



QUATTROCCHI KWOK  
ARCHITECTS

# HERITAGE HIGH SCHOOL NEW CLASSROOM BUILDINGS, INCREMENT 2. Bid Clarification 02

May 25<sup>th</sup>, 2021

DSA File Number: 7-H4  
DSA Application Number: 01-119268  
PTN: 61721-77

**Owner:**

Liberty Union High School District  
20 Oak Street  
Brentwood, CA 94513

**Architect:**

Quattrocchi Kwok Architects  
636 Fifth Street  
Santa Rosa, California 95404  
P:707.576.0829  
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**Architect's Project No.:** 1870.00

**To: Prospective Bidders**

The following changes, modifications and additions to Project Manual and Drawings described below are made a part thereof and are subject to all of the requirements thereof as if originally specified.

The Bidder must acknowledge receipt of the Bid Clarification in the space provided on the Bid Form; failure to do so may subject the Bidder to disqualification.



Date: 05/25/2021

**Table of Contents - Bid Clarification 02**

This Bid Clarification consists of 6 pages and the attachments as listed below dated May 25<sup>th</sup>, 2021.

Deleted Text is shown in ~~strikeout type~~.

Added Text is shown in ***bold italicized underline type***.

**ATTACHMENTS:**

**Project Manual**

None.

**Drawings: (24 inch by 36 inch)**

BC 02 A-A2.1 BUILDING A FLOOR PLAN  
BC 02 E-A3.1 FLOOR PLAN BLDG A POWER & SIGNAL  
BC 02 E-B3.1 FLOOR PLAN BLDG B POWER & SIGNAL  
BC 02 E-B3.2 SECOND FLOOR PLAN BLDG. B POWER & SIGNAL  
BC 02 E-5.3 SINGLE LINE DIAGRAMS - SIGNAL  
BC 02 FP-0.2 DETAILS - FIRE PROTECTION  
BC 02 FP-A2.1 PIPING PLAN - FIRE PROTECTION  
BC 02 FP-6.1 DETAILS - FIRE PROTECTION  
BC 02 FP-6.2 DETAILS - FIRE PROTECTION

**BC Drawings (8.5 inch by 11 inch & 11 inch by 17 inch):**

BC 02.01.01 LOGISTICS PLAN  
BC 02.01 EXTERIOR ELEVATION KEYNOTES  
BC 02.02 BLDG B EXTERIOR WALL SECTION  
BC 02.03 WINDOW TYPES  
BC 02.04 ROOF RAKE DETAIL  
BC 02.05 ROOF EAVE DETAIL  
BC 02.06 MTL ROOF UPPER SHED DETAIL  
BC 02.07 MTL PANEL & CLIPS-RMER SPAN DETAIL  
BC 02.08 LOUVER JAMB DETAIL

**Project Record**

None.

**End of Table of Contents**

**A. CHANGES TO PREVIOUS BID CLARIFICATIONS**

**Item No. 2. 01**

At the Mandatory Pre-Bid Conference an attendee asked who the Project Inspector would be. The Agenda as distributed in Bid Clarification 01 noted the question and the answer as Greg Birtchet. The District has elected to change the Project Inspector from Greg Birtchet to Brian Glasspoole.

**B. CHANGES TO THE BIDDING AND CONTRACT REQUIREMENTS**

**Item No. 2. 02**

Section 01 1100 SUMMARY OF WORK

Add 1.07.Q Article 1.07 CONTRACTOR'S USE OF PREMISES as follows:

**Q. *The contractor's access to the site shall follow the attached Logistics plan BC02-01.01***

*The rental period for the existing temporary fencing identified on the Logistics Plan expires on 3/23/2022. The Contractor is responsible for all temporary fencing rental fees after the expiration of the rental period on 3/23/2022. The Contractor will be required to take over the rental agreement on 3/23/2022 from the current fence rental company or the Contractor can provide their own temporary fencing after 3/23/2022. The Contractor is responsible for the maintenance, protection, and the cost of any damage that occurs to the existing temporary fencing from the start of the project until 3/23/2022.*

*Prior to the completion of the project, the Contractor Laydown area identified with a blue border on the Logistics Plan, must receive new spray irrigation and receive hydroseed with no-mow grass.*

*The Heritage High School campus loop road that boards the project site is protected from open public access by motorized entrance / exit gates at the North and South ends of the campus. These gates must remain closed while the Campus is occupied, and only opened and closed for authorized staff or construction vehicles to enter and exit. The District will furnish to the Contractor without charge (10) ten remote control devices to access the campus loop road gates during construction work hours. Any additional remote control devices will be at the expense of the Contractor.*

**C. CHANGES/ ADDITIONS TO THE SPECIFICATIONS**

**Item No. 2. 03**

Section 12 2100 – WINDOW SHADE SYSTEM

Revise Article 2.03 FABRICS as follows:

A. Fabric for Sun/Glare/Heat Control: Style 3000; PVC coated fiberglass and polyester weave, 14-3 percent open; 14.6 ounces per square yard (495 g/square m), 0.027 inch (0.69 mm) thick; meet or exceed California flame tests.

**D. CHANGES/ ADDITIONS TO THE DRAWINGS**

**Item No. 2. 04**

The following drawings dated May 25, 2021 denoted **BID CLARIFICATION 02** supersede and replace previous drawings with the same titles:

BC 02 A-A2.1 BUILDING A FLOOR PLAN  
BC 02 E-A3.1 FLOOR PLAN BLDG A POWER & SIGNAL  
BC 02 E-B3.1 FLOOR PLAN BLDG B POWER & SIGNAL  
BC 02 E-B3.2 SECOND FLOOR PLAN BLDG. B POWER & SIGNAL  
BC 02 E-5.3 SINGLE LINE DIAGRAMS - SIGNAL  
BC 02 FP-0.2 DETAILS - FIRE PROTECTION  
BC 02 FP-A2.1 PIPING PLAN - FIRE PROTECTION  
BC 02 FP-6.1 DETAILS - FIRE PROTECTION  
BC 02 FP-6.2 DETAILS - FIRE PROTECTION

**Item No. 2. 05**

Sheets A-A5.1, A-B5.1 and A-B5.2 EXTERIOR ELEVATION KEYNOTES  
Revise in accordance with the attached drawing BC 02.01.

**Item No. 2. 06**

Sheet A-B6.4 BLDG-B WALL SECTIONS  
Revise in accordance with the attached drawing BC 02.02.

**Item No. 2. 07**

Sheet A-8.1 DOOR & WINDOW SCHEDULE  
Revise in accordance with the attached drawing BC 02.03.

**Item No. 2. 08**

Sheet A-9.2 ROOF DETAILS  
Revise in accordance with the attached drawing BC 02.04.

**Item No. 2. 09**

Sheet A-9.2 ROOF DETAILS  
Revise In accordance with the attached drawing BC 02.05.

**Item No. 2. 10**

Sheet A-9.2 ROOF DETAILS  
Revise in accordance with the attached drawing BC 02.06.

**Item No. 2. 11**

Sheet A-9.3 ROOF DETAILS  
Revise in accordance with the attached drawings BC 02.07.

**Item No. 2. 12**

Sheet A-9.5 OPENING DETAILS

Added detail #7: LOUVER JAMB with the attached drawing BC 02.08.

**E. BIDDERS QUESTIONS**

**Item No. 2. 13**

**Q:** Will background checks be required for workers that remain within the temporary fencing of the project site.

**A:** Due to the location of the project within campus site, the District is requiring all contractor / subcontractors to comply with the following: Each contractor / subcontractor must provide continual supervision and monitoring of all employees of the entity by an employee of the entity whom the Department of Justice has ascertained has not been convicted of a violent or serious felony (see Contractor Certification Regarding Background Checks as included as a part of the Agreement Form). This requirement applies regardless of whether the employee is working inside or outside of the temporary fencing. All costs related to Department of Justice live scan background checks are the responsibility of the employer of the employee.

**Item No. 2. 14**

**Q:** Please clarify the type of sinks required in Earth Science Room A101. Sheet P-A2.3 shows the sinks to be Type P-5 and P-5A & **P-5B**. The Plumbing Schedule on Sheet P-1.1 states that these sinks are stainless steel. Details 3 and 16 on sheet A-10.2 identify the sinks as epoxy resin.

**A:** Removing "STAINLESS STEEL" remarks from **P-5, P-5A & P-5B**. Plumbing specs are correct (Epoxy sink, integral with counter, by others).

**Item No. 2. 15**

**Q:** If "integral" epoxy resin sinks are required, can epoxy resin drop-in sinks be used? This is the typical epoxy resin sink now used in most labs and use of drop-in sinks will eliminate the need for sink hangers.

**A:** Drop-in epoxy sinks are acceptable.

**Item No. 2. 16**

**Q:** Audiovisual - Numbered Sheet Notes # 13 and 14 on Sheet E-A3.1 describe the classroom av system components. However; The type of connectivity and cabling required (HDMI, etc.) is not specified. At the job walk the district representative expressed that the av system components were intended to be contractor furnished and installed and that the systems should be the same as was specified on the Liberty high school administration and student commons project. That project called for each room to have a (2) HDMI plus (1) 3.5mm audio input wall-plate/cabling system and a 'Topcat' Access

Audio System with owner furnished projectors and mounts. Please clarify what is to be provided for the AV system at Heritage high school.

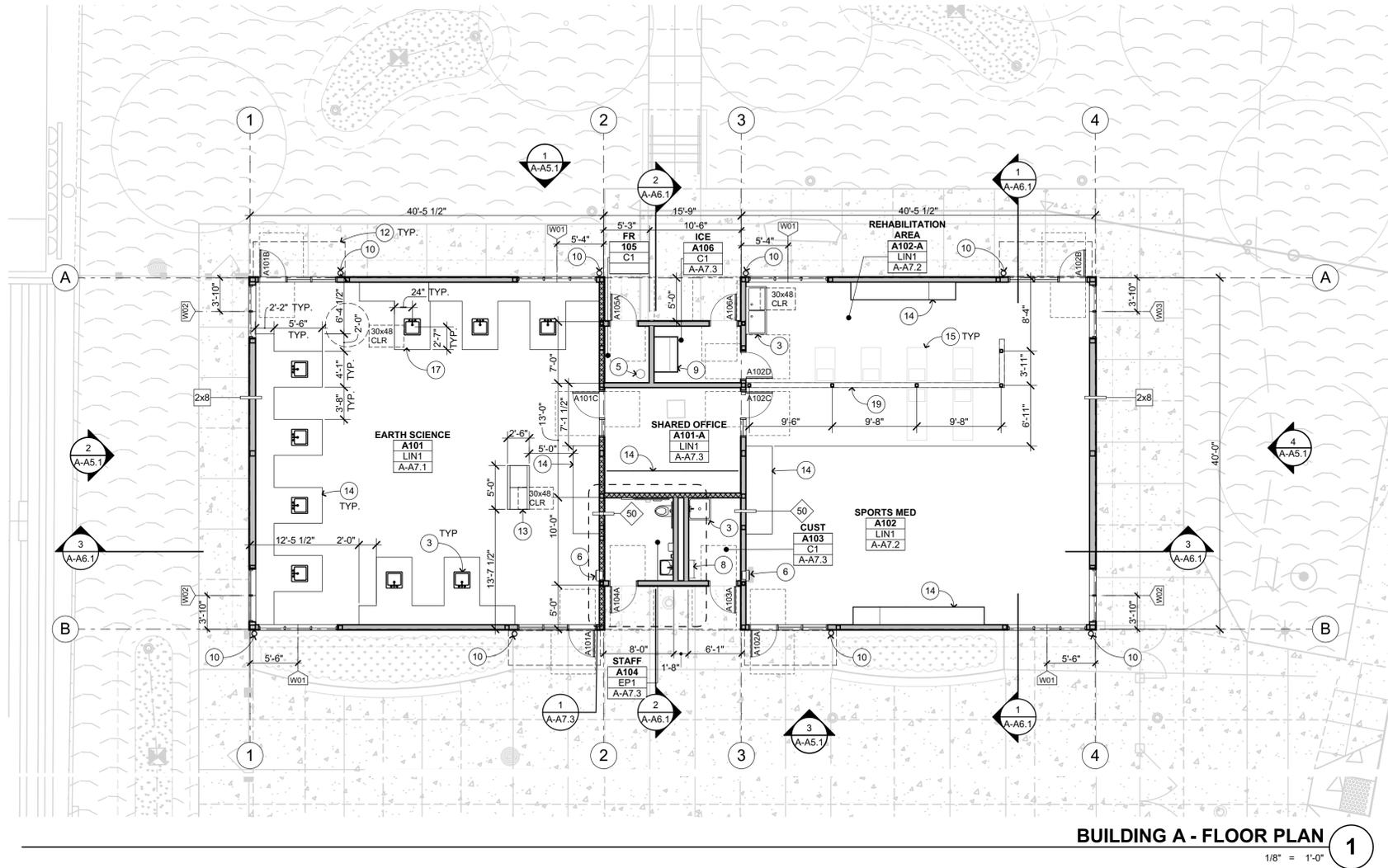
**A:** Modified notes on sheets E-A3.1, E-B3.1, E-B3.2 to designate the cabling.

