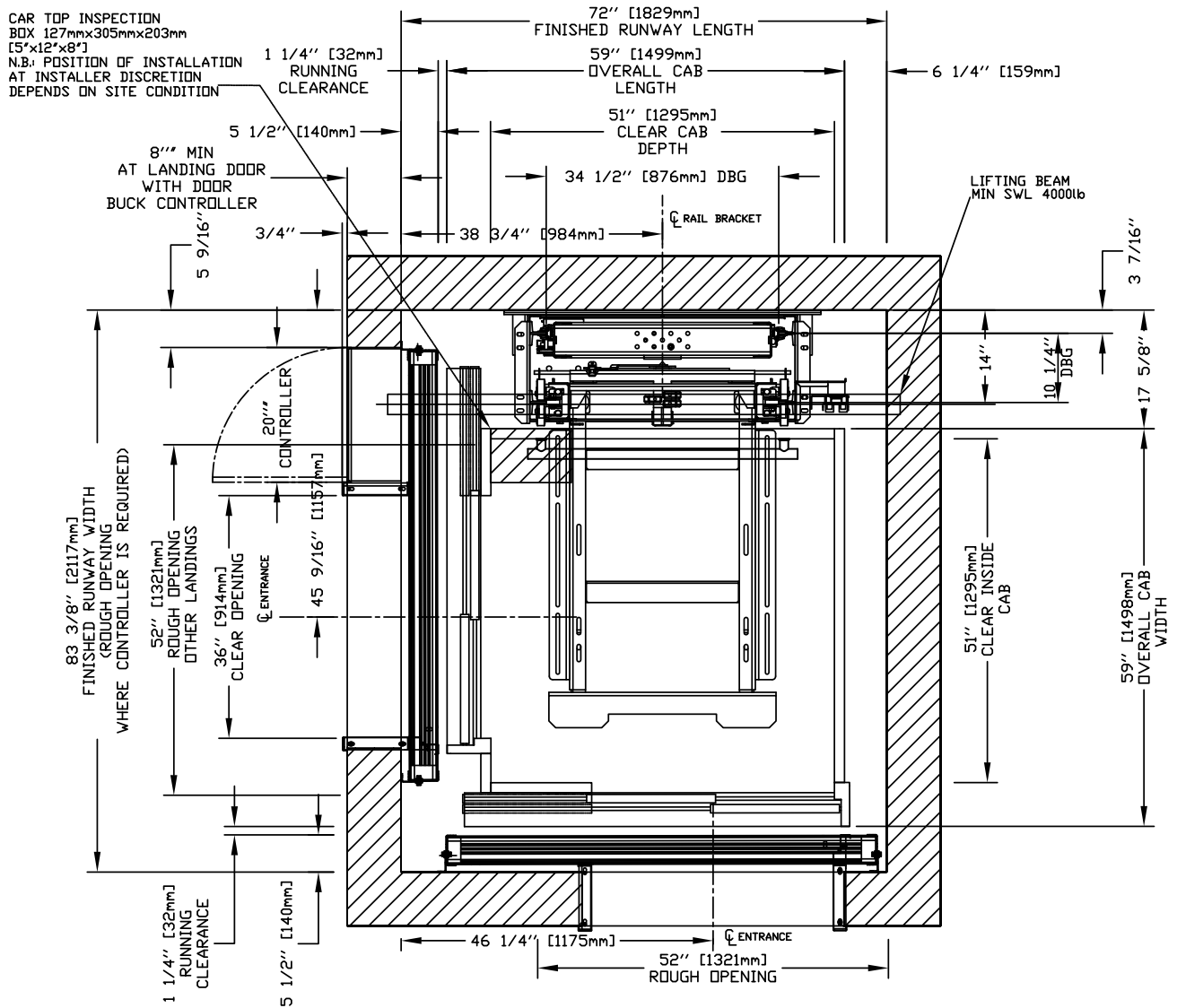
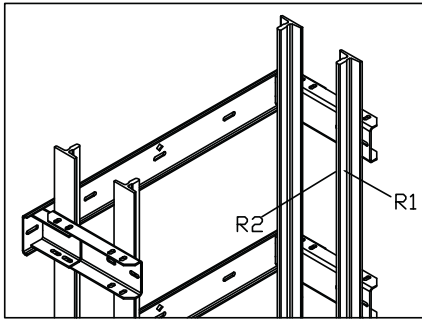


