CSARCH

Addendum No. 6

Date: 06-07-2024
Project Name: NECSD – New CTE Building
CSArch Project No. 108-2303
SED Control No. 44-16-00-01-0-053-001

This Addendum No. 6 forms part of the Contract Documents and modifies the original bidding documents dated April 15, 2024. Addendum No. 6 consists of 3 pages, 11 specification sections, and 31 drawings.

REGISTRATION EXPIRATION DATE: 12/31/2026

Architect's Seal

GENERAL INFORMATION

1. As part of this Addendum No. 6, the AIA 232-2019 General Conditions of the Contract for Construction has been revised in its entirety.
2. As part of this Addendum No. 6, specification section 004544 Insurance Affidavit has been added and is required to be submitted as an attachment to the Bid Form.
3. RFI Log: RFI questions and answers are included as an attachment to this addendum.

REVISIONS TO THE PROJECT MANUAL

1. **DELETE** specification section 002113. **ADD** revised specification 002113 Instructions to Bidders in its entirety, attached.
2. **DELETE** specification section 004116.01. **ADD** revised specification 004116.01 Bid Form Contract GC in its entirety, attached.
3. **ADD** specification 004544 Insurance Affidavit, attached.
4. **DELETE** specification section 007216. **ADD** revised specification 007216 AIA Document A232-2019 General Conditions of the Contract for Construction in its entirety, attached.
5. **DELETE** specification section 011200. **ADD** revised specification 011200 GC Summary of Work in its entirety, attached.
6. **DELETE** specification section 042000. **ADD** revised specification 042000 Unit Masonry in its entirety, attached.
7. **DELETE** specification section 075323. **ADD** revised specification 075323 Ethylene-Propylene-Diene-Monimer Roofing in its entirety, attached.
8. **DELETE** specification section 096500. **ADD** revised specification 096500 Resilient Flooring in its entirety, attached.
9. **DELETE** specification section 105500. **ADD** revised specification 105500 Postal Specialties in its entirety, attached.
10. **DELETE** specification section 123553.13. **ADD** revised specification 123553.13 Metal Laboratory Casework in its entirety, attached.
11. **ADD** Project Manual Vol. 5 Owner Furnished HVAC Equipment Package, attached.

REVISIONS TO THE CONTRACT DRAWINGS

1. **DELETE** drawing C130. **ADD** revised drawing C130, attached.
2. **DELETE** drawing C141. **ADD** revised drawing C141, attached.
3. **DELETE** drawing C150. **ADD** revised drawing C150, attached.
4. **DELETE** drawing C232. **ADD** revised drawing C232, attached.
5. **DELETE** drawing S102. **ADD** revised drawing S102, attached.
6. **DELETE** drawing S104. **ADD** revised drawing S104, attached.
7. **DELETE** drawing S302. **ADD** revised drawing S302, attached.
8. **DELETE** drawing S305. **ADD** revised drawing S305, attached.
9. **DELETE** drawing S501. **ADD** revised drawing S501, attached.
10. **DELETE** drawing A301. **ADD** revised drawing A301, attached.
11. **DELETE** drawing A411. **ADD** revised drawing A411, attached.
12. **DELETE** drawing A412. **ADD** revised drawing A412, attached.
13. **DELETE** drawing A413. **ADD** revised drawing A413, attached.
14. **DELETE** drawing A613. **ADD** revised drawing A613, attached.
15. **DELETE** drawing AF002. **ADD** revised drawing AF002, attached.
16. **DELETE** drawing AF111. **ADD** revised drawing AF111, attached.
17. **DELETE** drawing AF112. **ADD** revised drawing AF112, attached.
18. **DELETE** drawing AF113. **ADD** revised drawing AF113, attached.
19. **DELETE** drawing AF121. **ADD** revised drawing AF121, attached.
20. **DELETE** drawing AF122. **ADD** revised drawing AF122, attached.
21. **DELETE** drawing AF123. **ADD** revised drawing AF123, attached.
22. **DELETE** drawing AF132. **ADD** revised drawing AF132, attached.

23. **DELETE** drawing AF133. **ADD** revised drawing AF133, attached.
24. **DELETE** drawing P001. **ADD** revised drawing P001, attached.
25. **DELETE** drawing P101. **ADD** revised drawing P101, attached.
26. **DELETE** drawing P112. **ADD** revised drawing P112, attached.
27. **DELETE** drawing P301. **ADD** revised drawing P301, attached.
28. **DELETE** drawing M901. **ADD** revised drawing M901, attached.
29. **DELETE** drawing E342. **ADD** revised drawing E342, attached.
30. **DELETE** drawing E343. **ADD** revised drawing E343, attached.
31. **DELETE** drawing E901. **ADD** revised drawing E901, attached.

END OF ADDENDUM NO. 6

Newburgh ECSD - New CTE Building
Date: 6/7/2024

ITEM NO.	DISCIPLINE	SUBJECT	RFI	DATE	FROM	RESPONSE	ADDENDUM ITEM	DRAWING NUMBER(S)	SPEC SECTION/ ARTICLE	ADDENDUM NUMBER
1	A	Elevator	1. Drawing A502 and the Division 14 specification do not align, the specifications call for a 3500lb elevator with a 36" wide door opening and the drawings seem to show a 5000lb elevator with a 54" door opening. Which one is correct? Please note, if a 5000lb car is desired here we recommend increasing the clear hoistway width to 8'-0" and the pit depth will need to increase to 5'-0" for either car. 2. The specifications call for a Lobby monitoring panel, this is not typically seen on a single 3 stop elevator and would add a lot of additional cost nor is it required by code. Please advise if this is actually required? 3. The specifications call for a plastic laminate on plywood ceiling. We can provide a brushed stainless-steel ceiling which is a standard option. Please advise if this is acceptable? 4. Please confirm what the voltage supply to the elevator will be. The electrical drawings are not clear on this. Is it 208V or 480V?	4/24/2024	Darlind Associates, Inc.	1. Elevator should be Otis Gen3 Edge 4000 lbs service elevator or equal. Door width opening shall be 48" wide. Pit depth will be 5'-0". Clear hoistway to remain 7'-10" x 10'-9" as shown on drawing A502. 2. Lobby Monitoring Panel is not required. 3. Brushed Stainless Steel ceiling is acceptable. 4. Voltage supply is 480V. Provided as part of addendum #2	Yes	S502, A112, A122, A132, A502	142100	Add #2
2	E	PA System	The attached specification lists Care Hawk as the basis of design for your projects. The specification also indicates that an alternate manufacturer be submitted 15 days prior to the bid date. With this in mind, I would like to request the approval of our Telecor eSeries Platform as an acceptable alternate to the specified Care Hawk design. Please let me know if you require any additional information and also be advised that I am available to present a complete system demonstration at your office or the district office if requested. Thank you and I look forward to your response.	4/29/2024	Telecor	As per Spec Section 012519- Equivalents, article 1.2, E and G; Requests for Architect approval of proposed equivalents prior to the bid date will only be reviewed if the request is submitted directly by the contractor submitting a bid.	No			
3	M	Duct Silencers	Silencer Schedule : Please provide duct silencer schedule?	4/30/2024	ACS Systems Associates, Inc.	Provided as part of addendum #2	Yes	M902		Add #2
4	M	Controls & BMS	Controls /BMS : Please provide existing BMS details if any?	4/30/2024	ACS Systems Associates, Inc.	**Revised Response (5/20/2024): The building automation system will be Schneider Electric EcoStruxure by Day Automation Systems. It is the intent of the district to purchase the building automation system from the Day Automation Systems' OGS state contract number PT68783.**	Yes		250923	Add #4
5	G	Project Schedule	Duration : Kindly provide duration of project- Start/End date?	4/30/2024	ACS Systems Associates, Inc.	Provided as part of addendum #2	Yes		003113.01	Add #2

6	A	Wood Athletic Flooring	Attached please find Action Floor Systems Anchor Flex DIN-PUR floor system submitted for consideration as an equal to Robbins Bio Channel Star as covered under Section 096566 - Wood Athletic Flooring Anchor Flex DIN-PUR system uses 6 mil polyethylene vapor barrier, factory fabricated 3/4" plywood sub-floor system with 5/8" continuous foam resilient layer and 25/32" x 2 1/4" 1st grade ER (expansion ridge) MFMA - maple strip flooring. Specification, cut sheet, system data sheet, MFMA PUR and DIN certification and substitution request form attached. Thank you for your consideration in this substitution request.	4/30/2024	Action Floor Systems	As per Spec Section 012519- Equivalents, article 1.2, E and G; Requests for Architect approval of proposed equivalents prior to the bid date will only be reviewed if the request is submitted directly by the contractor submitting a bid.	No			
7	G	Instructions to Bidders	Instructions to bidders indicate Labor Rates to be submitted with bid. However the actual Bid Form does not list Labor Rates as a required attachment. Please clarify if the complete prevailing and union labor rates schedules are required to be submitted in duplicate with the bid.	4/30/2024	Worth Construction Co., Inc.	Labor Rates will not be required at bid submission. Spec. Section 002113 Instruction to Bidders Sub paragraph 4.3 Item D.3 has been updated to reflect. This requirement has been removed from Spec. Section 002113 Instruction to Bidders Sub paragraph 4.3 Item D.3. Refer to addendum #2 attachment for more information. If contractor is deemed to be the lowest apparent bidder, labor rate sheets will be required per sub paragraph 6.2 item A.2 within (3) calendar days following the bid opening time.	Yes		002113	Add #2
8	G	Instructions to Bidders	Instructions to bidders indicate the bids shall be submitted in duplicate. The Advertisement for Bids indicates a single copy submitted by bid time with one copy emailed no later than the next day. Please clarify.	4/30/2024	Worth Construction Co., Inc.	What is outlined in the Advertisement for Bids is correct. Revision to the Instruction to Bidders has been provided as part of addendum #2.	Yes		002113	Add #2
9	C	Sheet Error	Drawing C180 pdf file does not print correctly. Please provide another file.	4/30/2024	Worth Construction Co., Inc.	Provided as part of addendum #2	Yes	C180		Add #2
10	A	Equipment List	The equipment list is understood but incomplete. It is fine for equipment positioning and electrical requirements, but there is specific information missing that is required for an accurate quote. There are accessories for the brake lathe and the wheel balancers that aren't included on the plans but are typically required to be included in the price quote. For example, the wheel alignment system, described on the plan as "head unit", HE421, is incomplete. There are several configurations available for a wheel alignment system. HE421 just describes the measuring sensor type, but does not include the console which houses the PC, monitor, printer, etc. There are options for the wheel alignment lift, RX12 that might be beneficial in a student learning environment but are not indicated. Please review the contractor required equipment lists and clarify which accessories should be included in the bid.	4/30/2024	Worth Construction Co., Inc.	Provided as part of addendum #3.	Yes	A604, A613, A615		Add #3
11	A	Door Hardware	Door Schedule Dr. A904 door #305A, 305B should be “acoustical with STC rating: 6.1 hardware 48”. However, specs for hardware 08 71 00 stated Set:48 by MFG. Since there is variety of hardware, please be more specific what Set:48 should be.	4/30/2024	Worth Construction Co., Inc.	Provided as part of addendum #2.	Yes		083473, 084700	Add #2

12	A	Casework	Please advise if millwork in office 100C, D, F, H storage 100K, office 129A (Dr. A606, A620) should be included, since no elevations / details shown.	4/30/2024	Worth Construction Co., Inc.	As per "GENERAL NOTE #6: ALL FURNITURE SHOWN AS HALFTONE IS NOT IN CONTRACT." What is shown in office 100C, D, F, H, 100K storage, and office 129A is furniture and should **NOT** be included in your bid.	No			
13	A	Casework	Please identify classrooms which receive Manufactured Wood Casework 12 32 00. Drawings are not clear which casework is div. 06 and which is div. 12. Please clarify.	4/30/2024	Worth Construction Co., Inc.	Section 064100 is for specialty fabricated cabinet units as detailed on A651 & A652. Section 123200 is for standard casework tagged with the casework tag as indicated within the "CASEWORK NOTES" on drawings A601 thru A635.	No			
14	AF	Finish Drawings	First floor finish plans dr. AF112 & AF113 shown heavy stipes at the multiple locations. Please explain and provide requirements for that.	4/30/2024	Worth Construction Co., Inc.	Provided as part of addendum #2	Yes	AF112, AF113		Add #2
15	P	Oil Separator / Grease Interceptor	As per drawing P-301 please provide sizes for oil separator and grease interceptor.	4/30/2024	Worth Construction Co., Inc.	Provided as part of addendum #2	Yes	P301		Add #2
16	P	Lavatories	As per schedule on drawing P-001, LV-a, b &c schedule is 1, 3 & 4 stations. Written spec show 1, 2 & 3 stations. Please advise.	4/30/2024	Worth Construction Co., Inc.	Provided as Part of addendum #2	Yes	P001	224000	Add #2
17	G	3d Model	Is there a 3D model of this building available?	5/1/2024	Rizzo Companies	There is a 3d model, but it is **NOT** part of the bidding documents. The model can be shared with the contractor once the contract is awarded.	No			
18	G	Instructions to Bidders	Section 00 21 13 "Instructions to Bidders" page 9 - 4.3/D reads "Bids shall be submitted in duplicate". Section 00 11 16 "Advertisements for Bids" page 1 reads "One copy of sealed bids…." and "One copy of bid in PDF format…". Please clarify if the sealed bid shall include two (2) hard copies of the bid submission, in addition to a PDF copy of the bid emailed the next day.	5/1/2024	EW Howell Construction Group	What is outlined in the Advertisement for Bids is correct. Revision to the Instruction to Bidders has been provided as part of addendum #2.	Yes		002113	Add #2
19	G	Instructions to Bidders	Section 00 21 13 "Instructions to Bidders" pages 9-10 - 4.3/D lists a series of documents for bid submissions to be considered a complete bid. This list differs from the list provided on the Addendum #1 Bid Form GC-01, page 3. Please clarify which list shall be followed for submitting a complete bid.	5/1/2024	EW Howell Construction Group	Labor Rates will not be required at bid submission. Spec. Section 002113 Instruction to Bidders Sub paragraph 4.3 Item D.3 has been updated to reflect. This requirement has been removed from Spec. Section 002113 Instruction to Bidders Sub paragraph 4.3 Item D.3. Refer to addendum #2 attachment for more information. If contractor is deemed to be the lowest apparent bidder, labor rate sheets will be required per sub paragraph 6.2 item A.2 within (3) calendar days following the bid opening time.	Yes		002113	Add #2
20	G	MWBE	V1 Specifications provided with the bid documents does not identify MWBE Requirements and/or MWBE Participation Goals for the project. Please advise if any MWBE Participation Goals have been set for this project.	5/1/2024	EW Howell Construction Group	**Revised Response (5/20/2024): There are no MWBE goals for this project. Local, minority and female (LMF) participation is a part of the PLA agreement. Please refer to that agreement and any questions related to the agreement, the pre-apprenticeship or apprenticeship programs and LMF participation to the Hudson Valley Building Trades Council.**	No			

21	G	CSArch Plan Room	CS Arch Plan Room website used for Bid documents & Addenda identifies a planholder list, where one name/contact is listed under the company as a main contact. This contact receives email notification of any new posted addenda. Please advise if it's possible to have another contact added to this list, so that they may receive email notification of any new posted addenda.	5/1/2024	EW Howell Construction Group	Please reach out to Vincent@revplans.com for support.	No			
22	G	Insurance Requirements	V1 Specifications do not call out a set of specific insurance requirements for the project. Please provide a document for insurance requirements if any are set for this project.	5/1/2024	EW Howell Construction Group	Refer to AIA A232 General Conditions, Article 11 for the specific insurance requirements for this project.	No			
23	A	Wood Athletic Flooring	Attached please find the substitution request and product data for your consideration of approval for the above project. Aacer Channel VLP HC flooring by Aacer Sports Flooring is being submitted as an equal to Bio-Channel Star flooring by Robbins Sports Surfaces. The Aacer Channel VLP HC has the same component configuration as the products specified. Approval of Aacers Floor System will not affect the design, schedule, or other trades and local installation and service are available. Please visit www.aacerflooring.com and learn more about our maple floor systems. We appreciate your time and consideration, please feel free to contact me if you have questions or require additional information.	5/1/2024	Aacer Sports Flooring	As per Spec Section 012519- Equivalents, article 1.2, E and G; Requests for Architect approval of proposed equivalents prior to the bid date will only be reviewed if the request is submitted directly by the contractor submitting a bid.	No			
24	M	HVAC Controls	SPECIFICATION 012100-1.8-"B.1A" STATES HVAC CONTROLS WILL BE PROVIDED BY OWNER UNDER A SEPARATE CONTRACT AND THE MC-02 CONTRACT IS TO PROVIDE STAND ALONE CONTROLS FOR MECHANICAL SYSTEM. PLEASE ADVISE IF THE OWNER HAS ASSIGNED A HVAC BAS CONTRACTOR AND IF THIS INFORMATION IS AVAILABLE, WE WOULD LIKE TO CONTACT THEM FOR COORDINATION AND RECEIVING A PROPOSAL FOR STAND-ALONE CONTROLS.	5/1/2024	Joseph Lombardo Plumbing, Heating & Cooling, Inc.	**Revised Response (5/20/2024): The building automation system will be Schneider Electric EcoStruxure by Day Automation Systems. It is the intent of the district to purchase the building automation system from the Day Automation Systems' OGS state contract number PT68783.**	Yes		250923	Add #4
25	A/M	Welding Booth / Extraction Arms	The booth description (A040, A040A) in the Equipment Schedule on sheet CTE A615 indicates the power is 120V/1-ph which would imply one or both of those options should be included. However, I don't think they are listed anywhere. Also, I cannot find reference to the extraction arms. Below indicates the airflow (per arm) but no details. Do you know on which sheet if any they are identified?	5/3/2024	The Lincoln Electric Company	Refer to spec section 125713 – Welding Equipment in Volume 2 of the project manual. Revised as part of addendum #3.	Yes		125713	Add #3
26	A	Ceramic Tile	Finish Plan Dr. AF113 shows CWT wall tile at Locker Rooms. However elevations Dr. A611 shows no CWT. Please clarify.	5/6/2024	Worth Construction Co., Inc.	Revised as part of addendum #3	Yes	A611		Add #3
27	A	Security Grill Door	Door Schedule Dr. A902 shown Security Grill OH4 for Cafeteria. Please provide Basis of design and model #.	5/6/2024	Worth Construction Co., Inc.	Provided as part of addendum #3	Yes		083326	Add #3
28	M	Duct Liners	The liner spec p220, see below, indicates elastomeric liner in every duct type. Can you send an RFI to confirm this?	5/6/2024	Armistead Mechanical, Inc.	Lined Ducts are indicated on the drawings. Refer to Symbols on MG000.	No			
29	M	Fume Extraction Arms	Do you know what the lengths and diameters of the fume extraction arms is? I'm assuming 8' length and 8" diameter but my estimating department wanted to be sure.	5/6/2024	ADE Group	Revised as part of addendum #3.	Yes		125713	Add #3
30	M	Wood Dust Collector	For the wood dust collector, its only one unit, right (DC-A-1)?	5/6/2024	ADE Group	Yes, There is only one wood dust collector unit.	No			

31	G	Contracts	Contracts: As per Addendum 1 We have noticed that all trade bid forms are deleted and revised GC bid form is added. However, through Revplans its still showing 5 prime contracts . Kindly confirm whether it's a single Prime contract or Multiple Prime contracts?	5/8/2024	ACS Systems Associates, Inc.	As per addendum #1, it is a Single Prime Contract. Rev plans has updated their website.	No			
32	AF	Fluid Applied Flooring	Section 096700: Are alternate products accepted for this? Stonhard is proprietary	5/8/2024	Rizzo Companies	Product equivalents will be accepted.	No			
33	A	Coiling Doors	On the door schedule for 1st floor, there are (4) OH2 doors which are insulated coiling doors. 3 of the 4 doors have remark #2 and #8 which are "Overhead door" and "Standard Lift track" which doesn't apply to coiling doors. The 4th OH2 door on the schedule has remarks #2 and #9 which are "Overhead door" and "coiling door, motor operated" which does apply to coiling doors. I want to confirm that there are (4) OH2 doors on this project. It seems that there is only (1) coiling door and the other 3 should be sectional doors, and have been mis-labeled. Please advise	5/9/2024	Rizzo Companies	Revised as part of addendum #3.	Yes	A902		Add #3
34	A	Security Grill Door	Will an upcoming addendum contain a specification for the Coiling Security Grille?	5/9/2024	Rizzo Companies	Provided as part of addendum #3.	Yes		083326	Add #3
35	AF	Division 9	LVT-1 Adhesive; V-88 Adhesive by Mannington, V-95 Adhesive or XpressStep Spray Adhesive by Mannington for this bid scope ?	5/9/2024	Rizzo Companies Worth Construction Co., Inc. EW Howell Construction Group Pike Construction Services, Inc.	Bid as per section 096500-5, part 2.5.B.	No			
36	AF	Division 9	LVT-1, No diagonal layout installation is required for this bid scope, please confirm.	5/9/2024	Rizzo Companies EW Howell Construction Group Pike Construction Services, Inc.	No diagonal layout required.	No			
37	AF	Division 9	See Detail 2 on Drawing CTE A504.00; are Rubber Stair Risers required for this bid scope, please advise.	5/9/2024	Rizzo Companies EW Howell Construction Group Pike Construction Services, Inc.	Provided as part of addendum #3.	Yes	A504, AF002	096500	Add #3

38	AF	Division 9	RST-1 Rubber Stair Treads; Please confirm optional Safety Inserts at nose of tread(s) are not required for this bid scope ?	5/9/2024	Rizzo Companies Worth Construction Co., Inc. EW Howell Construction Group Pike Construction Services, Inc.	Provided as part of addendum #3.	Yes		096500	Add #3
39	AF	Division 9	RT-1 Rubber Tile for intermediate landings; Marbleized is not available in 24" x 24" and not available in 3.5mm thickness, please advise.	5/9/2024	Rizzo Companies Worth Construction Co., Inc. EW Howell Construction Group Pike Construction Services, Inc.	Revised as part of addendum #3.	Yes	AF002	096500	Add #3
40	AF	Division 9	Stair Stringers Section 096500-4 para 2.3B are required for this bid scope, if yes please provide a detail ?	5/9/2024	Rizzo Companies EW Howell Construction Group Pike Construction Services, Inc.	Revised as part of addendum #3.	Yes		096500	Add #3
41	AF	Division 9	Sheet Vinyl Base HMB-1 Base is 4" High ?	5/9/2024	Rizzo Companies Worth Construction Co., Inc. EW Howell Construction Group Pike Construction Services, Inc.	Revised as part of addendum #3.	Yes	AF002		Add #3
42	AF	Division 9	Please provide a detail of HMB-1 Base; Cap Strip, Fillet Strip, Floor heat weld location ?	5/9/2024	Rizzo Companies Worth Construction Co., Inc. EW Howell Construction Group Pike Construction Services, Inc.	As per manufacturers standard details.	No			

43	AF	Division 9	Vent Cove Base 4" in section 096466-3 para 2.5A and RB-2 is 6" on Drawing AF002, please advise 4" is required for this bid scope.	5/9/2024	Rizzo Companies Worth Construction Co., Inc. EW Howell Construction Group Pike Construction	Revised as part of addendum #3.	Yes	AF002		Add #3
44	AF	Division 9	Polished Concrete Section 033543 installed complete procedure before all fixed millwork or casework ?	5/9/2024	Rizzo Companies EW Howell Construction Group	Polished concrete install to be complete prior to millwork and casework installation	No			
45	AF	Division 9	RST-1 at Landings - Detail 3 on A504 Tread Nosing to Polished Concrete; trip hazard or will concrete be recessed to accept tread nose ?	5/9/2024	Rizzo Companies EW Howell Construction Group Pike Construction Services, Inc.	Revised as part of addendum #3.	Yes	A504		Add #3
46	AF	Division 9	LVT-1 installed wall to wall and before all fixed millwork or casework ?	5/9/204	Rizzo Companies EW Howell Construction Group Pike Construction Services, Inc.	Millwork to be installed prior to LVT flooring	No			
47	AF	Division 9	HMB Sheet Vinyl installed wall to wall and before all fixed millwork or casework ?	5/9/2024	Rizzo Companies EW Howell Construction Group Pike Construction Services, Inc.	Millwork to be installed prior to HMB flooring	No			
48	AF	Division 9	No HMB-1 on walls behind fixed casework or millwork at perimeter of rooms is required for this bid scope ?	5/9/2024	Rizzo Companies EW Howell Construction Group Pike Construction Services, Inc.	No HMB-1 is required behind casework or millwork	No			
49	AF	Division 9	No RB-1 on walls behind fixed casework or millwork at perimeter of rooms is required for this bid scope ?	5/9/2024	Rizzo Companies EW Howell Construction Group	No RB-1 is required behind casework or millwork	No			

50	AF	Division 9	Drawing A901 Detail 7, HMB sheet vinyl to Polished Concrete; A Saddle Threshold or a Vinyl Transition Strip ?	5/9/2024	Rizzo Companies Worth Construction Co., Inc. EW Howell Construction Group Pike Construction Services, Inc.	Revised as part of addendum #3.	Yes	AF111		Add #3
51	AF	Division 9	Steps to electrical room from Roof, please confirm no Rubber Stair Treads are required for this bid scope ?	5/9/2024	Rizzo Companies EW Howell Construction Group Pike Construction Services, Inc.	No, refer to drawing 11/A354.	No			
52	AF	Division 9	SDT-1; Grounding location and Ohm meter testing are to be provided by electrical contractor for this bid scope, please confirm.	5/9/2024	Rizzo Companies Worth Construction Co., Inc.	As per addendum #1, single prime contract.	No			
53	AF	Division 9	SDT-1; No (No Wax Logo tiles) are required for this bid scope, please confirm ?	5/9/2024	Rizzo Companies EW Howell Construction Group Pike Construction Services, Inc.	Bid as per specification 096500.	No			
54	AF	Division 9	Corridors 1st - 3rd floor wall base; Elevation Drawings A631-635, Details show SWB, Which walls get RB-1 and which get MT-1 ?	5/9/2024	Rizzo Companies EW Howell Construction Group Pike Construction Services, Inc.	Revised as part of addendum #3.	Yes	AF002		Add #3
55	AF	Division 9	Limits of MT-1 Metal Base at Vending 118A on 1st floor and same for Cafeteria 116 ?	5/9/2024	Rizzo Companies EW Howell Construction Group Pike Construction Services, Inc.	Revised as part of addendum #3.	Yes	AF002		Add #3
56	AF	Division 9	Limits of MT-1 Metal Base in Cafeteria 116 ?	5/9/2024	Rizzo Companies EW Howell Construction Group Pike Construction Services, Inc.	Revised as part of addendum #3.	Yes	AF002		Add #3

57	AF	Division 9	Section 033000-15 para 3.7D.3 Other Surfaces - Gym Wood system and Polished Concrete are Other Surfaces, please advise.	5/9/2024	Rizzo Companies EW Howell Construction Group	Yes.	No			
58	AF	Division 9	Section 096500-6 para 3.2H Feature Strips and LOGOS are not required for this bid scope, please confirm.	5/9/2024	Rizzo Companies EW Howell Construction Group Pike Construction Services, Inc.	Revised as part of addendum #3.	Yes		096500	Add #3
59	AF	Division 9	HMB Sheet Vinyl to HMB Sheet Vinyl at door threshold, Doors 202A, 202C, 202D; Heat weld seam only, please advise.	5/9/2024	Rizzo Companies Worth Construction Co., Inc. EW Howell Construction Group Pike Construction Services, Inc.	Revised as part of addendum #3.	No	AF121		Add #3
60	AF	Division 9	Polished Concrete Section 033543-3 para 1.6B, Mock-up 50 sf. Is 50 SF required for each; PCON-1, PCON-2 and PCON-3, please advise.	5/9/2024	Rizzo Companies EW Howell Construction Group Pike Construction Services, Inc.	As indicated per specification 033543.	No			
61	AF	Division 9	Many Abbreviations on Drawings AF001 do not apply to this scope, please confirm. WOM, BBT, CPT, RAF, STF, VCT, please advise.	5/9/2024	Rizzo Companies EW Howell Construction Group	Abbreviations listed may not apply to scope of work. Refer to the abbreviations indicated in the finish schedule and finish tag.	No			
62	AF	Division 9	Drawing AF133 Detail 1 description; THURD might be THIRD ?	5/9/2024	Rizzo Companies EW Howell Construction Group	Spelling error; should read THIRD.	No			
63	M	BMS	I was looking at the Newburgh School bid in section 250923 but there are no control vendors listed. Part 2 – Products has conduit and fitting in this section. I was wondering who the acceptable BMS manufacturers would be or did the school standardize on a control vendor.	5/9/2024	Stark Tech	**Revised Response (5/20/2024): The building automation system will be Schneider Electric EcoStruxure by Day Automation Systems. It is the intent of the district to purchase the building automation system from the Day Automation Systems' OGS state contract number PT68783.**	Yes		250923	Add #4
64	A	Cast Stone	Please clarify cast stone profiles locations. For instance: Dr.A201 /4 elevation shown second floor cast stone profile CS3 & CS4 Building Section dr. A307/3 shows CS1. Elevation dr. A201/2 shows CS3 building section shows CS2. And there are more discrepancies.	5/10/2024	Worth Construction Co., Inc.	Revised as part of addendum #3.	Yes	A201, A202, A203, A204, A205		Add #3

65	E	Site Lighting	In addendum #2, revised drawing C180 was issued which shows 25 type A site light fixtures. Drawing ES100 shows 29 site light fixtures (16 type 9 and 13 type 11) Should the electrical site drawing be updated to only show 25 fixtures? Also ES100 calls for 3 flood lights for the flagpole. Can you provide a part # for these?	5/13/2024	J&J Sass Electric Inc.	Revised as part of addendum #4.	Yes	C180, C230, ES100		Add #4
66	G	AISC Certification	Do you intend on waiving the AISC certification for this project or keeping it? Please let me know when you get the chance.	5/13/2024	Rizzo Companies	AISC certification is required. Bid as per specification section 051200, 1.5, D	No			
67	M	Weld Shop Collectors	"For the weld shop collector, please ask them which number they want below (1 or 2 ?): 1.One collector composed of 1 module with 3800sqft of filter media 2.One collector composed of 2 modules each with 3800sqft of filter media x 2 = 7600sqft total And for the weld shop collector's blower. Please ask them which number they want below (1, 2, or 3 ?): 1.One 13000cfm blower and motor 2.Two 6500cfm blowers and motors 3.Two 7400cfm blowers and motors"	5/13/2024	ADE Group	Refer to welding filtration unit schedule on sheet M902 and welding fume exhaust specification 233505.	No			
68	G	Apprentice Program	Item #3 on the Pre-Bid Conference Agenda states, "Per the PLA Contractors must participate in an Apprentice Program. Please become familiar with these requirements." Do all subcontractors have to participate in the Apprentice Program, or are there any exceptions based on number of employees on site for a particular company or value of their trade on this project?	5/13/2024	EW Howell Construction Group	Please refer to the PLA agreement and any questions related to the agreement, the pre-apprenticeship or apprenticeship programs and LMF participation to the Hudson Valley Building Trades Council.	No			
69	T	Vape Detection	Please provide specifications for the vape detection system.	5/13/2024	EW Howell Construction Group Worth Construction Co., Inc. Rizzo Companies	Refer to revised T001 as part of addendum #4 for vape detection basis of design. Vape Detection system furnished be the owner. Refer to revised specification section 011200.01 as part of addendum #4.	Yes	T001	011200.01	Add #4
70	E / T	Wiring	Specifications call for all wiring (concealed or exposed) to be single conductors in raceway. Please confirm that MC cable will be suitable for use within walls and above hung ceilings.	5/13/2024	EW Howell Construction Group Worth Construction Co., Inc. Rizzo Companies	MC cable can be used in situations described as per specification 260533, 3.1., A	No			
71	AF	Resinous Flooring	Stonhard products are proprietary resinous floor scope products. Please confirm if Dex-O-Tex equal system can be priced in lieu of Stonhard products.	5/13/2024	EW Howell Construction Group	Product equivalents will be accepted.	No			
72	G	BIM	Please advise if BIM Coordination is part of this project & scope of work.	5/13/2024	EW Howell Construction Group	Coordination drawings are required as per specification section 013100. CAD and REVIT files will be provided at no cost to the awarded contractor with the execution of the Digital Data Licensing Agreement release form C106-2013.	No			

73	M	Heat Exchangers	Drawing CTE-M902: HX schedule PFHX-A-1: Fouling factor isn't typically used for Plate & Frame heat exchangers as it isn't recommended by most manufacturers. When it is present, the value is usually much lower than what is currently scheduled. Please confirm whether or not a FF is necessary and what the correct value should be.	5/13/2024	Frank P. Langley, Co. Inc.	Revised as part of addendum #4.	Yes	M902		Add #4
74	M	Heat Exchangers	Heat exchanger for HVAC – Section 235700. Specification notes gaskets to be EPDM material. Is Nitrile also acceptable?	5/13/2024	Frank P. Langley, Co. Inc.	Bid as per specification section 235700 requirements.	No			
75	G	Bid Award / Notice to Proceed	Please provide the anticipated award date and anticipated notice to proceed date.	5/13/2024	Dobco, Inc.	Refer to addendum #2 for updated milestone schedule, specification section 003113.01. The anticipated award date is 6/18/2024 and the anticipated notice to proceed date is 6/19/2024.	No			
76	G	Bid	Please confirm that only one (1) Bid Proposal is required to be submitted.	5/13/2024	Dobco, Inc.	As per specification section 001116 Advertisement For Bids. (1) Hard Copy, (1) PDF copy submitted via email the following day. The bid form must be fully complete to qualify the bid. It is important to emphasize that the schedule of values breakdown and the unit price break down in addition to the other information being requested in the bid form is completed and submitted accurately.	No			
77	G	Permit Fees	Please confirm that the contractor is not responsible for any permit fees including the building permit's fees.	5/13/2024	Dobco, Inc.	As per specification section 007216 General Conditions AIA-A232, 3.7 Permits, Fees, Notices and Compliance with Laws.	No			
78	G	Retainage	Please confirm that the retainage is 2%.	5/13/2024	Dobco, Inc.	5% retainage. Provided as part of addendum #4.	Yes		012900	Add #4
79	G	Electronic Files	Please confirm that the Architect and Design Professionals will provide the contractor with all the CAD files and backgrounds at no cost to the contractor.	5/13/2024	Dobco, Inc.	CAD and REVIT files will be provided at no cost to the awarded contractor with the execution of the Digital Data Licensing Agreement release form C106-2013.	No			
80	G	LEED	Please confirm that the LEED administration will not be performed by the contractor.	5/13/2024	Dobco, Inc.	This project has no LEED requirements.	No			
81	G	Testing	Please confirm that all field testing and inspections will be performed and paid by the owner.	5/13/2024	Dobco, Inc.	Contractor shall be responsible to coordinate his work with the testing agent (which is provided and paid by the owner)	No			
82	G	AHJ	Please advise who is the authority having jurisdiction that will perform code compliance review and inspections.	5/13/2024	Dobco, Inc.	AHJ is New York State Education Departments Office of Facilities Planning	No			
83	G	AHJ	Please confirm that the authority having jurisdiction on the project have already reviewed plans and issuing permits is expected to happen within 15 days of receiving a Notice to Proceed.	5/13/2024	Dobco, Inc.	Plans have been approved by the AHJ and the building permit has already been issued. Bid as per specification section 007216 General Conditions AIA-A232, 3.7 Permits, Fees, Notices and Compliance with Laws.	No			
84	G	Owner Tax-Exempt	Please confirm that the owner is tax exempt, and a tax-exempt certificate will be provided to the contractor upon award so no sales taxes should be counted during the bid.	5/13/2024	Dobco, Inc.	As per specification section 007216 General Conditions AIA-A232, 3.6 Taxes.	No			
85	G	Percentage of Work	Please confirm that the contractor doesn't have to perform certain percentages of the scope of work by its own forces and if this is not the case, please advise what percentages are required by the contractor to perform.	5/13/2024	Dobco, Inc.	The Contractor is responsible to review the project specifications and documents to verify there is no requirement for a percentage of self-performing work.	No			

86	G	Temporary Facilities	Please clarify if the water and electrical power usage costs are to be carried by the Contractor. Since quantifying these costs is difficult, can this clause be waived and establish an allowance to carry the costs?	5/13/2024	Dobco, Inc.	**Response Provided (5/29/2024): The contractor is responsible for these costs as identified in specification section 011200 GC Summary of Work and 015001 Temporary Facilities and Controls.**	No			
87	G	Traffic control	Please confirm that the Contractor is not responsible for any traffic control and traffic control fees associated with deliveries. Please establish a Police Escort or Traffic Management Allowance of $100,000.00 to be used for the duration of the project for deliveries and erection of the structure.	5/13/2024	Dobco, Inc.	Traffic control and police escort fees are the contractors responsibilities and the contractor would be required to plan for these costs if they feel this is necessary to facilitate their work for the project.	No			
88	G	Self-Perform	Due to the complexity of the scope of work and the need for an aggressive schedule required to complete the project within the stipulated timeframes, please confirm that the contractor will have to certify ability to self-perform certain percentages of the contract in order to complete the milestones set forth for this project.	5/13/2024	Dobco, Inc.	The Contractor is responsible to review the project specifications and documents to verify there is no requirement for a percentage of self-performing work.	No			
89	G	Site Contaminates	Please confirm that NO site contaminants are existing on any of the site soils or ground water.	5/13/2024	Dobco, Inc.	There is no known site contaminants at this time. Bid as per specification section 007216 General Conditions AIA-A232, 3.7.3 Concealed or Unknown Conditions.	No			
90	G	Soils	Please confirm that all soils meet or under the NY residential requirements.	5/13/2024	Dobco, Inc.	Not a residential project.	No			
91	G	List of Subcontractors	Please advise what paperwork the bidder needs to submit for the listed subcontractors.	5/13/2024	Dobco, Inc.	Specification section 004336 - Proposed Subcontractors Form	No			
92	G	Bid Bond	Please confirm that the bid bond is 10% of the total lump sum bid but NTE $20,000.	5/13/2024	Dobco, Inc.	As per specification section 002113 - Instructions to Bidders 4.2, A., 1. "Bid Security shall be provided in the amount of five (5) percent of the dollar amount of the Base Bid." There is **NO** Not to Exceed amount.	No			
93	G	Colored Renderings	Please re-consider the request to provide electronic colored renderings, it will only help the bidders and subcontractors. we strongly recommend it for the exterior facades and interior elevations.	5/13/2024	Dobco, Inc.	Renderings are not part of the contract documents.	No			
94	G	AISC Certification	Please confirm that the listed Structural Steel Contractor must have an AISC fabrication certification.	5/13/2024	Dobco, Inc.	Yes, bid as per specification section 051200, 1.5, D	No			
95	G	Contractor Experience	Please confirm that the bidder must have prior experience constructing similar facilities in active areas similar to the site herein.	5/13/2024	Dobco, Inc.	**Revised Response (6/7/2024): Revised as part of addendum #6. Refer to spec section 002113, 5.2, D, 4. "*Has appropriate technical ability and experience in institutional and commercial construction.*"** **Refer to spec section 002113, 6.1, A. "*Bidders to whom an award of a Contract is under consideration shall submit to the Owner, within three (3) calendar days, a properly executed AIA Document A305, Contractor's Qualification Statement, unless such statement has been previously required and submitted as a prerequisite to the issuance of Bidding Documents.*"**	Yes		002113	Add #6
96	G	Bid Form	Please confirm that the contractor needs to list only the plumbing, HVAC, electrical, subcontractors on the bid form.	5/13/2024	Dobco, Inc.	Subcontractors should be listed on the Proposed Subcontractors Form Specification section 004336. All subcontractors should be listed.	No			

97	G	AIA Document A305-2020	Please confirm that the AIA Document A305-2020 which includes Exhibits A – E is not required to be submitted with the bid proposal. Please confirm that the AIA Document A305-2020 and the Exhibits A-E will only be required by the low bidder.	5/13/2024	Dobco, Inc.	As per specification section 002113 - Instructions to Bidders 6.2, A.	No			
98	G	Bid Date	We respectfully request that the bid date be extended until the 6/24/2024 if possible, in order to be able to provide the Owner with a competitive bid package. Due to the bid date being close to the Memorial Day weekend many of our subcontractor and vendors will be on vacation and we are getting feedback that they do not have enough time to complete their quotes. Dobco would like to submit a competitive bid to the owner and we would appreciate the owner assistance on extending the bid date.	5/13/2024	Dobco, Inc.	At this time the bid date is to remain 6/6/2024.	No			
99	A	078100 - Applied Fire Protection	There is a discrepancy between the Life and Safety sheets LS101-LS102 and the specification section 078100. The Life and Safety plans show fireproofing plans that it calls out for the SOFP to be rated for 1-hour, whereas the specification section called for roof construction and supporting beams and joist to be 2-hours. Which of the two different rating should we abide by?	5/13/2024	Dobco, Inc.	Revised as part of addendum #4	Yes		078100	Add #4
100	S	Column Schedule	Column F-20 is scheduled to receive intumescent paint. The column schedules do not call out what the F-20 column is. Please determine the size of the HSS member at location F-20.	5/13/2024	Dobco, Inc.	Provided as part of addendum #4	Yes	S004		Add #4
101	S	Column Schedule	The column schedule legend shown on sheet S004 called out FP "Denotes fireproofing treatment required on column (do not shop prime)." This is correct when applying fireproofing but some of these columns will receive intumescent paint. Steel to receive intumescent paint is required to be shop primed with a compatible primer.	5/13/2024	Dobco, Inc.	Revised as part of addendum #4	Yes	S004		Add #4
102	A	Intumescent Paint	Clarify what primer will be applied for the steel to receive intumescent paint.	5/13/2024	Dobco, Inc.	Bid as per specification section 078123, 2.3, B.	No			
103	A	Wall Construction	Detail 3 on sheet A309 wall construction notes do not match the section drawn. Wall construction called out 2" of spray foam insulation of 5/8" exterior sheathing, and the detail shows rigid insulation being applied to CMU block. Which of the two different wall constructions should be abide?	5/13/2024	Dobco, Inc.	Revised as part of addendum #4	Yes	A309		Add 4
104	A	Wall Construction	Detail 3 on sheet A253 shows two details (3/A351 and 9/A354) representing the base and top of an exterior wall. These two details show two different wall constructions. 3/A351 has spray foam on exterior sheathing and 9/A354 has rigid insulation on cmu block. Please clarify the wall construction type in this area.	5/13/2024	Dobco, Inc.	Revised as part of addendum #4	Yes	A253		Add 4
105	A	Wall Construction	Detail 1 of sheet A303 wall construction calls for 8" CMU with fluid applied membrane barrier and 2-1/2" rigid insulation; the wall itself does not match the description it is given. Please clarify if this wall is supposed to be CMU or 6" CFMF with 2" of spray foam insulation as drawn.	5/13/2024	Dobco, Inc.	Revised as part of addendum #4	Yes	A303		Add 4

106	A	Gypsum Board	Spec 092116-2.3-B-3a states MR Gypsum Board throughout, however sheet A701, Note#8 goes into detail stating Type 'X' gypsum board unless listed below. Is the intent to have Type 'X-MR' gypsum board thru-out?	5/13/2024	Pike Construction Services, Inc.	Type 'X-MR' gypsum board thru-out. Revised as part of addendum #4.	Yes	A701, A702		
107	A	Batt Insulation	Is batt insulation in new metal framing acceptable? There is no mention of it in specifications.	5/13/2024	Pike Construction Services, Inc.	Bid as specified. Spray foam insulation shall be used in exterior metal framed walls as per specification section 072119. Acoustic insulation to be used at interior metal framed partitions as per specification section 092216, 2.1, F., 8.	No			
108	A	A604	Per detail 11/A604 there is a half wall at the section cut thru indicating detail 6/A604. Can a detail thru the 'B003' mirror area please be provided. (How are the mirrors attached/hung? Is there a wall behind them?)	5/13/2024	Pike Construction Services, Inc.	Revised as part of addendum #4.	Yes	A604		Add #4
109	A	Washer / Dryers	Reference specification 113013 Residential Appliances which mentions Contractor to carry Clothes Washer and Dryer. Drawing FS200 items 215 (Washer Machine) and 215.1 (Dryer Machine) are marked as "NIC – By others". Please confirm we are not to carry the cost of these with our bid.	5/13/2024	Pike Construction Services, Inc.	Revised as part of addendum #4.	Yes	A624, FS200		Add #4
110	A	Door Schedule	100A, 129A – "G" Door Type / no glazing type noted. Please advise	5/14/2024	Rizzo Companies	Revised as part of addendum #4.	Yes	A902		Add #4
111	A	Door Schedule	100J – "N" Door Type / no glazing type noted. Please advise	5/14/2024	Rizzo Companies	Revised as part of addendum #4.	Yes	A902		Add #4
112	A	Door Schedule	130, 130B, C102, C201 – "F" Type Door – G3 Glazing Noted. Are these doors to be flush or do they need lites (windows) in them. Please advise	5/14/2024	Rizzo Companies	Revised as part of addendum #4.	Yes	A902, A903		Add #4
113	A	Door Schedule	105, 106, 122, 129B, 130, 130A, 130B, C102, S101, S102, S103, S104, 203, 206, 222, S201, S202, S203, S204, 300, 303, S303, S304 – Type 3 Frame (double frame – 2" head) / Head Detail 5 (4" Masonry head). Please advise which is correct.	5/14/2024	Rizzo Companies	Revised as part of addendum #4.	Yes	A902, A903, A904		Add #4
114	A	Door Schedule	112 – Type 4 Frame (double frame – 4" head) / Head Detail 4 (2" head). Please advise which is correct.	5/14/2024	Rizzo Companies	Revised as part of addendum #4.	Yes	A902		Add #4
115	A	Door Schedule	116E, 204A – Type 2 Frame (single with 4" head) / Head Detail 4 (2" head). Please advise which is correct.	5/14/2024	Rizzo Companies	Revised as part of addendum #4.	Yes	A902, A903		Add #4
116	A	Door Schedule	206A, 210A, 215A, 216A – Type 1 Frame (single with 2" head) / Head Detail 5 (4" Masonry head). Please advise which is correct	5/14/2024	Rizzo Companies	Revised as part of addendum #4.	Yes	A903		Add #4
117	A	Wall Construction	Area 3 dr. A113 referring to wall section A309/3. Detail 3 / A309 showing CMU wall on 2nd floor, however wall construction description calls for different. Please clarify.	5/14/2024	Worth Construction Co., Inc.	Revised as part of addendum #4.	Yes	A309		Add #4
118	A	Casework	Casework detail 1 & 2 on Dr. A651, please explain what rooms this details should be use for.	5/14/2024	Worth Construction Co., Inc.	Details 1 & 2 on drawing A651 are typical details for plastic laminate casework. Refer to interior elevations for locations.	No			
119	A	Casework	Dr.123 no details shown for Rm. #224. Is the case work same kind as for Rm. #232? Please confirm.	5/14/2024	Worth Construction Co., Inc.	Revised as part of addendum #4.	Yes	A123		Add #4
120	G	Contract Award	Date Contract to be Awarded	5/14/2024	Joseph Lombardo Plumbing, Heating & Cooling, Inc.	Refer to addendum #2 for updated milestone schedule, specification section 003113.01. The anticipated award date is 6/18/2024 and the anticipated notice to proceed date is 6/19/2024.	No			

121	G	Schedule	Date of Work Commencing (I was only able to discern groundbreaking date of 7/9/24) - If you have any intel specific to Divisions 22 and 23, muchly appreciated in advance.	5/14/2024	Joseph Lombardo Plumbing, Heating & Cooling, Inc.	There are no schedule specific dates relative to Divisions 22 and 23 at this time.	No			
122	G	Schedule	Date of Work Completion	5/14/2024	Joseph Lombardo Plumbing, Heating & Cooling, Inc.	Refer to addendum #2 for updated milestone schedule, specification section 003113.01. The work completion date is 7/24/2026	No			
123	A	Equivalents	In accordance with the bid documents "Proposed Products Forms" and "Substitution Request Form" which would require the Contractor to submit the request for approval of equal products, please find the request to provide us with 4 or 5 equal Manufacturers/Products for each spec section of the bid package. Upon review of the specifications it came to our attention that majority of the spec sections have only 1 (one) manufacturer listed. Please review the example of the spec sections below that have only 1 manufacturer listed and approve the manufacturers below as equals. 081416 - FLUSH WOOD DOORS 083323 - OVERHEAD COILING DOORS 083343 - SMOKE CURTAINS 084313 - ALUMINUM-FRAMED STOREFRONTS 095100 - ACOUSTICAL CEILINGS 102123 - CUBICLE CURTAINS AND TRACK 102800 TOILET, BATH, AND LAUNDRY ACCESSORIES 104400 - FIRE PROTECTION SPECIALTIES 105113 - METAL LOCKERS 122400 - WINDOW SHADES	5/15/2024	Dobco, Inc.	The products specified are basis of design. It is not the intent of the Owner or Architect to deny products deemed to be equivalents. Products will not be reviewed or approved for equivalency prior to the bid date. Revised as part of addendum #4. Refer to section 002113, 3.3.	Yes		002113	Add #4
124	M	Refrigerant Lines	On the mechanical drawings there are now refrigerant lines sizes. Please provide sizes of the refrigerant lines or more detail.	5/16/2024	Pike Construction Services, Inc.	**Response Provided (6/7/2024): Provided as part of addendum #6.**	Yes		Project Manual Vol. 5 - Owner Furnished HVAC Equipment Package	Add #6
125	M	Condensing Units	On M901 there seems to be missing information on air cooled condensing units CU-F-6, and CU-J-1 and what indoor units they serve. The VRF systems table is incomplete. Can you provide that information and complete the served indoor units table?	5/16/2024	Pike Construction Services, Inc.	Revised as part of addendum #4.	Yes	M901		Add #4
126	A/M	Paint Booth	Please clarify if the paint booth is owner provided. Can you provide more information on the paint booth as far as model #, accessories, and scope responsibilities? Can you provide contact info for the paint booth representative?	5/16/2024	Pike Construction Services, Inc.	As per the equipment schedule on drawing A616, the paint booth is contractor provided. Revised equipment plan provided as part of addendum #4. Refer to specification section 233500 for paint booth requirements.	Yes	A616		Add #4
127	E	Clock System	Confirm who is responsible to furnish the clock system (275313)	5/17/2024	Rizzo Companies	Refer to revised specification section 011200.01 as part of addendum #4.	Yes		011200.01	Add #4
128	E	Entry System	Confirm who is responsible to furnish the Audio Visual Entry System (281301)	5/17/2024	Rizzo Companies	Refer to revised specification section 011200.01 as part of addendum #4.	Yes		011200.01	Add #4
129	E	Gym Sound System	Is the gymnasium sound system being furnished by the owner's vendor?	5/17/2024	Rizzo Companies	Gymnasium sound system shall be provided by the GC.	No			
130	C	Chain Link Fence	Sheet C-130 (Addendum #3) appears to have an overlay error on the Eastern-Side Parking lot. 4' High Chain Link Fence is called out in the same location as the parking lot directional arrows. Please advise.	5/17/2024	EW Howell Construction Group	Revised as part of addendum #4.	Yes	C130		Add #4

131	A	Door Schedule	There are hollow metal door frames shown with side lite glass on the floor plans. See rooms 116, 116C, 117A, 118, 119A, 120A, 221 & 302. These frame types are not shown on A901. The door schedule shows these frames as HM - Type 5 but that's for a pair of doors. Please review and advise on these HM frames with side lite glass. Also, please provide required glazing types for these frames.	5/17/2024	EW Howell Construction Group	Revised as part of addendum #4.	Yes	A901, A902, A903, A904		Add #4
132	C	MUTCD Signage	Please advise who is responsible for furnishing & installing the signs indicated on the MUTCD Sign Schedule, C-130.	5/17/2024	EW Howell Construction Group	MUTCD signage shall be provided by the Contractor.	No			
133	E	Emergency Standby Riser	Are there any additional requirements to provide 2 Hour Fire Rating for the Electrical feeders shown on Drawing E702, Detail 2 Electrical Emergency Standby Riser Diagram?	5/20/2024	Rizzo Companies	2 Hour Fire Rating for the electrical feeders shown is NOT required as per New York State Education Departments Office of Facilities Planning.	No			
134	E	ATS-LS	Drawing E112 Detail 2 Electrical Room Plan indicates the ATS-LS in the room with all the other normal Switchgear equipment. Does the ATS-LS or downstream distribution need to be in its own 2 Hour Fire Rated Closet?	5/20/2024	Rizzo Companies	ATS-LS does NOT need to be in its own 2 Hour Fire Rated Closet as per New York State Education Departments Office of Facilities Planning.	No			
135	P	Natural Gas Piping	What is the material specification for the natural gas piping that runs underground to the generator?	5/21/2024	Armistead Mechanical, Inc.	Revised as part of addendum #5.	Yes	C150		Add #5
136	P	Sump Pump	Detail 10 on drawing P-301 mentions pump SP-2. Is there a second sump pump needed for the elevator?	5/21/2024	Armistead Mechanical, Inc.	Revised as part of addendum #5.	Yes	P101, P301		Add #5
137	P	Shower Drains	Please provide a specification for the drains at the showers.	5/21/2024	Armistead Mechanical, Inc.	Drain shall be FD-A as indicated on drawing P001.	No			
138	P	Compressed Air	Please provide a detail for the CA termination for the hose reels.	5/21/2024	Armistead Mechanical, Inc.	Revised as part of addendum #5.	Yes	P001		Add #5
139	P	Compressed Air	What size is the CA for the scissor lift, motorcycle lift, and the H-frame press in the Auto Tech Shop?	5/21/2024	Armistead Mechanical, Inc.	Provide a ¾" line to each controller for the scissor lifts, a ¾" line secured to the wall near the motorcycle lift, and a ¾" drop to the H-frame press. Revised as part of addendum #5.	Yes	P112, P122		Add #5
140	P	Underground Plumbing	When will be the start date to install the underground waste & vent / storm any other underground plumbing @ Newburgh CTE?	5/21/2024	Joseph Lombardo Plumbing, Heating & Cooling, Inc.	This date is not determined yet. It is the awarded Contractors responsibility for establishing the construction project milestone schedule. Refer to section 011200, 1.11	No			
141	T	273100 Telephone System	Is the equipment described in this section owner or contractor furnished? If contractor furnished please identify handset quantities – they aren't show on the drawings.	5/21/2024	Upstate Electric	Telephone devices are furnished by the owner. Revised as part of addendum #5.	Yes		011200.01	Add #5
142	A	Spray Acoustic Treatment	Please confirm the thickness of the Spray Acoustic Treatment is to be ¾" per spec section 09 83 16, part 3.3A, rather than the 2" that is shown on the architectural drawings (ex: A-301 Floor Construction notes).	5/21/2024	Pike Construction Services, Inc.	Thickness to be 3/4". Revised as part of addendum #5.	Yes	A301, A302, A303, A304, A305, A306, A308, A309, A310	098316	Add #5
143	A	Welding Work Tables	Please provide specifications or details for the Welding Work Tables shown on A615 (table height & material, rollers, etc.)	5/21/2024	Pike Construction Services, Inc.	Welding Work Tables are provided by the owner. Revised as part of addendum #5.	Yes	A615		Add #5
144	G	AIA A232 Contract	The A232 which was included in the RFP has been highly modified from Base AIA language. We are greatly concerned with the changes and added language which depart drastically from the industry standard and, in addition, assign risk which is atypical in the industry. We request clarification in advance of bid day as to whether this document is negotiable, and if the owner will consider using something closer to the base language of the original AIA documents.	5/21/2024	Pike Construction Services, Inc.	It is part of the bid documents and therefore not negotiable. If there are specific clauses that you feel are extremely onerous, we would need them identified to consider if any changes would be made by addendum.	No			

145	G	Bid Period	Please advise if the Prime Bid Period can be extended by 1 - 2 weeks to allow contractors/subcontractors additional time to review the anticipated Addendum #5 document set and to allow for better subcontractor coverage as many are requesting additional time in order to provide pricing.	5/22/2024	Whiting-Turner	Bid date has been extended to June 20th. Revised as part of addendum #5.	Yes		001116	Add #5
146	G	004336 Subcontractors List	Please advise if multiple subcontractors can be listed for an assigned portion of the work under Specification Section 004336 as the final awarded Subcontractor may not be known by General Contractor at the time of bid submission (ex: Prime Contractor may list multiple Plumbing Subcontractors).	5/22/2024	Whiting-Turner	List the subcontractor you are basing your bid on. If the subcontractor is unknown at the time of the bid submission, you may list multiple subcontractors or TBD (to be determined).	No			
147	S	Fireproofing	Please identify what structural steel members are to receive spray fireproofing, intumescent paint, etc.	5/22/2024	Whiting-Turner	Structural steel members to receive fireproofing are identified on fire proofing plans 4/LS101 & 4/LS102. Columns to receive spray fireproofing are indicated on column schedules on drawings S003 & S004. Columns to receive intumescent paint are indicated on A113 identified with keynote (A4).	No			
148	A	Exterior Signage	Provide provisions for the exterior signage for the GC to furnish and install. Current language on the drawings is TBD	5/22/2024	Whiting-Turner	Provisions for exterior signage are to be carried under an allowance as indicated on the BID Form section 004116.01, 6., B.	No			
149	S	Delegated Design	Please confirm if the masonry stair tower construction/assembly is to be a delegated design component with signed and sealed calculations from a professional engineer registered in the state of New York.	5/22/2024	Whiting-Turner	The masonry shaft itself is to be constructed as shown on the drawings. Unless shown otherwise on plan, the metal pan stair construction (and attachment to the masonry shaft) is to be a delegated design component with signed and sealed calculations from a professional engineer registered in the state of New York (per Delegated Design Note 4 on S001, and specification 055100).	No			
150	A	Stair Treads	Please confirm the metal stair tread heights.	5/22/2024	Whiting-Turner	As indicated on detail 11/A354	No			
151	S	Concrete Strength	Please confirm the concrete strength for the metal stair pan infills.	5/22/2024	Whiting-Turner	Refer to specification section 2.3, D. Revised as part of addendum #5.	Yes		055100	Add #5
152	A	Autotech Shop	Please provide specifications for the waste fluid containers for the auto tech shop	5/22/2024	Whiting-Turner	Waste fluid containers are to be owner provided. Revised as part of addendum #5.	Yes	A613		Add #5
153	A	Chain Link Fence	Please provide specifications for the chain link fencing for the auto tech shop.	5/22/2024	Whiting-Turner	Refer to specification section 323113	No			
154	A	Welding Work Tables	Please provide sizes for the welding worktables on Drawing A615 and confirm that the basis of design is Lincoln Electric Co.	5/22/2024	Whiting-Turner	Welding Work Tables identified as WWT on A615 are provided by owner. Welding tables as accessories to the welding booths are indicated in specification	Yes	A615		Add #5
155	A	Countertops	Please provide specifications for the butcherblock countertop	5/22/2024	Whiting-Turner	Refer to specification section 123600.	No			
156	A	Lumber / Sheet Rock Storage	Please provide specifications for the lumber storage rack and the sheet rock storage rack for the construction shop room	5/22/2024	Whiting-Turner	Lumber storage rack and sheet rock storage rack are provided by the owner. Revised as part of addendum #5	Yes	A620		Add #5
157	A	Shop Power Poles	Please provide provisions for the power poles on the enlarged plan for the construction shop.	5/22/2024	Whiting-Turner	**Open RFI**				
158	A	Countertops	Please provide specifications for the epoxy resin, backsplash, and support framing for details associated with the biology lab per drawing A621.	5/22/2024	Whiting-Turner	Refer to specification section 123600.	No			
159	S	Grouting	Please advise if high-lift grouting techniques are approved for use on the project, or for specific applications. Reference Masonry Note 11 for additional information.	5/22/2024	Whiting-Turner	High lift grouting techniques can be used so long as they follow the TMS 602 requirements (i.e., cleanouts at base of walls shall be provided, lifts shall not exceed 5'-4" where bond beams are spaced tighter than that, etc…).	No			

160	A	Countertops	Please provide specifications for the solid surface countertop (SS).	5/22/2024	Whiting-Turner	Refer to specification section 123600.	No			
161	M	Control Wiring	Please provide any special control wiring requirements for the owner provided mechanical equipment listed on drawing M901.	5/22/2024	Whiting-Turner	**Response Provided (6/7/2024): Provided as part of addendum #6.**	Yes		Project Manual Vol. 5 - Owner Furnished HVAC Equipment Package	Add #6
162	S	Compressible water stop	Please advise detail 12 for piping below grade takes precedent over Detail 15 on Drawing S501. Please confirm that compressible water stop may be provided in lieu of the steel pipe sleeve as shown in Detail 12 on Drawing S501.	5/22/2024	Whiting-Turner	Revised as part of addendum #5.	Yes			
163	A	Automotive Equipment	We have been advised by an automotive equipment distributor that the specified manufacturer for the automotive equipment "Snap-On" and their subsidiaries provide specialized pricing options to schools if the equipment is purchased direct. Please advise if the contractor should proceed to include pricing to furnish and install all of the scheduled automotive equipment on Drawings A613 & A617.	5/22/2024	Whiting-Turner	Equipment should be furnished and installed as indicated on the equipment schedules.	No			
164	A	Equipment	Please confirm that all specified auto related scheduled equipment is approved to be furnished and installed in a school technical educational building	5/22/2024	Whiting-Turner	All equipment has been approved to be furnished and installed as per New York State Education Departments Office of Facilities Planning.	No			
165	S	Concrete Reinforcements	Please advise if field cutting for concrete reinforcements can be permitted as referenced in Concrete Note 3 on Drawing S001	5/22/2024	Whiting-Turner	All reinforcing is intended to be shop fabricated. Straight bars may be field cut if needed, any other field modifications would require further approval.	No			
166	G	Project Labor Agreement	Please provide clarification on what equipment, items, and scope of work are defined and encompassed under the verbiage, "career tech education proprietary equipment," as described in Section 4.2 Union Referral Subsection F. on page 11 of the Project Labor Agreement for this project in Project Manual Vol 1.	5/22/2024	Whiting-Turner	Please refer to the PLA agreement and any questions related to the agreement, the pre-apprenticeship or apprenticeship programs and LMF participation to the Hudson Valley Building Trades Council.	No			
167	T	Vape Detection	Please provide specifications for the vape detection system.	5/22/2024	Whiting-Turner	Refer to revised T001 as part of addendum #4 for vape detection basis of design. Vape Detection system furnished be the owner. Refer to revised specification section 011200.01 as part of addendum #4.	Yes	T001	011200.01	Add #4
168	E	MC Cable	Specifications call for all wiring (concealed or exposed) to be single conductors in raceway. Confirm that MC cable will be suitable for use within walls and above hung ceilings.	5/22/2024	Whiting-Turner	MC cable can be used in situations described as per specification 260533, 3.1., A	No			
169	A	Roofing	Please advise if roofing system vapor barrier / waterproofing should be continued up CMU wall, under brick shelf angle, and under masonry system vapor barrier (TYP.). See Detail 8 on Drawing A352.	5/22/2024	Whiting-Turner	Roof system vapor barrier should be installed at concrete roof decks only and as per specification section 075323, 3.4, A. Revised as part of bid addendum #5	Yes	A411, A412, A413		Add #5
170	A	Tackboard	Drawing A601 Detail 2 shows a tack board, but no specific locations appear to have been provided on the floor plan. Please advise if and where these are required.	5/22/2024	Whiting-Turner	Revised as part of addendum #5.	Yes	A601		Add #5
171	A	Roller Shades	The spec section calls out "provide shades at all windows/storefront locations". Please confirm if there should be shades at all exterior windows or only where it calls out for shades at RS locations?	5/22/2024	Whiting-Turner	Roller Shades should be provided at locations as shown on drawings. Revised as part of addendum #5.	Yes		122400	Add #5

172	A	Roller Shades	Specs call out the manufacturer for interior manually operated roller shades as "Draper" with their product, "Manual Lightbloc Flexshade". However, the shade fabric, Soho - 1100 Series (1% open), is only produced by a different manufacturer, MechoShade Systems LLC. Please clarify exactly what shade fabric and manufacturer should be used.	5/22/2024	Whiting-Turner	Products specified are basis of design. Roller shade and shade fabric can be produced by different manufacturers.	No			
173	A	Door Schedule	Per the Door Schedule on sheet A902, Doors # CY101 & CY101A are shown to be FRP doors type DG with glass type G3. Glazing type G3 is shown to be fire rated glazing; no fire rating is shown on the door schedule for these openings. Please clarify if fire rated glass is required at these openings.	5/22/2024	Whiting-Turner EW Howell Construction Group	Revised as part of addendum #5.	Yes	A902		Add #5
174	A	Door Schedule	Per the Door Schedule on sheet A902, Doors # CY101 & CY101A are shown to be FRP doors type DG with glass type G3. These openings are shown to be door type DG which are stile & rail doors, all other FRP doors are shown to be flush doors type F or G and all the aluminum doors are shown as type DG. Please clarify if these are to be FRP stile & Rail doors or Aluminum.	5/22/2024	Whiting-Turner EW Howell Construction Group	Doors # CY101 and CY101A are to be door type DG as indicated on the door schedule.	No			
175	A	Welding Work Tables	"Please provide manufacturer and model and any necessary specifications for the welding worktable (WWT) as indicated on Drawing A615."	5/22/2024	Whiting-Turner	Welding worktables are provided by the owner. Revised as part of addendum #5	Yes	A615		Add #5
176	A	Crystaline Waterproofing	Is Section 07 16 16 Crystaline Waterproofing ONLY required at the elevator pit per 9/A502? Please confirm.	5/24/2024	EW Howell Construction Group	As per specification section 071616, only required at elevator pit.	No			
177	AF	Ceramic Wall Tile	Trim shapes are not available on manufacturer's website for materials which have CWT code. Please Confirm the following; Rondec will be used for materials which have CWT code. Cove base, inside and outside corner will be used for quarry tile.	5/24/2024	EW Howell Construction Group	**Response Provided (6/7/2024):** Refer to specification section 093000, 2.2. Rondec will be used for CWT. Cove Base, inside and outside corner will be used for quarry tile.	No			
178	P	Lavatory Materials	The materials of SK3, SK4 and SK5 lavatories are not specified, please advise.	5/24/204	EW Howell Construction Group	**Response Provided (6/7/2024):** Refer to specification section 224000, 2.3, Lavatories. Solid Surface selection provided as part of addendum #6.	Yes	AF001		Add #6
179	AF	Ceramic Wall Tile	CWT-1 is indicated for grooming in finish plan. However, CWT-4 is seen on room finish schedule. Please clarify which material will be used, CWT-1 or CWT-4.	5/24/2024	EW Howell Construction Group	**Response Provided (6/7/2024):** Revised as part of addendum #6.	Yes	AF112		Add #6
180	A	Drawing A112	Drawing CTE112 at Rooms 101, 101A-D; Enlarged Plan Reference to Drawing 1 on A605, might be Drawing 2 on A606, please advise.	5/28/2024	EW Howell Construction Group Pike Construction Services, Inc.	Revised as part of addendum #5	Yes	A112		Add #5
181	A	Spec Section 096500	Section 096500-2 para 1.3H; please provide % or SF of Resilient Sheet Vinyl installed (not available in cartons) for Attic Stock, please advise	5/28/2024	Rizzo Companies EW Howell Construction Group Pike Construction Services, Inc.	**Response Provided (6/7/2024):** Revised as part of addendum #6.	Yes		096500	Add #6
182	FP	Fire Pump	There is a fire sprinkler test header in Plumbing Equipment Room 105, but a fire pump is not shown. Please clarify.	5/28/2024	Pike Construction Services, Inc.	No fire pump. The test header is for forward flow testing of the backflow preventer.	No			

183	FP	Fire Protection	There are difference size beams and beam pockets throughout the facility. Depending on depth and distance apart, sprinklers may be required in every beam space or pocket. Can there be some guidance on where they are required?	5/28/2024	Pike Construction Services, Inc.	The licensed contractor would have to evaluate with regards to NFPA 13, the type of sprinklers used, the other obstructions in the ceiling plane, etc..	No			
184	G	Work Restrictions	Spec Section 011400 – Work Restrictions, paragraphs 1.3 Occupancy Requirements, 1.4 Use of Premises, and 1.8 Uniform Safety Standards […], and Section 011410 – NYSED 155.5 Regulations are substantially dedicated to describing how the Contractor will share use of the premise with the Owner during construction. They refer to coordinating construction operations to minimize conflicts and facilitate Owner usage, and discuss conditions, procedures, and safety requirements related to work in an existing, occupied building. Please confirm that these specification sections/paragraphs and others related to existing and/or occupied buildings and/or Owner's shared use of the premises during construction are not applicable.	5/28/2024	Pike Construction Services, Inc.	**Response Provided (6/7/2024):** Specification sections/paragraphs related to existing and/or occupied buildings are not applicable for this project. This is a new building on a new site.	No			
185	G	Contract Language	After careful review of the provided contract, we have identified the following issues (see attachment). We request that the current form of contract be replaced with an unmodified version, or that the successful bidder be allowed to negotiate contract terms. Please advise	5/28/2024	Pike Construction Services, Inc.	**Response Provided (6/7/2024): Revised as part of addendum #6.**	Yes		007216 AIA 232-2019	Add #6
186	A	Fluid Applied Waterproofing	Section 07 14 00 Fluid Applied Waterproofing is included in the specification manual, however, only Crystalline waterproofing is mentioned at the elevator pit. Please advise on the location of Fluid-Applied Waterproofing if included within the project.	5/28/2024	EW Howell Construction Group	Section 071400 Fluid Applied Waterproofing shall be at all below grade foundations. Revised as part of addendum #5.	Yes		071400	Add #5
187	A	Auto Operators	Please clarify if there are any auto operators on this project.	5/29/2024	Pike Construction Services, Inc.	If this is referring to auto operators on man doors, there are none.	No			
188	S	Thermal Break Brackets	Reference 051200, Section F and/or detail 1/S302 - FERO thermal break brackets -Forthe Fire Release Connectors, the sizes are to be specified by the EOR and FERO manufactures to the sizes provided to us. Please provide desired thickness.	5/29/2024	Pike Construction Services, Inc.	Revised as part of addendum #6.	Yes	S302, S305		Add #6
189	T	Low Voltage	Is the LVC responsible for the conduit or is that the division 26 electricians' job?	5/29/2024	Rizzo Companies	Refer to spec section 011200, 1.6, A, 6, 28. General contractor to *"Provide all fire alarms, and networking systems, WAP and camera **wiring** ."*	No			
190	T	Low Voltage	Spec states that the owner will provide the network electronics. I just want to confirm that the LVC is only doing installation and not providing any materials for the network portion. Can you please specify what exactly the owner will be providing?	5/29/2024	Rizzo Companies	Refer to spec section 011200.01 Appendix A Responsibility Matrix as part of addendum #5. *"Wireless Access Points, Network Switches, and UPS to be furnished by owner, installed by the GC"* Refer to spec section 011200, 1.6, A, 6, 28. General contractor to *"Provide all fire alarms, and networking systems, WAP and camera **wiring.** "*	No			
191	T	Low Voltage	Is the LVC providing the rack and rack equipment or is that to be furnished by the owner?	5/29/2024	Rizzo Companies	General Contractor is responsible for providing the rack and rack equipment.	No			
192	T	Low Voltage	What is required to be purchased from dutches tel-audio, inc.? Is that where the LVC has to purchase items from or is that where the owner is purchasing the material from?	5/29/2024	Rizzo Companies	Refer to spec section 011200.01 Appendix A Responsibility Matrix as part of addendum #5. *"Public Address Equipment is furnished by owner's vendor, installed by GC"*	No			

193	T	Low Voltage	Is the LVC responsible for the fire detection & alarm or is that on the fire alarm vendor?	5/29/2024	Rizzo Companies	Refer to spec section 011200, 1.6, A, 6, 29. "*Fire Alarm devices to be furnished by owner. General Contractor is responsible for the complete installation of the fire alarm system and all programing.*"	No			
194	A	Postal Specialties	Please have architect specify SKU # s and manufacturer name if possible. Is this a USPS approved mailbox system or what is referred to often as a mail sorter which often used for private distribution which the Post Office is not used for delivery?	5/30/2024	Rizzo Companies	Revised as part of addendum #6.	Yes		105500	Add #6
195	P	Flue Pipe	On P301 The WHA flue pipe details state that the piping continuation to be found on 1/P231 There is no P231 Where are they to be found	5/30/2024	Joseph Lombardo Plumbing, Heating & Cooling, Inc.	Revised as part of addendum #6.	Yes	P301		Add #6
196	P	Compressed Air	What is the piping material for the underground compressed air?	5/31/2024	Armistead Mechanical, Inc.	The underslab compressed air line can be run using Duratec semi-flexible air tubing (or similar), copper tube and fittings, aluminum tube and fittings, or moisture coated black steel, schedule 40 and fittings.	No			
197	P	Auto Tech Shop	In the Auto Tech Shop, there are references to Note 81, but Note 81 says “varies.” Please provide a note with appropriate directions.	5/31/2024	Armistead Mechanical, Inc.	Revised as part of addendum #6.	Yes	P112		Add #6
198	T	Low Voltage	Are you looking for speakers to be daisy-chained or would you like us to run an individual homerun for each speaker?	5/31/2024	Rizzo Companies	There will be a combination of daisy chain and homeruns. Each classroom/enclosed space/room with a speaker will have a single homerun back to the PA head end. If there are multiple speakers in a classroom/individual space, such as the gymnasium, these will be daisy chained together, then a homerun back to the PA head end. The hallways will all be daisy chained together.	No			
199	T	Low Voltage	What is the current Manufacturer and Model# that is currently being used for the Audio/Video Control console? Specs ask for the AIPHONE IX series or manufacturer to match the district's existing systems at other buildings (confirm manufacturer and model with the district)	5/31/2024	Rizzo Companies	**Open RFI**	No			
200	T	Low Voltage	Please double-check your series requested for the Cameras. There isn’t any product available that is P series and is a fisheye camera as spec’d out for type S	5/31/2024	Rizzo Companies	Refer to spec section 011200.01 Appendix A Responsibility Matrix as part of addendum #5. *"CCTV Cameras furnished by owner's vendor, and installed by owners separate vendor. Pathways and Cabling for Cameras installed by GC."*	No			
201	T	Low Voltage	Please double-check your series requested for the Cameras. There isn’t any product available that is P series that is a 5mp camera that is 3-way directional as spec’d out for type T	5/31/2024	Rizzo Companies	Refer to spec section 011200.01 Appendix A Responsibility Matrix as part of addendum #5. *"CCTV Cameras furnished by owner's vendor, and installed by owners separate vendor. Pathways and Cabling for Cameras installed by GC."*	No			
202	T	Low Voltage	Please specify what type A for the camera system is. All the types refer to making everything the same parameters as type A but don’t tell us what type A is. It specifies the parameters that you are looking for in Type S but nothing for Type A.	5/31/2024	Rizzo Companies	Refer to spec section 011200.01 Appendix A Responsibility Matrix as part of addendum #5. *"CCTV Cameras furnished by owner's vendor, and installed by owners separate vendor. Pathways and Cabling for Cameras installed by GC."*	No			

203	T	Low Voltage	Please double-check your series requested for the Cameras. There isn't any product available that is P series and is a fisheye camera as spec'd out for type F	5/31/2024	Rizzo Companies	Refer to spec section 011200.01 Appendix A Responsibility Matrix as part of addendum #5. *"CCTV Cameras furnished by owner's vendor, and installed by owners separate vendor. Pathways and Cabling for Cameras installed by GC."*	No			
204	T	Low Voltage	Please double-check your series requested for the Cameras. There isn't any product available that is P series and is a Bi-directional camera as spec'd out for type B they only have multi-directional which includes 4 cameras (1 camera for each direction)	5/31/2024	Rizzo Companies	Refer to spec section 011200.01 Appendix A Responsibility Matrix as part of addendum #5. *"CCTV Cameras furnished by owner's vendor, and installed by owners separate vendor. Pathways and Cabling for Cameras installed by GC."*	No			
205	T	Low Voltage	Can we use a different Camera manufacturer or do we have to use the Wisenet	5/31/2024	Rizzo Companies	Refer to spec section 011200.01 Appendix A Responsibility Matrix as part of addendum #5. *"CCTV Cameras furnished by owner's vendor, and installed by owners separate vendor. Pathways and Cabling for Cameras installed by GC."*	No			
206	T	Low Voltage	The spec states you want (4) racks in the MDF and (1) in each iDF but doesn't specify the manufacturer or if they want a 2-post rack or a 4-post rack. Can you please specify?	5/31/2024	Rizzo Companies	Refer to spec section 272100, 2.7, F. *"Acceptable Manufacturers"* Refer to spec section 272100, 2.7, D. "*Floor Mounted Server Racks (Four Post Racks)"*	No			
207	T	Low Voltage	Can you please specify what is going to be owner furnished items?	5/31/2024	Rizzo Companies	Refer to spec section 011200 GC Summary of Work and section 011200.01 Appendix A Responsibility Matrix.	No			
208	T	Low Voltage	Is there a specific manufacturer you would like us to use for the patch panels and UPS?	5/31/2024	Rizzo Companies	For the patch panels, refer to spec section 272100, 2.4, A, 10. *"Acceptable Manufacturers"* Refer to spec section 011200.01 Appendix A Responsibility Matrix as part of addendum #5. *"Wireless Access Points, Network Switches, and UPS to be furnished by owner, installed by the GC"*	No			
209	T	Low Voltage	Is a PBX System required?	5/31/2024	Rizzo Companies	Not required.	No			
210	T	Low Voltage	Is the conduit provided by the LVC or by the electrician?	5/31/2024	Rizzo Companies	Refer to spec section 011200, 1.6, A, 6, 28. General contractor to "Provide all fire alarms, and networking systems, WAP and camera wiring."	No			
211	A	Roof Details	A412 Notes R1 & R6 say refer to details, however, there are no details revealing these notes on A450 / 451 and it does not reference any detail on the drawing. Are there any details for these notes?	5/31/2024	Rizzo Companies	Revised as part of addendum #6.	Yes	A411, A412, A413	075323	Add #6
212	A	Roof Curbs	Is there any CIP concrete, curbs and pads, on the roof for the mechanical units?	5/31/2024	Rizzo Companies	There are no cast in place concrete curbs or pads for mechanical equipment.	No			
213	E	Generator / Transformer Pad	Details for surfaces of the generator and transformer yards are not indicated. Please confirm what surfaces are desired in these areas.	5/31/2024	Prismatic Development Corporation	Refer to drawings 1/E601 and 8/E602.	No			
214	C	Curbing	It appears as though the small fenced in parking lot adjacent to the electrical transformer yard does not have curbing around its perimeter. It appears curbing is just through the two radius. Please confirm.	5/31/2024	Prismatic Development Corporation	Revised as part of addendum #6.	Yes	C130		Add #6

215	A	Waterproofing	Based on the Section 07 14 00 Fluid Applied Waterproofing specification issued with Addendum #5, please provide foundation detail(s) showing this scope of work in order to determine correct horizontal & vertical application(s) & quantities of the specified product.	5/31/2024	EW Howell Construction Group	Revised as part of addendum #6.	Yes	A301		Add #6
216	S	Rebar	Is rebar for the masonry scope of work required to be galvanized? Or is uncoated rebar to be used? Section 04 20 02.4 states Galvanized (page 5). Section 04 22 00 (page 5) states Uncoated.	5/31/2024	EW Howell Construction Group	Revised as part of addendum #6.	Yes		042000	Add #6
217	AF	Graffiti Coating	AF001 general finish key note #8 states all exposed ground face CMU walls will receive graffiti coating typical for interior locations but finish legend shows paint on CMU walls. Please clarify if CMU walls will receive graffiti coating or paint.	5/31/2024	EW Howell Construction Group	Revised as part of addendum #6.	Yes	AF001		Add #6
218	AF	Graffiti Coating	If graffiti coating is to be required, please provide specification(s) and/or product/application information.	5/31/2024	EW Howell Construction Group	Revised as part of addendum #6.	Yes	AF001		Add #6
219	TS, TR, TL		Specification Section(s) 191000 Performance Sound & Video Systems, 192000 Studio Lighting Systems, 193000 Studio Rigging & Curtains are not listed on the latest issuance of the Responsibility Matrix. Is the full scope GC Furnish & Install? Is there any components expected to be Owner F&I? Please clarify & confirm the Furnish/Install Responsibilities of this scope of work.	5/31/2024	EW Howell Construction Group	General Contractor is responsible for providing specification sections 191000, 192000, & 193000. Revised as part of addendum #6.	Yes		011200	Add #6
220	A	Metal Casework	Specification Section 123553 Metal Laboratory Casework appears in the manual, however, items fitting this specification appear to fall into other categories. Please advise on the location(s) of any/all casework that falls into this specification section.	5/31/2024	EW Howell Construction Group	Refer to casework tags as indicated within the "CASEWORK NOTES" on drawings A601 thru A635. Type of Casework tagged with M = Metal fall under spec section 123553.13. Spec section 123553.13 revised as part of addendum #6.	Yes		123553.13	Add #6.

DOCUMENT 002113 - INSTRUCTIONS TO BIDDERS

PART 1 – DEFINITIONS

A. Bidding Documents include the Bidding Requirements and the proposed Contract Documents. The Bidding Requirements consist of the Invitation to Bid, Instruction to Bidders, the Bid Form, Supplementary Bid Forms and other sample bidding and contract forms.

B. The proposed Contract Documents include the Contract Forms between the Owner and Contractor, Contractor's executed Bid Form and executed Supplementary Bid Forms, Conditions of the Contract (General, supplemental, and other Conditions), Drawings, Specifications and all Addenda issued prior to execution of the Contract.

C. Definitions set forth in the General Conditions of the Contract of Construction, or in other Contract Documents are applicable to the Bidding Documents.

D. Addenda are written or graphic instruments issued by the Architect prior to the execution of the Contract which modify or interpret the Bidding Documents by additions, deletions, clarifications or corrections.

E. A Bid is a complete and properly executed proposal to do the Work for the sums stipulated therein, submitted in accordance with the Bidding Documents.

1. Wherever the word "Bid" occurs in the documents, it refers to the Bidder's Proposal.

F. The Base Bid is an amount stated in the Bid for which the Bidder offers to perform the Work described in the Bidding Documents.

G. An Alternate is an amount stated on the Bid Form to be added to or deducted from the amount of the Base Bid if the corresponding change in the Work, as described in the Bidding Documents, is accepted.

H. A Unit Price is an amount stated on the Bid Form as a price per unit of measurement for materials, equipment for services or a portion of the Work as described in the Bidding Documents.

I. A Bidder is a person or entity who submits a Bid and who meets the requirements set forth in the Bidding Documents.

1. A Sub-bidder is a person or entity who submits a Bid to a Bidder for materials, equipment, or labor for a portion of the Work.

PART 2 – BIDDER'S REPRESENTATIONS

A. The Bidder by making a Bid represents that:

1. The Bidder has read and understands the Bidding Documents, to the extent that such documentation relates to the Work for which the Bid is submitted, and for other portions of the Project, if any, being Bid concurrently or presently under construction.
2. The Bid is made in compliance with the Bidding Documents.
3. The Bidder has visited the site, become familiar with local conditions under which the Work is to be performed and has correlated the Bidder's personal observations with the requirements of the proposed Contract Documents.
   a. Bidders may visit the existing site by making prior arrangements with Thomas Ritzenthaler, CSArch at 845-561-3179.
4. The Bid is based upon the materials, equipment and systems required by the Bidding Documents without exception.
5. No official, officer or agent of the Owner is authorized to make any representations as to the materials or workmanship involved or the conditions to be encountered and the Bidder agrees that no such statement or the evidence of any documents or plans, not a part of the Bidding Documents, shall constitute any grounds for claim as to conditions encountered. No verbal agreement or conversation with any officer, agent, or employee of the Owner either before or after the execution of this Contract shall affect or modify any of the terms or obligations herein contained.

B. Each Bidder is required to form an individual opinion of the quantities and character of construction work by personal examination of the site and all existing facilities where the project work is to be done, and of the plans and specifications relating to it by such means as is preferred. Each Bidder shall inspect accessible concealed areas of existing construction, provided no significant permanent damage is inflicted upon the property. Lack of knowledge about conditions in accessible concealed areas shall not be the basis for additional cost claims at a later time.

C. The Bidder’s attention has been directed to the fact that all applicable state laws, municipal ordinances, and rules and regulations of all authorities having jurisdiction over construction of the Project shall apply to the Contract throughout, and they are deemed to be included in the Contract Documents the same as though herein written out in full. By submitting a Bid, the Bidder acknowledges that if awarded the Contract it shall give all notices and comply with all laws, ordinances, rules, and regulations bearing on the conduct of the Work as drawn and specified in the Contract Documents. By submitting a Bid, the

Bidder acknowledges that if awarded the Contract it shall be required to observe all laws and ordinances including, but not limited to, relating to the obstructing of streets, maintaining signals, keeping open passageways, and protecting them where exposed to danger, and all general ordinances affecting it, its employees, or its work hereunder in its relations to the Owner or any person. By submitting a Bid, the Bidder acknowledges that if awarded the Contract it shall also obey all laws and ordinances controlling or limiting the Contractor while engaged in the prosecution of the Work under the Contract.

D. The Bidder's attention is directed to the fact that Each Contractor shall pay not less than the minimum hourly wage rates on those contracts as established in accordance with Section 220 of the Labor Law as shown in the schedule included in the Bidding Documents. Article 8, Section 220 of the Labor Law, as amended by Chapter 750 of the Laws of 1956, provides (among other things) that it shall be the duty of the fiscal officer to make a determination of the schedule of wages to be paid to all laborers, workers and mechanics employed on public work projects, including supplements for welfare, pension, vacation, and other benefits. These supplements include hospital, surgical or medical insurance, or benefits; life insurance or death benefits; accidental death or dismemberment insurance; and pension or retirement benefits. If the amount of supplements provided by the employer is less than the total supplements shown on the wage schedule, the difference shall be paid in cash to the employee. Article 8, Section 220 of the Labor Law, as amended by Chapter 750 of the Laws of 1956, also provides that the supplements to be provided to laborers, workers, and mechanics upon public work, "...shall be in accordance with the prevailing practices in the locality...." The amount for supplements listed on the enclosed schedule does not necessarily include all types of prevailing supplements in the locality, and a future determination of the Industrial Commissioner may require the Contractor to provide additional supplements. The original payrolls or transcripts shall be preserved for three (3) years from the completion of the Work on the awarded project by the Contractor. The Owner shall receive such payroll record upon completion of the Project.

PART 3 – BIDDING DOCUMENTS

3.1 COPIES

A. It is the intention of this Project to be both environmentally and fiscally conscious of paper use and consumption. Therefore, documents will be distributed as digital sets in PDF format. Bidding Documents, Drawings, and Specifications, may be viewed online free of charge beginning on **April 15, 2024**, at www.csarchplanroom.com or www.usinglesspaper.com under Public Projects or

electronically downloaded for a non-refundable charge of one-hundred dollars ($100.00.)

1. Please note, in order to access online documents and information, a log in is required. New users can create a free online account upon visiting site by clicking "Register for an Account."

B. Complete sets of Bidding Documents, Drawings, and Specifications, in PDF format (not CAD format) on compact disc (CD) may be obtained from Rev, 28 Church Street, Unit #7, Warwick, NY 10990 Tel: (877) 272-0216, upon depositing the sum of one hundred dollars ($100.00) for each combined set of documents. Checks or money orders shall be made payable to Newburgh Enlarged City School District.

1. Deposit is refundable in accordance with the terms in the Instructions to Bidders to all submitting bids. Any Bidder requiring CD(s) to be shipped shall make arrangements with the printer and pay for all packaging and shipping costs.
2. Any Bidder requiring paper copies of the Bidding Documents, Drawings, and Specifications, shall make arrangements with the printer, and pay for all printing, packaging, and shipping costs. Such costs are non-refundable.

C. All Bid Addenda will be transmitted to registered plan holders via email in PDF format and will be available at www.csarchplanroom.com. Plan holders who have paid for CDs or hard copies of the Bidding Documents will need to make the determination if hard copies of the Addenda are required for their use, and coordinate directly with the printer for hard copies of Addenda to be issued.

1. There will be no charge for registered plan holders to obtain hard copies of the Bid Addenda.

D. Bidders shall use complete sets of Bidding Documents in preparing Bids; neither the Owner nor Architect assumes responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents.

E. The Owner and Architect may make copies of the Bidding Documents available on the above terms for the purpose of obtaining Bids on the Work. No license or grant of use is conferred by issuance of copies of the Bidding Documents.

3.2 INTERPRETATION OR CORRECTION OF BIDDING DOCUMENTS

A. The Bidder shall carefully study and compare the Bidding Documents with each other, and with other work being Bid concurrently or presently under

construction to the extent that it relates to the Work for which the Bid is submitted, shall examine the site and local conditions, and shall at once report to the Architect errors, inconsistencies or ambiguities discovered. All reports to the Architect shall be in writing.

B. No interpretation of the meaning of the Contract Documents, the existing conditions, or of the scope of Work will be made verbally. Provide every request for such interpretation in writing, addressed to CSArch, Attention Joseph Metzger, 40 Beaver Street, Albany, New York 12207 or by e-mail: jmetzger@csarchpc.com, with copy to rpeckham@csarchpc.com, tritzenthaler@csarchpc.com. To provide consideration RFI must be received ~~at least seven (7) working days prior to the date of the Bid Opening~~ ***by the end of day 5/31/2024. (Bid Addendum #5)***

C. Interpretations, corrections, and changes of the Bidding Documents will be made by Addendum. Interpretations, corrections, and changes of the Bidding Documents made in any other manner will not be binding, and Bidders are not required to rely upon them.

D. The Bidding Documents for this Project have been prepared using certain existing construction documents furnished by the Owner, which pertain to the construction of the existing conditions, and limited observations obtained by the Architect at the Project site.

1. More extensive investigations of existing conditions, including disassembly, or testing of existing building components, was not undertaken by the Architect.
2. Portrayal of such existing conditions obscured or concealed from the Owner or Architect's view prior to the start of this Project's construction activities, is based on reasonable implications and assumptions. The Owner and Architect do not imply or guarantee to the Bidders, in any way, that such portrayals are accurate or true existing conditions.

E. In the absence of an interpretation by the Architect, should the Drawings disagree in themselves or with the Specifications, the better quality, the more costly or the greater quantity of work or materials shall be estimated upon, and unless otherwise determined, shall be furnished.

3.3 EQUIVALENTS

A. **Each Bidder shall base his Bid upon the materials and equipment described in the Bidding Documents to the fullest extent possible. The materials, products and equipment described in the Bidding Documents establish as standard of required function, dimension, appearance, and quality to be met by any**

proposed comparable product/equivalent. It is not the intention of the Owner or Architect to eliminate from consideration products that are equivalent in quality, appearance, and function to those specified. (**Bid Addendum #4)**

B. In the specifications, two or more kinds, types, brands, or manufacturers or materials may be named. They shall be regarded as the required standard of quality, and overall, are judged to be equivalent by the Architect. The Bidder may select one of these named items as the basis for its Bid **or, if the Bidder desires to use any other kind, type, brand, or manufacturer or material other than those named in the specifications, it shall indicate in writing, when requested, and prior to the award of the Contract, what kind, type, brand, or manufacturer is proposed in lieu of the named specified item(s).** ~~If a Bidder proposes to use comparable products/equivalents other than those listed in the Project Manual, submit in accordance with subparagraph C below.~~

C. ~~No substitution will be considered prior to receipt of Bids unless written request for approval on a Substitution Request (During the Bidding Phase) Form (Section 004325) has been received by the Architect at least ten (10) days prior to the date for receipt of Bids. Such requests shall include the name of the material or equipment for which it is to be substituted and a complete description of the proposed substitution including drawings, performance and test data, and other information necessary for an evaluation. A statement setting forth changes in other materials, equipment, or other portions of the Work, including changes in the work of other contracts that incorporation of the proposed equivalent would require, shall be included. The burden of proof of the merit of the proposed equivalent is upon the proposer. The Architect's decision of approval or disapproval of a proposed equivalent shall be final.~~

D. ~~If the Architect approves a proposed equivalent prior to receipt of Bids, such approval will be set forth in an Addendum. Bidders shall not rely upon approvals made in any other manner.~~

E. ~~No substitutions will be considered after the Contract award unless specifically provided for in the Contract Documents.~~

3.4 ADDENDA

A. Addenda will be transmitted to all that are known to have received a complete set of Bidding Documents. All such addenda shall become part of the Contract Documents and all Bidders shall be bound by such Addenda whether or not received by the Bidders.

1. Provide Bidding Document distributor with full company name, address, telephone and facsimile numbers and contact person's name.

B. Copies of Addenda will be made available for inspection wherever Bidding Documents are on file for that purpose.

C. Addenda will not be issued later than five (5) working days prior to the time specified for receipt of Bids, except any Addendum withdrawing the request for Bids or one which includes postponement of the time for receipt of Bids.

D. Each Bidder shall ascertain upon submitting a Bid that the Bidder has received all Addenda issued, and the Bidder shall acknowledge their receipt on the Bid Form.

3.5 TAX LIABILITY

A. Bidders are exempt from payment of manufacturer's excise taxes for materials purchased for the exclusive use of the Owner, provided that the manufacturer has complied with rules and regulation of the Commissioner of Internal Revenue Service.

B. New York State Sales Tax does not apply to this Project. Contractors are exempt from payment on purchase of materials for the execution of this Contract and such taxes shall not be included in Bids. Exemption Certificates will be provided upon request.

C. All other taxes shall be included in the Bid.

3.6 PRE-BID CONFERENCE

A. There will be a Pre-Bid Conference as detailed in the Invitation to Bidders. A lack of representation at the Pre-bid Conference will not be justification for additional costs due to unforeseen conditions during the construction phases of the Contracts.

PART 4 – BIDDING PROCEDURES

4.1 PREPARATION OF BIDS

A. Bids shall be submitted on forms identical to the Bid Forms contained in this Project Manual, or submitted using unaltered and legible copies thereof.

B. All blanks on the Bid Form shall be legible executed in a non-erasable medium. No Bid will be considered which does not include bids for all items listed in the proposal sheets.

C. Sums shall be expressed in both words and figures. In case of discrepancy, the amount written in words shall govern.

D. Interlineations, alterations, and erasures must be initialed by the signer of the Bid.

E. Bid all requested alternates. If no change in the Base Bid is required, enter "No Change."

F. Each copy of the Bid shall state the legal name of the Bidder and the nature of legal form of the Bidder. The Bidder shall provide evidence of legal authority to perform within the jurisdiction of the Work. Each Bid copy shall be signed by the person or persons legally authorized to bind the Bidder to a Contract. A Bid by a corporation shall further give the state of incorporation and have the corporate seal affixed. A Bid submitted by an agent shall have a current power of attorney attached certifying the agent's authority to bind the Bidder.

G. Where two or more Bids for designated portions of the Work have been requested, the Bidder may, without forfeiture of the bid security, state the Bidder's refusal to accept award of less than the combination of Bids stipulated by the Bidder. The Bidder shall make no additional stipulations on the bid form nor qualify the Bid in any other manner.

H. The Owner may consider as informal any Bid on which there is an alteration of or departure from or additions to or qualification of the Bid Form or from the any of the other Contract Documents. The Owner may reject a Bid, which in the Owner’s sole view, is not adequately filled out, or does not contain the requested information.

4.2 BID SECURITY

A. Each Bid must be accompanied by a certified bank check of the Bidder, or a Bid Bond prepared by a surety company licensed in New York State.

1. Bid Security shall be provided in the amount of five (5) percent of the dollar amount of the Base Bid.
2. Bid Security shall be payable to Newburgh Enlarged City School District,.
3. If certified check is utilized, the Bidder shall provide written confirmation from a licensed New York State Surety company that Performance and Payment Bonds will be available to said Bidder for this Project.
4. The apparent low Bidders, upon failure or refusal to furnish the required Performance and Payment Bonds and execute a Contract within ten (10) calendar days after receipt of notice of the acceptance of Bid, shall forfeit the Bid Security as liquidated damages for such failure or refusal, and not as a penalty.

5. The successful Bidders shall have the Bid Security returned upon execution of an Owner/Contractor Agreement.
6. Unsuccessful Bidders shall have their Bid Security returned following the execution of the Owner/Contractor Agreements or the forty-five (45) day period following the Bid Opening, whichever occurs first.
7. The Bid Security shall not be forfeited to the Owner in the event the Owner fails to comply with subparagraph 6.2.

B. Surety Bond shall be written on AIA Document A310, Bid Bond, and the attorney-in-fact that executes the bond on behalf of the surety shall affix to the bond a certified and current copy of the power of attorney and with a copy of the riders.

C. The Owner will have the right to retain the Bid Security of Bidders to whom an award is being considered until either:

1. The Contract has been executed and bonds, when required, have been furnished, or;
2. The specified time has elapsed so that Bids may be withdrawn or;
3. All Bids have been rejected.

4.3 SUBMISSION OF BIDS

A. All copies of the Bid, the Bid Security, and any other documents required to be submitted with the Bid shall be enclosed in a sealed opaque envelope. The envelope shall be addressed to the party receiving the Bids and shall be identified with the Project name, the Bidder's name, and address and, if applicable, the designated Contract for which the Bid is submitted. If the Bid is sent by mail, the sealed envelope shall be enclosed in a separate mailing envelope with the notation "SEALED BID ENCLOSED" on the face thereof.

1. If Bidder submits for different Contracts, each shall be submitted individually and so labeled for that Contract.

B. Bids shall be deposited at the designated location prior to the time and date indicated in the Invitation to Bidders for the receipt of Bids. Bids received after the time and date for receipt of Bids will be returned unopened.

1. The Bidder shall assume full responsibility for timely delivery at the location designated for receipt of Bids.
2. Oral, telephonic, telegraphic, facsimile, or other electronically transmitted Bids will not be considered.

C. Bids not exhibiting original signatures or seals will not be accepted as a responsive Bid.

D. Bids shall be submitted **with one copy of sealed bids in an envelope and one copy of bid in PDF format to be emailed no later than the next day before close of business for record keeping purposes** ~~in duplicate~~. Executed forms required for each submitted Bid are as follows to be considered a complete bid:

1. Bid Form- all costs are to be filled out
2. Unit prices
3. ~~Labor Rates~~
4. Substitution list
5. Resolution.
6. Non-Collusive Bid Certification.
7. Iran Divestment Act Certification.
8. Bid Security.
9. ***Insurance Affidavit (Addendum #6)***

4.4 MODIFICATION OR WITHDRAWAL OF BID

A. A Bid may not be modified, withdrawn, or canceled by the Bidder during the stipulated time period following the time and date designated for the receipt of Bids, and each Bidder so agrees in submitting a Bid. No Bidder may withdraw a Bid within the forty-five (45) day period following the time of the Bid Opening or be subject to forfeiture of the bid security.

B. Prior to the time and date designated for receipt of Bids, a Bid submitted may be modified or withdrawn by notice to the party receiving Bids at the place designated for receipt of Bids. Such notice shall be in writing over the signature of the Bidder. Written confirmation over the signature of the Bidder shall be received, and date and time-stamped by the receiving party on or before the date and time set for receipt of Bids. A change shall be so worded as not to reveal the amount of the original Bid.

C. Withdrawn Bids may be resubmitted up to the date and time designated for the receipt of Bids provided that they are then fully in conformance with these Instructions to Bidders.

D. Negligence on the part of the Bidder in preparing its Bid confers no right for the withdrawal of the Bid after it has been opened. If a Bidder claims to have made a mistake or error in its Bid, it shall deliver to the Architect within three (3) days after the Bid Opening, a written notice describing in detail the nature of the claimed mistake or error with documentary evidence or proof (including, but not limited to, bid worksheets, summary sheets and other bid related data requested of it). Failure to deliver notice and evidence or proof specified above within the specified time shall constitute a waiver of the Bidder's right to claim an error or mistake. Upon receipt of specified notice and evidence or proof within the

specified time period, the Architect and Owner shall determine if an excusable error or mistake has been made; and, if so, the Owner may permit the Bid to be withdrawn. The Owner's determination of whether a Bidder made an excusable error or mistake shall be conclusive on the Bidder, its Surety, and all the claim rights under the Bidder.

PART 5 – CONSIDERATION OF BIDS

5.1 OPENING OF BIDS

A. The properly identified Bids received on time will be publicly opened and will be read aloud. An abstract of the Bids may be made available to Bidders. The Owner reserves the right to postpone the date and time of the opening of Bids at any time prior to the date and time listed in the Advertisement or Invitation to Bid.

5.2 REJECTION OF BIDS

A. The Owner shall maintain the right to reject any or all Bids. A Bid not accompanied by the required Bid Security or by other data required by the Bidding Documents, or which is in any way incomplete, or irregular is subject to rejection.

B. If identical bids are received and these bids are or become the low Bids, the Owner reserves the right to award the Contract on the basis of the relative quality of the product or products as shown by similar work done elsewhere, and it is mutually agreed that the Owner's judgment shall be final.

C. In order to qualify as a Contractor satisfactory to the Owner, each Bidder shall document to the satisfaction of the Owner that it has the skill and experience as well as the necessary facilities, ample financial resources, and adequate laborers and equipment to do the Work in a satisfactory manner and within the time specified. Bidders may be judged qualified only for the type of work in which they demonstrate competence. Bidders must prove to the satisfaction of the Owner that they are reputable, reliable, and responsible. The Owner may make any investigation it deems necessary to assure itself of the ability of the Bidder to perform the Work, and the Bidder shall furnish the Owner with all such additional information and data for this purpose as may be requested. In addition to the general reservation of rights to reject any and all bids, the Owner specifically reserves the right to reject any Bid of any Bidder if the evidence submitted by, or investigation of such Bidder fails to satisfy the Owner that such Bidder is properly qualified to carry out the obligations of the Contract Documents and to complete the Work contemplated therein.

D. The Owner reserves unto itself the sole right to determine the lowest qualified and responsible Bidder. The Owner may make any investigation necessary to determine the ability of the Bidder to fulfill the Contract and the Bidder shall furnish the Owner with all such information for this purpose as the Owner may request. Without limiting the general rights which the Owner has to reject Bids, as herein before set forth, in determining the lowest responsible Bidder, the following considerations in addition to those above mentioned will be taken into account. In determining the responsibility of a Bidder for a public works contract, the Owner shall consider whether the Bidder:

1. Maintains a permanent place of business;
2. Has adequate plant and equipment to do the Work properly and expeditiously;
3. Has the suitable financial ability to meet obligations required by the Work;
4. ***Has appropriate technical ability and experience in institutional and commercial construction. (Bid Addendum #6)***
5. Has performed Work of the same general type and the same scale called for under this Contract;
6. Has previously failed to perform contracts properly or complete them on time;
7. Is in a position to perform this Contract;
8. Has habitually and without just cause neglected the payment of bills or otherwise disregarded its obligations to subcontractors, suppliers, or employees;
9. Is eligible for full bonding capacity of its Contract;
10. Has been in business as the corporation, partnership, sole proprietorship or other business entity, in whose name the bid is submitted, continuously, for no less than the previous five (5) years performing or coordinating the Work which they are bidding on;
11. Is not currently involved in bankruptcy proceedings;
12. Is licensed to perform the Work it is bidding on in the jurisdiction the work will take place;
13. Is able to perform the work with manpower available to it;
14. Will employ a field superintendent with at least five (5) years' experience as a working field superintendent and capable of communicating in fluent English;
15. Has committed a willful violation of the New York State Prevailing Wage Laws within the last five years;
16. Has committed violations of safety and/or training standards as evidenced by a pattern of OSHA violations or the existence of willful OSHA violations;
17. Has committed any significant violation of the Worker's Compensation Law, including, but not limited to, the failure of the bidder to provide proof of worker's compensation or disability benefits coverage;

18. Has committed any criminal conduct involving violations of the Environmental Conservation Law or other federal or state environmental statutes of regulations;
19. Has committed any criminal conduct concerning formation of, or any business association with, an allegedly false or fraudulent Women's or Minority Business Enterprise (W/MBE), or any denial, decertification, revocation or forfeiture of W/MBE status by New York State;
20. Has been debarred by any agency of the U.S. Government; and
21. Has engaged in other conduct of so serious or compelling a nature that it raises questions about the responsibility of the bidder, including, but not limited to submission to the Owner of a false or misleading Statement of Bidder's Qualifications, or in some other form, in connection with a bid for or award of a contract.

5.3 AWARD OF BID

A. It is the intent of the Owner to enter into separate Prime Contracts with the lowest responsive and responsible bidder, as those criteria are defined and interpreted under the laws of the State of New York regarding competitive bidding for public improvement projects, for each Prime Contract, provided the Bids are submitted in accordance with the requirements of the Bidding Documents and does not exceed the funds available. The Owner shall have the right to waive informalities and irregularities in a Bid received and to accept the Bid which, in the Owner's judgment, is in the Owner's own best interest.

B. The Owner shall have the right to accept Alternates in any order or combination, unless otherwise specifically provided in the Bidding Documents, and to determine the low Bidder on the basis of the sum of the Base Bid and Alternates accepted.

C. The acceptance of a Bid will be a notice in writing signed by a duly authorized representative of the Owner by mail sent within forty-five (45) after the Bids have been opened and no other act of the Owner shall constitute the acceptance of a Bid. The acceptance of a Bid shall bind the successful Bidder to execute the Contract as provided hereinafter. The rights and obligations provided for in the Contract shall become effective and binding upon the parties only with its formal execution by the successful Bidder and the Owner.

PART 6 – POST-BID INFORMATION

6.1 CONTRACTOR'S QUALIFICATION STATEMENT

A. Bidders to whom an award of a Contract is under consideration shall submit to the Owner, within three (3) calendar days, a properly executed AIA Document A305, Contractor's Qualification Statement, unless such statement has been previously required and submitted as a prerequisite to the issuance of Bidding Documents.

B. The Owner shall have the right to take such steps as it deems necessary to determine the ability of the Bidder to perform its obligations under the Contract, and the Bidder shall furnish the Owner all such information and data for this purpose as the Owner may request. The right is reserved by the Owner to reject any Bid where an investigation of the available evidence or information does not satisfy the Owner that the Bidder is qualified and capable to carry out properly the terms of the Contract. The issuing of Bid Documents and acceptance of a Bidder's payment by the Owner shall not be construed as pre-qualification of that Bidder. If a Bidder is later discovered to have misrepresented or provided false or incorrect information with regard to any material party of the information submitted to the Owner, including but not limited to information regarding experience, debarment, claims, lawsuits, arbitrations, mediations, finances, license, contract termination, the Owner reserves the right to reject the Bid of such Bidder and, if a Contract has been awarded, it will become automatically voidable at the sole discretion and election of the Owner.

6.2 SUBMITTALS

A. Within three (3) calendar days following the Bid Opening time, the apparent lowest Bidder, shall furnish to the Owner through the Architect the following information:

1. Contractor’s Qualification Statement – AIA Document 305, 2020 edition.
2. Labor rate sheet
3. Material and Equipment List.
4. Schedule of Values.
5. Proposed Project Manager.

B. The Bidder will be required to establish to the satisfaction of the Owner and Construction Manager the reliability and responsibility of the persons or entities proposed to furnish and perform the Work described in the Bidding Documents.

C. Upon request only, the apparent second and third low Bidders shall be prepared to submit the information of paragraphs 6.1 and 6.2.A.

D. Prior to the execution of the Contract, the Construction Manager will notify the Bidder in writing if either the Owner, Architect/Engineer, or Construction Manager, after due investigation, has reasonable objection to a person or entity

proposed by the Bidder. If the Owner, Architect or Construction Manager has reasonable objection to a proposed person or entity, the Bidder may, at the Bidder's option, (1) withdraw the Bid or (2) submit an acceptable substitute person or entity. In the event of withdrawal or disqualification, Bid Security will not be forfeited.

E. Persons and entities proposed by the Bidder and to whom the Owner and Construction Manager have made no reasonable objection must be used on the Work for whom they were proposed and shall not be changed except with the written consent of the Owner and Construction Manager.

F. Any Bidder, upon failure to submit the information required in subparagraphs 6.1.A, 6.2.A, and 6.2.B in the allowed time, may have the Bid rejected. In that event, the Bidder shall forfeit the Bid Security to the Owner as liquidated damages for such failure or refusal, and not as penalty.

6.3 BOND REQUIREMENTS

A. The Owner requires the apparent successful Bidder to furnish and deliver bonds, covering the faithful performance of the Contract Work and payment of all obligations arising thereunder duly executed by the Bidder and a surety company licensed to do business in New York State rating.

B. The premiums shall be included in the Bid and paid by the Contractor. The Bidder shall proportionally distribute the costs of such bonds between the Base Bid and any Alternates.

6.4 TIME OF DELIVERY AND FORM OF BONDS

A. The Bidder shall deliver the required bonds to the Owner through the Construction Manager on or before the time of execution of the Owner/Contractor Agreement. Bonds shall be payable to Newburgh Enlarged City School District.

B. Unless otherwise provided, the bonds shall be written on AIA Document A312, Performance Bond and Payment Bond, Version 2010. Both bonds shall be written in the amount of the Contract Sum.

C. The bonds shall be dated the same as the Owner/Contractor Agreement.

D. The Bidder shall require the attorney-in-fact who executes the required bonds on behalf of the surety to affix thereto a certified and current copy of the power of attorney.

E. The surety for the performance and payments bonds shall be a duly authorized surety company, licensed to do business in the State of New York, and listed in the latest issue of U.S. Treasury Circular 570. The sufficiency of the surety and the bonds is subject to the approval of the Owner, and sureties and bonds that are deemed insufficient by the Owner may be rejected.

PART 7 – AGREEMENT FORM BETWEEN OWNER AND CONTRACTOR

A. Standard Form of Agreement Between Owner and Contractor, Construction Manager as Adviser Edition – AIA Document A132-2019 Edition, as modified.

END OF DOCUMENT 002113

SECTION 004116.01 - BID FORM CONTRACT NO. 01 – General Construction **(REVISED ADD6)**

Newburgh Enlarged City School District – New CTE Building

BIDDER INFORMATION

CONTACT: _____

COMPANY: _____

ADDRESS: _____

_____

TELEPHONE: (_____) _____

FACSIMILE: (_____) _____

BID TO (Owner): Attention: Purchasing Agent
Newburgh Enlarged City School District
124 Grand Street
Newburgh, New York 12550

PRIME CONTRACT: Contract No. 01 General Construction

PROJECT TITLE: Newburgh Enlarged City School District –
New CTE building (CTE)

SED Project Control No. *CTE Building SED#44-16-00-01-0-053-001*

CSArch PROJECT NO: 108-2303.00

1. **Representations**: By making this Bid, the Bidder represents that:

   The Bidder (identified above) hereby certifies that they have examined and fully understands the requirements and intent of the Bidding and Contract Documents, including Drawings, Project Manuals, and Addenda; and proposes to provide all labor, material, and equipment necessary to complete the Work on, or before, the dates specified in the Agreement for the Base Bid of:

2. **Base Bid**: _____($_____)
   (Words) (Figures)
   In all locations sums shall be expressed in both words and figures. In case of discrepancy, written word governs.

3. **Addenda**: The Bidder acknowledges receipt of the following Addendum:

   No. _____ Dated_____ No. _____ Dated_____
   No. _____ Dated_____ No. _____ Dated_____
   No. _____ Dated_____ No. _____ Dated_____

4. **Alternates**: None.

5. **Bid Security:** Attached hereto is Bid Security in the form of (circle correct form) Bid Bond, Certified Check, Cash in the amount of 5 percent of the written Base Bid amount

6. **Allowances:**

   A. $300,000.00 Allowance for Rock Removal for Site Work
   B. $50,000.00 Allowance for Exterior Building Signage and Behind Front Entrance Desk
   C. Include in base bid the removal of 3,000 cubic yards of rock. Any amount of rock removal above that quantity will be paid for from the allowance. (Addendum 2)
   D. Include in base bid the removal of 7,000 cubic yards of unsuitable soil/fill and replacement with structural fill. (Addendum 2)
   E. $100,000 Allowance for Unsuitable Soil Removal above the 7,000 CY in the base bid. (Addendum 2)

7. **Time of Commencement and Completion**: The Bidder agrees to commence Work on the stipulated starting date(s) and will substantially complete the Work in accordance with the project schedule stipulated in Specification Section 011200 Multiple Contract Summary and Section 003113 Preliminary Schedules.

8. **Rejection of Bids**: The Bidder acknowledges that the Owner reserves the right to waive any informality in, or to reject any or all Bids.

9. **Execution of Contract**: If notice of the acceptance of this Bid is mailed, telegraphed, or otherwise delivered to the undersigned within forty-five (45) days after the date of the Bid Opening, or any time thereafter, the undersigned will, within ten (10) working days after the receipt of the form of Agreement, execute and deliver the Contract.

10. **Signature**:

    _____
    (Signature)

_____
(Name – Printed)

_____
(Title – Printed (Date)

11. **Attachments**: Obtain and attach the following documents to each individual Bid.
    a. Resolution
    b. Non-Collusive Bid Certification
    c. Iran Divestment Act Affidavit
    d. Insurance Affidavit (Addendum #6)
    e. Bid Security
    f. Subcontractor List
    g. Substitution List

12. **Work Cost Breakdown**: This form shall be filled out and submitted by the Contractor. The grand total must equal the BASE BID under Section I (A) "THE BID". UNIT PRICES are required for the items listed in the Unit Prices section of the work cost breakdown. Unit prices will be provided for use if the required quantities are more or less than the quantities indicated in the plans and specifications. Failure to complete the work cost breakdown may result in the disqualification of the bid. As itemized in the "Instructions to Bidders" for a complete Bid Form include the following which must be filled out completely, failure to comply with any listed below bid will be a rejected bid:

a. Bid Form, all costs must be shown and totaled, failure to breakdown these costs will be subject to disqualification of bid.

b. Unit costs

The Bid

Contract Number: Contract No. 01 General Construction (GC-01)

Contract Titles: Newburgh Enlarged City School District –
New CTE building (CTE)

Bidder: Date:

* Refer to Section 012973 Schedule of Values for additional information

Trade	Bid Value
General Requirements	
Rock Removal Allowance	$300,000

Exterior Building Signage and Interior Front Entrance Signage Allowance	$50,000
Sitework	
General Construction	
Mechanical	
Plumbing	
Electrical	
Fire Protection	
TOTAL – Must Equal Bid	

Unit Prices – Additional Fee Schedule – All prices are Furnish and Install

Contract Number: Contract No. 01 General Construction (GC-01)

Contract Titles: Newburgh Enlarged City School District –
New CTE building (CTE)

Bidder: Date:

* Refer to Section 012200 Unit Prices for additional information

(Unit cost don't apply for large quantities, and the Architect, Owner and the Construction Manager reserve the right to negotiate an overall change order and not apply the unit costs.)

Item	Description	Unit	Unit Price - ADD
1	Unsuitable Soil Excavation & Removal	CY	
2	Engineered Fill	CY	
3	Rock Removal	CY	

END OF SECTION 004116.01

DOCUMENT 004544 – INSURANCE AFFIDAVIT

(a) By submission of this Bid, the Bidder certifies the following;

(1) They have read, understand, and can provide the insurance required by the bid documents.

(2) All subcontractors retained by the Bidder are able to and will provide insurance with the same limits as the Bidder.

(3) All insurance certificates for subcontractors shall be submitted for review and approval a minimum of four weeks prior to the date that the subcontractor is scheduled to begin work on site.

(4) Failure to provide the required insurance certificates in a timely manner will not be justification for an extension of time.

(3) The insurance requirements are part of the contract requirements and are not open to negotiation.

Signature _____

Date _____

Title _____ Federal ID No.: _____

Company: _____

Business Address: _____

Telephone: _____ Email: _____

END OF DOCUMENT 004544

AIA® Document A232® – 2019

General Conditions of the Contract for Construction, Construction Manager as Adviser Edition

for the following PROJECT:
(Name, and location or address)

Newburgh Enlarged City School District
New Career and Technical Education (CTE) Building
22 West Street
Newburgh, New York 12550
SED# 44-16-00-01-0-053-001
CSArch Project #108-2303

THE CONSTRUCTION MANAGER:
(Name, legal status, and address)

Jacobs Project Management Co.
One Penn Plaza, 24th Floor, Suite 24000
New York, New York 10119

THE OWNER:
(Name, legal status, and address)

Newburgh Enlarged City School District
124 Grand Street
Newburgh, New York 12550

THE ARCHITECT:
(Name, legal status, and address)

Collins+Scoville Architecture | Engineering | Construction Management D.P.C.
dba CSArch
19 Front Street
Newburgh, New York 12550

ADDITIONS AND DELETIONS:
The author of this document has added information needed for its completion. The author may also have revised the text of the original AIA standard form. An *Additions and Deletions Report* that notes added information as well as revisions to the standard form text is available from the author and should be reviewed. A vertical line in the left margin of this document indicates where the author has added necessary information and where the author has added to or deleted from the original AIA text.

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

This document is intended to be used in conjunction with AIA Documents A132™–2019, Standard Form of Agreement Between Owner and Contractor, Construction Manager as Adviser Edition; B132™–2019, Standard Form of Agreement Between Owner and Architect, Construction Manager as Adviser Edition; and C132™–2019, Standard Form of Agreement Between Owner and Construction Manager as Adviser.

TABLE OF ARTICLES

ARTICLE 1 GENERAL PROVISIONS

§ 1.1 Basic Definitions

§ 1.1.1 The Contract Documents. The Contract Documents are enumerated in the Agreement between the Owner and Contractor (hereinafter the Agreement) and consist of the Agreement, Conditions of the Contract (General, Supplementary and other Conditions), Drawings, Specifications, Addenda issued prior to execution of the Contract, other documents listed in the Agreement, and Modifications issued after execution of the Contract. A Modification is (1) a written amendment to the Contract signed by both parties, (2) a Change Order, (3) a Construction Change Directive, or (4) a written order for a minor change in the Work issued by the Architect. Unless specifically enumerated in the Agreement, the Contract Documents do not include the advertisement or invitation to bid, Instructions to Bidders, sample forms, other information furnished by the Owner in anticipation of receiving bids or proposals, the Contractor's bid or proposal, or portions of addenda relating to bidding or proposal requirements.

§ 1.1.2 The Contract. The Contract Documents form the Contract for Construction. The Contract represents the entire and integrated agreement between the parties hereto and supersedes prior negotiations, representations, or agreements, either written or oral. The Contract may be amended or modified only by a Modification. The Contract Documents shall not be construed to create a contractual relationship of any kind (1) between the Contractor and the Architect or the Architect's consultants, (2) between the Owner and the Construction Manager or the Construction Manager's consultants, (3) between the Owner and the Architect or the Architect's consultants, (4) between the Contractor and the Construction Manager or the Construction Manager's consultants, (5) between the Owner and a Subcontractor or Sub-subcontractor (6) between the Construction Manager and the Architect, or (7) between any persons or entities other than the Owner and Contractor. The Construction Manager and Architect shall, however, be entitled to performance and enforcement of obligations under the Contract intended to facilitate performance of their duties.

§ 1.1.3 The Work. The term "Work" means the construction and services required by the Contract Documents, whether completed or partially completed, and includes all other labor, materials, equipment, and services provided or to be provided by the Contractor to fulfill the Contractor's obligations. The Work may constitute the whole or a part of the Project.

§ 1.1.4 The Project. The Project is the total construction of which the Work performed under the Contract Documents may be the whole or a part and which may include construction by other Contractors, and by the Owner's own forces and Separate Contractors.

§ 1.1.5 Contractors. Contractors are persons or entities, other than the Contractor or Separate Contractors, who perform Work under contracts with the Owner that are administered by the Architect and Construction Manager.

§ 1.1.6 Separate Contractors. Separate Contractors are persons or entities who perform construction under separate contracts with the Owner not administered by the Architect and Construction Manager.

§ 1.1.7 The Drawings. The Drawings are the graphic and pictorial portions of the Contract Documents showing the design, location and dimensions of the Work, generally including plans, elevations, sections, details, schedules, and diagrams.

§ 1.1.8 The Specifications. The Specifications are that portion of the Contract Documents consisting of the written requirements for materials, equipment, systems, standards and workmanship for the Work, and performance of related services.

§ 1.1.9 Instruments of Service. Instruments of Service are representations, in any medium of expression now known or later developed, of the tangible and intangible creative work performed by the Architect and the Architect's consultants under their respective professional services agreements. Instruments of Service may include, without limitation, studies, surveys, models, sketches, drawings, specifications, and other similar materials.

§ 1.1.10 Initial Decision Maker. The Initial Decision Maker is the person identified in the Agreement to render initial decisions on Claims in accordance with Section 15.2. The Initial Decision Maker shall not show partiality to the Owner or Contractor and shall not be liable for results of interpretations or decisions rendered in good faith.

§ 1.1.11 Project Labor Agreement. "Project Labor Agreement" refers to a pre-hire collective bargaining agreement

between a Contractor and a building and construction trade labor organization establishing the labor organization as the collective bargaining representative for all person who will perform work on a public works project, and which provides that only contractors and subcontractors who provide a signed Letter of Assent agreeing to be bound by the Project Labor Agreement.

§ 1.2 Correlation and Intent of the Contract Documents

§ 1.2.1 The intent of the Contract Documents is to include all items necessary for the proper execution and completion of the Work by the Contractor. If, in the interpretation of Contract Documents, conflicting requirements within the Drawings and Specifications occur, or if it appears that the Drawings and Specifications are not in agreement, the requirement to be followed shall be decided by the Architect. Addenda supersede the provisions they amended. The Contract Documents are complementary, and what is required by one shall be as binding as if required by all; performance by the Contractor shall be required only to the extent consistent with the Contract Documents and reasonably inferable from them as being necessary to produce the indicated results.

1. All dimensions shown on the Drawings are for bidding purposes only. It is the responsibility of the Contractor to verify all dimensions in the field to ensure proper and accurate fit of materials and items to be installed.
2. The lists of equipment, tabulations of data and schedules appearing in the Specifications or Drawings are included for assistance and guidance in arriving at a more complete understanding of the intended installation. They are not intended, or to be construed, as relieving the responsibility of the Contractor in making their own takeoffs.
3. It is intended that all mechanical and electrical systems will be complete and in proper operation and that all construction components will be complete and in compliance with accepted construction practice upon completion of the Work. Even if items are missing from the Plans and/or Specifications, but are normally required for proper operation of mechanical and electrical systems, or to complete otherwise incomplete construction or to meet governing code requirements, they shall be included by the Contractor, unless he sought and received contradictory interpretation or clarification from the Architect in writing.

§ 1.2.1.1 The invalidity of any provision of the Contract Documents shall not invalidate the Contract or its remaining provisions. If it is determined that any provision of the Contract Documents violates any law, or is otherwise invalid or unenforceable, then that provision shall be revised to the extent necessary to make that provision legal and enforceable. In such case the Contract Documents shall be construed, to the fullest extent permitted by law, to give effect to the parties' intentions and purposes in executing the Contract.

§ 1.2.2 Organization of the Specifications into divisions, sections and articles, and arrangement of Drawings shall not control the Contractor in dividing the Work among Subcontractors or in establishing the extent of Work to be performed by any trade.

1. Sections of the General Requirements, Division 01, govern the execution of all remaining Divisions of the Specifications.
2. It shall be the Contractor's responsibility, when subcontracting any portion of Work, to arrange or group items of work under particular trades to conform with prevailing customs of the trade, regardless of the particular Divisions and Sections of the Specifications in which the work is described.

§ 1.2.3 Unless otherwise stated in the Contract Documents, words that have well-known technical or construction industry meanings are used in the Contract Documents in accordance with such recognized meanings.

§ 1.2.4 Within the Contract Documents for which each Prime Contractor is responsible, any Work included by reference in any section to another Specification's Section shall be included as Work under the Contract, whether or not it is called for under the Section referred to. Failure to cross-reference such items shall not relieve the Contractor or any Prime Contractor from the obligations to provide such work.

§ 1.3 Capitalization
Terms capitalized in these General Conditions include those that are (1) specifically defined, (2) the titles of numbered articles, or (3) the titles of other documents published by the American Institute of Architects.

§ 1.4 Interpretation
In the interest of brevity, the Contract Documents frequently omit modifying words such as "all" and "any" and articles such as "the" and "an," but the fact that a modifier or an article is absent from one statement and appears in another is not intended to affect the interpretation of either statement.

§ 1.5 Ownership and Use of Drawings, Specifications, and Other Instruments of Service
§ 1.5.1 The Architect and the Architect's consultants shall be deemed the authors and owners of their respective Instruments of Service, except to the extent of the Owner's rights as set forth in the Owner-Architect Agreement,including the Drawings and Specifications, and retain all common law, statutory, and other reserved rights in their Instruments of Service, including copyrights. The Contractor, Subcontractors, sub-subcontractors, and suppliers shall not own or claim a copyright in the Instruments of Service. Submittal or distribution to meet official regulatory requirements or for other purposes in connection with the Project is not to be construed as publication in derogation of the Architect's or Architect's consultants' reserved rights.

§ 1.5.2 The Contractor, Subcontractors, Sub-subcontractors, and suppliers are authorized to use and reproduce the Instruments of Service provided to them, subject to any protocols established pursuant to Sections 1.7 and 1.8, solely and exclusively for execution of the Work. All copies made under this authorization shall bear the copyright notice, if any, shown on the Instruments of Service. The Contractor, Subcontractors, Sub-subcontractors, and suppliers may not use the Instruments of Service on other projects or for additions to the Project outside the scope of the Work without the specific written consent of the Owner, Architect, and the Architect's consultants.

§ 1.6 Notice
§ 1.6.1 Except as otherwise provided in Section 1.6.2, where the Contract Documents require one party to notify or give notice to the other party, such notice shall be provided in writing to the designated representative of the party to whom the notice is addressed and shall be deemed to have been duly served if delivered in person, by mail, by courier, or by electronic transmission if a method for electronic transmission is set forth in the Agreement.

§ 1.6.2 Notice of Claims as provided in Section 15.1.3 shall be provided in writing and shall be deemed to have been duly served only if delivered to the designated representative of the party to whom the notice is addressed by certified or registered mail, or by courier providing proof of delivery.

§ 1.7 Digital Data Use and Transmission
The parties shall agree upon protocols governing the transmission and use of Instruments of Service or any other information or documentation in digital form. The parties will use AIA Document E203™–2013, Building Information Modeling and Digital Data Exhibit, to establish the protocols for the development, use, transmission, and exchange of digital data.

If the parties intend to transmit Instruments of Service or any other information or documentation in digital form, they shall endeavor to establish necessary protocols governing such transmissions, unless otherwise already provided in the Agreement or the Contract Documents.

§ 1.7.2 Contractor's Use of Instruments of Service in Electronic Form

§ 1.7.2.1 The Architect may, with the concurrence of the Owner and upon compensation by the Contractor to the Architect, furnish to the Contractor versions of Instruments of Service in digital form. The Instruments of Service executed or identified in accordance with Subparagraph 1.1.7 shall prevail in case of an inconsistency with subsequent versions made through manipulatable electronic means.

§ 1.7.2.2 The Contractor shall not transfer or reuse Instruments of Service in electronic or machine-readable form without the prior written consent of the Architect.

§ 1.8 Building Information Models Use and Reliance

Any use of, or reliance on, all or a portion of a building information model without agreement to protocols governing the use of, and reliance on, the information contained in the model and without having those protocols set forth in AIA Document E203™–2013, Building Information Modeling and Digital Data Exhibit, and the requisite AIA Document G202™–2013, Project Building Information Modeling Protocol Form, shall be at the using or relying party's sole risk and without liability to the other party and its contractors or consultants, the authors of, or contributors to, the building information model, and each of their agents and employees.

§ 1.9 COMMUNICATION

§ 1.9.1 Construction Manager, Contractor and Architect shall meet periodically at mutually agreed upon intervals for the purpose of establishing procedures to facilitate cooperation, communication and timely responses among the participants. By participating in these meetings, the parties do not intend to create additional contractual obligations or modify the legal relationships which may already exist.

§ 1.10 Project Labor Agreement

§ 1.12.1 THIS PROJECT IS SUBJECT TO A PROJECT LABOR AGREEMENT COVERING CONSTRUCTION OF CONSTRUCTION PROJECTS, NEWBURGH ENLARGED CITY SCHOOL DISTRICT EFFECTIVE FEBRUARY 1, 2021, BETWEEN NEWBURGH ENLARGED CITY SCHOOL DISTRICT, THE HUDSON VALLEY BUILDING AND CONSTRUCTION TRADES COUNCIL ON BEHALF OF ITSELF AND ITS AFFILIATED LOCAL UNIONS, AND SIGNATORY LOCAL UNIONS ON BEHALF OF THEMSELVES AND THEIR MEMBERS ("PLA"), WHICH IS ATTACHED TO THESE GENERAL CONDITIONS AS APPENDIX "A ", THE PROVISIONS OF WHICH MAY BE SPECIFICALLY INCLUDED HEREIN AS WELL AS INCORPORATED BY REFERENCE WITHIN THESE GENERAL CONDITIONS AS FULLY AS IF SET FORTH AT LENGTH HEREIN. TO THE EXTENT OF ANY CONFLICT BETWEEN THE GENERAL/SPECIAL CONDITIONS AND THE PLA, THE PROVISIONS IN THE PLA WILL CONTROL. NOTWITHSTANDING SPECIFIC REFERENCES TO CERTAIN PROVISIONS THE PLA IN THESE GENERAL CONDITIONS, THE CONTRACTORS AND SUBCONTRACTORS OF ALL TIERS MUST COMPLY WITH ALL PROVISIONS OF THE PLA.

ALL SUCCESSFUL BIDDERS AND THEIR SUBCONTRACTORS OF WHATEVER TIER MUST BECOME BOUND BY, AND SIGNATORIES TO, THE PLA BY SIGNING A LETTER OF ASSENT. THE LETTER OF ASSENT REQUIRED OF CONTRACTORS AND SUBCONTRACTORS IS SET FORTH AS SCHEDULE B TO THE PLA.

ARTICLE 2 OWNER

§ 2.1 General

§ 2.1.1 The Owner is the person or entity identified as such in the Agreement and is referred to throughout the Contract Documents as if singular in number. The Owner shall designate in writing a representative who shall have express authority to bind the Owner with respect to all matters requiring the Owner's approval or authorization. Except as otherwise provided in Section 4.2.1, the Construction Manager and the Architect do not have such authority. The term "Owner" means the Owner or the Owner's authorized representative.

§ 2.1.2 The Owner shall furnish to the Contractor, within fifteen days after receipt of a written request, information necessary and relevant for the Contractor to evaluate, give notice of, or enforce mechanic's lien rights.

(Paragraphs deleted)

§

§ 2.3 Information and Services Required of the Owner

§ 2.3.1 Except for permits and fees that are the responsibility of the Contractor under the Contract Documents, including those required under Section 3.7.1, the Owner shall secure and pay for necessary approvals, easements, assessments and charges required for construction, use or occupancy of permanent structures or for permanent changes in existing facilities. Unless otherwise provided under the Contract Documents, the Owner, assisted by the Construction Manager, shall secure and pay for the building permit.

§ 2.3.2 The Owner shall retain an architect lawfully licensed to practice architecture, or an entity lawfully practicing architecture, in the jurisdiction where the Project is located. That person or entity is identified as the Architect in the Agreement and is referred to throughout the Contract Documents as if singular in number.

§ 2.3.3 The Owner shall retain a construction manager adviser lawfully practicing construction management in the jurisdiction where the Project is located. That person or entity is identified as the Construction Manager in the Agreement and is referred to throughout the Contract Documents as if singular in number.

(Paragraph deleted)

§ 2.3.5

The Owner shall furnish, upon written request only and as necessary to complete this work, surveys describing physical characteristics, legal limitations and utility locations for the site of the Project, and a legal description of the site. The Contractor shall be entitled to reasonably rely on the accuracy of information furnished by the Owner but shall exercise proper precautions relating to the safe performance of the Work.

