

**Addendum No. 2**  
**May 6, 2022**

Project: Webster Area School – 2022 CTE Addition & Remodeling  
Webster, South Dakota  
Architecture Incorporated Project #2936

Architect: Architecture Incorporated

Letting: Thursday, May 12, 2022  
2:00 p.m.  
Webster Area School District Business Office, located at 102 East 9<sup>th</sup> Avenue, Webster, South Dakota

Scope of this Addendum:

To all bidders and all others to whom drawings and specifications have been issued by Architecture Incorporated, this Addendum forms a part of the Contract Documents. Acknowledge receipt of this addendum by listing its number and date in the bidder's Form of Proposal. Failure to do so may subject bidder to disqualification. This addendum modifies the drawings and specifications as follows:

**GENERAL ITEMS:**

- 1) CLARIFICATION: In Area C, where VCT floor tile is being removed by Owner, the tile and glue will be removed by the Owner.
- 2) OWNER PROVIDED EQUIPMENT (tentative ship dates).
  - a) Boiler is currently scheduled to ship on June 3, 2022.
  - b) Pump package is currently scheduled to ship on June 21, 2022.
- 3) SECTION 011000 – SUMMARY OF WORK
  - a) Page 011000-2-3, 1.4 WORK SEQUENCE – B.4. Phase 1B: construction of the CTE Addition. Change the Substantial Completion Date of March 15, 2023 to **August 15, 2023**. Phase 1B work must be substantially complete prior to starting Phase 2 work.
- 4) SECTION 034500 – PRECAST ARCHITECTURAL CONCRETE
  - a) Replace Article 2.16.A.2.a. with the following:
    - a. *Provide exterior precast panels with faces made of [colored] concrete with light acid etch (LAE) finish [and medium sandblast finish (MSB)] finish where indicated on drawings.*
  - b) Replace Article 2.16.A.2.a.1) with the following:
    - 1) *Color: Match sample in Architects office; face mixture of Architect's sample is based on the mix design information below:*
      - *Aggregate: Kreamer 9/16", Pink Qtz, Black Granite, Ft Dodge.*
      - *Cement: 100% white.*
      - *Sand: Agg Industries Mason.*
      - *Dye: #0025 Dark Buff.*
- 5) SECTION 104416 – FIRE EXTINGUISHERS
  - a) Add Article 2.1.C. as follows:

C. Purple-K Dry-Chemical Type in Aluminum Container: UL-rated 120-B:C, **15-lb** nominal capacity, with potassium bicarbonate-based dry chemical in enameled-aluminum container.

6) DRAWING 1.20 – CODE PLAN

- a) Where corridor walls are labeled *Existing 1-HR FB* or *1-HR FB*, change to ***Existing 1-HR FP*** (fire partition) and ***1-HR FP*** (fire partition) accordingly, typical where noted on floor plan.
- b) Storage A120 – add ***1-HR FB*** designation to interior walls in this room.

7) DRAWING 2.30 – SITE PLAN

- a) Add Alternates #2 & #3 - Patch asphalt paving along new sidewalk where it was saw cut/removed to allow for installation of new concrete sidewalk. (Referenced drawings sheet 2.20).
- b) Concrete Apron detail – See attached supplemental SD5, dated May 6, 2022.
- c) Finish floor elevation – change ***EXISTING HIGH SCHOOL 0'-0" = XX.XX'*** to read ***EXISTING HIGH SCHOOL 0'-0" = 1849.71 (MATCH EXISTING FLOOR ELEVATIONS)***.

8) DRAWING 2.40 – SITE DETAILS

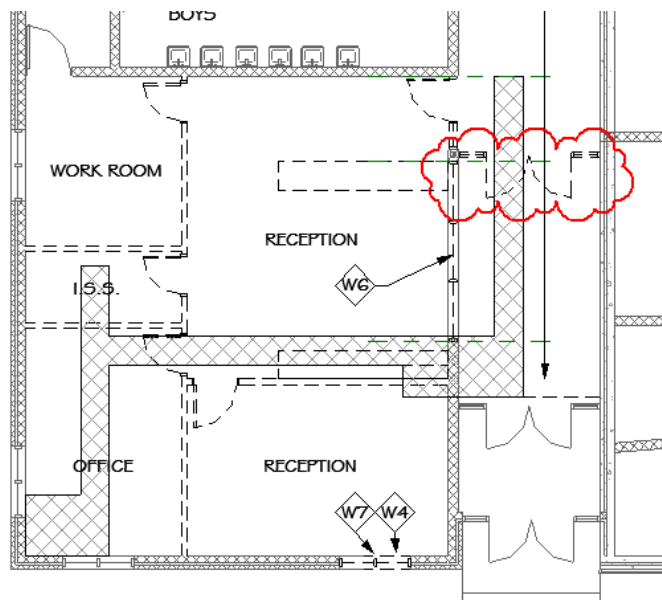
- a) Provide thickened slab edge at sidewalks along 9<sup>th</sup> Avenue E that are part of Add Alternate #2 and Add Alternate #3 per attached supplemental drawing SD4, dated May 6, 2022.

9) DRAWING 3.20-D1 – EQUIPMENT PADS

- a) Provide concrete equipment pads per detail 19/3.40 for new mechanical equipment as shown on sheet 8.70-C1 (RTU-1 and RTU-2) as part of Add Alternate #3.

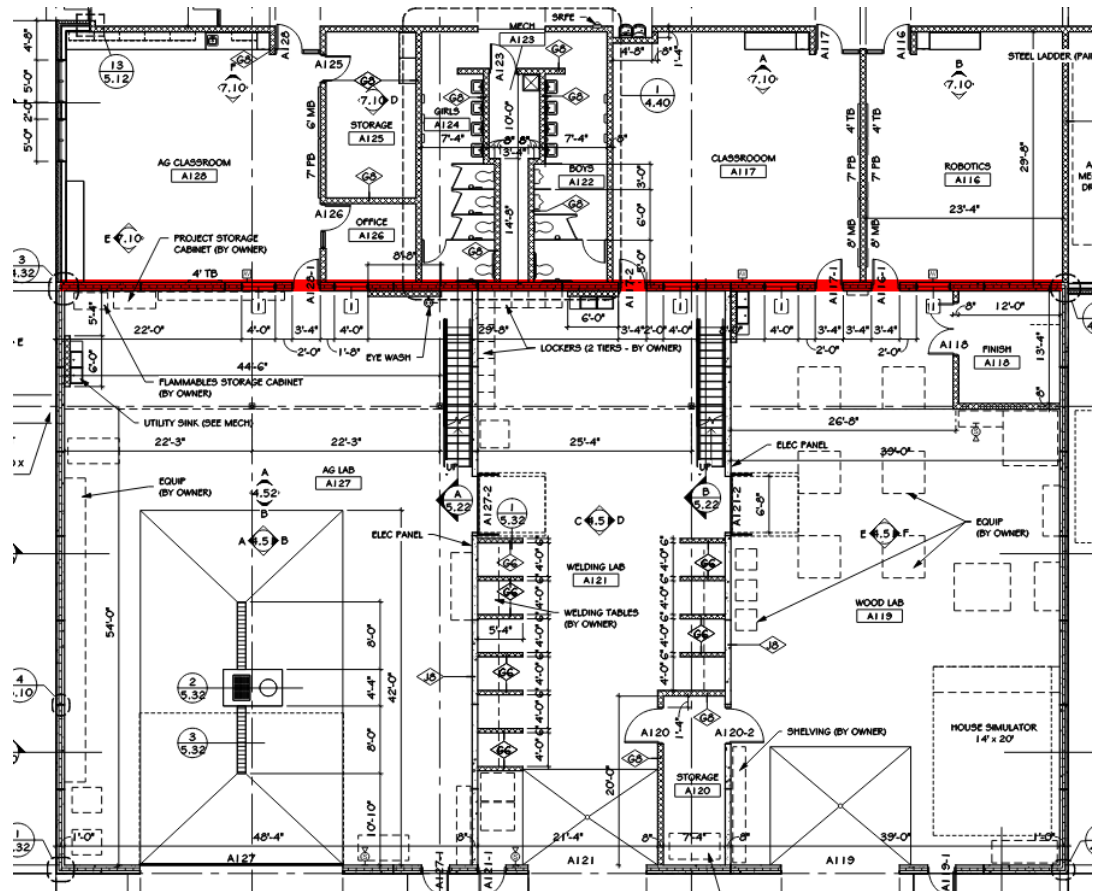
10) DRAWING 4.03-C1 – DEMOLITION FLOOR PLAN – AREA C

- a) Remove aluminum storefront system at location shown below.

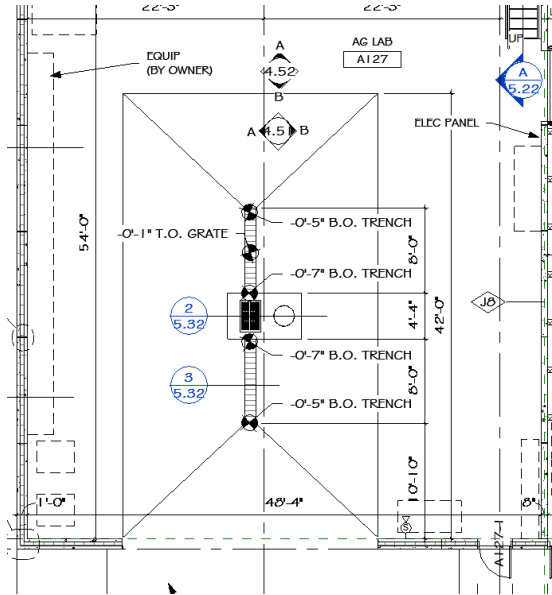


11) DRAWING 4.10-A1 – FLOOR PLAN – AREA A

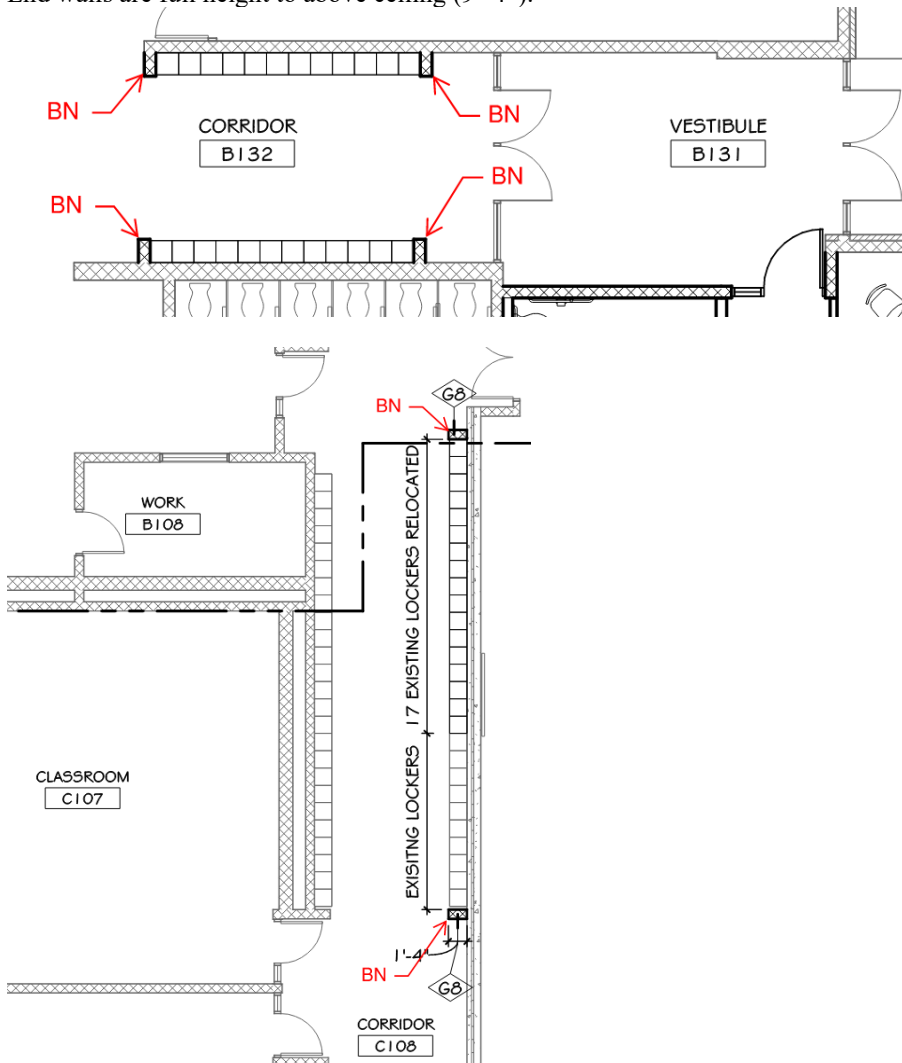
- a) **CONTRACTOR OPTION:** in lieu of full height precast wall panels along the west side of Ag Lab A127, Welding Lab A121 and Wood Lab A119 (see plan below – wall highlighted in red), the contractor has the option of installing a 12" concrete block wall from -0'-8" to 16'-8" with a precast wall panel above to 25'-0". Install #6 vertical reinforcing at 24" o.c. in masonry wall. Provide ledger connection to masonry wall for precast hollow core planks. (Ledger connection by precast supplier). See attached supplemental drawing SD1 for joist bearing condition and masonry wall/precast panel joint.



- b) Sand/Oil interceptor – see plan below for T.O. GRATE & B.O. TRENCH elevations.



- c) Bullnose block – provide bullnose block at outside corner of locker end walls at locations shown below. End walls are full height to above ceiling (9'-4").



- d) Borrowed lite ***1A*** located in Reception A102 – change this to be new borrowed lite Type **5**, 4'-8" wide, 45 minute rated with fire glass. (See item for Drawing 4.31 below for elevation).
- e) Welding Lab A121 – G6 walls between welding stations refer to detail 1/5.32. At welding walls, change the 4'-0" dimension to 6'-0".
- f) The Contractor shall include installation of five (5) Owner-provided surface-mounted fire extinguishers in his Base Bid.
  - i) Installations shall occur in Area A lab spaces (e.g. – Wood Lab A119, Ag Lab A127 & FACS Lab A132).
  - ii) Exact installation location(s) to be determined at later date.

12) DRAWING 4.10-B1 – FLOOR PLAN – AREA B

- a) Furnish and install one (1) Class K wet chemical fire extinguisher in Center Base Classroom B128; exact installation location to be determined at later date.
- b) Furnish and install one (1) Class K wet chemical fire extinguisher in Life Skills B133A; exact installation location to be determined at later date.