Figure 30: 51" x 51" Orion17 Cab Type 4

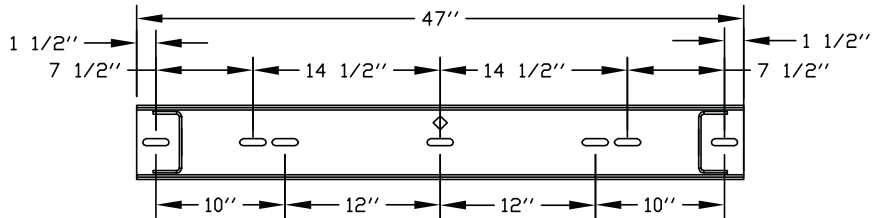
### Loads on Building and Pit Loading

Rail reactions do not include safety factors. Applicable safety factors must be considered in hoistway design.



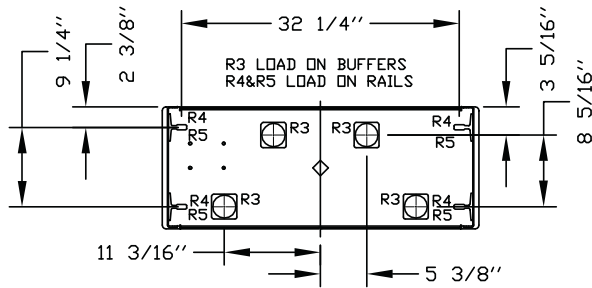
RAIL FORCES	
*R1	*R2
932 lbf	260 lbf
RAIL WEIGHT : 8.0 lbs / ft	

FOR TOTAL PULL-OUT FORCE ON RAIL BRACKET,  
 eg. 2 x 932 = 1864 lbf  
 FOR LOCAL APPLICATION OF PIT LOAD,  
 R1 MUST BE DOUBLED.



#### RAIL BRACKETS

R1 LOAD ON EACH FIXING POINT EQUALS  
 466 LBF BASED ON FOUR MOUNTING HOLES



RAIL BRACKETS

#### PIT PLATE LAYOUT

PIT RE-ACTION FORCE		
R3	8000 LBS	PER LOAD POINT 2000 LBS
R4	3000 LBS	PER LOAD POINT 750 LBS
R5	9500 LBS	PER LOAD POINT 2375 LBS

Figure 31: Building and Pit Load

# Pit and Overhead Clearance Details

**NOTICE**

Clearance of 43" where applicable:  
 Minimum refuge space at 1100 mm (43") will be provided by car top prop in conformance with clause 5.2.1.4.4.  
 \*Additional pit equipment required when over 36" deep, consult your local dealer for details  
 \*Ontario requires 17" pit and 111" min overhead for all configurations.

PIT/OVERHEAD REQUIREMENTS				
SPEED (ft/min)	PIT	TOAL TRAVEL	MINIMUM OVERHEAD	
30	17"*		134" (3404)	111" (2819)
25	14"*		134" (3404)	108" (2743)