**Item No. 2. 17**

**Q:** Clock/Speakers - General Clock/Speaker Note # 2 on Sheet E-5.3 states that the all clock/speakers devices are owner furnished / contractor installed. However; At the job-walk the district representative expressed that the clock/speakers were intended to be contractor furnished and installed on this project. Please clarify if the clock/speaker devices are to be contractor furnished.

**A:** Clock Speakers are Contractor Furnished and Contractor installed. Revised sheet E5.3 to reflect the change.

**END OF BID CLARIFICATION**



**BUILDING A - FLOOR PLAN**  
1/8" = 1'-0" **1**

**FLOOR PLAN KEYNOTES**

NOT ALL KEYNOTES MAY APPLY TO THIS SHEET

- 1 STRUCTURAL ITEM, S.S.D.
- 2 MECHANICAL ITEM, S.M.D.
- 3 PLUMBING ITEM / FIXTURE, S.P.D.
- 4 ELECTRICAL ITEM, S.E.D.
- 5 FIRE SPRINKLER RISER, S.F.P.D.
- 6 FIRE EXTINGUISHER CABINET, SEE INT ELEVS
- 7 SECTIONAL DOORS, SEE ELEVATIONS AND DOOR SCHEDULE
- 8 ROOF ACCESS LADDER, SEE DETAIL 12 A-9.3
- 9 ICE MACHINE, S.E.D. AND S.P.D.
- 10 RAIN WATER LEADER, SEE RCP 16 A-9.3
- 11 RAIN CANOPY ABOVE, SEE RCP
- 12 SUNSHADE CANOPY ABOVE, SEE RCP
- 13 DEMONSTRATION TABLE, SEE DETAIL 3 A-10.2
- 14 CASEWORK, SEE INTERIOR ELEVATIONS
- 15 (E) TREATMENT/TRAINING BEDS
- 16 MARKERBOARD, SEE DETAIL 5 A-10.3
- 17 ACCESSIBLE LAB COUNTERTOP, SEE DETAIL 21 A-10.3
- 18 SEISMIC JOINT, S.S.D. AND DETAIL 13 A-9.7
- 19 5'-0" PARTIAL HEIGHT WALL, SEE INTERIOR ELEVATIONS AND S.S.D.
- 20 WALK-OFF CARPET
- 21 METAL ROOF GUTTER, SEE DETAIL 10 A-9.3
- 22 HI-LOW DRINKING FOUNTAIN, SEE DETAIL 23 A-9.7

**FLOOR PLAN GENERAL NOTES**

- 1. EXTERIOR CONCRETE FLATWORK SHALL HAVE A MAXIMUM SLOPE OF 1:20, U.O.N.; EXTERIOR DOOR LANDINGS SHALL SLOPE 1/4" PER FOOT FOR 60° PERPENDICULAR TO DOOR FACE, MAXIMUM FOR DRAINAGE. CONCRETE SHALL SLOPE MINIMUM 1/8" PER FOOT AWAY FROM BUILDINGS; S.C.D.
- 2. FINISHED FLOOR ELEVATIONS SHOWN INDICATE FLOOR SLABS FOR THIS BUILDING. FOR ELEVATIONS RELATIVE TO THE REST OF THE SITE, REFER TO CIVIL ENGINEERING DRAWINGS.
- 3. REFER TO CIVIL ENGINEERING DRAWINGS AND SITE PLAN FOR SITE FEATURES NOT OTHERWISE INDICATED.
- 4. REFER TO ARCHITECTURAL GRAPHICS DRAWINGS FOR SIGNAGE NOT SHOWN.
- 5. ALL INTERIOR WALL FRAMING AND GYP BD EXTEND TO UNDERSIDE OF ROOF SHEATHING ABOVE, U.O.N.
- 6. FOR MINIMUM DISTANCES OF DOORS FROM ADJACENT PERPENDICULAR WALLS SEE 5 A-9.5

**WALL TYPE LEGEND**

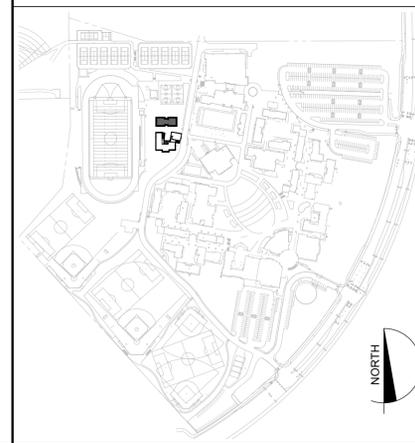
S.S.D. FOR WOOD FRAMING SIZES FOR ALL BEARING WALLS.  
ALL OTHER WALLS ARE:  
BLDG A - 2X6 WOOD STUDS, U.O.N.  
BLDG B - 2X8 WOOD STUDS, U.O.N.

- WOOD FRAMING - NON RATED
- WOOD FRAMING - 1 HOUR RATED
- EDGE OF SOFFIT, CANOPY, BALCONY OR ROOF ABOVE
- 2x6 WOOD STUD SIZE
- 2x8 WOOD STUD SIZE
- 50 ACOUSTIC RATING (STC). SEE SHEETS A-10.1 AND A-10.3 FOR ACOUSTIC WALL DETAILS.

**FLOOR FINISH CODES**

- C1 SEALED CONCRETE
- LN1 LINOLEUM TILE FLOOR
- EP1 EPOXY FLUID APPLIED FLOORING

**KEYPLAN**



**QUATTROCCHI KWOK ARCHITECTS**  
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636 Fifth Street, Santa Rosa, CA 95404  
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55 Harrison Street, Suite 525,  
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(707) 576-0829

LICENSED ARCHITECT  
JIM THEISS  
LICENSE # C22643  
EXP JUNE 30, 2021  
STATE OF CALIFORNIA  
SIGNED: MAY 10, 2021

**HERITAGE HIGH SCHOOL**

**NEW CLASSROOM BUILDINGS  
INCREMENT 2 OF 2**

101 AMERICAN AVENUE,  
BRENTWOOD, CA 94513

**LIBERTY UNION HIGH SCHOOL DISTRICT**

BC-02	5/25/21	BID CLARIFICATION 2

DSA APP NO. 01-119268  
ARCH PROJECT NO. 1870.00  
DRAWN BY: SL & HE  
DRAWING SCALE: 1/8" = 1'-0"  
PTN: 61721-77 FILE NO: 7-H4

**BID SET**  
MAY 10, 2021  
SHEET TITLE

**BLDG-A  
FLOOR PLAN**

SHEET NUMBER  
**A-A2.1**

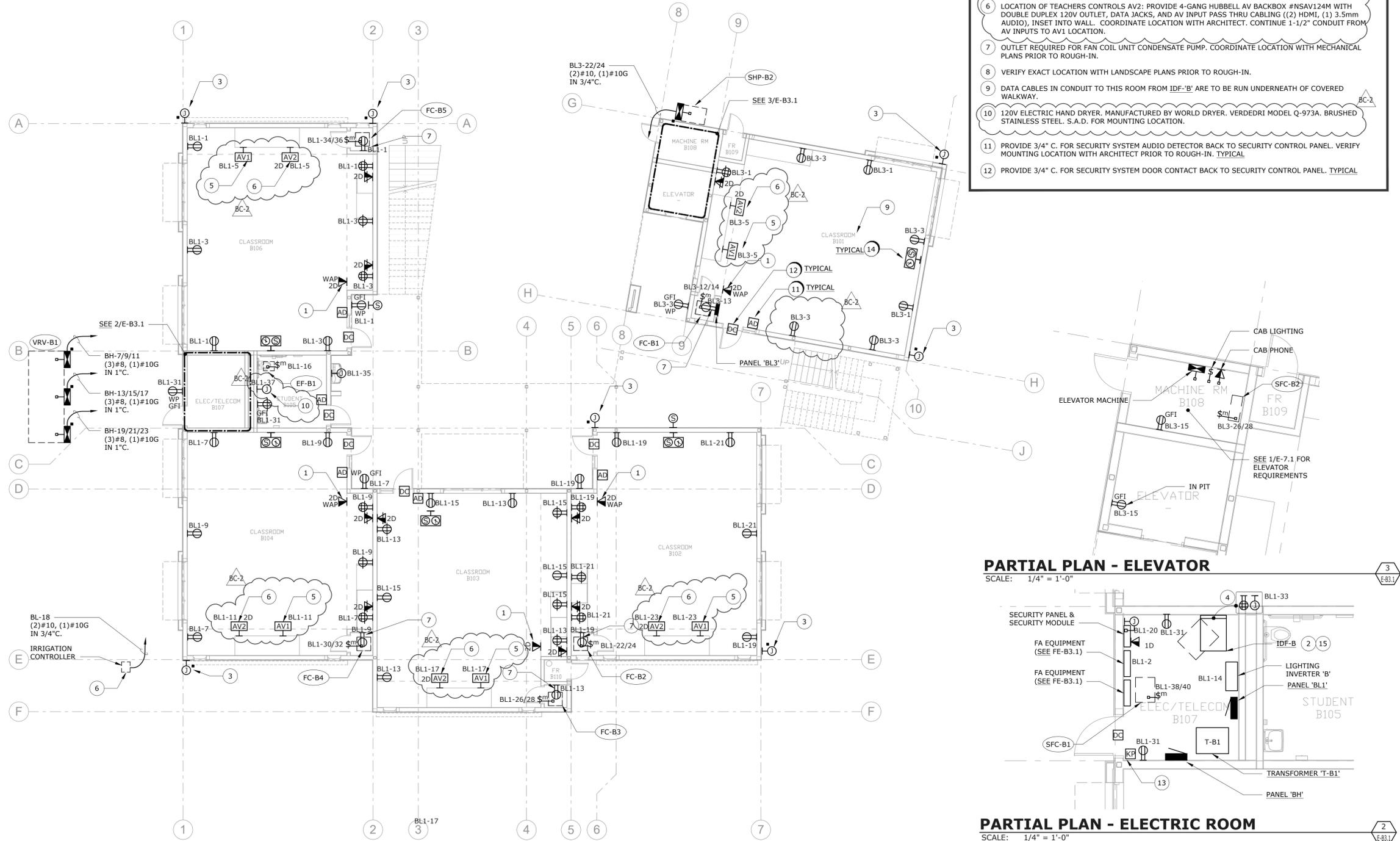


### NUMBERED SHEET NOTES

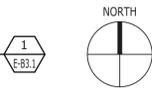
- 13 PROVIDE 3/4" C. FOR SECURITY SYSTEM KEYPAD BACK TO SECURITY CONTROL PANEL.
- 14 SEE 1/E-5.3 FOR CLOCK SPEAKERS.
- 15 SEE 2/E-5.3 FOR TELECOM SYSTEM.

