ADDENDUM
NO. 3

March 31, 2022

WESTCHESTER INTERMEDIATE SCHOOL ADDITIONS AND RENOVATIONS
Chesterton, IN 46304

TO: ALL BIDDERS OF RECORD

This Addendum forms a part of and modifies the Bidding Requirements, Contract Forms, Contract Conditions, the Specifications, and the Drawings dated March 1, 2022 by Gibraltar Design. Acknowledge receipt of the Addendum in the space provided on the Bid Form. Failure to do so may subject the Bidder to disqualification.

This Addendum consists of Pages ADD 3-1 and attached Addendum No. 3 from Gibraltar Design dated March 30, 2022 and consisting of 5 pages, Specification Section 09 22 13 - Metal Framing and Furring, Specification Section 10 11 00 - Markerboards and Corkboards, Specification Section 12 35 53 - Science Laboratory Casework and Equipment, Specification Section 23 09 23 - Temperature Controls, and 128 drawings.

A. SPECIFICATION SECTION 00 20 00 - INFORMATION AVAILABE TO BIDDERS

1. **Add:**

The attached Roofing Survey Report submitted by Amereco, Inc.

AMERECO, INC.
CONSULTING • ENGINEERING • PROJECT MANAGEMENT ® 15
MORE THAN 30 YEARS OF EXCEPTIONAL SERVICE

March 30, 2022

Mr. Greg Lindy
Duneland School Corporation
601 Morgan Avenue
Chesterton, IN 46304

Re: Limited Asbestos Survey – Roofing Materials
Westchester Intermediate School
1050 S. 5th Street
Chesterton, IN 46304
Project No. 22.9506.1.1

Dear Mr. Lindy:

Thank you for the opportunity to provide you and the Duneland School Corporation with this service. Attached please find the report associated with the pre-renovation asbestos survey completed at the above-captioned location. This survey was conducted on March 29, 2022, by Jeff Rugg, an Indiana Department of Environmental Management (IDEM) Licensed Asbestos Inspector, License No. 194722076, Expiration Date 09/24/2022. All sampling and analyses were performed in accordance with all applicable local, state, and federal rules and regulations.

Eight roof cores were collected from the requested sections of the building: Sections 1, 2, A, D, E, F, G & H. All samples were submitted to STAT Analysis Corporation and analyzed for asbestos content by Polarized Light Microscopy (PLM) (EPA Method 600/R-93/116).

Based on the results of the laboratory analyses, I am pleased to inform you that asbestos roofing was not identified in the representative samples collected. Please refer to the attached figures for sample locations and results.

Please call if you have any questions or if additional assistance can be provided.

Respectfully,

Jeff Rugg
Senior Environmental Manager

Attachments

54 MICHIGAN AVE. • VALPARAISO, IN 46383 • OFFICE (219) 531-0531 • FAX (219) 464-9166

AMERECO, INC.

Consulting ◘ Engineering ◘ Project Management
54 Michigan Avenue
Valparaiso, IN 46383
(219) 531-0531
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ROOF MATRIX REPORT

Client:	Mr. Greg Lindy Duneland School Corporation 601 Morgan Avenue Chesterton, IN 46304	**Project:**	Westchester Intermediate School 1050 S. 5th Street Chesterton, IN 46304
Date Sampled:	March 29, 2022	**Project No.**	22.9506.1.1

Core ID	Depth	Description	Analytical ID / Asbestos Content
Core # 1 (Roof "1")	Top – 1/8" 1/8" – 5/8" 5/8" – 3 5/8" 3 5/8" – 3 3/4" 3 3/4" – 5 3/4" 5 3/4" – 6 1/4" Bottom – Unknown	EPDM Partical Board Foam insulation Rubber Foam Insulation **BUR - Tar Layer** Roof Deck - Tectum	**WR01-A / ND**
Core #2 (Roof "2")	Top – 1/8" 1/8" – 3/4" 3/4" – 13/16" 13/16" – 1 5/16" 1 5/16" – 1 3/8" 1 3/8" – 3 7/8" 3 7/8" – 4 3/8" Bottom – Unknown	EPDM Drywall Board Tarpaper Foam insulation **BUR – Tar Layer** Foam Insulation **BUR - Tar Layer** Tectum - Roof Deck	**WR04-B / ND** **WR04-A / ND**
Core A (Roof "A")	Top – 1/8" 1/8" – 1/4" 1/4" – 1 1/4" 1 1/4" – 5 1/4" Bottom – Unknown	EPDM Tarpaper Foam Insulation Cellulose Insulation Metal - Roof Deck	No Suspect Materials Sampled
Core D (Roof "D")	Top – 1/8" 1/8" – 5/8" 5/8" – 11/16" 11/16" – 1 11/16" 1 11/16" – 1 3/4" 1 3/4" – 3 3/4" 3 3/4" – 3 13/16" 3 13/16" – 6 13/16" 6 13/16" – 6 7/8" Bottom – Unknown	EPDM Particle Board Tarpaper Foam insulation Tarpaper Foam Insulation **BUR - Tar Layer** Cellulose Insulation **BUR - Tar Layer** Roof Deck – Tectum	**WR07-B / ND** **WR07-A / ND**

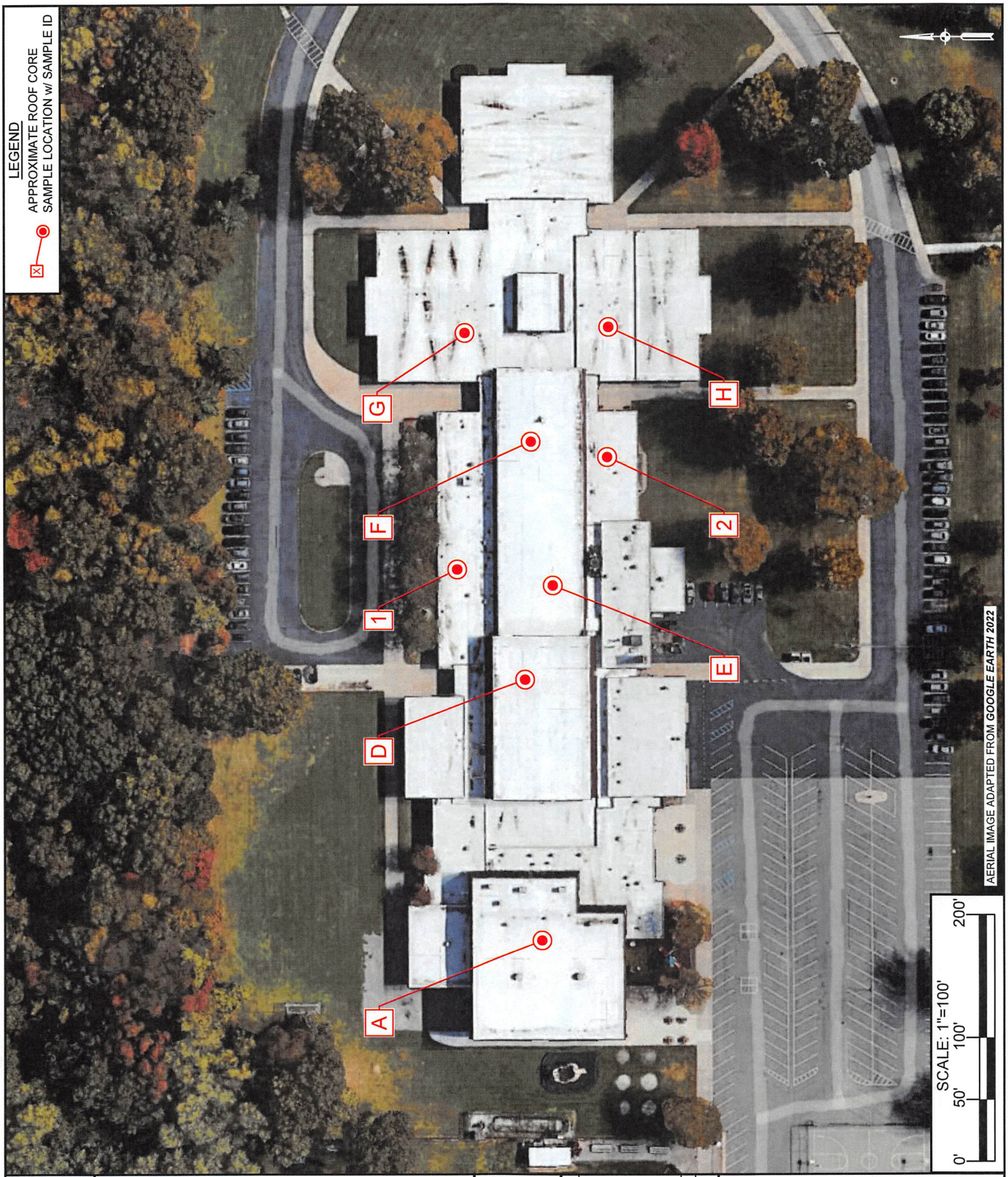
Core ID	Depth	Description	Analytical ID / Asbestos Content
Core E (Roof "E")	Top – 1/8" 1/8" – 7/8" 7/8" – 15/16" 15/16" – 2 15/16" 2 15/16" – 3" 3" – 6" 6" – 6 1/16" 6 1/16" – 9 1/16" Bottom – Unknown	EPDM Cellulose Board Tarpaper Foam Insulation Tarpaper Foam Insulation **BUR - Tar Layer** Cellulose Insulation Roof Deck - Tectum	**WR05-A / ND**
Core F (Room "F")	Top – 1/8" 1/8" – 7/8" 7/8" – 15/16" 15/16" – 1 15/16" 1 15/16 – 2" 2" – 5" 5" – 5 1/16" 5 1/16" – 8 1/16" Bottom – Unknown	EPDM Cellulose Board Tarpaper Foam Insulation Tar Paper Foam Insulation **BUR – Tar Layer** Cellulose Insulation Tectum – Roof Deck	**WR06-A / ND**
Core G (Roof "G")	Top – 1/8" 1/8" – 5/8" 5/8" – 1 5/8" 1 5/8" – 1 11/16" 1 11/16" – 3 11/16" 3 11/16" – 3 13/16" 3 13/16" – 4 13/16" 4 13/16" – 5 5/16" Bottom – Unknown	EPDM Drywall Board Foam insulation Tarpaper Foam Insulation **BUR - Tar Layer** Foam **BUR – Tar Layer** Tectum - Roof Deck	**WR03-B / ND** **WR03-A / ND**
Core H (Roof "H")	Top – 1/8" 1/8" – 5/8" 5/8" – 3/4" 3/4" – 2 3/4" 2 3/4" – 2 7/8" 2 7/8" – 3 7/8" 3 7/8" – 4 3/8" Bottom - Unknown	EPDM **Drywall Board** **BUR – Tar Layer** Foam Insulation **BUR – Tar Layer** Foam Insulation **BUR - Tar Layer** Roof Deck - Concrete	**WR02-D / ND** **WR02-C / ND** **WR02-B / ND** **WR02-A / ND**

BUR = Built-up Roofing
EPDM = Rubber Roofing Membrane
(Ethylene Propylene Diene Monomer)
ND = None Detected
NA = Not Analyzed / Not a Suspect Asbestos Containing Material

Analyzed by: SAC

Ref Number: 357621

Sampled by: _____
Jeff Rugg
License No. 194722076
Exp. Date 09/24/2022



SHEET 1 OF 2	SAMPLE LOCATIONS	DRAWN: L. SALYER	NO.	REVISION	BY	DATE
FIGURE		DESIGNED: J. RUGG				
1	ROOF SAMPLING EVENT	APPRVD: Z. HEINE				
	WESTCHESTER INTERMEDIATE SCHOOL	DATE: MAR. 30, 2022				
		PROJECT NUMBER: 22.9506.1.1				
	CHESTERTON INDIANA					

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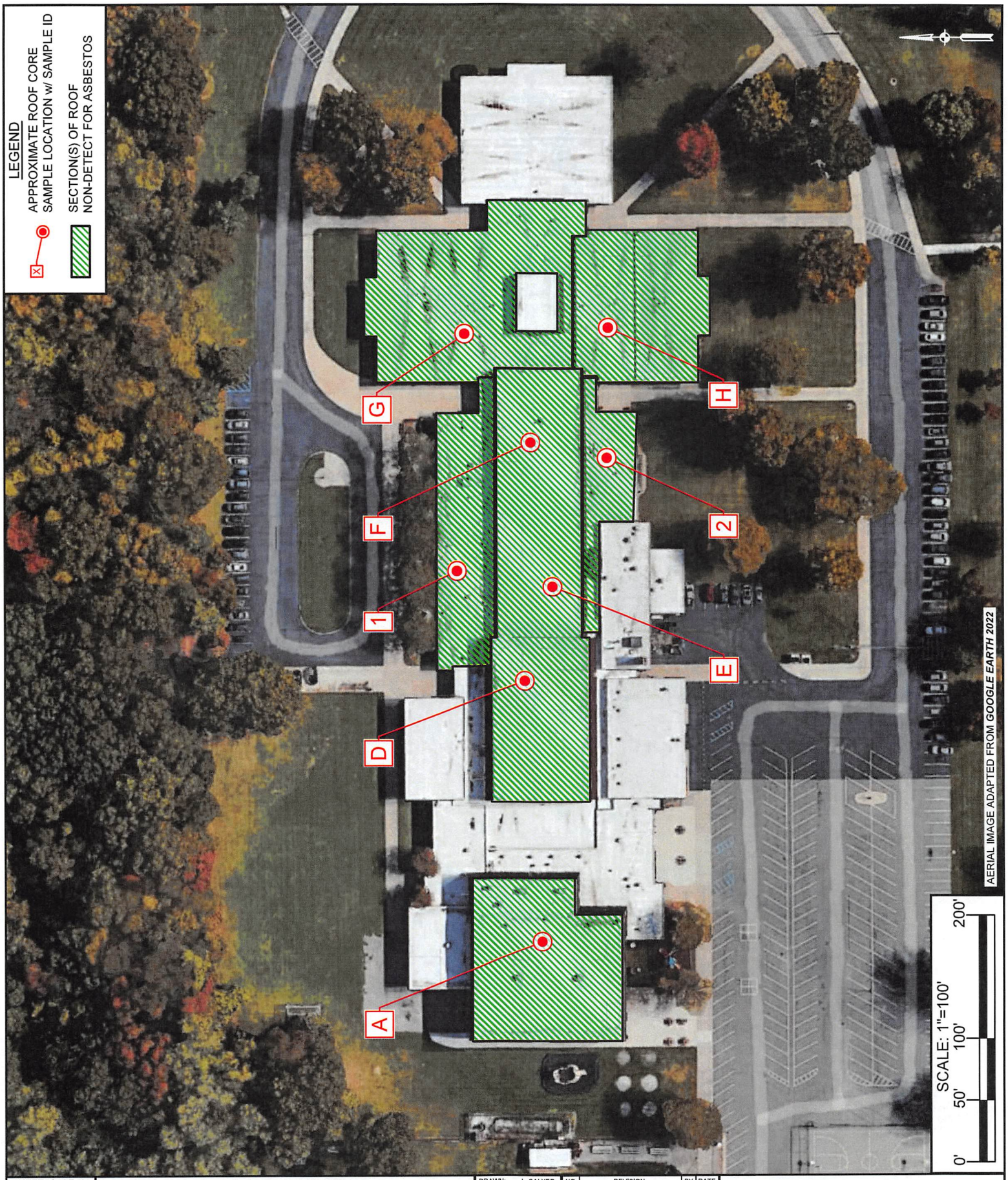

SHEET 2 OF 2	SAMPLE SUMMARY	DRAWN: L. SALYER	NO.	REVISION	BY	DATE
FIGURE		DESIGNED: J. RUGG				
2	ROOF SAMPLING EVENT	APPRV'D: Z. HEINE				
	WESTCHESTER INTERMEDIATE SCHOOL	DATE: MAR. 30, 2022				
		PROJECT NUMBER: 22.9506.1.1				
	CHESTERTON INDIANA					

AMERECO, INC.
CONSULTING ENGINEERS-PROJECT MANAGERS
54 MICHIGAN AVENUE
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ADDENDUM THREE

Addendum Three (AD.03) to the drawings and specifications prepared by Gibraltar Design for **Westchester Intermediate School Additions and Renovations** for Duneland School Corporation, Chesterton, Indiana.

All Contractors bidding on this project shall read all of the items covered below and shall comply with all of the requirements as set forth, including any necessary refinements or additions generated by this Addendum and required by the intent of the original contract documents. All Contractors shall acknowledge on their bid form that they have received this Addendum, Addendum One and Addendum Two, and include the appropriate content of same within their bid proposal.

SPECIFICATIONS

1. **Specification Section 08 11 13 Standard Steel Doors and Frames**

   A. Revise Paragraph 2.8.D.1 to read as follows:

   "1. Factory assemble lites in doors using 3/8" inch safety glass on one surface and 1/4 inch safety glass on the opposite surface separated by a 1/2 inch air space. Fabricate to be individually removable."

   B. Delete Paragraph 2.8.C.7 in its entirety.

   C. Change Paragraph Header 2.8 to read:

   "Sound Isolating Doors – Practice Rooms ONLY"

2. **Specification Section 09 22 13 Metal Framing and Furring**

   A. Replace Specification Section 09 22 13, Metal Framing and Furring, with Specification Section 09 22 13, included in this Addendum.

3. **Specification Section 09 51 00 Acoustical Ceilings**

   A. Revise Paragraph 2.3.A and 2.3.A.1 to read as follows:

   "A. ACT3 - Ceiling Panels:
   Basis of Design Product: Geometric Diffusers, as manufactured by Kinetics Noise Control, Inc.; thermo-molded plastic, 0.125 inches thick with lemon-peel finish; Class A in accordance with ASTM E84; for installation in T-bar ceiling grid system, offset pyramidal shape; or approved equal.
   1. Size: 2 feet x 2 feet x 6.75 inches."

4. **Specification Section 09 65 13 Resilient Flooring**

   A. Add the following to Paragraph 2.2.B.1:

   "1. Wear Layer Thickness: 20 mils with Quantum Guard Elite and 32 mils is acceptable for Classrooms. 32 mils and 40 mils is acceptable in the Corridors."

   B. Add the following to Paragraph 2.3.B:

   "…Provide coils in 120' lengths."

5. **Specification Section 09 66 23 Thin-Set Epoxy Terrazzo**

   A. Delete Paragraph 2.1.C in its entirety.

   B. Revise Paragraph 2.1.D to read as follows:

"D. Surface Aggregate: See "Finish Legend" on Drawings for colors and patterns."

6. Specification Section 09 67 22 Resinous Flooring – A

A. Delete "General Polymers" from Paragraph 2.1.A.1.

B. Revise Paragraph 2.2.A.8 to read as follows:

"Aggregate: Color to match Sherwin Williams Velvet Feather for RF2 and Sherwin Williams Milky Way for RF1."

C. Delete Paragraph 3.3.D in its entirety.

D. Terroxy Resin Systems (Terrazzo & Marble Supply) is hereby approved to bid Mosaic Vinyl Flakes for this project. All requirements of the Drawings and Specifications shall be met, including the color selections.

7. Specification Section 09 67 23 Resinous Flooring – B

A. Revise Paragraph 2.2.7 to read as follows:

"Aggregate: Color to match Sherwin Williams Fuzzy Wool for RF3."

B. Terroxy Resin Systems (Terrazzo & Marble Supply) is hereby approved to bid Quartz Aggregate for this project. All requirements of the Drawings and Specifications shall be met, including the color selections.

8. Specification Section 09 84 00 Acoustical Wall Panels

A. Add Paragraph 2.2.B to read as follows:

"B. Acoustic Diffusive Wall Panels in Band C-105, Choir D-117, and Orchestra D-124.

1. Basis of Design Product: Geometric Sound Wall Diffusers manufactured by Kinetics Noise Control, Inc., or approved equal.
2. Type: Radius Diffusers."

9. Specification Section 10 11 00 Markerboards and Corkboards

A. Replace Specification Section 10 11 00, Marker Boards and Corkboards, with Specification Section 10 11 00, included in this Addendum.

10. Specification Section 10 14 00 Signage

A. Revised Paragraph 2.1.A.2 to read as follows:

"Material: .080" thick subsurface painted matte acrylic panel with surface applied paint. Color: As selected by the Architect from manufacturer's standard colors."

11. Specification Section 10 51 14 Ventilated Lockers

A. Revise Paragraph 2.3.D.2 to read as follows:

"2. Integral Locks: Provide No. 1630 combination lock as manufactured by Master Lock Company, Milwaukee, Wisconsin, or approved equal, on all Athletic Lockers."

12. Specification Section 12 32 18 Music Casework

A. Revise Paragraph 2.2.A.2.c to read as follows:

"c. Instrument Storage Cabinets 27 inches or more wide: One-piece high-molecular blow-molded polyethylene with 1 1/2 inch thick radius front edge. Color – sand; mount to cabinet walls with steel clip supports; provide tubular steel support at front edge."

13. Specification Section 12 35 53 Science Laboratory Casework and Equipment

A. Replace Specification Section 12 35 53, Science Laboratory Casework and Equipment, with Specification Section 12 35 53, included in this Addendum.

14. Specification Section 23 09 23 Temperature Controls

A. Replace Specification Section 23 09 23, Temperature Controls, with Specification Section 23 09 23, included in this Addendum.

DRAWINGS

1. Sheets C-1.2, C-1.3, C-2.0, C-2.1, C-3.0, C-3.1, C-3.2, C-3.3, C-4.0, C-4.1, C-4.2, C-4.3, C-4.4, C-5.0, C-5.1

A. Refer to fifteen(15) revised full size drawings, included in this Addendum, for revisions.

1. Sheet S001

A. Refer to revised full size drawing, included in this Addendum, for revisions.

2. Sheets S104, S109

A. Refer to two (2) revised full size drawings, included in this Addendum, for revisions.

3. Sheets S200, S203, S204, S208

A. Refer to four (4) revised full size drawings, included in this Addendum, for revisions.

4. Sheets S403, S411

A. Refer to two (2) revised full size drawings, included in this Addendum, for revisions.

5. Sheet AD-105

A. Refer to revised full size drawing, included in this Addendum, for revisions.

6. Sheets A-101, A-104, A-105

A. Refer to three (3) revised full size drawings, included in this Addendum, for revisions.

7. Sheets A-103, A-104, A-105, A-106, A-107, A-108

A. Add Plan Note #51 to read as follows:

"All exposed gypsum board walls, bulkheads, and ceilings to be skim coated, sanded, and primed prior to final painting."

B. Add Note #51 to the following Corridors: D-109, E-100, E-104, E-115, F-115, F-124, G-117, G-126, H-100, H-114, H-115, H-129, J-118 and J-124.

8. Sheets A-202, A-203

A. Refer to two (2) revised full size drawings, included in this Addendum, for revisions.

9. Sheet A-210

A. Refer to revised full size drawing, included in this Addendum, for revisions.

10. Sheet A-303

A. Provide one (1) Date Stone on Elevation #17 at Unit L Canopy. Exact location to be determined in Shop Drawings.

11. Sheets A-411, A-420, A-421, A-422

A. Refer to four (4) revised full size drawings, included in this Addendum, for revisions.

12. Sheets A-501, A-502

A. Refer to two (2) revised full size drawings, included in this Addendum, for revisions.

13. Sheets A-601, A-603, A-604

A. Refer to three (3) revised full size drawings, included in this Addendum, for revisions.

14. Sheets A-701, A-702, A-703, A-704, A-705, A-706, A-707, A-708, A-709, A-710, A-730

A. Refer to eleven (11) revised full size drawings, included in this Addendum, for revisions.

15. Sheets A-801, A-802, A-803, A-804, A-805, A-806, A-807, A-808, A-809, A-810, A-820, A-830, A-840

A. Refer to thirteen (13) revised full size drawings, included in this Addendum, for revisions.

16. Sheets K-101, K-500, K-501, K-601, K-602

A. Refer to five (5) revised full size drawings, included in this Addendum, for revisions.

17. Sheet FP-401

A. Refer to revised full size drawing, included in this Addendum, for revisions.

18. Sheets PD101, PD103

A. Refer to two (2) revised full size drawings, included in this Addendum, for revisions.

19. Sheets P-101, P-104, P-105, P-106, P-107, P-109, P-110

A. Refer to seven (7) revised full size drawings, included in this Addendum, for revisions.

20. Sheets P-201, P-204, P-205, P-210

A. Refer to four (4) revised full size drawings, included in this Addendum, for revisions.

21. Sheet P-301

A. Refer to revised full size drawing, included in this Addendum, for revisions.

22. Sheet P-401

A. Refer to revised full size drawing, included in this Addendum, for revisions.

23. Sheet MV102

A. Refer to revised full size drawing, included in this Addendum, for revisions.

24. Sheets MP104, MP106, MP108, MP109, MP110

A. Refer to five (5) revised full size drawings, included in this Addendum, for revisions.

25. Sheet M-203

A. Refer to revised full size drawing, included in this Addendum, for revisions.

26. Sheets M-302, M-303, M-304

A. Refer to three (3) revised full size drawings, included in this Addendum, for revisions.

27. Sheets M-501, M-502

A. Refer to two (2) revised full size drawings, included in this Addendum, for revisions.

28. Sheets EL101, EL103, EL104, EL105, EL106, EL107, EL108

A. Refer to seven (7) revised full size drawings, included in this Addendum, for revisions.

29. Sheets EP101, EP102, EP103, EP104, EP105, EP106, EP107, EP108, EP109, EP110

A. Refer to ten (10) revised full size drawings, included in this Addendum, for revisions.

30. Sheets EP202, EP204, EP207

A. Refer to three (3) revised full size drawings, included in this Addendum, for revisions.

31. Sheet EP301

A. Refer to revised full size drawing, included in this Addendum, for revisions.

32. Sheet E-401

A. Refer to revised full size drawing, included in this Addendum, for revisions.

33. Sheet E-502

A. Refer to revised full size drawing, included in this Addendum, for revisions.

34. Sheets E-601, E-602, E-603, E-604, E-605, E-606, E-607

A. Refer to seven (7) revised full size drawings, included in this Addendum, for revisions.

35. Sheet E-608

A. Add Sheet E-608 to the Volume 3 drawing set, included in this Addendum.

Pages 1 through 5, inclusive, Specification Sections 09 22 13, 10 11 00, 12 35 53, 23 09 23, and One Hundred Twenty-Eight (128) Full-Size Drawings, constitute the total makeup of **Addendum Three**.

GIBRALTAR DESIGN

Y:\21-141 Duneland SC - Westchester Intermediate School Additions and Renovations\Specs\Addendum THREE\AD03.docx

SECTION 09 22 13
METAL FRAMING AND FURRING

1 General

1.1 Section Includes

A. Wall, bulkhead, and furred space framing.

B. Metal channel ceiling and soffit framing.

C. Framing accessories.

1.2 Related Sections

A. Section 06 10 00 – Rough Carpentry: Wood blocking.

B. Section 09 29 00 - Gypsum Board.

1.3 References

A. ASTM A36 - Structural Steel.

B. ASTM A446 - Steel Sheet, Zinc-Coated (Galvanized) by Hot Dip Process, Structural (Physical) Quality.

C. ASTM A525 - Steel Sheet, Zinc-Coated (Galvanized) by the Hot-Dip Process.

D. ASTM C847 - Metal Lath.

E. ASTM E90 - Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions.

1.4 System Description

A. Metal stud framing for interior walls.

1. Walls include partitions, bulkheads, piers, pilasters, jambs, returns, reveals, backs of recesses and alcoves, and jambs and heads of doors and windows.

B. Metal furring and framing for interior ceilings.

1. Ceilings include furred spaces and other overhead work.

1.5 Regulatory Requirements

A. Conform to applicable code for fire rated assemblies.

1.6 Coordination

A. Coordinate work of this Section with installation of hollow metal frames.

B. Coordinate the installation of bucks, anchors, blocking, and electrical and mechanical work which is to be placed in or behind framing, lathing, and furring.

2 Products

2.1 Metal Framing And Furring - Acceptable Manufacturers

A. Allied Studco, Inc., Phoenix, Arizona.

B. Clark Steel Framing Systems, Middletown, Ohio.

C. Consolidated Systems, Inc., Columbia, South Carolina.

D. Dietrich Metal Framing, Inc., Pittsburgh, Pennsylvania.

E. Marino Industries Corp., Westbury, New York.

F. The Steel Network, Inc., Raleigh, North Carolina.

2.2 Framing Materials

A. General:

1. Sheet steel conforming to ASTM A446.

   a. Grade A: Possessing minimum yield strength of 33 ksi.

   b. Grade C: Possessing minimum yield strength of 40 ksi.

2. Galvanized Coating: ASTM A525, G-60.

3. Size, gage, and length as recommended by the manufacturer for the intended use.

B. Studs for Exterior Soffit and Parapet Construction:

1. Refer to Cold Formed Metal Framing.

C. Interior Studs and Tracks: ASTM C 645. Use either steel studs and runners or embossed steel studs and runners.

1. Steel Studs and Runners:

   a. Minimum Base-Metal Thickness: 0.033 inch, 20 gauge.

   b. Depth: As indicated on Drawings, 1-5/8 inches, 3-5/8 inches or 6 inches.

2. Embossed Steel Studs and Runners:

   a. Minimum Base-Metal Thickness: As indicated on Drawings, 0.019 mils (65 ksi), EQ 20 gauge (up to 14 foot height requirement), 0.030 mils (33 ksi), EQ 20 gauge (above 14 foot height requirement), 0.033 mils (33 ksi), EQ 18 gauge.

b. Depth: As indicated on Drawings, 3-5/8 inches or 6 inches.

3. Z Furring Channels: Minimum 24 gage, corrosion-resistant, thickness required for intended use.

4. Studs for Walls to Receive Ceramic Tile: Galvanized sheet steel; minimum 18 gage thick; minimum size, 3 5/8 inches; length as required.

5. Provide deflection tracks at heads of walls.

D. Studs for Exterior Wall Construction: Refer to Cold Formed Metal Framing Section.

E. Furring Channels: Hat shaped formed steel; minimum 25 gage thick, 7/8 inch deep by 2-9/16 inches wide; length as required.

F. Hangers: Galvanized steel wire, minimum No. 8 size; to rigidly support ceiling components in place.

G. Horizontal Bridging: 1-1/2 inches deep, cold rolled channels where possible.

H. Anchorage and Fastening Devices: Approved devices of type and size to suit application; as recommended by the manufacturer and as approved by the Architect.

1. Provide bent plate clip angles and corner reinforcement as required.

I. Metal Strapping: Sheet metal; minimum 20 gage; width required for device to be anchored; minimum length, 16 inches.

J. Sealant for Gypsum Board Construction: Non-hardening, non-skinning, as recommended by the manufacturer.

K. Lateral Bracing: Formed steel; minimum 16 gage thick; size and length as required.

L. Control and Expansion Joint Accessories for Plaster Construction: Formed sheet steel; minimum 25 gage thick; accordion profile, 2 inches expanded metal flanges each side.

M. (Contractors Option) Grid Suspension System of interior ceilings and bulkheads: ASTM C645-07 – Manufacturers standard direct hung grid suspension system composed of the main beams and cross furring members that interlock to form a modular supporting network.

1. Products: Armstrong World Industries, Inc., Drywall Grid Systems; Chicago Metallic Corporation, 640-C Fire Front 650-C Drywall Furring System; USG Corporation; Drywall Suspension System.

2.3 Finishes

A. Framing Materials: Galvanized.

B. Hangers, Anchors, and Fastening Devices: Galvanized.

2.4 Fabrication

A. Fabricate assemblies of framed sections to sizes and profiles required; with framing members fitted, reinforced, and braced to suit design requirements.

B. Fit and assemble in largest practical sections for delivery to site, ready for installation.

3 Execution

3.1 Inspection

A. Verify that surfaces and conditions are ready to receive work.

B. Beginning of installation means acceptance of substrate and existing surfaces.

3.2 Installation - General

A. Install in accordance with the manufacturer's printed instructions and as approved by the Architect.

B. Anchor door bucks and framing members to adjacent studs and runners.

C. When fastening metal framing to miscellaneous or structural steel, use stud welds or 1/4 inch self-drilling, self-tapping TEC screws.

3.3 Metal Stud Framing

A. Align and secure top and bottom runners at maximum 24 inches on center.

1. Place two beads of sealant at 1/4 points between runners and substrate.

B. Fit runners under and above openings; secure intermediate studs at spacing of wall studs.

C. Install studs vertically at maximum 16 inches on center.

1. Place two beads of sealant between studs and adjacent vertical surfaces.

D. Connect studs to tracks as recommended by the manufacturer and as approved by the Architect.

E. Stud splicing not permissible.

F. Construct corners using minimum three studs.

G. Double studs at wall openings, door and window jambs, and not more than 1-1/2 inches each side of openings and wall intersections.

H. Brace stud framing system and make rigid.

I. Coordinate erection of studs with requirements of door frame supports and attachments.

J. Align stud web openings.

K. Coordinate installation of bucks and anchors with electrical and mechanical work to be placed in or behind stud framing.

L. Extend partitions through ceiling to floor or roof deck above, unless shown otherwise on Drawings.

M. Maintain clearance under structural building members to avoid deflection transfer to studs.

N. Install horizontal bridging in all walls at maximum 4 feet on center, starting at approximately 1'-6" above floor.

   1. Fasten at each stud.

O. At pipe spaces, chases, and similar locations with finish materials applied to only one side of metal studs, tie the two rows of studs together or brace back to adjacent wall.

P. Provide additional studs and channels where required.

Q. Frame in all ducts, pipes, roof conductors, conduit, and electrical panels in finished areas.

R. Frame in the sides, top, and bottom of all surface mounted electrical panels, including those in rooms with exposed block walls, and frame in all conduit extending from the panel to the floor or ceiling.

S. Anchor runners to top of masonry walls with 3/8 inch diameter anchor bolts at maximum 4 feet on center.

   1. Extend bolts minimum 8 inches into masonry.

   2. Provide three masonry nails equally spaced between bolts.

T. Provide chases where required for mechanical trades.

U. Establish expansion joints at interior corners in gypsum board construction where required by the Architect.

V. Provide blocking for wall mounted door stops consisting of a horizontal metal stud anchored securely between vertical studs.

   1. Coordinate locations of door stops.

W. Install metal strapping to provide backing for markerboard and corkboard grounds, wall mounted casework, and other wall mounted items.

   1. Anchor metal strapping across minimum of two framing members.

   2. Provide metal strapping in wall for future installation of marker board at locations indicated on Drawings.

X. Wood Blocking: Provide two rows of wood blocking in walls to receive upper casework cabinets. Verify locations with casework suppliers.

Y. Establish expansion joints in plaster construction with back to back casing beads set 1/16 inch apart.

1. Cope or miter beads at corners.

2. Fasten at minimum 8 inches on center, staggered in the two wings.

3. Cut lath and channels free at expansion joints.

3.4 Wall And Furred Space Framing

A. Erect wall furring by directly attaching to masonry and concrete walls.

1. Erect furring channels vertically horizontally.

a. Secure in place on alternate channel flanges at maximum 24 inches on center.

2. Space furring channels maximum 16 inches on center.

3. Shim furring channels to provide straight and plumb finished wall surfaces.

3.5 Ceiling And Soffit Framing

A. Install framing to height indicated.

1. Erect after work above ceiling is complete.

2. Coordinate location of hangers with other work.

B. Install ceiling furring independent of walls, columns, and work above ceiling.

1. Securely anchor hangers to structural members with hanger wire or embed in structural slab.

2. Do not attach hanger wires to metal roof deck.

C. Space 1-1/2 inch main carrying channels at maximum 48 inches on center; not more than 6 inches from wall surfaces; lap and splice securely.

1. Use 2 inch channels where supporting members are more than 4 feet, but less than 5 feet on center.

2. Use two pieces of 2 inch channels nested together where supporting members are more than 5 feet, but less than 6 feet on center.

D. Securely fix carrying channels to hangers to prevent turning or twisting and to transmit full load to hangers.

E. Place furring channels perpendicular to carrying channels, not more than 2 inches from perimeter walls, and rigidly secure; lap and splice securely.

1. Use 7/8 inch furring channels at maximum 16 inches on center for gypsum board construction.

F. Reinforce openings in suspension system, which interrupt main carrying channels or furring channels with lateral channel bracing.

1. Extend bracing minimum 24 inches past each opening.

G. Establish contraction, control, and expansion joints with specified joint device, where required by the Architect.

1. Cope or miter beads at corners.

2. Fasten at minimum 8 inches on center, staggered in the two wings.

3. Cut lath and channels free at expansion joints.

4. Locate expansion joints at maximum 12 feet on center in both directions.

H. Laterally brace suspension system.

3.6 Bulkhead Framing

A. Provide all framing for bulkhead and overhead construction, unless specifically noted otherwise.

3.7 Tolerances

A. Maximum Variation from True Lines and Levels: 1/8 inch in 10 feet.

B. Maximum Variation from True Position: 1/8 inch.

END OF SECTION

SECTION 10 11 00
MARKERBOARDS AND CORKBOARDS

1 General

1.1 Section Includes

A. Porcelain surfaced markerboards.

B. Porcelain surfaced markerboard/projection boards.

C. Corkboards.

D. Trim, tray, and accessories.

1.2 References

A. ANSI A208.1 - Mat Formed Wood Particle Board.

B. APA - American Plywood Association.

C. FS CCC-W-408A - Wall Covering Vinyl-Coated.

D. FS LLL-B-810 - Building Board, (Hardboard) Hard Pressed, Vegetable Fiber.

1.3 Regulatory Requirements

A. Conform to applicable code for flame/fuel/smoke rating for vinyl fabric covered corkboards in accordance with ASTM E84.

1.4 Submittals

A. Submit shop drawings and product data under provisions of Division 1.

1. Indicate on shop drawings, wall elevations, dimensions, joint locations, trim, accessories, and anchor details.

1.5 Maintenance Data

A. Submit maintenance data under provisions of Division 1.

1.6 Delivery

A. Deliver factory assembled markerboard, corkboard, and trim to project site four (4) months prior to projected completion date.

1. Violation of the above requirement will result in cancellation of the markerboard order and the supplying of another markerboard at no extra cost to the Owner.

1.7 Warranty

A. Warranty: Include coverage of markerboard surface from discoloration due to cleaning, crazing, cracking, and staining for fifty (50) years after date of original installation.

2 Products

2.1 Markerboards And Corkboards - Acceptable Manufacturers

A. Marsh by Polyvision Corp., New Philadelphia, Ohio.

1. Pro-Rite Markerboard.

B. Newline Products, Inc., Plano, Texas.

C. Claridge Products and Equipment, Inc., Harrison, Arkansas.

2.2 Marker/Projection Boards - Acceptable Manufacturers

A. Basis of Design: Marsh by Polyvision Corp., Dixonville, Pennsylvania.

1. "e3 CeramicSteel Duo".

2. Or Approved Equal.

2.3 Materials

A. Sheet Steel: Special quality, enameling steel, low metaloid and copper content, 24 gage; or Vitracite, 24 gage.

B. Aluminum Extrusions: Snap-on type.

C. Composition Cork: Formulation of cork granules, oils, and pigments, impregnated with plastic; burlap backed; Class B; color as selected.

D. Plywood: APA Structural I, Grade C-D, fir species.

E. Hardboard: FS LLL-B-810; tempered, smooth face, both sides.

F. Particle Board: ANSI A208.1; wood chips or shavings set with waterproof resin binder, sanded faces.

G. Vinyl Fabric: FS CCC-W-408, Type II burlap weave; weighing not less than 13 oz./sq. yd.; with flame-spread index of 25 or less per ASTM E 84.

1. Refer to Finish Legend.

H. Aluminum Backing: Aluminum sheet, minimum 0.015 inch thick.

I. Adhesives: Type recommended by manufacturer.

2.4 Finishes

A. Porcelain Enamel: Glass fibered enamel, baked to vitreous surfaces; reflectance factor of more than 15 percent and less than 20 percent as recommended by the American Illuminating Engineering Society and the American Institute of Architects in the report, American Standard Practice for Schools; color as selected from manufacturer's available range.

1. Base Coat: Minimum 0.0025 inch nickel cobalt ground coat, front and back.

2. Finish Coat: Minimum 0.003 inch porcelain enamel writing coat, front, and all edges at joints.

3. Markings: Provide factory applied markerboard markings fused to finished writing surface. Verify color of markings.

a. Staff Lines: Five bar staff markings with lines spaced 1 inch on center and 5 inches between staffs.

1) Location: See drawings.

B. Composition Cork Surface: Vinyl impregnated cork of color as selected from manufacturer's full available range.

C. Aluminum Frame and Accessories: Anodized to clear finish.

2.5 Accessories

A. Map Supports: Formed aluminum hooks and roller brackets, sliding type to fit map rail. Provide four hooks and two roller brackets on each markerboard.

B. Flag Holders: Cast aluminum bored to receive flag staff, bracketed to fit top rail of markerboard.

1. Provide one flag holder for each classroom.

C. Starter Kits: Accessory starter kit for each markerboard consisting of the following:

1. Cleaning, maintenance, and how-to-use handbook.

2. Minimum twelve dry marker pens in four colors and eraser.

2.6 Fabrication - Markerboards

A. Outer Face Sheet: Steel, 24 gage.

B. Core: Plywood; 1/4 inch thick.

1. Contractor's Option: Particle board, 3/8 inch thick.

C. Backing Surface: Aluminum sheet, 0.015 inch thick.

D. Splice Joint: Not allowed.

E. Provide balanced high-pressure, factory-laminated markerboard assemblies of 3-ply construction consisting of face sheet, core, and backing. Factory apply frames and trim to markerboards.

2.7 Fabrication - Corkboards

A. Outer Facing: Composition cork, 1/4 inch thick, reinforced with burlap backing.

B. Backing: Hardboard, 1/4 inch thick.

C. Provide balanced high-pressure, factory-laminated corkboard assemblies of 2-ply construction consisting of facing and backing. Factory apply frames and trim to corkboards.

2.8 Frame And Trim

A. Frame: Extruded aluminum, snap-on type; map rail with cork insert over markerboard surfaces.

B. Chalk Tray: Extruded aluminum, of snap-on profile; one piece, full length of markerboard; closed aluminum end closures; concealed fasteners.

1. Lap edges of marker or cork minimum 1/4 inch.

C. Concealed Fasteners: Provide continuous aluminum grounds with integral continuous aluminum clips, one piece configuration.

3 Execution

3.1 Inspection

A. Verify that surfaces and internal wall blocking are ready to receive work.

B. Beginning of installation means acceptance of substrate construction.

C. Provide porcelain thickness meter to Construction Manager for measuring thickness of porcelain.

3.2 Installation

A. Install in accordance with manufacturer's instructions.

B. Install continuous grounds with integral continuous clips with toggle bolts or approved fasteners.

C. Verify all dimensions and locations of items prior to installation.

D. Verify mounting height.

E. Secure units level and plumb.

F. Provide all framed corkboards throughout the project.

3.3 Cleaning

A. Clean surfaces in accordance with manufacturer's instructions.

B. Cover markerboard and corkboard surfaces with protective cover, taped to frame.

C. Remove protective cover at Date of Substantial Completion.

END OF SECTION

SECTION 12 35 53
SCIENCE LABORATORY CASEWORK AND EQUIPMENT

1 General

1.1 Work Included

A. Wood cabinets and bases.

B. Countertops, with cutouts for mechanical and electrical components.

C. Plumbing service fixtures.

1.2 Work Furnished But Installed Under Other Sections

A. Furnish mechanical components to Division 22 - Plumbing Fixtures.

1. Direct mechanical trades to exact location of each fixture with its respective trim.

1.3 Related Work

A. Section 08 71 00 – Door Hardware: Masterkeyed cylinders.

B. Section 09 29 00 - Gypsum Board: Gypsum board bulkheads.

C. Section 09 65 13 - Resilient Flooring: Vinyl base.

D. Division 23 - Mechanical: Fume hood blower.

E. Division 26 - Electrical service fittings.

1.4 References

A. Perform all work and furnish all material in accordance with the below listed references.

1. AWI - Quality Standards of Architectural Woodwork Institute.

2. PS (Product Standards) 51 - Hardwood and Decorative Plywood.

3. NEMA (National Electrical Manufacturers Association) LD-3 High Pressure Decorative Laminates.

4. ADA Accessibility Guidelines for Buildings and Facilities, Appendix A, Part 36, Standards for Access Design.

5. Indiana Handicapped Accessibility Code.

1.5 Submittals

A. Submit shop drawings and product data under provisions of Division 1.

1. Include component dimensions, configurations, elevations, construction details, joint details, attachments, bulkhead dimensions (length, depth, and height above floor), complete Equipment Schedule, and all rough-ins.

2. Provide two 4 inch by 6 inch finished stain samples.

B. Submit samples under provisions of Division 1.

1.6 Delivery, Storage, And Handling

A. Deliver products to site and store products on site under provisions of Division 1.

B. Do not deliver casework to site until destination space is ready to receive it.

C. Coordinate size of access and route to place of installation.

2 Products

2.1 Science Laboratory Casework And Equipment - Acceptable Manufacturers

A. William Hermann and Son, Inc., Indianapolis, Indiana.

B. Diversified Woodcrafts Inc., Suring, Wisconsin.

C. Campbell Rhea, Paris, Tennessee.

D. Leonard Peterson Company, Auburn, Alabama.

2.2 Definitions

A. Exposed Surfaces:

1. Surfaces visible when drawers and solid doors are closed.

2. Surfaces behind clear glass doors.

3. Interior surfaces of open units.

4. Bottoms of cabinets 42 inches or more above finished floor.

5. Tops of cabinets less than 72 inches above finished floor.

6. Front rails.

B. Semi-Exposed Surfaces:

1. Surfaces which become visible when solid doors are open.

2. Bottoms of cabinets more than 30 inches , but less than 42 inches above floor.

3. Tops of cabinets 72 inches or more above floor, when visible from an upper level.

C. Concealed Surfaces:

1. Surfaces not normally visible after installation, with doors open.

2. Bottoms of cabinets less than 30 inches above floor.

2.3 Materials

A. Hardwood Lumber: Plain sliced red oak hardwood or to match wood of existing cabinetry in adjacent rooms, graded in accordance with requirements of AWI; kiln dried to uniform moisture content of 6 percent.

B. Hardwood Plywood: Grade A in accordance with requirements of AWI.

1. Exposed Surfaces: Veneer core, 7-ply or 9-ply; exposed face of select grade plain sliced red oak plywood or to match wood of existing casework in adjacent rooms.

a. All casework ends, tops, and bottoms, except as noted below.

b. Shelves.

c. Wall case tops and bottoms.

d. Tall case tops.

2. Other Exposed Surfaces: Particle board core, 3-ply; exposed face of select hardwood veneer.

a. Casework sides and base cabinets bottoms.

3. Semi-Exposed Surfaces: Plywood with a face of select hardwood veneer.

4. Concealed Surfaces: Plywood with a face of sound grade hardwood veneer.

C. Hardboard: Welded fiberboard composed of wood fibers and resin binders formed under heat and pressure.

D. Glass: Without imperfections or marred surfaces.

1. Double strength clear tempered float glass, 1/8 inch thick, for framed glass doors of wall and upper cases.

2. Clear tempered float glass, 1/4 inch thick, for doors of tall cases and for unframed glass doors of wall and upper cases.

3. Safety Glass: Laminated, 7/32 inch thick, for fume hood sash.

E. Countertops: Composite chemical resistant tops, backsplashes, and endsplashes.

F. Finish Hardware: Manufacturer's standard satin chrome finish.

G. Glue: Type 2 or Type 3.

H. Scribe Mold and Fillers: Wood to match casework.

1. Scribe Mold At Backsplash and Endsplash:

a. 5/8 inch by 5/16 inch wood mold with radius lead edge.

b. Paint to match countertop.

2. Scribe Mold At Junction Between Casework and Adjacent Construction:

a. Wood to match casework.

b. 7/8 inch by 5/16 inch wood mold with radius lead edge.

3. Fillers: Same material as casework fronts; fill space between casework and adjacent construction.

I. Wood Finish: Highly chemical resistant modified acrylic urethane with built-in U. V. blocker, or equal finish, over stain of selected color.

J. Plumbing Fittings and Fixtures:

1. Sinks With Strainers and Tail Pieces: Manufactured by Durcon or equal.

a. Single Sink Unit – Under-mount 18-inch x 15-inch x 8-inch, as manufactured by Campbell Rhea, model #9732, or approved equa.

b. Single Sink (ADA) – Drop-in 18-inch x 15-inch x 8-inch, as manufactured by Campbell Rhea, model #9711D, or approved equal.

c. Double Compartment Sink – Under-mount Unit, as manufactured by Campbell Rhea, model #9732-DC, or approved equal.

2. Faucets and Gas and Air Cocks: Vandal resistant as manufactured by the Chicago Faucet Company, Des Plaines, Illinois, or Campbell Rhea, Paris, Tennessee.

a. Basis of Design Faucets: as manufactured by Campbell Rhea, model #9488.

b. Basis of Design Faucet (ADA): as manufactured by Campbell Rhea, model #9488-BH (with blade handle).

c. Faucet with Sprayer: water saver sprayer combo, as manufactured by Campbell Rhea, model #WSF-PR411AOF.”.

2.4 Hardware

A. Shelf Standards and Clips: Manufacturer's standard.

B. Door and Drawer Pulls: As selected from manufacturer's standards, satin chrome finish.

C. Hinges: Heavy-duty, five-knuckle, institutional type, satin chrome finish.

1. Provide two hinges for doors up to and including 48 inches high.

2. Provide three hinges for doors over 48 inches high.

D. Catches: Friction-type, adjustable, with nylon roller and strike.

E. Stop Chains: Provide stop chains on tall casework doors abutting walls or countertops.

F. Locks: Disc tumbler cylinder cam lock, each room keyed separately and master keyed.

1. Dull chrome finish.

2. Provide two keys for each room and five overall masterkeys.

3. Basis-of-Design Product: Olympus No. 100DR and 200DW.

G. Masterkeyed Locks: Cylinder lock, each room keyed separately and master keyed.

1. Dull chrome finish.

H. Drawer Stops: Positive spring action type or gravity stop.

I. Drawer Suspension: Accuride epoxy coated, 100 pounds capacity, full extension, telescoping, ball bearing suspension.

J. Upright Rod Assembly: Two satin duraluminum upright rods 3/4 inch in diameter and 46 inches long, two die-cast zinc alloy flush plates with threaded shank and one satin duraluminum cross arm 3/4 inch in diameter and 36 inches long held in place by two nickel plated clamps.

K. Tote Trays:

1. High impact polyethylene with card holders.

2. Size: 10-1/2 inches wide by 3-1/2 inches high by 19 inches deep, 14-1/2 inches wide by 3-1/2 inches high by 19 inches deep.

3. Provide tote trays which glide on structural polyethylene continuous side rails, adjustable at 1 inch on center.

2.5 Fabrication – General

A. Casework Design: Frame construction, lipped overlay. 32 mm construction will not be allowed.

1. Grain Direction: Matched vertical on both doors and drawer fronts.

2. Joinery: Manufacturer's doweled joint system, glued, clamped and screwed.

B. Fabricate casework in accordance with recommendation of AWI; custom grade, except as shown or noted otherwise.

1. Wood Grain Color and Finish: Uniform and consistent in appearance.

C. Size Components as Follows:

1. Tops, Bottoms, and Ends: Behind solid doors, 3/4 inch particle core with rotary natural birch or maple veneer; exposed to view, 3/4 inch particle core with red oak veneer.

2. Backs: 1/4 inch plywood, housed into ends.

3. Wall and Base Cabinet Front Frames: Minimum of 3/4 inch by 1 3/4 inch red oak hardwood stiles and rails with mortise and tenon joint.

   a. Minimum Tenon Size: 1-1/2 inches by 3/8 inch.

4. Tall Storage Cabinet Front Frames: Rails, 1 1/16 inch by 1 3/4 inch red oak hardwood; stiles, 1 1/16 inch by 2 5/16 inch red oak hardwood with mortise and tenon joint.

   a. Minimum Tenon Size: 1-1/2 inches by 3/8 inch.

5. Drawers:

   a. Bottoms: 1/4 inch birch veneer core plywood.

   b. Sides and Backs: 1/2 inch hardwood.

   c. Fronts: Minimum of 3/4 inch red oak hardwood with a 3/8 inch lip on all edges.

6. Doors:

   a. Base and Upper Cabinets: Minimum of 3/4 inch lumbercore red oak veneer with a 3/8 inch lip on all edges.

   b. Tall Cabinets: 1 1/8 inch lumbercore with red oak veneer and a 3/8 inch lip on all edges.

   c. Provide right over left integral overlapping astragals on door meeting edges.

7. Shelves: 45 pound density particle core with rotary natural birch or maple veneer and 1/4 inch red oak hardwood edge; 3/4 inch thick for shelves under 36 inches; 1 inch thick for shelves over 36 inches.

8. Base Cabinet Sub-Tops: Continuous 3/4 inch sub top doweled, glued, and screwed to cabinet sides.

D. Table Frame:

1. Perimeter Frame Rails: 3/4 inch by 4-5/16 inch hardwood with attached steel corner braces, grooved and screwed into both rails at each corner.

   a. Radius bottom rails.

   b. Reinforcing Cross Rails: 7-ply plywood doweled and glued into front and back rails; pinned at intervals not more than 33 inches on center in tables without drawers.

2. Separate Cross Rails: 3/4 inch by 4-5/16 inch hardwood with steel brackets at both ends.

3. Legs: 2 inch by 2 inch hardwood.

4. Leg Shoes: Black rubber or vinyl with provision for floor clip.

5. Drawers: Fabricate as specified above for base units.

E. Work Surface:

1. Material:

   a. Epoxy Resin: Chemical and abrasion resistant, durable top of one inch thick cast material of epoxy resins and inert products, cast flat, with a uniform low-sheen black surface.

   b. Backsplash Curb: Same material as top.

      1) Provide where indicated on drawings where tops abut wall surfaces and at reagent ledges.

      2) Include end curb where top abuts end wall.

   c. Reagent Ledges: Same material as top.

      1) Provide 6 inch high by 7-1/2 inch wide single faced unit and 6 inch high by 9 inch wide double faced unit as shown on the drawings as required.

      2) Fabricate ledge face to permit installation of service fixtures with removable top for access to service utilities.

F. Fabricate all cabinets in integral units, each completely enclosed without the use of common partitions.

G. Align adjoining units for site assembly modules, to achieve tight hairline joints.

H. Prepare units with anchor devices to permit ease of site assembly.

I. Prepare countertops to ensure hairline site joints.

J. Provide cutouts for plumbing fixtures, inserts, appliances, outlet boxes, and other fixtures and fittings.

1. Verify location of cutouts from on site dimensions.

2. Seal contact surfaces of cut edges.

K. Provide chases for gas, water, electrical, and utilities. Verify locations.

L. Provide metal shims where casework requires shimming.

M. Furnish removable back access panels, when base cabinets are installed along and in front of pipe spaces.

2.6 Finishes

A. Plane and sand all exposed wood surfaces thoroughly.

1. Countersink and plug exposed fasteners.

B. Exterior Surfaces: Apply stain and manually wipe stain off. Apply one coat of cut varnish sealer; sand; finish with one coat of catalyzed varnish to a 35 gloss.

1. Sprayed application of stain without manually wiping is not acceptable, unless matching existing.

C. Interior Surfaces: Seal with cut varnish and sand; finish with one coat of catalyzed varnish.

D. Stain, color, and finish selected by the Architect and Owner; see Section 09 06 01.

2.7 Fume Hood

A. Acceptable Manufacturers:

1. Basis-of-Design: ICI Scientific (Campbell Rhea) Union City, Tennessee as indicated on Science Casework Schedule.

2. Fisher-Hamilton, LLC, Two Rivers, Wisconsin.

3. Air Master Systems Corp., Muskegon, Michigan.

B. Construction Materials: Constant volume exhaust system.

1. Stainless Steel: High quality cold rolled mild; U.S. Standard gages, Type 304 for airfoil only.

2. Ceiling Closure Panels: 18 gage steel finished to match hood exterior.

3. Bypass achieved with viewing panel above sash.

4. Sash cables or chain: Stainless, uncoated: 1/8 inch diameter or #35 steel chain.

5. Sash Guides: Corrosion resistant polyvinylchloride.

6. Pulley Assembly: 2 inch zinc dichromate finish, ball-bearing type, with cable retaining device or twin sprocket axle.

7. Sash Pull: Full width stainless steel.

8. Interior Access Panel Gaskets: 70 durometer polyvinylchloride.

9. Screws:

   a. Exterior Structural Members: Zinc plated sheet metal type, concealed.

   b. Interior Fastening Devices: Truss headed stainless steel screws, concealed.

10. Fume Hood Liner: Polyresin, reinforced polyester panel; smooth finish, white color in final appearance with flexural strength of 14,000 psi; flame spread of 15 or less; ASTM E84 and UL 723.

C. Construction and Design:

1. Fume Hood Superstructure: Rigid, self-supporting assembly of double wall construction.

   a. Attach panels to minimum 14 gage galvanized full frame construction to eliminate screw heads and metallic brackets from hood interior.

2. Walls: 4-7/8 inch maximum with removable panels on hood exterior and gasketed access panels on inside liner walls for access to fixture valves in walls.

3. Exhaust Outlet: Rectangular with ends radiused, bell shaped, and flanged, 18 gage steel finished with 1.7 mil thickness #1300 black powder coat.

4. Access Opening Perimeter: Air foil or streamlined shape with all right angle corners radiused or angled.

   a. Fabricate to gain access to electrical cords through bottom foil.

5. Electrical:

   a. Provide one (1) two-tube, vaportight fluorescent lighting fixture with safety glass panel or LED lighting system.

b. Provide one (1) light switch for the hood lighting fixture. Mount the switch at the left front of hood assembly.

c. Provide two (2) GFI type receptacles for the hood. Mount one receptacle on each side at the front of the hood assembly.

d. Pre-wire all electrical connections to a junction box at the top of the hood for a single-point connection to the lights and receptacles and, a single-circuit electrical connection from the manual motor starter.

e. Provide manual motor starter with pilot light mounted on front of hood assembly for fume hood exhaust fan operation.

6. Fume Hood Sash: Full view type with clear unobstructed, side-to-side view of fume hood interior and service fixture connections.

   a. Counter Balance System: Single weight, pulley, cable, counter balance system.

      1) Maximum 7 pounds pull required to raise or lower sash throughout its full length of travel.

7. Baffles: Provide fixed baffles.

   a. Provide minimum depth of 19 inches for interior work space at extreme upper portion of the fume hood to provide maximum interior work area.

   b. Provide non-metallic baffle supports and brackets.

8. Work Surface: 1-1/4 inches thick molded resin surface, dished a nominal 1/2 inch to contain spills. Provide cup sink in rear corner.

9. Service Fixtures and Fittings: Color coded hose outlets mounted inside hood and exterior valves with color coded index handles.

   a. Valves: Needle point type with removable self-centering cone tip and seat of hardened stainless steel.

   b. Connections: Copper piping for water and black iron for gas.

   c. Provide vacuum breaker on fixtures with serrated tips.

   d. Prepipe all piping services to a single point connection.

2.8 Accessories and Additional Equipment

A. Emergency Eyewash:

1. ADA accessible recessed eyewash with drain, as manufactured by Campbell Rhea, Model #9622, or approved equal.

B. Emergency Shower:

1. ADA accessible, mounted on wall, pull down lever, head directly above drain in floor, refer to plumbing drawings.

C. Safety Glasses/Goggle Monitor:

1. Provide unit as manufactured by Campbell Rhea, Model #6784, or approved equal.

D. Fire Blanket:

1. Provide unit as manufactured by Campbell Rhea, Model #9960, or approved equal.

E. Peg Board:

1. Provide Stainless Steel Unit as manufactured by Campbell Rhea, Model #6667-B, or approved equal.

2. Size: 24-inch x 30-inch.

a.

3 Execution

3.1 Inspection

A. Obtain and verify dimensions affecting work of this Section from site.

B. Beginning of installation means acceptance of existing conditions.

3.2 Installation

A. Set and secure casework in place rigid, plumb, and level.

B. Use purpose designed fixture attachments for wall mounted components.

C. Use threaded steel concealed joint fasteners to align and secure adjoining cabinet units and counter bases.

D. Permanently fix cabinet and counter bases to floor or wall using appropriate angles and anchorages.

E. Permanently fix tables to floor using appropriate anchorages.

F. Carefully scribe casework which abuts other building materials leaving gaps of 1/32 inch maximum.

1. Use of additional overlay trim for this purpose is acceptable.

G. Coordinate work with others.

H. Countertops: Install countertops in accordance with the following tolerances.

1. Thickness: ±1/16 inch.
2. Surfaces in Plane: 1/32 inch.
3. Maximum Joint Width: ±1/16 inch.
4. Maximum Allowable Shim: 1/8 inch.

3.3 Existing Equipment

A. Obtain, disconnect, move, store, and reinstall equipment ready for utility connection.

B. Do work in cooperation with Owner so that normal function of services is minimally interrupted under provisions of Division 1.

C. Where required, remove existing equipment from site for repairs or alterations; handle carefully and return in like-new condition.

D. Refer to Sheets A of the Drawings for identity of reused equipment and for further description or work.

3.4 Adjusting And Cleaning

A. Adjust doors, drawers, hardware, fixtures, and other moving or operating parts to function smoothly and correctly.

B. Clean casework, counters, shelves, hardware, fittings, and fixtures.

3.5 Science Laboratory Casework And Equipment Schedule

A. Refer to Sheet A-740 in the Drawings for Science Laboratory Casework and Equipment Schedules.

END OF SECTION

DIVISION 23 – MECHANICAL
Section 23 09 23 – Temperature Controls

1.00 PART 1 – GENERAL

1.01 RELATED DOCUMENTS:

A. Conform to all applicable provisions of Section 23 05 00.

1.02 DESCRIPTION OF WORK:

A. Provide a complete direct digital temperature control Facilities Management System (FMS) with web based operator interface as herein specified, shown on drawings, and as required to comply with required sequences of automatic control and Point List. The FMS system to include:

1. A Web-based network system providing a distributed web based operator interface with color graphics for each mechanical and miscellaneous system.

2. Communication network with necessary servers and controllers for central heating plant, central cooling plant, pumping systems, VAV air handling units, VAV boxes, exhaust fans, lighting zone controls, etc.

3. Dedicated Operator Interface Workstation.

4. Control devices, instruments, panels, dampers, valves, electronic actuators, instruments, etc.

5. Thermostats, temperature sensors, pressure sensors, control relays, current sensing relays, switches, alarms, etc.

6. Provide all transformers and low voltage wiring.

B. Provide complete start-up, testing, and adjustment of the FMS and provide owner training of the system.

C. Provide training of maintenance personnel.

D. Provide all necessary transformers and low voltage wiring.

E. Provide five (5) year software maintenance agreement to license all software and provide/install updates for five (5) years.

F. The FMS System shall be compatible with and communicate directly with the existing school district network and web-based interface to allow access from any WAN or internet station. Interface shall provide full access for data acquisition and control.

1.03 MANUFACTURER:

A. The temperature control (TC) system shall be manufactured and installed by one of the following:

1. Schneider Electric as installed by Precision Controls, Inc.

2. Johnson Controls, Inc. (Metasys) as installed by the local branch office.

3. Trane Controls as installed by Chicago branch office.

B. The temperature control contractor shall be a recognized national manufacturer, installer, and service provider of the specified temperature controls. Distributors, manufacturer's representatives, and wholesalers are not acceptable for this project.

1.04 QUALITY ASSURANCE:

A. Provide a competent and experienced FMS Project Manager. The Project Manger shall attend scheduled Project Meetings as required and shall be empowered to make technical, scheduling, and related decisions. At minimum, the Project Manager shall:

1. Manage the scheduling of the work to ensure that adequate materials, labor, and other resources are available as needed.

2. Maintain the scheduling of the work and report monthly in writing on progress.

3. Maintain a legible copy on-site of, at minimum, the following documentation:

a. The FMS Contract Documents including all approved Change Orders.

b. All FMS related written Requests for Information and responses.

c. All approved Shop Drawings and other submittals.

d. A copy of the FMS Contract Schedule.

e. Primary FMS related correspondence and minutes

f. A record of daily on-site manpower deployment

g. Other records as pertinent and required by the Contract Documents.

B. Provide a complete, neat, and workmanlike installation. Use only manufacturer employees who are skilled, experienced, trained, and familiar with the specific equipment, software, and configurations to be provided for this Project.

1.05 SHOP DRAWING SUBMITTALS:

A. Shop Drawings, Product Data, and Samples:

1. Submittals shall be prepared by Cad format on 17" x 11" size and bound in brochure form. The submittals shall show the relatedness of all specified DPNS functions.

2. Submittals shall be in defined packages. Each package shall be complete and shall only reference itself and previously submitted packages.

3. Equipment and systems requiring approval of local authorities must comply with such regulations and be approved. Filing expenses shall be included as part of this contract where filing is necessary. Provide a copy of all related correspondence and permits to the Owner.

4. Prepare an index of all submittals and shop drawings for the installations. Index shall include a shop drawing identification number, Contract Documents reference and item description. Submit this index prior to the submittal of any shop drawings and within 4 weeks after Contract award.

5. At a minimum, submit the following:

   a. Product data sheets for all products including Software, Valves, Dampers, Relays, Panels, Gauges, Sensors, Thermostats, Switches, Pressure Controllers, Facilities Management Panels, Stand Alone and Application Specific Controllers, etc. Submittal shall indicate arrangements, capacities, range, voltage, horsepower, construction, etc.

   b. FMS network architecture diagrams including all Controllers and interconnections.

   c. Schematics, sequences, and flow diagrams.

   d. Points schedule for each real and virtual (software) point in the FMS, including: Tag, Point Type, System Name, Object Name, Expanded ID, Display Units, Controllers Type, Address, Cable Destination, Module Type, Terminal ID, Panel, Slot Number, Reference Drawing, and Cable Number.

   e. Detailed Bill of Material list for each Controller, identifying quantity, part number, description, and optional features.

   f. Control Damper Schedule including a separate line for each damper and a column for each of the damper attributes, including: Code Number, Fail Position, Damper Type, Damper Operator, Blade Type, Bearing Type, Seals, Duct Size, Damper Size, Mounting, and Actuator Type.

   g. Control Valve Schedules including a separate line for each valve and a column for each of the valve attributes: Code Number, Configuration, Fail Position, Pipe Size, Valve Size, Body Configuration, Close off Pressure, Capacity, Valve CV, Calculated CV, Design Pressure, Actual Pressure, and Actuator Type.

   h. Details of all FMS interfaces and connections to the work of other trades.

   i. Training provided, including outlines for each session.

1.06 RECORD DOCUMENTATION:

A. Operation and Maintenance Manuals:

1. Operation and Maintenance Manuals shall be submitted upon completion of the project. The entire Operation and Maintenance Manual shall be furnished on Compact Disc media, and include the following for the FMS provided:

    a. Table of contents.

    b. As-built system record drawings. Computer Aided Drawings (CAD) record drawings shall represent the as-built condition of the system and incorporate all information supplied with the approved submittal.

    c. Manufacturers product data sheets for all products including software.

    d. System Operator's manuals.

    e. Archive copy of all site-specific databases and sequences.

    f. FMS network diagrams.

    g. Wiring termination schedules.

    h. Interfaces to all third-party products and work by other trades.

2. The Operation and Maintenance Manual CD shall be self-contained, and include all necessary software required to access the project record drawings and data sheets. A logically organized table of contents shall provide dynamic links to view and print all project record drawings and product data sheets. Viewer software shall provide the ability to display, zoom, and search all documents. The CD-ROM(s) shall contain adequate space for future system updates.

B. On-line Documentation: After completion of all the tests and adjustments listed above, install the following information on the FMS:

1. "AS-BUILT" drawing files

2. Detailed catalog data on all installed system components with address and phone number of factory repair service.

C. Ownership of Proprietary Material:

1. The Owner shall agree to the manufacturer's standard software and firmware licensing agreement as a condition of this contract. Such license shall grant use of all programs and application software to Owner as defined by the manufacturer's license agreement but shall protect manufacturer's rights to disclosure of trade secrets contained within such software. All project developed software and documentation shall become the property of the owner. These include, but are not limited to:

    a. Project graphic Images

    b. Record Drawings

    c. Project network database

d. Project – specific application programming code

e. All documentation

2. The Owner shall be the named license holder of all software associated with any and all incremental work on this project. In addition, the Owner shall receive ownership of all job specific configuration documentation, data files, and application-level software developed for this project. This shall include all custom, job specific software code and documentation for all configuration and programming that is generated for this project and/or configured for use with the NAC, FMCS Server(s), and any related LAN/ WAN / Intranet and Internet connected routers and devices. Any and all required IDs and passwords for access to any component or software program shall be provided to the Owner. The Owner shall determine which organizations to be named in the SI organization ID ("orgid") of all software licenses. Owner shall be free to direct the modification of the "orgid" in any software license, regardless of supplier.

1.07 WARRANTY:

A. Standard Material and Labor Warranty:

1. Provide a one-year labor and material warranty on the FMS.

2. If within twelve (12) months from the date of substantial completion of the FMS, upon written notice, it is found to be defective in operation, workmanship, or materials, it shall be replaced, repaired, or adjusted.

