

SECTION DETAIL "A"
 SCALE: N.T.S.

PROJECT DESCRIPTION

BUILDING CONST: THE BUILDING IS CONSTRUCTED OF TYPE I MEMBRANE COATED NON-COMBUSTIBLE CONSTRUCTION THROUGHOUT. THE BUILDING IS CONSTRUCTED OF STEEL JOISTS AND I-BEAMS WITH A STEEL ROOF DECK. THE ROOF STRUCTURE IS FINISHED WITH AN EPDM RUBBER MEMBRANE.

BUILDING OCCUP: THE BUILDING IS AN AIRCRAFT HANGAR FOR NORTHEAST AIR LOCATED AT THE PORTLAND JETPORT.

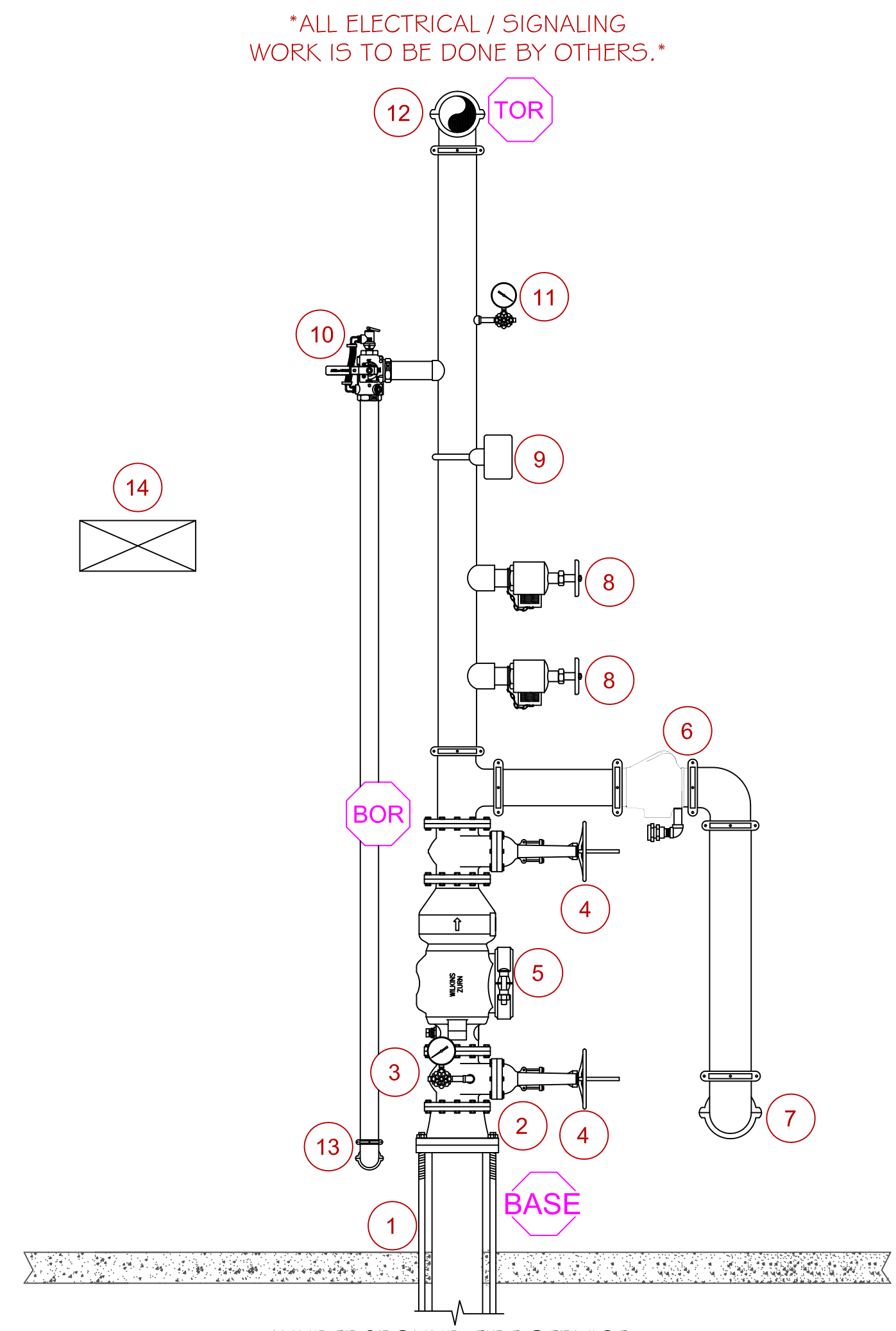
SPRINKLER DESIGN: THE BUILDING CONTAINS A WET PIPE SYSTEM USED TO PROTECT THE ENTIRE STRUCTURE. THE HANGAR IS CLASSIFIED AS A GROUP IV HANGAR PER NFPA 409 (2016 EDITION) MEMBRANE COVERED RIGID STEEL FRAME STRUCTURE. THE SPRINKLER SYSTEM HAS BEEN DESIGNED IN ACCORDANCE WITH NFPA 13 PER NFPA 409 - 9.14.3. THE HANGAR HAS A FIRE AREA LESS THAN 12,000 SQUARE FEET. THE SPRINKLER SYSTEM HAS BEEN DESIGNED USING AN EXTRA HAZARD GROUP I CLASSIFICATION THROUGHOUT PER NFPA 13 - 5.4.1.

