BUSD Lone Hill Middle School Gymnasium Project AV Project

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 Lift, 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 September, but is dependent on building completion.
- 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 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.

Lone Hill Middle School AV System Parts List

Equipment to be Provided in the Rack

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/insalled 8 port data switch.

Gym Input Locations Requirement (4 separate locations).

XLR (2) inputs - for hard line mics.

3.5mm audio input

HDMI (2)

Extron based components and AAP's.

VGA (1)

Projection

Ceiling mouted, motorized projection screen, 200" diagonal in size and 16:10. Controlled by the AV system. Manufacturer - Draper. Power by District.

Projector to be Panasonic 1080P, 8500 lumens. Lense to be appropriate for throw distance and displaying fullscreen presentations.

Projector to mount on a Draper scissor lift that will make the projector accesible from a 6' ladder. Model SLX21. Include optional ceiling enclosure.

Cables Required

- (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 Cables

Lone Hill Middle School AV System Parts List

Assitive Listening System

FM Transmitter and rack kit - LT800

(14) - 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

Full sized 6' rack. Lockable, rolling and enclosed with removeable sides.

Requires power strips to provide for District equipment.

Power sequencer.

AV Scaler/SwitcherExtron 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 neccesary equipment for the system.

Amplifiers by QSC. Amplifiers shall be QSC CX902.

Speakers

Speakers shall shall be Reinkus-Heinz, CFX 151 series speakers. Provide 10 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. Aestetics will also be reviewed as part of the installation requirement.

Subwoofers shall also be Reinkus Heinz. 2 self 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 concealled 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

- (2) Wireless mics. Shure SM58.
- (2) Wireless lapel mics SLX 14/84
- (2) Shure wired mics. SM58.

Shure antennae distribution amplifier with antennaes

- (2) 25' mic cables.
- (2) 50' mic cables.
- (2) mic stands

GENERAL NOTES

- 1. ELECTRICAL/FIRE ALARM/DATA & LOW VOLTAGE CONDUIT SHALL BE RAN PER DETAIL 3 AND/OR 4,
- SHEET EDO.1. 2. COORDINATE EXACT LOCATION OF ALL DEVICES WITH ARCHITECTURAL ELEVATIONS (EXTERIOR AND
- INTERIOR) AND REFLECTED CEILING PLAN. 3. DEVICE COLORS TO MATCH ADJACENT MATERIAL COLOR FROM MANUFACTURER STANDARD OPTIONS.

REFERENCE NOTES

SHOULD BE MOUNTED 6" AFF TO 8'6" AFF

- PROVIDE AND INSTALL 8'Hx4'Lx3/4"W PAINTED FIRE TREATED PLYWOOD TO COVER ALL WALLS. BACKBOARD SHALL BE SEALED WITH PRIMER AND PAINTED WITH TWO COATS OF FIRE RETARDANT PAINT. PLYWOOD
- 2) IDF TO BE INSTALLED AT +72"AFF TO BOTTOM. PA CABINET LOCATED BELOW IDF.
- 3 PROVIDE 1"C BETWEEN SCOREBOARD AND SHOT CLOCK. COORDINATE EXACT LOCATION IN FIELD.
- 4 PROVIDE CONDUIT & BOXES AS INDICATED (BY CONTRACTOR) FOR FUTURE SUBWOOFERS AND SPEAKERS (BY OWNER). MAX WEIGHT=175 LBS.
- \bigcirc PROVIDE (2)4SD BOXES (1-FOR DATA, 1-FOR CONTROL), PROVIDE 1-1/4"C BETWEEN BOXES.

- CR CARD READER. PROVIDE SINGLE GANG BACK BOX WITH 3/4"C TO DATA/AV ROOM 114.
- SECURITY CAMERA. PROVIDE SINGLE GANG BACK BOX WITH 1"C, (2)CAT6 CABLES, TO DATA/AV ROOM 114.
- W WIRELESS ACCESS POINT(WAP), WALL MOUNTED ('WP' DENOTES WEATHERPROOF BACK BOX). PROVIDE (2)CAT 6 CABLE AT EACH LOCATIONS, AS FOLLOWS:
 - -EACH INTERIOR LOCATION SHALL HAVE (2)DATA CABLES INSTALLED.
 -LOCATIONS ABOVE BLEACHERS SHALL BE MOUNTED ON THE CEILING AND IN LINE WITH THE LIGHT FIXTURES. SEE ARCHITECTURAL REFLECTED CEILING PLAN -LOCATIONS ON THE GYM END WALLS SHALL BE MOUNTED AT APPROXIMATELY +10'-0" AFF. SEE ACHITECTURAL INTERIOR ELEVATIONS FOR EXACT LOCATIONS
 - -DATA LOCATIONS SHOWN ON E101 TO REMAIN AS SHOWN, INCLUDING WALLS AND CEILING LOCATIONS/PROJECTORS EXTERIOR WAP DETAILS: -EACH EXTERIOR LOCATION SHALL HAVE (2)DATA CABLES INSTALLED.
 -WAP TO BE INSTALLED ON THE INTERIOR OF THE BUIDLING. PROVIDE A 1"CONDUIT STUB OUT TO EXTERIOR
 - FOR AN EXTERIOR ANTENNA. FOR EXACT LOCATIONS OF WAP, SEE ARCHITECTURAL DRAWINGS.