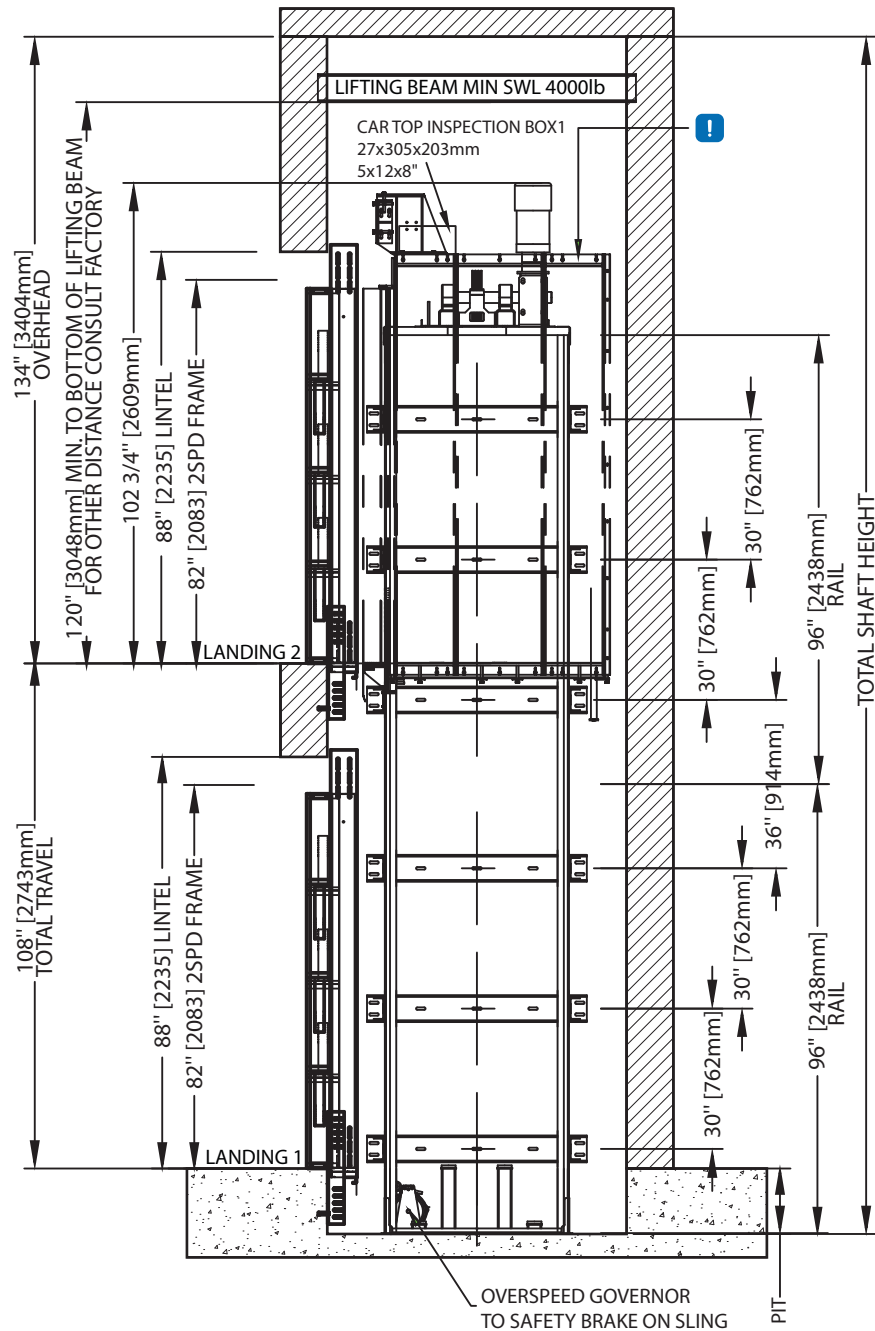