A 2,000 SQUARE FOOT HYDRAULIC DESIGN AREA HAS BEEN USED DUE TO THE INSTALLATION OF HIGH TEMPERATURE (286°) UPRIGHT HEADS PER NFPA 13 - 11.2.3.2.6, WHICH ALLOWS FOR A 25% DESIGN AREA REDUCTION BUT NEVER LESS THAN 2,000 SQUARE FEET.

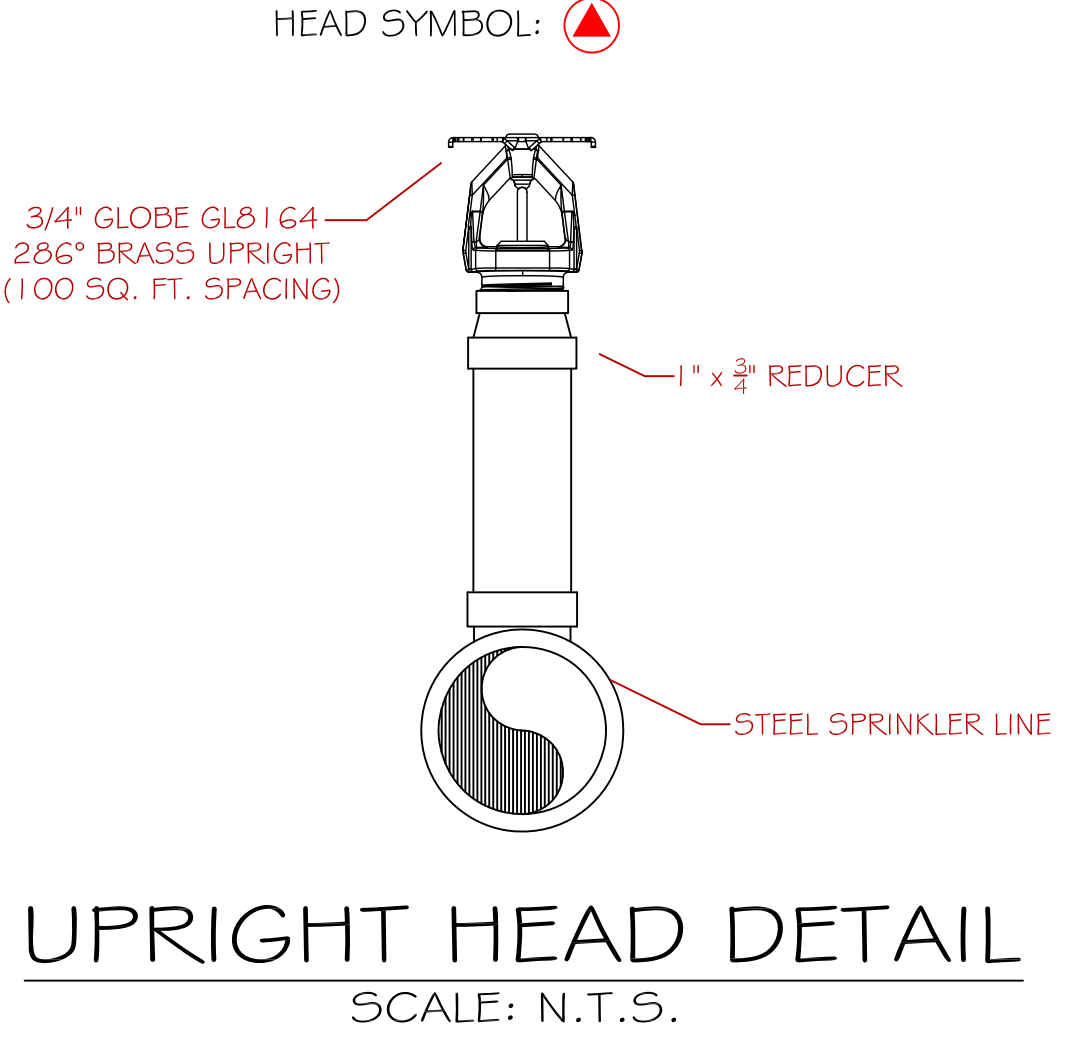
THE SPRINKLER SYSTEM HAS BEEN DESIGNED TO MEET ALL APPLICABLE CODES AND STANDARDS REGARDING AN NFPA 13 2016 ed. SYSTEM.