3. Warranty work shall be done during normal business hours.

4. Maintain an on-site record of all work done, all items removed from site, all items returned to site, all new replacement items installed and all remedial programming and database entry work undertaken including software revisions installed. Maintain a record of all re-calibrations required as a result of Warranty service.

2.00 PART 2 – PRODUCTS

2.01 FMS ARCHITECTURE:

A. General

1. The FMS shall consist of a number of controllers and associated equipment connected by industry standard network practices. All communication between controllers shall be by digital means only.

2. The FMS network shall at minimum comprise of the following:

a. Web based network controllers of quantity adequate to provide all points listed in the point list plus an additional 20 percent spare capacity.

b. Network processing, data storage and communication equipment including file servers as needed to provide proper speed through put of data from Network controllers to facility intranet/internet systems.

c. Routers, bridges, switches, hubs, modems, and the like communications equipment.

d. Active processing controllers including field panels.

e. Intelligent and addressable elements and end devices.

f. Third-party equipment interfaces (as applicable).

g. Other components required for a complete and working FMS.

3. The FMS network at each building shall be accessible via the School District's Wide Area Network (WAN) utilizing Enterprise Intranet and Internet browsers with security protection for user access.

4. Provide licenses for all applicable software residing in the FMS system and transfer these licenses to the Owner prior to completion.

B. Network

1. The FMS shall incorporate a primary Tier 1 network. The FMS may also incorporate integrated secondary Tier 2 and tertiary Tier 3 networks.

2. The FMS Network shall utilize an open architecture capable of:

a. Utilizing standard Ethernet communications and operate at a minimum speed of 10Mb/sec.

b. Connecting via BACnet.

c. Connecting via N2 protocol.

d. Connecting via LON works

3. The FMS network shall support both copper and optical fiber communication media.

C. Third-Party Interfaces

1. Integrate real-time data from systems supplied by other trades as required in Part 3.

2. The FMS system shall include necessary FMS hardware equipment and software to allow data communications between the FMS system and systems supplied by other trades.

D. Power Fail / Auto Restart

1. Maintain the FMS real-time clock operation during periods of power outage for a minimum of 72 hours.

E. Downloading and Uploading

1. Provide the capability to generate FMS software-based sequences, database items and associated operational definition information and user-required revisions to same on designated operator interfaces, and the means to download same to the associated application controller.

2. Provide the capability to upload FMS operating software information, database items, sequences, and alarms to designated operator interfaces with automatic archiving of same.

3. The functions of this Part shall be governed by the codes, approvals and regulations applying to each individual FMS application.

2.02 OPERATOR INTERFACE:

A. Alarms

1. Designated Operator Interface shall annunciate alarms generated by the FMS. The alarm management portion of the FMS network shall, at the minimum, provide the following functions

a. Log date and time of alarm occurrence.

b. Generate a "Pop-Up" window, with audible alarm, informing a user that an alarm has been received.

c. Allow a user, with the appropriate security level, to acknowledge, or disable an alarm.

d. Provide an audit trail on hard drive for alarms by recording user acknowledgment, deletion, or disabling of an alarm. The audit trail shall include the name of the user, the alarm, the action taken on the alarm, and a time/date stamp.

2. The FMS shall annunciate diagnostic alarms indicating system failures and non-normal operating conditions.

3. The FMS shall annunciate application alarms at minimum, as required by Part 3.

B. Reports

1. Reports shall be generated and directed to one or more of the following: Operator Interface display, printer, or archive at the user's option. As a minimum, the system shall provide the following reports:

a. All points in the FMS.

b. All points in each FMS application.

c. All points in a specific Network Controller.

d. All points in a user-defined group of points.

e. All points currently in alarm in an FMS application.

f. All points locked out in an FMS application.

g. All FMS schedules.

h. All user defined and adjustable variables, schedules, interlocks, and the like.

i. FMS diagnostic and system status reports.

2. Provide for the generation by the user of custom reports as specified in Part 3.

3. Provide all applicable standard reports of the FMS manufacturer.

C. Dynamic Color Graphics

1. Graphic displays shall be provided for new equipment and systems.

2. The graphic displays shall be able to display and provide animation based on real-time FMS data that is acquired, derived, or entered.

3. The user shall be able to change values (set-points) and states in system-controlled equipment.

4. Provide a graphic editing tool that allows for the creation and editing of graphic files.

5. FMS system shall be provided with a complete user expandable symbol library containing all of the basic symbols used to represent components of a typical FMS system.

D. Schedules

1. Provide a spreadsheet-type schedule input form for automatic FMS time-of-day scheduling and override scheduling of FMS operations shall be provided. At a minimum, the following spreadsheet types shall be accommodated:

a. Weekly schedules

b. Temporary override schedules

c. Special "Only Active If Today Is a Holiday" schedules

d. Monthly schedules

2. Schedules shall be provided for each system or sub-system in the FMS. Each schedule shall include all commandable points residing within the system. Each point may have a unique schedule of operation relative to the system use schedule, allowing for sequential starting and control of equipment within the system. Scheduling and rescheduling of points shall be accomplished easily via the system schedule spreadsheets. Coordinate scheduling requirements with Owner.

3. Monthly calendars for a 12-month period shall be provided that allow for simplified scheduling of holidays and special days in advance. Holidays and special days shall be user-selected with the pointing device or keyboard and shall automatically reschedule equipment operation as previously defined on the weekly schedules.

E. Historical Trending and Data Collection

1. Trend and store point history data for all FMS points and values.

2. The trend data shall be stored in a manner that allows custom queries and reports using industry-standard software tools.

3. At a minimum, provide the capability to perform statistical functions on the historical database:

a. Average

b. Arithmetic mean

c. Maximum/minimum values

d. Range – difference between minimum and maximum values

e. Standard deviation

f. Sum of all values

g. Variance

F. Internet / Intranet Browser

1. A multi-user color graphics and textual interface shall be provided that allows customers to access their FMS data via the Internet or Intranet. This interface shall use HTML- and XML-based pages to send and receive data from an FMS system to a web browser.

2. Browser shall:

a. Automatically reflect any changes made to the FMS system without additional programming.

b. When installed behind a corporate firewall, shall work in conjunction with other security measures that have been implemented.

c. Allow the user to navigate and command the FMS using the same format as the Operator Interface.

d. Be an industry-standard browser

e. Provide user password access control.

f. Provide the means by which the user can create, edit, and view groups of FMS data points.

g. Provide navigation tools for moving between the views. In addition, it shall provide tools for gaining access to help and for logging out of the system.

h. Communicate directly with the existing web-based FMS network installed in the School District.

2.03 HVAC CONTROLLERS:

A. HVAC Controllers shall provide both standalone and networked direct digital control of HVAC systems.

B. Controller shall be configured and provided for each boiler system, chiller system, VAV and Multi-Zone air handling unit, pumping systems, unit ventilator, Lighting Zone control, etc.

C. Controller shall be able to retain program, control algorithms, and set-point information for at least 72 hours in the event of a power failure, and shall return to normal operation upon restoration of power.

D. Controller shall report its communication status to the FMS. The FMS shall provide a system advisory upon communication failure and restoration.

E. For each primary HVAC system, provide means of indication of system performance and set-points at, or adjacent to the HVAC Controller.

F. For each primary HVAC system, provide a means to adjust set-points and start/stop equipment at, or adjacent to the HVAC Controller.

G. Controller shall provide a means to prevent unauthorized personnel form accessing set-point adjustments and equipment control functions.

H. Controller shall provide the ability to download and upload configuration data, both locally at the Controller and via the FMS communications network.

2.04 APPLICATION SOFTWARE:

A. HVAC Application Software

1. Event Messaging: Provide for the automatic execution of user-defined messages on the occurrence of each predefined FMS real-time event including equipment/point status change, approaching limit or alarm, time of day and the like.

2. Optimum Start/Stop: Provide software to start equipment on a sliding schedule based upon indoor and outdoor conditions, to determine the minimum time of HVAC system operation needed to satisfy the space environmental requirements. The program shall also determine the earliest possible time to stop the mechanical systems. The optimum start/stop program shall operate in conjunction with, and be coordinated with, the scheduled start/stop and night setback programs.

3. Auto Alarm Lockout: Provide for scheduled and automatic lockout of alarm annunciation from equipment during non-normal operating conditions including shutdown, emergency power operation, fire alarm and the like.

4. Demand Limiting: Provide software to limit excess utility charges caused by uncontrolled demand. Provide the ability to prioritize the demand limiting actions based on FMS system parameters.

5. System Restart: Upon restoration of the AC power to an HVAC Node, automatically restart all equipment and restore all loads to the state as required by the FMS. Provide appropriate time delays to prevent demand surges or overload trips.

6. Heavy Equipment Delays: The system shall provide protection against excessive demand situations during start-up periods by automatically introducing time delays between successive start commands to heavy electrical loads.

7. Runtime Totalization: Automatically sample, calculate and store runtime hours for binary input and output points as listed in the point schedule of this specification.

8. Analog/Pulse Totalization: Sample, calculate and store consumption totals on a daily, weekly, or monthly basis for user-selected analog and binary pulse input-type points.

2.05 AIRFLOW MEASURING STATIONS:

A. Airflow and temperature measuring stations to consist of multi-point sensor probe and a single microprocessor-based transmitter as manufactured Ebtron, Kurz or Sierra. Each sensor probe assembly will contain one or more independently wired sensor housings. Multiple sensor housings shall be equally weighted and averaged by the transmitter prior to output. Pitot tubes and arrays and vortex shedding flow meters are not acceptable. The measuring device shall be UL listed as an entire assembly.

   1. The manufacturer's authorized representative shall review and approve placement and operating airflow rates for each measurement location indicated on the plans. A written report shall be submitted if any measurement locations do not meet the manufacturer's placement requirement.

B. Sensor Probe Assemblies:

   1. Sensor housing shall be manufactured of a U.L. listed engineered thermoplastic and shall utilize two hermetically sealed, bead-in-glass thermistor probes to determine airflow rate and ambient temperature.

2. The operating temperature range for the sensor probe assembly shall be -20° F to 160° F. The operating humidity range for the sensor probe assembly shall be 0-99% RH (non-condensing).

3. Calibrate temperature sensor at a minimum of 3 temperatures to an accuracy of +/- 0.15° F over the entire operating temperature range and at a minimum of 16 airflow rates to an accuracy of +/-2% of reading over the entire operating airflow range. Calibrate to standards that are traceable to the National Institute of Standards and Technology (NIST).

4. Sensor probe assembly shall have an integral, U.L. listed, plenum rated cable and terminal plug for connection to a remotely mounted transmitter. Terminal plug interconnecting pins shall be gold plated. Sensor assembly shall not require matching to the transmitter in the field.

C. Duct and Plenum Sensor Probe Assemblies:

1. Sensor housings shall be mounted in an extruded, gold anodized, 6063 aluminum tube probe assembly. The operating airflow range shall be 0 to 5,000 FPM unless otherwise indicated on the plans. Probe assembly mounting brackets shall be constructed of 304 stainless steel. Probe assemblies shall be mounted using one of the following options:

   a. Insertion mounted through the side or top of the duct.

   b. Internally mounted inside the duct or plenum.

   c. Standoff mounted inside the plenum.

2. The number of sensor housings provided for each location shall be as follows:

Area (sq. ft)	Sensors
Less than 1 SF	2 Sensors
1 to 3.9 SF	4 Sensors
4 to 7.9 SF	6 Sensors
8 to 11.9 SF	8 Sensors
12 to 15.9 SF	12 Sensors
More than 12 SF	16 Sensors

D. Fan Inlet Sensor Probe Assemblies:

1. Sensor housings shall be mounted on 304 stainless steel blocks. Mounting rods shall be field adjustable to fit the fan inlet and constructed of nickel plated steel. Mounting feet shall be constructed of 304 stainless steel. The operating airflow range shall be 0 to 10,000 FPM unless otherwise indicated on the plans.

E. Transmitters

1. The transmitter shall have an LCD display capable of displaying airflow and temperature. Airflow shall be field configurable to be displayed as a velocity or a volumetric rate. The transmitter shall be capable of displaying the individual airflow and temperature readings of each sensor on the LCD display.

2. The transmitter shall operate on 24 VAC. The transmitter shall not require an isolated power source.

3. The operating temperature range for the transmitter shall be -20° F to 120° F. The transmitter shall be protected from weather and water.

4. Transmitter to have direct integration to DDC system. Utilize temperature output from device for monitoring and controlling as specified.

2.06 PUMP VARIABLE FREQUENCY DRIVES (VFD):

A. The pump Variable Frequency Drive (VFD) shall be ABB model ACH580-VCR-065A-4+J429. ACH580 6-Pulse drive package rated UL (NEMA) Type 1. Provided with main input circuit breaker and E-Clipse Bypass (Vertical). Include with Bluetooth control panel. Equivalent VFD's manufactured by Eaton, Hitachi or Danfoss are acceptable

B. VFD shall be warranted for a period of 24 months from date of Substantial Completion of the project.

C. VFD shall be provided with the following protection features: undervoltage, overvoltage, overcurrent, and ground fault protection.

D. VFD shall be compatible with BACnet MS/TP or Modbus RTU as standard features.

E. The VFD shall be capable of displaying Frequency, Voltage, Current, Kilowatts per hour, Fault identification, Percent torque, Percent power and RPM in plain English via an alphanumeric display.

F. Bypass:

1. The bypass shall provide an input disconnect switch or circuit breaker with door mounted and interlocked operator (padlockable in the OFF position), a bypass starter, electronic motor overload protection, a door mounted control panel with graphical display for local control, provisions for external control connections, and serial communications capability.

2. The bypass is a microprocessor-controlled "intelligent" system which features programmable Class 10, 20, or 30 overload curves, programmable underload (broken belt) and overload trip or indication. Also included as standard features are single-phase protection in bypass mode, programmable manual or automatic transfer to bypass, fireman's override, smoke control, damper control, no contactor chatter on brown-out power conditions and serial communications.

3. Should a drive problem occur, fast acting fuses disconnect the drive from the line prior to clearing upstream branch circuit protection, maintaining bypass capability

2.07 DAMPERS:

A. All dampers intended for automatic control, unless part of a factory made unit, shall be furnished by this contractor.

1. All dampers, unless otherwise specified, shall be "low-leakage" dampers and shall be designed for tight shut-off such that for a 1500 fpm damper leakage does not exceed 1% at 6" wg. Silent-closing replaceable butyl and neoprene seals shall be provided on blades on all four (4) sides of the frame. Louver linkage to be concealed in frame channel outside for the air stream. Bearings to be nylon bushings and to be oil-impregnated sintered iron. Rigid blade construction of not lighter than double #22 gauge and 6" maximum blade width; frames to have welded corners and be diagonally braced.

2. Whenever practicable, damper size shall be based on 1000 to 1500 fpm air velocity.

2.08 DAMPER OPERATORS:

A. Damper operators shall be furnished for dampers furnished by this contractor. Damper operators shall be electronic type with high torque motors. All operators for the VAV air handling systems shall be selected to operate in conjunction with the factory supplied microprocessor furnished with the system.

1. Provide pilots or positive positioning relays where required to obtain specified performance.

2. Operator area shall be of sufficient size to provide true modulating action and proper sequences specified.

2.09 VALVES:

A. Heating and chilled water valves shall be 2-way normally open or 3-way diverting, maintaining flow through the coil in the event of failure. Valves shall have proper springs and range as required to meet individual space requirements.

1. In all cases, 2-way valves shall close against flow to prevent water hammer or noise.

2. All valves shall have equal percentage or linear plugs where used for throttling service. All 2-position valves shall have line size connections. 3-way mixing valves have single plugs; diverting shall have double plugs.

3. Valves 1/2" to 2" NPS shall have high grade bronze bodies with bronze trim and screw connections.

4. All valves shall be furnished in an approved standard finish, unless otherwise specified.

B. Sizing of Valves: All valves shall be furnished to the heating contractor who will mount them as piping is installed. Valve sizes shall be as recommended by the temperature control manufacturer who shall be responsible for their proper sizing, regardless of indicated valve or line size on drawings. Water valves shall not exceed 5 psi pressure drop, unless otherwise stipulated.

2.10 THERMOSTATS & ROOM SENSORS:

A. Room Thermostats (adjustable): Thermostats shall be 1,000 ohm thin-film nickel elements with temperature adjustment, integral network terminal jack, and override pushbutton.

B. Room Temperature Sensors (non adjustable): Sensors shall be 1,000 ohm thin-film nickel elements with integral network terminal jack, and override pushbutton.

C. Room Temperature Sensors with cover plate (non adjustable): Sensors shall be 1,000 ohm thin-film nickel elements attached sensor attached to a stainless steel plate flush to the wall.

D. Room Thermostats and Sensors shall provide the following minimum performance requirements:

1. Accuracy: +0.5°F.

2. Operating Range: 32 to 131°F.

3. Setpoint Adjustment Range: 40 to 90°F.

4. Setpoint Modes: Occupied Heating & Cooling, Unoccupied Heating & Cooling.

5. Calibration Adjustments: None required.

6. Installation: Up to 100' from controller.

E. Outdoor and Immersion Thermostat: Outdoor and immersion thermostats shall be remote bulb type. Bulb capillary and thermostatic element shall be liquid filled for minimum thermometric lag. Remote bulb, when located outdoors, shall be properly shielded to sense true outdoor temperature. Thermostat covers shall be locking type to prevent tampering. Under certain conditions, rigid elements will be allowed.

2.11 FIELD DEVICES:

A. Input Devices

1. Low Air Differential Pressure Switch

a. Rating: NEMA 1

b. Mounting: Duct Insertion

c. Range: 0.05" to 5.0" WC, complete with field adjustable setpoint.

d. Protection: Overpressure to 1 PSIG

e. Output: Form C Contact, minimum 50VA

f. Special: Automatic reset, provide complete installation kit including static pressure tips, tubing, fittings, and air filters.

2. High Air Differential Pressure Switch

    a. Rating: NEMA 1

    b. Mounting: Duct Insertion

    c. Range: 1" to 10" WC, complete with field adjustable setpoint.

    d. Protection: Overpressure to 1 PSIG

    e. Output: 2 Form C Contacts, minimum 360VA

    f. Special: Manual reset, provide complete installation kit including static pressure tips, tubing, fittings, and air filters.

3. Water Differential Pressure Switch

    a. Materials: Brass bellows

    b. Mounting: Pipe mounted

    c. Range: 2 – 26 PSI, 1.2 PSI fixed differential

    d. Protection: 120 PSI Differential overpressure, 180 PSI static pressure.

    e. Output: Form C contacts, 50 VA

    f. Special: Pipe taps and shut off valves provided by Div. 23.

4. Humidity Transmitter w/ Temperature Sensor - Wall & Duct Mount

    a. Materials: All-Polymer element, and Plastic Enclosure

    b. Rating: 95-5 V Flammability Rated, UL, Class 2

    c. Mounting: Wall, Duct

    d. Range: 0-100% RH

        1) Accuracy: +-2% and +-3%

    e. Power Req.: 14 to 30 VDC or 20 to 30 VAC at 50/60 Hz, Class 2

    f. Output:

        1) 0-10 VDC or 0-5 VDC User Selectable or 4 to 20Ma

        2) Nickel 1000 ohms at 70 degrees F

        3) Silicon 1035 ohms at 77 degrees F

        4) Platinum is 1000 ohms at 32 degrees F

g. Special: Provide NIST Certificate

5. Current Switch

   a. Materials: Encased copper

   b. Rating: 600vAC

   c. Mounting: Split Core

   d. Range: 1.5amps to 50 amps

   e. Action: Trip point adjustment

   f. Output: SPST, N.O.

   g. Special: Status LED

6. Current Transducer

   a. Mounting: Field Mounted

   b. Range: 60 Hz nominal

   c. Accuracy: +/- 2% full scale

   d. Protection: 250 A max current

   e. Output: 4-20mA

7. Static Pressure Transducer

   a. Rating: NEMA 1

   b. Mounting: Duct Insertion, Pipe Insertion

   c. Range: 0-25 in. water column unidirectional, 0- +/- 5 in. water column bi-directional.

   d. Accuracy: +/- 1% full scale

   e. Protection: 10 PSIG

   f. Output: 4-20 mA, 0-5 VDC, 0-10 VDC

8. Carbon Dioxide Transmitter

   a. Materials: ABS Plastic, Silicon Sensor

   b. Rating: UL and CE

   c. Mounting: Wall, Duct

d. Range: 0 - 2000 ppm

e. Accuracy: At 68 degrees F +-30ppm CO2 + 2% of reading, non-linearity 1% of Full Scale

f. Calibration: Every 5 Years

g. Output: 0 to 20mA, 4 to 20mA, or 0 to 10 VDC Jumper Selectable

h. Special, Single-beam, Dual-wavelength

9. Temperature Sensors

a. Materials: Nickel element in a copper tube.

b. Mounting: Duct/Pipe, Room

c. Range: -50 degrees F to 250 degrees F, 55 degrees F to 85 degrees F

d. Accuracy: 0.1%

e. Output: Resistive 1000ohms at 70 degrees F

f. Special: Duct Element Holder, Brass Well Assembly, Room Mounting Bracket and Cover

10. Differential Pressure Transducer

a. Rating: NEMA 1

b. Mounting: Duct Insertion, Pipe Insertion

c. Range: 0-25 in. water column unidirectional, 0- +/- 5 in. water column bi-directional

d. Accuracy: +/- 1% full scale

e. Protection: 10 PSIG

f. Output: 4-20 mA, 0-5 VDC, 0-10 VDC

11. Carbon Dioxide Sensors

a. Materials: Molded plastic enclosure

b. Rating: 0 to 5000ppm

c. Mounting: Duct or Wall

d. Range: 0 to 2000ppm / 0-5000 User selectable

e. Accuracy: +/- 50ppm

f. Output: 0-10vDC, 4-20mA

12. Thermostat - Line Voltage

a. Materials: Cold Rolled Steel, Beige Thermoplastic, Sensing Element-Liquid

b. Contact Rating:

1) 6 Ampere Running/36 Amps. Locked Rotor at 120 VAC

2) 3.5 Amps. Running/21 Amps Locked Rotor at 208 VAC

3) 3.0 Amps. Running/8 Amps Locked Rotor at 240 VAC

c. Fan and System Switch Rating:

1) 12 Amps. Running/34.8 Amps. Locked Rotor at 120 VAC

2) 6.9 Amps. Running/19.1 Amp. Locked Rotor at 208 VAC

3) 6.0 Amps. Running/17.4 Amps. Locked Rotor at 240 VAC

d. Mounting: Wall

e. Range: 40 to 90 °F

f. Accuracy: +-2°F

g. Differential: Mechanical: Approx. 0.7°F

B. Output Devices

1. Control Relays

a. Materials: Gold Flash

b. Rating: 10 amps at 120-277vAC

c. Mounting: Standard Electrical Box

d. Protection: NEMA 1 Housing

e. Output: SPDT, DPDT

f. Special: Provide LED for position indication. Provide with HOA switch, except when used in Smoke Control applications.

C. Controlled Devices

a. Electric Damper Actuators

b. Rating: NEMA 2 Enclosure

c. Mounting: Direct mount

d. Stroke: 90 seconds end-to-end full stroke, 15 seconds return to normal for spring return

e. Protection: Electronic stall protection

f. Control Input: 0-10 VDC or 0-20 mADC

g. Power: Nominal 24 VAC

h. Torque: Coordinate with unit manufacturer for maximum torque

i. Duty cycle: rated for 65,000 cycles

j. Special: Output position feedback, manual override, field selectable rotational / spring return direction, field

k. Adjustable zero and span.

2. Electric Valve Actuators

a. Rating: NEMA 1 Enclosure

b. Mounting: Direct mount

c. Control Input: Continuous 0-10 VDC or 0-20 mADC

d. Power: Nominal 24 VAC

e. Protection: Stall protection

f. Torque: Size for minimum 150% of required duty

g. Special: Output position feedback, manual override, field selectable direction, field adjustable zero and span. For spring return provide field selectable spring return direction.

3. Ball Valve, in. NPT, Electrically Operated

a. Materials:

1) Body - Forged Brass

2) Ball - 300 Series Stainless Steel

3) Stem - 300 Series Stainless Steel

4) Stem Seals - EPDM Double O-Rings

5) Seats - Graphite-Reinforced PTFE with EPDM O-Ring Backing

b. Rating: Valve Body 600 psi at 320 degrees F, fluid temp: 35 to 250 °F

c. Output Flow Maximum: 1 through 143.4 Cv Two-Way; 3.7 through 35.4 Cv Three-Way

4. Globe Valve, Cast Iron Flanged, Electrically Actuated, 2-1/2 through 6 in.

a. Materials:

1) Body - Cast Iron with Black Lacquered Finish

2) Plug – Brass

3) Stem - 316 Stainless Steel

4) Packing - Ethylene Propylene Terpolymer Ring Packs

b. Rating: ANSI 16.1, Class 125, fluid temperature from 35 to 281 °F

c. Mounting: ANSI 125/150 Flanged Pipe

d. Output Flow Maximum: 0.51 through 344 Cv

5. Zone Valve, Electrically Actuated, Standard Pressure

a. Materials:

1) Body – Brass

2) Plug - EPT Rubber

3) Stem - Stainless Steel

4) Packing - Two EPT Rubber O-Rings

b. Rating: Valve Body Pressure - 300 psig, fluid temp: 35 to 203 °F

c. Mounting: NPT, Internal Thread or Sweat

d. Output Flow Maximum: 0.46 through 6.4 Cv

6. Globe Valve, Bronze Control Valve with Brass Trim, Electrically Actuated.

a. Materials:

1) Body - Cast Bronze

2) Plug – Brass

3) Seat - Brass against Molded Elastomeric Disc

4) Stem - Stainless Steel

5) Packing - Ethylene Propylene Rubber

b. Rating: ANSI Class 250, fluid temp: 35 to 284 °F

c. Output Flow Maximum: 0.73 through 46.2 Cv

7. Actuator - Non-Spring Return

a. Mounting: Direct Mount

b. Direction of Action: Field-selectable direct/reverse

c. Control Inputs:

1) Floating: 20 to 30 VAC at 50/60 Hz

2) On/Off: 20 to 30 VAC at 50/60 Hz

3) Proportional: Field-selectable 0(2) to 10 VDC or 0(4) to 20 mA

d. Power: 20 to 30 VAC at 50/60 Hz

e. Stall Protection: Magnetic Clutch or Electronic

f. Audible Noise Rating: 30 dBA to 45 dBA

g. Operating Temperature w/ Cover: -4 to 125 °F (-20 to 52 °C)

h. Enclosure Rating: NEMA 2

i. Manual Override: Manual Gear Release

j. Rotation Time:

1) Fixed: 60, 90, 120, 205 seconds

2) Field-Adjustable: 1, 1.5, 2, 5.5, or 11 minutes

k. Rotation Range: Field-adjustable 30 to 90 °F

l. Life Rating:

1) Full Stroke Cycles: 60,000 to 100,000

2) Reposition Cycles: 2,500,000

m. Position Feedback:

n. Floating: 10k ohm

o. Proportional: 0(2) to 10 VDC

p. Auxiliary Switches: 2 SPDT, 24 VAC

8. Damper Actuator - Spring Return

a. Mounting: Direct Mount

b. Direction of Action: Field-selectable

c. Control Inputs:

1) Floating: 20 to 30 VAC at 50/60 Hz or 24 VDC

2) On/Off: 20 to 30 VAC at 50/60 Hz or 24 VDC

3) Proportional: Field-selectable 0(2) to 10 VDC, 6 to 9 VDC or 0(4) to 20 mA

d. Power: 20 to 30 VAC at 50/60 Hz or 24 VDC

e. Stall Protection: Electronic Stall Detection

f. Operating Temperature: -4 to 122 °F

g. Enclosure: NEMA 2

h. Rotation Time: 70 to 130 seconds

3.00 PART 3 - PERFORMANCE / EXECUTION

3.01 INSTALLATION PRACTICES:

A. FMS Wiring:

1. Provide all conduit, wiring, accessories and wiring connections required for the installation of the Facility Management System, unless specifically shown on the Electrical Drawings under Division 16 Electrical. All wiring shall comply with the requirements of applicable portions of Division 16 and all local and national electric codes, unless specified otherwise in this section.

2. All FMS wiring materials and installation methods shall comply with FMS manufacturer recommendations. Design all cable, conduit, cable trays, and trunking requirements for the FMS.

3. Class 2 Wiring:

a. All Class 2 (24VAC or less) wiring shall be installed in conduit unless otherwise specified.

b. Conduit is not required for Class 2 wiring in concealed accessible locations. Class 2 wiring not installed in conduit shall be supported every 5' from the building structure utilizing metal hangers designed for this application. Wiring shall be installed parallel to the building structural lines. All wiring shall be installed in accordance with local code requirements.

4. Class 2 signal wiring and 24VAC power can be run in the same conduit. Power wiring 120VAC and greater cannot share the same conduit with Class 2 signal wiring.

5. Perform circuit tests using qualified personnel only. Provide necessary instruments and equipment to demonstrate that:

   a. All circuits are continuous and free from short circuits and grounds.

   b. All circuits are free from unspecified grounds; that resistance to ground of all circuits is no less than 50 megaohms.

   c. All circuits are free from induced voltages.

6. Provide complete testing for all cables used under this Contract. Provide all equipment, tools, and personnel as necessary to conduct these tests.

7. Provide for complete grounding of all signal and communications cables, panels, and equipment so as to ensure system integrity of operation. Ground cabling and conduit at the panel terminations. Avoid grounding loops.

B. FMS Raceway

1. All wiring shall be installed in conduit except as noted elsewhere in this specification. Minimum control wiring conduit size 1/2".

2. All conduits shall be installed level, plumb, at right angles to the building lines and shall follow the contours of the surface to which they are attached.

3. Flexible Metal Conduit shall be used for vibration isolation and shall be limited to 3 feet in length when terminating to vibrating equipment. Flexible Metal Conduit may be used within partition walls. Flexible Metal Conduit shall be UL listed.

C. Penetrations

1. Provide fire stopping for all penetrations used by dedicated FMS conduits and raceways. All other project fire stopping to be by other trade.

2. All openings in fire proofed or fire stopped components shall be closed by using approved fire resistive sealant.

3. All wiring passing through penetrations, including walls, shall be in conduit or enclosed raceway.

4. Penetrations of floor slabs shall be by core drilling. All penetrations shall be plumb, true, and square.

5. No penetrations in structural elements shall be made before receipt of written approval.

D. FMS Identification Standards

1. Controller Identification. All controllers shall be identified by a permanent label fastened to the outside of the enclosure. Labels shall be suitable for the controller location.

2. Cable shall be labeled at a minimum of every 18" with the FMS System manufacturer's name and the type of signal carried within the cable (i.e.: Analog Input, Analog Output, Binary Input, Binary Output, 24 VAC.).

3. Each of the cable types specified in Item A shall be of a different color coding for easy identification and troubleshooting. Recommended color coding:

   a. Analog Input Cable — Yellow

   b. Analog Output Cable — Tan

   c. Binary Input Cable — Orange

   d. Binary Output Cable — Violet

   e. 24 VAC Cable — Gray

   f. General Purpose Cable — Natural

   g. Tier 1 Comm Cable — Purple

   h. Other Tier Comm Cable — Blue

4. Raceway Identification. All the covers to junction and pull boxes of the FMS raceways shall be painted with the appropriate color.

5. Wire Identification. All low and line voltage FMS wiring shall be identified by a number, as referenced to the associated shop drawing and as-built drawing, at each end of the conductor or cable. Identification number shall be permanently secured to the conductor or cable and shall be typed.

E. FMS Controller Installation

1. The FMS panels and cabinets shall be located as indicated at an elevation of not less than 2 feet from the bottom edge of the panel to the finished floor. Each cabinet shall be anchored per the manufacturer's recommendations.

2. Be responsible for coordinating panel locations.

F. Input Devices

1. All Input devices shall be installed per the manufacturer recommendation.

2. Locate components of the FMS in accessible local control panels wherever possible.

G. FMS Line Voltage Power Source

1. 120-volt AC circuits used for the Facility Management System shall be taken from panel boards and circuit breakers provided by Division 26.

2. Circuits used for the FMS shall be dedicated to the FMS and shall not be used for any other purposes.

3. DDC terminal unit controllers may use 120-volt AC power from motor power circuits.

H. HVAC Input Devices – General

1. All Input devices shall be installed per the manufacturer recommendation.

2. Locate components of the FMS in accessible local control panels wherever possible.

3. Install all in-line devices such as temperature wells, pressure taps, duct smoke detectors, airflow stations, etc.

4. Input Flow measuring Devices shall be installed in strict with ASME Guidelines affecting non-standard approach conditions.

5. Outside Air Sensors

   a. Sensors shall be mounted on the North wall to minimize solar radiant heat impact or located in a continuous intake flow adequate to monitor outside air conditions accurately.

   b. Sensors shall be installed with a rain proof, perforated cover.

6. Water Differential Pressure Sensors

   a. Differential pressure transmitters used for flow measurement shall be sized to the flow-sensing device.

   b. Differential pressure transmitters shall be supplied with tee fittings and shut-off valves in the high and low sensing pick-up lines.

   c. The transmitters shall be installed in an accessible location.

7. Medium to High Differential Water Pressure Applications (Over 21" w.c.):

   a. Air bleeds units, bypass valves and compression fittings shall be provided.

8. Building Differential Air Pressure Applications (-1" to +1" w.c.):

   a. Transmitters exterior sensing tip shall be installed with a shielded static air probe to reduce pressure fluctuations caused by wind.

   b. The interior tip shall be inconspicuous.

9. Air Flow Measuring Station:

    a. Where the stations are installed in insulated ducts, the airflow passage of the station shall be the same size as the inside airflow dimension of the duct.

    b. Station flanges shall be two inch to three inch to facilitate matching connecting ductwork.

10. Duct Temperature Sensors:

    a. Duct mount sensors shall mount in an electrical box through a hole in the duct and be positioned so as to be easily accessible for repair or replacement.

    b. The sensors shall be insertion type and constructed as a complete assembly including lock nut and mounting plate.

    c. For ductwork greater in any dimension than 48 inches or where air temperature stratification exists such as a mixed air plenum, utilize an averaging sensor.

    d. The sensor shall be mounted to suitable supports using factory approved element holders.

11. Space Sensors:

    a. Shall be mounted per ADA requirements.

    b. Provide lockable tamper-proof covers in public areas and/or where indicated on the plans

12. Low Temperature Limit Switches:

    a. Install on the discharge side of the first water coil in the air stream.

    b. Mount element horizontally across duct in a serpentine pattern insuring each square foot of coil is protected by 1 foot of sensor.

    c. For large duct areas where the sensing element does not provide full coverage of the air stream, provide additional switches as required to provide full protection of the air stream.

13. Air Differential Pressure Status Switches:

    a. Install with static pressure tips, tubing, fittings, and air filter.

14. Water Differential Pressure Status Switches:

    a. Install with shut off valves for isolation.

I. HVAC Output Devices

1. All output devices shall be installed per the manufacturers recommendation. The mechanical contractor shall install all in-line devices such as control valves, dampers, etc.

2. Actuators: All control actuators shall be sized capable of closing against the maximum system shut-off pressure. The actuator shall modulate in a smooth fashion through the entire stroke. When any pneumatic actuator is sequenced with another device, pilot positioners shall be installed to allow for proper sequencing.

3. Control Dampers: Shall be opposed blade for modulating control of airflow. Parallel blade dampers shall be installed for two position applications.

4. Control Valves: Shall be sized for proper flow control with equal percentage valve plugs. The maximum pressure drop for water applications shall be 5 PSI. The maximum pressure drop for steam applications shall be 7 PSI.

5. Electronic Signal Isolation Transducers: Whenever an analog output signal from the Facility Management System is to be connected to an external control system as an input (such as a chiller control panel) or is to receive as an input a signal from a remote system, provide a signal isolation transducer. Signal isolation transducer shall provide ground plane isolation between systems. Signals shall provide optical isolation between systems

3.02 TRAINING:

A. Training Services:

1. Provide (8) hours of on-site orientation by a field engineer who is fully knowledgeable of the specific installation details of the project. The orientation shall, at a minimum, consist of a review of the project as-built drawings, the FMS software layout and naming conventions, and a walk through of the facility to identify panel and device locations. Training shall be conducted in four hour (maximum) sessions. Submit a schedule for training periods prior to completion of this project for approval.

3.03 START-UP PROCEDURE:

A. Fully start-up, test and adjust all aspects of the Facility Management System work.

B. Provide all necessary specialist labor, materials, and tools to demonstrate that the FMS is operating in compliance with the contract. Prepare a list of noted deficiencies and submit report.

1. Promptly rectify all listed deficiencies and that demonstrate this has been completed.

2. Retest the deficiencies in conjunction with other trade contractors.

C. VAV Box Performance Verification and Documentation

1. Test each VAV box for where the dampers in one half of a group of boxes are stepped towards full open while the other half are stepped towards full closed. At each step, after a settling time, box air flows and damper positions will be sampled. Following the cycle, a pass/fail report indicating results shall be produced. Possible results are Pass, No change in flow between full open and full close, Reverse operation or Maximum flow not achieved. The report shall be submitted as documentation of the installation.

2. Submit a report based on a sampling of the VAV calculated loop performance metrics. The report shall indicate performance criteria, include the count of conforming and non-conforming boxes, list the non-conforming boxes along with their performance data, and shall also include graphical representations of performance. The sampling shall take place after completion of Test and Balance, when design cooling and heating media have been available and occupied conditions approximated for five consecutive days.

D. Acceptance Check Sheet

1. Prepare a check sheet that includes all points for all functions of the FMS.

2. Submit the check sheet for approval one month prior to testing.

3. Complete the check sheet for all items and functions of the FMS and initial each entry with time/date as record of having fully calibrated and tested the FMS. Submit for review.

4. Coordinate start-up, testing and troubleshooting with other trades as required to put system into proper operation. Assist the test and balancing contractor in verifying proper system operation and to rectify system-operating deficiencies.

5. Verify through visual inspection (not at operator interface) that all control valves, dampers, and sequences are operating properly and submit report.

3.04 FMS SPECIFIC REQUIREMENTS:

A. FMS Reports

1. Custom reports shall be able to be set up for the building. Examples: Chiller efficiency reports, alarm reports, run time summaries, etc.

B. Graphic Displays

1. Provide a color graphic system flow diagram display for each system with all points as indicated on the point list. Provide Historical Data Viewer functionality.

2. Provide a color graphic display for each section in the facility. Indicate each HVAC zone, color- coded to indicate zone values and status. Provide Historical Data Viewer functionality.

3. User shall access the various system schematics and floor plans via a graphical penetration scheme and/or menu selection.

4. User shall penetrate from floor plan to associated HVAC system graphic.

C. Actuation / Control Type

1. Primary Equipment

a. Controls shall be provided by equipment manufacturer as specified herein

b. All damper and valve actuation shall be electric.

2. Air Handling Equipment

a. All air handlers shall be controlled with DDC controllers

b. All damper and valve actuation shall be electric.

3. Terminal Equipment

a. Terminal Air Boxes (VAV, etc.) shall have electric damper and valve actuation.

b. Miscellaneous heating equipment (Cabinet heaters, unit heaters, radiant panels, etc.) shall have electrically actuated valves with DDC or electric/electronic control. See the Sequences of Operation and the Point List for further details.

4.00 PART 4 – CONTROL SEQUENCES

4.01 WINTER HEATING/SUMMER COOLING MODE:

A. For all heating only equipment (cabinet heaters, unit heaters, fin tube radiation). A 2-way or 3-way control valve shall go full closed to prevent water flow through these coils during the cooling mode of operation. The switchover signal shall be generated from the DDC system.

4.02 AIR COOLED CHILLER:

A. The unit is provided with a self-contained, factory furnished control system with LON or BACNET interface as provided by unit manufacturer. Control system shall include mechanical cooling controls. The system shall be enabled and disabled from the FMS and shall be operated based on input from the FMS.

B. Provide interface to units LON or BACNET interface and install necessary field devices to properly control and monitor each unit. Coordinate installation and other requirements with the unit manufacturer.

C. CONTROL SEQENCES:

1. Enable/Disable:

   a. Chiller shall be enabled to operation by the FMS in the summer cooling mode of operation when the outside air temperature is above 60°F (adj).

      1) The lead chiller (operator selectable) shall be indexed to operate.

      2) The secondary chiller pump shall be activated upon a call for chiller operation.

      3) After chilled water flow has been established, as sensed by the individual chiller flow switches, the packaged chiller microprocessor controls shall modulate the chiller capacity to maintain a 44° F (adjustable) primary chilled water loop supply water temperature. Provide indication of primary and secondary loop water supply and water return temperatures on the local DDC control panel.

         a) Install and wire flow sensors and differential pressure sensors shipped loose with chiller.

      4) The chiller shall be set operate for a minimum run time with time set as per manufacturer's recommendations.

   b. Chiller shall be disabled in the winter heating mode of operation when the outside air temperature is below 60°F (adj) or when there is not call for cooling and/or all air handling units are de-energized.

      1) Chiller shall be disabled.

      2) Associated chilled water pump shall continue to run for 2 minutes (adj.) after chiller shutdown and then be disabled.

      3) Chiller shall remain off for a minimum of 15 minutes (adj.).

      4) OFF mode of operation: Same as disabled mode of operation except chillers and pumps shall remain OFF.

2. Chiller Sequences:

   a. FMS shall totalize runtime of the chillers and alternate lead chiller every 168 hours of operation (adj.).

   b. Chiller shall be sequenced to maintain primary building loop supply temperature.

   c. The FMS shall monitor the common chilled water supply and return temperatures.

3. Parallel the alarm circuitry furnished with the unit controller. Provide alarm indication at the FMS system.

D. SAFETIES AND ALARMS:

1. The chiller microprocessor shall annunciate discrete alarm conditions.

2. When a chiller alarm is initiated, the discrete alarm condition causing the alarm shall be annunciated at the operator workstation.

3. Annunciate off-normal alarm whenever chiller status does not equal command.

4. Enable the electric heat trace system below 40°F (adjustable) outdoor air temperature when water is in the outdoor chiller piping. Provide a manual switch indoors which will disable the heat trace system when the chiller and outdoor piping have been drained for the winter. Provide a local pilot light to indicate the heat trace system has been manually disabled.

E. FAILURE MODES:

1. Chiller Failure: If a chiller fails to operate, the chiller shall be disabled and alarm shall be annunciated. Associated pump shall be stopped.

2. Pump Failure: If a pump fails to operate, its associated chiller shall shut down and alarm shall be annunciated at the operator workstation. Pump shall be disabled.

3. Sensor Failure: Upon the failure of an internal analog sensor, the chiller operating controls shall shutdown the chiller. Upon the failure of an FMS analog sensor, an alarm will be annunciated at the operator workstation.

4.03 VARIABLE SPEED PUMPING SYSTEMS:

A. GENERAL:

1. Variable speed chilled water pumps shall be controlled and monitored electronically by the FMS system with dedicated stand-alone DDC controllers.

2. Lead-Lag Control: Totalize runtime of the pumps and alternate lead pump every 168 hours of operation (adj.).

3. Best Efficiency Program: Based on pump curves, control the pumps at the best efficiency point (lowest KW draw) while maintaining desired flow and head. Provide flow meters, KW meters and system pressures as required.

4. Provide multiple system pressure sensors for each system. Locate pressure sensors near the end of piping run for each piping circuit. Provide the following minimum number of sensors for each system:

   a. Chilled Water System: 6 sensors.

5. Submit a complete pumping system profile analysis, which shall include as a minimum, the pumps performance (variable speed pump curves), and the operating characteristics in the system (system curve).

a. This system profile analysis shall include pump motor and adjustable frequency drive efficiencies, load profile, staging points, horsepower, and kilowatt/hour draw.

b. Submittal shall include system summary sheet, sequence of operation, power and control wiring diagrams, dimensional shop drawings indicating required clearance and connection locations and sensor locations based on facility and piping configuration.

6. Controls shall function to a proven program that safeguards against damaging hydraulic conditions including, motor overload, pump flow surges, end of curve protection and Hunting.

B. SYSTEM OPERATION:

1. The variable speed primary pump systems shall be indexed "ON" from the FMS.

a. The primary chilled water pumps shall be enabled to run continuously above 60 degrees F outdoor air temperature (adjustable) during the occupied period during the summer cooling mode of operation.

2. The variable speed drives shall be controlled to maintain a constant system pressure for the chilled water pumps systems at the optimum energy consumption level. As the worst case zone deviates from set point, the DDC system pump logic controller shall send the appropriate analog signal to the AFD to speed up or slow down the pump/motor.

a. Controls shall continuously scan and compare each process variable to its individual set point and control to the least satisfied zone. As the worst case zone deviates from set point, the VSD shall speed up or slow down the pump/motor.

b. If the set point cannot be satisfied by the designated lead pump, initiate a timed sequence to stage a lag pump. The lag pump shall accelerate resulting in the lead pumps decelerating until they equalize in speed. Further change in process variable shall cause the pumps to change speed together.

c. When the set point and end of curve criteria can be safely satisfied with fewer pumps, the initiate a timed destage sequence and continue variable speed operation.

C. SAFETIES AND ALARMS:

1. The variable speed pump DDC controllers shall annunciate discrete alarm conditions.

2. When a pump alarm is initiated, the discrete alarm condition causing the alarm shall be annunciated at the operator workstation.

3. Annunciate off-normal alarm whenever pump status does not equal command.

D. FAILURE MODES:

1. Pump Failure: If a pump fails to operate, its associated alarm shall be annunciated at the operator workstation. Pump shall be disabled.

2. Sensor Failure: Upon the failure of an internal analog sensor, the pump operating controls shall shutdown the pump. Upon the failure of an FMS analog sensor, an alarm will be annunciated at the operator workstation.

3. In the event of a system differential pressure failure due to a pump or VSD fault, automatically start the next variable speed pump/VSD set in sequence and continue variable speed operation.

4. In the event of the failure of a zone sensor/transmitter, its process variable signal shall be removed from the scan/compare program. Alternative zone sensor/transmitters, if available, shall remain in the scan/compare program for control. The zone number corresponding to the failed sensor/transmitter shall be displayed on the operator interface In the event of failure to receive all zone process variable signals, all VSDs shall maintain 100% speed, reset shall be automatic upon correction of the zone failure.

4.04 PACKAGED VAV ROOFTOP UNITS:

A. The rooftop units contain a self-contained, factory furnished control system with LON or BACNET interface as provided by rooftop unit manufacturer. Control system shall include enthalpy economizer, mechanical heating and cooling controls, power exhaust controls, energy recovery wheel controls, dehumidification, and fan volume controls. The system shall be indexed from the occupied to the unoccupied modes of operation from the FMS and shall be operated based on input from the FMS.

B. Provide interface to units LON or BACNET interface and install necessary field devices to properly control and monitor each rooftop unit. Coordinate installation and other requirements with the rooftop unit manufacturer.

C. Install and wire components shipped loose with the rooftop unit. This includes but is not limited to the following items:

1. Supply duct static pressure sensor for control of supply fan variable frequency drive.

2. Building pressure sensor for control of power exhaust fan.

D. Supply Air Temperature Reset Control.

1. Occupied Mode:

   a. Supply air temperature reset control is to be provided to reset the discharge supply air temperature setpoint inversely proportional to the outside air temperature. Reset schedule shall be adjustable, with initial schedule of 55 °F discharge air supply temperature setpoint for 50 °F outside air temperature (and above) to 70 °F setpoint at 0 °F outside air temperature.

2. Un-occupied Mode:

   a. Supply air temperature reset control is to be provided to reset the discharge supply air temperature setpoint inversely proportional to the outside air temperature. Reset schedule shall be adjustable, with initial schedule of 60 °F discharge air supply temperature setpoint for 50 °F outside air temperature (and above) to 75 °F setpoint at 0 °F outside air temperature.

E. Static Pressure Reset Control:

1. Variable air volume systems: Reset the static pressure set point in the ductwork system based on the position of the VAV dampers for variable volume boxes within the system to minimize the static pressure required in the system.

F. Morning Warm Up/Cool Down Control.

1. The warm up mode shall be utilized in the heating mode of operation. The FMS shall determine the length of time needed to operate in the warm up mode.

   a. The control system shall determine required discharge air temperature and the gas control valve shall modulate to maintain discharge air temperature setting.

   b. Supply fan shall start and run continuously.

   c. The outside air damper shall be fully closed and the exhaust fan shall be disabled.

   d. FMS shall index space temperature set-points to occupied temperatures for rooftop units, VAV boxes and fan power terminal units.

2. The cool down mode shall be utilized in the cooling mode of operation. The control system shall determine the length of time needed to operate in the cool down mode.

   a. Supply fan shall start and run continuously.

   b. The outside air damper shall be fully closed and exhaust fan shall be disabled.

   c. The DX condensing unit shall stage to maintain discharge air temperature at 55°F (adj). Economizer shall be enabled to provide free cooling as determined by the packaged rooftop unit controls.

d. FMS shall index space temperature set-points to occupied temperatures for rooftop units, VAV boxes and fan power terminal units.

G. Outside air damper.

1. During un-occupied mode of operation, the outside air damper shall be closed.

2. During occupied mode of operation, the outside air damper shall modulate between the "low" and "high" outside air settings, based on CO2 levels.

H. Parallel available rooftop unit alarms and provide alarm to the FMS. Provide control and monitoring points as listed in the Point List at the end of this section.

I. Install the duct mounted static pressure sensor furnished with the packaged VAV rooftop unit approximately 2/3 of the way downstream in the main supply air duct run. Verify exact location in the field. Sensor shall be tied back to the rooftop unit for control of the supply fan variable frequency drives.

J. Provide and install differential pressure switch across the filter bank that monitors the pressure in the filter section and provides a dirty filter indication when the pressure switch is closed.

K. Smoke Control: Duct smoke/fire dampers shall stop the fan system, close the discharge smoke damper, and annunciate an alarm when the products of combustion air are detected in the air stream. The fan system shall be interlocked to shut down upon command from the building fire alarm system. Upon a return to normal, the smoke dampers and the fan systems shall start after an adjustable delay to provide a staggered start of all building load.

4.05 PACKAGED SINGLE ZONE ROOFTOP UNIT:

A. The rooftop units contain a self-contained, factory furnished control system with LON or BACNET interface as provided by rooftop unit manufacturer. Control system shall including enthalpy economizer, mechanical heating and cooling controls, and fan volume controls. The system shall be indexed from the occupied to the unoccupied modes of operation from the FMS and shall be operated based on input from the FMS.

B. Provide interface to units LON or BACNET interface and install necessary field devices to properly control and monitor each rooftop unit. Coordinate installation and other requirements with the rooftop unit manufacturer.

C. Occupied Mode:

1. FMS shall provide occupied mode set point temperature to rooftop unit.

2. System fan speed and supply air temperature shall be controlled by rooftop unit controller.

D. Un-occupied Mode:

1. FMS shall provide un-occupied mode set-point temperature to rooftop unit.

2. System fan speed and supply air temperature shall be controlled by rooftop unit controller.

E. Morning Warm Up/Cool Down Control.

1. The warm up mode shall be utilized in the heating mode of operation. The FMS shall determine the length of time needed to operate in the warm up mode.

   a. The control system shall determine required discharge air temperature and the gas control valve shall modulate to maintain discharge air temperature setting.

   b. Supply fan shall start and run continuously.

   c. The outside air damper shall be fully closed and the exhaust fan shall be disabled.

   d. FMS shall index space temperature set-points to occupied temperatures for rooftop units.

2. The cool down mode shall be utilized in the cooling mode of operation. The control system shall determine the length of time needed to operate in the cool down mode.

   a. Supply fan shall start and run continuously.

   b. The outside air damper shall be fully closed and exhaust fan shall be disabled.

   c. The compressor shall modulate to maintain discharge air temperature at 55°F (adj). Economizer shall be enabled to provide free cooling as determined by the packaged rooftop unit controls.

   d. FMS shall index space temperature set-points to occupied temperatures for rooftop units.

F. Outside air damper.

1. During un-occupied mode of operation, the outside air damper shall be closed.

2. During occupied mode of operation, the outside air damper shall modulate between the "low" and "high" outside air settings, based on CO2 levels.

G. Parallel available rooftop unit alarms and provide alarm to the FMS. Provide control and monitoring points as listed in the Point List at the end of this section.

H. Smoke Control: Duct smoke/fire dampers shall stop the fan system, close the discharge smoke damper, and annunciate an alarm when the products of combustion air are detected in the air stream. The fan system shall be interlocked to shut down upon command from the building fire alarm system. Upon a return to normal, the smoke dampers and the fan systems shall start after an adjustable delay to provide a staggered start of all building load.

4.06 VAV TERMINAL WITH HOT WATER REHEAT:

A. GENERAL:

1. Control electronically with dedicated DDC controller. Ship the DDC controller, damper actuator assembly to the VAV box manufacturer for factory mounting. Factory mounting charges are the responsibility of the VAV box manufacturer/supplier.

2. Provide room sensor type indicated on plans and CO2 sensors where indicated on plans.

3. There shall be separate adjustable room temperature heating and cooling set-points for each VAV box for Heating, Cooling, Occupied and Unoccupied modes of operation:

Mode of Operation	Heating Setpoint (adj.)	Cooling Setpoint (adj.)
Heating – Occupied	68°F	72°F
Heating – Unoccupied	65°F	75°F
Cooling Occupied	65°F	75°F
Cooling – Unoccupied	65°F	78°F

4. The VAV box damper and hot water heating control valve shall modulate to closed position when the air-handling system is OFF.

5. Calibrate each VAV box flow sensors with the assistance of the test and balancing contractor. Submit calibration report.

6. 2-Pipe Heating/Cooling Systems: The hot water heating control valve shall be closed when the system is in the Cooling Mode of operation.

7. Provide control and monitoring points as listed in the Point List at the end of this section.

8. Alarms: High and Low Room Temperature alarms.

9. Fail Positions: VAV Box damper shall fail to open position and the heating control valve shall fail to closed position.

10. Warm-Up and Cool Down Modes: VAV Box damper and heating control valve sequences to match OCCUPIED mode of operation sequence and setpoints.

B. OCCUPIED and UNOCCUPIED MODES:

1. Upon a signal from the FMS for the associated air handling unit serving the terminal box to start, the terminal unit controller shall also be activated and the unit damper shall modulate open to minimum position.

2. When the room temperature is between heating and cooling setpoints as sensed by the room's thermostat/sensor, the unit damper shall be at minimum position and the heating control valve shall be closed.

3. Upon a rise in room temperature above room temperature cooling set-point, the unit damper shall modulate open (increasing CFM) between minimum and maximum damper positions to maintain the occupied or unoccupied room temperature set-point. Upon a decrease in room temperature, the reverse shall occur.

4. Upon a drop in temperature below room temperature heating set-point the following shall occur:

   a. Heating Mode OPEN/CLOSED/OPEN: The hot water valve shall modulate open (unit damper remaining at minimum position) to maintain room set-point. On a further fall in room temperature the terminal unit damper shall modulate open to increase heating CFM maintain room set-point. Upon a rise in room temperature the reverse shall occur.

   b. Heating Mode OPEN/CLOSED: The hot water valve shall modulate open (unit damper remaining at minimum position) to maintain room set-point. Upon a rise in room temperature the reverse shall occur.

   c. Cooling Mode: Damper shall remain at minimum airflow position. If space is unable to be maintained for ten (10) minutes an alarm shall be sent to the FMS system. Upon notification of the alarm, the Owner shall determine if the hot water heating boilers shall be activated to increase space temperature.

C. VAV Boxes with Demand Control Ventilation: Upon an increase in CO_2, as sensed by the space CO_2 sensor (Occupied Mode only), a signal shall be sent to the FMS system to begin modulating opening the outdoor air dampers between their minimum and minimum-maximum OAI settings to provide additional outdoor ventilation air, the range as indicated on the mechanical equipment schedules. Upon a decrease in CO_2, the reverse shall occur.

   a. Test base outside air CO_2 levels on three separate occasions (submit report) and program CO_2 setpoint (adjustable) to be 500 ppm above highest of three tests.

4.07 UNIT VENTILATOR CONTROL - ASHRAE CYCLE II (COMBINATION HEATING/COOLING CONTROL):

A. GENERAL:

1. Control electronically with dedicated stand-alone HVAC Node (AN). The AN will control the heating valve, heating face & bypass damper and outside air damper in an ASHRAE Cycle II, complete with warm-up cycle and economizer cycle.

2. Summer/winter mode of operation will be determined by the supervisory controller, subject to hot water or chilled water availability.

B. SYSTEM OFF:

1. The supply fan shall be off.

2. The outside air damper shall be closed.

C. SYSTEM RUN:

1. Unoccupied Mode:

   a. During unoccupied cycle, the outside air damper will be closed tight, heating water valve closed (valve will be opened below 40 Deg. F. outside air temperature), and the fan shall cycle to maintain reduced night setting. Cooling will be locked out.

   b. A pushbutton on the space thermostat will allow temporary occupied mode to be entered for after-hours use. During temporary occupied mode, the unit vent will function according to the occupied mode of operation. Cooling will be locked out.

   c. When the temporary occupancy timer expires, the unit vent will re-enter unoccupied mode, subject to time-of-day scheduling.

2. Warm-up Mode:

   a. During warm-up cycle, the outside air damper will be closed tight, the heating valve opened full (if hot water is available), the face & bypass damper will open fully to the coil face and the fan will run. When the space temperature reaches 68 Deg. F. (adjustable), the unit will index into the occupied mode.

3. Occupied Mode:

   a. During the occupied cycle, the outside air damper (if provided) will be set to a minimum position or will be controlled in economizer cycle from minimum position to 100 percent open.

   b. With the dual temperature system in the cooling mode of operation and the space temperature above the setting of the room sensor, the outdoor air damper shall close to its minimum position, the face-&-bypass damper shall be opened fully to the face of the coil, and the signal from the room sensor shall be reversed. The room sensor shall modulate the hydronic valve in sequence to maintain setpoint. The fan shall operate at the lowest speed necessary to meet the space load conditions, and to minimize fan noise. If the space load increases, the fan speed shall increase to meet the load as required. When the load decreases and the space temperature falls, the fan speed shall be reduced. The discharge air low limit thermostat shall be inoperative during the cooling mode of operation.

c. Below 40° F outdoor air temperature, the hydronic valve shall be positioned fully open to the coil and the face-&-bypass damper shall modulate to maintain the space temperature setpoint. Above 40° F outdoor air temperature, the face-&-bypass damper shall be positioned fully open to the coil and the hydronic valve shall modulate to maintain the space temperature setpoint. During heating, the fan shall operate at the lowest speed necessary to meet the space load conditions, and to minimize fan noise. If the load increases, the fan speed shall increase. When the load decreases and the space temperature rises, the fan speed shall be reduced.

d. Dehumidification: If the return air relative humidity increases above the humidity setpoint, and the cooling mode is active, the F&B damper shall move to the full coil face position, and the fan shall operate at low speed.

e. A carbon dioxide sensor will override the outdoor and return air dampers to provide additional fresh air as the level of carbon dioxide in the space increases above setpoint (adj.). During occupied mode, the outside air damper will be 10% open with a carbon dioxide concentration of 600 ppm. The outside air damper will be 33% open with a carbon dioxide concentration of 1000 ppm.

D. SYSTEM STOP:

1. When the unit ventilator is indexed to shut down, the supply fan shall stop.

2. Dampers will be indexed to their "System Off" conditions via spring return actuators.

E. SAFETIES AND ALARMS:

1. Low limit: An electric low-limit thermostat with 20' element serpentined across the leaving side of the heating/cooling coil will close the outside air damper, open the heating valve fully if it senses a temperature below 38 Deg. F. (adjustable).

2. A low-limit discharge air temperature sensor will prevent the discharge air from dropping below 58 Deg. F. (adjustable) by closing the outside air damper.

3. Annunciate off normal alarm whenever supply fan status does not equal alarm.

4. Annunciate off normal alarm whenever space temperature or discharge temperature exceeds limits.

5. Refer also to Point List.

F. FAILURE MODE:

1. Fan Failure: If the supply fan fails to operate, alarm shall be annunciated. Dampers and control valve shall be indexed to their "System Off" conditions.

2. Sensor Failure: Upon the failure of an analog sensor, associated dampers and control valve shall remain at their last position and alarm shall be annunciated.

3. Power Failure:

   a. Fan: Upon restoration of power, the supply fan shall start after an adjustable delay to provide a staggered start of all building loads.

   b. Dampers: Economizer damper shall be provided with spring return actuators to fail to their "System Off" positions.

   c. Valve: Heating valve shall fail open to the coil.

4.08 SUPPLEMENTAL AIR CONDITIONING UNIT:

A. Interior units and remote air-cooled condensing unit are to be controlled by a wall mounted control panel and/or thermostat and humidistat that are provided with the equipment.

B. Install and wire the thermostat & control panel and provide interlock control wiring between indoor unit and its associated remote condensing unit.

C. Provide a room sensor to monitor room temperature and signal high or low temperature alarms to the FMS.

D. Parallel alarms available from the unit to the FMS

4.09 HEATING AND COOLING CABINET FAN COIL UNITS:

A. GENERAL:

1. Control electronically with dedicated field-installed DDC controller.

2. Occupied/Unoccupied/Off: The unit shall be indexed on and off and indexed into occupied/unoccupied modes of operation by the FMS.
3. Provide room temperature sensor (type as indicated on plan) to monitor/control space temperature.

B. OCCUPIED MODE:

1. During this mode, the fan will run continuously. When the room temperature is between the occupied heating and cooling setpoints (inside of the bias), the heating valve will be closed, and the cooling valve will be closed. On a rise in room temperature above the cooling setpoint, the cooling valve will modulate open and the heating valve will remain closed. On a drop in room temperature below the heating setpoint, the heating valve will modulate open and the cooling valve will remain closed.

C. UNOCCUPIED (NIGHT SETBACK) MODE:

1. During this mode, the fan will cycle off. On a rise in room temperature above the unoccupied cooling setpoint, the fan will cycle on, the cooling valve will modulate open, and the heating valve will remain closed. On a drop in room temperature below the unoccupied heating setpoint, the fan will cycle on, the heating valve will modulate open and the cooling valve will remain closed.

D. SYSTEM STOP:

1. The unit fan shall be off. The hot water and chilled water control valves shall remain at their last commanded positions.

E. SAFETIES AND ALARMS:

1. An alarm shall be noted in the event of a low and/or high temperature limit in the zone sensor.

2. An alarm shall be noted if the command and status value of the unit fan do not match.

F. FAILURE MODE:

1. The control valves shall fail to their last commanded position.

2. The unit fan shall fail off.

4.10 HOT WATER CABINET HEATERS:

A. Cabinet heaters to be controlled by a thermostat integral to the unit.

B. Unit fan shall be cycled on by the thermostat to maintain space temperature setpoints.

C. Unit isolation valve shall be full closed during summer cooling mode of operation and full open during winter heating mode of operation.

D. Provide a surface mounted aquastat, mounted on the return line of cabinet heaters to prevent fan from operating if water temperature is below 70° F. (adjustable).

4.11 EXHAUST FAN CONTROL:

A. Refer to the equipment schedule on the contract documents to determine which of the following controls should be provided for the exhaust fans:

1. Facility Management System Control: The FMS shall control the exhaust fans "ON/OFF." Interlock the exhaust fans with the respective air-handling system's occupied/unoccupied schedule.

2. Reverse Acting Thermostat Control: A reverse acting space thermostats to be provided to start the exhaust fan and open the associated automatic dampers on a rise in temperature above thermostat setpoint. Contractor has option to provide line voltage thermostats in lieu of low voltage.

3. Wall Switch Control: Exhaust fans to be controlled locally by wall switch or hood mounted controls – see electrical drawings. Monitor status for building pressurization control. See air handling unit control sequence.

4. Hood Switch Control: Exhaust fans to be controlled by hood mounted controls as furnished and installed by the hood supplier. Monitor status for building pressurization control. See air handling unit control sequence.

4.12 MISCELLANEOUS MONITORING AND ALARMS:

A. Domestic Booster Pump System: Monitor the system pressure, status, and alarm for the domestic hot water booster pump system.

B. Emergency Generator: Monitor the status and general alarm for the emergency generator.

C. Domestic Recirculation Pump: Provide FMS control to deactivate pump during facility unoccupied hours. Provide morning warm-up, status, and alarm.

4.13 DOMESTIC HOT WATER HEATERS:

A. GENERAL:

1. Domestic hot water boilers shall be controlled by their own packaged, stand-alone controls to maintain domestic hot water supply temperature setpoint. Interface the domestic hot water supply and return temperatures and alarms on the FMS system.

2. Provide interface to units LON or BACNET interface and install necessary field devices to properly monitor domestic water heaters. Coordinate installation and other requirements with the unit manufacturer.

4.14 POINTS LIST:

A. Refer to the following attached pages for description of required control points for each system.

4.15 HOT WATER BOILERS:

A. The boilers (new and existing) contain a self-contained, factory furnished control system with LON or BACNET interface as provided by boiler manufacturer. Control system shall include boiler sequencing, boiler pump control and burner modulation control. The system shall be enabled/disabled and receive primary loop water temperature from the FMS and shall be operated based on input from the FMS.

B. Provide interface to units LON or BACNET interface and install necessary field devices to properly control and monitor each boiler and associated pump. Coordinate installation and other requirements with the boiler manufacturer.

C. Install and wire components shipped loose with the Boiler. This includes but is not limited to the following items:

1. Combustion air damper

D. GENERAL:

1. Boilers shall be controlled and monitored electronically with dedicated stand-alone controllers. Connect to LON or BACNET interface provided by boiler manufacturer.

2. FMS shall enable boilers to operate in the winter heating modes of operation. Boilers shall be enabled to operate in the winter heating mode of operation when the outside air temperature is below 60 degree F. (adj.).

3. Boilers shall be off in summer mode of operation.

4. Lead-Lag Control: FMS shall totalize runtime of the boilers and alternate lead boiler every 168 hours of operation (adj.).

5. Primary Building Loop Water Temperature Reset Schedule: Reset schedule shall be determined by the FMS and shall be adjustable, with initial schedule of 180 °F loop hot water supply temperature set point at 0 degrees F outside air temperature to 100 degrees F setpoint at 60°F outside air temperature. Primary Loop Temperature shall be set to maintain 160°F when outside air temperature is below 10°F. Coordinate minimum hot water temperature with boiler manufacturer recommendations. Provide temperature setpoint reset output to the boiler burners from the local DDC controller.

6. Emergency Fuel Cut-off Switch: Provide an emergency fuel cut-off switch at boiler room entry. Upon the emergency switch being activated, the boilers and domestic hot water heaters shall be shut down and gas valves closed.

7. Boiler Alarms: Parallel the alarm circuitry furnished with the boiler system. Provide alarm indication at the FMS system and provide an audible alarm within boiler room.

4.16 CENTRAL STATION AIR-HANDLING UNITS:

A. GENERAL:

1. Systems are to be control electronically with dedicated stand-alone controller. Ship DDC controller to unit manufacturer for factory mounting. Factory mounting charges are the responsibility of the unit manufacturer/supplier.

2. Occupied/Unoccupied/Off: The unit shall be indexed on and off and indexed into occupied/unoccupied modes of operation by the FMS.

B. CONTROL SEQUENCES:

1. Supply Fan Control:

a. Occupied Mode:

1) The supply fan shall run continuously.

2) The variable speed drive (VSD) supply fan shall be controlled to maintain static pressure setpoint 2/3 downstream of the supply fan. Submit location of static pressure sensor(s) for review prior to installation. Provide static pressure sensors and wiring to variable speed drives as required. The supply and return fan VSDs shall be commanded to 0% for the "System OFF" mode.

b. Unoccupied Mode:

1) The supply fan shall operate intermittently to maintain the duct static pressure set point.

c. Supply air static pressure control shall be determined by the FMS.

1) Static Pressure Reset control for variable air volume systems is to be provided to reset the static pressure setpoint in the ductwork system based on the position of the VAV dampers for all variable volume boxes within the system to minimize the static pressure required in the system.

d. Flow measuring stations are to be provided to control and monitor the system supply air flow.

e. OFF mode of operation: Same as un-occupied mode of operation, except the supply fan shall remain OFF.

2. Return Fan Tracking Control:

a. Occupied Mode:

1) The variable speed drive return fan shall be controlled to maintain a constant differential in air volume between the supply and return fans as measured from the supply and return fan flow measuring stations.

b. Unoccupied Mode:

1) The return fan speed will be controlled to provide the same CFM as the supply fan during the unoccupied and warm-up modes of operation.

c. Flow measuring stations are to be provided to control and monitor the system return air flow.

3. Air Temperature Control:

a. Supply air temperature reset control is to be provided for variable air volume systems to reset the discharge supply air temperature setpoint inversely proportional to the outside air temperature. Reset schedule shall be adjustable, with initial schedule of 55°F discharge air supply temperature setpoint for 50 degrees F outside air temperature (and above) to 65°F setpoint at 0°F outside air temperature.

b. Heating System Control:

1) The heating coil valve shall modulate to maintain discharge air temperature as determined by the FMS.

2) Hot water heating coil pumps shall be activated continuously during the winter heating mode of operation when the outside air temperature is below 60°F (adj).