§ 2.3.6 The Owner shall furnish information or services required of the Owner by the Contract Documents with reasonable promptness. The Owner shall also furnish any other information or services under the Owner's control and relevant to the Contractor's performance of the Work with reasonable promptness after receiving the Contractor's written request for such information or services.

§ 2.3.7

The Contractor and/or Prime Contractors will be furnished, free of charge, two sets of the Contract Drawings and Project Manuals. Additional sets will be furnished at cost of reproduction and postage and handling when applicable. Subcontractors and other entities desiring copies of Drawings and Project Manuals shall obtain them via one of the Prime Contracts.

§ 2.3.8 The Owner shall forward all communications to the Contractor through the Construction Manager. Other communication shall be made as set forth in Section 4.2.6.

§ 2.4 Owner's Right to Stop the Work

If the Contractor fails to correct Work that is not in accordance with the requirements of the Contract Documents as required by Section 12.2 or repeatedly fails to carry out Work in accordance with the Contract Documents, the Owner may issue a written order to the Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, the right of the Owner to stop the Work shall not give rise to a duty on the part of the Owner to exercise this right for the benefit of the Contractor or any other person or entity, except to the extent required by Section 6.1.3.

§ 2.5 Owner's Right to Carry Out the Work

If the Contractor defaults or neglects to carry out the Work in accordance with the Contract Documents and fails within a ten-day period after receipt of notice from the Owner to commence and continue correction of such default or neglect with diligence and promptness, the Owner may, without prejudice to other remedies the Owner may have, correct such default or neglect. Such action by the Owner and amounts charged to the Contractor are both subject to review by the Construction Manager and prior approval of the Architect, and the Construction Manager or Architect may, pursuant to Section 9.5.1, withhold or nullify a Certificate for Payment in whole or in part, to the extent reasonably necessary to reimburse the Owner for the reasonable cost of correcting such deficiencies, including Owner's expenses and compensation for the Construction Manager's and Architect's and their respective consultants' additional services made necessary by such default, neglect, or failure, and the Owner's expenses, including but not limited to its reasonable attorneys fees. If current and future payments are not sufficient to cover such amounts, the Contractor shall pay the difference to the Owner. If the Contractor disagrees with the actions of the Owner or the Architect, or the amounts claimed as costs to the Owner, the Contractor may file a Claim pursuant to Article 15.

§ 2.6 ACCELERATION CLAUSE

§ 2.6.1 The Owner reserves the right to accelerate the work of the Contract. In the event that the Owner directs acceleration, such directive will be only in written form. The Contractor shall keep cost and other project records related to the written acceleration directive separately from normal project costs and records and shall provide a written record of acceleration cost to the Owner on a daily basis.

§ 2.6.2 In order to p recover additional costs due to a written acceleration directive, the Contractor must document that additional expenses were incurred and paid by the Contractor. Labor costs recoverable will be only overtime or shift premium costs or the cost of additional laborers brought to the site to accomplish the accelerated work effort. Equipment costs recoverable will be only the cost of added equipment mobilized to the site to accomplish the accelerated work effort.

ARTICLE 3 CONTRACTOR

§ 3.1 General

§ 3.1.1 The Contractor is the person or entity identified as such in the Agreement and is referred to throughout the Contract Documents as if singular in number. The Contractor shall be lawfully licensed, if required in the jurisdiction where the Project is located. The Contractor shall designate in writing a representative who shall have express authority to bind the Contractor with respect to all matters under this Contract. The term "Contractor" means the Contractor or the Contractor's authorized representative.

§ 3.1.2 The Contractor shall perform the Work in accordance with the Contract Documents.

§ 3.1.3 The Contractor shall not be relieved of its obligations to perform the Work in accordance with the Contract Documents either by activities or duties of the Construction Manager or Architect in their administration of the Contract, or by tests, inspections or approvals required or performed by persons or entities other than the Contractor. Staging and storage areas for materials shall be as agreed on between the Contractor and the Owner's Project Representative.

§ 3.2 Review of Contract Documents and Field Conditions by Contractor

§ 3.2.1 Execution of the contract by the Contractor is a representation that the Contractor has carefully examined the Contract Documents and the site, and represents that the Contractor is thoroughly familiar with the nature and location of the Work, the site, the specific conditions under which the Work is to be performed, and all matters which may in any way affect the Work or its performance. The Contractor further represents that as a result of such examinations and investigations, the Contractor thoroughly understands the Contract Documents and their intent and purpose, and is familiar with all applicable codes, ordinances, laws, regulations, and rules as they apply to the Work, and that the Contractor will abide by same. Claims for additional time or additional compensation as a result of the Contractor's failure to follow the foregoing procedure and to familiarize itself with all local conditions and the Contract Documents are waived and will not be permitted.

§ 3.2.2 Because the Contract Documents are complementary, the Contractor shall, before starting each portion of the Work, carefully study and compare the various Contract Documents relative to that portion of the Work, as well as the information furnished by the Owner pursuant to Section 2.2.3, shall take field measurements of any existing conditions related to that portion of the Work, and shall observe any conditions at the site affecting it. These obligations are for the purpose of facilitating coordination and construction by the Contractor and are not for the purpose of discovering errors, omissions, or inconsistencies in the Contract Documents; however, the Contractor shall promptly report to the Architect any errors, inconsistencies or omissions discovered by or made known to the Contractor as a request for information submitted in writing on such form as the Architect may require. It is recognized that the Contractor's review is made in the Contractor's capacity as a contractor and not as a licensed design professional, unless otherwise specifically provided in the Contract Documents. If the Contractor performs any construction activity which involves an error, inconsistency or omission in the Contract Documents without first providing notice to the Owner, Architect and Construction Manager of such condition and receiving authorization to proceed, the Contractor shall assume responsibility for such performance and shall bear an appropriate amount of the attributable costs for correction.

§ 3.2.3 The Contractor is not required to ascertain that the Contract Documents are in accordance with applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities, but the Contractor shall promptly report to the Construction Manager and Architect any nonconformity discovered by or made known to the Contractor as a request for information submitted to Construction Manager in such form as the Construction Manager and Architect may require.

§ 3.2.4 If the Contractor believes that additional cost or time is involved because of clarifications or instructions the Architect issues in response to the Contractor's notices or requests for information pursuant to Sections 3.2.2 or 3.2.3,

the Contractor shall submit Claims in writing as provided in Article 15. If the Contractor fails to perform the obligations of Sections 3.2.2 or 3.2.3, the Contractor shall pay such costs and damages to the Owner, subject to section 15.1.7, as would have been avoided if the Contractor had performed such obligations. If the Contractor performs those obligations, the Contractor shall not be liable to the Owner or Architect for damages resulting from errors, inconsistencies or omissions in the Contract Documents, for differences between field measurements or conditions and the Contract Documents, or for nonconformities of the Contract Documents to applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities.

§ 3.2.5 Where existing conditions are obscured or concealed from the Owner or Architect's view prior to the start of this Project's construction activities, portrayal of such conditions in the documents is based on reasonable implications and assumptions. The Owner and Architect do not imply or guarantee to the Contractor in any way that such portrayals in the Documents are accurate or true.

§ 3.2.5.1 Physical investigations and testing of existing conditions were not undertaken by the Architect, unless so indicated in the Contract Documents.

§3.2.5.2 The Contractor may submit written requests for information to the Architect to help facilitate the Contractor's performance of the contract. Prior to submitting each request for information, the Contractor shall first carefully study and compare the Contract Documents, field conditions, other Owner provided information, Contractor prepared Coordination Drawings, and prior Project correspondence and documentation to determine that the information to be requested is not reasonably obtainable from such sources.

§ 3.2.5.3 Each request for information shall be submitted to the Architect, in writing, with a copy to the Construction Manager. Each request for information shall identify the specific sources which were reviewed by the Contractor in an effort to determine the information requested, and a statement to the effect that the information being requested could not be determined from such sources.

§ 3.2.5.4 The Contractor shall submit each request for information sufficiently in advance of the date by which such information is requested in order to allow the Architect sufficient time, in the Architect's professional judgment, to permit adequate review and response and to permit Contractor compliance with the latest construction schedule.

§ 3.2.5.5 The Construction Manager shall maintain a log at the Project site that sequentially numbers and lists each request for information. This log shall contain the Drawings reference or Specification section to which the request pertains, the date of the request, to whom the request was made, by whom the request was made, the nature of the request, and the Architect's resolution thereof. This log shall be reviewed at each Project meeting and the status of the requests for information shall be made part of the minutes of such meetings.

§ 3.2.5.6 The Contractor shall reimburse the Owner amounts charged to the Owner by the Architect or Construction Manager for responding to Contractor requests for information where such information is available to the Contractor from a careful study and comparison of the Contract Documents, field conditions, other Owner provided information, Contractor prepared Coordination Drawings, or prior Project correspondence or documentation.

§ 3.3 Supervision and Construction Procedures

§ 3.3.1 The Contractor shall supervise and direct the Work, using the Contractor's best skill and attention. The Contractor shall be solely responsible for, and have control over, construction means, methods, techniques, sequences, and procedures, and for coordinating all portions of the Work under the Contract. If the Contract Documents give specific instructions concerning construction means, methods, techniques, sequences, or procedures, the Contractor shall evaluate the jobsite safety thereof and shall be solely responsible for the jobsite safety of such means, methods, techniques, sequences, or procedures. If the Contractor determines that such means, methods, techniques, sequences or procedures may not be safe, the Contractor shall give timely notice to the Owner, the Construction Manager, and the Architect, and shall propose alternative means, methods, techniques, sequences, or procedures. The Architect shall evaluate the proposed alternative solely for conformance with the design intent for the completed construction. The Construction Manager shall review the proposed alternative for sequencing, constructability, and coordination impacts on the other Contractors. Unless the Architect or the Construction Manager objects to the Contractor's proposed alternative, the Contractor shall perform the Work using its alternative means, methods, techniques, sequences, or procedures. The Contractor shall be responsible for and coordinate any and all inspections required by

any governmental body having jurisdiction over the project. Failure to obtain any permits, licenses or other approvals because of the failure of the Contractor to conform to this requirement shall not extend the Contract time, and the Contractor shall not be entitled to any increase in the contract sum therefor. In addition, any additional costs and/or expenses of any nature incurred by the Owner as a result of the Contractor's failure to conform to this requirement shall constitute a charge against the Contractor's contract. Each contractor shall be responsible for complying with union regulations existing under current labor agreements in performing construction work on the project.

§ 3.3.2 The Contractor shall be responsible to the Owner for acts and omissions of the Contractor's employees, Subcontractors and their agents and employees, and other persons or entities performing portions of the Work for, or on behalf of, the Contractor or any of its Subcontractors.

§ 3.3.3 The Contractor shall be responsible for inspection of portions of the Project already performed to determine that such portions are in proper condition to receive subsequent Work.

§ 3.3.4 During period of active Construction, the Contractor shall consult daily and cooperate with the Construction Manager. On a daily basis, the Contractor shall keep the Construction Manager and Architect notified of when Work will be starting, restarting, suspended and temporarily or permanently concluding.

§ 3.3.5 Within 15 days of the date of the Notice to Proceed, each Contractor shall submit to the Construction Manager and Architect a list of all Contractor's principal staff assignments, including the Superintendent and other personnel in attendance at the site; identify individuals, their duties and responsibilities.

§ 3.4 Labor and Materials

§ 3.4.1 Unless otherwise provided in the Contract Documents, the Contractor shall provide and pay for labor, materials, equipment, tools, construction equipment and machinery, water, heat, utilities, transportation, and other facilities and services necessary for proper execution and completion of the Work, whether temporary or permanent and whether or not incorporated or to be incorporated in the Work.

§ 3.4.2 After the Contract has been executed, the Architect in conjunction with the Construction Manager, will consider a formal request for the substitution of products in place of those specified only under the conditions set forth in the General Requirements (Division 01 of the Specifications). Substitutions shall satisfy the following conditions:

1. The materials, products and equipment described in the Contract Documents establish the standard of required quality, function, dimension and appearance expected.
2. Requests for substitutions must be submitted at the time that bids are received.
3. Substitution requests will be considered only if standards are met or exceeded as described above and are subsequently approved in writing by the Architect and Owner.
4. Each such request shall include the name of the material, product or equipment item for which substitution is requested and a complete description of the proposed substitute, including drawings, cuts, performance and test data and any other information necessary for a complete evaluation.
5. Each such request shall include a statement setting forth any changes in other materials, product or equipment or other work that incorporation of the substitution would require.
6. The burden of proof of the merit of the proposed substitution is upon the proposer.
7. The Architect's decision of approval or disapproval of a proposed substitution shall be final and will be set forth in writing.
8. Additional substitution requests, during construction, will be considered only if substitution is caused by specific material, product or equipment's subsequent removal from, or unavailability in the market place and only at "no change" or "credit" to Contract amount.
9. Contractor's Responsibilities: If any of the following conditions occur due to substitutions, the contractor making the substitution shall bear the cost of such conditions, including payment for services rendered by the Architect:
    (a) Redesign required for any of the Work.
    (b) Material or quantity changes for any of the Work.
    (c) Delays in any of the Work.
    (d) Request for information generated due to substitutions."

§ 3.4.3 The Contractor, as indicated in the Instructions to Bidders, shall furnish in writing to the Owner through the Construction Manager a list showing the name of the manufacturer proposed to be used for equivalents of products identified in the Specifications, and where applicable, the name of the installing subcontractor. By identifying and submitting a proposed manufacturer and/or installer the Contractor warrants that products furnished and/or installed by them conform to such requirements of the Contract Documents The Construction Manager, in conjunction with the Architect will reply with reasonable promptness to the Contractor in writing stating whether or not the Owner, Construction Manager or Architect, after due investigation, have reasonable objection to any such proposed manufacturer or installer.

- **.1** If adequate data on a proposed equivalent manufacturer or installer is not available, the Architect may state that the action will be deferred until the Contractor provides additional data.
- **.2** Failure of the Owner, Construction Manager or Architect to object to a manufacturer or installer shall not constitute a waiver of the requirements of the Contract Documents.
- **.3** Products furnished by the listed manufacturer or installed by the listed installer shall conform to such requirements of the Contract Documents.

§3.4.3.1 The Contractor shall insure that its Work continues uninterrupted pursuant to the Project schedule during the pendency of any labor dispute.

§ 3.4.4 The Contractor shall comply with the most current Contract Requirements and Prevailing Wage Rate Schedules as published by the Bureau of Public Works, State of New York, Department of Labor established for this Project.

§ 3.4.5 No materials or supplies for the Work shall be purchased by the Contractor or by any subcontractor subject to any chattel mortgage or under a conditional sale or other agreement by which an interest is retained by the seller. The Contractor warrants that he has full title to all materials and supplies used by him in the Work, or resold to the Owner, pursuant to this Contract Document, free from all liens, claims or encumbrances.

§ 3.4.6 All materials used permanently in the Work shall be new unless otherwise specified. The apparent silence of the Specifications as to any detail described concerning any Work to be done and materials to be furnished shall be regarded as meaning that only the best general practice is to prevail and that only material and workmanship of the first quality are to be used, and all interpretations of the Specifications shall be made on this basis. All material incorporated in the Project Work shall be clean and exhibit no appearance of aging, exposure to weather, prior use, handling or damage of any kind.

§ 3.4.7 Manufacturer's identifications shall be inconspicuous, but where nameplates contain information relative to characteristics or maintenance, they shall be clearly visible and located for easy access.

§ 3.4.8 Equipment intended for permanent installation shall not be operated for temporary purposes without the written permission of the Architect.

§ 3.4.9 Materials shall be delivered in manufacturer's original sealed containers, with complete identification of contents and manufacturer, and kept sealed in original containers until used. Labels shall not be removed until materials have been installed and inspected.

§ 3.4.10 Whenever the Contract Documents require delivery by the Contractor of any materials, equipment or other items, the term delivery shall be deemed to include unloading and storing with proper protection where directed.

§ 3.4.11 Materials shall be applied or installed under proper climactic conditions, not when they may be affected by temperature, moisture, humidity or dust.

§ 3.4.12 As defined by Federal and State Laws, no materials incorporated into the Project Work shall contain asbestos. Material shall be "asbestos-free" containing zero percent (0%) asbestos. The Architect reserves the right to request certification from the material manufacturer through the Contractor for certification that materials installed contact zero percent (0%) asbestos.

§ 3.4.13 The Contractor shall enforce strict discipline and good order among the Contractor's employees and other persons carrying out the Work. The Contractor shall not permit employment of unfit persons or persons not properly skilled in tasks assigned to them.

.1 A sufficient force of competent experienced workman, foreman and superintendents shall be employed at all times to permit the Work to be pursued with diligence until completion.

§ 3.5 Warranty

§ 3.5.1 The Contractor warrants to the Owner, Construction Manager, and Architect that materials and equipment furnished under the Contract will be of good quality and new unless the Contract Documents require or permit otherwise. The Contractor further warrants that the Work will conform to the requirements of the Contract Documents and will be free from defects, except for those inherent in the quality of the Work the Contract Documents require or permit. Work, materials, or equipment not conforming to these requirements may be considered defective. The Contractor's warranty excludes remedy for damage or defect caused by abuse, alterations to the Work not executed by the Contractor, improper or insufficient maintenance, improper operation, or normal wear and tear and normal usage. If required by the Construction Manager or Architect, the Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment.

§ 3.5.2 All material, equipment, or other special warranties required by the Contract Documents shall be issued in the name of the Owner, or shall be transferable to the Owner, and shall commence in accordance with Section 9.8.4.

§ 3.6 Taxes

Exempt from Sales Tax: New York State Sales Tax is not applicable to any materials and supplies to be incorporated into Work under the terms of the Contract, the Owner being exempt therefrom. There is no exemption from the sales or use tax on charges to the Contractor or subcontractor for lease of tools, machinery, equipment or other property used in conjunction with the Project. The Contractors and subcontractors shall be solely responsible for and pay any and all applicable taxes, including sales and compensating use taxes, on such leased tools, machinery, equipment or other property, and for materials not incorporated in the Project and the amount of such taxes, if any, shall be deemed included in executed Base Bid.

§ 3.7 Permits, Fees, Notices, and Compliance with Laws

§ 3.7.1 The Owner, through the Construction Manager, shall secure and pay for the building permit. The Contractor shall secure and pay for other permits, fees, licenses, and inspections by government agencies necessary for proper execution of and completion of the contract, which are legally required.

§ 3.7.2 The Contractor shall comply with and give notices required by applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities applicable to performance of the Work.

§ 3.7.3 If the Contractor performs Work which it knows or should have known was contrary to applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities, the Contractor shall assume appropriate responsibility for such Work and shall bear the costs attributable to correction.

§ 3.7.4 CONCEALED OR UNKNOWN CONDITIONS. If the Contractor encounters conditions at the site that are (1) subsurface or otherwise concealed physical conditions that differ materially from those indicated in the Contract Documents or (2) unknown physical conditions of an unusual nature that differ materially from those ordinarily found to exist and generally recognized as inherent in construction activities of the character provided for in the Contract Documents, the Contractor shall promptly provide notice to the Owner, Construction Manager, and the Architect in writing before conditions are disturbed and in no event later than 14 days after first observance of the conditions. The Architect and Construction Manager will investigate such conditions with reasonable promptness and, if the Architect, in consultation with the Construction Manager, determines that they differ materially and cause an increase or decrease in the Contractor's cost of, or time required for, performance of any part of the Work, will recommend that an equitable adjustment be made in the Contract Sum or Contract Time, or both. If the Architect, in consultation with the Construction Manager, determines that the conditions at the site are not materially different from those indicated in the Contract Documents and that no change in the terms of the Contract is justified, the Architect shall promptly notify the Owner, Construction Manager, and Contractor, stating the reasons. If the Owner or Contractor disputes the Architect's determination or recommendation, either party may submit a Claim as provided in Article 15.

§ 3.7.5 If, in the course of the Work, the Contractor encounters human remains or recognizes the existence of burial markers, archaeological sites or wetlands not indicated in the Contract Documents, the Contractor shall immediately suspend any operations that would affect them and shall notify the Owner, Construction Manager, and Architect. Upon receipt of such notice, the Owner shall promptly take any action necessary to obtain governmental authorization required to resume the operations. The Contractor shall continue to suspend such operations until otherwise instructed by the Owner but shall continue with all other operations that do not affect those remains or features. Requests for adjustments in the Contract Sum and Contract Time arising from the existence of such remains or features may be made as provided in Article 15.

§ 3.8 Allowances

§ 3.8.1 The Contractor shall include in the Contract Sum all allowances stated in the Contract Documents

.1 Contingency Allowances shall cover the direct cost to the Contractor for labor, materials and equipment, including delivery, unloading, storage, handling and installation. They do not include the Contractor's overhead and profit, including the costs of bonds, insurance, administration and supervision, which costs should be carried as part of the Contract Sum.

§ 3.8.2

(Paragraphs deleted)

Materials and equipment under an allowance shall be selected by the Owner with reasonable promptness.

(Paragraph deleted)

§ 3.9 Superintendent

§ 3.9.1 The Contractor shall employ a competent superintendent and necessary assistants who shall be in attendance at the Project site full time during performance of the Work. The Superintendent shall be the same individual throughout the duration of the project. The superintendent shall represent the Contractor, and communications given to the superintendent shall be as binding as if given to the Contractor.

§ 3.9.2 The Contractor, as soon as practicable after award of the Contract, shall notify the Owner and Architect, through the Construction Manager, of the name and qualifications of a proposed superintendent. Within 14 days of receipt of the information, the Construction Manager may notify the Contractor, stating whether the Owner, the Construction Manager, or the Architect (1) has reasonable objection to the proposed superintendent or (2) require additional time for review. Failure of the Construction Manager to provide notice within the 14-day period shall constitute notice of no reasonable objection.

§ 3.9.3 The Contractor shall not employ a proposed superintendent to whom the Owner, Construction Manager, or Architect has made reasonable and timely objection. The Contractor shall not change the superintendent without the Owner's consent, which shall not unreasonably be withheld or delayed.

§ 3.10 Contractor's Construction and Submittal Schedules

§ 3.10.1 The Contractor, promptly after being awarded the Contract, shall submit for the Owner's and Architect's information, and the Construction Manager's use in developing the Project schedule, a Contractor's construction schedule for the Work. The schedule shall contain detail appropriate for the Project, including (1) the date of commencement of the Work, interim schedule milestone dates, and the date of Substantial Completion; (2) an apportionment of the Work by construction activity; and (3) the time required for completion of each portion of the Work. The schedule shall provide for the orderly progression of the Work to completion and shall not exceed time limits current under the Contract Documents. The schedule shall be revised at appropriate intervals as required by the conditions of the Work and Project. The Contractor shall cooperate with the Construction Manager in scheduling and performing the Contractor's Work to avoid conflict with, and as to cause no delay in, the work or activities of other Contractors, or the construction or operations of the Owner's own forces or Separate Contractors.

§ 3.10.2 The Contractor, promptly after being awarded the Contract and thereafter as necessary to maintain a current submittal schedule, shall submit a submittal schedule for the Construction Manager's and Architect's approval. The Architect and Construction Manager's approval shall not be unreasonably delayed or withheld. The submittal schedule shall (1) be coordinated with the Contractor's construction schedule, and (2) allow the Construction Manager and Architect reasonable time in their respective judgments to review submittals. If the Contractor fails to submit a submittal schedule, or fails to provide submittals in accordance with the approved submittal schedule, the Contractor

shall not be entitled to any increase in Contract Sum or extension of Contract Time based on the time required for review of submittals.

§ 3.10.3 The Contractor shall participate with other Contractors, the Construction Manager, and the Owner in reviewing and coordinating all schedules for incorporation into the Project schedule that is prepared by the Construction Manager. The Contractor shall make revisions to the construction schedule and submittal schedule as deemed necessary by the Construction Manager to conform to the Project schedule.

§ 3.10.4 The Contractor shall perform the Work in general accordance with the most recent schedules submitted to the Owner, Construction Manager, and Architect, and incorporated into the approved Project schedule.

§ 3.11 Documents and Samples at the Site

The Contractor shall maintain at the Project site for the Owner two sets of record Drawings and one set of record Specifications, Addenda, Change Orders, Allowance Authorizations, and other Modifications, in good order and marked currently to indicate field changes and selections made during construction, and one copy of approved Shop Drawings, Product Data, Samples, and similar required submittals in good order and condition. . The Contractor shall mark these documents on a weekly basis to record all approved changes, and to record the dimensional locations of his installed work if it deviates from that shown on the Contract or Shop Drawings. Particular attention shall be given to site utilities, the location of valves, HVAC equipment, and all ductwork and major electrical conduit. These shall be in electronic form or paper copy, available to the Construction Manager, Architect, and Owner, and delivered to the Construction Manager for submittal to the Owner upon completion of the Work as a record of the Work as constructed.

§ 3.12 Shop Drawings, Product Data, and Samples

§ 3.12.1 Shop Drawings are drawings, diagrams, schedules, and other data specially prepared for the Work by the Contractor or a Subcontractor, Sub-subcontractor, manufacturer, supplier, or distributor to illustrate some portion of the Work.

§ 3.12.2 Product Data are illustrations, standard schedules, performance charts, instructions, brochures, diagrams, and other information furnished by the Contractor to illustrate materials or equipment for some portion of the Work.

§ 3.12.3 Samples are physical examples that illustrate materials, equipment, or workmanship, and establish standards by which the Work will be judged.

§ 3.12.4 Shop Drawings, Product Data, Samples, and similar submittals are not Contract Documents. Their purpose is to demonstrate how the Contractor proposes to conform to the information given and the design concept expressed in the Contract Documents for those portions of the Work for which the Contract Documents require submittals. Review by the Architect and Construction Manager is subject to the limitations of Sections 4.2.10 through 4.2.12. Informational submittals upon which the Construction Manager and Architect are not expected to take responsive action may be so identified in the Contract Documents. Submittals that are not required by the Contract Documents may be returned by the Construction Manager or Architect without action.

§ 3.12.5 The Contractor shall review for compliance with the Contract Documents, approve, and submit to the Construction Manager, Shop Drawings, Product Data, Samples, and similar submittals required by the Contract Documents, in accordance with the Project submittal schedule approved by the Construction Manager and Architect or, in the absence of an approved Project submittal schedule, with reasonable promptness and in such sequence as to cause no delay in the Work or in the activities of other Contractors, Separate Contractors, or the Owner's own forces. The Contractor shall cooperate with the Construction Manager in the coordination of the Contractor's Shop Drawings, Product Data, Samples, and similar submittals with related documents submitted by other Contractors.

§ 3.12.6 By submitting Shop Drawings, Product Data, Samples, and similar submittals, the Contractor represents to the Owner, Construction Manager, and Architect, that the Contractor has (1) reviewed and approved them, (2) determined and verified materials, field measurements and field construction criteria related thereto, or will do so, and (3) checked and coordinated the information contained within such submittals with the requirements of the Work and of the Contract Documents.

§ 3.12.7 Work performed without approved shop drawings, product data, samples or similar submittals as required by the Specifications is subject to all comments and conditions of approval regardless of Work progress. Completed work must be in accordance with all comments and conditions of approval regardless of Work progress. Completed work must be in accordance with all comments on approved submittals. Any portion of the Work performed prior to review and approval by the Construction Manager and Architect of required Shop Drawings, Product Data, Samples, or other Submittals, is performed at Contractor's risk. No Contract adjustments will be made to correct or modify Work installed without prior written approval of the Construction Manager and Architect.

§ 3.12.8 The Work shall be in accordance with approved submittals except that the Contractor shall not be relieved of responsibility for deviations from the requirements of the Contract Documents by the Architect's approval of Shop Drawings, Product Data, Samples, or similar submittals, unless the Contractor has specifically notified the Construction Manager and Architect in writing of such deviation at the time of submittal and (1) the Architect has given written approval to the specific deviation as a minor change in the Work, or (2) a Change Order or Construction Change Directive has been issued authorizing the deviation. The Contractor shall not be relieved of responsibility for errors or omissions in Shop Drawings, Product Data, Samples, or similar submittals, by the Architect's approval thereof.

§ 3.12.9 The Contractor shall direct specific attention, in writing or on resubmitted Shop Drawings, Product Data, Samples, or similar submittals, to revisions other than those requested by the Construction Manager and Architect on previous submittals. In the absence of such notice, the Architect's approval of a resubmission shall not apply to such revisions.

§ 3.12.10 The Contractor shall not be required to provide professional services that constitute the practice of architecture or engineering unless such services are specifically required by the Contract Documents for a portion of the Work or unless the Contractor needs to provide such services in order to carry out the Contractor's responsibilities for construction means, methods, techniques, sequences, and procedures. The Contractor shall not be required to provide professional services in violation of applicable law.

§ 3.12.10.1 If professional design services or certifications by a design professional related to systems, materials, or equipment are specifically required of the Contractor by the Contract Documents, the Owner and the Architect will specify all performance and design criteria that such services must satisfy. The Contractor shall be entitled to rely upon the adequacy and accuracy of the performance and design criteria provided in the Contract Documents. The Contractor shall cause such services or certifications to be provided by an appropriately licensed design professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, Shop Drawings, and other submittals prepared by such professional. Shop Drawings, and other submittals related to the Work, designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to the Architect. The Owner, the Architect, and the Construction Manager shall be entitled to rely upon the adequacy and accuracy of the services, certifications, and approvals performed or provided by such design professionals, provided the Owner and Architect have specified to the Contractor the performance and design criteria that such services must satisfy. Pursuant to this Section 3.12.10, the Architect will review and approve or take other appropriate action on submittals only for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents. The Construction Manager shall review submittals for sequencing, constructability, and coordination impacts on other Contractors.

§ 3.12.10.2 If the Contract Documents require the Contractor's design professional to certify that the Work has been performed in accordance with the design criteria, the Contractor shall furnish such certifications to the Construction Manager and Architect at the time and in the form specified by the Architect.

§ 3.13 Use of Site

§ 3.13.1 The Contractor shall confine operations at the site to areas permitted by applicable laws, statutes, ordinances, codes, rules and regulations, lawful orders of public authorities, and the Contract Documents and shall not unreasonably encumber the site with materials or equipment.

§ 3.13.2 The Contractor shall coordinate the Contractor's operations with, and secure the approval of, the Construction Manager before using any portion of the site.

§ 3.14 Cutting and Patching

§ 3.14.1 The Contractor shall be responsible for cutting, fitting, or patching required to complete the Work or to make its parts fit together properly. All areas requiring cutting, fitting, or patching shall be restored to the condition existing prior to the cutting, fitting, or patching, unless otherwise required by the Contract Documents.

§ 3.14.2 The Contractor shall not damage or endanger a portion of the Work or fully or partially completed construction of the Owner, Separate Contractors, or of other Contractors by cutting, patching, or otherwise altering such construction, or by excavation. The Contractor shall not cut or otherwise alter construction by the Owner, Separate Contractors, or by other Contractors except with written consent of the Construction Manager, Owner, and such other Contractors or Separate Contractors. Consent shall not be unreasonably withheld. The Contractor shall not unreasonably withhold, from the Separate Contractors, other Contractors, or the Owner, its consent to cutting or otherwise altering the Work.

§ 3.15 Cleaning Up

§ 3.15.1 The Contractor shall keep the premises and surrounding area free from accumulation of waste materials and rubbish caused by operations under the Contract. At completion of the Work, the Contractor shall remove waste materials, rubbish, the Contractor's tools, construction equipment, machinery, and surplus materials from and about the Project.

§ 3.15.2 If the Contractor fails to clean up as provided in the Contract Documents, the Owner, or Construction Manager with the Owner's approval, may do so and the Owner shall be entitled to reimbursement from the Contractor. Upon completion of the work, and prior to final inspection and acceptable of the same by the Owner, the Contractor shall thoroughly clean all Work, remedy any defects, and leave the Project in good condition.

§ 3.16 Access to Work

The Contractor shall provide the Owner, Construction Manager, and Architect with access to the Work in preparation and progress wherever located.

§ 3.17 Royalties, Patents and Copyrights

The Contractor shall pay all royalties and license fees. The Contractor shall defend suits or claims for infringement of copyrights and patent rights and shall hold the Owner, Construction Manager, and Architect harmless from loss on account thereof, but shall not be responsible for defense or loss when a particular design, process, or product of a particular manufacturer or manufacturers is required by the Contract Documents, or where the copyright violations are contained in Drawings, Specifications, or other documents prepared by the Owner, Architect, or Construction Manager. However, if an infringement of a copyright or patent is discovered by, or made known to, the Contractor, the Contractor shall be responsible for the loss unless the information is promptly furnished to the Architect through the Construction Manager.

§ 3.18 Indemnification

§ 3.18.1 To the fullest extent permitted by law, the Contractor shall defend, indemnify and hold harmless the Owner, Construction Manager, Architect, each of their consultant's, officers, board members, agents, and employees from and against any suits, claims, damages, losses, or expenses, including but not limited to attorneys' fees and litigation costs, arising out of or resulting from performance of the Work, provided that such suit, claim, damage, loss or expense is attributable to any bodily injury, sickness, disease, or death, or injury to or destruction of any tangible property, including loss of use resulting therefrom, but only to the extent caused in whole or in part by the act, omission, fault, breach of contract, breach of warranty or statutory violation of the Contractor, a subcontractor, or any person or entity directly or indirectly employed by them, or any person or entity for whose acts they may be liable or arises out of operation of law as a consequence of any act or omission of the Contractor, any Subcontractor, anyone directly or indirectly employed by any of them, or anyone for whose acts any of the above may be liable, regardless of whether any of them has been negligent. This provision shall not be construed to require the Contractor to indemnify the Owner, Construction Manager, or Architect for the negligence of the Owner, Construction Manager, or Architect to the extent such negligence, in whole or in part, proximately caused the damages resulting in the suit, claim, damage, loss or expense."

§ 3.18.2 In claims against any person or entity indemnified under this Section 3.18 by an employee of the Contractor, a Subcontractor, anyone directly or indirectly employed by them, or anyone for whose acts they may be liable, the indemnification obligation under Section 3.18.1 shall not be limited by a limitation on amount or type of damages,

compensation, or benefits payable by or for the Contractor or a Subcontractor under workers' compensation acts, disability benefit acts, or other employee benefit acts.

§3.18.3 The indemnification provisions contained in this §3.18 shall survive the completion or termination of the Contract.

§ 3.19 DAILY RECORDS CLAUSE

§3.19.1 The Contractor shall prepare and maintain Daily Inspection Records to document the progress of the work on a daily basis. Such daily records shall include a detailed daily accounting of all labor and all equipment on the site for the Contractor and all subcontractors, at any tier. Such daily records will make a clear distinction between work being performed under Change Order, base scope work and/or disputed work.

3.19.2 In the event that any labor or equipment is idled, solely as a result of Owner actions or inactions, the daily records shall record which laborers and equipment were idled and for how long. In the event that specific work activities were stopped, solely as a result of Owner actions or inactions, and labor and equipment was reassigned to perform work on other activities, the daily records will make a clear record of which activities were stopped and where labor and equipment was redirected to.

§3.19.3 Such daily records shall be copied and provided to the Owner at the end of every week.

ARTICLE 4 ARCHITECT AND CONSTRUCTION MANAGER

§ 4.1 General

§ 4.1.1 The Architect is the person or entity retained by the Owner pursuant to Section 2.3.2 and identified as such in the Agreement.

§ 4.1.2 Duties, responsibilities and limitations of authority of the Architect as set forth in the Contract Documents shall not be restricted, modified or extended without written consent of the Owner and Architect.

(Paragraph deleted)

§ 4.2 Administration of the Contract

§ 4.2.1 The Construction Manager and Architect will provide administration of the Contract as described in the Contract Documents and will be an Owner's Representative (1) during construction, (2) until 90 days after issuance of the State Education Department's Certificate of Substantial Completion or issuance of the Final Project Certificate for Payment, whichever is later, and (3) with the Owner's concurrence, from time to time during the one-year period for correction of Work described in Section 12.2. The Construction Manager and Architect will have authority to act on behalf of the Owner only to the extent provided in the Contract Documents, unless otherwise modified in writing in accordance with other provisions of the Contract.

§ 4.2.2 The Architect will visit the site at intervals appropriate to the stage of construction, or as otherwise agreed with the Owner, to become generally familiar with the progress and quality of the portion of the Work completed, and to determine in general if, in its professional judgment, the Work observed is being performed in a manner indicating that the Work, when fully completed, will be in accordance with the Contract Documents. However, the Architect will not be required to make exhaustive or continuous on-site inspections to check the quality or quantity of the Work. On the basis of the site visits, the Architect will keep the Owner and the Construction Manager reasonably informed about the progress and quality of the portion of the Work completed, and promptly report to the Owner and Construction Manager known deviations from the Contract Documents and defects and deficiencies observed in the Work.

§ 4.2.2.1 The Contractor shall reimburse the Owner for compensation paid to the Architect for additional site visits made necessary by the fault, neglect or request of the Contractor.

§ 4.2.3 The Construction Manager shall provide one or more representatives who shall be in attendance at the Project site whenever the Work is being performed. The Construction Manager will determine in general if the Work observed is being performed in accordance with the Contract Documents, will keep the Owner and Architect reasonably informed of the progress of the Work, and will promptly report to the Owner and Architect known deviations from the Contract Documents and the most recent Project schedule, and defects and deficiencies observed in the Work.

§ 4.2.4 The Construction Manager will schedule and coordinate the activities of the Contractor and other Contractors in accordance with the latest approved Project schedule.

§ 4.2.5 The Construction Manager, except to the extent required by Section 4.2.4, and Architect will not have control over, charge of, or responsibility for, the construction means, methods, techniques, sequences or procedures, or for the safety precautions and programs in connection with the Work, since these are solely the Contractor's rights and responsibilities under the Contract Documents, and neither will be responsible for the Contractor's failure to perform the Work in accordance with the requirements of the Contract Documents. Neither the Construction Manager nor the Architect will have control over or charge of, or be responsible for acts or omissions of, the Contractor, Subcontractors, or their agents or employees, or of any other persons or entities performing portions of the Work.

§ 4.2.6 Communications. The Owner shall communicate with the Contractor and the Construction Manager's consultants through the Construction Manager about matters arising out of or relating to the Contract Documents. The Owner and Construction Manager shall include the Architect in all communications that relate to or affect the Architect's services or professional responsibilities. The Owner shall promptly notify the Architect of the substance of any direct communications between the Owner and the Construction Manager otherwise relating to the Project. Communications by and with the Architect's consultants shall be through the Architect. Communications by and with Subcontractors and suppliers shall be through the Contractor. Communications by and with other Contractors shall be through the Construction Manager. Communications by and with the Owner's own forces and Separate Contractors shall be through the Owner. The Contract Documents may specify other communication protocols.

§ 4.2.7 The Construction Manager and Architect will review and certify all Applications for Payment by the Contractor, in accordance with the provisions of Article 9.

§ 4.2.8 The Owner, Architect and Construction Manager have authority to reject Work that does not conform to the Contract Documents, and will notify each other about the rejection. Whenever the Construction Manager considers it necessary or advisable, the Construction Manager will have authority to require inspection or testing of the Work in accordance with Sections 13.4.2 and 13.4.3, upon written authorization of the Owner, whether or not the Work is fabricated, installed or completed. The foregoing authority of the Construction Manager will be subject to the provisions of Sections 4.2.18 through 4.2.20 inclusive, with respect to interpretations and decisions of the Architect. However, neither the Architect's nor the Construction Manager's authority to act under this Section 4.2.8 nor a decision made by either of them in good faith either to exercise or not to exercise such authority shall give rise to a duty or responsibility of the Architect or the Construction Manager to the Contractor, Subcontractors, suppliers, their agents or employees, or other persons performing any of the Work.

§ 4.2.9 Utilizing the submittal schedule provided by the Contractor, the Construction Manager shall prepare, and revise as necessary, a Project submittal schedule incorporating information from other Contractors, the Owner, Owner's consultants, Owner's Separate Contractors and vendors, governmental agencies, and participants in the Project under the management of the Construction Manager. The Project submittal schedule and any revisions shall be submitted to the Architect for approval.

§ 4.2.10 The Construction Manager will receive and promptly review for conformance with the submittal requirements of the Contract Documents, all submittals from the Contractor such as Shop Drawings, Product Data, and Samples. Where there are other Contractors, the Construction Manager will also check and coordinate the information contained within each submittal received from the Contractor and other Contractors, and transmit to the Architect those recommended for approval. By submitting Shop Drawings, Product Data, Samples, and similar submittals, the Construction Manager represents to the Owner and Architect that the Construction Manager has reviewed and recommended them for approval. The Construction Manager's actions will be taken in accordance with the Project submittal schedule approved by the Architect or, in the absence of an approved Project submittal schedule, with reasonable promptness while allowing sufficient time to permit adequate review by the Architect.

§ 4.2.11 The Architect will review and approve, or take other appropriate action upon, the Contractor's submittals such as Shop Drawings, Product Data, and Samples, but only for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents. The Architect's action will be taken in accordance with the submittal schedule approved by the Architect or, in the absence of an approved submittal schedule, with reasonable promptness while allowing sufficient time in the Architect's professional judgment to

permit adequate review. Upon the Architect's completed review, the Architect shall transmit its submittal review to the Construction Manager.

§ 4.2.12 Review of the Contractor's submittals by the Construction Manager and Architect is not conducted for the purpose of determining the accuracy and completeness of other details such as dimensions and quantities, or for substantiating instructions for installation or performance of equipment or systems, all of which remain the responsibility of the Contractor as required by the Contract Documents. The Construction Manager and Architect's review of the Contractor's submittals shall not relieve the Contractor of the obligations under Sections 3.3, 3.5, and 3.12. The Construction Manager and Architect's review shall not constitute approval of safety precautions or of any construction means, methods, techniques, sequences, or procedures. The Architect's approval of a specific item shall not indicate approval of an assembly of which the item is a component.

§ 4.2.13 The Construction Manager will prepare Change Orders and Construction Change Directives, which shall not become effective until approved by the Owner in writing or the Owner's representative, when authorized by the Owner.

§ 4.2.14 The Construction Manager and the Architect will take appropriate action on Change Orders or Construction Change Directives in accordance with Article 7, and the Architect will have authority to order minor changes in the Work as provided in Section 7.4. The Architect, in consultation with the Construction Manager, will investigate and make determinations and recommendations regarding concealed and unknown conditions as provided in Section 3.7.4.

§ 4.2.15 Utilizing the documents provided by the Contractor, the Construction Manager will maintain at the site for the Owner one copy of all Contract Documents, approved Shop Drawings, Product Data, Samples, and similar required submittals, in good order and marked currently to record all changes and selections made during construction. These will be available to the Architect and the Contractor, and will be delivered to the Owner upon completion of the Project.

§ 4.2.16 The Construction Manager will assist the Architect in conducting inspections to determine the date or dates of Substantial Completion and the date of final completion; issue Certificates of Substantial Completion in conjunction with the Architect pursuant to Section 9.8; and receive and forward to the Owner written warranties and related documents required by the Contract and assembled by the Contractor pursuant to Section 9.10. The Construction Manager will forward to the Architect a final Application and Certificate for Payment or final Project Application and Project Certificate for Payment upon the Contractor's compliance with the requirements of the Contract Documents.

§ 4.2.17 The Owner shall notify the Construction Manager of any change in the duties, responsibilities and limitations of authority of the Project representatives.

§ 4.2.18 The Architect will interpret and decide matters concerning performance of the Contractor under, and requirements of, the Contract Documents on written request of the Construction Manager, Owner, or Contractor through the Construction Manager. The Architect's response to such requests will be made in writing within any time limits agreed upon or otherwise with reasonable promptness.

§ 4.2.19 Interpretations and decisions of the Architect will be consistent with the intent of, and reasonably inferable from, the Contract Documents and will be in writing or in the form of drawings. The Architect will not be liable for the results of any such interpretations or decisions rendered in good faith and in accordance with its professional judgment.

(Paragraph deleted)

§ 4.2.21 The Construction Manager will receive and review requests for information from the Contractor, and forward each request for information to the Architect, with the Construction Manager's recommendation. The Architect will review and respond in writing, through the Construction Manager, to requests for information about the Contract Documents. The Construction Manager's recommendation and the Architect's response to each request will be made in writing within any time limits agreed upon or otherwise with reasonable promptness but, in any event, allowing the Architect sufficient time in its professional judgment to properly review the request. If appropriate, the Architect will prepare and issue supplemental Drawings and Specifications in response to the requests for information.

ARTICLE 5 SUBCONTRACTORS

§ 5.1 Definitions

§ 5.1.1 A Subcontractor is a person or entity who has a direct contract with the Contractor to perform a portion of the Work at the site and/or supply materials for the Project. The term "Subcontractor" is referred to throughout the Contract Documents as if singular in number and means a Subcontractor or an authorized representative of the Subcontractor. The term "Subcontractor" does not include other Contractors or Separate Contractors or the subcontractors of other Contractors or Separate Contractors.

§ 5.1.2 A Sub-subcontractor is a person or entity who has a direct or indirect contract with a Subcontractor to perform a portion of the Work at the site. The term "Sub-subcontractor" is referred to throughout the Contract Documents as if singular in number and means a Sub-subcontractor or an authorized representative of the Sub-subcontractor.

§ 5.2 Award of Subcontracts and Other Contracts for Portions of the Work

§ 5.2.1 As stated in the bidding requirements, the Contractor, as soon as practicable after award of the Contract, shall notify in writing for review by the Construction Manager and Architect, of the persons or entities proposed for each principal portion of the Work, including those who are to furnish materials or equipment fabricated to a special design. Within 14 days of receipt of the information, the Construction Manager may notify the Contractor whether the Owner, the Construction Manager or the Architect (1) has reasonable objection to any such proposed person or entity or, (2) requires additional time for review.

§ 5.2.2 The Contractor shall not contract with a proposed person or entity to whom the Owner, Construction Manager or Architect has made reasonable and timely objection. The Contractor shall not be required to contract with anyone to whom the Contractor has made reasonable objection.

§ 5.2.3 If the Owner, Construction Manager or Architect has reasonable objection to a person or entity proposed by the Contractor, the Contractor shall propose another to whom the Owner, Construction Manager or Architect has no reasonable objection. If the proposed but rejected Subcontractor was reasonably capable of performing the Work, the Contract Sum and Contract Time shall be increased or decreased by the difference, if any, occasioned by such change, and an appropriate Change Order shall be issued before commencement of the substitute Subcontractor's Work. However, no increase in the Contract Sum or Contract Time shall be allowed for such change unless the Contractor has acted promptly and responsively in submitting names as required.

§ 5.2.4 The Contractor shall not substitute a Subcontractor, person, or entity for one previously selected if the Owner, Construction Manager or Architect makes reasonable objection to such substitution.

§ 5.3 Subcontractual Relations

By appropriate written agreement, the Contractor shall require each Subcontractor, to the extent of the Work to be performed by the Subcontractor, to be bound to the Contractor by terms of the Contract Documents, and to assume toward the Contractor all the obligations and responsibilities, including, but not limited to, the responsibility for safety of the Subcontractor's Work and obligations to defend and indemnify, that the Contractor, by these Contract Documents, assumes toward the Owner, Construction Manager and Architect. Each subcontract agreement shall preserve and protect the rights of the Owner, Construction Manager and Architect under the Contract Documents with respect to the Work to be performed by the Subcontractor so that subcontracting thereof will not prejudice such rights, and shall allow to the Subcontractor, unless specifically provided otherwise in the subcontract agreement, the benefit of all rights, remedies, and redress against the Contractor that the Contractor, by the Contract Documents, has against the Owner. Where appropriate, the Contractor shall require each Subcontractor to enter into similar agreements with Sub-subcontractors. The Contractor shall make available to each proposed Subcontractor, prior to the execution of the subcontract agreement, copies of the Contract Documents to which the Subcontractor will be bound, and, upon written request of the Subcontractor, identify to the Subcontractor terms and conditions of the proposed subcontract agreement that may be at variance with the Contract Documents. Subcontractors will similarly make copies of applicable portions of such documents available to their respective proposed Sub-subcontractors.

§5.3.1 Immediately upon execution, Contractors shall forward to the Construction Manager one (1) executed copy of each and every Subcontract with each Subcontractor. The duty to provide said documents shall continue throughout the time of the Contract with the Owner.

§ 5.4 Contingent Assignment of Subcontracts

§ 5.4.1 Each subcontract agreement for a portion of the Work is assigned by the Contractor to the Owner, provided that

.1 assignment is effective only after termination of the Contract by the Owner for cause pursuant to Section 14.2 and only for those subcontract agreements that the Owner accepts by notifying the Subcontractor and Contractor; and

.2 assignment is subject to the prior rights of the surety, if any, obligated under bond relating to the Contract.

When the Owner accepts the assignment of a subcontract agreement, the Owner assumes the Contractor's rights and obligations under the subcontract.

§ 5.4.2 Upon such assignment, if the Work has been suspended for more than 30 days, the Subcontractor's compensation shall be equitably adjusted for increases in cost resulting from the suspension.

§ 5.4.3 Upon assignment to the Owner under this Section 5.4, the Owner may further assign the subcontract to a successor Contractor or other entity. If the Owner assigns the subcontract to a successor Contractor or other entity, the Owner shall nevertheless remain legally responsible for all of the successor Contractor's obligations under the subcontract.

ARTICLE 6 CONSTRUCTION BY OWNER OR BY SEPARATE CONTRACTORS

§ 6.1 Owner's Right to Perform Construction with Own Forces and to Award Other Contracts

§ 6.1.1 The Owner reserves the right to perform construction or operations related to the Project with the Owner's own forces, and with Separate Contractors retained under Conditions of the Contract substantially similar to those of this Contract, including those provisions of the Conditions of the Contract related to insurance and waiver of subrogation.

§ 6.1.2 When the Owner performs construction or operations with the Owner's own forces or Separate Contractors, the Owner shall provide for coordination of such forces and Separate Contractors with the Work of the Contractor, who shall cooperate with them.

§ 6.1.3 Unless otherwise provided in the Contract Documents, when the Owner performs construction or operations related to the Project with the Owner's own forces or with Separate Contractors, the Owner or its Separate Contractors shall have the same obligations and rights that the Contractor has under the Conditions of the Contract, including, without excluding others, those stated in Article 3, this Article 6, and Articles 10, 11, and 12.

§ 6.2 Mutual Responsibility

§ 6.2.1 The Contractor shall afford the Owner's own forces, Separate Contractors, Construction Manager and other Contractors reasonable opportunity for introduction and storage of their materials and equipment and performance of their activities, and shall connect and coordinate the Contractor's construction and operations with theirs as required by the Contract Documents.

§ 6.2.2 If part of the Contractor's Work depends for proper execution or results upon construction or operations by the Owner's own forces, Separate Contractors or other Contractors, the Contractor shall, prior to proceeding with that portion of the Work, promptly notify the Construction Manager and Architect in writing and in detail of apparent discrepancies or defects in the construction or operations by the Owner or Separate Contractor or other Contractors that would render it unsuitable for proper execution and results of the Contractor's Work. Failure of the Contractor to notify the Construction Manager and the Architect of apparent discrepancies or defects prior to proceeding with the Work shall constitute an acknowledgment that the Owner's or Separate Contractor's or other Contractors' completed or partially completed construction is fit and proper to receive the Contractor's Work. The Contractor shall not be responsible for discrepancies or defects in the construction or operations by the Owner or Separate Contractors or other Contractors that are not apparent.

§ 6.2.3 The Contractor shall reimburse the Owner for costs the Owner incurs, including costs that are payable to a Separate Contractors or to other Contractors, because of the Contractor's delays, improperly timed activities or defective construction

§ 6.2.4 The Contractor shall promptly remedy damage that the Contractor wrongfully causes to completed or partially completed construction, or to property of the Owner, Separate Contractors, or other Contractors as provided in Section 10.2.5.

§ 6.2.5 The Owner, Separate Contractors, and other Contractors shall have the same responsibilities for cutting and patching as are described for the Contractor in Section 3.14.

§ 6.3 Owner's Right to Clean Up

If a dispute arises among the Contractor, Separate Contractors, other Contractors, and the Owner as to the responsibility under their respective contracts for maintaining the premises and surrounding area free from waste materials and rubbish, the Owner may clean up and the Construction Manager, with notice to the Architect, will allocate the cost among those responsible.

ARTICLE 7 CHANGES IN THE WORK

§ 7.1 General

§ 7.1.1 Changes in the Work may be accomplished after execution of the Contract, and without invalidating the Contract, by Change Order, Construction Change Directive or order for a minor change in the Work, subject to the limitations stated in this Article 7 and elsewhere in the Contract Documents.

§ 7.1.2 A Change Order shall be based upon agreement among the Owner, Construction Manager, Architect and Contractor. A Construction Change Directive requires agreement by the Owner, Construction Manager and Architect and may or may not be agreed to by the Contractor. An order for a minor change in the Work may be issued by the Architect alone.

§ 7.1.3 Changes in the Work shall be performed under applicable provisions of the Contract Documents. The Contractor shall proceed promptly with changes in the Work, unless otherwise provided in the Change Order, Construction Change Directive, or order for a minor change in the Work.

§ 7.2 Change Orders

A Change Order is a written instrument prepared by the Construction Manager and signed by the Owner, Construction Manager, Architect, and Contractor, stating their agreement upon all of the following:

.1 The change in the Work;
.2 The amount of the adjustment, if any, in the Contract Sum; and
.3 The extent of the adjustment, if any, in the Contract Time.

§ 7.3 Construction Change Directives

§ 7.3.1 A Construction Change Directive is a written order prepared by the Construction Manager and signed by the Owner, Construction Manager and Architect, directing a change in the Work prior to agreement on adjustment, if any, in the Contract Sum or Contract Time, or both. The Owner may by Construction Change Directive, without invalidating the Contract, order changes in the Work within the general scope of the Contract consisting of additions, deletions, or other revisions, the Contract Sum and Contract Time being adjusted accordingly.

§ 7.3.2 A Construction Change Directive shall be used in the absence of total agreement on the terms of a Change Order.

§ 7.3.3 If the Construction Change Directive provides for an adjustment to the Contract Sum, the adjustment shall be based on one of the following methods:

.1 Mutual acceptance of a lump sum properly itemized and supported by sufficient substantiating data to permit evaluation;
.2 Unit prices stated in the Contract Documents or subsequently agreed upon;
.3 Cost to be determined in a manner agreed upon by the parties and a mutually acceptable fixed or percentage fee; or
.4 As provided in Section 7.3.4.

§ 7.3.4 If the Contractor does not respond promptly or disagrees with the method for adjustment in the ContractSum, the Construction Manager shall determine the adjustment on the basis of reasonable expenditures and savings of those performing the Work attributable to the change, including, in case of an increase in the Contract Sum, an amount for

overhead and profit as set forth in the Contract Documents, or if no such amount is set forth in the Contract Documents, a reasonable amount. In such case, and also under Section 7.3.3.3, the Contractor shall keep and present, in such form as the Construction Manager may prescribe, an itemized accounting together with appropriate supporting data. Unless otherwise provided in the Contract Documents, costs for the purposes of this Section 7.3.4 shall be limited to the following:

.1 Costs of labor, including applicable payroll taxes, fringe benefits required by agreement or custom, workers' compensation insurance directly related to the work, and other employee costs approved by the Construction Manager and Architect;

.2 Costs of materials, supplies, and equipment, including cost of transportation, whether incorporated or consumed;

.3 Rental costs of machinery and equipment, exclusive of hand tools and equipment normally encumbered to perform the work, whether rented from the Contractor or others;

.4 Costs of premiums for all bonds and insurance, permit fees, directly related to the work; and

.5 Costs of supervision by the Site Superintendent directly attributable to the change, if the change requires an extension of time beyond that time indicated in the Contract.

(Paragraph deleted)

§ 7.3.6 Upon receipt of a Construction Change Directive, the Contractor shall promptly proceed with the change in the Work involved and advise the Construction Manager of the Contractor's agreement or disagreement with the method, if any, provided in the Construction Change Directive for determining the proposed adjustment in the Contract Sum or Contract Time.

§ 7.3.7 A Construction Change Directive signed by the Contractor indicates the Contractor's agreement therewith, including adjustment in Contract Sum and Contract Time or the method for determining them. Such agreement shall be effective immediately and shall be recorded as a Change Order.

§ 7.3.8 The amount of credit to be allowed by the Contractor to the Owner for a deletion or change that results in a net decrease in the Contract Sum shall be actual net cost as confirmed by the Construction Manager and Architect. When both additions and credits covering related Work or substitutions are involved in a change, the allowance for overhead and profit not to exceed ten (10%) percent shall be figured on the basis of net increase, if any, with respect to that change.

§ 7.3.9 Pending final determination of the total cost of a Construction Change Directive to the Owner, the Contractor may request payment for Work completed under the Construction Change Directive in Applications for Payment. The Construction Manager and Architect will make an interim determination for purposes of monthly certification for payment for those costs and certify for payment the amount that the Construction Manager and Architect determine to be reasonably justified. The interim determination of cost shall adjust the Contract Sum on the same basis as a Change Order, subject to the right of either party to disagree and assert a Claim in accordance with Article 15.

§ 7.3.10 When the Owner and Contractor agree with a determination made by the Construction Manager and Architect concerning the adjustments in the Contract Sum and Contract Time, or otherwise reach agreement upon the adjustments, such agreement shall be effective immediately and the Construction Manager shall prepare a Change Order. Change Orders may be issued for all or any part of a Construction Change Directive.

(Paragraphs deleted)

§ 7.5 OVERHEAD AND PROFIT

§ 7.5.1 The combined overhead and profit included in the total cost to the Owner shall be based on the following schedule:

§ 7.5.1.a The Contractor: For Work performed by the The Contractor's own forces, markup shall not exceed a total of ten percent (10%), of the value of labor and materials (L+M).

.1 Example: Total Contractor Amount = (L+M) + 10% O&P

§ 7.5.1.b Contractor's Subcontractor: For Work performed by the Subcontractor's own forces, markup shall not exceed a total of ten percent (10%), of the value of labor and material (L+M). For the Contractor, for

work performed by that Contractor's Subcontractor, markup shall not exceed five percent (5%) for the value of the Subcontractor amount.

.1 Example: Total Subcontractor Amount = (L+M) + 10% O&P
.2 Example: Total Contractor Amount = Total Subcontract Amount + 5% O&P

§ 7.5.1.c Sub-Subcontractor: For Work performed by the Subcontractor's own forces, markup shall not exceed a total of five percent (5%) of the value of labor and materials (L+M). For the Subcontractor, for work performed by the Subcontractor's Sub-subcontract, markup shall not exceed 5% of the Subcontractor Amount. For the Prime Contractor, for Work performed by the Subcontractor's Sub-subcontractor, markup shall not exceed 5% of the Subcontractor Amount.

.1 Example: Total Sub-subcontractor Amount = (L+M) + 5% O&P
.2 Example: Total Subcontractor Amount = Sub-subcontractor Amount + 5% O&P
.3 Example: Total Contractor Amount = Subcontractor Amount + 5% O&P

§ 7.5.2 Performance and Payment Bond Adjustments: Do not itemize increases for bond premiums for each individual Change Order per General Conditions of the Contract, Paragraph 11.4.

ARTICLE 8 TIME

§ 8.1 Definitions

§ 8.1.1 Unless otherwise provided, Contract Time is the period of time, including authorized adjustments, allotted in the Contract Documents for Substantial Completion of the Work.

§ 8.1.2 The date of commencement of the Work is the date established in the Agreement.

§ 8.1.3 The date of Substantial Completion is the date certified by the Architect in accordance with Section 9.8. The Work of this Project shall be substantially complete on or before the dates indicated in Milestone Construction Schedule for those portions of the Work so stipulated. Actual damages may be assessed by the Owner if specified completion dates are not adhered to by the Contractor.

§ 8.1.4 The term "day" as used in the Contract Documents shall mean calendar day unless otherwise specifically defined.

§ 8.2 Progress and Completion

§ 8.2.1 Time limits stated in the Contract Documents are of the essence of the Contract. By executing the Agreement, the Contractor confirms that the Contract Time is a reasonable period for performing the Work.

§ 8.2.2 The Contractor shall not knowingly, except by agreement or instruction of the Owner in writing, commence the Work prior to the effective date of insurance required to be furnished by the Contractor and Owner.

§ 8.2.3 The Contractor shall proceed expeditiously with adequate forces and shall achieve Substantial Completion within the Contract Time.

§ 8.3 Delays and Extensions of Time

§ 8.3.1 If the Contractor is delayed at any time in the commencement or progress of the Work by (1) an act or neglect of the Owner, Architect, Construction Manager, or an employee of any of them, or of the Owner's own forces, Separate Contractors, or other Contractors; (2) by changes ordered in the Work; (3) by labor disputes, fire, unusual delay in deliveries, unavoidable casualties, adverse weather conditions documented in accordance with Section 15.1.6.2, or other causes beyond the Contractor's control; (4) by delay authorized by the Owner pending mediation and binding dispute resolution; or (5) by other causes that the Contractor asserts and the Architect, based on the recommendation of the Construction Manager, determines justify delay, then the Contract Time shall be extended for such reasonable time as the Architect may determine.

§ 8.3.2 Claims relating to time shall be made in accordance with applicable provisions of Article 15. If the Owner, through the Construction Manager, determines that the Contractor is not maintaining the pace of the Work in

accordance with the Schedule or otherwise consistent with the Contract Time and such delays are not justified as set forth in **§ 8.3**, then the Owner may require the Contractor to undertake a time recovery plan (including more personnel, overtime and/or double shifts) at the Contractor's sole expense, to reasonably assure completion of the Work within the Contract Time.

§ 8.3.3 The Owner shall not be liable to the Contractor and/or any subcontractor for claims or damages of any nature caused by or arising out of delays. The sole remedy against the Owner for delays shall be the allowance of additional time for completion of the Work, the amount of which shall be subject to the claims procedure set forth herein. Except to the extent, if any, expressly prohibited by law, the Contractor expressly agrees not to make and hereby waives any claim for damages for delay, including, but not limited to, those resulting from increased labor or material costs; directions given or not given by the Owner, Construction Manager or Architect, including scheduling and coordination of the Work; the Architect's preparation of drawings and specifications or review of shop drawings and requests for instruction(s); or, on account of any delay, obstruction or hindrance for any cause whatsoever by the Owner, Construction Manager, Architect, or any other contractor on the project, whether or not foreseeable or anticipated. The Contractor agrees that its sole right and remedy therefor shall be an extension of time, if appropriate. **IT IS EMPHASIZED THAT NO MONETARY RECOVERY MAY BE OBTAINED BY THE CONTRACTOR FOR DELAY AGAINST THE OWNER, CONSTRUCTION MANAGER, OR ARCHITECT BASED ON ANY REASON AND THAT THE CONTRACTOR'S SOLE REMEDY, IF APPROPRIATE, IS ADDITIONAL TIME."**

ARTICLE 9 PAYMENTS AND COMPLETION

§ 9.1 Contract Sum

§ 9.1.1 The Contract Sum is stated in the Agreement and, including authorized adjustments, is the total amount payable by the Owner to the Contractor for performance of the Work under the Contract Documents.

§ 9.1.2 If unit prices are stated in the Contract Documents or subsequently agreed upon, and if quantities originally contemplated are materially changed so that application of such unit prices to the actual quantities causes substantial inequity to the Owner or Contractor, the applicable unit prices shall be equitably adjusted.

§ 9.2 Schedule of Values

As indicated in the Contract Documents, the Contractor shall submit a schedule of values to the Construction Manager, before the first Application for Payment, allocating the entire Contract Sum to the various portions of the Work. The schedule of values shall be prepared in the form, and supported by the data to substantiate its accuracy, required by the Construction Manager and the Architect. This schedule, unless objected to by the Construction Manager or Architect, shall be used as a basis for reviewing the Contractor's Applications for Payment. The Construction Manager shall forward to the Architect the Contractor's schedule of values. Any changes to the schedule of values shall be submitted to the Construction Manager and supported by such data to substantiate its accuracy as the Construction Manager and the Architect may require, and unless objected to by the Construction Manager or the Architect, shall be used as a basis for reviewing the Contractor's subsequent Applications for Payment.

§ 9.3 Applications for Payment

§ 9.3.1 The Contractor shall submit applications for payment in accordance with Specification Section "Payment Procedures."

§ 9.3.1.1 As provided in Section 7.3.9, such applications may include requests for payment on account of changes in the Work that have been properly authorized by Construction Change Directives, or by interim determinations of the Construction Manager and Architect, but not yet included in Change Orders.

§ 9.3.1.2 Applications for Payment shall not include requests for payment for portions of the Work for which the Contractor does not intend to pay a Subcontractor or supplier, unless such Work has been performed by others whom the Contractor intends to pay.

§ 9.3.1.3 Until Substantial Completion, the Owner shall pay ninety-five percent (95%) of the amount due to the Contractor on account of progress payments.

§ 9.3.1.4 When the work or major portions thereof as contemplated by the terms of the Contract are substantially complete, the Contractor shall submit to the Construction Manager and Architect a requisition for payment of the remaining amount of the Contract balance. Upon receipt of such requisition, the Owner shall approve and promptly pay the remaining amount of the Contract less two times the value of any remaining items to be completed and an amount necessary to satisfy any claims, liens or judgments against the Contractor, which have not been suitably discharged, as determined by the Architect in conjunction with the Construction Manager. Any claims, liens or judgments referred to in this clause shall pertain to the Project and shall be filed in accordance with the terms of the Contract, and applicable laws.

§ 9.3.2 Unless otherwise provided in the Contract Documents, payments shall be made on account of materials and equipment delivered and suitably stored at the site for subsequent incorporation in the Work. If approved in advance by the Owner, payment may similarly be made for materials and equipment suitably stored off the site at a location agreed upon in writing. Payment for materials and equipment stored on or off the site shall be conditioned upon compliance by the Contractor with procedures satisfactory to the Owner to establish the Owner's title to such materials and equipment or otherwise protect the Owner's interest, and shall include the costs of applicable insurance, storage, and transportation to the site, for such materials and equipment stored off the site. The Owner shall have the right, at any time on reasonable notice to inspect materials and equipment which have been stored off the site in accordance with this paragraph.

§ 9.3.2.1 Proof of insurance for items stored off site and copies of invoices are to be provided with Applications for Payment requesting payment for stored materials.

§ 9.3.3 The Contractor warrants that title to all Work covered by an Application for Payment will pass to the Owner no later than the time of payment. The Contractor further warrants that upon submittal of an Application for Payment all Work for which Certificates for Payment have been previously issued and payments received from the Owner shall, to the best of the Contractor's knowledge, information, and belief, be free and clear of liens, claims, security interests, or encumbrances, in favor of the Contractor, Subcontractors, suppliers, or other persons or entities that provided labor, materials and equipment relating to the Work.

§ 9.4 Certificates for Payment

§ 9.4.1 Where there is only one Contractor, the Construction Manager will, within seven days after the Construction Manager's receipt of the Contractor's Application for Payment, along with all Supporting Documents (as required by the Agreement and Owner) review the Application, certify the amount the Construction Manager determines is due the Contractor, and forward the Contractor's Application and Certificate for Payment to the Architect. Within seven days after the Architect receives the Contractor's Application for Payment from the Construction Manager, the Architect will either (1) issue to the Owner a Certificate for Payment, in the full amount of the Application for Payment, with a copy to the Construction Manager; or (2) issue to the Owner a Certificate for Payment for such amount as the Architect determines is properly due, and notify the Construction Manager and Owner of the Architect's reasons for withholding certification in part as provided in Section 9.5.1; or (3) withhold certification of the entire Application for Payment, and notify the Construction Manager and Owner of the Architect's reason for withholding certification in whole as provided in Section 9.5.1. The Construction Manager will promptly forward to the Contractor the Architect's notice of withholding certification.

§ 9.4.2 Where there is more than one Contractor performing portions of the Project, the Construction Manager will, within seven days after the Construction Manager receives all of the Contractors' Applications for Payment: (1) review the Applications and certify the amount the Construction Manager determines is due each of the Contractors; (2) prepare a Summary of Contractors' Applications for Payment by combining information from each Contractor's application with information from similar applications for progress payments from the other Contractors; (3) prepare a Project Application and Certificate for Payment; (4) certify the amount the Construction Manager determines is due all Contractors; and (5) forward the Summary of Contractors' Applications for Payment and Project Application and Certificate for Payment to the Architect.

§ 9.4.2.1 Within seven days after the Architect receives the Project Application and Project Certificate for Payment and the Summary of Contractors' Applications for Payment from the Construction Manager, the Architect will either (1) issue to the Owner a Project Certificate for Payment, with a copy to the Construction Manager; or (2) issue to the Owner a Project Certificate for Payment for such amount as the Architect determines is properly due, and notify the

Construction Manager and Owner of the Architect's reasons for withholding certification in part as provided in Section 9.5.1; or (3) withhold certification of the entire Project Application for Payment, and notify the Construction Manager and Owner of the Architect's reason for withholding certification in whole as provided in Section 9.5.1. The Construction Manager will promptly forward the Architect's notice of withholding certification to the Contractors.

§ 9.4.3 The Construction Manager's certification of an Application for Payment or, in the case of more than one Contractor, a Project Application and Certificate for Payment, shall be based upon the Construction Manager's evaluation of the Work and the data in the Application or Applications for Payment. The Construction Manager's certification will constitute a representation that, to the best of the Construction Manager's knowledge, information, and belief, the Work has progressed to the point indicated, the quality of the Work is in accordance with the Contract Documents, and that the Contractor is, or Contractors are, entitled to payment in the amount certified.

§ 9.4.4 The Architect's issuance of a Certificate for Payment or, in the case of more than one Contractor, Project Application and Certificate for Payment, shall be based upon the Architect's evaluation of the Work, the recommendation of the Construction Manager, and data in the Application for Payment or Project Application for Payment. The Architect's certification will constitute a representation that, to the best of the Architect's judgment, knowledge, information, and belief, the Work has progressed to the point indicated, the quality of the Work is in accordance with the Contract Documents, and that the Contractor is, or Contractors are, entitled to payment in the amount certified.

§ 9.4.5 The representations made pursuant to Sections 9.4.3 and 9.4.4 are subject to an evaluation of the Work for conformance with the Contract Documents upon Substantial Completion, to results of subsequent tests and inspections, to correction of minor deviations from the Contract Documents prior to completion, and to specific qualifications expressed by the Construction Manager or Architect.

§ 9.4.6 The issuance of a Certificate for Payment or a Project Certificate for Payment will not be a representation that the Construction Manager or Architect has (1) made exhaustive or continuous on-site inspections to check the quality or quantity of the Work; (2) reviewed construction means, methods, techniques, sequences, or procedures; (3) reviewed copies of requisitions received from Subcontractors and suppliers and other data requested by the Owner to substantiate the Contractor's right to payment; or (4) made examination to ascertain how or for what purpose the Contractor has used money previously paid on account of the Contract Sum.

§ 9.5 Decisions to Withhold Certification

§ 9.5.1 The Construction Manager or Architect may withhold a Certificate for Payment or Project Certificate for Payment in whole or in part, to the extent reasonably necessary to protect the Owner, if in the Construction Manager's or Architect's opinion the representations to the Owner required by Section 9.4.3 and 9.4.4 cannot be made. If the Construction Manager or Architect is unable to certify payment in the amount of the Application, the Construction Manager will notify the Contractor and Owner as provided in Section 9.4.1 and 9.4.2. If the Contractor, Construction Manager and Architect cannot agree on a revised amount, the Architect will promptly issue a Certificate for Payment or a Project Certificate for Payment for the amount for which the Architect is able to make such representations to the Owner. The Construction Manager or Architect may also withhold a Certificate for Payment or, because of subsequently discovered evidence, may nullify the whole or a part of a Certificate for Payment or Project Certificate for Payment previously issued, to such extent as may be necessary in the Construction Manager's or Architect's opinion to protect the Owner from loss for which the Contractor is responsible, including loss resulting from the acts and omissions described in Section 3.3.2 because of

- .1 defective Work not remedied;
- .2 third party claims filed or reasonable evidence indicating probable filing of such claims, unless security acceptable to the Owner is provided by the Contractor;
- .3 failure of the Contractor to make payments properly to Subcontractors or suppliers for labor, materials or equipment;
- .4 reasonable evidence that the Work cannot be completed for the unpaid balance of the Contract Sum;
- .5 damage to the Owner or a Separate Contractor or other Contractor;
- .6 reasonable evidence that the Work will not be completed within the Contract Time, and that the unpaid balance would not be adequate to cover actual or liquidated damages for the anticipated delay; or
- .7 repeated failure to carry out the Work in accordance with the Contract Documents.
- .8 failure of Contractor to provide executed supplementary bid forms, performance and payment bonds or a current Certificate of Insurance.

§ 9.5.2 When either party disputes the Architect's decision regarding a Certificate for Payment under Section 9.5.1, in whole or in part, that party may submit a Claim in accordance with Article 15.

§ 9.5.3 When the reasons for withholding certification are removed, certification will be made for amounts previously withheld.

§ 9.5.4 If the Architect or Construction Manager withholds certification for payment under Section 9.5.1, the Owner may, at its sole option, issue joint checks to the Contractor and to any Subcontractor or supplier to whom the Contractor failed to make payment for Work properly performed or material or equipment suitably delivered. If the Owner makes payments by joint check, the Owner shall notify the Architect and the Construction Manager, and both will reflect such payment on the next Certificate for Payment.

§ 9.6 Progress Payments

§ 9.6.1 After the Architect has issued a Certificate for Payment or Project Certificate for Payment, the Owner shall make payment in the manner and within the time provided in the Contract Documents, and shall so notify the Construction Manager and Architect.

§ 9.6.2 The Contractor shall pay each Subcontractor, no later than seven days after receipt of payment from the Owner, the amount to which the Subcontractor is entitled, reflecting percentages actually retained from payments to the Contractor on account of the Subcontractor's portion of the Work. The Contractor shall, by appropriate agreement with each Subcontractor, require each Subcontractor to make payments to Sub-subcontractors in a similar manner.

§ 9.6.3 The Construction Manager will, on request, furnish to a Subcontractor, if practicable, information regarding percentages of completion or amounts applied for by the Contractor and action taken thereon by the Owner, Construction Manager and Architect on account of portions of the Work done by such Subcontractor.

§ 9.6.4 The Owner has the right to request written evidence from the Contractor that the Contractor has properly paid Subcontractors and suppliers amounts paid by the Owner to the Contractor for subcontracted Work. If the Contractor fails to furnish such evidence within seven days, the Owner shall have the right to contact Subcontractors and suppliers to ascertain whether they have been properly paid. Neither the Owner, Construction Manager nor Architect shall have an obligation to pay, or to see to the payment of money to, a Subcontractor or supplier, except as may otherwise be required by law.

§ 9.6.5 The Contractor's payments to suppliers shall be treated in a manner similar to that provided in Sections 9.6.2, 9.6.3 and 9.6.4.

§ 9.6.6 A Certificate for Payment, a progress payment, or partial or entire use or occupancy of the Project by the Owner shall not constitute acceptance of Work not in accordance with the Contract Documents.

§ 9.6.7 Unless the Contractor provides the Owner with a payment bond in the full penal sum of the Contract Sum, payments received by the Contractor for Work properly performed by Subcontractors or provided by suppliers shall be held by the Contractor for those Subcontractors or suppliers who performed Work or furnished materials, or both, under contract with the Contractor for which payment was made by the Owner. Nothing contained herein shall require money to be placed in a separate account and not commingled with money of the Contractor, create any fiduciary liability or tort liability on the part of the Contractor for breach of trust, or entitle any person or entity to an award of punitive damages against the Contractor for breach of the requirements of this provision.

§ 9.6.8 Provided the Owner has fulfilled its payment obligations under the Contract Documents, the Contractor shall defend and indemnify the Owner from all loss, liability, damage or expense, including reasonable attorney's fees and litigation expenses, arising out of any lien claim or other claim for payment by any Subcontractor or supplier of any tier. Upon receipt of notice of a lien claim or other claim for payment, the Owner shall notify the Contractor. If approved by the applicable court, when required, the Contractor may substitute a surety bond for the property against which the lien or other claim for payment has been asserted.

§ 9.7 Withholding Payment from Contractor

Notwithstanding anything to the contrary contained in the Contract Documents, if the Owner withholds any payment from the Contractor in good faith with reasonable cause and in accordance with any provision of this General

Conditions, then the Contractor shall nevertheless continue to prosecute the Work expeditiously, provided that the Owner immediately notifies the Contractor that it intends to withhold such payment and states the reasons therefor, and the Owner affords the Contractor reasonable opportunity to remedy or cure the condition causing the Owner to withhold such payments.

§ 9.8 Substantial Completion

§ 9.8.1 Substantial Completion is the stage in the progress of the Work when the Work or designated portion thereof is sufficiently complete in accordance with the Contract Documents so the Owner can occupy or utilize the Work for its intended use.

§ 9.8.2 When the Contractor considers that the Work, or a portion thereof which the Owner agrees to accept separately, is substantially complete, the Contractor shall notify the Construction Manager, and the Contractor and Construction Manager shall jointly prepare and submit to the Architect a comprehensive written list of items to be completed or corrected prior to Architect's first (1st) inspection. Failure to include an item on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents.

§ 9.8.3 Upon receipt of the Contractor's punchlist, the Architect, assisted by the Construction Manager, will make an inspection to determine whether the Work or designated portion thereof is substantially complete. If the Architect's inspection discloses any item, whether or not included on the Contractor's punchlist, which is not sufficiently complete in accordance with the Contract Documents so that the Owner can occupy or utilize the Work or designated portion thereof for its intended use, the Contractor shall, before issuance of the Certificate of Substantial Completion, complete or correct such item upon notification by the Architect. In such case, the Contractor shall then submit a request for another inspection by the Architect, assisted by the Construction Manager, to determine Substantial Completion.

§ 9.8.3.1 Except with the consent of the Owner, the Architect in conjunction with the Construction Manager will perform no more than three (3) inspections to determine whether the Work or a designated portion thereof has attained Substantial Completion in accordance with the Contract Documents. The three (3) inspections will include not only determining if the area is substantially complete, but will also include any follow-up inspection to confirm *all* open punchlist items have been completed for that specific item. The Owner may deduct from the Contract Sum amounts paid to the Architect for any additional inspections necessitated by the Contractor's misrepresentation of conditions.

§ 9.8.4 When the Architect, assisted by the Construction Manager, determines that the Work of all of the Contractors, or designated portion thereof, is substantially complete, the Construction Manager will prepare, and the Construction Manager and Architect shall execute, a Certificate of Substantial Completion that shall establish the date of Substantial Completion; establish responsibilities of the Owner and Contractor for security, maintenance, heat, utilities, damage to the Work and insurance; and fix the time within which the Contractor shall finish all items on the list accompanying the Certificate. Warranties required by the Contract Documents shall commence on the date of Substantial Completion of the Work or designated portion thereof unless otherwise provided in the Certificate of Substantial Completion.

§ 9.8.5 The Certificate of Substantial Completion shall be submitted to the Owner and Contractor for their written acceptance of responsibilities assigned to them in the Certificate. Upon such acceptance, and consent of surety if any, the Owner shall make payment of retainage applying to the Work or designated portion thereof. Such payment shall be adjusted for Work that is incomplete or not in accordance with the requirements of the Contract Documents. The payment shall be sufficient to increase the total payments to one-hundred percent (100%) of the Contract Sum, less two times the value of any remaining items to be completed and any amount necessary to satisfy claims, liens or judgments against the Contractor which have not been suitably discharged, as determined by the Architect assisted by the Construction Manager.

§ 9.8.6 In the event the Contractor does not achieve final completion within ninety (90) days after the date of Substantial Completion, allowing for any approved extensions of the Contract time, Contractor shall not be entitled to any further payment and Contractor agrees that such failure to complete the work within the time set forth above shall constitute a waiver of all claims by the Contractor to any money that may be due. This provision shall not operate as a waiver by the Owner of any claims or remedies of any nature against the Contractor arising out of the Contract.

§ 9.9 Partial Occupancy or Use

§ 9.9.1 The Owner may occupy or use any completed or partially completed portion of the Work at any stage when such portion is designated by separate agreement with the Contractor, provided such occupancy or use is consented to by the insurer and authorized by public authorities having jurisdiction over the Project. Such partial occupancy or use may commence whether or not the portion is substantially complete, provided the Owner and Contractor have accepted in writing the responsibilities assigned to each of them for payments, retainage if any, security, maintenance, heat, utilities, damage to the Work and insurance, and have agreed in writing concerning the period for correction of the Work and commencement of warranties required by the Contract Documents. When the Contractor considers a portion substantially complete, the Contractor and Construction Manager shall jointly prepare and submit a list to the Architect as provided under Section 9.8.2. Consent of the Contractor to partial occupancy or use shall not be unreasonably withheld. The stage of the progress of the Work shall be determined by written agreement between the Owner and Contractor or, if no agreement is reached, by decision of the Architect after consultation with the Construction Manager.

§ 9.9.2 Immediately prior to such partial occupancy or use, the Owner, Construction Manager, Contractor, and Architect shall jointly inspect the area to be occupied or portion of the Work to be used in order to determine and record the condition of the Work.

§ 9.9.3 Unless otherwise agreed upon, partial occupancy or use of a portion or portions of the Work shall not constitute acceptance of Work not complying with the requirements of the Contract Documents.

§ 9.10 Final Completion and Final Payment

§ 9.10.1 Upon completion of the Work, the Contractor shall forward to the Construction Manager a notice that the Work is ready for final inspection and acceptance, and shall also forward to the Construction Manager a final Contractor's Application for Payment. Upon receipt, the Construction Manager shall perform an inspection to confirm the completion of Work of the Contractor. The Construction Manager shall make recommendations to the Architect when the Work of all of the Contractors is ready for final inspection, and shall then forward the Contractors' notices and Application for Payment or Project Application for Payment, to the Architect, who will promptly make such inspection. When the Architect finds the Work acceptable under the Contract Documents and the Contract fully performed, the Construction Manager and Architect will promptly issue a final Certificate for Payment or Project Certificate for Payment stating that to the best of their knowledge, information and belief, and on the basis of their on-site visits and inspections, the Work has been completed in accordance with the Contract Documents and that the entire balance found to be due the Contractor and noted in the final Certificate is due and payable. The Construction Manager's and Architect's final Certificate for Payment or Project Certificate for Payment will constitute a further representation that conditions listed in Section 9.10.2 as precedent to the Contractor's being entitled to final payment have been fulfilled.

§ 9.10.1.1 Except with the consent of the Owner, the Architect in conjunction with the Construction Manager will perform no more than two (2) inspections to determine whether the Work or a designated portion thereof has attained Final Completion in accordance with the Contract Documents. The Owner may deduct from the Contract Sum amounts paid to the Architect for any additional inspections necessitated by the Contractor's misrepresentation of final completion.

§ 9.10.2 Neither final payment nor any remaining retained percentage shall become due until the Contractor submits to the Architect through the Construction Manager (1) an affidavit that payrolls, bills for materials and equipment, and other indebtedness connected with the Work for which the Owner or the Owner's property might be responsible or encumbered (less amounts withheld by Owner) have been paid or otherwise satisfied, (2) a certificate evidencing that insurance required by the Contract Documents to remain in force after final payment is currently in effect, (3) a written statement that the Contractor knows of no reason that the insurance will not be renewable to cover the period required by the Contract Documents, (4) consent of surety, if any, to final payment (5) documentation of any special warranties, such as manufacturers' warranties or specific Subcontractor warranties, and (6), if required by the Owner, other data establishing payment or satisfaction of obligations, such as receipts and releases and waivers of liens, claims, security interests, or encumbrances arising out of the Contract, to the extent and in such form as may be designated by the Owner and (7) all Project closeout documents per the General Conditions of the Contract. If a Subcontractor refuses to furnish a release or waiver required by the Owner, the Contractor may furnish a bond satisfactory to the Owner to

indemnify the Owner against such lien, claim, security interest, or encumbrance. If a lien, claim, security interest, or encumbrance remains unsatisfied after payments are made, the Contractor shall refund to the Owner all money that the Owner may be compelled to pay in discharging the lien, claim, security interest, or encumbrance, including all costs and reasonable attorneys' fees.

§ 9.10.3 If, after Substantial Completion of the Work, final completion thereof is materially delayed through no fault of the Contractor or by issuance of Change Orders affecting final completion, and the Construction Manager and Architect so confirm, the Owner shall, upon application by the Contractor and certification by the Construction Manager and Architect, and without terminating the Contract, make payment of the balance due for that portion of the Work fully completed, corrected, and accepted. If the remaining balance for Work not fully completed or corrected is less than retainage stipulated in the Contract Documents, and if bonds have been furnished, the written consent of the surety to payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by the Contractor to the Architect through the Construction Manager prior to certification of such payment. Such payment shall be made under terms and conditions governing final payment, except that it shall not constitute a waiver of Claims.
(Paragraphs deleted)
§ 9.10.3.1 Exception is made for the Contractor expressly retained for the removal of lead, asbestos or polychlorinated (PCB) from the site. In this condition, all Contract Specifications and Drawings shall govern the handling of this material.

§ 9.10.5 Acceptance of final payment by the Contractor, a Subcontractor, or a supplier, shall constitute a waiver of claims by that payee except those previously made in writing and identified by that payee as unsettled at the time of final Application for Payment.

ARTICLE 10 PROTECTION OF PERSONS AND PROPERTY

§ 10.1 Safety Precautions and Programs

The Contractor shall be responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the performance of the Contract. The Contractor shall submit the Contractor's safety program to the Construction Manager for review and coordination with the safety programs of other Contractors. The Construction Manager's responsibilities for review and coordination of safety programs shall not extend to direct control over or charge of the acts or omissions of the Contractors, Subcontractors, agents or employees of the Contractors or Subcontractors, or any other persons performing portions of the Work and not directly employed by the Construction Manager.

§ 10.2 Safety of Persons and Property

§ 10.2.1 The Contractor shall take reasonable precautions for safety of, and shall provide reasonable protection to prevent damage, injury, or loss to

.1 employees on the Work and other persons who may be affected thereby;
.2 the Work and materials and equipment to be incorporated therein, whether in storage on or off the site, under care, custody, or control of the Contractor, a Subcontractor, or a Sub-subcontractor;
.3 other property at the site or adjacent thereto, such as trees, shrubs, lawns, walks, pavements, roadways, structures, and utilities not designated for removal, relocation, or replacement in the course of construction; and
.4 construction or operations by the Owner, Separate Contractors, or other Contractors.

§ 10.2.2 The Contractor shall comply with, and give notices required by applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities, bearing on safety of persons or property or their protection from damage, injury, or loss.

§ 10.2.3 The Contractor shall implement, erect, and maintain, as required by existing conditions and performance of the Contract, reasonable safeguards for safety and protection, including posting danger signs and other warnings against hazards; promulgating safety regulations; and notifying the owners and users of adjacent sites and utilities of the safeguards.

§ 10.2.4 When use or storage of explosives or other hazardous materials or equipment or unusual methods are necessary for execution of the Work, the Contractor shall exercise utmost care and carry on such activities under supervision of properly qualified personnel, and shall give the Owner reasonable notice.

§ 10.2.5 The Contractor shall promptly remedy damage and loss (other than damage or loss insured under property insurance required by the Contract Documents) to property referred to in Sections 10.2.1.2, 10.2.1.3 and 10.2.1.4 caused in whole or in part by the Contractor, a Subcontractor, a Sub-subcontractor, or anyone directly or indirectly employed by any of them, or by anyone for whose acts they may be liable and for which the Contractor is responsible under Sections 10.2.1.2, 10.2.1.3 and 10.2.1.4. The Contractor may make a Claim for the cost to remedy the damage or loss to the extent such damage or loss is attributable to acts or omissions of the Owner, Construction Manager or Architect or anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable, and not attributable to the fault or negligence of the Contractor. The foregoing obligations of the Contractor are in addition to the Contractor's obligations under Section 3.18.

§ 10.2.6 The Contractor shall designate a responsible member of the Contractor's organization at the site whose duty shall be the prevention of accidents. This person shall be the Contractor's superintendent unless otherwise designated by the Contractor in writing to the Owner, Construction Manager and Architect.

§ 10.2.7 The Contractor shall not permit any part of the construction or site to be loaded so as to cause damage or create an unsafe condition.

§ 10.2.8 Injury or Damage to Person or Property
If either party suffers injury or damage to person or property because of an act or omission of the other party, or of others for whose acts such party is legally responsible, notice of the injury or damage, whether or not insured, shall be given to the other party within a reasonable time not exceeding 21 days after discovery. The notice shall provide sufficient detail to enable the other party to investigate the matter.

§ 10.3 Hazardous Materials
§ 10.3.1 The Contractor is responsible for compliance with any requirements included in the Contract Documents regarding hazardous materials or substances. If the Contractor encounters a hazardous material or substance not addressed in the Contract Documents and if reasonable precautions will be inadequate to prevent foreseeable bodily injury or death to persons resulting from a material or substance, including but not limited to asbestos or polychlorinated biphenyl (PCB), encountered on the site by the Contractor, the Contractor shall, upon recognizing the condition, immediately stop Work in the affected area and notify the Owner, Construction Manager and Architect of the condition.

§ 10.3.2 Upon receipt of the Contractor's notice, the Owner shall obtain the services of a licensed laboratory to verify the presence or absence of the material or substance reported by the Contractor and, in the event such material or substance is found to be present, to cause it to be rendered harmless. Unless otherwise required by the Contract Documents, the Owner shall furnish in writing to the Contractor, Construction Manager and Architect the names and qualifications of persons or entities who are to perform tests verifying the presence or absence of the material or substance or who are to perform the task of removal or safe containment of the material or substance. The Contractor, the Construction Manager and the Architect will promptly reply to the Owner in writing stating whether or not any of them has reasonable objection to the persons or entities proposed by the Owner. If the Contractor, Construction Manager or Architect has an objection to a person or entity proposed by the Owner, the Owner shall propose another to whom the Contractor, the Construction Manager and the Architect have no reasonable objection. When the material or substance has been rendered harmless, Work in the affected area shall resume upon written agreement of the Owner and Contractor. By Change Order, the Contract Time shall be extended appropriately and the Contract Sum shall be increased by the amount of the Contractor's reasonable additional costs of shutdown, delay, and start-up.

(Paragraph deleted)
§ 10.3.2.1 Exception is made for the Contractor expressly retained for the removal of lead, asbestos or polychlorinated (PCB) from the site. In this condition, all Contract Specifications and Drawings shall govern the handling of this material.

§ 10.3.4 The Owner shall not be responsible under this Section 10.3 for hazardous materials or substances the Contractor brings to the site unless such materials or substances are required by the Contract Documents. The Owner

shall be responsible for hazardous materials or substances required by the Contract Documents, except to the extent of the Contractor's fault or negligence in the use and handling of such materials or substances.

§ 10.3.5 The Contractor shall reimburse the Owner for the cost and expense the Owner incurs (1) for remediation of hazardous materials or substances the Contractor brings to the site and negligently handles, or (2) where the Contractor fails to perform its obligations under Section 10.3.1, except to the extent that the cost and expense are due to the Owner's fault or negligence.

(Paragraph deleted)

§ 10.4 Emergencies

In an emergency affecting safety of persons or property, the Contractor shall act, at the Contractor's discretion, to prevent threatened damage, injury, or loss. Additional compensation or extension of time claimed by the Contractor on account of an emergency shall be determined as provided in Article 15 and Article 7.

ARTICLE 11 INSURANCE AND BONDS

§ 11.1 Contractor's Insurance and Bonds

§ 11.1.1 The Contractor shall obtain, pay for and keep in full force and effect during the entire term of this Contract, and during the performance, final completion and acceptance of any Work, and after the term of this Contract (as may be specified herein) insurance, in a company or companies lawfully licensed to do business in the jurisdiction in which the Project is located, as designated by this Article 11 and any other insurance required by applicable law, regulations, or orders of state, municipality or other entity having jurisdiction over the Work or the Project. Contractor shall not take any action, or omit to take any action that would suspend or invalidate any of the required coverages during the time period such coverages are required to be in effect.

§ 11.1.1.1 Workers' Compensation and NYS Disability Insurance. and any other federal and/or state coverages as appropriate, including but not limited to: Occupational Disease Benefits, Voluntary Compensation, and Disability Benefits, for not less than the statutory requirements, and if applicable an "Other States Endorsement"; and

Statutory Workers' Compensation (c-105.2 or U-26.3); and NYS Disability Insurance for all employees. Proof of Coverage must be on the approved specific form, as required by the New York State Workers' Compensation Board. ACORD certificates are not acceptable. A Person seeking an exemption must file a CE-200 Form with the state. The form can be completed and submitted directly to the WC Board online.

§ 11.1.1.2 Commercial General Liability Insurance is to be provided under the Insurance Service Office's (ISO) most current form, on a project specific basis, with limits not less than the following required limits:

Each Occurrence:	$1,000,000
General Aggregate:	$2,000,000
Products and Completed/Operations:	$2,000,000
Personal & Advertising Injury:	$1,000,000
Fire Damage:	$ 100,000
Medical Expense:	$ 10,000

The general aggregate shall apply on a per-project basis.

Such insurance shall include the following coverages:

(i) claims for damages because of bodily injury, occupational sickness or disease, or death;

(ii) claims for damages insured by usual personal injury liability coverage;

(iii) claims for damages, other than to the Work itself, because of injury to or destruction of tangible property, including loss of use resulting therefrom;

(iv) premises operations;

(v) product liability and completed operations, and the policy shall specifically include coverage for two (2) years of extended completed operations coverage, which will commence immediately following the expiration date of the Commercial General Liability policy;

(vi) owners protective;

(vii) contractors protective;

(viii) contractual liability covering liabilities assumed under the Contract (including the tort liability of another assumed in a contract), and including, coverage for claims arising out of construction or demolition operations when working within 50 feet of railroad track;

(ix) personal injury and advertising injury liability;

(x) extended bodily injury coverage with respect to bodily injury resulting from the use of reasonable force to protect persons or property;

(xi) medical payments coverage;

(xii) broad form property damage liability coverage, including coverage for completed operations;

(xiii) explosion, collapse, and underground property damage (XCU);

(xiv) construction means and methods;

(xv) independent contractors;

(xvi) Owner and other's identified herein as additional insured to be specifically evidenced as additional insureds via ISO Endorsements GC 2010 and CG 2037.

§11.1.1.3 Owners Contractors Protective (OCP) Insurance for projects less than or equal to $1,000,000 and/or on 1 story (10 feet) only; $1,000,000 per occurrence, $2,000,000 aggregate with the Owner as the name insured.

For Projects greater than $1,000,000 and/or work over 1 story (10 feet); $2,000,000 per occurrence, $4,000,000 aggregate with the Owner as the named insured.

The OCP Policy must be with a NYS licensed and admitted carrier.

The Owner will be the Named Insured on OCP Policies. There will be no Additional Insureds on any OCP Policies.

§11.1.1.4 Automobile Liability Insurance, including uninsured/underinsured and medical payment protection, and including all owned, non-owned and hired autos, with a limit of liability of not less than $1,000,000 each occurrence (combined single limit for personal injury, including bodily injury or death, and property damage).

§11.1.1.5 Umbrella/Excess Insurance, providing excess coverage in excess of the limits for the insurance coverages required by Sections 11.1.1.1, 11.1.1.2, and 11.1.1.3 above, with such excess/umbrella coverage being at least as broad as each and every one of the underlying policies), with the provision that coverage shall extend for a period of at least two (2) years from the date of final completion and acceptance by Owner of all Work.

$5,000,000 each Occurrence and Aggregate for general construction and no work at elevation (1 story or 10 feet) and project values less than or equal to $1,000,000.

$10,000,000 each Occurrence and Aggregate for high-risk construction, work at elevation (>1 story or 10 feet) and project values greater than $1,000,000.

Umbrella/Excess coverage shall be on a follow-form basis or provide broader coverage over the General Liability and Auto Liability coverages.

§ 11.1.2 All insurance shall be written on an occurrence basis. A copy of the additional insured endorsement shall be attached.

§ 11.1.3 Contractor's insurance requirements shall be provided by an insurance carrier licensed to do business in the State of New York and have an A.M. Best Rating of A(-)8 or better as determine in the most recent A.M. Best Publication, or as may otherwise be agreed by Owner.

§ 11.1.4 Insurance coverage to be provided by the Contractor shall state that the Contractor's coverage shall be "primary" and non-contributing to any insurances (or self-insurance), including any deductible, maintained by, or

provided to Owner or the other Additional Insureds; and shall contain a Waiver of Subrogation in favor of Owner and the other Additional Insureds, so that in no event shall the insurance carriers have any right of recovery against Owner, the other Additional Insureds, or the agents or employees or either of them; and shall contain a separation of insured provision (severability of interest clause). If the Owner or another Additional Insured has other insurance which is applicable to the loss, such other insurance shall be on an excess or contingent basis.

§ 11.1.5 In the event that any of the insurance coverage to be provided by the Contractor contains a deductible or self-insured retention, the Contractor shall indemnify and hold the Owner, and any Additional Insured harmless from the payment of such deductible, which deductible shall in all circumstances remain the sole obligation and expense of the Contractor.

§ 11.1.6 The Contractor shall require all Subcontractors to carry the same insurance coverage's and limits of liability as set forth herein and submit same to the Owner through the Construction Manager and obtain approval prior to start of any Work. This includes an OCP policy. To facilitate the review process, the Contractor shall submit the Subcontractors insurance a minimum of 4 weeks before they are scheduled to start work on site. In the event Contractor fails to obtain the required certificates of insurance from Subcontractor and prove them to Construction Manager and a claim is made or suffered, the Contractor shall, to the fullest extent permitted by law, indemnify, defend, and hold harmless the Owner and the Additional Insureds from any and all claims for which the required insurance would have provided coverage. This indemnity obligation is in addition to any other indemnity obligation provided in the Contract Documents and shall survive the term or earlier termination of the Contract.

§ 11.1.7 Environmental Impairment Liability (Pollution Insurance) (EIL): All Contractors and Subcontractors involved with the removal and/or abatement of pollutants (including but not limited to asbestos abatement contractors, lead abatement contractors, roofing contractors, tank removal contractors) are required to maintain a minimum of $2,000,000 EIL coverage. Owner and all other parties required by this Contract to be Additional Insured and all others identified by Owner as such, shall be included as Additional Insured on any EIL policy on a primary and non-contributing basis.

§ 11.1.8 The Contractor assumes responsibility for all injury or destruction of the Contractor's and Subcontractors' materials, tools, machinery, equipment, appliances, shoring, scaffolding, and personal property of Contractor's and Subcontractors' employees from whatever cause arises. Any policy of insurance secured covering the Contractor's or Subcontractors' property leased or hired by them and any policy of insurance covering the Contractor or Subcontractors against physical loss or damage to such property shall include an endorsement waiving the right of subrogation against the Owner for any loss or damage to such property.

§ 11.1.9 Additional Insured/Certificate Holder. The Contractor shall cause the commercial liability and other coverage required by the Contract to include the following as Additional Insureds:

(i) Newburgh Enlarged City School District;

(ii) Members of the Board of the Newburgh Enlarged City School District;

(iii) Jacobs Project Management

(iv) Collins+Scoville Architecture | Engineering | Construction Management, D.P.C., d/b/a CSArch ; and

(v) Any directors, partners, members, shareholders, officers, employees, successors, assigns, heirs, affiliates, agents, and representatives of each and any of the foregoing.

Contractor shall also add any other entities and/or individuals as may be required by Owner as Additional Insured.

The certificate holder shall be Newburgh Enlarged City School District unless Owner requires otherwise.

Contractor shall provide an Additional Insured endorsement that expressly names each of the above identified Additional Insureds (non-blanket) and shall ensure that the endorsement does not include language that requires an Additional Insured to have a written contract with the named insured for coverage to apply.

Additional insured status shall be provided by standard or other endorsements that extend coverage to the District/BOCES for on-going operations (CG 20 38) and products and completed operations (CG 20 37). The decision to accept an endorsement rest solely with the District/BOCES. A completed copy of the endorsements must be attached to the Certificate of Insurance

§ 11.1.10 Certificates of insurance acceptable to the Construction Manager and Owner shall be provided to the Construction Manager and filed with the Owner prior to commencement of the Work. A fully completed New York Construction Certificate of Liability Insurance Addendum (ACORD 855 2014/15) must be included with the certificates of insurance. The certificates and the insurance policies shall contain a provision that coverages afforded under the policies will not be allowed to be materially changed or canceled or allowed to expire until at least thirty (30) days' prior written notice has been given to the Owner via Certified/Registered Mail. If any of the foregoing insurance coverages are required to remain in force after final payment, an additional certificate evidencing continuation of such coverage shall be submitted with the final Application for Payment. Information concerning reduction of coverage on account of revised limits or claims paid under the General Aggregate, or both, shall be furnished by the Contractor with reasonable promptness in accordance with the Contractor's information and belief.

§ 11.1.11 The Contractor acknowledges that its failure to obtain or keep current the required insurance coverage shall constitute a material breach of contract and subjects the Contractor to liability for damages the Owner (or others, including without limitation the other Additional Insured) sustains as a result of such breach. In addition, the Contractor shall be responsible to the fullest extent permitted by law for the indemnification to the Owner and all Additional Insured of any and all costs associated with such lapse in coverage, including but not limited to reasonable attorneys' fees (and this indemnification obligation shall survive the term or earlier termination of the Contract).

§ 11.1.12 The amount of insurance required by the Contract shall not be construed to be a limitation of the liability of on the part of the Contractor or any of its Subcontractors.

§ 11.1.13 No act or omission of any insurance agent, broker, or insurance company representative shall relieve Contractor of any of its obligations under this Contract.

§ 11.1.14 Notwithstanding anything in Section 11.3 and its subsections to the contrary, the Contractor shall provide insurance coverage for portions of the Work stored off the site, in transit, and stored on the site but not incorporated into the Work on a full replacement cost basis. The Contractor is responsible for all deductible amounts.

§ 11.1.15 Testing Company Errors and Omission Insurance shall be provided in the amount of $1,000,000 per occurrence/$2,000,000 Aggregate for the testing and other professional acts of the Contractor performed under the Contract with the Owner.

§ 11.1.2 The Contractor shall provide surety bonds of the types, for such penal sums, and subject to such terms and conditions as required by the Contract Documents. The Contractor shall purchase and maintain the required bonds from a company or companies lawfully authorized to issue surety bonds in the jurisdiction where the Project is located.

§ 11.1.3 Upon the request of any person or entity appearing to be a potential beneficiary of bonds covering payment of obligations arising under the Contract, the Contractor shall promptly furnish a copy of the bonds or shall authorize a copy to be furnished.

(Paragraph deleted)

§ 11.1.5 Notice of Cancellation or Expiration of Contractor's Required Insurance. Within three (3) business days of the date the Contractor becomes aware of an impending or actual cancellation or expiration of any insurance required by the Contract Documents, the Contractor shall provide notice directly to the Owner, and separately to the Construction Manager, of such impending or actual cancellation or expiration. Upon receipt of notice from the Contractor, the Owner shall, unless the lapse in coverage arises from an act or omission of the Owner, have the right to stop the Work until the lapse in coverage has been cured by the procurement of replacement coverage by the Contractor. The furnishing of notice by the Contractor shall not relieve the Contractor of any contractual obligation to provide any required coverage.

§ 11.2 Owner's Insurance

§ 11.2.1 The Owner shall purchase and maintain insurance of the types and limits of liability, containing the endorsements, and subject to the terms and conditions, as described in the Agreement or elsewhere in the Contract Documents. The Owner shall purchase and maintain the required insurance from an insurance company or insurance companies lawfully authorized to issue insurance in the jurisdiction where the Project is located.

11.2.1.1 Unless otherwise provided, the Owner shall purchase and maintain, in a company or companies lawfully authorized to do business in the jurisdiction in which the Project is located, property insurance written on a builder's risk "all risk" or equivalent policy form in the amount of the initial Contract Sum, plus value of subsequent Contract modifications and cost of materials supplied or installed by others, comprising total value for the entire Project at the site on a replacement cost basis without optional deductibles. Such property insurance shall be maintained, unless otherwise provided in the Contract Documents or otherwise agreed in writing by all persons and entities who are beneficiaries of such insurance, until final payment has been made as provided in the Contract Documents or until no person or entity other than the Owner has an insurable interest in the property required by this Section 11.3 to be covered, whichever is later. This insurance shall include interests of the Owner, the Contractor, Subcontractors and Sub-subcontractors in the Project.

§ 11.2.1.2 Property insurance shall be on an "all-risk" or equivalent policy form and shall include, without limitation, insurance against the perils of fire (with extended coverage) and physical loss or damage including, without duplication of coverage, theft, vandalism, malicious mischief, collapse, earthquake, flood, windstorm, falsework, testing and startup, temporary buildings and debris removal including demolition occasioned by enforcement of any applicable legal requirements, and shall cover reasonable compensation for the Architect's, Contractor's, and Construction Manager's services and expenses required as a result of such insured loss.

§ 11.2.1.3 If the property insurance requires deductibles, the Owner shall pay costs not covered because of such deductibles, unless the underlying loss is caused in whole or in part by Contractor or any of its Subcontractors or anyone for whom either of them are responsible, then, the Contractor shall pay such costs of deductibles.

§ 11.2.2 Failure to Purchase Required Property Insurance. If the Owner fails to purchase and maintain the required property insurance, with all of the coverages and in the amounts described in the Agreement or elsewhere in the Contract Documents, the Owner shall inform both the Contractor and the Construction Manager, separately and in writing, prior to commencement of the Work. Upon receipt of notice from the Owner, the Contractor may delay commencement of the Work and may obtain insurance that will protect the interests of the Contractor, Subcontractors, and Sub-Subcontractors in the Work. When the failure to provide coverage has been cured or resolved, the Contract Sum and Contract Time shall be equitably adjusted. In the event the Owner fails to procure coverage, the Owner waives all rights against the Contractor, Subcontractors, and Sub-subcontractors to the extent the loss to the Owner would have been covered by the insurance to have been procured by the Owner. The cost of the insurance shall be charged to the Owner by a Change Order. If the Owner does not provide written notice, and the Contractor is damaged by the failure or neglect of the Owner to purchase or maintain the required insurance, the Owner shall reimburse the Contractor for all reasonable costs and damages attributable thereto.

§ 11.2.3 Notice of Cancellation or Expiration of Owner's Required Property Insurance. Within three (3) business days of the date the Owner becomes aware of an impending or actual cancellation or expiration of any property insurance required by the Contract Documents, the Owner shall provide notice directly to the Contractor, and separately to the Construction Manager, of such impending or actual cancellation or expiration. Unless the lapse in coverage arises from an act or omission of the Contractor: (1) the Contractor, upon receipt of notice from the Owner, shall have the right to stop the Work until the lapse in coverage has been cured by the procurement of replacement coverage by either the Owner or the Contractor; (2) the Contract Time and Contract Sum shall be equitably adjusted; and (3) the Owner waives all rights against the Contractor, Subcontractors, and Sub-subcontractors to the extent any loss to the Owner would have been covered by the insurance had it not expired or been cancelled. If the Contractor purchases replacement coverage, the cost of the insurance shall be charged to the Owner by an appropriate Change Order. The furnishing of notice by the Owner shall not relieve the Owner of any contractual obligation to provide required insurance.

§ 11.3 Waivers of Subrogation

§ 11.3.1 The Owner and Contractor waive all rights against (1) each other and any of their subcontractors, sub-subcontractors, agents, and employees, each of the other; (2) the Construction Manager and Construction Manager's consultants; (3) the Architect and Architect's consultants; (4) other Contractors and any of their subcontractors, sub-subcontractors, agents, and employees; and (5) Separate Contractors, if any, and any of their subcontractors, sub-subcontractors, agents, and employees, for damages caused by fire, or other causes of loss, to the extent those losses are covered by property insurance required by the Agreement or other property insurance applicable to the Project, except such rights as they have to proceeds of such insurance. The Owner or Contractor, as appropriate, shall require similar written waivers in favor of the individuals and entities identified above from the Construction Manager, Construction Manager's consultants, Architect, Architect's consultants, other Contractors, Separate Contractors, subcontractors, and sub-subcontractors. The policies of insurance purchased and maintained by each person or entity agreeing to waive claims pursuant to this Section 11.3.1 shall not prohibit this waiver of subrogation. This waiver of subrogation shall be effective as to a person or entity (1) even though that person or entity would otherwise have a duty of indemnification, contractual or otherwise, (2) even though that person or entity did not pay the insurance premium directly or indirectly, or (3) whether or not the person or entity had an insurable interest in the damaged property.

§ 11.3.1.1 Owner and Contractor intend that any policies provided in response to the insurance provisions shall protect all of the parties insured and provide primary coverage for losses and damages caused by perils covered thereby. Accordingly, all such policies shall contain provisions to the effect that in the event of payment for loss or damage, the insurer will have no right of recovery against any of the parties named as insureds or additional insureds.

§ 11.3.2 If during the Project construction period the Owner insures properties, real or personal or both, at or adjacent to the site by property insurance under policies separate from those insuring the Project, or if after final payment property insurance is to be provided on the completed Project through a policy or policies other than those insuring the Project during the construction period, to the extent permissible by such policies, the Owner waives all rights in accordance with the terms of Section 11.3.1 for damages caused by fire or other causes of loss covered by this separate property insurance.

§ 11.4 Loss of Use, Business Interruption, and Delay in Completion Insurance

The Owner, at the Owner's option, may purchase and maintain insurance that will protect the Owner against loss of use of the Owner's property, or the inability to conduct normal operations, due to fire or other causes of loss. The Owner waives all rights of action against the Contractor, Architect, and Construction Manager for loss of use of the Owner's property, due to fire or other hazards however caused.

§ 11.5 Adjustment and Settlement of Insured Loss

§ 11.5.1 A loss insured under the property insurance required by the Agreement shall be adjusted by the Owner as fiduciary and made payable to the Owner as fiduciary for the insureds, as their interests may appear, subject to requirements of any applicable mortgagee clause and of Section 11.5.2. The Owner shall pay the Construction Manager, Architect and Contractor their just shares of insurance proceeds received by the Owner, and by appropriate agreements the Construction Manager, Architect and Contractor shall make payments to their consultants and Subcontractors in similar manner.

§ 11.5.2 Prior to settlement of an insured loss, the Owner shall notify the Contractor of the terms of the proposed settlement as well as the proposed allocation of the insurance proceeds. The Contractor shall have 14 days from receipt of notice to object to the proposed settlement or allocation of the proceeds. If the Contractor does not object, the Owner shall settle the loss and the Contractor shall be bound by the settlement and allocation. Upon receipt, the Owner shall deposit the insurance proceeds in a separate account and make the appropriate distributions. Thereafter, if no other agreement is made or the Owner does not terminate the Contract for convenience, the Owner and Contractor shall execute a Change Order for reconstruction of the damaged or destroyed Work in the amount allocated for that purpose. If the Contractor timely objects to either the terms of the proposed settlement or the allocation of the proceeds, the Owner may proceed to settle the insured loss, and any dispute between the Owner and Contractor arising out of the settlement or allocation of the proceeds shall be resolved pursuant to Article 15. Pending resolution of any dispute, the Owner may issue a Construction Change Directive for the reconstruction of the damaged or destroyed Work.

§ 11.4 PERFORMANCE BOND AND PAYMENT BOND

§ 11.4.1 The Owner shall have the right to require the Contractor to furnish bonds covering faithful performance of the Contract and payment of obligations arising thereunder as stipulated in bidding requirements or specifically required in the Contract Documents on the date of execution of the Contract.

§ 11.4.1.1 The Contractor shall furnish bonds covering faithful performance of the contract and payment of obligations arising thereunder. The value of each bond shall be for one-hundred percent (100%) of the Contract Sum and shall be adjusted during the Project construction period to reflect changes in the Contract Sum. Bonds shall be issued by a bonding company licensed in the State of New York, on AIA Document A312, Performance and Payment Bond.

§ 11.4.1.2 Contractor shall deliver bonds in conjunction with executed Agreement and they shall be dated the same date as Agreement.

§ 11.4.1.3 The attorney in fact who executes the required bonds on behalf of the surety, shall affix thereto a certified and current copy of the power of attorney.

§ 11.4.1.4 Status Reports issued by a Bonding Company shall be sent to and completed by the Owner and then returned to the Bonding Company by the Owner.

§ 11.4.1.5 Any additional cost for bonding premium shall not be itemized within individual Change Orders. Adjustments for Contractor's bonding cost shall be adjusted at the end of the Project based on approved executed changes in the Work and the Bonding Company's final adjusted premium at project closeout.

§ 11.4.2 Upon the request of any person or entity appearing to be a potential beneficiary of bonds covering payment of obligations arising under the Contract, the Contractor shall promptly furnish a copy of the bonds or shall authorize a copy to be furnished.

ARTICLE 12 UNCOVERING AND CORRECTION OF WORK

§ 12.1 Uncovering of Work

§ 12.1.1 If a portion of the Work is covered contrary to the Construction Manager's or Architect's request or to requirements specifically expressed in the Contract Documents, it must, if requested in writing by either, be uncovered for their examination and be replaced at the Contractor's expense without change in the Contract Time.

§ 12.1.2 If a portion of the Work has been covered that the Construction Manager or Architect has not specifically requested to examine prior to its being covered, the Construction Manager or Architect may request to see such Work and it shall be uncovered by the Contractor. If such Work is in accordance with the Contract Documents, the Contractor shall be entitled to an equitable adjustment to the Contract Sum and Contract Time as may be appropriate. If such Work is not in accordance with the Contract Documents, the costs of uncovering the Work, and the cost of correction, shall be at the Contractor's expense.

§ 12.2 Correction of Work

§ 12.2.1 Before Substantial Completion

The Contractor shall promptly correct Work rejected by the Construction Manager or Architect or failing to conform to the requirements of the Contract Documents, discovered before Substantial Completion, and whether or not fabricated, installed or completed. Costs of correcting such rejected Work, including additional testing and inspections, the cost of uncovering and replacement, and compensation for the Construction Manager's and Architect's services and expenses made necessary thereby, shall be at the Contractor's expense.

§ 12.2.2 After Substantial Completion

§ 12.2.2.1 In addition to the Contractor's obligations under Section 3.5, if, within one year after the date of Substantial Completion of the Work or designated portion thereof, or after the date for commencement of warranties established under Section 9.9.1, or by terms of any applicable special warranty required by the Contract Documents, any of the Work is found to be not in accordance with the requirements of the Contract Documents, the Contractor shall correct it promptly at its sole expense f after receipt of notice from the Owner to do so, unless the Owner has previously given the Contractor a written acceptance of such condition. The Owner shall give such notice promptly after discovery of

the condition. If the Contractor fails to correct nonconforming Work within a reasonable time during that period after receipt of notice from the Owner, Construction Manager or Architect, the Owner may correct it in accordance with Section 2.5 and Contractor shall be obligated to reimburse the Owner all costs incurred in relation to such correction.

§ 12.2.2.2 The one-year period for correction of Work shall be extended with respect to portions of Work first performed after Substantial Completion by the period of time between Substantial Completion and the actual completion of that portion of the Work.

§ 12.2.2.3 The one-year period for correction of Work shall not be extended by corrective Work performed by the Contractor pursuant to this Section 12.2.

§ 12.2.3 The Contractor shall remove from the site portions of the Work that are not in accordance with the requirements of the Contract Documents and are neither corrected by the Contractor nor accepted by the Owner.

§ 12.2.3.1 Upon request by the Owner and prior to expiration of one year from the date of Substantial Completion, the Construction Manager and the Architect will conduct and the Contractor shall attend a meeting with the Owner to review the facility operations and performance.

§ 12.2.4 The Contractor shall bear the cost of correcting destroyed or damaged construction of the Owner, Separate Contractors, or other Contractors, whether completed or partially completed, caused by the Contractor's correction or removal of Work that is not in accordance with the requirements of the Contract Documents.

§ 12.2.5 Nothing contained in this Section 12.2 shall be construed to establish a period of limitation with respect to other obligations the Contractor has under the Contract Documents. Establishment of the one-year period for correction of Work as described in Section 12.2.2 relates only to the specific obligation of the Contractor to correct the Work, and has no relationship to the time within which the obligation to comply with the Contract Documents may be sought to be enforced, nor to the time within which proceedings may be commenced to establish the Contractor's liability with respect to the Contractor's obligations other than specifically to correct the Work.

§ 12.3 Acceptance of Nonconforming Work

If the Owner prefers to accept Work that is not in accordance with the requirements of the Contract Documents, the Owner may do so instead of requiring its removal and correction, in which case the Contract Sum will be reduced as appropriate and equitable. Such adjustment shall be effected whether or not final payment has been made.

ARTICLE 13 MISCELLANEOUS PROVISIONS

§ 13.1 Governing Law

The Contract shall be governed by the law of the place where the Project is located. The parties expressly agree that any claim, dispute or other controversy of any nature arising out of the Contract or performance of the Work shall be commenced and maintained in New York State Supreme Court located in Orange County.

§ 13.1.2 The Contractor shall at all times observe and comply with all Federal and State Laws, and all Laws, Ordinances and Regulations of the Owner, in any manner affecting the work, and all such orders decreed as exist at present and those which may be enacted later, by bodies or tribunals having jurisdiction or authority over the Work, and the Contractor shall defend, indemnify and save harmless the Owner, Construction Manager and Architect and all their officers, agents or servants against any claim or liability arising from, or based on, a violation of any such law, ordinances, regulation or order, whether by himself or by his employee or agents.

§ 13.1.3 The Contractor specifically agrees as required by Labor Law, Sections 220 and 220-d, as amended that:

1. No laborer, workman or mechanic in the employ of the Contractor, subcontractor or other person doing contracting or contracting to do the whole or any part of the work contemplated by the Contract, shall be permitted or required to work more than eight hours in one calendar day or more than five days in one week, except in the emergencies set forth in the Labor Law.
2. The wages paid for a legal day's work shall not be less than the prevailing rate of wages as defined by law, and

3. The minimum hourly rate of wages to be paid shall not be less than that stated in the Specifications, and any re-determination of the prevailing rate of wages after the Contract is approved shall be deemed to be incorporated herein by reference as of the effective date of re-determination and shall form a part of this Contract. The Labor Law provides that the Contract may be forfeited and no sum paid for any work done thereunder on a second conviction of willfully paying less than:
   a. the stipulated wage scale as provided in Labor Law, Section 220, Sub-division 3, as amended; or
   b. the stipulated minimum hourly wage scale as provided in Labor Law, 220-d, as amended.

§ 13.1.4 The Contractor specifically agrees as required by the provisions of Labor Law, Section 220-e, as amended that:

1. In hiring of employees for the performance of work under this Contract or any subcontract hereunder or for the manufacture, sale, or distribution of materials, equipment or supplies, hereunder, no Contractor or Subcontractor nor any person acting on behalf of such Contractor or Subcontractor, shall by reason of race, creed, color, disability, sex, or national origin discriminate against any citizen of the State of New York who is qualified and available to perform the work to which the employment relates.
2. No Contractor, Subcontractor, nor any person on his behalf shall, in any manner, discriminate against or intimidate any employee under this Contract on account of race, creed, color, disability, sex, or national origin.
3. There may be deducted from the amount payable to the Contractor by the Owner under this Contract, a penalty of fifty dollars ($50) for each person for each calendar day during which such a person was discriminated against or intimidated in violation of the provisions of the Contract, and
4. The provisions of this section covering every Contract for or on behalf of the Owner, the State or a municipality for the manufacture or sale or distribution of materials, equipment or supplies shall be limited to operations performed within the territorial limits of the State of New York.

§13.1.5 The Contractor shall comply with the sexual harassment provision of New York State Labor Law §201-g.

§ 13.1.6 During the performance of this Contract, the Contractor agrees as follows:

1. The Contractor will not discriminate against any employee or applicant for employment because of age, race, creed, color, national origin, sexual orientation, military status, sex, disability, predisposing genetic characteristics, marital status, or domestic violence victim status.
2. If directed to do so by the Owner or the State Commissioner of Human Rights, the Contractor will send to each labor union or representative of workers which with the Contractor has or is bound by a collective bargaining or other agreement or understanding, a notice, to be provided by the State Commissioner of Human Rights, advising such labor union or representative of the Contractor's agreement under clauses (1) through (6) (hereinafter called "non-discrimination clauses"). If the Contractor was directed to do so by the Owner as part of the bid or negation of this Contract, the Contractor shall request such labor union or representative to furnish a written statement that such a labor union representative will not discriminate because of age, race, creed, color, national origin, sexual orientation, military status, sex, disability, predisposing genetic characteristics, or marital status, and that such labor union or representative will cooperate, within the limits of its legal contractual authority, in the implementation of the policy and provisions of these non-discrimination clauses and that it consents and agrees that the recruitment, employment and the terms and conditions of employment under this Contract shall be in accordance with the purposes and provision of these non-discrimination clauses. If such labor union or representative fails or refuses to comply with such a request that it furnish such a statement, the Contractor shall promptly notify the Owner and the State Commissioner of Human Rights of such failure or refusal.
3. If directed to do so by the Owner or the Commissioner of Human Rights, the Contractor will post and keep posted in conspicuous places, available to employees and applicants for employment, notices to be provided by the State Commissioner of Human Rights setting forth the substance of provisions of clauses (1) and (2) and such provision of the State's law against discrimination as the State Commissioner of Human Rights shall determine.
4. The Contractor will state in all solicitations or advertisements for employees placed by or on behalf of the Contractor, that all qualified applicants will be afforded equal employment opportunities without discrimination because of age, race, creed, color, national origin, sexual orientation, military status, sex, disability, predisposing genetic characteristics, marital status, or domestic violence victim status.

5. The Contractor will comply with the provisions of Sections 290-299 of the Executive Law, and with the Civil Rights Law, will furnish all information and reports deemed necessary by the State Commissioner of Human Rights under these non-discrimination clauses and such section of the Executive Law, and will permit access to the Contractor's books, records, and accounts by the Owner, the State Commissioner of Human Rights, the Attorney General and the Industrial Commissioner for the purposes of investigation to ascertain compliance with the non-discrimination clauses and such sections of the Executive Law Civil Rights Law.
6. This Contract may be forthwith cancelled, terminated or suspended, in whole or in part, by the Owner upon the basis of a finding made by the State Commissioner of Human Rights that the Contractor has not complied with the non-discrimination clauses, and that the Contractor may be declared ineligible for future contracts made by or on behalf of the Owner, the State or a public authority or agency of the State, until the Contractor satisfies the State Commissioner of Human Rights that the Contractor has established and is carrying out a program in conformity with the provisions of these non-discrimination clauses. Such findings may be made by the State Commissioner of the Human Rights after conciliation efforts by the Commissioner have failed to achieve compliance with these non-discrimination clauses and after a verified complaint has been filed with the Commissioner, notice thereof has been given to the Contractor to be heard publicly in accordance with the Executive Law. Such sanctions may be imposed and remedies invoked independently of or in addition to sanctions and remedies otherwise provided by law, and
7. The Contractor will include the provisions of clauses .1 through .6 in every subcontract or purchase order in such a manner that such provisions will be binding upon each subcontractor or vendor as to operations to be performed within the State of New York. The Contractor will take action in enforcing such provisions of such subcontract or purchase order as the State Commissioner of Human Rights or the Owner may direct, including sanctions or remedies for non-compliance. If the Contractor becomes involved or is threatened with litigation with a subcontractor or vendor as a result of such directions by the State Commissioner of Human Rights or the Owner, the Contractor shall promptly so notify the Owner and the Attorney General requesting the Attorney General to intervene and protect the interests of the State of New York.

§ 13.2 Successors and Assigns

§ 13.2.1 The Owner and Contractor respectively bind themselves, their partners, successors, assigns, and legal representatives to covenants, agreements, and obligations contained in the Contract Documents. Except as provided in Section 13.2.2, neither party to the Contract shall assign the Contract as a whole without written consent of the other. If either party attempts to make an assignment without such consent, that party shall nevertheless remain legally responsible for all obligations under the Contract.

§ 13.2.2 The Owner may, without consent of the Contractor, assign the Contract to a lender providing construction financing for the Project, if the lender assumes the Owner's rights and obligations under the Contract Documents. The Contractor shall execute all consents reasonably required to facilitate the assignment.

§ 13.3 Rights and Remedies

§ 13.3.1 Duties and obligations imposed by the Contract Documents and rights and remedies available thereunder shall be in addition to and not a limitation of duties, obligations, rights, and remedies otherwise imposed or available by law.

§ 13.3.2 No action or failure to act by the Owner, Construction Manager, Architect, or Contractor shall constitute a waiver of a right or duty afforded them under the Contract, nor shall such action or failure to act constitute approval of or acquiescence in a breach thereunder, except as may be specifically agreed upon in writing.

§ 13.4 Tests and Inspections

§ 13.4.1 Tests, inspections, and approvals of portions of the Work shall be made as required by the Contract Documents and by applicable laws, statutes, ordinances, codes, rules, and regulations or lawful orders of public authorities. Unless otherwise provided, the Contractor shall make arrangements for such tests, inspections, and approvals with an independent testing laboratory and shall bear all related costs of tests, inspections, and approvals. The Contractor shall give the Construction Manager timely notice of when and where tests and inspections are to be made so that the Construction Manager may be present for such procedures. The Owner shall bear costs of tests, inspections, or approvals

that do not become requirements until after bids are received or negotiations concluded. The Owner shall directly arrange and pay for tests, inspections, or approvals where building codes or applicable laws or regulations so require.

§ 13.4.2 If the Construction Manager, Architect, Owner, or public authorities having jurisdiction determine that portions of the Work require additional testing, inspection, or approval not included under Section 13.4.1, the Construction Manager and Architect will, upon written authorization from the Owner, instruct the Contractor to make arrangements for such additional testing, inspection, or approval, by an entity acceptable to the Owner, and the Contractor shall give timely notice to the Construction Manager and Architect of when and where tests and inspections are to be made so that the Construction Manager and Architect may be present for such procedures. Such costs, except as provided in Section 13.4.3, shall be at the Owner's expense.

§ 13.4.3 If procedures for testing, inspection, or approval under Sections 13.4.1 and 13.4.2 reveal failure of the portions of the Work to comply with requirements established by the Contract Documents, all costs made necessary by such failure, including those of repeated procedures and compensation for the Construction Manager's and Architect's services and expenses, shall be at the Contractor's expense.

§ 13.4.4 Required certificates of testing, inspection, or approval shall, unless otherwise required by the Contract Documents, be secured by the Contractor and promptly delivered to the Construction Manager for transmittal to the Architect.

§ 13.4.5 If the Construction Manager or Architect is to observe tests, inspections, or approvals required by the Contract Documents, the Construction Manager or Architect will do so promptly and, where practicable, at the normal place of testing.

§ 13.4.6 Tests or inspections conducted pursuant to the Contract Documents shall be made promptly to avoid unreasonable delay in the Work.

§ 13.5 Interest

Payments to Contractor, including any interest, shall be consistent with this Agreement and in accordance with New York State General Municipal Law Section 106-b.

§ 13.6 TIME LIMITS ON CLAIMS

The Owner and the Contractor shall commence all claims and causes of action, whether in contract, tort, breach of warranty or otherwise, against the other arising out of or related to the Contract in accordance with the requirements of the final dispute resolution method selected in the Agreement and within the time period specified by applicable law, but in any case not more than 10 years after the date of Substantial Completion of the Work. The Owner and the Contractor waive all claims and causes of action not commenced in accordance with this Section 13.7.

§13.7 EQUAL OPPORTUNITY

§13.7.1 The Contractor shall maintain policies of employment as follows:

1. he Contractor and the Contractor's Subcontractors shall not discriminate against any employee or applicant for employment because of race, religion, color, sex or national origin. The Contractor shall take affirmative action to insure that applicants are employed and that employees are treated during employment without regard to their race, religion, color, sex and national origin. Such action shall include, but not limited to the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection of training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the policies of non-discrimination, and
2. the Contractor and the Contractor's Subcontractors shall, in all solicitations or advertisements for employees placed by them or on their behalf, state all qualified applicants will receive consideration for employment without regard to race, religion, color, sex or national origin.

ARTICLE 14 TERMINATION OR SUSPENSION OF THE CONTRACT

§ 14.1 Termination by the Contractor

§ 14.1.1 The Contractor may terminate the Contract if the Work is stopped for a period of 30 consecutive days through no act or fault of the Contractor, a Subcontractor, a Sub-subcontractor, their agents or employees, or any other persons or entities performing portions of the Work, for any of the following reasons:

.1 Issuance of an order of a court or other public authority having jurisdiction that requires all Work to be stopped;

.2 An act of government, such as a declaration of national emergency, that requires all Work to be stopped;

.3 Because the Construction Manager has not certified or the Architect has not issued a Certificate for Payment and, after the Contractor has provided written notice of the lack of certification with a reasonable opportunity to cure, has not notified the Contractor of the reason for withholding certification as provided in Section 9.4, or because the Owner, after the Contractor has provided written notice of the lack of payment with a reasonable opportunity to cure, has not made payment on a Certificate for Payment within the time stated in the Contract Documents; or

§ 14.1.2 The Contractor may terminate the Contract if, through no act or fault of the Contractor, a Subcontractor, a Sub-subcontractor, their agents or employees, or any other persons or entities performing portions of the Work, repeated suspensions, delays, or interruptions of the entire Work by the Owner as described in Section 14.3, constitute in the aggregate more than 100 percent of the total number of days scheduled for completion, or 120 days in any 365-day period, whichever is less.

§ 14.1.3 If one of the reasons described in Section 14.1.1 or 14.1.2 exists, the Contractor may, upon thirty days' notice to the Owner with a reasonable opportunity to cure, Construction Manager and Architect, terminate the Contract and recover from the Owner payment for Work properly executed.

§ 14.1.4 If the Work is stopped for a period of 60 consecutive days through no act or fault of the Contractor, a Subcontractor, a Sub-subcontractor, or their agents or employees, or any other persons performing portions of the Work because the Owner has repeatedly failed to fulfill the Owner's obligations under the Contract Documents with respect to matters important to the progress of the Work, the Contractor may, upon thirty additional days' notice to the Owner, Construction Manager and Architect, terminate the Contract and recover from the Owner as provided in Section 14.1.3.

§ 14.2 Termination by the Owner for Cause

§ 14.2.1 The Owner may terminate the Contract if the Contractor

.1 refuses or fails to supply enough properly skilled workers or proper materials;

.2 fails to make payment to Subcontractors or suppliers in accordance with the respective agreements between the Contractor and the Subcontractors or suppliers;

.3 disregards applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of a public authority; or

.4 otherwise is guilty of substantial breach of a provision of the Contract Documents.

.5 breaches any warranty made by the Contractor under or pursuant to the Contract Documents.

.6 fails to furnish the Owner with assurances satisfactory to the Owner evidencing the Contractor's ability to complete the Work in compliance with all of the requirements of the Contract Documents."

§ 14.2.2 When any of the reasons described in Section 14.2.1 exist the Owner may, without prejudice to any other rights or remedies of the Owner and after giving the Contractor and the Contractor's surety, if any, seven days' notice, terminate employment of the Contractor and may, subject to any prior rights of the surety:

.1 Exclude the Contractor from the site and take possession of all materials, equipment, tools, and construction equipment and machinery thereon owned by the Contractor;

.2 Accept assignment of subcontracts pursuant to Section 5.4; and

.3 Finish the Work by whatever reasonable method the Owner may deem expedient. Upon written request of the Contractor, the Owner shall furnish to the Contractor a detailed accounting of the costs incurred by the Owner in finishing the Work. The costs of finishing the Work include, without limitations, all reasonable attorney's fees, additional Architect/Engineering and Construction Manager costs, insurance, additional interest because of any delay in completing the Work, and all other direct and

indirect and consequential damages incurred by the Owner by reason of the termination of the Contractors stated herein.

§ 14.2.3 When the Owner terminates the Contract for one of the reasons stated in Section 14.2.1, the Contractor shall not be entitled to receive further payment until the Work is finished.

§ 14.2.4 If the unpaid balance of the Contract Sum exceeds costs of finishing the Work, including compensation for the Construction Manager's and Architect's services and expenses made necessary thereby, and other damages incurred by the Owner and not expressly waived, such excess shall be paid to the Contractor. If such costs and damages exceed the unpaid balance, the Contractor shall pay the difference to the Owner.

