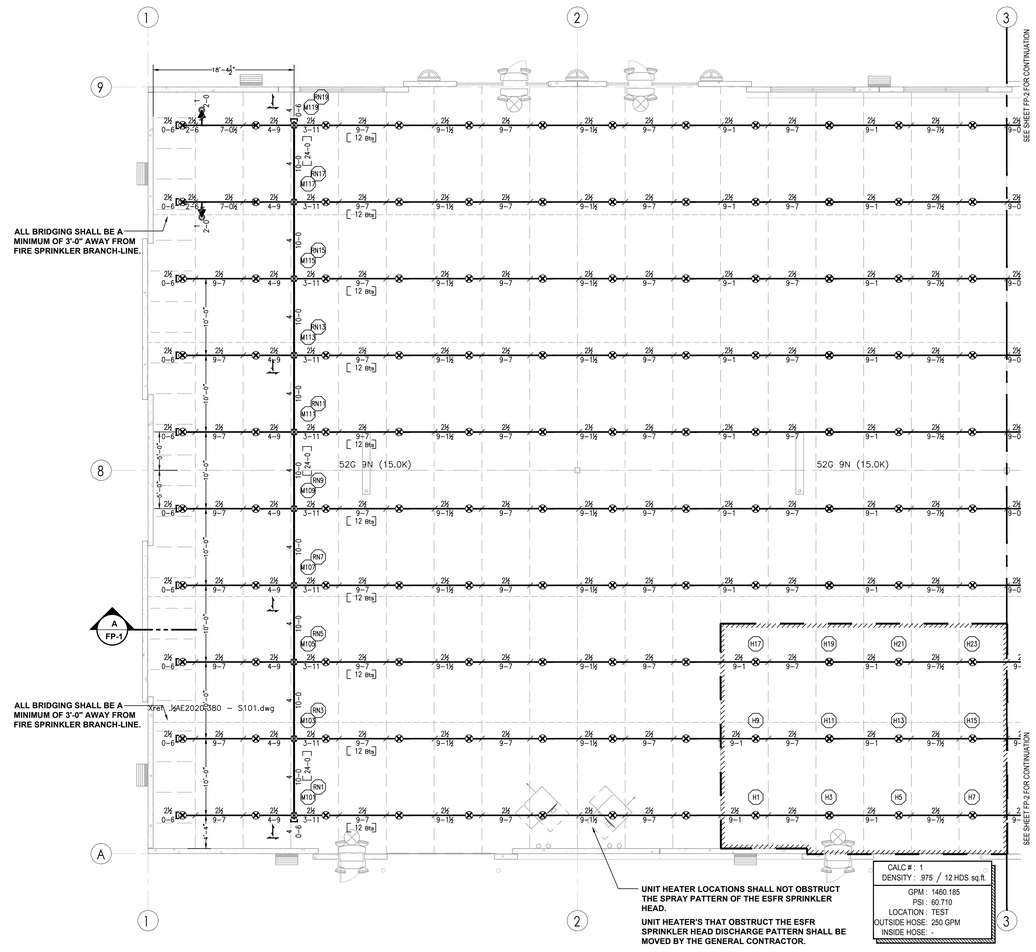
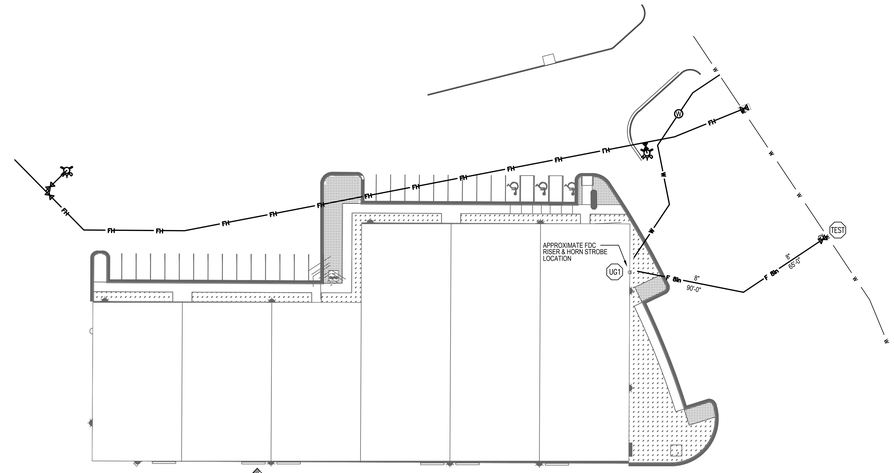