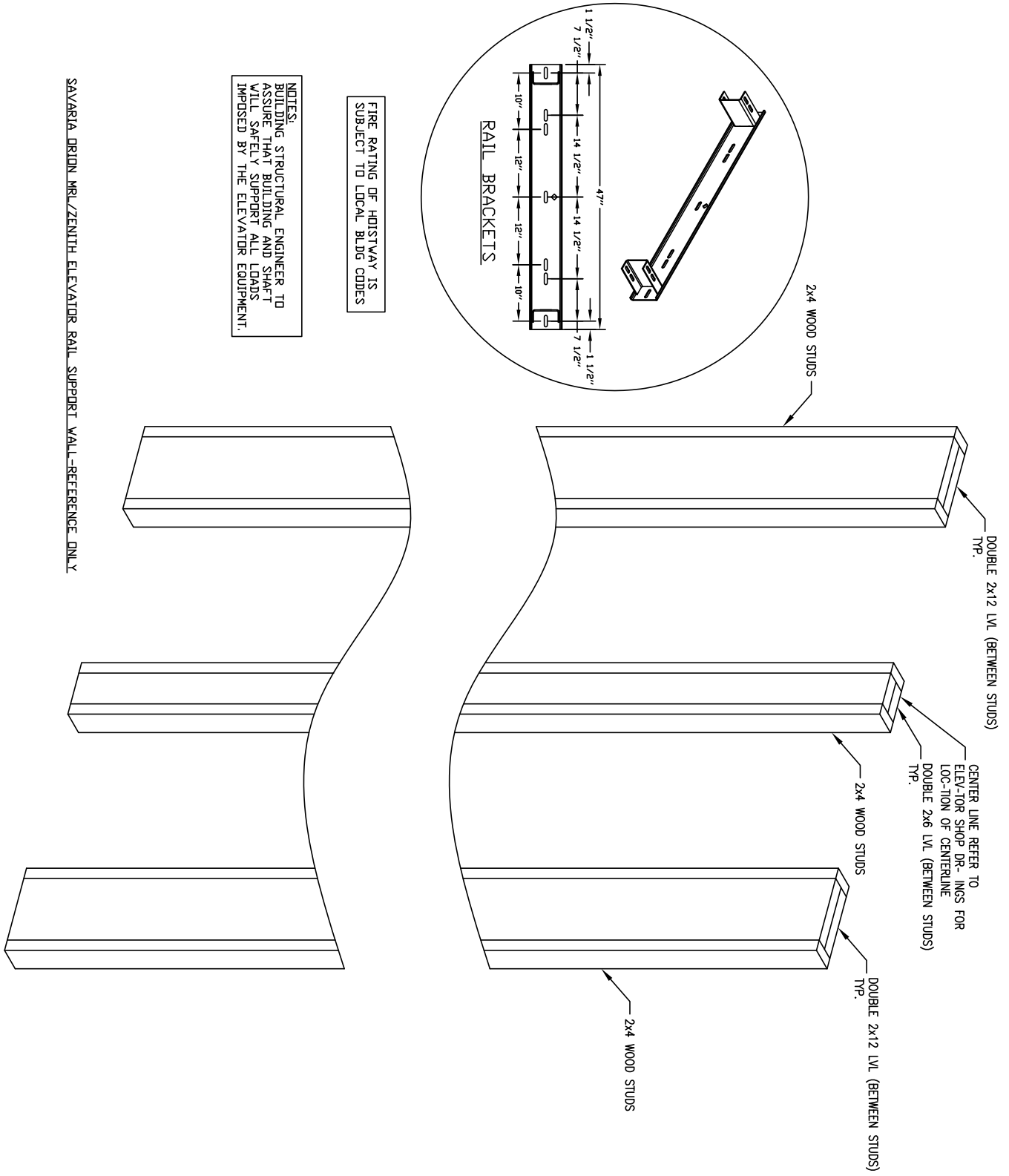