3) Face and bypass damper control is to be provided for heating coils where indicated on plans. In occupied mode of operation, the dampers are to be

full open to coil above 40° F (adj) and the coil valve will modulate to maintain temperature setpoints. Below 40° F (adj) the coil valve will be fully open and the dampers will be modulated to maintain temperature setpoints.

c. Cooling System Control:

1) Modulate chilled water coil control valve to maintain discharge air temperature as determined by the FMS.

d. Power Failure Restart:

1) In the event of a power failure, unit control system shall sequence the unit to re-start beginning with the first stage of cooling or heating as determined by the FMS.

4. Outside Air Dampers:

a. Un-Occupied Mode:

1) Outside air dampers shall be closed.

b. Occupied Mode:

1) Outside Air Damper:

a) Outside air flow measuring stations are to be provided to control and monitor the amount of outside air entering the system.

c. Economizer Dampers:

1) Economizer Mode: Integrated enthalpy economizer control is to be provided to control economizer dampers to provide free cooling when the temperature and humidity of the outdoor air is below outside air and enthalpy set points.

2) Economizer dampers shall modulate in sequence with the chilled water valve to maintain mixed air temperature set point determined by the FMS.

d. Building Pressurization Control shall be provided by tracking the status of all exhaust fans with intermittent operation (wall or hood switch control) and by resetting the following operating values:

1) The "minimum" minimum outside air value that is scheduled on drawings is to be increased by the sum of the airflow rates for all intermittent exhaust fans in operation for each corresponding air handling system.

2) The return fan/supply fan CFM differential value is to be decreased by an amount equal to above.

5. Morning Warm Up/Cool Down Control:

a. The warm up mode shall be utilized in the heating mode of operation. The FMS shall determine the length of time needed to operate in the warm up mode.

1) The FMS shall determine required discharge air temperature and modulate heating coil control valve to maintain discharge air temperature set point.

2) Supply fan shall start and run continuously.

3) The outside air dampers shall be fully closed.

4) FMS shall index space temperature set-points to occupied temperatures for VAV boxes.

b. The cool down mode shall be utilized in the cooling mode of operation. The control system shall determine the length of time needed to operate in the cool down mode.

1) Supply fan shall start and run continuously.

2) The outside air economizer damper shall be fully closed and exhaust fan shall be disabled.

3) The unit shall modulate cooling capacity to maintain discharge air temperature at 55 ° F (adj). Economizer shall be enabled to provide free cooling as determined by the dedicated outside rooftop unit controls.

4) FMS shall index space temperature set-points to occupied temperatures for VAV boxes.

C. SAFETIES AND ALARMS:

1. Mixed Air Low Temperature Limit: An electric low limit thermostat with 20' element serpentined across the leaving side of the heating coil shall stop the fan systems, close the outdoor air dampers, open the heating coil valve fully, and annunciate alarm should the coil discharge air temperature fall below 38 °F (adj.).

2. Supply Air High Temperature Limit: A high limit temperature sensor located in the supply air ductwork shall stop the fan systems and annunciate alarm should the supply air temperature rise above 125 degrees F. Dampers and control valves shall be indexed to their "System Off" conditions.

3. Supply Air Low Temperature Limit: A low limit temperature sensor located in the supply air ductwork shall stop the fan systems and annunciate alarm should the supply air temperature drop below 42 °F. Dampers and control valves shall be indexed to their "System Off" conditions.

4. Smoke Control: Duct smoke detectors shall stop the fan system and annunciate an alarm when the products of combustion air are detected in the air stream. The fan system shall be interlocked to shut down upon command from the building fire alarm system. Upon a return to normal, the fan systems shall start after an adjustable delay to provide a staggered start of all building load.

5. Filter Condition: Monitor differential pressure across outdoor air intake, prefilter and final filters and annunciate alarm when differential pressure setpoint is exceeded.

6. Static High Pressure Limits: Supply fans will be shut down if the discharge air static pressure exceeds 4-1/2" WC (5-1/2"WC for variable air volume systems).

7. Static Low Pressure Limits: Return fans will be shut down if the suction air static pressure exceeds 3" WC negative pressure.

8. All alarms shall be reported to the operator workstation for the FMS.

D. FAILURE MODES:

1. Fan Failure: If any fan fails to operate, an alarm shall be annunciated. Dampers and control valves shall be indexed to their "System Off" conditions.

2. Sensor Failure: Upon the failure of an analog sensor, the associated dampers and control valve shall remain at their last position and an alarm shall be annunciated.

3. Power Failure:

a. Fans: Upon restoration of power, the supply and return fans shall start after an adjustable delay to provide a staggered start of all building loads.

b. Dampers: Minimum outside air dampers, economizer dampers and face & bypass dampers shall be provided with spring return actuators to fail to their "System Off" positions.

c. Hot water coil valves shall be provided with spring return actuator to fail open to the coil.

4.17 CENTRAL STATION AIR-HANDLING UNITS – SINGLE ZONE:

A. GENERAL:

1. Systems are to be control electronically with dedicated stand-alone controller. Ship DDC controller to unit manufacturer for factory mounting. Factory mounting charges are the responsibility of the unit manufacturer/supplier.

2. Occupied/Unoccupied/Off: The unit shall be indexed on and off and indexed into occupied/unoccupied modes of operation by the FMS.

B. CONTROL SEQUENCES:

1. Supply Fan Control:

a. Occupied Mode:

1) The supply fan shall run continuously. Variable speed drive is modulated based on space temperature.

b. Unoccupied Mode:

1) FMS shall provide un-occupied mode set-point temperature to unit.

2) The supply fan shall operate intermittently to maintain setpoint temperature.

c. Flow measuring stations are to be provided to control and monitor the system supply air flow.

d. OFF mode of operation: Same as un-occupied mode of operation, except the supply fan shall remain OFF.

2. Return Fan Tracking Control:

a. Occupied Mode:

1) The variable speed drive return fan shall be controlled to maintain a constant differential in air volume between the supply and return fans as measured from the supply and return fan flow measuring stations.

b. Unoccupied Mode:

1) The return fan speed will be controlled to provide the same CFM as the supply fan during the unoccupied and warm-up modes of operation.

c. Flow measuring stations are to be provided to control and monitor the system return air flow.

3. Air Temperature Control:

a. Heating System Control:

1) When in the heating mode of operation, the fan shall energize and operate at 50%.

2) The heating coil valve shall modulate to maintain discharge air temperature as determined by the FMS to maintain space temperature.

3) The supply fan VFD will be modulate between 50% and 100% of the maximum design airflow as the space temperature falls within below the set point temperature.

4) Face and bypass damper control is to be provided for heating coils. In occupied mode of operation, the dampers are to be full open to coil above 40° F (adj) and the coil valve will modulate to maintain temperature setpoints. Below 40° F (adj) the coil valve will be fully open and the dampers will be modulated to maintain temperature setpoints.

b. Cooling System Control:

1) When occupied, the fan will energize and operate at 30%.

2) Modulate chilled water coil control valve to maintain discharge air temperature as determined by the FMS.

3) Cooling is enabled when the temperature at the Mode Enable Sensor rises one deadband (adj.) above the Cooling Setpoint (adj.). Cooling is disabled when the temperature at the Mode Enable Sensor falls one deadband (adj.) below the Cooling Setpoint (adj.).

4) When in the Cooling Mode, cooling will be modulated to maintain the Supply Air Temperature at the Supply Air Temperature Cooling Setpoint of 55°F (adj.).

5) The supply fan VFD will be proportionally modulated between 30% and 100% of the maximum design airflow as the space temperature rises above the cooling set-point.

6) When space temperature drops below the target space temperature setpoint, the controller will switch to the CAV/space reset of the supply air setpoint cooling mode. When in this Mode the unit will maintain the Supply Air Temperature at the Active Supply Air Temperature Cooling Setpoint by modulating the control valve. The VCM will modulate the supply air set-point between 55° to 65° (adj.) as the space temperature drops from the set-point to 2° below the set-point. If the space temperature is above setpoint the controller will switch out of CAV/space reset of the supply air setpoint mode back into VAV/constant supply air temperature cooling mode as described above and will begin to modulate the VFD higher while keeping a constant cooling supply air temperature.

c. Power Failure Restart:

1) In the event of a power failure, unit control system shall sequence the unit to re-start beginning with the first stage of cooling or heating as determined by the FMS.

4. Outside Air Dampers:

a. Un-Occupied Mode:

1) Outside air dampers shall be closed.

b. Occupied Mode:

1) Outside Air Damper:

a) Outside air flow measuring stations are to be provided to control and monitor the amount of outside air entering the system.

c. Economizer Dampers:

1) Economizer Mode: Integrated enthalpy economizer control is to be provided to control economizer dampers to provide free cooling when the temperature and humidity of the outdoor air is below outside air and enthalpy set points.

2) Economizer dampers shall modulate in sequence with the chilled water valve to maintain mixed air temperature set point determined by the FMS.

d. Building Pressurization Control shall be provided by tracking the status of all exhaust fans with intermittent operation (wall or hood switch control) and by resetting the following operating values:

1) The "minimum" minimum outside air value that is scheduled on drawings is to be increased by the sum of the airflow rates for all intermittent exhaust fans in operation for each corresponding air handling system.

2) The return fan/supply fan CFM differential value is to be decreased by an amount equal to above.

5. Morning Warm Up/Cool Down Control:

a. The warm up mode shall be utilized in the heating mode of operation. The FMS shall determine the length of time needed to operate in the warm up mode.

1) The FMS shall determine required discharge air temperature and modulate heating coil control valve to maintain discharge air temperature set point.

2) Supply fan shall start and run continuously.

3) The outside air dampers shall be fully closed.

4) FMS shall index space temperature set-points to occupied temperatures.

b. The cool down mode shall be utilized in the cooling mode of operation. The control system shall determine the length of time needed to operate in the cool down mode.

1) Supply fan shall start and run continuously.

2) The outside air economizer damper shall be fully closed and exhaust fan shall be disabled.

3) The unit shall modulate cooling capacity to maintain discharge air temperature at 55 ° F (adj). Economizer shall be enabled to provide free cooling as determined by the dedicated outside rooftop unit controls.

4) FMS shall index space temperature set-points to occupied temperatures.

6. Hot Water Reheat Coil – Dehumidification Control

a. Dehumidification controls shall be enabled when outside air temperature is above 55 degrees F and outside air relative humidity levels are greater than 55%.

b. Space humidity sensors shall be set to maintain 50% relative humidity level within space.

1) On an increase in space relative humidity levels, above 55% RH, the unit shall modulate economizer dampers or cooling coil in sequence to maintain discharge air temperature of 55 degrees F. Unit mounted re-heat coil shall be enabled and re-heat supply air to temperature setpoint as determined by the FMS.

2) On a decrease in space humidity levels, below 45%, discharge air temperature from unit shall be determined by FMS to maintain space temperature and hot water re-heat coil control valve shall be closed.

C. SAFETIES AND ALARMS:

1. Mixed Air Low Temperature Limit: An electric low limit thermostat with 20' element serpentined across the leaving side of the heating coil shall stop the fan systems, close the outdoor air dampers, open the heating coil valve fully, and annunciate alarm should the coil discharge air temperature fall below 38 °F (adj.).

2. Supply Air High Temperature Limit: A high limit temperature sensor located in the supply air ductwork shall stop the fan systems and annunciate alarm should the supply air temperature rise above 125 degrees F. Dampers and control valves shall be indexed to their "System Off" conditions.

3. Supply Air Low Temperature Limit: A low limit temperature sensor located in the supply air ductwork shall stop the fan systems and annunciate alarm should the supply air temperature drop below 42 °F. Dampers and control valves shall be indexed to their "System Off" conditions.

4. Smoke Control: Duct smoke detectors shall stop the fan system and annunciate an alarm when the products of combustion air are detected in the air stream. The fan system shall be interlocked to shut down upon command from the building fire alarm system. Upon a return to normal, the fan systems shall start after an adjustable delay to provide a staggered start of all building load.

5. Filter Condition: Monitor differential pressure across outdoor air intake, prefilter and final filters and annunciate alarm when differential pressure setpoint is exceeded.

6. Static High Pressure Limits: Supply fans will be shut down if the discharge air static pressure exceeds 4-1/2" WC (5-1/2"WC for variable air volume systems).

7. Static Low Pressure Limits: Return fans will be shut down if the suction air static pressure exceeds 3" WC negative pressure.

8. All alarms shall be reported to the operator workstation for the FMS.

D. FAILURE MODES:

1. Fan Failure: If any fan fails to operate, an alarm shall be annunciated. Dampers and control valves shall be indexed to their "System Off" conditions.

2. Sensor Failure: Upon the failure of an analog sensor, the associated dampers and control valve shall remain at their last position and an alarm shall be annunciated.

3. Power Failure:

a. Fans: Upon restoration of power, the supply and return fans shall start after an adjustable delay to provide a staggered start of all building loads.

b. Dampers: Minimum outside air dampers, economizer dampers and face & bypass dampers shall be provided with spring return actuators to fail to their "System Off" positions.

4.18 Hot water coil valves shall be provided with spring return actuator to fail open to the coil.

System: Rooftop Unit	DDC INPUT/OUTPUT SUMMARY TABLE																																
Serves:	HARDWARE																SOFTWARE																
Location:	OUTPUT							INPUT									ALARM								APPLICATION PROGRAMS								
Graphics: Yes	Digital			Analog				Digital				Analog					Digital					Analog											
Point Description:	Start/Stop	Enable/Disable	Open/Close	Control	Set Point Adjustment	Electronic		Status	Alarm	KW Pulse		Temperature	Pressure	Flow	CO2 (PPM)	% Relative Humidity	Equipment Alarm	Critical	Notification			High Limit	Low Limit	Run Time	Scheduled	Optimal Start Stop	Morning Warm Up	Demand Limit	Economizer	Provide points from Unit Control Panel	Graphic Control	Trend	Point History
Unit Controller																														X			
Exhaust Fan	X	X						X	X								X	X	X						X	X					X	X	
Supply Fan	X	X						X	X								X	X	X						X	X					X	X	
Discharge Air Temp					X							X										X	X								X	X	
Mixed Air Temp												X										X	X									X	
Return Air Temp												X										X	X									X	
Discharge % Relative Humidity					X											X						X										X	
EA/OA/RA Dampers				X	X										X												X		X		X	X	X
DX Cooling		X			X																												
Low Limit									X			X						X	X														X
Smoke Detector Alarm									X									X															X
Filter Status								X	X																						X		X
Gas Heat					X	X																										X	
Building Pressure					X				X				X																		X	X	
Duct Static Pressure (VAV System)					X				X				X																		X	X	
Carbon Dioxide (Demand Control Vent.)															X	X						X											X
Energy Recovery Wheel								X	X								X					X									X		X

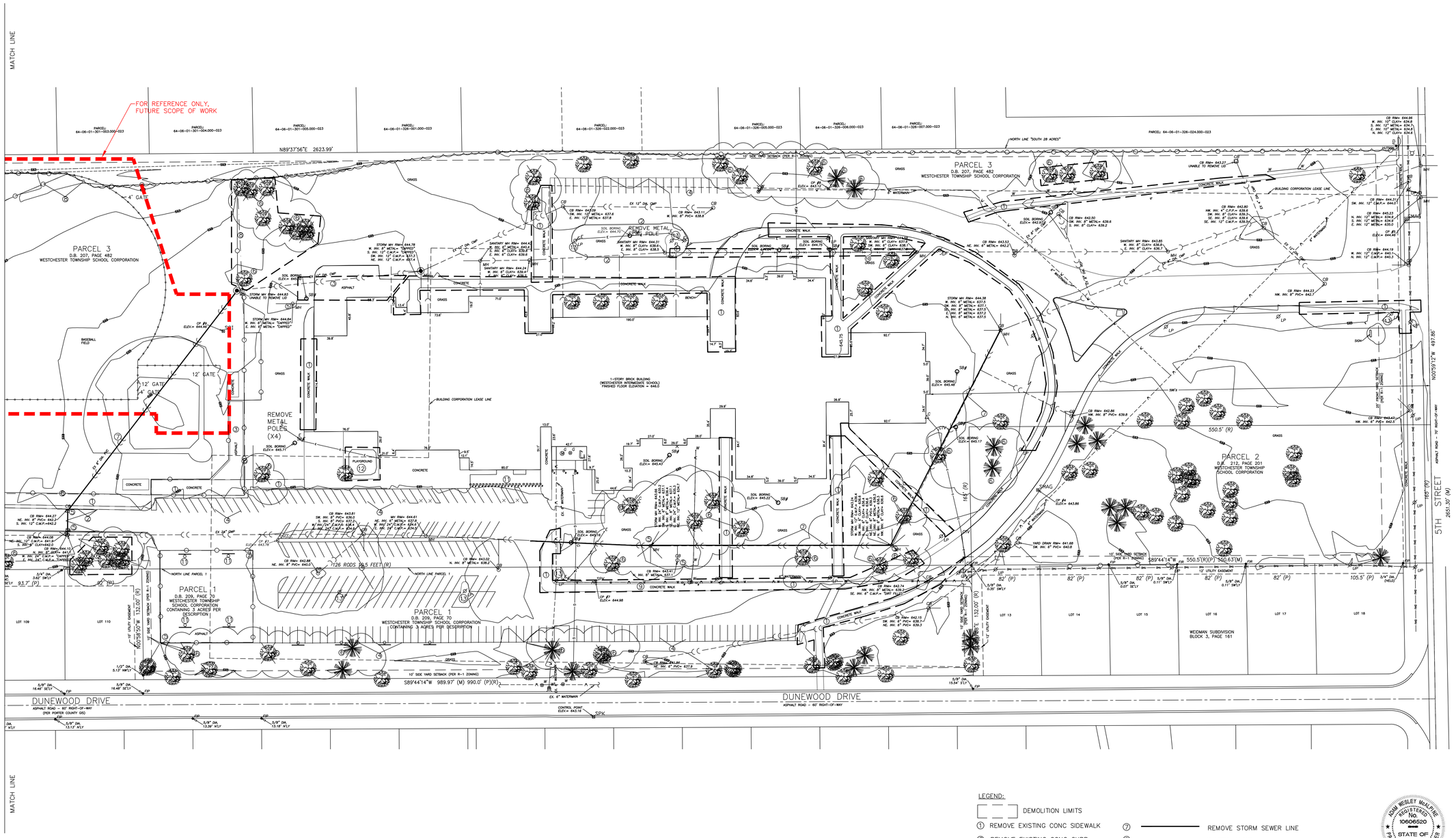
System: Chiller	DDC INPUT/OUTPUT SUMMARY TABLE																																
Serves:	HARDWARE																SOFTWARE																
Location:	OUTPUT							INPUT									ALARM								APPLICATION PROGRAMS								
Graphics: Yes	Digital			Analog				Digital				Analog					Digital					Analog											
Point Description:	Start/Stop	Enable/Disable	Open/Close	Control	Set Point Adjustment	Electronic		Status	Alarm	KW Pulse		Temperature	Pressure	Flow	CO2	Parts per Million	Equipment Alarm	Critical	Notification			High Limit	Low Limit	Run Time	Scheduled	Optimal Start Stop	Morning Warm Up	Demand Limit	Economizer	Provide points from Unit Control Panel	Graphic Control	Trend	Point History
Unit Controller																														X			
Chiller	X	X						X	X									X	X												X	X	
Chiller Pump	X							X	X									X	X												X	X	
Chiller Supply Temp				X	X							X																			X	X	
Chiller Return Temp												X																			X	X	
Primary Pump VFD	X	X		X	X			X	X								X													X	X	X	
Prim CHWS Temp				X	X							X										X	X								X	X	
Prim CHWR Temp				X								X										X	X								X	X	
Outdoor Air Temp												X																				X	
CHW System Diff Press													X																			X	
Heat Trace								X																									X
Diff Press Switch								X																									X

System: Unit Ventilators	DDC INPUT/OUTPUT SUMMARY TABLE																																
Serves:	HARDWARE																SOFTWARE																
Location:	OUTPUT							INPUT									ALARM								APPLICATION PROGRAMS								
Graphics: Yes	Digital			Analog				Digital				Analog					Digital					Analog											
Point Description:	Start/Stop	Enable/Disable	Open/Close	Control	Set Point Adjustment	Electronic		Status	Alarm	KW Pulse		Temperature	Pressure	Flow	CO2	Parts per Million	Equipment Alarm	Critical	Notification			High Limit	Low Limit	Run Time	Scheduled	Optimal Start Stop	Morning Warm Up	Demand Limit	Economizer	Provide points from Unit Control Panel	Graphic Control	Trend	Point History
Supply Fan	X	X						X	X								X	X	X						X	X					X	X	
Discharge Air Temp												X										X	X									X	
Mixed Air Temp												X																				X	
Return Air Temp												X										X	X									X	
EA/OA/RA Dampers				X																								X	X		X	X	
Heating Valve				X	X																										X	X	
Cooling Valve				X	X																										X	X	
Low Limit Temperature									X			X						X	X														X
Space Temperature					X																										X	X	
Space Humidity					X																										X	X	
Bypass Damper				X																												X	

System: Various	DDC INPUT/OUTPUT SUMMARY TABLE																																
Serves:	HARDWARE																SOFTWARE																
Location:	OUTPUT							INPUT									ALARM								APPLICATION PROGRAMS								
Graphics: Yes	Digital			Analog				Digital				Analog					Digital					Analog											
Point Description:	Start/Stop	Enable/Disable	Open/Close	Control	Set Point Adjustment	Electronic		Status	Alarm	KW Pulse		Temperature	Pressure	Flow	CO2	Parts per Million	Equipment Alarm	Critical	Notification			High Limit	Low Limit	Run Time	Scheduled	Optimal Start Stop	Morning Warm Up	Demand Limit	Economizer	Provide points from Unit Controller	Graphic Control	Trend	Point History
VAV Box																																	
Space Temp												X										X	X								X	X	
Space Temp Adj.					X																										X	X	
Occup.Htg/Clg Setpoint					X																											X	
Unocc Htg/Clg Setpoint					X																											X	
Warmup cycle	X																									X							X
Box CFM													X	X																	X	X	
Volume Damper				X	X																											X	
Reheat Coil Valve				X	X									X																	X	X	
Zone CO2																X						X										X	
Un-Occupied Override												X																					
Exhaust Fans																																	
Toilet Exh Fans	X							X	X								X																X
General Exh Fans	X							X	X								X																X
Kitchen Exh Fans								X									X																X
Cabinet & Unit Heater – Hot Water																																	
Thermostat				X	X							X											X								X	X	
Control Valve/Fan			X																												X	X	

System: AHU	DDC INPUT/OUTPUT SUMMARY TABLE																															
Serves:	HARDWARE																SOFTWARE															
Location:	OUTPUT							INPUT									ALARM								APPLICATION PROGRAMS							
Graphics: Yes	Digital			Analog				Digital				Analog					Digital					Analog										
Point Description:	Start/Stop	Enable/Disable	Open/Close	Control	Set Point Adjustment	Electronic		Status	Alarm	KW Pulse		Temperature	Pressure	Flow	CO2	Parts per Million	Equipment Alarm	Critical	Notification			High Limit	Low Limit	Run Time	Scheduled	Optimal Start Stop	Morning Warm Up	Demand Limit	Economizer	Provide points from Unit Control Panel	Graphic Control	Trend	Point History
Supply Fan	X	X						X	X								X	X	X						X	X					X	X	
Return Fan	X	X						X	X								X	X	X						X	X					X	X	
Supply Air Volume												X										X	X								X	X	
Return Air Volume												X										X	X									X	
Discharge Air Temp												X										X	X									X	
Mixed Air Temp												X																				X	
Return Air Temp												X										X	X									X	
EA/OA/RA Dampers				X																								X	X		X	X	
Heating Valve				X	X																										X	X	
Cooling Valve				X	X																										X	X	
Low Limit Temperature									X			X						X	X														X
SA Smoke Detector Alarm									X									X	X														X
RA Smoke Detector Alarm									X									X	X														X
Filter Status								X	X				X																			X	
Building Pressure				X	X				X				X																		X	X	X
Duct Static Pressure				X	X				X				X																		X	X	X
Outside Air Volume														X																		X	
Economizer Volume														X																		X	
Exhaust Air Volume														X																		X	
Bypass Damper				X																												X	
Supply Static High Limit									X				X																				X
Return Static Low Limit									X				X																				X
Supply Fan VFD's				X	X																												
Return Fan VFD's				X	X																												

END OF SECTION 23 09 23



LEGEND:

- DEMOLITION LIMITS
- ① REMOVE EXISTING CONC SIDEWALK
- ② REMOVE EXISTING CONC CURB
- ③ REMOVE ASPHALT
- ④ MILL ASPHALT
- ⑤ REMOVE MANHOLE/INLET
- ⑥ REMOVE TREES
- ⑦ REMOVE STORM SEWER LINE
- ⑧ REMOVE FENCE
- ⑨ REMOVE WATER MAIN
- ⑩ REMOVE SANITARY SEWER
- ⑪ REMOVE POSTS
- ⑫ REMOVE PLAYGROUND
- ⑬ REMOVE EXISTING LIGHT POLE

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ADAM WESLEY McALPINE REGISTERED No. 10606520 STATE OF INDIANA PROFESSIONAL ENGINEER

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DUNELAND SCHOOL CORPORATION
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DEMOLITION PLAN 1

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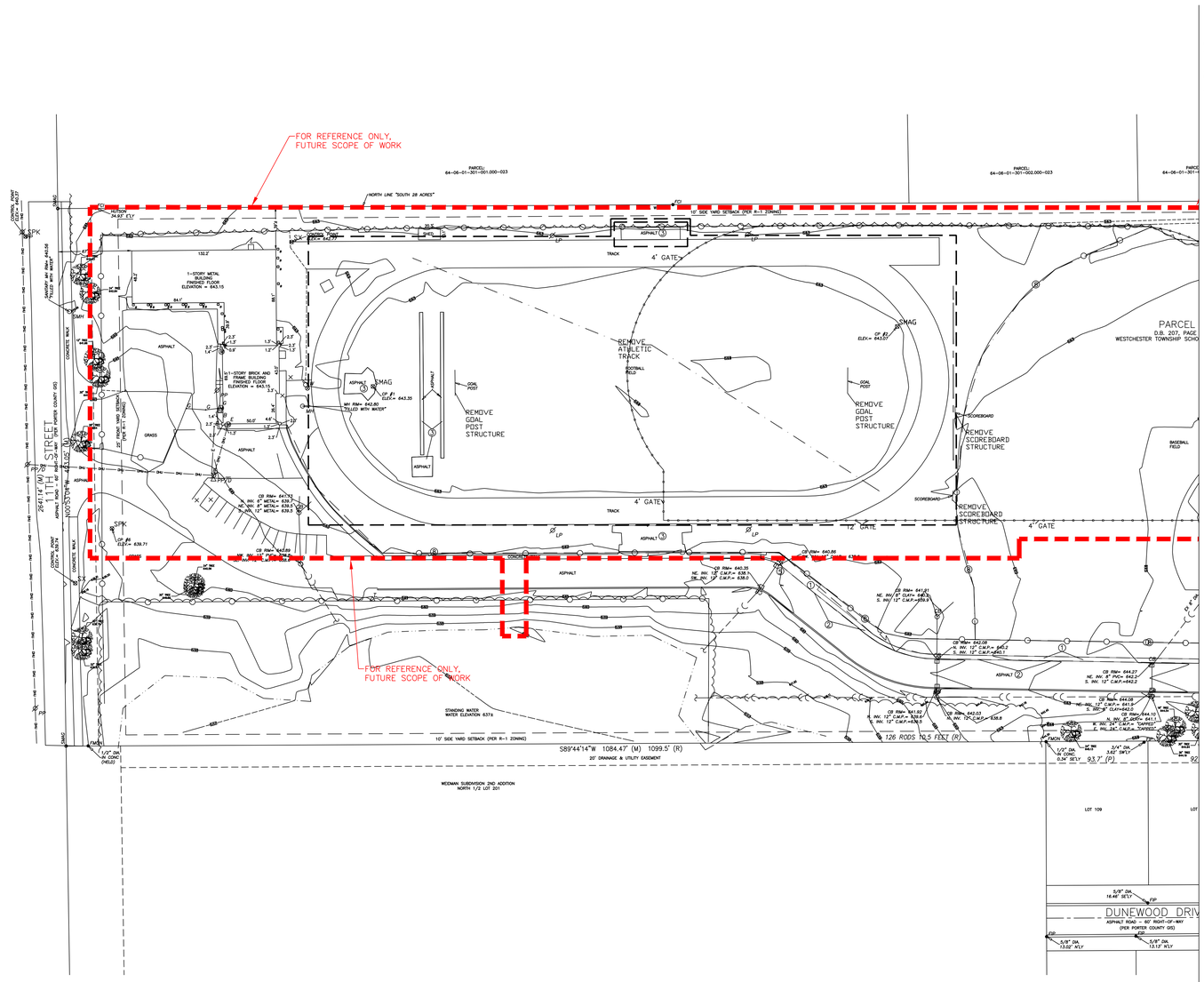

LEGEND:

DEMOLITION LIMITS

1. REMOVE EXISTING CONC SIDEWALK
2. REMOVE EXISTING CONC CURB
3. REMOVE ASPHALT
4. MILL ASPHALT
5. REMOVE MANHOLE/INLET
6. REMOVE TREES
7. REMOVE STORM SEWER LINE
8. REMOVE FENCE
9. REMOVE WATER MAIN
10. REMOVE SANITARY SEWER
11. REMOVE POSTS
12. REMOVE PLAYGROUND

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DEMOLITION PLAN 2

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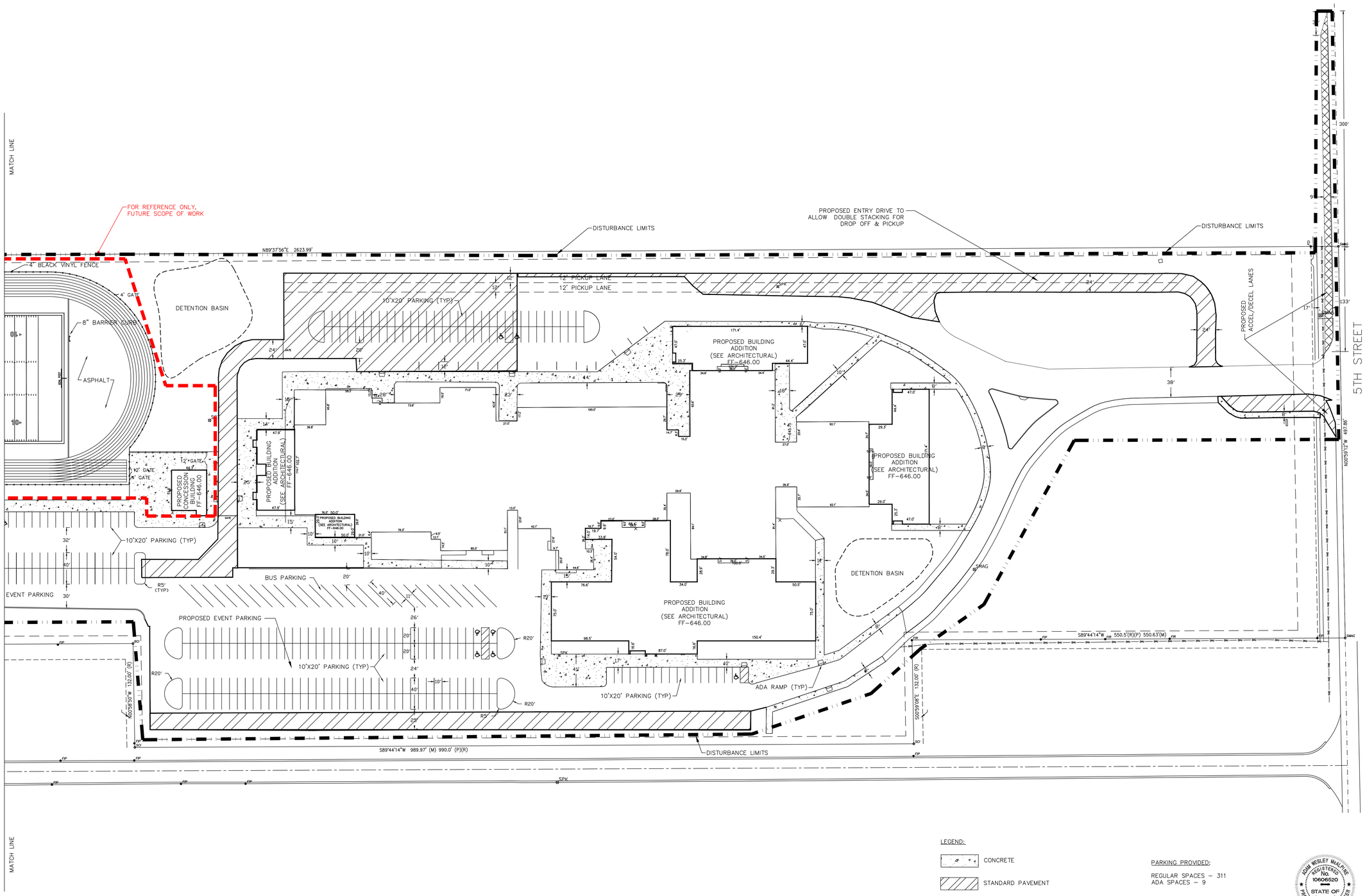

LEGEND:

- CONCRETE
- STANDARD PAVEMENT
- HEAVY DUTY PAVEMENT
- (HC) HANDICAP SPACE
- SIDEWALK RAMP

NOTE: ALL EXISTING PAVEMENT AREAS TO BE MILLED AND RESURFACED.

PARKING PROVIDED:

REGULAR SPACES – 311
ADA SPACES – 9

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GEOMETRIC LAYOUT PLAN 1

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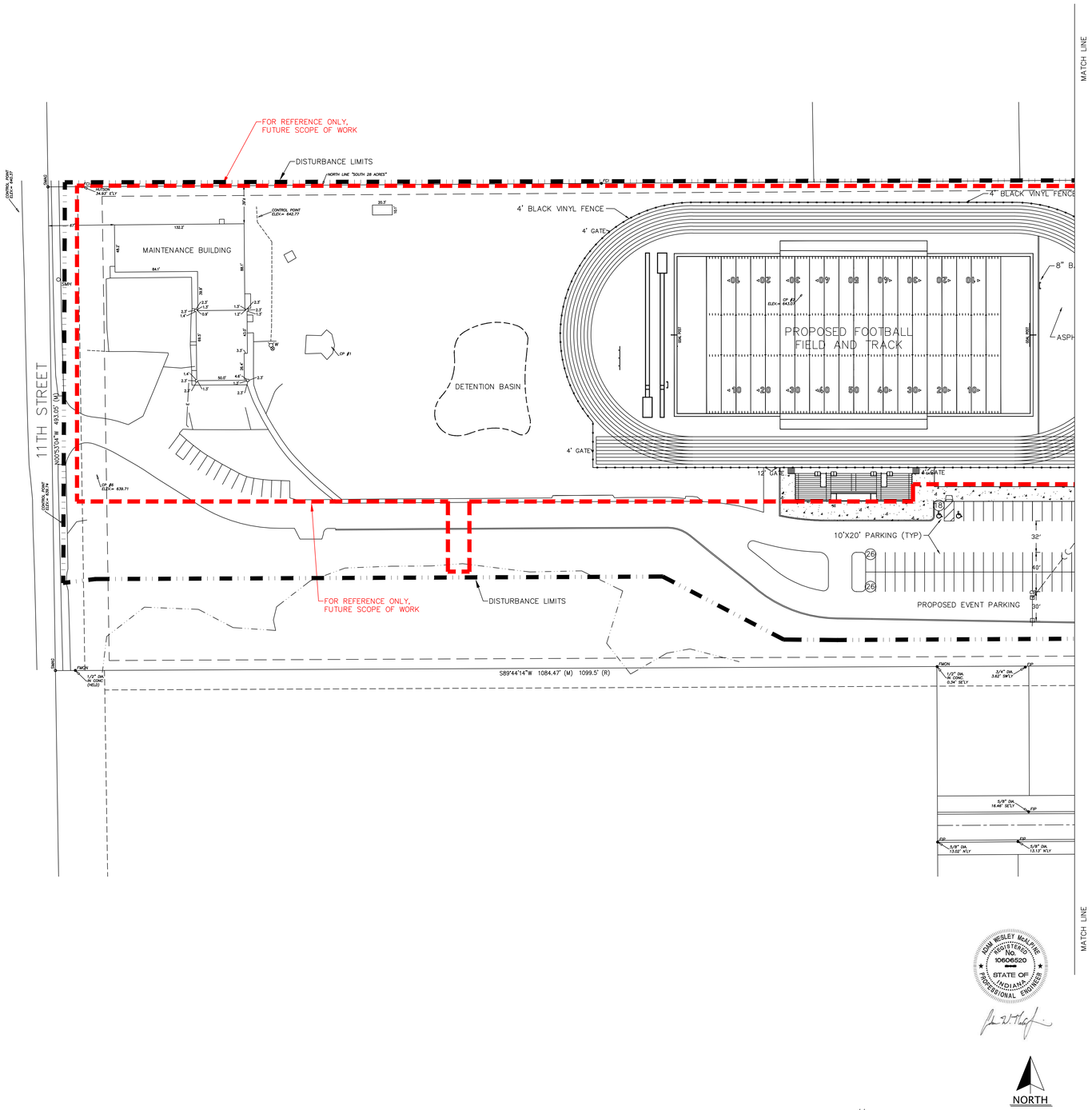

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GEOMETRIC LAYOUT PLAN 2

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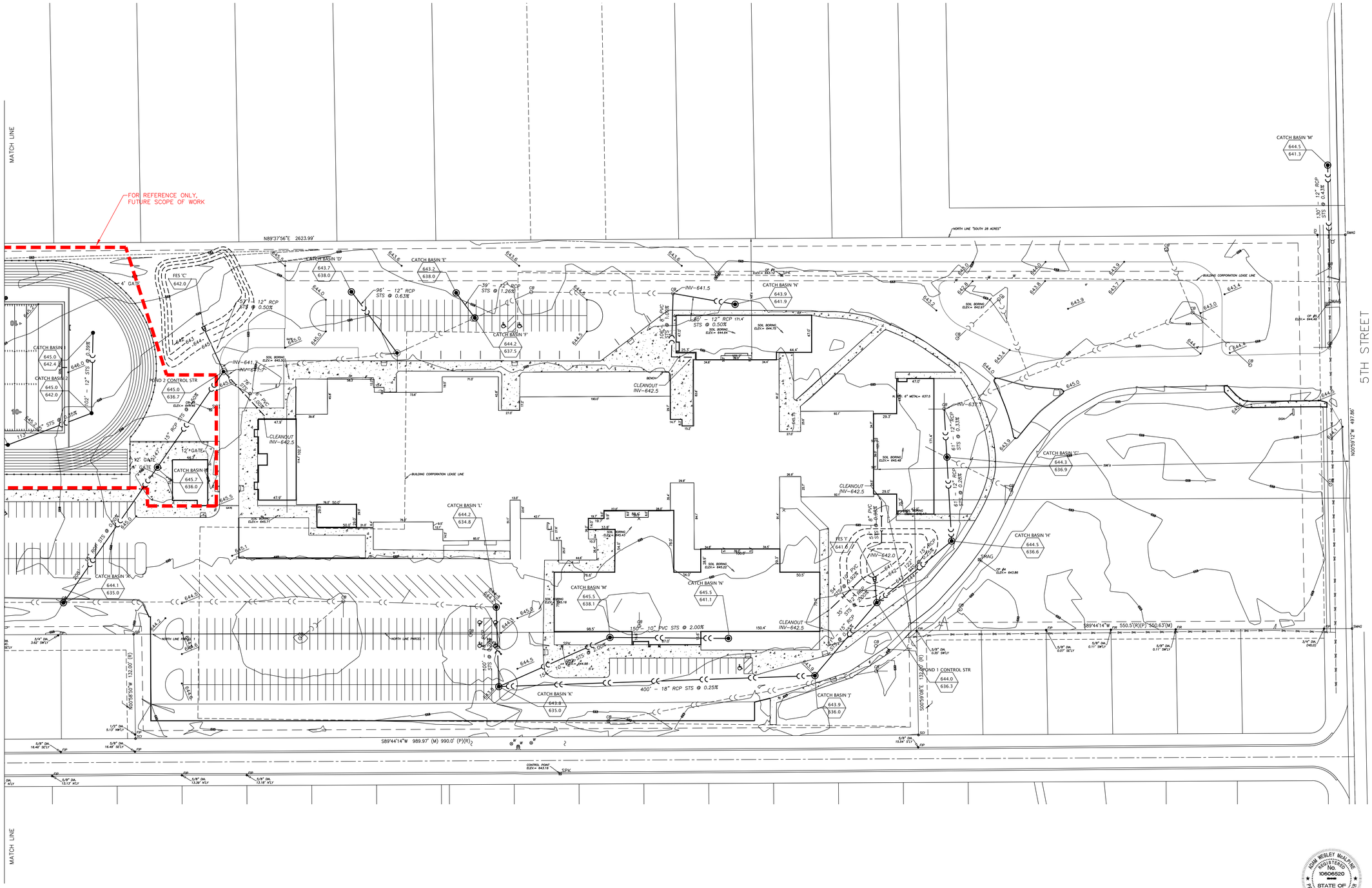

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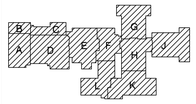

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ADAM WESLEY MCALPINE
REGISTERED
No. 10606520
STATE OF INDIANA
PROFESSIONAL ENGINEER

DRAWING
STORM SEWER AND GRADING PLAN 1

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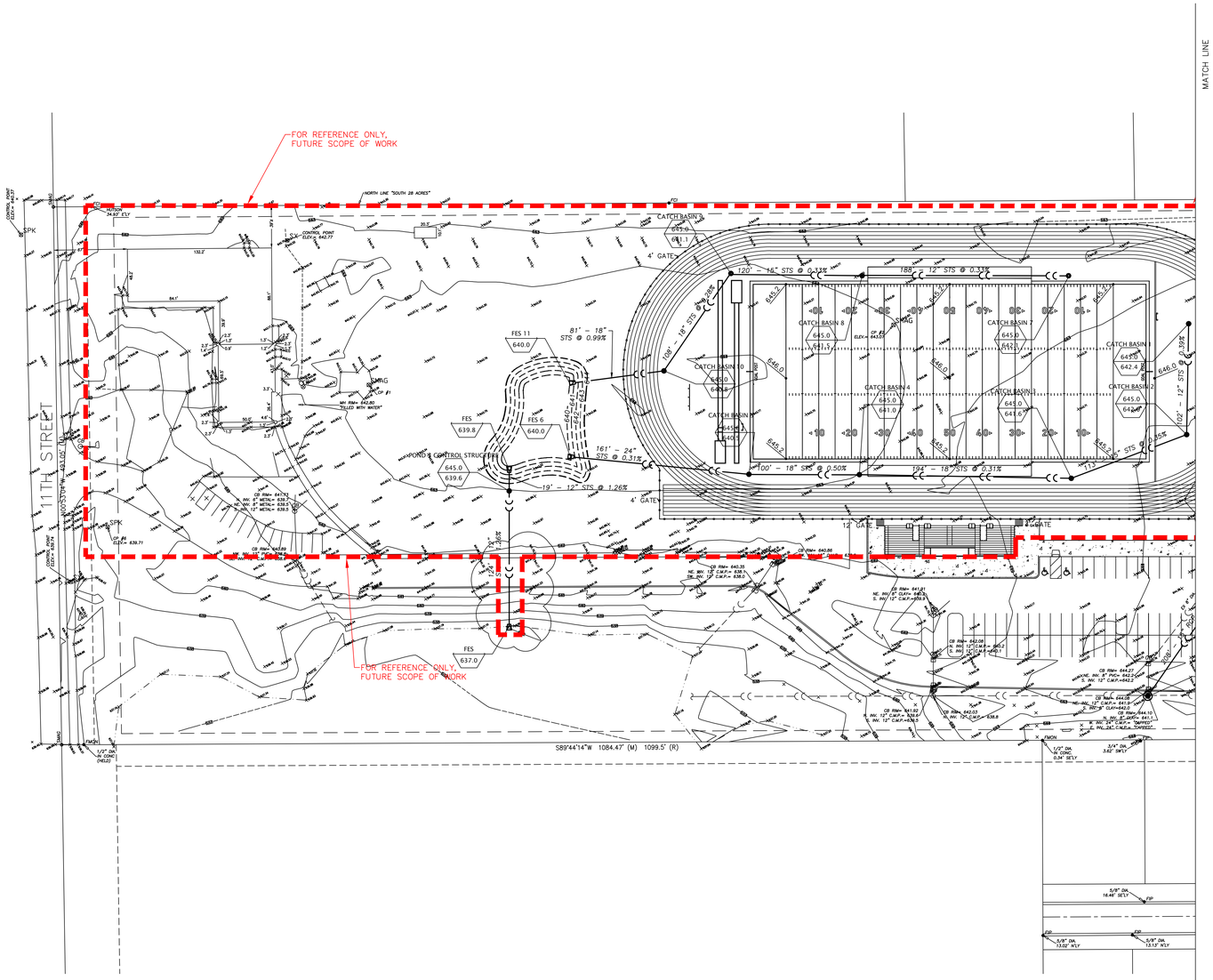

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STORM SEWER AND GRADING PLAN 2

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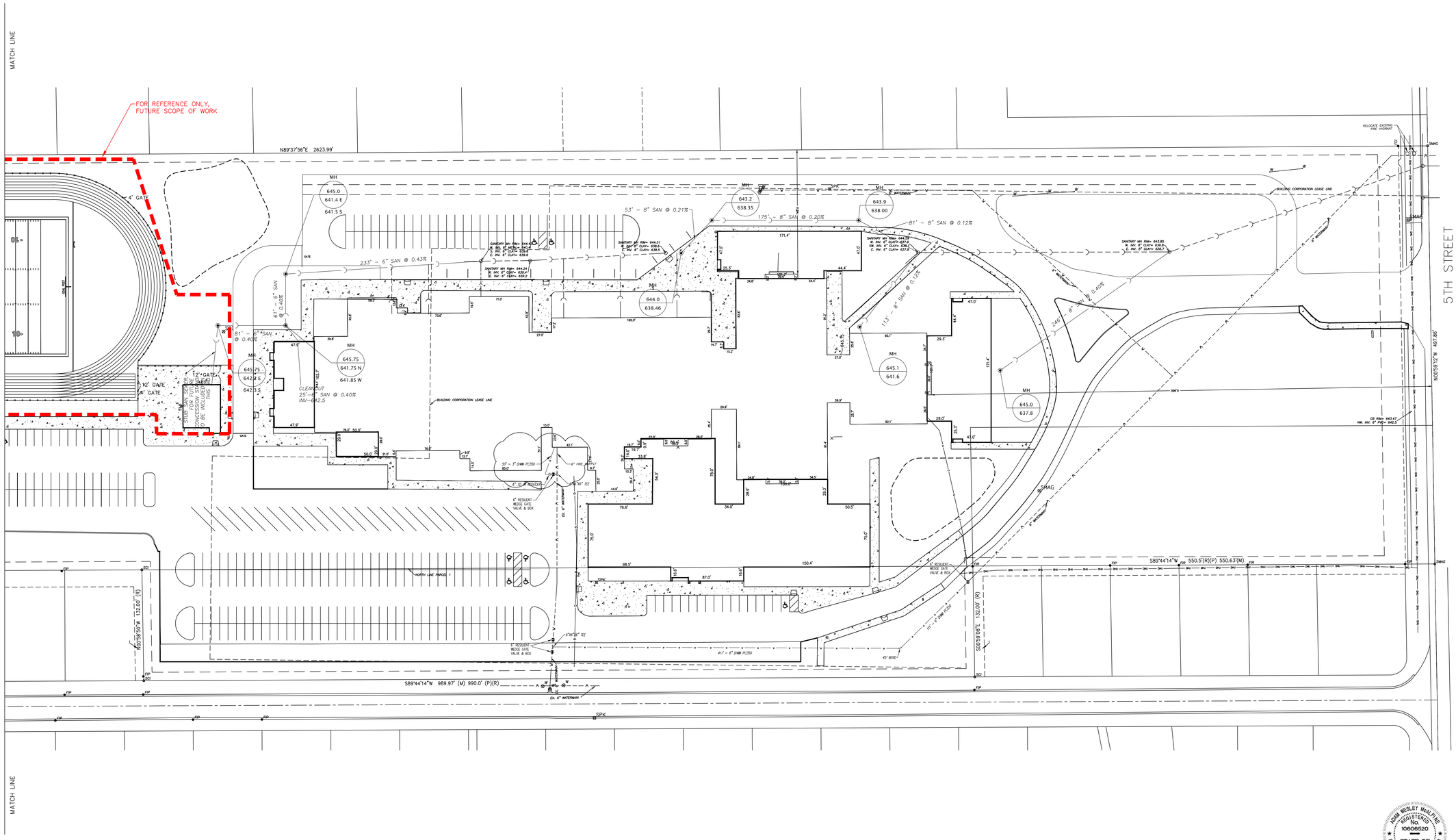

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SANITARY SEWER AND WATER MAIN PLAN 1

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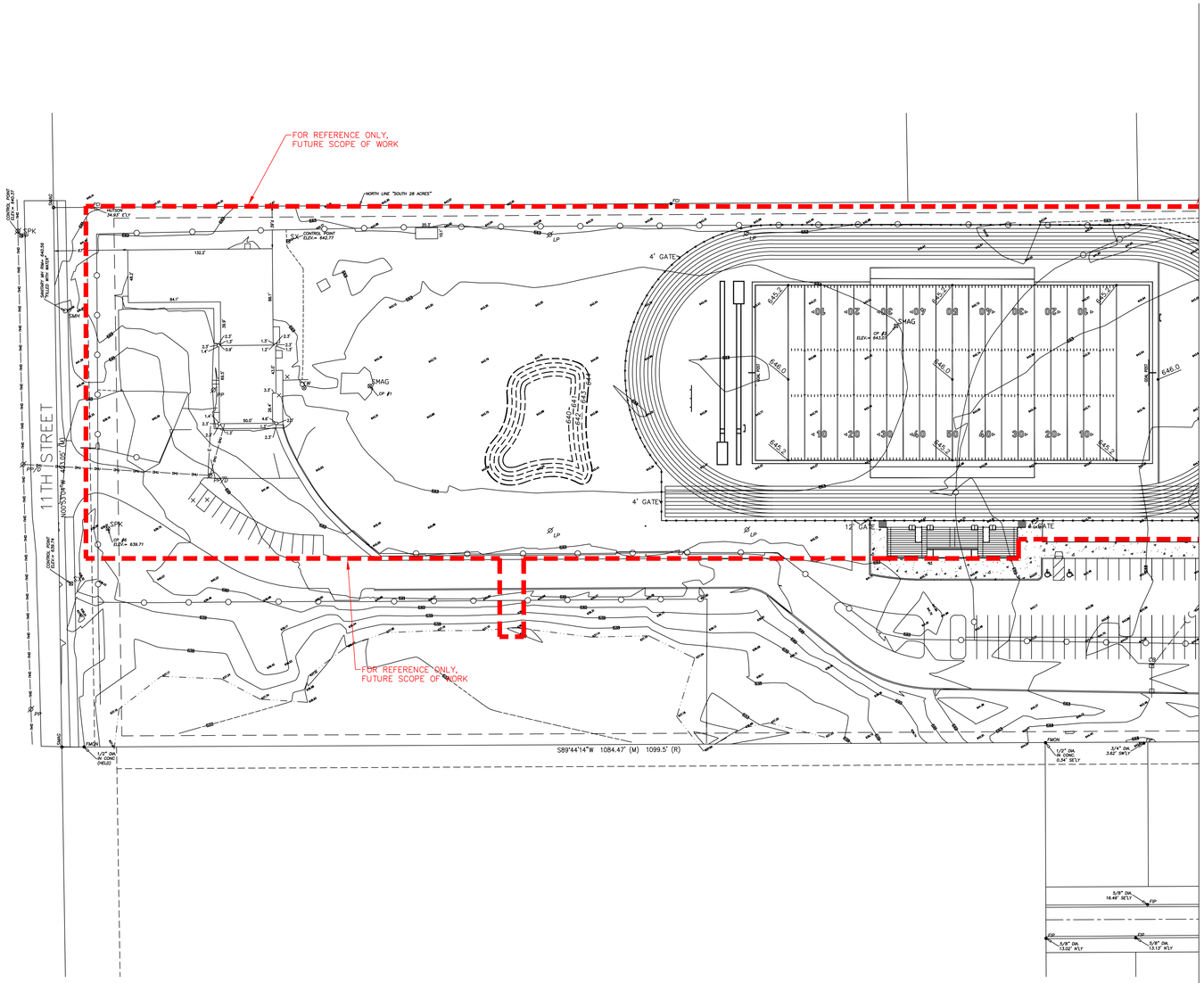

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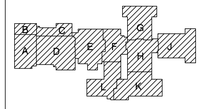

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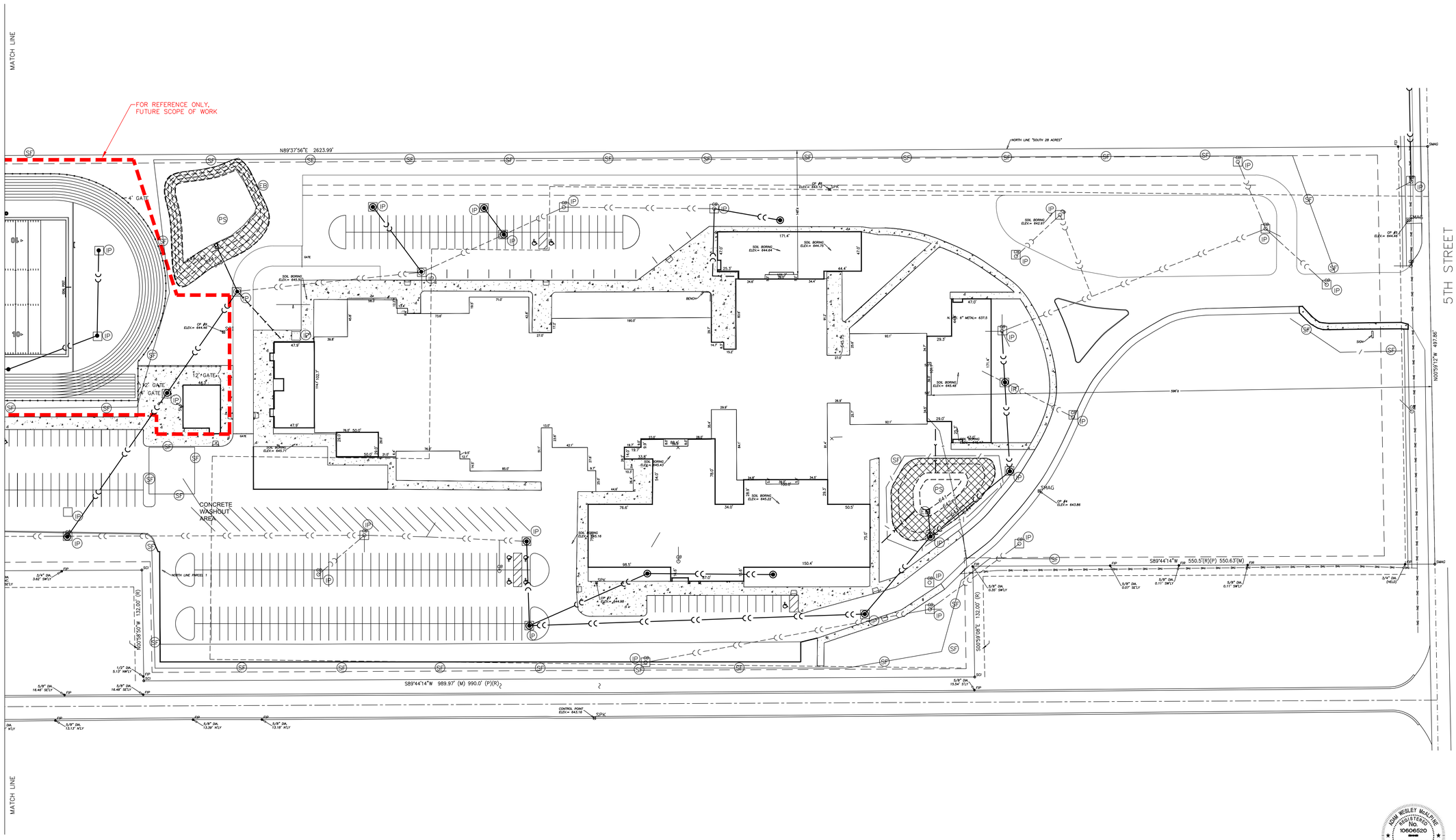

LEGEND

- SF SILT FENCE
- IP INLET PROTECTION
- EB EROSION CONTROL BLANKET
- TS TEMPORARY SEEDING
- PS PERMANENT SEEDING

ADDENDUM #3
03/30/22

NORTH

50 0 25 50 100

ADAM WESLEY McALPINE
REGISTERED
No. 10606520
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DESIGN
ARCHITECTURE • ENGINEERING • INTERIOR DESIGN

PROJECT

WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS

DUNELAND SCHOOL CORPORATION
CHESTERTON, INDIANA

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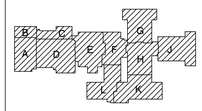

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21-141
DATE
02/28/22
COORDINATED BY
AWM
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CHECKED BY
AWM

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DRAWING
EROSION CONTROL PLAN 1

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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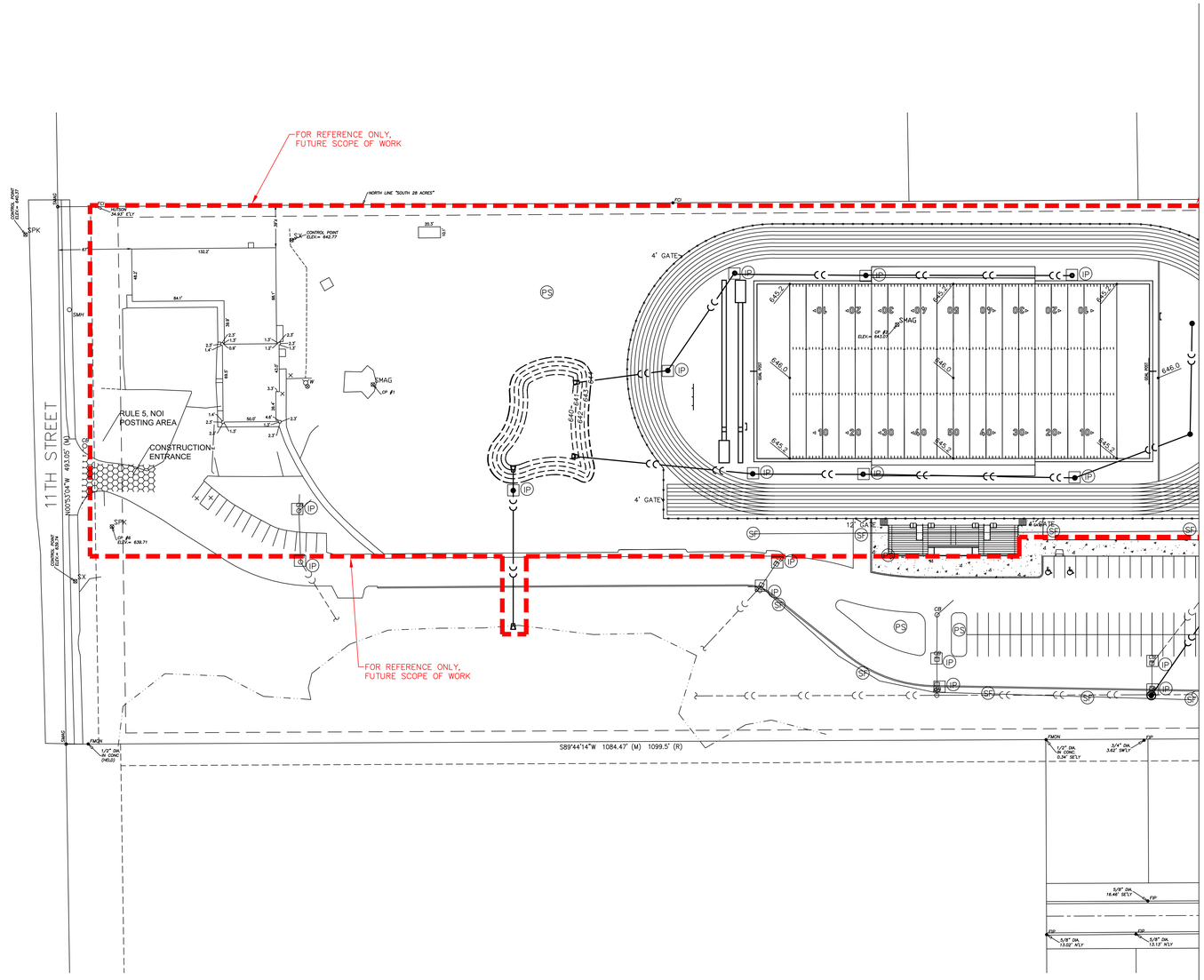

LEGEND

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GENERAL STORM WATER MANAGEMENT NOTES

Soil erosion and sedimentation control shall protect against loss of soil by the action of water, ice and wind.

Erosion control shall be in accordance with the Porter County Storm Water Ordinance & "The Indiana Storm Water Quality Manual".

There are two main elements for Storm Water Quality: Construction Site Stormwater Runoff Control and Post-Construction Stormwater Management. The contractor shall provide Construction Site Stormwater Runoff Control as required and construct the Post-Construction Stormwater Management features, as needed.

The contractor shall be responsible for maintaining site conditions such that Stormwater Runoff Control is provided throughout construction. Surface water runoff management, ie: temporary ditches, swales, bypass pumping, and erosion control measures shall be constructed and maintained as required by construction activity and these items are considered incidental to the contract. These items shall be included in the base contract.

Upon the completion of the site work the contractor shall remove the Construction Site Stormwater Runoff Control measures and install any noted Post-Construction Stormwater Management measures.

Those Stormwater Runoff Control measures that will also serve in the Post-Construction Stormwater Management Plan shall have construction sediment removed and full functionality restored upon the completion of the Site construction.

Each Construction Site Stormwater Runoff Control measure shall be installed immediately following the construction of the structure or feature in which the measure is intended to protect.

The contractor is responsible for any damage and/or cleaning to the structure or feature. Corrective work incurred by the contractor shall be considered incidental to the contract.

The contractor is responsible for compliance with the StormWater Pollution Prevention Plan (SWPPP). Any fines or punitive measures incurred by the project due to failure to comply with the SWPPP are the responsibility of the contractor. These costs shall be considered incidental to the contract, and shall not be considered an extra.

During the course of construction the SWPPP may require additional erosion control measures to be installed to address site specific items not anticipated by this plan due to construction schedule or sequencing. It is not the intent of this plan to direct the schedule or sequencing beyond the general construction sequence. Any stormwater runoff control measures required due to construction methodology, sequencing, etc. are incidental to the contract. Corrective work and maintenance shall also be considered incidental, and shall not be considered an extra.

All items shown on these detail sheets are standard details and describe standard installation practices. Not all of these Stormwater Runoff Control measures will be utilized. See the erosion control plan for location and types of erosion control measures utilized. The stormwater checklist document will serve to further outline the SWPPP for this project and it is considered part of the plan documents. In the event that site conditions require additional or different erosion control measures, these details serve to describe some acceptable methods.

SUMMARY OF BASIC PRINCIPLES

1. Keep disturbed area as small as possible.

2. Stabilize and/or protect disturbed areas as soon as possible.

3. Keep storm water runoff velocities low.

4. Retain sediment within immediate construction area.

The purpose of this plan is to specify methods for construction site stormwater runoff control.

All soil erosion and sedimentation control devices shall be regularly maintained by the contractor through the duration of the project. Collected silt and sedimentation shall be removed as required to maintain the effectiveness of the silt traps or sedimentation control devices. The contractor shall replace filter materials which have become ineffective due to contamination or physical deterioration. The contractor shall inspect all stormwater runoff control devices weekly and after all storm events.

The contractor shall have a log of maintenance and inspections, to be available at the site upon request of Local and State Inspectors.

GENERAL CONSTRUCTION SEQUENCE

- Contact the underground utility protection service
- Installation work for off-site stormwater flow diversion
- Construct stabilized construction entrance
- Install silt fences as directed by erosion control plan
- Install inlet basket filter protection on all storm structures
- Initiate site demolition, pond grading,sanitary sewer, and storm sewer pipe placement and protect against sediment intrusion into the trench and pipe drainage system
- Backfill the open trenches immediately following pipe and structure placement
- Continue with grading to establish original ground conditions, incorporating temporary seeding of disturbed areas
- Install topsoil on all disturbed areas, permanent seeding and vegetation
- Remove temporary erosion control measures after areas are stabilized

POTENTIAL CONSTRUCTION POLLUTANT SOURCES

Potential pollutants that could enter the stormwater during construction include exposed soils, fuel and oil from leaking heavy equipment and vehicles. Equipment has the potential to leak fuel throughout the disturbed areas, or wherever construction is occurring. The contractors will inspect equipment before initiating construction and routinely thereafter. If leaks are discovered, they will be repaired before the equipment is used or new equipment will be brought to the site.

Bulk Fuel storage on-site can leak and thereby be a pollutant. All Fuel storage tanks shall meet the minimum requirements of the Fuel Storage requirements.

Exposed soils also have potential for being eroded by water and wind and must be prevented from entering the stormwater system. The contractor will install silt fence, riprap, and erosion control blanket in areas designated on the site development plans.

STORMWATER QUALITY CONSTRUCTION SEQUENCE

The sequence of when each measure will be implemented is summarized below.

- Silt fence must be installed prior to any construction.
- Initiate weekly Self-monitoring program.
- Post the Rule 5 NOI with IDEM permit number and the Local Plan Approval Letter (NOS) at the entrance to the construction site.
- The construction entrance is to be constructed prior to construction. This can be placement of the stone drive, or the use of "mud mats".
- Inlet protection as detailed on these plans is to be installed surrounding each inlet/drywell/catch basin until work is completed and protection has been approved for removal.
- Scour protection such as Silt Dikes, Check Dams are to be installed across each swale until work is completed.
- Channel banks are to be permanently seeded and blanketed as soon as possible.
- Temporary seeding shall be placed 14 days after grading is complete or if disturbed ground is intended to be left for a period of more than 14 days.
- Stormwater outlet protection is to be constructed with completion of the storm sewer.
- Disturbed areas will be permanently seeded and mulched upon completion of project.
- Erosion control features shall be maintained until construction is complete.
- Any temporary erosion control measures are to be removed once permanent vegetative cover has been established.
- Rule 5 Notice of Termination shall be submitted.

EROSION CONTROL MEASURES

EROSION CONTROL BLANKET

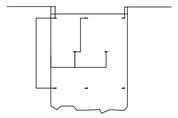
ANCHORING: Staples as recommended by the manufacturer. For North American Green use Staple pattern "B"

INSTALLATION

1. Select the type and weight of erosion control blanket to fit the site conditions (e.g., slope, channel, flow velocity).
2. Grade the site as specified in the construction plan. Add topsoil where appropriate.
3. Prepare the seedbed, fertilize (and lime, if needed), and seed the area immediately after grading.
4. Follow manufacturer's directions, lay the blankets on the seeded area such that they are in continuous contact with the soil and that the upslope or upstream ones overlap the lower ones by at least 8 in.
5. Tuck the uppermost edge of the upper blankets into a check slot (slit trench), backfill with soil, and tamp down.
6. Anchor the blankets as specified by the manufacturer.

MAINTENANCE

1. During vegetative establishment, inspect after storm events for any erosion below the blanket.
2. If any area shows erosion, pull back that portion of the blanket covering it, add soil, re-seed the area, and re-lay and staple the blanket.
3. After vegetative establishment, check the treated area periodically.



1.15 staples per square yard
STAPLE PATTERN "B"
North American Green

RIP-RAP - SCOUR PROTECTION

MATERIAL: Hard, angular, and weather-resistant, having a specific gravity of at least 2.5
GRADATION: Well-graded stone, 50% (by weight larger than the specified d_{50}; however, the largest pieces should not exceed two times the specified d_{50}, and no more than 15% of the pieces (by weight) should be less than 3 in.
FILTER: Use geotextile fabric for stabilization and filtration or sand/gravel layer placed under all permanent riprap installations.
SLOPE: 2:1 or flatter, unless approved in the erosion and sediment control plan.
MINIMUM THICKNESS: Two times the specified d_{50} stone diameter.

SUBGRADE PREPARATION

1. Remove brush, trees, stumps, and other debris.
2. Excavate only deep enough for both filter and riprap. Over-excavation increases the amount of spoil considerably.
3. Compact any fill material to the density of the surrounding undisturbed soil.
4. Cut keyway in stable material at the base of the slope to reinforce the toe. Keyway depth should be 1 1/2 times the design thickness of the riprap and should extend a horizontal distance equal to the design thickness.
5. Smooth the graded foundation.