13) DRAWING 4.10-C1 – FLOOR PLAN - AREA C

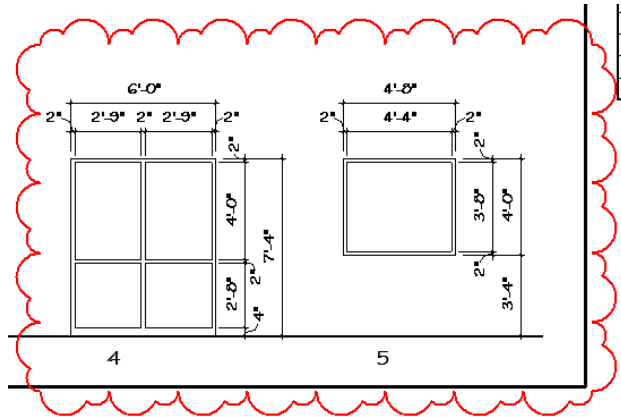
- a) Change wall type behind new electric water cooler (between EWC and Janitor C133) to G8.
- b) Changing Room C139 – provide wall type A3 at wall behind wardrobe cabinets.

14) DRAWING 4.30 – DOOR SCHEDULE

- a) Door Schedule
  - i) Door A100-1 – change glass in door and sidelight from ~~¼" SFTY~~ to **1/4" LAM**
  - ii) Door A102 - change glass in door and sidelight from ~~FIRE SFTY~~ to **LAM FIRE**
  - iii) Door A115-1 – change glass in door from ~~¼" SFTY~~ to **1" INSL SFTY**
  - iv) Door B128-1 – change glass in sidelight from ~~¼" SFTY~~ to **LAM FIRE**
  - v) Door B133 – provide 45 Min. rating; change glass in sidelight from ~~¼" SFTY~~ to **LAM FIRE**
  - vi) Door B148 – change glass in door and sidelight from ~~FIRE SFTY~~ to **LAM FIRE**
  - vii) Door B149-1 – change glass in door and sidelight from ~~¼" SFTY~~ to **1/4" LAM**
- b) Detail 12/4.30 – apron/sill detail at exterior overhead doors. See revised detail on attached supplemental drawing SD5, dated May 6, 2022, for updated detail. (1 ½" o.d. galvanized pipe embedded into concrete at overhead door sill; epoxy coated dowels at apron/slab; granular fill below apron).
- c) Reference attached supplemental drawing SD9 dated September 27, 2021 for Semi-Recessed Fire Extinguisher Cabinet with class K wet chemical fire extinguisher in Kitchen B154.

15) DRAWING 4.31 – DOOR DETAILS

- a) Revise borrowed lite type 4 per below to have a 4" bottom rail. Add a 2" horizontal intermediate rail.
- b) Add borrowed Lite type '5' per below.



- c) Borrowed lite types schedule:
  - i) Type 3A – change glass to 1/4" clear **SFTY**
  - ii) Type 4 – change glass to **FIRE** and add a **45 MIN.** rating
  - iii) ADD borrowed lite Type 5 – (per item 13. b. above) – Fire Glass, 45 MIN rating (provide LAM FIRE glass at Vestibule A100 and Vestibule B149), head detail 14/4.31, jamb detail 15/4.31, sill detail 16/4.31.

16) DRAWING 4.40 – ENLARGED FLOOR PLANS

- a) Accessory Schedule – provide and install 1 (one) item 'J' – 1'-6" w. x 3'-0" h. framed mirror in Welding Lab A121, above the sink.

17) DRAWING 5.10 – EXTERIOR ELEVATIONS – AREA A

- a) See revised sheet 5.10 in this addendum that includes the items below.
- b) Window Types Legend – clarification - window type 'C' is a new window installed in an existing opening in Conference Room B 134 (reference floor plan sheet 4.10-B1).
- c) Add a row of burnished concrete block as shown on exterior elevations A/5.10, D/5.10 and E 5.10. Recess all burnished block bands 1/2" with sloped mortar wash at bottom of recessed band.
- d) Adjust top of wall elevation from 16'-0" to 16'-8" as shown on exterior elevations A/5.10, B/5.10 and E 5.10.
- e) Detail 1/5.10 – Precast Reveal Detail – change depth of reveal from 3/4" to 1".
- f) Detail 3/5.10 – Precast Faux Joint – depth of reveal 1/2".

18) DRAWING 5.11 – EXTERIOR ELEVATIONS – AREAS B & C

- a) Furnish and install Exterior Insulation Finish System (EIFS) on face of exterior walls that are being exposed as part of Add Alternate #3 building demolition. See Elevations B, D & E/5.11 at locations clouded on attached, revised drawings sheet 5.11 with Revision date 5/6/2022.

19) DRAWING 5.12 – STOREFRONT ELEVATIONS & DETAILS

- a) Detail 11/5.12 – change  $\frac{3}{4}$ " plywood sheathing to  $\frac{1}{2}$ " glass mat sheathing. Add weather barrier over sheathing per Addendum #1.

20) DRAWING 5.22 – STAIR SECTIONS AND DETAILS

- a) Detail 7/5.22 – see attached supplemental drawings SD3 dated May 6, 2022 for revised detail. Where stairs were removed and split face block added, extend new cmu down to bear on existing footing.

21) DRAWING 5.30 – SECTION DETAILS

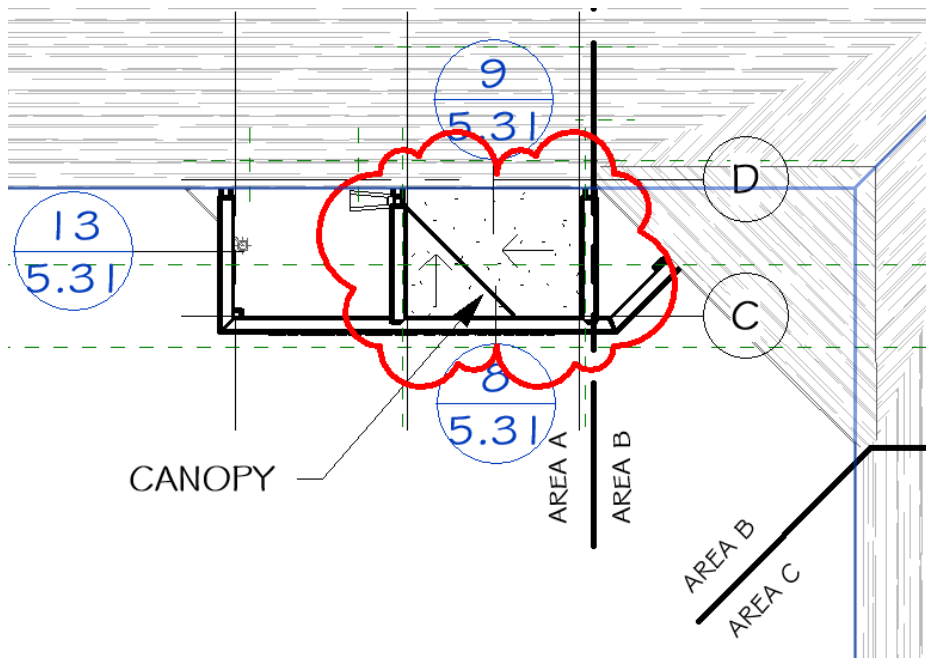
- a) **CONTRACTOR OPTION**: see attached supplemental drawing SD1, details 8A and 9A for 12" masonry wall with precast wall panels above.
- b) Detail 10/5.30 – Install one layer of  $\frac{5}{8}$ " gypsum board on underside of joists and one layer of  $\frac{5}{8}$ " gypsum board on top of the metal deck/below the  $\frac{1}{2}$ " plywood to provide a 1-hour fire rating on Storage A120.

22) DRAWING 5.32 – SECTION DETAILS

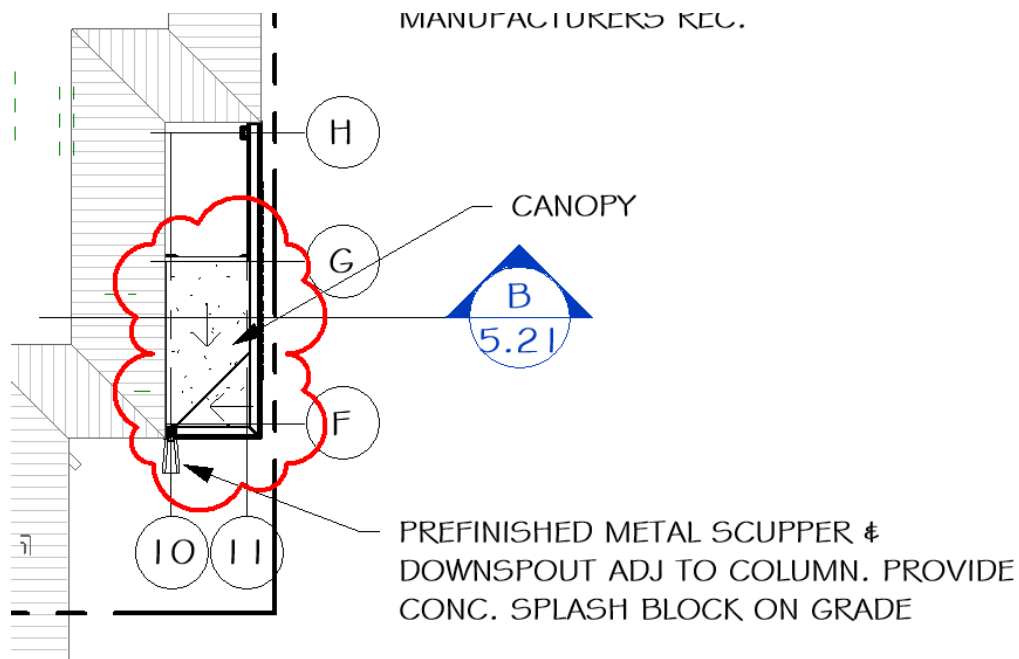
- a) Detail 4/5.32 – omit this detail in its entirety. (This is an existing condition).
- b) Detail 9/5.32 – see revised detail on attached supplemental drawing SD2 dated May 6, 2022. Remove lower portion of existing metal wall panel fascia to allow for installation of new two-piece counterflashing and membrane flashing.

23) DRAWING 5.50 – ROOF PLAN

- a) Provide tapered insulation at new High School entry canopy in Area A per roof plan below. Starting thickness 1" at downspout location. Slope insulation  $\frac{1}{4}$ " per foot.



- b) Provide tapered insulation at new Elementary/Middle School entry canopy in Area B per roof plan below. Starting thickness 1" at downspout location. Slope insulation  $\frac{1}{4}$ " per foot.



### **MECHANICAL ITEMS:**

#### **1) DRAWING 8.10 – MOTOR SCHEDULE, LEGEND & SHEET INDEX**

- a) Change the horsepower for EF-2 to 1/4.
- b) Add EF-14 for Exhaust – Storage A104, disconnect switch by VC, power wiring by EC, temp. control wiring by TC, 1/4 HP, 120 volt, 1 phase and Note of “Emergency shutoff switch outside room near door by EC, monitored by TC”.

#### **2) DRAWING 8.50-A1 – PLUMBING & HYDRONICS – AREA A**

- a) Add washer supply box tag, WS-1, at the piping drops behind the washer and dryer on the north wall of FACS Lab A132.

#### **3) DRAWING 8.70-A1 – HVAC PLAN – AREA A**

- a) Modify the HVAC installation as shown on *revised* mechanical drawing Sheet 8.70-A1, *revision* dated 5-6-22, attached to the end of this addendum.

#### **4) DRAWING 8.70-A2 – MEZZANINE HVAC PLAN – AREA A**

- a) Modify the HVAC installation as shown on *revised* mechanical drawing Sheet 8.70-A2, *revision* dated 5-6-22, attached to the end of this addendum.

#### **5) DRAWING 8.80 – PLUMBING FIXTURE SCHEDULE**

- a) WS-1: Add FACS Lab A132 to the note for locations.
- b) SH-2: Model listed has 5/8” threshold.



6) DRAWING 8.90 – MECHANICAL SCHEDULES

- a) Modify the Exhaust Fan Schedule and the Chiller Schedule as shown on *revised* mechanical drawing Sheet 8.90, *revision* dated 5-6-22, attached to the end of this addendum.

**ELECTRICAL ITEMS:**

1) SHEET 9.32-A1 – FLOOR PLAN – AREA A – POWER & SIGNAL

- a) There will be a future greenhouse at the south side of room A128. Provide 2 each .75” conduits from the southeast corner of room A128 to panel “AG” for future use.
- b) Delete the TV outlets added by Addendum #1.

2) SHEET 9.34-A2 – FLOOR PLAN – AREA A – MEZZANINE – POWER & SIGNAL

- a) Reference *revised* electrical drawing Sheet 9.34-A2, *revision* dated 5-3-22, attached to the end of this addendum for miscellaneous electrical modifications.

3) SHEET 9.36-B1 – FLOOR PLAN – AREA B – POWER & SIGNAL

- a) Delete the TV outlets added by Addendum #1.

4) SHEET 9.50 – ELECTRICAL SYMBOLS & ABBREVIATIONS

- a) Reference *revised* electrical drawing Sheet 9.50, *revision* dated 5-3-22, attached to the end of this addendum for miscellaneous electrical modifications.

5) SHEET 9.51 – ELECTRICAL SCHEDULES

- a) Reference *revised* electrical drawing Sheet 9.51, *revision* dated 5-3-22, attached to the end of this addendum for miscellaneous electrical modifications.

