

# BUSD Ramona Middle School Gymnasium Project AV Project

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## Scope:

Provide all part necessary for the completion of an AV System for the new Middle School Gymnasium per the attached parts lists and drawings. System design is based on Reinkus Heinz speakers and subs, Extron AV Scaler and Touch Panel Interface, Draper Scissor Lifts, Bi-Amp audio processing and QSC amplifiers.

1. All pathways and power have been previously installed by the General Contractor.
2. Contractor shall hold a valid C-7 license in the State of California. Proof of license shall be submitted with the bid.
3. Contractor shall provide and comply with all DIR requirements.
4. AV Contractor to provide all materials required for a complete and operable AV system meeting the intent of design and parts list provided by the Owner. Change orders for completing a functional system will not be allowed.
5. Not every component of the system has been listed. Any problems with the equipment listed shall be brought to the District prior to bidding.
6. A full parts list confirming a complete and operable system shall be submitted with the bid. Any equipment that is a substitution to the specified parts list must be approved by the Owner prior to the bid submission or the bid will be deemed non-responsive.
7. Equipment shall be consistent with the parts list provided to maintain a consistency in operation and service with the other District sites.
8. AV Contractor shall have a minimum of 5 years of experience installing systems similar in scope, application and equipment. Proof of experience to be provided with the bid.
9. AV contractor to provide all mounting hardware and installation for speakers, screens and lifts as described in the documents. Ceiling mounted equipment must be mounted using the included detail and anchors, already approved by the project Structural Engineer. No exceptions.
10. Cabling shall be of the proper size for the installation, according to industry best practices. Cable types shall be appropriate for the installation (pathway includes underground conduit runs).
11. Disorganized cable installations will not be allowed. All cabling must be labeled within 12" of the cable termination with Brady type label.
12. Cabling is to be concealed in all locations to the extent possible.
13. AV Contractor to provide any needed lifts and all other equipment required to complete the installation.
14. Assistive Listening System shall supplied and incorporated into the AV system. Wireless performance shall be tested post installation for functionality. Additional antennae shall be supplied by the contractor as needed for complete coverage.

15. Control panel programming and interface shall be reviewed for needs and function with the District prior to programming.
16. AV Contractor shall coordinate the installation schedule with the District and must coordinate installation with the General Contractor for site availability etc. Site will still be in construction during the AV installation. Installation of the system is currently expected to be this July.
17. AV contractor to provide testing for sound after installation. Testing shall include a full report of system performance showing balanced sound across the gymnasium. After contractor has completed testing, the Owner and Owners AV consultant shall also walk to test audio and video for satisfaction. Final parts and configuration shall be reviewed for completeness. Additional adjustments to the system shall be the responsibility of the Contractor. If
18. AV Contractor shall provide for 2 training session of a minimum 1 hour each for the instruction of the site and District personnel.
19. A 10 meter cat6 patch cord shall be provided for each projector lift location. Projector shall be patched into the District network. AV contractor to coordinate needs.
20. Manufacturer Warranties on all equipment shall be provided to the District at time of completion. AV Contractor shall also provide 2 years of workmanship/ installation warranty, during which time the AV contractor will provide corrections, adjustments and support at the request of the District. Repairs caused by District misuse or District abuse of the system shall be the responsibility of the District.
- 21.

## Ramona Middle School AV System Parts List

### Equipment to be Provided in the Rack

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Apple TV (64GB) - HDMI Input to system (District to provide the Apple TV)  
Chromecast - HDMI and Wireless  
Bluray Player- HDMI  
TV tuner - Co-Ax cable  
IR cable/ blaster to control box.  
District provided/installed 8 port data switch.  
Chauvet Light Controller - District provided and installed

### Gym Input Locations Requirement (4 separate locations).

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XLR (2) inputs - for hard line mics.

3.5mm audio input  
HDMI (2)  
Extron based components and AAP's.  
VGA (1)

### Projection

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Center mounted, back to back projection screens, 200" diagonal in size and 16:10. Controlled by the AV system. Manufacturer - Draper. Power by District.

Projectors to be Panasonic 1080P, 8500 lumens. Lense to be appropriate for throw distance and displaying fullscreen presentations.  
Each Projector to be mounted on a Draper scissor lift that will make the projector accesible from a 6' ladder. Model SLX21. Include optional celing enclosure.

Both screens to display the same video content only. Can utilize one projector/ screen at a time.

### Cables Required

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(2) - 12' HDMI cables  
(2) Thunderbolt to HDMI connector  
(2) Lightning to HDMI connector  
(2) Display port to HDMI connector  
(2) Mini display port to HDMI connector  
(2) - 12' 3.5mm cables.  
(2) 12' VGA patch cables

## Ramona Middle School AV System Parts List

### Assitive Listening System

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FM Transmitter and rack kit - LT800  
(58) - Listen LR400 FM Receivers with ear speakers and rechargeable batteries.  
External antenna system appropriate for the gym size  
Listen Technologies Battery Charger/ Carry case. (1)- 16 count charging case.

### AV Rack

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Full sized 6' rack. Lockable, rolling and enclosed with removeable sides.  
Requires power strips to provide for District equipment.  
Power sequencer.  
AV Scaler/ Switcher - Extron IN1608.  
Touch Panel interface - Extron TLP Pro. (1) rack Mounted and (1) mounted in the gym. Provide custom protective cover for touchpanel.  
All video switching required for quantity of inputs (include District inputs in rack). Based on Extron solution.  
Audio processing and control by Bi-Amp. Provide neccessary equipment for the system.  
Amplifiers by QSC. Amplifiers shall be QSC CX902.

### Speakers

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Speakers shall shall be Reinkus-Heinz, TRX 151 series speakers. Provide 12 total speakers. Exact locations to be coordinated in the field. Contractor may alter locations slightly to accommodate proper design, but must provide a narrative as to why the variance was made. Aesthetics will also be reviewed as part of the installation requirement.

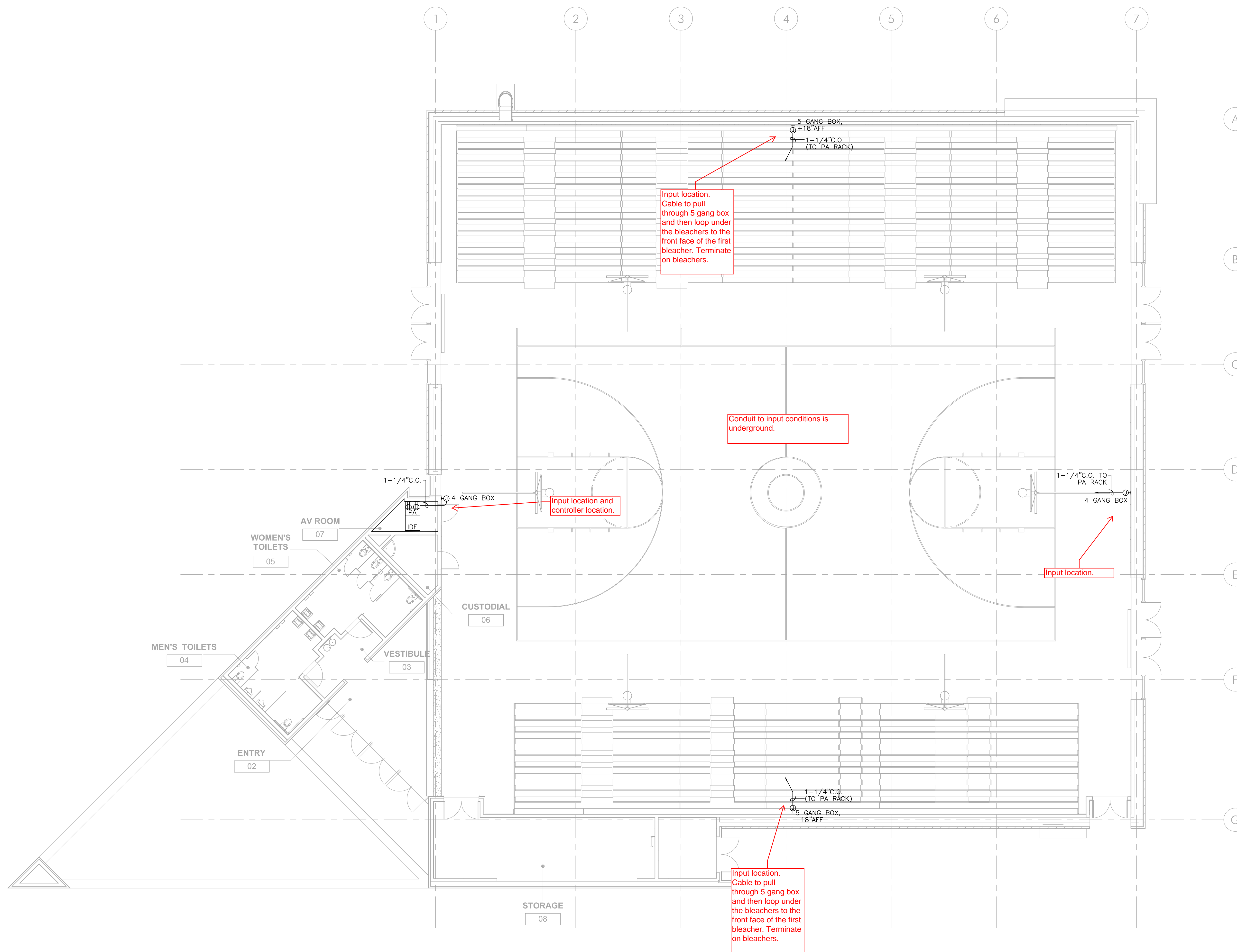
Subwoofers shall also be Reinkus Heinz. 2 powered subs are requested for the project. Power and quality to be an appropriate match for the space and speakers. Exact locations shall be coordinated in the field.  
Contractor shall provide all mounting and rigging required for a complete installation. Installation shall be concealed and be professional in appearance. District has the right to require re-working of messy cable installations.