FILTER PLACEMENT

1. If using geotextile fabric, place it on the smoothed foundation, overlap the edges at least 12 in., and secure with anchor pins spaced every 3 ft. along the overlap.
2. If using a sand/gravel filter, spread the well-graded aggregate in a uniform layer to the required thickness (6 in. min.); if two or more layers are specified, place the layer of smaller gradation first, and avoid mixing the layers.

RIPRAP PLACEMENT

1. Immediately after installing the filter, add the riprap to full thickness in one operation. (Do not dump through chutes or use any method that causes segregation of rock sizes or that will dislodge or damage the underlying filter material.)
2. If fabric is damaged, remove the riprap and repair by adding another layer of fabric, overlapping the damaged area by 12 in.
3. Place smaller rock in voids to form a dense, uniform, well-graded mass. (Selective loading at the quarry and some hand placement may be needed to ensure an even distribution of rock material.)
4. Blend the rock surface smoothly with the surrounding area to eliminate protrusions or over-falls.

MAINTENANCE

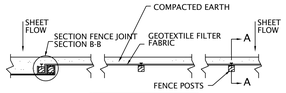
1. Inspect periodically for displaced rock material, slumping, and erosion at edges, especially down-stream or down-slope.

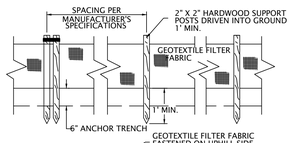
SEDIMENT CONTROL MEASURES

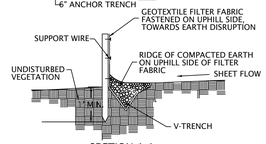
SILT FENCE

INSTALLATION

1. Drive stakes 1 ft. min. into ground and attach fabric to stakes with stapler.
2. Bottom of fabric shall be placed under 6 inches of compacted soil to prevent sediment flow underneath the fence.
3. Ensure that all supporting posts are on the down slope side of the fencing.







SECTION A-A

SECTION B-B

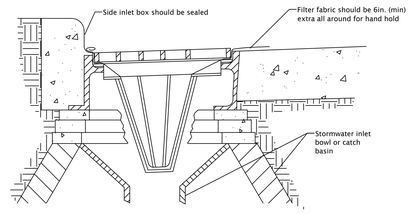
MAINTENANCE

1. Inspect after each storm event.
2. Remove built-up sediment and repair/replace the silt fence as needed.

BASKET CURB INLET PROTECTION

INSTALLATION

1. Install basket curb inlet protections as soon as inlet boxes are installed in the new development or before land disturbing activities begin in a stablized area.
2. If necessary, adapt basket dimensions to fit inlet box dimensions, which vary according to the manufacturer and/or model.
3. Seal the side inlets on those types of inlet boxes that have them.
4. Remove the grate and place the basket in the inlet.
5. Cut and install a piece of filter fabric large enough to line the inside of the basket and extend at least 6 inches beyond the frame.
6. Replace the inlet grate, which also serves to anchor the fabric.



MAINTENANCE

1. Inspect after each storm event.
2. Remove built-up sediment and replace the geotextile fabric after each storm event.
3. Periodically remove sediment and tracked-on soil from the street (but not by flushing with water) to reduce the sediment load on this curb inlet practice.

COMMON CONCERNS

1. Sediment not removed and geotextile fabric not replaced following a storm event - results in increased sediement, tracking, traffic hazard, and excessive ponding.
2. Geotextile fabric permittivity too low - results in rapid clogging, thus severe ponding, sediment enters the drain if the fabric breaks.
3. Drainage area too large - results in sediment overload and severe ponding; sediment enters the drain if the fabric breaks.

TEMPORARY AND PERMANENT SEEDING

SITE PREPARATION

1. These installation practices are needed to control erosion, sedimentation, and water runoff, such as temporary and permanent diversions, sediment traps or basins, silt fences, and triangular silt dikes.
2. Grade the site as specified in the construction plan.

SEEDBED PREPARATION

1. Fertilize as required.
2. Work the fertilizer into the soil 2-4 in. deep with a disk or rake operated across the slope.

SEEDING

1. Select a seeding mixture and rate from the table and plant at depth and on dates shown.
2. Apply seed uniformly with a drill or cultipacker-seeder or by broadcasting, and cover to the depth shown.
3. If drilling or broadcasting, firm the seedbed with a roller or cultipacker.
4. Mulch seeded areas to increase seeding success.

MAINTENANCE

1. Inspect periodically after planting to see that vegetative stands are adequately established, re-seed if necessary.
2. Check for erosion damage after storm events and repair, reseed and mulch if necessary.
3. Topdress fall seeded wheat or rye seeding with 50 lbs./acre of nitrogen in February or March if nitrogen deficiency is apparent.

TEMPORARY SEEDING RECOMMENDATIONS

SEED SPECIES*	RATE/ACRE	PLANTING DEPTH	OPTIMUM DATES**
Wheat or rye	150 lbs.	1 to 1 1/2 in.	9/15 to 10/30
Spring oats	100 lbs.	1 in.	3/1 to 4/15
Annual ryegrass	40 lbs.	1/4 in.	3/1 to 5/1 8/1 to 9/1
German millet	40 lbs.	1 to 2 in.	5/1 to 6/1
Sudangrass	35 lbs.	1 to 2 in.	5/1 to 7/30

* Perennial species may be used as a temporary cover, especially if the area to be seeded will remain idle for more than a year.
** Seeding done outside the optimum dates increases the chance of seeding failure.

PERMANENT SEEDING RECOMMENDATIONS

This table provides several seeding options. Additional seed species and mixtures are available commercially. When selecting a mixture, consider site conditions, including soil properties (e.g., soil pH and drainage), slope aspect and the tolerance of each species to shade and drought.

SEED SPECIES AND MIXTURES	RATE/ACRE	OPTIMUM SOIL pH
OPEN AND DISTURBED AREAS (REMAINING IDLE FOR MORE THAN ONE YEAR.		
1. Perennial ryegrass	35-50 lbs.	5.6 to 7.0
+ white or ladino clover	1 to 2 lbs.	
1. Kentucky bluegrass	20 lbs.	5.5 to 7.5
+ smooth bromegrass	10 lbs.	
+ switchgrass	3 lbs.	
+ timothy	4 lbs.	
+ perennial ryegrass	10 lbs.	
+ white or ladino clover	1 to 2 lbs.	

TEMPORARY CONSTRUCTION ENTRANCE/EXIT PAD

MATERIAL: 2-3 in. washed stone (INDOT CA No. 2) over a stable foundation.
THICKNESS: 12 in. minimum.
WIDTH: 20 ft. minimum or full width of entrance/exit roadway, whichever is greater.
LENGTH: 100 ft. minimum.
GEOTEXTILE FABRIC UNDERLINER: May be used under wet conditions or for soils within a high seasonal water table to provide greater bearing strength.

INSTALLATION

1. Avoid locating on steep slopes or at curves in public roads.
2. Remove all vegetation and other objectionable material from the foundation area, and grade and crown for positive drainage.
3. If slope towards the road exceeds 2%, construct a 6-8 in. high water bar (ridge) with 3:1 side slopes across the foundation area about 15 ft. from the entrance to divert runoff away from the road (Practice 3.24) see exhibit.
4. Install pipe under the pad if needed to maintain proper public road drainage.
5. If wet conditions are anticipated, place geotextile fabric on the graded foundation to improve stability.
6. Place stone to dimensions and grade shown in the erosion/sediment control plan, leaving the surface smooth and sloped for drainage.
7. Divert all surface runoff and drainage from the stone pad to a sediment trap or basin.

MAINTENANCE

1. Inspect entrance pad and sediment disposal area weekly and after storm events or heavy use.
2. Reshape pad as needed for drainage and runoff control.
3. Topdress with clean stone as needed.
4. Immediately remove mud and sediment tracked or washed onto public roads by brushing or sweeping. Flushing should only be used if the water is conveyed into a sediment trap or basin.
5. Repair any broken road pavement immediately.

MATERIAL MANAGEMENT MEASURES (HOUSEKEEPING)

SPILL PREVENTION AND CONTROL PLAN

- Only approved fuel storage tank shall be allowed on site.
- Spill Kits must be located on-site in the vicinity of the fuel storage sink.
- Mobile Fueling shall be used wheever possible.
- Fueling should take place in a central location.
- Equipment should be kept in good working order, well maintained so that breakdowns, and equipment failures are reduced.

FUEL STORAGE

- All fuel tanks on site shall have secondary containment approved by IDEM.
- No fuel tanks are to be located within 100 feet of a storm sewer inlet.
- Fuel storage system shall be kept in good working order and shall be subject to periodic IDEM inspections.
- Spill Kits must be located on-site in the vicinity of the fuel storage sink.
- Fuel tanks shall have a safety guage.

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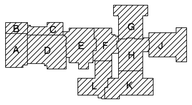

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Section A Pre-Construction Assessment

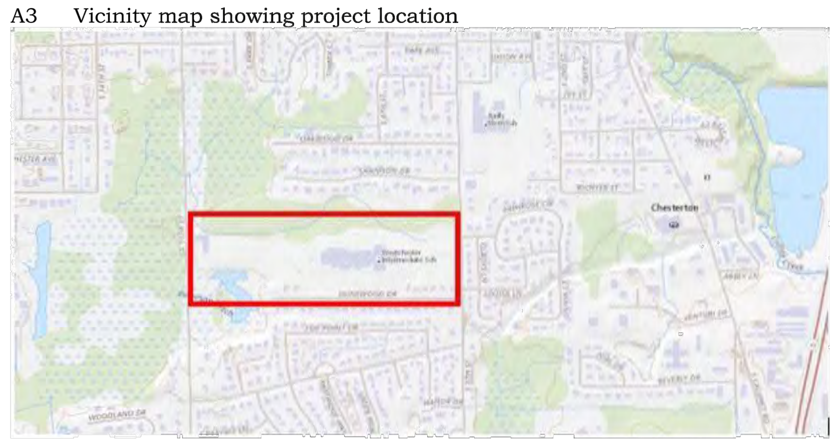
A1 Engineering plans illustrating building lot numbers/boundaries and road layout/names

See attached storm water pollution prevention plan drawings detailing the proposed Westchester School building improvements, internal drive, and storm sewer system layout.

A2 Narrative describing project nature and purpose

The proposed project entails four (4) building additions to the existing school building to modernize and expand capacity of the school. Improvements will also be made to the athletic field.

A3 Vicinity map showing project location



The development is located north of Dunewood Drive, west of Fifth Street and east of Eleventh Street.

A4 Legal description of the project site

See Westchester plat for legal description of property.

A5 Location of all lots and proposed site improvements

The location of proposed site work is illustrated on the attached storm water pollution prevention plan drawings.

A6 Hydrologic unit code

8-digit Hydrologic Unit ID:	04040001
11-digit Hydrologic Unit ID:	04040001060
14-digit Hydrologic Unit ID:	04040001060040
Subwatershed Name, 14-digit Hydrologic Unit:	Little Calumet River-Burns Ditch Outlet
Area (Acres):	6853.5
Non-Contributing Portion of 14-digit HU (Acres):	0
GlobalID:	{C23D34F6-8D41-4A35-85A0-172A73C4593B}

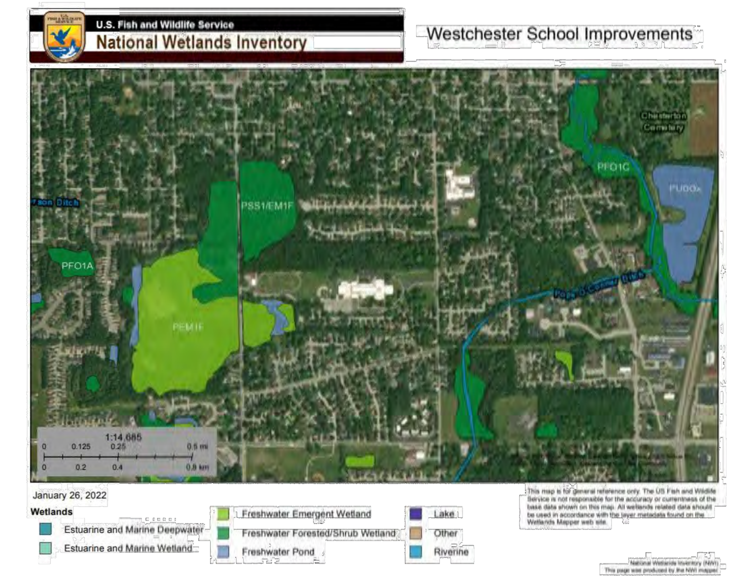
A7 Notation of any State or Federal water quality permits

An IDEM Rule 5 Permit for erosion and sediment control is required for the demolition work. There are no other required water quality permits from State or Federal regulatory agencies.

A8 Specific points where stormwater discharge will leave the site

Stormwater runoff from the project site will be intercepted and filtered at the project perimeter during construction to capture potential pollutants. The site terrain is generally flat with a slight pitch to the south and west towards the marsh on the adjacent property. A storm sewer outlet will discharge all water into this marsh area.

A9 Location and name of all wetlands, lakes, and water courses on and adjacent to the site



The proposed development is located within an urban area of Chesterton and there are no water bodies or wetlands located within the nearby vicinity of the project site. The map above provided by U.S. Fish and Wildlife Service depicts the absence of wetlands within the project area.

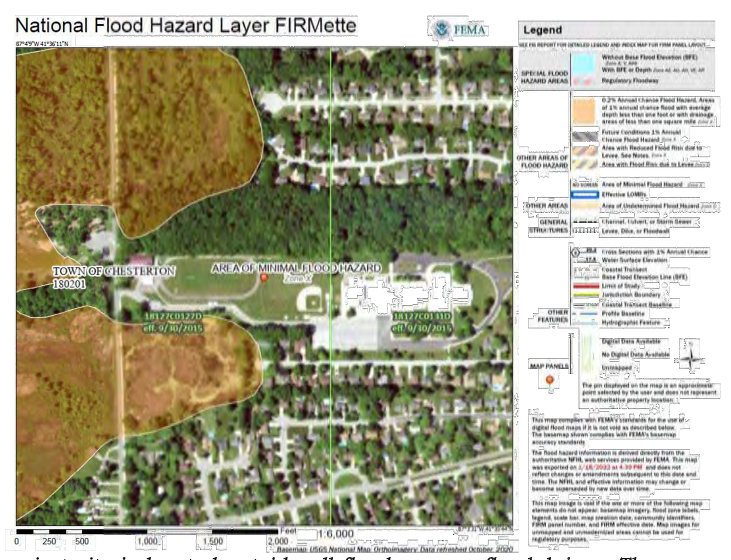
A10 Identify all receiving waters

Stormwater runoff from the project site drains west into Peterson Ditch and then empties into the East Arm of the Little Calumet River which flows into Lake Michigan.

A11 Identification of potential discharges to groundwater

The potential discharges to groundwater include possible spills from the construction equipment used for construction activities. Contractor shall follow proper protocols for refueling vehicles and spill containment.

A12 100-Year floodplains, floodways, and floodway fringes



The project site is located outside all floodways or floodplains. The property is situated in Flood Zone X and is classified as an area of minimal flood hazard.

A13 Pre-construction and post-construction estimate of peak discharge

The flow rate estimates of the proposed development site for pre and post land conditions are based on rational method computations (Q=CIA).

<u>Pre-Construction</u>

Q = CIA
C = 0.15 (flat, undeveloped land)
I = 7.68 inches/hour (15-minute time of concentration)
A = 1.04 acres
Q = (0.15)(7.68)(1.04)
Q = <u>1.20 cfs</u>

<u>Post-Construction</u>

Q = CIA
C = 0.83 (composite runoff)
I = 9.00 inches/hour (10-minute time of concentration)
A = 1.04 acres
Q = (0.83)(9.00)(1.04)

Q = <u>7.77 cfs</u>

A14 Adjacent land use, including upstream watershed

North – Small Forest, residential homes
East – Roadway, residential homes
South – Roadway and residential homes
West – Roadway, protected wetland

A15 Locations and approximate boundaries of all disturbed areas

The locations and boundaries of all disturbed areas have been indicated on the storm water pollution prevention plan site plan drawing.

A16 Identification of existing vegetative cover

The existing vegetative cover consists of a mostly grass lawn areas with occasional mature trees.

A17 Soil map including description and limitations

The site soils are classified as Martinsville loam (MfA) and Whitaker loam (Wt).

A18 Locations, size and dimensions of proposed storm water systems

The locations, sizes, and dimensions of the proposed storm sewer systems are indicated on the engineering plans.

A19 Plan for any off-site construction activities associated with the project

There are no off-site construction activities associated with the project.

A20 Locations of proposed soil stockpiles, borrow and/or disposal areas

The topsoil will be stockpiled in the central portion of the project site and surrounded by temporary silt fencing.

A21 Existing site topography at an interval appropriate to show detailed drainage patterns

The site topography is shown on the storm water pollution prevention plan site drawings. The land is generally flat with a slight pitch to the southwest.

A22 Proposed final topography at an interval appropriate to show detailed drainage patterns

The final topography of the development site is illustrated on the grading plan. The site will drain south into a detention basin via storm sewer pipes and grass swales.

ADDENDUM #3
03/30/22

ADAM WESLEY McALPINE REGISTERED No. 10606520 STATE OF INDIANA PROFESSIONAL ENGINEER

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PROJECT
WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS
DUNELAND SCHOOL CORPORATION
CHESTERTON, INDIANA

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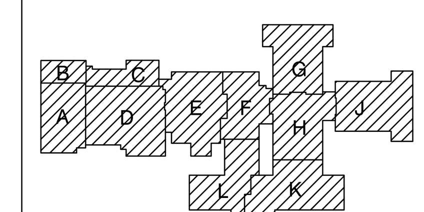

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PROJECT 21-141
DATE 02/28/22
COORDINATED BY AWM
DRAWN BY BPL
CHECKED BY AWM

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MARK	DATE	ISSUED FOR
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DRAWING
EROSION CONTROL NARRATIVE 1

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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SHEET
C-4.3

Section B Construction Assessment

B1 Description of potential pollutant sources associated with the construction activities

The potential pollutant sources associated with the proposed construction activities include but are not limited to: construction debris, dust, soil, dirt and sediment, concrete compounds, asphalt compounds, petroleum products including fuel, oil and grease, and exhaust emissions.

B2 Sequence describing storm water quality measure implementation relative to land disturbing activities

The sequence of storm water quality measure implementation has been described within the attached drawings.

B3 Stable construction entrance locations and specifications

The construction entrance location along with specifications for construction have been described within the attached drawings.

B4 Sediment control measures for sheet flow areas

Silt fence perimeter protection will help contain sediment on site and within the construction limits. Inlet protection devices will be installed at internal inlets to prevent sediment from entering the drainage system.

B5 Sediment control measures for concentrated flow areas

The project site is relatively flat and concentrated flow areas are not anticipated.

B6 Storm sewer inlet protection measure locations and specifications

The inlet protection locations along with specifications for construction have been described within the attached drawings.

B7 Runoff control measures

The runoff control measures for the project will consist of topsoil ground stabilization and seeding upon completion of all grading activities.

B8 Stormwater outlet protection specifications

The stormwater outlet will be protected with piled riprap as illustrated in the drawings.

B9 Grade stabilization structure locations and specifications

There are no grade stabilization structures associated with the project.

B10 Location, dimension, specifications, and construction details of each storm water quality measure

The stormwater quality measures include the water quality detention basin area. Additional information regarding location and dimension are detailed on the drawings.

B11 Temporary surface stabilization methods appropriate for each season

The temporary and permanent surface stabilization methods have been described within the storm water pollution prevention plan drawings.

B12 Permanent surface stabilization specifications

The temporary and permanent surface stabilization methods have been described within the storm water pollution prevention plan drawings.

B13 Material handling and spill prevention plan

The material handling and spill prevention plan have been described within the storm water pollution prevention plan drawings.

B14 Monitoring and maintenance guidelines for each proposed pollution prevention measure

The monitoring and maintenance guidelines have been described within the storm water pollution prevention plan drawings.

B15 Erosion and sediment control specifications for individual building lots

The proposed development will occur between building lots. However, there is no distinction between the two sites in terms of erosion and sediment control.

Section C Post-Construction Assessment

C1 Description of pollutants and their sources associated with the proposed land use

The future land use will continue to be a school building with on-site athletic fields and parking. Potential pollutants may include herbicides, fertilizers, and oil runoff.

C2 Sequence describing storm water quality measure implementation

Post-construction maintenance activities are described in the O&M manual.

C3 Description of proposed post-construction storm water quality measures

Post construction storm water quality measures include the northwest and southeast water detention basins as well as the appropriate stormwater infrastructure shown in drawings.

C4 Location, dimensions, specifications, and construction details of each storm water quality measure

The details regarding the post construction water quality measures are detailed in the project drawings.

C5 Description of maintenance guidelines for proposed post-construction water quality measures

Maintenance guidelines for all post-construction water quality measures are described in the O&M manual.

ADDENDUM #3
03/30/22

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PROJECT

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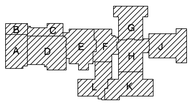

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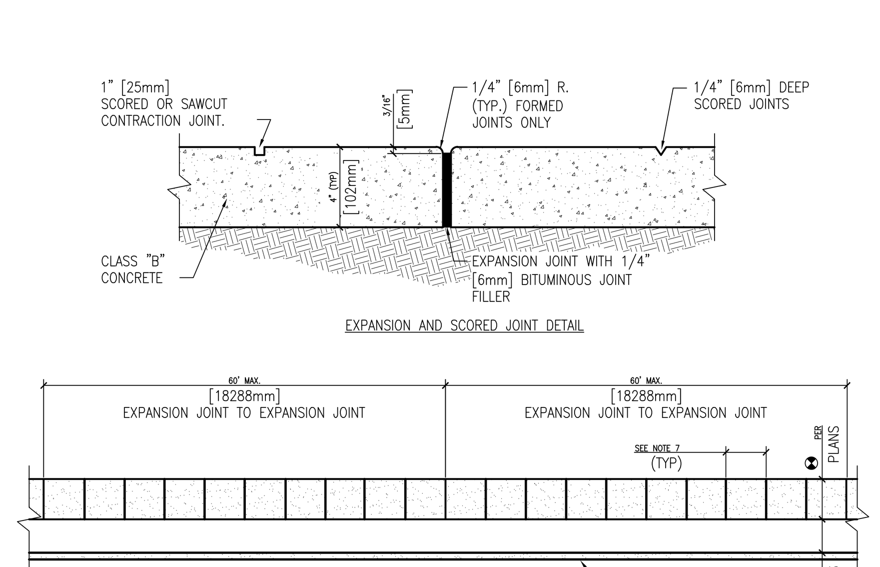
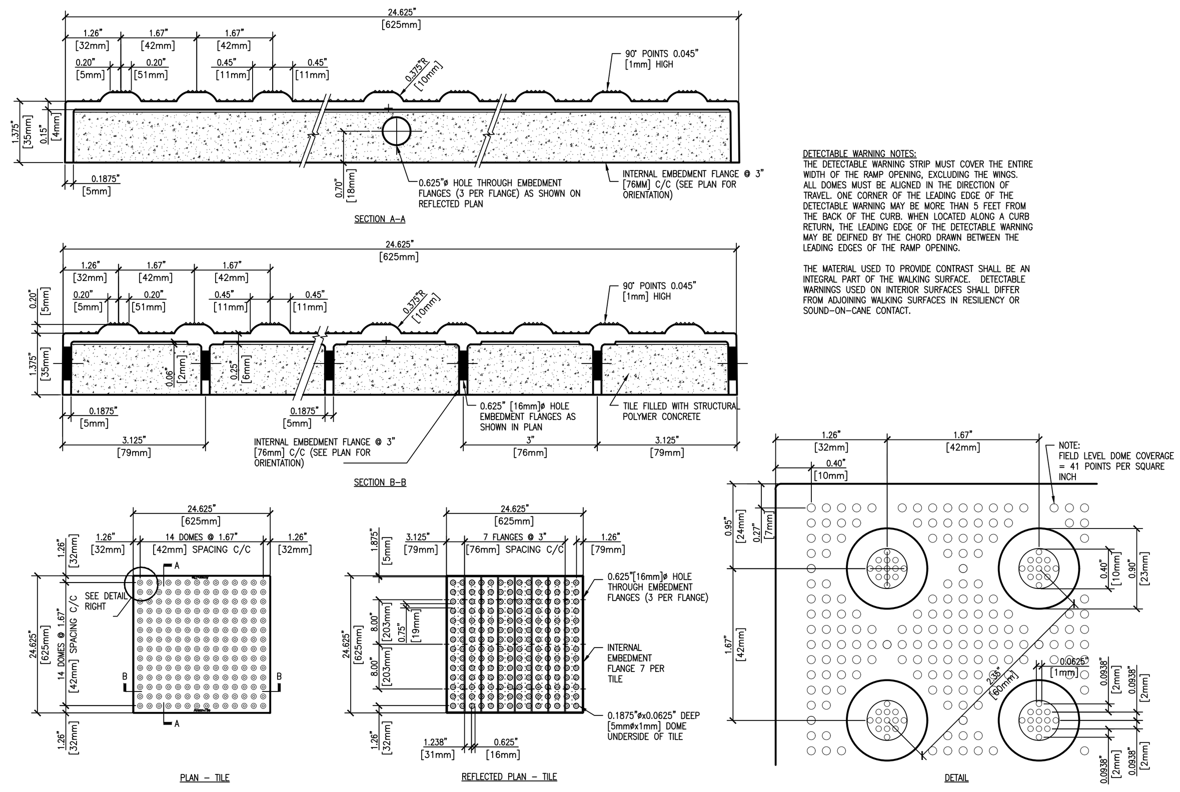


NOTES:
1. EXPANSION JOINTS SHALL BE LOCATED WHERE SIDEWALK ABUTS CONCRETE DRIVEWAYS, CURB OR OTHER ADJACENT STRUCTURES.
2. ONE-HALF INCH BITUMINOUS JOINT FILLER SHALL BE INSTALLED AT EXPANSION JOINT LOCATIONS AND SHALL EXTEND THE FULL DEPTH OF THE CONCRETE.
3. 1" DEEP CONTRACTION JOINTS SHALL BE PLACED AT INTERVALS OF APPROXIMATELY 15' [4572mm] OR AT A SPACING THAT MATCHES THE ADJACENT CURB.
4. FORMED CONTRACTION JOINTS SHALL BE FINISHED WITH A TOOL HAVING A 1/4" [6mm] RADIUS.
5. SCORED JOINTS SHALL BE 1/4" [6mm] DEEP AND PLACED AT THE SPACING INDICATED FOR THE WIDTH OF SIDEWALK OR MATCH SCORED JOINTS OF ADJACENT CURB.
6. CONCRETE SHALL BE FINISHED BY MEANS OF A FLOAT, STEEL TROWELLED AND BROOMED WITH A FINE BRUSH IN A TRANSVERSE DIRECTION.
7. 1/4" DEEP SCORED JOINTS (TYP) SPACED AT 6' [1829mm] OR EQUAL TO SIDEWALK WIDTH.

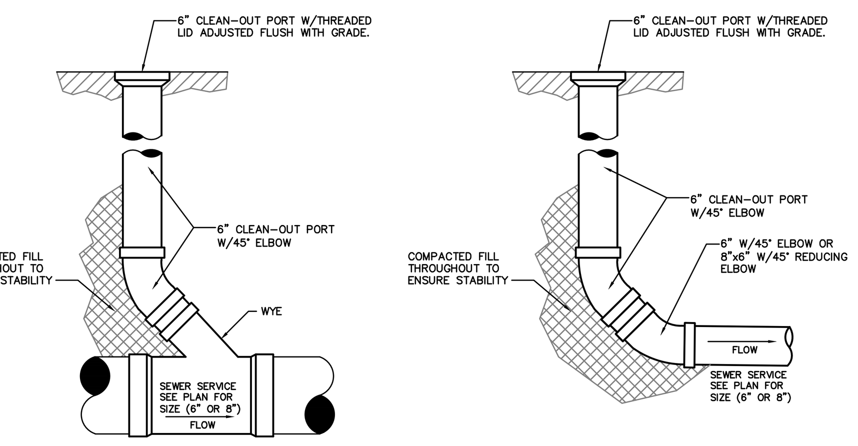
CONCRETE SIDEWALK
NOT TO SCALE



DETECTABLE WARNING NOTES:
THE DETECTABLE WARNING STRIP MUST COVER THE ENTIRE WIDTH OF THE RAMP OPENING, EXCLUDING THE WINGS. ALL DOMES MUST BE ALIGNED IN THE DIRECTION OF TRAVEL. ONE CORNER OF THE LEADING EDGE OF THE DETECTABLE WARNING MAY BE MORE THAN 5 FEET FROM THE BACK OF THE CURB. WHEN LOCATED ALONG A CURB RETURN, THE LEADING EDGE OF THE DETECTABLE WARNING MAY BE DEIFNED BY THE CHORD DRAWN BETWEEN THE LEADING EDGES OF THE RAMP OPENING.

THE MATERIAL USED TO PROVIDE CONTRAST SHALL BE AN INTEGRAL PART OF THE WALKING SURFACE. DETECTABLE WARNINGS USED ON INTERIOR SURFACES SHALL DIFFER FROM ADJOINING WALKING SURFACES IN RESILIENCY OR SOUND-ON-CANE CONTACT.

TRUNCATED DOME TACTILE – WARNING STRIP
NOT TO SCALE



CLEAN-OUT
NOT TO SCALE

SPECIFICATIONS FOR SANITARY SEWER AND WATER MAINS

1. All sanitary sewer pipe , branches, and fittings shall conform to the following, Poly-vinyl chloride, SDR 26 (ASTM D-3034), with push-on rubber gasket joints (ASTM C-3212).

2. All sanitary sewer manholes shall be standard 48" diameter precast concrete units (ASTM C-478) conforming with the standard detail sheets of these plans. Mortar joints are not allowed on manholes, all joints must be rubber gaskets.

3. The completed sanitary sewer system shall be tested for infiltration and shall have a maximum infiltration of 3 gallons per hour per 100 feet of sewer pipe. Mandrel testing shall be performed on all P.V.C. materials placed. The Contractor shall be responsible for supplying testing materials and appurtenances.

4. All water main pipe shall be Ductile Iron Pipe (AWWA PC350) with bell and spigot push-on rubber gasket joints (AWWA CIII). All water main pipe shall be installed with a minimum cover of 5.0 feet from the top of the curb to the top of the pipe. All water mains shall be chlorinated at the time of installation and shall be subject to a test for pressure and purity. All fire hydrants, tees, bends and fittings shall be suitable harnessed or thrust blocked with concrete.

5. All improvements installed across paved or future paved areas, driveways and sidewalks shall backfilled with graded stone aggregate to the subgrade line. Compaction shall be done in 8" maximum depth lifts to 95% maximum density.

6. Care should be taken in parkway areas to assure compaction acceptable for the stability of proposed driveways and sidewalks. While special backfill is not required, it shall be the responsibility of the contractor to protect against substantial future settlement of backfilled areas.

7. Air pressure test shall be performed on all completed Sanitary Manholes and existing manholes where the proposed sanitary system will connect to, in accordance with ASTM C 1244-93, Standard Test Method for Concrete Sewer Manholes by Negative Air Pressure (Vacuum) Test. The tests shall be conducted prior to backfill to demonstrate the integrity of the installed materials. The manhole shall pass if the test time meets or exceeds the required minimum test times as specified in ASTM C 1244-93 for the vacuum reading to drop from 10 inches of mercury to 9 inches of mercury. If the manhole fails the initial test, necessary repairs shall be made, and the test shall be repeated. The contractor shall be responsible for supplying all testing materials and appurtenances.

8. Deflection tests shall be performed on all flexible pipe materials placed. The contractor shall be responsible for supplying testing materials and appurtenances. The tests shall be conducted after the final backfill has been in place at least 30 days. No pipe shall exceed a deflection of 5%. If the deflection test is to be run using a rigid ball or mandrel, it shall have a diameter equal to 95% of the inside diameter of the pipe. The test shall be performed without mechanical pulling devices.

9. All sewers shall be laid at least 10 feet (3.0 m) horizontally from any existing or proposed water main. The distance shall be measured edge to edge. All sewers crossing water mains shall be laid to provide a minimum vertical distance of 18 inches (46 cm) between the outside of the water main and the outside of the sewer. This shall be the case where the water main is either above or below the sewer. The crossing shall be arranged so that the sewer joints will be equidistant and as far as possible from the water main joints. Where a water main crosses under a sewer, adequate structural support shall be provided for the sewer to prevent damage to the water main. When it is impossible to obtain proper horizontal and vertical separation as stipulated above, the sewer shall be designed and constructed equal to water pipe.

10. No sanitary sewer manhole shall be within eight (8) feet of a water main as measured from the outside edge of the sanitary sewer manhole to the outside edge of the water main.

SPECIFICATIONS FOR STORM SEWERS

1. All work shall be performed in accordance with the Codes, Ordinances and Standards of Porter County, Indiana.

2. All storm sewer pipe, branches and fittings shall conform to either of the following: Poly Vinyl Chloride Pipe (AASHTO M252), Polyethelene Pipe (ASHTO M252 or AASHTO M294), Concrete Pipe (AASHTO M170).

3. All storm sewer manholes shall conform to either of the following :
(A) Standard precast concrete units (ASTM C-478) and/or (B) Poly-Vinyl Chloride (PVC) Structure Nyloplast or equal conforming with the standard detail sheet of these plans. Mortar joints are not allowed on manholes, all joints must be rubber gaskets.

4. All improvements installed across paved or future paved areas driveways, and sidewalks shall backfilled with graded stone aggregate to the subgrade line. Compaction shall be done in 8" maximum depth lifts to 95% maximum density.

5. Care should be taken in parkway areas to assure compaction acceptable for the stability of proposed driveways and sidewalks. While special backfill is not required, it shall be the responsibility of the contractor to protect against substantial future settlement of backfilled areas.

6. The Contractor is responsible for the preparation of "As Built" construction drawings showing actual sizes and lengths of pipe installed (i.e. from manhole to manhole or tee to valve, etc.), location of service taps and any structures added or omitted in comparison with these engineering plans. The Contractor shall supply the Owner with one reproducible drawing certified by a Professional Engineer or Land Surveyor and 2 copies thereof prior to and as a condition of the final acceptance.

7. All sewers shall be laid at least 10 feet (3.0 m) horizontally from any existing or proposed water main. The distance shall be measured edge to edge. All sewers crossing water mains shall be laid to provide a minimum vertical distance of 18 inches (46 cm) between the outside of the water main and the outside of the sewer. This shall be the case where the water main is either above or below the sewer. The crossing shall be arranged so that the sewer joints will be equidistant and as far as possible from the water main joints. Where a water main crosses under a sewer, adequate structural support shall be provided for the sewer to prevent damage to the water main. When it is impossible to obtain proper horizontal and vertical separation as stipulated above, the sewer shall be designed and constructed equal to water pipe.

8. No storm sewer manhole shall be within eight (8) feet of a water main as measured from the outside edge of the sanitary sewer manhole to the outside edge of the water main.

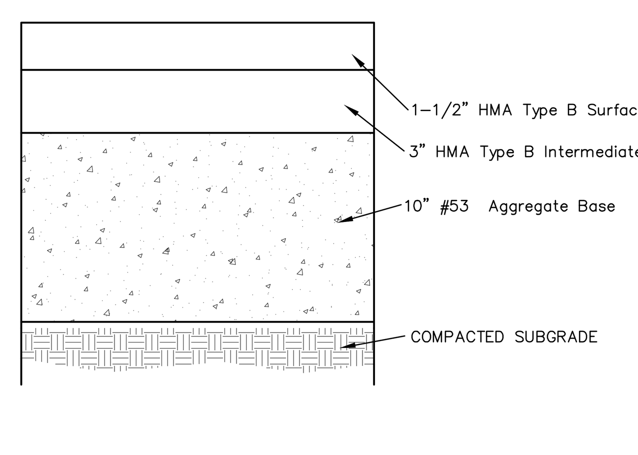
GENERAL SPECIFICATIONS

1. In areas of unsuitable soil, the contractor shall be responsible removal, replacement, and disposal of the soil.

2. Replacement and addition of structural soil under roads, pavement and building shall be done in lifts not to exceed 8-inches, with a required compaction of at least 95% of their maximum dry density can be obtained, in accordance with the Indiana Department of Transportation Standard Specifications.

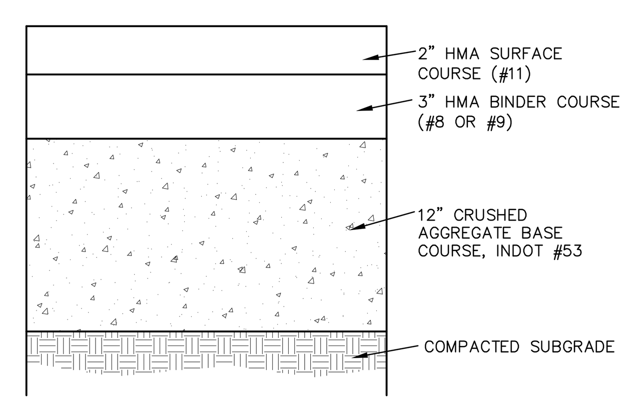
3. The contractor shall provide full depth saw cuts where existing pavement, concrete or asphalt is to be removed. The contractor shall provide adequate compacted material/gravel at saw cut edge to shore up and prevent the degradation of existing pavement to remain. Damage to existing pavement will be repaired at the contractor's expense.

4. The Occupational Safety and Health Administration recommends that walking surfaces have a static coefficient of friction of 0.5. A research project sponsored by the Architectural and Transportation Barriers Compliance Board (Access Board) conducted tests with persons with disabilities and concluded that a higher coefficient of friction was needed by such persons. A static coefficient of friction of 0.6 is recommended for accessible routes and 0.8 for ramps.



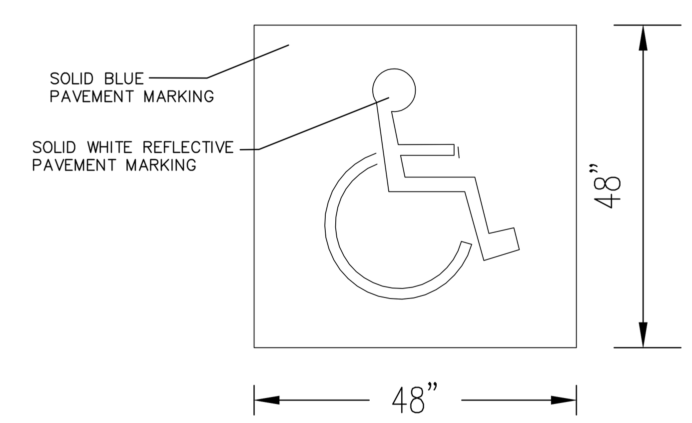
NOTES:
1. WHERE FILL IS REQUIRED, SUBGRADE SHALL BE COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D698 METHOD OF TESTING.
2. THE CONTRACTOR IS RESPONSIBLE FOR CORRECTING ANY PONDING PROBLEMS THAT MAY OCCUR AFTER THE FINAL SURFACE IS LAID.

TYPICAL ASPHALT PAVEMENT SECTION
NOT TO SCALE

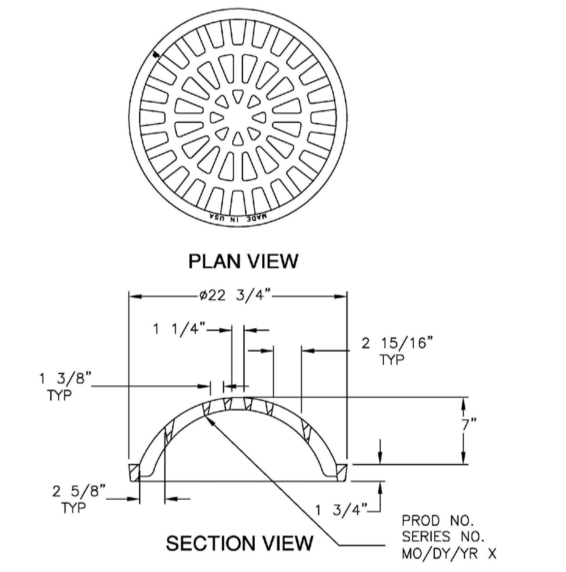


NOTES:
1. WHERE FILL IS REQUIRED, SUBGRADE SHALL BE COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D698 METHOD OF TESTING.
2. THE CONTRACTOR IS RESPONSIBLE FOR CORRECTING ANY PONDING PROBLEMS THAT MAY OCCUR AFTER THE FINAL SURFACE IS LAID.

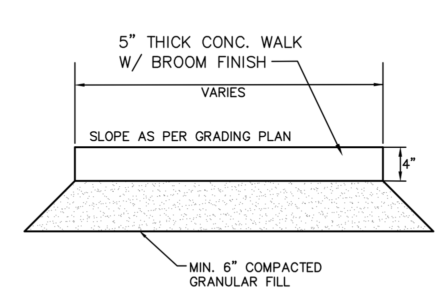
HEAVY DUTY ASPHALT PAVEMENT SECTION
(NO SCALE)



INTERNATIONAL SYMBOL FOR ACCESSIBILITY
NOT TO SCALE



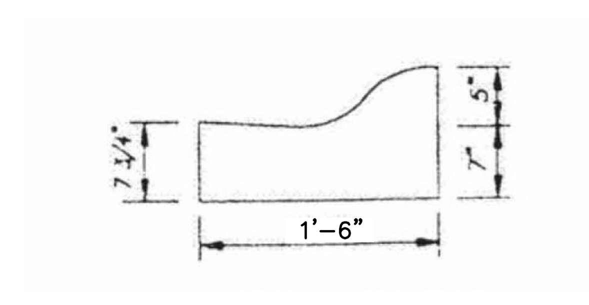
EJIW 1020 7" BEEHIVE
NOT TO SCALE



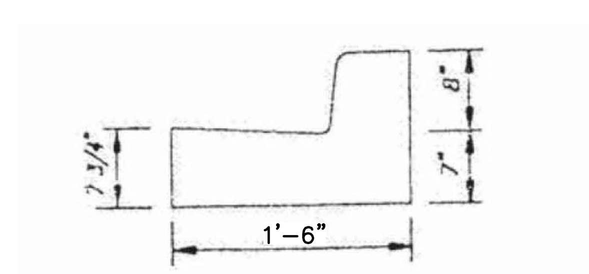
NOTE:
1. ALL JOINTS ARE TO BE SAWCUT, NO SCORED (TOOLED) JOINTS ARE ALLOWED.
2. FOR EXPANSION JOINTS, USE ZIP STRIP AT TOP & SONNEBORN NP-1 SEALANT.
3. CURBS AND SIDEWALKS SHALL RECIEVE SPECCO "CONCRETE EARTH" DRYCRETE MOISTURE STOP. APPLY ONE COAT.

TYPE C

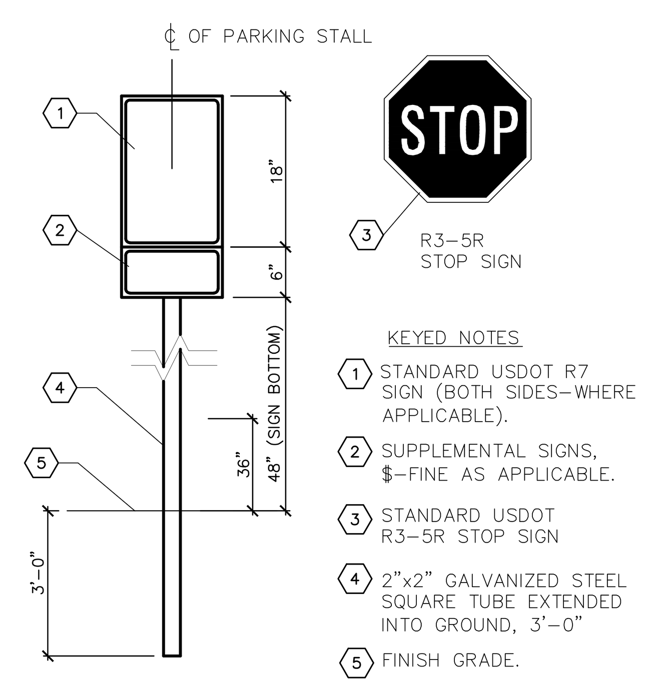
SIDEWALK CROSS-SECTION
NOT TO SCALE



CONCRETE ROLL CURB AND GUTTER
NOT TO SCALE

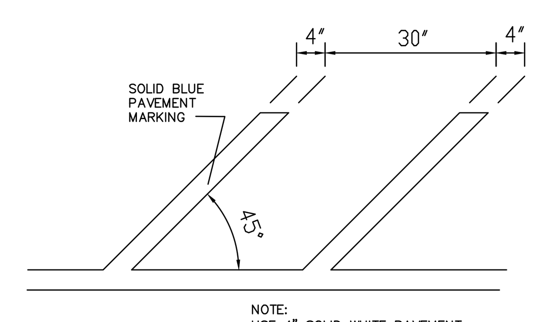


COMBINED CONCRETE HIGH BACK CURB AND GUTTER
NOT TO SCALE



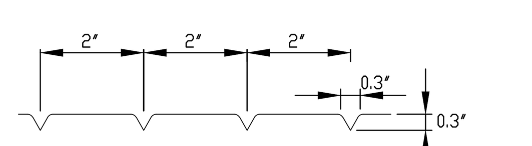
KEYED NOTES
1. STANDARD USDOT R7 SIGN (BOTH SIDES–WHERE APPLICABLE).
2. SUPPLEMENTAL SIGNS, $-FINE AS APPLICABLE.
3. STANDARD USDOT R3-5R STOP SIGN
4. 2"x2" GALVANIZED STEEL SQUARE TUBE EXTENDED INTO GROUND, 3'-0"
5. FINISH GRADE.

SIGN AND POST (FREE STANDING)
NOT TO SCALE

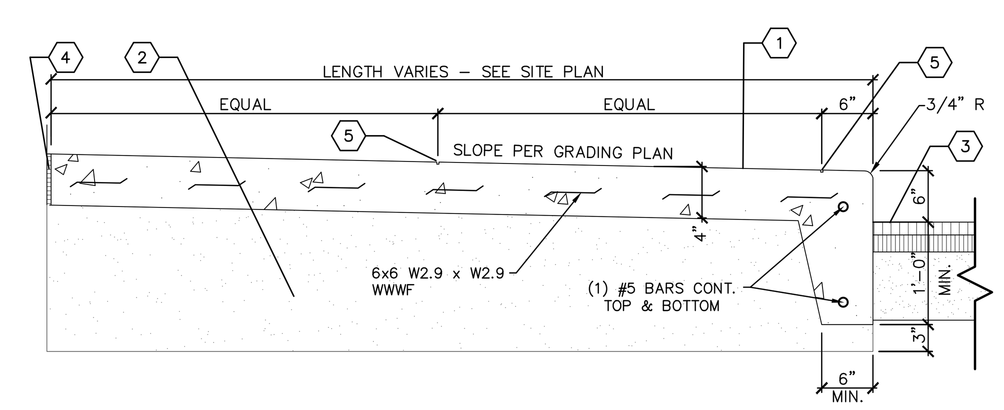


NOTE:
USE 4" SOLID WHITE PAVEMENT MARKING FOR REGULAR PARKING

ACCESSIBILITY AND PARKING STRIPING DETAIL
NOT TO SCALE



DETAIL OF RAMP GROOVES
NOT TO SCALE



KEYED NOTES
1. 4" THICK CONC. BROOM FINISH WITH 6X6 W2.9XW2.9 WWWF
2. 6" COMPACTED GRANULAR FILL
3. PROPOSED PAVEMENT
4. COMPRESSIBLE FILLER (3/4" MAXIMUM). CUT BACK AND PROVIDE SEALANT, TYPICAL, AT ALL JOINTS WITH FILLER. (BUTTING BUILDING ONLY)
5. 1/4" TOOLED JOINT (SEE TYPICAL SIDEWALK DETAIL)

TYPICAL PERIMETER SIDEWALK
NOT TO SCALE

NOTE (R7 SIGN): THIS IS A STANDARD SIGN AND MAY BE ORDERED FROM ANY TRAFFIC SIGN SUPPLIER BY NUMBER. THE SIGN MUST BE SUPPLEMENTED WITH AMOUNT OF THE FINE FOR ILLEGALLY PARKING IN THE RESERVED SPACE(S) A MUNICIPALITY MAY IMPOSE. CONFIRM WITH LOCAL REGULATIONS.

ACCESSIBILITY SIGNAGE
NOT TO SCALE

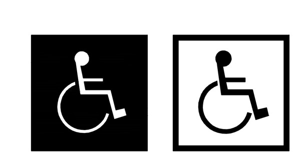
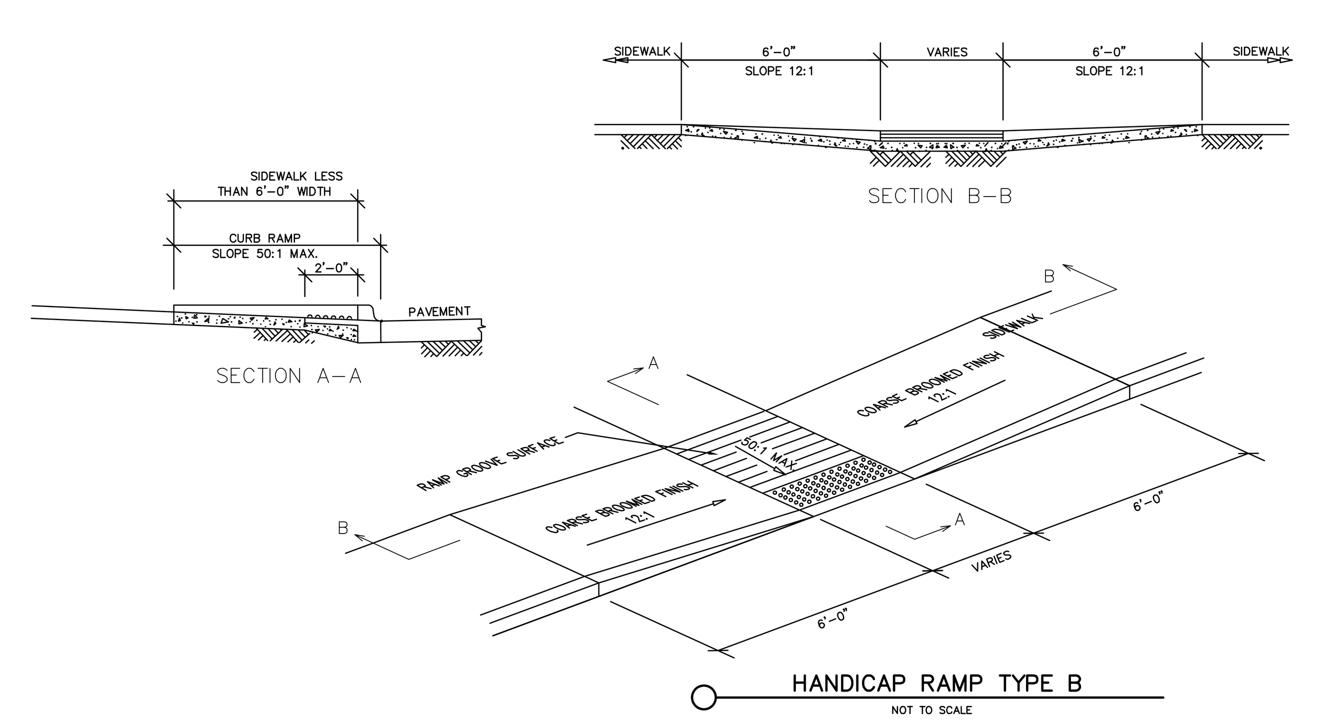


Figure 4b
INTERNATIONAL SYMBOL OF ACCESSIBILITY DISPLAY CONDITIONS
NOT TO SCALE

ADDENDUM #3
03/30/22



HANDICAP RAMP TYPE B
NOT TO SCALE

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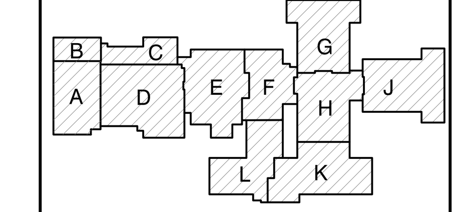

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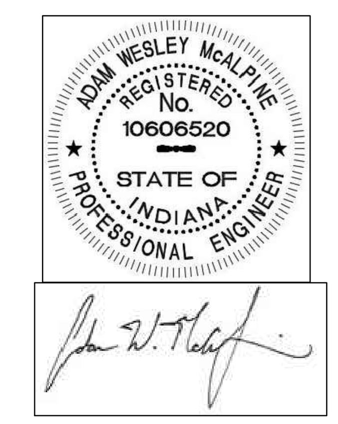

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REVISIONS

MARK	DATE	ISSUED FOR

DRAWING
DETAILS & SPECIFICATIONS 1

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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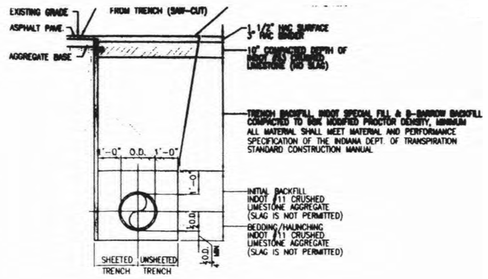
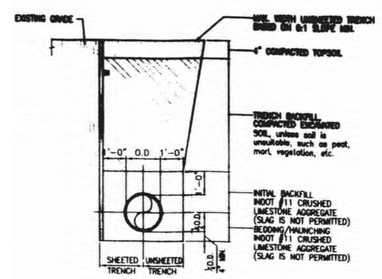
SHEET
C-5.0

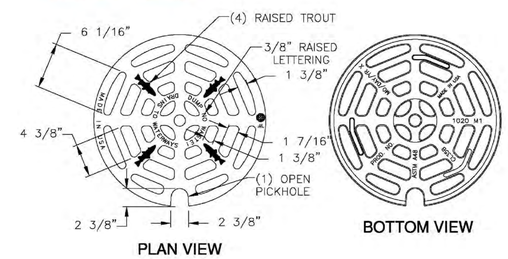


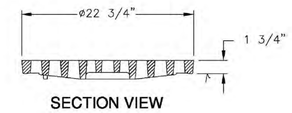
PIPE BEDDING DETAIL
FOR TRENCH IN PAVED AREAS
NOT TO SCALE



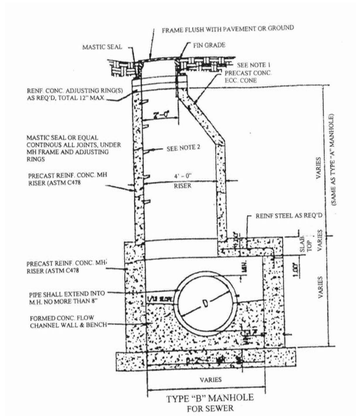
PIPE BEDDING DETAIL
FOR TRENCH IN GRASS AREAS
NOT TO SCALE

1020M1 Grate



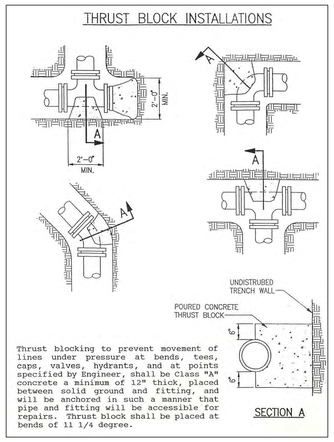


1020M1 GRATE
NOT TO SCALE

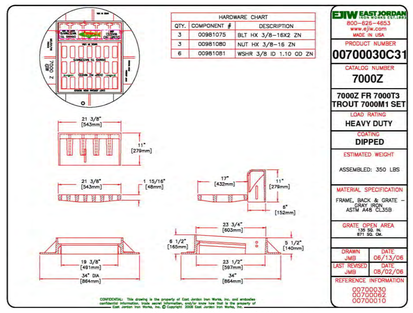


NOTE:
1. EXTERNAL M.H. FRAME-CHIMNEY SEAL AS MANUFACTURED BY CRETEX SPECIALTY PRODUCTS OR EQUAL REQ'D FOR ALL MANHOLES.
2. COPOLYMER/STEEL M.H. STEPS AS MANUFACTURED BY M.A. INDUSTRIES, INC., OR EQUAL, AT 16" O.C.
3. MECHANICAL JOINT - MEG A LUG AND FIELD LOK 350 GASKET REQUIRED

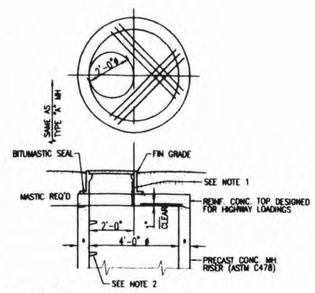
TYPE "B" MANHOLE
NOT TO SCALE



THRUST BLOCK DETAILS
NOT TO SCALE



HIGH BACK CATCH BASIN INLET
NOT TO SCALE

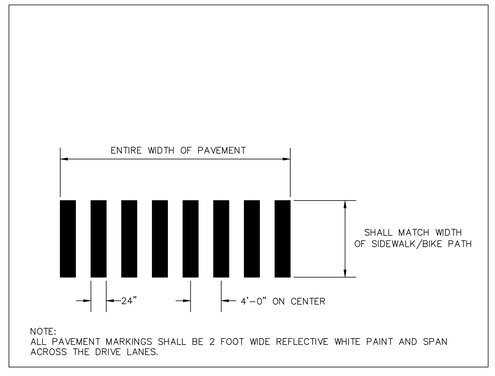


*MANHOLE WALL THICKNESS TABLE

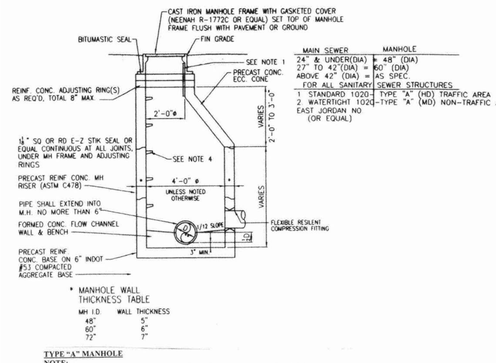
MH I.D.	WALL THICKNESS
48"	5"
60"	6"
72"	7"

TYPE "C" (FLAT TOP) MANHOLE
USED WHERE RESTRICTED HEAD ROOM WILL NOT ALLOW FOR TAPERED WALLS
NOTE:
1. EXTERNAL MH FRAME-CHIMNEY SEAL AS MANUFACTURED BY CRETEX SPECIALTY PRODUCTS OR EQUAL REQ'D FOR ALL MANHOLES.
2. COPOLYMER/STEEL MH STEPS AS MANUFACTURED BY M.A. INDUSTRIES INC., OR EQUAL, AT 16" O.C. (MAX)

TYPE "C" (FLAT TOP) MANHOLE
USED WHERE RESTRICTED HEAD ROOM WILL NOT ALLOW FOR TAPERED WALLS
NOT TO SCALE



CONTINENTAL CROSSWALK DETAIL
NO SCALE



MAIN SEWER	MANHOLE
24" & UNDER(DIA)	48" (DIA)
27" TO 42"(DIA)	60" (DIA)
ABOVE 42" (DIA)	AS SPEC

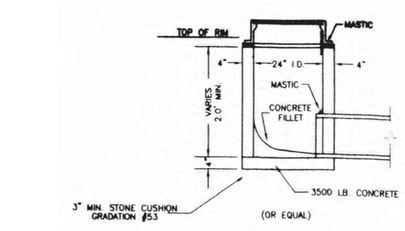
FOR ALL SANITARY SEWER STRUCTURES
1 STANDARD 1020 - TYPE "A" (HD) TRAFFIC AREA
2 WATERTIGHT 1020 - TYPE "A" (MD) NON-TRAFFIC
EAST JORDAN NO. (OR EQUAL)

* MANHOLE WALL THICKNESS TABLE

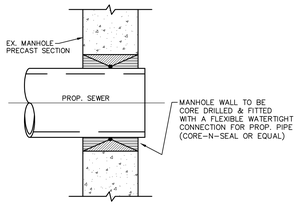
MH I.D.	WALL THICKNESS
48"	5"
60"	6"
72"	7"

TYPE "A" MANHOLE
NOTE:
1. EXTERNAL MH FRAME-CHIMNEY SEAL AS MANUFACTURED BY CRETEX SPECIALTY PRODUCTS OR EQUAL REQ'D FOR ALL MANHOLES.
2. WHERE DEPTH FROM TOP OF CASTING TO INVERT IS LESS THAN 5'-0", USE FLAT TOP MANHOLE TYPE "C" IN LIEU OF ECCENTRIC CONE.
3. WATERTIGHT SEAL IS REQ'D BETWEEN PRECAST RISER AND SEWER PIPE
4. COPOLYMER/STEEL MH STEPS AS MANUFACTURED BY M.A. INDUSTRIES, INC., OR EQUAL, AT 16" O.C. (MAX)
** FOR PIPE SIZE RANGING FROM8" TO 30" IN DIAMETER.

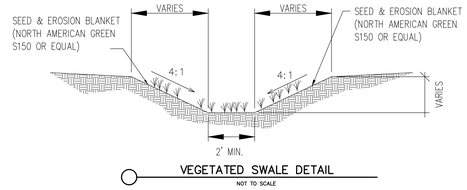
TYPE "A" MANHOLE
NOT TO SCALE



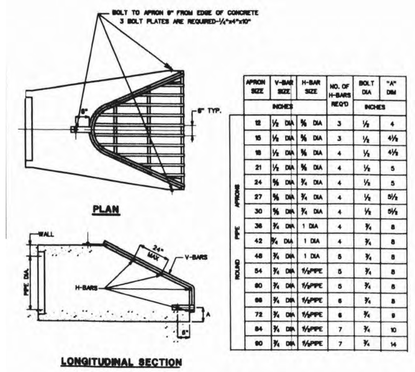
STANDARD INLET
NOT TO SCALE



PIPE CONNECTION DETAIL
TO EXISTING MANHOLE
NOT TO SCALE



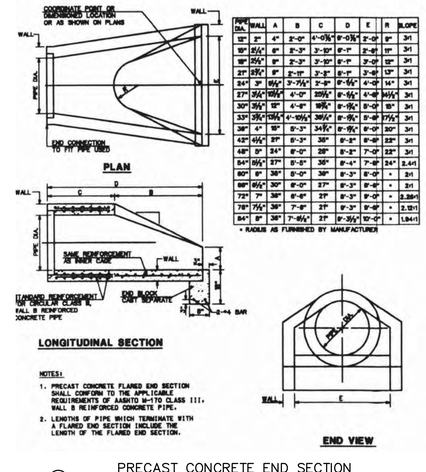
VEGETATED SWALE DETAIL
NOT TO SCALE



APRON SIZE	V-BAR SIZE	H-BAR SIZE	NO. OF H-BARS REQ'D	BOLT DIA	"A" DIM
	INCHES			INCHES	
PIPE 12	½ DIA	⅝ DIA	3	½	4
15	½ DIA	⅝ DIA	3	½	4½
18	½ DIA	⅝ DIA	4	½	4½
21	½ DIA	⅝ DIA	4	½	5
24	⅝ DIA	¾ DIA	4	½	5
27	⅝ DIA	¾ DIA	4	½	5½
30	⅝ DIA	¾ DIA	4	½	5½
ARCH 36	¾ DIA	1 DIA	4	¾	8
42	¾ DIA	1 DIA	4	¾	8
48	¾ DIA	1 DIA	5	¾	8
54	¾ DIA	1¼"PIPE	5	¾	8
60	¾ DIA	1¼"PIPE	5	¾	8
66	¾ DIA	1¼"PIPE	6	¾	8
72	¾ DIA	1¼"PIPE	6	¾	9
84	¾ DIA	1¼"PIPE	7	¾	10
90	¾ DIA	1¼"PIPE	7	¾	14

NOTES:
1. BARS AND PLATES ARE HOT-ROLLED STEEL.
2. BARS, PLATES AND PIPE ARE FINISHED WITH 2 COATS OF ALUMINUM PAINT.
3. BOLTS ARE GALVANIZED.

GRATING DETAIL
NOT TO SCALE



PIPE DIA.	WALL	A	B	C	D	E	R	SLOPE
12"	2"	4"	2'-0"	4'-0⅞"	9'-0⅞"	2'-0"	8"	3:1
15"	2½"	6"	2'-3"	3'-10"	8'-7"	2'-6"	11"	3:1
18"	2½"	8"	2'-3"	3'-10"	8'-7"	3'-0"	12"	3:1
21"	2½"	8"	2'-11"	3'-3"	8'-1"	3'-6"	13"	3:1
24"	2"	10½"	3'-7½"	2'-8"	8'-5½"	4'-0"	14"	3:1
27"	2½"	10½"	4'-0"	2'-0½"	8'-5½"	4'-6"	14½"	3:1
30"	2½"	12"	4'-6"	1'-9½"	8'-5½"	5'-0"	15"	3:1
33"	2½"	13½"	4'-10½"	1'-6½"	8'-5½"	5'-6"	17½"	3:1
36"	4"	15"	5'-3"	1'-1½"	8'-5½"	6'-0"	20"	3:1
42"	4½"	21"	6'-3"	0"	8'-2"	6'-6"	22"	3:1
48"	5"	24"	6'-0"	0"	8'-3"	7'-0"	22"	3:1
54"	5½"	27"	5'-0"	0"	8'-4"	7'-6"	24"	2.4:1
60"	6"	30"	5'-0"	0"	8'-3"	8'-0"	*	2:1
66"	6½"	30"	6'-0"	0"	8'-3"	8'-6"	*	2:1
72"	7"	30"	6'-6"	0"	8'-3"	9'-0"	*	2.25:1
78"	7½"	30"	7'-6"	0"	9'-3"	9'-6"	*	2.12:1
84"	8"	30"	7'-6½"	0"	9'-3½"	10'-0"	*	1.94:1

* RADIUS AS FURNISHED BY MANUFACTURER

PRECAST CONCRETE END SECTION
NOT TO SCALE

ADDENDUM #3
03/30/22

GIBRALTAR DESIGN
ARCHITECTURE ENGINEERING INTERIOR DESIGN

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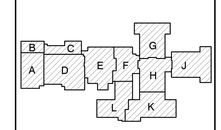
Valparaiso, IN 46383
Phone: 219.252.9647
E-Mail: mcalpine.consulting@yahoo.com

GIBRALTAR DESIGN
9102 N. Meridian St., Ste. 300
Indianapolis, IN 46260
Homepage www.GibraltarDesign.com
Email info@GibraltarDesign.com
Phone 317.580.5777 Fax 317.580.5778

PROJECT
WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS
DUNELAND SCHOOL CORPORATION
CHESTERTON, INDIANA



PROJECT
21-141
DATE
02/28/22
COORDINATED BY
AWM
DRAWN BY
BPL
CHECKED BY
AWM

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DETAILS & SPECIFICATIONS 2

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

JOHN WESLEY McALPINE
REGISTERED
No. 10606520
STATE OF INDIANA
PROFESSIONAL ENGINEER

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SHEET
C-5.1

COLD-FORMED (LIGHT GAUGE) METAL FRAMING NOTES

1. All cold-formed steel framing members, their design, fabrication, and erection shall conform to the "SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS" of the latest edition of the AISI.
2. All framing members shall be formed from steel conforming to ASTM A653, with a minimum yield strength as follows:
   A) 12, 14 & 16 gauge members: Fy=50ksi
   B) 18, 20 gauge members: Fy=33ksi
3. All framing members shall be galvanized with a G60 coating meeting the requirements of ASTM A653, unless otherwise indicated.
4. Members shall be the Manufacturer's standard 'C'-Shaped studs/joists of the size, flange width, and gauge indicated. All members shall have a minimum flange lip return of 1/2" and satisfy the minimum properties in accordance with the Steel Stud Manufacturers Association (SSMA).
5. The gauge of all tracks shall match the gauge of the associated stud or joist, unless otherwise noted.
6. All welding shall be in accordance with AWS Specification D1.3. No welding of members less than 14 gauge in thickness is permitted without the approval of the SER. All welding shall be performed by certified welders. All welds shall be touched up with zinc rich paint in accordance with ASTM A780.
7. Provide bridging for all load-bearing studs at a maximum spacing of 48" on center.
8. Provide bridging for all non load-bearing curtain wall studs at a maximum spacing of 54" o.c. Locate one row of bridging within 18" of the top track when a single deep-leg deflection track is utilized.
9. Provide bridging for joists and rafters at midspan and at a maximum spacing of 6'-0" o.c., unless noted otherwise. All bridging shall be installed prior to the application of any loading. Connect bridging to each member by clip angles, or other approved method per the Manufacturer's requirements.
10. Provide web stiffeners at joist and rafter bearings in accordance with the Manufacturer's requirements.
11. All axially-loaded studs shall have full bearing against the track web, prior to stud and track alignment. Splices in axially loaded studs are not permitted.
12. Provide the Manufacturer's standard track, clip angles, bracing, reinforcement, fasteners, and accessories as recommended by the Manufacturer for the application indicated and as needed to provide a complete framing system. Unless otherwise indicated, install the metal framing system in accordance with the Manufacturer's shop drawings, written instructions and recommendations.
13. Install supplementary framing, blocking, and bracing in metal framing system wherever walls or partitions are indicated to support fixtures, equipment, services, casework, heavy trim and furnishings, and similar work requiring attachment to the wall or partition. Where type of supplementary support is not otherwise indicated, comply with the stud manufacturer's recommendations and industry standards in each case, considering weight or loading resulting from the item supported.
14. All field-cutting of studs must be done by sawing or shearing. Torch-cutting of cold-formed members is not allowed.
15. No notching or coping of studs is allowed, unless explicitly shown on the design or shop drawings. All field-cut holes must be reinforced.
16. The Framing Contractor is to ensure punch out alignment when assembling lateral bracing/bridging and field-cutting studs to length. Lateral bracing/bridging must be installed at the time the wall is erected.
17. Temporary bracing shall be provided and remain in place until work is completely stabilized.
18. Use a minimum of three studs at the corners of all exterior walls.
19. Use a minimum of three studs at the intersections and corners of all load-bearing walls.
20. All headers and built-up beams must be constructed of UNPUNCHED material only. Install insulation in built-up exterior framing members, such as headers, sills, boxed joists, and multiple studs at openings, that are inaccessible on completion of framing work.
21. Shop drawings: Show layout, spacings, sizes, thicknesses, types of cold-formed metal framing, and fastening and anchorage details, including mechanical fasteners. Show reinforcing channels, opening framing, supplemental framing, strapping, bracing, bridging, splices, accessories, connection details, and attachment to adjoining work.
22. For cold-formed metal framing indicated to comply with design loads, include structural analysis data signed and sealed by the qualified professional engineer (SSE) responsible for their preparation.
23. Structural Performance: Provide cold-formed metal framing capable of withstanding design loads within limits and under conditions indicated.
   A) Design Loads: Reference the Design Criteria Notes.
   B) Deflection Limits: Design framing systems to withstand design loads without deflections greater than the following:
      1. Wall Framing: Horizontal deflection of 1/240 of the wall height for walls with flexible finishes, e.g. metal siding, wood siding, EIFS, etc.
      2. Wall Framing: Horizontal deflection of 1/360 of the wall height for walls with cementitious finishes, e.g. cement plaster.
      3. Wall Framing: Horizontal deflection of 1/600 of the wall height for walls with masonry veneer finishes.
      4. Floor Joist Framing: Vertical deflection of 1/480 of the span under live load. Limit deflection under total load (dead + live) to 1/360 of the span.
      5. Roof Framing: Vertical deflection of 1/360 of the span under live/snow load. Limit deflection under total load (dead + live/snow) to 1/240 of the span.
24. Design framing systems to provide for movement of framing members without damage or overstressing, sheathing failure, undue strain on fasteners and anchors, or other detrimental effects when subject to an ambient temperature change of not less than 120 degrees F.
25. Design framing system to maintain clearances at openings, to allow for construction tolerances, and to accommodate live load deflection of primary building structure as follows: Upward and downward movement of 3/4 inch.
26. Design exterior non load-bearing curtain wall framing to accommodate horizontal deflection without regard for contribution or sheathing materials.