SYSTEM RISER DETAIL LEGEND

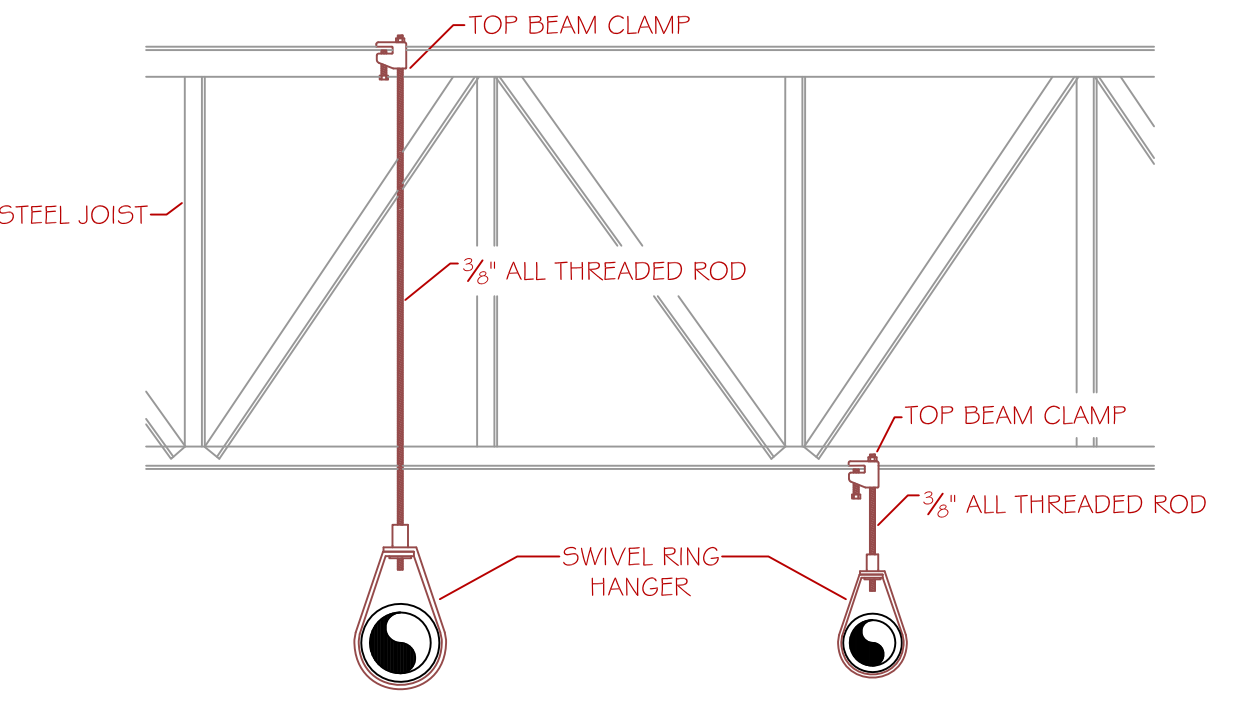
1 8" FIRE SERVICE (BY OTHERS)	8 HOSE VALVE FOR BACKFLOW FLOW TEST
2 8" x 4" FLANGED REDUCER	9 4" VANE FLOW SWITCH
3 WATER PRESSURE GAUGE (SUPPLY)	10 2" TEST N DRAIN W/ RELIEF VALVE
4 4" GATE VALVE W/ TAMPER SWITCH	11 WATER PRESSURE GAUGE (SYSTEM)
5 4" WILKINS 350 AST BACKFLOW PREVENTER	12 4" FEED TO SYSTEM
6 4" CHECK VALVE W/ BALL DRIP (F.D.C.)	13 2" MAIN DRAIN TO EXTERIOR
7 4" FEED TO FIRE DEPT. CONNECTION	14 SPARE SPRINKLER HEAD BOX