All infrastructure (conduit and power) is part of an existing construction contract and is to be assumed already installed.

### Microphones

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(2) Wireless mics. Shure SM58.  
(2) Wireless lapel mics SLX 14/84  
(2) Shure wired mics. SM58.  
Shure antennae distribution amplifier with antennae  
(2) - 25' mic cables.  
(2) - 50' mic cables.  
(2) - mic stands

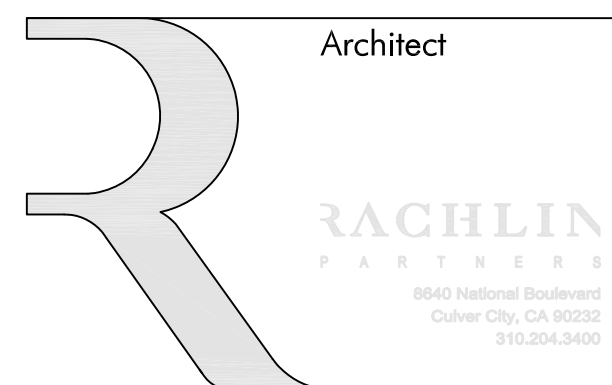


1 ELECTRICAL LOW VOLTAGE PLAN

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



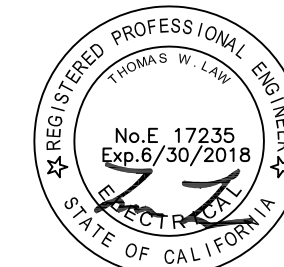
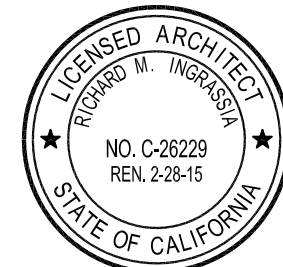
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Consultants  
 Civil: FPL and Associates  
 Structural: R.M. Byrd Associates  
 Mechanical: IDS Consulting  
 Plumbing: IDS Consulting

Fire Sprinklers: IDS Consulting  
 Electrical: MDC Engineers  
 Fire Life Safety: MDC Engineers  
 Landscape: LA Design Associates

Architect / Engineer Stamp



DSA Stamp

IDENTIFICATION STAMP  
 DIV OF THE STATE ARCHITECT  
 APPL. NO. 03-115592  
 AC \_\_\_\_\_ FS \_\_\_\_\_ SS \_\_\_\_\_  
 DATE \_\_\_\_\_

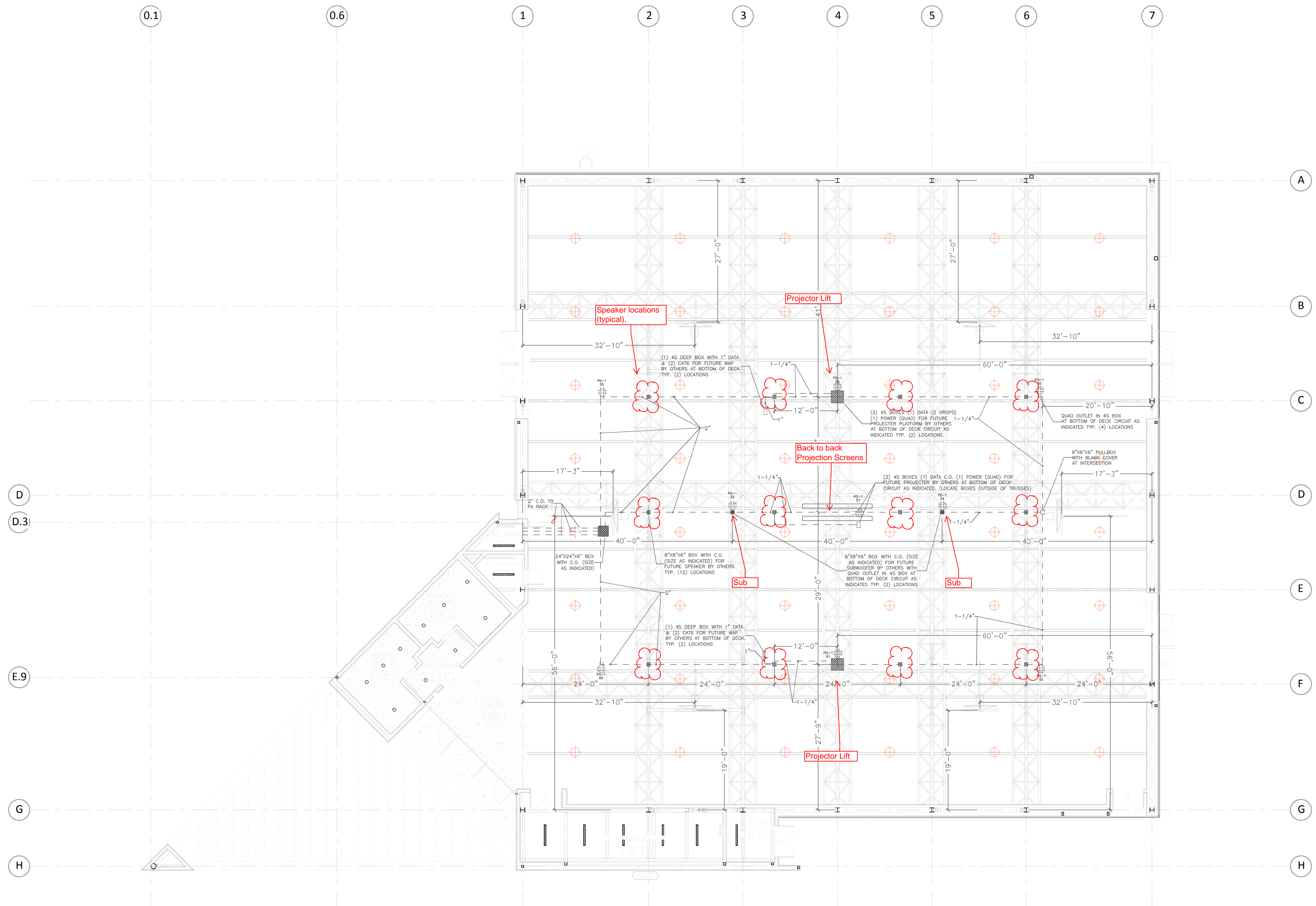
**New Gymnasium Building**  
 Ramona Middle School  
 La Verne, California 91750

Rev	Date	Issue	Rev	Date	Issue
1	6.26.13	Schematic Design	7	02.17.15	DSA Back Check
2	7.30.13	Schematic Design	8	03.23.16	RFP #4
3	8.28.13	Design Development	9	09.8.16	RFP #129
4	11.22.13	30% Constr. Docs.	10	09.8.16	RFP #18
5	01.31.14	100% DSA SUBMITTAL			
6	10.17.14	100% DSA RE-SUBMITTAL			

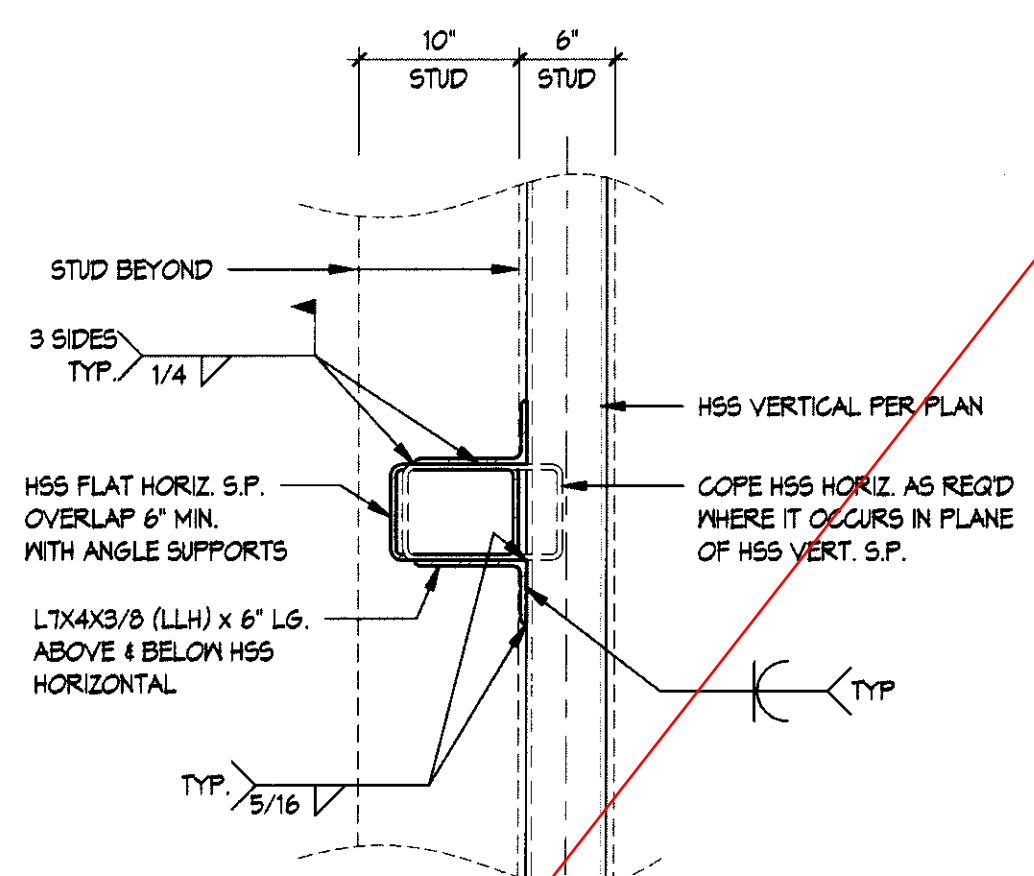
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 Drawn By: RS  
 Checked By: TL