### NUMBERED SHEET NOTES

- 1 ON FACE OF SOFFIT.
- 2 WALL MOUNTED. FLOOR SUPPORTED, 6'H x 24"W x 30"D.
- 3 SECURITY CAMERA LOCATION. CAMERAS TO BE PROVIDED AND INSTALLED BY DISTRICT. PROVIDE 4" JUNCTION BOX AND 1" C. WITH CAT6A BACK TO IDF 'B'. VERIFY EXACT LOCATION AND HEIGHT REQUIREMENT WITH ARCHITECT PRIOR TO ROUGH-IN.
- 4 PROVIDE DEDICATED QUAD RECEPTACLE AND 3-BOX WITH #2AWG G. TO NEAREST BUILDING ELECTRODE. LOCATE EQUIPMENT WITHIN IDF CABINET (OR RACK).
- 5 LOCATION OF SHORT THROW PROJECTOR. AV1: PROVIDE 4-GANG HUBBELL AV BACKBOX #NSAV124M DOUBLE DUPLEX 120V OUTLET, DATA JACK, AND AV PASS THRU CABLING WHIPS, FOR CONNECTION TO SHORT THROW PROJECTOR ASSEMBLY. PROJECTOR AND MOUNT BY OTHERS. PROJECTOR WEIGHT IS LESS THAN 20LB.
- 6 LOCATION OF TEACHERS CONTROLS AV2: PROVIDE 4-GANG HUBBELL AV BACKBOX #NSAV124M WITH DOUBLE DUPLEX 120V OUTLET, DATA JACKS, AND AV INPUT PASS THRU CABLING ((2) HDMI, (1) 3.5mm AUDIO), INSET INTO WALL. COORDINATE LOCATION WITH ARCHITECT. CONTINUE 1-1/2" CONDUIT FROM AV INPUTS TO AV1 LOCATION.
- 7 OUTLET REQUIRED FOR FAN COIL UNIT CONDENSATE PUMP. COORDINATE LOCATION WITH MECHANICAL PLANS PRIOR TO ROUGH-IN.
- 8 VERIFY EXACT LOCATION WITH LANDSCAPE PLANS PRIOR TO ROUGH-IN.
- 9 DATA CABLE IN CONDUIT TO THIS ROOM FROM IDF-'B' ARE TO BE RUN UNDERNEATH OF COVERED WALKWAY.
- 10 120V ELECTRIC HAND DRYER. MANUFACTURED BY WORLD DRYER. VERDEDRI MODEL Q-973A. BRUSHED STAINLESS STEEL. S.A.D. FOR MOUNTING LOCATION.
- 11 PROVIDE 3/4" C. FOR SECURITY SYSTEM AUDIO DETECTOR BACK TO SECURITY CONTROL PANEL. VERIFY MOUNTING LOCATION WITH ARCHITECT PRIOR TO ROUGH-IN. TYPICAL
- 12 PROVIDE 3/4" C. FOR SECURITY SYSTEM DOOR CONTACT BACK TO SECURITY CONTROL PANEL. TYPICAL

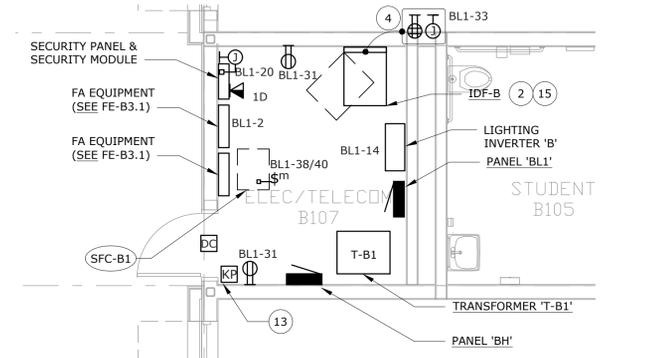


**FIRST FLOOR PLAN BLDG. B - POWER & SIGNAL**  
SCALE: 1/8" = 1'-0"



**PARTIAL PLAN - ELEVATOR**

SCALE: 1/4" = 1'-0"



**PARTIAL PLAN - ELECTRIC ROOM**

SCALE: 1/4" = 1'-0"

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REGISTERED PROFESSIONAL ENGINEER  
TYLER J. COLANGELO  
No. 14738  
Exp. 6/31  
ELECTRICAL  
STATE OF CALIFORNIA

### HERITAGE HIGH SCHOOL

### NEW CLASSROOM BUILDINGS INCREMENT 2 OF 2

101 AMERICAN AVE, BRENTWOOD, CA 94513

### LIBERTY UNION HIGH SCHOOL DISTRICT

#### REVISIONS

NO.	DATE	DESCRIPTION
BC-2	5/25/21	BID CLARIFICATION 2

DSA APP NO. 01-119268

ARCH PROJECT NO. 1870.00

DRAWN BY:

DRAWING SCALE:

PTN: 61721-77 FILE NO. 7-H4

BID SET

MAY 24, 2021

SHEET TITLE

### FIRST FLOOR PLAN BLDG. B - POWER & SIGNAL

### E-B3.1

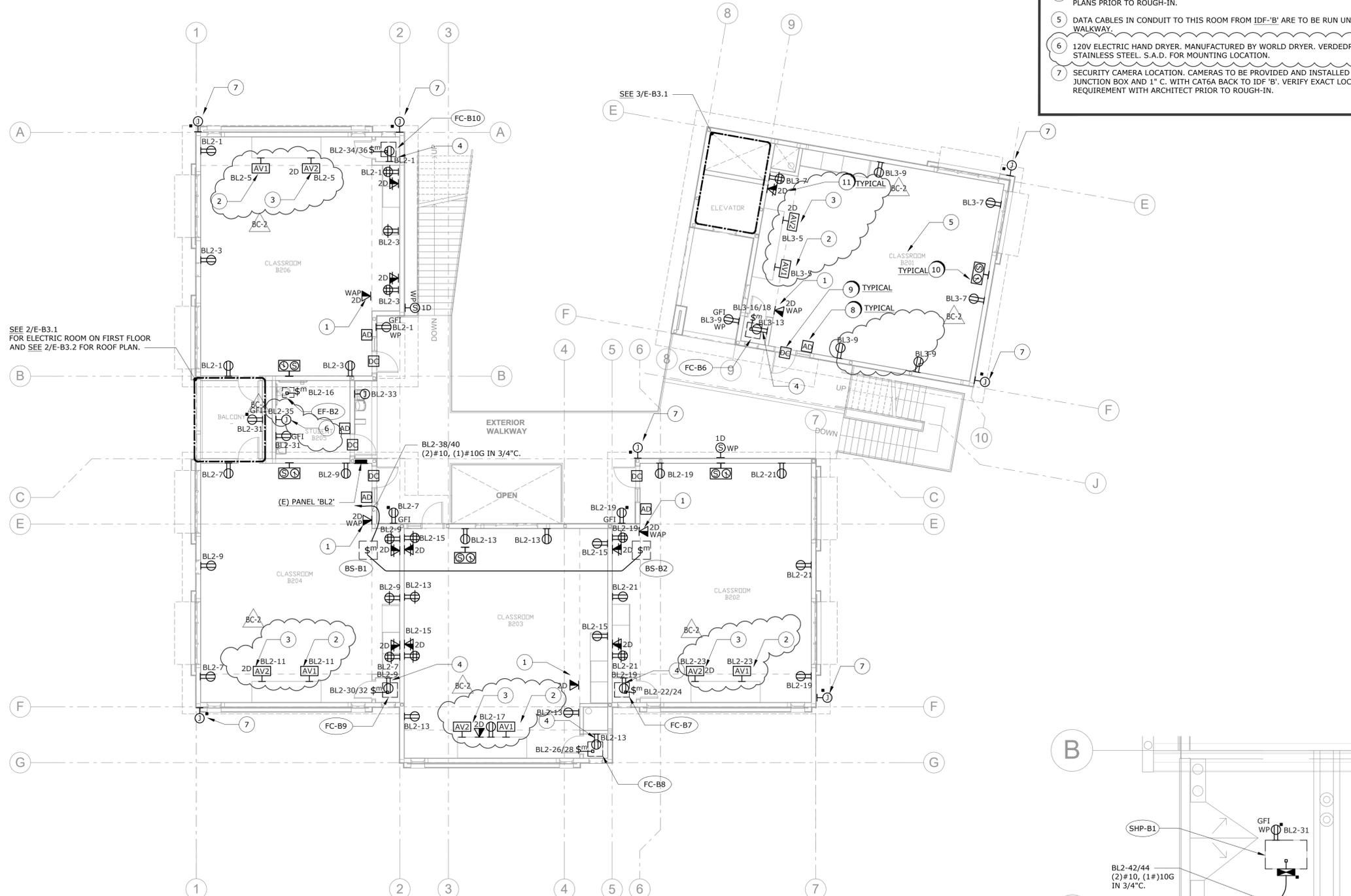
SHEET NUMBER

### NUMBERED SHEET NOTES

- 8 PROVIDE 3/4" C. FOR SECURITY SYSTEM AUDIO DETECTOR BACK TO SECURITY CONTROL PANEL. VERIFY MOUNTING LOCATION WITH ARCHITECT PRIOR TO ROUGH-IN. TYPICAL
- 9 PROVIDE 3/4" C. FOR SECURITY SYSTEM DOOR CONTACT BACK TO SECURITY CONTROL PANEL. TYPICAL
- 10 SEE 1/E-5.3 FOR CLOCK SPEAKERS.
- 11 SEE 2/E-5.3 FOR TELECOM.

### NUMBERED SHEET NOTES

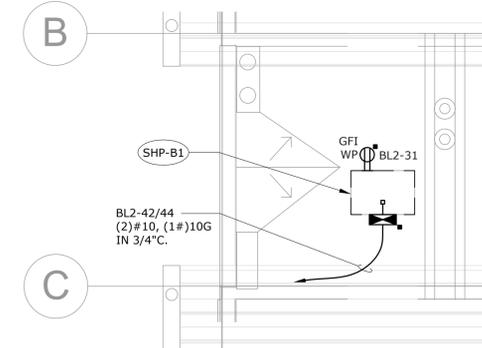
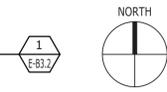
- 1 ON FACE OF SOFFIT.
- 2 LOCATION OF SHORT THROW PROJECTOR. AV1: PROVIDE 4-GANG HUBBELL AV BACKBOX #NSAV124M DOUBLE DUPLEX 120V OUTLET, DATA JACK, AND AV PASS THRU CABLING WHIPS, FOR CONNECTION TO SHORT THROW PROJECTOR ASSEMBLY. PROJECTOR AND MOUNT BY OTHERS. PROJECTOR WEIGHT IS LESS THAN 20LB.
- 3 LOCATION OF TEACHERS CONTROLS AV2: PROVIDE 4-GANG HUBBELL AV BACKBOX #NSAV124M WITH DOUBLE DUPLEX 120V OUTLET, DATA JACK, AND AV INPUT PASS THRU CABLING ((2) HDMI, (1) 3.5mm AUDIO), INSET INTO WALL. COORDINATE LOCATION WITH ARCHITECT. CONTINUE 1-1/2" CONDUIT FROM AV INPUTS TO AV1 LOCATION.
- 4 OUTLET REQUIRED FOR FAN COIL UNIT CONDENSATE PUMP. COORDINATE LOCATION WITH MECHANICAL PLANS PRIOR TO ROUGH-IN.
- 5 DATA CABLES IN CONDUIT TO THIS ROOM FROM IDF-'B' ARE TO BE RUN UNDERNEATH OF COVERED WALKWAY.
- 6 120V ELECTRIC HAND DRYER. MANUFACTURED BY WORLD DRYER. VERDEDRI MODEL Q-973A. BRUSHED STAINLESS STEEL. S.A.D. FOR MOUNTING LOCATION.
- 7 SECURITY CAMERA LOCATION. CAMERAS TO BE PROVIDED AND INSTALLED BY DISTRICT. PROVIDE 4" JUNCTION BOX AND 1" C. WITH CAT6A BACK TO IDF 'B'. VERIFY EXACT LOCATION AND HEIGHT REQUIREMENT WITH ARCHITECT PRIOR TO ROUGH-IN.



