ADDENDUM NO. 4

April 21, 2022

RIVER VALLEY HIGH, MIDDLE, & ELEMENTARY SCHOOLS ADDITIONS & RENOVATIONS
15480 Three Oaks Road
Three Oaks, MI, 49128

TO: ALL BIDDERS OF RECORD

This Addendum forms a part of and modifies the Bidding Requirements, Contract Forms, Contract Conditions, the Specifications, and the Drawings dated March 22, 2022, by Cordogan Clark & Associates. Acknowledge receipt of the Addendum in the space provided on the Bid Form. Failure to do so may subject the Bidder to disqualification.

This Addendum consists of Pages ADD 4-1, RFI Log, and Cordogan Clark Addendum No. 4, dated April 20, 2022, consisting of 5 pages, and Revised Drawings: C8, A6.6, A8.4, A9.2, M1.1D, M2.1A, M2.1D. M2.2B, M4.0, P2.1D, E2.1A, E2.1B, E2.1C, E2.2A, E2.2B, and E2.2C.

<u>REMINDER BIDS DUE APRIL 26, 2022</u>

A. <u>RFI LOG AND SUBSTITUTION REQUESTS</u>

Refer to the attached RFI Log, dated April 21, 2022.

River Valley School District - School Consolidation

Pre-Bid RFI Log
Date - 4/21/2022
CC=Cordogan Clark TSC=The Skillman Corp.

RFI #	Company Submitting RFI	Date Received	RFI Description	RFI Response
1	Hunter-Prell	3/23/2022	Fire Suppression Specs. 211313-14 3.2 A. Connect sprinkler piping to building's interior water-distribution piping. Will the site contractor bring the water supply for fire sys tem into building in riser room 12" AFF?	TSC: Bid Category No. 2 Sitework will bring the water supply to within 5' of the building. Bid Category No. 10 Mechanical will connect and bring water service into the building and provide supply line for Fire Suppression connection and piping.
2	Hunter-Prell	3/23/2022	Fire Suppression specs. 211313-19 3.15 C. Standard-pressure, wet-pipe sprinkler system, NPS and smaller Number 3. Thin wall or Schedule 10 black-steel pipe On the fire plan FP2.1D Note number 2 Line piping to be schedul e 40. Which statement is correct? Can line pipe be sch. 10?	CC: Line pipe shall be schedule 40.
3	Hunter-Prell	3/23/2022	3) Fire suppression plan FP2.1D Keynote 3: Provide and install Fire Protection Riser sized to fully sprinkler th e High School and include (4) Fire Protection zone assemblies in the riser (3) zones assembl ies shall be used for future projects. What consists of "Zone assemblies"?	CC:Fire protection zone assemblies shall include a water pressure gauge, 2" main drain valve, check valve, and water flow switch.
4	S.A.Mormon	3/25/2022	081416 Flush Wood Doors and/or A9.0 Door Schedule - There is no mention in the Specifications if Factory Glazing is required for Wood Doors with Lites. If Factory Glazing is required – A9.0 Door Schedule notes “I-GL1-T” at Door Types D5 and D6. This glass type does not appear in 08800 Glazing Specifications. If factory glazing is required for Wood Doors with Lites please clarify specific glass required.	CC: Glazing type I-GL1-T refers to Monolithic ""B. Glass Type: Clear fully tempered float glass. 1. Minimum Thickness: 6 mm. 2. Safety glazing required."" "
5	S.A.Mormon	3/25/2022	081113 Hollow Metal Doors and Frames and/or A9.0 Door Schedule - A9.0 Door Schedule list numerous Hollow Metal Doors as Type D1. Door Elevations show Type D1 Doors to be Exterior Doors. Specifications call for Exterior Hollow Metal Doors to be 16 Gauge Curries 777 Trio-E Series (fairly expensive doors) while Interior Hollow Metal Doors are specified as 18 Gauge Curries 707 (typical “standard” hollow metal door). The only Exterior Hollow Metal Door is Opening E2. Should the other Eight Hollow Metal Doors indicated to be Type D1 actually be Type D4 Interior Door?	CC: REVISE ALL INTERIOR HM DOORS TO TYPE D4
6	S.A.Mormon	3/25/2022	081113 Hollow Metal Doors and Frames and/or A9.0 Door Schedule - A9.0 Door Schedule - Openings D103A, D118, D124, D129 and D129A are indicated on the Door Schedule to have a 2 Hour Fire-Rating (these are also the only Openings indicated to have a fire-rating). Due to the 2 Hour Rating are these Hollow Metal Doors/Frames required to be “E119” Fire Rated Systems (Note: extremely expensive with extended lead-times)?	CC: REFER TO 081113 1.4.C, 2.3.C.1.a, & 2.4.E FOR FIRE DOOR REQUIREMENTS. DOORS ASSEMBLIES LOCATED IN A 2HR WALL REQUIRE 1 1/2 HR RATING AND ""SHALL BE TESTED IN ACCORDANCE WITH NFPA 525 OR UL10C"""
7	Balfrey & Johnston, Inc.	3/28/2022	Request approval to bid Navien’s Wall Hung Condensing Water Heater as an equal to the water heater with tank specified (refer to 3/28 Email).	CC: Rejected
8	Pearson	3/29/2022	What bid category will 07 4213.23 “Composite Metal Panels” be assigned? They are currently in the site package?	TSC: Composite Metal Panels will be assigned to Bid Category No. 1 General Trades. Refer to Addendum No. 1.
9	Pearson	3/29/2022	Section 01 72 00 Field Engineering ?	TSC: Bid Category No. 1 General Trades shall provide and maintain Reference Points (benchmarks & control points) and provide Certified Survey at completion of foundation walls and other major improvements for ALL Contractors to utilize for their respective "Work Layout-Section 01 72 50". Refer to Section 01 72 00 Field Engineering, Part 3.04.
10	Pearson	3/29/2022	Will 10% retention remain as part of the contract along with the additional scheduled items such as closeout that essentially increases retention to an amount >10%. Is 5% acceptable?	TSC: No. Ten (10%) Retainage is part of the agreement. There are provisions including in the General Conditions affording Contractors the opportunity to request reduction in retainage.
11	Pearson	3/29/2022	The elevations noted on the civil drawings differ from those noted in the subsurface investigation.	CC: The elevations shown on the Civils should be used. They are shown per the Topographic Survey which uses 2 different NAVD88 datum benchmarks, and are consistent with the GIS contours.
12	Pearson	3/29/2022	Is the removal and reinstallation of fencing required for Alternate #4 the responsibility of the site package as defined buy cutting and patching?	TSC: The removal and replacement of existing fencing for access to perform Alternate No. 4 work shall be provided by Bid Category No. 13 Asphalt Paving.
13	Pearson	3/29/2022	What bid category will be responsible for asphalt patching and line striping?	TSC: Refer to Addendum No. 1, new Bid Category No. 13 Asphalt Paving.
14	Pearson	3/29/2022	Please verify who is responsible for the basketball hoops noted in the Activity Area on sheet C-2. It states “by others”	TSC: The Owner will provide the basketball hoops.
15	Pearson	3/29/2022	What category will be responsible for the black vinyl fence noted on sheet c-2?	TSC: Bid Category No. 1 General Trades shall provide the black vinyl chain link fence and gates as shown on sheet C-2.
16	Herman & Goetz	4/1/2022	Drawing sheet E4.2- Is there a panel/breaker schedule for the new 1600 amp switchgear in room D144?	CC: To be issued via addendum 01. The board will be relocated.
17	Herman & Goetz	4/1/2022	Drawing sheet E4.2- Is the existing 3000 amp switchboard being replaced (room B-43A)? Detail 1A & 1B show different breaker/switch counts.	CC: To be clarified via Addendum 01.
18	Herman & Goetz	4/1/2022	Drawing sheet E4.2- Detail 1B shows new panels E & F. Are these replacing existing panels? Detail 1A show these as existing 400 amp panels and detail 1B show them as new 600 amp panels. Also new panel F is shown to be in room B16. We cannot locate B16. Panel schedules would be helpful too. Please clarify.	CC: Both panels will be partially replaced. One 400-amp tub will remain on the existing feeder; one 400-amp tub will be refed with a new 400-amp feeder and will receive new interior and cover.

19	Herman & Goetz	4/1/2022	Drawing sheet E4.3- Can you confirm that the new panel PP0 in room D144 is being fed from existing gear in room B-43A as shown on the drawings? There are no spare switches in the existing gear.	CC: To be clarified via Addendum 01.
20	Herman & Goetz	4/1/2022	Drawing sheet E4.3- Does panel PP0 need to be GE brand as shown on the drawing?	CC: G.E. or Square D.
21	Herman & Goetz	4/1/2022	In regards to the Lift Station mentioned at the walkthrough. We have not been able to find where it is located or where it is supposed to be fed from. Please confirm if there is one.	CC: REFER TO C-5 WEST OF PLAYGROUND AND C-11 FOR SANITARY LIFT STATION PLAN.
22	Herman & Goetz	4/1/2022	Drawing sheet E1.1D - There is no circuiting shown for the lighting in the new addition. Can you confirm which panel will feed that lighting? Panel LP-0 in that area does not show any lighting circuits on the panel schedule.	CC: Provide (3) 120v lighting branch circuits on panel LP-0 on 39,41,40. 39: "24-HR NIGHT LIGHTING, EXIT SIGNS, AND EXTERIOR EXIT LIGHTING". 41,40: will be used for the rest of the lighting for the addition.
23	Herman & Goetz	4/1/2022	Drawing sheet E4.2 – Can you provide the location of the new utility pad mount transformer and pad mount CT cabinet? Drawing shows us tying into the existing utility transformer on the opposite side of the building from the new addition. Is it expected to run through the building or underground around the outside of the building?	CC: To be clarified via Addendum 01.
24	Pearson	4/1/2022	What trade is responsible for fire separation of the work and temporary egress plans. Will these requirements be paid for by allowance or more specifically detailed if desired to be included in the base bid by bid categories?	TSC: Bid Category No. 1 General Trades shalll provide maintain and remove required construction separations for construction phasing. Allow for six (6) 1 hour construction separations including provisions for temporary frame and doors.
25	Pearson	4/1/2022	What deciphers Between 2022 and 2023 for the work summer work scheduled in phase 2 noted in light blue ?	TSC: Refer to Guideline Schedule.
26	Pearson	4/1/2022	Please clarify if section 08 88 00 is required by both General Trades Package 1 and Aluminum Package 6? If so please clarify the separation between these packages.	TSC: Refer to Addendum No. 1
27	Pearson	4/1/2022	Please clarify section 01 53 10 Fences, Quantities are given in this section to provide 500’ of two different types of fencing, The site logistics plans shows the temp fencing desired for site layout. Please verify if we bid temp fencing per the site logistics plan or as quantified in the specification section.	TSC: Refer to Addendum No. 1. Revise Section 01 53 10 - Fences, Part 2.01, A. (Allow for 1,000 Lineal Feet). Part 3.01 Installation, D. revise to one (1) 20' wide gate and two (2) 4' wide man gates.
28	Pearson	4/1/2022	Field Engineering Services, section 01 72 00. Work described in this section seems very broad along with describing work that is either stated will be provided by the owner, “property lines” or has previously been performed by the civil engineer, or not applicable to this construction project, “anchor bolt survey”. Can you clarify the specific work to be provided by this section along with how the costs for replacing established control points if damaged?	TSC: Refer to Section 01 72 00 Field Engineering, Part 3.04. The Owner will identify existing benchmark, control points and property corners. Bid Category No. 1 General Trades shall provide the required work as outlined in 3.04 B., C., and D. Include cost to reestablish Control Points and Bench Marks two (2) times.
29	ASI Signage Innovations	4/1/2022	Can you confirm there is only a need for dimensional lettering at River Valley Elementary School? Additionally, the lines directing to the lettering on drawing A5.1D are off. Please confirm RIVER VALLEY is to be 18" and ELEMENTARY SCHOOL is to be 8". Also please confirm font.	CC: YES ONLY DIMENSIONAL LETTERING. CONFIMED 18" RIVER VALLEY, 8" ELEMENTARY. ALSO PLEASE NOTE LINE UNDER ELEMENTARY. FONT TO BE CHOSEN BY OWNER THROUGH SHOP DRAWINGS FROM MFG. STANDARD FONTS.
30	MWG	4/4/2022	Is bid package #1 or #6 to provide the glass for the hollow metal frames?	TSC: Glazing for Hollow Metal Frames shall be provided by Bid Category No. 6 Aluminum Glass and Glazing, specified in Section 08 80 00-Glazing. Bid Category No. 1 General Trades shall provide Glazing for Hollow Metal Doors, specified in Section 08 11 13-Hollow Metal Doors and Frames, Part 1.2, A. 4. Light frames and glazing in hollow metal doors.
31	MWG	4/4/2022	Are the wood doors factory glazed?	CC:FACTORY GLAZING IS NOT REQUIRED.
32	KMI	4/5/2022	Multiple locations. Example sheets, M1.1A and A1.1A. The mechanical sheets show removal of electric finned tube at 6 locations. The architectural sheets do not show any work associated with them. Will wall patching or painting be required at removed finned tubes? If so, which bid package will be responsible for this work?	CC:YES PATCHING AND PAINTING WILL BE REQUIRED. TSC: Depending on the existing wall type and condition, scope of required patching, prepping and painting will be required by respective Bid Category, ie: exisitng CMU wall patching by Bid Category No. 4 Masonry and Painting by Bid Category No. 8.
33	KMI	4/5/2022	Reference sheet A1.1B. Math Room B114. Only a portion of the ceiling is shown to be removed. This entire ceiling should be removed to facilitate duct demo. It is not clear why only a portion of the ceiling is being removed in this room, when the adjacent rooms B117 and B119 have full removal and have the same amount of above ceiling demo required.	TSC: Bid Category No. 1 General Trades shall remove the entire existing ceiling system, Bid Category No. 11 shall remove and/or suspend existing lights and reinstall lights and Bid Category No. 8 Interior Finishes shall provide a new ceiling system.
34	KMI	4/5/2022	Reference sheet M1.1C. media center/tech lab area. There is an existing ceiling AHU that is to be removed. The plan, Note 3, calls for the louver to be removed. Nothing is mentioned about patching the opening. The architectural demo sheet A1.1C does not have any notes about this. How should this opening be patched and what bid package is responsible?	CC: DMEO NOTED 4/A1.4, INFILL NOTED 1/A5.1C. REFER TO DETAIL 8/A6.6. TSC: Refer to sheet A6.6 for "typical" details for patching conditions in existing wall assemblies. Scope for patching shall be as assigned as required for new assembly and condition.
35	KMI	4/5/2022	The new mechanical design incorporates many new duct penetrations through existing walls. I do not see a structural drawing showing these penetrations. Please confirm which duct openings will require lintels and which bid category will be responsible for providing and installing the lintels.	CC: REFER TO MASONRY UNIT NOTE #16 S1.1 FOR LINTEL REQUIREMENTS. TSC: Lintels are provided by Bid Category No. 5 Structural & Miscellaneous Steel.

36	KMI	4/5/2022	I would like to request a more thorough explanation of the delineations between the base bid mechanical work and the Alternate No. 1 mechanical work. For example, sheet M2.1A, science lab A133. a. Our understanding of base bid: remove existing UV and replace. Add new roof intake hood and duct. b. Our understanding of the Alternate No.1: Remove existing UV, patch wall. Add new RTU and duct system. Omit the new UV, intake hood, and duct shown.	CC: Typical base bid is to remove and replace the existing unit vent, louver, and install the relief hood with associated ductwork. Alternate 1 shall remove the existing UV and patch the wall. Install the new RTU and associated duct system. Omit the new UV, relief hood and its associated ductwork.
37	KMI	4/5/2022	Reference sheets M1.1A and M2.1A. Room A100. Please clarify the intent of the base bid versus the alternate. The demo plan shows the UVs to be removed. The new work shows only an RTU system to be installed, but then shows a Note 1, indicating it is part of the alternate. What will the base bid scope of work be? No work in this room? Or should the RTU be the base bid?	CC:RTU IS BASE BID FOR ROOM A100.
38	Pearson	4/6/2022	RFI #35 response issued with addendum 1 states lintels are to be supplied by bid package 5 Structural Steel: Item #3 of the masonry clarification under Bid Pack 4 state lintels are supplied by the mason. Please clarify,	TSC: Refer to Bid Category Clarifications issued in Addendum No. 2.
39	Pearson	4/6/2022	Does the supply of lintels include the W8 x 24 lintels shown at openings on sheet S2.1D or just the LX type of lintel?	TSC: Refer to Bid Category Clarifications issued in Addendum No. 2.
40	Pearson	4/6/2022	Can you confirm if the W8 x 24 lintels are loose laid or set on a bearing plate and welded. It is a requirement of the steel contractor to engineer all connections per the general notes? Are the LX type lintels loose laid?	CC: Refer to details 10 & 11 on S4.1 and structural general notes sheet.
41	Pearson	4/6/2022	Will connections engineering be required by the masonry contractor as well if there is more than loose laid lintel?	TSC: Refer to Structural Steel notes on S1.1.
42	Pearson	4/6/2022	TESTING, Per the Multiple Contract Summary, Testing is provided by the owner. Specification section 033000 issued via addendum lists several testing requirements for both the PIA and FF/FL requirements. Please confirm all these testing items will be provided under the owner testing.	TSC: Yes, all required field related construction material testing will be provided by the Owner through the CM.
43	EMC Electric	4/7/2022	On M4.0 there is an electric heater schedule (3 items located in the D section of the building). None of these heaters show up on the power page, or in LPO panel schedule (the 120/208 panel servicing the addition). Clarification requested.	CC: Refer to Adendum 2.
44	EMC Electric	4/7/2022	On M4.0 there is an indoor coil unit schedule (A,C, and D sections) I cannot find them on the E-drawings, or a panel designation for them. Clarification requested.	CC: Refer to Adendum 2.
45	EMC Electric	4/7/2022	On M4.0 there is a remote air cooled condensing unit schedule. (both above kitchen). They are labeled B112, and B113 on M4.0 schedule, and B11 and 112 on E pages. No feeder location is provided (panel/ circuit number) Clarification requested.	CC: Refer to Adendum 2.
46	EMC Electric	4/7/2022	On M4.0 there is an electric duct heater schedule. (A,B,C, and D areas). They are not found on the E power plans, or in any panel schedules. Clarification requested.	CC: Refer to Adendum 2.
47	EMC Electric	4/7/2022	UV B100 shows up on E power pages, but not on E4.3 mechanical connection schedule. Clarification requested.	CC: Refer to Adendum 2.
48	EMC Electric	4/7/2022	E4.3 mechanical connection schedule shows UV B113, A127, and A 125 but these do now show up on existing 3-pole breaker space in their local panels. New panel location and circuitry numbers are not on E power pages, or panel schedule. Clarification requested.	CC: Refer to Adendum 2.
49	Mainline Fire Sprinkler	4/7/2022	The only fire suprresion that I am seeing is a new riser and piping and heads in a kindergarden room, is this correct?	CC: The addition shall be provided a fully sprinkler system. The riser shall include a total of 4 fire protection zone assemblies.
50	Gibson-Lewis	4/7/2022	Specification Section 114000 – Foodservice Equipment is assigned to the General Trades bid package. The spec describes stainless steel shelving and tables, however I cannot locate these items on the drawings. Please advise.	CC: REFER TO DETAILS 1-5 SHEET A8.3 RELATED TO FOOD SERVICE A124. QTY (3) SS TABLES AND QTY (2) SHELVES.
51	Columbia Lockers	4/7/2022	The plans seem to only list new Lockers/Cubbies for Area D; Pages A2.1D & A8.7. Please confirm.	CC: YES SEE SPECIFICATIONS FOR QUANTITY
52	MCS	4/7/2022	In regards to the plastic laminate cabinets, some of the tall storage cabinets have totes. I can provide those, but cannot find the exact ones they need dimensional wise. I did find some that are very close. See Drawings 8/A8.10 - requesting totes that are 13" W x 18 1/4" D x 4 1/4" H - Is this acceptable?	CC: Yes.
53	Gibson-Lewis	4/7/2022	Regrading Spec 124113 window shades, Floorplans show finish keynotes #F9 & F10 call out manual or motorized Shades, have not been able to find those called out anywhere. Sheet A3.2 #16 & #17 show head details one being new shade the other existing, those on shown on RCPs. Are those manual or motorized and what type of shade, are those the only areas then that get new shades?	CC: All manual shades - should be called out via 16&17/A3.2.

54	EMC Electric	4/8/2022	Unit ventilators being removed are all under 20-amp according to schedule on E4.3. new units are up to 50-amp units. Which will need new conduit and wire to support the new units. Care was taken on fire alarm routes, and feeders moved onto roof to keep from running down hallways above drop ceiling. How should we plan on this piping to be installed from their respective panel to the UV's?	CC: For bidding purposes, assume new branch raceways as needed are routed exposed if the existing raceway is too small or unavailable.
55	EMC Electric	4/8/2022	In addendum 1 on new page E2.2 on the left side of the building there is a note for approximate location of new pad mount/main for the new 120/208V 1600A service. This is between 440' and 500' depending on route. To take this 1600A secondary wiring that distance with noted XHHW wiring, cost for material alone would be over $175,000.00. is there an ability to directional bore from existing transformer to new addition location for utility wiring, place new transformer and main disconnect there, and shrink secondary 1600A feeder length down to 30/40' length?	CC: Refer to Adendum 2.
56	Columbia Lockers	4/8/2022	Columbia Locker Product Substitution Request.	CC: Approved
57	Pearson	4/8/2022	Please clarify where and the extent of the type C barrier curb shown on sheet C-8 goes.	CC: See Addendum 002, sheet C-2 for call out
58	Hollerbach Excavating	4/8/2022	Alt. #2-State the Cost to do Site Work on the westside of project. Q-Where does Base Bid end and Alt #2 begin? Appears to be very vague.	TSC: Refer to C series drawings and descriptions in Addendum No. 2.
59	Hollerbach Excavating	4/8/2022	Who is responsible for footing excavation and backfilling the addition?	TSC: Refer to Clarifications added in Addendum No. 2. Bid Category No. 2 Sitework shall provide all required building excavation, backfilling, and compaction work.
60	Hollerbach Excavating	4/8/2022	Who is responsible for fence removal and nets at tennis court for Alt.#4?	TSC: Bid Category No. 2 Sitework shall provide site demolition work for Alternate No. 4, including fencing, nets and post removal. Reinstallation of fencing, nets and posts for Alternatate 4 work, shall be provided by Bid Category No. 1 General Trades.
61	Hollerbach Excavating	4/8/2022	Who is responsible for 8" watermain to be brought into addition and stubbed up for Fire Protection.	TSC: Please refer to RFI Log, Q & A No. 1.
62	Hollerbach Excavating	4/8/2022	Utility Plan Sheet C-5-Calls for 8" DIWM. Q-Specifications says C-900 PVC pipe can be used. Is this acceptable?	CC: Yes, as long as it is approved by the municipality
63	Hollerbach Excavating	4/8/2022	Who is responsible for Berrien County Drain Commission Soil Erosion Permit?	CC: Watermark is making the submittal. Refer to Section 01 12 00 Multiple Contract Summary Section, Part 1.09 Permits, Fees and Notices. Each Contractor shall secure and pay for all other permits, fees and licenses necessary for the proper execution and completion of the Contractors Work. Bid Category No. 2 Sitework shall procure and pay for all required permits to execute your work.
64	Hollerbach Excavating	4/8/2022	Is Snow Removal included in Site Work Bid Category	TSC: Refer to Section 01 50 50-Temporary Facilities and Controls. Any general snow removal required beyond whas is specified in this Section will be handled on a time and material basis and allocated against the Contractor's Allowance.
65	Control Solutions	4/8/2022	Control Solutions Substitution Request.	CC: Approved
66	Ritsema	4/11/2022	On ceiling drawing A3.1C in the Media Center, there looks to be some suspended drywall clouds. I am not finding any details on the construction of these clouds or an edge detail. Can this be provided?	CC: Cloud edge detail similar to 3/A3.2, provide Armstrong axiom trim or equal.
67	Midwest Tile	4/14/2022	The Tile speced is no longer available.	CC: For tile we can use up their 400 sf in 1 or 2 of the small single user toilets. Then we can use the same size/style of 4x4 ceramic and choose new colors in the others
68	Midwest Tile	4/14/2022	Please provide spec section for Carpet Tile.	CC: 096813 spec is performance based and we will choose pattern/color from the submitted mfg. through submittal/shop drawings
69	Marshall & Wells	4/14/2022	Gravity Ventilation Schedule: 1) GV-D121, GV-D107, GV-A125, GV-A109, GV-A100 (Scheduled but NOT Drawn) -Where are they located? -Should I still Quote if they can't be found? 2)GV-A104, GV-A128, GV-B100, GV-C119 (Drawn but NOT Scheduled) -Do these need to be quoted? -if they do need to be quoted, what size?	CC: Refer to addendum 004; GV-D107 has been added to the roof plan. Remove GV-A100, GV-A125, and GV-D121 from schedule and project. Revise GC-A109 to GC-A104 in gravity ventilation schedule.
70	Marshall & Wells	4/14/2022	Gravity Ventilation Schedule: GV-A104, GV-A128, GV-B100, GV-C119 (Drawn but NOT Scheduled) -Do these need to be quoted? -if they do need to be quoted, what size?	CC: Revise GC-A109 to GC-A104 in gravity ventilation schedule.
71	Marshall & Wells	4/14/2022	Louver Schedule: 1)Am I only quoting the unit ventilator Louvers with NOTE #2 tagged, even though they're all Scheduled as Ruskin EME520DD? -We do not supply UV's, so I would Exclude all Louvers with Note #1 2)What size within the Louver schedule Should I quote? -Note 2 states Louver in Window opening, but the Existing Window Opening is not lining up with the (3) 36"x16" intake and (3) 36"x17" Exhaust 3) Does the Quantity Column mean we need that many Louvers for Intake and Exhaust? -Exterior Elevations Does not show the same number of louvers as Scheduled for every UV	CC: The unit ventilator equipment manufacture shall provide louver and wall boxes at locations where the louver can be installed in the wall (brick). The mechanical contractor shall provide louver and wall boxes at locations where the louvers shall be installed in a window system. 2. Provide the louver size listed as Width and Height. The new louvers will increase in size to accommodate the packaged cooling/heating unit ventilator. The existing width and height is the existing overall panel opening. 3. The quantity indicates the number of louvers needed at each equipment location. Refer to sheet A6.6 detail 3 and Detail 7. Detail 3 shall be revised to indicate (2) louvers within each panel opening.
72	Marshall & Wells	4/14/2022	Electric Duct heater Schedule: 1)All Electric Duct Heaters are Scheduled but NOT Drawn/Tagged -Where are they located? - If you want quoted: - what duct size? -What Voltage/Phase? (Thermolec TER Heaters are not available in 460/3)	CC: Refer to M2.1A for location of EHD-A104A and EHD-A104B. Adjust EDH-A109A and EDH-A109B to EDH-104A and EDH-104B. Remove EDH-B103 , FC-C119, EDH-D107 from the project. Adjust EDH(s) power requirements to 208 / 3. ADD EDH-A128A and EDH-128B to project.

73	Marshall & Wells	4/14/2022	Exhaust Fan Schedule: 1) EF-1 is Scheduled but NOT Drawn -Where is it Located? - Should I still Quote if they can't be found? 2) EF-D143 is Drawn but NOT Scheduled -Does this need to be Quoted? -If you want quoted, what is the performance needed? What Size?	CC: Revise exhaust fan schedule tag EF-1 to EF-D104. 2. Provide EF-D143 exhaust fan by loren cook model number C101C15M, 220 CFM, 0.4 ESP, .125 HP, and note 1.
74	S.A.Mormon	4/14/2022	RFI #31 asked basically the same question regarding factory glazing for wood doors and the response was "factory glazing is not required." For Final Clarification please state if Wood Doors are Factory Glazed or Not.	CC: Yes some of the doors are glazed (refer to door types), but we do not care if the glazing is installed in a factory or in the field.
75	S.A.Mormon	4/14/2022	Addendum 2 added an Exterior Hollow Metal Door (E5) with Hardware to be determined. Hardware information is required to properly provide preps for the Door and Frame. Pleas provide a Hardware Set for Opening E5.	CC: Set: 4.1 Doors: Exterior Exterior: Rim Exit Device (storeroom) x Overhead Stop x Door Closer Hinge (qty per spec) — T4A3386 (size per spec, NRP as applicable) — US32D — MK 1 Rim Exit Device, Storeroom — LD 19 43 8806 ETL — US32D — SA 1 Surf Overhead Stop — 9-X36 — 630 — RF 1 Surface Closer — PRO7500 — 689 — NO 1 Kick Plate — K1050 10" high CSK BEV — US32D — RO 1 Rain Guard — 346_ — PE 1 Sweep — 345_PK — PE 1 Threshold — 252x_FG — PE 1 Kerf Weather Seal — by frame manufacturer — CR
76	Ritsema	4/14/2022	On page A2.1D there are a few locations where it calls out wall type H2, such as Rooms D117 and D102. The partition types plan A2.0 says for wall type H, that it is not used. Please clarify wall type H2.	CC: REVISE H2 TAGS TO K2 - REFER TO ADDENDUM 4
77	CAMVPN	4/14/2022	Please provide sheets P2.0B and P2.0C.	CC: REMOVE SHEETS P2.0B & P2.0C FROM SHEET LIST.
78	Indiana Earth	4/14/2022	How does the engineer want the storm pipe that is required to be insulated? Could a detail be provided?	CC: See Addendum 4.
79	Indiana Earth	4/14/2022	I spoke to my pipe vendor and he is telling me that perforated pvc pipe has a very long lead time. Can we substitute this with perforated N-12 HDPE pipe?	CC:
80	Indiana Earth	4/14/2022	Drawings for sheet C-11 Sanitary Lift Station plan. 1. The sheet doesn't have elevation. 2. Sizes of Wetwell, Valve Vault. 3. Control panel spec. 4. Voltage and phase. 5. Piping size. 6. Force Main, Discharge Manhole. 7. Location Of Lift Station.	CC: 1. Refer to sheet C-5 for all pipe inverts and rim elevation. 2. Pump basin shall be 60" I.D. x 144" concrete structure. 3. Mount and locate the control panel on the exterior wall on the high school closes to the lift station. The Control panel shall be Weil Pump Series 8100DS, NEMA-4X, Stainless Steel Enclosure, DDDF, duplex, UL Listed, with a main disconnect, transformer, starters, O.L. blocks, H-O-A switches, run lights and alarm horn and light with silence push-button, and dry remote alarm contacts. Float control shall be, (4) Weil Pump Model 8200DS submersible float switches with 80'-0" foot cables to control pump "off", "on", "lag", and "high water alarm" level. 4. The voltage and phase shall be 460 / 3. 5. The pump discharge shall be (2) 4" discharge pipes. Refer to Duplex wastewater valve assembly and civil plans. Also the pumps shall be mounted on a Weil Pump Co. Model 2613-4DS quick removal system with base elbows and upper guide bracket. Contractor to furnish 2" diameter stainless steel guide rails. Each pump requires (2) guide rails provided by contractor. On pump discharge piping, contractor shall provide and install Weil Pump Co model 2616-4" duplex valve assembly. 6. Discharge basin shall be 48" I.D. x 60" concrete structure. 7. Refer to sheet C-5 for location of lift station (near bus turn around).
81	Trout	4/15/2022	Should the six SF2 frames on page A8.4 be SF4?	CC: REFER TO REVISED SHEETS IN ADDENDUM 4
82	Pearson	4/18/2022	Can you confirm the base bid concrete scope of work for walks on the south and west side. I am uncertain of the extend of concrete walks in the base bid if alternate 2 is not accepted.	CC: BASE BID SHOULD INCLUDE ALL SIDEWALKS EAST OF THE SOUTHWEST CORNER OF THE BUILDING AND A 10' SIDEWALK CONNECTING THEM TO THE EXISTING WEST PARKING LOT.

CORDOGAN CLARK
ARCHITECTURE · ENGINEERING · CONSTRUCTION

ARCHITECT'S ADDENDUM

Addendum Number: 004

Date: 04.20.22

RE: River Valley School Consolidation

Prepared By: Cayce Horton
Cordogan, Clark & Associates

CCA Project No.: 21346

To: Prospective Bidders

Subject: Addendum No. 004 to the Construction Documents for the River Valley School Consolidation Project.

This Addendum forms a part of the Construction Documents and modifies the original Construction Documents, dated 03.22.22. Acknowledge receipt of this Addendum in space provided on the Bid Form. Failure to do so may subject Bidder to disqualification.

THE FOLLOWING ITEMS ARE TO BE INCLUDED IN THE PROPOSAL.

Clarifications To The Specifications:

087100 – DOOR HARDWARE

- ADD HARDWARE SET 4.1

Set: 4.1

Doors: E5

Exterior: Rim Exit Device (storeroom) x Overhead Stop x Door Closer

	Hinge (qty per spec)	T4A3386 (size per spec, NRP as applicable)	US32D	MK
1	Rim Exit Device, Storeroom	LD 19 43 8806 ETL	US32D	SA
1	Surf Overhead Stop	9-X36	630	RF
1	Surface Closer	PRO7500	689	NO
1	Kick Plate	K1050 10" high CSK BEV	US32D	RO
1	Rain Guard	346_		PE
1	Sweep	345_PK		PE
1	Threshold	252x__FG		PE
1	Kerf Weather Seal	by frame manufacturer		CR

230900 INSTRUMENTATION AND CONTROL FOR HVAC

- SECTION 2.2A1 – REVISE to the following " Johnson Facility Explorer – (Tridium Niagara 4.11) with supervisory controller to be JACE 8000 Series."
- SECTION 2.2A2 – ADD the following " Distech – (Tridium Niagara 4.11) with supervisory controller to be JACE 8000 Series."

<u>Clarifications To The Drawings:</u>

Sheet C8

- ADD pipe insulation detail

Sheet C11 SANITARY LIFT STATION PLAN

- REVISE PER ATTACHED CUT SHEETS AND SYSTEM DESCRIPTION

Sheet T0.0

- REMOVE SHEET P2.0B from sheet list.
- REMOVE SHEET P2.0C from sheet list

Sheet A2.1A, A2.1B, A2.1C, A2.1D

- REVISE all H2 wall type tags to K2.

Sheet A6.6

- REVISE wall section detail 3 "TYPICAL LOUVER SILL DETAIL IN WINDO PANEL SYSTEM".

Sheet A8.4

- REVISE glazing tags.

Sheet A9.0

- ADD DOOR E5: HARDWARE SET 4.1.

Sheet A9.2

- REVISE required number of storefronts type SF4 to qty. 10

Sheet M1.1A

- ADD the room temperture sensor sysmble associated to the (2) demod unit ventilators in room A121.

Sheet M1.1B

- ADD the room temperture sensor sysmble associated to the demod unit ventilator in room B100

Sheet M1.1C

- ADD the room temperture sensor sysmble associated to the demod unit ventilator in room C114.

Sheet M1.1D

- ADD the following keynote 6. 'Disconnect and remove the existing exhaust fan with associated ductwork, hangers, and controls.'

- ADD and tag the existing exhaust duct system located near room D107 with keynote 6.

Sheet M2.1A

- ADD EDH-A104A to the outside air intake ductwork assaocited to FC-A104. Also include a motorized damper.
- ADD EDH-A104B to the supply air ductwork assaocited to FC-A104.
- ADD space sensor for FC-A104 with-in room.
- ADD EDH-A128A to the outside air intake ductwork assaocited to FC-A128. Also include a motorized damper.
- ADD EDH-A128B to the supply air ductwork assaocited to FC-A128.

Sheet M2.1B

- ADD space sensor for RTU-B112 with-in room.

Sheet M2.1C

- ADD space sensor for RTU-C100 with-in room.
- ADD space sensor for FC-C119 with-in room.
- ADD motorized damper on outside air intake on FC-C119.

Sheet M2.1D

- ADD space sensor for RTU-D107 with-in room.
- ADD motorized damper on outside air intake on FC-D107.
- ADD tag B at 85 cfm, 8" diameter N.K. in room D106.
- ADD space sensor for RTU-D121 with-in room.

Sheet M2.2A

- REVISE location of GV-A104.

Sheet M2.2B

- REVISE gas line size tag from 1-1/4" to 1-1/2". The gas main services RTU-B100 and RTU-C100.

Sheet M2.2D

- ADD GV-D107 to roof plan.

Sheet M4.0

- REVISE HP-A104, HP-C119, HP-D107, HP-A128

Sheet M4.0.2

- ADD the following to the exhaust fan schedule EF-D143, restroom group, 220 cfm, 0.4 ESP, 0.125 HP, Roof, direct drive, 115/1, Loren Cook, C101C15M, BAS-OCC schedule, and note 1.
- REVISE the model number for the following FC-A104, FC-C119, FC-D107, FC-A128 to NTXDKS12A112AA.
- REVISE the model number for the following HP-A104, HP-C119, HP-D107, HP-A128 to NTXSKH12A112AA.
- REVISE equipment tag EF-1 to EF-D104.