ELECTRICAL  
 LOW VOLTAGE PLAN  
**E101LV**

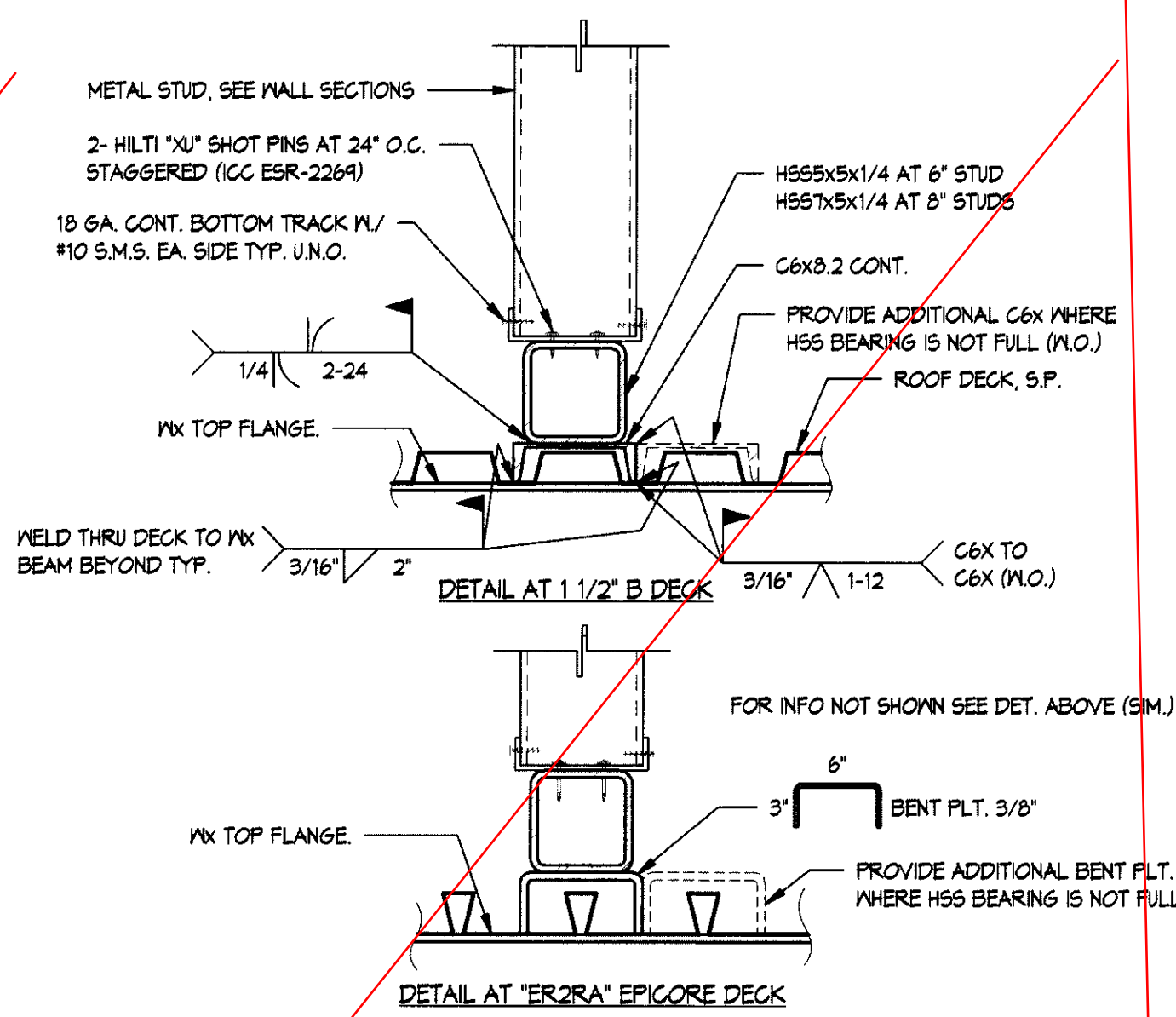




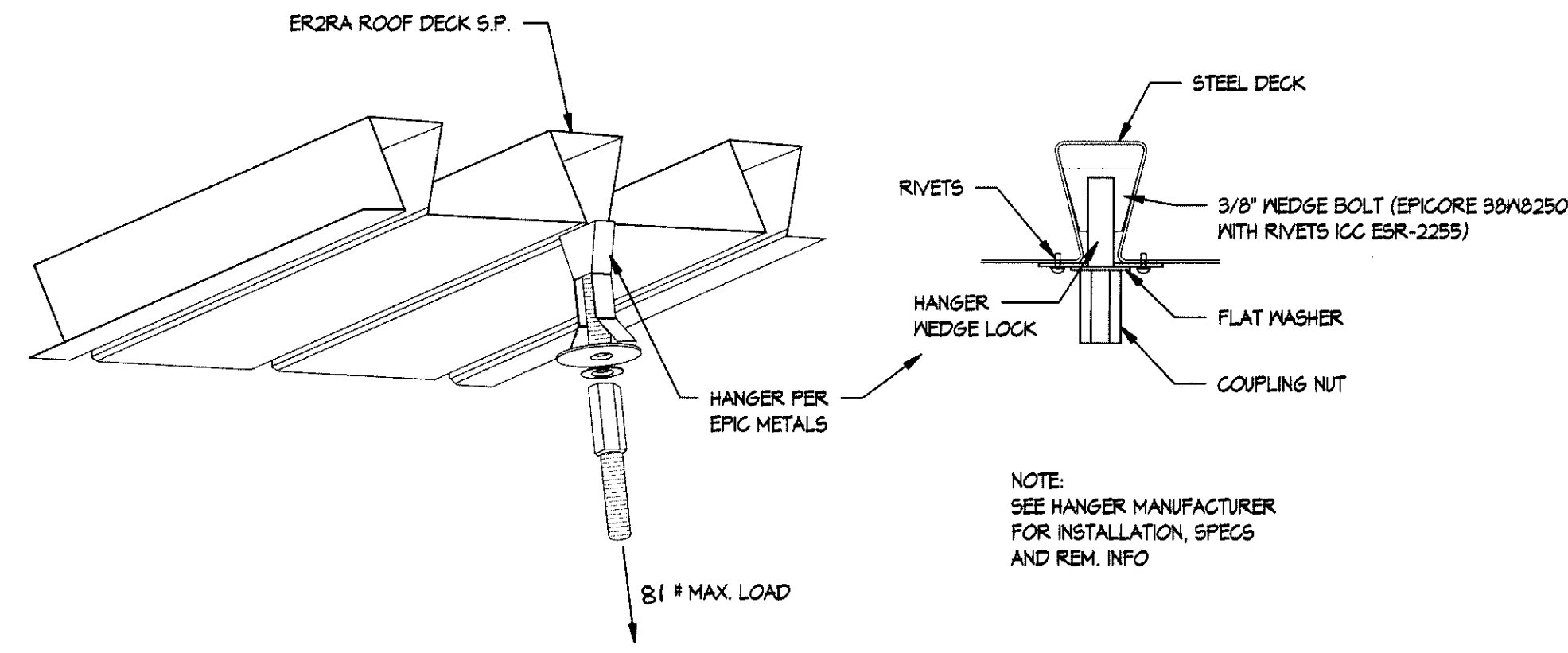




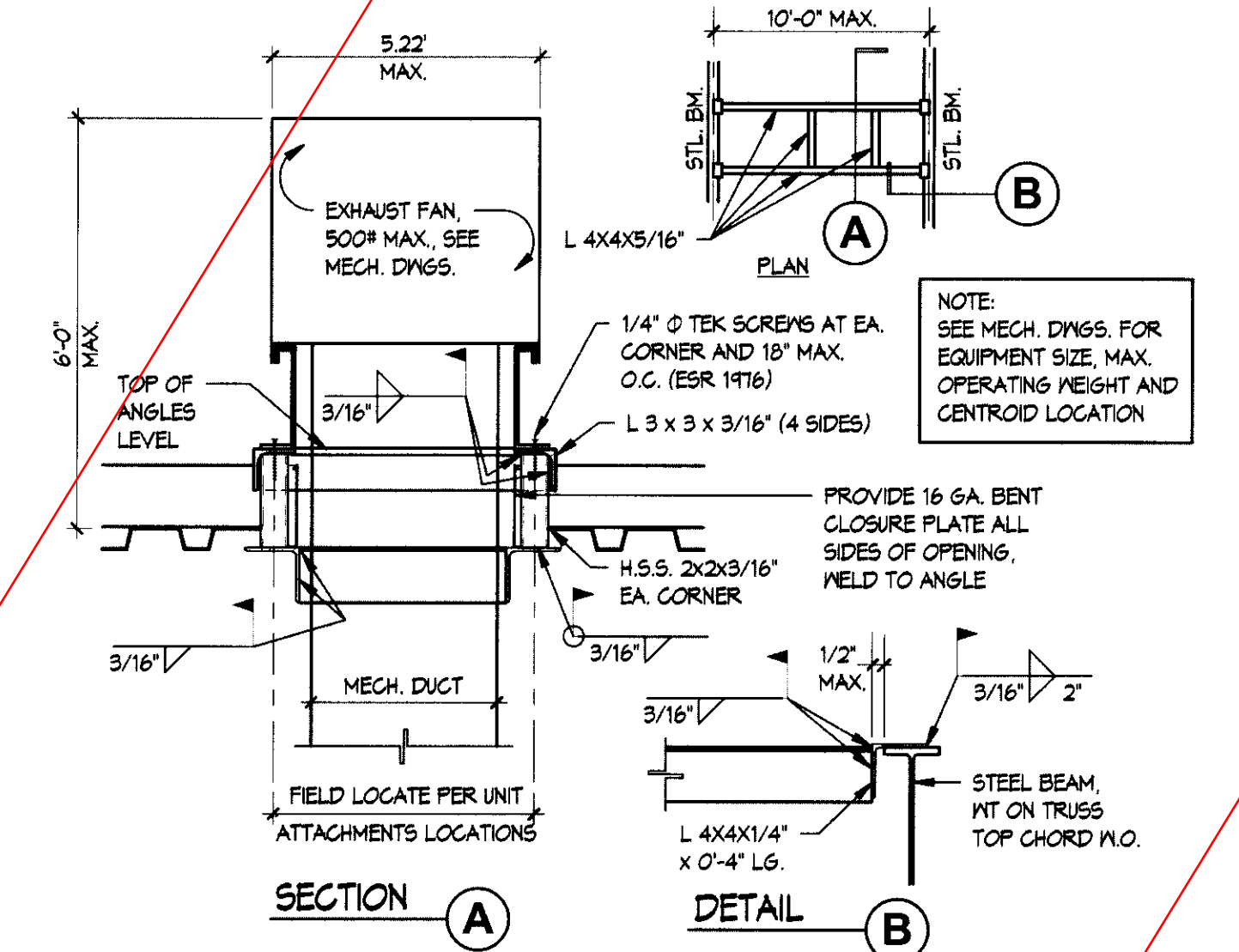
TYP. HSS FLAT HORIZONTAL TO HSS VERTICAL CONNECTION 13  
1" = 1'-0"