6) SHEET 9.52 – ELECTRICAL SCHEDULES

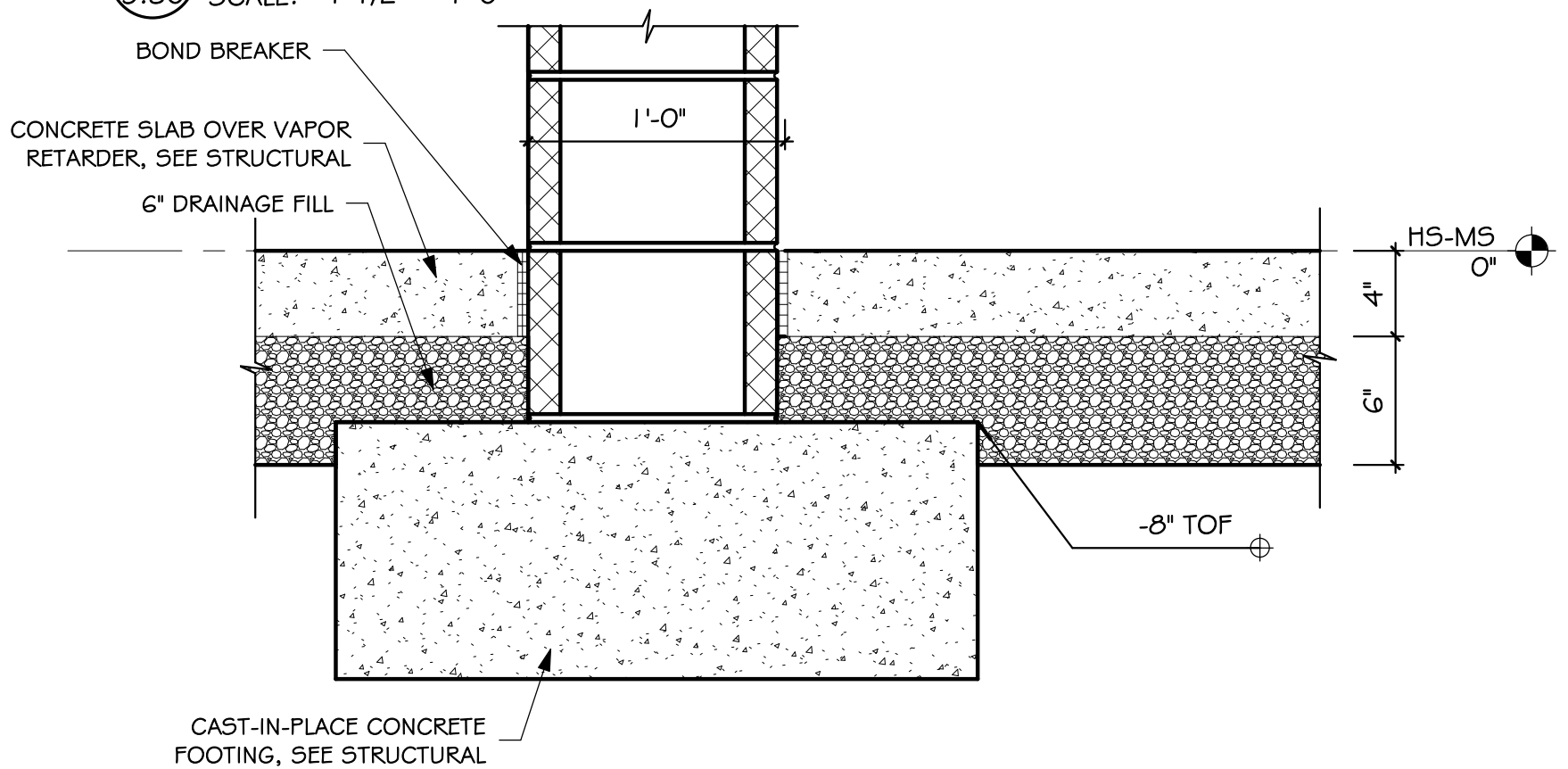
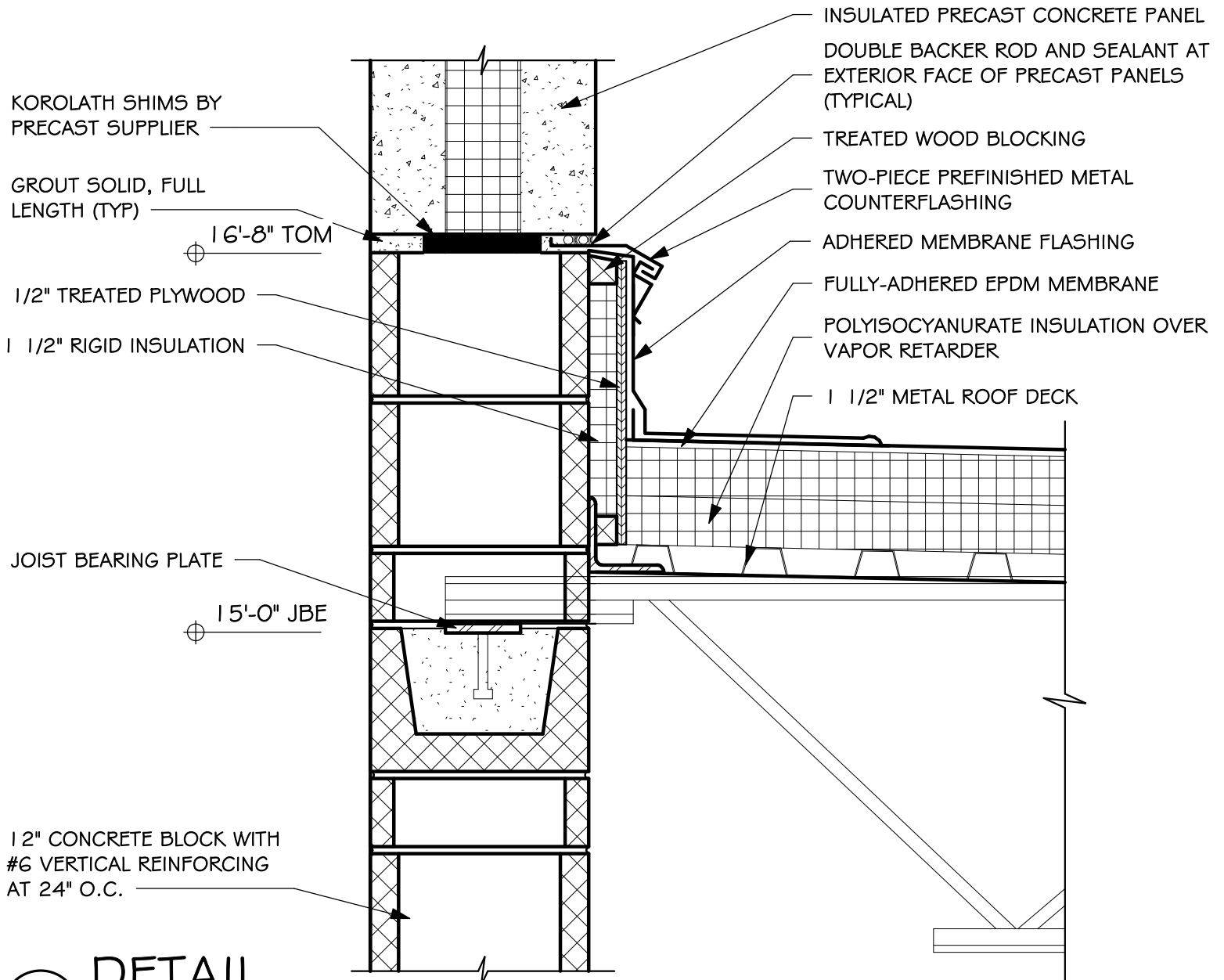
- a) Equipment Schedule: The current limiting fuses for chiller CH-1 shall be class RK5, the current limiting fuses for condensing unit CU-1 shall be class RK1.

GENERAL APPROVALS:

The following material or equipment furnished by the manufacturers listed, may be substituted as equivalent providing that each item, material, and piece of equipment conforms to the design and requirement of the specifications.

<u>SECTION</u>	<u>ITEM</u>	<u>MANUFACTURER</u>
042000	Decorative CMUs Burnished – Firebrush Split-face – Desert Castle	County Materials; <i>I-29 Brick, Tile &amp; Stone</i>
220500	Domestic Water Heaters	Rheem GHE100SU-200
232113	Hydronic Piping	Uponor PP-RCT
265110/265210	Interior Lighting/Exterior Lighting	
	Type A Series	Elite
	Type B Series	Lithonia, Metalux
	Type C	Lithonia, Metalux
	Type D, DW, D1	Lithonia
	Type DX	D&A, Red Sky
	Type E Series	Emerg-Lite, Lithonia
	Type H Series	Lithonia
	Type L	Elite, Lithonia
	Type Y Series	Lithonia, McGraw-Edison
	Type Z	Lithonia, Lumark
	Type AA2, AA3	Lithonia, Lumark

END OF ADDENDUM #2



project WEBSTER AREA SCHOOL - 2022 CTE ADDITION & REMODELING

number 0421.2936.21

date MAY 6, 2022

drawn PEM checked PEM

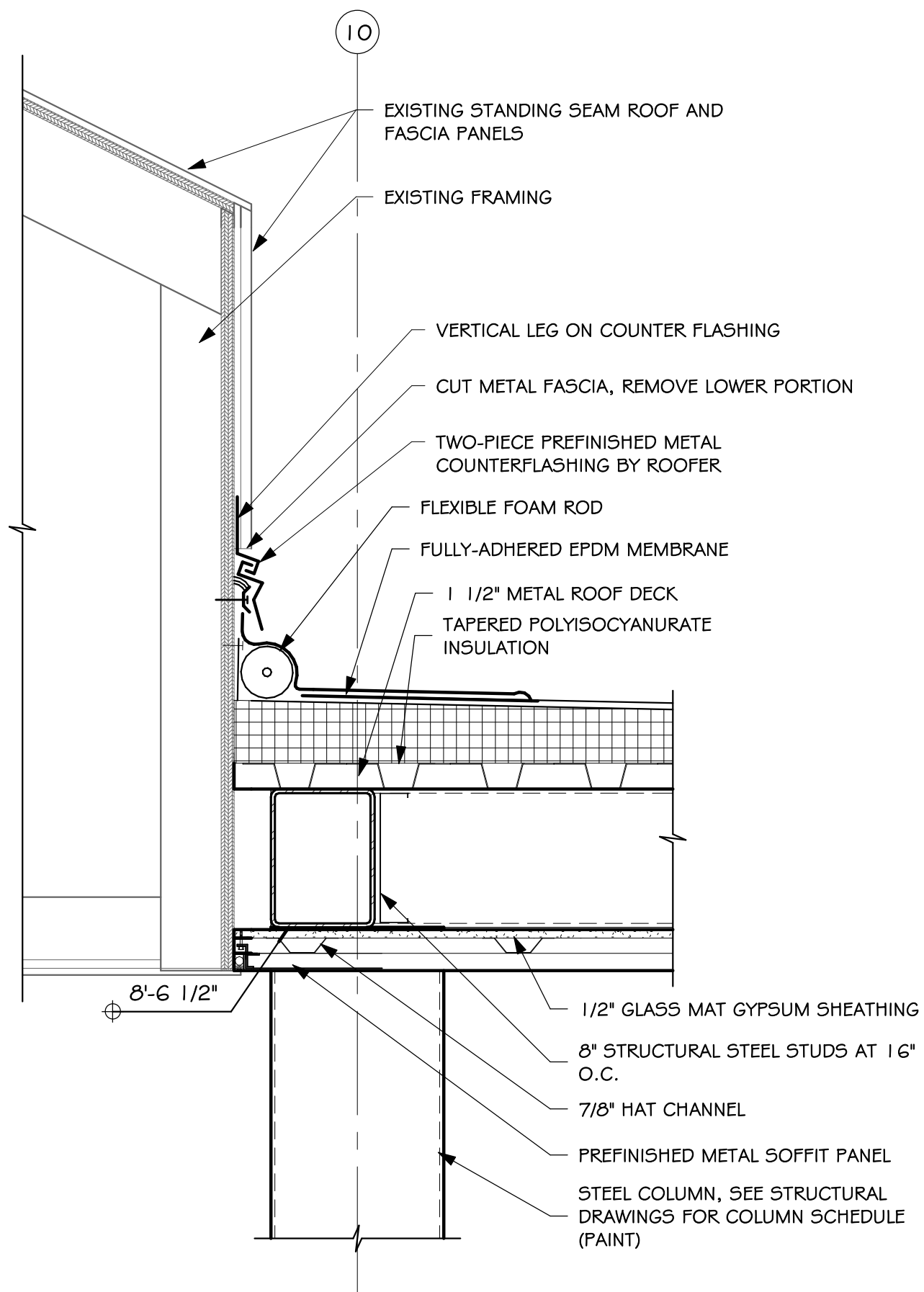
revision

**Architecture Incorporated**

Sioux Falls and Rapid City, South Dakota

DRAWING

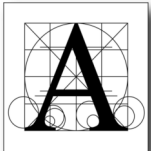
**SD1**



9  
5.32

**DETAIL**

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



project WEBSTER AREA SCHOOL - 2022 CTE ADDITION & REMODELING

number 0421.2936.21 drawn ZJG checked PEM

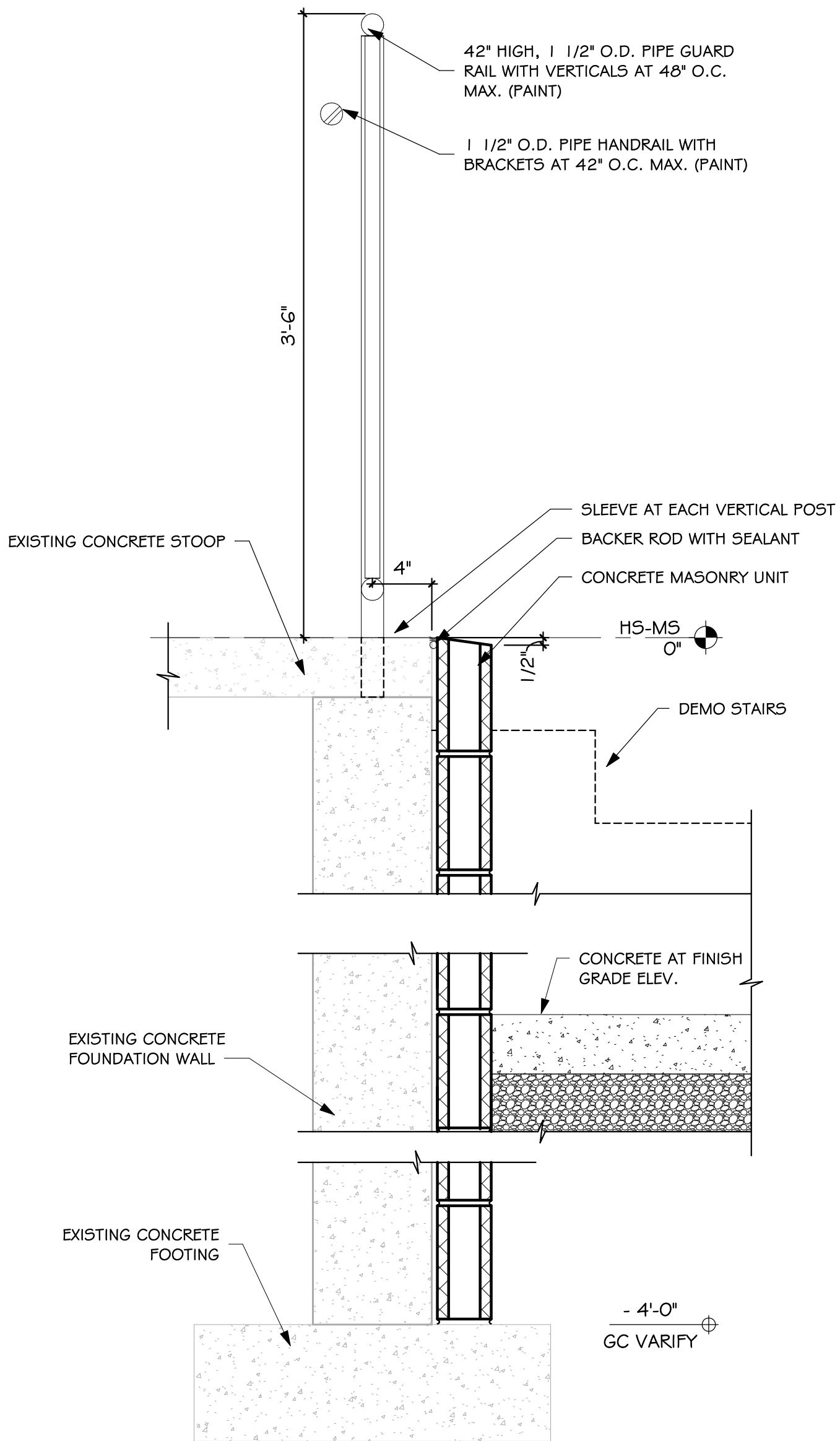
date MAY 6, 2022 revision \_\_\_\_\_

**Architecture Incorporated**

SIOUX FALLS AND RAPID CITY, SOUTH DAKOTA

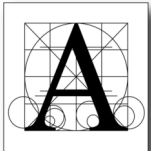
DRAWING

**SD2**



## 7 GUARDRAIL DETAIL

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



project WEBSTER AREA SCHOOL - 2022 CTE ADDITION & REMODELING  
 number 0421.2936.21 drawn ZJG checked PEM  
 date MAY 6, 2022 revision