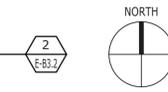
SEE 2/E-B3.1 FOR ELECTRIC ROOM ON FIRST FLOOR AND SEE 2/E-B3.2 FOR ROOF PLAN.

SEE 3/E-B3.1

**SECOND FLOOR PLAN BLDG. B - POWER & SIGNAL**  
SCALE: 1/8" = 1'-0"



**PARTIAL PLAN - BLDG. B ROOF**  
SCALE: 1/4" = 1'-0"



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MAY 24, 2021  
SHEET TITLE

**SECOND FLOOR PLAN BLDG. B - POWER & SIGNAL**

SHEET NUMBER  
**E-B3.2**



The use of these plans and specifications shall be restricted to the original site for which they were prepared and publication thereof is expressly limited to such use. Reuse, reproduction, or publication by any method, in whole or in part, is prohibited. Title to the plans and specifications remains in the engineer without prejudice. Visual contact with these plans and specifications shall constitute prima facie evidence of the acceptance of these restrictions.

**SOIL BEARING CAPACITY 2000 PSF FOR CLAYEY SAND SOILS TYPE ACCORDANCE WITH NFPA 13: TABLE A10.6(c). SEE GEOTECHNICAL REPORT FOR DESCRIPTION OF SOIL CONDITIONS.**

**TRUST BLOCK CALCULATIONS PER NFPA 13: A10.6.1(d)**  
 6"-90 BEND AREA = (7.9 S.F.)(225 PSI/100PSI)(1000 PSF/2000PSF) = 8.9 S.F.  
 6"-45 BEND AREA = 8.9 S.F. x 0.541 = 4.8 S.F.  
 6"-22.5 BEND AREA = 8.9 S.F. x 0.275 = 2.5 S.F.  
 6"-DEAD END AREA = (5.6 S.F.)(225 PSI/100 PSI)(1000 PSF/2000PSF) = 6.3 S.F.

PIPE SIZE	90° BENDS		45° BENDS		22.5° BENDS		TEES AND PLUGS					
	SQ. FT.	"A"	"B"	SQ. FT.	"A"	"B"	SQ. FT.	"A"	"B"			
6	8.9	53"	24"	4.8	39"	18"	2.5	30"	12"	6.3	43"	21"

BASED ON A WATER PRESSURE OF 225 POUNDS PER SQUARE INCH AND A SOIL RESISTANCE OF 2000 POUNDS PER SQUARE FOOT, AND SAFETY FACTOR OF 1.5 IN ACCORDANCE WITH NFPA 13(2016) TABLE A.10.6.1(d).

TOTAL BLOCK DEPTH SHALL BE AT LEAST TWICE THE BLOCK DEPTH "B" IN ACCORDANCE WITH NFPA 24.

JOINT RESTRAINT SHALL UTILIZE BOTH THRUST BLOCKS AND MEGALUG MECHANICAL JOINT RESTRAINT FITTINGS PER LOCAL FIRE MARSHAL.

**1 UNDERGROUND RISER** N.T.S.

**DETAIL NOTES:**

- FOR DETAIL OF OVERHEAD SPRINKLER SYSTEM RISER, SEE 1/FP6.1
- UNDERGROUND WORK TO FLANGE WITH END CAP, 12" ABOVE FINISH GRADE. PROVIDE DIELECTRIC INSULATING FLANGE KIT, SEE CP-1.3.
- PIPE SLEEVE NOMINALLY 4" GREATER IN DIAMETER THAN THE UNDERGROUND RISER IN ACCORDANCE WITH NFPA 13.9.3.4.2, SEE PLANS FOR SIZE
- DUCTILE IRON, SEE PLANS FOR SIZE.
- PROVIDE CATHODIC PROTECTION, SEE CP-1.2
- DUCTILE IRON M&FE 90° ELBOW
- THRUST BLOCK SEE DETAIL 3/FP-0.2
- HYDRAULIC CALCULATION NODE, TYPICAL
- TO UNDERGROUND FIRE SERVICE, SEE C-3.0
- FILL ANNULAR SPACE WITH FLEXIBLE FIRE CAULK IN ACCORDANCE WITH NFPA13-9.3.4.8.
- PIPE JOINTS SHALL NOT BE LOCATED DIRECTLY UNDER FOOTING IN ACCORDANCE WITH NFPA13-10.4.3.1.1.

**3 THRUST BLOCK** N.T.S.

**2 UTILITY TRENCH** N.T.S.

**DETAIL NOTES:**

- SELECT NATIVE SOILS, 90% COMPACTION FOR AREAS TO BE LEFT IN NATIVE STATE ONLY. CAP AREAS IN UNPAVED ROADWAYS WITH 12" CLASS 2 AGGREGATE BASE, 95% COMPACTION
- SAWCUT PAVEMENT EACH SIDE OF TRENCH 6" FROM TRENCH EDGE. REMOVE PAVEMENT AND BASEROCK, REPLACE AND RECOMPOST. BASEROCK TACKCOAT EDGE AND REPAVE
- SELECT SAND BACKFILL AT 95% COMPACTION
- CLASS 2 AGGREGATE BASEROCK
- PLASTIC WARNING TAPE MARKED "FIRE WATER"
- 10 GA. COPPER TRACE WIRE COATED AND STRANDED TAPED ON TOP OF ALL NON-METALLIC PIPE
- SAND BEDDING MATERIAL(95% COMPACTION)
- FIRE SERVICE PIPING



CEG JOB NO. 20117

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 Monterey, CA 93940  
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**HERITAGE HIGH SCHOOL**

**NEW CLASSROOM BUILDINGS INCREMENT 2 OF 2**

101 AMERICAN AVE,  
 BRENTWOOD, CA 94513

LIBERTY UNION HIGH SCHOOL DISTRICT

**REVISIONS**

NO.	DATE	DESCRIPTION
BC-2	5/25/21	BID CLARIFICATION 2

DSA APP NO. 01-119268

ARCH PROJECT NO: 1870.00

DRAWN BY:

DRAWING SCALE: NONE

PTN: 61721-77 FILE NO: 7-H4

**BID SET**

**MAY 24, 2021**

SHEET TITLE

**DETAILS - FIRE PROTECTION**

SHEET NUMBER

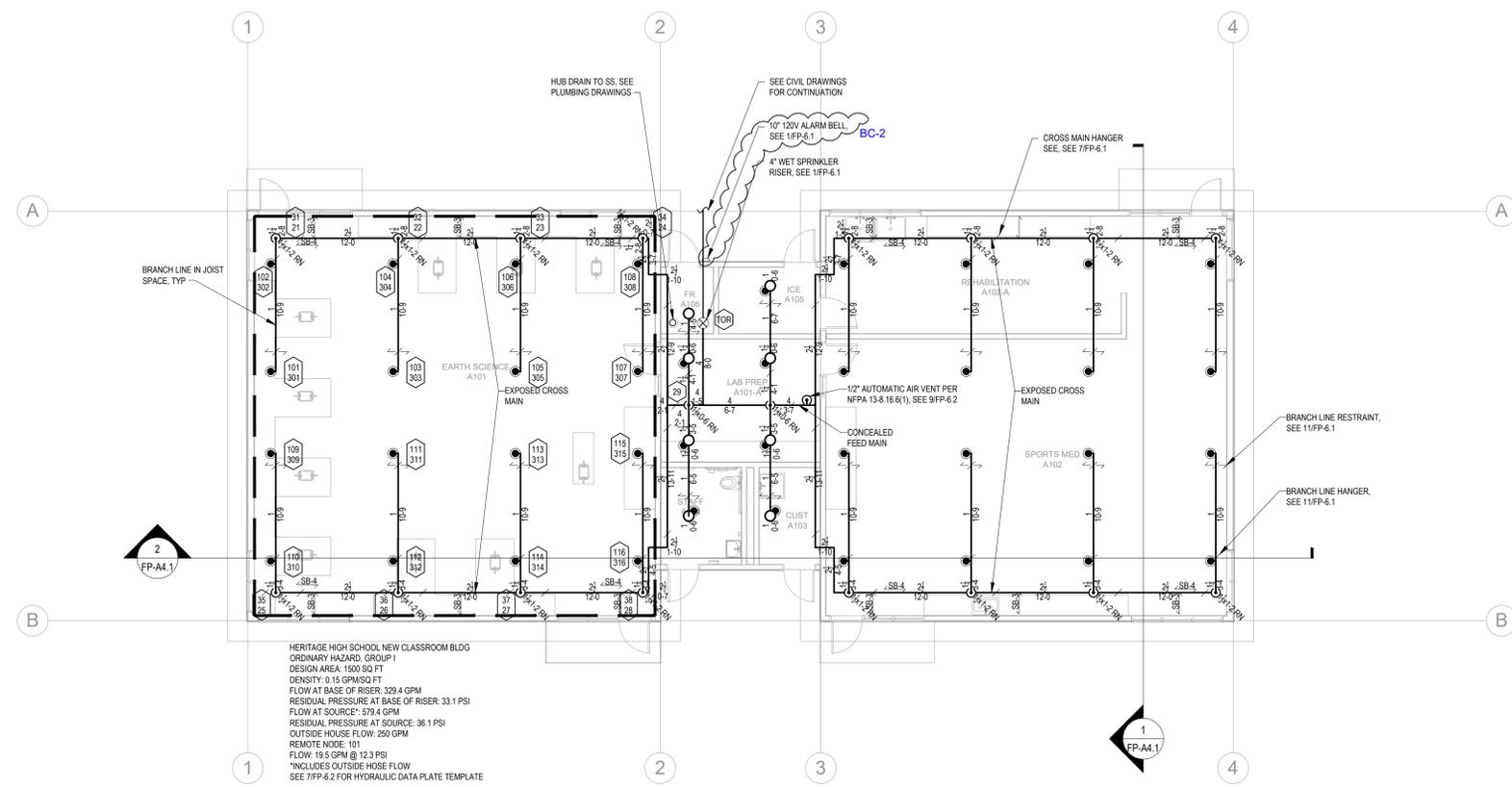
**FP-0.2**

The use of these plans and specifications shall be restricted to the original site for which they were prepared and publication hereof is expressly limited to such use. Reuse, reproduction, or publication by any method, in whole or in part, is prohibited. Title to the plans and specifications remains in the engineer without prejudice. Visual contact with these plans and specifications shall constitute prima facie evidence of the acceptance of these restrictions.