- REVISE equipment tag EDH-A109A and EDH-A109B to EDH-A104A and EDH-A104B.
- REVISE all electric duct heaters to 208,3 power.
- REVISE equipment tag GC-A109 to GC-A104.
- REMOVE GV-A100, GV-A125, GV-D121 from the schedule.

Sheet M4.2

- ADD electric heating coil on the outside air intake (if present). Enable electric heater if the amb temperutre drops below 35 degrees.

Sheet P2.1D

- REVISE and increase HW line tag to 1-1/4" vs 1". The revised tag is located in the corridor D129 near colume line 6D.
- REVISE and increase HW line tag to 1-1/4" vs 1". The revised tag is located in the corridor D129 near colume line 9D.
- REVISE and increase HW line tag to 1" vs 3/4". The revised tag is located in Janitor D114.
- ADD 6" OD-1 and 6" RD-1 with associated 6" SD and OSD piping to the plan west of D133. See plans for details
- REVISE existing RD-1 and OD-1 locations to correspond with locations shown on architectural plans. See attached for exact location.
- REVISE and increase the 6" DS-1 tag to 8" vs 6". The revised tag is located plan east of D131

Sheet E2.1A, E2.1B, E2.1C

- ADD Mechanical Equipment tags. Schedules for new PP-E and PP-F are deleted in favor of existing tubs being reworked and partially refed per E4.2.

Sheet E2.2A, E2.2B, E2.2C

- ADD New feeders and branch circuit wiring to new mechanical equipment to be ganged as much as possible with new feeders indicated on E2.2. Mechanical equipment in Area D can be fed concealed above new ceilings.

Sheet E4.2

- ADD panel LP-HP to roof a of building fed from new MSB2. Panel LP-HP to be 400amp 3phase 4W 42 CCT. Provide 4#500 THHN 1#3G 3'C feed from MSB2 to panel LP-HP. Provide additaonl 400/3 breaker in new MSB2. Located panel LP-HP on the roof in optimal location to serve new heat pumps and electric duct heaters.

Sheet E4.3

- PROVIDE complaint hookup to heatpumps HP-A104, HP-C119, HP-D107 on separate 30 amp circuits from panel LP-HP. PROVIDE (3) 30 amp 2-pole breakers in panel LP-HP. MIN 2#10 1#10G ½"c. Local disconnect integrated by manfacture. See mechincal plans for locations of heatpumps
- PROVIDE complaint hookup to indoor fan coil units FC-A104, FC-C119, FC-D017 from panel LP-HP. PROVIDE (1) 20 amp 2-pole breaker in panel LP-HP. MIN 2#12 1#12G 1/2"C. Indoor fan coil units to share common feed from single 20 amp circuit. Provide local disconnect.
- PROVIDE complaint hookup to electric duct heater EDH-A104A, EDH-A104B, EDH-A128A, EDH-A128B on separate 30amp circuit from panel LP-HP. PROVIDE (4) 30 amp 2-pole

breakers in panel LP-HP. MIN 2#10 1#10G ½"C. local disconnect integrated by manfucture.

- PROVIDE complaint hookup to heatpump HP-B103/FC-B103 from panel LP-HP. PROVIDE (1) 30 amp 2-pole breakers in panel LP-HP. MIN 2#10 1#10G ½"c. Provide local 30amp 2-pole WP fusible disconnect with fuses matching equipment nameplate rating. Indoor fan coil fed from outdoor unit terminal strips. Provide wiring from outdoor unit to indoor unit per manufacture specifciations. See mechincal plans for locations of heatpumps
- PROVIDE complaint hookup to duplex wasterweater pump from existing panel F. Provide new 20amp 3-pole breaker. Min 3#12 1#12G ½"C. Provide local 30amp combination starter/disconnects with Nema size '0' starter. See civil plans for pump location on site.
- ADD duct detectors as required for RTU's B-117, B-121, C-114, C-115. Provide compliant connection to photocatalytic oxidizers from nearest 120-volt panel; feed integral convenience receptacle from nearest 120-volt panel.

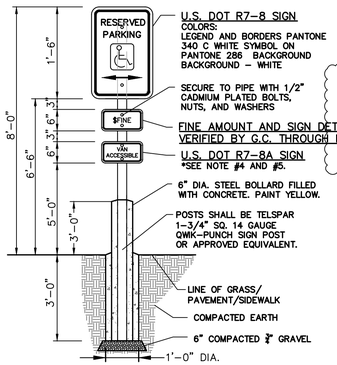
Sheet E4.5

- ADD duct detectors as required for RTU's B-117, B-121, C-114, C-115; show initiation circuit extended from RTU-C100 to additional detectors. Program for alarm or supervisory per local AHJ.

Attachments:

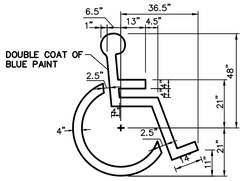
REVISED SANITARY LIFT STATION CUT SHEETS
REVISED SANITARY LIFT STATION SYSTEM DESCRIPTION
REVISED C8 PROJECT DETAILS
REVISED A6.6 WALL SECTION DETAILS
REVISED A8.4 ENLARGED PLANS & ELEVATIONS - E.S. OFFICES
REVISED A9.2 STOREFRONT & WINDOW TYPES
REVISED M1.1D PARTIAL FIRST FLOOR MECHANICAL DEMOLITION PLAN - AREA D
REVISED M2.1A PARTIAL FIRST FLOOR MECHANICAL PLAN - AREA A
REVISED M2.1D PARTIAL FIRST FLOOR MECHANICAL PLAN - AREA D
REVISED M2.2B PARTIAL ROOF MECHANICAL PLAN - AREA B
REVISED M4.0 MECHANICAL SCHEDULES AND DETAILS
REVISED P2.1D PARTIAL FIRST FLOOR PLUMBING PLAN - AREA D
REVISED E2.1A ELECTRICAL POWER PLAN – AREA A
REVISED E2.1B ELECTRICAL POWER PLAN – AREA B
REVISED E2.1C ELECTRICAL POWER PLAN – AREA C
REVISED E2.2A ELECTRICAL POWER PLAN - ROOF AREA A
REVISED E2.2B ELECTRICAL POWER PLAN - ROOF AREA B
REVISED E2.2C ELECTRICAL POWER PLAN - ROOF AREA C

End Of Addendum No. 004



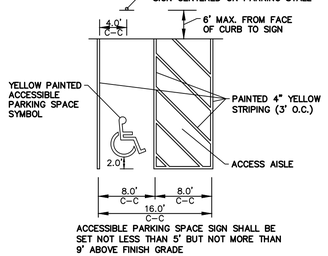
ACCESSIBLE PARKING SPACE BOLLARD SIGN DETAIL

1. FINE AMOUNT AND SIGN DETAILS TO BE VERIFIED BY G.C. THROUGH LOCAL MUNIPALITY.
2. THIS PLATE MAY BE MOUNTED DIRECTLY BELOW THE R7-8 SIGN OR COMBINED WITH THAT SIGN ON A SINGLE 12 INCH BY 24 INCH PANEL.
3. ON THE RESERVED PARKING SIGN, THE ARROW SHOULD BE OMITTED WHERE THERE IS ONLY ONE SPACE. THE ARROW MAY ALSO BE MADE TO POINT IN ONLY ONE DIRECTION. THE ARROW MAY ALSO BE REPLACED BY "TIME" SUCH AS 9 AM–5 PM WHERE A PART TIME RESTRICTION EXISTS.
4. ONE IN EVERY SIX ACCESSIBLE SPACES, BUT NOT LESS THAN ONE, SHALL BE SERVED BY AN ACCESS AISLE 8 FEET WIDE MINIMUM AND SHALL BE DESIGNATED "VAN ACCESSIBLE".
5. THE LOWEST BOTTOM EDGE OF THE LOWEST REQUIRED SIGN SHALL BE MOUNTED AT 60" ABOVE FINISHED GRADE.

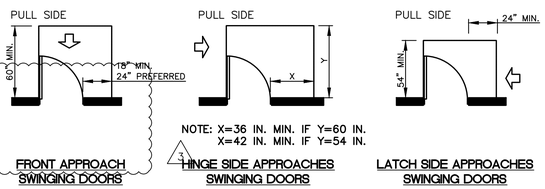


ACCESSIBLE PARKING SPACE SYMBOL

1. SYMBOL IS CENTERED ON WIDTH OF PARKING STALL AND 2' FROM THE END OF THE STALL.

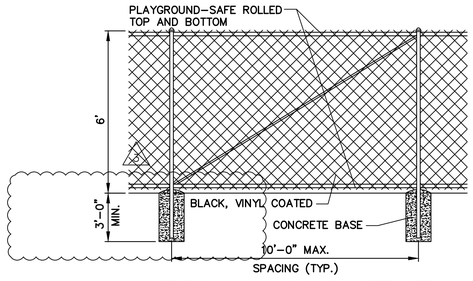


ACCESSIBLE PARKING SPACE DETAIL

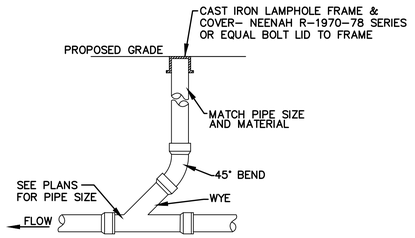


NOTE: X=36 IN. MIN. IF Y=60 IN.
X=42 IN. MIN. IF Y=54 IN.

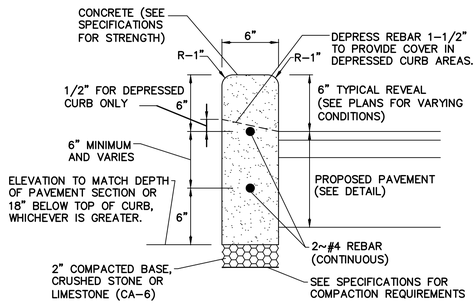
TYPICAL ACCESSIBLE LANDING AREA DETAIL



TYPICAL CHAIN LINK FENCE

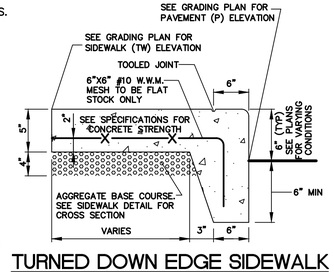


CLEANOUT DETAIL



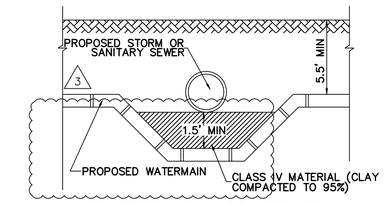
TYPE "C" BARRIER CURB

1. PROVIDE 1/2" EXPANSION JOINTS EVERY 45' O.C.
2. PROVIDE HAND TOOLED CONTRACTION JOINTS EVERY 15' O.C.



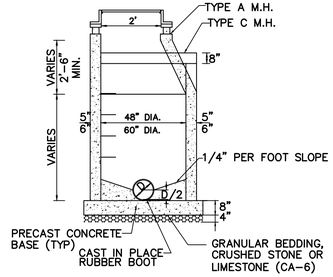
TURNED DOWN EDGE SIDEWALK

1. PROVIDE TOOLED JOINTS AT 5' O.C.
2. PROVIDE CONTRACTION JOINTS AT 15' O.C.
3. PROVIDE EXPANSION JOINTS AT 45' O.C.
4. ROUND EXPOSED CORNERS WITH 1/2" RADIUS.



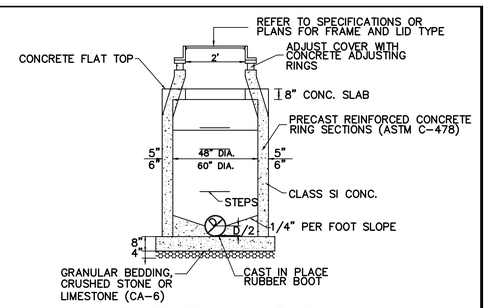
WATER MAIN CROSSING

NOTE:
1. USE MIN. 21 L.F. OF WATERMAIN CLASS PIPES (MIN. 10' ON EACH SIDE OF THE CROSSING). SEE SPECIFICATIONS FOR PIPE AND JOINT SPECIFICATIONS.



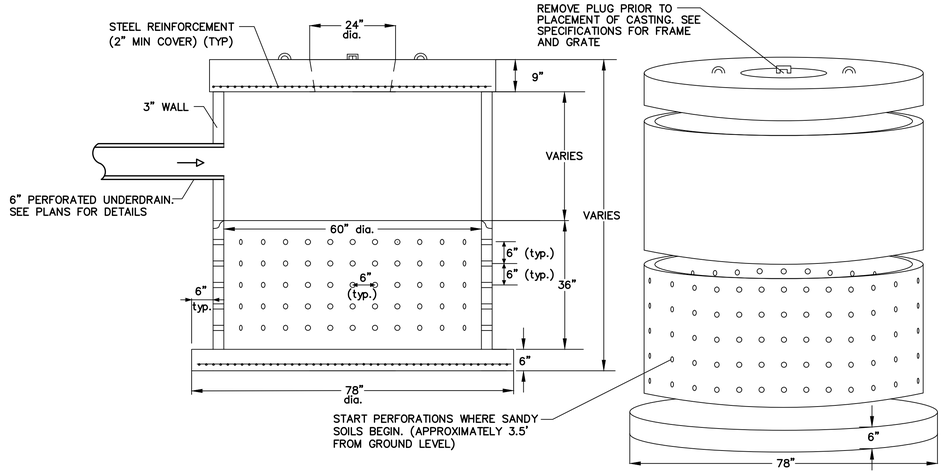
SANITARY MANHOLE (IEPA TYPES A AND C)

NOTES:
1. PROVIDE EXTERNAL CHIMNEY SEAL ON ALL SANITARY MANHOLES.
2. USE TYPE A UNLESS SPECIFIED IN SEWER CALLOUT.
3. OUTSIDE OF SANITARY MANHOLE SHALL BE MOISTURE PROOFED WITH TWO COATS OF BITUMINOUS MATERIAL.



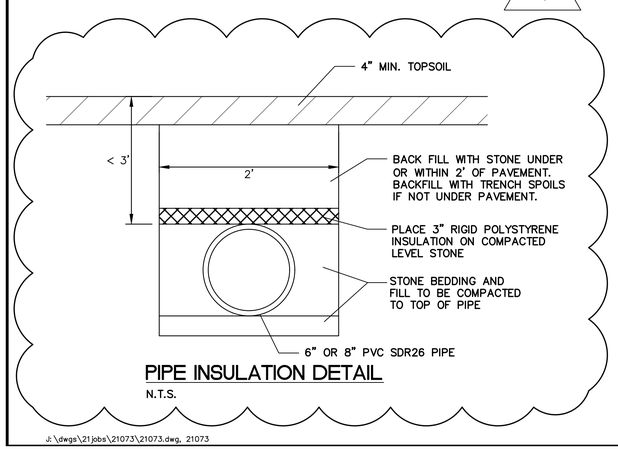
SANITARY MANHOLE (CONCENTRIC)

NOTES:
1. PROVIDE EXTERNAL CHIMNEY SEAL ON ALL SANITARY MANHOLES.
2. USE TYPE A UNLESS SPECIFIED IN SEWER CALLOUT.
3. OUTSIDE OF SANITARY MANHOLE SHALL BE MOISTURE PROOFED WITH TWO COATS OF BITUMINOUS MATERIAL.



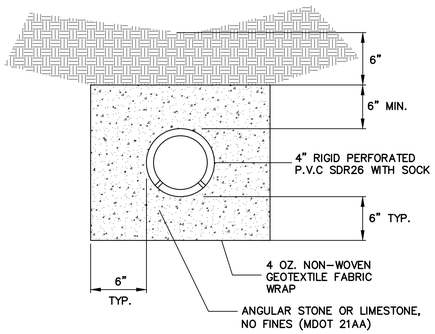
NOTES:
1. DRYWELL IS CONCRETE AND REINFORCED WITH #2 STEEL REBAR AND 1.5" FIBRILLATED POLYPROPYLENE FIBRE.
2. WALLS ARE 3" THICK AND LID IS 9" REINFORCED WITH #4 STEEL REBAR AND 1.5" FIBRILLATED POLYPROPYLENE FIBRE.
3. TEST STRENGTH OF CONCRETE IS 4,500 – 5,000 PSI.
4. BASE IS 6" REINFORCED CONCRETE WITH #4 STEEL REBAR AND 1.5" FIBRILLATED POLYPROPYLENE FIBRE.
5. SEE PLAN FOR BOTTOM AND RIM ELEVATION AND DIAMETER OF EACH DRYWELL.
6. OPENINGS TO BE 1¼" DIAMETER AND START WHEN SOILS CONSIST OF MOSTLY SAND.

DRYWELL DETAIL

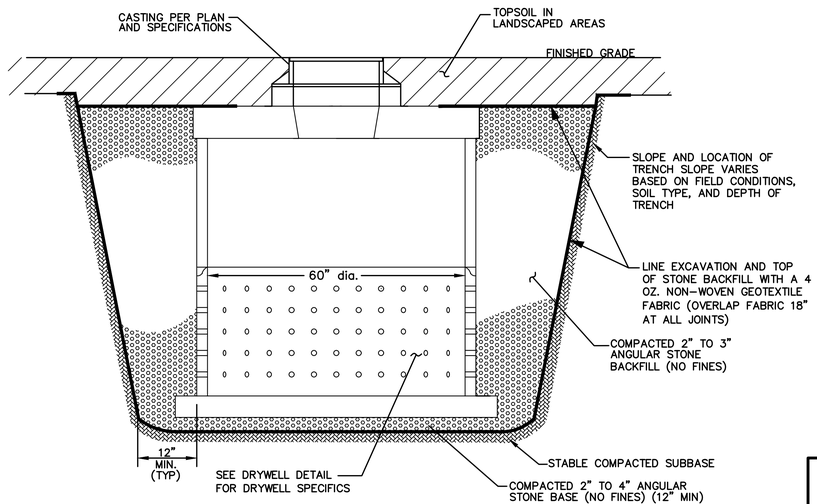


PIPE INSULATION DETAIL

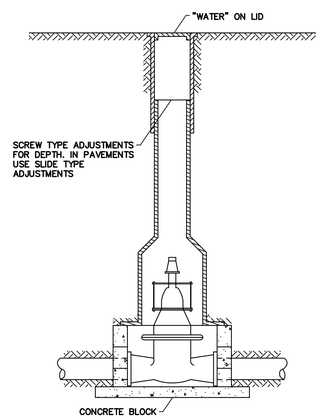
N.T.S.



TYPICAL UNDERDRAIN DETAIL



DRYWELL INSTALLATION DETAIL



TYPICAL VALVE BOX INSTALLATION

PROJECT DETAILS

C-8

NO	REVISIONS	DATE
1	95% CD PROGRESS SET	3/3/22
2	CD BID SET	3/22/22
3	NONE	4/12/22
4	ADDENDUM 004	4/20/22

Prepared For:

CORDOGAN CLARK AND ASSOCIATES
960 Ridgeway Road
Aurora, IL 60506

RIVER VALLEY K-12 SCHOOL - THREE OAKS
15480 Three Oaks Road
Three Oaks, Michigan

Prepared By:

Watermark Engineering RESOURCES
watermark-engineering.com | 2631 Ginger Woods Pkwy | Aurora, IL 60502 | (630) 375-1800

CHECKED BY: J. MILLER
DESIGN BY: H. WITTENKELLER
DRAWN BY: K. SACK
DATE: NOVEMBER 23, 2021
SCALE: NONE
PROJECT NO.: 21-073

PROJECT DETAILS

J:\dwgs\21jobs\21073\21073.dwg, 21073

SYSTEM DESCRIPTION
River Valley H.S. – Michigan

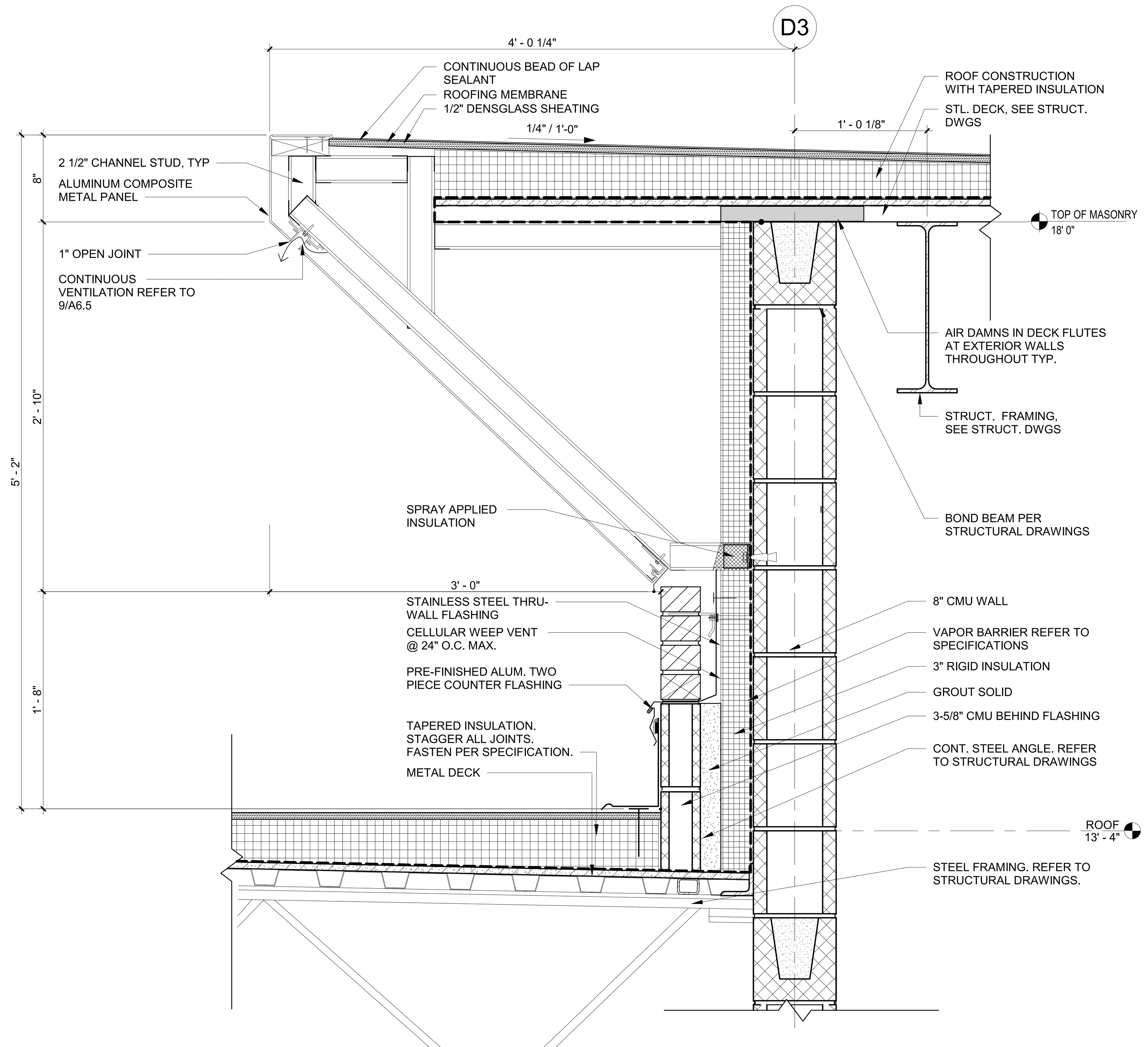
DUPLEX WASTEWATER LIFT STATION (SE-1)

Provide and install Weil Pump Co. duplex pump system, including (2) Weil Pump Model 2500DS heavy duty 4" discharge submersible non clog pumps capable of passing 3" solids. Pump shall be constructed with carbon-ceramic mechanical seal, cast iron impeller and 80 ft. power cables. Pump to be rated 150 GPM at 18 FT TDH, with air filled, 2 hp, 1750 rpm, 60 HZ, three phase, 460-volt non-overloading motor. Oil filled motors which are less efficient than air filled motors, and oil filled motors which can create an environmental hazard due to oil leakage during operation and maintenance shall not be considered equal or allowed. Pumps shall be provided as a packaged system. Pumps, controls and accessories shall be supplied by one source to maintain consistency and uniformity of the system. From the manufacturer, each pumping system must have its own serial number indicated on the pumps and control panel and be inventoried for a minimum of 20 years for future service inquiries. the entire system will be AARA (American Recovery and Reinvestment Act) certified. all equipment shall be supplied by Daugherty sales, Arlington Heights, IL. (847)-956-8844.

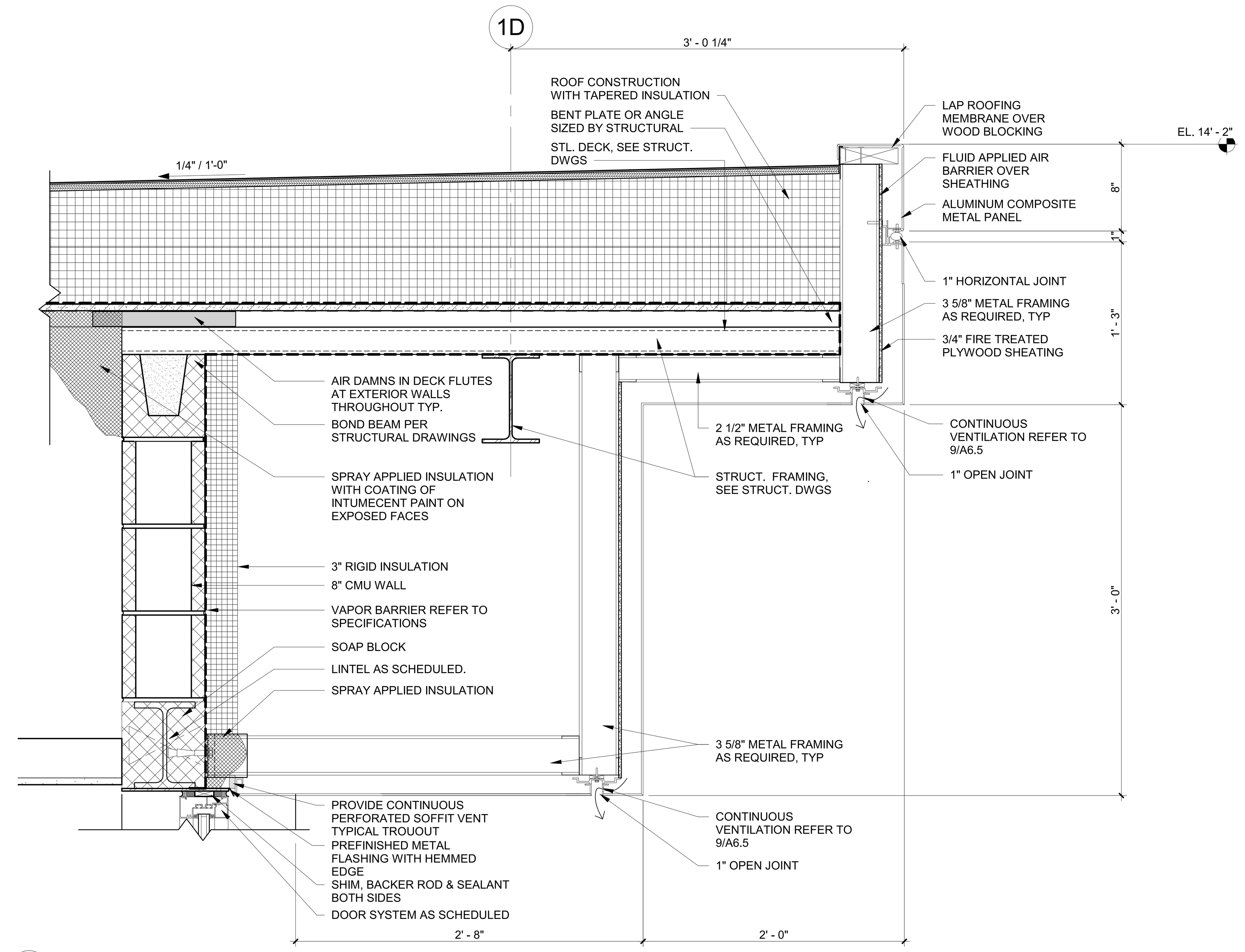
Control panel shall be Weil Pump Series 8100DS, NEMA-4X, Stainless Steel Enclosure, DDDF, duplex, UL Listed, with a main disconnect, transformer, starters, O.L. blocks, H-O-A switches, run lights and alarm horn and light with silence push-button, and dry remote alarm contacts. Float control shall be, (4) Weil Pump Model 8200DS submersible float switches with 80'-0" foot cables to control pump "off", "on", "lag", and "high water alarm" level. Contractor to provide suspension pipe to mount float switches and shall coordinate with electrical and provide submergent rated junction boxes as needed between the pump basin and the control panel only if the panel distance is beyond the 80'-0" cable lengths provided.

Pumps shall be mounted on a Weil Pump Co. Model 2613-4DS quick removal system with base elbows and upper guide bracket. Contractor to furnish 2" diameter stainless steel guide rails. Each pump requires (2) guide rails provided by contractor. On pump discharge piping, contractor shall provide and install Weil Pump Co model 2616-4" duplex valve assembly. Refer to drawings and details for further information.

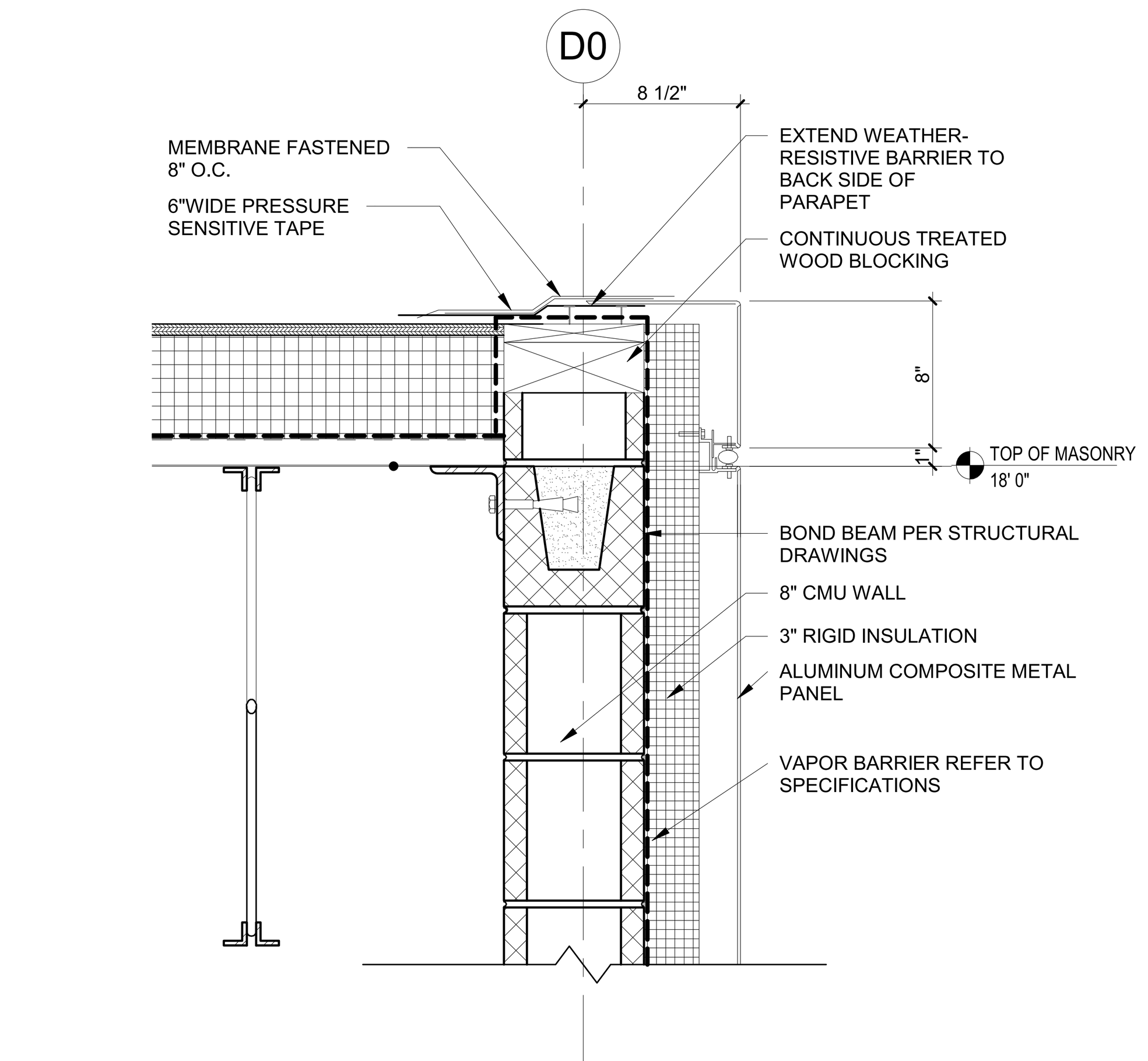
Pump basin shall be 60" I.D. x 144" concrete structure. Contractor shall install/secure the Weil Pump Co. removal stud base plate to the basin bottom to anchor removal elbows and to locate proper orientation of the equipment in the wet well. Hatch Style Cover: Aluminum diamond plate. Angle Frame: 1/4" (7mm) aluminum with continuous anchor flange. Load Rating: H-20. Uniform live load with a maximum allowable deflection of 1/150 of the span. Locking System: Type 316 stainless steel slam lock with removable key. Cover equipped with the following stainless-steel features: spring assists, T-316 heavy duty hinges, T-316 tamper proof attaching hardware, automatic T-316 hold open arm with aluminum latch. Removal System Hardware: Aluminum nut rail to span the width of the hatch opening and T316 stainless steel spring nuts (2) per pump. Contractor to coordinate the length of the guide rails needed in the field after precast work has been completed, and hatch is set in final location. Contractor shall be required to coordinate all below cover discharge and conduit runs as shown on underground drawing plans.