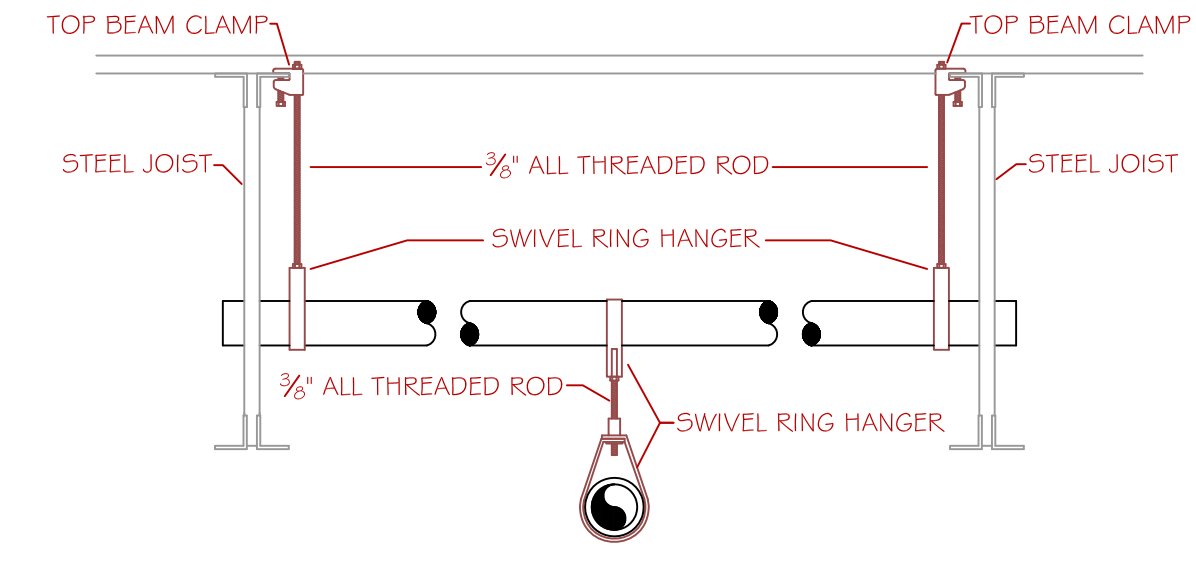
SYSTEM RISER DETAIL
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UPRIGHT HEAD DETAIL
 SCALE: N.T.S.