SPRINKLER									
SYMBOL	DESCRIPTION	MANF.	MODEL	SIN	TYPE	K FACTOR	TEMP RATING	QTY	NOTES
●	RECESSED PENDENT	TYCO	TY-FRB	3231	SSP	5.6	155 °F	39	1, 2, 3, 4.
○	UPRIGHT ON BRANCH LINE	TYCO	TY-FRB	3131	SSU	5.6	155 °F	0	
○	CONCEALED UPRIGHT	TYCO	TY-FRB	3131	SSU	5.6	155 °F	8	
TOTAL SPRINKLER (THIS SHEET)								47	
TOTAL SPRINKLERS BLDG A								47	

- FINISH TO MATCH ADJACENT MATERIAL VERIFY WITH ARCHITECT
- PROVIDE ON 401 EXTENSION
- PROVIDE STYLE 10 RECESSED ESCUTCHEON. FINISH TO MATCH ADJACENT MATERIAL VERIFY WITH ARCHITECT
- FOR LAY IN PANEL SUSPENDED CEILINGS PROVIDE 1" ANNULAR CLEARANCE AROUND RECESSED ESCUTCHEON. CONCEAL OVERSIZED HOLE WITH VIKING 1260 EXPANSION PLATE. FINISH TO MATCH ADJACENT MATERIAL VERIFY WITH ARCHITECT

- ### GENERAL NOTES
- ALL DIMENSIONS ARE CENTERLINE TO CENTERLINE UNLESS OTHERWISE NOTED.
  - ALL PIPE 1-1/2" AND SMALLER SHALL BE SCHEDULE 40 BLACK STEEL WITH CAST IRON THREADED FITTINGS IN ACCORDANCE WITH ANSI B16.4.
  - ALL PIPE 2" AND GREATER SHALL BE SCHEDULE 10 BLACK STEEL WITH GROOVED COUPLINGS AND WELDED OUTLETS.
  - ALL PIPE 1-1/2" AND SMALLER SHALL HAVE SUPPORT SPACING LESS THAN 12 FEET.
  - ALL PIPE 2" AND GREATER SHALL HAVE SUPPORT SPACING LESS THAN 15 FEET.
  - BRANCH LINES SHALL BE RESTRAINED AT THE END OF BRANCH LINE, AND AT INTERVALS NOT EXCEEDING 26 FT PER NFPA-13 TABLE 9.3.6.4(a).
  - PROVIDE 1" ANNULAR CLEARANCE AT ALL SPRINKLER PENETRATIONS OF LAY IN PANEL SUSPENDED CEILINGS.
  - PAINT ALL EXPOSED PIPING TO MATCH ADJACENT FINISHES.



HERITAGE HIGH SCHOOL NEW CLASSROOM BLDG  
 ORDINARY HAZARD, GROUP 1  
 DESIGN AREA: 1500 SQ FT  
 DENSITY: 0.15 GPM/SQ FT  
 FLOW AT BASE OF RISER: 329.4 GPM  
 RESIDUAL PRESSURE AT BASE OF RISER: 33.1 PSI  
 FLOW AT SOURCE: 579.4 GPM  
 RESIDUAL PRESSURE AT SOURCE: 36.1 PSI  
 OUTSIDE HOSE FLOW: 250 GPM  
 REMOTE NODE: 101  
 FLOW: 19.5 GPM @ 12.3 PSI  
 \*INCLUDES OUTSIDE HOSE FLOW  
 SEE 71FP-6.2 FOR HYDRAULIC DATA PLATE TEMPLATE

**1 PIPING PLAN - FIRE PROTECTION**  
 FP-A2.1 SCALE: 1/8" = 1'-0"



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## HERITAGE HIGH SCHOOL

### NEW CLASSROOM BUILDINGS INCREMENT 2 OF 2

101 AMERICAN AVE,  
 BRENTWOOD, CA 94513

### LIBERTY UNION HIGH SCHOOL DISTRICT

#### REVISIONS

NO.	DATE	DESCRIPTION
BC-2	5/25/21	BID CLARIFICATION 2

DSA APP NO. 01-119268

ARCH PROJECT NO: 1870.00

DRAWN BY:

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

PTN: 61721-77 FILE NO: 7-H4

#### BID SET

MAY 24, 2021

SHEET TITLE

## PIPING PLAN - FIRE PROTECTION

SHEET NUMBER

# FP-A2.1



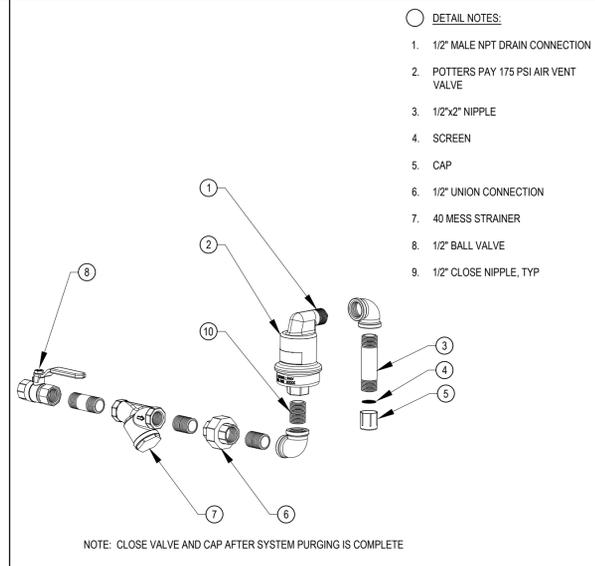
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 Environmental Compliance  
 Training & Technical Support

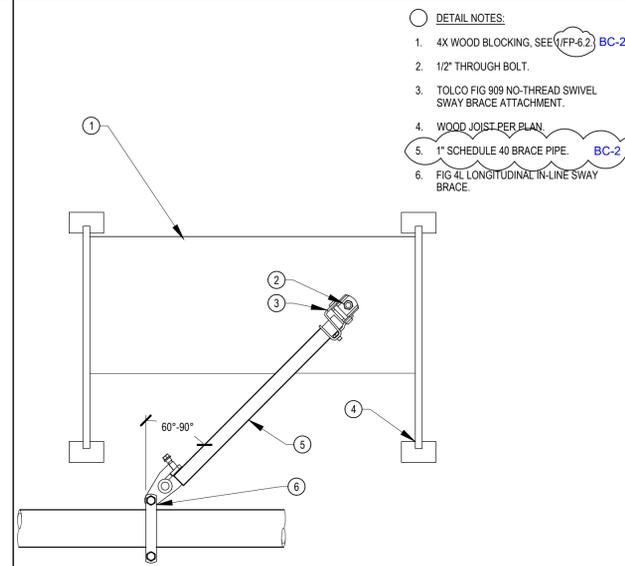
CEG JOB NO: 20117



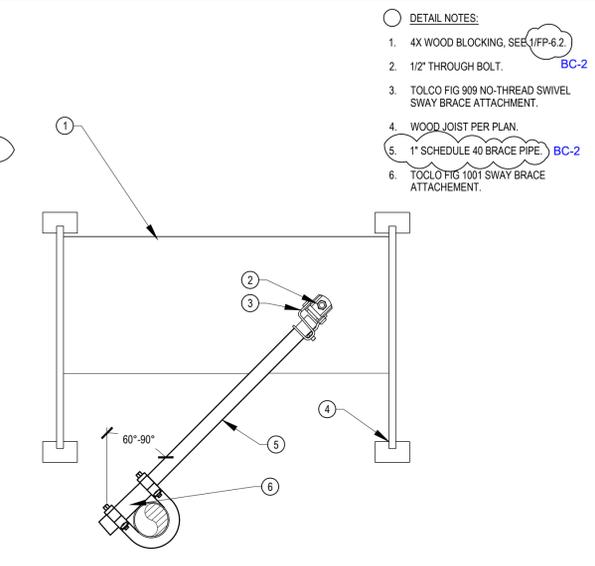
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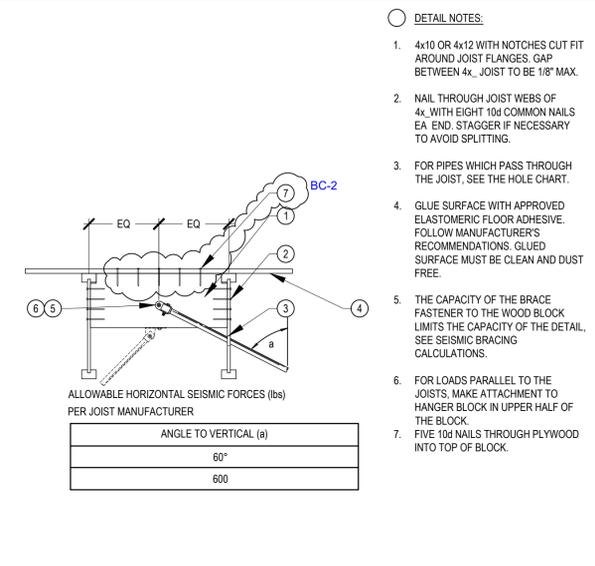
9 AIR VENT N.T.S.



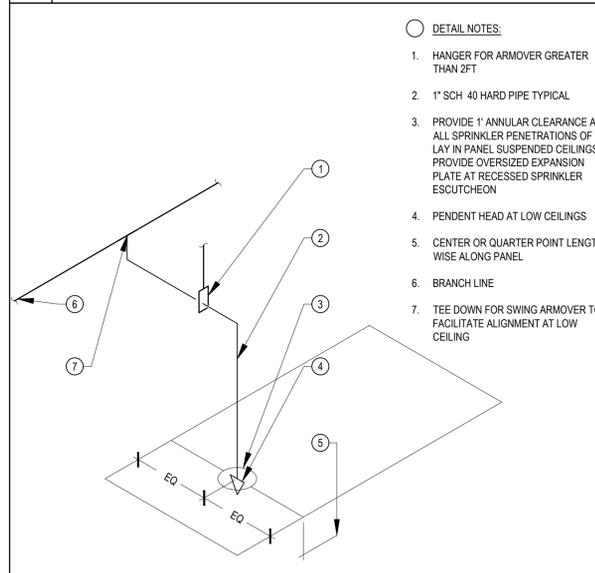
6 LONGITUDINAL SEISMIC BRACE SB-4 N.T.S.



3 LATERAL SEISMIC BRACE SB-1 N.T.S.



1 STRUCTURE ATTACHMENT N.T.S.



10 TYPICAL DROP TO CEILING N.T.S.

**HYDRAULIC - SYSTEM**

THIS BUILDING IS PROTECTED BY A HYDRAULIC DESIGN AUTOMATIC SPRINKLER SYSTEM

LOCATION: \_\_\_\_\_

---

**SPRINKLER INFORMATION**

NUMBER OF FLOWING SPRINKLERS: \_\_\_\_\_ PROTECTION AREA PER SPRINKLER: \_\_\_\_\_

MANUFACTURER: \_\_\_\_\_ MODEL: \_\_\_\_\_ TEMPERATURE: \_\_\_\_\_

TYPE: \_\_\_\_\_ K-FACTOR: \_\_\_\_\_

ORIFICE: \_\_\_\_\_

---

**BASIS OF DESIGN**

STANDARD: NFPA 13, 2016 EDITION HAZARD GROUP: \_\_\_\_\_

DENSITY: \_\_\_\_\_ DESIGN AREA OF DISCHARGE: \_\_\_\_\_

---

**SYSTEM DEMAND**

FLOW AT THE BASE OF THE RISER \_\_\_\_\_ HOSE STREAM ALLOWANCE \_\_\_\_\_

RESIDUAL PRESSURE AT THE BASE OF THE RISER \_\_\_\_\_ INSIDE \_\_\_\_\_

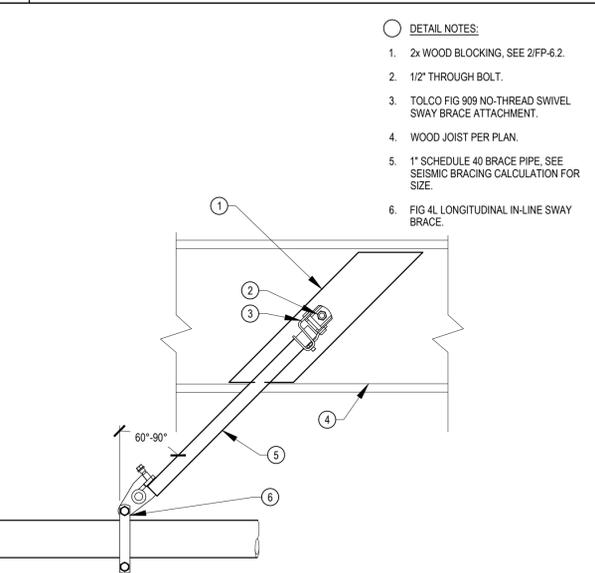
REQUIRED FLOW AT THE SOURCE \_\_\_\_\_ TOTAL \_\_\_\_\_