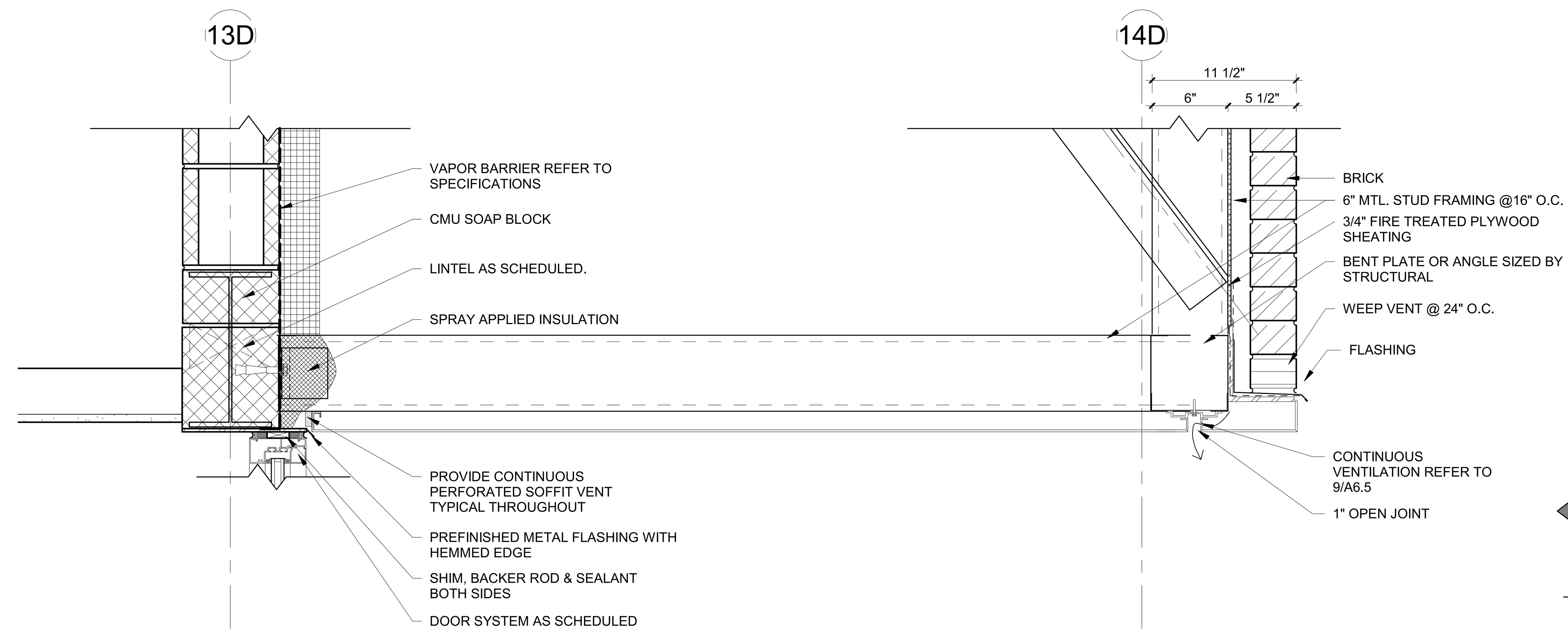
2 WEST OFFICE WALL
1 1/2" = 1'-0"



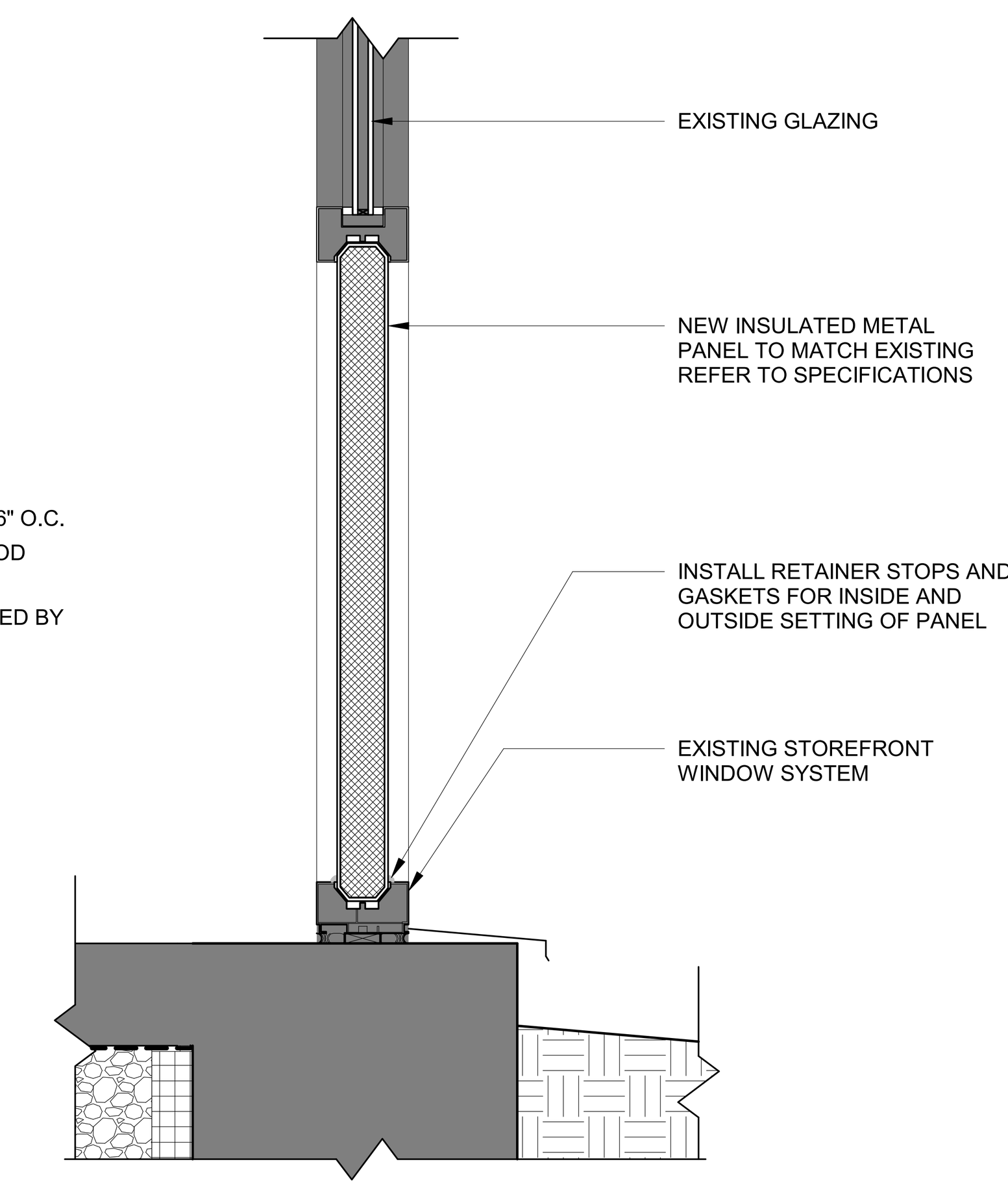
1 CANOPY DETAIL AT SOUTH ENTRY
1 1/2" = 1'-0"



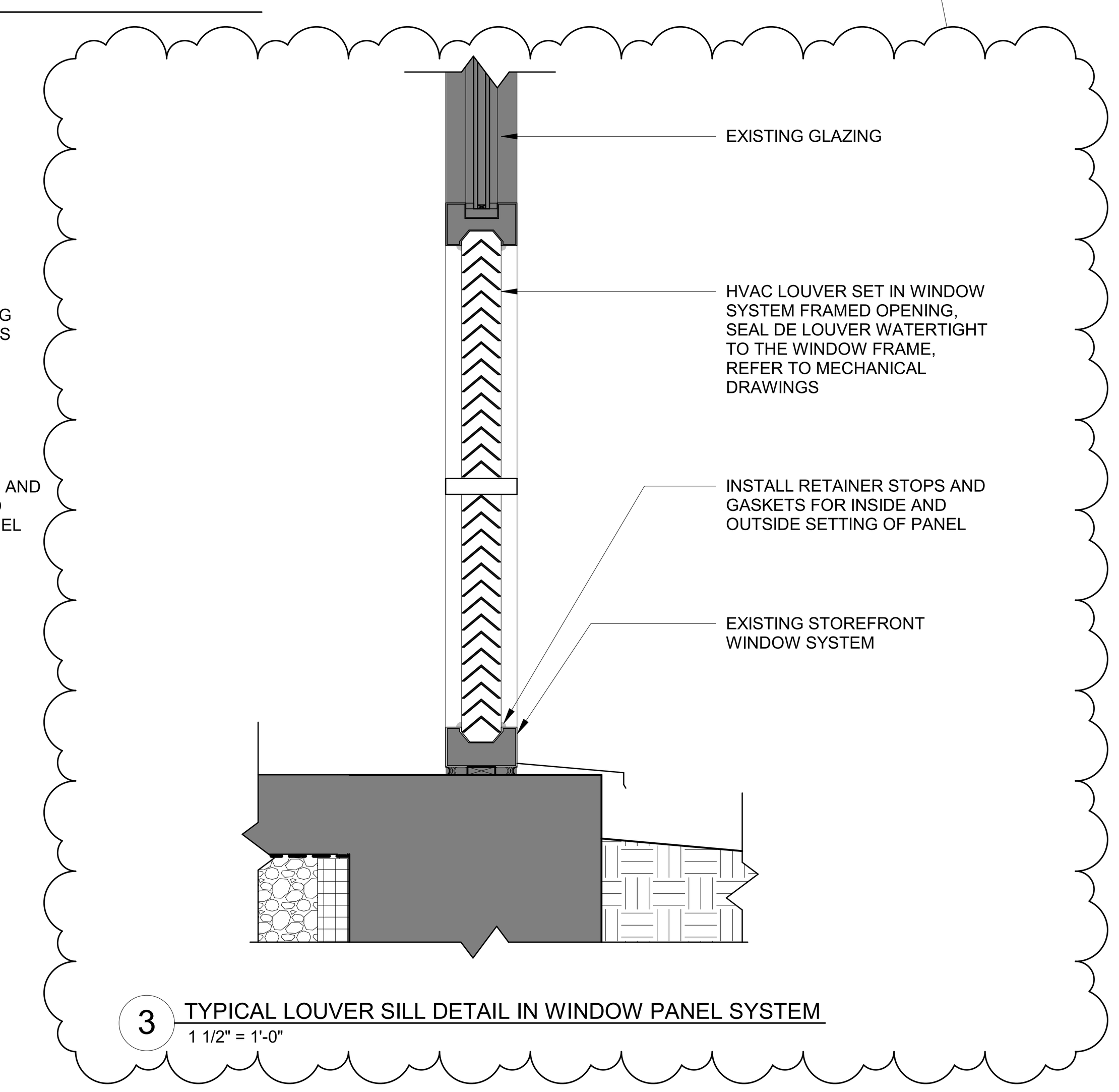
6 COPED EDGE AT ACM PANEL DETAIL
1 1/2" = 1'-0"



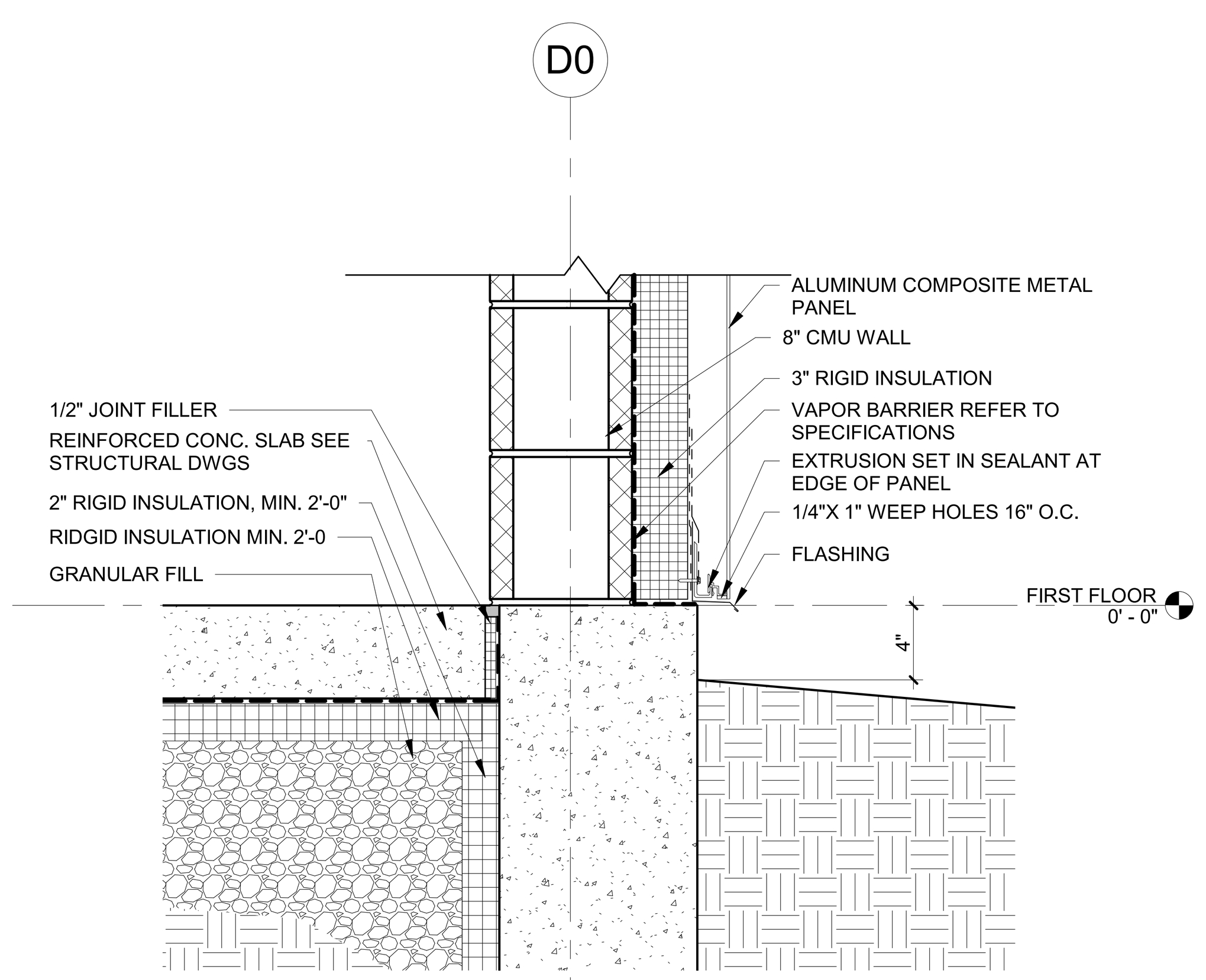
5 ACM SOFFIT AT NORTH ENTRY
1 1/2" = 1'-0"



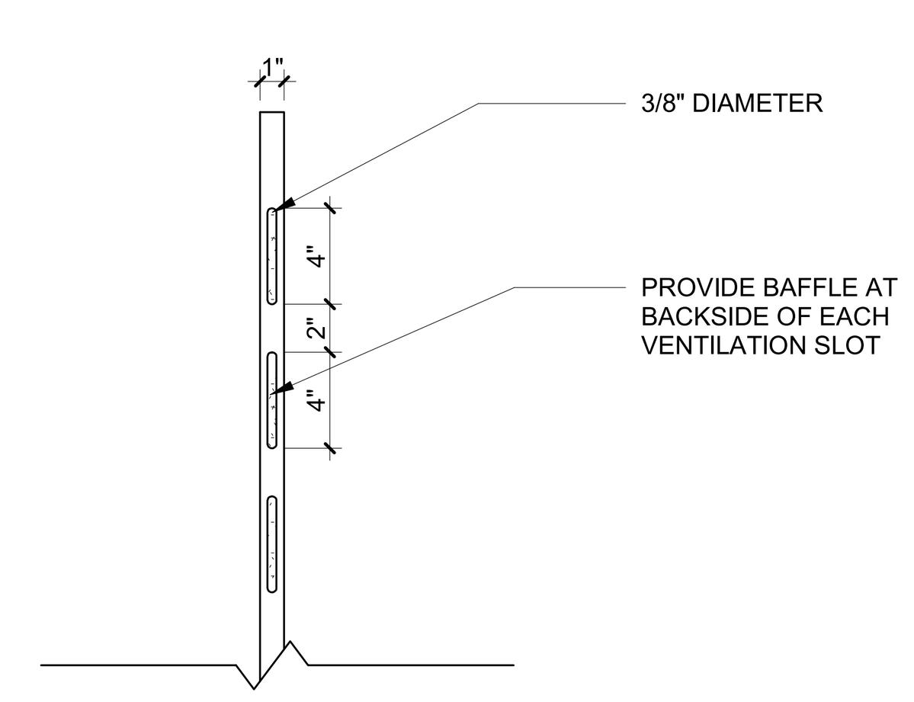
4 TYPICAL LOUVER WINDOW PANEL INFILL
1 1/2" = 1'-0"



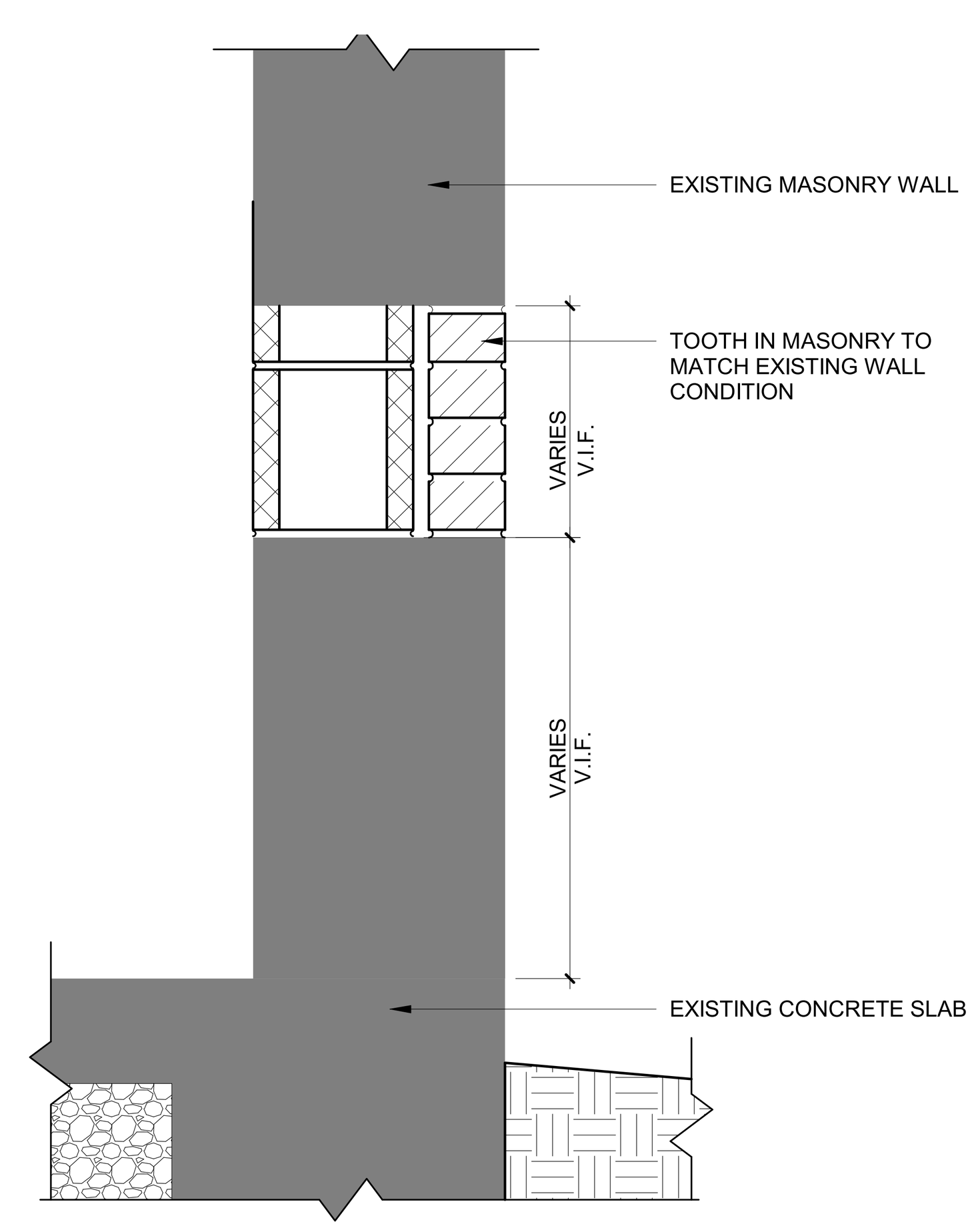
3 TYPICAL LOUVER SILL DETAIL IN WINDOW PANEL SYSTEM
1 1/2" = 1'-0"



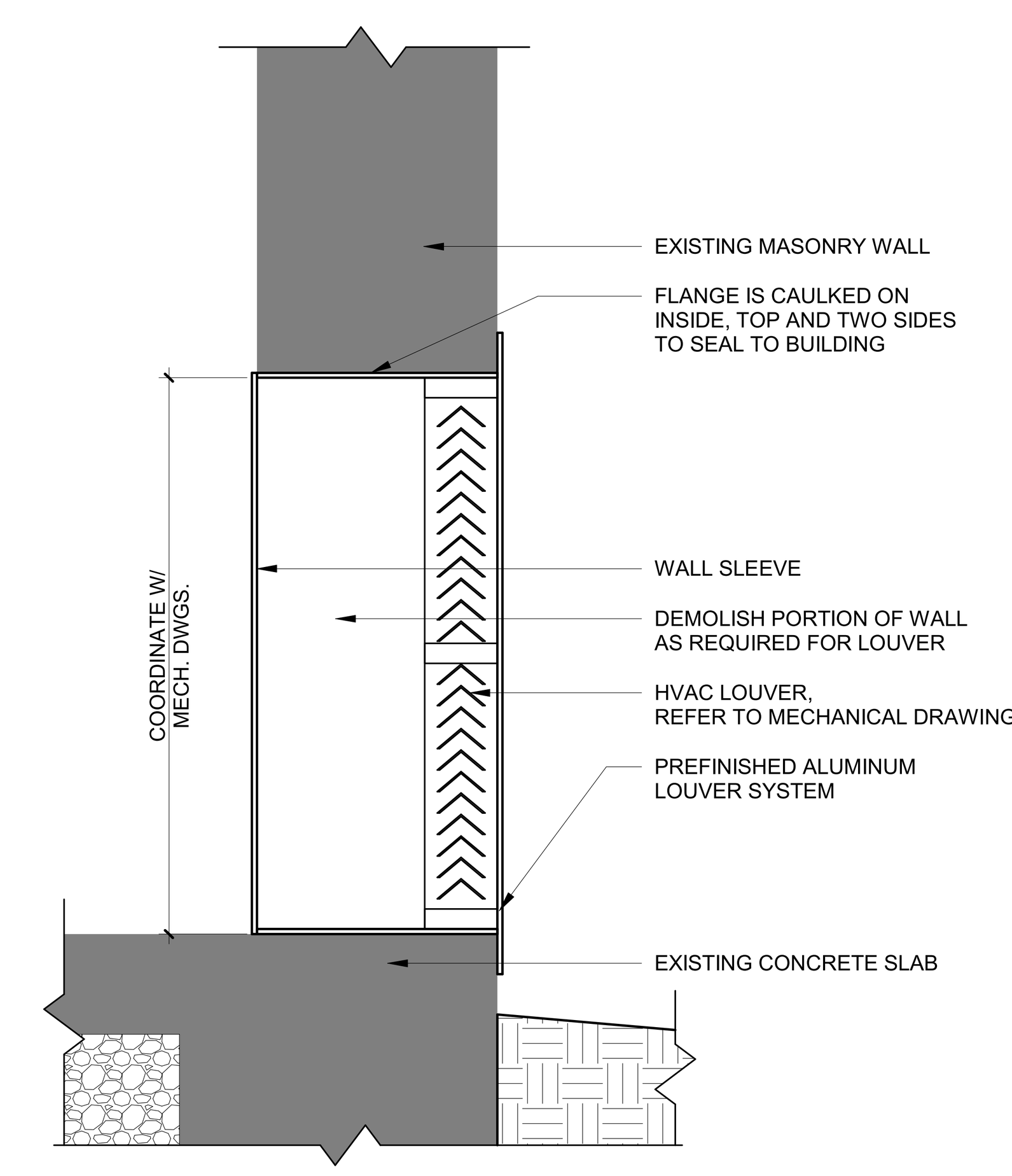
10 BASE AT ACM PANEL DETAIL
1 1/2" = 1'-0"



9 ACM PANEL VENTILATION SLOT DETAIL
1 1/2" = 1'-0"



8 TYPICAL LOUVER WALL INFILL DETAIL
1 1/2" = 1'-0"



7 TYPICAL LOUVER SILL DETAIL IN EXISTING WALL
1 1/2" = 1'-0"

CORDOGAN CLARK

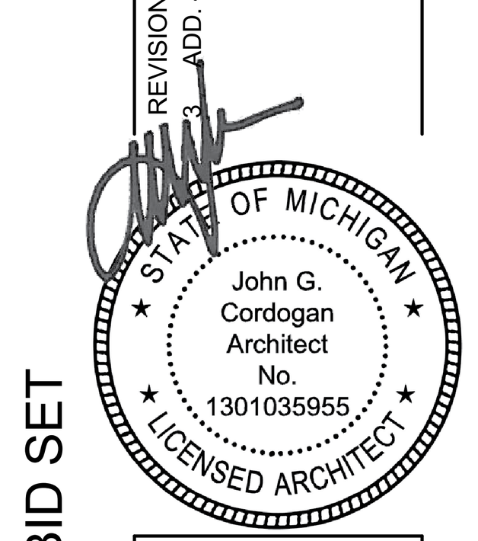
RIVER VALLEY SCHOOL DISTRICT

SCHOOL CONSOLIDATION
15480 THREE OAKS RD.
THREE OAKS, MI 49128

WALL SECTION DETAILS

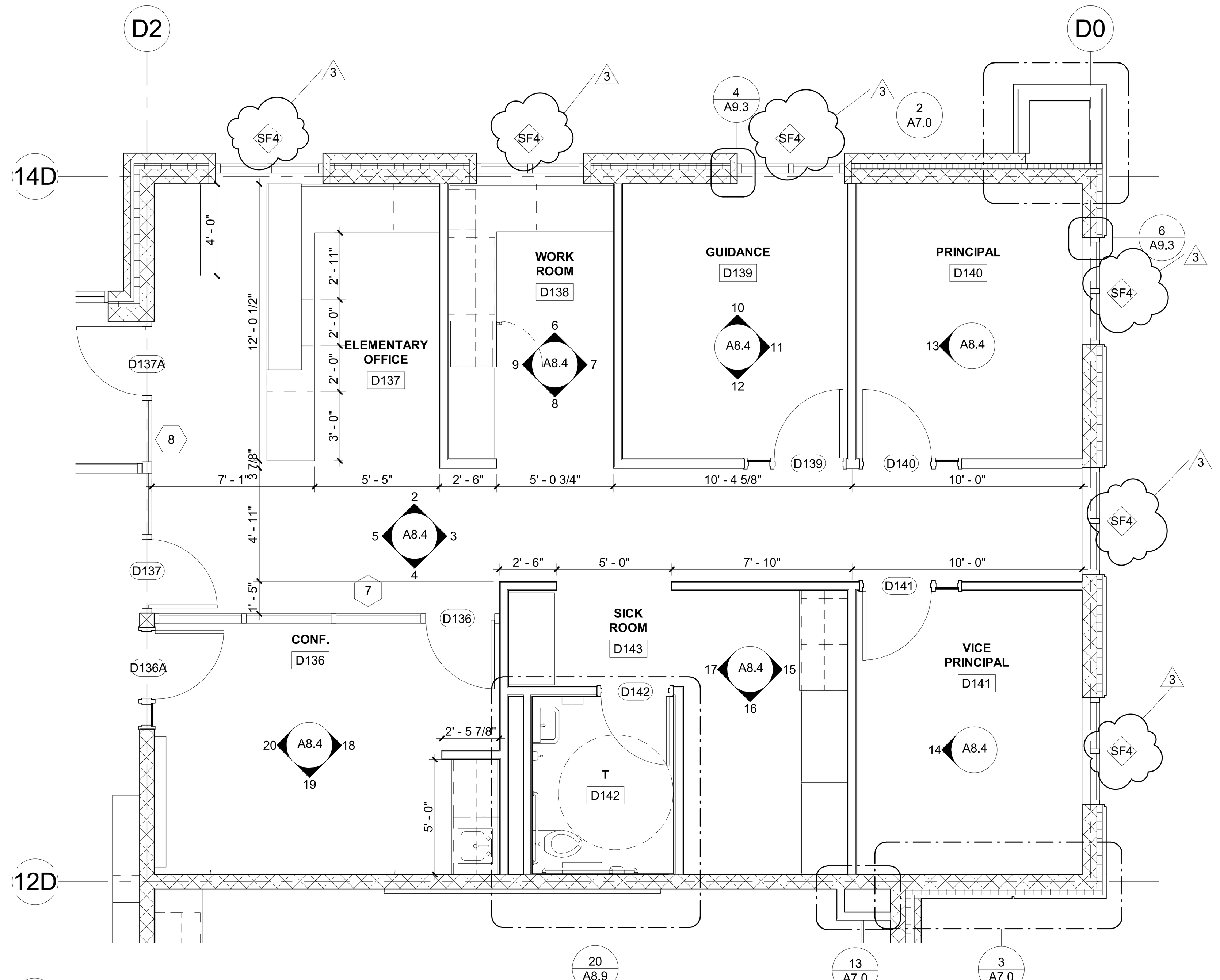
JOB NUMBER 21-346
DATE 03.22.22

REVISIONS:
04.20.22 ADD. 4

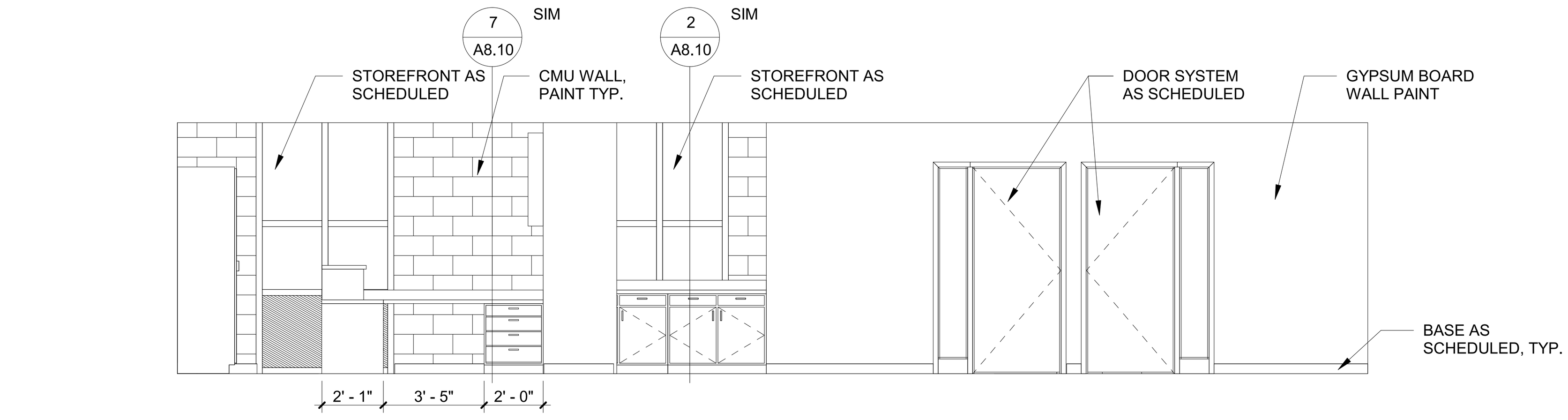


CD BID SET

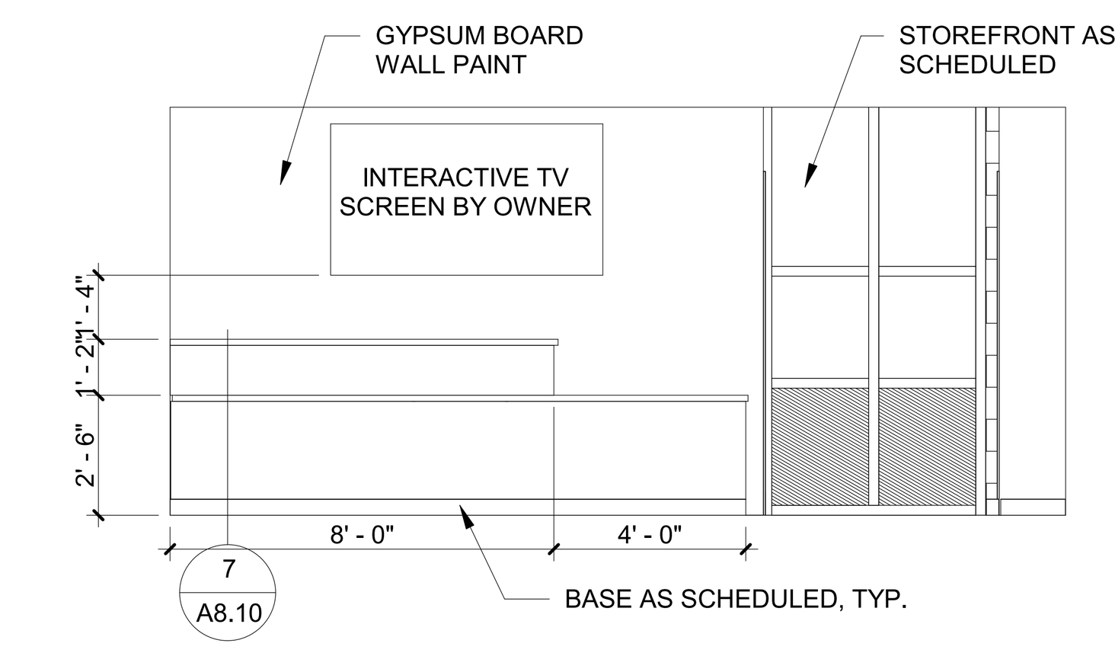
A6.6



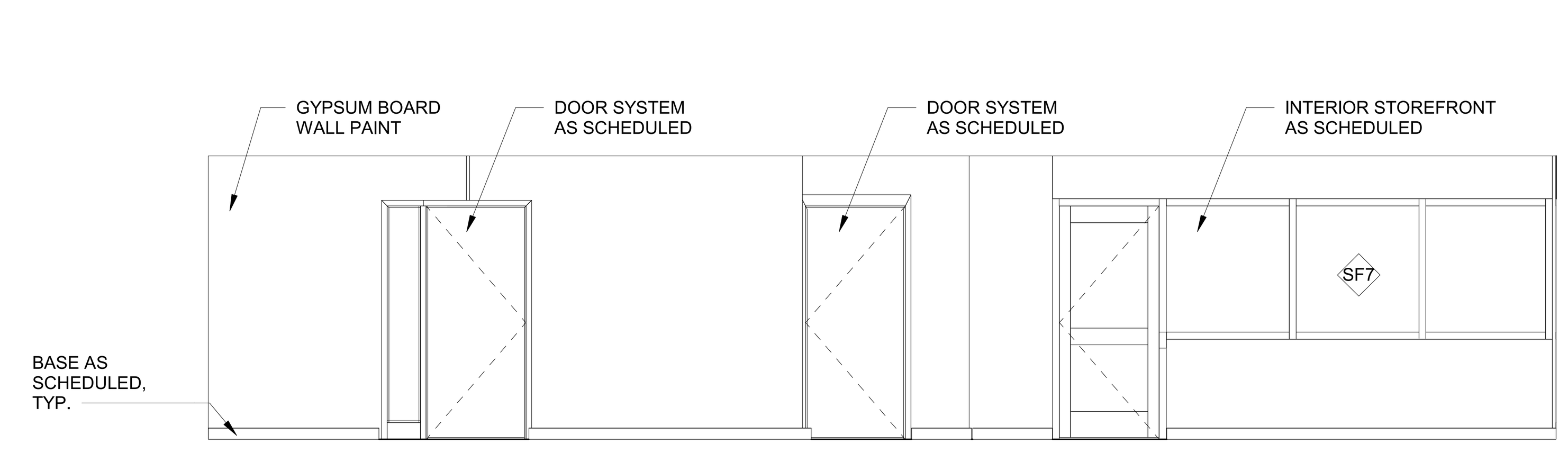
1 ENLARGED PLAN - OFFICE
1/4" = 1'-0"



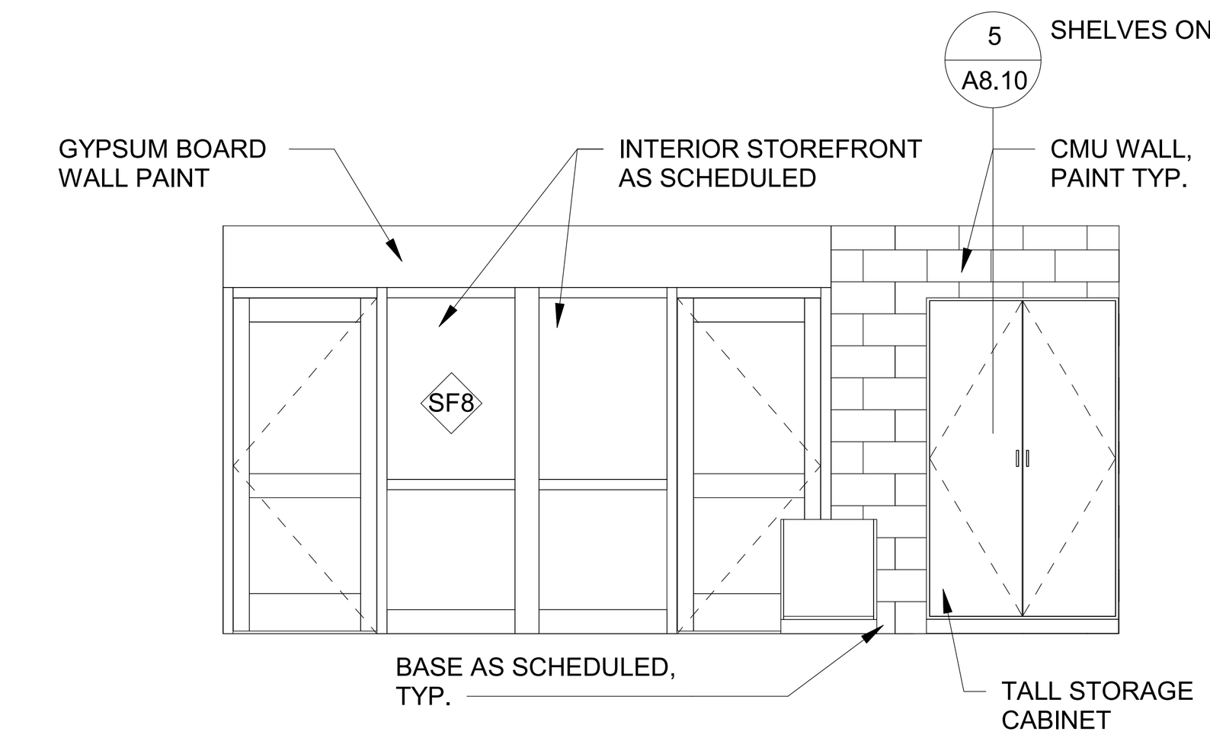
2 NORTH ELEVATION - D137 -OFFICE
1/4" = 1'-0"



