ADDENDUM No. 5 – February 16, 2022

PART 1 - GENERAL

This addendum modifies, amends, and supplements designated parts of the Contract Documents for the above project and is hereby made part thereof by reference and shall be as binding as though inserted in locations designated hereunder.

It shall be the responsibility of the bidders to notify all subcontractors and suppliers he proposes to use for the various parts of the work for any changes or modifications contained in this addendum. No claim for additional compensation because of lack of knowledge of the contents of this addendum will be considered.

PART 2 - SPECIFICATIONS

1. ADDENDUM No. 3

Page 11, Item 18, SECTION 09 51 00 ACOUSTICAL CEILINGS, Page 12, Paragraph 2.4.L:
Delete: “Media Center, College & Career Center”

Page 11, Item 18, SECTION 09 51 00 ACOUSTICAL CEILINGS, Page 12, Paragraph 2.4.L5:
Delete: “2. Media Center: Standard “Effects” finishes
3. College & Career Center: RAL color”

2. ADDENDUM No. 4

Page 3, Item 11, Page 4, Paragraph 2.2, A, 7, second line:
Delete the second line:
“Insert: Model #503 at Gymnasium roof access ladder.”

3. SECTION 00 01 00 – TABLE OF CONTENTS

Page 4, DIVISION 08 – OPENINGS:
Insert: “Section 08 71 13 AUTOMATIC DOOR OPENERS”

4. SECTION 00 01 15 – LIST OF DRAWINGS

Page 12:
Insert: “H5.7 HVAC Custom Unit Layouts”
Insert: “H7.8 HVAC Schedules”

5. SECTION 00 73 00 – SUPPLEMENTARY INSTRUCTIONS TO BIDDERS

Page 5, Paragraph 1, Item 53:
Delete: “Subcontractors shall not park in the Doherty High School parking lots, private parking lots, or any streets adjacent to the project site. Anyone found parking in

the school lot, surrounding area, or adjacent streets will be removed from the project. Limited offsite parking for is available at Big Y, 100 Mayfield Street, Worcester, MA 01602 for 5 cars per subcontractor. Additional parking is the responsibility of each individual subcontractor. Shuttling shall be paid for and arranged by subcontractors.**"**

Insert: "Subcontractors shall not park in the Doherty High School parking lots, private parking lots, or any streets adjacent to the project site. Anyone found parking in the school lot, surrounding area, or adjacent streets will be removed from the project**.** Offsite parking for trade contractors is available at two lots each within 5 miles of the jobsite. Lots shall be assigned to contractors by the CM. Shuttling shall be paid for and arranged by subcontractors."

Page 12, Paragraph 9. Item 1:

Delete: "Subcontractors shall be responsible for daily cleanup to an onsite dumpster. Dumpsters for Roofing and Masonry shall be provided by those subcontractors. Dumpsters for all other contractors will be provided by Fontaine-Dimeo. All costs related to daily cleanup, including hoisting, shall be carried by subcontractors."

Insert: "Subcontractors, except for masonry and roofing contractors, shall be responsible for daily cleanup to a hopper at designated at loading zones and as directed by CM. Dumpsters and hoisting of hoppers to the dumpers will be provided by Fontaine-Dimeo for all contractors except roofing and masonry. Dumpsters and hoisting material to dumpers for Roofing and Masonry shall be provided by those subcontractors. All costs related to daily cleanup to a hopper shall be carried by subcontractors."

Page 13, Paragraph 11, Item 1a:

Delete: "Fontaine-Dimeo shall provide, at a minimum, guaranteed onsite parking for each subcontractor's foreman only. Limited off-site parking for a maximum of 5 cars per subcontractor at Big Y at 100 Mayfield Street, Worcester, MA. Any required additional parking shall be the responsibility of the subcontractors. Contractors shall provide their own shuttles to and from the jobsite. Shuttles may be parked overnight at the off-site parking lot. There shall be no storage of material or equipment at the off-site parking lot."

Insert: "Fontaine-Dimeo shall provide, at a minimum, guaranteed onsite parking for each subcontractor's foreman only. Offsite parking for trade contractors is available at two lots each within 5 miles of the jobsite. Lots shall be assigned to contractors by the CM. Shuttling shall be paid for and arranged by subcontractors. Shuttles may be parked overnight at the off-site parking lot."

Page 15, Paragraph B. Item 12:

Delete: "Receive, inventory, store, and install all Cavity Wall Insulation furnished by Fontaine-Dimeo. Fontaine-Dimeo pre-purchased 72,000 sf of R-24 Roxul Comfort Batt, 9,500 sf of R-15 Roxul Comfort Batt, and 2,000 sf of XPS-2" for installation by this trade. It shall be the responsibility of this contractor to furnish and install any additional insulation required for the scope of this work."

Insert: "Furnish and install all insulation behind work of this bid package."

Page 23, Paragraph I. Item 6:

Add: "Install flashing piece-2 (lower piece) over PVC flashing at metal panels and masonry, furnished by others. "

Page 23, Paragraph I. Item 8:
Add: "Include an allowance of 250 hours for snow removal from the roof, at the direction of the CM. "

Page 24, Paragraph I. Item 11:
Delete: "Install and flash mechanical equipment curbing provided by MEPFP and Kitchen contractors."
Insert: "Roofing contractor shall install roofing tie-in as noted in roof details for curbs furnished and installed by MEP and Kitchen Contractors."

Page 24, Paragraph I. Item 23:
Delete item 23.

Page 24, Paragraph I. Item 44a:
Delete: "Provide all temporary roofing necessary to achieve the schedule."
Insert: "Include an allowance to furnish and install 50,000 SF of temporary roofing (EPDM), at the direction of the CM."

Page 24, Paragraph I. Item 44bc:
Delete: "Include either a sacrificial layer of membrane or plan on removing and replacing membrane to provide a warrantied system."
Insert: "Include a minimum of 150 sheets (4'x8') of 5/8" plywood to be hoisted to and placed on the roof at varying elevations, at the direction of the CM. These bundles should be broken and laid out as a work surface at locations identified by the CM."

Page 24, Paragraph I. Item 44bc:
Delete: "install temporary protection pathways after the new roof has been installed and accepted, in order for other trades to walk and work on the roof without damaging the newly installed roof. Any damages and repairs will be the responsibility of this Trade Contractor. Base bid shall include 1,000'x6' of roofing repairs."
Insert: "Include an allowance of 6,000 SF of roof repair, including labor, to be performed at the direction of the CM. This is above and beyond normal punchlist repairs, which are the responsibility of the roofing contractor."

Page 40, Paragraph JJ. Item 9:
Delete: "10 feet beyond the building perimeter"
Insert: "flange in the water room."

6. SECTION 04 00 01 – MASONRY TRADE CONTRACT REQUIREMENTS

Page 2, 1.2 Paragraph F, Item 2
Insert: "H5.7" after "H5.6"
Insert: "H7.8" after "H7.7"

7. SECTION 04 20 00 – UNIT MASONRY

Page 2, PART 1 – GENERAL, 1.2 SUMMARY, A:

Insert: "29. Mineral wool insulation in cavity wall masonry veneer construction and rigid extruded polystyrene insulation cavity wall insulation below grade mechanically attached to foundation furnished."

Page 2, PART 1 – GENERAL, 1.2 SUMMARY, B:
Delete: "6" in its entirety.

Page 18, PART 2 – PRODUCTS, 2.3:
Insert: "AND" after "INSULATION"

Page 18, PART 2 – PRODUCTS, 2.3:
Insert: "C. Cavity wall insulation behind masonry (or as otherwise noted): Rigid mineral wool insulation for exterior wall cavities: mineral wool fiber insulation board, conforming to ASTM C612, Type IVB having a nominal density of 4.4 pounds per cubic foot of insulation.

1. Non-Combustible as tested per ASTM E-136.
2. Flame Spread Classification: Class A (less than 25, per testing by NFPA 255, ASTM E-84 or UL 723), with flame spread rating of 0 and smoke developed rating of 0.
3. Thermal Resistance: ASTM C518 (C177), R-value of 15 minimum at 3-1/2 inches thick, R-17 minimum @ 4 inches thick.
4. Thickness: As indicated on Drawings.
5. Size: 16 inches x 48 inches (406 mm x 1219 mm).
6. Acceptable products include the following or approved equal:
   a. Johns Manville, Inc., Denver CO. product: "MinWool Curtainwall CW4".
   b. Owens Corning, Wabash IN, product "Thermafiber, RainBarrier 45."
   c. Roxul, Inc., Milton, Ontario, product "CavityRock".

D. Cavity wall insulation below grade, rigid extruded polystyrene insulation: Closed cell foam board, square edge, self-extinguishing, conforming to ASTM C 578, Type IV, with a compressive strength of 25 pounds per square inch when tested in accordance with ASTM D 1621 equal to Dow Chemical Corp., Styrofoam Brand "Square Edge" insulation.

1. R-value: 15 min. (R-value of 5.0 per inch min.)
2. Acceptable products include but are not limited to:
   a. Dow Chemical Corp., product, Styrofoam Brand "Square Edge"
   b. Owens Corning, product "Formular 250".
   c. Kingspan Insulation LLC, product "GreenGuard Type IV 25 PSI Insulation Board".
   d. DiversiFoam Products, product "CertiFoam 25 SE"."

8. SECTION 05 00 01 – MISCELLANEOUS AND ORNAMENTAL IRON TRADE CONTRACT REQUIREMENTS

Page 2, 1.2 Paragraph F, Item 1
Insert: "A3.18a" after "A3.18"

Page 2, 1.2 Paragraph F, Item 2
Insert: "H5.7" after "H5.6"
Insert: "H7.8" after "H7.7"

9. SECTION 05 50 00 – METAL FABRICATIONS

Page 4, PART 1 – GENERAL, 1.2 SUMMARY, B, 45:
After “angles at”, Insert ”all”.

Page 4, PART 1 – GENERAL, 1.2 SUMMARY, B, 46:
After “angles at”, Insert ”all”.

10. SECTION 06 61 16 – SOLID SURFACE FABRICATIONS

Page 1, PART 1 – GENERAL, 1.1, A:
Delete: “1.” In its entirety.
Insert: “All window and curtain wall interior openings shall receive full depth stools with 1” overhang and 2 ½” minimum aprons except at rooms scheduled to receive epoxy tops.”

11. SECTION 07 00 00 – DAMPPROOFING, WATERPROOFING & CAULKING TRADE CONTRACT REQUIREMENTS

Page 2, 1.2 Paragraph F, Item 2
Insert: “H5.7” after “H5.6”
Insert: “H7.8” after “H7.7”

12. SECTION 07 00 02 – ROOFING & FLASHING TRADE CONTRACT REQUIREMENTS

Page 2, 1.2 Paragraph F, Item 2
Insert: “H5.7” after “H5.6”
Insert: “H7.8” after “H7.7”

13. SECTION 07 21 00 – THERMAL INSULATION

Page1, PART 1 – GENERAL, 1.1 SUMMARY,C:
Delete: “1” in its entirety.

Page 4. Part – 2 PRODUCTS, 2.2 MATERIALS
Delete: “D.” in its entirety.

Page 4. Part – 2 PRODUCTS, 2.2 MATERIALS
Delete: “E.” in its entirety.

14. SECTION 07 54 19 -POLYVINYL-CHLORIDE (PVC) ROOFING

Page 11, PART – 2 PRODUCTS, 2.4 ROOFING INSULATION, E:
Insert: “b. CertainTeed Corporation, Valley Forge PA, product: “GlasRoc Roof Board”
c. Georgia-Pacific Building Products, Atlanta, GA, product: “DensDeck Roof Board”.”

Page 11, PART – 2 PRODUCTS, 2.4 ROOFING INSULATION:
Delete: “F” in its entirety

Insert: "F. High-density roof board: ½" lightweight, high-density polyisocyanurate roof board with coated glass facers.

1. Basis of Design; Sika/Sarnafil, Canton, MA. Product: "Sarnatherm® Roof Board H" or equal

Compressive Strength: 109 psi (751kPa)		(ASTM D-1621)
Dimensional Stability: 0.5% (7 days)		(ASTM D-2126)
Reaction to Fire:	Flame Spread: <75	(ASTM E-84)
	Smoke Developed: <450	
Thermal Resistance: 2.5		(ASTM C-518)
Water Absorption: <1%		(ASTM C-209)
Microbiological Resistance: Passed		(ASTM D-3273)
Service Temperature: 260F° (126°C) or less		

Page 11, PART – 2 PRODUCTS, 2.4 ROOFING INSULATION:
Delete: "G" in its entirety

15. SECTION 07 62 00 – SHEET METAL FLASHING AND TRIM

Page 7, PART 2 – PRODUCTS
Delete: "2.4" in its entirety.

Page 5, PART 2 – PRODUCTS, 2.1 SHEET METALS:
Insert: "C. Stainless Steel Sheet: Mill finish (unpolished) Type 302/304 stainless steel.

1. Sheet stainless steel counter flashing fabricated from mill finish (unpolished) 26 gage Type 302/304 stainless steel.
2. Perforated Stainless Steel Vent: Mill finish, perforated, round, Stainless Steel, 22 Gauge (.0312 inch thick), 1/4inch round on 5/16-inch staggered centers, 58% open area.
   a. Solder for Sheet Metal Flashings:
   b. Solder for Stainless Steel: ASTM B 32, Grade Sn60, with acid flux of type recommended by stainless-steel sheet manufacturer."

16. SECTION 07 72 00 – ROOF ACCESSORIES

Page 1, 1.2 SUMMARY, A:
Delete: "4." In its entirety.

Page 1, 1.2 SUMMARY, A:
Delete: "5." In its entirety.
Insert: "5. Pre-fabricated roof top ramps where PV panel conduit crosses walkways, roof expansion joints and roof separation low walls."

Page 6, PART 2 – PRODUCTS:
Delete: "3.2" in its entirety.

Page 6, PART 2 – PRODUCTS, 3.3, A, 1:
Delete: "1)" in its entirety.
Insert : "1) EATON, Cleveland Ohio:

a. GrateWalk rooftop walkways with integrated DURA-BLOCK supports or equal.
   1) Ramp design #1 at PV conduit: RWR82424N.
   2) Ramp design #2 at expansion joints and roof separation low walls: RWS153624N.”

Page 6, PART 3 – EXECUTION:
Delete: “3.2” in its entirety.

17. SECTION 07 92 00 – JOINT SEALANTS

Page 1, Paragraph 1.2.L
Delete: “Perimeter of recessed wall mounted devices.”
Insert: “Perimeter of recessed wall mounted devices including perimeter edges of wall mounted aluminum sheet at accordion door striker jambs.”

18. SECTION 08 00 05 – METAL WINDOWS TRADE CONTRACT REQUIREMENTS

Page 2, 1.2 Paragraph F, Item 2
Insert: “H5.7” after “H5.6”
Insert: “H7.8” after “H7.7”

19. SECTION 08 00 08 – GLASS & GLAZING TRADE CONTRACT REQUIREMENTS

Page 2, 1.2 Paragraph F, Item 2
Insert: “H5.7” after “H5.6”
Insert: “H7.8” after “H7.7”

20. SECTION 08 44 13 – GLAZED ALUMINUM CURTAIN WALLS

Page 17, PART 2 – PRODUCTS, 2.15 FLASHING, B:
After “as detailed”, Insert ”or 6 inches minimum.”

21. SECTION 08 71 00 – DOOR HARDWARE

Replace this section with the attached new Section 08 71 00 – Door Hardware

22. SECTION 09 00 05 – ACOUSTICAL CEILINGS TRADE CONTRACT REQUIREMENTS

Page 2, 1.2 Paragraph F, Item 2
Insert: “H5.7” after “H5.6”
Insert: “H7.8” after “H7.7”

23. SECTION 09 00 06 – RESILIENT FLOOR TRADE CONTRACT REQUIREMENTS

Page 2, 1.2 Paragraph F, Item 2
Insert: “H5.7” after “H5.6”
Insert: “H7.8” after “H7.7”

24. SECTION 09 00 09 – PAINTING TRADE CONTRACT REQUIREMENTS

Page 2, 1.2 Paragraph F, Item 2
Insert: "H5.7" after "H5.6"
Insert: "H7.8" after "H7.7"

25. SECTION 09 29 00 – GYPSUM BOARD

Page 1 Paragraph 1.1.B
Insert: "13. Aluminum Sheet at accordion folding door striker jambs"

Page 6, Paragraph 2.1.A
Insert: "5. Prefinished Aluminum Sheet Products
a. Riverside Sheet Metal, Medford MA
b. Or Equal"

Page 8, Paragraph 2.3.F:
Delete "Not Used"
Insert: "Prefinished Aluminum Sheet Products
1. Panel Size: Manufacturer's standard width x length, shop cut to size.
2. Panel edges: de-burred and eased
3. Locations: Accordion Folding Door Striker Jambs
4. Installation: Single continuous sheet fully adhered to wall
5. Color: Clear Anodized or selection by Architect in manufacture's standard range.
6. Description: Fire Class A.
7. Acceptable products:
a. 0.050, 18 gauge, ANODIZED ALUMINUM SHEET or Approved Equal
8. No joints, screw holes, outside corner moldings
9. Caulk edges under Section 07 92 00 "JOINT SEALANTS"

26. SECTION 09 51 00 ACOUSTICAL CEILINGS

Page 10, Paragraph 2.4.H.4
Delete: "from manufacturer's full range of available colors"
Insert: "from manufacturers full range of RAL colors"

Page 11, Paragraph 2.4.I
Insert: "Media Center" after "Common Rooms"

27. SECTION 09 91 00 – PAINTING

Page 1, 1.2 Paragraph B, Item 25
Delete: "painted line striping, arrows and parking space numbers"

Page 1, Paragraph 1.2.B,
Delete: 33 in it's entirety
Insert: "33. Scoreboard exposed foundations/footings, metal structure, sub-structure, and metal sign lettering.
34. All other items indicated to be painted on the drawings."

28. SECTION 11 40 00 – FOOD SERVICE EQUIPMENT (ADD. #4)

PAGE 20, ITEM#7 COOLER CONDENSING UNIT:

Insert: "9. Kitchen Equipment Contractor to provide pre-fabricated roof penetration housing and exit seals for rooftop penetrations associated with refrigeration line runs. Kitchen Equipment Contractor to verify locations and quantities of penetrations in the field with the General Contractor."

Page 21, Item #9 FREEZER CONDENSING UNIT

Insert: "10. Kitchen Equipment Contractor to provide pre-fabricated roof penetration housing and exit seals for rooftop penetrations associated with refrigeration line runs. Kitchen Equipment Contractor to verify locations and quantities of penetrations in the field with the General Contractor."

PAGE 22, ITEM#12 COOLER CONDENSING UNIT:

Insert: "9. Kitchen Equipment Contractor to provide pre-fabricated roof penetration housing and exit seals for rooftop penetrations associated with refrigeration line runs. Kitchen Equipment Contractor to verify locations and quantities of penetrations in the field with the General Contractor."

PAGE 22, ITEM#13 BLAST CHILLER CONDENSING UNIT:

Insert: "9. Kitchen Equipment Contractor to provide pre-fabricated roof penetration housing and exit seals for rooftop penetrations associated with refrigeration line runs. Kitchen Equipment Contractor to verify locations and quantities of penetrations in the field with the General Contractor."

SECTION 14 00 02 – ELEVATOR TRADE CONTRACT REQUIREMENTS

Page 2, 1.2 Paragraph F, Item 2

Insert: "H5.7" after "H5.6"

Insert: "H7.8" after "H7.7"

29. SECTION 21 00 01 – FIRE PROTECTION

A. Page 3 and 4, Paragraph 1.5 G

1. Delete existing paragraph G
2. Insert Paragraph G - EX1.0, EX2.0, EX3.0, EX4.0, C1.0, C1.1, C1.2, C2.0, C2.1, C2.2, C3.0, C3.1, C3.2, C4.0, C4.1, C4.2, C5.0, C5.1, C5.2, C6.0, C6.1, C6.2, C6.3, C7.0, C7.1 C7.2, C8.0, C8.1, C8.2, C9.0, C9.1, C9.2, C9.3, C10.0, C10.1, C10.2, C10.3, C10.4, C10.5, L0.0, L0.1, L0.2, L1.1, L1.2, L1.3, L1.4, L1.5, L2.1, L2.2, L2.3, L2.4, L2.5, L2.6, L3.1, L3.2, L3.3, L3.4, L3.5, L4.1, L4.2, L4.3, L4.4, L4.5, L4.6, L4.7, IR-1, IR-2, IR-3, S1.01, S1.02, S1.03, S3.01, S3.02, S3.03, S3.04, S3.05, S3.06, S3.07, S3.08, S3.09, S3.10, S3.11, S3.12, S3.13, S3.14, S3.15, S3.16, S3.17, S3.18, S3.19, S3.20, S3.21, S3.22, S4.01, S4.02, S4.03, S4.04, S4.05, S4.06, S4.07, S4.08, S4.09, S4.10, S4.11, S4.12, S4.13, S4.14, S4.15, S4.16, S4.17, S4.18, S4.19, S4.20, S4.21, S4.22, S4.23, S4.24, S4.25, S4.26, S4.27, S4.50, S4.51, S4.52, S4.53, S4.54, S4.55, S5.01, S5.02, S5.03, S5.04, S5.11, S5.12, S5.13, S5.14, S5.15, S5.16, S5.17, S5.18, S5.19, S5.20, S6.01, S7.01, S7.02, AD1.0, A1.0, A1.1, A1.2, A1.3, A1.4, A1.5, A1.6, A1.7, A2.0, A2.1, A2.2, A2.3, A2.4, A2.5, A2.6, A3.1, A3.2, A3.3, A3.4, A3.5, A3.6, A3.7, A3.8, A3.9, A3.10, A3.11, A3.12, A3.13, A3.14, A3.15, A3.16, A3.17, A3.18, A3.19, A3.20, A3.21, A3.22, A4.1, A4.2, A4.3, A4.4, A4.5, A4.6, A4.7,

A4.8, A4.9, A4.10, A4.11, A4.12, A4.13, A4.14, A4.15, A4.16, A4.17, A5.0, A5.1, A5.2, A5.3, A5.4, A5.5, A5.6, A5.7, A5.8, A5.10, A5.11, A5.12, A5.13, A5.14, A5.15, A6.1, A6.2, A6.3, A6.4, A6.5, A6.6, A6.7, A6.8, A6.9, A6.10, A6.11, A6.12, A6.13, A6.14, A6.15, A6.16, A6.17, A6.18, A6.20, A6.21, A6.22, A6.23, A6.24, A6.25, A6.26, A6.27, A6.28, A6.29, A6.30, A6.32, A6.33, A7.0, A7.1, A7.2, A7.3, A7.4, A7.5, A7.6, A7.7, A7.8, A7.9, A7.10, A7.11, A7.12, A7.13, A8.1, A8.2, A8.3, A8.4, A8.5, A8.6, A8.7, A8.8, A8.9, A8.10, A8.11, A8.12, A8.13, A8.14, A8.15, A8.16, A8.17, A8.18, A8.18a, A8.19, A8.20, A8.21, A8.22, A8.22a, A8.23, A8.23a, A8.24, A8.24a, A8.25, A8.26, A8.27, A8.28, A8.30, A8.31, A8.32, A8.33, A8.34, A8.35, A8.36, A8.37, A8.38, A8.39, A8.41, A8.42, A8.43, A8.44, A8.45, A8.46, A9.0, A9.1, A9.2, A9.3, A9.4, A9.5, A10.1, A10.2, A10.3, A10.4, A10.5, A10.6, A11.1, A11.2, A11.3, A11.4, A11.5, A12.1, A12.2, A12.3, A12.4, A12.5, A12.6, A12.7, A12.8, A12.9, A12.10, A12.11, A12.12, A12.13, A12.14, A12.15, K1.1, K1.2, K2.1, K2.2, K2.3, K2.4, K3.1, K3.2, K4.1, K4.2, K4.3, K4.4, K5.1, K5.2, K6.1, K6.2, K6.3, P2.1, P2.2, P2.3, P2.4, P3.1, P3.2, P3.3, P3.4, P3.5, P3.6, P3.7, P3.8, P3.9, P3.10, P3.11, P3.12, P3.13, P3.14, P3.15, P3.16, P3.17, P3.18, P3.19, P3.20, P3.21, P4.1, P4.2, P4.3, P4.4, P4.5, P4.6, P4.7, P4.8, P4.9, P4.10, P4.11, H3.1, H3.2, H3.3, H3.4, H3.5, H3.6, H3.7, H3.8, H3.9, H3.10, H3.11, H3.12, H3.13, H3.14, H3.15, H3.16, H3.17, H3.18, H3.19, H3.20, H3.21, H3.22, H4.1, H4.2, H4.3, H4.4, H4.5, H4.6, H4.7, H4.8, H4.9, H4.10, H4.11, H4.12, H4.13, H4.14, H4.15, H4.16, H4.17, H4.18, H5.1, H5.2, H5.3, H5.4, H5.5, H5.6, H5.7, H6.1, H6.2, H6.3, H6.4, H6.5, H6.6, H7.1, H7.2, H7.3, H7.4, H7.5, H7.6, H7.7, H7.8, AV1.0, AV1.1, AV1.2, AV3.3, AV3.4, AV3.6, AV3.8, AV3.10, AV3.14, AV3.20, AV4.1, AV6.1, AV6.2, AV6.3, AV7.1, AV7.2, AV7.3, AV8.0, AV8.1, AV8.2, AV8.3, AV8.4, AV8.5, AV8.6, TL3.4, TL3.12, TL3.20, TL4.1, TL4.2, TL6.1, TL6.2, TL9.0, TL9.1, TL9.2, TL9.3, TP1, TR3.4, TR3.12, TR4.1, TR5.10, TR6.1, E0.1, E0.2, E0.3, E0.4, E0.5, E0.6, E0.7, E0.8, E0.9, E0.10A, E0.10B, E0.11, E0.12, E1.1, E1.2, E1.3, E1.4, E1.5, E1.6, E1.7, E1.8, E1.9, E1.10, E1.11, E1.12, E1.13, E1.14, E1.15, E1.16, E1.17, E1.18, E1.19, E2.1, E2.2, E2.3, E2.4, E2.5, E2.6, E2.6A, E2.6B, E2.6C, E2.7, E2.8, E2.9, E2.10, E2.11, E2.12, E2.13, E2.14, E2.15, E2.16, E2.17, E2.18, E3.1, E3.2, E3.3, E3.4, E3.5, E3.6, E3.7, E3.8, E3.9, E3.10, E3.11, E3.12, E3.13, E3.14, E3.15, E3.16, E3.17, E3.18, E3.19, E3.20, E4.0, E4.1, E4.2, E4.3, E4.4, E4.5, E4.6, E4.7, E4.8, E5.0A, E5.0B, E5.0C, E5.0D, E5.0E, E5.0F, E5.0G, E5.0H, E5.01, E6.0A, E6.0B, E6.0C, E6.0D, E6.0E, E9.00, E9.01, E9.02, E9.03, E9.04, E9.05, E9.06, E9.07, E9.08, E9.09, E9.10, E9.11, E9.12, E9.13, E9.14, E9.15, E9.16, E9.17, E9.18, E9.19, E9.20, E9.21, FA1.1, FA1.2, FA1.3, FA1.4, FA1.5, FA1.6, FA1.7, FA1.8, FA1.9, FA1.10, FA1.11, FA1.12, FA1.13, FA1.14, FA1.15, FA1.16, FA1.17, FA2.1A, FA2.1B, FA2.1C, FA2.1D, FA2.1E, FA2.2, FA2.2B, FA2.3, TC1.1, TC1.2, TC1.3, TC1.4, TC1.5, TC1.6, TC1.7, TC1.8, TC1.9, TC1.10, TC1.11, TC1.12, TC1.13, TC1.14, TC1.15, TC1.16, TC1.17, TC1.18, TC2.1, TC2.2, TC2.3, TC2.4, TC2.5, TC2.6, TC3.1A, TC3.1B, TC3.1C, TC3.2A, TC3.2B, TC3.2C, TC3.2D, TC3.3A, TC3.3B, TC3.3C, TC3.4A, TC3.4B, TC3.4C, TC3.5A, TC3.5B, TC3.6, TC3.7A, TC3.7B, TC3.8A, TC3.8B, TC3.8C, TC3.8D, PV001, PV002, PV101, PV102, PV103, PV104, PV201, PV301, PV302, PV303, PV304, PV401, PV501, PV502, PV503, PV504, PV505, PV601, PV602, PV603, PV604, PV605.

Page 25, Paragraph 1.19, D 8, d.

Insert: “iii. 2-story space high-deck piping and sprinklers shall be fed from the Zone Control Valve station serving the floor level of the 2-story space.
iv. WFD approved zoning shall be maintained.”

Page 44, Paragraph 3.4
Insert: "E Air-Water Sealing of Exterior Walls: Seal with a material that stays flexible when cured, down to -10 F.

1. Exterior wall penetration sealing must be completed, inspected, and approved prior to the interior side being enclosed with sheetrock or other finishes, and prior to installing any clamps or exterior side fittings or escutcheons.

2. If the penetrations to be sealed are enclosed on the interior side prior to inspection, the interior side finish shall be cut open.

3. If any pipe clamps, fittings, escutcheons, or other materials that interfere with a complete and professional sealing of the entire pipe perimeter are installed prior to inspection and approval, they shall be removed.

4. The FP trade contractor shall bear all costs of cutting and patching required to permit removal of fittings and escutcheons without loosening any pipe joints inside the wall."

30. SECTION 22 00 00 – PLUMBING

Page 4, Paragraph 1.1.E.2
Insert: "H5.7" after "H5.6
Insert: "H7.8" after "H7.7"

Page 32 2.3.F. OSP-1
Add: After the sentence at the end of the first paragraph that states (i.e. the flush valve shall be concealed behind the wall in the accessible plumbing chase), add the following:
"Provide Acorn Dura-Ware #2898 Flush Valve Access Panel. The mounting frame shall be welded constructed, fabricated of 20 gage galvanized steel for walls up to 12" thick. The front of the mounting frame gas a reinforced hem and is provided with corner braces with panel anchoring nuts provided. The rear of he mounting flange includes a flange and is provided with nail holes to secure the frame to forms or wall construction. The removable access panel cover is fabricated of 14 gage type 304 stainless steel with beveled edges and exposed surfaces having a satin finish and is secured to mounting frame with four ¼" tamper-resistant stainless steel screws. Panel includes 1-1/2" diameter hole punching for an appropriate installer provided flush valve pushbutton assembly for either wall box or access panel type installation. Mounting hardware, flush valve, and piping shall be by others."

Page 32 2.3.F. OSP-2
Add: Add the same note as for OSP-1 above.

Page 36 2.5.J.7
Add: "For fixture L7: Pass-Thru Fume Hood, there is also one (1) integral cup sink that needs to be plumbed."

Page 36 2.5.L.17
Add: "17. Provide collapsible water dam at front of alcove to contain water when testing the fixture. Ensure edges are tight to wall to prevent leakage. This product is similar to Stay Dry Shower Systems, Mustee Collapsible Water Barrier Kit, Viugreum Collapsible Shower Threshold Water Dam, Grab Bar Specialists Inc. or approved equal."

Page 60 2.21.E.
Add: "E. OSMV-1: For the 120°F water for the Outdoor Toilet and Storage Building, provide thermostatic mixing valve for hot and cold water supply to fixtures as specified below.

1. Furnish and install at the water heater one (1) Honeywell Sparcomix model AM101-USTG-1LF anti-scald proportional thermostatic mixing and diverting valve or equal. The mixing valves shall have the following features:
   a. Dual certification ASSE 1016 – T and ASSE 1017.
   b. Constant water temperature under different operating conditions.
   c. Proportional valve (simultaneous control of hot and cold water).
   d. Anti-scald, Anti-chill thermal shock protection at correct setting.
   e. Temperature high limit or low limit range restriction.
   f. Nickel plated brass/bronze construction, EPDM o-rings.
   g. Straight through design.
   h. Maximum working pressure = 150 PSI.
   i. 3/4" union sweat connection.
   j. Low minimum flow requirement = 0.5 GPM.
   k. Rated at 12 GPM with a Cv of 3.9 at a temperature range of 100ºF to 145ºF.
   l. Made in the US."

Page 69 2.35.A.1.
Change: Change the pipe size for the boiler/chiller water feed from 1" to 1-1/4".

31. SECTION 23 00 00 – HVAC

Page 4, Paragraph 1.01.E.1
Insert: "H5.7" after "H5.6"
Insert: "H7.8" after "H7.7"

Page 4, Paragraph 1.01.E.2
Insert: "A3.18a" after "A3.18"

Page 26, 2.05 B. 1. i.
Add: Add the following sentence at the end of subparagraph i: "3. Contractor shall plug drain if beam is not piped with a condensate drainage system. Plugging drains shall apply to most beams on this project."

Page 176 2.49 W.

Replace: Replace the paragraph tags under 1. General to make “c.” become “a.” and “d.” become “b.”

Add: In paragraph 1. a. add the following after the first sentence: “RTU-11 shall operate as a single zone VAV.”

Add: In paragraph 3. b. add the following at the end of the paragraph:
“For RTU-11 serving the lobby, the supply fans shall initially operate at 50% speed (50% supply airflow) and shall speed up or down as needed to support space cooling, economizer, CO2 ventilation control or heating demands. For space temperature control the supply air temperature shall reset to minimum (for cooling) or maximum (for heating) setpoint first prior to increasing fan speed to achieve space setpoint.”

Add: In paragraph 8. A. add the following input: “RTU-11 Space Temp AI (mult.)”.

Page 201, 2.49 CC.

Add: Add the following paragraph: “9. In areas served with a dedicated DOAS FVAV unit and fin-tube radiation, the radiation shall be the 1st stage of heat followed by the FVAV hot water coil. In areas where a DOAS FVAV unit serves multiple rooms which also have fin-tube radiation, the fin-tube radiation shall be the 1st stage of heat for each room. The FVAV heat cool action shall be based on an average of the spaces served.”

Page 203, 2.49 GG.

Add: In paragraph 2. add the following after the first sentence: “For the Field Building the general exhaust fan shall operate if any of the restrooms space detect occupancy via the space occupancy sensors interconnect to the lighting controls. EMS can also control system based on a fixed schedule. Once enabled the exhaust fan damper and intake dampers shall open and the fan shall operate. The electric room shall fan and damper shall operate off of a line voltage thermostat control. EMS shall also monitor room temp via temperature sensor.”

Page 204, 2.49 HH.

Replace: In paragraph 1. In the 2nd sentence replace the words “is outdoor damper shall open” with “an occupied command shall be sent to the respective RTU which serves the areas ventilation needs”.

Delete: In paragraph 1. Delete the last sentence starting with “For FC-1 the ILF-3….”.

Delete: In paragraph 5. Delete the input “ILF-# Status DI” and the outputs “Outdoor Air Damper DO” and “ILF-# Start/Stop DO”.

Delete: In paragraph 5. In the Inputs, delete “(for FC-# & FC-#)”.

Add: Add the following paragraph: “6. In areas served with a dedicated fan coil unit and fin-tube radiation, the heat pump shall be the 1st stage of heat followed by the fin-

tube radiation. In areas where a fan coil unit serves multiple rooms which also have fin-tube radiation, the fin-tube radiation shall be the 1st stage of heat for each room. The heat pump fan coil heat cool action shall be based on an average of the spaces served."

Page 207, 2.49 KK.

Add: In paragraph 1. After the 1st sentence add the following: "When the EMS detects the kiln fan is enabled to operate the respective exhaust damper shall open."

Replace: Replace the heading of paragraph 4, with the following: "3. DDC Point List – Kiln Room Exhaust".

Replace: In paragraph 3., under outputs replace "Damper – DO: with "Damper – DO (2)".

Page 207, 2.49 MM.

Add: After the 1st sentence add the following: "For FC units which serve occupiable space, the units shall be scheduled to operate to maintain an occupied cooling setpoint of 75°F and an unoccupied cooling setpoint of 80°F.

Add: In paragraph 2., add the following input "Condensate Pump Alarm – DI"

32. SECTION 26 00 01 ELECTRICAL

Page 4, Paragraph 1.2.E.2

Insert: "A3.18a" after "A3.18"
Insert: "H5.7" after "H5.6"
Insert: "H7.8" after "H7.7"

33. SECTION 26 56 68 EXTERIOR SPORTS FIELD LIGHTING

Page 2, Paragraph 1.4E:

Insert: "1. Test borings were conducted for general assessment and are published in volume 4 appendices, Appendix A, Geotechnical report. Test boring locations are shown on the published existing conditions drawings, grading is shown on the civil drawings. This Trade contractor/vendor to review the published information for the design criteria and the pole design (the front poles are in fill) rock should be anticipated based on the borings/test pits and excavations and be included in the design. Should ledge as defined under sections 31 20 00 be encountered, contractual adjustments for excavations only. Should the contractor deem test borings are required based on the above information, the cost to be included in the bid price."

34. SECTION 27 51 29 DIGITAL SIGNAGE AND CLOCK SYSTEM

Page 4, Paragraph 2.1A:

Revise: 2.1A.4. to 2.1A.5
Insert: 2.1A.4 “Telecor VuAlert”

Page 5, Paragraph 2.2B.
Insert: “Provide Smart 22” class HD screen and associated hardware at each location a digital display clock is shown on the drawings.”

35. SECTION 27 21 00 DATA COMMUNICATIONS NETWORK EQUIPMENT

Page 5, Paragraph 2.2A:
Revise:

48SR + 4SFP56	***R0X41A***	***151***
24 port SFP+ / 4SFP56	***R0X43A***	***3***
48 port 10G/25G SFP28 Mod	***R0X44A***	***3***

Page 13, Paragraph F.1:

Line Module 9	***R0X41A***

Page 16, Paragraph 2.2G.2:

Line Module 3	***R0X41A***

Page 19, Paragraph 2.2I.1:

Line Module 6	***R0X41A***

Page 20, Paragraph 2.2I.2:

Line Module 4	***R0X41A***

Page 21, Paragraph 2.2J.1:

Line Module 2	***R0X41A***

Page 21, Paragraph 2.2J.2:

Line Module 2	***R0X41A***

Page 22, Paragraph 2.2K.1:

Line Module 8	***R0X41A***

Page 26, Paragraph 2.2M.1:

Line Module 6	***R0X41A***

Page 28, Paragraph 2.2N.1:

Line Module 8	***R0X41A***

Page 32, Paragraph 2.6:

Cisco Meraki MR87 wireless Access Point (Exterior)	***MR87***	***10***

36. SECTION 27 13 00 COMMUNICATIONS BACKBONE CABLING

Page 9, Paragraph 2.5E
Revise: "1. Leviton UPDCL-SXX, SC-LC single mode patch cord. (Add. #5)"
Revise: "2. Leviton 54DCL-MXX, laser optimized OM4 duplex, SC-LC 50 Micron multimode patch cord."

37. SECTION 26 33 53 STATIC UNINTERRUPTIBLE POWER SUPPLY

Page 9, Paragraph 2.4B
Insert: "Provide Manufacturer Control and Monitoring software and licenses."

38. SECTION 27 51 16 PUBLIC ADDRESS SYSTEM

Page 1-4, Paragraph 1.3
Delete: A, B, and C
Insert:

A. "It is the intent of these specifications that the Contractor, Manufacturer and/or its Authorized System Integrator expeditiously furnishes and installs a system complete in every respect and ready to operate. All miscellaneous items and accessories required for such installation, whether or not each such item or accessory as shown on the plans or mentioned in these specifications, shall be furnished and installed.

B. Upon completion of the installation, the owner will review the functionality of the installed system and compare to the minimum performance standards as set forth in these specifications. Any installed system not meeting the minimum standards of performance as set forth in these specifications will be removed by the providing Vendor and replaced with a system referred to in these specifications as the "standard system of reference" at the expense of the Vendor responsible for this section of the specifications. Any additional expenses incurred to meet the owner's interpretation of the "standard system of reference" will be the sole responsibility of the Vendor responsible for this section of the specifications. Any delays in the schedule shall also be subject to liquidated damages as required and/or described in other sections of these specifications.

C. The Contractor shall furnish and install all equipment including, but not limited to, outlet boxes, wiring, speakers, and all other necessary equipment to provide a complete operating system as indicated with the contract documents. Provide all necessary wall plates, specialty boxes, etc., not provided by others.

D. The intent of this specification is to maximize communications between the classroom and administrative areas while enhancing school safety and reducing maintenance and operational cost.

E. Under this specification, the system shall provide a complete Communication System for the entire school including the outdoor recreational areas.

F. The Communication System shall provide distribution of intercom, overhead paging, emergency paging, class change time tones, emergency tones, program material and on-board emergency messaging."

Page 17, Paragraph 2.5G.5.
Insert: "Provide PoE Clock at each location an analog clock is shown on the drawings."

PART 3 – DRAWINGS

ARCHITECTURAL

1. DRAWING A1.0 - PARTITION TYPES, ABBREVIATIONS, SYMBOLS, & MATERIAL LEGENDS

A. At EXTERIOR WALL TYPE No: "EM12, EM122, EC2, EM121, E123, EM8":

Delete: (07 21 00)
Insert: (04 20 00)

The insulation that was earlier purchased by the CM and supplied to the mason per this addendum is now to be purchased as part of the masonry trade contract.

B. At EXTERIOR WALL TYPE No.: "E8B, E8B1, E8B2, E8B3":

Delete: "R-17 MINERAL WOOL INSULATION AT BRICK MASONRY VENEER CONSTRUCTION (07 21 00)"

Insert: "R-17 MINERAL WOOL INSULATION AT BRICK MASONRY VENEER CONSTRUCTION (04 20 00)"

C. At EXTERIOR WALL TYPE No.: "E8MP1":

Delete: "E8MP1"
Insert: "E8MP"

2. DRAWING A3.4 – MAIN FLOOR PLAN SECTION E

A. At Room, E112 SRO OFFICE, add "55" TV" note and graphic on partition near and parallel to column line O.5. Changes will be identified and clouded on the conformed set.

B. At Room, E101 MAIN OFFICE, add note: “SECURITY MONITOR POKE-THROUGH CONNECTIONS” with electrical sketch. Changes will be identified and clouded on the conformed set.

C. At Room, E105 PRINCIPAL’s OFFICE, add “65” TV” note and graphic on partition with note “SECURITY MONITOR”. Changes will be identified and clouded on the conformed set.

D. At Teacher Planning Room A116:

Add wall tag for south wall: S6H
Shift south wall, CW4 Casework and Refrigerator 6” to the north
Add dimension for this wall to read 5’10” from column line W
Shift CW-5A casework and adjacent wall 6” to the north, delete 6” dimension
Refer to conformed set drawings for these changes.

E. At Music storage E158:

Insert: Note: “GC TO PROVIDE SOLID WOOD BLOCKING FOR TUBA RACKS” at south wall. Adjust chase in south-east corner, extend instrument storage casework along east wall. Refer to conformed set drawings.

3. DRAWING A3.10 – LEVEL 2 PLAN SECTION DE

A. Delete: “SLEEVE FOR VOLLEYBALL STANCHIONS EACH SIDE”
Insert: “SLEEVE FOR VOLLEYBALL STANCHIONS EACH SIDE; SEE DETAIL 4/A8.26”

4. DRAWING A3.12 – LEVEL 3 PLAN SECTION E

A. At Detail 1, add section marker for new detail 7/A8.18a

B. At Detail 2, add section marker for new detail 7/A8.18a

5. DRAWING A3.17 – LEVEL 5 FLOOR PLAN – SECTION CD

A. Delete Room DAS A519.1 and doors A519.1 and enlarge the adjacent duct chase to coordinate with revised HVAC RTU -19 duct drops on the HVAC drawings.

6. DRAWING A3.18 – OUTDOOR TOILET AND STORAGE BUILDING

A. At Detail 1:

Insert 8” dimension at masonry wall adjacent to Door 01. Wrap brick veneer onto concrete and add not “BRICK VENEER CONTINUES ONTO FACE OF CAST-IN-PLACE CONCRETE”

Mirror swing of Door 04

Insert 8” dimension at CMU wall adjacent to Door 07.

B. At Detail 2:

Mirror swing of Door 12

Insert 8” dimension at CMU wall adjacent to Door 15.

C. At Detail 4, add four exterior wall-mounted lights; refer to ADD-5/A-089 and the conformed set of drawings for locations.

D. At Detail 5, add two exterior wall-mounted lights; refer to ADD-5/A-089 and the conformed set of drawings for locations.

E. Add new legend “FIXED LOUVER TYPES (08 91 19)” and new louver schedule; refer to ADD-5/A-093 and the set of conformed drawings.

F. At Detail 5, at note “R-15 MIN. INSULATION;” add text “BY 04 20 00 AT BRICK MASONRY, BY 07 42 13 AT PROFILED METAL PANELS”

G. At Detail 6, at note “R-15 MIN. INSULATION;” add text “BY 04 20 00 AT BRICK MASONRY, BY 07 42 13 AT PROFILED METAL PANELS”

H. At Detail 7, at note “R-15 MIN. INSULATION;” add text “BY 04 20 00 AT BRICK MASONRY, BY 07 42 13 AT PROFILED METAL PANELS”

7. DRAWING A3.18a – OUTDOOR TOILET AND STORAGE BUILDING

A. At Detail 1, remove cast-in-place concrete from face of wall

B. At Detail 1, locate exterior wall-mounted light above Door 02, at 8’-0” above grade.

C. At Detail 2, locate exterior wall-mounted light centered between retaining wall and face of building, at 10’-6” above grade

D. At Detail 3, add dimension string to the length of the awning and add note indicating alignment with lettering above; refer to sketch ADD-5/A-088 and the conformed set of drawings.

E. At Detail 3, locate exterior wall-mounted lights above Doors 03 and OHD2, at minimum 7’-8” above grade; refer to ADD-5/A-088 and the conformed set of drawings.

F. At Detail 4, locate exterior wall-mounted lights above Doors 11 and OHD3, at 8’-6” above grade.

G. Replace Detail 8 with new Detail 8; refer to sketch ADD-5/A-088 and conformed set of drawings.

H. At Detail 1, add louver tag to Louver L26

I. At Detail 2, add louver tag to Louver L25

J. At Detail 3, add louver tags to Louvers L21 and L22

K. At Detail 4, add louver tags to Louvers L23 and L24

L. At Detail 6, raise the height of the fixed metal awning to 8'-8" above grade.

8. DRAWING A3.19- ROOF PLAN SECTION AB

A. At ROOF ASSEMBLY TYPES LEGEND, ROOF ASSEMBLY TYPES, "R-1-F, R-2-T, R-3-F, R-3-F-1, R-3-F-2, R-3-T-2-1, R-6-T"

Delete: "5/8" ROOF PROTECTION BOARD"
Insert: " ½" HIGH-DENSITY POLYISOCYANURATE ROOF BOARD"

B. At ROOF ASSEMBLY TYPES LEGEND, ROOF ASSEMBLY TYPES, "R-3-T, R-4-T, R-5-T, R-5-T-1"

Delete: "ADHERE TO INSULATION"
Insert: "MECHANICALLY FASTENED"

Delete: " ADHERED"
Insert: "MECHANICALLY FASTENED"

C. At Building A Roof:

Delete: "STAIR STEP CROSS-OVER (07 72 00)"
Insert: "RAMP DESIGN #2 (07 72 00)
Delete: "PROVIDE (3) PRE-FABRICATED RAMPS (07 72 00); COORDINATE LOCATION WITH PV INSTALLATION"
Insert: "PROVIDE (2) RAMP DESIGN #1 (07 72 00); COORDINATE LOCATION WITH PV INSTALLATION"

D. At Building B Roof:

Delete: "PROVIDE (2) PRE-FABRICATED RAMPS (07 72 00); COORDINATE LOCATION WITH PV INSTALLATION"
Delete: "STAIR STEP CROSS-OVER (07 72 00)"
Insert: "RAMP DESIGN #2 (07 72 00)

9. DRAWING A3.20- ROOF PLAN SECTION E

A. At ROOF ASSEMBLY TYPES LEGEND, ROOF ASSEMBLY TYPES, "R-1-F, R-2-T, R-3-F, R-3-F-1, R-3-F-2, R-3-T-2-1, R-6-T"

Delete: "5/8" ROOF PROTECTION BOARD"
Insert: " ½" HIGH-DENSITY POLYISOCYANURATE ROOF BOARD"

B. At ROOF ASSEMBLY TYPES LEGEND, ROOF ASSEMBLY TYPES, "R-3-T, R-4-T, R-5-T, R-5-T-1"

Delete: "ADHERE TO INSULATION"
Insert: "MECHANICALLY FASTENED"

Delete: " ADHERED"

Insert: "MECHANICALLY FASTENED"

C. Delete: "PROVIDE (8) PRE-FABRICATED RAMPS (07 72 00); COORDINATE LOCATION WITH PV INSTALLATION"

Insert: "PROVIDE (8) RAMP DESIGN #1 (07 72 00); COORDINATE LOCATION WITH PV INSTALLATION"

D. Delete: "PROVIDE (1) PRE-FABRICATED RAMPS (07 72 00); COORDINATE LOCATION WITH PV INSTALLATION"

Insert: "PROVIDE (1) RAMP DESIGN #1 (07 72 00); COORDINATE LOCATION WITH PV INSTALLATION"

10. DRAWING A3.21- ROOF PLAN SECTION CD

A. At ROOF ASSEMBLY TYPES LEGEND, ROOF ASSEMBLY TYPES, "R-1-F, R-2-T, R-3-F, R-3-F-1, R-3-F-2, R-3-T-2-1, R-6-T"

Delete: "5/8" ROOF PROTECTION BOARD"
Insert: " ½" HIGH-DENSITY POLYISOCYANURATE ROOF BOARD"

B. At ROOF ASSEMBLY TYPES LEGEND, ROOF ASSEMBLY TYPES, "R-3-T, R-4-T, R-5-T, R-5-T-1"

Delete: "ADHERE TO INSULATION"
Insert: "MECHANICALLY FASTENED"

Delete: " ADHERED"
Insert: "MECHANICALLY FASTENED"

C. At Building C Roof:

Delete: "PROVIDE (1) PRE-FABRICATED RAMPS (07 72 00); COORDINATE LOCATION WITH PV INSTALLATION"
Delete: "STAIR STEP CROSS-OVER (07 72 00)"
Insert: "RAMP DESIGN #2 (07 72 00)

D. At Building D Roof:

Delete: "PROVIDE (3) PRE-FABRICATED RAMPS (07 72 00); COORDINATE LOCATION WITH PV INSTALLATION"
Insert: "PROVIDE (2) RAMP DESIGN #1 (07 72 00); COORDINATE LOCATION WITH PV INSTALLATION"

11. DRAWING A3.22- ROOF PLAN SECTION DE

A. At ROOF ASSEMBLY TYPES LEGEND, ROOF ASSEMBLY TYPES, "R-1-F, R-2-T, R-3-F, R-3-F-1, R-3-F-2, R-3-T-2-1, R-6-T"

Delete: "5/8" ROOF PROTECTION BOARD"

Insert: " ½" HIGH-DENSITY POLYISOCYANURATE ROOF BOARD"

B. At ROOF ASSEMBLY TYPES LEGEND, ROOF ASSEMBLY TYPES, "R-3-T, R-4-T, R-5-T, R-5-T-1"

Delete: "ADHERE TO INSULATION"
Insert: "MECHANICALLY FASTENED"

Delete: " ADHERED"
Insert: "MECHANICALLY FASTENED"

C. At Building D Roof:

Delete: "PROVIDE (7) PRE-FABRICATED RAMPS (07 72 00); COORDINATE LOCATION WITH PV INSTALLATION"
Insert: "PROVIDE (6) RAMP DESIGN #1 (07 72 00); COORDINATE LOCATION WITH PV INSTALLATION"

Delete: "PROVIDE (1) PRE-FABRICATED RAMP (07 72 00); COORDINATE LOCATION WITH PV INSTALLATION"
Insert: "PROVIDE (1) RAMP DESIGN #1 (07 72 00); COORDINATE LOCATION WITH PV INSTALLATION"

D. At Building E Roof:

Delete: "ROOF SEPARATION LOW WALL"
Insert: "ROOF SEPARATION LOW WALL, PROVIDE (1) RAMP DESIGN #2 (07 72 00)"
Insert: "PROVIDE (7) RAMP DESIGN #1 (07 72 00); COORDINATE LOCATION WITH PV INSTALLATION"

12. DRAWING A4.1 – GROUND FLOOR RCP – SECTION AB

A. At Prep Rooms A002.1 and A004.1 the CUH was relocated to align with HVAC drawing H3.1.

13. DRAWING A4.2 – GROUND FLOOR REFLECTED CEILING PLAN SECTION E

A. Add lights to ETA storage cubby areas to match electrical. Reference to drawings ADD-4/E-038 and E-039.
B. At ETA Storage cubbies off Corridor E010, extend GYP CEILING toward column lines 8B and 21, respectively

14. DRAWING A4.3 – MAIN FLOOR RCP – SECTION AB

A. At Prep Room A109.1 the CUH was relocated to align with HVAC drawing H3.3.

B. Add 2 recessed downlights outside elevator to match Electrical drawings. Reference drawing ADD-4/E-041.

15. DRAWING A4.6 – MAIN FLOOR REFLECTED CEILING PLAN SECTION DE

A. Coordinate sprinkler layout at lower Cafeteria E181, Kitchen Storage E186, IDF E186A, Custodial Storage E187, Emergency Electric E188, Main Electric Room E189, Servery E190
B. Add linear light fixture to IDF E186A (per electrical plans)
    a. Revised drawing to be issued in Conformed Set
C. At E181 Cafeteria:
Delete: ACT-3
Insert: ACT-15 TYPICAL FOR 3 LOCATIONS IN LOWER CAFETERIA

D. At E191 Kitchen:

Modify ceiling to align with modified walls around pizza oven. Refer to sketch ADD-5 A-094 and conformed set drawings

16. DRAWING A4.7 – LEVEL 2 RCP – SECTION AB

A. At Prep Room A209.1 the CUH was relocated to align with HVAC drawing H3.7.

17. DRAWING A4.11 – LEVEL 3 RCP – SECTION AB

A. At Prep Room A309.1 the CUH was relocated to align with HVAC drawing H3.11.

18. DRAWING A4.12 – LEVEL 3 RCP – SECTION E

A. At Girls Room A311 and Boys Room A313 the CUH was added to align with HVAC drawing H3.12.

19. DRAWING A4.13 – LEVEL 3 RCP – SECTION CD

A. At Science labs and Common Room the Diffusers and Registers were updated to align with HVAC drawing H3.13.

20. DRAWING A4.16 – LEVEL 4 RCP – SECTION CD

A. At Science labs and Common Room the Diffusers and Registers were updated to align with HVAC drawing H3.16.

21. DRAWING A4.17 – LEVEL 5 RCP – SECTION CD

A. At Science labs, Prep Rooms, Stairs and Common Room the Diffusers and Registers were updated to align with HVAC drawing H3.17.

22. DRAWING A6.2 – WALL SECTIONS

A. At Detail 2:

Delete: Callout tag “11/A6.27”
Insert: Callout tag “21/A6.29”

23. DRAWING A6.20 – SUN SHADING DETAILS AND LOUVER TYPES

A. At legend “FIXED LOUVER TYPES (08 91 19)” add text “NOTE: HEAD, JAMB & SILL DETAILS SIMILAR TO TYPICAL DOOR & WINDOW DETAILS. PROVIDE ALUMINUM FLASHING AT SILLS.”

24. DRAWING A6.21 – EXTERIOR DETAILS

A. At detail 20., Typical Brick Masonry Mortar and Unit Types Placement:

Delete: “BREATHABLE MASONRY SEALANT BELOW THROUGH WALL FLASHING”.

Insert: “BREATHABLE MASONRY SURFACE SEALER BELOW THROUGH WALL FLASHING AT GRADE (04 20 00); TYPICAL AT ALL SIMILAR CONDITIONS”

25. DRAWING A6.22 – EXTERIOR DETAILS

A. At detail 6, Brick Masonry to CMU Level 2 Section D @ 10-A:

Insert: “Note: Infill column A/12D flange with CMU. Refer to detail 10/A6.25 for similar detail and notes."

26. DRAWING A6.27 – EXTERIOR DETAILS

A. Delete Detail 11

B. At detail 17, Wall Expansion Joint at Loading Dock

Insert: “Note: Provide and install manufacturers expansion joint with foam rod detail similar to detail 15/A6.26 (07 54 19)”.

27. DRAWING A6.32 - ROOF DETAILS

A. At detail 9, Building B Expansion Joint Platform Layout:

Insert: “Note: Refer to notes on detail 11/A6.30 Roof Expansion Joint, similar”.

28. DRAWING A6.33 – ROOF DETAILS AND MOCK-UP WALL

A. At detail 7, Roof Expansion Joint Tie-in at Column Line 11D:

Insert: “Note: Refer to notes on detail 13/A6.32 Gymnasium to Cafeteria Roof Expansion Joint to CMU, similar”.

B. At detail 8, Mock-Up Wall:

Insert: “Typical General Notes:

1. At brick masonry veneer at metal stud back-up, refer to drawing sheet A1.0, EXTERIOR WALL TYPES, EXTERIOR WALL TYPE No. E8B for assembly components. Interior 5/8” Type X gypsum wall board is not required at mock-up wall.

2. At ACM system assembly, refer to drawing sheet A1.0, EXTERIOR WALL TYPES, EXTERIOR WALL TYPE No. E8MP for assembly components. Interior 5/8" Type X gypsum wall board is not required at mock-up wall.
3. At fiberglass sandwich panel, refer to drawing sheet A1.0, EXTERIOR WALL TYPES No. EM12 for assembly components. Use 8x8x16 CMU (04 20 00) in lieu of 8x12x16.
4. At exposed mineral wool locations refer to adjacent EXTERIOR WALL TYPE No. wall assembly.
5. Window in brick shall be scheduled as W6 - fixed over 2'-0" x 2'-6" project-out (08 51 13).
6. Window in ACM shall be scheduled as W7 – fixed (08 51 13).
7. Curtain Wall in ACM shall be scheduled as CW51- fixed with fixed over 2'-0" x 2'-6" project-out vent, provide curtain wall mullion extension (ME), refer to detail 22 on drawing sheet A6.26. (08 44 13).
8. Fiberglass Sandwich Panel shall be scheduled as FS5 (08 45 23).
9. Louver shall be scheduled as L16 (08 91 19).
10. For fiberglass sandwich panel sill detail refer to detail 8/A6.23. Interior ¾" plywood or blocking is not required at mock-up wall.
    a. In lieu of HSS 8x12 (05 12 00), Metal Fabrications to provide and install 5'-0" long HSS 8x8x1/4" (05 50 00) welded to HSS as provided in 10. b.
    b. Metal Fabrications (05 50 00) to provide and install two (2) 5'-6 ½" long vertical HSS8x6x1/4" posts with base plates.
    c. Metal fabrications (05 50 00) to provide and install 6" wide, 16" O.C., L7X4X3/8" welded to HSS 8x8 as provided in 10., a.
    d. Metal Fabrications to provide L3 ½" x 3 ½" x 5/16" steel lintel angle at louver.
11. For fiberglass sandwich panel head detail refer to detail 1/A6.23.
    a. In lieu of HSS 4x2 posts (05 12 00), Metal Fabrications (05 50 00) to provide three (3) vertical 1'-0" HSS 4x2x1/4" posts welded to one (1) 6'-0" long ½"x 6" steel plate (05 50 00), welded to one (1) horizontal 5'-0" HSS 8x8x1/4" (05 50 50) and welded to the vertical HSS8x6 posts as provided in 10., b.
    b. Metal roof deck with attached roofing components are not required at mock-up wall.
    c. All parapet assembly components are required as noted or noted as to be provided by others in these General Notes.
12. For parapet detail at ACM and brick masonry veneer wall systems, refer to detail 14/A6.30
    a. In lieu of HSS 4x2 posts and structural steel, Non-Structural Metal Framing (09 22 16) to provide full height steel stud framing with headers over the windows and curtain wall.
    b. Metal roof deck with attached roofing components are not required at mock-up wall.
    c. All parapet assembly components are required as noted.
    d. Metal Fabrications to provide and install 3 ½" x 3 ½" x 5/16" steel lintel angle at window in brick opening.
13. At window in Brick, refer to details 13, 17 & 9 A/6.23. Interior 5/8" Type X gypsum wall board, solid surface stool and mineral wool batt insulation between studs are not required at mock-up wall.
14. At window in ACM, refer to details 3, 4 & 6 A/6.23. Interior 5/8" Type X gypsum wall board, solid surface stool and mineral wool batt insulation between studs are not required at mock-up wall.
15. At curtain wall in ACM, refer to details 7, 14 & 18 A/6.23. Interior 5/8" Type X gypsum wall board, solid surface stool and mineral wool batt insulation between studs are not required at mock-up wall.
16. All Metal Fabrications steel shall be primed.

17. At brick masonry to composite metal panel refer to detail 4/A6.21.
18. At brick masonry veneer wall base at metal stud back-up, refer to 19/A6.21 similar. Interior 5/8" Type X gypsum wall board, mineral wool batt insulation between studs, floor slab and components below floor slab are not required at mock-up wall.
19. At brick masonry veneer wall base at CMU back-up, refer to 1/A6.3 similar and 19/A6.21 similar.
20. Provide metal stud wind bracing at all wall types in mock-up wall (05 40 00)."

29. DRAWING A7.1– STAIR AND RAMP PLANS, SECTIONS AND DETAILS

A. At details 7 AND 11:

Delete: "REFER TO LANDSCAPE DRAWINGS FOR TYPICAL HANDRAILS, AND GUARDRAILS"

Insert: "REFER TO LANDSCAPE DRAWINGS FOR TYPICAL HANDRAILS"

30. DRAWING A7.7 – ENLARGED STAIR PLANS, SECTIONS AND ELEVATIONS

A. Replace drawing sheet with attached drawing A7.7 revised with ADDENDUM #5

31. DRAWING A7.8 – STAIR SECTIONS

A. Replace drawing sheet with attached drawing A7.8 revised with ADDENDUM #5

32. DRAWING A7.9 – STAIR SECTIONS

A. Replace drawing sheet with attached drawing A7.9 revised with ADDENDUM #5

33. DRAWING A7.13 – STAIR AND GUARD DETAILS

A. Replace drawing sheet with attached drawing A7.13 revised with ADDENDUM #5

34. DRAWING A8.1 – TYPICAL CLASSROOM ELEVATIONS

A. Add new Detail 16; refer to sketch ADD-5/A-092 and the set of conformed drawings.

35. DRAWING A8.18a – ENLARGED AUDITORIUM REFLECTED CEILING PLAN

A. At Detail 1, add sprinkler heads immediately adjacent to light fixtures in rear corners of the auditorium. Eliminate all other sprinklers between rear acoustic clouds and rear wall.
B. Add new Detail 7; refer to sketch ADD-5/A-090.

36. DRAWING A8.19 – ENLARGED CAFETERIA FLOOR PLAN

A. At Kitchen E191 Pizza Oven:

Modified walls at pizza oven surround. Refer to sketch ADD-5 A-094 and conformed set drawings

37. DRAWING A8.20 – ENLARGED LOADING DOCK PLAN

A. Insert drawing 4 “Bollard Detail”, refer to sketch ADD-5/A-095 Bollard Detail.

38. DRAWING A8.23 – INTERIOR ELEVATIONS BAND

A. Elevation 2:

Clarified mounting height of panel radiators. Refer to conformed set drawings.

39. DRAWING A8.23a – INTERIOR ELEVATIONS CHORUS

A. Elevations 3 & 4:

Clarified mounting height of panel radiators. Refer to conformed set drawings.

40. DRAWING A8.24a – INTERIOR ELEVATIONS & DETAILS – SERVERY

A. Detail 6: Add callout to new detail 11/A8.24a at bench below stairs
B. Insert: Detail 11 “MW8a Cafeteria Millwork Bench Section” (NEW DETAIL)
   a. Refer to sketch ADD-5/A-078

C. Details 1 and 2:

Modify elevation to show modified walls around pizza oven.
Added note “CT-5 TILE TO TO UNDERSIDE OF CEILING”
Refer to sketch ADD-5 A-094 and conformed set drawings

41. DRAWING A9.5 – MILLWORK ENLARGED PLANS AND ELEVATIONS

A. Detail 8b: Insert note reading “NOTE: MW8a ADDED IN CAFETERIA IN ADDENDUM 3; CONSTRUCTION IS SIMILAR TO MW8; SEE DETAIL ON A8.24a”

42. DRAWING A10.1 – DOOR SCHEDULE – GROUND FLOOR, EXTERIOR DOORS & SPECIALTY DOORS

A. Replace drawing sheet with attached drawing A10.1 revised with ADDENDUM #5

43. DRAWING A10.2 – DOOR SCHEDULE – MAIN FLOOR

A. Replace drawing sheet with attached drawing A10.2 revised with ADDENDUM #5

44. DRAWING A10.3 – DOOR SCHEDULE – SECOND FLOOR

A. Replace drawing sheet with attached drawing A10.3 revised with ADDENDUM #5

45. DRAWING A10.4 – DOOR SCHEDULE – THIRD FLOOR, FOURTH FLOOR, FIFTH FLOOR

A. Detail 1: Delete “STAINLESS STEEL COUNTER BY FOOD SERVICE” and insert “SOLID SURFACE COUNTER BY FOODSERVICE VENDOR” in its place; minimum

dimension at operable side of jamb updated from 4-7/8" to 5"; add general annotation and dimensions
a. Refer to sketch ADD-5/A-084

B. Detail 2: Annotated and dimensioned
a. Refer to sketch ADD-5/A-085

C. In "DOOR SCHEDULE – FIFTH FLOOR SECTION D", delete Door D519.1.

46. DRAWING A10.5 – DOOR FRAME TYPES & DETAILS

A. In legend "TYPICAL HOLLOW METAL DOOR FRAME DETAILS", add new details S-5, J-20/H-20, and J-21/H-21

B. In legend "OVERHEAD DOOR TYPES", at Details O-1 and O-2, delete duplicate dimensions string "REFER TO SCHEDULE"

C. In legend "OVERHEAD DOOR TYPES", at Detail O-3,

Delete: Height dimension strings 3'-0" and 4'-0"
Insert: Height dimension strings 2'-11" and "SEE SCHEDULE"
Delete: Width dimension string 13'-0"
Insert: Width dimension string "REFER TO SCHEDULE"

D. In legend "OVERHEAD DOOR TYPES", at Door Type O-4,

Delete: "HIGH PERFORMANCE EXTERIOR HIGH SPEED ROLL-UP METAL DOORS (ELEVATION NOT SHOWN)"
Insert: "ADVANCED PERFORMANCE ROLLING SERVICE DOORS (ELEVATION SIMILAR TO OVERHEAD DOOR TYPE O-1)"

E. At legend "ALUMINUM DISPLAY CASES", type D-8, divide glass into three equal panes.

F. At Detail 1, at note "ALUMINUM FRAME…" add text "BY 08 12 16"

G. At Detail 2, at note "HOLLOW METAL FRAME…" add text "BY 08 11 13"

47. DRAWING A10.6 – SPECIALTY DOOR PLANS, ELEVATIONS & DETAILS

A. At details 3, 4, 5 delete note "LIMIT OF TERRAZZO FLOORING"
B. At detail 10, remove and replace with revised detail, see ADD-5/A-081
C. At detail 18, remove and replace with revised detail, see ADD-5/A-081
D. Insert new detail 10A HS-23 Accordion Folding Door Striker Jamb Detail, see ADD-5/A-082
E. Insert new detail 10B HS-30 Accordion Folding Door Striker Jamb Detail, see ADD-5/A-083
F. Insert new detail 10C HS-31 Accordion Folding Door Striker Jamb Detail, see ADD-5/A-083

G. Dimensions added to locate partitions in alignment with details 10, 10A, 10B, 10C, 18 on A10.6. Changes will be identified and clouded on the conformed set.

48. DRAWING A11.1 – ROOM FINISH SCHEDULE GROUND AND MAIN LEVEL SECTIONS A-D

A. At B004 Lockers / Clean Up in the wall finish column:

Add: Tile

B. At E013 Emerg Elec in the floor finish column:

Delete: Concrete Sealed
Insert: Linoleum

C. At E014 Secondary Main Elec Rm in the floor finish column:

Delete: Concrete Sealed
Insert: Linoleum

49. DRAWING A11.2 – ROOM FINISH SCHEDULES-MAIN LEVEL SECTION E & LEVEL 27

A. At E109 Vault in the floor finish column:

Delete: Carpet tile
Insert: Linoleum

B. At E175.4 Aud Chair Storage In the floor finish column:

Delete: Linoleum
Insert: Sheet carpet

C. At D217.2 Corr in the floor finish column:

Delete: Linoleum
Insert: Epoxy type 2

D. At D218.2 Corr in the floor finish column:

Delete: Linoleum
Insert: Epoxy type 2

50. DRAWING A11.3 – ROOM FINISH SCHEDULE LEVELS 3&4

A. At E270 UPPER LOBBY in the ceiling finish column:

Add: “ACT-15”

B. At E281.1 in the wall finish column:

Delete: Tile

51. DRAWING COVER III OF III

A. At DRAWING LIST – VOLUME III:

Insert: "H5.7 HVAC Custom Unit Layouts" after sheet H5.6
Insert: "H7.8 HVAC Schedules" after sheet H7.7

FOOD SERVICE

1. DRAWING K1.1 – FOODSERVICE UTILITY SCHEDULE

A. For items No 7,9,12 and 13, in Revision Comment column:

Added note for roof penetration and exit seals
Refer to sketch ADD-5-FS-013

2. K2.1 – FOODSERVICE EQUIPMENT LAYOUT PLAN

A. At item No. 88 -Pizza Oven:

Added note and wall updates for Pizza Oven Surround.
Refer to sketch ADD-5-FS-013

FIRE PROTECTION

1. DRAWING FP1.3 - FIRE PROTECTION HYDRAULICS AND DETAILS

A. Calculation added for Dry system East. Original Dry System calc now designated "west". Potential NFPA 13 code change now designated "future"

B. Stage Calculation results revised – per changes made in Addendum 3.

C. Locations are clouded and tagged and will be issued in the conformed set.

2. DRAWING FP4.1 - FIRE PROTECTION GROUND LEVEL REFLECTED CEILING PLAN SECTION AB

A. Re-centered 3 pendants in Commons C215 in E-W direction. Locations clouded and tagged and will be issued in the conformed set

3. DRAWING FP4.3 - FIRE PROTECTION MAIN LEVEL REFLECTED CEILING PLAN SECTION AB

A. Re-centered 3 pendants in Commons C215 in E-W direction. Locations clouded and tagged and will be issued in the conformed set

4. DRAWING FP4.5 - FIRE PROTECTION MAIN LEVEL REFLECTED CEILING PLAN SECTION CD

A. Insert: 1 missing sprinkler EC tag, and 1 missing sprinkler.

B. Added calculation area for East system, and call-out showing results.

C. Added section view of FP service room, looking East.

D. Locations are clouded and tagged, full sheet issued in this addendum 5.

5. DRAWING FP4.7 - FIRE PROTECTION LEVEL 2 REFLECTED CEILING PLAN SECTION AB

A. Re-centered 3 pendants in Commons C215 in E-W direction. Locations clouded and tagged and will be issued in the conformed set

6. DRAWING FP4.8 - FIRE PROTECTION LEVEL 2 REFLECTED CEILING PLAN SECTION E

A. Delete: 2 uprights over Control E271 (non-combustible, concealed space over the ceiling),
B. Insert: 2 uprights on the south side of the Control room full-height south wall.
C. Stage Cross Main down-sized to 3" to Bottom of Riser.
D. Locations clouded and tagged and will be issued in the conformed set.

7. DRAWING FP4.11 – FIRE PROTECTION LEVEL 3 REFLECTED CEILING PLAN SECTION AB

A. Re-located 2 pendants in Commons B315 to North edge of ceiling.
B. Re-centered 3 pendants in Commons C315 in E-W direction.
C. Locations clouded and tagged and will be issued in the conformed set.

8. DRAWING FP4.15 – FIRE PROTECTION LEVEL 4 REFLECTED CEILING PLAN SECTION B

A. Commons B415 – relocated 2 pendants to north edge of ceiling.

PLUMBING

1. GENERAL:

A. Provide Collapsible Water Dam for exposed combination emergency showers and eyewashes at front of alcove to contain water when testing or in an emergency. Typical for L6 fixtures.

2. DRAWING P3.1 - Ground Floor Above Grade Plumbing Plan Section AB

A. In 9th Grade Science A004, along the exterior wall, change the 2"AW line above the ceiling to 3"AW. This is considered Hazardous Waste Battery Venting, per the MA Plumbing Code.

3. DRAWING P3.3 - Main Floor Plumbing Plan Section AB

A. In 9th Grade Science A109, along the exterior wall, change the 2”AW line above the ceiling to 3”AW. This is considered Hazardous Waste Battery Venting, per the MA Plumbing Code.

4. DRAWING P3.7 - Second Floor Plumbing Plan Section AB

A. In 9th Grade Science A209, along the exterior wall, change the 2”AW line above the ceiling to 3”AW. This is considered Hazardous Waste Battery Venting, per the MA Plumbing Code.

5. DRAWING P3.9 - Second Floor Plumbing Plan Section CD

A. In Visiting Team D220, change the note above the floor drain in the center of the room to state: “2”AW UP FOR L1’S ABOVE”. Also, add a ½”HWR line from the ½”HW line serving the showers and connect to the ¾”HWR line in Boys Locker D218. Relocate the ball valve shut-offs for the showers to after the HWR take-off.

B. In Visiting Team D219, add a ½”HWR line from the ½”HW line serving the showers and connect to the ¾”HWR line in Girls Locker D217. Relocate the ball valve shut-offs for the showers to after the HWR take-off.

C. In Corridor D200, label balancing valves on the ½”TWR lines as a single note stating: “1/2” BALANCING VALVE. BALANCE TO 1.0 GPM (TYPICAL FOR ALL TWR’S)”.

D. In AD Office D209, refer to ADD-5/P015 for changes to the storm drain piping.

6. DRAWING P3.11 - Third Floor Plumbing Plan Section AB

A. In Prep A309.1 for the piping risers near the exterior wall, change the fourth line to state: “2"AV & (2)3"AV DN&RISE”.

7. DRAWING P3.13 - Third Floor Plumbing Plan Section CD

A. In Science D308 and D308, label the access panels shown along the wall of Prep D306.1 that are not labelled.

B. In Chemical Storage D322, label balancing valves on the ½”TWR lines as a single note stating: “1/2” BALANCING VALVE. BALANCE TO 1.0 GPM (TYPICAL FOR ALL TWR’S)”.

C. Refer to ADD-5/P015 for changes to the storm drain piping risers in chase.

8. DRAWING P3.16 – Fourth Floor Plumbing Plan Section CD

A. Refer to ADD-5/P015 for changes to the storm drain piping risers in chase.

9. DRAWING P3.17 - Fifth Floor Plumbing Plan Section CD

A. Refer to ADD-5/P015 for changes to the storm drain piping routing above the ceiling and relocated risers in chase.

10. DRAWING P4.2 – Partial Plumbing Plans

A. In Detail 5/P4.2, the FPSC shown near column line E-8D is located above the outside stairwell, not the roof.

B. In Detail 11/P4.2, in Janitor D222.1, change the note for the 2”AW riser up to state: “2”AW UP FOR L1’S ABOVE”. Also, in Visiting Team D220, in the note in the closet adjacent to the corridor, change the note for the 2”AW riser up to state: “2”AW UP FOR L1 ABOVE”. In Boys Lockers D218, change the note below column bubble B.5 to state: “2”AW UP FOR L4 ABOVE”.

11. DRAWING P4.3 – Partial Science Room Plumbing Plans

A. In Detail 1/P4.3, in Bio Prep D304.1, the piping serving the under-counter dishwasher/glasswasher can connect to the piping serving fixture L4 to the right. An independent standpipe and HW feed through the wall are not necessary. Also, in the wall between Science D306 & D308 near Prep D306.1, there is a 1-1/2”LCW line only. Remove the note for the ½”LHW.

B. In Detail 2/P4.3, along the exterior wall, change the 2”AW line above the ceiling to 3”AW. This is considered Hazardous Waste Battery Venting, per the MA Plumbing Code.

12. DRAWING P4.4 – Partial Science Room Plumbing Plans

A. In Detail 1/P4.4, in Prep A109.1, change the first note for the piping risers serving the emergency shower to state: “1-1/2”TW UP&DN”. Also, along the exterior wall, change the 2”AW line above the ceiling to 3”AW. This is considered Hazardous Waste Battery Venting, per the MA Plumbing Code.

B. In Detail 2/P4.4, along the exterior wall, change the 2”AW line above the ceiling to 3”AW. This is considered Hazardous Waste Battery Venting, per the MA Plumbing Code.

C. In Detail 3/P4.4, label the riser near column line B-4D as “3”AV DN&UP”. In the wall between Science D406 & D408 near Prep D406.1, there is a 1-1/2”LCW line only. Remove the note for the ½”LHW. Also, in the wall between Science D402 & D404 near Prep D404.1, there is a 1-1/2”LCW line only. Remove the note for the ½”LHW.

13. DRAWING P4.5 – Partial Science Rooms & Boiler Rm Plumbing Plans

A. In Detail 1/P4.5, in Prep A309.1 for the piping risers near the exterior wall, change the fourth line to state: “2"AV & (2)3"AV DN&RISE”.

B. In Detail 2/P4.5, in the wall between Science D502 & D504 near Prep D502.1, there is a 1-1/2”LCW line only. Remove the note for the ½”LHW. Also in Science D502 near the door to Science D504, change the first line of the piping note to state: “5”STORM (OFD)”.

HVAC

1. **DRAWING H3.4 – Main Level HVAC Plan Section E**

   A. Refer to ADD-5/H023 Partial Main Level HVAC Plan Section E attached.

2. **DRAWING H3.6 – Main Level HVAC Plan Section DE**

   A. Refer to ADD-5/H024 Partial Main Level HVAC Plan Section DE attached.

3. **DRAWING H3.9 – Level 2 HVAC Plan Section CD**

   A. In main corridor near column line 7D-F provide flexible connectors in supply ducts crossing building expansion joint from C to D building.

4. **DRAWING H3.13 – Level 3 HVAC Plan Section CD**

   A. Refer to ADD-5/H012 Partial Level 3 HVAC Plan Section D attached.

5. **DRAWING H3.16 – Level 4 HVAC Plan Section D**

   A. Refer to ADD-5/H011 Partial Level 4 HVAC Plan Section D attached.

6. **DRAWING H3.17 – Level 5 HVAC Plan Section CD**

   A. Refer to ADD-5/H010 Partial Level 5 HVAC Plan Section D attached.

7. **DRAWING H3.18 – Roof HVAC Plan Section AB**

   A. Replace drawing with addendum #5 drawing H3.18 attached.

8. **DRAWING H3.19 – Roof HVAC Plan Section E**

   A. Replace drawing with addendum #5 drawing H3.19 attached

9. **DRAWING H3.20 – Roof HVAC Plan Section CD**

   A. Replace drawing with addendum #5 drawing H3.20 attached

10. **DRAWING H3.21 – Roof HVAC Plan Section DE**

    A. Replace drawing with addendum #5 drawing H3.21 attached

11. **DRAWING H3.22 – Field Building HVAC Plans**

    A. Replace drawing with addendum #5 drawing H3.22 attached

12. **DRAWING H4.1 – Ground Level HVAC Piping Plan Section AB**

A. In room A007 replace 24 feet of BB-1 with 18 feet of BB-2.

B. In room A015 change BB-3 to BB-6.

C. Tag fan coil unit in corridor A000 near column line X-2A as FCU-A-8.

D. Provide thermostats in the following additional areas: A011, Stair A1.0 (near column line T.2-2A), Stair A2.0 (near column line X.9-6.1A), A000 (near column line V-2A), B002, B005 (near column line S-4B), B005 (near column line O-4B), B007, B008, B013, B017, E000 (near column line S-7B), E060 (near column line S.3-8B),

E. Refer to ADD-5/H025 Partial Ground Level HVAC Piping Plan Section B attached.

13. DRAWING H4.2 – Ground Level HVAC Piping Plan Section E

A. In room A015 change BB-3 to BB-6.

B. Provide thermostats in the following additional areas, E000 (near column line S-7B), E002, E003, E014, E015, E060 (near column line S.3-8B), E061 (near column line Q.6-B2D), E2.0 (near column line U-25.3), E024, E025, E027, Space served by VAV-E-44 near column line N.7-11 & 0.4-25.

14. DRAWING H4.3 – Main Level HVAC Piping Plan Section AB

A. In rooms A107 & B109 replace 24 feet of BB-1 with 18 feet of BB-2.

B. Provide thermostats in the following additional areas: Stair B1.1 (near column line O.2-2B), B014.1, B106, B106.1, B105.1, B107, B114, B110 (near column line S-7A), B110 (near column line P-7B), A100 (near column line V-2A), A104, A106, E158.

C. Refer to ADD-5/H017 Partial Main Level HVAC Piping Plan Section B & C attached.

15. DRAWING H4.4 – Main Level HVAC Piping Plan Section E

A. Provide thermostats in the following additional areas: B110 (near column line S-7A), B110 (near column line P-7B), B110 (near column line N-7B), E100 (near column line N-23.2), E100 (near column line O-20.5), E100 (near column line O-B2D), E100.1, E103, E117, E120 (near column line Q.6-21), E122, E124, E125, E127, E135, E141, E146, E148, E152, E158, E174, E175 (near column line S-20), E175 (near column line S-10), Stair E2.1 (near column line T.1-26.2),

16. DRAWING H4.5 – Main Level HVAC Piping Plan Section CD

A. In room C113 replace 24 feet of BB-1 with 18 feet of BB-2.

B. Provide thermostats in the following additional areas: B110 (near column line N-7B), Stair C1.1 (near column line G-2C), C100 (near column line J-2C), C100 (near column line J-5C), C110 (near column line L-7C), C110.1 (near column line F.4-8, C115, C116, C118, Stair D2.1 (near column line F-6D), D100.

C. Refer to ADD-5/H017 Partial Main Level HVAC Piping Plan Section B & C attached.

17. DRAWING H4.6 – Main Level HVAC Piping Plan Section DE

A. Provide thermostats in the following additional areas: D102, E103, E181 (at column line M-22), E181 (near column line F.1-26), E182, E188, E189, E187, E196, E190 (near column line M-17).

B. In E181 add a CO2 sensor at column line M-22.

18. DRAWING H4.7 – Level 2 HVAC Piping Plan Section AB

A. In rooms A207 & B209 replace 24 feet of BB-1 with 18 feet of BB-2.

B. Provide thermostats in the following additional areas: B200 (near column line P-2B), B200 (near column line P-5B), B210 (near column line P-7B), B210 (near column line S-7B), A200 (near column line V-2A), A204.

C. Relocate thermostat in A200 shown near column line V-6A to near column line V-5A.

D. Refer to ADD-5/H018 Partial Level 2 HVAC Piping Plan Section B & C attached.

19. DRAWING H4.8 – Level 2 HVAC Piping Plan Section E

A. Provide thermostats in the following additional areas: B210 (near column line P-7B), B210 (near column line S-7B), B210 (near column line N-7E.1), E250 (near column line T.1-15.6), E213, E214, E215, E217, E251, E255, E263,E266, E270 (near column line N-15), E271, E275 (near column line R8-R5.5), E275 (near column line R8-R0.5), Stair E2.2 (near column line T.1-26.2),

20. DRAWING H4.9 – Level 2 HVAC Piping Plan Section CD

A. In room C211 replace 24 feet of BB-1 with 18 feet of BB-2.

B. Provide thermostats in the following additional areas: B210 (near column line N-7E.1), C200 (near column line J-2C), B200 (near column line J-5C), C203.4, C205, C212, D210 (near column line C.5-8), D210 (near column line F-7D), D210.1, D212, D213, D214.

C. In rooms C215 & C217 add a CO2 sensor.

D. In main corridor near column line 7D-F provide flexible connectors in supply ducts crossing building expansion joint from C to D building.

E. In D222 Team Room area, the tag the two VAV's according to the duct plan H3.9 such that the untagged VAV near column line B-3D is VAV-D-6 and the untagged VAV near column line B-4D is VAV-D-8.

F. Connect the ¾" HWS and HWR branch lines in the area of VAV-D-6 and VAV-D-8 to these respective terminals.

G. Refer to ADD-5/H013 Partial Level 2 HVAC Piping Plan Section D attached.

H. Refer to ADD-5/H018 Partial Level 2 HVAC Piping Plan Section B & C attached.

21. DRAWING H4.10 – Level 2 HVAC Piping Plan Section DE

A. Provide thermostats in the following additional areas: E291, E293, E295.1, E295.2, E290 (in addition to T already shown in this room), E281 (near column line N-19), E281 (near column line F.6-17),

B. In rooms E285 & E290.4 add a CO2 sensor.

C. In E281 add a CO2 sensor near column line N19.5.

22. DRAWING H4.11 – Level 3 HVAC Piping Plan Section AB

A. In rooms A307 & B307 replace 24 feet of BB-1 with 18 feet of BB-2.

B. Provide thermostats in the following additional areas: Stair A1.3 (near column line U.7-2A), A300 (near column line V-2A), A300 (near column line V-5A), A306, A304, Stair A2.3 (near column line X.3-6.1A), A310 (near column line T.1-10), A312, A313, A314, A316.1, B310 (near column line S-7A), B300 (near column line P-2B), B300 (near column line P-5B),

C. In A315 add a CO2 sensor.

D. Refer to ADD-5/H019 Partial Level 3 HVAC Piping Plan Section B & C attached.

E. Refer to ADD-5/H020 Partial Level 3 HVAC Piping Plan Section A & B attached.

23. DRAWING H4.12 – Level 3 HVAC Piping Plan Section E

A. Provide thermostats in the following additional areas: A310 (near column line T.1-10), A312, A313, A314, A316.1, A317, A318, B310 (near column line S-7A), B310 (near column line N-7B).

B. In A315 add a CO2 sensor.

C. Refer to ADD-5/H019 Partial Level 3 HVAC Piping Plan Section B & C attached.

24. DRAWING H4.13 – Level 3 HVAC Piping Plan Section CD

A. In rooms C307 & D307 replace 24 feet of BB-1 with 18 feet of BB-2.

B. Provide thermostats in the following additional areas: C300 (near column line J-2C), C300 (near column line J-5C), C302, C313, B310 (near column line N-7B), C310 (near column line J-E.1), C310 (near column line F.1-7D), D311, D312, D313, D319, D300 (near column line D-2D), D300 (near column line D-5D), E302.

C. In D315 add a CO2 sensor.

D. Refer to ADD-5/H014 Partial Level 3 HVAC Piping Plan Section D attached.

25. DRAWING H3.14 – Level 3 HVAC Piping Plan Section DE

A. Provide thermostats in the following additional areas: E301, E302, E303.

26. DRAWING H4.15 – Level 4 HVAC Piping Plan Section AB

A. In room B407 replace 24 feet of BB-1 with 18 feet of BB-2.

B. Provide thermostats in the following additional areas: B400 (near column line P-5B), B416, B412, B410 (near column line P-7B), B417.

C. In B415 add a CO2 sensor.

D. Refer to ADD-5/H015 Partial Level 4 HVAC Piping Plan Section B & C attached.

27. DRAWING H4.16 – Level 4 HVAC Piping Plan Section CD

A. In rooms C407 & D407 replace 24 feet of BB-1 with 18 feet of BB-2.

B. Provide thermostats in the following additional areas: C400 (near column line J-2C), C400 (near column line J-5C), C417, C410 (near column line F.1-7), C410 (near column line N-7E.1), D400 (near column line D-2D), D400 (near column line D-5D), D411, D412, D413, D420.

C. In D415 add a CO2 sensor.

D. Refer to ADD-5/H015 Partial Level 4 HVAC Piping Plan Section D attached.

28. DRAWING H4.17 – Level 4 HVAC Piping Plan Section DE

A. Provide thermostats in the following additional areas: D411, D413.

29. DRAWING H4.18 – Level 5 HVAC Piping Plan Section CD

A. In rooms D507 & D509 replace 24 feet of BB-1 with 18 feet of BB-2

B. Provide thermostats in the following additional areas: Stair C1.5 (near column line I.2-2C), C500 (near column line J-2C), C500 (near column line J-5C), C501.1, C510 (near column line L-7C), C510 (near column line F-7), Stair D2.5 (near column line E-6.7D), D500 (near column line D-2D), D500 (near column line D-5D), D511, D512, D513, D520.

C. In D515 add a CO2 sensor.

D. Refer to ADD-5/H016 Partial Level 5 HVAC Piping Plan Section D attached.

30. DRAWING H5.2 – HVAC DETAILS

A. In the Typical UH, CUH, VAV, FVAV, CB and FCU's Hot and Chilled Water Coil Piping Detail add the following note to the detail: "A 3-way mixing valve arrangement (in lieu of 2-way valve) with circuit setter in bypass shall be provided on the following equipment: FCU-A-8 in A000, FCU-A-11 in A300, CUH-2 in A309.1, CUH-2 in A004.1, FVAV-B-1 in B008, FVAV-B11 in B400, FCU-C11 in C500, FCU-C7 in C100, FCU-D8 in D500, FCUD-1 in D200, UH-1 in D107, FVAV-E-5 in E020, FCU-E-7 in E250."

B. In the MAU & RTU Hot Water Coil Piping Detail – One High add the following note to the detail: “A 3-way mixing valve arrangement (in lieu of 2-way valve) with circuit setter in bypass shall be provided on RTU-8 only.”

C. In the Typical CDB Chilled Water Coil Piping Detail, revise detail at each coil connection to reflect the specified braided stainless steel flexible connectors connecting each coil to piping.

31. DRAWING H7.2 – HVAC Schedules

A. Refer to ADD-5/H-021 HVAC Schedules attached regarding changes to the Water to Glycol Heat Exchanger Schedule

B. Refer to ADD-5/H-022 HVAC Schedules attached regarding changes to the Fan Schedule.

C. In PANEL RADIATOR SCHEDULE, in MOUNTING HEIGHT row, column PR-1:

Delete: “24””
Insert: “See Architectural Elevations”

32. DRAWING H7.3 – HVAC Schedules

A. Replace drawing with addendum #5 drawing H7.3 attached.

33. DRAWING H7.4 – HVAC Schedules

A. Replace drawing with addendum #5 drawing H7.4 attached.

34. DRAWING H7.5 – HVAC Schedules

A. Replace drawing with addendum #5 drawing H7.5 attached.

35. DRAWING H7.6 – HVAC Schedules

A. Replace drawing with addendum #5 drawing H7.6 attached

36. DRAWING H7.7 – HVAC Schedules

A. Replace drawing with addendum #5 drawing H7.7 attached

37. DRAWING H7.8 – HVAC Schedules

A. Add Schedule Sheet H7.8.

38. DRAWING H3.11 – Level 3 HVAC Plan Section AB

A. Refer to ADD-5/H-027 Partial Level 3 HVAC Plan Section A

39. DRAWING H3.15 – Level 4 HVAC Plan Section AB

A. Refer to ADD-5/H-028 Partial Level 4 HVAC Plan Section B

ELECTRICAL

1. DRAWING E0.5 – Electrical Site Technology

A. Common Area Light Poles, changes will be identified and clouded on the conformed set.

a. Insert: (2) Exterior Pole Mounted Wireless Access Points

B. Wire Schedule:

b. Revise: ALL Multimode Fiber Cable to be Single Mode Fiber Cable

C. Keyed Note 4A:

c. Revise: Multimode Fiber to be Single Mode Fiber

2. DRAWING E1.1-E1.2 – Lighting Ground Floor Plans

A. Make revision to exit signs.

a. Revise (3) type XH exit sign to (3) type XHS.
b. Add (5) type XHS, (1) type X2H, (3) type X1S, and (1) type XH exit signs.
c. Delete (1) type XH2C, (1) type X2H, (1) type X1 exit sign, and (1) type XH exit sign.

3. DRAWING E1.3-E1.6 – Lighting Main Floor Plans

A. Make revision to exit signs.

a. Revise (5) type XH exit sign to type XHS.
b. Revise (1) type X1 exit sign to (1) type X1S.
c. Add (7) type XHS, (4) type X1S exit signs, (2) type X2H, and (1) type XH2C exit sign.
d. Delete (1) type X1, (7) type XH2C exit sign, (2) type XH exit sign, and (1) type X2H exit sign.

B. Corridor a110, delete light fixture type DP10.

C. Corridor B110, delete light fixture type DP7-10.

D. Corridor C110, delete light fixture type DP4.

4. DRAWING E1.7-E1.11 – Lighting Level 2 Plans

A. Make revision to exit signs.

a. Revise (3) type XH exit sign to (2) type XHS.

b. Revise (1) type XH exit sign to (1) type XHN.
c. Revise (2) type X1 exit sign to type X1S.
d. Relocate (1) type X1 exit sign.
e. Replace (1) exit sign type XHG with type X1 with wireguard.
f. Add (2) type X1, (10) type XHS, 6) type X1S, (2) type XH, (2) type X2H, and (8) type XH2C exit sign.
g. Delete (5) type X1, (2) type X2 exit signs, and (3) type XH2C exit sign.

B. Corridor A210, delete light fixture type DP10.

5. DRAWING E1.12-E1.14 – Lighting Level 3 Plans

A. Make revision to exit signs.

a. Revise (5) type X1 exit sign to type X1S.
b. Add (20) type X1S, (1) type X1 exit sign, and (1) type X2 exit sign.
c. Delete (4) type X1 and (7) type X2 exit sign.

6. DRAWING E1.15-E1.16 – Lighting Level 4 Plans

A. Make revision to exit signs.

a. Revise (3) type X1 exit sign to type X1S.
b. Add (17) type X1S exit signs.

7. DRAWING E1.17 – Lighting Level 5 Plan Section CD

A. Make revision to exit signs.

a. Revise (2) type X1 exit sign to type X1S.
b. Add (14) type X1S exit signs.
c. Delete (6) X2 exit sign.

8. DRAWING E1.10– Lighting - Level 2 Plan Section DE

A. Media Center E290, add tape light fixture on (3) sides, type TP32, by NOVA- NF-DS-160-24V-3500K-DIM-0/10V-CHANNEL:SURFACE-1707 CHANNEL-DIRECT MOUNT-APPROX. TOTAL LENGTH 32'-0"-FIELD VERIFY LENGTH PRIOR TO ORDERING-PROVIDE POWER SUPPLIES AND ALL ACCESSORIES FOR A FULL AND COMPLETE INSTALLATION-Furnish and install WSP. Changes will be identified and clouded on the conformed set. See detail #4 on drawing A8.25.

9. DRAWING E1.19 – Lighting Fixture Schedule

A. Revise light fixtures as follows;

a. Type AP: Revise driver to DMX5 (fixture defaults to full on upon loss of DMX signal).

B. Add (2) type LA-1 light fixtures to spare part requirements note #1.

10. DRAWING E2.4– Power – Main Floor Plan Section E

A. Main Admin E101, changes will be identified and clouded on the conformed set.
   a. Insert: (1) High Mounted Duplex Receptacle added to circuit TS1E1-13.

B. SRO Office E112, changes will be identified and clouded on the conformed set.
   a. Insert: (1) High Mounted Duplex Receptacle added to circuit TS1E1-17.

C. Principal's Office E105, changes will be identified and clouded on the conformed set.
   a. Insert: (1) High Mounted Duplex Receptacle added to circuit TS1E1-32.

D. At Band Room D157:
   Insert (2) CS Charging station outlets

11. DRAWING E3.1– HVAC Power – Ground Floor Plan Section AB

A. Corridor A000, revise FVAV outside Stair A1.0 to FCU, wire to circuit TSGA-9. Changes will be identified and clouded on the conformed set.
B. Corridor A010, revise circuit for FCU outside Elec A011 to TSGB-9. Changes will be identified and clouded on the conformed set.
C. Corridor B000, revise circuit for FCU outside Elec B002 to TSGB-14. Changes will be identified and clouded on the conformed set.

12. DRAWING E3.2– HVAC Power – Ground Floor Plan Section E

A. Corridor E01 and E029, revise circuits for (3) FCU to circuit TSGE-10. Changes will be identified and clouded on the conformed set.
B. IT Services E022, add power for VRF Branch selector box, wire to circuit HPGE1-14,16. Provide safety disconnect snap switch.
C. IT Services E022, add power for VRF Branch selector box, wire to circuit HPGE1-10,12. Provide safety disconnect snap switch.
D. IT Server Room E034, add power for motorized damper, wire to circuit TSGE-11.

13. DRAWING E3.3– HVAC Power – Main Floor Plan Section AB

A. Corridor A100, revise FVAV outside Stair A1.1 to FCU, wire to circuit TSGA-2. Changes will be identified and clouded on the conformed set.
B. Main Admin E101, revise power circuit for FCU to TS1E1-40. Changes will be identified and clouded on the conformed set.
C. Corridor B100, revise FVAV outside Stair B1.1 to FCU, wire to circuit TS1B-14. Changes will be identified and clouded on the conformed set.
D. Elec B106, add power for FCU, wire to TS1E1-40. Changes will be identified and clouded on the conformed set.
E. Corridor A100, revise circuit for FCU outside IDF A106 to circuit TS1A-16. Changes will be identified and clouded on the conformed set.

F. Corridor B100, add power for EVAV, outside Teacher Planning B103, wire to circuit HP1B-4. Changes will be identified and clouded on the conformed set.
G. The Arts' Maker Space B102, add power for spray booth exhaust, wire to circuit HP1B-8, provide safety disconnect snap switch.

14. DRAWING E3.4– HVAC Power – Main Floor Plan Section AB

A. Corridor B110, revise circuit for FCU to circuit TS1E1-40. Changes will be identified and clouded on the conformed set.
B. Corridor E120, revise circuit for FCU outside Sped Conf E117 to circuit TS1E1-40. Changes will be identified and clouded on the conformed set.
C. Corridor B110, revise circuit for FCU outside Elec B114 to circuit TS1E1-43. Changes will be identified and clouded on the conformed set.
D. Admin Suite E101 - E149, revise circuits for all FCs in admin suite to circuits TS1E1-42,44, TS1E1-45,47, TS1E1-46,48, TS1E2-40,42, TS1E2-44,46, and TS1E2-48,50.
E. Vault E109, add power for VRF branch selector box, wire to circuit TS1E1-42,44. Provide safety disconnect snap switch.
F. Men E106, add power for VRF branch selector box, wire to circuit TS1E1-46,48. Provide safety disconnect snap switch.
G. Men E134, add power for VRF branch selector box, wire to circuit TS1E2-48,50. Provide safety disconnect snap switch.
H. Resting Area E133, add power for VRF branch selector box, wire to circuit TS1E2-40,42. Provide safety disconnect snap switch.

15. DRAWING E3.5– HVAC Power – Main Floor Plan Section CD

A. Corridor C100, revise circuit for FCU outside stair C1.1 to TS1C-20. Changes will be identified and clouded on the conformed set.
B. Corridor C100, revise circuit for FCU outside Elec C107 to TS1C-20. Changes will be identified and clouded on the conformed set.
C. Mechanical C115, add power for motorized damper for ILF-9, wire to circuit HSPB1-5. Changes will be identified and clouded on the conformed set.
D. Mechanical C115, revise circuit for ILF-8 to HSPB1-7. Changes will be identified and clouded on the conformed set.

16. DRAWING E3.6– HVAC Power – Main Floor Plan Section DE

A. Corridor E180, revise circuit for (2) FCU outside to TSB1-5. Changes will be identified and clouded on the conformed set.
B. Jan E199, add power for VRF branch selector box, wire to circuit HP1C-9,11. Provide safety disconnect snap switch.

17. DRAWING E3.7– HVAC Power – Level 2 Plan Section AB

A. Corridor A200, revise FVAV outside Stair A1.2 to FCU, wire to circuit TS2A-8. Changes will be identified and clouded on the conformed set.

B. Corridor A200, revise circuit for FCU outside Elec A204 to circuit TS2A-8. Changes will be identified and clouded on the conformed set.
C. Corridor B200, revise FVAV outside Stair B1.2 to FCU, wire to circuit TS2B-5. Changes will be identified and clouded on the conformed set.
D. Corridor B210, revise circuit for FCU outside Elec E263 to circuit TS2B-5. Changes will be identified and clouded on the conformed set.

18. DRAWING E3.8– HVAC Power – Level 2 Plan Section E

A. Corridor E250, revise circuit for FCU outside Elec E252 to circuit TS2E-24. Changes will be identified and clouded on the conformed set.
B. Storeroom E202, add power for VRF branch selector box, wire to circuit HP2E-10,12. Provide safety disconnect snap switch.
C. Storage E254.1, add power for VRF branch selector box, wire to circuit HP2E-2,4. Provide safety disconnect snap switch.
D. Women E219, add power for VRF branch selector box, wire to circuit HP2E-6,8. Provide safety disconnect snap switch.

19. DRAWING E3.9– HVAC Power – Level 2 Plan Section CD

A. Corridor C200, revise FVAV outside Stair C1.2 to FCU, wire to circuit TS2C-11. Panel TS2C located in Elec Rm C212. Changes will be identified and clouded on the conformed set.
B. Corridor E280, revise circuit for FCU outside Elec C212 to circuit TS2C-11. Changes will be identified and clouded on the conformed set.
C. Corridor D200, revise circuit for FCU outside Elec D212 to circuit TS2D-44. Changes will be identified and clouded on the conformed set.
E. Outdoor Storage D201.1, add power for UH-1, wire to circuit HP2D-9. Changes will be identified and clouded on the conformed set.
F. Family lockers D214, add power for EVAV, wire to circuit HP2D-8. Changes will be identified and clouded on the conformed set.
G. Adult Daily Living C217, add power for motorized damper, wire to circuit HP2C-15. Changes will be identified and clouded on the conformed set.

20. DRAWING E3.11– HVAC Power – Level 3 Plan Section AB

A. Corridor A300, revise FVAV outside Stair A1.3 to FCU, wire (2) FCU to circuit TS3A-28. Changes will be identified and clouded on the conformed set.
B. Corridor B310, revise circuit for FCU outside Elec B311 to circuit TS3B-6. Changes will be identified and clouded on the conformed set.
C. Corridor D200, revise circuit for FCU outside Elec D212 to circuit TS2D-44. Changes will be identified and clouded on the conformed set.

21. DRAWING E3.12– HVAC Power - Level 3 Plan Section CD

A. Corridor D300, revise FVAV outside Stair D1.3 to FCU, wire to circuit TS3D-13. Changes will be identified and clouded on the conformed set.

B. Corridor C300, revise FVAV outside Stair C1.3 to FCU, revise (2) FCU to circuit TS3C-5. Changes will be identified and clouded on the conformed set.

22. DRAWING E3.13– HVAC Power - Level 4 Plan Section B

A. Corridor B400, revise FVAV outside Stair B1.4 to FCU, wire to circuit TS4B-26. Changes will be identified and clouded on the conformed set.
B. Corridor B410, revise circuit for FCU outside Elec B411 to circuit TS4B-26. Changes will be identified and clouded on the conformed set.

23. DRAWING E3.14– HVAC Power - Level 4 Plan Section CD

A. Corridor D400, revise FVAV outside Stair D1.4 to FCU, wire to circuit TS4D-22. Changes will be identified and clouded on the conformed set.
B. IDF D420, add power for FCU, wire to circuit TS4D-22.
C. Corridor C400, revise FVAV outside Stair C1.4 to FCU, wire to circuit TS4C-8. Changes will be identified and clouded on the conformed set.
D. Corridor C410, revise circuit for FCU outside Elec C414 to circuit TS4C-8. Changes will be identified and clouded on the conformed set.
E. Science D402, revise circuit for FCU to circuit TS4D-22. Changes will be identified and clouded on the conformed set.

24. DRAWING E3.15– HVAC Power - Level 5 Plan Section CD

A. Corridor D500, revise FVAV outside Stair D1.5 to FCU, wire to circuit TS5D-20. Changes will be identified and clouded on the conformed set.
B. Science D502, revise circuit for FCU to circuit TS5D-20. Changes will be identified and clouded on the conformed set.
C. Corridor C500, revise FVAV outside Stair C1.5 to FCU, wire to circuit TS5C-15. Changes will be identified and clouded on the conformed set.
D. Corridor C500, revise circuit for FCU outside Elec C503 to circuit TS5C-15. Changes will be identified and clouded on the conformed set.

25. DRAWING E3.17 – HVAC Power – Roof Plan Section E

A. ACCU-1, changes will be identified and clouded on the conformed set:
    a. Revise: ACCU-1 circuit to TS2E-30, 32, 34

26. DRAWING E3.19 – HVAC Power – Roof Plan Section DE

A. ACCU-4, changes will be identified and clouded on the conformed set:

    a. Revise: ACCU-4 circuit to TS5E-22, 24, 26

27. DRAWING E3.20– HVAC Power Schedules

A. CRAC-1 and CRAC-2, revise circuit breaker size to 35A, disconnect to 60AS/35AF, and feeder to 1”C, 3#6, #10G. Changes will be identified and clouded on the conformed set.
B. ACHP-3A, revise circuit breaker to 35A, disconnect to 30AS/25AF, feeder to ¾”C, 3#10, #10G.
C. ACHP-3B, revise circuit breaker to 35A, disconnect to 30AS/25AF, feeder to ¾”C, 3#10, #10G.
D. ACHP-3C, revise circuit breaker to 35A, disconnect to 30AS/25AF, feeder to ¾”C, 3#10, #10G.
E. ACHP-4A, revise circuit breaker to 45A, disconnect to 30AS/30AF, feeder to ¾”C, 3#10, #10G.
F. ACHP-11A, revise circuit breaker to 35A, disconnect to 30AS/25AF, feeder to ¾”C, 3#10, #10G.
G. ACHP-11B, revise circuit breaker to 35A, disconnect to 30AS/25AF, feeder to ¾”C, 3#10, #10G.
H. ACHP-12A, revise circuit breaker to 45A, disconnect to 30AS/30AF, feeder to ¾”C, 3#10, #10G.
I. ACHP-12B, revise circuit breaker to 45A, disconnect to 30AS/30AF, feeder to ¾”C, 3#10, #10G.
J. ILF-8, revise voltage to 120V, circuit breaker to 20A-1P, and feeder to ¾”C, 2#12, #12G.
K. P-4A,B,C, revise circuit breaker to 150A, disconnect to 200AS/150AF, feeder to 2"C, 3-3/0 AL, #4 AL G
L. P-5A,B,C, revise circuit breaker to 110A, disconnect to 200AS/110AF, feeder to1-1/2"C, 3-1/0 AL, #4 AL G
M. P-6A, revise circuit breaker to 25A, disconnect to 30AS/25AF, feeder to ¾”C, 2#12, #12G.
N. P-6B, revise circuit breaker to 25A, disconnect to 30AS/25AF, feeder to ¾”C, 2#12, #12G.
O. P-7A, revise circuit breaker to 25A, disconnect to 30AS/25AF, feeder to ¾”C, 2#12, #12G.
P. P-7B, revise circuit breaker to 25A, disconnect to 30AS/25AF, feeder to ¾”C, 2#12, #12G.
Q. P-8A, revise circuit breaker to 25A, disconnect to 30AS/25AF, feeder to ¾”C, 2#12, #12G.
R. P-8B, revise circuit breaker to 25A, disconnect to 30AS/25AF, feeder to ¾”C, 2#12, #12G.
S. P-9A, revise circuit breaker to 25A, disconnect to 30AS/25AF, feeder to ¾”C, 2#12, #12G.
T. P-9B, revise circuit breaker to 25A, disconnect to 30AS/25AF, feeder to ¾”C, 2#12, #12G.
U. P-10A,B,C, revise circuit breaker to 110A, disconnect to 200AS/110AF, feeder to1-1/2"C, 3-1/0 AL, #4 AL G

28. DRAWING E7.1 – Electrical Site Sport Field Lighting

A. At scoreboard, revise the keyed note at the junction box to #5. Changes will be identified and clouded on the conformed set.