§ 14.3 Suspension by the Owner for Convenience

§ 14.3.1 The Owner may, without cause, order the Contractor in writing to suspend, delay or interrupt the Work, in whole or in part for such period of time as the Owner may determine.

§ 14.3.2 The Contract Sum and the Contract Time may be adjusted for increases in the cost and time caused by suspension, delay, or interruption under Section 14.3.1. No adjustment shall be made to the extent:

.1 that performance is, was, or would have been, so suspended, delayed, or interrupted, by another cause for which the Contractor is responsible; or

.2 that an equitable adjustment is made or denied under another provision of this Contract.

§ 14.4 Termination by the Owner for Convenience

§ 14.4.1 Notwithstanding any other provision to the contrary in this Agreement, the Owner reserves the right at any time and in its absolute discretion to terminate the services of the Contractor and/or the Work for the Owner's convenience and without cause by giving written notice to the Contractor. This termination for the convenience of the Owner provision allows and authorizes the Owner to terminate this Agreement at any time and for any reason whatsoever. This right may be exercised by the Owner in its complete discretion.

§ 14.4.2 Upon receipt of notice from the Owner of such termination for the Owner's convenience, the Contractor shall

.1 cease operations as directed by the Owner in the notice;

.2 take actions necessary, or that the Owner may direct, for the protection and preservation of the Work; and

.3 except for Work directed to be performed prior to the effective date of termination stated in the notice, terminate all existing subcontracts and purchase orders and enter into no further subcontracts and purchase orders.

§ 14.4.3 In the case of such termination for the Owner's convenience, the Contractor shall be entitled to, and the Owner shall reimburse the Contractor for, an equitable portion of the Contractor's fee based on the portion of the Work properly completed before the effective date of termination. Contractor's entitlement to payment for all such work shall be predicated on its performance of such work in accordance with the Contract Documents as certified by the Architect and Construction Manager. Contractor shall be entitled to no other payment and waives any claim for damages.

ARTICLE 15 CLAIMS AND DISPUTES

§ 15.1 Claims

§ 15.1.1 Definition. A Claim is a demand or assertion by one of the parties seeking, as a matter of right, payment of money, a change in the Contract Time, or other relief with respect to the terms of the Contract. The term "Claim" also includes other disputes and matters in question between the Owner and Contractor arising out of or relating to the Contract. The responsibility to substantiate Claims shall rest with the party making the Claim. This Section 15.1.1 does not require the Owner to file a Claim in order to impose liquidated damages in accordance with the Contract Documents. The Owner may refer a claim to the Construction Manager and or the Architect for their review and assistance; however, such is not required by this Agreement.

§ 15.1.2 Time Limits on Claims

The Owner and Contractor shall commence all Claims and causes of action against the other and arising out of or related to the Contract, whether in contract, tort, breach of warranty or otherwise, in accordance with the requirements

of the binding dispute resolution method selected in the Agreement and within the period specified by applicable law and in strict compliance with Education Law §3813, but in any case not more than 10 years after the date of Substantial Completion of the Work. The Owner and Contractor waive all Claims and causes of action not commenced in accordance with this Section 15.1.2.

§ 15.1.3 Notice of Claims

§ 15.1.3.1 Claims by either the Owner or Contractor, where the condition giving rise to the Claim is first discovered prior to expiration of the period for correction of the Work set forth in Section 12.2.2, shall be initiated by notice to the other party and to the Initial Decision Maker with a copy sent to the Construction Manager and Architect, if the Architect is not serving as the Initial Decision Maker. Claims by either party under this Section 15.1.3.1 shall be initiated within 21 days after occurrence of the event giving rise to such Claim or within 21 days after the claimant first recognizes the condition giving rise to the Claim, whichever is later.

§ 15.1.3.2 Claims by either the Owner or Contractor, where the condition giving rise to the Claim is first discovered after expiration of the period for correction of the Work set forth in Section 12.2.2, shall be initiated by notice to the other party. In such event, no decision by the Initial Decision Maker is required.

§ 15.1.3.3 Claims by the Contractor must be made by written notice in accordance with the following procedures.

.1 the Contractor may submit a claim concerning a matter properly noticed in accordance with the time requirements of this Contract set forth in paragraph 15.1.3 and elsewhere;

.2 failure by the Contractor to furnish the required claim documentation within the time set forth above shall constitute waiver of the Contractor's right to compensation for such claim.

.3 Contractor shall furnish three (3) certified copies of the required claim documentation. The claim documentation shall be complete when furnished. The evaluation of the Contractor's claim will be based, among other things, upon the Owner's Project Records and the Contractor's furnished claim documentation

.4 claim documentation shall conform to Generally Accepted Accounting Principles and shall be in the following format:

- a. general introduction;
- b. general background discussion
- c. issues
  - i. index of issues (listed numerically);
  - ii. for each issue:
    - (1) background
    - (2) chronology
    - (3) Contractor's position (reason for Owner's potential liability)
    - (4) supporting documentation of merit or entitlement
    - (5) supporting documentation of damages
    - (6) begin each issue on a new page
- d. all critical path method schedules (as-planned, monthly updates, schedule revisions and as-built, along with computer disks of all schedules related to the claim;
- e. productivity exhibits (if appropriate); and
- f. summary of issues and damages.

.5 supporting documentation of merit for each issue shall be cited by reference, photocopies or explanation. Supporting documentation may include, but shall not be limited to General Conditions, General Requirements, technical specifications, drawings, correspondence, conference notes, shop drawings and submittals, shop drawing logs, survey books, inspection reports, delivery schedules, test reports, daily reports, subcontracts, fragmentary CPM schedules or time impact analyses, photographs, technical reports, requests for information, field instructions and all other related records necessary to support the Contractor's claim.

.6 supporting documentation of damages for each issue shall be cited, photocopied or explained. Supporting documentation may include, but shall not be limited to, any or all documents related to the preparation and submission of the bid; certified, detailed labor records including labor distribution reports; material and equipment procurement records; construction equipment ownership, cost records or rental records; subcontractor or vendor files and cost records; service cost records; purchase orders; invoices; Project as-planned and as-built cost records; general ledger records; variance

reports; accounting adjustment records, and any other accounting material necessary to support the Contractor's claims.

.7 each copy of the claim documentation shall be certified by a responsible officer of the Contractor in accordance with the requirements of these Contract Documents.

§ 15.1.4 Continuing Contract Performance

§ 15.1.4.1 Pending final resolution of a Claim, except as otherwise agreed in writing or as provided in Article 14, the Contractor shall proceed diligently with performance of the Contract and the Owner shall continue to make payments in accordance with the Contract Documents.

§ 15.1.4.2 The Contract Sum and Contract Time shall be adjusted in accordance with the Initial Decision Maker's decision, subject to the right of either party to proceed in accordance with this Article 15. The Architect will issue Certificates for Payment in accordance with the decision of the Initial Decision Maker.

§ 15.1.5 Claims for Additional Cost. If the Contractor wishes to make a Claim for an increase in the Contract Sum, notice as provided in Section 15.1.3 shall be given before proceeding to execute the portion of the Work that is the subject of the Claim. Prior notice is not required for Claims relating to an emergency endangering life or property arising under Section 10.4.

§ 15.1.6 Claims for Additional Time

§ 15.1.6.1 If the Contractor wishes to make a Claim for an increase in the Contract Time, notice as provided in Section 15.1.3 shall be given. The Contractor's Claim shall include an estimate of cost and of probable effect of delay on progress of the Work. In the case of a continuing delay only one Claim is necessary.

§ 15.1.6.2 If adverse weather conditions are the basis for a Claim for additional time, such Claim shall be documented by data substantiating that weather conditions were abnormal for the period of time, could not have been reasonably anticipated and had an adverse effect on the scheduled construction.

§ 15.1.6.3 Claims for increase in the Contract time shall set forth in detail the circumstances that form the basis for the Claim, the date upon which each cause of delay began to affect the progress of Work, the date upon which each cause of delay ceased to affect the progress of the Work and the number of days increased in the Contract time claimed as a consequence of each such cause of delay. The Contractor shall provide such supporting documentation as the Owner may require including, where appropriate, a revised construction schedule indicating all the activities affected by the circumstances forming the basis of the Claim.

§ 15.1.6.4 The Contractor shall not be entitled to a separate increase in the Contract time for each one of the number of causes of delay which may have concurrent or interrelated effects on the progress of the Work, or for concurrent delays due to the fault of the Contractor.

§ 15.1.7 Waiver of Claims for Consequential Damages. The Contractor and Owner waive Claims against each other for consequential damages arising out of or relating to this Contract. This mutual waiver includes

.1 damages incurred by the Owner for rental expenses, for losses of use, income, profit, financing, business and reputation, and for loss of management or employee productivity or of the services of such persons; and

.2 damages incurred by the Contractor for principal office expenses including the compensation of personnel stationed there, for losses of financing, business and reputation, and for loss of profit except anticipated profit arising directly from the Work.

§15.1.8.1 Claims and Actions Thereon. No claim against the Owner for damages for breach of contract or compensation for extra work shall be made or asserted in any action or proceeding at law, or in equity, unless the Contractor shall have strictly complied with all the requirements relating to the giving of notice and of information with respect to such claims all as provided in this Agreement.

§15.1.8.2 No Estoppel. Neither the Owner nor any department officer, agent or employees thereof, shall be bound, precluded or estopped by any determination, decision, approval, order, letter, payment or certificate made or given under or in connection with this Contract by the Owner, or any officer, agent or employee of the Owner, either before

or after the final completion and acceptance of the Work and payment therefor: (1) from showing the true and correct classification, amount, quality or character of the Work actually done; or that any such termination, decision, order, letter, payment or certificate was untrue, incorrect or improperly made in any particular matter, or that the Work or any part thereof does not in fact conform to the requirements of this Contract; or (2) from demanding and recovering from the Contractor any overpayments made to him, or such damages as it may sustain by reason of his failure to perform each and every part of this Contract in strict accordance with its terms; or (3) both (1) and (2) hereto."

§ 15.2 Initial Decision

§ 15.2.1 Claims, by the Contractor, excluding those where the condition giving rise to the Claim is first discovered after expiration of the period for correction of the Work set forth in Section 12.2.2 or arising under Sections 10.3, 10.4, and 11.5, shall be referred to the Initial Decision Maker for initial decision. The Architect will serve as the Initial Decision Maker, unless otherwise indicated in the Agreement. Except for those Claims excluded by this Section 15.2.1, an initial decision shall be required as a condition precedent to mediation of any Claim by the Contractor against the Owner. If an initial decision has not been rendered within 30 days after the Claim has been referred to the Initial Decision Maker, the party asserting the Claim may demand mediation and binding dispute resolution without a decision having been rendered. Unless the Initial Decision Maker and all affected parties agree, the Initial Decision Maker will not decide disputes between the Contractor and persons or entities other than the Owner.

§ 15.2.2 The Initial Decision Maker will review Claims and within twenty one days of the receipt of a Claim take one or more of the following actions: (1) request additional supporting data from the claimant or a response with supporting data from the other party, (2) reject the Claim in whole or in part, (3) approve the Claim, (4) suggest a compromise, or (5) advise the parties that the Initial Decision Maker is unable to resolve the Claim if the Initial Decision Maker lacks sufficient information to evaluate the merits of the Claim or if the Initial Decision Maker concludes that, in the Initial Decision Maker's sole discretion, it would be inappropriate for the Initial Decision Maker to resolve the Claim.

§ 15.2.3 In evaluating Claims, the Initial Decision Maker may, but shall not be obligated to, consult with or seek information from either party or from persons with special knowledge or expertise who may assist the Initial Decision Maker in rendering a decision. The Initial Decision Maker may request the Owner to authorize retention of such persons at the Owner's expense.

§ 15.2.4 If the Initial Decision Maker requests a Contractor to furnish additional supporting data, the Contractor shall respond, within ten days after receipt of the request, and shall either (1) provide a response on the requested supporting data, (2) advise the Initial Decision Maker when the response or supporting data will be furnished, or (3) advise the Initial Decision Maker that no supporting data will be furnished. Upon receipt of the response or supporting data, if any, the Initial Decision Maker will either reject or approve the Claim in whole or in part.

§ 15.2.5 If a Claim has not been resolved after consideration of the foregoing and of further evidence presented by the parties or requested by the Architect, the Architect will render to the parties the Architect's written recommendation relative to the Claim, including any recommended change in the Contract Sum or Contract Time or both. If there is a surety and there appears to be a possibility of a Contractor's default, the Architect may, but is not obligated to, notify the surety and request the surety's assistance in resolving the controversy.

§ 15.2.6 Either party may file for mediation of an initial decision at any time, subject to the terms of Section 15.2.6.1.

§ 15.2.6.1 Either party may, within 30 days from the date of receipt of an initial decision, demand in writing that the other party file for mediation. If such a demand is made and the party receiving the demand fails to file for mediation within 30 days of receipt thereof, then both parties waive their rights to mediate.

§ 15.2.7 In the event of a Claim against the Contractor, the Owner may, but is not obligated to, notify the surety, if any, of the nature and amount of the Claim. If the Claim relates to a possibility of a Contractor's default, the Owner may, but is not obligated to, notify the surety and request the surety's assistance in resolving the controversy.

§ 15.2.8 If a Claim relates to or is the subject of a mechanic's lien, the party asserting such Claim may proceed in accordance with applicable law to comply with the lien notice or filing deadlines.

§ 15.2.9 Nothing contained in this Agreement is intended to alter or replace any provisions of the laws of the state of

New York relating to claims made against the Owner or to relieve Contractor from any obligations thereunder.

§ 15.3 Mediation

(Paragraphs deleted)
§15.3.1 The parties expressly agree to delete the requirement that any and all controversies and claims arising out of Contract be referred to mediation. By so agreeing, the parties express their mutual intent that there is no agreement to mediate such disputes, notwithstanding the use and reference to mediation elsewhere in the contract document.
§ 15.4 Arbitration
§ 15.4.1 The parties expressly agree to **delete** the requirement that any and all controversies and claims arising out of the contract be referred to arbitration. By so agreeing, the parties express their mutual intent that there is **no agreement** to arbitrate such disputes, notwithstanding the use and reference to arbitration elsewhere in the contract documents."

(Paragraphs deleted)
§ 15.5 The parties expressly agree that any claim, dispute, or other controversy of any nature arising out of the contract or performance of the work shall be commenced and maintained in New York State Supreme Court located in Albany County.

SECTION 011200 – GC SUMMARY OF WORK

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including the General and Supplemental Conditions and Division 1 Specification Section, apply to this Section.

1.2 SUMMARY

A. Section includes:

- Project information.
- Work covered by Contract Documents.
- Construction schedule.
- All trade coordination
- BIM coordination
- Owner-furnished equipment
- Coordination with occupants.
- Work restrictions.

B. Section includes a brief summary of GC work, including responsibilities for coordination and temporary facilities and controls. The GC is the Single Prime Contractor responsible for all subcontractor scopes of work.

C. GC is responsible for reviewing all Drawings and Specifications for every contract to gain a complete understanding and knowledge of the entire Project and to coordinate each for the intent of a logical sequence of construction means and methods.

D. GC is responsible for providing a min. of (1) Full Time experienced Construction Project Manager and (1) Full Time Senior Superintendent, each with a minimum of 10 years of relevant Construction experience.

E. GC shall provide resumes of the proposed Full Time Project Manager and Full Time Superintendent for CM, Architect and Owner approval.

F. GC shall provide an org chart of their staff that will be involved with the project once the project is awarded.

DEFINITIONS

A. Project Identification: Project consists of all labor, materials, equipment, appliances, services, and incidentals necessary for layout, installing, and performing New Construction at the Newburgh Enlarged City School District as shown on the Contract Drawings and described in the Specifications.

B. Contract work is projected to start late June or early July 2024.

C. The work will be constructed under Single Prime Contracts. The GC is responsible for communicating, coordinating, and scheduling work with all awarded listed subcontractors including but not limited to below. One set of contract documents is issued covering all scopes of work.

1. SITE WORK
2. MECHANICAL
3. PLUMBING
4. ELECTRICAL
5. FIRE PROTECTION
6. Procurement from district vendors and state contracts in coordination with CM/AOR and Owner, these include:

    a) HVAC equipment Procurement as identified on Mechanical contract drawings.
    b) Fire alarm devices
    c) Security vendor
    d) Controls
    e) PA System devices
    f) Clocks (Addendum #6)
    g) Display Monitors (Promethean Boards)
    h) Furniture
    i) Owner furnished items installed by GC

    (Refer to responsibility matrix provided in specifications)

D. This section includes a brief summary of work for the General Contractor, including responsibilities for coordination and temporary facilities and controls.

1. Project includes the construction of a new building.
2. A 5-day work week is required on this project with hours from 7am-3:30pm or per the PLA agreement. Nights and weekends will be mandated if the contractor(s) are behind schedule and need additional time to bring the project back on schedule and or directed by the Construction Manager.
3. GC will conduct all subcontractor meetings and BIM coordinating meetings.
4. GC will attend OACM meetings and CM will conduct these meetings.

E. Architect Identification: The Contract Documents were prepared for the Project by CSArch.

F. Construction Manager: Jacobs Project Management has been engaged as Construction Manager for this Project to serve as an advisor to Owner and to aid in administering the Contract for Construction between Owner and Contractor, according to a separate contract between Owner and Construction Manager.

G. Building Code in Effect for Project: 2020 NYS Building Code and Local Fire Marshall requirements.

H. Comply with the following: New York State building Code and the building standards of the New York State Education Department.

1.3 THE CONTRACT

A. The Project will be constructed under a Single Prime GC contracting arrangement with the Owner awarding and GC holding separate Contracts with each trade. The GC is required to ensure each subcontractor has included all scope required for a complete operational project.

B. Contractors have been given the opportunity prior to bidding to inspect the entire Project for references and agrees to accept as it exists on the date of the bid opening.

1. Keep driveways and site entrances serving the project clear and available to critical deliveries, placement of concrete, emergency vehicles, etc. for the duration of construction. Do not obstruct access to, or use these areas for parking, staging of equipment or materials. All deliveries are to be scheduled and any material stored onsite must be communicated with the CM and Stored in the designated staging area per the site logistics plan. The school grounds can't support over storage of material. Offsite storage will be needed if material is procured in advance of its installation date.
2. GC will provide sign in sheets daily reflecting the project site manpower count and submit to the CM.
3. GC will be responsible to provide weekly toolbox talks, Job Hazardous Analysis (JHA's), and 2-week lookaheads. Additionally the GC will collect these documents from their subcontractors as well as keep a log of them and will coordinate the individual trade activities as well as include them on their 2 week lookaheads.

C. General Contractor:

1. Is responsible for creating, maintaining, and updating the project Master Schedule. The project Master Schedule will be updated at a minimum once a month and sent to the CM and Client for review for project progress.
2. Provide reflective vests and make sure all subcontractors have required OSHA-approved PPE and are responsible for enforcing that it is worn by all on-site personnel. Parties that do not abide by this requirement will be escorted off the premises after their 2nd warning.
3. Provide potable drinking water for its own employees and mandate that their subcontractors also provide to their employees.
4. Is responsible for Furnishing and installing access panels for all concealed systems, for system maintenance and repair for items installed. This specifically talks to access panels needed for future maintenance by the district.
5. Provide and maintain material lifting equipment required for the completion of all Contract requirements, and complying with NYS Labor Laws, OSHA Regulations, and other Federal, State, and local laws.
6. Provide and maintain additional temporary stairs, ladders, ramps, scaffolding, and platforms required specifically for completion of work, and as further detailed in this section. All work needs to comply with the NYS Labor Laws, OSHA regulation, and other Federal, State, and local laws.
7. Provide Fire Prevention materials and equipment for fire protection. Provide fire extinguishers, fire blankets, and fire watch during all cutting and welding operations.

8. Provide required temp lighting/power to install new work for all contractors, per OSHA levels and to include lighting in all spaces. The GC shall also include site temp lighting and shall coordinated with the CM/Owner. GC to ensure this complete work is under the Electrical Work subcontract.

9. Temporary Facilities: in addition to

   a) Provide Temporary Facilities indicated as Work of this Contract is Division 1 Section 01 5000, "Temporary Facilities and Controls"
   b) Provide night/day security camera system with DVR and monitor for the purpose of monitoring construction activity during the construction schedule only. System will be equipped with local and remote access. See site logistics plan for dramatic placement of security cameras. All cameras are to be mounted on a structurally secured post provided by this contractor and at a height no less then 8'-0". Final location of set up to be chosen by the CM and District.
   c) Provide new temp electric service with new service pole near the temp office, and power connection and disconnect to CM trailer as well as one trailer for ***General Contractor, Mechanical, Plumbing, Electrical and Fireprotection Subcontractor.*** Provide and maintain a temporary electric service, including lighting office trailer off the temporary service being provided. Maximum of 1 trailer per ***as listed above.*** Each trailer to have a 100 amp, 240 Volt single-phase connections. Assume a diversified peak connected load factor of 12KW per trailer. GC shall include the electrical metering cost for this new temp service in their bid for the duration of the project. ***(Addendum #6)***
   d) Provide temporary lighting (as required) construction staging/yard/work areas.
   e) Provide temp and permanent power outlets, panels and connections for other trades tools and equipment. No limit to how many temp services or voltage.
   f) coordinate with CM/Owner for service activation of existing 400 AMP Single Phase Panel where indicated on Site Logistics Plan. General Contractor to provide temp power for temp. construction activities in new building. General Contractor is responsible for coordinating the power needs for their subcontractors, and providing several 100 AMP distribution panels for temp service inside the building. Provide appropriate wire to reach from the temp panel that will be placed at the farthest point of the new building from temp service starting location. General Contractor is responsible for the removal of the temp service panel and pole and coordinating with the utility company for this work.

10. GC shall provide Temp site lighting with a minimum of 12 fixtures. These are to be located at the following areas:

    a) Site trailer; Each entrance; Stored material trailers; 4-6 at general location on the site TBD.

11. Provide any supplemental heat required to install the work of all Contracts when temp heat is needed outside the timeline of interior finishing work. Examples in-

cluded but are not limited to tenting and heating for exterior masonry work, blanketing of concrete, localized heating in and area not fully enclosed.

12. Provide traffic control for deliveries, and equipment needed for the project.
13. Provide protection of all finished Work, after installation, until accepted by the Owner.
14. Provide fire caulking for any penetration related to the work and required by all codes.
15. Provide office and storage trailers required to complete the work of the Contract. Storage containers must be within the staging area and approved by the district.
16. **GC to provide a CM trailer by Willscot size being 64x12 with bathroom and services. This also includes Temp high speed internet services for the duration of the project.**
17. GC and their Subcontractors shall provide a list of potential and all employees that will require access to the CTE site. This list of employees will be checked through the NECSD Raptor System. Failure to provide this list of employees to the Construction Manager within a min. of 48 hrs. in advance prior to site visit will result in the delay of access to the Project Site. Confirmation of acceptance must be provided by the district and sent to the Contractor before work can start.

1.4 SUMMARY OF WORK

A. CTE Project – The GC work consists of but is not limited to the following:

1. GENERAL / SITE Work - New Building Construction, including food service equipment. All site grading, flat work, paving's, plantings. Refer to contract specific section for more information.
2. MECHANICAL - New Building Construction, New mechanical throughout the building, specialty equipment including but not limited to welding booths, all roof top curbs and supports, refer to contract specific section for more information.
3. ELECTRICAL - New Building Construction. Main service and Mechanical connections, Fire alarm, low voltage controls. Refer to contract specific section for more information.
4. PLUMBING – New Building Construction. Inclusive of gas and plumbing services. Refer to contract specific section for more information.
5. FIRE SUPPRESSION – New Building Construction, Tamper and Flow Switches, FDC Connection, Fire Sprinkler Assembly in Plumbing Equipment Room Refer to contract specific section for more information.
6. Coordination and delivery of all procurement and owner furnished equipment.

1.5 WORK UNDER SINGLE CONTRACT

A. The project will be constructed under a single contracting arrangement.
B. One set of documents is issued covering all scopes of work. Review ALL drawings and specifications for complete understanding and knowledge of the work to be performed by all trades. Any questions of responsibility should be discovered Pre award. After award, the CM has the right to dictate responsibility.

C. The following Contract Documents are specifically included and defined as integral to the Prime Contract.

1. Bidding Requirements
2. Performance and Payment Bonds (with acknowledgement of any and all Riders)
3. Conditions of the Contract, including
   a. General Conditions & Supplementary Conditions
   b. Insurance Requirements
   c. NYS Prevailing Wage Rates
   d. Project Labor Agreement

D. **Temporary Facilities/Heat and Controls:** **In addition to** specific responsibilities for temporary facilities and controls indicated in this Section and in Division 1 Section 01 5000 "Temporary Facilities and Controls," each Contract is responsible for the following:

1. Installation, operation, maintenance, and removal of each temporary facility are usually considered as its own normal construction activity, and costs and use charges associated with each facility.
2. Temp Heat for New Building will be provided by the General Contractor when portion of building become fully or partially enclosed or as directed by the Construction Manager. The General contractor is responsible for engaging an engineer to determine how many heaters will be required to sufficiently heat the building. GC to provide fuel and operator to ensure uninterrupted power. Temp heaters to be furnished with all accessories necessary to distribute heat through the building. The GC is responsible for installing and executing this work. Electrical contractor to provide temp power to temp mechanical equipment. Site logistics plan to be updated to reflect temp heater locations and what is being used for temp heaters which will need to be in accordance with the requirements of the local AHJ and Fire Marshal.
3. Provide generators, plug-in electric power cords and extension cords, supplementary plug-in task lighting, and special lighting for construction work.
4. GC Contractor is to stockpile debris on a daily basis and place it in the dumpster. Dumpsters will be provided by the GC for use by all its subcontractors, recycling of materials will be instituted daily.
5. Provide Secure lockup of tools, materials, and equipment.
6. Safety procedures as dictated by the district, OSHA, and the NYS Department of Labor.
7. Provide Labor for daily clean-up.
8. General Contractor is responsible for maintaining and fixing the existing temp fence. Any additional temp fencing used on site must be POST DRIVEN. GC to review site logistics plan for more information on added fencing. Information shown on site logistics plan shows approximate location, it is the GC's responsibility to completely enclose the construction area and modify construction fencing necessary to execute their work and maintain a secured site. Additional temp Fencing maybe needed to Corden off areas of work and it will be the responsibility of the General Contractor to coordinate this with the CM and figure this cost into the cost of work. All gates to have chains and locks that are keyed alike.
9. Provide temp power for the duration of the project for the work happening onsite including but not limited to the building, temp trailer and Conex boxes. GC to coordinate with CM to re-establish existing temp utility power onsite. Additionally,

the GC is responsible for establishing a new temp service with pole local to the temp trailers and coordinating with the utility company for this work. The GC is responsible for trenching and backfilling for temp service and GC is responsible for all electrical work including conduit, wiring and connections. Refer to logistic plan for diagrammatic location.

10. GC to provide temp water as required. Including temp hose bibs. Include heat tracing if exposed to the elements. GC to connect if required.
11. GC to obtain hydrant permit from the City of Newburgh including backflow preventor.

1.6 CONTRACT 1 - GENERAL CONSTRUCTION

A. The Work of the General Construction Work Contract includes but is not limited to, the following descriptions:

1. New building construction. This includes, but is not limited to, *work shown* on the following:
2. Drawings: Includes all Volumes 1 thru 4 which are the construction drawings, see spec sections also Volumes 1 thru 4 that makes up the complete set of the construction documents.
3. Coordination:

    1) The GC is required to lead, compile, and provide a detailed Master Schedule for all areas of work which includes all schedules provided by their subcontractors.
    2) GC shall coordinate BIM activities with all trades and complete all trade coordination with each trade discipline.
    3) Project Areas (see phasing plan)
    4) The GC shall include the below as part of the BIM coordinate but not limited to

        b) Foundation, rebar, penetrations/sleeves
        c) Steel framing
        d) Slab opening, Slab trenching
        e) RCPs
        f) Full MEP & FP overlays and composite drawings
        g) Clash detection
        h) Weekly meetings with the MEP & FP trades as well as the design consultants
        i) Food Service and Theatrical Equipment

4. Coordination With Subcontractors:

    1) Each trade will participate in producing coordination drawings. The General Contractor shall lead the coordination by means of producing a Master Construction Schedule for each Area of Work. The General Contractor shall coordinate with each subcontractor by means of BIM final signed off shop drawings. The efforts of all Contractors to coor-

dinate locations, heights, routes, etc. to eliminate clashes between trades and/or obstructions. Coordination Period will consist of each trade meeting once a week to coordinate their model/drawings. Once the Coordination Period is complete with all involved, they will be required to sign off on the Coordination Set.

2) The General Contractor to provide a complete coordinated schedule including all trades, tasks, and durations for each Area as shown in the Contract Documents. GC shall update the Master Project Schedule, as needed, during the life of the Project.
3) GC shall Provide a Recovery Schedule if required and directed by the CM.
4) GC to provide roof rails for rooftop condensing units and food freezers condensing units down to structural decking prior to roofing. GC is responsible for the food service equipment in its entirety including but not limited to associated condensing unit and attaching to rails.

5. Temporary Facilities: In Addition to

1) Provide dust protection as directed by the CM. GC shall maintain existing fencing surrounding the site.
2) GC to Provide wash out areas for construction vehicles as outlined in the Civil Drawings.
3) Provide erosion and Sediment Control and dewatering as it relates to any excavation associated with the this Contract
4) GC to Provide Portable toilets for all trades per OSHA requirements as well as a cleaning service to clean the Portable Toilets weekly.
5) **GC to provide a cleaning service to clean the CM trailer once a week**.
6) Provide snow removal for contractor staging and all work areas.
7) During cold weather GC o submit cold weather procedures.
8) During cold weather GC to provide temp heat and blanketing for concrete curing.
9) Provide temp hose bibs to construction GC for use of all trades.
10) Provide backflow preventer and hydrant key for the connection and use to the existing fire hydrant .
11) GC is responsible for Dewatering of the construction site.
12) Provide Trackpad (Construction Entrances) maintenance.
13) GC is responsible for Existing Utilities Mark outs.
14) Provide and install Project information signs at the Site as directed by the CM. GC to provide a 4’-0” h x 8’-0” w metal sign with printed color rendering with project name and address. Signage to be mounted to existing support system. Project Signs provided and installed by GC and final designed by Architect.
15) Provide Temporary Facilities indicated as Work of this Contract in Division 1 Section 01 5000, “Temporary Facilities and Controls”.
16) The General Contractor is responsible for OSHA required protection and safety, this includes but is not limited to:
    a. leading edge guardrails
    b. floor opening protection
    c. elevator shaft protection

d. controlled access zones
e. OSHA compliant scaffolding, hanging scaffold, hydro mobile, baker scaffold
f. stair guard rails
g. fire extinguishers
h. flagmen
g. Temp signage

6. New Construction includes but is not limited to:

1) The General Construction Work Contract shall perform all necessary cutting, trenching, excavation, backfilling, compaction, and field required poured in place concrete for all other trades. Coordinate A drawings with M, E, P, and FP drawings for recessed items, access panel locations, slab openings, roof openings, embeds, supplemental support, etc. for other trades and performed under this contract.
2) Provide multiple shifts work as needed to complete work as shown on milestone schedule. Multiple shifts during the week and single shift on Saturdays will be required to make up days on the schedule, unless contractor requests the additional time for other reasons that are acceptable by the district.
3) ***General Contractor to include all Studio Lighting, Studio Rigging & Curtains, and Performance Sound Systems as outlined in the "TL" "TR" & "TS" drawings. (Addendum #6)***
4) Provide surveyor to layout new building, submit to architect for approval.
5) General contractor to include all roofing scope in this contract including associated accessories like down spouts, crickets, and MEP openings, setting and roofing in MEP curbs, provide all curbs and rooftop equipment associated with Food Service package, and provide roof rails for their Mechanical subcontractor to install mechanical equipment condensing units/supports on. Curbs are provided by their Mechanical subcontractor.
6) GC shall ensure their mechanical subcontractor has included in the bid that all other require equipment for a fully operational system that is not procured by the Owners vendor, is provided by the Mechanical subcontractor.
7) General contractor to supply and install all casework as shown on the contract drawings. Field measuring and shop drawings for architect approval will be the responsibility of this trade.
8) GC to include all winter concrete and masonry measures and expenses in this contract.
9) GC shall coordinate all Cx with district-provided Commissioning team.
10) GC is responsible for all site and landscaping work.
11) GC to provide final cleaning of the entire school building by a professional cleaning company pre accepted by the district, building, and equipment provided under their other Contract immediately before the final inspection. Cleaning must be accepted by the district and done to their standards. General Contractor is responsible for cleaning and dust

and debris generated from all work. Maintain areas in a cleaned condition until the Owner occupies the space. All new floors get clean, and final finished by the GC prior to turnover per the manufacturer's maintenance and care instructions.

12) GC is responsible for providing all steel lintels and supplemental steel related to all work.
13) GC is responsible for all Roofing including the entire roofing system.
14) All blocking is provided by the GC including by not limited to roof, interior walls, coping and flashing, shelving and cabinet support, interior accessory support.
15) GC is responsible for all Joint sealants inside and outside, expansion joints and expansion control systems.
16) GC is responsible for providing all equipment outlined in the "A" Drawing equipment schedules that indicates contractor furnished.
17) Provide all equipment specified on Drawing M902 Schedules.
18) The controls will be provided by owner under separate controls contract except for controls noted in item 18 below which are complete systems by the General Contract Work. The controls contractor is responsible for furnishing the following instrumentation devices; control valves, stand-alone control dampers (shown and tagged on floor plans), thermowells, pressure probes, flow switches, insertion flow meters, and ultrasonic flow meters, required for system operations and as indicated, "furnished by the Controls Contractor" in the mechanical systems. Through the General Contractor the Mechanical subcontractor is still responsible for coordinating with the Controls Contractor the requirements of said devices based on approved submittals and field condition and installing said devices.
19) Mechanical Systems intended to operate as standalone - The General Contractor shall provide all parts, labor, components, controls, electrical connections, associated piping, ductwork and wiring required for mechanical systems as shown on the drawings and as required by the manufacturer, to ensure a fully operational, standalone system. The Controls Contractor shall provide any monitoring or set points of said systems as indicated by the contract documents.

    Systems including but not limited to:

    Variable refrigerant flow split systems.
    Dust collection systems.
    Vehicle exhaust systems.
    Boilers.
    Paint Booths.

20) The General Contractor is responsible for storing, coordinating, delivering, hoisting, etc. all Mechanical equipment specified on Drawing M901 Owner Provided Equipment Schedule. The equipment specified on Drawing M901 is being purchased separately by Owner. Mechanical Contractor to provide all associated accessories, Piping and Ductwork to provide a complete system. Any rooftop curbs or support required for this equipment shown on Drawing M901 is the responsibil-

ity of the GC to deliver, hoist and install on the roof at its planned location along with the rooftop equipment. ***Refer to volume 5 cut sheet package for more information. (Addendum #6)***

21) GC is responsible for the outdoor unit and ductwork associated with the welding capture system as shown on the M drawings as well as everything in the booth including the capture arm shown as such on the A drawings. The GC shall coordinate with their MC subcontractor to make the connection between the capture arm and the ductwork.
22) GC is responsible for all the work associated with the paint booth standalone mechanical system and all the components are spelled out on the drawings.
23) Include protecting all air intakes by mechanical equipment with filters to help mitigate dust control per IAQ requirements. Install all controls components furnished by Controls Contractor into air and hydronic systems as required per the contract documents:

    b) Install motor actuated dampers.
    c) Install airflow measuring stations.
    d) Install airside temperature and pressure sensors.
    e) Install hydronic control valves.
    f) Install hydronic temperature and pressure sensor wells.
    g) Provide TAB and participate and commissioning work.
    h) Provide all ductwork as indicated on the drawings.
    i) All exposed duct to be painted

24) Provide replacement of all new unit filters at start up.
25) Provide ALL power wiring to ALL HVAC equipment.
26) Provide power to all ADA hardware and electric hardware shown in door hardware schedule.
27) Provide control wiring and connection for electrified door hardware.
28) Provide all fire alarms, and networking systems, WAP and camera wiring.
29) Fire Alarm devices to be furnished by owner. General Contractor is responsible for the complete installation of the fire alarm system and all programing.
30) Switchover over from temporary service to new service to be coordinated with Construction Manager a min. of 1 week in advance and all trade works should be notified.
31) Provide low voltage to exterior doors for security vendor to punch down to their head equipment.
32) All permanent security surveillance and equipment and access control devices with headed system to be provided by owner's security Contractor. Low Voltage wiring to be provided by General Contractor for these devices.
33) GC is responsible for all fire department connections and signage.
34) FP delegated design package. Provide design and hydronic calculation package. To be submitted and approved by EOR.

34) GC is responsible for all items identified in the contract drawing and specification as delegated design.

B. The Work of the GC includes but is not limited to, the following descriptions.

a) This trade is responsible for always maintaining a secure Site, including but not limited to locking all gates at the end of each day.
b) Provide all temporary fall protection, guardrails, handrails, temporary stairs and ramps as required. Include maintaining these items throughout the project as well as removal when no longer needed.
c) Provide and maintain all site signage as requested by the CM. Example; Gate A-B, Hard hat area, No Smoking, Construction personnel only, Exit signs, Project information sign, etc...
d) General Construction Contractor shall obtain and pay for any permits, inspections, or certifications from governing authorities having jurisdiction over the work to be performed, or over the finished product to be installed by this Contractor. Project Building Permit is by others. Include in this contract hydrant use permits.
e) Provide (unless noted otherwise):

1) interior/exterior equipment and housekeeping pads for all subcontractors, coordinate as necessary for size and locations.

f) All concrete, rebar and forms provided by the General Contractor including sidewalks.
g) Provide all Structural steel as per the “S” drawings and or for MEP trades where structural support for their openings are required.
h) All excavation for underground Utilities and MEPS will be by the General Contractor. Coordinate with M, P and E drawings for locations.
i) Provide all roof screening for HVAC equipment as indicated on the contract documents.
j) Provide “attic stock” per project specifications.
k) Provide all exterior caulking, control joints, and expansion joints.

1.7 Site Work of this Contract includes, but is not limited to, the following descriptions:

A. GC is required to maintain a clean, dust and debris free roadway outside of the site perimeters. GC to include cleaning of street daily and as required by the SWPPP. At the request of the Owner and CM this cleaning maybe required more than once a day depending on the level of activity onsite and on the adjacent roads.

1. Any activity related to creating airborne dust outside, shall be mitigated with the use of water spray.

B. Build and maintain stone tracking pads at each entrance and exit to the site if applicable.
C. Provide temporary driveway, parking lot paving and drainage if required.

D. Areas modified for construction/staging to be placed back to its natural state once construction is complete. Regrading and seeding as required.
E. GC contractor is responsible for work within the limits of existing lots and building as shown on all "C" drawings. Include all silt fence and erosion control measures required for this work and requirements of SWPPP. Contractor is responsible for any corrective measures of erosion control and maintenance of the SWPPP.
F. The Work of the General Contract includes but is not limited to the Work that is specified in the Project Manual(s) Volumes 1 thru 4 and as shown on the drawings that form the complete construction documents. The Contractor is directed to examine all drawings, specifications and existing site conditions to full understand the complete scope and intent of the completed project.

1.8 WORK SEQUENCE

A. The Construction Manager Superintendent must be always on site when work is being performed. If a contractor fails to maintain the progress as indicated by the milestone schedule by no other fault but its own and requires overtime to complete the work; the contractor shall make arrangements with the Construction Manager 48 hours in advance and pay for a Construction Manager's superintendent at $150.00 per hour. In the event that the cause for delay is occurred by fault of the GC and or its subcontractor, then the costs shall be charged to the GC. Advise the Construction Manager 48 hours prior to commencing work inside the building. Regardless of schedule and delay, if a contractor wants to work overtime and weekends, the contractor shall make arrangements with the Construction Manager 48 hours in advance and pay for a Construction Manager's superintendent at $150.00 per hour.
B. Coordination of any utility and/or power interruption must be done with the Construction Manager. Shutdowns must be coordinated with the Construction Manager and with the least disruption to construction activity.
C. Construction access to the site shall be limited to those designated for contractor's personnel, equipment and deliveries. Contractors staging, parking and storage shall be coordinated by the Construction Manager.

1.9 OCCUPANCY REQUIREMENTS

A. The GC Work Contractor shall provide Outdoor air quality management as specified by the Department of Labor and OSHA during construction.

    1. Provide an exhaust air system for the project indoor areas that could produce fumes, VOC's off-gasses, gasses, dusts, mists, or other emissions.
    2. Exhaust air system for the project areas that could produce emissions listed in Paragraph 1 shall be utilized.

B. Quality assurance:

    1. Before start of work, submit a design for the exhaust air system. Do not begin work until approval of the Owner is obtained.
    2. The number of machines required.

3. Location of the machines in the workspace.

1.10 PROJECT MILESTONE SCHEDULE

A. All General Requirement submittals to be submitted with the first 3 weeks of NTP, this includes but is not limited to Bonds (with riders) and Insurances, submittal schedule, Schedule of Values, list of subcontractors and vendors, etc.
B. Within the 2 ½ Month of NTP General Contractor to provide fully coordinated Master Schedule including all trades activities for Construction Managers Review.
C. Within the 1st Month of NTP General Contractor to submit the first site logistics plan for review.
D. Within a 1 ½ Months of the NTP a full coordinated Underground shop drawing must be submitted
E. Groundbreaking for project must occur no later than Tuesday July 9th, 2024.
F. Master schedule must include Milestone dates for:
    - Groundbreaking
    - Building Excavation Start and Finish date
    - Foundation Start and Finish
    - Steel Erection Start and Finish
    - Exterior Mock-up review
    - Topping out
    - Building Enclosed and Watertight
    - Interior Program
    - Permanent Power
    - Site work Start and Finish
    - Substantial Completion
    - Move in
    - Final Completion

1.11 ALLOWANCES

A. See Specification Section 01 2100.

END OF SECTION 011200

SECTION 042000 - UNIT MASONRY

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Concrete block.

B. Brick veneer.

C. Mortar.

D. Reinforcement and anchorage.

E. Flashings.

F. Accessories.

1.2 REFERENCE STANDARDS

A. ASTM A153/A153M - Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware; 2016a.

B. ASTM A240/A240M - Standard Specification for Chromium and Chromium-Nickel Stainless Steel Plate, Sheet, and Strip for Pressure Vessels and for General Applications; 2022.

C. ASTM A615/A615M - Standard Specification for Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement; 2022.

D. ASTM A641/A641M - Standard Specification for Zinc-Coated (Galvanized) Carbon Steel Wire; 2019.

E. ASTM A951/A951M - Standard Specification for Steel Wire for Masonry Joint Reinforcement; 2016, with Editorial Revision (2018).

F. ASTM A1064/A1064M - Standard Specification for Carbon-Steel Wire and Welded Wire Reinforcement, Plain and Deformed, for Concrete; 2022.

G. ASTM C67/C67M - Standard Test Methods for Sampling and Testing Brick and Structural Clay Tile; 2021.

H. ASTM C90 - Standard Specification for Loadbearing Concrete Masonry Units; 2022.

I. ASTM C91/C91M - Standard Specification for Masonry Cement; 2018.

J. ASTM C129 - Standard Specification for Nonloadbearing Concrete Masonry Units; 2017.

K. ASTM C140/C140M - Standard Test Methods for Sampling and Testing Concrete Masonry Units and Related Units; 2022b.

L. ASTM C144 - Standard Specification for Aggregate for Masonry Mortar; 2018.

M. ASTM C150/C150M - Standard Specification for Portland Cement; 2022.

N. ASTM C207 - Standard Specification for Hydrated Lime for Masonry Purposes; 2018.

O. ASTM C216 - Standard Specification for Facing Brick (Solid Masonry Units Made from Clay or Shale); 2022.

P. ASTM C270 - Standard Specification for Mortar for Unit Masonry; 2019a, with Editorial Revision.

Q. ASTM C404 - Standard Specification for Aggregates for Masonry Grout; 2018.

R. ASTM C780 - Standard Test Method for Preconstruction and Construction Evaluation of Mortars for Plain and Reinforced Unit Masonry; 2020.

S. ASTM C979/C979M - Standard Specification for Pigments for Integrally Colored Concrete; 2016.

T. ASTM C1714/C1714M - Standard Specification for Preblended Dry Mortar Mix for Unit Masonry; 2019a.

U. BIA Technical Notes No. 7 - Water Penetration Resistance – Design and Detailing; 2017.

V. BIA Technical Notes No. 13 - Ceramic Glazed Brick Exterior Walls; 2017.

W. BIA Technical Notes No. 28B - Brick Veneer/Steel Stud Walls; 2005.

X. BIA Technical Notes No. 46 - Maintenance of Brick Masonry; 2017.

Y. TMS 402/602 - Building Code Requirements and Specification for Masonry Structures; 2016.

1.3 ADMINISTRATIVE REQUIREMENTS

A. Preinstallation Meeting: Convene a preinstallation meeting one week before starting work of this section; require attendance by all relevant installers.

1.4 SUBMITTALS

A. Product Data: Provide data for masonry units, fabricated wire reinforcement, mortar, and masonry accessories.

B. Shop Drawings: Indicate pertinent dimensions, materials, anchorage, size and type of fasteners, and accessories for brickwork support system.

C. Samples: Submit in the form of straps of five or more samples of facing brick units to illustrate color, texture, and extremes of color range.

D. Manufacturer's Certificate: Certify that masonry units meet or exceed specified requirements.

E. Test Reports: Concrete masonry manufacturer's test reports for units with integral water repellent admixture.

1.5 QUALITY ASSURANCE

A. Source Limitations for Masonry Units: Obtain exposed masonry units of a uniform texture and color, or a uniform blend within the ranges accepted for these characteristics, through one source from a single manufacturer for each product required.

B. Installer Qualifications: Company specializing in performing work of the type specified and with at least three years of documented experience.

1.6 MOCK-UPs

A. Construct a masonry wall as a mock-up panel sized 8 feet long by 6 feet high; include mortar, accessories, structural backup, and flashings (with lap joint, corner, and end dam) in mock-up.

B. Locate where directed.

C. Mock-up may remain as part of work.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Deliver, handle, and store masonry units by means that will prevent mechanical damage and contamination by other materials.

PART 2 PRODUCTS

2.1 CONCRETE MASONRY UNITS

A. Concrete Block: Comply with referenced standards and as follows:
   1. Size: Standard units with nominal face dimensions of 16 by 8 inches and nominal depths as indicated on drawings for specific locations.
   2. Special Shapes: Provide nonstandard blocks configured for corners.

3. Nonloadbearing Units: ASTM C129.
    a. Hollow block, as indicated.
    b. Lightweight.

2.2 BRICK UNITS

A. Facing Brick: ASTM C216, Type FBS Smooth, Grade SW.
1. Products, both used see drawings for locations:
    a. Brick Type 1: Belden Brick; Seal Brown Velour
    b. Brick Type 2: Belden Brick; Concord Blend.
2. Color and texture to match Architect's sample.
3. Actual size: 3-5/8 inches (92 mm) wide by 2-1/4 inches (57 mm) high by 7-5/8 inches (194 mm) long..
4. Special shapes: For ends of sills and caps and for similar applications that would otherwise expose unfinished brick surfaces, provide units without cores or frogs and with exposed surfaces finished.
5. Compressive strength: 3000 psi (20.7 MPa) , measured in accordance with ASTM C67/C67M.
6. Initial Rate of Absorption: Less than 30 g/30 sq. in. (30 g/194 sq. cm) per minute when tested per ASTM C 67.
7. Efflorescence: Provide brick that has been tested according to ASTM C 67 and is rated "not effloresced."
8. Where shown to "match existing," provide face brick matching color range, texture, and size of existing adjacent brickwork.

2.3 MORTAR MATERIALS

A. Types and Use Locations:
1. Masonry below grade and in contact with earth: Type S.
2. Exterior Cavity Walls: Type S mortar with Type N pointing mortar.
3. Exterior, Non-loadbearing Masonry: Type N.
4. Interior, Non-loadbearing Masonry: Type O.

B. Masonry Cement: ASTM C91/C91M, Type N.
1. Colored Mortar: Premixed cement as required to match Architect's color sample.

C. Portland Cement: ASTM C150/C150M, Type I; color as required to produce approved color sample.
1. Not more than 0.60 percent alkali.

D. Hydrated Lime: ASTM C207, Type S.

E. Mortar Aggregate: ASTM C144.

F. Grout Aggregate: ASTM C404.

G. Pigments for Colored Mortar: Pure, concentrated mineral pigments specifically intended for mixing into mortar and complying with ASTM C979/C979M.
   1. Color(s): As selected by Architect from manufacturer's full range.
   2. Manufacturers:
      a. Davis Colors, a division of Venator Materials PLC: www.daviscolors.com/#sle.
      b. Lambert Corporation: www.lambertusa.com/#sle.
      c. Solomon Colors, Inc: www.solomoncolors.com/#sle.

H. Water: Clean and potable.

I. Packaged Dry Material for Mortar for Unit Masonry: Premixed Portland cement, hydrated lime, and sand; complying with ASTM C1714/C1714M and capable of producing mortar of the specified strength in accordance with ASTM C270 with the addition of water only.
   1. Type: Type S.
   2. Color: Standard gray.

2.4 REINFORCEMENT AND ANCHORAGE

A. Reinforcing Steel: ASTM A615/A615M, Grade 60 (60,000 psi), deformed billet bars; ~~galvanized~~ ***uncoated. (Bid Addendum #6)***

B. Joint Reinforcement: Use ladder type joint reinforcement where vertical reinforcement is involved and truss type elsewhere, unless otherwise indicated.

C. Single Wythe Joint Reinforcement: ASTM A951/A951M.
   1. Type: Truss or ladder.
   2. Material: ASTM A1064/A1064M steel wire, mill galvanized to ASTM A641/A641M Class 3.
   3. Size: 0.1483 inch side rods with 0.1483 inch cross rods; width as required to provide not less than 5/8 inch of mortar coverage on each exposure.

D. Adjustable Multiple Wythe Joint Reinforcement: ASTM A951/A951M.
   1. Type: Truss, with adjustable ties or tabs spaced at 16 in on center.
   2. Material: ASTM A1064/A1064M steel wire, hot dip galvanized after fabrication to ASTM A153/A153M Class B.
   3. Size: 0.1875 inch side rods with 0.1483 inch cross rods and adjustable components of 0.1875 inchwire, width of components as required to provide not less than 5/8 inch of mortar coverage from each masonry face.
   4. Vertical adjustment: Not more than 1 1/4 inches.
   5. Basis of Design: Hohmann & Barnard 270-2X Ladder Eye-Wire Adjustable Reinforcement with 2X Hook.

E. Strap Anchors: Bent steel shapes, 1-1/2 inch width, 0.105 inch thick, 24 inch length, with 1-1/2 inch long, 90 degree bend at each end to form a U or Z shape or with cross pins, hot dip galvanized to ASTM A153/A153M Class B.

F. Flexible Anchors: 2-piece anchors that permit differential movement between masonry and building frame, sized to provide not less than 5/8 inch of mortar coverage from masonry face.
   1. Steel frame: Crimped wire anchors for welding to frame, 0.25 inch thick, with trapezoidal wire ties 0.1875 inch thick, hot dip galvanized to ASTM A 153/A 153M, Class B.

G. Masonry Veneer Anchors: 2-piece anchors that permit differential movement between masonry veneer and structural backup, hot dip galvanized to ASTM A 153/A 153M, Class B.
   1. Anchor plates: Not less than 0.075 inch thick, designed for fastening to structural backup through sheathing by two fasteners; provide design with legs that penetrate sheathing and insulation to provide positive anchorage.
   2. Wire ties: Manufacturer's standard shape, 0.1875 inch thick.
   3. Vertical adjustment: Not less than 3-1/2 inches.
   4. Basis of Design: Hohmann & Barnard, Inc. BL-407-w/VBT-Vee Byna-Tie.

H. Metal-to-Metal Fasteners: Self-drilling, self-tapping screws; corrosion resistant finish or hot dip galvanized to ASTM A153/A153M.
   1. Manufacturers:
      a. ITW Commercial Construction North America; Teks Select Series; _____: www.ITWBuildex.com/#sle.

2.5 FLASHINGS

A. Combination Non-Asphaltic Flashing Materials - Stainless Steel:
   1. Stainless Steel/Polymer Fabric Flashing: ASTM A240/A240M; 2 mil type 304 stainless steel sheet bonded on one side to one sheet of polymer fabric.
      a. Manufacturers:
         1) Hohmann & Barnard, Inc; Mighty-Flash Stainless Flashing: www.h-b.com/#sle.
         2) WIRE-BOND: www.wirebond.com/#sle.
         3) York Manufacturing, Inc; Multi-Flash SS: www.yorkmfg.com/#sle.
         4) Substitutions: See Section 016000 - Product Requirements.

B. Termination Bars: Stainless steel; compatible with membrane and adhesives.
   1. Manufacturers:
      a. Hohmann & Barnard, Inc: www.h-b.com/#sle.
      b. Mortar Net Solutions; Termination Bars: www.mortarnet.com/#sle.
      c. York Manufacturing, Inc; Termination Bar: www.yorkmfg.com/#sle.

d. Substitutions: See Section 016000 - Product Requirements.

C. Drip Edge: Stainless steel; angled drip with hemmed edge; compatible with membrane and adhesives.
1. Manufacturers:
a. Hohmann & Barnard, Inc: www.h-b.com/#sle.
b. Mortar Net Solutions; Metal Drip Edges: www.mortarnet.com/#sle.
c. Substitutions: See Section 016000 - Product Requirements.

D. Lap Sealants and Tapes: As recommended by flashing manufacturer; compatible with membrane and adhesives.

2.6 ACCESSORIES

A. Preformed Control Joints: Rubber material. Provide with corner and tee accessories, fused joints.

B. Cavity Mortar Control: Semi-rigid polyethylene or polyester mesh panels, sized to thickness of wall cavity, and designed to prevent mortar droppings from clogging weeps and cavity vents and allow proper cavity drainage.
1. Mortar Diverter: Semi-rigid mesh designed for installation at flashing locations.
a. Manufacturers:
1) Advanced Building Products, Inc; Mortar Break DT: www.advancedbuildingproducts.com/#sle.
2) Mortar Net Solutions; MortarNet: www.mortarnet.com/#sle.
3) York Manufacturing, Inc: www.yorkmfg.com/#sle.
4) Substitutions: See Section 016000 - Product Requirements.

C. Weeps:
1. Type: Extruded propylene with honeycomb design.
2. Color(s): As selected by Architect from manufacturer's full range.
3. Manufacturers:
a. Advanced Building Products, Inc: www.advancedbuildingproducts.com/#sle.
b. Blok-Lok Limited: www.blok-lok.com/#sle.
c. Hohmann & Barnard, Inc: www.h-b.com/#sle.
d. Substitutions: See Section 016000 - Product Requirements.

2.7 MORTAR MIXING

A. Mortar for Unit Masonry: ASTM C270, using the Proportion Specification.
1. Masonry below grade and in contact with earth: Type S.
2. Exterior, non-loadbearing masonry: Type N.
3. Interior, non-loadbearing masonry: Type N.

B. Colored Mortar: Proportion selected pigments and other ingredients to match Architect's sample, without exceeding manufacturer's recommended pigment-to-cement ratio.

PART 3 EXECUTION

3.1 EXAMINATION

A. Verify that field conditions are acceptable and are ready to receive masonry.

B. Verify that related items provided under other sections are properly sized and located.

C. Verify that built-in items are in proper location, and ready for roughing into masonry work.

3.2 PREPARATION

A. Direct and coordinate placement of metal anchors supplied for installation under other sections.

B. Provide temporary bracing during installation of masonry work. Maintain in place until building structure provides permanent bracing.

3.3 COLD AND HOT WEATHER REQUIREMENTS

A. Comply with requirements of TMS 402/602 or applicable building code, whichever is more stringent.

3.4 COURSING

A. Establish lines, levels, and coursing indicated. Protect from displacement.

B. Maintain masonry courses to uniform dimension. Form vertical and horizontal joints of uniform thickness.

C. Concrete Masonry Units:
   1. Bond: Running.
   2. Coursing: One unit and one mortar joint to equal 8 inches.
   3. Mortar Joints: Concave.

D. Brick Units:
   1. Bond: Running.
   2. Coursing: Three units and three mortar joints to equal 8 inches.
   3. Mortar Joints: Concave.

3.5 PLACING AND BONDING

A. Lay solid masonry units in full bed of mortar, with full head joints, uniformly jointed with other work.

B. Lay hollow masonry units with face shell bedding on head and bed joints.

C. Buttering corners of joints or excessive furrowing of mortar joints is not permitted.

D. Remove excess mortar and mortar smears as work progresses.

E. Remove excess mortar with water repellent admixture promptly. Do not use acids, sandblasting or high pressure cleaning methods.

F. Interlock intersections and external corners.

G. Do not shift or tap masonry units after mortar has achieved initial set. Where adjustment must be made, remove mortar and replace.

H. Perform job site cutting of masonry units with proper tools to provide straight, clean, unchipped edges. Prevent broken masonry unit corners or edges.

I. Isolate masonry partitions from vertical structural framing members with a control joint as indicated.

J. Isolate top joint of masonry partitions from horizontal structural framing members and slabs or decks with compressible joint filler.

3.6 WEEPS/CAVITY VENTS

A. Install weeps in veneer and cavity walls at 32 inches on center horizontally on top of through-wall flashing above shelf angles and lintels and at bottom of walls.

3.7 CAVITY MORTAR CONTROL

A. Do not permit mortar to drop or accumulate into cavity air space or to plug weep/cavity vents.

B. Install cavity mortar diverter at base of cavity and at other flashing locations as recommended by manufacturer to prevent mortar droppings from blocking weep/cavity vents.

3.8 REINFORCEMENT AND ANCHORAGE - GENERAL, SINGLE WYTHE MASONRY, and CAVITY WALL MASONRY

A. Unless otherwise indicated on drawings or specified under specific wall type, install horizontal joint reinforcement 16 inches on center.

B. Place masonry joint reinforcement in first and second horizontal joints above and below openings. Extend minimum 16 inches each side of opening.

C. Lap joint reinforcement ends minimum 6 inches.

D. Reinforce stack bonded unit joint corners and intersections with strap anchors 16 inches on center.

E. Fasten anchors to structural framing and embed in masonry joints as masonry is laid. Unless otherwise indicated on drawings or closer spacing is indicated under specific wall type, space anchors at maximum of 36 inches horizontally and 24 inches vertically.

F. Embed ties and anchors in mortar joint and extend into masonry unit a minimum of 1-1/2 inches with at least 5/8 inch mortar cover to the outside face of the anchor.

3.9 REINFORCEMENT AND ANCHORAGE - MASONRY VENEER

A. Masonry Back-Up: Embed anchors to bond veneer at maximum 16 inches on center vertically and 36 inches on center horizontally. Place additional anchors at perimeter of openings and ends of panels, so maximum spacing of anchors is 8 inches on center.

B. Stud Back-Up: Secure veneer anchors to stud framed back-up and embed into masonry veneer at maximum 16 inches on center vertically and 24 inches on center horizontally. Place additional anchors at perimeter of openings and ends of panels, so maximum spacing of anchors is 8 inches on center.

3.10 MASONRY FLASHINGS

A. Whether or not specifically indicated, install masonry flashing to divert water to exterior at all locations where downward flow of water will be interrupted.
   1. Extend flashings full width at such interruptions and at least 6 inches, minimum, into adjacent masonry or turn up flashing ends at least 1 inch, minimum, to form watertight pan at nonmasonry construction.
   2. Remove or cover protrusions or sharp edges that could puncture flashings.
   3. Seal lapped ends and penetrations of flashing before covering with mortar.

B. Terminate flashing up 8 inches minimum on vertical surface of backing:
   1. Install vertical leg of flashing behind water-resistive barrier sheet over backing.
   2. Terminate vertical leg of flashing into bed joint in masonry or reglet in concrete.
   3. Anchor vertical leg of flashing into backing with a termination bar and sealant.

C. Install flashing in accordance with manufacturer's instructions and BIA Technical Notes No. 7.

D. Extend metal flashings to within 1/2 inch of exterior face of masonry and adhere to top of stainless steel angled drip with hemmed edge.

E. Support flexible flashings across gaps and openings.

F. Lap end joints of flashings at least 6 inches, minimum, and seal watertight with flashing sealant/adhesive.

3.11 CONTROL AND EXPANSION JOINTS

A. Do not continue horizontal joint reinforcement through control or expansion joints.

B. Install preformed control joint device in continuous lengths. Seal butt and corner joints in accordance with manufacturer's instructions.

C. Size control joints as indicated on drawings; if not indicated, 3/4 inch wide and deep.

D. Form expansion joint as detailed on drawings.

3.12 TOLERANCES

A. Install masonry within the site tolerances found in TMS 402/602.

3.13 CUTTING AND FITTING

A. Cut and fit for chases. Coordinate with other sections of work to provide correct size, shape, and location.

3.14 FIELD QUALITY CONTROL

A. An independent testing agency will perform field quality control tests, as specified in Section 014000 - Quality Requirements.

B. Clay Masonry Unit Tests: Test each variety of clay masonry in accordance with ASTM C67/C67M requirements, sampling 5 randomly chosen units for each 50,000 installed.

C. Concrete Masonry Unit Tests: Test each variety of concrete unit masonry in accordance with ASTM C140/C140M for compliance with requirements of this specification.

D. Mortar Tests: Test each type of mortar in accordance with ASTM C780, testing with same frequency as masonry samples.

3.15 CLEANING

A. Remove excess mortar and mortar droppings.

B. Replace defective mortar. Match adjacent work.

C. Clean soiled surfaces with cleaning solution.

D. Use non-metallic tools in cleaning operations.

3.16 PROTECTION

A. Without damaging completed work, provide protective boards at exposed external corners that are subject to damage by construction activities.

END OF SECTION

SECTION 075323 - ETHYLENE-PROPYLENE-DIENE-MONOMER ROOFING

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Adhered roof system with ethylene-propylene-diene-monomer (EPDM) roofing membrane.

B. Vapor retarder.

C. Deck sheathing.

D. Cover boards.

E. Insulation.

F. Roof system design by manufacture to meet code, including hail resistance.

G. ***Walkways (Bid Addendum #6)***

1.2 REFERENCE STANDARDS

A. ASCE 7 - Minimum Design Loads and Associated Criteria for Buildings and Other Structures; Most Recent Edition Cited by Referring Code or Reference Standard.

B. ASTM C1177/C1177M - Standard Specification for Glass Mat Gypsum Substrate for Use as Sheathing; 2017.

C. ASTM C1289 - Standard Specification for Faced Rigid Cellular Polyisocyanurate Thermal Insulation Board; 2023a.

D. ASTM D4637/D4637M - Standard Specification for EPDM Sheet Used in Single-Ply Roof Membrane; 2015 (Reapproved 2021).

E. UL 790 - Standard for Standard Test Methods for Fire Tests of Roof Coverings; Current Edition, Including All Revisions.

1.3 ADMINISTRATIVE REQUIREMENTS

A. Preinstallation Meeting: Convene one week before starting work of this section.
   1. Review preparation and installation procedures, in addition to coordination and scheduling required with related work.

1.4 SUBMITTALS

A. Product Data: Provide manufacturer's written information listed below.
   1. Product data indicating membrane materials, flashing materials, insulation, vapor retarder, surfacing, and fasteners.
   2. Preparation instructions and recommendations.
   3. Storage and handling requirements.

B. Shop Drawings: Indicate joint or termination detail conditions, conditions of interface with other materials, and setting plan for tapered insulation.

C. Manufacturer's Certificate: Certify that products meet or exceed specified requirements.

D. Manufacturer's Field Reports: Indicate procedures followed, ambient temperatures, humidity, wind velocity during application, and supplementary instructions provided.

E. Manufacturer's Installation Instructions: Indicate membrane seaming precautions, finish coating installation, special procedures, and perimeter conditions requiring special attention.

F. Manufacturer's Qualification Statement.

G. Installer's Qualification Statement.

H. Warranty Documentation.
   1. Submit manufacturer warranty and ensure that forms have been completed in Owner's name and registered with manufacturer.
   2. Submit installer's certification that installation complies with required warranty conditions for waterproofing membrane.

1.5 QUALITY ASSURANCE

A. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with at least twenty years of documented experience.

B. Installer Qualifications: Company specializing in performing work of type specified and with at least five years documented experience.
   1. Approved by membrane manufacturer.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Deliver products in manufacturer's original containers, dry, undamaged, with seals and labels intact.

B. Store products in weather protected environment, clear of ground and moisture.

C. Protect foam insulation from direct exposure to sunlight.

D. Provide Safety Data Sheets (SDS) at project site during transportation, storage, and installation of materials.

E. Comply with requirements from Owner to prevent overloading or disturbance of structure when loading materials onto roof.

1.7 FIELD CONDITIONS

A. Do not apply roofing membrane during unsuitable weather, and refer to manufacturer's written installation instructions.

B. Do not apply roofing membrane to damp or frozen deck surface or when precipitation is expected or occurring.

C. Do not expose materials vulnerable to water or sun damage in quantities greater than can be weatherproofed that same day.

D. Proceed with work so new roofing materials are not subject to construction traffic as work progresses.

E. Do not allow grease, oils, fats, or other contaminants to come into direct contact with roofing membrane.

1.8 WARRANTY

A. Material Warranty: Provide membrane manufacturer's warranty agreeing to replace material that shows manufacturing defects within 15 after installation.

B. System Warranty: Provide manufacturer's system warranty agreeing to repair or replace roofing membrane that leaks or is damaged due to wind or other natural causes.
   1. System Warranty Term: 15 years.
   2. For repair and replacement include costs of both material and labor in warranty.
   3. Include accidental punctures in accordance with manufacturer's standard warranty terms.
   4. Include hail damage in accordance with manufacturer's standard warranty terms.
   5. Include metal roof edge water tightness in accordance with manufacturer's standard warranty terms.

PART 2 PRODUCTS

2.1 MANUFACTURER

A. Versico Roofing Systems: www.versico.com/#sle.

2.2 ROOFING APPLICATIONS

A. Ethylene-Propylene-Diene-Monomer (EPDM) Membrane Roofing: Single-ply membrane.
   1. Adhered, over insulation.

2.3 PERFORMANCE / DESIGN CRITERIA

A. Roof Covering External Fire Resistance Classification: Class A when tested in accordance to UL 790.

B. Wind Uplift:
   1. Designed to withstand wind uplift forces calculated in accordance with ASCE 7, and
   2. Design Wind Speed: In accordance with local building code and authorities having jurisdiction (AHJ).

C. Insulation Thermal Resistance (R-Value): Provide R-Value over entire roof deck in accordance with local building code requirements.

2.4 ROOFING MEMBRANE MATERIALS

A. Single Source Responsibility: Provide and install products from single source.

B. Vapor Barrier/Base Sheet: Self-adhering, rubberized asphalt membrane laminated to spun-bonded polyester fabric; 40 mils, 0.040 inch thick, minimum.
   1. Products:
      a. Versico Roofing Systems; VapAir Seal 725TR Air/Vapor Barrier.

C. Membrane: Ethylene-propylene-diene-monomer (EPDM); ASTM D4637/D4637M, Type I - Non-Reinforced.
   1. Membrane Thickness: 60 mils, 0.060 inch, minimum.
   2. Sheet Width: Factory fabricated into largest sheets possible.
   3. Color: As selected by Architect from manufacturer's full color range.
   4. Products:
      a. Versico Roofing Systems; VersiGard Non-Reinforced EPDM.

D. Seaming Materials: As recommended by membrane manufacturer.

E. Flexible Flashing Material: Same material as roofing membrane.

F. Base Flashing: Provide waterproof, fully adhered base flashing system at penetrations, plane transitions, and terminations.

2.5 DECK SHEATHING

A. Deck Sheathing and/or Cover Board: Glass mat faced gypsum panels, ASTM C1177/C1177M, fire resistant type.
   1. Thickness: 5/8 inch, minimum.
   2. Products:
      a. GP DensDeck Prime Roof Board, distributed by Versico.
      b. GP DensDeck Roof Board, distributed by Versico.

2.6 COVER BOARDS

A. Cover Board: Polyisocyanurate (ISO) foam insulation complying with ASTM C1289, Type II, Class 4 with glass fiber reinforced facers on both sides, and Grade 1 with 80 psi, minimum, compressive strength.
   1. Board Thickness: 1/2 inch.
   2. Products:
      a. Versico Roofing Systems; SecurShield HD Polyiso.

2.7 INSULATION

A. Tapered Edge Strip: Provide tapered insulation along elevated perimeter edge metal to ensure roof drainage.
   1. Polyisocyanurate (ISO) Board: ISO foam core integrally bonded to facers, with shape as required for application.

B. Polyisocyanurate (ISO) Board Insulation: Complies with ASTM C1289, Type II, Class 1 - Faced with organic felt facers (glass fiber reinforced cellulosic felt) on both major surfaces of core foam.
   1. Tapered Board: Slope as necessary for application, with 1/2 inch, minimum thickness, and fabricated from fewest possible layers.
   2. Grade and Compressive Strength: Grade 2, with 20 psi, minimum.
   3. Products:
      a. Versico Roofing Systems; VersiCore MP-H Tapered.

C. Polyisocyanurate (ISO) Board Insulation: Complying with ASTM C1289, Type II, Class 2 - Faced with coated glass fiber mat facers on both major surfaces of core foam.
   1. Board Thickness: see drawings for inches, nominal.
   2. Grade and Compressive Strength: Grade 2, with 20 psi, minimum.
   3. Products:
      a. Versico Roofing Systems; SecurShield Polyiso.

2.8 ACCESSORIES

A. Prefabricated Roof Expansion Joint Flashing: Butyl sheet over closed-cell foam backing seamed to galvanized steel flanges.

B. Prefabricated Flashing Accessories:
   1. Penetrations: Same material as membrane, with manufacturer's standard cut-outs, rigid inserts, clamping rings, and flanges.
      a. Pipe Seals: Provide factory-applied tape on deck flange.
      b. Products:
         1) Versico Roofing Systems; VersiGard Quick-Applied.

C. Insulation Adhesive: Two component polyurethane, expanding foam.

D. Insulation Joint Tape: Glass fiber reinforced type as recommended by insulation manufacturer, and compatible with roofing materials; 6 inches wide; self adhering.

E. Membrane Adhesive: As recommended by membrane manufacturer.

F. Strip Reglet Devices: Consisting of galvanized steel, with maximum possible length for each location and attachment flanges.

G. Sealants: As recommended by membrane manufacturer.

H. Membrane Cleaner: Manufacturer's standard, clear, and solvent-based membrane cleaner.

I. Primer: Manufacturer's recommended product.

2.9 ***WALKWAYS (Bid Addendum #6)***

A. ***Flexible walkways: Factory-formed, nonporous, heavy-duty, slip-resisting, surface-textured walkway pads, approximately 3/8 inch (9mm) thick and acceptable to roofing system manufacturer:***
   1. ***Size: Approximately 30 x 30 inches***
   2. ***Color: Black***
   3. ***Location: As shown on drawings.***

PART 3 EXECUTION

3.1 VERIFICATION OF CONDITIONS

A. Verify that surfaces and site conditions are ready to receive work.

B. Verify deck is supported and secure.

C. Verify deck is clean and smooth, flat, free of depressions, waves, or projections, properly sloped and suitable for installation of roof system.

D. Verify deck surfaces are dry and free of snow or ice.

E. Verify that roof openings, curbs, and penetrations through roof are solidly set, and cant strips, nailing strips, and reglets are in place.

3.2 SURFACE PREPARATION

A. Clean substrate thoroughly prior to roof application.

B. Do not begin this work until other work that requires foot or equipment traffic on roof has been completed.

C. Apply manufacturer's recommended vapor retarder or temporary roofing before roof installation.

3.3 INSTALLATION - GENERAL

A. Install roofing system in accordance with manufacturer's instructions, as well as NRCA (RM) and NRCA (WM) applicable requirements.

B. Application of roofing membrane during unsuitable weather is not permitted.

C. Application of roofing membrane when ambient temperature is outside temperature range recommended by manufacturer is not permitted.

D. Application of roofing membrane to damp or frozen deck surface or when precipitation is expected or occurring is not permitted.

E. Exposing materials vulnerable to water or sun damage in quantities greater than can be weatherproofed the same day is not permitted.

F. Coordinate this work with installation of associated counterflashings being installed as specified in other sections as this work proceeds.

G. When substrate preparation is responsibility of another installer, notify Architect of unsatisfactory conditions, and do not proceed until corrections have been made.

3.4 VAPOR RETARDER APPLICATION

A. Apply vapor retarder to deck surface with adhesive in accordance with manufacturer's instructions.
   1. Extend vapor retarder under cant strips and blocking to deck edge.
   2. Install flexible flashing from vapor retarder to air seal material of wall construction, lap and seal to provide continuity of air barrier plane.

B. Verify that vapor retarder is clean and dry, continuous, and ready for application of insulation.

3.5 INSULATION APPLICATION

A. Attachment of Insulation: Embed insulation in adhesive and in full contact to deck in accordance with roofing and insulation manufacturer's instructions.

B. Installing wet, damaged, or warped insulation boards is not permitted.

C. Apply subsequent layers of insulation with joints staggered minimum 6 inches from joints of preceding layer.

D. Apply tapered insulation to required slope pattern in accordance with manufacturer's instructions.

E. On metal deck, place boards parallel to flutes with insulation board edges bearing on deck flutes.

F. Apply boards with edges in moderate contact without forcing, and with gap between boards no greater than 1/4 inch wide; cut insulation to fit neatly to perimeter blocking and around penetrations through roof.

G. Tape joints of insulation in accordance with roofing and insulation manufacturer's instructions.

H. At roof drains, use factory-tapered boards or boards cut to slope to slope down to roof drains over distance of 18 inches.

I. Only apply quantity of insulation than can be completely waterproofed in same day.

3.6 MEMBRANE APPLICATION

A. Roll out membrane, free from wrinkles or tears; place sheet membrane into place without stretching.

B. Shingle joints on sloped substrates in direction of drainage.

C. Adhesive Adhered Membrane Application: Apply adhesive at manufacturer's recommended rate, and fully embed membrane in adhesive except in areas directly over or within 3 inches of expansion joints; fully adhere one roll before proceeding to adjacent rolls.

D. Overlap edges, ends, and seal seams by contact adhesive, minimum 3 inches wide, sealing permanently waterproof.

E. At membrane intersections with vertical surfaces, provide the following:
   1. Extend membrane over and up cant strips at least 4 inches onto vertical surfaces.
   2. Fully adhere flexible flashing over membrane and up to nailing strips.

F. Install roofing expansion joints as indicated on drawings, and ensure joints are watertight.

G. Coordinate installation of roof related flashings, sumps, and drains; locate field splices away from low areas and roof drains, and shingle lap upslope sheets over downslope sheets.

H. Install walkway pads at areas of concentrated traffic and as indicated on drawings; space pad joints to permit drainage.

I. Daily Seal: Provide daily seal in accordance with manufacturer's installation instructions at end of each work day to prevent infiltration of water at incomplete flashings, terminations, and other unfinished membrane edges.

3.7 FIELD QUALITY CONTROL

A. Attendance is required on-site of roofing and insulation material manufacturer's daily during installation of this work.

3.8 CLEANING

A. Remove wrappings, empty containers, paper, and other debris from roof daily, and dispose of debris in compliance with local, State, and Federal regulations.

B. In areas where finished surfaces are soiled by work of this section, consult manufacturer of surfaces for cleaning advice and comply with their documented instructions.

C. Repair or replace defaced or damaged finishes caused by work of this section.

3.9 PROTECTION

A. Protect installed roofing and flashings from construction operations.

B. Where traffic must continue over finished roof membrane, protect surfaces using durable materials.

END OF SECTION

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SECTION 096500 - RESILIENT FLOORING

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Resilient sheet flooring.

B. Resilient tile flooring.

C. Static control resilient tile flooring.

D. Resilient base.

E. Resilient stair accessories.

F. Installation accessories.

1.2 REFERENCE STANDARDS

A. ASTM E648 - Standard Test Method for Critical Radiant Flux of Floor-Covering Systems Using a Radiant Heat Energy Source; 2019a, with Editorial Revision (2020).

B. ASTM F1066 - Standard Specification for Vinyl Composition Floor Tile; 2004 (Reapproved 2018).

C. ASTM F1344 - Standard Specification for Rubber Floor Tile; 2021a.

D. ASTM F1700 - Standard Specification for Solid Vinyl Floor Tile; 2020.

E. ASTM F1861 - Standard Specification for Resilient Wall Base; 2021.

F. ASTM F1913 - Standard Specification for Vinyl Sheet Floor Covering Without Backing; 2019.

G. NFPA 253 - Standard Method of Test for Critical Radiant Flux of Floor Covering Systems Using a Radiant Heat Energy Source; 2023.

1.3 SUBMITTALS

A. Product Data: Provide data on specified products, describing physical and performance characteristics; including sizes, patterns and colors available; and installation instructions.

B. Shop Drawings: Indicate floor patterns.

C. Selection Samples: Submit manufacturer's complete set of color samples for Architect's initial selection.

D. Verification Samples: Full-size units of each color and pattern of floor tile required.

E. Concrete Subfloor Test Report: Submit a copy of the moisture and alkalinity (pH) test reports.

F. Installer's Qualification Statement.

G. Maintenance Data: Include maintenance procedures, recommended maintenance materials, and suggested schedule for cleaning, stripping, and re-waxing.

H. Maintenance Materials: Furnish the following for Owner's use in maintenance of project.
   1. Extra Flooring Material: 1 carton of each type and color.
      a. ***Resilient Sheet Vinyl: Quantity equivalent to 5 percent of each type and color. (Bid Addendum #6)***
   2. Extra Wall Base: 1 carton of each type and color.
   3. Extra Stair Materials: Quantity equivalent to 5 percent of each type and color.

1.4 QUALITY ASSURANCE

A. Manufacturer Qualifications: Company specializing in manufacturing specified flooring with minimum three years documented experience.

B. Installer Qualifications: Company specializing in installing specified flooring with minimum three years documented experience.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Upon receipt, immediately remove any shrink-wrap and check materials for damage and the correct style, color, quantity and run numbers.

B. Store all materials off of the floor in an acclimatized, weather-tight space.

C. Maintain temperature in storage area between 55 degrees F and 90 degrees F.

D. Do not double stack pallets.

1.6 FIELD CONDITIONS

A. Store materials for not less than 48 hours prior to installation in area of installation at a temperature of 70 degrees F to achieve temperature stability. Thereafter, maintain conditions above 55 degrees F.

PART 2 PRODUCTS

2.1 SHEET FLOORING

A. Vinyl Sheet Flooring - Type HMO-1:
   1. Manufacturers:
      a. Armstrong Flooring; Natralis: www.armstrongflooring.com/#sle.
   2. Minimum Requirements: Comply with ASTM F1913.
   3. Critical Radiant Flux (CRF): Minimum 0.45 watt per square centimeter, when tested in accordance with ASTM E648 or NFPA 253.
   4. Thickness: 0.080 inch nominal.
   5. Sheet Width: 72 inch minimum.
   6. Seams: Heat welded.
   7. Color: As indicated on drawings.

B. Welding Rod: Solid bead in material compatible with flooring, produced by flooring manufacturer for heat welding seams, and in color matching field color.

2.2 TILE FLOORING

A. Vinyl Tile - Type LVT-1: Luxury Vinyl Tile.
   1. Manufacturers:
      a. Mannington Commercial; Groove: www.manningtoncommercial.com#sle.
   2. Minimum Requirements: Comply with ASTM F1700, of Class corresponding to type specified.
   3. Critical Radiant Flux (CRF): Minimum 0.45 watt per square centimeter, when tested in accordance with ASTM E648 or NFPA 253.
   4. Plank Tile Size: ___ by ___ inch.
   5. Color: As indicated on drawings.

B. Rubber Tile - RT-1: Homogeneous, color and pattern throughout thickness.
   1. Manufacturers:
      a. Roppe Corporation; Marbleized: www.roppe.com/#sle.
   2. Minimum Requirements: Comply with ASTM F1344, of Class corresponding to type specified.
   3. Size: ~~24~~**20** by ~~24~~**20** inch nominal. ***(Bid Addendum #3)***
   4. Total Thickness: ~~3.5~~**3.2** mm. ***(Bid Addendum #3)***
   5. Texture: Hammered.
   6. Color: As indicated on drawings.

C. Static Control Tile - Type SDT-1: Homogeneous; color and pattern throughout thickness.
   1. Manufacturers:

a. Armstrong Excelon SDT.

2. Minimum Requirements: Vinyl composition tile complying with ASTM F1066, Class 2.
3. Electrical Resistance:
   a. Dissipative Tile: Resistance between 1.0 megohms and 1000 megohms as tested in accordance with ASTM F150.
4. Critical Radiant Flux (CRF): Minimum 0.45 watt per square centimeter, when tested in accordance with ASTM E648 or NFPA 253.
5. Tile Size: 12 by 12 inch.
6. Total Thickness: 0.125 inch.
7. Color: As indicated on drawings.

2.3 STAIR COVERING

A. Stair Treads: Rubber; full width and depth of stair tread in one piece; tapered thickness.
   1. Manufacturers:
      a. **Roppe Corporation; Rubber Stair Treads: Marbleized Textured; www.roppe.com/#sle. (Bid Addendum #3)**
   2. Critical Radiant Flux (CRF): Minimum 0.45 watt per square centimeter, when tested in accordance with ASTM E648 or NFPA 253.
   3. Nominal Thickness: 0.1875 inch.
   4. Nosing: Square.
   5. **Striping: 2 inch wide contrasting color Dark Gray strips. (Bid Addendum #3)**
   6. Color: As indicated on drawings.

B. **Stair Risers: Full height and width of tread in one piece, matching treads in material and color. (Bid Addendum #3)**
   1. **Thickness: 0.080 inch.**

C. ~~Stair Stringers: Full height in one piece and in maximum available lengths, matching treads in material and color.~~
   1. ~~Nominal Thickness: 0.080 inch.~~ ***(Bid Addendum #3)***

2.4 RESILIENT BASE

A. Resilient Base: ASTM F1861, Type TS rubber, vulcanized thermoset; style as scheduled.
   1. Manufacturers:
      a. RB-2: Johnsonite, a Tarkett Company; Vent Cove: www.johnsonite.com/#sle.
      b. RB-1: Roppe Corporation; Pinnacle Cove Base: www.roppe.com/#sle.
   2. Critical Radiant Flux (CRF): Minimum 0.45 watt per square centimeter, when tested in accordance with ASTM E648 or NFPA 253.
   3. Height: 4 inch.
   4. Thickness: 0.125 inch.
   5. Finish: Satin.

6. Length: Roll.
7. Color: See materials legend .
8. Accessories: Premolded external corners and internal corners.

2.5 ACCESSORIES

A. Subfloor Filler: White premix latex; type recommended by adhesive material manufacturer.

B. Primers and Adhesives: Waterproof; types recommended by flooring manufacturer.

C. Moldings, Transition and Edge Strips: Same material as flooring.

D. Copper Grounding Strips: Type and size as recommended by static control flooring manufacturer.

E. Floor Polish for Static Control Flooring: Fluid-applied polish, intended to protect electrical properties of flooring, as recommended by static control flooring manufacturer.

F. Sealer and Wax: Provide protective, liquid floor-polish products recommended by floor tile manufaturer.

PART 3 EXECUTION

3.1 PREPARATION

A. Prepare floor substrates as recommended by flooring and adhesive manufacturers.

B. Remove subfloor ridges and bumps. Fill minor low spots, cracks, joints, holes, and other defects with subfloor filler to achieve smooth, flat, hard surface.

C. Prohibit traffic until filler is fully cured.

D. Clean substrate.

E. Apply primer as required to prevent "bleed-through" or interference with adhesion by substances that cannot be removed.

3.2 Installation - General

A. Starting installation constitutes acceptance of subfloor conditions.

B. Install in accordance with manufacturer's written instructions.

C. Adhesive-Applied Installation:
1. Spread only enough adhesive to permit installation of materials before initial set.

2. Place copper grounding strip in conductive adhesive and apply additional adhesive to top side of strip before installing static control flooring. Allow strip to extend beyond flooring in accordance with static control flooring manufacturer's instructions.
3. Fit joints and butt seams tightly.
4. Set flooring in place, press with heavy roller to attain full adhesion.

D. Where type of floor finish, pattern, or color are different on opposite sides of door, terminate flooring under centerline of door.

E. Install edge strips at unprotected or exposed edges, where flooring terminates, and where indicated.
1. Resilient Strips: Attach to substrate using adhesive.

F. Scribe flooring to walls, columns, cabinets, floor outlets, and other appurtenances to produce tight joints.

G. At movable partitions, install flooring under partitions without interrupting floor pattern.

H. ~~Install feature strips and logos where indicated.~~***(Bid Addendum #3)***

3.3 Installation - Sheet Flooring

A. Lay flooring with joints and seams parallel to longer room dimensions, to produce minimum number of seams. Lay out seams to avoid widths less than 1/3 of roll width; match patterns at seams.

B. Seal seams by heat welding where indicated.

3.4 Installation - Tile Flooring

A. Mix tile from container to ensure shade variations are consistent when tile is placed, unless otherwise indicated in manufacturer's installation instructions.

B. Install plank tile with a random offset of at least 6 inches from adjacent rows.

3.5 Installation - Resilient Base

A. Fit joints tightly and make vertical. Maintain minimum dimension of 18 inches between joints.

B. Miter internal corners. At external corners, use premolded units. At exposed ends, use premolded units.

C. Install base on solid backing. Bond tightly to wall and floor surfaces.

3.6 Installation - Stair Coverings

A. Install stair coverings in one piece for full width and depth of tread.

B. Install stringers configured tightly to stair profile.

C. Adhere over entire surface. Fit accurately and securely.

3.7 CLEANING AND PROTECTION

A. Remove excess adhesive from floor, base, and wall surfaces without damage.

B. Clean in accordance with manufacturer's written instructions.

C. Floor Polish: Remove soil, adhesives, and blemishes from floor tile surface before applying liquid floor polish.
   1. Apply one coat.

3.8 PROTECTION

A. Prohibit traffic on resilient flooring for 48 hours after installation.

END OF SECTION

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SECTION 105500 - POSTAL SPECIALTIES

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Mail Distribution Slots.

1.2 SUBMITTALS

A. Product Data: Provide manufacturer's specifications and descriptive literature, installation instructions, maintenance information.

B. Shop Drawings: Indicate plans for each unit or groups of units, front elevations with compartment layout and model number, overall dimensions, rough-in opening sizes, construction and anchorage details.

C. Samples: Submit two sets of manufacturer's available colors.

PART 2 PRODUCTS

2.1 MAIL DISTRIBUTION BOXES

A. ***Basis of Design Manufacturer: Uline; Mail Sorter Model H-4468. Addendum 6***
   1. Materials: Steel.
   2. Finish: Powder Coat, color to be selected by Architect.
   3. ***Slot Quantity: 30***
   4. Configuration: See Drawings.

PART 3 EXECUTION

3.1 EXAMINATION

A. Do not begin installation until unacceptable conditions are corrected.

3.2 INSTALLATION

A. Install per details.

END OF SECTION

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SECTION 123553.13 - METAL LABORATORY CASEWORK

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Metal cabinets and cabinet hardware.

B. Tables.

C. Fixed- and adjustable-height workbenches.

D. Acid storage cabinets.

E. Solvent storage cabinets.

F. ~~Countertops.~~ ***Addendum 6***

G. ~~Laboratory sinks.~~ ***Addendum 6***

H. ~~Pegboards.~~ ***Addendum 6***

I. ~~Laboratory emergency equipment plumbing fixtures.~~ ***Addendum 6***

J. ~~Service fittings and outlets~~. ***Addendum 6***

1.2 REFERENCE STANDARDS

A. ANSI Z97.1 - American National Standard for Safety Glazing Materials Used in Buildings - Safety Performance Specifications and Methods of Test; 2015 (Reaffirmed 2020).

B. ANSI Z358.1 - American National Standard for Emergency Eyewash and Shower Equipment; 2014.

C. ASTM A513/A513M - Standard Specification for Electric-Resistance-Welded Carbon and Alloy Steel Mechanical Tubing; 2020a.

D. ASTM A666 - Standard Specification for Annealed or Cold-Worked Austenitic Stainless Steel Sheet, Strip, Plate, and Flat Bar; 2023.

E. ASTM A1008/A1008M - Standard Specification for Steel, Sheet, Cold-Rolled, Carbon, Structural, High-Strength Low-Alloy, High-Strength Low-Alloy with Improved Formability, Required Hardness, Solution Hardened, and Bake Hardenable; 2021a.

F. ASTM C1036 - Standard Specification for Flat Glass; 2021.

G. ASTM C1048 - Standard Specification for Heat-Strengthened and Fully Tempered Flat Glass; 2018.

H. ASTM C920 - Standard Specification for Elastomeric Joint Sealants; 2018.

I. ASTM D522/D522M - Standard Test Methods for Mandrel Bend Test of Attached Organic Coatings; 2017 (Reapproved 2021).

J. ASTM E119 - Standard Test Methods for Fire Tests of Building Construction and Materials; 2022.

K. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials; 2023c.

L. BHMA A156.9 - Cabinet Hardware; 2020.

M. NFPA 30 - Flammable and Combustible Liquids Code; 2021, with Amendment.

N. NFPA 70 - National Electrical Code; Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.

O. SEFA 1 - Laboratory Fume Hoods; 2010.

P. SEFA 2 - Installations; 2010.

Q. SEFA 3 - Laboratory Work Surfaces; 2010.

R. SEFA 7 - Laboratory Fixtures; 2010.

S. SEFA 8M - Laboratory Grade Metal Casework; 2016.

1.3 ADMINISTRATIVE REQUIREMENTS

A. Coordination: Coordinate installation of casework with related items.
   1. Service Fixtures: Coordinate location and characteristics of service connections.
   2. Equipment and Instruments: Coordinate installation of casework with equipment and scientific instruments.

B. Preinstallation Meeting: Conduct a preinstallation meeting one week prior to the start of the work of this section; require attendance by all affected installers.

C. Keying Conference: Conduct conference prior to ordering keys. Incorporate conference decisions into keying submittal.

1.4 SUBMITTALS

A. Product Data: Details of materials, component dimensions and configurations, construction details, joint details, attachments; manufacturer's catalog literature on hardware and keying, accessories, and service fittings, if any.

B. Shop Drawings: Indicate casework types, sizes, and locations, using large scale plans, elevations, and cross sections. Include rough-in and anchors and reinforcements placement dimensions and tolerances, clearances required, and utility locations, if any. Include coordinated information for laboratory equipment specified in another section and/or furnished by Owner.

C. Samples For Color Selection: Color charts for each different finish material.

D. Manufacturer's Installation Instructions.

E. Manufacturer's qualification statement.

F. Installer's qualification statement.

G. Maintenance Data: Manufacturer's recommendations for care and cleaning.

H. Finish touch-up kit for each type and color of materials provided.

1.5 QUALITY ASSURANCE

A. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum ten years of documented experience.

B. Installer Qualifications: Factory certified by the manufacturer in performing work of the type specified in this section, with not less than five years of documented experience and approved by manufacturer.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Protect items provided by this section, including finished surfaces and hardware items during handling and installation. For metal surfaces, use polyethylene film or other protective material standard with the manufacturer.

1.7 WARRANTY

A. Manufacturer Warranty: Provide 5-year warranty against defects. Complete forms in Owner's name and register with manufacturer. Covered defects include, but are not limited to:
   1. Ruptured, cracked, or stained finish coating.
   2. Discoloration, or lack of finish integrity.
   3. Cracking or peeling of finish.
   4. Weld or any other structural failure.

5. Failure of hardware.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Metal Laboratory Casework:
   1. CiF Lab Solutions LP; S-Line Series: www.cifsolutions.com/#sle.

B. ~~Countertops:~~ ***Addendum 6***
   1. ~~Durcon (Epoxy resin, Solid phenolic): www.durcon.com/#sle.~~

C. ~~Sinks and Cup Sinks:~~ ***Addendum 6***
   1. ~~Durcon (Epoxy resin, Polyolefin): www.durcon.com/#sle.~~

D. ~~Water and Gas Service Fittings:~~ ***Addendum 6***
   1. ~~Chicago Faucets, a Geberit company: www.chicagofaucets.com/#sle.~~

E. Obtain casework from single source and manufacturer, unless otherwise indicated.

2.2 METAL LABORATORY CASEWORK

A. Casework: Die-formed metal sheet; each unit self-contained and not dependent on adjacent units or building structure for rigidity; factory-fabricated, factory-assembled, and factory-finished.
   1. Style: Inset - square edge.
   2. Primary Cabinet Material: Cold-rolled steel.
   3. Structural Performance: In addition to the requirements of SEFA 3, SEFA 7 and SEFA 8M, provide components that safely support the following minimum loads, without deformation or damage:
      a. Drawers: 100 pounds.
   4. Corners and Joints: Without gaps or inaccessible spaces or areas where dirt or moisture could accumulate.
   5. Edges and Seams: Smooth. Form counter tops, shelves, and drain boards from continuous sheets.
   6. Shelf Edges: Turned down 3/4 inch on each side and returned 3/4 inch front and back.
   7. Ends: Close open ends with matching construction.
   8. Welding: Electric spot welded; joints ground smooth and flush.
   9. Drawers and Doors: Fabricate drawer and door fronts of sandwiched sheets of sheet steel welded together and reinforced for hardware.
      a. Fill with sound-deadening core.

10. Shelves: Adjustable and fixed shelves formed down 3/4 inch, returned back 7/8 inch, and up 1/4 inch into a channel shape, front and rear; formed down 3/4 inch at each end. Shelves over 42 inches long reinforced with a channel welded to underside of shelf.
11. Glazing: Type and thickness standard with manufacturer.
    a. Framed Doors: Tempered glass, with gaskets and removable stops; minimize rattling and vibration.
12. Fittings and Fixture Locations: Cut and drill countertops, backs, and other casework components for service outlets and fixtures.
13. Access Panels: Where indicated, for maintenance of utility service fixtures and fittings and mechanical and electrical components.
14. Removable back panels on all base cabinets. Partial height back panels at sink cabinets.
15. Fixed panels at backs of open spaces between base cabinets and at ends of utility spaces not otherwise enclosed.
    a. Cutouts for power receptacles where indicated on drawings.
16. Filler Panels: Flanged on both sides, of matching construction and finish, for locations where cabinets do not fit tight to adjacent construction.
17. Separation: Use bituminous paint or non-conductive tape to coat metal surfaces in contact with cementitious materials, and to separate dissimilar metals.

B. Acid Storage Cabinets: Construction identical to other cabinets, with following exceptions:
    1. Completely lined with corrosion-resistant liner material; stainless steel fasteners for all connections and hardware inside cabinet.
    2. Shelves: Perforated or vented, rigid polypropylene.
    3. Bottom Pan: Liquid tight, polypropylene liner covering entire bottom of acid storage cabinet.
    4. Vents: Comply with SEFA 1.
        a. Vent base cabinets through work surface with manufacturer's vent kit.
        b. When acid storage cabinets are installed below fume hoods, provide louvered cabinet doors.
        c. Seal penetrations with chemical resistant sealant.

C. Solvent (Flammable and Combustible Liquids) Storage Cabinets: Construction identical to other cabinets, with following exceptions:
    1. Construct to NFPA 30 and applicable OSHA requirements.
    2. Fire Resistance: Maximum internal temperature of 325 degrees F at the center, and 1 inch from top of the cabinet when cabinet is subjected to a ten minute fire test that simulates fire exposure of a standard time-temperature curve specified in ASTM E119.
    3. Steel sheet, 18 gauge, 0.0478 inch minimum thickness, double panel construction with 1-1/2 inch space between panels and electrical grounding connection.

4. Shelves: Full depth, adjustable sloped metal shelf.
5. Bottom Pan: 2 inches deep liquid-tight pan covering entire bottom of cabinet.
6. Cabinet Hardware: UL-listed.
    a. Hinges: Full-length stainless steel continuous (piano) hinges.
    b. Door Handles: Manufacturer's standard, with slip-resistant grip.
        1) Provide manufacturer's standard cylinder lock and key set.
    c. Grounding screw-lug.
7. Signage: Provide manufacturer's standard signage reading "FLAMMABLE - KEEP FIRE AWAY" or similar message in bright red color.

D. Tables: Include adjustable height units.
1. Adjustable Height Table Construction: Manufacturer's standard, with countertop worksurfaces, unless noted otherwise.
    a. Worksurface Support Frame: Telescoping from base frame.
    b. Locking casters.
    c. Worksurface: Matching adjacent countertop materials.
        1) Lift Capacity: 1,000 lb, evenly distributed on worksurface.
        2) Adjustability:
            a) Total Range: 14 inches.
            b) Manual Operation: Threaded fastener pins inserted into holes on 1 inch centers.
        3) Finish, Surface Color, and Texture: As selected by Architect from manufacturer's standard line.
2. Primary Materials: Manufacturer's standard for each component.
    a. Tubing: Hot-rolled steel, ASTM A513/A513M.
    b. Sheet Metal: Cold-rolled steel, ASTM A1008/A1008M.

2.3 CABINET HARDWARE

A. Manufacturer's standard styles, and as indicated below.

B. Comply with BHMA A156.9 requirements.

C. Finish of exposed stainless steel components: No.4 finish.

D. Locks: On casework drawers and doors. Lock with 5 pin cylinder and 2 keys per lock.
1. Hinged Doors: Cam type lock, bright chromium plated over nickel on base material.
2. Framed Sliding Doors: Plunger-type sliding showcase lock, bright chromium plated over nickel on base material.
3. Tall Hinged Doors: Three-point latching system.
4. Keying: Key locks alike within a space; key each room separately.
5. Master Key System: All locks operable by master key.

E. Label Holders: Manufacturer's standard, sized to hold standard label cards for drawer fronts and cabinet doors indicated, stainless steel with No.4 finish.
   1. Attachments: Screws or rivets, with finish matching label holders.

F. Shelves in Cabinets:
   1. Shelf Standards and Rests: Vertical standards with rubber button fitted rests, satin chromium plated over nickel on base material.

G. Swinging Doors:
   1. Hinges: Butt, number as required by referenced standards for width, height, and weight of door.
      a. Butt Hinges for Inset Doors: five-knuckle, projecting barrel, minimum 2-1/2 inches long. Stainless steel with No.4 finish.
   2. Catches: Magnetic.
   3. Pulls: Stainless steel wire pulls, 4 inches wide.

H. Sliding Doors:
   1. Pulls: Steel, recessed circular design.
      a. Steel Finish: Satin chromium plated over nickel on base material.
   2. Track Assembly: Nylon track with solid bearing followers.

I. Drawers:
   1. Pulls: Stainless steel, 4 inches wide.
   2. Slides: Steel, full extension arms, ball bearings; capacity as recommended by manufacturer for drawer height and width.

2.4 ~~COUNTERTOPS~~ ***Addendum 6***

A. ~~Countertops:~~
   1. ~~Epoxy Resin Countertops: Filled epoxy resin molded into homogenous, non-porous sheets; no surface coating and color and pattern consistent throughout thickness; with integral or adhesively seamed components.~~
      a. ~~Flat Surface Thickness: 1 inch, nominal.~~
      b. ~~Surface Finish: Smooth, non-glare.~~
      c. ~~Color: to be selected by the Architect.~~
      d. ~~Exposed Edge Shape: 3/16 inch radius corner.~~
      e. ~~Back and End Splashes: Same material, same thickness; separate for field attachment.~~

2.5 ~~SINKS~~ ***Addendum 6***

A. ~~Laboratory sinks.~~
   1. ~~General: Manufacturer's adjustable support system for undermount sink installation.~~

2. ~~Sink : Single-bowl.~~
   a. ~~Material: Epoxy.~~
   b. ~~Mounting: Drop-in.~~
   c. ~~Size: _____ inch wide by _____ inch front-to-back by _____ inch deep.~~
   d. ~~Outlet: 1-1/2 inch NPS outlet with tailpiece.~~
      1) ~~Placement: Center.~~

2.6 ~~PEGBOARDS~~ ***Addendum 6***

A. ~~Stainless steel pegboards with pre-drilled or punched holes in a staggered pattern, designed to accept removable graypolypropylene pegs. With each pegboard include a stainless steel drip-trough with drain outlet and matching diameter 36 inch long PVC drain hose.~~
   1. ~~Size: 30 inches wide by 30 inches high.~~
   2. ~~Accessories: Screen insert.~~

2.7 ~~LABORATORY EMERGENCY EQUIPMENT Plumbing Fixtures~~ ***Addendum 6***

A. ~~General: Provide emergency equipment products complying with requirements of ANSI Z358.1.~~

B. ~~Eye/Face Wash Units: Deck-mounted units.~~
   1. ~~Construction: Stainless steel.~~
   2. ~~Twin eyewash heads with pop-off dust covers, internal flow control, and filter.~~
   3. ~~Type: 90-Degree swing-down, designed for mounting behind the sink.~~
      a. ~~Plug-type valve designed to open orifice and activate water flow only when unit is swung down into operational position.~~
   4. ~~Sign: Manufacturer's standard ANSI-compliant identification sign.~~

2.8 ~~SERVICE FITTINGS~~ ***Addendum 6***

A. ~~General: Comply with requirements of SEFA 7.~~

B. ~~Gas Service Fittings and Fixtures.~~
   1. ~~Laboratory Gas Fitting :~~
      a. ~~Valve: Forged or cast brass body, 90 degree inlet - outlet configuration, with polished chrome with clear epoxy coating finish.~~
      b. ~~Control: Ball valve.~~
      c. ~~Mounting: Panel (vertical surface).~~
      d. ~~Supply Gas: Natural Gas.~~
      e. ~~Inlet: 3/8 inch NPS NPT.~~
      f. ~~Outlet: Manufacturer's standard, with removable seven-serration hose end.~~
      g. ~~Handle: Manufacturer's standard four-arm handle with color-coded index disc.~~

C. ~~Water Service Fittings and Fixtures.~~
   1. ~~Water Fitting Type: ____:~~
      a. ~~Basis of Design: Model _____ manufactured by _____.~~
      b. ~~Valve: Forged or cast brass body, 180 degree inlet - outlet configuration, with polished chrome finish.~~
      c. ~~Mounting: Deck (Horizontal surface) turret base, with escutcheon.~~
      d. ~~Inlet: 3/8 inch NPS NPT.~~
      e. ~~Outlet: Manufacturer's standard, with anti-splash serrated hose end.~~
      f. ~~Handle: Manufacturer's standard four-arm handle with color-coded index disc.~~

D. ~~Electrical Fittings and Fixtures:~~
   1. ~~Electrical Fittings, General: Types indicated, for mounting on laboratory casework, including, as appropriate, grounding screws, and mounting accessories and fasteners.~~
   2. ~~Electrical Power Fitting :~~
      a. ~~General: 3-wire polarized receptacles meeting requirements of NFPA 70.~~
      b. ~~Mounting: Pedestal, surface-mounted.~~
      c. ~~Receptacles: Duplex, 5-20R, GFCI.~~
      d. ~~Orientation: Double face.~~
      e. ~~Voltage: 120 V.~~
      f. ~~Service: Normal power.~~
      g. ~~Receptacle Color: to be selected by the Architect.~~
      h. ~~See electrical drawings for circuiting.~~

2.9 MATERIALS

A. Sheet Steel: High-strength low-alloy, cold rolled and leveled unfinished steel sheet, ASTM A1008/A1008M, Class 1 (matte) finish.

B. Stainless Steel Sheet: ASTM A666, Type 304.

C. Solid Epoxy Resin: Modified epoxy resin and non-asbestos inert fillers cast into sheets.

D. Glass: Fully tempered float; ASTM C1036, Type 1, Quality Q3; ASTM C1048, tempered using horizontal tempering and complying with ANSI Z97.1; 3/16 inch thick minimum; exposed edges ground, and cut or drilled to receive hardware; clear.

E. Sealant For Use in Casework Installation:
   1. One component, clear silicone base sealant, chemical curing complying with ASTM C920, Type S, Grade NS, Class 25, Use NT, when tested to glass and aluminum, anti-fungus composition.

2.10 FINISHES

A. Sheet Steel Finish: Having chemical resistance equal to Level 0 (no change) or Level 1 (slight change of gloss or slight discoloration) according to SEFA 8M. Test applied finishes using procedures specified in ASTM D522/D522M.
   1. Coating Type, New Casework: Baked on epoxy; minimum two coats.
   2. Color: As selected from manufacturer's standard selection.
   3. Preparation: Degrease and phosphate etch, and prime.

B. Stainless Steel Finish: No.4, brushed finish.

PART 3 EXECUTION

3.1 EXAMINATION

A. Verify adequacy of support framing and anchors.

B. Verify that service connections are correctly located and of proper characteristics.

3.2 INSTALLATION

A. Perform installation in accordance with manufacturer's instructions and with SEFA 2.

B. Use anchoring devices to suit conditions and substrate materials encountered. Use concealed fasteners to the greatest degree possible. Use exposed fasteners only where allowed by approved shop drawings, or where concealed fasteners are impracticable.

C. Set casework items plumb and square, securely anchored to building structure, with no distortion.
   1. Base Cabinets: Examine floor levelness and flatness of installation space. Do not proceed with installation if encountered floor conditions required more than 3/4 inch leveling adjustment. When installation conditions are acceptable, for each space, establish the high point of the floor. Set and make level and plumb first cabinet in relation to this high point.
   2. Wall Cabinets: Examine wall surfaces in installation space. Do not proceed with installation if the following conditions are encountered:
      a. Maximum variation from plane of masonry wall exceeds 1/4 inch in 10 feet and 1/2 inch in 20 feet or more, and/or maximum variation from plumb exceeds 1/4 inch per story.
      b. Maximum variation of finished gypsum board surface from true flatness exceeds 1/8 inch in 10 feet in any direction.

D. Align cabinets to adjoining components, install filler and/or scribe panels where necessary to close gaps.

E. Fasten together cabinets in continuous runs, with joints flush, uniform and tight. Misalignment of adjacent units not to exceed 1/16 inch. In addition, do not exceed the following tolerances:
   1. Variation of Tops of Base Cabinets from Level: 1/16 inch in 10 feet.
   2. Variation of Bottoms of Upper Cabinets from Level: 1/8 inch in 10 feet .
   3. Variation of Faces of Cabinets from a True Plane: 1/8 inch in 10 feet.
   4. Variation of Adjacent Surfaces from a True Plane (Lippage): 1/32 inch.
   5. Variation in Alignment of Adjacent Door and Drawer Edges: 1/16 inch.

F. Separate dissimilar metals to prevent galvanic action.

G. Base Cabinets: Fasten cabinets to service space framing and/or wall substrates, with fasteners spaced not more than 16 inches on center. Bolt adjacent cabinets together with joints flush, tight, and uniform.
   1. Where base cabinets are installed away from walls or service space framing, anchor to floor at toe space at not more than 24 inches on center, and at sides of cabinets with not less than two fasteners per side.

H. Wall Cabinets: Fasten to hanging strips, and/or wall substrates. Fasten each cabinet through back, near top, at not less than 16 inches on center.

I. Install hardware uniformly and precisely. Set hinges snug and flat in mortises.

J. Vented Cabinets: Install in strict compliance with manufacturer's written installation instructions.
   1. Install vent kits and connect to exhaust system.
   2. Use only rigid materials for venting. No flexible materials permitted.

K. Replace units that are damaged, including those that have damaged finishes.

L. Coordinate installation of work of this section with installation of fume hoods and laboratory equipment.

M. Countertops: Install countertops in one true plane, with ends abutting at hairline joints, and no raised edges.

N. Deliver sinks, cup sinks, and service fittings in properly marked boxes, accompanied with written instructions, for supervised installation by appropriate trade contractor(s).

3.3 ADJUSTING

A. Adjust operating parts, including doors, drawers, hardware, and fixtures to function smoothly.

3.4 CLEANING

A. Clean casework and other installed surfaces thoroughly.

3.5 PROTECTION

A. Do not permit finished casework to be exposed to continued construction activity.

B. Protect casework and countertops from ongoing construction activities. Prevent installers from standing on or storing tools and materials on casework or countertops.

C. Repair damage that occurs prior to Date of Substantial Completion, including finishes, using methods prescribed by manufacturer; replace units that cannot be repaired to like-new condition.

END OF SECTION

April 15, 2024

PROJECT MANUAL

VOLUME 5 OF 5: Owner Furnished HVAC Equipment Package

Newburgh Enlarged City School District
New CTE Building

CTE Building

SED No. 44-16-00-01-0-053-001

CSArch Project # 108-2303.00

REGISTRATION EXPIRATION DATE: 12/31/2026

The design of this project conforms to applicable provisions of the New York State Uniform Fire Prevention and Building Code the New York State Energy Conservation Construction Code and the Manual of Planning Standards of the New York State Education Department

CSARCH

Thermal Environment Sales, Inc.

EQUIPMENT SCOPE

Per plans dated 5/20/2024 – Addendum # 4

QTY (9) **Daikin Rebel Rooftop Units** **TAG (s): RTU-A-124, 125, 128, RTU-B-129, RTU-D-120, RTU-E-130.1, 130.2, RTU-F-206**

- DX Cooling- R-32
- Foam Injected double wall, painted outdoor construction
- Stainless steel hinged access doors w/ latches
- 460V/3PH/60Hz
- Direct Drive Plenum Fans Variable Speed
- Microtech III DDC Controller w/BACnet
- Stainless steel drain pan
- Variable speed Daikin inverter scroll compressor
- Modulating HGRH
- Hot water heating coil
- 0-100% Modulating economizer
- ECM modulating power exhaust
- Single point power connection
- Non-fused Disconnect
- Phase monitor
- Unit Mounted GFI Receptacle
- 24" Roof Curb
- 5-year full parts warranty from shipment
- Check Test and Startup by TES certified technician

Not Included: Install, Storage, Delayed Warranty,

11 Sitterly Road · Clifton Park · New York · 12065
Phone (518)373-1100 · Fax (518)373-1800
www.teshvac.com

Thermal Environment Sales, Inc.

EQUIPMENT SCOPE

Per plans dated 5/20/2024 – Addendum # 4

QTY (7) **Daikin Rebel Energy Recovery Units** **TAG (s): ERU-A-1.1, ERU-B-1.2, ERU-C-2.1, ERU-D-2.2, ERU-E-2.3, ERU-F-3.3, ERU-G-117**

- DX Cooling - R-32
- Foam Injected double wall, painted outdoor construction
- Stainless steel hinged access doors w/ latches
- 460V/3PH/60Hz
- Direct Drive Plenum Fans Variable Speed
- Microtech III DDC Controller w/ BACnet
- Stainless steel drain pan
- Variable speed Daikin inverter scroll compressor
- Modulating HGRH
- Hot water heating coil
- ECM modulating power exhaust
- Energy Recovery Wheel
- Wheel Effectiveness control
- Single point power connection
- Non-fused Disconnect
- Phase monitor
- Unit Mounted GFI Receptacle
- 24" Roof Curb
- 5-year full parts warranty from shipment
- Check Test and Startup by TES certified technician

Not Included:

Install, Storage, Delayed Warranty, Energy Wheel Bypass (Not necessary with wheel designed for 100% OA)

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Thermal Environment Sales, Inc.

EQUIPMENT SCOPE

Per plans dated 5/20/2024 – Addendum # 4

QTY (9 Systems) **Daikin VRV** **TAG (s): CU-A-1 through E-1 and CU-G-1, H-1, K-1, and K-2**

- Daikin Heat Pump Systems
- R-410a
- Central BACnet Interface
- Emerion Outdoor Unit
  - Snow Hoods
  - 460/3
  - Single-Point Power Panel with:
    - Disconnect
    - Over/Under Voltage protection
    - GFI Outlet
    - **Kit is field installed and wired**
- Indoor Units
  - Nav Remote controller Per Unit
  - FXF- Round flow Cassette
    - Decoration Panel
  - FXT- Mutli Position AHU w/ Disconnect
  - FXZ- 2x2 Cassette
    - Decoration Panel

Per discussions with engineer:

Not Included: Install, Piping, Refrigerant, Refrigerant Specialties, Stands, Rails, Wiring

EXTRA REFRIGERANT CHARGE TO BE ADDED IMMEDIATELY AFTER TRIPLE-EVAC TEST

- **Piping distances must be confirmed prior to scheduling start-up**
- **Additional charge calculation will be provided upon receipt of piping diagram with as-built piping distances. TES will calculate the refrigerant charge to be weighed-in and the installer MUST mark the added charge (lbs) on the ACCU in a permanent manner.**

INSTALLATION RECOMMENDATIONS:

https www.dropbo .co scl fi jywdfwe9f9h2 j 5fc90y Daikin- R -Installer-GUIDE-2022.pdf rlkey wf17gak ess□7□ r9 gjy4y1o dl 0

Thermal Environment Sales, Inc.

EQUIPMENT SCOPE

Per plans dated 5/20/2024 – Addendum # 4

QTY (16) **Duct Coils** **TAG (s): HC-A-C201A through C103, HC-B-C301A&B, HC-C-314B, HC-ERV-A, B**

- Duct heating coils
- Fluid: Water
- Dimensions per schedule

Not Included: Install, Rigging, Valves, Piping, Hangers, Isolators, Controls, Drain pans.

QTY (10) **Daikin Mini Splits** **TAG (s): CU-F-1 through 5 and CU-F-7 through 10 With CU-J-1**

- Daikin One to One Split
- R-410a
- Cooling only 2.5 ton wall mounted
- Wind Baffle
- Madoka Remote controller
- BACnet Integration kit

Not Included: Install, Wiring, Piping, Refrigerant, Refrigerant Specialties, Stands, Disconnect, Rails, Convenience Outlets

NOTE: R-410a Mini Splits will be phased out of production on 1/1/2025. Units can still be supplied from stock until 1/1/2026, but are on a first come first serve basis. POs do not secure availability, only release will secure units.

Thermal Environment Sales, Inc.

EQUIPMENT SCOPE

Per plans dated 5/20/2024 – Addendum # 4

QTY (25) **Airedale Cabinet Unit Heaters** **TAG (s): CUH-A, CUH-B, CUH-C**

- Hydronic Cabinet Unit Heaters
- Std Airedale colors
- Disconnect
- Ceiling Recessed
  - Size 03
  - Size 08
  - Bottom Louver Supply and Return
- Ceiling Exposed
  - Size 03
  - Louver Supply and Return

Not Included: Install, Rigging, Hangers, Controls, Valves, Dampers, Thermostats, Piping, Wiring

QTY (7) **Airedale Unit Heaters** **TAG (s): UH, UH-A**

- Horizontal HW unit heaters
- Nominal 22MBH
- 115/60/1
- T-stat for standalone operation

Not Included: Install, Rigging, Hangers, Isolators, Piping, Hydronic Specialties, Wiring BMS Integration

SUBMITTAL DATA

Job Name	Newburgh CTE
For	
Sold To	
Prepared For	
Customer PO#	
Prepared By	**David Shumpert**
Date	6/6/2024

Job Information	Technical Data Sheet
Job Name	Newburgh CTE
Date	6/6/2024
Submitted By	Jacob Andrews
Software Version	12.60
Unit Tag	RTU-A -124, RTU-A -125, RTU-A -128

Unit Overview

Model Number	Voltage V/Hz/Phase	Design Cooling Capacity Btu/hr	AHRI360 Standard Efficiency		ASHRAE 90.1-2022 Compliant
			EER	IEER	
DPSC07B	460/60/3	92658	12.0	21.7	ASHRAE 90.1-2022 compliant

Unit

Model Number:	DPSC07B
Model Type:	Cooling
Heat Type:	Hot Water
Hot Gas Reheat:	MHGRH
Energy Recovery:	None
Application:	Variable Air Volume, Single Zone (Mixed Air or 100% OA)
Controls:	Microtech
Outside Air:	0-100% Economizer with Comparative Enthalpy Control
Altitude:	0 ft
Approval	cETLus

Physical

Dimensions and Weight

Length	Height*	Width	Weight*
101.6 in	85.9 in	73.4 in	2024 lb

Construction

Exterior	Insulation and Liners	Air Opening Location	
		Return	Supply
Painted Galvanized Steel	1" Injected Foam, R-7, Galvanized Steel Liner	Bottom	Bottom

Electrical

Unit FLA	MCA	MROPD	SCCR
20.8 A	24.0 A	35 A	10 kAIC

Note:	Use only copper supply wires with ampacity based on 75° C conductor rating. Connections to terminals must be made with copper lugs and copper wire.

Job Information	*Technical Data Sheet*
Job Name	Newburgh CTE
Date	6/6/2024
Submitted By	Jacob Andrews
Software Version	12.60
Unit Tag	RTU-B-129

Unit Overview

Model Number	Voltage V/Hz/Phase	Design Cooling Capacity Btu/hr	AHRI360 Standard Efficiency		ASHRAE 90.1-2022 Compliant
			EER	IEER	
DPSC12B	460/60/3	141086	12.2	20.8	ASHRAE 90.1-2022 compliant

Unit

Model Number:	DPSC12B
Model Type:	Cooling
Heat Type:	Hot Water
Hot Gas Reheat:	MHGRH
Energy Recovery:	None
Application:	Variable Air Volume, Single Zone (Mixed Air or 100% OA)
Controls:	Microtech
Outside Air:	0-100% Economizer with Comparative Enthalpy Control
Altitude:	0 ft
Approval	cETLus

Physical

Dimensions and Weight

Length	Height*	Width	Weight*
101.6 in	85.9 in	73.4 in	2202 lb

Construction

Exterior	Insulation and Liners	Air Opening Location	
		Return	Supply
Painted Galvanized Steel	1" Injected Foam, R-7, Galvanized Steel Liner	Bottom	Bottom

Electrical

Unit FLA	MCA	MROPD	SCCR
36.6 A	42.9 A	60 A	10 kAIC

Note:	Use only copper supply wires with ampacity based on 75° C conductor rating. Connections to terminals must be made with copper lugs and copper wire.

Job Information	*Technical Data Sheet*
Job Name	Newburgh CTE
Date	6/6/2024
Submitted By	Jacob Andrews
Software Version	12.60
Unit Tag	RTU-C-119

Unit Overview

Model Number	Voltage V/Hz/Phase	Design Cooling Capacity Btu/hr	AHRI360 Standard Efficiency		ASHRAE 90.1-2022 Compliant
			EER	IEER	
DPSC12B	460/60/3	143050	12.2	20.8	ASHRAE 90.1-2022 compliant

Unit

Model Number:	DPSC12B
Model Type:	Cooling
Heat Type:	Hot Water
Hot Gas Reheat:	MHGRH
Energy Recovery:	None
Application:	Variable Air Volume, Single Zone (Mixed Air or 100% OA)
Controls:	Microtech
Outside Air:	0-100% Economizer with Comparative Enthalpy Control
Altitude:	0 ft
Approval	cETLus

Physical

Dimensions and Weight

Length	Height*	Width	Weight*
101.6 in	85.9 in	73.4 in	2202 lb

Construction

Exterior	Insulation and Liners	Air Opening Location	
		Return	Supply
Painted Galvanized Steel	1" Injected Foam, R-7, Galvanized Steel Liner	Bottom	Bottom

Electrical

Unit FLA	MCA	MROPD	SCCR
36.6 A	42.9 A	60 A	10 kAIC

Note:	Use only copper supply wires with ampacity based on 75° C conductor rating. Connections to terminals must be made with copper lugs and copper wire.

Job Information	*Technical Data Sheet*
Job Name	Newburgh CTE
Date	6/6/2024
Submitted By	Jacob Andrews
Software Version	12.60
Unit Tag	RTU-D-120

Unit Overview

Model Number	Voltage V/Hz/Phase	Design Cooling Capacity Btu/hr	AHRI360 Standard Efficiency		ASHRAE 90.1-2022 Compliant
			EER	IEER	
DPSC20B	460/60/3	238572	11.3	21.8	ASHRAE 90.1-2022 compliant

Unit

Model Number:	DPSC20B
Model Type:	Cooling
Heat Type:	Hot Water
Hot Gas Reheat:	MHGRH
Energy Recovery:	None
Application:	Variable Air Volume, Single Zone (Mixed Air or 100% OA)
Controls:	Microtech
Outside Air:	0-100% Economizer with Comparative Enthalpy Control
Altitude:	0 ft
Approval	cETLus

Physical

Dimensions and Weight

Length	Height*	Width	Weight*
185.9 in	72.1 in	76.5 in	3462 lb

Construction

Exterior	Insulation and Liners	Air Opening Location	
		Return	Supply
Painted Galvanized Steel	2" Injected Foam, R13, Galvanized Steel Liner	Bottom	Bottom

Electrical

Unit FLA	MCA	MROPD	SCCR
58.4 A	64.7 A	80 A	10 kAIC

Note:	Use only copper supply wires with ampacity based on 75° C conductor rating. Connections to terminals must be made with copper lugs and copper wire.

Job Information	Technical Data Sheet
Job Name	Newburgh CTE
Date	6/6/2024
Submitted By	Jacob Andrews
Software Version	12.60
Unit Tag	RTU-E -130.1, RTU-E -130.2

Unit Overview

Model Number	Voltage V/Hz/Phase	Design Cooling Capacity Btu/hr	AHRI360 Standard Efficiency		ASHRAE 90.1-2022 Compliant
			EER	IEER	
DPSC30B	460/60/3	333928	10.8	18.4	ASHRAE 90.1-2022 compliant

Unit

Model Number:	DPSC30B
Model Type:	Cooling
Heat Type:	Hot Water
Hot Gas Reheat:	MHGRH
Energy Recovery:	None
Application:	Variable Air Volume, Single Zone (Mixed Air or 100% OA)
Controls:	Microtech
Outside Air:	0-100% Economizer with Comparative Enthalpy Control
Altitude:	0 ft
Approval	cETLus

Physical

Dimensions and Weight

Length	Height*	Width	Weight*
185.9 in	72.1 in	76.5 in	3851 lb

Construction

Exterior	Insulation and Liners	Air Opening Location	
		Return	Supply
Painted Galvanized Steel	2" Injected Foam, R13, Galvanized Steel Liner	Bottom	Bottom

Electrical

Unit FLA	MCA	MROPD	SCCR
75.8 A	82.0 A	100 A	10 kAIC

Note:	Use only copper supply wires with ampacity based on 75° C conductor rating. Connections to terminals must be made with copper lugs and copper wire.

Job Information	Technical Data Sheet
Job Name	Newburgh CTE
Date	6/6/2024
Submitted By	Jacob Andrews
Software Version	12.60
Unit Tag	RTU-F-206

Unit Overview

Model Number	Voltage V/Hz/Phase	Design Cooling Capacity Btu/hr	AHRI360 Standard Efficiency		ASHRAE 90.1-2022 Compliant
			EER	IEER	
DPSC20B	460/60/3	238340	11.3	21.8	ASHRAE 90.1-2022 compliant

Unit

Model Number:	DPSC20B
Model Type:	Cooling
Heat Type:	Hot Water
Hot Gas Reheat:	MHGRH
Energy Recovery:	None
Application:	Variable Air Volume, Single Zone (Mixed Air or 100% OA)
Controls:	Microtech
Outside Air:	0-100% Economizer with Comparative Enthalpy Control
Altitude:	0 ft
Approval	cETLus

Physical

Dimensions and Weight

Length	Height*	Width	Weight*
185.9 in	72.1 in	76.5 in	3462 lb

Construction

Exterior	Insulation and Liners	Air Opening Location	
		Return	Supply
Painted Galvanized Steel	2" Injected Foam, R13, Galvanized Steel Liner	Bottom	Bottom

Electrical

Unit FLA	MCA	MROPD	SCCR
58.4 A	64.7 A	80 A	10 kAIC

Note:	Use only copper supply wires with ampacity based on 75° C conductor rating. Connections to terminals must be made with copper lugs and copper wire.

Job Information	*Technical Data Sheet*
Job Name	Newburgh CTE
Date	6/6/2024
Submitted By	Jacob Andrews
Software Version	12.60
Unit Tag	ERU-A-1.1

Unit Overview

Unit

Model Number:	DPSC25B
Model Type:	Cooling
Heat Type:	Hot Water
Hot Gas Reheat:	MHGRH
Energy Recovery:	ERW-Large Cab-Econ: 5145cfm max, 100% OA: 8820 cfm max
Application:	Variable Air Volume, Single Zone (Mixed Air or 100% OA)
Controls:	Microtech
Outside Air:	100% Outside Air
Altitude:	0 ft
Approval	cETLus

Physical

Dimensions and Weight

Length	Height*	Width	Weight*
205.9 in	72.1 in	76.5 in	4126 lb

Construction

Exterior	Insulation and Liners	Air Opening Location	
		Return	Supply
Painted Galvanized Steel	2" Injected Foam, R13, Galvanized Steel Liner	Bottom	Bottom

Electrical

Unit FLA	MCA	MROPD	SCCR
70.0 A	76.3 A	100 A	10 kAIC

Note:	Use only copper supply wires with ampacity based on 75° C conductor rating. Connections to terminals must be made with copper lugs and copper wire.

Job Information	*Technical Data Sheet*
Job Name	Newburgh CTE
Date	6/6/2024
Submitted By	Jacob Andrews
Software Version	12.60
Unit Tag	ERU-B-1.2

Unit Overview

Unit

Model Number:	DPSC12B
Model Type:	Cooling
Heat Type:	Hot Water
Hot Gas Reheat:	MHGRH
Energy Recovery:	ERW-Med Cab-Econ: 2835 cfm max, 100% OA: 5145 cfm max
Application:	Variable Air Volume, Single Zone (Mixed Air or 100% OA)
Controls:	Microtech
Outside Air:	100% Outside Air
Altitude:	0 ft
Approval	cETLus

Physical

Dimensions and Weight

Length	Height*	Width	Weight*
121.6 in	85.9 in	73.4 in	2482 lb

Construction

Exterior	Insulation and Liners	Air Opening Location	
		Return	Supply
Painted Galvanized Steel	1" Injected Foam, R-7, Galvanized Steel Liner	Bottom	Bottom

Electrical

Unit FLA	MCA	MROPD	SCCR
36.1 A	42.3 A	60 A	10 kAIC

Note:	Use only copper supply wires with ampacity based on 75° C conductor rating. Connections to terminals must be made with copper lugs and copper wire.

Job Information	*Technical Data Sheet*
Job Name	Newburgh CTE
Date	6/6/2024
Submitted By	Jacob Andrews
Software Version	12.60
Unit Tag	ERU-C-2.1

Unit Overview

Unit

Model Number:	DPSC20B
Model Type:	Cooling
Heat Type:	Hot Water
Hot Gas Reheat:	MHGRH
Energy Recovery:	ERW-Large Cab-Econ: 5145cfm max, 100% OA: 8820 cfm max
Application:	Variable Air Volume, Single Zone (Mixed Air or 100% OA)
Controls:	Microtech
Outside Air:	100% Outside Air
Altitude:	0 ft
Approval	cETLus

Physical

Dimensions and Weight

Length	Height*	Width	Weight*
205.9 in	72.1 in	76.5 in	4003 lb

Construction

Exterior	Insulation and Liners	Air Opening Location	
		Return	Supply
Painted Galvanized Steel	2" Injected Foam, R13, Galvanized Steel Liner	Bottom	Bottom

Electrical

Unit FLA	MCA	MROPD	SCCR
61.2 A	67.4 A	90 A	10 kAIC

Note:	Use only copper supply wires with ampacity based on 75° C conductor rating. Connections to terminals must be made with copper lugs and copper wire.

Job Information	*Technical Data Sheet*
Job Name	Newburgh CTE
Date	6/6/2024
Submitted By	Jacob Andrews
Software Version	12.60
Unit Tag	ERU-D-2.2

Unit Overview

Unit

Model Number:	DPSC16B
Model Type:	Cooling
Heat Type:	Hot Water
Hot Gas Reheat:	MHGRH
Energy Recovery:	ERW-Large Cab-Econ: 5145cfm max, 100% OA: 8820 cfm max
Application:	Variable Air Volume, Single Zone (Mixed Air or 100% OA)
Controls:	Microtech
Outside Air:	100% Outside Air
Altitude:	0 ft
Approval	cETLus

Physical

Dimensions and Weight

Length	Height*	Width	Weight*
205.9 in	72.1 in	76.5 in	3893 lb

Construction

Exterior	Insulation and Liners	Air Opening Location	
		Return	Supply
Painted Galvanized Steel	2" Injected Foam, R13, Galvanized Steel Liner	Bottom	Bottom

Electrical

Unit FLA	MCA	MROPD	SCCR
47.2 A	53.4 A	70 A	10 kAIC

Note:	Use only copper supply wires with ampacity based on 75° C conductor rating. Connections to terminals must be made with copper lugs and copper wire.

Job Information	*Technical Data Sheet*
Job Name	Newburgh CTE
Date	6/6/2024
Submitted By	Jacob Andrews
Software Version	12.60
Unit Tag	ERU-E-2.3

Unit Overview

Unit

Model Number:	DPSC20B
Model Type:	Cooling
Heat Type:	Hot Water
Hot Gas Reheat:	MHGRH
Energy Recovery:	ERW-Large Cab-Econ: 5145cfm max, 100% OA: 8820 cfm max
Application:	Variable Air Volume, Single Zone (Mixed Air or 100% OA)
Controls:	Microtech
Outside Air:	100% Outside Air
Altitude:	0 ft
Approval	cETLus

Physical

Dimensions and Weight

Length	Height*	Width	Weight*
205.9 in	72.1 in	76.5 in	3893 lb

Construction

Exterior	Insulation and Liners	Air Opening Location	
		Return	Supply
Painted Galvanized Steel	2" Injected Foam, R13, Galvanized Steel Liner	Bottom	Bottom

Electrical

Unit FLA	MCA	MROPD	SCCR
61.2 A	67.4 A	90 A	10 kAIC

Note:	Use only copper supply wires with ampacity based on 75° C conductor rating. Connections to terminals must be made with copper lugs and copper wire.

Job Information	*Technical Data Sheet*
Job Name	Newburgh CTE
Date	6/6/2024
Submitted By	Jacob Andrews
Software Version	12.60
Unit Tag	ERU-F-3.3

Unit Overview

Unit

Model Number:	DPSC17B
Model Type:	Cooling
Heat Type:	Hot Water
Hot Gas Reheat:	MHGRH
Energy Recovery:	ERW-Med Cab-Econ: 2835 cfm max, 100% OA: 5145 cfm max
Application:	Variable Air Volume, Single Zone (Mixed Air or 100% OA)
Controls:	Microtech
Outside Air:	100% Outside Air
Altitude:	0 ft
Approval	cETLus

Physical

Dimensions and Weight

Length	Height*	Width	Weight*
121.6 in	85.9 in	73.4 in	3429 lb

Construction

Exterior	Insulation and Liners	Air Opening Location	
		Return	Supply
Painted Galvanized Steel	1" Injected Foam, R-7, Galvanized Steel Liner	Bottom	Bottom

Electrical

Unit FLA	MCA	MROPD	SCCR
49.6 A	58.6 A	90 A	10 kAIC

Note:	Use only copper supply wires with ampacity based on 75° C conductor rating. Connections to terminals must be made with copper lugs and copper wire.

Job Information	Technical Data Sheet
Job Name	Newburgh CTE
Date	6/6/2024
Submitted By	Jacob Andrews
Software Version	12.60
Unit Tag	ERU-G-117

Unit Overview

Model Number	Voltage V/Hz/Phase	Design Cooling Capacity Btu/hr	AHRI360 Standard Efficiency		ASHRAE 90.1-2022 Compliant
			EER	IEER	
DPSC25B	460/60/3	287303	11.3	19.6	ASHRAE 90.1-2022 compliant

Unit

Model Number:	DPSC25B
Model Type:	Cooling
Heat Type:	Hot Water
Hot Gas Reheat:	MHGRH
Energy Recovery:	ERW-Large Cab-Econ: 5145cfm max, 100% OA: 8820 cfm max
Application:	Variable Air Volume, Single Zone (Mixed Air or 100% OA)
Controls:	Microtech
Outside Air:	0-100% Economizer with Drybulb Control
Altitude:	0 ft
Approval	cETLus

Physical

Dimensions and Weight

Length	Height*	Width	Weight*
205.9 in	72.1 in	76.5 in	4209 lb

Construction

Exterior	Insulation and Liners	Air Opening Location	
		Return	Supply
Painted Galvanized Steel	2" Injected Foam, R13, Galvanized Steel Liner	Bottom	Bottom

Electrical

Unit FLA	MCA	MROPD	SCCR
74.0 A	80.2 A	100 A	10 kAIC

Note:	Use only copper supply wires with ampacity based on 75° C conductor rating. Connections to terminals must be made with copper lugs and copper wire.