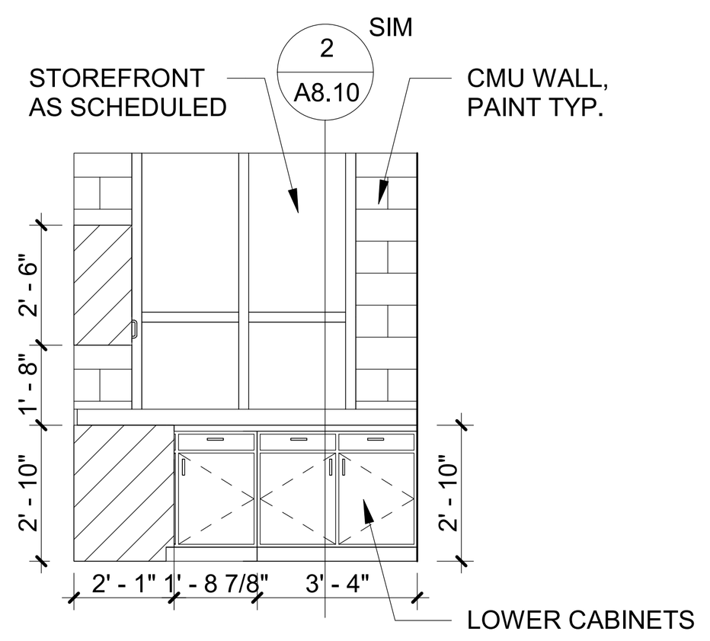
3 EAST ELEVATION - D137 - OFFICE
1/4" = 1'-0"



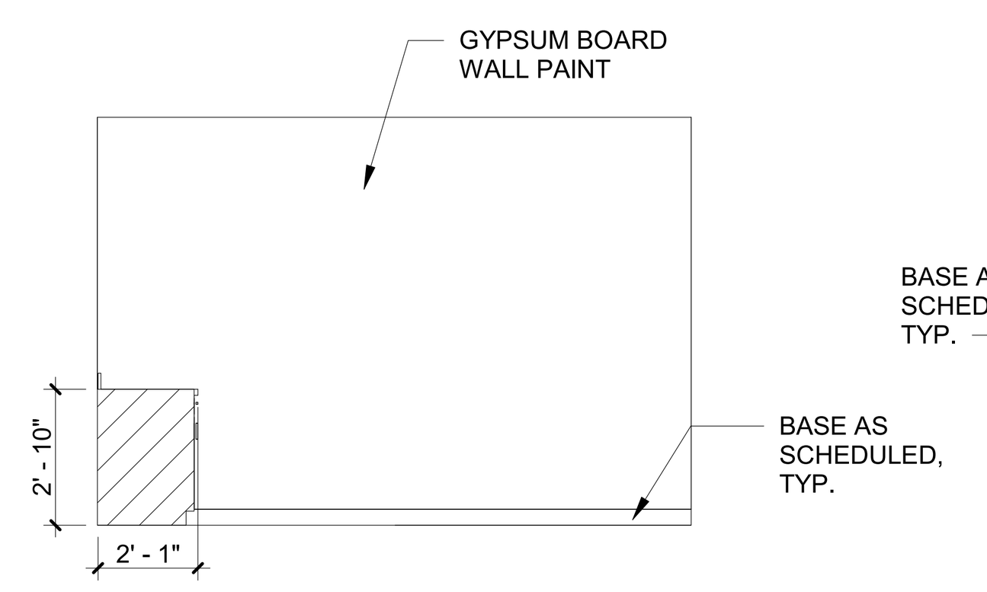
4 SOUTH ELEVATION - D137 - OFFICE
1/4" = 1'-0"



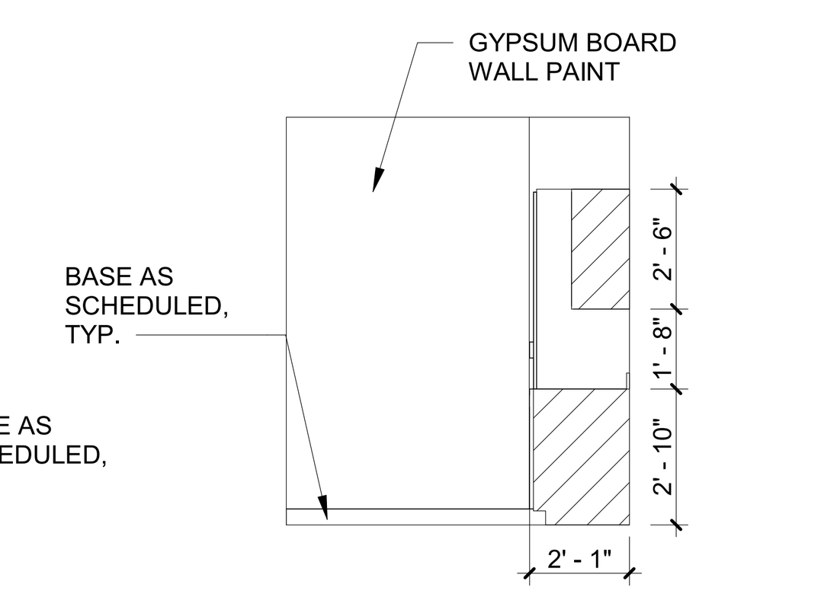
5 WEST ELEVATION - D137 - OFFICE
1/4" = 1'-0"



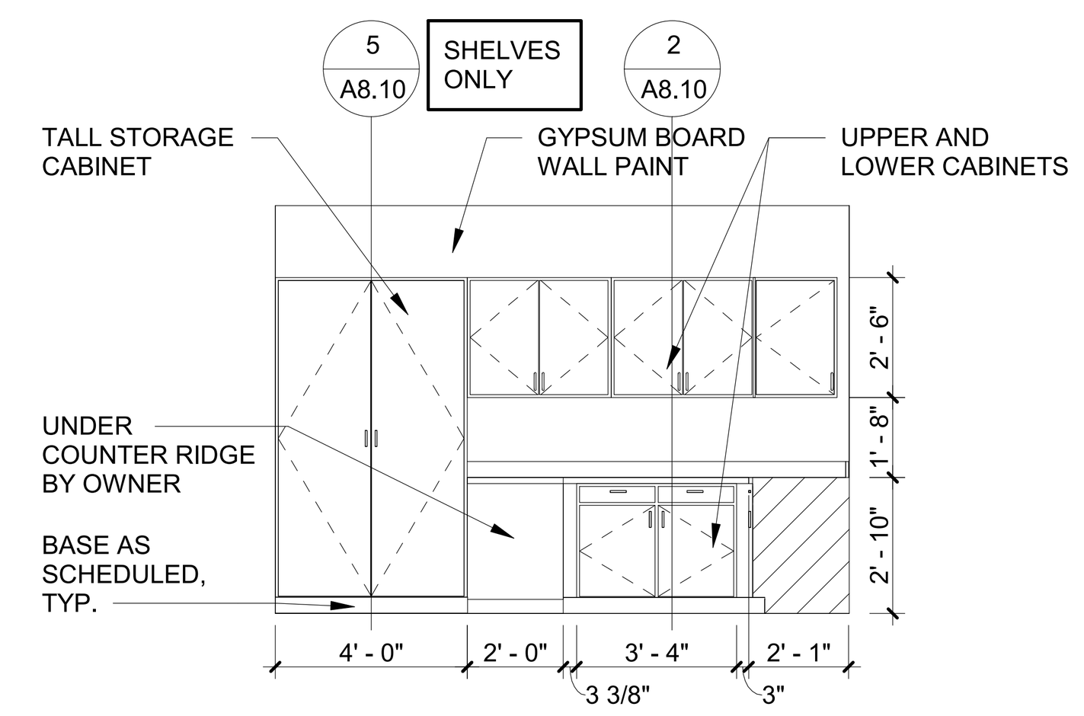
6 NORTH ELEVATION - D138 - WORK
1/4" = 1'-0"



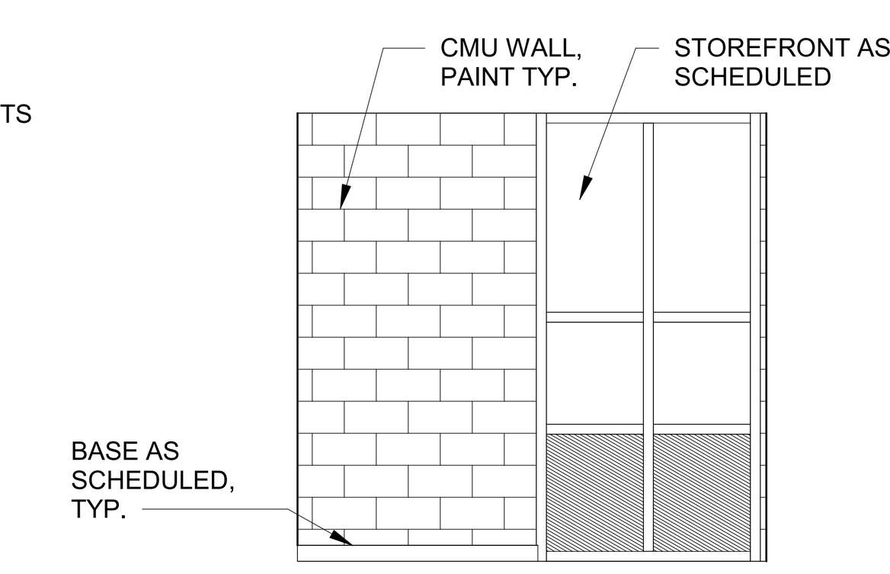
7 EAST ELEVATION - D138 - WORK
1/4" = 1'-0"



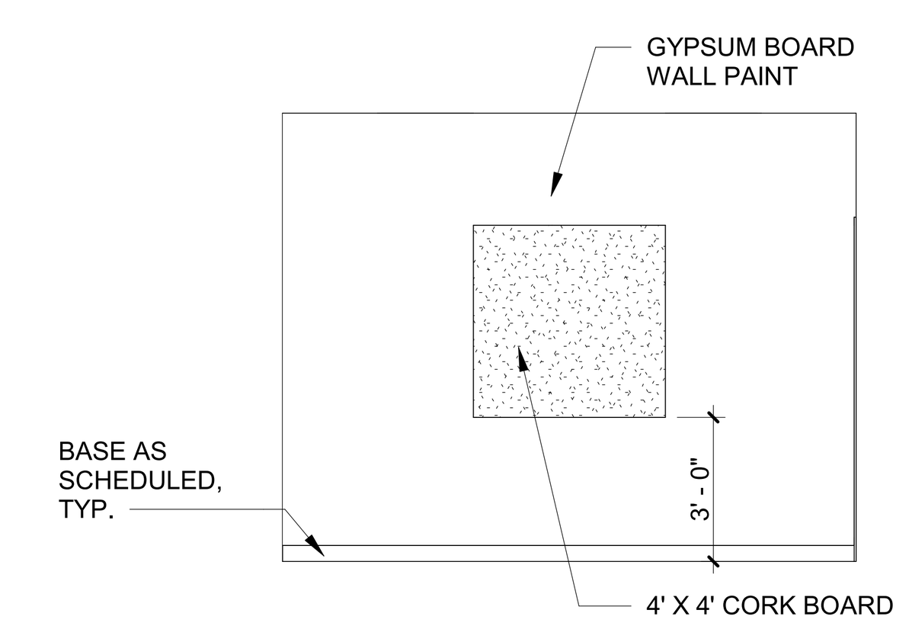
8 SOUTH ELEVATION - D138 - WORK
1/4" = 1'-0"



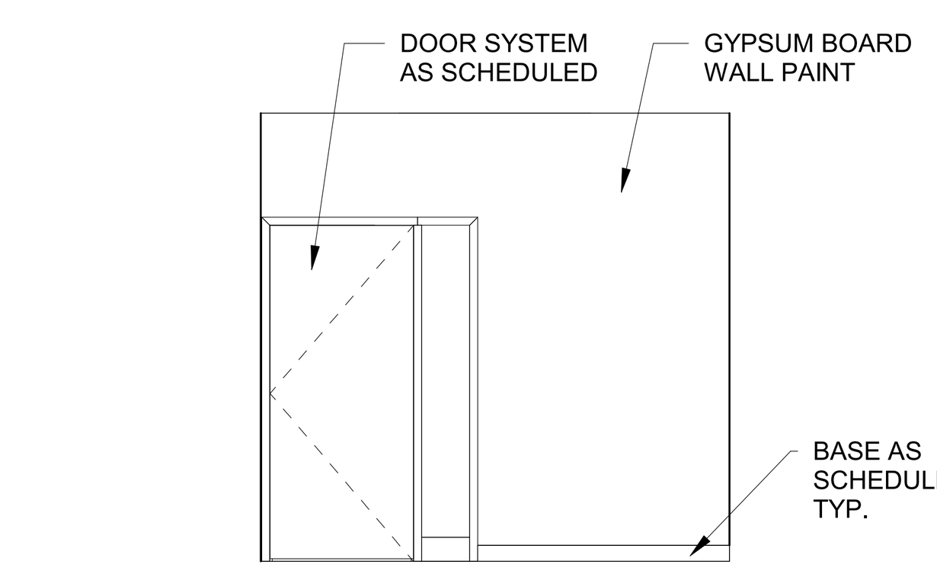
9 WEST ELEVATION - D138 - WORK
1/4" = 1'-0"



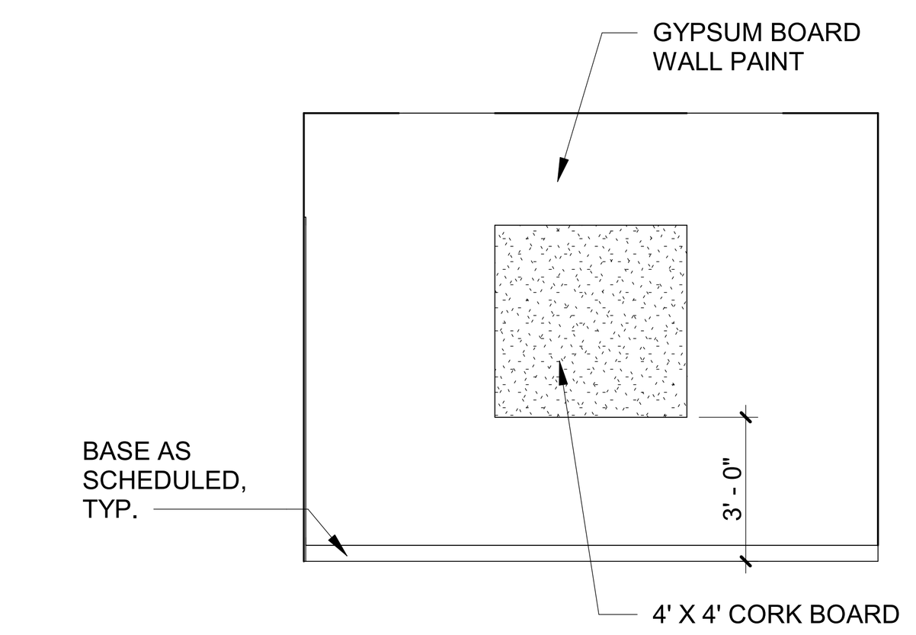
10 NORTH ELEVATION - D139 - GUIDANCE
1/4" = 1'-0"



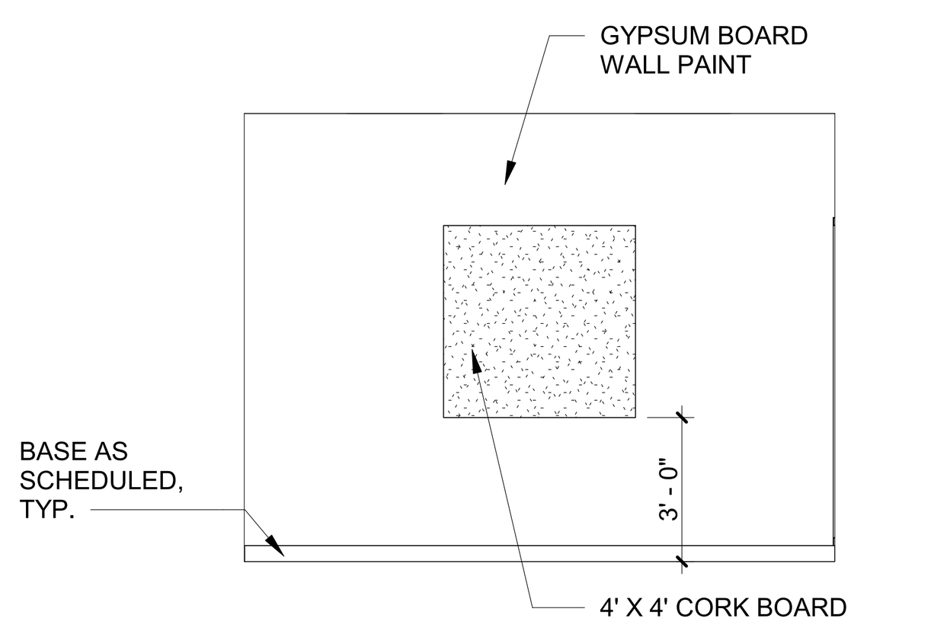
11 EAST ELEVATION - D139 - GUIDANCE
1/4" = 1'-0"



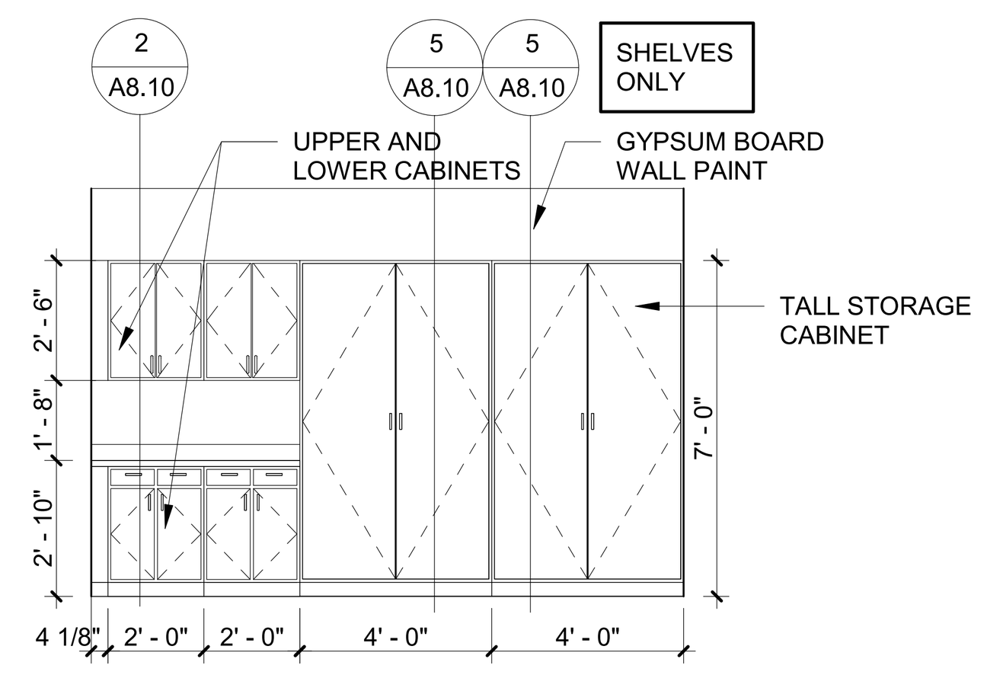
12 SOUTH ELEVATION - D139 - GUIDANCE
1/4" = 1'-0"



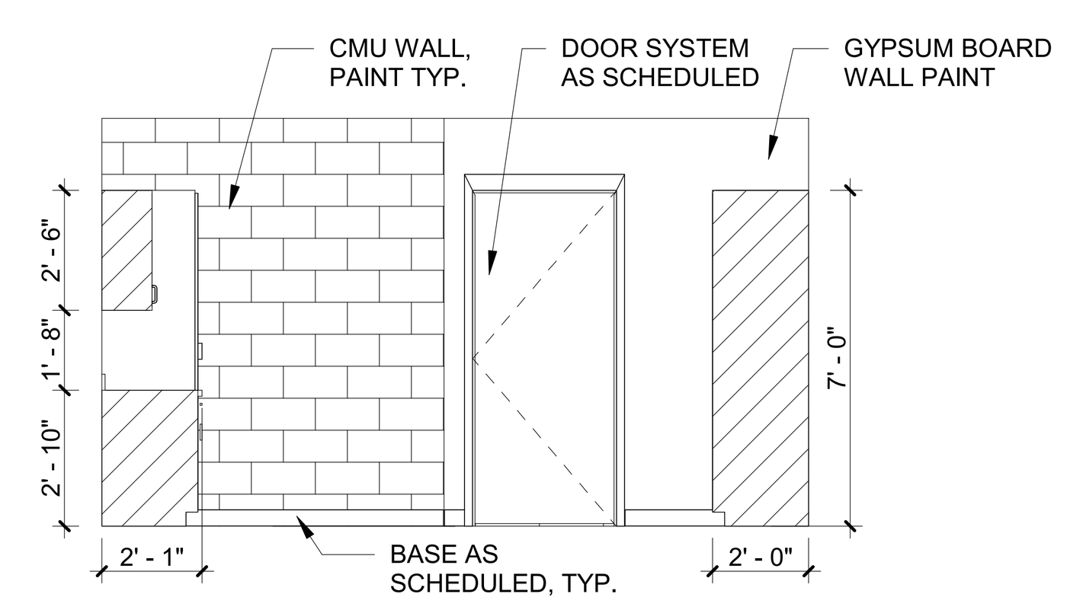
13 WEST ELEVATION - D140 - PRINCIPAL
1/4" = 1'-0"



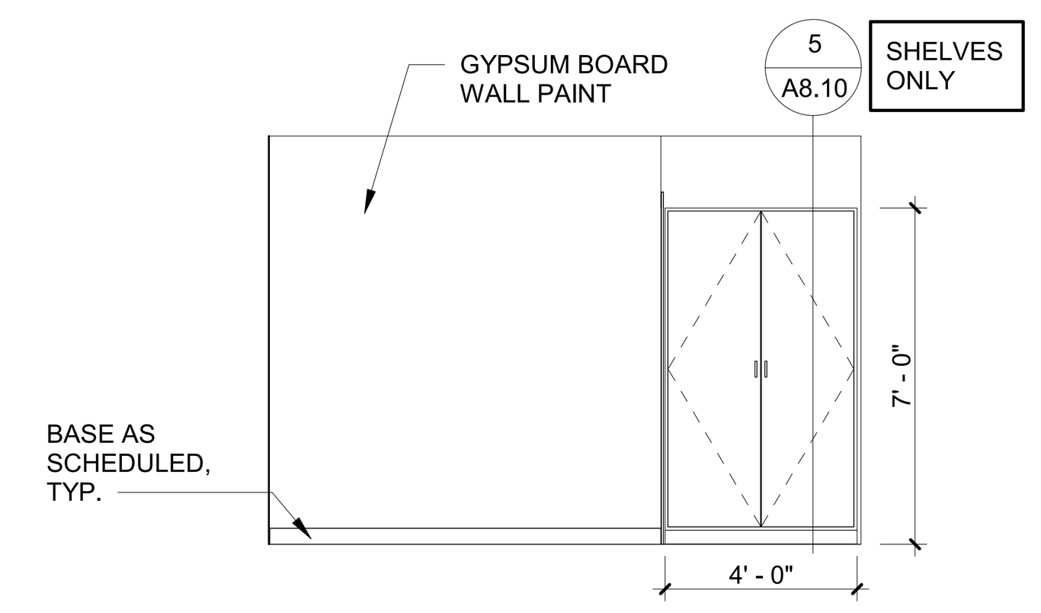
14 WEST ELEVATION - D141 - VICE PRINCIPAL
1/4" = 1'-0"



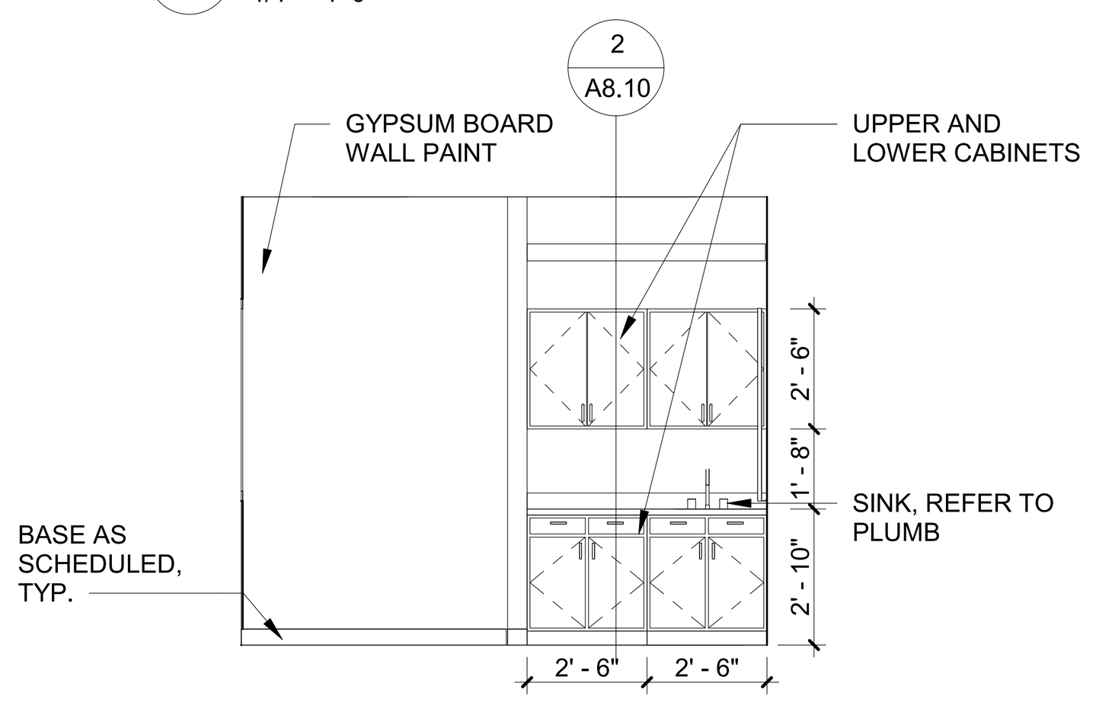
15 EAST ELEVATION - D143 - SICK
1/4" = 1'-0"



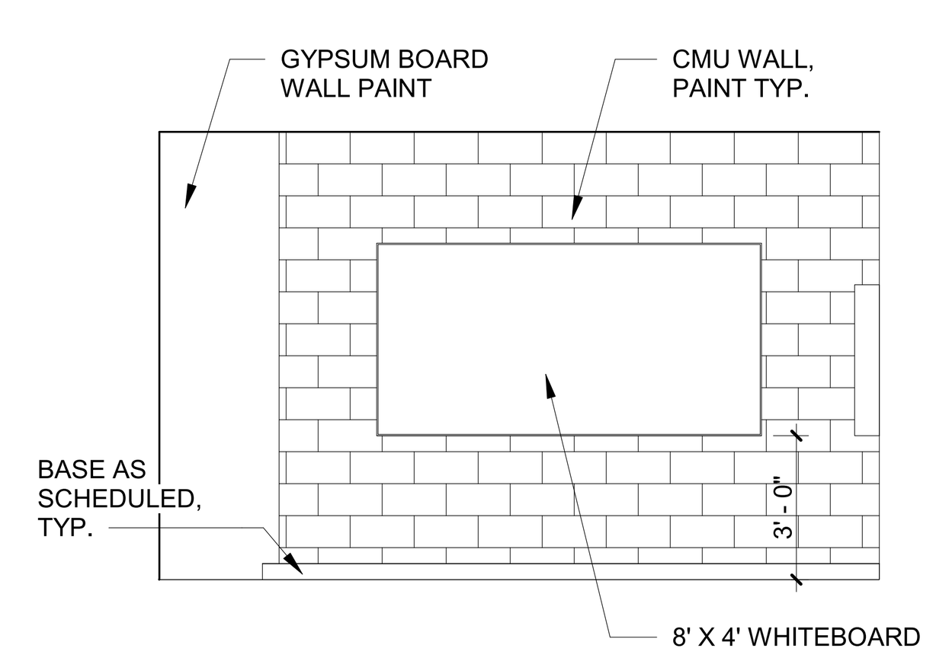
16 SOUTH ELEVATION - D143 - SICK
1/4" = 1'-0"



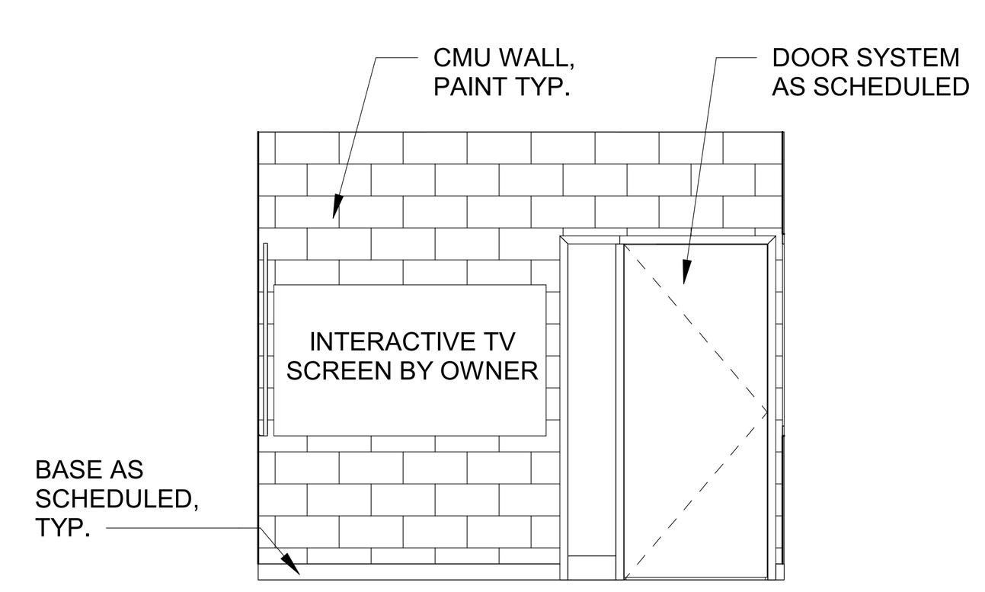
17 WEST ELEVATION - D143 - SICK
1/4" = 1'-0"



18 EAST ELEVATION - D136 - CONFERENCE
1/4" = 1'-0"



19 SOUTH ELEVATION - D136 - CONFERENCE
1/4" = 1'-0"



20 WEST ELEVATION - D136 - CONFERENCE
1/4" = 1'-0"

GENERAL NOTES

1. COORDINATE CASEWORK DIMENSIONS WITH ARCHITECTURAL PLANS. FIELD VERIFY ALL DIMENSIONS PRIOR TO FABRICATION.
2. ALL UPPER CABINETS SHALL MATCH LOWER CABINETS IN WIDTH, U.N.O.
3. ALL EXPOSED SURFACES OF CASEWORK, CABINETRY, SHELVING, END PANELS, HARDWARE AND SUPPORT BRACKETS SHALL BE FINISHED.
4. WHERE CABINETS RUN WALL-TO-WALL, PROVIDE EQUAL FILLER STRIP AT EACH END.
5. COORDINATE MOUNTING DIMENSIONS OF MAGNETIC MARKER BOARDS, GLASS MARKER BOARDS, TACK BOARDS, CLOCKS, SPEAKERS, EQUIPMENT, ETC... WITH OWNER.
6. PROVIDE ALL REQUIRED IN-WALL BLOCKING AND BACKING FOR ALL WALL-MOUNTED CASEWORK, COUNTERTOPS, BACKSPLASHES, MAGNETIC MARKER BOARDS, GLASS MARKER BOARDS, CLOCKS, SPEAKERS, EQUIPMENT, ETC...
7. PROVIDE PAINT STRIPING AND LOGOS ON WALLS AS SHOWN IN DOCUMENTS. FINAL ARTWORK / DESIGN SUBJECT TO CHANGE.

COORDINATE FINISHED FACE DIMENSIONS OF STRUCTURAL COLUMNS, SHAFTS, ETC. PROTRUDING FROM WALLS WITH FINAL CASEWORK AND COUNTERTOP LAYOUTS PRIOR TO FABRICATION. IT IS EXPECTED THAT CASEWORK AND COUNTERTOPS MAY NEED TO BE SCRIBED, NOTCHED AND / OR FITTED AROUND THESE PROTRUSIONS IN SOME AREAS. FIELD CUTTING AND PATCHING OF CASEWORK WILL NOT BE ACCEPTED. TYPICAL AT ALL CASEWORK AND COUNTERTOP LOCATIONS.