Figure 32: 42" x 54" Orion17 Cab

# Rail Support Wall Structure



NOTES:  
BUILDING STRUCTURAL ENGINEER TO  
ASSURE THAT BUILDING AND SHAFT  
WILL SAFELY SUPPORT ALL LOADS  
IMPOSED BY THE ELEVATOR EQUIPMENT.

FIRE RATING OF HOISTWAY IS  
SUBJECT TO LOCAL BLDG CODES

SAVARIA DRION MRL/ZENITH ELEVATOR RAIL SUPPORT WALL-REFERENCE ONLY

Figure 33: Rail Support









# Entrance Mounting Details (Without Controller) Sheet 1 - Two-Speed Doors with Masonry Construction

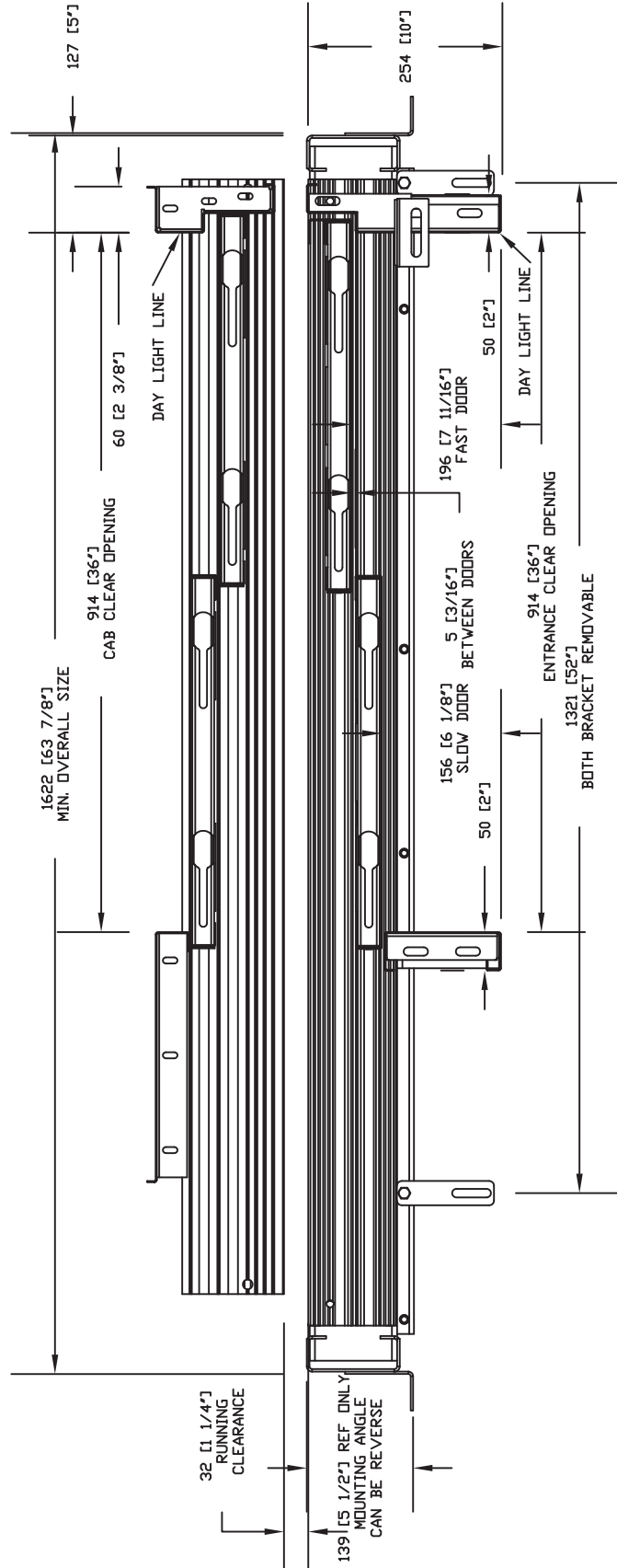

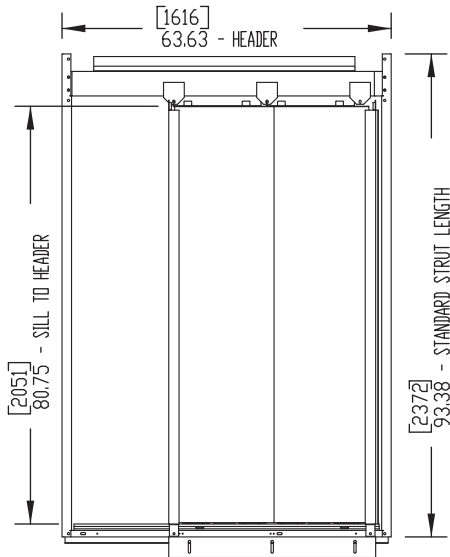
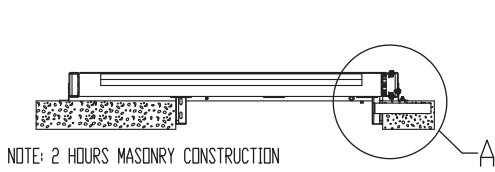


Figure 38: Masonry Construction - Two Speed Door (No Controller)

# Entrance Mounting Details (Without Controller) Sheet 2 - Two-Speed Doors with Masonry Construction

**NOTICE**  
 Entrance frame assembly is not designed to bear overhead loads. Contractor to provide adequate wall structure support  
 Grouting at the sill may be required after the door frames are set.



ENTRANCE LOADS ON BUILDING  
 RH = 5000 N (1125 lbf)  
 RVD = 1550 N (350 lbf)  
 RVU = 1000 N (225 lbf)  
 PER SECTION 2.11.11.8.