**Architecture Incorporated**  
 Sioux Falls and Rapid City, South Dakota

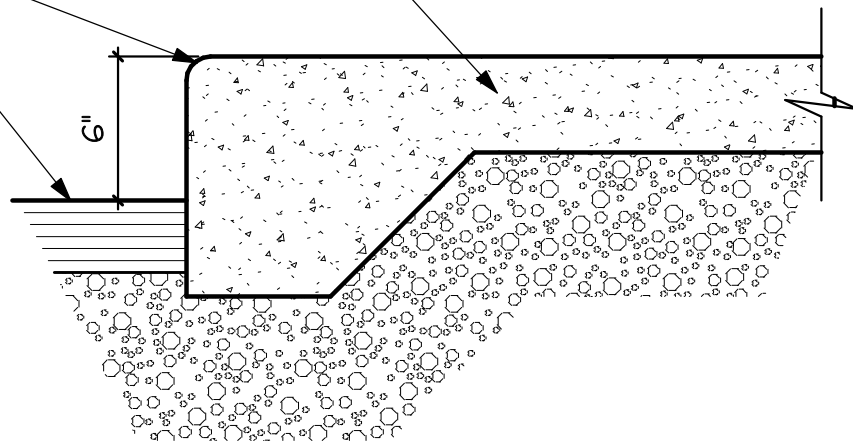
DRAWING

**SD3**

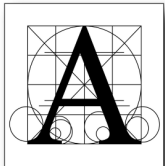
4" CONCRETE SIDEWALK WITH  
FIBERMESH REINFORCING OVER 6"  
COMPACTED GRAVEL BASE

EASE EDGES

ASPHALT PAVING,  
PATCH TO MATCH  
EXISTING



10 SIDEWALK EDGE  
2.40 SCALE: 1 1/2" = 1'-0"



project WEBSTER AREA SCHOOL - 2022 CTE ADDITION & REMODELING

number 0421.2936.21

drawn PEM

checked PEM

date MAY 6, 2022

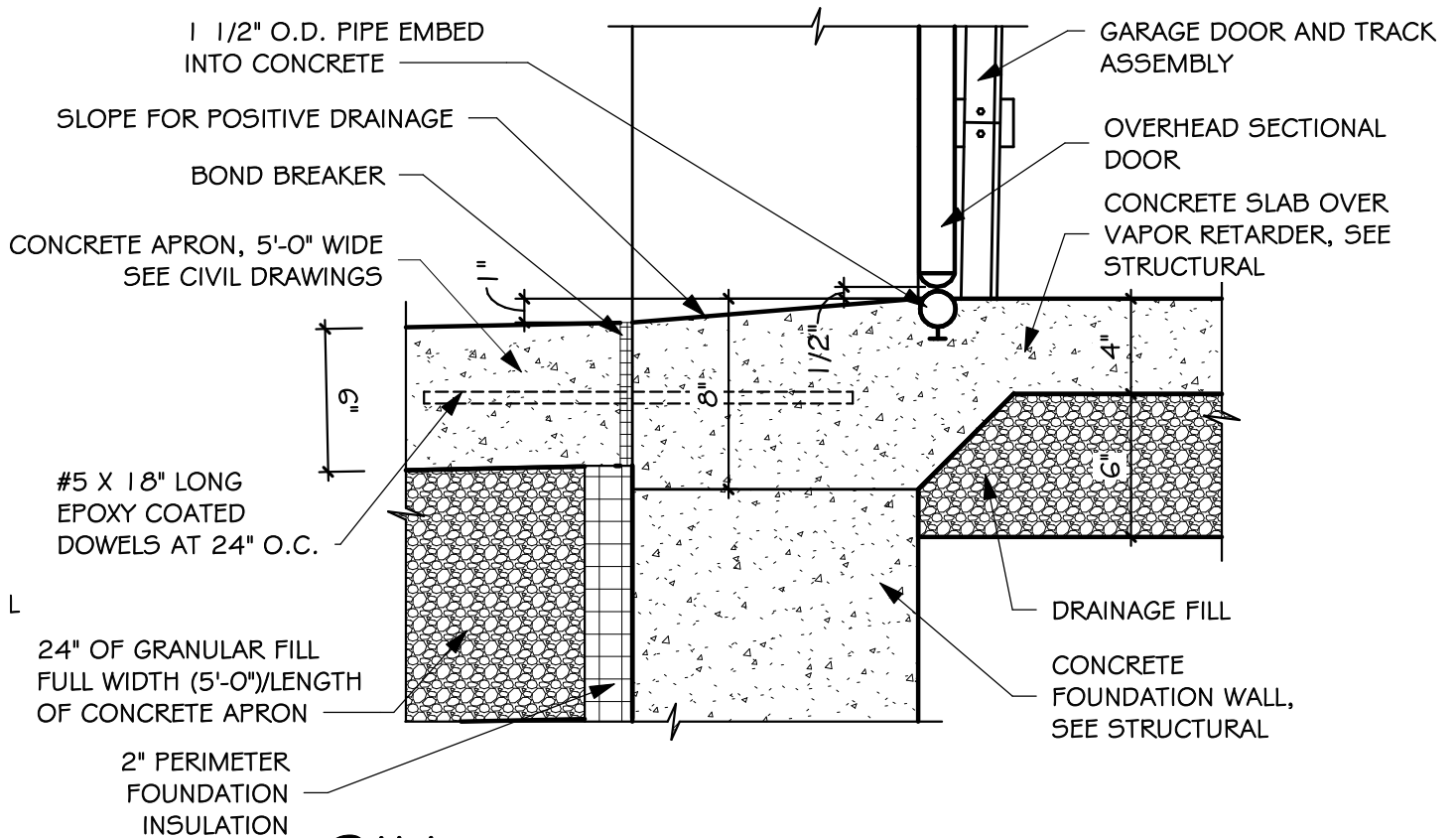
revision

**Architecture Incorporated**

sioux falls and rapid city, south dakota

DRAWING

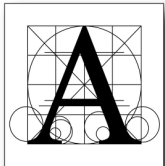
**SD4**



12  
4.30

SILL

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



project WEBSTER AREA SCHOOL - 2022 CTE ADDITION & REMODELING  
number 0421.2936.21 drawn PEM checked PEM  
date MAY 6, 2022 revision

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sioux falls and rapid city, south dakota

DRAWING

**SD5**





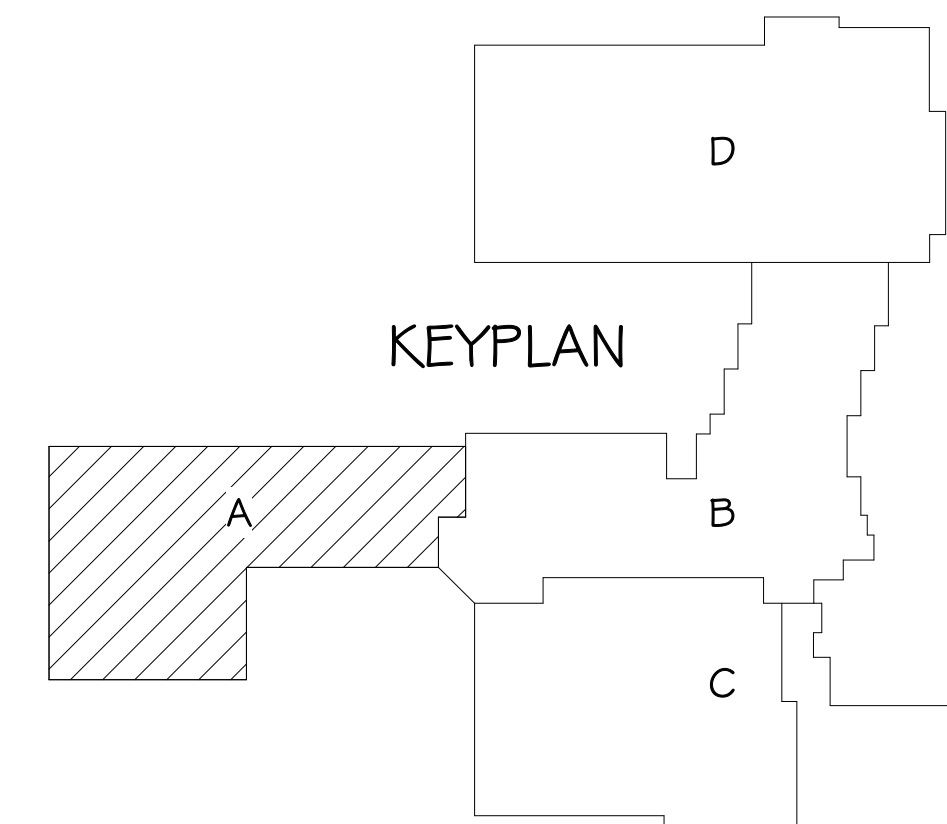




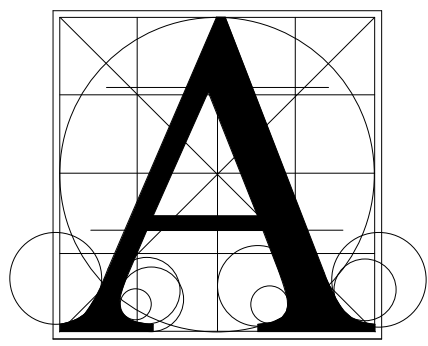
Number 210400723  
 Date 04/12/2022  
 Location \_\_\_\_\_  
 In DK checked TS  

DATE	DESCRIPTION
4/12/2022	Addendum M-2

5/6/2022 12:16:51 PM



## KEYPLAN



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Incorporated

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SICHMELLER  
ENGINEERING

Mechanical & Electrical  
Engineering

801 Railroad Ave. SE  
Aberdeen, SD 57401  
Phone: 605-225-4344  
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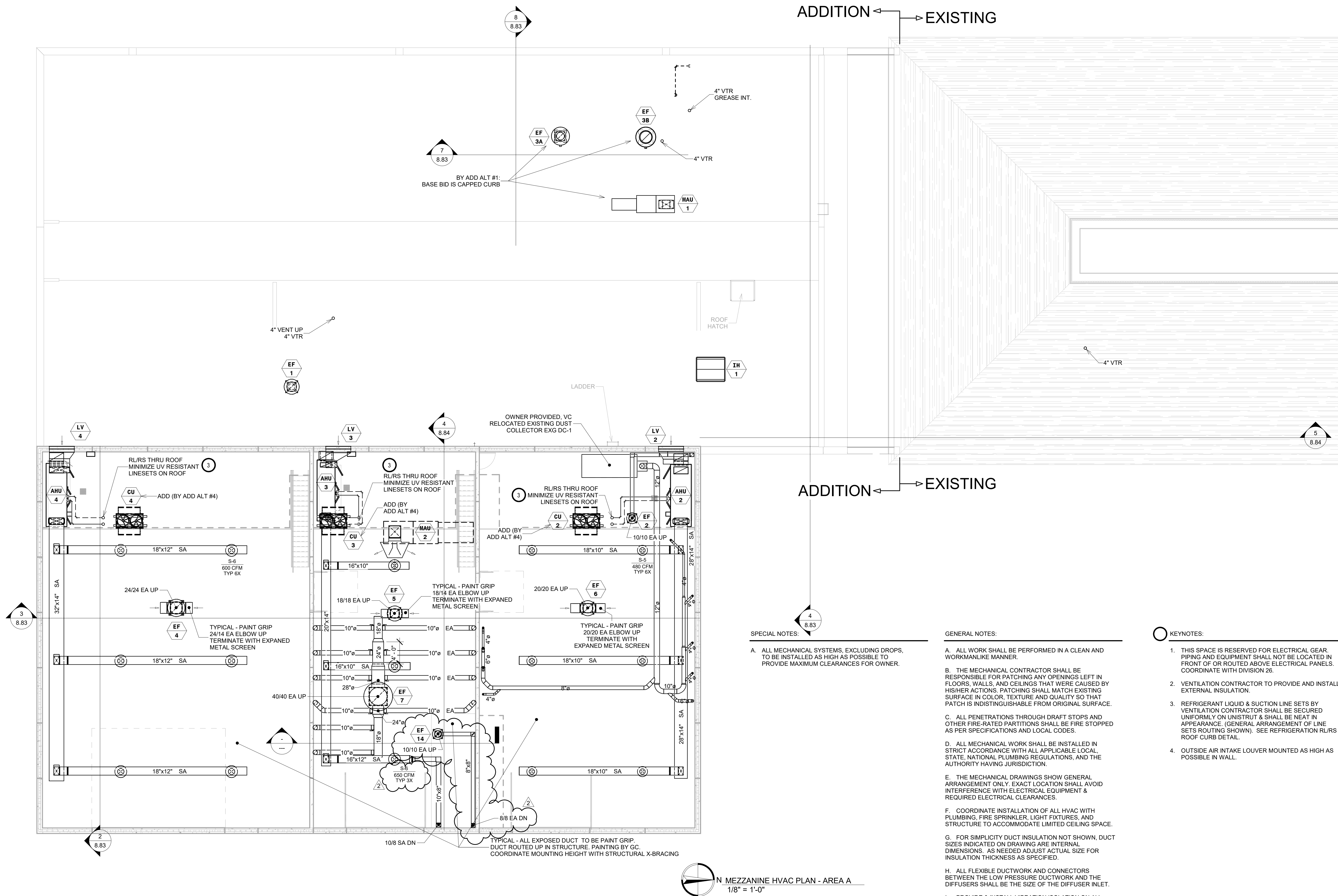


SE PROJECT NO:  
210400723

Project  
**WEBSTER AREA SCHOOL 2022 REMODELING &  
CTE ADDITION**  
Sheet Contents  
**MEZZANINE HVAC PLAN - AREA A**

number: 210400723  
date: 04/12/2022  
revision:  
drawn: DK checked: TS  
NO. DATE DESCRIPTION  
2 5/6/2022 Addendum M-2

8.70-A2

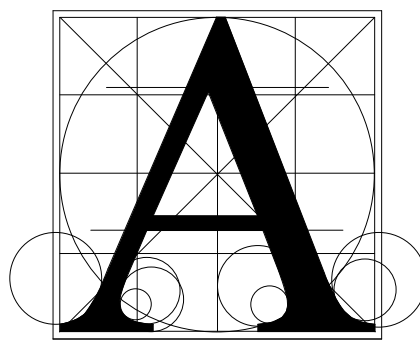


SPECIAL NOTES:  
A. ALL MECHANICAL SYSTEMS, EXCLUDING DROPS, TO BE INSTALLED AS HIGH AS POSSIBLE TO PROVIDE MAXIMUM CLEARANCES FOR OWNER.