CORDOGAN CLARK

RIVER VALLEY SCHOOL DISTRICT

SCHOOL CONSOLIDATION

15480 THREE OAKS RD.
THREE OAKS, MI 49128

ENLARGE PLANS & ELEVATIONS - E.S. OFFICES

JOB NUMBER 21-346
DATE 03.22.22

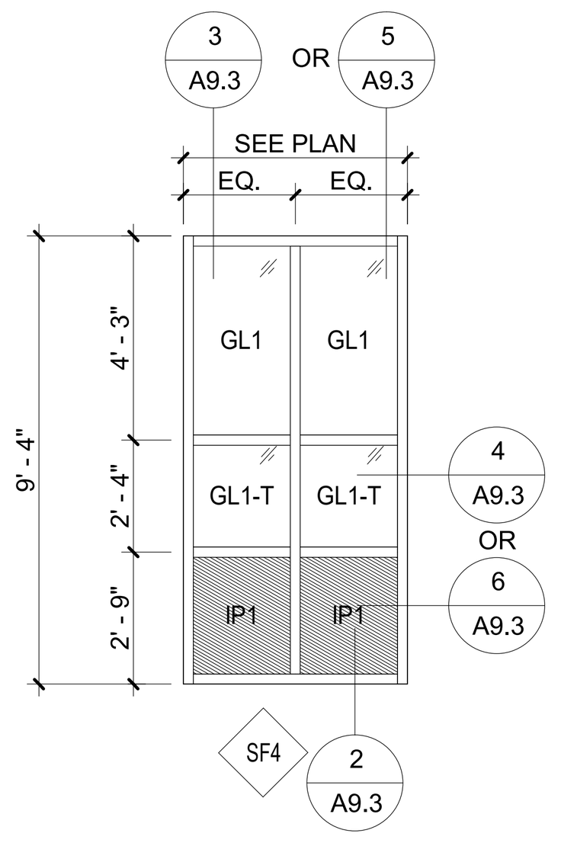
REVISIONS
04.20.22 ADD. 4

STATE OF MICHIGAN
John G. Cordogan
Architect
No. 1301035955
LICENSED ARCHITECT

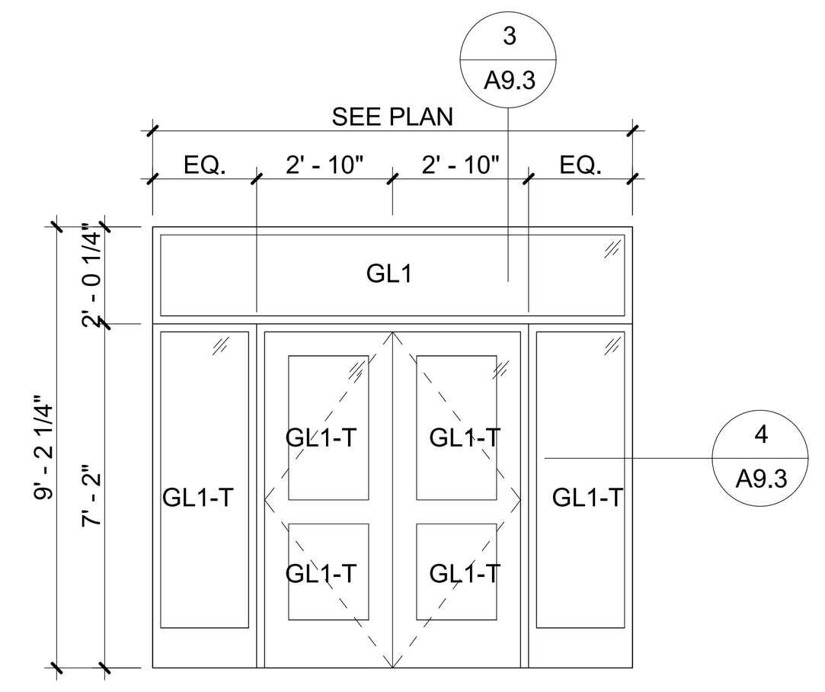
CD BID SET

A8.4

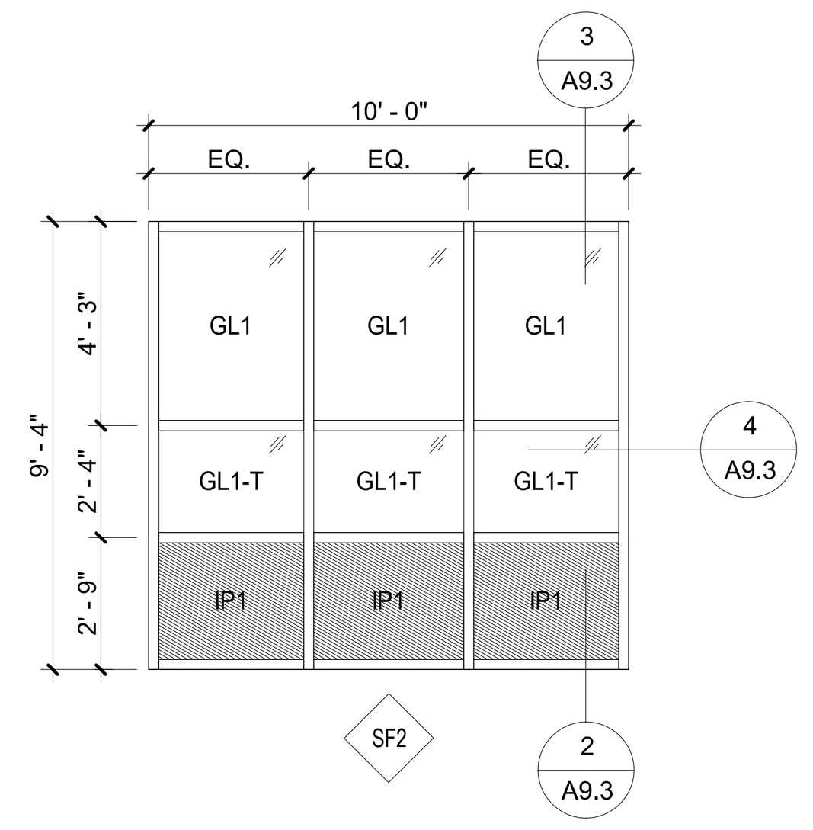
4/20/2022 10:08:42 AM



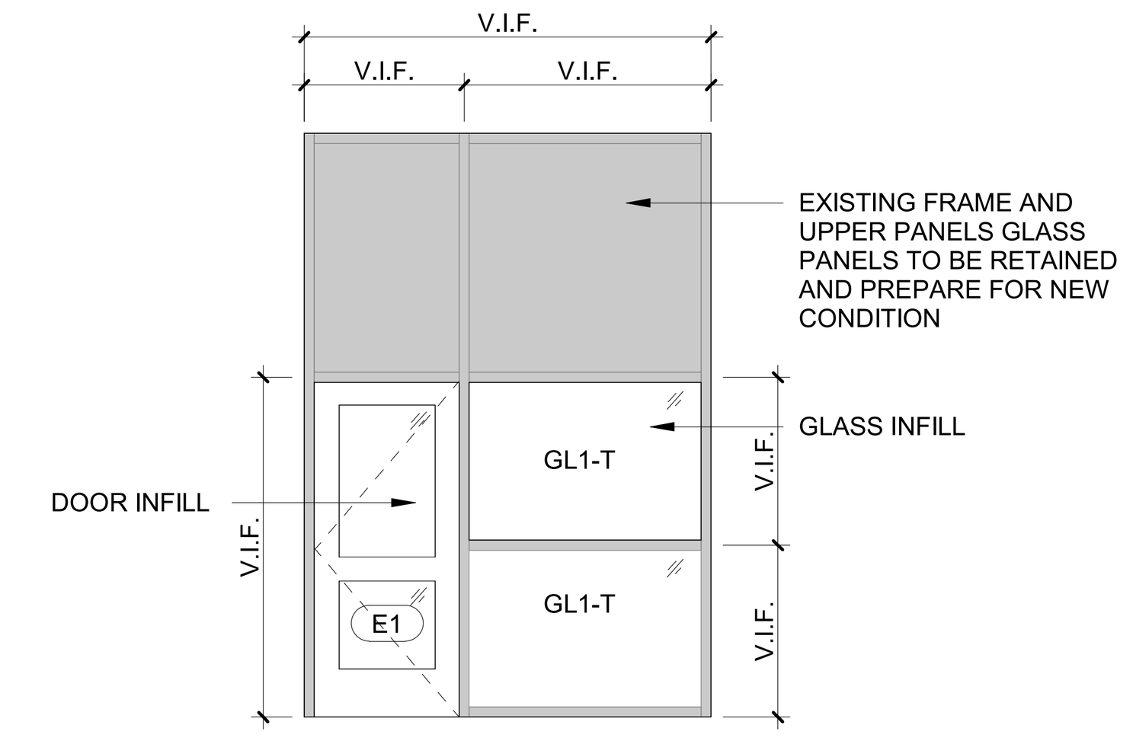
4 SF4 X 10
1/4" = 1'-0"



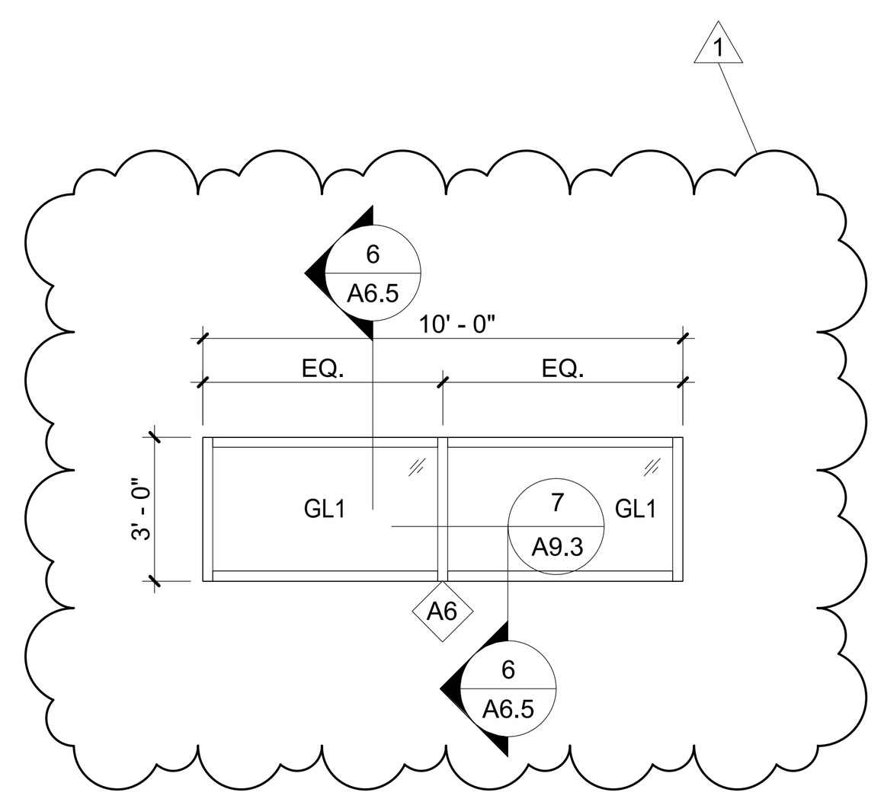
3 SF3 X 2
1/4" = 1'-0"



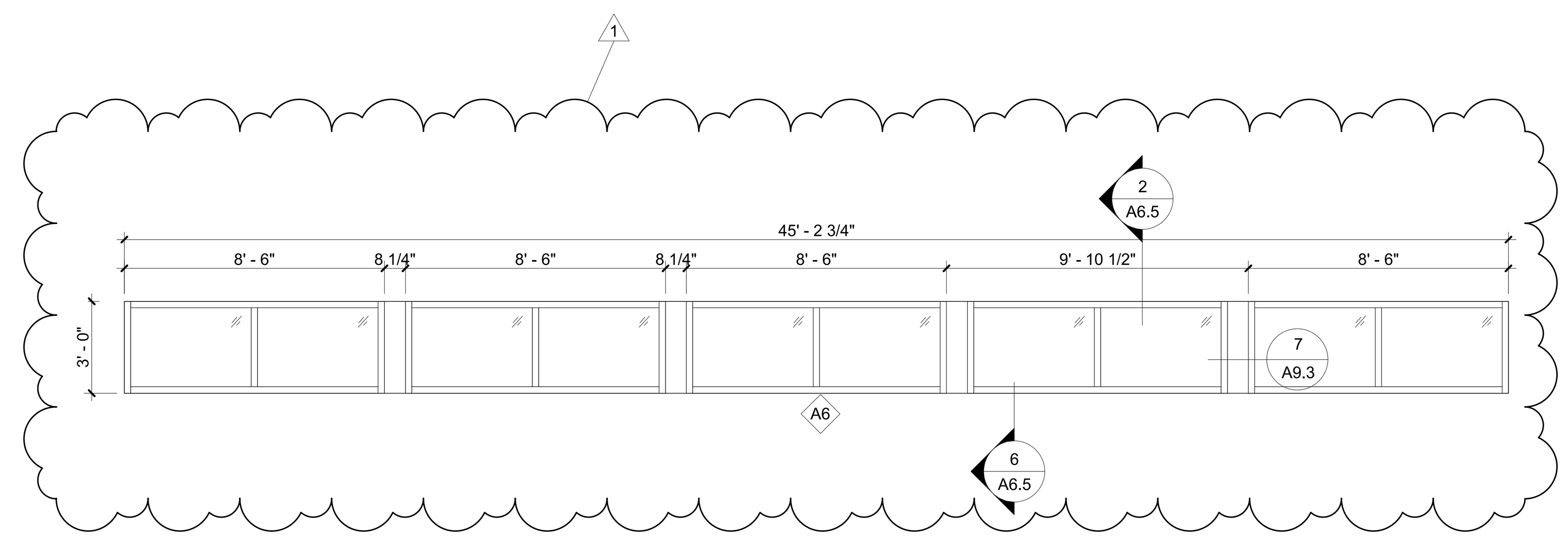
2 SF2 X 6
1/4" = 1'-0"



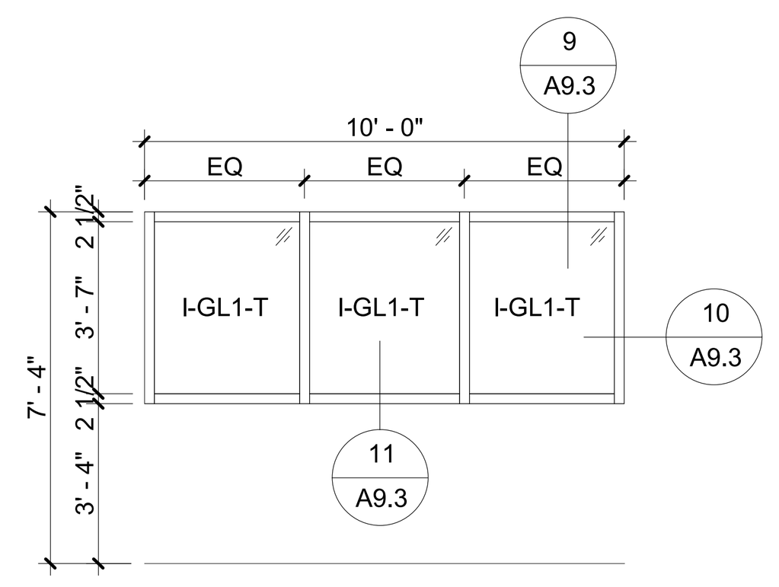
1 SF1 X 1
1/4" = 1'-0"



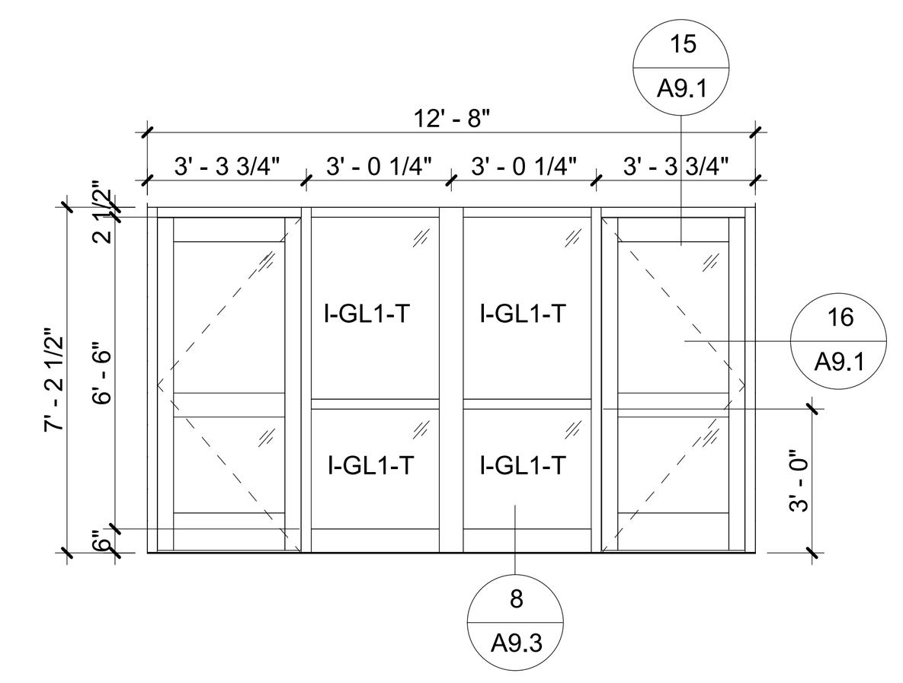
6 SF6 X 2
1/4" = 1'-0"



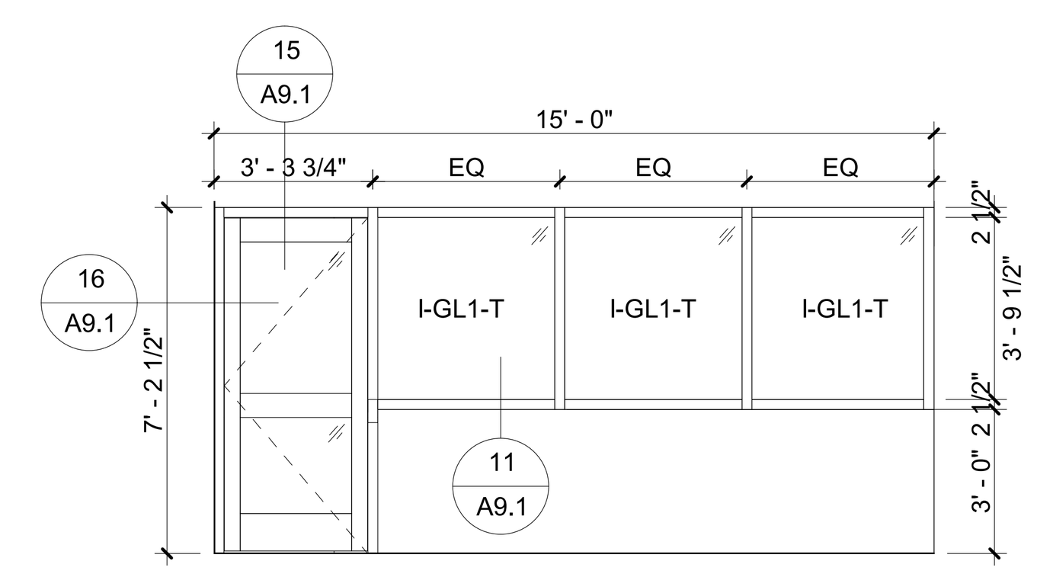
5 SF5 X 1
1/4" = 1'-0"



9 SF9 - ART ROOM DISPLAY
1/4" = 1'-0"



8 SF8 - RECEPTION WEST WALL
1/4" = 1'-0"



7 SF7 - RECEPTION SOUTH WALL
1/4" = 1'-0"

EXTERIOR GLAZING NOTES

1. ALL GLASS BELOW 3'-0" A.F.F. IS TO BE TEMPERED.
2. ALL GLASS ADJACENT TO A DOOR IS TO BE TEMPERED.
3. ALL GLASS WHERE THE BOTTOM EDGE IS LESS THAN 5'-0" ABOVE STAIR LANDINGS IS TO BE TEMPERED.
4. DIMENSIONS ARE APPROXIMATE. FIELD VERIFY ALL DIMENSIONS PRIOR TO FABRICATION. SHOP DRAWINGS DIMENSIONS WILL NOT QUALIFY UNLESS THEY ARE CERTIFIED FIELD DIMENSIONS.
5. COORDINATE LOCATIONS OF SPANDREL GLAZING WITH EXTERIOR ELEVATIONS, SECTIONS AND DETAILS.
6. PROVIDE BACKER ROD AND SEALANT AT ALL FRAMES AS REQUIRED.

GLAZING TYPES LEGEND

REFER TO SPECIFICATION SECTION 088000 FOR FURTHER DETAIL ON GLAZING TYPES AND ASSEMBLIES.

GL1	INSULATED LOW-E COATED CLEAR VISION GLASS
GL1-T	INSULATED LOW-E COATED CLEAR TEMPERED VISION GLASS
GL1-S	INSULATED LOW-E COATED SPANDREL GLAZING WITH PAINTED GLASS
IP1	2" INSULATED METAL PANEL REFER TO SPECIFICATIONS
I-GL1-T	NON-INSULATED CLEAR TEMPERED GLAZING

ABBREVIATIONS

GL1	-	GLAZING #
T	-	TEMPERED
S	-	SPANDREL
I (PREFIX)	-	INTERIOR

ALTERNATES KEYNOTES

WORK RELATED WITH THE FOLLOWING ALTERNATES:

- A1 ROOF TOP UNITS IN LIEU OF UNIT VENTILATION AT EXISTING.
- A2 SITE WORK ON WEST SIDE OF THE BUILDING.
- A3 ADDITIONAL PAVEMENT REPLACEMENT.
- A4 TENNIS COURT SURFACE REPLACEMENT.
- A5 SINKS IN ELEMENTARY CLASSROOMS.
- A6 CLERESTORY OMISSION.

CORDOGAN CLARK

RIVER VALLEY SCHOOL DISTRICT

SCHOOL CONSOLIDATION
15480 THREE OAKS RD.
THREE OAKS, MI 49128

STOREFRONT & WINDOW TYPES

JOB NUMBER 21-346
DATE 03.22.22

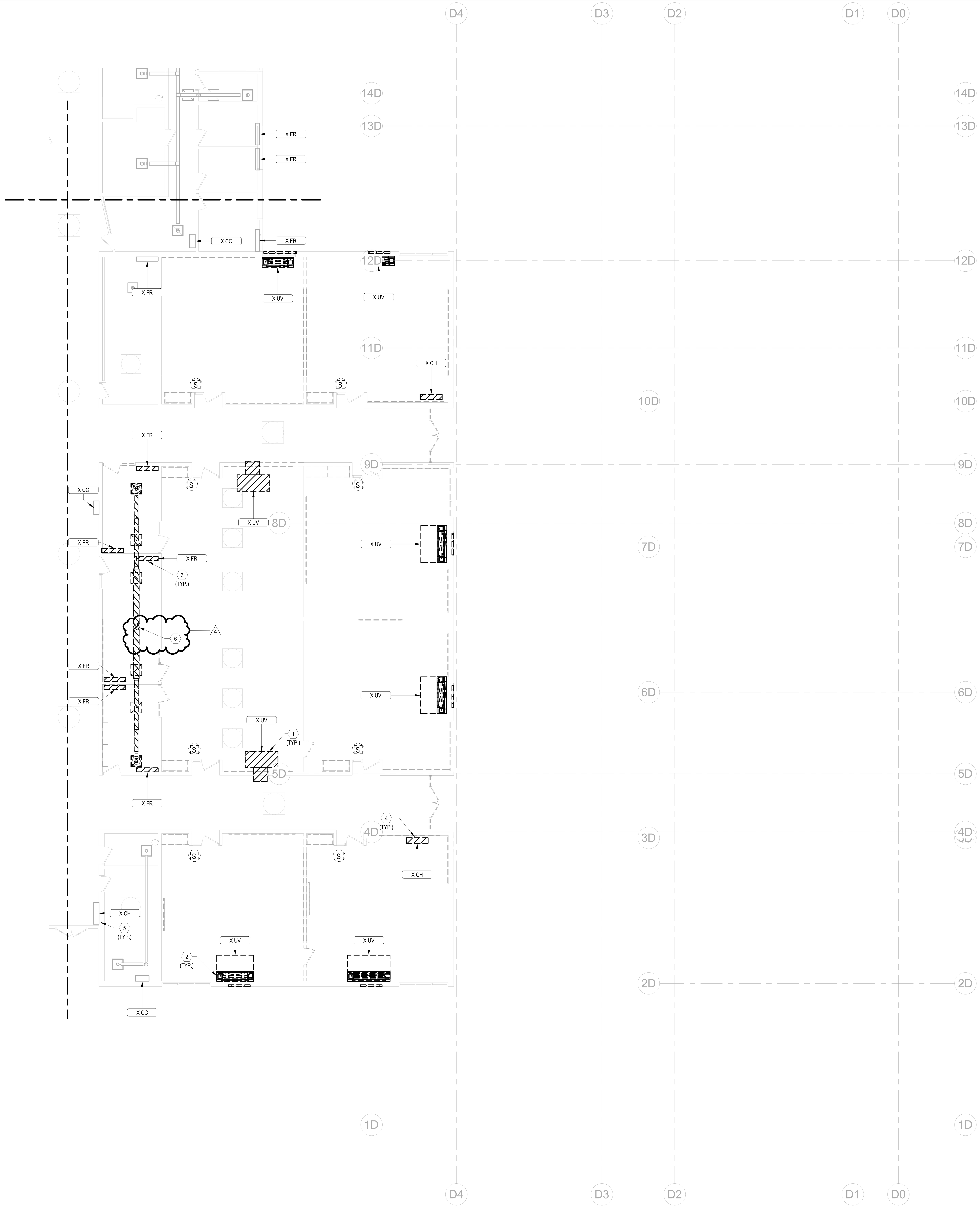
REVISIONS:
ADD. 1 03.31.22
ADD. 4 04.20.22

STATE OF MICHIGAN
John G. Cordogan Architect No. 1301035955
LICENSED ARCHITECT

CD BID SET

A9.2

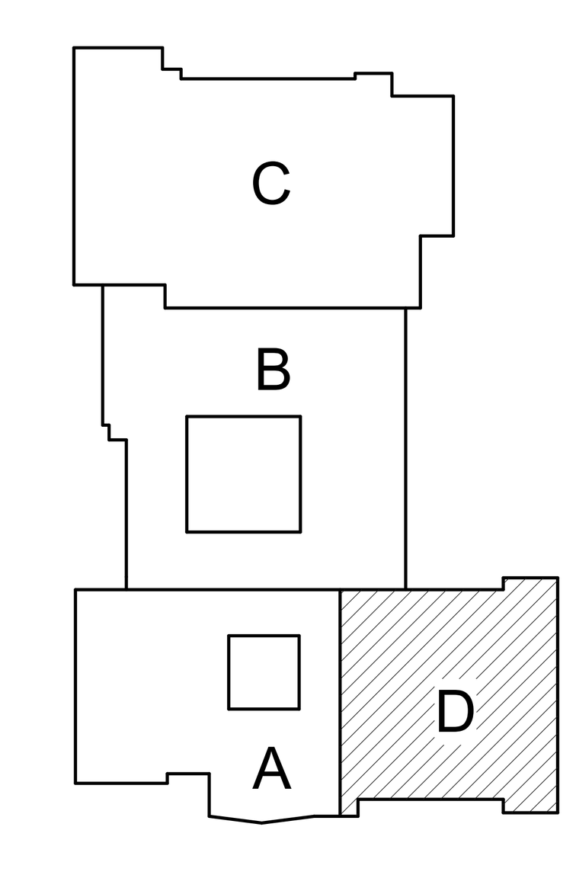
4/20/2022 10:08:46 AM



KEYNOTES

1. DISCONNECT AND REMOVE THE EXISTING CEILING MOUNTED UNIT VENTILATOR (XUV) WITH ITS ASSOCIATED CONTROL AND HANGERS AS REQUIRED.
2. DISCONNECT AND REMOVE THE EXISTING FLOOR MOUNTED UNIT VENTILATOR (XUV) WITH ITS ASSOCIATED WALL BOX/LOUVER AND CONTROL AND HANGERS AS REQUIRED.
3. DISCONNECT AND REMOVE THE EXISTING FIN RADIATOR (XFR) WITH ASSOCIATED CONTROLS.
4. DISCONNECT AND REMOVE THE EXISTING CABINET HEATER (XCH) WITH ASSOCAITED CONTROLS.
5. EXISTING TO REMAIN.
6. DISCONNECT AND REMOVE THE EXISTING EXHAUST FAN WITH ASSOICATED DUCTWORK, HANGERS, AND CONTROLS.

4



KEY PLAN
NOT TO SCALE

NORTH
1 PARTIAL FIRST FLOOR MECHANICAL DEMOLITION PLAN - AREA D
1/8" = 1'-0"

CORDOGAN CLARK
Aurora
960 Ridgeway Avenue, Aurora, IL 60506
Tel 630.896.4678 Fax 630.896.4987
Chicago
716 North Wells Street, Chicago, IL 60654
Tel 312.943.7300 Fax 312.943.4771

RIVER VALLEY SCHOOL DISTRICT

RIVER VALLEY HIGH SCHOOL

15480 THREE OAKS RD
THREE OAKS, MI 49128

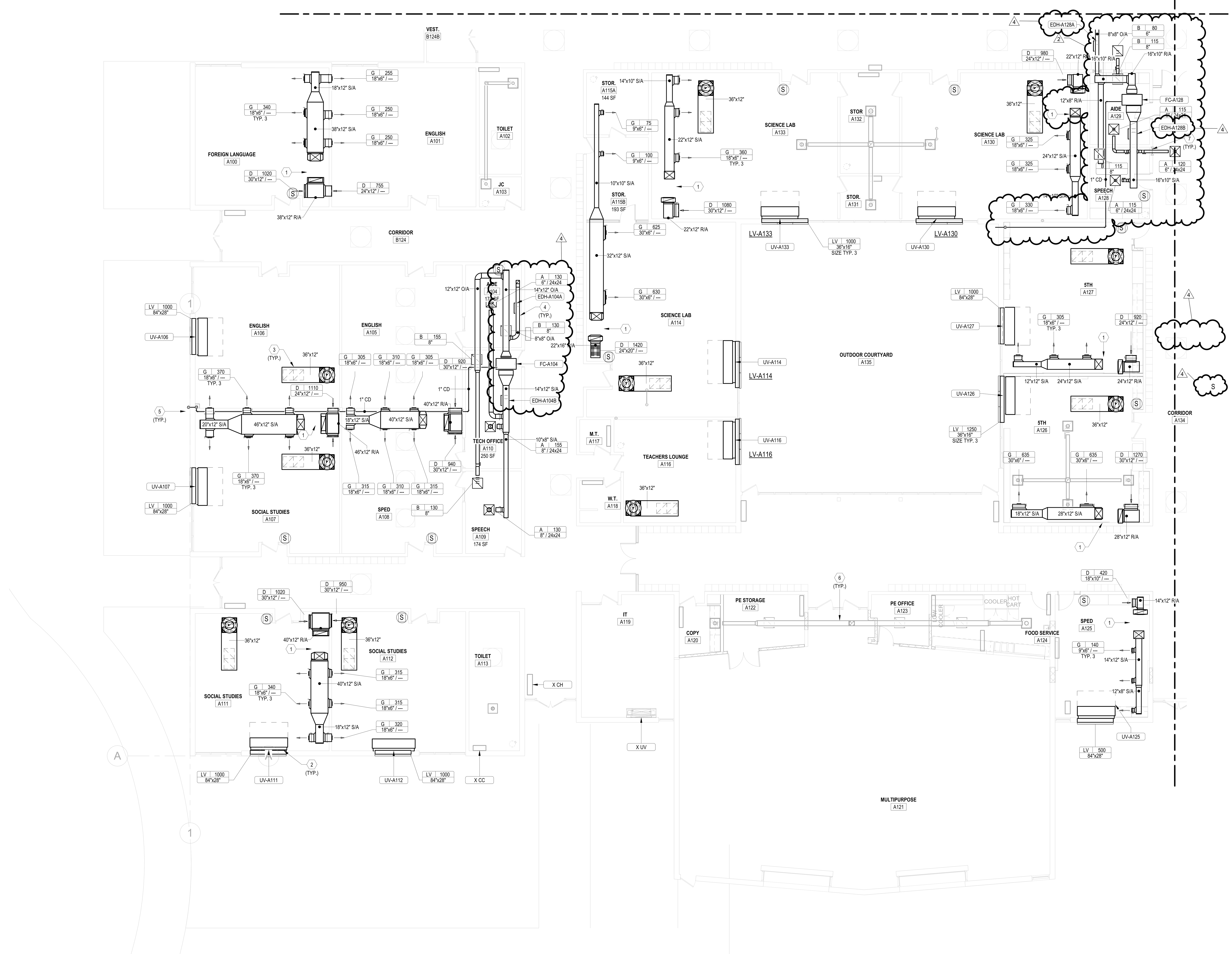
PARTIAL FIRST FLOOR MECHANICAL DEMOLITION PLAN - AREA D

JOB NUMBER 21-346
DATE 03.22.2022

REVISIONS:
4 ADDENDUM 004 04.20.2022

BID SET

M1.1D

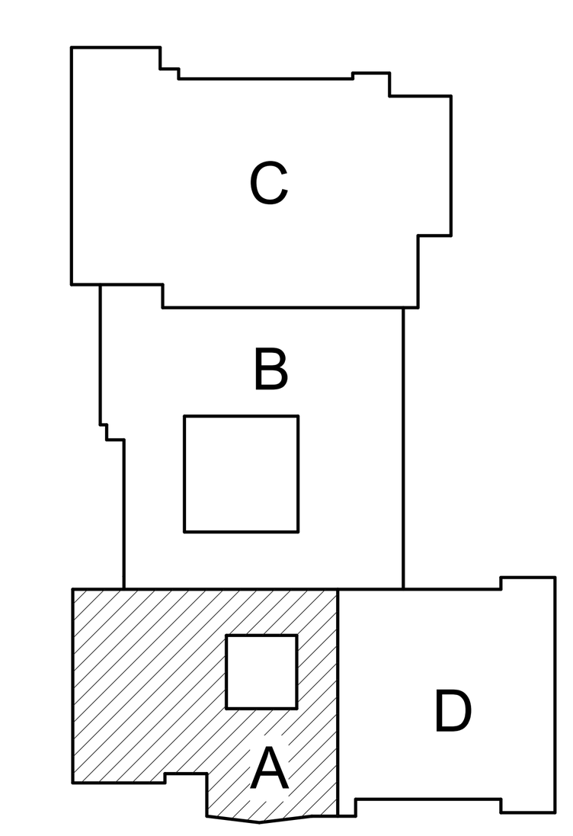


PARTIAL FIRST FLOOR MECHANICAL PLAN - AREA A

1/8" = 1'-0"

KEYNOTES

1. ALTERNATE 1: PACKAGED ROOFTOP UNIT, GAS PIPING, ASSOCIATED DUCTWORK, AND CONTROL.
2. ROUTE 1" CONDENSATE DRAIN TO EXTERIOR AND TERMINATE 12" ABOVE GRADE WITH A 90 DEGREE ELBOW.
3. PROVIDE AND INSTALL (2) DIFFUSERS TAG B FOR RELIEF SYSTEM WITH 22x22 N.K.
4. ROUTE 8" DIAMETER UP TO GV-A104
5. ROUTE 1" CONDENSATE LINE TO THE EXTERIOR. TERMINATE 12" ABOVE GRADE WITH A 90 DEGREE ELBOW.
6. EXISTING TO REMAIN
7. PROVIDE FIRE DAMPER WITH ACCESS DOOR.



KEY PLAN
NOT TO SCALE

CORDOGAN CLARK

RIVER VALLEY SCHOOL DISTRICT

RIVER VALLEY HIGH SCHOOL
15480 THREE OAKS RD
THREE OAKS, MI 49128

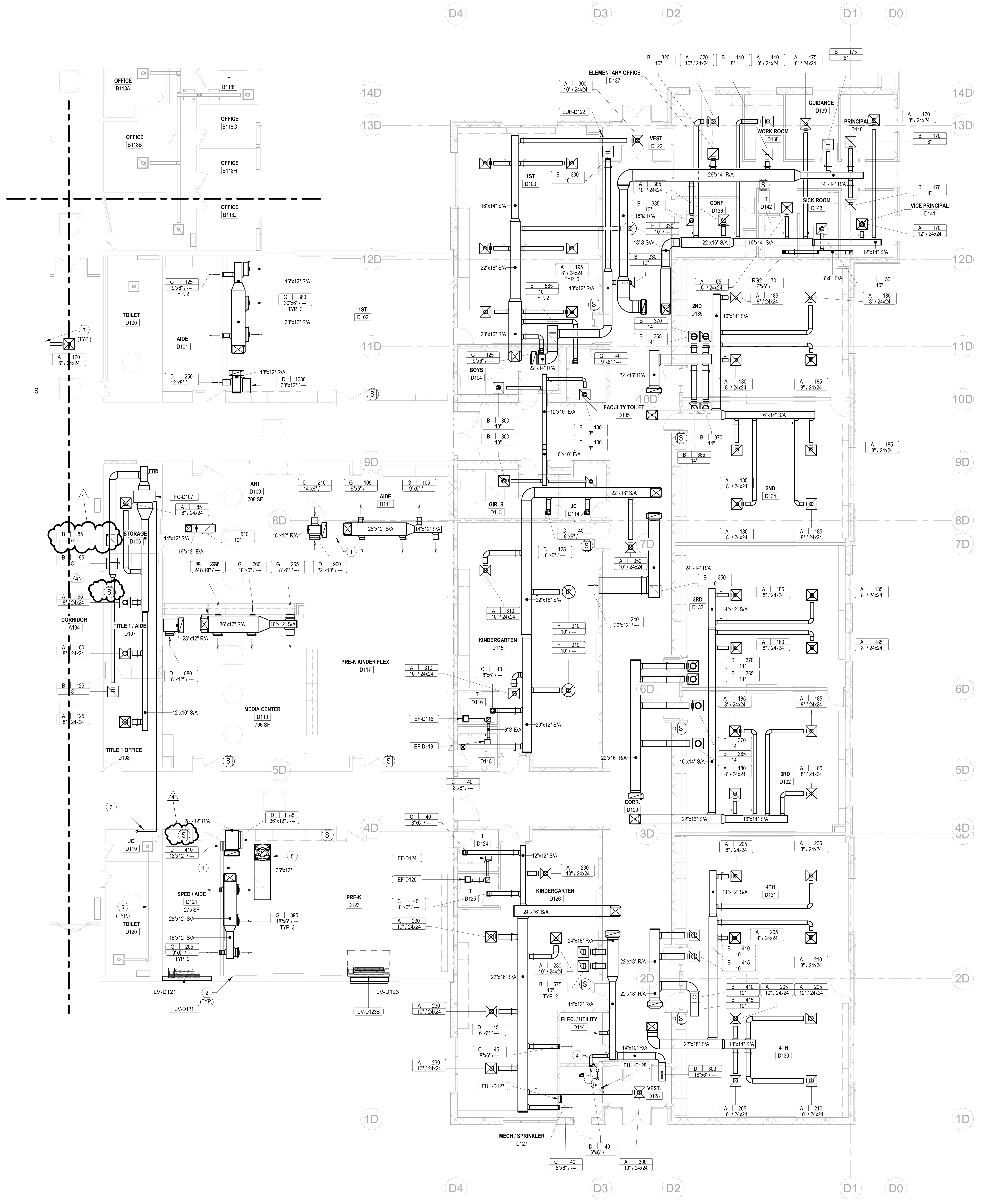
PARTIAL FIRST FLOOR MECHANICAL PLAN - AREA A

JOB NUMBER 21-346
DATE 03.22.2022

REVISIONS:
2 ADDENDUM 002 04.12.2022
4 ADDENDUM 004 04.20.2022

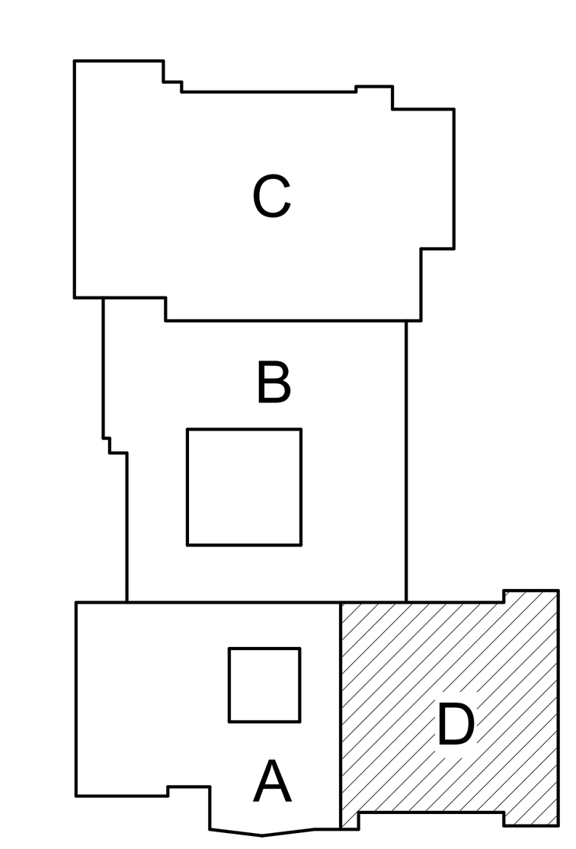
BID SET

M2.1A



KEYNOTES

1. ALTERNATE 1: PACKAGED ROOFTOP UNIT, GAS PIPING, ASSOCIATED DUCTWORK, AND CONTROL.
2. ROUTE 1" CONDENSATE DRAIN TO EXTERIOR AND TERMINATE 12" ABOVE GRADE WITH A 90 DEGREE ELBOW.
3. TERMINATE CONDENSATE DRAIN AT MOP BASION DRAIN.
4. ROUTE 1.5" GAS LINE DOWN FROM ROOF.
5. PROVIDE AND INSTALL (2) DIFFUSERS TAG B FOR RELIEF SYSTEM WITH 22x22 N.K.
6. EXISTING TO REMAIN.