YNNUFZ

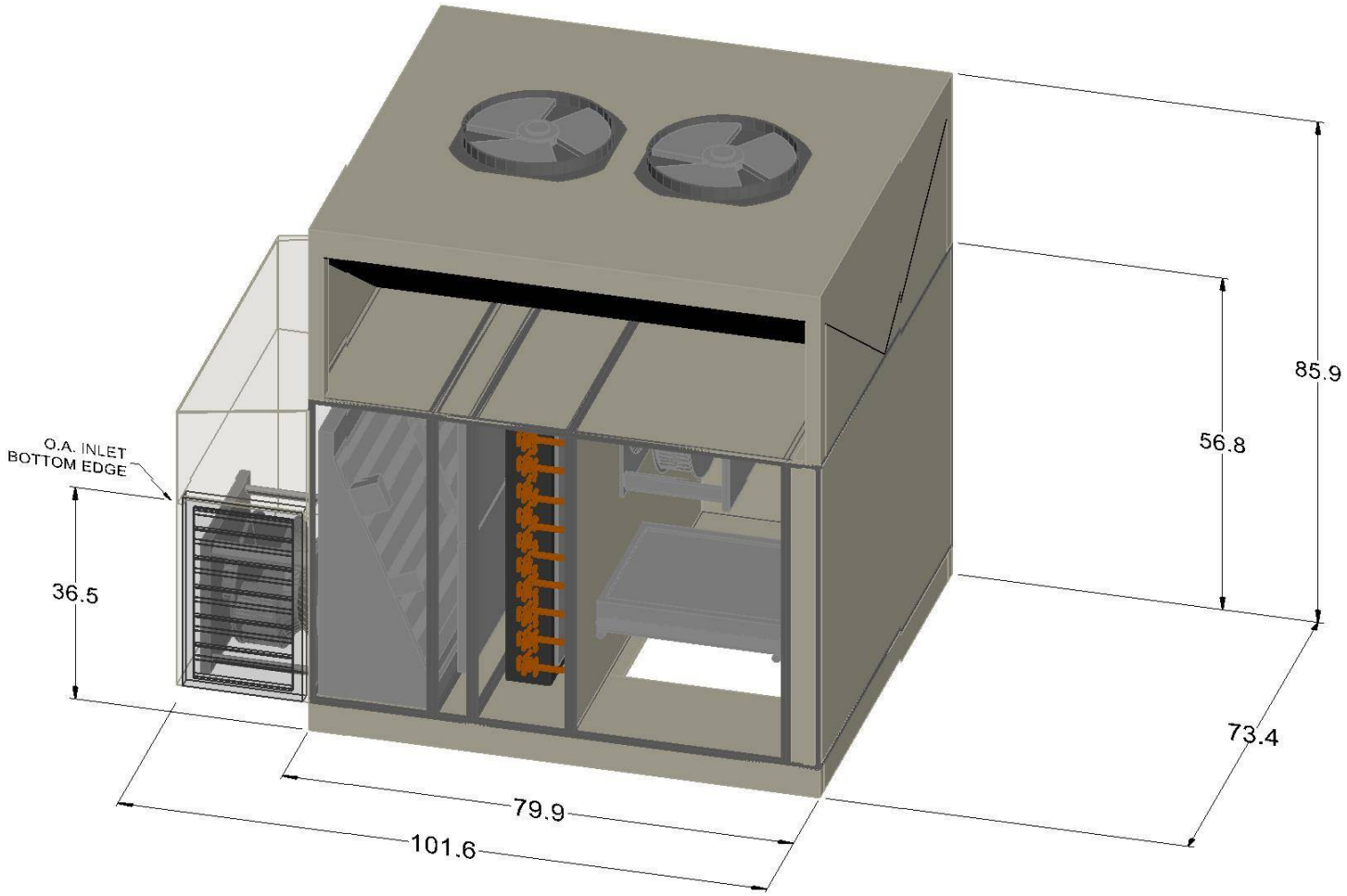
Newburgh CTE

85

6/6/2024

RTU-A

Rebel Drawings



Notes:
(1) Recommended location for optional field cut side power connection.

	Unit Tag: RTU-A			Sales Office: Thermal Environment Sales			DAIKIN
Product: Rebel	Project Name: Newburgh CTE			Sales Engineer:			13600 Industrial Park Blvd. Minneapolis, MN 55441
Model: DPSC07B	June 06, 2024	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/- 0.25"	Dwg Units: in [mm]	www.DaikinApplied.com Software Version: 12.60

YNNUFZ

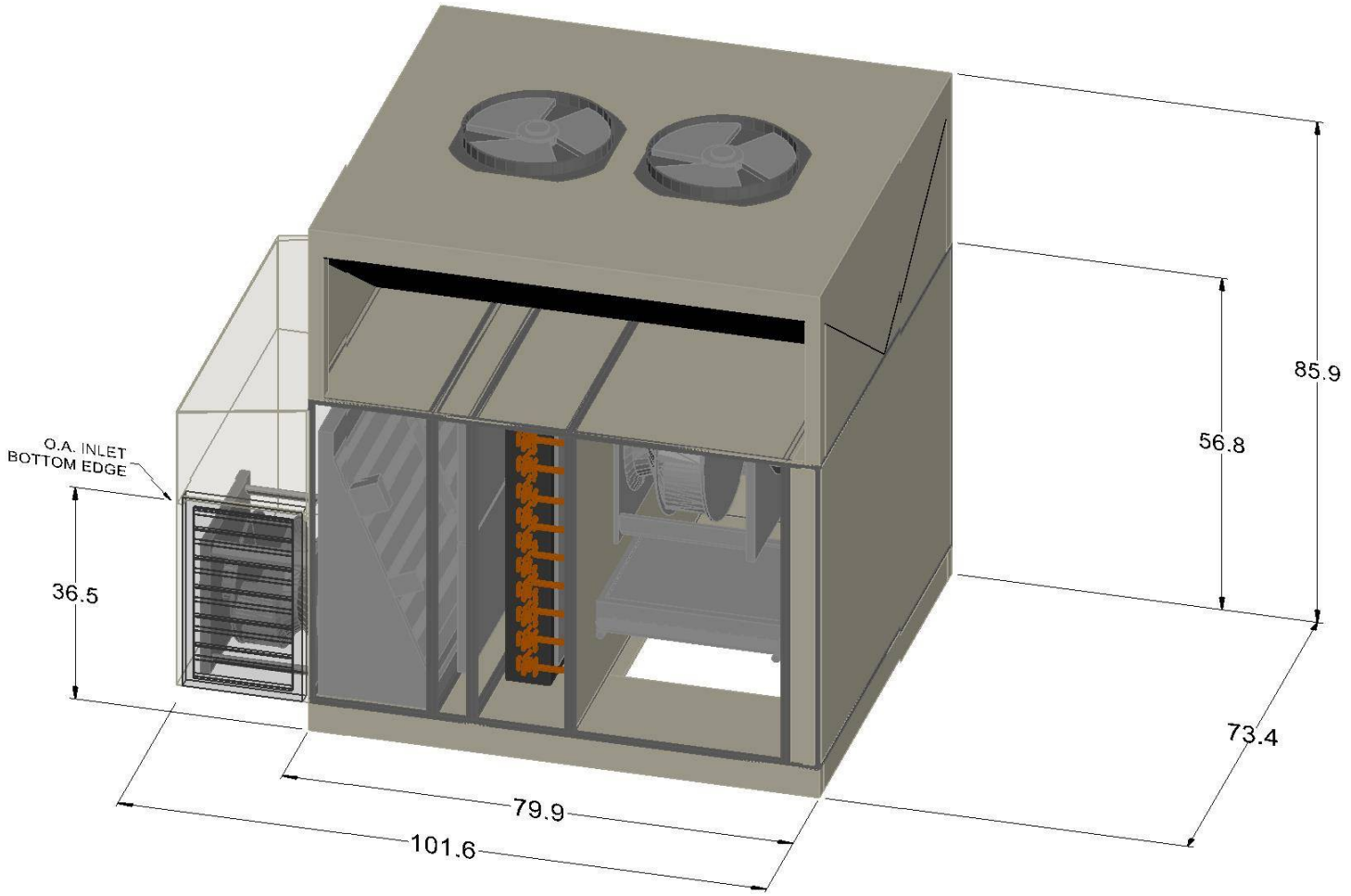
Newburgh CTE

70

6/6/2024

RTU-B-129

Rebel Drawings



Notes:
(1) Recommended location for optional field cut side power connection.

	Unit Tag: RTU-B-129			Sales Office: Thermal Environment Sales			DAIKIN
Product: Rebel	Project Name: Newburgh CTE			Sales Engineer:			13600 Industrial Park Blvd. Minneapolis, MN 55441
Model: DPSC12B	June 06, 2024	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/- 0.25"	Dwg Units: in [mm]	www.DaikinApplied.com Software Version: 12.60

YNNUFZ

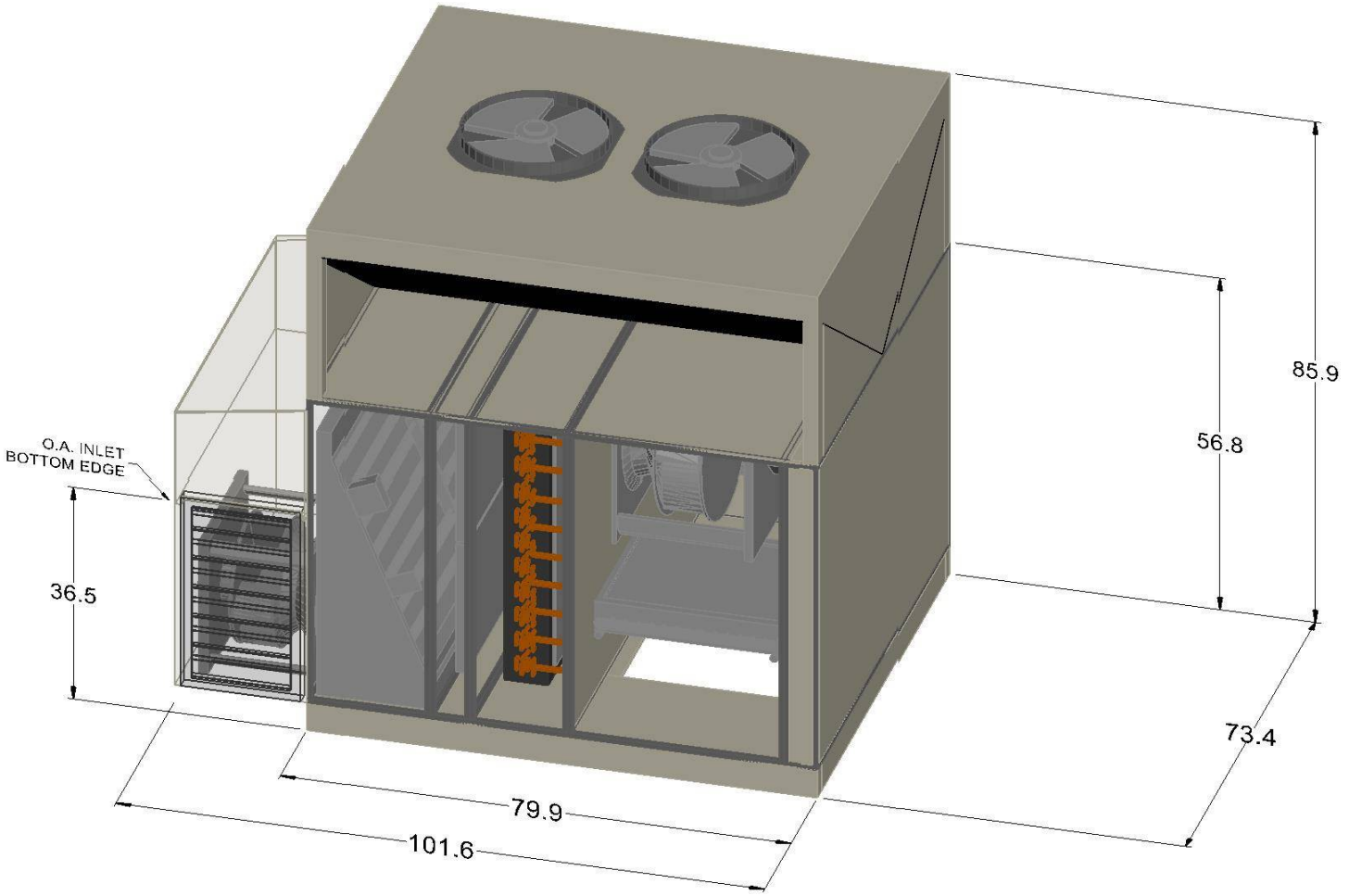
Newburgh CTE

73

6/6/2024

RTU-C-119

Rebel Drawings



Notes:
(1) Recommended location for optional field cut side power connection.

	Unit Tag: RTU-C-119			Sales Office: Thermal Environment Sales			DAIKIN
Product: Rebel	Project Name: Newburgh CTE			Sales Engineer:			13600 Industrial Park Blvd. Minneapolis, MN 55441
Model: DPSC12B	June 06, 2024	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/- 0.25"	Dwg Units: in [mm]	www.DaikinApplied.com Software Version: 12.60

YNNUFZ

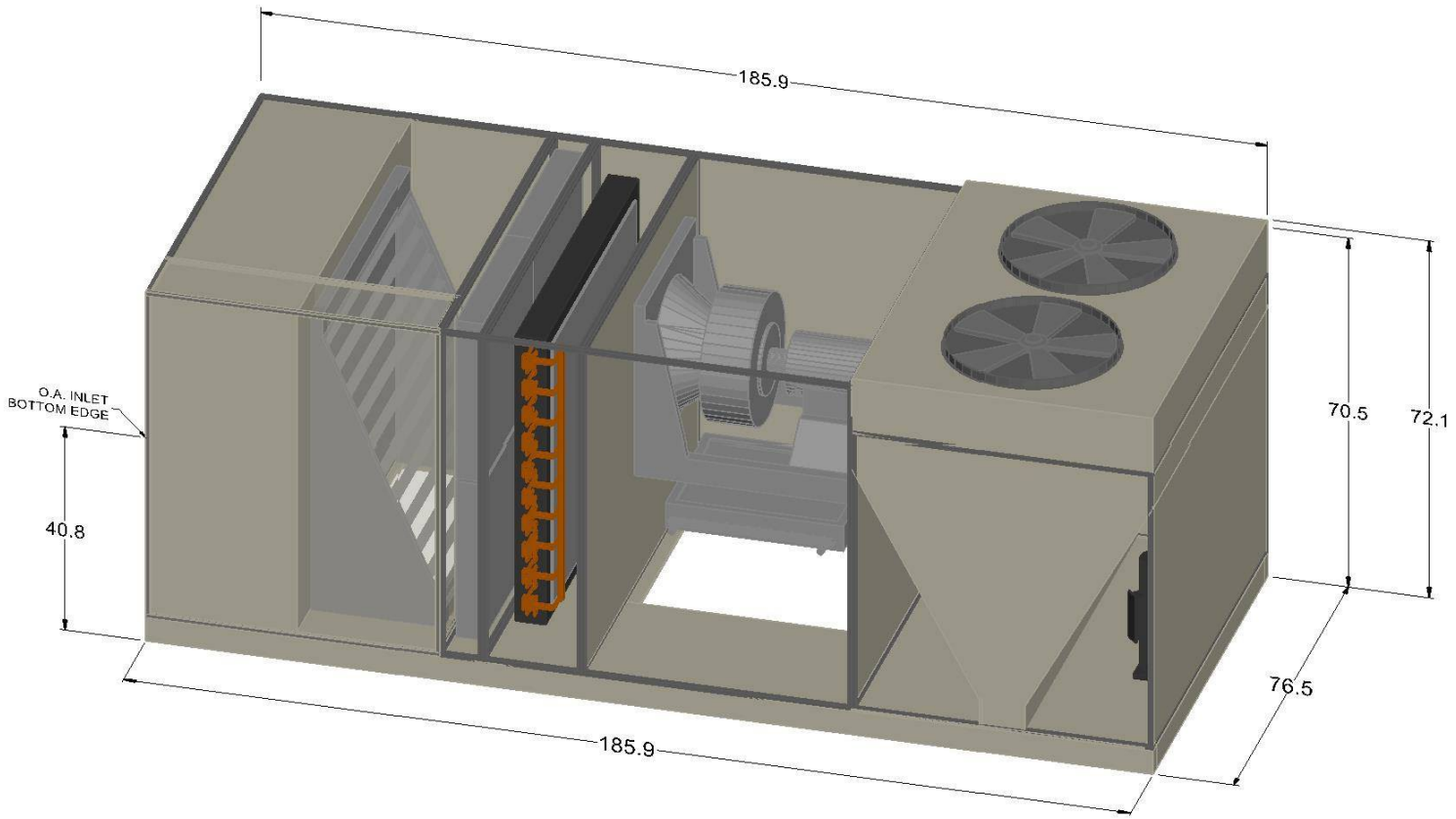
Newburgh CTE

76

6/6/2024

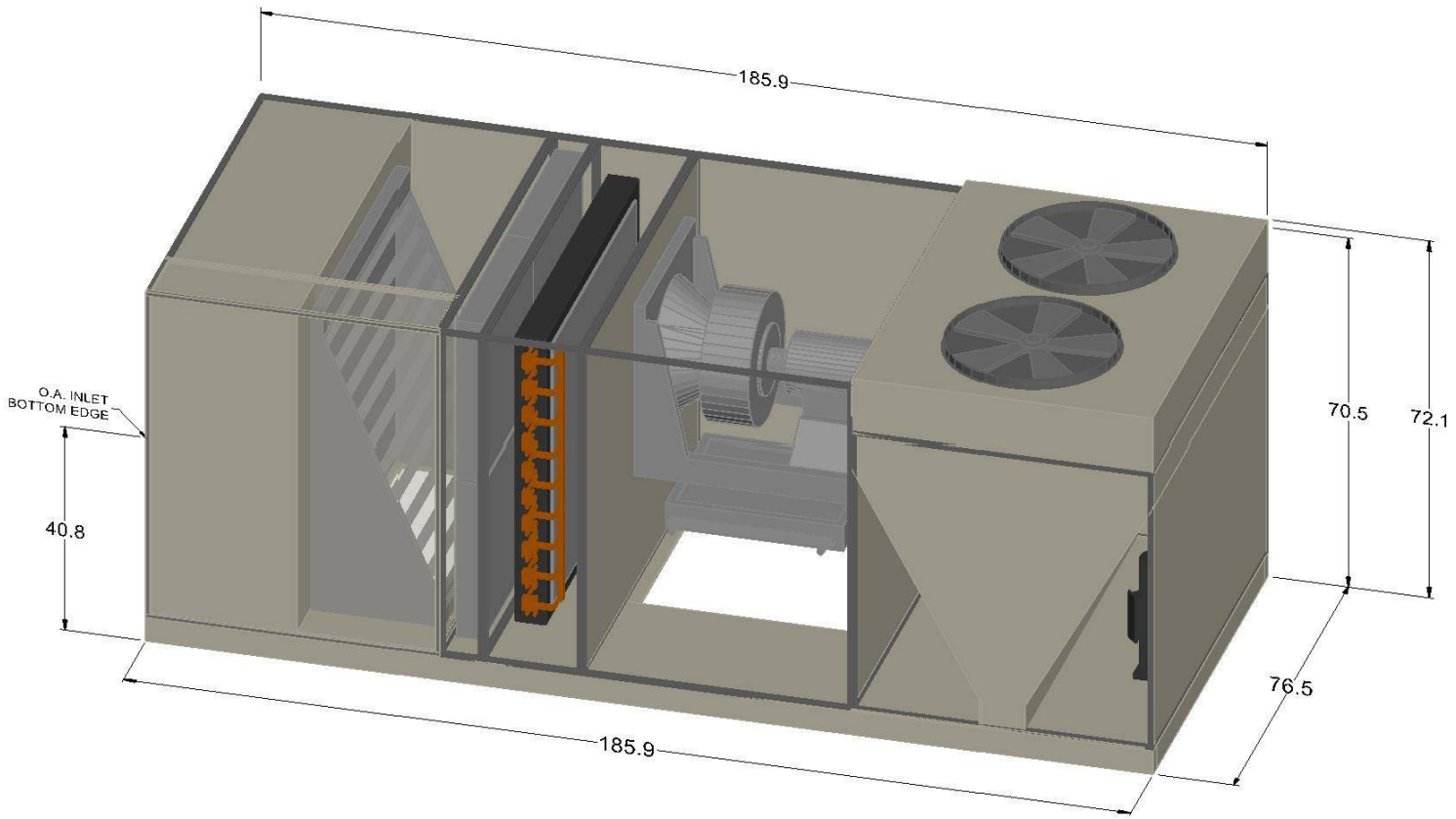
RTU-D-120

Rebel Drawings



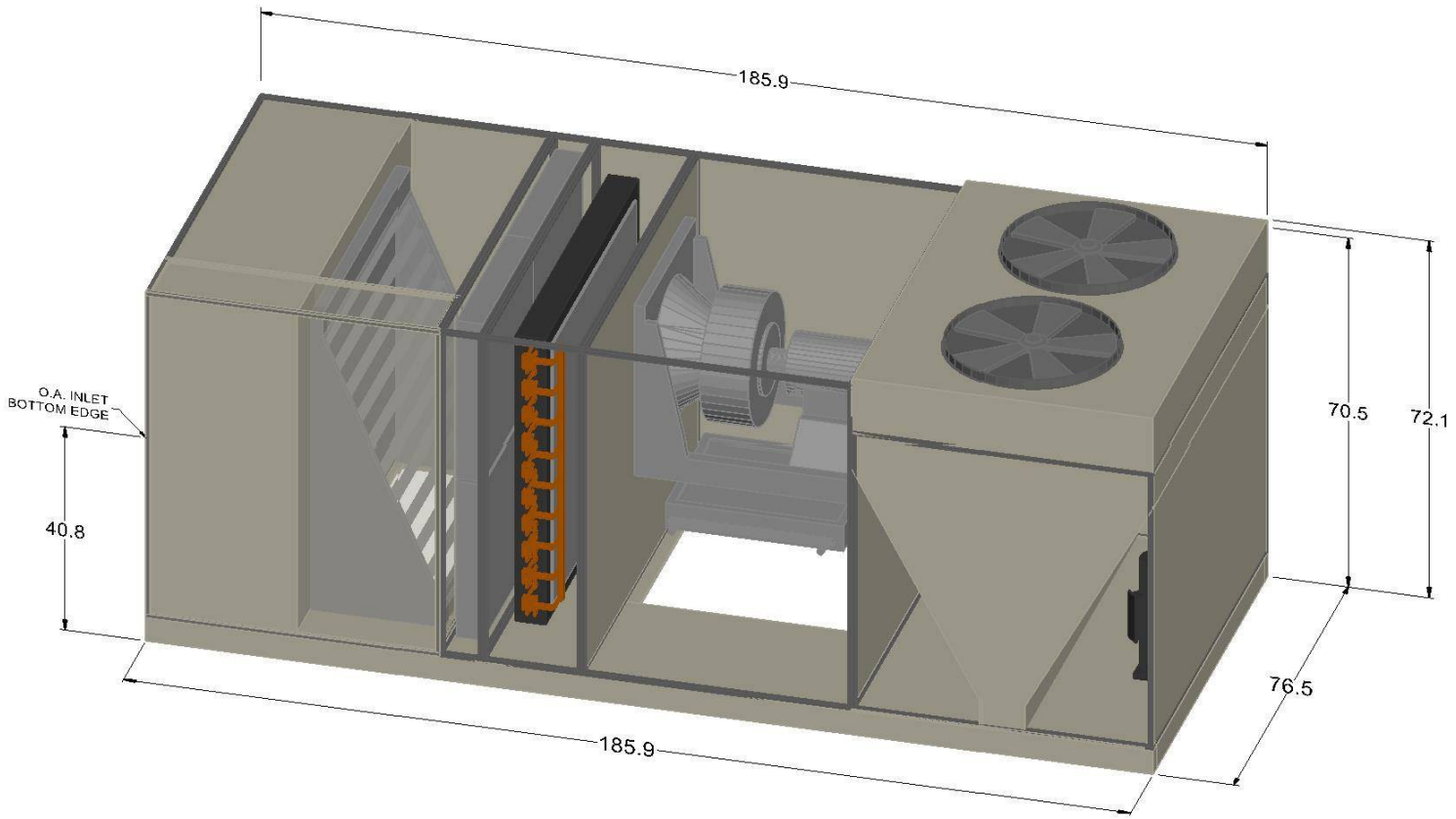
Notes:
(1) Recommended location for optional field cut side power connection.

	Unit Tag: RTU-D-120			Sales Office: Thermal Environment Sales			DAIKIN
Product: Rebel	Project Name: Newburgh CTE			Sales Engineer:			13600 Industrial Park Blvd. Minneapolis, MN 55441
Model: DPSC20B	June 06, 2024	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/- 0.25"	Dwg Units: in [mm]	www.DaikinApplied.com Software Version: 12.60



Notes:
(1) Recommended location for optional field cut side power connection.

	Unit Tag: RTU-E			Sales Office: Thermal Environment Sales			DAIKIN
Product: Rebel	Project Name: Newburgh CTE			Sales Engineer:			13600 Industrial Park Blvd. Minneapolis, MN 55441
Model: DPSC30B	June 06, 2024	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/- 0.25"	Dwg Units: in [mm]	www.DaikinApplied.com Software Version: 12.60



Notes:
(1) Recommended location for optional field cut side power connection.

	Unit Tag: RTU-F-206			Sales Office: Thermal Environment Sales			DAIKIN
Product: Rebel	Project Name: Newburgh CTE			Sales Engineer:			13600 Industrial Park Blvd. Minneapolis, MN 55441
Model: DPSC20B	June 06, 2024	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/- 0.25"	Dwg Units: in [mm]	www.DaikinApplied.com Software Version: 12.60

YNNUFZ

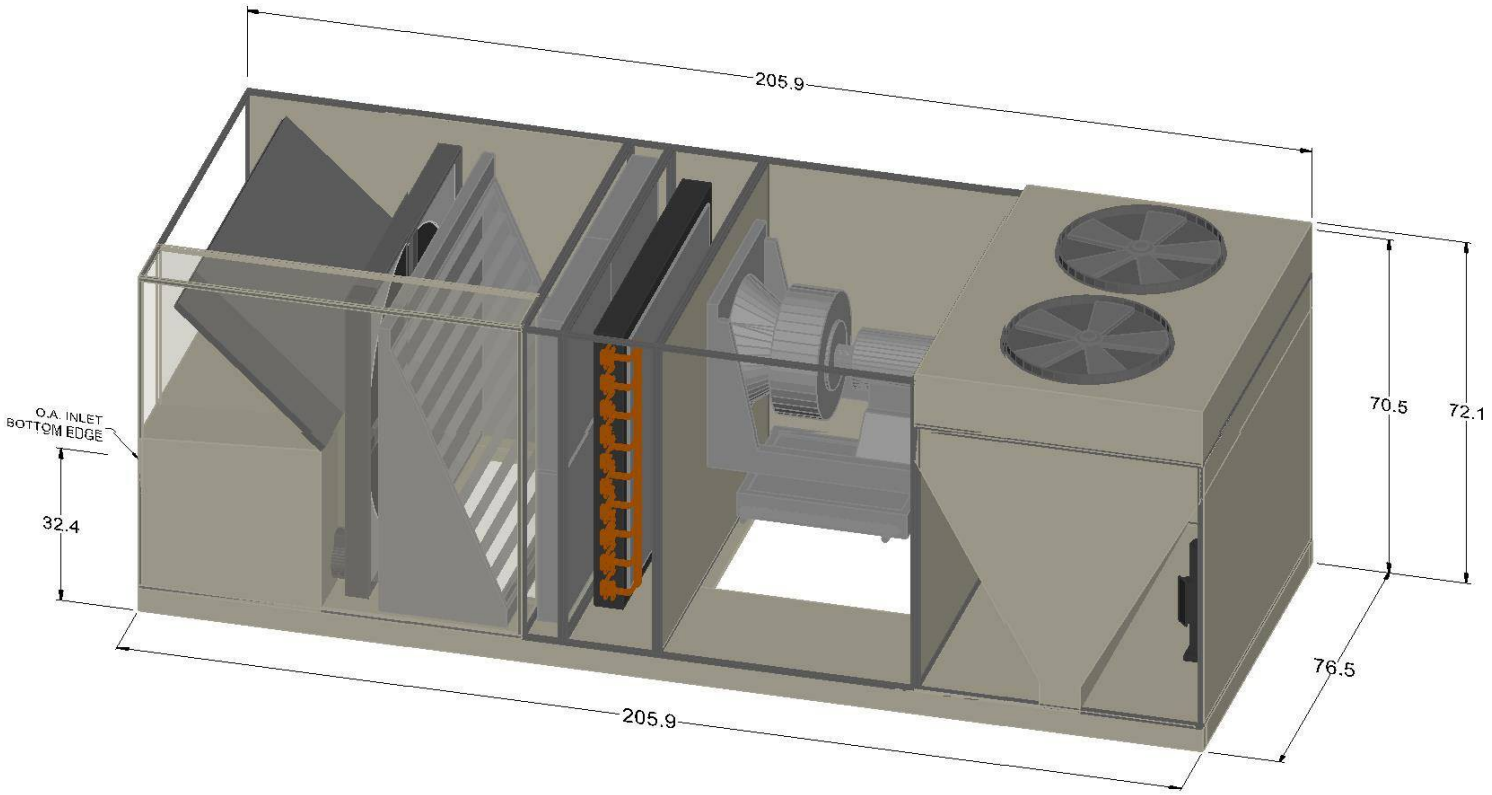
Newburgh CTE

88

6/6/2024

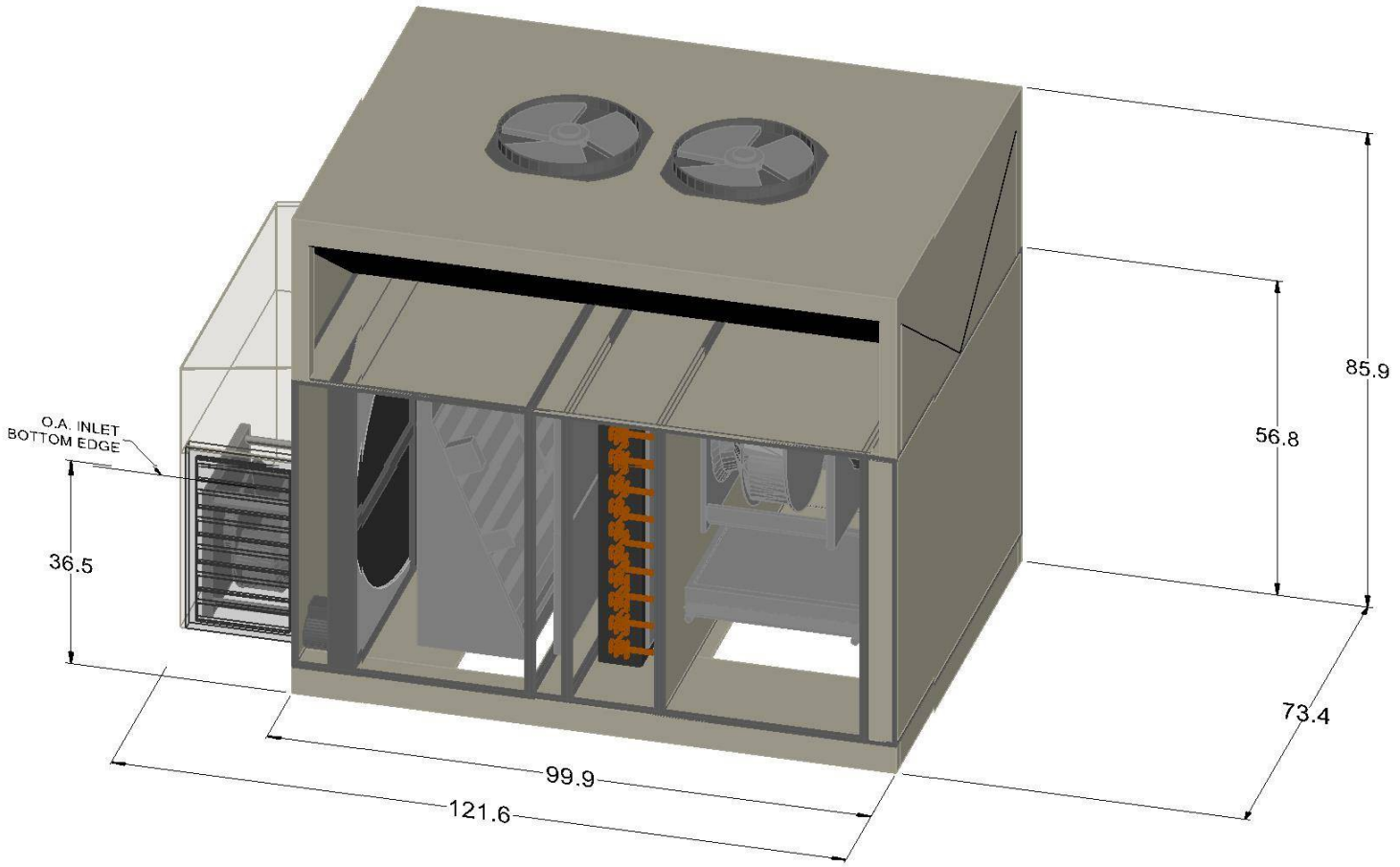
ERU-A-1.1

Rebel Drawings



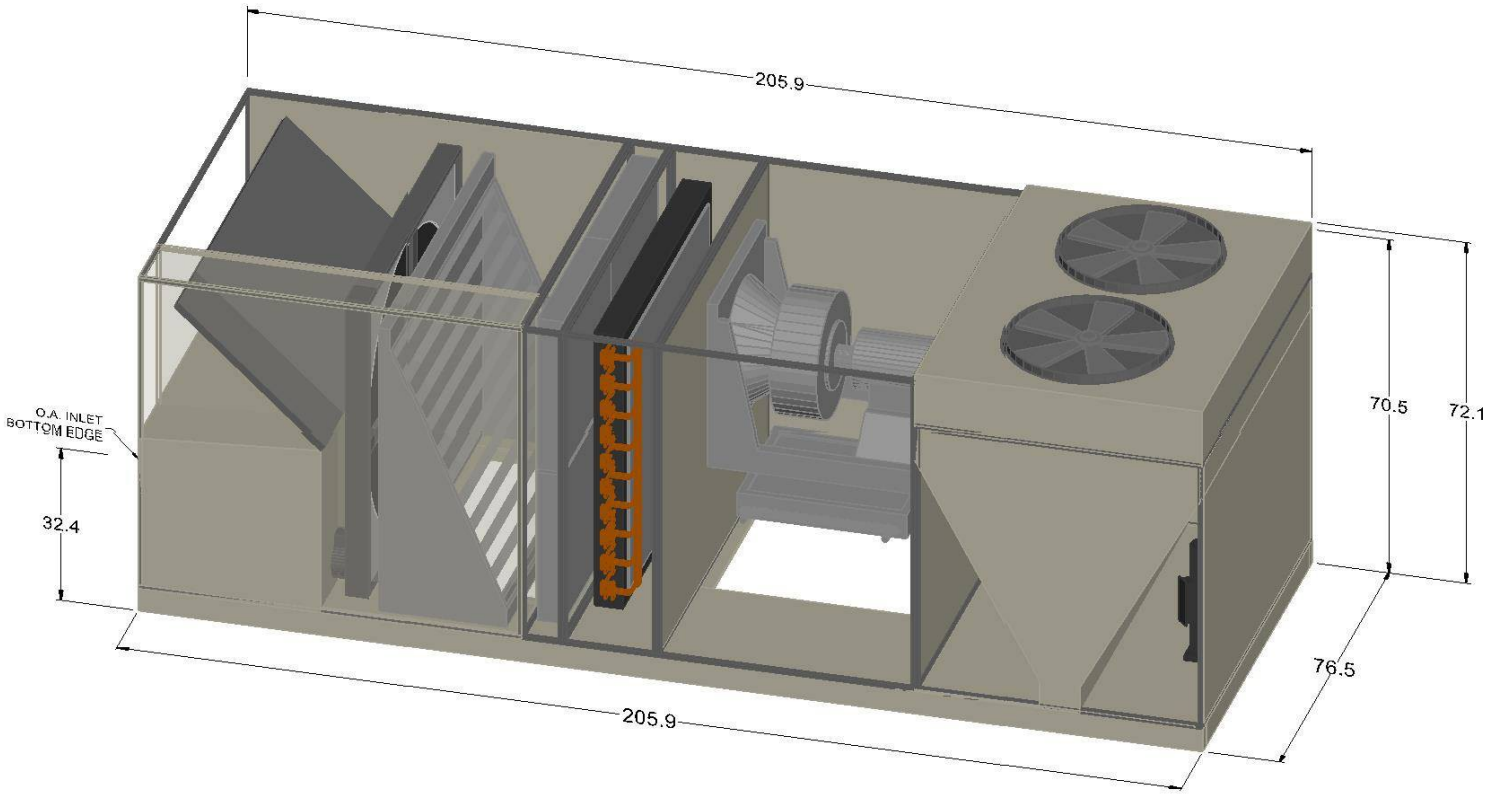
Notes:
(1) Recommended location for optional field cut side power connection.

	Unit Tag: ERU-A-1.1			Sales Office: Thermal Environment Sales			DAIKIN
Product: Rebel	Project Name: Newburgh CTE			Sales Engineer:			13600 Industrial Park Blvd. Minneapolis, MN 55441
Model: DPSC25B	June 06, 2024	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/- 0.25"	Dwg Units: in [mm]	www.DaikinApplied.com Software Version: 12.60



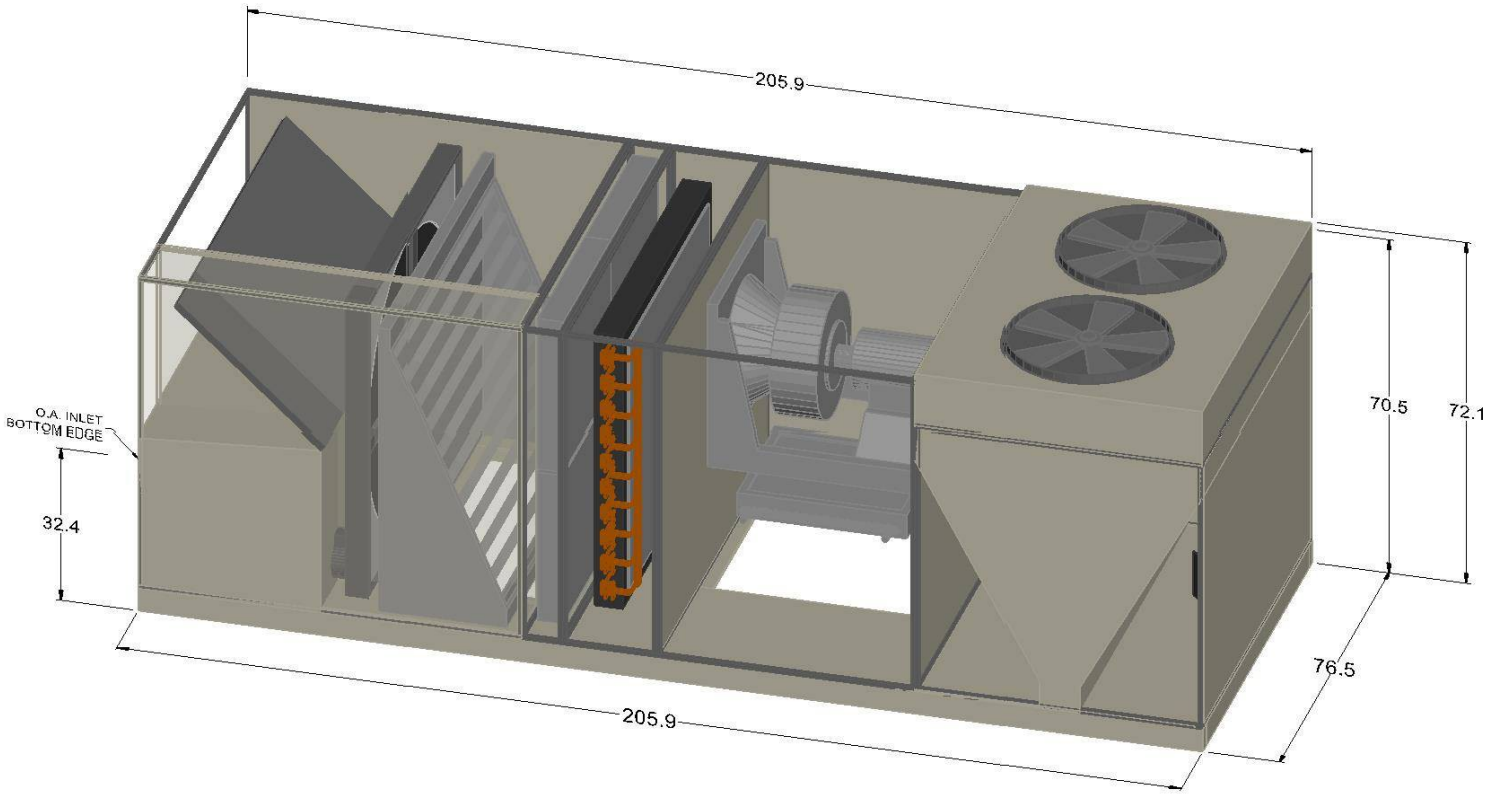
Notes:
(1) Recommended location for optional field cut side power connection.

	Unit Tag: ERU-B-1.2			Sales Office: Thermal Environment Sales			DAIKIN
Product: Rebel	Project Name: Newburgh CTE			Sales Engineer:			13600 Industrial Park Blvd. Minneapolis, MN 55441
Model: DPSC12B	June 06, 2024	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/- 0.25"	Dwg Units: in [mm]	www.DaikinApplied.com Software Version: 12.60



Notes:
(1) Recommended location for optional field cut side power connection.

	Unit Tag: ERU-C-2.1			Sales Office: Thermal Environment Sales			DAIKIN
Product: Rebel	Project Name: Newburgh CTE			Sales Engineer:			13600 Industrial Park Blvd. Minneapolis, MN 55441
Model: DPSC20B	June 06, 2024	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/- 0.25"	Dwg Units: in [mm]	www.DaikinApplied.com Software Version: 12.60



Notes:
(1) Recommended location for optional field cut side power connection.

	Unit Tag: ERU-D-2.2			Sales Office: Thermal Environment Sales			DAIKIN
Product: Rebel	Project Name: Newburgh CTE			Sales Engineer:			13600 Industrial Park Blvd. Minneapolis, MN 55441
Model: DPSC16B	June 06, 2024	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/- 0.25"	Dwg Units: in [mm]	www.DaikinApplied.com Software Version: 12.60

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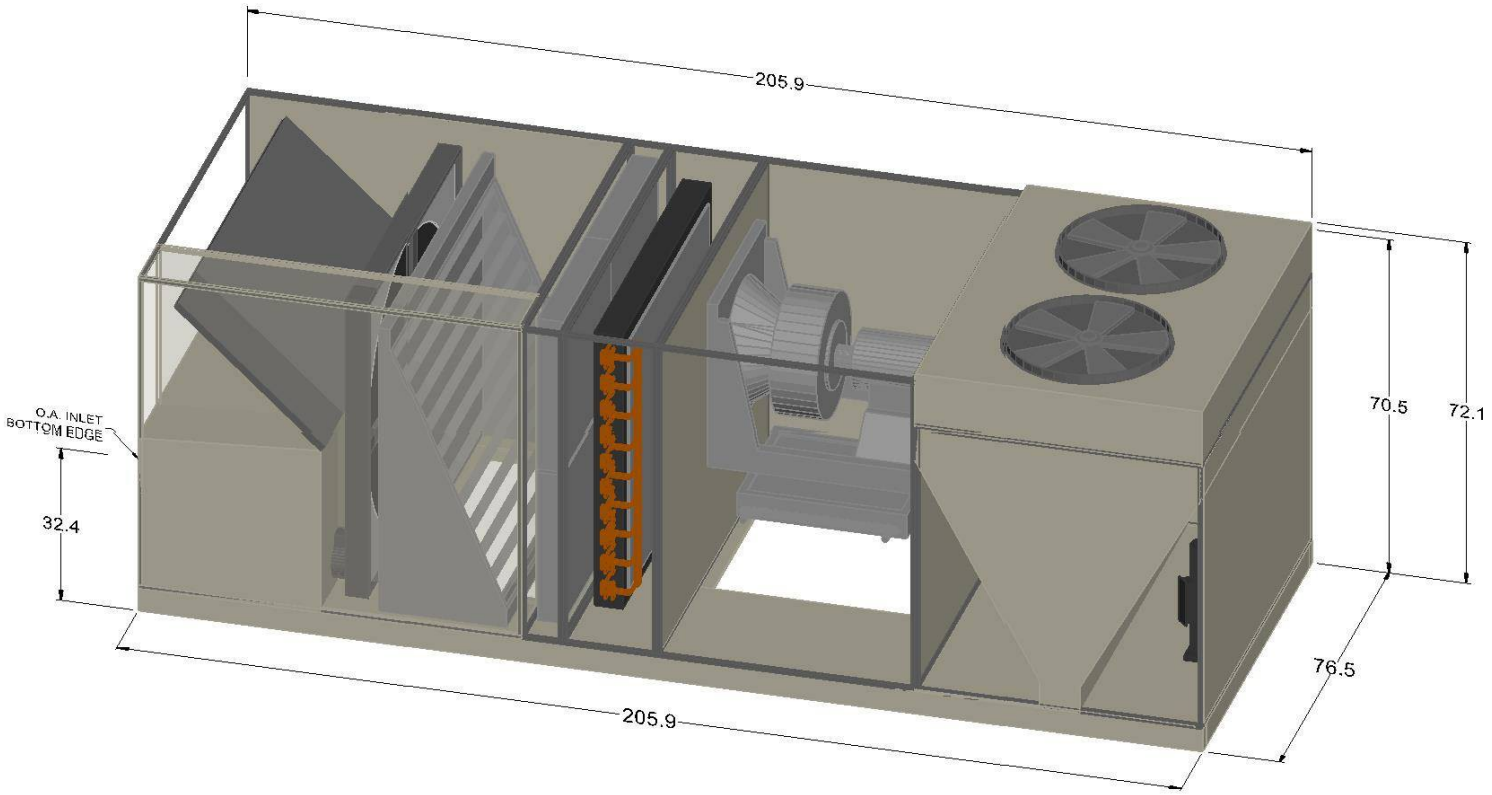
Newburgh CTE

100

6/6/2024

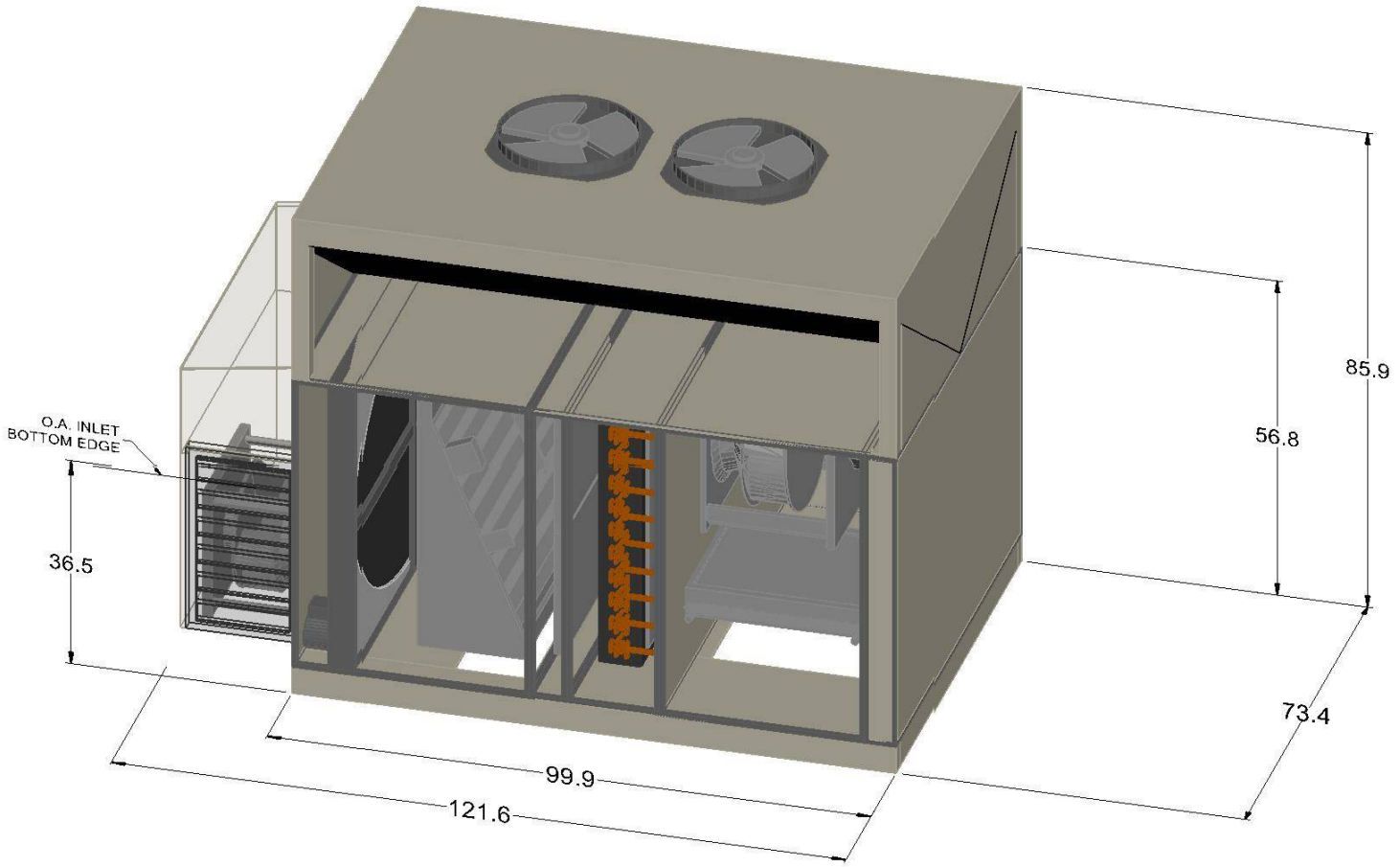
ERU-E-2.3

Rebel Drawings



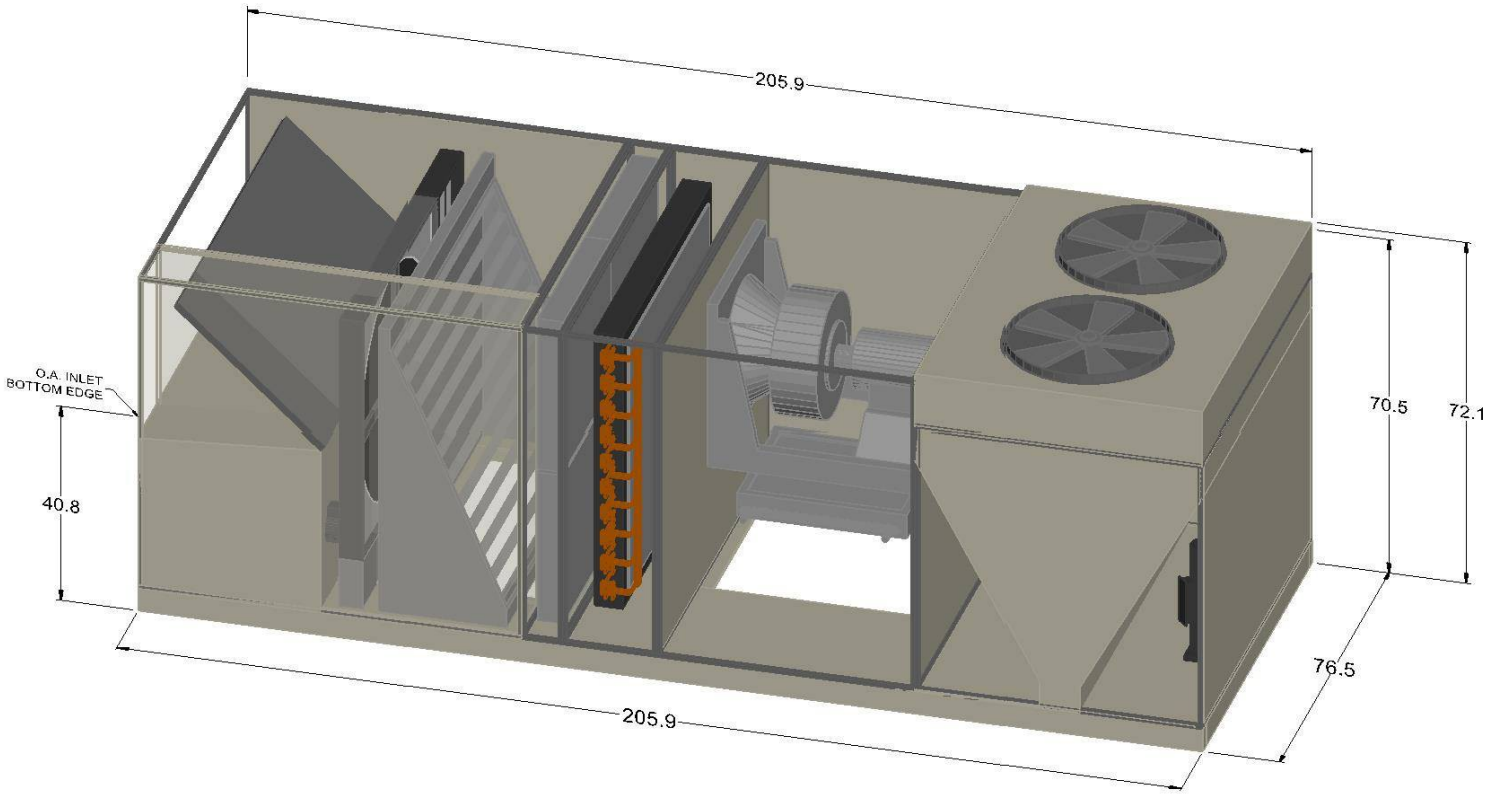
Notes:
(1) Recommended location for optional field cut side power connection.

	Unit Tag: ERU-E-2.3			Sales Office: Thermal Environment Sales			DAIKIN
Product: Rebel	Project Name: Newburgh CTE			Sales Engineer:			13600 Industrial Park Blvd. Minneapolis, MN 55441
Model: DPSC20B	June 06, 2024	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/- 0.25"	Dwg Units: in [mm]	www.DaikinApplied.com Software Version: 12.60



Notes:
(1) Recommended location for optional field cut side power connection.

	Unit Tag: ERU-F-3.3			Sales Office: Thermal Environment Sales			DAIKIN
Product: Rebel	Project Name: Newburgh CTE			Sales Engineer:			13600 Industrial Park Blvd. Minneapolis, MN 55441
Model: DPSC17B	June 06, 2024	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/- 0.25"	Dwg Units: in [mm]	www.DaikinApplied.com Software Version: 12.60



Notes:
(1) Recommended location for optional field cut side power connection.

	Unit Tag: ERU-G-117			Sales Office: Thermal Environment Sales			DAIKIN
Product: Rebel	Project Name: Newburgh CTE			Sales Engineer:			13600 Industrial Park Blvd. Minneapolis, MN 55441
Model: DPSC25B	June 06, 2024	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/- 0.25"	Dwg Units: in [mm]	www.DaikinApplied.com Software Version: 12.60

Job Information				Technical Data Sheet
Job Name	Newburgh CTE			
Date	6/6/2024			
Submitted By	Jacob Andrews			
Software Version	10.30	**Coil DLL Version**	10.30	
Unit Tag	HC-A			

Coil Overview

Model Number	Application	Total Capacity Btu/hr	Air Flow CFM	Fin Height in	Fin Length in
5WL0803A	Hot Water coil	65645	1520	21	21.00

Coil

Model Number:	5WL0803A
Application:	Hot Water coil
Type	Standard
Crating:	Standard Crate

Physical (Per Coil)

Depth	Height	Length	Weight		
			Shipping	Operating	Dry
6.00 in	24.00 in	31.25 in	144 lb	66 lb	48 lb

Material			
Tube Diameter	**Fin**	**Tube**	**Case**
0.625 in	0.0075 in Aluminum	0.020 in Copper nominal	Galvanized steel

Geometry					
Fin Design	**Fins per Inch**	**Number of Rows**	**Fin Height**	**Fin Length**	**Tube Spacing**
Flat	8	3	21 in	21.00 in	1.50 X 1.299

Connection				Flange Dimensions	
Type	**Size**	**Hand**	**Length**	**Header**	**Side**
Carbon Steel (threaded)	1.500 in	Right Hand	3.00 in	1.50 in	1.50 in

Performance

Air Flow CFM	Altitude ft	Face Area ft^2	Face Velocity ft/min
1520	0	3.1	496.3

Total Capacity Btu/hr	Temperature				Air Pressure Drop inH_2O
	Entering		Leaving		
	Air Dry Bulb °F	Water °F	Air Dry Bulb °F	Water °F	
65645	56.0	150.0	95.5	119.5	0.14

Fluid				
Pressure Drop ft H_2O	**Flow rate** gpm	**Velocity** ft/s	**Type**	**Volume** gal
0.1	4.3	0.4	Water	2.00

Hot Water Fouling Factor:	0.0000

Options

Coil Options	Brass Turbospirals
Protective Coatings	None

Job Information	*Technical Data Sheet*		
Job Name	Newburgh CTE		
Date	6/6/2024		
Submitted By	Jacob Andrews		
Software Version	10.30	**Coil DLL Version**	10.30
Unit Tag	HC-B		

Coil Overview

Model Number	Application	Total Capacity Btu/hr	Air Flow CFM	Fin Height in	Fin Length in
5WL0803A	Hot Water coil	78782	1800	24	21.00

Coil

Model Number:	5WL0803A
Application:	Hot Water coil
Type	Standard
Crating:	Standard Crate

Physical (Per Coil)

Depth	Height	Length	Weight		
			Shipping	Operating	Dry
6.00 in	27.00 in	31.25 in	153 lb	74 lb	53 lb

Material

Tube Diameter	Fin	Tube	Case
0.625 in	0.0075 in Aluminum	0.020 in Copper nominal	Galvanized steel

Geometry

Fin Design	Fins per Inch	Number of Rows	Fin Height	Fin Length	Tube Spacing
Flat	8	3	24 in	21.00 in	1.50 X 1.299

Connection				Flange Dimensions	
Type	**Size**	**Hand**	**Length**	**Header**	**Side**
Carbon Steel (threaded)	1.500 in	Right Hand	3.00 in	1.50 in	1.50 in

Performance

Air Flow CFM	Altitude ft	Face Area ft^2	Face Velocity ft/min
1800	0	3.5	514.3

Total Capacity Btu/hr	Temperature				Air Pressure Drop inH_2O
	Entering		Leaving		
	Air Dry Bulb °F	Water °F	Air Dry Bulb °F	Water °F	
78782	55.0	150.0	95.0	119.7	0.15

Fluid

Pressure Drop ft H_2O	Flow rate gpm	Velocity ft/s	Type	Volume gal
0.1	5.2	0.5	Water	2.00

Hot Water Fouling Factor:	0.0000

Options

Coil Options	Brass Turbospirals
Protective Coatings	None

Job Information	*Technical Data Sheet*		
Job Name	Newburgh CTE		
Date	6/6/2024		
Submitted By	Jacob Andrews		
Software Version	10.30	**Coil DLL Version**	10.30
Unit Tag	HC-C-314B		

Coil Overview

Model Number	Application	Total Capacity Btu/hr	Air Flow CFM	Fin Height in	Fin Length in
5WH0902A	Hot Water coil	16617	600	15	16.00

Coil

Model Number:	5WH0902A
Application:	Hot Water coil
Type	Standard
Crating:	Standard Crate

Physical (Per Coil)

Depth	Height	Length	Weight		
			Shipping	Operating	Dry
2.93 in	18.00 in	28.76 in	91 lb	41 lb	30 lb

Material			
Tube Diameter	**Fin**	**Tube**	**Case**
0.625 in	0.0075 in Aluminum	0.020 in Copper nominal	Galvanized steel

Geometry					
Fin Design	**Fins per Inch**	**Number of Rows**	**Fin Height**	**Fin Length**	**Tube Spacing**
Flat	9	2	15 in	16.00 in	1.50 X 1.299

Connection				Flange Dimensions	
Type	**Size**	**Hand**	**Length**	**Header**	**Side**
Carbon Steel (threaded)	2.500 in	Right Hand	3.00 in	1.50 in	1.50 in

Performance

Air Flow CFM	Altitude ft	Face Area ft^2	Face Velocity ft/min
600	0	1.7	360.0

Total Capacity Btu/hr	Temperature				Air Pressure Drop inH_2O
	Entering		Leaving		
	Air Dry Bulb °F	Water °F	Air Dry Bulb °F	Water °F	
16617	70.0	150.0	95.3	119.8	0.06

Fluid				
Pressure Drop ft H_2O	**Flow rate** gpm	**Velocity** ft/s	**Type**	**Volume** gal
0.1	1.1	0.2	Water	1.00

Hot Water Fouling Factor:	0.0000

Options

Coil Options	Brass Turbospirals
Protective Coatings	None

Job Information				Technical Data Sheet
Job Name	Newburgh CTE			
Date	6/6/2024			
Submitted By	Jacob Andrews			
Software Version	10.30	**Coil DLL Version**	10.30	
Unit Tag	HC-ERV-A			

Coil Overview

Model Number	Application	Total Capacity Btu/hr	Air Flow CFM	Fin Height in	Fin Length in
5BS1002A	Hot Water coil	14853	525	9	12.00

Coil

Model Number:	5BS1002A
Application:	Hot Water coil
Type	Heating - Booster
Crating:	Standard Crate

Physical (Per Coil)

Depth	Height	Length	Weight		
			Shipping	Operating	Dry
5.50 in	9.69 in	16.94 in	12 lb	11 lb	10 lb

Material

Tube Diameter	Fin	Tube	Case
0.625 in	0.0075 in Aluminum	0.020 in Copper nominal	Slip & Drive

Geometry

Fin Design	Fins per Inch	Number of Rows	Fin Height	Fin Length	Tube Spacing
Flat	10	2	9 in	12.00 in	1.50 X 1.299

Connection

Type	Size	Hand	Length
Copper Wrot Male NPT	0.500 in	Right Hand	3.00 in

Performance

Air Flow CFM	Altitude ft	Face Area ft^2	Face Velocity ft/min
525	0	0.8	700.0

Total Capacity Btu/hr	Temperature				Air Pressure Drop inH_2O
	Entering		Leaving		
	Air Dry Bulb °F	Water °F	Air Dry Bulb °F	Water °F	
14853	70.0	150.0	95.9	123.0	0.20

Fluid

Pressure Drop ft H_2O	Flow rate gpm	Velocity ft/s	Type	Volume gal
1.0	1.1	1.2	Water	1.00

Hot Water Fouling Factor:	0.0000

Options

Coil Options	Brass Turbospirals
Protective Coatings	None

Job Information			
Job Name	Newburgh CTE		
Date	6/6/2024		
Submitted By	Jacob Andrews		
Software Version	10.30	**Coil DLL Version**	10.30
Unit Tag	HC-ERV-B		

Technical Data Sheet

Coil Overview

Model Number	Application	Total Capacity Btu/hr	Air Flow CFM	Fin Height in	Fin Length in
5WQ0603A	Hot Water coil	29948	1100	12	16.00

Coil

Model Number:	5WQ0603A
Application:	Hot Water coil
Type	Standard
Crating:	Standard Crate

Physical (Per Coil)

Depth	Height	Length	Weight		
			Shipping	Operating	Dry
6.00 in	15.00 in	26.62 in	102 lb	35 lb	26 lb

Material

Tube Diameter	Fin	Tube	Case
0.625 in	0.0075 in Aluminum	0.020 in Copper nominal	Galvanized steel

Geometry

Fin Design	Fins per Inch	Number of Rows	Fin Height	Fin Length	Tube Spacing
Flat	6	3	12 in	16.00 in	1.50 X 1.299

Connection				Flange Dimensions	
Type	**Size**	**Hand**	**Length**	**Header**	**Side**
Carbon Steel (threaded)	1.500 in	Right Hand	3.00 in	1.50 in	1.50 in

Performance

Air Flow CFM	Altitude ft	Face Area ft^2	Face Velocity ft/min
1100	0	1.3	825.0

Total Capacity Btu/hr	Temperature				Air Pressure Drop inH_2O
	Entering		Leaving		
	Air Dry Bulb °F	Water °F	Air Dry Bulb °F	Water °F	
29948	70.0	150.0	94.9	121.5	0.30

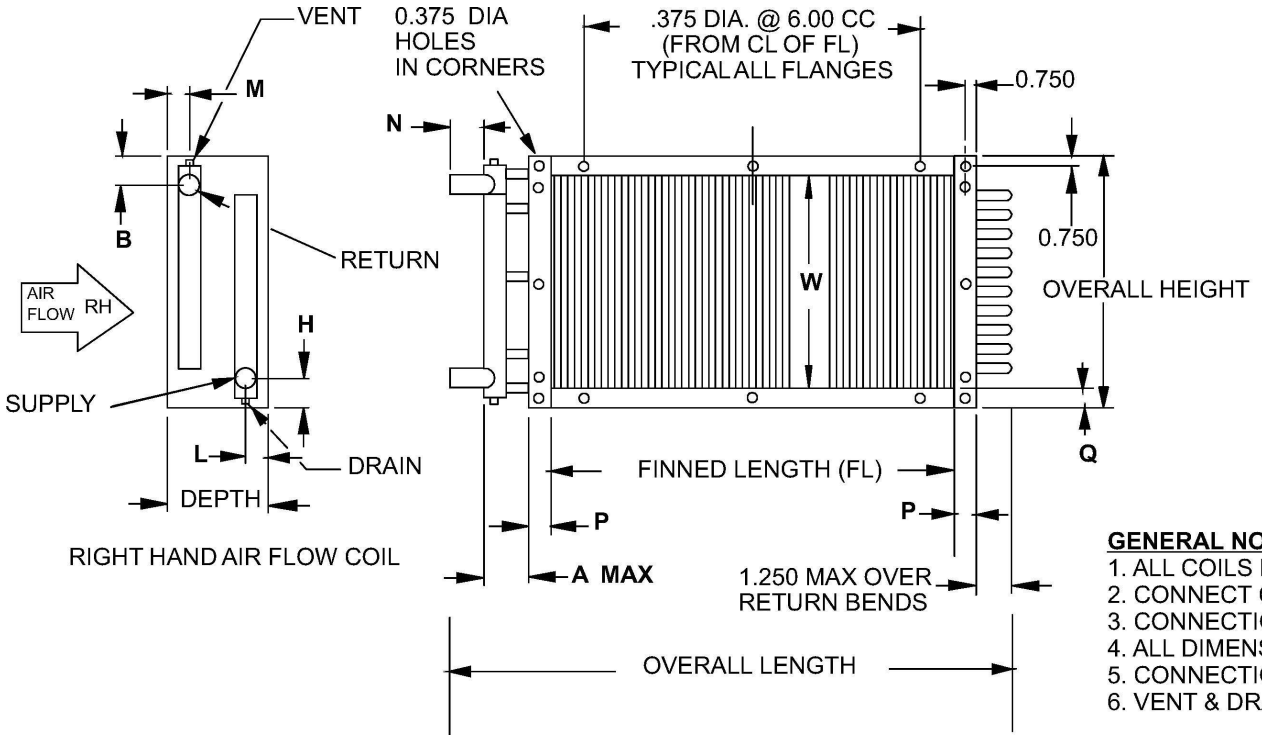
Fluid

Pressure Drop ft H_2O	Flow rate gpm	Velocity ft/s	Type	Volume gal
1.1	2.1	1.1	Water	1.00

Hot Water Fouling Factor:	0.0000

Options

Coil Options	Brass Turbospirals
Protective Coatings	None



GENERAL NOTES:

1. ALL COILS DRAINABLE
2. CONNECT COILS FOR COUNTERFLOW
3. CONNECTIONS ARE PIPE, NPT (EXT.)
4. ALL DIMENSIONS IN INCHES (MM)
5. CONNECTION LOCATION ± 0.125
6. VENT & DRAIN, ¼ NPT

Dimensions																
Coil Model	Coil Airflow	Rows	Fin Height (in)	Fin Length (in)	Overall Height (in)	Overall Length (in)	Conn Size (in)	A (in)	B (in)	H (in)	L (in)	M (in)	N (in)	P (in)	Q (in)	Depth (in)
5WL0803A	Horizontal	3	21	21.00	24.00	31.25	1.500	3.000	2.300	2.300	1.70	1.70	3.00	1.50	1.50	6.000

Product Drawing	Unit Tag: HC-A			Sales Office: Thermal Environment Sales		
Product:	Project Name: Newburgh CTE			Sales Engineer:		
Model: 5WL	June 06, 2024	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/- 0.25"	Dwg Units: (in)

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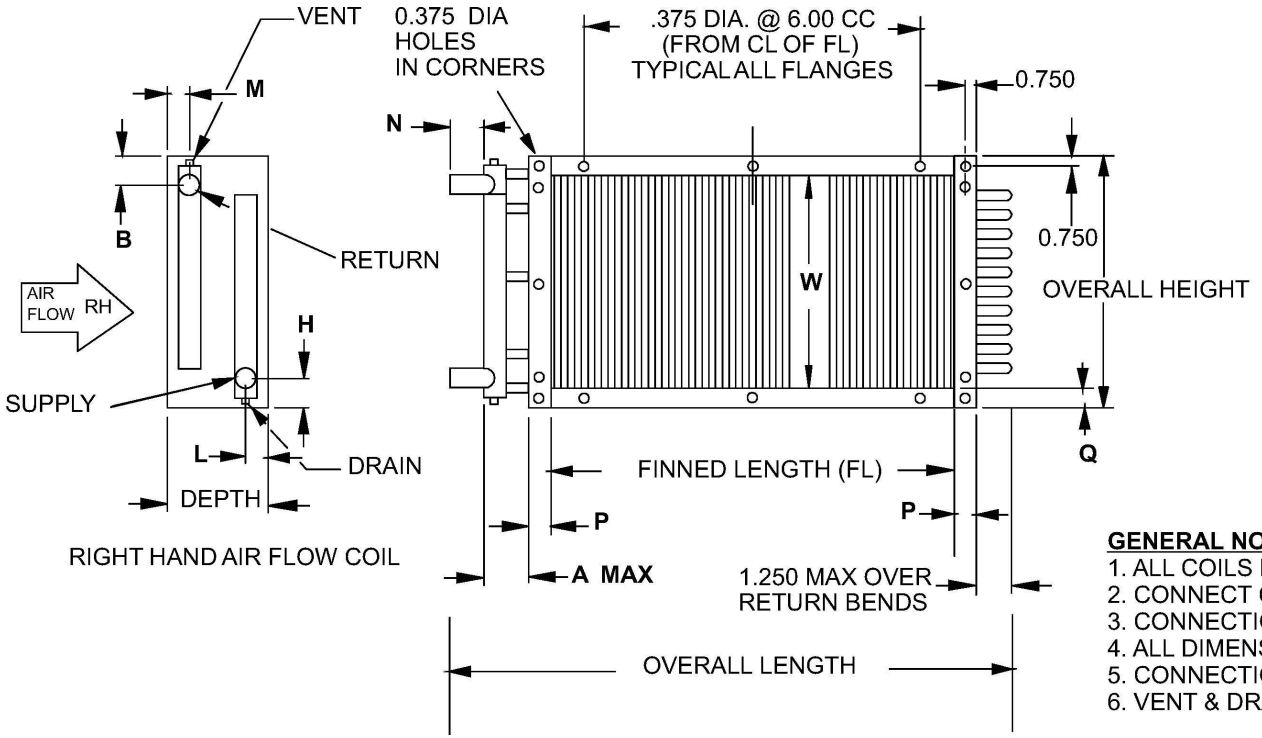
Newburgh CTE

120

6/6/2024

HC-B

CW Same end RH_Drawing



GENERAL NOTES:

1. ALL COILS DRAINABLE
2. CONNECT COILS FOR COUNTERFLOW
3. CONNECTIONS ARE PIPE, NPT (EXT.)
4. ALL DIMENSIONS IN INCHES (MM)
5. CONNECTION LOCATION ± 0.125
6. VENT & DRAIN, ¼ NPT

Dimensions																
Coil Model	Coil Airflow	Rows	Fin Height (in)	Fin Length (in)	Overall Height (in)	Overall Length (in)	Conn Size (in)	A (in)	B (in)	H (in)	L (in)	M (in)	N (in)	P (in)	Q (in)	Depth (in)
5WL0803A	Horizontal	3	24	21.00	27.00	31.25	1.500	3.000	2.300	2.300	1.70	1.70	3.00	1.50	1.50	6.000

Product Drawing	Unit Tag: HC-B			Sales Office: Thermal Environment Sales			
Product:	Project Name: Newburgh CTE			Sales Engineer:			
Model: 5WL	June 06, 2024	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/- 0.25"	Dwg Units: (in)	

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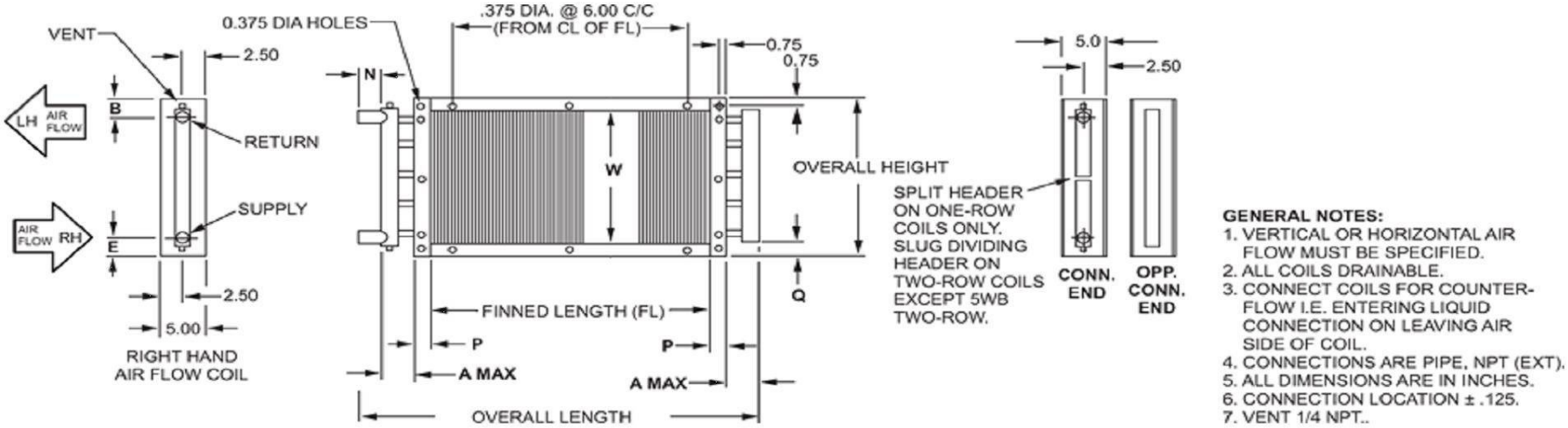

GENERAL NOTES:

1. VERTICAL OR HORIZONTAL AIR FLOW MUST BE SPECIFIED.
2. ALL COILS DRAINABLE.
3. CONNECT COILS FOR COUNTER-FLOW I.E. ENTERING LIQUID CONNECTION ON LEAVING AIR SIDE OF COIL.
4. CONNECTIONS ARE PIPE, NPT (EXT).
5. ALL DIMENSIONS ARE IN INCHES.
6. CONNECTION LOCATION ± .125.
7. VENT 1/4 NPT..

Dimensions													
Coil Model	Coil Airflow	Rows	Fin Height (in)	Fin Length (in)	Overall Height (in)	Overall Length (in)	Conn Size (in)	A (in)	B (in)	E (in)	N (in)	P (in)	Q (in)
5WH0902A	Horizontal	2	15	16.00	18.00	28.76	2.500	3.380	3.170	3.170	3.00	1.50	1.50

Product Drawing	Unit Tag: HC-C-314B			Sales Office: Thermal Environment Sales			
Product:	Project Name: Newburgh CTE			Sales Engineer:			
Model: 5WH	June 06, 2024	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/- 0.25"	Dwg Units: (in)	

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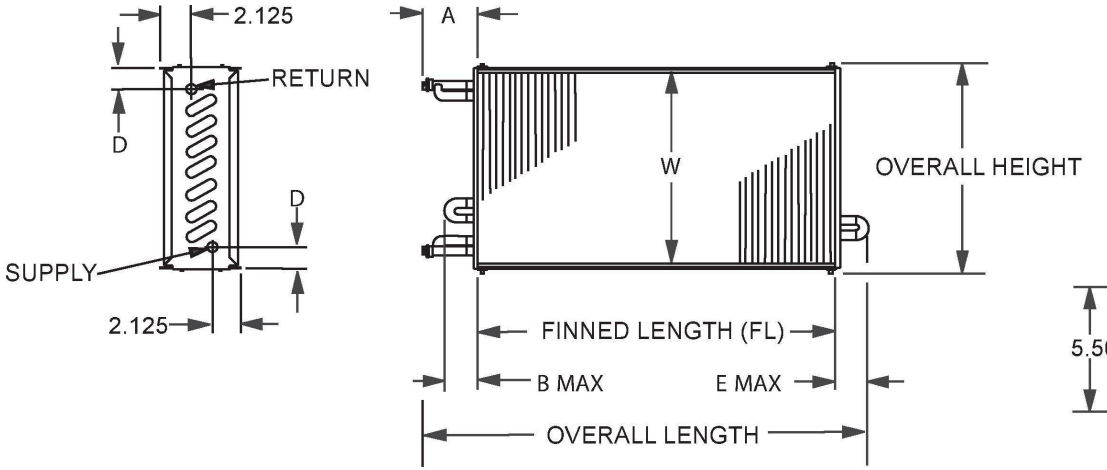
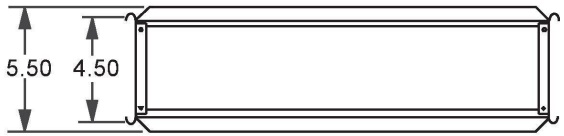


GENERAL NOTES
1. ALL DIMENSIONS ARE IN INCHES.
2. CONNECTION LOCATION ± 0.125.
3.W = FIN HEIGHT



Dimensions											
Coil Model	Coil Airflow	Rows	Fin Height (in)	Fin Length (in)	Overall Height (in)	Overall Length (in)	Conn Size (in)	A (in)	B (in)	D (in)	E (in)
5BS1002A	Horizontal	2	9	12.00	9.69	16.94	0.500	2.940	2.000	0.500	0.500

Product Drawing	Unit Tag: HC-ERV-A			Sales Office: Thermal Environment Sales			DAIKIN
Product:	Project Name: Newburgh CTE			Sales Engineer:			13600 Industrial Park Blvd. Minneapolis, MN 55441
Model: 5BS	June 06, 2024	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/- 0.25"	Dwg Units: (in)	www.DaikinApplied.com Software Version: 10.30

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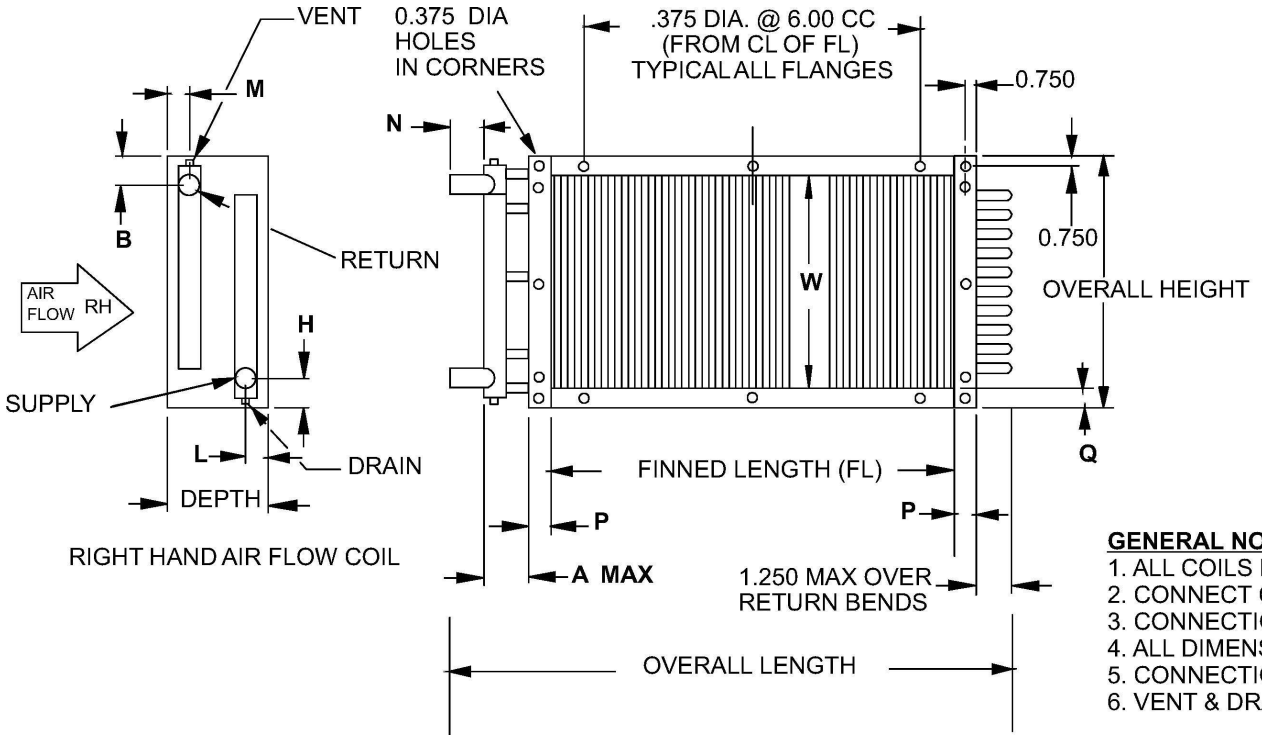
Newburgh CTE

123

6/6/2024

HC-ERV-B

CW Same end RH_Drawing



GENERAL NOTES:

1. ALL COILS DRAINABLE
2. CONNECT COILS FOR COUNTERFLOW
3. CONNECTIONS ARE PIPE, NPT (EXT.)
4. ALL DIMENSIONS IN INCHES (MM)
5. CONNECTION LOCATION ± 0.125
6. VENT & DRAIN, ¼ NPT

Dimensions																
Coil Model	Coil Airflow	Rows	Fin Height (in)	Fin Length (in)	Overall Height (in)	Overall Length (in)	Conn Size (in)	A (in)	B (in)	H (in)	L (in)	M (in)	N (in)	P (in)	Q (in)	Depth (in)
5WQ0603A	Horizontal	3	12	16.00	15.00	26.62	1.500	3.370	2.290	2.290	1.70	1.70	3.00	1.50	1.50	6.000

Product Drawing	Unit Tag: HC-ERV-B			Sales Office: Thermal Environment Sales		
Product:	Project Name: Newburgh CTE			Sales Engineer:		
Model: 5WQ	June 06, 2024	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/- 0.25"	Dwg Units: (in)

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Outdoor details

Name	Model	CR	Cooling			Heating			Piping
			Tmp C	CC		Tmp H	HC		
		%	°F	BTU/h		°F (DBT/WBT)	BTU/h		ft
CU-A-1	RXYQ264AAYDA	102.8	95.0	245,669		-3.0/-4.0	174,460		161.6
CU-B-1	RXYQ288AAYDA	100.0	95.0	260,526		-3.0/-4.0	193,699		222.6
CU-C-1	RXYQ312AAYDA	132.4	95.0	316,666		-3.0/-4.0	199,070		171.8
CU-D-1	RXYQ264AAYDA	100.0	95.0	240,549		-3.0/-4.0	172,834		188.6
CU-E-1	RXYQ288AAYDA	108.2	95.0	273,726		-3.0/-4.0	195,488		204.2
CU-G-1	RXYQ192AAYDA	100.0	95.0	177,436		-3.0/-4.0	123,567		118.3
CU-H-1	RXYQ192AAYDA	106.3	95.0	183,137		-3.0/-4.0	123,417		133.3
CU-K-1	RXYQ96AAYDA	100.0	95.0	88,727		-3.0/-4.0	71,155		106.6
CU-K-2	RXYQ96AAYDA	100.0	95.0	88,852		-3.0/-4.0	71,261		101.6

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SINGLE POINT POWER PANEL (SPPP)
DESIGNED FOR DAIKIN VRV CONDENSING UNITS

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Features

- NEMA 3R panels with Thermostatically controlled ventilation fans
- Thru-the-door main input disconnect
- Branch circuit isolation and protection
- Protection from Phase Loss, Reversal, and Imbalance as well as Under/Over Voltage
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- Optional 15A GFCI
- Line voltage 120VAC control transformer
- Safety interlock

Benefits

- Simplified trade coordination
- Reduced installation cost
- Protection of investment

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SPPP ELECTRICAL DATA

Daikin CU Model	Voltage	STANDARD				WITH GFCI OPTION				INTERRUPT RATING
		SPPP Model	MCA	MOP	FRAME	SPPP Model	MCA	MOP	FRAME	
REYQ72AAYDA RXYQ72AAYDA	480/3/60	EA072YD4S1	12.4	15	S1	EA072YD4S3-G	16.6	20	S3	100kA
REYQ96AAYDA RXYQ96AAYDA	480/3/60	EA096YD4S1	16.4	20	S1	EA096YD4S3-G	20.6	25	S3	100kA
REYQ120AAYDA RXYQ120AAYDA	480/3/60	EA120YD4S1	16.6	20	S1	EA120YD4S3-G	20.8	25	S3	100kA
REYQ144AAYDA RXYQ144AAYDA	480/3/60	EA144YD4S1	21.3	25	S1	EA144YD4S3-G	25.5	30	S3	100kA
REYQ168AAYDA RXYQ168AAYDA	480/3/60	EA168YD4S1	24.9	30	S1	EA168YD4S3-G	29.1	30	S3	100kA
REYQ192AAYDA RXYQ192AAYDA	480/3/60	EA192YD4S1	28.3	35	S1	EA192YD4S3-G	32.5	35	S3	100kA
REYQ216AAYDA RXYQ216AAYDA	480/3/60	EA216YD4S1	29.9	35	S1	EA216YD4S3-G	34.1	35	S3	100kA
REYQ240AAYDA RXYQ240AAYDA	480/3/60	EA240YD4S1	33.4	40	S1	EA240YD4S3-G	37.6	40	S3	100kA
REYQ264AAYDA RXYQ264AAYDA	480/3/60	EA264YD4D1	37.9	40	D1	EA264YD4D2-G	42.1	45	D2	100kA
REYQ288AAYDA RXYQ288AAYDA	480/3/60	EA288YD4D1	42.6	45	D1	EA288YD4D2-G	46.8	50	D2	100kA
REYQ312AAYDA RXYQ312AAYDA	480/3/60	EA312YD4D1	46.2	50	D1	EA312YD4D2-G	50.4	60	D2	100kA
REYQ336AAYDA RXYQ336AAYDA	480/3/60	EA336YD4D1	49.8	50	D1	EA336YD4D2-G	54	60	D2	100kA
REYQ360AAYDA RXYQ360AAYDA	480/3/60	EA360YD4D1	53.2	60	D1	EA360YD4D2-G	57.4	60	D2	100kA
REYQ384AAYDA RXYQ384AAYDA	480/3/60	EA384YD4D1	56.6	60	D1	EA384YD4D2-G	60.8	70	D2	100kA
REYQ408AAYDA RXYQ408AAYDA	480/3/60	EA408YD4D1	58.2	60	D1	EA408YD4D2-G	62.4	70	D2	100kA
REYQ432AAYDA RXYQ432AAYDA	480/3/60	EA432YD4D1	59.8	60	D1	EA432YD4D2-G	64	70	D2	100kA
REYQ456AAYDA RXYQ456AAYDA	480/3/60	EA456YD4D1	63.3	70	D1	EA456YD4D2-G	67.5	70	D2	100kA
REYQ480AAYDA RXYQ480AAYDA	480/3/60	EA480YD4D1	66.8	70	D1	EA480YD4D2-G	71	80	D2	100kA

ENCLOSURE FRAME SIZES S1 Enclosures 8"D, All Other Enclosures 10"D (not including disconnect handle)			
Single	S1 = 20"H X 20"W	BASIC BUILD →	S1-B = 20"H X 20"W
	S2 = 24"H X 20"W		S2-B = 24"H X 20"W
	S3 = 30"H X 24"W		S3-B = 30"H X 24"W
Dual	D1 = 30"H X 30"W		D1-B = 30"H X 24"W
	D2 = 36"H X 30"W		D2-B = 30"H X 30"W
	D3 = 36"H X 36"W		D3 BECOMES D2-B

Revised 10/21/2022

VARITEC SINGLE POINT POWER PANEL (SPPP) ICP

FEATURES:

- UL508A Type 3R outdoor rated assemblies feature components located inside a painted steel enclosure with thermostatically controlled ventilation fan(s).
- Only one three phase feed required.
- SCCR on all standard assemblies will be 80-100kA depending on specific model delivering power to units with minimum 5kA rating.
- Main fused disconnect, sized for total panel load, with class J, time delay, dual element fuses.
- Main disconnect has through-door, interlocked and padlockable handle.
- Branch fused disconnect for powered unit(s) – sized to unit MOP with class J, time delay, fuses.
- Unit disconnects have direct mount disconnect handles.
- Control transformer: line voltage – 120VAC, sized to handle internal panel loads only. Oversized control transformer, or additional control transformers can be added for additional outside loads, at additional cost. Control transformers are fused primary and secondary. Secondary neutral is grounded.
- Unit contactors –IEC contactors, HP rated with 120VAC coils.
- Phase monitors – connected to line and load side of contactor(s). Upon alarm, the contactor is opened to protect the unit from damage. Fully adjustable variables including: voltage unbalance 2 to 20%, delay on break 0 to 10 minutes, fault interrogation 0-15 seconds, over/under voltage 2 to 25% and reset auto mode or 0 to 10 tries.
- Customer terminal strip inclusive of terminals for three phase wiring to unit(s) (T1, T2, T3).
- Din rail mounted ground terminals, green/yellow.
- Electrical schematic hard copy located inside ICP in a folder.
- All required UL508A sizing, safety and warning labeling.
- All ICP assemblies are “HOT” tested with associated line voltage, prior to shipping.

Data Sheet References

NOTES:
Note 1: For 208/3/60 systems, input "1". For 240/3/60 systems, input "2".

TABLES:

Table 1.1: Schematic Fuse Labeling Reference

	Branch 1	Branch 2	Branch 3	Main	T1 Primary Fuse	T1 Secondary Fuse
Single	FU 1,2 & 3			FU 1,2 & 3	FU 4 & 5	FU 6
Single (GFCI)	FU 8,9 & 10			FU 1,2 & 3	FU 4 & 5	FU 6
Dual	FU 4,5 & 6	FU 7,8 & 9	FU 10,11 & 12	FU 1,2 & 3	FU 10 & 11	FU 12
Triple	FU 4,5 & 6	FU 7,8 & 9	FU 10,11 & 12	FU 1,2 & 3	FU 13 & 14	FU 15

Table 1.2: ENCLOSURE FRAME SIZES

S1 Enclosures 8"D, All Other Enclosures 10"D (not including disconnect handle)

Modules	Standard Build	Basic Build
Single	S1 = 20"H X 20"W	S1-B = 20"H X 20"W
	S2 = 24"H X 20"W	S2-B = 24"H X 20"W
	S3 = 30"H X 24"W	S3-B = 30"H X 24"W
Dual	D1 = 30"H X 30"W	D1-B = 30"H X 24"W
	D2 = 36"H X 30"W	D2-B = 30"H X 30"W
	D3 = 36"H X 36"W	D3 BECOMES D2-B
Triple	T1 = 42"H X 36"W	T1-B = 36"H X 24"W
	T2 = 48"H X 36"W	T2-B = 36"H X 36"W

*Refer to Basic Submittal for Basic Layouts

DAIKIN CU MODEL	SPPP MODEL	VOLTAGE	Fuse Sizing *See Table 1.1*				WIRE SIZING				Xformer 1 VA	T1 Primary Fuse	T1 Secondary Fuse	Enclosure Frame Size
	See Note 1 for "_" value		BRANCH 1	BRANCH 2	BRANCH 3	SYSTEM	BRANCH 1	BRANCH 2	BRANCH 3	SYSTEM	*See Table 1.1*			*See Table 1.2*
Emerion (GFCI)														
REY/RXYQ072AATJA	EA072TJ_S3-G	208V-240V	30			40	10			8	2K	20	1	S3 / S3-B
REY/RXYQ096AATJA	EA096TJ_S3-G	208V-240V	35			45	8			8	2K	20	1	S3 / S3-B
REY/RXYQ120AATJA	EA120TJ_S3-G	208V-240V	40			50	8			8	2K	20	1	S3 / S3-B
REY/RXYQ144AATJA	EA144TJ_S3-G	208V-240V	50			60	8			6	2K	20	1	S3 / S3-B
REY/RXYQ168AATJA	EA168TJ_S3-G	208V-240V	60			70	6			6	2K	20	1	S3 / S3-B
REY/RXYQ192AATJA	EA192TJ_S3-G	208V-240V	60			70	6			4	2K	20	1	S3 / S3-B
REY/RXYQ216AATJA	EA216TJ_S3-G	208V-240V	70			80	4			4	2K	20	1	S3 / S3-B
REY/RXYQ240AATJA	EA240TJ_S3-G	208V-240V	80			90	4			4	2K	20	1	S3 / S3-B
REY/RXYQ264AATJA	EA264TJ_D2-G	208V-240V	40	50		100	8	8		3	2K	20	2	D2 / D2-B
REY/RXYQ288AATJA	EA288TJ_D3-G	208V-240V	50	50		110	8	8		2	2K	20	2	D3 / D2-B
REY/RXYQ312AATJA	EA312TJ_D3-G	208V-240V	50	60		125	8	6		2	2K	20	2	D3 / D2-B
REY/RXYQ336AATJA	EA336TJ_D3-G	208V-240V	60	60		125	6	6		1	2K	20	2	D3 / D2-B
REY/RXYQ360AATJA	EA360TJ_D3-G	208V-240V	60	60		125	6	6		1	2K	20	2	D3 / D2-B
REY/RXYQ384AATJA	EA384TJ_D3-G	208V-240V	60	60		150	6	6		1	2K	20	2	D3 / D2-B
REY/RXYQ408AATJA	EA408TJ_D3-G	208V-240V	60	70		150	6	4		1/0	2K	20	2	D3 / D2-B
REY/RXYQ432AATJA	EA432TJ_D3-G	208V-240V	70	70		150	4	4		1/0	2K	20	2	D3 / D2-B
REY/RXYQ456AATJA	EA456TJ_D3-G	208V-240V	70	80		175	4	4		2/0	2K	20	2	D3 / D2-B
REY/RXYQ480AATJA	EA480TJ_D3-G	208V-240V	80	80		175	4	4		2/0	2K	20	2	D3 / D2-B
REY/RXYQ072AAYDA	EA072YD4S3-G	480V	15			20	14			12	2K	10	1	S3 / S3-B
REY/RXYQ096AAYDA	EA096YD4S3-G	480V	20			25	12			10	2K	10	1	S3 / S3-B
REY/RXYQ120AAYDA	EA120YD4S3-G	480V	20			25	12			10	2K	10	1	S3 / S3-B
REY/RXYQ144AAYDA	EA144YD4S3-G	480V	25			30	10			10	2K	10	1	S3 / S3-B
REY/RXYQ168AAYDA	EA168YD4S3-G	480V	30			30	10			10	2K	10	1	S3 / S3-B
REY/RXYQ192AAYDA	EA192YD4S3-G	480V	35			35	10			8	2K	10	1	S3 / S3-B
REY/RXYQ216AAYDA	EA216YD4S3-G	480V	35			35	10			8	2K	10	1	S3 / S3-B
REY/RXYQ240AAYDA	EA240YD4S3-G	480V	40			40	8			8	2K	10	1	S3 / S3-B
REY/RXYQ264AAYDA	EA264YD4D2-G	480V	20	25		45	12	10		8	2K	10	2	D2 / D2-B
REY/RXYQ288AAYDA	EA288YD4D2-G	480V	25	25		50	10	10		8	2K	10	2	D2 / D2-B
REY/RXYQ312AAYDA	EA312YD4D2-G	480V	25	30		60	10	10		6	2K	10	2	D2 / D2-B
REY/RXYQ336AAYDA	EA336YD4D2-G	480V	30	30		60	10	10		6	2K	10	2	D2 / D2-B
REY/RXYQ360AAYDA	EA360YD4D2-G	480V	30	35		60	10	10		6	2K	10	2	D2 / D2-B
REY/RXYQ384AAYDA	EA384YD4D2-G	480V	35	35		70	10	10		6	2K	10	2	D2 / D2-B
REY/RXYQ408AAYDA	EA408YD4D2-G	480V	35	35		70	10	10		6	2K	10	2	D2 / D2-B
REY/RXYQ432AAYDA	EA432YD4D2-G	480V	35	35		70	10	10		6	2K	10	2	D2 / D2-B
REY/RXYQ456AAYDA	EA456YD4D2-G	480V	35	40		70	10	8		4	2K	10	2	D2 / D2-B
REY/RXYQ480AAYDA	EA480YD4D2-G	480V	40	40		80	8	8		4	2K	10	2	D2 / D2-B

Note 1: For 208/3/60 systems, input "1". For 240/3/60 systems, input "2".

APPROXIMATE VRV PIPING TOTALS, BASED ON PIPING SEGMENT LENGTHS SHOWN ON THE FOLLOWING PAGES. ALL REFRIGERANT PIPING AND ADDED CHARGE ARE PROVIDED AND INSTALLED BY OTHERS.

SINGLE-ZONE SYSTEMS ARE NOT INCLUDED

Piping	Liquid	Suction	Total
	ft	ft	ft
1/4"	248.0	0.0	248.0
3/8"	1,836.0	0.0	1,836.0
1/2"	333.0	248.0	581.0
5/8"	131.0	1,476.0	1,607.0
3/4"	222.0	133.0	355.0
7/8"	82.0	453.0	535.0
1 1/8"	0.0	272.0	272.0
1 3/8"	0.0	270.0	270.0

BY OTHERS

Refrigerant information

Name	Model	Refrigerant type	GWP	Base charge lbs	Extra charge lbs	Total refrigerant charge lbs	Total CO2 equivalent tonnes
CU-A-1	RXYQ264AAYDA	R410A	2087.5	51.15	29.06	80.21	75.95
CU-B-1	RXYQ288AAYDA	R410A	2087.5	51.59	33.34	84.93	80.42
CU-C-1	RXYQ312AAYDA	R410A	2087.5	51.59	36.77	88.36	83.66
CU-D-1	RXYQ264AAYDA	R410A	2087.5	51.15	26.96	78.11	73.96
CU-E-1	RXYQ288AAYDA	R410A	2087.5	51.59	45.68	97.27	92.10
CU-G-1	RXYQ192AAYDA	R410A	2087.5	25.79	30.06	55.85	52.88
CU-H-1	RXYQ192AAYDA	R410A	2087.5	25.79	30.10	55.89	52.92
CU-K-1	RXYQ96AAYDA	R410A	2087.5	24.91	4.96	29.87	28.28
CU-K-2	RXYQ96AAYDA	R410A	2087.5	24.91	5.55	30.46	28.84

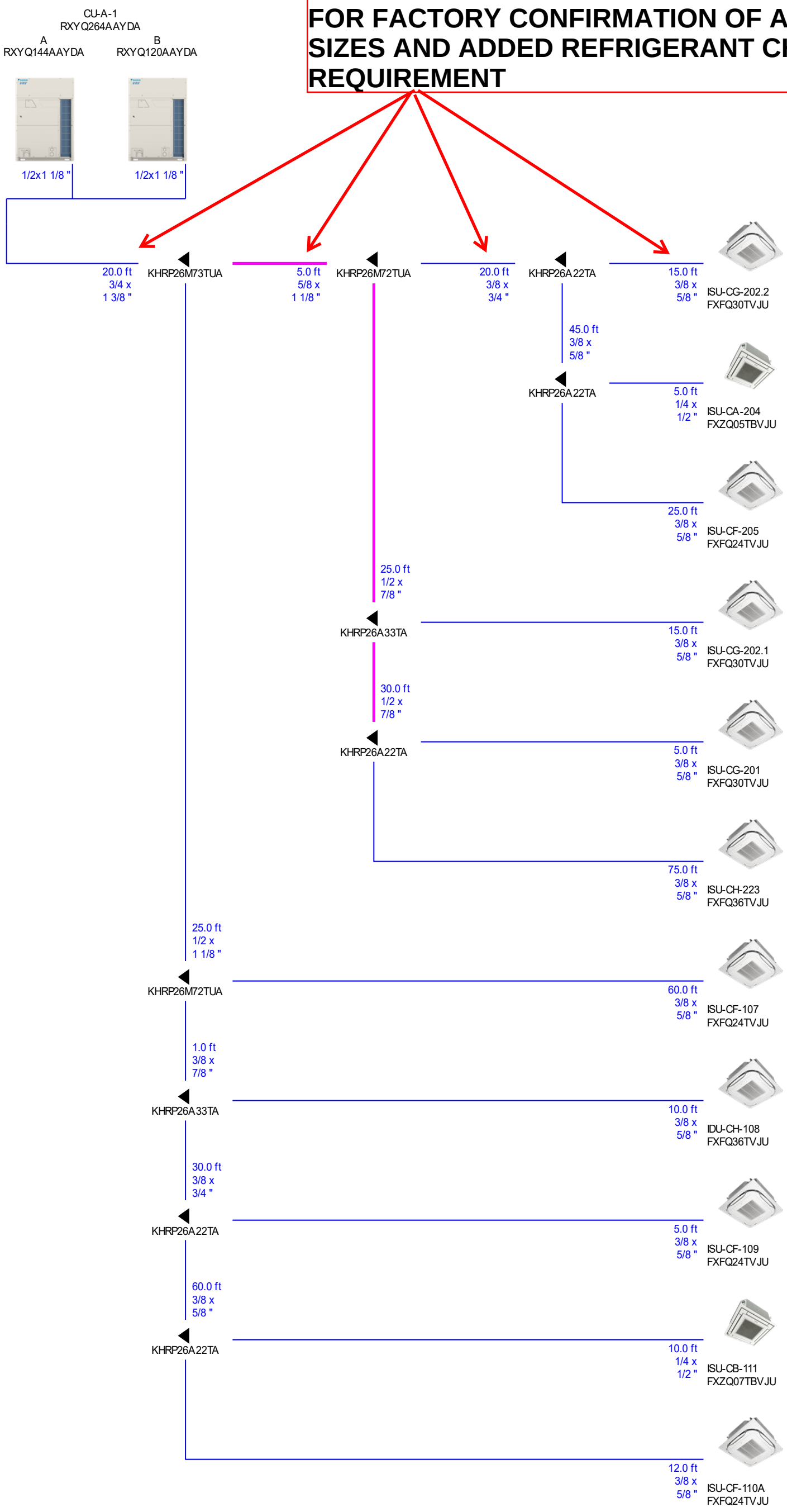
The system(s) contain fluorinated greenhouse gases.

The extra charge is calculated based on the pipe lengths specified. This may differ from the actual pipe lengths on site and therefore also from the real extra charge and the real TCO2 equivalent.

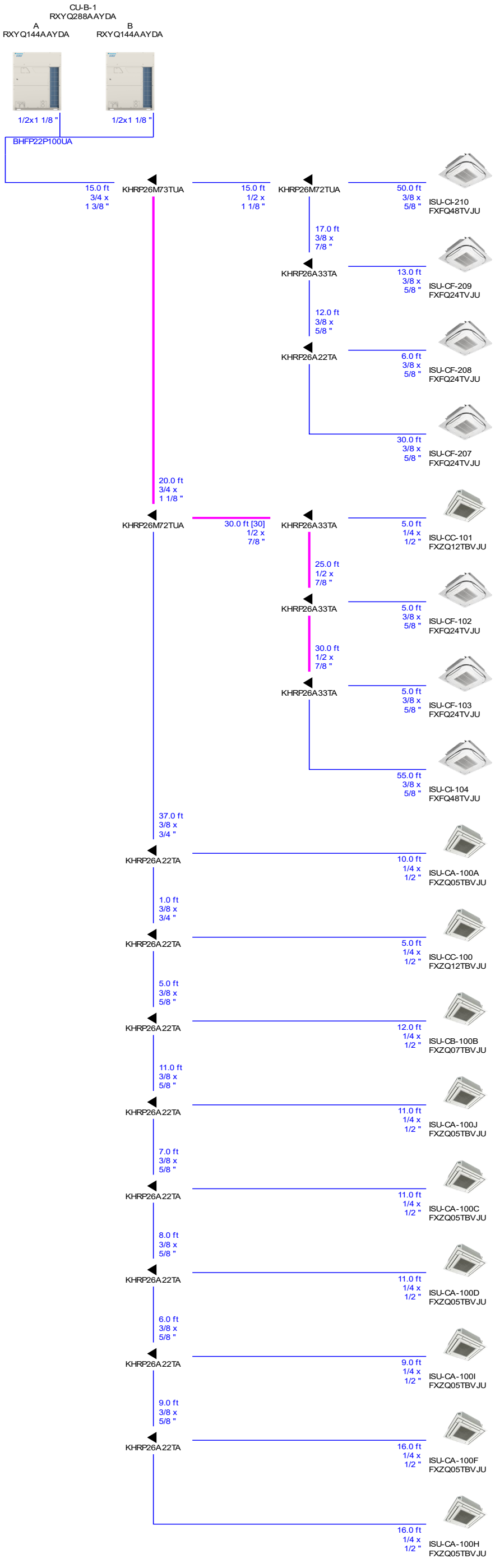
Piping diagrams

Piping CU-A-1

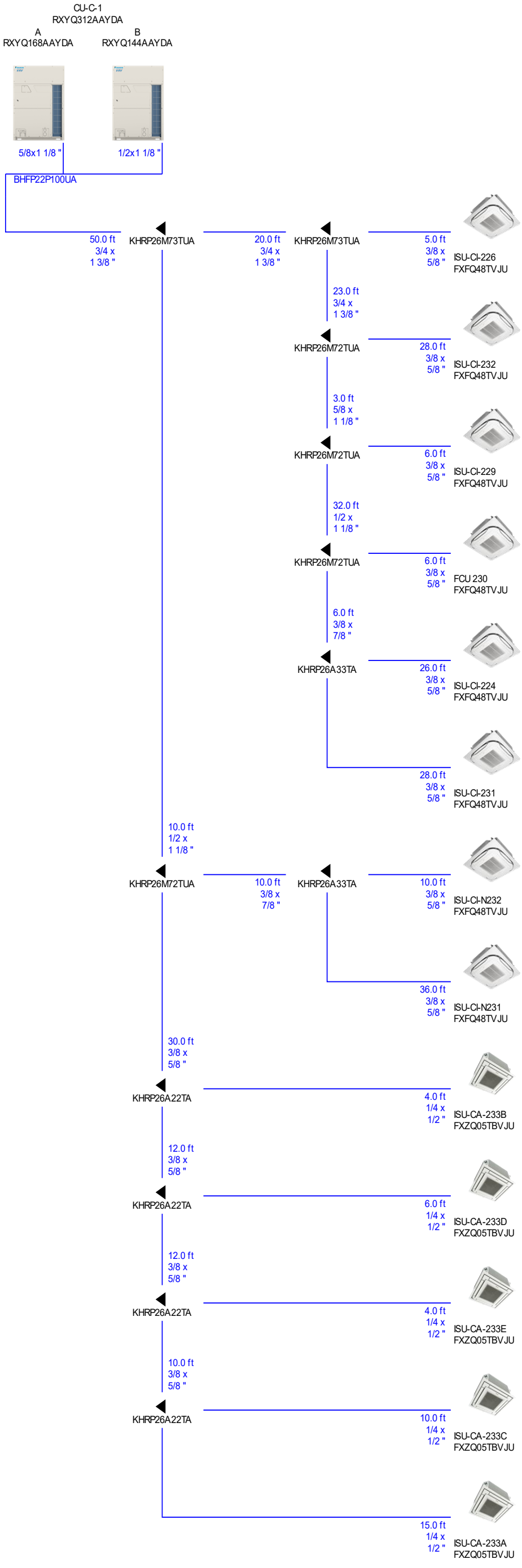
SEGMENT LENGTHS ARE APPROXIMATED. INSTALLER MUST VERIFY EACH PIPING SEGMENT LENGTH PRIOR TO MAKING FINAL CONNECTIONS FOR FACTORY CONFIRMATION OF ACTUAL PIPING SIZES AND ADDED REFRIGERANT CHARGE REQUIREMENT



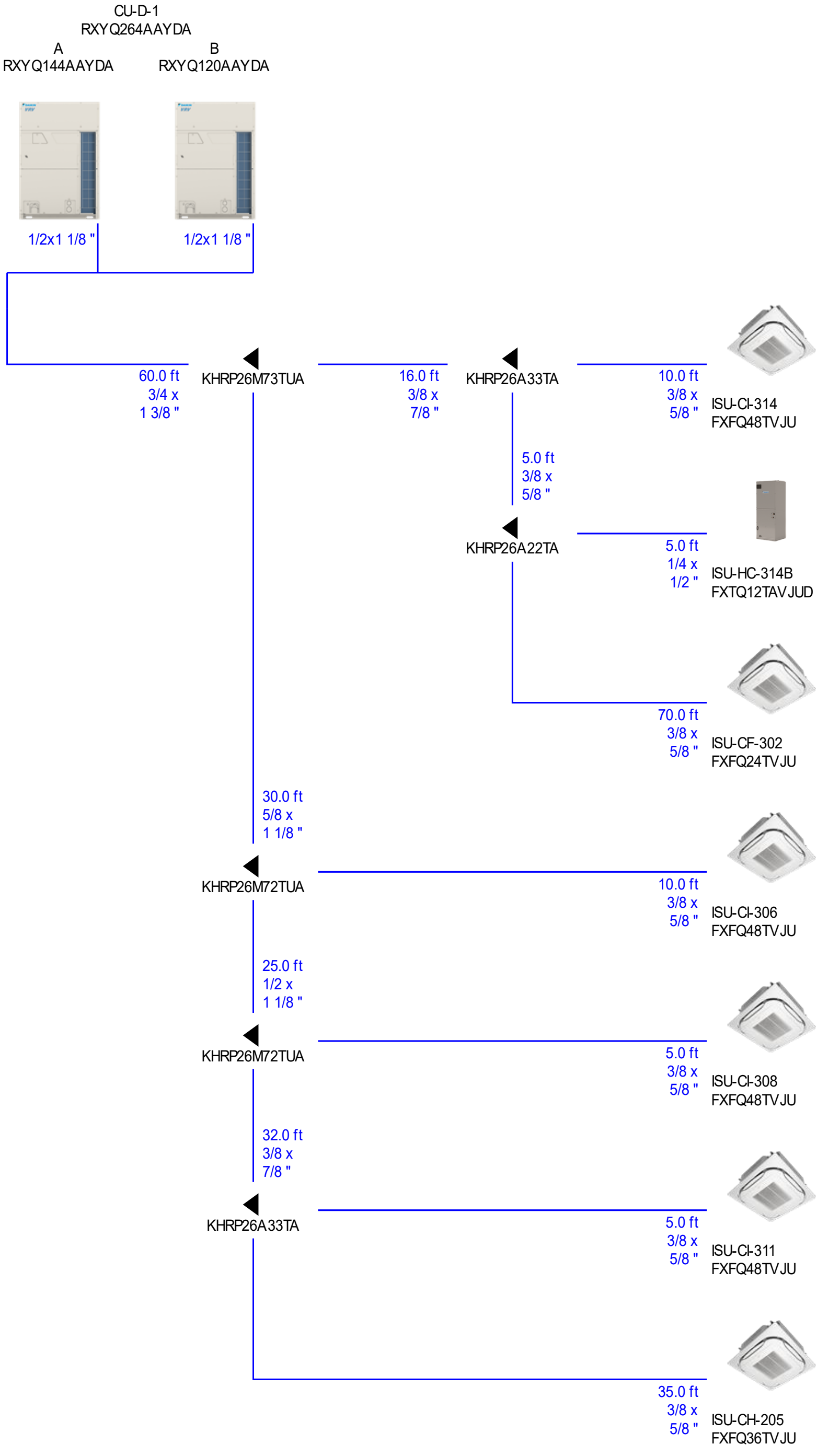
Piping CU-B-1



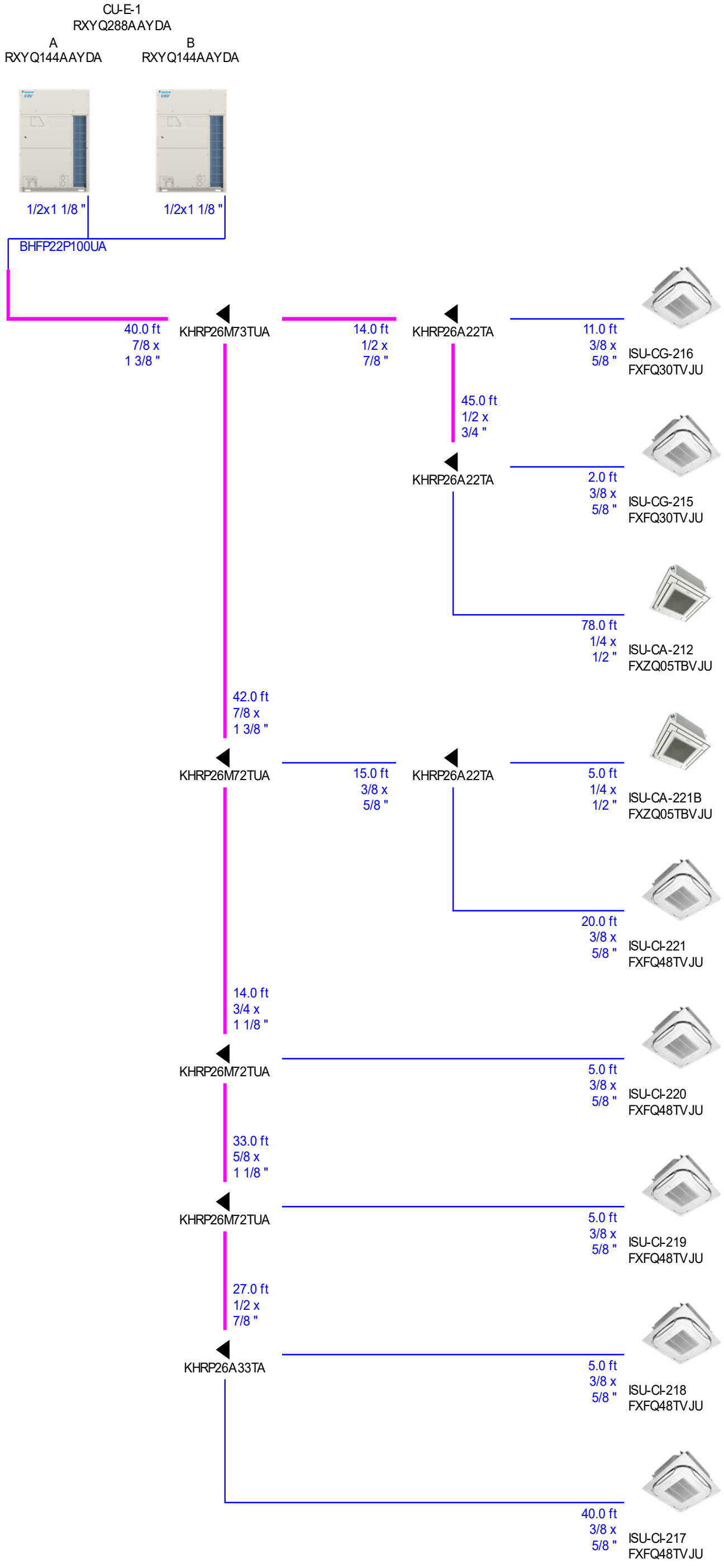
Piping CU-C-1



Piping CU-D-1



Piping CU-E-1



CU-G-1
RXYQ192AAYDA

20.0 ft
5/8 x
1 1/8 "

KHRP26M72TUA

35.0 ft
3/8 x
7/8 "

KHRP26A33TA

60.0 ft
3/8 x
5/8 "

ISU-HG-C201A
FXTQ48TAVJUD

40.0 ft
3/8 x
5/8 "

ISU-HG-C201B
FXTQ48TAVJUD

15.0 ft
3/8 x
7/8 "

KHRP26A33TA

50.0 ft
3/8 x
5/8 "

ISU-HG-C102A
FXTQ48TAVJUD

30.0 ft
3/8 x
5/8 "

ISU-HG-C102B
FXTQ48TAVJUD

CU-H-1
RXYQ192AAYDA

40.0 ft
5/8 x
1 1/8 "

KHRP26M72TUA

5.0 ft
3/8 x
7/8 "

KHRP26A33TA

30.0 ft
3/8 x
5/8 "

ISU-HH-C301A
FXTQ54TAVJUD

30.0 ft
3/8 x
5/8 "

ISU-HH-C301B
FXTQ54TAVJUD

60.0 ft
3/8 x
7/8 "

KHRP26A33TA

15.0 ft
3/8 x
5/8 "

ISU-HG-C204A
FXTQ48TAVJUD

30.0 ft
3/8 x
5/8 "

ISU-HG-C204B
FXTQ48TAVJUD

CU-K-1
RXYQ96AAYDA

35.0 ft
3/8 x
7/8 "

KHRP26A33TA

70.0 ft
3/8 x
5/8 "

ISU-HG-C101A
FXTQ48TAVJUD

20.0 ft
3/8 x
5/8 "

ISU-HG-C202A
FXTQ48TAVJUD

CU-K-2
RXYQ96AAYDA

40.0 ft
3/8 x
7/8 "

KHRP26A33TA

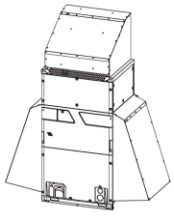
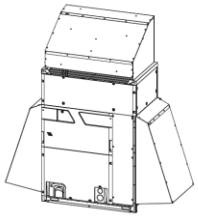
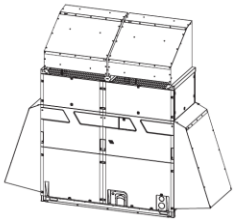
60.0 ft
3/8 x
5/8 "

ISU-HG-C101B
FXTQ48TAVJUD

40.0 ft
3/8 x
5/8 "

ISU-HG-C101C
FXTQ48TAVJUD

Submittal Data Sheet
Snow Wind Hood Kits for *VRV* EMERION

DESCRIPTION

Snow Wind Hoods ount to units o er the heat e changer coil to protect fro snow build-up and wind in cold cli ates.

FEATURES

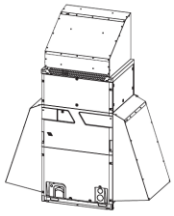
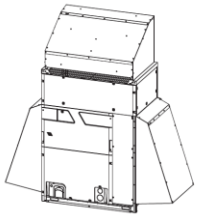
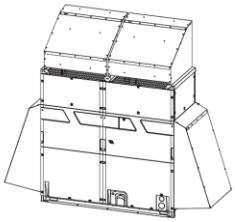
- Hea y duty powder paint finish atches Daikin e uip ent.
- Hoods install easily to condensing units using e isting screw taps with no odification re uired.
- Different kits can be ordered for different job re uire ents per table below.