B. Refer to Sketch ADD-5/E-046.

29. DRAWING E7.2 – Electrical Site Sport Field Lighting Details and Schedules

A. Insert: Pole Foundation Detail, changes will be identified and clouded on the conformed set.

B. Relocate: Control System Summary, changes will be identified and clouded on the conformed set.

30. DRAWING E7.3 – Electrical Site Sport Field Technology

A. Sport Light Poles, changes will be identified and clouded on the conformed set.
   a. Insert: (4) Exterior Pole Mounted Wireless Access Points.
B. Wire Schedule:
   a. Revise: ALL Multimode Fiber Cable to be Single Mode Fiber Cable

31. DRAWING E9.00 – Panel Schedules

A. Panel HOSBB, revise circuit breaker 16 and 17 to 35A-3P. Changes will be identified and clouded on the conformed set.
B. Panel HOSB1, revise circuit breaker15 to 150A-3P.
C. Panel MDP1, add circuit breaker for PV System, 1600A AF/1200AT LSI motor control shunt circuit breaker and FEL-751 relay.

32. DRAWING E9.08 – Panel Schedules

A. Panel HSLB1, revise circuit breaker 8,10,12 and 44,46,48 to 110A-3P. Changes will be identified and clouded on the conformed set.

33. DRAWING E9.19 – Panel Schedules

A. Panel TS1E1, changes will be identified and clouded on the conformed set:
   a. Delete: (6) 20A-1P spares: 42, 44, 45, 46, 47, 48
   b. Insert: (3) 20A-2P circuit breakers for FC units.

B. Panel TS1E2, changes will be identified and clouded on the conformed set:
   a. Delete: (6) 20A-1P spares: 40, 42, 44, 46, 48, 50
   b. Insert: (3) 20A-2P circuit breakers for FC units.

C. Panel TS2E, changes will be identified and clouded on the conformed set:
   c. Delete: (3) 20A-1P spares: 30, 32, 34
   d. Insert: (1) 20A-3P circuit breakers for ACCU-1 unit.

D. Panel TS3A, revise circuit breakers 14,16 and 18,20 to 25A-2P.

34. DRAWING E9.20 – Panel Schedules

A. Panel TS4B, revise circuit breakers 14,16 and 18,20 to 25A-2P.

B. Panel TS5C, revise circuit breakers 4,6 and 8,10 to 25A-2P.

C. Panel TS5D, changes will be identified and clouded on the conformed set:
   a. Delete: (4) 20A-1P spare: 20, 22, 24, 26
   b. Insert: (1) 20A-1P circuit breakers for FCU unit.
   c. Insert: (1) 20A-3P circuit breakers for ACCU-4 unit.
   d. Revise circuits 9,11 and 13,15 to 25A-2P.

35. DRAWING E9.21 – Panel Schedules

A. Panel HM2C, revise circuit breakers 1,3,5 and 2,4,6 to 35A-3P. Changes will be identified and clouded on the conformed set.
B. Panel HM2E, revise circuit breakers 1,3,5 and 13,15,17 to 35A-3P. Changes will be identified and clouded on the conformed set.
C. Panel HM4B, revise circuit breakers 7,9,11 to 45A-3P. Changes will be identified and clouded on the conformed set.
D. Panel HM5C, revise circuit breakers #1,3,5, #2,4,6 and #13,15,17 to 35A-3P. Changes will be identified and clouded on the conformed set.
E. Panel HM5D, revise circuit breakers #2,4,6, #8,10,12, #13,15,17, #19,21,23, #25,27,29, #26,28,30, #31,33,35, 32,34,36 to 45A-3P. Changes will be identified and clouded on the conformed set.

36. DRAWING FA3.2 – Fire Alarm – Ground Floor Plan E

A. IT Server Room E034, add (2) duct smoke detectors for smoke/fire damper. Wire to circuit EPGE-10. Changes will be identified and clouded on the conformed set.

37. DRAWING FA1.13 – Fire Alarm – Level 3 Plan Section CD

A. Stair C2.3, add (1) duct smoke detectors for smoke/fire damper. Wire to circuit EP4C-9. Changes will be identified and clouded on the conformed set.
B. Boys D313, add (1) duct smoke detectors for smoke/fire damper. Wire to circuit EP4C-9. Changes will be identified and clouded on the conformed set.

38. DRAWING FA1.15 – Fire Alarm – Level 4 Plan Section B

A. Learning disability center B401, add (1) duct smoke detectors for smoke/fire damper. Wire to circuit EP4B-2. Changes will be identified and clouded on the conformed set.
B. Social studies classroom B402, add (1) duct smoke detectors for smoke/fire damper. Wire to circuit EP4B-2. Changes will be identified and clouded on the conformed set.
C. Social studies classroom B402, add (2) duct smoke detectors for smoke/fire damper. Wire to circuit EP4B-2. Changes will be identified and clouded on the conformed set.

39. DRAWING FA1.17 – Fire Alarm – Level 5 Plan Section CD

A. Stair C2.5, add (1) duct smoke detectors for smoke/fire damper. Wire to circuit EP4C-13. Changes will be identified and clouded on the conformed set.

40. DRAWING TC0.1– Telecom – Legend

A. TELECOMMUNICATIONS ABBREVIATIONS, changes will be identified and clouded on the conformed set.
    a. Insert: "MPM" - DENOTES (2) DATA JACKS FOR MULTIPOINT METERING (MPM) PROVIDE 2-GANG BOX AND 1" CONDUIT STUB TO ACCESSIBLE CEILING

41. DRAWING TC1.1– Technology – Ground Floor Plan Section AB

A. Overhead Door OH005, changes will be identified and clouded on the conformed set.
    a. Insert: Data drop for door control.
B. Exterior Door X7, changes will be identified and clouded on the conformed set.
    a. Insert: Data drop for door control.
C. Grid Line 5B Exterior North Wall, changes will be identified and clouded on the conformed set.
    a. Insert: (1) Exterior Wall Mounted Wireless Access Point

42. DRAWING TC1.3– Technology – Main Floor Plan Section AB

A. Exterior Door X10, changes will be identified and clouded on the conformed set.
    a. Insert: Data drop for door control.
B. Exterior Door X11, changes will be identified and clouded on the conformed set.
    a. Insert: Data drop for door control.
C. Grid Line 5B Exterior South Wall, changes will be identified and clouded on the conformed set.
    a. Insert: (1) Exterior Wall Mounted Wireless Access Point

43. DRAWING TC1.4– Technology – Main Floor Plan Section E

A. SRO Office E112, changes will be identified and clouded on the conformed set.
    a. Insert: (1) HDMI Data drop for security monitor.
    b. Insert: (1) High Mounted HDMI Data drop for security monitor.

B. Principals Office E105, changes will be identified and clouded on the conformed set.
    a. Insert: (1) HDMI Data drop for security monitor.

44. DRAWING TC1.5– Technology – Main Floor Plan Section CD

A. Exterior Door X13, changes will be identified and clouded on the conformed set.
    a. Insert: Data drop for door control.
B. Exterior Door X17, changes will be identified and clouded on the conformed set.
    a. Insert: Data drop for door control.
C. Exterior Door X18, changes will be identified and clouded on the conformed set.

a. Insert: Data drop for door control.

D. Exterior Door X19, changes will be identified and clouded on the conformed set.
   a. Insert: Data drop for door control.
E. Exterior Door X20, changes will be identified and clouded on the conformed set.
   a. Insert: Data drop for door control.

45. DRAWING TC1.9– Technology – Second Floor Plan Section CD

A. Exterior Door X21, changes will be identified and clouded on the conformed set.
   a. Insert: Data drop for door control.
B. Exterior Door X22, changes will be identified and clouded on the conformed set.
   a. Insert: Data drop for door control.

46. DRAWING TC1.10– Technology – Second Floor Plan Section DE

A. Exterior Door X24, changes will be identified and clouded on the conformed set.
   a. Insert: Data drop for door control.
B. Exterior Door X25, changes will be identified and clouded on the conformed set.
   a. Insert: Data drop for door control.

47. DRAWING TC1.11– Technology – Third Floor Plan Section AB

A. Exterior Door X29, changes will be identified and clouded on the conformed set.
   a. Insert: Data drop for door control.

48. DRAWING TC3.7A– Intrusion Detection System Riser

A. Level 2 Section D, changes will be identified and clouded on the conformed set.
   a. Insert: Door contacts and cabling for doors X21, D224, D224A, D223, D220.1, D219.1.
B. Level 1 Section D, changes will be identified and clouded on the conformed set
   a. Delete: Door Contacts and cabling for door X21

49. DRAWING TC3.7B– Intrusion Detection System Riser

A. Main Floor Section E, changes will be identified and clouded on the conformed set.
   a. Insert: Door contacts and cabling for door E150S.

50. DRAWING TC3.8A – Access Control Riser

A. Refer to revised sheets.

51. DRAWING TC3.8B – Access Control Riser

A. Refer to revised sheets.

52. DRAWING TC3.8C – Access Control Riser

A. Refer to revised sheets.

PART 4 - TRADE CONTRACTORS QUESTIONS AND RESPONSES

Response to multiple questions regarding a bid extension: The CM has reviewed and at this writing there is no extension to the bid.

Note that responses to these questions, and answers to questions in Addenda 3 and 4 are for general information and clarity. The Addenda changes made and published specifications take precedent.

Question	Response
Substitution Request: Approval of Telecor as "or equal" manufacturer. See forms for 275116 and 275129.	Refer to this addendum 5 for response
1. Page 001116-7 (top sentence) calls for 15% M/WBE participation. However, Attachments A-D in 007200 (Appendix B) all call for 10.4%. Which is correct? Also, please confirm that material suppliers will be given 100% credit. 2. Exhibit 1 – Detailed Scope of Work (Roofing & Flashing) instructs the roofer to include snow removal. Since this is impossible to quantify ahead of time, could an allowance be given for all bidders to carry? This would make all the bids apples-to-apples. 3. Please refer to Page 007300-25 Item #44/c. How do we determine how much sacrificial membrane (or membrane replacement) will be required, without knowing the layout of other trade's scaffolding? Could this be made an allowance, where all bidders are instructed to carry a certain amount? 4. Please refer to the next paragraph (Item #44/d). Should the last sentence read, "…1000' x 6' of temporary protection pathway"? If the wording is correct, and 6' x 1000' does indeed refer to roofing repairs, then how much temporary protection pathway should we carry? What materials should be used for the pathway? Contractors choice? Could this be made an allowance, as well? 5. Please issue details for the Outdoor Toilet and Storage Building. Sections on A3.18 are not sufficient for construction. Also, please specify thickness of nail board under the metal roofing. Specs only say, "…as indicated on drawings", but we don't see it indicated on the drawings. 6. Please refer to Exhibit 1 – Detailed Scope of Work (Roofing & Flashing). Item #37 states, "Install all flashing at metal panels and masonry, furnished by others". However, Page 075419-4 Paragraph 1.2/B/3&4 specify that only Piece 2 (lower piece), over PVC flashing, is to be installed by the roofer. This is backed up by numerous details, such as 15/A6.31 and 2&3/A6.32. We believe the intent is to have the	1 001116-7 City or Worcester goals are as stated. Additional goals are outlined under the CM Supplementary Instructions to Bidders 0073 00 2 ,3, 4 Clarified in CM response in this addendum # 5 Questions 5-8 Questions were clarified in addendum # 4 or this addendum # 5

Question	Response
roofer install only the lower piece where it occurs over PVC flashing, and that the upper piece is furnished and installed by others. Please clarify. 7. Please clarify the spec for the Anchor-Tite Fascia. Page 076200-7 Paragraph 2.4/A calls for 0.040" aluminum with a custom-color Kynar finish; Page 5 of the same section calls for the Kynar finish to be a 2-coat system. However, Page 077100-6 Paragraph 2.2 calls for 0.050" aluminum with a 3-coat Kynar finish. Please clarify which is correct: 0.040" 2-coat, or 0.050" 3-coat. 8. Please refer to Page 077200-6 Paragraph 3.2/A. Please specify a size for the AWI series Vaults: small, medium or mega.	
1. Please clarify what Ceiling types go in Media Center E290 Room. RCPs and Enlarged drawings to not match. The Addendum #3 added more confusion. 2. ACT-11 is only found in the Auditorium. Addendum 3 states location to be Auditorium, Media Center, College and Career Center. Please advise if the ceilings shown in Media Center, College and Career Center are to be changed to ACT-11. If so, please update the drawings. 3. Addendum 3 states Wall Plank system at Media Center. Please update drawings to where that goes? 4. What ceiling goes in Upper Cafeteria? 5. Please located where Ceiling ACT-15 goes with a marked up drawing.	1 Refer to Revised drawing A8.25 included in in ADD-4. 2 Response in Addendum # 3 will be corrected in this addendum # 5 3 Refer to Revised drawing A8.25 included in in ADD-4. 4 Refer to finish schedule and RCP, this ceiling is indicated 5 A sketch is provided in this Addendum # 5
1. In spec section 055000-page # 4 section 1.2 item# 40 (exterior vehicular control gates at upper parking lot to the park and receiving area) I see the gate at the service area marked V3 on L2.1 I'm assuming this is the gate at the receiving area, but I can't seem to find the gate to the upper parking lot. Also, I'm using the detail on C10.5 for the gate. Please clarify where the upper parking lot gate is and confirm the gate detail on C10.5 is the correct detail. 2. Please supply standard exterior bollard detail there is nothing shown on the civil or the landscape Drawings. 3. On A3.10 at column line 11 D and A there is a concrete ramp that calls out guardrails and handrails if you go to A7.1 detail# 11 it tells you to go to the landscape drawings for detail but if you go to L2.1 same location it calls out HR on the drawings which is just a 1-line rail. Please clarify if the guardrails are required. Also please confirm that the concrete stairs at the courtyard and on the corner of building D are also just handrails and not guardrails on L2.1 4. Due to the size and scope of the project I would like to see a 1 week extension of the bid	1 Please see drawing C 4.2 Upper parking lot .. 10 'wide opening with new CoW standard access gate 2 Exterior bollard detail is included in this addendum # 5 3 At the ramp at the south wall of the gym large scale ramp detail and Landscape detail call for and detail only a handrail, guard is not required at this location. other noted areas, refer to the LA drawings that indicates handrails only at stairs where the grade follows the stairs and there is no grade drop

Question	Response
1. Div4 – Please confirm the mason will only be responsible for installing the insulation behind the masonry veneer. 2. Div4 – Please confirm who is responsible for the insulation attached to CMU block in wall type E123. Is this insulation part of the pre-purchased qty stated in the masonry trade specific scope in section 00 73 00? 3. Div4 – Please clarify the thickness of the mineral wool cavity wall insulation the mason will be installing behind the masonry veneer.	1 & 2 Refer to clarification in this addendum # 5, the insulation earlier being provided by the CM is now in the mason's scope 3 Insulation thicknesses are indicated on Drawing A1.0 Exterior wall types
1. We just noticed that the prefabricated pipe curbs (AWI series vaults) , which are specified on Page 077200-6, are also included on Page 230000-32 Paragraph 2.09/F. Please clarify which section, 077200 or 230000, owns both furnish and install of these items. 2. Similar question regarding the roof curbs. In the Supplementary Instruction to Bidders, Page 23 Paragraph I/11, the roofer is instructed to install curbs which are furnished by others. However, 230000 contains several references which appear to assign both furnish and install of the curbs to the HVAC sub (which is more typical than having the roofer do it). In particular, see Page 6 Paragraph 1.03/A/33, Page 39 Paragraph 2.12/K, Page 75 Paragraph 2.27/J and Page 112 Paragraph 2.30/J. Please clarify who owns installation of the HVAC curbs. 3. Please refer to Page 077200-6 Paragraph 3.3/A/1. For the ramps over the PV conduits, what is the horizontal distance that they must span? Available models can clear 24", 36", 48" and 60". 4. Currently, due to raw material shortages, Sarnafil (basis of design) is only producing their 60 mil S327 membrane in white and reflective gray, not the specified tan. Will either white or reflective gray be acceptable?	Questions 1, 3 Refer to this addendum # 5, for clarification 2 curbs shall be installed by the mechanical contractor. Roofing contractor is responsible for installation of roofing tie-in as noted in roof details. 3 Maintain the Tan color as part of the bid
In Addendum #4, pg. 52, Question #7 was not answered. The answer given is same as answer to question #6. Please answer this question: 7. The FS at Locker/Clean Up B004 calls for Comment notes W4 and W9 but no Tile under Wall Finish. There are no elevations of this room. Please clarify if we have any Wall Tile; which walls get Accent, which get Field? Any Tile behind Lockers? In Addendum #4, pg. 52, Question #12 was not answered. The Tile scope is very large and we need more time to put together an accurate bid. 12. Due to the enormous size of this project and scope of Tile, along with a Holiday coming, we	7 Accent tile is at drinking fountain alcove back wall – no tile behind lockers (detail tile return similar to 8/A8.1 at locker fillers) – a drawing narrative changes will be added to reflect wall tile in the finish schedule Additional question for 090003 Tile: 1. No wall tile in these corridors – 14/A8.14 was removed in Add #4 2. CT-4 continues around corner – full height. Will issue sketch to clarify extent of CT-4 3. CT-4 continues around corner –

Question	Response
respectfully request another week extension to Bid Date beyond that of Addendum #3 extension please? Additional question for 090003 Tile: 1.Is there any Wall Tile in Corridors E110, E125.1 and E140? Detail 14/A8.14 is shown in Corridor E140, however, there is no Tile called out on Finish Schedule at these rooms? 2. On drawing A3.4 at Lobby E100 along column line 21 next to Fire Command Center E176, does CT-1 Wall Tile continue on West wall? Full height? (See 3/A8.21) 3.On drawing A3.8 at Upper Lobby E270 next to Guidance Records E231 along column line 21 does CT-1 Wall Tile continue on West wall? Full height? Or if Tile, is it CT-4? (See 3/A8.21). 4. The Finish Schedule at Media Center Seating E281.1 under Wall Finish it calls for "TILE". There is no Comment and no Elevation showing Tile. Please clarify? 5. On the Finish Schedule at Prep Rooms A002.1, A004.1, A109.1, A209.1, A309.1, D304.1, D306.1, D404.1, D406.1, D502.1 and D506.1 there is no Tile called for at Wall Finish or any Comments. Do we carry Ceramic Tile Walls at Showers in these rooms also? Tile CT-7 full height? We are also bidding on the Resilient Flooring Trade and need the following clarifications: Section 090006- Resilient Flooring Trade contract requirements. 1.Rooms E013/E014- Finish schedule call for Concrete Sealed however finish plan shows Sheet vinyl, what product would be carried for this rooms? 2. Rooms E018- Finish schedule call for Concrete Sealed however finish plan shows Sheet vinyl, what product would be carried for this room? 3.Room E018- Finish schedule and Finish plan call for Raised Access flooring however Section 096900 call for Forbo marmoleum tile finish, which specification section own the Forbo marmoleum Tile and Please prove product information's, if resilient flooring file sub-bid own the marmoleum tile? 4.Please confirm that the finishes go under all cabinets and corridors lockers? 5. Rooms A104/A104.1- Finish schedule call for Concrete Sealed however finish plan shows Sheet vinyl, what product would be carried for this rooms? 6. Rooms B106- Finish schedule call for Concrete Sealed however finish plan shows Sheet vinyl, what product would be carried for this room?	full height. Will issue sketch to clarify extent of CT-4 4. No tile here, finish schedule will be revised 5. FRP at eye wash in prep rooms Section 090006- Resilient Flooring Trade contract requirements. 1. Finish schedule will be revised to reflect sheet linoleum 2. Revised in Add #3 3. Room E034 IT Server Room has raised access flooring – Marmoleum finish is part of that assembly and not under resilient sub-bid 4. Yes 5. Revised in Add #3 6. Revised in Add #3 7. Revised in Add #3 8. Revised in Add #3 9. Finish schedule will be revised to reflect sheet linoleum 10. Finish schedule will be revised to reflect carpet 11. Revised in Add #3 12. Revised in Add #3 13. Revised in Add #3 14. Finish schedule will be revised to reflect Epoxy 15. Finish schedule will be revised to reflect Epoxy 16. Revised in Add #4

Question	Response
7. Rooms B114/B114.1- Finish schedule call for Concrete Sealed however finish plan shows Sheet vinyl, what product would be carried for this rooms? 8. Rooms C107/C107.1- Finish schedule call for Concrete Sealed however finish plan shows Sheet vinyl, what product would be carried for this rooms? 9. Rooms E109- Finish schedule call for Carpet Tile however finish plan shows Sheet vinyl, what product would be carried for this room? 10. Rooms E175.4- Finish schedule call for Linoleum however finish plan shows Carpet, what product would be carried for this room? 11. Rooms C212- Finish schedule call for Concrete Sealed however finish plan shows Sheet vinyl, what product would be carried for this room? 12. Rooms D201.1- Finish schedule call for Sheet vinyl however finish plan shows Epoxy, what product would be carried for this room? 13. Rooms D205.1- Finish schedule call for Sheet vinyl however finish plan shows Resilient Athletic Flooring, what product would be carried for this room? 14.Rooms D217.2- Finish schedule call for Sheet vinyl however finish plan shows Epoxy, what product would be carried for this room? 15. Rooms D218.2- Finish schedule call for Sheet vinyl however finish plan shows Epoxy, what product would be carried for this room? 16. Rooms E300- Finish schedule call for Terrazzo however finish plan shows Sheet vinyl, what product would be carried for this room? 17.Please confirm, section 090563-Moisture vapor emission control not part of resilient flooring file sub-bid?	
1. Electrical Specs call for EC to Fill tank with Diesel fuel for testing and then fill full after testing for the project. Tank Minimum size is listed as 3600 gallons. With the volatility of fuel prices could an allowance be set rather than just EC owns filling of tank. Please advise. 2. Section 271300 (page7-9) section 2.4 states to use SC connectors for Fiber Optic. Paragraph E of 2.5 states to use LC-LC. Please advise on which style is correct. 3. An empty Triangle shown in Electric rooms has a designation of MPM. No symbol in the key legend is designated for the MPM. Please advise.	1 Filling the tank is typically required, and requirement remains 2 Provide Type SC connectors at the panels. Patch cords shall be SC-LC. 3 Symbol denotes two data drops for the multi-point metering (MPM) for the panel.
Will this building be insured by Factory Mutual?	The City does not have FM as an underwriter, therefore no submittal to FM are required, however the written requirements are required to be met
Pease resolve the following flooring material conflicts	Refer to this addendum # 5, for

Question	Response
1. E109 Vault: Finish Schedule CPT, A12.4 Finish plan Lino 2. E175.4 Aud Storage: Finish Schedule Lino, A12.4 Finish plan CPT 3. D217.2 Cor & D218.2 Cor: Finish schedule Lino, A12.9 Finish plan Epoxy 4. D205.1 IDF: Finish schedule Lino, 12.10 Finish plan RAF-2	clarification
1. Page 17 of 54 from the Supplementary Instructions to Bidders (part C. #5.) calls for “Engineered, stamped shop drawings and calculations”. Typically, the calculations are stamped, but the shop drawings are not. It is a large added cost to have all sheets of the shop drawings stamped. Please confirm that you require all shop drawings to have a PE Stamp. 2. Due to the size/complexity of Addendum #4, we request an extension to the bid date.	Specifications section 05 50 00 outline that shop drawings shall be stamped. PE stamp is required for sections that are required to be engineered under the metal fabrication sections
1. 260913 calls for a complete power monitoring system by the equipment manufacturer, however, drawing E5.0D keyed note 2 indicates that the meters are to use BACNET communications to the BMS system. Are there to be 2 systems? Are the meters going to the BMS system by another division, with no programming by the equipment manufacturer? If equipment manufacturer is to provide a monitoring system, does it have to be BACNET/IP as noted? The specs give a variety of protocols. 2. 262413-2.3.f.2.9 states to provide arc flash reduction, then under .a thru .d lists the NEC approved methods to achieve that. This vendor will provide one of those methods, not all of them. Please insert the words “one of the following”. 3. 262413-2.3.K.2 – no MTM shown. Not including.	1 The metering system may use any of the protocols listed. There is only one system, integration with the BMS is not required. The system is to be monitored through the cloud via a web interface. 2 One of the NEC approved methods listed in section above may be used to achieve arc flash reduction. 3 MTM not required.
1. Section 27 51 16 - 2.11B - If the teacher holds the flexmike for 3 sec, what is the external system supposed to do? Is the action only going to happen in the room in which the flexmike is triggered or is it to be a system wide effect? Please advise 2. Print TC0.1 Public Address & Clock Clock Symbol has Digital Clock display Print TC0.1 States a Duplex Receptacle 275116 pg 946 2.5 Says PoE Clocks 275116 pg 946 Spec 2.5, I It only mentions Analog Clocks 275116 pg 946 2.5, H, 8 Battery Operated Clocks	1 The system is to initiate an alarm on the PA system similar to pressing the emergency call station on the PA system. The action is only going to happen in the room where the Flexmike is registered to the Topcat speaker. 2 All locations with either a digital or analog clock are indicated in the contract to be provided with a duplex receptacles and a data drop to allow for flexibility. Analog clocks shall be

Question	Response
275116 pg 946 2.5, H, 10 It Also says non-PoE Clocks Note 2 Same Applies to the 16" Analog Clocks requested Question 1 What type of clocks are they looking for? Question 2 Do we supply the data switches required for the clocks and Talk Back Speakers? Note: If clocks are PoE. Question 3 Does the PA equipment reside in data racks provided by another vendor? Spec does not call out racks. Please Advise	PoE. Data switch ports for PA speakers, digital and analog clocks are indicated in the contract to be supplied under Section 272100. PA equipment are indicated in the contract to reside in data racks supplied under Section 271300 and
3. Section 27 51 29, 2.1 Manufactures, A. 4. Approved Equal: We would like to submit the Bogen E7000 as it is able to provide Digital Signage and Clocks utilitzing NQ-GA10PV-based combo Clock / Messaging Display allows different priority messages to be displayed on monitors connected to NQ-GA10PVs in a selected zone, multiple zones, or to specific individual GA10PV stations. This provides the functionality as listed in the spec for the EverAlert System and would be able to be part of a complete Communications Systems from a single dashboard from the Bogen E7000, see attached link to pdf: https://www.bogen.com/sites/default/files/2021-02/750-00035_NQ-GA10P-GA10PV%20Spec%20Sheet%20E7K.pdf	3 271500 and as shown on the drawings. The link does not provide enough information to make an informed decision. Conform to the functionality of the basis of design system. We are not familiar with the system described above. A substitution request as outlined in the contract would need to be provided, and at this date there is insufficient time to submit or review
4. Please provide a clarification on Sections 27 51 16 and 27 51 29 as both sections contain information regarding digital display clocks?	4 Omit references to digital clocks in Section 275116. Digital clocks are to be provided under Section 275129. References to digital clocks in Section 275116 has been changed in this addendum.
5. Section 274120 In-Ceiling Instructional Audio System, the specs section 274120-2.03-C and 2.04-H discuss a contact closure connection to detect a fire alarm signal to mute the AV system. Drawing TC3.6 shows a 2-conductor connection between the TopCat ceiling speaker and the PA speaker for AV system muting when a page occurs. The 2-conductor cabling is shown to be provided and installed by the PA System Vendor with the Section 274120 contractor making the connection of this 2-conductor cabling to each TopCat speaker. Please confirm if this is a correct understanding for TopCat AV system muting during a page. Also, please confirm how the TopCat system connects to a fire alarm signal including who owns this cabling and where the equipment will live as we do not see details for this fire alarm connection, just a note of needing it in the specs. Does each room with a TopCat need a 2-conductor cable pulled to any data closet for the fire alarm relay.. If yes, Which section contractor should carry the cabling and labor to pull and or	5 The muting of the Topcat speaker is to be achieved through programming of the field relay for the circuit provided under the lighting control system. On activations of the fire alarm system, the lighting control system shall cut off power to the speakers through the field relay. The integration between the Topcat system and the paging system is detailed on the drawings.

Question	Response
connect it? Please Advise	
1. I am looking for some clarification over "7-2 Above Grade Waterproofing Outbuilding" Scope of work. • Item # 8 : 07 92 00 – Joint Sealant 2. I need some clarifications about the Joint Selant. 07 92 00 • Clearly here shows some items to be Caulk. • Quote "Caulk all dissimilar materials whether **shown or not shown**, including but not limited to stair stringer to wall, Perimeter of Terrazzo stair treads to risers and stringers, Stair Closure plates to tile, Terrazzo base to tile, wall panels, inside corners of tile, Hollow metal frames to floor should be considered a part of the perimeter, perimeter of all kitchen equipment, counters, and millwork, etc." 3. As you could see this is a big "Joint Sealant Package". I need to know if there is another way to clarify " Caulk all dissimilar materials whether **shown or not shown**,". Or a list of the Items that need Sealant? This will help me to understand. What and where could be the right "Linear/Feet" that I need to carry on my BASE BID **"Waterproofing Above Grade /Caulking"** Proposal. The range of this scope ids too broad. Do you agree ? • Also I couldn't find the "MILWORK SCOPE OF WORK" Could you please provide that for me. Or clarify where can I find it?. Please don't hesitate to contact me with any additional information.	Clarification on the "dissimilar materials:" is covered in this addendum # 5
1. On L4.6 details 1,2 and 3 what trade is responsible for these items. Please clarify 2. On L4.2 detail# 7 (edge protection rail) I see the callout is (ER) but I'm not finding that anywhere please clarify where this is located 3. On A7.8 detail# 5 shows an elevation on one side of the stair it calls out Center hidden support at stair. Is there any detail for this the architect has been pretty specific on what there looking for and I haven't seen any details for this Please Clarify?	1 These items are part of the landscaping bid scope and are in the LA specifications section 2 Detail 7 on L4.2 (Edge Rail) is shown on 3/L2.4, Enlargement for the Courtyard. ER is located at the edge of the stage and the concrete walk. 3 Center hidden support is typical at all stairs. Refer to detail and notes on 11/A7.12 and 4/A7.12.
Div4 – Please explain the extent of where the masonry sealer should be installed. Please refer to section 042000 2.6.	This scope is shown on the details, and is clarified in this addendum # 5

Question	Response
In Bid Package 7.2 Scope number 26 and 38 it states, "Caulk all dissimilar materials whether shown or not shown." Can you please clarify the locations and extent of caulking required at locations that are "not shown' 'but not limited to' "etc.". This scope item lists the following: ." Stair stringers, stair Closure plates to tile, terrazzo base to tile, wall panel, inside corners of tile., Hollow metal frames to floor, perimeter of all kitchen equipment, counters and millwork". Is this list all inclusive? Can you provide clarification as to what else you expect this bid package to carry? Could you also provide the Millwork Bid Package Scope of Work/ This would help clarify which joints we own and which joints belong to the millwork contractor. In order to provide accurate pricing, we would need to able to quantify the total amount of caulking and have some idea of logistics and workflow during caulking. If you are unable to provide clarification, can you provide an allowance for everyone to carry for work above and beyond what is shown?	Refer to this addendum # 5, for clarification
In Bid Package 7.2, Scope number 30 it states, "Dampproofing at steel in concrete below grade by Below Grade waterproofing contractor. All other Dampproofing is by this contractor" Dampproofing is typically reserved for underground applications. If the Below-Grade Waterproofing contractor owns all of the below grade dampproofing, where would we own dampproofing? Specification section 07 13 53 is owned by "Below Grade Waterproofing" which was previously awarded. Please clarify which items are to be carried in spec section 07 13 53A as opposed to the spec section owned by the previously awarded trade. It is not clear what would be left under this scope of work.	The specifications outline the earlier bid and awarded scope, which is underway, and the required scope under this contract
Bid Package 7.2 Scope Number 20 & 38. Caulk all dissimilar materials whether shown or not shown. (attached). We will be unable to quantify materials that are not shown on the plans. Please identify all the materials that need to be caulked in accordance with this note.	Refer to this addendum # 5, for clarification
In reviewing the painting specifications, the painting filed sub bidder has traffic coatings listed in the interior painting specifications, 099123 section 1.2 B – Interior concrete floors (garage) 1.a. Tennant Traffic 3. This is a specialized traffic coating system that typically falls in division 7 of specifications and is not a painting item. Can you please have this item moved to division 7 and removed from the painting FSB. Due to the specialized system and large area requiring this traffic coating, we would have to exclude ourselves	Refer to this addendum # 5, the line painting will be moved to the site contractors scope

Question	Response
from bidding if the system remains in the painting FSB scope.	
In the covered parking areas on drawings FP-4.5 and FP-4.6, the sprinklers indicated in the drawings are the VK538 11.2K extended coverage concealed pendent sprinklers. These sprinkler heads are being shown on a pair of dry pipe systems. Please advise if dry-barrel sprinklers will need to be used in these areas as the VK538 is not a dry-type head. On drawing FP-4.5, in the Water Service Room (D108), several notes on the plans indicate this to be the location of the backflow preventer, two dry valves, fire protection service entry, and the riser manifold. The plans do not illustrate the routing of any of this equipment. Can the drawing be updated or a detail be provided in order to show the intended routing of this sprinkler equipment?	The concealed pendants shown are piped on return bends, which is an acceptable alternative to a dry-barrel sprinkler if the space is heated to 40 F., The garage is heated to 40 F. Please refer to the piping schematic on sheet FP1.4 Also, a section thru the FP Service room, looking-East, has been added to FP4.5
1. Due to the size and complexity of this project, we request a one-week extension of the bid date. 2. Please confirm that if there are any utility company back charges, the Owner will be responsible to pay those fees. 3. The PY specifications list Sun Power. Will alternate vendors be accepted? 4. Please confirm who owns the test boring and the concrete footings for the sports lighting. This is separate from the concrete base that is supplied with the pole.	1 - 2 The specifications indicate that the Utility co back charge is being paid by the owner 3 The contact outlines the substitution process 4 Refer to this addendum # 5 that clarifies
1. Where stainless steel is shown, I.e., for curb counter flashings (3/A6.30) and perforated stainless steel vent (13/A6.30), what gauge is required? 2. In Exhibit 1 – Detailed Scope of Work (roofing), Item #49 instructs us to provide a removable guardrail around the skylights. What is the spec for this?	1 Metal thickness is clarified in this addendum # 5 2 CM advises that this is temporary removable guardrail. Provide Garlock temporary railing or equal.
On page 53 of 61 of addendum #3, Question #4 at the top of the page, The question was answered “this addendum #3”. However, I cannot locate an answer anywhere in this addendum. Please let me know where it is located.	Response on the noted page is a response from question 3, that the last line landed on the next page Question 4 requires was recommendation on part of the trade contractor. The detail calls for the misc metals subcontractor 05 50 00 to weld to the beam and that is the intent
Spec Section 274120 "In-Ceiling Instructional Audio System". Please advise if the Electrical Contractor can install the in-ceiling Instructional Audio System with devices, equipment, and commissioning being performed	Yes. The Electrical Contractor can install the in-ceiling Instructional Audio System with devices, equipment, and commissioning being

Question	Response
by an authorized distributer of the manufacturer.	performed by an authorized distributer of the manufacturer.
1. We would appreciate some clarification regarding the concrete roof assemblies: a. R-3-T, R-4-T, & R-5-T-1: the iso and plywood are all adhered – should we adhere the membrane, too? If it's Rhinobond, as per the spec, iso and plywood would be loose-laid. b. R-5-T: since the Dens Deck is mechanically fastened, why do we need to adhere the iso beneath? Adhered membrane or Rhinobond? 2. Please refer to Page 076120-1. Addendum #4 added Paragraph 1.2, which instructs the roofer to provide a metal awning system. Where is this item(s) located? What is the spec? Please clarify.	Refer to this addendum # 5, for clarification

PART 5 - ATTACHMENTS

SPECIFICATIONS:

1. Section 08 71 00 DOOR HARDWARE
2. Section 08 71 13 AUTOMATIC DOOR OPERATORS

SKETCHES:

Architectural

1. ADD-5 / A-078 MW8a Cafeteria Millwork Bench Section
2. ADD-5 / A-079 Masonry Wall at Door 01
3. ADD-5 / A-080 Roof Access Ladder #4
4. ADD-5 / A-081 Accordion Door Striker Jamb Detail Revisions
5. ADD-5 / A-082 Accordion Door Striker Jamb Detail
6. ADD-5 / A-083 Accordion Door Striker Jamb Detail
7. ADD-5 / A-084 Grab'N Go E282 Overhead Counter Shutter Jamb Detail
8. ADD-5 / A-085 Grab'N Go E282 Overhead Counter Shutter Head Detail
9. ADD-5 / A-086 Partial Upper Lobby Ceiling
10. ADD-5 / A-087 Lobby North Elevation Tile Extents Clarification
11. ADD-5 / A-088 Outdoor Storage Building Awning Section and Elevation
12. ADD-5 / A-089 Outdoor Storage Building Exterior Lighting RCP's
13. ADD-5 / A-090 Auditorium Mid and Loading Galleries Sections
14. ADD-5 / A-091 OH101A-X20 Jamb Revision
15. ADD-5 / A-092 Enlarged Typical Classroom Communicating Door
16. ADD-5 / A-093 Outdoor Storage Building Louver Schedule
17. ADD-5 / A-094 Pizza Oven Surround
18. ADD-5 / A-095 Bollard Detail

Food Service

1. ADD-5 / FS-013 Foodservice Updates

Plumbing

1. ADD-5/P015 Partial Second, Third, Fourth and Fifth Floor Plumbing Plans – Section CD

HVAC

1. ADD-5/H010 Partial Level 5 HVAC Plan Section D
2. ADD-5/H011 Partial Level 4 HVAC Plan Section D
3. ADD-5/H012 Partial Level 3 HVAC Plan Section D
4. ADD-5/H013 Partial Level 2 HVAC Piping Plan Section D
5. ADD-5/H014 Partial Level 3 HVAC Piping Plan Section D
6. ADD-5/H015 Partial Level 4 HVAC Piping Plan Section D
7. ADD-5/H016 Partial Level 5 HVAC Piping Plan Section D
8. ADD-5/H017 Partial Main Level HVAC Piping Plan Section B & C
9. ADD-5/H018 Partial Level 2 HVAC Piping Plan Section B & C
10. ADD-5/H019 Partial Level 3 HVAC Piping Plan Section B & C
11. ADD-5/H020 Partial Level 3 HVAC Piping Plan Section A & B
12. ADD-5/H021 HVAC Schedules

13. ADD-5/H022 HVAC Schedules
14. ADD-5/H023 Partial Main Level HVAC Plan Section E
15. ADD-5/H024 Partial Main Level HVAC Plan Section DE
16. ADD-5/H025 Partial Ground Level HVAC Piping Plan Section B
17. ADD-5/H026 Partial Level 4 HVAC Piping Plan Section B & C
18. ADD-5/H027 Partial Level 3 HVAC Plan Section A
19. ADD-5/H028 Partial Level 4 HVAC Plan Section B

Electrical
1. ADD-5/E-046 Light Fixture at Scoreboard Detail

DRAWINGS:

Architectural
1. A7.7 Enlarged Stair Plans, Sections and Elevations
2. A7.8 Stair Sections
3. A7.9 Stair Sections
4. A7.13 Stair and Guard Details
5. A10.1 Door Schedule – Ground Floor, Exterior Doors & Specialty Doors
6. A10.2 Door Schedule – Main Floor
7. A10.3 Door Schedule – Second Floor

Fire Protection
1. FP-4.5 Fire Protection Main Level Reflected Ceiling Plan Section CD

HVAC
1. H3.18 – Roof HVAC Plan Section AB
2. H3.19 – Roof HVAC Plan Section E
3. H3.20 – Roof HVAC Plan Section CD
4. H3.21 – Roof HVAC Plan Section DE
5. H3.22 – Field Building HVAC Plans
6. H7.3 – HVAC Schedules
7. H7.4 – HVAC Schedules
8. H7.5 – HVAC Schedules
9. H7.6 – HVAC Schedules
10. H7.7 – HVAC Schedules
11. H7.8 – HVAC Schedules

Electrical
1. TC3.8A – Access Control Riser
2. TC3.8B – Access Control Riser
3. TC3.8C – Access Control Riser
4. E7.2 – Electrical Sport Field Lighting Details and Schedule

END OF ADDENDUM #5

Section 08 71 00
DOOR HARDWARE

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

A. This Section includes commercial door hardware for the following:

1. Swinging doors.
2. Other doors to the extent indicated.

B. Door hardware includes, but is not necessarily limited to, the following:

1. Mechanical door hardware.
2. Electromechanical door hardware.
3. Cylinders specified for doors in other sections.

C. Related Sections:

1. Section 01 81 13 - SUSTAINABLE DESIGN REPORTING: Special administrative and procedure requirements related to the Owner's LEED v4, LEED for Building Design and Construction, LEED BD+C: Schools rating system certificate goals of energy conservation and efficiency, indoor air quality, and natural resource efficiency.
2. Division 06 Section "Rough Carpentry".
3. Division 06 Section "Finish Carpentry".
4. Division 08 Section "Hollow Metal Doors and Frames".
5. Division 08 Section "Flush Wood Doors".
6. Division 08 Section "Aluminum-Framed Entrances and Storefronts".
7. Division 28 Section "Access Control Hardware Devices".

D. Codes and References: Comply with the version year adopted by the Authority Having Jurisdiction.

1. ANSI A117.1 - Accessible and Usable Buildings and Facilities.
2. ICC/IBC - International Building Code.
3. NFPA 70 - National Electrical Code.
4. NFPA 80 - Fire Doors and Windows.
5. NFPA 101 - Life Safety Code.
6. NFPA 105 - Installation of Smoke Door Assemblies.
7. State Building Codes, Local Amendments.
8. 521 CMR - Massachusetts Architectural Board Regulations.

E. Standards: All hardware specified herein shall comply with the following industry standards as applicable. Any undated reference to a standard shall be interpreted as referring to the latest edition of that standard:

1. ANSI/BHMA Certified Product Standards - A156 Series.
2. UL10C - Positive Pressure Fire Tests of Door Assemblies.
3. ANSI/UL 294 - Access Control System Units.
4. UL 305 - Panic Hardware.
5. ANSI/UL 437- Key Locks.
6. 521 CMR – Massachusetts Architectural Board Regulations

1.3 SUBMITTALS

A. Product Data: Manufacturer's product data sheets including installation details, material descriptions, dimensions of individual components and profiles, operational descriptions and finishes.

B. Door Hardware Schedule: Prepared by or under the supervision of supplier, detailing fabrication and assembly of door hardware, as well as procedures and diagrams. Coordinate the final Door Hardware Schedule with doors, frames, and related work to ensure proper size, thickness, hand, function, and finish of door hardware.

1. Format: Comply with scheduling sequence and vertical format in DHI's "Sequence and Format for the Hardware Schedule."

2. Organization: Organize the Door Hardware Schedule into door hardware sets indicating complete designations of every item required for each door or opening. Organize door hardware sets in same order as in the Door Hardware Sets at the end of Part 3. Submittals that do not follow the same format and order as the Door Hardware Sets will be rejected and subject to resubmission.

3. Content: Include the following information:

   a. Type, style, function, size, label, hand, and finish of each door hardware item.
   b. Manufacturer of each item.
   c. Fastenings and other pertinent information.
   d. Location of door hardware set, cross-referenced to Drawings, both on floor plans and in door and frame schedule.
   e. Explanation of abbreviations, symbols, and codes contained in schedule.
   f. Mounting locations for door hardware.
   g. Door and frame sizes and materials.
   h. Warranty information for each product.

4. Submittal Sequence: Submit the final Door Hardware Schedule at earliest possible date, particularly where approval of the Door Hardware Schedule must precede fabrication of other work that is critical in the Project construction schedule. Include Product Data, Samples, Shop Drawings of other work affected by door hardware, and other information essential to the coordinated review of the Door Hardware Schedule.

C. Shop Drawings: Details of electrified access control hardware indicating the following:

1. Wiring Diagrams: Upon receipt of approved schedules, submit detailed system wiring diagrams for power, signaling, monitoring, communication, and control of the access control system electrified hardware. Differentiate between manufacturer-installed and field-installed wiring. Include the following:

   a. Elevation diagram of each unique access controlled opening showing location and interconnection of major system components with respect to their placement in the respective door openings.
   b. Complete (risers, point-to-point) access control system block wiring diagrams.
   c. Wiring instructions for each electronic component scheduled herein.

2. Electrical Coordination: Coordinate with related sections the voltages and wiring details required at electrically controlled and operated hardware openings.

D. Keying Schedule: After a keying meeting with the owner has taken place prepare a separate keying schedule detailing final instructions. Submit the keying schedule in electronic format. Include keying system explanation, door numbers, key set symbols, hardware set numbers and special instructions. Owner must approve submitted keying schedule prior to the ordering of permanent cylinders/cores.

E. Informational Submittals:

1. Product Test Reports: Indicating compliance with cycle testing requirements, based on evaluation of comprehensive tests performed by manufacturer and witnessed by a qualified independent testing agency.

F. Operating and Maintenance Manuals: Provide manufacturers operating and maintenance manuals for each item comprising the complete door hardware installation in quantity as required in Division 01, Closeout Procedures.

G. LEED Submittal Requirements:
1. Submit completed LEEDv4 Materials Reporting for applicable material requirements as required in Section 01 81 13 – SUSTAINABLE DESIGN REQUIREMENTS. Submit all required backup documentation.
2. The work of this Section includes responding to Architect or Contractor requests for additional information or product data and may be required following initial Green Building Certification Institute (GBCI) review of LEED Application.
3. Product substitution requests are subject to additional LEED submittal requirements including, but not limited to, Environmental Product Declarations (EPD), Health Product Declarations (HPD), and General Emissions Testing. See Section 01 25 13 – PRODUCT SUBSTITUTION PROCEDURES.
4. Include submittal documentation requirements for MR Credit 2 Building Product Disclosure and Optimization – Environmental Product Declaration for EPDs.

1.4 QUALITY ASSURANCE

A. Manufacturers Qualifications: Engage qualified manufacturers with a minimum 5 years of documented experience in producing hardware and equipment similar to that indicated for this Project and that have a proven record of successful in-service performance.

B. Certified Products: Where specified, products must maintain a current listing in the Builders Hardware Manufacturers Association (BHMA) Certified Products Directory (CPD).

C. Installer Qualifications: A minimum 3 years documented experience installing both standard and electrified door hardware similar in material, design, and extent to that indicated for this Project and whose work has resulted in construction with a record of successful in-service performance.

D. Door Hardware Supplier Qualifications: Experienced commercial door hardware distributors with a minimum 5 years documented experience supplying both mechanical and electromechanical hardware installations comparable in material, design, and extent to that indicated for this Project. Supplier recognized as a factory direct distributor by the manufacturers of the primary materials with a warehousing facility in Project's vicinity. Supplier to have on staff a certified Architectural Hardware Consultant (AHC) available during the course of the Work to consult with Contractor, Architect, and Owner concerning both standard and electromechanical door hardware and keying.

E. Source Limitations: Obtain each type and variety of door hardware specified in this section from a single source unless otherwise indicated.

1. Electrified modifications or enhancements made to a source manufacturer's product line by a secondary or third party source will not be accepted.

2. Provide electromechanical door hardware from the same manufacturer as mechanical door hardware, unless otherwise indicated.

F. Each unit to bear third party permanent label demonstrating compliance with the referenced standards.

G. Keying Conference: Conduct conference to comply with requirements in Division 01 Section "Project Meetings." Keying conference to incorporate the following criteria into the final keying schedule document:

1. Function of building, purpose of each area and degree of security required.
2. Plans for existing and future key system expansion.
3. Requirements for key control storage and software.
4. Installation of permanent keys, cylinder cores and software.
5. Address and requirements for delivery of keys.

H. Pre-Submittal Conference: Conduct coordination conference in compliance with requirements in Division 01 Section "Project Meetings" with attendance by representatives of Supplier(s), Installer(s), and Contractor(s) to review proper methods and the procedures for receiving, handling, and installing door hardware.

1. Prior to installation of door hardware, conduct a project specific training meeting to instruct the installing contractors' personnel on the proper installation and adjustment of their respective products. Product training to be attended by installers of door hardware (including electromechanical hardware) for aluminum, hollow metal and wood doors. Training will include the use of installation manuals, hardware schedules, templates and physical product samples as required.
2. Inspect and discuss electrical roughing-in, power supply connections, and other preparatory work performed by other trades.
3. Review sequence of operation narratives for each unique access controlled opening.

4. Review and finalize construction schedule and verify availability of materials.
5. Review the required inspecting, testing, commissioning, and demonstration procedures

I. At completion of installation, provide written documentation that components were applied to manufacturer's instructions and recommendations and according to approved schedule.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Inventory door hardware on receipt and provide secure lock-up and shelving for door hardware delivered to Project site. Do not store electronic access control hardware, software or accessories at Project site without prior authorization.

B. Tag each item or package separately with identification related to the final Door Hardware Schedule, and include basic installation instructions with each item or package.

C. Deliver, as applicable, permanent keys, cylinders, cores, access control credentials, software and related accessories directly to Owner via registered mail or overnight package service. Instructions for delivery to the Owner shall be established at the "Keying Conference".

1.6 COORDINATION

A. Templates: Obtain and distribute to the parties involved templates for doors, frames, and other work specified to be factory prepared for installing standard and electrified hardware. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing hardware to comply with indicated requirements.

B. Door and Frame Preparation: Doors and corresponding frames are to be prepared, reinforced and pre-wired (if applicable) to receive the installation of the specified electrified, monitoring, signaling and access control system hardware without additional in-field modifications.

1.7 WARRANTY

A. General Warranty: Reference Division 01, General Requirements. Special warranties specified in this Article shall not deprive Owner of other rights Owner may have under other provisions of the Contract Documents and shall be in addition to, and run concurrent with, other warranties made by Contractor under requirements of the Contract Documents.

B. Warranty Period: Written warranty, executed by manufacturer(s), agreeing to repair or replace components of standard and electrified door hardware that fails in materials or workmanship within specified warranty period after final acceptance by the Owner. Failures include, but are not limited to, the following:

1. Structural failures including excessive deflection, cracking, or breakage.
2. Faulty operation of the hardware.
3. Deterioration of metals, metal finishes, and other materials beyond normal weathering.
4. Electrical component defects and failures within the systems operation.

C. Standard Warranty Period: One year from date of Substantial Completion, unless otherwise indicated.

D. Special Warranty Periods:

1. Ten years for mortise locks and latches.
2. Five years for exit hardware.
3. Twenty five years for manual overhead door closer bodies.
4. Five years for motorized electric latch retraction exit devices.
5. Two years for electromechanical door hardware, unless noted otherwise.

1.8 MAINTENANCE SERVICE

A. Maintenance Tools and Instructions: Furnish a complete set of specialized tools and maintenance instructions as needed for Owner's continued adjustment, maintenance, and removal and replacement of door hardware.

PART 2 - PRODUCTS

2.1 SCHEDULED DOOR HARDWARE

A. General: Provide door hardware for each door to comply with requirements in Door Hardware Sets and each referenced section that products are to be supplied under.

B. Designations: Requirements for quantity, item, size, finish or color, grade, function, and other distinctive qualities of each type of door hardware are indicated in the Door Hardware Sets at the end of Part 3. Products are identified by using door hardware designations, as follows:

1. Named Manufacturer's Products: Product designation and manufacturer are listed for each door hardware type required for the purpose of establishing requirements. Manufacturers' names are abbreviated in the Door Hardware Schedule.

C. Substitutions: Requests for substitution and product approval for inclusive mechanical and electromechanical door hardware in compliance with the specifications must be submitted in writing and in accordance with the procedures and time frames outlined in Division 01, Substitution Procedures. Approval of requests is at the discretion of the architect, owner, and their designated consultants.

2.2 HANGING DEVICES

A. Hinges: ANSI/BHMA A156.1 certified butt hinges with number of hinge knuckles and other options as specified in the Door Hardware Sets.

1. Quantity: Provide the following hinge quantity:

a. Two Hinges: For doors with heights up to 60 inches.
b. Three Hinges: For doors with heights 61 to 90 inches.

c. Four Hinges: For doors with heights 91 to 120 inches.
d. For doors with heights more than 120 inches, provide 4 hinges, plus 1 hinge for every 30 inches of door height greater than 120 inches.

2. Hinge Size: Provide the following, unless otherwise indicated, with hinge widths sized for door thickness and clearances required:

a. Widths up to 3'0": 4-1/2" standard or heavy weight as specified.
b. Sizes from 3'1" to 4'0": 5" standard or heavy weight as specified.

3. Hinge Weight and Base Material: Unless otherwise indicated, provide the following:

a. Exterior Doors: Heavy weight, non-ferrous, ball bearing or oil impregnated bearing hinges unless Hardware Sets indicate standard weight.
b. Interior Doors: Standard weight, steel, ball bearing or oil impregnated bearing hinges unless Hardware Sets indicate heavy weight.

4. Hinge Options: Comply with the following:

a. Non-removable Pins: With the exception of electric through wire hinges, provide set screw in hinge barrel that, when tightened into a groove in hinge pin, prevents removal of pin while door is closed; for the all out-swinging lockable doors.

5. Manufacturers:

a. Bommer Industries (BO).
b. Hager Companies (HA).
c. McKinney Products; ASSA ABLOY Architectural Door Accessories (MK).
d. No Substitution.

B. Continuous Geared Hinges: ANSI/BHMA A156.26 Grade 1-600 certified continuous geared hinge. with minimum 0.120-inch thick extruded 6060 T6 aluminum alloy hinge leaves and a minimum overall width of 4 inches. Hinges are non-handed, reversible and fabricated to template screw locations. Factory trim hinges to suit door height and prepare for electrical cut-outs.

1. Manufacturers:

a. Bommer Industries (BO).
b. Ives (IV).
c. Pemko (PE).
d. No Substitution.

C. Pin and Barrel Continuous Hinges: ANSI/BHMA A156.26 Grade 1-600 certified pin and barrel continuous hinges with minimum 14 gauge Type 304 stainless steel hinge leaves, concealed stainless pin, and twin self-lubricated nylon bearings at each knuckle separation. Factory trim hinges to suit door height and prepare for electrical cut-outs.

1. Manufacturers:

a. Hager Companies (HA).

b. Markar Products; ASSA ABLOY Architectural Door Accessories (MR).
c. Pemko (PE).
d. No Substitution.

D. Hidden Sliding Door System: Provide sliding barn door system that is concealed behind the door for soft open and close applications. System shall support openings with up to a 176 pound panel capacity, shall meet ADA push force requirements and shall have nylon wheels and steel ball bearings for smooth operation.

1. Manufacturers:

a. Hafele (HF) - Slido Design.
b. Pemko (PE) - Hide Slide.
c. No Substitution.

2.3 POWER TRANSFER DEVICES

A. Electrified Quick Connect Transfer Hinges: Provide electrified transfer hinges with Molex™ standardized plug connectors and sufficient number of concealed wires (up to 12) to accommodate the electrified functions specified in the Door Hardware Sets with a 1-year warranty. Connectors plug directly to through-door wiring harnesses for connection to electric locking devices and power supplies. Wire nut connections are not acceptable.

1. Manufacturers:

a. Hager Companies (HA) - ETW-QC (# wires) Option.
b. Ives (IV) - Connect.
c. McKinney Products; ASSA ABLOY Architectural Door Accessories (MK) - QC (# wires) Option.
d. No Substitution.

B. Electrified Quick Connect Stainless Steel Continuous Transfer Hinges: Provide electrified transfer stainless steel continuous hinges with electrical transfer access prep accessible without de-mounting door from the frame. Furnish with Molex™ standardized plug connectors with sufficient number of concealed wires (up to 12) to accommodate the electrified functions specified in the Door Hardware Sets. Connectors plug directly to through-door wiring harnesses for connection to electric locking devices and power supplies. Wire nut connections are not acceptable.

1. Manufacturers:

a. Ives (IV) - Connect.
b. Markar Products; ASSA ABLOY Architectural Door Accessories (MR) - MP-ETAP-EL (# wires) Option.
c. No Substitution.

C. Electric Door Wire Harnesses: Provide electric/data transfer wiring harnesses with standardized plug connectors to accommodate up to twelve (12) wires. Connectors plug directly to through-door wiring harnesses for connection to electric locking devices and power supplies. Provide sufficient number and type of concealed wires to accommodate electric function of specified

hardware. Provide a connector for through-door electronic locking devices and from hinge to junction box above the opening. Wire nut connections are not acceptable. Determine the length required for each electrified hardware component for the door type, size and construction, minimum of two per electrified opening.

1. Provide one each of the following tools as part of the base bid contract:

    a. McKinney Products; ASSA ABLOY Architectural Door Accessories (MK) - Electrical Connecting Kit: QC-R001.
    b. McKinney Products; ASSA ABLOY Architectural Door Accessories (MK) - Connector Hand Tool: QC-R003.

2. Manufacturers:

    a. Hager Companies (HA) - Quick Connect.
    b. McKinney Products; ASSA ABLOY Architectural Door Accessories (MK) - QC-C Series.
    c. No Substitution.

2.4 DOOR OPERATING TRIM

A. Flush Bolts and Surface Bolts: ANSI/BHMA A156.3 and A156.16, Grade 1, certified.

1. Flush bolts to be furnished with top rod of sufficient length to allow bolt retraction device location approximately six feet from the floor.
2. Furnish dust proof strikes for bottom bolts.
3. Surface bolts to be minimum 8” in length and U.L. listed for labeled fire doors and U.L. listed for windstorm components where applicable.
4. Provide related accessories (mounting brackets, strikes, coordinators, etc.) as required for appropriate installation and operation.

5. Manufacturers:

    a. Burns Manufacturing (BU).
    b. Rockwood (RO).
    c. Trimco (TC).
    d. No Substitution.

B. Coordinators: ANSI/BHMA A156.3 certified door coordinators consisting of active-leaf, hold-open lever and inactive-leaf release trigger. Model as indicated in hardware sets.

1. Manufacturers:

    a. Burns Manufacturing (BU).
    b. Rockwood (RO).
    c. Trimco (TC).
    d. No Substitution.

C. Door Push Plates and Pulls: ANSI/BHMA A156.6 certified door pushes and pulls of type and design specified in the Hardware Sets. Coordinate and provide proper width and height as required where conflicting hardware dictates.

1. Push/Pull Plates: Minimum .050 inch thick, size as indicated in hardware sets, with beveled edges, secured with exposed screws unless otherwise indicated.
2. Door Pull and Push Bar Design: Size, shape, and material as indicated in the hardware sets. Minimum clearance of 2 1/2-inches from face of door unless otherwise indicated.
3. Offset Pull Design: Size, shape, and material as indicated in the hardware sets. Minimum clearance of 2 1/2-inches from face of door and offset of 90 degrees unless otherwise indicated.
4. Fasteners: Provide manufacturer's designated fastener type as indicated in Hardware Sets.

5. Manufacturers:

a. Burns Manufacturing (BU).
b. Rockwood (RO).
c. Trimco (TC).
d. No Substitution.

D. Flat Latch Locking Pulls: Post-mount style door pulls with integrated flat latch locking system in type and design as specified in the Hardware Sets. Full and half height with latching at top of door. Option for horizontal push bar. Mechanical or electric strike release as specified. Dogging and ADA thumbturn included. Customized sizing and configuration options.

1. Manufacturers:

a. Rockwood (RO) - FL Series.
b. No Substitution.

2.5 CYLINDERS AND KEYING

A. General: Cylinder manufacturer to have minimum (10) years experience designing secured master key systems and have on record a published security keying system policy.

B. Source Limitations: Obtain each type of keyed cylinder and keys from the same source manufacturer as locksets and exit devices, unless otherwise indicated.

1. Manufacturers:

a. Corbin Russwin Hardware (RU).
b. No Substitution.

C. Cylinder Types: Original manufacturer cylinders able to supply the following cylinder formats and types:

1. Threaded mortise cylinders with rings and cams to suit hardware application.
2. Rim cylinders with back plate, flat-type vertical or horizontal tailpiece, and raised trim ring.
3. Bored or cylindrical lock cylinders with tailpieces as required to suit locks.
4. Tubular deadlocks and other auxiliary locks.

5. Mortise and rim cylinder collars to be solid and recessed to allow the cylinder face to be flush and be free spinning with matching finishes.
6. Keyway: Match Facility Standard.

D. Keying System: Each type of lock and cylinders to be factory keyed.

1. Supplier shall conduct a "Keying Conference" to define and document keying system instructions and requirements.
2. Furnish factory cut, nickel-silver large bow permanently inscribed with a visual key control number as directed by Owner.
3. Existing System: Field verify and key cylinders to match Owner's existing system.

E. Key Quantity: Provide the following minimum number of keys:

1. Change Keys per Cylinder: Two (2)
2. Master Keys (per Master Key Level/Group): Five (5).
3. Construction Keys (where required): Ten (10).

F. Construction Keying: Provide construction master keyed cylinders.

G. Key Registration List (Bitting List):

1. Provide keying transcript list to Owner's representative in the proper format for importing into key control software.
2. Provide transcript list in writing or electronic file as directed by the Owner.

2.6 KEY CONTROL

A. Key Control Cabinet: Provide a key control system including envelopes, labels, and tags with self-locking key clips, receipt forms, 3-way visible card index, temporary markers, permanent markers, and standard metal cabinet. Key control cabinet shall have expansion capacity of 150% of the number of locks required for the project.

1. Manufacturers:

a. Lund Equipment (LU).
b. MMF Industries (MM).
c. Telkee (TK).
d. No Substitution.

2.7 MECHANICAL LOCKS AND LATCHING DEVICES

A. Mortise Locksets, Grade 1 (Heavy Duty): ANSI/BHMA A156.13, Series 1000, Operational Grade 1 Certified Products Directory (CPD) listed. Locksets are to be manufactured with a corrosion resistant steel case and be field-reversible for handing without disassembly of the lock body.

1. Extended cycle test: Locks to have been cycle tested in ordinance with ANSI/BHMA 156.13 requirements to 14 million cycles or greater.

2. Manufacturers:

a. Corbin Russwin Hardware (RU) - ML2000 Series.
b. Sargent Manufacturing (SA) - 8200 Series.
c. Schlage (SC) - L9000 Series.

B. Knurling: Where required by local code provide knurling or abrasive coating to all levers on doors leading to hazardous areas such as mechanical rooms, boiler and furnace rooms, janitor closets, and as otherwise required or specified.

2.8 ELECTROMECHANICAL LOCKING DEVICES

A. Electromechanical Mortise Locksets, Grade 1 (Heavy Duty): ANSI/BHMA A156.13, Series 1000, Operational Grade 1 Certified Products Directory (CPD) listed, subject to same compliance standards and requirements as mechanical mortise locksets, electrified locksets to be of type and design as specified below and in the hardware sets.

1. Electrified Lock Options: Where indicated in the Hardware Sets, provide electrified options including: outside door lock/unlock trim control, latchbolt and lock/unlock status monitoring, deadbolt monitoring, and request-to-exit signaling. Support end-of-line resistors contained within the lock case. Unless otherwise indicated, provide electrified locksets standard as fail secure.

2. Energy Efficient Design: Provide lock bodies which have a holding current draw of 15mA maximum, and can operate on either 12 or 24 volts. Locks are to be field configurable for fail safe or fail secure operation.

3. Manufacturers:

a. Corbin Russwin Hardware (RU) - ML20900 Series.
b. Sargent Manufacturing (SA) - 8200 Series.
c. Schlage (SC) - L9000 EL/EU/RX Series.

2.9 AUXILIARY LOCKS

A. Mortise Deadlocks, Small Case: ANSI/BHMA A156.36, Grade 1, small case mortise type deadlocks constructed of heavy gauge wrought corrosion resistant steel. Steel or stainless steel bolts with a 1" throw and hardened steel roller pins. Deadlocks to be products of the same source manufacturer and keyway as other specified locksets.

1. Manufacturers:

a. Corbin Russwin Hardware (RU) - DL4000 Series.
b. Sargent Manufacturing (SA) - 4870 Series.
c. Yale Commercial(YA) - 350 Series.

B. Behavioral Health, Mortise: ANSI/BHMA A156.13, Series 1000, Operational and Security Grade 1 Certified Products Directory (CPD) listed mortise type manufactured to accepted Office of Mental Health (OMH) requirements with behavioral health lever and escutcheon trim. Locksets

to be manufactured with a corrosion resistant, formed steel case. Levers and escutcheons are manufactured from stainless steel material. Provide optional lead-lining (lock body), Torx® fasteners, and Antimicrobial coating as specified in Hardware Sets.

1. Manufacturers:

   a. Corbin Russwin (RU) - ML2000 BHSS Series.
   b. Sargent Manufacturing (SA) - 8200 BHW Series.
   c. No Substitution.

2.10 LOCK AND LATCH STRIKES

A. Strikes: Provide manufacturer's standard strike with strike box for each latch or lock bolt, with curved lip extended to protect frame, finished to match door hardware set, unless otherwise indicated, and as follows:

1. Flat-Lip Strikes: For locks with three-piece antifriction latchbolts, as recommended by manufacturer.
2. Extra-Long-Lip Strikes: For locks used on frames with applied wood casing trim.
3. Aluminum-Frame Strike Box: Provide manufacturer's special strike box fabricated for aluminum framing.
4. Double-lipped strikes: For locks at double acting doors. Furnish with retractable stop for rescue hardware applications.

B. Standards: Comply with the following:

1. Strikes for Mortise Locks and Latches: BHMA A156.13.
2. Strikes for Bored Locks and Latches: BHMA A156.2.
3. Strikes for Auxiliary Deadlocks: BHMA A156.36.
4. Dustproof Strikes: BHMA A156.16.

2.11 CONVENTIONAL EXIT DEVICES

A. General Requirements: All exit devices specified herein shall meet or exceed the following criteria:

1. At doors not requiring a fire rating, provide devices complying with NFPA 101 and listed and labeled for "Panic Hardware" according to UL305. Provide proper fasteners as required by manufacturer including sex nuts and bolts at openings specified in the Hardware Sets.

2. Where exit devices are required on fire rated doors, provide devices complying with NFPA 80 and with UL labeling indicating "Fire Exit Hardware". Provide devices with the proper fasteners for installation as tested and listed by UL. Consult manufacturer’s catalog and template book for specific requirements.

3. Except on fire rated doors, provide exit devices with hex key dogging device to hold the pushbar and latch in a retracted position. Provide optional keyed cylinder dogging on devices where specified in Hardware Sets.

4. Devices must fit flat against the door face with no gap that permits unauthorized dogging of the push bar. The addition of filler strips is required in any case where the door light extends behind the device as in a full glass configuration.

5. Lever Operating Trim: Where exit devices require lever trim, furnish manufacturer's heavy duty escutcheon trim with threaded studs for thru-bolts.

   a. Lock Trim Design: As indicated in Hardware Sets, provide finishes and designs to match that of the specified locksets.
   b. Where function of exit device requires a cylinder, provide a cylinder (Rim or Mortise) as specified in Hardware Sets.

6. Vertical Rod Exit Devices: Where surface or concealed vertical rod exit devices are used at interior openings, provide as less bottom rod (LBR) unless otherwise indicated. Provide dust proof strikes where thermal pins are required to project into the floor.

7. Narrow Stile Applications: At doors constructed with narrow stiles, or as specified in Hardware Sets, provide devices designed for maximum 2” wide stiles.

8. Dummy Push Bar: Nonfunctioning push bar matching functional push bar.

9. Rail Sizing: Provide exit device rails factory sized for proper door width application.

10. Through Bolt Installation: For exit devices and trim as indicated in Door Hardware Sets.

B. Conventional Push Rail Exit Devices (Heavy Duty): ANSI/BHMA A156.3, Grade 1 Certified Products Directory (CPD) listed panic and fire exit hardware devices furnished in the functions specified in the Hardware Sets. Exit device latch to be stainless steel, pullman type, with deadlock feature.

   1. Manufacturers:

      a. Corbin Russwin Hardware (RU) - ED4000 / ED5000 Series.
      b. Sargent Manufacturing (SA) - 80 Series.
      c. Von Duprin (VD) - 35A/98 XP Series.

C. Tube Steel Removable Mullions: ANSI/BHMA A156.3 removable steel mullions with malleable-iron top and bottom retainers and a primed paint finish.

   1. Provide keyed removable feature where specified in the Hardware Sets.

   2. Provide stabilizers and mounting brackets as required.

   3. Provide electrical quick connection wiring options as specified in the hardware sets.

   4. Manufacturers:

      a. Same as exit device manufacturer.

2.12 ELECTROMECHANICAL EXIT DEVICES

A. Electromechanical Push Rail Exit Devices (Heavy Duty): ANSI/BHMA A156.3, Grade 1 Certified Products Directory (CPD) listed panic and fire exit hardware devices subject to same compliance standards and requirements as mechanical exit devices. Electrified exit devices to be of type and design as specified below and in the hardware sets.

1. Energy Efficient Design: Provide devices which have a holding current draw of 15mA maximum, and can operate on either 12 or 24 volts. Locks are to be field configurable for fail safe or fail secure operation.

2. Where conventional power supplies are not sufficient, include any specific controllers required to provide the proper inrush current.

3. Motorized Electric Latch Retraction: Devices with an electric latch retraction feature must use motors which have a maximum current draw of 600mA. Solenoid driven latch retraction is not acceptable.

4. Manufacturers:

   a. Corbin Russwin Hardware (RU) - ED5000 Series.
   b. Sargent Manufacturing (SA) - 80 Series.
   c. Von Duprin (VD) - 35A/98 XP Series.

2.13 DOOR CLOSERS

A. All door closers specified herein shall meet or exceed the following criteria:

1. General: Door closers to be from one manufacturer, matching in design and style, with the same type door preparations and templates regardless of application or spring size. Closers to be non-handed with full sized covers.

2. Standards: Closers to comply with UL-10C for Positive Pressure Fire Test and be U.L. listed for use of fire rated doors.

3. Size of Units: Comply with manufacturer's written recommendations for sizing of door closers depending on size of door, exposure to weather, and anticipated frequency of use. Where closers are indicated for doors required to be accessible to the Americans with Disabilities Act, provide units complying with ANSI ICC/A117.1.

4. Closer Arms: Provide heavy duty, forged steel closer arms unless otherwise indicated in Hardware Sets.

5. Closers shall not be installed on exterior or corridor side of doors; where possible install closers on door for optimum aesthetics.

6. Closer Accessories: Provide door closer accessories including custom templates, special mounting brackets, spacers and drop plates as required for proper installation. Provide through-bolt and security type fasteners as specified in the hardware sets.

B. Door Closers, Surface Mounted (Large Body Cast Iron): ANSI/BHMA A156.4, Grade 1 Certified Products Directory (CPD) listed surface mounted, heavy duty door closers with complete spring power adjustment, sizes 1 thru 6; and fully operational adjustable according to door size, frequency of use, and opening force. Closers to be rack and pinion type, one piece cast iron body construction, with adjustable backcheck and separate non-critical valves for closing sweep and latch speed control.

1. Manufacturers:

a. Corbin Russwin Hardware (RU) - DC8000 Series.
b. LCN Closers (LC) - 4040XP Series.
c. Norton Rixson (NO) - 9500 Series.
d. Sargent Manufacturing (SA) - 281 Series.

C. Door Closers, Surface Mounted (Cam Action): ANSI/BHMA 156.4, Grade 1 Certified Products Directory (CPD) listed surface mounted, high efficiency door closers with complete spring power adjustment, sizes 1 thru 6; and fully operational adjustable according to door size, frequency of use, and opening force. Closers to be of the cam and roller design, one piece cast aluminum silicon alloy body with adjustable backcheck and independently controlled valves for closing sweep and latch speed.

1. Manufacturers:

a. Corbin Russwin (RU) - DC5000 Series.
b. Norton Rixson (NO) - 2800ST Series.
c. Sargent Manufacturing (SA) - 422 Series.

D. Door Closers, Overhead Concealed Double Acting (Heavy Duty): Center pivot, double acting ANSI/BHMA 156.4 Grade 1 Certified Products Directory (CPD) overhead door closers. UL Listed and ADA-compliant for interior or exterior doors up to 250 lbs. Closers are non-handed, with adjustable spring strength, hydraulic back check, and two closing speed adjustments for sweep and latch. Latch speed can be independently adjustable per door direction. Cast iron body construction with 1-1/4" dual pistons and an optional hold open feature. Closer bodies shall fit in a 1-3/4" x 4" metal or aluminum transom and 2-1/2" x 4-1/2" wood frame.

1. Manufacturers:

a. dormakaba (DO) - RTS88 Series.
b. LCN Closers (LC) - 6030 Series.
c. Norton Rixson (RF) - 73 Series.
d. No Substitution.

E. Door Closers, Overhead Concealed Single Acting (Heavy Duty): Single Acting (Heavy Duty): Center pivot, single acting ANSI/BHMA 156.4 Grade 1 Certified Products Directory (CPD) overhead door closers. UL Listed and ADA-compliant for interior or exterior doors up to 250 lbs. Closers are non-handed, with adjustable spring strength, hydraulic back check, and two closing speed adjustments for sweep and latch. Latch speed can be independently adjustable per door direction. Cast iron body construction with 1-1/4" dual pistons and an optional hold open feature. Closer bodies shall fit in a 1-3/4" x 4" metal or aluminum transom and 2-1/2" x 4-1/2" wood frame.

1. Manufacturers:

   a. dormakaba (DO) - RTS88 Series.
   b. LCN Closers (LC) - 2030 Series.
   c. Norton Rixson (RF) - 93 Series.
   d. No Substitution.

2.14 SURFACE MOUNTED CLOSER HOLDERS

A. Electromagnetic Door Holders: Certified ANSI A156.15 electromagnetic door holder/releases with a minimum 20 to 40 pounds holding power and single coil construction able to accommodate.12VDC, 24VAC, 24VDC and 120VAC. Coils to be independently wound, employing an integral fuse and armatures to include a positive release button.

1. Manufacturers:

   a. LCN Door Closers (LC) - SEM7800 Series.
   b. Norton Rixson (RF) - 980/990 Series.
   c. Sargent Manufacturing (SA) - 1560 Series.
   d. No Substitution.

2.15 ARCHITECTURAL TRIM

A. Door Protective Trim

1. General: Door protective trim units to be of type and design as specified below or in the Hardware Sets.

2. Size: Fabricate protection plates (kick, armor, or mop) not more than 2" less than door width (LDW) on stop side of single doors and 1” LDW on stop side of pairs of doors, and not more than 1" less than door width on pull side. Coordinate and provide proper width and height as required where conflicting hardware dictates. Height to be as specified in the Hardware Sets.

3. Where plates are applied to fire rated doors with the top of the plate more than 16” above the bottom of the door, provide plates complying with NFPA 80. Consult manufacturer’s catalog and template book for specific requirements for size and applications.

4. Protection Plates: ANSI/BHMA A156.6 certified protection plates (kick, armor, or mop), fabricated from the following:

   a. Stainless Steel: 300 grade, 050-inch thick.

5. Options and fasteners: Provide manufacturer's designated fastener type as specified in the Hardware Sets. Provide countersunk screw holes.

6. Manufacturers:

   a. Burns Manufacturing (BU).

b. Rockwood (RO).
c. Trimco (TC).
d. No Substitution.

2.16 DOOR STOPS AND HOLDERS

A. General: Door stops and holders to be of type and design as specified below or in the Hardware Sets.

B. Door Stops and Bumpers: ANSI/BHMA A156.16, Grade 1 certified door stops and wall bumpers. Provide wall bumpers, either convex or concave types with anchorage as indicated, unless floor or other types of door stops are specified in Hardware Sets. Do not mount floor stops where they will impede traffic. Where floor or wall bumpers are not appropriate, provide overhead type stops and holders.

1. Manufacturers:

a. Burns Manufacturing (BU).
b. Rockwood (RO).
c. Trimco (TC).
d. No Substitution.

C. Overhead Door Stops and Holders: ANSI/BHMA A156.8, Grade 1 Certified Products Directory (CPD) listed overhead stops and holders to be surface or concealed types as indicated in Hardware Sets. Track, slide, arm and jamb bracket to be constructed of extruded bronze and shock absorber spring of heavy tempered steel. Provide non-handed design with mounting brackets as required for proper operation and function.

1. Manufacturers:

a. Norton Rixson (RF).
b. Rockwood (RO).
c. Sargent Manufacturing (SA).
d. No Substitution.

2.17 ARCHITECTURAL SEALS

A. General: Thresholds, weatherstripping, and gasket seals to be of type and design as specified below or in the Hardware Sets. Provide continuous weatherstrip gasketing on exterior doors and provide smoke, light, or sound gasketing on interior doors where indicated. At exterior applications provide non-corrosive fasteners and elsewhere where indicated.

B. Smoke Labeled Gasketing: Assemblies complying with NFPA 105 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for smoke control ratings indicated, based on testing according to UL 1784.

1. Provide smoke labeled perimeter gasketing at all smoke labeled openings.

C. Fire Labeled Gasketing: Assemblies complying with NFPA 80 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for fire ratings indicated, based on testing according to UL-10C.

1. Provide intumescent seals as indicated to meet UL10C Standard for Positive Pressure Fire Tests of Door Assemblies, and NPFA 252, Standard Methods of Fire Tests of Door Assemblies.

D. Sound-Rated Gasketing: Assemblies that are listed and labeled by a testing and inspecting agency, for sound ratings indicated.

E. Replaceable Seal Strips: Provide only those units where resilient or flexible seal strips are easily replaceable and readily available from stocks maintained by manufacturer.

F. Manufacturers:

1. National Guard Products (NG).
2. Pemko (PE).
3. Reese Enterprises, Inc. (RE).
4. No Substitution.

2.18 ELECTRONIC ACCESSORIES

A. Intelligent Switching Power Supplies: Provide power supplies with single, dual or multi-voltage configurations at 12 and/or 24VDC. Power Supply shall have battery backup function with an integrated battery charging circuit. The power supply shall have a standard, integrated Fire Alarm Interface (FAI). The power supply shall provide capability for secondary voltage, power distribution, direct lock control and network monitoring through add on modules. The power supply shall be expandable up to 16 individually protected outputs. Output modules shall provide individually protected, continuous outputs and/or individually protected, relay controlled outputs. Network modules shall provide remote monitoring functions such as status reporting, fault reporting and information logging.

1. Manufacturers:

a. Securitron (SU) - AQL Series.
b. No Substitution.

2.19 FABRICATION

A. Fasteners: Provide door hardware manufactured to comply with published templates generally prepared for machine, wood, and sheet metal screws. Provide screws according to manufacturers recognized installation standards for application intended.

2.20 FINISHES

A. Standard: Designations used in the Hardware Sets and elsewhere indicate hardware finishes complying with ANSI/BHMA A156.18, including coordination with traditional U.S. finishes indicated by certain manufacturers for their products.

B. Provide quality of finish, including thickness of plating or coating (if any), composition, hardness, and other qualities complying with manufacturer's standards, but in no case less than specified by referenced standards for the applicable units of hardware

C. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine scheduled openings, with Installer present, for compliance with requirements for installation tolerances, labeled fire door assembly construction, wall and floor construction, and other conditions affecting performance.

B. Notify architect of any discrepancies or conflicts between the door schedule, door types, drawings and scheduled hardware. Proceed only after such discrepancies or conflicts have been resolved in writing.

3.2 PREPARATION

A. Hollow Metal Doors and Frames: Comply with ANSI/DHI A115 series.

B. Wood Doors: Comply with ANSI/DHI A115-W series.

3.3 INSTALLATION

A. Install each item of mechanical and electromechanical hardware and access control equipment to comply with manufacturer's written instructions and according to specifications.

1. Installers are to be trained and certified by the manufacturer on the proper installation and adjustment of fire, life safety, and security products including: hanging devices; locking devices; closing devices; and seals.

B. Mounting Heights: Mount door hardware units at heights indicated in following applicable publications, unless specifically indicated or required to comply with governing regulations:

1. Standard Steel Doors and Frames: DHI's "Recommended Locations for Architectural Hardware for Standard Steel Doors and Frames."
2. DHI TDH-007-20: Installation Guide for Doors and Hardware.

3. Where indicated to comply with accessibility requirements, comply with ANSI A117.1 "Accessibility Guidelines for Buildings and Facilities."
4. Provide blocking in drywall partitions where wall stops or other wall mounted hardware is located.

C. Retrofitting: Install door hardware to comply with manufacturer's published templates and written instructions. Where cutting and fitting are required to install door hardware onto or into surfaces that are later to be painted or finished in another way, coordinate removal, storage, and reinstallation of surface protective trim units with finishing work specified in Division 9 Sections. Do not install surface-mounted items until finishes have been completed on substrates involved.

D. Thresholds: Set thresholds for exterior and acoustical doors in full bed of sealant complying with requirements specified in Division 7 Section "Joint Sealants."

E. Storage: Provide a secure lock up for hardware delivered to the project but not yet installed. Control the handling and installation of hardware items so that the completion of the work will not be delayed by hardware losses before and after installation.

3.4 FIELD QUALITY CONTROL

A. Field Inspection (Punch Report): Reference Division 01 Sections “Closeout Procedures”. Produce project punch report for each installed door opening indicating compliance with approved submittals and verification hardware is properly installed, operating and adjusted. Include list of items to be completed and corrected, indicating the reasons or deficiencies causing the Work to be incomplete or rejected.

1. Organization of List: Include separate Door Opening and Deficiencies and Corrective Action Lists organized by Mark, Opening Remarks and Comments, and related Opening Images and Video Recordings.
2. Submit documentation of incomplete items in the following formats:

    a. PDF electronic file.
    b. Electronic formatted file integrated with the Openings Studio™ door opening management software platform.

B. Inspection and reporting shall include door opening force as required under 521 – CMR – Massachusetts Architectural Access Board regulations.

3.5 ADJUSTING

A. Initial Adjustment: Adjust and check each operating item of door hardware and each door to ensure proper operation or function of every unit. Replace units that cannot be adjusted to operate as intended. Adjust door control devices to compensate for final operation of heating and ventilating equipment and to comply with referenced accessibility requirements.

3.6 CLEANING AND PROTECTION

A. Protect all hardware stored on construction site in a covered and dry place. Protect exposed hardware installed on doors during the construction phase. Install any and all hardware at the latest possible time frame.

B. Clean adjacent surfaces soiled by door hardware installation.

C. Clean operating items as necessary to restore proper finish. Provide final protection and maintain conditions that ensure door hardware is without damage or deterioration at time of owner occupancy.

3.7 DEMONSTRATION

A. Instruct Owner's maintenance personnel to adjust, operate, and maintain mechanical and electromechanical door hardware.

3.8 DOOR HARDWARE SETS

A. The hardware sets represent the design intent and direction of the owner and architect. They are a guideline only and should not be considered a detailed hardware schedule. Discrepancies, conflicting hardware and missing items should be brought to the attention of the architect with corrections made prior to the bidding process. Omitted items not included in a hardware set should be scheduled with the appropriate additional hardware required for proper application and functionality.

1. Quantities listed are for each pair of doors, or for each single door.

2. The supplier is responsible for handing and sizing all products.

3. Where multiple options for a piece of hardware are given in a single line item, the supplier shall provide the appropriate application for the opening.

4. At existing openings with new hardware the supplier shall field inspect existing conditions prior to the submittal stage to verify the specified hardware will work as required. Provide alternate solutions and proposals as needed.

B. Manufacturer’s Abbreviations:

1. MK - McKinney
2. MR - Markar
3. PE - Pemko
4. RO - Rockwood
5. SA - SARGENT
6. RU - Corbin Russwin
7. RF - Rixson
8. OT - Other

9. SU - Securitron
10. BM - Besam

Hardware Sets

Set: 1.0

Doors: X23, X27, X5, X6

2 Continuous Hinge (12-wire)	CFM-SLF-HD1 SER12 Series		PE
1 Key Removable Mullion	L980S	PC	SA
1 Exit Device (rim, EL, RX, CD)	16 55 56 LC 8810	US32D	SA
1 Exit Device (rim, NL, EL, RX, CD)	16 55 56 LC 8804	US32D	SA
4 Cylinder (qty, type as required)	97 keyway 6-pin GMK CMK	626	RU
1 Mullion Cylinder Kit	980C1 less cylndr	US26D	SA
2 Door Pull (45 deg offset)	BF168 12HD	US32D	RO
2 Concealed Overhead Stop	1-X36	630	RF
2 Door Closer (parallel arm)	MC 281 P10	EN	SA
1 Threshold (coord w/ details)	274x292AFGPK FHSL14SS		PE
1 Mullion Gasket	5110BL		PE
2 Door Wiring Harness	QC-Cxxx (hinge to device)		MK
2 Frame Wiring Harness	QC-CxxxP (hinge/strike to J-box)		MK
2 Position Switch (concealed)	By Division 28		SU
1 Power Supply	AQL Series - Amps & Relays as Required (coord w/ security)		SU
1 Remote Control Switch	By Division 28		00
1 Weather/Perimeter Seals	Supplied with door/frame assembly		00
1 Card Reader	By Division 28		00

Notes: Coordinate final card reader and remote release locations with security vendor (typ).

Operation: Door is normally closed and secured. Valid card at reader or signal from remote control switch retracts latch for momentary or extended access. Remote control switch releases latch for lock-down. Monitoring by door position switches. During a loss of power the doors will default to secure. Free egress at all times. Lock status will not change when the fire detection/suppression systems are activated. Depressing pushrail will activate request to exit switch for appropriate monitor by EAC systems. Outside key override.

Set 1.1

Doors: X3

2	Continuous Hinge (12-wire)	CFM-SLF-HD1 SER12 Series		PE	
1	Key Removable Mullion	L980S	PC	SA	
1	Exit Device (rim, EL, RX, CD)	16 55 56 LC 8810	US32D	SA	⚡
1	Exit Device (rim, NL, EL, RX, CD)	16 55 56 LC 8804	US32D	SA	⚡
1	Cylinder (qty, type as required)	97 keyway 6-pin GMK CMK	626	RU	
1	Mullion Cylinder Kit	980C1 less cylndr	US26D	SA	
2	Door Pull (45 deg offset)	BF168 12HD	US32D	RO	
1	Concealed Overhead Stop	1-X36	630	RF	
1	Door Closer (parallel arm)	MC 281 P10	EN	SA	
1	Auto Operator	By Specification Section 087113		BM	
1	Threshold (coord w/ details)	274x292AFGPK FHSL14SS		PE	
1	Mullion Gasket	5110BL		PE	
1	Door Wiring Harness	QC-Cxxx (hinge to device)		MK	⚡
1	Frame Wiring Harness	QC-CxxxP (hinge/strike to J-box)		MK	⚡
2	Operator Paddle	By Specification Section 087113		BM	
1	Position Switch (concealed)	By Division 28		SU	⚡
1	Power Supply	AQL Series - Amps & Relays as Required (coord w/ security)		SU	⚡
1	Remote Control Switch	By Division 28		00	
1	Weather/Perimeter Seals	Supplied with door/frame assembly		00	
1	Card Reader	By Division 28		00	

Notes: Coordinate final card reader and remote release locations with security vendor (typ).

Operation: Door is normally closed and secured. Valid card at reader or signal from remote control switch activates outside operator paddle and retracts latch for momentary or extended access. Remote control switch releases latch for lock-down. Monitoring by door position switches. During a loss of power the doors will default to secure. Free egress at all times. Lock status will not change when the fire detection/suppression systems are activated. Depressing pushrail or use of inside operator paddle will activate request to exit switch for appropriate monitor by EAC systems. Outside key override.

Set 1.2

Doors: X14

2	Continuous Hinge (12-wire)	CFM-SLF-HD1 SER12 Series		PE	
1	Key Removable Mullion	L980S	PC	SA	
1	Exit Device (rim, EL, RX, CD)	16 55 56 LC 8810	US32D	SA	⚡
1	Exit Device (rim, NL, EL, RX, CD)	16 55 56 LC 8804	US32D	SA	⚡
1	Cylinder (qty, type as required)	97 keyway 6-pin GMK CMK	626	RU	
1	Mullion Cylinder Kit	980C1 less cylndr	US26D	SA	
2	Door Pull (45 deg offset)	BF168 12HD	US32D	RO	
1	Concealed Overhead Stop	1-X36	630	RF	

1	Door Closer (parallel arm)	MC 281 P10	EN	SA
1	Auto Operator	By Specification Section 087113		BM
1	Threshold (coord w/ details)	274x292AFGPK FHSL14SS		PE
1	Mullion Gasket	5110BL		PE
1	Door Wiring Harness	QC-Cxxx (hinge to device)		MK
1	Frame Wiring Harness	QC-CxxxP (hinge/strike to J-box)		MK
1	Position Switch (concealed)	By Division 28		SU
1	Power Supply	AQL Series - Amps & Relays as Required (coord w/ security)		SU
1	Remote Control Switch	By Division 28		00
1	Weather/Perimeter Seals	Supplied with door/frame assembly		00
1	Card Reader	By Division 28		00

Notes: Coordinate final card reader and remote release locations with security vendor (typ).

Operation: Door is normally closed and secured. Valid card at reader or signal from remote control switch activates outside operator paddle and retracts latch for momentary or extended access. Remote control switch releases latch for lock-down. Monitoring by door position switches. During a loss of power the doors will default to secure. Free egress at all times. Lock status will not change when the fire detection/suppression systems are activated. Depressing pushrail or use of inside operator paddle will activate request to exit switch for appropriate monitor by EAC systems. Outside key override.

Door Operator to be set to "Push and Go" mode.

Set: 2.0

Doors: X1, X10, X11, X2, X7

2	Continuous Hinge	CFM-SLF-HD1 Series		PE
1	Key Removable Mullion	L980S	PC	SA
1	Exit Device (rim, NL, CD)	16 LC 8804	US32D	SA
1	Exit Device (rim, CD)	16 LC 8810	US32D	SA
4	Cylinder (qty, type as required)	97 keyway 6-pin GMK CMK	626	RU
1	Mullion Cylinder Kit	980C1 less cylndr	US26D	SA
2	Door Pull (45 deg offset)	BF168 12HD	US32D	RO
1	Coordinator	NX2600 Seires x Mtfg. Brkts & Wear Plates as Required.	Black	RO
2	Concealed Overhead Stop	1-X36	630	RF
2	Door Closer (parallel arm)	MC 281 P10	EN	SA
1	Threshold (coord w/ details)	274x292AFGPK FHSL14SS		PE
1	Mullion Gasket	5110BL		PE
2	Position Switch (concealed)	By Division 28		SU
1	Weather/Perimeter Seals	Supplied with door/frame assembly		00

Set 2.1

Doors: X21

1	Continuous Hinge	CFM-SLF-HD1 Series		PE	
1	Continuous Hinge (12-wire)	CFM-SLF-HD1 SER12 Series		PE	
1	Key Removable Mullion	L980S	PC	SA	
1	Exit Device (rim, CD)	16 LC 8810	US32D	SA	
1	Rim Exit Device, Storeroom	16 56 64 8804 862	US32D	SA	⚡
4	Cylinder (qty, type as required)	97 keyway 6-pin GMK CMK	626	RU	
1	Mullion Cylinder Kit	980C1 less cylndr	US26D	SA	
2	Door Pull (45 deg offset)	BF168 12HD	US32D	RO	
1	Coordinator	NX2600 Seires x Mtfg. Brkts & Wear Plates as Required.	Black	RO	
1	Concealed Overhead Stop	1-X36	630	RF	
1	Door Closer (parallel arm)	MC 281 P10	EN	SA	
1	Auto Operator	By Specification Section 087113		BM	
1	Threshold (coord w/ details)	274x292AFGPK FHSL14SS		PE	
1	Mullion Gasket	5110BL		PE	
1	Wiring Diagram (as required)	Elevation & Point-to-Point		SA	
1	Door Wiring Harness	QC-Cxxx (hinge to device)		MK	⚡
1	Frame Wiring Harness	QC-CxxxP (hinge/strike to J-box)		MK	⚡
1	Position Switch (concealed)	By Division 28		SU	⚡
1	Switch	MKA		RU	⚡
1	Power Supply	AQL Series - Amps & Relays as Required (coord w/ security)		SU	⚡
1	Weather/Perimeter Seals	Supplied with door/frame assembly		00	

Notes: Door Operator to be set to "Push and Go" mode.

Set: 3.0

Doors: X24, X25

2	Continuous Hinge	CFM-SLF-HD1 Series		PE
1	Key Removable Mullion	L980S	PC	SA
1	Exit Device (rim, NL, CD)	16 LC 8804	US32D	SA
1	Exit Device (rim, CD)	16 LC 8810	US32D	SA
1	Cylinder (qty, type as required)	97 keyway 6-pin GMK CMK	626	RU
1	Mullion Cylinder Kit	980C1 less cylndr	US26D	SA
2	Door Pull (45 deg offset)	BF168 12HD	US32D	RO
2	Concealed Overhead Stop	1-X36	630	RF
2	Door Closer (parallel arm)	MC 281 P10	EN	SA

1 Threshold (coord w/ details)	274x292AFGPK FHSL14SS		PE
1 Head & Jamb Seal	2891AS		PE
1 Mullion Gasket	5110BL		PE
2 Sweep	18061CNB		PE
1 Position Switch (concealed)	By Division 28		SU
1 Weather/Perimeter Seals	Supplied with door/frame assembly		00

Set: 4.0

Doors: X12, X26

1 Continuous Hinge (12-wire)	CFM-SLF-HD1 SER12 Series		PE
1 Exit Device (rim, NL, EL, RX, CD)	16 55 56 LC 8804	US32D	SA
2 Cylinder (qty, type as required)	97 keyway 6-pin GMK CMK	626	RU
1 Door Pull (45 deg offset)	BF168 12HD	US32D	RO
1 Concealed Overhead Stop	1-X36	630	RF
1 Door Closer (parallel arm)	MC 281 P10	EN	SA
1 Threshold (coord w/ details)	274x292AFGPK FHSL14SS		PE
1 Door Wiring Harness	QC-Cxxx (hinge to device)		MK
1 Frame Wiring Harness	QC-CxxxP (hinge/strike to J-box)		MK
1 Position Switch (concealed)	By Division 28		SU
1 Power Supply	AQL Series - Amps & Relays as Required (coord w/ security)		SU
1 Weather/Perimeter Seals	Supplied with door/frame assembly		00
1 Card Reader	By Division 28		00

Notes:
Operation: Door is normally closed and secured. Valid card at reader retracts latch for momentary or extended access. Monitoring by door position switch. During a loss of power the doors will default to secure. Free egress at all times. Lock status will not change when the fire detection/suppression systems are activated. Depressing pushrail will activate request to exit switch for appropriate monitor by EAC systems. Outside key override.

Set 4.1

Doors: X4

2	Continuous Hinge (12-wire)	CFM-SLF-HD1 SER12 Series		PE
1	Key Removable Mullion	L980S	PC	SA
1	Exit Device (rim, EL, RX, CD)	16 55 56 LC 8810	US32D	SA
1	Exit Device (rim, NL, EL, RX, CD)	16 55 56 LC 8804	US32D	SA
1	Cylinder (qty, type as required)	97 keyway 6-pin GMK CMK	626	RU
1	Mullion Cylinder Kit	980C1 less cylndr	US26D	SA
2	Door Pull (45 deg offset)	BF168 12HD	US32D	RO

1	Concealed Overhead Stop	1-X36	630	RF	
1	Door Closer (parallel arm)	MC 281 P10	EN	SA	
1	Auto Operator	By Specification Section 087113		BM	
1	Threshold (coord w/ details)	274x292AFGPK FHSL14SS		PE	
1	Mullion Gasket	5110BL		PE	
1	Door Wiring Harness	QC-Cxxx (hinge to device)		MK	⚡
1	Frame Wiring Harness	QC-CxxxP (hinge/strike to J-box)		MK	⚡
1	Position Switch (concealed)	By Division 28		SU	⚡
1	Power Supply	AQL Series - Amps & Relays as Required (coord w/ security)		SU	⚡
1	Remote Control Switch	By Division 28		00	
1	Weather/Perimeter Seals	Supplied with door/frame assembly		00	
1	Card Reader	By Division 28		00	

Notes:
Operation: Door is normally closed and secured. Valid card at reader or signal from remote control switch activates outside operator paddle and retracts latch for momentary or extended access. Remote control switch releases latch for lock-down. Monitoring by door position switches. During a loss of power the doors will default to secure. Free egress at all times. Lock status will not change when the fire detection/suppression systems are activated. Depressing pushrail or use of inside operator paddle will activate request to exit switch for appropriate monitor by EAC systems. Outside key override.

Door Operator to be set to “Push and Go” mode.

Set: 5.0

Doors: X8, X9

1	Continuous Hinge (12-wire)	CFM-SLF-HD1 SER12 Series		PE	
1	Exit Device (rim, NL, EL, RX, CD)	16 55 56 LC 8804	US32D	SA	⚡
1	Cylinder (qty, type as required)	97 keyway 6-pin GMK CMK	626	RU	
1	Door Pull (45 deg offset)	BF168 12HD	US32D	RO	
1	Concealed Overhead Stop	1-X36	630	RF	
1	Door Closer (parallel arm)	MC 281 P10	EN	SA	
1	Threshold (coord w/ details)	274x292AFGPK FHSL14SS		PE	
1	Head & Jamb Seal	2891AS		PE	
1	Sweep	18061CNB		PE	
1	Door Wiring Harness	QC-Cxxx (hinge to device)		MK	⚡
1	Frame Wiring Harness	QC-CxxxP (hinge/strike to J-box)		MK	⚡
1	Position Switch (concealed)	By Division 28		SU	⚡
1	Power Supply	AQL Series - Amps & Relays as Required (coord w/ security)		SU	⚡
1	Card Reader	By Division 28		00	

Notes:
Operation: Door is normally closed and secured. Valid card at reader retracts latch for momentary or extended access. Monitoring by door position switch. During a loss of power the doors will default to secure. Free egress at all times. Lock status will not change when the fire detection/suppression systems are activated. Depressing pushrail will activate request to exit switch for appropriate monitor by EAC systems. Outside key override.

Set: 6.0

Doors: X15

1 Continuous Hinge (12-wire)	CFM-SLF-HD1 SER12 Series		PE
1 Mortise Lock (fail secure, RX)	ML20906-SEC 109X M92 97-6P GMK CMK	626	RU
1 Surface Closer (track, pull side)	MC 422 CTB2	EN	SA
1 Door Stop	404 wall; 441CU floor; or per spec	US26D	RO
1 Threshold (coord w/ details)	172AK FHSL14SS		PE
1 Head & Jamb Seal	2891AS		PE
1 Sweep	18061CNB		PE
1 Door Wiring Harness	QC-Cxxx (hinge to device)		MK
1 Frame Wiring Harness	QC-CxxxP (hinge/strike to J-box)		MK
1 Position Switch (concealed)	By Division 28		SU
1 Power Supply	AQL Series - Amps & Relays as Required (coord w/ security)		SU
1 Remote Control Switch	By Division 28		00
1 Card Reader	By Division 28		00

Notes:
Operation: Door is normally closed and secured. Valid card at reader or signal from remote control switch unlocks outside lever for momentary access. Monitoring by door position switch. During a loss of power the door will default to secure. Free egress at all times. Lock status will not change when the fire detection/suppression systems are activated. Rotating inside lever will activate request to exit switch for appropriate monitor by EAC systems. Outside key override.

Set: 7.0

Doors: X13

1 Continuous Hinge	CFM-SLF-HD1 Series		PE
1 Exit Device (rim, NL, CD)	16 LC 8804	US32D	SA
2 Cylinder (qty, type as required)	97 keyway 6-pin GMK CMK	626	RU
1 Door Pull (45 deg offset)	BF168 12HD	US32D	RO
1 Concealed Overhead Stop	1-X36	630	RF
1 Door Closer (parallel arm)	MC 281 P10	EN	SA
1 Threshold (coord w/ details)	274x292AFGPK FHSL14SS		PE
1 Position Switch (concealed)	By Division 28		SU

1 Weather/Perimeter Seals	Supplied with door/frame assembly		00

Set: 8.0

Doors: X20

1 Continuous Hinge	CFM-SLF-HD1 Series		PE
1 Exit Device (rim, NL, CD)	16 LC 8804	US32D	SA
1 Cylinder (qty, type as required)	97 keyway 6-pin GMK CMK	626	RU
1 Door Pull (45 deg offset)	BF168 12HD	US32D	RO
1 Concealed Overhead Stop	1-X36	630	RF
1 Door Closer (parallel arm)	MC 281 P10	EN	SA
1 Threshold (coord w/ details)	274x292AFGPK FHSL14SS		PE
1 Head & Jamb Seal	2891AS		PE
1 Sweep	18061CNB		PE
1 Position Switch (concealed)	By Division 28		SU

Set 8.1

Doors: X17

1 Continuous Hinge	CFM-SLF-HD1 Series		PE
1 Exit Device (rim, NL, CD)	16 LC 8804	US32D	SA
1 Cylinder (qty, type as required)	97 keyway 6-pin GMK CMK	626	RU
1 Door Pull (45 deg offset)	BF168 12HD	US26D	RO
1 Auto Operator	By Specification Section 087113		BM
1 Threshold (coord w/ details)	274x292AFGPK FHSL14SS		PE
1 Head & Jamb Seal	2891AS		PE
1 Sweep	18061CNB		PE
1 Position Switch (concealed)	By Division 28		SU

Notes:
Operation: Door is normally closed and secured. Valid card at reader or signal from remote control switch unlocks outside lever for momentary access. Monitoring by door position switch. During a loss of power the door will default to secure. Free egress at all times. Lock status will not change when the fire detection/suppression systems are activated. Rotating inside lever will activate request to exit switch for appropriate monitor by EAC systems. Outside key override.

Door Operator to be set to “Push and Go” mode.

Set: 9.0

Doors: X28, X29, X30, X31, X32, X33

1 Continuous Hinge	CFM-SLF-HD1 Series		PE
1 Storeroom Lock	ML2057 109X 97-6P GMK CMK	626	RU

1	Concealed Overhead Stop	1-X36	630	RF
1	Surface Closer (track)	MC 422 Series (mount inside bldg)	EN	SA
1	Threshold (coord w/ details)	279x292AFGPK FHSL14SS		PE
1	Head & Jamb Seal	2891AS		PE
1	Sweep	3452APK		PE
1	Position Switch (concealed)	By Division 28		SU

Notes: Free egress from roof. Provide 281 P10 closer for out-swing doors.

Set: 10.0

Doors: E100.1B

2	Continuous Hinge (12-wire)	CFM-SLF-HD1 SER12 Series		PE
1	Key Removable Mullion	L980S	PC	SA
1	Exit Device (rim, EL, RX, CD)	16 55 56 LC 8810	US32D	SA
1	Exit Device (rim, NL, EL, RX, CD)	16 55 56 LC 8804	US32D	SA
4	Cylinder (qty, type as required)	97 keyway 6-pin GMK CMK	626	RU
1	Mullion Cylinder Kit	980C1 less cylndr	US26D	SA
2	Door Pull (45 deg offset)	BF168 12HD	US32D	RO
1	Concealed Overhead Stop	1-X36	630	RF
1	Door Closer (parallel arm)	MC 281 P10	EN	SA
1	Auto Operator	By Specification Section 087113		BM
1	Threshold (coord w/ details)	271A FHSL14SS		PE
1	Mullion Gasket	5110BL		PE
2	Door Wiring Harness	QC-Cxxx (hinge to device)		MK
2	Frame Wiring Harness	QC-CxxxP (hinge/strike to J-box)		MK
2	Operator Paddle	By Specification Section 087113		BM
1	Power Supply	AQL Series - Amps & Relays as Required (coord w/ security)		SU
1	Remote Control Switch	By Division 28		00
1	Weather/Perimeter Seals	Supplied with door/frame assembly		00
1	Card Reader	By Division 28		00

Notes: Coordinate final card reader and remote release locations with security vendor (typ).

Operation: Door is normally closed and secured. Valid card at reader or remote control switch retracts latch for momentary or extended access. Remote control switch releases latch for lock-down. Monitoring by door position switches. During a loss of power the doors will default to secure. Free egress at all times. Lock status will not change when the fire detection/suppression systems are activated. Depressing pushrail will activate request to exit switch for appropriate monitor by EAC systems. Outside key override.

Set: 11.0

Doors: E181

1 Continuous Hinge (12-wire)	CFM-SLF-HD1 SER12 Series		PE	
1 Exit Device (rim, NL, EL, RX, CD)	16 55 56 LC 8804	US32D	SA	⚡
1 Cylinder (qty, type as required)	97 keyway 6-pin GMK CMK	626	RU	
1 Door Pull (45 deg offset)	BF168 12HD	US32D	RO	
1 Concealed Overhead Stop	1-X36	630	RF	
1 Door Closer (parallel arm)	MC 281 P10	EN	SA	
1 Threshold (coord w/ details)	271A FHSL14SS		PE	
1 Door Wiring Harness	QC-Cxxx (hinge to device)		MK	⚡
1 Frame Wiring Harness	QC-CxxxP (hinge/strike to J-box)		MK	⚡
1 Power Supply	AQL Series - Amps & Relays as Required (coord w/ security)		SU	⚡
1 Remote Control Switch	By Division 28		00	
1 Weather/Perimeter Seals	Supplied with door/frame assembly		00	
1 Card Reader	By Division 28		00	

Notes: Coordinate final card reader and remote release locations with security vendor (typ).

Operation: Door is normally closed and secured. Valid card at reader or remote control switch retracts latch for momentary or extended access. Remote control switch releases latch for lock-down. Monitoring by door position switches. During a loss of power the doors will default to secure. Free egress at all times. Lock status will not change when the fire detection/suppression systems are activated. Depressing pushrail will activate request to exit switch for appropriate monitor by EAC systems. Outside key override.

Set: 12.0

Doors: D210.1, E100.1, E100.1A, E181A

2 Continuous Hinge	CFM-SLF-HD1 Series		PE
1 Key Removable Mullion	L980S	PC	SA
1 Exit Device (rim, NL, CD)	16 LC 8804	US32D	SA
1 Exit Device (rim, CD)	16 LC 8810	US32D	SA
4 Cylinder (qty, type as required)	97 keyway 6-pin GMK CMK	626	RU
1 Mullion Cylinder Kit	980C1 less cylndr	US26D	SA
2 Door Pull (45 deg offset)	BF168 12HD	US32D	RO
2 Concealed Overhead Stop	1-X36	630	RF
2 Door Closer (parallel arm)	MC 281 P10	EN	SA
1 Threshold (coord w/ details)	271A FHSL14SS		PE
1 Mullion Gasket	5110BL		PE
1 Weather/Perimeter Seals	Supplied with door/frame assembly		00

Set: 13.0

Doors: D201, D203, D203A, D204, D204A, D205, D206A, D206B, E230, E290

2 Continuous Hinge	CFM-SLF-HD1 Series		PE
1 Key Removable Mullion	L980S	PC	SA
2 Rim Exit Device	16 8846 ETMI LC	US32D	SA
5 Cylinder (qty, type as required)	97 keyway 6-pin GMK CMK	626	RU
1 Mullion Cylinder Kit	980C1 less cylndr	US26D	SA
2 Door Pull (45 deg offset)	BF168 12HD	US32D	RO
2 Concealed Overhead Stop	1-X36	630	RF
2 Door Closer (parallel arm)	MC 281 P10	EN	SA
1 Threshold (coord w/ details)	271A FHSL14SS		PE
1 Weather/Perimeter Seals	Supplied with door/frame assembly		00

Set: 13.1

Doors: C110.1A, D201.1

1 Continuous Hinge	CFM-SLF-HD1 Series		PE
1 Exit Device (rim, storeroom)	12 LC 8846 ETMG	US32D	SA
1 Cylinder (qty, type as required)	97 keyway 6-pin GMK CMK	626	RU
1 Door Pull (45 deg offset)	BF168 12HD	US32D	RO
1 Concealed Overhead Stop	1-X36	630	RF
1 Door Closer (parallel arm)	MC 281 P10	EN	SA
1 Threshold (coord w/ details)	271A FHSL14SS		PE
1 Head & Jamb Seal	2891AS		PE
1 Sweep	18061CNB		PE

Set: 14.0

Doors: D206

2 Continuous Hinge	CFM-SLF-HD1 Series		PE
2 Dummy Push Bar	8893	US32D	SA
2 Door Pull (45 deg offset)	BF168 12HD	US32D	RO
2 Concealed Overhead Stop	1-X36	630	RF
2 Door Closer (parallel arm)	MC 281 P10	EN	SA
1 Threshold (coord w/ details)	271A FHSL14SS		PE

Set: 15.0

Doors: D100

1 Continuous Hinge (12-wire)	CFM-SLF-HD1 SER12 Series		PE
1 Fail Secure Lock	ML20932-SEC 110X 97-6P GMK CMK	626	RU ⚡
1 Door Pull (45 deg offset)	BF168 12HD	US32D	RO
1 Door Closer (stop arm)	MC 281 CPS	EN	SA

1 Threshold (coord w/ details)	271A FHSL14SS		PE
1 Head & Jamb Seal	2891AS		PE
1 Sweep	18061CNB		PE
1 Wiring Diagram (as required)	Elevation & Point-to-Point		SA
1 Door Wiring Harness	QC-Cxxx (hinge to device)		MK
1 Frame Wiring Harness	QC-CxxxP (hinge/strike to J-box)		MK
1 Position Switch (concealed)	By Division 28		SU
1 Power Supply	AQL Series - Amps & Relays as Required (coord w/ security)		SU
2 Card Reader	By Division 28		00

Notes: Operation: Door is normally closed and secured. Valid card at reader either side unlocks trim for momentary or extended access. Monitoring by door position switch. During a loss of power the doors will default to secure. Lock status will not change when the fire detection/suppression systems are activated.