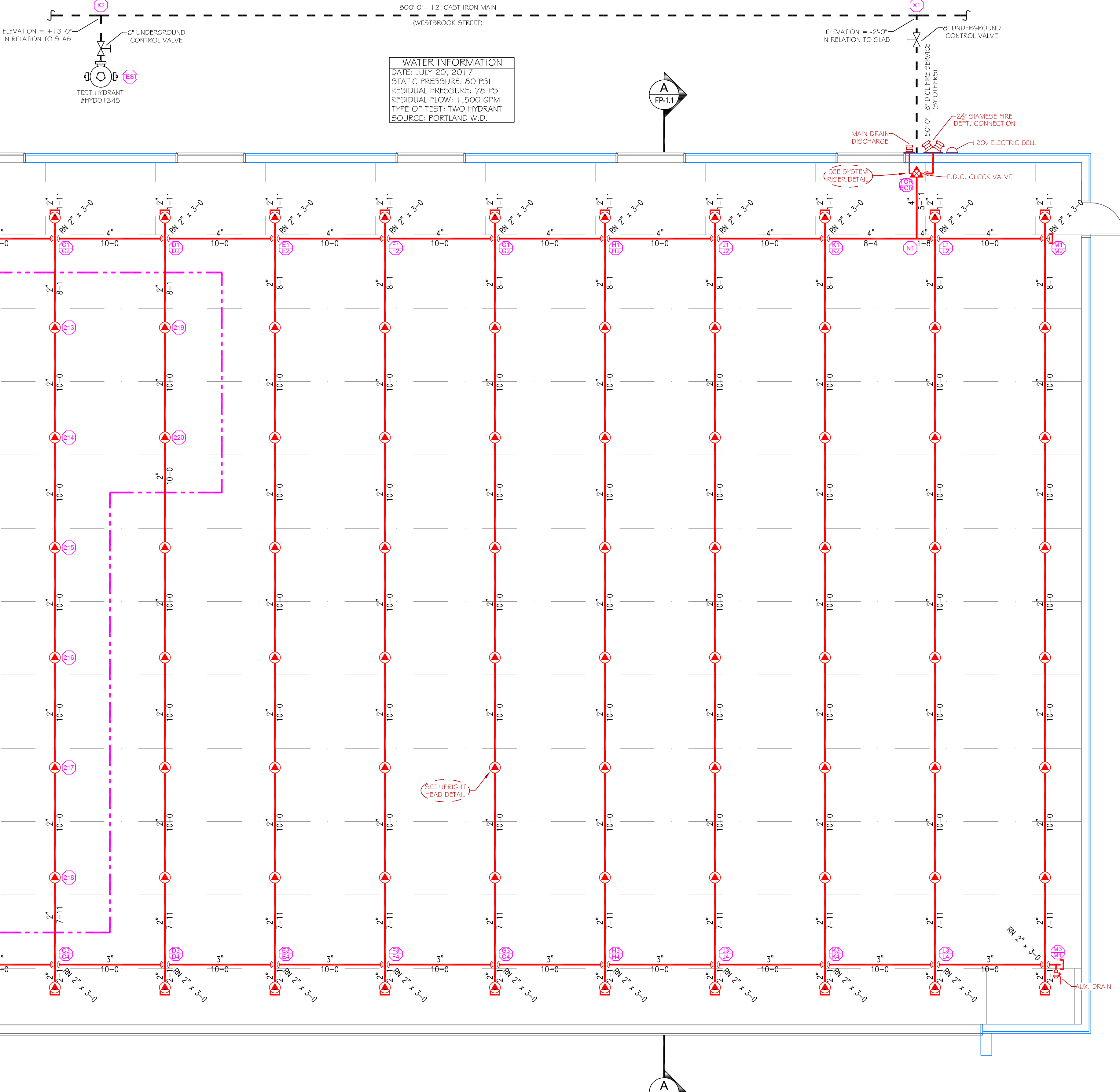
RING HANGER DETAIL
 SCALE: N.T.S.



TRAPEZE HANGER DETAIL
 SCALE: N.T.S.

HYD. DESIGN CRITERIA
 (NFPA 13 2016 ed. - WET)

LOCATION: HANGAR
 HAZARD CLASSIFICATION: EXTRA GROUP I
 DENSITY: 0.3 GPM/SQ. FT.
 AREA OF OPERATION: 2,000 SQ. FT.
 HOSE DEMAND: 800 GPM
 NO. OF SPRINKLERS: 20
 SYSTEM DEMAND (INCLUDING HOSE) @
 BASE OF RISER: 1,111 GPM @ 51 PSI
 SAFETY MARGIN: 28 PSI



MAIN FLOOR PLAN
 SCALE: 3/16" = 1'-0"
 PROTECTED AREA: 9,270 SQ. FT.