SPECIFICATIONS		
Unit Na es	Snow Wind Hood Kits	
Material	20 Gauge G90 Gal ani□ed Steel	
Paint	**Exterior:** Powder Paint Sandstone Beige	**Interior:** Pri er

KIT PART #	CHASSIS SIZE	KIT INCLUSION	
R 6-SHM-FR	M	Rear Hood	
R 6-SHL-FR	L	Front Hood	Rear Hood
R 6-SH L-FR	L	Rear Hood 2	
R 6-SH-RL	M L L	Right Hood	Left Hood
R 6-SHM-T	M	Top Hood	
R 6-SHL-T	L	Top Hood	
R 6-SH L-T	L	Top Hood	

Number of kits required for each outdoor system

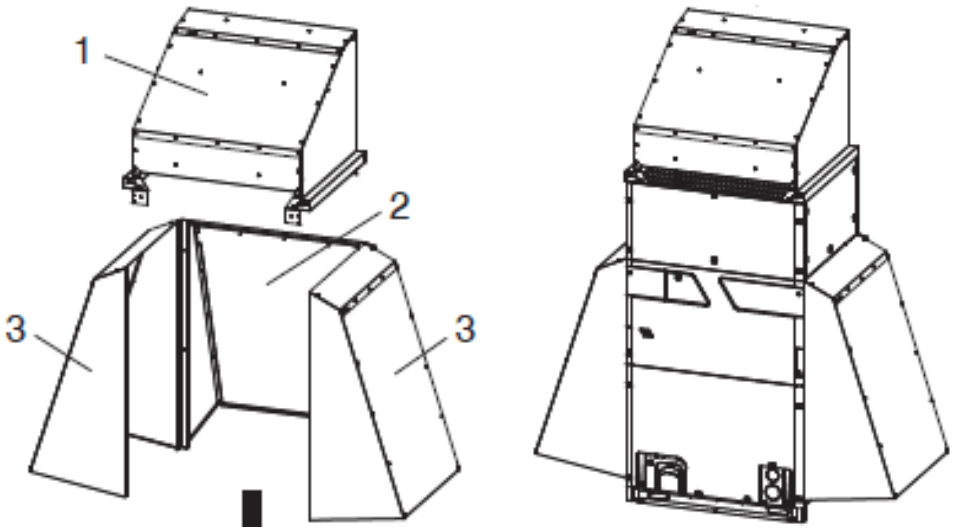
MODEL TYPE			MODULES	VRV6-SHM-FR	VRV6-SHL-FR	VRV6-SHXL-FR	VRV6-SH-RL	VRV6-SHM-T	VRV6-SHL-T	VRV6-SHXL-T
VRV* EMERION Heat Recovery / *Heat Pump	208-230 460	**REYQ / RXYQ72A**	Single	1			1	1		
		REYQ / RXYQ96-168A	Single		1		1		1	
		REYQ / RXYQ192-240A	Single			1	1			1
		REYQ / RXYQ264-336A	Dual		2		1		2	
		REYQ / RXYQ360A	Dual		1	1	1		1	1
		REYQ / RXYQ384-480A	Dual			2	1			2

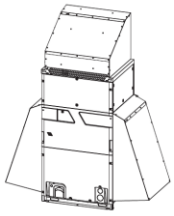
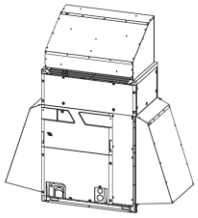
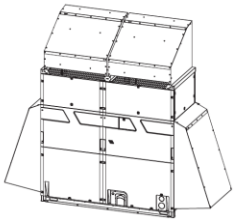
Submittal Data Sheet
Snow Wind Hood Kits for *VRV* EMERION

M Chassis Dimensions

MODEL	Chassis Size	Kit Part Number	Panel:	Description	per panel Height (in.)	Width (in.)	Depth (in.)
REYQ / RXYQ72AA*	M	VRV6-SHM-FR	#2	Rear Hood 1	45	36	19
		VRV6-SHM-T	#1	Top Hood 1	23.6	33.5	28.9
		VRV6-SH-RL	#3	Right Left Hoods 2	45	29	18.8

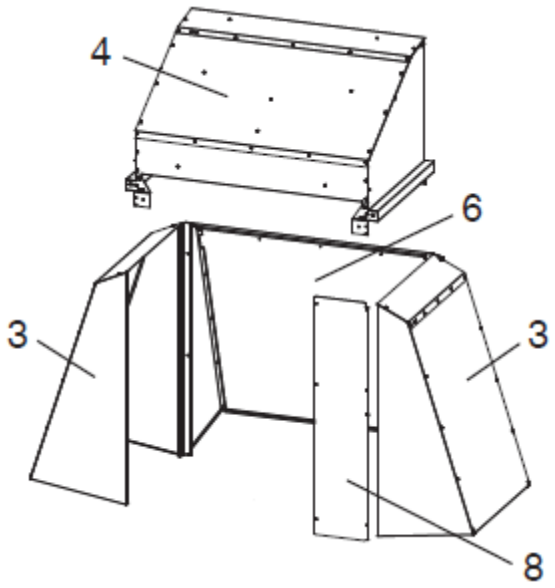


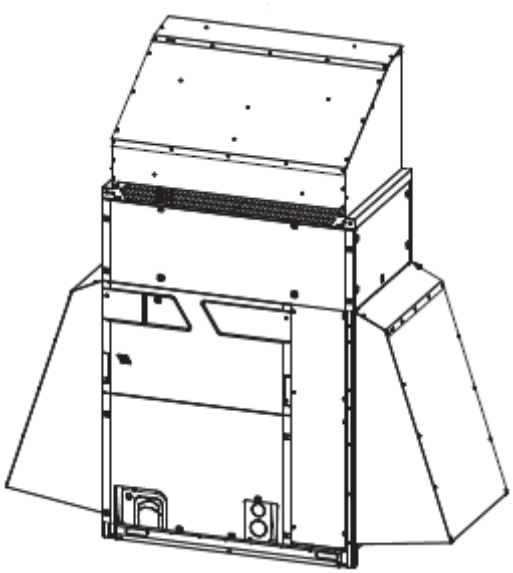
Submittal Data Sheet
Snow Wind Hood Kits for *VRV* EMERION

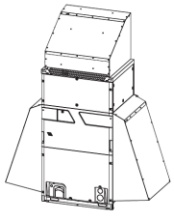
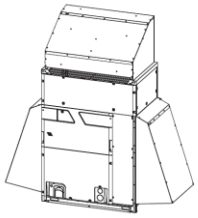
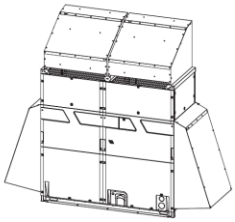
L Chassis Dimensions

MODEL	Chassis Size	Kit Part Number	Panel:	Description	per panel Height (in.)	Width (in.)	Depth (in.)
REYQ / RXYQ96/120/144/168AA*	L	VRV6-SHL-FR	#6	Rear Hood 1	45	48	19
			#8	Front Hood 1	45.5	10	
		VRV6-SHL-T	#4	Top Hood 1	23.6	45.5	28.9
		VRV6-SH-RL	#3	Right Left Hoods 2	45	29	18.8



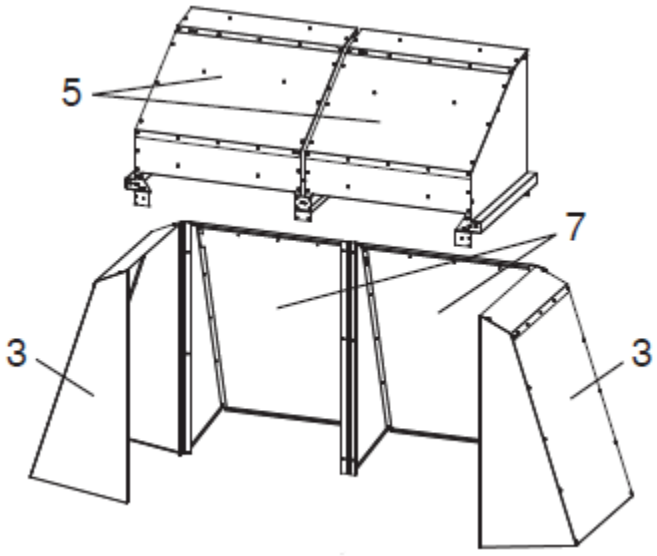


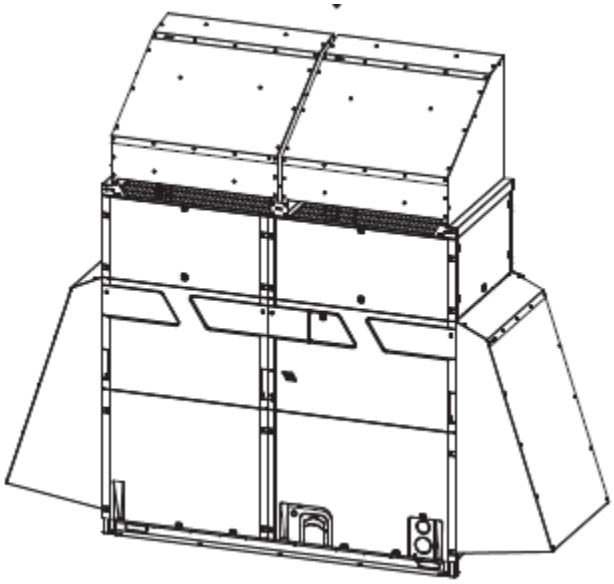
Submittal Data Sheet
Snow Wind Hood Kits for *VRV* EMERION

XL Chassis Dimensions

MODEL	Chassis Size	Kit Part Number	Panel:	Description	per panel Height (in.)	per panel Width (in.)	per panel Depth (in.)
REYQ / RXYQ192/216/ 240AA*	XL	VRV6-SHXL-FR	#7	Rear Hood 2	45	36 - left 32 - right	19
		VRV6-SHXL-T	#5	Top Hood 2	23.6	32.3	28.9
		VRV6-SH-RL	#3	Right Left Hoods 2	45	29	18.8





Submittal Data Sheet

22 Ton, 460V, VRV EMERION HP - RXYQ264AAYDA

Project: Newburgh ECSD CTE

Submitted by: David Shumpert of THERMAL ENVIRONMENT SALES INC on 6/6/2024

Submitted to: No Engineer Name Specified

Tags: CU-A-1, CU-D-1

PERFORMANCE

Outdoor Unit Model No.	RXYQ264AAYDA	Outdoor Unit Name:	22 Ton, 460V, VRV EMERION HP
Type:	Heat Pump	Unit Combination:	RXYQ120AAYDA + RXYQ144AAYDA
Rated Cooling Conditions:	Indoor (°F DB/WB): 80 / 67 Ambient (°F DB/WB): 95 / 75	Rated Heating Conditions:	Indoor (°F DB/WB): 70 / 60 Ambient (°F DB/WB): 47 / 43
Rated Piping Length(ft):			
Rated Height Difference (ft):			
Rated Cooling Capacity (Btu/hr):	252,000	Rated Heating Capacity (Btu/hr):	282,000
Nom Cooling Capacity (Btu/hr):	264,000	Nom Heating Capacity (Btu/hr):	297,000
Cooling Input Power (kW):		Heating Input Power (kW):	
EER (Non-Ducted/Ducted):	11.20 / 10.00	Heating COP (Non-Ducted/Ducted):	3.5 / 3.2
IEER (Non-Ducted/Ducted):	22.60 / 19.20	Heating COP 17F (Non-Ducted/Ducted):	2.3 / 2.1

OUTDOOR UNIT DETAILS

Power Supply (V/Hz/Ph):	460 / 60 / 3	Compressor Stage:	
Power Supply Connections:		Capacity Control Range (%):	1 - 100
Min. Circuit Amps MCA (A):	16.6 + 21.3	Capacity Index Limit:	-
Max Overcurrent Protection (MOP) (A):	20 + 25	Airflow Rate (H) (CFM):	8965+9935
Max Starting Current MSC(A):		Gas Pipe Connection (inch):	1-3/8
Rated Load Amps RLA(A):	(10.5+10.6)+(10.0+15.8)	Liquid Pipe Connection (inch):	3/4
Dimensions (Height) (in):	65-3/8	H/L Pressure Connection (inch)	
Dimensions (Width) (in):	48-13/16 in+48-13/16	H/L Equalizing Connection (inch)	
Dimensions (Depth) (in):	30-1/8	Sound Pressure (H) (dBA):	67
Net Weight (lb):	712 + 785	Sound Power Level (dBA):	

Submittal Data Sheet

22 Ton, 460V, VRV EMERION HP - RXYQ264AAYDA

Project: Newburgh ECSD CTE

Submitted by: David Shumpert of THERMAL ENVIRONMENT SALES INC on 6/6/2024

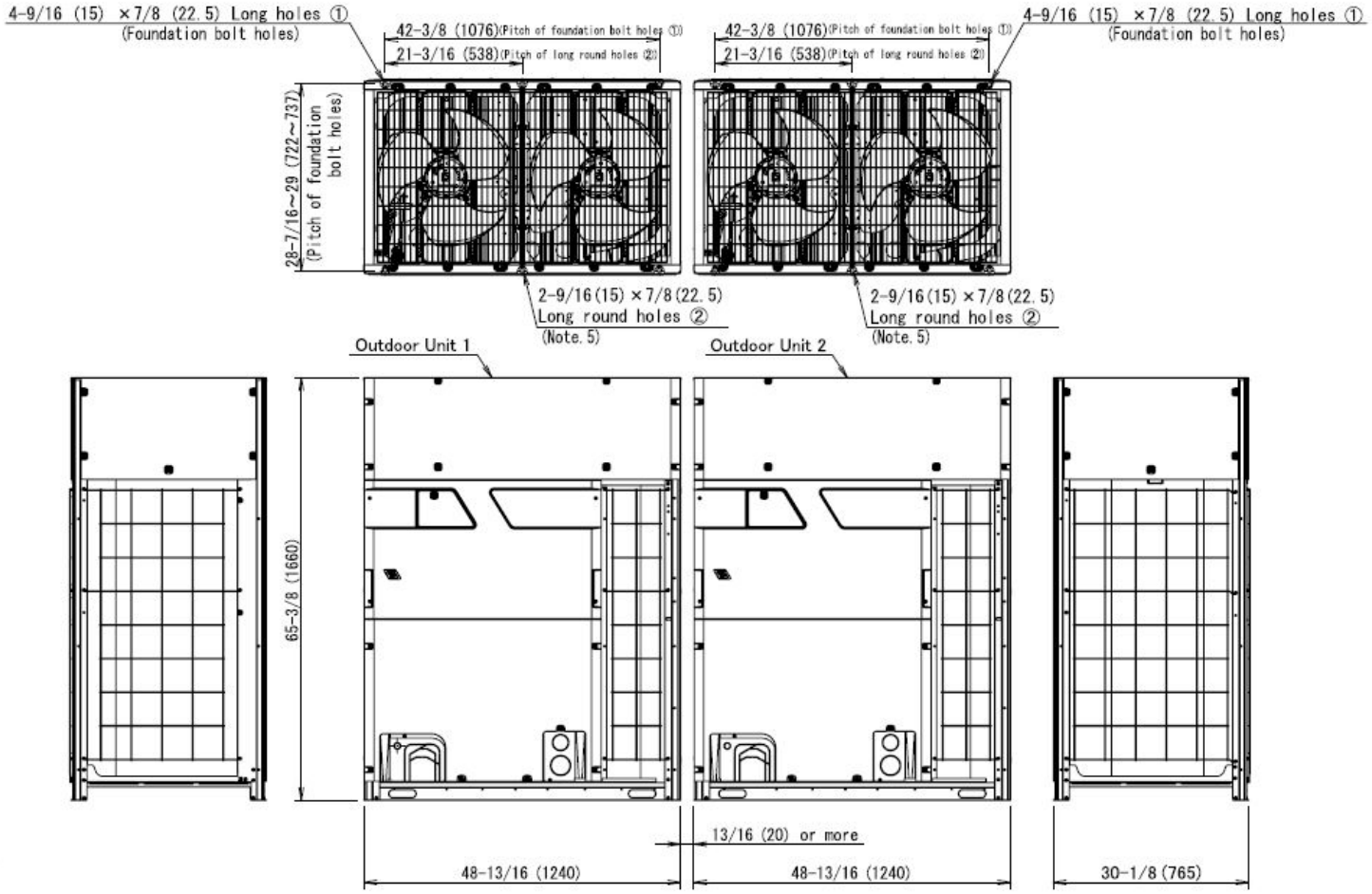
Submitted to: No Engineer Name Specified

Tags: CU-A-1, CU-D-1

SYSTEM DETAILS

Refrigerant Type:	R-410A	Cooling Operation Range (°F DB):	23 - 122
Holding Refrigerant Charge (lbs):	25.4+ 25.8	Heating Operation Range (°F WB):	-13 - 60
Additional Charge (oz/ft):		Max. Pipe Length (Vertical) (ft):	
Pre-charge Piping (Length) (ft):		Cooling Range w/Baffle (°F DB):	-
Max. Pipe Length (Total) (ft):			
Max Height Separation (Ind to Ind ft):			

DIMENSIONAL DRAWING



Submittal Data Sheet

24 Ton, 460V, VRV EMERION HP - RXYQ288AAYDA

Project: Newburgh ECSD CTE

Submitted by: David Shumpert of THERMAL ENVIRONMENT SALES INC on 6/6/2024

Submitted to: No Engineer Name Specified

Tags: CU-B-1, CU-E-1

PERFORMANCE

Outdoor Unit Model No.	RXYQ288AAYDA	Outdoor Unit Name:	24 Ton, 460V, VRV EMERION HP
Type:	Heat Pump	Unit Combination:	RXYQ144AAYDA(x2)
Rated Cooling Conditions:	Indoor (°F DB/WB): 80 / 67 Ambient (°F DB/WB): 95 / 75	Rated Heating Conditions:	Indoor (°F DB/WB): 70 / 60 Ambient (°F DB/WB): 47 / 43
Rated Piping Length(ft):			
Rated Height Difference (ft):			
Rated Cooling Capacity (Btu/hr):	274,000	Rated Heating Capacity (Btu/hr):	294,000
Nom Cooling Capacity (Btu/hr):	288,000	Nom Heating Capacity (Btu/hr):	324,000
Cooling Input Power (kW):		Heating Input Power (kW):	
EER (Non-Ducted/Ducted):	11.40 / 10.30	Heating COP (Non-Ducted/Ducted):	3.5 / 3.3
IEER (Non-Ducted/Ducted):	22.40 / 19.20	Heating COP 17F (Non-Ducted/Ducted):	2.4 / 2.2

OUTDOOR UNIT DETAILS

Power Supply (V/Hz/Ph):	460 / 60 / 3	Compressor Stage:	
Power Supply Connections:		Capacity Control Range (%):	1 - 100
Min. Circuit Amps MCA (A):	21.3+21.3	Capacity Index Limit:	-
Max Overcurrent Protection (MOP) (A):	25.25	Airflow Rate (H) (CFM):	9935+9935
Max Starting Current MSC(A):		Gas Pipe Connection (inch):	1-3/8
Rated Load Amps RLA(A):	(10.+15.8)x2	Liquid Pipe Connection (inch):	3/4
Dimensions (Height) (in):	65-3/8	H/L Pressure Connection (inch)	
Dimensions (Width) (in):	48-13/16 in+48-13/16	H/L Equalizing Connection (inch)	
Dimensions (Depth) (in):	30-1/8	Sound Pressure (H) (dBA):	69
Net Weight (lb):	761+761	Sound Power Level (dBA):	

Submittal Data Sheet

24 Ton, 460V, VRV EMERION HP - RXYQ288AAYDA

Project: Newburgh ECSD CTE

Submitted by: David Shumpert of THERMAL ENVIRONMENT SALES INC on 6/6/2024

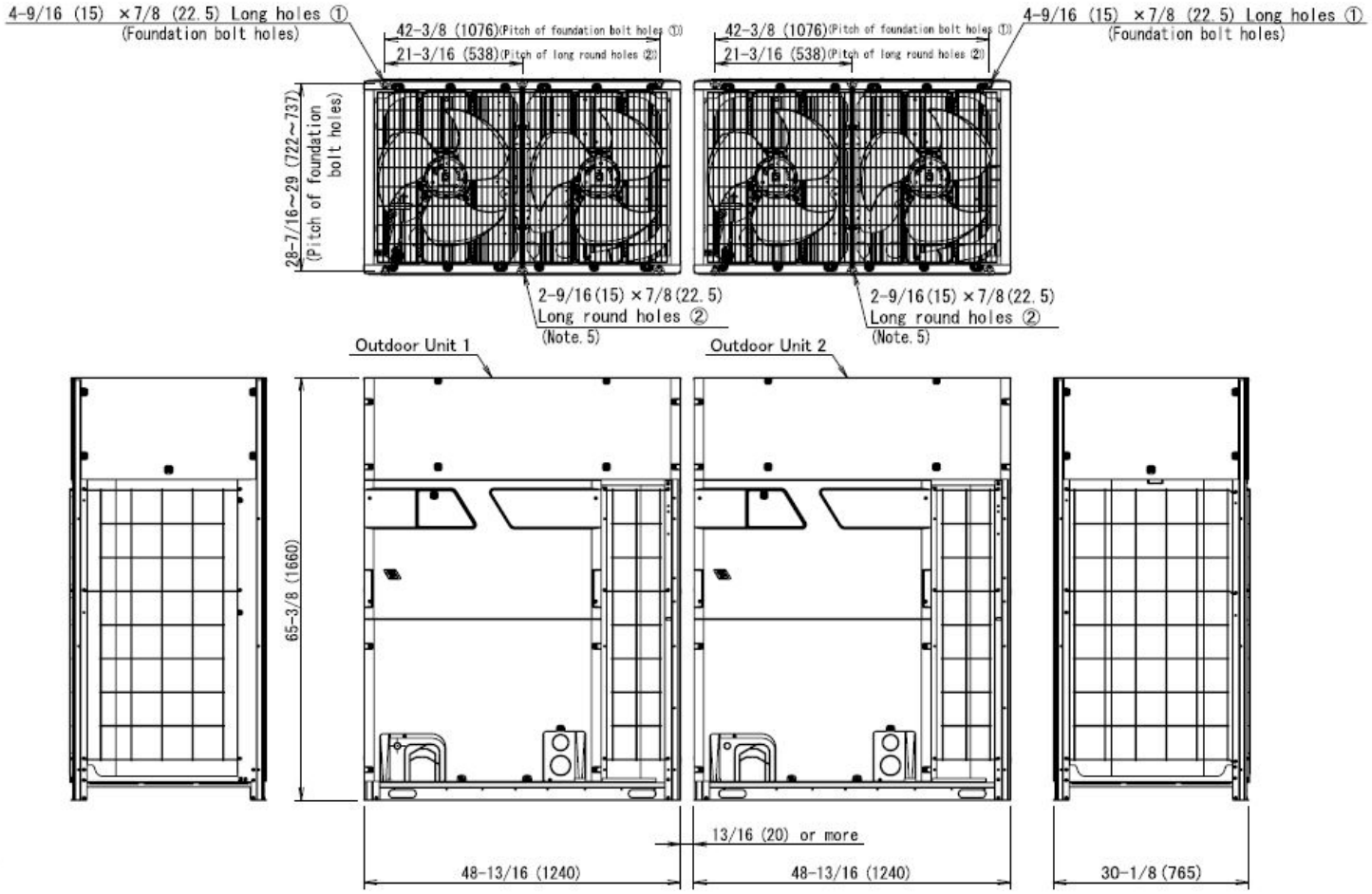
Submitted to: No Engineer Name Specified

Tags: CU-B-1, CU-E-1

SYSTEM DETAILS

Refrigerant Type:	R-410A	Cooling Operation Range (°F DB):	23 - 122
Holding Refrigerant Charge (lbs):	25.8+25.8	Heating Operation Range (°F WB):	-13 - 60
Additional Charge (oz/ft):		Max. Pipe Length (Vertical) (ft):	295
Pre-charge Piping (Length) (ft):		Cooling Range w/Baffle (°F DB):	-
Max. Pipe Length (Total) (ft):	540		
Max Height Separation (Ind to Ind ft):			

DIMENSIONAL DRAWING



Submittal Data Sheet

26 Ton, 460V, VRV EMERION HP - RXYQ312AAYDA

Project: Newburgh ECSD CTE

Submitted by: David Shumpert of THERMAL ENVIRONMENT SALES INC on 6/6/2024

Submitted to: No Engineer Name Specified

Tags: CU-C-1

PERFORMANCE

Outdoor Unit Model No.	RXYQ312AAYDA	Outdoor Unit Name:	26 Ton, 460V, VRV EMERION HP
Type:	Heat Pump	Unit Combination:	RXYQ144AAYDA + RXYQ168AAYDA
Rated Cooling Conditions:	Indoor (°F DB/WB): 80 / 67 Ambient (°F DB/WB): 95 / 75	Rated Heating Conditions:	Indoor (°F DB/WB): 70 / 60 Ambient (°F DB/WB): 47 / 43
Rated Piping Length(ft):			
Rated Height Difference (ft):			
Rated Cooling Capacity (Btu/hr):	296,000	Rated Heating Capacity (Btu/hr):	320,000
Nom Cooling Capacity (Btu/hr):	312,000	Nom Heating Capacity (Btu/hr):	351,000
Cooling Input Power (kW):		Heating Input Power (kW):	
EER (Non-Ducted/Ducted):	10.70 / 10.20	Heating COP (Non-Ducted/Ducted):	3.5 / 3.2
IEER (Non-Ducted/Ducted):	21.80 / 19.20	Heating COP 17F (Non-Ducted/Ducted):	2.4 / 2.1

OUTDOOR UNIT DETAILS

Power Supply (V/Hz/Ph):	460 / 60 / 3	Compressor Stage:	
Power Supply Connections:		Capacity Control Range (%):	1 - 100
Min. Circuit Amps MCA (A):	21.3+24.9	Capacity Index Limit:	-
Max Overcurrent Protection (MOP) (A):	25+30	Airflow Rate (H) (CFM):	9935+9935
Max Starting Current MSC(A):		Gas Pipe Connection (inch):	1-3/8
Rated Load Amps RLA(A):	(10.0+15.8)+(12.5+20.0)	Liquid Pipe Connection (inch):	3/4
Dimensions (Height) (in):	65-3/8	H/L Pressure Connection (inch)	
Dimensions (Width) (in):	48-13/16 in+48-13/16	H/L Equalizing Connection (inch)	
Dimensions (Depth) (in):	30-1/8	Sound Pressure (H) (dBA):	69
Net Weight (lb):	761+761	Sound Power Level (dBA):	

Submittal Data Sheet

26 Ton, 460V, VRV EMERION HP - RXYQ312AAYDA

Project: Newburgh ECSD CTE

Submitted by: David Shumpert of THERMAL ENVIRONMENT SALES INC on 6/6/2024

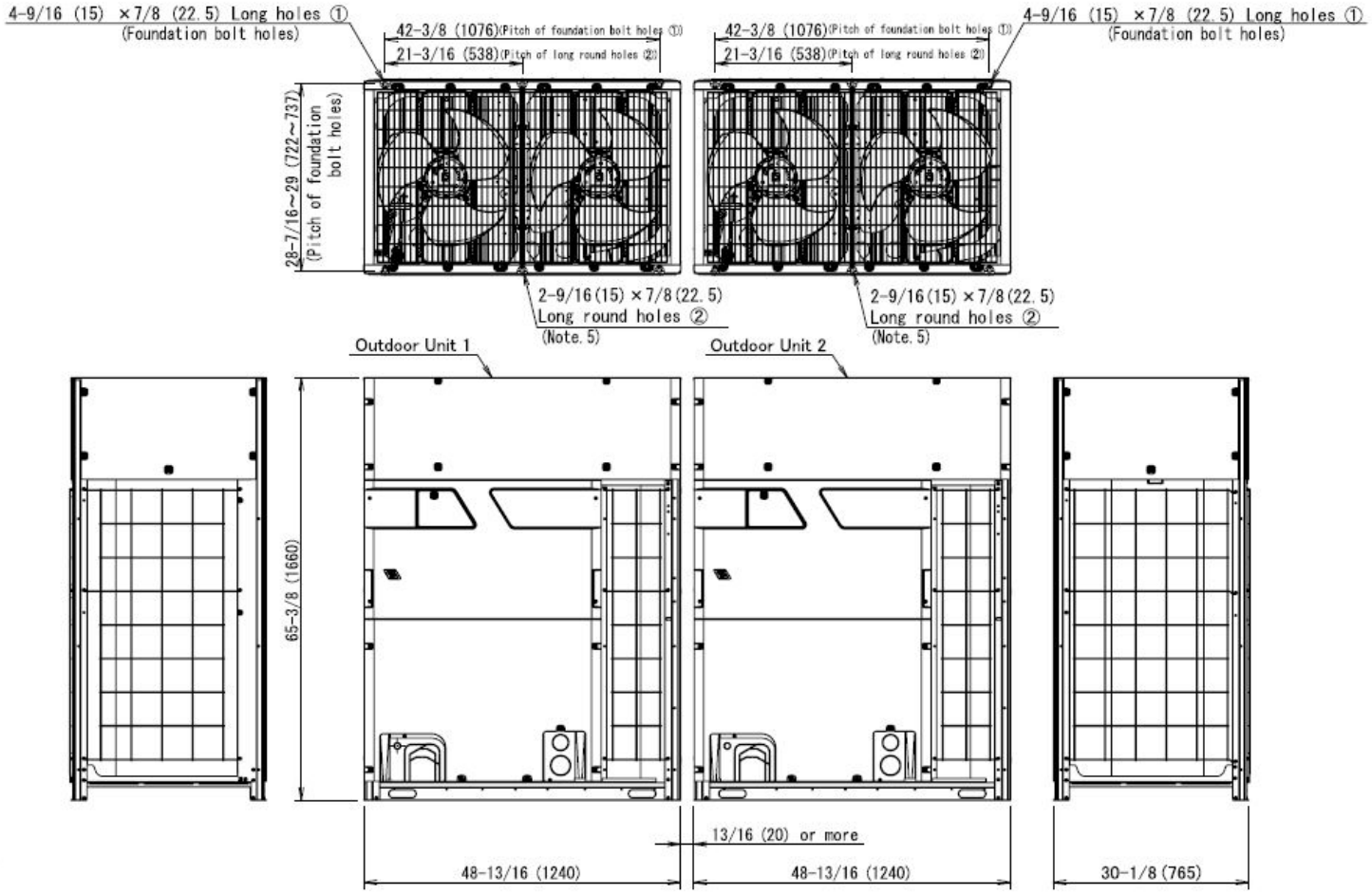
Submitted to: No Engineer Name Specified

Tags: CU-C-1

SYSTEM DETAILS

Refrigerant Type:	R-410A	Cooling Operation Range (°F DB):	23 - 122
Holding Refrigerant Charge (lbs):	25.8+28.8	Heating Operation Range (°F WB):	-13 - 60
Additional Charge (oz/ft):		Max. Pipe Length (Vertical) (ft):	295
Pre-charge Piping (Length) (ft):		Cooling Range w/Baffle (°F DB):	-
Max. Pipe Length (Total) (ft):	540		
Max Height Separation (Ind to Ind ft):			

DIMENSIONAL DRAWING



Submittal Data Sheet

16 Ton, 460V, VRV EMERION HP - RXYQ192AAYDA

Project: Newburgh ECSD CTE

Submitted by: David Shumpert of THERMAL ENVIRONMENT SALES INC on 6/6/2024

Submitted to: No Engineer Name Specified

Tags: CU-G-1, CU-H-1

PERFORMANCE

Outdoor Unit Model No.	RXYQ192AAYDA	Outdoor Unit Name:	16 Ton, 460V, VRV EMERION HP
Type:	Heat Pump	Unit Combination:	
Rated Cooling Conditions:	Indoor (°F DB/WB): 80 / 67 Ambient (°F DB/WB): 95 / 75	Rated Heating Conditions:	Indoor (°F DB/WB): 70 / 60 Ambient (°F DB/WB): 47 / 43
Rated Piping Length(ft):			
Rated Height Difference (ft):			
Rated Cooling Capacity (Btu/hr):	184,000	Rated Heating Capacity (Btu/hr):	206,000
Nom Cooling Capacity (Btu/hr):	192,000	Nom Heating Capacity (Btu/hr):	216,000
Cooling Input Power (kW):		Heating Input Power (kW):	
EER (Non-Ducted/Ducted):	11.60 / 11.60	Heating COP (Non-Ducted/Ducted):	3.7 / 3.4
IEER (Non-Ducted/Ducted):	23.60 / 21.20	Heating COP 17F (Non-Ducted/Ducted):	2.2 / 2.1

OUTDOOR UNIT DETAILS

Power Supply (V/Hz/Ph):	460 / 60 / 3	Compressor Stage:	
Power Supply Connections:		Capacity Control Range (%):	4 - 100
Min. Circuit Amps MCA (A):	28.3	Capacity Index Limit:	-
Max Overcurrent Protection (MOP) (A):	35	Airflow Rate (H) (CFM):	13665
Max Starting Current MSC(A):		Gas Pipe Connection (inch):	1-1/8
Rated Load Amps RLA(A):		Liquid Pipe Connection (inch):	5/8
Dimensions (Height) (in):	65-3/8	H/L Pressure Connection (inch)	
Dimensions (Width) (in):	68-7/8	H/L Equalizing Connection (inch)	
Dimensions (Depth) (in):	30-1/8	Sound Pressure (H) (dBA):	67
Net Weight (lb):	915	Sound Power Level (dBA):	

Submittal Data Sheet

16 Ton, 460V, VRV EMERION HP - RXYQ192AAYDA

Project: Newburgh ECSD CTE

Submitted by: David Shumpert of THERMAL ENVIRONMENT SALES INC on 6/6/2024

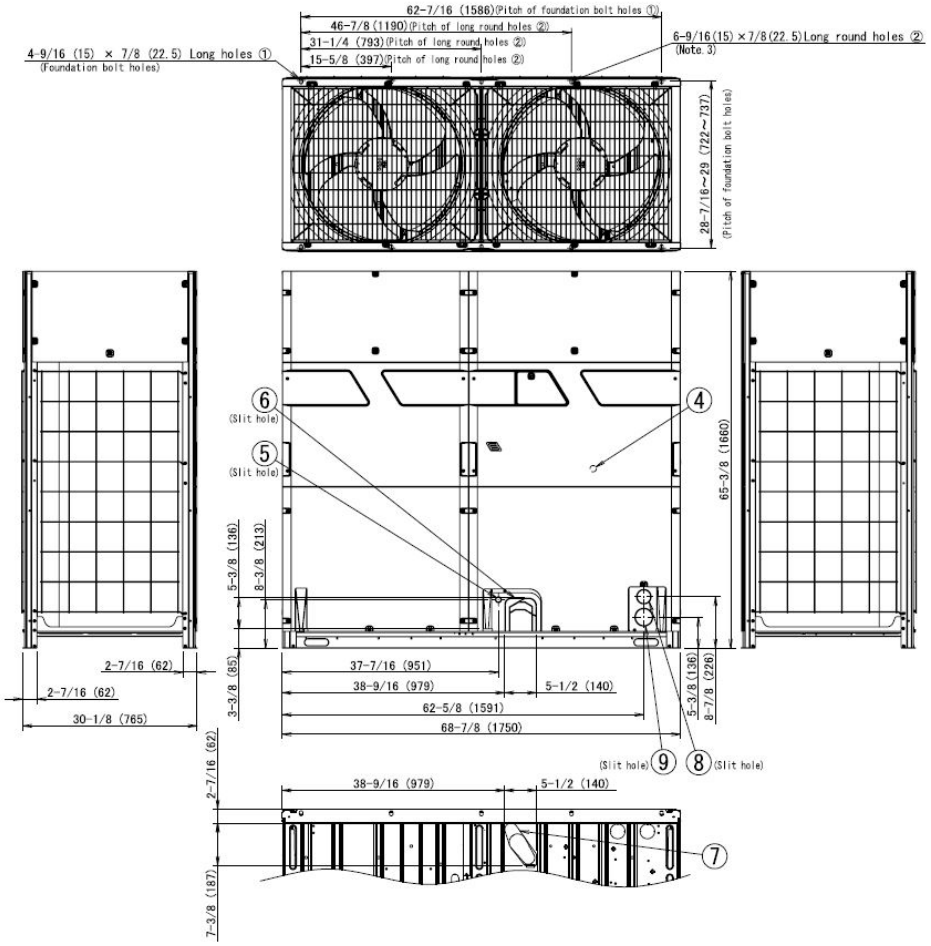
Submitted to: No Engineer Name Specified

Tags: CU-G-1, CU-H-1

SYSTEM DETAILS

Refrigerant Type:	R-410A	Cooling Operation Range (°F DB):	23 - 122
Holding Refrigerant Charge (lbs):	25.8	Heating Operation Range (°F WB):	-13 - 60
Additional Charge (oz/ft):		Max. Pipe Length (Vertical) (ft):	295
Pre-charge Piping (Length) (ft):		Cooling Range w/Baffle (°F DB):	-
Max. Pipe Length (Total) (ft):	540		
Max Height Separation (Ind to Ind ft):			

DIMENSIONAL DRAWING



CU-J-1 WITH ISU-HG-C103

Submittal Data Sheet
4.0-Ton Multi-Position Air Handler
FTQ48TAVJUDRZQ48TAVJUA

SYSTEM PERFORMANCE			
Indoor Unit Model No.	FTQ48TAVJUD	Indoor Unit Name:	air handler
Outdoor Unit Model No.	RZQ48TAVJUA	Outdoor Unit Name:	Sky-Air 4.0 Ton Heat Pump ODU
Rated Cooling Capacity (Btu/hr):	48,000	Rated Cooling Conditions:	Indoor (°F DB/WB): 80 / 67 Ambient (°F DB/WB): 95 / 75
Sensible Capacity (Btu/hr):	32,700	Rated Piping Length(ft):	25
Max/Min Cooling Capacity (Btu/hr):	/	Rated Height Difference (ft):	0.00
Cooling Input Power (kW):		Rated Heating Conditions:	Indoor (°F DB/WB): 70 / 60 Ambient (°F DB/WB): 47 / 43
SEER (Non-Ducted/Ducted):	/ 14.80		
EER (Non-Ducted/Ducted):	/ 9.50		
Rated Heating Capacity (Btu/hr):	54,000		
Heating Input Power (kW):	0.52		

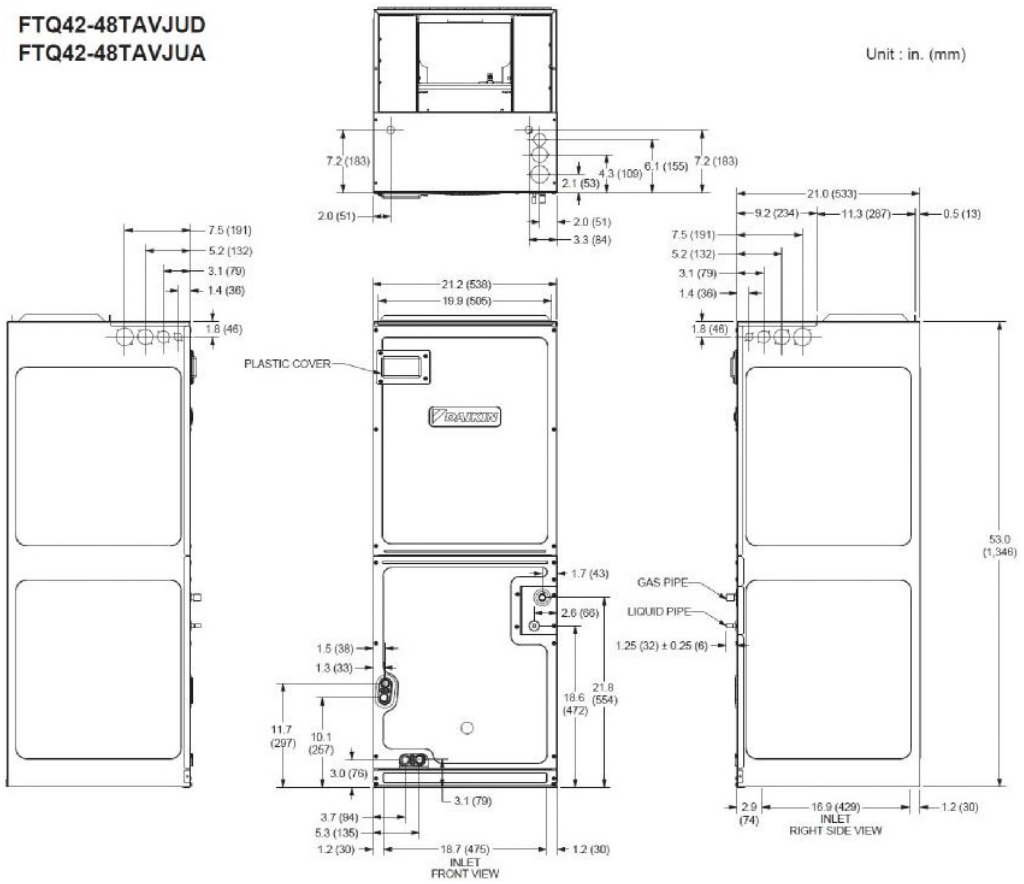
SYSTEM DETAILS			
Refrigerant Type:	R-410A	Cooling Operation Range (°F DB):	23 - 122
Holding Refrigerant Charge (lbs):	7.9	Heating Operation Range (°F WB):	-4 - 60
Additional Charge (lb/ft):	0.04	Max. Pipe Length (Vertical) (ft):	98
Pre-charge Piping (Length) (ft):	15	Cooling Range w/Baffle (°F DB):	0 - 122
Max. Pipe Length (Total) (ft):	230	Heating Range w/Baffle (°F WB):	-
Max Height Separation (Ind to Ind ft):	0		

Submittal Data Sheet
4.0-Ton Multi-Position Air Handler
FTQ48TAVJUDRZQ48TAVJUA

ISU-HG-C103

INDOOR UNIT DETAILS			
Power Supply (V/Hz/Ph):	208/230 / 60 / 1	Airflow Rate (H) (CFM):	1520
Power Supply Connections:	L1, L2, Ground	Moisture Removal (Gal/hr):	
Min. Circuit Amps MCA (A):	6.5	Gas Pipe Connection (inch):	5/8
Max Overcurrent Protection (MOP) (A):	15	Liquid Pipe Connection (inch):	3/8
Dimensions (HxWxD) (in):	53.43 x 21 x 21	Condensate Connection (inch):	3/4
Net Weight (lb):	150	Sound Pressure (H/M/L) (dBA):	54 / 50 / 46
Ext. Static Pressure (Rated/Max) (inWg):	/ 0.9	Sound Power Level (dBA):	

DIMENSIONAL DRAWING - INDOOR UNIT



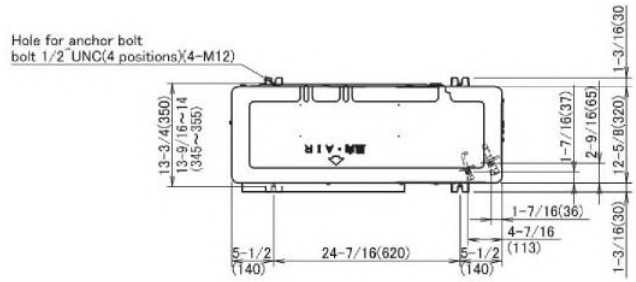
CU-J-1

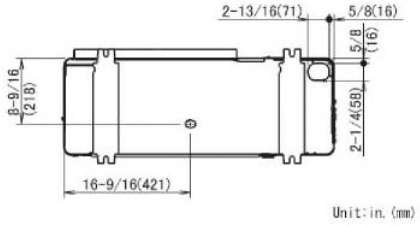
Submittal Data Sheet

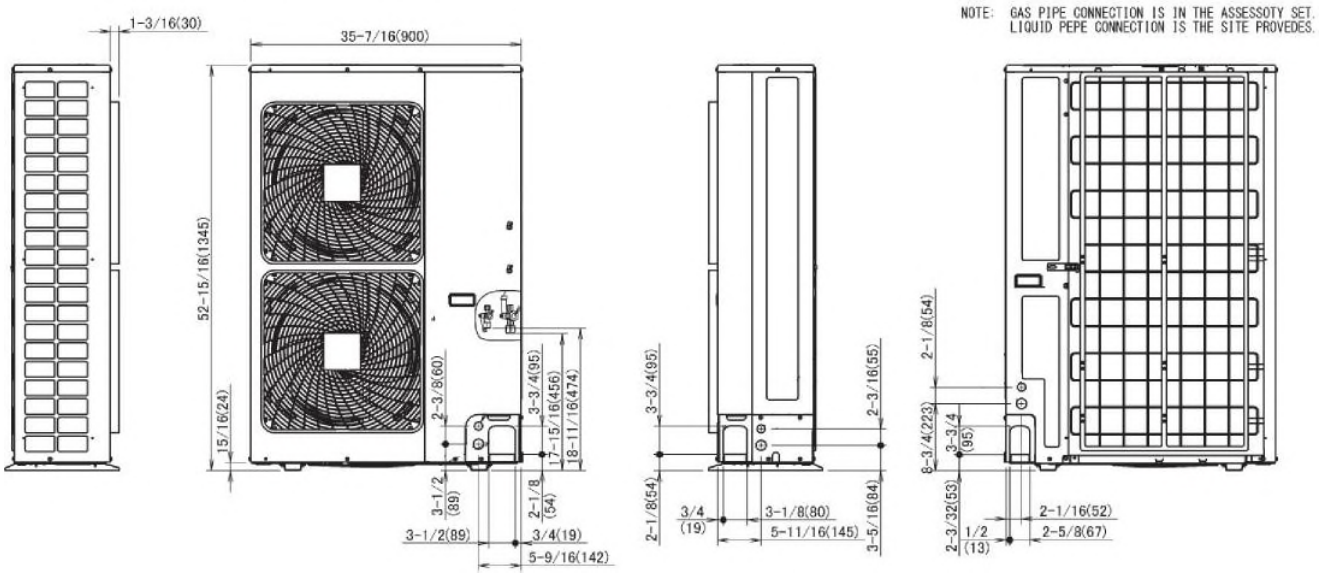
4.0-Ton Multi-Position Air Handler

FTQ48TAVJUDRZQ48TAVJUA

OUTDOOR UNIT DETAILS			
Power Supply (V/Hz/Ph):	208-230 / 60 / 1	Compressor Stage:	
Power Supply Connections:	L1, L2, Ground	Capacity Control Range (%):	14 - 100
Min. Circuit Amps MCA (A):	29.1	Airflow Rate (H) (CFM):	3471
Max Overcurrent Protection (MOP) (A):	35	Gas Pipe Connection (inch):	5/8
Max Starting Current MSC(A):		Liquid Pipe Connection (inch):	3/8
Rated Load Amps RLA(A):	19	Sound Pressure (H) (dBA):	57
Dimensions (HxWxD) (in):	52-15/16 x 35-7/16 x 12-5/8	Sound Power Level (dBA):	
Net Weight (lb):	225		







Submittal Data Sheet

8 Ton, 460V, VRV HP EMERION - RXYQ96AAYDA

Project: Newburgh ECSD CTE

Submitted by: David Shumpert of THERMAL ENVIRONMENT SALES INC on 6/6/2024

Submitted to: No Engineer Name Specified

Tags: CU-K-1, CU-K-2

PERFORMANCE

Outdoor Unit Model No.	RXYQ96AAYDA	Outdoor Unit Name:	8 Ton, 460V, VRV HP EMERION
Type:	Heat Pump	Unit Combination:	
Rated Cooling Conditions:	Indoor (°F DB/WB): 80 / 67 Ambient (°F DB/WB): 95 / 75	Rated Heating Conditions:	Indoor (°F DB/WB): 70 / 60 Ambient (°F DB/WB): 47 / 43
Rated Piping Length(ft):			
Rated Height Difference (ft):			
Rated Cooling Capacity (Btu/hr):	92,000	Rated Heating Capacity (Btu/hr):	103,000
Nom Cooling Capacity (Btu/hr):	96,000	Nom Heating Capacity (Btu/hr):	108,000
Cooling Input Power (kW):		Heating Input Power (kW):	
EER (Non-Ducted/Ducted):	14.30 /	Heating COP (Non-Ducted/Ducted):	4.1 / 3.5
IEER (Non-Ducted/Ducted):	28.50 / 24.80	Heating COP 17F (Non-Ducted/Ducted):	2.5 / 2.4

OUTDOOR UNIT DETAILS

Power Supply (V/Hz/Ph):	460 / 60 / 3	Compressor Stage:	
Power Supply Connections:		Capacity Control Range (%):	4 - 100
Min. Circuit Amps MCA (A):	16.4	Capacity Index Limit:	-
Max Overcurrent Protection (MOP) (A):	20	Airflow Rate (H) (CFM):	8965
Max Starting Current MSC(A):		Gas Pipe Connection (inch):	7/8
Rated Load Amps RLA(A):		Liquid Pipe Connection (inch):	3/8
Dimensions (Height) (in):	65-3/8	H/L Pressure Connection (inch)	
Dimensions (Width) (in):	48-13/16	H/L Equalizing Connection (inch)	
Dimensions (Depth) (in):	30-1/8	Sound Pressure (H) (dBA):	61
Net Weight (lb):		Sound Power Level (dBA):	

Submittal Data Sheet

8 Ton, 460V, VRV HP EMERION - RXYQ96AAYDA

Project: Newburgh ECSD CTE

Submitted by: David Shumpert of THERMAL ENVIRONMENT SALES INC on 6/6/2024

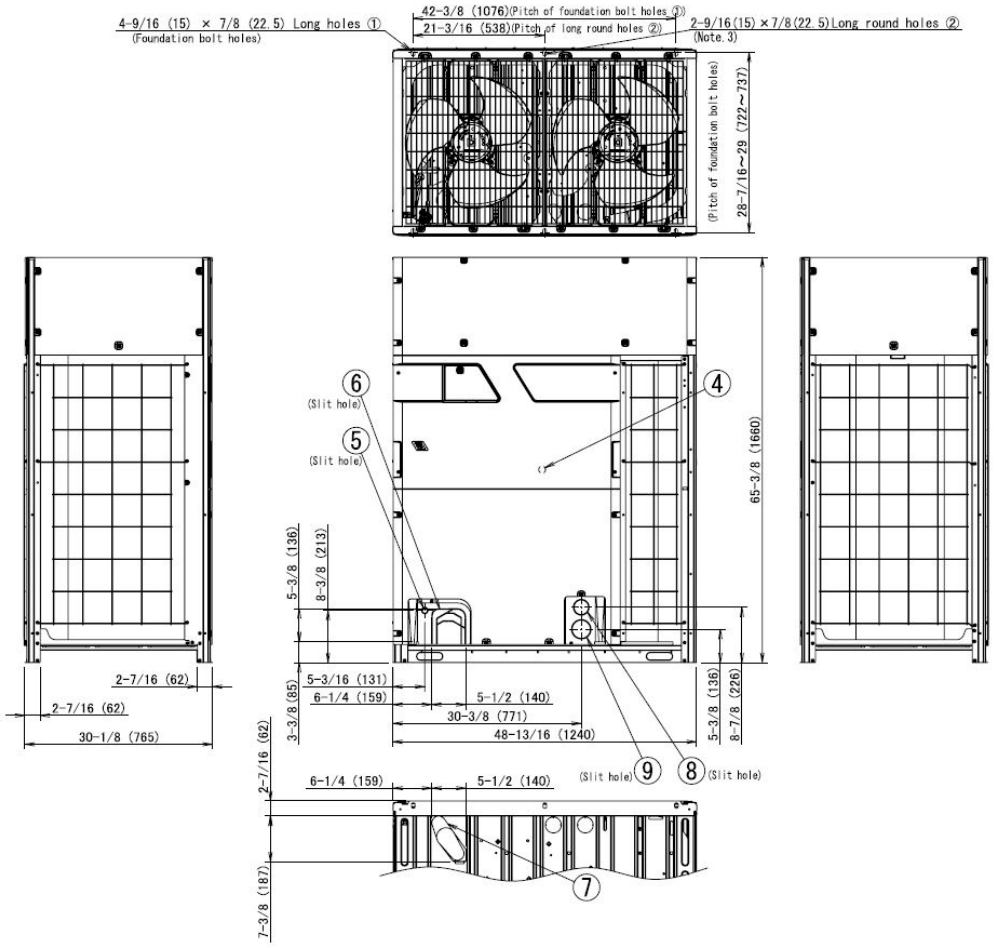
Submitted to: No Engineer Name Specified

Tags: CU-K-1, CU-K-2

SYSTEM DETAILS

Refrigerant Type:	R-410A	Cooling Operation Range (°F DB):	23 - 122
Holding Refrigerant Charge (lbs):	24.9	Heating Operation Range (°F WB):	-13 - 60
Additional Charge (oz/ft):		Max. Pipe Length (Vertical) (ft):	295
Pre-charge Piping (Length) (ft):		Cooling Range w/Baffle (°F DB):	-
Max. Pipe Length (Total) (ft):	540		
Max Height Separation (Ind to Ind ft):			

DIMENSIONAL DRAWING



Submittal Data Sheet

1.0-Ton Multi Position Air Handling Unit (w/ Disconnect) - FXTQ12TAVJUD

Project: Newburgh ECSD CTE

Submitted by: David Shumpert of THERMAL ENVIRONMENT SALES INC on 6/6/2024

Submitted to: No Engineer Name Specified

Tags: ISU-HC-314B

PERFORMANCE

Indoor Unit Model No.	FXTQ12TAVJUD	Indoor Unit Name:	1.0-Ton Multi Position Air Handling Unit (w/ Disconnect)
Type:	Ducted	Rated Cooling Conditions:	Indoor (°F DB/WB): 80 / 67 Ambient (°F DB/WB): 95 / 75
Rated Cooling Capacity (Btu/hr):	12,000	Rated Heating Conditions:	Indoor (°F DB/WB): 70 / 60 Ambient (°F DB/WB): 47 / 43
Sensible Capacity (Btu/hr):	9,900	Rated Piping Length(ft):	
Cooling Input Power (kW):	0.150	Rated Height Separation (ft):	
Rated Heating Capacity (Btu/hr):	13,500		
Heating Input Power (kW):	0.15		

INDOOR UNIT DETAILS

Power Supply (V/Hz/Ph):	208/230 / 60 / 1	Airflow Rate (H/M/L) (CFM):	400/340/280
Power Supply Connections:		Moisture Removal (Gal/hr):	
Min. Circuit Amps MCA (A):	4.9/4.9	Gas Pipe Connection (inch):	1/2
Max Overcurrent Protection (MOP) (A):	15	Liquid Pipe Connection (inch):	1/4
Dimensions (HxWxD) (in):	45 x 17.5 x 21	Condensate Connection (inch):	3/4
Net Weight (lb):	115	Sound Pressure (H) (dBA):	36
Ext. Static Pressure (Rated/Max) (inWg):	/ 0.9"	Sound Power Level (dBA):	45

Submittal Data Sheet

1.0-Ton Multi Position Air Handling Unit (w/ Disconnect) - FXTQ12TAVJUD

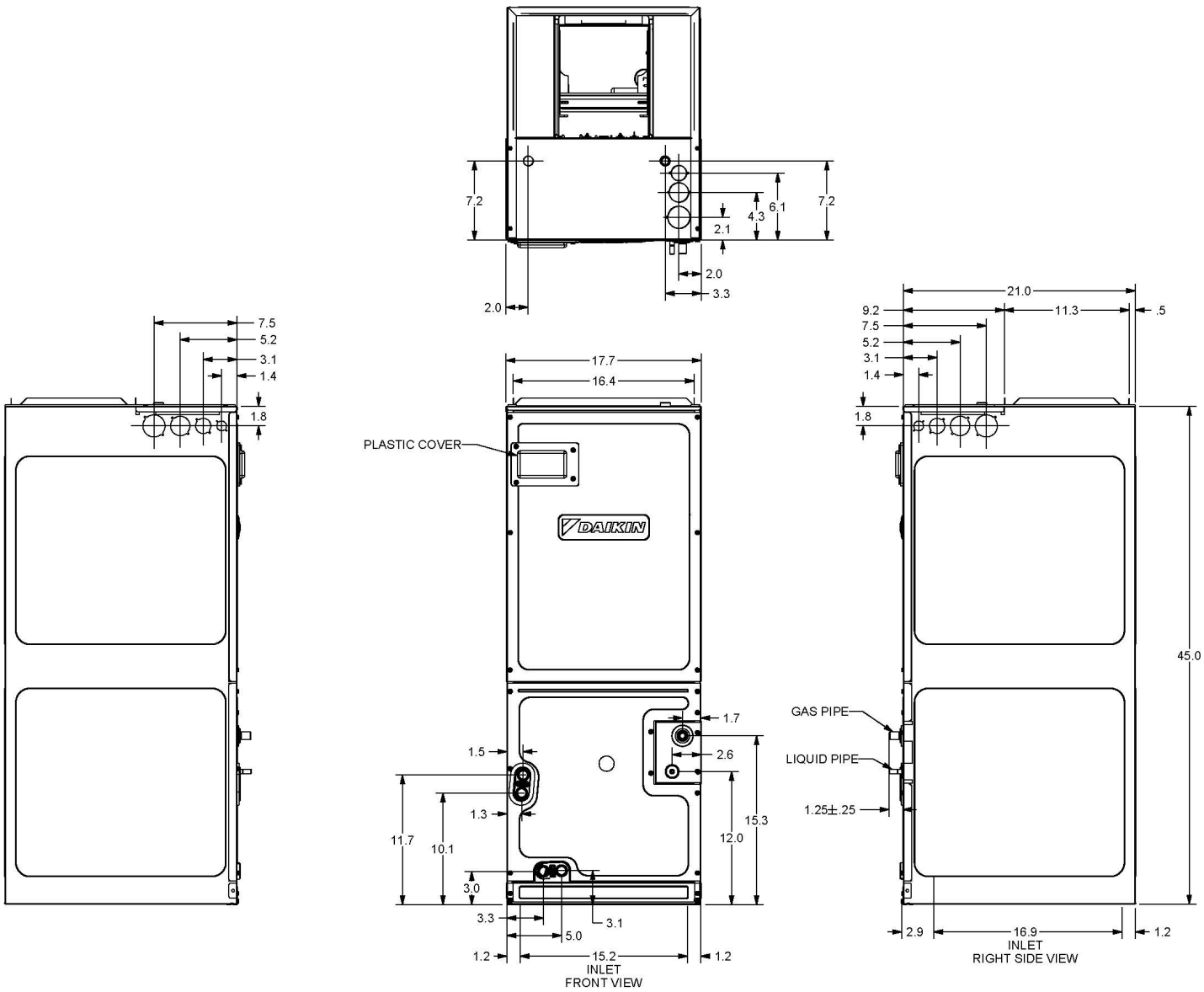
Project: Newburgh ECSD CTE

Submitted by: David Shumpert of THERMAL ENVIRONMENT SALES INC on 6/6/2024

Submitted to: No Engineer Name Specified

Tags: ISU-HC-314B

DIMENSIONAL DRAWING



FXTQ09/12/18/24/30/36 TAVJU

Submittal Data Sheet

4.0-Ton Multi Position Air Handling Unit (w/ Disconnect) - FXTQ48TAVJUD

Project: Newburgh ECSD CTE

Submitted by: David Shumpert of THERMAL ENVIRONMENT SALES INC on 6/6/2024

Submitted to: No Engineer Name Specified

Tags: ISU-HG-C201A, ISU-HG-C201B, ISU-HG-C102A, ISU-HG-C102B, ISU-HG-C204A, ISU-HG-C204B, ISU-HG-C101A, ISU-HG-C202A, ISU-HG-C101B, ISU-HG-C101C

PERFORMANCE

Indoor Unit Model No.	FXTQ48TAVJUD	Indoor Unit Name:	4.0-Ton Multi Position Air Handling Unit (w/ Disconnect)
Type:	Ducted	Rated Cooling Conditions:	Indoor (°F DB/WB): 80 / 67 Ambient (°F DB/WB): 95 / 75
Rated Cooling Capacity (Btu/hr):	48,000	Rated Heating Conditions:	Indoor (°F DB/WB): 70 / 60 Ambient (°F DB/WB): 47 / 43
Sensible Capacity (Btu/hr):	32,700	Rated Piping Length(ft):	
Cooling Input Power (kW):	0.520	Rated Height Separation (ft):	
Rated Heating Capacity (Btu/hr):	54,000		
Heating Input Power (kW):	0.52		

INDOOR UNIT DETAILS

Power Supply (V/Hz/Ph):	208/230 / 60 / 1	Airflow Rate (H/M/L) (CFM):	1520/1,290/1,060
Power Supply Connections:	L1, L2, Ground	Moisture Removal (Gal/hr):	
Min. Circuit Amps MCA (A):	6.5/6.5	Gas Pipe Connection (inch):	5/8
Max Overcurrent Protection (MOP) (A):	15	Liquid Pipe Connection (inch):	3/8
Dimensions (HxWxD) (in):	53.43 x 21 x 21	Condensate Connection (inch):	3/4
Net Weight (lb):	150	Sound Pressure () (dBA):	
Ext. Static Pressure (Rated/Max) (inWg):	/ 0.9"	Sound Power Level (dBA):	

Submittal Data Sheet

4.0-Ton Multi Position Air Handling Unit (w/ Disconnect) - FXTQ48TAVJUD

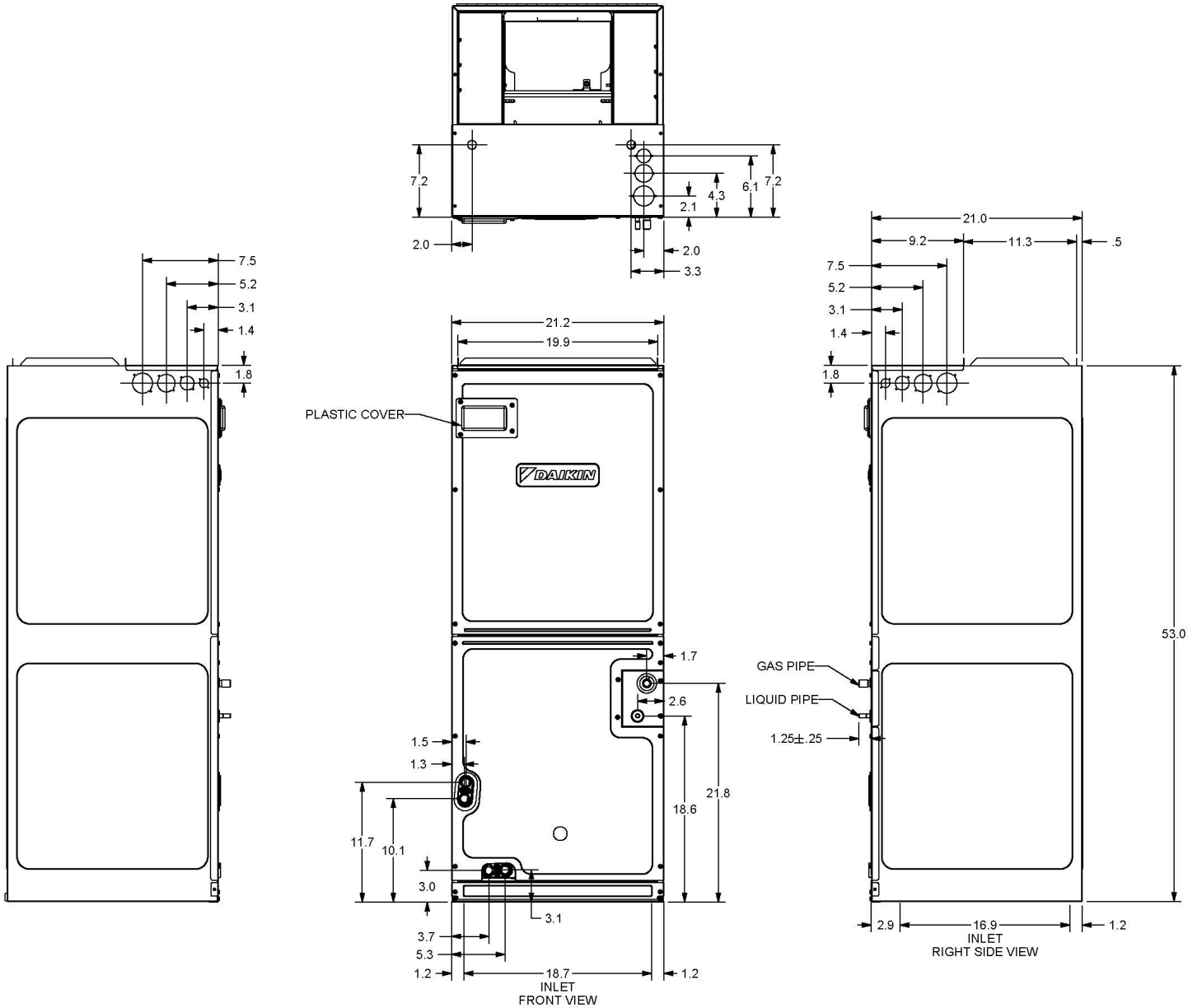
Project: Newburgh ECSD CTE

Submitted by: David Shumpert of THERMAL ENVIRONMENT SALES INC on 6/6/2024

Submitted to: No Engineer Name Specified

Tags: ISU-HG-C201A, ISU-HG-C201B, ISU-HG-C102A, ISU-HG-C102B, ISU-HG-C204A, ISU-HG-C204B, ISU-HG-C101A, ISU-HG-C202A, ISU-HG-C101B, ISU-HG-C101C

DIMENSIONAL DRAWING



FXTQ42/48 TAVJU

Submittal Data Sheet

4.5-Ton Multi Position Air Handling Unit (w/ Disconnect) - FXTQ54TAVJUD

Project: Newburgh ECSD CTE

Submitted by: David Shumpert of THERMAL ENVIRONMENT SALES INC on 6/6/2024

Submitted to: No Engineer Name Specified

Tags: ISU-HH-C301A, ISU-HH-C301B

PERFORMANCE

Indoor Unit Model No.	FXTQ54TAVJUD	Indoor Unit Name:	4.5-Ton Multi Position Air Handling Unit (w/ Disconnect)
Type:	Ducted	Rated Cooling Conditions:	Indoor (°F DB/WB): 80 / 67 Ambient (°F DB/WB): 95 / 75
Rated Cooling Capacity (Btu/hr):	54,000	Rated Heating Conditions:	Indoor (°F DB/WB): 70 / 60 Ambient (°F DB/WB): 47 / 43
Sensible Capacity (Btu/hr):	39,300	Rated Piping Length(ft):	
Cooling Input Power (kW):	0.680	Rated Height Separation (ft):	
Rated Heating Capacity (Btu/hr):	60,000		
Heating Input Power (kW):	0.68		

INDOOR UNIT DETAILS

Power Supply (V/Hz/Ph):	208/230 / 60 / 1	Airflow Rate (H/M/L) (CFM):	1800/1,530/1,260
Power Supply Connections:		Moisture Removal (Gal/hr):	
Min. Circuit Amps MCA (A):	8.6/8.6	Gas Pipe Connection (inch):	5/8
Max Overcurrent Protection (MOP) (A):	15	Liquid Pipe Connection (inch):	3/8
Dimensions (HxWxD) (in):	58 x 24.5 x 21	Condensate Connection (inch):	3/4
Net Weight (lb):	167	Sound Pressure () (dBA):	
Ext. Static Pressure (Rated/Max) (inWg):	/ 0.9"	Sound Power Level (dBA):	

Submittal Data Sheet

4.5-Ton Multi Position Air Handling Unit (w/ Disconnect) - FXTQ54TAVJUD

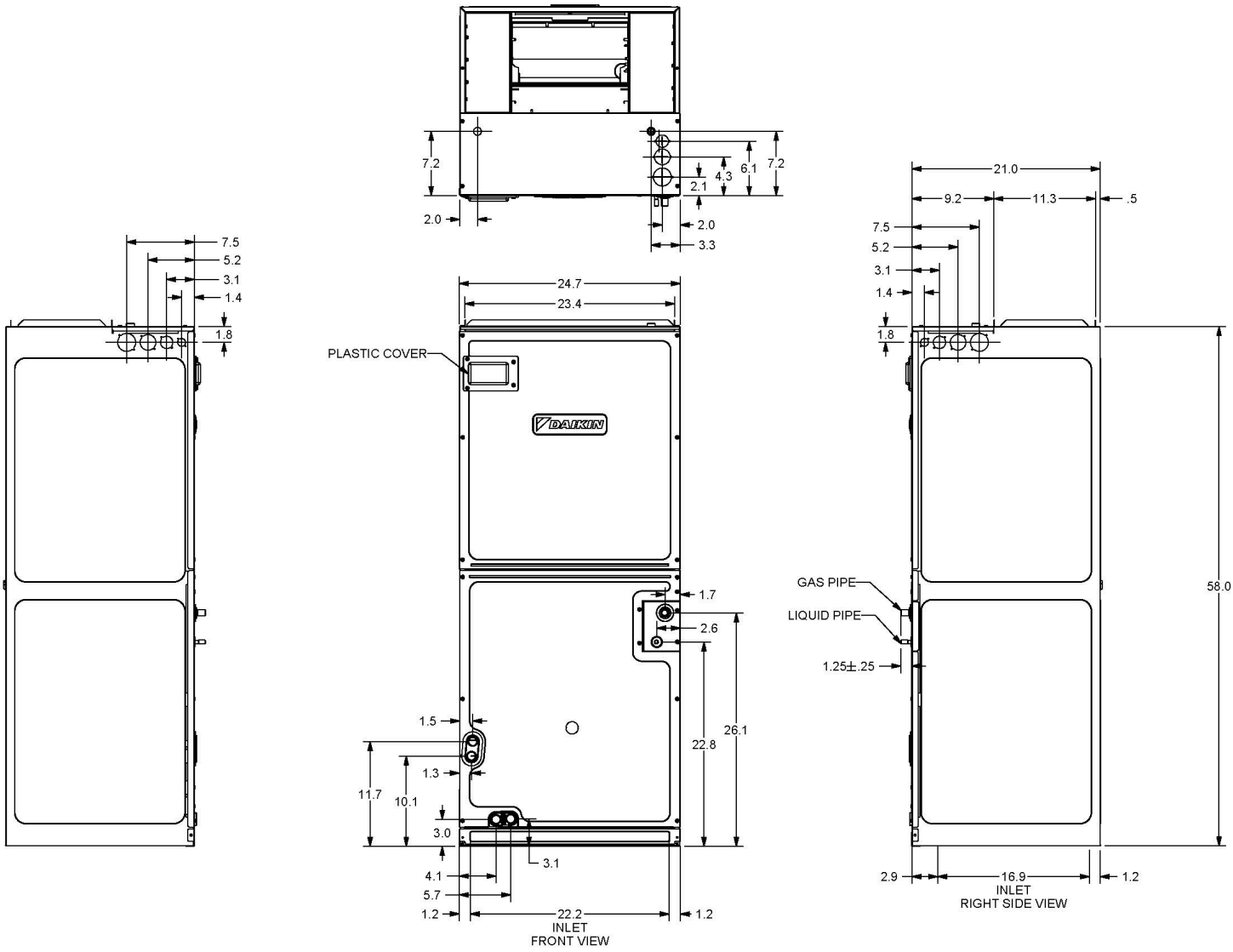
Project: Newburgh ECSD CTE

Submitted by: David Shumpert of THERMAL ENVIRONMENT SALES INC on 6/6/2024

Submitted to: No Engineer Name Specified

Tags: ISU-HH-C301A, ISU-HH-C301B

DIMENSIONAL DRAWING



FXTQ54/60 TAVJU

Submittal Data Sheet

0.5-Ton VISTA 2x2 Cassette Unit for VRV - FXZQ05TBVJU

Project: Newburgh ECSD CTE

Submitted by: David Shumpert of THERMAL ENVIRONMENT SALES INC on 6/6/2024

Submitted to: No Engineer Name Specified

Tags: ISU-CA-204, ISU-CA-100A, ISU-CA-100J, ISU-CA-100C, ISU-CA-100D, ISU-CA-100I, ISU-CA-100F, ISU-CA-100H, ISU-CA-233B, ISU-CA-233D, ISU-CA-233E, ISU-CA-233C, ISU-CA-233A, ISU-CA-212, ISU-CA-221B

PERFORMANCE

Indoor Unit Model No.	FXZQ05TBVJU	Indoor Unit Name:	0.5-Ton VISTA 2x2 Cassette Unit for VRV
Type:		Rated Cooling Conditions:	Indoor (°F DB/WB): / Ambient (°F DB/WB): /
Rated Cooling Capacity (Btu/hr):	5,800	Rated Heating Conditions:	Indoor (°F DB/WB): / Ambient (°F DB/WB): /
Sensible Capacity (Btu/hr):	4,700	Rated Piping Length(ft):	
Cooling Input Power (kW):	0.043	Rated Height Separation (ft):	
Rated Heating Capacity (Btu/hr):	6,500		
Heating Input Power (kW):	0.04		

INDOOR UNIT DETAILS

Power Supply (V/Hz/Ph):	208/230 / 60 / 1	Airflow Rate (H/M/L) (CFM):	300/247/229
Power Supply Connections:		Moisture Removal (Gal/hr):	
Min. Circuit Amps MCA (A):	0.3	Gas Pipe Connection (inch):	1/2
Max Overcurrent Protection (MOP) (A):	15	Liquid Pipe Connection (inch):	1/4
Dimensions (HxWxD) (in):	10-1/4 x 22-5/8 x 22-5/8	Condensate Connection (inch):	1-1/32
Net Weight (lb):	35.3	Sound Pressure (H/M/L) (dBA):	32/30/26
Ext. Static Pressure (Rated/Max) (inWg):	N/A / N/A	Sound Power Level (dBA):	49

Submittal Data Sheet

0.5-Ton VISTA 2x2 Cassette Unit for VRV - FXZQ05TBVJU

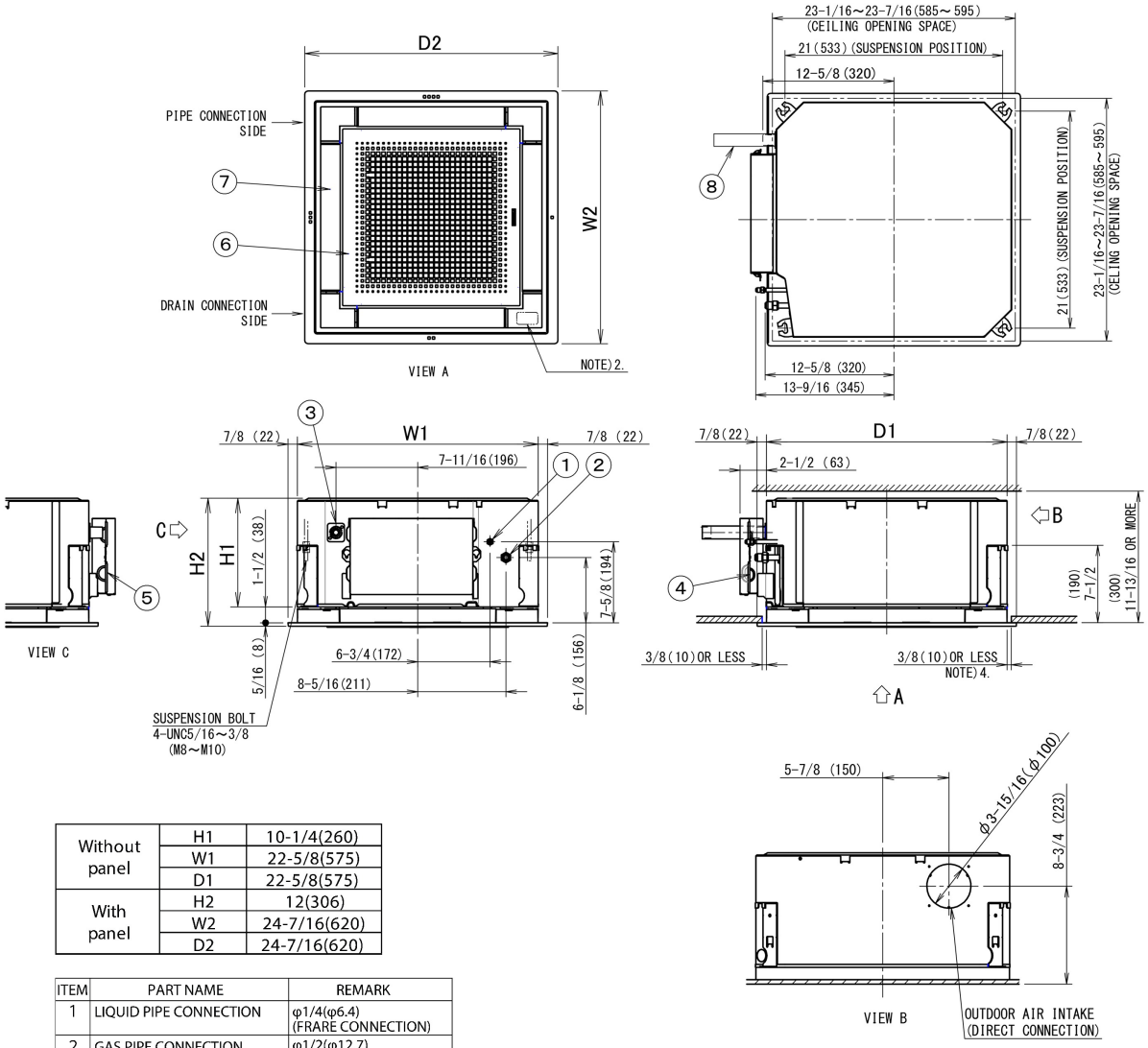
Project: Newburgh ECSD CTE

Submitted by: David Shumpert of THERMAL ENVIRONMENT SALES INC on 6/6/2024

Submitted to: No Engineer Name Specified

Tags: ISU-CA-204, ISU-CA-100A, ISU-CA-100J, ISU-CA-100C, ISU-CA-100D, ISU-CA-100I, ISU-CA-100F, ISU-CA-100H, ISU-CA-233B, ISU-CA-233D, ISU-CA-233E, ISU-CA-233C, ISU-CA-233A, ISU-CA-212, ISU-CA-221B

DIMENSIONAL DRAWING



Without panel	H1	10-1/4(260)
	W1	22-5/8(575)
	D1	22-5/8(575)
With panel	H2	12(306)
	W2	24-7/16(620)
	D2	24-7/16(620)

ITEM	PART NAME	REMARK
1	LIQUID PIPE CONNECTION	φ1/4(φ6.4) (FRARE CONNECTION)
2	GAS PIPE CONNECTION	φ1/2(φ12.7) (FRARE CONNECTION)
3	DRAIN PIPE CONNECTION	VP20 (O.D.φ1-1/32(φ26))
4	POWER SUPPLY CONNECTION	
5	REMOTE CONTROLLER AND TRANSMISSION WIRING CONNECTION	
6	SUCTION GRILLE	
7	AIR OUTLET	
8	DRAIN HOSE(ACCESSORY)	I.D.φ1(φ25)(OUTLET)

• DECORATION PANEL

BYFQ60C3W2W	FRESH WHITE N9.5

NOTE) 1.STICKING LOCATION FOR MANUFACTURER'S LABEL
MANUFACTURER'S LABEL FOR INDOOR UNIT:ON THE BELL MOUTH INSIDE SUCTION GRILLE
MANUFACTURER'S LABEL FOR DECORATION PANEL :ON THE INNER FRAME INSIDE SUCTION GRILLE
2.IN CASE OF USING WIRELESS REMOTE CONTROLLER,THIS POSITION WILL BE A SIGNAL RECEIVER.
REFER TO THE INSTALLATION MANUAL OF WIRELESS REMOTE CONTROLLER IN DETAIL.
3.WHEN THE TEMPERATURE AND HUMIDITY IN THE CEILING EXCEED 86℉(30℃) AND RH 80% OR THE FRESH AIR IS INDUCTED INTO THE CEILING OR THE UNIT CONTINUES 24 HOUR OPERATION,AN ADDITIONAL INSULATION (THICKNESS 3/8(10) OR MORE OF GLASSWOOL OR POLYETHYLENE FOAM) IS REQUIRED.
4.THOUGH THE INSTALLATION IS ACCEPTABLE UP TO MAXIMUM OF 23-7/16(595) SQUARE CEILING OPENING, KEEP THE CLEARANCE OF 3/8(10) OR LESS BETWEEN THE MAIN UNIT AND THE CEILING OPENING SO THAT THE PANEL OVERLAP ALLOWANCE CAN BE ENSURED.

Note: For additional dimensional data and clearance information, refer to Engineering Data

Submittal Data Sheet

0.6-Ton VISTA 2x2 Cassette Unit for VRV - FXZQ07TBVJU

Project: Newburgh ECSD CTE

Submitted by: David Shumpert of THERMAL ENVIRONMENT SALES INC on 6/6/2024

Submitted to: No Engineer Name Specified

Tags: ISU-CU-111, ISU-CB-100B

PERFORMANCE

Indoor Unit Model No.	FXZQ07TBVJU	Indoor Unit Name:	0.6-Ton VISTA 2x2 Cassette Unit for VRV
Type:		Rated Cooling Conditions:	Indoor (°F DB/WB): / Ambient (°F DB/WB): /
Rated Cooling Capacity (Btu/hr):	7,500	Rated Heating Conditions:	Indoor (°F DB/WB): / Ambient (°F DB/WB): /
Sensible Capacity (Btu/hr):	5,500	Rated Piping Length(ft):	
Cooling Input Power (kW):	0.043	Rated Height Separation (ft):	
Rated Heating Capacity (Btu/hr):	8,500		
Heating Input Power (kW):	0.04		

INDOOR UNIT DETAILS

Power Supply (V/Hz/Ph):	208/230 / 60 / 1	Airflow Rate (H/M/L) (CFM):	307/264/229
Power Supply Connections:		Moisture Removal (Gal/hr):	
Min. Circuit Amps MCA (A):	0.3	Gas Pipe Connection (inch):	1/2
Max Overcurrent Protection (MOP) (A):	15	Liquid Pipe Connection (inch):	1/4
Dimensions (HxWxD) (in):	10-1/4 x 22-5/8 x 22-5/8	Condensate Connection (inch):	1-1/32
Net Weight (lb):	35.3	Sound Pressure (H/M/L) (dBA):	32/30/26
Ext. Static Pressure (Rated/Max) (inWg):	N/A / N/A	Sound Power Level (dBA):	49

Submittal Data Sheet

0.6-Ton VISTA 2x2 Cassette Unit for VRV - FXZQ07TBVJU

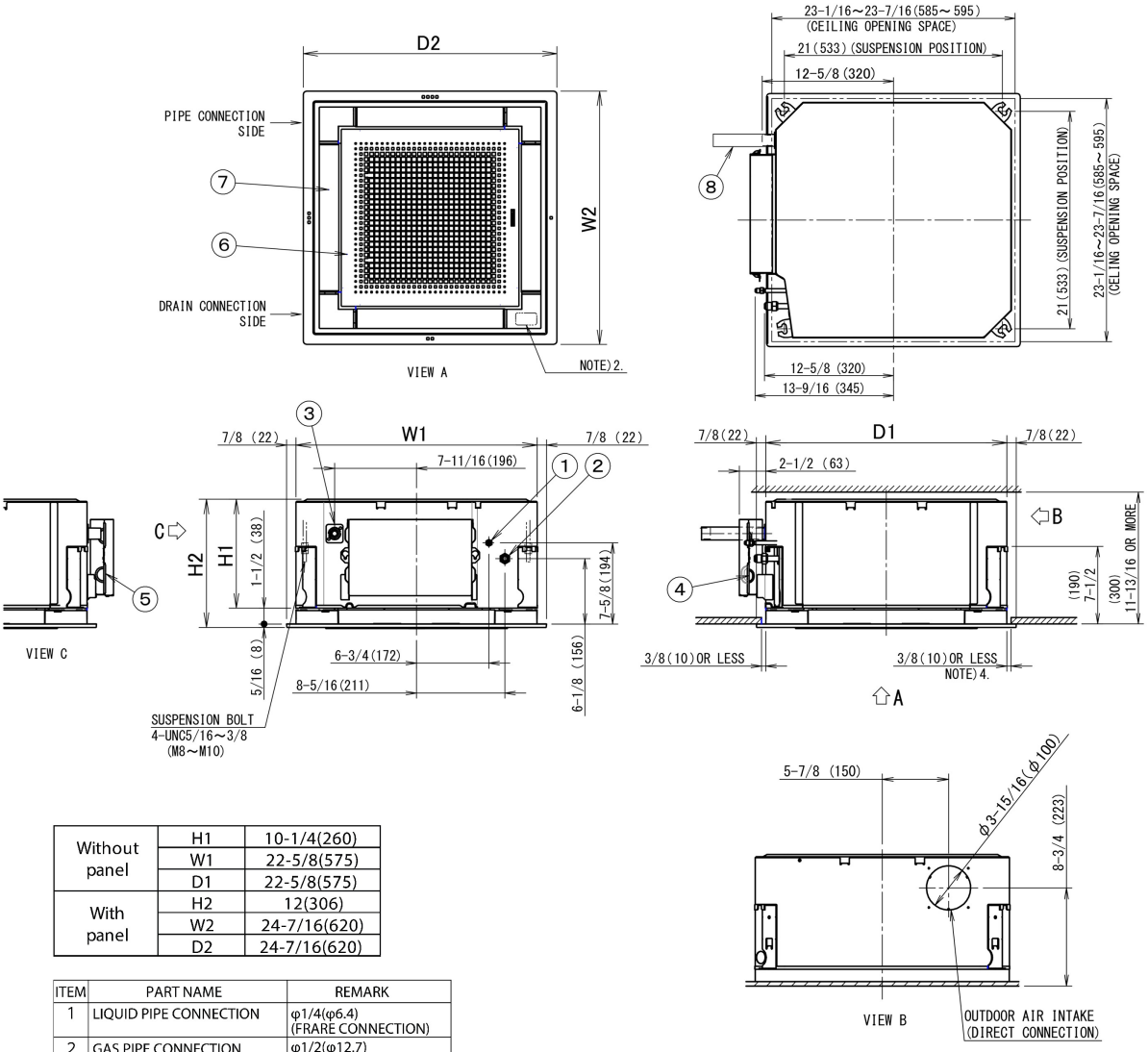
Project: Newburgh ECSD CTE

Submitted by: David Shumpert of THERMAL ENVIRONMENT SALES INC on 6/6/2024

Submitted to: No Engineer Name Specified

Tags: ISU-CU-111, ISU-CB-100B

DIMENSIONAL DRAWING



Without panel	H1	10-1/4(260)
	W1	22-5/8(575)
	D1	22-5/8(575)
With panel	H2	12(306)
	W2	24-7/16(620)
	D2	24-7/16(620)

ITEM	PART NAME	REMARK
1	LIQUID PIPE CONNECTION	φ1/4(φ6.4) (FRARE CONNECTION)
2	GAS PIPE CONNECTION	φ1/2(φ12.7) (FRARE CONNECTION)
3	DRAIN PIPE CONNECTION	VP20 (O.D.φ1-1/32(φ26))
4	POWER SUPPLY CONNECTION	
5	REMOTE CONTROLLER AND TRANSMISSION WIRING CONNECTION	
6	SUCTION GRILLE	
7	AIR OUTLET	
8	DRAIN HOSE(ACCESSORY)	I.D.φ1(φ25)(OUTLET)

• DECORATION PANEL

BYFQ60C3W2W	FRESH WHITE N9.5

NOTE) 1.STICKING LOCATION FOR MANUFACTURER'S LABEL
MANUFACTURER'S LABEL FOR INDOOR UNIT:ON THE BELL MOUTH INSIDE SUCTION GRILLE
MANUFACTURER'S LABEL FOR DECORATION PANEL :ON THE INNER FRAME INSIDE SUCTION GRILLE
2.IN CASE OF USING WIRELESS REMOTE CONTROLLER,THIS POSITION WILL BE A SIGNAL RECEIVER.
REFER TO THE INSTALLATION MANUAL OF WIRELESS REMOTE CONTROLLER IN DETAIL.
3.WHEN THE TEMPERATURE AND HUMIDITY IN THE CEILING EXCEED 86℉(30℃) AND RH 80% OR THE FRESH AIR IS INDUCTED INTO THE CEILING OR THE UNIT CONTINUES 24 HOUR OPERATION,AN ADDITIONAL INSULATION (THICKNESS 3/8(10) OR MORE OF GLASSWOOL OR POLYETHYLENE FOAM) IS REQUIRED.
4.THOUGH THE INSTALLATION IS ACCEPTABLE UP TO MAXIMUM OF 23-7/16(595) SQUARE CEILING OPENING, KEEP THE CLEARANCE OF 3/8(10) OR LESS BETWEEN THE MAIN UNIT AND THE CEILING OPENING SO THAT THE PANEL OVERLAP ALLOWANCE CAN BE ENSURED.

Note: For additional dimensional data and clearance information, refer to Engineering Data

Submittal Data Sheet

1.0-Ton VISTA 2x2 Cassette Unit for VRV - FXZQ12TBVJU

Project: Newburgh ECSD CTE

Submitted by: David Shumpert of THERMAL ENVIRONMENT SALES INC on 6/6/2024

Submitted to: No Engineer Name Specified

Tags: ISU-CC-101, ISU-CC-100

PERFORMANCE

Indoor Unit Model No.	FXZQ12TBVJU	Indoor Unit Name:	1.0-Ton VISTA 2x2 Cassette Unit for VRV
Type:		Rated Cooling Conditions:	Indoor (°F DB/WB): / Ambient (°F DB/WB): /
Rated Cooling Capacity (Btu/hr):	12,000	Rated Heating Conditions:	Indoor (°F DB/WB): / Ambient (°F DB/WB): /
Sensible Capacity (Btu/hr):	7,800	Rated Piping Length(ft):	
Cooling Input Power (kW):	0.045	Rated Height Separation (ft):	
Rated Heating Capacity (Btu/hr):	13,500		
Heating Input Power (kW):	0.04		

INDOOR UNIT DETAILS

Power Supply (V/Hz/Ph):	208/230 / 60 / 1	Airflow Rate (H/M/L) (CFM):	353/300/247
Power Supply Connections:		Moisture Removal (Gal/hr):	
Min. Circuit Amps MCA (A):	0.4	Gas Pipe Connection (inch):	1/2
Max Overcurrent Protection (MOP) (A):	15	Liquid Pipe Connection (inch):	1/4
Dimensions (HxWxD) (in):	10-1/4 x 22-5/8 x 22-5/8	Condensate Connection (inch):	1-1/32
Net Weight (lb):	36.4	Sound Pressure (H/M/L) (dBA):	34/30/26
Ext. Static Pressure (Rated/Max) (inWg):	N/A / N/A	Sound Power Level (dBA):	51

Submittal Data Sheet

1.0-Ton VISTA 2x2 Cassette Unit for VRV - FXZQ12TBVJU

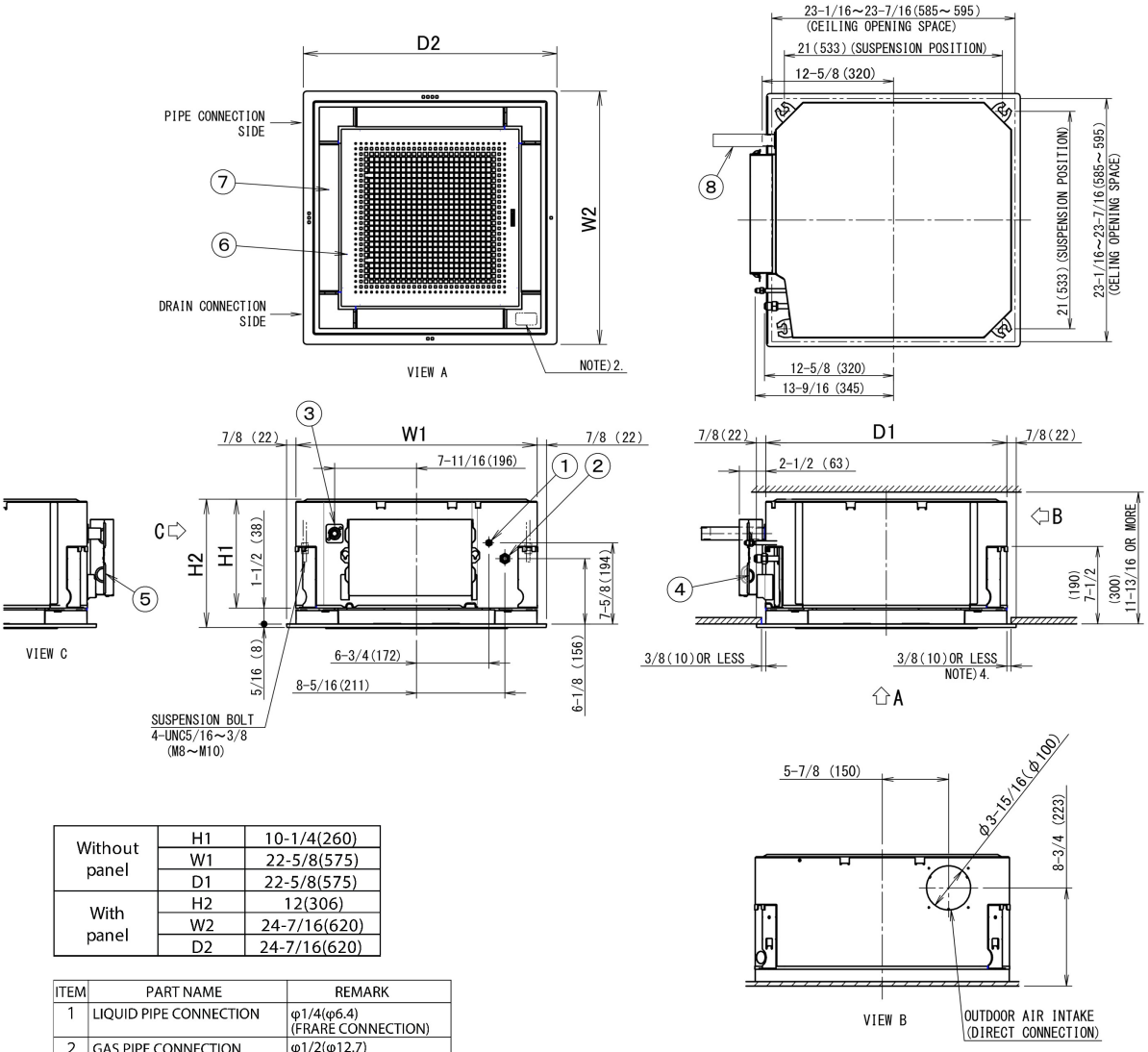
Project: Newburgh ECSD CTE

Submitted by: David Shumpert of THERMAL ENVIRONMENT SALES INC on 6/6/2024

Submitted to: No Engineer Name Specified

Tags: ISU-CC-101, ISU-CC-100

DIMENSIONAL DRAWING



Without panel	H1	10-1/4(260)
	W1	22-5/8(575)
	D1	22-5/8(575)
With panel	H2	12(306)
	W2	24-7/16(620)
	D2	24-7/16(620)

ITEM	PART NAME	REMARK
1	LIQUID PIPE CONNECTION	φ1/4(φ6.4) (FRARE CONNECTION)
2	GAS PIPE CONNECTION	φ1/2(φ12.7) (FRARE CONNECTION)
3	DRAIN PIPE CONNECTION	VP20 (O.D.φ1-1/32(φ26))
4	POWER SUPPLY CONNECTION	
5	REMOTE CONTROLLER AND TRANSMISSION WIRING CONNECTION	
6	SUCTION GRILLE	
7	AIR OUTLET	
8	DRAIN HOSE(ACCESSORY)	I.D.φ1(φ25)(OUTLET)

• DECORATION PANEL

BYFQ60C3W2W	FRESH WHITE N9.5

NOTE) 1.STICKING LOCATION FOR MANUFACTURER'S LABEL
MANUFACTURER'S LABEL FOR INDOOR UNIT:ON THE BELL MOUTH INSIDE SUCTION GRILLE
MANUFACTURER'S LABEL FOR DECORATION PANEL :ON THE INNER FRAME INSIDE SUCTION GRILLE
2.IN CASE OF USING WIRELESS REMOTE CONTROLLER,THIS POSITION WILL BE A SIGNAL RECEIVER.
REFER TO THE INSTALLATION MANUAL OF WIRELESS REMOTE CONTROLLER IN DETAIL.
3.WHEN THE TEMPERATURE AND HUMIDITY IN THE CEILING EXCEED 86℉(30℃) AND RH 80% OR THE FRESH AIR IS INDUCTED INTO THE CEILING OR THE UNIT CONTINUES 24 HOUR OPERATION,AN ADDITIONAL INSULATION (THICKNESS 3/8(10) OR MORE OF GLASSWOOL OR POLYETHYLENE FOAM) IS REQUIRED.
4.THOUGH THE INSTALLATION IS ACCEPTABLE UP TO MAXIMUM OF 23-7/16(595) SQUARE CEILING OPENING, KEEP THE CLEARANCE OF 3/8(10) OR LESS BETWEEN THE MAIN UNIT AND THE CEILING OPENING SO THAT THE PANEL OVERLAP ALLOWANCE CAN BE ENSURED.

Note: For additional dimensional data and clearance information, refer to Engineering Data

Submittal Data Sheet

2.0-Ton Round Flow Sensing Cassette

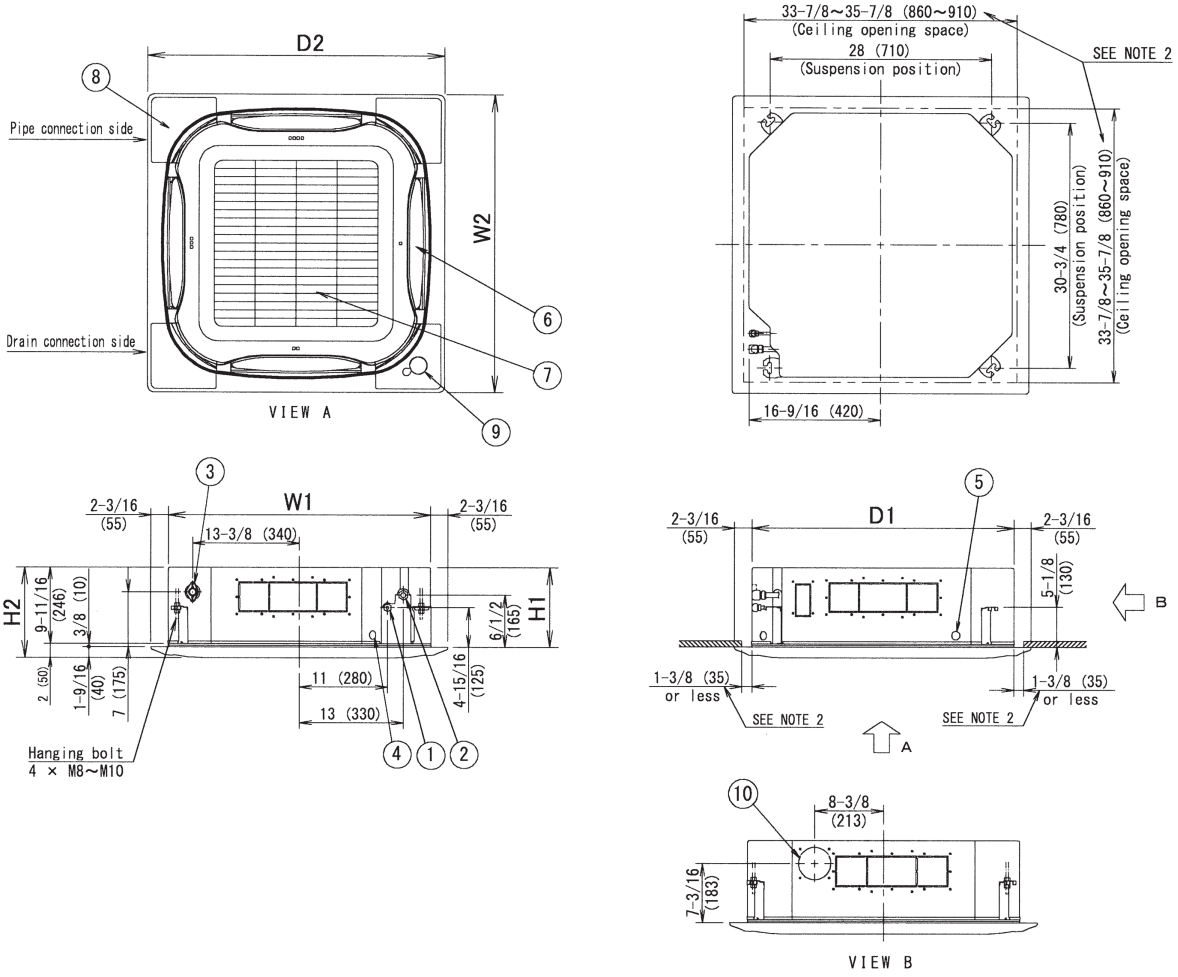
FXFQ24TVJU

PERFORMANCE			
Indoor Unit Model No.	FXFQ24TVJU	Indoor Unit Name:	2.0-Ton Round Flow Sensing Cassette
Type:	Cassette	Rated Cooling Conditions:	Indoor (°F DB/WB): 80 / 67 Ambient (°F DB/WB): 95 / 75
Rated Cooling Capacity (Btu/hr):	23,000	Rated Heating Conditions:	Indoor (°F DB/WB): 70 / 60 Ambient (°F DB/WB): 47 / 43
Sensible Capacity (Btu/hr):	20,000	Rated Piping Length(ft):	
Cooling Input Power (kW):	0.080	Rated Height Separation (ft):	
Rated Heating Capacity (Btu/hr):	27,000		
Heating Input Power (kW):	0.08		

INDOOR UNIT DETAILS			
Power Supply (V/Hz/Ph):	208-230 / 60 / 1	Airflow Rate (HH/H/L) (CFM):	777/618/477
Power Supply Connections:	L1, L2, Ground	Moisture Removal (Gal/hr):	
Min. Circuit Amps MCA (A):	0.7	Gas Pipe Connection (inch):	5/8
Max Overcurrent Protection (MOP) (A):	15	Liquid Pipe Connection (inch):	3/8
Dimensions (HxWxD) (in):	9-11/16 x 33-1/16 x 33-1/16	Condensate Connection (inch):	1-1/4
Net Weight (lb):	51	Sound Pressure (H/L) (dBA):	32/28
Ext. Static Pressure (Rated/Max) (inWg):	/	Sound Power Level (dBA):	

Submittal Data Sheet
2.0-Ton Round Flow Sensing Cassette
FXFQ24TVJU

DIMENSIONAL DRAWING



Unit : in. (mm)

ITEM	PART NAME	REMARK
1	Liquid pipe connection	φ3/8 (φ9.5) Flare connection
2	Gas pipe connection	φ5/8 (φ15.9) Flare connection
3	Drain pipe connection	VP25(O.D. φ1-1/4 (φ32), I.D. φ1 (φ25))
4	Power supply entry hole	
5	Transmission wiring entry hole	
6	Air Outlet	
7	Air Inlet grille	
8	Corner decoration cover	
9	Sensor	Infrared presence sensor Infrared floor sensor
10	Knock out hole	φ3-15/16 (φ100)

Without panel	H1	10 (256)
	W1	33-1/16 (840)
	D1	33-1/16 (840)
With panel	H2	11-11/16 (296)
	W2	37-3/8 (950)
	D2	37-3/8 (950)

Notes) 1. Location of the nameplates:
- Unit body: on the control box cover.
- Decoration panel: on the panel frame at the motor side under the corner cover.

2. Make sure the spacing between the ceiling and the cassette is no more than 1-3/8"(35mm). MAX ceiling opening: 35-7/8"(910mm).

3. When the conditions exceed 86°F(30°C) and RH 80% in the ceiling or fresh air is inducted into the ceiling an additional insulation is required (polyethylene foam, thickness 3/8"(10mm) or more).

Note: For additional dimensional data and clearance information, refer to Engineering Data

Submittal Data Sheet

2.5-Ton Round Flow Sensing Cassette

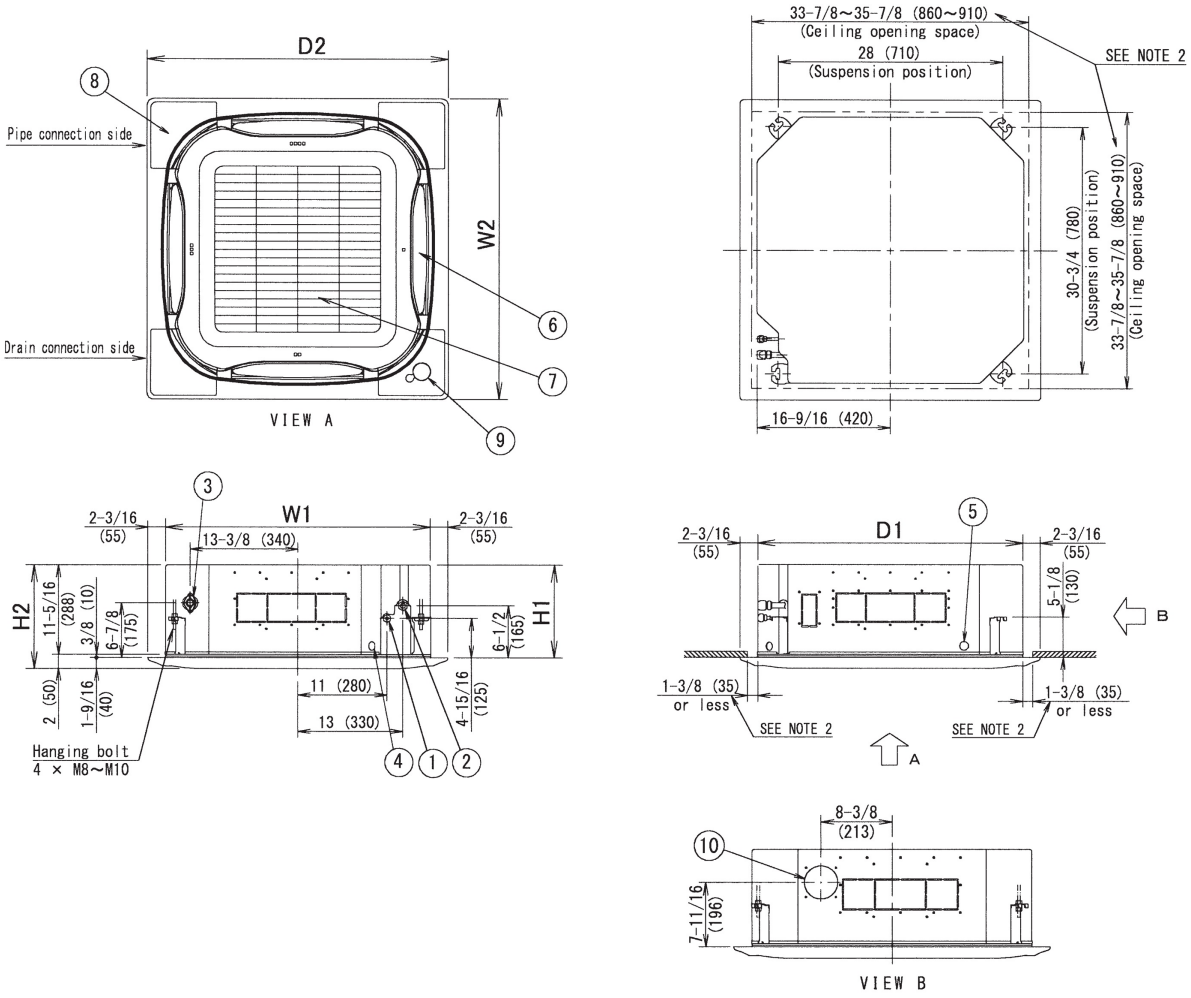
FXFQ30TVJU

PERFORMANCE			
Indoor Unit Model No.	FXFQ30TVJU	Indoor Unit Name:	2.5-Ton Round Flow Sensing Cassette
Type:	Cassette	Rated Cooling Conditions:	Indoor (°F DB/WB): 80 / 67 Ambient (°F DB/WB): 95 / 75
Rated Cooling Capacity (Btu/hr):	30,000	Rated Heating Conditions:	Indoor (°F DB/WB): 70 / 60 Ambient (°F DB/WB): 47 / 43
Sensible Capacity (Btu/hr):	22,300	Rated Piping Length(ft):	
Cooling Input Power (kW):	0.170	Rated Height Separation (ft):	
Rated Heating Capacity (Btu/hr):	34,000		
Heating Input Power (kW):	0.16		

INDOOR UNIT DETAILS			
Power Supply (V/Hz/Ph):	208-230 / 60 / 1	Airflow Rate (HH/H/L) (CFM):	1,112/918/671
Power Supply Connections:	L1, L2, Ground	Moisture Removal (Gal/hr):	
Min. Circuit Amps MCA (A):	1.3	Gas Pipe Connection (inch):	5/8
Max Overcurrent Protection (MOP) (A):	15	Liquid Pipe Connection (inch):	3/8
Dimensions (HxWxD) (in):	11-5/16 x 33-1/16 x 33-1/16	Condensate Connection (inch):	1-1/4
Net Weight (lb):	58	Sound Pressure (H/L) (dBA):	38/32
Ext. Static Pressure (Rated/Max) (inWg):	/	Sound Power Level (dBA):	

Submittal Data Sheet
2.5-Ton Round Flow Sensing Cassette
FXFQ30TVJU

DIMENSIONAL DRAWING



Unit : in. (mm)

ITEM	PART NAME	REMARK
1	Liquid pipe connection	φ3/8 (φ9.5) Flare connection
2	Gas pipe connection	φ5/8 (φ15.9) Flare connection
3	Drain pipe connection	VP25(O.D. φ1-1/4 (φ32), I.D. φ1 (φ25))
4	Power supply entry hole	
5	Transmission wiring entry hole	
6	Air Outlet	
7	Air Inlet grille	
8	Corner decoration cover	
9	Sensor	Infrared presence sensor Infrared floor sensor
10	Knock out hole	φ3-15/16 (φ100)

Without panel	H1	11-3/4 (298)
	W1	33-1/16 (840)
	D1	33-1/16 (840)
With panel	H2	13-5/16 (338)
	W2	37-3/8 (950)
	D2	37-3/8 (950)

Notes) 1. Location of the nameplates:
- Unit body: on the control box cover.
- Decoration panel: on the panel frame at the motor side under the corner cover.

2. Make sure the spacing between the ceiling and the cassette is no more than 1-3/8″(35mm). MAX ceiling opening: 35-7/8″(910mm).

3. When the conditions exceed 86˚F(30℃) and RH 80% in the ceiling or fresh air is inducted into the ceiling an additional insulation is required (polyethylene foam, thickness 3/8″(10mm) or more).

Note: For additional dimensional data and clearance information, refer to Engineering Data

Submittal Data Sheet

3.0-Ton Round Flow Sensing Cassette

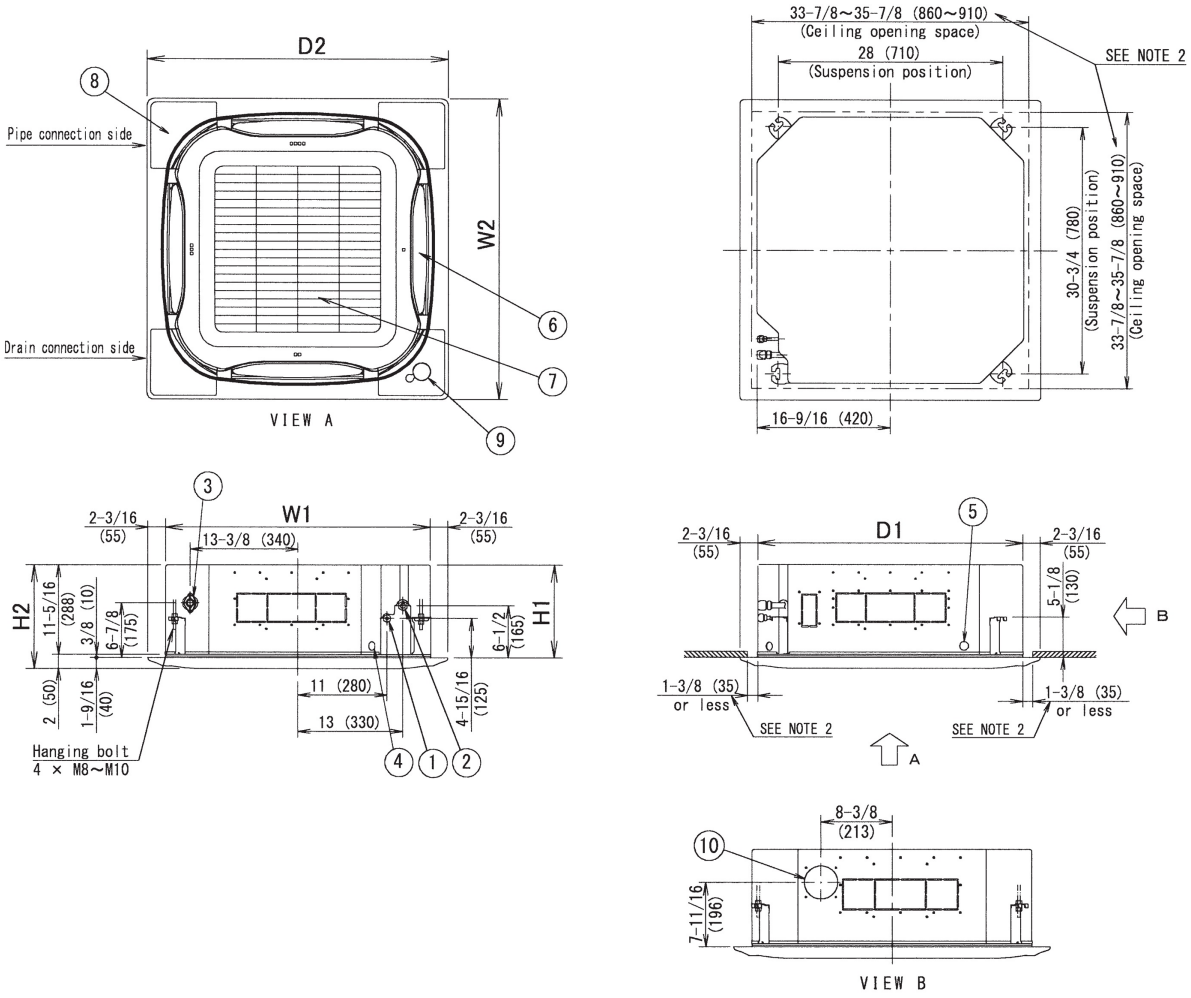
FXFQ36TVJU

PERFORMANCE			
Indoor Unit Model No.	FXFQ36TVJU	Indoor Unit Name:	3.0-Ton Round Flow Sensing Cassette
Type:	Cassette	Rated Cooling Conditions:	Indoor (°F DB/WB): 80 / 67 Ambient (°F DB/WB): 95 / 75
Rated Cooling Capacity (Btu/hr):	36,000	Rated Heating Conditions:	Indoor (°F DB/WB): 70 / 60 Ambient (°F DB/WB): 47 / 43
Sensible Capacity (Btu/hr):	28,200	Rated Piping Length(ft):	
Cooling Input Power (kW):	0.190	Rated Height Separation (ft):	
Rated Heating Capacity (Btu/hr):	40,000		
Heating Input Power (kW):	0.18		

INDOOR UNIT DETAILS			
Power Supply (V/Hz/Ph):	208-230 / 60 / 1	Airflow Rate (HH/H/L) (CFM):	1,165/918/671
Power Supply Connections:	L1, L2, Ground	Moisture Removal (Gal/hr):	
Min. Circuit Amps MCA (A):	1.5	Gas Pipe Connection (inch):	5/8
Max Overcurrent Protection (MOP) (A):	15	Liquid Pipe Connection (inch):	3/8
Dimensions (HxWxD) (in):	11-5/16 x 33-1/16 x 33-1/16	Condensate Connection (inch):	1-1/4
Net Weight (lb):	58	Sound Pressure (H/L) (dBA):	38/32
Ext. Static Pressure (Rated/Max) (inWg):	/	Sound Power Level (dBA):	

Submittal Data Sheet
3.0-Ton Round Flow Sensing Cassette
FXFQ36TVJU

DIMENSIONAL DRAWING



Unit : in. (mm)

ITEM	PART NAME	REMARK
1	Liquid pipe connection	ϕ3/8 (ϕ9.5) Flare connection
2	Gas pipe connection	ϕ5/8 (ϕ15.9) Flare connection
3	Drain pipe connection	VP25(O.D. ϕ1-1/4 (ϕ32), I.D. ϕ1 (ϕ25))
4	Power supply entry hole	
5	Transmission wiring entry hole	
6	Air Outlet	
7	Air Inlet grille	
8	Corner decoration cover	
9	Sensor	Infrared presence sensor Infrared floor sensor
10	Knock out hole	ϕ3-15/16 (ϕ100)

Without panel	H1	11-3/4 (298)
	W1	33-1/16 (840)
	D1	33-1/16 (840)
With panel	H2	13-5/16 (338)
	W2	37-3/8 (950)
	D2	37-3/8 (950)

Notes) 1. Location of the nameplates:
- Unit body: on the control box cover.
- Decoration panel: on the panel frame at the motor side under the corner cover.

2. Make sure the spacing between the ceiling and the cassette is no more than 1-3/8″(35mm). MAX ceiling opening: 35-7/8″(910mm).

3. When the conditions exceed 86˚F(30℃) and RH 80% in the ceiling or fresh air is inducted into the ceiling an additional insulation is required (polyethylene foam, thickness 3/8″(10mm) or more).

Note: For additional dimensional data and clearance information, refer to Engineering Data

Submittal Data Sheet

4.0-Ton Round Flow Sensing Cassette

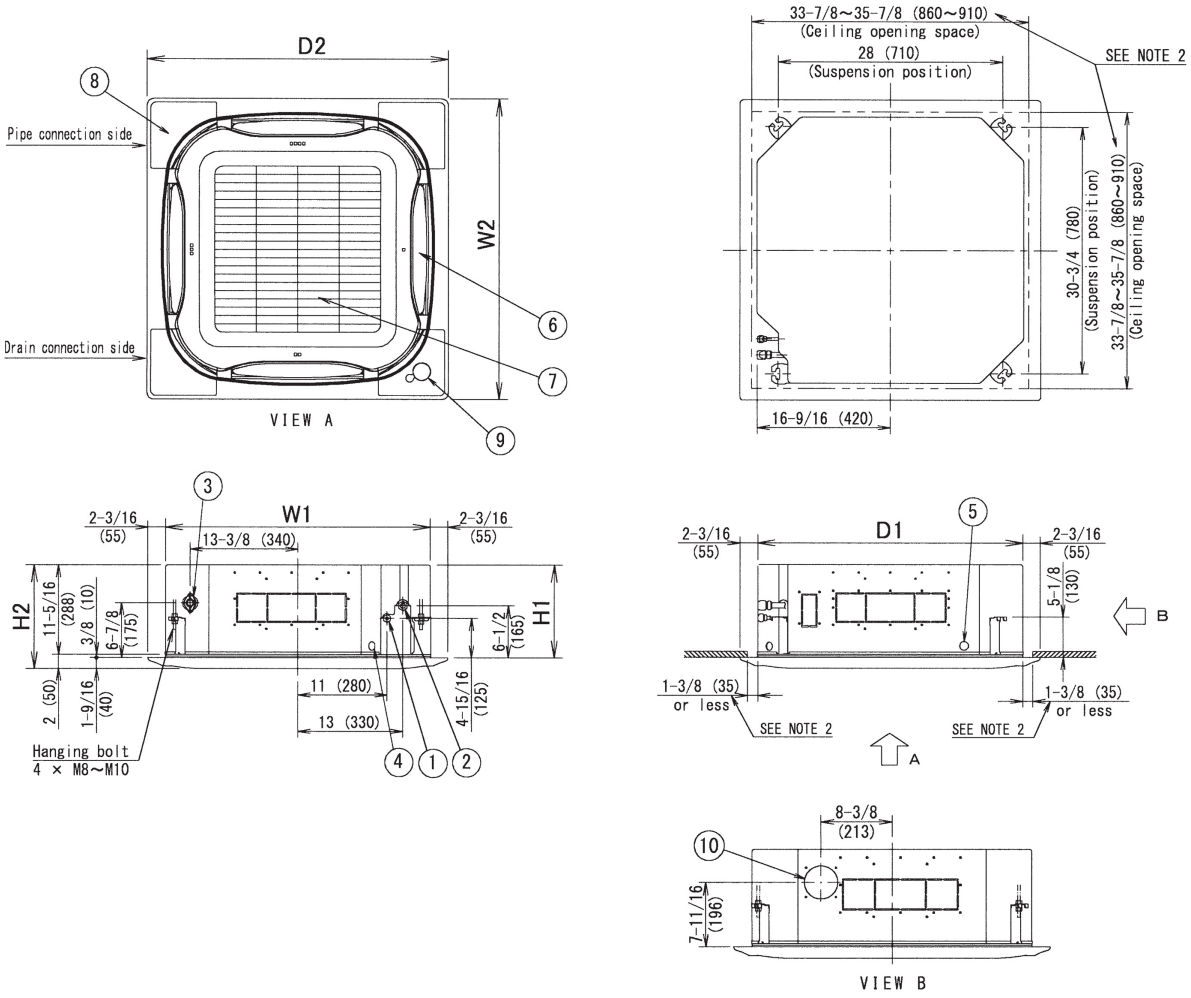
FXFQ48TVJU

PERFORMANCE			
Indoor Unit Model No.	FXFQ48TVJU	Indoor Unit Name:	4.0-Ton Round Flow Sensing Cassette
Type:	Cassette	Rated Cooling Conditions:	Indoor (°F DB/WB): 80 / 67 Ambient (°F DB/WB): 95 / 75
Rated Cooling Capacity (Btu/hr):	48,000	Rated Heating Conditions:	Indoor (°F DB/WB): 70 / 60 Ambient (°F DB/WB): 47 / 43
Sensible Capacity (Btu/hr):	35,000	Rated Piping Length(ft):	
Cooling Input Power (kW):	0.220	Rated Height Separation (ft):	
Rated Heating Capacity (Btu/hr):	54,000		
Heating Input Power (kW):	0.20		

INDOOR UNIT DETAILS			
Power Supply (V/Hz/Ph):	208-230 / 60 / 1	Airflow Rate (HH/H/L) (CFM):	1,218/971/742
Power Supply Connections:	L1, L2, Ground	Moisture Removal (Gal/hr):	
Min. Circuit Amps MCA (A):	1.8	Gas Pipe Connection (inch):	5/8
Max Overcurrent Protection (MOP) (A):	15	Liquid Pipe Connection (inch):	3/8
Dimensions (HxWxD) (in):	11-5/16 x 33-1/16 x 33-1/16	Condensate Connection (inch):	1-1/4
Net Weight (lb):	58	Sound Pressure (H/L) (dBA):	40/34
Ext. Static Pressure (Rated/Max) (inWg):	/	Sound Power Level (dBA):	

Submittal Data Sheet
4.0-Ton Round Flow Sensing Cassette
FXFQ48TVJU

DIMENSIONAL DRAWING



Unit : in. (mm)

ITEM	PART NAME	REMARK
1	Liquid pipe connection	φ3/8 (φ9.5) Flare connection
2	Gas pipe connection	φ5/8 (φ15.9) Flare connection
3	Drain pipe connection	VP25(O.D. φ1-1/4 (φ32), I.D. φ1 (φ25))
4	Power supply entry hole	
5	Transmission wiring entry hole	
6	Air Outlet	
7	Air Inlet grille	
8	Corner decoration cover	
9	Sensor	Infrared presence sensor Infrared floor sensor
10	Knock out hole	φ3-15/16 (φ100)

Without panel	H1	11-3/4 (298)
	W1	33-1/16 (840)
	D1	33-1/16 (840)
With panel	H2	13-5/16 (338)
	W2	37-3/8 (950)
	D2	37-3/8 (950)

Notes) 1. Location of the nameplates:
- Unit body: on the control box cover.
- Decoration panel: on the panel frame at the motor side under the corner cover.

2. Make sure the spacing between the ceiling and the cassette is no more than 1-3/8″(35mm). MAX ceiling opening: 35-7/8″(910mm).

3. When the conditions exceed 86˚F(30℃) and RH 80% in the ceiling or fresh air is inducted into the ceiling an additional insulation is required (polyethylene foam, thickness 3/8″(10mm) or more).

Note: For additional dimensional data and clearance information, refer to Engineering Data

Submittal Data Sheet

Daikin Polara 2.5-Ton Wall Mounted Cooling only System - FTX30WVJU9RK30WMVJU9

Project: Newburgh ECSD CTE

Submitted by: David Shumpert of THERMAL ENVIRONMENT SALES INC on 6/6/2024

Submitted to: No Engineer Name Specified

CU-F-1 THROUGH 10
ISU-WX-*
(QUANTITY = 9)

SYSTEM PERFORMANCE

Indoor Unit Model No.	FTX30WVJU9	Indoor Unit Name:	Daikin POLARA 2.5T Wall Mounted Type IDU
Outdoor Unit Model No.	RK30WMVJU9	Outdoor Unit Name:	Daikin POLARA - 2.5-Ton, Cooling Only, Ductless ODU
Rated Cooling Capacity (Btu/hr):	31,400	Rated Cooling Conditions:	Indoor (°F DB/WB): 80 / 67 Ambient (°F DB/WB): 95 / 75
Sensible Capacity (Btu/hr):	31,400	Rated Piping Length(ft):	25
Max/Min Cooling Capacity (Btu/hr):	31,400 / 10,200	Rated Height Difference (ft):	0.00
Cooling Input Power (kW):			
SEER2 (Non-Ducted/Ducted):	17.50 /		
EER2 (Non-Ducted/Ducted):	9.85 /		
Rated Heating Capacity (Btu/hr):	34,800	Rated Heating Conditions:	Indoor (°F DB/WB): 70 / 60 Ambient (°F DB/WB): 47 / 43

SYSTEM DETAILS

Refrigerant Type:	R-410A	Cooling Operation Range (°F DB):	50 - 115
Holding Refrigerant Charge (lbs):	3.64	Heating Operation Range (°F WB):	5 - 64
Additional Charge (oz/ft):	0.32	Max. Pipe Length (Vertical) (ft):	66
Pre-charge Piping (Length) (ft):	33	Cooling Range w/Baffle (°F DB):	-22 - 115
Max. Pipe Length (Total) (ft):	99		
Max Height Separation (Ind to Ind ft):	0		

Submittal Data Sheet

Daikin Polara 2.5-Ton Wall Mounted Cooling only System - FTX30WVJU9RK30WMVJU9

Project: Newburgh ECSD CTE

Submitted by: David Shumpert of THERMAL ENVIRONMENT SALES INC on 6/6/2024

Submitted to: No Engineer Name Specified

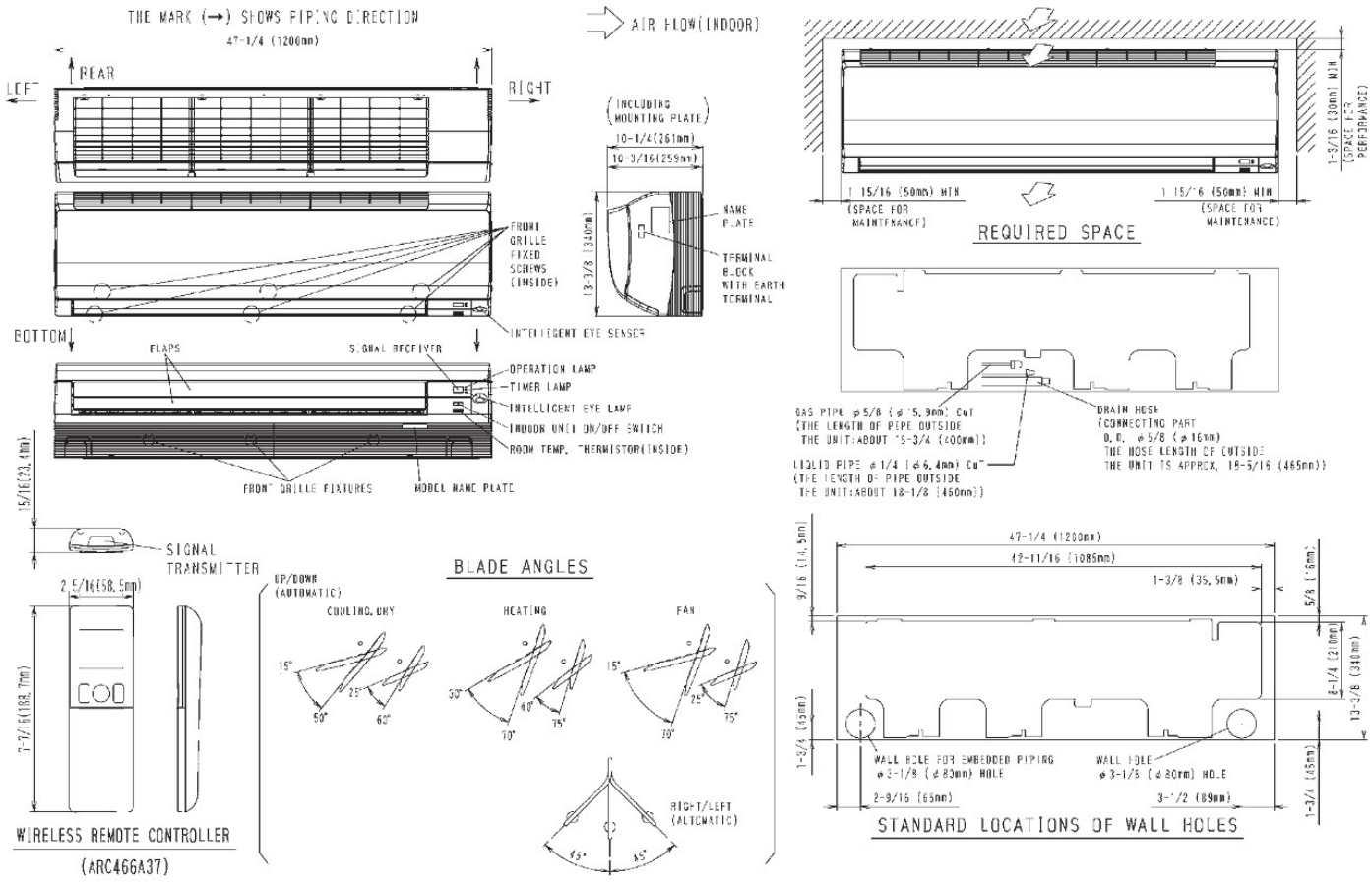
CU-F-1 THROUGH 10
ISU-WX-*
(QUANTITY = 9)

INDOOR UNIT DETAILS

Power Supply (V/Hz/Ph):	208/230 / 60 / 1	Airflow Rate (H/M/L/SL) (CFM):	890/727/572/512
Power Supply Connections:		Moisture Removal (Gal/hr):	
Min. Circuit Amps MCA (A):		Gas Pipe Connection (inch):	5/8
Max Overcurrent Protection (MOP) (A):		Liquid Pipe Connection (inch):	1/4
Dimensions (HxWxD) (in):	13-3/8 x 47-1/4 x 10-3/16	Condensate Connection (inch):	
Net Weight (lb):	38	Sound Pressure (H/M/L/SL) (dBA):	53/47/40/37
Ext. Static Pressure (Rated/Max) (inWg):	/	Sound Power Level (dBA):	

DIMENSIONAL DRAWING - INDOOR UNIT

FTX30/36WVJU9



Submittal Data Sheet

Daikin Polara 2.5-Ton Wall Mounted Cooling only System - FTX30WVJU9RK30WMVJU9

Project: Newburgh ECSD CTE

Submitted by: David Shumpert of THERMAL ENVIRONMENT SALES INC on 6/6/2024

Submitted to: No Engineer Name Specified

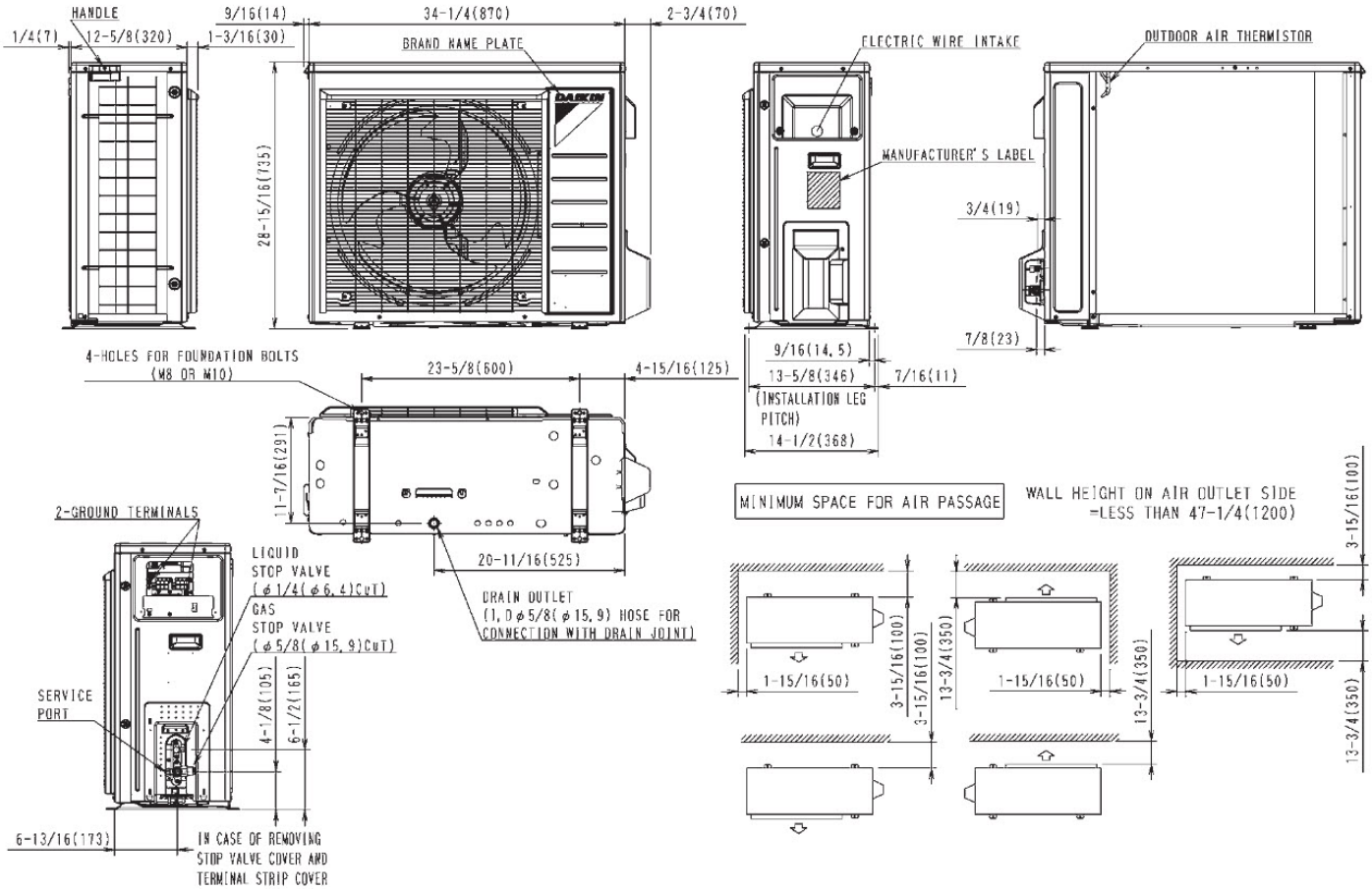
CU-F-1 THROUGH 10
ISU-WX-*
(QUANTITY = 9)

OUTDOOR UNIT DETAILS

Power Supply (V/Hz/Ph):	208/230 / 60 / 1	Compressor Stage:	Inverter
Power Supply Connections:		Capacity Control Range (%):	-
Min. Circuit Amps MCA (A):	16.6	Airflow Rate (H) (CFM):	2528
Max Overcurrent Protection (MOP) (A):	20	Gas Pipe Connection (inch):	5/8
Max Starting Current MSC(A):		Liquid Pipe Connection (inch):	1/4
Rated Load Amps RLA(A):	16.3	Sound Pressure (H) (dBA):	56
Dimensions (HxWxD) (in):	28-15/16 x 34-1/4 x 12-5/8	Sound Power Level (dBA):	
Net Weight (lb):	132		

DIMENSIONAL DRAWING - OUTDOOR UNIT

RK30/36WMVJU9, RX30/36WMVJU9



SUBMITTAL SCHEDULE & GENERAL PERFORMANCE DATA

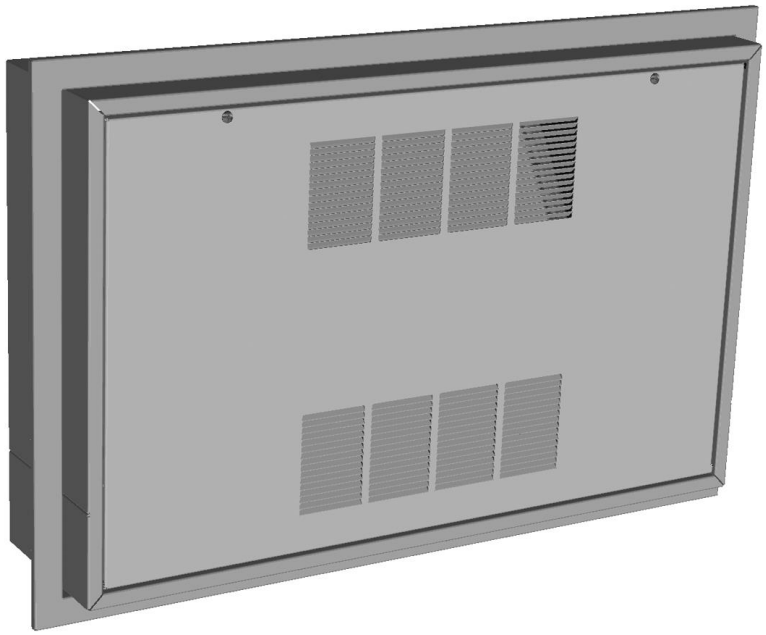
Steam/Hot Water Cabinet Unit Heaters

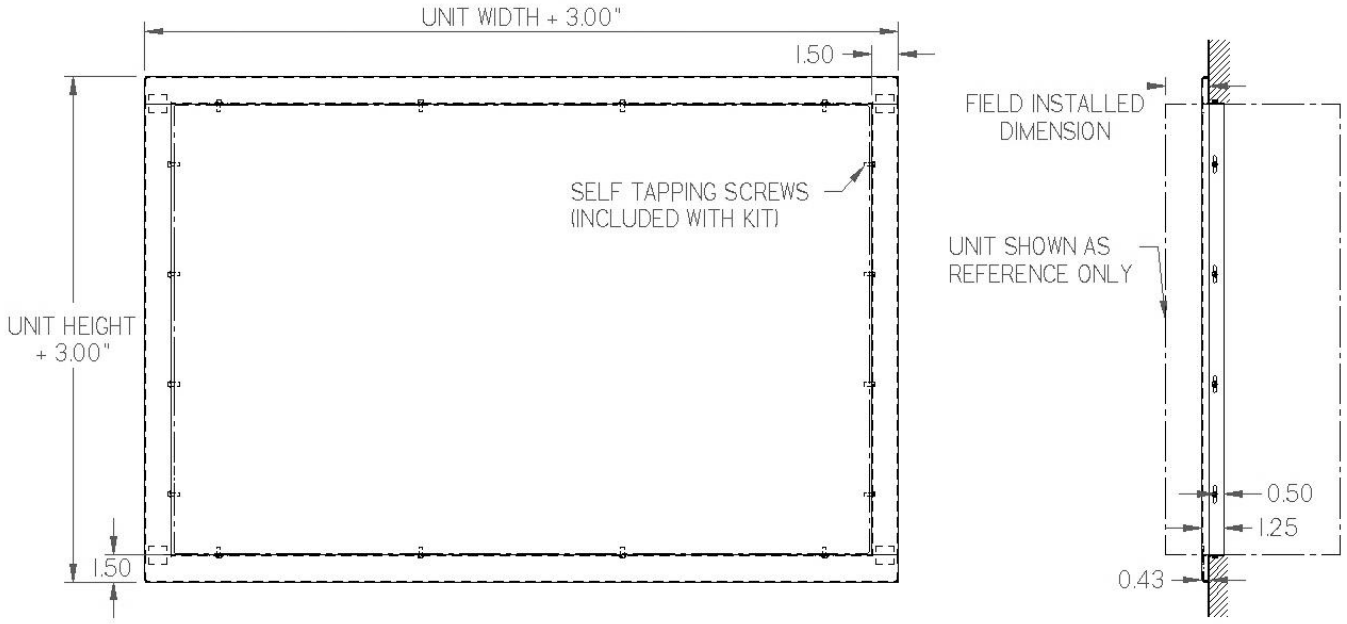
ob Na e Newburgh CSD - CTE
Location
Sub itted by Da id Shu pert

Date
Engineer
Architect
Contractor

	Unit Tag		
	CHU-A	CHU-B	CHU-C
Model Configuration			
Model Nu ber	WCC00358ALLL110E00	WCC00850ALLL210E00	WCC00858ALLL210E00
uantity of Units	1	1	1
Mounting Type	Recessed Ceiling	Ceiling	Recessed Ceiling
Air Flow Direction	58 Front In Out	50 End In Out	58 Front In Out
Coil Rows	1	2	2
Entering Conditions			
Entering Air Te p F	65.0	65.0	65.0
Fluid Type Stea or Hot Water	Hot Water	Hot Water	Hot Water
Stea Pressure PSI	N A	N A	N A
Entering Water Te p F	150	150	150
Water Flow Rate GPM	1.8	2.0	2.0
Glycol and Type	0	0	0
High Fan Speed Performance			
Btu Hr Output	12 577	35 196	35 196
CFM	327	827	827
Final Air Te p F	100	104	104
Condensate lb hr	N A	N A	N A
Water Te p Drop F	15.0	36.7	36.7
Water Pressure Drop Ft of Water	0.2	0.2	0.2
Low Fan Speed Performance			
Btu Hr Output	8 488	26 600	26 600
CFM	193	535	535
Final Air Te p F	106	111	111
Condensate lb hr			
Water Te p Drop F	10.1	27.7	27.7
Water Pressure Drop Ft of Water	0.2	0.2	0.2
Other Electrical/Mechanical Data			
Supply oltage	115 60 1	115 60 1	115 60 1
Motor Type	Standard EC	Standard EC	Standard EC
Motor uantity	1	2	2
Motor HP	0.25	0.25	0.25
Motor Blower RPM – High Low Speed	1625 625	1625 625	1625 625
Ext. Static Pressure "W.C.	0	0	0
Blower uantity	1	3	3
Blower Dia eter Width inches	5.75 7	5.75 7	5.75 7
Unit A ps	3.7	7.4	7.4
Options Accessories Attached Pages			

MODEL WCC 003 Perma-Lap® Frame

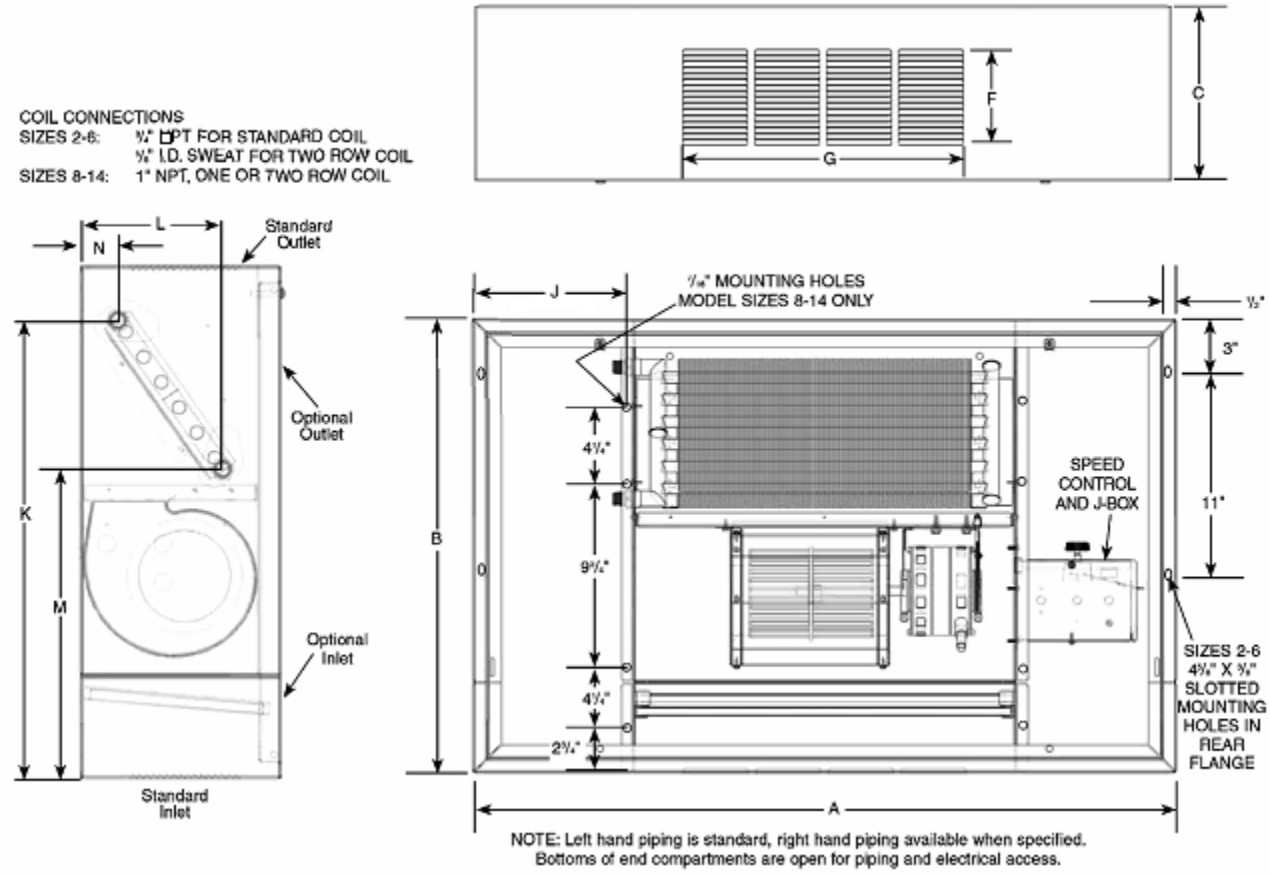




Shown abo e is the accessory Per a-Lap□ Fra e for partially or fully recessed installations.