Set: 16.0

Doors: E201, E230A, E290B, E290C

1 Continuous Hinge	CFM-SLF-HD1 Series		PE
1 Rim Exit Device	16 8846 ETMI LC	US32D	SA
2 Cylinder (qty, type as required)	97 keyway 6-pin GMK CMK	626	RU
1 Concealed Overhead Stop	1-X36	630	RF
1 Surface Closer (track, pull side)	MC 422 CTB2	EN	SA
1 Threshold (coord w/ details)	172AK FHSL14SS		PE
1 Weather/Perimeter Seals	Supplied with door/frame assembly		00

Set: 17.0

Doors: B015, E182A, E295.2, E295.2A

1 Continuous Hinge	CFM-SLF-HD1 Series		PE
1 Classroom Lock	ML2055 109X 97-6P GMK CMK	626	RU
1 Concealed Overhead Stop	1-X36	630	RF
1 Surface Closer (track, pull side)	MC 422 CTB2	EN	SA
1 Threshold (coord w/ details)	172AK FHSL14SS		PE
1 Weather/Perimeter Seals	Supplied with door/frame assembly		00

Set: 18.0

Doors: E182, E183A, E183B, E184A

1 Continuous Hinge	CFM-SLF-HD1 Series		PE
1 Classroom Intruder Lock	ML2052 109X M19N 97-6P GMK CMK	626	RU

1 Concealed Overhead Stop	1-X36	630	RF
1 Surface Closer (track, pull side)	MC 422 CTB2	EN	SA
1 Threshold (coord w/ details)	172AK FHSL14SS		PE
1 Weather/Perimeter Seals	Supplied with door/frame assembly		00

Set: 19.0

Doors: X16

2 Continuous Hinge	FM300	630	MR
1 Dust Proof Strike	570	US26D	RO
1 Flush Bolt Set (constant-latching)	2845; 2945	US26D	RO
1 Classroom Intruder Lock	ML2052 109X M19N 97-6P GMK CMK	626	RU
1 Coordinator	1700	Black	RO
2 Door Closer (parallel arm)	MC 281 P10	EN	SA
2 Kick Plate	K1050 34" 4BE CSK	US32D	RO
2 Door Stop	404 wall; 441CU floor; or per spec	US26D	RO
1 Threshold (coord w/ details)	271A FHSL14SS		PE
1 Head & Jamb Seal	2891AS		PE
2 Sweep	18061CNB		PE
1 Astragal	352CR		PE

Set: 20.0

Doors: X18

1 Continuous Hinge	FM300	630	MR
1 Classroom Intruder Lock	ML2052 109X M19N 97-6P GMK CMK	626	RU
1 Door Closer (parallel arm)	MC 281 P10	EN	SA
1 Kick Plate	K1050 34" 4BE CSK	US32D	RO
1 Door Stop	404 wall; 441CU floor; or per spec	US26D	RO
1 Threshold (coord w/ details)	271A FHSL14SS		PE
1 Head & Jamb Seal	2891AS		PE
1 Sweep	18061CNB		PE

Set: 21.0

Doors: E191

2 Continuous Hinge	FM300	630	MR
1 Dust Proof Strike	570	US26D	RO
1 Flush Bolt Set (constant-latching)	2845; 2945	US26D	RO
1 Classroom Intruder Lock	ML2052 109X M19N 97-6P GMK	626	RU

	CMK		
1 Coordinator	1700	Black	RO
2 Door Closer (parallel arm)	MC 281 P10	EN	SA
2 Kick Plate	K1050 34" 4BE CSK	US32D	RO
2 Door Stop	404 wall; 441CU floor; or per spec	US26D	RO
1 Threshold (coord w/ details)	271A FHSL14SS		PE
2 Sweep	18061CNB		PE
1 Astragal (flatbar)	357SP (HM); 357SS (WD)		PE
2 Silencer	608		RO

Set: 22.0

Doors: E282

1 Continuous Hinge	FM300	630	MR
1 Storeroom Lock	ML2057 109X 97-6P GMK CMK	626	RU
1 Door Closer (parallel arm)	MC 281 P10	EN	SA
1 Kick Plate	K1050 34" 4BE CSK	US32D	RO
1 Door Stop	404 wall; 441CU floor; or per spec	US26D	RO
1 Threshold (coord w/ details)	271A FHSL14SS		PE
1 Sweep	18061CNB		PE
3 Silencer	608		RO

Set: 23.0

Doors: E196

2 Continuous Hinge	FM300	630	MR
1 Dust Proof Strike	570	US26D	RO
1 Flush Bolt Set (constant-latching)	2845; 2945	US26D	RO
1 Classroom Lock	ML2055 109X 97-6P GMK CMK	626	RU
1 Coordinator	1700	Black	RO
2 Surface Overhead Holder	9-X26	630	RF
2 Door Closer (offset bracket)	MC 281 P3/P3A	EN	SA
2 Kick Plate	K1050 34" 4BE CSK	US32D	RO
2 Sweep	18061CNB		PE
1 Astragal (flatbar)	357SP (HM); 357SS (WD)		PE

Set: 24.0

Doors: B110, E063, E068, E285

6 Hinge (heavy weight)	T4A3386 (qty, size, nrp per spec)	US32D	MK
1 Key Removable Mullion	L980S	PC	SA
1 Exit Device (rim, NL, CD)	16 LC 8804	US32D	SA

1 Exit Device (rim, CD)	16 LC 8810	US32D	SA
4 Cylinder (qty, type as required)	97 keyway 6-pin GMK CMK	626	RU
2 Door Pull (45 deg offset)	BF168 12HD	US32D	RO
2 Door Closer (parallel arm)	MC 281 P10	EN	SA
2 Kick Plate	K1050 8" 4BE CSK	US32D	RO
2 Door Stop	404 wall; 441CU floor; or per spec	US26D	RO
1 Mullion Gasket	5110BL		PE
1 Head & Jamb Seal	303AS		PE
2 Z-Bracket (to suit seal size)	BKT050SP		PE
2 Astragal	303AS		PE

Set: 25.0

Doors: B000, E160, E175.1A, E175.2A

6 Hinge (heavy weight)	T4A3386 (qty, size, nrp per spec)	US32D	MK
1 Key Removable Mullion	L980S	PC	SA
1 Exit Device (rim, NL, CD)	16 LC 8804	US32D	SA
1 Exit Device (rim, CD)	16 LC 8810	US32D	SA
4 Cylinder (qty, type as required)	97 keyway 6-pin GMK CMK	626	RU
2 Door Pull (45 deg offset)	BF168 12HD	US32D	RO
2 Door Closer (parallel arm)	MC 281 P10	EN	SA
2 Kick Plate	K1050 8" 4BE CSK	US32D	RO
2 Door Stop	404 wall; 441CU floor; or per spec	US26D	RO
1 Mullion Gasket	5110BL		PE
1 Head & Jamb Seal	303AS		PE
1 Z-Bracket (to suit seal size)	BKT050SP		PE
2 Mortise Auto Door Bottom	434ARL ACP112BL		PE
2 Astragal	303AS		PE

Set: 26.0

Doors: E180

2 Continuous Hinge	FM300	630	MR
1 Key Removable Mullion	L980S	PC	SA
1 Exit Device (rim, NL, CD)	16 LC 8804	US32D	SA
1 Exit Device (rim, CD)	16 LC 8810	US32D	SA
4 Cylinder (qty, type as required)	97 keyway 6-pin GMK CMK	626	RU
2 Door Pull (45 deg offset)	BF168 12HD	US32D	RO
2 Door Closer (parallel arm)	MC 281 P10	EN	SA
2 Kick Plate	K1050 8" 4BE CSK	US32D	RO
2 Door Stop	404 wall; 441CU floor; or per spec	US26D	RO
1 Mullion Gasket	5110BL		PE

1 Head & Jamb Seal	303AS		PE
1 Z-Bracket (to suit seal size)	BKT050SP		PE
2 Astragal	303AS		PE

Set: 27.0

Doors: B004, E285A

3 Hinge (heavy weight)	T4A3386 (qty, size, nrp per spec)	US32D	MK
1 Exit Device (rim, NL, CD)	16 LC 8804	US32D	SA
1 Cylinder (qty, type as required)	97 keyway 6-pin GMK CMK	626	RU
1 Door Pull (45 deg offset)	BF168 12HD	US32D	RO
1 Door Closer (parallel arm)	MC 281 P10	EN	SA
1 Kick Plate	K1050 8" 4BE CSK	US32D	RO
1 Door Stop	404 wall; 441CU floor; or per spec	US26D	RO
3 Silencer	608		RO

Set: 28.0

Doors: E151.1, E155.1A, E155.2A, E157

6 Hinge (heavy weight)	T4A3386 (qty, size, nrp per spec)	US32D	MK
1 Key Removable Mullion	L980S	PC	SA
2 Exit Device (rim, intruder, LD)	49 LD LC 8816 ETMG	US32D	SA
5 Cylinder (qty, type as required)	97 keyway 6-pin GMK CMK	626	RU
2 Mullion Cylinder Kit	980C1 less cylndr	US26D	SA
2 Surface Overhead Stop	9-X36	630	RF
2 Door Closer (offset bracket)	MC 281 P3/P3A	EN	SA
2 Kick Plate	K1050 8" 4BE CSK	US32D	RO
1 Head & Jamb Seal	2891AS		PE
1 Mullion Gasket	5110BL		PE
2 Mortise Auto Door Bottom	434ARL ACP112BL		PE
2 Astragal	303AS		PE

Set: 29.0

Doors: E169A, E169B

6 Hinge (heavy weight)	T4A3386 (qty, size, nrp per spec)	US32D	MK
1 Key Removable Mullion	12-L980	PC	SA
2 Exit Device (rim, intruder)	12 49 LC 8816 ETMG	US32D	SA
5 Cylinder (qty, type as required)	97 keyway 6-pin GMK CMK	626	RU
1 Mullion Cylinder Kit	980C1 less cylndr	US26D	SA
2 Surface Overhead Stop	9-X36	630	RF
2 Door Closer (offset bracket)	MC 281 P3/P3A	EN	SA

2 Kick Plate	K1050 8" 4BE CSK	US32D	RO
2 Door Stop	404 wall; 441CU floor; or per spec	US26D	RO
1 Head & Jamb Seal	2891AS		PE
1 Mullion Gasket	5110BL		PE
2 Mortise Auto Door Bottom	434ARL ACP112BL		PE
2 Astragal	303AS		PE
1 Astragal (adhesive, edge mount)	S771C		PE

Set: 31.0

Doors: D204B

3 Hinge (heavy weight)	T4A3386 (qty, size, nrp per spec)	US32D	MK
1 Exit Device (rim, intruder)	12 49 LC 8816 ETMG	US32D	SA
2 Cylinder (qty, type as required)	97 keyway 6-pin GMK CMK	626	RU
1 Door Closer (parallel arm)	MC 281 P10	EN	SA
1 Kick Plate	K1050 8" 4BE CSK	US32D	RO
1 Door Stop	404 wall; 441CU floor; or per spec	US26D	RO
3 Silencer	608		RO

Set: 31.1

Doors: E275.1A, E275.2A

3 Hinge (heavy weight)	T4A3386 (qty, size, nrp per spec)	US32D	MK
1 Exit Device (rim, intruder)	12 49 LC 8816 ETMG	US32D	SA
1 Cylinder (qty, type as required)	97 keyway 6-pin GMK CMK	626	RU
1 Door Closer (parallel arm)	MC 281 P10	EN	SA
1 Kick Plate	K1050 8" 4BE CSK	US32D	RO
1 Door Stop	404 wall; 441CU floor; or per spec	US26D	RO
1 Mortise Auto Door Bottom	434ARL ACP112BL		PE
3 Silencer	608		RO

Set: 32.0

Doors: A000S, A100S, A110, A200S, A250, A300S, B110S, B200S, B300S, B400S, C100S, C200S, C300, C300S, C400S, C500S, D500S, E100

6 Hinge (heavy weight)	T4A3386 (qty, size, nrp per spec)	US32D	MK
2 Exit Device (SVR, LBR, passage)	12 NB8715 ETMG	US32D	SA
2 Door Closer (parallel arm)	MC 281 P10	EN	SA
2 Kick Plate	K1050 8" 4BE CSK	US32D	RO
2 Electromagnetic Holder	By Division 28		OT
1 Head & Jamb Seal (adhesive)	S88BL		PE
1 Astragal (adhesive, edge mount)	S771C		PE

Notes: Interface with building fire alarm system to release doors from hold-open.

Set: 33.0

Doors: A000, A100, A200, A300, B010, B100, B200, C200, D200

6 Hinge (heavy weight)	T4A3386 (qty, size, nrp per spec)	US32D	MK
2 Surface Vert Rod Exit	LC 16 NB8743 ETMG	US32D	SA
4 Cylinder (qty, type as required)	97 keyway 6-pin GMK CMK	626	RU
2 Door Closer (parallel arm)	MC 281 P10	EN	SA
2 Kick Plate	K1050 8" 4BE CSK	US32D	RO
2 Electromagnetic Holder	By Division 28		OT
1 Head & Jamb Seal (adhesive)	S88BL		PE
1 Astragal (adhesive, edge mount)	S771C		PE

Notes: Interface with building fire alarm system to release doors from hold-open.

Set: 34.0

Doors: C110.1B

6 Hinge (heavy weight)	T4A3386 (qty, size, nrp per spec)	US32D	MK
2 Surface Vert Rod Exit	LC 16 NB8743 ETMG	US32D	SA
2 Cylinder (qty, type as required)	97 keyway 6-pin GMK CMK	626	RU
2 Door Closer (parallel arm)	MC 281 P10	EN	SA
2 Kick Plate	K1050 8" 4BE CSK	US32D	RO
2 Door Stop	404 wall; 441CU floor; or per spec	US26D	RO
1 Head & Jamb Seal (adhesive)	S88BL		PE
1 Astragal (adhesive, edge mount)	S771C		PE

Notes: Interface with building fire alarm system to release doors from hold-open.

Set: 36.0

Doors: A102, A102A, E255

3 Hinge (heavy weight)	T4A3386 (qty, size, nrp per spec)	US32D	MK
1 Classroom Intruder Lock	ML2052 109X M19N 97-6P GMK CMK	626	RU
1 Door Closer (parallel arm)	MC 281 P10	EN	SA
1 Kick Plate	K1050 8" 4BE CSK	US32D	RO
1 Door Stop	404 wall; 441CU floor; or per spec	US26D	RO
1 Head & Jamb Seal (adhesive)	S88BL		PE
1 Mortise Auto Door Bottom	434ARL ACP112BL		PE

Set: 37.0

Doors: B006, B006.1, B012, B013, B016, B017, B018, C117, C205, C304, C312, C313, C314, C316, C317, C501, C511, C513, C514, D202, D209, D215, D216, D302, E021A, E023, E024, E025, E026, E027, E028, E029, E029A, E102, E103, E104, E105, E108, E108A, E112, E114, E115, E116, E117, E117A, E124, E127, E131, E136, E136A, E137, E138, E142, E148, E149, E177, E193, E203, E204, E205, E206, E207, E208, E209, E210, E212, E213, E214, E215, E216, E217, E218, E290.1,

3 Hinge (heavy weight)	T4A3386 (qty, size, nrp per spec)	US32D	MK
1 Classroom Lock	ML2055 109X 97-6P GMK CMK	626	RU
1 Kick Plate	K1050 8" 4BE CSK	US32D	RO
1 Door Stop	404 wall; 441CU floor; or per spec	US26D	RO
1 Head & Jamb Seal (adhesive)	S88BL		PE
1 Mortise Auto Door Bottom	434ARL ACP112BL		PE

Notes: Provide passage function at B101A?

Set: 38.0

Doors: E033, E111A, E111B, E125, E184, E190, E302.2, E307

3 Hinge (heavy weight)	T4A3386 (qty, size, nrp per spec)	US32D	MK
1 Classroom Lock	ML2055 109X 97-6P GMK CMK	626	RU
1 Door Closer (parallel arm)	MC 281 P10	EN	SA
1 Kick Plate	K1050 8" 4BE CSK	US32D	RO
1 Door Stop	404 wall; 441CU floor; or per spec	US26D	RO
3 Silencer	608		RO

Notes: Provide passage function at B101A?

Set: 38.1

Doors: E140B

3 Hinge (heavy weight)	T4A3386 (qty, size, nrp per spec)	US32D	MK
3 Hinge, Spring	1502 4-1/2" x 4-1/2"	US26D	MK
1 Dust Proof Strike	570	US26D	RO
1 Flush Bolt Set (constant-latching)	2845; 2945	US26D	RO
1 Classroom Lock	ML2055 109X 97-6P GMK CMK	626	RU
1 Coordinator	NX2600 Seires x Mtfg. Brkts & Wear Plates as Required.	Black	RO
2 Door Closer (parallel arm)	MC 281 P10	EN	SA
2 Kick Plate	K1050 8" 4BE CSK	US32D	RO
2 Door Stop	404 wall; 441CU floor; or per spec	US26D	RO
2 Silencer	608		RO

Notes: Provide passage function at B101A?

Set: 39.0

Doors: E109, E155.3A, E155.3B, E301, E303, E303A

3 Hinge (heavy weight)	T4A3386 (qty, size, nrp per spec)	US32D	MK
1 Classroom Lock	ML2055 109X 97-6P GMK CMK	626	RU
1 Door Closer (parallel arm)	MC 281 P10	EN	SA
1 Kick Plate	K1050 8" 4BE CSK	US32D	RO
1 Door Stop	404 wall; 441CU floor; or per spec	US26D	RO
1 Head & Jamb Seal (adhesive)	S88BL		PE

Notes: Provide passage function at B101A?

Set: 40.0

Doors: E061, E061A, E061B, E061C, E062, E062B, E065, E071, E071A

6 Hinge (heavy weight)	T4A3386 (qty, size, nrp per spec)	US32D	MK
1 Dust Proof Strike	570	US26D	RO
1 Flush Bolt Set (constant-latching)	2845; 2945	US26D	RO
1 Classroom Intruder Lock	ML2052 109X M19N 97-6P GMK CMK	626	RU
1 Door Closer (parallel arm)	MC 281 P10	EN	SA
2 Kick Plate	K1050 8" 4BE CSK	US32D	RO
2 Door Stop	404 wall; 441CU floor; or per spec	US26D	RO
1 Astragal (flatbar)	357SP (HM); 357SS (WD)		PE
2 Silencer	608		RO

Set: 41.0

Doors: B102A

6 Hinge (heavy weight)	T4A3386 (qty, size, nrp per spec)	US32D	MK
1 Key Removable Mullion	L980S	PC	SA
2 Rim Exit Device	16 8846 ETMI LC	US32D	SA
5 Cylinder (qty, type as required)	97 keyway 6-pin GMK CMK	626	RU
1 Mullion Cylinder Kit	980C1 less cylndr	US26D	SA
2 Door Closer (parallel arm)	MC 281 P10	EN	SA
2 Kick Plate	K1050 8" 4BE CSK	US32D	RO
2 Door Stop	404 wall; 441CU floor; or per spec	US26D	RO
1 Mullion Gasket	5110BL		PE
1 Head & Jamb Seal (adhesive)	S88BL		PE

2 Mortise Auto Door Bottom	434ARL ACP112BL		PE

Set: 42.0

Doors: A001, A003, A005, A007, A016, A016A, A101, A103, A105, A107, A108, A116, A201, A202, A203, A205, A207, A208, A216, A217, A301, A302, A303, A305, A307, A308, A316, B201, B202, B203, B204, B205, B206, B207, B208, B209, B210, B301, B302, B303, B304, B305, B306, B307, B308, B401, B402, B403, B404, B405, B406, B407, B408, C101, C102, C103, C104, C105, C106, C111, C113, C202, C203, C204, C206, C207, C208, C209, C211, C301, C303, C305, C306, C307, C308, C309, C311, C401, C402, C403, C404, C405, C406, C407, C408, C502, C504, C505, C506, C507, C509, C512, C512.1, D211, D301, D303, D305, D307, D322, D401, D403, D405, D407, D501, D503, D505, D507, E009, E051, E052, E053, E054, E055, E056, E101, E113, E183, E221, E250.1, E250.1A, E250.1B, E252, E254, E290.4, E290.4A

3 Hinge (heavy weight)	T4A3386 (qty, size, nrp per spec)	US32D	MK
1 Classroom Intruder Lock	ML2052 109X M19N 97-6P GMK CMK	626	RU
1 Door Closer (parallel arm)	MC 281 P10	EN	SA
1 Kick Plate	K1050 8" 4BE CSK	US32D	RO
1 Door Stop	404 wall; 441CU floor; or per spec	US26D	RO
1 Head & Jamb Seal (adhesive)	S88BL		PE

Set: 43.0

Doors: A202A, A302A, B001, B003, B005A, B011, B101, B101A, B103, B201A, B207A, B208A, B316, B416, C201, C215, C216, C217, D208, D316, D323, D323A, D415, D416, D515, D516, E064, E064A, E066, E067, E067A, E069, E069A, E070, E070A, E153A, E156, E290A, E295.1

3 Hinge (heavy weight)	T4A3386 (qty, size, nrp per spec)	US32D	MK
1 Classroom Intruder Lock	ML2052 109X M19N 97-6P GMK CMK	626	RU
1 Door Closer (parallel arm)	MC 281 P10	EN	SA
1 Kick Plate	K1050 8" 4BE CSK	US32D	RO
1 Door Stop	404 wall; 441CU floor; or per spec	US26D	RO
1 Head & Jamb Seal	303AS		PE
1 Z-Bracket (to suit seal size)	BKT050SP		PE
1 Mortise Auto Door Bottom	434ARL ACP112BL		PE

Set: 44.0

Doors: A002, A002A, A004, A004A, A109, A109A, A209, A209A, A309, A309A, B104, B104A, B105, B105A, B108, B108A, B109, B109A, D304, D306, D308, D402, D404, D406, D408, D502, D504, D506, D508

3 Hinge (heavy weight)	T4A3386 (qty, size, nrp per spec)	US32D	MK
1 Exit Device (rim, intruder, LD)	49 LD LC 8816 ETMG	US32D	SA
2 Cylinder (qty, type as required)	97 keyway 6-pin GMK CMK	626	RU
1 Door Closer (parallel arm)	MC 281 P10	EN	SA

1 Kick Plate	K1050 8" 4BE CSK	US32D	RO
1 Door Stop	404 wall; 441CU floor; or per spec	US26D	RO
3 Silencer	608		RO

Set: 45.0

Doors: B102, E155, E155A, E156A, E156B

3 Hinge (heavy weight)	T4A3386 (qty, size, nrp per spec)	US32D	MK
1 Exit Device (rim, intruder, LD)	49 LD LC 8816 ETMG	US32D	SA
1 Cylinder (qty, type as required)	97 keyway 6-pin GMK CMK	626	RU
1 Door Closer (parallel arm)	MC 281 P10	EN	SA
1 Kick Plate	K1050 8" 4BE CSK	US32D	RO
1 Door Stop	404 wall; 441CU floor; or per spec	US26D	RO
1 Head & Jamb Seal	303AS		PE
1 Z-Bracket (to suit seal size)	BKT050SP		PE
1 Mortise Auto Door Bottom	434ARL ACP112BL		PE

Set: 46.0

Doors: A003A, A005A, A007A, A103A, A105A, A107A, A203A, A205A, A207A, A303A, A305A, A307A, B003A, B203A, B204A, B205A, B206A, B209A, B210A, B303A, B304A, B305A, B306A, B307A, B308A, B403A, B404A, B405A, B406A, B407A, B408A, C103A, C104A, C105A, C106A, C202A, C203A, C204A, C206A, C207A, C208A, C303A, C305A, C307A, C308A, C309A, C403A, C404A, C405A, C406A, C407A, C408A, C504A, C506A, C507A, C509A, D211A, D303A, D304A, D305A, D306A, D307A, D402A, D403A, D404A, D405A, D406A, D407A, D502A, D503A, D504A, D505A, D506A, D507A, E052A, E053A, E054A, E055A, E056A

3 Hinge (heavy weight)	T4A3386 (qty, size, nrp per spec)	US32D	MK
1 Store Door Lock	ML2022 109X 97-6P GMK CMK	626	RU
1 Surface Overhead Stop	9-X36	630	RF
1 Door Closer (offset bracket)	MC 281 P3/P3A	EN	SA
1 Kick Plate	K1050 8" 4BE CSK	US32D	RO
1 Head & Jamb Seal	2891AS		PE
1 Mortise Auto Door Bottom	434ARL ACP112BL		PE

Set: 47.0

Doors: E199

3 Hinge (heavy weight)	T4A3386 (qty, size, nrp per spec)	US32D	MK
1 Passage Latch	ML2010 109X	626	RU
1 Door Closer (parallel arm)	MC 281 P10	EN	SA
1 Kick Plate	K1050 8" 4BE CSK	US32D	RO
1 Door Stop	404 wall; 441CU floor; or per spec	US26D	RO
3 Silencer	608		RO

Set: 48.1

Doors: E291, E292, E293

3 Hinge (heavy weight)	T4A3386 (qty, size, nrp per spec)	US32D	MK
1 Passage Latch	ML2010 109X	626	RU
1 Kick Plate	K1050 8" 4BE CSK	US32D	RO
1 Door Stop	404 wall; 441CU floor; or per spec	US26D	RO
1 Mortise Auto Door Bottom	434ARL ACP112BL		PE
3 Silencer	608		RO

Set: 49.0

Doors: A316.1, C203.3, C501.2, E254.1

3 Hinge (heavy weight)	T4A3386 (qty, size, nrp per spec)	US32D	MK
1 Classroom Lock	ML2055 109X 97-6P GMK CMK	626	RU
1 Door Closer (parallel arm)	MC 281 P10	EN	SA
1 Kick Plate	K1050 8" 4BE CSK	US32D	RO
1 Door Stop	404 wall; 441CU floor; or per spec	US26D	RO
3 Silencer	608		RO

Set: 50.0

Doors: E169.1, E169.1A

2 Continuous Hinge	FM300	630	MR
1 Dust Proof Strike	570	US26D	RO
1 Flush Bolt Set (constant-latching)	2845; 2945	US26D	RO
1 Storeroom Lock	ML2057 109X 97-6P GMK CMK	626	RU
1 Coordinator	1700	Black	RO
2 Door Closer (parallel arm)	MC 281 P10	EN	SA
2 Kick Plate	K1050 8" 4BE CSK	US32D	RO
2 Door Stop	404 wall; 441CU floor; or per spec	US26D	RO
1 Head & Jamb Seal (adhesive)	S88BL		PE
1 Astragal (flatbar)	357SP (HM); 357SS (WD)		PE
1 Astragal (adhesive, edge mount)	S771C		PE

Set: 51.0

Doors: A002.1, A004.1, A109.1, A209.1, A309.1, B104.1A, B105.1, B108.1, B109.1, C501A, D201.2, D304.1, D304.2, D304.2A, D306.1, D308.1, D402.1, D404.1, D406.1, D408.1, D502.1, D504.1, D506.1, D508.1, E061.1, E062.1, E182B

3 Hinge (heavy weight)	T4A3386 (qty, size, nrp per spec)	US32D	MK

1 Classroom Lock	ML2055 109X 97-6P GMK CMK	626	RU
1 Surface Overhead Stop	9-X36	630	RF
1 Kick Plate	K1050 8" 4BE CSK	US32D	RO
3 Silencer	608		RO

Set: 52.0

Doors: B107

6 Hinge (heavy weight)	T4A3386 (qty, size, nrp per spec)	US32D	MK
1 Dust Proof Strike	570	US26D	RO
1 Flush Bolt Set (constant-latching)	2845; 2945	US26D	RO
1 Classroom Lock	ML2055 109X 97-6P GMK CMK	626	RU
2 Surface Overhead Stop	9-X36	630	RF
2 Kick Plate	K1050 8" 4BE CSK	US32D	RO
2 Silencer	608		RO

Set: 53.0

Doors: B104.1, B108.1A

3 Hinge (heavy weight)	T4A3386 (qty, size, nrp per spec)	US32D	MK
1 Classroom Lock	ML2055 109X 97-6P GMK CMK	626	RU
1 Surface Overhead Stop	9-X36	630	RF
1 Kick Plate	K1050 8" 4BE CSK	US32D	RO
1 Head & Jamb Seal	303AS		PE
1 Mortise Auto Door Bottom	434ARL ACP112BL		PE
3 Silencer	608		RO

Set: 54.0

Doors: E153, E161, E162, E163, E164, E165, E166, E167

3 Hinge (heavy weight)	T4A3386 (qty, size, nrp per spec)	US32D	MK
1 Classroom Lock	ML2055 109X 97-6P GMK CMK	626	RU
1 Kick Plate	K1050 8" 4BE CSK	US32D	RO
1 Door Stop	404 wall; 441CU floor; or per spec	US26D	RO
1 Head & Jamb Seal	303AS		PE
1 Mortise Auto Door Bottom	434ARL ACP112BL		PE

Set: 55.0

Doors: E152, E158, E158.1

3 Hinge (heavy weight)	T4A3386 (qty, size, nrp per spec)	US32D	MK
1 Classroom Lock	ML2055 109X 97-6P GMK CMK	626	RU

1 Door Closer (parallel arm)	MC 281 P10	EN	SA
1 Kick Plate	K1050 8" 4BE CSK	US32D	RO
1 Door Stop	404 wall; 441CU floor; or per spec	US26D	RO
1 Head & Jamb Seal	303AS		PE
1 Z-Bracket (to suit seal size)	BKT050SP		PE
1 Mortise Auto Door Bottom	434ARL ACP112BL		PE

Set: 56.0

Doors: D204.1, D206.1, D206C, E185, E186

6 Hinge (heavy weight)	T4A3386 (qty, size, nrp per spec)	US32D	MK
1 Dust Proof Strike	570	US26D	RO
1 Flush Bolt Set (constant-latching)	2845; 2945	US26D	RO
1 Classroom Lock	ML2055 109X 97-6P GMK CMK	626	RU
2 Surface Overhead Stop	9-X36	630	RF
2 Kick Plate	K1050 8" 4BE CSK	US32D	RO
2 Silencer	608		RO

Notes: Provide wall stop/floor in lieu of overhead stop at 90 degree wall conditions.

Set: 57.0

Doors: A112, A212, A312, D207, D221.1, D222.1, D311, D411, D511, E008, E126, E137.1, E173

3 Hinge (heavy weight)	T4A3386 (qty, size, nrp per spec)	US32D	MK
1 Classroom Lock	ML2055 109X 97-6P GMK CMK	626	RU
1 Concealed Overhead Stop	1-X36	630	RF
1 Kick Plate	K1050 8" 4BE CSK	US32D	RO
3 Silencer	608		RO

Notes: Provide wall stop/floor in lieu of overhead stop at 90 degree wall conditions.

Set: 58.0

Doors: A010S, A110S, A210S, A310S, D200S, D210S, D300S, D310S, D400S, D410S, D510S, E050S, E100A, E150S, E250S

2 Hinge (heavy weight)	T4A3386 QC12	US32D	MK
4 Hinge (heavy weight)	T4A3386 (qty, size, nrp per spec)	US32D	MK
2 Electrified SVR Exit	12 NB8773 ETMG	US32D	SA
2 Door Closer (parallel arm)	MC 281 P10	EN	SA
2 Electromagnetic Holder	By Division 28		OT
1 Head & Jamb Seal (adhesive)	S88BL		PE
1 Astragal (adhesive, edge mount)	S771C		PE

1 Wiring Diagram (as required)	Elevation & Point-to-Point		SA
1 Door Wiring Harness	QC-Cxxx (hinge to device)		MK
1 Frame Wiring Harness	QC-CxxxP (hinge/strike to J-box)		MK
1 Position Switch (concealed)	By Division 28		SU
1 Power Supply	AQL Series - Amps & Relays as Required (coord w/ security)		SU

Notes: Interface wit building FA and Access Control systems to release doors from hold opens in the event of fire or lock-down events. Also to unlock electric exit devices in the event of a fire event or upon activation by Fire Command Center. Locked only upon signal from panic button.

Set: 59.0

Doors: D100S

1 Hinge (heavy weight)	T4A3386 QC12	US32D	MK
2 Hinge (heavy weight)	T4A3386 (qty, size, nrp per spec)	US32D	MK
1 Exit Device (rim, fail safe, RX)	12 LC 55 8875 ETMG	US32D	SA
1 Cylinder (qty, type as required)	97 keyway 6-pin GMK CMK	626	RU
1 Door Closer (parallel arm)	MC 281 P10	EN	SA
1 Door Stop	404 wall; 441CU floor; or per spec	US26D	RO
1 Head & Jamb Seal (adhesive)	S88BL		PE
1 Wiring Diagram (as required)	Elevation & Point-to-Point		SA
1 Door Wiring Harness	QC-Cxxx (hinge to device)		MK
1 Frame Wiring Harness	QC-CxxxP (hinge/strike to J-box)		MK
1 Position Switch (concealed)	By Division 28		SU
1 Power Supply	AQL Series - Amps & Relays as Required (coord w/ security)		SU
1 Card Reader	By Division 28		00

Notes: Interface wit building FA and Access Control systems to release doors from hold opens in the event of fire or lock-down events. Also to unlock electric exit devices in the event of a fire event or upon activation by Fire Command Center. Locked only upon signal from panic button.

Set: 60.0

Doors: E125.1, E125A, E149A

3 Hinge (heavy weight)	T4A3386 QC12	US32D	MK
1 Passage Latch	ML2010 109X	626	RU
1 Door Closer (parallel arm)	MC 281 P10	EN	SA
1 Door Stop	404 wall; 441CU floor; or per spec	US26D	RO
3 Silencer	608		RO

Set: 60.1

Doors: E140A

6 Hinge (heavy weight)	T4A3386 QC12	US32D	MK
1 Dust Proof Strike	570	US26D	RO
2 Flush Bolt	555	US26D	RO
1 Passage Latch	ML2010 109X	626	RU
1 Door Closer (parallel arm)	MC 281 P10	EN	SA
2 Door Stop	404 wall; 441CU floor; or per spec	US26D	RO
2 Silencer	608		RO

Set: 61.0

Doors: A014, A114, A214, A314, D314, D414, D514, E005, E031, E032, E106, E107, E132, E134, E147, E197, E198, E219, E220

3 Hinge (heavy weight)	T4A3386 (qty, size, nrp per spec)	US32D	MK
1 Privacy Lock	ML2030 110X M19V V21	626	RU
1 Door Closer (parallel arm)	MC 281 P10	EN	SA
1 Kick Plate	K1050 8" 4BE CSK	US32D	RO
1 Mop Plate	K1050 4" 4BE CSK	US32D	RO
1 Door Stop	404 wall; 441CU floor; or per spec	US26D	RO
3 Silencer	608		RO
1 Coat Hook	RM823	US32D	RO

Set: 62.0

Doors: B112, B113, B313, B314, C213, C214, C412, C413, D317, D318, D417, D418, D517, D518, E016, E017, E172

3 Hinge (heavy weight)	T4A3386 (qty, size, nrp per spec)	US32D	MK
1 Hotel Lock (restroom)	ML2029 109X M19V 97-6P GMK CMK	626	RU
1 Door Closer (parallel arm)	MC 281 P10	EN	SA
1 Kick Plate	K1050 8" 4BE CSK	US32D	RO
1 Mop Plate	K1050 4" 4BE CSK	US32D	RO
1 Door Stop	404 wall; 441CU floor; or per spec	US26D	RO
3 Silencer	608		RO
1 Coat Hook	RM823	US32D	RO

Set: 63.0

Doors: C117.1, C203.2, C203.4, C217.1, D215.1, D216.1

3 Hinge (heavy weight)	T4A3386 (qty, size, nrp per spec)	US32D	MK

1 Privacy Lock	ML2030 110X M19V	626	RU
1 Kick Plate	K1050 8" 4BE CSK	US32D	RO
1 Mop Plate	K1050 4" 4BE CSK	US32D	RO
1 Door Stop	404 wall; 441CU floor; or per spec	US26D	RO
3 Silencer	608		RO
1 Coat Hook	RM823	US32D	RO

Set: 63.1

Doors: E139

6 Hinge (heavy weight)	T4A3386 (qty, size, nrp per spec)	US32D	MK
1 Dust Proof Strike	570	US26D	RO
2 Flush Bolt	555	US26D	RO
1 Privacy Lock	ML2030 110X M19V	626	RU
1 Concealed Overhead Stop	1-X36	630	RF
2 Kick Plate	K1050 8" 4BE CSK	US32D	RO
2 Mop Plate	K1050 4" 4BE CSK	US32D	RO
1 Door Stop	404 wall; 441CU floor; or per spec	US26D	RO
2 Silencer	608		RO
1 Coat Hook	RM823	US32D	RO

Set: 64.0

Doors: E159, E159, E168

3 Hinge (heavy weight)	T4A3386 (qty, size, nrp per spec)	US32D	MK
1 Classroom Lock	ML2055 109X 97-6P GMK CMK	626	RU
1 Surface Overhead Stop	9-X36	630	RF
1 Door Closer (offset bracket)	MC 281 P3/P3A	EN	SA
1 Kick Plate	K1050 8" 4BE CSK	US32D	RO
3 Silencer	608		RO
1 Coat Hook	RM823	US32D	RO

Set: 65.0

Doors: E128, E130, E135, E143

3 Hinge (heavy weight)	T4A3386 (qty, size, nrp per spec)	US32D	MK
1 Privacy Lock	ML2030 110X M19V	626	RU
1 Kick Plate	K1050 8" 4BE CSK	US32D	RO
1 Door Stop	404 wall; 441CU floor; or per spec	US26D	RO
3 Silencer	608		RO
1 Coat Hook	RM823	US32D	RO

Set: 65.1

Doors: E141

6 Hinge (heavy weight)	T4A3386 (qty, size, nrp per spec)	US32D	MK
1 Dust Proof Strike	570	US26D	RO
2 Flush Bolt	555	US26D	RO
1 Privacy Lock	ML2030 110X M19V	626	RU
2 Kick Plate	K1050 8" 4BE CSK	US32D	RO
2 Door Stop	404 wall; 441CU floor; or per spec	US26D	RO
2 Silencer	608		RO
1 Coat Hook	RM823	US32D	RO

Set: 66.0

Doors: E129

3 Hinge (heavy weight)	T4A3386 (qty, size, nrp per spec)	US32D	MK
1 Storeroom Lock	ML2057 109X 97-6P GMK CMK	626	RU
1 Door Closer (parallel arm)	MC 281 P10	EN	SA
1 Kick Plate	K1050 8" 4BE CSK	US32D	RO
1 Door Stop	404 wall; 441CU floor; or per spec	US26D	RO
1 Head & Jamb Seal (adhesive)	S88BL		PE

Set: 67.0

Doors: E252.1, E252.2

1 Continuous Hinge	FM300	630	MR
1 Behavioral Health (passage)	ML2010 BHSS	630	RU
1 Door Closer (parallel arm)	MC 281 P10	EN	SA
1 Kick Plate	K1050 8" 4BE CSK	US32D	RO
1 Door Stop	404 wall; 441CU floor; or per spec	US26D	RO
1 Head & Jamb Seal	303AS		PE
1 Z-Bracket (to suit seal size)	BKT050SP		PE
1 Mortise Auto Door Bottom	434ARL ACP112BL		PE

Set: 68.0

Doors: D217.2, D218.2, D221, D222

1 Continuous Hinge	FM300	630	MR
1 Exit Device (rim, intruder, LD)	49 LD LC 8816 ETMG	US32D	SA
2 Cylinder (qty, type as required)	97 keyway 6-pin GMK CMK	626	RU
1 Door Closer (parallel arm)	MC 281 P10	EN	SA
1 Kick Plate	K1050 8" 4BE CSK	US32D	RO

1 Door Stop	404 wall; 441CU floor; or per spec	US26D	RO
3 Silencer	608		RO

Set: 69.0

Doors: D219, D220

1 Continuous Hinge (12-wire)	FM300 EL12 ETAP	630	MR
1 Mortise Lock (fail secure, RX)	ML20906-SEC 109X M92 97-6P GMK CMK	626	RU
2 Cylinder (qty, type as required)	97 keyway 6-pin GMK CMK	626	RU
1 Door Pull (45 deg offset)	BF168 12HD	US32D	RO
1 Door Closer (parallel arm)	MC 281 P10	EN	SA
1 Kick Plate	K1050 8" 4BE CSK	US32D	RO
1 Door Stop	404 wall; 441CU floor; or per spec	US26D	RO
3 Silencer	608		RO
1 Door Wiring Harness	QC-Cxxx (hinge to device)		MK
1 Frame Wiring Harness	QC-CxxxP (hinge/strike to J-box)		MK
1 Position Switch (concealed)	By Division 28		SU
1 Power Supply	AQL Series - Amps & Relays as Required (coord w/ security)		SU
1 Card Reader	By Division 28		00

Notes:
Operation: Doors are normally closed and locked. Valid card at reader retracts latch for momentary access. Monitoring by door position switches. During a loss of power the door will default to secure. Free egress at all times. Lock status will not change when the fire detection/suppression systems are activated. Depressing pushrail will activate request to exit switch for appropriate monitor by EAC systems. Outside key override.

Set: 70.0

Doors: A012, A013, A111, A113, A211, A213, A311, A313, B413, B414, D214, D312, D313, D412, D413, D512, D513, E006, E007, E171, E174, E283, E284

3 Hinge (heavy weight)	T4A3386 (qty, size, nrp per spec)	US32D	MK
1 Deadbolt (classroom)	DL4117 97-6P GMK CMK	626	RU
1 Push Plate	70F CFTT/CFC	US32D	RO
1 Pull Plate	110x70C CFTT/CFC	US32D	RO
1 Door Closer (parallel arm)	MC 281 P10	EN	SA
1 Kick Plate	K1050 8" 4BE CSK	US32D	RO
1 Mop Plate	K1050 4" 4BE CSK	US32D	RO
1 Door Stop	404 wall; 441CU floor; or per spec	US26D	RO
3 Silencer	608		RO

Set: 71.0

Doors: D217.1, D218.1, E275.1, E275.2, E275.2B

3 Hinge (heavy weight)	T4A3386 (qty, size, nrp per spec)	US32D	MK
1 Pull Plate	110x70C	US32D	RO
1 Push Plate	70E	US32D	RO
1 Door Closer (parallel arm)	MC 281 P10	EN	SA
1 Kick Plate	K1050 8" 4BE CSK	US32D	RO
1 Door Stop	404 wall; 441CU floor; or per spec	US26D	RO
1 Head & Jamb Seal	303AS		PE
1 Z-Bracket (to suit seal size)	BKT050SP		PE

Set: 72.0

Doors: E155.1B, E155.2B, E160.1, E160A, E175.1, E175.2

6 Hinge (heavy weight)	T4A3386 (qty, size, nrp per spec)	US32D	MK
2 Pull Plate	110x70C	US32D	RO
2 Push Plate	70E	US32D	RO
2 Door Closer (parallel arm)	MC 281 P10	EN	SA
2 Kick Plate	K1050 8" 4BE CSK	US32D	RO
2 Door Stop	404 wall; 441CU floor; or per spec	US26D	RO
1 Head & Jamb Seal	303AS		PE
1 Z-Bracket (to suit seal size)	BKT050SP		PE
1 Astragal	303AS		PE

Set: 72.1

Doors: C110.1

6 Hinge (heavy weight)	T4A3386 (qty, size, nrp per spec)	US32D	MK
2 Pull Plate	110x70C	US32D	RO
2 Push Plate	70E	US32D	RO
2 Door Closer (parallel arm)	MC 281 P10	EN	SA
2 Kick Plate	K1050 8" 4BE CSK	US32D	RO
2 Door Stop	404 wall; 441CU floor; or per spec	US26D	RO
2 Silencer	608		RO

Set: 73.0

Doors: A011, A104, A204, A304, B002, B114, B311, B411, C107, C212, C302, C414, C503, D212, D319, D419, D519, E013, E014A, E018, E120, E175.3, E188, E189B, E263

3 Hinge (heavy weight)	T4A3386 (qty, size, nrp per spec)	US32D	MK
1 Exit Device (rim, storeroom)	12 LC 8846 ETMG	US32D	SA

1 Cylinder (qty, type as required)	97 keyway 6-pin GMK CMK	626	RU
1 Door Closer (parallel arm)	MC 281 P10	EN	SA
1 Kick Plate	K1050 8" 4BE CSK	US32D	RO
1 Door Stop	404 wall; 441CU floor; or per spec	US26D	RO
1 Head & Jamb Seal (adhesive)	S88BL		PE

Set: 74.0

Doors: E014, E189, E189A

6 Hinge (heavy weight)	T4A3386 (qty, size, nrp per spec)	US32D	MK
1 Key Removable Mullion	12-L980	PC	SA
1 Exit Device (rim, storeroom)	12 LC 8846 ETMG	US32D	SA
1 Rim Exit Device, Exit Only	12 8810 EO	US32D	SA
2 Cylinder (qty, type as required)	97 keyway 6-pin GMK CMK	626	RU
2 Door Closer (parallel arm)	MC 281 P10	EN	SA
2 Kick Plate	K1050 8" 4BE CSK	US32D	RO
2 Door Stop	404 wall; 441CU floor; or per spec	US26D	RO
1 Mullion Gasket	5110BL		PE
1 Head & Jamb Seal (adhesive)	S88BL		PE
1 Astragal (adhesive, edge mount)	S771C		PE

Set: 75.0

Doors: A106, A306, B106.1, B412, C109, C417, D205.1, D213, D219.1, D220.1, D223, D224, D224A, D420, E021, E022, E030, E034, E100.1C, E140, E186A, E2.0A, E256

1 Hinge (heavy weight)	T4A3386 QC12	US32D	MK ⚡
2 Hinge (heavy weight)	T4A3386 (qty, size, nrp per spec)	US32D	MK
1 Mortise Lock (fail secure, RX)	ML20906-SEC 109X M92 97-6P GMK CMK	626	RU ⚡
1 Door Closer (parallel arm)	MC 281 P10	EN	SA
1 Kick Plate	K1050 8" 4BE CSK	US32D	RO
1 Door Stop	404 wall; 441CU floor; or per spec	US26D	RO
1 Head & Jamb Seal (adhesive)	S88BL		PE
1 Door Wiring Harness	QC-Cxxx (hinge to device)		MK ⚡
1 Frame Wiring Harness	QC-CxxxP (hinge/strike to J-box)		MK ⚡
1 Position Switch (concealed)	By Division 28		SU ⚡
1 Power Supply	AQL Series - Amps & Relays as Required (coord w/ security)		SU ⚡
1 Card Reader	By Division 28		00

Notes:
Operation: Door is normally closed and locked. Valid card at reader unlocks outside lever for momentary

access. Monitoring by door position switch. During a loss of power the door will default to secure. Free egress at all times. Lock status will not change when the fire detection/suppression systems are activated. Rotating inside lever will activate request to exit switch for appropriate monitor by EAC systems. Outside key override.

Set: 76.0

Doors: E015

1 Hinge (heavy weight)	T4A3386 QC12	US32D	MK
5 Hinge (heavy weight)	T4A3386 (qty, size, nrp per spec)	US32D	MK
1 Dust Proof Strike	570	US26D	RO
2 Flush Bolt	555	US26D	RO
1 Mortise Lock (fail secure, RX)	ML20906-SEC 109X M92 97-6P GMK CMK	626	RU
2 Door Closer (stop arm)	MC 281 CPS	EN	SA
2 Kick Plate	K1050 8" 4BE CSK	US32D	RO
1 Head & Jamb Seal (adhesive)	S88BL		PE
1 Astragal (flatbar)	357SP (HM); 357SS (WD)		PE
1 Astragal (adhesive, edge mount)	S771C		PE
1 Door Wiring Harness	QC-Cxxx (hinge to device)		MK
1 Frame Wiring Harness	QC-CxxxP (hinge/strike to J-box)		MK
2 Position Switch (concealed)	By Division 28		SU
1 Power Supply	AQL Series - Amps & Relays as Required (coord w/ security)		SU
1 Card Reader	By Division 28		00

Notes:
Operation: Door is normally closed and locked. Valid card at reader unlocks outside lever for momentary access. Monitoring by door position switch. During a loss of power the door will default to secure. Free egress at all times. Lock status will not change when the fire detection/suppression systems are activated. Rotating inside lever will activate request to exit switch for appropriate monitor by EAC systems. Outside key override.

Set: 77.0

Doors: A017, A206, A319, B312, D221.2, E001, E123, E154, E175.4, E202, E231, E251, E255A, E255B, E258, E260, E262, E264, E266

3 Hinge (heavy weight)	T4A3386 (qty, size, nrp per spec)	US32D	MK
1 Storeroom Lock	ML2057 109X 97-6P GMK CMK	626	RU
1 Door Closer (parallel arm)	MC 281 P10	EN	SA
1 Kick Plate	K1050 8" 4BE CSK	US32D	RO
1 Door Stop	404 wall; 441CU floor; or per spec	US26D	RO
1 Head & Jamb Seal (adhesive)	S88BL		PE

Set: 78.0

Doors: D109, E002, E002.2, E002A, E011, E012, E187

6 Hinge (heavy weight)	T4A3386 (qty, size, nrp per spec)	US32D	MK
1 Dust Proof Strike	570	US26D	RO
2 Flush Bolt	555	US26D	RO
1 Storeroom Lock	ML2057 109X 97-6P GMK CMK	626	RU
1 Door Closer (parallel arm)	MC 281 P10	EN	SA
2 Kick Plate	K1050 8" 4BE CSK	US32D	RO
2 Door Stop	404 wall; 441CU floor; or per spec	US26D	RO
1 Head & Jamb Seal (adhesive)	S88BL		PE
1 Astragal (flatbar)	357SP (HM); 357SS (WD)		PE
1 Astragal (adhesive, edge mount)	S771C		PE

Set: 79.0

Doors: A104.2, A204.2, A304.2, A317, A318, B008.1, B106, B417, C115, C501.1, D102, D108, D320, D510S.1, D520, E003, E033A, E062A, E176, E253, E271, E302, E302.1, E304

3 Hinge (heavy weight)	T4A3386 (qty, size, nrp per spec)	US32D	MK
1 Storeroom Lock	ML2057 109X 97-6P GMK CMK	626	RU
1 Door Closer (parallel arm)	MC 281 P10	EN	SA
1 Kick Plate	K1050 8" 4BE CSK	US32D	RO
1 Door Stop	404 wall; 441CU floor; or per spec	US26D	RO
1 Head & Jamb Seal	303AS		PE
1 Z-Bracket (to suit seal size)	BKT050SP		PE
1 Door Bottom (surface)	4301CRL		PE

Set: 80.0

Doors: A104.1, A204.1, A304.1, B007, B008, B114.1, B411.1, C107.1, C115.1, C302.1, C415, C416, C503.1, D319.1, D419.1, E002.1, E122, E263.1, E268

6 Hinge (heavy weight)	T4A3386 (qty, size, nrp per spec)	US32D	MK
1 Dust Proof Strike	570	US26D	RO
2 Flush Bolt	555	US26D	RO
1 Storeroom Lock	ML2057 109X 97-6P GMK CMK	626	RU
2 Concealed Overhead Stop	1-X36	630	RF
1 Door Closer (parallel arm)	MC 281 P10	EN	SA
2 Kick Plate	K1050 8" 4BE CSK	US32D	RO
1 Head & Jamb Seal	303AS		PE
1 Z-Bracket (to suit seal size)	BKT050SP		PE
2 Door Bottom (surface)	4301CRL		PE
1 Astragal (flatbar)	357SP (HM); 357SS (WD)		PE

1 Astragal (adhesive, edge mount)	S771C		PE

Set: 81.0

Doors: C116, C118

6 Hinge (heavy weight)	T4A3386 (qty, size, nrp per spec)	US32D	MK
1 Dust Proof Strike	570	US26D	RO
2 Flush Bolt	555	US26D	RO
1 Storeroom Lock	ML2057 109X 97-6P GMK CMK	626	RU
2 Concealed Overhead Stop	1-X36	630	RF
1 Door Closer (parallel arm)	MC 281 P10	EN	SA
2 Kick Plate	K1050 8" 4BE CSK	US32D	RO
1 Head & Jamb Seal	303AS		PE
1 Z-Bracket (to suit seal size)	BKT050SP		PE
2 Door Bottom (surface)	4301CRL		PE
1 Astragal (flatbar)	357SP (HM); 357SS (WD)		PE
1 Astragal (adhesive, edge mount)	S771C		PE

Set: 82.0

Doors: HS-21, HS-22, HS-30, HS-40, HS-50, OH005, OH101, OH101A, OH116, OH190, OH190A, OH190B, OH282, VS-01

2 Cylinder (qty, type as required)	97 keyway 6-pin GMK CMK	626	RU
1 Hardware	Supplied with door assembly		OT

Set: 83.0

Doors: HS-01, HS-10, HS-11, HS-23, HS-31

2 Cylinder (qty, type as required)	97 keyway 6-pin GMK CMK	626	RU
1 Hardware	Supplied with door assembly		OT
2 Card Reader	By Division 28		00

Set: 84.0

Doors: X19, X22

2 Continuous Hinge	FM300	630	MR
1 Dust Proof Strike	570	US26D	RO
2 Flush Bolt	555	US26D	RO
1 Storeroom Lock	ML2057 110X 97-6P GMK CMK	626	RU
2 Surface Closer (track, pull side)	MC 422 CTB2	EN	SA
2 Door Stop	404 wall; 441CU floor; or per spec	US26D	RO
1 Threshold (coord w/ details)	172AK FHSL14SS		PE

1 Head & Jamb Seal	2891AS		PE
2 Sweep	3452APK		PE
1 Astragal	352CR		PE

Set: 101.0

Doors: 01, 04, 05, 07, 10, 12, 13, 15

1	Continuous Hinge	FM__HD1 PT	C	PE
1	Mortise Lock (fail secure, RX)	ML20906-SEC 109X M92 97-6P GMK CMK	626	RU
1	Surface Closer	MC SRI 281 O10	EN	SA
1	Door Stop	404 wall; 441CU floor; or per spec	US26D	RO
1	Threshold (coord w/ details)	271A FHSL14SS		PE
1	Head & Jamb Seal	2891AS		PE
1	Sweep	18061CNB		PE
1	Door Wiring Harness	QC-Cxxx (hinge to device)		MK
1	Frame Wiring Harness	QC-CxxxP (hinge/strike to J-box)		MK
1	Position Switch (concealed)	By Division 28		SU
1	Power Supply	AQL Series - Amps & Relays as Required (coord w/ security)		SU
1	Electric Power Transfer	EL-CEPT		SU
1	Card Reader	By Division 28		00

Notes: Door closed & locked at all times. Presenting valid credential outside shunts door position switches & allows for authorized entrance. Operating inside trim activates request to exit switch shunting door contact and allowing authorized egress at all times. With loss of power door remains locked.

Set: 102.0

Doors: 03, 11

2	Continuous Hinge	FM__HD1	C	PE
1	Dust Proof Strike	570	US26D	RO
2	Flush Bolt	555	US26D	RO
1	Storeroom Lock	ML2057 109X 97-6P GMK CMK	626	RU
2	Concealed Overhead Stop	1-X36	630	RF
1	Threshold (coord w/ details)	271A FHSL14SS		PE
1	Head & Jamb Seal	2891AS		PE
2	Sweep	18061CNB		PE

1	Astragal (flatbar)	357SP (HM); 357SS (WD)		PE

Set: 103.0

Doors: 06, 14

1	Continuous Hinge	FM__HD1	C	PE
1	Storeroom Lock	ML2057 109X 97-6P GMK CMK	626	RU
1	Door Stop	404 wall; 441CU floor; or per spec	US26D	RO
1	Threshold (coord w/ details)	271A FHSL14SS		PE
1	Head & Jamb Seal	2891AS		PE
1	Sweep	18061CNB		PE

Set: 104.0

Doors: 02

1	Continuous Hinge	FM__HD1	C	PE
1	Storeroom Lock	ML2057 109X 97-6P GMK CMK	626	RU
1	Surface Closer	MC SRI 281 O10	EN	SA
1	Door Stop	404 wall; 441CU floor; or per spec	US26D	RO
1	Threshold (coord w/ details)	271A FHSL14SS		PE
1	Head & Jamb Seal	2891AS		PE
1	Sweep	18061CNB		PE

Set: 105.0

Doors: 10.1

3	Hinge (heavy weight)	T4A3386 (qty, size, nrp per spec)	US32D	MK
1	Storeroom Lock	ML2057 109X 97-6P GMK CMK	626	RU
1	Door Stop	404 wall; 441CU floor; or per spec	US26D	RO
3	Silencer	608		RO

Set: 106.0

Doors: OHD1, OHD2, OHD3

1	Cylinder (qty, type as required)	97 keyway 6-pin GMK CMK	626	RU

Notes: Balance of hardware by assembly manufacturer.

Set: 107.0

Doors: 01A, 10A

1 All Hardware	By Lift System Supplier	OT

End of Section

Section 08 71 13

AUTOMATIC DOOR OPERATORS

PART 1 - GENERAL

1.1 SUMMARY

A. This section includes the following types of automatic door operators:
   1. Low energy and power assist door operators for swinging doors.

B. Related Sections:
   1. Division 7 Sections for caulking to the extent not specified in this section.
   2. Division 8 Section “All-Glass Entrances and Storefronts” for entrances specified separately in another Division 8 section.
   3. Division 8 Section “Door Hardware” for hardware to the extent not specified in this Section.
   4. Division 26 and 28 Sections for electrical connections including conduit and wiring for automatic entrance door operators and access control devices.

1.2 REFERENCES

A. References: Refer to the version year adopted by the Authority Having Jurisdiction.
   1. ANSI A117.1 - Accessible and Usable Buildings and Facilities.
   2. ICC/IBC - International Building Code.
   3. NFPA 70 - National Electrical Code.
   4. NFPA 80 - Fire Doors and Windows.
   5. NFPA 101 - Life Safety Code.
   6. NFPA 105 - Installation of Smoke Door Assemblies.

B. American National Standards Institute (ANSI) / Builders Hardware Manufacturers Association (BHMA).
   1. ANSI/BHMA A156.10 American National Standard for Power Operated Pedestrian Doors.
   2. ANSI/BHMA A156.19 Standards for Power Assist and Low Energy Power Operated Doors.

C. Underwriters Laboratories (UL).
   1. UL Listed R-9469 Fire Door Operator with Automatic Closer.
   2. UL10C – Positive Pressure Fire Tests of Door Assemblies.
   3. UL 325 Standard for Safety for Door, Drapery, Gate, Louver and Window Operators and Systems.
   4. UL991 Listed - Tests for Safety-Related Controls Employing Solid-State Device.
   5. UL244A – Solid – State Controls for Appliances.
   6. UL1998 – Software in Programmable Components.
   7. UL1310 – Class 2 Power Units.

D. American Association of Automatic Door Manufacturers (AAADM).

E. American Society for Testing and Materials (ASTM).
   1. ASTM B221 Standard Specification for Aluminum and Aluminum Alloy Extruded Bars, Rods, Wire, Profiles and Tubes.
   2. ASTM B209 Standard Specification for Aluminum and Aluminum Alloy Sheet and Plate.

F. American Architectural Manufacturers Association (AAMA).
1. AAMA 611 Voluntary Specification for Anodized Architectural Aluminum.

G. National Association of Architectural Metal Manufacturers (NAAMM).
1. Metal Finishes Manual for Architectural Metal Products.

H. International Code Council (ICC).
1. IBC: International Building Code.

1.3 DEFINITIONS

A. Activation Device: Device that, when actuated, sends an electrical signal to the door operator to activate the operation of the door.
1. Knowing act: Consciously initiating the opening of a power operated door using acceptable methods including wall mounted switches such as push plates and controlled access devices such as keypads, card readers and key switches.

B. Safety Device: A device that detects the presence of an object or person within a zone where contact could occur and provides a signal to stop the movement of the door.

1.4 PERFORMANCE REQUIREMENTS

A. Automatic door equipment accommodates medium to heavy pedestrian traffic.

B. Opening Force Requirements: Doors shall open with a manual force, not to exceed 30lbf (133N) to set the door in motion and 15 lbf to fully open the door applied at 1” (25 mm) from the latch edge of the door. The force required to prevent a stopped door from opening or closing shall not exceed 15 lbf (67 N) measured 1” (25 mm) from the latch edge of the door at any point during opening or closing.

C. Closing Time:
1. Doors shall be field adjustable to close from 90 degrees to 10 degrees in 3 seconds or longer as applicable per ANSI/BHMA A156.19 standards.
2. Doors shall be field adjusted to close from 10 degrees to fully closed in not less than 1.5 seconds.

1.5 SUBMITTALS

A. Product Data: Manufacturer's product data sheets including installation details, material descriptions, dimensions of individual components and profiles, fabrication, operational descriptions and finishes.

B. Shop Drawings: Submit manufacturer’s shop drawings, including elevations, sections and details, indicating dimensions, materials, operator, motion /presence sensor control device, anchors, hardware, finish, options and accessories.
1. Indicate required clearances, and location and size of each field connection.
2. Indicate locations and elevations of entrances showing activation and safety devices.
3. Wiring Diagrams: For power, signal, and activation / safety device wiring.

C. Samples: Submit manufacturer’s samples of aluminum finish.

D. Manufacturers Field Reports: Submit manufacturer’s field reports from AAADM certified technician of inspection and approval of doors for compliance with ANSI/BHMA after completion of installation.

E. Operating and Maintenance Manuals: Provide manufacturers operating and maintenance manuals for each item comprising the work of this section in quantity as required in Division 01, Closeout Submittals. The manual to include the name, address, and contact information of the manufacturers providing the operators and their nearest service representatives. The final copies delivered after completion of the installation test to include spare parts list.

F. Warranties and Maintenance: Special warranties and maintenance agreements specified in this Section.

1.6 QUALITY ASSURANCE

A. Manufacturers Qualifications: Engage qualified manufacturers with a minimum 10 years of documented experience in manufacturing of doors and equipment of similar to that indicated for this Project and that have a proven record of successful in-service performance. Manufacturer to have a company certificate issued by AAADM.

B. Installer Qualifications: Installers, trained by the primary product manufacturers, with a minimum 3 years documented experience installing and maintenance of units similar in material, design, and extent to that indicated for this Project and whose work has resulted in construction with a record of successful in-service performance.

C. Certified Inspector Qualifications: Certified by AAADM.

D. Source Limitations for Automatic Door Operators: Obtain each type of door, frame, operator and sensor components specified in this Section from a single source, same manufacturer unless otherwise indicated.

E. Emergency Exit Door Requirements: Comply with requirements of authorities having jurisdiction for automatic entrance doors serving as a required means of egress.

1.7 COORDINATION

A. Coordinate door operators with doors, frames and related work to ensure proper size, thickness, hand, function and finish. Coordinate hardware for automatic entrances with hardware required for rest of the project.

B. Electrical System Roughing-in: Coordinate layout and installation of power door operators with connections to power supplies and access control system as applicable.

1.8 WARRANTY

A. General Warranty: Reference Division 01, General Requirements. Special warranties specified in this Article shall not deprive Owner of other rights Owner may have under other provisions of the Contract Documents and shall be in addition to, and run concurrent with, other warranties made by Contractor under requirements of the Contract Documents.

B. Automatic Door Operators shall be free of defects in material and workmanship for a period of one (1) year from the date of substantial completion.

C. During the warranty period a factory-trained technician shall perform service and affect repairs. An inspection shall be performed after each adjustment or repair.

D. During the warranty period all warranty work, including but not limited to emergency service, shall be performed during normal business hours.

E. Manufacturer shall have in place a dispatch procedure that shall be available 24 hours a Day, 7 Days a week for emergency call back service.

PART 2 - PRODUCTS

2.1 MANUFACTURER

A. Manufacturer: ASSA ABLOY Entrance Systems, 1900 Airport Road, Monroe, NC 28110. Toll Free (877) SPEC-123. Fax (704) 290- 5555 Website www.assaabloyentrance.com contact: specdesk.na.aaes@assaabloy.com

B. Substitutions: Requests for substitution and product approval in compliance with the specifications must be submitted in writing and in accordance with the procedures outlined in Division 1, Section “Substitution Procedures”. Approval of requests is at the discretion of the architect, owner, and their designated consultants.

2.2 MATERIALS

A. Aluminum: Alloy and temper recommended by manufacturer for type of use and finish indicated, as indicated below:
1. Extruded Aluminum, Alloy 6063-T5.

2.3 SWING DOOR OPERATORS

A. Model: Besam ASSA ABLOY SW200i low energy /full energy automatic door operator (Basis of Design):
1. Reference Standard: ANSI/BHMA A156.10./ANSI/BHMA A156.19.
2. Configuration: Operator to control single swinging doors and pairs of swinging doors as indicated on the drawings and specified below:
   a. Traffic Pattern: Two way.
   b. Pairs of Doors: Simultaneous swing. Single leaf operation.
   c. Double Egress. Simultaneous swing. Single leaf operation.
3. Automatic Door Operator: Electro-mechanical, non-handed operator, powered by 24 volt, 1/4 hp motor. Operator shall be adjustable to compensate for different manual push forces as required.
   a. Automatic operator shall be capable of operating and controlling up to a 700 pound (317.5 kg) door, 48 inches (1219 mm) in width.
   b. Surface Mounted:
      1) Side Access Operator Housing: Operator is contained in a 6 inch (152.4 mm) deep x 6 inch (152.4 mm) high extruded aluminum housing with a hinged cover.
      2) Surface Mounted Housing: Continuous for full width of door.
      3) Connecting Hardware: Surface mounted operators to have a steel arm from the operator, mounted to the top face of the swing door.
      4) UL Listed R-9469 Fire Door Operator with Automatic Closer (surface mounted operator).
   c. Operator shall be field switchable between an ANSI/BHMA A156.19 and an ANSI/BHMA A156.10 compliant operator and vice versa. Addition of the required safety sensors, activation devices and guard rails may be required to comply with the applicable standard.
   d. Operator Temperature Range: Capable of operating within temperature ranges of -31□ F to 160□ F (-35□ C to 71□ C).

e. Electrical Characteristics: Maximum power consumption is 300 watts (2.5 amps at 120 VAC), 50/60hz, built-in thermal overload protection.
f. Battery Convenience Mode: Operator to maintain continuous operation by battery power during power failure. Battery is continuously monitored and provides a warning signal if the battery is not working properly.
g. Digital Cycle Counter: Battery powered, 7 digit LCD cycle counter with a reset feature to track door usage cycles.

4. Door Operation:
   a. Opening Cycle The adjustable speed operator mechanically powers the drive shaft and the torque control maintains constant speed throughout the opening cycle regardless of stack pressures or wind speed. Operator shall allow manual door operation with operational forces as indicated to fully open the door applied at 1" (25 mm) from the latch edge of the door.
      1) Manual push force shall be adjustable from 5 lbf to 15 lbf maximum.
   b. Hold Open: The operator shall stop and hold the door open at the selected door opening angle for an adjustable period of time (1.5 seconds to 30 seconds).
   c. Closing Cycle: Spring close with speed controlled power assist.
      1) Upon loss of power, dynamic braking will control the door insuring controlled closing.
      2) Selectable Torque Control: Automatically adjusts torque without changing the closing speed of the operator.
         a) When the torque control is activated, the closing speed shall remain constant regardless of stack pressures or wind speed.
         b) Torque Cancellation: The torque control is deactivated whenever there is a signal received from door mounted sensors.
         c) The torque control is disabled during manual use of the door.
   d. Wind Force Dampening: The operator electromechanically counteracts wind forces, slowing down the door movement to safely open or close the door.
   e. Stack Pressure Compensation: Operator shall counteract positive stack pressures, negative stack pressures, and sudden changes of stack pressures. The operator never allows the door to open or close faster than the speed control settings, regardless of pressures.
   f. Obstruction Control: The operator will stop and reverse the door movement.
   g. Electric Lock Management:
      1) Internal module for electrified locking integration.
      2) Electric Lock Output: Selectable 12 VDC, maximum 1200 mA / 24 VDC, maximum 600 mA.
      3) Lock monitoring prevents operator(s) from opening door(s) until release of electrified lock.
      4) Operator pulls door closed before opening, automatically unjamming electric latch hardware.
      5) Sequenced operation between operators for pairs of doors allowing lock release and astragal coordination.
   h. Lock Retry Circuit: If attempt to fully close the door is unsuccessful, the operator will automatically reverse open 10 degrees and reclose in an attempt to successfully close the door.
   i. Selectable Alarm Reset: The operator can be field set so that after receiving an alarm signal, the operator will not accept any activation impulses and will operate only as a manual door closer until manually reset.
   j. Electronic Controls: Solid state integrated circuit controls the operation and switching of the swing power operator. The electronic control provides low voltage power supply for all means of actuation. The controls include time delay (1 to 30 seconds) for normal cycle.

k. Control Switch: Automatic door operators shall be equipped with the following type of multi-position function switch:
1) Three position rocker switch mounted on end cap (On-Off-Hold).

5. Operator Interface:
a. Safety Sensor Integration for overhead presence safety device and door mounted reactivation safety sensors.

2.4 ACTIVATION DEVICES

A. General: Provide activation devices in accordance with ANSI/BHMA standards, for condition of exposure and for long-term, maintenance-free operation under normal traffic load for type of occupancy indicated. Coordinate activation and safety devices with door operation and door operator mechanisms.

B. Knowing Act Activation Device:
1. Push Plate: Hard wired, 4-1/2 inch stainless steel push plate switches engraved with "Push to Open" with a blue handicap logo.

C. Manual Operation:
1. Operator shall provide power assist function to the doors to provide ease of manual operational forces.

2.5 SAFETY DEVICES

A. General: Provide safety devices in accordance with ANSI/BHMA A156.10 standards, for condition of exposure and for long-term, maintenance-free operation under normal traffic load for type of occupancy indicated. Coordinate safety devices with door operation and door operator mechanisms.

B. Safety Devices:(If Required)
1. Door Mounted Presence Sensor (DMPS): Shall be the ASSA ABLOY door mounted infrared presence safety device (mounted at top of each door); adjustable to provide detection field sizes and functions required by ANSI/BHMA A156.10.
a. Unit to provide detection during the travel of the door.
b. Upon detection, the sensor shall provide a signal to stop or reverse the door action.
2. Door Mounted Safety Sensor Devices: Safety sensor devices shall be door mounted as specified.
a. The door mounted safety sensor devices shall be mounted on the approach (push) side of the door (1 safety sensor per leaf), providing detection on one side of the door only.

2.6 ALUMINUM FINISHES

A. Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.

B. Automatic Door Operator Enclosure:
1. Anodized Finish:
a. AAMA 611, Clear, AA- M12C22A41, Class I, 0.018 mm.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine doors and frames, with Installer present, for compliance with requirements for installation tolerances, wall and floor construction, and other conditions affecting performance of swinging power operated doors.

B. Examine roughing-in for electrical source power to verify actual locations of wiring connections.

C. Proceed only after such discrepancies or conflicts have been resolved.

3.2 INSTALLATION

A. Do not install damaged components. Fit joints to produce hairline joints free of burrs and distortion. Rigidly secure non-movement joints.

B. Operators: Install automatic door operators plumb and true in alignment with established lines and grades without warp or rack of framing members and doors. Anchor securely in place.
1. Install surface mounted hardware using concealed fasteners to greatest extent possible.
2. Set headers, carrier assemblies, tracks, operating brackets and guides level and true to location with anchorage for permanent support.
3. Install in-ground operator housing in accordance with manufacturer's instructions and reviewed shop drawings.
4. Install operator drive mechanism assembly in accordance with manufacturer's instructions.
5. Adjust operator and drive mechanism to achieve smooth operation including back-check, latch, and proper limit stops.
6. Install exposed to view fittings using concealed fasteners where possible.
7. Install threshold and operator fittings per manufacturer's instructions.

C. Door Operators: Connect door operators to electrical power distribution system including smoke evacuation system and/or fire detection system as specified in Division 26 Sections.

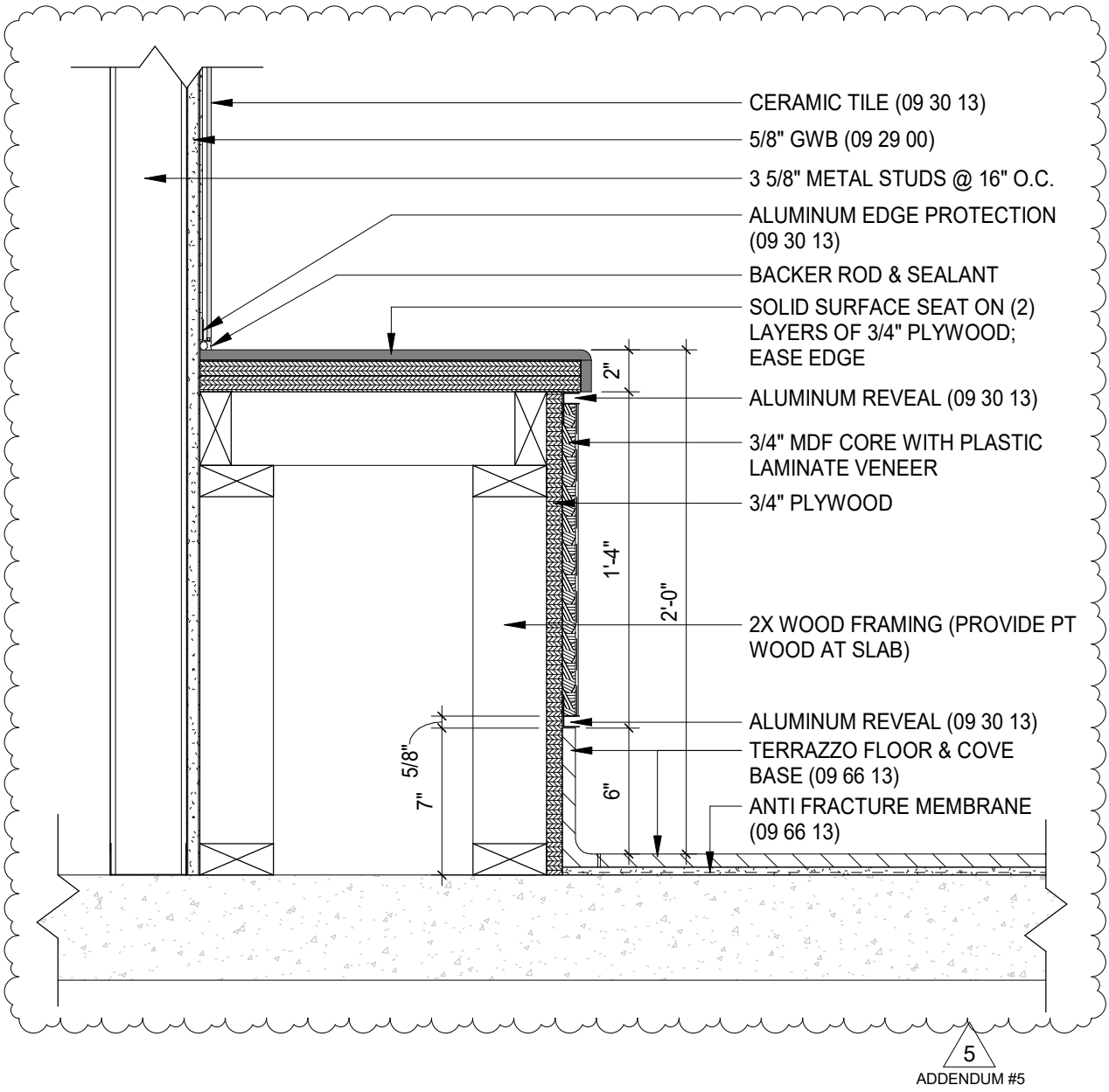
D. Sealants: Comply with requirements specified in division 7 Section "Joint Sealants" to seal between the operator housing and the adjacent surfaces.

E. Signage: Apply signage on both sides of each door and sidelite as required by ANSI/BHMA A156.10 and manufacturers installation instructions.

END OF SECTION

Appendix:

- Door X21 (Stair D-1 at grade)
- Door X21 (Stair D-2 at grade)
- Door X14 (Stair C-1 at grade)
- Door X3 (operators on both leaves)
- Door E100.1B (operators on both leaves)
- Door X4 – operator with push & go functionality, no actuators

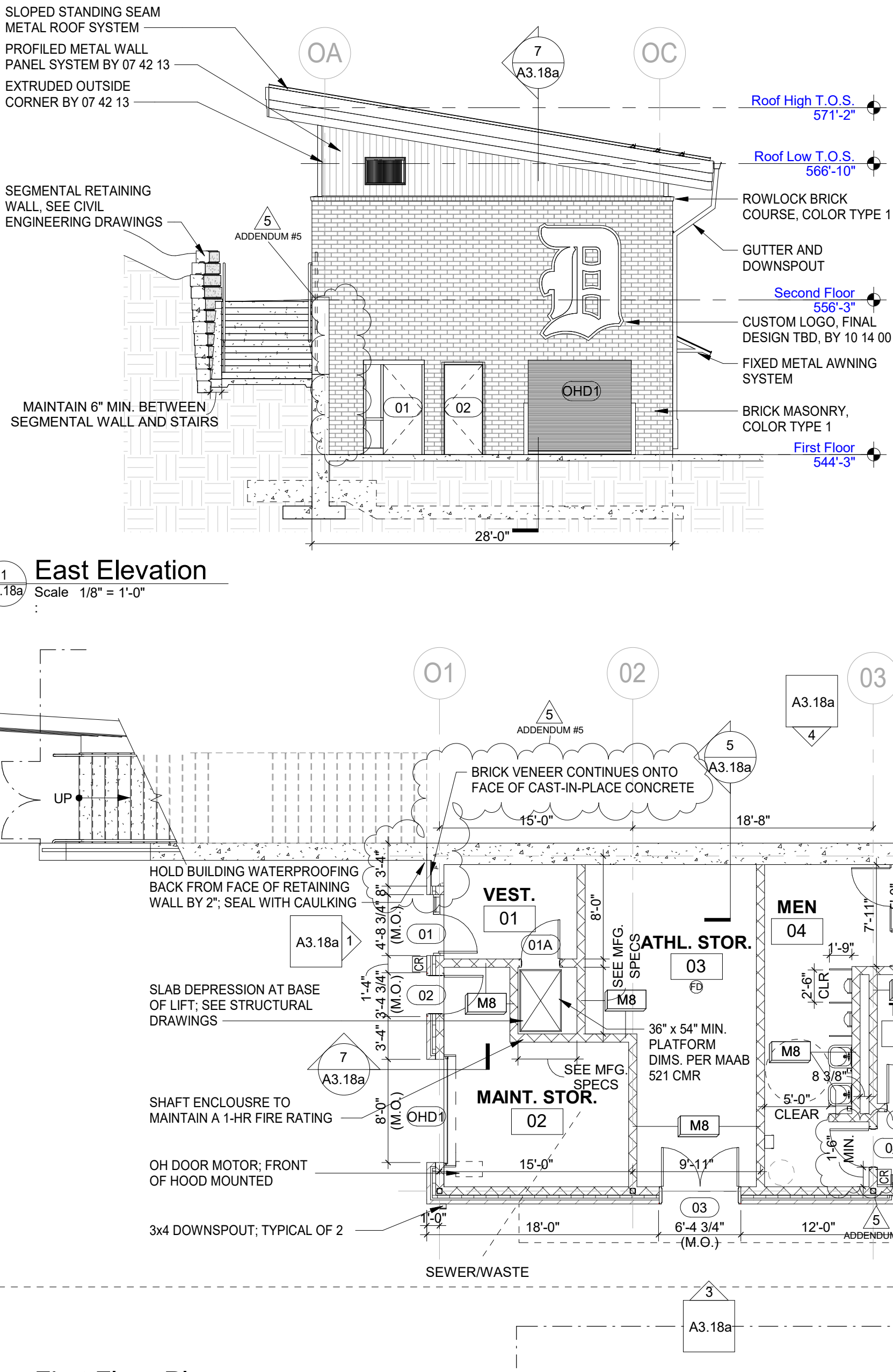


11
A8.24a

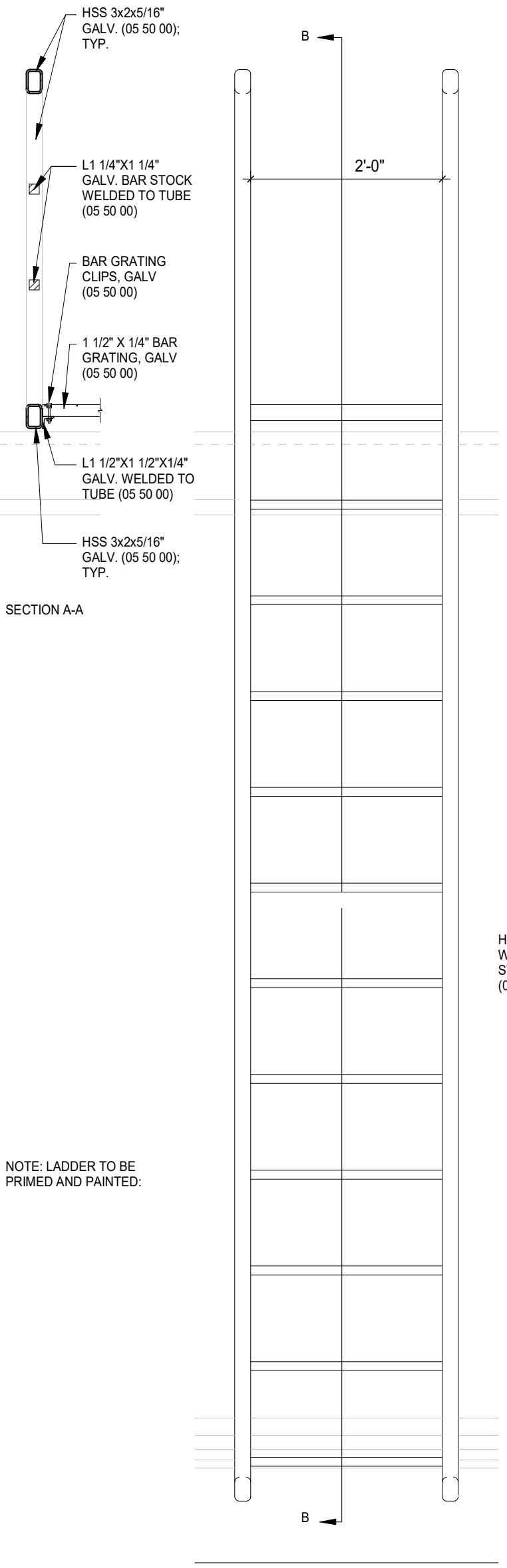
MW8a Cafeteria Millwork Bench Section

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

ARCHITECT: LPA|A LAMOUREUX PAGANO ASSOCIATES | ARCHITECTS lpaa.com	PROJECT TITLE: Doherty Memorial High School 299 Highland Street, Worcester, MA 01602	REFERENCE: A8.24a DRAWING TITLE: MW8a Cafeteria Millwork Bench Section	DATE: 02/16/22 DRAWING NUMBER: ADD-5 A-078

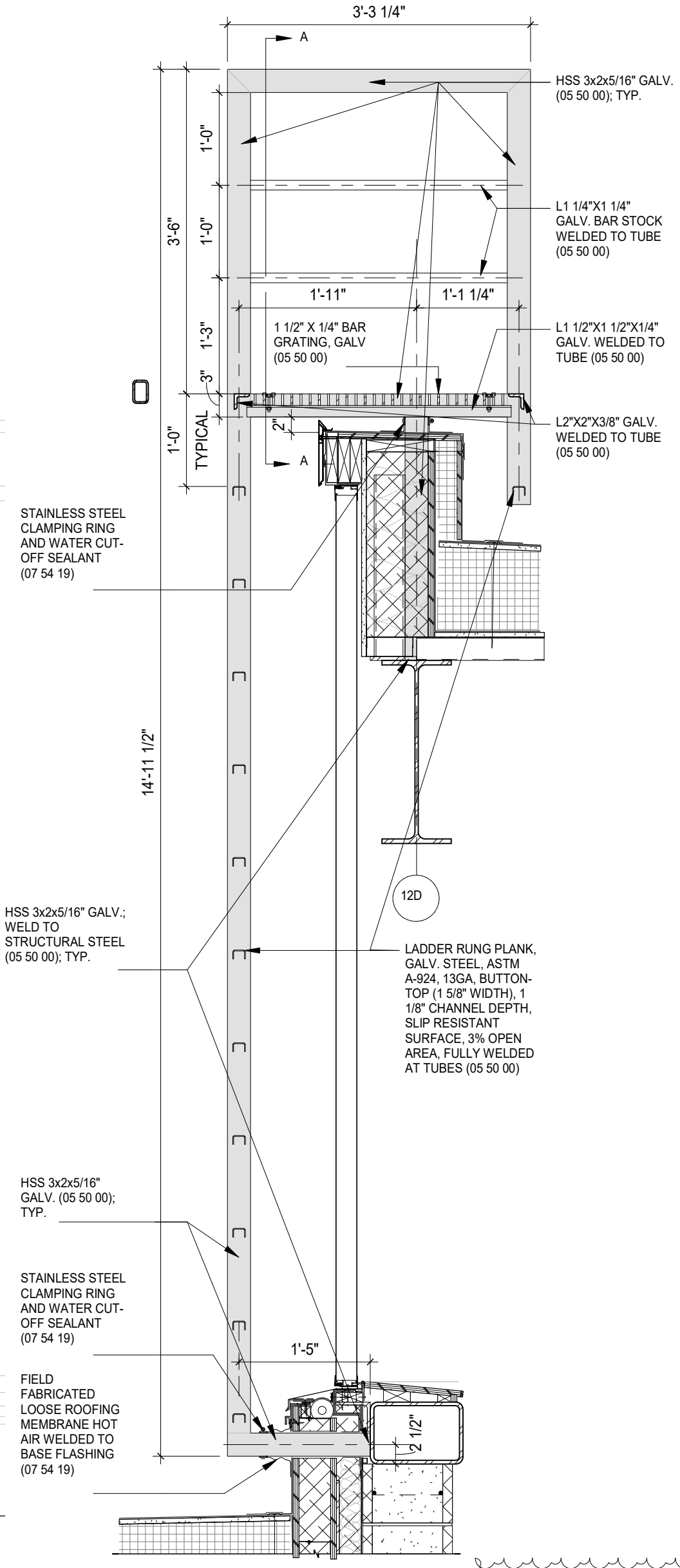


ARCHITECT: LPA|A LAMOUREUX PAGANO ASSOCIATES | ARCHITECTS lpaa.com	PROJECT TITLE: Doherty Memorial High School 299 Highland Street, Worcester, MA 01602	REFERENCE: A3.18 A3.18a DRAWING TITLE: Masonry Wall at Door 01	DATE: 02/16/22 DRAWING NUMBER: ADD-5 A-079



SECTION A-A

NOTE: LADDER TO BE PRIMED AND PAINTED:



SECTION B-B

5
ADDENDUM #5

26
A6.29

Roof Access Ladder #4

SCALE: 3/4" = 1'-0"

ARCHITECT:

LPA|A

LAMOUREUX PAGANO ASSOCIATES | ARCHITECTS
lpaa.com

PROJECT TITLE:

Doherty Memorial High School

299 Highland Street, Worcester, MA 01602

REFERENCE: 26/A6.29

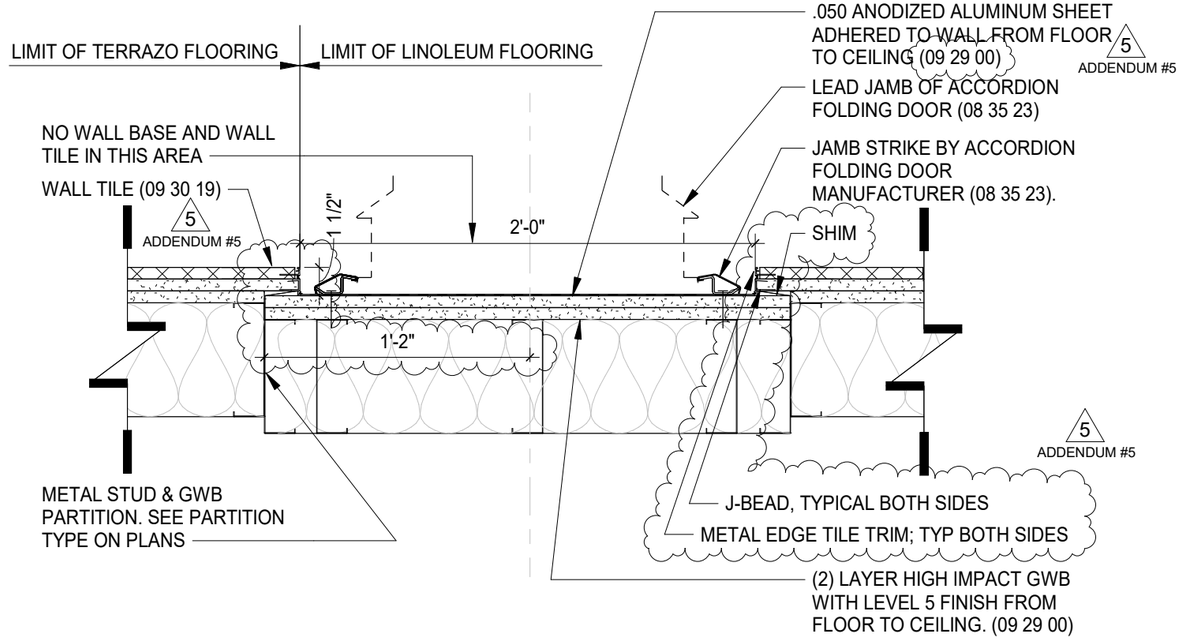
DATE: 02/16/22

DRAWING TITLE:

Roof Access Ladder #4

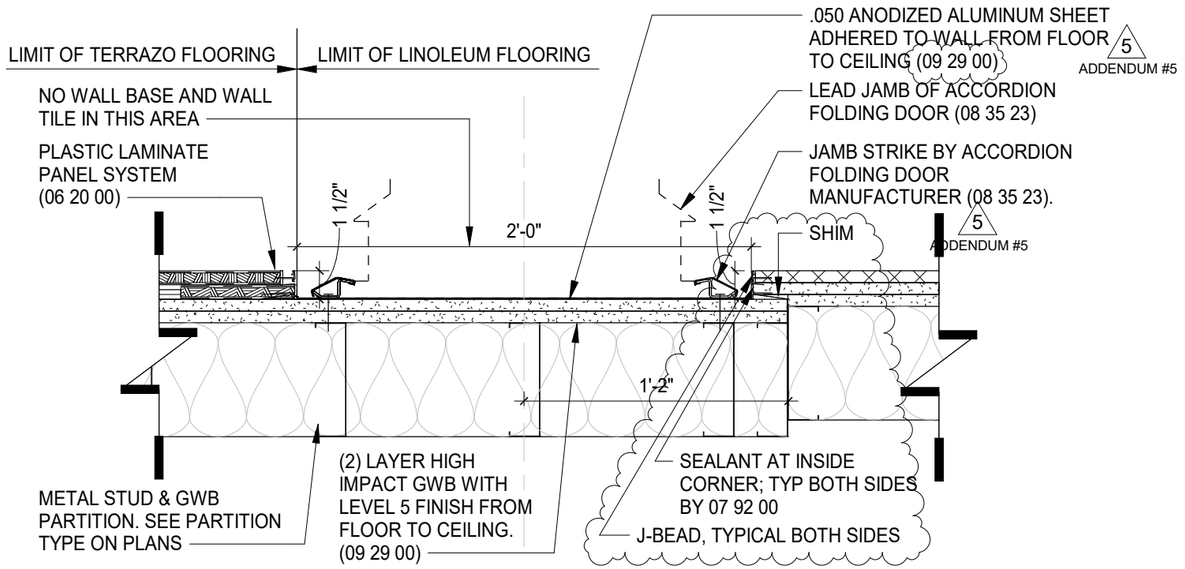
DRAWING NUMBER:

ADD-5
~~A-080~~



10 / A10.6 **Typical Accordion Folding Door Striker Jamb Detail**

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



18 / A10.6 **HS-11 Accordion Folding Door Striker Jamb Detail**

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

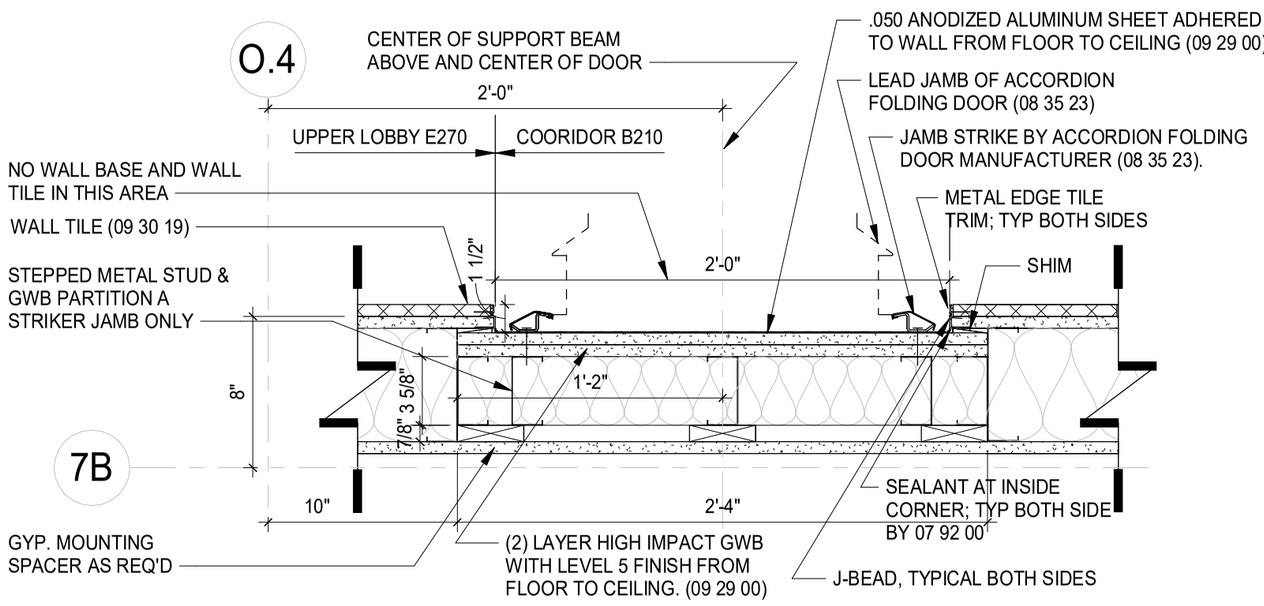
DATE: 02/16/22
DRAWING NUMBER: ADD-5 / A-081

REFERENCE: A10.6
DRAWING TITLE: Accordim Door Striker Jamb Detail Revisions

PROJECT TITLE:
Doherty Memorial High School
299 Highland Street, Worcester, MA 01602

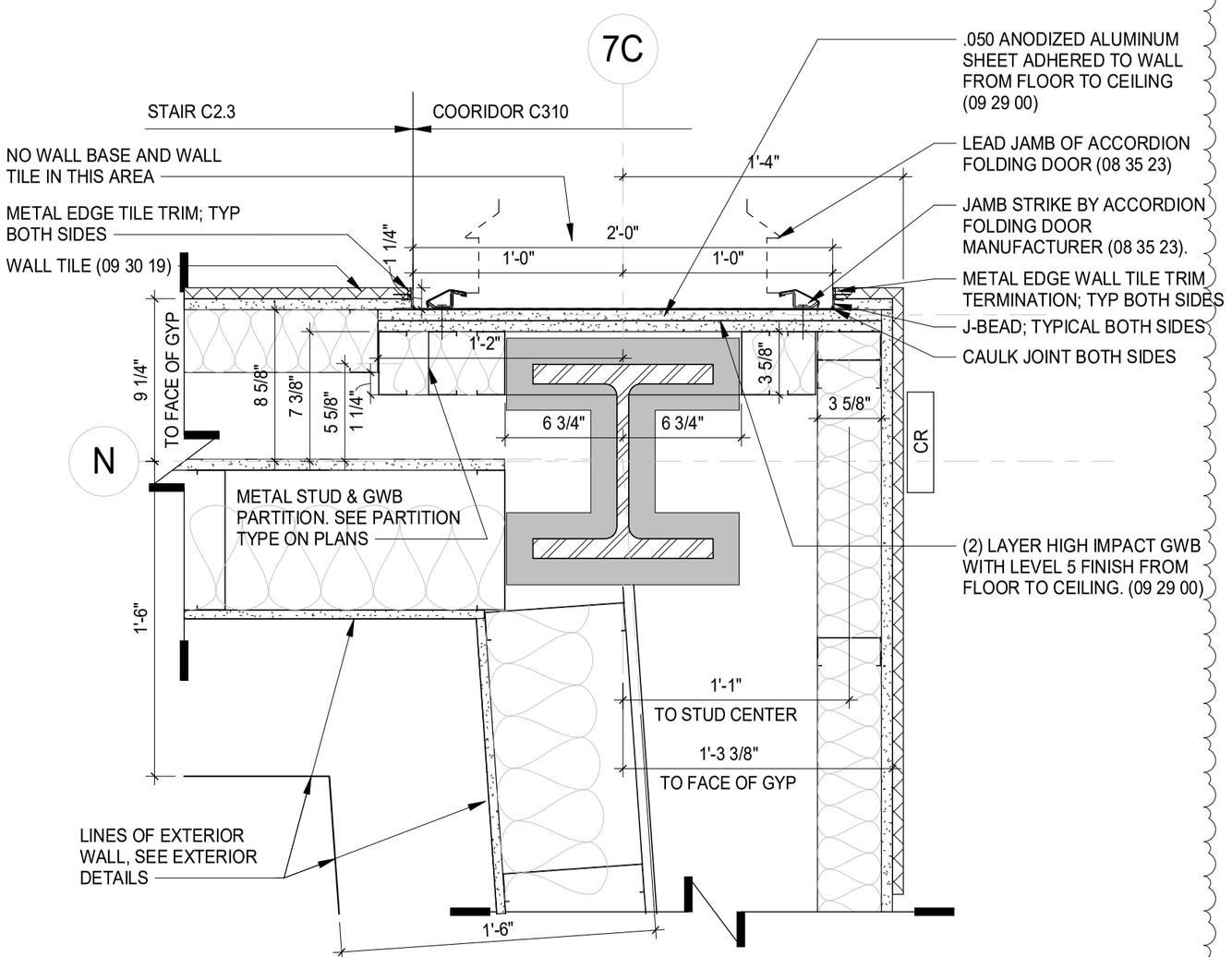
ARCHITECT:
LPA
LAMOUREUX PAGANO ASSOCIATES | ARCHITECTS
lpaa.com

5
ADDENDUM #5



10A / A10.6 HS-23 Accordion Folding Door Striker Jamb Detail

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

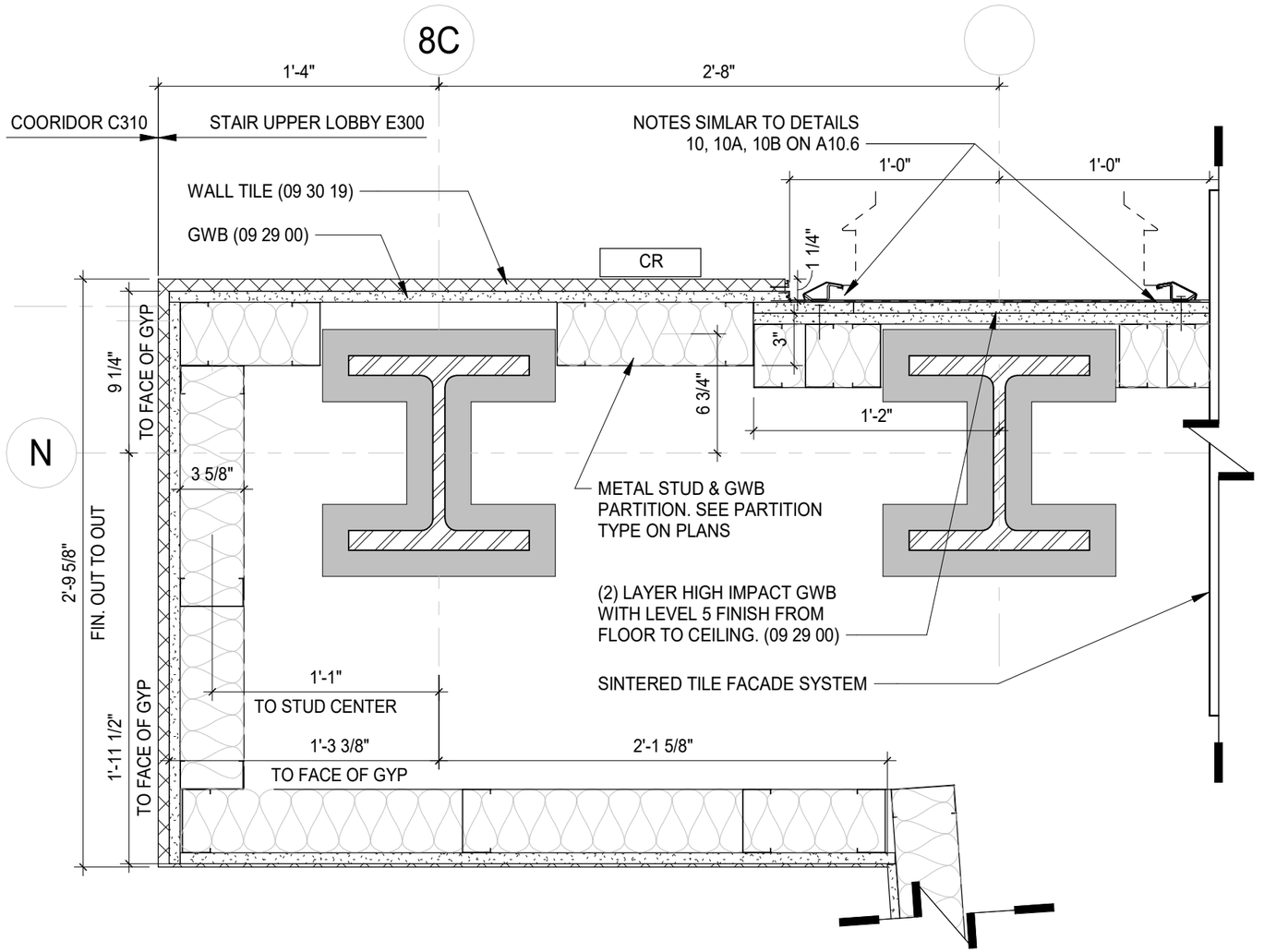


10B / A10.6 HS-30 Accordion Folding Door Striker Jamb Detail (HS-40 SIM)

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

ARCHITECT: LPA|A LAMOUREUX PAGANO ASSOCIATES | ARCHITECTS lpaa.com	PROJECT TITLE: Doherty Memorial High School 299 Highland Street, Worcester, MA 01602	REFERENCE: A10.6	DATE: 02/16/22
		DRAWING TITLE: Accordion Door Striker Jamb Detail	DRAWING NUMBER: ADD-5 A-082

5
ADDENDUM #5



10C / A10.6 HS-31 Accordion Folding Door Striker Jamb Detail

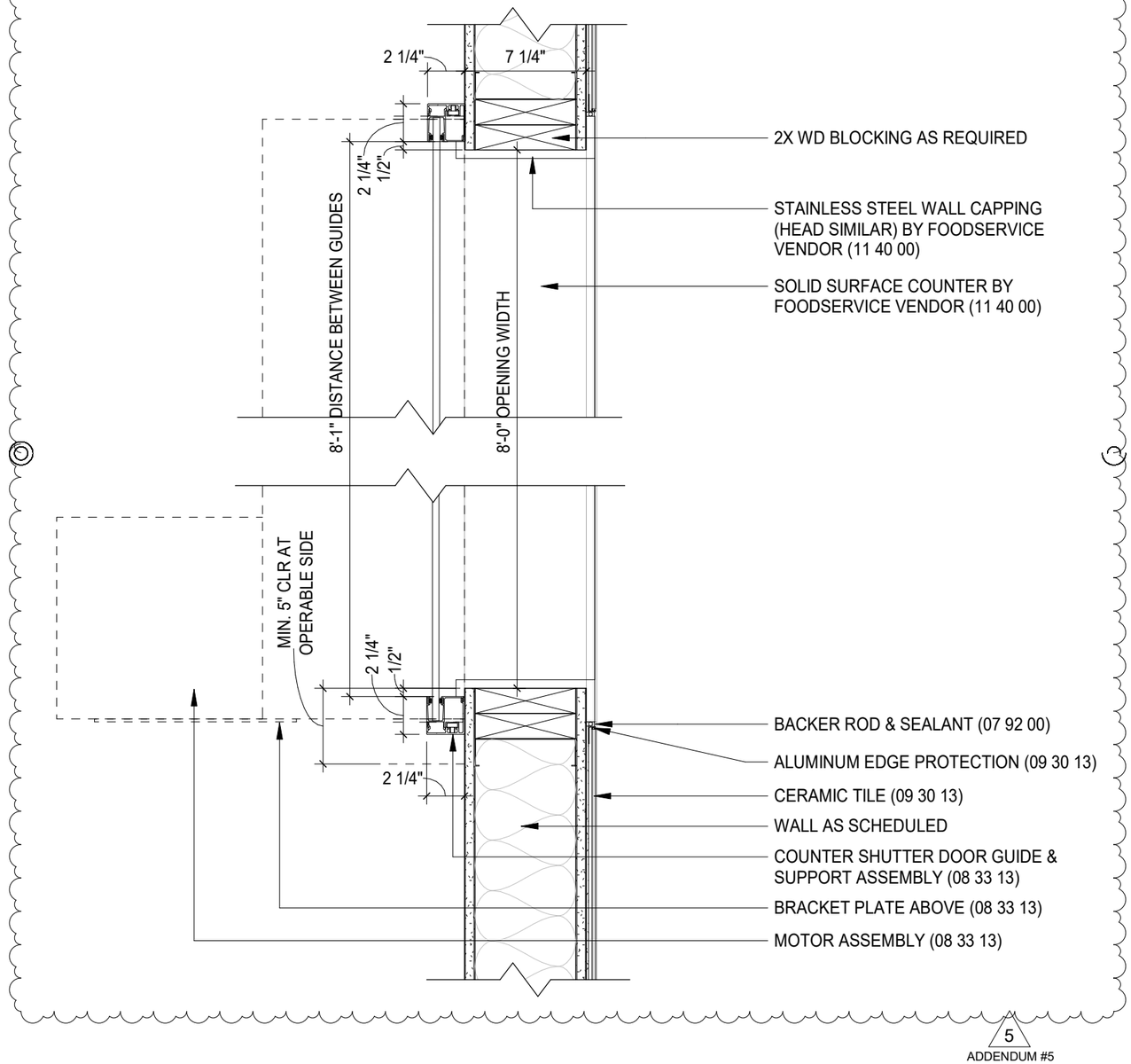
SCALE: 1 1/2" = 1'-0"