SPECIALTY STRUCTURAL ENGINEERING (SSE)

1. A Specialty Structural Engineer is defined as a Professional Engineer licensed in the State of Indiana, not the Structural Engineer of Record, who performs Structural Engineering functions necessary for the structure to be completed and who has shown experience and/or training in the specific speciality.
2. It is the Specialty Structural Engineer's responsibility to review the Construction Drawings and Specifications to determine the appropriate scope of engineering.
3. It is the intent of the Drawings and Specifications to provide sufficient information for the Specialty Structural Engineer (SSE) to perform his design and analysis. If the SSE determines there are details, features, or unanticipated project limits which conflict with the engineering requirements as described in the project documents, the SSE shall in a timely manner, contact the Structural Engineer of Record for resolution of conflicts.
4. The Specialty Structural Engineer (SSE) shall forward documents to the Structural Engineer of Record for review. Such documents shall bear the stamp of the SSE and include:
   A) Drawings introducing engineering input, such as defining the configuration or structural capacity of structural components and/or their assembly into structural systems.
   B) Calculations.
   C) Computer printouts which are an acceptable substitute for manual calculations provided they are accompanied by sufficient design assumptions and identified input and output information to permit their proper evaluation. Such information shall bear the stamp of the Specialty Engineer as an indication that said engineer has accepted responsibility for the results.
5. Contractors are referred to the specific technical specification sections and the structural drawings for those elements requiring Specialty Structural Engineering. Examples of components requiring Specialty Structural Engineering include, but are not limited to the following:
   A) Shoring and Bracing Systems.
   B) Structural Steel Connections.
   C) Steel Joist Systems.
   D) Steel Stairs.
6. When modifications are proposed to elements under the design and certification of the Specialty Structural Engineer (SSE), written authorization by the SSE must be obtained and submitted to the Engineer of Record for review, prior to performing the proposed modification.

STEEL DECK NOTES

1. All steel deck material, fabrication and installation shall conform to the Steel Deck Institute "SDI SHORT FORM SPECIFICATIONS" and "SDI CODE OF STANDARD PRACTICE," current edition, unless noted.
2. Provide members for deck support at all deck span changes. Provide L3x3x3/16 deck support at all columns where required.
3. All deck shall be provided in a minimum of 3-span lengths where possible.
4. All welding of steel deck shall be in conformance with AWS Specification D1.3. Provide welding washers for all floor decks less than 22 gauge in thickness.
5. Mechanical fasteners may be used in lieu of welding, providing fasteners meet, or exceed the strength of specified welds. Submit fastener design data to the Structural Engineer of Record for review.
6. Substitution of fiber secondary reinforcement for welded wire fabric on supported slabs is prohibited.
7. Do not suspend any items, such as ductwork, mechanical and electrical fixtures, ceilings, etc. from steel deck.
8. Roof deck sidelaps shall be attached at ends of cantilevers and at a maximum spacing 12" o.c. from cantilevered roof deck ends. The roof deck must be completely fastened to the supports and at the sidelaps before any load is applied to the cantilever.
9. Submit shop drawings for review of general conformance to design concept in accordance with Specifications in the Project Manual. Erection drawings shall show type of deck, shop finish, accessories, method of attachment, edge details, deck openings and reinforcement, and sequence of installation.
10. Installation holes shall be sealed with a closure plate 2 gauges thicker than deck and mechanically fastened to deck. Steel deck holes visible from below will be rejected. Deck units that are bent, warped, or damaged in any way which would impair the strength and appearance of the deck shall be removed from the site.
11. Where gauge metal pourstops are indicated, supply pourstops designed to meet, or exceed the gauges listed in the SDI Pourstop Selection Table (min. 18 ga.) as required for slab depth, concrete weight, and cantilever distance, unless noted otherwise.
12. The Erector shall shim between parallel roof beams and joists with differential mill and induced cambers for level deck bearing.

STEEL CONNECTION NOTES

1. Typical beam-to-beam and beam-to-column connections shall be bearing type using A325 bolts, unless noted otherwise.
2. Shop connections unless otherwise shown, may be either bolted or welded. All field connections shall be bolted unless otherwise shown on the Structural Drawings.
3. Connections shall be designed by the Steel Fabricator to support the reactions shown on the framing plan(s). Simple span connections without reactions listed on the Structural Drawings shall be designed by the Steel Fabricator in accordance with Table 3-6 of the AISC "Manual of Steel Construction, 14th Edition". For composite beams where reactions are not indicated, design connections for 75% of the Maximum Total Uniform Load ASD value for the applicable beam size and span given in Table 3-6. For non-composite beams, design connections for 50% of the tabulated ASD value.
4. Submit calculations for connections not detailed on the Structural Drawings and not covered by the AISC Tables, including but not limited to:
   A) Column Splices.
   B) Moment Connections.
   C) Bracing Connections including Collectors and Drag Struts.
   D) Skewed Shear Connections.
5. All beam-to-beam connections shall be double angle, unless shown or noted otherwise.
6. All beam-to-column connections shall be at the column centerline, unless noted otherwise. Shear tab connections to tubes are permitted unless otherwise noted or detailed.
7. Typical beam-to-beam, and beam-to-column field-bolted connections may be tightened to the snug-tight condition, unless otherwise shown or noted.
8. Bolted connections in moment frames, bracing connections, hangers and stub columns, crane connections, and those designated PT (pretensioned) on the Drawings shall be pretensioned joints utilizing tension-control (TC) bolts or direct tension indicators. Holes for PT bolts shall be 1/16" larger than the bolt diameter. All pretensioned joints must be inspected by the Testing Agency.
9. Connect bracing members for two components of stress unless otherwise approved by the Structural Engineer of Record. Provide a minimum 2-bolt or welded field connection.
10. Locate centerlines of all vertical bracing members on column centerlines in vertical plane and on column and beam centerlines in horizontal plane, unless otherwise shown on the Structural Drawings.
11. All welding shall be in conformance with AWS D1.1, using E70XX electrodes, unless shown or noted otherwise. Welding, both shop and field, shall be performed by welders certified for the weld types and positions involved according to the current edition of AWS D1.1. Perform all AESS welds with care to provide a clean, uniform appearance.
12. Backup bars required for welded connections shall be continuous.
13. Holes in steel shall be drilled or punched. All slotted holes shall be provided with smooth edges. Burning of holes in structural steel shall not be allowed without approval of the Structural Engineer of Record.
14. The minimum thickness of all connection material shall be 5/16" unless noted.
15. Continuous bent plate and angle closures, roof edges, diaphragm chords, etc. around perimeter of the floor and roof, as well as around openings shall be welded with a minimum 1/4" fillet weld x 3" long at 12" o.c., top & bottom, unless noted otherwise. Butt weld joints in continuous diaphragm chord for continuity. For continuous perimeter angles and bent plates perpendicular to and connected to the top chords of joists, provide a minimum 3" of 1/4" weld at each joist. Continuous angle and bent plate closures may be shop-applied to the supporting structural members only when requested and approved by Structural Engineer of Record.
16. Where steel beams are called to have wood nailers supporting wood floor or roof framing, provide 1/2" diameter carriage bolts spaced at 24" on center and staggered each side of the beam web, unless noted otherwise. Carriage bolts may be over-tightened to compress the rounded head in the nailer to facilitate installation of continuous band/rim joists, rafters, trusses, etc.
17. A qualified independent Testing Agency shall be retained to perform inspection and testing of structural steel field weldaments as follows:

WELD INSPECTION SCHEDULE

WELD TYPE	VT	MT	UT	PT	CRT	COMMENTS
FILLET (SINGLE PASS)	25%	-	-	-	-	ROOT PASS AND FINISHED WELD
FILLET (MULTIPLE PASS)	50%	25%	-	-	-	
FLARE BEVEL/ FLARE V	25%	-	-	-	-	
GROOVE (PARTIAL PENETRATION)	100%	-	100%	-	-	REFERENCE NOTE 'E' BELOW
GROOVE (FULL PENETRATION)	100%	-	100%	-	-	ALL FULL PENETRATION WELDS

A) Test procedures:
   VT = Visual Test (inspection)
   MT = Magnetic Particle Test: ASTM E109, cracks or incomplete fusion or penetration not acceptable.
   UT = Ultrasonic Test: ASTM E164.
   PT = Penetrant Test: ASTM E165.
   RT = Radiographic Test: ASTM E94 and ASTM E142, min. quality level 2-21.
B) Acceptance standards in AWS D1.1 shall be followed for each test procedure.
C) Test procedures may be substituted to meet feasibility requirements of test based upon weld geometry or other factors with the approval of the Structural Engineer of Record.
D) Samples shall occur at random locations; additional tests may be required at locations noted on the Drawings.
E) Groove welds include square, bevel, V, U, and J grooves including single and double pass types.
F) Partial penetration square groove welds at end seal plates of tubular members do not require inspection.
G) Weld Procedure Specifications (WPS) shall be produced and maintained in accordance with AWS D1.1. The independent Testing Agency shall have access to all WPS's during the course of testing and inspection.
H) For highly-restrained welded joints, especially in thick plates and/or heavy structural shapes, details the welds so that shrinkage occurs as much as possible in the direction the steel was rolled. Refer to the AISC Manual for preferred welded-joint arrangements that reduce the possibility for lamellar tearing. Members scheduled to receive highly-restrained connections shall be tested by the independent Testing Agency by Ultrasonic Testing prior to commencing welding.
I) In addition to inspection requirements for fillet welds in Table above, 100% of field welding of diagonal bracing members to gusset plates shall be visually inspected (VT).

STEEL JOIST NOTES

1. All steel joists shall be designed, fabricated, and erected in accordance with SJI Standard Specifications.
2. Joist bridging (if shown) is schematically indicated. Provide all bridging necessary to conform to SJI Specifications.
3. The ends of all bridging lines terminating at walls or beams shall be anchored to the wall or beam.
4. Joist bridging and connections shall be completely installed prior to placing any construction loads on the joists. Construction loading shall not exceed the joist design load.
5. All roof joists shall be capable of resisting the net uplift a noted on the Structural Drawings (min. 15 psf net). Provide an additional row of continuous horizontal bottom chord bridging at the first panel point location at each end of all roof joists.
6. Special joists (SP) shall be designed for the load designations specified on the Structural Drawings. Designs shall properly account for the distribution of concentrated loads, live loads, and for the effect of openings. Designs are to meet the requirements of SJI.
7. Joists shall meet the following deflection criteria per SJI. Maximum live load deflection shall not exceed:
   A) Roofs without suspended ceilings: L/240
   B) Roof with suspended ceilings: L/360
   C) Floors: L/360
8. The Joist Manufacturer shall submit calculations for all special joists to Structural Engineer of Record for record purposes prior to fabrication. These calculations shall bear the seal and signature of a Professional Engineer registered in the State of Indiana.
9. Joists on column centerlines shall have extended bottom chord connections for erection stability, unless otherwise noted. Do not connect bottom chord extensions, unless otherwise noted or shown.
10. Joists on, or near column centerlines shall have field-bolted connections for erection stability, unless otherwise noted.
11. The Joist Manufacturer shall coordinate with the Structural Steel Fabricator for the design of all connections to support columns, beams, bearing seats, etc. prior to submittal of shop drawings.
12. Where a joist is part of a moment-resisting frame, delay the connection of the bottom chord to the column until all dead loads have been placed. All field-bolted and field-welded connections in moment-resisting frames shall be inspected per AWS and AISC requirements.
13. The Joist Manufacturer shall furnish evidence that the joist meets or exceeds the specified minimum moment of inertia (Ix) listed on the Plans. Where a minimum Ix value is not specified, the Ix value can be that required to meet the specified loading and deflection criteria.
14. All steel joists shall be furnished with standard SJI camber, unless noted otherwise.
15. All items suspended from joists such as catwalks, basketball goals, operable partitions, etc. should be installed after all dead loads of roofing, flooring, ceilings, etc. are installed.
16. All joists shall be shop primed in accordance with SJI requirements, unless note otherwise. Color to match structural steel primer, unless approved in writing.
17. Provide sloped bearing ends where joist slope exceeds 1/4" per foot.
18. Do not field cut or alter joists without the written approval of the Joist Manufacturer.

STEEL STAIRS

1. Refer to the Design Criteria notes for live load and handrail requirements.
2. All stair designs shall be provided by the Stair Manufacturer/Fabricator's Specialty Structural Engineer and shall be stamped by a Professional Engineer registered in the State of Indiana. Stair designs shall be in accordance with all applicable code provisions of the IBC.
3. The Stair Manufacturer/Fabricator's Specialty Structural Engineer shall provide the Structural Engineer of Record with drawings showing location, direction and magnitudes of all stair load reactions on the building structure for approval, prior to fabrication.
4. The Stair Manufacturer/Fabricator shall coordinate the transition between the supported structural floor slab and the stair structure with the Structural Steel Fabricator, prior to fabrication.
5. Refer to the Architectural Drawings for stair width, rise, run, tread and riser geometry, handrail and guardrail design, shaft wall construction, etc.

GENERAL NOTES

1. The Contractor shall be responsible for complying with all safety precautions and regulations during the work. The Structural Engineer of Record will not advise on, nor issue direction as to safety precautions and programs.
2. The Structural Drawings herein represent the finished structure. The Contractor shall provide all temporary guying and bracing required to erect and hold the structure in proper alignment until all Structural Work and connections have been completed. The investigation, design, safety, adequacy and inspection of erection bracing, shoring, temporary supports, etc. is the sole responsibility of the Contractor.
3. The Structural Engineer of Record (SER) shall not be responsible for the methods, techniques and sequences are not specifically shown, similar details of construction shall be used, subject to approval of the SER.
4. Drawings indicate general and typical details of construction. Where conditions are not specifically shown, similar details of construction shall be used, subject to approval of the Structural Engineer of Record.
5. All structural systems which are to be composed of components to be field erected shall be supervised by the Supplier during manufacturing, delivery, handling, storage, and erection in accordance with the Supplier's instructions and requirements.
6. Loading applied to the structure during the process of construction shall not exceed the safe load-carrying capacity of the structural members. The live loading used in the design of this structure are indicated in the "Design Criteria Notes." Do not apply any construction loads until structural framing is properly connected together and until all temporary bracing is in place.
7. All ASTM and other referenced standards and codes are for the latest editions of these publications, unless otherwise noted.
8. Shop drawings and other items shall be submitted to the Structural Engineer of Record (SER) for review prior to fabrication. All Shop Drawings shall be reviewed by the Contractor before submittal. The SER's review is to be fore conformance with the design concept and general compliance with the relevant Contract Documents. The SER's review does not relieve the Contractor of the sole responsibility to review, check, and coordinate the Shop Drawings prior to submission. The Contractor remains solely responsible for errors and omissions associated with the preparation of Shop Drawings as they pertain to member sizes, details, dimensions, etc.
9. Submit Shop Drawings in the form of blueline/blackline prints (min. 2 sets/ max. 5 sets) and one reproducible blackline or sepia copy. In no case shall reproductions of the Contract Documents be used as shop drawings. As a minimum, submit the following items for review.
   A. Concrete Mix Design(s).
   B. Reinforcing Steel Shop Drawings.
   C. Structural Steel Shop Drawings.
   D. Steel Joist Shop Drawings.
   E. Steel Deck Shop Drawings.
   F. Cold-Formed Steel Framing Systems. AD.01
   G. Existing Framing Shoring Systems.
10. Resubmitted Shop Drawings: Resubmitted shop drawings are reviewed only for responses to comments made in the previous submittal.
11. When calculations are included in the submittals for components of work designed and certified by a Specialty Structural Engineer (SSE), the review by the Structural Engineer of Record (SER) shall be for conformance with the relevant Contract Documents. The SER's review does not relieve the SSE from responsibility for the design of the system(s) and the coordination with the elements of the structure under the certification of the SER, or other SSE's. The SER's review does not constitute a warranty of the accuracy or completeness of the SSE's design.
12. Contractors shall visit the site prior to bid to ascertain conditions which may adversely affect the work or cost thereof.
13. No structural member may be cut, notched, or otherwise reduced in strength without written direction from the Structural Engineer of Record.
14. When modifications are proposed to structural elements under the design and certification of a Specialty Structural Engineer (SSE), written authorization by the SSE must be obtained and submitted to the Structural Engineer of Record for review, prior to performing the proposed modification.

MINIMUM COVER FOR REINFORCEMENT

	MINIMUM COVER
SUSPENDED SLABS AND JOISTS	
TOP & BOTTOM BARS FOR DRY CONDITIONS:	
#11 BARS & SMALLER	3/4"
#14 & #18 BARS	1 1/2"
FORMED CONCRETE SURFACES EXPOSED TO EARTH, WATER, OR WEATHER, AND OVER OR IN CONTACT WITH SEWAGE AND FOR BOTTOMS BEARING ON WORK MAT, OR SLABS SUPPORTING EARTH COVER:	
#5 BARS & SMALLER	1 1/2"
#6 THROUGH #18 BARS	2"
BEAMS & COLUMNS, FORMED	
FOR DRY CONDITIONS:	
STIRRUPS, SPIRALS & TIES	1 1/2"
PRINCIPAL REINFORCEMENT	2"
EXPOSED TO EARTH, WATER, SEWAGE, OR WEATHER:	
STIRRUPS & TIES	2"
PRINCIPAL REINFORCEMENT	2 1/2"
WALLS	
FOR DRY CONDITIONS:	
#11 BARS & SMALLER	3/4"
#14 & #18 BARS	1 1/2"
FORMED CONCRETE SURFACES EXPOSED TO EARTH, WATER, SEWAGE, WEATHER, OR IN CONTACT WITH GROUND	2"
FOOTINGS & BASE SLABS	
AT FORMED SURFACES & BOTTOMS BEARING ON CONCRETE WORK MAT	2"
AT UNFORMED SURFACES & BOTTOMS IN CONTACT WITH EARTH	3"
TOP OF FOOTINGS	SAME AS SLABS
OVER TOP OF PILES	2"

POST-INSTALLED DOWELS & ANCHOR BOLTS/RODS

1. All reinforcing steel and threaded rod anchors to be installed in a 2-part chemical anchoring system shall be treated as follows:
   A. Drill holes larger than bar or rod to be embedded. Coordinate hole diameter with Manufacturer's recommendations.
   B. Holes must be cleaned and prepared in accordance with Manufacturer's recommendations.
   C. When reinforcing steel is encountered during drilling for installation of anchors; stop drilling, use a sensor to locate the reinforcing in the surrounding area and install anchor(s) as close as possible to the original location. Contact the Structural Engineer of Record (SER) for direction when the revised location is more than 2" from the original location, or when the original function of the anchorage is significantly altered. When in doubt, contact the SER for direction.
   D. Drill the hole a minimum of 15 bar diameters or as shown on the plans.
   E. Use a 2-part adhesive anchoring system, Hilti HY-200, or approved equal.
   F. For anchorage into hollow substrate, use Hilti HY-270, or approved equal.
   G. Reinforcing steel dowels shall be ASTM A615, Grade 60, unless noted.
   H. Anchor rods shall be Hilti HAS-V-36, unless noted. Provide finish as noted on the Drawings. If not noted, provide hot-dip galvanized finish for interior applications. Provide stainless steel finish for all exterior applications, unless noted.
2. When column anchor bolts have been omitted, or damaged by construction operations, the Contractor must obtain the written approval of the Structural Engineer of Record prior to repair or replacement.
   A. As a precaution, the affected column must be guyed and braced after repair for the balance of the erection period.
   B. As an alternate to guying and bracing, the Contractor may at his option, employ a testing agency to perform a tensile pull test to confirm the strength for the repaired or replaced anchor bolt. The tensile proof load must exceed 1.33 x the design load of the original anchor without causing distress of the anchor bolt or the surrounding concrete. Reference the following table for the minimum proof loads:
      3/4" diameter: 12.8 kips
      7/8" diameter: 17.4 kips
      1" diameter: 22.7 kips
      1 1/8" diameter: 28.8 kips
      1 1/4" diameter: 35.6 kips
      Note: Values listed above are for ASTM F-1554, Grade 36 material. When higher grade or strength materials are specified, refer to the AISC Steel Design Guide 1, Table 3.1 for minimum allowable loads to be multiplied by 1.33.
   C. When affected anchor bolts are part of a fixed moment resisting column base, such as those in moment-resisting space frames, canopies, or fixed-base installations, the repaired anchor bolts must be proof-loaded, or the affected column footing and/or pier replaced in its entirety.
   D. When affected anchor bolts are part of a braced frame the affected column footing and/or pier must be replaced in its entirety.
   E. Prior to erection, the controlling Contractor must provide written notification to the Steel Erector if there has been a repair, replacement or modification of the anchor bolts for that column.

REINFORCED MASONRY NOTES

1. All construction of reinforced masonry walls to be in accordance with the Building Code Requirements for Concrete Masonry Structures (ACI 530) and Commentary.
   A) f'm = 2000 PSI
   B) Maximum height of masonry lift: 5'-0"
   C) Maximum height of grout lift: 5'-0"
   D) See Specifications for additional masonry wall information.
2. CONCRETE BLOCK: Minimum compressive test strength on the net cross-sectional area: 2800 PSI.
3. MORTAR: Type S required.
4. GROUT: ASTM C476, 2500 PSI with a slump of 8" min. and 11" max.
5. REINFORCING: fy = 60000 PSI with a min. lap of 48 bar diameters.

DESIGN CRITERIA

1. DESIGN STANDARDS: The intended design standards and/or criteria are as follows:

General	The 2014 Indiana Building Code (2012 International Building Code (IBC) with Indiana Amendments)
Concrete	ACI 318
Masonry	ACI 530
Steel	AISC Manual, Allowable Stress Design (ASD)
Steel Joists/Girders	Steel Joist Institute
Steel Deck	Steel Deck Institute
Cold-Formed Metal	AISI-ASD
Wood Framing	NDS
Wood Trusses	TPI
Glu-Lam Construction	AITC

   All referenced standards and codes, as well as ASTM numbers, are for the editions of these publications referenced in the Building Code listed above, unless otherwise noted.
2. DEAD LOADS: Gravity Dead Loads used in the design of the structure are as computed for the materials of construction incorporated into the building, including but not limited to walls, floors, ceilings, stairways, fixed partitions, finishes, cladding and other similar architectural and structural items, as well as mechanical, electrical and plumbing equipment and fixtures, and material handling and fixed service equipment, including the weight of cranes.
3. LIVE LOADS: Gravity live loads used in the design of the structure meet, or exceed the following table (IBC 2012, 1607.1):

OCCUPANCY OR USE	UNIFORM (PSF)	CONCENTRATED (LB) [Note #1]
A. Schools		
1. Classrooms	40	
2. First Floor Corridors	100	
3. Corridors Above 1st Floor	80	

   Note #1: Unless otherwise noted, the indicated concentrated load has been assumed to be uniformly distributed over an area of 30" x 30".
4. LIVE LOAD REDUCTION: Live load reductions in accordance with IBC 1607.9 have been used with the following exceptions:
   A. Heavy live loads in excess of 100 PSF have not been reduced except for members supporting 2 or more floors have been reduced by a maximum of 20%.
   B. The live load in passenger car garages have not been reduced except for members supporting 2 or more floors have been reduced by a maximum of 20%.
   C. Live loads of 100 PSF or less for public assembly occupancies have not been reduced.
   D. Live loads for roof members have not been reduced.
   E. Live loads for the design of one-way slabs have not been reduced.
5. PARTITION ALLOWANCE: a uniform partition allowance of 15 PSF has been used to account for the load of all floors where partition locations are subject to change, unless the specified live load exceeds 80 PSF.
6. COLLATERAL LOAD: Unless otherwise noted, a minimum uniform collateral load of 10 PSF has been used to account for ductwork, ceilings, sprinklers, lighting, etc. The collateral load is in addition to the weight of mechanical units, larger piping (greater than 4" diameter) and suspended fixtures or equipment that have been specifically accounted for in the design.
7. COLLATERAL LOAD ABOVE CORRIDORS & MECHANICAL ROOMS: A minimum uniform collateral load of 20 PSF has been used to account for large ductwork, sprinkler mains, concentrations of piping, and electrical distribution above corridors and mechanical rooms. The collateral load is in addition to the weight of mechanical units and larger piping (greater than 4" diameter) and suspended fixtures or equipment that have been specifically accounted for in the design.
8. CONCENTRATED LOADS:
   All single panel points of the lower chord of exposed roof trusses or any point along the primary structural members supporting roofs over manufacturing, commercial storage and warehousing, and commercial garage floors shall be capable of carrying safely a suspended concentrated load of not less than 2000 LBS in addition to dead load.
   All single panel points of the lower chord of exposed roof trusses or any point along the primary structural members supporting roofs over all other occupancies shall be capable of carrying safely a suspended concentrated load of not less than 200 LBS in addition to dead load, unless noted.
9. ROOF LIVE/SNOW LOADS: Gravity Live Loads used in the design of the roof structure meet or exceed the following table:

A. Snow Load	
Ground Snow Load, Pg	20 PSF
Flat Roof Snow Load, Pf	14 PSF
Low Slope Minimum Snow Load, Pm	20 PSF
Exposure Factor, Ce	1.0
Risk Category (IBC Table 1604.5)	II
Snow Importance Factor, Is	1.0
Thermal Factor, Ct	1.0
B. Minimum Roof Live Load	20 PSF
C. Overhang Eaves & Projections	28 PSF

   1. Sloped roof snow loads calculated in accordance with Section 7.4, ASCE 7.
   2. Unbalanced roof snow loads calculated in accordance with Section 7.6, ASCE 7. Specialty Structural Engineers must consider unbalanced snow loads in the design of pre-engineered trusses, frames, skylights, curtain walls, cold-formed metal framing, canopies, etc.
   3. Drift loads calculated in accordance with Section 7.7, ASCE 7.
   4. Roofs used for roof gardens or assembly purposes have been designed for a minimum live load of 100 PSF.
10. LATERAL LOADS: Lateral loads were computed using the following criteria:

A. Wind Load	
Ultimate Design Wind Speed, Vult	120 MPH
Nominal Design Wind Speed, Vasd	90 MPH
Wind Exposure Category	C
Risk Category (IBC Table 1604.5)	III
Internal Pressure Coefficient, GCpi	± 0.18
B. Seismic Load	
Site Classification	B
Risk Category (IBC Table 1604.5)	III
Seismic Importance Factor, Ie	1.0
Mapped Spectral Response Acceleration, Ss	0.115g
Mapped Spectral Response Acceleration, S1	0.062g
Design Spectral Response Acceleration, Sds	0.123g
Design Spectral Response Acceleration, Sd1	0.099g
Seismic Design Category, SDC	B
Response Modification Coefficient, R	3
Seismic Response Coefficient, Cs	0.xxx
Analysis Procedure	Equivalent Lateral Force
Base Seismic Force-Resisting System (ASCE 7-10, Table 12.2-1)	xxx

11. SAFETY FACTORS: This structure has been designed with 'Safety Factors' in accordance with accepted principles of structural engineering. The fundamental nature of the 'Safety Factor' is to compensate for uncertainties in the design, fabrication, and erection of structural building components. It is intended that 'Safety Factors' be used such that the load-carrying capacity of the structure does not fall below the design load and that the building will perform under design load without distress. While the use of 'Safety Factors' implies some excess capacity beyond design load, such excess capacity cannot be adequately predicted and SHALL NOT BE RELIED UPON.
12. UPLIFT DESIGN CRITERIA: Joist and deck connections shall be capable of resisting the following NET wind uplift pressures:

AD.03

WIND UPLIFT NET PRESSURE TABLE

HEIGHT	ZONE 1 (INTERIOR ZONES)	ZONE 2 (END ZONES)	ZONE 3 (CORNER ZONES)
0-15'	26 PSF	33 PSF	40 PSF

NOTE: SEE ASCE 7-10, FIGURE 30.5 - 1 FOR DEFINITION OF ZONES. a = 8'-0"

LINTEL SCHEDULE

1. Where lintels are not specifically shown or noted on the Structural or Architectural Drawings, provide the following lintels over all openings and recesses in both interior and exterior non-load-bearing walls.
   A) Brick:

Masonry Opening	Angle Size
Up to 5'-0"	L4x4x5/16
Over 5'-0" & up to 7'-0"	L6x4x5/16
Over 7'-0"	L7x4x3/8

   All angles are LLV (long leg vertical), unless noted otherwise. Provide 1" of bearing per foot of span each end with minimum 8". All lintels in exterior walls are to be hot-dip galvinized.
   B) Block: For openings up to 8'-0" long exposed in the finished room, use lintel block filled with grout. Grout all exposed joints and reinforce as follows:
      1) For 6" thick block: 1 - #5 bar
      2) For 8" thick block: 2 - #5 bars
      3) For 10" thick block: 2 - #6 bars
      4) For 12" thick block: 2 - #6 bars
   C) Block: For openings over 8'-0" & up to 12'-0" long exposed in the finished room, use lintel block filled with grout. Grout all exposed joints and reinforce per the "Long Masonry Lintel Detail" on the Typical Masonry Detail Drawing.
   D) Block (stack bond openings over 4'-0"): See framing plans for steel beam lintels. Where not shown on plan, the criteria in the following table shall be used. Contact Structural Engineer of Record for lintels not shown on plan which do not meet this criteria. See architectural drawings for opening quantities, sizes, locations, heights of wall above, etc.

Block 't'	LINTEL	WIDTH OF OPENING	MAX. ALLOW. HEIGHT OF CMU ABOVE LINTEL
6"	C8x11.5 w/ CONTIN. PL 3/8 x 5	≤ 8'-0"	30'-0"
		≤ 12'-0"	8'-0"
8"	W8x13 w/ CONTIN. PL 3/8 x7	≤ 8'-0"	30'-0"
		≤ 12'-0"	8'-0"
10"	W8x13 w/ CONTIN. PL 3/8 x 9	≤ 8'-0"	25'-0"
		≤ 12'-0"	8'-0"
12"	W8x28 w/ CONTIN. PL 3/8 x11	≤ 8'-0"	40'-0"
		≤ 12'-0"	18'-0"

AD.03

2. For all new openings in existing load bearing masonry walls not shown in the Structural drawings (i.e. for HVAC, Plumbing, etc.).:
   A. Openings ≥ 8" BUT < 6'-0", use W8x18 lintels w/ 3/8" bottom plates.
   B. Openings > 6'-0" BUT ≤ 12'-0", use W8x28 lintels w/ 3/8" bottom plates.
   C. Openings > 12'-0" use W16x40 lintels w/ 3/8" botom plates.
   Field verify all existing wall widths. New bottom plate width = (exist. wall width) - 1". All lintels to have min. 8" bearing on each end.

CONCRETE REINFORCING

1. Reinforcement, other than cold drawn wire for spirals and welded wire fabric, shall have deformed surfaces in accordance with ASTM A305.
2. Reinforcing steel shall conform to ASTM A615, Grade 60, unless noted.
3. Welded wire fabric shall conform to ASTM A1064, unless noted.
4. Where hooks are indicated, provide standard hooks per ACI and CRSI for all bars unless other hook dimensions are shown on the plans or details.
5. Reinforcement in footings, walls and beams shall be continuous. Lap bars a minimum of 40 diameters, unless noted otherwise.
6. Reinforcement shall be supported and secured against displacement in accordance with the CRSI 'Manual of Standard Practice'.
7. Details of reinforcing steel fabrication and placement shall conform to ACI 315 'Details and Detailing of Concrete Reinforcement' and ACI 315R 'Manual of Engineering and Placing Drawings for Reinforced Concrete Structures', unless otherwise indicated.
8. Spread reinforcing steel around small openings and sleeves in slabs and walls, where possible, and where bar spacing will not exceed 1.5 times the normal spacing. Discontinue bars at all large openings where necessary, and provide an area of reinforcement, equal to the interrupted reinforcement, in full length bars, distributing one-half each side of the opening. Where shrinkage and temperature reinforcement is interrupted, add (2) #5 x opening dimension + 4'-0" on each side of the opening. Provide #5 x 4'-0" long diagonal bars in both faces, at each corner of openings larger than 12" in any direction.
9. Provide standees for the support of top reinforcement for footings, pile caps, and mats.
10. Provide individual high chairs with support bars, as required for the support of top reinforcement for supported slabs. Do NOT provide standees.
11. Provide snap-on plastic space wheels to maintain required concrete cover for vertical wall reinforcement.
12. Where walls sit on column footings, provide dowels for the wall. Dowels shall be the same size and spacing as the vertical wall reinforcement, unless noted otherwise, with lab splices as shown on the application sections. Install dowels in the footing forms before concrete is placed. Do NOT stick dowels into footings after concrete is placed.
13. Field bending of reinforcing steel is prohibited, unless noted on drawings.
14. Minimum concrete cover over reinforcing steel shall be as follows, unless noted otherwise on plan, section or note:

COORDINATION WITH OTHER TRADES

1. The Contractor shall coordinate and check all dimensions relating to Architectural finishes, mechanical equipment and openings, elevator shafts and overrides, etc. and notify the Architect/Engineer of any discrepancies before proceeding with any work in the area under question.
2. The Structural Drawings shall be used in conjunction with the Drawings of all other disciplines and the Specifications. The Contractor shall verify the requirements of other trades as to sleeves, chases, hangers, inserts, anchors, holes, and other items to be placed or set in the Structural Work.
3. There shall be no vertical or horizontal sleeves set, or holes cut or drilled in any beam or column unless it is shown on the Structural Drawings or approved in writing by the Structural Engineer of Record.
4. Mechanical and electrical openings through supported slabs and walls, 8" diameter or larger, not shown on the Structural Drawings must be approved by the Structural Engineer of Record (SER). Openings less than 8" in diameter shall have at least 1'-0" clear between openings, unless approved in writing by the SER.
5. Verify locations and dimensions of mechanical and electrical openings through supported slabs and walls shown on the Structural Drawings with the Mechanical and Electrical Contractors.
6. Do not install conduit in supported slabs, slabs on grade, or concrete walls unless explicitly shown or noted on the Structural Drawings.
7. Do not suspend any items, such as ductwork, mechanical or electrical fixtures, ceilings, etc. from steel roof deck or wood roof sheathing.
8. The Mechanical Contractor shall verify that mechanical units supported by the steel framing are capable of spanning the distance between the supporting members indicated on the Structural Drawings. The Mechanical Contractor shall supply additional support framing as required.
9. If drawings and specifications are in conflict, the most stringent restrictions and requirements shall govern.

EXISTING CONSTRUCTION

1. The contractor shall field verify the dimensions, elevations, etc. necessary for the proper construction and alignment of the new portions of the work to the existing work. The Contractor shall make all necessary measurements for fabrication and erection of the structural members. Any discrepancy shall be immediately brought to the attention of the Structural Engineer of Record.
2. Before proceeding with any work within the existing facility, the Contractor shall familiarize himself with existing structural and other conditions. Any shoring shown or noted on the Plans is a partial and schematic representation of that required. It shall be the Contractor's responsibility to provide all necessary bracing, shoring, and other safeguards to maintain all parts of the work in a safe condition during the progress of demolition and construction, and to protect from damage those portions of the existing work which are to remain. Shoring shall remain in place until the structural work is complete, has been inspected by the Testing Agency, and is certified to be in substantial compliance with the Contract Documents. AD.01
3. The Contractor shall submit for the Structural Engineer of Record's review, a "Proposed Shoring Plan," including, but not limited to: plans, sections, details, notes, description of proposed sequence of work, and calculations prepared by, or under the supervision of a Specialty Structural Engineer (SSE). The SSE shall be registered in the State where the project is located.
4. Welding to and within an existing facility presents potential hazards including:
   A. Fire Hazard - Due to the existing construction and building contents.
   B. Structural Liquefaction - Due to welding across the full section of the structural members.
   Recommendations to prevent these hazards include:
   A. Fire Hazard - Protect existing combustibles prior to welding. Keep a separate watchman and several fire extinguishers on hand.
   B. Structural Liquefaction - weld in small increments. Allow welds to harden before continuing to the next increment.
   C. Do not leave the site until satisfied that no fire hazard exists.
   D. Preference should be given to the use of beam clamps, mechanical fasteners, or bolted connections in lieu of welding within existing facilities, whenever possible. Do not field-drill existing structural members without the written permission of the Structural Engineer of Record.

FOUNDATIONS

1. Proofroll slab on grade areas with a medium-weight roller or other suitable equipment to check for pockets of soft material hidden beneath a thin crust of better soil. Any unsuitable materials thus exposed should be removed and replaced with compacted, engineered fill as outlined in the specifications. Proofrolling operations shall be monitored by the Geotechnical Testing Agency.
2. All engineered fill beneath slabs and over footings should be compacted to a dry density of at least 93% of the Modified Proctor maximum dry density (ASTM D-1557). All fill which shall be stressed by foundation loads shall be approved granular materials compacted to a dry density of at least 95% (ASTM D-1557). Coordinate all fill and compaction operations with the Specifications and the Subsurface Investigation.
3. Compaction shall be accomplished by placing fill in approximate 8" lifts and mechanically compacting each lift to at least the specified minimum dry density. For large areas of fill, field density tests shall be performed for each 3,000 square feet of building area for each lift as necessary to insure adequate compaction is being achieved.
4. Column footings and wall footings to bear on firm natural soils or well-compacted engineered fill with allowable bearing pressures of 1,500 PSF for column and wall footings respectively, as outlined in the Subsurface Investigation Report.
   It is essential that the foundations be inspected to insure that all loose, soft, or otherwise undesirable material (such as organics, existing uncontrolled fill, etc.) is removed and that the foundations will bear on satisfactory material. The Geotechnical Testing Agency shall inspect the subgrade and perform any necessary tests to insure that the actual bearing capacities meet or exceed the design capacities. The Geotechnical Testing Agency shall verify the bearing capacity at each spread column footing and every 10 feet on center for strip footings prior to placement of concrete.
5. Place footings the same day the excavation is performed. If this is not possible, the footings shall be adequately protected against any detrimental change in condition, such as from disturbance, rain, or freezing.
6. It is the responsibility of the Contractor and each Sub-Contractor to verify the location of all utilities and services shown, or not shown; and establish safe working conditions before commencing work.
7. The Contractor shall layout the entire building and field verify all dimensions prior to excavation.
8. For information regarding subsurface conditions, refer to the Subsurface Investigation & Foundation Recommendation Report prepared by Alt & Witzig Engineering, Inc., A&W Project No. 21SB0077, dated October, 2021.

GLOSSARY OF TERMS

1. Bracing: Providing stability against unintended movement or motion.
2. Building Component Safety Information (BCSI): The jointly produced WTCA/TPI "Guide to Good Practice for Handling, Installing, and Bracing of Metal Plate Connected Wood Trusses."
3. Building Designer: Engineer of Record responsible for the design of the Building Structural System (BSS) as described in the Building Structural System Design Documents (BSSDS).
4. Building Structural System: The completed combination of Structural Elements, trusses, connections and systems, which serve to support the building's self weight, the applicable live load(s), and environmental loads, such as those caused by snow, wind and earthquakes.
5. Building Structural System Design Documents: Written, graphic and pictorial architectural structural documents, specifications and addenda prepared and assembled for the overall structural design of the Building Structural System, which are part of the Construction Documents.
6. Ceiling Diaphragm: The horizontal or sloped structural system defined by the ceiling plane acting to transmit lateral forces to vertical resisting elements.
7. Clinched Nail: A nail selected to be longer than the member it is driven through and which is bent back the dimension of its excess length.
8. Connectors and Connections: Fasteners that join two or more members together, including: nails, metal plates or truss plates, truss and joists hangers, screws, and bolts.
9. Construction Documents: Written, graphic and pictorial documents prepared or assembled for describing the design, location and physical characteristics of the elements of the project, including architectural, structural, mechanical, electrical, and plumbing drawings and specifications.
10. Construction Loading: The loads from workers and building materials on an unfinished structure, for example, when builders stack bundles of panel sheathing or gypsum board on trusses for temporary storage.
11. Continuous Lateral Bracing: Members installed at right angles to a chord or web member of a truss to provide stability to the truss. They must be properly restrained to prevent the simultaneous buckling of the truss members due to laterally imposed loads and the accumulation of buckling forces. See Lateral Bracing.

STRUCTURAL STEEL NOTES

1. Structural steel construction shall conform to the American Institute of Steel Construction "Specification for Structural Steel Buildings".
2. All structural wide flange members shall be ASTM A992, Fy=50 ksi
3. All plates, channels, bars, angles, and rods shall be ASTM A36, unless noted.
4. All rectangular structural tube members shall be ASTM A500, Grade C, Fy = 50 ksi unless noted.
5. All round structural tube members shall be ASTM A500, Grade C, Fy = 46 ksi unless noted.
6. All structural pipe members shall be ASTM A53,Grade B, Fy=35 ksi unless noted.
7. Details for design, fabrication and erection of all structural steel shall be in accordance with the latest AISC Standards, unless otherwise noted or specified.
8. Provide temporary erection guying and bracing as required.
9. Unless otherwise shown or noted on the Drawings, provide 8" minimum bearing each end for all loose lintels and beams.
10. For loose lintels, masonry shelf angles and other such items generally not shown on the Structural Drawings, refer to the Architectural Drawings. See general notes on lintels this sheet for sizes, reinforcing, etc.
11. Steel columns below grade shall be encased in a minimum of 4" concrete or painted with 2 coats of asphaltum paint, unless otherwise shown.
12. Fabricate simple span beams not specifically noted to receive camber so that after erection, any minor camber due to rolling or shop assembly be upward.
13. Refer to the Division 5 Structural Steel Specification of the Project Manual for structural steel surface preparations and prime painting requirements.
14. The Erector shall shim between parallel roof beams and joists with differential mill and induced cambers for level deck bearing.
15. Provide cap plates/end plates to close off exposed, open ends of all tubular members, unless noted. Seal weld with partial penetration square groove welds for watertight condition.

CAST IN PLACE CONCRETE

1. Details of fabrication of reinforcement, handling and placing of the concrete, construction of forms and placement of reinforcement not otherwise covered by the Plans and Specifications, shall comply with the ACI Code requirements of the latest revised date.
2. Cold weather concreting shall be in accordance with ACI 306. Cold weather is defined as a period when for more than 3 successive days the average daily air temperature drops below 40F and stays below 50F. The Contractor shall maintain a copy of this publication on site.
3. Hot weather concreting shall be in accordance with ACI 305. Hot weather is defined as any combination of the following conditions that tends to impair the quality of the freshly mixed or hardened concrete: high ambient temperature, high concrete temperature, low relative humidity, wind speed, or solar radiation The Contractor shall maintain a copy of this publication on site.
4. A certified Testing Agency shall be retained to perform industry standard testing including measurement of slump, air temperature, concrete cylinder testing, etc. to ensure conformance with the Contract Documents. Submit reports to Architect/Engineer.
5. Finishing of Slabs: After screeding, bull floating and floating operations have been completed, apply final finish as indicated below, and as described in the Division 3 Cast In Place Concrete Specification of the Project Manual.
   A. Floor Slabs — Hard Trowel Finish
   B. Ramps, Stairs, & Sidewalks — Broom Finish
   C. Surfaces to Receive Topping Slab — Float Finish
   D. Surfaces to receive thick-set mortar beds or similar cementitious materials — Float Finish
   E. Driving Surfaces — Rough Swirl Finish
   Sample Finishes: See Specifications for sample and mockup requirements, if any.
   Floor Tolerances: See the Specifications for specified Ff and Fl tolerances. Ff and Fl testing shall be performed by the Testing Agency in accordance with ASTM E-1155. Results, including acceptance or rejection of the work will be provided to the Contractor and the Architect/Engineer within 48 hours after data collection. Remedies for out-of-tolerance work shall be in accordance with the Specifications. When approved by the Structural Engineer of Record, measurement of the gaps beneath a 10-foot straight edge may be used in lieu of Ff and Fl testing. Approval must be obtained in writing prior to the beginning of concrete operations.
6. Finishing of Formed Surfaces: Finish formed surfaces as indicated below, and as described in the Division 3 Cast In Place Concrete Specification of the Project Manual.
   A. Sides of Footings & Pile Caps — Rough Form Finish
   B. Sides of Grade Beams — Rough Form Finish
   C. Surfaces not exposed to public view — Rough Form Finish
   D. Surfaces exposed to public view — Smooth Form Finish
7. The Contractor shall consult with the Structural Engineer of Record before starting concrete work to establish a satisfactory placing schedule and to determine the location of construction joints so as to minimize the effects of shrinkage in the floor system.
8. Sawn or tooled control/contraction joints shall be provided in all slabs on grade. For a framed structure, joints shall be located on all column lines. If the column spacing exceeds 20'-0", provide intermediate joints. Exterior slabs, and interior slabs without column shall have joints spaced a maximum of 15'-0" apart. Layout joints so that maximum aspect ratio (ratio of long side to short side) does not exceed 1.5.
9. Where vinyl composition tile, vinyl sheets goods, thin-set epoxy terrazzo, or other similar material is the specified finish floor material, the Contractor shall coordinate the locations of control/contraction and construction joints with the Finish Flooring Contractor. Submit a dimensioned plan showing joint locations and proposed sequence of floor pours.
10. Unless specifically noted on the Plans, composite and non-composite supported slabs on metal deck, and supported cast-in-place concrete slabs do not require sawn control joints.
11. Joints in slabs to receive a finished floor may remain unfilled, unless required by the finish flooring contractor. All exposed slabs shall be filled with sealant specified in Division 7, or as follows: All slabs in industrial, manufacturing, or warehouse applications subject to wheeled traffic shall be filled with specified epoxy resin sealant, all other joints shall be filled with specified elastometric sealant. Defer filling of joints as long as possible, preferably a minimum of 4 to 6 weeks after the slab has been cured. Prior to filling, remove all debris from the slab joints, the fill in accordance with the manufacturer's recommendations.
12. Refer to the Architectural Drawings for locations and details of reveals (1" maximum depth) in exposed walls.
13. Refer to the Architectural Drawings for chamfer requirements for corners of concrete. Where not indicated, provide 3/4" chamfers on exposed corners of concrete, except those abutting masonry.
14. Refer to the Architectural Drawings for exact locations and dimensions of recessed slabs, ramps, stairs, thickened slabs, etc. Slope slabs to drains where shown on the Architectural and Plumbing Drawings.
15. Sidewalks, drives, exterior retaining walls, and other site concrete are not indicated on the Structural Drawings. Refer to the Site/Civil and Architectural Drawings for locations, dimensions, elevations, jointing, and finish details.

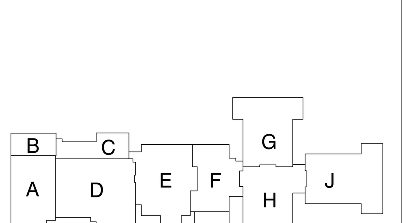
CONCRETE MIX CLASSES

FOOTINGS, FOUNDATION WALLS, PIERS, & GRADE BEAMS	
COMPRESSIVE STRENGTH	4000 PSI
MAXIMUM WATER/CEMENT RATIO	0.45
AIR CONTENT	0 - 3 PERCENT
WATER-REDUCING ADMIXTURE	REQUIRED
SLUMP	5" TO 6 1/2"
INTERIOR CONCRETE SLABS	
COMPRESSIVE STRENGTH	4000 PSI
MINIMUM CEMENTITIOUS MATERIAL CONTENT	517 LB/CU YD
AIR CONTENT	0 - 3 PERCENT
WATER-REDUCING ADMIXTURE	REQUIRED
SLUMP	5" TO 6 1/2"
PROVIDE ELEMENT 5 SYSTEM (INTERNAL CURE & CATALYST) PER PLAN NOTE ON FOUNDATION PLAN	
EXTERIOR CONCRETE SUBJECT TO FREEZE-THAW	
COMPRESSIVE STRENGTH	4500 PSI
MINIMUM CEMENTITIOUS MATERIAL CONTENT	564 LB/CU YD
AIR CONTENT	6 ± 1 PERCENT
WATER-REDUCING ADMIXTURE	REQUIRED
SLUMP	5" TO 6 1/2"
COARSE AGGREGATE	CRUSHED STONE
LIGHTWEIGHT CONCRETE SUSPENDED SLABS	
COMPRESSIVE STRENGTH	4000 PSI
MINIMUM CEMENTITIOUS MATERIAL CONTENT	650 LB/CU YD
AIR CONTENT	6 ± 1 PERCENT
WATER-REDUCING ADMIXTURE	REQUIRED
SLUMP	5" TO 6 1/2"
LIGHTWEIGHT AGGREGATE MUST BE PRE-SOAKED TO SATURATED-SURFACE-DRY (SSD) CONDITION PRIOR TO MIXING.	
LEAN CONCRETE FILL	
COMPRESSIVE STRENGTH	2000 PSI
MAXIMUM WATER/CEMENT RATIO	0.65
AIR CONTENT	OPTIONAL
WATER-REDUCING ADMIXTURE	NOT REQUIRED
SLUMP	4" TO 7"
INTERIOR TOPPING SLAB	
COMPRESSIVE STRENGTH	4000 PSI
MINIMUM CEMENTITIOUS MATERIAL CONTENT	517 LB/CU YD
AIR CONTENT	0 - 3 PERCENT
WATER-REDUCING ADMIXTURE	REQUIRED
SLUMP	5" TO 6 1/2"
THE CONTRACTOR SHALL CONSIDER THE EFFECTS OF CAMBER AND TOLERANCE ON THE MINIMUM TOPPING THICKNESS AND LIMIT THE SIZE OF LARGE AGGREGATE ACCORDINGLY.	

1. SLUMP:
   MIXES CONTAINING TYPE A WRDA — 5" MAXIMUM
   MIXES CONTAINING MID-RANGE WRDA — 5 - 6 1/2"
   MIXES CONTAINING HIGH-RANGE WRDA — 5 - 8"
2. SPECIFIED MINIMUM CEMENTITIOUS MATERIAL CONTENTS ARE BASED ON THE USE OF WATER REDUCING ADMIXTURES.
3. INCLUDE AN AIR-ENTRAINING ADMIXTURE FOR ALL CONCRETE EXPOSED TO FREEZING AND THAWING IN SERVICE AND FOR ALL CONCRETE EXPOSED TO COLD WEATHER DURING CONSTRUCTION, BEFORE ATTAINING ITS SPECIFIED DESIGN COMPRESSIVE STRENGTH. REF. ACI 306 FOR DEFINITION OF COLD WEATHER.
4. CLASS C FLY ASH MAY BE USED AS A CEMENT SUBSTITUTE WITH A MAXIMUM 20% SUBSTITUTION RATE ON A POUND-PER-POUND BASIS.
5. SLAG CEMENT MAY BE USED AS A SUBSTITUTE FOR PORTLAND CEMENT WITH A MAXIMUM 50% SUBSTITUTION RATE ON A POUND-PER-POUND BASIS WITH THE EXCEPTION OF CLASS E CONCRETE, WHICH SHALL BE LIMITED TO 30%.
6. WHEN SLAB CEMENT AND FLY ASH ARE USED IN THE SAME CONCRETE MIX, THE MAXIMUM SUBSTITUTION RATES SHALL COMPLY WITH THE FOLLOWING:
   PORTLAND CEMENT/SLAG/FLY ASH RATIO:
   CLASS E EXTERIOR CONCRETE — 70% / 20% / 10%
   ALL OTHER CLASSES — 50% / 30% / 20%
7. FOR CONCRETE TO BE CAST DURING COLD WEATHER, THE MAXIMUM SUBSTITUTION RATE FOR SLAG CEMENT SHALL BE 30%. IF SLAG CEMENT AND FLY ASH ARE USED IN THE SAME MIX, THE MAXIMUM SUBSTITUTION RATES SHALL COMPLY WITH A RATIO OF PORTLAND CEMENT/SLAG/FLY ASH OF 70% / 20% / 10%.
8. PROPORTION CONCRETE MIXES TO PROVIDE WORKABILITY AND CONSISTENCY TO PERMIT CONCRETE TO BE WORKED READILY INTO THE CORNERS AND ANGLES OF THE FORMS AND AROUND REINFORCEMENT BY THE METHODS OF PLACEMENT AND CONSOLIDATION TO BE EMPLOYED, WITHOUT SEGREGATION AND EXCESSIVE BLEEDING.
9. ADJUSTMENTS TO THE APPROVED MIX DESIGNS MAY BE REQUESTED BY THE CONTRACTOR WHEN JOB CONDITIONS, WEATHER, TEST RESULTS, OR OTHER CIRCUMSTANCES WARRANT. THESE REVISED MIX DESIGNS SHALL BE SUBMITTED TO THE ARCHITECT/ENGINEER FOR APPROVAL PRIOR TO USE.

GIBRALTAR DESIGN
ARCHITECTURE • ENGINEERING • INTERIOR DESIGN

PROJECT
WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS
DUNELAND SCHOOL CORPORATION
CHESTERTON, INDIANA



KEY PLAN

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PROJECT 21116
DATE 3-3-2022
COORDINATED BY JMS
DRAWN BY JMS
CHECKED BY SAC

SCOTT A. CLORE REGISTERED PE10606154 STATE OF INDIANA PROFESSIONAL ENGINEER

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REVISIONS

MARK	DATE	ISSUED FOR
AD-0.1	3/16/2022	ADDENDUM #1
AD-0.3	3/30/2022	ADDENDUM #3

DRAWING
STRUCTURAL NOTES

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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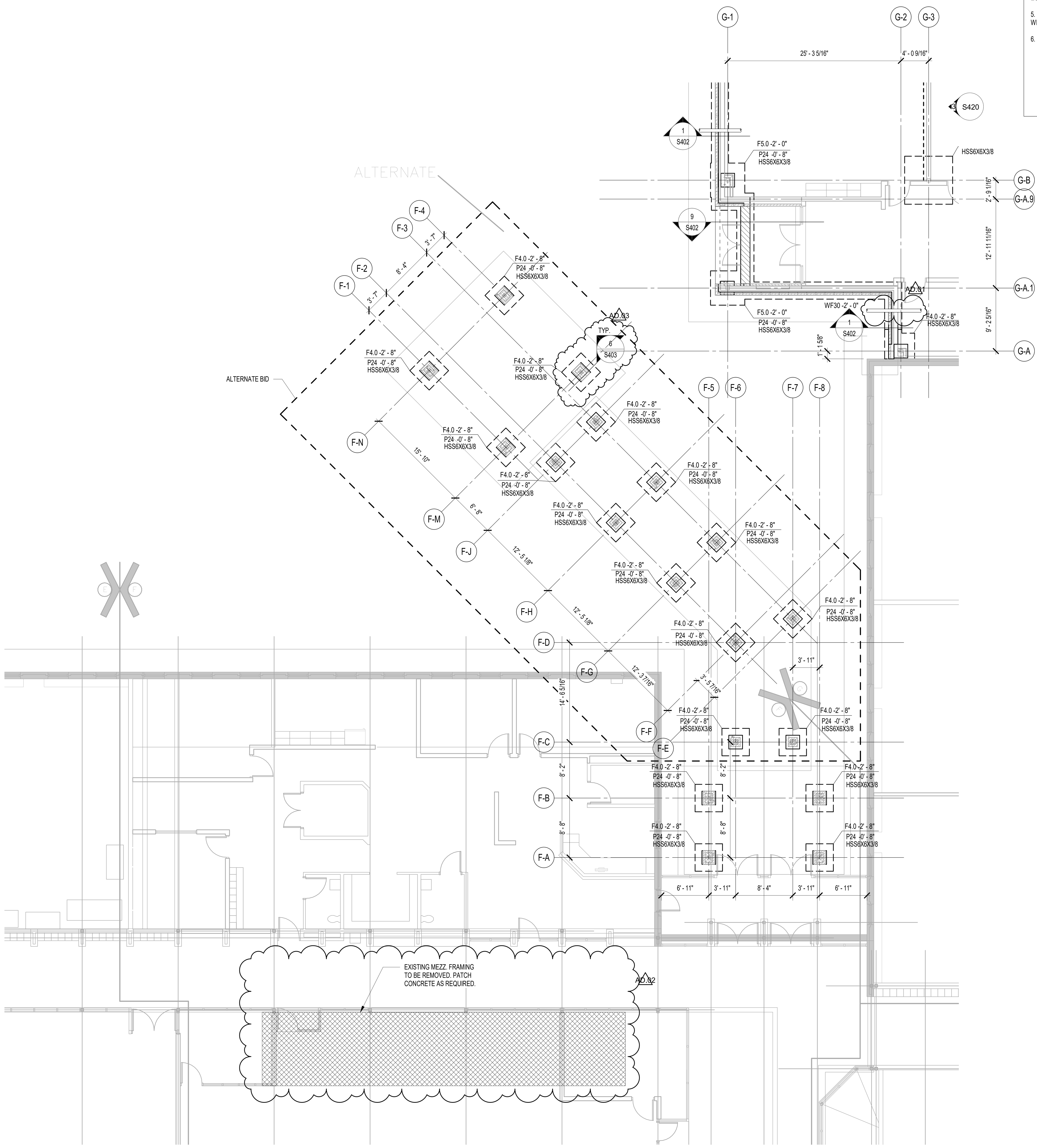
SHEET
S001



1 FOUNDATION PLAN - UNIT F
1/8" = 1'-0"

CONCRETE PIER SCHEDULE

PIER MARK	PIER SIZE		PIER REINFORCING			
			VERTICALS	TIES-SIZE & SPA.[3]	DETAIL	CRITICAL HEIGHT
P24	2' - 0"	2' - 0"	(8) #6	#4 @ 12" O.C.	B	≤ 2' - 8"
			(4) #8	#4 @ 12" O.C.	A	> 2' - 8"
P24 x 44	2' - 0"	3' - 8"	(12) #7	#4 @ 12" O.C.	C	≤ 2' - 8"
			(8) #9	#4 @ 12" O.C.	E	> 2' - 8"

1. PROVIDE MIN. 1 ½" CLEAR TO PIER TIES.

2. 'CRITICAL HEIGHT' DENOTES THE HEIGHT ABOVE WHICH LARGER DIAMETER VERTICALS WITH FEWER TIES MAY BE USED. REF. FOUNDATION PLAN(S) FOR TOP OF PIER & FOOTING ELEV'S.

3. REF. 'TYPICAL CONCRETE PIER REINFORCING' ON FOUNDATION DETAIL SHEET FOR FURTHER INFORMATION ON TIE SPACING.

4. VERTICAL DOWELS ARE TO FUNCTION AS PIER VERTICALS FOR PIERS LESS THAN OR EQUAL TO 5' - 0" HIGH. PROVIDE SEPARATE DOWELS & VERTICALS FOR PIERS GREATER THAN OR EQUAL TO 5' - 0" HIGH, UNLESS APPROVED.

5. CONTACT THE STRUCTURAL ENGINEER FOR DIRECTION IF COLUMN ANCHOR RODS FOUL WITH PIER TIES OR VERTICALS.

6. MIN. HEIGHT OF PIERS: #6 VERTICALS = 2' - 0", #7 VERTICALS = 2' - 8".

DETAIL "A"	DETAIL "B"	ALT. DETAIL "B"	DETAIL "C"	DETAIL "E"
(1) SET	(2) SETS	(3) SETS	(3) SETS	(2) SETS

WALL FOOTING SCHEDULE

FTG. MARK	FOOTING SIZE		FOOTING REINFORCING	
	WIDTH	DEPTH	LONGITUDINAL	TRANSVERSE
WF24	2'-0"	1'-0"	(2) #5 x CONTINUOUS	#4 x 1'-6" @ 96" O.C.
WF30	2'-6"	1'-2"	(3) #5 x CONTINUOUS	#4 x 2'-0" @ 96" O.C.
WF42	3'-6"	1'-2"	(4) #5 x CONTINUOUS	#5 x 3'-0" @ 12" O.C.

1. CENTER FOOTINGS BENEATH WALLS, U.N.O.

FOUNDATION PLAN NOTES

1. REF. S001 FOR STRUCTURAL NOTES, DESIGN DATA & SCHEDULES.

2. ALL CONTRACTORS ARE REQUIRED TO COORDINATE THEIR WORK WITH ALL DISCIPLINES TO AVOID CONFLICTS. THE MECHANICAL, ELECTRICAL, AND PLUMBING ASPECTS ARE NOT IN THE SCOPE OF THESE DRAWINGS. THEREFORE, ALL REQUIRED MATERIALS AND WORK MAY NOT BE INDICATED.

3. COORDINATE EXACT SIZE & LOCATION OF ALL MECHANICAL OPENINGS IN FOUNDATION WALLS WITH THE MECHANICAL, ELECTRICAL & PLUMBING CONTRACTORS.

4. ALL ELEVATIONS ARE REFERENCED FROM THE FIRST FLOOR FINISH FLOOR ELEVATION 0'-0" (U.S.G.S. 646.0). REF. CIVIL DWGS.

5. REF. ARCH. DRAWINGS FOR ALL DIMENSIONS NOT SHOWN. CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION AND IMMEDIATELY NOTIFY ARCHITECT/ENGINEER OF ANY DISCREPANCIES.

6. REF. S400 & S401 FOR TYPICAL FOUNDATION DETAILS.

7. NOTE: PERIMETER WALL AND COLUMN FOOTINGS SHALL BE LOWERED AND/OR SLEEVED TO PASS BELOW PLUMBING LINES (I.E. SANITARY & STORM SEWERS, WATER LINES, ETC.) SHOWN ON THE PLUMBING DRAWINGS. PROVIDE FOOTING STEPS AS REQUIRED PER THE TYPICAL DETAILS ON S400.

8. ALL SLAB RECESSES SHALL BE LOCATED PER THE ARCHITECTURAL DRAWINGS. COORDINATE DEPTHS OF ALL SLAB RECESSES WITH THE ARCHITECTURAL DRAWINGS AND/OR THE FLOORING SUPPLIER.

9. COORDINATE REINFORCING DOWELS FOR CMU VERTICAL REINFORCING WITH REINF. NOTED ON PLANS & SECTIONS.

10. GROUT ALL CORES OF CMU BELOW FINISH FLOOR SOLID.

11. COLUMN FOOTINGS SUPPORTING MORE THAN ONE COLUMN SHALL BE CENTERED AT THE MIDPOINT BETWEEN THE COLUMNS, UNLESS NOTED OTHERWISE ON PLAN.

12. COLUMN FOOTINGS, TRENCH FOOTINGS AND WALL FOOTINGS SHALL BEAR ON APPROVED SOIL. UNDERCUT AS REQ'D TO SUITABLE BEARING MATERIAL AS DETERMINED BY THE GEOTECHNICAL TESTING AGENCY. REF. TYPICAL FOOTING UNDERCUT DETAILS S400. UNDERCUTTING TO SUITABLE BRG. MATERIAL IS NOT REQUIRED FOR GRADE BEAMS. REFERENCE ELEVATIONS IN PARENTHESES (-XX'-X") FOR APPROXIMATE ELEVATION TO SUITABLE BEARING STRATA TO BE USE FOR BIDDING PURPOSES.

13. PROVIDE CONTINUOUS 4" H. x W. VARIES CONCRETE CURB ON ACOUSTIC ISOLATION SLABS IN MECHANICAL ROOMS. CURBS TO SURROUND ALL PENETRATIONS THRU SLAB INCLUDING COLUMNS, PIPES, SUMP PITS, ETC.

14. ALL EX. CONSTRUCTION SHOWN IN PLAN AND/OR SECTION WAS DERIVED FROM EXISTING DRAWINGS AND MUST BE FIELD VERIFIED. IF ANY DISCREPANCIES ARE DISCOVERED BETWEEN INFO. SHOWN ON THE DRAWINGS AND ACTUAL CONDITIONS IMMEDIATELY CONTACT ARCHITECT/ENGINEER FOR DIRECTION BEFORE PROCEEDING WITH THE WORK.

15. PROVIDE THICKENED SLAB UNDER ALL INTERIOR CMU WALLS WITHOUT FOOTINGS. SEE DETAILS ON S401 FOR THICKENED SLAB DETAIL. LAYOUT THICKENED SLABS FROM DIMENSIONS ON THE ARCHITECT FLOOR PLANS.

16. PROVIDE CONTROL/CONTRACTION JOINTS IN SLABS ON GRADE (REF. THE TYPICAL DETAILS ON SHEET S400). ALL JOINTS IN SLABS TO RECEIVE THIN OR THICK-SET TERRAZZO, CERAMIC OR PORCELAIN TILE, VINYL-COMPOSITION TILE (VCT) OR VINYL SHEET GOODS, EPOXY OR SIMILAR THIN-FILM FINISH FLOORING SHALL BE CAREFULLY COORDINATED WITH THE FLOORING CONTRACTOR. THE CONTRACTOR SHALL SUBMIT SLAB JOINT LAYOUT TO ARCHITECT/ENGINEER FOR REVIEW PRIOR TO PLACING SLABS.

17. WHERE PIERS OCCUR WITHIN A LARGER ARCH. PILASTER OR COLUMN ENCLOSURE (FOR EG. P24's WITHIN 40" SQUARE CANOPY PILASTERS) PROVIDE PIER REINF. CAGE CENTERED ON THE GRID INTERSECTION. FORM OVERALL PIER TO PROFILE OF THE ARCHITECTURAL PILASTER OR COLUMN ENCLOSURE. LAYOUT PILASTERS FROM DIMENSIONS ON THE ARCHITECTURAL PLANS & DETAILS.

18. FOR ARCHITECTURAL PILASTERS NOT SUPPORTING STEEL COLUMNS, CONSTRUCT AS FULLY-GROUTED MASONRY PIERS OR CAST-IN-PLACE CONCRETE PIERS REINF'D W/ #5 VERTICAL REINFORCING AT 12" O.C. ALL FACES, AT CONTRACTOR'S OPTION.

19. AT ALL LOCATIONS WHERE NEW FOOTINGS ARE TO BE INSTALLED IN EXISTING SPACES REMOVED EXISTING CONCRETE SLABS AND OR FOUNDATION WALLS / WALL FOOTINGS AS REQUIRED. NEW SLABS TO BE DOWELED TO EXISTING PER DETAIL 6/S401.