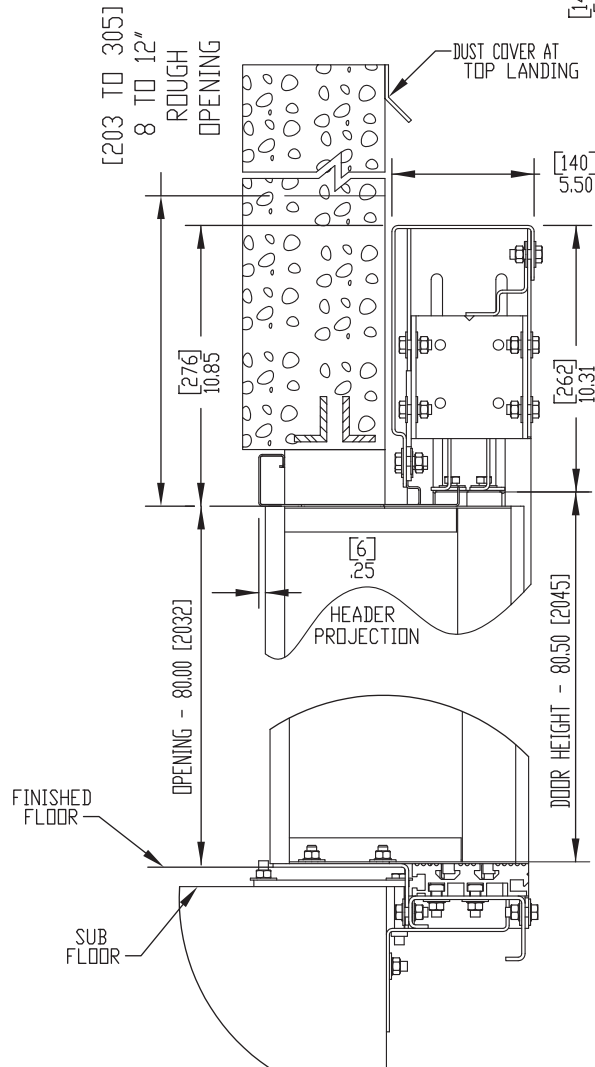
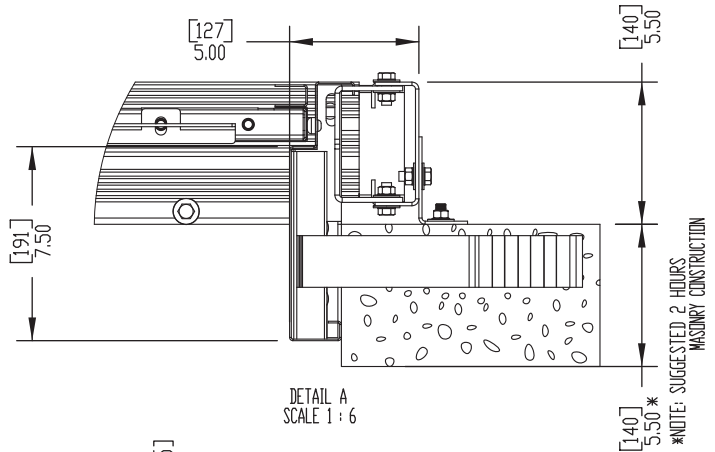
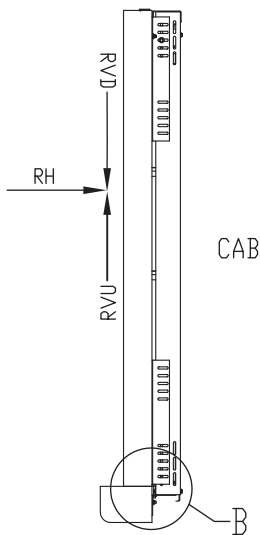


Figure 39: Masonry Construction - Two Speed Door (No Controller)

## Two-Speed Doors and Guide Rail Information



### NOTICE

See Hoistway requirements for the location of the door centerline.  
 Door Panels and frame are primed for painting.  
 For Metric equivalents: Inches x 25.4 = x mm