DIMENSIONS – UNIT

Model WCC Dimensions



Note - Pictures shown are for illustration purpose only. Actual product ay ary due to selected arrange ents.

Model Size **WCC00358ALLL110E00** **Tag:** CHU-A

Cabinet Dimensions (inches)

UNIT SIZE	A	B	C	F	G	J (1)	Approximate Weight
003	43.75	25	9.75	5.125	19.625	8.75 1	100 lbs.

1 – "J" is dimension to rear frame mounting holes, not applicable for Unit Sizes 2 through 6

Coil Connection Dimensions (inches) Filter Dimensions (inches)

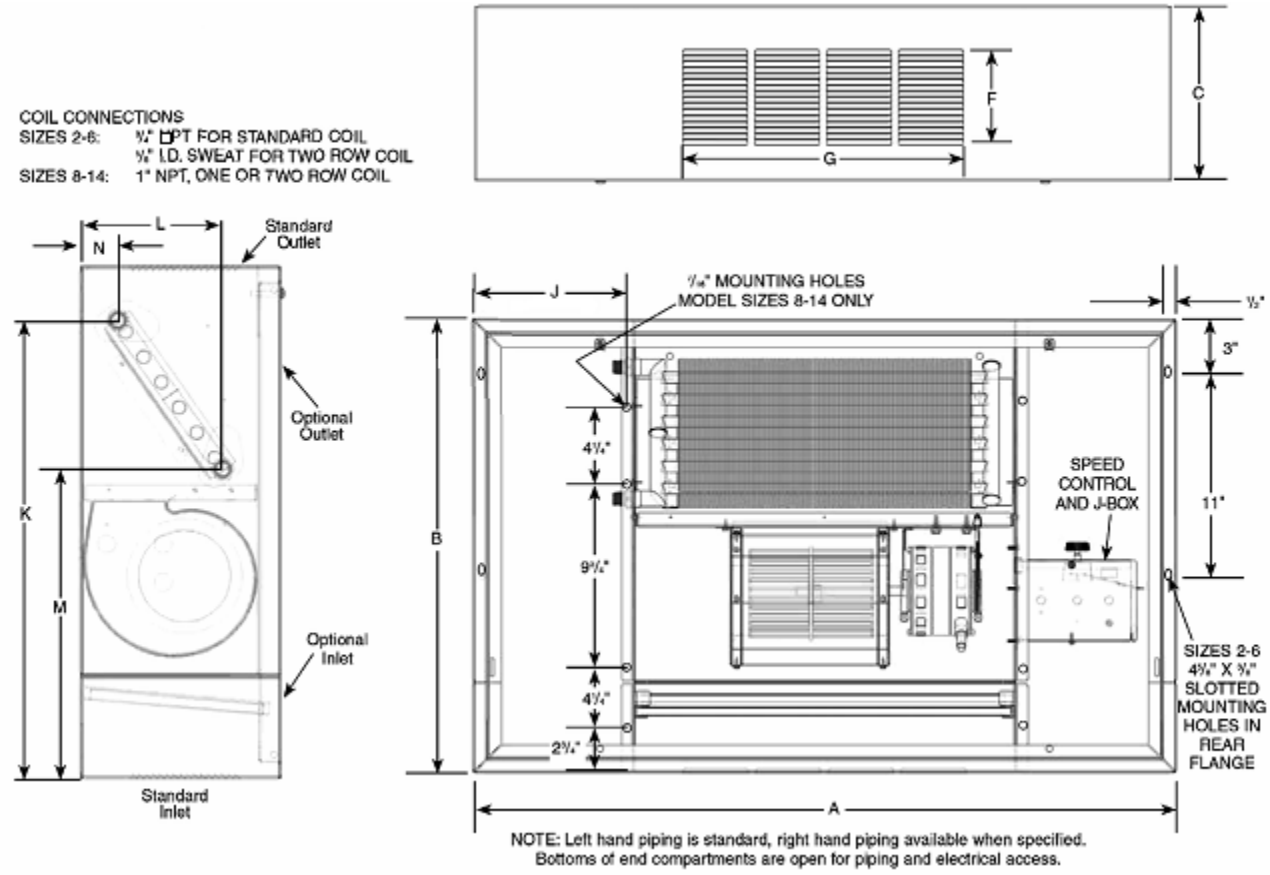
UNIT SIZE	K	L	M	N	Depth x Width x Height (2)
003	22.5	7.375	15.25	2.375	8.5 25.75 0.5

2 – Per anent cleanable filters

Coil Face Area (ft²):	1.3
Coil Connections:	7 8 ID Sweat

DIMENSIONS – UNIT

Model WCC Dimensions



Note - Pictures shown are for illustration purpose only. Actual product ay ary due to selected arrange ents.

Model Size **WCC00850ALLL210E00** **Tag:** CHU-B

Cabinet Dimensions (inches)

UNIT SIZE	A	B	C	F	G	J (1)	Approximate Weight
008	71.75	28	12	5.125	47.625	9.75 1	170 lbs.

1 – "J" is dimension to rear frame mounting holes, not applicable for Unit Sizes 2 through 6

Coil Connection Dimensions (inches) Filter Dimensions (inches)

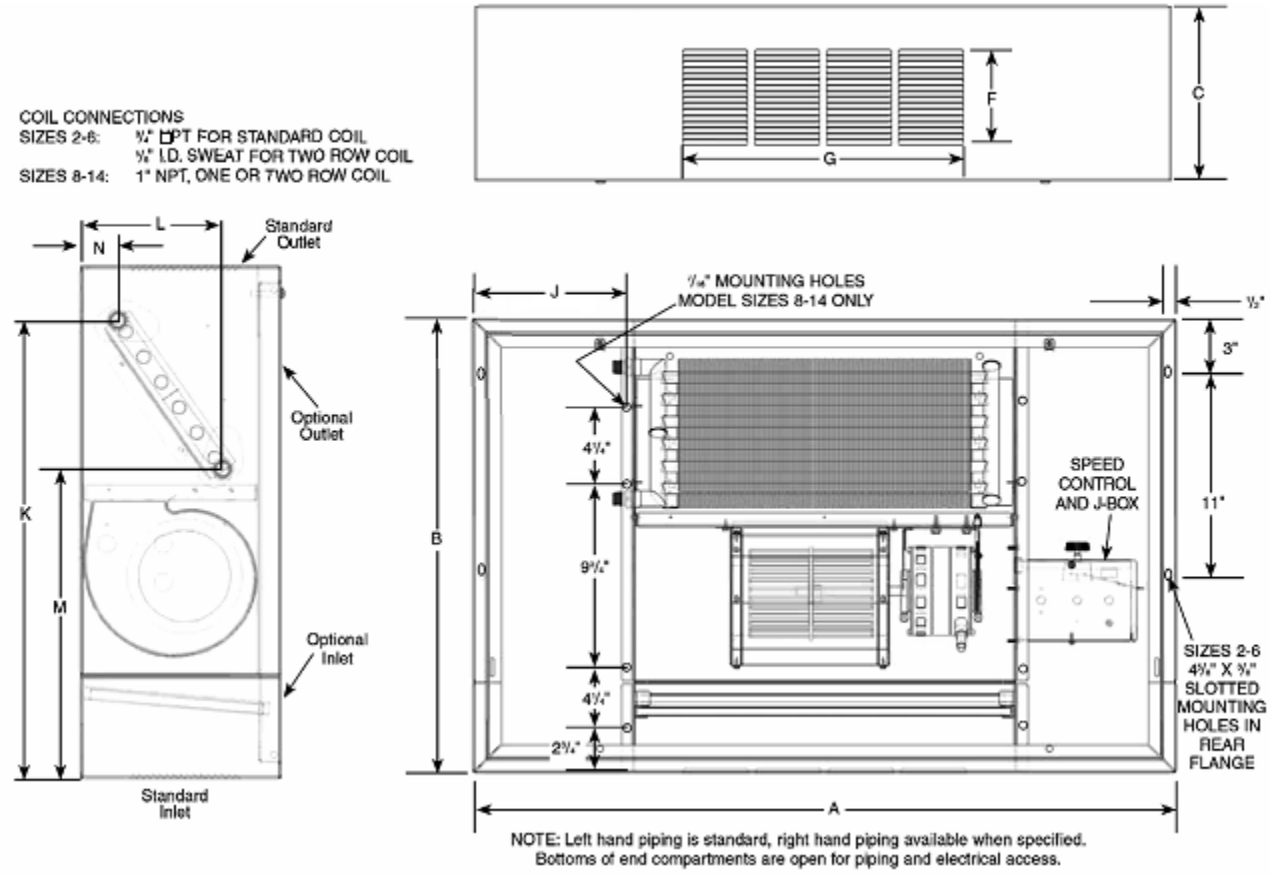
UNIT SIZE	K	L	M	N	Depth x Width x Height (2)
008	25-5 8	9.25	18	1.625	10.75 49.75 0.5

2 – Per anent cleanable filters

Coil Face Area (ft²):	3.6
Coil Connections:	1-1 8 ID Sweat

DIMENSIONS – UNIT

Model WCC Dimensions



Note - Pictures shown are for illustration purpose only. Actual product ay ary due to selected arrange ents.

Model Size **WCC00858ALLL210E00** **Tag:** CHU-C

Cabinet Dimensions (inches)

UNIT SIZE	A	B	C	F	G	J (1)	Approximate Weight
008	71.75	28	12	5.125	47.625	9.75 1	170 lbs.

1 – "J" is dimension to rear frame mounting holes, not applicable for Unit Sizes 2 through 6

Coil Connection Dimensions (inches) Filter Dimensions (inches)

UNIT SIZE	K	L	M	N	Depth x Width x Height (2)
008	25-5 8	9.25	18	1.625	10.75 49.75 0.5

2 – Per anent cleanable filters

Coil Face Area (ft²):	3.6
Coil Connections:	1-1 8 ID Sweat

SUBMITTAL SCHEDULE & DATA

Steam/Hot Water Unit Heaters

ob Na e Newburgh CSD - CTE
Location
Sub itted by Da id Shu pert

Date 01 12 2024
Engineer
Architect
Contractor

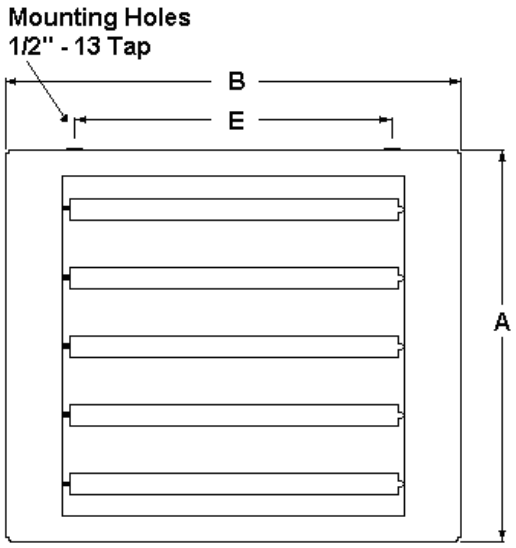
		Unit Tag	
	UH-A	UH-B	
Model Nu ber	WSH 22SB01FA	WSH 22SB01FA	
uantity of Units	1	1	
Btu Hr Output	17 604	20 116	
CFM	370	370	
Outlet elocity fp	408	408	
Entering Air Te p. F	65	65	
Final Air Te p. F	109	115	
Fluid Type Stea or Hot Water	Hot Water Low Te p	Hot Water Low Te p	
Stea Pressure PSI	N A	N A	
Condensate lb hr	N A	N A	
Entering Water Te p. F	150	145	
Glycol and Type	30 Propylene	30 Propylene	
Water Flow Rate GPM	1.0	1.5	
Water Pressure Drop Ft of Water	1.1	2.4	
Water Te p Drop F	35.2	26.8	
Supply oltage	115 60 1	115 60 1	
Motor Type	Enclosed Air O er with Ther al O erload	Enclosed Air O er with Ther al O erload	
Motor HP	1 25	1 25	
Motor RPM	1550	1550	
Unit A ps [1]	0.53	0.53	
Options Accessories See Attached Pages			

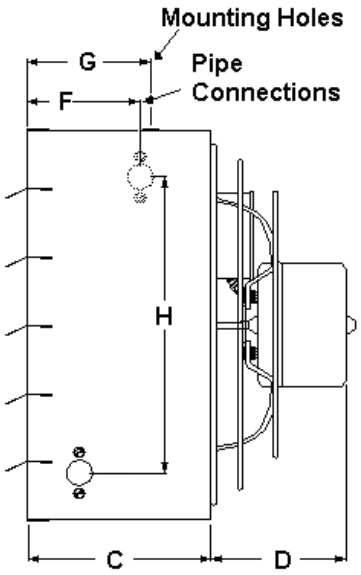
Re arks

[1] The unit FLA ay ary based on the actual otor shipped with the unit.

DIMENSIONS – UNIT

Model WSH Dimensions





Model Size WSH 22

Dimensions (in inches)

A	14.5
B	20.2
C	8.4
D [1]	7
E	11
F	3.1 5.7
G	6.5
H	7.2
Connections Copper tube OD in.	0.5
Fan Dia eter	9
Appro . Ship Wt	32 lbs.

[1] Di ension is for 115 otor.

Specifications

Core Type Serpentine	Multi
Copper Tube Si e inches	1 2
Copper Tube Wall Thickness inches	0.016
Ma i u Coil Rating	150 PSI 375 F

unction Bo All units include an electrical junction bo either integral to the otor or attached to the unit casing.

SITE PLAN NOTES:

1. LAYOUT THE DIMENSIONS SHOWN ARE TO THE FACE OF THE CURB AND INCLUDES THE OVERALL SIDEWALK WIDTH, WHERE APPLICABLE.
2. ASPHALT ASPHALT SHALL BE CALCULATED BY WEIGHT (TONNAGE) USING THE SPECIFIED COMPACTED THICKNESS. PAVEMENTS WILL BE BASED ON THE TONNAGE PLACED AS ACCOUNTED FOR BY EACH DELIVERY TRUCK. FULL TIME ON-SITE OBSERVATION WILL BE PRESENT DURING ALL RELATED PAVING OPERATIONS.
3. VEHICULAR TRAFFIC SHALL NOT BE PERMITTED ON THE SURFACE OF SUBBASE COURSE MATERIAL ONCE IT HAS BEEN FINE GRADED, COMPACTED, AND IS READY FOR PAVING. SUBBASE MATERIAL PREPARED FOR PAVING SHALL BE PAVED WITHIN THREE DAYS OF PREPARATION.
4. SUBBASE MATERIAL AND THE VARIOUS ASPHALT CONCRETE MATERIALS CALLED FOR IN THESE DRAWINGS SHALL CONFORM WITH THE REFERENCED SECTION OF THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, "LATEST EDITION". CONSTRUCTION SHALL BE AS FURTHER SET FORTH IN THOSE SPECIFICATIONS AND AS OTHERWISE PROVIDED FOR IN THESE DRAWINGS.
5. PLACE ASPHALT CONCRETE MIXTURE ON PREPARED SURFACE, SPREAD AND STRIKE-OFF USING A SELF-PROPELLED PAVING MACHINE, WITH VIBRATING SCREED. PLACEMENT IN INACCESSIBLE AND SMALL AREAS MAY BE BY HAND.
6. JOINTS PROVIDE JOINTS BETWEEN OLD AND NEW PAVEMENT OR BETWEEN SUCCESSIVE DAYS WORK.
7. TACK COAT SHALL BE APPLIED TO BINDER COURSE. TACK COAT SHALL CONFORM WITH THE FOLLOWING:

   A. TACK COAT SHALL MEET THE MATERIAL REQUIREMENTS OF 702-90 ASPHALT EMULSION FOR TACK COAT OF THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, "LATEST EDITION" AND SHALL BE APPLIED IN ACCORDANCE WITH SECTION 407. TACK COAT SHALL BE IN ACCORDANCE WITH THOSE SPECIFICATIONS AND AS OTHERWISE PROVIDED FOR IN THESE DRAWINGS.
   B. REMOVE LOOSE AND FOREIGN MATERIAL FROM ASPHALT SURFACE BEFORE PAVING NEXT COURSE. USE POWER BROOMS, BLOWERS OR HAND BROOM.
   C. APPLY TACK COAT TO THE ASPHALT PAVEMENT SURFACES AND SURFACES OF CURBS, GUTTERS, MANHOLES, AND OTHER STRUCTURES PROJECTING INTO OR ABUTTING PAVEMENT. DRY TO A "TACKY" CONSISTENCY BEFORE PAVING.
   D. TACK COAT ENTIRE VERTICAL SURFACE OF ABUTTING EXISTING PAVEMENT.

6. CLEAN SURFACE AFTER COMPLETION OF PAVING AND SURFACING OPERATIONS, CLEAN SURFACES OF EXCESS OR SPILLED ASPHALT, GRAVEL OR STONE MATERIALS TO THE SATISFACTION OF THE ENGINEER.

MUTCD SIGN SCHEDULE

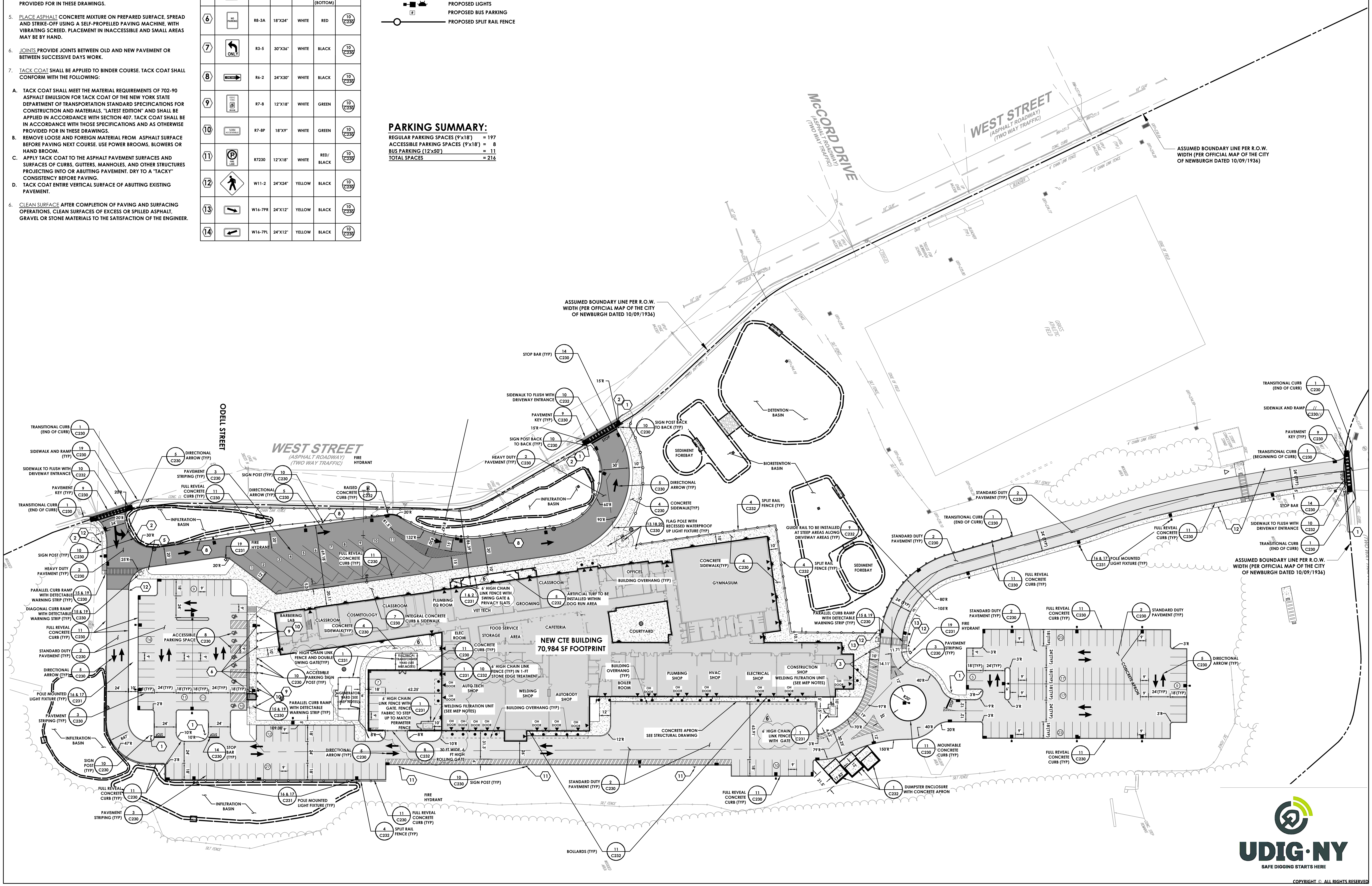
SIGN NO.	SIGN FACE	MUTCD NUMBER	MIN SIZE	COLORS		MOUNTING
				BCKGRND	LEGEND	
1	STOP	R1-1	24"X24"	RED	WHITE	10/C230
2	DO NOT ENTER	R5-1	30"X30"	RED	WHITE	10/C230
3	PULL FORWARD FOR STUDENT DROP OFF	NA	12"X18"	WHITE	BLACK	10/C230
4	THRU LANE ONLY NO PARKING STOPPING STANDING / PULL FORWARD STUDENT DROP OFF	NA	(2)12"X12" (2)12"X18"	YELLOW/ RED/ WHITE	BLACK/ WHITE/RED	10/C230
5	DO NOT ENTER BUSES ONLY	NA	18"X24"	WHITE (TOP) BLACK BOTTOM)	RED (TOP, OUTLINE) WHITE (BOTTOM)	10/C230
6	NO PARKING	R8-3A	18"X24"	WHITE	RED	10/C230
7	ONLY	R3-5	30"X36"	WHITE	BLACK	10/C230
8	ONE WAY	R6-2	24"X30"	WHITE	BLACK	10/C230
9	RESERVED PARKING	R7-8	12"X18"	WHITE	GREEN	10/C230
10	VAN ACCESSIBLE	R7-8P	18"X9"	WHITE	GREEN	10/C230
11	FIRE LANE	R7230	12"X18"	WHITE	RED/ BLACK	10/C230
12		W11-2	24"X24"	YELLOW	BLACK	10/C230
13		W16-7PR	24"X12"	YELLOW	BLACK	10/C230
14		W16-7PL	24"X12"	YELLOW	BLACK	10/C230

LEGEND:

- PROPERTY BOUNDARY
- PROPOSED BUILDING
- HEAVY DUTY ASPHALT PAVEMENT
- STANDARD DUTY ASPHALT PAVEMENT
- PROPOSED PARKING COUNT
- PROPOSED CONCRETE
- PROPOSED ACCESS RAMP
- PROPOSED PAVEMENT STRIPING
- PROPOSED CURB
- PROPOSED SIGN
- PROPOSED LIGHTS
- PROPOSED BUS PARKING
- PROPOSED SPLIT RAIL FENCE

PARKING SUMMARY:

REGULAR PARKING SPACES (9'x18')	= 197
ACCESSIBLE PARKING SPACES (9'x18')	= 8
BUS PARKING (12'x50')	= 11
TOTAL SPACES	= 216



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NEW CTE BUILDING
CTE NEWBURGH

Project Title

STATE OF NEW YORK · CHRISTOPHER J. LAPORTA · 102592 · LICENSED PROFESSIONAL ENGINEER

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6	6/06/2024	BID ADDENDUM #6
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4	5/20/2024	BID ADDENDUM #4
3	5/13/2024	BID ADDENDUM #3
2	5/3/2024	BID ADDENDUM #2

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Checked By:	SK
Proj. #:	44-16-00-01-0-053-001
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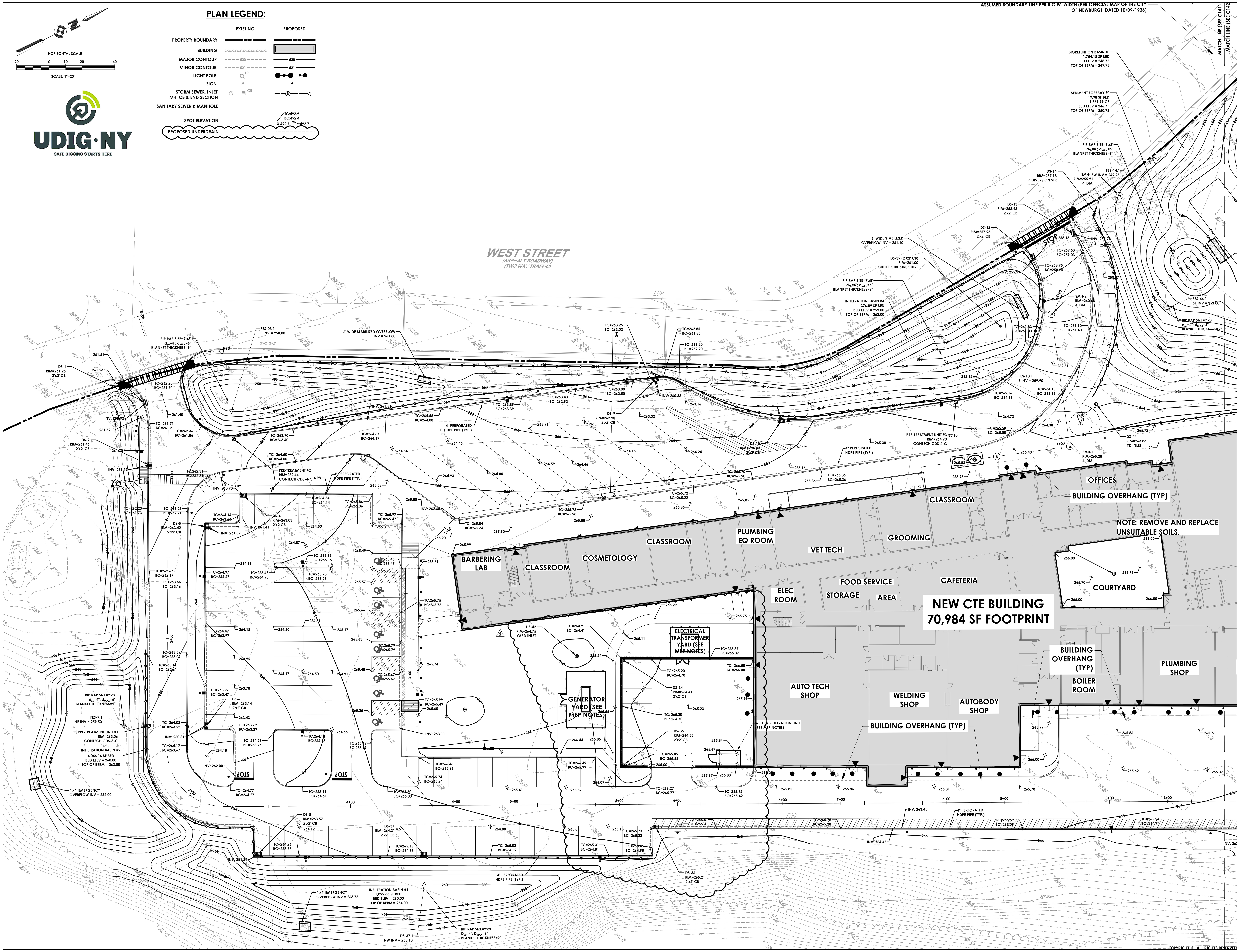
Issued for Bid:	4/15/2024

Sheet Title
SITE PLAN

Sheet No.
CTE C130

CONSTRUCTION DOCUMENTS



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1	5/3/2024	BID ADDENDUM #1

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Sheet Title

GRADING PLAN

Sheet No.

CTE
C141

CONSTRUCTION DOCUMENTS

HORIZONTAL SCALE

20 0 10 20 40

SCALE: 1"=20'

PLAN LEGEND:

	EXISTING	PROPOSED
PROPERTY BOUNDARY		
BUILDING		
MAJOR CONTOUR	520	520
MINOR CONTOUR	521	521
LIGHT POLE	LP	
SIGN		
STORM SEWER, INLET MH, CB & END SECTION	D CB	D ST
SANITARY SEWER & MANHOLE	S	S
WATER LINE		W
SANITARY SEWER		SA
NATURAL GAS (SEE DWG. P101)		G
ELECTRIC (SEE DWG. ES100 & E111)		E

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STANDARD SANITARY SEWER EXTENSION NOTES:

1. MAXIMUM ALLOWABLE INFILTRATION OR EXFILTRATION SHALL NOT EXCEED 100 GALLONS PER INCH DIAMETER PER MILE OF PIPE PER DAY FOR THE SANITARY SEWER. IF AN AIR TEST IS USED, THE TEST AS A MINIMUM SHALL CONFORM TO THE PROCEDURE DESCRIBED IN ASTM DESIGNATION C828-86 ENTITLED PRACTICE FOR LOW-PRESSURE AIR TEST OF VITRIFIED CLAY PIPE LINES. SANITARY MANHOLES SHALL BE VISUALLY INSPECTED AND TESTED FOR LEAKAGE BY EXFILTRATION OR VACUUM. VACUUM TESTING OF MANHOLES SHALL COMPLY WITH THE METHOD OUTLINED IN THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION - TECHNICAL INFORMATION PAMPHLET (TIP) NO. 15 (LATEST REVISION).
2. FLOOR DRAINS, IF CONSTRUCTED IN THE PROJECT, MUST BE CONNECTED TO THE SANITARY SEWER. NOTE: FLOOR DRAINS DO NOT INCLUDE FOUNDATION OR FOOTER DRAINS INSTALLED TO INTERCEPT UNCONTAMINATED GROUND WATER. ALL DISCHARGES FROM THE FLOOR DRAINS TO THE SANITARY SEWER MUST COMPLY WITH THE EFFLUENT LIMITS OF THE LOCAL AND/OR THE MONROE COUNTY SEWER USE LAW.
3. DEFLECTION TESTS SHALL BE PERFORMED ON ALL FLEXIBLE PIPE. THE TEST SHALL BE CONDUCTED AFTER THE FINAL BACKFILL HAS BEEN IN PLACE AT LEAST 30 DAYS. NO PIPE SHALL EXCEED A DEFLECTION OF 5%. IF THE DEFLECTION TEST IS TO BE RUN USING A RIGID BALL OR MANDREL, IT SHALL HAVE A DIAMETER EQUAL TO 95% OF THE INSIDE DIAMETER OF THE PIPE. THE TEST SHALL BE PERFORMED WITHOUT MECHANICAL PULLING DEVICES.
4. MINIMUM VERTICAL SEPARATION BETWEEN WATER MAINS AND SEWER LINES SHALL BE 18 INCHES MEASURED FROM THE OUTSIDE OF THE PIPES AT THE POINT OF CROSSING. ONE FULL STANDARD LAYING LENGTH OF WATER MAIN PIPE SHALL BE CENTERED UNDER OR OVER THE SEWER SO THAT BOTH JOINTS WILL BE AS FAR FROM THE SEWER AS POSSIBLE. IN ADDITION, WHEN THE WATER MAIN PIPELINE PASSES UNDER A SEWER, ADEQUATE STRUCTURAL SUPPORT (COMPACTED SELECTED FILL) SHALL BE PROVIDED FOR THE SEWER TO PREVENT EXCESSIVE DEFLECTION OF JOINTS AND SETTLING OF THE SEWER ON THE WATER MAIN. MINIMUM HORIZONTAL SEPARATION BETWEEN PARALLEL WATER MAINS PIPES AND SEWER PIPES (INCLUDING MANHOLES AND VAULTS) SHALL BE 10 FEET MEASURED FROM THE OUTSIDE OF THE PIPES, MANHOLES OR VAULTS.

UTILITY NOTES:

1. PRIOR TO THE START OF UTILITY INSTALLATION THE SITE CONTRACTOR (AND ANY SUBSITE CONTRACTORS) IS RESPONSIBLE FOR COORDINATION OF ALL UTILITY CONNECTIONS WITH MECHANICAL/ARCHITECTURAL DRAWINGS FOR INCLUDING BUT NOT LIMITED TO VERTICAL AND HORIZONTAL LOCATION, PENETRATIONS, AND SIZES. THE SITE CONTRACTOR SHALL OBTAIN WRITTEN PERMISSION TO PROCEED WITH UTILITY INSTALLATION BY THE OWNER'S ONSITE REPRESENTATIVE UPON COMPLETION OF COORDINATION WITH SITE CONTRACTORS AND PLANS.
2. THE SITE CONTRACTOR IS RESPONSIBLE FOR COORDINATING GAS, ELECTRICAL, CABLE, TELEPHONE AND ANY OTHER UTILITIES NOT SPECIFICALLY SHOWN WITHIN THIS PLAN SET WITH THE MECHANICAL/ELECTRICAL/PLUMBING PLAN SET AND THE APPROPRIATE AGENCY. PASSERO ASSOCIATES ASSUMES NO RESPONSIBILITY FOR THE DESIGN OR PERFORMANCE OF UTILITIES NOT SPECIFICALLY SHOWN WITHIN THIS PLAN SET.
3. PRIOR TO THE START OF UTILITY INSTALLATION THE SITE CONTRACTOR SHALL LOCATE ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY AND COORDINATE WITH EXISTING UTILITIES SHOWN ON THE PLANS AND REPORT ANY DISCREPANCIES TO THE DESIGN ENGINEER. THE SITE CONTRACTOR SHALL OBTAIN WRITTEN PERMISSION TO PROCEED WITH UTILITY INSTALLATION BY THE OWNER'S ONSITE REPRESENTATIVE UPON COMPLETION OF EXISTING UTILITY VERIFICATION.
4. UTILITY CROSSINGS THE SITE CONTRACTOR SHALL EXCAVATE AND VERIFY THE LOCATION OF EXISTING UTILITIES AT ALL PROPOSED CROSSINGS AND NOTIFY THE OWNERS ONSITE REPRESENTATIVE OF ANY CONFLICTS PRIOR TO UTILITY INSTALLATION. THE SITE CONTRACTOR SHALL OBTAIN WRITTEN PERMISSION TO PROCEED WITH INSTALLATION UPON UTILITY VERIFICATION COMPLETION.
5. FLUSH EXISTING STORM SEWER THE SITE CONTRACTOR SHALL FLUSH THE EXISTING STORM SEWER PRIOR TO PROJECT COMPLETION FOR REVIEW.
6. LATERALS ALL STORM, SANTIARY, WATER ETC. LATERALS SHALL BE CONSTRUCTED TO 5' FROM THE FACE OF THE BUILDING, VERTICAL AND HORIZONTAL LOCATION SHALL BE COORDINATED WITH THE PLUMBING/MEP SITE CONTRACTORS.

STANDARD WATER MAIN EXTENSION NOTES:

WATER DISTRIBUTION SYSTEM MAY NOT BE PLACED INTO SERVICE UNTIL AN APPROVAL OF COMPLETED WORKS IS ISSUED BY THE ORANGE COUNTY DEPARTMENT OF HEALTH.

WATER MAINS AND APPURTENANCES TO BE CONSTRUCTED IN ACCORDANCE WITH THE REGULATIONS AND SPECIFICATIONS OF THE ORANGE COUNTY DEPARTMENT OF HEALTH:

MATERIAL

1. WATER MAIN(S) SHALL BE 8 INCH DIAMETER CEMENT LINED DUCTILE IRON PIPE CLASS 52, MEETING AWWA C151 AND AWWA C104 STANDARDS.
2. WATER METER(S) AND BACKFLOW PREVENTION DEVICES SHALL BE LOCATED ON THE INTERIOR OF EACH BUILDING.
3. ALL GATE VALVES SHALL HAVE STAINLESS STEEL BODY AND BONNET BOLTS.

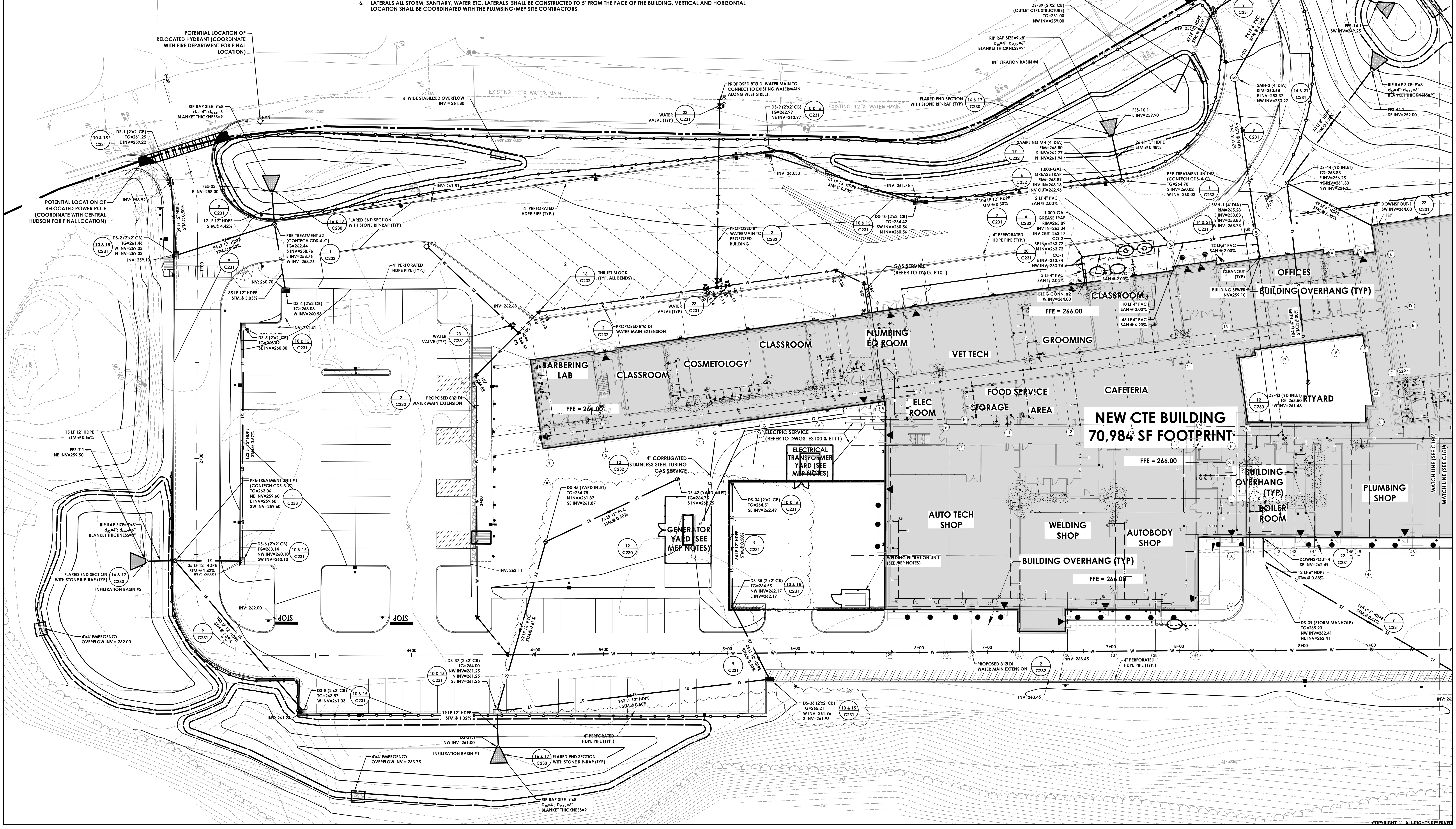
TESTS

1. WATER MAINS SHALL BE PRESSURE TESTED AND LEAKAGE TESTED IN ACCORDANCE WITH AWWA 605-13 WITH ~~ENGINEER PRESENT.~~
2. WATER MAINS SHALL BE DISINFECTED IN ACCORDANCE WITH AWWA C-651. AFTER FLUSHING AND DISINFECTING THE WATER MAIN, CONSECUTIVE BACTERIOLOGICAL SAMPLES SHALL BE TAKEN. FIRE HYDRANTS ARE NOT ACCEPTABLE SAMPLING POINTS. SAMPLE RESULTS MUST BE PROVIDED TO THE ORANGE COUNTY DEPARTMENT OF HEALTH AND APPROVAL MUST BE RECEIVED BEFORE THE WATER MAIN IS PLACED IN SERVICE.

INSTALLATION

INSTALLATION SHALL BE COMPLETED IN ACCORDANCE WITH RECOMMENDED STANDARDS FOR WATER WORKS (TEN STATE STANDARDS), LATEST EDITIONS AND AWWA STANDARDS, LATEST EDITION.

1. WATER MAINS AND ALL WATER SERVICE LINES SHALL HAVE A MINIMUM OF FIVE FEET OF COVER FROM FINISHED GRADE.
2. MINIMUM VERTICAL SEPARATION BETWEEN WATER MAIN AND SEWER MAINS SHALL BE 18" MEASURED FROM THE OUTSIDE OF THE PIPES AT THE POINT OF CROSSING. MINIMUM HORIZONTAL SEPARATION BETWEEN WATER MAINS AND SEWER MAINS SHALL BE TEN FEET MEASURED FROM THE OUTSIDE OF THE PIPES. ONE FULL LENGTH OF WATER MAIN SHALL BE CENTERED UNDER OR OVER THE SEWER SO THAT BOTH JOINTS WILL BE AS FAR FROM THE SEWER AS POSSIBLE. WHERE A WATER MAIN CROSSES UNDER A SEWER, ADEQUATE STRUCTURAL SUPPORT (COMPACTED SELECTED FILL) SHALL BE PROVIDED FOR THE SEWERS TO PREVENT EXCESSIVE DEFLECTION OF JOINTS AND SETTLING ON AND BREAKING THE WATER MAINS.
3. FIRE HYDRANT WEEP HOLES (DRAINS) SHALL BE PLUGGED WHEN GROUND WATER IS ENCOUNTERED WITHIN SEVEN FEET OF THE FINISHED GRADE.
4. ALL MECHANICAL JOINT FITTINGS (TEES, BENDS, PLUGS, ETC.) SHALL BE BACKED WITH 2500 PSI CONCRETE THRUST BLOCKS



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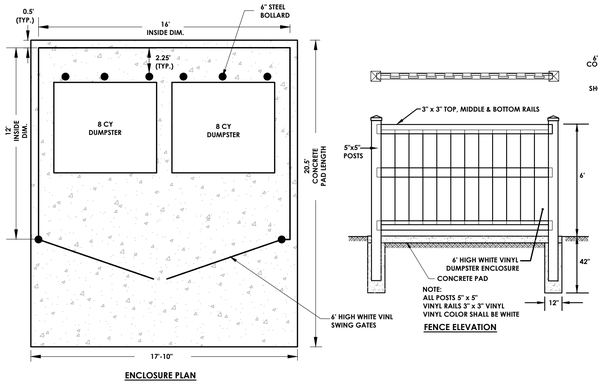
Sheet Title

UTIILTY PLAN

Sheet No.

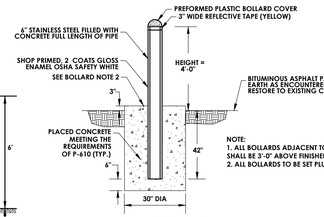
CTE
C150

CONSTRUCTION DOCUMENTS

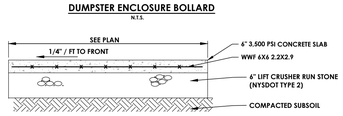


ENCLOSURE PLAN

FENCE ELEVATION

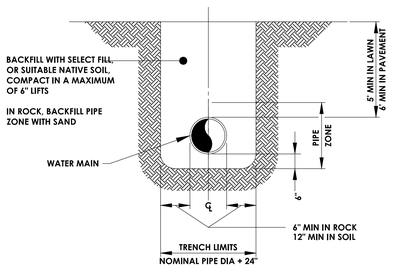


DUMPSTER ENCLOSURE BOLLARD
N.T.S.

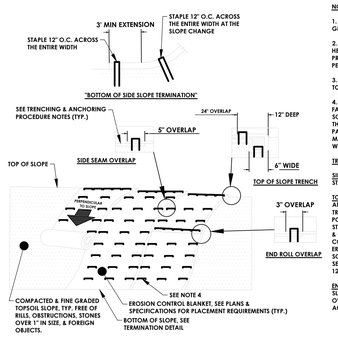


CONCRETE PAD DETAIL

1 DUMPSTER ENCLOSURE DETAIL
N.T.S.



2 WATERMAIN TRENCH DETAIL
N.T.S.



3 EROSION CONTROL BLANKET INSTALLATION DETAIL
N.T.S.

NOTES:

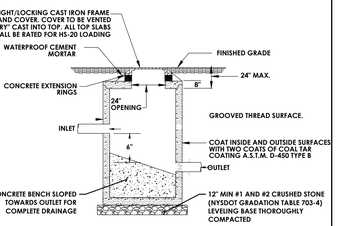
1. PREPARE THE TOPSOIL (SEEDBED) FIRST BY RAKING, SHAPING, FINE GRADING, COMPACTING, SEEDING & FERTILIZING THE SLOPES.
2. USE THE TRENCHING & ANCHORING PROCEDURES DETAILED HEREIN TO SECURE ANY EXPOSED MATERIAL ENDS, SECURE ALL PRODUCT OVERLAPS, OVERLAP IN THE DIRECTION OF WATER FLOW, PERPENDICULAR TO THE SLOPE.
3. KEEP EROSION CONTROL BLANKET IN SOLID CONTACT WITH THE TOPSOIL.
4. USE THE REQUIRED NUMBER OF STAPLES/STAKES TO SECURELY FASTEN THE EROSION CONTROL BLANKET TO THE SLOPE IN LOOSE SOIL CONDITIONS. THE USE OF STAPLES/STAKES LENGTHS GREATER THAN 6" MAYBE NECESSARY FOR PROPER SECURING. STAPLE PATTERNS & OVERLAPS ARE DEPENDENT ON SITE CONDITIONS & MANUFACTURER'S REQUIREMENTS. CONTRACTOR SHALL CONSULT WITH MANUFACTURER FOR ACTUAL SITE SPECIFIC REQUIREMENTS.

TRENCHING & ANCHORING PROCEDURE NOTES:

SIDE SEAM OVERLAP: THE EDGES OF PARALLEL BLANKETS SHALL BE STAPLED WITH A 5" OVERLAP.

TOP OF SLOPE TRENCH: BEGIN AT THE TOP OF SLOPE BY ANCHORING THE EROSION CONTROL BLANKET IN A 6"D X 6"W TRENCH WITH A 12" OVERLAP EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR WITH A ROW OF STAPLES/STAKES 12" O.C. IN THE BOTTOM OF THE TRENCH. BACKFILL & COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO THE COMPACTED SOIL & FOLD THE REMAINING 12" PORTION OF THE EROSION CONTROL BLANKET BACK OVER THE SEED & COMPACTED SOIL. SECURE THE EROSION CONTROL BLANKET BACK OVER THE SEED & COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED 12" O.C. ACROSS THE ENTIRE WIDTH.

END ROLL OVERLAP: CONSECUTIVE BLANKETS SPLICED DOWN THE SLOPE SHALL BE PLACED END OVER END (SINGLE-STYLE) WITH A 3" OVERLAP. STAPLE THROUGH OVERLAPPED AREAS, 12" APART ACROSS THE ENTIRE WIDTH.



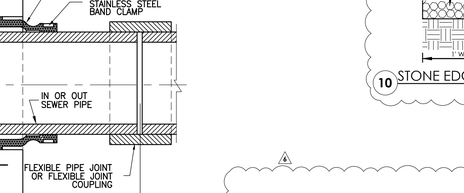
17 SAMPLING MANHOLE DETAIL
N.T.S.

NOTES:

1. CONCRETE STRENGTH SHALL BE 4,500 PSI @ 28 DAYS.
2. MANHOLE SHALL BE RATED FOR H2-20 LOADING AND CONSTRUCTED WITH ASTM A-615 GRADE 60 REINFORCEMENT.
3. ALL FRAMES AND COVERS SHALL BE RATED FOR HS-20 LOADING.
4. CONSTRUCTION JOINTS SHALL HAVE A MINIMUM 1" BUTYL SEALANT.
5. A LAYER OF BITUMINOUS COATING SHALL BE APPLIED TO THE EXTERIOR OF THE CONCRETE SAMPLING MANHOLE.

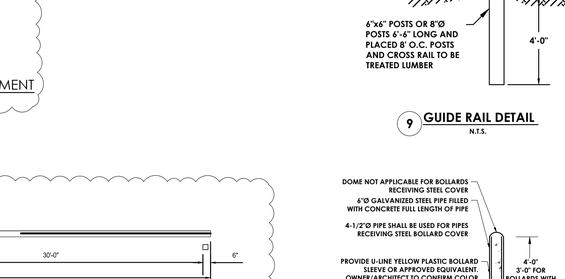
PERSPECTIVE VIEW

NOTES:
1) ALL WOOD FOR SPLIT RAIL FENCE TO BE PRESSURE TREATED.
2) END POST SHALL BE TERMINAL POST.



FRONT VIEW

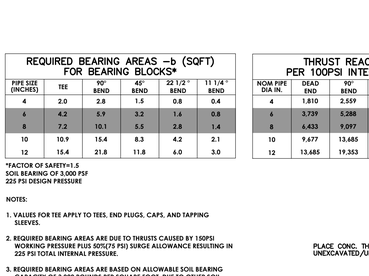
4 STANDARD SPLIT-RAIL FENCE
(TO BE INSTALLED NEAR BIORETENTION AREAS)
N.T.S.



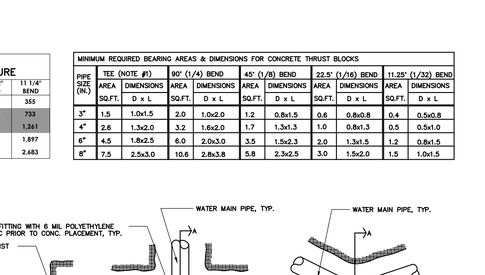
PERSPECTIVE

NOTES
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. ALL INFORMATION CONTAINED HEREIN WAS CURRENT AT THE TIME OF DEVELOPMENT BUT MUST BE REVIEWED AND APPROVED BY THE PRODUCT MANUFACTURER TO BE CONSIDERED ACCURATE.

5 ARTIFICIAL TURF DETAIL
(TO BE INSTALLED AT DOG RUN)
N.T.S.

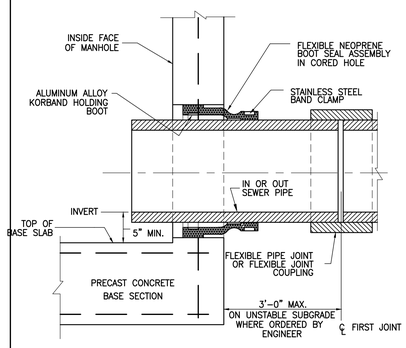


6 GREASE TRAP DETAIL
N.T.S.



NOTES:

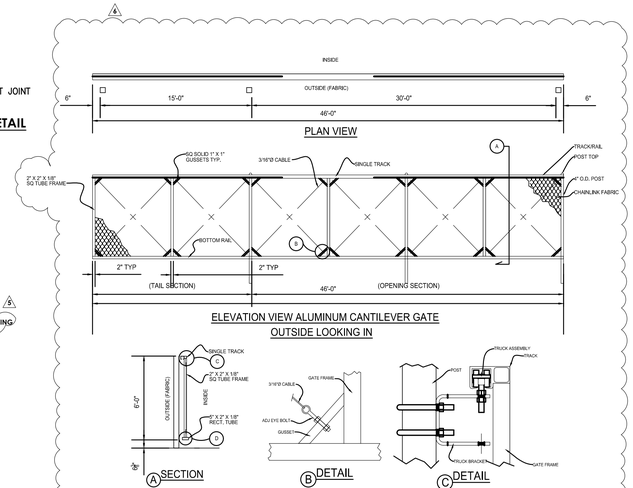
1. BASIS OF DESIGN IS ZURN PROCEPTOR GMC-1000. 2 TANKS SHALL BE INSTALLED IN SERIES. APPROVED EQUIVALENTS ACCEPTABLE.
2. UNIT SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
3. SEE PLUMBING DRAWING FOR VENT CONNECTIONS. CUT ON SITE FOR FINAL ADJUSTMENT AND CAULK WITH
4. EXTENSION COLLAR TO BE ORDERED TO MEET FINISHED GRADE, SIKAFLEX BY CONTRACTOR FOR WATERTIGHT SEAL.
5. 30 YEAR WARRANTY AGAINST LEAKS, AND STRUCTURAL FAILURE.



7 FLEXIBLE PIPE TO M.H./C.B. CONNECTION DETAIL
N.T.S.

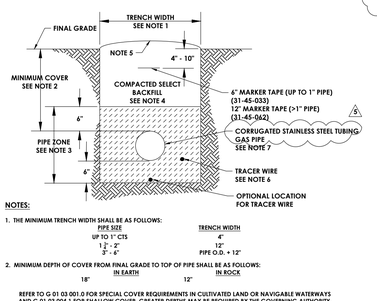
10 STONE EDGE TREATMENT
N.T.S.

9 GUIDE RAIL DETAIL
N.T.S.



8 ROLLING GATE DETAIL
N.T.S.

NOTE:
1. BASIS OF DESIGN IS AMERICA'S GATE. APPROVED EQUIVALENTS SHALL BE ACCEPTABLE.



NOTES:

1. THE MINIMUM TRENCH WIDTH SHALL BE AS FOLLOWS:

PIPE SIZE	TRENCH WIDTH
UP TO 1" CTS	4"
1 ½" - 2"	12"
3" - 6"	PIPE O.D. + 12"

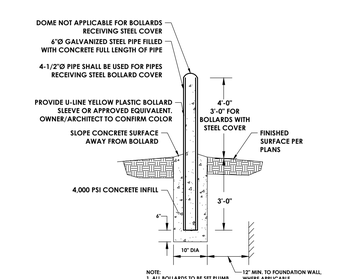
2. MINIMUM DEPTH OF COVER FROM FINAL GRADE TO TOP OF PIPE SHALL BE AS FOLLOWS:

IN EARTH	IN ROCK
18"	12"

REFER TO G 01 03 001.0 FOR SPECIAL COVER REQUIREMENTS IN CULTIVATED LAND OR NAVIGABLE WATERWAYS AND G 01 03 004.1 FOR SHALLOW COVER. GREATER DEPTHS MAY BE REQUIRED BY THE GOVERNING AUTHORITY.

3. SAND PADDING IS REQUIRED IN THE PIPE ZONE. REFER TO G 01 03 005.0 FOR THE DEFINITION OF SAND PADDING. IT SHALL BE THOROUGHLY COMPACTED IN 12" LIFTS OR AS REQUIRED BY THE GOVERNING AUTHORITY.
4. COMPACTED SELECT BACKFILL MAY BE ON-SITE MATERIAL PROVIDED IT CONTAINS NO ROCKS OR STONES OVER 6" IN DIAMETER, ROOTS, STUMPS, OR CONSTRUCTION DEBRIS. IT SHALL BE THOROUGHLY COMPACTED IN 12" LIFTS OR AS REQUIRED BY THE GOVERNING AUTHORITY.
5. THE BACKFILLED TRENCH SHALL BE CROWNED SLIGHTLY TO ALLOW FOR FUTURE SETTLEMENT.
6. FOR PLASTIC PIPE, TRACER WIRE SHALL BE INSTALLED PER G 02 03 005.0 AND G 02 03 006.0.
7. IN AREAS WHERE PLASTIC PIPE LESS THAN 4" IN DIAMETER IS INSTALLED BELOW THE WATER TABLE, AN UNOPENED 75 LB. BAG OF CONCRETE MIX SHALL BE PLACED DIRECTLY OVER THE PIPE EVERY 40 FEET TO PREVENT THE PIPE FROM FLOATING UP AFTER INSTALLATION. THE BAG SHALL BE BACKFILLED ALONG WITH THE PIPE.
8. REFER TO G 02 01 037.0 TO DETERMINE THE NEED FOR SHORING OR SLOPING.
9. REFER TO G 01 03 004.0 FOR MINIMUM BELOW GRADE CLEARANCES.
10. IN STEEP TERRAIN, TRENCH BREAKERS AND EROSION CONTROL MAY BE REQUIRED. CONSULT WITH GAS & MECHANICAL ENGINEERING.

12 TRENCHING AND BACKFILL REQUIREMENTS DISTRIBUTION SERVICES
N.T.S.
PER CENTRAL HUDSON GAS & ELECTRIC CORP.



11 BOLLARD
N.T.S.

13 WATER LINE/SEWER LINE CROSSING DETAIL
N.T.S.

NOTES:

1. IF MUCK, PEAT, OR RECENTLY PLACED FILL ARE ENCOUNTERED/REQUIRED, ALL THRUSTS SHALL BE RESISTED BY PILES OR TIE RODS TO SOLID FOUNDATIONS, OR BY REMOVAL OF SUCH UNSTABLE MATERIAL AND REPLACEMENT WITH BALLAST OF SUFFICIENT STABILITY TO RESIST THE THRUSTS.

REQUIRED BEARING AREAS –b (SQFT) FOR BEARING BLOCKS*

PIPE SIZE (INCHES)	TEE	90° BEND	45° BEND	22 1/2° BEND	11 1/4° BEND
4	2.0	2.8	1.5	0.8	0.4
6	4.2	5.9	3.2	1.6	0.8
8	7.2	10.1	5.5	2.8	1.4
10	10.9	15.4	8.3	4.2	2.1
12	15.4	21.8	11.8	6.0	3.0

*FACTOR OF SAFETY=1.5
SOIL BEARING OF 3,000 PSF
225 PSI DESIGN PRESSURE

NOTES:

1. VALUES FOR TEE APPLY TO TEES, END PLUGS, CAPS, AND TAPPING SLEEVES.
2. REQUIRED BEARING AREAS ARE DUE TO THRUSTS CAUSED BY 150PSI WORKING PRESSURE PLUS 50%(75 PSI) SURGE ALLOWANCE RESULTING IN 225 PSI TOTAL INTERNAL PRESSURE.
3. REQUIRED BEARING AREAS ARE BASED ON ALLOWABLE SOIL BEARING CAPACITY OF 3,000 POUNDS PER SQUARE FOOT, DUE TO OTHER SOIL CONDITIONS ENCOUNTERED, BEARING AREAS MAY BE MODIFIED BY THE ENGINEER.

SOIL	BEARING STRENGTH ≤ S (LB/SQ FT)
MUCK	0
SOFT CLAY	1,000
SILT	1,500
SANDY SILT	2,000
SAND	4,000
SANDY CLAY	6,000
HARD CLAY	9,000

4. IF MUCK, PEAT, OR RECENTLY PLACED FILL ARE ENCOUNTERED/REQUIRED, ALL THRUSTS SHALL BE RESISTED BY PILES OR TIE RODS TO SOLID FOUNDATIONS, OR BY REMOVAL OF SUCH UNSTABLE MATERIAL AND REPLACEMENT WITH BALLAST OF SUFFICIENT STABILITY TO RESIST THE THRUSTS. ALL AS REQUIRED BY THE ENGINEER.

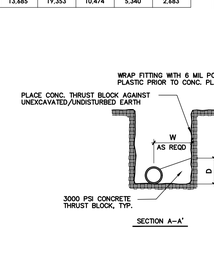
THRUST REACTIONS–R(LB) PER 100PSI INTERNAL PRESSURE

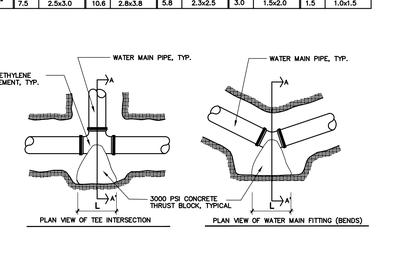
NOM PIPE DIA IN.	DEAD END	90° BEND	45° BEND	22 1/2° BEND	11 1/4° BEND
4	1,810	2,559	1,385	706	355
6	3,739	5,288	2,862	1,459	733
8	6,433	9,097	4,923	2,510	1,261
10	9,677	13,685	7,406	3,776	1,897
12	13,685	19,353	10,474	5,340	2,683

MINIMUM REQUIRED BEARING AREAS & DIMENSIONS FOR CONCRETE THRUST BLOCKS

PIPE SIZE (IN.)	TEE (NOTE #1)		90° (1/4) BEND		45° (1/8) BEND		22.5° (1/16) BEND		11.25° (1/32) BEND	
	AREA	DIMENSIONS	AREA	DIMENSIONS	AREA	DIMENSIONS	AREA	DIMENSIONS	AREA	DIMENSIONS
	SQ.FT.	D x L	SQ.FT.	D x L	SQ.FT.	D x L	SQ.FT.	D x L	SQ.FT.	D x L
3"	1.5	1.0x1.5	2.0	1.0x2.0	1.2	0.8x1.5	0.6	0.8x0.8	0.4	0.5x0.8
4"	2.6	1.3x2.0	3.2	1.6x2.0	1.7	1.3x1.3	1.0	0.8x1.3	0.5	0.5x1.0
6"	4.5	1.8x2.5	6.0	2.0x3.0	3.5	1.5x2.3	2.0	1.3x1.5	1.2	0.8x1.5
8"	7.5	2.5x3.0	10.6	2.8x3.8	5.8	2.3x2.5	3.0	1.5x2.0	1.5	1.0x1.5

16 THRUST BLOCK RESTRAINTS
N.T.S.





CONSTRUCTION SPECIFICATIONS

1. STONE WILL BE PLACED ON A FILTER FABRIC FOUNDATION TO THE LINES, GRADES AND LOCATIONS SHOWN IN THE PLAN.
2. SET SPACING OF CHECK DAMS TO ASSUME THAT THE ELEVATIONS OF THE CREST OF THE DOWNSTREAM DAM IS AT THE SAME ELEVATION OF THE TOE OF THE UPSTREAM DAM.
3. EXTEND THE STONE A MINIMUM OF 1.5 FEET BEYOND THE DITCH BANKS TO PREVENT CUTTING AROUND THE DAM.
4. PROTECT THE CHANNEL DOWNSTREAM OF THE LOWEST CHECK DAM FROM SCOUR AND EROSION WITH STONE OR LINER AS APPROPRIATE.
5. ENSURE THAT CHANNEL APPURTENANCES SUCH AS CULVERT ENTRANCES BELOW CHECK DAMS ARE NOT SUBJECT TO DAMAGE OR BLOCKAGE FROM DISPLACED STONE. MAXIMUM DRAINAGE AREA 2 ACRES.

14 STONE CHECK DAM
N.T.S.

1. ALL CONCRETE TO BE 3500 psi CLASS A N.Y.S.D.O.T. ITEM 601.05
2. ALL CONCRETE IN CONTACT WITH ASPHALT PAVEMENT SHALL BE COVERED WITH A TACK COAT IN ACCORDANCE WITH N.Y.S.D.O.T. SECTION 407.

15 SHALLOW CATCH BASIN
N.T.S.

40 Beaver St. Albany, New York 12207-1511
518 463 8068 www.csarchpc.com
PASSERO engineering architecture
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Project Title

NEWBURGH ENLARGED CITY SCHOOL DISTRICT
NEW CTE BUILDING
CTE NEWBURGH

STATE OF NEW YORK
CHRISTOPHER J. LAPOINTE
102593
LICENSED PROFESSIONAL ENGINEER

6	6/06/2024	BID ADDENDUM #6
5	5/28/2024	BID ADDENDUM #5
4	5/20/2024	BID ADDENDUM #4
3	5/13/2024	BID ADDENDUM #3
2	5/3/2024	BID ADDENDUM #2
Ø	DATE	DESCRIPTION

Drawn By: MP
Checked By: SK
Proj. #: 44-16-00-01-0-015-001
CSArch Proj. #: 108-2303
Issued for Bid: 4/15/2024

Sheet Title
SITE DETAILS

Sheet No.
CTE C232

CONSTRUCTION DOCUMENTS

FOUNDATION LEGEND

F# (-#' - #")	F# - DENOTES FOOTING MARK (SEE FOOTING SCHEDULE) (#' - #") - DENOTES TOP OF FOOTING ELEVATION WITH RESPECT TO DATUM ELEVATION = 0' - 0"
P# (#' - #")	P# - DENOTES PIER MARK (SEE PIER SCHEDULE) (#' - #") - DENOTES TOP OF PIER ELEVATION WITH RESPECT TO DATUM ELEVATION = 0' - 0"
CW#	CW# - DENOTES CONCRETE WALL MARK (SEE FOUNDATION WALL AND/OR WALL SCHEDULE)
MW#	MW# - DENOTES MASONRY WALL MARK (SEE MASONRY WALL SCHEDULE)
WF#	WF# - DENOTES WALL FOOTING MARK (SEE WALL FOOTING SCHEDULE)
#'-#"	#' - #" - DENOTES TOP OF WALL FOOTING ELEVATION WITH RESPECT TO DATUM ELEVATION = 0' - 0"
[#'-#"]	#' - #" - DENOTES TOP OF WALL ELEVATION WITH RESPECT TO DATUM ELEVATION = 0' - 0"
	INDICATES LOCATION OF CMU FIREWALL.
	INDICATES LOCATION OF CMU SHEAR WALL. SEE SCHEDULE AND DETAILS FOR ADDITIONAL INFORMATION.
SOG# +/- #"	DENOTES CONCRETE SLAB MARK AND ELEVATION OFFSETWITH RESPECT TO DATUM ELEVATION = 0' - 0" (SEE SLAB ON GRADE SCHEDULE)
	INDICTES EDGE OF AREA FOR SLAB DEPRESSION

FOUNDATION PLAN NOTES

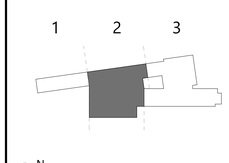
1. SEE SHEET S001 THROUGH S008 FOR GENERAL NOTES, DESIGN CRITERIA, SCHEDULES, AND LEGENDS.
2. SEE SHEET S500 SERIES FOR TYPICAL DETAILS
3. FINISH FLOOR REFERENCE ELEVATION = 0' - 0" = 266.00' ABOVE SEA LEVEL, PER CIVIL DRAWINGS
4. TOP OF FOOTING IS (3' - 6") BELOW FINISH FLOOR REFERENCE ELEVATION, UNLESS OTHERWISE NOTED ON PLAN AS (-X' - X") RELATIVE TO TOP OF FINISHED FLOOR REFERENCE ELEVATION.
5. COORDINATE DOOR AND CURTAIN WALL WIDTHS AND LOCATING DIMENSIONS WITH ARCH.
6. COORDINATE WITH CIVIL, ARCH AND MEP DRAWINGS ON ANY REQUIRED PENETRATIONS THROUGH FOUNDATION WALLS OR FOOTINGS.
7. MASONRY LINTELS SHOWN ON PLAN ARE FOR THE HEAD OF OPENINGS ASSOCIATED WITH THE FIRST FLOOR. COORDINATE LOCATIONS AND HEIGHTS WITH ARCH DRAWINGS

FOUNDATION PLAN KEYNOTES

#	
1	2" EXPANSION JOINT IN CMU WALL. SEE ARCH FOR EJ COVER
2	FOOTING BELOW INTERIOR CMU PARTITION WALLS, TYP. SEE TYPICAL DETAIL
3	THROUGH FOUNDATION WALL PIPING. SEE PLUMB AND CIVIL DRAWINGS FOR LOCATION. STEP FOOTING AS REQUIRED PER TYPICAL PIPE PENETRATION DETAIL.
4	THICKENED SLAB BELOW STAIR STRINGER BEARING, TYP. SEE TYPICAL DETAIL
5	PROVIDE CONTROL JOINT BETWEEN SHEAR WALL AND NONSHEAR WALL, TYP. SEE TYPICAL DETAIL
6	SEE TYPICAL ELEVATOR PIT DETAIL FOR SUMP PIT AND FOUNDATION SLAB INFORMATION
7	ELECTRICAL DUCTBANK. COORDINATE WITH ELECTRICAL DRAWINGS. PROVIDE OPENING THRU FOUNDATION WALL AS REQUIRED. SEE TYPICAL DETAILS FOR ADDITIONAL WALL REINFORCING REQUIREMENTS.
8	PROVIDE FROST PROTECTED SLABS AT ALL EXTERIOR DOORWAYS. SEE TYPICAL DETAIL FOR ADDITIONAL INFORMATION.
9	6" EQUIPMENT PAD. COORDINATE EXACT LOCATION AND DIMENSIONAL REQURIEMENTS WITH MEP DRAWINGS. SEE TYPICAL DETAILS ON S500 SHEETS
10	SHOWER STALL. SLOPE SLAB TO DRAIN. COORDINATE WITH ARCHITECTURAL, MECHANICAL AND PLUMBING DRAWINGS FOR EXTENTS AND REQUIREMENTS.

1 **FOUNDATION / SLAB PLAN - AREA 2**
1/8" = 1'-0"

KEY PLAN



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19 Front St. - Newburgh - New York 12550-7601
845 - 561 - 3179 www.csarchpc.com

Consultant
PASSERO engineering architecture
STRUCTURAL

Project Title
NEWBURGH ENLARGED CITY SCHOOL DISTRICT
NEW CTE BUILDING

STATE OF NEW YORK
PATRICK JAMES WILLIAMS
100939
LICENSED PROFESSIONAL ENGINEER

7	6/6/2024	BID ADDENDUM #3
2	5/1/2024	BID ADDENDUM #2
#:	DATE	DISCRIPTION

Drawn By:	JRG
Checked By:	LCA
Proj. #:	44-16-00-01-0-053-001
CSArch Proj. #:	108-2303
Issued for Bid:	4/15/2024

Sheet Title
FOUNDATION/ SLAB PLAN - AREA 2

Sheet No.
CTE S102

CONSTRUCTION DOCUMENTS

Autodesk Docs://NECSD - New CTE Bldg/NECSD_CTE - Struct.rvt

SLAB PLAN NOTES

1. SEE SHEET S001 THROUGH S008 FOR GENERAL NOTES, DESIGN CRITERIA, SCHEDULES, AND LEGENDS.
2. SEE SHEET S500 SERIES FOR TYPICAL DETAILS
3. TOP OF SLAB ELEVATION = 0' - 0" UNLESS NOTED OTHERWISE ON PLAN AS (-X'-XX") RELATIVE TO REFERENCE ELEVATION.
4. SAW CUT CONTROL JOINTS IN SLAB ON GRADE AS SHOWN. BALANCE OF ALL REINFORCING (REENTRANT CORNER, DISCONTINUOUS JOINT, OPENINGS, ETC...) NOT SHOWN FOR CLARITY. REFER TO TYPICAL DETAILS.
5. COORDINATE WITH CIVIL, ARCH AND MEP DRAWINGS ON ANY REQUIRED PENETRATIONS THROUGH FOUNDATION WALLS OR FOOTINGS.

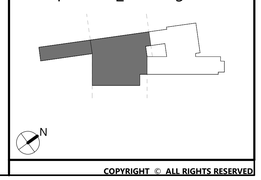
SLAB PLAN KEYNOTES

#	
1	REENTRANT CORNER BARS IN SLAB ON GRADE, SEE TYPICAL DETAIL. ENSURE REINFORCING DOES NOT CROSS CONTROL JOINT (CJ) SAW CUT LINE. LOCATIONS SHOWN APPLY TO ALL OTHER SAME/SIMILAR CONDITIONS NOT SHOWN FOR CLARITY.
2	REENTRANT CORNER BARS IN SLAB ON GRADE AT ALL DISCONTINUOUS CONTROL JOINTS, TYP. ENSURE REINFORCING DOES NOT CROSS CONTROL JOINT (CJ) SAW CUT LINE. LOCATIONS SHOWN APPLY TO ALL OTHER SAME/SIMILAR CONDITIONS NOT SHOWN FOR CLARITY.
3	REENTRANT CORNER BARS IN SLAB ON GRADE, SEE COLUMN ISOLATION JOINT DETAIL. ENSURE REINFORCING DOES NOT CROSS CONTROL JOINT (CJ) SAW CUT LINE. LOCATIONS SHOWN APPLY TO ALL OTHER SAME/SIMILAR CONDITIONS NOT SHOWN FOR CLARITY.
4	REENTRANT CORNER REINFORCING IN SLAB ON GRADE AT DOOR THRESHOLDS, SEE TYPICAL DETAIL. ENSURE REINFORCING DOES NOT CROSS CONTROL JOINT (C.J) SAW CUT LINE. LOCATIONS SHOWN APPLY TO ALL OTHER SAME/SIMILAR CONDITIONS NOT SHOWN FOR CLARITY.

SLAB-ON-GRADE LEGEND

SOG#	SOG# - DENOTES SLAB-ON-GRADE MARK (SEE SLAB-ON-GRADE SCHEDULE)
#'-#"	#' - #" - DENOTES TOP OF CONCRETE ELEVATION WITH RESPECT TO DATUM ELEVATION = 0' - 0"
	CONTROL/CONSTRUCTION LINE
F.D.	FLOOR DRAIN (SEE MEP AND ARCH)
CW# MW#	W# - DENOTES WALL MARK (SEE FOUNDATION WALL AND/OR WALL SCHEDULE)
[#'-#"]	#' - #" - DENOTES TOP OF WALL ELEVATION WITH RESPECT TO DATUM ELEVATION = 0' - 0"
	DENOTES STEP IN SLAB
	DENOTES SLOPE IN SLAB
	DENOTES TYPICAL LOCATONS OF ADDITIONAL SLAB REENTRANT CORNER REINFORCING. SEE TYPICAL DETAILS.
A B	DENOTES COLUMN ISOLATION JOINT TYPE, SEE TYPICAL DETAILS

KEY PLAN



1 TO SOG - SLAB PLAN - PARTS 1 & 2

0" 4' 8' 16' 32'
3/32" = 1'-0"

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Project Title
NEWBURGH ENLARGED CITY SCHOOL DISTRICT
NEW CTE BUILDING

PATRICK JAMES WILLIAMS
STATE OF NEW YORK
100938
LICENSED PROFESSIONAL ENGINEER

7	4/4/2024	BID ADDENDUM #6
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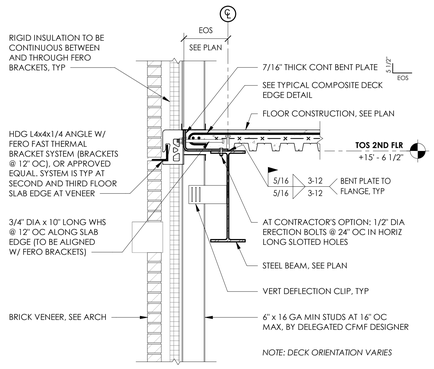
Sheet Title
SLAB ON GRADE PLAN

Sheet No.
CTE S104

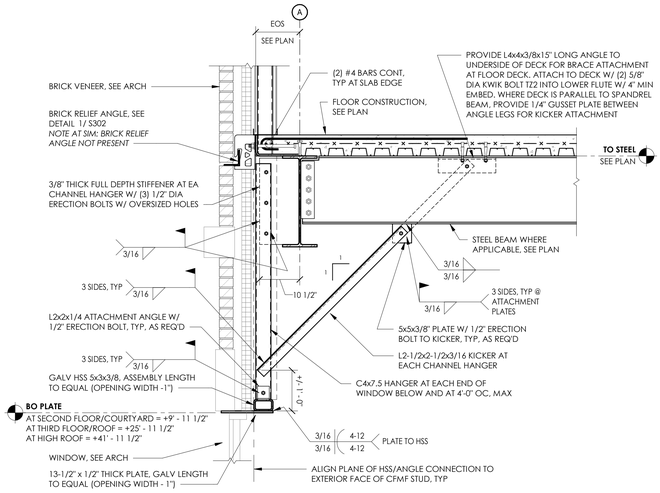
CONSTRUCTION DOCUMENTS

Autodesk Docs://NECSD - New CTE Bldg/NECSD CTE - Struct.rvt



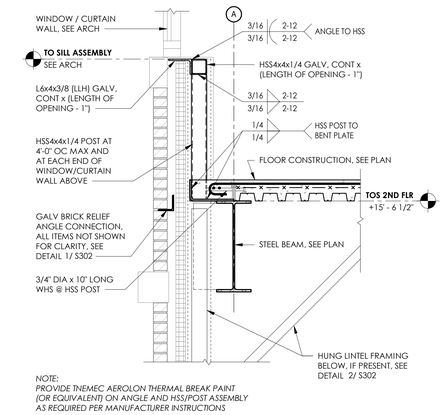
1 FRAMING SECTION

0" 6" 1' 2' 4'
3/4" = 1'-0"



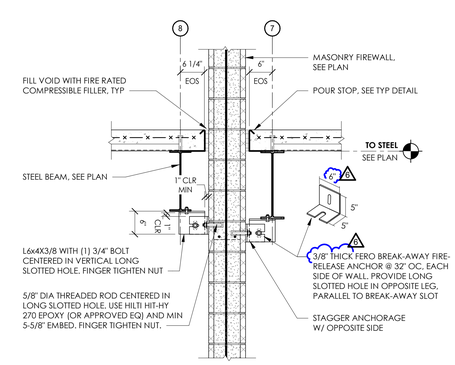
2 FRAMING SECTION

0" 6" 1' 2' 4'
3/4" = 1'-0"



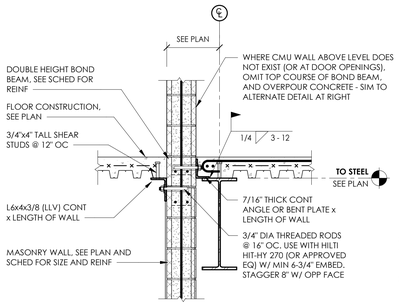
3 FRAMING SECTION

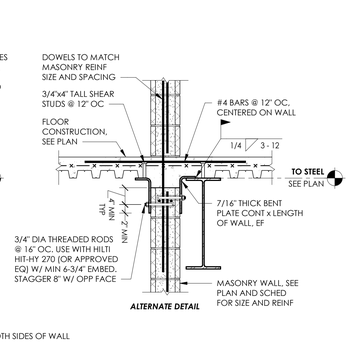
0" 6" 1' 2' 4'
3/4" = 1'-0"

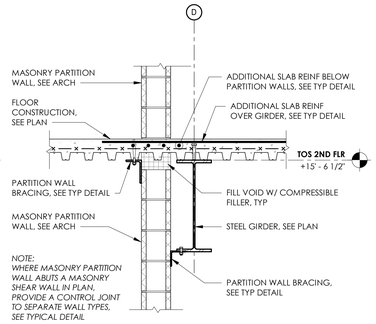


4 FRAMING SECTION

0" 6" 1' 2' 4'
3/4" = 1'-0"







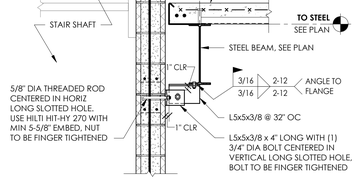
NOTES:
1. SEE ALTERNATE DETAIL IF PREFERRED FOR CONSTRUCTION SEQUENCING.
2. IF ADJACENT BEAM IS NOT PRESENT, PROVIDE LEFT SIDE CONTINUOUS PLATE ASSEMBLY ON BOTH SIDES OF WALL

5 FRAMING SECTION

0" 6" 1' 2' 4'
3/4" = 1'-0"

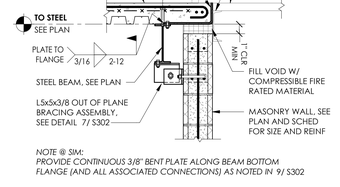
6 FRAMING SECTION

0" 6" 1' 2' 4'
3/4" = 1'-0"



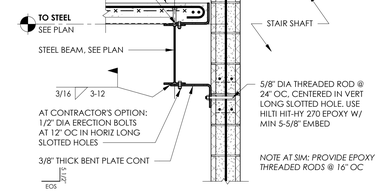
7 FRAMING SECTION

0" 6" 1' 2' 4'
3/4" = 1'-0"



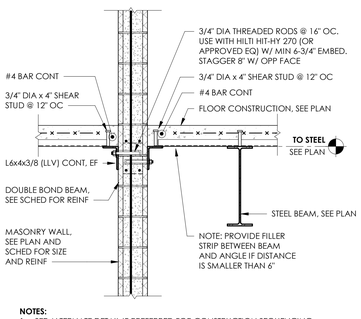
8 FRAMING SECTION

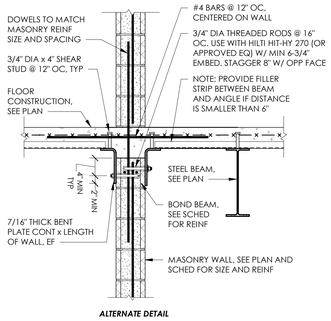
0" 6" 1' 2' 4'
3/4" = 1'-0"



9 FRAMING SECTION

0" 6" 1' 2' 4'
3/4" = 1'-0"

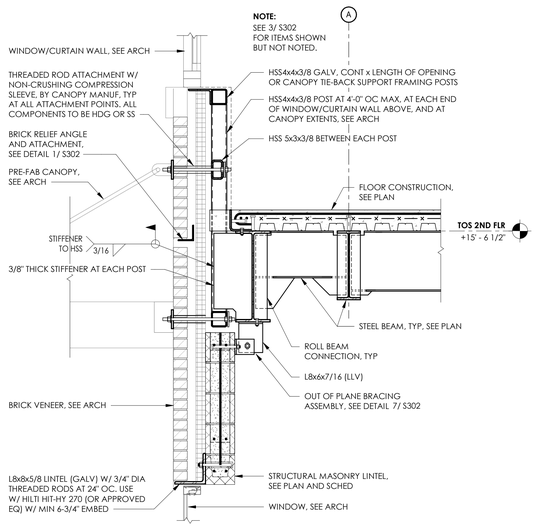




NOTES:
1. SEE ALTERNATE DETAIL IF PREFERRED FOR CONSTRUCTION SEQUENCING.

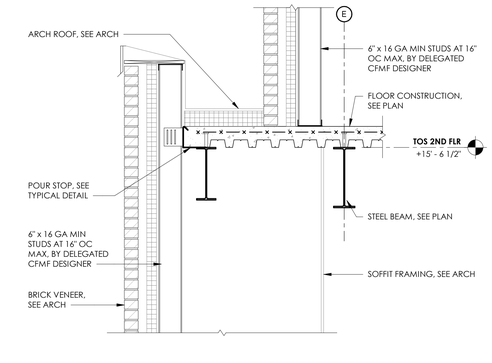
10 FRAMING SECTION

0" 6" 1' 2' 4'
3/4" = 1'-0"



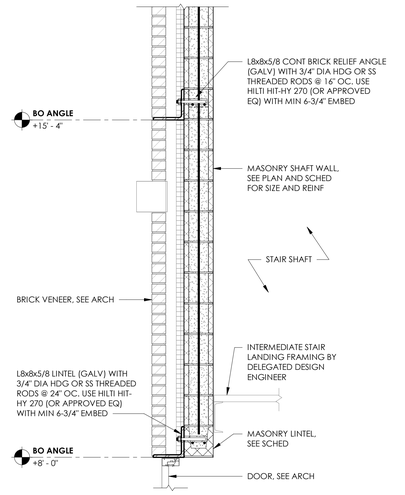
11 FRAMING SECTION

0" 6" 1' 2' 4'
3/4" = 1'-0"



12 FRAMING SECTION

0" 6" 1' 2' 4'
3/4" = 1'-0"



13 FRAMING SECTION

0" 6" 1' 2' 4'
3/4" = 1'-0"

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Project Title
NEWBURGH ENLARGED CITY SCHOOL DISTRICT
NEW CTE BUILDING

STATE OF NEW YORK
PATRICK JAMES WILLIAMS
100939
REGISTERED PROFESSIONAL ENGINEER

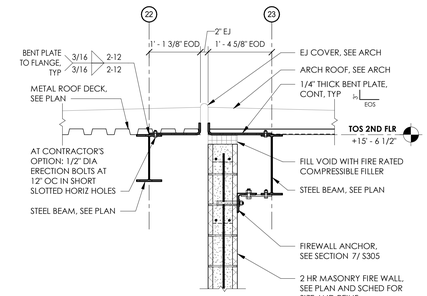
No.	DATE	DESCRIPTION
6	4/5/2024	BID ADDENDUM #6

Drawn By:	JRC
Checked By:	LCA
Proj. #:	44-16-00-01-0-053-001
CSArch Proj. #:	108-2303
Issued for Bid:	4/15/2024

Sheet Title
FRAMING SECTIONS AND DETAILS

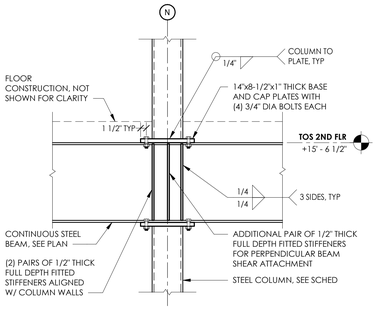
Sheet No.
CTE S302

CONSTRUCTION DOCUMENTS



1 FRAMING SECTION

0" 6" 1' 2' 4'
3/4" = 1'-0"



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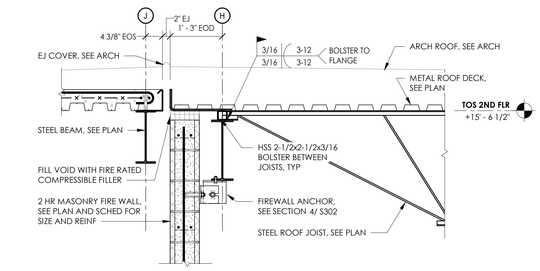
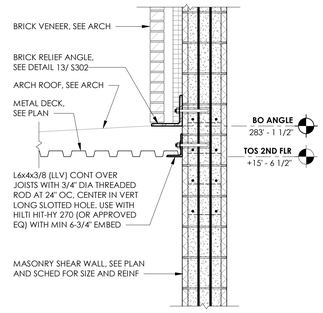
0" 6" 1' 2' 4'
3/4" = 1'-0"



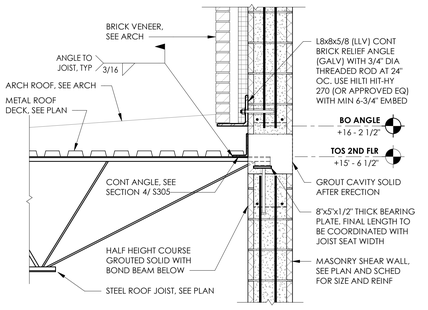
3 FRAMING SECTION

0" 6" 1' 2' 4'
3/4" = 1'-0"



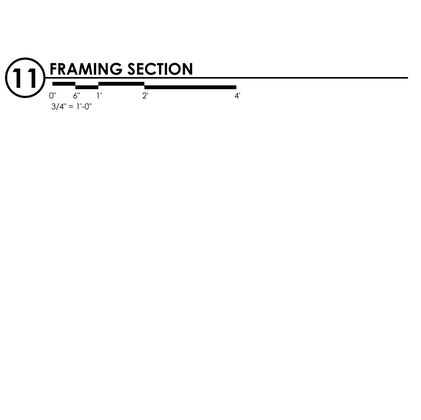
4 FRAMING SECTION

0" 6" 1' 2' 4'
3/4" = 1'-0"



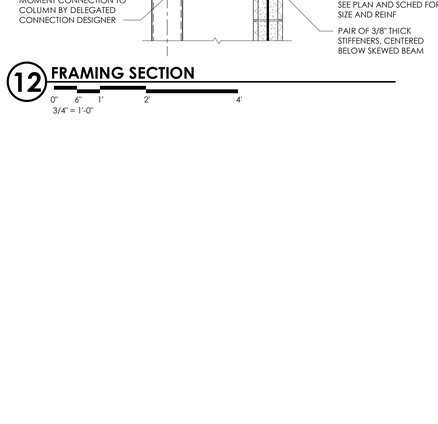
5 FRAMING SECTION

0" 6" 1' 2' 4'
3/4" = 1'-0"



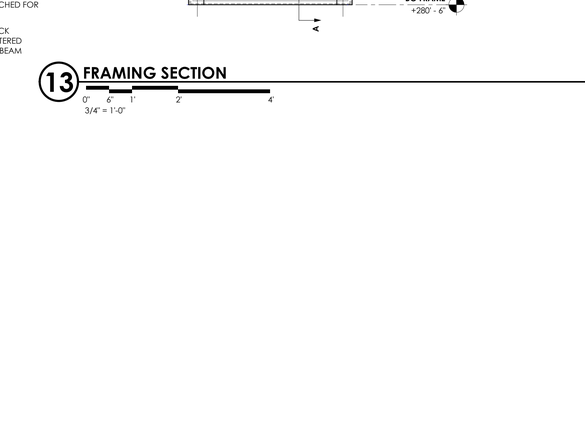
6 FRAMING SECTION

0" 6" 1' 2' 4'
3/4" = 1'-0"



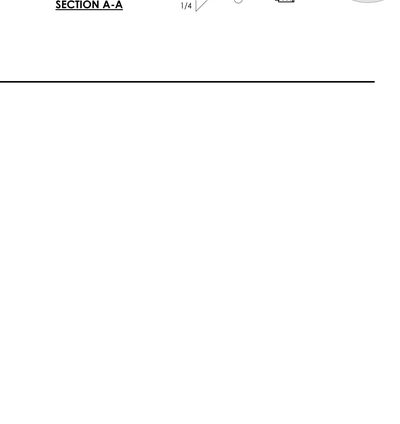
7 FRAMING SECTION

0" 6" 1' 2' 4'
3/4" = 1'-0"



8 FRAMING SECTION

0" 6" 1' 2' 4'
3/4" = 1'-0"



9 FRAMING SECTION

0" 6" 1' 2' 4'
3/4" = 1'-0"

10 FRAMING SECTION

0" 6" 1' 2' 4'
3/4" = 1'-0"

11 FRAMING SECTION

0" 6" 1' 2' 4'
3/4" = 1'-0"

12 FRAMING SECTION

0" 6" 1' 2' 4'
3/4" = 1'-0"

13 FRAMING SECTION

0" 6" 1' 2' 4'
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NEWBURGH ENLARGED CITY SCHOOL DISTRICT
NEW CTE BUILDING

Project Title

STATE OF NEW YORK
NATHAN JAMES WILLIAMS
LICENSED PROFESSIONAL ENGINEER
100938

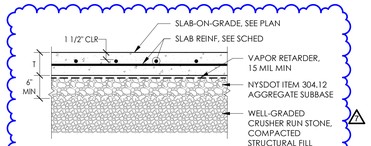
6	6/5/2024	BID ADDENDUM #6
5	5/3/2024	BID ADDENDUM #5
NO.	DATE	DESCRIPTION

Drawn By:	JRC
Checked By:	LCA
Proj. #:	44-16-00-01-0-053-001
CSArch Proj. #:	108-2303
Issued for Bid:	4/15/2024

Sheet Title
FRAMING SECTIONS AND DETAILS

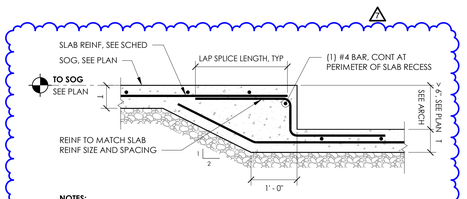
Sheet No.
CTE S305

CONSTRUCTION DOCUMENTS



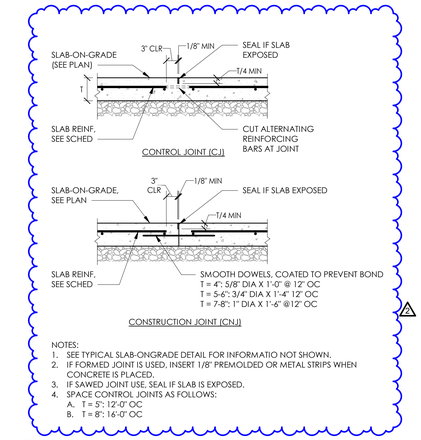
NOTES:
1. SEE SLAB-ON-GRADE SCHEDULE FOR SLAB THICKNESS, T.
2. PROVIDE CHAIRS TO SUPPORT SLAB REINFORCING AT SPECIFIED ELEVATION.
3. (E) FILL TYPE MATERIALS TO BE REMOVED WITHIN THE PROPOSED BUILDING FOOTPRINT AND AN ADDITIONAL HORIZONTAL DISTANCE OF 5'-0" BEYOND THE BUILDING FOOTPRINT. EXCAVATION TO BE BACKFILLED WITH COMPACTED STRUCTURAL FILL, AS SHOWN ABOVE.

1 SLAB-ON-GRADE
N.T.S.



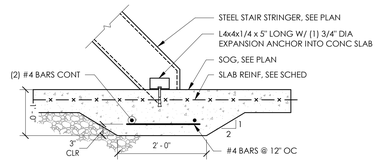
NOTES:
1. SEE ARCH DRAWINGS FOR LOCATION AND DEPTH OF SLAB DEPRESSION.
2. SEE TYPICAL SLAB-ON-GRADE DETAIL ON THIS SHEET FOR SLAB DETAILS NOT SHOWN.
3. SEE SLAB-ON-GRADE SCHEDULE FOR SLAB THICKNESS.

2 SLAB-ON-GRADE DEPRESSION > 6" DETAIL
N.T.S.



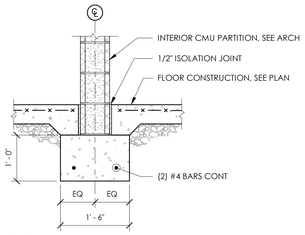
NOTES:
1. SEE TYPICAL SLAB-ONGRADE DETAIL FOR INFORMATIO NOT SHOWN.
2. IF FORMED JOINT IS USED, INSERT 1/8" PREMOLDED OR METAL STRIPS WHEN CONCRETE IS PLACED.
3. IF SAWED JOINT USE, SEAL IF SLAB IS EXPOSED.
4. SPACE CONTROL JOINTS AS FOLLOWS:
   A. T = 5": 12'-0" OC
   B. T = 8": 16'-0" OC

3 SOG CONTROL/CONSTRUCTION JOINT
N.T.S.



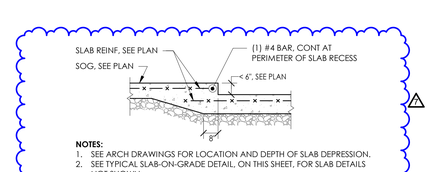
NOTE:
SEE TYPICAL SLAB-ON-GRADE DETAIL FOR INFORMATION NOT SHOWN.

4 THICKENED SLAB AT STEEL STAIR STRINGER
N.T.S.



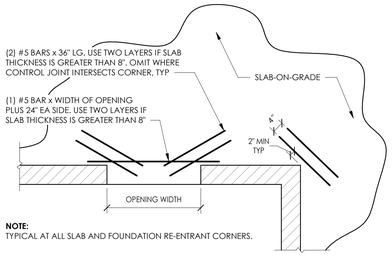
NOTES:
1. SEE FOUNDATION PLAN FOR SLAB THICKNESS.
2. PROVIDE CONTINUOUS FOOTING UNDER ALL INTERIOR CMU PARTITIONS EXCEEDING 8'-0" IN LENGTH.
3. SEE TYPICAL SLAB-ON-GRADE DETAIL, ON THIS SHEET, FOR SLAB DETAILS NOT SHOWN.

5 FOOTING DETAIL AT CMU PARTITION WALL
N.T.S.



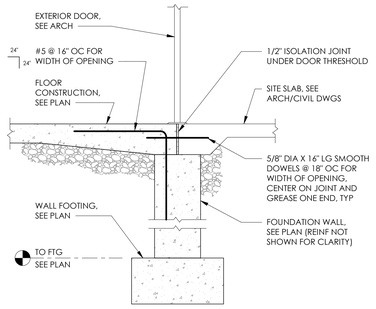
NOTES:
1. SEE ARCH DRAWINGS FOR LOCATION AND DEPTH OF SLAB DEPRESSION.
2. SEE TYPICAL SLAB-ON-GRADE DETAIL, ON THIS SHEET, FOR SLAB DETAILS NOT SHOWN.
3. SEE SLAB-ON-GRADE SCHEDULE FOR SLAB THICKNESS.

6 SLAB-ON-GRADE DEPRESSION < 6" DETAIL
N.T.S.

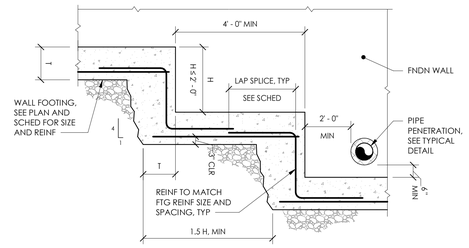


NOTE:
TYPICAL AT ALL SLAB AND FOUNDATION RE-ENTRANT CORNERS.

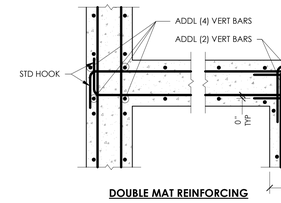
7 REENTRANT CORNER REINFORCEMENT
N.T.S.



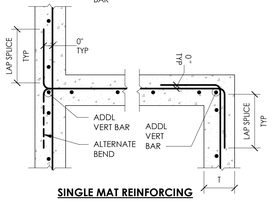
8 TYPICAL SLAB AT EXTERIOR DOOR
N.T.S.



9 TYPICAL WALL FOOTING STEP DETAIL
N.T.S.

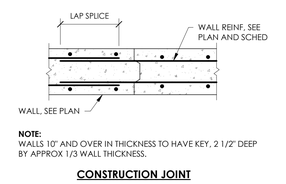


DOUBLE MAT REINFORCING



SINGLE MAT REINFORCING

10 TYPICAL CONCRETE WALL REINFORCING
N.T.S.

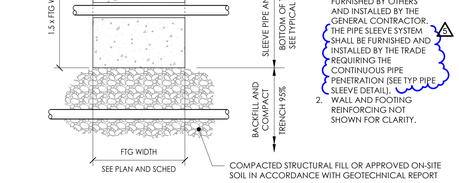


CONTROL JOINT

NOTE:
WALLS 10" AND OVER IN THICKNESS TO HAVE KEY, 2 1/2" DEEP BY APPROX 1/3 WALL THICKNESS.

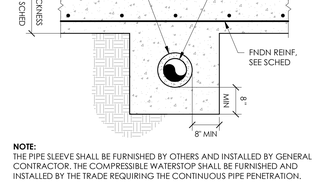
CONSTRUCTION JOINT

11 TYPICAL CONCRETE WALL JOINTS
N.T.S.



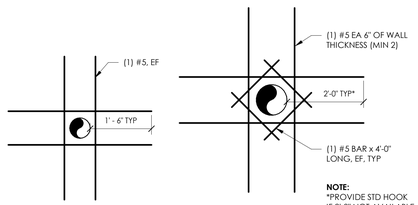
NOTES:
1. THE PIPE SLEEVE SHALL BE FURNISHED BY OTHERS AND INSTALLED BY THE GENERAL CONTRACTOR. THE PIPE SLEEVE SYSTEM SHALL BE FURNISHED AND INSTALLED BY THE TRADE REQUIRING THE CONTINUOUS PIPE PENETRATION (SEE TYP PIPE SLEEVE DETAIL).
2. WALL AND FOOTING REINFORCING NOT SHOWN FOR CLARITY.

12 TYPICAL PIPES AT FOUNDATION
N.T.S.



NOTE:
THE PIPE SLEEVE SHALL BE FURNISHED BY OTHERS AND INSTALLED BY GENERAL CONTRACTOR. THE COMPRESSIBLE WATERSTOP SHALL BE FURNISHED AND INSTALLED BY THE TRADE REQUIRING THE CONTINUOUS PIPE PENETRATION.

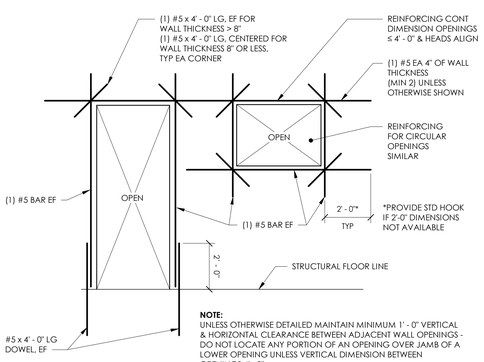
13 DEEPENED FOOTING AT PIPE
N.T.S.



NOTE:
*PROVIDE STD HOOK IF 2'-0" NOT AVAILABLE

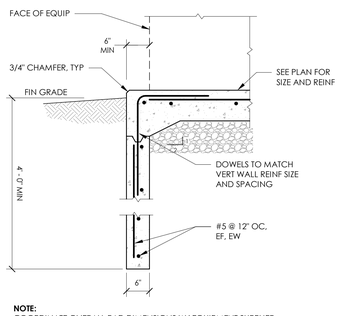
PIPES < 18" DIA **PIPES > 18" DIA**

14 PIPE OPENING IN CONCRETE WALL
N.T.S.



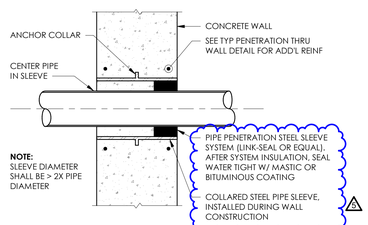
NOTE:
UNLESS OTHERWISE DETAILED MAINTAIN MINIMUM 1' - 0" VERTICAL & HORIZONTAL CLEARANCE BETWEEN ADJACENT WALL OPENINGS - DO NOT LOCATE ANY PORTION OF AN OPENING OVER JAMB OF A LOWER OPENING UNLESS VERTICAL DIMENSION BETWEEN OPENINGS 4' - 0"

16 REINF AT OPENING IN CONCRETE WALLS
3/4" = 1'-0"



NOTE:
COORDINATE OVERALL PAD DIMENSIONS W/ EQUIPMENT SUPPLIER

17 EXTERIOR EQUIPMENT PAD
N.T.S.



NOTE:
SLEEVE DIAMETER SHALL BE > 2X PIPE DIAMETER

15 PIPE SLEEVE BELOW GRADE
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Project Title
NEWBURGH ENLARGED CITY SCHOOL DISTRICT
NEW CTE

7	5/6/2024	BID ADDENDUM #6
5	5/29/2024	BID ADDENDUM #5
2	5/3/2024	BID ADDENDUM #2
#:	DATE	DESCRIPTION

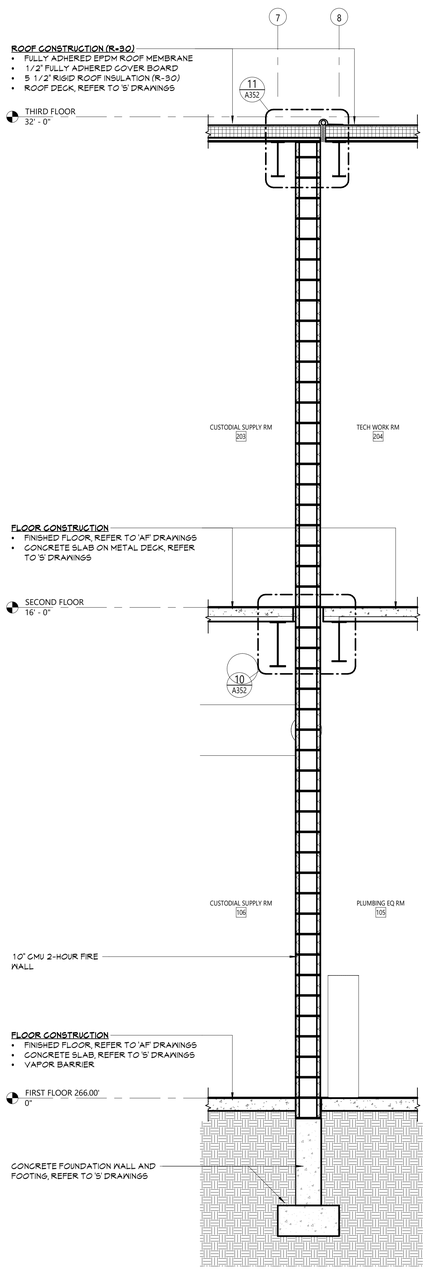
Drawn By:	JRC
Checked By:	LCA
Proj. #:	44-16-00-01-0-053-001
CSArch Proj. #:	108-2303
Issued for Bid:	4/15/2024

Sheet Title
TYPICAL CONCRETE DETAILS

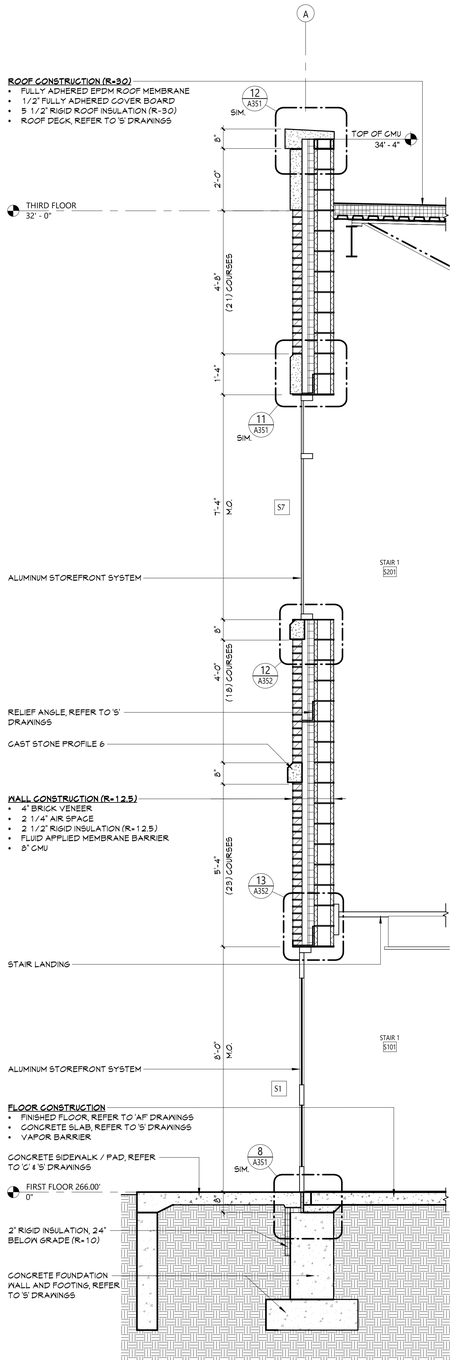
Sheet No.
CTE S501

CONSTRUCTION DOCUMENTS

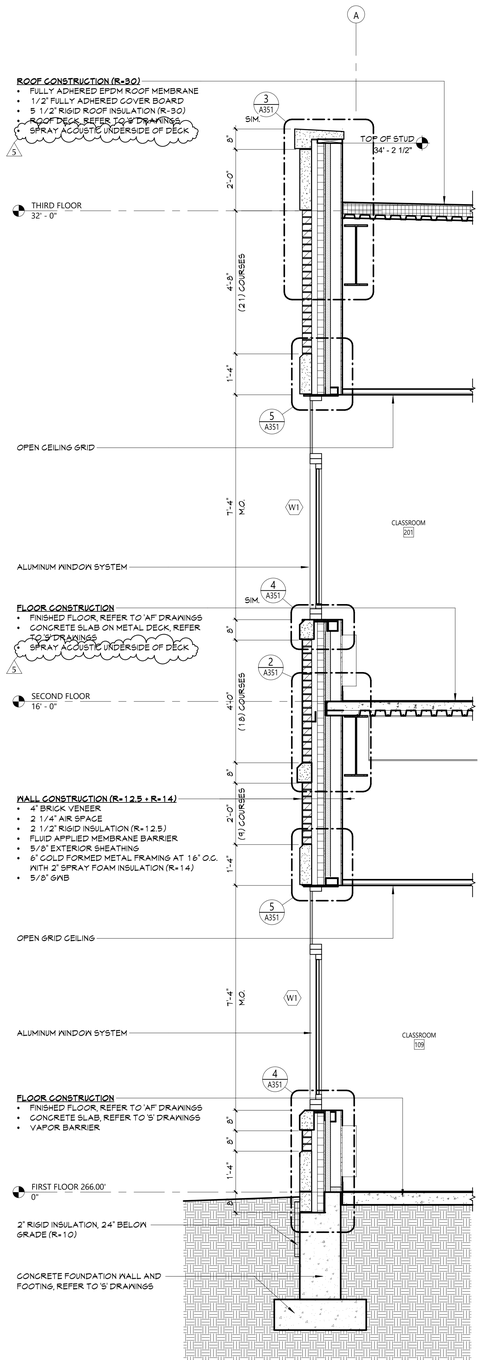
Autodesk Docs://NECSD - New CTE Bldg/NECSD CTE - Struct.rvt



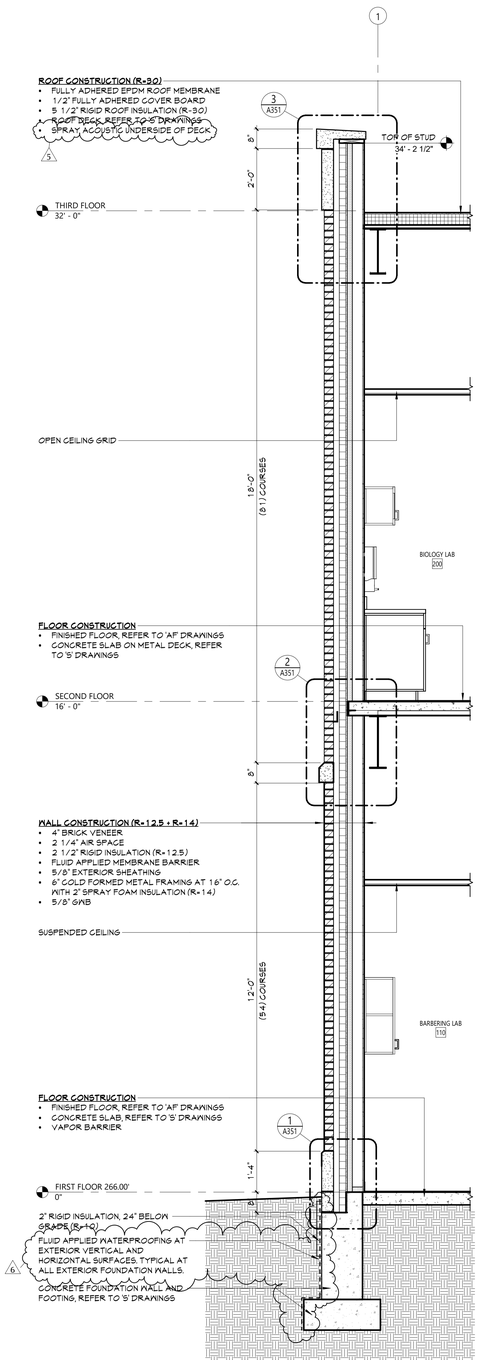
4 WALL SECTION - FIRE WALL
A301 1/2" = 1'-0"



3 WALL SECTION
A301 1/2" = 1'-0"



2 WALL SECTION
A301 1/2" = 1'-0"



1 WALL SECTION
A301 1/2" = 1'-0"

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NEWBURGH ENLARGED CITY SCHOOL DISTRICT
NEW CTE BUILDING

Project Title

REGISTERED ARCHITECT RICHARD L. PROCTOR 021984 STATE OF NEW YORK
REGISTRATION EXPIRATION DATE: 12/31/2026

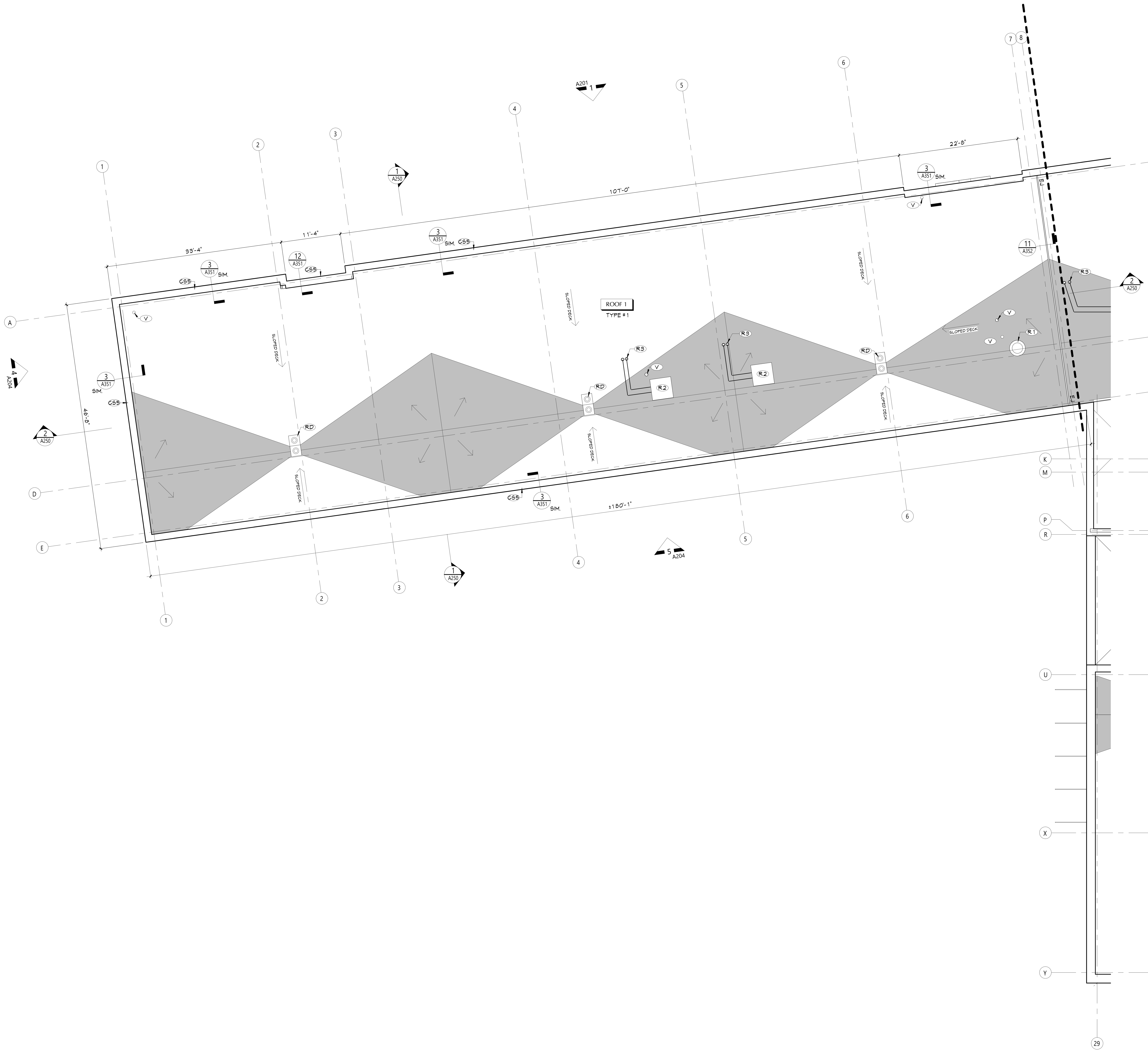
#	DATE	DESCRIPTION
6	4/4/2024	Bid Addendum #6
5	3/29/2024	Bid Addendum #5

Drawn By:
Checked By:
Proj. #: 44-16-00-01-0-053-001
CSArch Proj. #: 108-2303
Issued for Bid: 4/15/2024

Sheet Title
WALL SECTIONS - AREA 1

Sheet No.
CTE A301

CONSTRUCTION DOCUMENTS



1 PARTIAL ROOF PLAN - AREA 1
A411 1/8" = 1'-0"

ROOF GENERAL NOTES

1. CURB SIZES SHOWN REFLECT PENETRATING DUCT SIZE. CURB SIZE MAY VARY, REFER TO MECHANICAL DRAWINGS, COORDINATE ACTUAL SIZE OF CURBS IN APPROVED SUBMITTALS.
2. ROOF INSULATION FASTENERS TO ENGAGE HIGH POINT OF STEEL DECK FLUTES.

ROOF DESCRIPTIONS

ROOF TYPE #1
1. FULLY ADHERED EPDM ROOF MEMBRANE
2. 1/2 COVER BOARD
3. (2) LAYERS OF RIGID ROOF INSULATION (TOTAL THICKNESS 5 1/2", MIN R-30
4. METAL DECK, REFER TO 'S' DRAWINGS

ROOF TYPE #2
1. FULLY ADHERED EPDM ROOF MEMBRANE
2. 1/2 COVER BOARD
3. TAPERED INSULATION, SLOPE 1/4" PER FOOT, U.N.O.
4. (2) LAYERS OF RIGID ROOF INSULATION (TOTAL THICKNESS 5 1/2", MIN R-30
5. METAL DECK, REFER TO 'S' DRAWINGS

ROOF TYPE #3
1. FULLY ADHERED EPDM ROOF MEMBRANE
2. 1/2 COVER BOARD
3. TAPERED INSULATION, SLOPE 1/4" PER FOOT, U.N.O.
4. (2) LAYERS OF RIGID ROOF INSULATION (TOTAL THICKNESS 5 1/2", MIN R-30
5. VAPOR BARRIER
6. CONCRETE ON METAL DECK, REFER TO 'S' DRAWINGS

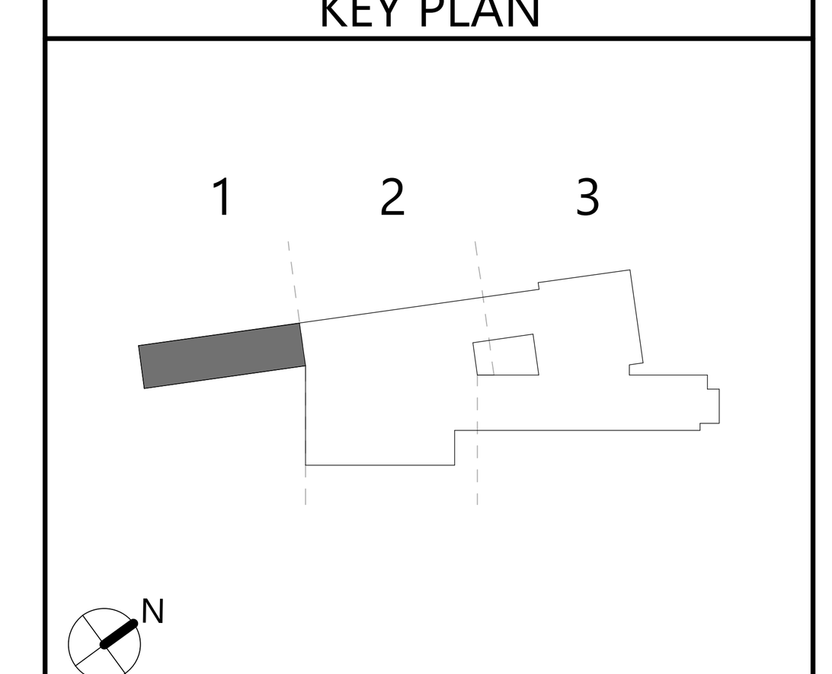
ROOF LEGEND

Symbol	Description
RD	DUAL ROOF DRAIN, REFER TO PLUMBING DRAWINGS
SC	ROOF SCUPPER
V	VENT PIPE, REFER TO PLUMBING DRAWINGS
	ROOF PENETRATIONS, REFER TO MECHANICAL DRAWINGS
AH	ROOF ACCESS HATCH
→	INDICATES DIRECTION OF SLOPE AT 1/4" PER FOOT MINIMUM, UNO
L	ROOF LADDER
EJ	EXPANSION JOINT
	TAPERED INSULATION, SLOPE 1/4" PER FOOT, U.N.O.
	ROOF CRICKET, SLOPE 1/2" PER FOOT, U.N.O.

KEYNOTES

#	DESCRIPTION
CS5	CAST STONE PROFILE #5
R1	MECHANICAL UNIT ON CURB, REFER TO DETAIL 4/A450
R2	MECHANICAL UNIT ON RAILS, REFER TO DETAIL 5/A450
R3	PIPE PORTAL THROUGH ROOF. REFER TO DETAIL 2/A450
RD	DUAL ROOF DRAIN, REFER TO PLUMBING DRAWINGS
V	VENT, REFER TO PLUMBING DRAWINGS

KEY PLAN



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Project Title

NEWBURGH ENLARGED CITY SCHOOL DISTRICT
NEW CTE BUILDING

REGISTERED ARCHITECT RICHARD L. PECKHAM 019884 STATE OF NEW YORK
REGISTRATION EXPIRATION DATE: 12/31/2026

#	DATE	DESCRIPTION
6	6/6/2024	Bid Addendum #6
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Sheet Title
PARTIAL ROOF PLAN - AREA 1

Sheet No.
CTE A411

CONSTRUCTION DOCUMENTS

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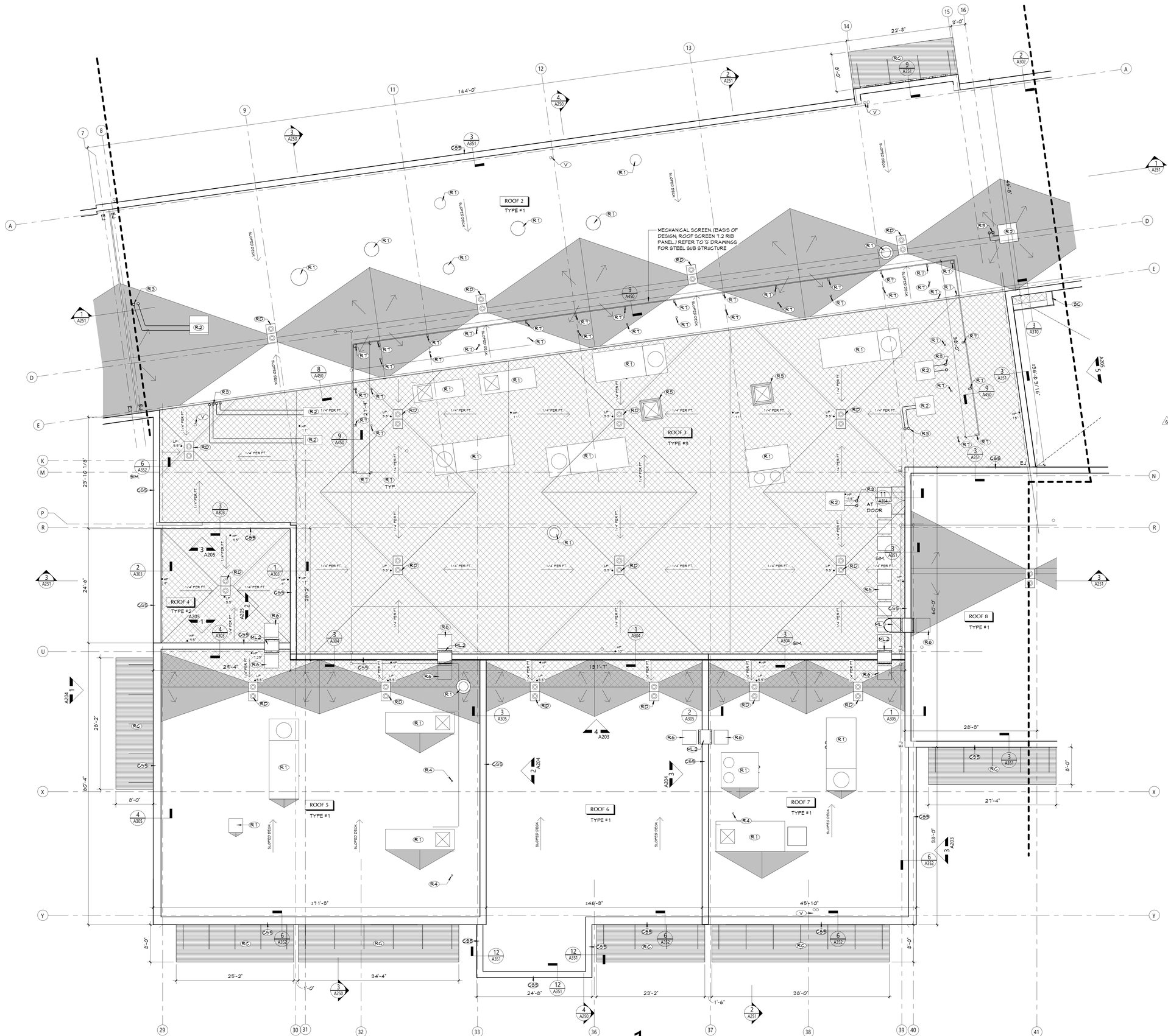


1 PARTIAL ROOF PLAN - AREA 2
A412 1/8" = 1'-0"

ROOF GENERAL NOTES

1. CURB SIZES SHOWN REFLECT PENETRATING DUCT SIZE. CURB SIZE MAY VARY. REFER TO MECHANICAL DRAWINGS. COORDINATE ACTUAL SIZE OF CURBS IN APPROVED SUBMITTALS.
2. ROOF INSULATION FASTENERS TO ENGAGE HIGH POINT OF STEEL DECK FLUTES.

ROOF DESCRIPTIONS

ROOF TYPE #1
1. FULLY ADHERED EPDM ROOF MEMBRANE
2. 1/2 COVER BOARD
3. (2) LAYERS OF RIGID ROOF INSULATION (TOTAL THICKNESS 5 1/2", MIN R-30
4. METAL DECK, REFER TO 'S' DRAWINGS

ROOF TYPE #2
1. FULLY ADHERED EPDM ROOF MEMBRANE
2. 1/2 COVER BOARD
3. TAPERED INSULATION, SLOPE 1/4" PER FOOT, U.N.O.
4. (2) LAYERS OF RIGID ROOF INSULATION (TOTAL THICKNESS 5 1/2", MIN R-30
5. METAL DECK, REFER TO 'S' DRAWINGS

ROOF TYPE #3
1. FULLY ADHERED EPDM ROOF MEMBRANE
2. 1/2 COVER BOARD
3. TAPERED INSULATION, SLOPE 1/4" PER FOOT, U.N.O.
4. (2) LAYERS OF RIGID ROOF INSULATION (TOTAL THICKNESS 5 1/2", MIN R-30
5. VAPOR BARRIER
6. CONCRETE ON METAL DECK, REFER TO 'S' DRAWINGS

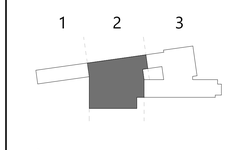
ROOF LEGEND

RD	DUAL ROOF DRAIN, REFER TO PLUMBING DRAWINGS
SC	ROOF SCUPPER
V	VENT PIPE, REFER TO PLUMBING DRAWINGS
	ROOF PENETRATIONS, REFER TO MECHANICAL DRAWINGS
AH	ROOF ACCESS HATCH
	INDICATES DIRECTION OF SLOPE AT 1/4" PER FOOT MINIMUM, UNO
L	ROOF LADDER
EJ	EXPANSION JOINT
	TAPERED INSULATION, SLOPE 1/4" PER FOOT, U.N.O.
	ROOF CRICKET, SLOPE 1/2" PER FOOT, U.N.O.