GENERAL NOTES:  
A. ALL WORK SHALL BE PERFORMED IN A CLEAN AND WORKMANLIKE MANNER.  
B. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR PATCHING ANY OPENINGS LEFT IN FLOORS, WALLS, AND CEILINGS THAT WERE CAUSED BY HIS/HER ACTIONS. PATCHING SHALL MATCH EXISTING SURFACE IN COLOR, TEXTURE AND QUALITY SO THAT PATCH IS INDISTINGUISHABLE FROM ORIGINAL SURFACE.  
C. ALL PENETRATIONS THROUGH DRAFT STOPS AND OTHER FIRE-RATED PARTITIONS SHALL BE FIRE STOPPED AS PER SPECIFICATIONS AND LOCAL CODES.  
D. ALL MECHANICAL WORK SHALL BE INSTALLED IN STRICT ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE, NATIONAL PLUMBING REGULATIONS, AND THE AUTHORITY HAVING JURISDICTION.  
E. THE MECHANICAL DRAWINGS SHOW GENERAL ARRANGEMENT ONLY. EXACT LOCATION SHALL AVOID INTERFERENCE WITH ELECTRICAL EQUIPMENT & REQUIRED ELECTRICAL CLEARANCES.  
F. COORDINATE INSTALLATION OF ALL HVAC WITH PLUMBING, FIRE SPRINKLER, LIGHT FIXTURES, AND STRUCTURE TO ACCOMMODATE LIMITED CEILING SPACE.  
G. FOR SIMPLICITY DUCT INSULATION NOT SHOWN. DUCT SIZES INDICATED ON DRAWING ARE INTERNAL DIMENSIONS. AS NEEDED ADJUST ACTUAL SIZE FOR INSULATION THICKNESS AS SPECIFIED.  
H. ALL FLEXIBLE DUCTWORK AND CONNECTORS BETWEEN THE LOW PRESSURE DUCTWORK AND THE DIFFUSERS SHALL BE THE SIZE OF THE DIFFUSER INLET.  
I. PROVIDE & INSTALL VIBRATION ISOLATION ON ALL HANGING EQUIPMENT. PROVIDE & INSTALL VIBRATION ABSORPTION MOUNTING PADS ON ALL EQUIPMENT MOUNTED ON FLOOR.  
J. PROVIDE AND INSTALL DURODINE FLEX DUCT CONNECTORS AT ALL EQUIPMENT CONNECTIONS.  
K. ALL DUCTWORK TO BE SEALED AIRTIGHT.  
H. FRESH AIR INTAKES TO BE MINIMUM 10' FROM ANY EXHAUST TERMINATION.  
I. ALL FLOOR EQUIPMENT SHALL BE SET ON 4" HIGH CONCRETE BASES FURNISHED BY THIS CONTRACTOR.

KEYNOTES:  
1. THIS SPACE IS RESERVED FOR ELECTRICAL GEAR. PIPING AND EQUIPMENT SHALL NOT BE LOCATED IN FRONT OF OR ROUTED ABOVE ELECTRICAL PANELS. COORDINATE WITH DIVISION 26.  
2. VENTILATION CONTRACTOR TO PROVIDE AND INSTALL EXTERNAL INSULATION.  
3. REFRIGERANT LIQUID & SUCTION LINE SETS BY VENTILATION CONTRACTOR SHALL BE SECURED UNIFORMLY ON UNISTRUT & SHALL BE NEAT IN APPEARANCE. (GENERAL ARRANGEMENT OF LINE SETS ROUTING SHOWN). SEE REFRIGERATION R/RS ROOF CURB DETAIL.  
4. OUTSIDE AIR INTAKE LOUVER MOUNTED AS HIGH AS POSSIBLE IN WALL.





Architecture  
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SE PROJECT NO:  
210400723

WEBSTER AREA SCHOOL 2022 REMODELING &  
CTE ADDITION  
MECHANICAL SCHEDULES

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1 5/3/2022 Addendum M-1  
2 5/6/2022 Addendum M-2

8.90

AHU SCHEDULE

EQUIP. NO.	MANUFACTURER & MODEL	SERVES	MIN O/A CFM	SUPPLY FAN/MOTOR								RETURN/EXHAUST FAN/MOTOR								DX COOLING COIL CAP.												HEATING COIL CAP. (EWT=180.0°)												UNIT WEIGHT (LBS)	NOTES
				MAX CFM	MIN CFM	ESP (IN W.G.)	HP	BHP	SIZE/TYPE	V./PH./CY.	FLA	MOCP	CFM	ESP (IN W.G.)	HP	BHP	SIZE/TYPE	V./PH./CY.	FLA	MOCP	TOTAL	SENSIBLE	EAT DB/DB	LAT DB/DB	FACE VEL.	SUCTION TEMP	REFRIG. TYPE	CFM	MBH	EAT	LAT	FACE VEL.	LWT	GPH	WPD	RUNOUT SIZE									
AHU-1	YORK XT1-60360	CLASSROOM VAV'S	3260	8000	5710	2.5	10.0	7.37	22.2"/AIRFOIL	208/3/60	29.5	60.0	8000	0.5	5.0	3.7	20"/AIRFOIL	208/3/60	14.0	30	333.0	233.0	81.4/66.6	53.2/52.2	475	45.0	R410A	6680	338.0	23.7	68.3	400	160.1	36.0	4.6	2"	4701	1,3,4,5,6							
AHU-2	YORK XT1-36345	BUILDING TRADES 131	790	2900	-	1.5	3.0	1.80	16.5"/AIRFOIL	208/3/60	8.5	17.5	-	-	-	-	-	-	-	-	108.0	81.0	77.2/63.3	50.2/49.8	460	45.0	R410A	2900	167.0	46.3	99.2	460	160.4	18.0	2.3	1-1/2"	1982	2,4,5,6							
AHU-3	YORK XT1-33339	WELDING SHOP 132	580	2100	-	1.5	2.0	1.44	15"/AIRFOIL	208/3/60	5.8	12.0	-	-	-	-	-	-	-	-	77.0	55.0	77.3/63.3	52.0/50.0	500	45.0	R410A	2100	109.0	45.7	93.4	500	156.9	10.0	1.0	1-1/4"	1686	2,4,5,6							
AHU-4	YORK XT1-42345	AUTOMOTIVE SHOP 133	980	3600	-	1.5	5.0	2.47	18.2"/AIRFOIL	208/3/60	14.0	30.0	-	-	-	-	-	-	-	-	132.0	100.0	77.2/63.3	50.4/49.9	486	45.0	R410A	3600	200.0	46.2	97.3	486	158.9	20.0	2.6	1-1/2"	2194	2,4,5,6							

NOTES:

1. AHU-1 SHALL BE A HORIZONTAL, FLOOR MOUNTED, VARIABLE VOLUME UNIT AND SHALL INCLUDE RETURN FAN, ECONOMIZER/FILTER/HIGH PRESS. AIR BLENDER, DX COOLING COIL, HOT WATER HEATING COIL AND SUPPLY FAN.

2. AHU-2, 3 & 4 SHALL BE A HORIZONTAL, FLOOR MOUNTED, CONSTANT VOLUME UNIT AND SHALL INCLUDE FILTER/HIGH PRESS. COIL, DX COOLING COIL, HOT WATER HEATING COIL AND SUPPLY FAN. NOTE: DX COOLING COIL IS TO BE PROVIDED WITH UNIT BY BASE BID, CONDENSING UNIT AND LINETSARE BEY ALTERNATE #4.

3. T.C. TO PROVIDE VAV'S FOR FAN WANTS, E.C.T. TO INSTALL.

4. CONTRACTOR TO COORDINATE A VERIFY HOW UNITS FIT INTO BUILDING ROOM BEFORE ORDERING.

5. HEATING COIL PERFORMANCE BASED ON 35% PROPYLENE GLYCOL.

6. UNIT WEIGHT CONFIGURED FOR FIELD INSTALLED CONDITIONS.

- NOTES: 1. AHU-1 SHALL BE A HORIZONTAL, FLOOR MOUNTED, VARIABLE VOLUME UNIT AND SHALL INCLUDE RETURN FAN, ECONOMIZER/FILTER/MIXING BOX, AIR BLENDER, DX COOLING COIL, HOT WATER HEATING COIL AND SUPPLY FAN.  
2. AHU-2, 3 & 4 SHALL BE A HORIZONTAL, FLOOR MOUNTED, CONSTANT VOLUME UNIT AND SHALL INCLUDE FILTER/MIXING BOX, DX COOLING COIL, HOT WATER HEATING COIL AND SUPPLY FAN. NOTE - DX COOLING COIL IS TO BE PROVIDED WITH UNIT BY BASE BID, CONDENSING UNIT AND LINESETS ARE BY ALTERNATE #4.  
3. I.C. TO PROVIDE VFD'S FOR ALL FANS, E.C. TO INSTALL.  
4. CONTRACTOR TO COORDINATE & VERIFY HOW UNITS WILL FIT INTO BUILDING/ROOM BEFORE ORDERING.  
5. HEATING COIL PERFORMANCE BASED ON 30% PROPYLENE GLYCOL.  
6. PROVIDE UNIT CONFIGURED FOR FIELD INSTALLED CONTROLS.

LOUVER SCHEDULE

EQUIP. NO.	MANUFACTURER & MODEL	FUNCTION	SIZE (W/H/D)	CFM	S.P. (IN W.G.)	FREE AREA (SQ. FT.)	VELOCITY (FPM)	INSECT SCREEN	NOTES
LV-1	UNITED ENERTECH D-HFA-6	AHU-1 RELIEF	72"x36"x6"	8000	0.104	10.07	795	NO	1,2,3
LV-2	UNITED ENERTECH D-HFA-6	AHU-2 INTAKE	54"x26"x6"	2900	0.052	5.14	565	NO	1,2,3
LV-3	UNITED ENERTECH D-HFA-6	AHU-3 INTAKE	54"x26"x6"	2100	0.027	5.14	409	NO	1,2,3
LV-4	UNITED ENERTECH D-HFA-6	AHU-4 INTAKE	54"x26"x6"	3600	0.081	5.14	701	NO	1,2,3
LV-5	UNITED ENERTECH D-HFA-6	GF-1 & 2 GA INTAKE	28"x12"x6"	600	0.076	0.88	680	NO	1,2,3,4

- NOTES: 1. HIGH PERFORMANCE 6" FIXED BLADE LOUVER WITH BLADES AT 37° ANGLE.  
2. LOUVER TO HAVE BAKED ENAMEL FINISH, ARCHITECT TO SELECT COLOR.  
3. PROVIDE WITH EXTENDED SILL & BUG SCREEN.  
4. BY ALTERNATE #3.

AIR COOLED CONDENSING UNIT SCHEDULE

EQUIP. NO.	MANUFACTURER & MODEL	SERVICE	COOLING						ELECTRICAL				UNIT WEIGHT (LBS)	NOTES
			TOTAL MBH	AMBIENT TEMP DB/WB	SECTION TEMP	STAGES	REFRIG TYPE	EER	V./PH./CY.	FLA	MCA	MOCF		
CU-1	JCI J30YCC0A02AB2	AHU-1	333.5	95.0/72.0	45.0	4	R410A	11.1	208/3/60	-	129.5	150	1675	1,2,3,4,5
CU-2	JCI J10YCC0A02AB5	AHU-2	110.2	95.0/72.0	45.0	2	R410A	11.9	208/3/60	-	40.9	50	499	1,2,3,4,5,6,8
CU-3	JCI J07YCC0A02AB5	AHU-3	76.1	95.0/72.0	45.0	1	R410A	12.5	208/3/60	-	34.6	45	390	1,2,3,4,5,6,7,8
CU-4	JCI J12YCC0A02AB4	AHU-4	130.7	95.0/72.0	45.0	2	R410A	11.5	208/3/60	-	56.0	70	499	1,2,3,4,5,6,8

NOTES:

1. PROVIDE MATCHING R-410A DX COILING COIL IN CORRESPONDING AIR HANDLING UNIT.

2. PROVIDE 4 INSTALLED INSULATED REFRIGERATION PIPING & ACCESSORIES PER MANUFACTURER'S RECOMMENDATIONS.

3. PROVIDE WITH HALL GUARD PROTECTION.

4. PROVIDE WITH 5 YEAR COMPRESSOR WARRANTY.

5. PROVIDE WITH CIRCUIT BREAKER DISCONNECT, PHASE MONITOR AND BACNET INTERFACE.

6. PROVIDE VIBRATION ISOLATION ROOF CURB SIZED TO MATCH THE CONDENSING UNIT FOOTPRINT.

7. PROVIDE WITH FACTORY INSTALLED RAISE VALVE.

8. UNIT TO BE PROVIDED UNDER ALTERNATE #4.

- NOTES: 1. PROVIDE MATCHING R-410A DX COOLING COIL IN CORRESPONDING AIR HANDLING UNIT.  
2. PROVIDE A INSTALL INSULATED REFRIGERATION PIPING & ACCESSORIES PER MANUFACTURER'S RECOMMENDATIONS.  
3. PROVIDE WITH WALL GUARD PROTECTION.  
4. PROVIDE WITH 5 YEAR COMPRESSOR WARRANTY.  
5. PROVIDE WITH CIRCUIT BREAKER DISCONNECT, PHASE MONITOR AND BACNET INTERFACE.  
6. PROVIDE VIBRATION ISOLATION ROOF CURB SIZED TO MATCH THE CONDENSING UNIT FOOTPRINT.  
7. PROVIDE WITH FACTORY INSTALLED RAINVAL VALVE.  
8. UNIT TO BE PROVIDED UNDER ALTERNATE #4.