20. PLAN LEGEND:

F.F.	DENOTES FINISH FLOOR
T/'X'	DENOTES TOP OF FTG., GRADE BEAM, SLAB, PIER, ETC.
B/'X'	DENOTES BOTTOM OF FTG., GRADE BEAM, ETC.
C.J.	DENOTES SLAB ON GRADE CONTROL/CONTRACTION JOINT
WF30 -20'-0"	DENOTES WALL FOOTING MARK & TOP OF FOOTING ELEVATION (SEE WALL FOOTING SCHEDULE)
S1	DENOTES NEW 4" CONC. SLAB w/ "FIBERFORCE 300" FIBERS @ 1.5 LB/C.Y. (OR EQUAL) & E5 INTERNAL CURE ADMIXTURE @ 4 OZ/CWT & E5 CATALYST SPRAYED ON BETWEEN 800-1,000 SF/GAL OVER 15-MIL VAPOR BARRIER OVER 6" COMPACTED GRANULAR FILL (NO. 53 STONE OR APPROVED EQUIVALENT). T/CONC. = 0'-0" U.N.O.
S2	DENOTES NEW 6" CONC. SLAB w/ NEW CONC. SLAB w/ 6x6 W2.9xW2.9 W.W.F. & E5 INTERNAL CURE ADMIXTURE @ 4 OZ/CWT & E5 CATALYST SPRAYED ON BETWEEN 800-1,000 SF/GAL OVER 15-MIL VAPOR BARRIER OVER 6" COMPACTED GRANULAR FILL (NO. 53 STONE OR APPROVED EQUIVALENT). T/CONC. = 0'-0" U.N.O.
S3	DENOTES NEW 4" CONC. SLAB w/ "FIBERFORCE 300" FIBERS @ 1.5 LB/C.Y. (OR EQUAL) OVER 15-MIL VAPOR BARRIER T/CONC. = MATCH EXISTING
SE	DENOTES EXISTING SLAB ON GRADE
	DENOTES PIPE PENETRATION THROUGH FOUNDATION WALL. COORDINATE EXACT LOCATION & INVERT ELEVATION w/ APPROPRIATE TRADE. LOWER BOTTOM OF FOOTING & PROVIDE SLEEVE THROUGH FOUNDATION WALL PER TYPICAL DETAIL ON S400.
T/F -2'-8" T/F -4'-0" T/F -4'-0" T/F -5'-4"	DENOTES WALL FOOTING WITH STEPS, REF. TYP. DETAIL ON S400

DENOTES COLUMN SIZE (REF. FRAMING PLANS FOR STUB COL'S NOT ON FDNS)
F5.0 -4'-8"
P24 -0'-8"
HSS6x6x3/8
DENOTES COLUMN FOOTING MARK & TOP OF FTG. ELEVATION (SEE FTG. SCHED.)
DENOTES PIER MARK & TOP OF PIER ELEVATION (SEE PIER SCHED.)
COLUMN FOOTING
CONCRETE PIER
STEEL COLUMN

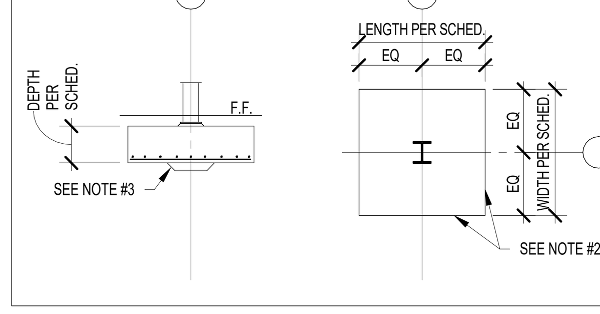
COLUMN FOOTING SCHEDULE

FOOTING MARK	FOOTING SIZE WIDTH	x LENGTH	x DEPTH	REINFORCING (EACH WAY)
F3.0	3'-0"	3'-0"	1'-2"	(4) #5 x 2'-6"
F4.0	4'-0"	4'-0"	1'-2"	(4) #5 x 3'-6"
F5.0	5'-0"	5'-0"	1'-2"	(5) #5 x 4'-6"
F6.0	6'-0"	6'-0"	1'-2"	(6) #5 x 5'-6"
F7.0	7'-0"	7'-0"	1'-2"	(7) #5 x 6'-6"
F8.0	8'-0"	8'-0"	1'-2"	(7) #6 x 7'-6"
F12.0	12'-0"	12'-0"	1'-10"	(10) #7 x 11'-6"
F13.0	13'-0"	13'-0"	2'-0"	(12) #7 x 12'-6"

NOTES:

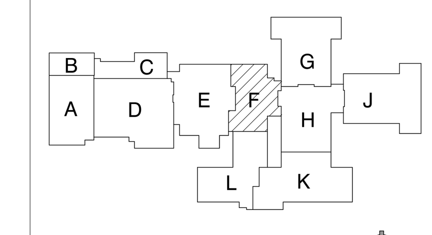
1. CENTER FOOTINGS BENEATH COLUMNS, U.N.O.
2. ALL FOOTINGS MUST BE BOARD-FORMED, UNLESS APPROVED.
3. INCREASE FOOTING DEPTH WHERE REQ'D TO ENCASE COLUMN ANCHOR RODS

NOTE: WF STEEL COLUMN SHOWN, TUBES, PIPES, C.I.P. CONCRETE, PRECAST & MASONRY COLUMNS SIM.



GIBRALTAR DESIGN
ARCHITECTURE ◦ ENGINEERING ◦ INTERIOR DESIGN

PROJECT
WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS
DUNELAND SCHOOL CORPORATION
CHESTERTON, INDIANA



KEY PLAN

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PROJECT 21116
DATE 3-3-2022
COORDINATED BY JMS
DRAWN BY JMS
CHECKED BY SAC

SCOTT A. CLORE REGISTERED PE10606154 STATE OF INDIANA PROFESSIONAL ENGINEER

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AD-0.1	3/16/2022	ADDENDUM #1
AD-0.2	3/21/2022	ADDENDUM #2
AD-0.3	3/30/2022	ADDENDUM #3

DRAWING
FOUNDATION PLAN - UNIT F

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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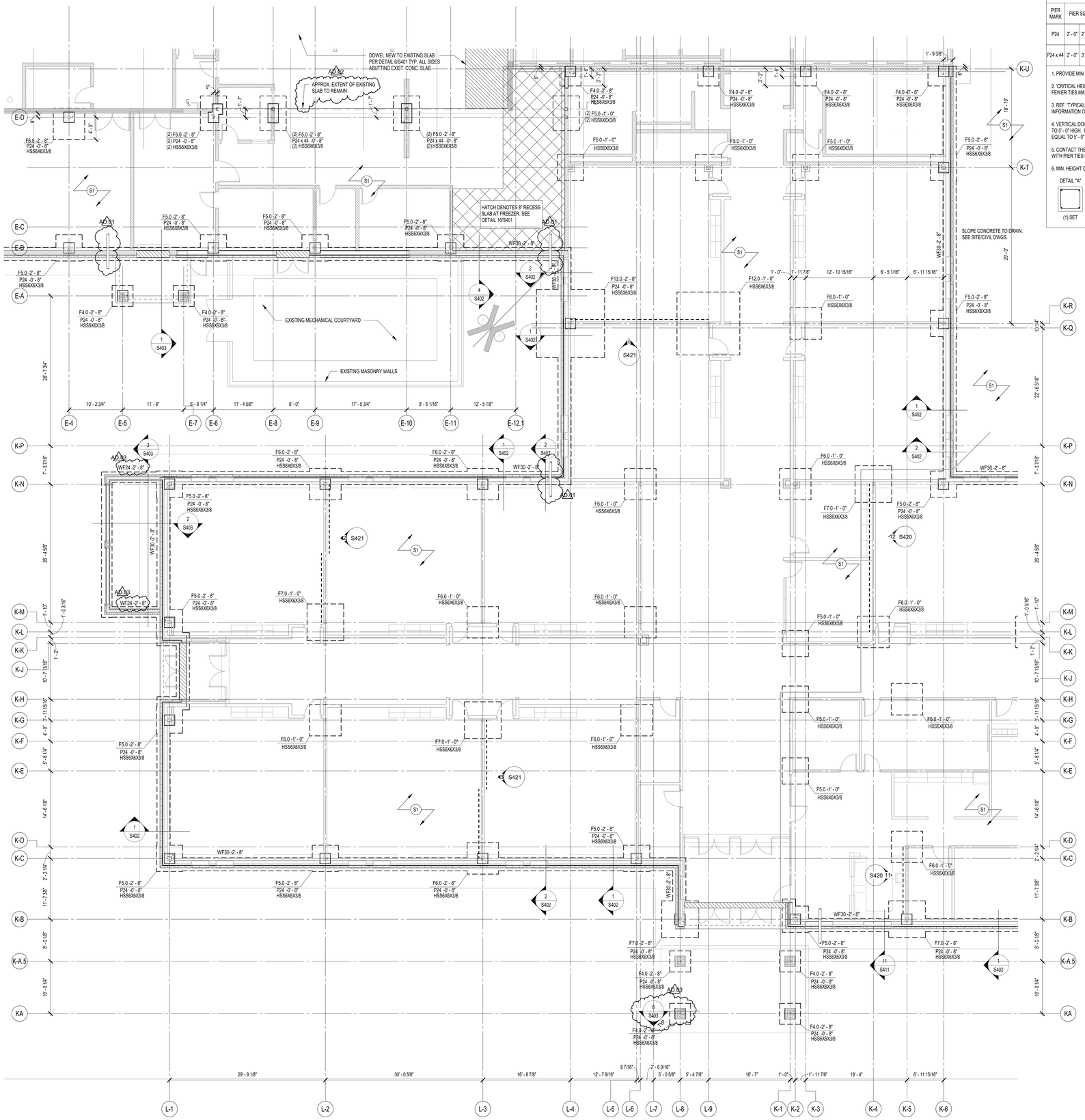
F

SHEET
S104



1 FOUNDATION PLAN - UNIT L
1/8" = 1'-0"

CONCRETE PIER SCHEDULE

PIER MARK	PIER SIZE		PIER REINFORCING			
			VERTICALS	TIES-SIZE & SPA.[3]	DETAIL	CRITICAL HEIGHT
P24	2' - 0"	2' - 0"	(8) #6	#4 @ 12" O.C.	B	≤ 2' - 8"
			(4) #8	#4 @ 12" O.C.	A	> 2' - 8"
P24 x 44	2' - 0"	3' - 8"	(12) #7	#4 @ 12" O.C.	C	≤ 2' - 8"
			(8) #9	#4 @ 12" O.C.	E	> 2' - 8"

1. PROVIDE MIN. 1 ½" CLEAR TO PIER TIES.

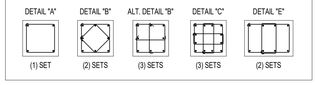
2. 'CRITICAL HEIGHT' DENOTES THE HEIGHT ABOVE WHICH LARGER DIAMETER VERTICALS WITH FEWER TIES MAY BE USED. REF. FOUNDATION PLAN(S) FOR TOP OF PIER & FOOTING ELEV'S.

3. REF. 'TYPICAL CONCRETE PIER REINFORCING' ON FOUNDATION DETAIL SHEET FOR FURTHER INFORMATION ON TIE SPACING.

4. VERTICAL DOWELS ARE TO FUNCTION AS PIER VERTICALS FOR PIERS LESS THAN OR EQUAL TO 5' - 0" HIGH. PROVIDE SEPARATE DOWELS & VERTICALS FOR PIERS GREATER THAN OR EQUAL TO 5' - 0" HIGH, UNLESS APPROVED.

5. CONTACT THE STRUCTURAL ENGINEER FOR DIRECTION IF COLUMN ANCHOR RODS FOUL WITH PIER TIES OR VERTICALS.

6. MIN. HEIGHT OF PIERS: #6 VERTICALS = 2' - 0", #7 VERTICALS = 2' - 8".



WALL FOOTING SCHEDULE

FTG. MARK	FOOTING SIZE		FOOTING REINFORCING	
	WIDTH	DEPTH	LONGITUDINAL	TRANSVERSE
WF24	2'-0"	1'-0"	(2) #5 x CONTINUOUS	#4 x 1'-6" @ 96" O.C.
WF30	2'-6"	1'-2"	(3) #5 x CONTINUOUS	#4 x 2'-0" @ 96" O.C.
WF42	3'-6"	1'-2"	(4) #5 x CONTINUOUS	#5 x 3'-0" @ 12" O.C.

1. CENTER FOOTINGS BENEATH WALLS, U.N.O.

FOUNDATION PLAN NOTES

1. REF. S001 FOR STRUCTURAL NOTES, DESIGN DATA & SCHEDULES.

2. ALL CONTRACTORS ARE REQUIRED TO COORDINATE THEIR WORK WITH ALL DISCIPLINES TO AVOID CONFLICTS. THE MECHANICAL, ELECTRICAL, AND PLUMBING ASPECTS ARE NOT IN THE SCOPE OF THESE DRAWINGS. THEREFORE, ALL REQUIRED MATERIALS AND WORK MAY NOT BE INDICATED.

3. COORDINATE EXACT SIZE & LOCATION OF ALL MECHANICAL OPENINGS IN FOUNDATION WALLS WITH THE MECHANICAL, ELECTRICAL & PLUMBING CONTRACTORS.

4. ALL ELEVATIONS ARE REFERENCED FROM THE FIRST FLOOR FINISH FLOOR ELEVATION 0'-0" (U.S.G.S. 646.0). REF. CIVIL DWGS.

5. REF. ARCH. DRAWINGS FOR ALL DIMENSIONS NOT SHOWN. CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION AND IMMEDIATELY NOTIFY ARCHITECT/ENGINEER OF ANY DISCREPANCIES.

6. REF. S400 & S401 FOR TYPICAL FOUNDATION DETAILS.

7. NOTE: PERIMETER WALL AND COLUMN FOOTINGS SHALL BE LOWERED AND/OR SLEEVED TO PASS BELOW PLUMBING LINES (I.E. SANITARY & STORM SEWERS, WATER LINES, ETC.) SHOWN ON THE PLUMBING DRAWINGS. PROVIDE FOOTING STEPS AS REQUIRED PER THE TYPICAL DETAILS ON S400.

8. ALL SLAB RECESSES SHALL BE LOCATED PER THE ARCHITECTURAL DRAWINGS. COORDINATE DEPTHS OF ALL SLAB RECESSES WITH THE ARCHITECTURAL DRAWINGS AND/OR THE FLOORING SUPPLIER.

9. COORDINATE REINFORCING DOWELS FOR CMU VERTICAL REINFORCING WITH REINF. NOTED ON PLANS & SECTIONS.

10. GROUT ALL CORES OF CMU BELOW FINISH FLOOR SOLID.

11. COLUMN FOOTINGS SUPPORTING MORE THAN ONE COLUMN SHALL BE CENTERED AT THE MIDPOINT BETWEEN THE COLUMNS, UNLESS NOTED OTHERWISE ON PLAN.

12. COLUMN FOOTINGS, TRENCH FOOTINGS AND WALL FOOTINGS SHALL BEAR ON APPROVED SOIL. UNDERCUT AS REQ'D TO SUITABLE BEARING MATERIAL AS DETERMINED BY THE GEOTECHNICAL TESTING AGENCY. REF. TYPICAL FOOTING UNDERCUT DETAILS S400. UNDERCUTTING TO SUITABLE BRG. MATERIAL IS NOT REQUIRED FOR GRADE BEAMS. REFERENCE ELEVATIONS IN PARENTHESES (-XX'-X") FOR APPROXIMATE ELEVATION TO SUITABLE BEARING STRATA TO BE USE FOR BIDDING PURPOSES.

13. PROVIDE CONTINUOUS 4" H. x W. VARIES CONCRETE CURB ON ACOUSTIC ISOLATION SLABS IN MECHANICAL ROOMS. CURBS TO SURROUND ALL PENETRATIONS THRU SLAB INCLUDING COLUMNS, PIPES, SUMP PITS, ETC.

14. ALL EX. CONSTRUCTION SHOWN IN PLAN AND/OR SECTION WAS DERIVED FROM EXISTING DRAWINGS AND MUST BE FIELD VERIFIED. IF ANY DISCREPANCIES ARE DISCOVERED BETWEEN INFO. SHOWN ON THE DRAWINGS AND ACTUAL CONDITIONS IMMEDIATELY CONTACT ARCHITECT/ENGINEER FOR DIRECTION BEFORE PROCEEDING WITH THE WORK.

15. PROVIDE THICKENED SLAB UNDER ALL INTERIOR CMU WALLS WITHOUT FOOTINGS. SEE DETAILS ON S401 FOR THICKENED SLAB DETAIL. LAYOUT THICKENED SLABS FROM DIMENSIONS ON THE ARCHITECT FLOOR PLANS.

16. PROVIDE CONTROL/CONTRACTION JOINTS IN SLABS ON GRADE (REF. THE TYPICAL DETAILS ON SHEET S400). ALL JOINTS IN SLABS TO RECEIVE THIN OR THICK-SET TERRAZZO, CERAMIC OR PORCELAIN TILE, VINYL-COMPOSITION TILE (VCT) OR VINYL SHEET GOODS, EPOXY OR SIMILAR THIN-FILM FINISH FLOORING SHALL BE CAREFULLY COORDINATED WITH THE FLOORING CONTRACTOR. THE CONTRACTOR SHALL SUBMIT SLAB JOINT LAYOUT TO ARCHITECT/ENGINEER FOR REVIEW PRIOR TO PLACING SLABS.

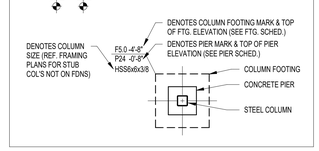
17. WHERE PIERS OCCUR WITHIN A LARGER ARCH. PILASTER OR COLUMN ENCLOSURE (FOR EG. P24's WITHIN 40" SQUARE CANOPY PILASTERS) PROVIDE PIER REINF. CAGE CENTERED ON THE GRID INTERSECTION. FORM OVERALL PIER TO PROFILE OF THE ARCHITECTURAL PILASTER OR COLUMN ENCLOSURE. LAYOUT PILASTERS FROM DIMENSIONS ON THE ARCHITECTURAL PLANS & DETAILS.

18. FOR ARCHITECTURAL PILASTERS NOT SUPPORTING STEEL COLUMNS, CONSTRUCT AS FULLY-GROUTED MASONRY PIERS OR CAST-IN-PLACE CONCRETE PIERS REINF'D W/ #5 VERTICAL REINFORCING AT 12" O.C. ALL FACES, AT CONTRACTOR'S OPTION.

19. AT ALL LOCATIONS WHERE NEW FOOTINGS ARE TO BE INSTALLED IN EXISTING SPACES REMOVED EXISTING CONCRETE SLABS AND OR FOUNDATION WALLS / WALL FOOTINGS AS REQUIRED. NEW SLABS TO BE DOWELED TO EXISTING PER DETAIL 6/S401.

20. PLAN LEGEND:

F.F.	DENOTES FINISH FLOOR
T/'X'	DENOTES TOP OF FTG., GRADE BEAM, SLAB, PIER, ETC.
B/'X'	DENOTES BOTTOM OF FTG., GRADE BEAM, ETC.
C.J.	DENOTES SLAB ON GRADE CONTROL/CONTRACTION JOINT
WF30 -20'-0"	DENOTES WALL FOOTING MARK & TOP OF FOOTING ELEVATION (SEE WALL FOOTING SCHEDULE)
S1	DENOTES NEW 4" CONC. SLAB w/ "FIBERFORCE 300" FIBERS @ 1.5 LB/C.Y. (OR EQUAL) & E5 INTERNAL CURE ADMIXTURE @ 4 OZ/CWT & E5 CATALYST SPRAYED ON BETWEEN 800-1,000 SF/GAL OVER 15-MIL VAPOR BARRIER OVER 6" COMPACTED GRANULAR FILL (NO. 53 STONE OR APPROVED EQUIVALENT). T/CONC. = 0'-0" U.N.O.
S2	DENOTES NEW 6" CONC. SLAB w/ NEW CONC. SLAB w/ 6x6 W2.9xW2.9 W.W.F. & E5 INTERNAL CURE ADMIXTURE @ 4 OZ/CWT & E5 CATALYST SPRAYED ON BETWEEN 800-1,000 SF/GAL OVER 15-MIL VAPOR BARRIER OVER 6" COMPACTED GRANULAR FILL (NO. 53 STONE OR APPROVED EQUIVALENT). T/CONC. = 0'-0" U.N.O.
S3	DENOTES NEW 4" CONC. SLAB w/ "FIBERFORCE 300" FIBERS @ 1.5 LB/C.Y. (OR EQUAL) OVER 15-MIL VAPOR BARRIER T/CONC. = MATCH EXISTING
SE	DENOTES EXISTING SLAB ON GRADE
	DENOTES PIPE PENETRATION THROUGH FOUNDATION WALL. COORDINATE EXACT LOCATION & INVERT ELEVATION w/ APPROPRIATE TRADE. LOWER BOTTOM OF FOOTING & PROVIDE SLEEVE THROUGH FOUNDATION WALL PER TYPICAL DETAIL ON S400.
	DENOTES WALL FOOTING WITH STEPS, REF. TYP. DETAIL ON S400



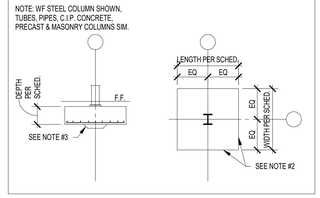
COLUMN FOOTING SCHEDULE

FOOTING MARK	FOOTING SIZE			REINFORCING (EACH WAY)
	WIDTH	x LENGTH	x DEPTH	
F3.0	3'-0"	3'-0"	1'-2"	(4) #5 x 2'-6"
F4.0	4'-0"	4'-0"	1'-2"	(4) #5 x 3'-6"
F5.0	5'-0"	5'-0"	1'-2"	(5) #5 x 4'-6"
F6.0	6'-0"	6'-0"	1'-2"	(6) #5 x 5'-6"
F7.0	7'-0"	7'-0"	1'-2"	(7) #5 x 6'-6"
F8.0	8'-0"	8'-0"	1'-2"	(7) #6 x 7'-6"
F12.0	12'-0"	12'-0"	1'-10"	(10) #7 x 11'-6"
F13.0	13'-0"	13'-0"	2'-0"	(12) #7 x 12'-6"

NOTES:

1. CENTER FOOTINGS BENEATH COLUMNS, U.N.O.
2. ALL FOOTINGS MUST BE BOARD-FORMED, UNLESS APPROVED.
3. INCREASE FOOTING DEPTH WHERE REQ'D TO ENCASE COLUMN ANCHOR RODS

NOTE: WF STEEL COLUMN SHOWN, TUBES, PIPES, C.I.P. CONCRETE, PRECAST & MASONRY COLUMNS SIM.



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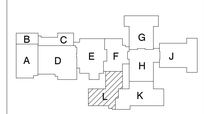
PROJECT
WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS

DUNELAND SCHOOL CORPORATION
CHESTERTON, INDIANA



KEY PLAN

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PROJECT
21116

DATE
3-3-2022

COORDINATED BY
JMS

DRAWN BY
JMS

CHECKED BY
SAC

SCOTT A. CLORE
INDIANA
PE10606154
STATE OF INDIANA
PROFESSIONAL ENGINEER

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AD-0.3	3/30/2022	ADDENDUM #3

DRAWING
FOUNDATION PLAN - UNIT L

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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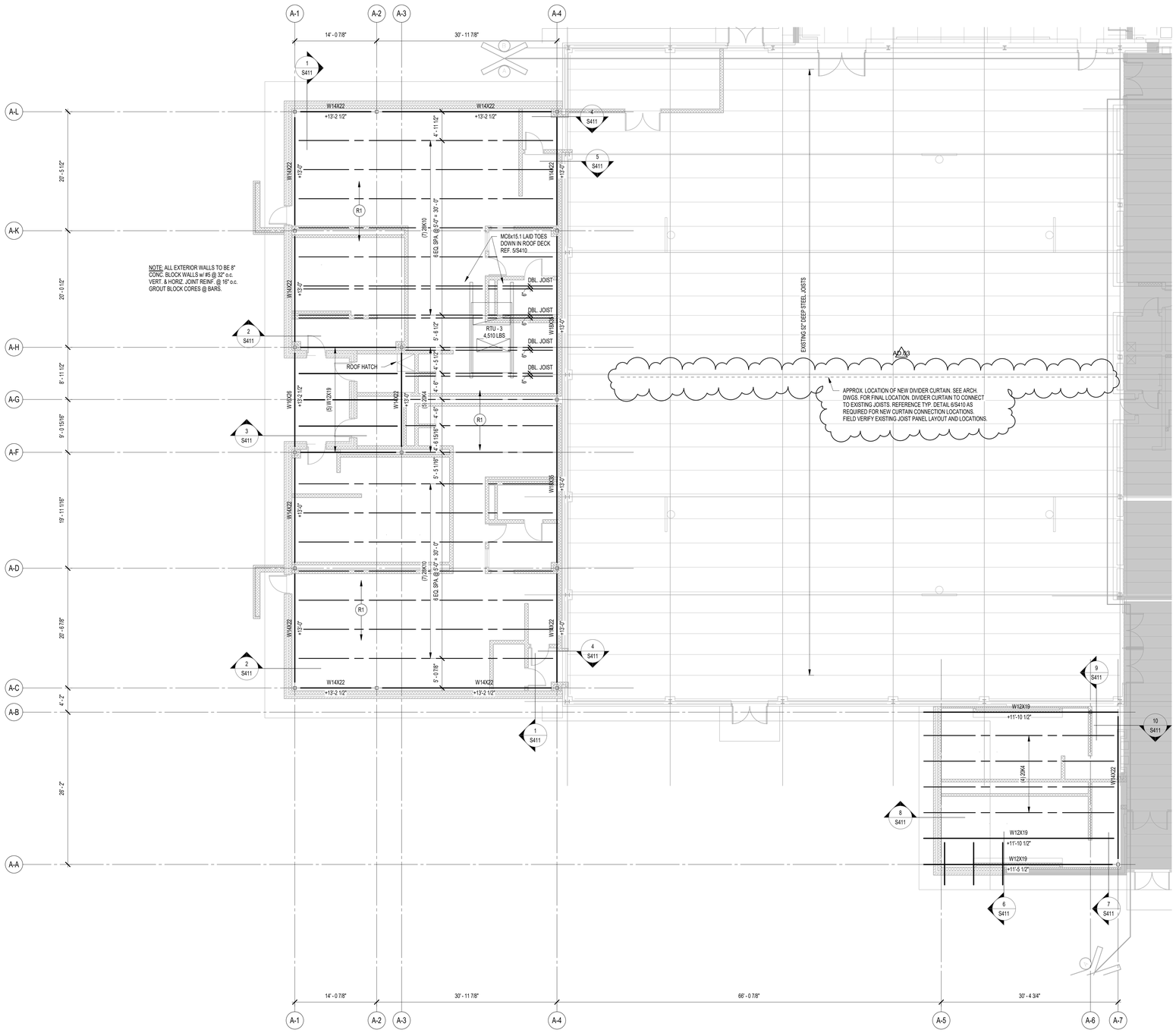
SHEET
L

S109



1 ROOF FRAMING PLAN - UNIT A
1/8" = 1'-0"

FRAMING PLAN NOTES

1. REF. S001 & S002 FOR STRUCTURAL NOTES, DESIGN DATA, SCHEDULES & LEGENDS.
2. REF. THE S410 & S430 SERIES FOR TYPICAL FRAMING AND MASONRY DETAILS.
3. ALL CONTRACTORS ARE REQUIRED TO COORDINATE THEIR WORK WITH ALL DISCIPLINES TO AVOID CONFLICTS. THE MECHANICAL, ELECTRICAL, AND PLUMBING ASPECTS ARE NOT IN THE SCOPE OF THESE DRAWINGS. THEREFORE, ALL REQUIRED MATERIALS AND WORK MAY NOT BE INDICATED.
4. ALL ELEVATIONS ARE REFERENCED FROM THE FIRST FLOOR FIN. FLOOR ELEVATION +0'-0". COORD. USGS ELEVATION WITH CIVIL DWGS.
5. SEE FOUNDATION PLANS FOR SIZES OF STEEL COLUMNS SUPPORTED ON FOUNDATIONS.
6. INSTALL CONTINUOUS ANGLES AT ALL PERIMETER ROOF EDGES. SEE DETAIL 3/S-410 FOR ATTACHEMENT TO BEAM AND FOR ALL CONDITIONS NO SPECIFICALLY DEFINED IN FRAMING SECTIONS.
7. ALL WALLS SHALL BE LAID OUT FROM THE ARCHITECTURAL DRAWINGS.
8. REF. ARCH. DRAWINGS. FOR ALL DIMENSIONS NOT SHOWN. CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION AND IMMEDIATELY NOTIFY ARCHITECT/ENGINEER OF ANY DISCREPANCIES.
9. COORDINATE EXACT SIZE & LOCATION OF ANY MECHANICAL OPENINGS IN FLOOR SLAB, ROOF DECK, OR WALLS WITH THE MEP CONTRACTOR(S). LOCATION & SIZE OF ALL DUCT OPENINGS, GRILLES, ETC. SHALL BE VERIFIED PRIOR TO CONSTRUCTION.
10. ALL ELEVATIONS SHOWN ON PLAN INDICATE TOP OF STEEL BEAM UNLESS NOTED OTHERWISE.
11. PROVIDE FRAMES AT ALL ROOF DRAINS, ROOF HATCHES & OTHER ROOF OPENINGS PER TYPICAL DETAILS ON S410. COORD. EXACT NUMBER, LOCATIONS & DIMENSIONS WITH THE APPROPRIATE CONTRACTORS & THE ARCH. & MEP DWGS.
12. PROVIDE CMU REINFORCING AS NOTED ON PLANS. IF NOT SHOWN ON PLANS OR DETAILS, MINIMUM CMU WALL REINFORCING TO BE #5 VERTS @ 48" O.C. PROVIDE OPEN-CORE BOND BEAMS AT TOPS OF WALLS, AT CHANGES IN CMU THICKNESS, AND WHERE INDICATED ON PLANS & SECTIONS (10'-0" O.C. MAX VERTICAL SPACING). PROVIDE 1/2 OF INTERRUPTED VERTICALS AT JAMBS OF OPENINGS AND PROVIDE ADDITIONAL VERT'S. AT ENDS OF WALLS.
13. ALL MASONRY BOND BEAMS, OTHER THAN BOND BEAM LINTELS OVER OPENINGS, SHALL BE "OPEN-CORE" BOND BEAMS TO ALLOW VERTICAL REINFORCING TO PASS THROUGH, UNLESS NOTED OTHERWISE.
14. REF. ARCH. DWGS. FOR MASONRY CONTROL & EXPANSION JOINT LOCATIONS.
15. ALL HORIZONTAL AND DIAGONAL BRIDGING FOR STEEL JOISTS SHALL BE DESIGNED, LOCATED & PROVIDED BY THE JOIST SUPPLIER PER SJI SPECIFICATIONS.
16. FOR ESTIMATING AND BIDDING PURPOSES ONLY, ASSUME AN ADDITIONAL 1/2" THICKNESS OF CONCRETE WILL BE NECESSARY FOR ALL ELEVATED SLABS ON METAL DECK. THE INTENT OF THIS REQUIREMENT IS TO ACCOUNT FOR ANTICIPATED DEAD LOAD DEFLECTIONS IN THE SUPPORTING STRUCTURE. THE FINISHED SLAB SHALL MEET THE FLATNESS REQUIREMENTS DEFINED IN THE SPECIFICATION.
17. ALL EXISTING FRAMING (JOIST SUPPORTED BY LOAD-BEARING WALLS, CMU ABOVE NEW OPENINGS, ETC.) IS TO BE SHORED DURING DEMOLITION OF EXISTING CONSTRUCTION AND INSTALLATION OF ALL NEW CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR ALL SHORING DESIGN AND IMPLEMENTATION.
18. PLAN LEGEND:

F.F.	DENOTES FIN. FLOOR
T/'X'	DENOTES TOP OF STEEL, SLAB, ETC.
B/'X'	DENOTES BOTTOM OF LINTEL, ETC.
R1	DENOTES 1½", 20 GA. GALV. & PRIME-PAINTED WIDE RIB STEEL ROOF DECK. REF. DETAIL 2/S404.
	DENOTES BEAM-TO-COLUMN MOMENT CONNECTION. REF. DETAILS ON S405.
	DENOTES BEAM-THRU-BEAM MOMENT CONNECTION. REF. DETAILS ON S404.
	DENOTES BRACED FRAME OR KICKER LOCATION
	DENOTES APPROX. LOCATION OF OPENING IN DECK/SLAB. REF. DETAILS ON S410 FOR TYPICAL OPENING FRAMES. FOR MULTIPLE CLOSELY SPACED OPENINGS, TREAT AS ONE LARGE OPENING.

18. WIDE-FLANGE BEAM & GIRDER NOTATION:

BEAM REACTIONS SHOWN IN KIPS TO BE USED FOR DESIGN OF SHEAR CONNECTION BY STEEL FABRICATOR'S SSE (ALLOWABLE STRESS DESIGN / LOADS UNFACTORED).

REF. THE STEEL CONNECTION NOTES ON S001 FOR DESIGN OF CONNECTIONS AT BEAMS & GIRDERS WITH NO REACTION SHOWN. THE MIN. SHEAR CONNECTION DESIGN LOAD SHALL BE 15 KIPS.

W16x31
STEEL BEAM SIZE

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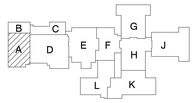
PROJECT
WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS

DUNELAND SCHOOL CORPORATION
CHESTERTON, INDIANA



KEY PLAN

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PROJECT
21116
DATE
3-3-2022
COORDINATED BY
JMS
DRAWN BY
JMS
CHECKED BY
SAC

SCOTT A. CLORE
INDIANAPOLIS
PE10606154
STATE OF INDIANA
PROFESSIONAL ENGINEER

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AD-0.3	3/30/2022	ADDENDUM #3

DRAWING
ROOF FRAMING PLAN - UNIT A

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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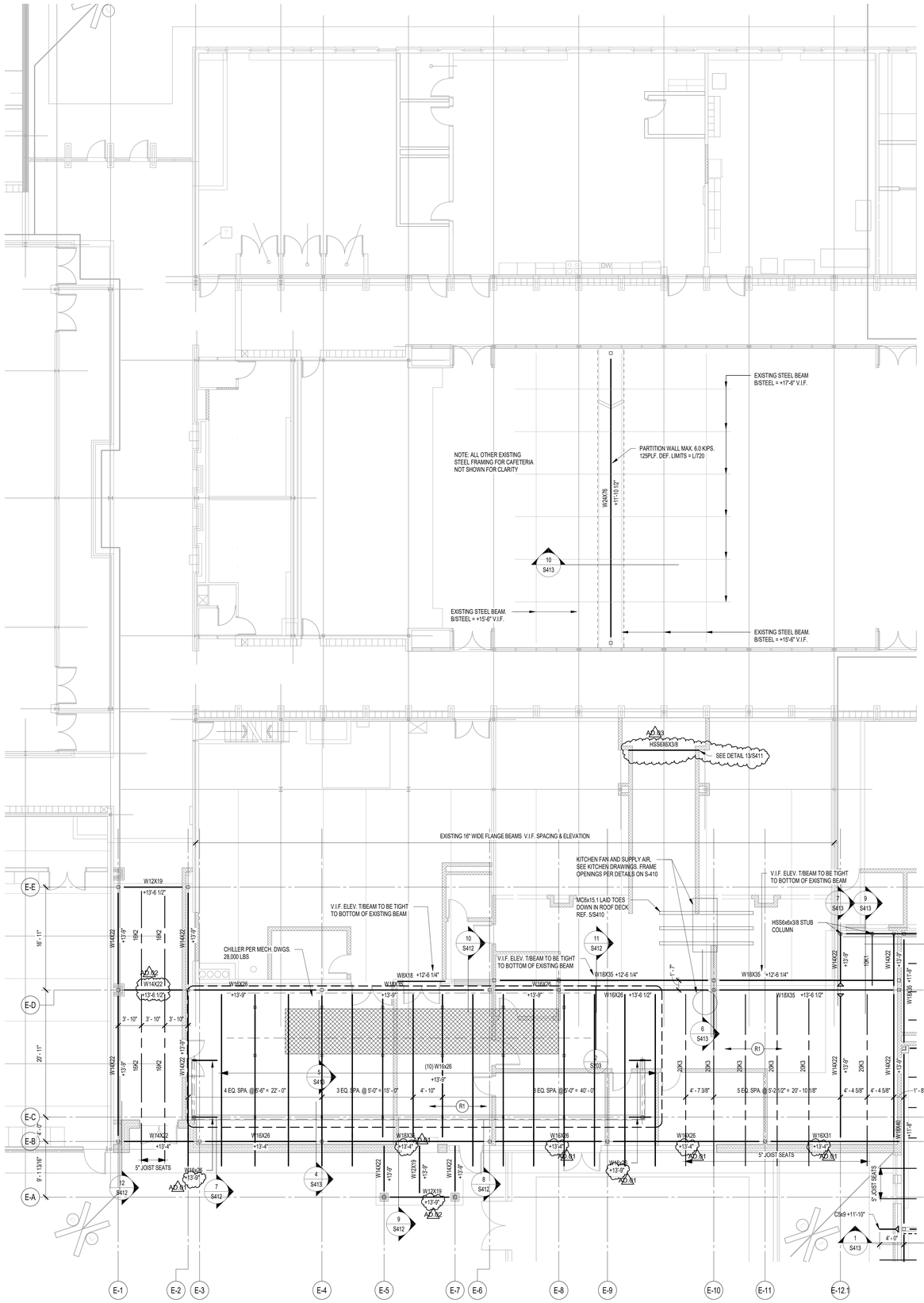
A
S200



1 ROOF FRAMING PLAN - UNIT E
1/8" = 1'-0"

FRAMING PLAN NOTES

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4. ALL ELEVATIONS ARE REFERENCED FROM THE FIRST FLOOR FIN. FLOOR ELEVATION =0'-0". COORD. USGS ELEVATION WITH CIVIL DWGS.
5. SEE FOUNDATION PLANS FOR SIZES OF STEEL COLUMNS SUPPORTED ON FOUNDATIONS.
6. INSTALL CONTINUOUS ANGLES AT ALL PERIMETER ROOF EDGES. SEE DETAIL 3/S-410 FOR ATTACHEMENT TO BEAM AND FOR ALL CONDITIONS NO SPECIFICALLY DEFINED IN FRAMING SECTIONS.
7. ALL WALLS SHALL BE LAID OUT FROM THE ARCHITECTURAL DRAWINGS.
8. REF. ARCH. DRAWINGS. FOR ALL DIMENSIONS NOT SHOWN. CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION AND IMMEDIATELY NOTIFY ARCHITECT/ENGINEER OF ANY DISCREPANCIES.
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AD-0-1

F.F.	DENOTES FIN. FLOOR
T/"X"	DENOTES TOP OF STEEL, SLAB, ETC.
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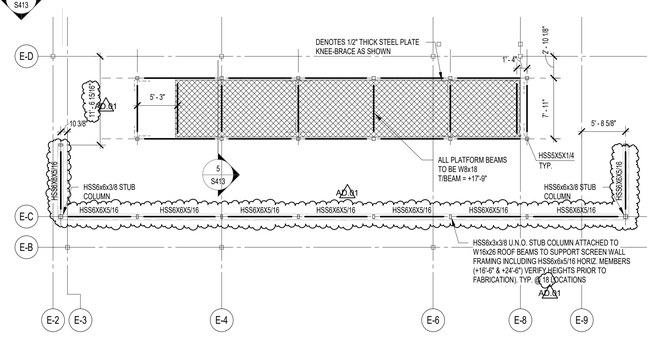
W16x31
STEEL BEAM SIZE



2 RTU PLATFORM FRAMING
1/8" = 1'-0"

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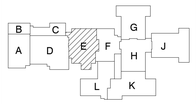
PROJECT
WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS

DUNELAND SCHOOL CORPORATION
CHESTERTON, INDIANA



KEY PLAN

GIBRALTAR DESIGN
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Indianapolis, IN 46260
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PROJECT
21116
DATE
3-3-2022
COORDINATED BY
JMS
DRAWN BY
JMS
CHECKED BY
SAC

SCOTT A. CLORE
REGISTERED
PE10606154
STATE OF INDIANA
PROFESSIONAL ENGINEER

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AD-0-2	3/21/2022	ADDENDUM #2
AD-0-3	3/30/2022	ADDENDUM #3

DRAWING
ROOF FRAMING PLAN - UNIT E

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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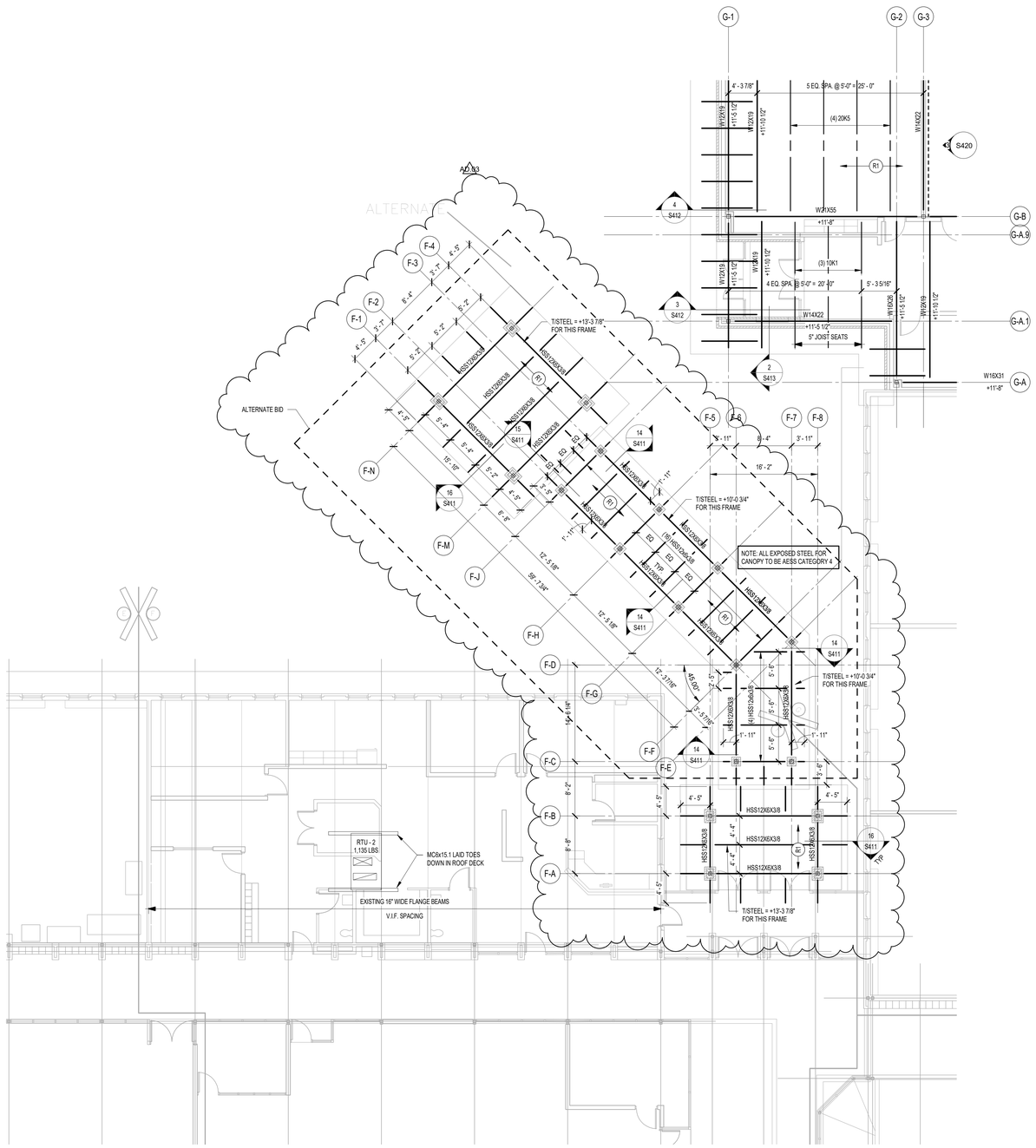
E

SHEET
S203



1 ROOF FRAMING PLAN - UNIT F
1/8" = 1'-0"

ARCHITECTURALLY EXPOSED STRUCTURAL STEEL (AESS) - KEY

	CATEGORY	AESS 4	AESS 3	AESS 2	AESS 1
ID	CHARACTERISTICS	AISC CODE OF STANDARD PRACTICE SECTION 10 FOR AESS			
1.1	SURFACE PREPARATION TO SSPC-SP-6	X	X	X	X
1.2	SHARP EDGES GROUND SMOOTH	X	X	X	X
1.3	CONTINUOUS WELD APPEARANCE	X	X	X	X
1.4	STANDARD STRUCTURAL BOLTS	X	X	X	X
1.5	WELD SPATTERS REMOVED	X	X	X	X
2.1	VISUAL SAMPLES	X	X		
2.2	ONE-HALF STANDARD FABRICATION TOLERANCES	X	X	X	
2.3	FABRICATION MARKS NOT APPARENT	X	X	X	
2.4	WELDS UNIFORM AND SMOOTH	X	X	X	
3.1	MILL MARKS REMOVED	X	X		
3.2	BUTT AND PLUG WELDS GROUND SMOOTH AND FILLED	X	X		
3.3	HSS WELD SEAM ORIENTED FOR REDUCED VISIBILITY	X	X		
3.4	CROSS SECTIONAL ABUTTING SURFACE ALIGNED	X	X		
3.5	JOINT GAP TOLERANCES MINIMIZED	X	X		
3.6	ALL WELDED CONNECTIONS	OPTIONAL	OPTIONAL		
4.1	HSS SEAM NOT APPARENT	X			
4.2	WELDS CONTOURED AND BLENDED	X			
4.3	SURFACES FILED AND SANDED	X			
4.4	WELD SHOW-THROUGH MINIMIZED	X			

NOTES:

1.1 PRIOR TO BLAST CLEANING, GREASE AND OIL ARE REMOVED BY SOLVENT CLEANING TO MEET SSPC-SP1.
1.2 ROUGH SURFACES ARE DEBURRED AND GROUND SMOOTH. SHARP EDGES RESULTING FROM FLAME CUTTING, GRINDING AND ESPECIALLY SHEARING ARE SOFTENED.
1.3 INTERMITTENT WELDS ARE MADE CONTINUOUS, EITHER WITH ADDITIONAL WELDING, CAULKING OR BODY FILLER. FOR CORROSIVE ENVIROMENTS, ALL JOINTS ARE SEAL WELDED. SEAMS OF HOLLOW STRUCTURAL SECTIONS ARE ACCEPTABLE AS PRODUCED.
1.4 ALL BOLT HEADS IN CONNECTIONS ARE ON THE SAME SIDE. AS SPECIFIED, AND CONSISTENT FROM ONE CONNECTION TO ANOTHER.
1.5 WELD SPATTER, SLIVERS, SURFACE DISCONTINUITIES ARE REMOVED. WELD PROJECTION UP TO 1/16 IN. (2 MM) IS ACCEPTABLE FOR BUTT AND PLUG WELDED JOINTS.
2.1 VISUAL SAMPLES ARE EITHER A 3-D RENDERING, A PHYSICAL SAMPLE, A FIRST-OFF INSPECTION, A SCALED MOCK-UP OR A FULL-SCALE MOCK-UP. AS SPECIFIED IN THE CONTRACT DOCUMENTS.
2.2 THESE TOLERANCES ARE ONE-HALF OF THOSE FOR STANDARD STRUCTURAL STEEL AS SPECIFIED IN THIS CODE.
2.3 MEMBERS MARKINGS DURING THE FABRICATION AND ERECTION PROCESSES ARE NOT VISIBLE.
3.1 ALL MILL MARKS ARE NOT VISIBLE IN THE FINISHED PRODUCT.
3.2 CAULKING OR BODY FILLER IS ACCEPTABLE.
3.3 SEAMS ARE ORIENTED AWAY FROM VIEW OR AS INDICATED IN THE CONTRACT DOCUMENTS.
3.4 THE MATCHING OF ABUTTING CROSS SECTIONS IS REQUIRED.
3.5 THIS CHARACTERISTIC IS SIMILAR TO 2.2 ABOVE. A CLEAR DISTANCE BETWEEN ABUTTING MEMBERS OF 1/8 IN. (3 MM) IS REQUIRED.
3.6 HIDDEN BOLTS MAY BE CONSIDERED.
4.1 HSS SEAMS ARE TREATED SO THEY ARE NOT APPARENT.
4.2 IN ADDIDITION TO A CONTOURED AND BLENDED APPEARANCE, WELDED TRANSITIONS BETWEEN MEMBERS ALSO ARE CONTOURED AND BLENDED.
4.3 THE STEEL SURFACE IMPERFECTIONS ARE FILLED AND SANDED.
4.4 WELD SHOW-THROUGH ON THE BACK SIDE OF A WELDED ELEMENT CAN BE MINIMIZED BY HAND GRINDING THE BACK SIDE SUR-FACE. THE DEGREE OF WELD-THROUGH IS A FUNCTION OF WELD SIZE AND MATERIAL.

DEFINITIONS:

1. "FABRICATION TOLERANCE": Fabricate steel to one-half the normal tolerances as specified in the AISC "CODE OF STANDARD PRACTICE", Section 10.
2. "WELDS GROUND SMOOTH": Fabricator (or Erector for field welds) shall grind welds of AESS smooth. For groove welds, the welds shall be made flush to the surfaces each side and be within +1/16", -0" of plate thickness.
3. "CONTOURING & BLENDING OF WELDS": Where fillet welds are indicated to be ground-contoured or blended, oversize welds as required and grind to provide a smooth transition and to match profile on approved mockup.
4. "CONTINUOUS WELDS": Where welding is noted on the Drawings, provide continuous welds of a uniform size and profile.
5. "MINIMIZE WELD SHOW THROUGH": At locations where welding on the far side of an exposed connection occurs, grind distortion and marking of the steel to a smooth profile with adjacent material.
6. "COPING AND BLOCKING TOLERANCE": Maintain a uniform gap of 1/8" +/- 1/32" at all copes and blocks.
7. "JOINT GAP TOLERANCE": Maintain a uniform gap of 1/8" +/- 1/32" at all joint gaps.
8. "PIECE MARKS HIDDEN": Fabricate such that piece marks are fully hidden from view in the final structure or made with such media to permit full removal after erection.
9. "MILL MARK REMOVAL": Fabricator shall deliver steel with no mill marks (stenciled, stamped, raised, etc.) in exposed locations. Mill marks shall be omitted by cutting of mill material to appropriate lengths where possible. Where not possible, the Fabricator can fill and/or grind to a surface finish consistent with the approved mockup.
10. "GRINDING OF SHEARED EDGES": Fabricator shall grind all edges of sheared, punched, or flame-cut steel to match the approved mockup.
11. "ROLLED MEMBERS": Members specified to be rolled to a final curved shape shall be fully shaped in the shop and tied during shipping to prevent stress relieving. Distortion of the web or stem, and of the outstanding flanges or legs of angles shall be visibly acceptable to the Architect from a distance of 20 feet under any lighting condition determined by the Architect. Tolerances for the vertical and horizontal walls of rectangular HSS members after rolling shall be the specified dimension of +/- 1/2".
12. "SEAL WELD TO CLOSE OPEN GAPS": Seal weld open ends of round and rectangular hollow structural sections with 3/8" closure plates. Provide continuous sealed welds at angle-to-gusset plate connections and similar locations where AESS is exposed to weather.
13. "BOLT HEAD ORIENTATION": All bolt heads shall be oriented as indicated on the Drawings. Where bolt head alignment is specified, the orientation shall be noted for each connection on the Fabricator's Erection Drawings. Where not noted, the bolt heads in a given connection shall be oriented to one side.
14. "REMOVAL OF FIELD-WELDING AIDS": Run-out tabs, erection bolts, temporary seats, and other steel members added to connections to allow for alignment, fit-up, and welding in the field shall be removed from the structure. Field groove welds shall be selected to eliminate the need for backup bars or to permit their removal after welding. Welds at run-out tabs shall be removed to match adjacent surfaces and ground smooth. Holes for erection bolts shall be plug-welded and ground smooth.
15. "FILLING OF WELD ACCESS HOLES": Where holes must be cut in the web at the intersection with flanges on W-Shapes and structural tees to permit field welding of the flanges, they shall be filled. Filling shall be executed with proper procedures to minimize restraint and address thermal stresses in Group 4 and 5 Shapes.

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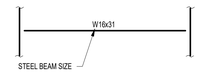

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PROJECT
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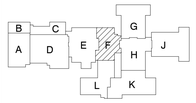

KEY PLAN

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Email info@GibraltarDesign.com
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PROJECT
21116
DATE
3-3-2022
COORDINATED BY
JMS
DRAWN BY
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CHECKED BY
SAC

SCOTT A. CLORE REGISTERED PE10606154 STATE OF INDIANA PROFESSIONAL ENGINEER

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AD-0.1	3/16/2022	ADDENDUM #1
AD-0.3	3/30/2022	ADDENDUM #3

DRAWING
ROOF FRAMING PLAN - UNIT F

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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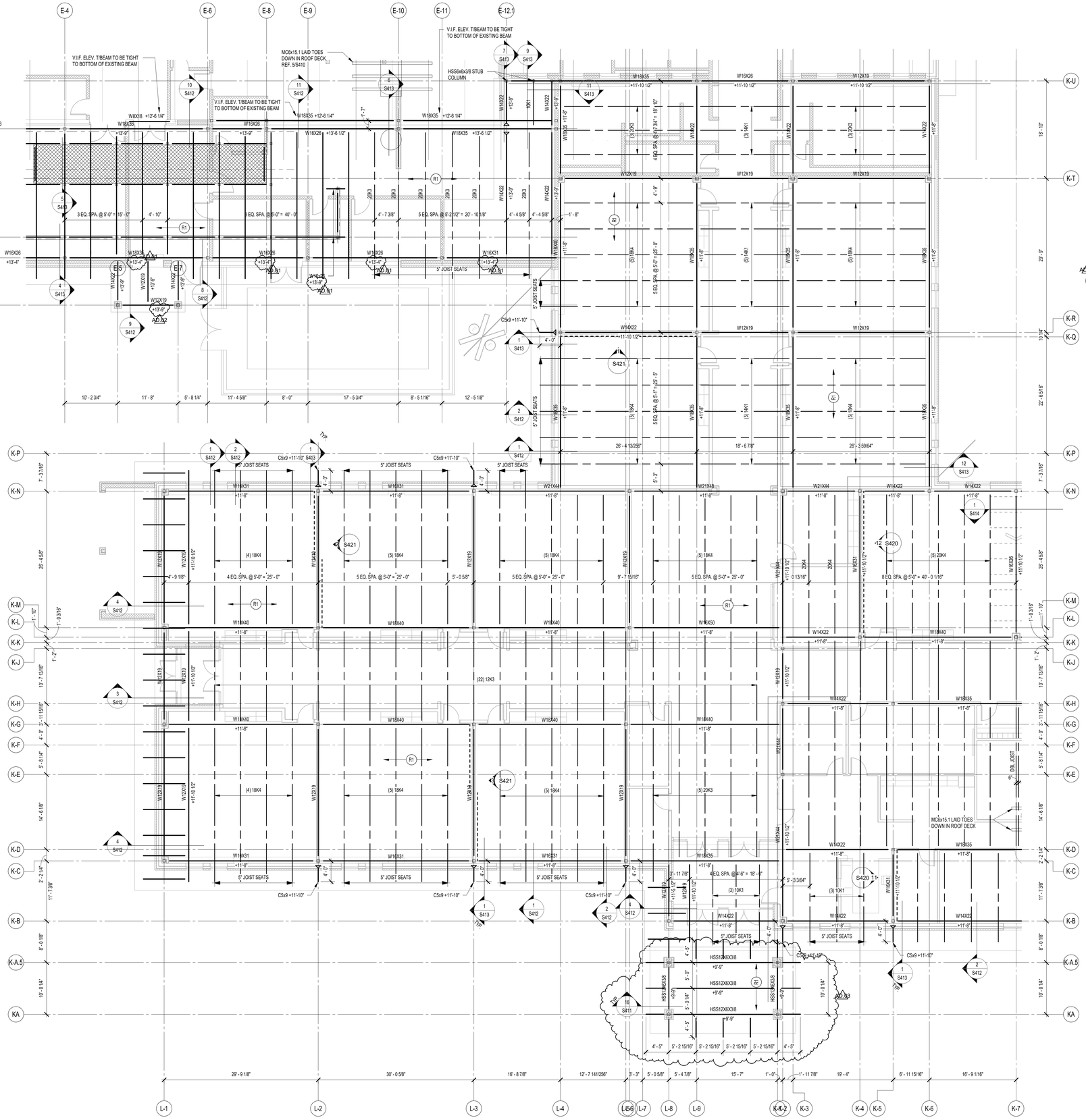
F

SHEET
S204



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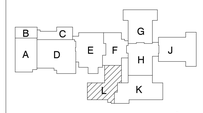
DUNELAND SCHOOL CORPORATION
CHESTERTON, INDIANA



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21116
DATE
3-3-2022
COORDINATED BY
JMS
DRAWN BY
JMS
CHECKED BY
SAC

SCOTT A. CLORE
REGISTERED
PE10606154
STATE OF INDIANA
PROFESSIONAL ENGINEER

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REVISIONS

MARK	DATE	ISSUED FOR
AD-0.1	3/16/2022	ADDENDUM #1
AD-0.2	3/21/2022	ADDENDUM #2
AD-0.3	3/30/2022	ADDENDUM #3

DRAWING
ROOF FRAMING PLAN - UNIT L

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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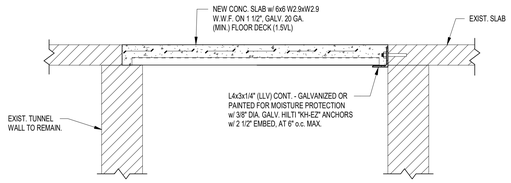
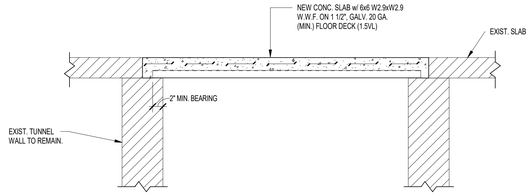
L

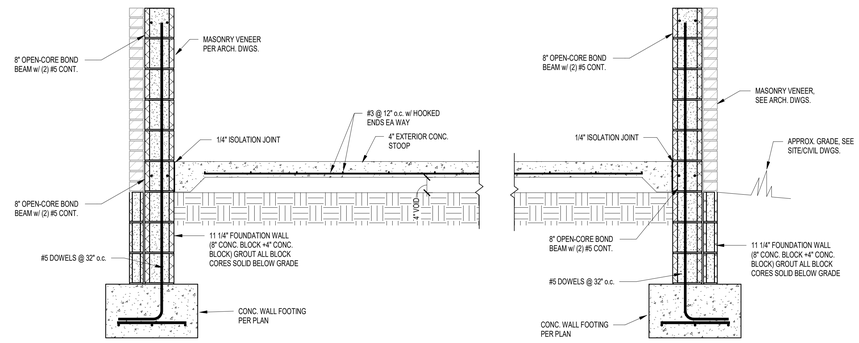
SHEET
S208



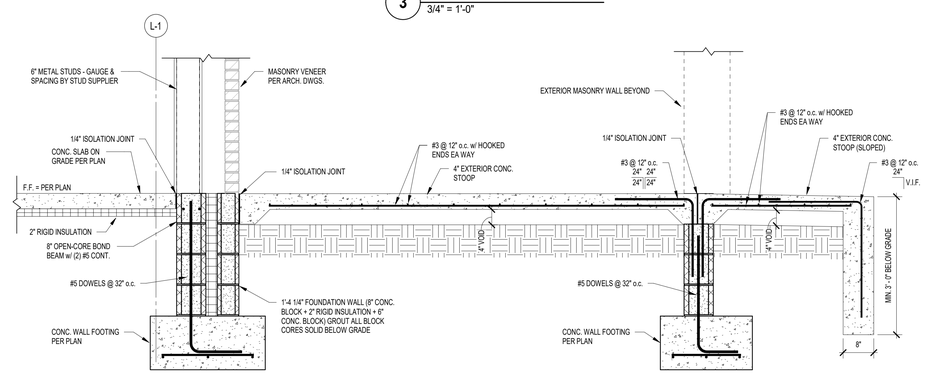
5 TUNNEL CAP TYPICAL DETAIL w/ ANGLE
1" = 1'-0"



4 TUNNEL CAP TYPICAL DETAIL
1" = 1'-0"



3 FOUNDATION SECTION
3/4" = 1'-0"



2 FOUNDATION SECTION
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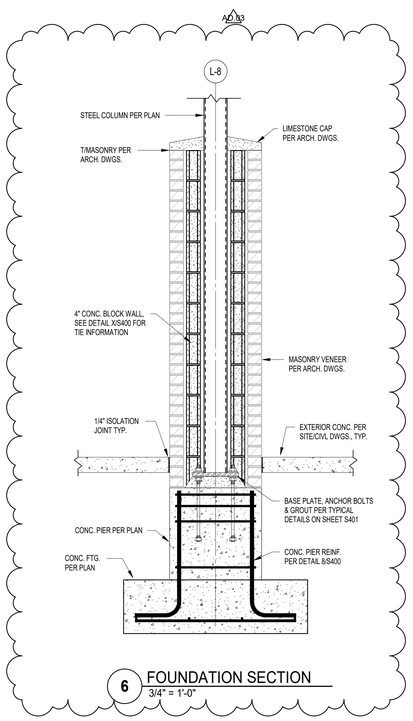

6 FOUNDATION SECTION
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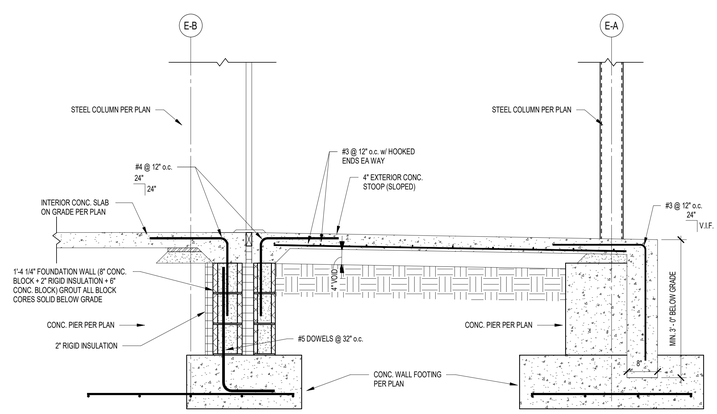

1 FOUNDATION SECTION
3/4" = 1'-0"

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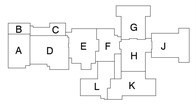
PROJECT

WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS

DUNELAND SCHOOL CORPORATION
CHESTERTON, INDIANA



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REVISIONS

MARK	DATE	ISSUED FOR
AD-03	3/30/2022	ADDENDUM #3

DRAWING
FOUNDATION SECTIONS & DETAILS

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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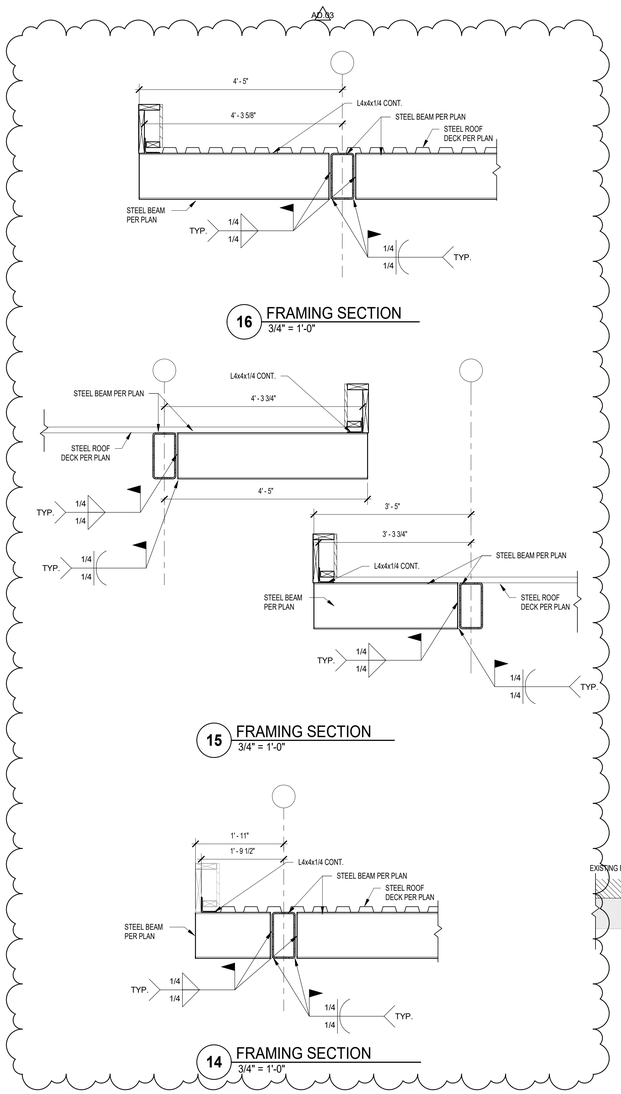
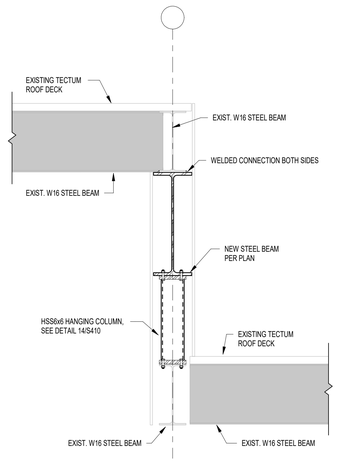
SHEET
S403



16 FRAMING SECTION
3/4" = 1'-0"

15 FRAMING SECTION
3/4" = 1'-0"

14 FRAMING SECTION
3/4" = 1'-0"



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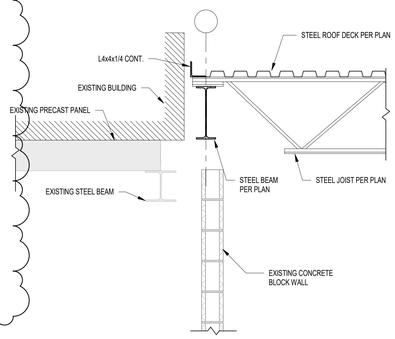

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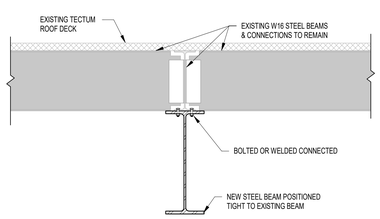

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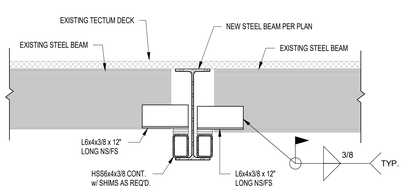

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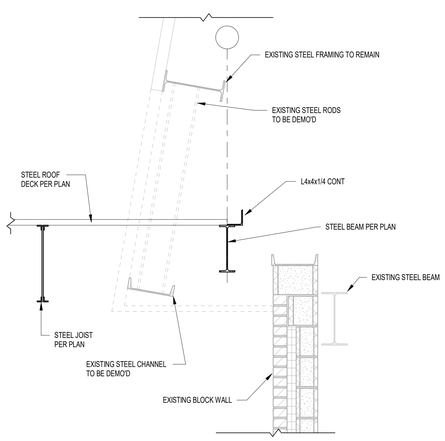
3/4" = 1'-0"



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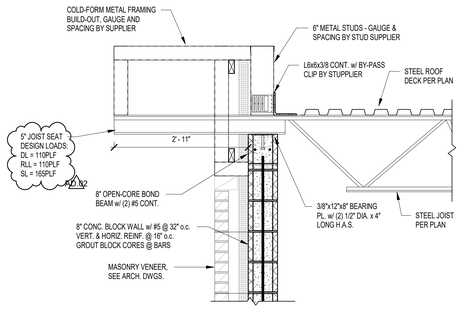
3/4" = 1'-0"



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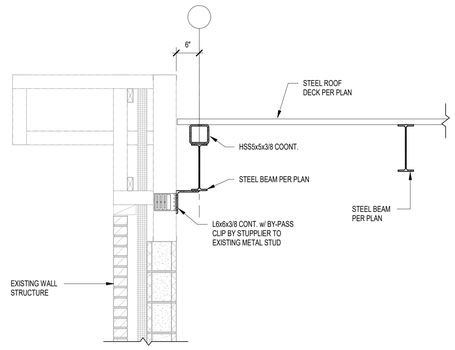
3/4" = 1'-0"



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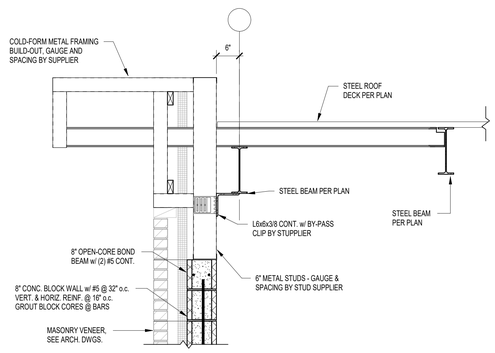