KEY PLAN
NOT TO SCALE

1 PARTIAL FIRST FLOOR MECHANICAL PLAN - AREA D
1/8" = 1'-0"

CORDOGAN CLARK
Aurora 960 Ridgeway Avenue, Aurora, IL 60506 Tel 630.896.4678 Fax 630.896.4987
Chicago 716 North Wells Street, Chicago, IL 60654 Tel 312.943.7300 Fax 312.943.4771

RIVER VALLEY SCHOOL DISTRICT

RIVER VALLEY HIGH SCHOOL
15480 THREE OAKS RD
THREE OAKS, MI 49128

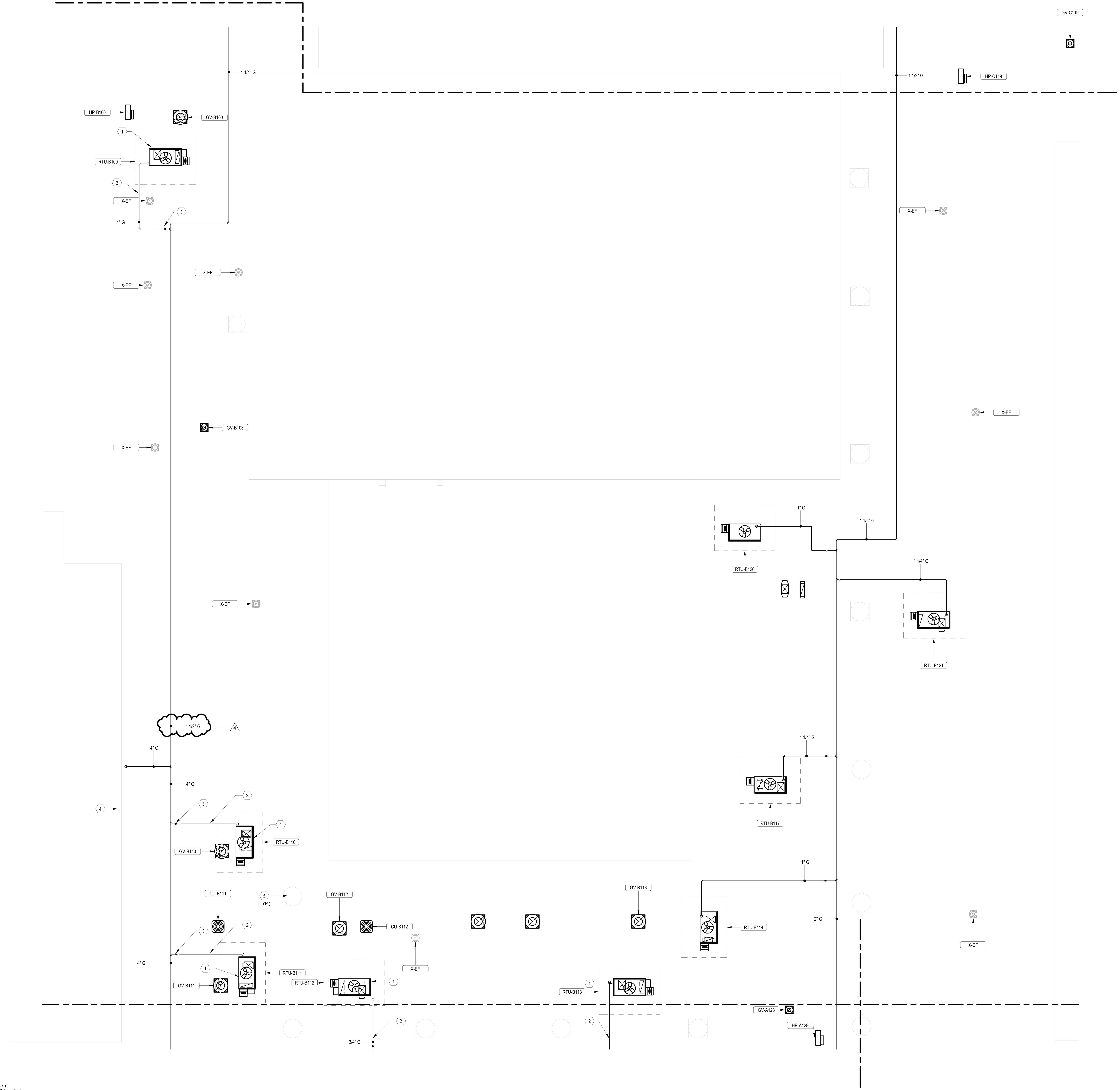
PARTIAL FIRST FLOOR MECHANICAL PLAN - AREA D

JOB NUMBER 21-346
DATE 03.22.2022

REVISIONS:
4 ADDENDUM 004 04.20.2022

BID SET

M2.1D

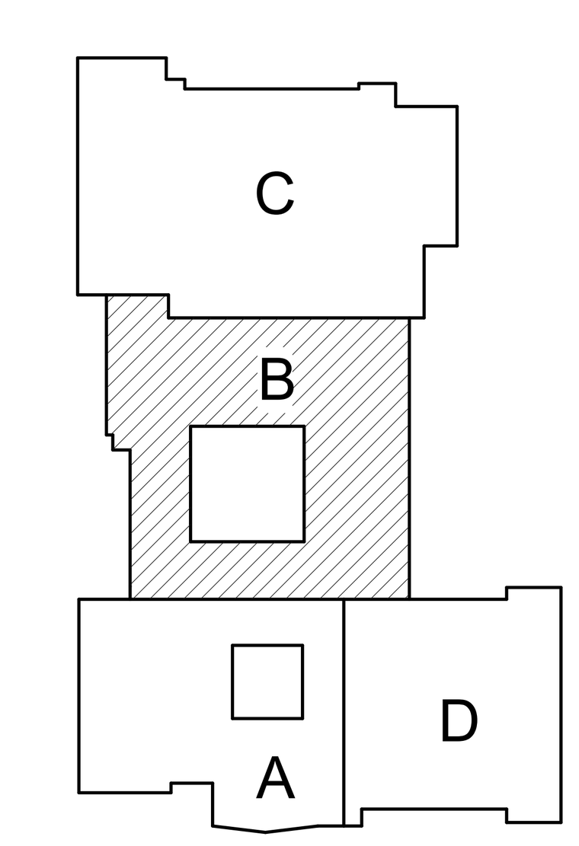


NORTH

1 PARTIAL ROOF MECHANICAL PLAN - AREA B
1/8" = 1'-0"

KEYNOTES

1. ALTERNATE 1: PACKAGED ROOFTOP UNIT, GAS PIPING, ASSOCIATED DUCTWORK, AND CONTROL.
2. ALTERNATE 1: ROOF MOUNTED GAS PIPING TO THE ASSOCAITED ROOFTOP EQUIPMENT.
3. PROVIDE FUTURE 1" GAS CONNECTION WITH SHUT-OFF VALVE AND FLANGE.
4. ROUTE 4" GAS LINE UP FROM GAS METER BELOW.
5. EXISTING TO REMAIN



KEY PLAN
NOT TO SCALE

CORDOGAN CLARK
Aurora
960 Ridgeway Avenue, Aurora, IL 60506
Tel 630.896.4678 Fax 630.896.4987
Chicago
716 North Wells Street, Chicago, IL 60654
Tel 312.943.7300 Fax 312.943.4771

RIVER VALLEY SCHOOL DISTRICT

RIVER VALLEY HIGH SCHOOL
15480 THREE OAKS RD
THREE OAKS, MI 49128

PARTIAL ROOF MECHANICAL PLAN - AREA B

JOB NUMBER 21-346
DATE 03.22.2022

REVISIONS:
4 ADDENDUM 004 04.20.2022

BID SET

M2.2B

GRAVITY VENTILATOR SCHEDULE

TAG	SERVICE	CFM	TYPE	MAX PD (IN)	THROAT	MFR	MODEL
GV-A106	CLASSROOM A106	1,000	RELIEF	0.05	20X20	TITUS	PR20
GV-A107	CLASSROOM A107	1,000	RELIEF	0.05	20X20	TITUS	PR20
GV-A104	SPEECH A104	160	INTAKE	0.05	8x8	TITUS	PR8
GV-A111	CLASSROOM A111	1,000	RELIEF	0.05	20X20	TITUS	PR20
GV-A112	CLASSROOM A112	1,000	RELIEF	0.05	20X20	TITUS	PR20
GV-A114	CLASSROOM A114	1,250	RELIEF	0.05	20X20	TITUS	PR20
GV-A116	CLASSROOM A116	500	RELIEF	0.05	12x12	TITUS	PR12
GV-A126	CLASSROOM A126	1,250	RELIEF	0.05	20X20	TITUS	PR20
GV-A127	CLASSROOM A127	1,000	RELIEF	0.05	20X20	TITUS	PR20
GV-A129	SPED A125	50	RELIEF	0.05	8X8	TITUS	PR8
GV-A130	SCIENCE A130	1,000	RELIEF	0.05	20X20	TITUS	PR20
GV-A133	SCIENCE A133	1,000	RELIEF	0.05	20X20	TITUS	PR20
GV-B103	FOOD OFFICE B103	30	RELIEF	0.05	8x8	TITUS	PR8
GV-B110	SPED B110	1,000	RELIEF	0.05	20X20	TITUS	PR20
GV-B111	CLASSROOM B111	1,250	RELIEF	0.05	20X20	TITUS	PR20
GV-B112A	KITCHEN B112	1,500	INTAKE	0.05	16X16	TITUS	PR16
GV-B113A	KITCHEN B113	1,000	INTAKE	0.05	20X20	TITUS	PR20
GV-B112B	KITCHEN B112	1,500	RELIEF	0.05	16X16	TITUS	PR16
GV-B113B	KITCHEN B113	1,000	RELIEF	0.05	20X20	TITUS	PR20
GV-C120	SPED C120	1,000	RELIEF	0.05	20X20	TITUS	PR20
GV-D107	AIDE D107	50	INTAKE	0.05	8x8	TITUS	PR8
GV-D123	CLASSROOM D123	1,250	RELIEF	0.05	20X20	TITUS	PR20

NOTES:

1 ROOF MOUNTED GRAVITY VENT, ALL ALUMINUM, ALUMINUM INSECT SCREEN, HINGED BASE, 30" INSULATED ROOF CURB WITH DAMPER TRAY. PROVIDE RUSKIN TED-50 INSULATED MOTORIZED DAMPER WITH 24V BELIMO ACTUATOR WITH FEEDBACK/END SWITCH AND DDC CONTROL INPUTS.

RTU SCHEDULE

TAG	SERVICE	SUPPLY FAN			DX COOLING				REHEAT	HEATING			ELECTRICAL			OA CFM	EER	WEIGHT (LBS.)	MFR.	MODEL	NOTES
		TOT CFM	E.S.P.	HP	TOT / SENS MBH	EAT DB / WB	LAT DB / WB	# COMP. / STAGES	LAT DB/WB	MBH IN / OUT	LAT	STAGES	VOLT.	MCA	MOCP						
RTU-A101	CLASSROOM A100 / A101	1,775	0.5	2	71.8 / 51.3	82.9 / 68.3	57.1 / 55.4	MOD	75 / 60.62	140 / 113.4	91.5	MOD	460/3	21	30	880	11.2	1,600	AAON	RQ-006-3-V-FA09	1, 2, 4, 5 & 6
RTU-A108	CLASSROOM A105 / A108	1,860	0.5	2	59.6 / 46.0	78.6 / 64.9	57.0 / 54.6	MOD	75 / 61.98	100 / 81	92.3	MOD	460-3	19	25	815	13.2	1,700	AAON	RQ-005-3-V-FA09	1, 2, 4, 5 & 6
RTU-B114	MATH B114	1,045	0.5	1	41.69 / 29.84	82.04 / 67.6	56.18 / 54.72	MOD	75 / 60.9	100 / 81	106	MOD	460 / 3	15	20	460	13.5	1,500	AAON	RQ-003-3-V-EA09	1, 3, 4, 5, & 6
RTU-B117	MATH B117	2,130	0.6	2	92.4 / 63.4	82.3 / 67.9	54.9 / 53.5	MOD	75 / 61.1	150 / 120	93.9	MOD	460 / 3	23	35	760	11.5	1,900	AAON	RN-008-3-0-EA09	1, 3, 4, 5, & 6
RTU-B120	SPED B119 / B120	1,140	0.5	1	41.3 / 30.6	80.8 / 66.7	56.2 / 54.6	MOD	75 / 61.7	100 / 81	108	MOD	460 / 3	15	20	400	13.5	1,500	AAON	RQ-003-3-V-EA09	1, 3, 4, 5, & 6
RTU-B121	ART B121	2,060	0.5	1	58.14 / 38.32	84.38 / 69.41	56.33 / 54.60	MOD	75 / 61.66	140 / 113.4	103.5	MOD	460/3	19	25	620	11.6	1,700	AAON	RQ-005-3-V-FA09	1, 2, 4, 5 & 6
RTU-C100	MEDIA CENTER C100	3,835	0.75	2	116.86 / 83.13	81.9 / 67.5	57.6 / 55.5	MOD	75 / 61.9	292.5 / 234	102.3	MOD	460 / 3	27	30	1,400	11.2	2,400	AAON	RN-011-3-0-FA09	1, 2, 4, 5 & 6
RTU-C114	BAND C114	2,610	0.5	2	92.9 / 63.9	82.3 / 67.8	55.4 / 3.7	MOD	75 / 61.2	210 / 168	105.4	MOD	460 / 3	23	35	1,000	11.5	1,900	AAON	RN-008-3-0-EA09	1, 2, 4, 5 & 6
RTU-C115	CHOIR C115	2,130	0.5	2	72.8 / 52.96	83.1 / 68.5	58.1 / 56.3	MOD	75 / 62.5	160 / 129.6	93.4	MOD	460 / 3	21	30	950	11.6	1,600	AAON	RN-006-3-0-EA09	1, 2, 4, 5 & 6
RTU-D102	CLASSROOM D101 / D102	1,330	0.5	1	49.9 / 36.4	81.1 / 66.9	56.6 / 54.8	MOD	75 / 61.55	100 / 81	95.7	MOD	460/3	18	25	650	13.55	1,600	AAON	RQ-004-3-V-EA09	1, 2, 4, 5 & 6
RTU-D103	CLASSROOM D103	1,500	0.5	1	55.5 / 42.1	81.9 / 67.6	56.9 / 55.8	MOD	75 / 62.1	140 / 113.4	105.4	MOD	460 / 3	18	25	525	13.3	1,500	AAON	RQ-004-3-V-EA09	1, 2, 4, 5 & 6
RTU-D110	ART D109 / MEDIA D110	1,860	0.5	2	67.7 / 49.4	80.8 / 66.7	57.4 / 55.1	MOD	75 / 62.2	140 / 113.4	97.2	MOD	460/3	21	30	680	13.2	1,600	AAON	RQ-006-3-V-FA09	1, 2, 4, 5 & 6
RTU-D115	CLASSROOM D115	1,835	0.5	1	53.7 / 42.1	80.8 / 66.7	58.1 / 56.3	MOD	75 / 62.1	100 / 81	99.1	MOD	460 / 3	15	20	500	13.5	1,500	AAON	RQ-004-3-V-EA09	1, 2, 4, 5 & 6
RTU-D117	CLASSROOM D117, D111, D112	1,170	0.5	1	50.6 / 34.9	84.3 / 69.3	57.1 / 55.6	MOD	75 / 62.02	140 / 113.4	113.2	MOD	460/3	17	25	720	12.9	1,600	AAON	RQ-004-3-V-EA09	1, 2, 4, 5 & 6
RTU-D126	CLASSROOM D126	1,795	0.75	2	60.5 / 45.8	80.8 / 66.7	57.9 / 55.5	MOD	75 / 62.5	140 / 113.4	105.8	MOD	460 / 3	19	25	590	13.3	1,500	AAON	RQ-005-3-V-EA09	1, 2, 4, 5 & 6
RTU-D130	CLASSROOM D130 / D131	1,650	0.75	2	72.1 / 49.9	84.5 / 69.5	57.5 / 55.8	MOD	75 / 62.3	160 / 129.6	95.2	MOD	460 / 3	21	30	980	11.6	1,600	AAON	RQ-006-3-V-EA09	1, 2, 4, 5 & 6
RTU-D132	CLASSROOM D132 / D133	1,470	0.75	2	64.2 / 44.7	83.7 / 68.9	56.5 / 55	MOD	75 / 61.9	140 / 113.4	97.9	MOD	460 / 3	19	25	800	12.4	1,600	AAON	RQ-005-3-V-EA09	1, 2, 4, 5 & 6
RTU-D134	CLASSROOM D134 / D135	1,470	0.75	2	64.2 / 44.7	83.7 / 68.9	56.5 / 55	MOD	75 / 61.9	140 / 113.4	97.9	MOD	460 / 3	19	25	800	12.4	1,600	AAON	RQ-005-3-V-EA09	1, 2, 4, 5 & 6
RTU-D137	OFFICE AREA D137	1,400	0.9	1	48.6 / 36.8	78.4 / 64.8	55.4 / 53.4	MOD	75 / 61.1	100 / 81	106.5	MOD	460 / 3	15	20	300	12.9	1,500	AAON	RQ-004-3-V-EA09	1, 2, 4, 5 & 6

NOTES

1 SINGLE-ZONE VAV GAS/DX RTU WITH DOUBLE WALL R13 FOAM INSULATED CABINET WITH THERMAL BREAKS, DOWNWARD DISCHARGE, TOOL-LESS ACCESS DOORS, MODULATING HGRH, VARIABLE SPEED DIRECT DRIVE FANS, STAINLESS STEEL DRAIN PAN, STAINLESS STEEL HEAT EXCHANGER, VARIABLE SPEED CONDENSER FANS WITH HEAD PRESSURE CONTROL, DEHUMIDIFCATION CONTROL, CONVENIENCE OUTLET, MERV 13 FINAL FILTERS, BACNET INTERFACE, HAIL GAURD, AND DISCONNECT. PROVIDE AND INCLUDE ECONOMIZER FAULT DETECTION AND DIAGNOSSTIC, CO2 DEMAND CONTROL VENTILATION, AND POWERED EXHAUST FAN WITH BUILDING STATIC PRESSURE CONTROL.

2 PROVIDE INSULATED VIBRATION ISOLATION CURB BY THYBAR.

3 PROVIDE AN ADPOT-A-CURB.

4 PROVIDE EVERGREENUV PRU PHOTOCATALYTIC OXIDIZER WITH UV LIGHT AS PART OF A COMPLETE PACKAGE BY RTU SUPPLIER LOCATED WITHIN THE UNIT CABINET. ELECTRICAL: 120/1, 15 AMPS.

5 PROVIDE WITH-IN THE VIBRO CURB THE HUSHCORE DECK SYSTME MODEL NUMBER DS-53 FOR ROOFTOP MOUNTED HVAC UNITS. SYSTEM BY BRD.

6 RTUS OTHER THAN BASIS OF DESIGN MUST, IN ADDITION TO MEETING THE SCHEDULED PERFORMANCE, HAVE SUBSTANTIALLY SIMILAR DIMENSIONS, WEIGHTS, AND CONFIGURATION. MECHANICAL CONTRACTOR WILL BE RESPONSIBLE TO PROVIDE STAMPED STRUCTURAL DRAWINGS AND WILL BEAR THE COST FOR ANY ADDITIONAL STRUCTURAL WORK REQUIRED TO ACCOMMODATE RTUS THAT ARE NOT DIMENSIONALLY SIMILAR TO BASIS OF DESIGN.

ELECTRIC HEATER SCHEDULE

TAG	SERVICE	KW	MBH	FAN		ELECTRICAL		MFR	MODEL	NOTES
				CFM	H.P.	VOLTAGE	AMPS			
EUH-D122	VESTIBULE 30	4	13.6	100	-	208 / 3	11.2	QMARK	FRC40203F	1
EUH-D127	SPRINKLER ROOM 35	4	13.6	100	-	208 / 3	11.2	QMARK	FRC40203F	1
EUH-D128	TRASH ROOM 36	4	13.6	100	-	208 / 3	11.2	QMARK	FRC40203F	1

NOTES:

1 WALL MOUNTED ELECTRIC HEATER, 14 GA WHITE SECURITY FRONT COVER, FRAME FOR RECESSED MOUNTING, UNIT MOUNTED THERMOSTAT, AND DISCONNECT.

LOUVER SCHEDULE

TAG	SYSTEM LOCATION	AIR SYSTEM	AIRFLOW (CFM)	QTY.	WIDTH (IN)	HEIGHT (IN)	EX. WIDTH (IN)	EX. HEIGHT (IN)	EXISTING LOUVER LOCATION	P.D.	MFR	MODEL	NOTES
UV-A106	CLASSROOM A106	INTAKE	1,000	1	84	28	48	12	WALL	0.011"	RUSKIN	EME520DD	1
UV-A107	CLASSROOM A106	INTAKE	1,000	1	84	28	48	12	WALL	0.011"	RUSKIN	EME520DD	1
UV-A111	CLASSROOM A111	INTAKE	1,000	1	84	28	48	12	WALL	0.011"	RUSKIN	EME520DD	1
UV-A112	CLASSROOM A112	INTAKE	1,000	1	84	28	48	12	WALL	0.011"	RUSKIN	EME520DD	1
UV-A114	CLASSROOM A114	INTAKE	1,250	3	36X16 (LOW)		72	16	WINDOW	0.011"	RUSKIN	EME520DD	2
		CONDENSER DISCHARGE	TBD	3	36X17 (HIGH)								
UV-A116	TEACHER LOUNGE A116	INTAKE	500	3	36X16 (LOW)		21	12	WALL	0.011"	RUSKIN	EME520DD	2
		CONDENSER DISCHARGE	TBD	3	36X17 (HIGH)								
UV-A125	SPED A125	INTAKE	500	3	36X16 (LOW)		72	16	WINDOW	0.011"	RUSKIN	EME520DD	2
		CONDENSER DISCHARGE	TBD	3	36X17 (HIGH)								
UV-A126	CLASSROOM A126	INTAKE	1,250	1	72	33	N/A	N/A	N/A	0.011"	RUSKIN	EME520DD	1
UV-A127	CLASSROOM A127	INTAKE	1,000	3	36X16 (LOW)		36	16	WINDOW	0.011"	RUSKIN	EME520DD	2
		CONDENSER DISCHARGE	TBD	3	36X17 (HIGH)								
UV-A130	SCIENCE A130	INTAKE	1,000	3	36X16 (LOW)		72	16	WINDOW	0.011"	RUSKIN	EME520DD	2
		CONDENSER DISCHARGE	TBD	3	36X17 (HIGH)								
UV-A133	SCIENCE A133	INTAKE	1,000	3	36X16 (LOW)		72	16	WINDOW	0.011"	RUSKIN	EME520DD	2
		CONDENSER DISCHARGE	TBD	3	36X17 (HIGH)								
UV-B100	BUSINESS B100	INTAKE	1,000	3	36X16 (LOW)		72	16	WINDOW	0.011"	RUSKIN	EME520DD	2
		CONDENSER DISCHARGE	TBD	3	36X17 (HIGH)								
UV-B110	SPED B110	INTAKE	1,000	3	36X16 (LOW)		32	16	WINDOW	0.011"	RUSKIN	EME520DD	2
		CONDENSER DISCHARGE	TBD	3	36X17 (HIGH)								
UV-B111	CLASSROOM B111	INTAKE	1,250	3	36X16 (LOW)		68	16	WINDOW	0.011"	RUSKIN	EME520DD	2
		CONDENSER DISCHARGE	TBD	3	36X17 (HIGH)								
UV-C120	SPED C120	INTAKE	1,000	3	36X16 (LOW)		62	16	WINDOW	0.011"	RUSKIN	EME520DD	2
		CONDENSER DISCHARGE	TBD	3	36X17 (HIGH)								
UV-C122	STORAGE ROOM C122	INTAKE	400	1	72	33	16	12	WALL	0.011"	RUSKIN	EME520DD	1
UV-D121	SPED / AIDE D102	INTAKE	500	1	72	33	48	12	WALL	0.011"	RUSKIN	EME520DD	1
UV-D123	CLASSROOM D123	INTAKE	1,250	1	84	28	48	12	WALL	0.011"	RUSKIN	EME520DD	1

NOTES:

1 EQUIPMENT MANUFACUTRE PROVIDED FLANGED LOUVER WITH WALL BOX, BIRD SCREEN, AND ALUMINUM CONSTRUCTION.

2 PROVIDED LOUVER INSTALLED IN WINDOW OPENING WITH A FIELD MANUFACTURES CUSTOM WALL BOX INCLUDING A DIVDING PANEL TO SEPERTAE THE AIR PAHTS TO THE UNIT, BIRD SCREEN, AND ALUMINUM CONSTRUCTION. CORRDINATE WITH THE SUBMITTED EQUIPMENT MANUFACUTRE AND EXISTING WINDOW ASSEMBLY MANUFUCATRE FOR A COMPLETE SYSTEM. PROVIDE AN INSULATED BLANK-OFF PANEL AS REQUIRED TO INSTALL EQUIPMENT PER MANUFACTURES RECOMMENDATIONS.

UNIT VENTILATOR SCHEDULE

TAG	SERVICE	SUPPLY FAN		COOLING		ELECTRIC HEATING			ELECTRICAL			EER	OA CFM	MFR.	MODEL	NOTES
		CFM	HP	TOT. MBH	SENS. MBH	BTU/HR	KW	EAT / LAT	VOLT.	MCA	MOCP					
UV-A106	CLASSROOM A106	1,000	0.25	27.1	17.9	62.7	18	45 / 102	460 / 3	43.75	45	10.56	395	DAIKINAPPLIED	UAZR9036	1 & 4
UV-A107	CLASSROOM A107	1,000	0.25	27.1	17.9	62.7	18	45 / 102	460 / 3	43.75	45	10.56	395	DAIKINAPPLIED	UAZR9036	1 & 4
UV-A111	CLASSROOM A111	1,000	0.25	27.1	17.9	62.7	18	45 / 102	460 / 3	43.75	45	10.56	340	DAIKINAPPLIED	UAZR9036	1 & 4
UV-A112	CLASSROOM A112	1,000	0.25	27.1	17.9	62.7	18	45 / 102	460 / 3	43.75	45	10.56	340	DAIKINAPPLIED	UAZR9036	1 & 4
UV-A114	CLASSROOM A114	1,250	0.25	40.7	27.9	67 / 80	68,243	46 / 96	460 / 3	43.75	45	10.43	550	DAIKINAPPLIED	UAZR9036	1 & 4
UV-A116	TEACHER LOUNGE	500	0.25	14.8	11.7	50.1	15	45 / 106	460 / 3	34.25	35	9.44	160	DAIKINAPPLIED	UAZR9024	1 & 3
UV-A125	SPED A125	500	0.25	14.8	11.7	50.1	15	45 / 106	460 / 3	34.25	35	9.44	170	DAIKINAPPLIED	UAZR9024	1 & 3
UV-A126	CLASSROOM A126	1,250	0.25	40.7	27.9	67 / 80	68,243	46 / 96	460 / 3	43.75	45	10.43	360	DAIKINAPPLIED	UAZR9036	1 & 4
UV-A127	CLASSROOM A127	1,000	0.25	27.1	17.9	62.7	18	45 / 102	460 / 3	43.75	45	10.56	370	DAIKINAPPLIED	UAZR9036	1 & 4
UV-A130	SCIENCE A130	1,000	0.25	27.1	17.9	62.7	18	45 / 102	460 / 3	43.75	45	10.56	440	DAIKINAPPLIED	UAZR9036	1 & 4
UV-A133	SCIENCE A133	1,000	0.25	27.1	17.9	62.7	18	45 / 102	460 / 3	43.75	45	10.56	440	DAIKINAPPLIED	UAZR9036	1 & 4
UV-B100	BUSINESS B100	1,000	0.25	27.1	17.9	62.7	18	45 / 102	460 / 3	43.75	45	10.56	370	DAIKINAPPLIED	UAZR9036	1 & 4
UV-B110	SPED B110	1,000	0.25	27.1	17.9	62.7	18	45 / 102	460 / 3	43.75	45	10.56	370	DAIKINAPPLIED	UAZR9036	1 & 4
UV-B111	CLASSROOM B111	1,250	0.25	43.4	27.9	67 / 80	68,243	46 / 96	460 / 3	43.75	45	10.43	370	DAIKINAPPLIED	UAZR9036	1 & 4
UV-B112	KITCHEN B112	1,500	0.25	57.6	36.8	81.9	24	45 / 102	460 / 3	39.1	40	10.43	360	DAIKINAPPLIED	UAHR9H15	2
UV-B113	KITCHEN B113	1,250	0.25	43.4	32.5	54.6	16	45 / 102	460 / 3	25.6	30	10.43	310	DAIKINAPPLIED	UAHR9H10	2
UV-C120	SPED C120	1,000	0.25	27.1	17.9	62.7	18	45 / 102	460 / 3	43.75	45	10.56	370	DAIKINAPPLIED	UAZR9036	1 & 4
UV-D121	SPED / AIDE D102	500	0.25	14.8	11.7	50.1	15	45 / 106	460 / 3	34.25	35	9.44	125	DAIKINAPPLIED	UAZR9024	1 & 3
UV-D123	CLASSROOM D123	1,250	0.25	27.1	17.9	62.7	18	45 / 102	460 / 3	43.75	45	10.56	485	DAIKINAPPLIED	UAZR9036	1 & 4

NOTES:

1 SELFCONTAINED FLOOR MOUNTED UNIT VENTILATOR WITH ELECTRIC HEAT, COMPRESSOR, CONDENSER FAN, CONDENSER COIL, DX COIL, STAINLESS STEEL DRAIN PAN, DISCONNECT, DEMAND CONTROL VENTILATION SEQUINCE, (3) SPEED ECM SUPPLY FANS, ELECTRIC HEAT IN THE RE-HEAT POSTION, DEHUMIDIFCATION CONTROL, AND END PANEL(S). CONNECT THE EXISTING CONDENSTATE LINE TO EQUIPMENT AS REQUIRED.

2 CEILING MOUNTED UNIT VENTILATOR WITH ELECTRIC HEAT IN REHEAT POSTION, DX COIL, (3) SPEED ECM SUPPLY FAN, DEHUMIDIFCATION CONTROL, BOTTOM RETURN AIR GRILLE, OUTSOOR AIR REA DUCT COLLAR, FACE DISCHARGE, DOUBLE DLEFLECTION GRILLES, AND DISCONNECT. CONNECT TO THE EXISTING CONDENSATE LINE AS REQUIRED.

3 REFER TO LOUVER SCHEDULE FOR ADDITIONAL INFORMATION.

4 REFER TO LOUVER SCHEDULE FOR ADDITIONAL INFORMATION.

DUCT-FREE SPLIT SYSTEM SCHEDULE

TAG	SERVICE	COOL MBH	CFM	SEER	INDOOR MCA / MOCP	OUTDOOR MCA / MOCP	OUTDOOR VOLTAGE	AMBIENT TEMP	MFR	OA (CFM)	INDOOR MODEL	OUTDOOR MODEL	ACCESSORIES	NOTES
FC-B103 / HP-B103	FODD SERVICE OFFICE B103	12	425	18.5	1 / 15	14 / 24	208/1	-13 / 115	MITSUBISHI	20	NTXCKS09A112AA	NTXSKH09112AA	WIND BAFFLE	1

NOTES:

1 PROVIDE BACNET INTERFACE AND SIMPLE MA CONTROLLER. MOUNT OUTDOOR UNIT TO EXTERIOR WALL. ORIENT CONDENSER FAN DISCHARGE AWAY FROM PREVAILING WIND. ROUTE REFRIGERANT PIPING BETWEEN INDOOR AND OUTDOOR UNIT PER MFR'S REQUIREMENTS. INTERIOR REF PIPING TO BE CONCEALED, PROVIDE LINE HIDE FOR EXTERIOR REF PIPING. PROVIDE BLUE DIAMOND MINI CONDENSATE PUMP. ROUTE CONDENSATE TO NEAREST DRAIN U.N.O.

EXHAUST FAN SCHEDULE

TAG	SERVICE	CFM	E.S.P	HP	TYPE	DRIVE	VOLT.	MFR	MODEL	CONTROL	NOTES
EF-D104	RESTROOM GROUP	800	0.5	0.167	ROOF	DIRECT	115 / 1	LOREN COOK	C101C17D	BAS - OCC SCHEDULE	1
EF-D109	ART D109	510	0.4	0.125	CEILING	DIRECT	115 / 1	LOREN COOK	101C17D(VF)	BAS - OCC SCHEDULE	1
EF-D116	TOILET ROOM D116	55 / 80	0.1	7.9 W	CEILING	DIRECT	115 / 1	BROAN	ZB80	OCC SENSOR	2 & 3
EF-D118	TOILET ROOM D118	55 / 80	0.1	7.9 W	CEILING	DIRECT	115 / 1	BROAN	ZB80	OCC SENSOR	2 & 3
EF-D124	TOILET ROOM D124	55 / 80	0.1	7.9 W	CEILING	DIRECT	115 / 1	BROAN	ZB80	OCC SENSOR	2 & 3
EF-D125	TOILET ROOM D125	55 / 80	0.1	7.9 W	CEILING	DIRECT	115 / 1	BROAN	ZB80	OCC SENSOR	2 & 3
EF-D143	RESTROOM GROUP	220	0.4	0.125	ROOF	DIRECT	115 / 1	LOREN COOK	C101C15M	BAS - OCC SCHEDULE	1

NOTES

1 ROOF MOUNTED DOWNBLAST EXHAUST FAN WITH ALL ALUMINUM, 24" INSULATED CURB, BIRD SCREEN, BACKDRAFT DAMPER, AND DISCONNECT.

2 CEILING MOUNTED ENERGY STAR RATED EXHAUST FAN, BACKDRAFT DAMPER, SPEED CONTROLLER, AND DISCONNECT.

3 MULTISPEED FAN SHALL BE SET TO 45 CFM TO PROVIDE CONTINUOUS VENTILATION DURING NORMAL OPERATION. DURING MOTION SENSING MODE THE FAN SHALL INCREASE TO 80 CFM FOR 5 MINUTES AFTER MOTION IS NOT DETECTED.

ELECTRIC DUCT HEATER SCHEDULE

TAG	SERVICE	CFM	EAT	LAT	KW	VOLTAGE	MFR	MODEL	NOTES
EDH-A104A	FC-A104	160	-10	50	3	208 / 1	THERMOLEC	TER	1
EDH-A104B	FC-A104	405	55	75	3	208 / 1	THERMOLEC	TER	1
EDH-A128A	FC-A128	160	-10	50	3	208 / 1	THERMOLEC	TER	1
EDH-A128B	FC-A128	405	55	75	3	208 / 1	THERMOLEC	TER	1

NOTES:

1 VERTICAL AIR FLOW ELECTRIC DUCT HEATER WITH DISCHARGE AIR TEMPERATURE SENSOR, OUTSIDE AIR TEMPERATURE SENSOR, SCR CONTROLLER, AND BUILT-IN DISCONNECT SWITCH. CONTROLLER SHALL MAINTAIN A DISCHARGE AIR TEMPERATURE OF 45, WHEN THE OUTSIDE AIR TEMPERATURE DROPS BELOW 30.