GRILLE - REGISTER - DIFFUSER SCHEDULE

EQUIP. NO.	MANUFACTURER & MODEL	NOMINAL SIZE	THROAT SIZE	MAX CFM	MAX A.P.D (IN. W.G.)	THROW	NC	FRAME	FINISH	NOTES
S-1	TITUS TMS	24X24	8" Ø	100	0.03	5.0'	10	LAY-IN	WHITE	1
S-2	TITUS TMS	24X24	8" Ø	225	0.04	9.0'	13	LAY-IN	WHITE	1
S-3	TITUS TMS	24X24	10" Ø	375	0.05	12.0'	18	LAY-IN	WHITE	1
S-4	TITUS PAS	24X24	10" Ø	310	0.07	14.0'	25	LAY-IN	WHITE	1
S-5	TITUS TMR	22" Ø	12" Ø	480	0.07	14.0'	16	SURFACE	WHITE	1
S-6	TITUS TMR	26" Ø	14" Ø	600	0.06	16.0'	15	SURFACE	WHITE	1
S-7	TITUS 300RL	10X6	8X4	100	0.06	18.0'	15	SURFACE	WHITE	1
S-8	TITUS 300RL	14X10	12X8	300	0.05	32.0'	16	SURFACE	WHITE	1
S-9	TITUS TDC	24X24	12X12	300	0.03	16.0'	10	LAY-IN	WHITE	1
R-1	TITUS 350RL	24X12	22X10	750	0.07	---	20	LAY-IN	WHITE	1,3
R-2	TITUS 350RL	24X24	22X22	1700	0.06	---	20	LAY-IN	WHITE	1
R-3	TITUS 350RL	22X12	20X10	600	0.05	---	12	SURFACE	WHITE	1,3
R-4	TITUS 350RL	22X18	20X16	1200	0.07	---	21	SURFACE	WHITE	1,3
E-1	TITUS 350RL	8x8	6x6	75	0.03	---	10	SURFACE	WHITE	1,2,3
E-2	TITUS 350RL	12X12	10X10	300	0.06	---	13	SURFACE	WHITE	1,2,3

- NOTES: 1. M.C. SHALL COORDINATE MOUNTING AND SURFACE CONSTRUCTION PRIOR TO FURNISHING MATERIAL. M.C. SHALL ALSO COORDINATE EXACT LOCATION OF EQUIPMENT.  
2. PROVIDE WITH OPPOSED BLADE BALANCING DAMPER.  
3. 35 DEG DEFLECTION.

INTAKE HOOD SCHEDULE

EQUIP. NO.	MANUFACTURER & MODEL	SERVING	CFM	S.P. (IN. W.G.)	THROAT SIZE	THROAT VELOCITY (FPM)	THROAT FREE AREA (SQ. FT.)	WEIGHT (LBS)	NOTES
IH-1	ACME MANUFACTURING TV	AHU-1 INTAKE	8000	0.091	32X40	900	8.89	200 + CURB	1,2

- NOTES: 1. PROVIDE NEOPRENE GASKET FOR CURBS, AND EXTENDED THROAT.  
2. PROVIDE A INSTALL WITH 18" HIGH INSULATED, SLOPED ROOF CURB & INSECT SCREEN. CONTRACTOR TO VERIFY ROOF SLOPE PRIOR TO ORDERING.

PACKAGED ROOFTOP UNIT SCHEDULE - NATURAL GAS HEAT

EQUIP. NO.	MANUFACTURER & MODEL	LOCATION	SERVING	SUPPLY AIR CFM	OUTSIDE AIR CFM	E.S.P. (IN. W.G.)	T.S.P. (IN. W.G.)	NO. TONS	COOLING				NATURAL GAS HEATING				MOTOR		ELECTRICAL				UNIT WEIGHT (LBS)	NOTES		
									TOTAL	EAT (DB/DB)	LAT (DB/DB)	EER	MAX REB INPUT	MAX REB OUTPUT	EAT (DB/DB)	LAT (DB/DB)	HP (EHP)	FRPM	V./PH./CY.	FLA	NCA	MOCP				
RTU-1	JCI Z1120548402E261	EXTERIOR UNITS AND INVERTED 103	EXO WRESTLING ROOM 35	4000	1430	1.15	2.0	10	126.3	80.0/67.0	58.5/57.0	13.1	240	192	80.0	94.4	2	1	3.0	1287	208/3/60	---	65.6	80	1746	1,2,3,5,6,7,8,9,10,11,12
RTU-2	JCI Z10370808262F0A2E	EXTERIOR UNITS AND INVERTED 103	EXO HEIGHT ROOM 35	1200	415	1.15	1.5	3	40.0	80.0/67.0	58.8/56.4	13.0	80	65	80.0	100.2	2	1	1.5	1046	208/3/60	---	25.8	35	1107	1,2,4,5,6,7,8,9,10,11,12

NOTES:

1. PROVIDE A INSTALL. INSTRUCTIONS TO BE REVIEWED FOR ANY DISCREPANCY OF THIS.

2. PROVIDE THE FOLLOWING FOR SINGLE ZONE UNIT APPLICATION WITH HORIZONTAL DISCHARGE: FACTORY INSTALLED BUILT-DRIVEN SUPPLY FAN, VFD FOR SUPPLY FAN, FACTORY INSTALLED CONTROLS, SINGLE WALL CONSTRUCTION WITH 1" FOIL GLASS INSULATION, 2" FILTERS, FACTORY INSTALLED EXHAUST FAN, EXHAUST FAN WITH 1" FOIL GLASS INSULATION, 2" FILTERS, FACTORY INSTALLED EXHAUST FAN, EXHAUST FAN WITH 1" FOIL GLASS INSULATION, 2" FILTERS, FACTORY INSTALLED EXHAUST FAN, EXHAUST FAN WITH 1" FOIL GLASS INSULATION, 2" FILTERS, FACTORY INSTALLED EXHAUST FAN, EXHAUST FAN WITH 1" FOIL GLASS INSULATION, 2" FILTERS, FACTORY INSTALLED EXHAUST FAN, EXHAUST FAN WITH 1" FOIL GLASS INSULATION, 2" FILTERS, FACTORY INSTALLED EXHAUST FAN, EXHAUST FAN WITH 1" FOIL GLASS INSULATION, 2" FILTERS, FACTORY INSTALLED EXHAUST FAN, EXHAUST FAN WITH 1" FOIL GLASS INSULATION, 2" FILTERS, FACTORY INSTALLED EXHAUST FAN, EXHAUST FAN WITH 1" FOIL GLASS INSULATION, 2" FILTERS, FACTORY INSTALLED EXHAUST FAN, EXHAUST FAN WITH 1" FOIL GLASS 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- NOTES: 1. PROVIDE A INSTALL 48 HIGH HIGH CURB WITH INSULATION TO REDUCE HEAT LOSS ROOF BOTTOM OF RTU.  
2. PROVIDE UNIT CONFIGURED FOR SINGLE ZONE W/ APPLICATION WITH HORIZONTAL DISCHARGE. FACTORY INSTALLED BELT DRIVEN SUPPLY FAN, VFD FOR SUPPLY FAN, FACTORY INSTALLED CONTROLS, SIZABLE WALL CONSTRUCTION WITH 1" FOIL FACED INSULATION, 2" FILTERS, FACTORY INSTALLED ENTHALPY ECONOMIZER WITH BAROMETRIC RELIEF, PHASE AND BROWNOUT PROTECTION, SINGLE POINT POWER CONNECTION, FACTORY INSTALLED WALL GUARDS, HINGED SERVICE ACCESS PANELS, AND STAINLESS STEEL NATURAL GAS HEAT EXCHANGER.  
3. PROVIDE WITH 3 STAGE COOLING, 2 STAGE NATURAL GAS HEAT, HOT GAS REHEAT FOR DEMONSTRATION, CO2 OUTSIDE AIR CONTROL, AND POWER EXHAUST.  
4. PROVIDE WITH 2 STAGE COOLING AND 2 STAGE NATURAL GAS HEAT.  
5. PROVIDE AND INSTALL P-TAMP PER MANUFACTURER RECOMMENDATIONS.  
6. PROVIDE WITH HVAC CIRCUIT BREAKER/DISCONNECT.  
7. PROVIDE FACTORY AUTHORIZED STARTUP.  
8. PROVIDE AND THROUGH 5TH YEAR EXTENDED COMPRESSOR WARRANTY.  
9. PROVIDE (1) ADDITIONAL SET OF DISPOSABLE FILTERS.  
10. EC TO PROVIDE A INSTALL CONVENIENCE OUTLET.  
11. PROVIDE WITH FACTORY INSTALLED CONTROLS WITH BACNET INTERFACE FOR CONNECTION TO BUILDING DDC SYSTEM.  
12. BY ALTERNATE #3.

NATURAL GAS FIRED FURNACE SCHEDULE

EQUIP NO.	MANUFACTURER & MODEL	SUPPLY AIR (CFM)	OA (CFM)	ESP (IN. W.G.)	FUEL TYPE	INPUT (MBH)	OUTPUT (MBH)	EFFICIENCY A.F.U.E.	GAS RATE (CFH)	ELECTRICAL				WEIGHT (LBS.)	NOTES
										HP	V/PH./CY	NCA	MOCP		
GF-1	FRASER-JOHNSTON TMB0600B12MP12	1200	300	0.5	NG	60	57	95.0%	60	1/2	115/1/60	10.4	15.0	122	1,2,3,4,5,6,7,8
GF-2	FRASER-JOHNSTON TMB0600B12MP12	1200	300	0.5	NG	60	57	95.0%	60	1/2	115/1/60	10.4	15.0	122	1,2,3,4,5,6,7,8

- NOTES: 1. NOT USED.  
2. TO CONTRACTOR TO PROVIDE & INSTALL NETWORK THERMOSTAT WITH BUILT-IN COMPRESSOR PROTECTION AND AUTO-CHANGEOVER FOR INTEGRATION TO BUILDING DDC SYSTEM.  
3. VC TO PROVIDE & INSTALL VENT DRAIN PIPING PER MANUFACTURER'S RECOMMENDATION. CONDENSATE PIPING TO BE SUPPORTED APPROXIMATELY 6" ABOVE FINISHED FLOOR WITH SPLIT RING STANDOFFS AND PIPED TO FLOOR SINK.  
4. PROVIDE & INSTALL SEPARATE SCH. 40 PVC VENTING AND COMBUSTION AIR THRU ROOF, SIZED AND INSTALLED AS PER MANUFACTURER'S RECOMMENDATIONS.  
5. CONCENTRIC KITS ARE NOT ACCEPTABLE.  
6. PROVIDE & INSTALL PLENUM FILTER BOX EQUIPMENT STAND WITH VIBRATION ISOLATION PADS FOR FURNACE MOUNTING.  
7. PROVIDE UNIT WITH SINGLE STAGE NATURAL GAS HEAT WITH ALUMINIZED STEEL PRIMARY HEAT EXCHANGER & STAINLESS STEEL SECONDARY HEAT EXCHANGER, CONSTANT SPEED DRIVE DRAFT INDUCER AND 3 SPEED DIRECT DRIVE ECM SUPPLY FAN MOTOR.  
8. PROVIDE ADDITIONAL SET OF DISPOSABLE FILTERS.  
9. BY ALTERNATE #3.

EXISTING WELDING HOOD SCHEDULE

EQUIP. NO.	MANUFACTURER & MODEL	SERVING	LOCATION	EXHAUST AIR (CFM)	STATIC PRESSURE LOSS (IN. W.G.)	EXHAUST AIR CONNECTION (IN. DIAM)	WIDTH (IN)	DEPTH (IN)	HEIGHT (IN)	NO. OF ELBOWS	SLOT HEIGHT (IN)	UNIT WEIGHT (LBS)	NOTES
EXG HD-A	---	WELDING STATION	WELDING LAB A121	1,000	1.5	8	45"	8"	34"	4	13/32	-	1

- NOTES: 1. VC TO RELOCATE OWNER'S EXISTING WELDING HOODS(10) FROM REMOTE SITE TO WELDING LAB A121.