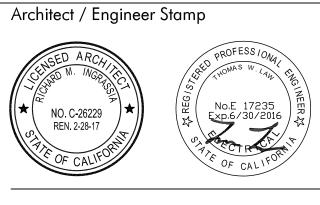
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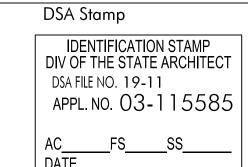


Fire Sprinklers: IDS Consulting Telecom: MDC Engineers Fire Life Safety: MDC Engineers

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

ELECTRICAL LOW VOLTAGE PLAN



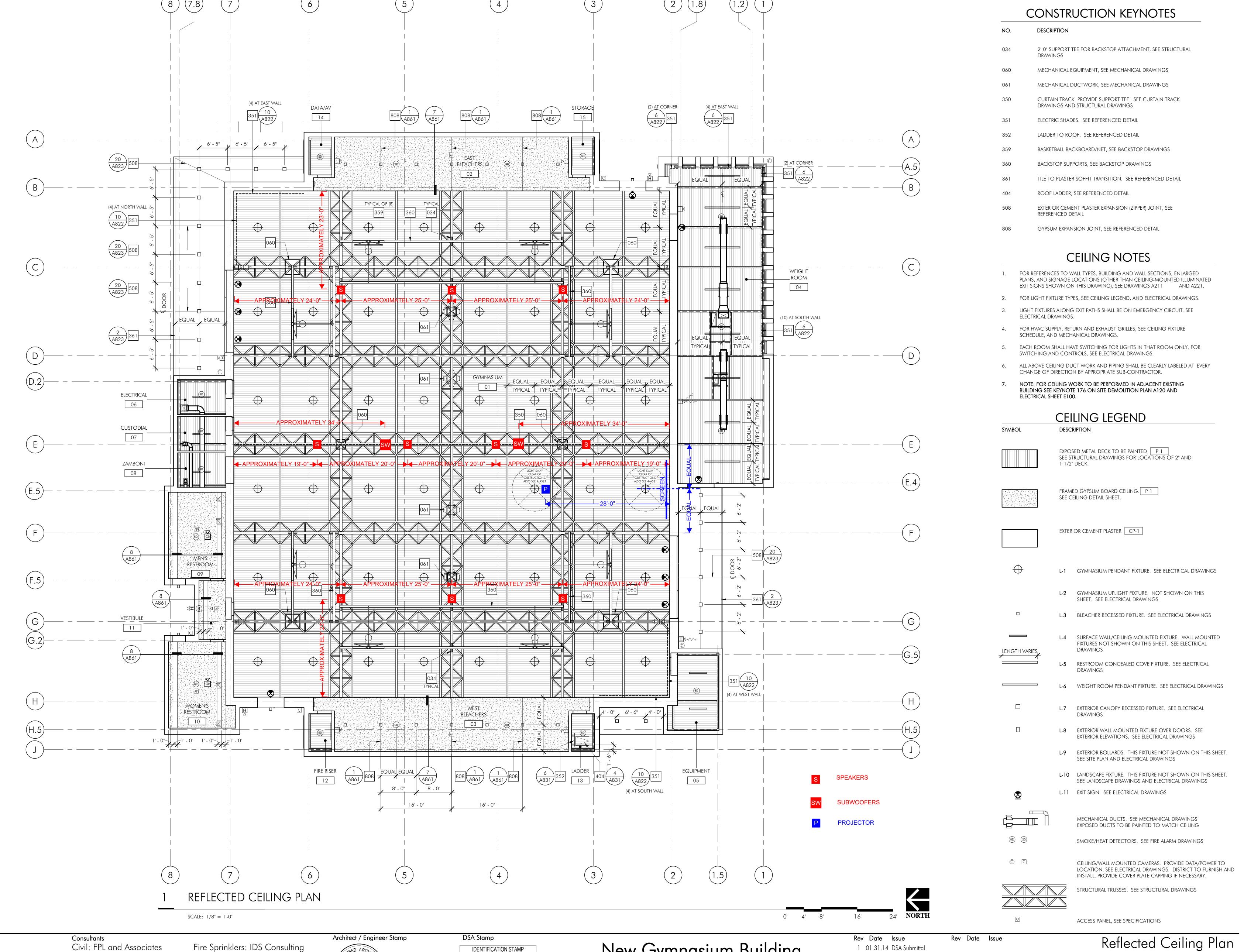


New Gymnasium Building Lone Hill Middle School San Dimas, California 91773

RevDateIssue101.31.14DSA SUBMITTAL Rev Date Issue 2 10.17.14 DSA RESUBMITTAL 3 06.02.15 DSA RESUBMITTAL

4 08.07.15 DSA BACKCHECK/APPROVAL Date: 08.07.2015 Scale: As Shown Drawn By: RS △ 02.13.17 PROJECTOR SPEAKER REVISIONS

Checked By:





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

Electrical: MDC Engineers Telecom: MDC Engineers Fire Life Safety: MDC Engineers NO. C-26229 REN. 2-28-17