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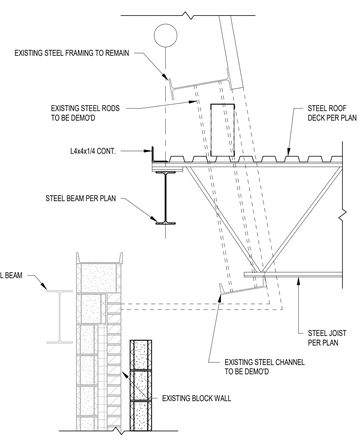

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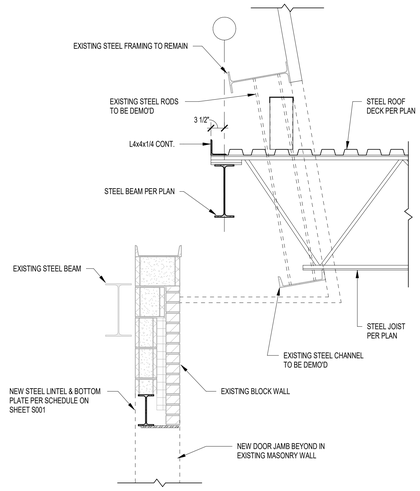

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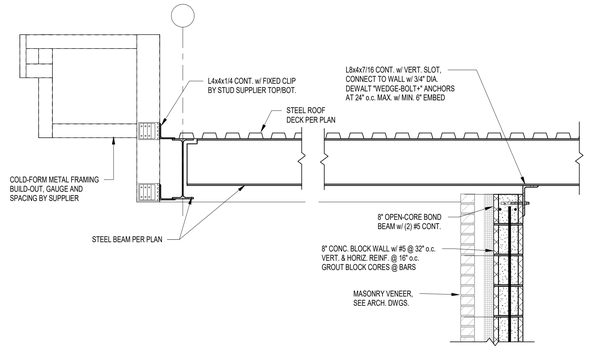

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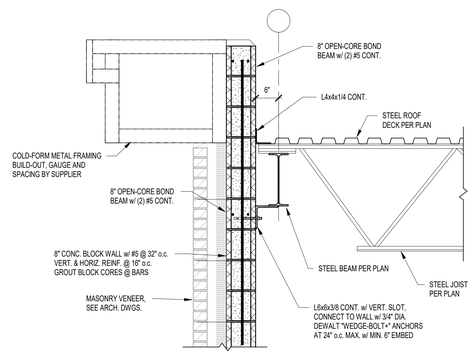

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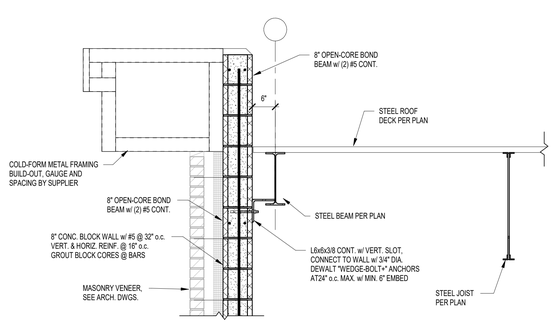

1 FRAMING SECTION
3/4" = 1'-0"

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PROJECT
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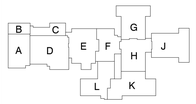

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Designer
DRAWN BY
Author
CHECKED BY
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REVISIONS

MARK	DATE	ISSUED FOR
AD-02	3/21/2022	ADDENDUM #2
AD-03	3/30/2022	ADDENDUM #3

DRAWING
FRAMING SECTIONS & DETAILS

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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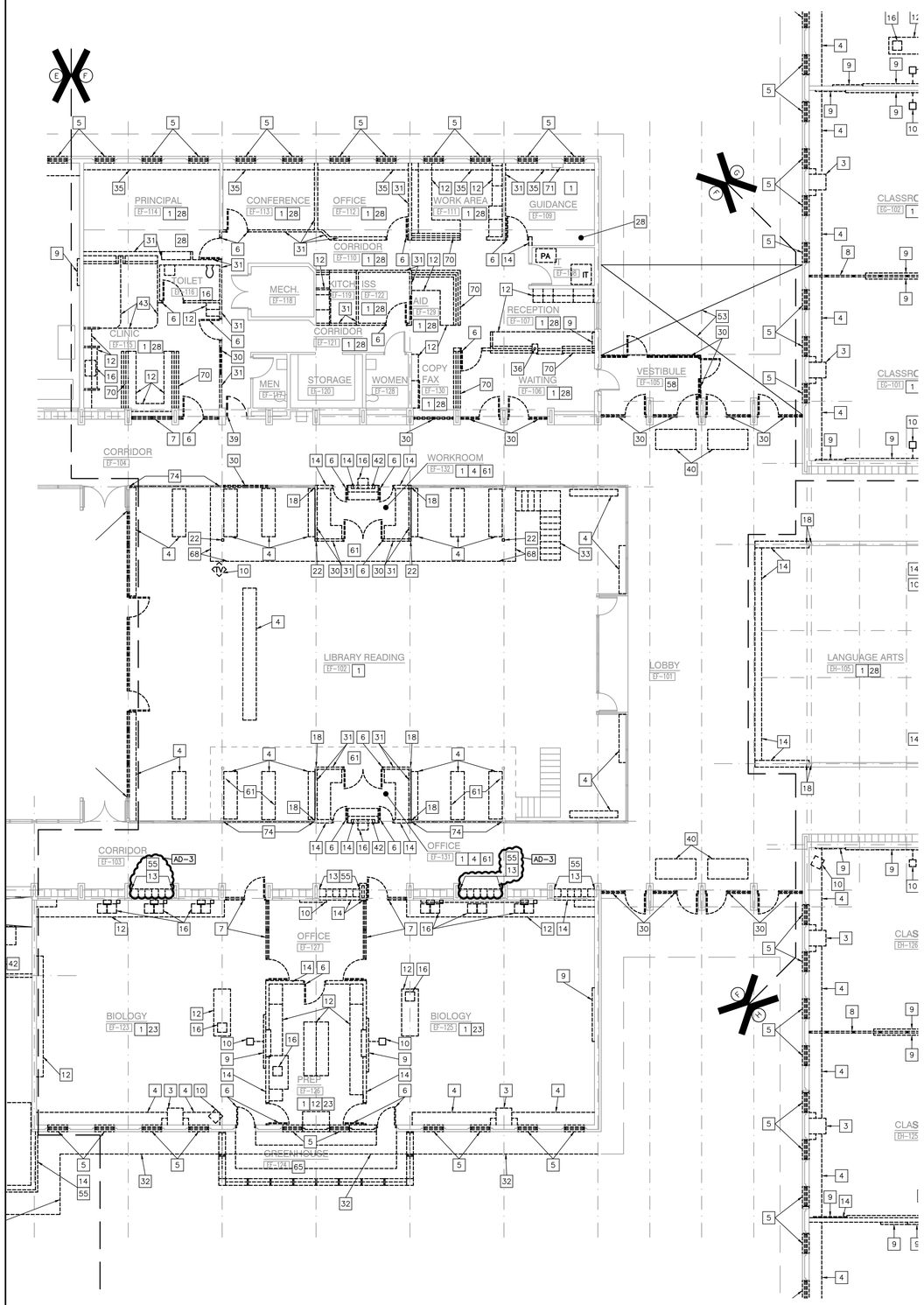
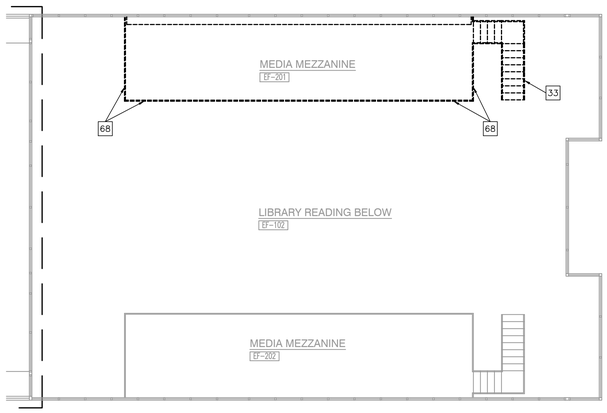


UNIT "F" ARCHITECTURAL FIRST FLOOR DEMOLITION PLAN

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

NORTH



UNIT "F" ARCHITECTURAL SECOND FLOOR DEMOLITION PLAN

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

39 REMOVE EXISTING DOOR(S). FRAME TO REMAIN.
40 REMOVE EXISTING DEPRESSED MAT IN ITS ENTIRETY.
41 REMOVE EXISTING WOOD STAGE FLOOR AND ALL WOOD FRAMING (INCLUDING KNEE WALL) IN ITS ENTIRETY.
42 REMOVE EXISTING CERAMIC TILE WALL FINISH.
43 REMOVE EXISTING PROJECTION SCREEN, CURTAIN, AND TRACK SETS IN THEIR ENTIRETY.
44 REMOVE EXISTING BLEACHER SEATING IN ITS ENTIRETY. PATCH AND REPAIR ADJACENT WALL AT CONNECTION/ANCHOR POINTS AS REQUIRED TO ACCEPT NEW FINISHES.
45 REMOVE FIXED SERVING/BUFFET STATION, INCLUDING CONCRETE BASE IN ITS ENTIRETY. PATCH AND REPAIR FLOOR FINISH TO RECEIVE NEW FINISHES.
46 REMOVE RETRACTABLE STEEL SECURITY GATE. PATCH AND FILL REMAINING ANCHOR HOLES AS NEEDED.
47 REMOVE COILING PASS-THRU DOOR AND BASE COUNTERTOP/LEDGE.
48 REMOVE KITCHEN COOLER AND CONNECTED EQUIPMENT IN ITS ENTIRETY.
49 REMOVE ALL EXISTING KITCHEN EQUIPMENT, INCLUDING EXHAUST HOOD(S). REFER TO KITCHEN AND MECHANICAL DRAWINGS.
50 REMOVE EXISTING PIPE BOLLARD. COORDINATE WITH CIVIL DRAWINGS.
51 REMOVE CHAIN-LINK FENCE ENCLOSURE IN ITS ENTIRETY. PATCH REMAINING POST HOLES AS REQUIRED PER NEW CONSTRUCTION.
52 REMOVE MECHANICAL EQUIPMENT (INCLUDING GENERATOR, NATURAL GAS METER/LINES, ETC.) AND CONCRETE MOUNTING PAD. COORDINATE WITH MECHANICAL DRAWINGS.
53 DEMOLISH AND REMOVE SITE CONCRETE (INCLUDING STOOPS, SIDEWALKS, PADS, AND APRONS WHERE INDICATED. COORDINATE WITH CIVIL DRAWINGS.
54 REMOVE LOCKER ROOM BENCH.
55 REMOVE EXISTING TERRAZZO BASE IN ITS ENTIRETY.
56 REMOVE EXISTING ACOUSTIC CEILING GRID AND SYSTEM.
57 REMOVE EXISTING RUBBER/CERAMIC TILE BASE.
58 REMOVE EXISTING CERAMIC AND/OR QUARRY TILE FLOOR AND SETTING BED.
59 REMOVE ALL EXISTING TOILET ACCESSORIES.
60 REMOVE EXISTING RAILING.
61 REMOVE EXISTING PLASTER CEILING SYSTEM IN ITS ENTIRETY.
62 REMOVE EXISTING CERAMIC TILE WALL FINISH IN ITS ENTIRETY.
63 BUSH HAMMER EXISTING FLOOR FINISH TO RECEIVE NEW FLOOR FINISH. NEW AND EXISTING FLOOR FINISHES TO BE FLUSH.
64 REMOVE EXISTING ROOF STRUCTURE IN ITS ENTIRETY.
65 REMOVE EXISTING GREENHOUSE STRUCTURE, INCLUDING ALL WALLS, FOUNDATIONS, AND FLOOR SLAB IN ITS ENTIRETY.
66 REMOVE ALUMINUM STOREFRONT SLIDING PANELS IN THEIR ENTIRETY. ALUMINUM STOREFRONT ABOVE STEEL BEAM TO REMAIN.
67 REMOVE EXISTING WOOD LIGHT COVE.
68 REMOVE EXISTING MEZZANINE STRUCTURE IN ITS ENTIRETY.
69 REMOVE EXISTING CASEWORK AND SAVE FOR REINSTALLATION.
70 REMOVE EXISTING MILLWORK WALL CONSTRUCTION IN ITS ENTIRETY.
71 EXISTING FIBER OPTIC ENTRANCE TO BUILDING TO REMAIN.
72 EXISTING BACKBOARD TO REMAIN.
73 REMOVE EXISTING BACKBOARD. EXISTING BACKBOARD SUPPORT TO REMAIN.
74 REMOVE EXISTING GLAZING. ALUMINUM STOREFRONT FRAME TO REMAIN.
75 REMOVE EXISTING CONCRETE TRENCH IN ITS ENTIRETY. BACKFILL AS REQUIRED FOR NEW CONCRETE FLOOR

GENERAL DEMOLITION NOTES:

A. FOR GENERAL PROJECT NOTES, MATERIAL INDICATIONS LEGEND, SYMBOL LEGEND, ABBREVIATIONS, ETC., REFER TO GI SERIES SHEETS.

B. UNLESS NOTED OTHERWISE ON THIS SHEET, THE GENERAL CONTRACTOR IS RESPONSIBLE FOR ALL DEMOLITION AND REMOVAL WORK INDICATED ON THIS SHEET.

C. CONTRACTORS ENCOUNTERING EXISTING MATERIAL WHICH IS SUSPECTED OF CONTAINING ASBESTOS SHALL STOP WORK IMMEDIATELY AND NOTIFY THE OWNER AND THE OWNERS REPRESENTATIVE.

D. BOLD DASHED LINES INDICATE EXISTING ITEMS TO BE REMOVED UNLESS OTHERWISE NOTED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFYING THE EXTENT OF DEMOLITION WORK PRIOR TO BIDDING AND FOR COORDINATING THE EXTENT OF DEMOLITION WITH THE INSTALLATION OF NEW SYSTEMS.

E. EACH CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DEMOLITION APPLICABLE TO THEIR SCOPE OF WORK AND AS REQUIRED FOR INSTALLATION OF NEW WORK WHETHER OR NOT IT IS SPECIFICALLY INDICATED OR NOTED IN THESE DOCUMENTS.

F. REMOVE ALL ITEMS AND FINISHES MADE OBSOLETE BY NEW CONSTRUCTION. VERIFY ITEMS DEEMED OBSOLETE WITH ARCHITECT PRIOR TO REMOVAL. REFER TO NEW CONSTRUCTION DRAWINGS FOR DEMOLITION REQUIRED NOT SHOWN ON DEMOLITION PLANS.

G. EACH CONTRACTOR SHALL BE RESPONSIBLE FOR OFF SITE REMOVAL OF ALL DEMOLITION MATERIALS AND/OR ITEMS UNLESS NOTED OTHERWISE OR DIRECTED BY THE OWNER.

H. PRIOR TO STARTING DEMOLITION, CONSTRUCT DUST CONTROL BARRIERS AS REQUIRED TO PREVENT THE SPREAD OF DUST INTO SURROUNDING AREAS (WHERE APPLICABLE).

I. WHERE BUILDING EGRESS IS REQUIRED TO PASS THROUGH DEMOLITION AREAS, PROVIDE APPROVED BARRIERS, ETC. TO ENSURE SAFETY OF THE PUBLIC.

J. RELOCATED ITEMS SHALL BE CLEANED AND PLACED IN STORAGE, PER OWNERS' DIRECTION, UNTIL ITEMS ARE READY TO BE INSTALLED. IF ITEMS ARE DAMAGED DURING DEMOLITION OR RELOCATION, THEY SHALL BE REPAIRED OR REPLACED WITH NEW ITEMS AS APPROVED.

K. DEMOLITION SHALL BE PERFORMED WITHOUT DAMAGE TO EXISTING CONSTRUCTION TO REMAIN. WHERE SUCH DAMAGE OCCURS, PATCH, REPAIR, OR RESTORE WALLS, FLOORS, CEILING, ETC. NEATLY TO MATCH EXISTING ADJACENT SURFACE. PROVIDE SHORING, BRACING, OR SUPPORT AS REQUIRED TO PREVENT MOVEMENT OR SETTLEMENT OF EXISTING STRUCTURES.

L. EACH CONTRACTOR IS RESPONSIBLE FOR CUTTING, PATCHING, AND DISCONNECTION OF ITEMS APPLICABLE TO THEIR SCOPE OF WORK. WHERE EXISTING SERVICES ARE ABANDONED, CAP AT LEAST 1" BEHIND NEW FINISHES AND/OR EXISTING SURFACE AND PATCH AS REQUIRED TO RECEIVE NEW FINISHES OR MATCH EXISTING FINISH.

M. ON WALLS THAT ARE TO RECEIVE NEW FINISHES, REMOVE AND REINSTALL EXISTING EQUIPMENT TO REMAIN AS REQUIRED FOR INSTALLATION OF NEW FINISHES.

N. WHERE WALLS OR BULKHEADS ARE REMOVED, PATCH FLOORS, CEILINGS, AND ADJACENT WALLS AS REQUIRED TO MATCH EXISTING OR RECEIVE NEW FINISHES WHERE APPLICABLE. WHERE EXISTING DUCTWORK, PIPING, OR EQUIPMENT IS REMOVED, PATCH OPENINGS AND/OR SURFACES AS REQUIRED TO MATCH ADJACENT SURFACES OR RECEIVE NEW FINISHES WHERE APPLICABLE. REFER TO ALL DEMOLITION DRAWINGS FOR EXTENT OF ITEMS TO REMOVED.

O. OVER CUT NEW OPENINGS IN EXISTING WALL AS REQUIRED FOR NEW CONSTRUCTION. PATCH AND REPAIR WALLS AS REQUIRED TO MATCH EXISTING. WHERE APPLICABLE, TOOTH NEW MASONRY INTO EXISTING MASONRY.

P. ALL EQUIPMENT AND FURNITURE WHICH ARE CONSIDERED LOOSE FURNISHING SHALL BE REMOVED BY THE OWNER PRIOR TO DEMOLITION.

Q. MASONRY WALLS TO BE REMOVED SHALL BE REMOVED TO A POINT 2" MINIMUM BELOW THE EXISTING FLOOR SLAB UNLESS SETTING ON A SLAB OR SPECIFICALLY NOTED OTHERWISE. PATCH WITH NEW CONCRETE TO BE FLUSH WITH THE EXISTING FLOOR SLAB.

R. EACH CONTRACTOR SHALL BE RESPONSIBLE FOR GENERAL REVIEW OF DEMOLITION NOTES AND GENERAL DEMOLITION NOTES AS THEY APPLY TO THEIR SCOPE OF WORK.

S. REFER TO THE STRUCTURAL, MECHANICAL, PLUMBING, ELECTRICAL AND TECHNOLOGY DOCUMENTS FOR COMPLETE SCOPE OF DEMOLITION WORK.

T. "FLOORING" DENOTES FLOOR COVERING MATERIALS INCLUDING BACKING, ADHESIVES, AND BASES DOWN TO BUT EXCLUSIVE OF FLOOR SLABS AND STRUCTURAL MATERIALS UNLESS NOTED OTHERWISE.

U. WHERE APPLICABLE SALVAGE EXISTING MASONRY (FACE BRICK, GLAZED CMU, FACING TILE) AS REQUIRED FOR PATCHING AND INFILL IN RENOVATED AREAS WHERE INDICATED. DISCARD UNUSED PORTION OFF SITE.

DEMOLITION PLAN NOTES:

(ALL PLAN NOTES MAY NOT BE INDICATED ON THIS SHEET.)

1 REMOVE EXISTING FLOOR FINISH AND WALL BASE IN ITS ENTIRETY. PREP FOR NEW FINISHES.
2 REMOVE EXISTING FLOOR FINISH AND CONCRETE SLAB IN ITS ENTIRETY.
3 REMOVE UNIT VENTILATOR SYSTEM IN ITS ENTIRETY. EXISTING DUCTWORK TO REMAIN.
4 REMOVE SHELVING AND COUNTERTOP SYSTEM IN ITS ENTIRETY. PATCH AND REPAIR FLOOR AS REQUIRED TO ACCEPT NEW FINISHES.
5 REMOVE WINDOW SYSTEM IN ITS ENTIRETY. PREPARE OPENING TO ACCEPT NEW WINDOW SYSTEM.
6 REMOVE EXISTING DOOR AND FRAME SYSTEM IN ITS ENTIRETY. INCLUDING ALL SIDELIGHTS AND TRANSOMS.
7 REMOVE EXISTING INTERIOR WINDOW SYSTEM IN ITS ENTIRETY. PREPARE OPENING FOR NEW CONSTRUCTION AS REQUIRED.
8 REMOVE DEMOUNTABLE PARTITION IN ITS ENTIRETY. INCLUDING STEEL FRAMING TRACK SUPPORT.
9 REMOVE MARKERBOARD/TACKBOARD/CHALKBOARD IN ITS ENTIRETY, PREP WALL FOR NEW FINISHES.
10 REMOVE MOUNTED PROJECTOR/TV/SMARTBOARD/SCREEN IN ITS ENTIRETY.
11 REMOVE MOUNTED TECHNOLOGY RACK. TURN OVER TO OWNER.
12 REMOVE CASEWORK IN ITS ENTIRETY. PATCH AND REPAIR WALL AND FLOOR AS REQUIRED TO ACCEPT NEW FINISHES.
13 REMOVE METAL LOCKERS AND CONCRETE BASE IN THEIR ENTIRETY.
14 REMOVE MASONRY WALL (AS REQUIRED FOR NEW CONSTRUCTION.) PATCH AND REPAIR ADJACENT FLOOR AND WALL AS REQUIRED TO ACCEPT NEW FINISHES.
15 REMOVE FIRE EXTINGUISHER. TURN OVER TO OWNER.
16 REMOVE ALL PLUMBING FIXTURES IN ITS ENTIRETY. CUT AND CAP LINE BELOW WALL OR FLOOR SURFACE. UNLESS OTHERWISE NOTED ON PLUMBING DRAWINGS PATCH AND REPAIR FLOOR AND/OR WALL AS REQUIRED TO ACCEPT NEW FINISHES.
17 REMOVE TOILET PARTITIONS IN THEIR ENTIRETY.
18 EXISTING STEEL COLUMN AND BEAMS TO REMAIN.
19 REMOVE SAFETY CUSHION WAINSCOT IN ITS ENTIRETY. PREP FOR NEW FINISH.
20 REMOVE SECTION OF WALL TO CREATE NEW OPENING FOR DOOR.
21 REMOVE EXISTING DISPLAY CASE, INCLUDING WALL CONSTRUCTION ABOVE AND BELOW IN ITS ENTIRETY. PREPARE WALL AND FLOOR TO ACCEPT NEW FINISHES AS REQUIRED FOR NEW CONSTRUCTION.
22 REMOVE EXISTING COLUMN IN ITS ENTIRETY. COORDINATE WITH STRUCTURAL DRAWINGS.
23 REMOVE TOILET AND SANITARY ACCESSORIES AND TURN OVER TO OWNER.
24 REMOVE EXISTING FLOOR DRAIN(S). REFER TO PLUMBING DRAWINGS.
25 REMOVE FLOOR SLAB AS REQUIRED FOR NEW CONSTRUCTION.
26 REMOVE ACCORDION PARTITION AND SUPPORTING STRUCTURE ABOVE IN THEIR ENTIRETY.
27 REMOVE EXISTING GYPSUM BOARD/PLASTER WALL CONSTRUCTION ABOVE DOORS.
28 REMOVE ACOUSTICAL BOARD CEILING IN ITS ENTIRETY.
29 REMOVE EXISTING GYPSUM/PLASTER CEILING SYSTEM IN ITS ENTIRETY
30 REMOVE ALUMINUM STOREFRONT SYSTEM, DOORS, AND HARDWARE IN ITS ENTIRETY TO STRUCTURE ABOVE.
31 REMOVE EXISTING GYPSUM/PLASTER WALLS IN ITS ENTIRETY (AS REQUIRED FOR NEW CONSTRUCTION).
32 REMOVE ROOF AND/OR OVERHANG ASSEMBLY AS REQUIRED FOR NEW CONSTRUCTION. COORDINATE WITH STRUCTURAL DRAWINGS.
33 REMOVE STAIR/RAMP CONSTRUCTION AND RAILINGS IN ITS ENTIRETY. PREPARE FLOOR AND WALL TO ACCEPT NEW FINISHES.
34 REMOVE TECHNOLOGY RACK. REFER TO TECHNOLOGY DRAWINGS.
35 REMOVE MECHANICAL UNIT IN ITS ENTIRETY. INCLUDING METAL SHROUD.
36 ROOF DRAIN PIPE. REFER TO PLUMBING DRAWINGS FOR MODIFICATIONS.
37 REMOVE EXISTING CONCRETE SLAB AND FLOOR MATERIALS INCLUDING VINYL TILE BELOW EXISTING FINISH AND WALL BASE.
38 REMOVE EXISTING SLOPED METAL PANEL, SOFFIT, AND ALL FRAMING SYSTEM IN ITS ENTIRETY TO ACCOMMODATE ADDITION.

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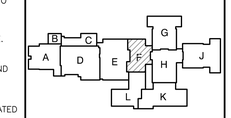
PROJECT

WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS

DUNELAND SCHOOL CORPORATION
CHESTERTON, INDIANA



KEY PLAN

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PROJECT 21-141
DATE 02/28/22
COORDINATED BY DWJ
DRAWN BY CND KF
CHECKED BY BCB

DALE J. WACKER REGISTERED NO. 19600171 STATE OF INDIANA ARCHITECT

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REVISIONS

MARK	DATE	ISSUED FOR
AD-1	03/16/22	ADDENDUM NO. 1
AD-3	03/30/22	ADDENDUM NO. 3

DRAWING

UNIT "F" ARCHITECTURAL FIRST FLOOR DEMOLITION PLAN

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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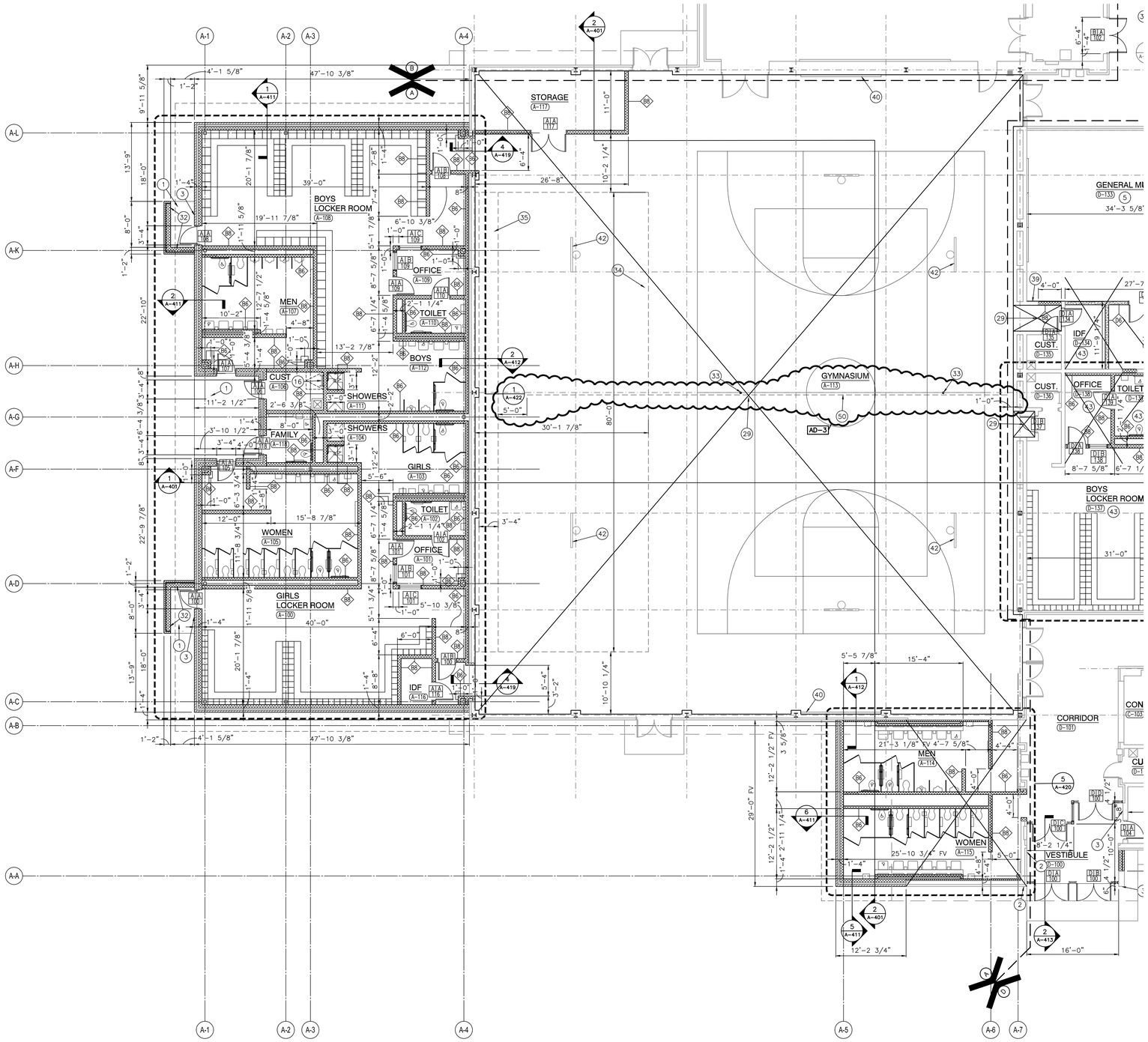
F

SHEET AD105

Wednesday, 3/30/2022 - 12:19 PM - LAST SAVED BY:NWESLEY
Y:\21-141 DUNELAND SC - WESTCHESTER INTERMEDIATE SCHOOL ADDITIONS AND RENOVATIONS\21-141 DRAWINGS\05 ARCH\AD105.DWG



UNIT "A" ARCHITECTURAL FIRST FLOOR PLAN

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

GENERAL PLAN NOTES:

A. FOR GENERAL PROJECT NOTES, MATERIAL INDICATIONS LEGEND, SYMBOL LEGEND, ABBREVIATIONS, ETC., REFER TO G SERIES SHEETS.

B. PLAN DIMENSIONS TO MASONRY WALLS ARE TO FACE OF ROUGH MASONRY. PLAN DIMENSIONS TO STUD WALLS ARE TO FACE OF FINISHED GYPSUM BOARD OR PLASTER. PLAN DIMENSIONS TO STUD WALLS WITH CERAMIC TILE FINISH ARE TO THE FACE OF TILE BACKER BOARD.

C. ALL CMU WALLS THAT DO NOT LAY OUT IN FULL OR HALF LENGTHS SHOULD BE BALANCED SO AS NOT TO HAVE ANY PIECES LESS THAN 4" IN SIZE EXPOSED TO VIEW.

D. MASONRY WALLS BEARING ON A THICKENED SLAB AT SLAB DEPRESSIONS REQUIRE CUT MASONRY UNITS SO THAT COURSING BEGINS AT THE FLOOR LINE.

E. THE BASE FIRST FLOOR ELEVATION INDICATED FOR THE PROJECT IS 100'-0". REFER TO SITE PLAN FOR CORRELATION TO USGS DATUM.

F. HINGE SIDE OF DOOR JAMB AT CMU WALLS SHALL BE LOCATED 8" MINIMUM FROM ADJACENT WALL AND HINGE SIDE OF DOOR JAMB AT GYPSUM BOARD WALLS SHALL BE LOCATED 4" MINIMUM FROM ADJACENT WALL UNLESS NOTED OTHERWISE.

G. PROVIDE WOOD BLOCKING (OR METAL STRAPPING WHERE APPLICABLE) AS REQUIRED WITHIN METAL STUD WALLS FOR WALL MOUNTED ITEMS.

H. REFER TO LIFE SAFETY PLANS REGARDING FIRE RATED WALL LOCATIONS AND OTHER CODE INFORMATION.

I. INTERIOR CMU WALLS ARE TO BE RUNNING BOND UNLESS NOTED OTHERWISE.

J. ALL EXPOSED CONCRETE MASONRY UNITS (CMU) CORNERS ARE TO BE BULLNOSED, EXCEPT AT MASONRY BULKHEADS AND EXTERIOR WINDOW JAMBS.

K. WHERE NEW CMU WALLS INTERSECT EXISTING CMU WALLS AT A CORNER OR ARE ALIGNED WITH EXISTING CMU WALLS, TOOTH NEW CMU INTO EXISTING CMU UNLESS NOTED OTHERWISE.

L. REFER TO DEMOLITION SHEETS FOR ADDITIONAL PATCHING AND REPAIR WORK.

M. REFER TO FINISH PLANS FOR INTERIOR ELEVATIONS, LOCATION AND EXTENT OF FINISHED FLOOR AND WALL MATERIAL

N. REFER TO EQUIPMENT PLANS FOR CASEWORK, DISPLAY BOARDS, LOCKERS, AND OTHER ADDITIONAL TYPICAL EQUIPMENT NOTES AND INFORMATION.

O. REFER TO EQUIPMENT PLANS FOR REFERENCE TO ENLARGED TOILET ROOM PLANS AND TOILET ACCESSORIES.

PLAN LEGEND:

INDICATES STOREFRONT, CURTAIN WALL, OR WINDOW SYSTEM. REFER TO A-600 SERIES DRAWINGS FOR ELEVATIONS AND DETAILS.

INDICATES WALL TYPES REFER TO G-201 FOR WALL THICKNESS, HEIGHT, AND COMPOSITION.

PLAN NOTES:

(ALL PLAN NOTES MAY NOT BE INDICATED ON THIS SHEET.)

1. CONCRETE STOOP/VOID SLAB, REFER TO STRUCTURAL DRAWINGS.
2. PUSH PAD FOR ADA OPERATOR, REFER TO ELECTRICAL DRAWINGS.
3. CARD/FOB READER, REFER TO ELECTRICAL/TECHNOLOGY DRAWINGS.
4. KNOX BOX.
5. CASEWORK, MILLWORK, MARKER/TACK BOARDS AND EQUIPEMENT. REFER TO 700 SERIES DRAWINGS.
6. PLUMBING FIXTURE. SEE PLUMBING DRAWINGS.
7. FILL IN OPENING WITH SAME MATERIAL AS ADJOINING WALLS.
8. PROVIDE NEW 4" CONCRETE FLOOR SLAB.
9. MOP SINK. REFER TO PLUMBING DRAWINGS.
10. HOUSE KEEPING PAD. VERIFY SIZE AND LOCATION WITH MECHANICAL TRADES. SEE STRUCTURAL DRAWINGS FOR DETAIL.
11. CARD READER.
12. WALLS AROUND PERIMETER OF VESTIBULE TO EXTEND TO DECK.
13. LOCKERS TYPE F. — 3/A-501
14. GYPSUM BOARD BULKHEAD. REFER TO 900 SERIES DRAWINGS. — 2, 3, 4/A-501
15. TEMPORARY EMERGENCY EGRESS STAIR BY CONTRACTOR.
16. ROOF HATCH AND LADDER. — 12/A-201
17. FLOOR DRAIN, REFER TO PLUMBING DRAWING.
18. CABINET HEATER, REFER TO MECHANICAL DRAWINGS.
19. UNIT VENTILATOR, REFER TO MECHANICAL DRAWINGS.
20. ROOF CONDUCTOR, REFER TO PLUMBING DRAWINGS.
21. LINE OF CANOPY ABOVE, REFER TO SECTIONS.
22. 6" PIPE BOLLARD, REFER TO CIVIL DRAWINGS.
23. CHAIN LINK FENCE, REFER TO CIVIL DRAWINGS.
24. DOWNSPOUT, REFER TO ROOF PLAN.
25. LAMINATE CERAMIC TILE BACKER BOARD TO ALL WALLS.
26. FOLDING PARTITION. SEE DETAIL — 19/A-501
27. PATCH WALL TO MATCH ADJOINING FINISHES WHERE WALL HAS BEEN REMOVED.
28. PATCH WALL TO MATCH ADJOINING FINISHES WHERE FLOOR SLAB HAS BEEN REMOVED.
29. NEW CONCRETE SLAB INFILL. REFER TO STRUCTURAL/PLUMBING DRAWINGS FOR EXTENT OF SLAB REMOVAL AND DETAILS.
30. PRIVACY CURTAIN TRACK. SEE DETAIL — 18/A-501
31. PARTIAL HEIGHT STUD WALL. SEE DETAIL — 4/A-501
32. PARTIAL HEIGHT BRICK/CMU WALL. SEE DETAIL — 1/A-419
33. VOLLEYBALL INSERT. SEE DETAIL — 5/A-501
34. BLEACHERS FULLY EXTENDED.
35. MOTORIZED BLEACHERS MOUNTED TO EXISTING WALL.
36. FILL IN RECESSED FLOOR WITH ARDEX. PREP TO RECEIVE NEW FLOOR FINISH.
37. PROVIDE TACKABLE SURFACE AND WALL FABRIC FROM FLOOR TO EXISTING LINTEL.
38. FILL OPENING WITH 6" CMU. HOLD CMU BACK 2" ON CORRIDOR SIDE.
39. LAMINATE 5/8" GYPSUM BOARD TO EXISTING OR NEW MASONRY WALL.
40. EXISTING WALL PADDING TO REMAIN.
41. EXISTING DRINKING FOUNTAINS TO REMAIN.
42. FILL IN OPENING WITH 8" CMU.
43. PROVIDE "ARDEX" SUBFLOOR/FLOOR PATCHING AND PREP FLOOR FOR NEW FINISH.
44. SEE STRUCTURAL DRAWINGS FOR SLAB IN-FILL.
45. THREE 2 1/2" STRUCTURAL METAL STUDS INSIDE STOREFRONT FRAMING TO SUPPORT 6" BOXED HEADER ABOVE.
46. WRAP COLUMN WITH TYPE C4 WALL TYPES. SEE CLASSROOM G-101 FOR TYPICAL DIMENSIONS.
47. WRAP COLUMN WITH 4" CMU AND RECLAIMED EXISTING FACE BRICK.
48. BRONZE PLAQUE. REFER TO SPECIFICATIONS.
49. 8'-0" STAINLESS STEEL ROLL-UP DOOR. HEAD AT 8'-0" AFF. COORDINATE BOTTOM OF DOOR WITH KITCHEN EQUIPMENT. — 15/A-501
50. DIVIDER CURTAIN. REFER TO SPECIFICATIONS.

AD-3

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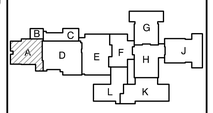
PROJECT

WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS

DUNELAND SCHOOL CORPORATION
CHESTERTON, INDIANA



KEY PLAN

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PROJECT
21-141

DATE
02/28/22

COORDINATED BY
DJW

DRAWN BY
CND KLS

CHECKED BY
BCB

DALE J. WAGNER REGISTERED NO. 19600171 STATE OF INDIANA ARCHITECT

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REVISIONS

MARK	DATE	ISSUED FOR
AD-2	03/21/22	ADDENDUM NO. 2
AD-3	03/30/22	ADDENDUM NO. 3

DRAWING
UNIT "A" ARCHITECTURAL FIRST FLOOR PLAN

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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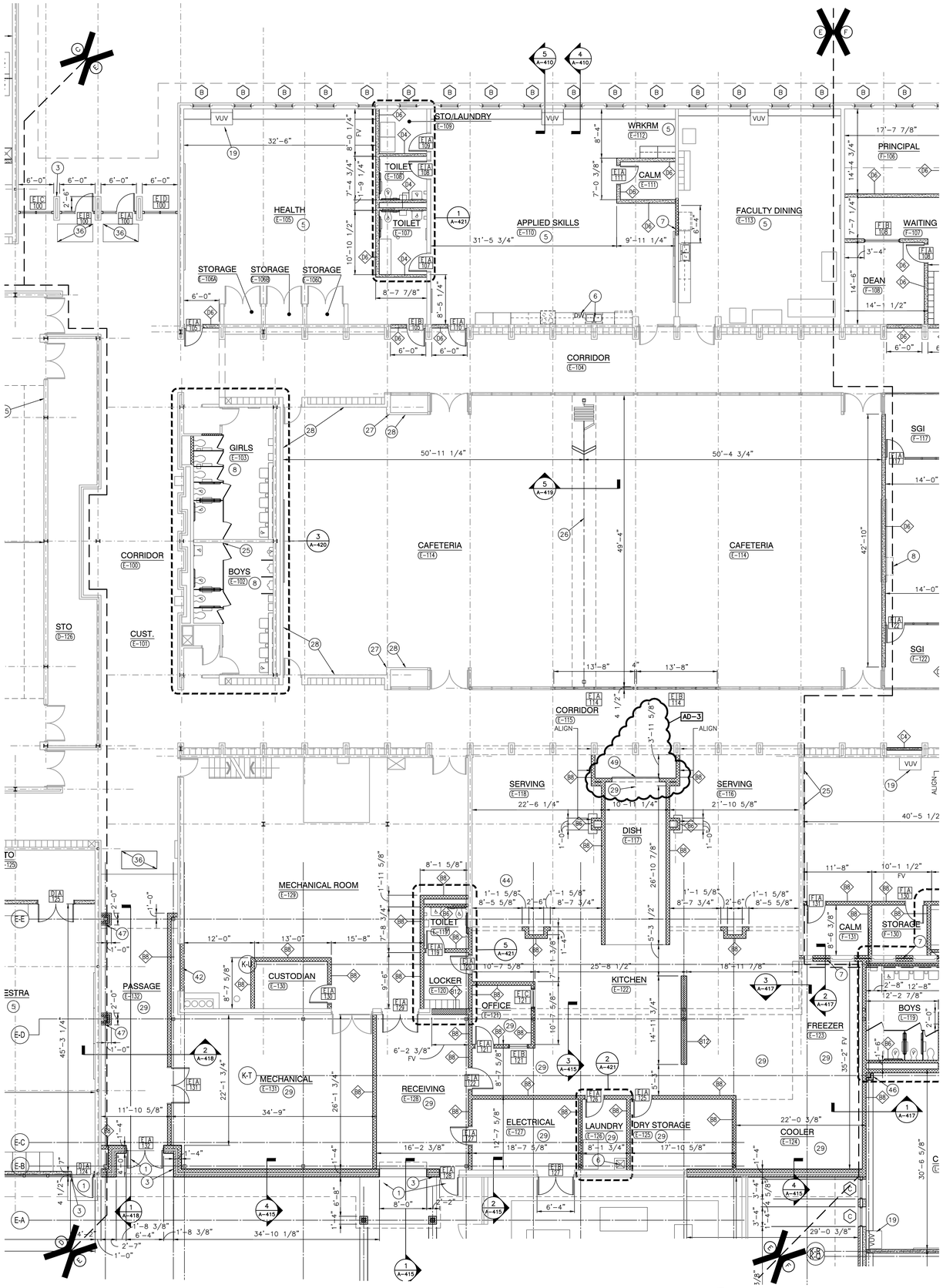
SHEET
A-101

Wednesday, 3/30/2022 - 2:43 PM - LAST SAVED BY:NWESLEY
Y:\21-141 DUNELAND SC - WESTCHESTER INTERMEDIATE SCHOOL ADDITIONS AND RENOVATIONS\21-141 DRAWINGS\05 ARCH\A-101.DWG



UNIT "E" ARCHITECTURAL FIRST FLOOR PLAN

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

GENERAL PLAN NOTES:

A. FOR GENERAL PROJECT NOTES, MATERIAL INDICATIONS LEGEND, SYMBOL LEGEND, ABBREVIATIONS, ETC., REFER TO G SERIES SHEETS.

B. PLAN DIMENSIONS TO MASONRY WALLS ARE TO FACE OF ROUGH MASONRY. PLAN DIMENSIONS TO STUD WALLS ARE TO FACE OF FINISHED GYPSUM BOARD OR PLASTER. PLAN DIMENSIONS TO STUD WALLS WITH CERAMIC TILE FINISH ARE TO THE FACE OF TILE BACKER BOARD.

C. ALL CMU WALLS THAT DO NOT LAY OUT IN FULL OR HALF LENGTHS SHOULD BE BALANCED SO AS NOT TO HAVE ANY PIECES LESS THAN 4" IN SIZE EXPOSED TO VIEW.

D. MASONRY WALLS BEARING ON A THICKENED SLAB AT SLAB DEPRESSIONS REQUIRE CUT MASONRY UNITS SO THAT COURSING BEGINS AT THE FLOOR LINE.

E. THE BASE FIRST FLOOR ELEVATION INDICATED FOR THE PROJECT IS 100'-0". REFER TO SITE PLAN FOR CORRELATION TO USGS DATUM.

F. HINGE SIDE OF DOOR JAMB AT CMU WALLS SHALL BE LOCATED 8" MINIMUM FROM ADJACENT WALL AND HINGE SIDE OF DOOR JAMB AT GYPSUM BOARD WALLS SHALL BE LOCATED 4" MINIMUM FROM ADJACENT WALL UNLESS NOTED OTHERWISE.

G. PROVIDE WOOD BLOCKING (OR METAL STRAPPING WHERE APPLICABLE) AS REQUIRED WITHIN METAL STUD WALLS FOR WALL MOUNTED ITEMS.

H. REFER TO LIFE SAFETY PLANS REGARDING FIRE RATED WALL LOCATIONS AND OTHER CODE INFORMATION.

I. INTERIOR CMU WALLS ARE TO BE RUNNING BOND UNLESS NOTED OTHERWISE.

J. ALL EXPOSED CONCRETE MASONRY UNITS (CMU) CORNERS ARE TO BE BULLNOSED, EXCEPT AT MASONRY BULKHEADS AND EXTERIOR WINDOW JAMBS.

K. WHERE NEW CMU WALLS INTERSECT EXISTING CMU WALLS AT A CORNER OR ARE ALIGNED WITH EXISTING CMU WALLS, TOOTH NEW CMU INTO EXISTING CMU UNLESS NOTED OTHERWISE.

L. REFER TO DEMOLITION SHEETS FOR ADDITIONAL PATCHING AND REPAIR WORK.

M. REFER TO FINISH PLANS FOR INTERIOR ELEVATIONS, LOCATION AND EXTENT OF FINISHED FLOOR AND WALL MATERIAL

N. REFER TO EQUIPMENT PLANS FOR CASEWORK, DISPLAY BOARDS, LOCKERS, AND OTHER ADDITIONAL TYPICAL EQUIPMENT NOTES AND INFORMATION.

O. REFER TO EQUIPMENT PLANS FOR REFERENCE TO ENLARGED TOILET ROOM PLANS AND TOILET ACCESSORIES.

PLAN LEGEND:

INDICATES STOREFRONT, CURTAIN WALL, OR WINDOW SYSTEM. REFER TO A-600 SERIES DRAWINGS FOR ELEVATIONS AND DETAILS.

INDICATES WALL TYPES REFER TO G-201 FOR WALL THICKNESS, HEIGHT, AND COMPOSITION.

PLAN NOTES:

(ALL PLAN NOTES MAY NOT BE INDICATED ON THIS SHEET.)

1. CONCRETE STOOP/VOID SLAB, REFER TO STRUCTURAL DRAWINGS.
2. PUSH PAD FOR ADA OPERATOR, REFER TO ELECTRICAL DRAWINGS.
3. CARD/FOB READER, REFER TO ELECTRICAL/TECHNOLOGY DRAWINGS.
4. KNOX BOX.
5. CASEWORK, MILLWORK, MARKER/TACK BOARDS AND EQUIPEMENT. REFER TO 700 SERIES DRAWINGS.
6. PLUMBING FIXTURE. SEE PLUMBING DRAWINGS.
7. FILL IN OPENING WITH SAME MATERIAL AS ADJOINING WALLS.
8. PROVIDE NEW 4" CONCRETE FLOOR SLAB.
9. MOP SINK. REFER TO PLUMBING DRAWINGS.
10. HOUSE KEEPING PAD. VERIFY SIZE AND LOCATION WITH MECHANICAL TRADES. SEE STRUCTURAL DRAWINGS FOR DETAIL.
11. CARD READER.
12. WALLS AROUND PERIMETER OF VESTIBULE TO EXTEND TO DECK.
13. LOCKERS TYPE F. — 3/A-501
14. GYPSUM BOARD BULKHEAD. REFER TO 900 SERIES DRAWINGS. — 2, 3, 4/A-501
15. TEMPORARY EMERGENCY EGRESS STAIR BY CONTRACTOR.
16. ROOF HATCH AND LADDER. — 12/A-201
17. FLOOR DRAIN, REFER TO PLUMBING DRAWING.
18. CABINET HEATER, REFER TO MECHANICAL DRAWINGS.
19. UNIT VENTILATOR, REFER TO MECHANICAL DRAWINGS.
20. ROOF CONDUCTOR, REFER TO PLUMBING DRAWINGS.
21. LINE OF CANOPY ABOVE, REFER TO SECTIONS.
22. 6" PIPE BOLLARD, REFER TO CIVIL DRAWINGS.
23. CHAIN LINK FENCE, REFER TO CIVIL DRAWINGS.
24. DOWNSPOUT, REFER TO ROOF PLAN.
25. LAMINATE CERAMIC TILE BACKER BOARD TO ALL WALLS.
26. FOLDING PARTITION. SEE DETAIL — 19/A-501
27. PATCH WALL TO MATCH ADJOINING FINISHES WHERE WALL HAS BEEN REMOVED.
28. PATCH WALL TO MATCH ADJOINING FINISHES WHERE FLOOR SLAB HAS BEEN REMOVED.
29. NEW CONCRETE SLAB INFILL. REFER TO STRUCTURAL/PLUMBING DRAWINGS FOR EXTENT OF SLAB REMOVAL AND DETAILS.
30. PRIVACY CURTAIN TRACK. SEE DETAIL — 18/A-501
31. PARTIAL HEIGHT STUD WALL. SEE DETAIL — 4/A-501
32. PARTIAL HEIGHT BRICK/CMU WALL. SEE DETAIL — 1/A-419
33. VOLLEYBALL INSERT. SEE DETAIL — 5/A-501
34. BLEACHERS FULLY EXTENDED.
35. MOTORIZED BLEACHERS MOUNTED TO EXISTING WALL.
36. FILL IN RECESSED FLOOR WITH ARDEX. PREP TO RECEIVE NEW FLOOR FINISH.
37. PROVIDE TACKABLE SURFACE AND WALL FABRIC FROM FLOOR TO EXISTING LINTEL.
38. FILL OPENING WITH 6" CMU. HOLD CMU BACK 2" ON CORRIDOR SIDE.
39. LAMINATE 5/8" GYPSUM BOARD TO EXISTING OR NEW MASONRY WALL.
40. EXISTING WALL PADDING TO REMAIN.
41. EXISTING DRINKING FOUNTAINS TO REMAIN.
42. FILL IN OPENING WITH 8" CMU.
43. PROVIDE "ARDEX" SUBFLOOR/FLOOR PATCHING AND PREP FLOOR FOR NEW FINISH.
44. SEE STRUCTURAL DRAWINGS FOR SLAB IN-FILL.
45. THREE 2 1/2" STRUCTURAL METAL STUDS INSIDE STOREFRONT FRAMING TO SUPPORT 6" BOXED HEADER ABOVE.
46. WRAP COLUMN WITH TYPE C4 WALL TYPES. SEE CLASSROOM G-101 FOR TYPICAL DIMENSIONS.
47. WRAP COLUMN WITH 4" CMU AND RECLAIMED EXISTING FACE BRICK.
48. BRONZE PLAQUE. REFER TO SPECIFICATIONS.
49. 8'-0" STAINLESS STEEL ROLL-UP DOOR. HEAD AT 8'-0" AFF. COORDINATE BOTTOM OF DOOR WITH KITCHEN EQUIPMENT. — 15/A-502
50. DIVIDER CURTAIN. REFER TO SPECIFICATIONS.

AD-3

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PROJECT
WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS
DUNELAND SCHOOL CORPORATION
CHESTERTON, INDIANA

KEY PLAN

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PROJECT 21-141
DATE 02/28/22
COORDINATED BY DJW
DRAWN BY CND KLS
CHECKED BY BCB

DALE J. WAGNER REGISTERED NO. 19600171 STATE OF INDIANA ARCHITECT

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REVISIONS

MARK	DATE	ISSUED FOR
AD-2	03/21/22	ADDENDUM NO. 2
AD-3	03/30/22	ADDENDUM NO. 3

DRAWING
UNIT "E" ARCHITECTURAL FIRST FLOOR PLAN

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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E

SHEET A-104

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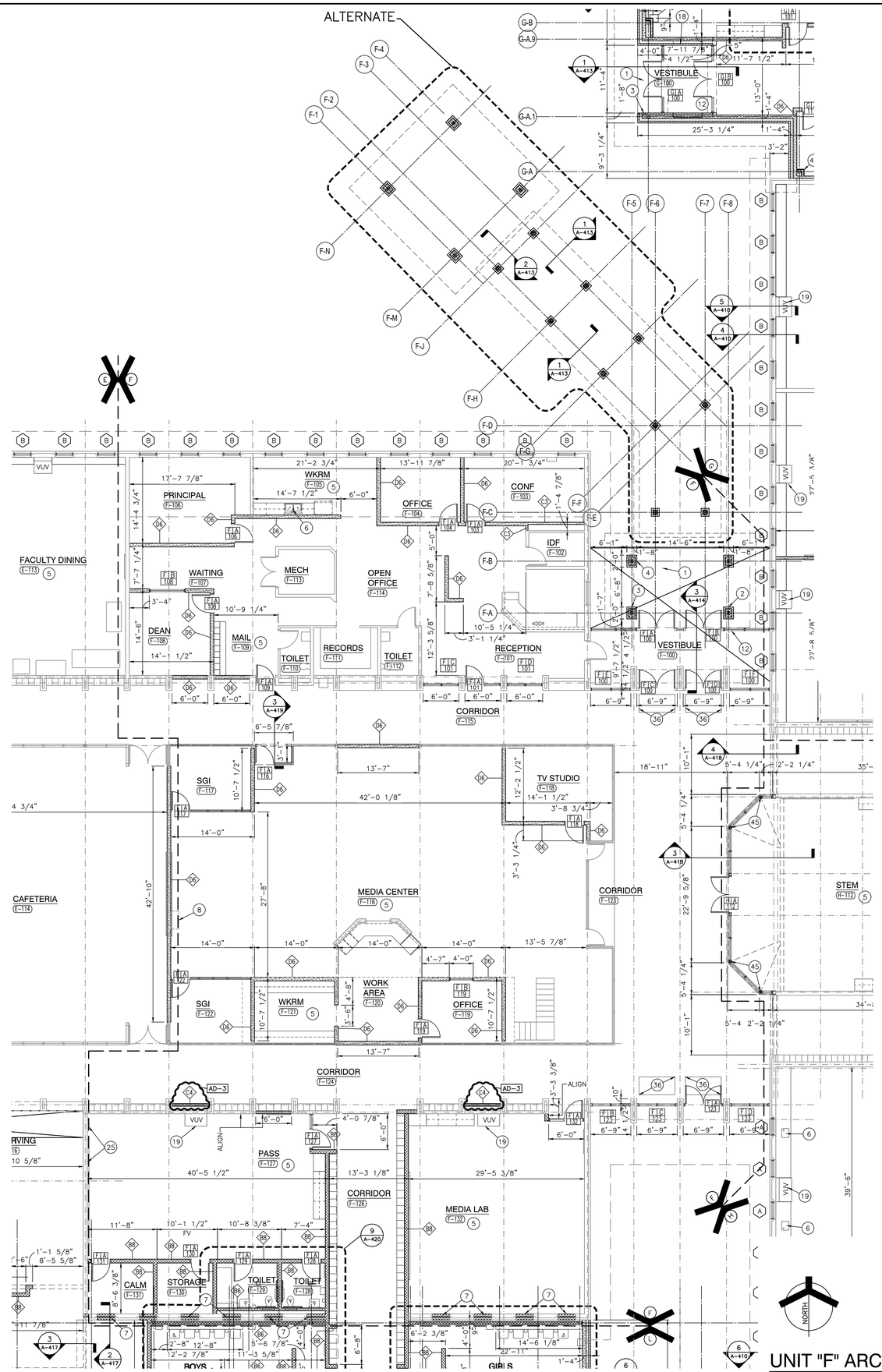


UNIT "F" ARCHITECTURAL FIRST FLOOR PLAN

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

GENERAL PLAN NOTES:

A. FOR GENERAL PROJECT NOTES, MATERIAL INDICATIONS LEGEND, SYMBOL LEGEND, ABBREVIATIONS, ETC., REFER TO G SERIES SHEETS.

B. PLAN DIMENSIONS TO MASONRY WALLS ARE TO FACE OF ROUGH MASONRY. PLAN DIMENSIONS TO STUD WALLS ARE TO FACE OF FINISHED GYPSUM BOARD OR PLASTER. PLAN DIMENSIONS TO STUD WALLS WITH CERAMIC TILE FINISH ARE TO THE FACE OF TILE BACKER BOARD.

C. ALL CMU WALLS THAT DO NOT LAY OUT IN FULL OR HALF LENGTHS SHOULD BE BALANCED SO AS NOT TO HAVE ANY PIECES LESS THAN 4" IN SIZE EXPOSED TO VIEW.

D. MASONRY WALLS BEARING ON A THICKENED SLAB AT SLAB DEPRESSIONS REQUIRE CUT MASONRY UNITS SO THAT COURSING BEGINS AT THE FLOOR LINE.

E. THE BASE FIRST FLOOR ELEVATION INDICATED FOR THE PROJECT IS 100'-0". REFER TO SITE PLAN FOR CORRELATION TO USGS DATUM.

F. HINGE SIDE OF DOOR JAMB AT CMU WALLS SHALL BE LOCATED 8" MINIMUM FROM ADJACENT WALL AND HINGE SIDE OF DOOR JAMB AT GYPSUM BOARD WALLS SHALL BE LOCATED 4" MINIMUM FROM ADJACENT WALL UNLESS NOTED OTHERWISE.

G. PROVIDE WOOD BLOCKING (OR METAL STRAPPING WHERE APPLICABLE) AS REQUIRED WITHIN METAL STUD WALLS FOR WALL MOUNTED ITEMS.

H. REFER TO LIFE SAFETY PLANS REGARDING FIRE RATED WALL LOCATIONS AND OTHER CODE INFORMATION.

I. INTERIOR CMU WALLS ARE TO BE RUNNING BOND UNLESS NOTED OTHERWISE.

J. ALL EXPOSED CONCRETE MASONRY UNITS (CMU) CORNERS ARE TO BE BULLNOSED, EXCEPT AT MASONRY BULKHEADS AND EXTERIOR WINDOW JAMBS.

K. WHERE NEW CMU WALLS INTERSECT EXISTING CMU WALLS AT A CORNER OR ARE ALIGNED WITH EXISTING CMU WALLS, TOOTH NEW CMU INTO EXISTING CMU UNLESS NOTED OTHERWISE.

L. REFER TO DEMOLITION SHEETS FOR ADDITIONAL PATCHING AND REPAIR WORK.

M. REFER TO FINISH PLANS FOR INTERIOR ELEVATIONS, LOCATION AND EXTENT OF FINISHED FLOOR AND WALL MATERIAL

N. REFER TO EQUIPMENT PLANS FOR CASEWORK, DISPLAY BOARDS, LOCKERS, AND OTHER ADDITIONAL TYPICAL EQUIPMENT NOTES AND INFORMATION.

O. REFER TO EQUIPMENT PLANS FOR REFERENCE TO ENLARGED TOILET ROOM PLANS AND TOILET ACCESSORIES.

PLAN LEGEND:

INDICATES STOREFRONT, CURTAIN WALL, OR WINDOW SYSTEM. REFER TO A-600 SERIES DRAWINGS FOR ELEVATIONS AND DETAILS.

INDICATES WALL TYPES REFER TO G-201 FOR WALL THICKNESS, HEIGHT, AND COMPOSITION.

PLAN NOTES:

(ALL PLAN NOTES MAY NOT BE INDICATED ON THIS SHEET.)

1. CONCRETE STOOP/VOID SLAB, REFER TO STRUCTURAL DRAWINGS.
2. PUSH PAD FOR ADA OPERATOR, REFER TO ELECTRICAL DRAWINGS.
3. CARD/FOB READER, REFER TO ELECTRICAL/TECHNOLOGY DRAWINGS.
4. KNOX BOX.
5. CASEWORK, MILLWORK, MARKER/TACK BOARDS AND EQUIPEMENT. REFER TO 700 SERIES DRAWINGS.
6. PLUMBING FIXTURE. SEE PLUMBING DRAWINGS.
7. FILL IN OPENING WITH SAME MATERIAL AS ADJOINING WALLS.
8. PROVIDE NEW 4" CONCRETE FLOOR SLAB.
9. MOP SINK. REFER TO PLUMBING DRAWINGS.
10. HOUSE KEEPING PAD. VERIFY SIZE AND LOCATION WITH MECHANICAL TRADES. SEE STRUCTURAL DRAWINGS FOR DETAIL.
11. CARD READER.
12. WALLS AROUND PERIMETER OF VESTIBULE TO EXTEND TO DECK.
13. LOCKERS TYPE F. — 3/A-501
14. GYPSUM BOARD BULKHEAD. REFER TO 900 SERIES DRAWINGS. — 2, 3, 4/A-501
15. TEMPORARY EMERGENCY EGRESS STAIR BY CONTRACTOR.
16. ROOF HATCH AND LADDER. — 12/A-201
17. FLOOR DRAIN, REFER TO PLUMBING DRAWING.
18. CABINET HEATER, REFER TO MECHANICAL DRAWINGS.
19. UNIT VENTILATOR, REFER TO MECHANICAL DRAWINGS.
20. ROOF CONDUCTOR, REFER TO PLUMBING DRAWINGS.
21. LINE OF CANOPY ABOVE, REFER TO SECTIONS.
22. 6" PIPE BOLLARD, REFER TO CIVIL DRAWINGS.
23. CHAIN LINK FENCE, REFER TO CIVIL DRAWINGS.
24. DOWNSPOUT, REFER TO ROOF PLAN.
25. LAMINATE CERAMIC TILE BACKER BOARD TO ALL WALLS.
26. FOLDING PARTITION. SEE DETAIL — 19/A-501
27. PATCH WALL TO MATCH ADJOINING FINISHES WHERE WALL HAS BEEN REMOVED.
28. PATCH WALL TO MATCH ADJOINING FINISHES WHERE FLOOR SLAB HAS BEEN REMOVED.
29. NEW CONCRETE SLAB INFILL. REFER TO STRUCTURAL/PLUMBING DRAWINGS FOR EXTENT OF SLAB REMOVAL AND DETAILS.
30. PRIVACY CURTAIN TRACK. SEE DETAIL — 18/A-501
31. PARTIAL HEIGHT STUD WALL. SEE DETAIL — 4/A-501
32. PARTIAL HEIGHT BRICK/CMU WALL. SEE DETAIL — 1/A-419
33. VOLLEYBALL INSERT. SEE DETAIL — 5/A-501
34. BLEACHERS FULLY EXTENDED.
35. MOTORIZED BLEACHERS MOUNTED TO EXISTING WALL.
36. FILL IN RECESSED FLOOR WITH ARDEX. PREP TO RECEIVE NEW FLOOR FINISH.
37. PROVIDE TACKABLE SURFACE AND WALL FABRIC FROM FLOOR TO EXISTING LINTEL.
38. FILL OPENING WITH 6" CMU. HOLD CMU BACK 2" ON CORRIDOR SIDE.
39. LAMINATE 5/8" GYPSUM BOARD TO EXISTING OR NEW MASONRY WALL.
40. EXISTING WALL PADDING TO REMAIN.
41. EXISTING DRINKING FOUNTAINS TO REMAIN.
42. FILL IN OPENING WITH 8" CMU.
43. PROVIDE "ARDEX" SUBFLOOR/FLOOR PATCHING AND PREP FLOOR FOR NEW FINISH.
44. SEE STRUCTURAL DRAWINGS FOR SLAB IN-FILL.
45. THREE 2 1/2" STRUCTURAL METAL STUDS INSIDE STOREFRONT FRAMING TO SUPPORT 6" BOXED HEADER ABOVE.
46. WRAP COLUMN WITH TYPE C4 WALL TYPES. SEE CLASSROOM G-101 FOR TYPICAL DIMENSIONS.
47. WRAP COLUMN WITH 4" CMU AND RECLAIMED EXISTING FACE BRICK.
48. BRONZE PLAQUE. REFER TO SPECIFICATIONS.
49. 8'-0" STAINLESS STEEL ROLL-UP DOOR. HEAD AT 8'-0" AFF. COORDINATE BOTTOM OF DOOR WITH KITCHEN EQUIPMENT. — 14/A-501
50. DIVIDER CURTAIN. REFER TO SPECIFICATIONS.

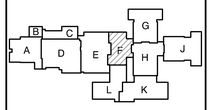
AD-3

GIBRALTAR DESIGN
ARCHITECTURE • ENGINEERING • INTERIOR DESIGN

PROJECT

WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS

DUNELAND SCHOOL CORPORATION
CHESTERTON, INDIANA



KEY PLAN

GIBRALTAR DESIGN
9102 N. Meridian St., Ste. 300
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Email info@GibraltarDesign.com
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PROJECT
21-141

DATE
02/28/22

COORDINATED BY
DJW

DRAWN BY
CND KLS

CHECKED BY
BCB

DALE J. WALCHER REGISTERED NO. 19600171 STATE OF INDIANA ARCHITECT

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REVISIONS

MARK	DATE	ISSUED FOR
AD-2	03/21/22	ADDENDUM NO. 2
AD-3	03/30/22	ADDENDUM NO. 3

DRAWING
UNIT "F" ARCHITECTURAL FIRST FLOOR PLAN

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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F

SHEET
A-105

Wednesday, 3/30/2022 - 12:31 PM - LAST SAVED BY:NWESLEY
Y:\21-141 DUNELAND SC - WESTCHESTER INTERMEDIATE SCHOOL ADDITIONS AND RENOVATIONS\21-141 DRAWINGS\05 ARCH\A-105.DWG

GENERAL ROOF PLAN NOTES:

A. FOR GENERAL NOTES, MATERIAL INDICATIONS LEGEND, SYMBOL LEGEND, ABBREVIATIONS, ETC. SEE SHEET GI201.

B. THERE MAY BE LOCATIONS ON THE EXISTING ROOF WHERE THE EXISTING ROOF DECK MAY NOT BE STRUCTURALLY SOUND. CONTRACTORS SHOULD USE EXTREME CAUTION IN WORKING THESE ROOF AREAS TO MAINTAIN SAFE WORKING CONDITIONS.

C. CONTRACTOR SHALL VERIFY ALL DIMENSIONS, CLEARANCES AND ALL EXISTING FIELD CONDITIONS BEFORE STARTING CONSTRUCTION. COMMENCEMENT OF WORK CONSTITUTES ACCEPTANCE OF CONDITIONS. SHOULD DIFFERENT CONDITIONS BE ENCOUNTERED, CONTACT THE ARCHITECT BEFORE PROCEEDING WITH WORK.

D. THE ROOFING CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OR REPLACEMENT OF ALL DAMAGE CAUSED BY THE IMPROPER STORAGE OR STACKING OF ROOFING MATERIALS.

E. ALL DIMENSIONS INDICATED ON THE ROOF PLAN ARE APPROXIMATE. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ACCURATE FIELD MEASUREMENTS FOR THE EXECUTION OF HIS WORK AND PRIOR TO ANY FABRICATION OF THE VARIOUS MATERIALS.

F. THE ROOF CONTRACTOR SHALL PROTECT ALL ROOF DRAINS, SCUPPERS AND DOWNSPOUTS FROM DEBRIS CREATED DURING DEMOLITION AND/OR NEW CONSTRUCTION. THE ROOF CONTRACTOR SHALL INSPECT AND CLEAR ALL DRAINS, SCUPPERS AND DOWNSPOUTS PRIOR TO COMPLETION OF WORK AND TO ENSURE THAT THEY ARE FREE OF DEBRIS AND ARE FUNCTIONING PROPERLY.

G. ROOF DRAIN LOCATION INDICATE DESIGN INTENT. COORDINATE LOCATIONS WITH STRUCTURAL AND MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS.

H. LOCATION AND QUANTITY OF ALL ROOF DRAINS, FLUES, VENTS, POWER AND GRAVITY VENTILATORS, ETC., SHALL BE VERIFIED BY THE CONTRACTOR IN THE FIELD.

I. FOR NEW AND/OR EXISTING PLUMBING VENT LOCATIONS REFER TO MECHANICAL ROOF PLANS.

J. EXTEND ALL PLUMBING VENTS SO THAT THE TOP IS A MINIMUM OF 12" ABOVE THE ROOFING MEMBRANE.

K. PROVIDE NEW FLASHING AND TWO PIECE COUNTER-FLASHING WHERE NEW ROOFING ABUTS A NEW OR EXISTING WALL, UNLESS OTHERWISE NOTED OR DETAILED.

L. PROVIDE FLASHING AND SADDLES FOR ALL EQUIPMENT PROVIDED UNDER MECHANICAL.

M. FLASHING OF ALL VENTS, FAN CURBS, MASONRY WALLS, FLUES, DRAINS, FASCIAS, ETC., SHALL BE PERFORMED IN ACCORDANCE WITH THESE SPECIFICATIONS AND DRAWINGS, AND WITH ROOFING MANUFACTURERS STANDARD DETAILS AND SPECIFICATIONS.