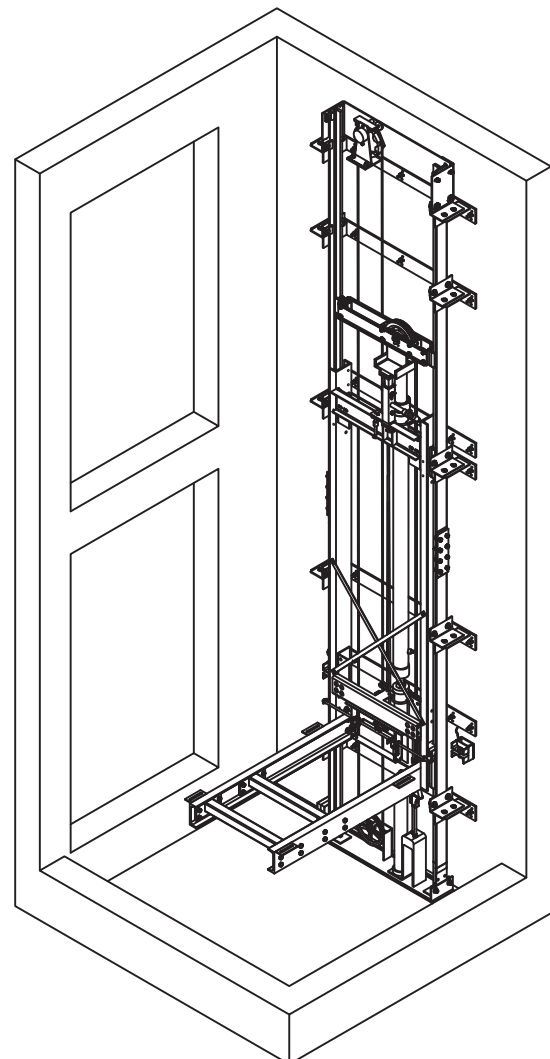
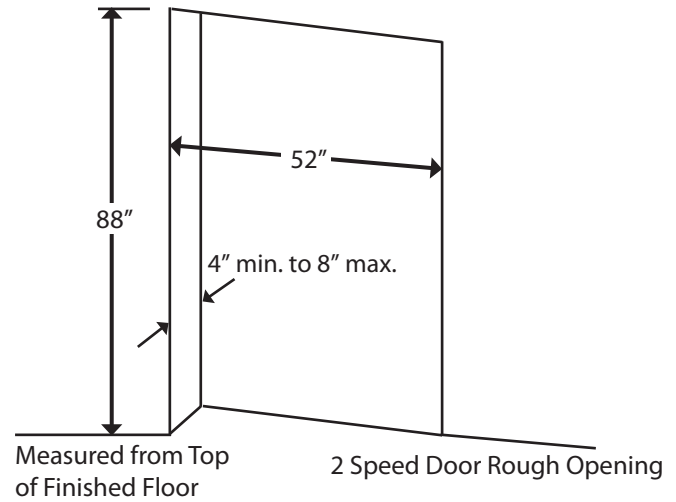
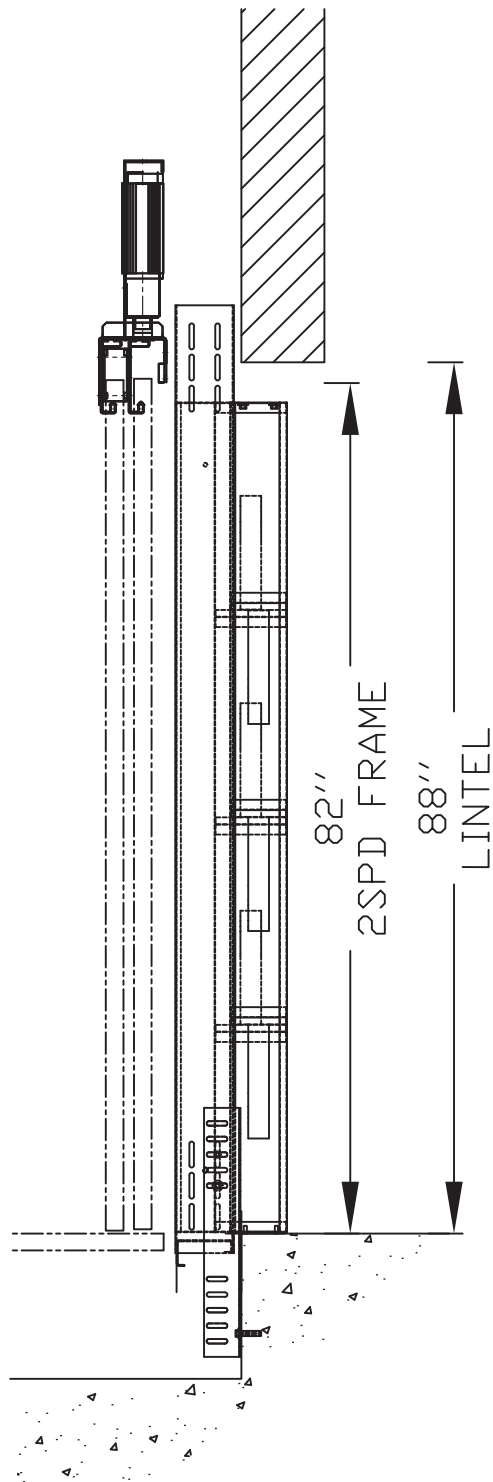