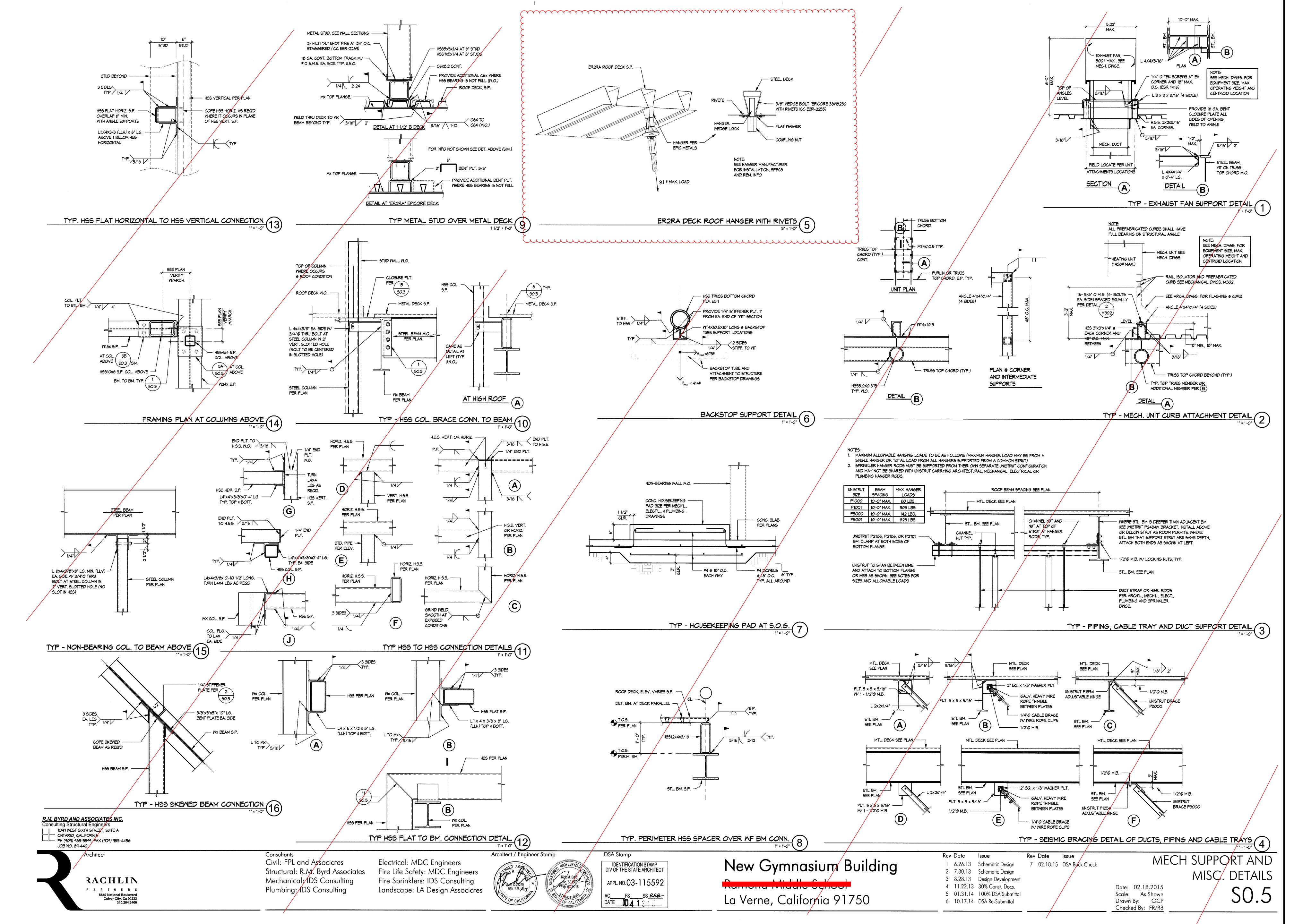
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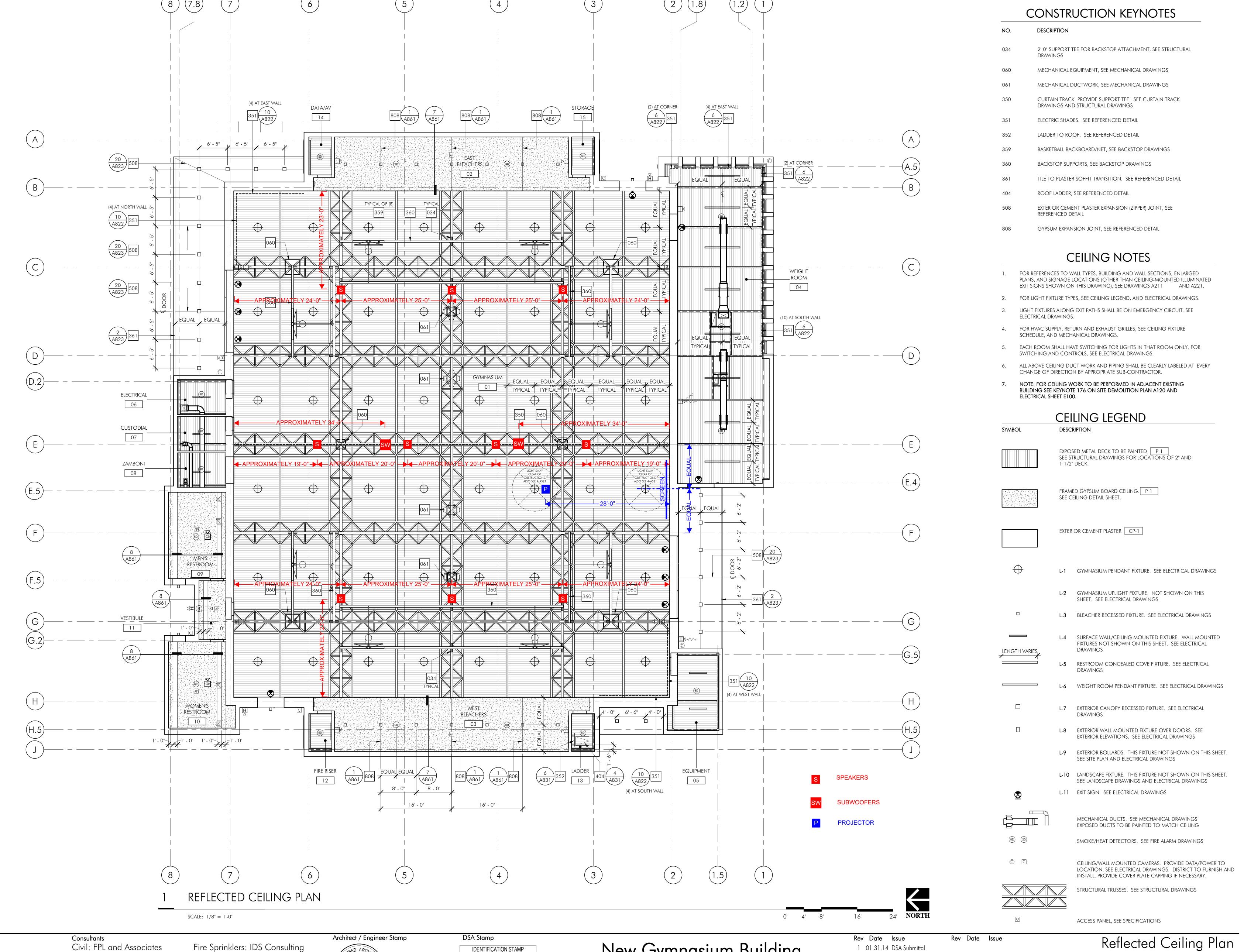
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2 10.17.14 DSA ReSubmittal 3 06.02.15 DSA ReSubmittal 4 08.07.15 DSA Backcheck/Approval

Date: 08.07.2015 Scale: As Shown Drawn By: PD,ES Checked By:

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

Electrical: MDC Engineers Telecom: MDC Engineers Fire Life Safety: MDC Engineers NO. C-26229 REN. 2-28-17

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