REQUIRED PRESSURE AT THE SOURCE \_\_\_\_\_ REMOTE SPRINKLER FLOW \_\_\_\_\_

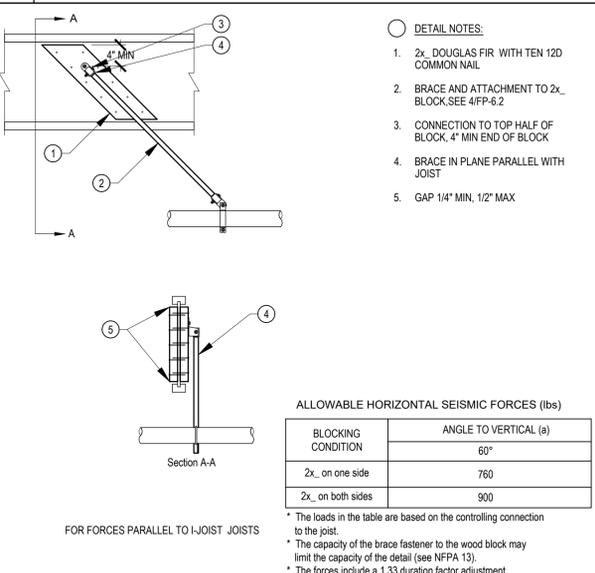
\_\_\_\_\_ GPM \_\_\_\_\_ @ \_\_\_\_\_

NOTE: SEE FP-A2.1 AND FP-B2.1 FOR HYDRAULIC DATA PLATE INFORMATION

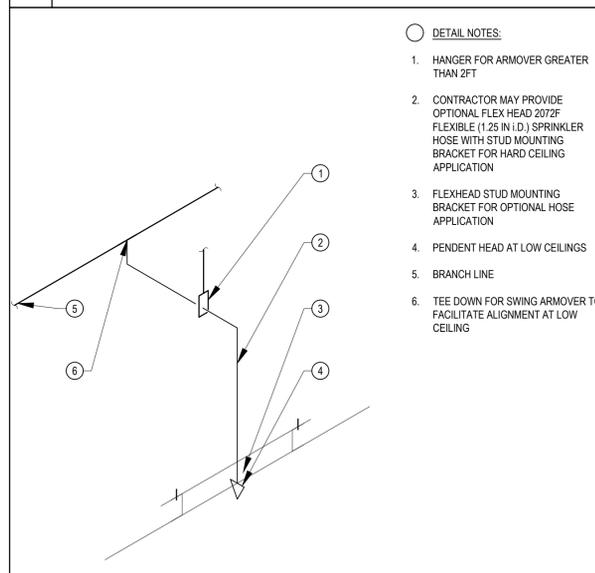
7 HYDRAULIC DATA PLATE TEMPLATE N.T.S.



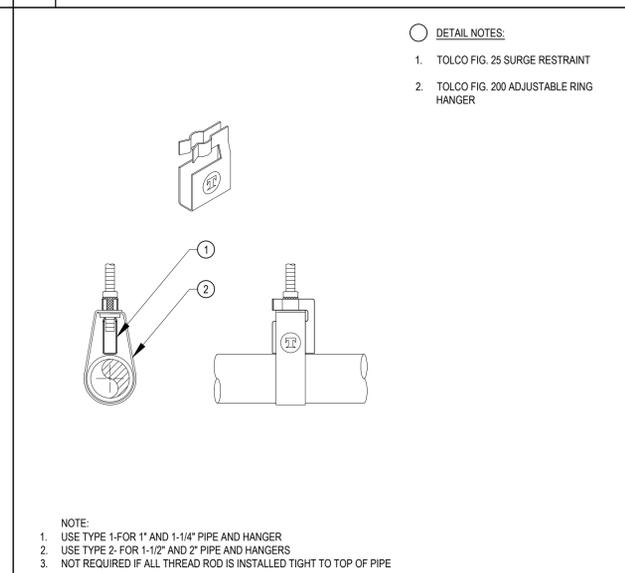
4 LONGITUDINAL SEISMIC BRACE SB-2 N.T.S.



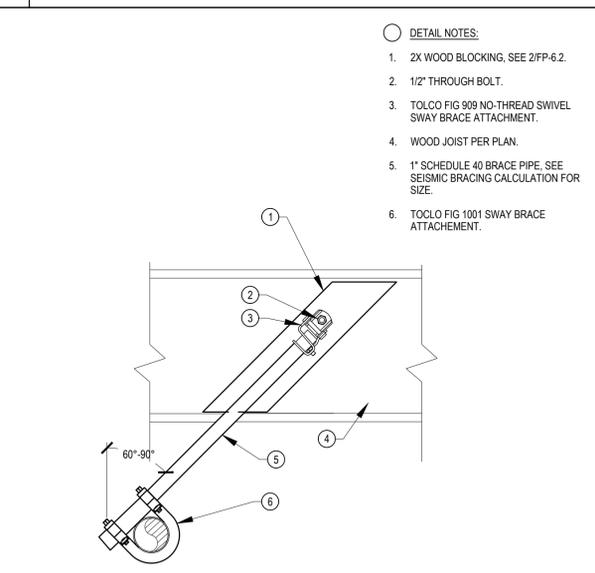
2 STRUCTURE ATTACHMENT N.T.S.



11 DROP HARD CEILING N.T.S.



8 SURGE RESTRAINT N.T.S.



5 LATERAL SEISMIC BRACE SB-3 N.T.S.

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**REVISIONS**

NO.	DATE	DESCRIPTION
BC-2	5/25/21	BID CLARIFICATION 2

DSA APP NO. 01-119268

ARCH PROJECT NO: 1870.00

DRAWN BY: \_\_\_\_\_

DRAWING SCALE: NONE

PTN: 61721-77 FILE NO: 7-H4

**BID SET**

**MAY 24, 2021**

SHEET TITLE

**DETAILS - FIRE PROTECTION**

SHEET NUMBER

**FP-6.2**



CEG JOB NO. 20117

**CYPRESS Engineering Group**

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 8 Harris Court, Suite A8  
 Monterey, CA 93940  
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HVAC, Plumbing, Fire Protection  
 Building Commissioning  
 Industrial Refrigeration  
 Environmental Compliance  
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# Heritage HS Classroom Building Logistics Plan

Protect (4) existing trees.

Protect existing water devices, electrical devices, & irrigation boxes.

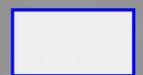
Contractor Laydown

Contractor Parking

## LEGEND



At perimeter of project site, Contractor to maintain temporary 6 foot chain link fencing.



Contractor Laydown - Contractor to maintain temporary 6 foot chain link fencing at perimeter of Contractor laydown area. Contractor to restore laydown area with new irrigation and hydroseed with no-mow grass upon project completion.



Contractor Parking Area



Gate within temporary fencing

## EXTERIOR ELEVATION KEYNOTES

NOT ALL KEYNOTES MAY APPLY TO THIS SHEET

- ① PLUMBING/ MECH. ITEM / FIXTURE, S.P.D.
- ② ELECTRICAL ITEM, S.E.D.
- ③ STRUCTURAL ITEM, S.S.D.
- ④ RAIN WATER LEADER, SEE FLOOR PLAN
- ⑤ ROOF DRAIN OVERFLOW, SEE FLOOR PLAN
- ⑥ ROOF COPING AT PARAPET, SEE ROOF PLAN
- ⑦ PREFORMED METAL ROOF, SEE ROOF PLAN
- ⑧ RAIN CANOPY, SEE RCP
- ⑨ SUNSHADE CANOPY, SEE RCP
- ⑩ STOREFRONT, SEE FLOOR PLAN
- ⑪ SIGNAGE, S.A.G.D.
- ⑫ CONTROL & EXPANSION JOINTS, TYP

⑬ GUARD RAIL AT EXTERIOR WALKWAY, SEE

⑭ LOUVER, SEE DTLS

4  
A-9.7

7  
A-9.5

11  
A-9.5

12  
A-9.5

BC-02

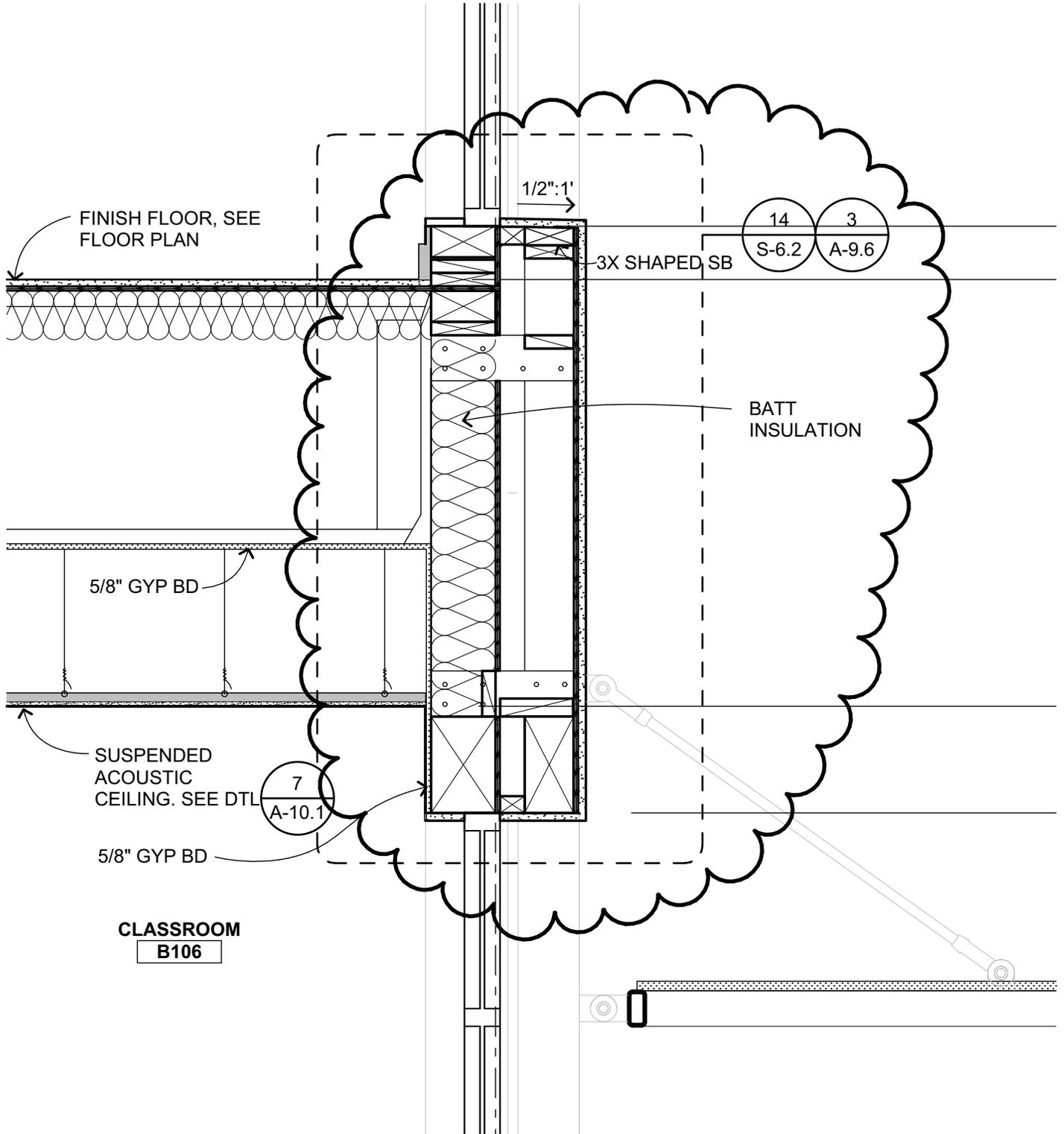


### HERITAGE HIGH SCHOOL NEW CLASSROOM BUILDINGS

SCALE: N/A  
DATE: May 25, 2021  
REFERENCE DRAWING: A-A5.1, A-B5.1 AND A-B5.2

QKA JOB #:1870.00  
DSA APP. #:01-119268  
DSA FILE #:7-H4

**BC 02.01**



**BLDG B EXTERIOR WALL**

**1**

3/4" = 1'-0"