Figure 40: 42" x 54" Orion17 Cab

# Controller Cabinet Layout (if Door Buck Controller Cabinet at Landing)

**NOTICE**  
Applicable only when option "MRL on landing" is selected

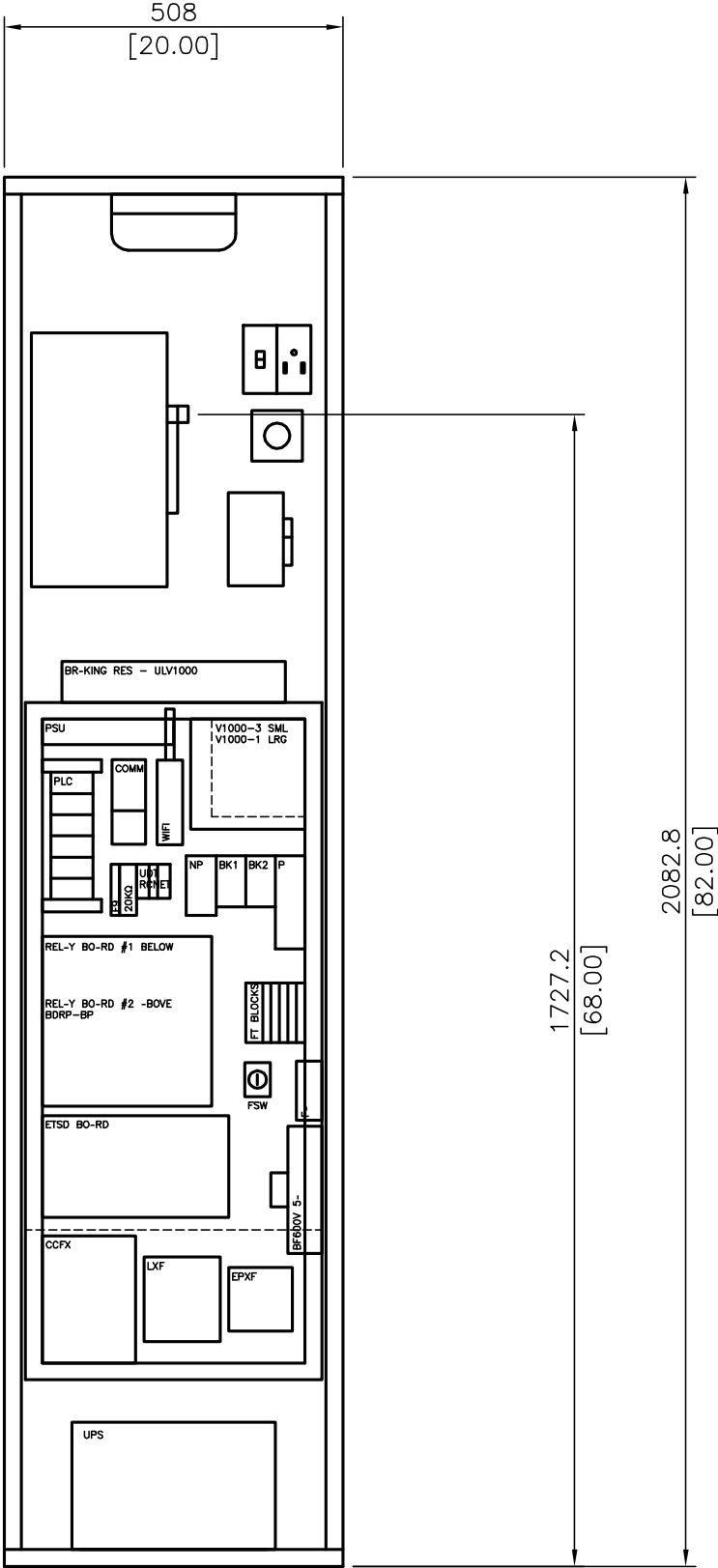


Figure 41: Controller Cabinet Measurements

# **Orion MRL**

## **Commercial Elevator**

### **PLANNING GUIDE**

Part No. 001133, Rev. 021  
27-m11-2025

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