KEYNOTES

#	DESCRIPTION
CS5	CAST STONE PROFILE #5
ML1	METAL ROOF LADDER WITH CAGE
ML2	METAL ROOF LADDER
R1	MECHANICAL UNIT ON CURB, REFER TO DETAIL 4/A450
R2	MECHANICAL UNIT ON RAILS, REFER TO DETAIL 5/A450
R3	PIPE PORTAL THROUGH ROOF, REFER TO DETAIL 2/A450
R4	PROVIDE FALL PROTECTION TIE-OFF DEVICE, REFER TO DETAIL 1/A450
R5	4'x4' SKYLIGHT
R6	PROVIDE WALKWAY PADS, TYP.
R7	PROVIDE FULLY ADHERED MEMBRANE FLASHING AT STEEL STRUCTURE PENETRATIONS.
RC	MANUFACTURED CANOPY
RD	DUAL ROOF DRAIN, REFER TO PLUMBING DRAWINGS
SC	ROOF SCUPPER
V	VENT, REFER TO PLUMBING DRAWINGS

KEY PLAN



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Project Title
NEWBURGH ENLARGED CITY SCHOOL DISTRICT
NEW CTE BUILDING

REGISTERED ARCHITECT
RICHARD L. PROSACCO
019853
STATE OF NEW YORK
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Sheet Title
PARTIAL ROOF PLAN - AREA 2

Sheet No.
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A412

CONSTRUCTION DOCUMENTS

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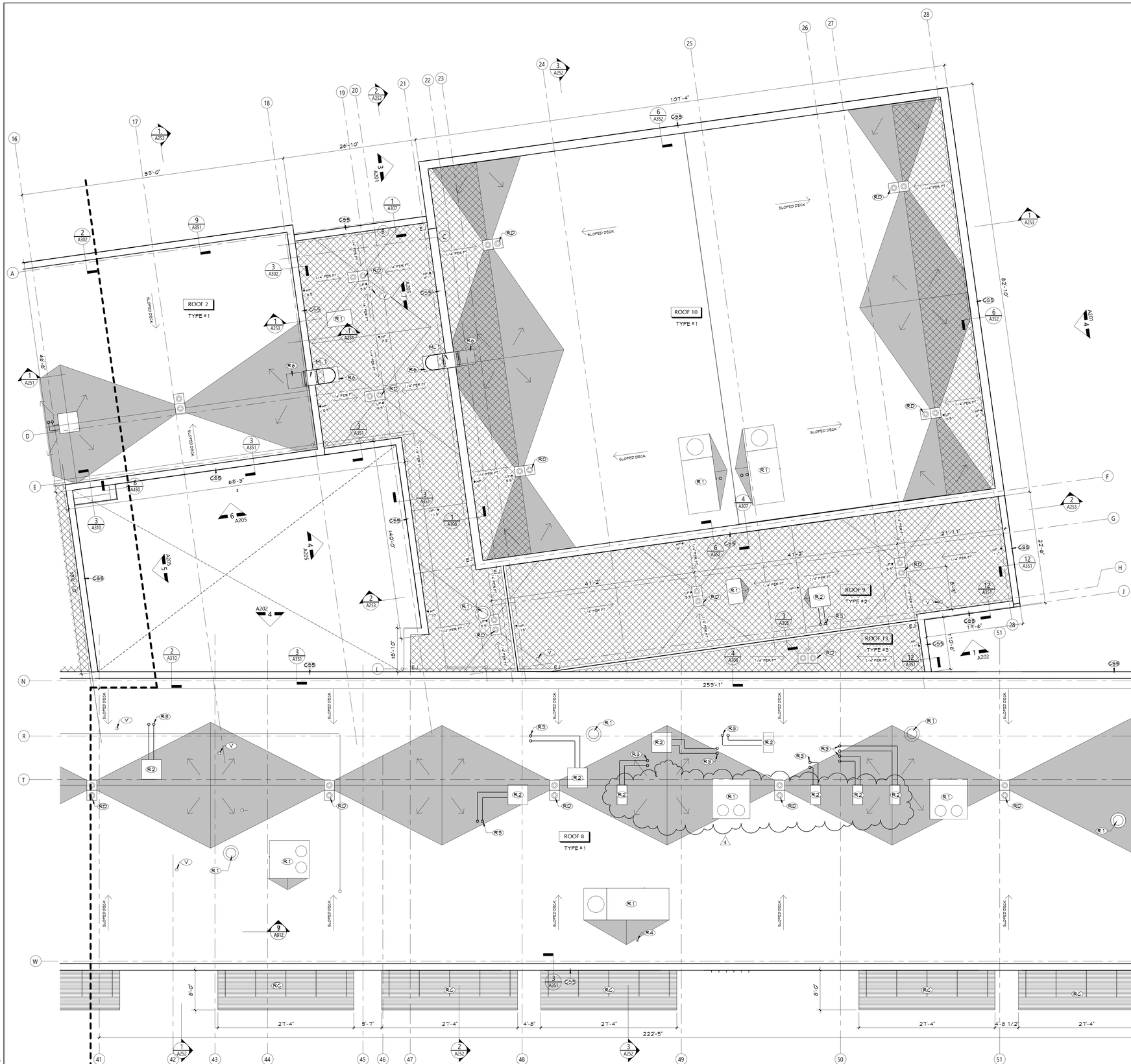
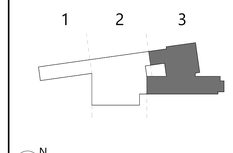


KEY PLAN



ROOF GENERAL NOTES

1. CURB SIZES SHOWN REFLECT PENETRATING DUCT SIZE. CURB SIZE MAY VARY. REFER TO MECHANICAL DRAWINGS. COORDINATE ACTUAL SIZE OF CURBS IN APPROVED SUBMITTALS.
2. ROOF INSULATION FASTENERS TO ENGAGE HIGH POINT OF STEEL DECK FLUTES.

ROOF DESCRIPTIONS

ROOF TYPE #1
1. FULLY ADHERED EPDM ROOF MEMBRANE
2. 1/2 GOVER BOARD
3. (2) LAYERS OF RIGID ROOF INSULATION (TOTAL THICKNESS 5 1/2", MIN R-30
4. METAL DECK, REFER TO 'S' DRAWINGS

ROOF TYPE #2
1. FULLY ADHERED EPDM ROOF MEMBRANE
2. 1/2 GOVER BOARD
3. TAPERED INSULATION, SLOPE 1/4" PER FOOT, U.N.O.
4. (2) LAYERS OF RIGID ROOF INSULATION (TOTAL THICKNESS 5 1/2", MIN R-30
5. METAL DECK, REFER TO 'S' DRAWINGS

ROOF TYPE #3
1. FULLY ADHERED EPDM ROOF MEMBRANE
2. 1/2 GOVER BOARD
3. TAPERED INSULATION, SLOPE 1/4" PER FOOT, U.N.O.
4. (2) LAYERS OF RIGID ROOF INSULATION (TOTAL THICKNESS 3 1/2", MIN R-30
5. VAPOR BARRIER
6. CONCRETE ON METAL DECK, REFER TO 'S' DRAWINGS

ROOF LEGEND

RD	DUAL ROOF DRAIN, REFER TO PLUMBING DRAWINGS
SC	ROOF SCUPPER
V	VENT PIPE, REFER TO PLUMBING DRAWINGS
	ROOF PENETRATIONS, REFER TO MECHANICAL DRAWINGS
AH	ROOF ACCESS HATCH
	INDICATES DIRECTION OF SLOPE AT 1/4" PER FOOT MINIMUM, UNO
	ROOF LADDER
EJ	EXPANSION JOINT
	TAPERED INSULATION, SLOPE 1/4" PER FOOT, U.N.O.
	ROOF CRICKET, SLOPE 1/2" PER FOOT, U.N.O.

KEYNOTES

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R1	MECHANICAL UNIT ON CURB, REFER TO DETAIL 4/A450
R2	MECHANICAL UNIT ON RAILS, REFER TO DETAIL 5/A450
R3	PIPE PORTAL THROUGH ROOF. REFER TO DETAIL 2/A450
R4	PROVIDE FALL PROTECTION TIE-OFF DEVICE, REFER TO DETAIL 7/A450.
R6	PROVIDE CONCRETE PADS TYP.
RC	MANUFACTURED CANOPY
RD	DUAL ROOF DRAIN, REFER TO PLUMBING DRAWINGS
V	VENT, REFER TO PLUMBING DRAWINGS

1 A413 PARTIAL ROOF PLAN - AREA 3
1/8" = 1'-0"

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NEWBURGH ENLARGED CITY SCHOOL DISTRICT
NEW CTE BUILDING

Project Title

REGISTERED ARCHITECT RICHARD L. PECKHAM 019884 STATE OF NEW YORK
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Sheet Title
PARTIAL ROOF PLAN - AREA 3

Sheet No.
CTE A413

CONSTRUCTION DOCUMENTS

EQUIPMENT SCHEDULE - AUTO TECH SHOP

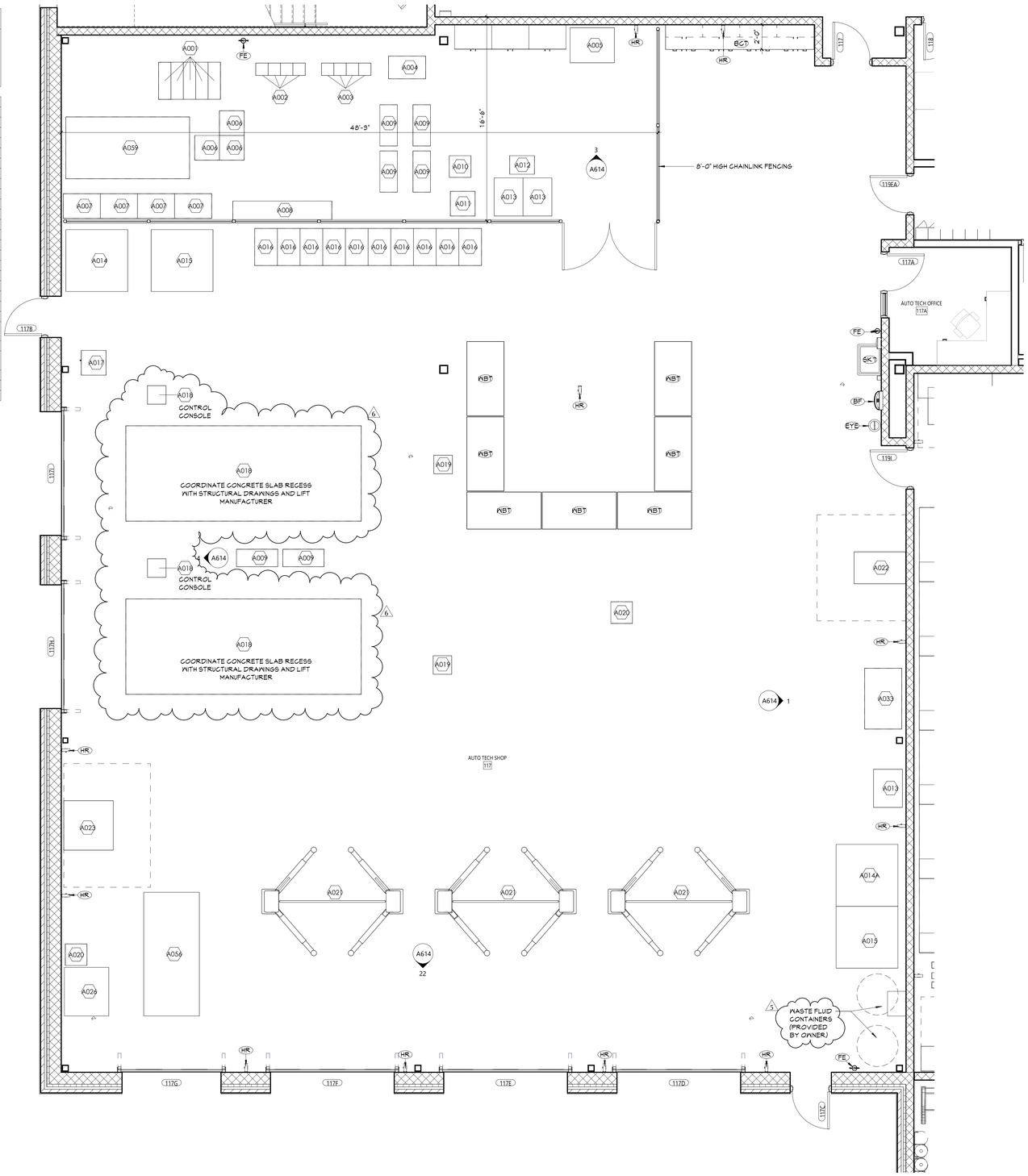
EQUIPMENT #	QUANTITY	DESCRIPTION	MANUFACTURER	MODEL	MOUNTING	POWER	HORSEPOWER	WATER	DUST COLLECTION	COMPRESSED AIR	FURNISHED	INSTALLED
A001	5	3-TON FLOOR JACK	SNAP-ON	FJ300	FREE STANDING	-	-	-	-	-	CONTRACTOR	CONTRACTOR
A002	4	6-TON JACK STAND	SNAP-ON	JS600	FREE STANDING	-	-	-	-	-	CONTRACTOR	CONTRACTOR
A003	4	4-TON JACK STAND	SNAP-ON	JS400	FREE STANDING	-	-	-	-	-	CONTRACTOR	CONTRACTOR
A004	1	WORKSTATION CART	SNAP-ON	KRSC4130PCM	FREE STANDING	-	-	-	-	-	CONTRACTOR	CONTRACTOR
A005	1	SAFETY CABINET	CONDOR	45AE88	FREE STANDING	-	-	-	-	-	CONTRACTOR	CONTRACTOR
A006	3	WASTE OIL DRAIN	SNAP-ON	5180	FREE STANDING	-	-	-	-	-	OWNER	OWNER
A007	4	ENGINE STAND	OMEGA	OMG30750	FREE STANDING	-	-	-	-	-	CONTRACTOR	CONTRACTOR
A008	1	TIRE RACK	TENNSCO	Z5T-6084S	FREE STANDING	-	-	-	-	-	CONTRACTOR	CONTRACTOR
A009	6	STANDARD CREEPER	JCW62R	JCW62R	FREE STANDING	-	-	-	-	-	OWNER	OWNER
A010	1	WELDER	MILLER ELECTRIC MFG.	907734	FREE STANDING	230V,1 PH, 39.5A	-	-	-	-	OWNER	OWNER
A011	1	AC MACHINE	SNAP-ON	EEAC333B	FREE STANDING	120V, 1PH, 10.0A					OWNER	OWNER
A012	1	MLL/DRILL MACHINE	WEISS	VM18L	COUNTER	120V, 1PH, 10.0A	-	-	-	-	CONTRACTOR	CONTRACTOR
A013	3	PARTS WASHER	SNAP-ON	PBD3222A	FREE STANDING	120V, 1PH, 10.0A	-	-	-	-	CONTRACTOR	CONTRACTOR
A014	1	TIRE CHANGER	HUNTER ENGINEERING COMPANY	TC33	FLOOR	230V, 1PH, 6.0A	-	-	-	115-175 PSI	CONTRACTOR	CONTRACTOR
A014A	1	TIRE CHANGER	HUNTER ENGINEERING COMPANY	TCRH	FLOOR	230V, 1PH, 23.0A	-	-	-	125±25 PSI	CONTRACTOR	CONTRACTOR
A015	2	WHEEL BALANCER	HUNTER ENGINEERING COMPANY	SWE33	FLOOR	230V, 1PH, 10A	-	-	-	100-175 PSI	CONTRACTOR	CONTRACTOR
A016	10	TOOL CART	SNAP-ON	KRBC7TDPJJ	FREE STANDING	-	-	-	-	-	OWNER	OWNER
A017	1	OIL FILTER CRUSHER	RANGER	RP-20FCH	FREE STANDING	230V, 1PH, 10A	2HP	-	-	-	CONTRACTOR	CONTRACTOR
A018	2	SCISSOR LIFT	HUNTER ENGINEERING COMPANY	QX12KFS	FREE STANDING	230V, 1PH, 26.0A	-	-	-	130-150 PSI	CONTRACTOR	CONTRACTOR
A019	2	HEAD UNIT	HUNTER ENGINEERING COMPANY	HA421CM3E		230V, 1PH, 3.0A					CONTRACTOR	CONTRACTOR
A020	2	BENCH GRINDER WITH STAND	JET	577102K & 48RJ30	FREE STANDING	120V, 1PH, 12.0A	1HP	-	-	-	CONTRACTOR	CONTRACTOR
A021	3	POST LIFT	CHALLENGER LIFTS	CL12A	FLOOR	230V, 1PH, 30.0A	-	-	-	-	CONTRACTOR	CONTRACTOR
A022	1	AIR/HAND OPERATED H-FRAME PRESS	BAILEIGH INDUSTRIAL	HSP-50A	FLOOR	-			-	YES	CONTRACTOR	CONTRACTOR
A023	1	STRUT SPRING COMPRESSOR	BRANICK	7600	WALL	-	-	-	-	-	CONTRACTOR	CONTRACTOR
A026	1	BRAKE LATHE	HUNTER ENGINEERING COMPANY	BL73	FLOOR	230V, 1PH, 7.5A 50/60 Hz, 1ph	1.5 HP	-	-	-	CONTRACTOR	CONTRACTOR
A033	1	ENGINE HOIST	GRAINGER	3ZC71	MOBILE	-	-	-	-	-	CONTRACTOR	CONTRACTOR
A056	1	MOTORCYCLE LIFT	BENDPAK	RML-1500XL	FREE STANDING	-	-	-	-	90-160 PSI	CONTRACTOR	CONTRACTOR
A059	1	2 TON ENGINE CRANE	OMEGA	44020	MOBILE	-	-	-	-	-	CONTRACTOR	CONTRACTOR

PROVIDE THE ACCOMPANYING ACCESSORIES FOR THE FOLLOWING EQUIPMENT LISTED BELOW

A012 - MILL/DRILL MACHINE
SUPPORT WITH CABINET AND DRAWER, 30201035

A019 - HEAD UNIT
WINALIGN LARGE PREMIUM CONSOLE, WA440E SERIES

A026 - BRAKE LATHE
ELITE CONE ADAPTER KIT, MODEL # 20-2615-1
DUAL QUICKCHUCK ADAPTOR, MODEL #115-423-2

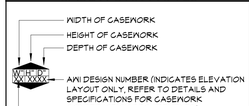


1 ENLARGED FLOOR PLAN - AUTO TECH SHOP
A613 1/4" = 1'-0"

GENERAL NOTES

1. ALL CASEWORK SHALL HAVE PLASTIC LAMINATE (PLAM) COUNTERTOPS AND 4" BACK SPLASHES, U.N.O.
2. INSTALL MATCHING FILLER PANELS IN LOCATIONS SHOWN. ADD MATCHING FILLER PANELS AS REQUIRED FOR FINAL FIT/FINISH.
3. PROVIDE BLOCKING IN ALL ADJACENT WALLS AS REQUIRED TO INSTALL ALL CASEWORK.
4. PROVIDE FINISHED END PANEL AT ALL EXPOSED FACES OF CASEWORK.
5. PROVIDE WALL BASE AS SCHEDULED ON ALL EXPOSED TOE KICK SPACES AND EXPOSED END PANELS.
6. ALL FURNITURE SHOWN AS HALFTONE IS NOT IN CONTRACT

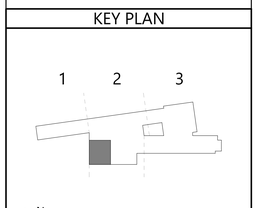
CASEWORK NOTES



KEYNOTES

#	DESCRIPTION
BGT	BUTCHERBLOCK COUNTER TOP
BF	BOTTLE FILLER, REFER TO PLUMBING DRAWINGS
EYE	EYEWASH STATION, REFER TO PLUMBING DRAWINGS
FE	FIRE EXTINGUISHER, WALL MOUNT
HR	HOSE REEL
SKT	SINGLE BAY UTILITY SINK, REFER TO PLUMBING DRAWINGS
KBT	WORKBENCH TABLE (PROVIDED BY OWNER)

KEY PLAN



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Project Title

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REGISTRATION EXPIRATION DATE: 12/31/2026

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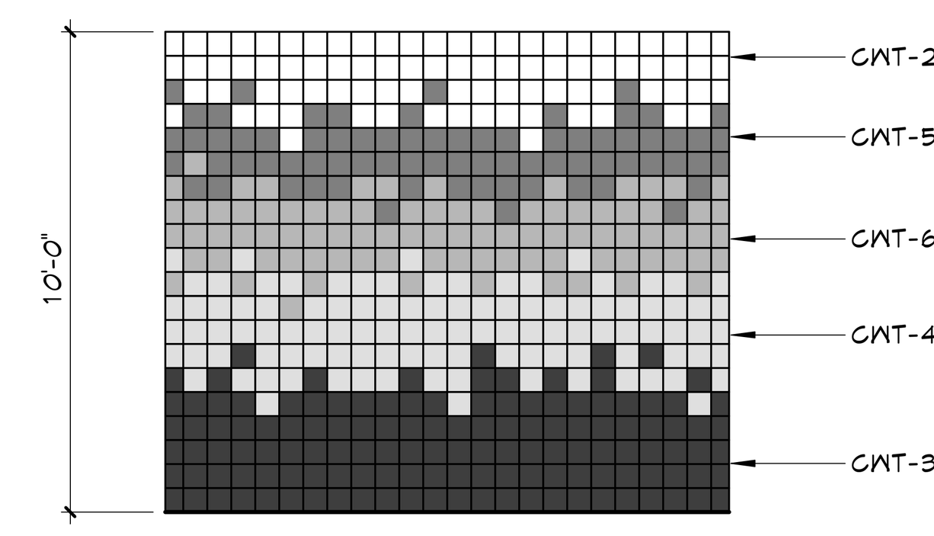
Sheet Title
ENLARGED PLAN - AUTO TECH SHOP

Sheet No.
CTE A613

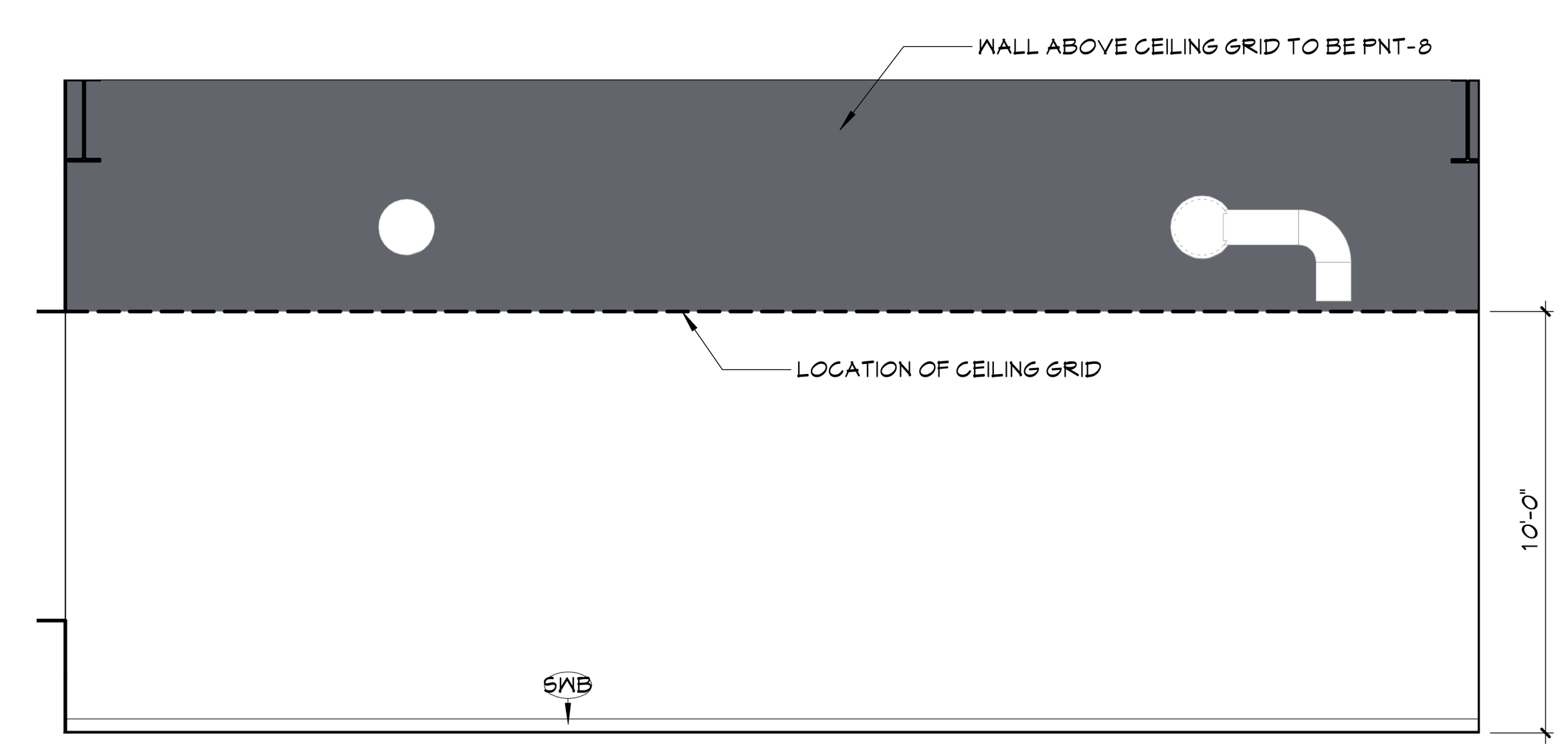
CONSTRUCTION DOCUMENTS

MATERIALS LEGEND

MATERIAL	MANUFACTURER	MODEL	COLOR #/NAME	SIZE	NOTE
CERAMIC FLOOR TILE					
CFT-1	DALTILE	CALGARY	ARMOR CG43	12" x 24"	TYP. FLOOR
CFT-2	DALTILE	KEYSTONES	DK21 WHEAT BLEND	1" x 1"	LOCKER ROOM SHOWERS
CERAMIC WALL TILE					
CWT-1	DALTILE	COLOR WHEEL LINEAR	X714 MATTE DESERT GRAY	4" X 12"	TYP. WALL TILE
CWT-2	MOSA	COLORS	16900 ACCENT WHITE	6" X 6"	ACCENT TILE @ CAFETERIA
CWT-3	MOSA	COLORS	20910 MAZARINE BLUE	6" X 6"	ACCENT TILE @ DISPLAY CASES, CAFETERIA, VENDING
CWT-4	MOSA	COLORS	17990 BLUE CURACAO	6" X 6"	ACCENT TILE FL 1
CWT-5	MOSA	COLORS	17940 FLAME ORANGE	6" X 6"	ACCENT TILE FL 3
CWT-6	MOSA	COLORS	19990 JADE GREEN	6" X 6"	ACCENT TILE FL 2
CWT-7	DALTILE	COLOR WHEEL LINEAR	K189 NAVY	4" X 12"	ACCENT WALL TILE @ SINGLE USE TOILETS
EPOXY BASE					
EB-1	STONHARD	STONCLAD	CHARCOAL	4"	BARBERING AND COSMETOLOGY
EPOXY FLOOR					
EPF-1	STONHARD	STONCLAD	CHARCOAL		BARBERING AND COSMETOLOGY
HOMOGENEOUS COVE BASE					
HMB-1	ARMSTRONG FLOORING	NATRALIS	70004 SPRAY FOAM	4"	NURSING LAB, VET & GROOMING
HOMOGENEOUS SHEET					
HMO-1	ARMSTRONG FLOORING	NATRALIS	70004 SPRAY FOAM	6'	NURSING LAB, HEALTH, VET & GROOMING
LUXURY VINYL TILE					
LVT-1	MANNINGTON	GROOVE	C141 MISTY MOUNTAIN	6" X 36"	TYP. FLOOR CLASSROOMS, STAFF SPACES
METAL TRIM					
MT-1	SCHLUTER SYSTEMS	DILEX-AHK			AT ALL WALL TILE LOCTIONS
MT-2	SCHLUTER SYSTEMS	DILEX-AHKA			AT ALL CMU LOCATIONS IN TOILET ROOMS
PAINT					
PNT-1	SHERWIN WILLIAMS	EG-SHELL	SW 7650 ELLIE GRAY		TYP. WALL PAINT
PNT-2	SHERWIN WILLIAMS	EG-SHELL	SW 6495 GREAT FALLS		ACCENT WALL PAINT FL 1
PNT-3	SHERWIN WILLIAMS	EG-SHELL	SW 6634 COPPER HARBOR		ACCENT WALL PAINT FL 3
PNT-4	SHERWIN WILLIAMS	EG-SHELL	SW 9178 IN THE NAVY		ACCENT WALL PAINT FL 1, GUIDANCE
PNT-5	SHERWIN WILLIAMS	EG-SHELL	SW 9041 PARISIAN PATINA		ACCENT WALL PAINT FL 2
PNT-6	SHERWIN WILLIAMS	SEMI-GLOSS	SW 9178 IN THE NAVY		HM DOOR PAINT
PNT-8	SHERWIN WILLIAMS	FLAT	SW 7068 GRIZZLE GRAY		TYP. OPEN CEILING AND BELOW STRUCTURAL
PNT-7	SHERWIN WILLIAMS	FLAT	SW 7005 PURE WHITE		TYP. GYPSUM CEILING
PNT-9	SHERWIN WILLIAMS	PRO INDUSTRIAL WATER BASED CATALYZED	SW 9178 IN THE NAVY		LOCKER ROOM, TOILETS, CAFETERIA FLOOR
PNT-10	SHERWIN WILLIAMS	PRO INDUSTRIAL WATER BASED CATALYZED	SW 7650 ELLIE GRAY		CUSTODIAL, PLUMBING, CULINARY, LOCKER & GYM
PNT-11	SHERWIN WILLIAMS	FLAT	SW 6495 GREAT FALLS		ACCENT CEILING PAINT FL 1
PNT-12	SHERWIN WILLIAMS	FLAT	SW 9041 PARISIAN PATINA		ACCENT CEILING PAINT FL 2
PNT-13	SHERWIN WILLIAMS	FLAT	SW 6634 COPPER HARBOR		ACCENT CEILING PAINT FL 3
PNT-14	SHERWIN WILLIAMS	FLAT	SW 9178 IN THE NAVY		CAFETERIA CEILING AND FLOOR STRIPING
PNT-15	SHERWIN WILLIAMS	PRO INDUSTRIAL WATER BASED CATALYZED	SW 6911 CONFIDENT YELLOW		SHOP FLOOR
PLASTIC LAMINATE					
PLAM-1	WILSONART	STANDARD LAMINATE	7990 MISSION MAPLE		CASEWORK BASE AND UPPERS
PLAM-2	WILSONART	STANDARD LAMINATE	5034 HANDSPUN DOVE		COUNTERTOPS
PLAM-3	WILSONART	STANDARD LAMINATE	D379-60 INDIGO		RECEPTION IN MAIN OFFICE
PLAM-4	WILSONART	STANDARD LAMINATE	D315-60 PLATINUM		RECEPTION IN HEALTH OFFICE
POLISHED CONCRETE					
PCON-1					TYP. FLOOR
PCON-2					PLUMBING, ELECTRIC, CUSTODIAL
PCON-3					AUTOBODY
PRIVACY CURTAIN					
PC-1	ARCCOM	AQUIFER- X	CARIBBEAN # 6		NURSING LAB
PC-2	ARCHITEX	RX 6016	BASSWOOD		HEALTH OFFICE, COSMETOLOGY, VET TECH/GROOMING
QUARRY TILE					
QT-1	AMERICAN OLEAN	QUARRY NATURALS	0N46 SHADOW GRAY	6" X 6"	KITCHEN AND CULINARY
QUARRY TILE BASE					
QTB-1	AMERICAN OLEAN	QUARRY NATURALS COVE BASE	0N46 SHADOW GRAY	5" X 6"	KITCHEN AND CULINARY
RUBBER BASE					
RB-1	ROPPE	PINNACLE COVE BASE- STANDARD TOE	139 DEEP NAVY	4"	TYP. BASE
RB-2	JOHNSONITE	VENT COVE	VCO 40 BLACK	4"	GYMNASIUM
RUBBER FLOOR					
RT-1	ROPPE	MARBLEIZED- TEXTURED	M139 DEEP NAVY	20" X 20" X 3.2MM	INTERMEDIATE LANDING
RUBBER STAIR TREAD AND RISER					
RST-1	ROPPE	MARBLEIZED- TEXTURED	M139 DEEP NAVY		STAIR TREAD AND RISER
SOLID SURFACE					
SS-1	DUPONT	CORIAN	LAGUNA TERRAZZO		MAIN OFFICE/ CAFETERIA/ GUIDANCE
SS-2	DUPONT	CORIAN	DOVE		HEALTH OFFICE/ NURSING/ SILL @ CORRIDORS/ CAFETERIA/ LAVATORIES LV-A, LV-B, LV-C, COORDINATE WITH PLUMBING DRAWINGS
STATIC DISSIPATIVE TILE					
SDT-1	ARMSTRONG	EXCELON SDT	51957 RIDGE	12" X 12"	IDF, SERVER ROOMS
WOOD ATHLETIC FLOORING					
WD-1	ROBBINS SPORTS SURFACES	BIO--CHANNEL STAR			GYM



TYP. TILE PATTERN CAFETERIA AND VENDING



1 INTERIOR ELEVATION - GENERAL CLASSROOM
AF002 1/4" = 1'-0"

DISCLAIMER NOTE

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ABBREVIATIONS

ACMU	ARCHITECTURAL CONCRETE MASONRY UNIT
ACT	ACOUSTICAL CEILING TILE
APC	ACOUSTICAL PANEL CEILING
BBT	BIO-BASED TILE
BRK	BRICK
CFT	CERAMIC FLOOR TILE
CMU	CONCRETE MASONRY UNIT
CONC	CONCRETE
CPT	CARPET
CTB	CERAMIC TILE BASE
CWT	CERAMIC WALL TILE
EPF	EPOXY FLOOR
ETR	EXISTING TO REMAIN
EXP	EXPOSED
EXST	EXISTING
FAC/FF	FACTORY FINISH
GWB	GYPSUM WALL BOARD
HMB	HOMOGENOUS COVE BASE
HMO	HOMOGENOUS SHEET
LMC	LINEAR METAL CEILING
LVT	LUXURY VINYL TILE
MSS	MUSIC STORAGE SYSTEM
MT	METAL BASE
MWP	METAL WALL PANEL
PCON	POLISHED CONCRETE
PLAM	PLASTIC LAMINATE
PLAS	PLASTER
PNT	PAINT
RAF	RESILIENT ATHLETIC FLOORING
RB	RUBBER BASE
RF	RESINOUS FLOORING
RST	RUBBER STAIR TREAD / LANDING
RT	RUBBER TILE FLOORING
SCON	SEALED CONCRETE
SS	SOLID SURFACE
SDT	STATIC DISSAPATIVE TILE
STF	SYNTHETIC TURF FLOORING
STL	STEEL
TERR	TERRAZZO
TP	TOILET PARTITIONS
TYP	TYPICAL
VCT	VINYL COMPOSITION TILE
VCTAS	VINYL COMPOSITION TILE ANTI-STATIC
VWC	VINYL WALLCOVERING
WAF	WOOD ATHLETIC FLOORING
WD	WOOD
WOM	WALK-OFF MAT

GENERAL FINISH NOTES

1. ALL EXPOSED SURFACES OF NEW PARTITIONS ARE TO BE PAINTED.
2. ALL ELECTRIC, MECHANICAL COMPONENTS AND TELEPHONE PANELS EXPOSED IN A ROOM TO MATCH WALL COLOR.
3. ALL NEW GWB CEILINGS, FASCIAS, AND SOFFITS TO BE PAINTED PNT-7, UNO.
4. ALL EXPOSED CEILING STRUCTURE, DECK, DUCTWORK, CONDUIT AND PIPING TO BE PAINTED PNT-8, UNO.
5. ALL STEEL COLUMNS IN AREAS OF WORK ARE TO BE PAINTED PNT-1.
6. ALL EXPOSED STEEL ASSOCIATED WITH STAIRS TO BE PAINTED PNT-6 , INCLUDING STRINGERS, CHANNELS, COLUMNS, PLATES, TUBES, GUARDRAILS, POSTS, UNDERSIDES OF FLOORS, LANDINGS, DECKS, AND STAIR PANS WITH THE EXCEPTION OF STAINLESS STEEL & FF, UNO.
7. NEW HM DOORS, DOOR FRAMES AND WINDOW FRAMES AND ETR CORRIDOR DOOR & WINDOW FRAMES AS SCHEDULED ON A900 SERIES DRAWINGS, PNT-6.
8. NOT USED
9. ALL GYPSUM WALLS LOCATED IN CORRIDORS TO RECEIVE CWT-, UNO..

FINISH KEYS

Room Name 101 / Wall Finish / Base Finish / Floor Finish = Finish Tag

PNT-# ACCENT PAINT LOCATION

= PCON-1

= EPF-1

= RT-1

= LVT-1

= SDT-1

= CFT-1

= CFT-2

= HMO-1

= QT-1

= WD-1

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Consultant

Project Title

NEWBURGH ENLARGED CITY SCHOOL DISTRICT NEW CTE BUILDING

REGISTERED ARCHITECT RICHARD L. PECKHAM 019884 STATE OF NEW YORK
REGISTRATION EXPIRATION DATE: 12/31/2026

#	DATE	DESCRIPTION
6	6/6/2024	Bid Addendum #6
3	5/13/2024	BID Addendum #3

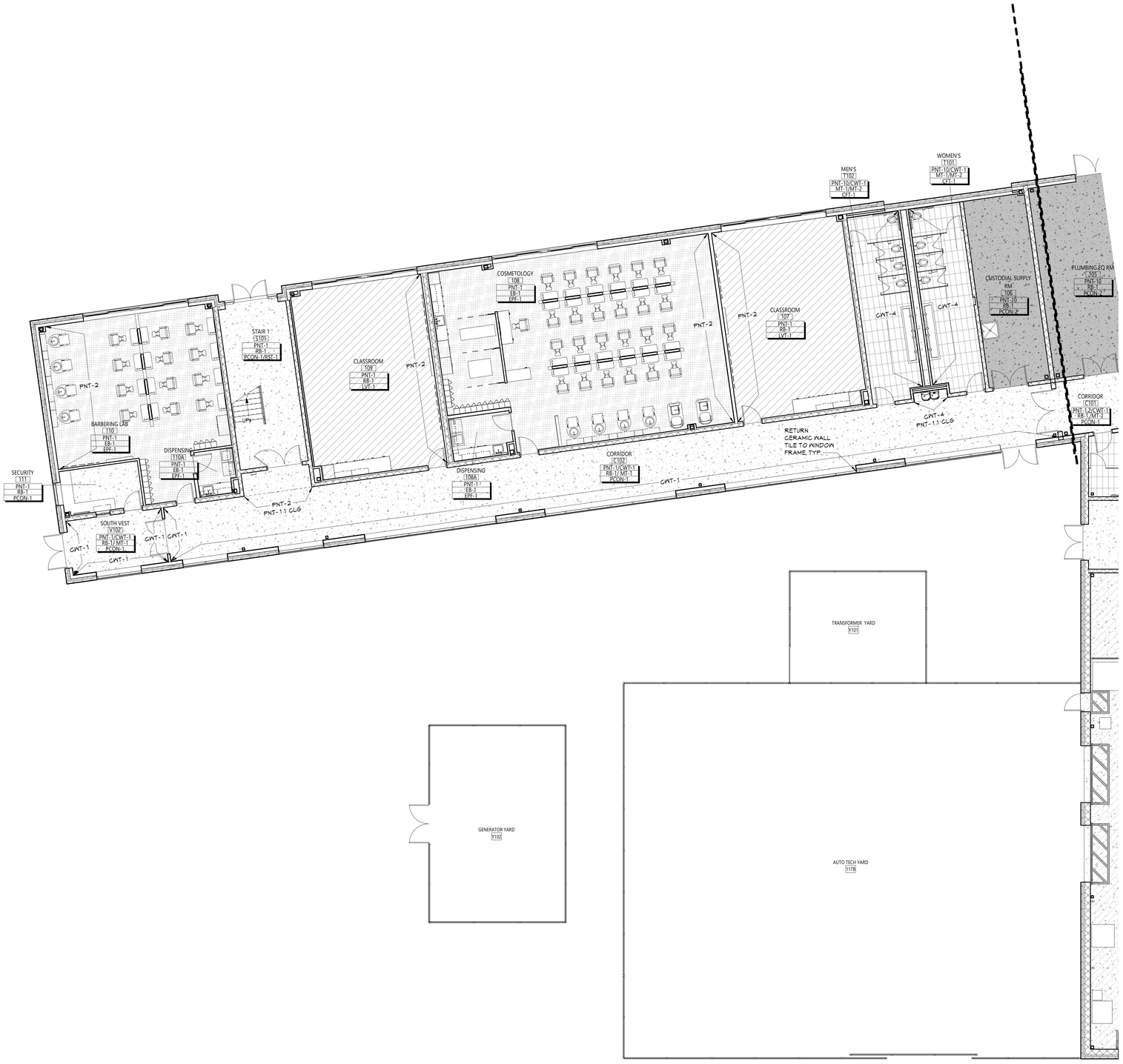
Drawn By:	AS
Checked By:	
Proj. #:	44-16-00-01-0-053-001
CSArch Proj. #:	108-2303
Issued for Bid:	4/15/2024

Sheet Title
MATERIAL LEGEND

Sheet No.
CTE AF002

CONSTRUCTION DOCUMENTS

Autodesk Docs://NECSD - New CTE Bldg/108-2303 NECSD CTE - ARCH.rvt



1 PARTIAL FIRST FLOOR PLAN - AREA 1
AF111 1/8" = 1'-0"

DISCLAIMER NOTE

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ABBREVIATIONS

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APC	ACOUSTICAL PANEL CEILING
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BRK	BRICK
CFT	CERAMIC FLOOR TILE
CMU	CONCRETE MASONRY UNIT
CONC	CONCRETE
CPT	CARPET
CTB	CERAMIC TILE BASE
CWT	CERAMIC WALL TILE
EPF	EPOXY FLOOR
ETR	EXISTING TO REMAIN
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FAC/FF	FACTORY FINISH
GWB	GYPSUM WALL BOARD
HMB	HOMOGENOUS COVE BASE
HMO	HOMOGENOUS SHEET
LMC	LINEAR METAL CEILING
LVT	LUXURY VINYL TILE
MSS	MUSIC STORAGE SYSTEM
MT	METAL BASE
MWP	METAL WALL PANEL
PCON	POLISHED CONCRETE
PLAM	PLASTIC LAMINATE
PLAS	PLASTER
PNT	PAINT
RAF	RESILIENT ATHLETIC FLOORING
RB	RUBBER BASE
RF	RESINOUS FLOORING
RST	RUBBER STAIR TREAD / LANDING
RT	RUBBER TILE FLOORING
SCON	SEALED CONCRETE
SS	SOLID SURFACE
SDT	STATIC DISSAPATIVE TILE
STF	SYNTHETIC TURF FLOORING
STL	STEEL
TERR	TERRAZZO
TP	TOILET PARTITIONS
TYP	TYPICAL
VCT	VINYL COMPOSITION TILE
VCTAS	VINYL COMPOSITION TILE ANTI-STATIC
VWC	VINYL WALLCOVERING
WAF	WOOD ATHLETIC FLOORING
WD	WOOD
WDM	WALK-OFF MAT

GENERAL FINISH NOTES

1. ALL EXPOSED SURFACES OF NEW PARTITIONS ARE TO BE PAINTED.
2. ALL ELECTRIC, MECHANICAL COMPONENTS AND TELEPHONE PANELS EXPOSED IN A ROOM TO MATCH WALL COLOR.
3. ALL NEW GWB CEILINGS, FASCIAS, AND SOFFITS TO BE PAINTED PNT-7, UNO.
4. ALL EXPOSED CEILING STRUCTURE, DECK, DUCTWORK, CONDUIT AND PIPING TO BE PAINTED PNT-8, UNO.
5. ALL STEEL COLUMNS IN AREAS OF WORK ARE TO BE PAINTED PNT-1.
6. ALL EXPOSED STEEL ASSOCIATED WITH STAIRS TO BE PAINTED PNT-6 , INCLUDING STRINGERS, CHANNELS, COLUMNS, PLATES, TUBES, GUARDRAILS, POSTS, UNDERSIDES OF FLOORS, LANDINGS, DECKS, AND STAIR PANS WITH THE EXCEPTION OF STAINLESS STEEL & FF, UNO.
7. NEW HM DOORS, DOOR FRAMES AND WINDOW FRAMES AND ETR CORRIDOR DOOR & WINDOW FRAMES AS SCHEDULED ON A900 SERIES DRAWINGS, PNT-6.
8. NOT USED (6)
9. ALL GYPSUM WALLS LOCATED IN CORRIDORS TO RECEIVE CMT-, UNO.

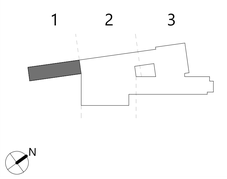
FINISH KEYS

Room Name
101
Wall Finish
Base Finish
Floor Finish
= Finish Tag

PNT-# ACCENT PAINT LOCATION

- = PCON-1
- = EPF-1
- = RT-1
- = LVT-1
- = SDT-1
- = CFT-1
- = CFT-2
- = HMO-1
- = QT-1
- = MD-1

KEY PLAN



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Consultant

NEWBURGH ENLARGED CITY SCHOOL DISTRICT
NEW CTE BUILDING

Project Title

REGISTERED ARCHITECT
RICHARD L. PEDERSEN
019884
STATE OF NEW YORK
REGISTRATION EXPIRATION DATE: 12/31/2026

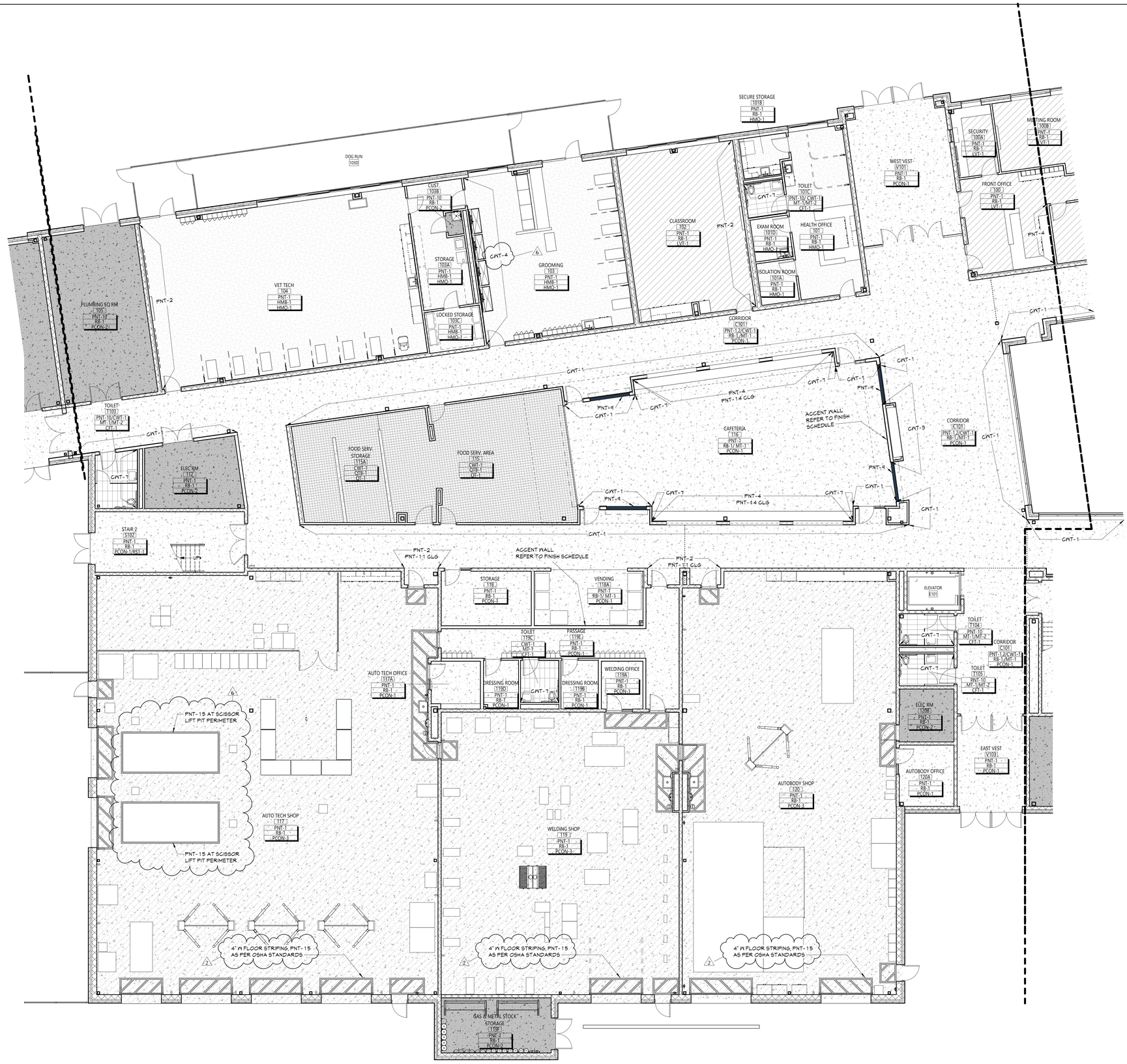
#	DATE	DESCRIPTION
6	4/4/2024	Bid Addendum #6

Drawn By:	AS
Checked By:	
Proj. #:	44-16-00-01-0-053-001
CSArch Proj. #:	108-2303
Issued for Bid:	4/15/2024

Sheet Title
PARTIAL FIRST FLOOR FINISH PLAN - AREA 1

Sheet No.
CTE AF111

CONSTRUCTION DOCUMENTS



1 PARTIAL FIRST FLOOR PLAN - AREA 2
AF112 1/8" = 1'-0"

GENERAL NOTES

1. REFER TO SHEET G001 FOR ADDITIONAL GENERAL NOTES.
2. REFER TO A600 SERIES DRAWINGS FOR ADDITIONAL DIMENSIONS AND DETAILED INFORMATION OF CABINETRY.
3. REFER TO A900 SERIES DRAWINGS FOR DOOR, STOREFRONT, CURTAINWALL, WINDOW AND LOUVER SCHEDULES, DETAILS AND NOTES.
4. REFER TO SHEET A7101 FOR PARTITION TYPES AND ADDITIONAL NOTES.

KEYNOTES

#	DESCRIPTION

DISCLAIMER NOTE

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BRK	BRICK
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CMU	CONCRETE MASONRY UNIT
CONC	CONCRETE
CPT	CARPET
CTB	CERAMIC TILE BASE
CWT	CERAMIC WALL TILE
EPF	EPOXY FLOOR
ETR	EXISTING TO REMAIN
EXP	EXPOSED
EXST	EXISTING
FAC/FF	FACTORY FINISH
GWB	GYPSUM WALL BOARD
HMB	HOMOGENOUS COVE BASE
HMO	HOMOGENOUS SHEET
LMC	LINEAR METAL CEILING
LVT	LUXURY VINYL TILE
MSS	MUSIC STORAGE SYSTEM
MT	METAL BASE
MWP	METAL WALL PANEL
PCON	POLISHED CONCRETE
PLAM	PLASTIC LAMINATE
PLAS	PLASTER
PNT	PAINT
RAF	RESILIENT ATHLETIC FLOORING
RB	RUBBER BASE
RF	RESINOUS FLOORING
RST	RUBBER STAIR TREAD / LANDING
RT	RUBBER TILE FLOORING
SCON	SEALED CONCRETE
SS	SOLID SURFACE
SDT	STATIC DISSAPATIVE TILE
STF	SYNTHETIC TURF FLOORING
STL	STEEL
TERR	TERRAZZO
TP	TOILET PARTITIONS
TYP	TYPICAL
VCT	VINYL COMPOSITION TILE
VCTAS	VINYL COMPOSITION TILE ANTI-STATIC
VWC	VINYL WALLCOVERING
WAF	WOOD ATHLETIC FLOORING
WD	WOOD
WOM	WALK-OFF MAT

GENERAL FINISH NOTES

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7. NEW HM DOORS, DOOR FRAMES AND WINDOW FRAMES AND ETR CORRIDOR DOOR & WINDOW FRAMES AS SCHEDULED ON A900 SERIES DRAWINGS, PNT-6.
8. NOT USED
9. ALL GYPSUM WALLS LOCATED IN CORRIDORS TO RECEIVE CNT-, UNO.

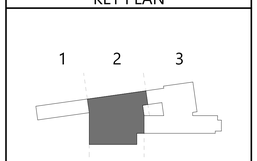
FINISH KEYS

Room Name [101]
Wall Finish
Base Finish
Floor Finish
= Finish Tag

PNT-# ACCENT PAINT LOCATION

= PCON-1
= EPF-1
= RT-1
= LVT-1
= SDT-1
= CPT-1
= CPT-2
= HMO-1
= QT-1
= WD-1

KEY PLAN



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Consultant

NEWBURGH ENLARGED CITY SCHOOL DISTRICT
NEW CTE BUILDING

Project Title

REGISTERED ARCHITECT RICHARD L. PROSACCO STATE OF NEW YORK 019883
REGISTRATION EXPIRATION DATE: 12/31/2026

#	DATE	DESCRIPTION
6	6/6/2024	Bid Addendum #6
2	1/3/2024	BID Addendum #2

Drawn By:	AS
Checked By:	
Proj. #:	44-16-00-01-0-053-001
CSArch Proj. #:	108-2303
Issued for Bid:	4/15/2024

Sheet Title
PARTIAL FIRST FLOOR FINISH PLAN - AREA 2

Sheet No.
CTE AF112

CONSTRUCTION DOCUMENTS

GENERAL FINISH NOTES

1. ALL EXPOSED SURFACES OF NEW PARTITIONS ARE TO BE PAINTED.
2. ALL ELECTRIC, MECHANICAL COMPONENTS AND TELEPHONE PANELS EXPOSED IN A ROOM TO MATCH WALL COLOR.
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8. NOT USED (6)
9. ALL GYPSUM WALLS LOCATED IN CORRIDORS TO RECEIVE CWT-1, UNO..

FINISH KEYS

Room Name
101
Wall Finish
Base Finish
Floor Finish
= Finish Tag

PNT-# ACCENT PAINT LOCATION

= PCON-1
= EPF-1
= RT-1
= LVT-1
= SDT-1
= CFT-1
= CFT-2
= HMO-1
= QT-1
= WD-1

DISCLAIMER NOTE

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VWC	VINYL WALLCOVERING
WAF	WOOD ATHLETIC FLOORING
WD	WOOD
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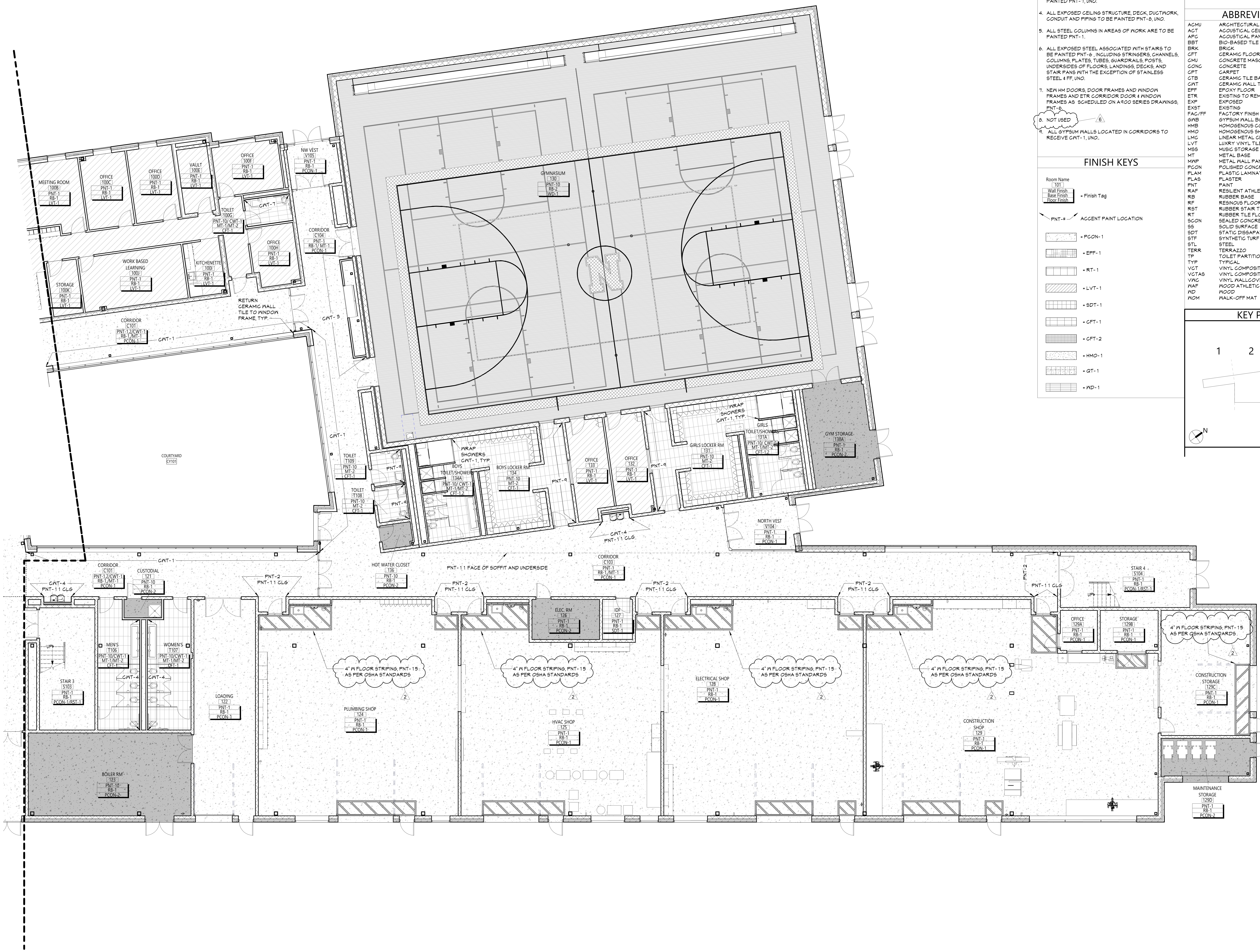
KEY PLAN

1 2 3



1 PARTIAL FIRST FLOOR PLAN - AREA 3
AF113 1/8" = 1'-0"

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Consultant

NEWBURGH ENLARGED CITY SCHOOL DISTRICT
NEW CTE BUILDING

Project Title

REGISTERED ARCHITECT RICHARD L. PECKHAM 019884 STATE OF NEW YORK
REGISTRATION EXPIRATION DATE: 12/31/2026

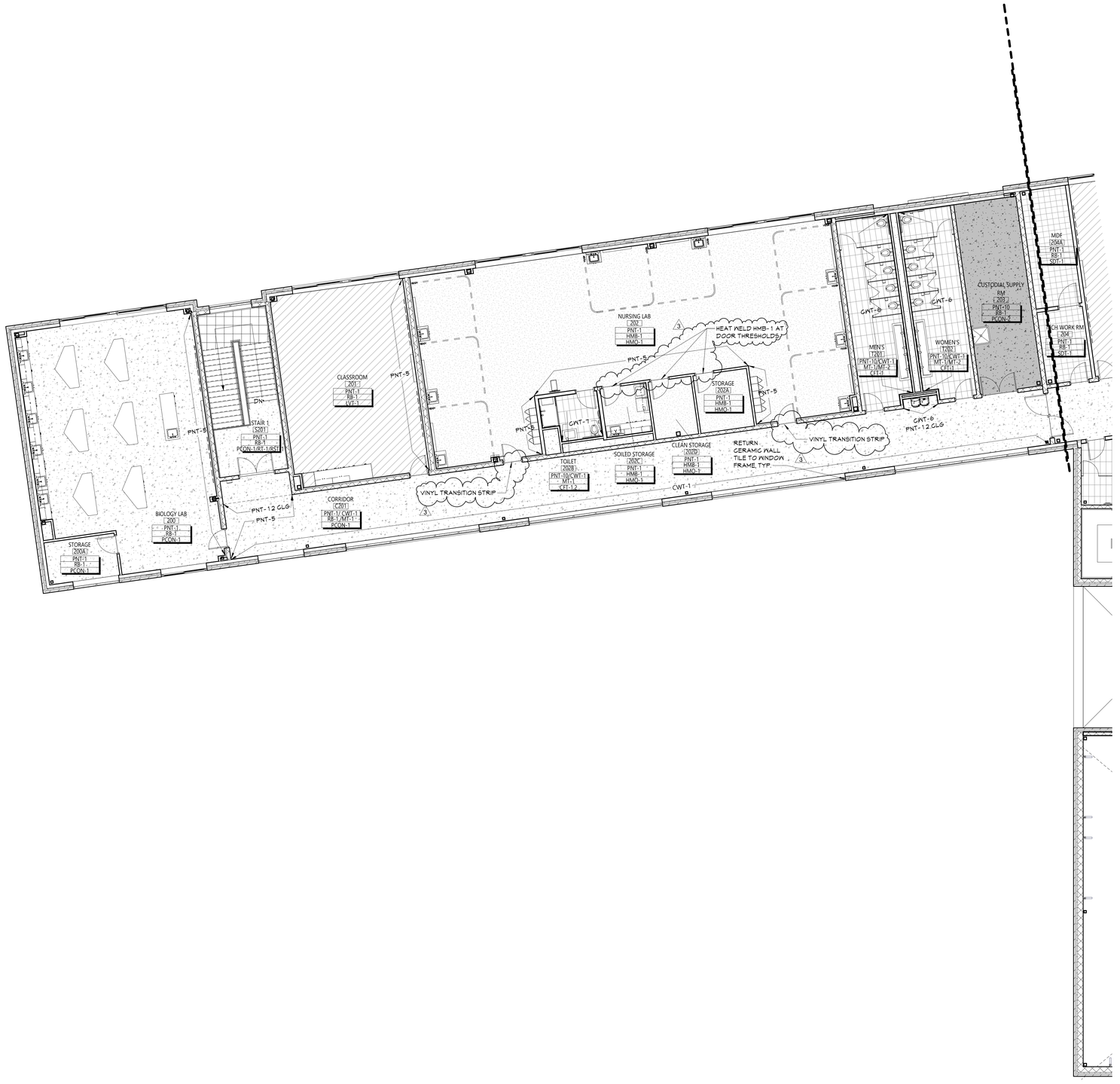
#	DATE	DESCRIPTION
6	6/6/2024	Bid Addendum #6
2	5/3/2024	BID Addendum #2

Drawn By:	AS
Checked By:	
Proj. #:	44-16-00-01-0-053-001
CSArch Proj. #:	108-2303
Issued for Bid:	4/15/2024

Sheet Title
PARTIAL FIRST FLOOR FINISH PLAN - AREA 3

Sheet No.
CTE AF113

CONSTRUCTION DOCUMENTS



1 PARTIAL SECOND FLOOR PLAN - AREA 1
AF121 1/8" = 1'-0"

GENERAL NOTES

1. REFER TO SHEET G001 FOR ADDITIONAL GENERAL NOTES.
2. REFER TO A600 SERIES DRAWINGS FOR ADDITIONAL DIMENSIONS AND DETAILED INFORMATION OF CABINETRY.
3. REFER TO A900 SERIES DRAWINGS FOR DOOR, STOREFRONT, CURTAINWALL, WINDOW AND LOUVER SCHEDULES, DETAILS AND NOTES.
4. REFER TO SHEET A7A01 FOR PARTITION TYPES AND ADDITIONAL NOTES.

KEYNOTES

#	DESCRIPTION

DISCLAIMER NOTE

MANUFACTURER'S NAMES AND FINISH INFORMATION ARE INDICATED AS REFERENCED TO THE ARCHITECT'S BASIS-OF-DESIGN SELECTIONS AND HAVE BEEN DETERMINED PRIOR TO BID. THE CONTRACTOR AND OWNER ARE HEREBY NOTIFIED THAT FINISHES INSTALLED IN THE WORK ARE SUBJECT TO CHANGE IN RESPONSE TO SUBMITTALS, CONFIRMED SELECTIONS, PRODUCT AVAILABILITY AND THE SUBSEQUENT COORDINATION OF FINISHES BY ARCHITECT AND MAY DIFFER FROM PRODUCTS LISTED

ABBREVIATIONS

ACMU	ARCHITECTURAL CONCRETE MASONRY UNIT
ACT	ACOUSTICAL CEILING TILE
APC	ACOUSTICAL PANEL CEILING
BBT	BIO-BASED TILE
BRK	BRICK
CFT	CERAMIC FLOOR TILE
CMU	CONCRETE MASONRY UNIT
CONC	CONCRETE
CPT	CARPET
CTB	CERAMIC TILE BASE
CWT	CERAMIC WALL TILE
EPF	EPOXY FLOOR
ETR	EXISTING TO REMAIN
EXP	EXPOSED
EXST	EXISTING
FAC/FF	FACTORY FINISH
GWB	GYPSUM WALL BOARD
HMB	HOMOGENOUS COVE BASE
HMQ	HOMOGENOUS SHEET
LMC	LINEAR METAL CEILING
LVT	LUXURY VINYL TILE
MSS	MUSIC STORAGE SYSTEM
MT	METAL BASE
MWP	METAL WALL PANEL
PCON	POLISHED CONCRETE
PLAM	PLASTIC LAMINATE
PLAS	PLASTER
PNT	PAINT
RAF	RESILIENT ATHLETIC FLOORING
RB	RUBBER BASE
RF	RESINOUS FLOORING
RST	RUBBER STAIR TREAD / LANDING
RT	RUBBER TILE FLOORING
SCON	SEALED CONCRETE
SS	SOLID SURFACE
SDT	STATIC DISSAPATIVE TILE
STF	SYNTHETIC TURF FLOORING
STL	STEEL
TERR	TERRAZZO
TP	TOILET PARTITIONS
TYP	TYPICAL
VCT	VINYL COMPOSITION TILE
VCTAS	VINYL COMPOSITION TILE ANTI-STATIC
VWC	VINYL WALLCOVERING
WAF	WOOD ATHLETIC FLOORING
WD	WOOD
WOM	WALK-OFF MAT

GENERAL FINISH NOTES

1. ALL EXPOSED SURFACES OF NEW PARTITIONS ARE TO BE PAINTED.
2. ALL ELECTRIC, MECHANICAL COMPONENTS AND TELEPHONE PANELS EXPOSED IN A ROOM TO MATCH WALL COLOR.
3. ALL NEW GWB CEILINGS, FASCIAS, AND SOFFITS TO BE PAINTED PNT-7, UNO.
4. ALL EXPOSED CEILING STRUCTURE, DECK, DUCTWORK, CONDUIT AND PIPING TO BE PAINTED PNT-8, UNO.
5. ALL STEEL COLUMNS IN AREAS OF WORK ARE TO BE PAINTED PNT-1.
6. ALL EXPOSED STEEL ASSOCIATED WITH STAIRS TO BE PAINTED PNT-6 , INCLUDING STRINGERS, CHANNELS, COLUMNS, PLATES, TUBES, GUARDRAILS, POSTS, UNDERSIDES OF FLOORS, LANDINGS, DECKS, AND STAIR PANS WITH THE EXCEPTION OF STAINLESS STEEL & FF, UNO.
7. NEW HM DOORS, DOOR FRAMES AND WINDOW FRAMES AND ETR CORRIDOR DOOR & WINDOW FRAMES AS SCHEDULED ON A900 SERIES DRAWINGS, PNT-6.
8. NOT USED
9. ALL GYPSUM WALLS LOCATED IN CORRIDORS TO RECEIVE GWT-, UNO.

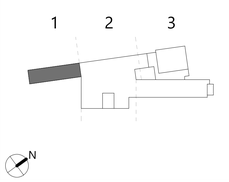
FINISH KEYS

Room Name
[101]
Wall Finish
Base Finish
Floor Finish
= Finish Tag

PNT-#
AGGENT PAINT LOCATION

= PCON-1
= EPF-1
= RT-1
= LVT-1
= SDT-1
= CPT-1
= CPT-2
= HMQ-1
= QT-1
= MD-1

KEY PLAN



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19 Front St. - Newburgh, New York 12550-7601
845-561-3179 www.csarchpc.com

Consultant

NEWBURGH ENLARGED CITY SCHOOL DISTRICT
NEW CTE BUILDING

Project Title

REGISTERED ARCHITECT RICHARD L. PROCHILO 019859 STATE OF NEW YORK
REGISTRATION EXPIRATION DATE: 12/31/2026

#	DATE	DESCRIPTION
6	4/4/2024	Bid Addendum #6
3	3/13/2024	Bid Addendum #3

Drawn By:	AS
Checked By:	
Proj. #:	44-16-00-01-0-053-001
CSArch Proj. #:	108-2303
Issued for Bid:	4/15/2024

Sheet Title
PARTIAL SECOND FLOOR FINISH PLAN - AREA 1

Sheet No.
CTE
AF121

CONSTRUCTION DOCUMENTS

1 PARTIAL SECOND FLOOR PLAN - AREA 2
AF122 1/8" = 1'-0"

GENERAL NOTES

1. REFER TO SHEET G001 FOR ADDITIONAL GENERAL NOTES.
2. REFER TO A600 SERIES DRAWINGS FOR ADDITIONAL DIMENSIONS AND DETAILED INFORMATION OF CABINETRY.
3. REFER TO A900 SERIES DRAWINGS FOR DOOR, STOREFRONT, CURTAINWALL, WINDOW AND LOUVER SCHEDULES, DETAILS AND NOTES.
4. REFER TO SHEET A701 FOR PARTITION TYPES AND ADDITIONAL NOTES.

KEYNOTES

#	DESCRIPTION

DISCLAIMER NOTE

MANUFACTURER'S NAMES AND FINISH INFORMATION ARE INDICATED AS REFERENCED TO THE ARCHITECTS BASIS-OF-DESIGN SELECTIONS AND HAVE BEEN DETERMINED PRIOR TO BID. THE CONTRACTOR AND OWNER ARE HEREBY NOTIFIED THAT FINISHES INSTALLED IN THE WORK ARE SUBJECT TO CHANGE IN RESPONSE TO SUBMITTALS, CONFIRMED SELECTIONS, PRODUCT AVAILABILITY AND THE SUBSEQUENT COORDINATION OF FINISHES BY ARCHITECT AND MAY DIFFER FROM PRODUCTS LISTED

ABBREVIATIONS

ACMU	ARCHITECTURAL CONCRETE MASONRY UNIT
ACT	ACOUSTICAL CEILING TILE
APC	ACOUSTICAL PANEL CEILING
BBT	BIO-BASED TILE
BRK	BRICK
CFT	CERAMIC FLOOR TILE
CMU	CONCRETE MASONRY UNIT
CONC	CONCRETE
CPT	CARPET
CTB	CERAMIC TILE BASE
CWT	CERAMIC WALL TILE
EPF	EPOXY FLOOR
ETR	EXISTING TO REMAIN
EXP	EXPOSED
EXST	EXISTING
FAC/FF	FACTORY FINISH
GWB	GYPSUM WALL BOARD
HMB	HOMOGENOUS COVE BASE
HMO	HOMOGENOUS SHEET
LMC	LINEAR METAL CEILING
LVT	LUXURY VINYL TILE
MSS	MUSIC STORAGE SYSTEM
MT	METAL BASE
MWP	METAL WALL PANEL
PCON	POLISHED CONCRETE
PLAM	PLASTIC LAMINATE
PLAS	PLASTER
PNT	PAINT
RAF	RESILIENT ATHLETIC FLOORING
RB	RUBBER BASE
RF	RESINOUS FLOORING
RST	RUBBER STAIR TREAD / LANDING
RT	RUBBER TILE FLOORING
SCON	SEALED CONCRETE
SS	SOLID SURFACE
SDT	STATIC DISSAPATIVE TILE
STF	SYNTHETIC TURF FLOORING
STL	STEEL
TERR	TERRAZZO
TP	TOILET PARTITIONS
TYP	TYPICAL
VCT	VINYL COMPOSITION TILE
VCTAS	VINYL COMPOSITION TILE ANTI-STATIC
VWC	VINYL WALLCOVERING
WAF	WOOD ATHLETIC FLOORING
WD	WOOD
WOM	WALK-OFF MAT

GENERAL FINISH NOTES

1. ALL EXPOSED SURFACES OF NEW PARTITIONS ARE TO BE PAINTED.
2. ALL ELECTRIC, MECHANICAL COMPONENTS AND TELEPHONE PANELS EXPOSED IN A ROOM TO MATCH WALL COLOR.
3. ALL NEW GWB CEILINGS, FASCIAS, AND SOFFITS TO BE PAINTED PNT-1, UNO.
4. ALL EXPOSED CEILING STRUCTURE, DECK, DUCTWORK, CONDUIT AND PIPING TO BE PAINTED PNT-8, UNO.
5. ALL STEEL COLUMNS IN AREAS OF WORK ARE TO BE PAINTED PNT-1.
6. ALL EXPOSED STEEL ASSOCIATED WITH STAIRS TO BE PAINTED PNT-9, INCLUDING STRINGERS, CHANNELS, COLUMNS, PLATES, TUBES, GUARDRAILS, POSTS, UNDERSIDES OF FLOORS, LANDINGS, DECKS, AND STAIR PANS WITH THE EXCEPTION OF STAINLESS STEEL & FF, UNO.
7. NEW HM DOORS, DOOR FRAMES AND WINDOW FRAMES AND ETR CORRIDOR DOOR & WINDOW FRAMES AS SCHEDULED ON A900 SERIES DRAWINGS, PNT-6.
8. NOT USED
9. ALL GYPSUM WALLS LOCATED IN CORRIDORS TO RECEIVE CMT-1, UNO.

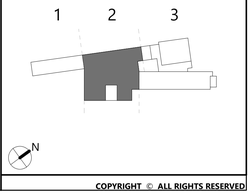
FINISH KEYS

Room Name
101
Wall Finish
Base Finish
Floor Finish
= Finish Tag

PNT-# = ACCENT PAINT LOCATION

= PCON-1
= EPF-1
= RT-1
= LVT-1
= SDT-1
= CPT-1
= CPT-2
= HMO-1
= QT-1
= MD-1

KEY PLAN



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Consultant

Project Title
NEWBURGH ENLARGED CITY SCHOOL DISTRICT
NEW CTE BUILDING

REGISTERED ARCHITECT RICHARD L. PECKHAM 019884 STATE OF NEW YORK
REGISTRATION EXPIRATION DATE: 12/31/2026

#	DATE	DESCRIPTION
4	4/4/2024	Bid Addendum #4

Drawn By:	AS
Checked By:	
Proj. #:	44-16-00-01-0-053-001
CSArch Proj. #:	108-2303
Issued for Bid:	4/15/2024

Sheet Title
PARTIAL SECOND FLOOR FINISH PLAN - AREA 2

Sheet No.
CTE AF122

CONSTRUCTION DOCUMENTS

Autodesk Docs://NECSD - New CTE Bldg/108-2303 NECSD CTE - ARCH.rvt

GENERAL FINISH NOTES

1. ALL EXPOSED SURFACES OF NEW PARTITIONS ARE TO BE PAINTED.
2. ALL ELECTRIC, MECHANICAL COMPONENTS AND TELEPHONE PANELS EXPOSED IN A ROOM TO MATCH WALL COLOR.
3. ALL NEW GWB CEILINGS, FASCIAS, AND SOFFITS TO BE PAINTED PNT-7, UNO.
4. ALL EXPOSED CEILING STRUCTURE, DECK, DUCTWORK, CONDUIT AND PIPING TO BE PAINTED PNT-8, UNO.
5. ALL STEEL COLUMNS IN AREAS OF WORK ARE TO BE PAINTED PNT-1.
6. ALL EXPOSED STEEL ASSOCIATED WITH STAIRS TO BE PAINTED PNT-6 , INCLUDING STRINGERS, CHANNELS, COLUMNS, PLATES, TUBES, GUARDRAILS, POSTS, UNDERSIDES OF FLOORS, LANDINGS, DECKS, AND STAIR PANS WITH THE EXCEPTION OF STAINLESS STEEL 4 FF, UNO.
7. NEW HM DOORS, DOOR FRAMES AND WINDOW FRAMES AND ETR CORRIDOR DOOR & WINDOW FRAMES AS SCHEDULED ON A900 SERIES DRAWINGS, PNT-6.
8. NOT USED (6)
9. ALL GYPSUM WALLS LOCATED IN CORRIDORS TO RECEIVE GWT-1, UNO.

DISCLAIMER NOTE

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ABBREVIATIONS

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ETR	EXISTING TO REMAIN
EXP	EXPOSED
EXST	EXISTING
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GWB	GYPSUM WALL BOARD
HMB	HOMOGENOUS COVE BASE
HMO	HOMOGENOUS SHEET
LMC	LINEAR METAL CEILING
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WAF	WOOD ATHLETIC FLOORING
WD	WOOD
WOM	WALK-OFF MAT

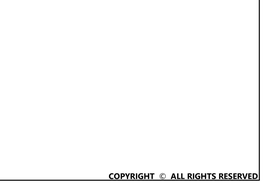
FINISH KEYS

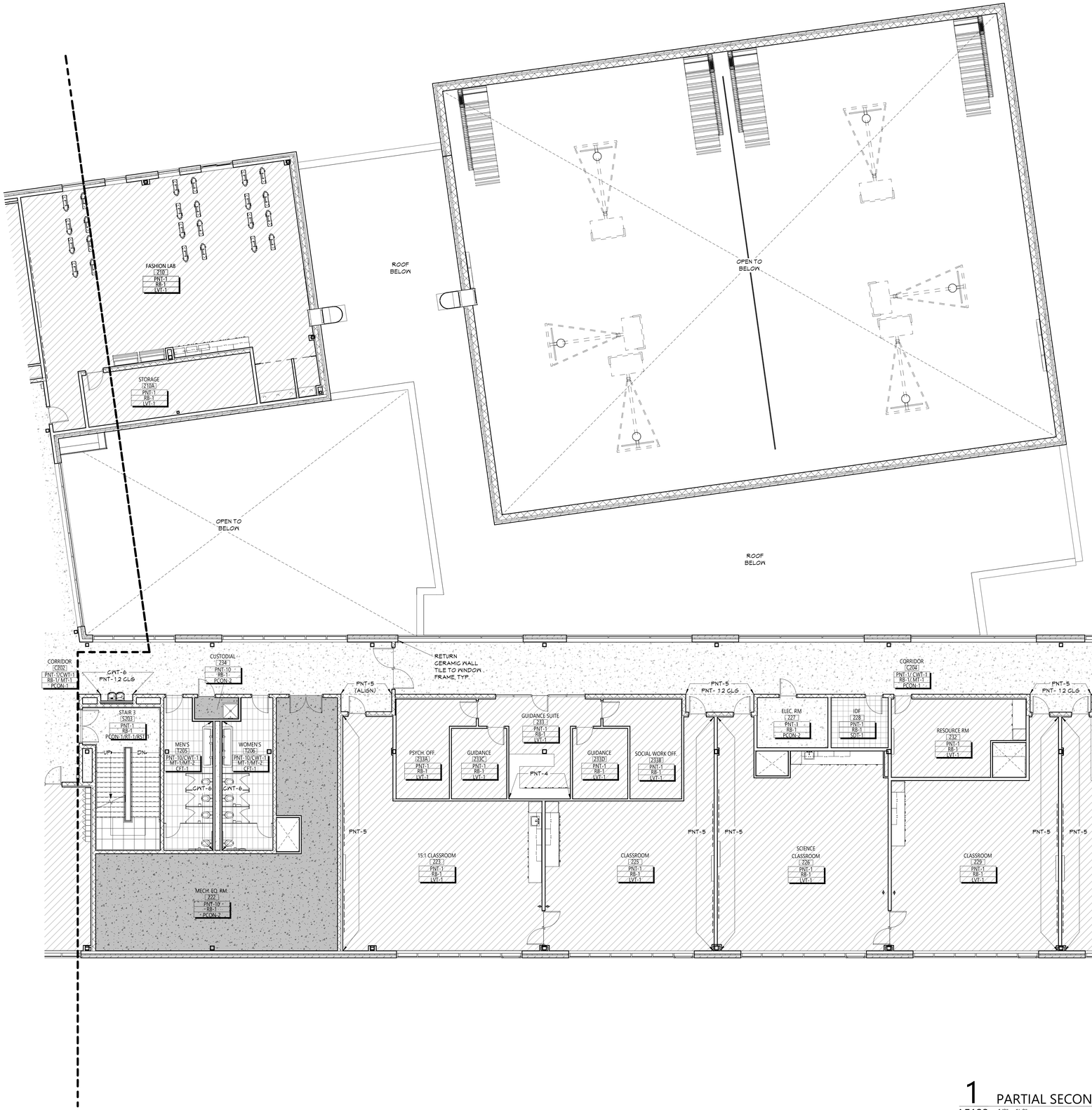
Room Name
101
Wall Finish
Base Finish
Floor Finish
= Finish Tag

PNT-# ACCENT PAINT LOCATION

= PCON-1
= EPF-1
= RT-1
= LVT-1
= SDT-1
= CFT-1
= CFT-2
= HMO-1
= GT-1
= WD-1

KEY PLAN





1 PARTIAL SECOND FLOOR PLAN - AREA 3
AF123 1/8" = 1'-0"

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Project Title
NEWBURGH ENLARGED CITY SCHOOL DISTRICT
NEW CTE BUILDING

REGISTERED ARCHITECT RICHARD L. PROBASCO STATE OF NEW YORK 019883
REGISTRATION EXPIRATION DATE: 12/31/2026

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6	4/5/2024	Bid Addendum #6

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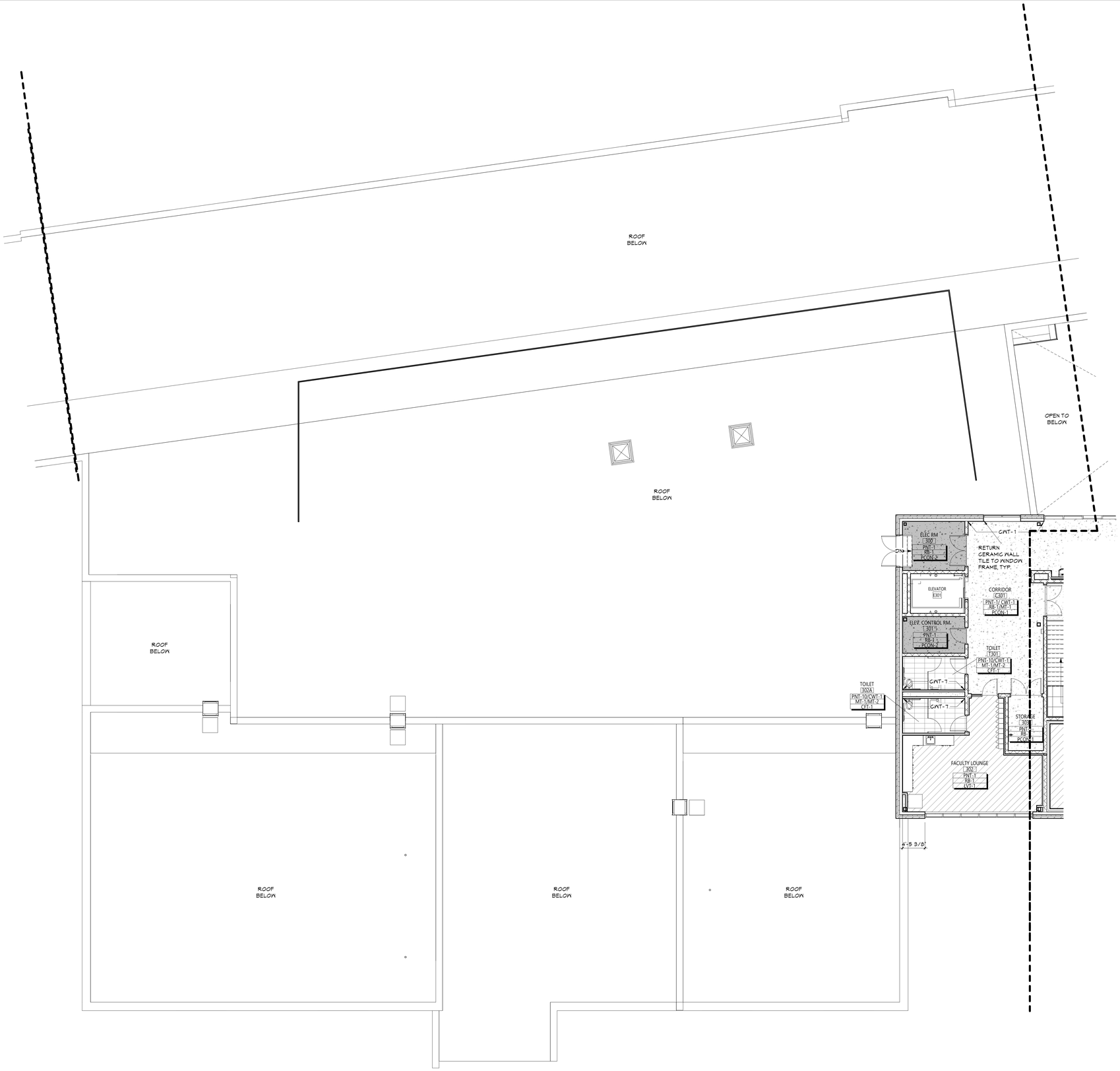
Sheet Title
PARTIAL SECOND FLOOR FINISH PLAN - AREA 3

Sheet No.
CTE AF123

CONSTRUCTION DOCUMENTS



1 PARTIAL THIRD FLOOR PLAN - AREA 2
AF132 1/8" = 1'-0"

GENERAL NOTES

1. REFER TO SHEET G001 FOR ADDITIONAL GENERAL NOTES.
2. REFER TO A600 SERIES DRAWINGS FOR ADDITIONAL DIMENSIONS AND DETAILED INFORMATION OF CABINETRY.
3. REFER TO A900 SERIES DRAWINGS FOR DOOR, STOREFRONT, CURTAINWALL, WINDOW AND LOUVER SCHEDULES, DETAILS AND NOTES.
4. REFER TO SHEET A7101 FOR PARTITION TYPES AND ADDITIONAL NOTES.

KEYNOTES

#	DESCRIPTION

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ABBREVIATIONS

ACMU	ARCHITECTURAL CONCRETE MASONRY UNIT
ACT	ACOUSTICAL CEILING TILE
APC	ACOUSTICAL PANEL CEILING
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ETR	EXISTING TO REMAIN
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EXST	EXISTING
FAC/FF	FACTORY FINISH
GWB	GYPSUM WALL BOARD
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HMO	HOMOGENOUS SHEET
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LVT	LUXURY VINYL TILE
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MWP	METAL WALL PANEL
PCON	POLISHED CONCRETE
PLAM	PLASTIC LAMINATE
PLAS	PLASTER
PNT	PAINT
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RB	RUBBER BASE
RF	RESINOUS FLOORING
RST	RUBBER STAIR TREAD / LANDING
RT	RUBBER TILE FLOORING
SCON	SEALED CONCRETE
SS	SOLID SURFACE
SDT	STATIC DISSAPATIVE TILE
STF	SYNTHETIC TURF FLOORING
STL	STEEL
TERR	TERRAZZO
TP	TOILET PARTITIONS
TYP	TYPICAL
VCT	VINYL COMPOSITION TILE
VCTAS	VINYL COMPOSITION TILE ANTI-STATIC
VWC	VINYL WALLCOVERING
WAF	WOOD ATHLETIC FLOORING
WD	WOOD
WOM	WALK-OFF MAT

GENERAL FINISH NOTES

1. ALL EXPOSED SURFACES OF NEW PARTITIONS ARE TO BE PAINTED.
2. ALL ELECTRIC, MECHANICAL COMPONENTS AND TELEPHONE PANELS EXPOSED IN A ROOM TO MATCH WALL COLOR.
3. ALL NEW GWB CEILINGS, FASCIAS, AND SOFFITS TO BE PAINTED PNT-1, UNO.
4. ALL EXPOSED CEILING STRUCTURE, DECK, DUCTWORK, CONDUIT AND PIPING TO BE PAINTED PNT-8, UNO.
5. ALL STEEL COLUMNS IN AREAS OF WORK ARE TO BE PAINTED PNT-1.
6. ALL EXPOSED STEEL ASSOCIATED WITH STAIRS TO BE PAINTED PNT-6 , INCLUDING STRINGERS, CHANNELS, COLUMNS, PLATES, TUBES, GUARDRAILS, POSTS, UNDERSIDES OF FLOORS, LANDINGS, DECKS, AND STAIR PANS WITH THE EXCEPTION OF STAINLESS STEEL & FF, UNO.
7. NEW HM DOORS, DOOR FRAMES AND WINDOW FRAMES AND ETR CORRIDOR DOOR & WINDOW FRAMES AS SCHEDULED ON A900 SERIES DRAWINGS, PNT-6.
8. NOT USED (6)
9. ALL GYPSUM WALLS LOCATED IN CORRIDORS TO RECEIVE CWT-, UNO.

FINISH KEYS

Room Name
101
Wall Finish
Base Finish
Floor Finish
= Finish Tag

PNT-# = ACCENT PAINT LOCATION

= PCON-1
= EPF-1
= RT-1
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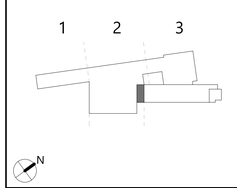
KEY PLAN



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Consultant

NEWBURGH ENLARGED CITY SCHOOL DISTRICT
NEW CTE BUILDING

Project Title

REGISTERED ARCHITECT RICHARD L. PROCIDA STATE OF NEW YORK 31985
REGISTRATION EXPIRATION DATE: 12/31/2026

#	DATE	DESCRIPTION
4	4/4/2024	Bid Addendum #4

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Checked By:	
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Sheet Title
PARTIAL THIRD FLOOR FINISH PLAN - AREA 2

Sheet No.
CTE AF132

CONSTRUCTION DOCUMENTS

Autodesk Docs://NECSD - New CTE Bldg/108-2303 NECSD CTE - ARCH.rvt

GENERAL FINISH NOTES

1. ALL EXPOSED SURFACES OF NEW PARTITIONS ARE TO BE PAINTED.
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3. ALL NEW GWB CEILINGS, FASCIAS, AND SOFFITS TO BE PAINTED PNT-7, UNO.
4. ALL EXPOSED CEILING STRUCTURE, DECK, DUCTWORK, CONDUIT AND PIPING TO BE PAINTED PNT-8, UNO.
5. ALL STEEL COLUMNS IN AREAS OF WORK ARE TO BE PAINTED PNT-1.
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8. NOT USED (6)
9. ALL GYPSUM WALLS LOCATED IN CORRIDORS TO RECEIVE CWT-1, UNO..

DISCLAIMER NOTE

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FINISH KEYS

Room Name / 101 / Wall Finish / Base Finish / Floor Finish = Finish Tag

PNT-# ACCENT PAINT LOCATION

= PCON-1
= EPF-1
= RT-1
= LVT-1
= SDT-1
= CFT-1
= CFT-2
= HMO-1
= QT-1
= WD-1

ABBREVIATIONS

ACMU	ARCHITECTURAL CONCRETE MASONRY UNIT
ACT	ACOUSTICAL CEILING TILE
APC	ACOUSTICAL PANEL CEILING
BBT	BIO-BASED TILE
BRK	BRICK
CFT	CERAMIC FLOOR TILE
CMU	CONCRETE MASONRY UNIT
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HMB	HOMOGENOUS COVE BASE
HMO	HOMOGENOUS SHEET
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VWC	VINYL WALLCOVERING
WAF	WOOD ATHLETIC FLOORING
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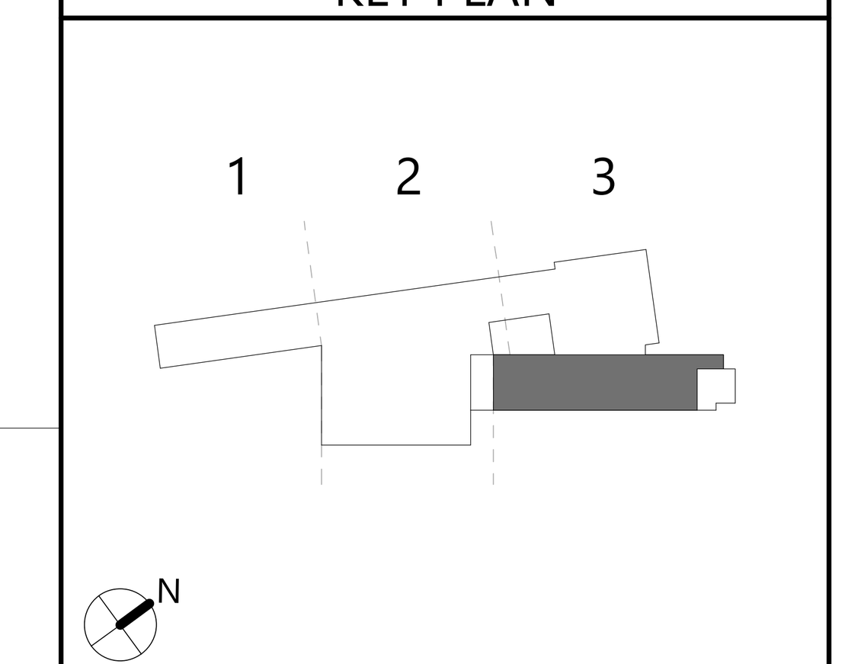
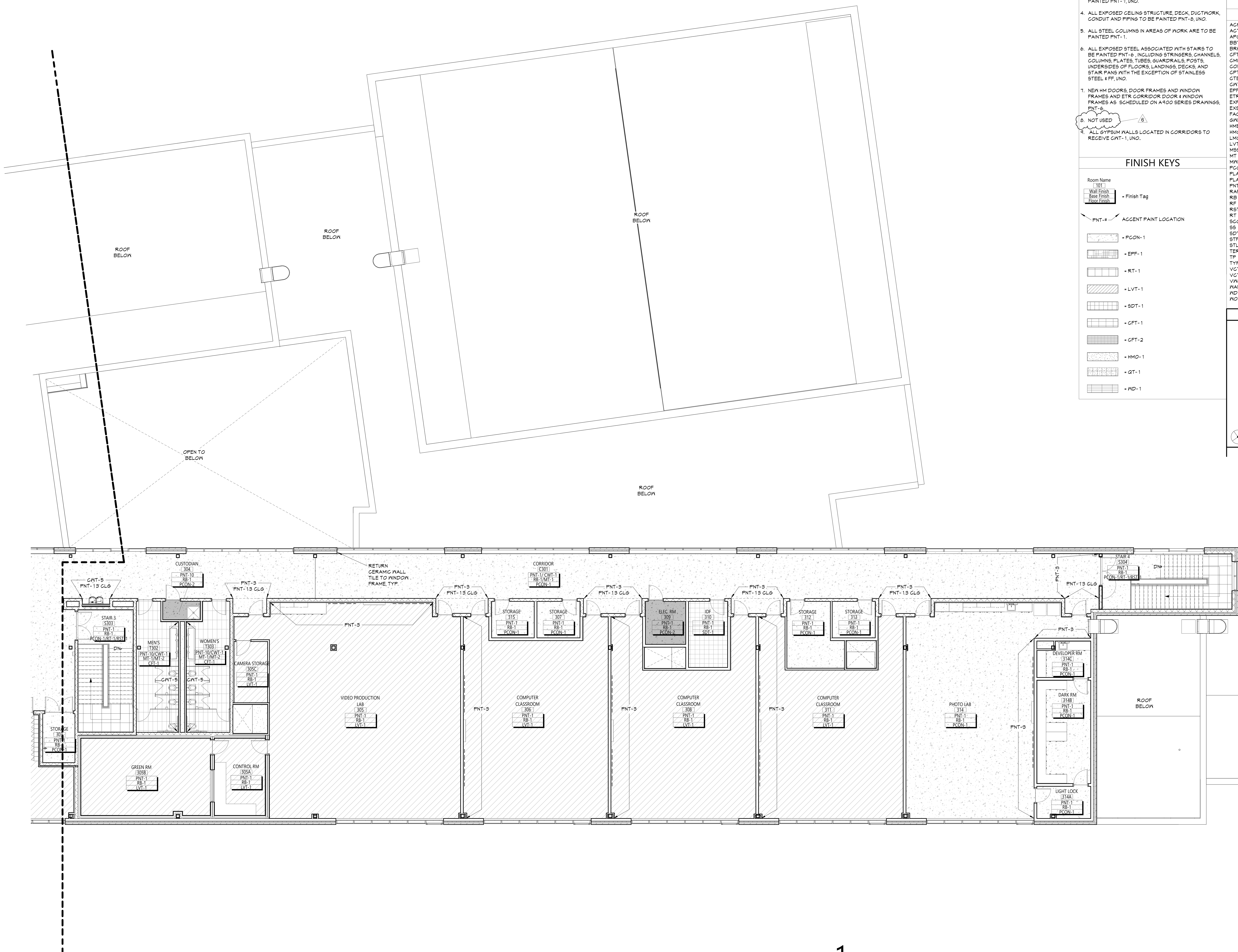
WOM	WALK-OFF MAT

KEY PLAN





1 PARTIAL THURD FLOOR PLAN - AREA 3
AF133 1/8" = 1'-0"

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Consultant

Project Title

NEWBURGH ENLARGED CITY SCHOOL DISTRICT
NEW CTE BUILDING

REGISTERED ARCHITECT RICHARD L. PECKHAM 019884 STATE OF NEW YORK

REGISTRATION EXPIRATION DATE: 12/31/2026

#	DATE	DESCRIPTION
6	6/6/2024	Bid Addendum #6

Drawn By:	AS
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Sheet Title

PARTIAL THIRD FLOOR FINISH PLAN - AREA 3

Sheet No.

CTE AF133

CONSTRUCTION DOCUMENTS

Autodesk Docs://NECSD - New CTE Bldg/108-2303 NECSD CTE - ARCH.rvt

PLUMBING EQUIPMENT CONNECTION SCHEDULE

TAG NO.	DESCRIPTION	LOCATION	BODY	STRAINER	MANUFACTURER AND REMARKS
FD-A	FLOOR DRAIN	FINISHED AREAS	CAST IRON	NICKEL BRONZE	JAY R SMITH FIG 2010C-A
FD-B	FLOOR DRAIN	UNFINISHED AREAS	CAST IRON	POLISHED BRONZE	JAY R SMITH FIG 2010C-A WITH 1/2 GRATE
FD-C	FLOOR DRAIN	UNFINISHED AREAS	CAST IRON	POLISHED BRONZE	JAY R SMITH FIG 2010C-A WITH WASTE FUNNEL
FD-D	FLOOR DRAIN	LIFT PIT	CAST IRON	POLISHED BRONZE	ZURN Z415J WITH 5" X 9" STRAINER SIZE, INCLUDE SEDIMENT BUCKET
TD-A	TRENCH DRAIN	OUTSIDE RAMP	HDPE	-HPS	ZURN Z883 WITH HEEL PROOF STAINLESS STEEL SLOTTED GRATE

4

GREASE INTERCEPTOR SCHEDULE

NO.	LOCATION	GPM FLOW RATE	GREASE CAP.	CONNECTION INLET	CONNECTION OUTLET	DESIGN MAKE
GT-1	FOOD SERVICE 115A	50 GPM	108 GAL	3"	3"	BIG DIPPER W-500-IS POINT OF USE AUTOMATIC GREASE REMOVAL SYSTEM
GT-2	NW AREA 2 EXTERIOR	200 GPM	1154 GAL	4"	4"	PROCEPTOR GMC 2000(2)

OIL INTERCEPTOR SCHEDULE

NO.	LOCATION	GPM FLOW RATE	OIL CAP.	CONNECTION INLET	CONNECTION OUTLET	DESIGN MAKE
OI-1	SE AREA 2 EXTERIOR	150 GPM	577 GAL	4"	4"	PROCEPTOR OMC 1000

PLUMBING FIXTURE CONNECTION SCHEDULE

SEE PLUMBING SPECIFICATIONS FOR COMPLETE FIXTURE INFORMATION

TAG NO.	DESCRIPTION	COLD WATER	HOT WATER	WASTE	SANITARY	VENT	REMARKS
WC-A	WATER CLOSET	1"	-	-	3"	2"	AMERICAN STANDARD 2257.101, WALL MOUNT, SLOAN SENSOR OPERATED FLUSHOMETER (FV-A); CHURCH 9500SCC OPEN FRONT, LESS COVER
WC-B	WATER CLOSET ADA	1"	-	-	3"	2"	AMERICAN STANDARD 2257.101, WALL MOUNT, SLOAN SENSOR OPERATED FLUSHOMETER (FV-A); CHURCH 9500SCC OPEN FRONT, LESS COVER
WC-B	WATER CLOSET ADA	1"	-	-	3"	2"	AMERICAN STANDARD 2257.101, WALL MOUNT, SLOAN SENSOR OPERATED FLUSHOMETER W/BEDPAN WASH(FV-B); CHURCH 9500SCC OPEN FRONT, LESS COVER
LV-A	LAVATORY	1/2"	1/2"	1-1/2"	-	1-1/2"	SLOAN AER-DEC SINK, 1 STATION, F-A SENSOR FAUCET, HARDWIRED, WITH SOAP DISPENSER AND HAND DRYER
LV-B	LAVATORY	1/2"	1/2"	1-1/2"	-	1-1/2"	SLOAN AER-DEC SINK, 3 STATION, F-A SENSOR FAUCET, HARDWIRED, WITH SOAP DISPENSER AND HAND DRYER
LV-C	LAVATORY	1/2"	1/2"	1-1/2"	-	1-1/2"	SLOAN AER-DEC SINK, 4 STATION, F-A SENSOR FAUCET, HARDWIRED, WITH SOAP DISPENSER AND HAND DRYER
SK-A	SINK	1/2"	1/2"	1-1/2"	-	1-1/2"	ELKAY LR2219, SINGLE S/S DROP-IN, CHICAGO FAUCET (F-B), GOOSENECK SPOUT, MANUAL CLOSE WITH WRISTBLADE FAUCETS, 1.6 GPM
SK-B	SINK ADA	1/2"	1/2"	1-1/2"	-	1-1/2"	ELKAY LRAD221955, SINGLE S/S DROP-IN, ADA OFFSET TAILPIECE, CHICAGO FAUCET (F-B), GOOSENECK SPOUT, MANUAL WITH WRISTBLADE FAUCETS, 1.6 GPM
SK-C	SINK ADA WITH EYE WASH	1/2"	1/2"	1-1/2"	-	1-1/2"	ELKAY LRAD221955, SINGLE S/S DROP-IN, ADA OFFSET TAILPIECE, CHICAGO FAUCET (F-B), GOOSENECK SPOUT, MANUAL WITH WRISTBLADE FAUCETS, 1.6 GPM W/EEW-B
SK-D	SINK - UTILITY	1/2"	1/2"	1-1/2"	-	1-1/2"	ELKAY SS, TWO COMPARTMENT FLOOR SINK, 39" X 26" X 44" E2C16X20-0X, EXPOSED YOKE WALL-MOUNT UTILITY FAUCET 8251.076
SK-E	SINK - UTILITY	1/2"	1/2"	1-1/2"	-	1-1/2"	ELKAY SS, SINGLE COMPARTMENT FLOOR SINK, 27" X 27-1/2" X 14" SS81242, EXPOSED YOKE WALL-MOUNT UTILITY FAUCET 8251.076
SK-F	SINK ADA - EPOXY	1/2"	1/2"	1-1/2"	-	1-1/2"	ELKAY LRAD221955, SINGLE S/S DROP-IN, ADA OFFSET TAILPIECE, CHICAGO FAUCET (F-B), GOOSENECK SPOUT, MANUAL WITH WRISTBLADE FAUCETS, 1.6 GPM
SK-G	SINK ADA WITH EYE WASH - EPOXY	1/2"	1/2"	1-1/2"	-	1-1/2"	ELKAY LRAD221955, SINGLE S/S DROP-IN, ADA OFFSET TAILPIECE, CHICAGO FAUCET (F-B), GOOSENECK SPOUT, MANUAL WITH WRISTBLADE FAUCETS, 1.6 GPM W/EEW-B
EWC-A	WATER COOLER	1/2"	-	1-1/2"	-	1-1/2"	ELKAY EZH20 BOTTLE FILLING STATION & BI-LEVEL ADA COOLER, FILTERED, REFRIGERATED, STAINLESS -LZSTL8WSSK
EWC-B	WATER COOLER	1/2"	-	1-1/2"	-	1-1/2"	ELKAY SINGLE LEVEL ADA COOLER, FILTERED, REFRIGERATED, STAINLESS - LZS8S
BF-A	BOTTLE FILLER	1/2"	-	1-1/2"	-	1-1/2"	ELKAY EZH20 ADA BOTTLE FILLER, FILTERED, REFRIGERATED, STAINLESS - LZ8WSSSMC
MB-A	MOP BASIN	1/2"	1/2"	3"	-	2"	FIAT MSB, MOLDED STONE, 36" X 36" X 12", T&S BRASS B-0665-BSTP WALL MOUNTED FAUCET, BUCKET HOOK, HOSE END, VACUUM BREAKER
MB-B	MOP BASIN	1/2"	1/2"	3"	-	2"	FIAT MSB, MOLDED STONE, 24" X 24" X 10", T&S BRASS B-0665-BSTP WALL MOUNTED FAUCET, BUCKET HOOK, HOSE END, VACUUM BREAKER
EEW-A	EYE WASH	1/2"	1/2"	1-1/2"	-	1-1/2"	BRADLEY S19224 WALL MOUNT EYE WASH, S19-2000 EFX8 MIXING VALVE AND TEMPERATURE GAUGE
EEW-B	EYE WASH	1/2"	1/2"	1-1/2"	-	1-1/2"	BRADLEY S19274E SWING ACTIVATED EYE WASH, S19-2000 EFX8 MIXING VALVE AND TEMPERATURE GAUGE

PLUMBING GENERAL NOTES

#	Note
A	THESE NOTES ARE APPLICABLE TO THE FULL SET OF CONTRACT DRAWINGS
B	EXISTING CONDITIONS ARE TAKEN FROM FIELD OBSERVATIONS AND PRIOR CONSTRUCTION DOCUMENTS WHEN AVAILABLE. THE LOCATIONS SHOWN MUST BE CONSIDERED APPROXIMATE. OTHER SUCH WORK MAY EXIST, HOWEVER LOCATION AND SIZE ARE NOT PRESENTLY KNOWN.
C	WHEN EXISTING CONSTRUCTION IS DAMAGED BY WORK BY THIS CONTRACTOR, REPAIR AND/OR REPLACE WITH SIMILAR MATERIALS AS MUCH AS POSSIBLE, SUBJECT TO ARCHITECTS APPROVAL.
D	DISPOSE OF ALL DEMOLITION AND/OR OTHER WASTE MATERIALS CAUSE BY WORK OF THIS CONTRACTOR. LEGALLY DISPOSE ALL MATERIALS TO A LOCATION OFF SITE.
E	COORDINATE AND SCHEDULE WORK AND SHUTDOWNS WITH THE OWNER AND OTHER TRADES PRIOR TO DEMOLITION.
F	ALL EXISTING PIPING TO REMAIN SHALL BE RECONNECTED TO ACTIVE SERVICE PIPING.
G	ALL PIPING TO BE REMOVED SHALL BE REMOVED BACK TO ACTIVE SERVICE PIPING AND CAPPED. VALVE AND CAP ALL WATER PIPING. REMOVE ALL INACTIVE PIPING UNLESS OTHER WISE NOTED.
H	ALL PIPING TO BE REMOVED AND IN A WALL TO REMAIN MAY BE ABANDONED IN PLACE UNLESS NOTED.
I	PATCH HOLES IN EXISTING CONSTRUCTION LEFT BY THE REMOVAL OF PIPING OR EQUIPMENT WITH MATERIALS TO MATCH EXISTING CONSTRUCTION. MAINTAIN FIRE SMOKE RATING.
J	DEMOLITION SHALL INCLUDE, BUT NOT LIMITED TO: PIPING, VALVES, FIXTURES, EQUIPMENT, HANGERS, SUPPORTS AND INSULATION, EXCEPT ASBESTOS.
K	REMOVE EXISTING CONSTRUCTION IN THE WAY OF NEW WORK. PROTECT BUILDINGS AND FURNISHINGS FROM DAMAGE.
L	WHERE NEW WORK IS TO BE INSTALLED ABOVE AN EXISTING CEILING, PROVIDE FOR THE REMOVAL OF THE CEILING. UPON COMPLETION OF WORK, REPAIR ALL DAMAGED CEILING SURFACES, REPLACE ALL DAMAGED TILES.
M	SLEEVE AND SEAL ALL WALL AND FLOOR PENETRATIONS. PROVIDE FIRESTOPPING FOR ALL PENETRATIONS.
N	MAINTAIN SERVICE CLEARANCES OF ALL EQUIPMENT. ADVISE OTHER TRADES OF REQUIRED CLEARANCES.
O	PROVIDED FOR THE DRAINAGE AND REFILLIING OF PIPING SYSTEMS, INCLUDING AIR REMOVAL, RESETTING OF FLUSH VALVES, FLUSHING SYSTEMS OF DIRT AND SCALE CAUSED BY SHUTDOWNS AND STARTUPS.
P	REFER TO EQUIPMENT/FIXTURE SCHEDULE FOR FINAL CONNECTION SIZES.
Q	PROVIDE CLEANOUTS AT THE BASE OF ALL STORM, SANITARY AND WASTE STACKS.
R	PITCH 4" AND LARGER SANITARY AND WASTE PIPING AT 1/8" PER FOOT UNLESS NOTED OTHERWISE. FOR SANITARY AND WASTE PIPING 3" AND SMALLER, PITCH AT 1/4" PER FOOT UNLESS NOTED OTHERWISE.
S	COORDINATE LOCATION AND ELEVATION OF STORM AND SANITARY LATERALS AND WATER SERVICE PIPING WITH THE SITE CONTRACTOR. NO ALLOWANCES WILL BE MADE FOR ADDITIONAL COST DUE TO THE CONTRACTORS FAILURE TO COORDINATE TERMINATION POINTS. THE PLUMBING CONTRACTOR IS RESPONSIBLE FOR THE FINAL CONNECTIONS TO THE SITE UTILITIES.
T	MINIMUM SIZE OF WASTE PIPING BELOW SLAB SHALL BE 3" EXCEPT PIPING SERVING FLOOR DRAINS SHALL BE 4". MINIMUM SIZE OF VENT PIPING BELOW SLAB SHALL BE 2" UNLESS NOTED OTHERWISE.
U	PITCH 4" AND LARGER STORM PIPING AT 1/4" PER FOOT UNLESS NOTED OTHERWISE.

PLUMBING SYMBOL LIST

SYMBOL	DESCRIPTION
	POINT OF CONNECTION
NTS	NOT TO SCALE
(E)	EXISTING
(ETR)	EXISTING TO REMAIN
AFF	ABOVE FINISHED FLOOR
BFF	BELOW FINISHED FLOOR
VTR	VENT THRU ROOF
GC	GENERAL CONTRACTOR
MC	MECHANICAL CONTRACTOR
PC	PLUMBING CONTRACTOR
EC	ELECTRICAL CONTRACTOR
	NEW PIPING LOCATED ABOVE FLOOR/SLAB
	NEW PIPING LOCATED BELOW FLOOR/SLAB
	COLD WATER PIPING (CW)
	HOT WATER PIPING (HW)
	HOT WATER RECIRCULATING PIPING (HWR)
140	140° HOT WATER PIPING (HW)
140	140° HOT WATER RECIRCULATING PIPING (HWR)
W	WATER SERVICE - EXTERIOR
SAN	SANITARY SEWER PIPING
GW	GREASE WASTE PIPING (GW)
V	VENT PIPING (V)
ST	STORM WATER SEWER PIPING (ST)
ST(2)	SECONDARY STORM WATER SEWER PIPING (ST(2))
G	NATURAL GAS PIPING (G)
CA	COMPRESSED AIR PIPING (CA)
	ELBOW DOWN
	45°OFFSET
	ELBOW UP
	BOTTOM/TEE CONNECTION
	TOP TEE CONNECTION
	"P" TRAP
	PIPE CONTINUATION
	CAP OR PLUG
	DECK PLATE CLEANOUT (DPCO)
	WALL PLATE CLEANOUT (WPCO)
	CLEANOUT (CO)
	FLOOR DRAIN (FD) / FLOOR SINK (FS)
	ROOF DRAIN
	WALL HYDRANT (WH) / HOSE BIBB (HB)
	STRAINER
M	WATER METER
	CATCH BASIN
	SHUT OFF VALVE
	BALANCING VALVE
	CHECK VALVE
	SOLENOID VALVE
	PIPE GUIDE
	UNION
	BACKFLOW PREVENTER (BFP)
	SHOCK ABSORBER (SA)
	RECIRCULATION PUMP
	THERMOMETER
	PRESSURE GAUGE
X	DRAWING KEYNOTE

PUMP SCHEDULE

NO.	LOCATION	SERVICE	GPM	HEAD FT WATER	MOTOR HP	MOTOR VOLTAGE	MOTOR PHASE	MOTOR RPM	TYPE	DESIGN MAKE
PP-1	PLUMBING 105	DOM. HOT WATER	3.5	24.7	1/8	115	1	3250	IN LINE	TACO IL009-FS
PP-2	PLUMBING 105	DOM. HOT WATER	1	6.1	1/8	115	1	3250	IN LINE	TACO IL009-FS
PP-3	PLUMBING 105	DOM. HOT WATER	1	11.6	1/8	115	1	3250	IN LINE	TACO IL009-FS
PP-4	CLOSET 136	DOM. HOT WATER	0.25	5	1/8	115	1	3250	IN LINE	TACO IL009-FS
SP-1	E101 SHAFT	SUMP	50	15	1/2	115	-	-	SUMP	ELV280 WITH CONTROL PANEL AND ALARM

AIR COMPRESSOR SCHEDULE

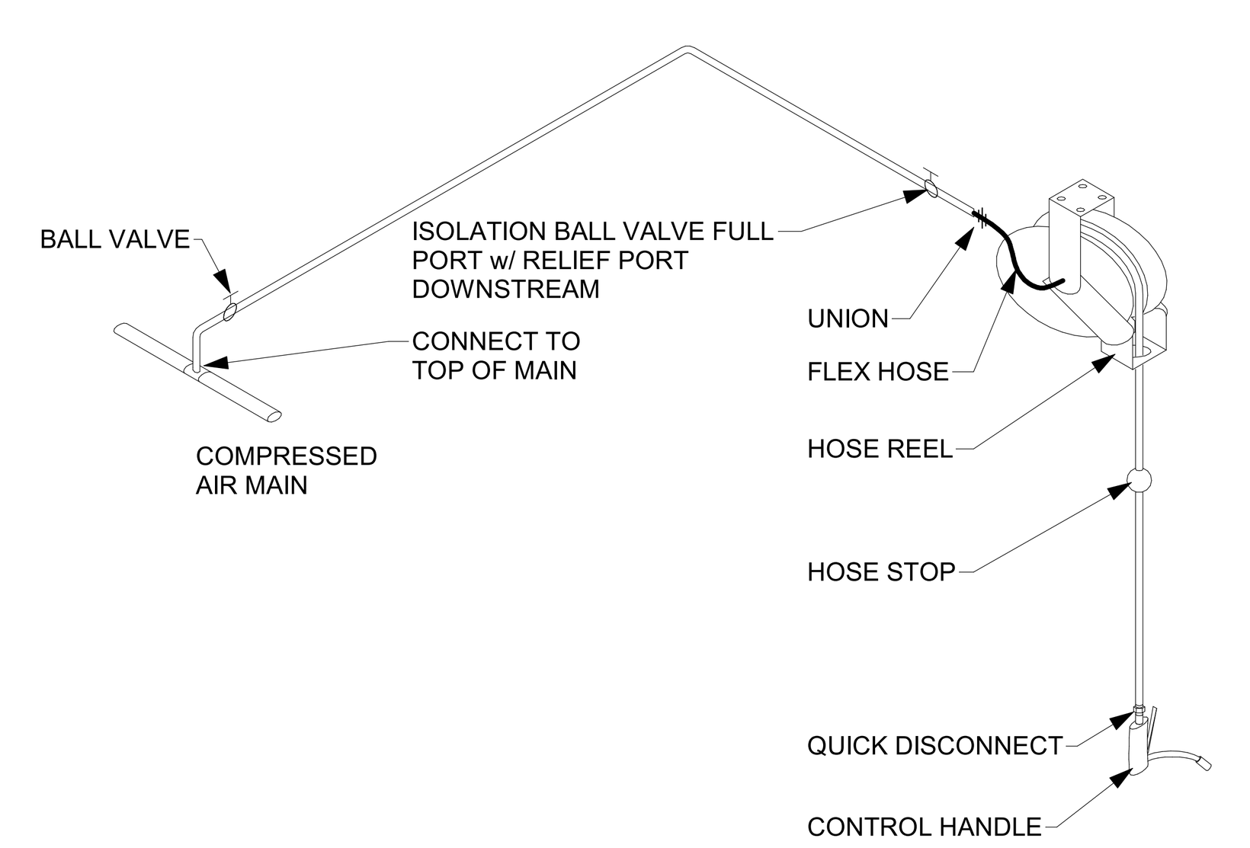
NO.	LOCATION	SERVICE	ACFM	MAX PRESSURE	MOTOR HP	MOTOR VOLTAGE	MOTOR PHASE	TYPE	DESIGN MAKE
AC-1	PLUMBING 105	AUTO SHOP	51.0	175	15	230	3	RECIPRO	RAND 7100E15 WITH DRYER, FILTER AND SEPERATOR

EXPANSION TANK SCHEDULE

TAG NO.	LOCATION	SERVICE	MAXIMIUM SYSTEM PRESSURE (PSI)	TANK VOLUME (GALS.)	ACCEPTANCE FACTOR	MANUFACTURER AND REMARKS
ET-1	PLUMBING EQ ROOM 105	DOMESTIC HOT WATER	150	23.0	0.49	AMTROL ST-42VC-DD ASME
ET-2	WATER HEATER CLOSET 136	DOMESTIC HOT WATER	150	2.0	0.45	AMTROL ST-5C-DD ASME

NATURAL GAS WATER HEATER SCHEDULE

TAG NO.	LOCATION	VENT SIZE (MIN)	STORAGE CAPACITY (GAL)	GPH RECOVERY @ 100°F RISE	NATURAL GAS CFH	REFERENCE MANUFACTURER
GWH-1 LOCKER RM	WATER CLOSET 136	4"	119	349	300	AOSMITH BTH-300A
GWH-2 CULLINARY	PLUMBING RM 105	4"	120	882	750	AOSMITH BTHS-750A
GWH-3A BUILDING	PLUMBING RM 105	4"	100	582	250	AOSMITH BTH-250A
GWH-3B BUILDING	PLUMBING RM 105	4"	100	582	250	AOSMITH BTH-250A
GWH-4 VET/COSMO	PLUMBING RM 105	4"	119	349	300	AOSMITH BTH-300A



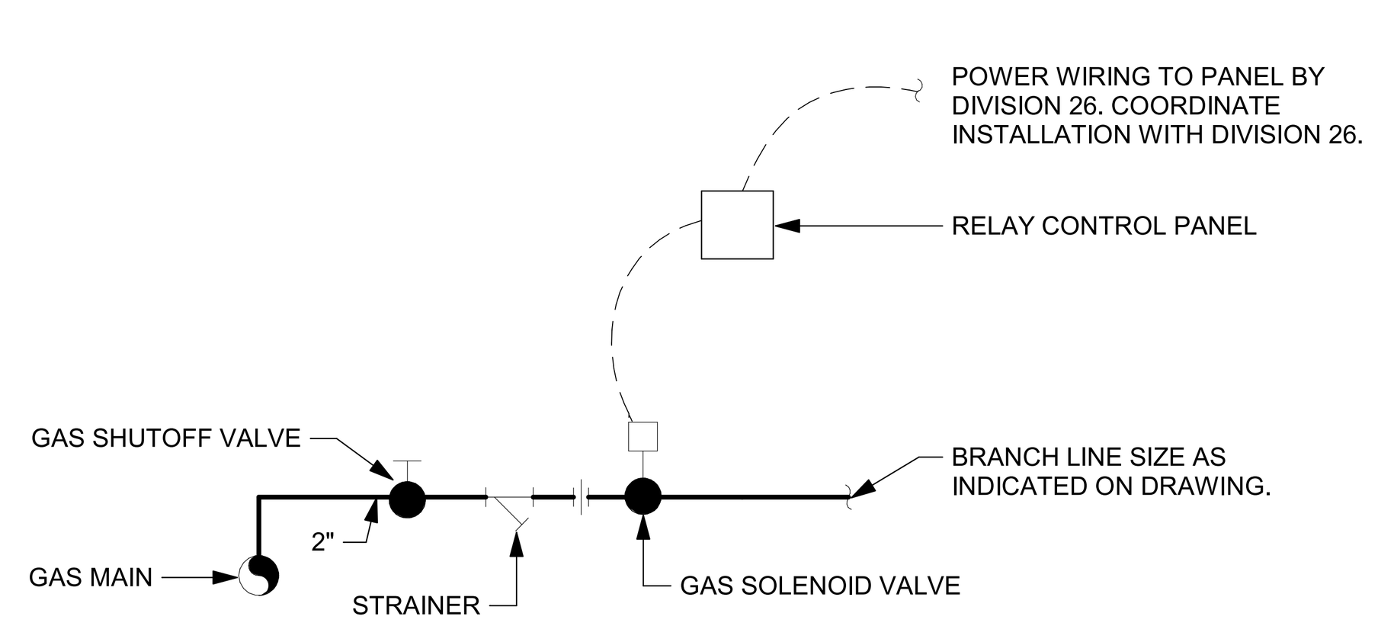
GENERAL NOTES:

A. ADJUST HOSE STOPS AND REEL TENSION. CONTROL HANDLE TO HANG AT 4'-6" AFF UNLESS OTHERWISE REQUESTED BY OWNER.

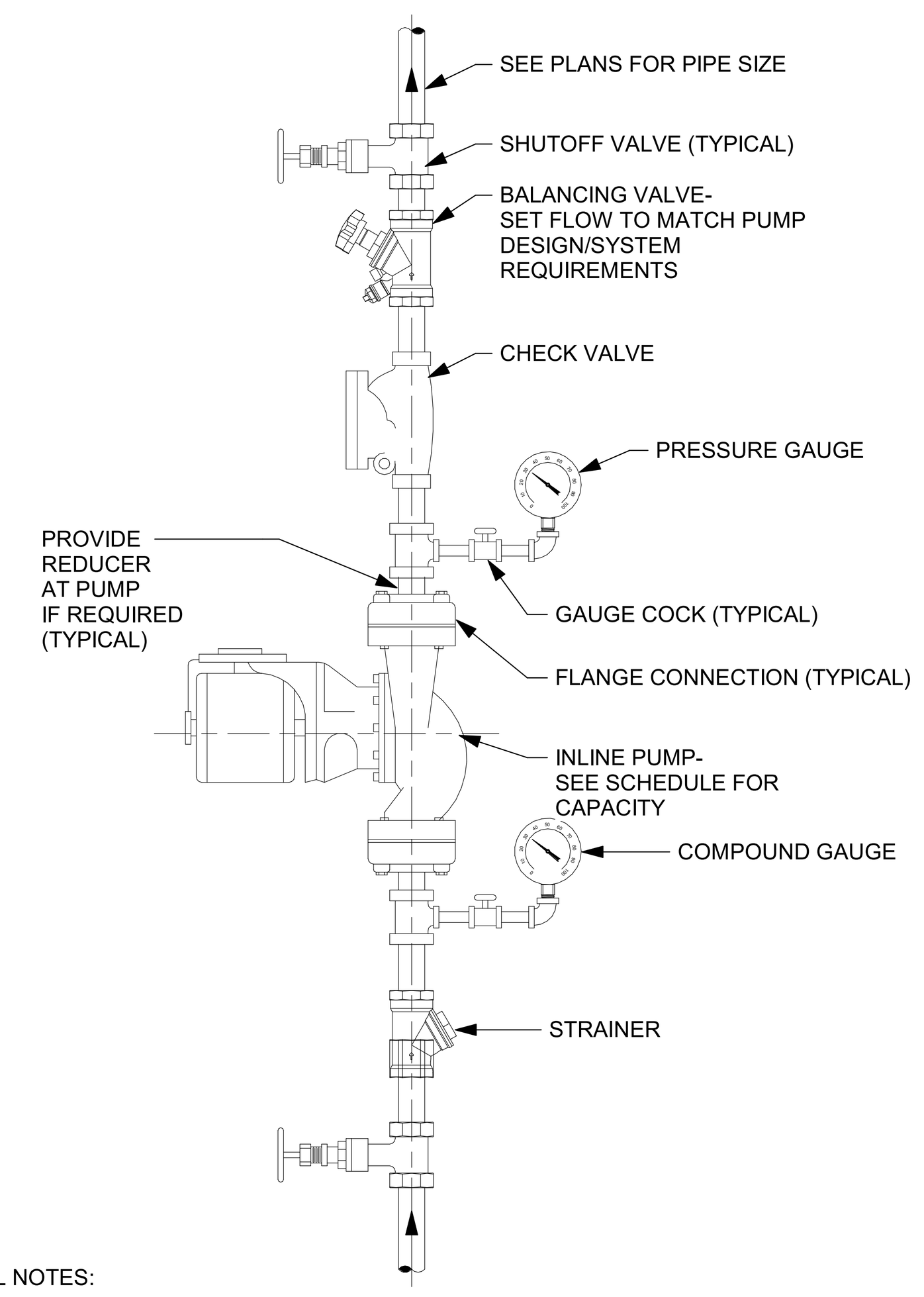
B. QUICK DISCONNECT TO MATCH OWNER'S MODEL FOR RENOVATIONS

C. COLOR CODE EXPOSED PIPING IN SERVICE BAYS. PAINT 12" BAND ON PIPING ON 20 FOOT CENTERS WITH UNIQUE COLOR FOR EACH PIPE CONTENTS, PROVIDE CHART WITH KEY TO COLORS TO OWNER.

5 COMPRESSED AIR - HOSE REEL DETAIL
P001 NOT TO SCALE



4 CLASSROOM GAS PIPING SHUT-OFF DETAIL
P001 NOT TO SCALE



DETAIL NOTES:

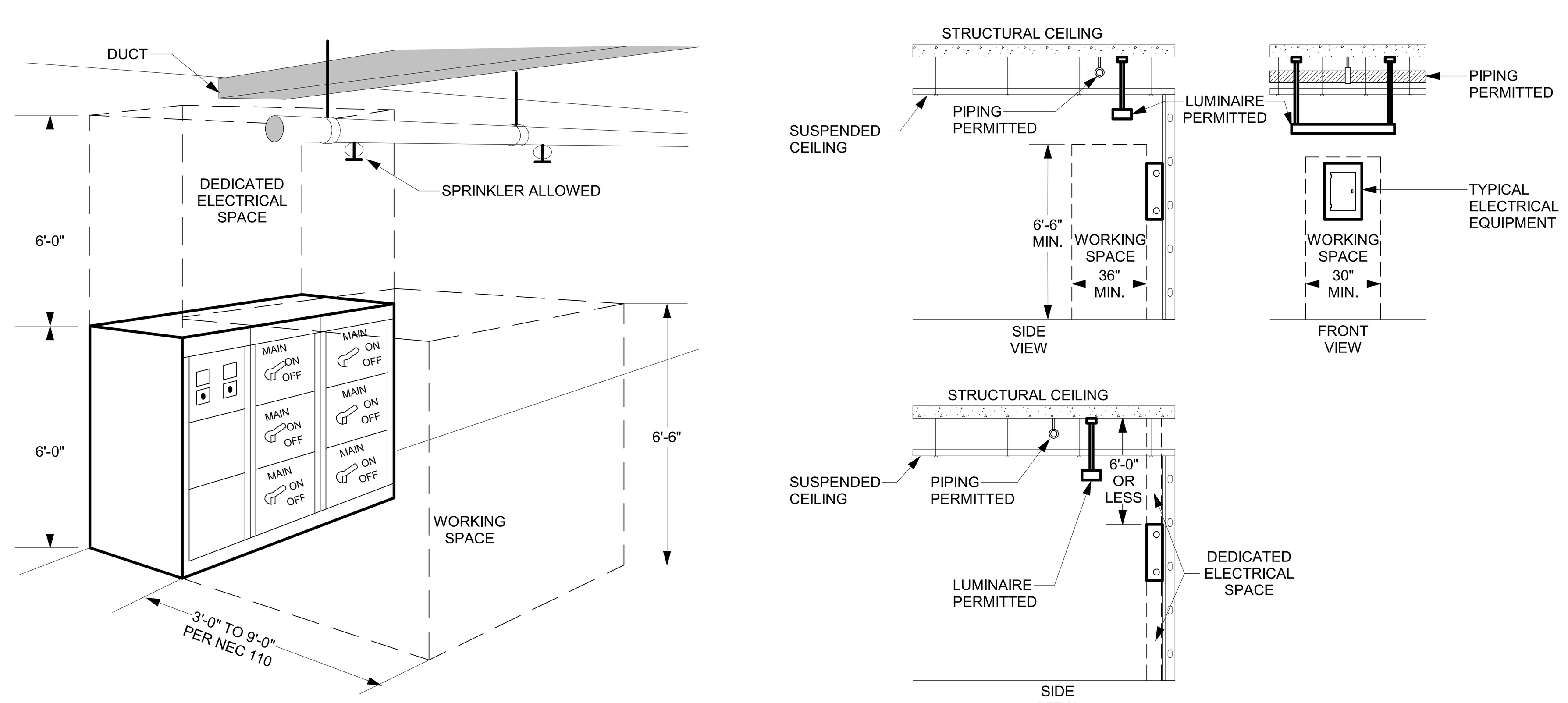
A. PRESSURE GAUGES - SELECT GAUGE RANGE TO PLACE MAXIMUM SYSTEM OPERATING PRESSURE IN MIDDLE THIRD OF RANGE.

B. PROVIDE UNION ON PUMP INLET AND OUTLET IF PUMP IS NOT FLANGED.

C. INSTALL PUMP WITH SHAFT HORIZONTAL. PIPING MAY BE INSTALLED VERTICAL, AS SHOWN, OR HORIZONTAL DEPENDING ON SITE CONDITIONS.

D. INSTALL CHECK VALVE HORIZONTALLY OR VERTICALLY WITH FLOW UPWARD.

3 INLINE PUMP DETAIL
P001 NOT TO SCALE



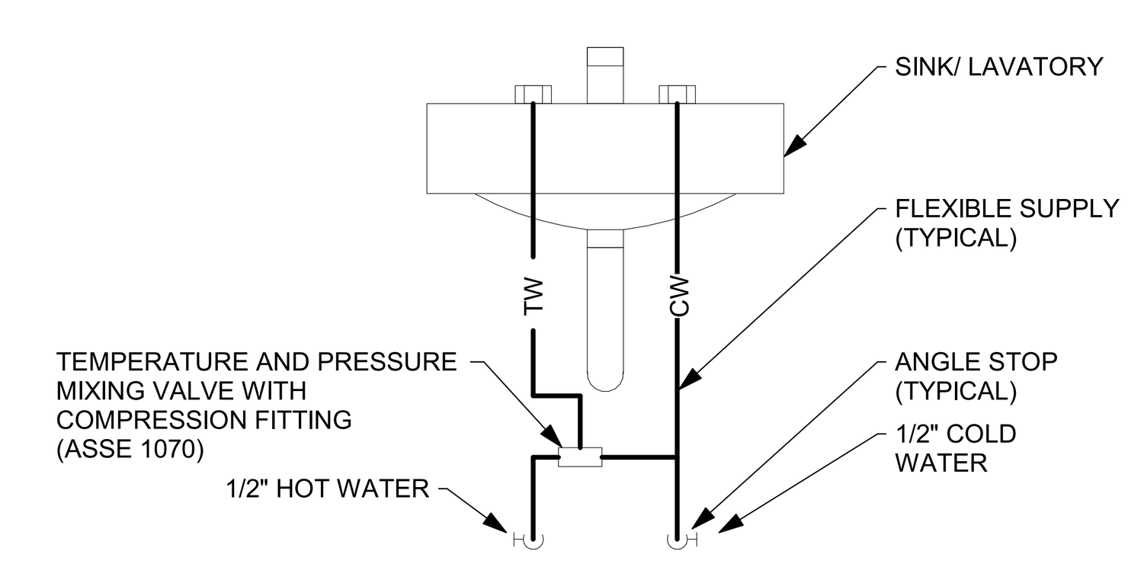
DETAIL NOTES:

A. ELECTRICAL EQUIPMENT INCLUDES PANELS, TRANSFORMERS, DISCONNECTS, STARTERS, MOTOR CONTROL CENTERS, SWITCHGEAR, ADJUSTABLE SPEED DRIVES, AND FUSED SWITCHES (THIS ALSO APPLIES TO ELECTRICAL GEAR MOUNTED DIRECTLY ON MECHANICAL EQUIPMENT).