GRILLE AND DIFFUSER SCHEDULE

TAG	DESCRIPTION	SIZE	MATERIAL	DAMPER	FINISH	MFR	MODEL
A	24X24 PLAQUE FACE SUPPLY DIFFUSER WITH EQUALIZING GRID	VARIES	STEEL	NO	WHITE	TITUS	OMNI
B	PERFORATED FACE RETURN DIFFUSER. TYPICAL SIZE IS 24X24, INSECT SCREEN PER PLANS	VARIES	STEEL	NO	WHITE	TITUS	PAR
C	DOUBLE DEFLECTION SUPPLY GRILLE, 3/4" SPACING, SHORT BLADE	VARIES	STEEL	NO	WHITE	TITUS	300RS
D	SINGLE DEFLECTION RETURN GRILLE, 3/4" SPACING, LONG BLADE	VARIES	STEEL	NO	WHITE	TITUS	350RL
F	ROUND PLAQUE CEILING DIFFUSER	VARIES	STEEL	NO	WHITE	TITUS	R-OMNI
G	DRUM LOUVER WITH HIGH CAPACITY, LONG THROW, AND SPLIT DEFLECTOR VANE	VARIES	ALUMINUM	NO	WHITE	TITUS	DL-SV
H	FLUSH MOUNT DIFFUSERS	48X30	ALUMINUM	NO	WHITE	TITUS	CDF-18

PROVIDE EQUALIZING GRID FOR ALL TYPE A DIFFUSERS OVER 300 CFM AND AS SHOWN ON DETAIL.

REMOTE AIR COOLED CONDENSING UNIT SCHEDULE

TAG	SERVICE	NOM. TONS	COMPRESSOR				ELECTRICAL			SEER	MFR.	MODEL	NOTES
			REF. TYPE	QTY	CIRCUITS	STAGES	VOLT.	MCA	MOCP				
CU-B112	KITCHEN B112	4	R-410A	1	1	2	208 / 1	19.7	30	16	DAIKIN	DX16TC0481	1
CU-B113	KITCHEN B113	3	R-410A	1	1	2	208 / 1	19.7	30	16	DAIKIN	DX16TC0361	1

NOTES

1 TWO STAGE AIR COOLED CONDENSING UNIT WITH SCROLL COMPRESSOR, COMPRESSOR SHORT CYCLE PROTECTION, COMPRESSOR START ASSIST, UNIT MOUNTED DISCONNECT, AND REFRIGERANT PIPING AS REQUIRED PER MANUFACTURE RECOMMENDATION.

DUCT INSULATION SCHEDULE

SINGLE ZONE VAV SYSTEMS / INDOOR FAN COIL UNITS

DUCT TYPE	INSULATION TYPE	R-VALUE
ROUND SUPPLY	2-1/8" WRAP	6
ROUND SUPPLY (GYM)	1-1/2" LINER	6
RECTANGULAR SUPPLY	1-1/2" LINER	6
ROUND RETURN	1-1/2" LINER	6
OUTSIDE AIR	3" WRAP	8
DOUBLE WALL RECTANGULAR DUCTWORK	PERFORATED LINER	6
DOUBLE WALL ROUND DUCTWORK	PERFORATED LINER	6
EXTERIOR DUCT	DOUBLE WALL + POLYISO	12
EXHAUST DUCT	NONE	NA

NOTE: INSULATION SHALL HAVE A FLAME SPREAD INDEX NOT MORE THAN 25 AND A SMOKE-DEVELOPED INDEX NOT MORE THAN 50 WHEN TESTED IN ACCORDANCE WITH ASTM E 84 OR UL 723. WRAP INSULATION TO HAVE INTEGRAL VAPOR BARRIER.

NOTE: DUCT SIZES SHOWN ON PLAN ARE SHEETMETAL SIZES U.NO. REFER TO PLANS FOR AREAS WITH SPECIAL REQUIREMENTS, SUCH AS DOUBLE WALL DUCT.

NOTE: DOUBLE WALL DUCT SIZES SHOWN ON PLAN ARE INSIDE SHEETMETAL DIMENSION.

WRAP FIRST 5' OF EXHAUST DUCT FROM EXTERIOR WITH 1" INSULATION.

OUTDOOR HEAT PUMP SCHEDULE

TAG	NOMINAL CAPACITIES		DESIGN CAPACITIES				ELECTRICAL			WEIGHT (LBS.)	MODEL NUMBER	MFR.	ACCESSORIES	NOTES
	COOLING (MBH)	HEATING (MBH)	COOLING O.A. DB	HEATING O.A. DB	COOLING (MBH)	HEATING (MBH)	VOLT.	MCA	MOCP					
HP-A104	12	18	95	5	12.0	15.0	208 / 1	14	30	150	NTXSKH12A112AA	MITSUBISHI	WIND BAFFEL	1
HP-C119	12	18	95	5	12.0	15.0	208 / 1	14	30	150	NTXSKH12A112AA	MITSUBISHI	WIND BAFFEL	1
HP-D107	12	18	95	5	12.0	15.0	208 / 1	14	30	150	NTXSKH12A112AA	MITSUBISHI	WIND BAFFEL	1
HP-A128	12	18	95	5	12.0	15.0	208 / 1	14	30	150	NTXSKH12A112AA	MITSUBISHI	WIND BAFFEL	1

NOTES:

1 PROVIDE OUTDOOR HEAP PUMP WITH WIND BAFFLE, 14" EQUIPMENT RAILS, AND DISCONNECT. ORIENT CONDENSER FAN DISCHARGE AWAY FRO PREVAILING WIND.

INDOOR FAN COIL UNIT SCHEDULE

TAG	SERVICE	SUPPLY FAN		NOMINAL CAPACITIES		ELECTRICAL		OA	MFR.	MODEL	TYPE	NOTES
		CFM	W	COOLING (BTU)	HEATING (BTU)	VOLT.	MOCP					
FC-A104	AIDE A104	340	85	12,000	12,000	208 / 1	15	160	MITSUBISHI	NTXDKS12A112AA	CEILING CONCEALED	1
FC-C119	CONFERENCE C119	405	85	12,000	12,000	208 / 1	15	50	MITSUBISHI	NTXDKS12A112AA	CEILING CONCEALED	1
FC-D107	AIDE D107	405	85	12,000	12,000	208 / 1	15	50	MITSUBISHI	NTXDKS12A112AA	CEILING CONCEALED	1
FC-A128	SPEECH A128	340	85	12,000	12,000	208 / 1	15	160	MITSUBISHI	NTXDKS12A112AA	CEILING CONCEALED	1

NOTES:

1 PROVIDE BACNET INTERFACE AND SIMPLE MA CONTROLLER. MOUNT OUTDOOR UNIT TO EXTERIOR WALL. ORIENT CONDENSER FAN DISCHARGE AWAY FROM PREVAILING WIND. ROUTE REFRIGERANT PIPING BETWEEN INDOOR AND OUTDOOR UNIT PER MFR'S REQUIREMENTS. INTERIOR REF PIPING TO BE CONCEALED, PROVIDE LINE HIDE FOR EXTERIOR REF PIPING. ROUTE CONDENSATE TO NEAREST DRAIN U.N.O.

CORDOGAN CLARK
Aurora
960 Ridgeway Avenue, Aurora, IL 60506
Tel 630.896.4678 Fax 630.896.4987
Chicago
716 North Wells Street, Chicago, IL 60654
Tel 312.943.7300 Fax 312.943.4771

RIVER VALLEY SCHOOL DISTRICT

RIVER VALLEY HIGH SCHOOL
15480 THREE OAKS RD
THREE OAKS, MI 49128

MECHANICAL SCHEDULES AND DETAILS

JOB NUMBER 21-346
DATE 03.22.2022

REVISIONS:
2 ADDENDUM 002 04.12.2022
4 ADDENDUM 004 04.20.2022

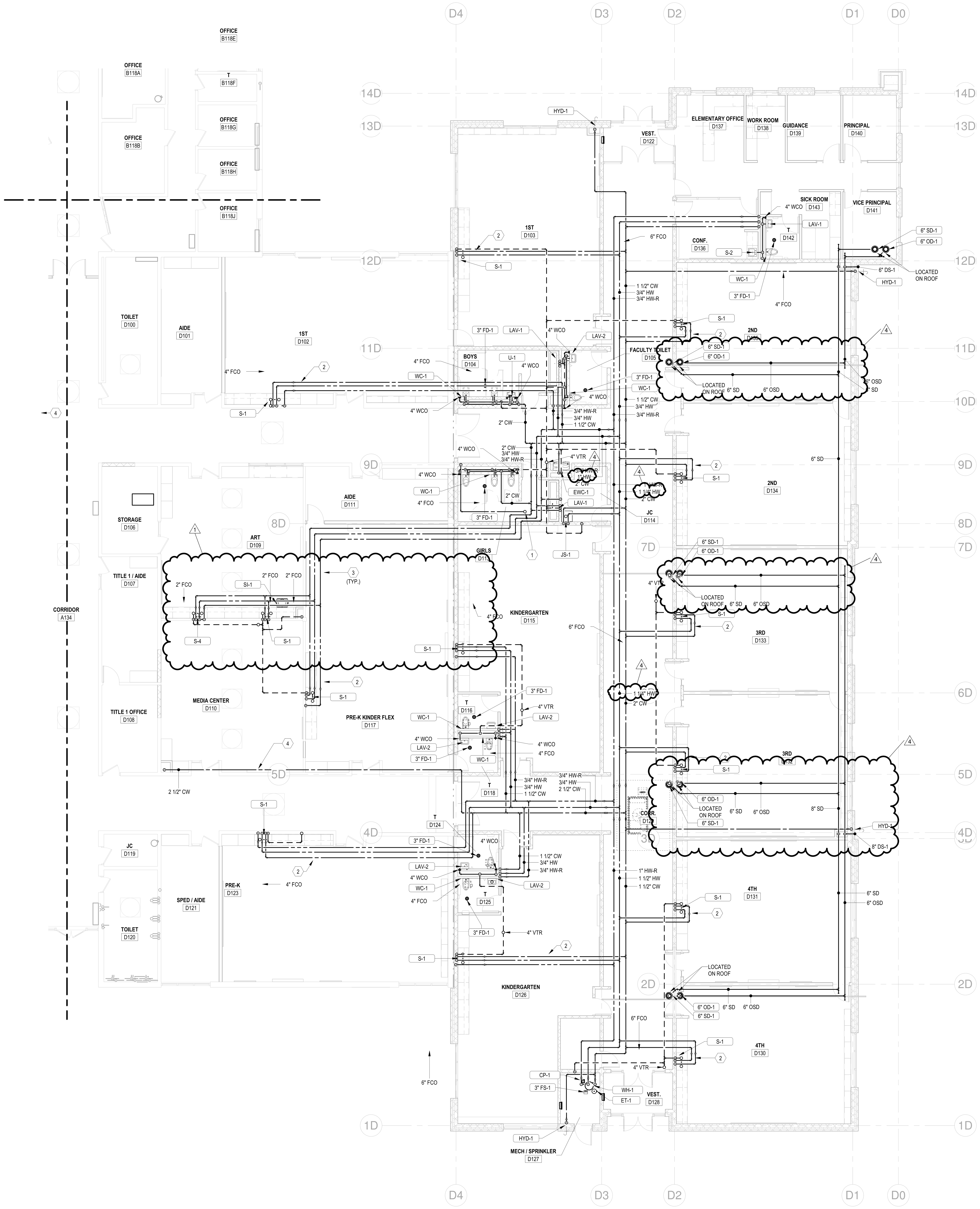
BID SET

M4.0

4/19/2022 11:22:43 PM

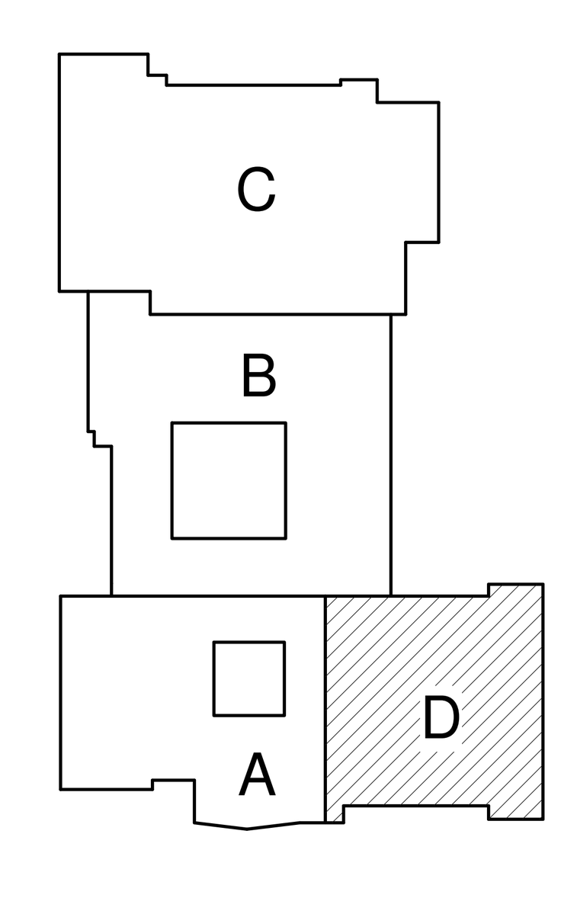
KEYNOTES

1 ROUTE 3/4" CW LINE UP TO RH-1. ROUTE 1" DRAIN TO NEAREST MOP BASIN AS REQUIRED.
2 ALTERNATE 5: PLUMBING SERVICES SUPPORTING SINKS WITHIN THE CLASSROOM SHALL BE INCLUDED IN THE ALTERNATE.
3 ROUTE COLD WATER, HOT WATER, AND HOT WATER RETURN PIPING WITHIN SOFFIT.
4 ROUTE COLD WATER PIPING WITHIN SOFFIT.



NORTH

1 PARTIAL FIRST FLOOR PLUMBING PLAN - AREA D
1/8" = 1'-0"



KEY PLAN
NOT TO SCALE

CORDOGAN CLARK
Aurora
960 Ridgeway Avenue, Aurora, IL 60506
Tel 630.896.4678 Fax 630.896.4987
Chicago
716 North Wells Street, Chicago, IL 60654
Tel 312.943.7300 Fax 312.943.4771

RIVER VALLEY SCHOOL DISTRICT

RIVER VALLEY HIGH SCHOOL
15480 THREE OAKS RD
THREE OAKS, MI 49128

PARTIAL FIRST FLOOR PLUMBING PLAN - AREA D

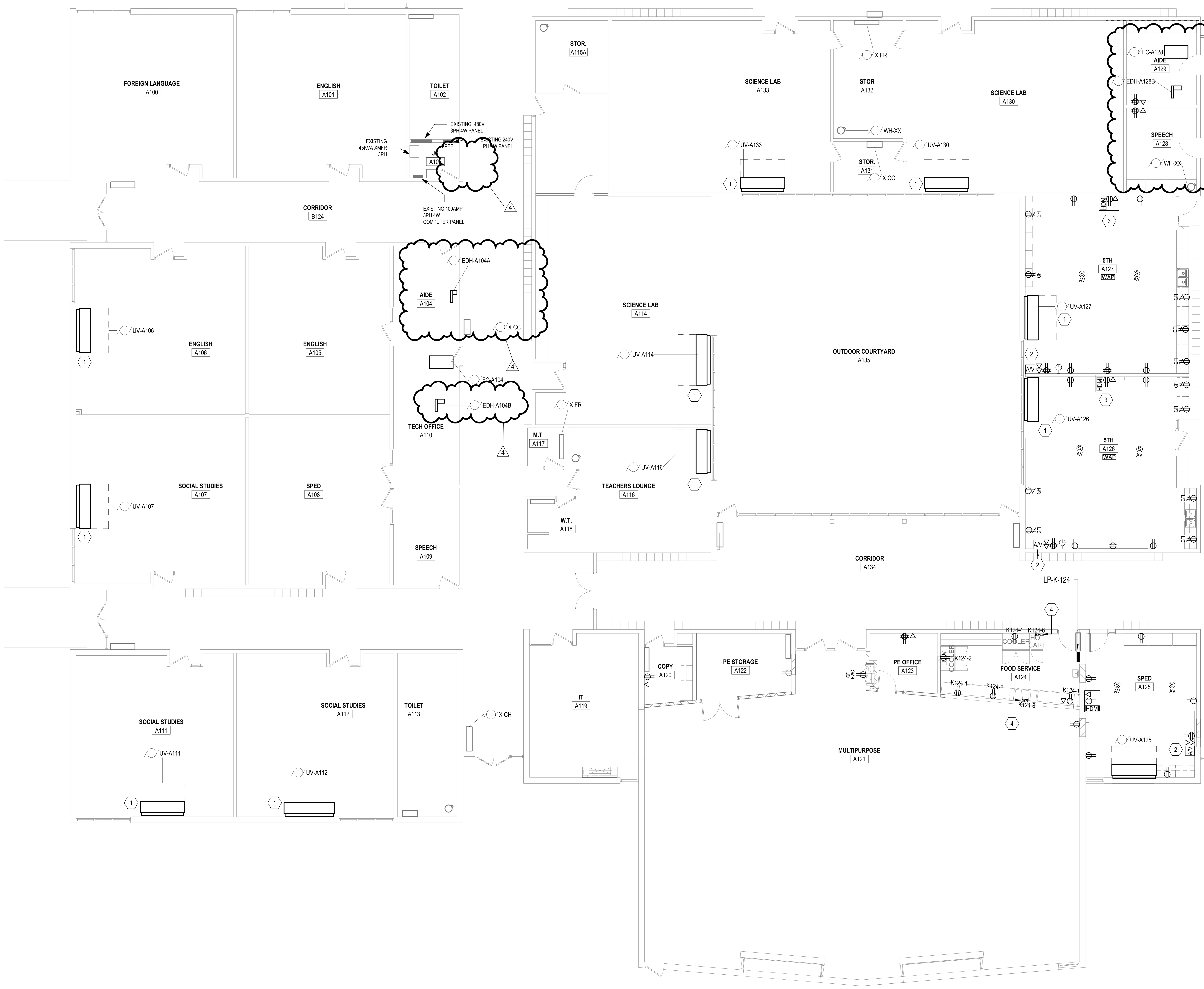
JOB NUMBER 21-346
DATE 03.22.2022

REVISIONS:
1 ADDENDUM 001 03.30.2022
4 ADDENDUM 004 04.20.2022

BID SET

P2.1D

4/20/2022 8:56:07 AM



REVISE EXISTING PP-F TUBS PER E4.2.

1 ELECTRICAL POWER PLAN - AREA A
1/8" = 1'-0"

GENERAL LIGHTING & POWER NOTES

1. REFER TO ARCHITECTURAL, MECHANICAL, PLUMBING, & FIRE PROTECTION PLANS FOR ADDITIONAL INFORMATION ON EXACT POWER, WIRING, & ROUGH-IN REQUIREMENTS AND LOCATIONS OF DEVICES.
2. MINIMUM NEW CIRCUIT WIRING SHALL CONSIST OF 2#12,1#12G, 1/2"C. WHERE HOME RUNS EXCEED 75' OR CONTINUOUS LOAD EXCEEDS 65% OF CIRCUIT RATING, MINIMUM CIRCUIT SIZE SHALL CONSIST OF 2#10G, 1/2"C. ALL NEW CIRCUITS SHALL INCLUDE A CONTINUOUS EQUIPMENT GROUNDING CONDUCTOR.
3. CIRCUITS BEING CONTROLLED BY VARIABLE DIMMING EQUIPMENT SHALL ROUTED WITH SEPARATED DEDICATED NEUTRALS
4. CONTRACTOR SHALL VERIFY EXACT LOCATIONS OF ALL RECESSED LIGHTING FIXTURES WITH ARCHITECTURAL REFLECTED CEILING PLANS PRIOR TO INSTALLATION. VERIFY CEILING CONSTRUCTION WITH ARCHITECT IN ALL AREAS. CONTRACTOR SHALL BE RESPONSIBLE FOR ORDERING FIXTURES WITH CORRECT TRIMS, ETC. TO ASSURE COMPATIBILITY WITH CEILING STRUCTURE.
5. WHERE MORE THAN ONE SWITCH IS INDICATED AT A LOCATION, CONTRACTOR SHALL INSTALL CO-LOCATED LIGHT SWITCHES IN A COMMON FACEPLATE. USE MULTI-GANG BACKBOXES. VERIFY MOUNTING HEIGHT WITH ADA REQUIREMENTS. PROVIDE STEEL BARRIES BETWEEN SWITCHES FOR EACH CIRCUIT WHERE MANDATED BY CODE.
6. COORDINATE INSTALLATION OF LIGHTING FIXTURES IN MECHANICAL AREAS, EQUIPMENT ROOM, ETC; ADJUST FIXTURE HEIGHTS AND LOCATIONS AS NECESSARY TO OFFSET CONFLICTS
7. FOR EXISTING AREAS WITH NEW REPLACMENT LIGHTING.
   a. E.C. TO REWORK AND EXTEND EXISTING LIGHTING CIRCUIT TO NEW REPLACEMENT FIXTURES IN LOCATIONS AS SHOWN.
   b. REPLACEMENT WALL CONTROLS SHALL BE INSTALLED IN EXISTING SWITCH LOCATIONS WITH NEW FACEPLATES MATCHING NEW DEVICES. EXTEND NEW NEUTRAL TO SWITCH LOCATION AS REQUIRED FOR NEW WALL STATION LIGHTING CONTROLS.

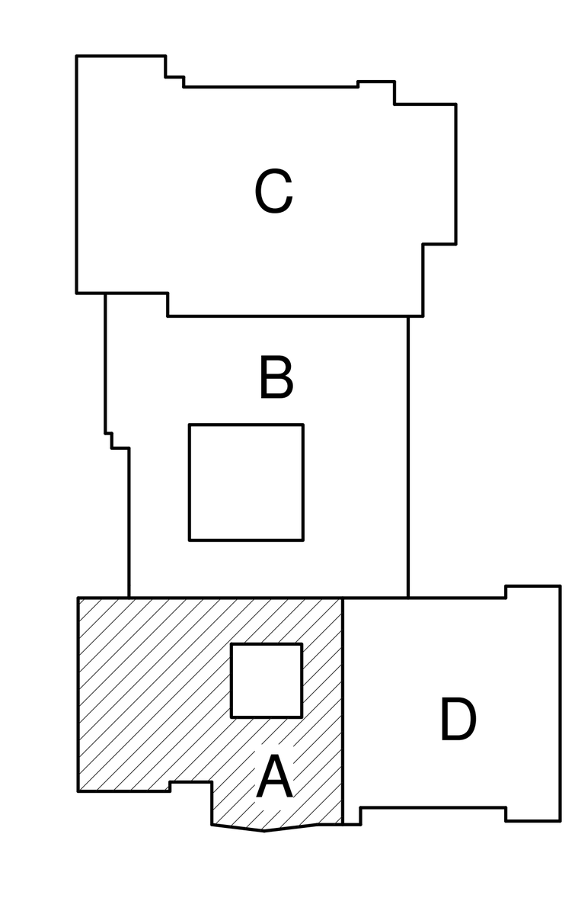
ELECTRICAL POWER KEYNOTES

1. SEE E4.3 FOR GENERAL SCOPE. PROVIDE NEW BRANCH WIRING, RACEWAY, AND BREAKER TO SERVE NEW EQUIPMENT FROM THE EXISTING POWER PANEL SERVICE THIS AREA.
2. TYPICAL TEACHER'S WALL DEVICES. SEE DETAIL E4.1 #4
3. THREE-GANG RECESSED TV BOX(ARLINGTON STEEL TVBS507)
4. PROVIDE COMPLIANT HOOK-UPS FROM NEW CIRCUITS FROMN NEW PANEL. PROVIDE DISCONNECTS AS REQUIRED.

PANEL	K124	PHASE	3P4W	VOLTAGE	208
TYPE		AMPS	125A	MAIN:	LUGS: X
LOCATION		MOUNTING			BREAKER

AMPS	P	LOCATION		VA	A	B	C	VA		LOCATION	P	AMPS
20	1	GENERAL RECEPS	1	900	2400			1500	2	COOLER	1	20
20	1		3			1500		1500	4	COOLER	1	20
20	1		5				1800	1800	6	HOT CART	1	20
20	1		7		1800			1800	8	HOT WELL TABLE	1	20
20	1		9			0			10		1	20
20	1		11				0		12		1	20
					4200	1500	1800	VA				
					35	12.5	15	AMPS				

TOTAL WATTAGE:	7500
CONNECTED LOAD:	21



KEY PLAN
NOT TO SCALE

CORDOGAN CLARK
Aurora 960 Ridgeway Avenue, Aurora, IL 60506 Tel 630.896.4678 Fax 630.896.4987
Chicago 716 North Wells Street, Chicago, IL 60654 Tel 312.943.7300 Fax 312.943.4771

RIVER VALLEY SCHOOL DISTRICT

RIVER VALLEY HIGH SCHOOL
15480 THREE OAKS RD
THREE OAKS, MI 49128

ELECTRICAL POWER PLAN - AREA A

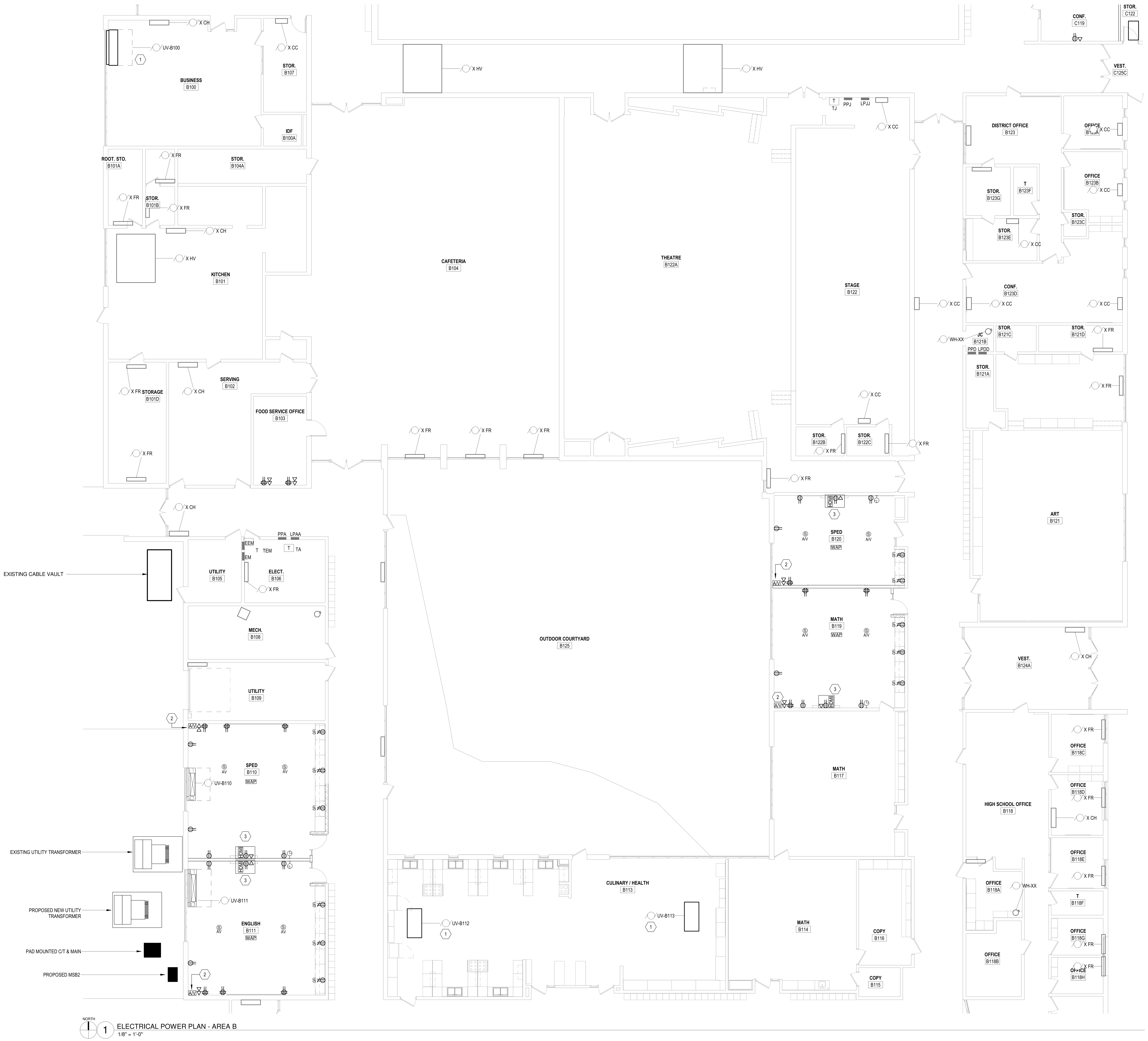
JOB NUMBER 21-346
DATE 03/22/2022

REVISIONS:
ADDENDUM 01 03.29.2022
Revision 4 04.20.22

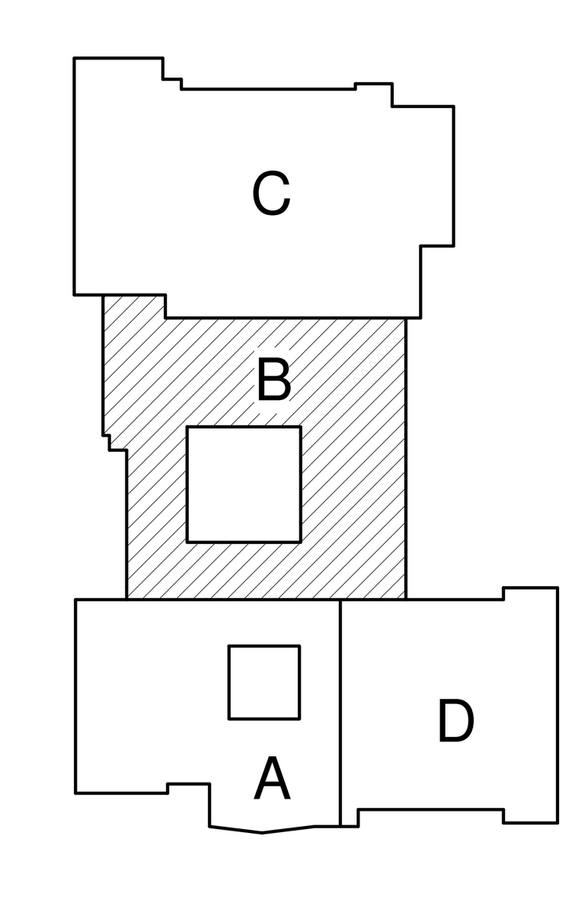
STATE OF MICHIGAN LICENSED ARCHITECT John G. Cordogan Architect No. 1301035955

CD BID SET

E2.1A



1 ELECTRICAL POWER PLAN - AREA B
1/8" = 1'-0"



KEY PLAN
NOT TO SCALE

GENERAL LIGHTING & POWER NOTES

1. REFER TO ARCHITECTURAL, MECHANICAL, PLUMBING, & FIRE PROTECTION PLANS FOR ADDITIONAL INFORMATION ON EXACT POWER, WIRING, & ROUGH-IN REQUIREMENTS AND LOCATIONS OF DEVICES.
2. MINIMUM NEW CIRCUIT WIRING SHALL CONSIST OF 2#12,1#12G, 1/2"C. WHERE HOME RUNS EXCEED 75' OR CONTINUOUS LOAD EXCEEDS 65% OF CIRCUIT RATING, MINIMUM CIRCUIT SIZE SHALL CONSIST OF 2#10G, 1/2"C. ALL NEW CIRCUITS SHALL INCLUDE A CONTINUOUS EQUIPMENT GROUNDING CONDUCTOR.
3. CIRCUITS BEING CONTROLLED BY VARIABLE DIMMING EQUIPMENT SHALL ROUTED WITH SEPARATED DEDICATED NEUTRALS
4. CONTRACTOR SHALL VERIFY EXACT LOCATIONS OF ALL RECESSED LIGHTING FIXTURES WITH ARCHITECTURAL REFLECTED CEILING PLANS PRIOR TO INSTALLATION. VERIFY CEILING CONSTRUCTION WITH ARCHITECT IN ALL AREAS. CONTRACTOR SHALL BE RESPONSIBLE FOR ORDERING FIXTURES WITH CORRECT TRIMS, ETC. TO ASSURE COMPATIBILITY WITH CEILING STRUCTURE.
5. WHERE MORE THAN ONE SWITCH IS INDICATED AT A LOCATION, CONTRACTOR SHALL INSTALL CO-LOCATED LIGHT SWITCHES IN A COMMON FACEPLATE. USE MULTI-GANG BACKBOXES. VERIFY MOUNTING HEIGHT WITH ADA REQUIREMENTS. PROVIDE STEEL BARRIES BETWEEN SWITCHES FOR EACH CIRCUIT WHERE MANDATED BY CODE.
6. COORDINATE INSTALLATION OF LIGHTING FIXTURES IN MECHANICAL AREAS, EQUIPMENT ROOM, ETC; ADJUST FIXTURE HEIGHTS AND LOCATIONS AS NECESSARY TO OFFSET CONFLICTS
7. FOR EXISTING AREAS WITH NEW REPLACMENT LIGHTING.
   a. E.C. TO REWORK AND EXTEND EXISTING LIGHTING CIRCUIT TO NEW REPLACEMENT FIXTURES IN LOCATIONS AS SHOWN.
   b. REPLACEMENT WALL CONTROLS SHALL BE INSTALLED IN EXISTING SWITCH LOCATIONS WITH NEW FACEPLATES MATCHING NEW DEVICES. EXTEND NEW NEUTRAL TO SWITCH LOCATION AS REQUIRED FOR NEW WALL STATION LIGHTING CONTROLS.