DATE: 02/16/22
DRAWING NUMBER: ADD-5 / A-083

REFERENCE: A10.6
DRAWING TITLE: Accordion Door Striker Jamb Detail

PROJECT TITLE:
Doherty Memorial High School
299 Highland Street, Worcester, MA 01602

ARCHITECT:
LPA
LAMOUREUX PAGANO ASSOCIATES | ARCHITECTS
lpaa.com



1 / A10.4 **Rolling Counter Shutter Jamb Detail**

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

DATE: 02/16/22

DRAWING NUMBER: ADD-5 / A-084

REFERENCE: A10.4

DRAWING TITLE: Grab'N Go E282 Overhead Counter Shutter Jamb Detail

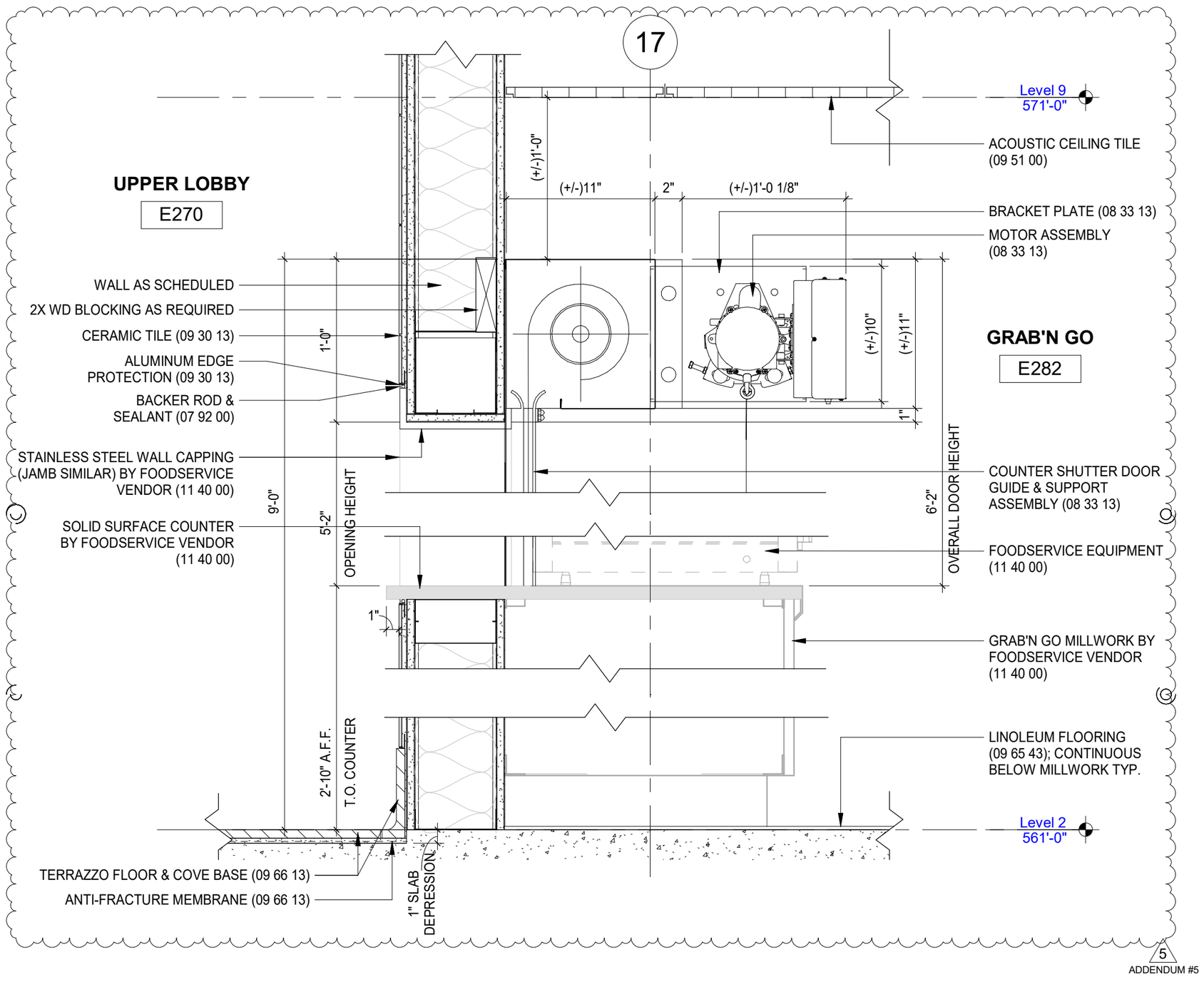
PROJECT TITLE: Doherty Memorial High School

299 Highland Street, Worcester, MA 01602

ARCHITECT:

LAMOUREUX PAGANO ASSOCIATES | ARCHITECTS

lpaa.com



1 / A10.4 Rolling Counter Shutter Head Detail ADD-5 A-085

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

DATE: 02/16/22

DRAWING NUMBER: ADD-5 / A-085

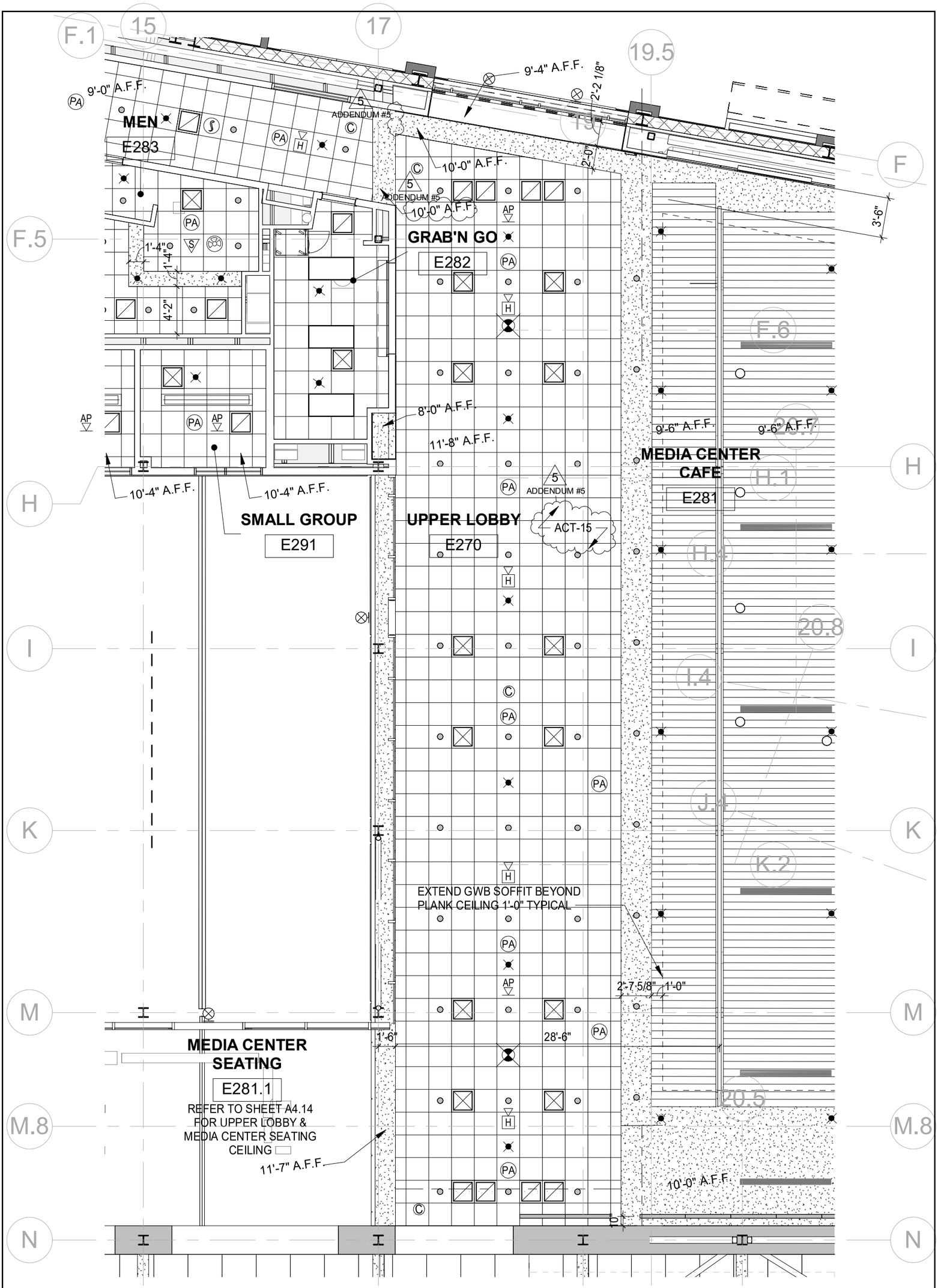
REFERENCE: A10.4

DRAWING TITLE: Grab'N Go E282 Overhead Counter Shutter Head Detail

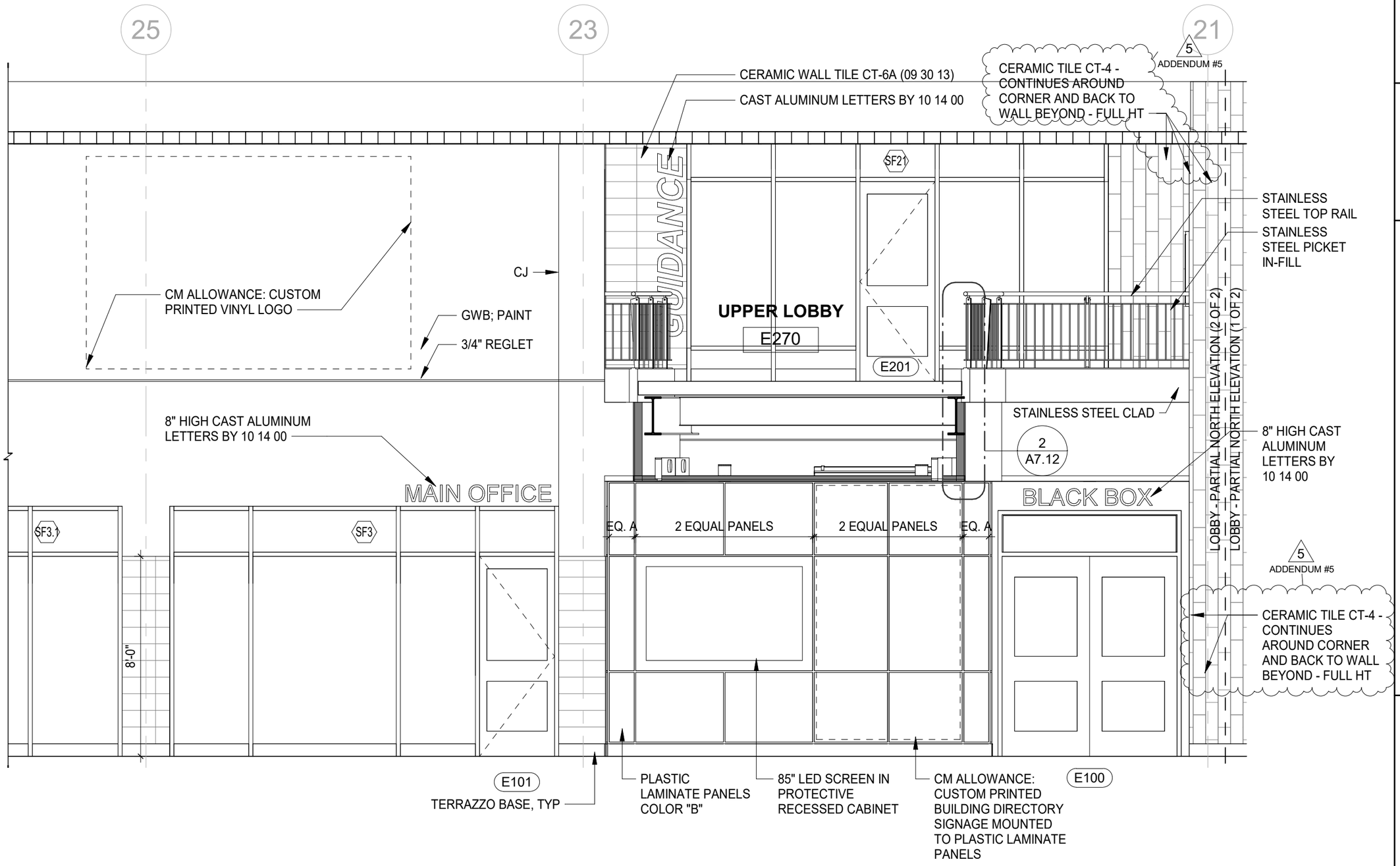
PROJECT TITLE: Doherty Memorial High School

299 Highland Street, Worcester, MA 01602

ARCHITECT: LAMOUREUX PAGANO ASSOCIATES | ARCHITECTS lpaa.com



ARCHITECT: LAMOUREUX PAGANO ASSOCIATES | ARCHITECTS lpaa.com	PROJECT TITLE: Doherty Memorial High School, 299 Highland Street, Worcester, MA 01602	REFERENCE: 1/A4.10	DATE: 02/14/22
		DRAWING TITLE: Partial Upper Lobby Ceiling	DRAWING NUMBER: ADD-5 / A-086

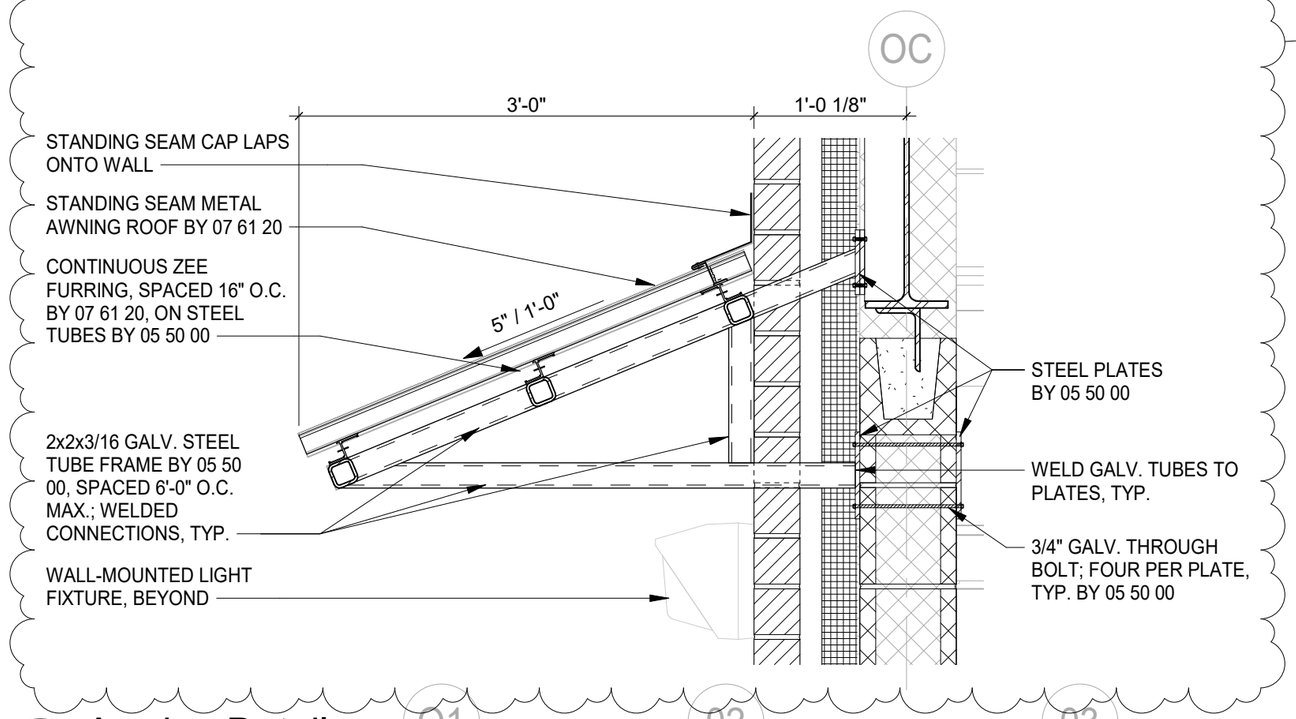


3 / A8.21 Lobby - Partial North Elevation (2 of 2)
SCALE: 1/4" = 1'-0"

DATE: 02/14/22
DRAWING NUMBER: ADD–5 / A–087
REFERENCE: A8.21
DRAWING TITLE: Lobby North Elevation Tile Extents Clarification

PROJECT TITLE:
Doherty Memorial High School
299 Highland Street, Worcester, MA 01602

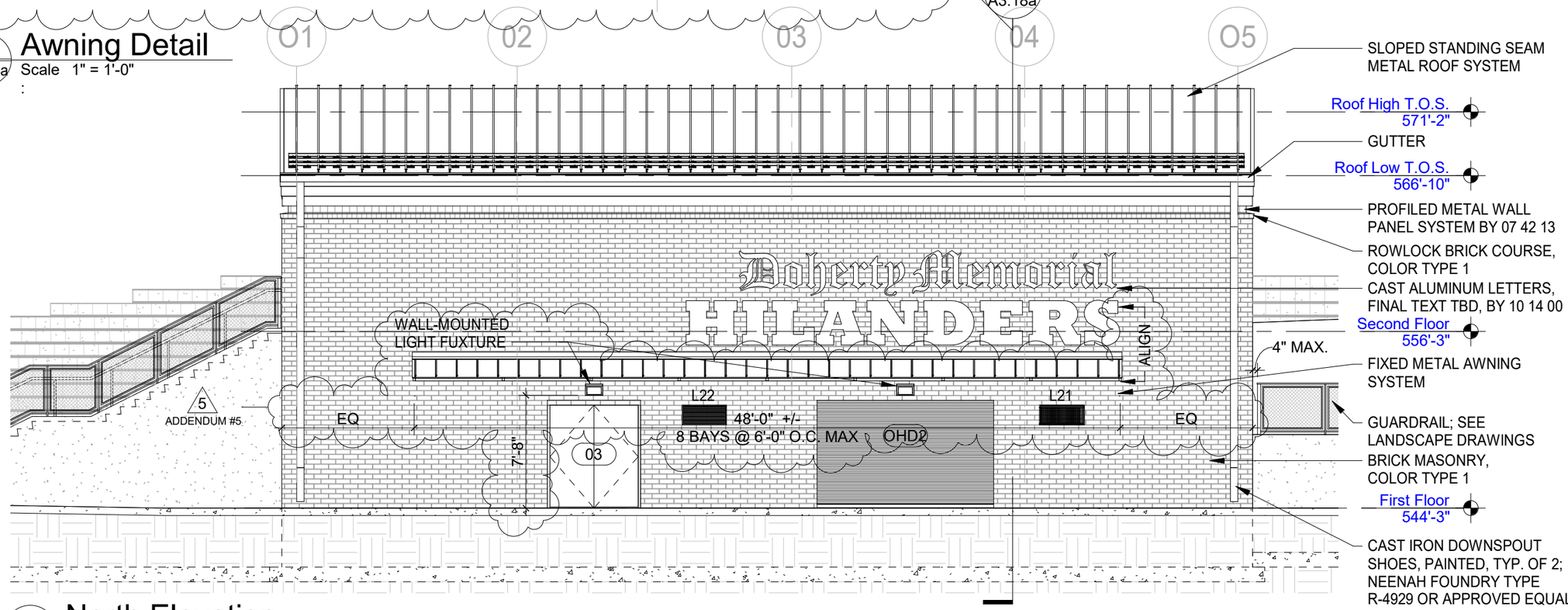
ARCHITECT:
LPA
LAMOUREUX PAGANO ASSOCIATES | ARCHITECTS
lpaa.com



8 / A3.18a **Awning Detail**
Scale 1" = 1'-0"

5 ADDENDUM #5

6 / A3.18a



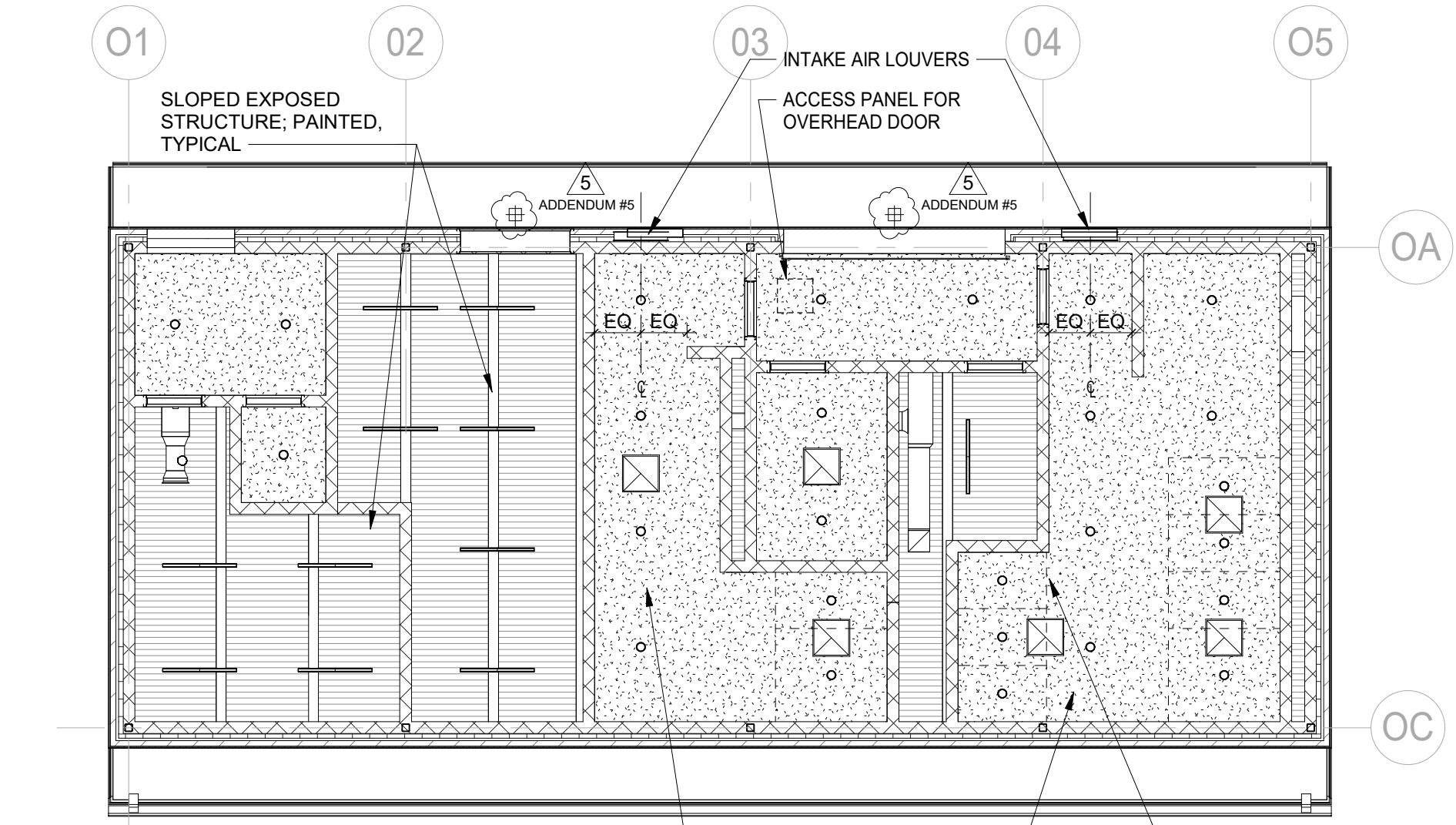
3 / A3.18a **North Elevation**
Scale 1/8" = 1'-0"

DATE: 02/16/22
DRAWING NUMBER: ADD-5 / A-088

REFERENCE: A3.18a
DRAWING TITLE: Outdoor Storage Building Awning Section and Elevation

PROJECT TITLE: Doherty Memorial High School
299 Highland Street, Worcester, MA 01602

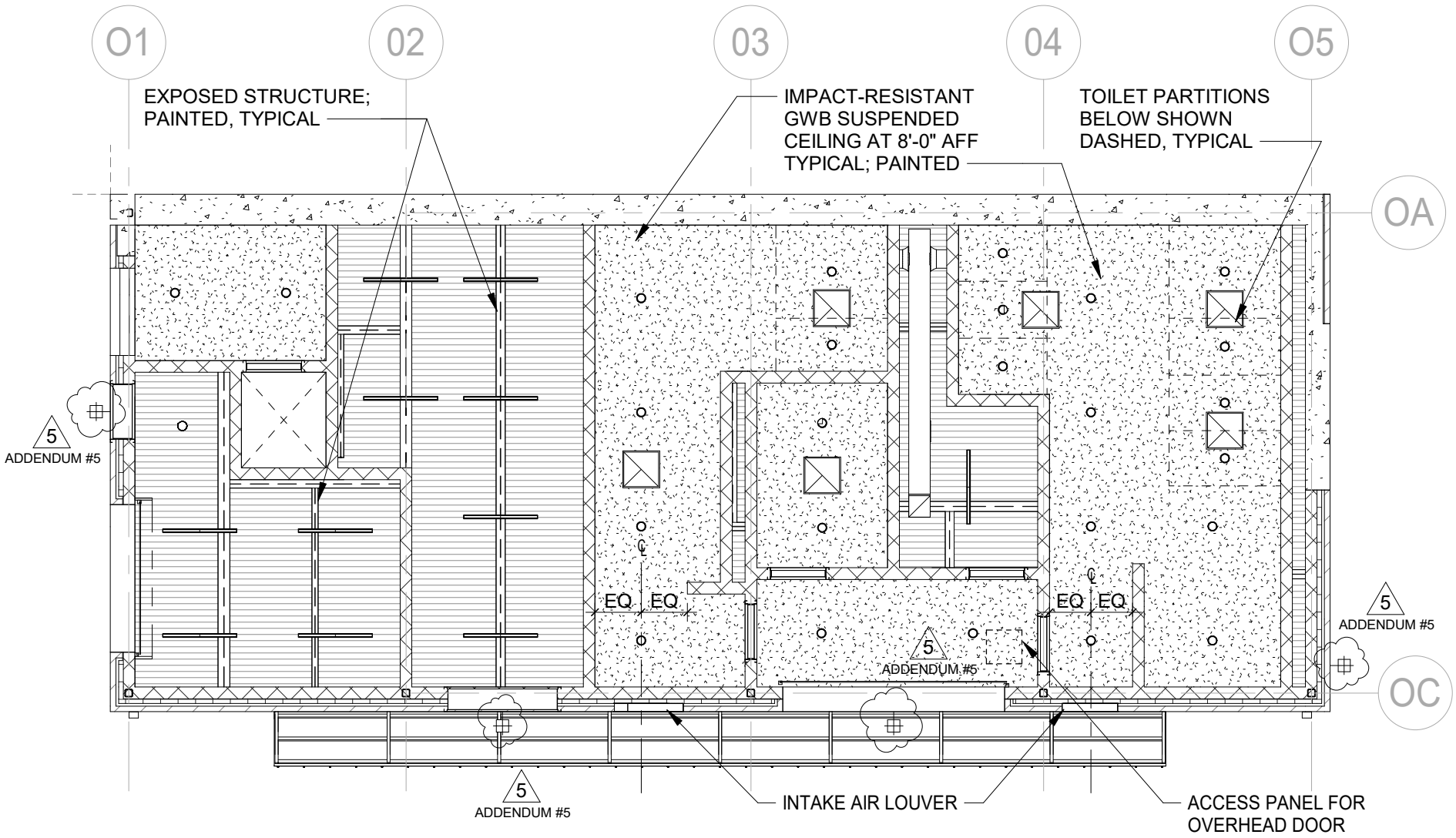
ARCHITECT:
LPA|A
LAMOUREUX PAGANO ASSOCIATES | ARCHITECTS
lpaa.com



5
A3.18

Second Floor RCP

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



4
A3.18

First Floor RCP

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

ARCHITECT:

LPA|A

LAMOUREUX PAGANO ASSOCIATES | ARCHITECTS
lpaa.com

PROJECT TITLE:

Doherty Memorial High School

299 Highland Street, Worcester, MA 01602

REFERENCE: A3.18

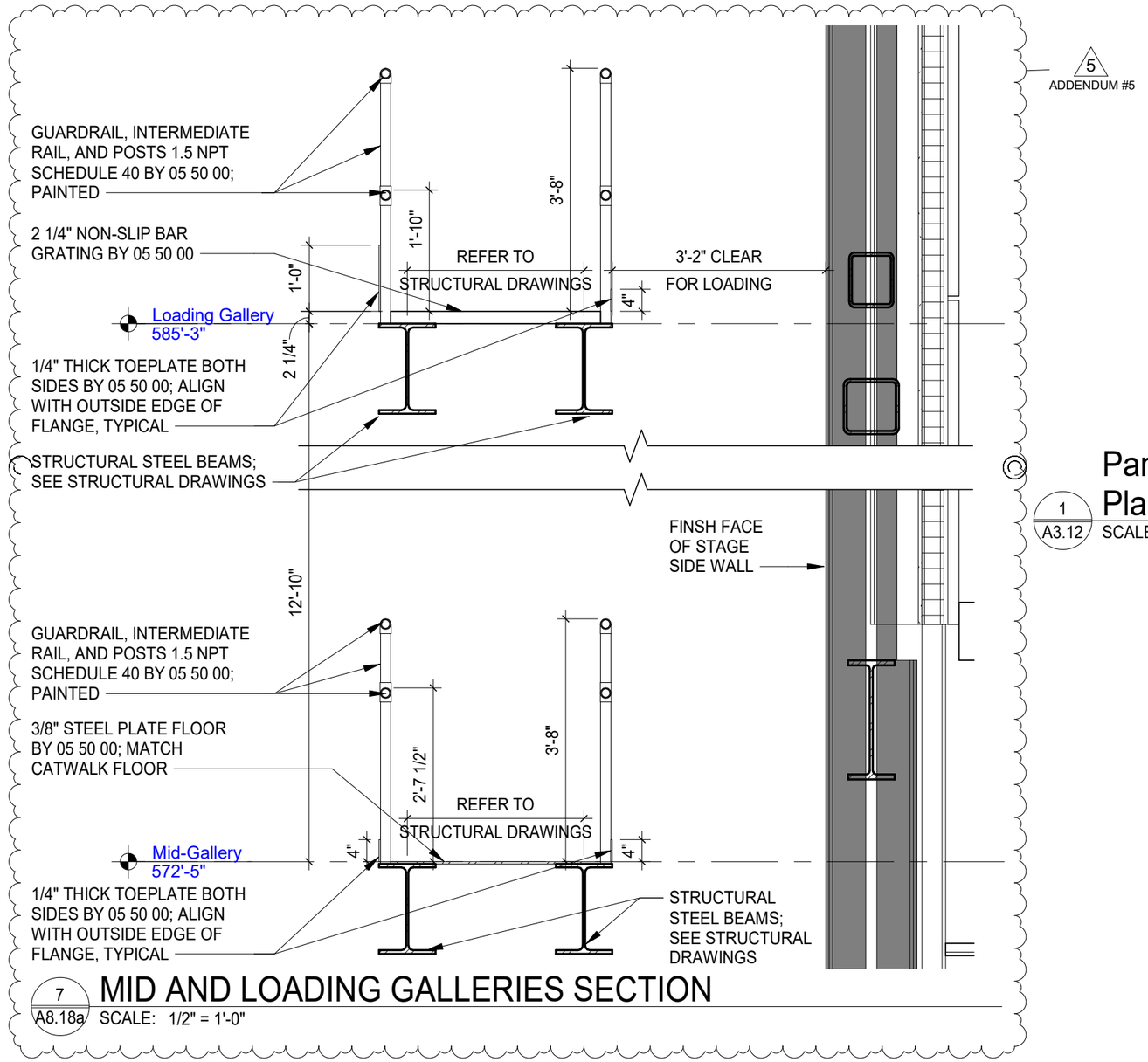
DATE: 02/16/22

DRAWING TITLE:

Outdoor Storage Building Exterior Lighting RCPs

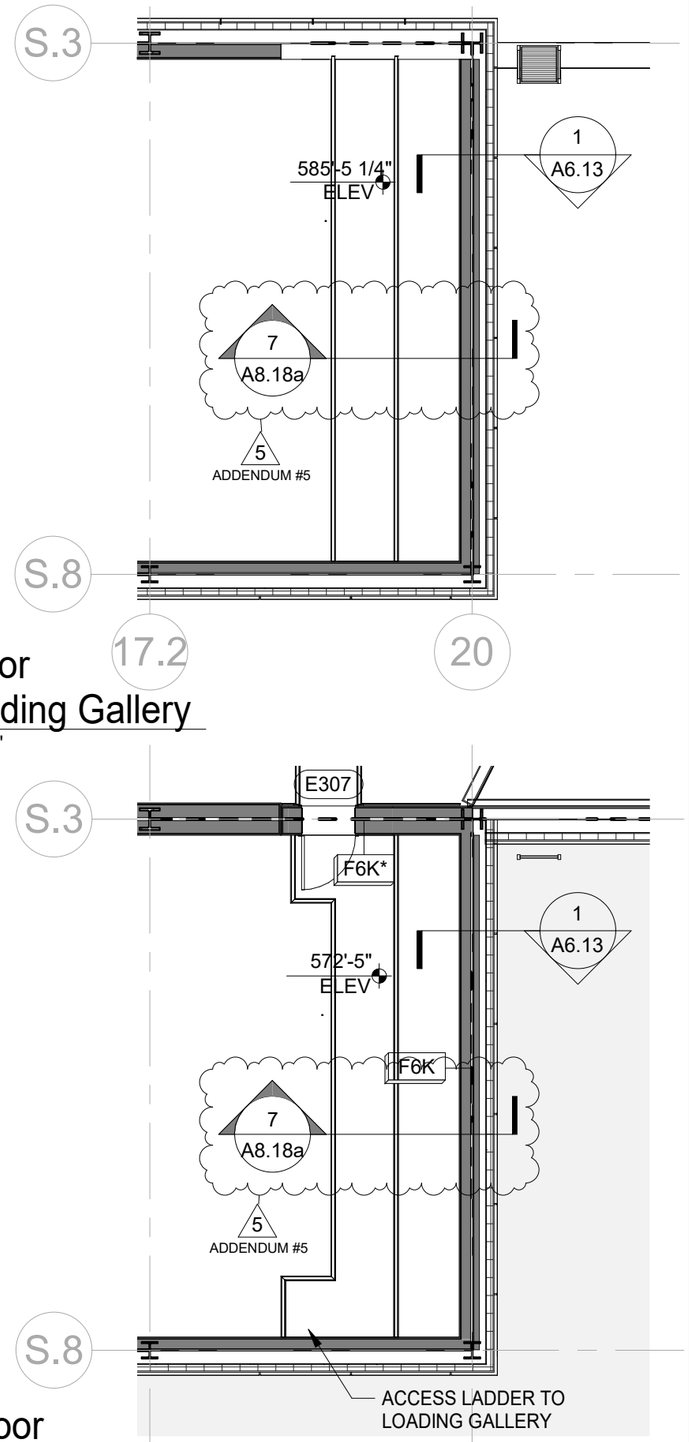
DRAWING NUMBER:

ADD-5
A-089



7 A8.18a SCALE: 1/2" = 1'-0"

MID AND LOADING GALLERIES SECTION



1 A3.12 SCALE: 1/8" = 1'-0"

Partial Floor Plan - Loading Gallery

2 A3.12 SCALE: 1/8" = 1'-0"

Level 3 Floor Plan - Section E

DATE: 02/16/22

DRAWING NUMBER: ADD-5 / A-090

REFERENCE: A3.12 A8.18a

DRAWING TITLE: Auditorium Mid and Loading Galleries Sections

PROJECT TITLE:

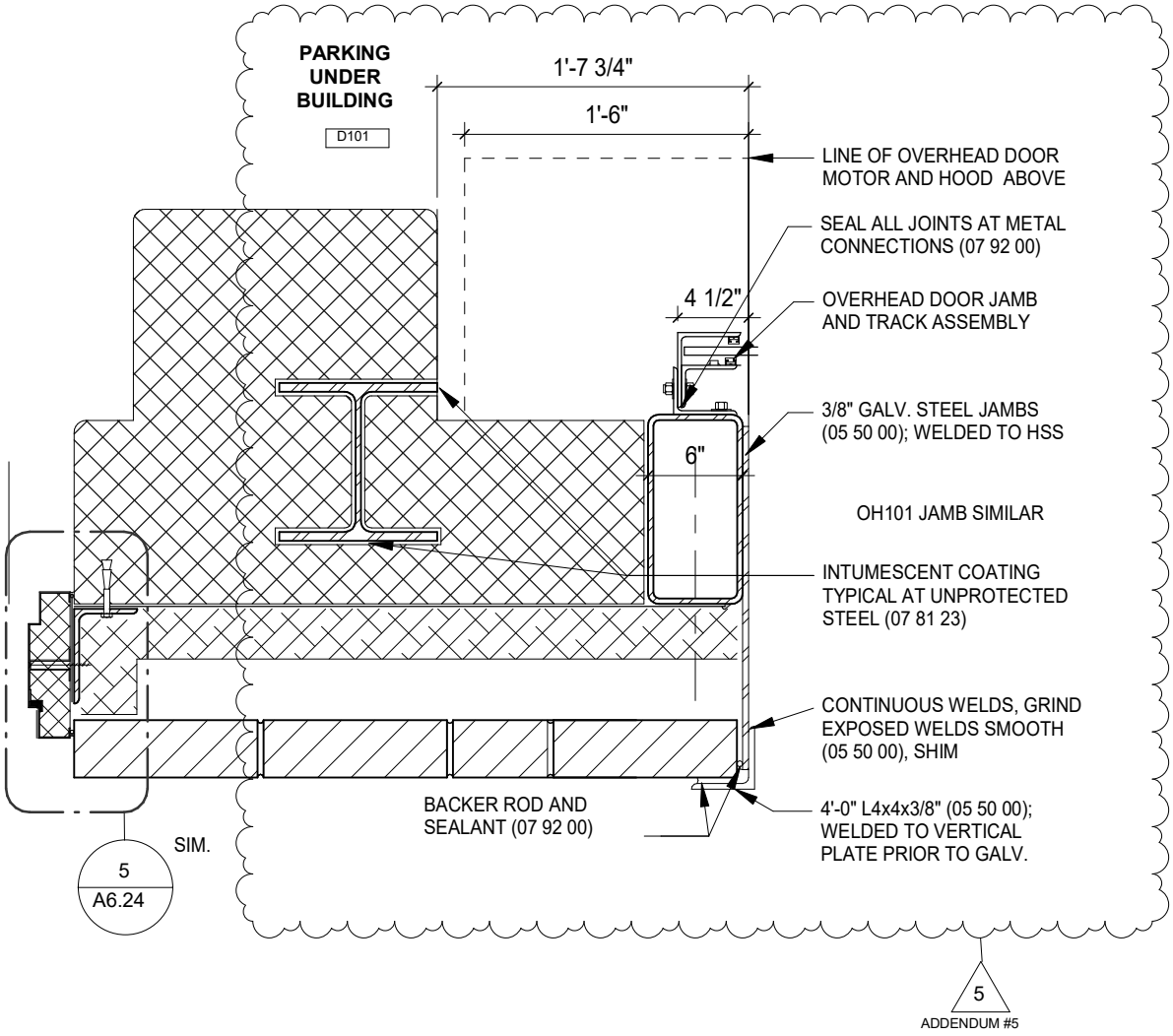
Doherty Memorial High School

299 Highland Street, Worcester, MA 01602

ARCHITECT:

LAMOUREUX PAGANO ASSOCIATES | ARCHITECTS

lpaa.com



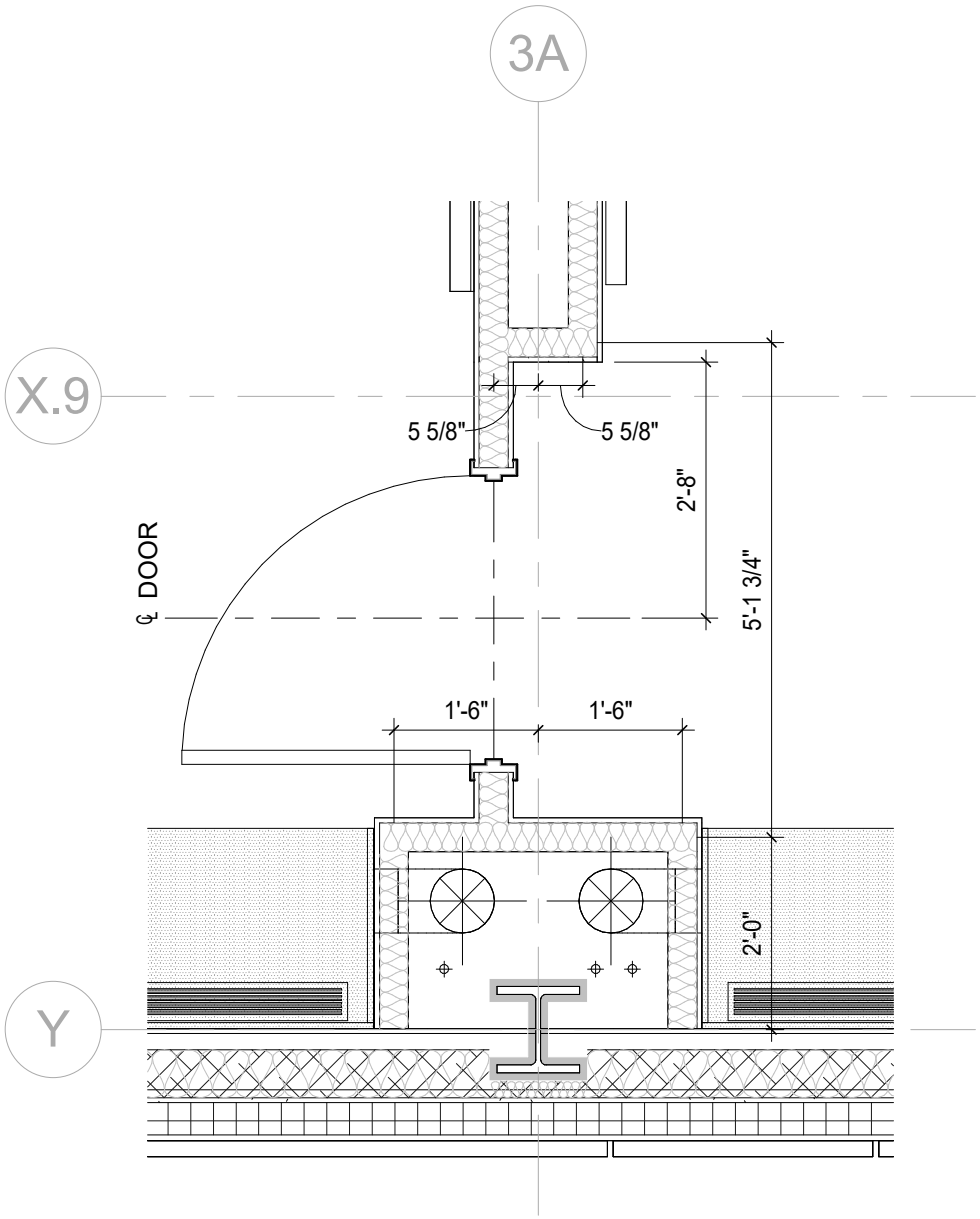
7
A6.25

OH101A/X20 Jamb

SCALE: 1" = 1'-0"

ARCHITECT: LPA|A LAMOUREUX PAGANO ASSOCIATES | ARCHITECTS lpaa.com	PROJECT TITLE: Doherty Memorial High School 299 Highland Street, Worcester, MA 01602	REFERENCE: 7/A6.25 DRAWING TITLE: OH101A/X20 JAMB REVISION	DATE: 02/16/22 DRAWING NUMBER: ADD-5 ~~A-091~~

5
ADDENDUM #5



16
A8.1

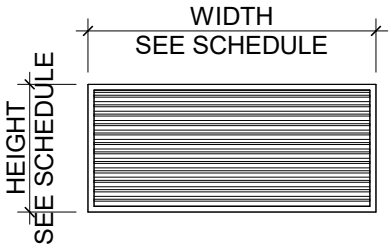
Enlarged Typical Classroom Communicating Door

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

ARCHITECT: LPA|A LAMOUREUX PAGANO ASSOCIATES | ARCHITECTS lpaa.com	PROJECT TITLE: Doherty Memorial High School 299 Highland Street, Worcester, MA 01602	REFERENCE: A8.1 DRAWING TITLE: Enlarged Typical Classroom Communicating Door	DATE: 02/16/22 DRAWING NUMBER: ADD-5 A-092

5
ADDENDUM #5

FIXED LOUVER TYPES (08 91 19)

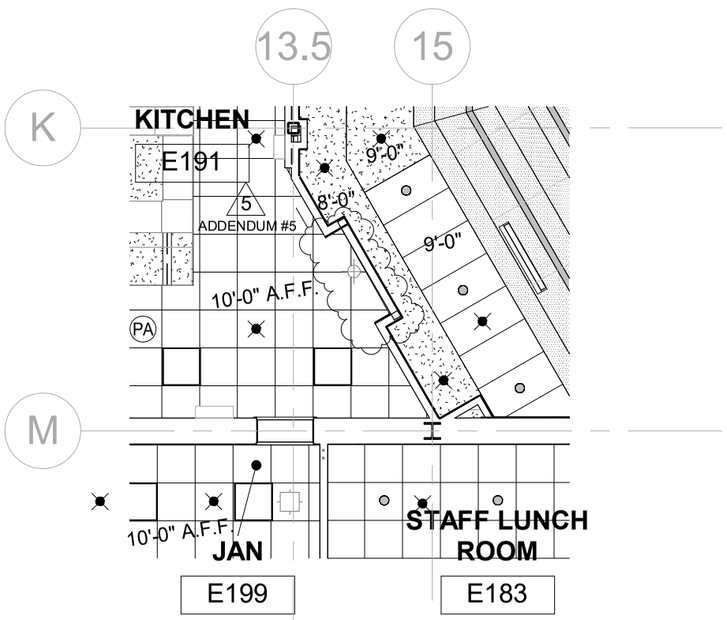


LOUVER SCHEDULE

Type	Location	Width	Height	Head Detail	Jamb Detail	Sill Detail
L21	07	3'-0"	1'-4"			
L22	04	3'-0"	1'-4"			
L23	12	3'-0"	1'-4"			
L24	15	3'-0"	1'-4"			
L25	15	3'-0"	2'-0"			
L26	10	3'-0"	2'-0"			

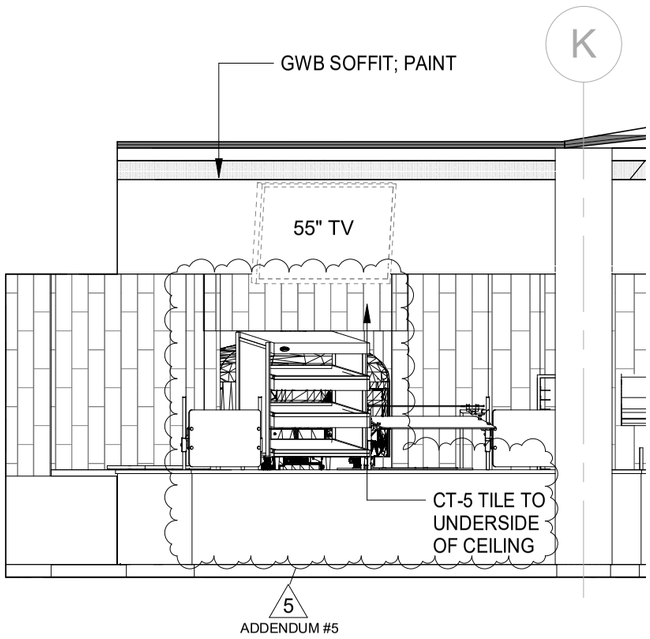
NOTE: HEAD, JAMB & SILL DETAILS SIMILAR TO TYPICAL DOOR & WINDOW DETAILS. PROVIDE ALUMINUM FLASHING AT SILLS.

DATE: 02/16/22
DRAWING NUMBER: ADD-5 / A-093
REFERENCE: A3.18
DRAWING TITLE: Outdoor Storage Building Louver Schedule
PROJECT TITLE: Doherty Memorial High School
299 Highland Street, Worcester, MA 01602
ARCHITECT: LPA
LAMOUREUX PAGANO ASSOCIATES | ARCHITECTS
lpaa.com



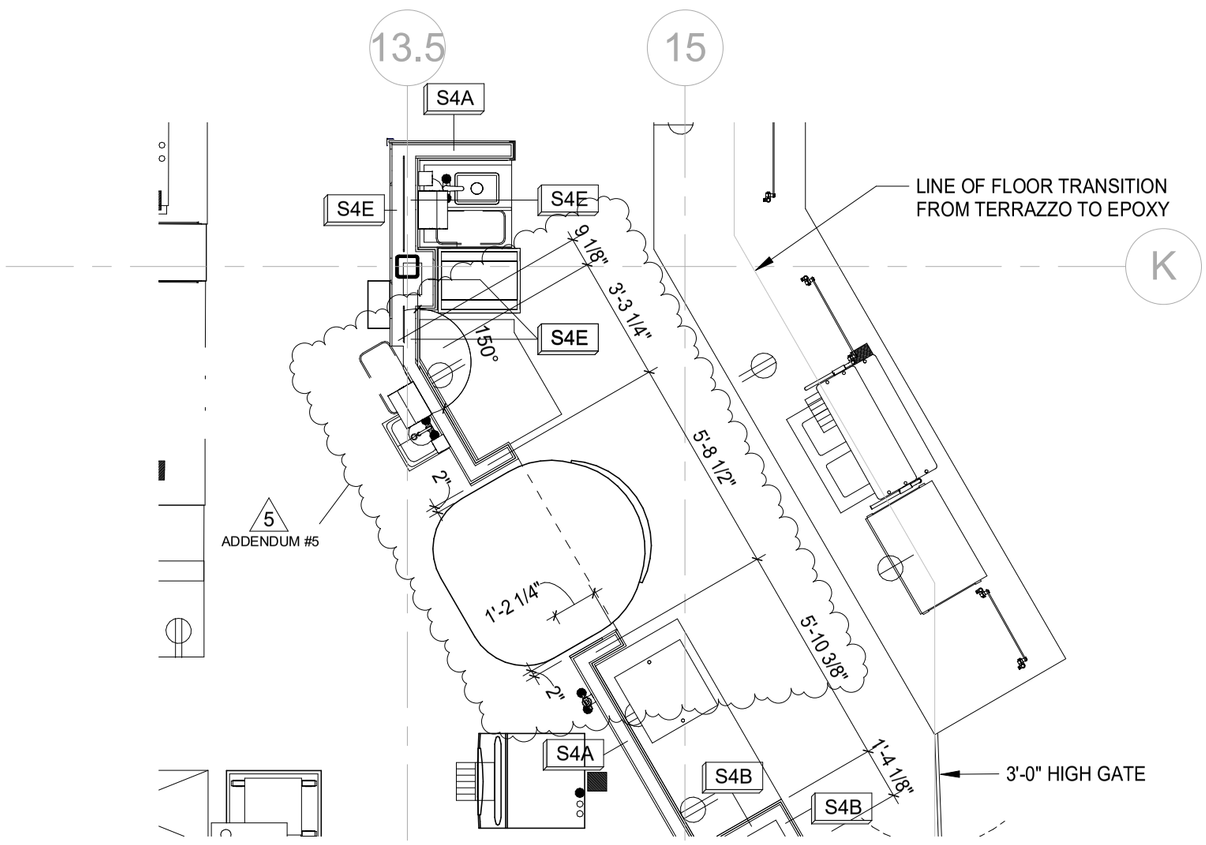
1 A4.6 — 1. Main Floor RCP - Section DE

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



2 A8.24a — Servery - East

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

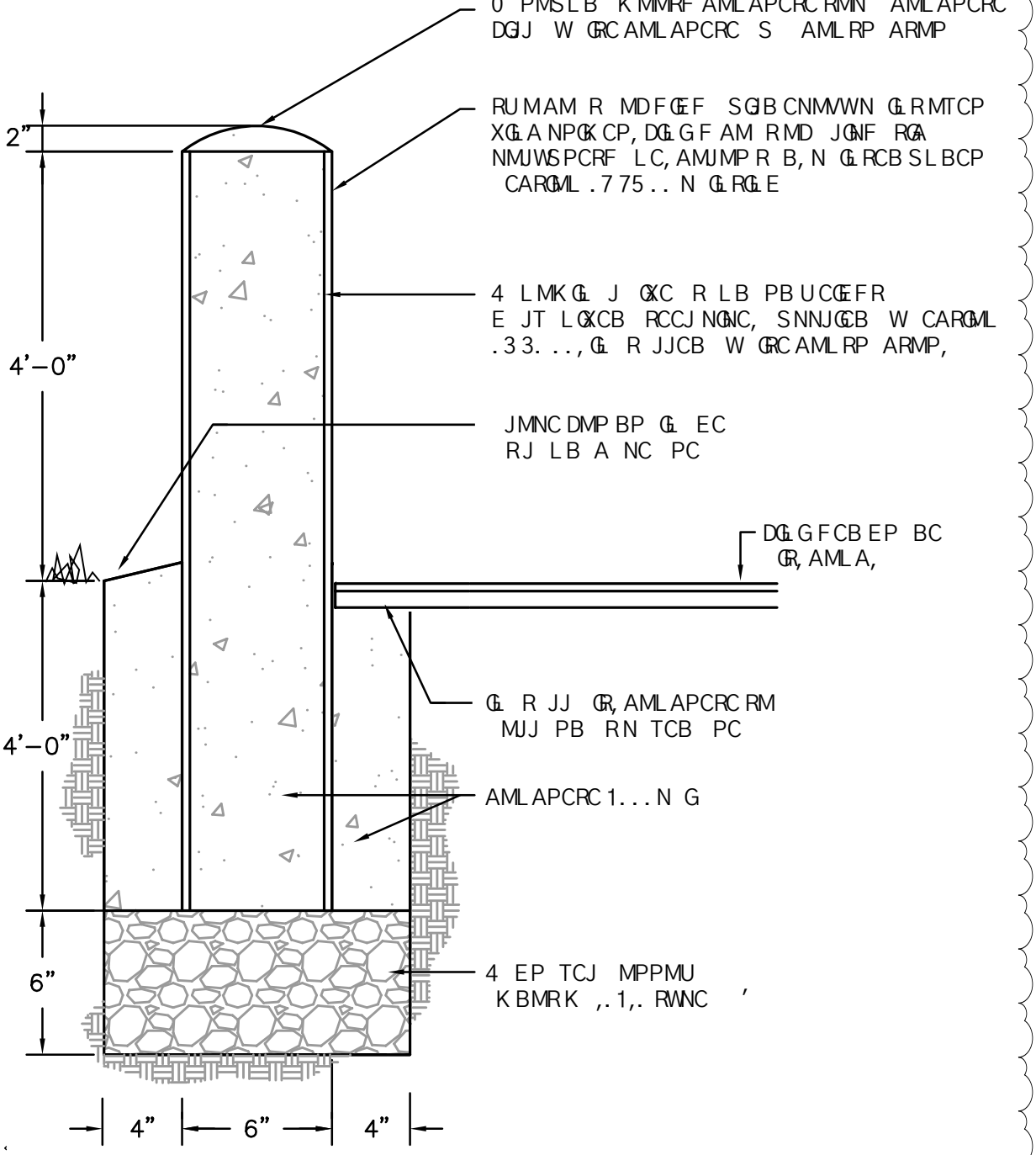


1 A8.19 — 1. Main Floor (1/4th) @ Cafeteria

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

ARCHITECT: LAMOUREUX PAGANO ASSOCIATES | ARCHITECTS lpaa.com	PROJECT TITLE: Doherty Memorial High School, 299 Highland Street, Worcester, MA 01602	REFERENCE: A8.19, A4.6 A8.24a DRAWING TITLE: Pizza Oven Surround	DATE: 02/16/22 DRAWING NUMBER: ADD-4 A-094

5
ADDENDUM #5



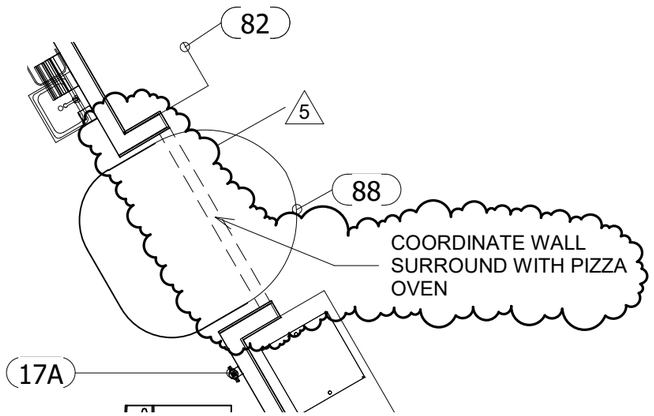
6" BOLLARD DETAIL

NOT TO SCALE

ARCHITECT: LPA|A LAMOUREUX PAGANO ASSOCIATES | ARCHITECTS lpaa.com	PROJECT TITLE: Doherty Memorial High School 299 Highland Street, Worcester, MA 01602	REFERENCE: 4/A8.20 DRAWING TITLE: Bollard Detail	DATE:02/16/22 DRAWING NUMBER: ADD-5 A-095

FS-013 Schedule

No.	Qty.	Description	Electrical Utilities						Revision Comment
			Voltage	Phase	HP	Amperage	Hard Connection	Electrical Height	
7	1	Cooler Condensing Unit	208/230	3	2.5	15.375	X	VFY	EC - Connect to Emergency Power System. KEC to provide roof penetration housing and exit seals. (5)
9	1	Freezer Condensing Unit	208/230	3	4.5	14.875	X	VFY	EC - Connect to Emergency Power System. KEC to provide roof penetration housing and exit seals.
12	1	Cooler Condensing Unit	208/230	3	0.75	5.875	X	VFY	EC - Connect to Emergency Power System. KEC to provide roof penetration housing and exit seals. (5)
13	1	Blast Chiller Condensing Unit	208/230	3		48.6	X	VFY	EC - Connect to Emergency Power System. KEC to provide roof penetration housing and exit seals.



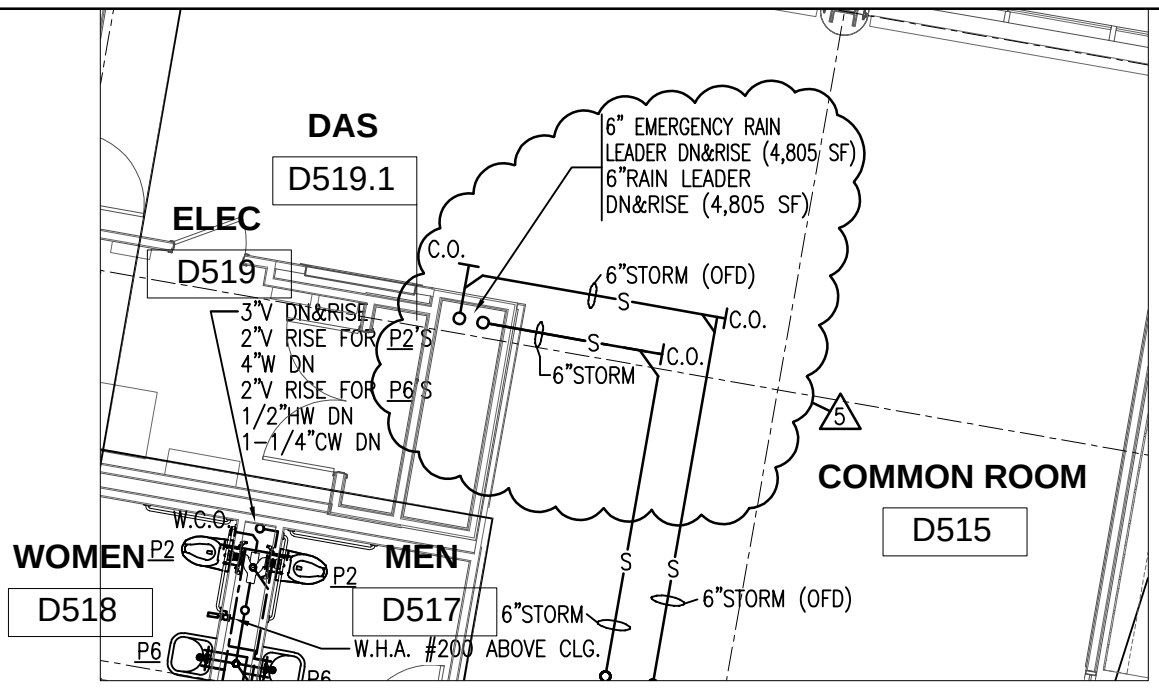
1 FS-013 - Equipment Layout
1/4" = 1'-0"

DATE: 02/16/22
DRAWING NUMBER: ADD-5 FS-013

REFERENCE:
DRAWING TITLE: Foodservice Updates

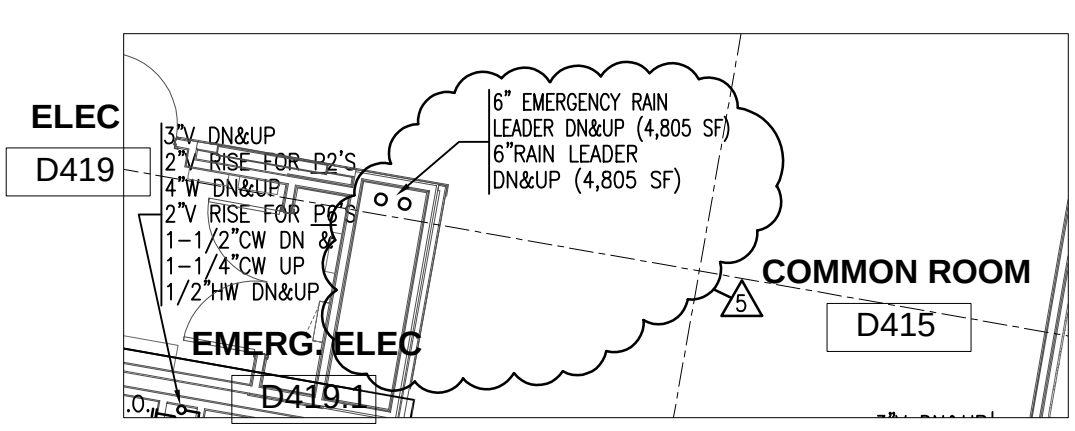
PROJECT TITLE:
ADDENDUM 5
Doherty Memorial High School
299 Highland Street, Worcester, MA 01602

ARCHITECT:
LPA A
LAMOUREUX PAGANO ASSOCIATES | ARCHITECTS
lpaa.com



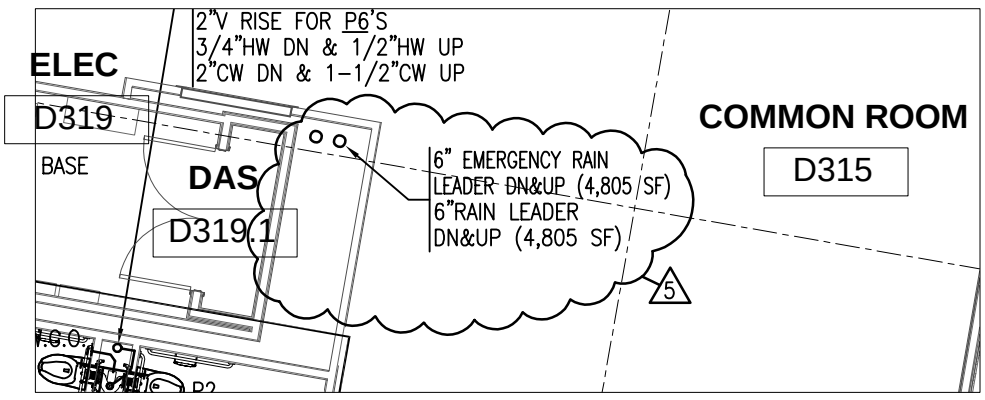
PARTIAL FIFTH FLOOR PLUMBING PLAN – SECTION CD

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



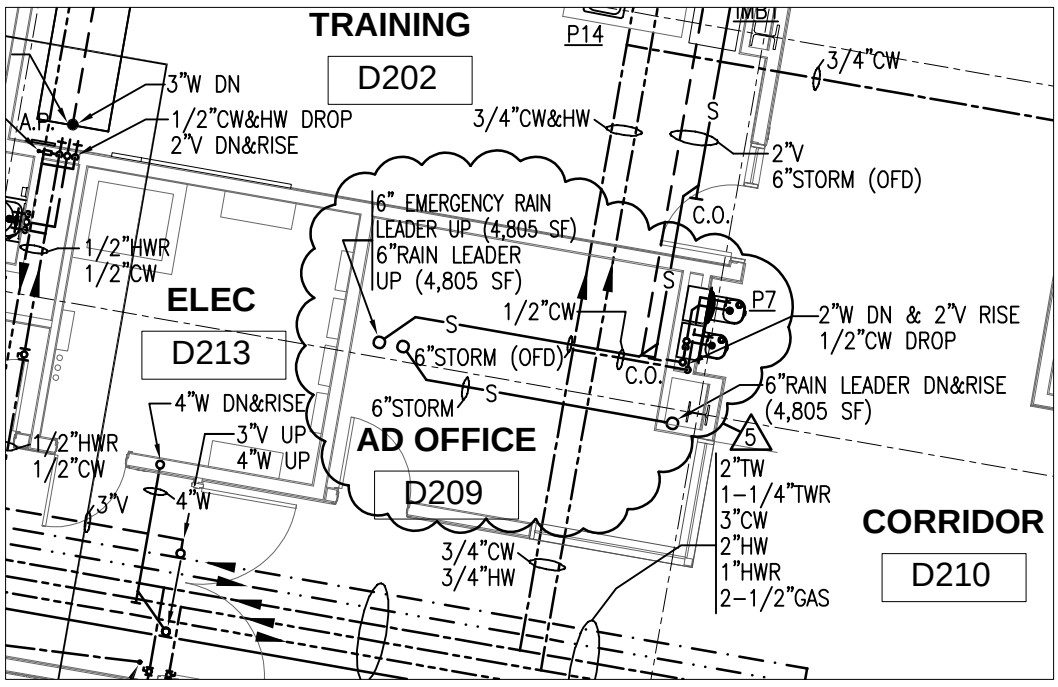
PARTIAL FOURTH FLOOR PLUMBING PLAN – SECTION CD

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



PARTIAL THIRD FLOOR PLUMBING PLAN – SECTION CD

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



PARTIAL SECOND FLOOR PLUMBING PLAN – SECTION CD

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

ARCHITECT:

LPA|A

LAMOUREUX PAGANO ASSOCIATES | ARCHITECTS
lpaa.com

PROJECT TITLE:

Doherty Memorial High School

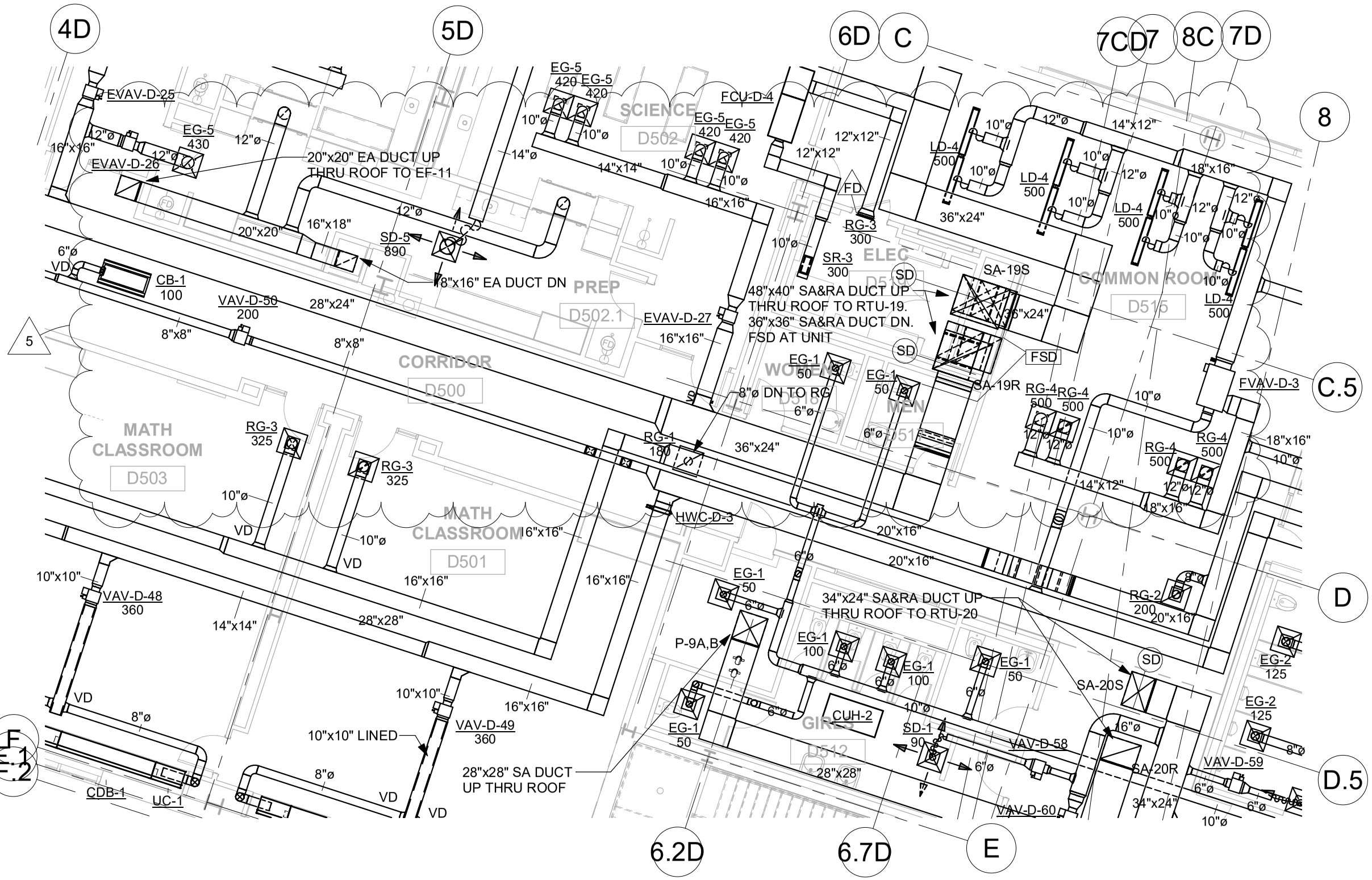
299 Highland Street, Worcester, MA 01602

REFERENCE: 1/P3.9 1/P3.16 1/P3.13 1/P3.17

DATE: 2/16/2022

DRAWING TITLE:
PARTIAL SECOND, THIRD, FOURTH AND FIFTH FLOOR PLUMBING PLANS - SECTION CD

DRAWING NUMBER:
ADD-5
P-015



DATE: 02/16/2022

DRAWING NUMBER: ADD–5 H010

REFERENCE: H3.17

DRAWING TITLE: Partial Level 5 HVAC Plan Section D

PROJECT TITLE: 100% CONSTRUCTION DOCUMENTS; FINAL BID PACKAGE #4

Doherty Memorial High School

299 Highland St
Worcester, MA 01602

ARCHITECT:

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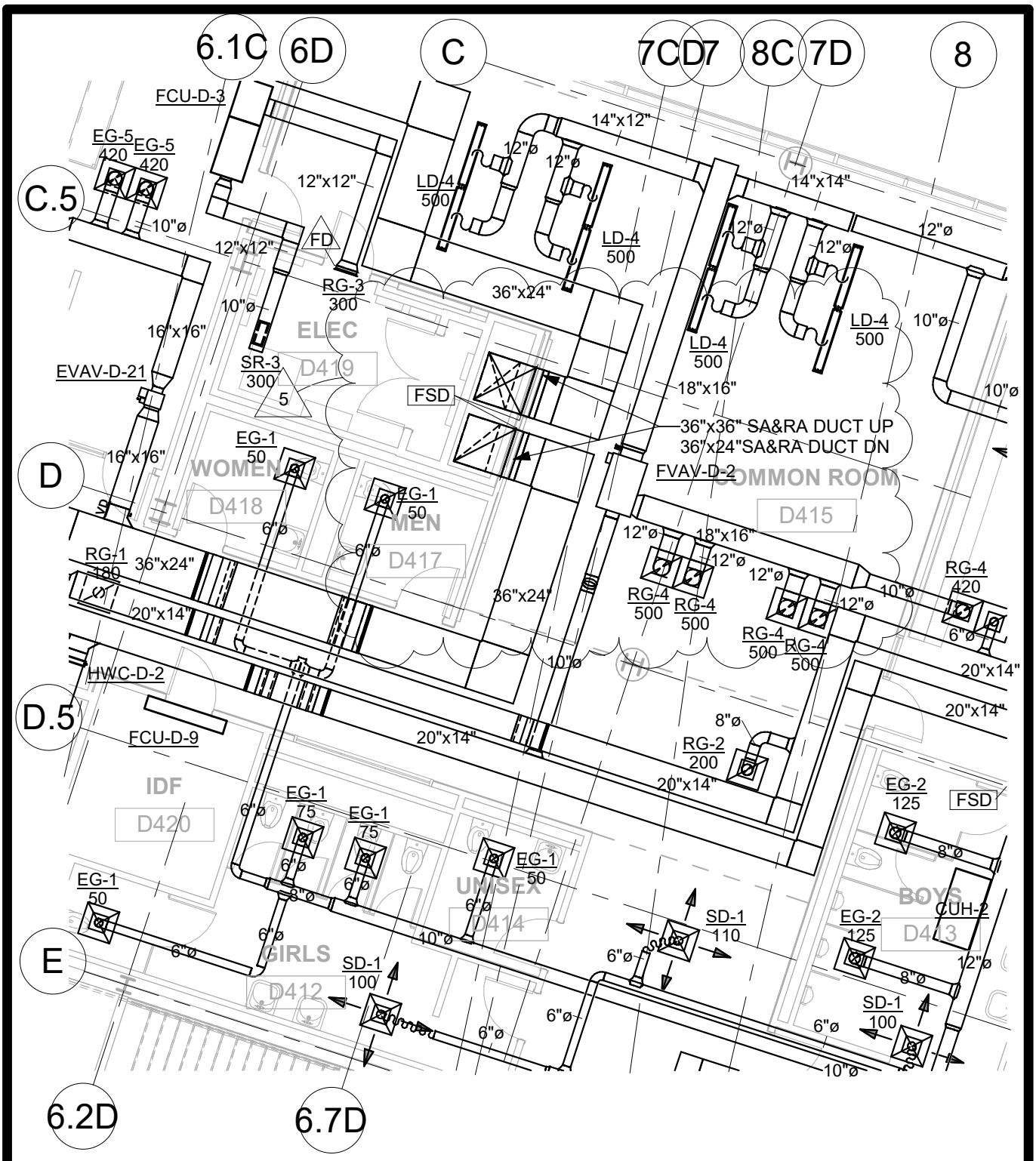
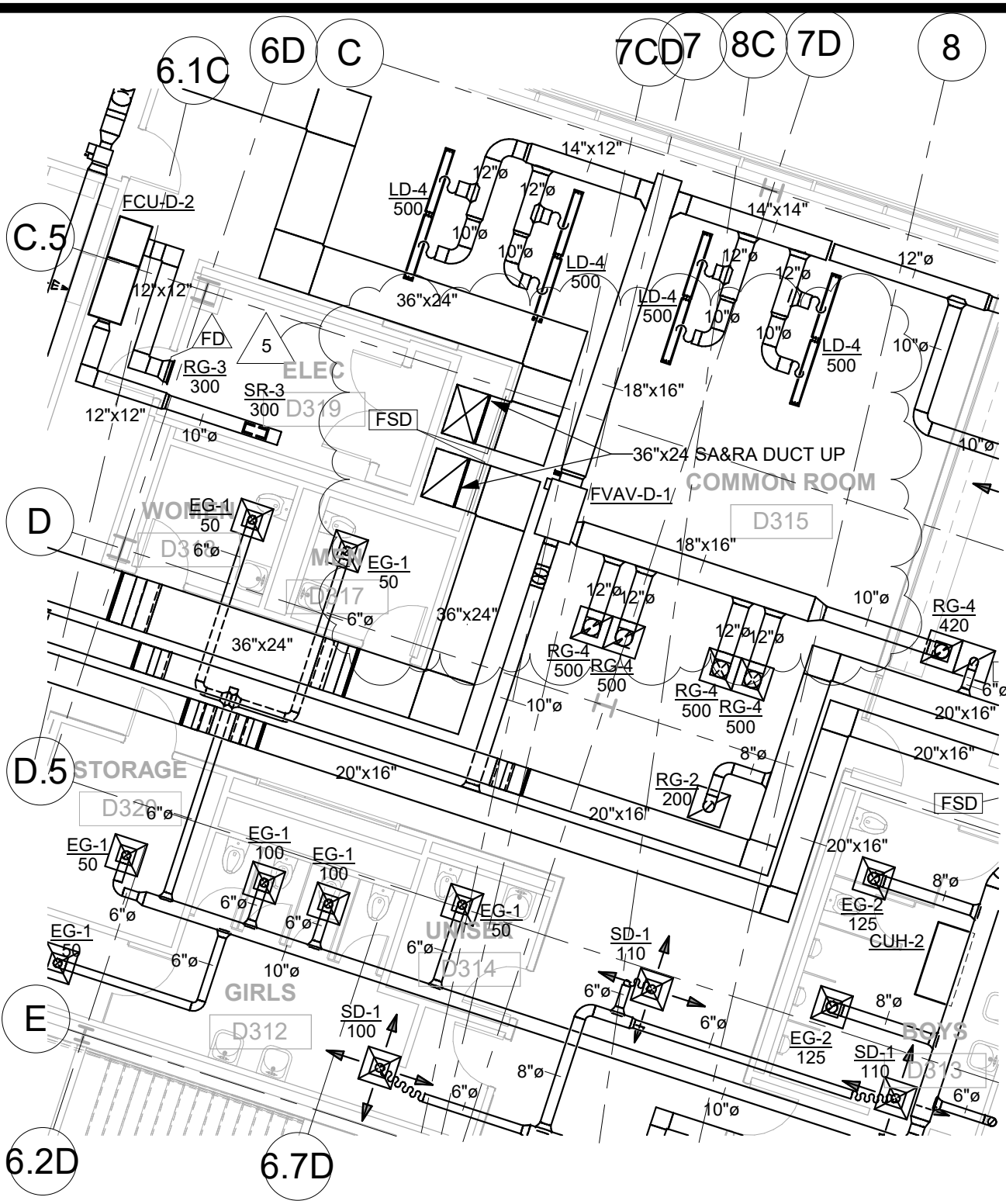
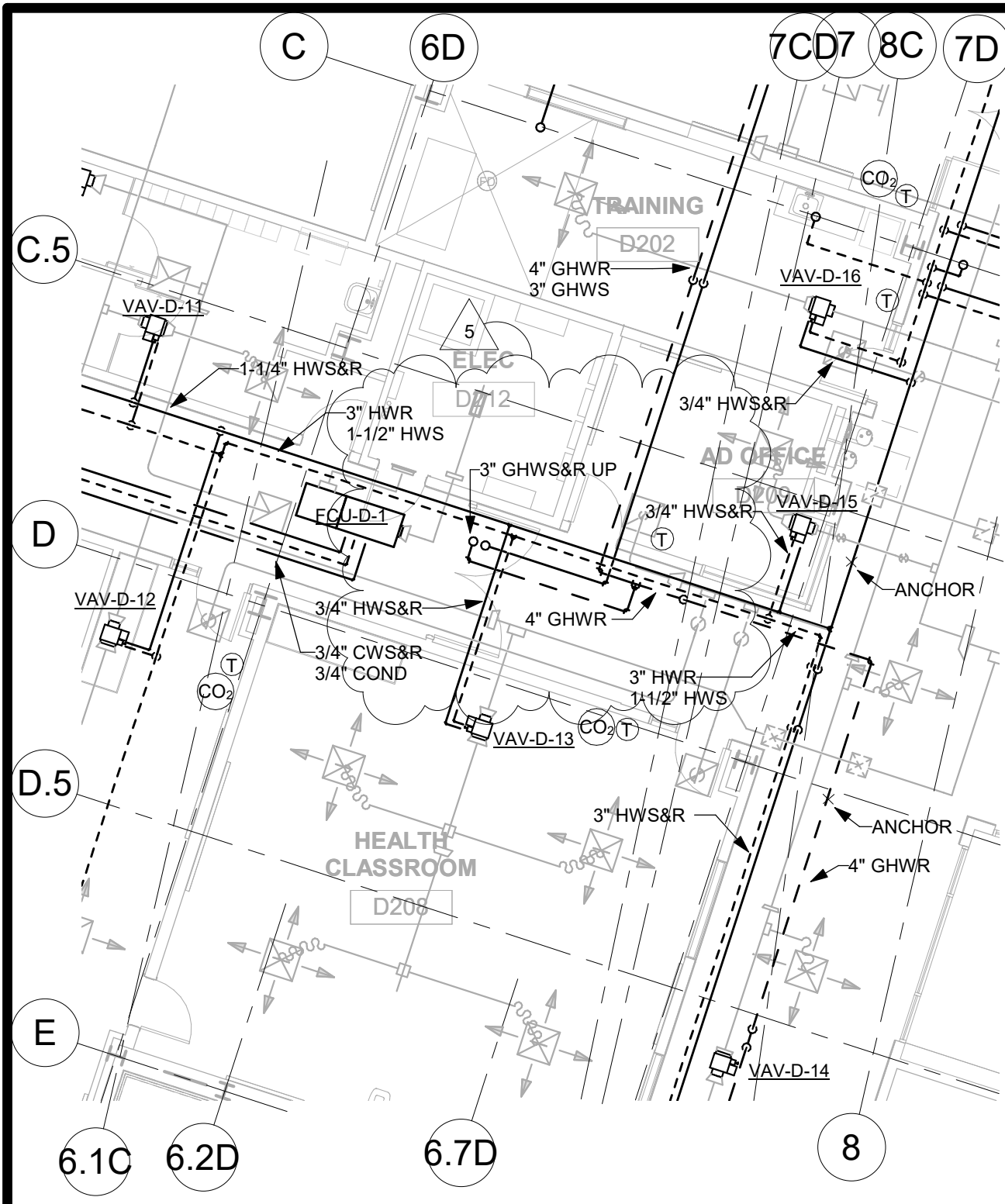
lpaa.com



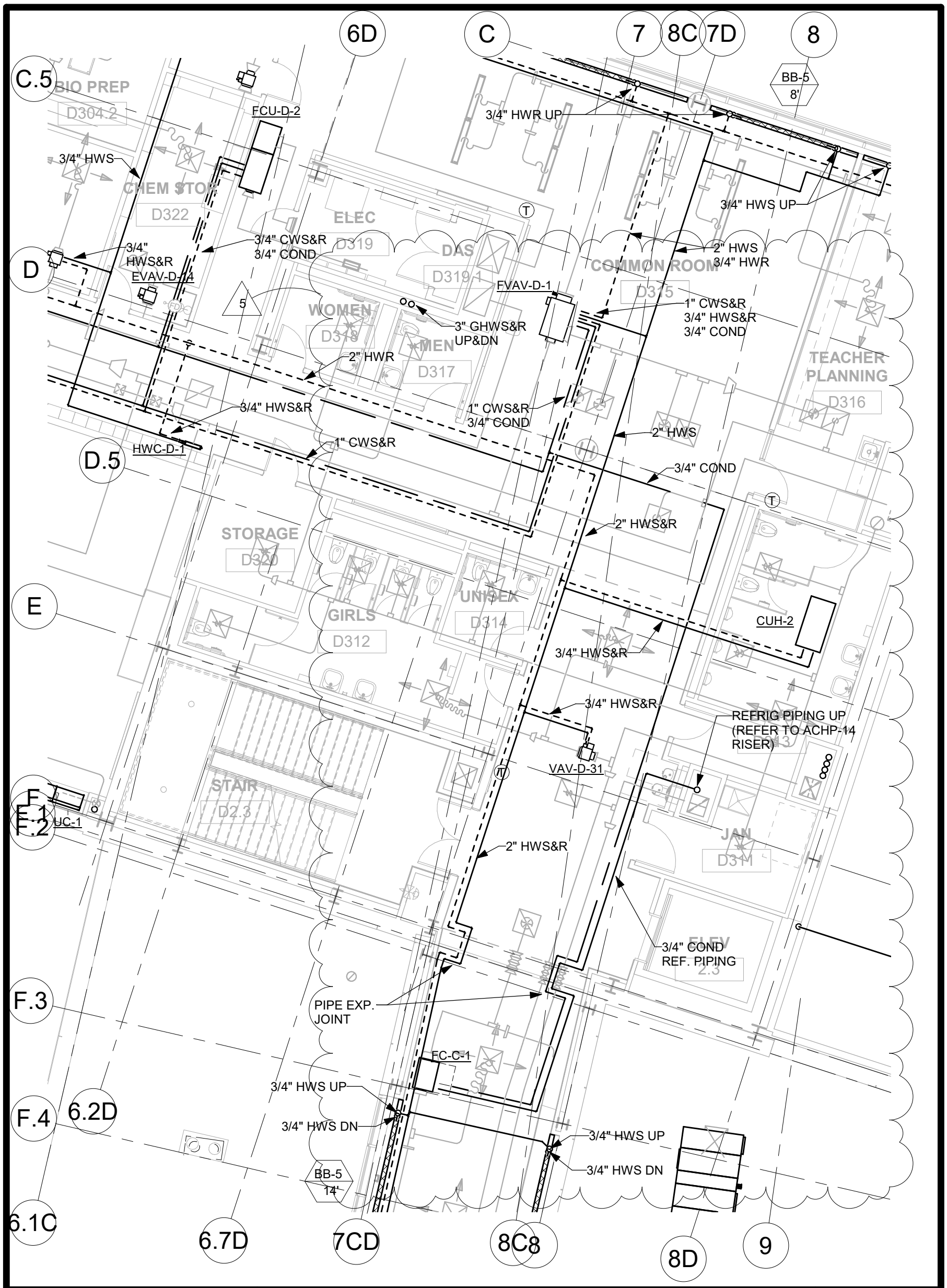
ARCHITECT: LPA|A LAMOUREUX PAGANO ASSOCIATES | ARCHITECTS lpaa.com	PROJECT TITLE: Doherty Memorial High School 299 Highland St Worcester, MA 01602	REFERENCE: H3.16 DRAWING TITLE: Partial Level 4 HVAC Plan Section D	DATE: 02/16/2022 DRAWING NUMBER: ADD-5 H011



ARCHITECT: LPA|A LAMOUREUX PAGANO ASSOCIATES | ARCHITECTS lpaa.com	PROJECT TITLE: Doherty Memorial High School 299 Highland St Worcester, MA 01602	REFERENCE: H3.13 DRAWING TITLE: Partial Level 3 HVAC Plan Section D	DATE: 02/16/2022 DRAWING NUMBER: ADD-5 H012



ARCHITECT: LPA|A LAMOUREUX PAGANO ASSOCIATES | ARCHITECTS lpaa.com	PROJECT TITLE: Doherty Memorial High School 299 Highland St Worcester, MA 01602	REFERENCE: H4.9 DRAWING TITLE: Partial Level 2 HVAC Piping Plan Section D	DATE: 02/16/2022 DRAWING NUMBER: ADD-5 H013



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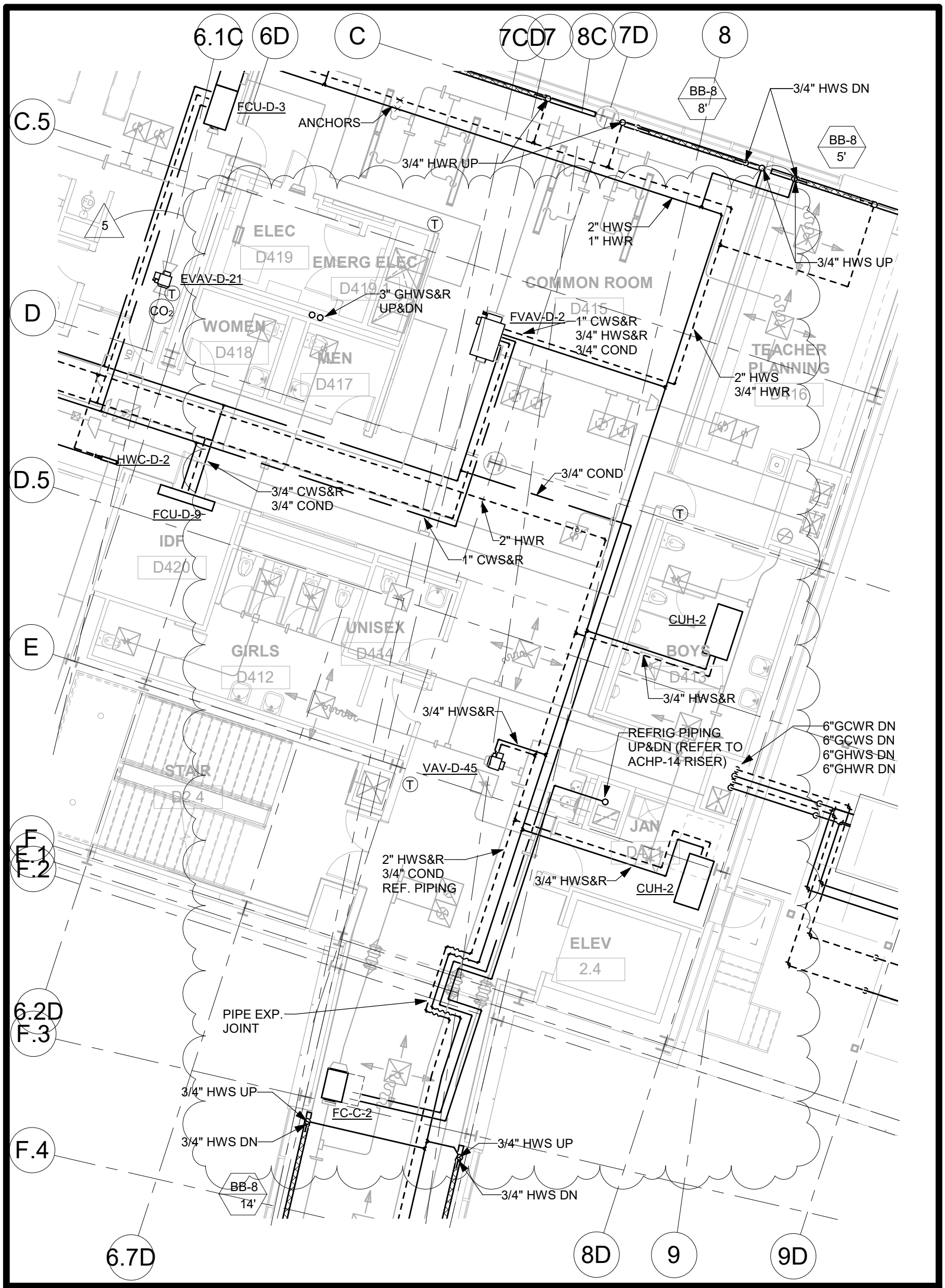

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PROJECT TITLE:

100% CONSTRUCTION DOCUMENTS; FINAL BID PACKAGE #4

Doherty Memorial High School

299 Highland St
Worcester, MA 01602

REFERENCE: H4.16

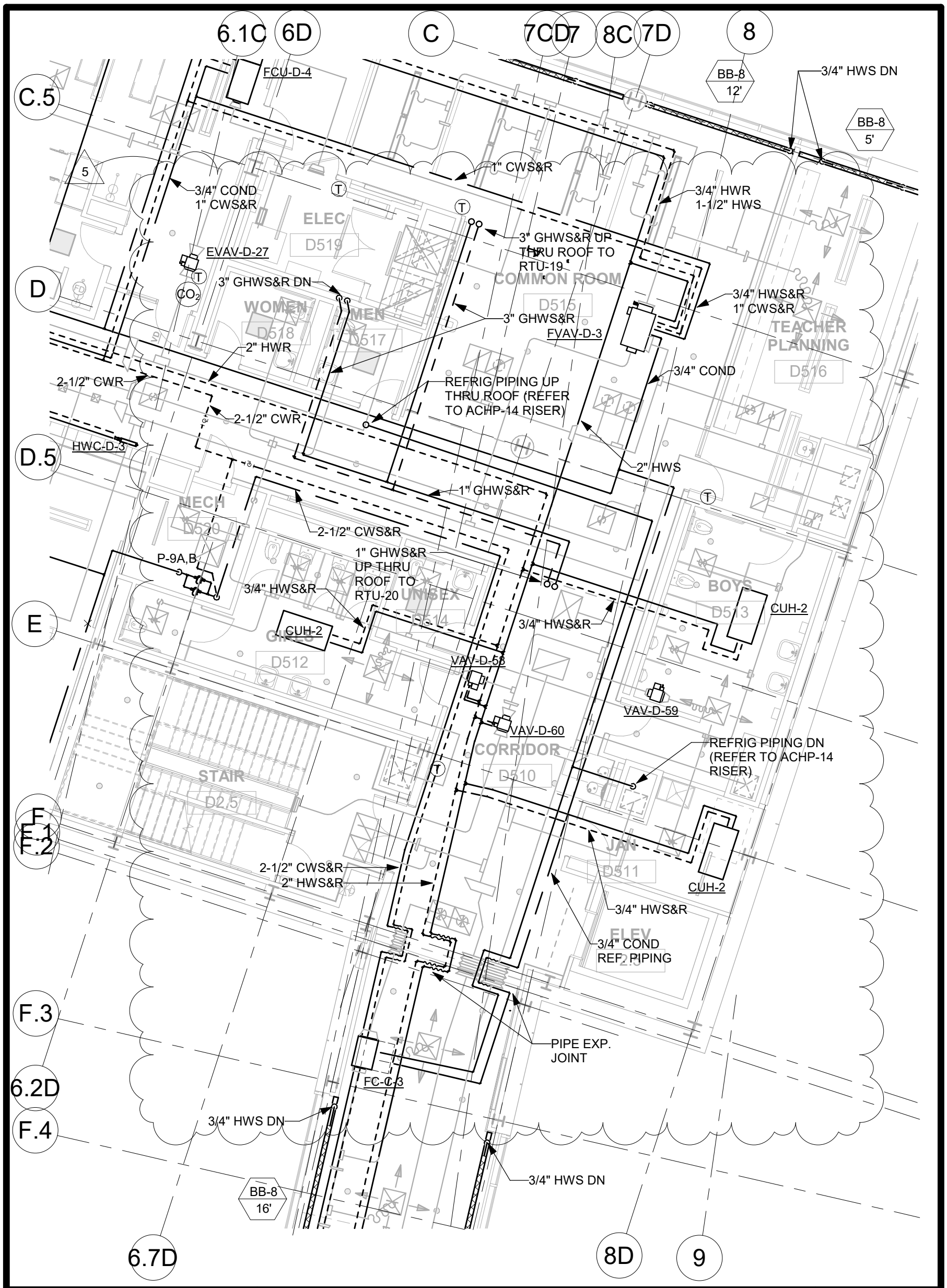
DRAWING TITLE:

Partial Level 4
HVAC Piping
Plan Section D

DATE: 02/16/2022

DRAWING NUMBER:

ADD-5
H015



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PROJECT TITLE:

100% CONSTRUCTION DOCUMENTS; FINAL BID PACKAGE #4

Doherty Memorial High School

299 Highland St
Worcester, MA 01602

REFERENCE: H4.18

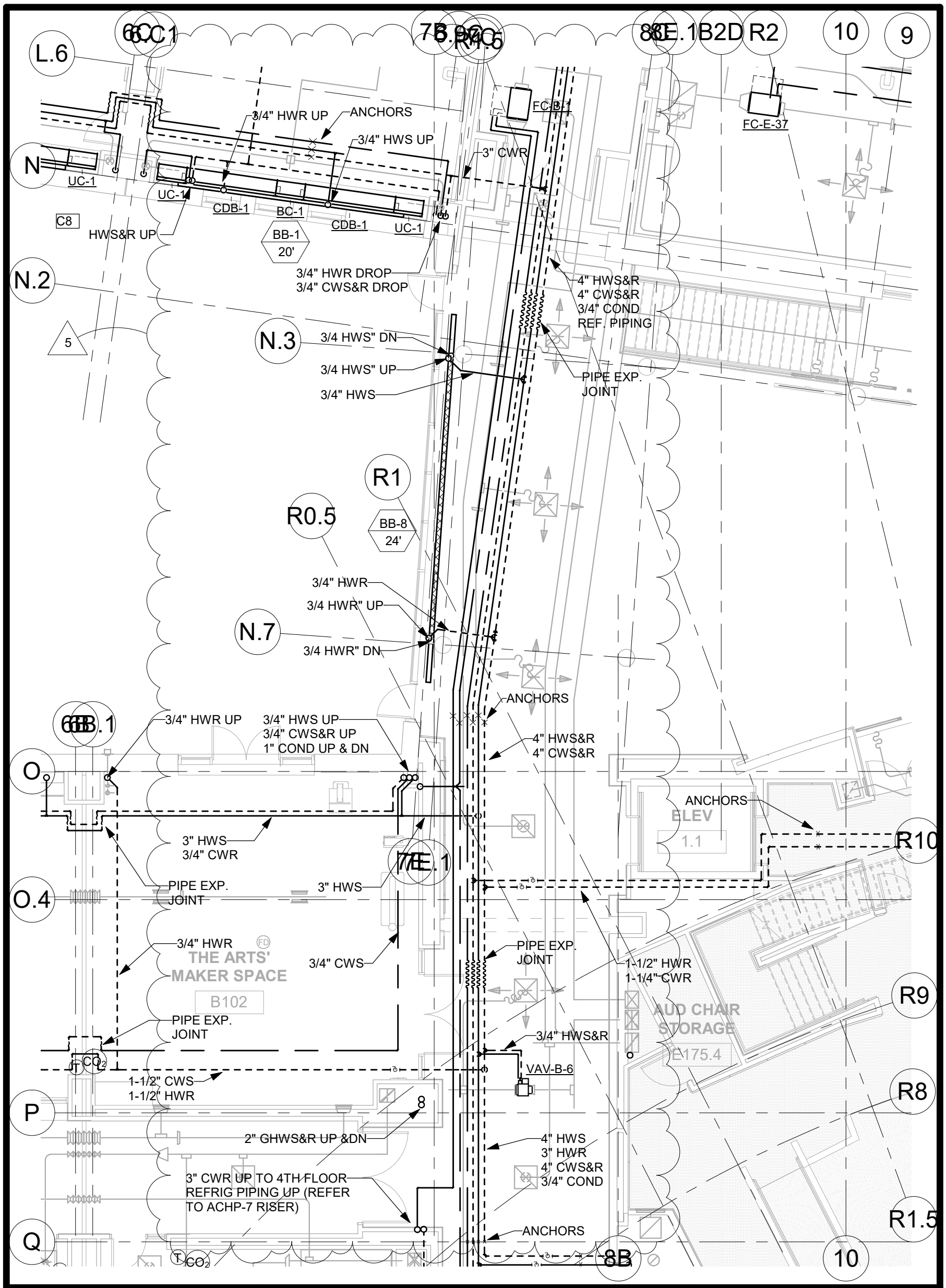
DRAWING TITLE:

Partial Level 5
HVAC Piping
Plan Section D

DATE: 02/16/2022

DRAWING NUMBER:

ADD-5
H016



ARCHITECT:

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lpaa.com

PROJECT TITLE:

100% CONSTRUCTION DOCUMENTS; FINAL BID PACKAGE #4

Doherty Memorial High School

299 Highland St
Worcester, MA 01602

REFERENCE: H4.3/H4.5

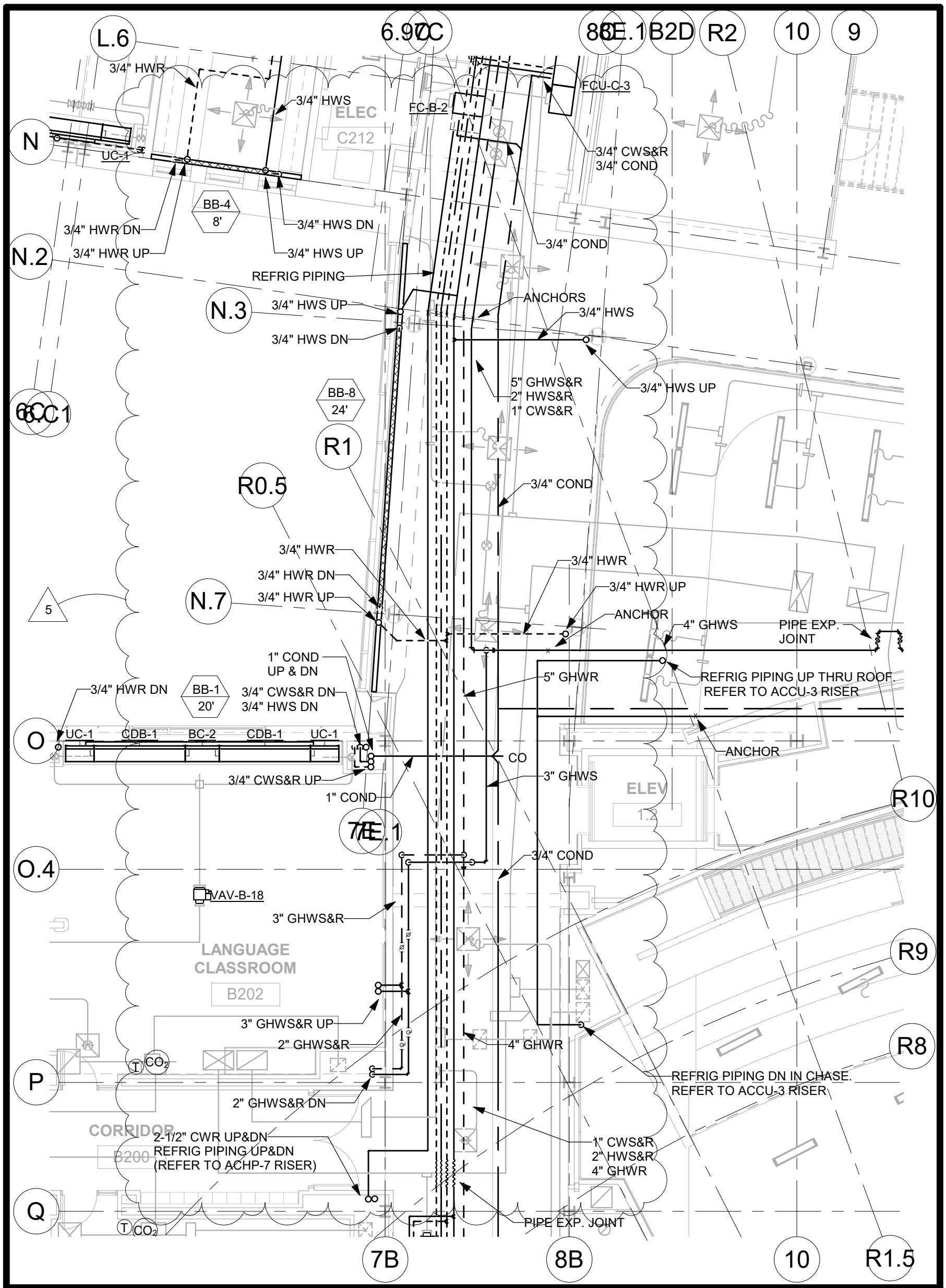
DRAWING TITLE:

Partial Main Level HVAC Piping Plan Section BC

DATE: 02/16/2022

DRAWING NUMBER:

ADD-5
H017



ARCHITECT:

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PROJECT TITLE:

100% CONSTRUCTION DOCUMENTS; FINAL BID PACKAGE #4

Doherty Memorial High School

299 Highland St
Worcester, MA 01602

REFERENCE: H4.7/H4.9

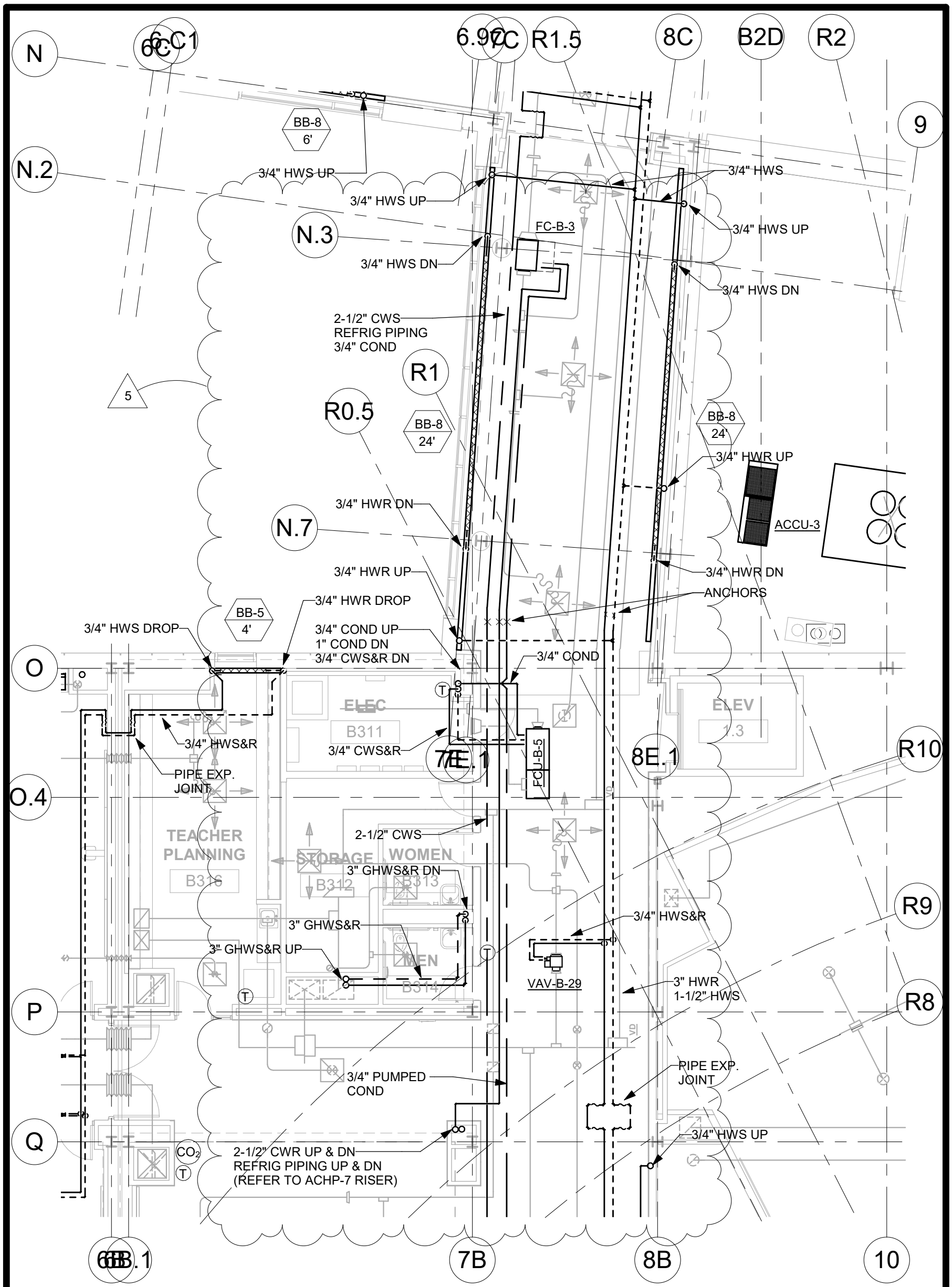
DRAWING TITLE:

Partial Level 2
HVAC Piping
Plan Section BC

DATE: 02/16/2022

DRAWING NUMBER:

ADD-5
H018



ARCHITECT:

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PROJECT TITLE:

100% CONSTRUCTION DOCUMENTS; FINAL BID PACKAGE #4

Doherty Memorial High School

299 Highland St
Worcester, MA 01602

REFERENCE: H4.11/H4.12

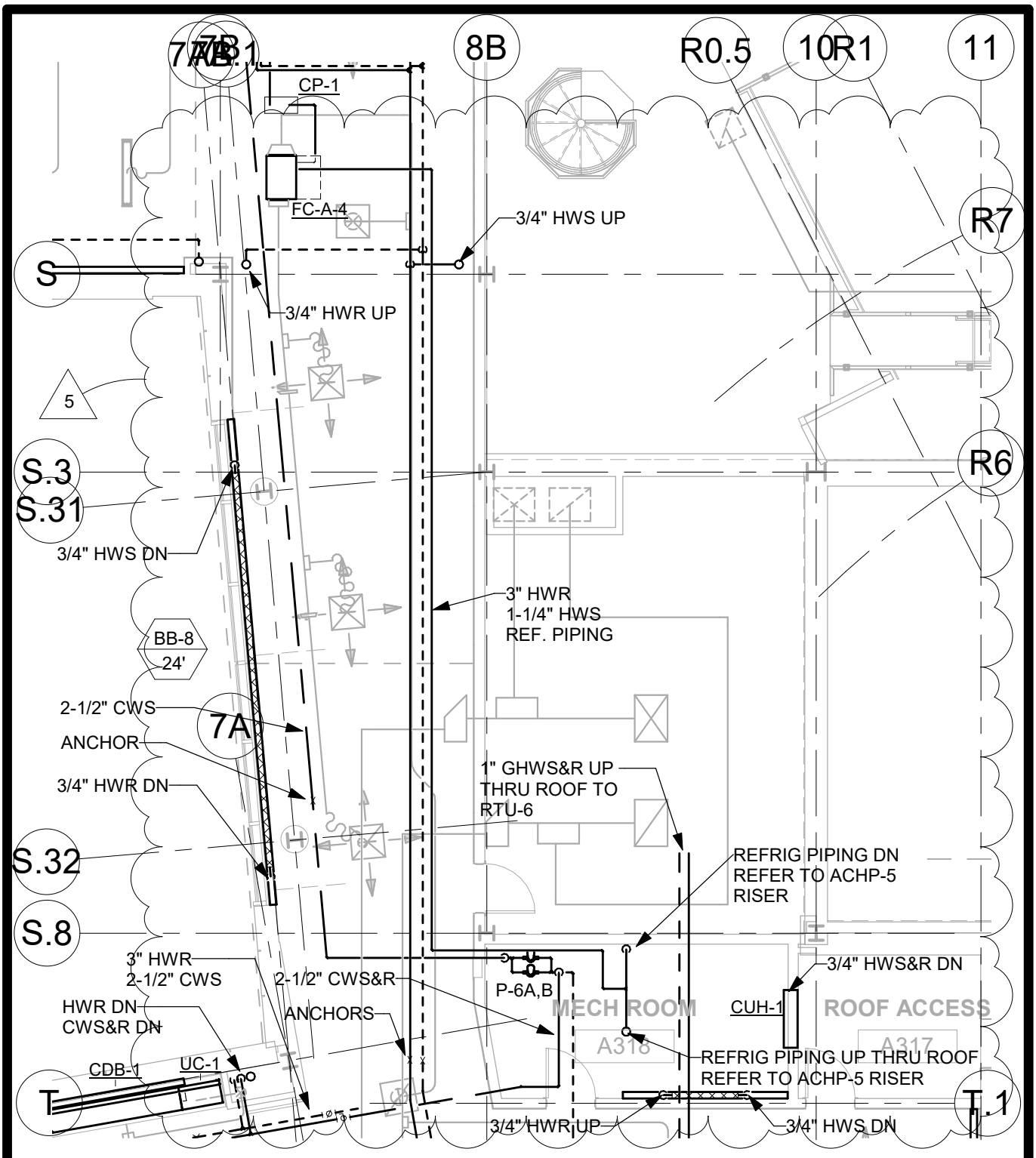
DRAWING TITLE:

Partial Level 3
HVAC Piping
Plan Section BC

DATE: 02/16/2022

DRAWING NUMBER:

ADD–5
H019



ARCHITECT: LPA|A LAMOUREUX PAGANO ASSOCIATES | ARCHITECTS lpaa.com	PROJECT TITLE: Doherty Memorial High School 299 Highland St Worcester, MA 01602	REFERENCE: H4.11	DATE: 02/16/2022
		DRAWING TITLE: Partial Level 3 HVAC Piping Plan Section AB	DRAWING NUMBER: ADD-5 H020

AS REQUIRED	AS REQUIRED	AS REQUIRED

B–8
TTLING
ETL
(COPPER)
4x4–1/4
48
UH PER FT)
2
12"
16"
E NOTES

7.0
04+

7.0
4+

WATER TO GLYCOL HEAT EXCHANGER SCHEDULE

UNIT NUMBER		HX–1	HX–2	HX–3
MANUFACTURER & MODEL #		GRUNDFOS GA47	GRUNDFOS GA36	GRUNDFOS GA36
LOCATION		MECH. ROOM C115	MECH. ROOM C115	MECH. ROOM C115
SYSTEM SERVED		BLG. HOT WATER GLYCOL	CHILLED WATER SYSTEMS	HOT WATER SYSTEMS
WATER SIDE	GPM	580	450	330
	P.D. (FT. HD)	6.32	14.0	13.74
	E.W.T. (°F)	130	67	110
	L.W.T. (°F)	111	57	125
	FOULING FACTOR	0,0043	–	–
35% PROP GLYCOL SIDE	GPM	580	450	520
	E.W.T. (°F)	105	50	130
	L.W.T. (°F)	125	60.8	120
	FOULING FACTOR	–	–	–
	P.D. (FT. HD)	6.39	15.0	14.7
	MBTUH	5427	2252	2434
NUMBER OF PLATES		214	140	118
NUMBER OF PASSES/CHANNELS		1/142	1/70	1/59
REMARKS: PLATE & FRAME TYPE				

– MODEL & DATA BASED ON GRUNDFOS OR EQUAL BY ALFA LAVAL, BELL & GOSSET OR APPROVED EQUAL

PANEL RADIATOR SCHEDULE

UNIT NUMBER		PR–1
MANUFACTURER		RITTLING
MODEL NUMBER		PR3F–7
ELEMENT	PIPE SIZE (TYPE)	–
	ELEMENT SIZE	–
	FIN PER FOOT	–
	DERATED OUTPUT	1273 (BTUH PER FT)
COVER HEIGHT		20–1/4"
MOUNTING HEIGHT		24"
NOTES:		see notes

APPROVED MANUFACTURERS ARE RITTLING, STERLING, VULCAIN, RUNTAL

5

DATE: 2/16/2022

DRAWING NUMBER: ADD–5 / H–021

REFERENCE: H7.2

DRAWING TITLE: HVAC SCHEDULES

100% CONSTRUCTION DOCUMENTS; FINAL BID PACKAGE #4

PROJECT TITLE: Doherty Memorial High School

299 Highland Street, Worcester, MA 01602

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BC SHALL BE 12" WID

BC–4 BOOKCASE CABINET WI
BC SHALL BE 30" WID

CTURER AS DISPLACEMENT CHI

FAN SCHEDULE

	UNIT NUMBER		EF–1,		KEF–2	DE		ILF–10	ILF–11	ILF–12	ILF–13	
	SERVICE		SEE P		SEE PLANS	SEE F		SEE PLANS	SEE PLANS	SEE PLANS	SEE PLANS	S
	TYPE		HOOD EXH	AN	OVEN EXH. FAN	DISHWASH	A.	TRASH ROOM	FIELD BUILDING	FIELD BUILDING	FIELD BUILDING	ANTI-
FANS	MANUFACTURER		GREENH		MARRAFORNI	GREEN		GREENHECK	GREENHECK	GREENHECK	GREENHECK	G
	MODEL #		VEKTOR–	5	MF–012	CUE–0		SQ–99–VG	SQ–120–VG	SQ–120–VG	CSP–B300	S
	C.F.M.		(MAX)5600(		200	60		400	1300	800	300	
	STATIC PRESS. (IN WG)		1.5		.5	1.		0.75"	1.0"	0.5"	0.25	
	FAN RPM		(MAX)1722(		580	16		1564	–	–	1050	
	FAN BHP		6.1		–	0.		–	–	–	–	
	HVI RATED FAN SONES		75(c		–	9		–	–	–	–	
MOTOR & STARTER	MOTOR	TYPE	VFD		ODP	EC		ECM	ECM	ECM	ODP	
		H.P	5		–	1/		1/4	1/2	1/4	–	
		WATTS	–		100	-		–	–	–	–	
		AMPS	–		1.4	-		–	–	–	–	
		VOLTAGE/PHASE	460-		460–3ø	115		115–1	115–1	115–1	115–1	
	STARTER	TYPE	V–F		RELAY	ECM		ECM	ECM(M)	ECM(M)	ECM(M)	
		NEMA SIZE	–		–	-		–	–	–	–	
		CONTROL	HOOD CO	ER	OVEN CONTROLLER	D.W. INT		EMS	ALL LIGHT SWITCHES	TSTAT	ALL LIGHT SWITCHES	
		AUX. CONTACTS	–		–	-		–	–	–	–	
					③			⑥	⑥	⑥	⑥	

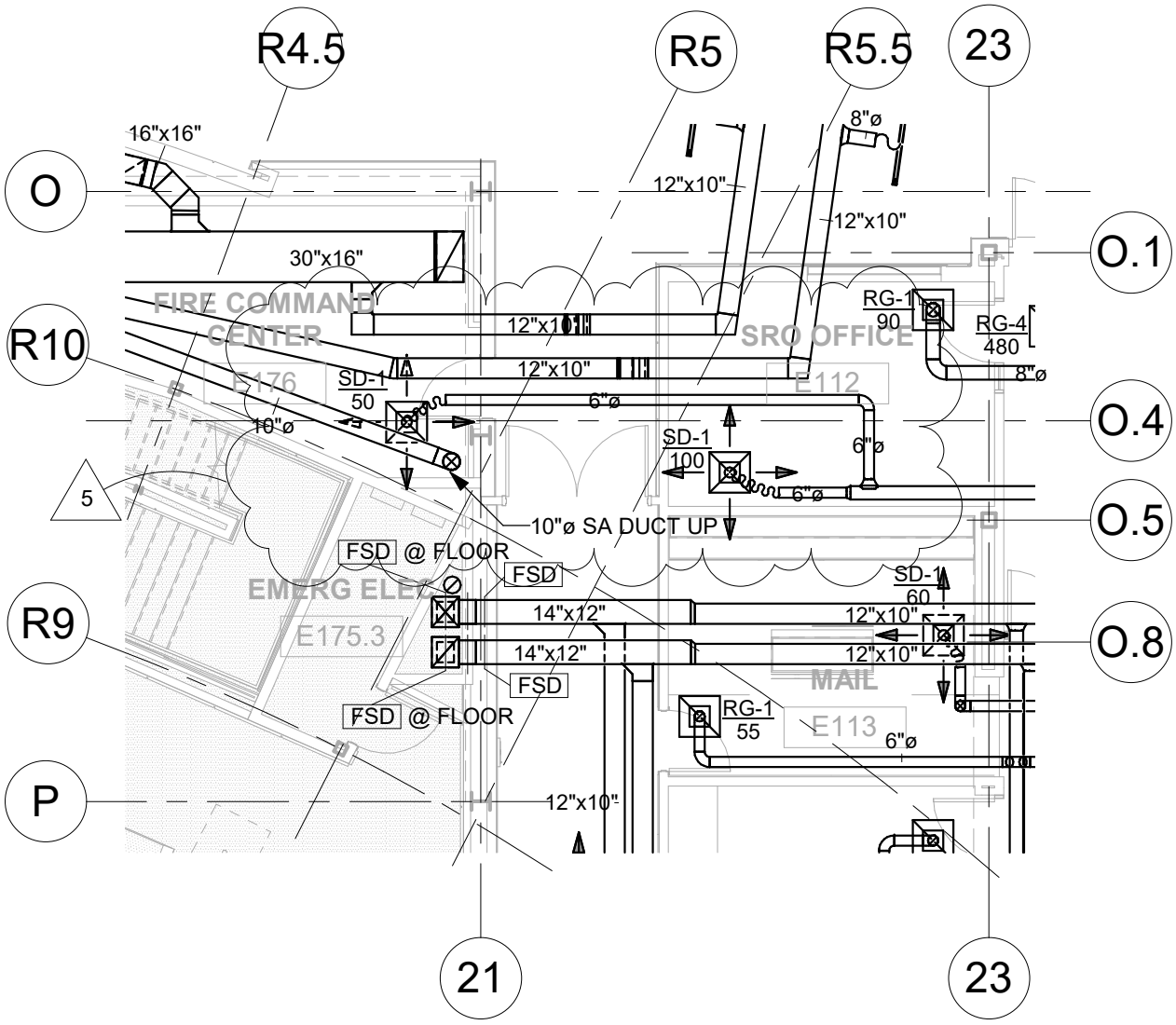
– APPROVED MANUFACTURERS ARE GREENH ... ROL

① PROVIDE INSULATED ROOF CURB, PREMIUM
PROVIDE MOTOR–VARI–GREEN ECM(M) W/

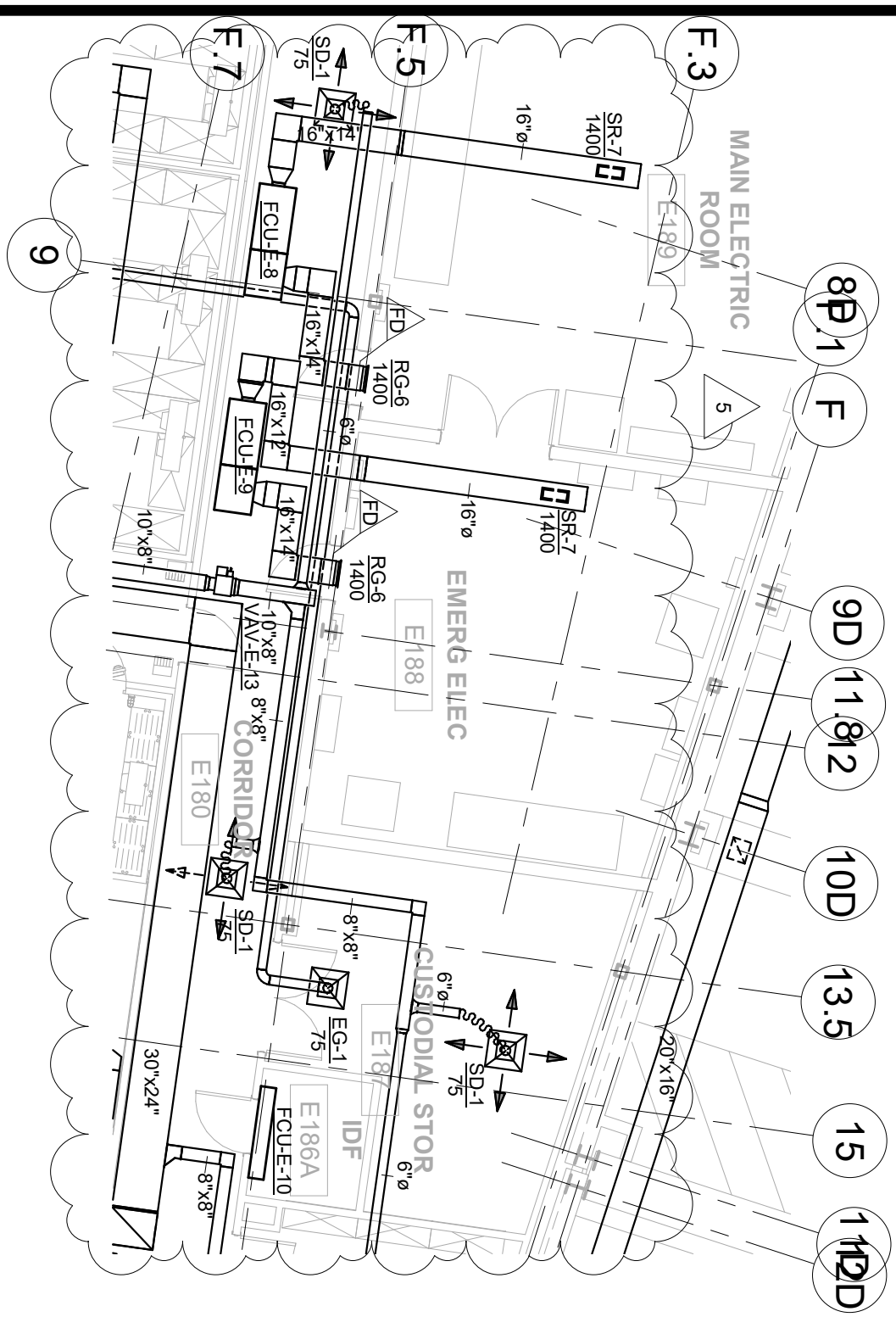
② PROVIDE INSULATED DOUBLE WALLED SEIS
S.S. ISOLATION DAMPER. HI–PRO POLYEST
MOTOR DISCONNECT SWITCH NEMA 3R U

5

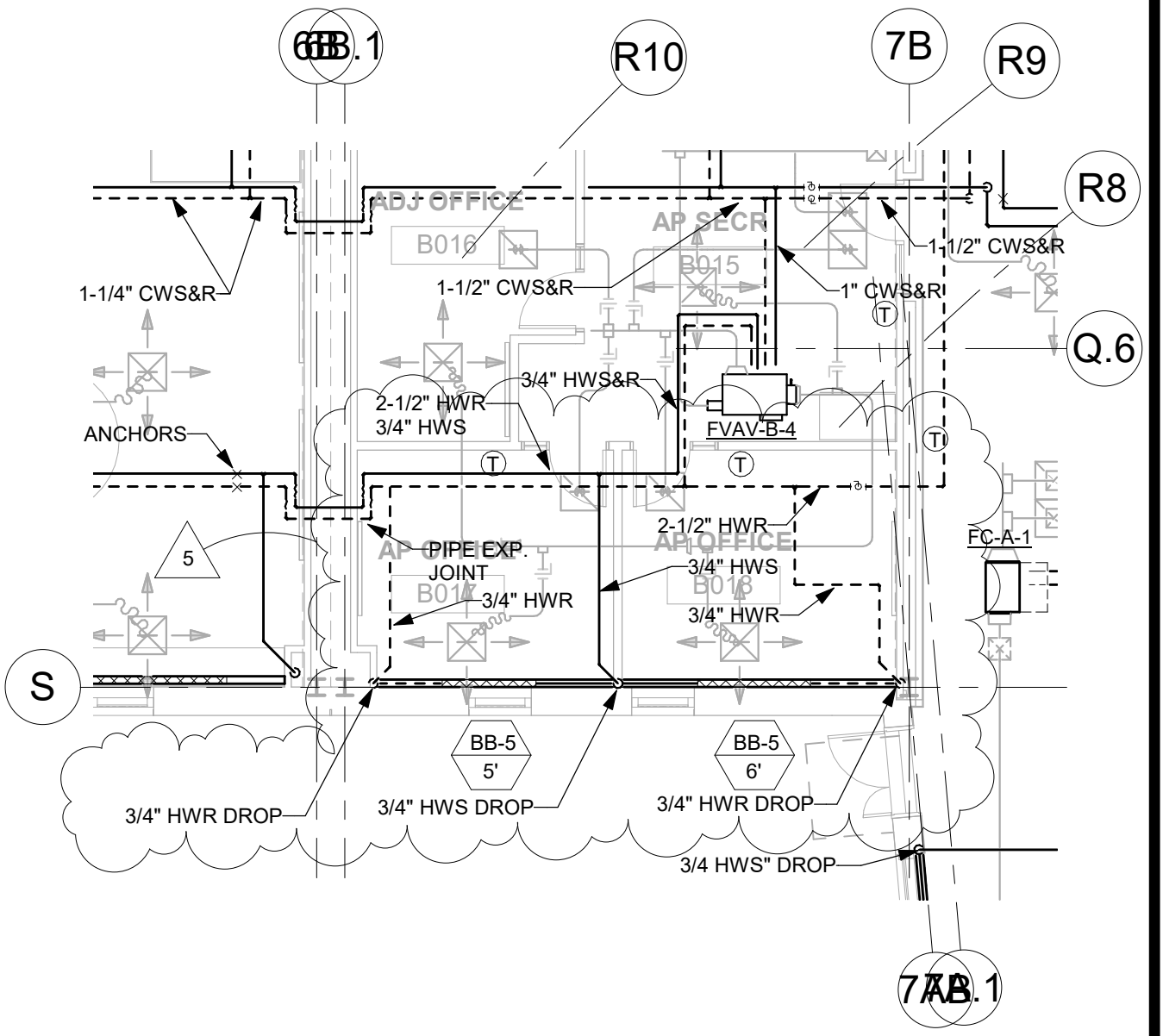
ARCHITECT:	PROJECT TITLE:	REFERENCE: H7.2	DATE: 2/16/2022
LPA|A LAMOUREUX PAGANO ASSOCIATES | ARCHITECTS lpaa.com	100% CONSTRUCTION DOCUMENTS; FINAL BID PACKAGE #4 Doherty Memorial High School 299 Highland Street, Worcester, MA 01602	DRAWING TITLE: HVAC SCHEDULES	DRAWING NUMBER: ADD–5 H–022



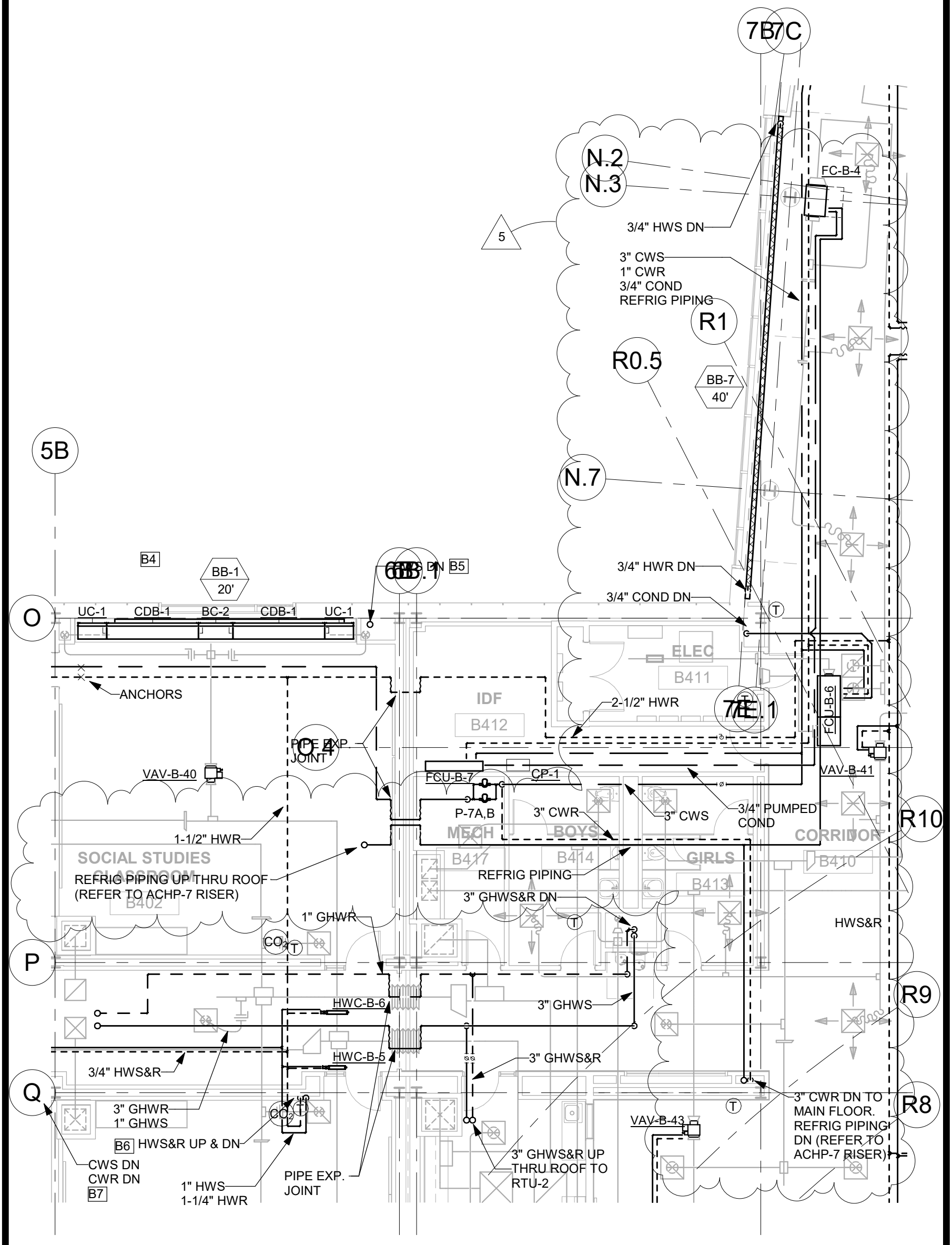
ARCHITECT: LPA|A LAMOUREUX PAGANO ASSOCIATES | ARCHITECTS lpaa.com	PROJECT TITLE: Doherty Memorial High School 299 Highland St Worcester, MA 01602	REFERENCE: H3.4 DRAWING TITLE: Partial Main Level HVAC Plan Section E	DATE: 02/16/2022 DRAWING NUMBER: ADD-5 H023



ARCHITECT: LAMOUREUX PAGANO ASSOCIATES | ARCHITECTS lpaa.com	PROJECT TITLE: Doherty Memorial High School, 299 Highland St, Worcester, MA 01602	REFERENCE: H3.6 DRAWING TITLE: Partial Main Level HVAC Plan Section DE	DATE: 02/16/2022 DRAWING NUMBER: ADD-5 H024



ARCHITECT: LPA|A LAMOUREUX PAGANO ASSOCIATES | ARCHITECTS lpaa.com	PROJECT TITLE: Doherty Memorial High School 299 Highland St Worcester, MA 01602	REFERENCE: H4.1 DRAWING TITLE: Partial Ground Level HVAC Piping Plan Section B	DATE: 02/16/2022 DRAWING NUMBER: ADD-5 H025



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PROJECT TITLE:

100% CONSTRUCTION DOCUMENTS; FINAL BID PACKAGE #4

Doherty Memorial High School

299 Highland St
Worcester, MA 01602

REFERENCE: H4.15

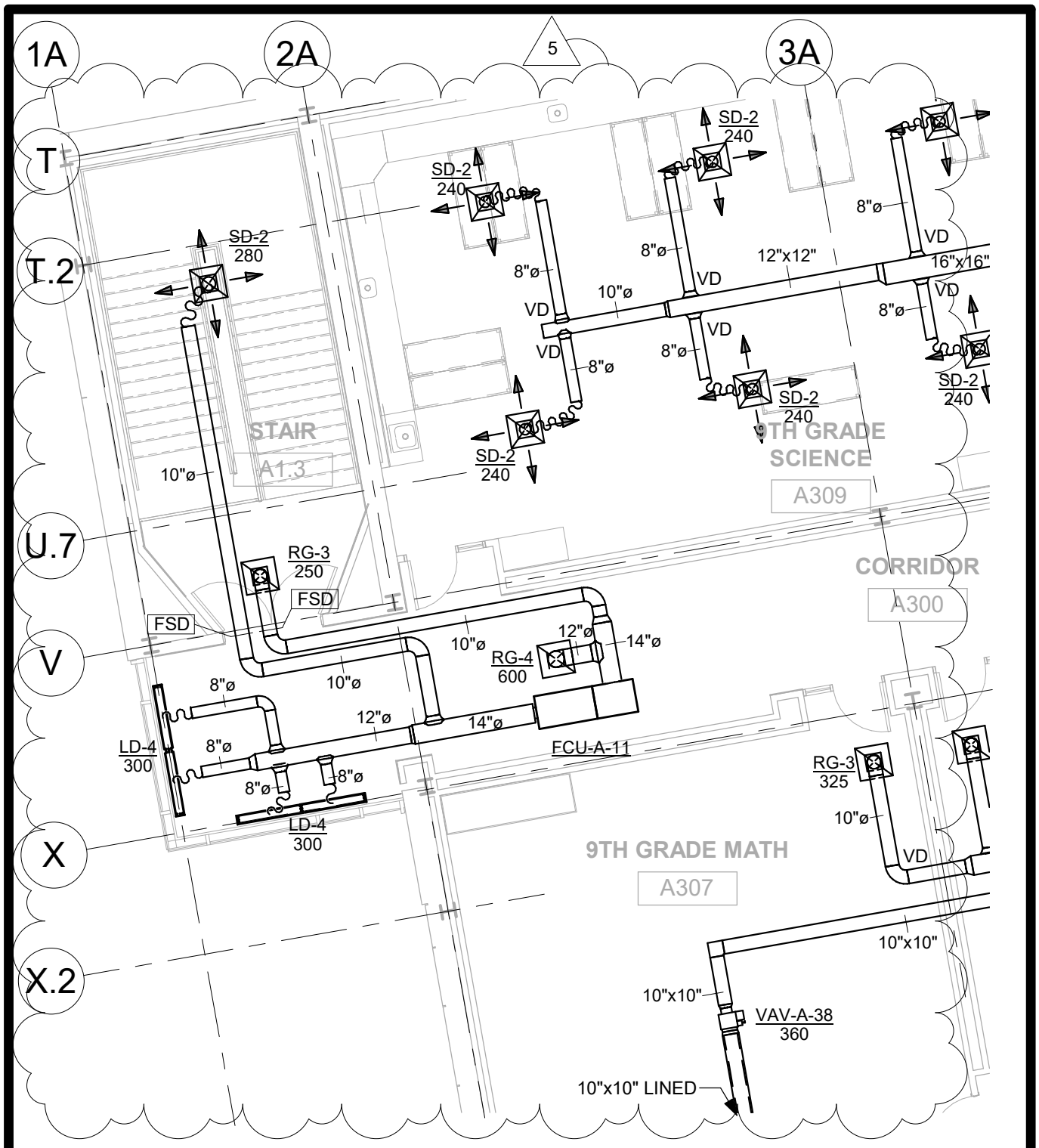
DRAWING TITLE:

Partial Level 4
HVAC Piping
Plan Section BC

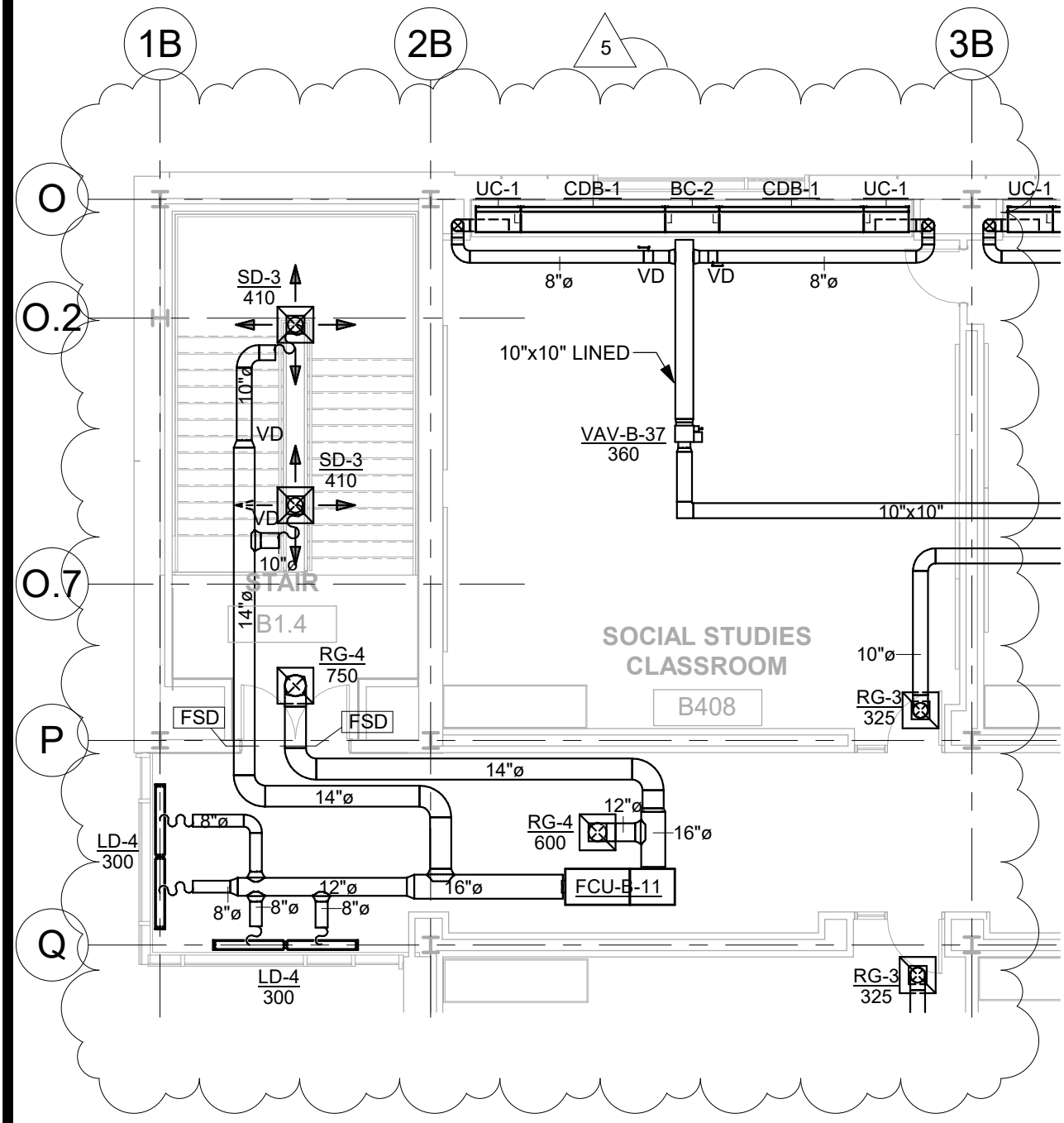
DATE: 02/16/2022

DRAWING NUMBER:

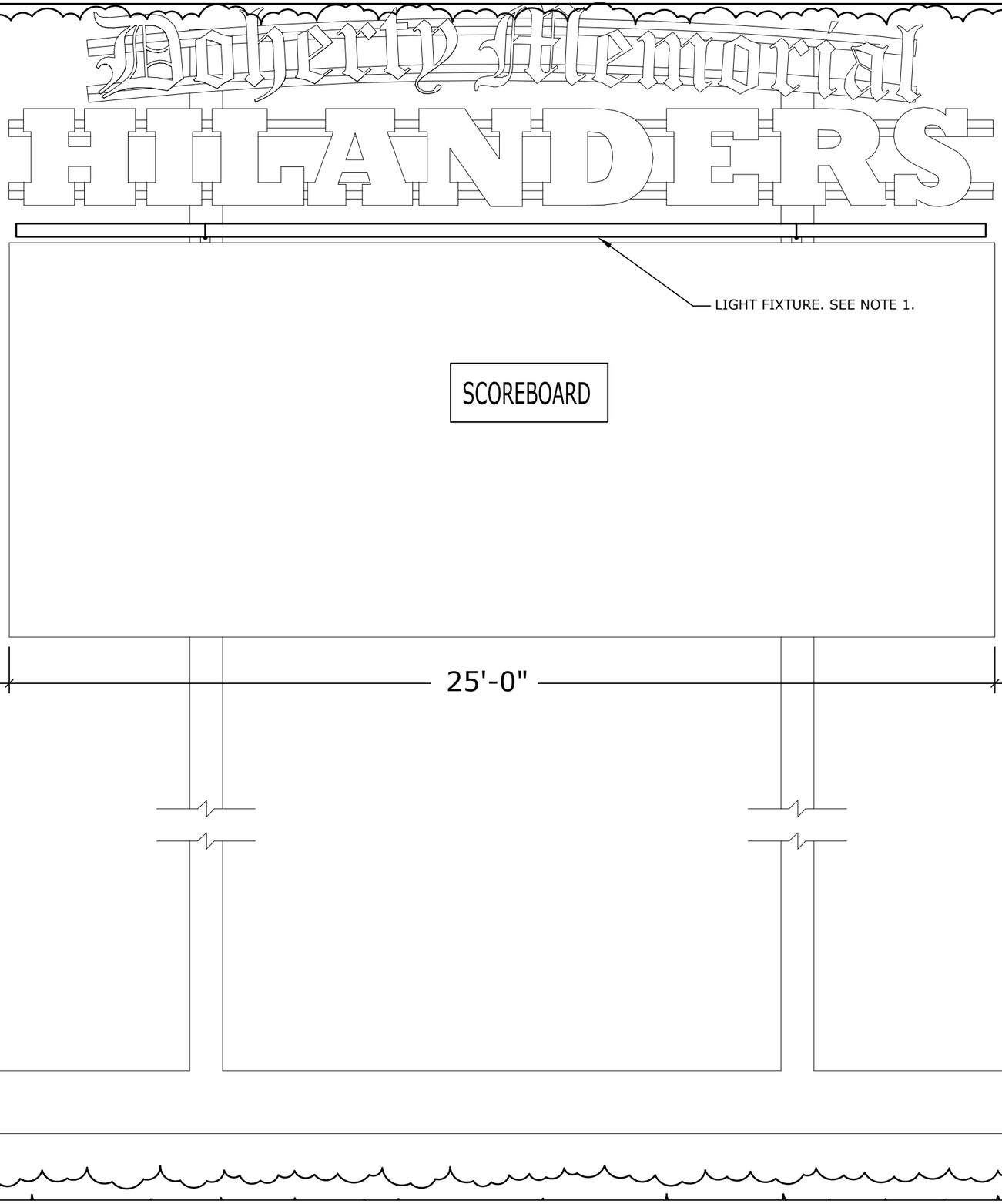
ADD-5
H026



ARCHITECT: LPA|A LAMOUREUX PAGANO ASSOCIATES | ARCHITECTS lpaa.com	PROJECT TITLE: Doherty Memorial High School 299 Highland St Worcester, MA 01602	REFERENCE: H3.11 DRAWING TITLE: Partial Level 3 HVAC Plan Section A	DATE: 02/16/2022 DRAWING NUMBER: ADD-5 H027



ARCHITECT: LPA|A LAMOUREUX PAGANO ASSOCIATES | ARCHITECTS lpaa.com	PROJECT TITLE: Doherty Memorial High School 299 Highland St Worcester, MA 01602	REFERENCE: H3.15 DRAWING TITLE: Partial Level 4 HVAC Plan Section B	DATE: 02/16/2022 DRAWING NUMBER: ADD-5 H028



NOTE:

1. SCOREBOARD WITH TIME CLOCK CONTROLLED LIGHT. FURNISH AND INSTALL LIGHT FIXTURE BY HYDREL-4750LCR-LOP-24FT-500LMF-35K-MVOLT- WWD-KM90-EA12-COORD XX XX-W/ 12" EXTENDED ARM OR APPROVED EQUAL. VERIFY ACTUAL LENGTH WITH THE ARCHITECT PRIOR TO ORDERING. LOCATE TIME CLOCK IN OUTDOOR STORAGE BUILDING.

5

DATE: 02 16 22

DRAWING NUMBER: ADD 5 / E 046

REFERENCE: E7.1

DRAWING TITLE: Light Fi ture at Scoreboard Detail

PROJECT TITLE:

Doherty Memorial High School

299 Highland Street, Worcester, MA 01602

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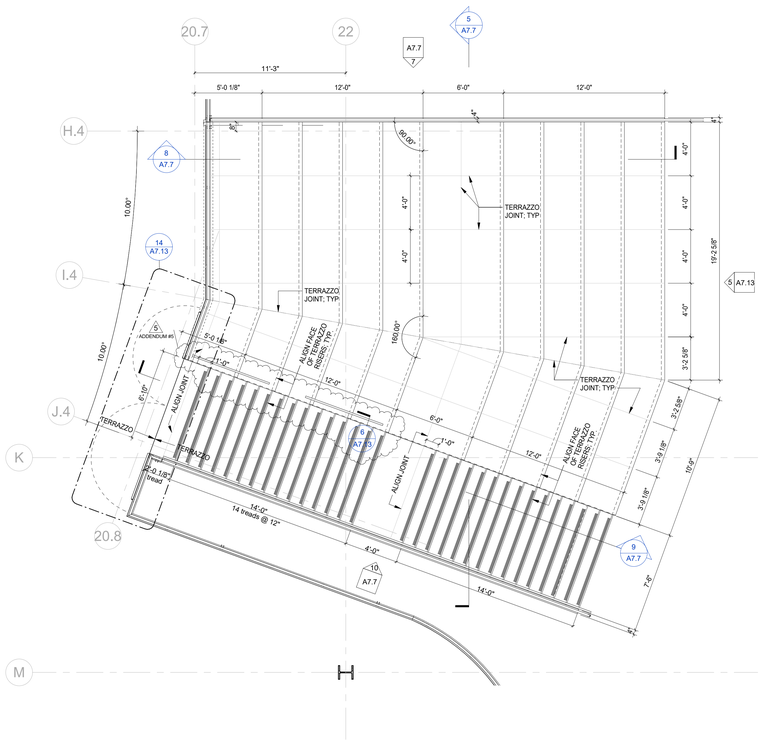
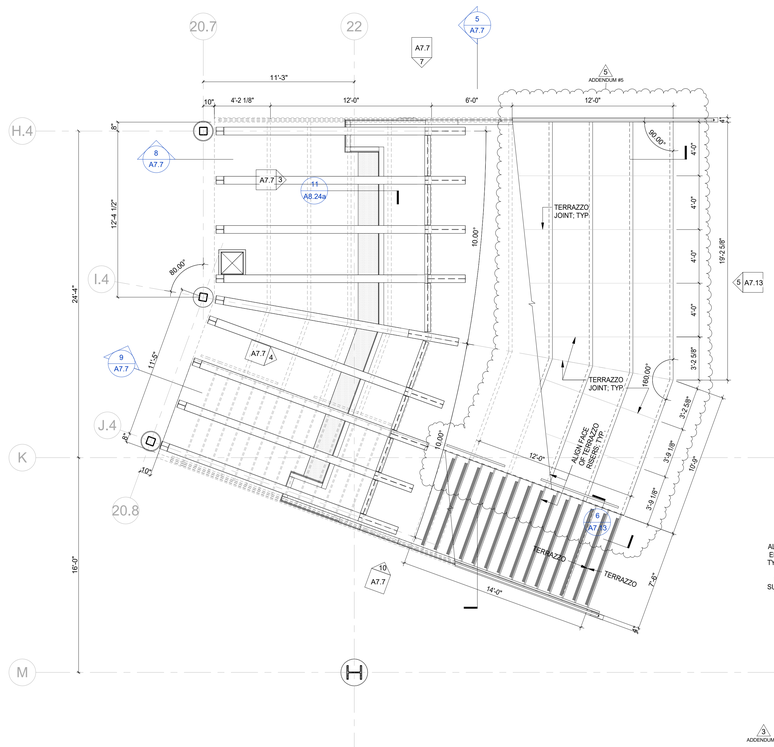
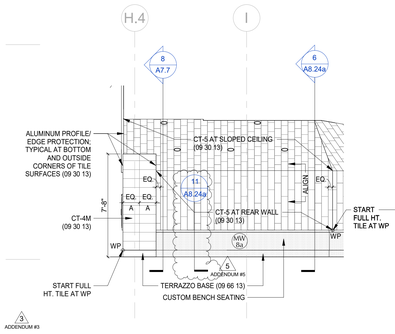


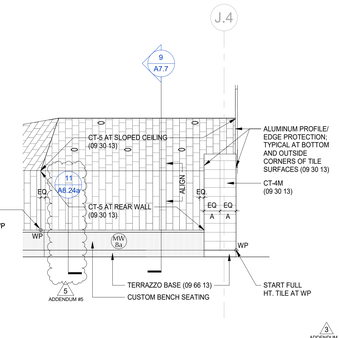
1 A7.7 Enlarged Plan @ Cafeteria Stair/Tiered Seating Level 2
SCALE: 1/4" = 1'-0"



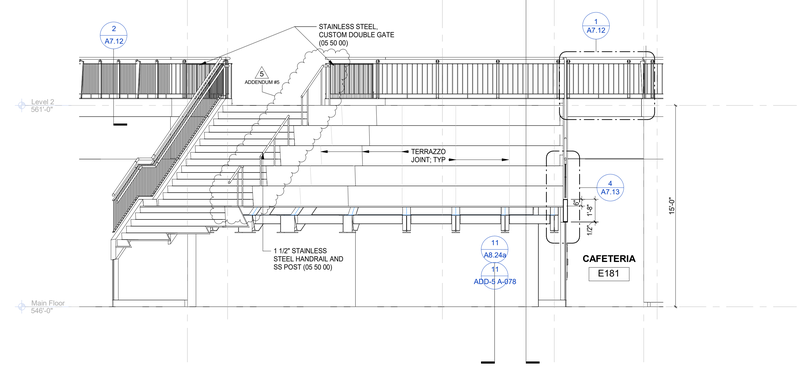
2 A7.7 Enlarged Plan @ Cafeteria Stair/Tiered Seating Main Level
SCALE: 1/4" = 1'-0"



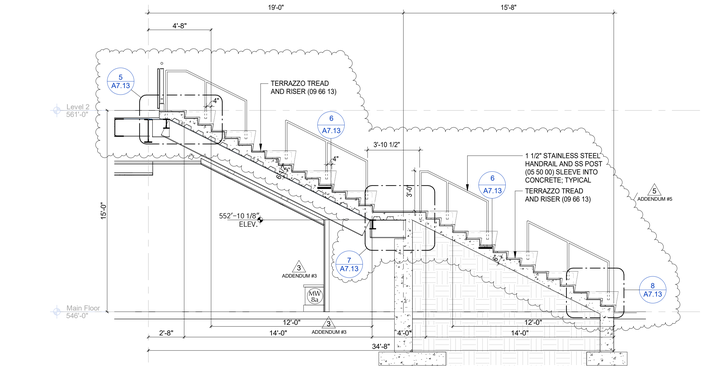
3 A7.7 Elevation @ Cafeteria Stair/Tiered Seating S-N
SCALE: 1/4" = 1'-0"



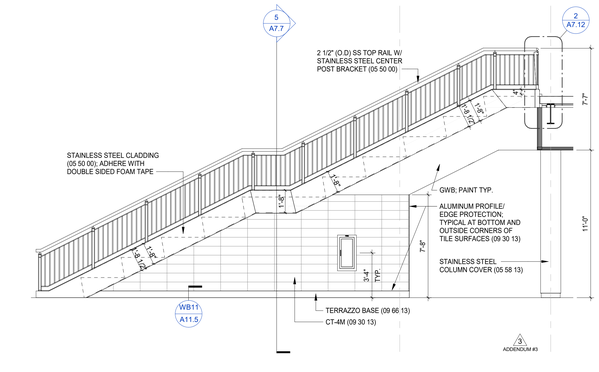
4 A7.7 Elevation @ Cafeteria Stair/Tiered Seating S-N
SCALE: 1/4" = 1'-0"



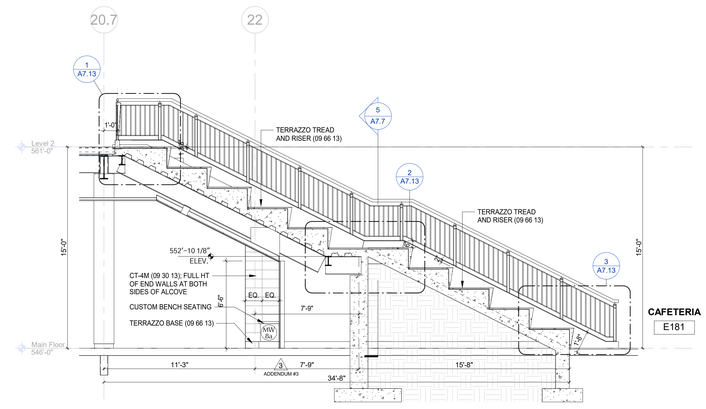
5 A7.7 Cafeteria Stair and Tiered Seating Section N-S
SCALE: 1/4" = 1'-0"



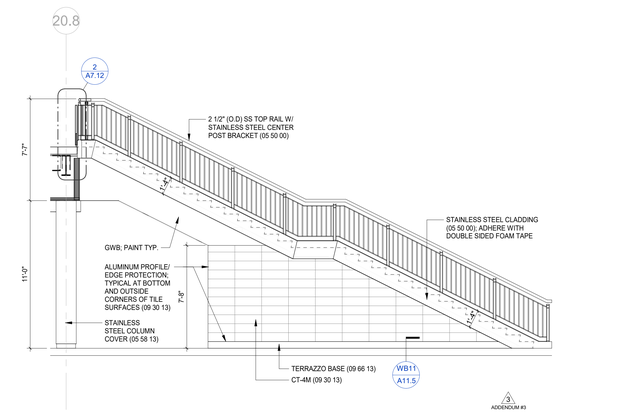
9 A7.7 Cafeteria Stair Section E-W
SCALE: 1/4" = 1'-0"



7 A7.7 Elevation @ Cafeteria Stair/Tiered Seating W-E
SCALE: 1/4" = 1'-0"



8 A7.7 Cafeteria Tiered Seating Section E-W
SCALE: 1/4" = 1'-0"



10 A7.7 Elevation @ Cafeteria Stair/Tiered Seating E-W
SCALE: 1/4" = 1'-0"

LAMOUREUX PAGANO ASSOCIATES|ARCHITECTS
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Worcester MA 01605
508.752.2831
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Worcester, MA

PROJECT

100% CONSTRUCTION DOCUMENTS, FINAL BID PACKAGE #4

Doherty Memorial High School

299 Highland Street, Worcester, MA 01602

DRAWING TITLE

Enlarged Stair Plans, Sections and Elevations

Locus Map

True North

Key Plan

REVISIONS

No.	Description	Date
3	ADDENDUM #3	02/03/22
4	ADDENDUM #4	02/10/22
5	ADDENDUM #5	02/16/22

FILE:

JOB NO: #1904

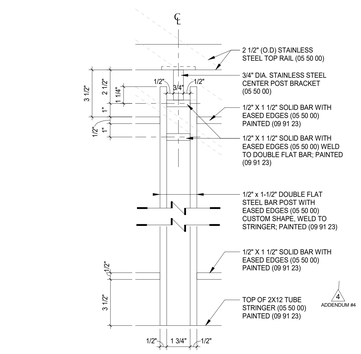
SCALE: 1/4" = 1'-0"

DWN. BY: A.J.

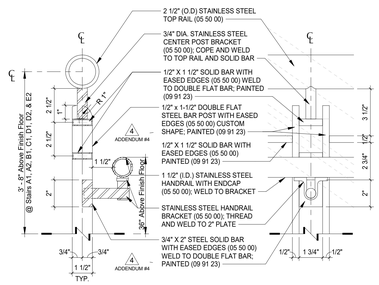
CKD. BY: Checker

DATE: JANUARY 20 2022

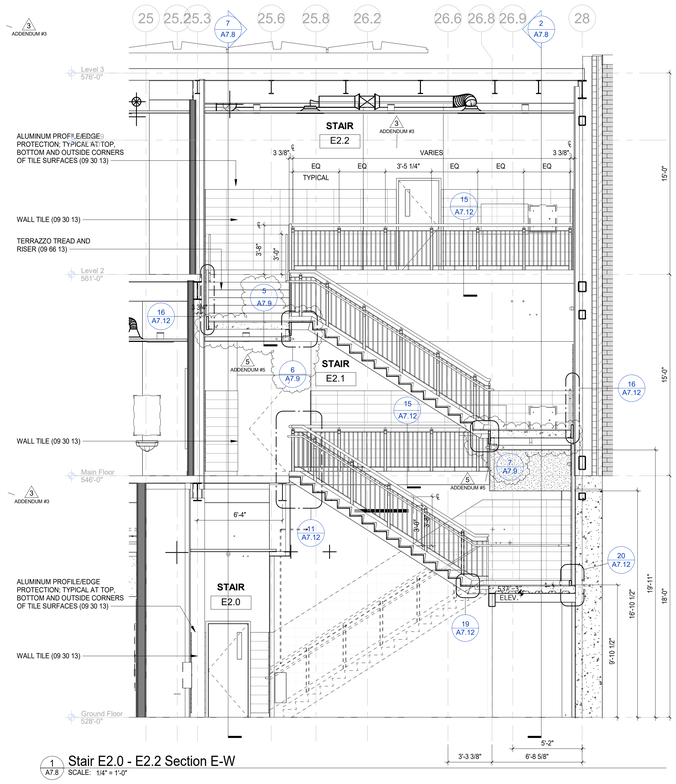
A7.7



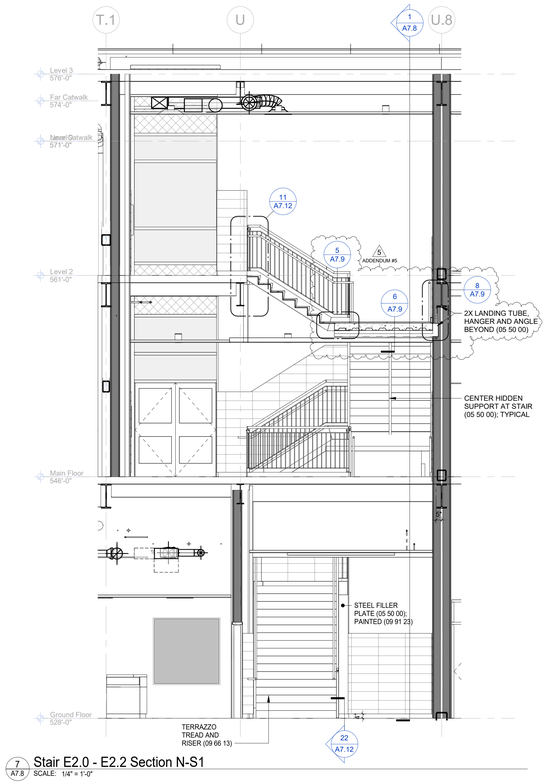
8 A7.8 Typical Post Detail @ Stairs A1, A2, B1, C1, D1, D2, & E2
SCALE: 3" = 1'-0"



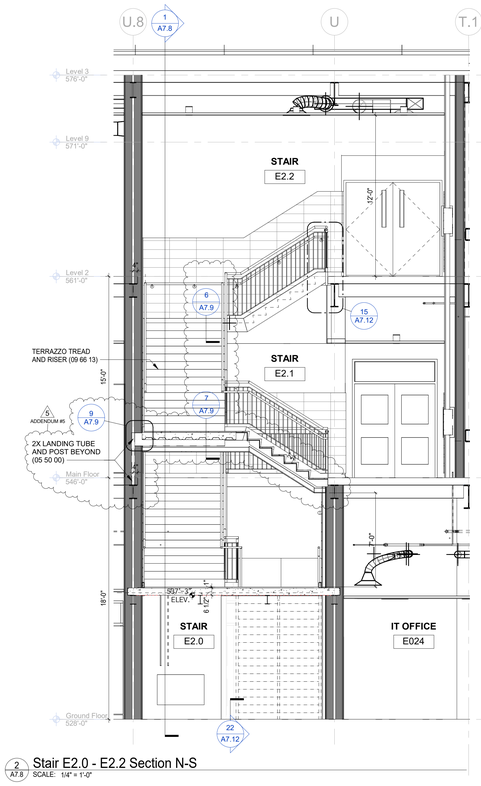
9 A7.8 Typical Handrail Bracket @ Stairs A1, A2, B1, C1, D1, D2, & E2
SCALE: 3" = 1'-0"



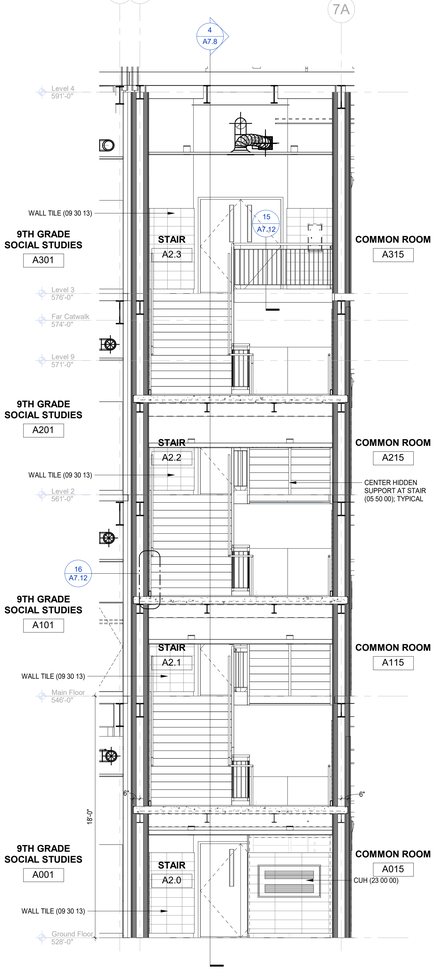
1 A7.8 Stair E2.0 - E2.2 Section E-W
SCALE: 1/4" = 1'-0"



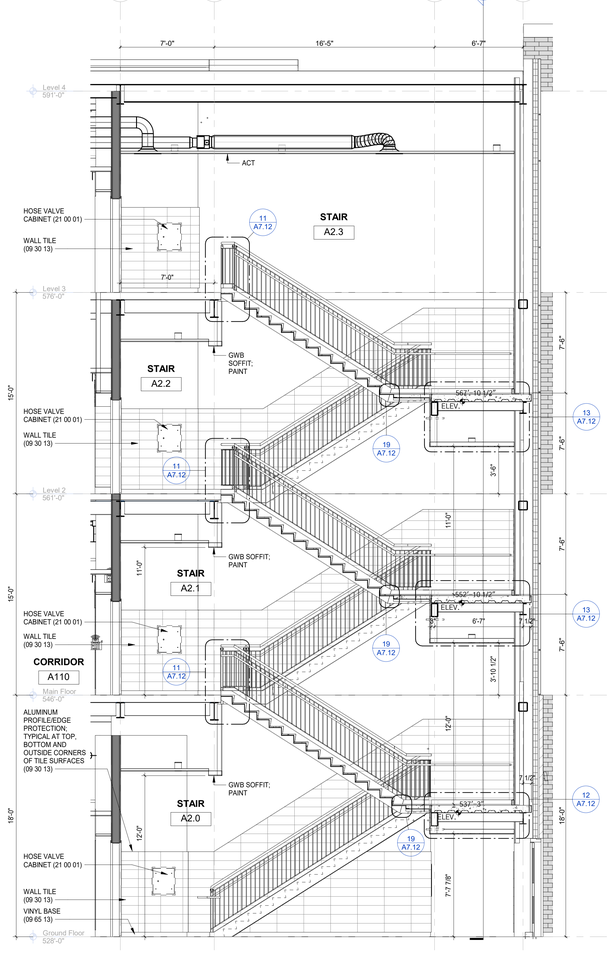
7 A7.8 Stair E2.0 - E2.2 Section N-S1
SCALE: 1/4" = 1'-0"



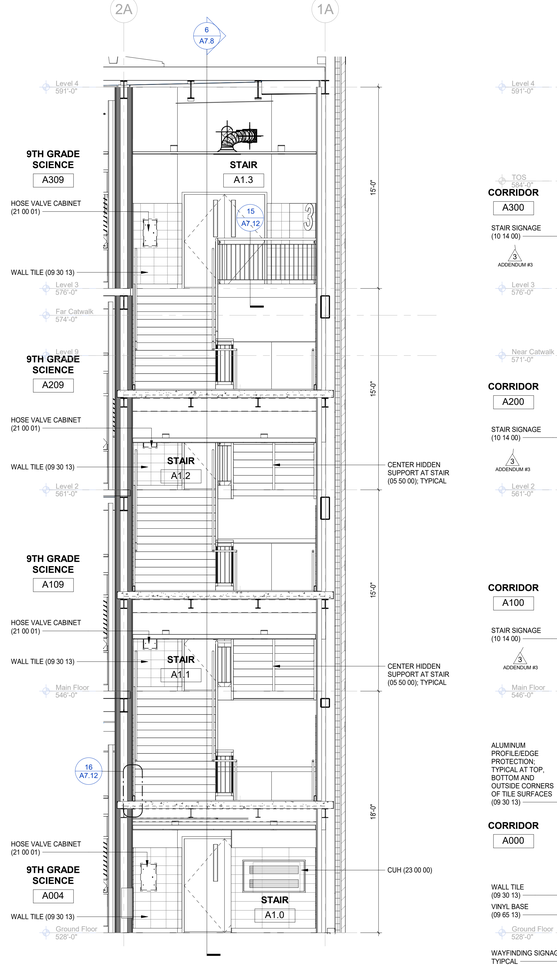
2 A7.8 Stair E2.0 - E2.2 Section N-S
SCALE: 1/4" = 1'-0"



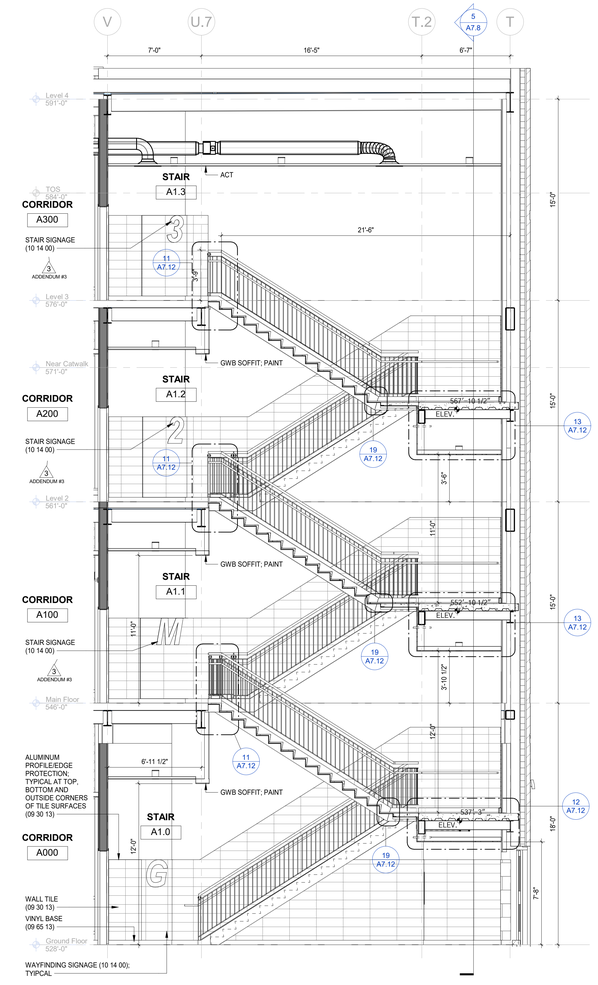
3 A7.8 Stair A2.0 - A2.3 Section E-W
SCALE: 1/4" = 1'-0"



4 A7.8 Stair A2.0 - A2.3 Section N-S
SCALE: 1/4" = 1'-0"



5 A7.8 Stair A1.0 - A1.3 Section E-W
SCALE: 1/4" = 1'-0"



6 A7.8 Stair A1.0 - A1.3 Section N-S
SCALE: 1/4" = 1'-0"

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PROJECT

100% CONSTRUCTION DOCUMENTS, FINAL BID PACKAGE #4

Doherty Memorial High School

299 Highland Street, Worcester, MA 01602

DRAWING TITLE

Stair Sections

Locus Map

True North

Key Plan

REVISIONS

No.	Description	Date
3	ADDENDUM #3	02/03/22
4	ADDENDUM #4	02/10/22
5	ADDENDUM #5	02/16/22

FILE:

JOB NO: #1904

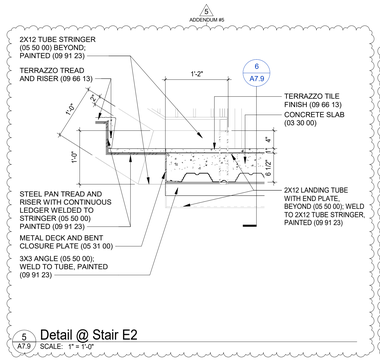
SCALE: As indicated

DWN. BY: A.J.

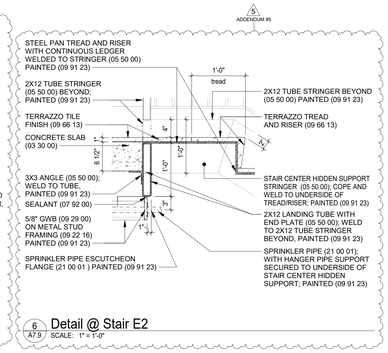
CKD. BY: Checker

DATE: JANUARY 20 2022

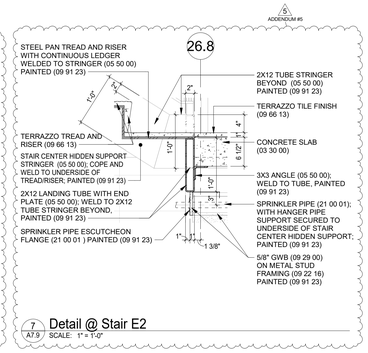
A7.8



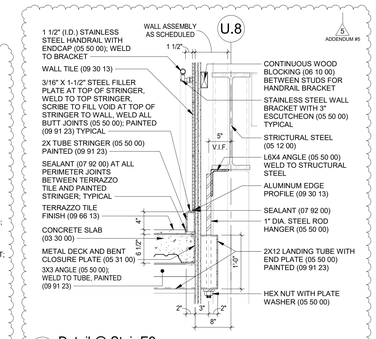
5 A7.9 Detail @ Stair E2
SCALE: 1" = 1'-0"



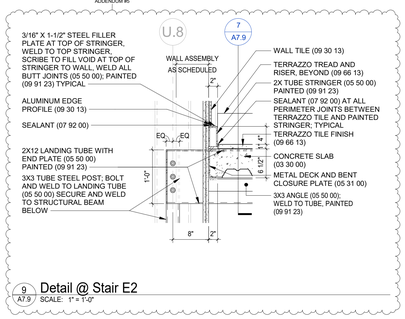
6 A7.9 Detail @ Stair E2
SCALE: 1" = 1'-0"



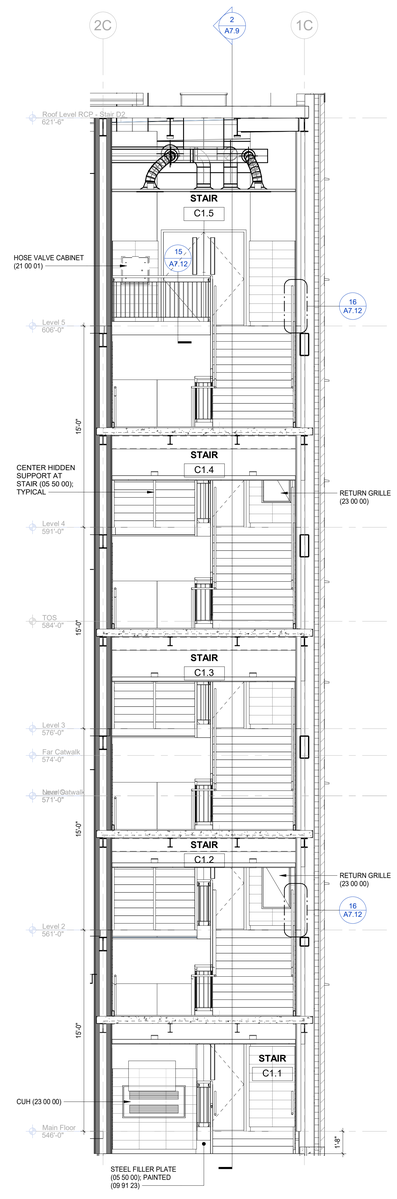
7 A7.9 Detail @ Stair E2
SCALE: 1" = 1'-0"



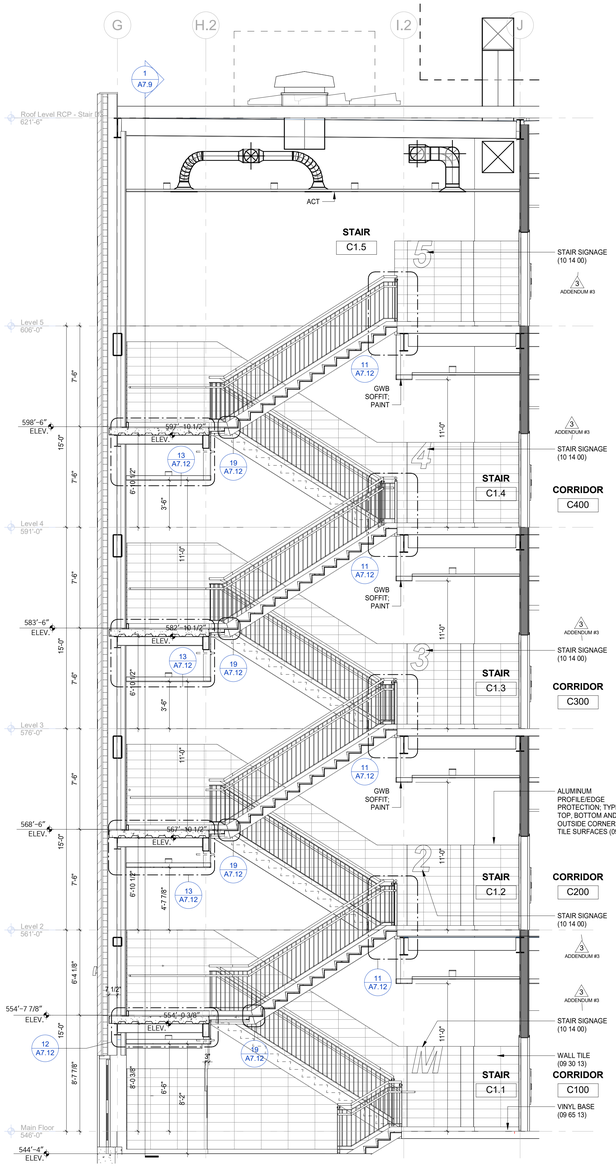
8 A7.9 Detail @ Stair E2
SCALE: 1" = 1'-0"



9 A7.9 Detail @ Stair E2
SCALE: 1" = 1'-0"



1 A7.9 Stair C1.1 - C1.5 Section E-W
SCALE: 1/4" = 1'-0"



2 A7.9 Stair C1.1 - C1.5 Section N-S
SCALE: 1/4" = 1'-0"

3 A7.9 Stair B1.1 - B1.4 Section E-W
SCALE: 1/4" = 1'-0"

4 A7.9 Stair B1.1 - B1.4 Section N-S
SCALE: 1/4" = 1'-0"

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100% CONSTRUCTION DOCUMENTS, FINAL BID PACKAGE #4

Doherty Memorial High School

299 Highland Street, Worcester, MA 01602

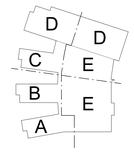
DRAWING TITLE

Stair Sections

Locus Map

True North

Key Plan

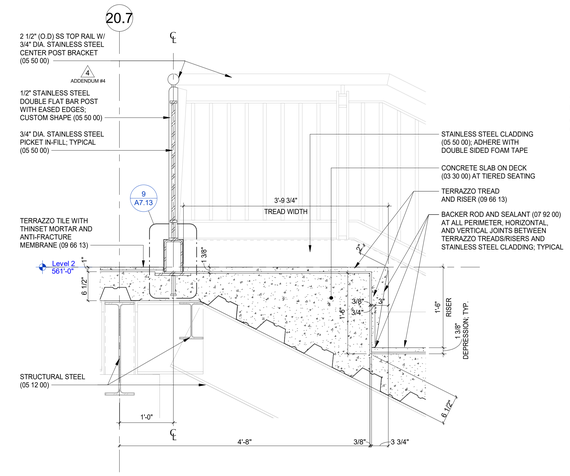


REVISIONS

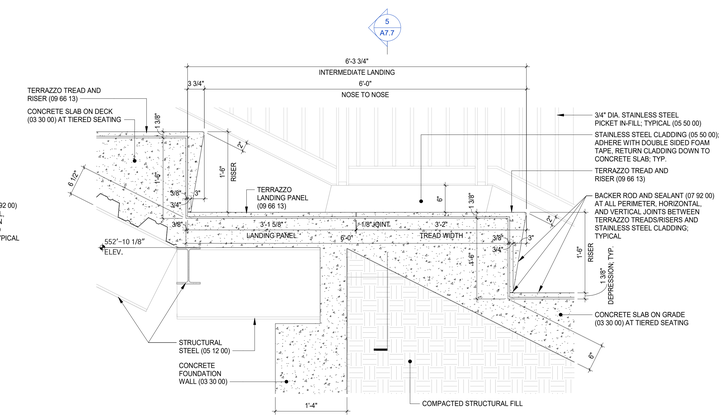
No.	Description	Date
3	ADDENDUM #3	02/03/22
5	ADDENDUM #5	02/16/22

FILE:	
JOB NO:	#1904
SCALE:	As indicated
DWN. BY:	A.J.
CKD. BY:	Checker
DATE:	JANUARY 20 2022

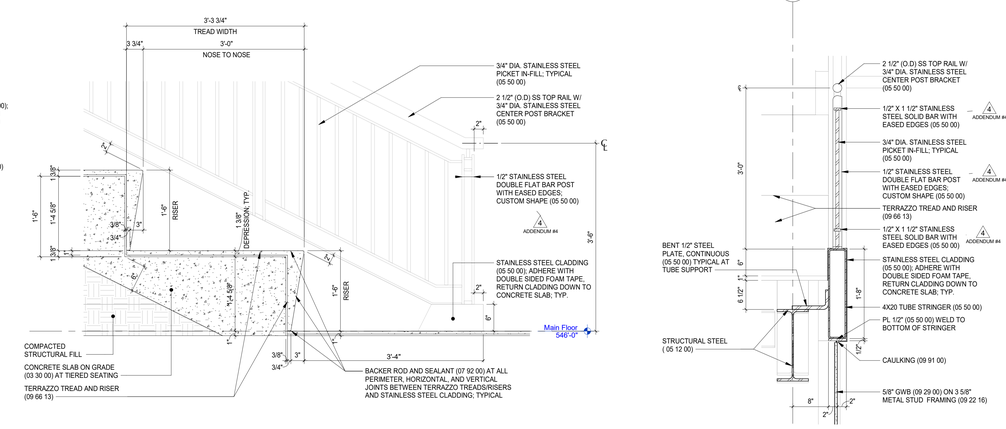
A7.9



1 A7.13 Caféteria Tiered Seating - Section Detail
SCALE: 1" = 1'-0"

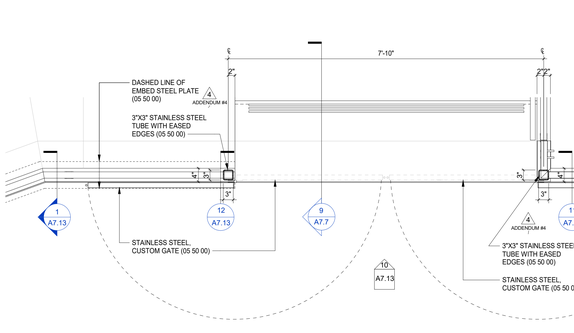


2 A7.13 Caféteria Tiered Seating - Section Detail
SCALE: 1" = 1'-0"

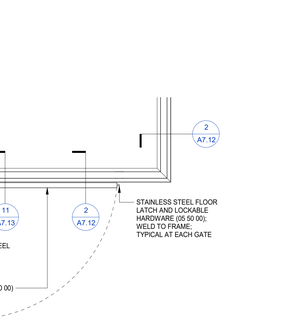


3 A7.13 Caféteria Tiered Seating - Section Detail
SCALE: 1" = 1'-0"

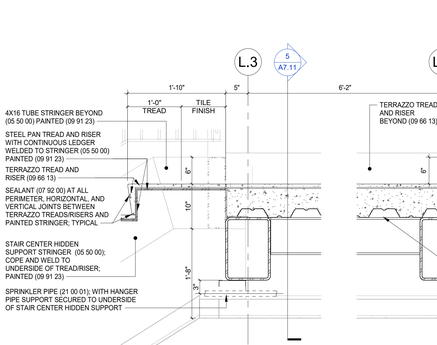
4 A7.13 Caféteria Tiered Seating - Section Detail
SCALE: 1" = 1'-0"



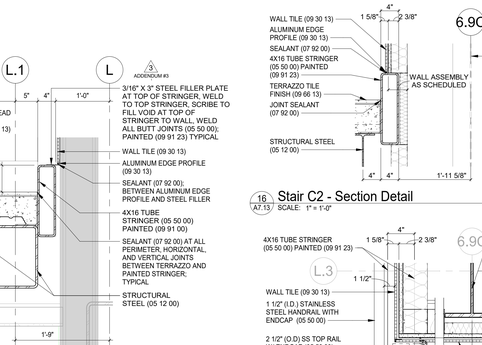
5 A7.13 Caféteria Stair - Section Detail
SCALE: 1" = 1'-0"



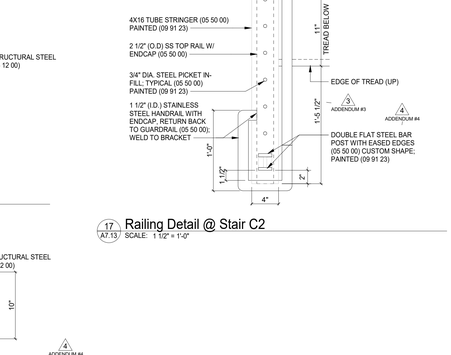
6 A7.13 Stair/Tiered Seating - Section Detail
SCALE: 1" = 1'-0"



7 A7.13 Caféteria Stair - Section Detail
SCALE: 1" = 1'-0"



8 A7.13 Caféteria Stair - Section Detail
SCALE: 1" = 1'-0"



9 A7.13 Support Detail at Guardrail
SCALE: 3" = 1'-0"

10 A7.13 Stair/Tiered Seating Gate - Elevation
SCALE: 1" = 1'-0"

11 A7.13 Section at Gate
SCALE: 1" = 1'-0"

12 A7.13 Support Detail at Stainless Steel Tube
SCALE: 3" = 1'-0"

13 A7.13 Stair C2 - Section Detail
SCALE: 1" = 1'-0"

14 A7.13 Enlarged Plan @ Cafeteria Stair/Tiered Seating Gate
SCALE: 3/4" = 1'-0"

15 A7.13 Stair C2 - Intermediate Landing Detail
SCALE: 1" = 1'-0"

16 A7.13 Stair C2 - Section Detail
SCALE: 1" = 1'-0"

18 A7.13 Railing Detail @ Stair C2
SCALE: 1 1/2" = 1'-0"

17 A7.13 Railing Detail @ Stair C2
SCALE: 1 1/2" = 1'-0"

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Doherty Memorial High School

299 Highland Street, Worcester, MA 01602

DRAWING TITLE

Stair and Guard Details

Locus Map

True North

Key Plan

REVISIONS

No.	Description	Date
3	ADDENDUM #3	02/03/22
4	ADDENDUM #4	02/10/22
5	ADDENDUM #5	02/16/22

FILE:	
JOB NO:	#1904
SCALE:	As indicated
DWN. BY:	A.J.
CKD. BY:	Checker
DATE:	JANUARY 20 2022

A7.13

EXTERIOR DOOR SCHEDULE

Door Number	From Room: Name	From Room: Number	To Room: Name	Pair	Door Width	Door Height	Door Thickness	Door Type	Door Material	Door Finish	Door Glass	Door Label	AR / STC	Frame Type	Frame Mat'l	Frame Finish	Frame Jamb	Frame Head	Threshold	Remarks	Hardware
X1	VESTIBULE	E100.1	EXTERIOR	P	3'-0"	8'-0"	1 3/4"	AL2	Aluminum	SEE SPEC.	IG-4			CW22	Aluminum	SEE SPEC.	20/A6.25	17/A6.28	2/A6.27	CR	2.0
X2	VESTIBULE	E100.1	EXTERIOR	P	3'-0"	8'-0"	1 3/4"	AL2	Aluminum	SEE SPEC.	IG-4			CW22	Aluminum	SEE SPEC.	16/A6.28	17/A6.28	2/A6.27		2.0
X3	VESTIBULE	E100.1	EXTERIOR	P	3'-0"	8'-0"	1 3/4"	AL2	Aluminum	SEE SPEC.	IG-4			CW22	Aluminum	SEE SPEC.	5/A6.26	17/A6.28	2/A6.27	CR	1.1
X4	WAIT	E146	EXTERIOR	P*	3'-0"/2'-0 1/4"	8'-0"	1 3/4"	AL2	Aluminum	SEE SPEC.	IG-4			CW47	Aluminum	SEE SPEC.	4/A6.06	17/A6.28	2/A6.27	CR, OPERABLE SIDELIGHT LEAF	4.1
X5	STAIR	E2.1	EXTERIOR	P	3'-0 1/8"	7'-0"	1 3/4"	AL2	Aluminum	SEE SPEC.	IG-4			CW44	Aluminum	SEE SPEC.	14/A6.25	17/A6.28		CR	1.0
X6	STAIR	A2.0	EXTERIOR	P	3'-0 1/8"	7'-0"	1 3/4"	AL2	Aluminum	SEE SPEC.	IG-2			CW48	Aluminum	SEE SPEC.	27/A6.28	26/A6.28	29/A6.28		1.0
X7	STAIR	A1.0	EXTERIOR	P	3'-0 1/8"	7'-0"	1 3/4"	AL2	Aluminum	SEE SPEC.	IG-4			CW48	Aluminum	SEE SPEC.	27/A6.28	26/A6.28			2.0
X8	CORRIDOR	E000	EXTERIOR	P*	3'-6"/1'-0"	7'-0"	1 3/4"	AA	H.M.	GALV. PAINT	-			F2B	H.M.	GALV. PAINT	2/A6.22	14/A6.21		CR, OPERABLE SIDELIGHT LEAF	5.0
X9	CCL LAB	B005	EXTERIOR		3'-0"	7'-0"	1 3/4"	G	H.M.	GALV. PAINT	IG-2			F12	H.M.	GALV. PAINT	8/A6.24	4/A6.27 SIM		CR	5.0
X10	STAIR	B1.1	EXTERIOR	P	3'-0 1/8"	7'-0"	1 3/4"	AL2	Aluminum	SEE SPEC.	IG-4			CW48	Aluminum	SEE SPEC.	27/A6.28	26/A6.28			2.0
X11	THE ARTS' MAKER SPACE	B102	EXTERIOR	P	3'-0"	8'-0"	1 3/4"	AL2	Aluminum	SEE SPEC.	IG-4			CW45	Aluminum	SEE SPEC.	16/A6.28	17/A6.28			2.0
X12	LOBBY	E100	EXTERIOR		3'-0"	8'-0"	1 3/4"	AL1	Aluminum	SEE SPEC.	IG-2			CW8	Aluminum	SEE SPEC.	8/A6.22	17/A6.28		CR	4.0
X13	LOBBY	E100	EXTERIOR		3'-0"	8'-0"	1 3/4"	AL1	Aluminum	SEE SPEC.	IG-2			CW8	Aluminum	SEE SPEC.	8/A6.22	17/A6.28		CR	7.0
X14	STAIR	C1.1	EXTERIOR	P	3'-0 1/8"	7'-0"	1 3/4"	AL2	Aluminum	SEE SPEC.	IG-4			CW48	Aluminum	SEE SPEC.	27/A6.28	26/A6.28		CR	1.2
X15	RECEIVING	C116	EXTERIOR		3'-0"	7'-0"	1 3/4"	N	H.M.	GALV. PAINT	IG-2			F1B	H.M.	GALV. PAINT	13/A6.21	14/A6.21		CR	6.0
X16	RECYCLE / TRASH	C118	EXTERIOR	P	3'-0"	7'-0"	1 3/4"	F	H.M.	GALV. PAINT	-			F2B	H.M.	GALV. PAINT	13/A6.21	14/A6.21			19.0
X17	STAIR	D2.1	EXTERIOR		3'-8"	7'-0"	1 3/4"	F	H.M.	GALV. PAINT	-			F14	H.M.	GALV. PAINT	5/A6.24 SIM	4/A6.27 SIM			8.1
X18	WATER SERVICE ROOM	D108	EXTERIOR		3'-0"	7'-0"	1 3/4"	F	H.M.	GALV. PAINT	-			F1B	H.M.	GALV. PAINT	5/A6.24	4/A6.27	22/A6.28		20.0
X19	OUTDOOR STORAGE	D107	EXTERIOR	P	3'-0"	7'-0"	1 3/4"	F	H.M.	GALV. PAINT	-			F2B	H.M.	GALV. PAINT	5/A6.24	4/A6.27			84.0
X20	BICYCLE PARKING	D104	EXTERIOR		3'-0"	7'-0"	1 3/4"	F	H.M.	GALV. PAINT	-			F14	H.M.	GALV. PAINT	7/A6.25	4/A6.27			8.0
X21	STAIR	D1.2	EXTERIOR	P	3'-0 1/8"	7'-0"	1 3/4"	AL2	Aluminum	SEE SPEC.	IG-4			CW48	Aluminum	SEE SPEC.	27/A6.28	26/A6.28			2.1
X22	OUTDOOR STORAGE	D201.1	EXTERIOR	P	3'-0"	7'-0"	1 3/4"	F	H.M.	GALV. PAINT	-			F2B	H.M.	GALV. PAINT	13/A6.21 SIM	14/A6.21			84.0
X23	VEST	D210.1	EXTERIOR	P	3'-0"	8'-0"	1 3/4"	AL2	Aluminum	SEE SPEC.	IG-4			CW46	Aluminum	SEE SPEC.	23/A6.25	17/A6.28		CR	1.0
X24	GYMNASIUM	D206	EXTERIOR	P	3'-6"	7'-0"	1 3/4"	FG2	H.M.	GALV. PAINT	-			F2B	H.M.	GALV. PAINT	5/A6.24	4/A6.27 SIM		180 DEG HINGE	3.0
X25	GYMNASIUM	D206	EXTERIOR	P	3'-6"	7'-0"	1 3/4"	FG2	H.M.	GALV. PAINT	-			F2B	H.M.	GALV. PAINT	5/A6.24	4/A6.27 SIM		180 DEG HINGE	3.0
X26	PARKING UNDER BUILDING	D101	EXTERIOR		3'-6"	7'-0"	1 3/4"	F	H.M.	GALV. PAINT	-			F14	H.M.	GALV. PAINT	5/A6.24	4/A6.27 SIM		180 DEG HINGE	4.0
X27	CAFETERIA	E181	EXTERIOR	P	3'-0"	8'-0"	1 3/4"	AL2	Aluminum	SEE SPEC.	IG-6			CW13	Aluminum	SEE SPEC.	16/A6.28	17/A6.28	8/A6.27		1.0
X28	ROOF ACCESS	E304	ROOF		3'-0"	6'-2"	1 3/4"	F	H.M.	GALV. PAINT	-			F1	H.M.	GALV. PAINT	22/A6.29	23/A6.29	24/A6.29 SIM		9.0
X29	ROOF ACCESS	A317	ROOF		3'-0"	7'-0"	1 3/4"	F	H.M.	GALV. PAINT	-			F1	H.M.	GALV. PAINT	22/A6.29	23/A6.29	24/A6.29		9.0
X30	JAN	D411	ROOF		3'-0"	7'-0"	1 3/4"	F	H.M.	GALV. PAINT	-			F1B	H.M.	GALV. PAINT	13/A6.21	14/A6.21	28/A6.28		9.0
X31	STAIR	D2.6	ROOF		3'-0"	7'-0"	1 3/4"	F	H.M.	GALV. PAINT	-			F1B	H.M.	GALV. PAINT	13/A6.21	14/A6.21	16/A6.32		9.0
X32	COMMON ROOM	B415	ROOF				1 3/4"			SEE SPEC.	IG-2			CW18	Aluminum	SEE SPEC.					9.0
X33	CORRIDOR	C510	ROOF				1 3/4"			SEE SPEC.	IG-2			CW18	Aluminum	SEE SPEC.					9.0

OVERHEAD DOOR SCHEDULE

Door Number	From Room: Name	From Room: Number	To Room: Name	To Room: Number	Pair	Door Width	Door Height	Door Type	Door Material	Door Finish	Door Glass	Door Label	AR / STC	Type	Frame Mat'l	Frame Finish	Frame Jamb	Frame Head	Threshold	Remarks	Hardware
OH005	CCL LAB	B005	EXTERIOR	-		16'-0"	12'-0"							O-1		PAINT	19/A6.29	19/A6.29		M1	82.0
OH101	PARKING UNDER BUILDING	D101	EXTERIOR	-		10'-0"	8'-9"							O-4		PAINT	8/A6.25	19/A6.29 SIM		M1	82.0
OH101A	PARKING UNDER BUILDING	D101	EXTERIOR	-		10'-0"	8'-9"							O-4		PAINT	7/A6.25	19/A6.29 SIM		M1	82.0
OH116	RECEIVING	C116	EXTERIOR	-		8'-0"	8'-0"							O-1		PAINT	21/A6.29	21/A6.29	23/A6.28	M1	82.0
OH190	SERVERY	E190	CAFETERIA	E181		31'-8"	8'-0"							O-2		SEE SPEC.	2/A10.3	4A/10.3		M1	82.0
OH190A	SERVERY	E190	CAFETERIA	E181		10'-8"	8'-0"							O-2		SEE SPEC.	3/A10.3	4/A10.3		M1	82.0
OH190B	SERVERY	E190	CAFETERIA	E181		10'-8"	8'-0"							O-2		SEE SPEC.	5/A10.3	4/A10.3		M1	82.0
OH282	GRAB'N GO	E282	UPPER LOBBY	E270		8'-0"	5'-2"			SEE SPEC.				O-3		SEE SPEC.	1/A10.4	2/A10.4		M1	82.0

HORIZONTAL ACCORDION DOOR SCHEDULE

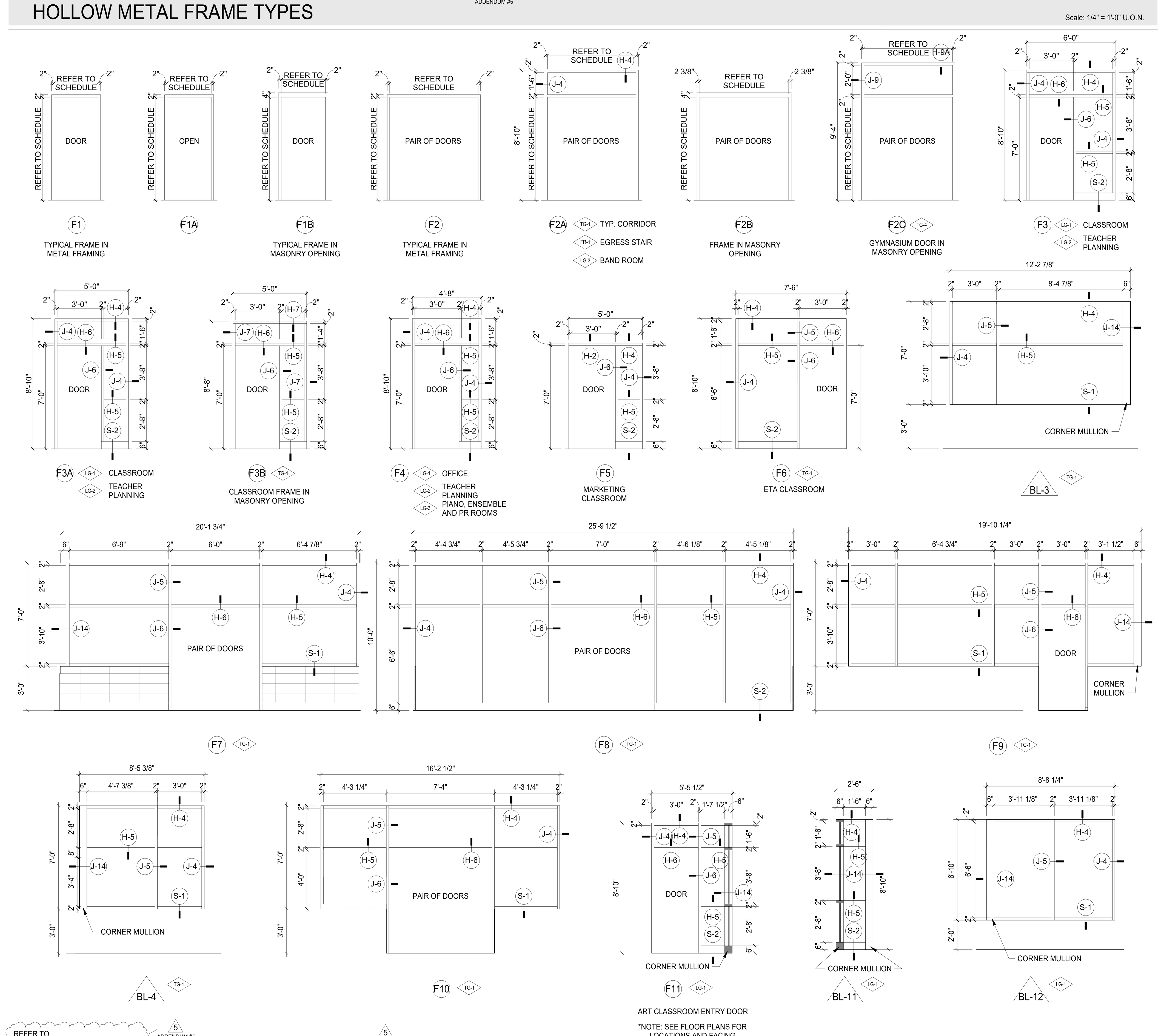
Door Number	From Room: Name	From Room: Number	To Room: Name	To Room: Number	Pair	Door Width	Door Height	Door Type	Door Material	Door Finish	Door Glass	Door Label	AR / STC	Frame Type	Frame Mat'l	Frame Finish	Frame Jamb	Frame Head	Threshold	Remarks	Hardware
HS-01	STAIR	E1.0	CORRIDOR	E000		11'-7 1/2"	10'-0"					90 MIN					14/A10.6	12/A10.6		CR on both sides	83.0
HS-11	LOBBY	E100	CORRIDOR	B110		14'-6 3/8"	9'-0"										13/A10.6	12/A10.6		CR on both sides	83.0
HS-21	CORRIDOR	E270A	CORRIDOR	E270A		8'-2 5/8"	9'-0"										13/A10.6	11/A10.6		CR on both sides	82.0
HS-22	UPPER LOBBY	E270	CORRIDOR	E280		13'-0"	10'-0"										13/A10.6	12/A10.6		CR on both sides	82.0
HS-23	CORRIDOR	B210	UPPER LOBBY	E270		14'-8 1/2"	9'-0"					90 MIN					14/A10.6	12/A10.6		CR on both sides	83.0
HS-30	CORRIDOR	C310	STAIR	C2.3		20'-7 7/8"	9'-0"					90 MIN					14/A10.6	12/A10.6		CR on both sides	82.0
HS-31	UPPER LOBBY	E300	CORRIDOR	C310		17'-10 1/4"	9'-0"					90 MIN					14/A10.6	12/A10.6		CR on both sides	83.0
HS-40	CORRIDOR	C410	STAIR	C2.4		20'-7 7/8"	9'-0"					90 MIN					14/A10.6	12/A10.6		CR on both sides	82.0
HS-50	CORRIDOR	C510	STAIR	C2.5		20'-7 7/8"	9'-0"					90 MIN					14/A10.6	12/A10.6		CR on both sides	82.0

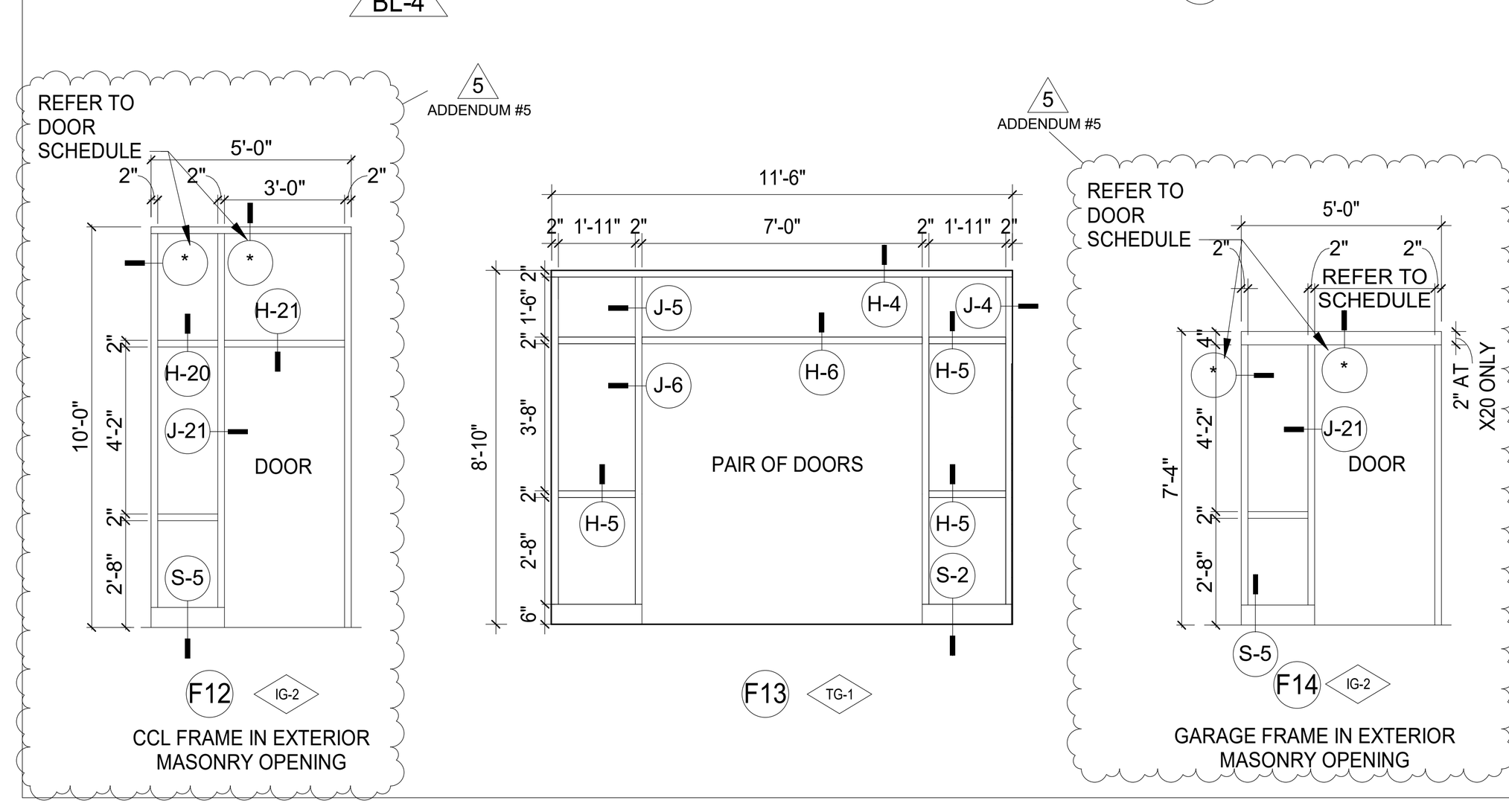
VERTICAL FOLDING DOOR SCHEDULE

Door Number	From Room: Name	From Room: Number	To Room: Name	To Room: Number	Pair	Door Width	Door Height	Door Type	Door Material	Door Finish	Door Glass	Door Label	AR / STC	Frame Type	Frame Mat'l	Frame Finish	Frame Jamb	Frame Head	Threshold	Remarks	Hardware
VS-01	LOBBY	E100	CAFETERIA	E181		12'-0"	11'-0"										17/A8.43	17/A10.6		CR on both sides	82.0

HOLLOW METAL FRAME TYPES

Scale: 1/4" = 1'-0" U.O.N.





DOOR KEYNOTES LEGEND

DOOR

D1. FULL HEIGHT WALL PAD ON DOOR
HO. HOLD OPEN REQUIRED
CR. CARD READER REQUIRED

MOTOR FOR OVERHEAD GRILLES / DOORS

M1. MOTOR OPERATED
M2. NO MOTOR, MANUALLY OPERATED BY EXTENSION CRANK

GENERAL NOTES

1. REFER TO DOOR SCHEDULE FOR DOOR TYPES AND DETAILS.
2. DOOR FRAMES INSTALLED INTO METAL STUD PARTITIONS ARE TO HAVE A FACE DIMENSION OF 2" AT THE FRAME HEAD. DOOR FRAMES INSTALLED INTO MASONRY PARTITIONS ARE TO HAVE A FACE DIMENSION OF 4" AT THE FRAME HEAD. REFER TO INTERIOR ELEVATIONS.
3. ALL HOLLOW METAL EXTERIOR DOORS AND FRAMES ARE TO BE GALVANIZED.
4. GLAZING STOPS SHALL BE LOCATED ON THE NON-PUBLIC SIDE OF FRAMES U.O.N.
5. HOLLOW METAL FRAMES THAT ARE FIELD ASSEMBLED SHALL BE WELDED AND SEALED (GRINDED SMOOTH).
6. CARD READER WITH KEY PAD IS DESIRED AT THE ENTRANCE TO THE VISITING TEAM ROOMS.
7. REFER TO DRAWING A10.5 FOR TYPICAL DETAILS.
8. SEE FLOOR PLANS FOR LOCATIONS AND FACING.