B. DEDICATED ELECTRICAL SPACE IS DEFINED BY NEC 110.

C. NO PIPING OR DUCTWORK MAY BE INSTALLED IN DEDICATED ELECTRICAL SPACE OR WORKING SPACE.

2 PIPING OVER ELECTRICAL EQUIPMENT DETAIL
P001 NOT TO SCALE



DETAIL NOTE:

A. PROVIDE A MIXING VALVE FOR EACH HAND SINK AND LAVATORY.

B. MIXING VALVE SHALL BE ADJUSTED TO DELIVER TEMPERED WATER AT 105°F.

1 POINT OF USE MIXING VALVE DETAIL
P001 NOT TO SCALE

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M/E PROJECT: 233139.00

Project Title

NEWBURGH ENLARGED CITY SCHOOL DISTRICT
NEW CTE BUILDING

STATE OF NEW YORK · MICHAEL K. SULLIVAN · 077887-1 · LICENSED PROFESSIONAL ENGINEER
Reg. Exp: 05/31/2024
Cert. of Auth: 0018443

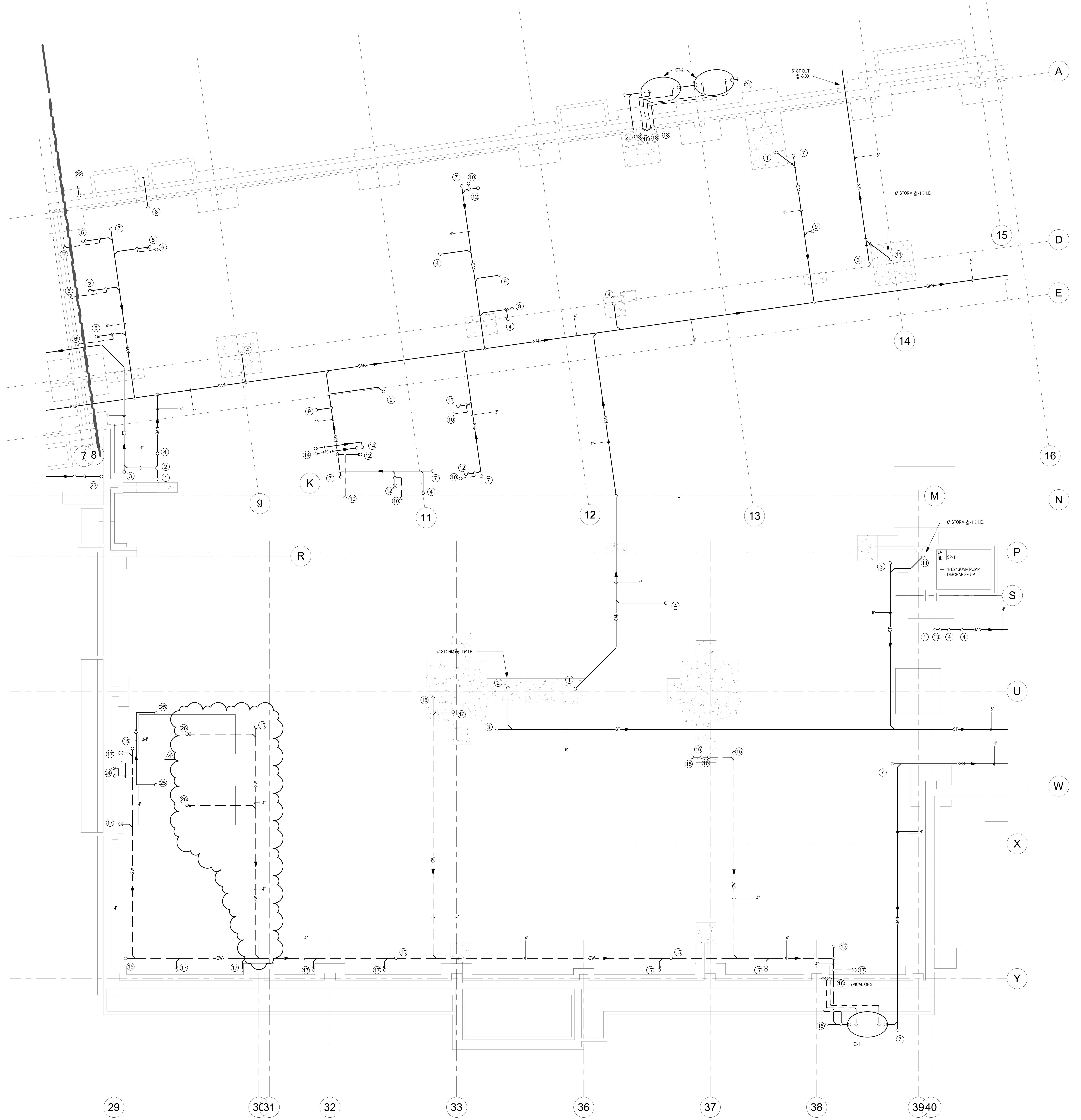
#	DATE	DESCRIPTION
4	6/6/2024	BID Addendum #6
3	5/29/2024	BID Addendum #5
1	5/3/2024	BID Addendum #2
A	4/5/2024	Revision 1

Drawn By:	MT
Checked By:	MT
Proj. #:	44-16-00-01-0-053-001
CSArch Proj. #:	108-2303
Construction Documents:	4/15/2024

Sheet Title
PLUMBING NOTES, SYMBOLS AND SCHEDULES

Sheet No.
CTE P001

CONSTRUCTION DOCUMENTS



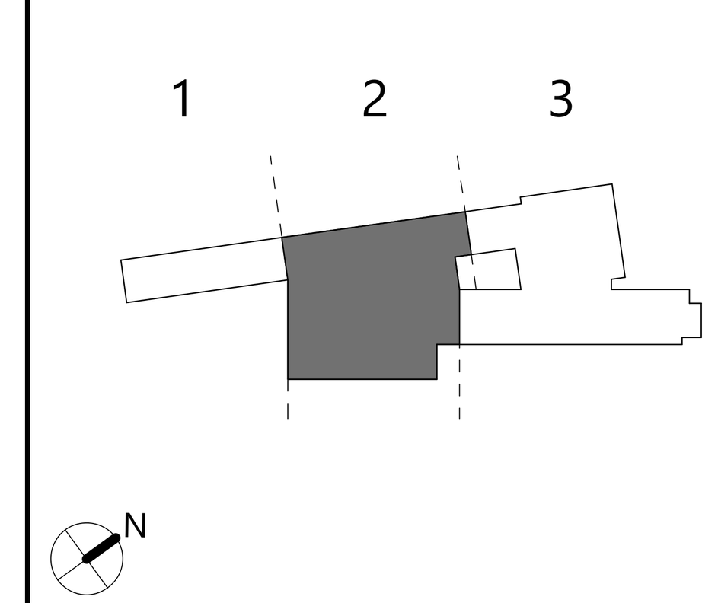
1 UNDERSLAB - AREA 2 - PLUMBING
P101 1/8" = 1'-0"

Autodesk Docs://NECSD - New CTE Bldg/233139_NECSD_CTE_PL_CENTRAL_R22.rvt

P101 DRAWING NOTES

1 4" SANITARY UP
2 4" PRIMARY STORM UP
3 STORM UP TO DECKPLATE CLEAN OUT
4 2" SANITARY UP
5 4" SANITARY WITH P-TRAP UP
6 2" VENT UP
7 SANITARY UP TO DECKPLATE CLEAN OUT
8 6" COMBINED DOMESTIC/ FIRE WATER SERVICE UP
9 3" SANITARY UP
10 1-1/2" VENT UP
11 6" STORM UP
12 3" SANITARY WITH P-TRAP UP
13 4" VENT UP
14 1/2" HOT AND COLD WATER UP
15 OIL WASTE UP TO CLEAN OUT
16 2" OIL WASTE UP
17 4" OIL WASTE WITH P-TRAP UP TO TRENCH DRAIN
18 3" VENT UP
20 4" GREASE WASTE UP
21 SANITARY FROM GREASE INTERCEPTOR TO SITE
22 MEDIUM PRESSURE NATURAL GAS SERVICE FROM UTILITY COMPANY
23 4" NATURAL GAS UP
24 1" COMPRESSED AIR UP
25 3/4" COMPRESSED AIR UP TO LIFT CONTROLLERS
26 4" OIL WASTE WITH P-TRAP UP TO DRAIN IN LIFT PIT

KEY PLAN



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19 Front St. · Newburgh · New York 12550-7601
845 · 561 · 3179 www.csarchpc.com

Consultant
M/E ENGINEERING
M/E PROJECT: 233139.00

Project Title
NEWBURGH ENLARGED CITY SCHOOL DISTRICT
NEW CTE BUILDING

STATE OF NEW YORK · MICHAEL K. SULLIVAN · 077887-1 · LICENSED PROFESSIONAL ENGINEER
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4	6/6/2024	BID Addendum #6
3	5/29/2024	BID Addendum #5
1	5/3/2024	BID Addendum #2
B	4/16/2024	Revision 2
A	4/5/2024	Revision 1

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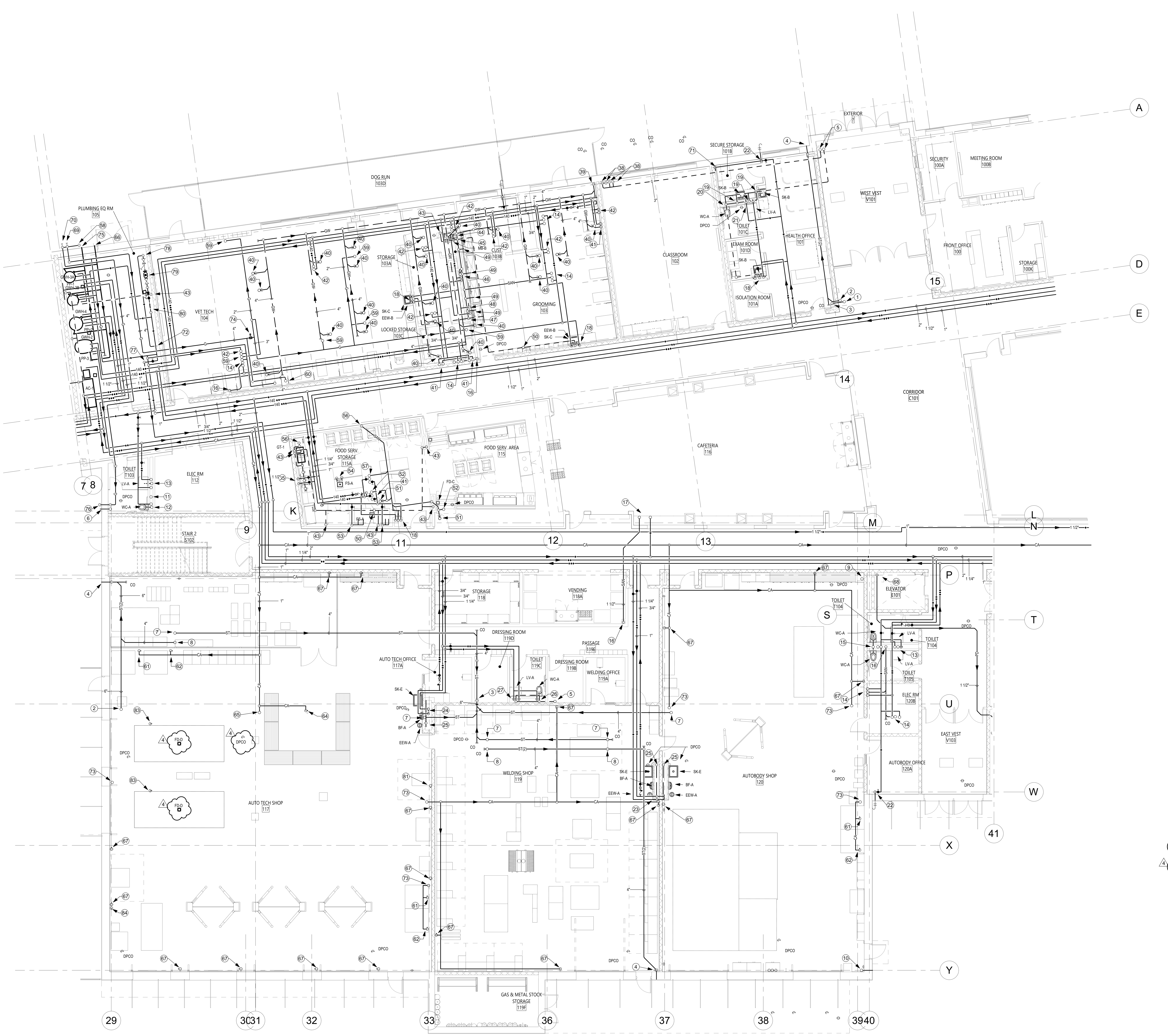
Sheet Title
PARTIAL UNDERSLAB PLAN - AREA 2 - PLUMBING

Sheet No.
CTE P101

CONSTRUCTION DOCUMENTS



1 FIRST FLOOR - AREA 2 - PLUMBING PLAN
P112 1/8" = 1'-0"

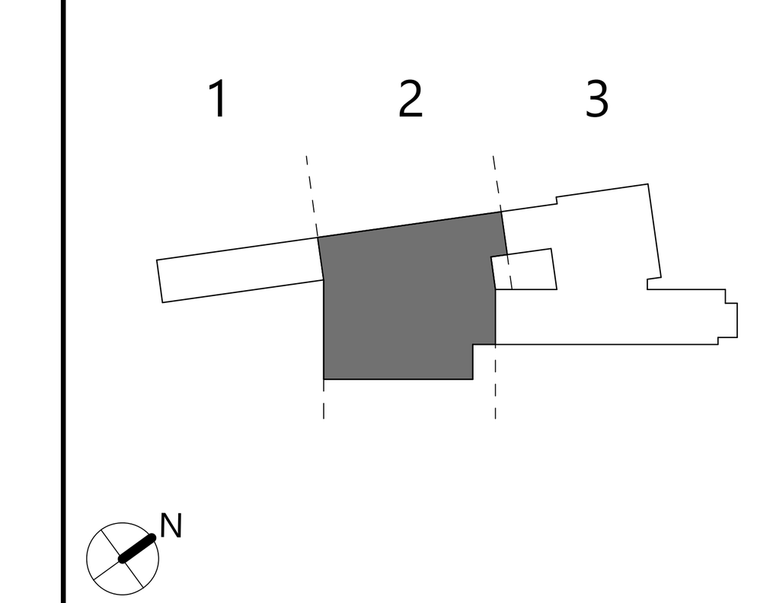
Autodesk Docs://NECSD - New CTE Bldg/233139_NECSD_CTE_PL_CENTRAL_R22.rvt

P112 DRAWING NOTES

1 6" PRIMARY STORM UP
2 6" SECONDARY STORM UP
3 6" PRIMARY STORM DOWN
4 6" SECONDARY STORM DROP TO 1'-6" ABOVE GRADE AT EXTERIOR AND DISCHARGE OVER SPLASH BLOCK BY OTHERS. PROVIDE DOWNSPOUT AT EXTERIOR TERMINATION
5 3" VENT UP
6 4" SECONDARY STORM DROP TO 1'-6" ABOVE GRADE AT EXTERIOR AND DISCHARGE OVER SPLASH BLOCK BY OTHERS. PROVIDE DOWNSPOUT AT EXTERIOR TERMINATION
7 4" PRIMARY STORM UP
8 4" SECONDARY STORM UP
9 6" PRIMARY STORM UP AND DOWN
10 6" SECONDARY STORM UP, 6" DROP DOWN TO 1'-6" ABOVE GRADE AT BUILDING EXTERIOR AND TERMINATE WITH HINGED DOWNSPOUT COVER
11 4" PRIMARY STORM UP AND DOWN
12 4" SANITARY UP AND DOWN; 1" SANITARY DROP AND UP TO FLUSH VALVES
13 2" SANITARY UP, 2" SANITARY DOWN; 1/2" HOT AND COLD WATER DROP AND UP TO MIXING VALVE/ FAUCET SUPPLIES
14 1-1/2" SANITARY UP; 1/2" HOT AND COLD WATER UP TO MIXING VALVE/ FAUCET SUPPLIES
15 4" AND 4" VENT SANITARY UP AND DOWN; 1" SANITARY DROP AND UP TO FLUSH VALVES
16 2" SANITARY DOWN
17 1-1/2" SANITARY UP; 1/2" COLD WATER UP
18 1-1/2" SANITARY DROP, 2" DOWN, 1-1/2" VENT RISE; 1/2" HOT AND COLD WATER DROP TO MIXING VALVE/ FAUCET SUPPLIES
19 1-1/2" SANITARY DROP IN WALL, 1-1/2" VENT RISE
20 3" SANITARY DOWN, 2" VENT RISE
21 1-1/4" COLD WATER AND 1/2" HOT WATER DROP; ROUTE IN CHASE - 1" COLD WATER TO FLUSH VALVE, 1/2" HOT AND COLD WATER TO MIXING VALVE/ FAUCET SUPPLIES
22 3/4" COLD WATER DROP DOWN TO FROST FREE WALL HYDRANT
23 1" HOT AND 1-1/4" COLD WATER DROP. ROUTE IN CHASE TO MIXING VALVE/ FAUCET SUPPLIES, BOTTLE FILLER AND EYE WASH STATION. PROVIDE EMERGENCY MIXING VALVE AND THERMOMETER IN VISIBLE LOCATION AT EYE WASH STATION. ROUTE 1/2" TEPID WATER FROM MIXING VALVE TO EYE WASH
24 3/4" HOT AND 1" COLD WATER DROP. ROUTE IN CHASE TO MIXING VALVE/ FAUCET SUPPLIES, BOTTLE FILLER AND EYE WASH STATION. PROVIDE EMERGENCY MIXING VALVE AND THERMOMETER IN VISIBLE LOCATION AT EYE WASH STATION. ROUTE 1/2" TEPID WATER FROM MIXING VALVE TO EYE WASH
25 2" SANITARY DOWN, ROUTE IN CHASE TO FIXTURE TRAPS
26 3" SANITARY DOWN, 2" VENT RISE; 1" COLD WATER DROP
27 1-1/2" SANITARY DROP, 1-1/2" VENT RISE; 1/2" HOT AND COLD WATER DROP TO MIXING VALVE/ FAUCET SUPPLIES
38 3" VENT RISE
39 4" GREASE WASTE DOWN
40 3" GREASE WASTE WITH P-TRAP UP TO FLOOR SINK
41 1/2" HOT AND COLD WATER UP
42 3/4" HOT AND COLD WATER UP
43 2" VENT RISE
44 1/2" HOT AND COLD WATER DROP
45 1-1/2" SANITARY DROP, 2" SANITARY IN WALL, 1-1/2" VENT RISE
46 1-1/2" SANITARY DROP, 2" DOWN, 1-1/2" VENT RISE, P-TRAP IN WALL; 1/2" HOT AND COLD WATER DROP TO WASHING MACHINE SUPPLY BOX
47 2" SANITARY DOWN, 2" VENT RISE
48 1" HOT AND COLD WATER DROP, ROUTE IN WALL. PROVIDE 1/2" HOT AND COLD TO WASH TUB SUPPLIES.
49 1-1/2" SANITARY WITH P-TRAP TO EACH WASH TUB. PROVIDE HAIR TRAP SIMILAR TO STRIEM SIDEKICK PIONT OF USE SIDE ACCESS SOLIDS INTERCEPTOR IN DRAIN PIPING
50 2" VENT UP
51 3" SANITARY WITH P-TRAP UP
52 1-1/2" VENT UP
53 1/2" COLD WATER CONNECTION TO EACH COMBI UNIT SUPPLY. ROUTE DRAIN CONNECTION AND DISCHARGE WITH DOWN TURNED ELBOW 1" ABOVE FLOOD RIM OF FLOOR SINK
54 1/2" HOT AND COLD WATER RISE. 1-1/2" DRAIN FROM FIXTURE TO DISCHARGE 1" OVER FLOOR SINK
55 1/2" HOT AND COLD WATER DROP TO FAUCET SUPPLIES. ROUTE 1-1/2" WASTE TO FLOOR MOUNTED AUTOMATIC GREASE TRAP
56 3" SANITARY DOWN
57 1-1/2" SANITARY, 1/2" HOT AND COLD WATER UP
58 MEDIUM PRESSURE NATURAL GAS SERVICE FROM UTILITY COMPANY
59 2" NATURAL GAS RISE
60 4" NATURAL GAS UP TO ROOF
61 3/4" COMPRESSED AIR DROP DOWN TO REGULATOR STATION AND CONNECT TO TIRE CHANGING EQUIPMENT
62 3/4" COMPRESSED AIR DROP DOWN TO REGULATOR STATION AND CONNECT TO WHEEL BALANCING EQUIPMENT
64 3/4" COMPRESSED AIR DROP DOWN TO HOSE REEL - REELCRAFT 5650OLP - 3/8" X 50' HEAVY DUTY HOSE REEL WITH BUMPER STOPS
65 1" COMPRESSED AIR UP
66 6" COMBINED DUCTED SUPPLY AIR TO HOT WATER HEATERS
67 3/4" COMPRESSED AIR DROP DOWN TO HOSE REEL - REELCRAFT 5650OLP - 3/8" X 50' HEAVY DUTY HOSE REEL WITH BUMPER STOPS
68 1-1/2" PUMPED DISCHARGE RISE FROM SUMP PUMP
69 NATURAL GAS SHUTOFF VALVE FOR BUILDING
70 NATURAL GAS SHUTOFF VALVE FOR GENERATOR
71 1/2" COLD WATER DROP DOWN TO SUPPLY BOX IN WALL FOR REFRIGERATOR
72 6" DOMESTIC COLD WATER TO FIRE PROTECTION SYSTEM
73 COMPRESSED AIR UP
74 3" SOLENOID VALVE FOR NATURAL GAS SHUT DOWN. COORDINATE WITH FIRE SUPPRESSION CONTRACTOR FOR ACTIVATION WITH HOOD SUPPRESSION SYSTEM ACTIVATION
75 6" COMBINED DUCTED EXHAUST AIR TO HOT WATER HEATERS
76 4" NATURAL GAS DROP DOWN TO UNDERGROUND TO SUPPLY GENERATOR
77 1-1/2" COLD WATER TO DUST COLLECTOR. SIGN TO BE PROVIDED INDICATING THAT THIS VALVE SHALL REMAIN OPEN AT ALL TIMES.
78 6" COMBINED DOMESTIC AND FIRE WATER SERVICE
79 4" DOMESTIC WATER METER AND STRAINER
80 TWO DOMESTIC WATER REDUCED PRESSURE BACKFLOW PREVENTERS IN PARALLEL. SEE DETAIL 7 P301 FOR DETAILS
81 3/4" COMPRESSED AIR DROP DOWN TO REGULATOR STATION AND CONNECT TO H-FRAME PRESS EQUIPMENT
83 3/4" COMPRESSED AIR RISE UP TO LIFT CONTROLLER
84 3/4" COMPRESSED AIR DROP DOWN TO QUICK CHANGE CONNECTION FOR MOTORCYCLE LIFT

4

KEY PLAN



CS ARCH
19 Front St. · Newburgh · New York 12550-7601
845 · 561 · 3179 www.csarchpc.com

Consultant

M/E PROJECT: 233139.00

Project Title

NEWBURGH ENLARGED CITY SCHOOL DISTRICT NEW CTE BUILDING

STATE OF NEW YORK · MICHAEL K. SULLIVAN · 077887-1 · LICENSED PROFESSIONAL ENGINEER
Reg. Exp: 05/31/2024
Cert. of Auth: 0018443

#	DATE	DESCRIPTION
4	6/6/2024	BID Addendum #6
3	5/29/2024	BID Addendum #5
1	5/3/2024	BID Addendum #2
B	4/16/2024	Revision 2
A	4/5/2024	Revision 1

Drawn By:	MT
Checked By:	MT
Proj. #:	44-16-00-01-0-053-001
CSArch Proj. #:	108-2303
Construction Documents:	4/15/2024

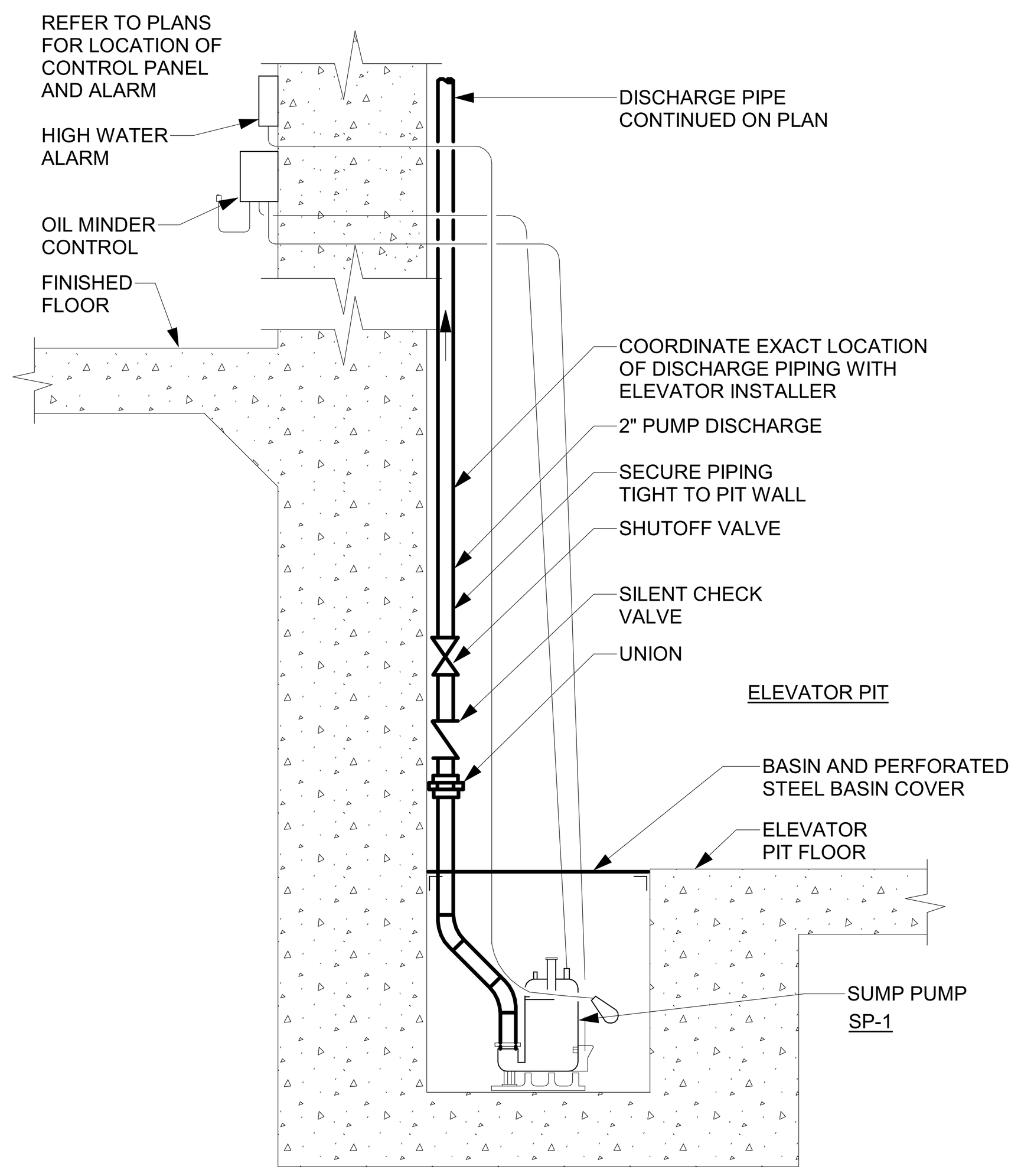
Sheet Title

PARTIAL FIRST FLOOR PLAN - AREA 2 - PLUMBING

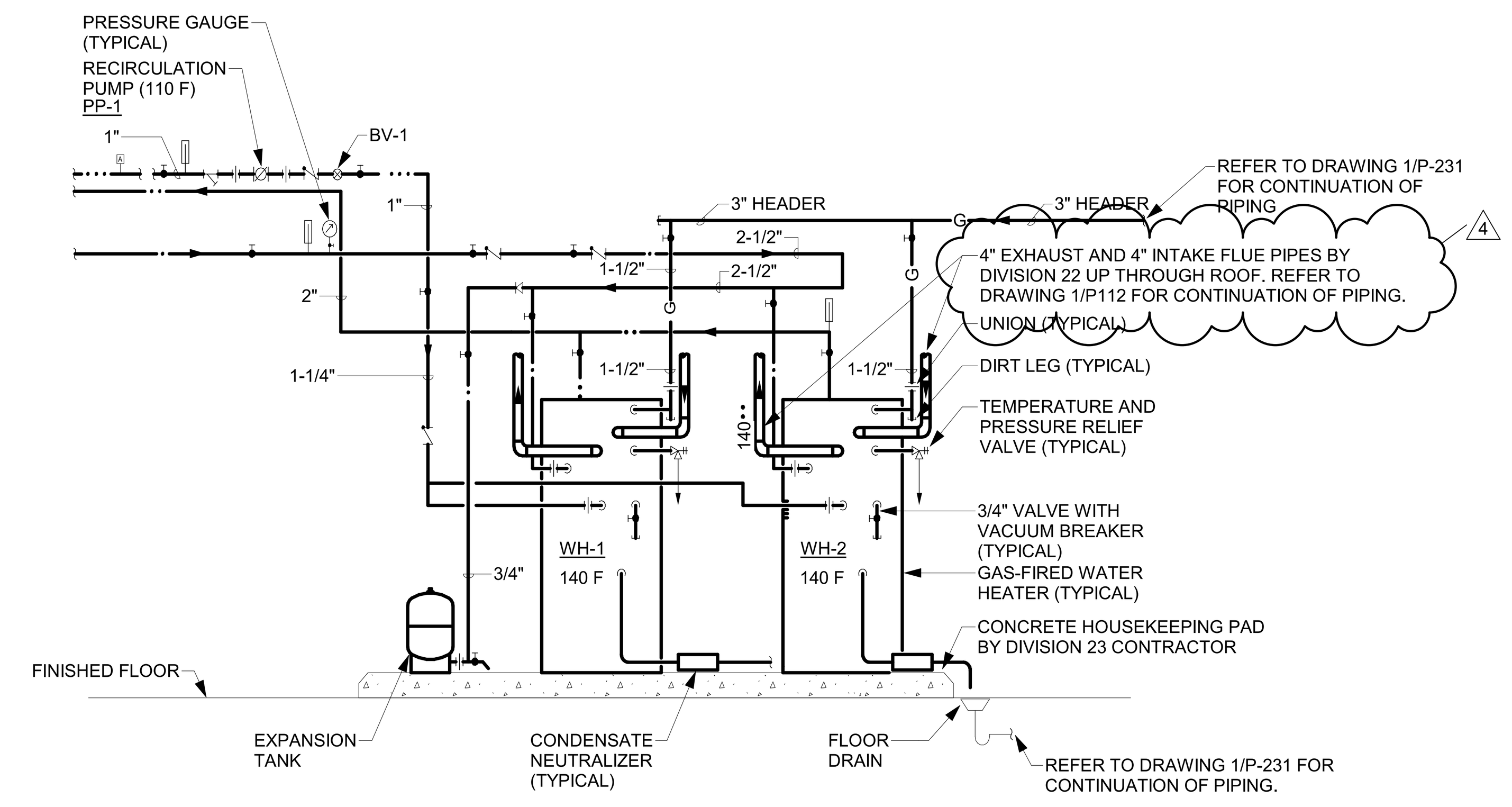
Sheet No.

CTE P112

CONSTRUCTION DOCUMENTS



10 ELEVATOR SUMP PUMP DETAIL - BASIN IN SHAFT
P301 NOT TO SCALE



DETAIL NOTES:

A. INSTALL PIPING TO ALLOW FOR FUTURE REMOVAL OF WATER HEATERS.

B. RELIEF VALVE DISCHARGE PIPE SIZE SHALL MATCH VALVE OUTLET SIZE - TERMINATE ABOVE FLOOR DRAIN WITH CODE REQUIRED AIR GAP.

C. REFER TO EXPANSION TANK DETAIL FOR EQUIPMENT INSTALLATION SCHEMATIC.

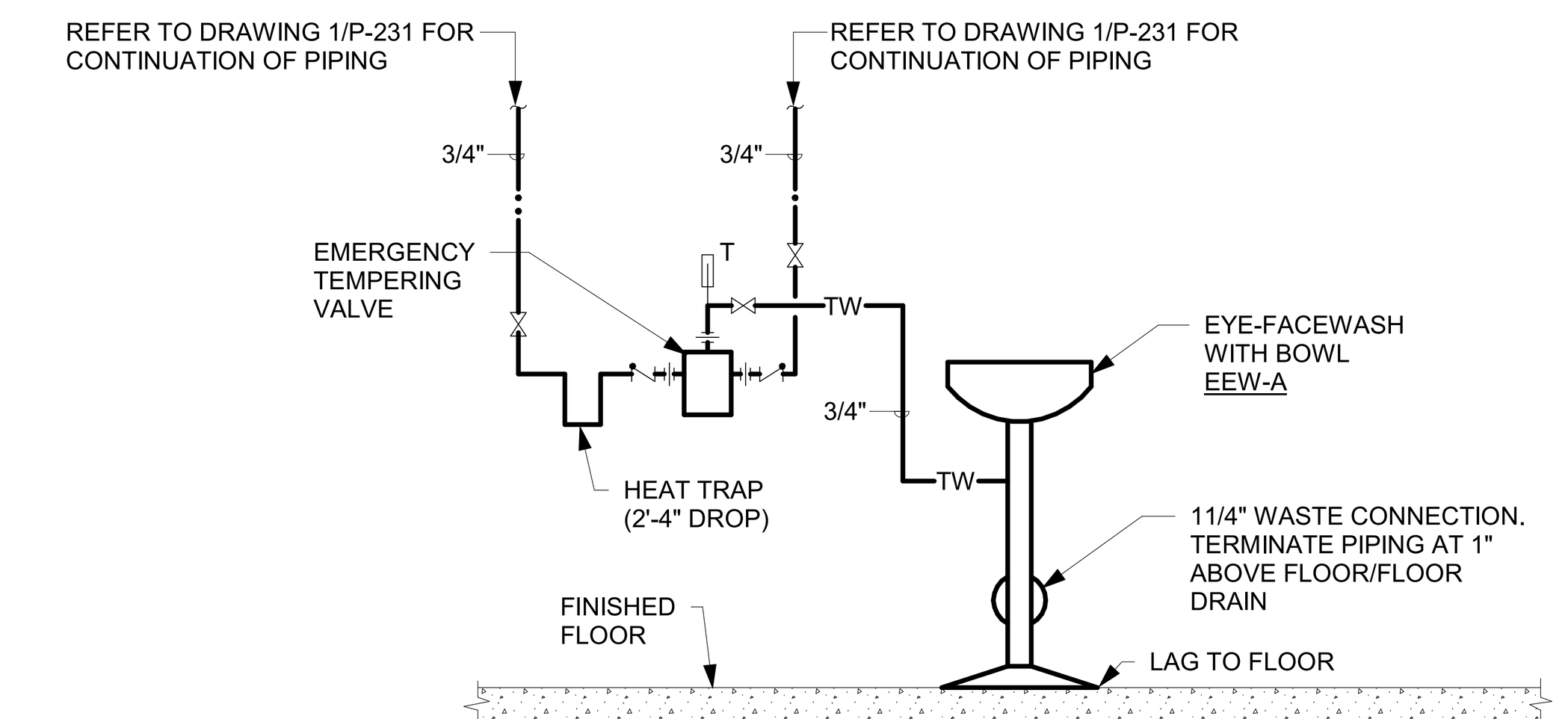
D. PROVIDE AQUASTAT AT FURTHEST POINT WITH DOMESTIC HOT WATER DISTRIBUTION SYSTEM, OR AS SHOWN ON FLOOR PLANS, AND PROVIDE NECESSARY WIRING TO INTERLOCK WITH HEATER CONTROLS.

E. PIPING CONFIGURATION BASED ON CONDENSING WATER HEATER.

F. FLUE PIPING SHALL BE AL29-AC STAINLESS STEEL WITH SEALED JOINTS FOR CATEGORY 4 APPLIANCE.

G. PROVIDE WITH CONDENSATE NEUTRALIZER, CONNECT 3/4" CPVC PIPING TO WATER HEATERS AND NEUTRALIZER. TERMINATE CONDENSATE DRAIN ABOVE FLOOR DRAIN WITH CODE REQUIRED AIR GAP.

9 WATER HEATER SCHEMATIC
P301 NOT TO SCALE



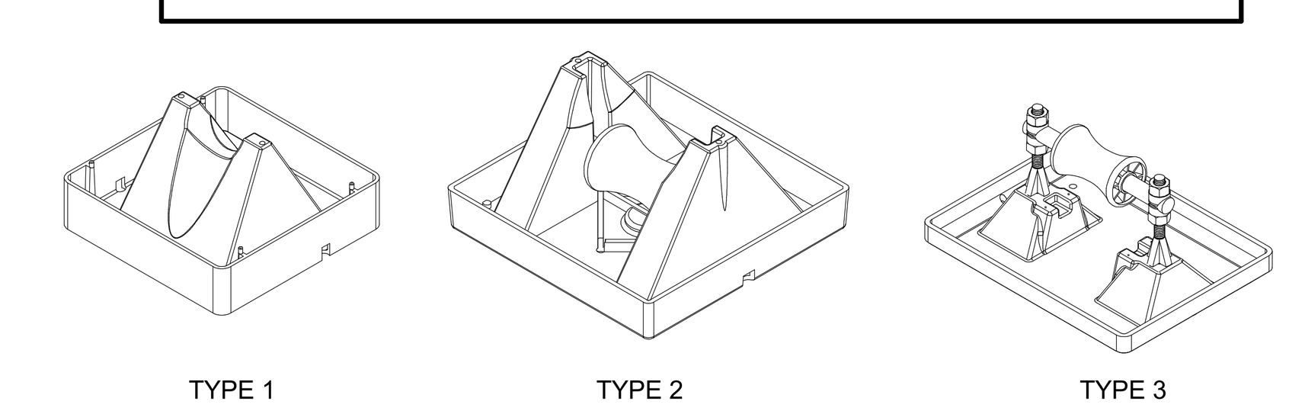
8 EMERGENCY SHOWER/EYEWASH DETAIL
P301 NOT TO SCALE

ROOF PIPE SUPPORTS

TYPE	NOMINAL PIPE SIZE INCHES	MAXIMUM O.D. INCHES	MAX. WT. PER STAND LBS.	CLEARANCE BELOW PIPE INCHES	NOTES
1	1 1/2"	1.9"	80	2.3 - 5.3"	1, 3
2	3"	3.75"	100	2.2 - 6.2"	2
3	3"	5"	100	2.75 - 7"	

NOTES:

1. WITHOUT ROLLER.
2. 1 OR 2 SPACER UNITS MAY BE STACKED FOR MORE CLEARANCE, EACH 2" HIGH.
3. UNITS MAY BE STACKED UP TO 3 HIGH FOR MORE CLEARANCE, ADD 1 1/2" E ACH.



DETAIL NOTES:

A. PROVIDE PIPE SUPPORTS FOR PIPING ON ROOF. SEE TABLE ABOVE FOR TYPES.

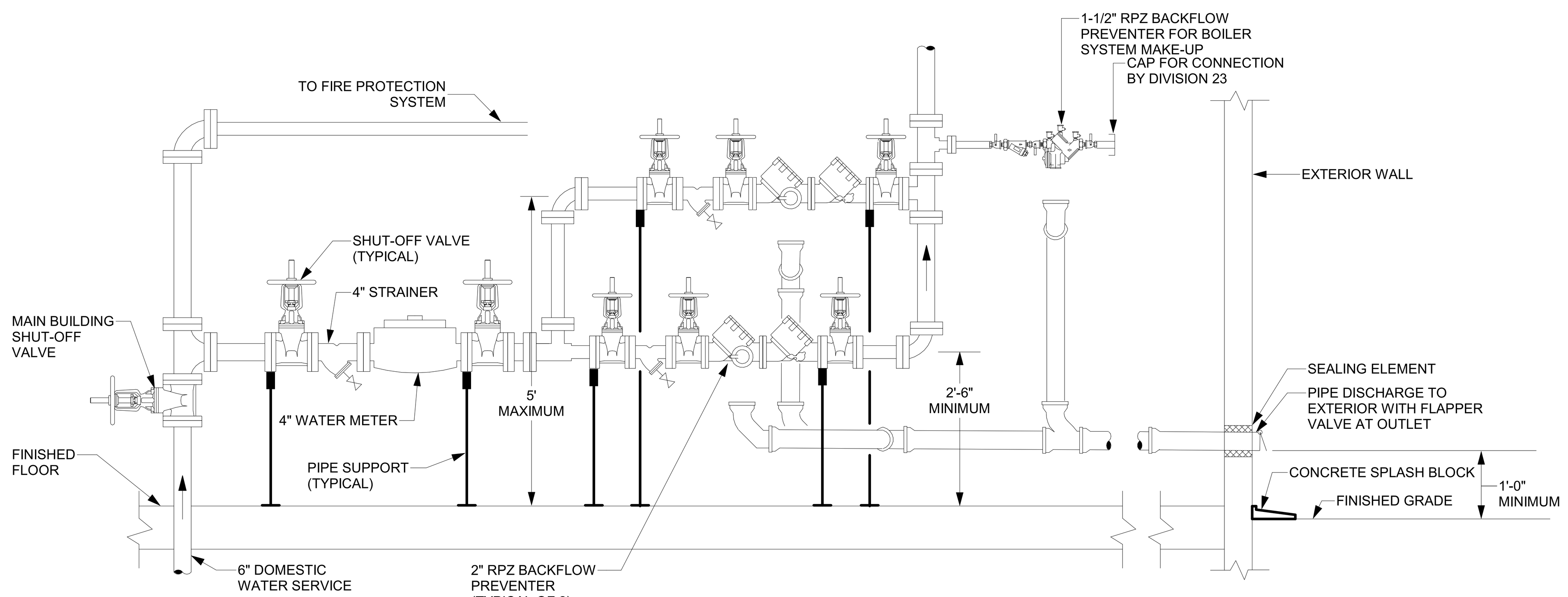
B. GAS PIPING LOCATED ON ROOF SHALL BE SUPPORTED AT ALL TURNS AND EVERY 8'-0" FOR PIPING 1" AND LESS IN SIZE, AND EVERY 10'-0" FOR ALL OTHER SIZES. PITCH PIPING AS SPECIFIED.

C. CENTER THE PIPE STAND BELOW THE PIPE AND PLACE THE PIPE GENTLY IN THE CRADLE. PROVIDE ROOFING MANUFACTURER'S RUBBER MEMBRANE PROTECTIVE PADS BELOW EACH PIPE SUPPORT.

D. FOR BUILT-UP AND STONE BALLASTED ROOFS - REMOVE ALL LOOSE AGGREGATE FROM A 1'-0" SQUARE AREA BELOW THE PIPE STAND BEFORE INSTALLING THE PROTECTIVE PAD.

E. ALL GAS PIPING LOCATED ON THE ROOF SHALL BE CLEANED, PRIMED AND PAINTED WITH ONE (1) PRIMER AND TWO (2) FINISH COATS OF COLOR SPECIFIED.

5 GAS PIPING ROOF SUPPORT DETAIL
P301 NOT TO SCALE



DETAIL NOTES:

A. PROVIDE PROPER SUPPORTS FOR BACKFLOW PREVENTERS, WATER METER AND PIPING.

B. PROVIDE 8" CLEARANCE BEHIND BACKFLOW PREVENTERS, 1'-0" ABOVE AND 2'-6" CLEARANCE IN FRONT OF DEVICES.

C. THE INSTALLATION OF FIXED AIR GAP FITTINGS ARE NOT ACCEPTABLE FOR USE ON DRAIN LINES. PROVIDE FUNNEL DRAINS AS INDICATED.

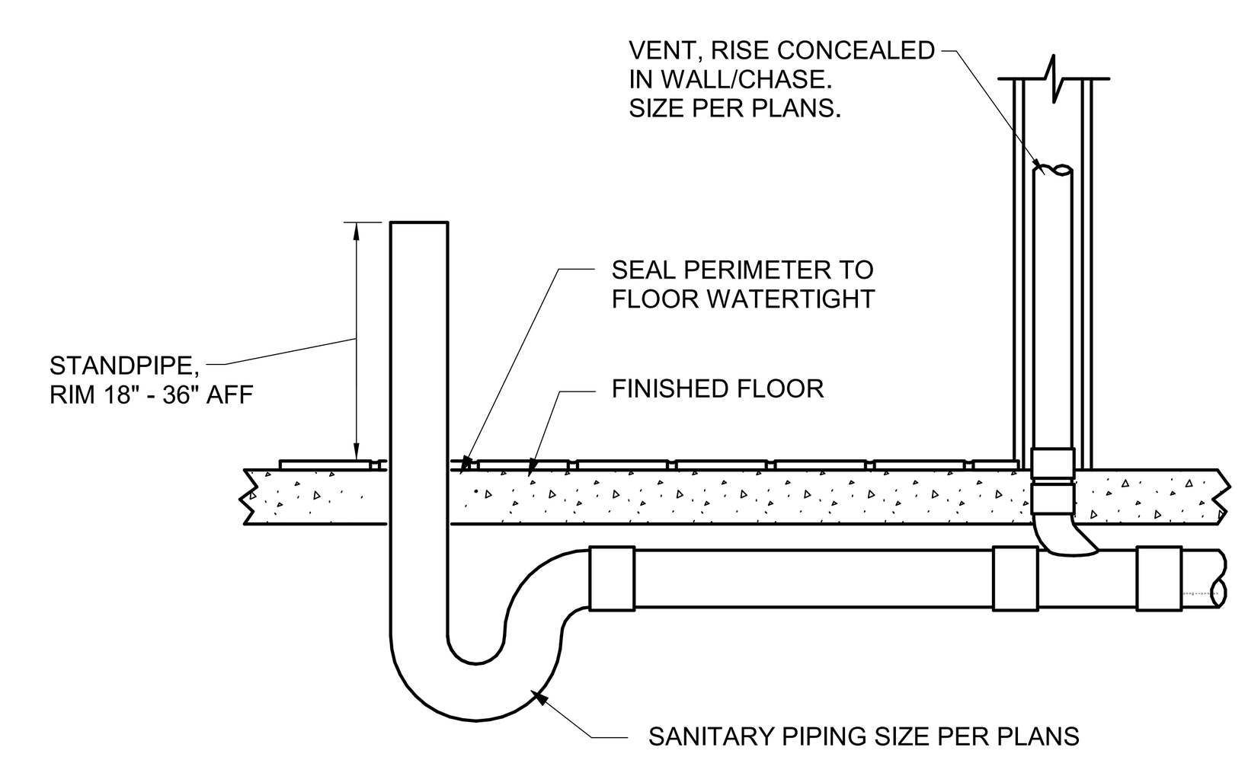
D. PAINT SUPPORTS WITH ONE (1) PRIMER AND TWO (2) FINISH COATS OF COLOR AS SPECIFIED.

E. PROVIDE FIXED PLATFORM SHOULD THE UPPER BACKFLOW PREVENTER BE INSTALLED HIGHER THAN 5'-0" ABOVE FINISHED FLOOR. HEIGHT OF UPPER BACKFLOW PREVENTER FROM TOP OF PLATFORM SHALL NOT EXCEED 5'-0".

F. HEAT AND LIGHT ARE PROVIDED IN THE AREA OF THE BACKFLOW PREVENTERS.

G. PROVIDE SPOOL PIECES AT INLET AND OUTLET OF METER AS RECOMMENDED BY METER MANUFACTURER.

7 DOMESTIC WATER SERVICE ENTRANCE DETAIL
P301 NOT TO SCALE

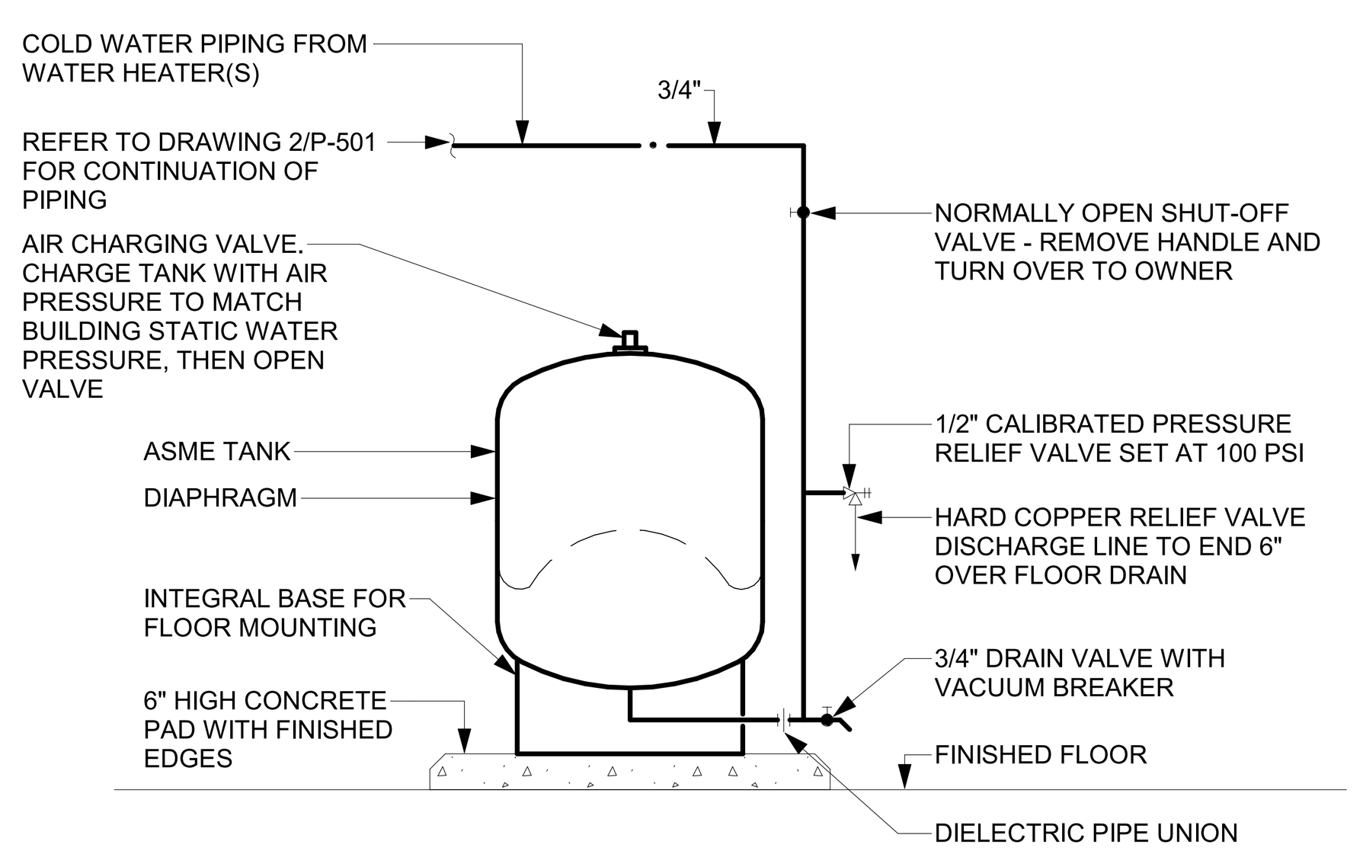


DETAIL NOTES:

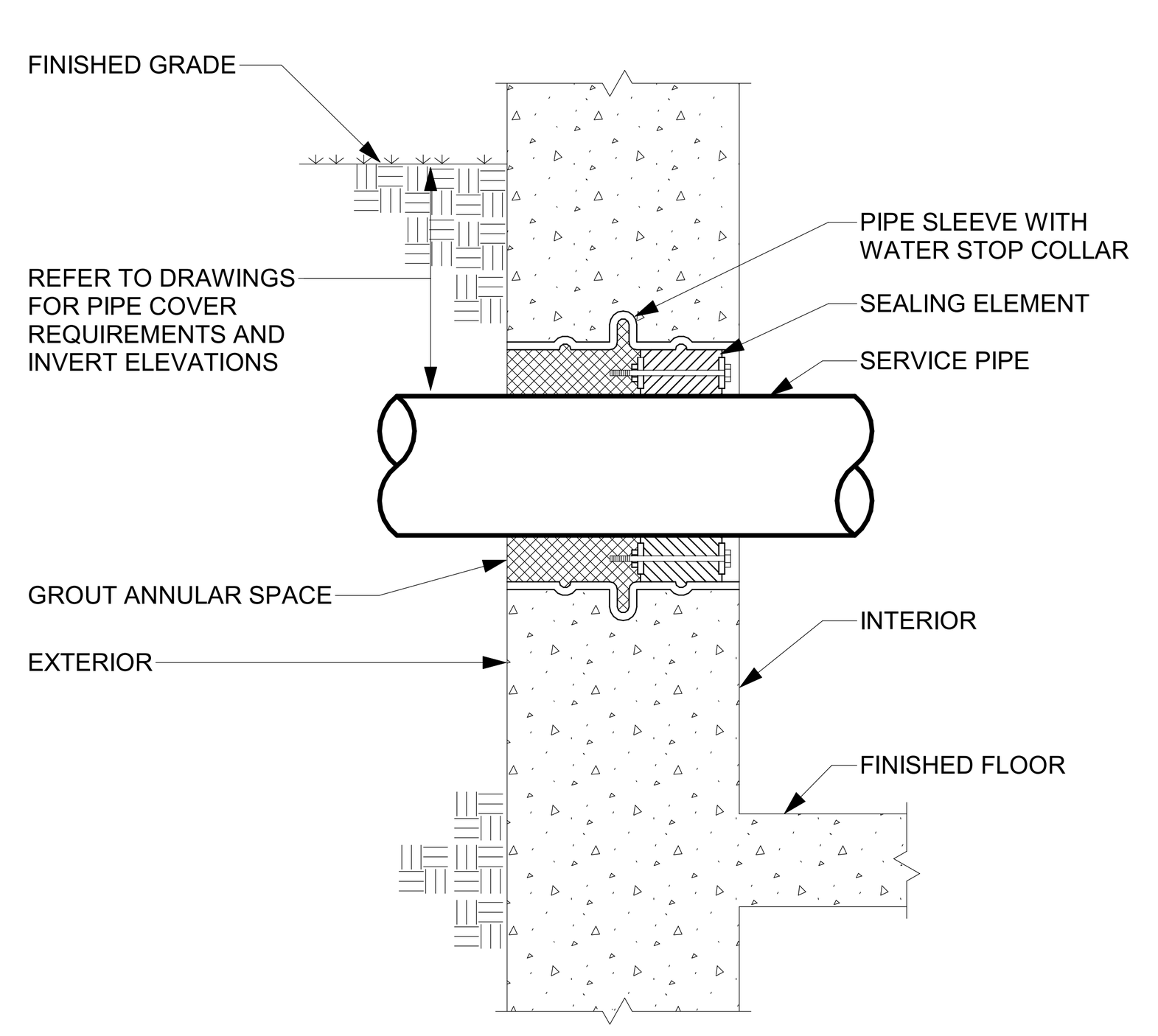
A. PROVIDE TRAP GUARD FITTING.

B. SEE ARCHITECTURAL PLANS FOR FLOOR FINISHES AND SLOPES

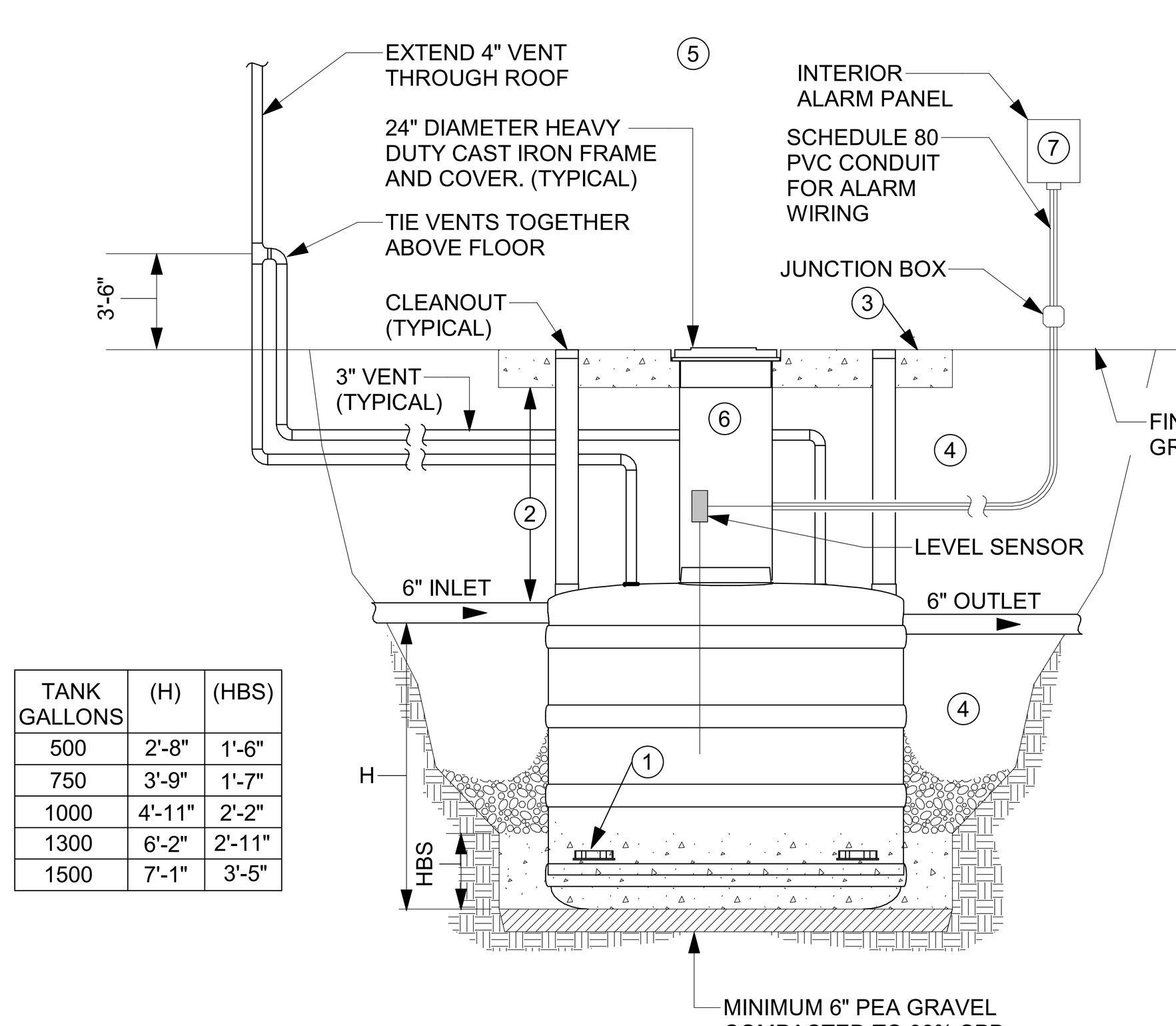
6 ELEVATOR SUMP PUMP DISCHARGE STANDPIPE
P301 NTS



4 THERMAL EXPANSION TANK DETAIL
P301 NOT TO SCALE



3 PIPE THRU NEW EXTERIOR WALL DETAIL
P301 NOT TO SCALE

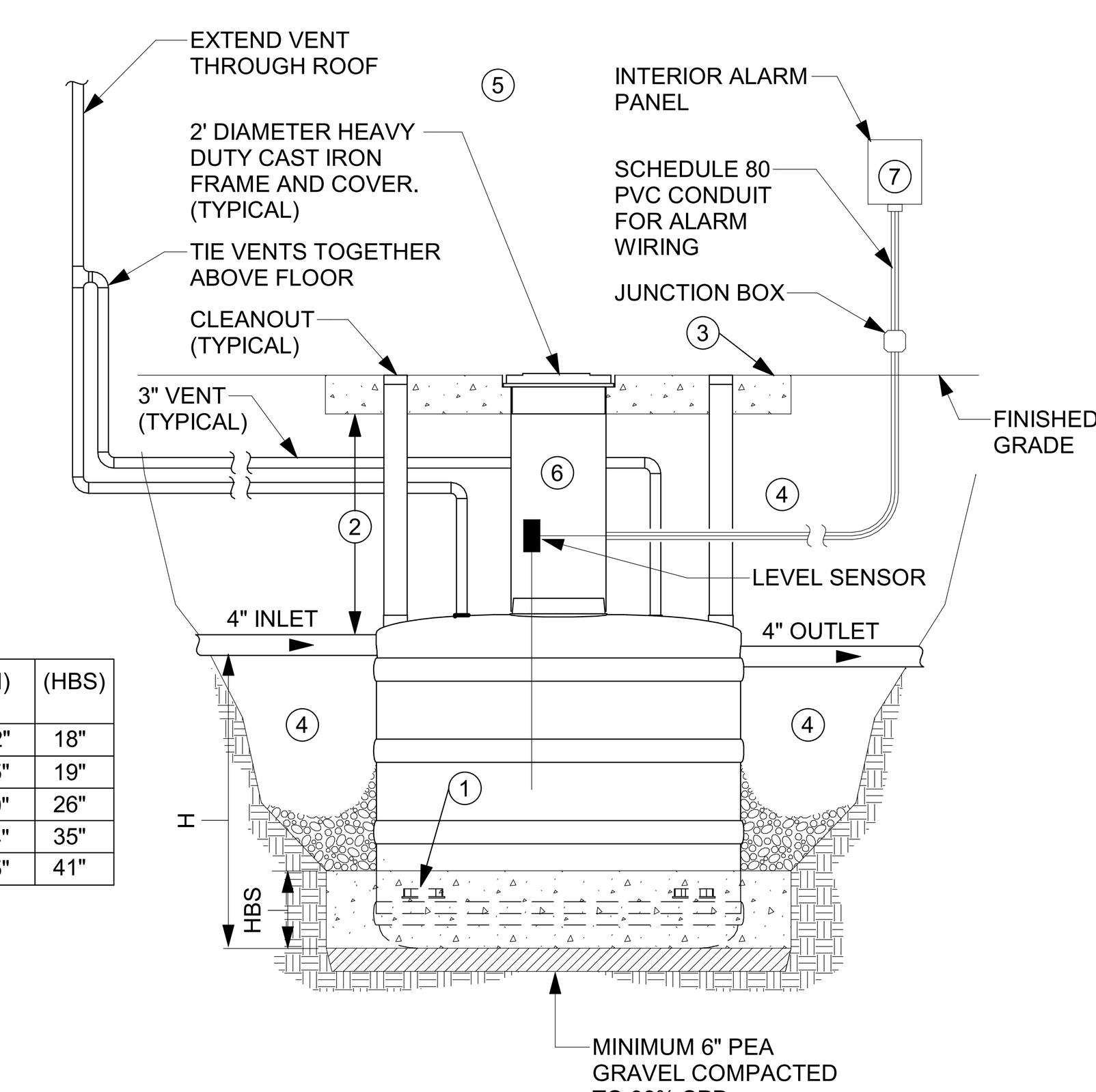


TANK GALLONS	(H)	(HBS)
500	2'-8"	1'-6"
750	3'-9"	1'-7"
1000	4'-11"	2'-2"
1300	6'-2"	2'-11"
1500	7'-1"	3'-5"

DETAIL NOTES:

1. POUR 3000 PSI CONCRETE READY MIX ANTI-BUOYANCY SLAB 1'-0" ALL AROUND THE SEPARATOR CELLS. ENSURE THAT ANCHOR BRACKETS ON SIDE OF TANK ARE COVERED.
2. 2'-7" MINIMUM DEPTH.
3. PROVIDE REINFORCED CONCRETE RELIEVING SLAB PER MANUFACTURERS DETAIL.
4. PROVIDE PEA GRAVEL COMPACTED TO 98% SPD.
5. REFER TO MANUFACTURERS INSTALLATION DETAILS FOR FURTHER REQUIREMENTS.
6. EXTENSION COLLAR WITH SIKAFLEX FIBERGLASS CAULKING.
7. POWER WIRING BY DIVISION 26. ALL OTHER WIRING BY DIVISION 22.

2 GREASE INTERCEPTOR DETAIL
P301 NOT TO SCALE



TANK GALLONS	(H)	(HBS)
500	32"	18"
750	45"	19"
1000	59"	26"
1300	74"	35"
1500	85"	41"

DETAIL NOTES:

1. POUR 3000 PSI CONCRETE READY MIX ANTI-BUOYANCY SLAB 12" ALL AROUND THE SEPARATOR CELLS. ENSURE THAT ANCHOR BRACKS ON SIDE OF TANK ARE COVERED.
2. 2'-7" MINIMUM DEPTH.
3. PROVIDE REINFORCED CONCRETE RELIEVING SLAB PER MANUFACTURERS DETAIL.
4. PROVIDE PEA GRAVEL COMPACTED TO 98% SPD.
5. REFER TO MANUFACTURERS INSTALLATION DETAILS FOR FURTHER REQUIREMENTS.
6. EXTENSION COLLAR WITH SIKAFLEX FIBERGLASS CAULKING.
7. POWER WIRING BY ELECTRICAL CONTRACTOR. ALL OTHER WIRING BY PLUMBING CONTRACTOR.

1 OIL SEPARATOR DETAIL (500-1500 GALLON FIBERGLASS)
P301 NOT TO SCALE

CSARCH
19 Front St. Newburgh New York 12550-7601
845 561 3179 www.csarchpc.com

Consultant
M/E ENGINEERING
M/E PROJECT: 233139.00

Project Title

NEWBURGH ENLARGED CITY SCHOOL DISTRICT
NEW CTE BUILDING

Reg. Exp: 05/31/2024
Cert. of Auth: 0018443

#	DATE	DESCRIPTION
4	6/6/2024	BID Addendum #6
3	5/29/2024	BID Addendum #5
1	5/3/2024	BID Addendum #2

Drawn By: MT
Checked By: MT
Proj. #: 44-16-00-01-0-053-001
CSArch Proj. #: 108-2303
Construction Documents: 4/15/2024

Sheet Title
PLUMBING DETAILS

Sheet No.
CTE P301

CONSTRUCTION DOCUMENTS

VRF SYSTEMS

CONDENSING UNIT	TAG	CS DX Total Cooling MBH (Number)	CS DX Total Cooling Btu/hr
CU-A-1	ISU-CA-204	5.8	0.5 ton
CU-A-1	ISU-CB-111	7.5	0.6 ton
CU-A-1	ISU-CF-107	24	2.0 ton
CU-A-1	ISU-CF-109	24	2.0 ton
CU-A-1	ISU-CF-110A	24	2.0 ton
CU-A-1	ISU-CF-205	24	2.0 ton
CU-A-1	ISU-CG-201	30	2.5 ton
CU-A-1	ISU-CG-202.1	30	2.5 ton
CU-A-1	ISU-CG-202.2	30	2.5 ton
CU-A-1	ISU-CH-108	36	3.0 ton
CU-A-1	ISU-CH-223	36	3.0 ton
CU-A-1			22.6 ton
CU-B-1	ISU-CA-100A	5.8	0.5 ton
CU-B-1	ISU-CA-100C	5.8	0.5 ton
CU-B-1	ISU-CA-100D	5.8	0.5 ton
CU-B-1	ISU-CA-100F	5.8	0.5 ton
CU-B-1	ISU-CA-100H	5.8	0.5 ton
CU-B-1	ISU-CA-100I	5.8	0.5 ton
CU-B-1	ISU-CA-100J	5.8	0.5 ton
CU-B-1	ISU-CB-100B	7.5	0.6 ton
CU-B-1	ISU-CC-100	12	1.0 ton
CU-B-1	ISU-CC-101	12	1.0 ton
CU-B-1	ISU-CF-102	24	2.0 ton
CU-B-1	ISU-CF-103	24	2.0 ton
CU-B-1	ISU-CF-207	24	2.0 ton
CU-B-1	ISU-CF-208	24	2.0 ton
CU-B-1	ISU-CF-209	24	2.0 ton
CU-B-1	ISU-CI-104	48	4.0 ton
CU-B-1	ISU-CI-210	48	4.0 ton
CU-B-1			24.0 ton
CU-C-1	ISU-CA-233A	5.8	0.5 ton
CU-C-1	ISU-CA-233B	5.8	0.5 ton
CU-C-1	ISU-CA-233C	5.8	0.5 ton
CU-C-1	ISU-CA-233D	5.8	0.5 ton
CU-C-1	ISU-CA-233E	5.8	0.5 ton
CU-C-1	ISU-CI-224	48	4.0 ton
CU-C-1	ISU-CI-226	48	4.0 ton
CU-C-1	ISU-CI-229	48	4.0 ton
CU-C-1	ISU-CI-230	48	4.0 ton
CU-C-1	ISU-CI-231	48	4.0 ton
CU-C-1	ISU-CI-232	48	4.0 ton
CU-C-1	ISU-CI-N231	48	4.0 ton
CU-C-1	ISU-CI-N232	48	4.0 ton
CU-C-1			34.4 ton
CU-D-1	ISU-CF-302	24	2.0 ton
CU-D-1	ISU-CH-305	36	3.0 ton
CU-D-1	ISU-CI-306	48	4.0 ton
CU-D-1	ISU-CI-308	48	4.0 ton
CU-D-1	ISU-CI-311	48	4.0 ton
CU-D-1	ISU-CI-314	48	4.0 ton
CU-D-1	ISU-HC-314B	12	1.5 ton
CU-D-1			22.5 ton
CU-E-1	ISU-CA-212	5.8	0.5 ton
CU-E-1	ISU-CA-221B	5.8	0.5 ton
CU-E-1	ISU-CG-215	30	2.5 ton
CU-E-1	ISU-CG-216	30	2.5 ton
CU-E-1	ISU-CI-217	48	4.0 ton
CU-E-1	ISU-CI-218	48	4.0 ton
CU-E-1	ISU-CI-219	48	4.0 ton
CU-E-1	ISU-CI-220	48	4.0 ton
CU-E-1	ISU-CI-221	48	4.0 ton
CU-E-1			26.0 ton
CU-F-1	ISU-WX-112	30	2.5 ton
CU-F-1			2.5 ton
CU-F-2	ISU-WX-211	30	2.5 ton
CU-F-2			2.5 ton
CU-F-3	ISU-WX-110	30	2.5 ton
CU-F-3			2.5 ton
CU-F-4	ISU-WX-126	30	2.5 ton
CU-F-4			2.5 ton
CU-F-5	ISU-WX-127	30	2.5 ton
CU-F-5			2.5 ton
CU-F-7	ISU-WX-310	30	2.5 ton
CU-F-7			2.5 ton
CU-F-8	ISU-WX-312	20	2.5 ton
CU-F-8			2.5 ton
CU-F-9	ISU-WX-313	30	2.5 ton
CU-F-9			2.5 ton
CU-F-10	ISU-WX-301		2.5 ton
CU-F-10			2.5 ton
CU-G-1	ISU-HG-C102A	48	4.0 ton
CU-G-1	ISU-HG-C102B	48	4.0 ton
CU-G-1	ISU-HG-C201A	48	4.0 ton
CU-G-1	ISU-HG-C201B	48	4.0 ton
CU-G-1			16.0 ton
CU-H-1	ISU-HG-C204A	48	4.0 ton
CU-H-1	ISU-HG-C204B	48	4.0 ton
CU-H-1	ISU-HH-C301A	54	4.5 ton
CU-H-1	ISU-HH-C301B	54	4.5 ton
CU-H-1			17.0 ton
CU-J-1	ISU-HG-C103	48	4.0 ton
CU-J-1			4.0 ton
CU-K-1	ISU-HG-C101A	48	4.0 ton
CU-K-1	ISU-HG-C202A	48	4.0 ton
CU-K-1			8.0 ton
CU-K-2	ISU-HG-C101B	48	4.0 ton
CU-K-2	ISU-HG-C101C	48	4.0 ton
CU-K-2			8.0 ton

4

AIR COOLED CONDENSING UNIT SCHEDULE

TAG	NOMINAL TONS	REFIGERANT	EER	ELECTRICAL DATA VOLTAGE	PHASE	FLA	MCA	MOCP	DISCONNECT SWITCH	WEIGHT (LBS)	MANUFACTURER	MODEL	NOTES
CU-A-1	22	R410A	10	480	3	–	42.1	45	FACTORY PROVIDED	1,800	DAIKIN APPLIED	RXYQ264AAYDA	1
CU-B-1	24	R410A	10.3	480	3	–	46.8	50	FACTORY PROVIDED	2,000	DAIKIN APPLIED	RXYQ288AAYDA	1
CU-C-1	26	R410A	10.2	480	3	–	50.4	60	FACTORY PROVIDED	2,000	DAIKIN APPLIED	RXYQ312AAYDA	1
CU-D-1	22	R410A	10	480	3	–	42.1	45	FACTORY PROVIDED	1,800	DAIKIN APPLIED	RXYQ264AAYDA	1
CU-E-1	24	R410A	10.3	480	3	–	46.8	50	FACTORY PROVIDED	2,000	DAIKIN APPLIED	RXYQ288AAYDA	1
CU-F-1	2.5	R410A	9.85	480	3	–	16.6	20	FIELD PROVIDED	250	DAIKIN APPLIED	FTX30WVJU9RK30WMVJU9	2
CU-F-2	2.5	R410A	9.85	480	3	–	16.6	20	FIELD PROVIDED	250	DAIKIN APPLIED	FTX30WVJU9RK30WMVJU9	2
CU-F-3	2.5	R410A	9.85	480	3	–	16.6	20	FIELD PROVIDED	250	DAIKIN APPLIED	FTX30WVJU9RK30WMVJU9	2
CU-F-4	2.5	R410A	9.85	480	3	–	16.6	20	FIELD PROVIDED	250	DAIKIN APPLIED	FTX30WVJU9RK30WMVJU9	2
CU-F-5	2.5	R410A	9.85	480	3	–	16.6	20	FIELD PROVIDED	250	DAIKIN APPLIED	FTX30WVJU9RK30WMVJU9	2
CU-F-7	2.5	R410A	9.85	480	3	–	16.6	20	FIELD PROVIDED	250	DAIKIN APPLIED	FTX30WVJU9RK30WMVJU9	2
CU-F-8	2.5	R410A	9.85	480	3	–	16.6	20	FIELD PROVIDED	250	DAIKIN APPLIED	FTX30WVJU9RK30WMVJU9	2
CU-F-9	2.5	R410A	9.85	480	3	–	16.6	20	FIELD PROVIDED	250	DAIKIN APPLIED	FTX30WVJU9RK30WMVJU9	2
CU-F-10	2.5	R410A	9.85	480	3	–	16.6	20	FIELD PROVIDED	250	DAIKIN APPLIED	FTX30WVJU9RK30WMVJU9	2
CU-G-1	22	R410A	11.6	480	3	–	32.5	35	FACTORY PROVIDED	1,200	DAIKIN APPLIED	RXYQ192AAYDA	1
CU-H-1	22	R410A	11.6	480	3	–	32.5	35	FACTORY PROVIDED	1,200	DAIKIN APPLIED	RXYQ192AAYDA	1
CU-J-1	4	R410A	9.5	208	1	–	6.5	15	FACTORY PROVIDED	250	DAIKIN APPLIED	RZQ48TAVJUA	2
CU-K-1	8	R410A	10.3	480	3	–	20.6	25	FACTORY PROVIDED	750	DAIKIN APPLIED	RXYQ96AAYDA	1
CU-K-2	8	R410A	10.3	480	3	–	20.6	25	FACTORY PROVIDED	750	DAIKIN APPLIED	RXYQ96AAYDA	1

NOTES:
1. SINGLE POINT POWER CONNECTION WITH INTEGRAL DISCONNECT AND GFCI CONTINENCE OUTLET.
2. POWERS INDOOR UNIT.

6

INDOOR SPLIT UNIT SCHEDULE

TAG	DX COOLING TOT. MBH	REFIGERANT	CFM	OA CFM	ELECTRICAL DATA VOLTAGE	PHASE	FLA	MCA	MOCP	DISCONNECT SWITCH	MANUFACTURER	MODEL	NOTES
ISU-CA	5800.0 Btu/h	R410A	300	0	208	1	–	0.3	15	FIELD	DAIKIN APPLIED	FXZQ05TAVJU	
ISU-CB	7500.0 Btu/h	R410A	307	0	208	1	–	0.3	15	FIELD	DAIKIN APPLIED	FXZQ07TAVJU	
ISU-CC	12000.0 Btu/h	R410A	353	0	208	1	–	0.4	15	FIELD	DAIKIN APPLIED	FXZQ12TAVJU	
ISU-CF	24000.0 Btu/h	R410A	777	0	208	1	–	0.7	15	FIELD	DAIKIN APPLIED	FXFQ24TVJU	
ISU-CG	30000.0 Btu/h	R410A	1112	0	208	1	–	1.3	15	FIELD	DAIKIN APPLIED	FXFQ30TVJU	
ISU-CH	36000.0 Btu/h	R410A	1165	0	208	1	–	1.5	15	FIELD	DAIKIN APPLIED	FXFQ36TVJU	
ISU-CI	48000.0 Btu/h	R410A	1218	0	208	1	–	1.8	15	FIELD	DAIKIN APPLIED	FXFQ48TVJU	
ISU-HC	18000.0 Btu/h	R410A	600	300	208	1	–	4.9	15	FACTORY PROVIDED	DAIKIN APPLIED	FXTQ18TAVJUA	
ISU-HG	48000.0 Btu/h	R410A	1520	300	208	1	–	6.5	15	FACTORY PROVIDED	DAIKIN APPLIED	FXTQ48TAVJUD	
ISU-HH	54000.0 Btu/h	R410A	1800	400	208	1	–	8.6	15	FACTORY PROVIDED	DAIKIN APPLIED	FXTQ54TAVJUD	
ISU-WX	30000.0 Btu/h	R410A	635	0	208	1	–		15	FIELD	DAIKIN APPLIED	FXAQ24PVJU	1

NOTES:
1. POWERED FROM OUTDOOR UNIT.

DUCTED HOT WATER COIL SCHEDULE

TAG	CFM	APD (in. WC)	EAT (F)	LAT (F)	EFT (F)	LFT (F)	GPM	MBH	FPD (FT)	WIDTH (IN)	HEIGHT (IN)	MANUFACTURER	MODEL	NOTES
HC-A-C201A	1520	0.14	56	95	150	120	4.3	64	.1	24	16	DAIKIN APPLIED	5WL0803A	
HC-A-C102A	1520	0.14	56	95	150	120	4.3	64	.1	24	16	DAIKIN APPLIED	5WL0803A	
HC-A-C201B	1520	0.14	56	95	150	120	4.3	64	.1	24	16	DAIKIN APPLIED	5WL0803A	
HC-A-C204B	1520	0.14	56	95	150	120	4.3	64	.1	24	16	DAIKIN APPLIED	5WL0803A	
HC-A-C204A	1520	0.14	56	95	150	120	4.3	64	.1	24	16	DAIKIN APPLIED	5WL0803A	
HC-A-C102B	1520	0.14	56	95	150	120	4.3	64	.1	24	16	DAIKIN APPLIED	5WL0803A	
HC-A-C101A	1520	0.14	56	95	150	120	4.3	64	.1	24	16	DAIKIN APPLIED	5WL0803A	
HC-A-C101B	1520	0.14	56	95	150	120	4.3	64	.1	24	16	DAIKIN APPLIED	5WL0803A	
HC-A-C202A	1520	0.14	56	95	150	120	4.3	64	.1	24	16	DAIKIN APPLIED	5WL0803A	
HC-A-C101D	1520	0.14	56	95	150	120	4.3	64	.1	24	16	DAIKIN APPLIED	5WL0803A	
HC-A-C103	1520	0.14	56	95	150	120	4.3	64	.1	24	16	DAIKIN APPLIED	5WL0803A	
HC-B-C301A	1800	0.15	55	95	150	120	5.2	77.8	.2	24	16	DAIKIN APPLIED	5WL0803A	
HC-B-C301B	1800	0.15	55	95	150	120	5.2	77.8	.2	24	16	DAIKIN APPLIED	5WL0803A	
HC-C-314B	600	0.04	70	95	150	120	1.1	16.2	.1	16	16	DAIKIN APPLIED	5WH0702A	
HC-ERV-A	525	0.1	70	95	150	120	1.1	14.4	.1	12	10	DAIKIN APPLIED	5WH0602A	
HC-ERV-B	1100	0.12	70	95	150	120	2.1	30.2	.2	16	12	DAIKIN APPLIED	5WL0702A	

UNIT HEATER SCHEDULE

TAG	UNIT TYPE	FLUID	FAN DATA CFM	ESP (In. Wg)	HP	MOTOR CONTROLLER	HEATING COIL DATA EAT (F)	LAT (F)	EFT (F)	LFT (F)	GPM	FPD (FT)	MBH	ELECTRICAL DATA VOLTAGE	PHASE	FLA	MCA	MOCP	DISCONNECT SWITCH	MANUFACTURER	MODEL	NOTES
UH	EXPOSED	30% GLYCOL	370	0	1/25	ECM	65	115	150	124	1.5	2.4	20.1	115	1	.53	–	20	FACTORY PROVIDED	AIREDALE	WSH 22SB01FA	
UH-A	EXPOSED	WATER	370	0	1/25	ECM	65	109	150	115	1	1.1	17.6	115	1	.53	–	20	FACTORY PROVIDED	AIREDALE	WSH 22SB01FA	

CABINET UNIT HEATER SCHEDULE

TAG	UNIT TYPE	FAN DATA CFM	ESP (In. Wg)	HP	MOTOR CONTROLLER	HEATING COIL DATA EAT (F)	LAT (F)	EFT (F)	LFT (F)	GPM	FPD (FT)	MBH	ELECTRICAL DATA VOLTAGE	PHASE	FLA	MCA	MOCP	DISCONNECT SWITCH	MANUFACTURER	MODEL	NOTES
CUH-A	CEILING RECESSED	327	0	.25	ECM	65	100	150	135	1.8	.2	12.5	120	15	3.7	–	20	FACTORY PROVIDED	AIREDALE	WCC00358ALLL110E00	
CUH-B	CEILING EXPOSED	827	0	.25	ECM	65	104	150	113	2	.2	35.1	120	4	7.4	–	20	FACTORY PROVIDED	AIREDALE	WCC00850ALLL210E00	
CUH-C	CEILING RECESSED	827	0	.25	ECM	65	104	150	113	2	.2	35.1	120	5	7.4	–	20	FACTORY PROVIDED	AIREDALE	WCC00858ALLL210E00	

ROOFTOP UNIT SCHEDULE

TAG	SERVICE	SUPPLY FAN DATA CFM	OA CFM	EVENT MODE OA CFM	ESP (In. Wg)	RPM	BHP	HP	MOTOR CONTROLLER	POWER EXHAUST FAN HP	HEATING COIL DATA FLUID	APD (in.WC)	EAT (F)	LAT (F)	EFT (F)	LFT (F)	GPM	MBH	FPD (FT)	COOLING DATA REFIGERANT	NOMINAL TONS	AMBIENT TEMPERATURE	EAT DB (F)	EAT WB (F)	LAT DB (F)	LAT WB (F)	ELECTRICAL DATA VOLTAGE	PHASE	FLA	MCA	MOCP	DISCONNECT SWITCH	WEIGHT (LBS)	MANUFACTURER	MODEL	NOTES
RTU-A-124	PLUMBING SHOP 124	2000	1000		1.5	1838	1.21	1.7	ECM	2.4	30% GLYCOL	0.13	30	95	145	113	9.3	142	2.5	R32	7.5	95	83.5	68.8	53.4	53.2	480	3	20.8	24	35	FACTORY PROVIDED	3,500	DAIKIN APPLIED	DPS007A	
RTU-A-125	HVAC SHOP 125	2000	1000		1.5	1838	1.21	1.7	ECM	2.4	30% GLYCOL	0.13	30	95	145	113	9.3	142	2.5	R32	7.5	95	83.5	68.8	53.4	53.2	480	3	20.8	24	35	FACTORY PROVIDED	3,500	DAIKIN APPLIED	DPS007A	
RTU-A-128	ELECTRICAL SHOP 128	2000	1000		1.5	1838	1.21	1.7	ECM	2.4	30% GLYCOL	0.13	30	95	145	113	9.3	142	2.5	R32	7.5	95	83.5	68.8	53.4	53.2	480	3	20.8	24	35	FACTORY PROVIDED	3,500	DAIKIN APPLIED	DPS007A	
RTU-B-129	CONSTRUCTION SHOP 129	3000	1450		1.5	1809	2.24	4.3	ECM	4.3	30% GLYCOL	0.18	37	95	145	126	21	188	12.8	R32	12	95	83.1	68.6	52.8	52.7	480	3	36.6	42.9	60	FACTORY PROVIDED	3,500	DAIKIN APPLIED	DPS012A	
RTU-C-119	WELDING SHOP 119	3300	1400		1.5	1885	2.54	4.3	ECM	4.3	30% GLYCOL	0.21	41	95	145	1260	22	194	14.1	R32	12	95	81.8	67.8	53.1	53.1	480	3	36.6	42.9	60	FACTORY PROVIDED	3,500	DAIKIN APPLIED	DPS012A	
RTU-D-120	AUTOBODY SHOP 120	4500	2700		1.5	1804	3.53	5	FACTORY VFD	7	30% GLYCOL	0.32	24	101	145	100	17.5	380	1.2	R32	20	95	85.8	70.1	53.0	52.3	480	3	58.4	64.7	90	FACTORY PROVIDED	5,000	DAIKIN APPLIED	DPS020A	
RTU-E-130.1	GYMNASIUM 130	9000	1550	2750	1.5	1711	8.99	10	FACTORY VFD	4.6	30% GLYCOL	1.01	50	97	145	105	24.3	465	2.2	R32	28	95	79.0	66.2	55.5	53.6	480	3	75.8	82	100	FACTORY PROVIDED	5,500	DAIKIN APPLIED	DPS028A	
RTU-E-130.2	GYMNASIUM 130	9000	1550	2750	1.5	1711	8.99	10	FACTORY VFD	4.6	30% GLYCOL	1.01	50	97	145	105	24.3	465	2.2	R32	28	95	79.0	66.2	55.5	53.6	480	3	75.8	82	100	FACTORY PROVIDED	5,500	DAIKIN APPLIED	DPS028A	
RTU-F-206	CULINARY LAB 206	4680	2490		1.5	1842	3.73	5	FACTORY VFD	7	30% GLYCOL	0.34	43	99	145	98	12.8	287	0.6	R32	16	95	84.2	69.2	52.6	52.0	480	3	58.4	64.7	90	FACTORY PROVIDED	5,000	DAIKIN APPLIED	DPS020A	

PACKAGED ENERGY RECOVERY UNIT SCHEDULE

TAG	SERVICE	SUPPLY FAN DATA CFM	OA CFM	ESP (In. Wg)	RPM	BHP	HP	EXHAUST FAN DATA CFM	ESP (In. Wg)	RPM	BHP	HP	HEATING COIL DATA FLUID	APD (in.WC)	EAT (F)	LAT (F)	EFT (F)	LFT (F)	GPM	MBH	FPD (FT)	DX COIL DATA REFRIGERANT	APD (in. WC)	EAT DB (F)	EAT WB (F)	LAT DB (F)	LAT WB (F)	SENS. MBH	TOT. MBH
ERU-A-1.1	FIRST FLOOR AREA 1	6125	6125	1.5	1566	6.69	10	5625	1.0	2240	3.6	7	30% GLYCOL	0.54	44	102.1	145	105	20.1	390	1.5	R32	0.29	82.4	69.7	54.6	54.5	175	284
ERU-B-1.2	CAFETERIA	3300	3300	1.5	2071	3.36	4.3	2900	1.0	1569	1.43	2.4	30% GLYCOL	0.15	45	94.9	145	122	16.6	180	8	R32	0.34	82	69.4	54.8	54.8	92	147
ERU-C-2.1	SECOND FLOOR AREA 1	5500	5500	1.5	1493	5.65	7.5	5300	1.0	2066	2.9	4.3	30% GLYCOL	0.45	45	102.5	145	103	17.1	344	1.1	R32	0.26	81.9	69.4	54.5	54.1	164	259
ERU-D-2.2	SECOND FLOOR AREA 2	4300	4300	1.5	1909	4.34	7.5	4300	1.0	1743	1.85	4.3	30% GLYCOL	0.3	48	100.2	145	103	12.4	260	.6	R32	0.22	81.0	68.6	55	53.8	122	187
ERU-E-2.3	SECOND FLOOR AREA 3	5100	5100	1.5	2093	5.57	7.5	5100	1.0	1956	2.10	4.3	30% GLYCOL	.4	47	97.5	145	98	12.4	280	.6	R32	0.24	81.6	69.2	53.4	53	149	247
ERU-F-3.3	THIRD FLOOR AREA 3	4000	4000	1.5	2247	4.3	7	3575	1.0	1753	1.95	2.4	30% GLYCOL	0.24	43	89.5	145	119	16.6	203	8	R32	0.18	82.9	70	55.4	54.6	114	188
ERU-G-117	AUTO TECH SHOP 117	7500	4500	1.5	1740	9.48	15	4500	1.0	1577	4.12	4.6	30% GLYCOL	0.75	52	99.8	145	104	20.1	392	1.5	R32	0.27	80.2	67.3	54.7	54.5	199	287

TAG	ENERGY RECOVERY SECTION DATA WINTER OA TEMP DB (F)	RA TEMP DB (F)	LAT DB (F)	SUMMER OA TEMP DB (F)	OA TEMP WB (F)	RA TEMP DB (F)	RA TEMP WB (F)	LAT DB (F)	LAT WB (F)	ELECTRICAL DATA VOLTAGE	PHASE	FLA	MCA	MOCP	DISCONNECT SWITCH	MOTOR CONTROLLER	WEIGHT (LBS)	MANUFACTURER	MODEL	NOTES
ERU-A-1.1	2	70	43.8	92	75	75	62.5	82.4	69.7	480	3	70	76.3	100	FACTORY PROVIDED	FACTORY VFD, ECM	4,500	DAIKIN APPLIED	DPS025A	
ERU-B-1.2	2	70	45.0	92	75	75	62.5	82.0	69.8	480	3	36.1	42.3	60	FACTORY PROVIDED	FACTORY VFD, ECM	2750	DAIKIN APPLIED	DPS012A	
ERU-C-2.1	2	70	45.3	92	75	75	62.5	81.9	69.4	480	3	61.2	67.4	90	FACTORY PROVIDED	FACTORY VFD, ECM	4,500	DAIKIN APPLIED	DPS020A	
ERU-D-2.2	2	70	47.9	92	75	75	62.5	81.0	68.6	480	3	47.2	53.4	70	FACTORY PROVIDED	FACTORY VFD, ECM	4,000	DAIKIN APPLIED	DPS016A	
ERU-E-2.3	2	70	46.2	92	75	75	62.5	81.6	69.2	480	3	61.2	67.4	90	FACTORY PROVIDED	FACTORY VFD, ECM	4,500	DAIKIN APPLIED	DPS018A	
ERU-F-3.3	2	70	42.1	92	75	75	62.5	82.9	70	480	3	49.6	58.6	90	FACTORY PROVIDED	FACTORY VFD, ECM	4,000	DAIKIN APPLIED	DPS016A	
ERU-G-117	2	70	51.9	92	75	75	62.5	80.2	67.3	480	3	74	80.2	100	FACTORY PROVIDED	FACTORY VFD, ECM	4,500	DAIKIN APPLIED	DPS025A	

4

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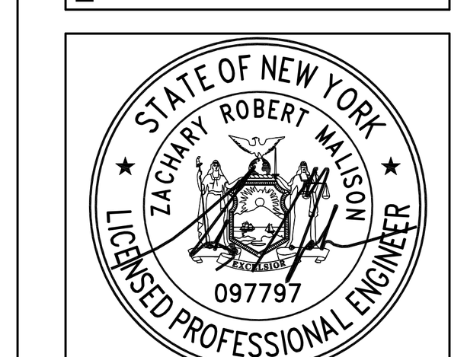
Project Title

NEWBURGH ENLARGED CITY SCHOOL DISTRICT
NEW CTE BUILDING



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Sheet Title

OWNER FURNISHED EQUIPMENT SCHEDULES

Sheet No.

CTE M901

CONSTRUCTION DOCUMENTS

1 ROOF UTILITY PLAN - AREA '2'

E342 1/8" = 1'-0"

SHEET NOTES

A. FIELD COORDINATE ROUTING OF ALL FEEDERS AND BRANCH CIRCUITS.

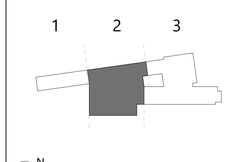
B. ALL PENETRATIONS THROUGH FIRE RATED WALLS AND FLOORS SHALL BE PROPERLY FIRE-STOPPED.

C. COORDINATE ALL RECEPTACLE LOCATIONS WITH ARCHITECTURAL CASEWORK AND FURNITURE PLANS.

D. REFER TO E701 FOR POWER RISERS AND WIRING SCHEDULES.

E. REFER TO E900 SERIES DRAWINGS FOR EQUIPMENT AND PANELBOARD SCHEDULES.

KEY PLAN



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NEWBURGH ENLARGED CITY SCHOOL DISTRICT
NEW CTE BUILDING

Project Title

STATE OF NEW YORK
JAMES R. BARRETT
LICENSED PROFESSIONAL ENGINEER
D-23467
EXPIRES 5/31/2026

#	DATE	DESCRIPTION
6	6/06/2024	BID ADDENDUM #6

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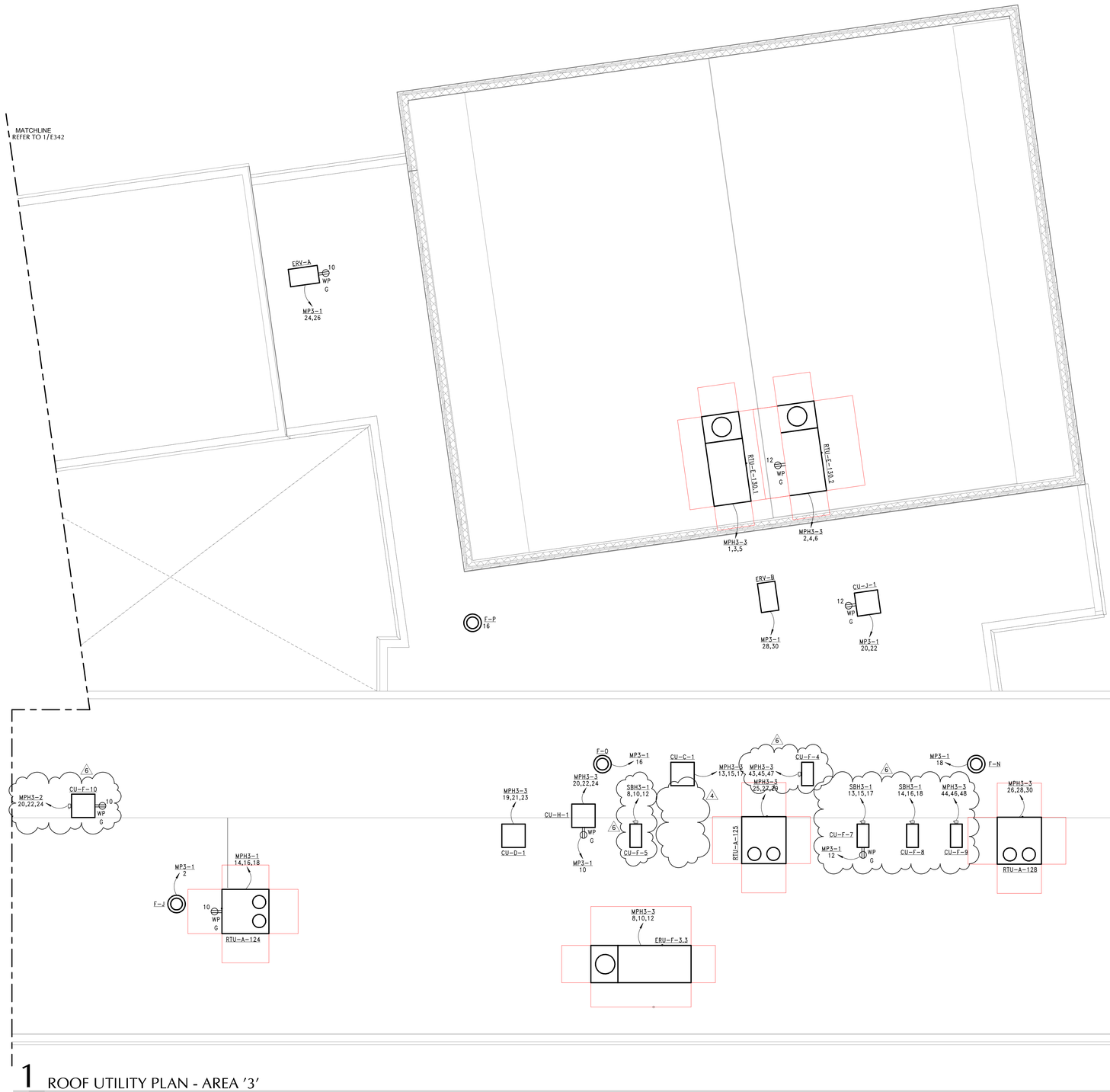
Sheet Title

ROOF UTILITY PLAN - AREA '2'

Sheet No.

CTE
E342

CONSTRUCTION DOCUMENTS



1 ROOF UTILITY PLAN - AREA '3'

E343 1/8" = 1'-0"

SHEET NOTES

A. FIELD COORDINATE ROUTING OF ALL FEEDERS AND BRANCH CIRCUITS.

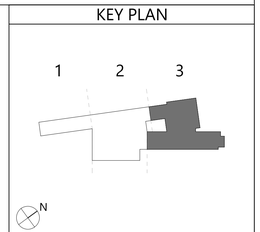
B. ALL PENETRATIONS THROUGH FIRE RATED WALLS AND FLOORS SHALL BE PROPERLY FIRE-STOPPED.

C. COORDINATE ALL RECEPTACLE LOCATIONS WITH ARCHITECTURAL CASEWORK AND FURNITURE PLANS.

D. REFER TO E701 FOR POWER RISERS AND WIRING SCHEDULES.

E. REFER TO E900 SERIES DRAWINGS FOR EQUIPMENT AND PANELBOARD SCHEDULES.

KEY PLAN



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Consultant

NEWBURGH ENLARGED CITY SCHOOL DISTRICT
NEW CTE BUILDING

Project Title

STATE OF NEW YORK
JAMES R. BARRETT
073467
LICENSED PROFESSIONAL ENGINEER
EXPIRES 5/31/2026

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6	6/06/2024	BID ADDENDUM #6
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Issued for Bid:	4/15/2024

Sheet Title

ROOF UTILITY PLAN - AREA '3'

Sheet No.

CTE E343

CONSTRUCTION DOCUMENTS

EQUIPMENT CONNECTION SCHEDULE - SINGLE POINT CONNECTION

TAG	VOLTAGE	PHASE	FLA	MCA	MOCP	POWER SOURCE	CIRCUIT BREAKER	WIRE SIZE	DISCONNECT SWITCH	DISCONNECT SIZE	FA SHUTDOWN
–119H	0	3		27.7	35			40/3G		–	YES W/ DUCT DETECTOR
–B–120	480	3	–	27.7	35			40/3G	FACTORY PROVIDED	–	YES W/ DUCT DETECTOR
AC–1	208	1	17.5	–	35	MP1–1	37,39,41	35/3G	FACTORY PROVIDED	–	–
AC–DRYER	120	1	0.7	–	20	MP1–1	18	20/1NG	FACTORY PROVIDED	–	–
B–A–1	480	3	6	7.5	20	MPH1–1	7,9,11	20/3NG	FIELD PROVIDED	BREAKER	–
B–A–2	480	3	6	7.5	20	MPH1–1	8,10,12	20/3NG	FIELD PROVIDED	BREAKER	–
B–A–3	480	3	6	7.5	20	MPH1–1	13,15,17	20/3NG	FIELD PROVIDED	BREAKER	–
CP–A–100	120	1	1.5	–	20	MP1–2	16	20/1NG	FIELD	MMS	–
CP–A–107	120	1	1.5	–	20	MP1–1	22	20/1NG	FIELD	MMS	–
CP–A–108	120	1	1.5	–	20	MP1–1	22	20/1NG	FIELD	MMS	–
CP–A–202	120	1	1.5	–	20	MP2–1	12	20/1NG	FIELD	MMS	–
CP–A–207	120	1	1.5	–	20	MP2–1	12	20/1NG	FIELD	MMS	–
CP–A–216	120	1	1.5	–	20	MP2–1	12	20/1NG	FIELD	MMS	–
CP–A–226	120	1	1.5	–	20	MP2–2	6	20/1NG	FIELD	MMS	–
CP–A–C202	120	1	1.5	–	20	MP2–2	6	20/1NG	FIELD	MMS	–
CU–A–1	480	3	–	42.1	45	MPH2–1	1,3,5	45/3G	FACTORY PROVIDED	–	–
CU–B–1	480	3	–	46.8	50	MPH3–1	13,15,17	50/3G	FACTORY PROVIDED	–	–
CU–C–1	480	3	–	50.4	60	MPH3–3	13,15,17	60/3G	FACTORY PROVIDED	–	–
CU–D–1	480	3	–	42.1	45	MPH3–3	19,21,23	45/3G	FACTORY PROVIDED	–	–
CU–E–1	480	3	–	46.8	50	MPH3–2	13,15,17	50/3G	FACTORY PROVIDED	–	–
CU–F–1	480	3	–	16.6	20	MPH3–1	20,22,24	20/3G	FIELD PROVIDED	30A	–
CU–F–2	480	3	–	16.6	20	MPH3–2	25,27,29	20/3G	FIELD PROVIDED	30A	–
CU–F–3	480	3	–	16.6	20	SBH3–1	7,9,11	20/3G	FIELD PROVIDED	30A	–
CU–F–4	480	3	–	16.6	20	MPH3–3	43,45,47	20/3G	FIELD PROVIDED	30A	–
CU–F–5	480	3	–	16.6	20	SBH3–1	8,10,12	20/3G	FIELD PROVIDED	30A	–
CU–F–7	480	3	–	16.6	20	SBH3–1	13,15,17	20/3G	FIELD PROVIDED	30A	–
CU–F–8	480	3	–	16.6	20	SBH3–1	14,16,18	20/3G	FIELD PROVIDED	30A	–
CU–F–9	480	3	–	16.6	20	MPH3–3	44,46,48	20/3G	FIELD PROVIDED	30A	–
CU–F–10	480	3	–	16.6	20	MPH3–2	20,22,24	20/3G	FIELD PROVIDED	30A	–
CU–G–1	480	3	–	32.5	35	MPH2–1	2,4,6	35/3G	FACTORY PROVIDED	–	–
CU–H–1	480	3	–	32.5	35	MPH3–3	20,22,24	35/3G	FACTORY PROVIDED	–	–
CU–J–1	208	1	–	6.5	15	MP3–1	20,22	15/2NG	FACTORY PROVIDED	–	–
CU–K–1	480	3	–	20.6	25	MPH3–1	19,21,23	25/3G	FACTORY PROVIDED	–	–
CU–K–2	480	3	–	20.6	25	MPH3–2	19,21,23	25/3G	FACTORY PROVIDED	–	–
CUH–A–T101	120	1	3.7	–	20	MP1–1	2	20/1NG	FACTORY PROVIDED	–	–
CUH–A–T102	120	1	3.7	–	20	MP1–1	2	20/1NG	FACTORY PROVIDED	–	–
CUH–A–T103	120	1	3.7	–	20	MP1–1	6	20/1NG	FACTORY PROVIDED	–	–
CUH–A–T106	120	1	3.7	–	20	MP1–2	10	20/1NG	FACTORY PROVIDED	–	–
CUH–A–T107	120	1	3.7	–	20	MP1–2	10	20/1NG	FACTORY PROVIDED	–	–
CUH–A–T201	120	1	3.7	–	20	MP2–1	2	20/1NG	FACTORY PROVIDED	–	–
CUH–A–T202	120	1	3.7	–	20	MP2–1	2	20/1NG	FACTORY PROVIDED	–	–
CUH–A–T203	120	1	3.7	–	20	MP2–1	2	20/1NG	FACTORY PROVIDED	–	–
CUH–A–T205	120	1	3.7	–	20	MP2–2	2	20/1NG	FACTORY PROVIDED	–	–
CUH–A–T206	120	1	3.7	–	20	MP2–2	2	20/1NG	FACTORY PROVIDED	–	–
CUH–A–T302	120	1	3.7	–	20	MP3–1	4	20/1NG	FACTORY PROVIDED	–	–
CUH–A–T303	120	1	3.7	–	20	MP3–1	4	20/1NG	FACTORY PROVIDED	–	–
CUH–A–V102	120	1	3.7	–	20	MP1–1	4	20/1NG	FACTORY PROVIDED	–	–
CUH–A–V104	120	1	3.7	–	20	MP1–2	8	20/1NG	FACTORY PROVIDED	–	–
CUH–A–V105	120	1	3.7	–	20	MP1–2	4	20/1NG	FACTORY PROVIDED	–	–
CUH–B–122	120	1	7.4	–	20	MP1–2	2	20/1NG	FACTORY PROVIDED	–	–
CUH–B–S101	120	1	7.4	–	20	MP1–1	4	20/1NG	FACTORY PROVIDED	–	–
CUH–B–S102	120	1	7.4	–	20	MP1–1	6	20/1NG	FACTORY PROVIDED	–	–
CUH–B–S104	120	1	7.4	–	20	MP1–2	8	20/1NG	FACTORY PROVIDED	–	–
CUH–C–103	120	1	7.4	–	20	MP1–1	8	20/1NG	FACTORY PROVIDED	–	–
CUH–C–131	120	1	7.4	–	20	MP1–2	6	20/1NG	FACTORY PROVIDED	–	–
CUH–C–134	120	1	7.4	–	20	MP1–2	6	20/1NG	FACTORY PROVIDED	–	–
CUH–C–V101	120	1	7.4	–	20	MP1–2	4	20/1NG	FACTORY PROVIDED	–	–
CUH–C–V103	120	1	7.4	–	20	MP1–2	2	20/1NG	FACTORY PROVIDED	–	–
ERU–A–1.1	480	3	70	76.3	100	MPH3–2	1,3,5	100/3G	FACTORY PROVIDED	–	YES W/ DUCT DETECTOR
ERU–B–1.2	480	3	36.1	42.3	60	MPH3–2	8,10,12	60/3G	FACTORY PROVIDED	–	YES W/ DUCT DETECTOR
ERU–C–2.1	480	3	61.2	67.4	90	MPH3–2	2,4,6	100/3G	FACTORY PROVIDED	–	YES W/ DUCT DETECTOR
ERU–D–2.2	480	3	47.2	53.4	70	MPH3–2	7,9,11	80/3G	FACTORY PROVIDED	–	YES W/ DUCT DETECTOR
ERU–E–2.3	480	3	61.2	67.4	90	MPH3–3	7,9,11	100/3G	FACTORY PROVIDED	–	YES W/ DUCT DETECTOR
ERU–F–3.3	480	3	49.6	58.6	90	MPH3–3	8,10,12	100/3G	FACTORY PROVIDED	–	YES W/ DUCT DETECTOR
ERU–G–117	480	3	74	80.2	100	MPH3–1	1,3,5	100/3G	FACTORY PROVIDED	–	YES W/ DUCT DETECTOR
ERV–A	208	1	1.73	3.9	15	MP3–1	24,26	15/2NG	FACTORY PROVIDED	–	–
ERV–B	208	1	3.4	7.7	15	MP3–1	28,30	15/2NG	FACTORY PROVIDED	–	–
F–A–206.1	480	3	7.2	9	15	MPH3–2	31,33,35	15/3G	FACTORY PROVIDED	–	–
F–B–206.2	480	3	3.2	4	15	MPH3–1	31,33,35	15/3G	FACTORY PROVIDED	–	–
F–C–206.3	480	3	3.2	4	15	MPH3–1	31,33,35	15/3G	FACTORY PROVIDED	–	–
F–D–206.4	480	3	1.8	2.2	15	MPH3–1	31,33,35	15/3G	FACTORY PROVIDED	–	–
F–E–206.5	480	3	1.8	2.2	15	MPH3–2	32,34,36	15/3G	FACTORY PROVIDED	–	–
F–F–206.6	480	3	3.2	4	15	MPH3–2	32,34,36	15/3G	FACTORY PROVIDED	–	–
F–G–206.7	480	3	3.2	4	15	MPH3–2	32,34,36	15/3G	FACTORY PROVIDED	–	–
F–H–117	480	3	4.8	–	15	MPH3–2	37,39,41	15/3G	FIELD PROVIDED	30A	–
F–I	115	1	6.6	8.2	15	MP2–1	4	15/1NG	FACTORY PROVIDED	–	–
F–J	115	1	10	12.5	20	MP3–1	2	20/1NG	FACTORY PROVIDED	–	–
F–K–115A	115	1	2.8	3.5	15	MP2–1	6	15/1NG	FACTORY PROVIDED	–	–
F–L	115	1	3.8	4.8	15	MP3–1	14	15/1NG	FACTORY PROVIDED	–	–
F–M	115	1	2.8	3.5	15	MP3–1	18	15/1NG	FACTORY PROVIDED	–	–
F–N	115	1	3.8	4.8	15	MP3–1	18	15/1NG	FACTORY PROVIDED	–	–
F–O	115	1	3.8	4.8	15	MP3–1	16	15/1NG	FACTORY PROVIDED	–	–
F–P	115	1	3.8	4.8	15	MP3–1	16	15/1NG	FACTORY PROVIDED	–	–
F–Q	115	1	3.8	4.8	15	MP2–1	6	15/1NG	FACTORY PROVIDED	–	–
F–R–108	120	1	1.5	1.9	15	MP1–1	20	15/1NG	FACTORY PROVIDED	–	–
GMS–A–222	120	1	–	9.0	20	MP2–2	4	20/1NG	FACTORY PROVIDED	–	–
GWH–1	120	1	5.0	–	20	MP1–2	12	20/1NG	FIELD	30A	–
GWH–2	120	1	5.0	–	20	MP1–1	10	20/1NG	FIELD	30A	–
GWH–3A	120	1	5.0	–	20	MP1–1	12	20/1NG	FIELD	30A	–
GWH–3B	120	1	5.0	–	20	MP1–1	14	20/1NG	FIELD	30A	–
GWH–4	120	1	5.0	–	20	MP1–1	16	20/1NG	FIELD	30A	–
ISU–CA–100A	208	1	–	0.3	15	MP1–2	1,3	20/2NG	FIELD	MMS	–
ISU–CA–100C	208	1	–	0.3	15	MP1–2	1,3	20/2NG	FIELD	MMS	–
ISU–CA–100D	208	1	–	0.3	15	MP1–2	1,3	20/2NG	FIELD	MMS	–
ISU–CA–100F	208	1	–	0.3	15	MP1–2	1,3	20/2NG	FIELD	MMS	–
ISU–CA–100H	208	1	–	0.3	15	MP1–2	1,3	20/2NG	FIELD	MMS	–
ISU–CA–100I	208	1	–	0.3	15	MP1–2	1,3	20/2NG	FIELD	MMS	–
ISU–CA–100J	208	1	–	0.3	15	MP1–2	1,3	20/2NG	FIELD	MMS	–

EQUIPMENT CONNECTION SCHEDULE - SINGLE POINT CONNECTION

TAG	VOLTAGE	PHASE	FLA	MCA	MOCP	POWER SOURCE	CIRCUIT BREAKER	WIRE SIZE	DISCONNECT SWITCH	DISCONNECT SIZE	FA SHUTDOWN
ISU–CA–204	208	1	–	0.3	15	MP2–1	5,7	20/2NG	FIELD	MMS	–
ISU–CA–212	208	1	–	0.3	15	MP2–1	9,11	20/2NG	FIELD	MMS	–
ISU–CA–221B	208	1	–	0.3	15	MP2–2	5,7	20/2NG	FIELD	MMS	–
ISU–CA–233A	208	1	–	0.3	15	MP2–2	5,7	20/2NG	FIELD	MMS	–
ISU–CA–233B	208	1	–	0.3	15	MP2–2	5,7	20/2NG	FIELD	MMS	–
ISU–CA–233C	208	1	–	0.3	15	MP2–2	5,7	20/2NG	FIELD	MMS	–
ISU–CA–233D	208	1	–	0.3	15	MP2–2	5,7	20/2NG	FIELD	MMS	–
ISU–CA–233E	208	1	–	0.3	15	MP2–2	5,7	20/2NG	FIELD	MMS	–
ISU–CB–100B	208	1	–	0.3	15	MP1–2	1,3	20/2NG	FIELD	MMS	–
ISU–CB–111	208	1	–	0.3	15	MP1–1	1,3	20/2NG	FIELD	MMS	–
ISU–CC–100	208	1	–	0.4	15	MP1–2	1,3	20/2NG	FIELD	MMS	–
ISU–CC–101	208	1	–	0.4	15	MP1–1	5,7	20/2NG	FIELD	MMS	–
ISU–CF–102	208	1	–	0.7	15	MP1–1	5,7	20/2NG	FIELD	MMS	–
ISU–CF–103	208	1	–	0.7	15	MP1–1	5,7	20/2NG	FIELD	MMS	–
ISU–CF–107	208	1	–	0.7	15	MP1–1	1,3	20/2NG	FIELD	MMS	–
ISU–CF–109	208	1	–	0.7	15	MP1–1	1,3	20/2NG	FIELD	MMS	–
ISU–CF–110A	208	1	–	0.7	15	MP1–1	1,3	20/2NG	FIELD	MMS	–
ISU–CF–205	208	1	–	0.7	15	MP2–1	5,7	20/2NG	FIELD	MMS	–
ISU–CF–207	208	1	–	0.7	15	MP2–1	5,7	20/2NG	FIELD	MMS	–
ISU–CF–208	208	1	–	0.7	15	MP2–1	5,7	20/2NG	FIELD	MMS	–
ISU–CF–209	208	1	–	0.7	15	MP2–1	5,7	20/2NG	FIELD	MMS	–
ISU–CF–302	208	1	–	0.7	15	MP3–1	9,11	20/2NG	FIELD	MMS	–
ISU–CG–201	208	1	–	1.3	15	MP2–1	1,3	20/2NG	FIELD	MMS	–
ISU–CG–202.1	208	1	–	1.3	15	MP2–1	1,3	20/2NG	FIELD	MMS	–
ISU–CG–202.2	208	1	–	1.3	15	MP2–1	1,3	20/2NG	FIELD	MMS	–
ISU–CG–215	208	1	–	1.3	15	MP2–1	9,11	20/2NG	FIELD	MMS	–
ISU–CG–216	208	1	–	1.3	15	MP2–1	9,11	20/2NG	FIELD	MMS	–
ISU–CH–108	208	1	–	1.5	15	MP1–1	1,3	20/2NG	FIELD	MMS	–
ISU–CH–223	208	1	–	1.5	15	MP2–1	1,3	20/2NG	FIELD	MMS	–
ISU–CH–305	208	1	–	1.5	15	MP3–1	9,11	20/2NG	FIELD	MMS	–
ISU–CI–104	208	1	–	1.8	15	MP1–1	5,7	20/2NG	FIELD	MMS	–
ISU–CI–210	208	1	–	1.8	15	MP2–1	5,7	20/2NG	FIELD	MMS	–
ISU–CI–217	208	1	–	1.8	15	MP2–1	9,11	20/2NG	FIELD	MMS	–
ISU–CI–218	208	1	–	1.8	15	MP2–1	9,11	20/2NG	FIELD	MMS	–
ISU–CI–219	208	1	–	1.8	15	MP2–1	9,11	20/2NG	FIELD	MMS	–
ISU–CI–220	208	1	–	1.8	15	MP2–1	9,11	20/2NG	FIELD	MMS	–
ISU–CI–221	208	1	–	1.8	15	MP2–2	5,7	20/2NG	FIELD	MMS	–
ISU–CI–224	208	1	–	1.8	15	MP2–2	1,3	20/2NG	FIELD	MMS	–
ISU–CI–226	208	1	–	1.8	15	MP2–2	1,3	20/2NG	FIELD	MMS	–
ISU–CI–229	208	1	–	1.8	15	MP2–2	1,3	20/2NG	FIELD	MMS	–
ISU–CI–230	208	1	–	1.8	15	MP2–2	1,3	20/2NG	FIELD	MMS	–
ISU–CI–231	208	1	–	1.8	15	MP2–2	1,3	20/2NG	FIELD	MMS	–
ISU–CI–232	208	1	–	1.8	15	MP2–2	1,3	20/2NG	FIELD	MMS	–
ISU–CI–306	208	1	–	1.8	15	MP3–1	9,11	20/2NG	FIELD	MMS	–
ISU–CI–308	208	1	–	1.8	15	MP3–1	9,11	20/2NG	FIELD	MMS	–
ISU–CI–311	208	1	–	1.8	15	MP3–1	9,11	20/2NG	FIELD	MMS	–
ISU–CI–314	208	1	–	1.8	15	MP3–1	9,11	20/2NG	FIELD	MMS	–
ISU–CI–N231	208	1	–	1.8	15	MP2–2	1,3	20/2NG	FIELD	MMS	–
ISU–CI–N232	208	1	–	1.8	15	MP2–2	1,3	20/2NG	FIELD	MMS	–
ISU–HC–314B	208	1	–	4.9	15	MP3–1	19,21	15/2NG	FACTORY PROVIDED	–	–
ISU–HG–C101A	208	1	–	6.5	15	MP1–2	13,15	15/2NG	FACTORY PROVIDED	–	–
ISU–HG–C101B	208	1	–	6.5	15	MP1–2	17,19	15/2NG	FACTORY PROVIDED	–	–
ISU–HG–C101C	208	1	–	6.5	15	MP2–2	13,15	15/2NG	FACTORY PROVIDED	–	–
ISU–HG–C102A	208	1	–	6.5	15	MP1–1	13,15	15/2NG	FACTORY PROVIDED	–	–
ISU–HG–C102B	208	1	–	6.5	15	MP1–1	17,19	15/2NG	FACTORY PROVIDED	–	–
ISU–HG–C103	208	1	–	6.5	15	MP1–2	21,23	15/2NG	FACTORY PROVIDED	–	–
ISU–HG–C201A	208	1	–	6.5	15	MP2–1	13,15	15/2NG	FACTORY PROVIDED	–	–
ISU–HG–C201B	208	1	–	6.5	15	MP2–1	17,19	15/2NG	FACTORY PROVIDED	–	–
ISU–HG–C202A	208	1	–	6.5	15	MP2–1	21,23	15/2NG	FACTORY PROVIDED	–	–
ISU–HG–C204A	208	1	–	6.5	15	MP2–2	17,19	15/2NG	FACTORY PROVIDED	–	–
ISU–HG–C204B	208	1	–	6.5	15	MP2–2	21,23	15/2NG	FACTORY PROVIDED	–	–
ISU–HH–C301A	208	1	–	8.6	15	MP3–1	23,25	15/2NG	FACTORY PROVIDED	–	–
ISU–HH–C301B	208	1	–	8.6	15	MP3–1	27,29	15/2NG	FACTORY PROVIDED	–	–
MAU–A–119.1	480	3	–	7.2	15	MPH3–1	25,27,29	20/3G	FACTORY PROVIDED	–	YES W/ DUCT DETECTOR
MAU–A–119.2	480	3	–	7.2	15	MPH3–2	26,28,30	20/3G	FACTORY PROVIDED	–	YES W/ DUCT DETECTOR
MAU–C–129	480	3	–	7.2	15	MPH3–3	49,51,53	20/3G	FACTORY PROVIDED	–	YES W/ DUCT DETECTOR
MAU–D–206.1	480	3	–	6.2	15	MPH3–1	26,28,30	20/3G	FACTORY PROVIDED	–	YES W/ DUCT DETECTOR
MAU–E–206.2	480	3	–	17.7	30	MPH3–2	14,16,18	30/3G	FACTORY PROVIDED	–	YES W/ DUCT DETECTOR
P–A–1	480	3	4.8	–	15	MPH1–1	25,27,29	15/3G	FACTORY PROVIDED	–	–
P–A–2	480	3	4.8	–	15	MPH1–1	26,28,30	15/3G	FACTORY PROVIDED	–	–
P–A–3	480	3	4.8	–	15	MPH1–1	31,33,35	15/3G	FACTORY PROVIDED	–	–
P–B–1	480	3	34	–	70	MPH1–1	1,3,5	80/3G	FACTORY PROVIDED	–	–
P–B–2	480	3	34	–	70	MPH1–1	2,4,6	80/3G	FACTORY PROVIDED	–	–
P–C–1	480	3	14	–	20	MPH1–1	14,16,18	20/3G	FACTORY PROVIDED	–	–
P–C–2	480	3	14	–	20	MPH1–1	19,21,23	20/3G	FACTORY PROVIDED	–	–
PP–1	120	1	1.4	–	20	MP1–2	12	20/1NG	FACTORY PROVIDED	–	–
PP–2	120	1	1.4	–	20	MP1–1	10	20/1NG	FACTORY PROVIDED	–	–
PP–3A	120	1	1.4	–	20	MP1–1	12	20/1NG	FACTORY PROVIDED	–	–
PP–3B	120	1	1.4	–	20	MP1–1	14	20/1NG	FACTORY PROVIDED	–	–
RTU–A–124	480	3	20.8	24	35	MPH3–1	14,16,18	40/3G	FACTORY PROVIDED	–	YES W/ DUCT DETECTOR
RTU–A–125	480	3	20.8	24	35	MPH3–3	25,27,29	40/3G	FACTORY PROVIDED	–	YES W/ DUCT DETECTOR
RTU–A–128	480	3	20.8	24	35	MPH3–3	26,28,30	40/3G	FACTORY PROVIDED	–	YES W/ DUCT DETECTOR
RTU–B–129	480	3	36.6	42.9	60	MPH3–3	14,16,18	60/3G	FACTORY PROVIDED	–	YES W/ DUCT DETECTOR
RTU–C–119	480	3	36.6	42.9	60	MPH3–1	8,10,12	60/3G	FACTORY PROVIDED	–	YES W/ DUCT DETECTOR
RTU–D–120	480	3	58.4	64.7	90	MPH3–1	2,4,6	100/3G	FACTORY PROVIDED	–	YES W/ DUCT DETECTOR
RTU–E–130.1	480	3	75.8	82	100	MPH3–3	1,3,5	100/3G	FACTORY PROVIDED	–	YES W/ DUCT DETECTOR
RTU–E–130.2	480	3	75.8	82	100	MPH3–3	2,4,6	100/3G	FACTORY PROVIDED	–	YES W/ DUCT DETECTOR
RTU–F–206	480	3	58.4	64.7	90	MPH3–1	7,9,11	100/3G	FACTORY PROVIDED	–	YES W/ DUCT DETECTOR
UH–119F	115	1	.53	–	20	LP1–WS	31	20/1NG	FACTORY PROVIDED	–	–
UH–129C	115	1	.53	–	20	MP1–2	8	20/1NG	FACTORY PROVIDED	–	–
UH–129D	115	1	.53	–	20	MP1–2	8	20/1NG	FACTORY PROVIDED	–	–
UH–A–105	115	1	.53	–	20	MP1–1	8	20/1NG	FACTORY PROVIDED	–	–
UH–A–106	115	1	.53	–	20	MP1–1	2	20/1NG	FACTORY PROVIDED	–	–
UH–A–123	115	1	.53	–	20	MP1–2	10	20/1NG	FACTORY PROVIDED	–	–
UH–A–130A	115	1	.53	–	20	MP1–2	8	20/1NG	FACTORY PROVIDED	–	–
UH–A–203	115	1	.53	–	20	MP2–1	2	20/1NG	FACTORY PROVIDED	–	–
UH–A–V108	115	1	.53	–	20	MP2–2	2	20/1NG	FACTORY PROVIDED	–	–
WFU–A–1	480	3	52.0	–	125	DPH1–1	19,21,23	125/3G	FIELD PROVIDED	–	YES W/ DUCT DETECTOR

KITCHEN & CULINARY SCHEDULE

TAG	DESCRIPTION	VOLTAGE	PHASE	AMPS	NEMA	DIRECT	POWER SOURCE	CIRCUIT BREAKER	CONDUIT & WIRING
K100	MILK COOLER	120	1	7.6	5–15R	–	KP1–1	2	20/1NG
K100	MILK COOLER	120	1	7.6	5–15R	–	KP1–1	4	20/1NG
K101	HOT FOOD STATION	208	1	9.9	L14–20R	–	KP1–1	31,33	20/2NG
K101	HOT FOOD STATION	208	1	9.9	L14–20R	–	KP1–1	32,34	20/2NG
K103	UTILITY COUNTER	120	1	20.0	5–20R	–	KP1–1	7	20/1NG
K103	UTILITY COUNTER	120	1	20.0	5–20R	–	KP1–1	6	20/1NG
K104	COLD FOOD STATION	120	1	7.8	5–15R	–	KP1–1	9	20/1NG
K104	COLD FOOD STATION	120	1	7.8	5–15R	–	KP1–1	8	20/1NG
K106	UTILITY COUNTER	120	1	20.0	5–20R	–	KP1–1	10	20/1NG
K106	UTILITY COUNTER	120	1	20.0	5–20R	–	KP1–1	11	20/1NG
K109	CASHIER STATION	120	1	20.0	5–20R	–	KP1–1	13	20/1NG
K109	CASHIER STATION	120	1	20.0	5–20R	–	KP1–1	12	20/1NG
K112	ROLL–THRU REFRIGERATOR	120	1	10.3	5–15R	–	KP1–1	14	20/1NG
K113	ROLL–THRU HEATED CABINET	208	1	7.2	–	X	KP1–1	35,37	20/2NG
K115	ROLL–IN HEATED CABINET	208	1	7.2	–	X	KP1–1	36,38	20/2NG
K116	ROLL–IN HEATED CABINET	208	1	13.9	–	X	KP1–1	39,41	20/2NG
K117	ROLL–IN REFRIGERATOR	120	1	9.4	5–15R	–	KP1–1	15	20/1NG
K117	ROLL–IN REFRIGERATOR	120	1	9.4	5–15R	–	KP1–1	16	20/1NG
K120	VENTLESS COMBI OVEN	208	3	124.0	–	X	DPL1–1	8,10,12	175/3G
K120	VENTLESS COMBI OVEN	208	3	124.0	–	X	DPL1–1	13,15,17	175/3G
K120	VENTLESS COMBI OVEN	208	3	124.0	–	X	DPL1–1	14,16,18	175/3G
K120	VENTLESS COMBI OVEN	208	3	124.0	–	X	DPL1–1	19,21,23	175/3G
K120.1	CONDENSATE HOOD	120	1	1.6	5–15R	–	KP1–1	17	20/1NG
K120.1	CONDENSATE HOOD	120	1	1.6	5–15R	–	KP1–1	17	20/1NG
K121	HAND SINK	120	1	1.0	5–15R	–	KP1–1	19	20/1NG
K123	WORK TABLE	120	1	30.0	–	X	KP1–1	5	30/1NG
K123	WORK TABLE	120	1	30.0	–	X	KP1–1	3	30/1NG
K123	WORK TABLE	120	1	30.0	–	X	KP1–1	1	30/1NG
K124	REACH–IN FREEZER	120	1	9.4	5–15R	–	KP1–1	18	20/1NG
K200	WALK–IN COOLER/FREEZER	120	1	15.0	–	X	SB2–1	10	20/1NG
K200	WALK–IN COOLER/FREEZER	120	1	15.0	–	X	SB2–1	8	20/1NG
K200.1	AIR CURTAIN	120	1	15.0	–	X	SB2–1	14	20/1NG
K200.1	AIR CURTAIN	120	1	15.0	–	X	SB2–1	12	20/1NG
K201	WALK–IN COOLER EVAPORATOR COIL	208	1	4.4	–	X	SB2–1	11,13	20/2NG
K203	WALK–IN FREEZER EVAPORATOR COIL	208	1	13.7	–	X	SB2–1	15,17	20/2NG
K203.1	FREEZER DRAIN LINE HEATER	120	1	11.9	–	X	SB2–1	16	20/2NG
K205	REFRIGERATOR RACK SYSTEM	208	3	41.7	–	X	SB2–1	1,3,5	60/3G
K215	WASHING MACHINE	120	1	15.0	5–20R	–	KP2–2	1	20/1NG
K215.1	DRYER MACHINE	208	1	22.0	6–30R	–	KP2–2	38,40	30/2NG
K301	TEACHER’S REFREGERATED STATION	120	1	3.4	5–15R	–	KP2–2	2	20/1NG
K402	DISHWASHER	208	3	26.9	–	X	KP2–1	19,21,23	35/3G
K402.1	INTERNAL BOOSTER HEATER	208	3	25.6	–	X	KP2–1	14,16,18	35/3G
K408	HAND SINK	120	1	1.0	5–15R	–	KP2–2	3	20/1NG
K411	PROOFING CABINET	120	1	13.8	5–20R	–	KP2–2	4	20/1NG
K412	EXHAUST HOOD	120	1	15.0	–	X	KP2–2	5	20/1NG
K413	FIRE SUPPRESSION SYSTEM	120	1	20.0	–	X	KP2–2	6	20/1NG
K414	CONVECTION OVEN	208	3	38.0	–	X	KP2–1	2,4,6	50/3G
K414	CONVECTION OVEN	208	3	38.0	–	X	KP2–1	7,9,11	50/3G
K415	COMBI OVEN	208	3	30.0	–	X	KP2–1	8,10,12	40/3G
K415	COMBI OVEN	208	3	30.0	–	X	KP2–1	13,15,17	40/3G
K417	HAND SINK	120	1	1.0	5–15R	–	KP2–2	3	20/1NG
K417	HAND SINK	120	1	1.0	5–15R	–	KP2–2	3	20/1NG
K417	HAND SINK	120	1	1.0	5–15R	–	KP2–2	3	20/1NG
K418	MIXER	208	3	7.0	L15–20R	–	KP2–1	20,22,24	20/3G
K424	SLICER	120	1	2.0	5–15R	–	KP2–2	7	20/1NG
K427.1	UTILITY WALL SYSTEM	120	1	60.0	–	X	KP2–2	35	60/1NG
K428.1	UTILITY WALL SYSTEM	120	1	60.0	–	X	KP2–2	37	60/1NG
K429	EXHAUST HOOD	120	1	15.0	–	X	KP2–2	9	20/1NG
K429	EXHAUST HOOD	120	1	15.0	–	X	KP2–2	8	20/1NG
K429.1	FIRE SUPPRESSION SYSTEM	120	1	20.0	–	X	LS1–1	11	20/1NG
K429.1	FIRE SUPPRESSION SYSTEM	120	1	20.0	–	X	LS1–1	10	20/1NG
K432.1	UTILITY WALL SYSTEM	120	1	60.0	–	X	KP2–2	39	60/1NG
K432.1	UTILITY WALL SYSTEM	120	1	60.0	–	X	KP2–2	41	60/1NG
K433	EXHAUST HOOD	120	1	15.0	–	X	KP2–2	10	20/1NG
K433	EXHAUST HOOD	120	1	15.0	–	X	KP2–2	11	20/1NG
K433	EXHAUST HOOD	120	1	15.0	–	X	KP2–2	12	20/1NG
K433	EXHAUST HOOD	120	1	15.0	–	X	KP2–2	13	20/1NG
K433.1	FIRE SUPPRESSION SYSTEM	120	1	20.0	–	X	LS1–1	15	20/1NG
K433.1	FIRE SUPPRESSION SYSTEM	120	1	20.0	–	X	LS1–1	14	20/1NG
K433.1	FIRE SUPPRESSION SYSTEM	120	1	20.0	–	X	LS1–1	13	20/1NG
K433.1	FIRE SUPPRESSION SYSTEM	120	1	20.0	–	X	LS1–1	12	20/1NG
K436	EXHAUST HOOD	120	1	15.0	–	X	KP2–2	14	20/1NG
K437	UTILITY WALL SYSTEM	208	3	200.0	–	X	KP2–1	1,3,5	200/3G
K438	FIRE SUPPRESSION SYSTEM	120	1	20.0	–	X	LS1–1	16	20/1NG
K451	ICE MACHINE	120	1	11.9	5–15R	–	KP2–2	19	20/1NG
K453	ROLL–IN REFRIGERATOR	120	1	9.4	5–15R	–	KP2–2	15	20/1NG
K453	ROLL–IN REFRIGERATOR	120	1	9.4	5–15R	–	KP2–2	17	20/1NG
K456	MIXER	120	1	6.0	5–15R	–	KP2–2	16	20/1NG
K456	MIXER	120	1	6.0	5–15R	–	KP2–2	18	20/1NG

KITCHEN SCHEDULE NOTES:

1. FOR EACH DIRECT CONNECTION UNIT, PROVIDE LOCAL DISCONNECT WITHIN SITE OF UNIT. COORDINATE LOCATION IN–FIELD WITH ARCHITECT.
2. COORDINATE ALL BACKBOX MOUNTING HEIGHTS WITH FOOD SERVICE DRAWINGS PRIOR TO INSTALLATION.

CSARCH

40 Beaver St., Albany, New York 12207-1511
518-463-8068 www.csarchpc.com

Consultant

Project Title

NEWBURGH ENLARGED CITY SCHOOL DISTRICT
NEW CTE BUILDING

JAMES R. BARRETT
073467
EXPIRES 5/31/2026

#	DATE	DESCRIPTION
6	6/06/2024	BID ADDENDUM #6
5	5/22/2024	BID ADDENDUM #5
4	5/20/2024	BID ADDENDUM #4

Drawn By:	NAR
Checked By:	JRB
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SCHEDULES

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