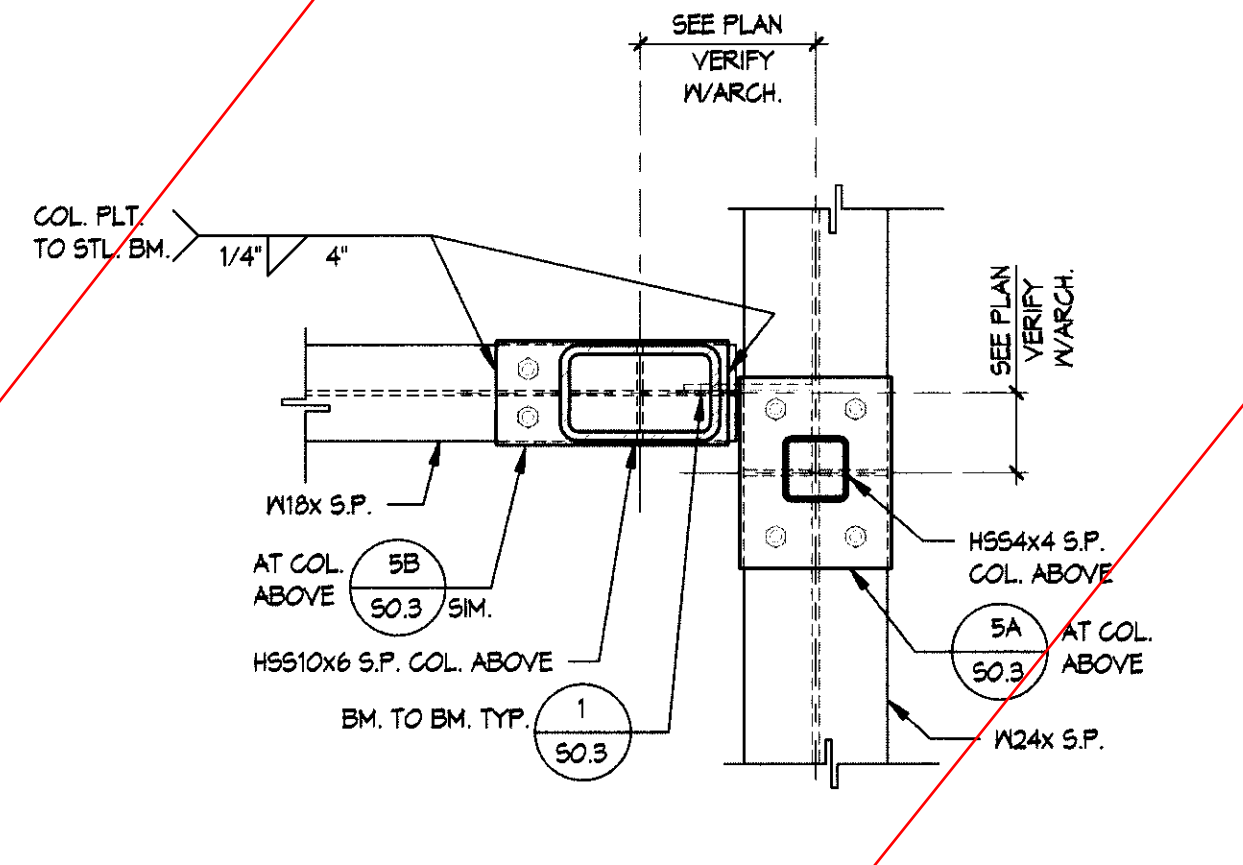
TYP METAL STUD OVER METAL DECK 9  
1 1/2" = 1'-0"



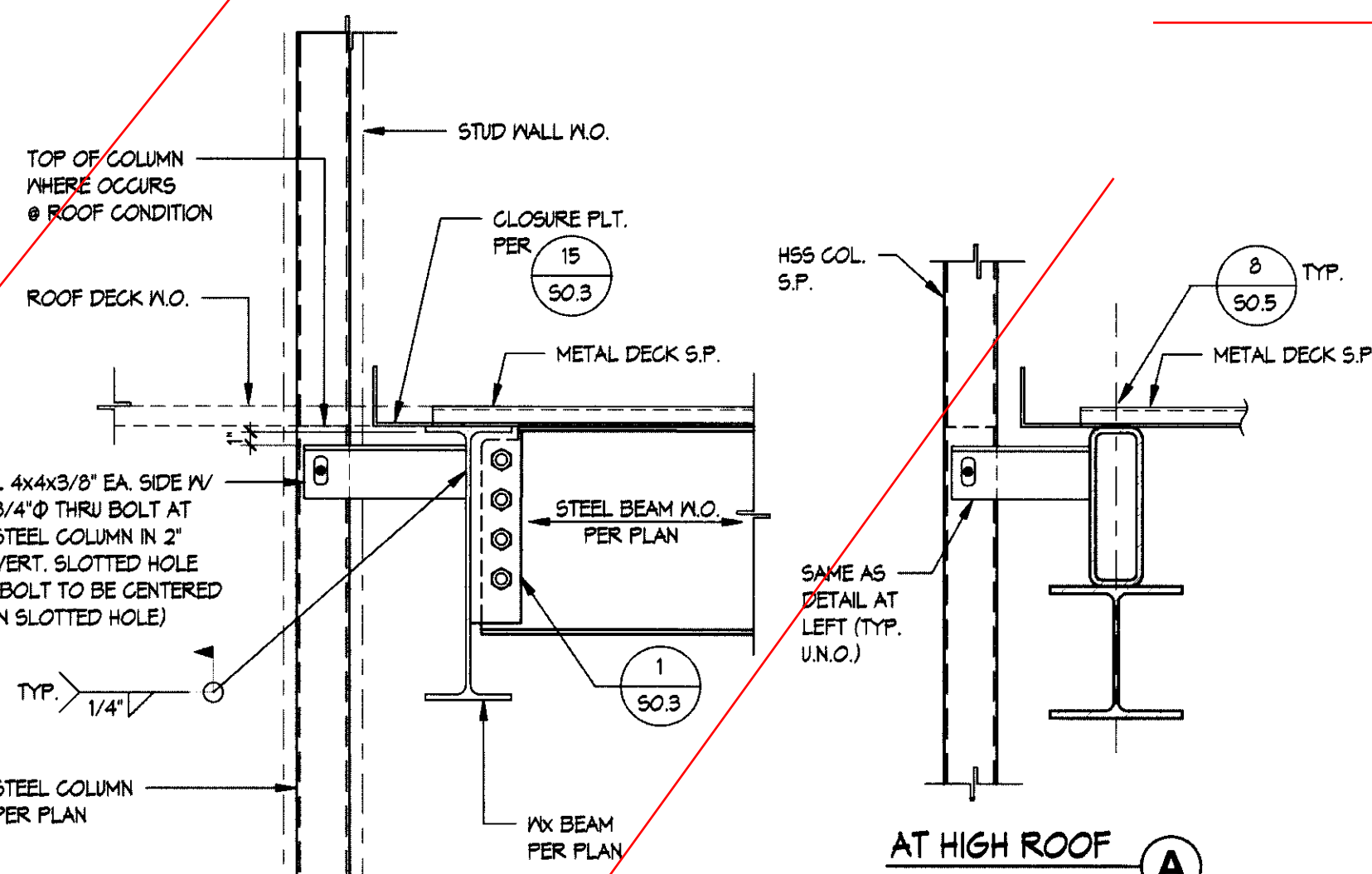
ER2RA DECK ROOF HANGER WITH RIVETS 5  
3" = 1'-0"