DOOR SCHEDULE - GROUND FLOOR SECTION A

Door Number	From Room: Name	From Room: Number	To Room: Name	To Room: Number	Pair	Door Width	Door Height	Door Thickness	Door Type	Door Material	Door Finish	Door Glass	Door Label	AR / STC	Frame Type	Frame Mat'l	Frame Finish	Frame Jamb	Frame Head	Threshold	Remarks	Hardware
A000	CORRIDOR	A000	CORRIDOR	A010	P	4'-0"	7'-0"	1 3/4"	FG2	H.M.	PAINT	TG-1			F2A	H.M.	PAINT	J-1	H-4		HO	33.0
A000S	CORRIDOR	A000	STAIR	A1.0	P	3'-0"	7'-0"	1 3/4"	N	H.M.	PAINT	FR-1	90 MIN		F2	H.M.	PAINT	J-2	H-2		HO, 120 DEGREE SWING	32.0
A001	CORRIDOR	A000	9TH GRADE SOCIAL STUDIES	A001		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F3A	H.M.	PAINT	J-1B	H-4			42.0
A002	10TH GRADE SCIENCE	A002	CORRIDOR	A000		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F3A	H.M.	PAINT	J-1	H-4			44.0
A002.1	10TH GRADE SCIENCE	A002	PREP	A002.1		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F1	H.M.	PAINT	J-1	H-1			51.0
A002A	10TH GRADE SCIENCE	A002	CORRIDOR	A000		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F3A	H.M.	PAINT	J-1	H-4			44.0
A003	CORRIDOR	A000	9TH/10TH SPED INCLUSION	A003		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F3A	H.M.	PAINT	J-1B	H-4			42.0
A003A	9TH GRADE SOCIAL STUDIES	A001	9TH/10TH SPED INCLUSION	A003		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-		G-30	F1	H.M.	PAINT	J-1	H-1			46.0
A004	9TH GRADE SCIENCE	A004	CORRIDOR	A000		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F3A	H.M.	PAINT	J-1	H-4			44.0
A004.1	9TH GRADE SCIENCE	A004	PREP	A004.1		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F1	H.M.	PAINT	J-1	H-1			51.0
A004A	9TH GRADE SCIENCE	A004	CORRIDOR	A000		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F3A	H.M.	PAINT	J-1	H-4			44.0
A005	CORRIDOR	A000	9TH GRADE ENGLISH	A005		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F3A	H.M.	PAINT	J-1B	H-4			42.0
A005A	9TH/10TH SPED INCLUSION	A003	9TH GRADE ENGLISH	A005		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-		G-30	F1	H.M.	PAINT	J-1	H-1			46.0
A007	CORRIDOR	A000	9TH GRADE MATH	A007		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F3A	H.M.	PAINT	J-1B	H-4			42.0
A007A	9TH GRADE ENGLISH	A005	9TH GRADE MATH	A007		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-		G-30	F1	H.M.	PAINT	J-1	H-1			46.0
A010S	CORRIDOR	A010	STAIR	A2.0	P	3'-0"	7'-0"	1 3/4"	N	H.M.	PAINT	FR-1	90 MIN		F2	H.M.	PAINT	J-2	H-2		HO, 120 DEGREE SWING	58.0
A011	ELEC	A011	CORRIDOR	A010		3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-	45 MIN		F1	H.M.	PAINT	J-2	H-2			73.0
A012	CORRIDOR	A010	GIRLS	A012		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F1	H.M.	PAINT	J-15	H-1		HO	70.0
A013	CORRIDOR	A010	BOYS	A013		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F1	H.M.	PAINT	J-15	H-1		HO	70.0
A014	CORRIDOR	E050	UNISEX	A014		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F1	H.M.	PAINT	J-1A	H-1			61.0
A016	TEACHER PLANNING	A016	COMMON ROOM	A015		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F4	H.M.	PAINT	J-1	H-4			42.0
A016A	CORRIDOR	E050	TEACHER PLANNING	A016		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F1	H.M.	PAINT	J-1	H-1			42.0
A017	CORRIDOR	A010	ACID NEUTRAL	A017		3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-			F1	H.M.	PAINT	J-1	H-1			77.0

DOOR SCHEDULE - GROUND FLOOR SECTION B

Door Number	From Room: Name	From Room: Number	To Room: Name	To Room: Number	Pair	Door Width	Door Height	Door Thickness	Door Type	Door Material	Door Finish	Door Glass	Door Label	AR / STC	Frame Type	Frame Mat'l	Frame Finish	Frame Jamb	Frame Head	Threshold	Remarks	Hardware
B000	CCL LAB	B005	CORRIDOR	B000	P	3'-0"	7'-0"	1 3/4"	FG2	H.M.	PAINT	TG-1		G-40	F2B	H.M.	PAINT	J-8	H-8			25.0
B001	CORRIDOR	B000	CCL CLASSROOM	B001		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-		G-30	F3A	H.M.	PAINT	J-1B	H-4			43.0
B002	ELEC	B002	CORRIDOR	B000		3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-	45 MIN		F1	H.M.	PAINT	J-2	H-2			73.0
B003	CORRIDOR	B000	CCL CLASSROOM	B003		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-		G-30	F3A	H.M.	PAINT	J-1B	H-4			43.0
B003A	CCL CLASSROOM	B001	CCL CLASSROOM	B003		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-		G-30	F1	H.M.	PAINT	J-1	H-1			46.0
B004	CCL LAB	B005	LOCKERS / CLEAN UP	B004		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F3B	H.M.	PAINT	J-8	H-7			27.0
B005A	CCL CLASSROOM	B003	CCL LAB	B005		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-		G-30	F3B	H.M.	PAINT	J-8	H-7			43.0
B006	LOCKERS / CLEAN UP	B004	CCL OFFICE	B006		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-		G-30	F4	H.M.	PAINT	J-1	H-4			37.0
B006.1	CCL OFFICE	B006	CCL LAB	B005		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-		G-30	F3B	H.M.	PAINT	J-8	H-7			37.0
B007	CCL STOR	B007	CCL LAB	B005	P	3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F2B	H.M.	PAINT	J-8	H-8			80.0
B008	MECHANICAL	B008	CCL LAB	B005	P	3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-	90 MIN		F2B	H.M.	PAINT	J-10	H-10		8" MAX FRAME DEPTH	80.0
B008.1	MECHANICAL	B008	CCL LAB	B005		3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-	90 MIN		F1B	H.M.	PAINT	J-10	H-10		8" MAX FRAME DEPTH	79.0
B010	CORRIDOR	B000	CORRIDOR	B010	P	3'-0"	7'-0"	1 3/4"	FG2	H.M.	PAINT	TG-1			F2A	H.M.	PAINT	J-1	H-4		HO	33.0
B011	CORRIDOR	E000	TEACHER PLANNING	B011		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F4	H.M.	PAINT	J-1A	H-4			43.0
B012	CORRIDOR	E000	JOB PLACEMENT OFFICE	B012		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-		G-30	F4	H.M.	PAINT	J-1	H-4			37.0
B013	CORRIDOR	B010	AP CONF	B013		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-		G-30	F4	H.M.	PAINT	J-1	H-4			37.0
B015	CORRIDOR	E000	AP SECR	B015		3'-0"	7'-0"	1 3/4"	AL1	Aluminum	SEE SPEC.	LG-1			AF3a	Aluminum	SEE SPEC.	4/A10.5	4/A10.5		CR	17.0
B016	AP SECR	B015	ADJ OFFICE	B016		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-		G-30	AF3	Aluminum	SEE SPEC.	4/A10.5	4/A10.5			37.0
B017	AP SECR	B015	AP OFFICE	B017		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-		G-30	AF3	Aluminum	SEE SPEC.	4/A10.5	4/A10.5			37.0
B018	AP SECR	B015	AP OFFICE	B018		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-		G-30	AF3	Aluminum	SEE SPEC.	4/A10.5	4/A10.5			37.0

DOOR SCHEDULE - GROUND FLOOR SECTION E

Door Number	From Room: Name	From Room: Number	To Room: Name	To Room: Number	Pair	Door Width	Door Height	Door Thickness	Door Type	Door Material	Door Finish	Door Glass	Door Label	AR / STC	Frame Type	Frame Mat'l	Frame Finish	Frame Jamb	Frame Head	Threshold	Remarks	Hardware
E001	STAIR	E1.0	MMF STOR	E001		3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-	90 MIN		F1	H.M.	PAINT	J-2	H-2			77.0
E002	CORRIDOR	E000	STOREROOM	E002	P	3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-	90 MIN		F2	H.M.	PAINT	J-2	H-2			78.0
E2.0A	STAIR	E2.0	HELP DESK	E021		3'-0"	7'-0"	1 3/4"	N	H.M.	PAINT	FR-1	90 MIN		F4	H.M.	PAINT	J-2	H-2		CR	75.0
E002.1	CLOSET	E002.1	STOREROOM	E002	P	3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-	90 MIN		F2	H.M.	PAINT	J-2	H-2			80.0
E002A	STOREROOM	E002	UNFINISHED SPACE	-	P	3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-	90 MIN		F2	H.M.	PAINT	J-2	H-2			78.0
E003	ELEV MACH	E003	CORRIDOR	E000		3'-6"	7'-0"	1 3/4"	F	H.M.	PAINT	-	90 MIN	G-40	F1	H.M.	PAINT	J-2	H-2			79.0
E005	CORRIDOR	E000	UNISEX	E005		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F1	H.M.	PAINT	J-1	H-1			61.0
E006	CORRIDOR	E010	GIRLS	E006		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F1	H.M.	PAINT	J-15	H-1		HO	70.0
E007	CORRIDOR	E010	BOYS	E007		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F1	H.M.	PAINT	J-15	H-1		HO	70.0
E008	JANITOR	E008	CORRIDOR	E010		3'-6"	7'-0"	1 3/4"	F	H.M.	PAINT	-			F1	H.M.	PAINT	J-1	H-1			57.0
E009	CORRIDOR	E010	ETA TEACHER PLANNING	E009		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F1	H.M.	PAINT	J-1	H-1			42.0
E011	CORRIDOR	E010	PWD STORAGE	E011	P	3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-			F2	H.M.	PAINT	J-1	H-1			78.0
E012	CORRIDOR	E010	ETA SHOP STORAGE	E012	P	3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-			F2	H.M.	PAINT	J-1	H-1			78.0
E013	EMERG ELEC	E013	CORRIDOR	E010		3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-	90 MIN		F1	H.M.	PAINT	J-2	H-2			73.0
E014	SECONDARY MAIN ELEC RM	E014	CORRIDOR	E010	P	3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-	90 MIN		F2	H.M.	PAINT	J-2	H-2			74.0
E014A	EMERG ELEC	E013	SECONDARY MAIN ELEC RM	E014		3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-	90 MIN		F1	H.M.	PAINT	J-2	H-2			73.0
E015	NET & TELE	E015	CORRIDOR	E020	P	3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-	90 MIN		F2	H.M.	PAINT	J-2	H-2		CR	76.0
E016	CORRIDOR	E010	MEN	E016		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F1	H.M.	PAINT	J-1A	H-1			62.0
E017	CORRIDOR	E010	WOMEN	E017		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F1	H.M.	PAINT	J-1A	H-1			62.0
E018	ELEC	E018	CORRIDOR	E020		3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-	45 MIN		F1	H.M.	PAINT	J-2	H-2			73.0
E021	CORRIDOR	E020	HELP DESK	E021		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F3	H.M.	PAINT	J-1	H-4		CR	75.0
E021A	IT SERVICES	E022	HELP DESK	E021		3'-0"	7'-0"	1 3/4"	N	H.M.	PAINT	LG-1			F1	H.M.	PAINT	J-1	H-1			37.0
E022	CORRIDOR	E020	IT SERVICES	E022		3'-6"	7'-0"	1 3/4"	F	H.M.	PAINT	-			F1	H.M.	PAINT	J-1	H-1		CR	75.0
E023	IT SERVICES	E022	IT OFFICE	E023		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-		G-30	F4	H.M.	PAINT	J-1	H-4			37.0
E024	IT SERVICES	E022	IT OFFICE	E024		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-		G-30	F4	H.M.	PAINT	J-1	H-4			37.0
E025	IT SERVICES	E022	IT OFFICE	E025		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-		G-30	F4	H.M.	PAINT	J-1	H-4			37.0
E026	IT SERVICES	E022	IT OFFICE	E026		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-		G-30	F4	H.M.	PAINT	J-1	H-4			37.0
E027	IT OFFICE	E027	IT SERVICES	E022		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-		G-30	F4	H.M.	PAINT	J-1	H-4			37.0
E028	IT OFFICE	E028	IT SERVICES	E022		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-		G-30	F4	H.M.	PAINT	J-1	H-4			37.0
E029	IT CONF.	E029	IT SERVICES	E022		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F4	H.M.	PAINT	J-1	H-4			37.0
E030	CORRIDOR	E020	IT SERVICES	E022		3'-6"	7'-0"	1 3/4"	F	H.M.	PAINT	-			F1	H.M.	PAINT	J-1	H-1		CR	75.0
E031	IT SERVICES	E022	MEN	E031		3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-			F1	H.M.	PAINT	J-1A	H-1			61.0
E032	IT SERVICES	E022	WOMEN	E032		3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-			F1	H.M.	PAINT	J-1A	H-1			61.0
E033	IT SERVICES	E022	IT STORAGE & WORKSHOP	E033		3'-6"	7'-0"	1 3/4"	F	H.M.	PAINT	-			F1	H.M.	PAINT	J-1	H-1			38.0
E033A	CLOSET	E033A	IT STORAGE & WORKSHOP	E033		3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-			F1	H.M.	PAINT	J-1	H-1			79.0
E034	IT SERVER ROOM	E034	IT SERVICES	E022		3'-6"	7'-0"	1 3/4"	F	H.M.	PAINT	-	90 MIN		F1	H.M.	PAINT	J-2	H-2		CR	75.0
E050S	CORRIDOR	E020	STAIR	E2.0	P	3'-0"	7'-0"	1 3/4"	FG2	H.M.	PAINT	FR-1	90 MIN		F2A	H.M.	PAINT	J-2	H-2		HO	58.0
E051	CORRIDOR	E050	10TH GRADE MATH	E051		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F3A	H.M.	PAINT	J-1	H-4			42.0
E052	CORRIDOR	E050	10TH GRADE ENGLISH	E052		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F3A	H.M.	PAINT	J-1	H-4			42.0
E052A	10TH GRADE MATH	E051	10TH GRADE ENGLISH	E052		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-		G-30	F1	H.M.	PAINT	J-1	H-1			46.0
E053	CORRIDOR	E050	9TH/10TH SPED LEARNING CENTER	E053		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F3A	H.M.	PAINT	J-1	H-4			42.0
E053A	10TH GRADE ENGLISH	E052	9TH/10TH SPED LEARNING CENTER	E053		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-		G-30	F1	H.M.	PAINT	J-1	H-1			46.0
E054	CORRIDOR	E050	10TH GRADE SOCIAL STUDIES	E054		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F3A	H.M.	PAINT	J-1	H-4			42.0
E054A	9TH/10TH SPED LEARNING CENTER	E053	10TH GRADE SOCIAL STUDIES	E054		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-		G-30	F1	H.M.	PAINT	J-1	H-1			46.0
E055	CORRIDOR	E020	COMPUTER SCIENCE	E055		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F3A	H.M.	PAINT	J-1	H-4			42.0
E055A	10TH GRADE SOCIAL STUDIES	E054	COMPUTER SCIENCE	E055		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-		G-30	F1	H.M.	PAINT	J-1	H-1			46.0
E056	CORRIDOR	E020	COMPUTER SCIENCE	E056		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F3A	H.M.	PAINT	J-1	H-4			42.0
E056A	COMPUTER SCIENCE	E055	COMPUTER SCIENCE	E056		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-		G-30	F1	H.M.	PAINT	J-1	H-1			46.0
E061	ETA DIGITAL ELECT. & ROBOTICS SHOP	E061	CORRIDOR	E010	P	3'-0"	7'-0"	1 3/4"	FG2	H.M.	PAINT	TG-1		G-40	F2A	H.M.	PAINT	J-1	H-4			40.0
E061.1	ETA DIGITAL ELECT. & ROBOTICS SHOP	E061	ETA FAB. SHOP STORAGE	E061.1		3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-			F1	H.M.	PAINT	J-1	H-1			51.0
E061A	ETA DIGITAL ELECT. & ROBOTICS SHOP	E061	ETA 3D PRINTING SHOP	E063	P	3'-6"	7'-0"	1 3/4"	FG2	H.M.	PAINT	TG-1		G-40	F2A	H.M.	PAINT	J-1	H-4			40.0
E061B	ETA DIGITAL ELECT. & ROBOTICS SHOP	E061	ETA COMMON	E060	P	3'-0"	7'-0"	1 3/4"	FG2	H.M.	PAINT	TG-1		G-40	F7	H.M.	PAINT	J-4	H-4			40.0
E061C	ETA DIGITAL ELECT. & ROBOTICS SHOP	E061	ETA CONSTRUCT. & FAB. SHOP	E062	P	3'-6"	7'-0"	1 3/4"	FG2	H.M.	PAINT	TG-1		G-40	F10	H.M.	PAINT	J-4	H-4			40.0
E062	ETA CONSTRUCT. & FAB. SHOP	E062	CORRIDOR	E010	P	3'-0"	7'-0"	1 3/4"	FG2	H.M.	PAINT	TG-1		G-40	F2A	H.M.	PAINT	J-1	H-4			40.0
E062.1	ETA CONSTRUCT. & FAB. SHOP	E062	ETA SHOP STORAGE	E062.1		3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-			F1	H.M.	PAINT	J-1	H-1			51.0
E062B	ETA CONSTRUCT. & FAB. SHOP	E062	ETA 3D PRINTING SHOP	E063	P	3'-6"	7'-0"	1 3/4"	FG2	H.M.	PAINT	TG-1		G-40	F2A	H.M.	PAINT	J-1	H-4			40.0
E063	ETA 3D PRINTING SHOP	E063	ETA COMMON	E060	P	3'-6"	7'-0"	1 3/4"	FG2	H.M.	PAINT	TG-1		G-40	F8	H.M.	PAINT	J-4	H-4			24.0
E064	ETA CLASSROOM	E064	CORRIDOR	E020		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-		G-30	F3	H.M.	PAINT	J-1	H-4			43.0
E064A	ETA CLASSROOM	E064	ETA CONSTRUCT. & FAB. SHOP	E062		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-		G-40	F3	H.M.	PAINT	J-1A	H-4			43.0
E065	ETA SHOP STORAGE	E065	CORRIDOR	E020	P	3'-0"	7'-0"	1 3/4"	G	H.M.	PAINT	TG-1			F2	H.M.	PAINT	J-1	H-1			40.0
E066	CORRIDOR	E020	COMPUTER SCIENCE	E066		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-		G-30	F3	H.M.	PAINT	J-1	H-4			43.0
E067	CORRIDOR	E050	ETA CLASSROOM	E067		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-		G-30	F3	H.M.	PAINT	J-1	H-4			43.0
E067A	ETA 3D PRINTING SHOP	E063	ETA CLASSROOM	E067		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-		G-40	F6	H.M.	PAINT	J-1A	H-4			43.0
E068	ETA HALLWAY	E068	CORRIDOR	E050	P	3'-6"	7'-0"	1 3/4"	FG2	H.M.	PAINT	TG-1		G-40	F2A	H.M.	PAINT	J-1	H-4			24.0
E069	CORRIDOR	E050	ETA CLASSROOM	E069		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-		G-30	F3	H.M.	PAINT	J-1	H-4			43.0
E069A	ETA 3D PRINTING SHOP	E063	ETA CLASSROOM	E069		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-		G-40	F6	H.M.	PAINT	J-1B	H-4			43.0
E070	ETA COMMON	E060	ETA CLASSROOM	E070		3'-0"	7'-0"	1 3/4"	FG2	H.M.	PAINT	TG-1		G-30	F9	H.M.	PAINT	J-4	H-4			43.0
E070A	CORRIDOR	E050	ETA CLASSROOM	E070		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-		G-30	F3	H.M.	PAINT	J-1	H-4			43.0
E071	ETA CONSTRUCT. & FAB. SHOP	E062	CNC MILL LAB	E071	P	3'-0"	7'-0"	1 3/4"	G	H.M.	PAINT	TG-1		G-40	F2	H.M.	PAINT	J-1	H-1			40.0
E071A	CNC MILL LAB	E071	CORRIDOR	E020	P	3'-0"	7'-0"	1 3/4"	G	H.M.	PAINT	TG-1		G-40	F2	H.M.	PAINT	J-1	H-1			40.0

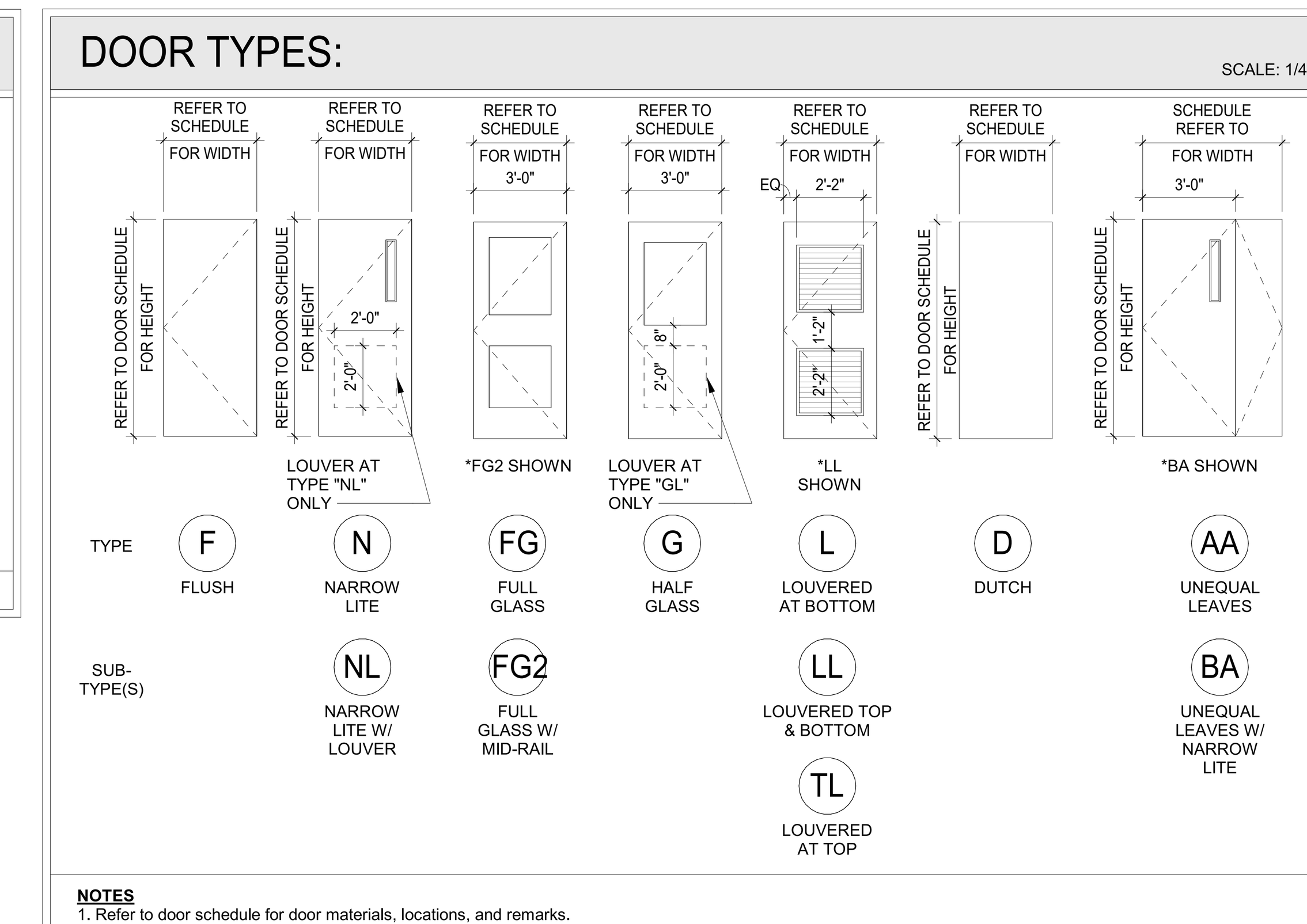
GLAZING TYPES LEGEND

IG-1	NOMINAL 1-INCH THICK INSULATED "LOW-E" GLASS UNITS (SOLAR COATING 1)
IG-2	NOMINAL 1-INCH THICK INSULATED "LOW-E" SAFETY GLASS UNITS (SOLAR COATING 1)
IG-3	NOMINAL 1-INCH THICK INSULATED "LOW-E" GLASS UNITS (SOLAR COATING 2)
IG-4	NOMINAL 1-INCH THICK INSULATED "LOW-E" SAFETY GLASS UNITS (SOLAR COATING 2)
IG-5	NOMINAL 1-INCH THICK INSULATED "LOW-E" GLASS UNITS (SOLAR COATING 2) WITH ACID-ETCHED BIRD PATTERN
IG-6	NOMINAL 1-INCH THICK INSULATED "LOW-E" SAFETY GLASS UNITS (SOLAR COATING 2) WITH ACID-ETCHED BIRD PATTERN
IG-7	NOMINAL 1-INCH THICK INSULATED SAFETY GLASS UNITS
SG-1	NOMINAL 1-INCH THICK INSULATED SPANDREL HEAT-STREGTHENED GLASS
FR-1	NOMINAL 8MM-9MM THICK (5/16 inch-3/8 inch) TRANSPARENT WIRE-LESS FIRE RATED & SAFETY CERAMIC GLAZING W/ POLISHED FINISH (HM FRAME/DOOR IN 2 HR FIRE WALL)
TG-1	NOMINAL 1/4-INCH THICK CLEAR FULLY-TEMPERED SAFETY GLASS
TG-2	NOMINAL 1/4-INCH THICK CLEAR FULLY-TEMPERED SAFETY GLASS W/FIELD APPLIED VINYL FROSTED & PATTERNED FILM
TG-3	NOMINAL 7/16-INCH THICK CLEAR TEMPERED / LAMINATED SAFETY GLASS W/ DECORATIVE INTERLAYER
TG-4	NOMINAL 7/16-INCH THICK CLEAR TEMPERED / LAMINATED SAFETY GLASS
TG-5	NOMINAL 1/4-INCH THICK TEMPERED TRANSPARENT MIRROR GLASS
TG-6	NOMINAL 3/8-INCH THICK TEMPERED / LAMINATED TRANSPARENT MIRROR GLASS
TG-7	NOMINAL 3/8-INCH THICK TEMPERED GLASS SHELF
TG-8	NOMINAL 1/4-INCH THICK TEMPERED FRAMELESS MIRROR GLASS
IM-1	NOMINAL 1-INCH THICK INSULATED METAL PANEL
LG-1	NOMINAL 1/4-INCH THICK CLEAR LAMINATED SAFETY GLASS
LG-2	NOMINAL 1/4-INCH THICK CLEAR LAMINATED SAFETY GLASS W/ FROSTED INTERLAYER
LG-3	NOMINAL 1/2-INCH THICK CLEAR LAMINATED SAFETY GLASS
SSG	STRUCTURAL SILICONE GLAZED

NOTES:
1. REFER TO SPECIFICATIONS FOR ADDITIONAL DESCRIPTIONS

DOOR TYPES:

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



NOTES
1. Refer to door schedule for door materials, locations, and remarks.
2. Refer to curtain wall / storefront drawings for entry door types.

NOTE: FOR DOOR FRAME TYPES, DOOR FRAME DETAILS, AND DOOR SCHEDULE AT OUTDOOR TOILET AND STORAGE BUILDING, REFER TO SHEET A3.18.

ACOUSTICAL DOOR TYPES LEGEND

DOOR A.R./STC	DOOR PANEL STC RATING	PERIMETER GASKET	ASTRAGAL GASKET (WHERE APPLICABLE)	DOOR DROP SEAL
G-30	STC 30	YES, FIELD INSTALLED	YES, FIELD INSTALLED	YES, FIELD INSTALLED
G-40	STC 40	YES, FIELD INSTALLED	YES, FIELD INSTALLED	YES, FIELD INSTALLED
AR-47	STC 47 WITH FRAME	FACTORY INSTALLED	FACTORY INSTALLED	FACTORY INSTALLED

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PROJECT

100% CONSTRUCTION DOCUMENTS, FINAL BID PACKAGE #4

Doherty Memorial High School

299 Highland Street, Worcester, MA 01602

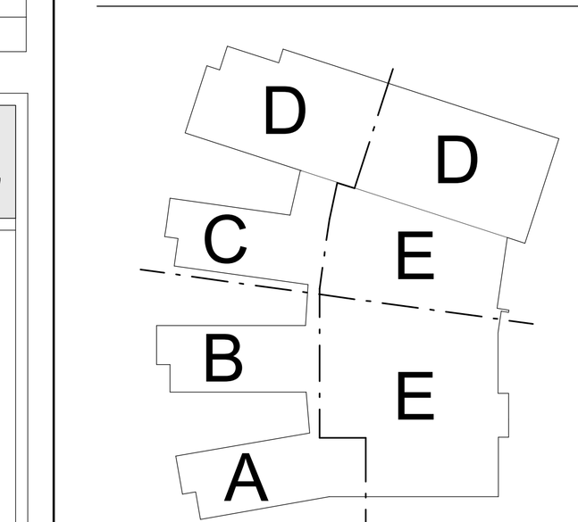
DRAWING TITLE

Door Schedule - Ground Floor, Exterior Doors & Specialty Doors

Locus Map

True North

Key Plan



REVISIONS

No.	Description	Date
5	ADDENDUM #5	02/16/22

FILE:
JOB NO: #1904
SCALE: As indicated
DWN. BY: AD
CKD. BY: RP / RL
DATE: JANUARY 20 2022

A10.1

DOOR SCHEDULE - MAIN FLOOR SECTION A

Door Number	From Room: Name	From Room: Number	To Room: Name	To Room: Number	Pair	Door Width	Door Height	Door Thickness	Door Type	Door Material	Door Finish	Door Glass	Door Label	AR / STC	Frame Type	Frame Mat'l	Frame Finish	Frame Jamb	Frame Head	Threshold	Remarks	Hardware
A100	CORRIDOR	A100	CORRIDOR	A110	P	4'-0"	7'-0"	1 3/4"	FG2	H.M.	PAINT	TG-1			F2A	H.M.	PAINT	J-1	H-4		HO	33.0
A100S	CORRIDOR	A100	STAIR	A1.1	P	3'-0"	7'-0"	1 3/4"	N	H.M.	PAINT	FR-1	90 MIN		F2	H.M.	PAINT	J-2	H-2		HO, 120 DEGREE SWING	32.0
A101	CORRIDOR	A100	9TH GRADE SOCIAL STUDIES	A101		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F3A	H.M.	PAINT	J-1B	H-4			42.0
A102	CORRIDOR	A100	MUSIC CLASSROOM	A102		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-		G-40	F3A	H.M.	PAINT	J-1B	H-4			36.0
A102A	CORRIDOR	A110	MUSIC CLASSROOM	A102		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-		G-40	F3A	H.M.	PAINT	J-1	H-4			36.0
A103	CORRIDOR	A100	9TH SPED INCLUSION	A103		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F3A	H.M.	PAINT	J-1B	H-4			42.0
A103A	9TH GRADE SOCIAL STUDIES	A101	9TH SPED INCLUSION	A103		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-		G-30	F1	H.M.	PAINT	J-1	H-1			46.0
A104	ELEC	A104	CORRIDOR	A100		3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-	45 MIN		F1	H.M.	PAINT	J-2	H-2			73.0
A104.1	EMERG ELEC	A104.1	ELEC	A104	P	3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-	90 MIN		F2	H.M.	PAINT	J-2	H-2			80.0
A104.2	DAS	A104.2	ELEC	A104		3'-0"	8'-0"	1 3/4"	F	H.M.	PAINT	-	90 MIN		F1	H.M.	PAINT	J-2	H-2			79.0
A105	CORRIDOR	A100	9TH GRADE ENGLISH	A105		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F3A	H.M.	PAINT	J-1B	H-4			42.0
A105A	9TH SPED INCLUSION	A103	9TH GRADE ENGLISH	A105		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-		G-30	F1	H.M.	PAINT	J-1	H-1			46.0
A106	IDF	A106	CORRIDOR	A100		3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-	45 MIN		F1	H.M.	PAINT	J-2	H-2		CR	75.0
A107	CORRIDOR	A100	9TH GRADE MATH	A107		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F3A	H.M.	PAINT	J-1B	H-4			42.0
A107A	9TH GRADE ENGLISH	A105	9TH GRADE MATH	A107		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-		G-30	F1	H.M.	PAINT	J-1	H-1			46.0
A108	CORRIDOR	A100	9TH SPED LEARNING CENTER	A108		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F3A	H.M.	PAINT	J-1B	H-4			42.0
A109	9TH GRADE SCIENCE	A109	CORRIDOR	A100		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F3A	H.M.	PAINT	J-1	H-4			44.0
A109.1	9TH GRADE SCIENCE	A109	PREP	A109.1		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F1	H.M.	PAINT	J-1	H-1			51.0
A109A	9TH GRADE SCIENCE	A109	CORRIDOR	A100		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F3A	H.M.	PAINT	J-1	H-4			44.0
A110	CORRIDOR	E120	CORRIDOR	A110	P	4'-0"	7'-0"	1 3/4"	FG2	H.M.	PAINT	TG-1			F2	H.M.	PAINT	J-1	H-1			32.0
A110S	CORRIDOR	A110	STAIR	A2.1	P	3'-0"	7'-0"	1 3/4"	N	H.M.	PAINT	FR-1	90 MIN		F2	H.M.	PAINT	J-2	H-2		HO, 120 DEGREE SWING	58.0
A111	CORRIDOR	A110	GIRLS	A111		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F1	H.M.	PAINT	J-15	H-1		HO	70.0
A112	JAN	A112	CORRIDOR	A110		3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-			F1	H.M.	PAINT	J-1	H-1			57.0
A113	CORRIDOR	A110	BOYS	A113		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F1	H.M.	PAINT	J-15	H-1		HO	70.0
A114	COMMON ROOM	A115	UNISEX	A114		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F1	H.M.	PAINT	J-1A	H-1			61.0
A116	TEACHER PLANNING	A116	COMMON ROOM	A115		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F4	H.M.	PAINT	J-1	H-4			42.0

DOOR SCHEDULE - MAIN FLOOR SECTION B

Door Number	From Room: Name	From Room: Number	To Room: Name	To Room: Number	Pair	Door Width	Door Height	Door Thickness	Door Type	Door Material	Door Finish	Door Glass	Door Label	AR / STC	Frame Type	Frame Mat'l	Frame Finish	Frame Jamb	Frame Head	Threshold	Remarks	Hardware
B100	CORRIDOR	B100	CORRIDOR	B110	P	4'-0"	7'-0"	1 3/4"	FG2	H.M.	PAINT	TG-1			F2A	H.M.	PAINT	J-1	H-4		HO	33.0
B101	CORRIDOR	B100	THEATER CLASSROOM	B101		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-		G-40	F3A	H.M.	PAINT	J-1	H-4			43.0
B101A	CORRIDOR	B110	THEATER CLASSROOM	B101		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-		G-40	F4	H.M.	PAINT	J-1B	H-4			43.0
B102	THE ARTS' MAKER SPACE	B102	CORRIDOR	B100		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-		G-30	F11	H.M.	PAINT	J-1B	H-4			45.0
B102A	THE ARTS' MAKER SPACE	B102	CORRIDOR	B110	P	3'-6"	7'-0"	1 3/4"	FG2	Wood	STAIN	TG-1		G-30	F13	H.M.	PAINT	J-1B	H-4			41.0
B103	CORRIDOR	B100	TEACHER PLANNING	B103		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F3A	H.M.	PAINT	J-1	H-4			43.0
B104	ART CLASSROOM	B104	CORRIDOR	B100		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F3A	H.M.	PAINT	J-1	H-4			44.0
B104.1A	ART STOR	B104.1	ART CLASSROOM	B104		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-		G-30	F1	H.M.	PAINT	J-1	H-1			51.0
B104A	ART CLASSROOM	B104	CORRIDOR	B100		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F11	H.M.	PAINT	J-1B	H-4			44.0
B105	ART CLASSROOM	B105	CORRIDOR	B100		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F3A	H.M.	PAINT	J-1	H-4			44.0
B105.1	ART STOR	B105.1	ART CLASSROOM	B105		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F1	H.M.	PAINT	J-1	H-1			51.0
B105A	ART CLASSROOM	B105	CORRIDOR	B100		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F11	H.M.	PAINT	J-1B	H-4			44.0
B106	ELEC	B106	CORRIDOR	B100		3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-	45 MIN		F1	H.M.	PAINT	J-2	H-2			79.0
B106.1	IDF	B106.1	CORRIDOR	B100		3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-			F1	H.M.	PAINT	J-1B	H-1			75.0
B107	CORRIDOR	B100	KILN	B107	P	3'-0"	7'-0"	1 3/4"	F	H.M.	STAIN	-			F2	H.M.	PAINT	J-1	H-1			52.0
B108	ART CLASSROOM	B108	CORRIDOR	B100		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F3A	H.M.	PAINT	J-1	H-4			44.0
B108.1	ART STOR	B108.1	ART CLASSROOM	B108		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-		G-30	F1	H.M.	PAINT	J-1	H-1			51.0
B108A	ART CLASSROOM	B108	CORRIDOR	B100		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F3A	H.M.	PAINT	J-1	H-4			44.0
B109	DIGITAL ARTS LAB	B109	CORRIDOR	B100		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F3A	H.M.	PAINT	J-1	H-4			44.0
B109.1	ART STOR	B109.1	DIGITAL ARTS LAB	B109		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F1	H.M.	PAINT	J-1	H-1			51.0
B109A	DIGITAL ARTS LAB	B109	CORRIDOR	B100		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F3A	H.M.	PAINT	J-1	H-4			44.0
B110	VEST	E160.1	CORRIDOR	B110	P	3'-0"	7'-0"	1 3/4"	F	Particle Board	PLASTIC LAM.	- (5 ADDENDUM #5)		G-40	AF2	Aluminum	SEE SPEC.	10/A8.42	9/A8.42			24.0
B110S	CORRIDOR	B100	STAIR	B1.1	P	3'-0"	7'-0"	1 3/4"	N	H.M.	PAINT	FR-1	90 MIN		F2	H.M.	PAINT	J-2	H-2		HO	32.0
B112	CORRIDOR	B110	WOMEN	B112		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F1	H.M.	PAINT	J-1A	H-1			62.0
B113	CORRIDOR	B110	MEN	B113		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F1	H.M.	PAINT	J-1A	H-1			62.0
B114	ELEC	B114	CORRIDOR	B110		3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-	45 MIN		F1	H.M.	PAINT	J-2	H-2			73.0
B114.1	EMERG ELEC	B114.1	ELEC	B114	P	3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-	90 MIN		F2	H.M.	PAINT	J-2	H-2			80.0

DOOR SCHEDULE - MAIN FLOOR SECTION C

Door Number	From Room: Name	From Room: Number	To Room: Name	To Room: Number	Pair	Door Width	Door Height	Door Thickness	Door Type	Door Material	Door Finish	Door Glass	Door Label	AR / STC	Frame Type	Frame Mat'l	Frame Finish	Frame Jamb	Frame Head	Threshold	Remarks	Hardware
C100S	CORRIDOR	C100	STAIR	C1.1	P	3'-0"	7'-0"	1 3/4"	N	H.M.	PAINT	FR-1	90 MIN		F2	H.M.	PAINT	J-2	H-2		HO	32.0
C101	CORRIDOR	C100	MARKETING & FINANCE CR	C101		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F5	H.M.	PAINT	J-1	H-1			42.0
C102	CORRIDOR	C100	PROG. & WEB DEV. CR	C102		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F3A	H.M.	PAINT	J-1B	H-4			42.0
C103	CORRIDOR	C100	MARKETING & FINANCE CR	C103		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F3A	H.M.	PAINT	J-1B	H-4			42.0
C103A	MARKETING & FINANCE CR	C101	MARKETING & FINANCE CR	C103		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-		G-30	F1	H.M.	PAINT	J-1	H-1			46.0
C104	CORRIDOR	C100	PROG. & WEB DEV. CR	C104		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F3A	H.M.	PAINT	J-1B	H-4			42.0
C104A	PROG. & WEB DEV. CR	C102	PROG. & WEB DEV. CR	C104		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-		G-30	F1	H.M.	PAINT	J-1	H-1			46.0
C105	CORRIDOR	C100	MARKETING & FINANCE CR	C105		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F3A	H.M.	PAINT	J-1B	H-4			42.0
C105A	MARKETING & FINANCE CR	C103	MARKETING & FINANCE CR	C105		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-		G-30	F1	H.M.	PAINT	J-1	H-1			46.0
C106	CORRIDOR	C100	PROG. & WEB DEV. CR	C106		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F3A	H.M.	PAINT	J-1B	H-4			42.0
C106A	PROG. & WEB DEV. CR	C104	PROG. & WEB DEV. CR	C106		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-		G-30	F1	H.M.	PAINT	J-1	H-1			46.0
C107	ELEC	C107	CORRIDOR	C100		3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-	45 MIN		F1	H.M.	PAINT	J-2	H-2			73.0
C107.1	EMERG ELEC	C107.1	ELEC	C107	P	3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-	90 MIN		F2	H.M.	PAINT	J-2	H-2			80.0
C109	IDF	C109	CORRIDOR	C100		3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-	45 MIN		F1	H.M.	PAINT	J-2	H-2			75.0
C110	CORRIDOR	C100	CORRIDOR	C110				0"			-				F1A	H.M.	PAINT	J-3	H-3			
C110.1	CORRIDOR	C110	CORRIDOR	C110.1	P	3'-6"	7'-0"	1 3/4"	F	H.M.	PAINT	-			F2	H.M.	PAINT	J-1	H-1			72.1
C110.1A	CORRIDOR	C110.1	VEST	D100		3'-0"	7'-0"	1 3/4"	AL1	Aluminum	SEE SPEC.	TG-1			SF15	Aluminum	SEE SPEC.	13/A6.19	1/A6.19			13.1
C110.1B	CORRIDOR	E180	CORRIDOR	C110.1	P	3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-			F2	H.M.	PAINT	J-1	H-1			34.0
C111	CORRIDOR	C100	VOC & TECH TEACHER PLANNING	C111		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F3A	H.M.	PAINT	J-1B	H-4			42.0
C113	CORRIDOR	C100	PROG. & WEB DEV. CR	C113		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F3A	H.M.	PAINT	J-1B	H-4			42.0
C115	CORRIDOR	C110.1	MECHANICAL	C115		3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-	90 MIN	G-40	F1	H.M.	PAINT	J-2	H-2			79.0
C115.1	RECEIVING	C116	WORKSHOP	C115.1	P	3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-	90 MIN		F2	H.M.	PAINT	J-2	H-2			80.0
C116	CORRIDOR	C110.1	RECEIVING	C116	P	3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-			F2	H.M.	PAINT	J-1	H-1			81.0
C117	RECEIVING	C116	CUST. OFFICE	C117		3'-0"	7'-0"	1 3/4"	G	H.M.	PAINT	TG-1			F1	H.M.	PAINT	J-1	H-1			37.0
C117.1	CUST. OFFICE	C117	UNISEX	C117.1		3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-			F1	H.M.	PAINT	J-1A	H-1			63.0
C118	CORRIDOR	C110.1	RECYCLE / TRASH	C118	P	3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-			F2	H.M.	PAINT	J-1	H-1			81.0

NOTE: DOORS C111A AND C113A NOT USED. (3 ADDENDUM #3)

DOOR SCHEDULE - MAIN FLOOR SECTION D

Door Number	From Room: Name	From Room: Number	To Room: Name	To Room: Number	Pair	Door Width	Door Height	Door Thickness	Door Type	Door Material	Door Finish	Door Glass	Door Label	AR / STC	Frame Type	Frame Mat'l	Frame Finish	Frame Jamb	Frame Head	Threshold	Remarks	Hardware
D100	VEST	D100	PARKING UNDER BUILDING	D101		3'-0"	7'-0"	1 3/4"	G	H.M.	PAINT	IG-7	90 MIN		F1B	H.M.	PAINT	5/A6.24 SIM	4/A6.27 SIM		CR on both sides	15.0
D100S	VEST	D100	STAIR	D2.1		3'-0"	7'-0"	1 3/4"	N	H.M.	PAINT	FR-1	90 MIN		F1	H.M.	PAINT	J-2	H-2	5 ADDENDUM #5	CR	59.0
D102	PARKING UNDER BUILDING	D101	ELEV MACH	D102		3'-6"	7'-0"	1 3/4"	F	H.M.	PAINT	-	90 MIN		F1B	H.M.	PAINT	5/A6.24 SIM	4/A6.27 SIM			79.0
D108	WATER SERVICE ROOM	D108	PARKING UNDER BUILDING	D101		3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-			F1B	H.M.	PAINT	5/A6.24 SIM	4/A6.27			79.0

DOOR SCHEDULE - MAIN FLOOR SECTION E

Door Number	From Room: Name	From Room: Number	To Room: Name	To Room: Number	Pair	Door Width	Door Height	Door Thickness	Door Type	Door Material	Door Finish	Door Glass	Door Label	AR / STC	Frame Type	Frame Mat'l	Frame Finish	Frame Jamb	Frame Head	Threshold	Remarks	Hardware
E100	CORRIDOR	E120	LOBBY	E100	P	3'-6"	8'-0"	1 3/4"	FG2	Wood	STAIN	TG-1			AF2a	Aluminum	SEE SPEC.	4/A10.5	6/A10.5			32.0
E100.1	LOBBY	E100	VESTIBULE	E100.1	P	3'-0"	8'-0"	1 3/4"	AL2	Aluminum	SEE SPEC.	TG-1			CW49	Aluminum	SEE SPEC.		17/A6.28			12.0
E100.1A	LOBBY	E100	VESTIBULE	E100.1	P	3'-0"	8'-0"	1 3/4"	AL2	Aluminum	SEE SPEC.	TG-1			CW49	Aluminum	SEE SPEC.	16/A6.28	17/A6.28			12.0
E100.1B	LOBBY	E100	VESTIBULE	E100.1	P	3'-0"	8'-0"	1 3/4"	AL2	Aluminum	SEE SPEC.	TG-1			CW49	Aluminum	SEE SPEC.		17/A6.28		CR	10.0
E100.1C	VESTIBULE	E100.1	MAIN ADMIN	E101		3'-0"	8'-0"	1 3/4"	AL1	Aluminum	SEE SPEC.	LG-1			SF2	Aluminum	SEE SPEC.	9/A6.19	1/A6.19		CR	75.0
E100A	CORRIDOR	C110	LOBBY	E100	P	4'-0"	8'-0"	1 3/4"	AL2	Aluminum	SEE SPEC.	TG-1			AF2b	Aluminum	SEE SPEC.	4/A10.5	6/A10.5		CR, HO	58.0
E101	MAIN ADMIN	E101	LOBBY	E100		3'-0"	8'-0"	1 3/4"	AL1	Aluminum	SEE SPEC.	TG-1			SF3	Aluminum	SEE SPEC.	10/A6.19	1/A6.19			42.0
E102	CORRIDOR	E110	CONF RM	E102		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-		G-30	AF3	Aluminum	SEE SPEC.	4/A10.5	6/A10.5			37.0
E103	CORRIDOR	E110	INSTR COACH	E103		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-		G-30	AF3	Aluminum	SEE SPEC.	4/A10.5	6/A10.5			37.0
E104	CORRIDOR	E110	INSTR COACH	E104		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-		G-30	AF3	Aluminum	SEE SPEC.	4/A10.5	6/A10.5			37.0
E105	CORRIDOR	E110	PRINCIPAL'S OFFICE	E105		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-		G-30	AF3	Aluminum	SEE SPEC.	4/A10.5	6/A10.5			37.0
E106	CORRIDOR	E110	MEN	E106		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-		G-30	AF1	Aluminum	SEE SPEC.	4/A10.5	4/A10.5			61.0
E107	CORRIDOR	E110	WOMEN	E107		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-		G-30	AF1	Aluminum	SEE SPEC.	4/A10.5	4/A10.5			61.0
E108	CORRIDOR	E110	INSTR\ MCAS CONF ROOM	E108		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-		G-30	AF3	Aluminum	SEE SPEC.	4/A10.5	6/A10.5			37.0
E108A	CORRIDOR	E110	INSTR\ MCAS CONF ROOM	E108		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-		G-30	AF3	Aluminum	SEE SPEC.	4/A10.5	6/A10.5			37.0
E109	CORRIDOR	E110	VAULT	E109		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-	90 MIN		AF1	Aluminum	SEE SPEC.	5/A10.5	5/A10.5			39.0
E111A	MAIN ADMIN	E101	CORRIDOR	E110		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			AF3	Aluminum	SEE SPEC.	4/A10.5	6/A10.5			38.0
E111B	CORRIDOR	E110	MAIN ADMIN	E101		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			AF3	Aluminum	SEE SPEC.	4/A10.5	6/A10.5			38.0
E112	MAIN ADMIN	E101	SRO OFFICE	E112		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-		G-30	AF3	Aluminum	SEE SPEC.	4/A10.5	6/A10.5			37.0
E113	MAIL	E113	CORRIDOR	E120		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			AF1	Aluminum	SEE SPEC.	4/A10.5	4/A10.5			42.0
E114	CORRIDOR	E110	MCAS OFFICE	E114		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-		G-30	AF3	Aluminum	SEE SPEC.	4/A10.5	6/A10.5			37.0
E115	CORRIDOR	E110	SPED OFFICE	E115		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-		G-30	AF3	Aluminum	SEE SPEC.	4/A10.5	6/A10.5			37.0
E116	CORRIDOR	E110	SPED OFFICE	E116		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-		G-30	AF3	Aluminum	SEE SPEC.	4/A10.5	6/A10.5			37.0
E117	CORRIDOR	E110	SPED CONF	E117		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-		G-30	AF3	Aluminum	SEE SPEC.	4/A10.5	6/A10.5			37.0
E117A	CORRIDOR	E120	SPED CONF	E117		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-		G-30	AF1	Aluminum	SEE SPEC.	4/A10.5	4/A10.5			37.0
E120	ELEC	E122	CORRIDOR	E120		3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-	45 MIN		F1	H.M.	PAINT	J-2	H-2			73.0
E123	MED STOR	E123	CORRIDOR	E120		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			AF1	Aluminum	SEE SPEC.	4/A10.5	4/A10.5			77.0
E124	FOOD/ CLOTHES PANTRY	E124	CORRIDOR	E120		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			AF1	Aluminum	SEE SPEC.	4/A10.5	4/A10.5			37.0
E125	WAIT	E125	CORRIDOR	E120		3'-0"	8'-0"	1 3/4"	AL1	Aluminum	SEE SPEC.	LG-1			SF25	Aluminum	SEE SPEC.	18/A6.19	6/A6.19			38.0
E125.1	CORRIDOR	E125.1	CORRIDOR	E140		3'-0"	7'-0"	1 3/4"	N	Wood	STAIN	TG-1			AF1	Aluminum	SEE SPEC.	4/A10.5	4/A10.5		HO	60.0
E125A	CORRIDOR	E125.1	WAIT	E125		3'-0"	7'-0"	1 3/4"	N	Wood	STAIN	TG-1			AF1	Aluminum	SEE SPEC.	4/A10.5	4/A10.5			60.0
E126	JAN	E126	CORRIDOR	E120		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			AF1	Aluminum	SEE SPEC.	4/A10.5	4/A10.5			57.0
E127	CORRIDOR	E125.1	NURSES' OFFICE	E127		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-		G-30	AF3	Aluminum	SEE SPEC.	4/A10.5	6/A10.5			37.0
E128	CORRIDOR	E125.1	EXAM	E128		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			AF1	Aluminum	SEE SPEC.	4/A10.5	4/A10.5			65.0
E129	CORRIDOR	E125.1	MED	E129		3'-0"	7'-0"	1 3/4"	N	Wood	STAIN	-			AF1	Aluminum	SEE SPEC.	4/A10.5	4/A10.5			66.0
E130	CORRIDOR	E125.1	EXAM	E130		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			AF1	Aluminum	SEE SPEC.	4/A10.5	4/A10.5			65.0
E131	CORRIDOR	E125.1	CLINIC OFFICE	E131		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			AF3	Aluminum	SEE SPEC.	4/A10.5	6/A10.5			37.0
E132	WOMEN	E132	CORRIDOR	E125.1		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			AF1	Aluminum	SEE SPEC.	4/A10.5	4/A10.5		Provide double acting hinges	61.0
E134	MEN	E134	CORRIDOR	E140		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			AF1	Aluminum	SEE SPEC.	4/A10.5	4/A10.5		Provide double acting hinges	61.0
E135	CORRIDOR	E140	EXAM	E135		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			AF1	Aluminum	SEE SPEC.	4/A10.5	4/A10.5			65.0
E136	CORRIDOR	E140	CLEAN SUPPLY	E136		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			AF1	Aluminum	SEE SPEC.	4/A10.5	4/A10.5			37.0
E136A	CORRIDOR	E140	CLEAN SUPPLY	E136		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			AF1	Aluminum	SEE SPEC.	4/A10.5	4/A10.5			37.0
E137	CORRIDOR	E140	SOILED	E137		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			AF1	Aluminum	SEE SPEC.	4/A10.5	4/A10.5			37.0
E137.1	SOILED	E137	ENVIRO. SERV.	E137.1		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F1	H.M.	PAINT	J-1	H-1			57.0
E138	CORRIDOR	E140	CLINIC OFFICE	E138		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-		G-30	AF3	Aluminum	SEE SPEC.	4/A10.5	6/A10.5			37.0
E139	CORRIDOR	E140	UNISEX RESTROOM	E139	P*	3'-6"/1'-0"	7'-0"	1 3/4"	AA	Wood	STAIN	-			AF2	Aluminum	SEE SPEC.	4/A10.5	4/A10.5		Provide double acting hinges	63.1
E140	CORRIDOR	E110	CORRIDOR	E125.1		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			AF1	Aluminum	SEE SPEC.	4/A10.5	4/A10.5		CR	75.0
E140A	WAIT	E146	CORRIDOR	E140	P*	3'-0"/1'-6"	7'-0"	1 3/4"	BA	Wood	STAIN	TG-1			AF2	Aluminum	SEE SPEC.	4/A10.5	4/A10.5			60.1
E140B	CORRIDOR	E140	STAIR	E2.1		3'-0"	7'-0"	1 3/4"	N	Wood	STAIN	FR-1	90 MIN		AF1	Aluminum	SEE SPEC.	5/A10.5	5/A10.5		Verify door size with Clinic	38.1
E141	CORRIDOR	E140	EXAM	E141	P*	3'-6"/1'-0"	7'-0"	1 3/4"	AA	Wood	STAIN	-			AF2	Aluminum	SEE SPEC.	4/A10.5	4/A10.5			65.1
E142	CORRIDOR	E140	CLINIC OFFICE	E145		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	TG-1		G-30	AF3	Aluminum	SEE SPEC.	4/A10.5	6/A10.5			37.0
E143	CORRIDOR	E140	EXAM	E143		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			AF1	Aluminum	SEE SPEC.	4/A10.5	4/A10.5			65.0
E147	WAIT	E146	UNISEX RESTROOM	E147		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			AF1	Aluminum	SEE SPEC.	4/A10.5	4/A10.5		Provide double acting hinges	61.0
E148	CLINIC OFFICE	E148	CORRIDOR	E140		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-		G-30	AF3	Aluminum	SEE SPEC.	4/A10.5	6/A10.5			37.0
E149	MULTI- PURPOSE RM	E149	CORRIDOR	E140		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			AF1	Aluminum	SEE SPEC.	4/A10.5	4/A10.5			37.0
E149A	CORRIDOR	E110	MULTI- PURPOSE RM	E149		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			AF1	Aluminum	SEE SPEC.	4/A10.5	4/A10.5		CR on both sides	60.0
E150S	CORRIDOR	E120	STAIR	E2.1	P	3'-0"	7'-0"	1 3/4"	FG2	H.M.	PAINT	FR-1	90 MIN		F2A	H.M.	PAINT	J-2	H-4A			58.0
E151.1	CORRIDOR	E151.1	CORRIDOR	E120	P	3'-0"	7'-0"	1 3/4"	N	Wood	STAIN	TG-1		G-40	F2A	H.M.	PAINT	J-1	H-4			28.0
E152	CHORUS	E151	MUSIC STOR	E152		4'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-		G-40	F1	H.M.	PAINT	J-1	H-1			55.0
E153	ENSEM.	E153	CORRIDOR	E120		3'-0"	7'-0"	1 3/4"	G	Wood	STAIN	LG-3		G-40	F4	H.M.	PAINT	J-1	H-4			54.0
E155	BAND	E157	BLACKBOX THEATER	E155		3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-		G-40	F1	H.M.	PAINT	J-1	H-1			45.0
E155.1A	CORRIDOR	E120	SLL	E155.1	P	3'-0"	7'-0"	1 3/4"	N	Wood	STAIN	TG-1		G-40	F2	H.M.	PAINT	J-1	H-1			28.0
E155.1B	BLACKBOX THEATER	E155	SLL	E155.1	P	3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-		G-40	F2	H.M.	PAINT	J-1	H-1			72.0
E155.2A	CORRIDOR	E120	SLL	E155.2	P	3'-0"	7'-0"	1 3/4"	N	Wood	STAIN	TG-1		G-40	F2	H.M.	PAINT	J-1	H-1			28.0
E155.2B	BLACKBOX THEATER	E155	SLL	E155.2	P	3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-		G-40	F2	H.M.	PAINT	J-1	H-1			72.0
E155.3A	BLACKBOX THEATER	E155	STOR	E155.3		3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-		G-40	F1	H.M.	PAINT	J-1	H-1			39.0
E155.3B	BLACKBOX THEATER	E155	STOR	E155.3		3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-		G-40	F1	H.M.	PAINT	J-1	H-1			39.0
E155A	CHORUS	E151	BLACKBOX THEATER	E155		3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-		G-40	F1	H.M.	PAINT	J-1	H-1			45.0
E156	CORRIDOR	E120	PIANO LAB / MUSIC ENGINEERING	E156		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-		G-40	F4	H.M.	PAINT	J-1	H-4			43.0
E156A	CORRIDOR	E120	PIANO LAB / MUSIC ENGINEERING	E156		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-		G-40	F4	H.M.	PAINT	J-1	H-4			45.0
E156B	BAND	E157	PIANO LAB / MUSIC ENGINEERING	E156		3'-0"	7'-0"	1 3/4"	N	Wood	STAIN	LG-3		G-40	F1	H.M.	PAINT	J-1	H-1			45.0
E157	BAND	E157	CORRIDOR	E120	P	3'-0"	7'-0"	1 3/4"	N	Wood	STAIN	LG-3		G-40	F2A	H.M.	PAINT	J-1	H-4			28.0
E158	BAND	E157	MUSIC STOR.	E158		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-		G-40	F1	H.M.	PAINT	J-1	H-1			55.0
E158.1	BAND	E157	MUSIC STOR.	E158		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-		G-40	F1	H.M.	PAINT	J-1	H-1			55.0
E159	CORRIDOR	E120	DRESSING / GREEN ROOM	E159		3'-0"	7'-0"	1 3/4"	F	~~Wood~~	~~STAIN~~	-			F1	H.M.	PAINT	J-1	H-1			64.0
E160	VEST	E160	CORRIDOR	E120	P	3'-0"	7'-0"	1 3/4"	F	Particle Board	PLASTIC LAM.	- (5 ADDENDUM #5)		G-40	AF2	Aluminum	SEE SPEC.	10/A8.42	9/A8.42			25.0
E160.1	AUDITORIUM	E175	VEST	E160.1	P	3'-0"	7'-0"	1 3/4"	F	Particle Board	PLASTIC LAM.	-		G-40	AF2	Aluminum	SEE SPEC.	8/A8.42	7/A8.42			72.0
E160A	AUDITORIUM	E175	VEST	E160	P	3'-0"	7'-0"	1 3/4"	F	Particle Board	PLASTIC LAM.	-		G-40	AF2	Aluminum	SEE SPEC.	8/A8.42	7/A8.42			72.0
E161	CORRIDOR	E120	PR	E161		3'-0"	7'-0"	1 3/4"	G	Wood	STAIN	LG-3		G-40	F4	H.M.	PAINT	J-1	H-4			54.0
E162	CORRIDOR	E120	PR	E162		3'-0"	7'-0"	1 3/4"	G	Wood	STAIN	LG-3		G-40	F4	H.M.	PAINT	J-1	H-4			54.0
E163	CORRIDOR	E120	PR	E163		3'-0"	7'-0"	1 3/4"	G	Wood	STAIN	LG-3		G-40	F4	H.M.	PAINT	J-1	H-4			54.0
E164	CORRIDOR	E120	PR	E164		3'-0"	7'-0"	1 3/4"	G	Wood	STAIN	LG-3		G-40	F4	H.M.	PAINT	J-1	H-4			54.0
E165	CORRIDOR	E120	PR	E165		3'-0"	7'-0"	1 3/4"	G	Wood	STAIN	LG-3		G-40	F4	H.M.	PAINT	J-1	H-4			54.0
E166	CORRIDOR	E120	PR	E166		3'-0"	7'-0"	1 3/4"	G	Wood	STAIN	LG-3		G-40	F4	H.M.	PAINT	J-1	H-4			54.0
E167	CORRIDOR	E120	ENSEM.	E167		3'-0"	7'-0"	1 3/4"	G	Wood	STAIN	LG-3		G-40	F4	H.M.	PAINT	J-1	H-4			54.0
E168	CORRIDOR	A110	DRESSING / GREEN ROOM	E168		3'-0"	7'-0"	1 3/4"	F	H.M.	STAIN	-			F1	H.M.	PAINT	J-1	H-1			64.0
E169.1	SET STORAGE	E169.1	CORRIDOR	B110	P	3'-0"	9'-0"	1 3/4"	F	H.M.	STAIN	-	60 MIN	G-40	F2	H.M.	PAINT	J-2	H-2			50.0
E169.1A	SET STORAGE	E169.1	STAGE	E169	P	3'-0"	9'-0"	1 3/4"	F	H.M.	PAINT	-	60 MIN	G-40	F2	H.M.	PAINT	J-2	H-2			50.0
E169A	STAGE	E169	CORRIDOR	A110	P	3'-0"	7'-0"	1 3/4"	F	Black	PAINT	-	60 MIN	G-40	F2	H.M.	PAINT	J-2	H-2			29.0
E169B	STAGE	E169	CORRIDOR	E120	P	3'-0"	7'-0"	1 3/4"	F	Black	PAINT	-	60 MIN	G-40	F2	H.M.	PAINT	J-2	H-2			29.0
E171	CORRIDOR	E170	WOMEN	E171		3'-0"	8'-0"	1 3/4"	F	Wood	STAIN	-			F1	H.M.	PAINT	J-15	H-1		HO	70.0
E172	CORRIDOR	E170	UNISEX	E172		3'-0"	8'-0"	1 3/4"	F	H.M.	PAINT	-			F1	H.M.	PAINT	J-1A	H-1			62.0
E173	CORRIDOR	E170	JAN	E173		3'-0"	8'-0"	1 3/4"	F	H.M.	PAINT	-			F1	H.M.	PAINT	J-1	H-1			57.0
E174	CORRIDOR	E170	MEN	E174		3'-0"	8'-0"	1 3/4"	F	~~Wood~~	~~STAIN~~	-			F1	H.M.	PAINT	J-15	H-1		HO	70.0
E175.1	SLL	E175.1	AUDITORIUM	E175	P	3'-0"	8'-0"	1 3/4"	F	Particle Board	PLASTIC LAM.	-		G-40	AF2	Aluminum	SEE SPEC.	2/A8.42	1/A8.42			72.0
E175.1A	SLL	E175.1	LOBBY	E100	P	3'-0"	8'-0"	1 3/4"	F	Particle Board	PLASTIC LAM.	-		G-40	AF2	Aluminum	SEE SPEC.	12/A8.42	11/A8.42			25.0
E175.2	AUDITORIUM	E175	SLL	E175.2	P	3'-0"	8'-0"	1 3/4"	F	Particle Board	PLASTIC LAM.	-		G-40	AF2	Aluminum	SEE SPEC.	2/A8.42	1/A8.42			72.0
E175.2A	SLL	E175.2	LOBBY	E100	P	3'-0"	8'-0"	1 3/4"	F	Particle Board	PLASTIC LAM.	-		G-40	AF2	Aluminum	SEE SPEC.	12/A8.42	11/A8.42			25.0
E175.3	AUDITORIUM	E175	EMERG ELEC	E175.3		3'-0"	7'-0"	1 3/4"	F	Particle Board	PLASTIC LAM.	-	90 MIN		AF1	Aluminum	SEE SPEC.	21/A8.42	13/A8.42			73.0
E175.4	AUD CHAIR STORAGE	E175.4	AUDITORIUM	E175		3'-0"	7'-0"	1 3/4"	F	Particle Board	PLASTIC LAM.	-			AF1	Aluminum	SEE SPEC.	21/A8.42	13/A8.42			77.0
E176	LOBBY	E100	FIRE COMMAND CENTER	E176		3'-0"	7'-0"	1 3/4"	F	~~Wood~~	~~STAIN~~	- (5 ADDENDUM #5)	90 MIN		AF1	Aluminum	SEE SPEC.	5/A10.5	5/A10.5			79.0
E177	VEST	E160	SOUND	E177		3'-0"	7'-0"	1 3/4"	F	Particle Board	PLASTIC LAM.	-			AF1	Aluminum	SEE SPEC.	14/A8.42	13/A8.42			37.0
E180	CAFETERIA	E181	CORRIDOR	E180	P	3'-0"	7'-0"	1 3/4"	F	~~H.M.~~	~~PAINT~~	-			F2	H.M.	PAINT	J-1	H-1			26.0
E181	CAFETERIA	E181	VESTIBULE	E100.1		3'-0"	8'-0"	1 3/4"	AL1	Aluminum	SEE SPEC.	TG-1			SF1	Aluminum	SEE SPEC.	3/A8.43	1/A8.43	10/A8.43	CR	11.0
E181A	CAFETERIA	E181	LOBBY	E100	P	3'-0"	8'-0"	1 3/4"	AL2	Aluminum	SEE SPEC.	TG-1			SF4	Aluminum	SEE SPEC.	6/A8.43	1/A8.43			12.0
E182	LOBBY	E100	SCHOOL STORE	E182		3'-0"	8'-0"	1 3/4"	AL1	Aluminum	SEE SPEC.	TG-1			SF7	Aluminum	SEE SPEC.	3/A8.43	7/A8.43			18.0
E182A	SCHOOL STORE	E182	CAFETERIA	E181		3'-0"	8'-0"	1 3/4"	AL1	Aluminum	SEE SPEC.	TG-1			SF8	Aluminum	SEE SPEC.	9/A8.43	2/A6.19			17.0
E183	SERVERY	E190	STAFF LUNCH ROOM	E183		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			AF1	Aluminum	SEE SPEC.	4/A10.5	4/A10.5			42.0
E183A	LOBBY	E100	STAFF LUNCH ROOM	E183		3'-0"	8'-0"	1 3/4"	AL1	Aluminum	SEE SPEC.	TG-1			SF6	Aluminum	SEE SPEC.	3/A8.43	7/A8.43			18.0
E183B	LOBBY	E100	STAFF LUNCH ROOM	E183		3'-0"	8'-0"	1 3/4"	AL1	Aluminum	SEE SPEC.	TG-1			SF6	Aluminum	SEE SPEC.	3/A8.43	7/A8.43			18.0
E184	CORRIDOR	C110	MARKETING & FINANCE CR	E184		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			AF4	Aluminum	SEE SPEC.	4/A10.5	6/A10.5			38.0
E184A	LOBBY	E100	MARKETING & FINANCE CR	E184		3'-0"	8'-0"	1 3/4"	AL1	Aluminum	SEE SPEC.	TG-1			SF5	Aluminum	SEE SPEC.	3/A8.43	7/A8.43			18.0
E185	TABLE STORAGE	E185	CORRIDOR	E180	P	3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-			F2	H.M.	PAINT	J-1	H-1			56.0
E186	KITCHEN STORAGE	E186	CORRIDOR	E180		3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-			F2	H.M.	PAINT	J-1	H-1			56.0
E186A	IDF	E186A	CORRIDOR	E180		3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-			F1	H.M.	PAINT	J-1	H-1			75.0
E187	CORRIDOR	E180	CUSTODIAL STOR	E187	P	3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-			F2	H.M.	PAINT	J-1	H-1			78.0
E188	EMERG ELEC	E188	CORRIDOR	E180		3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-	90 MIN		F1	H.M.	PAINT	J-2	H-2			73.0
E189	MAIN ELECTRIC ROOM	E189	CORRIDOR	C110.1	P	3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-	90 MIN		F2	H.M.	PAINT	J-2	H-2			74.0
E189A	EMERG ELEC	E188	MAIN ELECTRIC ROOM	E189	P	3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-	90 MIN		F2	H.M.	PAINT	J-2	H-2			74.0
E189B	MAIN ELECTRIC ROOM	E189	CORRIDOR	E180		3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-	90 MIN		F1	H.M.	PAINT	J-2	H-2			73.0
E190	KITCHEN	E191	CORRIDOR	E180		3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-			F1	H.M.	PAINT	J-1	H-1			38.0
E191	KITCHEN	E191	CORRIDOR	C110.1	P	3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-			F2	H.M.	PAINT	J-1	H-1			21.0
E193	KITCHEN	E191	OFFICE	E193		3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-			F1	H.M.	PAINT	J-1	H-1			37.0
E196	KITCHEN	E191	DRY STORAGE / PREP	E196	P	3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-			F2	H.M.	PAINT	J-1	H-1			23.0
E197	KITCHEN	E191	MEN	E197		3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-			F1	H.M.	PAINT	J-1A	H-1			61.0
E198	KITCHEN	E191	WOMEN	E198		3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-			F1	H.M.	PAINT	J-1A	H-1			61.0
E199	KITCHEN	E191	JAN	E199		3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-			F1	H.M.	PAINT	J-1A	H-1			57.0

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Doherty Memorial High School

299 Highland Street, Worcester, MA 01602

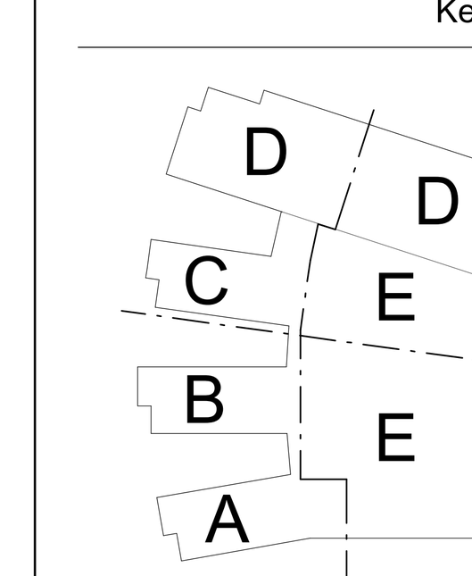
DRAWING TITLE

Door Schedule - Main Floor

Locus Map

True North

Key Plan



REVISIONS

No.	Description	Date
3	ADDENDUM #3	02/03/22
5	ADDENDUM #5	02/16/22

FILE:
JOB NO: #1904
SCALE:
DWN. BY: AD
CKD. BY: Checker
DATE: JANUARY 20 2022

A10.2

DOOR SCHEDULE - SECOND FLOOR SECTION A

Door Number	From Room: Name	From Room: Number	To Room: Name	To Room: Number	Pair	Door Width	Door Height	Door Thickness	Door Type	Door Material	Door Finish	Door Glass	Door Label	AR / STC	Frame Type	Frame Mat'l	Frame Finish	Frame Jamb	Frame Head	Threshold	Remarks	Hardware
A200	CORRIDOR	A200	CORRIDOR	A210	P	4'-0"	7'-0"	1 3/4"	FG2	H.M.	PAINT	TG-1			F2A	H.M.	PAINT	J-1	H-4		HO	33.0
A200S	CORRIDOR	A200	STAIR	A1.2	P	3'-0"	7'-0"	1 3/4"	N	H.M.	PAINT	FR-1	90 MIN		F2	H.M.	PAINT	J-2	H-2		HO, 120 DEGREE SWING	32.0
A201	CORRIDOR	A200	9TH GRADE SOCIAL STUDIES	A201		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F3A	H.M.	PAINT	J-1B	H-4			42.0
A202	CORRIDOR	A200	AVID CLASSROOM	A202		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F3A	H.M.	PAINT	J-1B	H-4			42.0
A202A	CORRIDOR	A210	AVID CLASSROOM	A202		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-		G-30	F3A	H.M.	PAINT	J-1	H-4			43.0
A203	CORRIDOR	A200	9TH SPED INCLUSION	A203		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F3A	H.M.	PAINT	J-1B	H-4			42.0
A203A	9TH GRADE SOCIAL STUDIES	A201	9TH SPED INCLUSION	A203		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-		G-30	F1	H.M.	PAINT	J-1	H-1			46.0
A204	ELEC	A204	CORRIDOR	A200		3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-	45 MIN		F1	H.M.	PAINT	J-2	H-2			73.0
A204.1	EMERG ELEC	A204.1	ELEC	A204	P	3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-	90 MIN		F2	H.M.	PAINT	J-2	H-2			80.0
A204.2	DAS	A204.2	ELEC	A204		3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-	90 MIN		F1	H.M.	PAINT	J-2	H-2			79.0
A205	CORRIDOR	A200	9TH GRADE ENGLISH	A205		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F3A	H.M.	PAINT	J-1B	H-4			42.0
A205A	9TH SPED INCLUSION	A203	9TH GRADE ENGLISH	A205		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-		G-30	F1	H.M.	PAINT	J-1	H-1			46.0
A206	STOR	A206	CORRIDOR	A200		3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-			F1	H.M.	PAINT	J-1	H-1			77.0
A207	CORRIDOR	A200	9TH GRADE MATH	A207		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F3A	H.M.	PAINT	J-1B	H-4			42.0
A207A	9TH GRADE ENGLISH	A205	9TH GRADE MATH	A207		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-		G-30	F1	H.M.	PAINT	J-1	H-1			46.0
A208	CORRIDOR	A200	9TH SPED LEARNING CENTER	A208		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F3A	H.M.	PAINT	J-1B	H-4			42.0
A209	9TH GRADE SCIENCE	A209	CORRIDOR	A200		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F3A	H.M.	PAINT	J-1	H-4			44.0
A209.1	9TH GRADE SCIENCE	A209	PREP	A209.1		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F1	H.M.	PAINT	J-1	H-1			51.0
A209A	9TH GRADE SCIENCE	A209	CORRIDOR	A200		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F3A	H.M.	PAINT	J-1	H-4			44.0
A210S	CORRIDOR	A210	STAIR	A2.2	P	3'-0"	7'-0"	1 3/4"	N	H.M.	PAINT	FR-1	90 MIN		F2	H.M.	PAINT	J-2	H-2		HO, 120 DEGREE SWING	58.0
A211	CORRIDOR	A210	GIRLS	A211		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F1	H.M.	PAINT	J-15	H-1			70.0
A212	JAN	A212	CORRIDOR	A210		3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-			F1	H.M.	PAINT	J-1	H-1			57.0
A213	CORRIDOR	A210	BOYS	A213		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F1	H.M.	PAINT	J-15	H-1			70.0
A214	CORRIDOR	A210	UNISEX	A214		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F1	H.M.	PAINT	J-1A	H-1			61.0
A216	TEACHER PLANNING	A216	COMMON ROOM	A215		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F4	H.M.	PAINT	J-1	H-4			42.0
A217	CORRIDOR	A210	TEACHER PLANNING	A217		3'-0"	7'-0"	1 3/4"	G	Wood	STAIN	TG-2			F1	H.M.	PAINT	J-1	H-1			42.0
A250	CORRIDOR	E250	CORRIDOR	A210	P	4'-0"	7'-0"	1 3/4"	FG2	H.M.	PAINT	TG-1			F2A	H.M.	PAINT	J-1	H-4			32.0

DOOR SCHEDULE - SECOND FLOOR SECTION B

Door Number	From Room: Name	From Room: Number	To Room: Name	To Room: Number	Pair	Door Width	Door Height	Door Thickness	Door Type	Door Material	Door Finish	Door Glass	Door Label	AR / STC	Frame Type	Frame Mat'l	Frame Finish	Frame Jamb	Frame Head	Threshold	Remarks	Hardware
B200	CORRIDOR	B200	CORRIDOR	B210	P	4'-0"	7'-0"	1 3/4"	FG2	H.M.	PAINT	TG-1			F2A	H.M.	PAINT	J-1	H-4		HO	33.0
B200S	CORRIDOR	B200	STAIR	B1.2	P	3'-0"	7'-0"	1 3/4"	N	H.M.	PAINT	FR-1	90 MIN		F2	H.M.	PAINT	J-2	H-2		HO	32.0
B201	CORRIDOR	B200	LANGUAGE LAB	B201		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F3A	H.M.	PAINT	J-1B	H-4			42.0
B201A	CORRIDOR	B210	LANGUAGE LAB	B201		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-		G-30	F1	H.M.	PAINT	J-1	H-1			43.0
B202	CORRIDOR	B200	LANGUAGE CLASSROOM	B202		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F3A	H.M.	PAINT	J-1B	H-4			42.0
B203	CORRIDOR	B200	ELL CLASSROOM	B203		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F3A	H.M.	PAINT	J-1B	H-4			42.0
B203A	LANGUAGE LAB	B201	ELL CLASSROOM	B203		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-		G-30	F1	H.M.	PAINT	J-1	H-1			46.0
B204	CORRIDOR	B200	ELL CLASSROOM	B204		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F3A	H.M.	PAINT	J-1B	H-4			42.0
B204A	LANGUAGE CLASSROOM	B202	ELL CLASSROOM	B204		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-		G-30	F1	H.M.	PAINT	J-1	H-1			46.0
B205	CORRIDOR	B200	LANGUAGE CLASSROOM	B205		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F3A	H.M.	PAINT	J-1B	H-4			42.0
B205A	ELL CLASSROOM	B203	LANGUAGE CLASSROOM	B205		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-		G-30	F1	H.M.	PAINT	J-1	H-1			46.0
B206	CORRIDOR	B200	LANGUAGE CLASSROOM	B206		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F3A	H.M.	PAINT	J-1B	H-4			42.0
B206A	ELL CLASSROOM	B204	LANGUAGE CLASSROOM	B206		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-		G-30	F1	H.M.	PAINT	J-1	H-1			46.0
B207	CORRIDOR	B200	ELL CLASSROOM	B207		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F3A	H.M.	PAINT	J-1B	H-4			42.0
B207A	LANGUAGE CLASSROOM	B205	ELL CLASSROOM	B207		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-		G-30	F1	H.M.	PAINT	J-1	H-1			43.0
B208	CORRIDOR	B200	ELL CLASSROOM	B208		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F3A	H.M.	PAINT	J-1B	H-4			42.0
B208A	LANGUAGE CLASSROOM	B206	ELL CLASSROOM	B208		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-		G-30	F1	H.M.	PAINT	J-1	H-1			43.0
B209	CORRIDOR	B200	LANGUAGE CLASSROOM	B209		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F3A	H.M.	PAINT	J-1B	H-4			42.0
B209A	ELL CLASSROOM	B207	LANGUAGE CLASSROOM	B209		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-		G-30	F1	H.M.	PAINT	J-1	H-1			46.0
B210	CORRIDOR	B200	LANGUAGE CLASSROOM	B211		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F3A	H.M.	PAINT	J-1B	H-4			42.0
B210A	ELL CLASSROOM	B208	LANGUAGE CLASSROOM	B211		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-		G-30	F1	H.M.	PAINT	J-1	H-1			46.0

DOOR SCHEDULE - SECOND FLOOR SECTION C

Door Number	From Room: Name	From Room: Number	To Room: Name	To Room: Number	Pair	Door Width	Door Height	Door Thickness	Door Type	Door Material	Door Finish	Door Glass	Door Label	AR / STC	Frame Type	Frame Mat'l	Frame Finish	Frame Jamb	Frame Head	Threshold	Remarks	Hardware
C200	CORRIDOR	C200	CORRIDOR	E280	P	4'-0"	7'-0"	1 3/4"	FG2	H.M.	PAINT	TG-1			F2A	H.M.	PAINT	J-1	H-4		HO	33.0
C200S	CORRIDOR	C200	STAIR	C1.2	P	3'-0"	7'-0"	1 3/4"	N	H.M.	PAINT	FR-1	90 MIN		F2	H.M.	PAINT	J-2	H-2		HO	32.0
C201	CORRIDOR	C200	TEACHER PLANNING	C201		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F1	H.M.	PAINT	J-1	H-1			43.0
C202	CORRIDOR	C200	LANGUAGE CLASSROOM	C202		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F3A	H.M.	PAINT	J-1B	H-4			42.0
C203	CORRIDOR	C200	LIFE SKILLS CLASSROOM	C203		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F1	H.M.	PAINT	J-1	H-1			42.0
C203.2	CORRIDOR	C203.1	UNISEX	C203.2		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F1	H.M.	PAINT	J-1A	H-1			63.0
C203.3	CORRIDOR	C203.1	T.P.	C203.3		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F1	H.M.	PAINT	J-1A	H-1		D1	49.0
C203.4	CORRIDOR	C203.1	SPED RESTROOM	C203.4		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F1	H.M.	PAINT	J-1	H-1			63.0
C203A	CORRIDOR	C203.1	LIFE SKILLS CLASSROOM	C203		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-		G-30	F1	H.M.	PAINT	J-1	H-1			46.0
C204	CORRIDOR	C200	LANGUAGE CLASSROOM	C204		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F3A	H.M.	PAINT	J-1B	H-4			42.0
C204A	LANGUAGE CLASSROOM	C202	LANGUAGE CLASSROOM	C204		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-		G-30	F1	H.M.	PAINT	J-1	H-1			46.0
C205	CORRIDOR	C200	OBS.	C205		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F1	H.M.	PAINT	J-1	H-1			37.0
C206	CORRIDOR	C200	LANGUAGE CLASSROOM	C206		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F3A	H.M.	PAINT	J-1B	H-4			42.0
C206A	LANGUAGE CLASSROOM	C204	LANGUAGE CLASSROOM	C206		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-		G-30	F1	H.M.	PAINT	J-1	H-1			46.0
C207	CORRIDOR	C200	LIFE SKILLS CLASSROOM	C207		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F3A	H.M.	PAINT	J-1A	H-4			42.0
C207A	CORRIDOR	C203.1	LIFE SKILLS CLASSROOM	C207		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-		G-30	F1	H.M.	PAINT	J-1	H-1			46.0
C208	CORRIDOR	C200	LANGUAGE CLASSROOM	C208		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F3A	H.M.	PAINT	J-1B	H-4			42.0
C208A	LANGUAGE CLASSROOM	C206	LANGUAGE CLASSROOM	C208		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-		G-30	F1	H.M.	PAINT	J-1	H-1			46.0
C209	CORRIDOR	C200	SPEECH	C209		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F3A	H.M.	PAINT	J-1B	H-4			42.0
C211	CORRIDOR	C200	LANGUAGE LAB	C211		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F3A	H.M.	PAINT	J-1B	H-4			42.0
C212	CORRIDOR	E280	ELEC	C212		3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-	45 MIN		F1	H.M.	PAINT	J-2	H-2			73.0
C213	CORRIDOR	E280	WOMEN	C213		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F1	H.M.	PAINT	J-1A	H-1			62.0
C214	CORRIDOR	E280	MEN	C214		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F1	H.M.	PAINT	J-1A	H-1			62.0
C215	CORRIDOR	E280	OT/PT	C215		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-		G-30	F4	H.M.	PAINT	J-1A	H-4			43.0
C216	CORRIDOR	E280	SPED TEACHER PLANNING	C216		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F4	H.M.	PAINT	J-1	H-4			43.0
C217	CORRIDOR	E280	ADULT DAILY LIVING	C217		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F1	H.M.	PAINT	J-1A	H-1			43.0
C217.1	ADULT DAILY LIVING	C217	SPED RESTROOM	C217.1		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F1	H.M.	PAINT	J-1A	H-1			63.0

DOOR SCHEDULE - SECOND FLOOR SECTION D

Door Number	From Room: Name	From Room: Number	To Room: Name	To Room: Number	Pair	Door Width	Door Height	Door Thickness	Door Type	Door Material	Door Finish	Door Glass	Door Label	AR / STC	Frame Type	Frame Mat'l	Frame Finish	Frame Jamb	Frame Head	Threshold	Remarks	Hardware
D200	CORRIDOR	D200	CORRIDOR	D210	P	4'-0"	7'-0"	1 3/4"	FG2	H.M.	PAINT	TG-1			F2A	H.M.	PAINT	J-1	H-4		HO	33.0
D200S	CORRIDOR	D200	STAIR	D1.2	P	3'-0"	7'-0"	1 3/4"	FG2	H.M.	PAINT	FR-1	90 MIN		F2	H.M.	PAINT	J-2	H-2		HO	58.0
D201	WEIGHT ROOM	D201	CORRIDOR	D210	P	3'-0"	8'-0"	1 3/4"	AL2	Aluminum	SEE SPEC.	TG-4			SF11	Aluminum	SEE SPEC.	12/A6.19	4/A6.19			13.0
D201.1	WEIGHT ROOM	D201	VEST	D210.1		3'-0"	7'-0"	1 3/4"	AL1	Aluminum	SEE SPEC.	TG-4			AF1	Aluminum	SEE SPEC.	4/A10.5	4/A10.5		CR	13.1
D201.2	WEIGHT ROOM	D201	OUTDOOR STORAGE	D201.1		3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-			F1	H.M.	PAINT	J-1	H-1			51.0
D202	CORRIDOR	D210	TRAINING	D202		3'-0"	8'-0"	1 3/4"	F	Wood	SEE SPEC.	-				Aluminum	SEE SPEC.					37.0
D203	WELLNESS CENTER	D203	CORRIDOR	D210	P	3'-0"	8'-0"	1 3/4"	AL2	Aluminum	SEE SPEC.	TG-4			SF13	Aluminum	SEE SPEC.	12/A6.19	5/A6.19			13.0
D203A	WELLNESS CENTER	D203	GYMNASIUM	D206	P	3'-0"	7'-0"	1 3/4"	FG2	H.M.	PAINT	TG-3		G-40	F2B	H.M.	PAINT	J-10	H-10		8" MAX FRAME DEPTH	13.0
D204	ADAPTIVE PE	D204	CORRIDOR	D210	P	3'-0"	8'-0"	1 3/4"	AL2	Aluminum	SEE SPEC.	TG-4			SF13	Aluminum	SEE SPEC.	12/A6.19	4/A6.19			13.0
D204.1	ADAPTIVE PE	D204	STORAGE	D204.1	P	3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-			F2	H.M.	PAINT	J-1	H-1			56.0
D204A	ADAPTIVE PE	D204	GYMNASIUM	D206	P	3'-0"	7'-0"	1 3/4"	FG2	H.M.	PAINT	TG-3			F2B	H.M.	PAINT	J-10	H-10	1/A8.46	8" MAX FRAME DEPTH	13.0
D204B	ADAPTIVE PE	D204	CORRIDOR	E270A		3'-0"	7'-0"	1 3/4"	N	H.M.	PAINT	TG-3			F1	H.M.	PAINT	J-1	H-1			31.0
D205	CORRIDOR	D205	CORRIDOR	D210		3'-0"	8'-0"	1 3/4"	AL2	Aluminum	SEE SPEC.	TG-1			SF14	Aluminum	SEE SPEC.	13/A6.19	2/A6.19			13.0
D205.1	IDF	D205.1	CORRIDOR	D205		3'-6"	7'-0"	1 3/4"	F	H.M.	PAINT	-			F1	H.M.	PAINT	J-1	H-1			75.0
D206	GYMNASIUM	D206	CORRIDOR	D205	P	3'-0"	7'-0"	1 3/4"	FG2	H.M.	PAINT	TG-3			F2C	H.M.	PAINT	J-10	H-9A	1/A8.46	8" MAX FRAME DEPTH	14.0
D206.1	WELLNESS CENTER	D203	GYM STORAGE	D206.1	P	3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-			F2	H.M.	PAINT	J-1	H-1			56.0
D206A	GYMNASIUM	D206	UPPER LOBBY	E270	P	3'-0"	7'-0"	1 3/4"	AL2	Aluminum	SEE SPEC.	TG-3			SF10	Aluminum	SEE SPEC.	5/A8.45	4/A8.45	A/A8.45		13.0
D206B	GYMNASIUM	D206	UPPER LOBBY	E270	P	3'-0"	7'-0"	1 3/4"	AL2	Aluminum	SEE SPEC.	TG-3			SF10	Aluminum	SEE SPEC.	5/A8.45	4/A8.45	4/A8.45		13.0
D206C	GYMNASIUM	D206	GYM STORAGE	D206.1	P	3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-			F2B	H.M.	PAINT	J-10	H-10	1/A8.46	8" MAX FRAME DEPTH	56.0
D207	CORRIDOR	D210	JAN	D207		3'-6"	7'-0"	1 3/4"	F	H.M.	PAINT	-			F1	H.M.	PAINT	J-1A	H-1			57.0
D208	CORRIDOR	D210	HEALTH CLASSROOM	D208		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-		G-30	F3A	H.M.	PAINT	J-1	H-4			43.0
D209	CORRIDOR	D210	AD OFFICE	D209		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-		G-30	F1	H.M.	PAINT	J-1	H-1			37.0
D210.1	CORRIDOR	D210	VEST	D210.1	P	3'-0"	8'-0"	1 3/4"	AL2	Aluminum	SEE SPEC.	TG-1			SF9	Aluminum	SEE SPEC.	11/A6.19	3/A6.19		CR	12.0
D210S	CORRIDOR	D210	STAIR	D2.2	P	3'-0"	7'-0"	1 3/4"	FG2	H.M.	PAINT	FR-1	90 MIN		F2	H.M.	PAINT	J-2	H-2		HO	58.0
D211	CORRIDOR	D200	HEALTH CLASSROOM	D211		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F3A	H.M.	PAINT	J-1B	H-4			42.0
D211A	HEALTH CLASSROOM	D211	HEALTH CLASSROOM	D208		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-		G-30	F1	H.M.	PAINT	J-1	H-1			46.0
D212	ELEC	D212	CORRIDOR	D200		3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-	45 MIN		F1	H.M.	PAINT	J-2	H-2			73.0
D213	IDF	D213	CORRIDOR	D200		3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-			F1	H.M.	PAINT	J-1	H-1			75.0
D214	CORRIDOR	D200	FAMILY LOCKERS	D214		3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-			F1	H.M.	PAINT	J-1	H-1			70.0
D215	CORRIDOR	D200	PE OFFICE	D215		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F1	H.M.	PAINT	J-1	H-1			37.0
D215.1	PE OFFICE	D215	PE OFFICE	D215		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F1	H.M.	PAINT	J-1	H-1			63.0
D216	CORRIDOR	D200	PE OFFICE	D216		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F1	H.M.	PAINT	J-1	H-1			37.0
D216.1	PE OFFICE	D216	PE OFFICE	D216		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F1	H.M.	PAINT	J-1	H-1			63.0
D217	GIRLS LOCKERS	D217	CORR	D217.2				0"							F1A	H.M.	PAINT	J-3	H-3			
D217.1	TEAM ROOM	D221	SHOWERS/ TOILETS	D217.1		3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-			F1	H.M.	PAINT	J-1	H-1			71.0
D217.2	CORR	D217.2	CORRIDOR	D200		3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-			F1	H.M.	PAINT	J-1	H-1			68.0
D217A	SHOWERS/ TOILETS	D217.1	GIRLS LOCKERS	D217				0"							F1A	H.M.	PAINT	J-3	H-3			
D218	BOYS LOCKERS	D218	CORR	D218.2				0"							F1A	H.M.	PAINT	J-3	H-3			
D218.1	TEAM ROOM	D222	SHOWERS/ TOILETS	D218.1		3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-			F1	H.M.	PAINT	J-1	H-1			71.0
D218.2	CORR	D218.2	CORRIDOR	D200		3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-			F1	H.M.	PAINT	J-1	H-1			68.0
D218A	SHOWERS/ TOILETS	D218.1	BOYS LOCKERS	D218				0"							F1A	H.M.	PAINT	J-3	H-3			
D219	CORRIDOR	D200	VISITING TEAM	D219		3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-			F1	H.M.	PAINT	J-1	H-1		CR W/ KEY PAD	69.0
D219.1	VISITING TEAM	D219	VISITING TEAM	D219		3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-			F1	H.M.	PAINT	J-1	H-1			75.0
D220	CORRIDOR	D200	VISITING TEAM	D220		3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-			F1	H.M.	PAINT	J-1	H-1		CR W/ KEY PAD	69.0
D220.1	VISITING TEAM	D220	VISITING TEAM	D220		3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-			F1	H.M.	PAINT	J-1	H-1			75.0
D221	TEAM ROOM	D221	CORRIDOR	D200		3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-			F1	H.M.	PAINT	J-1	H-1			68.0
D221.1	JANITOR	D221.1	TEAM ROOM	D221		3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-			F1	H.M.	PAINT	J-1	H-1			57.0
D221.2	TEAM ROOM	D221	TEAM STORAGE	D221.2		3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-			F1	H.M.	PAINT	J-1	H-1			77.0
D221A	TEAM ROOM	D221	TEAM ROOM	D221				0"							F1A	H.M.	PAINT	J-3	H-3			
D222	TEAM ROOM	D222	CORRIDOR	D200		3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-			F1	H.M.	PAINT	J-1	H-1			68.0
D222.1	JANITOR	D222.1	TEAM ROOM	D222		3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-			F1	H.M.	PAINT	J-1	H-1			57.0
D222A	TEAM ROOM	D222	TEAM ROOM	D222				0"							F1A	H.M.	PAINT	J-3	H-3			
D223	CORRIDOR	D200	PE/COMMUNITY STORAGE	D223		3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-			F1	H.M.	PAINT	J-1	H-1			75.0
D224	CORRIDOR	D200	TEAM STORAGE	D224		3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-			F1	H.M.	PAINT	J-1	H-1			75.0
D224A	TEAM ROOM	D222	TEAM STORAGE	D224		3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-			F1	H.M.	PAINT	J-1	H-1			75.0

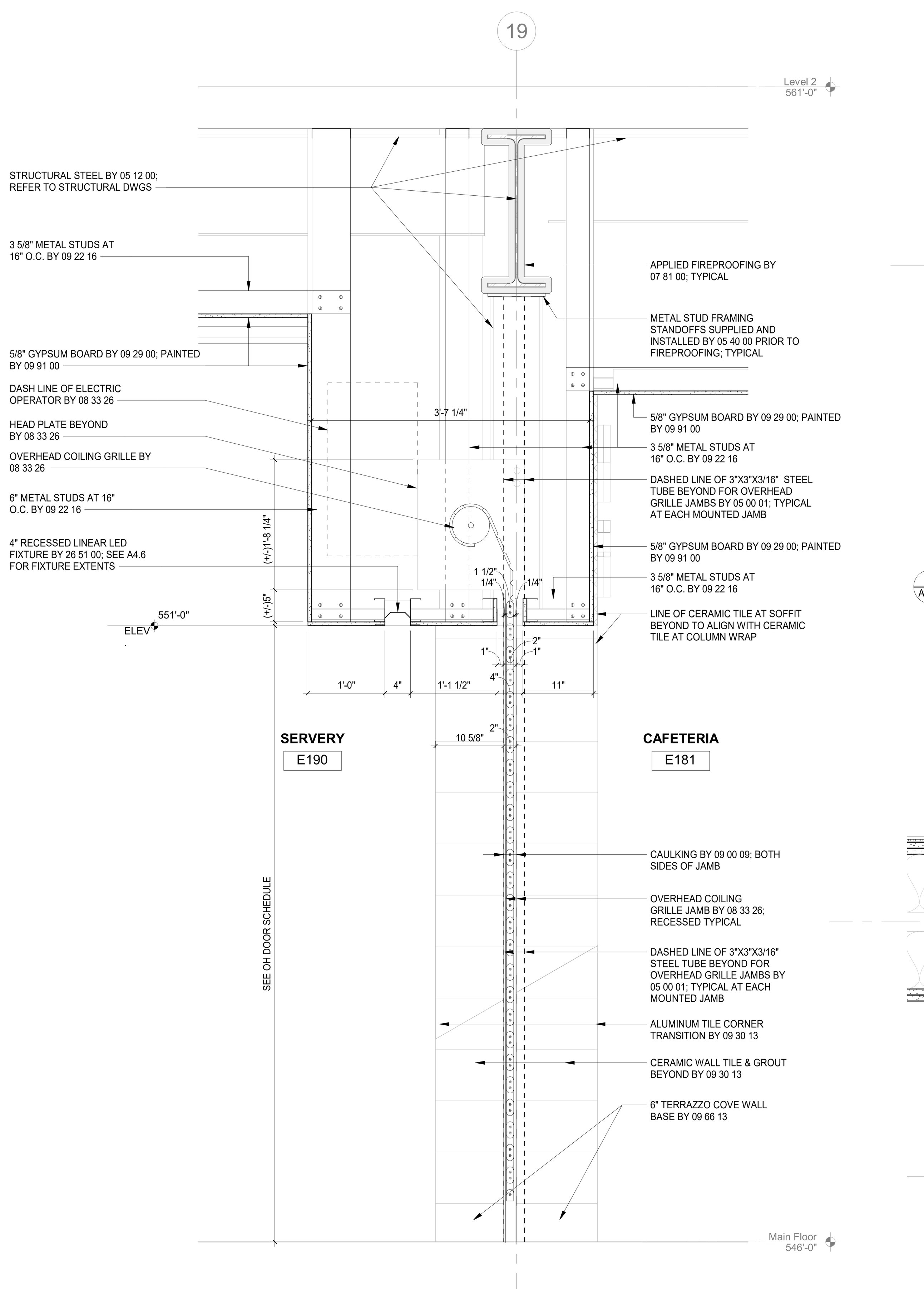
5 ADDENDUM #5

DOOR SCHEDULE - SECOND FLOOR SECTION E

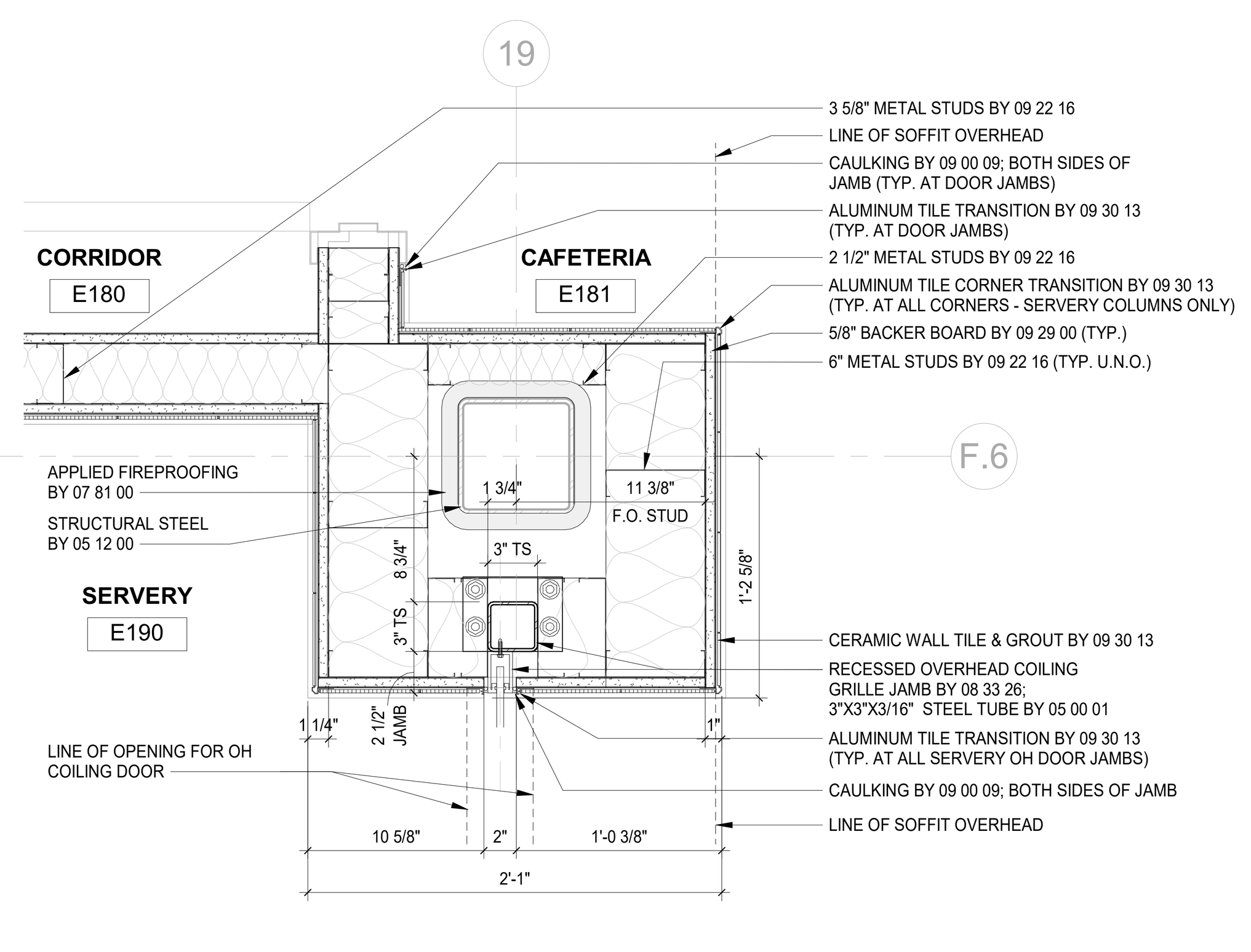
Door Number	From Room: Name	From Room: Number	To Room: Name	To Room: Number	Pair	Door Width	Door Height	Door Thickness	Door Type	Door Material	Door Finish	Door Glass	Door Label	AR / STC	Frame Type	Frame Mat'l	Frame Finish	Frame Jamb	Frame Head	Threshold	Remarks	Hardware
E201	GUIDANCE WAITING	E201	UPPER LOBBY	E270		3'-0"	8'-0"	1 3/4"	AL1	Aluminum	SEE SPEC.	LG-1			SF21	Aluminum	SEE SPEC.	11/A6.19	3/A6.19			16.0
E202	CORRIDOR	E221	STOREROOM	E202		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			AF1	Aluminum	SEE SPEC.	4/A10.5	4/A10.5			77.0
E203	CORRIDOR	E221	SCHOOL PSYCH	E203		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			AF3	Aluminum	SEE SPEC.	4/A10.5	6/A10.5			37.0
E204	CORRIDOR	E221	OFFICE	E204		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			AF3	Aluminum	SEE SPEC.	4/A10.5	6/A10.5			37.0
E205	CORRIDOR	E221	OFFICE	E205		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			AF3	Aluminum	SEE SPEC.	4/A10.5	6/A10.5			37.0
E206	CORRIDOR	E221	OFFICE	E206		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			AF3	Aluminum	SEE SPEC.	4/A10.5	6/A10.5			37.0
E207	CORRIDOR	E221	OFFICE	E207		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			AF3	Aluminum	SEE SPEC.	4/A10.5	6/A10.5			37.0
E208	CORRIDOR	E221	OFFICE	E208		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			AF3	Aluminum	SEE SPEC.	4/A10.5	6/A10.5			37.0
E209	CORRIDOR	E221	OFFICE	E209		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			AF3	Aluminum	SEE SPEC.	4/A10.5	6/A10.5			37.0
E210	CORRIDOR	E221	OFFICE	E210		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			AF3	Aluminum	SEE SPEC.	4/A10.5	6/A10.5			37.0
E212	CORRIDOR	E221	OFFICE	E212		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			AF3	Aluminum	SEE SPEC.	4/A10.5	6/A10.5			37.0
E213	CORRIDOR	E221	OFFICE	E213		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			AF3	Aluminum	SEE SPEC.	4/A10.5	6/A10.5			37.0
E214	CORRIDOR	E221	OFFICE	E214		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			AF3	Aluminum	SEE SPEC.	4/A10.5	6/A10.5			37.0
E215	CORRIDOR	E221	OFFICE	E215		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			AF3	Aluminum	SEE SPEC.	4/A10.5	6/A10.5			37.0
E216	CORRIDOR	E221	OFFICE	E216		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			AF3	Aluminum	SEE SPEC.	4/A10.5	6/A10.5			37.0
E217	CORRIDOR	E221	OFFICE	E217		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			AF3	Aluminum	SEE SPEC.	4/A10.5	6/A10.5			37.0
E218	CORRIDOR	E221	CONF RM	E218		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			AF3	Aluminum	SEE SPEC.	4/A10.5	6/A10.5			37.0
E219	CORRIDOR	E221	WOMEN	E219		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			AF1	Aluminum	SEE SPEC.	4/A10.5	4/A10.5			61.0
E220	CORRIDOR	E221	MEN	E220		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			AF1	Aluminum	SEE SPEC.	4/A10.5	4/A10.5			61.0
E221	CORRIDOR	E221	STAIR	E2.2		3'-0"	7'-0"	1 3/4"	N	H.M.	PAINT	FR-1	90 MIN		F1	H.M.	PAINT	J-2	H-2			42.0
E230	LARGE GROUP SEMINAR	E230	UPPER LOBBY	E270	P	3'-0"	8'-0"	1 3/4"	AL2	Aluminum	SEE SPEC.	LG-1		G-30	SF22	Aluminum	SEE SPEC.	14/A6.19	3/A6.19			13.0
E230A	LARGE GROUP SEMINAR	E230	CORRIDOR	E221		3'-0"	7'-0"	1 3/4"	N	Wood	STAIN	LG-1		G-30	AF1	Aluminum	SEE SPEC.	4/A10.5	4/A10.5			16.0
E231	UPPER LOBBY	E270	GUIDANCE RECORDS	E231		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-	90 MIN		AF1	Aluminum	SEE SPEC.	5/A10.5	5/A10.5			77.0
E250.1	CORRIDOR	E250.1	CORRIDOR	E250		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			AF3	Aluminum	SEE SPEC.	4/A10.5	6/A10.5			42.0
E250.1A	CORRIDOR	E250.1	VOCATIONAL LEARNING CENTER	E254		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F1	H.M.	PAINT	J-1	H-1			42.0
E250.1B	CORRIDOR	E221	CORRIDOR	E250.1		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			AF3	Aluminum	SEE SPEC.	4/A10.5	6/A10.5			42.0
E250S	CORRIDOR	E250	STAIR	E2.2	P	3'-6"	7'-0"	1 3/4"	N	H.M.	PAINT	FR-1	90 MIN		F2	H.M.	PAINT	J-2	H-2		HO	58.0
E251	CORRIDOR	E250	ADMIN STORAGE	E251		3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-			F1	H.M.	PAINT	J-1	H-1			77.0
E252	CORRIDOR	E250	SOCIAL EMOTIONAL LEARNING CENTER	E252		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F3	H.M.	PAINT	J-1	H-4			42.0
E252.1	SOCIAL EMOTIONAL LEARNING CENTER	E252	DE-ESCALATION ROOM	E252.1		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F1	H.M.	PAINT	J-1	H-1		D1	67.0
E252.2	SOCIAL EMOTIONAL LEARNING CENTER	E252	DE-ESCALATION ROOM	E252.2		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F1	H.M.	PAINT	J-1	H-1		D1	67.0
E253	ELEC	E253	CORRIDOR	E250		3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-	45 MIN		F1	H.M.	PAINT	J-2	H-2			79.0
E254	CORRIDOR	E250	VOCATIONAL LEARNING CENTER	E254		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F3	H.M.	PAINT	J-1	H-4			42.0
E254.1	VOCATIONAL LEARNING CENTER	E254	STORAGE	E254.1		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			F1	H.M.	PAINT	J-1	H-1			49.0
E255	CONTROL RM.	E255	CORRIDOR	E250		3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-			F1	H.M.	PAINT	J-1	H-1			36.0
E255A	CONTROL RM.	E255	CATWALK	E255.1		3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-			F1	H.M.	PAINT	J-1	H-1			77.0
E255B	CONTROL RM.	E255	CATWALK	E255.1		3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-			F1	H.M.	PAINT	J-1	H-1			77.0
E256	IDF	E256	CORRIDOR	E250		3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-			F1	H.M.	PAINT	J-1	H-1			75.0
E258	CORRIDOR	E250	STORAGE	E258		3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-			F1	H.M.	PAINT	J-1	H-1			77.0
E260	CORRIDOR	E250	STORAGE	E260		3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-			F1	H.M.	PAINT	J-1	H-1			77.0
E262	STORAGE	E262	CORRIDOR	E250		3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-			F1	H.M.	PAINT	J-1	H-1			77.0
E263	ELEC	E263	CORRIDOR	B210		3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-	45 MIN		F1	H.M.	PAINT	J-2	H-2			73.0
E263.1	EMERG ELEC	E263.1	ELEC	E263	P	3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-	90 MIN		F2	H.M.	PAINT	J-2	H-2			80.0
E264	CORRIDOR	A210	STORAGE	E264		3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-			F1	H.M.	PAINT	J-1	H-1			77.0
E266	CORRIDOR	A210	STORAGE	E266		3'-6"	7'-0"	1 3/4"	F	H.M.	PAINT	-			F1	H.M.	PAINT	J-1	H-1			77.0
E268	CORRIDOR	B210	ACCESS	E268		3'-0"	7'-0"	1 3/4"	F	H.M.	PAINT	-			F1	H.M.	PAINT	J-1	H-1			80.0
E271	UPPER AUDITORIUM	E275	CONTROL	E271		3'-0"	7'-0"	1 3/4"	F	Particle Board	PLASTIC LAM.	-		G-30	AF1	Aluminum	SEE SPEC.	14/A8.42	15/A8.42			79.0
E275.1	UPPER AUDITORIUM	E275	SLL	E275.1		3'-0"	7'-0"	1 3/4"	F	Particle Board	PLASTIC LAM.	-	90 MIN	G-40	AF1	Aluminum	SEE SPEC.	2/A8.42	7/A8.42			71.0
E275.1A	SLL	E275.1	UPPER LOBBY	E270		3'-0"	7'-0"	1 3/4"	F	Particle Board	PLASTIC LAM.	-		G-40	AF1	Aluminum	SEE SPEC.	2/A8.42	2/A8.42			31.1
E275.2	UPPER AUDITORIUM	E275	SLL	E275.2		3'-0"	7'-0"	1 3/4"	F	Particle Board	PLASTIC LAM.	-	90 MIN	G-40	AF1	Aluminum	SEE SPEC.	2/A8.42	7/A8.42			71.0
E275.2A	SLL	E275.2	UPPER LOBBY	E270		3'-0"	7'-0"	1 3/4"	F	Particle Board	PLASTIC LAM.	-		G-40	AF1	Aluminum	SEE SPEC.	2/A8.42	2/A8.42			31.1
E282	CORRIDOR	E270A	GRAB'N GO	E282		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			AF1	Aluminum	SEE SPEC.	4/A10.5	4/A10.5			22.0
E283	CORRIDOR	E270A	MEN	E283		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			AF1	Aluminum	SEE SPEC.	4/A10.5	4/A10.5		HO MATCHING J-15	70.0
E284	CORRIDOR	E270A	WOMEN	E284		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			AF1	Aluminum	SEE SPEC.	4/A10.5	4/A10.5		HO MATCHING J-15	70.0
E285	MULTI-MEDIA MAKER SPACE	E285	CORRIDOR	E270A	P	3'-0"	7'-0"	1 3/4"	FG2	Wood	STAIN	LG-1			AF2	Aluminum	SEE SPEC.	4/A10.5	4/A10.5			24.0
E285A	MULTI-MEDIA MAKER SPACE	E285	CORRIDOR	E280		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			AF3a	Aluminum	SEE SPEC.	4/A10.5	6/A10.5			27.0
E290	MEDIA CENTER	E290	MEDIA CENTER SEATING	E281.1	P	3'-0"	8'-0"	1 3/4"	AL2	Aluminum	SEE SPEC.	TG-2			CW50	Aluminum	SEE SPEC.	16/A6.28	17/A6.28			13.0
E290.1	WORK ROOM	E290.1	MEDIA CENTER	E290		3'-0"	7'-0"	1 3/4"	F	Particle Board	PAINT	-			F1	H.M.	PAINT	J-1	H-1			37.0
E290.4	MEDIA CENTER COLLABORATION ROOM	E290.4	UPPER LOBBY	E270		3'-0"	8'-0"	1 3/4"	AL1	Aluminum	SEE SPEC.	TG-1			SF26	Aluminum	SEE SPEC.	20/A8.43	8/A6.19			42.0
E290.4A	MEDIA CENTER COLLABORATION ROOM	E290.4	CORRIDOR	E280		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			AF3a	Aluminum	SEE SPEC.	4/A10.5	6/A10.5			42.0
E290A	MEDIA CENTER	E290	MEDIA CENTER COLLABORATION ROOM	E290.4		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			AF3a	Aluminum	SEE SPEC.	4/A10.5	6/A10.5			43.0
E290B	MEDIA CENTER	E290	UPPER LOBBY	E270		3'-0"	8'-0"	1 3/4"	AL1	Aluminum	SEE SPEC.	TG-2			CW50A	Aluminum	SEE SPEC.	16/A6.28	17/A6.28			16.0
E290C	MULTI-MEDIA MAKER SPACE	E285	MEDIA CENTER	E290		3'-0"	7'-0"	1 3/4"	AL1	Aluminum	SEE SPEC.	LG-1			SF17	Aluminum	SEE SPEC.	6/A6.19	6/A6.19			16.0
E291	MEDIA CENTER	E290	SMALL GROUP	E291		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			AF3a	Aluminum	SEE SPEC.	4/A10.5	6/A10.5			48.1
E292	MEDIA CENTER	E290	SMALL GROUP	E292		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			AF3a	Aluminum	SEE SPEC.	4/A10.5	6/A10.5			48.1
E293	MEDIA CENTER	E290	SMALL GROUP	E293		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-			AF3a	Aluminum	SEE SPEC.	4/A10.5	6/A10.5			48.1
E295.1	CORRIDOR	E280	TV STUDIO	E295.1		3'-0"	7'-0"	1 3/4"	F	Wood	STAIN	-		G-40	AF1	Aluminum	SEE SPEC.	4/A10.5	4/A10.5			43.0
E295.2	MEDIA CENTER COLLABORATION ROOM	E290.4	TV EDITING	E295.2		3'-0"	8'-0"	1 3/4"	AL1	Aluminum	SEE SPEC.	LG-1		G-40	SF27	Aluminum	SEE SPEC.	21/A6.19	6/A6.19			17.0
E295.2A	TV STUDIO	E295.1	TV EDITING	E295.2		3'-0"	8'-0"	1 3/4"	AL1	Aluminum	SEE SPEC.	LG-1		G-40	SF27	Aluminum	SEE SPEC.	21/A6.19	6/A6.19			17.0

NOTE: DOOR E290.1A NOT USED.