VAV TERMINAL SCHEDULE

EQUIP. NO.	MANUFACTURER & MODEL	SERVED FROM	SERVING	INLET SIZE	MAX CFM	MIN CFM	MAX TERM A.P.D	MAX RAD NC	MAX DISCH NC	HEATING COIL (EWT=180°)								WPD (FT)	RORS	RUNOUT SIZE	NOTES
										CFM	MIN MBH	EAT (°F)	LAT (°F)	GPH	LWT (°F)						
VAV-A102	TITUS DESV	AHU-1	A100 VESTIBULE, A102 RECEPTION, A103 WORK ROOM, A105 FILES/STOR, A109 HALL	10	885	355	0.24	27	28	790	30.1	55.0	90.1	2.5	154.5	0.66	2	3/4"	1,2,3,4,5		
VAV-A104	TITUS DESV	AHU-2	A104 ASSISTANT	5	115	65	0.03	12	24	70	4.8	55.0	117.9	0.5	159.8	0.06	2	3/4"	1,2,3,4,5		
VAV-A106	TITUS DESV	AHU-3	A106 BUS MGR, A108 ISS	5	225	90	0.08	24	32	190	9.4	55.0	100.3	1.0	160.2	0.23	2	3/4"	1,2,3,4,5		
VAV-A110	TITUS DESV	AHU-4	A110 SUPER OFF	5	165	70	0.05	18	29	100	5.7	55.0	107.5	0.5	155.9	0.06	2	3/4"	1,2,3,4,5		
VAV-A111	TITUS DESV	AHU-5	A111 CONFERENCE	6	280	135	0.11	22	29	165	7.0	55.0	90.9	0.5	150.5	0.06	2	3/4"	1,2,3,4,5		
VAV-A112	TITUS DESV	AHU-6	A112 ATH DIR	5	115	65	0.03	12	24	70	4.8	55.0	117.9	0.5	159.8	0.06	2	3/4"	1,2,3,4,5		
VAV-A113	TITUS DESV	AHU-7	A109A HALL, A113 WAITING	5	210	85	0.07	23	32	135	6.5	55.0	99.1	0.5	152.6	0.06	2	3/4"	1,2,3,4,5		
VAV-A114	TITUS DESV	AHU-8	A114 GUIDE OFF	5	165	70	0.05	18	29	100	5.7	55.0	107.5	0.5	155.9	0.06	2	3/4"	1,2,3,4,5		
VAV-A115	TITUS DESV	AHU-9	A115 MCH/REC	5	205	85	0.08	22	31	205	10.4	55.0	101.6	1.0	158.0	0.23	2	3/4"	1,2,3,4,5		
VAV-A116	TITUS DESV	AHU-10	A116 ROBOTICS	10	740	560	0.21	27	27	560	21.8	55.0	90.9	1.5	149.1	0.31	2	3/4"	1,2,3,4,5		
VAV-A117	TITUS DESV	AHU-11	A117 CLASSROOM	10	960	600	0.27	27	29	600	24.6	55.0	92.8	2.0	154.0	0.48	2	3/4"	1,2,3,4,5		
VAV-A123	TITUS DESV	AHU-12	A122 BOYS, A123 MCH, A124 GIRLS, A125 STORAGE	5	180	90	0.04	18	28	110	5.9	55.0	104.8	0.5	144.8	0.06	2	3/4"	1,2,3,4,5		
VAV-A128	AHU-13	A126 OFFICE, A128 AS OFFICE	12	1075	635	0.20	26	33	700	30.4	55.0	95.0	2.0	147.8	0.54	2	3/4"	1,2,3,4,5			
VAV-A130	TITUS DESV	AHU-14	A130 CLASSROOM, A130A STORAGE	10	1030	680	0.34	27	29	680	32.2	55.0	100.0	3.0	156.5	0.82	2	3/4"	1,2,3,4,5		
VAV-A131	TITUS DESV	AHU-15	A131 CLASSROOM	10	1060	620	0.32	27	28	620	35.0	55.0	91.8	2.0	153.6	0.48	2	3/4"	1,2,3,4,5		
VAV-A132	TITUS DESV	AHU-16	A132 FACS LAB, A133 STORAGE	12	1295	690	0.27	27	25	800	37.8	55.0	98.6	3.0	153.3	0.96	2	3/4"	1,2,3,4,5		
VAV-A135	TITUS DESV	AHU-17	A135 FACS CLASSROOM	10	920	595	0.26	27	29	595	24.5	55.0	93.0	2.0	154.0	0.48	2	3/4"	1,2,3,4,5		
VAV-A136	TITUS DESV	AHU-18	A129 VESTIBULE, A136 CORRIDOR	8	485	220	0.17	23	29	325	13.2	55.0	92.5	1.0	151.9	0.30	2	3/4"	1,2,3,4,5		

NOTES:

1. SOUND DATA SHALL BE TAKEN FROM ASHRAE STANDARD 880 (LATEST EDITION) PUBLISHED DATA.

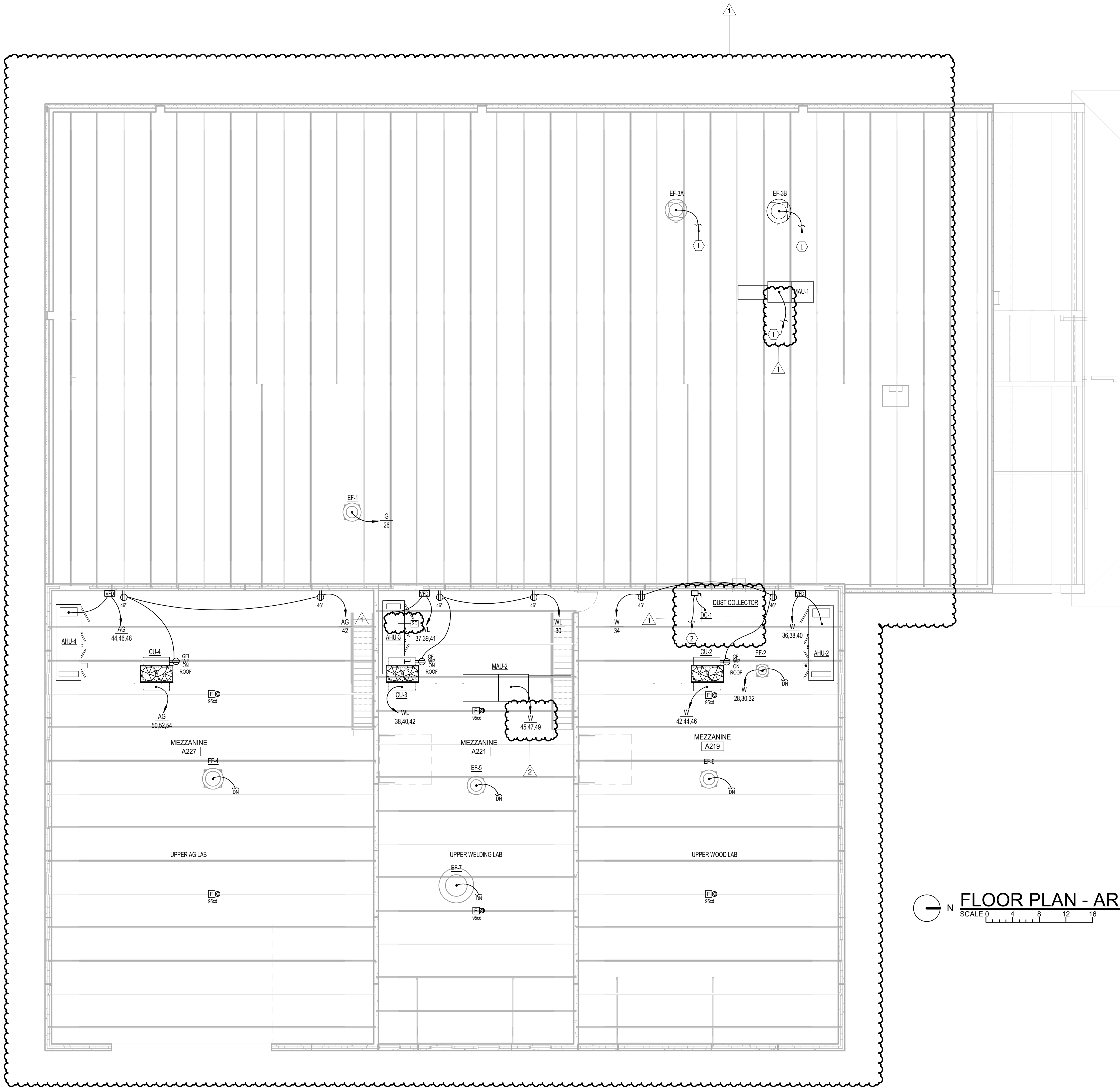
2. INLET STATIC PRESSURE FOR TERMINAL SELECTION IS 1.0". TERMINAL 0.7". INCLUDES COIL A.P.D.

3. PERFORMANCE BASED ON 35% PROPYLENE GLYCOL

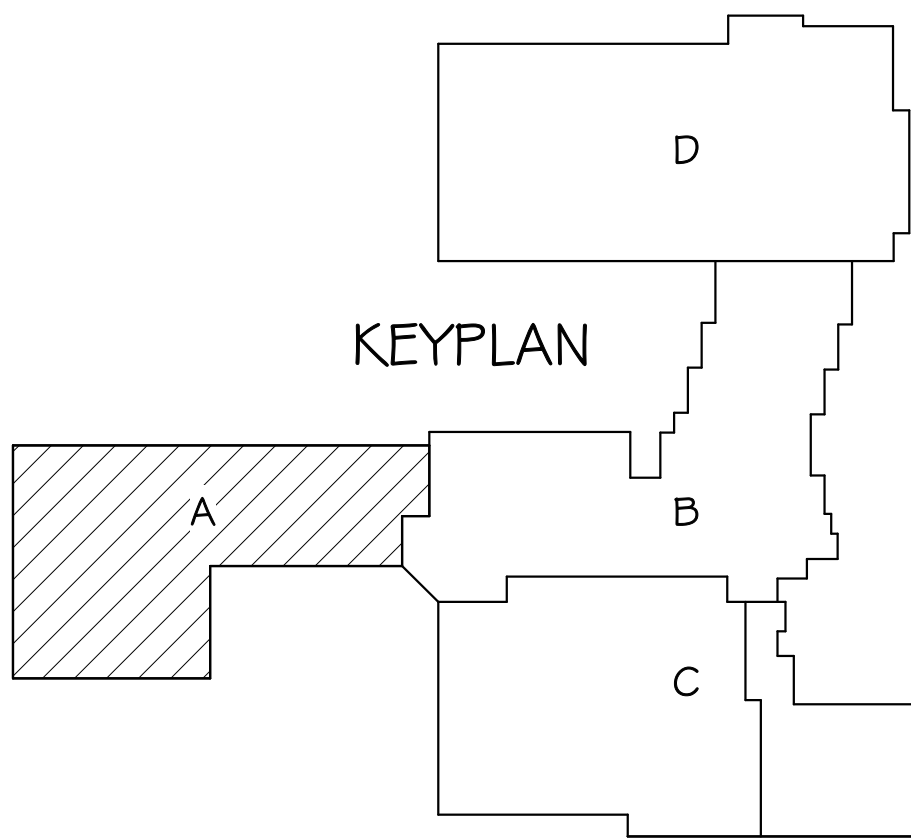
4. LH OR RH CONNECTION ON COIL- PIPING VARIIES, SEE PLAN.

5. SEE VAV HEATING COIL PIPING DETAIL.

5/6/2022 11:10:09 AM

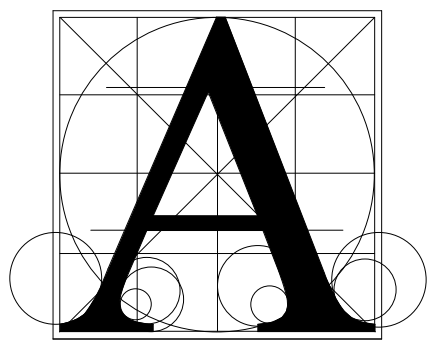


FLOOR PLAN - AREA A - MEZZANINE - POWER & SIGNAL



ELECTRICAL NOTES	
1	TO DUST COLLECTOR PANEL
2	DOWN TO DUST COLLECTOR VFD

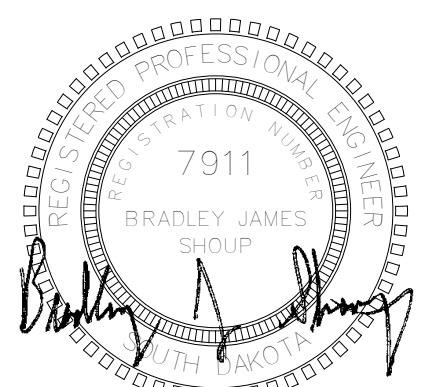
GENERAL SHEET NOTES	
A.	THE CEILING SPACE AVAILABLE REQUIRES EXTENSIVE COORDINATION WITH OTHER TRADES. THE CONTRACTOR SHALL PROVIDE ALL OFFSETS AND RELOCATE AS REQUIRED TO COORDINATE THE INSTALLATION OF ALL MATERIALS AND EQUIPMENT WITH OTHER TRADES.
B.	WITHIN NEW AND EXISTING WALLS IN FINISHED SPACES, TO THE EXTENT POSSIBLE, ALL NEW BOXES, RACEWAYS, AND CONDUCTORS SHALL BE INSTALLED CONCEALED. WHERE IT IS IMPOSSIBLE TO INSTALL SYSTEMS CONCEALED WITHIN WALLS, WIREMOLD (OR EQUAL SURFACE STEEL RACEWAYS SHALL BE UTILIZED.
C.	UNLESS NOTED OTHERWISE, PROVIDE ROUGH-INS ONLY FOR ACCESS CONTROL SYSTEM DEVICES. COORDINATE REQUIREMENTS WITH THE OWNERS SECURITY SYSTEM SUPPLIER.



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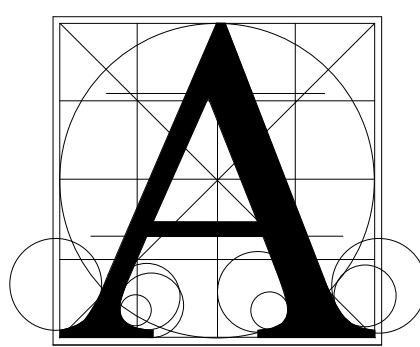
Project  
number: 0421.2936.21  
date: 4-15-2022  
revision:  
drawn: ADP checked: BJS  
NO. DATE DESCRIPTION  
1 5-3-22 Addendum 1  
2 5-3-22 Addendum 2

MEZZANINE PLAN - AREA A - POWER & SIGNAL

9.34-A2



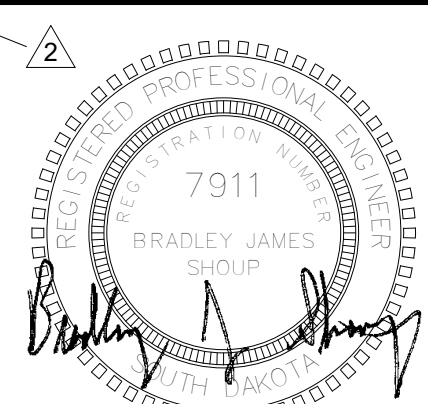
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Project  
sheet contents

**WEBSTER AREA SCHOOL 2022 REMODELING  
& CTE ADDITION**

number: 0421.2936.21  
date: 4-15-2022  
revision:  
drawn: AOP checked: BJS  
NO. DATE DESCRIPTION  
1 5-3-22 Addendum 1  
2 5-3-22 Addendum 2

**9.51**

### PANELBOARD: AG

LOCATION: AG LAB A127  
MOUNTING: SURFACE NEMA1  
MAIN DEVICE: 400 A MLO  
BUS AMPS: 400 AMPS

VOLTAGE: 208Y/120 V, 3 ø 4 W.  
A.I.C. RATING: 10,000 AMPS SYMMETRICAL  
SPECIAL:

LOAD DESCRIPTION	BKR	POLES	CKT	A	B	C	CKT	POLES	BKR	LOAD DESCRIPTION		
RCPT TABLE SAW	30 A	2	1	1.2	0.6		2	1	20 A	RCPT S. WORK BENCH		
--	--	--	3			1.2	0.6		4	20 A	RCPT S. WORK BENCH	
RCPT S. WORK BENCH	20 A	1	5			0.6	0.6		6	1	20 A	RCPT S. WORK BENCH
RCPT S. WORK BENCH	20 A	1	7	0.6	0.6				8	1	20 A	RCPT S. WORK BENCH
RCPT S. WORK BENCH	20 A	1	9			0.6	0.6		10	1	20 A	RCPT S. WORK BENCH
RCPT S. WORK BENCH	20 A	1	11			0.6	1.0	1.2	12	2	20 A	RCPT RADIAL ARM SAW
RCPT DRILL PRESS	20 A	1	13	1.1	1.0				14	--	--	--
RCPT W. AG LAB A127	20 A	1	15		0.5	3.1			16	2	50 A	RCPT PLASMA CUTTER
RCPT WELDER	50 A	2	17			3.1	3.1	1.8	18	--	--	--
--	--	--	19	3.1	3.1				20	2	50 A	RCPT WELDER
RCPT WELDER	50 A	2	21		3.1	3.1			22	--	--	--
--	--	--	23			3.1	0.6	2.4	24	1	20 A	RCPT N. WORK BENCH
RCPT N. WORK BENCH	20 A	1	25	0.6	0.4				26	1	20 A	RCPT E. AG LAB A127
MOTORS OH DOOR A127	20 A	1	27		1.7	0.4			28	1	20 A	RCPT EXTERIOR
RCPT STORAGE A125	20 A	1	29			0.4	0.4	0.3	30	1	20 A	RCPT CLASSROOM A 128
RCPT CLASSROOM A 128	20 A	1	31	0.4	0.5				32	1	20 A	RCPT CLASSROOM A 128
RCPT CLASSROOM A 128	20 A	1	33		0.9	0.7			34	1	20 A	RCPT OFFICE A 126
RCPT CLASSROOM A 128	20 A	1	35			0.4	0.5	0.6	36	1	20 A	RCPT CLASSROOM A 128
LITES MEZZ A 227	20 A	1	37	0.6	0.8				38	1	20 A	LITES AG LAB
LITES OFFICE A126	20 A	1	39		0.9	1.2			40	1	20 A	RCPT AG LAB A127
RCPT AG LAB A127	20 A	1	41			0.4	0.5		42	1	20 A	RCPT MEZZANINE A227
MOTORS CUH-2	20 A	1	43	0.4	2.1				44	3	35 A	MOTORS AHU-4
MOTORS EF-4	15 A	3	45		0.0	2.1			46	--	--	--
--	--	--	47			0.0	2.1		48	--	--	--
--	--	--	49	0.0	5.4				50	3	75 A	MOTORS CU-4
Spare	20 A	1	51			0.0	5.4		52	--	--	--
Spare	20 A	1	53			0.0	5.4		54	--	--	--
TOTAL LOAD:				22 kVA	25 kVA	22 kVA	186 A					
TOTAL AMPS:				183 A	212 A							

LOAD CLASSIFICATION	CONNECTED	DEMAND	ESTIMATED	PANEL TOTALS
Power	0 VA	0.00%	0 VA	
RCPT	43683 VA	61.45%	26842 VA	CONNECTED LOAD: 69634 VA
MOTORS	24060 VA	100.00%	24060 VA	ESTIMATED DEMAND: 53401 VA
LITES	2214 VA	125.00%	2767 VA	CONNECTED CURRENT: 193 A
				EST. DEMAND CURRENT: 148 A

NOTES:  
1. PROVIDE GFI CIRCUIT BREAKERS AS REQUIRED BY THE NEC AND LOCAL CODE REQUIREMENTS.

### PANELBOARD: WL

LOCATION: STORAGE A120  
MOUNTING: SURFACE NEMA1  
MAIN DEVICE: 400 A MLO  
BUS AMPS: 400 AMPS

VOLTAGE: 208Y/120 V, 3 ø 4 W.  
A.I.C. RATING: 10,000 AMPS SYMMETRICAL  
SPECIAL:

LOAD DESCRIPTION	BKR	POL	ES	CKT	A	B	C	CKT	POLES	BKR	LOAD DESCRIPTION	
RCPT S. WELDER	50 A	2	1	3.1	3.1			2	2	50 A	RCPT S. WELDER	
--	--	--	3			3.1	3.1	4	4	--	--	
RCPT S. WELDER	50 A	2	5				3.1	3.1	6	2	50 A	RCPT S. WELDER
--	--	--	7	3.1	3.1			8	--	--	--	
RCPT S. WELDER	50 A	2	9			3.1	3.1	10	2	50 A	RCPT S. WELDER	
--	--	--	11				3.1	3.1	12	--	--	
RCPT N. WELDER	50 A	2	13	3.1	3.1			14	2	50 A	RCPT N. WELDER	
--	--	--	15			3.1	3.1	16	--	--	--	
RCPT N. WELDER	50 A	2	17				3.1	3.1	18	2	50 A	RCPT N. WELDER
--	--	--	19	3.1	3.1			20	--	--	--	
RCPT W. WELDING LAB A121	20 A	1	21			0.7	0.2	22	1	20 A	RCPT W. WELDING LAB A121	
MOTORS AIR COMPRESSOR	60 A	3	23				3.8	0.4	24	1	20 A	RCPT E. WELDING LAB A121
--	--	--	25	3.8	0.4			26	1	20 A	RCPT STORAGE 120	
LITES WELDING LAB	20 A	1	27			3.8	1.7	28	1	20 A	MOTORS OH DOOR WELD LAB	
MOTORS EF-5	15 A	3	31	0.6	2.0		0.5	0.4	30	1	20 A	RCPT MEZZANINE A221
--	--	--	33			0.6	2.0	32	3	35 A	MOTORS EF-7	
--	--	--	35				0.6	2.0	36	--	--	--
MOTORS AHU-3	15 A	3	37	0.8	3.4			38	3	45 A	MOTORS CU-3	
--	--	--	39			0.8	3.4	40	--	--	--	
--	--	--	41					42	--	--	--	
Spare	20 A	1	43	0.0	0.0			44	1	20 A	Spare	
Spare	20 A	1	45			0.0	0.0	46	1	20 A	Spare	
Spare	20 A	1	47				0.0	0.0	48	1	20 A	Spare
Spare	20 A	1	51					50	3	400 A	PANEL "AG" FEED THRU LUGS	
Spare	20 A	1	53			0.0	25.4	52	--	--	--	
--	--	--	55				0.0	22.5	54	--	--	--
TOTAL LOAD:					57 kVA	56 kVA	52 kVA	432 A				
TOTAL AMPS:					480 A	475 A						

LOAD CLASSIFICATION	CONNECTED	DEMAND	ESTIMATED	PANEL TOTALS
Power	0 VA	0.00%	0 VA	
RCPT	107382 VA	54.66%	58696 VA	CONNECTED LOAD: 164985 VA
MOTORS	55214 VA	100.00%	55214 VA	ESTIMATED DEMAND: 117001 VA
LITES	2728 VA	125.00%	3411 VA	CONNECTED CURRENT: 458 A
				EST. DEMAND CURRENT: 325 A

NOTES:  
1. PROVIDE GFI CIRCUIT BREAKERS AS REQUIRED BY THE NEC AND LOCAL CODE REQUIREMENTS.

### PANELBOARD: LC

LOCATION: JANITOR B122  
MOUNTING: SURFACE NEMA1  
MAIN DEVICE: 400 A MLO  
BUS AMPS: 400 AMPS

VOLTAGE: 208Y/120 V, 3 ø 4 W.  
A.I.C. RATING: 10,000 AMPS SYMMETRICAL  
SPECIAL:

LOAD DESCRIPTION	BKR	POLES	CKT	A	B	C	CKT	POLES	BKR	LOAD DESCRIPTION		
RCPT FLEX CLASSROOM...	20 A	1	1	1.1	1.1		2	1	20 A	RCPT FLEX CLASSROOM...		
RCPT LIFE SKILLS B133A	20 A	1	3		0.8	0.7		4	1	20 A	RCPT LIFE SKILLS B133A	
RCPT LIFE SKILLS B133A	50 A	2	5			3.1	0.7		6	1	20 A	RCPT LIFE SKILLS B133A
--	--	--	7	3.1	1.2				8	1	20 A	RCPT LIFE SKILLS B133A
RCPT LIFE SKILLS B133A	30 A	2	9		2.1	1.1			10	1	20 A	RCPT HS SPED B133
--	--	--	11			2.1	1.1		12	1	20 A	RCPT HS SPED B133
RCPT STORAGE B132A	20 A	1	13	0.5	1.1				14	1	20 A	RCPT SENSORY B127
RCPT C.B. CLASS B128	20 A	1	15		0.5	0.8			16	1	20 A	RCPT C.B. CLASS B128
RCPT C.B. CLASS B128	20 A	1	17			0.7	3.1		18	2	50 A	RCPT C.B. CLASS B128
MOTORS C.B. CLASS B128	20 A	1	19	0.9	3.1				20	--	--	--
RCPT C.B. CLASS B128	20 A	1	21		1.2	2.1			22	2	30 A	RCPT C.B. CLASS B128
RCPT OFFICE B129	20 A	1	23			0.7	2.1		24	--	--	--
RCPT RR B126	20 A	1	25	0.5	0.5				26	1	20 A	RCPT CONF. B130
LITES STORAGE B123	20 A	1	27		0.8	0.4			28	1	20 A	RCPT STORAGE B123
LITES EXTERIOR AREA C	20 A	1	29			0.2	0.6		30	1	20 A	MOTORS LIFE SKILLS B133A
RCPT STORAGE B123	20 A	1	31	0.5	0.7				32	1	20 A	RCPT JANITOR B122
MOTORS DSC-B133A	20 A	2	33		0.5	0.5			34	1	20 A	RCPT TECH OFFICE B110
--	--	--	35			0.5	0.5		36	1	20 A	RCPT TECH OFFICE B110
MOTORS DSC-B110	15 A	2	37	0.7	2.6				38	3	35 A	MOTORS RTU-2
--	--	--	39		0.7	2.6			40	--	--	--
MOTORS RTU-1	80 A	3	41			7.2	2.6		42	--	--	--
--	--	--	43	7.2	2.0				44	2	25 A	HEAT ECUH-1
--	--	--	45		7.2	2.0			46	--	--	--
RCPT TECH OFFICE B110	20 A	1	47			0.4	0.0		48	1	20 A	Spare
Spare	20 A	1	49	0.0					50	--	--	--
Spare	20 A	1	51		0.0				52	--	--	--
Spare	20 A	1	53			0.0			54	--	--	--
TOTAL LOAD:				26 kVA	23 kVA	25 kVA	212 A					
TOTAL AMPS:				221 A	196 A							

LOAD CLASSIFICATION	CONNECTED	DEMAND	ESTIMATED	PANEL TOTALS
Power	38815 VA	62.88%	24407 VA	
RCPT	31886 VA	100.00%	31886 VA	CONNECTED LOAD: 74964 VA
MOTORS	916 VA	125.00%	1145 VA	ESTIMATED DEMAND: 60787 VA
LITES	3952 VA	100.00%	3952 VA	CONNECTED CURRENT: 208 A
HEAT				EST. DEMAND CURRENT: 169 A

NOTES:  
1. PROVIDE GFI CIRCUIT BREAKERS AS REQUIRED BY THE NEC AND LOCAL CODE REQUIREMENTS.

### PANELBOARD: FL

LOCATION: ALCOVE A134  
MOUNTING: RECESSED NEMA1  
MAIN DEVICE: 200 A MLO  
BUS AMPS: 200 AMPS

VOLTAGE: 208Y/120 V, 3 ø 4 W.  
A.I.C. RATING: 10,000 AMPS SYMMETRICAL  
SPECIAL:

LOAD DESCRIPTION	BKR	POLES	CKT	A		B		C		CKT	POLES	BKR	LOAD DESCRIPTION	
RCPT STORAGE A113	20 A	1	1	0.7	0.9					2	1	20 A	RCPT CLASSROOM A135	
RCPT CLASSROOM A135	20 A	3	1			1.1	0.4			4	1	20 A	RCPT STORAGE 130A	
RCPT CLASSROOM A131	20 A	1	5					1.1	1.1	6	1	20 A	RCPT CLASSROOM A131	
RCPT CLASSROOM A130	20 A	1	7	1.1	1.1					8	1	20 A	RCPT CLASSROOM A130	
RCPT REACH-IN FRIDGE	20 A	1	9			0.7	1.2			10	1	20 A	RCPT REACH-IN FREEZER	
RCPT HEAT CABINET	20 A	1	11					2.0	1.2	12	1	20 A	RCPT REACH-IN FREEZER	
RCPT RANGE	20 A	1	13	0.8	0.8					14	1	20 A	RCPT RANGE	
SHUNT TRIP	--	--	15			0.0	0.0			16	--	--	SHUNT TRIP	
RCPT RANGE	20 A	1	17					0.8	1.6	18	1	20 A	RCPT MICROWAVE	
SHUNT TRIP	--	--	19	0.0	1.6					20	1	20 A	RCPT MICROWAVE	
RCPT FOOD MIXER	20 A	1	21			1.2	1.2			22	1	20 A	RCPT FOOD MIXER	
RCPT FOOD MIXER	20 A	1	23					1.2	3.2	24	2	35 A	MOTORS DISHWASHER	
RCPT WASHER	20 A	1	25		1.2	3.2				26	--	--		
RCPT DRYER	30 A	2	27			2.5	0.7			28	1	20 A	RCPT REACH-IN FRIDGE	
--	--	--	29					2.5	0.9	30	1	20 A	RCPT FACS LAB 132	
RCPT FACS LAB 132	20 A	1	31	0.4	1.5					32	1	20 A	LITES LAB 132 / CLASS 135	
LITES CLASS 131/CLASS 130	20 A	3	33			1.5	0.2			34	1	20 A	LITES LAB A132	
LITES FACS LAB 132	20 A	1	35					0.6	0.6	36	3	15 A	MOTORS EF-3A	
MOTORS EF-3B	35 A	3	37	2.0	0.6					38	--	--		
--	--	--	39				2.0	0.6		40	--	--		
--	--	--	41						2.0	1.8	42	3	35 A	MOTORS MUA-2
Spare	20 A	1	43	0.0	1.8					44	--	--		
Spare	20 A	1	45			0.0	1.8			46	--	--		
Spare	20 A	1	47					0.0	0.0	48	1	20 A	Spare	
			49							50				
			51							52				
			53							54				
TOTAL LOAD				17 kVA		15 kVA		20 kVA						