**CLASSROOM  
B106**

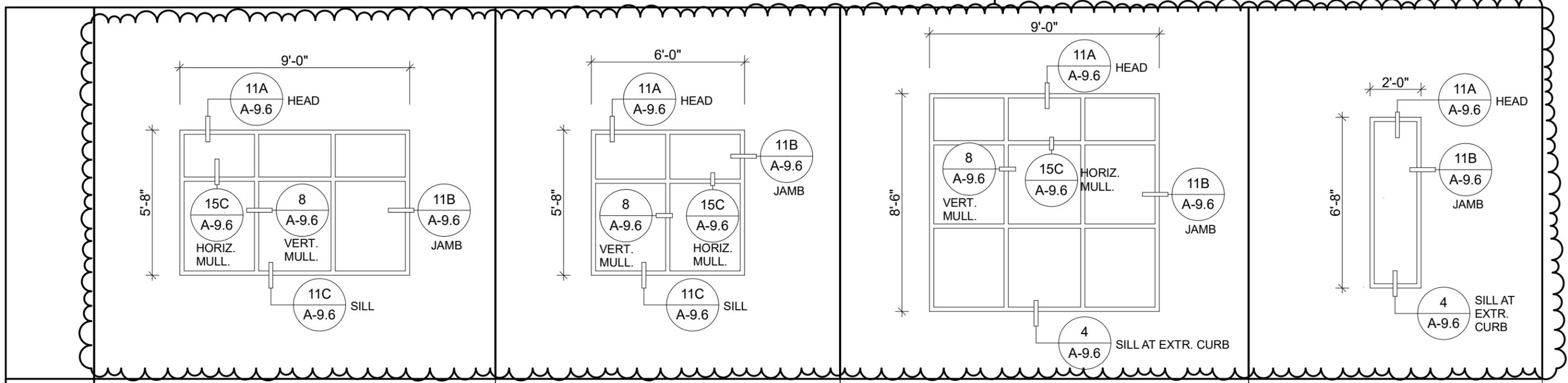
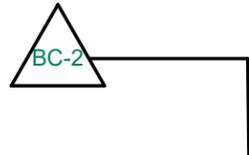


**HERITAGE HIGH SCHOOL  
NEW CLASSROOM BUILDINGS**

SCALE: 3/4" = 1'-0"  
 DATE: May 20, 2021  
 REFERENCE DRAWING: 1 / A-B6.4 (CENTER PORTION)

QKA JOB #:1870.00  
 DSA APP. #:01-119268  
 DSA FILE #:7-H4

**BC 02.02**



	W01	W02	W04	W05
TYPE	ALUMINUM STOREFRONT	ALUMINUM STOREFRONT	ALUMINUM STOREFRONT	ALUMINUM STOREFRONT
GLAZING	SINGLE GLAZED	SINGLE GLAZED	SINGLE GLAZED	SINGLE GLAZED
OPERATION	FIXED	FIXED	FIXED	FIXED
RATING	UNRATED	UNRATED	UNRATED	UNRATED

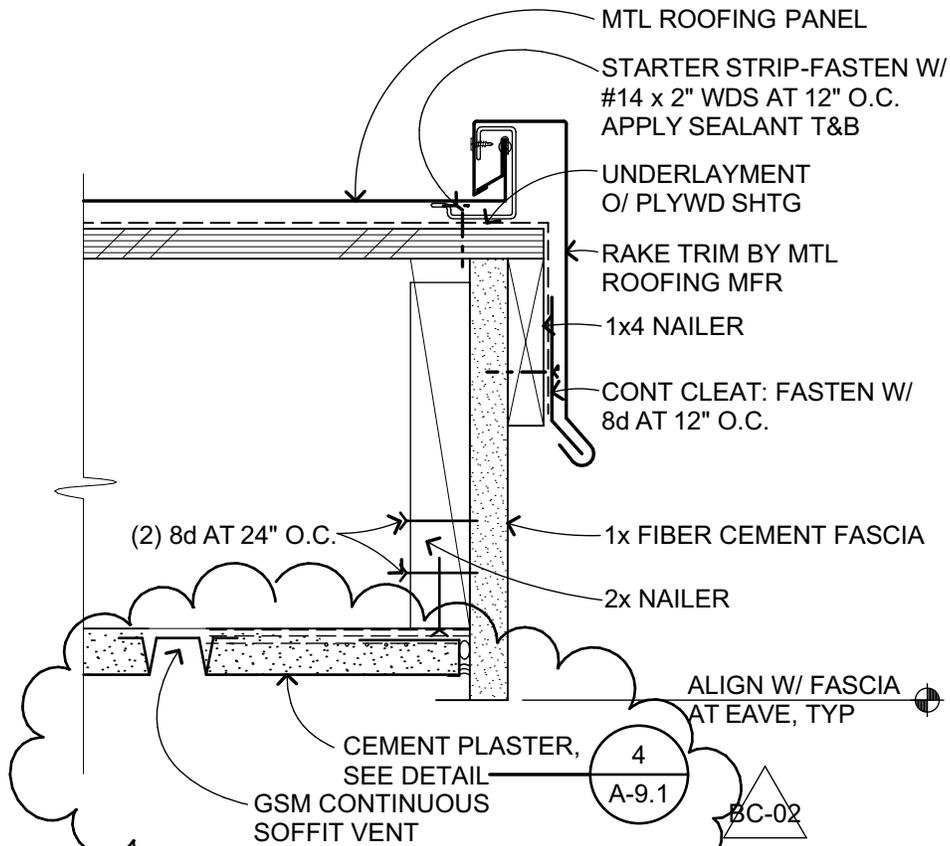


**HERITAGE HIGH SCHOOL  
NEW CLASSROOM BUILDINGS**

SCALE: 1/4" = 1'-0"  
DATE: MAY 25, 2021  
REFERENCE DRAWING: A-8.1

QKA JOB #: 1870.00  
DSA APP. #: 01-119268  
DSA FILE #: 7-H4

**BC 02.03**



## ROOF RAKE AT OVERHANG

3" = 1'-0"