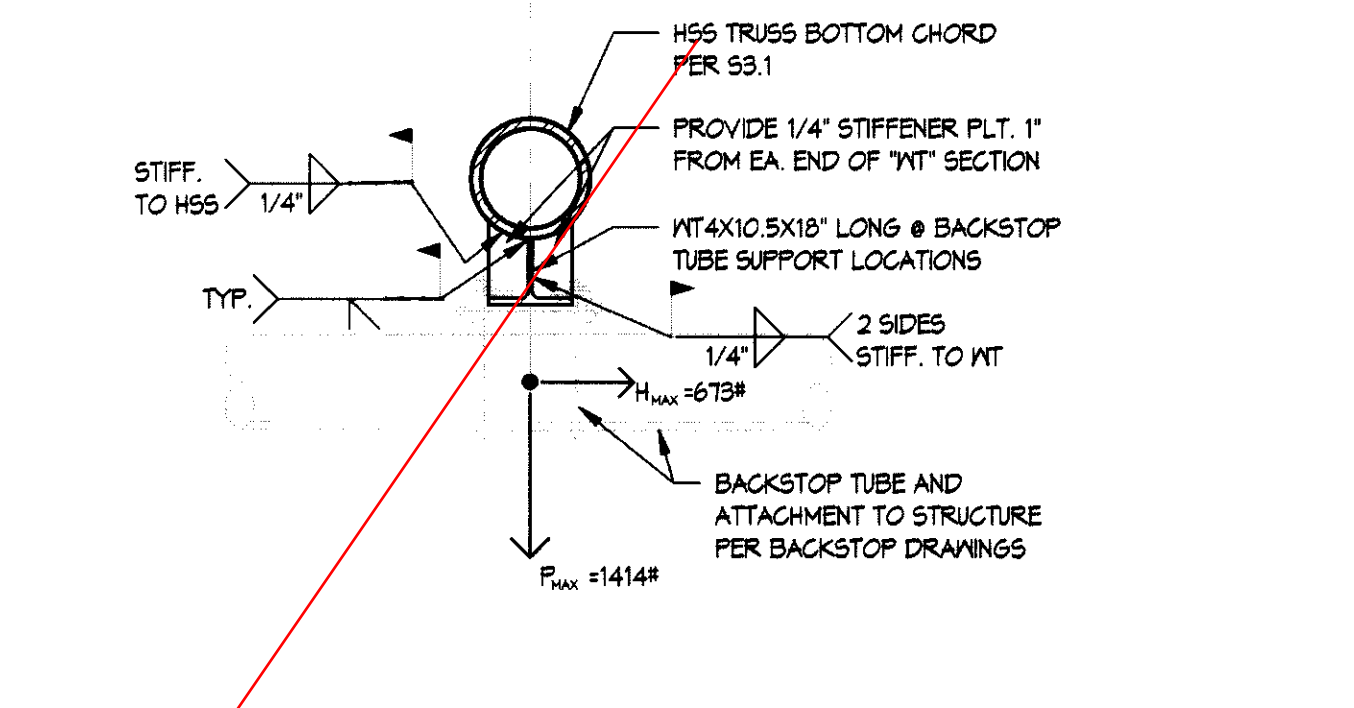
TYP - EXHAUST FAN SUPPORT DETAIL 1  
1" = 1'-0"



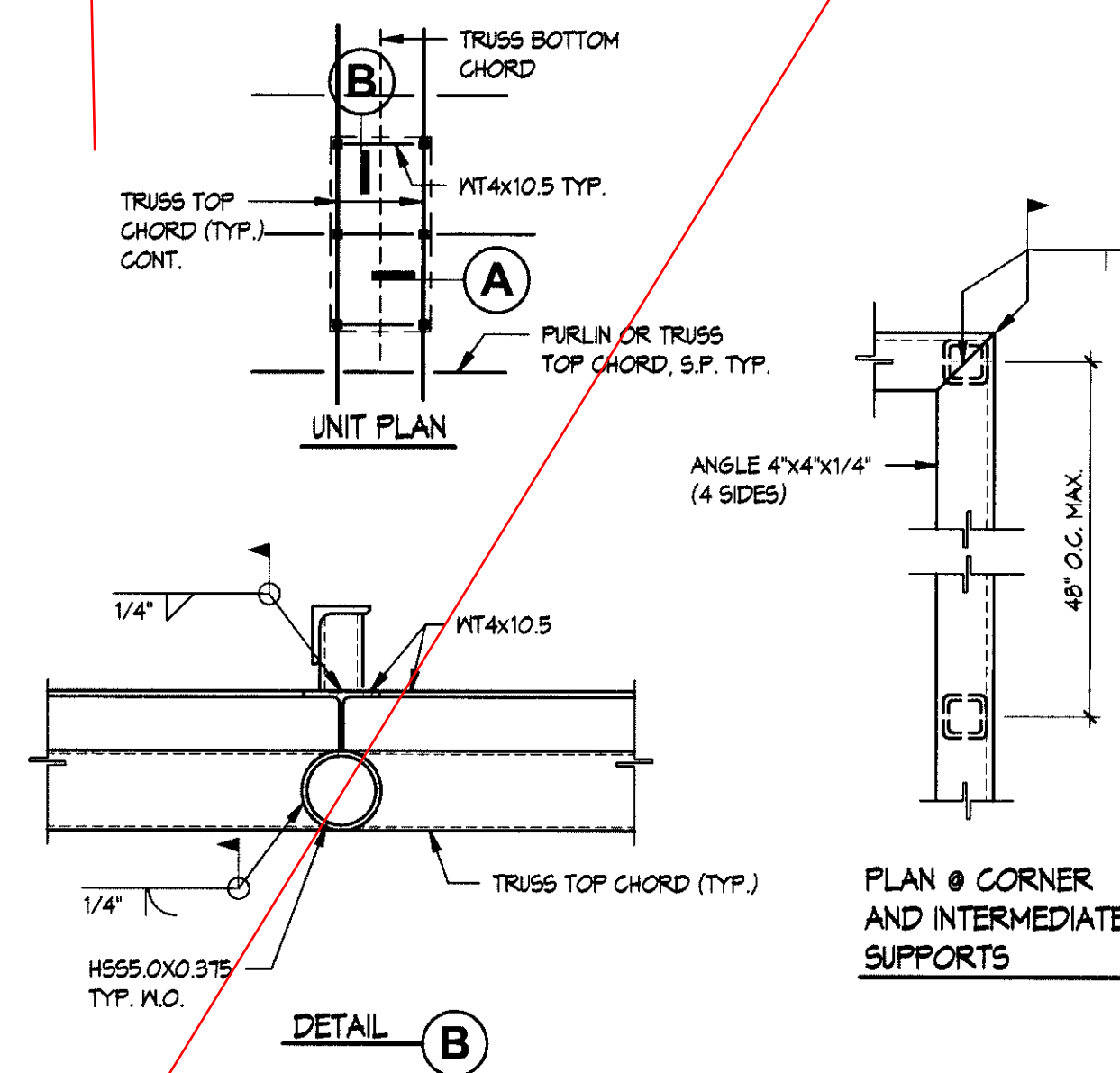
FRAMING PLAN AT COLUMNS ABOVE 14  
1" = 1'-0"



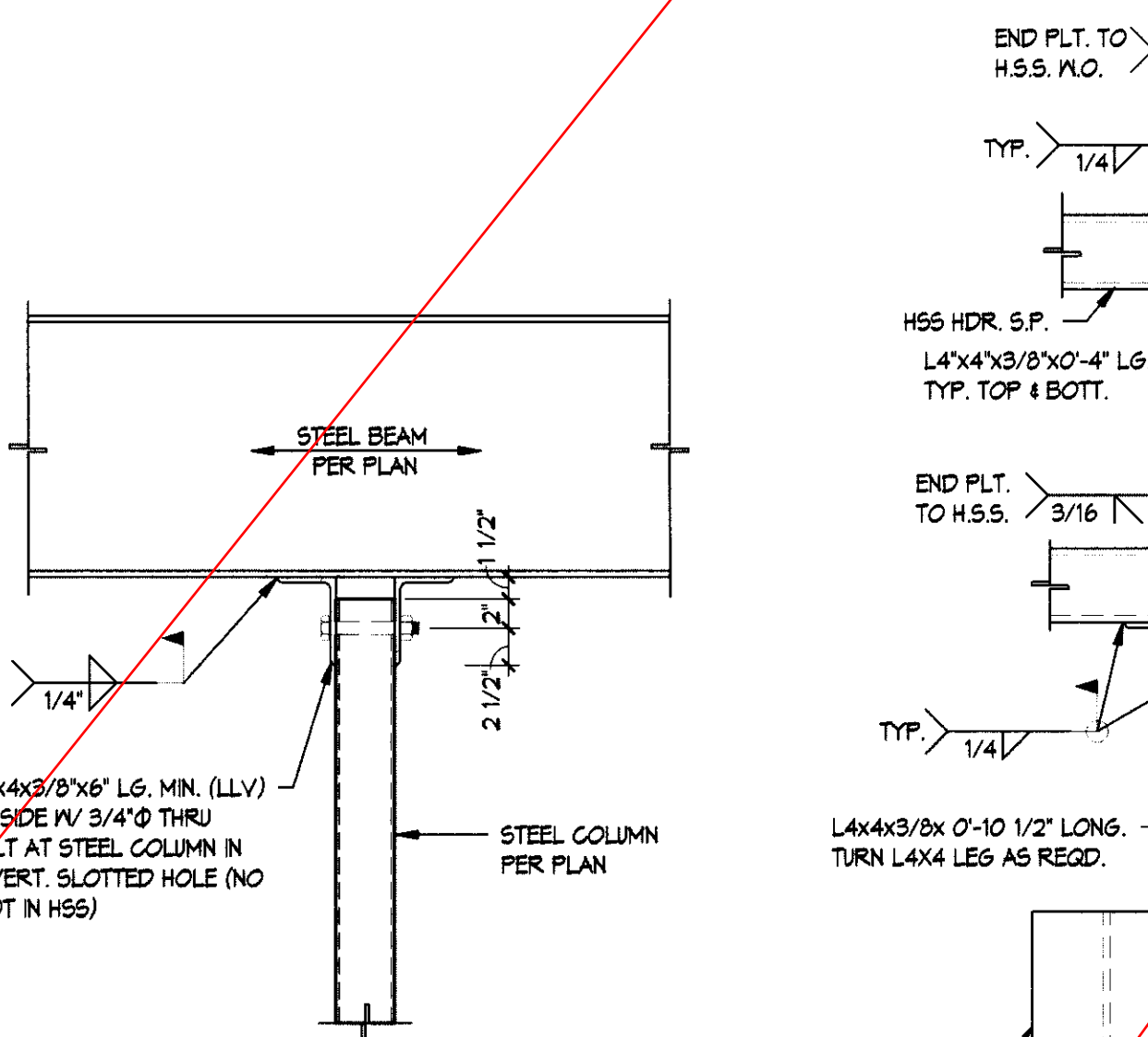
TYP - HSS COL. BRACE CONN. TO BEAM 10  
1" = 1'-0"