1 FP-1 FIRE PROTECTION PLAN - AREA 'A'

SCALE: 1/8"=1'-0"



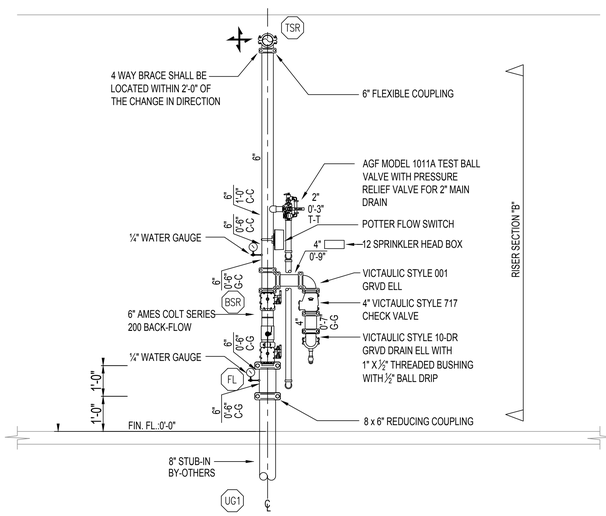
- SITE PLAN

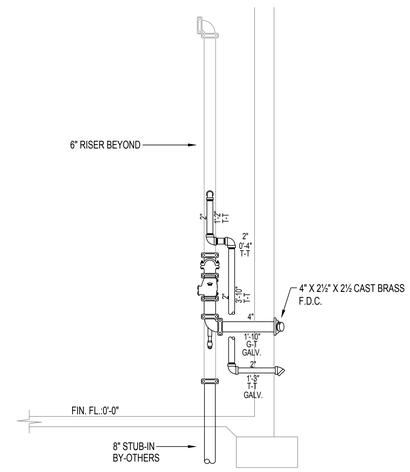
SCALE: N.T.S.
FOR HYDRAULIC REFERENCE ONLY
SEE SHEET C3 OF THE CONSTRUCTION DOCUMENTS FOR UTILITY PLAN

FLOW TEST DATA
STATIC: 80
RESIDUAL: 72
GPM: 1,300
DATE: 03-17-2020

FIRE DEPARTMENT CONNECTION SHALL BE WITHIN 100 FEET OF A FIRE HYDRANT.

WATER SUPPLY INFORMATION IS PROVIDED BY THE LEHI CITY FIRE DEPARTMENT. DATE OF TEST IS MORE THAN ONE YEAR OLD AND IS ACCEPTABLE BY THE AUTHORITY HAVING JURISDICTION.





DESIGN NOTES:

2 HAS BEEN DESIGNED FOR AN ESFR FIRE SPRINKLER SYSTEM PER NFPA 13, 2016 TABLE 16.2.3.1. MAX STORAGE HEIGHT SHALL NOT EXCEED 25'-0". MAX CEILING HEIGHT SHALL NOT EXCEED 30'-0". FIRE SPRINKLER SPACING SHALL NOT EXCEED 100 SQUARE FEET. STORAGE AREA SHALL NOT 40,000 SQUARE FEET.

CONSTRUCTION TYPE: III-B - NEW BUILDING SHELL
OCCUPANCY TYPE: B/S-1/S-2/F-1/F-2/M - OFFICE, WAREHOUSE, INDUSTRIAL, RETAIL
APPROXIMATE SQUARE FOOT: 41,700

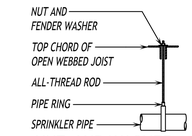
ADDITIONAL NOTES:

PIPE USED ON THIS PROJECT SHALL BE EITHER DOMESTIC OR IMPORT, EITHER BLACK STEEL, INCLUDING BUT NOT LIMITED TO, ASTM A53, A795 OR A135, INCLUDING SCHEDULE 40, SCHEDULE 10, DYNA-THREAD 40 DYNA-FLOW OR CPVC UL LISTED AND/OR FM APPROVED, AS ALLOWED BY NFPA 13, AT THE SUPPLIERS DISCRETION.