B301103\_A

11

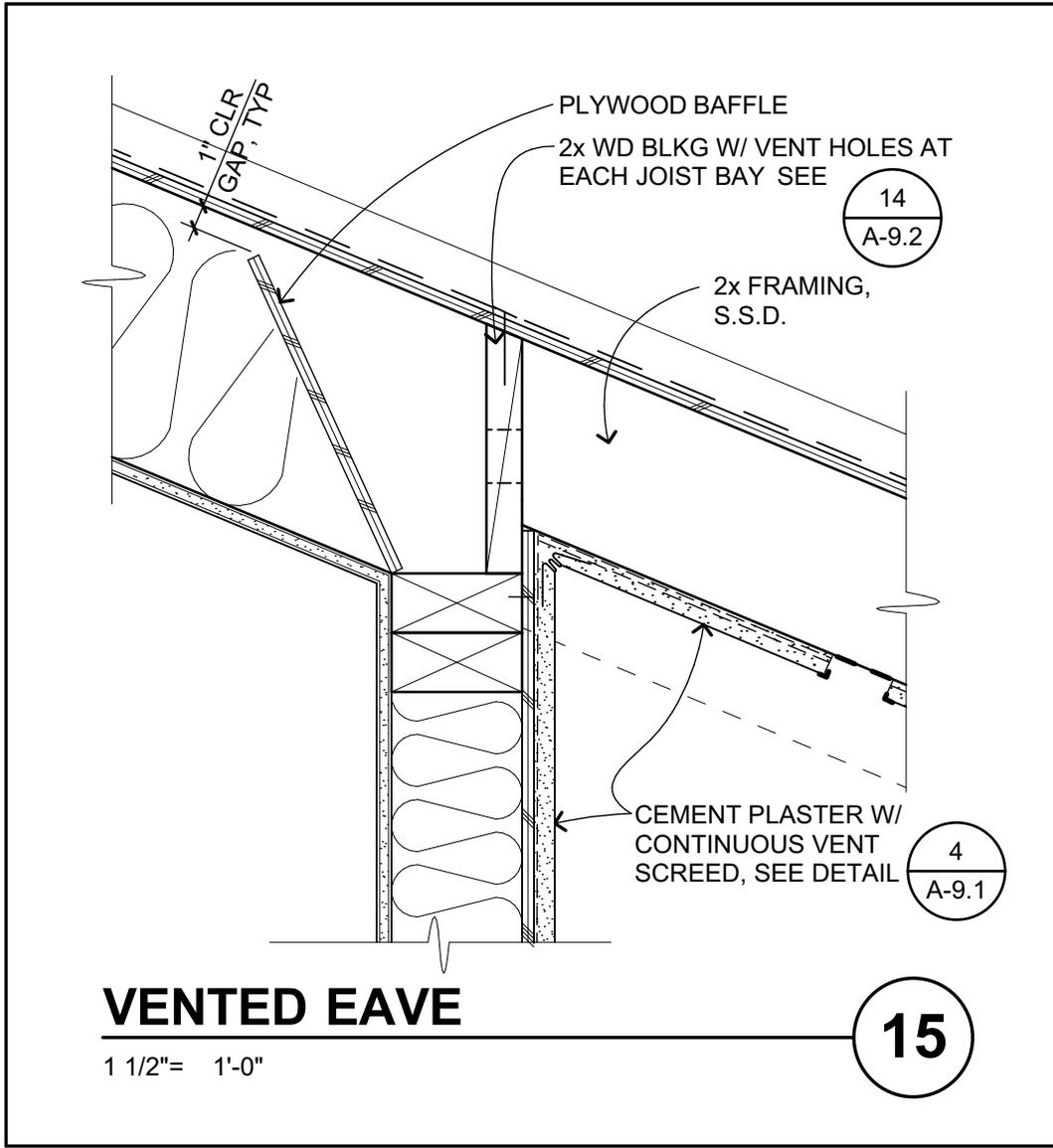


### HERITAGE HIGH SCHOOL NEW CLASSROOM BUILDINGS

SCALE: 3" = 1'-0"  
DATE: May 25, 2021  
REFERENCE DRAWING: 11 / A9.2

QKA JOB #:1870.00  
DSA APP. #:01-119268  
DSA FILE #:7-H4

**BC 02.04**

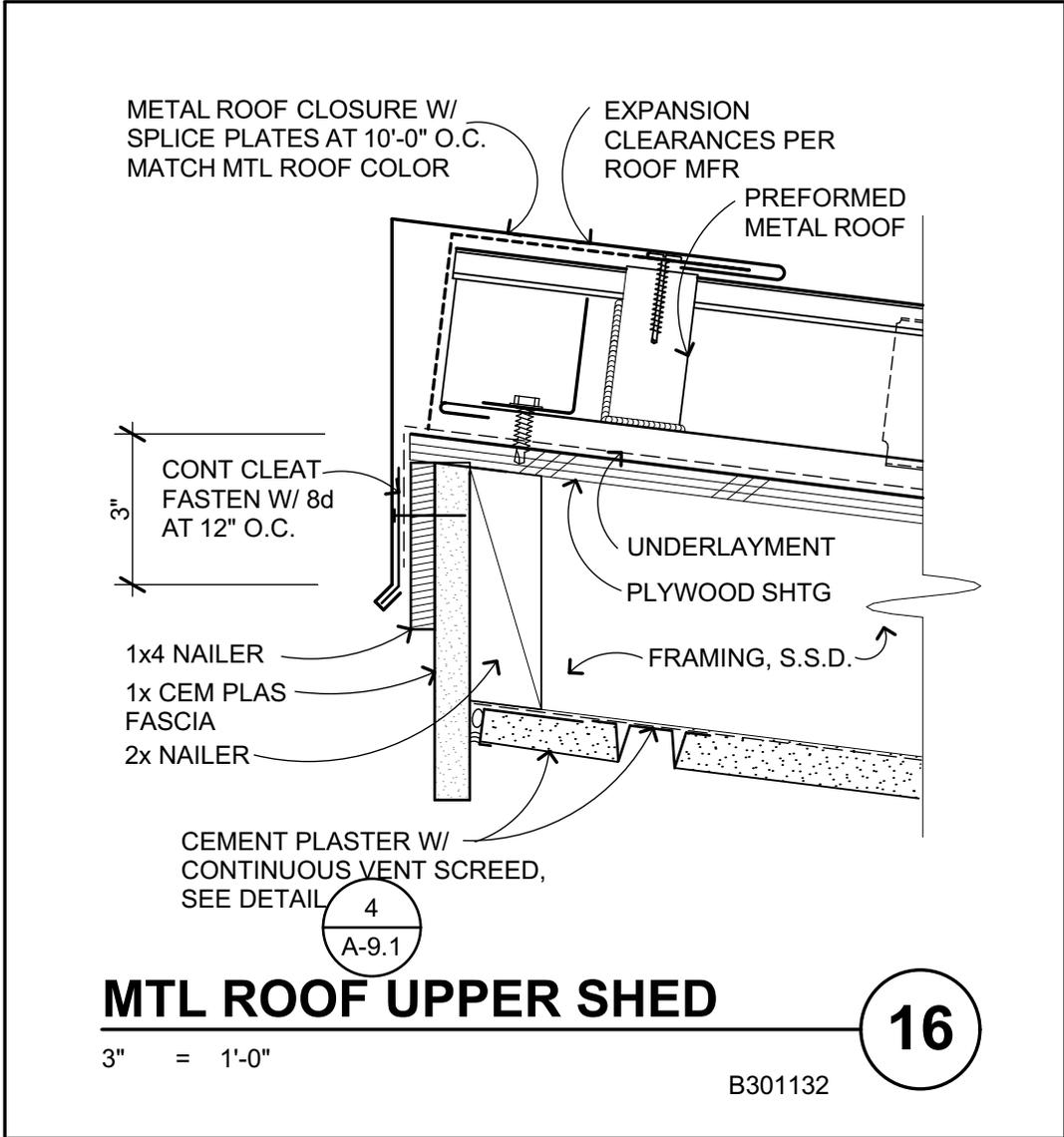


**HERITAGE HIGH SCHOOL  
NEW CLASSROOM BUILDINGS**

SCALE: 3" = 1'-0"  
 DATE: MAY 25, 2021  
 REFERENCE DRAWING: 15 / A9.2

QKA JOB #:1870.00  
 DSA APP. #:01-119268  
 DSA FILE #:7-H4

**BC 02.05**

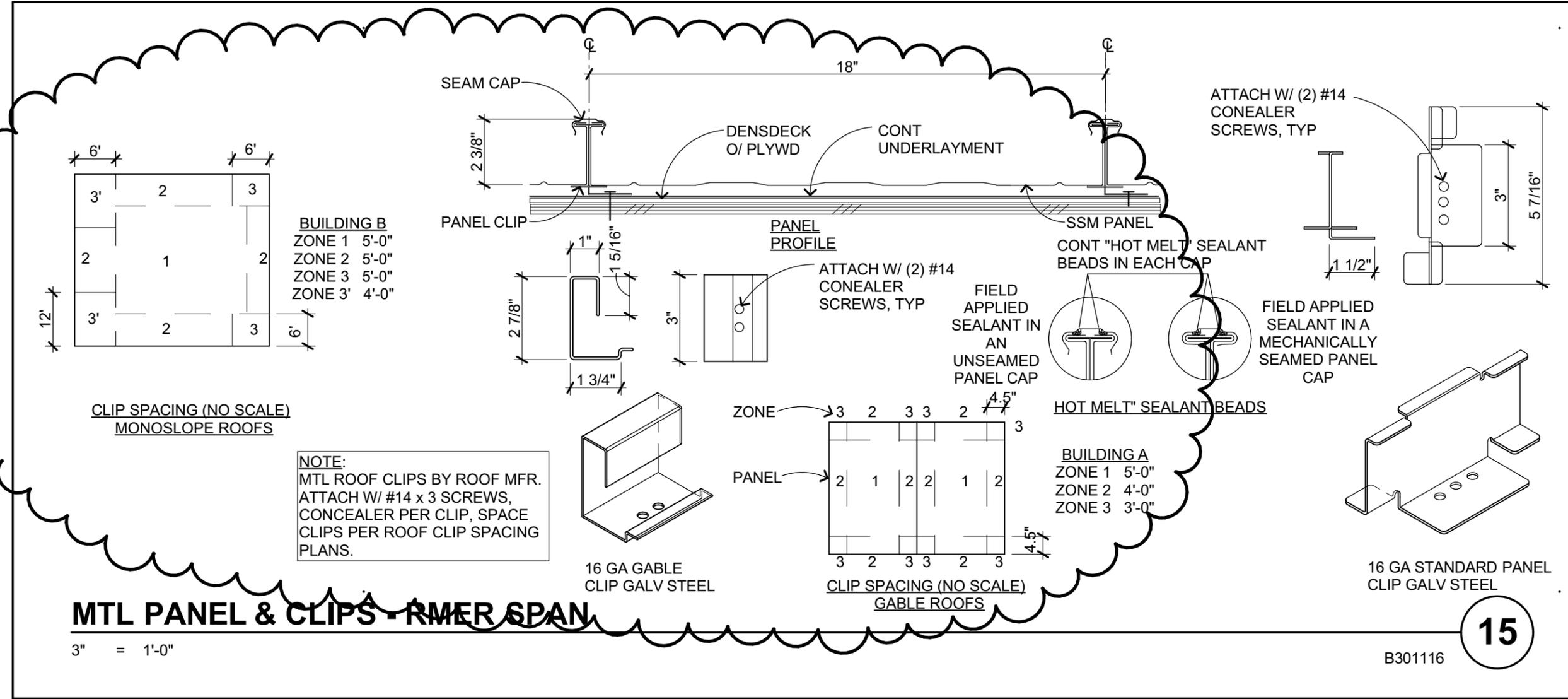


**HERITAGE HIGH SCHOOL  
NEW CLASSROOM BUILDINGS**

SCALE: 3" = 1'-0"  
DATE: MAY 25, 2021  
REFERENCE DRAWING: 16 / A9.2

QKA JOB #:1870.00  
DSA APP. #:01-119268  
DSA FILE #:7-H4

**BC 02.06**



**MTL PANEL & CLIPS - RMR SPAN**

3" = 1'-0"

**15**

B301116

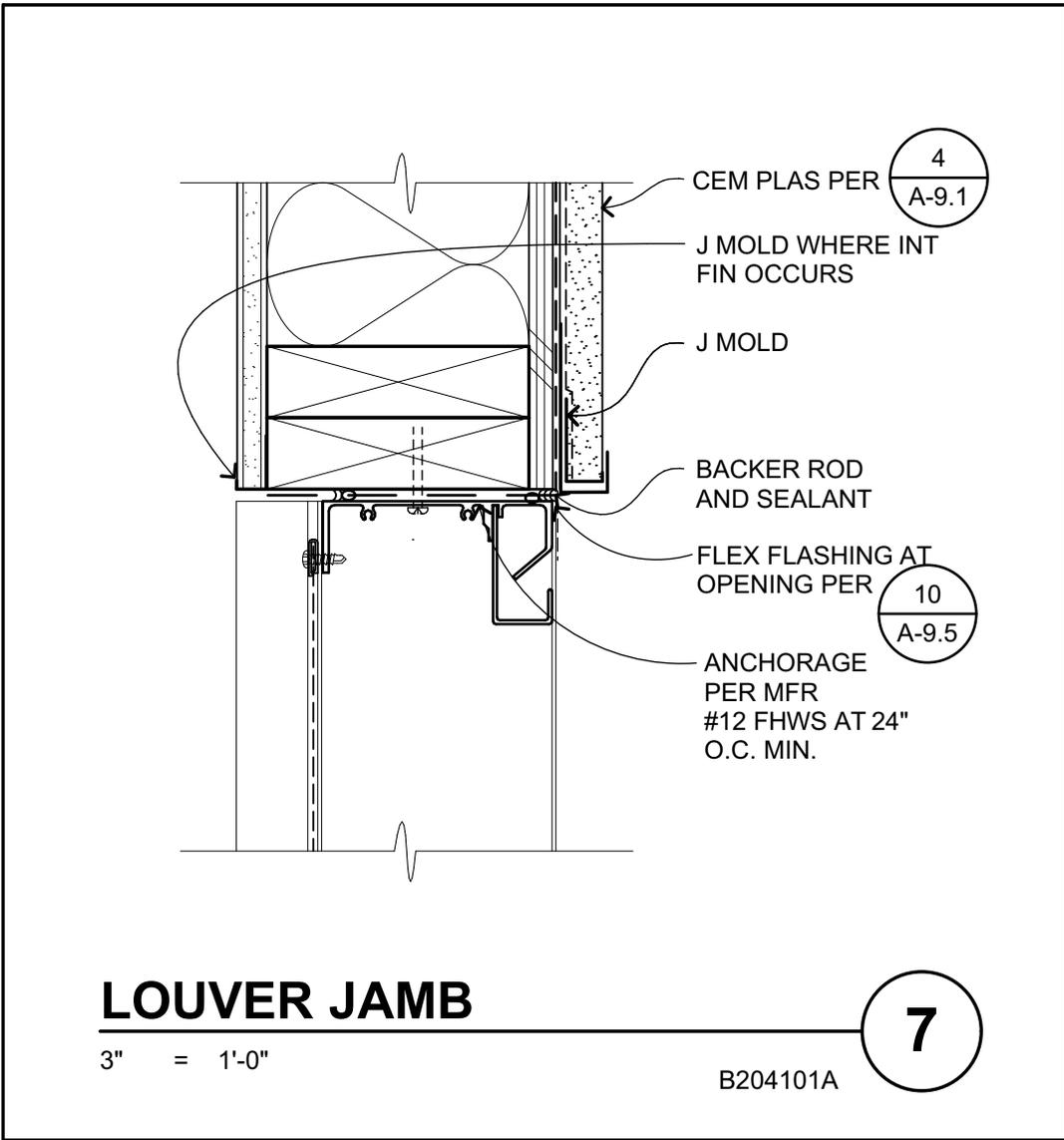


**HERITAGE HIGH SCHOOL  
NEW CLASSROOM BUILDINGS**

SCALE: 3" = 1'-0"  
DATE: MAY 25, 2021  
REFERENCE DRAWING: 15 / A-9.3

QKA JOB #:1870.00  
DSA APP. #:01-119268  
DSA FILE #:7-H4

**BC 02.07**



**HERITAGE HIGH SCHOOL  
NEW CLASSROOM BUILDINGS**

SCALE: 3" = 1'-0"  
DATE: MAY 25, 2021  
REFERENCE DRAWING: 7 / A-9.5

QKA JOB #:1870.00  
DSA APP. #:01-119268  
DSA FILE #:7-H4

**BC 02.08**