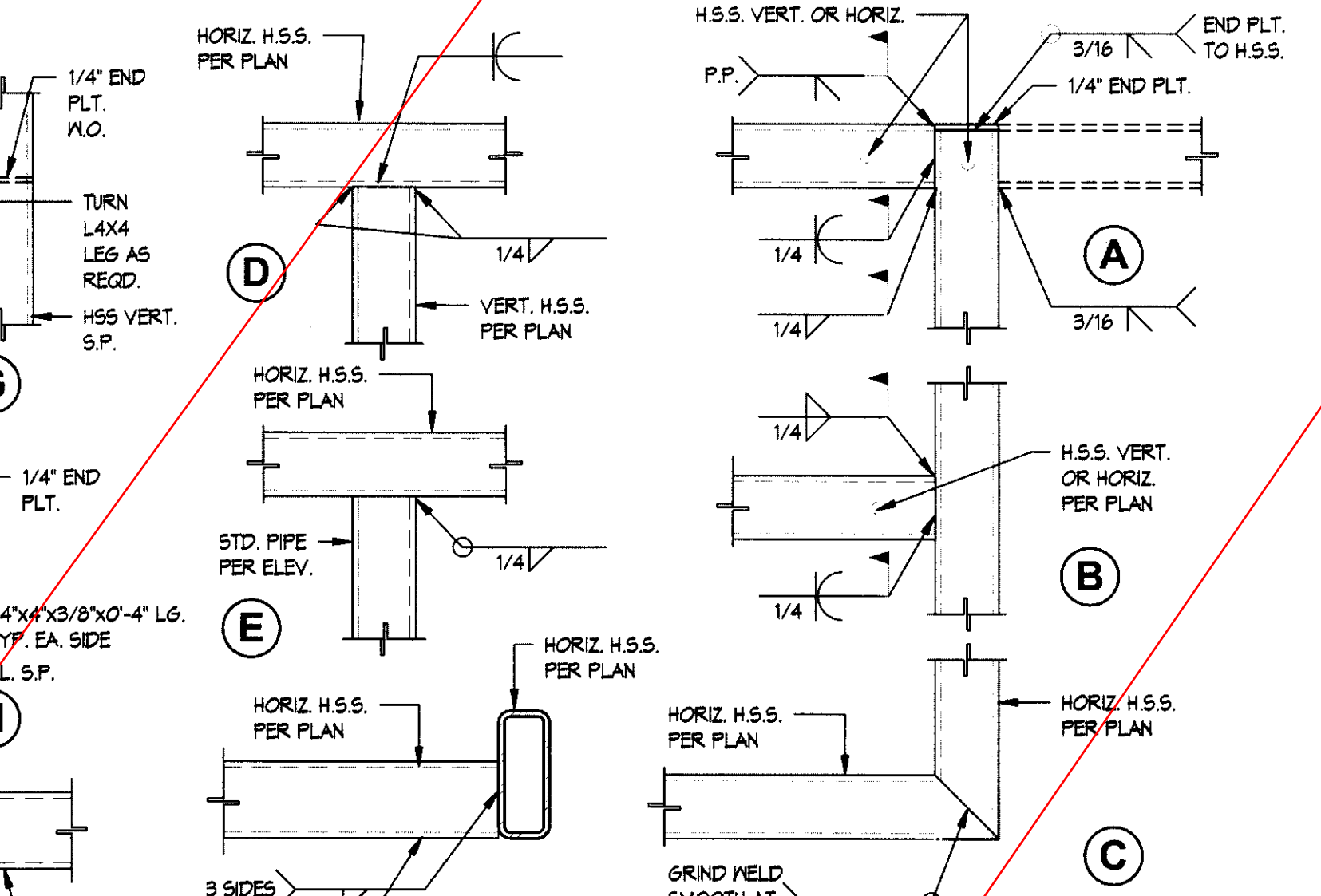
BACKSTOP SUPPORT DETAIL 6  
1" = 1'-0"



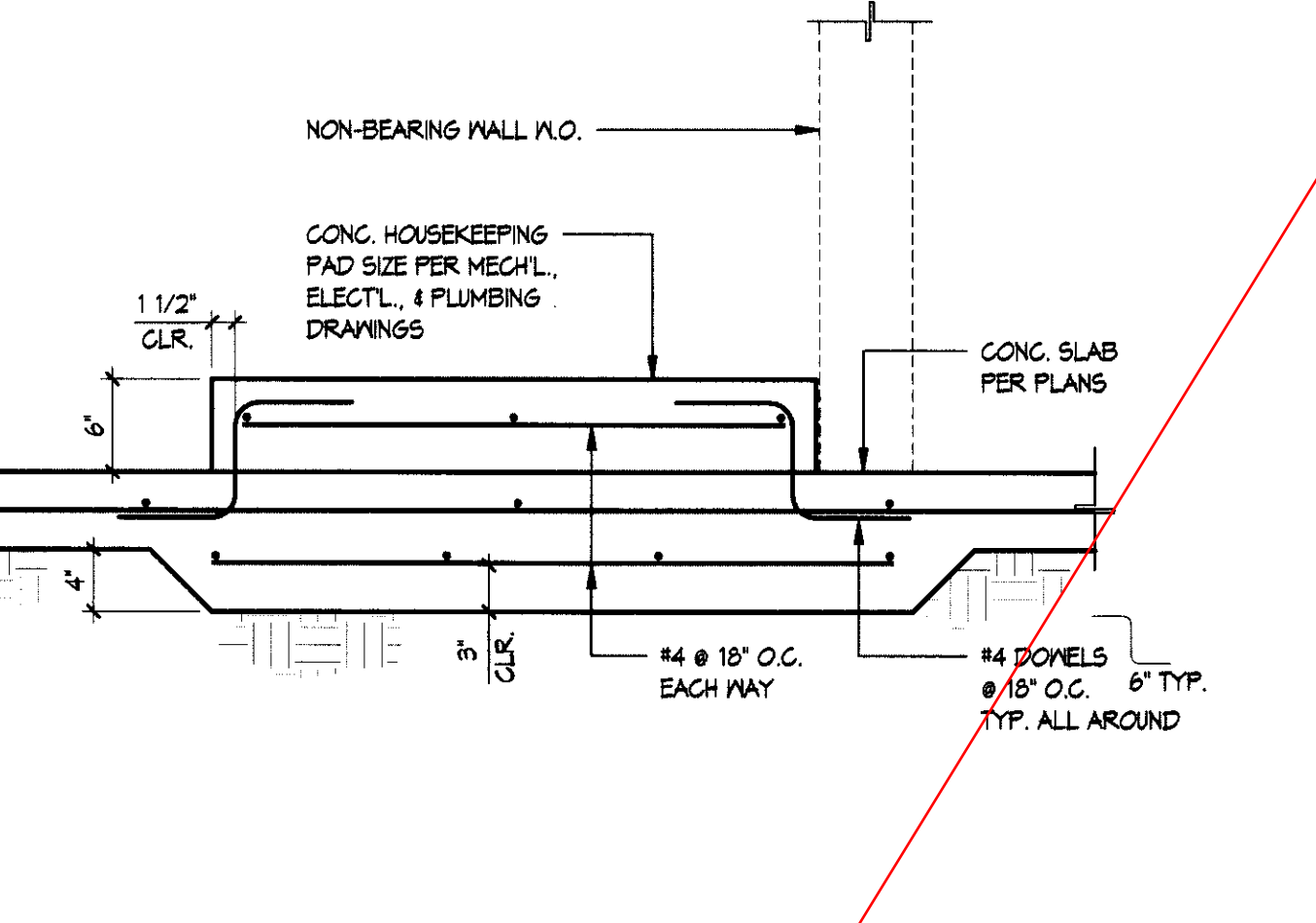
TYP - MECH. UNIT CURB ATTACHMENT DETAIL 2  
1" = 1'-0"