ELECTRICAL POWER KEYNOTES

1. SEE E4.3 FOR GENERAL SCOPE. PROVIDE NEW BRANCH WIRING, RACEWAY, AND BREAKER TO SERVE NEW EQUIPMENT FROM THE EXISTING POWER PANEL SERVING THIS AREA.
2. TYPICAL TEACHER'S WALL DEVICES. SEE DETAIL E4.1 #4
3. THREE-GANG RECESSED TV BOX(ARLINGTON STEEL TVBS507)

CORDOGAN CLARK
Aurora
960 Ridgeway Avenue, Aurora, IL 60506
Tel 630.896.4678 Fax 630.896.4987
Chicago
716 North Wells Street, Chicago, IL 60654
Tel 312.943.7300 Fax 312.943.4771

RIVER VALLEY SCHOOL DISTRICT

RIVER VALLEY HIGH SCHOOL
15480 THREE OAKS RD
THREE OAKS, MI 49128

ELECTRICAL POWER PLAN - AREA B

JOB NUMBER 21-346
DATE 03/22/2022
REVISIONS:
1 ADDENDUM 01 03.29.2022
2 ADDENDUM 02 04.12.2022

STATE OF MICHIGAN
John G. Cordogan Architect No. 1301035955
LICENSED ARCHITECT

CD BID SET

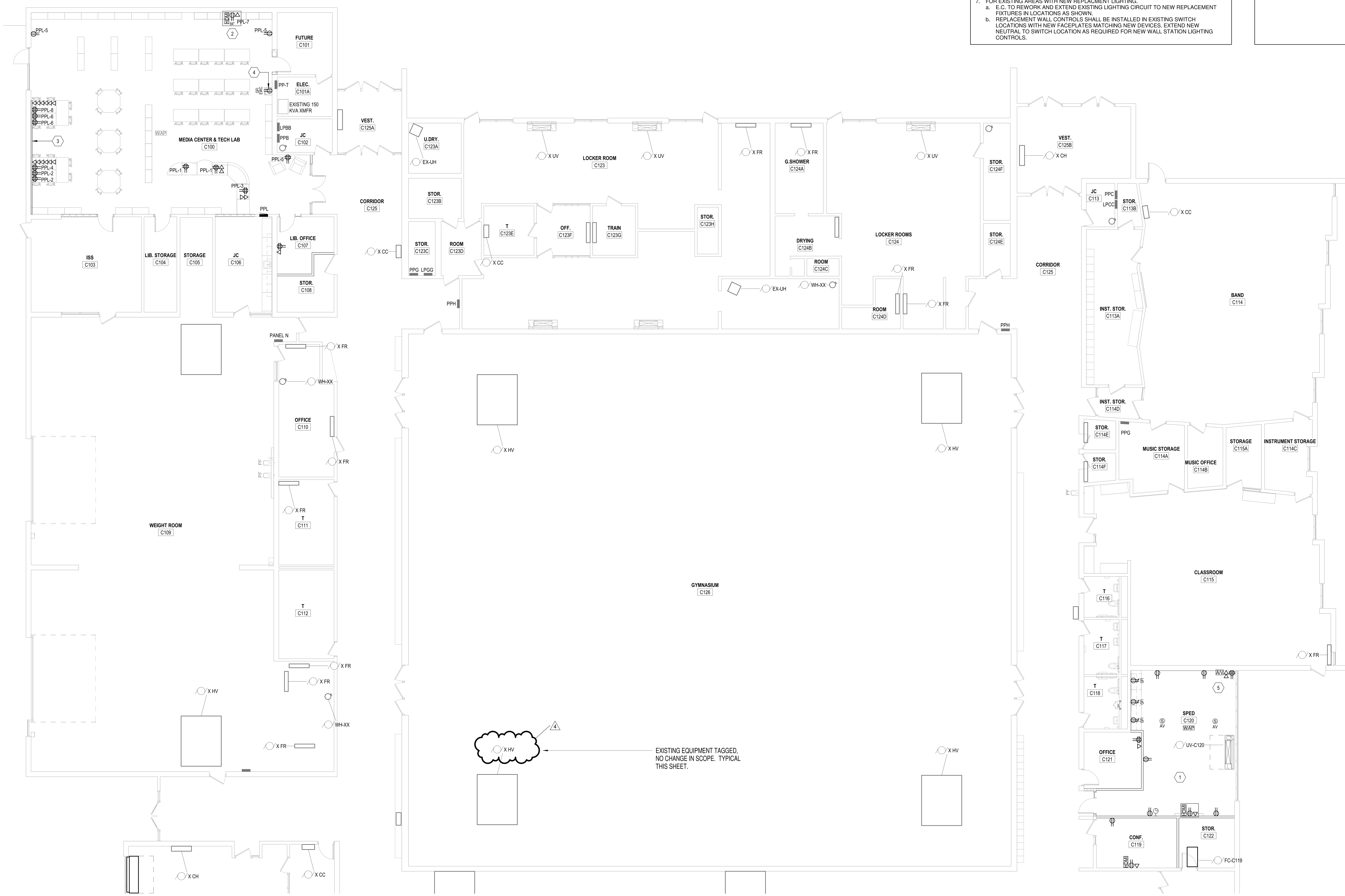
E2.1B

GENERAL LIGHTING & POWER NOTES

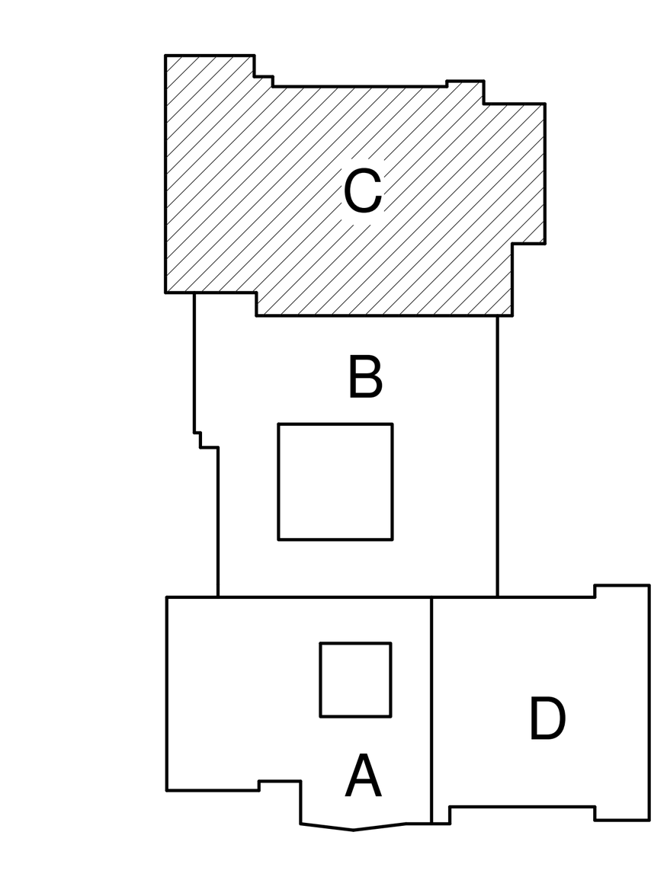
1. REFER TO ARCHITECTURAL, MECHANICAL, PLUMBING, & FIRE PROTECTION PLANS FOR ADDITIONAL INFORMATION ON EXACT POWER, WIRING, & ROUGH-IN REQUIREMENTS AND LOCATIONS OF DEVICES.
2. MINIMUM NEW CIRCUIT WIRING SHALL CONSIST OF 2#12,1#12G, 1/2"C. WHERE HOME RUNS EXCEED 75' OR CONTINUOUS LOAD EXCEEDS 65% OF CIRCUIT RATING, MINIMUM CIRCUIT SIZE SHALL CONSIST OF 2#10G, 1/2"C. ALL NEW CIRCUITS SHALL INCLUDE A CONTINUOUS EQUIPMENT GROUNDING CONDUCTOR.
3. CIRCUITS BEING CONTROLLED BY VARIABLE DIMMING EQUIPMENT SHALL ROUTED WITH SEPARATED DEDICATED NEUTRALS
4. CONTRACTOR SHALL VERIFY EXACT LOCATIONS OF ALL RECESSED LIGHTING FIXTURES WITH ARCHITECTURAL REFLECTED CEILING PLANS PRIOR TO INSTALLATION. VERIFY CEILING CONSTRUCTION WITH ARCHITECT IN ALL AREAS. CONTRACTOR SHALL BE RESPONSIBLE FOR ORDERING FIXTURES WITH CORRECT TRIMS, ETC. TO ASSURE COMPATIBILITY WITH CEILING STRUCTURE.
5. WHERE MORE THAN ONE SWITCH IS INDICATED AT A LOCATION, CONTRACTOR SHALL INSTALL CO-LOCATED LIGHT SWITCHES IN A COMMON FACEPLATE. USE MULTI-GANG BACKBOXES. VERIFY MOUNTING HEIGHT WITH ADA REQUIREMENTS. PROVIDE STEEL BARRIES BETWEEN SWITCHES FOR EACH CIRCUIT WHERE MANDATED BY CODE.
6. COORDINATE INSTALLATION OF LIGHTING FIXTURES IN MECHANICAL AREAS, EQUIPMENT ROOM, ETC; ADJUST FIXTURE HEIGHTS AND LOCATIONS AS NECESSARY TO OFFSET CONFLICTS
7. FOR EXISTING AREAS WITH NEW REPLACMENT LIGHTING.
   a. E.C. TO REWORK AND EXTEND EXISTING LIGHTING CIRCUIT TO NEW REPLACEMENT FIXTURES IN LOCATIONS AS SHOWN.
   b. REPLACEMENT WALL CONTROLS SHALL BE INSTALLED IN EXISTING SWITCH LOCATIONS WITH NEW FACEPLATES MATCHING NEW DEVICES. EXTEND NEW NEUTRAL TO SWITCH LOCATION AS REQUIRED FOR NEW WALL STATION LIGHTING CONTROLS.

ELECTRICAL POWER KEYNOTES

1. SEE E4.3 FOR GENERAL SCOPE. PROVIDE NEW BRANCH WIRING, RACEWAY, AND BREAKER TO SERVE NEW EQUIPMENT FROM THE EXISTING POWER PANEL SERVICE THIS AREA.
2. THREE-GANG RECESSED TV BOX(ARLINGTON STEEL TVBS507)
3. DUAL CHANNEL SURFACE RACEWAY TO SERVE NEW DATA AND RECEPTACLE OUTLETS AS INDICATED.
4. PROVIDE COMPLIANT HOOKUP TO REPLACEMENT WATER COOLER.
5. TYPICAL TEACHER'S WALL DEVICES. SEE DETAIL E4.1 #4.



1 ELECTRICAL POWER PLAN - AREA C
1/8" = 1'-0"



KEY PLAN
NOT TO SCALE

CORDOGAN CLARK

RIVER VALLEY SCHOOL DISTRICT

RIVER VALLEY HIGH SCHOOL
15480 THREE OAKS RD
THREE OAKS, MI 49128

ELECTRICAL POWER PLAN - AREA C

JOB NUMBER 21-346
DATE 03/22/2022
REVISIONS:
ADDENDUM 01 03.29.2022
Revision 4 04.20.22

STATE OF MICHIGAN
John G. Cordogan
Architect
No. 1301035955
LICENSED ARCHITECT

CD BID SET

E2.1C

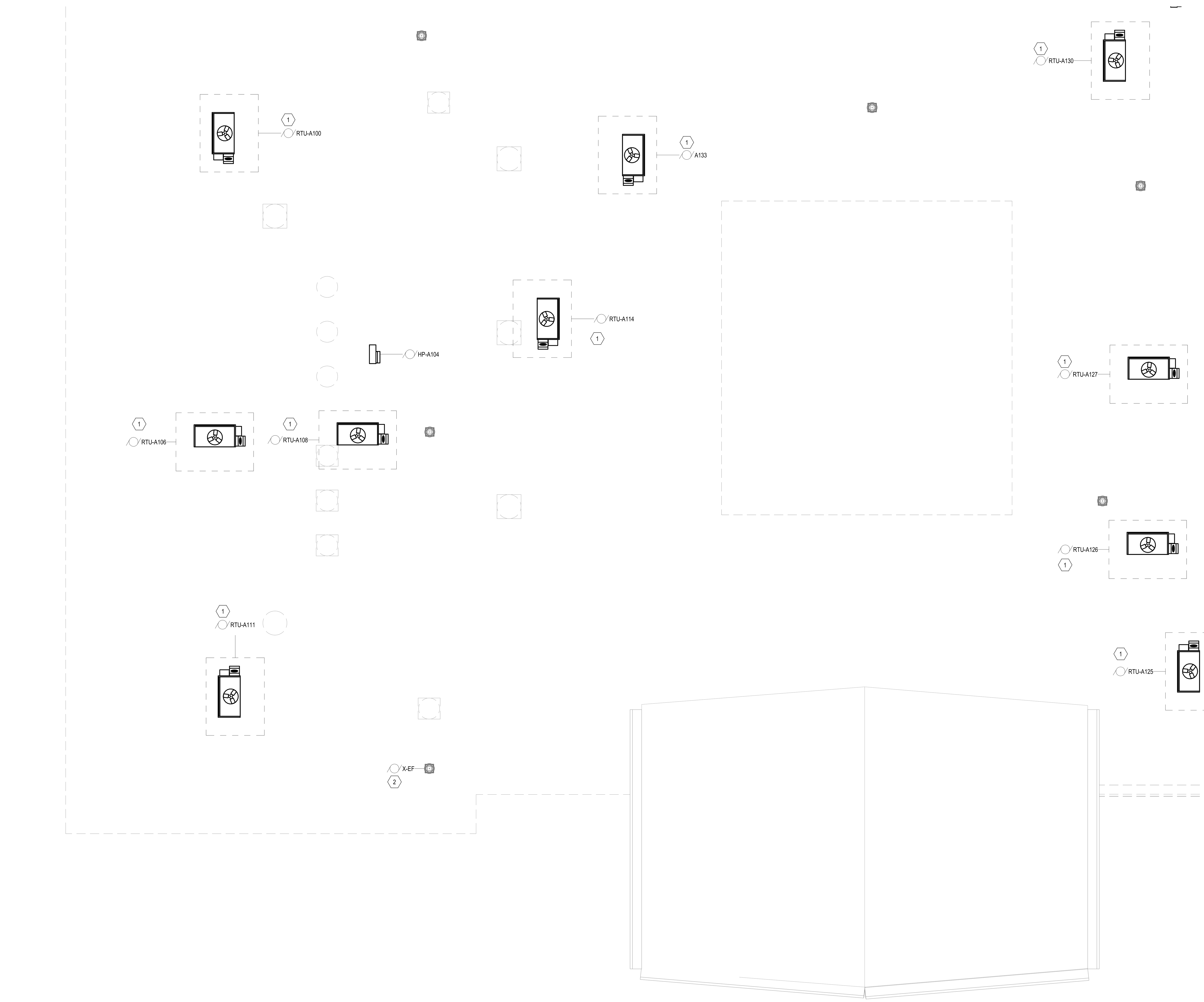
4/20/2022 11:02:22 AM

GENERAL LIGHTING & POWER NOTES

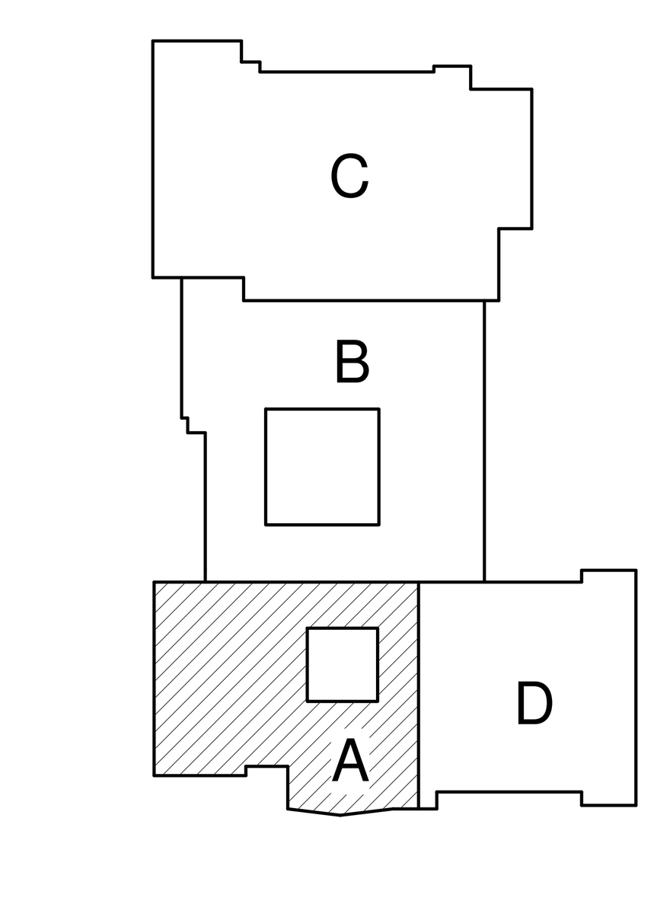
1. REFER TO ARCHITECTURAL, MECHANICAL, PLUMBING, & FIRE PROTECTION PLANS FOR ADDITIONAL INFORMATION ON EXACT POWER, WIRING, & ROUGH-IN REQUIREMENTS AND LOCATIONS OF DEVICES.
2. MINIMUM NEW CIRCUIT WIRING SHALL CONSIST OF 2#12,1#12G, 1/2"C. WHERE HOME RUNS EXCEED 75' OR CONTINUOUS LOAD EXCEEDS 65% OF CIRCUIT RATING, MINIMUM CIRCUIT SIZE SHALL CONSIST OF 2#10G, 1/2"C. ALL NEW CIRCUITS SHALL INCLUDE A CONTINUOUS EQUIPMENT GROUNDING CONDUCTOR.
3. CIRCUITS BEING CONTROLLED BY VARIABLE DIMMING EQUIPMENT SHALL ROUTED WITH SEPARATED DEDICATED NEUTRALS
4. CONTRACTOR SHALL VERIFY EXACT LOCATIONS OF ALL RECESSED LIGHTING FIXTURES WITH ARCHITECTURAL REFLECTED CEILING PLANS PRIOR TO INSTALLATION. VERIFY CEILING CONSTRUCTION WITH ARCHITECT IN ALL AREAS. CONTRACTOR SHALL BE RESPONSIBLE FOR ORDERING FIXTURES WITH CORRECT TRIMS, ETC. TO ASSURE COMPATIBILITY WITH CEILING STRUCTURE.
5. WHERE MORE THAN ONE SWITCH IS INDICATED AT A LOCATION, CONTRACTOR SHALL INSTALL CO-LOCATED LIGHT SWITCHES IN A COMMON FACEPLATE. USE MULTI-GANG BACKBOXES. VERIFY MOUNTING HEIGHT WITH ADA REQUIREMENTS. PROVIDE STEEL BARRIES BETWEEN SWITCHES FOR EACH CIRCUIT WHERE MANDATED BY CODE.
6. COORDINATE INSTALLATION OF LIGHTING FIXTURES IN MECHANICAL AREAS, EQUIPMENT ROOM, ETC; ADJUST FIXTURE HEIGHTS AND LOCATIONS AS NECESSARY TO OFFSET CONFLICTS
7. FOR EXISTING AREAS WITH NEW REPLACMENT LIGHTING.
   a. E.C. TO REWORK AND EXTEND EXISTING LIGHTING CIRCUIT TO NEW REPLACEMENT FIXTURES IN LOCATIONS AS SHOWN.
   b. REPLACEMENT WALL CONTROLS SHALL BE INSTALLED IN EXISTING SWITCH LOCATIONS WITH NEW FACEPLATES MATCHING NEW DEVICES. EXTEND NEW NEUTRAL TO SWITCH LOCATION AS REQUIRED FOR NEW WALL STATION LIGHTING CONTROLS.

ELECTRICAL POWER KEYNOTES

1. AFTER PLACEMENT OF NEW EQUIPMENT, EXTEND THE BRANCH CIRCUIT WIRING TO UNIT AND PROVIDE A COMPLIANT CONNECTION, NEW EQUIPMENT WILL HAVE INTEGRAL DISCONNECTS. REPLACE LIQUIDTITE FLEXIBLE RACEWAY; VERIFY ROTATION AND ASSIST IN COMMISSIONING.
2. SECURE WIRING AND PROVIDE COMPLIANT HOOKUP FOR EXHAUST FAN.



NORTH
1 ROOF POWER PLAN - AREA A
1/8" = 1'-0"



KEY PLAN
NOT TO SCALE

CORDOGAN CLARK

RIVER VALLEY SCHOOL DISTRICT

RIVER VALLEY HIGH SCHOOL
15480 THREE OAKS RD
THREE OAKS, MI 49128

ELECTRICAL POWER PLAN - ROOF
AREA A

JOB NUMBER 21-346
DATE 03/22/2022

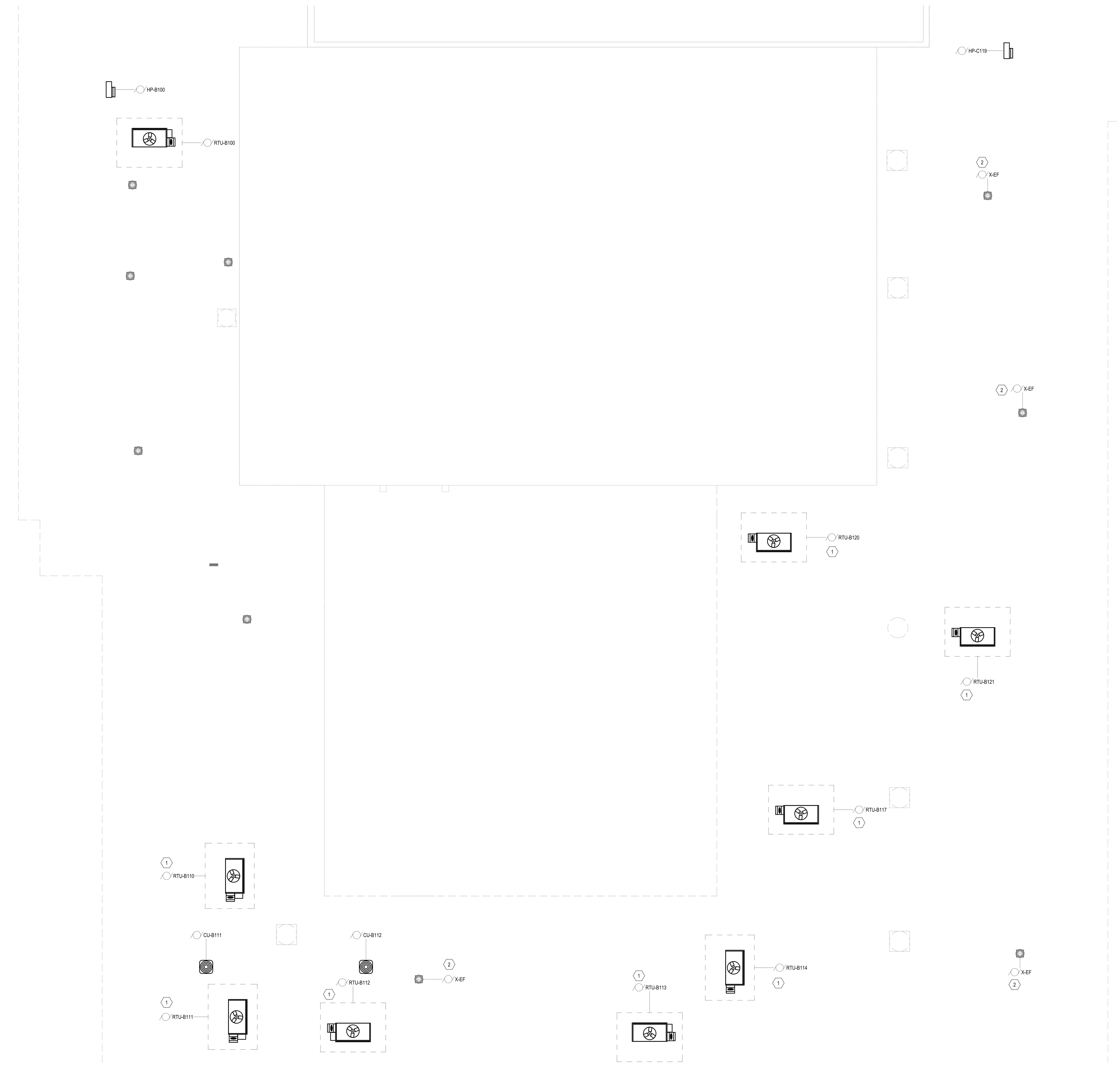
REVISIONS:

STATE OF MICHIGAN
John G. Cordogan
Architect
No. 1301035955
LICENSED ARCHITECT

CD BID SET

E2.2A

4/20/2022 11:02:25 AM



NORTH

1 ROOF POWER PLAN - AREA B
1/8" = 1'-0"

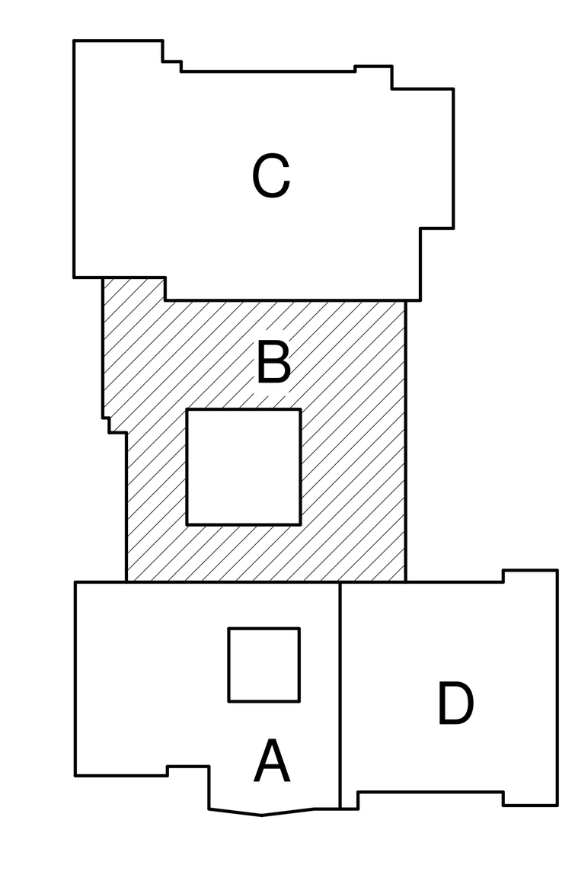
GENERAL LIGHTING & POWER NOTES

1. REFER TO ARCHITECTURAL, MECHANICAL, PLUMBING, & FIRE PROTECTION PLANS FOR ADDITIONAL INFORMATION ON EXACT POWER, WIRING, & ROUGH-IN REQUIREMENTS AND LOCATIONS OF DEVICES.
2. MINIMUM NEW CIRCUIT WIRING SHALL CONSIST OF 2#12,1#12G, 1/2"C. WHERE HOME RUNS EXCEED 75' OR CONTINUOUS LOAD EXCEEDS 65% OF CIRCUIT RATING, MINIMUM CIRCUIT SIZE SHALL CONSIST OF 2#10G, 1/2"C. ALL NEW CIRCUITS SHALL INCLUDE A CONTINUOUS EQUIPMENT GROUNDING CONDUCTOR.
3. CIRCUITS BEING CONTROLLED BY VARIABLE DIMMING EQUIPMENT SHALL ROUTED WITH SEPARATED DEDICATED NEUTRALS
4. CONTRACTOR SHALL VERIFY EXACT LOCATIONS OF ALL RECESSED LIGHTING FIXTURES WITH ARCHITECTURAL REFLECTED CEILING PLANS PRIOR TO INSTALLATION. VERIFY CEILING CONSTRUCTION WITH ARCHITECT IN ALL AREAS. CONTRACTOR SHALL BE RESPONSIBLE FOR ORDERING FIXTURES WITH CORRECT TRIMS, ETC. TO ASSURE COMPATIBILITY WITH CEILING STRUCTURE.
5. WHERE MORE THAN ONE SWITCH IS INDICATED AT A LOCATION, CONTRACTOR SHALL INSTALL CO-LOCATED LIGHT SWITCHES IN A COMMON FACEPLATE. USE MULTI-GANG BACKBOXES. VERIFY MOUNTING HEIGHT WITH ADA REQUIREMENTS. PROVIDE STEEL BARRIES BETWEEN SWITCHES FOR EACH CIRCUIT WHERE MANDATED BY CODE.
6. COORDINATE INSTALLATION OF LIGHTING FIXTURES IN MECHANICAL AREAS, EQUIPMENT ROOM, ETC; ADJUST FIXTURE HEIGHTS AND LOCATIONS AS NECESSARY TO OFFSET CONFLICTS
7. FOR EXISTING AREAS WITH NEW REPLACMENT LIGHTING.
   a. E.C. TO REWORK AND EXTEND EXISTING LIGHTING CIRCUIT TO NEW REPLACEMENT FIXTURES IN LOCATIONS AS SHOWN.
   b. REPLACEMENT WALL CONTROLS SHALL BE INSTALLED IN EXISTING SWITCH LOCATIONS WITH NEW FACEPLATES MATCHING NEW DEVICES. EXTEND NEW NEUTRAL TO SWITCH LOCATION AS REQUIRED FOR NEW WALL STATION LIGHTING CONTROLS.

ELECTRICAL POWER KEYNOTES

1 AFTER PLACEMENT OF NEW EQUIPMENT, EXTEND THE BRANCH CIRCUIT WIRING TO UNIT AND PROVIDE A COMPLIANT CONNECTION, NEW EQUIPMENT WILL HAVE INTEGRAL DISCONNECTS. REPLACE LIQUIDTITE FLEXIBLE RACEWAY; VERIFY ROTATION AND ASSIST IN COMMISSIONING.

2 SECURE WIRING AND PROVIDE COMPLIANT HOOKUP FOR EXHAUST FAN.



KEY PLAN
NOT TO SCALE

CORDOGAN CLARK
Aurora
960 Ridgeway Avenue, Aurora, IL 60506
Tel 630.896.4678 Fax 630.896.4987
Chicago
716 North Wells Street, Chicago, IL 60654
Tel 312.943.7300 Fax 312.943.4771

RIVER VALLEY SCHOOL DISTRICT

RIVER VALLEY HIGH SCHOOL
15480 THREE OAKS RD
THREE OAKS, MI 49128

ELECTRICAL POWER PLAN - ROOF
AREA B

JOB NUMBER 21-346
DATE 03/22/2022

REVISIONS:

STATE OF MICHIGAN
John G. Cordogan
Architect
No. 1301035955
LICENSED ARCHITECT

CD BID SET

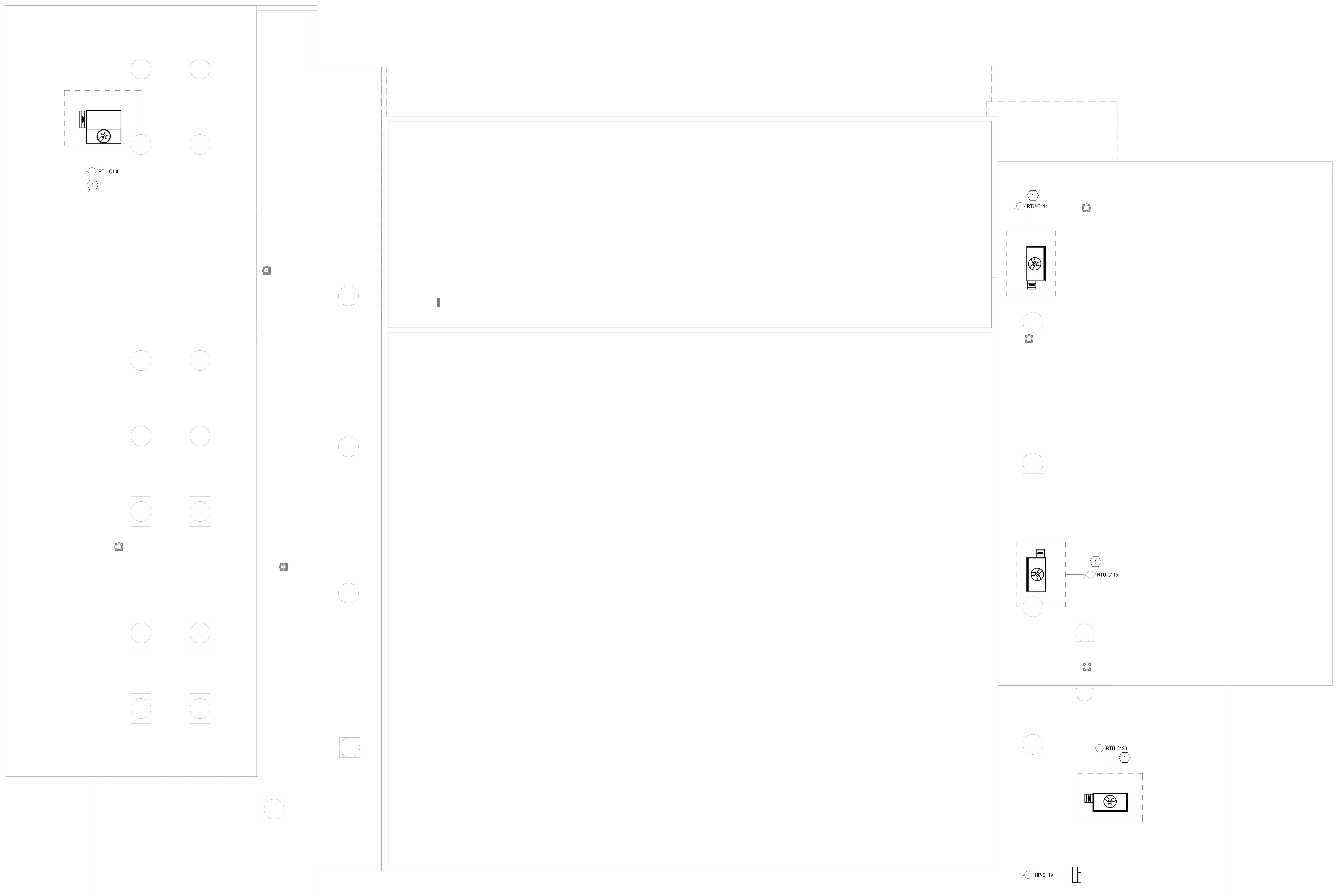
E2.2B

GENERAL LIGHTING & POWER NOTES

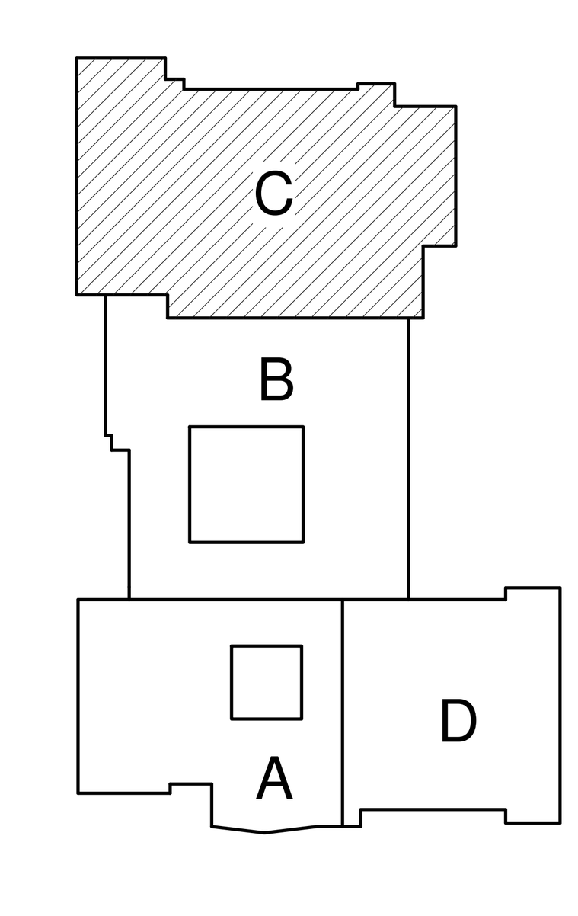
1. REFER TO ARCHITECTURAL, MECHANICAL, PLUMBING, & FIRE PROTECTION PLANS FOR ADDITIONAL INFORMATION ON EXACT POWER, WIRING, & ROUGH-IN REQUIREMENTS AND LOCATIONS OF DEVICES.
2. MINIMUM NEW CIRCUIT WIRING SHALL CONSIST OF 2#12,1#12G, 1/2"C. WHERE HOME RUNS EXCEED 75' OR CONTINUOUS LOAD EXCEEDS 65% OF CIRCUIT RATING, MINIMUM CIRCUIT SIZE SHALL CONSIST OF 2#10G, 1/2"C. ALL NEW CIRCUITS SHALL INCLUDE A CONTINUOUS EQUIPMENT GROUNDING CONDUCTOR.
3. CIRCUITS BEING CONTROLLED BY VARIABLE DIMMING EQUIPMENT SHALL ROUTED WITH SEPARATED DEDICATED NEUTRALS
4. CONTRACTOR SHALL VERIFY EXACT LOCATIONS OF ALL RECESSED LIGHTING FIXTURES WITH ARCHITECTURAL REFLECTED CEILING PLANS PRIOR TO INSTALLATION. VERIFY CEILING CONSTRUCTION WITH ARCHITECT IN ALL AREAS. CONTRACTOR SHALL BE RESPONSIBLE FOR ORDERING FIXTURES WITH CORRECT TRIMS, ETC. TO ASSURE COMPATIBILITY WITH CEILING STRUCTURE.
5. WHERE MORE THAN ONE SWITCH IS INDICATED AT A LOCATION, CONTRACTOR SHALL INSTALL CO-LOCATED LIGHT SWITCHES IN A COMMON FACEPLATE. USE MULTI-GANG BACKBOXES. VERIFY MOUNTING HEIGHT WITH ADA REQUIREMENTS. PROVIDE STEEL BARRIES BETWEEN SWITCHES FOR EACH CIRCUIT WHERE MANDATED BY CODE.
6. COORDINATE INSTALLATION OF LIGHTING FIXTURES IN MECHANICAL AREAS, EQUIPMENT ROOM, ETC; ADJUST FIXTURE HEIGHTS AND LOCATIONS AS NECESSARY TO OFFSET CONFLICTS
7. FOR EXISTING AREAS WITH NEW REPLACMENT LIGHTING.
   a. E.C. TO REWORK AND EXTEND EXISTING LIGHTING CIRCUIT TO NEW REPLACEMENT FIXTURES IN LOCATIONS AS SHOWN.
   b. REPLACEMENT WALL CONTROLS SHALL BE INSTALLED IN EXISTING SWITCH LOCATIONS WITH NEW FACEPLATES MATCHING NEW DEVICES. EXTEND NEW NEUTRAL TO SWITCH LOCATION AS REQUIRED FOR NEW WALL STATION LIGHTING CONTROLS.

ELECTRICAL POWER KEYNOTES

1. AFTER PLACEMENT OF NEW EQUIPMENT, EXTEND THE BRANCH CIRCUIT WIRING TO UNIT AND PROVIDE A COMPLIANT CONNECTION, NEW EQUIPMENT WILL HAVE INTEGRAL DISCONNECTS. REPLACE LIQUIDTITE FLEXIBLE RACEWAY; VERIFY ROTATION AND ASSIST IN COMMISSIONING.



NORTH 1 ROOF POWER PLAN - AREA C
1/8" = 1'-0"



KEY PLAN
NOT TO SCALE

CORDOGAN CLARK
Aurora
960 Ridgeway Avenue, Aurora, IL 60506
Tel 630.896.4678 Fax 630.896.4987
Chicago
716 North Wells Street, Chicago, IL 60654
Tel 312.943.7300 Fax 312.943.4771

RIVER VALLEY SCHOOL DISTRICT

RIVER VALLEY HIGH SCHOOL
15480 THREE OAKS RD
THREE OAKS, MI 49128

ELECTRICAL POWER PLAN - ROOF
AREA C

JOB NUMBER 21-346
DATE 03/22/2022

REVISIONS:

STATE OF MICHIGAN
John G. Cordogan
Architect
No. 1301035955
LICENSED ARCHITECT

CD BID SET

E2.2C

4/20/2022 11:02:31 AM