BUILDING CONSTRUCTION CONSIST OF BEAM, METAL JOIST AND GIRT CONSTRUCTION SUPPORTING METAL DECKING.

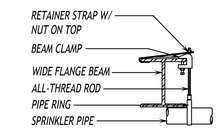
HAS NOT BEEN CONTRACTED TO PROVIDE THE FOLLOWING:

1. UNDERGROUND SUPPLY LINE FROM SUPPLY SOURCE TO FIRST FLANGE ABOVE FINISHED FLOOR.
2. FLUSHING AND TESTING OF WORK INSTALLED BY OTHERS.
3. ELECTRICAL WIRING OF ANY TYPE.
4. PAINTING AND/OR LABELING OF FIRE SPRINKLER PIPING.
5. FIREPROOFING OR CAULKING OF FIRE SPRINKLER PIPE.
6. FIRE EXTINGUISHERS OR CABINETS.
7. OVERTIME WORK BEYOND CERTIFIED FIRE PROTECTION'S NORMAL WORKING HOURS.
8. HOSE STATIONS OF ANY KIND.
9. IN-RACK FIRE PROTECTION OF ANY KIND.



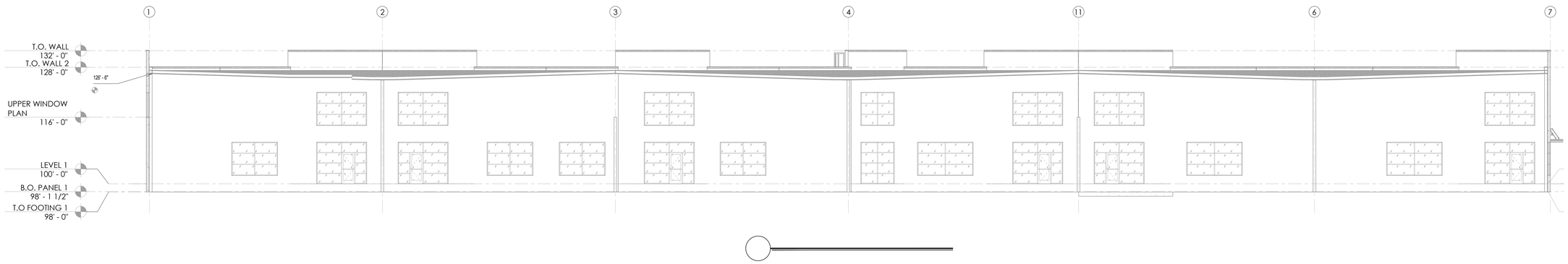
NUT AND WASHER HANGER DETAIL

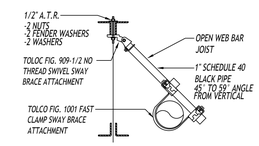
N.T.S.



TOP I-BEAM C- CLAMP HANGER DETAIL

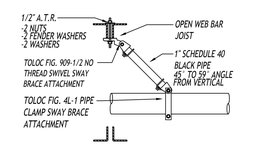
N.T.S.





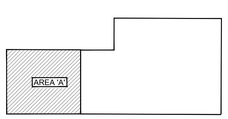
LATERAL BRACE

SCALE: N.T.S.
SYMBOL ON PLAN:

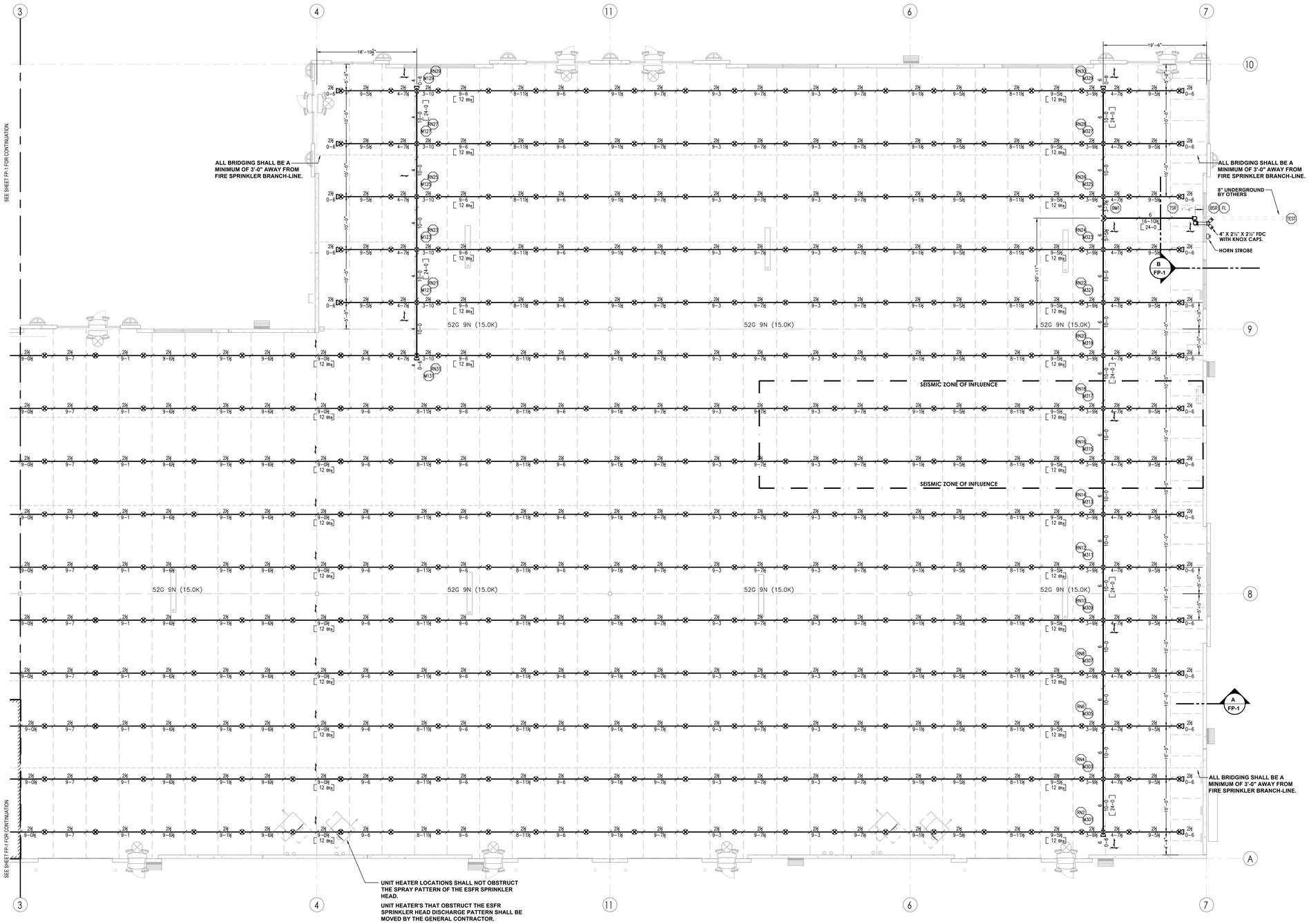


LONGITUDINAL BRACE

SCALE: N.T.S.
SYMBOL ON PLAN:

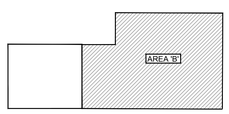


KEY PLAN



1 FIRE PROTECTION PLAN - AREA 'B'

FP-2 SCALE: 1/8"=1'-0"



KEY PLAN

Sway Bracing Calculations per 2016 NFPA 13

Project/Contractor information

Project:
Project Address:
Project City/St:
Contractor:
Contractor Address:
Contractor City/St:

Brace Pipe Information

Length of Brace:	4 ft 0 in
Diameter of Brace:	1 inch
Type of Brace:	Schedule 40
Angle of Brace:	45° to 59°
Least Radius of Gyration:	0.421
L/R Value:	200
Maximum Horizontal Load:	1,744

Fastener Information

☒ NFPA 13 Fastener ☐ Listed Adapter

Structural Supporting Member:	Open Web Bar Joist
Orientation of connecting surface:	B
Fastener Type:	A.T.R. / Nut / Washer
Fastener Diameter:	2"
Fastener Length (under head):	1'-0" - Field Order
Maximum Load:	1,350 lb