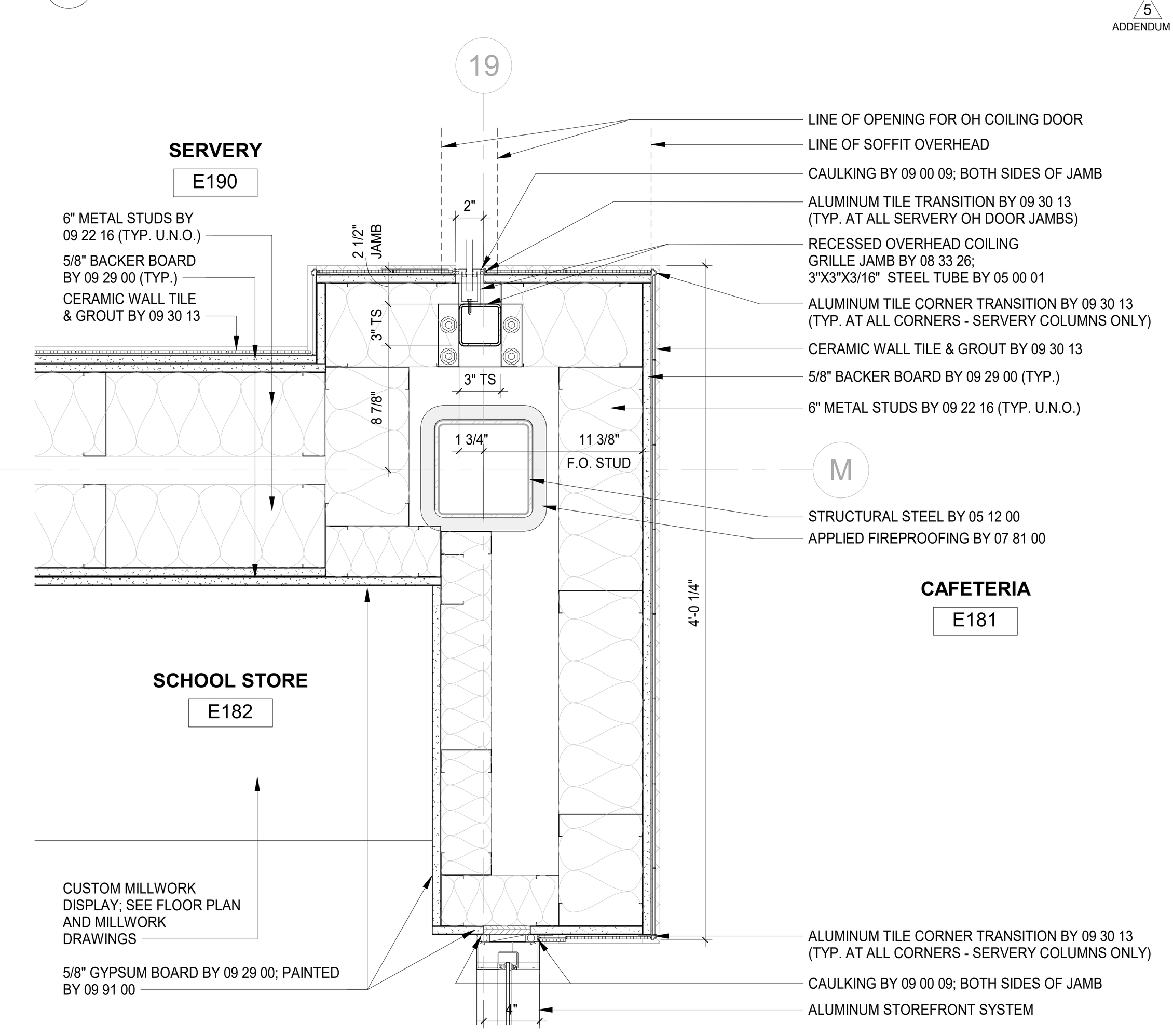
5 ADDENDUM #5



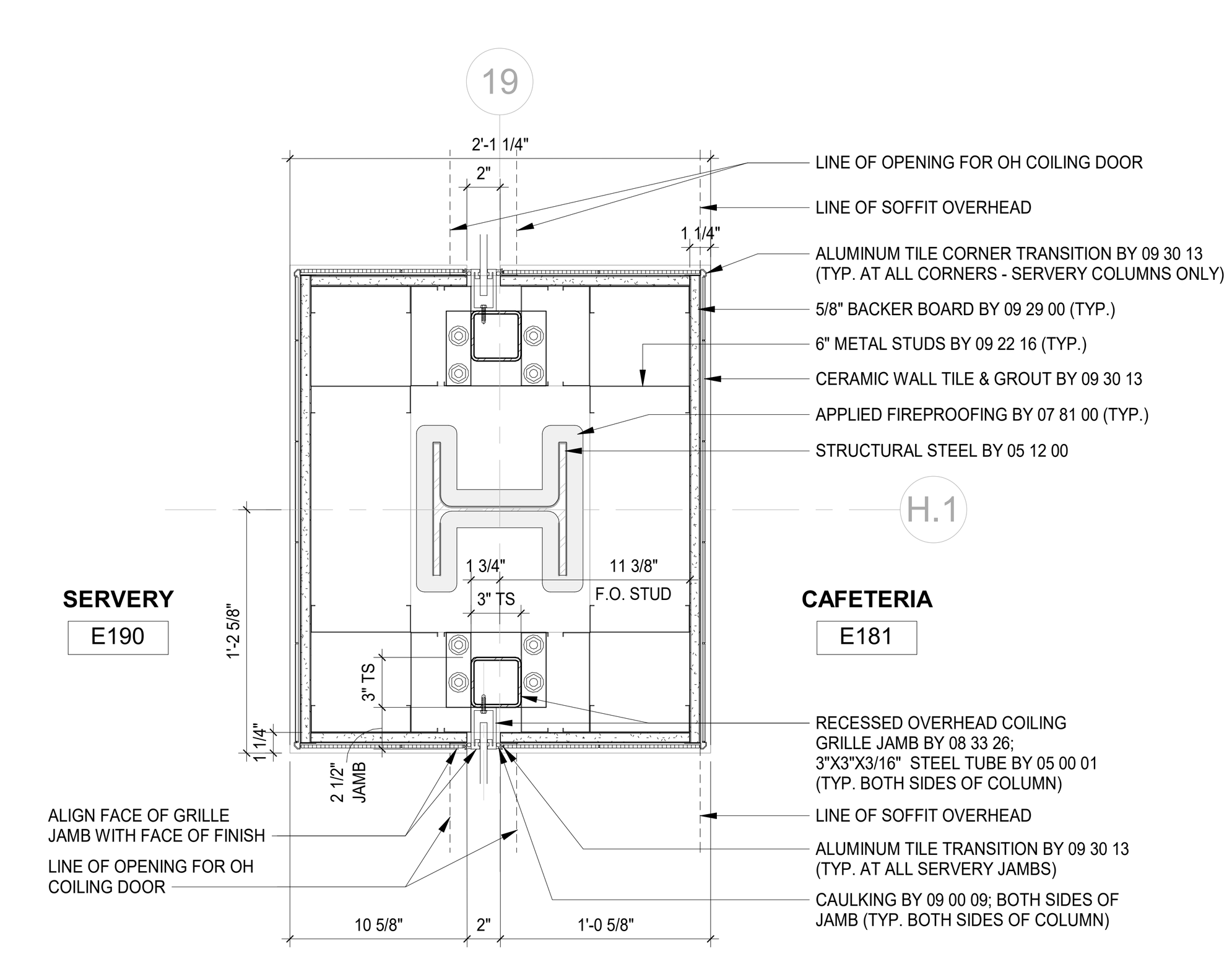
4 A10.3 Typical Servery OH Door Section Detail
SCALE: 1" = 1'-0"



5 A10.3 Plan Detail at Servery/Corridor E180 Corner
SCALE: 1 1/2" = 1'-0"



3 A10.3 Plan Detail at Servery/School Store Corner
SCALE: 1 1/2" = 1'-0"



2 A10.3 Typical Servery Column Pilaster Plan Detail
SCALE: 1 1/2" = 1'-0"

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PROJECT

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Doherty Memorial High School

299 Highland Street, Worcester, MA 01602

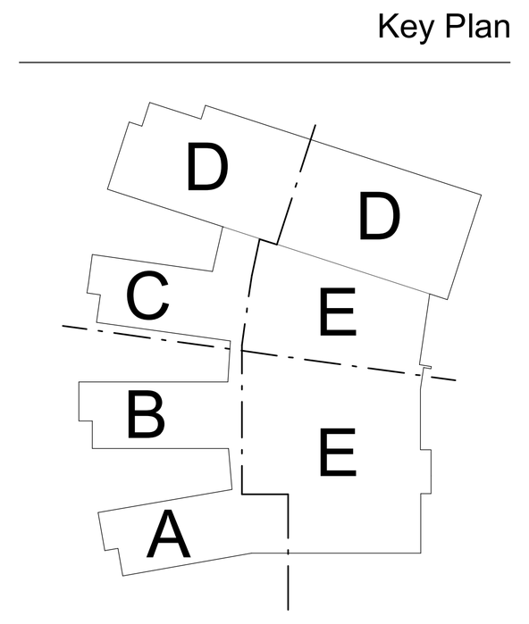
DRAWING TITLE

Door Schedule - Second Floor

Locus Map

True North

Key Plan



REVISIONS

No.	Description	Date
5	ADDENDUM #5	02/16/22

FILE:

JOB NO: #1904

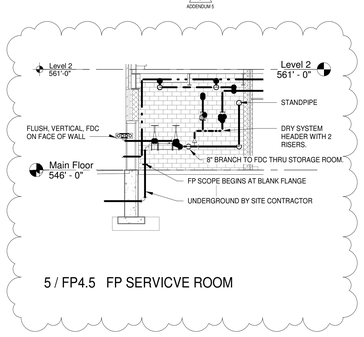
SCALE: As indicated

DWN. BY: AD

CKD. BY: Checker

DATE: JANUARY 20 2022

A10.3



5 / FP4.5 FP SERVICVE ROOM

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PROJECT

ADDENDUM 5

Doherty Memorial High School

Highland Street, Worcester, MA. 01600

DRAWING TITLE

Fire Protection Main Level Reflected Ceiling Plan Section CD

Locus Map

True North

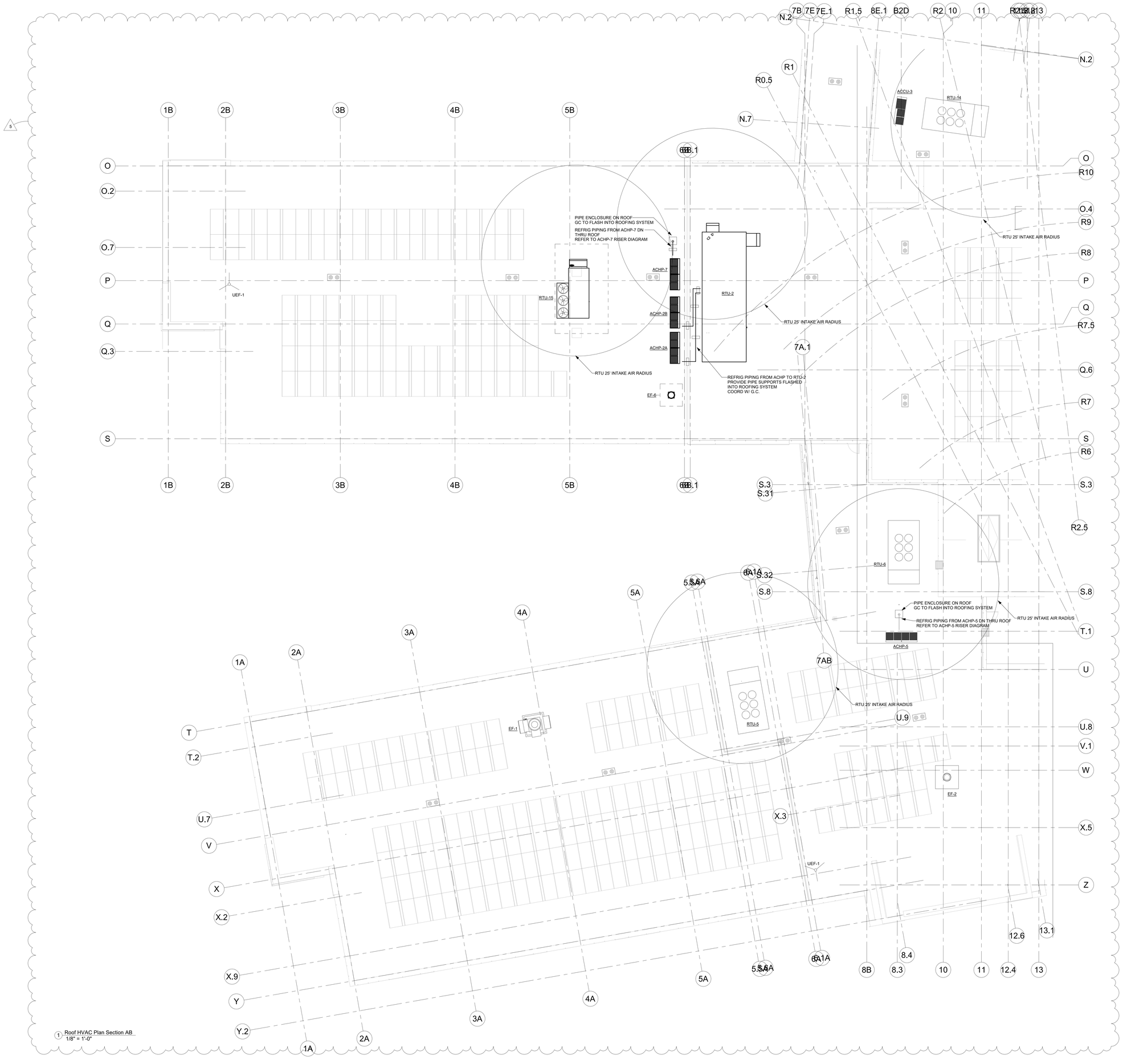
Key Plan

REVISIONS

No.	Description	Date
3	Addendum 3	2/3/22
4	Addendum 4	2/10/22
5	Addendum 5	2/16/22

FILE:	DoHS FP Addend 5 2-16-22
JOB NO:	#1904
SCALE:	1/8" = 1'-0"
DWN. BY:	Author
CKD. BY:	Checker
DATE:	February 16, 2022

FP-4.5



1 Roof HVAC Plan Section AB
1/8" = 1'-0"

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PROJECT

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Doherty Memorial High School

299 Highland St
Worcester, MA 01602

DRAWING TITLE

Roof HVAC Plan Section AB

Locus Map

True North

Key Plan

REVISIONS

No.	Description	Date
ADD-5	REVISED PLANS	2/16/22

FILE:	
JOB NO:	#1904
SCALE:	1/8" = 1'-0"
DWN. BY:	FJG
CKD. BY:	KRS
DATE:	JANUARY 20, 2021

H3.18

PROVIDE EQUIPMENT SERVICE PLATFORMS
BOTTOM OF PLATFORM SHALL BE FLUSH W/
BOTTOM OF UNITS
REFER TO SPEC FOR FURTHER INFORMATION

3'-0" MIN.

3'-0" MIN.

ACCU-3

RTU-14

RTU-13

RTU-12

ACHP-8A

ACHP-8B

ACHP-8C

ACHP-9A

ACHP-9B

REFRIG PIPING FROM ACHP-8 DN THRU ROOF
REFER TO ACHP-8 RISER DIAGRAM

ACCU-1

ACCU-2

PIPE ENCLOSURE ON ROOF
GC TO FLASH INTO ROOFING SYSTEM

PIPE ENCLOSURE ON ROOF
GC TO FLASH INTO ROOFING SYSTEM

EF-13

REFRIG PIPING FROM ACCU-1&2
TO CRAC-1&2
REFER TO ACCU-1&2 RISER

REFRIG PIPING FROM ACHP TO RTU-11
PROVIDE PIPE SUPPORTS FLASHED
INTO ROOFING SYSTEM
COORD W/ G.C.

EF-7

RTU 25' INTAKE AIR RADIUS

RTU 25' INTAKE AIR RADIUS

RTU 25' INTAKE AIR RADIUS

RTU-11

RTU 25' INTAKE AIR RADIUS

RTU 25' INTAKE AIR RADIUS

UEF-1

RTU-10

RTU 25' INTAKE AIR RADIUS

RTU 25' INTAKE AIR RADIUS

RTU-9

RTU 25' INTAKE AIR RADIUS

EF-4

EF-3

EF-5

RTU-6

RTU-7

RTU-8

PIPE ENCLOSURE ON ROOF
GC TO FLASH INTO ROOFING SYSTEM

REFRIG PIPING FROM ACHP-5 DN THRU ROOF
REFER TO ACHP-5 RISER DIAGRAM

RTU 25' INTAKE AIR RADIUS

ACHP-1A

ACHP-1B

ACHP-5

REFRIG PIPING FROM ACHP TO RTU-1
PROVIDE PIPE SUPPORTS FLASHED
INTO ROOFING SYSTEM
COORD W/ G.C.

RTU 25' INTAKE AIR RADIUS

UEF-1

ACHP-6

PIPE ENCLOSURE ON ROOF
GC TO FLASH INTO ROOFING SYSTEM

REFRIG PIPING FROM ACHP-6 DN THRU ROOF
REFER TO ACHP-6 RISER DIAGRAM

RTU 25' INTAKE AIR RADIUS

RTU-1

RTU 25' INTAKE AIR RADIUS

EF-2

1 Roof HVAC Plan Section E
1/8" = 1'-0"

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Doherty Memorial High School
299 Highland St
Worcester, MA 01602

DRAWING TITLE

Roof HVAC Plan Section E

Locus Map

True North

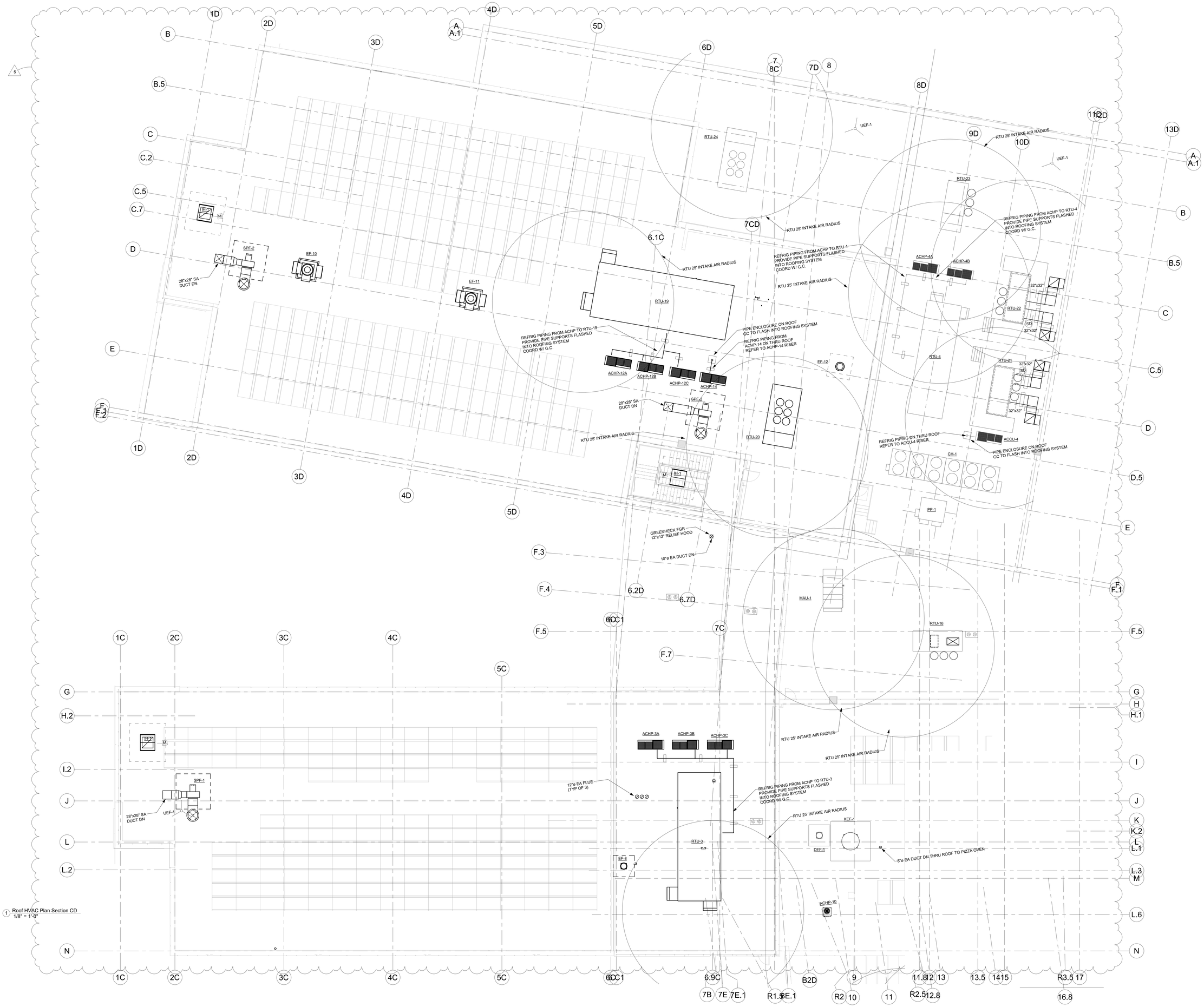
Key Plan

REVISIONS

No.	Description	Date
ADD-5	REVISED PLANS	2/16/22

FILE:
JOB NO: #1904
SCALE: 1/8" = 1'-0"
DWN. BY: FJG
CKD. BY: KRS
DATE: JANUARY 20, 2021

H3.19



1 Roof HVAC Plan Section CD
1/8" = 1'-0"

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DOCUMENTS, FINAL BID
PACKAGE #4

Doherty Memorial
High School

299 Highland St
Worcester, MA 01602

DRAWING TITLE

Roof HVAC Plan
Section CD

Locus Map

True North

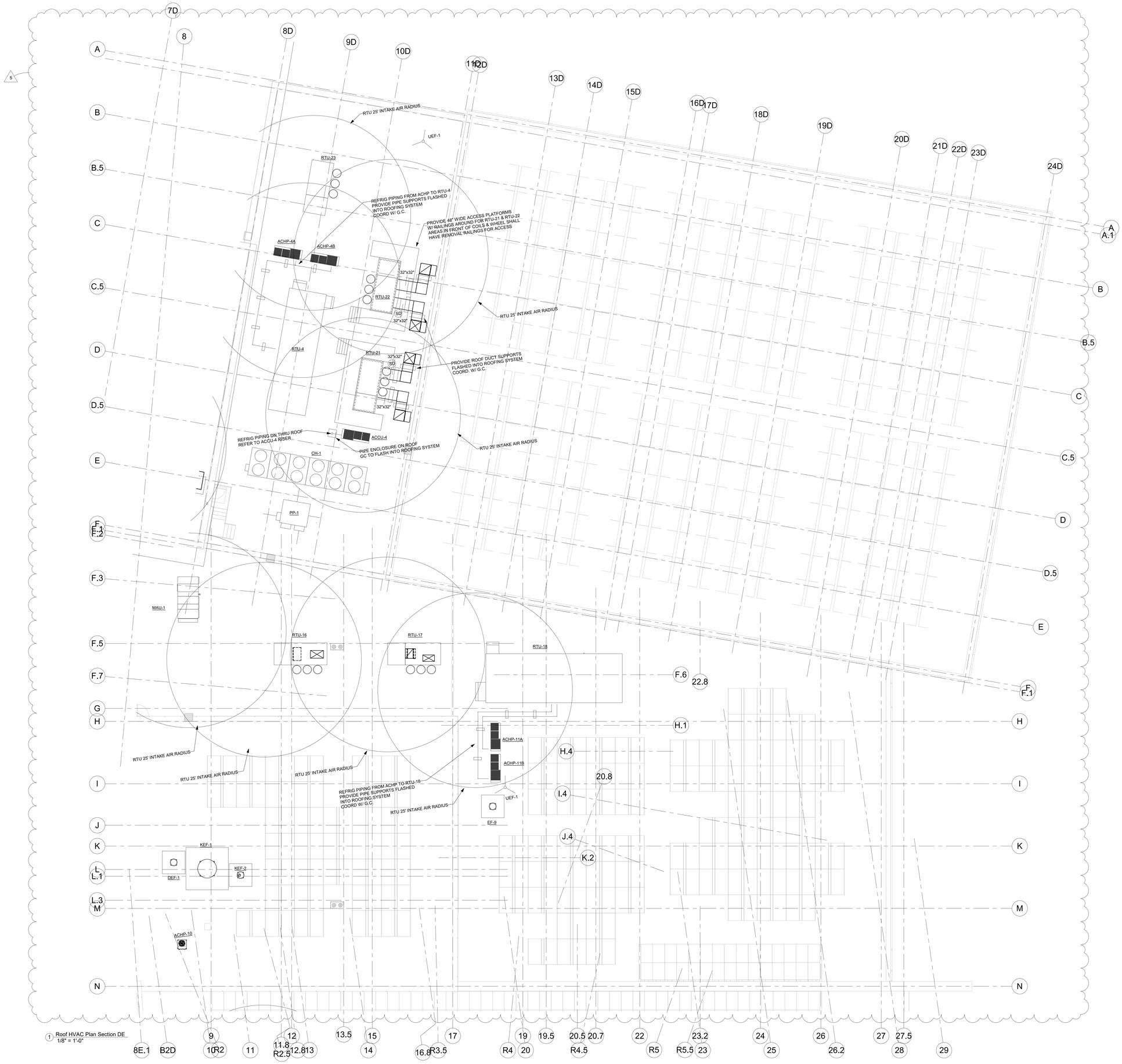
Key Plan

REVISIONS

No.	Description	Date
ADD-5	REVISED PLANS	2/16/22

FILE:	
JOB NO:	#1904
SCALE:	1/8" = 1'-0"
DWN. BY:	FJG
CKD. BY:	KRS
DATE:	JANUARY 20, 2021

H3.20



1 Roof HVAC Plan Section DE
1/8" = 1'-0"

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Worcester, MA 01602

PROJECT

100% CONSTRUCTION DOCUMENTS, FINAL BID PACKAGE #4

Doherty Memorial High School
299 Highland St
Worcester, MA 01602

DRAWING TITLE

Roof HVAC Plan Section DE

Locus Map

True North

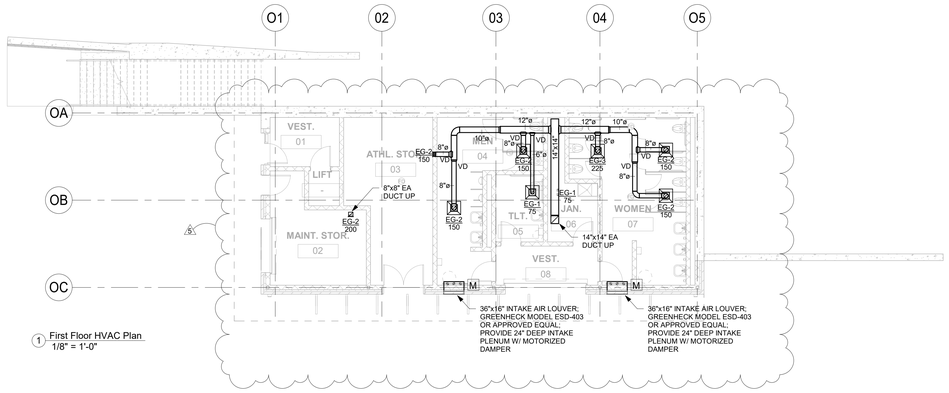
Key Plan

REVISIONS

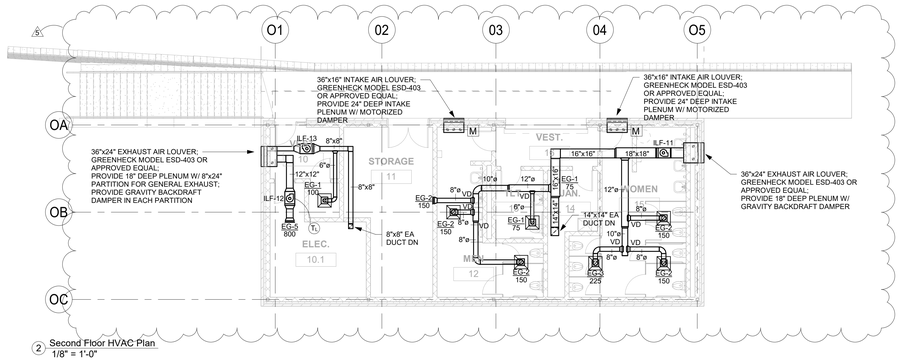
No.	Description	Date
ADD-5	REVISED PLANS	2/16/22

FILE:
JOB NO: #1904
SCALE: 1/8" = 1'-0"
DWN. BY: FJG
CKD. BY: KRS
DATE: JANUARY 20, 2021

H3.21



1 First Floor HVAC Plan
1/8" = 1'-0"



2 Second Floor HVAC Plan
1/8" = 1'-0"

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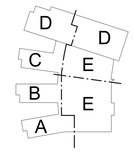
DRAWING TITLE

Field Building HVAC Plans

Locus Map

True North

Key Plan



REVISIONS

No.	Description	Date
ADD-5	REVISED PLANS	02/16/22

FILE:	
JOB NO:	#1904
SCALE:	1/8" = 1'-0"
DWN. BY:	FJG
CKD. BY:	KRS
DATE:	JANUARY 20, 2022

H3.22

AIR COOLED HEAT PUMP CONDENSING UNIT SCHEDULE

UNIT NO.	MANUFACTURER	MODULES	MODEL NO.	COOLING CAP. @ 95F (MBH)	MIN HEATING COP DUCTED (@17F)	HEATING CAP. @ 0F (MBH)	ELECTRICAL CHARACTERISTICS V	PH	MCA	MAX SOUND PRESSURE (dBA)	REMARKS	MINIMUM EER/IEER (DUCTED)	INTERLOCK	# of VRV Expansion Valves/Circuits
ACHP-1A	Daikin	RXYQ120XAYDA	RXYQ264XAYDA	263,165	2.3	170,586	460	3	20.6	66	DUAL MODULE	9.9/19.6	RTU-1	4
		RXYQ144XAYDA					460	3	25.9					
ACHP-1B	Daikin	RXYQ120XAYDA	RXYQ264XAYDA	263,165	2.3	170,586	460	3	20.6	66	DUAL MODULE	9.9/19.6		
		RXYQ144XAYDA					460	3	25.9					
ACHP-2A	Daikin	RXYQ120XAYDA	RXYQ264XAYDA	263,165	2.3	170,586	460	3	20.6	66	DUAL MODULE	9.9/19.6	RTU-2	4
		RXYQ144XAYDA					460	3	25.9					
ACHP-2B	Daikin	RXYQ120XAYDA	RXYQ264XAYDA	263,165	2.3	170,586	460	3	20.6	66	DUAL MODULE	9.9/19.6		
		RXYQ144XAYDA					460	3	25.9					
ACHP-3A	Daikin	RXYQ120XAYDA	RXYQ240XAYDA	239,659	2.3	160,456	460	3	20.6	64	DUAL MODULE	11.2/20.9	RTU-3	6
		RXYQ120XAYDA					460	3	20.6					
ACHP-3B	Daikin	RXYQ120XAYDA	RXYQ240XAYDA	239,659	2.3	160,456	460	3	20.6	64	DUAL MODULE	11.2/20.9		
		RXYQ120XAYDA					460	3	20.6					
ACHP-3C	Daikin	RXYQ120XAYDA	RXYQ240XAYDA	239,659	2.3	160,456	460	3	20.6	64	DUAL MODULE	11.2/20.9		
		RXYQ120XAYDA					460	3	20.6					
ACHP-4	Daikin	RXYQ144XAYDA	RXYQ288XAYDA	287,076	2.1	180,553	460	3	25.9	67	DUAL MODULE	10.1/19.6	RTU-4	2
		RXYQ144XAYDA					460	3	25.9					
ACHP-9A	Daikin	RXYQ120XAYDA	RXYQ192XAYDA	191,802	2.23	134,038	460	3	20.6	63	DUAL MODULE	11.6/21.2	RTU-11	2
		RXYQ72XAYDA					460	3	12.3					
ACHP-9B	Daikin	RXYQ120XAYDA	RXYQ192XAYDA	191,802	2.23	134,038	460	3	20.6	63	DUAL MODULE	11.6/21.2		
		RXYQ72XAYDA					460	3	12.3					
ACHP-11A	Daikin	RXYQ120XAYDA	RXYQ216XAYDA	215,153	2.46	150,812	460	3	20.6	64	DUAL MODULE	10.9/21.1	RTU-18	2
		RXYQ96XAYDA					460	3	20.6					
ACHP-11B	Daikin	RXYQ120XAYDA	RXYQ216XAYDA	215,153	2.46	150,812	460	3	20.6	64	DUAL MODULE	10.9/21.1		
		RXYQ96XAYDA					460	3	20.6					
ACHP-12A	Daikin	RXYQ144XAYDA	RXYQ312XAYDA	310,954	2.2	190,197	460	3	25.9	68	DUAL MODULE	9.6/18.8	RTU-19	6
		RXYQ168XAYDA					460	3	25.9					
ACHP-12B	Daikin	RXYQ144XAYDA	RXYQ312XAYDA	310,954	2.2	190,197	460	3	25.9	68	DUAL MODULE	9.6/18.8		
		RXYQ168XAYDA					460	3	25.9					
ACHP-12C	Daikin	RXYQ144XAYDA	RXYQ312XAYDA	310,954	2.2	190,197	460	3	25.9	68	DUAL MODULE	9.6/18..8		
		RXYQ168XAYDA					460	3	25.9					

① PROVIDE LOW AMBIENT CONTROLS. PROVIDE DISCONNECT SWITCH.
② PROVIDE HARD START ASSIST KIT WITH CRANKCASE HEATER.
③ PROVIDE ANTI-SHORT CYCLE TIMER.
④ REFRIGERANT LINE SIZES SHALL BE BY EQUIP. MFR. RECOMMENDED SIZES PER RUN LGTH. VERIFY W/ MFR.
⑤ SPACING BETWEEN BLDG & ADJ CU UNITS SHALL BE PROVIDED AS SPEC. BY EQUIP. MFR.
⑥ PROVIDE 18" HIGH SEISMICALLY BRACED QUICK SLING SUPER STANDS AS MANUF. BY DIVERSITECH. STANDS SHALL HAVE 12" PADS ANCHORED TO EQUIPMENT SUPPORTS BY G.C. COORD REQUIRED WIDTH, LENGTHS & LOCATIONS OF EQUIPMENT SUPPORST W/ G.C.

FAN COIL SCHEDULE

	UNIT NUMBER	FC E-5,9 E-17,23,24,25,26 E-27,28,30,31 E-34,41,42,45	FC E-2,3,7,8,16,17 E-20,21,32,44,48	FC E-4,6,29,33,43 E-47	FC E-19,29,37,40	FC E-18,36	FC E-35,38,39	FC A-1,2,3,4 B-1,2,3,4 C-1,2,3 D-2,3,4,5,6,7,8 E-43,49,50	FC E-46	FC D-1 E-1	FC E-10,11,12,13 E-14,15,22	FC E-51
	SERVICE	SEE PLANS	SEE PLANS	SEE PLANS	SEE PLANS	SEE PLANS	SEE PLANS	SEE PLANS	SEE PLANS	SEE PLANS	SEE PLANS	SEE PLANS
	TONS	0.6	0.75	1.0	1.25	1.5	2.0	2.5	4.5	2.0	1.5	3.0
FAN COIL	MANUFACTURER MAKE	DAIKEN	DAIKEN	DAIKEN	DAIKEN	DAIKEN	DAIKEN	DAIKEN	DAIKEN	DAIKEN	DAIKEN	DAIKEN
	MANUFACTURER MODEL #	DUCTED FXMQ007PBVJU	DUCTED FXMQ009PBVJU	DUCTED FXMQ012PBVJU	DUCTED FXMQ015PBVJU	DUCTED FXMQ018PBVJU	DUCTED FXMQ024PBVJU	DUCTED FXMQ030PBVJU	DUCTED FXMQ054PBVJU	WALL FXAQ24PVJU	2X2 CEILING FXFQ18TAVJUPVJU	DUCTED FXFQ036TVJU
	C.F.M.	265/247/212	396/388/353	918/812/706	1130/953/883	918/812/706	918/812/706	918/812/706	1130/953/883	1130/953/883	1130/953/883	1165/918/671
	E.S.P. (IN WG)	–	–	–	–	–	–	–	–	–	–	–
	FAN RPM (SPEED)	–	–	–	–	–	–	–	–	–	–	–
	HP	–	–	–	–	–	–	–	–	–	–	–
	MIN. OUTDOOR AIR (CFM)	–	–	–	–	–	–	–	–	–	–	–
ELEC	V-PH-HZ	208V-1ø	208V-1ø	208V-1ø	208V-1ø	208V-1ø	208V-1ø	208V-1ø	208V-1ø	208V-1ø	208V-1ø	208V-1ø
	MCA / MOCP	0.2 / 15	0.2 / 15	1.3 / 15	1.3 / 15	1.3 / 15	1.3 / 15	1.3 / 15	1.3 / 15	1.3 / 15	1.3 / 15	1.5 / 15
	–	–	–	–	–	–	–	–	–	–	–	–
DX COOLING	AMBIENT TEMP (°F)	91	91	91	91	91	91	91	91	91	91	91
	TOTAL / SENSIBLE CAPACITY (MBH)	5.1 / 3.6	17.7 / 12.8	33.6 / 24.2	44.7 / 32.2	33.6 / 24.2	33.6 / 24.2	33.6 / 24.2	44.7 / 32.2	44.7 / 32.2	44.7 / 32.2	36.0 / 32.2
	COOLING EDB / EWB (°F)	81 / 67	81 / 67	81 / 67	81 / 67	81 / 67	81 / 67	81 / 67	81 / 67	81 / 67	81 / 67	81 / 67
	COOLING LDB / LWB (°F)	55 / 53	55 / 53	55 / 53	55 / 53	55 / 53	55 / 53	55 / 53	55 / 53	55 / 53	55 / 53	55 / 53
	ENTERING REFRIGERANT TEMP. (°F)	–	–	–	–	–	–	–	–	–	–	–
	SATURATED SUCTION TEMP. (°F)	–	–	–	–	–	–	–	–	–	–	–
DX HEAT	AMBIENT TEMP (°F)	0	0	0	0	0	0	0	0	0	0	0
	CAPACITY (MBH)	4.6	16.2	30.7	38.7	30.7	30.7	30.7	38.7	38.7	38.7	38.7
	HEATING EDB (°F)	68	68	68	68	68	68	68	68	68	68	68
	HEATING LDB (°F)	90	90	90	90	90	90	90	90	90	90	90
	ENTERING REFRIGERANT TEMP (°F)	–	–	–	–	–	–	–	–	–	–	–
	SATURATED SUCTION TEMP. (°F)	–	–	–	–	–	–	–	–	–	–	–
	REMARKS	①②	①②	①②	①②	①②	①②	①②	①②	①②	①②	①②

① COUNTER-SWIRL FILTER SHALL BE 2" PLEATED, THROWAWAY DX COOLING COIL SHALL BY 4-ROW W/ REFRIGERANT R-410A. PROVIDE 3 SPARE SETS OF FILTERS FOR THE FAN COIL UNIT
② WIRE CONDENSATE PUMP TO FAN COIL CONTROL CIRCUIT FOR SHUT-DOWN COOLING MODE FLOAT ALARM.
③ ALL FC W/ 0A DUCT CONNECTIONS CONNECTED TO ERU SHALL BE BALANCED AS INDICATED UNLESS NOTED OTHERWISE: FC-12(82(75 CFM)/FC-14(82 & 25(82(30 CFM EACH)/FC-13(82, 18(82, 19(82, 21(82, 22(82, 24(82(40 CFM EACH)/FC-23(82(45 CFM); FC-15(82, 17(82, 28(82, 29(82(50 CFM EACH)/FC-11(82(70 CFM); FC-20(82(75 CFM)/FC-16(82(125 CFM)/FC-2A(35 CFM)/FC-3A(25 CFM); FC-4A(120 CFM)/FC-5A(400 CFM)/FC-7A(190 CFM)/FC-3A(360 CFM)

VRF BRANCH SELECTOR BOX SCHEDULE

	UNIT NUMBER	BS-E-2,5,6,10,11	BS-E-1,3,4,9
	MANUFACTURER	DAIKEN	DAIKEN
	MODEL NUMBER	BSF4Q54TVJ	BSF6Q54TVJ
POWER SUPPLY	VOLTAGE	208V-1PH	208V-1PH
	MCA	0.4	0.6
	NOTES:	SEE NOTES	SEE NOTES

NOTES: BRANCH SELECTOR BOXES SHALL BE PROVIDED ON HEAT RECOVERY VRF SYSTEMS
THE SCHEDULED DAIKEN UNIT DO NOT REQUIRE CONDENSATE FROM THE BS BOXES.
ALTERNATIVE MANUF MAY REQUIRE COND FROM BS BOXES; IF USING A DIFFERENT MANUF
THAT REQUIRES BS BOXES REQUIRING COND; PROVIDE ALL REQUIRED COND & RELATED WORKS
AT NO ADDITIONAL COST

SOUND ATTENUATOR SCHEDULE

Tag	Qty	Model	Width (in)	Height (in)	Length (in)	LegA (in)	LegB (in)	Air Direction	Flow (CFM)	Velocity (FPM)	PD (in. w.g.)	63	125	250	500	1k	2k	4k	8k
SA-1S	1	-	-	-	-	-	-	Forward	11650	-	-	76	73	78	70	59	52	58	57
SA-1R	1	-	-	-	-	-	-	Reverse	11650	-	-	67	62	68	57	50	50	50	50
SA-2S	1	-	-	-	-	-	-	Forward	12150	-	-	77	74	78	70	58	52	58	58
SA-2R	1	-	-	-	-	-	-	Reverse	12150	-	-	64	62	68	58	50	50	50	50
SA-3S	1	-	-	-	-	-	-	Forward	16250	-	-	77	75	77	68	57	50	57	61
SA-3R	1	-	-	-	-	-	-	Reverse	16250	-	-	65	64	70	59	50	50	50	50
SA-4S	1	-	-	-	-	-	-	Forward	6450	-	-	74	74	70	67	61	57	67	67
SA-4R	1	-	-	-	-	-	-	Reverse	6450	-	-	59	58	57	54	50	50	50	51
SA-5S	1	ERMT60/8B	33.00	31.00	60.00	46.00	42.00	Forward	13300	2280	0.10	9	13	15	18	23	28	22	15
SA-5R	1	ERMT60/YA	33.00	31.00	60.00	46.00	42.00	Reverse	13300	2280	0.03	9	12	12	14	18	22	17	11
SA-6S	1	ERMT60/8B	37.00	27.00	66.00	43.50	43.50	Forward	8450	1491	0.11	10	14	18	23	30	36	29	18
SA-6R	1	ERMT60/YA	37.00	27.00	72.00	43.50	43.50	Reverse	8450	1491	0.11	10	14	20	27	36	44	33	19
SA-7S	1	ERMT60/YB	39.00	43.00	60.00	48.00	31.00	Forward	7060	706	0.12	11	14	13	16	19	26	21	14
SA-7R	1	ERMT60/YA	39.00	43.00	60.00	48.00	31.00	Reverse	7060	706	0.09	9	12	12	15	19	22	17	11
SA-8S	1	ERMT36/6B	29.00	17.00	36.00	26.50	26.50	Forward	5100	2018	0.08	10	14	17	23	28	33	26	17
SA-8R	1	ERMT36/YC	29.00	17.00	36.00	26.50	26.50	Reverse	5100	2018	0.18	14	17	17	20	25	31	26	16
SA-9S	1	ERMT60/YB	43.00	27.00	60.00	39.00	48.00	Forward	9305	1396	0.13	11	15	14	17	22	28	23	14
SA-9R	1	ERMT60/YB	43.00	27.00	60.00	39.00	48.00	Reverse	9305	1396	0.13	12	17	16	18	23	28	22	14
SA-10S	1	ERMT36/8B	25.00	25.00	36.00	30.50	30.50	Forward	5000	1488	0.16	14	17	24	35	42	53	42	24
SA-10R	1	ERMT36/YA	25.00	25.00	36.00	30.50	30.50	Reverse	5000	1488	0.19	14	19	26	34	42	48	38	22
SA-11S	1	-	-	-	-	-	-	Forward	10250	-	-	10	13	13	18	22	28	21	14
SA-11R	1	-	-	-	-	-	-	Reverse	10250	-	-	11	15	15	20	23	28	21	14
SA-12S	1	ERMT72/8B	33.00	31.00	72.00	51.00	51.00	Forward	7300	1251	0.09	9	12	12	16	20	26	20	13
SA-12R	1	ERMT72/YA	33.00	31.00	72.00	51.00	51.00	Reverse	7300	1251	0.16	11	14	21	28	30	26	17	12
SA-13S	1	RLT72/VD	33.00	31.00	72.00			Forward	7400	1269	0.09	10	14	16	22	27	32	25	16
SA-13R	1	ERMT72/1C	33.00	31.00	72.00	51.00	51.00	Reverse	7400	1269	0.17	12	18	27	34	44	54	42	24
SA-14S	1	ERMT36/8A	45.00	23.00	36.00	35.00	35.00	Forward	8450	1449	0.08	9	13	14	20	24	29	23	15
SA-14R	1	ERMT36/1C	45.00	23.00	36.00	35.00	35.00	Reverse	8450	1449	0.19	11	17	25	31	41	50	39	22
SA-15S	1	ERMT36/8B	25.00	25.00	36.00	30.5	30.5	Forward	5000	1488	0.06	8	10	12	16	14	15	11	9
SA-15R	1	ERMT36/YA	25.00	25.00	36.00	30.5	30.5	Reverse	5000	1488	0.04	8	10	11	14	13	13	10	8
SA-16S	1	ERMT60/VB	43.00	27.00	60.00	39.00	48.00	Forward	9100	1365	0.18	12	16	17	25	28	35	27	17
SA-16R	1	ERMT60/VA	43.00	27.00	60.00	39.00	48.00	Reverse	9100	1365	0.12	10	14	14	17	21	25	19	13
SA-17S	1	ERMT60/8C	39.00	23.00	60.00	41.50	41.50	Forward	7075	1415	0.12	11	16	19	26	32	37	29	18
SA-17R	1	ERMT60/8C	27.00	39.00	60.00	43.50	43.50	Forward	7075	1179	0.12	11	15	17	21	27	30	23	15
SA-18S	1	-	-	-	-	-	-	Forward	10700	-	-	18	25	32	41	49	55	43	25
SA-18R	1	-	-	-	-	-	-	Reverse	10700	-	-	11	17	17	19	24	33	28	18
SA-19S	1	-	-	-	-	-	-	Forward	22000	-	-	9	12	13	16	20	25	20	14
SA-19R	1	-	-	-	-	-	-	Reverse	22000	-	-	18	22	33	47	55	55	54	28
SA-20S	1	ERMT60/1E	37.00	27.00	60.00	39.00	46.00	Forward	7700	FALSE	0.20	17	23	34	41	47	55	55	32
SA-20R	1	ERMT60/1E	37.00	27.00	60.00	43.50	43.50	Reverse	7700	1359	0.18	15	22	33	38	48	55	48	27
SA-21S	1	ERMT36/2A	35.00	35.00	36.00	35.50	35.50	Forward	7000	984	0.19	15	18	25	46	53	55	51	28
SA-21R	1	ERMT36/2A	35.00	35.00	36.00	35.50	35.50	Reverse	7000	984	0.22	16	19	27	45	53	55	46	25
SA-22S	1	ERMT36/8C	35.00	35.00	36.00	35.50	35.50	Forward	7000	984	0.17	17	21	26	39	44	51	39	23
SA-22R	1	ERMT36/1B	35.00	35.00	36.00	35.50	35.50	Reverse	7000	984	0.21	17	21	31	43	52	55	51	27
SA-23S	1	ERMT36/8C	39.00	31.00	36.00	33.5	33.5	Forward	6100	871	0.09	7	10	14	20	23	25	18	12
SA-23R	1	ERMT36/1B	39.00	31.00	36.00	33.5	33.5	Reverse	6100	871	0.11	9	13	15	18	17	16	12	9
SA-24S	1	ERMT36/2A	45.00	19.00	36.00	27.5	27.5	Forward	9100	1950	0.04	6	8	11	16	17	18	14	10
SA-24R	1	ERMT36/2B	45.00	19.00	36.00	27.5	27.5	Reverse	9100	1950	0.12	9	12	17	23	27	27	20	13
SA-MAU	1	ERMT36/2A	33.00	27.00	36.00	31.5	31.5	Reverse	6000	1200	0.12	9	12	17	23	27	27	20	13

① ATTENUATORS SHALL BE SAME SIZE OF DUCTWORK, CONSTRUCTED OF GALVANIZED STEEL, CL1 (22 GA) 22GA PERF LINER, FIBERGLASS, POLYMER FILM; VERIFY ALL DIMENSIONS
② RTU-1,2,3,4,11,18,19 SHALL HAVE INTEGRAL SOUND ATTENUATORS; REFER TO DRAWINGS & SPECIFICATIONS FOR SIZING REQUIREMENTS
③ ATTENUATORS SHALL BE SAME SIZE OF DUCTWORK, CONSTRUCTED OF GALVANIZED STEEL, CL2 (18 GA) 22GA PERF LINER, FIBERGLASS, POLYMER FILM; VERIFY ALL DIMENSIONS
④ ATTENUATORS SHALL BE SAME SIZE OF DUCTWORK, CONSTRUCTED OF GALVANIZED STEEL, HTL2 (10 GA) 22GA PERF LINER, FIBERGLASS, POLYMER FILM; VERIFY ALL DIMENSIONS
⑤ ATTENUATORS SHALL BE SAME SIZE OF DUCTWORK, CONSTRUCTED OF GALVANIZED STEEL, HTL1 (16 GA) 22GA PERF LINER, FIBERGLASS, POLYMER FILM; VERIFY ALL DIMENSIONS
⑥ SOUND ATTENUATOR MODELS LISTED ARE BY PRICE INDUSTRIES. ACCEPTABLE ALTERNATE MANUFACTURERS RUSKIN OR IAC ACOUSTICS.

AIR COOLED HEAT PUMP SCHEDULE

UNIT NUMBER		ACHP-5,7	ACHP-6,14	ACHP-8A	ACHP-8B	ACHP-8C	ACHP-10	ACHP-13
SERVICE		SEE PLANS & VRF RISER SCHEMATIC	SEE PLANS & VRF RISER SCHEMATIC	SEE PLANS & VRF RISER SCHEMATIC	SEE PLANS & VRF RISER SCHEMATIC	SEE PLANS & VRF RISER SCHEMATIC	SEE PLANS & VRF RISER SCHEMATIC	SEE PLANS & VRF RISER SCHEMATIC
MANUFACTURER		DAIKIN	DAIKIN	DAIKIN	DAIKIN	DAIKIN	DAIKIN	DAIKIN
MODEL		RXYQ120XADA	RXYQ96XAYDA	REYQ216AAYDA	REYQ192AAYDA	REYQ72AAYDA	RXTQ48TAVJUA	RXYQ120AYDA
CAPACITY COOLING (MBH)		114	92	201.7	180.5	61.0	45.5	119
CAPACITY HEATING (MBH)		129	103	134.3	125.7	55.4	49.5	80
DESIGN AMBIENT TEMP SUM/WINT(F)		91 / 0	91 / 0	91 / 0	91 / 0	91 / 0	91 / 0	91 / 0
REFRIGERANT		R-410	R-410	R-410	R-410	R-410	R-410	R-410
LINE SIZE O.D. GAS		1-1/8	7/8	1-1/8 (1-1/8HP)	1-1/8 (7/8HP)	3/4 (5/8HP)	5/8	1-1/8 (7/8HP)
LINE SIZE O.D. LIQUID		1/2	3/8	5/8	5/8	3/8	3/8	5/8
IEER (SEER)		12 (25.4)	14 (27.3)	–	–	–	10.3 (18)	22
COP (HSPF @17°F)		3.5 (2.3)	4 (2.6)	–	–	–	– (10)	–
CONDENSER FAN MOTOR – HP		–	–	–	–	–	–	–
CONDENSER FAN MOTOR – RPM		–	–	–	–	–	–	–
ELECTRICAL DATA	VOLTAGE	460V-3ø-60	460V-3ø-60	460V-3ø-60	460V-3ø-60	460V-3ø-60	208V-1ø-60	460V-3ø-60
	MCA	20.6	10.2	30.4	28.3	12.4	29.1	20.6
	MOCP	25	25	35	35	15	35	30
	RLA / LRA	–	–	–	–	–	–	–
NOTES		SEE NOTES	SEE NOTES	SEE NOTES	SEE NOTES	SEE NOTES	SEE NOTES	SEE NOTES

① PROVIDE LOW AMBIENT CONTROLS
② PROVIDE HARD START ASSIST KIT WITH CRANKCASE HEATER.
③ PROVIDE ANTI-SHORT CYCLE TIMER.
④ REFRIGERANT LINE SIZES SHALL BE BY EQUIP. MFR. RECOMMENDED SIZES PER RUN LGTH. VERIFY W/ MFR.
⑤ SPACING BETWEEN BLDG & ADJ CU UNITS SHALL BE PROVIDED AS SPEC. BY EQUIP. MFR.
⑥ PROVIDE EQUIP SUPPORTS FLASHED IN TO ROOFING SYSTEM BY OTHERS
⑦ EACH FC SHALL HAVE LOCAL T'STAT SUPPLIED BY MANUF. PROVIDE ALL CONTROL WIRING REQUIRED FOR SYSTEM OPERATION

IT SERVER ROOM EQUIPMENT SCHEDULE

	UNIT NUMBER	CRAC-1&2
	SERVICE	SEE PLANS
FANS	MANUFACTURER	STULZ
	MODEL NUMBER	CFU-035-D2A-W-IO
	C.F.M.	4800
	E.S.P. (in. w.g.)	0.5"
	VOLTS – PH – Hz	460V-3ø-60Hz
	MOTOR HP	4.2
	MIN. O.A. CFM	–
DX DATA	SERVICE	COOL
	TEMP. ENTERING (DB/WB)	72/60
	TEMP ENTERING RELATIVE HUMIDITY	50%
	TEMP. LEAVING (DB/WB)	55.6/51.3
	TOTAL COOLING CAPACITY (KW)	31.8
	SENSIBLE COOLING CAPACITY (KW)	30.2
CHILL WATER COIL DATA	SERVICE	COOL
	TEMP. ENTERING (DB/WB)	72/60
	TEMP ENTERING RELATIVE HUMIDITY	50%
	TEMP. LEAVING (DB/WB)	61.1
	TOTAL COOLING CAPACITY (KW)	27.2
	SENSIBLE COOLING CAPACITY (KW)	27.2
	FLOW RATE (GPM)	22.6
	UNIT PD (FT)	4.5
	VALVE (Cv)	16
	COIL ROWS / FV	4 / 278
COMP DATA	TYPE / QUANTITY	SCROLL/ 2
	KW	5.3
	REFRIG	R410A
ELEC HEAT	CAPACITY (KW)	9
	STAGES	1
HUMID DATA	CAPACITY (LBS/HR)	4-15 LB/HR
	INPUT (KW)	5.1 KW
	CONTROL	MODULATING
ELEC DATA	VOLT – PH – HZ	460 – 3 – 60
	MCA	30.6
	MOCP	35
SEE NOTES		

IT SERVER AIR COOLED CONDENSER UNIT SCHEDULE

UNIT NUMBER	ACCU-1&2
SERVICE	CRAC-1&2
MANUFACTURER	STULZ
MODEL	SCS-MC-071-DEC
NOMINAL CAPACITY (TONS)	15
NOMINAL COOLING TOTAL CAPACITY (MBH)	184
DESIGN COOLING AMBIENT TEMP (F)	87
–	–
–	–
REFRIGERANT	R-407C
LINE SIZE O.D. GAS	(2)7/8"
LINE SIZE O.D. LIQUID	(2)7/8"
LINE SIZE O.D. HOT GAS REHEAT	–
EER / SEER	–
CONDENSER FAN MOTOR QTY	4
–	–
ELECTRICAL DATA VOLTAGE	460V-3ø-60
MCA	5.8
MOCP	15
RLA / LRA	– / –
NOTES	①②⑤

① REFRIGERANT LINE SIZES SHALL BE BY EQUIP. MFR. RECOMMENDED SIZES PER RUN LGTH. VERIFY W/ MFR.
② SPACING BETWEEN BLDG & ADJ CU UNITS SHALL BE PROVIDED AS SPEC. BY EQUIP. MFR.
⑤ PROVIDE EQUIP SUPPORTS AND ANCHOR ON ROOF STRUCTURE; ROOFING/FLASHING BY DIV.7 CONTRACTOR.

AIR COOLED CONDENSING UNIT SCHEDULE

UNIT NUMBER		ACCU-3 & 4
SERVICE		SEE PLANS & ACCU RISER SCHEMATIC
MANUFACTURER		DAIKIN
MODEL		RXTQ60TAVJUA
CAPACITY COOLING (MBH)		57.5
CAPACITY HEATING (MBH)		57
DESIGN AMBIENT TEMP SUM/WINT(F)		91 / 0
REFRIGERANT		R-410
LINE SIZE O.D. GAS		3/4
LINE SIZE O.D. LIQUID		3/8
IEER (SEER)		9.8 (18)
COP (HSPF)		– (10.3)
CONDENSER FAN MOTOR – HP		–
CONDENSER FAN MOTOR – RPM		–
ELECTRICAL DATA	VOLTAGE	208V-1ø-60
	MCA	29.1
	MOCP	35
	RLA / LRA	–
NOTES		SEE NOTES

① PROVIDE LOW AMBIENT CONTROLS
② PROVIDE HARD START ASSIST KIT WITH CRANKCASE HEATER.
③ PROVIDE ANTI-SHORT CYCLE TIMER.
④ REFRIGERANT LINE SIZES SHALL BE BY EQUIP. MFR. RECOMMENDED SIZES PER RUN LGTH. VERIFY W/ MFR.
⑤ SPACING BETWEEN BLDG & ADJ CU UNITS SHALL BE PROVIDED AS SPEC. BY EQUIP. MFR.
⑥ PROVIDE EQUIP SUPPORTS FLASHED IN TO ROOFING SYSTEM BY OTHERS
⑦ EACH FC SHALL HAVE LOCAL T'STAT SUPPLIED BY MANUF. PROVIDE ALL CONTROL WIRING REQUIRED FOR SYSTEM OPERATION

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299 Highland St
Worcester MA 01602

PROJECT

100% Construction Documents
Final Bid Package #4

Doherty Memorial High School

299 Highland Street, Worcester, MA 01602

DRAWING TITLE

HVAC Schedules

Locus Map

True North

Key Plan

REVISIONS

No.	Description	Date
ADD-3	REVISED	2/3/22
ADD-4	REVISED	2/10/22
ADD-5	REVISED	2/16/22

FILE:
JOB NO: #1904
SCALE: NO SCALE
DWN. BY: FJG
CKD. BY: KRS
DATE: JANUARY 20, 2022

H7.3

HOT WATER COIL SCHEDULE A

		UNIT NUMBER	HWC-A-1	HWC-A-2	HWC-A-3	HWC-A-4	HWC-A-5	HWC-A-6	HWC-A-7
		SERVICE	SEE PLANS	SEE PLANS	SEE PLANS	SEE PLANS	SEE PLANS	SEE PLANS	SEE PLANS
		MANUFACTURER	PRICE	PRICE	PRICE	PRICE	PRICE	PRICE	PRICE
		MODEL #	WC	WC	WC	WC	WC	WC	WC
		FINNED LENGTH	36"	36"	36"	36"	36"	36"	36"
		FINNED HEIGHT	24"	24"	24"	24"	24"	24"	24"
		TUBE/FIN MATERIAL	CU/AL	CU/AL	CU/AL	CU/AL	CU/AL	CU/AL	CU/AL
		AIRFLOW (CFM)	1440	1440	720	1440	720	1440	720
HEATING COIL	AIR DATA	MAX FACE VEL. (FPM)	500	500	500	500	500	500	500
		TEMP. ENTERING (°F)	65	65	65	65	65	65	65
		TEMP. LEAVING (°F)	85	85	85	85	85	85	85
		PRESS. DROP (IN WG)	0.44"	0.44"	0.44"	0.44"	0.44"	0.44"	0.44"
	WATER DATA	GPM	2.0	2.0	2.0	2.0	2.0	2.0	2.0
		CAPACITY (MBH)	20.4	20.4	20.4	20.4	20.4	20.4	20.4
		PRESS. DROP (FT. HD)	1.09	1.09	1.09	1.09	1.09	1.09	1.09
		ROWS / FINS PER FT	1/109	1/109	1/109	1/109	1/109	1/109	1/109
			–	–	–	–	–	–	–
		NOTES							

HOT WATER COILS SIZED FOR 125F ENTERING AND 105°F LEAVING WATER TEMPERATURES.

HOT WATER COIL SCHEDULE B

		UNIT NUMBER	HWC-B-1	HWC-B-2	HWC-B-3	HWC-B-4
		SERVICE	SEE PLANS	SEE PLANS	SEE PLANS	SEE PLANS
		MANUFACTURER	PRICE	PRICE	PRICE	PRICE
		MODEL #	WC	WC	WC	WC
		FINNED LENGTH	36"	36"	36"	36"
		FINNED HEIGHT	24"	24"	24"	24"
		TUBE/FIN MATERIAL	CU/AL	CU/AL	CU/AL	CU/AL
		AIRFLOW (CFM)	1800	1800	1440	1440
HEATING COIL	AIR DATA	MAX FACE VEL. (FPM)	500	500	500	500
		TEMP. ENTERING (°F)	65	65	65	65
		TEMP. LEAVING (°F)	85	85	85	85
		PRESS. DROP (IN WG)	0.44"	0.44"	0.44"	0.44"
	WATER DATA	GPM	2.0	2.0	2.0	2.0
		CAPACITY (MBH)	20.4	20.4	20.4	20.4
		PRESS. DROP (FT. HD)	1.09	1.09	1.09	1.09
		ROWS / FINS PER FT	1/109	1/109	1/109	1/109
			–	–	–	–
		NOTES				

HOT WATER COILS SIZED FOR 125F ENTERING AND 105°F LEAVING WATER TEMPERATURES.

HOT WATER COIL SCHEDULE C

		UNIT NUMBER	HWC-C-1	HWC-C-2	HWC-C-3	HWC-C-4	HWC-C-5	HWC-C-6	HWC-C-7	HWC-C-8	HWC-C-9	HWC-C-10
		SERVICE	SEE PLANS	SEE PLANS	SEE PLANS	SEE PLANS	SEE PLANS	SEE PLANS	SEE PLANS	SEE PLANS	SEE PLANS	SEE PLANS
		MANUFACTURER	PRICE	PRICE	PRICE	PRICE	PRICE	PRICE	PRICE	PRICE	PRICE	PRICE
		MODEL #	WC	WC	WC	WC	WC	WC	WC	WC	WC	WC
		FINNED LENGTH	36"	30"	28"	28"	28"	30"	30"	30"	24"	24"
		FINNED HEIGHT	16"	14"	16"	16"	16"	14"	14"	14"	14"	14"
		TUBE/FIN MATERIAL	CU/AL	CU/AL	CU/AL	CU/AL	CU/AL	CU/AL	CU/AL	CU/AL	CU/AL	CU/AL
		AIRFLOW (CFM)	1800	1380	1440	1440	1440	1440	1440	1440	1080	1080
HEATING COIL	AIR DATA	MAX FACE VEL. (FPM)	500	500	500	500	500	500	500	500	500	500
		TEMP. ENTERING (°F)	65	65	65	65	65	65	65	65	65	65
		TEMP. LEAVING (°F)	85	85	85	85	85	85	85	85	85	85
		PRESS. DROP (IN WG)	0.44"	0.44"	0.44"	0.44"	0.44"	0.44"	0.44"	0.44"	0.44"	0.44"
	WATER DATA	GPM	4.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
		CAPACITY (MBH)	38.9	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4
		PRESS. DROP (FT. HD)	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09
		ROWS / FINS PER FT	1/109	1/109	1/109	1/109	1/109	1/109	1/109	1/109	1/109	1/109
			–	–	–	–	–	–	–	–	–	–
		NOTES										

HOT WATER COILS SIZED FOR 125F ENTERING AND 105°F LEAVING WATER TEMPERATURES. VERIFY ALL DUCT SIZES

HOT WATER COIL SCHEDULE D

		UNIT NUMBER	HWC-D-1	HWC-D-2	HWC-D-3	HWC-D-4	HWC-D-5	HWC-D-6	HWC-D-7
		SERVICE	SEE PLANS	SEE PLANS	SEE PLANS	SEE PLANS	SEE PLANS	SEE PLANS	SEE PLANS
		MANUFACTURER	PRICE	PRICE	PRICE	PRICE	PRICE	PRICE	PRICE
		MODEL #	WC	WC	WC	WC	WC	WC	WC
		FINNED LENGTH	36"	36"	36"	36"	36"	36"	36"
		FINNED HEIGHT	24"	24"	24"	24"	24"	24"	24"
		TUBE/FIN MATERIAL	CU/AL	CU/AL	CU/AL	CU/AL	CU/AL	CU/AL	CU/AL
		AIRFLOW (CFM)	1440	1440	720	1440	720	1440	720
HEATING COIL	AIR DATA	MAX FACE VEL. (FPM)	500	500	500	500	500	500	500
		TEMP. ENTERING (°F)	65	65	65	65	65	65	65
		TEMP. LEAVING (°F)	85	85	85	85	85	85	85
		PRESS. DROP (IN WG)	0.44"	0.44"	0.44"	0.44"	0.44"	0.44"	0.44"
	WATER DATA	GPM	2.0	2.0	2.0	2.0	2.0	2.0	2.0
		CAPACITY (MBH)	20.4	20.4	20.4	20.4	20.4	20.4	20.4
		PRESS. DROP (FT. HD)	1.09	1.09	1.09	1.09	1.09	1.09	1.09
		ROWS / FINS PER FT	1/109	1/109	1/109	1/109	1/109	1/109	1/109
			–	–	–	–	–	–	–
		NOTES							

HOT WATER COILS SIZED FOR 125F ENTERING AND 105°F LEAVING WATER TEMPERATURES.

HOT WATER COIL SCHEDULE E

		UNIT NUMBER	HWC-E-1
		SERVICE	SEE PLANS
		MANUFACTURER	PRICE
		MODEL #	WC
		FINNED LENGTH	30"
		FINNED HEIGHT	18"
		TUBE/FIN MATERIAL	CU/AL
		AIRFLOW (CFM)	1750
HEATING COIL	AIR DATA	MAX FACE VEL. (FPM)	500
		TEMP. ENTERING (°F)	65
		TEMP. LEAVING (°F)	85
		PRESS. DROP (IN WG)	0.44"
	WATER DATA	GPM	4.0
		CAPACITY (MBH)	37.8
		PRESS. DROP (FT. HD)	1.09
		ROWS / FINS PER FT	1/109
			–
		NOTES	

HOT WATER COILS SIZED FOR 125F ENTERING AND 105°F LEAVING WATER TEMPERATURES.

UNIT/CABINET HEATER SCHEDULE

SYMBOL	GPM	EWT	LWT	CFM	DERATED BTUH	ELECTRICAL H.P.	ELECTRICAL PHASE	ELECTRICAL VOLTS	MFG. MODEL NO.	REMARKS
CUH-1	2.0	125	105	220	14,900	1/4	1	120	RITTLING MODEL #RFRW-340-04 (2 ROW) (RECESSED WALL)	①②③④
CUH-2	2.0	125	105	220	14,900	1/4	1	120	RITTLING MODEL #RFRC-420-04 (2 ROW) (RECESSED CEILING)	①②③
CUH-3	1.0	125	105	125	6,100	1/15	1	120	RITTLING MODEL #RFRC-420-04 (1 ROW) (RECESSED CEILING)	①②③
UH-1	1.5	125	105	950	15,500	1/10	1	120	RITTLING MODEL #RH-47	①②③
UH-2	2.25	125	105	1550	21,625	1/6	1	120	RITTLING MODEL #RV-78	①②③⑤
UH-3	5.0	125	105	2500	49,000	1/4	1	120	RITTLING MODEL #RV-139	①②③⑤

– APPROVED MANUFACTURERS ARE RITTLING, STERLING, VULCAIN.

① PROVIDE UNIT MOUNTED DISCONNECT SWITCH.
② ENAMEL FINISH– COLOR BY ARCH.
③ CAPACITY BASED ON 125°F EWT AND 60°F EAT.
④ RECESS UNITS AS FAR INTO WALL FRAMING AS POSSIBLE. V.I.F.
⑤ PROVIDE TOTALLY ENCLOSED MOTOR

VARIABLE AIR VOLUME TERMINAL (VAV) SCHEDULE–SECTION A

Tag	Manuf.	Model	Unit Size	Max Primary (CFM)	Min Primary (CFM)	Inlet SP (in. w.g.)	Min Oper PD (in. w.g.)	Reheat (CFM)	Max Dis NC	WC Capacity (MBH)	Fluid Flow (GPM)	EAT (°F)	LAT (°F)	EWT (°F)	LWT (°F)	FPD (ft. w.g.)	Fluid Type	Glycol %	Rows
VAV-A-1	Price	SDV5	6	360	110	1.50	0.01		25 (2)										
VAV-A-2	Price	SDV5	6	360	110	1.50	0.01		25 (2)										
VAV-A-3	Price	SDV5	6	360	110	1.50	0.01		25 (2)										
VAV-A-4	Price	SDV5	6	360	110	1.50	0.01		25 (2)										
VAV-A-5	Price	SDV5	6	340	105	1.50	0.01		25 (2)										
VAV-A-6	Price	SDV5	10	1440	435	1.50	0.01	720	25 (2)	19440	2.0	65	90	140	120	0.5	water	0	2
VAV-A-7	Price	SDV5	6	300	90	1.50	0.01	150	25 (2)	4050	0.5	65	90	140	120	0.5	water	0	2
VAV-A-8	Price	SDV5	6	300	90	1.50	0.01	150	25 (2)	4050	0.5	65	90	140	120	0.5	water	0	2
VAV-A-9	Price	SDV5	10	1440	435	1.50	0.01	720	25 (2)	19440	2.0	65	90	140	120	0.5	water	0	2
VAV-A-10	Price	SDV5	6	310	95	1.50	0.01	155	25 (2)	4185	0.5	65	90	140	120	0.5	water	0	2
VAV-A-11	Price	SDV5	8	520	160	1.50	0.01	260	25(2)	7020	0.8								
VAV-A-12	Price	SDV5	8	780	235	1.50	0.01	390	25 (2)	10530	1.3	65	90	140	120	0.5	water	0	2
VAV-A-13	Price	SDV5	6	370	115	1.50	0.01	185	25 (2)	4995	0.8	65	90	140	120	0.5	water	0	2
VAV-A-14	Price	SDV5	6	360	110	1.50	0.01	180	25 (2)										
VAV-A-15	Price	SDV5	6	360	110	1.50	0.01	180	25 (2)										
VAV-A-16	Price	SDV5	6	360	110	1.50	0.01	180	25 (2)										
VAV-A-17	Price	SDV5	6	360	110	1.50	0.01	180	25 (2)										
VAV-A-18	Price	SDV5	6	340	105	1.50	0.01	170	25 (2)										
VAV-A-19	Price	SDV5	10	1440	435	1.50	0.01	720	25 (2)	19440	2.0	65	90	140	120	0.5	water	0	2
VAV-A-20	Price	SDV5	6	300	90	1.50	0.01	150	25 (2)	4050	0.5	65	90	140	120	0.5	water	0	2
VAV-A-21	Price	SDV5	6	360	110	1.50	0.01	180	25 (2)										
VAV-A-22	Price	SDV5	6	360	110	1.50	0.01	180	25 (2)										
VAV-A-23	Price	SDV5	6	300	90	1.50	0.01	150	25 (2)	4050	0.5	65	90	140	120	0.5	water	0	2
VAV-A-24	Price	SDV5	8	720	220	1.50	0.01	360	25 (2)	9720	1.0	65	90	140	120	0.5	water	0	2
VAV-A-25	Price	SDV5	6	320	100	1.50	0.01	160	25 (2)	4320	0.5	65	90	140	120	0.5	water	0	2
VAV-A-26	Price	SDV5	6	360	110	1.50	0.01	180	25 (2)										
VAV-A-27	Price	SDV5	6	360	110	1.50	0.01	180	25 (2)										
VAV-A-28	Price	SDV5	6	360	110	1.50	0.01	180	25 (2)										
VAV-A-29	Price	SDV5	6	360	110	1.50	0.01	180	25 (2)										
VAV-A-30	Price	SDV5	6	340	105	1.50	0.01	170	25 (2)										
VAV-A-31	Price	SDV5	10	1440	435	1.50	0.01	720	25 (2)	19440	2.0	65	90	140	120	0.5	water	0	2
VAV-A-32	Price	SDV5	6	300	90	1.50	0.01	150	25 (2)	4050	0.5	65	90	140	120	0.5	water	0	2
VAV-A-33	Price	SDV5	6	360	110	1.50	0.01	180	25 (2)										
VAV-A-34	Price	SDV5	6	360	110	1.50	0.01	180	25 (2)										
VAV-A-35	Price	SDV5	8	430	130	1.50	0.01	215	25 (2)	5805	0.8	65	90	140	120	0.5	water	0	2
VAV-A-36	Price	SDV5	8	720	220	1.50	0.01	360	25 (2)	9720	1.0	65	90	140	120	0.5	water	0	2
VAV-A-37	Price	SDV5	6	320	100	1.50	0.01	160	25 (2)	4320	0.5	65	90	140	120	0.5	water	0	2
VAV-A-38	Price	SDV5	6	360	110	1.50	0.01	180	25 (2)										
VAV-A-39	Price	SDV5	6	360	110	1.50	0.01	180	25 (2)										
VAV-A-40	Price	SDV5	6	360	110	1.50	0.01	180	25 (2)										
VAV-A-41	Price	SDV5	6	360	110	1.50	0.01	180	25 (2)										
VAV-A-42	Price	SDV5	6	280	85	1.50	0.01	140	25 (2)										
VAV-A-43	Price	SDV5	6	340	105	1.50	0.01	170	25 (2)										
VAV-A-44	Price	SDV5	6	280	85	1.50	0.01	140	25 (2)										
VAV-A-45	Price	SDV5	10	1440	435	1.50	0.01	720	25 (2)	19440	2.0	65	90	140	120	0.5	water	0	2
VAV-A-46	Price	SDV5	6	300	90	1.50	0.01	150	25 (2)	4050	0.5	65	90	140	120	0.5	water	0	2
VAV-A-47	Price	SDV5	6	360	110	1.50	0.01	180	25 (2)										
VAV-A-48	Price	SDV5	6	360	110	1.50	0.01	180	25 (2)										
VAV-A-49	Price	SDV5	8	550	165	1.50	0.01	275	25 (2)	7425	1.0	65	90	140	120	0.5	water	0	2
VAV-A-50	Price	SDV5	8	750	225	1.50	0.01	375	25 (2)	10125	1.3	65	90	140	120	0.5	water	0	2
VAV-A-51	Price	SDV5	8	660	200	1.50	0.01	330	25 (2)	8910	1.0	65	90	140	120	0.5	water	0	2

① COORDINATE W/ CONTROLS CONTRACTOR & PROVIDE SAME MANUFACTURER CONTROLLER & ACTUATORS.
② HOT WATER COILS SIZED FOR 125F ENTERING AND 105°F LEAVING WATER TEMPERATURES
③ COORDINATE VOLTAGE WITH CONTROLS CONTRACTOR; PROVIDE TRANSFORMERS AS REQUIRED; EC SHALL PROVIDE 120V 20AMP CIRCUIT ON EACH FLOOR FOR CONTROLS
④ SCHEDULE IS BASED ON PRICE. ACCEPTABLE MANUFACTURERS INCLUDE PRICE, TITUS, NAILOR OR APPROVED EQUAL.

EXHAUST VARIABLE AIR VOLUME TERMINAL (EVAV) SCHEDULE–SECTION A

Tag	Model	Unit Size	Max Primary (CFM)	Min Primary (CFM)	Inlet SP (in. w.g.)	Min Oper PD (in. w.g.)	Reheat (CFM)	Max Dis NC
EVAV-A-1	SDV5	14	1600	480	1.50	0.01		25 (2)
EVAV-A-2	SDV5	8	320	100	1.50	0.01		25 (2)
EVAV-A-3	SDV5	8	320	100	1.50	0.01		25 (2)
EVAV-A-4	SDV5	14	1600	480	1.50	0.01		25 (2)
EVAV-A-5	SDV5	14	1600	480	1.50	0.01		25 (2)
EVAV-A-6	SDV5	8	320	100	1.50	0.01		25 (2)
EVAV-A-7	SDV5	14	1600	480	1.50	0.01		25 (2)
EVAV-A-8	SDV5	8	320	100	1.50	0.01		25 (2)
EVAV-A-9	SDV5	14	1600	480	1.50	0.01		25 (2)
EVAV-A-10	SDV5	8	320	100	1.50	0.01		25 (2)

① COORDINATE W/ CONTROLS CONTRACTOR & PROVIDE SAME MANUFACTURER CONTROLLER & ACTUATORS.
② PROVIDE DISCONNECT SWITCH
③ SCHEDULE IS BASED ON PRICE. ACCEPTABLE MANUFACTURERS INCLUDE PRICE, TITUS, NAILOR OR APPROVED EQUAL.

EXHAUST VARIABLE AIR VOLUME TERMINAL (EVAV) SCHEDULE–SECTION B

Tag	Model	Unit Size	Max Primary (CFM)	Min Primary (CFM)	Inlet SP (in. w.g.)	Min Oper PD (in. w.g.)	Reheat (CFM)	Max Dis NC
EVAV-B-1	SDV5	12	1090	330	1.50	0.01		25 (2)
EVAV-B-2	SDV5	8	490	150	1.50	0.01		25 (2)
EVAV-B-3	SDV5	12	1090	330	1.50	0.01		25 (2)
EVAV-B-4	SDV5	12	1250	375	1.50	0.01		25 (2)
EVAV-B-5	SDV5	12	1070	325	1.50	0.01		25 (2)
EVAV-B-6	SDV5	8	430	130	1.50	0.01		25 (2)
EVAV-B-7	SDV5	12	1070	325	1.50	0.01		25 (2)

① COORDINATE W/ CONTROLS CONTRACTOR & PROVIDE SAME MANUFACTURER CONTROLLER & ACTUATORS.
② PROVIDE DISCONNECT SWITCH
③ SCHEDULE IS BASED ON PRICE. ACCEPTABLE MANUFACTURERS INCLUDE PRICE, TITUS, NAILOR OR APPROVED EQUAL.

VARIABLE AIR VOLUME TERMINAL (EVAV) SCHEDULE–SECTION D

Tag	Model	Unit Size	Max Primary (CFM)	Min Primary (CFM)	Inlet SP (in. w.g.)	Min Oper PD (in. w.g.)	Reheat (CFM)	Max Dis NC
EVAV-D-1	SDV5	12	1140	1140	1.50	0.01		25 (2)
EVAV-D-2	SDV5	8	650	330	1.50	0.01		25 (2)
EVAV-D-3	SDV5	10	830	830	1.50	0.01		25 (2)
EVAV-D-4	SDV5	12	1095	1005	1.50	0.01		25 (2)
EVAV-D-5	SDV5	6	300	190	1.50	0.01		25 (2)
EVAV-D-6	SDV5	8	650	330	1.50	0.01		25 (2)
EVAV-D-7	SDV5	12	1095	1005	1.50	0.01		25 (2)
EVAV-D-8	SDV5	8	615	615	1.50	0.01		25 (2)
EVAV-D-9	SDV5	8	900	600	1.50	0.01		25 (2)
EVAV-D-10	SDV5	6	300	190	1.50	0.01		25 (2)
EVAV-D-11	SDV5	8	870	350	1.50	0.01		25 (2)
EVAV-D-12	SDV5	6	320	100	1.50	0.01		25 (2)
EVAV-D-13	SDV5	6	320	100	1.50	0.01		25 (2)
EVAV-D-14	SDV5	14	1600	480	1.50	0.01		25 (2)
EVAV-D-15	SDV5	14	1600	480	1.50	0.01		25 (2)
EVAV-D-16	SDV5	8	320	100	1.50	0.01		25 (2)
EVAV-D-17	SDV5	14	1600	480	1.50	0.01		25 (2)
EVAV-D-18	SDV5	8	320	100	1.50	0.01		25 (2)
EVAV-D-19	SDV5	14	1600	480	1.50	0.01		25 (2)
EVAV-D-20	SDV5	8	320	100	1.50	0.01		25 (2)
EVAV-D-21	SDV5	14	1600	480	1.50	0.01		25 (2)
EVAV-D-22	SDV5	8	320	100	1.50	0.01		25 (2)
EVAV-D-23	SDV5	8	320	100	1.50	0.01		25 (2)
EVAV-D-24	SDV5	14	1600	480	1.50	0.01		25 (2)
EVAV-D-25	SDV5	14	1600	480	1.50	0.01		25 (2)
EVAV-D-26	SDV5	8	320	100	1.50	0.01		25 (2)
EVAV-D-27	SDV5	14	1600	480	1.50	0.01		25 (2)

① COORDINATE W/ CONTROLS CONTRACTOR & PROVIDE SAME MANUFACTURER CONTROLLER & ACTUATORS.
② PROVIDE DISCONNECT SWITCH
③ SCHEDULE IS BASED ON PRICE. ACCEPTABLE MANUFACTURERS INCLUDE PRICE, TITUS, NAILOR OR APPROVED EQUAL.

VARIABLE AIR VOLUME TERMINAL (EVAV) SCHEDULE–SECTION E

Tag	Model	Unit Size	Max Primary (CFM)	Min Primary (CFM)	Inlet SP (in. w.g.)	Min Oper PD (in. w.g.)	Reheat (CFM)	Max Dis NC
EVAV-E-1	SDV5	12	1090	330	1.50	0.01		25 (2)
EVAV-E-2	SDV5	8	490	150	1.50	0.01		25 (2)
EVAV-E-3	SDV5	12	1090	330	1.50	0.01		25 (2)
EVAV-E-4	SDV5	12	1250	375	1.50	0.01		25 (2)
EVAV-E-5	SDV5	12	1070	325	1.50	0.01		25 (2)
EVAV-E-6	SDV5	8	430	130	1.50	0.01		25 (2)
EVAV-E-7	SDV5	12	1070	325	1.50	0.01		25 (2)
EVAV-E-8	SDV5	12	1070	325	1.50	0.01		25 (2)
EVAV-E-9	SDV5	12	1090	330	1.50	0.01		25 (2)
EVAV-E-10	SDV5	8	490	150	1.50	0.01		25 (2)
EVAV-E-11	SDV5	12	1090	330	1.50	0.01		25 (2)
EVAV-E-12	SDV5	14	1250	375	1.50	0.01		25 (2)
EVAV-E-13	SDV5	12	1070	325	1.50	0.01		25 (2)
EVAV-E-14	SDV5	8	430	130	1.50	0.01		25 (2)
EVAV-E-15	SDV5	12	1070	325	1.50	0.01		25 (2)
EVAV-E-16	SDV5	12	1070	325	1.50	0.01		25 (2)
EVAV-E-17	SDV5	12	1090	330	1.50	0.01		25 (2)
EVAV-E-18	SDV5	8	490	150	1.50	0.01		25 (2)
EVAV-E-19	SDV5	12	1090	330	1.50	0.01		25 (2)
EVAV-E-20	SDV5	14	1250	375	1.50	0.01		25 (2)
EVAV-E-21	SDV5	12	1070	325	1.50	0.01		25 (2)
EVAV-E-22	SDV5	16	1680	505	1.50	0.01		25 (2)
EVAV-E-23	SDV5	8	430	130	1.50	0.01		25 (2)
EVAV-E-24	SDV5	16	1650	495	1.50	0.01		25 (2)
EVAV-E-25	SDV5	16	1650	495	1.50	0.01		25 (2)
EVAV-E-26	SDV5	10	430	130	1.50	0.01		25 (2)

① COORDINATE W/ CONTROLS CONTRACTOR & PROVIDE SAME MANUFACTURER CONTROLLER & ACTUATORS.
② PROVIDE DISCONNECT SWITCH
③ SCHEDULE IS BASED ON PRICE. ACCEPTABLE MANUFACTURERS INCLUDE PRICE, TITUS, NAILOR OR APPROVED EQUAL.

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DRAWING TITLE

HVAC Schedules

Locus Map

True North

Key Plan

REVISIONS

ADD-3	REVISED	2/3/22
ADD-4	REVISED	2/10/22
ADD-5	REVISED	2/16/22

FILE:
JOB NO: #1904
SCALE: NO SCALE
DWN. BY: FJG
CKD. BY: KRS
DATE: JANUARY 20, 2022

H7.4

VARIABLE AIR VOLUME TERMINAL (VAV) SCHEDULE–SECTION B

Tag	Model	Unit Size	Max Primary (CFM)	Min Primary (CFM)	Inlet SP (in. w.g.)	Min Oper PD (in. w.g.)	Reheat (CFM)	Max Dis NC	WC Capacity (MBH)	Fluid Flow (GPM)	EAT (°F)	LAT (°F)	EWT (°F)	LWT (°F)	FPD (ft. w.g.)	Fluid Type	Glycol %	Rows
VAV-B-1	SDV5	8	760	230	1.50	0.01	345	25 (2)	9315	1.0	65	90	140	120	0.5	water	0	1
VAV-B-2	SDV5	24X16	4240	1275	1.50	0.01	1910	25 (2)	51570	5.5	65	90	140	120	0.5	water	0	1
VAV-B-3	SDV5	8	480	145	1.50	0.01	220	25 (2)	5940	0.8	65	90	140	120	0.5	water	0	1
VAV-B-4	SDV5	6	360	110	1.50	0.01	165	25 (2)	4455	0.5	65	90	140	120	0.5	water	0	1
VAV-B-5	SDV5	6	340	105	1.50	0.01	155	25 (2)										
VAV-B-6	SDV5	6	240	75	1.50	0.01	110	25 (2)	2970	0.5	65	90	140	120	0.5	water	0	1
VAV-B-7	SDV-5	8	500	150	1.50	0.01	225	25(2)	6075	0.8	65	90	140	120	0.5	water	0	1
VAV-B-8	SDV5	6	360	110	1.50	0.01	165	25 (2)										
VAV-B-9	SDV5	6	360	110	1.50	0.01	165	25 (2)										
VAV-B-10	SDV5	6	360	110	1.50	0.01	165	25 (2)										
VAV-B-11	SDV5	6	360	110	1.50	0.01	165	25(2)										
VAV-B-12	SDV5	6	360	110	1.50	0.01	165	25 (2)										
VAV-B-13	SDV5	6	340	105	1.50	0.01	155	25 (2)										
VAV-B-14	SDV5	6	360	110	1.50	0.01	165	25 (2)										
VAV-B-15	SDV5	6	360	110	1.50	0.01	165	25 (2)										
VAV-B-16	SDV5	6	360	110	1.50	0.01	165	25 (2)										
VAV-B-17	SDV5	6	360	110	1.50	0.01	165	25 (2)										
VAV-B-18	SDV5	6	360	110	1.50	0.01	165	25 (2)										
VAV-B-19	SDV5	6	250	75	1.50	0.01	115	25 (2)										
VAV-B-20	SDV5	6	360	110	1.50	0.01	165	25 (2)										
VAV-B-21	SDV5	6	360	110	1.50	0.01	165	25 (2)										
VAV-B-22	SDV5	6	360	110	1.50	0.01	165	25 (2)										
VAV-B-23	SDV5	6	360	110	1.50	0.01	165	25 (2)										
VAV-B-24	SDV5	6	340	105	1.50	0.01	155	25 (2)										
VAV-B-25	SDV5	6	360	110	1.50	0.01	165	25 (2)										
VAV-B-26	SDV5	6	360	110	1.50	0.01	165	25 (2)										
VAV-B-27	SDV5	6	360	110	1.50	0.01	165	25 (2)										
VAV-B-28	SDV5	6	360	110	1.50	0.01	165	25 (2)										
VAV-B-29	SDV5	6	350	105	1.50	0.01	160	25 (2)	4320	0.5	65	90	140	120	0.5	water	0	1
VAV-B-30	SDV5	8	640	195	1.50	0.01	290	25 (2)	7830	1.0	65	90	140	120	0.5	water	0	1
VAV-B-31	SDV5	6	300	90	1.50	0.01	135	25 (2)	3645	0.5	65	90	140	120	0.5	water	0	1
VAV-B-32	SDV5	6	360	110	1.50	0.01	165	25 (2)										
VAV-B-33	SDV5	6	360	110	1.50	0.01	165	25 (2)										
VAV-B-34	SDV5	6	360	110	1.50	0.01	165	25 (2)										
VAV-B-35	SDV5	6	340	105	1.50	0.01	155	25 (2)										
VAV-B-36	SDV5	8	820	250	1.50	0.01	370	25 (2)	9990	1.3	65	90	140	120	0.5	water	0	1
VAV-B-37	SDV5	6	360	110	1.50	0.01	165	25 (2)										
VAV-B-38	SDV5	6	360	110	1.50	0.01	165	25 (2)										
VAV-B-39	SDV5	6	360	110	1.50	0.01	165	25 (2)										
VAV-B-40	SDV5	6	360	110	1.50	0.01	165	25 (2)										
VAV-B-41	SDV5	8	500	150	1.50	0.01	225	25 (2)	6075	0.8	65	90	140	120	0.5	water	0	1
VAV-B-42	SDV5	10	1020	310	1.50	0.01	460	25 (2)	12420	1.5	65	90	140	120	0.5	water	0	1
VAV-B-43	SDV5	8	500	150	1.50	0.01	225	25 (2)	6075	0.8	65	90	140	120	0.5	water	0	1
VAV-B-44	SDV5	6	360	110	1.50	0.01	165	25 (2)										

① COORDINATE W/ CONTROLS CONTRACTOR & PROVIDE SAME MANUFACTURER CONTROLLER & ACTUATORS.
② HOT WATER COILS SIZED FOR 140F ENTERING AND 120°F LEAVING WATER TEMPERATURES
③ PROVIDE DISCONNECT SWITCH
④ SCHEDULE IS BASED ON PRICE. ACCEPTABLE MANUFACTURERS INCLUDE PRICE, TITUS, NAILOR OR APPROVED EQUAL.

VARIABLE AIR VOLUME TERMINAL (VAV) SCHEDULE–SECTION C

Tag	Model	Unit Size	Max Primary (CFM)	Min Primary (CFM)	Inlet SP (in. w.g.)	Min Oper PD (in. w.g.)	Reheat (CFM)	Max Dis NC	WC Capacity (MBH)	Fluid Flow (GPM)	EAT (°F)	LAT (°F)	EWT (°F)	LWT (°F)	FPD (ft. w.g.)	Fluid Type	Glycol %	Rows
VAV-C-1	SDV5	6	360	110	1.50	0.01	165	25 (2)										
VAV-C2	SDV5	6	360	110	1.50	0.01	165	25 (2)										
VAV-C-3	SDV5	6	360	110	1.50	0.01	165	25 (2)										
VAV-C-4	SDV5	6	360	110	1.50	0.01	165	25 (2)										
VAV-C-5	SDV5	6	360	110	1.50	0.01	165	25 (2)										
VAV-C-6	SDV5	6	340	105	1.50	0.01	155	25 (2)										
VAV-C-7	SDV5	8	460	140	1.50	0.01	210	25(2)	5670	0.8	65	90	140	120	0.5	water	0	2
VAV-C-8	SDV5	8	460	140	1.50	0.01	210	25 (2)										
VAV-C-9	SDV5	8	460	140	1.50	0.01	210	25 (2)										
VAV-C-10	SDV5	4	120	40	1.50	0.01	55	25 (2)	1485	0.3	65	90	140	120	0.5	water	0	2
VAV-C-11	SDV5	4	170	55	1.50	0.01	80	25 (2)	2160	0.3	65	90	140	120	0.5	water	0	2
VAV-C-12	SDV5	4	160	50	1.50	0.01	75	25 (2)	2025	0.3	65	90	140	120	0.5	water	0	2
VAV-C-12	SDV5	6	280	85	1.50	0.01	130	25 (2)	3510	0.5	65	90	140	120	0.5	water	0	2
VAV-C-13	SDV5	6	230	70	1.50	0.01	105	25(2)	2835	0.5	65	90	140	120	0.5	water	0	2
VAV-C-14	SDV5	6	230	70	1.50	0.01	105	25 (2)	2835	0.5	65	90	140	120	0.5	water	0	2
VAV-C-15	SDV5	6	360	110	1.50	0.01	165	25 (2)										
VAV-C-16	SDV5	6	270	85	1.50	0.01	125	25 (2)										
VAV-C-17	SDV5	6	360	110	1.50	0.01	165	25 (2)										
VAV-C-18	SDV5	6	360	110	1.50	0.01	165	25 (2)										
VAV-C-19	SDV5	6	340	105	1.50	0.01	155	25 (2)										
VAV-C-20	SDV5	6	360	110	1.50	0.01	165	25 (2)										
VAV-C-21	SDV5	6	360	110	1.50	0.01	165	25 (2)										
VAV-C-22	SDV5	6	360	110	1.50	0.01	165	25 (2)										
VAV-C-23	SDV5	6	360	110			165											
VAV-C-24	SDV5	4	170	55	1.50	0.01	80	25 (2)										
VAV-C-25	SDV5	6	400	120	1.50	0.01	180	25 (2)	4860	0.5	65	90	140	120	0.5	water	0	2
VAV-C-26	SDV5	6	360	110	1.50	0.01	165	25 (2)										
VAV-C-27	SDV5	6	360	110	1.50	0.01	165	25 (2)										
VAV-C-28	SDV5	6	360	110	1.50	0.01	165	25 (2)										
VAV-C-29	SDV5	6	360	110	1.50	0.01	165	25 (2)										
VAV-C-30	SDV5	6	200	60	1.50	0.01	90	25 (2)	2430	0.3	65	90	140	120	0.5	water	0	2
VAV-C-31	SDV5	6	360	110	1.50	0.01	165	25 (2)										
VAV-C-32	SDV5	6	360	110	1.50	0.01	165	25 (2)										
VAV-C-33	SDV5	6	360	110	1.50	0.01	165	25 (2)										
VAV-C-34	SDV5	6	370	115	1.50	0.01	170	25 (2)	4590	0.5	65	90	140	120	0.5	water	0	2
VAV-C-35	SDV5	4	170	55	1.50	0.01	80	25 (2)	2160	0.3	65	90	140	120	0.5	water	0	2
VAV-C-36	SDV5	8	800	240	1.50	0.01	360	25 (2)										
VAV-C-37	SDV5	8	800	240	1.50	0.01	360	25 (2)										
VAV-C-38	SDV5	8	800	240	1.50	0.01	360	25 (2)										
VAV-C-39	SDV5	8	800	240	1.50	0.01	360	25 (2)										

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DC–1 SCHEDULE

1.0 OPEN TYPE DUST COLLECTOR

1.1 GENERALITIES
The project in it's whole and the dust collection equipment shall conform to NFPA 664. The dust collector shall be of the open type such as MAXIPLY and will be equipped with envelope filters as manufactured by A.Q.C.

1.2 COMPONENTS

The dust collector shall be built with the following components:

- Body of the collector
- Blower
- Filter section
- Hopper and deflector
- Drum with quick release ramp

1.3 Body of the collector
The dust collector will be formed with a supporting structure without a casing,with a hopper and a 25 gal drum with a quick release slide for easy removal without tools. No flexible hose connection between hopper and filter section will be accepted. The hopper should include a deflector to insure the conversion of air velocity to an even upflow of air into the envelope filters.

The body of the collector will be composed of vertical supports forming the filter suspension system. The dust collector shall be shipped knocked down to insure easy passage through standard building access doors.

The envelope filters shall be accessible from all four sides.

The finish of the dust collector shall be :

Thorough cleaning of the metal
Application of a polyurethane base coat
Two coats of polyurethane paint of standard light gray finish.

1.4 BLOWER
The blower shall be centrifugal, radial type aluminium blades, arr # 4 direct drive .

The blower shall be installed upstream of the collector and will blow air into the collector.

Motor will be TEFC type.

1.1 FILTRATION SECTION
The filter section shall be composed of several enveloppes shapped into a inverted "V" and held to the suspension bar with elastic type bands.

The envelope filters shall have a total fitering area of 270 sq feet and made from a 14 oz. polyester felt fabric.

1.2 SPECIFICATION

FILTER SECTION

Make:	AQC Inc
Model:	DMP-350S
Filter surface :	glazed for minimal dust cake
Filtration area:	350 sq. ft
Filtration efficiency :	95-99% on 5-10 micron particles
Air volume :	3200 CFM
Air/cloth ratio :	8 to 1
Filter cleaning :	manual with handle and rocker cam

BLOWER SECTION

Model:	RBE-13
Type of wheel:	Radial-Aluminium AMCA type B
Drive:	Direct, arr # 4
DB level :	not to exceed 75 at 5'
Air volume	3200 CFM
Total static pressure	8 in.
Motor:	TEFC, 7.5 H P at 1750 RPM
Electrical characteristics:	460/3/60

1.3 SPARK DETECTION/ EXTINGUISHMENT SYSTEM
Dust Collection System shall be equipped with Spark Detection / Extinguishment System to comply with National Fire Protection Association standards (NFPA) 664, and 72 guidelines.
The system shall be the AN104 as manufactured by Hansentek. All components shall be new and Factory Mutual (FM) approved.
The system shall comprise of the following components:
Hansentek **AN104** (NEMA12) Programmable Control Panel with built-in automatic and manual sensitivity checking of detectors.
The system shall provide supervision on all input and output circuits and shall include Shutdown and Abort Damper relays as well as Alarm and Trouble relays for notification to Fire Alarm or PLC panels.
It shall be fitted with an LCD display to annunciate alarm and trouble conditions and shall maintain at least 2000 events in a time-stamped, displayable memory.
The control panel shall also have the capability of monitoring a baghouse heat detector and controlling a baghouse deluge.

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PROJECT

100% Construction Documents
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299 Highland Street, Worcester, MA 01602

DRAWING TITLE

HVAC Schedules

Locus Map

True North

Key Plan

REVISIONS

ADD-3	REVISED	2/3/22
ADD-4	REVISED	2/10/22
ADD-5	REVISED	2/16/22

FILE:
JOB NO: #1904
SCALE: NO SCALE
DWN. BY: FJG
CKD. BY: KRS
DATE: JANUARY 20, 2022

H7.5

VARIABLE AIR VOLUME TERMINAL (VAV) SCHEDULE–SECTION C continued

Tag	Model	Unit Size	Max Primary (CFM)	Min Primary (CFM)	Inlet SP (in. w.g.)	Min Oper PD (in. w.g.)	Reheat (CFM)	Max Dis NC	WC Capacity (MBH)	Fluid Flow (GPM)	EAT (°F)	LAT (°F)	EWT (°F)	LWT (°F)	FPD (ft. w.g.)	Fluid Type	Glycol %	Rows
VAV-C-40	SDV5	6	200	60	1.50	0.01	90	25 (2)	2430	0.3	65	90	140	120	0.5	water	0	2
VAV-C-41	SDV5	6	360	110	1.50	0.01	165	25 (2)										
VAV-C-42	SDV5	6	360	110	1.50	0.01	165	25 (2)										
VAV-C-43	SDV5	6	360	110	1.50	0.01	165	25 (2)										
VAV-C-44	SDV5	6	360	110	1.50	0.01	165	25 (2)										
VAV-C-45	SDV5	8	800	240	1.50	0.01	360	25 (2)	9720	1.0	65	90	140	120	0.5	water	0	2
VAV-C-46	SDV5	10	960	290	1.50	0.01	435	25 (2)	11745	1.3	65	90	140	120	0.5	water	0	2
VAV-C-47	SDV5	6	360	110	1.50	0.01	165	25 (2)										
VAV-C-48	SDV5	6	360	110	1.50	0.01	165	25 (2)										
VAV-C-49	SDV5	6	360	110	1.50	0.01	165	25 (2)										
VAV-C-50	SDV5	6	200	60	1.50	0.01	90	25 (2)	2430	0.3	65	90	140	120	0.5	water	0	1
VAV-C-51	SDV5	8	800	240	1.50	0.01	360	25 (2)	9720	1.0	65	90	140	120	0.5	water	0	1
VAV-C-52	SDV5	6	360	110	1.50	0.01	165	25 (2)										
VAV-C-53	SDV5	6	360	110	1.50	0.01	165	25 (2)										
VAV-C-54	SDV5	6	360	110	1.50	0.01	165	25 (2)										
VAV-C-55	SDV5	10	1290	390	1.50	0.01	585	25 (2)	15795	1.8	65	90	140	120	0.5	water	0	1
VAV-C-56	SDV5	8	600	180	1.50	0.01	270	25 (2)	7290	0.8	65	90	140	120	0.5	water	0	1
VAV-C-57	SDV5	10	1060	320	1.50	0.01	480	25 (2)	12960	1.5	65	90	140	120	0.5	water	0	1

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③ PROVIDE DISCONNECT SWITCH
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VARIABLE AIR VOLUME TERMINAL (VAV) SCHEDULE–SECTION D

Tag	Model	Unit Size	Max Primary (CFM)	Min Primary (CFM)	Inlet SP (in. w.g.)	Min Oper PD (in. w.g.)	Reheat (CFM)	Max Dis NC	WC Capacity (MBH)	Fluid Flow (GPM)	EAT (°F)	LAT (°F)	EWT (°F)	LWT (°F)	FPD (ft. w.g.)	Fluid Type	Glycol %	Rows
VAV-D-1	SDV5	10	1040	315	1.50	0.01	470	25 (2)	12690	1.5	65	90	140	120	0.5	water	0	2
VAV-D-2	SDV5	8	560	170	1.50	0.01	255	25 (2)	6885	0.8	65	90	140	120	0.5	water	0	2
VAV-D-3	SDV5	8	750	225	1.50	0.01	340	25 (2)	9180	1.0	65	90	140	120	0.5	water	0	2
VAV-D-4	SDV5	8	890	270	1.50	0.01	405	25 (2)	10935	1.3	65	90	140	120	0.5	water	0	2
VAV-D-5	SDV5	10	915	275	1.50	0.01	415	25 (2)	11205	1.3	65	90	140	120	0.5	water	0	2
VAV-D-6	SDV5	10	915	275	1.50	0.01	415	25 (2)	11205	1.3	65	90	140	120	0.5	water	0	2
VAV-D-7	SDV5	8	560	170	1.50	0.01	255	25(2)	6885	0.8	65	90	140	120	0.5	water	0	2
VAV-D-8	SDV5	8	610	185	1.50	0.01	275	25 (2)	7425	1.0	65	90	140	120	0.5	water	0	2
VAV-D-9	SDV5	8	870	265	1.50	0.01	395	25 (2)	10665	1.3	65	90	140	120	0.5	water	0	2
VAV-D-10	SDV5	6	270	85	1.50	0.01	125	25 (2)	3375	0.5	65	90	140	120	0.5	water	0	2
VAV-D-11	SDV5	4	190	60	1.50	0.01	90	25 (2)	2430	0.3	65	90	140	120	0.5	water	0	1
VAV-D-12	SDV5	8	640	195	1.50	0.01	290	25 (2)	7830	1.0	65	90	140	120	0.5	water	0	2
VAV-D-13	SDV5	8	560	170	1.50	0.01	255	25 (2)	6885	0.8	65	90	140	120	0.5	water	0	2
VAV-D-14	SDV5	8	730	220	1.50	0.01	330	25 (2)	8910	1.0	65	90	140	120	0.5	water	0	2
VAV-D-15	SDV5	4	70	25	1.50	0.01	35	25 (2)	945	0.3	65	90	140	120	0.5	water	0	2
VAV-D-16	SDV5	4	170	55	1.50	0.01	80	25 (2)	2160	0.3	65	90	140	120	0.5	water	0	2
VAV-D-17	SDV5	12	1680	505	1.50	0.01	760	25(2)	20520	2.3	65	90	140	120	0.5	water	0	2
VAV-D-18	SDV5	10	1000	300	1.50	0.01	450	25 (2)	12150	1.3	65	90	140	120	0.5	water	0	2
VAV-D-19	SDV5	10	1000	300	1.50	0.01	450	25 (2)	12150	1.3	65	90	140	120	0.5	water	0	2
VAV-D-20	SDV5	10	1000	300	1.50	0.01	450	25 (2)	12150	1.3	65	90	140	120	0.5	water	0	2
VAV-D-21	SDV5	10	1000	300	1.50	0.01	450	25 (2)	12150	1.3	65	90	140	120	0.5	water	0	2
VAV-D-22	SDV5	6	200	60	1.50	0.01	90	25 (2)	2430	0.3	65	90	140	120	0.5	water	0	1
VAV-D-23	SDV5	6	200	60	1.50	0.01	90	25 (2)	2430	0.3	65	90	140	120	0.5	water	0	2
VAV-D-24	SDV5	12	1680	505	1.50	0.01	760	25(2)	20520	2.3	65	90	140	120	0.5	water	0	2
VAV-D-25	SDV5	10	890	270	1.50	0.01	405	25 (2)	10935	1.3	65	90	140	120	0.5	water	0	2
VAV-D-26	SDV5	12	1650	495	1.50	0.01	745	25 (2)	20115	2.3	65	90	140	120	0.5	water	0	2
VAV-D-27	SDV5	8	445	135	1.50	0.01	205	25 (2)	5535	0.8	65	90	140	120	0.5	water	0	2
VAV-D-28	SDV5	12	1650	495	1.50	0.01	745	25 (2)	20115	2.3	65	90	140	120	0.5	water	0	2
VAV-D-29	SDV5	10	960	290	1.50	0.01	435	25 (2)	11745	1.3	65	90	140	120	0.5	water	0	2
VAV-D-30	SDV5	10	1000	300	1.50	0.01	450	25 (2)	12150	1.3	65	90	140	120	0.5	water	0	1
VAV-D-31	SDV5	6	310	95	1.50	0.01	140	25 (2)	3780	0.5	65	90	140	120	0.5	water	0	2
VAV-D-32	SDV5	10	1000	300	1.50	0.01	450	25 (2)	12150	1.3	65	90	140	120	0.5	water	0	2
VAV-D-33	SDV5	10	1000	300	1.50	0.01	450	25 (2)	12150	1.3	65	90	140	120	0.5	water	0	2
VAV-D-34	SDV5	6	360	110	1.50	0.01	165	25(2)										
VAV-D-35	SDV5	6	360	110	1.50	0.01	165	25 (2)										
VAV-D-36	SDV5	6	360	110	1.50	0.01	165	25 (2)										
VAV-D-37	SDV5	6	360	110	1.50	0.01	165	25 (2)										
VAV-D-38	SDV5	6	200	60	1.50	0.01	90	25 (2)	2430	0.3	65	90	140	120	0.5	water	0	2
VAV-D-39	SDV5	12	1680	505	1.50	0.01	760	25 (2)	20520	2.3	65	90	140	120	0.5	water	0	2
VAV-D-40	SDV5	10	890	270	1.50	0.01	405	25 (2)	10935	1.3	65	90	140	120	0.5	water	0	2
VAV-D-41	SDV5	12	1650	495	1.50	0.01	745	25 (2)	20115	2.3	65	90	140	120	0.5	water	0	2
VAV-D-42	SDV5	12	1650	495	1.50	0.01	745	25 (2)	20115	2.3	65	90	140	120	0.5	water	0	2
VAV-D-43	SDV5	10	890	270	1.50	0.01	405	25 (2)	10935	1.3	65	90	140	120	0.5	water	0	2
VAV-D-44	SDV5	12	1680	505	1.50	0.01	760	25 (2)	20520	2.3	65	90	140	120	0.5	water	0	2
VAV-D-45	SDV5	6	310	95	1.50	0.01	140	25 (2)	3780	0.5	65	90	140	120	0.5	water	0	2
VAV-D-46	SDV5	6	360	110	1.50	0.01	165	25 (2)										
VAV-D-47	SDV5	6	360	110	1.50	0.01	165	25 (2)										
VAV-D-48	SDV5	6	360	110	1.50	0.01	165	25 (2)										
VAV-D-49	SDV5	6	360	110	1.50	0.01	165	25 (2)										
VAV-D-50	SDV5	6	200	60	1.50	0.01	90	25 (2)	2430	0.3	65	90	140	120	0.5	water	0	2
VAV-D-51	SDV5	12	1680	505	1.50	0.01	760	25 (2)	20520	2.3	65	90	140	120	0.5	water	0	2
VAV-D-52	SDV5	10	890	270	1.50	0.01	405	25 (2)	10935	1.3	65	90	140	120	0.5	water	0	2
VAV-D-53	SDV5	12	1650	495	1.50	0.01	745	25 (2)	20115	2.3	65	90	140	120	0.5	water	0	2
VAV-D-54	SDV5	12	1650	495	1.50	0.01	745	25 (2)	20115	2.3	65	90	140	120	0.5	water	0	2
VAV-D-55	SDV5	10	890	270	1.50	0.01	405	25 (2)	10935	1.3	65	90	140	120	0.5	water	0	2
VAV-D-56	SDV5	12	1680	505	1.50	0.01	760	25 (2)	20520	2.3	65	90	140	120	0.5	water	0	2
VAV-D-57	SDV5	10	1000	300	1.50	0.01	450	25 (2)	12150	1.3	65	90	140	120	0.5	water	0	2
VAV-D-58	SDV5	4	90	30	1.50	0.01	45	25 (2)	1215	0.3	65	90	140	120	0.5	water	0	2
VAV-D-59	SDV5	4	110	35	1.50	0.01	50	25 (2)	1350	0.3	65	90	140	120	0.5	water	0	2
VAV-D-60	SDV5	10	940	285	1.50	0.01	425	25 (2)	11475	1.3	65	90	140	120	0.5	water	0	2

① COORDINATE W/ CONTROLS CONTRACTOR & PROVIDE SAME MANUFACTURER CONTROLLER & ACTUATORS.
② HOT WATER COILS SIZED FOR 140F ENTERING AND 120'F LEAVING WATER TEMPERATURES
③ PROVIDE DISCONNECT SWITCH
④ SCHEDULE IS BASED ON PRICE. ACCEPTABLE MANUFACTURERS INCLUDE PRICE, TITUS, NAILOR OR APPROVED EQUAL.