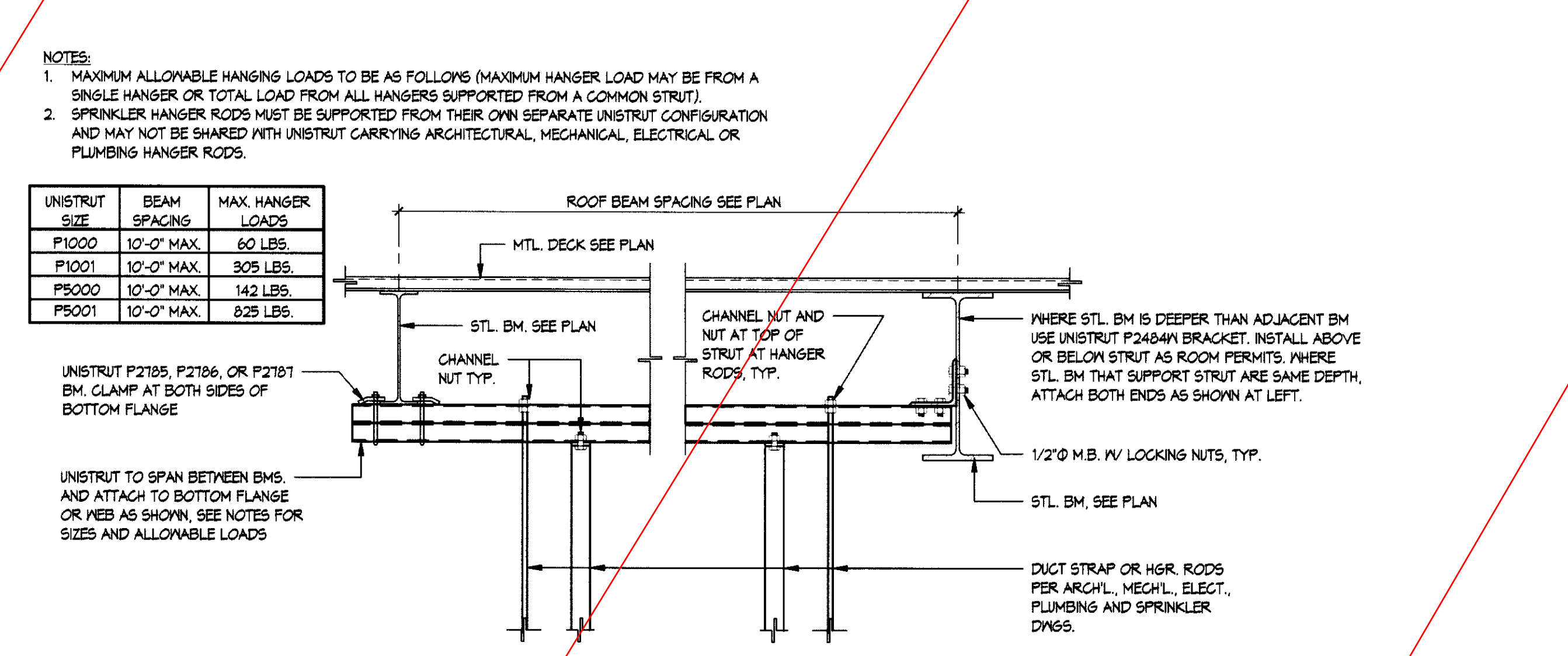
TYP - NON-BEARING COL. TO BEAM ABOVE 15  
1" = 1'-0"



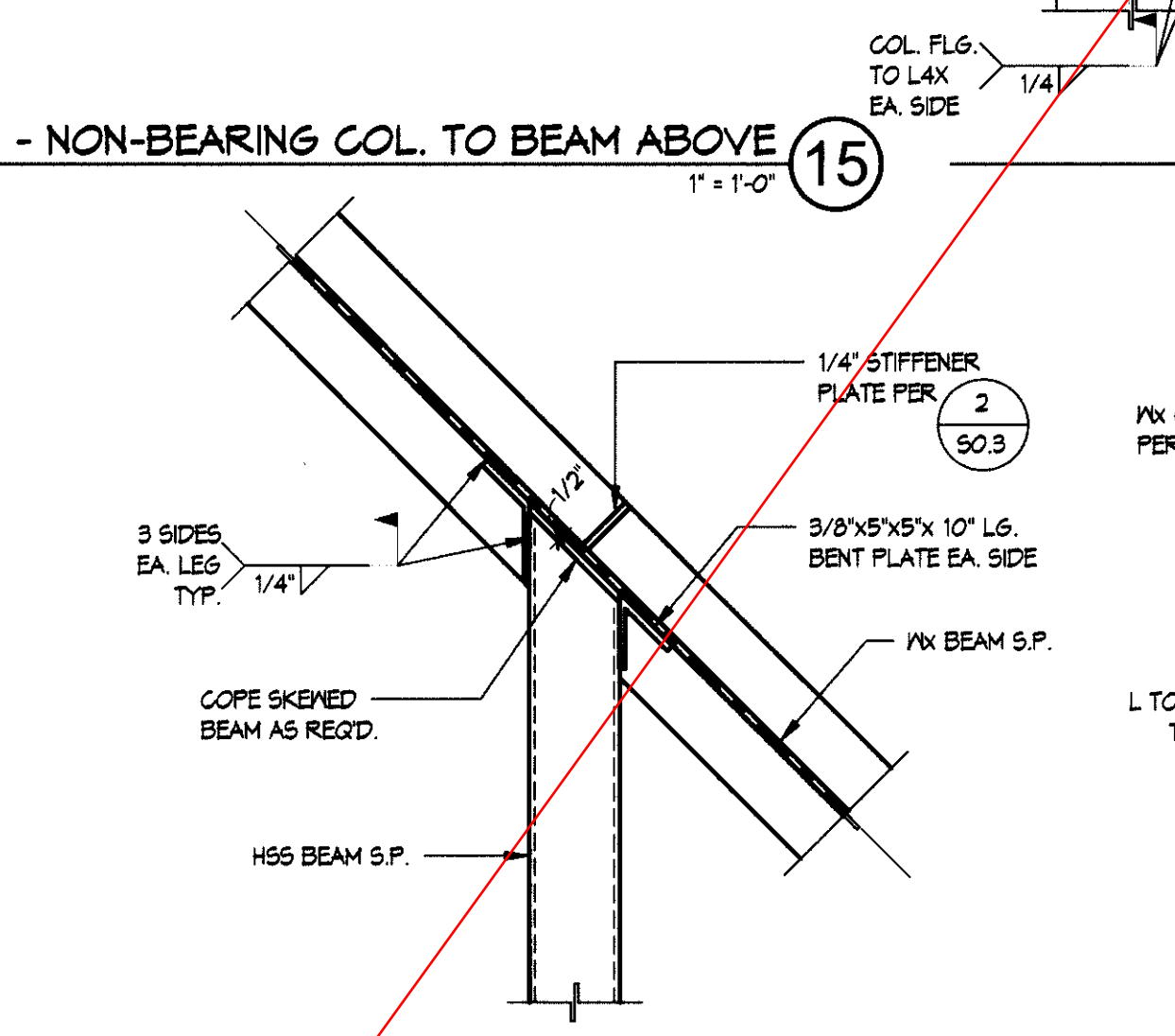
TYP HSS TO HSS CONNECTION DETAILS 11  
1" = 1'-0"



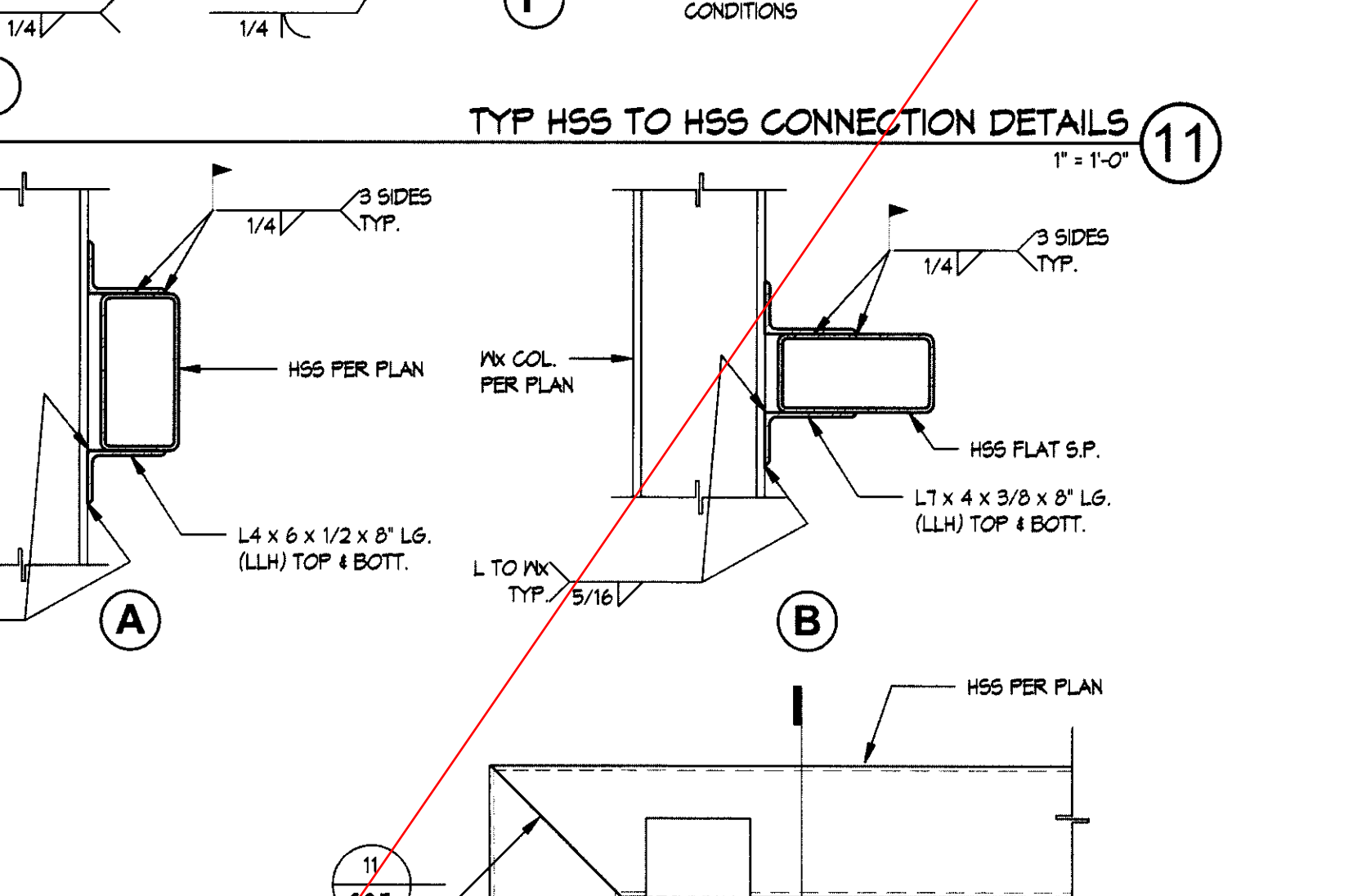
TYP - HOUSEKEEPING PAD AT S.O.G. 7  
1" = 1'-0"