Seismic Brace Attachments

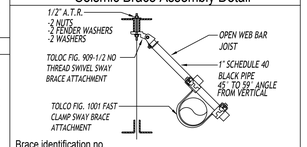
Structure Attachment Adapter:
TOLCO Figure 909 - No Thread Swivel Sway Brace Attachment
Listed load rating: 1,370 lb. Listed load rating: 968 lb

Structure Attachment Fitting:
TOLCO N/A
Listed load rating: N/A Adj.load rating per 9.3.5.2.3: N/A

Brace Pipe Adapter:
TOLCO Figure 1001Fast Clamp - Sway Brace Attachment
Listed load rating: 2,000 lb. Adj.load rating per 9.3.5.2.3: 1,414 lb

Sway Brace Fitting:
TOLCO N/A
Listed load rating: N/A Adj.load rating per 9.3.5.2.3: N/A

Seismic Brace Assembly Detail



Brace identification no. (to be used on plan)

☒ Lateral Brace ☐ Longitudinal Brace ☐ 4-Way Brace

Sprinkler System Load Calculation [Fpw = CpWp(default is 0.5 Cp)] Ss .95 Cp0.5

	Diameter	Type	Length (ft)	Total (ft)	Weight per ft	Cp	Total Weight
☒	6 in	Schedule 10	40 FT	20 FT	23.03 lb/ft	0.5	460.06
☒	2½ in	Schedule 10	168 FT	168 FT	5.89 lb/ft	0.5	989.52
☐							
☐							
☐							
☐							
☐					Total Weight x .05	1,449.58 x 0.5 =	
					Total Weight		724.79
Brace Connection					Fpw x 1.15		833.50

6" Lateral Brace - 40'-0" MAX SPACING

Sway Bracing Calculations per 2016 NFPA 13

Project/Contractor information

Project:
Project Address:
Project City/St:
Contractor:
Contractor Address:
Contractor City/St:

Brace Pipe Information

Length of Brace:	4 ft 0 in
Diameter of Brace:	1 inch
Type of Brace:	Schedule 40
Angle of Brace:	45° to 59°
Least Radius of Gyration:	0.421
L/R Value:	200
Maximum Horizontal Load:	1,744

Fastener Information

☒ NFPA 13 Fastener ☐ Listed Adapter

Structural Supporting Member:	Open Web Bar Joist
Orientation of connecting surface:	B
Fastener Type:	A.T.R. / Nut / Washer
Fastener Diameter:	2"
Fastener Length (under head):	1'-0" - Field Order
Maximum Load:	1,350 lb

Seismic Brace Attachments

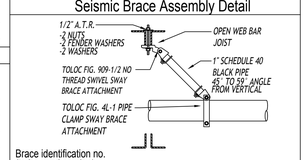
Structure Attachment Adapter:
TOLCO Figure 909 - No Thread Swivel Sway Brace Attachment
Listed load rating: 1,370 lb. Listed load rating: 968 lb

Structure Attachment Fitting:
TOLCO N/A
Listed load rating: N/A Adj.load rating per 9.3.5.2.3: N/A

Brace Pipe Adapter:
TOLCO Figure 4L-1 - Pipe Clamp - Sway Brace Attachment
Listed load rating: 1,000 lb. Adj.load rating per 9.3.5.2.3: 707 lb

Sway Brace Fitting:
TOLCO N/A
Listed load rating: N/A Adj.load rating per 9.3.5.2.3: N/A

Seismic Brace Assembly Detail



Brace identification no. (to be used on plan)

☐ Lateral Brace ☒ Longitudinal Brace ☐ 4-Way Brace

Sprinkler System Load Calculation [Fpw = CpWp(default is 0.5 Cp)] Ss .95 Cp0.5

	Diameter	Type	Length (ft)	Total (ft)	Weight per ft	Cp	Total Weight
☒	6 in	Schedule 10	40 FT	40 FT	23.03 lb/ft	0.5	921.2
☐							
☐							
☐							
☐							
☐							
☐					Total Weight x .05	921.02 x 0.5 =	
					Total Weight		460.51
Brace Connection					Fpw x 1.15		529.58

6" Longitudinal Brace 40'-0" MAX SPACING