DIFFUSER & REGISTER SCHEDULE

KEY	SD–1	SD–2	SD–3	SD–4	SD–5	SR–1	SR–2	SR–3	SR–4	SR–5	SR–6	SR–7	SR–8
MANUFACTURER	PRICE	PRICE	PRICE	PRICE	PRICE	PRICE	PRICE	PRICE	PRICE	PRICE	PRICE	PRICE	PRICE
MODEL	AMDA	AMDA	AMDA	AMDA	AMDA	620 SERIES	620 SERIES	620 SERIES	620 SERIES	620 SERIES	620 SERIES	620 SERIES	620 SERIES
NECK SIZE	9"x9"–8"ø	12"x12"–10"ø	15"x15"–12"ø	18"x18"–14"ø	21"x21"–16"ø	12"x4"	12"x6"	16"x6"	16"x8"	20"x8"	24"x16"	30"x16"	24"x48"
MODULE SIZE	24"x24"	24"x24"	24"x24"	24"x24"	24"x24"	–	–	–	–	–	–	–	–
BORDER	SEE NOTE 5	SEE NOTE 5	SEE NOTE 5	SEE NOTE 5	SEE NOTE 5	SURFACE	SURFACE	SURFACE	SURFACE	SURFACE	SURFACE	SURFACE	SURFACE
FINISH	SEE NOTE 4	SEE NOTE 4	SEE NOTE 4	SEE NOTE 4	SEE NOTE 4	SEE NOTE 4	SEE NOTE 4	SEE NOTE 4	SEE NOTE 4	SEE NOTE 4	SEE NOTE 4	SEE NOTE 4	SEE NOTE 4
THROW PATTERN	SEE PLANS	SEE PLANS	SEE PLANS	SEE PLANS	SEE PLANS	DBL DEFL	DBL DEFL	DBL DEFL	DBL DEFL	DBL DEFL	DBL DEFL	DBL DEFL	DBL DEFL
DAMPER	OBD	OBD	OBD	OBD	OBD	OBD	OBD	OBD	OBD	OBD	OBD	OBD	OBD
NOTES	①②③	①②③	①②③	①②③	①②③	①②③	①②③	①②③	①②③	①②③	①②③	①②③	①②③④

① COORDINATE WITH ARCHITECTURAL CEILING PLAN FOR FINAL LOCATION;
② TRANSITION FROM DIFFUSER/REGISTER/GRILLE CONNECTION SIZE TO DUCT SIZE
③ REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION & APPROVED ALTERNATIVE EQUIPMENT MANUFACTURERS.
④ FINISH AND COLOR SELECTION BY ARCHITECT.
⑤ PROVIDE SURFACE MOUNT OR LAY–IN AS NEEDED; REFER TO ARCH CEILING PLANS FOR TYPES REQUIRED.
⑥ REQUIRES 2 PIECE SPLIT REGISTER. PROVIDE ALL REQUIRED MULLIONS

LINEAR DIFFUSER SCHEDULE

KEY	LD–1	LD–1C CURVED	LD–2	LD–3	LD–4	LD–5	LD–6	LR–1	LR–2	LR–3
MANUFACTURER	PRICE	PRICE	PRICE	PRICE	PRICE	PRICE	PRICE	PRICE	PRICE	PRICE
MODEL	SDS100 2SLOT	SDS100 2SLOT	SDS100 2SLOT	SDS100 4SLOT	SDS100 2SLOT	LV1 9–1/2"	JSP210 1SLOT	SDS100 2SLOT	LV1 9–1/2"	JSP210 1SLOT
NECK SIZE	CONTINUOUS	CONTINUOUS	4'–0" LONG	6'–0" LONG	8'–0" LONG	6'–0" LONG	8'–0" LONG	CONTINUOUS	4'–0" LONG	8'–0" LONG
MODULE SIZE	–	–	–	–	–	–	–	–	–	–
BORDER	SEE NOTE 5	SEE NOTE 5	SEE NOTE 5	SEE NOTE 5	SEE NOTE 5	SEE NOTE 5	SEE NOTE 5	SEE NOTE 5	SEE NOTE 5	SEE NOTE 5
FINISH	SEE NOTE 4	SEE NOTE 4	SEE NOTE 4	SEE NOTE 4	SEE NOTE 4	SEE NOTE 4	SEE NOTE 4	SEE NOTE 4	SEE NOTE 4	SEE NOTE 4
THROW PATTERN	–	–	–	–	–	1 WAY DFL	–	–	1 WAY DFL	–
DAMPER	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
NOTES	①②③⑤	①②③⑤	①②③⑤	①②③⑤⑥	①②③⑤	①②③⑤	①②③⑦	①②③⑤	①②③⑤	①②③⑦

① COORDINATE WITH ARCHITECTURAL CEILING PLAN FOR FINAL LOCATION;
② PROVIDE INSULATED PLENUM BOXES W/ INLET SAME SIZE AS SUPPLY OR RETURN DUCT ATTACHED TO LD & LR AS SHOWN ON PLANS; PROVIDE INSULATED SHEETMETAL BLANKOFF PANELS AT UNUSED PORTIONS OF LD & LR; PLENUM BOXES FOR TYPE LD–3 SHALL BE SLOPED SHOULDER TYPE.
③ REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION & APPROVED ALTERNATIVE EQUIPMENT MANUFACTURERS.
④ FINISH AND COLOR SELECTION BY ARCHITECT.
⑤ PROVIDE SURFACE MOUNT OR LAY–IN AS NEEDED; REFER TO ARCH CEILING PLANS FOR TYPES REQUIRED.
⑥ PROVIDE RIGID SUPPORT OF LD–3 FROM STRUCTURE ABOVE
⑦ PROVIDE RIGID SUPPORT OF LD–6 & LR–3 FROM STRUCTURE ABOVE; MOUNT BOTTOM OF LD FLUSH WITH TOP OF VERTICAL SLOT CEILING

GRILLE SCHEDULE

KEY	RG–1	RG–2	RG–3	RG–4	RG–5	RG–6	RG–7	RG–8	RG–9	RG–10	RG–11	RG–12	RG–13	RG–14
MANUFACTURER	PRICE	PRICE	PRICE	PRICE	PRICE	PRICE	PRICE	PRICE	PRICE	PRICE	PRICE	PRICE	PRICE	PRICE
MODEL	70 DAL	70 DAL	70 DAL	70 DAL	99S	70 DAL	82	70 DAL	70 DAL	70 DAL	70 DAL	99S	99S	99S
NECK SIZE	10"x10"	14"x14"	18"x18"	22"x22"	36"x20"	36"x36"	24"x60"	60"x24"	20"x80"	36"x96"	60"x40"	60"x60"	48"x24"	60"x24"
MODULE SIZE	24"x24"	24"x24"	24"x24"	24"x24"	–	–	–	–	–	–	–	–	–	–
BORDER	SEE NOTE 5	SEE NOTE 5	SEE NOTE 5	SEE NOTE 5	SURFACE	SURFACE	SURFACE	SURFACE	SURFACE	SURFACE	SURFACE	SURFACE	SURFACE	SURFACE
FINISH	SEE NOTE 4	SEE NOTE 4	SEE NOTE 4	SEE NOTE 4	SEE NOTE 4	SEE NOTE 4	SEE NOTE 4	SEE NOTE 4	SEE NOTE 4	SEE NOTE 4	SEE NOTE 4	SEE NOTE 4	SEE NOTE 4	SEE NOTE 4
THROW PATTERN	45° FIXED	45° FIXED	45° FIXED	45° FIXED	30° FIXED	45° FIXED	EGGCRATE	45° FIXED	45° FIXED	45° FIXED	45° FIXED	45° FIXED	45° FIXED	45° FIXED
DAMPER	OBD	OBD	OBD	OBD	OBD	OBD	OBD	OBD	OBD	OBD	OBD	OBD	OBD	OBD
NOTES	①②③⑧	①②③⑧	①②③⑧	①②③⑧	①②③⑤	①②③⑤⑥	①②③⑤⑥⑦	①②③④⑥	①②③⑤	①②③⑤	①②③⑤⑥	①②③⑤⑥⑦	①②③⑤⑥⑦	①②③⑤⑥⑦

① COORDINATE WITH ARCHITECTURAL CEILING PLAN FOR FINAL LOCATION;
② TRANSITION FROM DIFFUSER/REGISTER/GRILLE CONNECTION SIZE TO DUCT SIZE
③ REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION & APPROVED ALTERNATIVE EQUIPMENT MANUFACTURERS.
④ FINISH AND COLOR SELECTION BY ARCHITECT.
⑤ PROVIDE SURFACE MOUNT OR LAY–IN AS NEEDED; REFER TO ARCH CEILING PLANS FOR TYPES REQUIRED.
⑥ REQUIRES SPLIT REGISTER. PROVIDE ALL REQUIRED MULLIONS
⑦ HEAVY DUTY GRILLE
⑧ RG FOR RETURN AIR TO DUCTED FC UNITS SHALL BE PRICE MODEL 630FF W/2" FILTER MEDIA SLOT OR APPROVED EQUAL; PROVIDE MERV–13 FILTERS; REMOVE OR OMIT FILTERS IN DUCTED FCUs

EXHAUST GRILLE SCHEDULE

KEY	EG–1	EG–2	EG–3	EG–4	EG–5
MANUFACTURER	PRICE	PRICE	PRICE	PRICE	PRICE
MODEL	70 DAL	70 DAL	70 DAL	70 DAL	70 DAL
NECK SIZE	10"x10"	14"x14"	18"x18"	22"x22"	16"x16"
MODULE SIZE	24"x24"	24"x24"	24"x24"	24"x24"	–
BORDER	SEE NOTE 5	SEE NOTE 5	SEE NOTE 5	SEE NOTE 5	SURFACE
FINISH	SEE NOTE 4	SEE NOTE 4	SEE NOTE 4	SEE NOTE 4	SEE NOTE 4
THROW PATTERN	45° FIXED	45° FIXED	45° FIXED	45° FIXED	45° FIXED
DAMPER	OBD	OBD	OBD	OBD	OBD
NOTES	①②③	①②⑤	①②③	①②③	①②③

① COORDINATE WITH ARCHITECTURAL CEILING PLAN FOR FINAL LOCATION;
② TRANSITION FROM DIFFUSER/REGISTER/GRILLE CONNECTION SIZE TO DUCT SIZE
③ REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION & APPROVED ALTERNATIVE EQUIPMENT MANUFACTURERS.
④ FINISH AND COLOR SELECTION BY ARCHITECT.
⑤ PROVIDE SURFACE MOUNT OR LAY–IN AS NEEDED; REFER TO ARCH CEILING PLANS FOR TYPES REQUIRED.

FAN POWERED VARIABLE AIR VOLUME BOX W/ SENSIBLE COOLING COIL & REHEAT COIL SCHEDULE–SECTION A

Tag	Manuf.	Model	Unit Size	Inlet size	Max Primary (CFM)	Min Primary (CFM)	Fan (CFM)	Inlet SP (in. w.g.)	Min Oper PD (in. w.g.)	Reheat (CFM)	Max Dis NC	Heating WC Capacity (MBH)	Fluid Flow (GPM)	EAT (°F)	LAT (°F)	EWT (°F)	LWT (°F)	FPD (ft. w.g.)	Fluid Type	Glycol %	Rows	Sensible Cooling CFM	Sensible Cooling (CFM)	Fluid Flow (GPM)	EAT (°F)	LAT (°F)	EWT (°F)	LWT (°F)	FPD (ft. w.g.)	Fluid Type	Glycol %	Rows
FVAV-A-1	Price	FDCLP2	10	6	140	45	600	1.50	0.01	270	25 (2)	8748	1.0	65	95	125	105	0.5	water	0	2	9936	460	0.50	75	55	57	67	0.5	water	0	4
FVAV-A-2	Price	FDCLP2	10	6	140	45	600	1.50	0.01	270	25 (2)	8748	1.0	65	95	125	105	0.5	water	0	2	9936	460	0.50	75	55	57	67	0.5	water	0	4
FVAV-A-3	Price	FDCLP2	10	6	130	40	600	1.50	0.01	270	25 (2)	8748	1.0	65	95	125	105	0.5	water	0	2	10152	470	0.50	75	55	57	67	0.5	water	0	4
FVAV-A-4	Price	FDCLP2	10	6	130	40	600	1.50	0.01	270	25 (2)	8748	1.0	65	95	125	105	0.5	water	0	2	10152	470	0.50	75	55	57	67	0.5	water	0	4

① COORDINATE W/ CONTROLS CONTRACTOR & PROVIDE SAME MANUFACTURER CONTROLLER & ACTUATORS.
② PROVIDE REHEAT HOT WATER COIL & SENSIBLE ONLY COOLING COIL; PROVIDE COOLING COIL STAINLESS STEEL DRAIN PAN
② HOT WATER COILS SIZED FOR 125F ENTERING AND 105'F LEAVING WATER TEMPERATURES
② COOLING COILS SIZED FOR 47 ENTERING AND 57'F LEAVING WATER TEMPERATURES
③ PROVIDE DISCONNECT SWITCH; 120V–1PH MODEL 10 1/4HP, MODEL 20 1/3HP, MODEL 30 1/2HP, MODEL 40 3/4HP, & MODEL 50 1HP
④ SCHEDULE IS BASED ON PRICE. ACCEPTABLE MANUFACTURERS INCLUDE PRICE, TITUS, NAILOR OR APPROVED EQUAL.

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Doherty Memorial High School

299 Highland Street, Worcester, MA 01602

DRAWING TITLE

HVAC Schedules

Locus Map

True North

Key Plan

REVISIONS

ADD–3	REVISED	2/3/22
ADD–4	REVISED	2/10/22
ADD–5	REVISED	2/16/22

FILE:
JOB NO: #1904
SCALE: NO SCALE
DWN. BY: FJG
CKD. BY: KRS
DATE: JANUARY 20, 2022

H7.6

VARIABLE AIR VOLUME TERMINAL (VAV) SCHEDULE–SECTION E

Tag	Manuf.	Model	Unit Size	Max Primary (CFM)	Min Primary (CFM)	Inlet SP (in. w.g.)	Min Oper PD (in. w.g.)	Reheat (CFM)	Max Dis NC	WC Capacity (MBH)	Fluid Flow (GPM)	EAT (°F)	LAT (°F)	EWT (°F)	LWT (°F)	FPD (ft. w.g.)	Fluid Type	Glycol %	Rows
VAV-E-1	Price	SDV5	6	260	80	1.50	0.01	120	25 (2)										
VAV-E-2	Price	SDV5	6	260	80	1.50	0.01	120	25 (2)										
VAV-E-3	Price	SDV5	4	180	55	1.50	0.01	85	25 (2)										
VAV-E-4	Price	SDV5	6	260	80	1.50	0.01	120	25 (2)										
VAV-E-5	Price	SDV5	6	400	120	1.50	0.01	180	25 (2)										
VAV-E-6	Price	SDV5	6	400	120	1.50	0.01	180	25 (2)										
VAV-E-7	Price	SDV5	4	120	40	1.50	0.01	55	25 (2)	1485	0.3	65	90	140	120	0.5	water	0	2
VAV-E-8	Price	SDV5	8	450	135	1.50	0.01	205	25 (2)	5535	0.8	65	90	140	120	0.5	water	0	2
VAV-E-9	Price	SDV5	4	90	30	1.50	0.01	45	25 (2)	1215	0.3	65	90	140	120	0.5	water	0	2
VAV-E-10	Price	SDV5	4	170	55	1.50	0.01	80	25 (2)	2160	0.3	65	90	140	120	0.5	water	0	2
VAV-E-11	Price	SDV5	4	170	55	1.50	0.01	80	25(2)	2160	0.3	65	90	140	120	0.5	water	0	2
VAV-E-12	Price	SDV5	16	2800	840	1.50	0.01	1260	25 (2)	34020	3.5	65	90	140	120	0.5	water	0	2
VAV-E-13	Price	SDV5	6	325	100	1.50	0.01	150	25 (2)	4050	0.5	65	90	140	120	0.5	water	0	2
VAV-E-14	Price	SDV5	4	100	30	1.50	0.01	45	25 (2)	1215	0.3	65	90	140	120	0.5	water	0	2
VAV-E-15	Price	SDV5	16	3000	900	1.50	0.01	1350	25 (2)	36450	3.8	65	90	140	120	0.5	water	0	2
VAV-E-16	Price	SDV5	8	450	135	1.50	0.01	205	25 (2)	5535	0.8	65	90	140	120	0.5	water	0	2
VAV-E-17	Price	SDV5	6	230	70	1.50	0.01	105	25 (2)	2835	0.5	65	90	140	120	0.5	water	0	2
VAV-E-18	Price	SDV5	6	300	90	1.50	0.01	135	25 (2)	3645	0.5	65	90	140	120	0.5	water	0	2
VAV-E-19	Price	SDV5	12	1380	415	1.50	0.01	625	25 (2)	16875	1.8	65	90	140	120	0.5	water	0	2
VAV-E-20	Price	SDV5	8	800	240	1.50	0.01	360	25 (2)	9720	1.0	65	90	140	120	0.5	water	0	2
VAV-E-21	Price	SDV5	12	1880	565	1.50	0.01	850	25 (2)	22950	2.5	65	90	140	120	0.5	water	0	2
VAV-E-22	Price	SDV5	8	820	250	1.50	0.01	370	25 (2)	9990	1.3	65	90	140	120	0.5	water	0	2
VAV-E-23	Price	SDV5	8	800	240	1.50	0.01	360	25 (2)	9720	1.0	65	90	140	120	0.5	water	0	2
VAV-E-24	Price	SDV5	4	140	45	1.50	0.01	65	25 (2)	1755	0.3	65	90	140	120	0.5	water	0	2
VAV-E-25	Price	SDV5	10	1090	330	1.50	0.01	495	25 (2)	13365	1.5	65	90	140	120	0.5	water	0	2
VAV-E-26	Price	SDV5	16	2400	720	1.50	0.01	1080	25 (2)	29160	3.0	65	90	140	120	0.5	water	0	2
VAV-E-27	Price	SDV5	12	1520	460	1.50	0.01	685	25 (2)	18495	2.0	65	90	140	120	0.5	water	0	2
VAV-E-28	Price	SDV5	24X16	4300	1290	1.50	0.01	1935	25 (2)	52245	5.5	65	90	140	120	0.5	water	0	2
VAV-E-29	Price	SDV5	8	650	195	1.50	0.01	295	25 (2)	7965	1.0	65	90	140	120	0.5	water	0	2
VAV-E-30	Price	SDV5	10	1200	360	1.50	0.01	540	25 (2)	14580	1.5	65	90	140	120	0.5	water	0	2
VAV-E-31	Price	SDV5	10	1000	300	1.50	0.01	450	25 (2)	12150	1.3	65	90	140	120	0.5	water	0	2
VAV-E-32	Price	SDV5	10	1000	300	1.50	0.01	450	25 (2)	12150	1.3	65	90	140	120	0.5	water	0	2
VAV-E-33	Price	SDV5	8	580	175	1.50	0.01	265	25 (2)	7155	0.8	65	90	140	120	0.5	water	0	2
VAV-E-34	Price	SDV5	4	160	50	1.50	0.01	75	25 (2)	2025	0.3	65	90	140	120	0.5	water	0	2
VAV-E-35	Price	SDV5	4	140	45	1.50	0.01	65	25 (2)	1755	0.3	65	90	140	120	0.5	water	0	2
VAV-E-36	Price	SDV5	4	180	55	1.50	0.01	85	25 (2)	2295	0.3	65	90	140	120	0.5	water	0	2
VAV-E-37	Price	SDV5	6	230	70	1.50	0.01	105	25 (2)	2835	0.5	65	90	140	120	0.5	water	0	2
VAV-E-38	Price	SDV5	10	1000	300	1.50	0.01	450	25 (2)	12150	1.3	65	90	140	120	0.5	water	0	2
VAV-E-39	Price	SDV5	16	3000	900	1.50	0.01	1350	25 (2)	36450	3.8	65	90	140	120	0.5	water	0	2
VAV-E-40	Price	SDV5	14	2600	780	1.50	0.01	1170	25 (2)	31590	3.3	65	90	140	120	0.5	water	0	2
VAV-E-41	Price	SDV5	10	1000	300	1.50	0.01	450	25 (2)	12150	1.3	65	90	140	120	0.5	water	0	2
VAV-E-42	Price	SDV5	10	1000	300	1.50	0.01	450	25 (2)	12150	1.3	65	90	140	120	0.5	water	0	2
VAV-E-43	Price	SDV5	10	1000	300	1.50	0.01	450	25 (2)	12150	1.3	65	90	140	120	0.5	water	0	2
VAV-E-44	Price	SDV5	14	2720	820	1.50	0.01	1225	25 (2)	33075	3.5	65	90	140	120	0.5	water	0	2
VAV-E-45	Price	SDV5	12	1500	450	1.50	0.01	675	25 (2)	18225	2.0	65	90	140	120	0.5	water	0	2
VAV-E-46	Price	SDV5	8	500	150	1.50	0.01	225	25 (2)	6075	0.8	65	90	140	120	0.5	water	0	2

1. COORDINATE W/ CONTROLS CONTRACTOR & PROVIDE SAME MANUFACTURER CONTROLLER & ACTUATORS.
2. HOT WATER COILS SIZED FOR 140F ENTERING AND 120F LEAVING WATER TEMPERATURES
3. PROVIDE DISCONNECT SWITCH
4. SCHEDULE IS BASED ON PRICE. ACCEPTABLE MANUFACTURERS INCLUDE PRICE, TITUS, NAILOR OR APPROVED EQUAL.

1. COORDINATE W/ CONTROLS CONTRACTOR & PROVIDE SAME MANUFACTURER CONTROLLER & ACTUATORS.
2. PROVIDE REHEAT HOT WATER COIL & SENSIBLE ONLY COOLING COIL; PROVIDE COOLING COIL STAINLESS STEEL DRAIN PAN
2. HOT WATER COILS SIZED FOR 125F ENTERING AND 105F LEAVING WATER TEMPERATURES
2. COOLING COILS SIZED FOR 47 ENTERING AND 57F LEAVING WATER TEMPERATURES
3. PROVIDE DISCONNECT SWITCH; 120V–1PH MODEL 10 1/4HP, MODEL 20 1/3HP, MODEL 30 1/2HP, MODEL 40 3/4HP, & MODEL 50 1HP
4. SCHEDULE IS BASED ON PRICE. ACCEPTABLE MANUFACTURERS INCLUDE PRICE, TITUS, NAILOR OR APPROVED EQUAL.

FAN POWERED VARIABLE AIR VOLUME BOX W/ SENSIBLE COOLING COIL & REHEAT COIL SCHEDULE–SECTION B

Tag	Manuf.	Model	Unit Size	Inlet size	Max Primary (CFM)	Min Primary (CFM)	Fan (CFM)	Inlet SP (in. w.g.)	Min Oper PD (in. w.g.)	Reheat (CFM)	Max Dis NC	ting WC Capa (MBH)	Fluid Flow (GPM)	EAT (°F)	LAT (°F)	EWT (°F)	LWT (°F)	FPD (ft. w.g.)	Fluid Type	Glycol %	Rows	Sensible Cooling CFM	nsible Cool (CFM)	Fluid Flow (GPM)	EAT (°F)	LAT (°F)	EWT (°F)	LWT (°F)	FPD (ft. w.g.)	Fluid Type	Glycol %	Rows
FVAV-B-1	Price	FDCLP2	10	6	180	55	620	1.50	0.01	280	25 (2)	9072	1.0	65	95	125	105	0.5	water	0	2	9504	440	0.50	75	55	57	67	0.5	water	0	4
FVAV-B-2	Price	FDCLP2	10	6	180	55	620	1.50	0.01	280	25 (2)	9072	1.0	65	95	125	105	0.5	water	0	2	9504	440	0.50	75	55	57	67	0.5	water	0	4
FVAV-B-3	Price	FDCLP2	10	6	120	40	370	1.50	0.01	170	25 (2)	5508	0.8	65	95	125	105	0.5	water	0	2	5400	250	0.50	75	55	57	67	0.5	water	0	4
FVAV-B-4	Price	FDCLP2	10	6	90	30	410	1.50	0.01	185	25 (2)	5994	0.8	65	95	125	105	0.5	water	0	2	6912	320	0.50	75	55	57	67	0.5	water	0	4
FVAV-B-5	Price	FDCLP2	10	6	190	60	670	1.50	0.01	305	25 (2)	9882	1.3	65	95	125	105	0.5	water	0	2	10368	480	0.50	75	55	57	67	0.5	water	0	4
FVAV-B-6	Price	FDCLP2	10	8	140	45	740	1.50	0.01	335	25 (2)	10854	1.3	65	95	125	105	0.5	water	0	2	12960	600	0.50	75	55	57	67	0.5	water	0	4
FVAV-B-7	Price	FDC-DOAS	20	8	980	295	980	1.50	0.01	445	25 (2)	14418	1.5	65	95	125	105	0.5	water	0	2	0	0	0.00	75	55	57	67	0.5	water	0	4
FVAV-B-8	Price	FDCLP2	10	8	120	40	470	1.50	0.01	215	25 (2)	6966	0.8	65	95	125	105	0.5	water	0	2	7560	350	0.50	75	55	57	67	0.5	water	0	4
FVAV-B-9	Price	FDC-DOAS	20	8	980	295	980	1.50	0.01	445	25 (2)	14418	1.5	65	95	125	105	0.5	water	0	2	0	0	0.00	75	55	57	67	0.5	water	0	4
FVAV-B-10	Price	FDC-DOAS	30	8	1120	340	1120	1.50	0.01	505	25 (2)	16362	1.8	65	95	125	105	0.5	water	0	2	0	0	0.00	75	55	57	67	0.5	water	0	4
FVAV-B-11	Price	FDC-DOAS	20	8	960	290	960	1.50	0.01	435	25 (2)	14094	1.5	65	95	125	105	0.5	water	0	2	0	0	0.00	75	55	57	67	0.5	water	0	4
FVAV-B-12	Price	FDCLP2	10	8	385	120	385	1.50	0.01	175	25 (2)	5670	0.8	65	95	125	105	0.5	water	0	2	0	0	0.00	75	55	57	67	0.5	water	0	4
FVAV-B-13	Price	FDC-DOAS	20	8	960	290	960	1.50	0.01	435	25 (2)	14094	1.5	65	95	125	105	0.5	water	0	2	0	0	0.00	75	55	57	67	0.5	water	0	4
FVAV-B-14	Price	FDCLP2	10	6	120	40	420	1.50	0.01	190	25 (2)	6156	0.8	65	95	125	105	0.5	water	0	2	6480	300	0.50	75	55	57	67	0.5	water	0	4
FVAV-B-15	Price	FDCLP2	10	6	140	45	600	1.50	0.01	270	25 (2)	8748	1.0	65	95	125	105	0.5	water	0	2	9936	460	0.50	75	55	57	67	0.5	water	0	4
FVAV-B-16	Price	FDCLP2	10	6	140	45	600	1.50	0.01	270	25 (2)	8748	1.0	65	95	125	105	0.5	water	0	2	9936	460	0.50	75	55	57	67	0.5	water	0	4
FVAV-B-17	Price	FDCLP2	10	6	140	45	600	1.50	0.01	270	25 (2)	8748	1.0	65	95	125	105	0.5	water	0	2	9936	460	0.50	75	55	57	67	0.5	water	0	4

FAN POWERED VARIABLE AIR VOLUME BOX W/ SENSIBLE COOLING COIL & REHEAT COIL SCHEDULE–SECTION C

Tag	Manuf.	Model	Unit Size	Inlet size	Max Primary (CFM)	Min Primary (CFM)	Fan (CFM)	Inlet SP (in. w.g.)	Min Oper PD (in. w.g.)	Reheat (CFM)	Max Dis NC	Heating WC Capacity (MBH)	Fluid Flow (GPM)	EAT (°F)	LAT (°F)	EWT (°F)	LWT (°F)	FPD (ft. w.g.)	Fluid Type	Glycol %	Rows	Sensible Cooling CFM	Sensible Cooling (CFM)	Fluid Flow (GPM)	EAT (°F)	LAT (°F)	EWT (°F)	LWT (°F)	FPD (ft. w.g.)	Fluid Type	Glycol %	Rows
FVAV-C-1	Price	FDCLP2	10	6	140	45	600	1.50	0.01	270	25 (2)	8748	1.0	65	95	125	105	0.5	water	0	2	9936	460	0.50	75	55	57	67	0.5	water	0	4
FVAV-C-2	Price	FDCLP2	10	6	140	45	600	1.50	0.01	270	25 (2)	8748	1.0	65	95	125	105	0.5	water	0	2	9936	460	0.50	75	55	57	67	0.5	water	0	4
FVAV-C-3	Price	FDCLP2	10	6	130	40	520	1.50	0.01	235	25 (2)	7614	1.0	65	95	125	105	0.5	water	0	2	8424	390	0.50	75	55	57	67	0.5	water	0	4
FVAV-C-4	Price	FDCLP2	10	6	130	40	480	1.50	0.01	220	25 (2)	7128	0.8	65	95	125	105	0.5	water	0	2	7560	350	0.50	75	55	57	67	0.5	water	0	4
FVAV-C-5	Price	FDCLP2	50	6	150	45	500	1.50	0.01	225	25 (2)	7290	0.8	65	95	125	105	0.5	water	0	2	7560	350	0.50	75	55	57	67	0.5	water	0	4
FVAV-C-6	Price	FDCLP2	20	8	230	70	1020	1.50	0.01	460	25 (2)	14904	1.8	65	95	125	105	0.5	water	0	2	17064	790	0.50	75	55	57	67	0.5	water	0	4
FVAV-C-7	Price	FDCLP2	10	6	70	25	380	1.50	0.01	175	25 (2)	5670	0.8	65	95	125	105	0.5	water	0	2	6696	310	0.50	75	55	57	67	0.5	water	0	4
FVAV-C-8	Price	FDCLP2	20	8	280	85	1080	1.50	0.01	490	25 (2)	15876	1.8	65	95	125	105	0.5	water	0	2	17280	800	0.50	75	55	57	67	0.5	water	0	4
FVAV-C-9	Price	FDCLP2	10	6	100	30	390	1.50	0.01	180	25 (2)	5832	0.8	65	95	125	105	0.5	water	0	2	6264	290	0.50	75	55	57	67	0.5	water	0	4
FVAV-C-10	Price	FDCLP2	10	6	140	45	600	1.50	0.01	270	25 (2)	8748	1.0	65	95	125	105	0.5	water	0	2	9936	460	0.50	75	55	57	67	0.5	water	0	4
FVAV-C-11	Price	FDCLP2	10	6	140	45	600	1.50	0.01	270	25 (2)	8748	1.0	65	95	125	105	0.5	water	0	2	9936	460	0.50	75	55	57	67	0.5	water	0	4
FVAV-C-12	Price	FDCLP2	10	6	70	25	480	1.50	0.01	220	25 (2)	7128	0.8	65	95	125	105	0.5	water	0	2	8856	410	0.50	75	55	57	67	0.5	water	0	4
FVAV-C-13	Price	FDCLP2	10	6	100	30	600	1.50	0.01	270	25 (2)	8748	1.0	65	95	125	105	0.5	water	0	2	10800	500	0.50	75	55	57	67	0.5	water	0	4

FAN POWERED VARIABLE AIR VOLUME BOX W/ SENSIBLE COOLING COIL & REHEAT COIL SCHEDULE–SECTION D

Tag	Manuf.	Model	Unit Size	Inlet size	Max Primary (CFM)	Min Primary (CFM)	Fan (CFM)	Inlet SP (in. w.g.)	Min Oper PD (in. w.g.)	Reheat (CFM)	Max Dis NC	ating WC Capa (MBH)	Fluid Flow (GPM)	EAT (°F)	LAT (°F)	EWT (°F)	LWT (°F)	FPD (ft. w.g.)	Fluid Type	Glycol %	Rows	ible Coo CFM	Sensible Cooling (CFM)	Fluid Flow (GPM)	EAT (°F)	LAT (°F)	EWT (°F)	LWT (°F)	FPD (ft. w.g.)	Fluid Type	Glycol %	Rows
FVAV-D-1	Price	FDCLP2	10	6	290	90	610	1.50	0.01	275	25 (2)	8910	1.0	65	95	125	105	0.5	water	0	2	6912	320	0.50	75	55	57	67	0.5	water	0	4
FVAV-D-2	Price	FDCLP2	20	6	310	95	650	1.50	0.01	295	25 (2)	9558	1.0	65	95	125	105	0.5	water	0	2	7344	340	0.50	75	55	57	67	0.5	water	0	4
FVAV-D-3	Price	FDC-DOAS	50	10	970	295	2275	1.50	0.01	1025	25 (2)	33210	3.5	65	95	125	105	0.5	water	0	2	28188	1305	0.50	75	55	57	67	0.5	water	0	4
FVAV-D-4	Price	FDC-DOAS	50	6	320	100	2540	1.50	0.01	1145	25 (2)	37098	4.0	65	95	125	105	0.5	water	0	2	47952	2220	0.50	75	55	57	67	0.5	water	0	4
FVAV-D-5	Price	FDCLP2	20	6	320	100	670	1.50	0.01	305	25 (2)	9882	1.3	65	95	125	105	0.5	water	0	2	7560	350	0.50	75	55	57	67	0.5	water	0	4
FVAV-D-6	Price	FDCLP2	20	6	320	100	2540	1.50	0.01	1145	25 (2)	37098	4.0	65	95	125	105	0.5	water	0	2	47952	2220	0.50	75	55	57	67	0.5	water	0	4
FVAV-D-7	Price	FDC-DOAS	40	8	470	145	1840	1.50	0.01	830	25 (2)	26892	2.8	65	95	125	105	0.5	water	0	2	29592	1370	0.50	75	55	57	67	0.5	water	0	4
FVAV-D-8	Price	FDC-DOAS	40	8	320	100	1540	1.50	0.01	695	25 (2)	22518	2.5	65	95	125	105	0.5	water	0	2	26352	1220	0.50	75	55	57	67	0.5	water	0	4
FVAV-D-9	Price	FDC-DOAS	50	8	535	165	2400	1.50	0.01	1080	25 (2)	34992	3.8	65	95	125	105	0.5	water	0	2	40284	1865	0.50	75	55	57	67	0.5	water	0	4
FVAV-D-10	Price	FDC-DOAAS	50	6	390	120	2545	1.50	0.01	1150	25 (2)	37260	4.0	65	95	125	105	0.5	water	0	2	46548	2155	0.50	75	55	57	67	0.5	water	0	4
FVAV-D-11	Price	FDCLP2	50			0	0	1.50	0.01	0	25 (2)	0	0.0	65	95	125	105	0.5	water	0	2	0	0	0.00	75	55	57	67	0.5	water	0	4
FVAV-D-12	Price	FDCLP2	50			0	0	1.50	0.01	0	25 (2)	0	0.0	65	95	125	105	0.5	water	0	2	0	0	0.00	75	55	57	67	0.5	water	0	4
FVAV-D-13	Price	FDCLP2	50			0	0	1.50	0.01	0	25 (2)	0	0.0	65	95	125	105	0.5	water	0	2	0	0	0.00	75	55	57	67	0.5	water	0	4

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OWNER

Worcester Public Schools
299 Highland St
Worcester MA 01602

PROJECT

100% Construction Documents
Final Bid Package #4

Doherty Memorial High School

299 Highland Street, Worcester, MA 01602

DRAWING TITLE

HVAC Schedules

Locus Map

True North

Key Plan

REVISIONS

ADD-3	REVISED	2/3/22
ADD-4	REVISED	2/10/22
ADD-5	REVISED	2/16/22

FILE:
JOB NO: #1904
SCALE: NO SCALE
DWN. BY: FJG
CKD. BY: KRS
DATE: FEBRUARY 16, 2022

H7.7

FAN POWERED VARIABLE AIR VOLUME BOX W/ SENSIBLE COOLING COIL & REHEAT COIL SCHEDULE–SECTION E

Tag	Manuf.	Model	Unit Size	Inlet size	Max Primary (CFM)	Min Primary (CFM)	Fan (CFM)	Inlet SP (in. w.g.)	Min Oper PD (in. w.g.)	Reheat (CFM)	Max Dis NC	Heating WC Capacity (MBH)	Fluid Flow (GPM)	EAT (°F)	LAT (°F)	EWT (°F)	LWT (°F)	FPD (ft. w.g.)	Fluid Type	Glycol %	Rows	Sensible Coolingnsible Cool CFM	Sensible Cool (CFM)	Fluid Flow (GPM)	EAT (°F)	LAT (°F)	EWT (°F)	LWT (°F)	FPD (ft. w.g.)	Fluid Type	Glycol %	Rows
FVAV-E-1	Price	FDCLP2	10	6	290	90	610	1.50	0.01	275	25 (2)	8910	1.0	65	95	125	105	0.5	water	0	2	6912	320	0.50	75	55	57	67	0.5	water	0	4
FVAV-E-2	Price	FDCLP2	20	6	310	95	650	1.50	0.01	295	25 (2)	9558	1.0	65	95	125	105	0.5	water	0	2	7344	340	0.50	75	55	57	67	0.5	water	0	4
FVAV-E-3A	Price	FDC-DOAS	50	10	970	645	2275	1.50	0.01	1025	25 (2)	33210	3.5	65	95	125	105	0.5	water	0	2	28188	1305	0.50	75	55	57	67	0.5	water	0	4
FVAV-E-3B	Price	FDC-DOAS	50	10	970	645	2275	1.50	0.01	1025	25 (2)	33210	3.5	65	95	125	105	0.5	water	0	2	28188	1305	0.50	75	55	57	67	0.5	water	0	4
FVAV-E-4	Price	FDCLP2	20	6	320	100	670	1.50	0.01	305	25 (2)	9882	1.3	65	95	125	105	0.5	water	0	2	7560	350	0.50	75	55	57	67	0.5	water	0	4
FVAV-E-5	Price	FDCLP2	20	6	320	100	650	1.50	0.01	295	25 (2)	9558	1.0	65	95	125	105	0.5	water	0	2	7128	330	0.50	75	55	57	67	0.5	water	0	4
FVAV-E-6A	Price	FDC-DOAS	40	8	470	145	1840	1.50	0.01	830	25 (2)	26892	2.8	65	95	125	105	0.5	water	0	2	29592	1370	0.50	75	55	57	67	0.5	water	0	4
FVAV-E-6B	Price	FDC-DOAS	40	8	320	100	1540	1.50	0.01	695	25 (2)	22518	2.5	65	95	125	105	0.5	water	0	2	26352	1220	0.50	75	55	57	67	0.5	water	0	4
FVAV-E-7	Price	FDC-DOAS	50	8	535	165	2400	1.50	0.01	1080	25 (2)	34992	3.8	65	95	125	105	0.5	water	0	2	40284	1865	0.50	75	55	57	67	0.5	water	0	4
FVAV-E-8	Price	FDC-DOAAS	50	6	390	120	2545	1.50	0.01	1150	25 (2)	37260	4.0	65	95	125	105	0.5	water	0	2	46548	2155	0.50	75	55	57	67	0.5	water	0	4

① COORDINATE W/ CONTROLS CONTRACTOR & PROVIDE SAME MANUFACTURER CONTROLLER & ACTUATORS.
② PROVIDE REHEAT HOT WATER COIL & SENSIBLE ONLY COOLING COIL; PROVIDE COOLING COIL STAINLESS STEEL DRAIN PAN
② HOT WATER COILS SIZED FOR 125F ENTERING AND 105'F LEAVING WATER TEMPERATURES
② COOLING COILS SIZED FOR 47 ENTERING AND 57F LEAVING WATER TEMPERATURES
③ PROVIDE DISCONNECT SWITCH; 120V–1PH MODEL 10 1/4HP, MODEL 20 1/3HP, MODEL 30 1/2HP, MODEL 40 3/4HP, & MODEL 50 1HP
④ SCHEDULE IS BASED ON PRICE. ACCEPTABLE MANUFACTURERS INCLUDE PRICE, TITUS, NAILOR OR APPROVED EQUAL.

FAN COIL UNIT (FCU) SCHEDULE–SECTION A

Tag	Service	Manuf.	Model	Unit Size	AIR Volume (CFM)	ESP (in. w.g.)	COOLING DATA											HEATING DATA									
							EAT (°F)	LAT (°F)	EWT (°F)	LWT (°F)	WPD (ft. w.g.)	Fluid Type	Glycol %	Rows	Total Cooling Capacity (BTU)	Sensible Cooling Capacity (BTU)	Fluid Flow (GPM)	EAT (°F)	LAT (°F)	EWT (°F)	LWT (°F)	WPD (ft. w.g.)	Fluid Type	Glycol %	Rows	Capacity (BTU)	Fluid Flow (GPM)
FCU-A-1	SEE PLANS	DAIKEN	FCHH	003	205	0.30	75	55	57	67	0.5	water	0	2	5313.6	4428.0	0.5									2869.3	
FCU-A-2	SEE PLANS	DAIKEN	FCHH	003	195	0.30	75	55	57	67	0.5	water	0	2	5054.4	4212.0	0.5										
FCU-A-3	SEE PLANS	EMI	WCP-30D	003	600	0.30	75	55	57	67	0.5	water	0	2	15552.0	12960.0	1.5										
FCU-A-4	SEE PLANS	DAIKEN	FCHH	003	195	0.30	75	55	57	67	0.5	water	0	2	5054.4	4212.0	0.5										
FCU-A-5	SEE PLANS	DAIKEN	FCHH	003	195	0.30	75	55	57	67	0.5	water	0	2	5054.4	4212.0	0.5										
FCU-A-6	SEE PLANS	DAIKEN	FCHH	003	195	0.30	75	55	57	67	0.5	water	0	2	5054.4	4212.0	0.5										
FCU-A-7	SEE PLANS	EMI	WCP-30D	003	600	0.30	75	55	57	67	0.5	water	0	2	15552.0	12960.0	1.5										
FCU-A-8	SEE PLANS	DAIKEN	FCHH	006	600	0.30	75	55	57	67	0.5	water	0	2	15552.0	12960.0	1.5	70	90	125	105	0.5	water	0	2	12960.0	1.5
FCU-A-9	SEE PLANS	DAIKEN	FCHH	006	600	0.30	75	55	57	67	0.5	water	0	2	15552.0	12960.0	1.5	70	90	125	105	0.5	water	0	2	12960.0	1.5
FCU-A-10	SEE PLANS	DAIKEN	FCHH	006	600	0.30	75	55	57	67	0.5	water	0	2	15552.0	12960.0	1.5	70	90	125	105	0.5	water	0	2	12960.0	1.5
FCU-A-11	SEE PLANS	DAIKEN	FCHH	012	1200	0.30	75	55	57	67	0.5	water	0	4	31104.0	25920.0	2.8	70	90	125	105	0.5	water	0	2	25920.0	2.8

FAN COIL UNIT (FCU) SCHEDULE–SECTION B

Tag	Service	Manuf.	Model	Unit Size	AIR Volume (CFM)	ESP (in. w.g.)	COOLING DATA											HEATING DATA									
							EAT (°F)	LAT (°F)	EWT (°F)	LWT (°F)	WPD (ft. w.g.)	Fluid Type	Glycol %	Rows	Total Cooling Capacity (BTU)	Sensible Cooling Capacity (BTU)	Fluid Flow (GPM)	EAT (°F)	LAT (°F)	EWT (°F)	LWT (°F)	WPD (ft. w.g.)	Fluid Type	Glycol %	Rows	Capacity (BTU)	Fluid Flow (GPM)
FCU-B-1	SEE PLANS\	DAIKEN	FCHH	003	205	0.30	75	55	57	67	0.5	water	0	2	5313.6	4428.0	0.5										
FCU-B-2	SEE PLANS\	EMI	WCP-30D	003	600	0.30	75	55	57	67	0.5	water	0	2	15552.0	12960.0	1.5										
FCU-B-3	SEE PLANS\	DAIKEN	FCHH	003	195	0.30	75	55	57	67	0.5	water	0	2	5054.4	4212.0	0.5										
FCI-B-4	SEE PLANS\	EMI	WCP-30D	003	600	0.30	75	55	57	67	0.5	water	0	2	15552.0	12960.0	1.5										
FCU-B-5	SEE PLANS\	DAIKEN	FCHH	003	195	0.30	75	55	57	67	0.5	water	0	2	5054.4	4212.0	0.5										
FCU-B-6	SEE PLANS	DAIKEN	FCHH	006	600	0.30	75	55	57	67	0.5	water	0	2	15552.0	12960.0	1.5										
FCI-B-7	SEE PLANS\	EMI	WCP-30D	003	600	0.30	75	55	57	67	0.5	water	0	2	15552.0	12960.0	1.5										
FCU-B-8	SEE PLANS	DAIKEN	FCHH	006	600	0.30	75	55	57	67	0.5	water	0	2	15552.0	12960.0	1.5	70	90	125	105	0.5	water	0	2	12960.0	1.5
FCU-B-9	SEE PLANS	DAIKEN	FCHH	006	600	0.30	75	55	57	67	0.5	water	0	2	15552.0	12960.0	1.5	70	90	125	105	0.5	water	0	2	12960.0	1.5
FCU-B-10	SEE PLANS	DAIKEN	FCHH	006	300	0.30	75	55	57	67	0.5	water	0	2	7776.0	6480.0	0.8	70	90	125	105	0.5	water	0	2	6480.0	0.8
FCU-B-11	SEE PLANS	DAIKEN	BCHD	016	1460	0.30	75	55	57	67	0.5	water	0	4	37843.2	31536.0	3.3	70	90	125	105	0.5	water	0	2	31536.0	3.3

FAN COIL UNIT (FCU) SCHEDULE–SECTION C

Tag	Service	Manuf.	Model	Unit Size	AIR Volume (CFM)	ESP (in. w.g.)	COOLING DATA											HEATING DATA									
							EAT (°F)	LAT (°F)	EWT (°F)	LWT (°F)	WPD (ft. w.g.)	Fluid Type	Glycol %	Rows	Total Cooling Capacity (BTU)	Sensible Cooling Capacity (BTU)	Fluid Flow (GPM)	EAT (°F)	LAT (°F)	EWT (°F)	LWT (°F)	WPD (ft. w.g.)	Fluid Type	Glycol %	Rows	Capacity (BTU)	Fluid Flow (GPM)
FCU-C-1	SEE PLANS	DAIKEN	FCHH	003	240	0.30	75	55	57	67	0.5	water	0	2	6220.8	5184.0	0.8										
FCU-C-2	SEEPLANS	EMI	WCP-30D	003	600	0.30	75	55	57	67	0.5	water	0	2	15552.0	12960.0	1.5										
FCU-C-3	SEE PLANS	DAIKEN	FCHH	003	300	0.30	75	55	57	67	0.5	water	0	2	7776.0	6480.0	0.8										
FCU-C-4	SEE PLANS	DAIKEN	FCHH	003	300	0.30	75	55	57	67	0.5	water	0	2	7776.0	6480.0	0.8										
FCU-C-5	SEE PLANS	DAIKEN	FCHH	003	300	0.30	75	55	57	67	0.5	water	0	2	7776.0	6480.0	0.8										
FCU-C-6	SEEPLANS	EMI	WCP-30D	003	600	0.30	75	55	57	67	0.5	water	0	2	15552.0	12960.0	1.5										
FCU-C-7	SEE PLANS	DAIKEN	FCHH	006	600	0.30	75	55	57	67	0.5	water	0	2	15552.0	12960.0	1.5	70	90	125	105	0.5	water	0	2	12960.0	1.5
FCU-C-8	SEE PLANS	DAIKEN	FCHH	006	600	0.30	75	55	57	67	0.5	water	0	2	15552.0	12960.0	1.5	70	90	125	105	0.5	water	0	2	12960.0	1.5
FCU-C-9	SEE PLANS	DAIKEN	FCHH	006	600	0.30	75	55	57	67	0.5	water	0	2	15552.0	12960.0	1.5	70	90	125	105	0.5	water	0	2	12960.0	1.5
FCU-C-10	SEE PLANS	DAIKEN	FCHH	006	600	0.30	75	55	57	67	0.5	water	0	2	15552.0	12960.0	1.5	70	90	125	105	0.5	water	0	2	12960.0	1.5
FCU-C-11	SEE PLANS	DAIKEN	BCHHD	016	1500	0.30	75	55	57	67	0.5	water	0	2	38880.0	32400.0	3.5	70	90	125	105	0.5	water	0	2	32400.0	3.5
FCU-C-12	SEEPLANS	EMI	WCP-30D	003	600	0.30	75	55	57	67	0.5	water	0	2	15552.0	12960.0	1.5										

FAN COIL UNIT (FCU) SCHEDULE–SECTION D

Tag	Service	Manuf.	Model	Unit Size	AIR Volume (CFM)	ESP (in. w.g.)	COOLING DATA											HEATING DATA									
							EAT (°F)	LAT (°F)	EWT (°F)	LWT (°F)	WPD (ft. w.g.)	Fluid Type	Glycol %	Rows	Total Cooling Capacity (BTU)	Sensible Cooling Capacity (BTU)	Fluid Flow (GPM)	EAT (°F)	LAT (°F)	EWT (°F)	LWT (°F)	WPD (ft. w.g.)	Fluid Type	Glycol %	Rows	Capacity (BTU)	Fluid Flow (GPM)
FCU-D-1	SEE PLANS	DAIKEN	FCHH	003	205	0.30	75	55	57	67	0.5	water	0	2	5313.6	4428.0	0.5										
FCU-D-2	SEE PLANS	DAIKEN	FCHH	003	205	0.30	75	55	57	67	0.5	water	0	2	5313.6	4428.0	0.5										
FCU-D-3	SEE PLANS	DAIKEN	FCHH	003	195	0.30	75	55	57	67	0.5	water	0	2	5054.4	4212.0	0.5										
FCU-D-4	SEE PLANS	DAIKEN	FCHH	008	360	0.30	75	55	57	67	0.5	water	0	2	8880.0	7400.0	1.0										
FCU-D-9	SEE PLANS	EMI	WCP-30D	003	600	0.30	75	55	57	67	0.5	water	0	2	15552.0	12960.0	1.5										
FCU-D-6	SEE PLANS	DAIKEN	FCHH	006	600	0.30	75	55	57	67	0.5	water	0	2	15552.0	12960.0	1.5	70	90	125	105	0.5	water	0	2	12960.0	1.5
FCU-D-7	SEE PLANS	DAIKEN	FCHH	006	600	0.30	75	55	57	67	0.5	water	0	2	15552.0	12960.0	1.5	70	90	125	105	0.5	water	0	2	12960.0	1.5
FCU-D-8	SEE PLANS	DAIKEN	BCHD	018	1660	0.30	75	55	57	67	0.5	water	0	2	43027.2	35856.0	3.8	70	90	125	105	0.5	water	0	2	35856.0	3.8
FCU-D-9	SEE PLANS	EMI	WCP-30D	003	600	0.30	75	55	57	67	0.5	water	0	2	15552.0	12960.0	1.5										

FAN COIL UNIT (FCU) SCHEDULE–SECTION E

Tag	Service	Manuf.	Model	Unit Size	AIR Volume (CFM)	ESP (in. w.g.)	EAT (°F)	LAT (°F)	EWT (°F)	LWT (°F)	WPD (ft. w.g.)	Fluid Type	Glycol %	Rows	Total Cooling Capacity (BTU)	Sensible Cooling Capacity (BTU)	Fluid Flow (GPM)
FCU-E-1	SEE PLANS	DAIKEN	BCHD	012	1200	0.20	75	55	57	67	0.5	water	0	2	31104.0	25920.0	2.8
FCU-E-3	SEE PLANS	DAIKEN	FCHH	003	300	0.20	75	55	57	67	0.5	water	0	2	7776.0	6480.0	0.8
FCU-E-3	SEE PLANS	DAIKEN	FCHH	003	195	0.20	75	55	57	67	0.5	water	0	2	5054.4	4212.0	0.5
FCU-E-4	SEE PLANS	EMI	WCP-30D	003	600	0.00	75	55	57	67	0.5	water	0	2	15552.0	12960.0	1.5
FCU-E-5	SEE PLANS	DAIKEN	FCHH	003	195	0.20	75	55	57	67	0.5	water	0	2	5054.4	4212.0	0.5
FCU-E-6	SEE PLANS	EMI	WCP-30D	003	600	0.00	75	55	57	67	0.5	water	0	2	15552.0	12960.0	1.5
FCU-E-7	SEE PLANS	DAIKEN	FCHH	003	195	0.20	75	55	57	67	0.5	water	0	2	5054.4	4212.0	0.5
FCU-E-8	SEE PLANS	DAIKEN	BCHD	016	1400	0.20	75	55	57	67	0.5	water	0	2	36288.0	30240.0	3.3
FCU-E-9	SEE PLANS	DAIKEN	BCHD	012	1200	0.20	75	55	57	67	0.5	water	0	2	31104.0	25920.0	2.8
FCU-E-10	SEE PLANS	EMI	WCP-30D	003	600	0.00	75	55	57	67	0.5	water	0	2	15552.0	12960.0	1.5

① COORDINATE W/ CONTROLS CONTRACTOR & PROVIDE SAME MANUFACTURER CONTROLLER & ACTUATORS.
② PROVIDE REHEAT HOT WATER COIL & SENSIBLE ONLY COOLING COIL; PROVIDE COOLING COIL STAINLESS STEEL DRAIN PAN
② HOT WATER COILS SIZED FOR 125F ENTERING AND 105'F LEAVING WATER TEMPERATURES
② COOLING COILS SIZED FOR 57 ENTERING AND 67'F LEAVING WATER TEMPERATURES
③ PROVIDE DISCONNECT SWITCH; PROVIDE MERV–8 FILTER BOX AND 3 SPARE SETS OF FILTERS
④ SCHEDULE IS BASED ON DAIKEN & EMI. ACCEPTABLE MANUFACTURERS INCLUDE TRANE & JOHNSON CONTROLS

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Worcester Public Schools
299 Highland St
Worcester MA 01602

PROJECT

100% Construction Documents
Final Bid Package #4

Doherty Memorial High School

299 Highland Street, Worcester, MA 01602

DRAWING TITLE

HVAC Schedules

Locus Map

True North

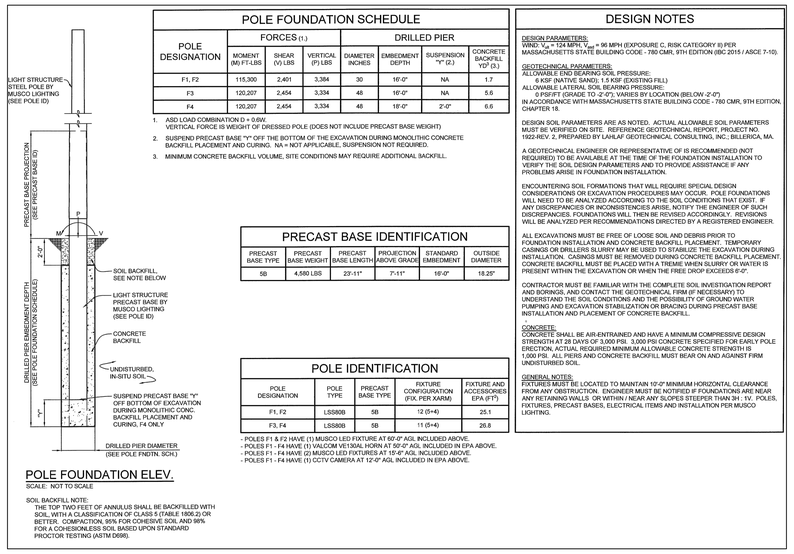
Key Plan

REVISIONS

ADD-3	REVISED	2/3/22
ADD-4	REVISED	2/10/22
ADD-5	REVISED	2/16/22

FILE:
JOB NO: #1904
SCALE: NO SCALE
DWN. BY: FJG
CKD. BY: KRS
DATE: JANUARY 20, 2022

H7.8



POLE FOUNDATION ELEV.

SCALE: NOT TO SCALE

SOIL BACKFILL NOTE:
THE TOP TWO FEET OF ANNULUS SHALL BE BACKFILLED WITH SOIL, WITH A CLASSIFICATION OF CLASS 5 (TABLE 1806.2) OR BETTER. COMPACTION, 95% FOR COHESIVE SOIL AND 98% FOR A COHESIONLESS SOIL BASED UPON STANDARD PROCTOR TESTING (ASTM D698).

POLE FOUNDATION SCHEDULE

POLE DESIGNATION	FORCES (1.)			DRILLED PIER			
	MOMENT (M) FT-LBS	SHEAR (V) LBS	VERTICAL (P) LBS	DIAMETER INCHES	EMBEDMENT DEPTH	SUSPENSION "Y" (2.)	CONCRETE BACKFILL YD³ (3.)
F1, F2	115,300	2,401	3,384	30	16'-0"	NA	1.7
F3	120,207	2,454	3,334	48	16'-0"	NA	5.6
F4	120,207	2,454	3,334	48	18'-0"	2'-0"	6.6

1. ASD LOAD COMBINATION D + 0.6W.
VERTICAL FORCE IS WEIGHT OF DRESSED POLE (DOES NOT INCLUDE PRECAST BASE WEIGHT)
2. SUSPEND PRECAST BASE "Y" OFF THE BOTTOM OF THE EXCAVATION DURING MONOLITHIC CONCRETE BACKFILL PLACEMENT AND CURING. NA = NOT APPLICABLE, SUSPENSION NOT REQUIRED.
3. MINIMUM CONCRETE BACKFILL VOLUME, SITE CONDITIONS MAY REQUIRE ADDITIONAL BACKFILL.

PRECAST BASE IDENTIFICATION

PRECAST BASE TYPE	PRECAST BASE WEIGHT	PRECAST BASE LENGTH	PROJECTION ABOVE GRADE	STANDARD EMBEDMENT	OUTSIDE DIAMETER
5B	4,580 LBS	23'-11"	7'-11"	16'-0"	18.25"

POLE IDENTIFICATION

POLE DESIGNATION	POLE TYPE	PRECAST BASE TYPE	FIXTURE CONFIGURATION (FIX. PER XARM)	FIXTURE AND ACCESSORIES EPA (FT²)
F1, F2	LSS80B	5B	12 (6+6)	25.1
F3, F4	LSS80B	5B	11 (5+6)	26.8

- POLES F1 & F2 HAVE: (1) MUSCO LED FIXTURE AT 60'-0" AGL INCLUDED ABOVE.
- POLES F1 - F4 HAVE: (1) VALCOM VE130AL HORN AT 50'-0" AGL INCLUDED IN EPA ABOVE.
- POLES F1 - F4 HAVE: (2) MUSCO LED FIXTURES AT 15'-6" AGL INCLUDED ABOVE.
- POLES F1 - F4 HAVE: (1) CCTV CAMERA AT 12'-0" AGL INCLUDED IN EPA ABOVE.

DESIGN NOTES

DESIGN PARAMETERS:
WIND: V_{ult} = 124 MPH, V_{asd} = 96 MPH (EXPOSURE C, RISK CATEGORY II) PER MASSACHUSETTS STATE BUILDING CODE - 780 CMR, 9TH EDITION (IBC 2015 / ASCE 7-10).

GEOTECHNICAL PARAMETERS:
ALLOWABLE END BEARING SOIL PRESSURE:
6 KSF (NATIVE SAND); 1.5 KSF (EXISTING FILL)
ALLOWABLE LATERAL SOIL BEARING PRESSURE:
0 PSF/FT (GRADE TO -2'-0"); VARIES BY LOCATION (BELOW -2'-0")
IN ACCORDANCE WITH MASSACHUSETTS STATE BUILDING CODE - 780 CMR, 9TH EDITION, CHAPTER 18.

DESIGN SOIL PARAMETERS ARE AS NOTED. ACTUAL ALLOWABLE SOIL PARAMETERS MUST BE VERIFIED ON SITE. REFERENCE GEOTECHNICAL REPORT, PROJECT NO. 1922-REV. 2, PREPARED BY LAHLAF GEOTECHNICAL CONSULTING, INC.; BILLERICA, MA.

A GEOTECHNICAL ENGINEER OR REPRESENTATIVE OF IS RECOMMENDED (NOT REQUIRED) TO BE AVAILABLE AT THE TIME OF THE FOUNDATION INSTALLATION TO VERIFY THE SOIL DESIGN PARAMETERS AND TO PROVIDE ASSISTANCE IF ANY PROBLEMS ARISE IN FOUNDATION INSTALLATION.

ENCOUNTERING SOIL FORMATIONS THAT WILL REQUIRE SPECIAL DESIGN CONSIDERATIONS OR EXCAVATION PROCEDURES MAY OCCUR. POLE FOUNDATIONS WILL NEED TO BE ANALYZED ACCORDING TO THE SOIL CONDITIONS THAT EXIST. IF ANY DISCREPANCIES OR INCONSISTENCIES ARISE, NOTIFY THE ENGINEER OF SUCH DISCREPANCIES. FOUNDATIONS WILL THEN BE REVISED ACCORDINGLY. REVISIONS WILL BE ANALYZED PER RECOMMENDATIONS DIRECTED BY A REGISTERED ENGINEER.

ALL EXCAVATIONS MUST BE FREE OF LOOSE SOIL AND DEBRIS PRIOR TO FOUNDATION INSTALLATION AND CONCRETE BACKFILL PLACEMENT. TEMPORARY CASINGS OR DRILLERS SLURRY MAY BE USED TO STABILIZE THE EXCAVATION DURING INSTALLATION. CASINGS MUST BE REMOVED DURING CONCRETE BACKFILL PLACEMENT. CONCRETE BACKFILL MUST BE PLACED WITH A TREMIE WHEN SLURRY OR WATER IS PRESENT WITHIN THE EXCAVATION OR WHEN THE FREE DROP EXCEEDS 6'-0".

CONTRACTOR MUST BE FAMILIAR WITH THE COMPLETE SOIL INVESTIGATION REPORT AND BORINGS, AND CONTACT THE GEOTECHNICAL FIRM (IF NECESSARY) TO UNDERSTAND THE SOIL CONDITIONS AND THE POSSIBILITY OF GROUND WATER PUMPING AND EXCAVATION STABILIZATION OR BRACING DURING PRECAST BASE INSTALLATION AND PLACEMENT OF CONCRETE BACKFILL.

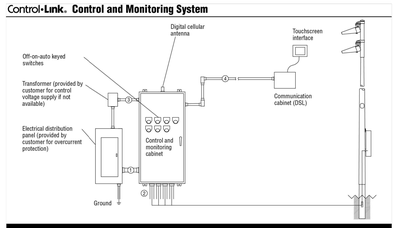
CONCRETE:
CONCRETE SHALL BE AIR-ENTRAINED AND HAVE A MINIMUM COMPRESSIVE DESIGN STRENGTH AT 28 DAYS OF 3,000 PSI. 3,000 PSI CONCRETE SPECIFIED FOR EARLY POLE ERECTION. ACTUAL REQUIRED MINIMUM ALLOWABLE CONCRETE STRENGTH IS 1,000 PSI. ALL PIERS AND CONCRETE BACKFILL MUST BEAR ON AND AGAINST FIRM UNDISTURBED SOIL.

GENERAL NOTES:
FIXTURES MUST BE LOCATED TO MAINTAIN 10'-0" MINIMUM HORIZONTAL CLEARANCE FROM ANY OBSTRUCTION. ENGINEER MUST BE NOTIFIED IF FOUNDATIONS ARE NEAR ANY RETAINING WALLS OR WITHIN / NEAR ANY SLOPES STEEPER THAN 3H : 1V. POLES, FIXTURES, PRECAST BASES, ELECTRICAL ITEMS AND INSTALLATION PER MUSCO LIGHTING.

Control System Summary

Doherty Memorial High School / 208970 - 208970B
1 - Page 2 of 4

Control-Link. Control and Monitoring System



Conduit ID	Description	# of Wires	Wire (AWG)	Conduit (in)	Max. Wire Length (ft)	MUSCO Supplied	Notes
1	Line power to contactors, and equipment grounding conductor	*A	*B	*C	N/A	No	A-E
2	Load power to lighting circuits, and equipment grounding conductor	*A	*B	*C	N/A	No	A-E
3	Control power (dedicated, 20A)	3	12	*C	N/A	No	C,E
4	Communication cable to touchscreen	*F	*F	*C	1500	No	C,E,F

* Notes:
A. See voltage and phasing per the notes on cover page.
B. Calculate per load and voltage drop.
C. All conduit diameters should be per code unless otherwise specified to allow for connector size.
D. Equipment grounding conductor and any splices must be insulated.
E. Refer to control and monitoring system installation instructions for more details on equipment information and the installation requirements.
F. CatSe cable (Belden 7937A or equal) is required. DSL modem (inside cabinet) receives power over DSL cable. Communication cabinet requires connection to earth ground. Standard wall outlet is required to power touchscreen. Touchscreen connects to communication cabinet with Ethernet cable (<300 ft.).

IMPORTANT: Control wires (3) and communication wire (4) must be in separate conduit from line and load power wires (1, 2).

Control System Summary

Doherty Memorial High School / 208970 - 208970B
1 - Page 3 of 4

SWITCHING SCHEDULE

Field/Zone Description	Zones
Football	1
Security	2

CONTROL POWER CONSUMPTION	
120V Single Phase	
VA loading of Musco Supplied Equipment	INRUSH: 1798.0
	SEALED: 205.8

CIRCUIT SUMMARY BY ZONE

POLE	CIRCUIT DESCRIPTION	# OF FIXTURES	# OF DRIVERS	*FULL LOAD AMPS	CONTACTOR SIZE (AMPS)	CONTACTOR ID	ZONE
F1	Football	11	11	**18.3**	30	C1	1
F2	Football	11	11	**18.3**	30	C2	1
F3	Football	11	11	**18.3**	30	C3	1
F4	Football	11	11	**18.3**	30	C4	1
F1,F2	Security	2	2	**1.7**	30	C5	2

*Full Load Amps based on amps per driver.

Control System Summary

Doherty Memorial High School / 208970 - 208970B
1 - Page 4 of 4

PANEL SUMMARY

CABINET #	CONTROL MODULE LOCATION	CONTACTOR ID	CIRCUIT DESCRIPTION	FULL LOAD AMPS	DISTRIBUTION PANEL ID (BY OTHERS)	CIRCUIT BREAKER POSITION (BY OTHERS)
1	1	C1	Pole F1	18.26		
1	1	C2	Pole F2	18.26		
1	1	C3	Pole F3	18.26		
1	1	C4	Pole F4	18.26		
1	1	C5	Pole F1,F2	1.73		

ZONE SCHEDULE

ZONE	SELECTOR SWITCH	ZONE DESCRIPTION	CIRCUIT DESCRIPTION	
			POLE ID	CONTACTOR ID
Zone 1	1	Football	F1	C1
			F2	C2
			F3	C3
			F4	C4
Zone 2	2	Security	F1	C5
			F2	C5

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PROJECT

100% CONSTRUCTION DOCUMENTS, FINAL BID PACKAGE #4

Doherty Memorial High School

299 Highland Street, Worcester, MA 01602

DRAWING TITLE

Electrical Sport Field Lighting Details and Schedule

Locus Map

True North

Key Plan

REVISIONS

No.	Description	Date
5	Addendum 5	02/16/2022

FILE:
JOB NO: #1904
SCALE: NTS
DWN. BY: AC
CKD. BY: AR
DATE: January 20, 2022

E7.2

EQUIPMENT LIST FOR AREAS SHOWN

QTY	LOCATION	SIZE	GRADE ELEVATION	Pole MOUNTING HEIGHT	Luminaires LUMAIRE TYPE	QTY / POLE	TOP GRID	OTHER GRIDS
2	F1-F2	80'		15.5'	TLC-BT-575	1	1	0
				60'	TLC-LED-400	1	1	0
				80'	TLC-LED-1200	9	9	0
2	F3-F4	80'	-	15.5'	TLC-BT-575	2	2	0
				80'	TLC-LED-1200	9	9	0
4	TOTALS					46	44	2

Doherty Memorial High School
Worcester, MA

GRID SUMMARY
Name: Football
Size: 360' x 160'
Spacing: 30.0' x 30.0'
Height: 3.0' above grade

ILLUMINATION SUMMARY
MAINTAINED HORIZONTAL FOOTCANDLES
Entire Grid

Guaranteed Average:	**50**
Scan Average:	53.58
Maximum:	62
Minimum:	45
Avg / Min:	1.19
Guaranteed Max / Min:	**3**
Max / Min:	1.38
UG (adjacent pts):	1.25
CU:	0.67
No. of Points:	72

LUMINAIRE INFORMATION
Applied Circuits: A
No. of Luminaires: 44
Total Load: 46.72 kW

Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document and includes a 0.95 dirt depreciation factor.

Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the **"Musco Control System Summary"** for electrical sizing.

Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.

Pole location(s): ✣ dimensions are relative to (L,0) reference point(s) ⊗

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EQUIPMENT LIST FOR AREAS SHOWN

QTY	LOCATION	SIZE	GRADE ELEVATION	Pole MOUNTING HEIGHT	Luminaires LUMAIRE TYPE	QTY / POLE	TOP GRID	OTHER GRIDS
2	F1-F2	80'	0'	15.5'	TLC-BT-575	1	1	0
				60'	TLC-LED-400	1	1	0
				80'	TLC-LED-1200	9	9	0
2	F3-F4	80'	0'	15.5'	TLC-BT-575	2	2	0
				80'	TLC-LED-1200	9	9	0
4	TOTALS					46	44	2

Doherty Memorial High School
Worcester, MA

GRID SUMMARY
Name: Zero Grid
Size: 200' x 160'
Spacing: 10.0' x 10.0'
Height: 3.0' above grade

ILLUMINATION SUMMARY
MAINTAINED HORIZONTAL FOOTCANDLES
Entire Grid

Scan Average:	**18.48**
Maximum:	74
Minimum:	0
Avg / Min:	2517.87
Max / Min:	**10025.67**
UG (adjacent pts):	4.22
CU:	0.90
No. of Points:	2913

LUMINAIRE INFORMATION
Applied Circuits: A
No. of Luminaires: 44
Total Load: 46.72 kW

Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document and includes a 0.95 dirt depreciation factor.

Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the **"Musco Control System Summary"** for electrical sizing.

Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.

Pole location(s): ✣ dimensions are relative to (L,0) reference point(s) ⊗

We Make It Happen.

EQUIPMENT LIST FOR AREAS SHOWN

QTY	LOCATION	SIZE	GRADE ELEVATION	Pole MOUNTING HEIGHT	Luminaires LUMAIRE TYPE	QTY / POLE	TOP GRID	OTHER GRIDS
2	F1-F2	80'		15.5'	TLC-BT-575	1	1	0
				60'	TLC-LED-400	1	1	0
				80'	TLC-LED-1200	9	9	0
2	F3-F4	80'		15.5'	TLC-BT-575	2	2	0
				80'	TLC-LED-1200	9	9	0
4	TOTALS					46	44	2

Lighting System

Pole / Fixture Summary

Pole ID	Pole Height	Mtg Height	Fixture Qty	Luminaire Type	Load	Circuit
F1-F2	80'	80'	9	TLC-LED-1200	10.53 kW	A
		16'	2	TLC-BT-575	1.15 kW	A
		60'	1	TLC-LED-400	0.40 kW	B
F3-F4	80'	80'	9	TLC-LED-1200	10.53 kW	A
		16'	2	TLC-BT-575	1.15 kW	A
4			46		47.52 kW	

Circuit Summary

Circuit	Description	Load	Fixture Qty.
A	Football	46.72 kW	44
B	Security	0.8 kW	2

Fixture Type Summary

Type	Source	Wattage	Lumens	L80	L90	L70	Quantity
TLC-BT-575	LED 5700K - 75 CRI	575W	52,000	>120,000	>120,000	>120,000	8
TLC-LED-400	LED 5700K - 75 CRI	400W	46,500	>120,000	>120,000	>120,000	2
TLC-LED-1200	LED 5700K - 75 CRI	1170W	136,000	>120,000	>120,000	>120,000	36

Light Level Summary

Calculation Grid Summary

Grid Name	Calculation Metric	Illumination Ave	Min	Max	Max/Min	Ave/Min	Circuits	Fixture Qty
Bleachers	Horizontal	18.7	5	34	6.25	3.35	A,B	46
Football	Horizontal Illuminance	53.6	45	62	1.38	1.19	A	44
Residential Spill Line	Horizontal	0.01	0	0.06	0.00		A	44
Residential Spill Line	Max Candela (by Fixture)	419	0	2827	0.00		A	44
Residential Spill Line	Max Vertical Illuminance Metric	0.02	0	0.13	0.00		A	44
Security	Horizontal	1.47	0	9	0.00		B	2
Zero Grid	Horizontal Illuminance	18.5	0	74	10025.67		A	44

EQUIPMENT LIST FOR AREAS SHOWN

QTY	LOCATION	SIZE	GRADE ELEVATION	Pole MOUNTING HEIGHT	Luminaires LUMAIRE TYPE	QTY / POLE	TOP GRID	OTHER GRIDS
2	F1-F2	80'		15.5'	TLC-BT-575	1	1	0
				60'	TLC-LED-400	1	1	0
				80'	TLC-LED-1200	9	9	0
2						24	2	22

Doherty Memorial High School
Worcester, MA

GRID SUMMARY
Name: Bleachers
Size: 700' x 580'
Spacing: 10.0' x 10.0'

ILLUMINATION SUMMARY
MAINTAINED HORIZONTAL FOOTCANDLES
Entire Grid

Scan Average:	**16.74**
Maximum:	64
Minimum:	6
Avg / Min:	3.13
Max / Min:	**6.35**
UG (adjacent pts):	1.91
CU:	0.03
No. of Points:	93

LUMINAIRE INFORMATION
Applied Circuits: A, B
No. of Luminaires: 46
Total Load: 47.52 kW

Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document and includes a 0.95 dirt depreciation factor.

Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the **"Musco Control System Summary"** for electrical sizing.

Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.

Pole location(s): ✣ dimensions are relative to (L,0) reference point(s) ⊗

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EQUIPMENT LIST FOR AREAS SHOWN

QTY	LOCATION	SIZE	GRADE ELEVATION	Pole MOUNTING HEIGHT	Luminaires LUMAIRE TYPE	QTY / POLE	TOP GRID	OTHER GRIDS
2	F1-F2	80'		15.5'	TLC-BT-575	1	1	0
				60'	TLC-LED-400	1	1	0
				80'	TLC-LED-1200	9	9	0
2						24	2	22

Doherty Memorial High School
Worcester, MA

GRID SUMMARY
Name: Security
Size: 700' x 580'
Spacing: 10.0' x 10.0'
Height: 3.0' above grade

ILLUMINATION SUMMARY
MAINTAINED HORIZONTAL FOOTCANDLES
Entire Grid

Scan Average:	**1.47**
Maximum:	9
Minimum:	0
Avg / Min:	
Max / Min:	
UG (adjacent pts):	8312.76
CU:	1.00
No. of Points:	619

LUMINAIRE INFORMATION
Applied Circuits: B
No. of Luminaires: 2
Total Load: 0.8 kW

Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document and includes a 0.95 dirt depreciation factor.

Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the **"Musco Control System Summary"** for electrical sizing.

Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.

Pole location(s): ✣ dimensions are relative to (L,0) reference point(s) ⊗

We Make It Happen.

<UTF-8>

Control System Summary

Project Specific Notes:

Project Information

Project #:	208970
Project Name:	Doherty Memorial High School
Date:	12/10/20
Project Engineer:	TLanphier
Sales Representative:	Mike Berry
Control System Type:	Control-Link™ Control and Monitoring System with Show-Link™ Entertainment Package
Communication Type:	PowerLine-ST
Scan:	208970B
Document ID:	208970P1V2-1210101102
Distribution Panel Location or ID:	1
Total # of Distribution Panel Locations for Project:	1
Design Voltage/Hertz/Phase:	480/60/3
Control Voltage:	120

Equipment Listing

DESCRIPTION	APPROXIMATE SIZE
1.Control and Monitoring Cabinet	24 X 48

	QTY	SIZE (AMPS)
Total Contactors	5	30 AMP
Total Off/On/Auto Switches:	2	

Materials Checklist

Contractor/Customer Supplied:

- ❑ A dedicated control circuit must be supplied per distribution panel location
  - — If the control voltage is NOT available, a control transformer is required
- ❑ Electrical distribution panel to provide overcurrent protection for circuits
  - — HID rated or D-curve circuit breaker sized per full load amps on Circuit Summary by Zone Chart
- ❑ Wiring
  - — See chart on page 2 for wiring requirements
  - — Equipment grounding conductor and splices must be insulated (per circuit)
  - — Lightning ground protection (per pole), if not Musco supplied
- ❑ Electrical conduit wireway system
  - — Entrance hubs rated NEMA 4, must be die-cast zinc, PVC, or copper-free die-cast aluminum
- ❑ Mounting hardware for cabinets
- ❑ Breaker lock-on device to prevent unauthorized power interruption to control power and powerline connection (if present)
- ❑ Anti-corrosion compound to apply to ends of wire, if necessary

Call Control-Link Central™ operations center at 877/347-3319 to schedule activation of the control system upon completion of the installation.

Note: Activation may take up to 1 1/2 hours.

IMPORTANT NOTES

1. Please confirm that the design voltage listed above is accurate for this facility. Design voltage/phase is defined as the voltage/phase being connected and utilized at each lighting pole's electrical components enclosure disconnect. Inaccurate design voltage/phase can result in additional costs and delays. Contact your Musco sales representative to confirm this item.
2. In a 3 phase design, all 3 phases are to be run to each pole. When a 3 phase design is used Musco's single phase luminaires come pre-wired to utilize all 3 phases across the entire facility.
3. One contactor is required for each pole. When a pole has multiple circuits, one contactor is required for each circuit. All contactors are 100% rated for the published continuous load. All contactors are 3 pole.
4. If the lighting system will be fed from more than one distribution location, additional equipment may be required. Contact your Musco sales representative.
5. A single control circuit must be supplied per control system.
6. Size overcurrent devices using the full load amps column of the Circuit Summary By Zone chart- Minimum power factor is 0.9.

NOTE: Refer to Installation Instructions for more details on equipment information and the installation requirements.

ALTERNATE #2

MATCHLINE - A

MATCHLINE - A

MATCHLINE - B

MATCHLINE - B

LEGEND

SYM.	DESCRIPTION	WIRE TYPE
CR	CARD READER BELDEN 5542FE/6542FE	#22/6S
C	DOOR CONTACT BELDEN 5300/6300UE	#18/2
C OH	DOOR CONTACT - OVERHEAD DOOR BELDEN 5300/6300UE	#18/2
EL	ELECTRIC LOCK BELDEN 5302UE/6302UE	#18/4
MC	DOOR OPERATOR PUSHBUTTON STATION BELDEN 5300/6300UE	#18/2
RX	DOOR EXIT DEVICE BELDEN 5300/6300UE	#18/2
VES	DOOR INTERCOM VIDEO ENTRANCE STATION	CAT-6A
VMS	DOOR INTERCOM VIDEO MASTER STATION	CAT-6A
IDS	TO INTRUSION DETECTION SYSTEM BELDEN 5300UE/6300UE	#22/2
EVO	EH400-K - POE INTELLIGENT INTERFACE MODULE EDGE DEVICE FOR ACCESS CONTROL	
EDWM	EDWM-M -DOOR READER HI-O BUS FOR ADDITIONAL DISCRETE INPUTS AND OUTPUTS AND READER INPUT	
EDM	EDM-M - DOOR READER HI-O BUS FOR ADDITIONAL DISCRETE INPUTS AND OUTPUTS	
EWM	EWM-M - DOOR READER MODULE HI-O BUS FOR ADDITIONAL READER PORTS	

NOTES:

1. THE RISER DIAGRAM REPRESENTS THE DESIGN INTENT. THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL MATERIALS AND WIRING FOR A FULLY FUNCTIONAL SYSTEM. THE ELECTRICAL CONTRACTOR SHALL USE THE RISER PROVIDED BY THE MANUFACTURER/SYSTEM VENDOR. THE MANUFACTURER/SYSTEM VENDOR SHALL PREPARE THE RISER DIAGRAM FOR A FULLY FUNCTIONAL SYSTEM.
2. PROVIDE NORMALLY OPEN RELAYS FOR INTEGRATION OF DOOR OPERATORS WITH ACCESS CONTROL SYSTEM.
3. ALL WIRING SHALL BE PLENUM RATED.

ACCORDION DOORS:

1. FOR EACH ACCORDION DOOR PROVIDE INTEGRATION WITH FIRE ALARM SYSTEM, ACCESS CONTROL SYSTEM AND INTRUSION DETECTION SYSTEM.
2. ACCESS CONTROL/INTRUSION DETECTION SYSTEM INTEGRATION:
   a. IN THE EVENT OF A PANIC ALARM THE INTRUSION DETECTION SYSTEM WILL SEND A SIGNAL THROUGH THE ACCESS CONTROL SYSTEM TO THE ACCORDION DOOR TO CLOSE.
   b. ANY DOOR TO OPEN OR CLOSE WITH ACTIVATION BY ADJACENT CARD READER.
   c. ANY DOOR TO OPEN OR CLOSE REMOTELY THROUGH THE ACCESS CONTROL SYSTEM.
   d. THE ACCESS CONTROL SYSTEM WILL MONITOR THE OPENED, CLOSED, IN PROGRESS OF OPENING OR CLOSING STATUS OF THE ACCORDION DOOR.
   d. REPORT TO THE ACCESS CONTROL SYSTEM AND INITIATE AN ALARM WHEN THE ACCORDION DOOR IS HELD OPEN, OBSTRUCTED, OR FORCED OPEN.
   e. REPORT TO THE ACCESS CONTROL SYSTEM ANY SYSTEM ALARMS FOR LOW BATTERY OR SYSTEM FAILURES.
3. FIRE ALARM SYSTEM INTEGRATION:
   a. IN THE EVENT OF A FIRE ALARM, THE FIRE ALARM SYSTEM WILL SEND A SIGNAL TO THE ACCORDION DOOR TO CLOSE.
   b. THE FIRE ALARM SYSTEM WILL MONITOR THE ACCORDION DOOR OPEN/CLOSE STATUS AND INITIATE A TROUBLE SIGNAL ON FAULT.

ELEVATORS:

1. FOR EACH ELEVATOR PROVIDE INTEGRATION WITH THE ACCESS CONTROL SYSTEM.
   a. ADJACENT CARD READER TO RECALL ELEVATOR TO THE FLOOR WHERE THE CARD READER IS LOCATED DURING PROGRAMMED TIMES.
   b. ELEVATOR TO IGNORE CARD READER DURING NON-PROGRAMMED TIMES.

OVERHEAD DOORS/SLIDING GATES:

1. FOR EACH OVERHEAD DOOR/GATE PROVIDE INTEGRATION WITH THE ACCESS CONTROL SYSTEM.
   a. ADJACENT CARD READER TO OPEN/CLOSE OVERHEAD DOOR/GATE DURING PROGRAMMED TIMES.
   b. OVERHEAD DOOR/GATE TO IGNORE CARD READER DURING NON-PROGRAMMED TIMES.

PARKING BARRIER GATE/OVERHEAD DOOR INTEGRATION:

1. FOR THE ENTRY/EXIT PARKING BARRIER GATE/OVERHEAD DOOR PROVIDE INTEGRATION WITH THE ACCESS CONTROL SYSTEM.
   a. MORNING HOURS - SEND SIGNAL TO OPEN THE ENTRANCE. OVERHEAD DOOR/PARKING ENTRY CONTROL BARRIER ARM BETWEEN THE HOURS OF 7:30 AM TO 8:15 AM TO BE PROGRAMMED OPEN THROUGH THE ACCESS CONTROL SYSTEM.
   b. CLOSE THE ENTRANCE GARAGE DOOR DURING NON-PROGRAMMED HOURS. CARD READER READER TO ACTIVATE THE ENTRANCE OVERHEAD DOOR FIRST, FOLLOWED BY THE PARKING CONTROL BARRIER GATE ARM. BOTH CLOSING AFTER VEHICLE PASSAGE IN OPPOSITE SEQUENCE.
   c. AFTERNOON HOURS - SEND SIGNAL TO OPEN THE EXIT. OVERHEAD DOOR/ PARKING EXIT CONTROL BARRIER ARM BETWEEN THE HOURS OF 2:00 PM AND 3:00 PM TO BE PROGRAMMED OPEN THROUGH THE ACCESS CONTROL SYSTEM.
   d. CLOSE THE EXIT GARAGE DOOR DURING NON- PROGRAMMED HOURS, DETECTION LOOP SEND SIGNAL TO OPEN THE GARAGE DOOR FIRST, THEN THE CONTROL ARM DURING ALL HOURS.
   d. THE CARD READERS SHALL BE PROGRAMMED OFF AT EVENING/WEEKEND HOURS, ALLOWING ONLY EMERGENCY ACCESS.
   e. SIGNAL FROM THE ACCESS CONTROL SYSTEM TO OVERRIDE AND LOCK DOWN IN EVENT OF A SECURITY SITUATION. CARD READERS TO ALLOW ONLY EMERGENCY ACCESS AND EXIT UNDER SECURITY SHUTDOWN.

LEVEL 5

B

ELEV 1.4 — EVO, EDWM → ETHERNET CAT. 6A; CR, PS → 120VAC; ELEVATOR CONTROLLER

DOOR B412 — EVO → ETHERNET CAT. 6A; C, CR, RX, PS → 120VAC; IDS; EL

LEVEL 4

A

ELEV 1.3 — EVO, EDWM → ETHERNET CAT. 6A; CR, PS → 120VAC; ELEVATOR CONTROLLER

DOOR A306 — EVO → ETHERNET CAT. 6A; C, CR, RX, PS → 120VAC; IDS; EL

DOOR A310S — EVO → ETHERNET CAT. 6A; C, RX, PS → 120VAC; IDS; C, RX, EL; EL

DOOR X29 — EVO → ETHERNET CAT. 6A; C; IDS; 2

LEVEL 3

ELEV 1.2 — EVO, EDWM → ETHERNET CAT. 6A; CR, CR, PS → 120VAC; ELEVATOR CONTROLLER

DOOR HS-23 — EVO, EDWM → ETHERNET CAT. 6A; CR, CR, PS → 120VAC; ACCORDION DOOR CONTROLLER

DOOR A210S — EVO → ETHERNET CAT. 6A; C, CR, PS → 120VAC; C, RX, EL; IDS; EL

LEVEL 2

ELEV 1.1 — EVO, EDWM → ETHERNET CAT. 6A; CR, CR, PS → 120VAC; ELEVATOR CONTROLLER

DOOR B106 — EVO → ETHERNET CAT. 6A; C, CR, RX, PS → 120VAC; IDS; EL

DOOR HS-11 — EVO, EDWM → ETHERNET CAT. 6A; CR, CR; ACCORDION DOOR CONTROLLER

DOOR X10 / DOOR X11 — EVO → ETHERNET CAT. 6A; C; C; IDS; 1

DOOR X12 — EVO → ETHERNET CAT. 6A; WP, C, CR, RX, PS → 120VAC; IDS; EL

DOOR A106 — EVO → ETHERNET CAT. 6A; C, CR, RX, PS → 120VAC; IDS; EL

DOOR A110S — EVO → ETHERNET CAT. 6A; C, RX, PS → 120VAC; C, RX, EL; IDS; EL

MAIN FLOOR

GROUND FLOOR

ELEV 1.0 — EVO, EDWM → ETHERNET CAT. 6A; CR, CR, PS → 120VAC; ELEVATOR CONTROLLER

DOOR X8 — EVO → ETHERNET CAT. 6A; WP, C, CR, RX, PS → 120VAC; IDS; EL

DOOR B015 — EVO → ETHERNET CAT. 6A; C, CR, RX, PS → 120VAC; IDS; EL

DOOR OH005 — EVO → ETHERNET CAT. 6A; C; IDS; 1

DOOR X9 — EVO → ETHERNET CAT. 6A; WP, C, CR, RX, PS → 120VAC; IDS; EL

DOOR HS-01 — EVO, EDWM → ETHERNET CAT. 6A; CR, CR, PS → 120VAC; ACCORDION DOOR CONTROLLER

SLIDING GATE SG-2 — EVO, EDWM → ETHERNET CAT. 6A; WP, CR, PS → 120VAC; SLIDING GATE CONTROLLER

SLIDING GATE SG-1 — EVO, EDWM → ETHERNET CAT. 6A; WP, CR, PS → 120VAC; SLIDING GATE CONTROLLER

DOOR X7 — EVO → ETHERNET CAT. 6A; C; C; IDS; 1

DOOR X6 — EVO → ETHERNET CAT. 6A; WP, C, CR, RX, PS → 120VAC; C, RX, EL; IDS; EL

DOOR A010S — EVO → ETHERNET CAT. 6A; C, RX, PS → 120VAC; C, RX, EL; IDS; EL

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PROJECT

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Doherty Memorial High School

299 Highland Street, Worcester, MA 01602

DRAWING TITLE

Access Control Riser

Locus Map

True North

Key Plan

REVISIONS

No.	Description	Date
5	Addendum 5	02/16/2022

FILE:

JOB NO:	#1904
SCALE:	N.T.S.
DWN. BY:	AC
CKD. BY:	AR
DATE:	January 20, 2022

TC3.8A

MATCHLINE - A

MATCHLINE - A

MATCHLINE - B

MATCHLINE - B

LEGEND

SYM.	DESCRIPTION	WIRE TYPE:
CR	CARD READER BELDEN 5542FE/6542FE	#22/6S
C	DOOR CONTACT BELDEN 5300/6300UE	#18/2
C OH	DOOR CONTACT - OVERHEAD DOOR BELDEN 5300/6300UE	#18/2
EL	ELECTRIC LOCK BELDEN 5302UE/6302UE	#18/4
MC	DOOR OPERATOR PUSHBUTTON STATION BELDEN 5300/6300UE	#18/2
RX	DOOR EXIT DEVICE BELDEN 5300/6300UE	#18/2
VES	DOOR INTERCOM VIDEO ENTRANCE STATION	CAT-6A
VMS	DOOR INTERCOM VIDEO MASTER STATION	CAT-6A
IDS	TO INTRUSION DETECTION SYSTEM BELDEN 5300UE/6300UE	#22/2
EVO	EH400-K - POE INTELLIGENT INTERFACE MODULE EDGE DEVICE FOR ACCESS CONTROL	
EDWM	EDWM-M -DOOR READER HI-O BUS FOR ADDITIONAL DISCRETE INPUTS AND OUTPUTS AND READER INPUT	
EDM	EDM-M - DOOR READER HI-O BUS FOR ADDITIONAL DISCRETE INPUTS AND OUTPUTS	
EWM	EWM-M - DOOR READER MODULE HI-O BUS FOR ADDITIONAL READER PORTS	

NOTES:

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2. PROVIDE NORMALLY OPEN RELAYS FOR INTEGRATION OF DOOR OPERATORS WITH ACCESS CONTROL SYSTEM.
3. ALL WIRING SHALL BE PLENUM RATED.

ACCORDION DOORS:

1. FOR EACH ACCORDION DOOR PROVIDE INTEGRATION WITH FIRE ALARM SYSTEM, ACCESS CONTROL SYSTEM AND INTRUSION DETECTION SYSTEM.
2. ACCESS CONTROL/INTRUSION DETECTION SYSTEM INTEGRATION:
   a. IN THE EVENT OF A PANIC ALARM THE INTRUSION DETECTION SYSTEM WILL SEND A SIGNAL THROUGH THE ACCESS CONTROL SYSTEM TO THE ACCORDION DOOR TO CLOSE.
   b. ANY DOOR TO OPEN OR CLOSE WITH ACTIVATION BY ADJACENT CARD READER.
   c. ANY DOOR TO OPEN OR CLOSE REMOTELY THROUGH THE ACCESS CONTROL SYSTEM.
   d. THE ACCESS CONTROL SYSTEM WILL MONITOR THE OPENED, CLOSED, IN PROGRESS OF OPENING OR CLOSING STATUS OF THE ACCORDION DOOR.
   d. REPORT TO THE ACCESS CONTROL SYSTEM AND INITIATE AN ALARM WHEN THE ACCORDION DOOR IS HELD OPEN, OBSTRUCTED, OR FORCED OPEN.
   e. REPORT TO THE ACCESS CONTROL SYSTEM ANY SYSTEM ALARMS FOR LOW BATTERY OR SYSTEM FAILURES.
3. FIRE ALARM SYSTEM INTEGRATION:
   a. IN THE EVENT OF A FIRE ALARM, THE FIRE ALARM SYSTEM WILL SEND A SIGNAL TO THE ACCORDION DOOR TO CLOSE.
   b. THE FIRE ALARM SYSTEM WILL MONITOR THE ACCORDION DOOR OPEN/CLOSE STATUS AND INITIATE A TROUBLE SIGNAL ON FAULT.

ELEVATORS:

1. FOR EACH ELEVATOR PROVIDE INTEGRATION WITH THE ACCESS CONTROL SYSTEM.
   a. ADJACENT CARD READER TO RECALL ELEVATOR TO THE FLOOR WHERE THE CARD READER IS LOCATED DURING PROGRAMMED TIMES.
   b. ELEVATOR TO IGNORE CARD READER DURING NON-PROGRAMMED TIMES.

OVERHEAD DOORS/SLIDING GATES:

1. FOR EACH OVERHEAD DOOR/GATE PROVIDE INTEGRATION WITH THE ACCESS CONTROL SYSTEM.
   a. ADJACENT CARD READER TO OPEN/CLOSE OVERHEAD DOOR/GATE DURING PROGRAMMED TIMES.
   b. OVERHEAD DOOR/GATE TO IGNORE CARD READER DURING NON-PROGRAMMED TIMES.

PARKING BARRIER GATE/OVERHEAD DOOR INTEGRATION:

1. FOR THE ENTRY/EXIT PARKING BARRIER GATE/OVERHEAD DOOR PROVIDE INTEGRATION WITH THE ACCESS CONTROL SYSTEM.
   a. MORNING HOURS - SEND SIGNAL TO OPEN THE ENTRANCE. OVERHEAD DOOR/PARKING ENTRY CONTROL BARRIER ARM BETWEEN THE HOURS OF 7:30 AM TO 8:15 AM TO BE PROGRAMMED OPEN THROUGH THE ACCESS CONTROL SYSTEM.
   b. CLOSE THE ENTRANCE GARAGE DOOR DURING NON-PROGRAMMED HOURS. CARD READER READER TO ACTIVATE THE ENTRANCE OVERHEAD DOOR FIRST, FOLLOWED BY THE PARKING CONTROL BARRIER GATE ARM. BOTH CLOSING AFTER VEHICLE PASSAGE IN OPPOSITE SEQUENCE.
   c. AFTERNOON HOURS - SEND SIGNAL TO OPEN THE EXIT. OVERHEAD DOOR/ PARKING EXIT CONTROL BARRIER ARM BETWEEN THE HOURS OF 2:00 PM AND 3:00 PM TO BE PROGRAMMED OPEN THROUGH THE ACCESS CONTROL SYSTEM.
   d. CLOSE THE EXIT GARAGE DOOR DURING NON- PROGRAMMED HOURS, DETECTION LOOP SEND SIGNAL TO OPEN THE GARAGE DOOR FIRST, THEN THE CONTROL ARM DURING ALL HOURS.
   d. THE CARD READERS SHALL BE PROGRAMMED OFF AT EVENING/WEEKEND HOURS, ALLOWING ONLY EMERGENCY ACCESS.
   e. SIGNAL FROM THE ACCESS CONTROL SYSTEM TO OVERRIDE AND LOCK DOWN IN EVENT OF A SECURITY SITUATION. CARD READERS TO ALLOW ONLY EMERGENCY ACCESS AND EXIT UNDER SECURITY SHUTDOWN.

LEVEL 5

B

ELEV 1.4 — EVO, EDWM — ETHERNET CAT. 6A — CR, PS — 120VAC — ELEVATOR CONTROLLER

DOOR B412 — EVO — ETHERNET CAT. 6A — C, CR, RX, PS — 120VAC — IDS — EL

LEVEL 4

A

ELEV 1.3 — EVO, EDWM — ETHERNET CAT. 6A — CR, PS — 120VAC — ELEVATOR CONTROLLER

DOOR A306 — EVO — ETHERNET CAT. 6A — C, CR, RX, PS — 120VAC — IDS — EL

DOOR A310S — EVO — ETHERNET CAT. 6A — C, RX, PS — 120VAC — IDS — C, RX, EL — EL

DOOR X29 — 3 — EVO — ETHERNET CAT. 6A — C — IDS

LEVEL 3

ELEV 1.2 — EVO, EDWM — ETHERNET CAT. 6A — CR, CR, PS — 120VAC — ELEVATOR CONTROLLER

DOOR HS-23 — EVO, EDWM — ETHERNET CAT. 6A — CR, CR, PS — 120VAC — ACCORDION DOOR CONTROLLER

DOOR A210S — EVO — ETHERNET CAT. 6A — C, CR, PS — 120VAC — IDS — C, RX, EL — EL

LEVEL 2

ELEV 1.1 — EVO, EDWM — ETHERNET CAT. 6A — CR, CR, PS — 120VAC — ELEVATOR CONTROLLER

DOOR B106 — EVO — ETHERNET CAT. 6A — C, CR, RX, PS — 120VAC — IDS — EL

DOOR HS-11 — EVO, EDWM — ETHERNET CAT. 6A — CR, CR — ACCORDION DOOR CONTROLLER

DOOR X10 — EVO — ETHERNET CAT. 6A — C — C — IDS

DOOR X11 — EVO — ETHERNET CAT. 6A — C — C — IDS

3

DOOR X12 — EVO — ETHERNET CAT. 6A — WP, CR, RX, PS — 120VAC — IDS — EL

DOOR A106 — EVO — ETHERNET CAT. 6A — C, CR, RX, PS — 120VAC — IDS — EL

DOOR A110S — EVO — ETHERNET CAT. 6A — C, RX, PS — 120VAC — IDS — C, RX, EL — EL

MAIN FLOOR

ELEV 1.0 — EVO, EDWM — ETHERNET CAT. 6A — CR, CR, PS — 120VAC — ELEVATOR CONTROLLER

DOOR X8 — EVO — ETHERNET CAT. 6A — WP, C, CR, RX, PS — 120VAC — IDS — EL

DOOR B015 — EVO — ETHERNET CAT. 6A — C, CR, RX, PS — 120VAC — IDS — EL

DOOR OH005 — 3 — EVO — ETHERNET CAT. 6A — C — IDS

DOOR X9 — EVO — ETHERNET CAT. 6A — WP, C, CR, RX, PS — 120VAC — IDS — EL

DOOR HS-01 — EVO, EDWM — ETHERNET CAT. 6A — CR, CR, PS — 120VAC — ACCORDION DOOR CONTROLLER

SLIDING GATE SG-2 — EVO, EDWM — ETHERNET CAT. 6A — WP, CR, PS — 120VAC — SLIDING GATE CONTROLLER

SLIDING GATE SG-1 — EVO, EDWM — ETHERNET CAT. 6A — WP, CR, PS — 120VAC — SLIDING GATE CONTROLLER

DOOR X7 — 3 — EVO — ETHERNET CAT. 6A — C — C — IDS

DOOR X6 — EVO — ETHERNET CAT. 6A — WP, C, CR, RX, PS — 120VAC — IDS — C, RX, EL — EL

DOOR A010S — EVO — ETHERNET CAT. 6A — C, RX, PS — 120VAC — IDS — C, RX, EL — EL

GROUND FLOOR

MATCHLINE - A

MATCHLINE - A

MATCHLINE - B

MATCHLINE - B

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LAMOUREUX PAGANO ASSOCIATES|ARCHITECTS
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OWNER

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299 Highland St
Worcester MA 01602

PROJECT

100% CONSTRUCTION DOCUMENTS, FINAL BID PACKAGE #4

Doherty Memorial High School

299 Highland Street, Worcester, MA 01602

DRAWING TITLE

Access Control Riser

Locus Map

True North

Key Plan

REVISIONS

No.	Description	Date
5	Addendum 5	02/16/2022

FILE:

JOB NO: #1904

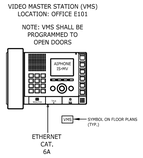
SCALE: N.T.S.

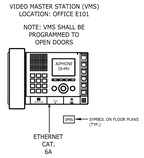
DWN. BY: AC

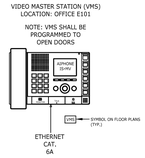
CKD. BY: AR

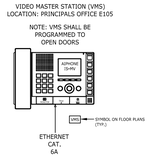
DATE: January 20, 2022

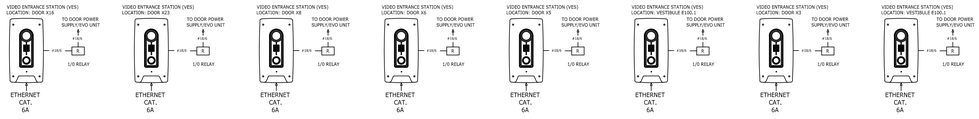
TC3.8B

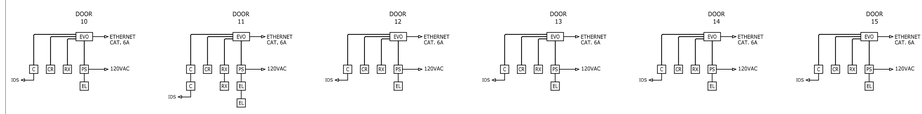


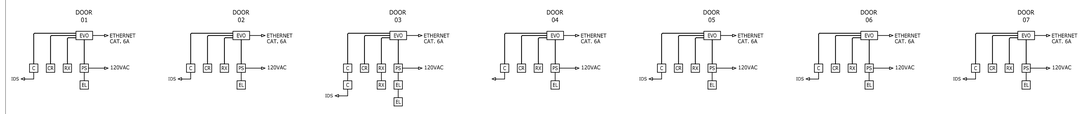


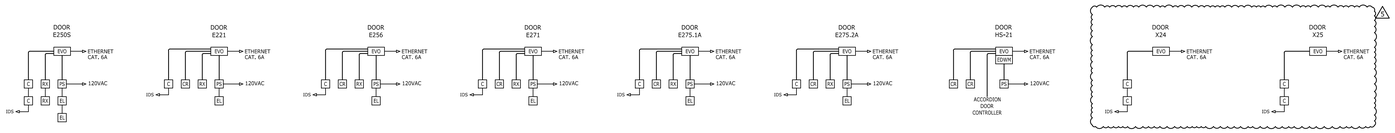


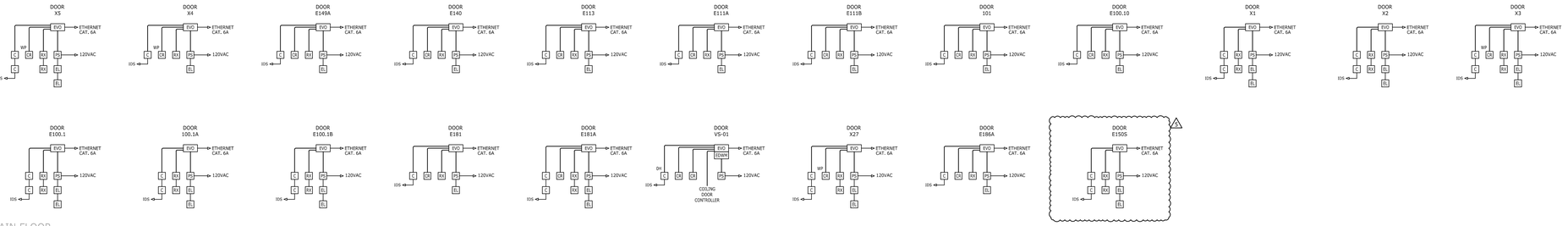


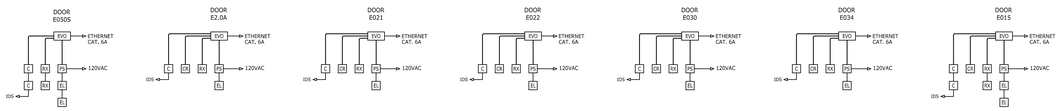












MATCHLINE - B
MATCHLINE - B

OUTDOOR STORAGE BUILDING

MATCHLINE - B
MATCHLINE - B

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TC3.8C