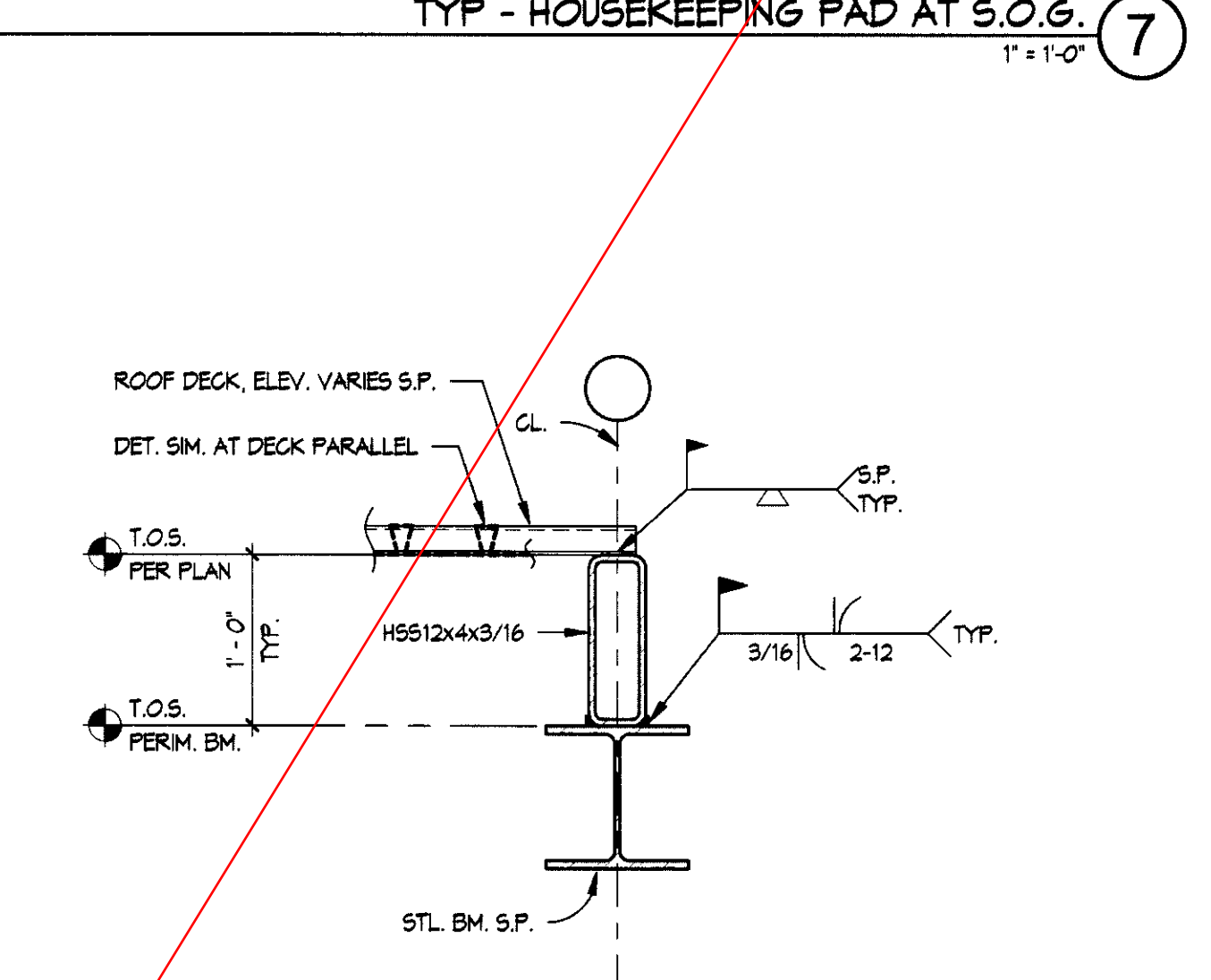
TYP - PIPING, CABLE TRAY AND DUCT SUPPORT DETAIL 3  
1" = 1'-0"



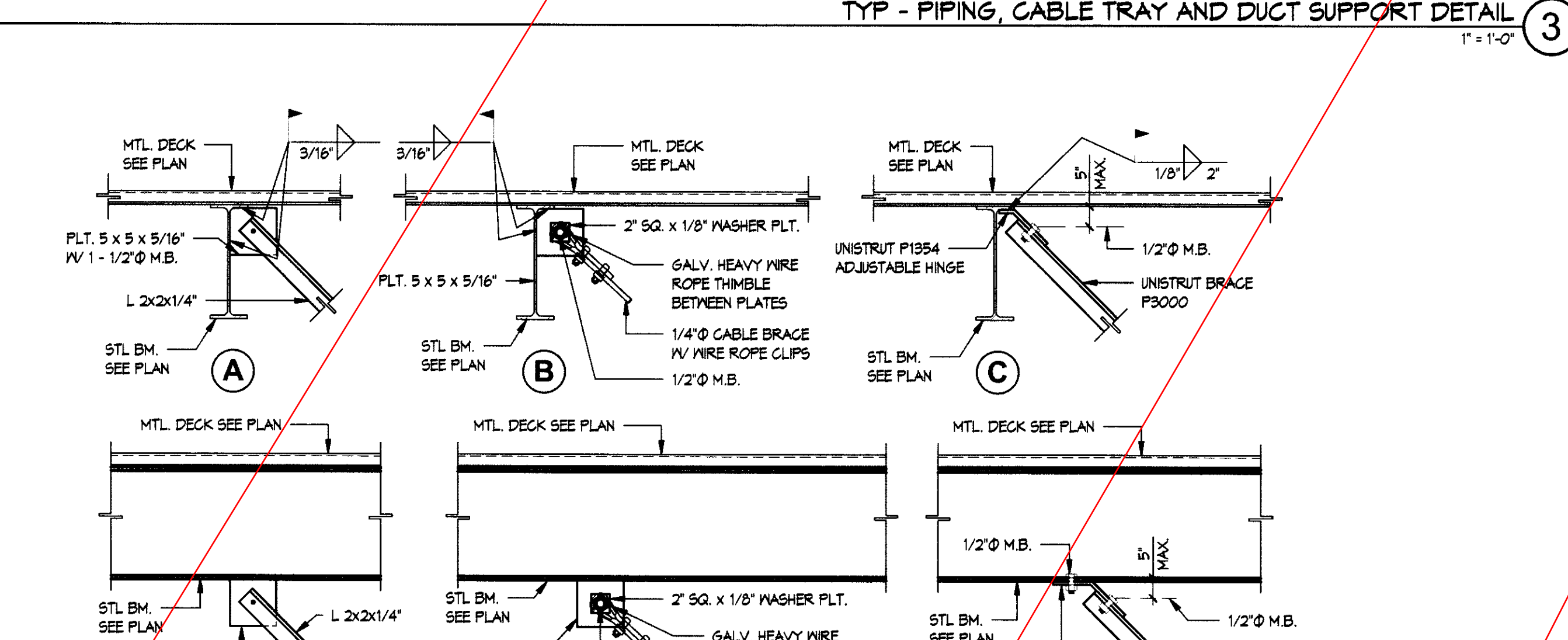
TYP - HSS SKEWED BEAM CONNECTION 16  
1" = 1'-0"



TYP HSS FLAT TO BM. CONNECTION DETAIL 12  
1" = 1'-0"



TYP. PERIMETER HSS SPACER OVER WF BM CONN. 8  
1" = 1'-0"



TYP - SEISMIC BRACING DETAIL OF DUCTS, PIPING AND CABLE TRAYS 4  
1" = 1'-0"

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Culver City, Ca 90232  
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Consultants  
Civil: FPL and Associates  
Structural: R.M. Byrd Associates  
Mechanical: IDS Consulting  
Plumbing: IDS Consulting

Electrical: MDC Engineers  
Fire Life Safety: MDC Engineers  
Fire Sprinklers: IDS Consulting  
Landscape: LA Design Associates

Architect / Engineer Stamp  
REGISTERED ARCHITECT  
R.M. BYRD  
NO. 12345  
STATE OF CALIFORNIA

DSA Stamp  
IDENTIFICATION STAMP  
DIV OF THE STATE ARCHITECT  
APPL. NO. 03-115592  
AC FS SS PEB  
DATE 041

New Gymnasium Building  
Ramona Middle School  
La Verne, California 91750

Rev Date Issue  
1 6.26.13 Schematic Design  
2 7.30.13 Schematic Design  
3 8.28.13 Design Development  
4 11.22.13 30% Const. Docs.  
5 01.31.14 100% DSA Submittal  
6 10.17.14 DSA Re-Submittal

Rev Date Issue  
7 02.18.15 DSA Back Check  
MECH SUPPORT AND MISC. DETAILS  
S0.5  
Date: 02.18.2015  
Scale: As Shown  
Drawn By: OCP  
Checked By: FR/RB