N. CONTRACTOR TO PROVIDE CRICKETS AND/OR ROOF SADDLES AS REQUIRED TO PROMOTE POSITIVE DRAINAGE AROUND ALL ROOF TOP PENETRATIONS.

O. SADDLES AND TAPERED INSULATION SYMBOLS INDICATE DESIGN INTENT TO SLOPES TO DRAIN. CONTRACTOR SHALL PROVIDE SUBMITTAL DRAWINGS FOR TAPERED INSULATION AND SADDLES TO ENSURE POSITIVE SLOPE.

P. ALL NEW WOOD BLOCKING AND NAILERS SHALL BE TREATED WOOD.

Q. DEMOLITION AND REMOVAL OPERATIONS ARE TO BE PERFORMED CARE-FULLY AND ALL PORTIONS OF THE BUILDING SHALL BE PROTECTED DURING THESE OPERATIONS. ITEMS TO BE REUSED AND REINSTALLED ARE TO BE CAREFULLY REMOVED AND STORED. DAMAGES INCURRED DURING REMOVAL OR STORAGE SHALL BE THE CONTRACTOR'S RESPONSIBILITY.

R. REMOVE ALL POWER VENTILATORS, FANS AND GRAVITY VENTILATORS. REPLACE ALL DETERIORATED, LOOSE, OR FAULTY WOOD BLOCKING. REPLACE AND EXTEND CURBS WITH NEW TREATED WOOD BLOCKING WITH TOP AT 12" MINIMUM ABOVE THE NEW ROOFING MEMBRANE. REINSTALL FANS AND VENTILATORS WITH "KORFUND ELASTO-RIB" VIBRATION ELIMINATOR, SET ON THE CURB TOP OF ALL POWER DRIVEN FANS AND VENTS.

S. REMOVE ALL EXISTING ROOF GRAVEL, RESIDUE, AND ALL PROJECTIONS WHICH WOULD PREVENT THE NEW ROOF INSULATION FROM LAYING FLAT OVER THE EXISTING ROOF SURFACES.

T. REMOVE AND CLEAN ROOF DRAIN STRAINERS AND CLAMP RINGS. REINSTALL AFTER NEW ROOF INSULATION AND ROOFING MEMBRANE ARE IN PLACE, ANY BROKEN OR MISSING ROOF DRAIN STRAINER SHALL BE REPLACED WITH A NEW STRAINER.

U. SEE MECHANICAL DRAWINGS FOR LOCATIONS OF ROOF TOP EQUIPMENT TO BE REMOVED.

ROOF LEGEND:

- ELEVATION TOP OF NEW ROOF DECK
- RELIEF VENT — 4 / A-201
- EXHAUST FAN — 1 / A-210
- GRAVITY VENT — 1 / A-201
- ROOF DRAIN — 9 / A-201
- PLUMBING VENT — 3 / A-201
- COLUMN PENETRATION — 7 / A-201
- ROOF DRAINAGE SADDLE — 8 / A-201
- MECHANICAL UNIT — 1 / A-201
- ROOF WALKWAY PADS — 10 / A-201
- ELEVATION TOP OF EXISTING ROOF DECK
- E EXISTING RELIEF VENT
- E EXISTING EXHAUST FAN
- E EXISTING GRAVITY VENT
- E EXISTING ROOF DRAIN
- E EXISTING PLUMBING VENT
- E EXISTING PITCH POCKET
- EXISTING ROOF DRAINAGE SADDLE
- E EXISTING PENTHOUSE
- E EXISTING MECHANICAL UNIT
- E EXISTING ROOF HATCH
- OR 2 INDICATES ROOF SLOPE (MIN. 1/4" PER 12")
- INDICATES ROOF SADDLE SLOPE (MIN. 1/2" PER 12")
- HATCH PATTERN INDICATES NEW ROOFING SYSTEM.
- HATCH PATTERN INDICATES RE-ROOF OF EXISTING ROOF.

ROOF TYPES:

(A) NEW FLAT METAL DECK; PROVIDE NEW ROOF SYSTEM. NEW ROOFING SYSTEM SHALL BE MEMBRANE ROOFING OVER COVER BOARD OVER TAPERED (1/4" PER FOOT) INSULATION WITH MINIMUM 2" THICKNESS AND MINIMUM AVERAGE THICKNESS OF 4".

(B) EXISTING ROOF SYSTEM SHALL REMAIN EXCEPT AS NOTED. PROTECT FROM ADJACENT ROOF WORK.

(C) REMOVE EXISTING MEMBRANE ROOFING SYSTEM, INCLUDING ALL INSULATION AND ROOFING LAYERS, DOWN TO EXISTING POURED THERMOSETTING INSULATION AND 2" WOOD FIBER DECK AND PROVIDE NEW TAPERED INSULATION (1/4" = 1'-0") WITH MINIMUM 2" THICKNESS AND AVERAGE THICKNESS OF 4", AND NEW COVER BOARD AND MEMBRANE ROOFING.

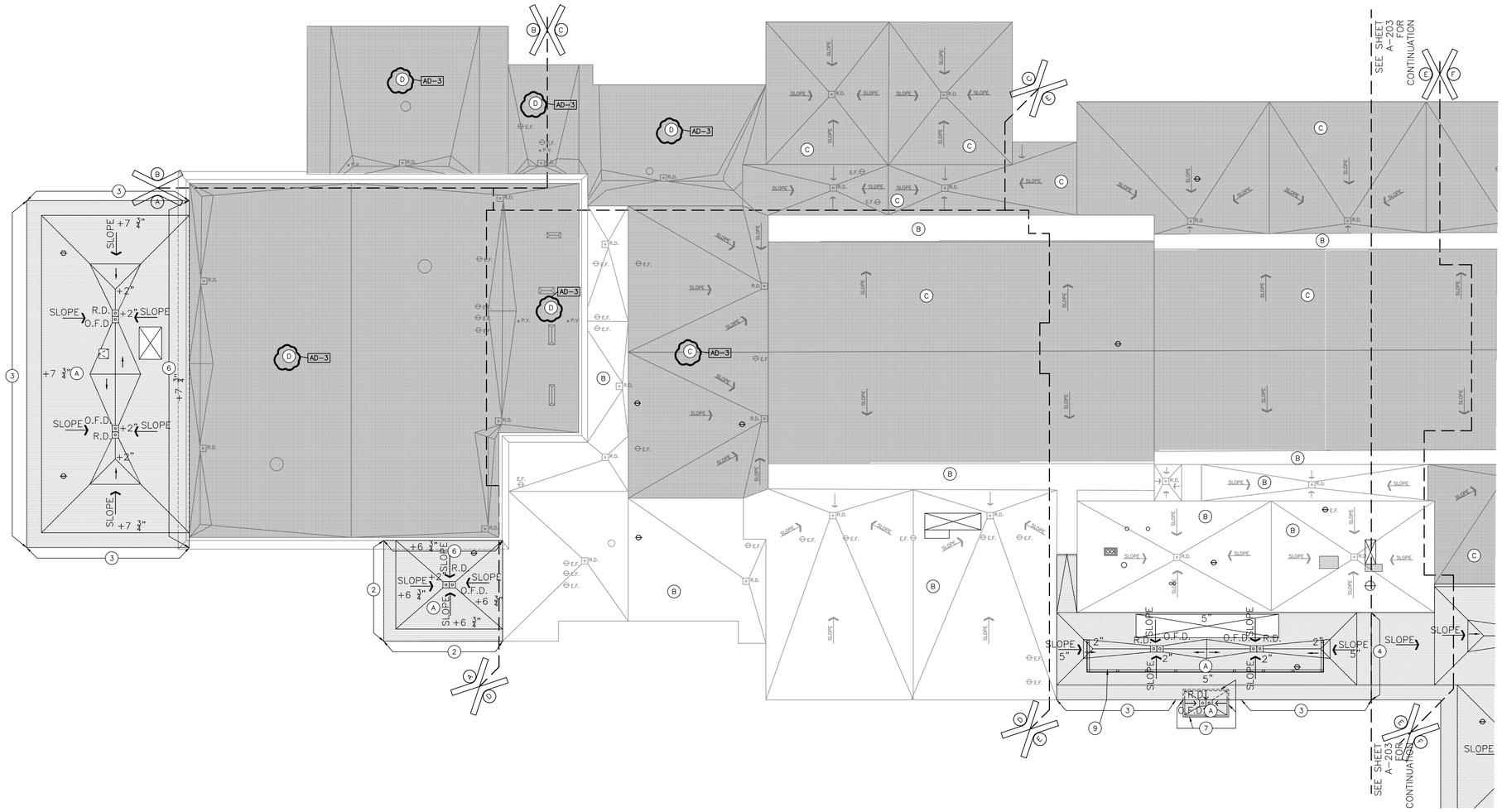
(D) REMOVE EXISTING MEMBRANE ROOFING SYSTEM, INCLUDING ALL INSULATION AND ROOFING LAYERS, DOWN TO EXISTING METAL DECK AND PROVIDE NEW TAPERED INSULATION (1/4" = 1'-0") WITH MINIMUM 2" THICKNESS AND AVERAGE THICKNESS OF 4", AND NEW COVER BOARD AND MEMBRANE ROOFING.

AD-3

ROOF PLAN NOTES:

(ALL PLAN NOTES MAY NOT BE INDICATED ON THIS SHEET.)

1. COPING CAP — 5 / A-201
2. METAL FASCIA NO. 1 — 3 / A-210
3. METAL FASCIA NO. 2 — 4 / A-210
4. METAL FASCIA NO. 3 — 5 / A-210
5. ROOF EDGE DETAIL — 6 / A-201
6. FLASHING — X / A-XXX
7. FASCIA AT CANOPIES — 2 / A-210
8. CONDENSER UNIT FOR COOLER/FREEZER. REFER TO FOOD SERVICE DRAWINGS
9. CHILLER SCREEN WALL. SEE SHEET A-415



UNITS "A", "B", "C", "D" AND "E" ARCHITECTURAL ROOF PLAN

SCALE: 1/16" = 1'-0"

NORTH

GIBRALTAR DESIGN
ARCHITECTURE • ENGINEERING • INTERIOR DESIGN

PROJECT
WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS

DUNELAND SCHOOL CORPORATION
CHESTERTON, INDIANA

KEY PLAN

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PROJECT 21-141
DATE 02/28/22
COORDINATED BY DJW
DRAWN BY KLS
CHECKED BY BCB

DALE J. WAGNER REGISTERED NO. 19600171 STATE OF INDIANA ARCHITECT

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REVISIONS

MARK	DATE	ISSUED FOR
AD-2	03/21/22	ADDENDUM NO. 2
AD-3	03/30/22	ADDENDUM NO. 3

DRAWING
UNITS "A", "B", "C", "D" AND "E" ARCHITECTURAL ROOF PLAN

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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SHEET
A-202

Wednesday, 3/30/2022 - 2:29 PM - LAST SAVED BY:NWESLEY
Y:\21-141 DUNELAND SC - WESTCHESTER INTERMEDIATE SCHOOL ADDITIONS AND RENOVATIONS\21-141 DRAWINGS\05 ARCH\A-202.DWG

GENERAL ROOF PLAN NOTES:

A. FOR GENERAL NOTES, MATERIAL INDICATIONS LEGEND, SYMBOL LEGEND, ABBREVIATIONS, ETC. SEE SHEET GI201.

B. THERE MAY BE LOCATIONS ON THE EXISTING ROOF WHERE THE EXISTING ROOF DECK MAY NOT BE STRUCTURALLY SOUND. CONTRACTORS SHOULD USE EXTREME CAUTION IN WORKING THESE ROOF AREAS TO MAINTAIN SAFE WORKING CONDITIONS.

C. CONTRACTOR SHALL VERIFY ALL DIMENSIONS, CLEARANCES AND ALL EXISTING FIELD CONDITIONS BEFORE STARTING CONSTRUCTION. COMMENCEMENT OF WORK CONSTITUTES ACCEPTANCE OF CONDITIONS. SHOULD DIFFERENT CONDITIONS BE ENCOUNTERED, CONTACT THE ARCHITECT BEFORE PROCEEDING WITH WORK.

D. THE ROOFING CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OR REPLACEMENT OF ALL DAMAGE CAUSED BY THE IMPROPER STORAGE OR STACKING OF ROOFING MATERIALS.

E. ALL DIMENSIONS INDICATED ON THE ROOF PLAN ARE APPROXIMATE. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ACCURATE FIELD MEASUREMENTS FOR THE EXECUTION OF HIS WORK AND PRIOR TO ANY FABRICATION OF THE VARIOUS MATERIALS.

F. THE ROOF CONTRACTOR SHALL PROTECT ALL ROOF DRAINS, SCUPPERS AND DOWNSPOUTS FROM DEBRIS CREATED DURING DEMOLITION AND/OR NEW CONSTRUCTION. THE ROOF CONTRACTOR SHALL INSPECT AND CLEAR ALL DRAINS, SCUPPERS AND DOWNSPOUTS PRIOR TO COMPLETION OF WORK AND TO ENSURE THAT THEY ARE FREE OF DEBRIS AND ARE FUNCTIONING PROPERLY.

G. ROOF DRAIN LOCATION INDICATE DESIGN INTENT. COORDINATE LOCATIONS WITH STRUCTURAL AND MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS.

H. LOCATION AND QUANTITY OF ALL ROOF DRAINS, FLUES, VENTS, POWER AND GRAVITY VENTILATORS, ETC., SHALL BE VERIFIED BY THE CONTRACTOR IN THE FIELD.

I. FOR NEW AND/OR EXISTING PLUMBING VENT LOCATIONS REFER TO MECHANICAL ROOF PLANS.

J. EXTEND ALL PLUMBING VENTS SO THAT THE TOP IS A MINIMUM OF 12" ABOVE THE ROOFING MEMBRANE.

K. PROVIDE NEW FLASHING AND TWO PIECE COUNTER-FLASHING WHERE NEW ROOFING ABUTS A NEW OR EXISTING WALL, UNLESS OTHERWISE NOTED OR DETAILED.

L. PROVIDE FLASHING AND SADDLES FOR ALL EQUIPMENT PROVIDED UNDER MECHANICAL.

M. FLASHING OF ALL VENTS, FAN CURBS, MASONRY WALLS, FLUES, DRAINS, FASCIAS, ETC., SHALL BE PERFORMED IN ACCORDANCE WITH THESE SPECIFICATIONS AND DRAWINGS, AND WITH ROOFING MANUFACTURERS STANDARD DETAILS AND SPECIFICATIONS.

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O. SADDLES AND TAPERED INSULATION SYMBOLS INDICATE DESIGN INTENT TO SLOPES TO DRAIN. CONTRACTOR SHALL PROVIDE SUBMITTAL DRAWINGS FOR TAPERED INSULATION AND SADDLES TO ENSURE POSITIVE SLOPE.

P. ALL NEW WOOD BLOCKING AND NAILERS SHALL BE TREATED WOOD.

Q. DEMOLITION AND REMOVAL OPERATIONS ARE TO BE PERFORMED CARE-FULLY AND ALL PORTIONS OF THE BUILDING SHALL BE PROTECTED DURING THESE OPERATIONS. ITEMS TO BE REUSED AND REINSTALLED ARE TO BE CAREFULLY REMOVED AND STORED. DAMAGES INCURRED DURING REMOVAL OR STORAGE SHALL BE THE CONTRACTOR'S RESPONSIBILITY.

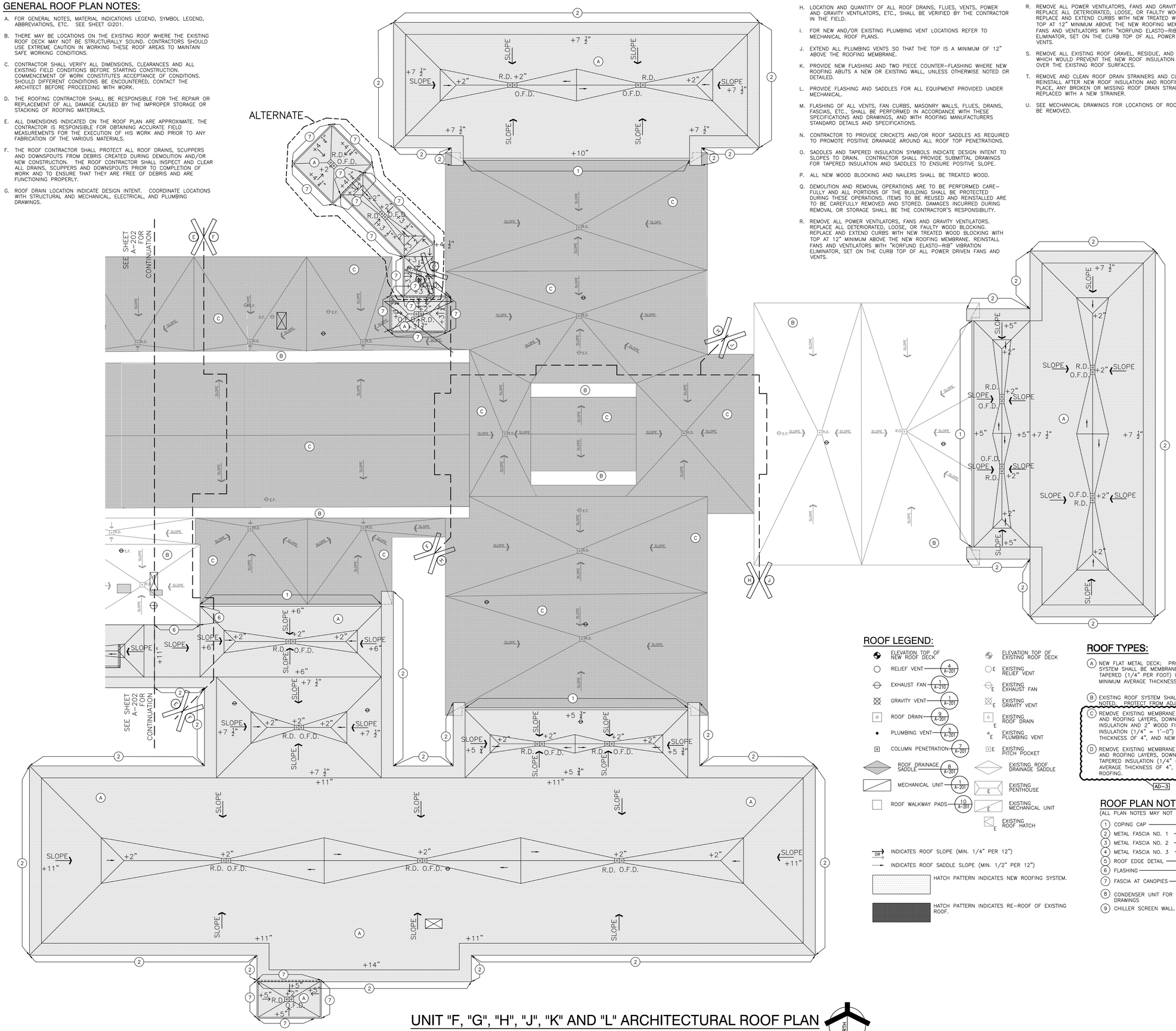
R. REMOVE ALL POWER VENTILATORS, FANS AND GRAVITY VENTILATORS. REPLACE ALL DETERIORATED, LOOSE, OR FAULTY WOOD BLOCKING. REPLACE AND EXTEND CURBS WITH NEW TREATED WOOD BLOCKING WITH TOP AT 12" MINIMUM ABOVE THE NEW ROOFING MEMBRANE. REINSTALL FANS AND VENTILATORS WITH "KORFUND ELASTO-RIB" VIBRATION ELIMINATOR, SET ON THE CURB TOP OF ALL POWER DRIVEN FANS AND VENTS.

R. REMOVE ALL POWER VENTILATORS, FANS AND GRAVITY VENTILATORS. REPLACE ALL DETERIORATED, LOOSE, OR FAULTY WOOD BLOCKING. REPLACE AND EXTEND CURBS WITH NEW TREATED WOOD BLOCKING WI TOP AT 12" MINIMUM ABOVE THE NEW ROOFING MEMBRANE. REINSTALL FANS AND VENTILATORS WITH "KORFUND ELASTO-RIB" VIBRATION ELIMINATOR, SET ON THE CURB TOP OF ALL POWER DRIVEN FANS AND VENTS.

S. REMOVE ALL EXISTING ROOF GRAVEL, RESIDUE, AND ALL PROJECTIONS WHICH WOULD PREVENT THE NEW ROOF INSULATION FROM LAYING FLA OVER THE EXISTING ROOF SURFACES.

T. REMOVE AND CLEAN ROOF DRAIN STRAINERS AND CLAMP RINGS. REINSTALL AFTER NEW ROOF INSULATION AND ROOFING MEMBRANE ARE PLACE, ANY BROKEN OR MISSING ROOF DRAIN STRAINER SHALL BE REPLACED WITH A NEW STRAINER.

U. SEE MECHANICAL DRAWINGS FOR LOCATIONS OF ROOF TOP EQUIPMENT BE REMOVED.



ROOF LEGEND:

- ELEVATION TOP OF NEW ROOF DECK
- RELIEF VENT — 7 / A-201
- EXHAUST FAN — 1 / A-210
- GRAVITY VENT — 1 / A-201
- ROOF DRAIN — 9 / A-201
- PLUMBING VENT — 3 / A-201
- COLUMN PENETRATION — 7 / A-201
- ROOF DRAINAGE SADDLE — 8 / A-201
- MECHANICAL UNIT — 1 / A-201
- ROOF WALKWAY PADS — 10 / A-201
- ELEVATION TOP OF EXISTING ROOF DECK
- E EXISTING RELIEF VENT
- E EXISTING EXHAUST FAN
- E EXISTING GRAVITY VENT
- E EXISTING ROOF DRAIN
- E EXISTING PLUMBING VENT
- E EXISTING PITCH POCKET
- EXISTING ROOF DRAINAGE SADDLE
- E EXISTING PENTHOUSE
- E EXISTING MECHANICAL UNIT
- E EXISTING ROOF HATCH
- OR INDICATES ROOF SLOPE (MIN. 1/4" PER 12")
- INDICATES ROOF SADDLE SLOPE (MIN. 1/2" PER 12")
- HATCH PATTERN INDICATES NEW ROOFING SYSTEM.
- HATCH PATTERN INDICATES RE-ROOF OF EXISTING ROOF.

ROOF TYPES:

(A) NEW FLAT METAL DECK; PROVIDE NEW ROOF SYSTEM. NEW ROOFING SYSTEM SHALL BE MEMBRANE ROOFING OVER COVER BOARD OVER TAPERED (1/4" PER FOOT) INSULATION WITH MINIMUM 2" THICKNESS AND MINIMUM AVERAGE THICKNESS OF 4".

(B) EXISTING ROOF SYSTEM SHALL REMAIN EXCEPT AS NOTED. PROTECT FROM ADJACENT ROOF WORK.

(C) REMOVE EXISTING MEMBRANE ROOFING SYSTEM, INCLUDING ALL INSULATION AND ROOFING LAYERS, DOWN TO EXISTING POURED THERMOSETTING INSULATION AND 2" WOOD FIBER DECK AND PROVIDE NEW TAPERED INSULATION (1/4" = 1'-0") WITH MINIMUM 2" THICKNESS AND AVERAGE THICKNESS OF 4", AND NEW COVER BOARD AND MEMBRANE ROOFING.

(D) REMOVE EXISTING MEMBRANE ROOFING SYSTEM, INCLUDING ALL INSULATION AND ROOFING LAYERS, DOWN TO EXISTING METAL DECK AND PROVIDE NEW TAPERED INSULATION (1/4" = 1'-0") WITH MINIMUM 2" THICKNESS AND AVERAGE THICKNESS OF 4", AND NEW COVER BOARD AND MEMBRANE ROOFING.

AD-3

ROOF PLAN NOTES:

(ALL PLAN NOTES MAY NOT BE INDICATED ON THIS SHEET.)

1. COPING CAP — 5 / A-201
2. METAL FASCIA NO. 1 — 3 / A-210
3. METAL FASCIA NO. 2 — 4 / A-210
4. METAL FASCIA NO. 3 — 5 / A-210
5. ROOF EDGE DETAIL — 6 / A-201
6. FLASHING — X / A-XXX
7. FASCIA AT CANOPIES — 2 / A-210
8. CONDENSER UNIT FOR COOLER/FREEZER. REFER TO FOOD SERVICE DRAWINGS
9. CHILLER SCREEN WALL. SEE SHEET A-415

UNIT "F, "G", "H", "J", "K" AND "L" ARCHITECTURAL ROOF PLAN

SCALE: 1/16" = 1'-0"

NORTH

GIBRALTAR DESIGN
ARCHITECTURE • ENGINEERING • INTERIOR DESIGN

PROJECT

WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS

DUNELAND SCHOOL CORPORATION
CHESTERTON, INDIANA

KEY PLAN

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PROJECT 21-141
DATE 02/28/22
COORDINATED BY DJW
DRAWN BY KLS
CHECKED BY BCB

DALE J. WACKER REGISTERED NO. 19600171 STATE OF INDIANA ARCHITECT

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REVISIONS

MARK	DATE	ISSUED FOR
AD-2	03/21/22	ADDENDUM NO. 2
AD-3	03/30/22	ADDENDUM NO. 3

DRAWING
UNITS "G", "H", "J", "K" AND "L" ARCHITECTURAL ROOF PLAN

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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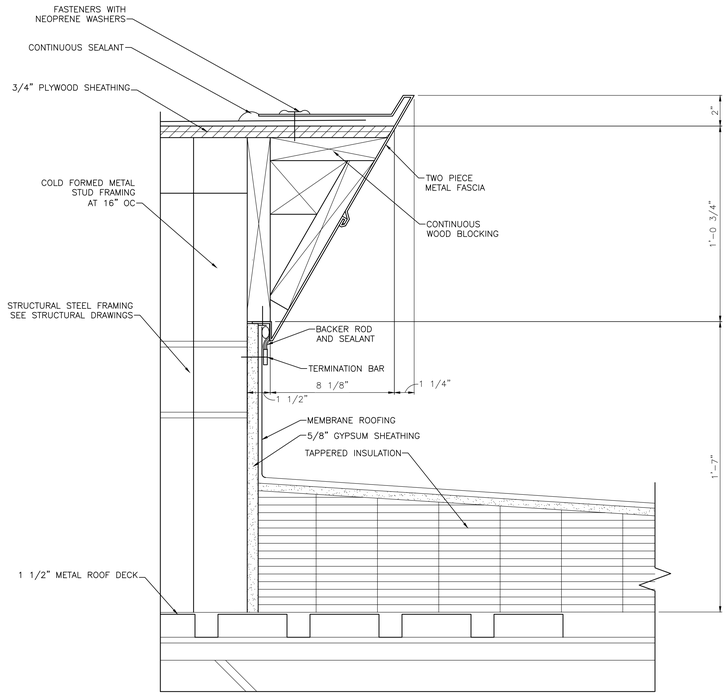
SHEET
A-203

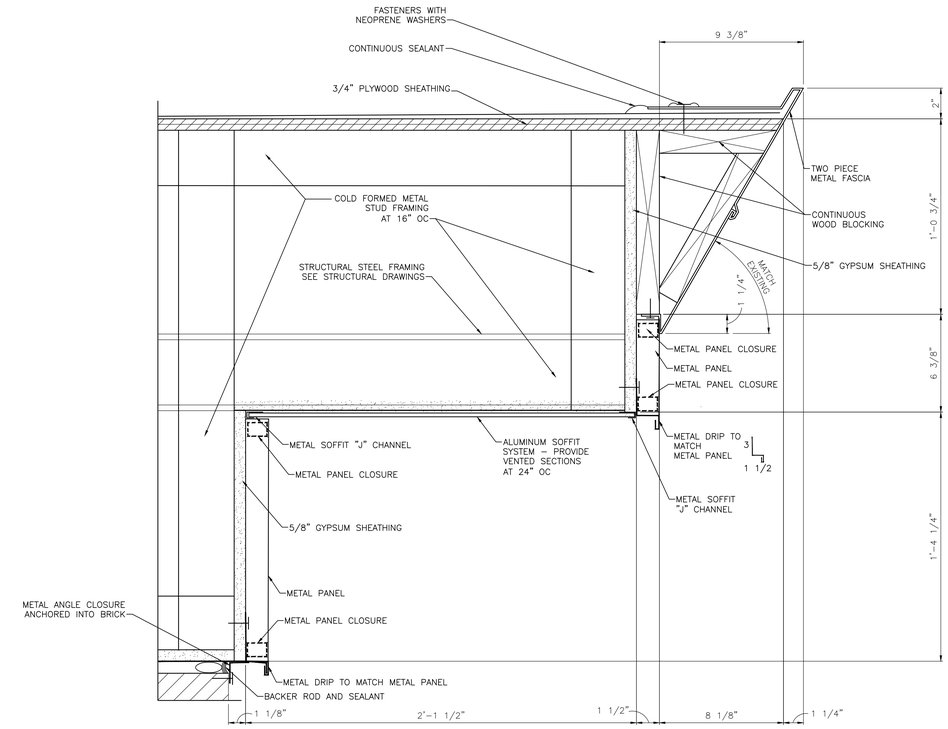
Wednesday, 3/30/2022 - 2:29 PM - LAST SAVED BY:NWESLEY
Y:\21-141 DUNELAND SC - WESTCHESTER INTERMEDIATE SCHOOL ADDITIONS AND RENOVATIONS\21-141 DRAWINGS\05 ARCH\A-203.DWG



FASCIA NO. 3

SCALE: 3" = 1'-0"

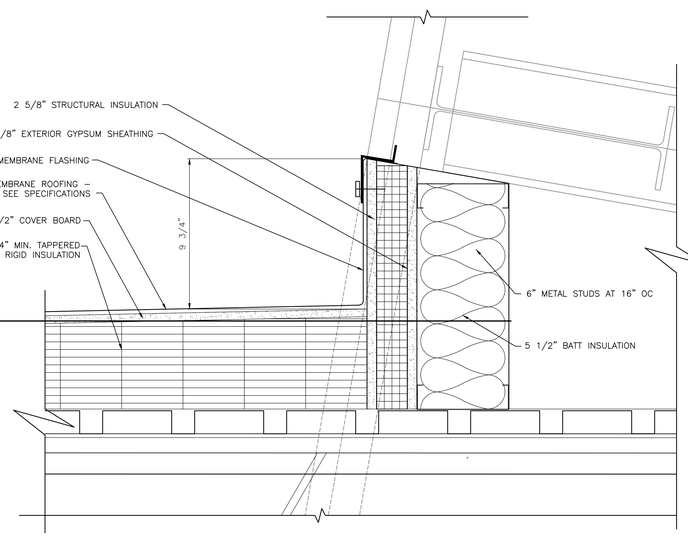
5 / A-210



FASCIA NO. 1

SCALE: 3" = 1'-0"

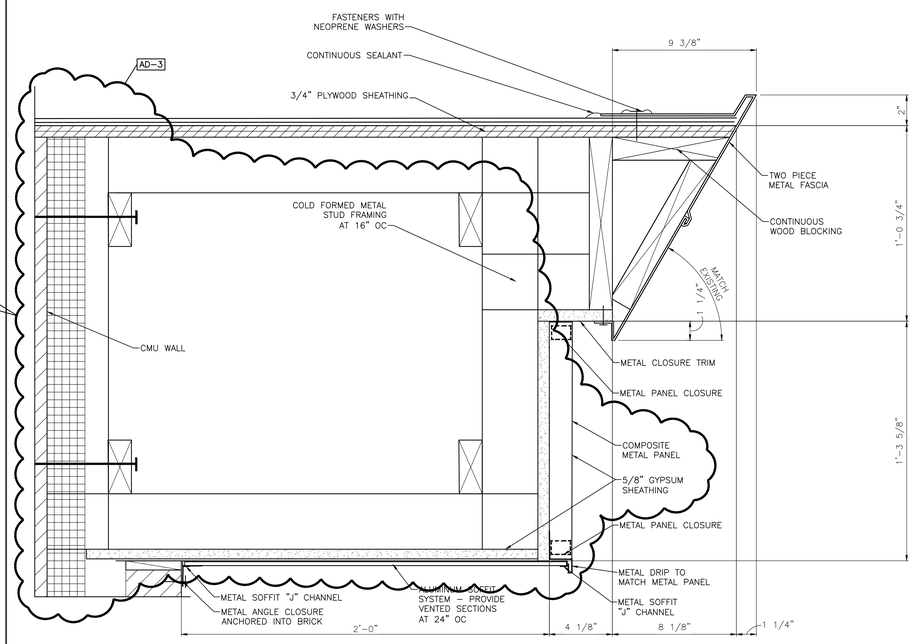
3 / A-210



FLASHING DETAIL

SCALE: 3" = 1'-0"

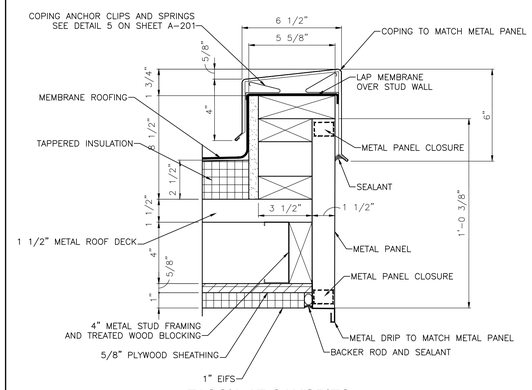
6 / A-210



FASCIA NO. 2

SCALE: 3" = 1'-0"

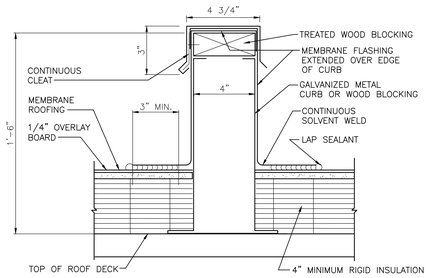
4 / A-210



FASCIA AT CANOPIES

SCALE: 3" = 1'-0"

2 / A-210



MECHANICAL EQUIPMENT RAIL SUPPORT FLASHING

SCALE: 3" = 1'-0"

1 / A-210

GIBRALTAR DESIGN

ARCHITECTURE • ENGINEERING • INTERIOR DESIGN

PROJECT

WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS

DUNELAND SCHOOL CORPORATION
CHESTERTON, INDIANA

GIBRALTAR DESIGN
9102 N. Meridian St., Ste. 300
Indianapolis, IN 46260
Homepage www.GibraltarDesign.com
Email info@GibraltarDesign.com
Phone 317.580.5777 Fax 317.580.5778

PROJECT 21-141
DATE 02/28/22
COORDINATED BY DJW
DRAWN BY KLS
CHECKED BY BCB

DALE J. WAGNER REGISTERED NO. 19600171 STATE OF INDIANA ARCHITECT

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REVISIONS

MARK	DATE	ISSUED FOR
AD-1	03/16/22	ADDENDUM NO. 1
AD-3	03/30/22	ADDENDUM NO. 3

DRAWING
ROOF DETAILS

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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SHEET
A-210

Wednesday, 3/30/2022 – 12:03 PM – LAST SAVED BY:KSCHULTZ
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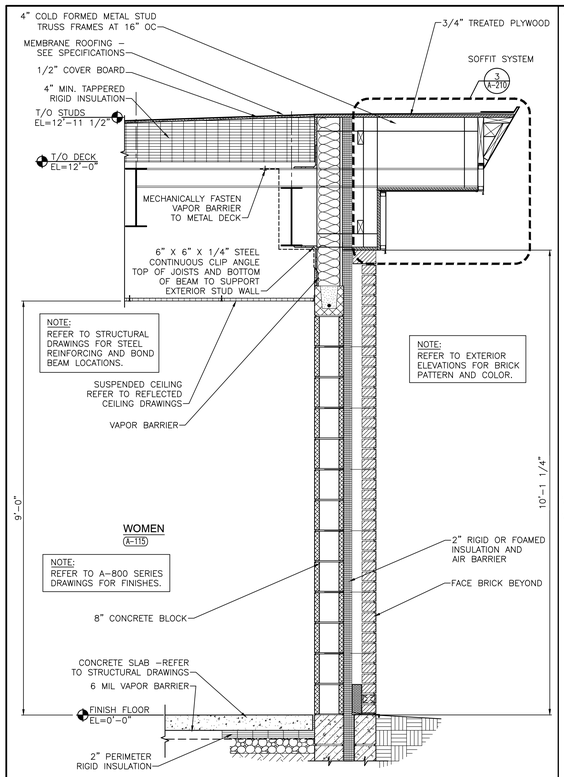
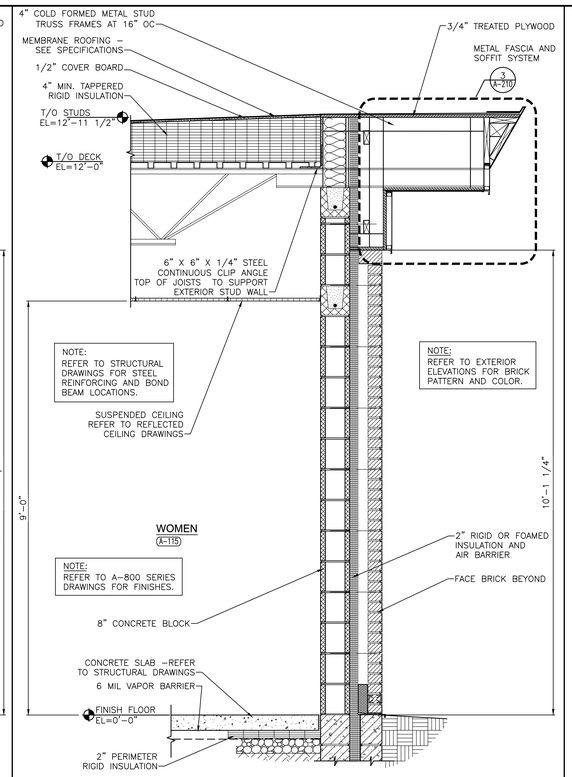
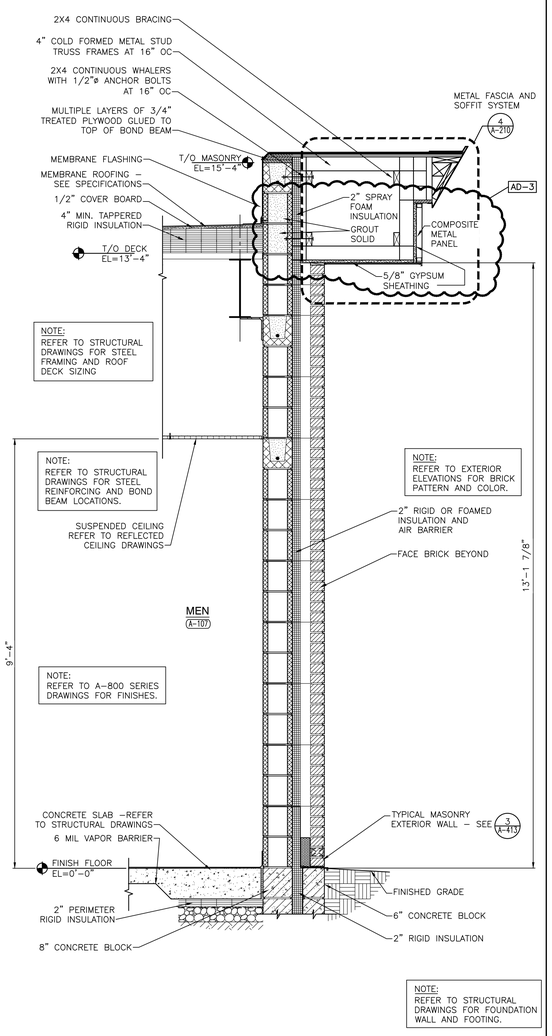


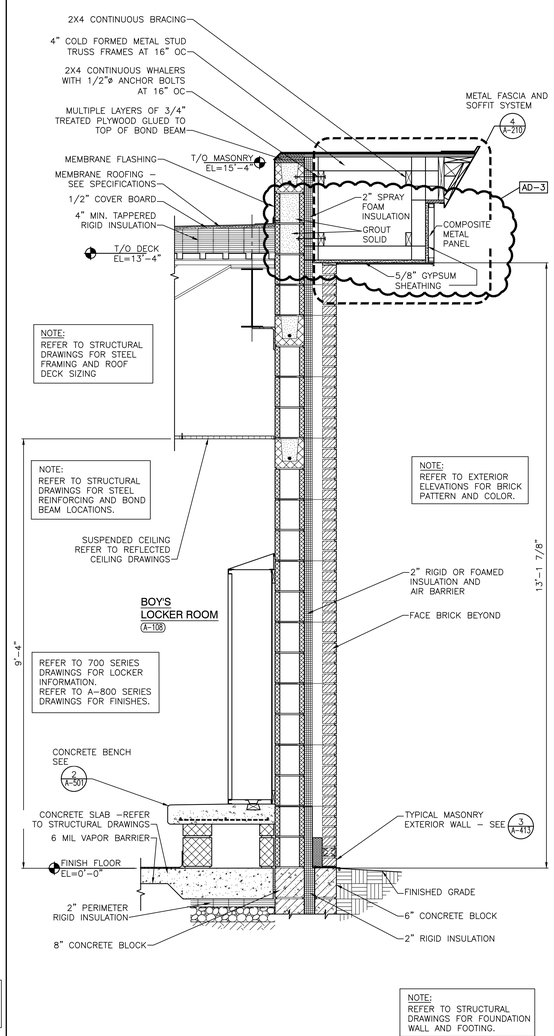
WALL SECTION
SCALE: 3/4" = 1'-0"
5 A-411



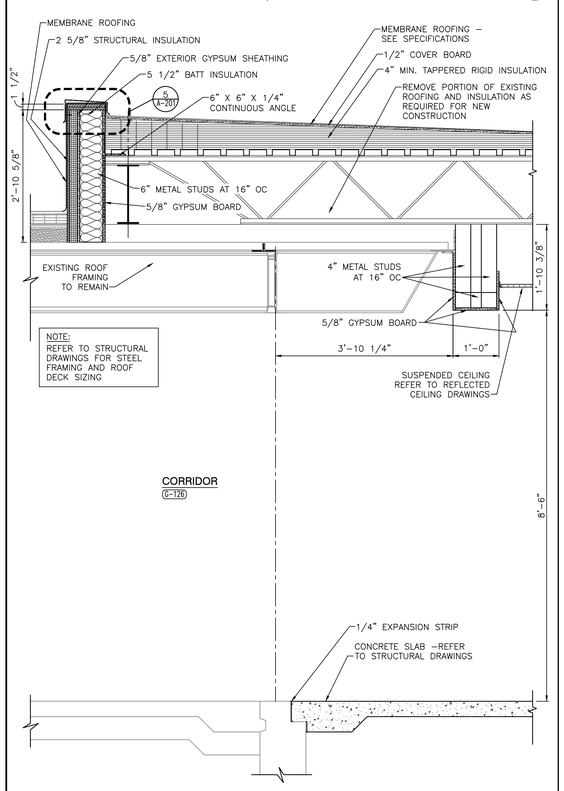
WALL SECTION
SCALE: 3/4" = 1'-0"
6 A-411



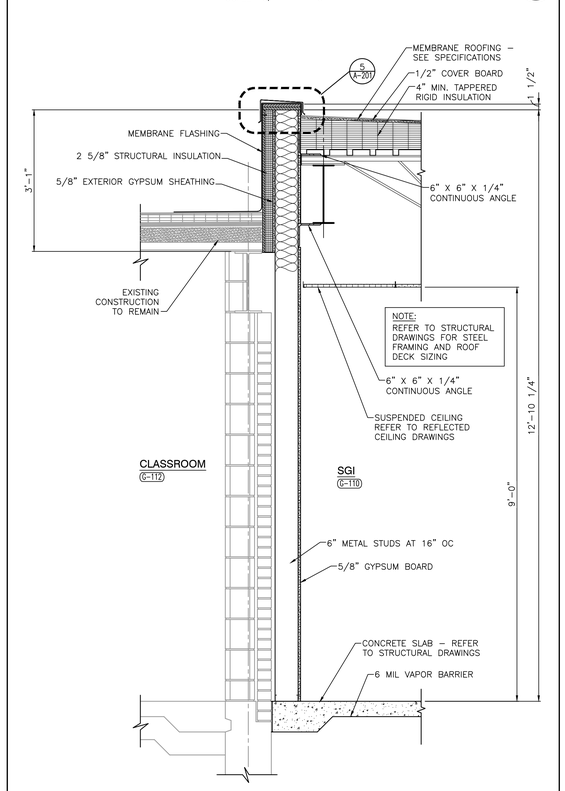
WALL SECTION
SCALE: 3/4" = 1'-0"
2 A-411



WALL SECTION
SCALE: 3/4" = 1'-0"
1 A-411



WALL SECTION
SCALE: 3/4" = 1'-0"
4 A-411



WALL SECTION
SCALE: 3/4" = 1'-0"
3 A-411

GIBRALTAR
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ARCHITECTURE • ENGINEERING • INTERIOR DESIGN

PROJECT
WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS
DUNELAND SCHOOL CORPORATION
CHESTERTON, INDIANA

GIBRALTAR DESIGN
9102 N. Meridian St., Ste. 300
Indianapolis, IN 46260
Homepage www.GibraltarDesign.com
Email info@GibraltarDesign.com
Phone 317.580.5777 Fax 317.580.5778

PROJECT 21-141
DATE 02/28/22
COORDINATED BY DJW
DRAWN BY KLS
CHECKED BY BCB

DALE J. WACKER REGISTERED NO. 19600171 STATE OF INDIANA ARCHITECT

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REVISIONS

MARK	DATE	ISSUED FOR
AD-2	03/21/22	ADDENDUM NO. 2
AD-3	03/30/22	ADDENDUM NO. 3

DRAWING
WALL SECTIONS

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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SHEET
A-411

Wednesday, 3/30/2022 – 12:02 PM – LAST SAVED BY:NWESLEY
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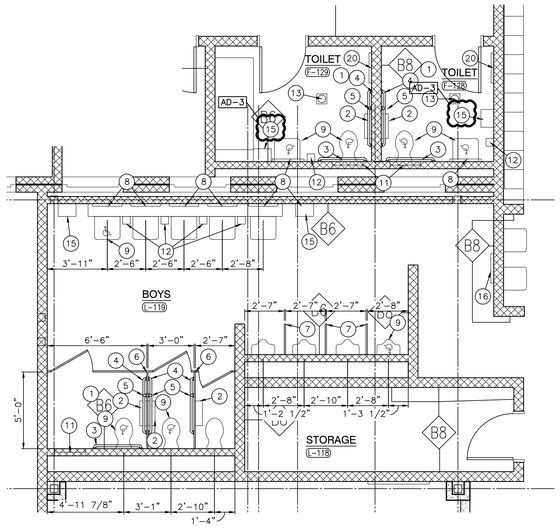
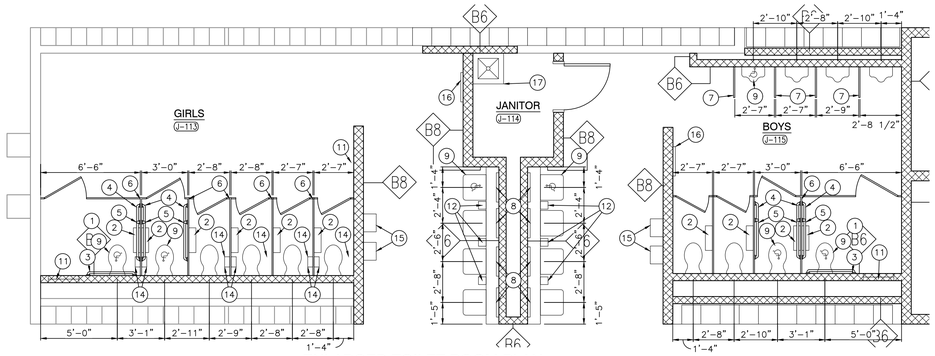
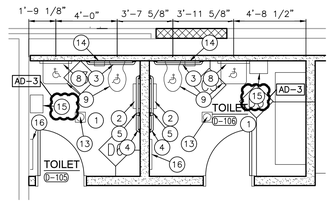


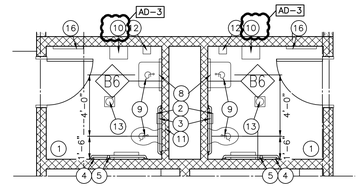
ENLARGED TOILET ROOM PLAN
SCALE: 1/4" = 1'-0"
9 A-420



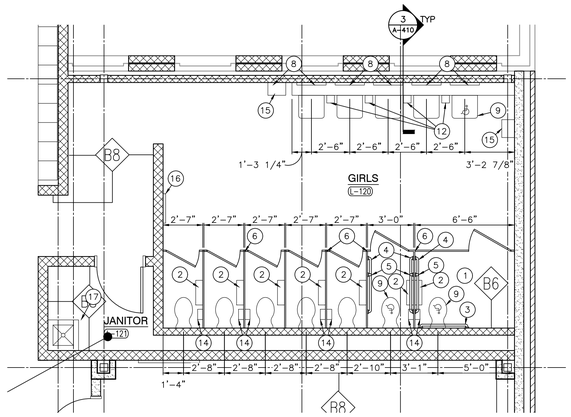
ENLARGED TOILET ROOM PLAN
SCALE: 1/4" = 1'-0"
10 A-420



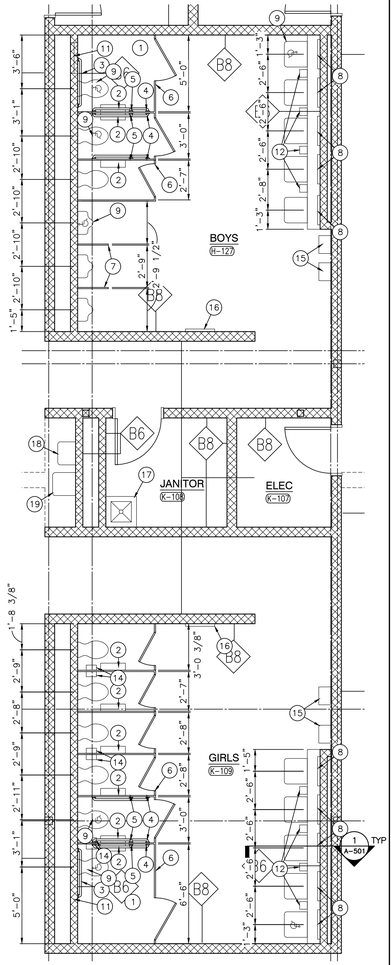
ENLARGED TOILET ROOM PLAN
SCALE: 1/4" = 1'-0"
7 A-420



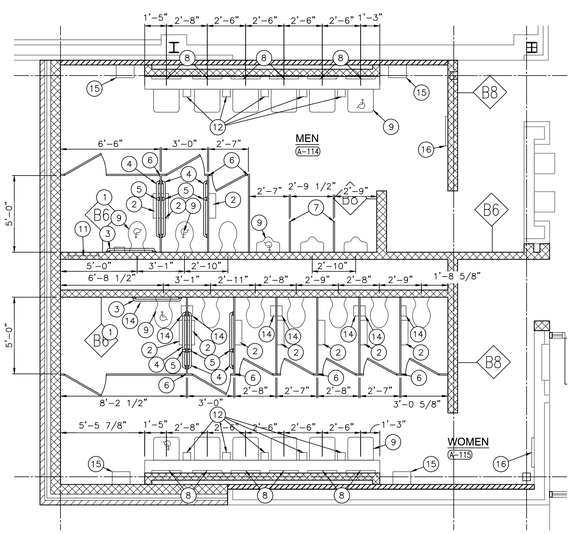
ENLARGED TOILET ROOM PLAN
SCALE: 1/4" = 1'-0"
8 A-420



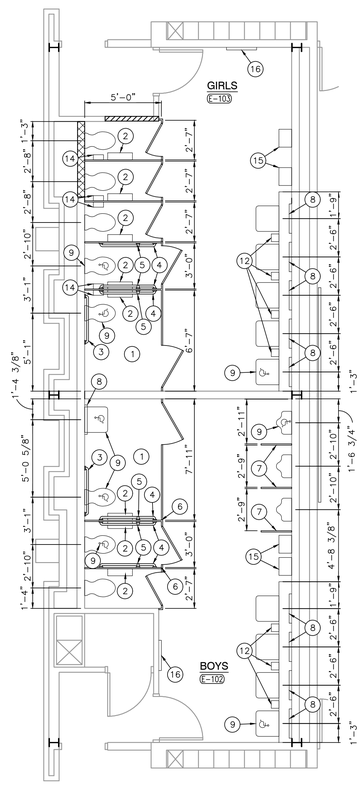
ENLARGED TOILET ROOM PLAN
SCALE: 1/4" = 1'-0"
6 A-420



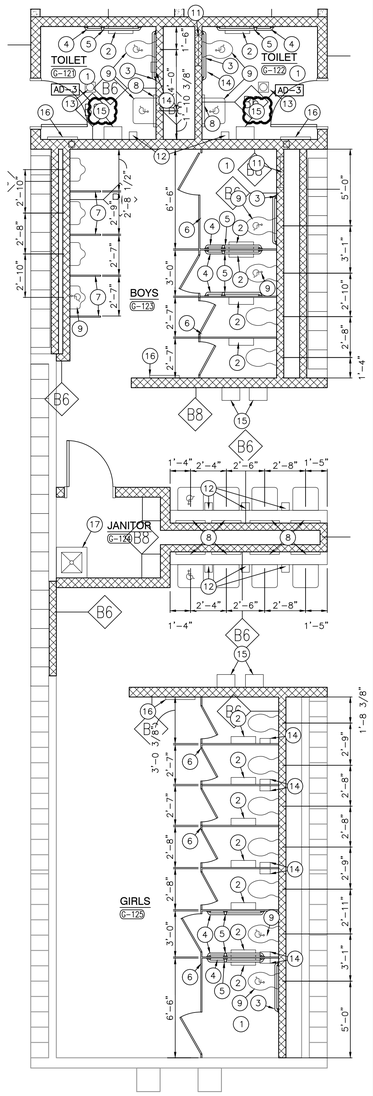
ENLARGED TOILET ROOM PLAN
SCALE: 1/4" = 1'-0"
4 A-420



ENLARGED TOILET ROOM PLAN
SCALE: 1/4" = 1'-0"
5 A-420



ENLARGED TOILET ROOM PLAN
SCALE: 1/4" = 1'-0"
3 A-420



ENLARGED TOILET ROOM PLAN
SCALE: 1/4" = 1'-0"
2 A-420

GENERAL RESTROOM PLAN NOTES:

A. FOR GENERAL NOTES, MATERIAL INDICATIONS LEGEND, SYMBOL LEGEND, ABBREVIATIONS, ETC. SEE SHEET G-201.

B. DEPTH OF ALL TOILET ENCLOSURES SHALL BE A MINIMUM OF 5'-0" CLEAR INSIDE DIMENSION UNLESS NOTED OTHERWISE.

C. REFER TO PLUMBING DRAWINGS FOR FIXTURE TYPES AND FLOOR DRAIN LOCATIONS.

D. COORDINATE HEIGHT OF GRAB BAR WITH TANK OF FLOOR MOUNTED WATER CLOSET OR FLUSH VALVE OF WALL MOUNTED WATER CLOSET.

E. INSTALL LAVATORIES AND URINALS AT 2'-6" ON CENTER MINIMUM UNLESS NOTED OTHERWISE.

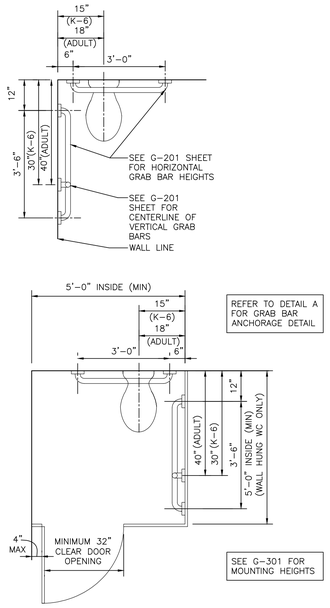
F. WHERE EXISTING PARTITIONS ARE REPLACED AND NEW PARTITION BRACKETS DO NOT COVER OLD MOUNTING HOLES, PATCH HOLE OR REPLACE TILE TO MATCH ADJACENT WALL FINISH.

G. WHERE EXISTING PARTITIONS ARE REPLACED AND NO DIMENTIONS ARE INDICATED, VERIFY LOCATION OF EXISTING PARTITIONS AND INSTALL NEW PARTITIONS IN SAME LOCATION.

RESTROOM PLAN NOTES:

(ALL PLAN NOTES MAY NOT BE INDICATED ON THIS SHEET.)

1. ACCESSIBLE FACILITIES. — 1 A-420
2. TOILET PAPER HOLDER. (OFCI)
3. 3'-0" HANDICAPPED GRAB BAR, REFER TO G-301
4. 3'-6" HANDICAPPED GRAB BAR, REFER TO G-301
5. 18" VERTICAL HANDICAPPED GRAB BAR, REFER TO G-301
6. TOILET PARTITION.
7. URINAL SCREEN WALL.
8. 2'-0" W x 3'-0" H MIRROR WITH BOTTOM OF REFLECTIVE SURFACE MOUNTED AT 40"A.F.F.
9. ACCESSIBLE FIXTURE (LAVATORY/URNAL). SEE PLUMBING DRAWINGS.
10. PAPER TOWEL DISPENSER. (OFCI)
11. 24"x24" ACCESS PANEL. MOUNT TOP OF PANEL AT 5'-4" A.F.F. COORDINATE LOCATION W/ SENSOR HEIGHT.
12. SOAP DISPENSER. (OFCI)
13. FLOOR DRAIN. SEE PLUMBING DRAWINGS.
14. FEMININE NAPKIN DISPOSAL.
15. ELECTRIC HAND DRYER
16. 2'-0" x 5'-0" MIRROR BOTTOM @ 1'-4" A.F.F.
17. MOP SINK. SEE PLUMBING.
18. ELECTRIC WATER COOLER.
19. ELECTRIC WATER COOLER.(ADA)
20. CABINET HEATER. SEE MECHANICAL
21. ACCESSIBLE INDIVIDUAL SHOWER, REFER TO G-301
22. SHOWER CURTAIN ROD, REFER TO G-301
23. SHOWER GRAB BAR, REFER TO G-301
24. HANDICAP SHOWER CURB, REFER TO G-301
25. NOT USED
26. NOT USED
27. BABY CHANGING STATION
28. CHANGING STATION
29. LAVATORY SHELF — 12 A-501
30. LOCKERS, LETTER INDICATES LOCKER TYPE — 1 A-501
31. SHOWER CURB — 14 A-502



ACCESSIBLE FACILITIES
SCALE: 1/2" = 1'-0"
1 A-420

GIBRALTAR
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PROJECT

WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS

DUNELAND SCHOOL CORPORATION
CHESTERTON, INDIANA

GIBRALTAR DESIGN
9102 N. Meridian St., Ste. 300
Indianapolis, IN 46260
Homepage www.GibraltarDesign.com
Email info@GibraltarDesign.com
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PROJECT
21-141
DATE
02/28/22
COORDINATED BY
DJW
DRAWN BY
CND
CHECKED BY
BCB

DALE J. WAGNER
REGISTERED
NO. 19600171
STATE OF INDIANA
ARCHITECT

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REVISIONS

MARK	DATE	ISSUED FOR
AD-2	03/21/22	ADDENDUM NO. 2
AD-3	03/30/22	ADDENDUM NO. 3

DRAWING
ENLARGED RESTROOM PLANS

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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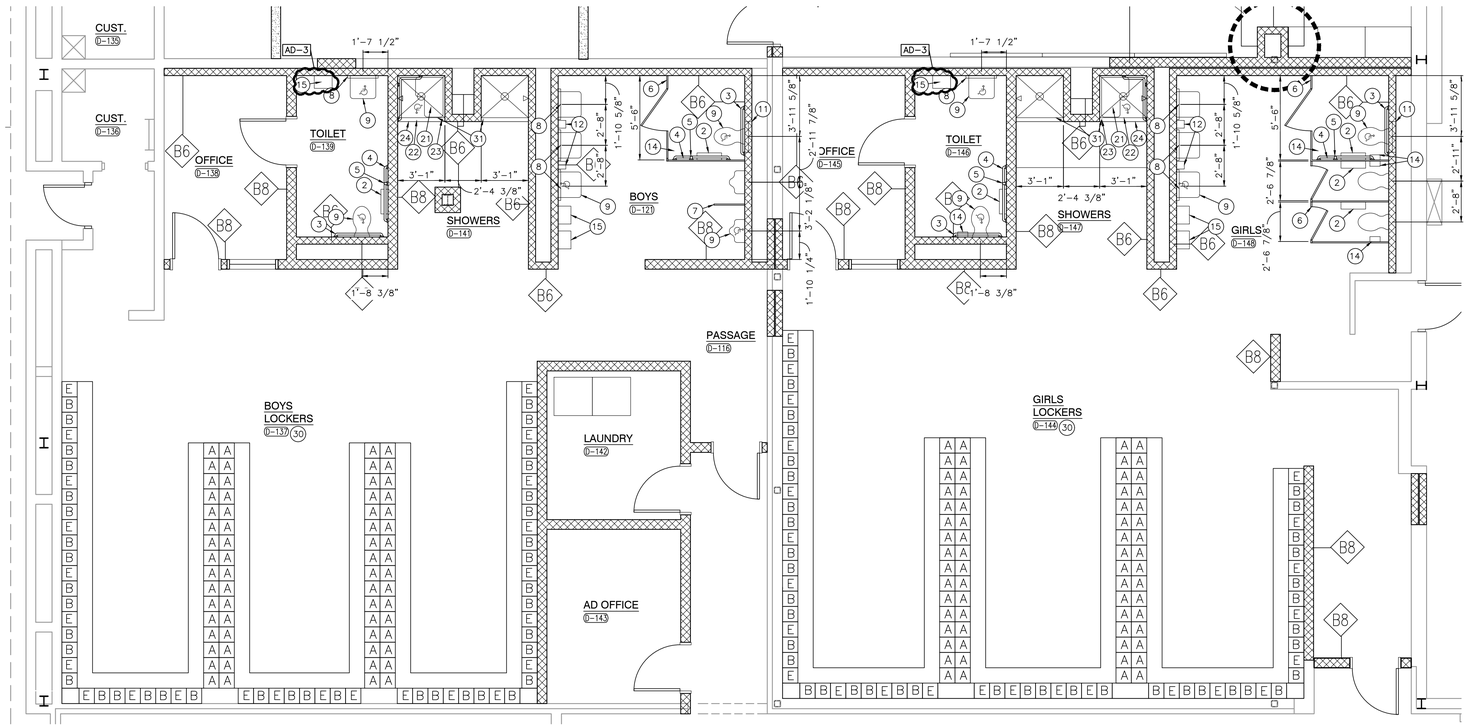
SHEET
A-420

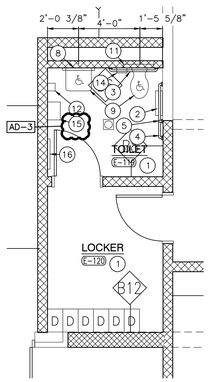
Tuesday, 3/29/2022 - 3:48 PM - LAST SAVED BY:NWESLEY
Y:\21-141 DUNELAND SC - WESTCHESTER INTERMEDIATE SCHOOL ADDITIONS AND RENOVATIONS\21-141 DRAWINGS\05 ARCH\A-420.DWG



ENLARGED TOILET ROOM PLAN

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

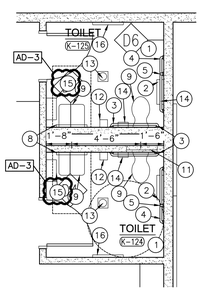
6 A-421



ENLARGED TOILET ROOM PLAN

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

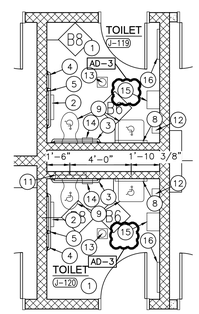
5 A-421



ENLARGED TOILET ROOM PLAN

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

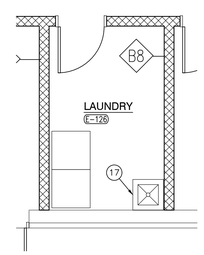
4 A-421



ENLARGED TOILET ROOM PLAN

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

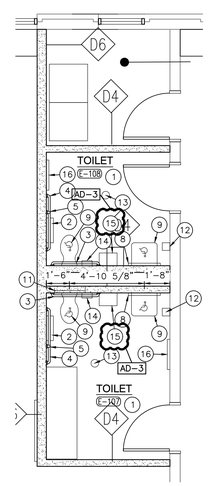
3 A-421



ENLARGED TOILET ROOM PLAN

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

2 A-421



ENLARGED TOILET ROOM PLAN

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

1 A-421

GENERAL RESTROOM PLAN NOTES:

A. FOR GENERAL NOTES, MATERIAL INDICATIONS LEGEND, SYMBOL LEGEND, ABBREVIATIONS, ETC. SEE SHEET G-201.

B. DEPTH OF ALL TOILET ENCLOSURES SHALL BE A MINIMUM OF 5'-0" CLEAR INSIDE DIMENSION UNLESS NOTED OTHERWISE.

C. REFER TO PLUMBING DRAWINGS FOR FIXTURE TYPES AND FLOOR DRAIN LOCATIONS.

D. COORDINATE HEIGHT OF GRAB BAR WITH TANK OF FLOOR MOUNTED WATER CLOSET OR FLUSH VALVE OF WALL MOUNTED WATER CLOSET.

E. INSTALL LAVATORIES AND URINALS AT 2'-6" ON CENTER MINIMUM UNLESS NOTED OTHERWISE.

F. WHERE EXISTING PARTITIONS ARE REPLACED AND NEW PARTITION BRACKETS DO NOT COVER OLD MOUNTING HOLES, PATCH HOLE OR REPLACE TILE TO MATCH ADJACENT WALL FINISH.

G. WHERE EXISTING PARTITIONS ARE REPLACED AND NO DIMENTIONS ARE INDICATED, VERIFY LOCATION OF EXISTING PARTITIONS AND INSTALL NEW PARTITIONS IN SAME LOCATION.

RESTROOM PLAN NOTES:

(ALL PLAN NOTES MAY NOT BE INDICATED ON THIS SHEET.)

1. ACCESSIBLE FACILITIES. — 1 / A-402
2. TOILET PAPER HOLDER. (OFCI)
3. 3'-0" HANDICAPPED GRAB BAR, REFER TO G-301
4. 3'-6" HANDICAPPED GRAB BAR, REFER TO G-301
5. 18" VERTICAL HANDICAPPED GRAB BAR, REFER TO G-301
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9. ACCESSIBLE FIXTURE (LAVATORY/URNAL). SEE PLUMBING DRAWINGS.
10. PAPER TOWEL DISPENSER. (OFCI)
11. 24"x24" ACCESS PANEL. MOUNT TOP OF PANEL AT 5'-4" A.F.F. COORDINATE LOCATION W/ SENSOR HEIGHT.
12. SOAP DISPENSER. (OFCI)
13. FLOOR DRAIN. SEE PLUMBING DRAWINGS.
14. FEMININE NAPKIN DISPOSAL.
15. ELECTRIC HAND DRYER
16. 2'-0" x 5'-0" MIRROR BOTTOM @ 1'-4" A.F.F.
17. MOP SINK. SEE PLUMBING.
18. ELECTRIC WATER COOLER.
19. ELECTRIC WATER COOLER.(ADA)
20. CABINET HEATER. SEE MECHANICAL
21. ACCESSIBLE INDIVIDUAL SHOWER, REFER TO G-301
22. SHOWER CURTAIN ROD, REFER TO G-301
23. SHOWER GRAB BAR, REFER TO G-301
24. HANDICAP SHOWER CURB, REFER TO G-301
25. NOT USED
26. NOT USED
27. BABY CHANGING STATION
28. CHANGING STATION
29. LAVATORY SHELF — 12 / A-502
30. LOCKERS, LETTER INDICATES LOCKER TYPE — 1 / A-501
31. SHOWER CURB — 14 / A-502

GIBRALTAR DESIGN
ARCHITECTURE • ENGINEERING • INTERIOR DESIGN

PROJECT

WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS

DUNELAND SCHOOL CORPORATION
CHESTERTON, INDIANA

GIBRALTAR DESIGN
9102 N. Meridian St., Ste. 300
Indianapolis, IN 46260
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Phone 317.580.5777 Fax 317.580.5778

PROJECT 21-141
DATE 02/28/22
COORDINATED BY DJW
DRAWN BY CND KLS
CHECKED BY BCB

DALE J. WAGNER REGISTERED NO. 19600171 STATE OF INDIANA ARCHITECT

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REVISIONS

MARK	DATE	ISSUED FOR
AD-2	03/21/22	ADDENDUM NO. 2
AD-3	03/30/22	ADDENDUM NO. 3

DRAWING
ENLARGED RESTROOM PLANS

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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SHEET
A-421

Tuesday, 3/29/2022 - 4:16 PM - LAST SAVED BY:KNWESLEY
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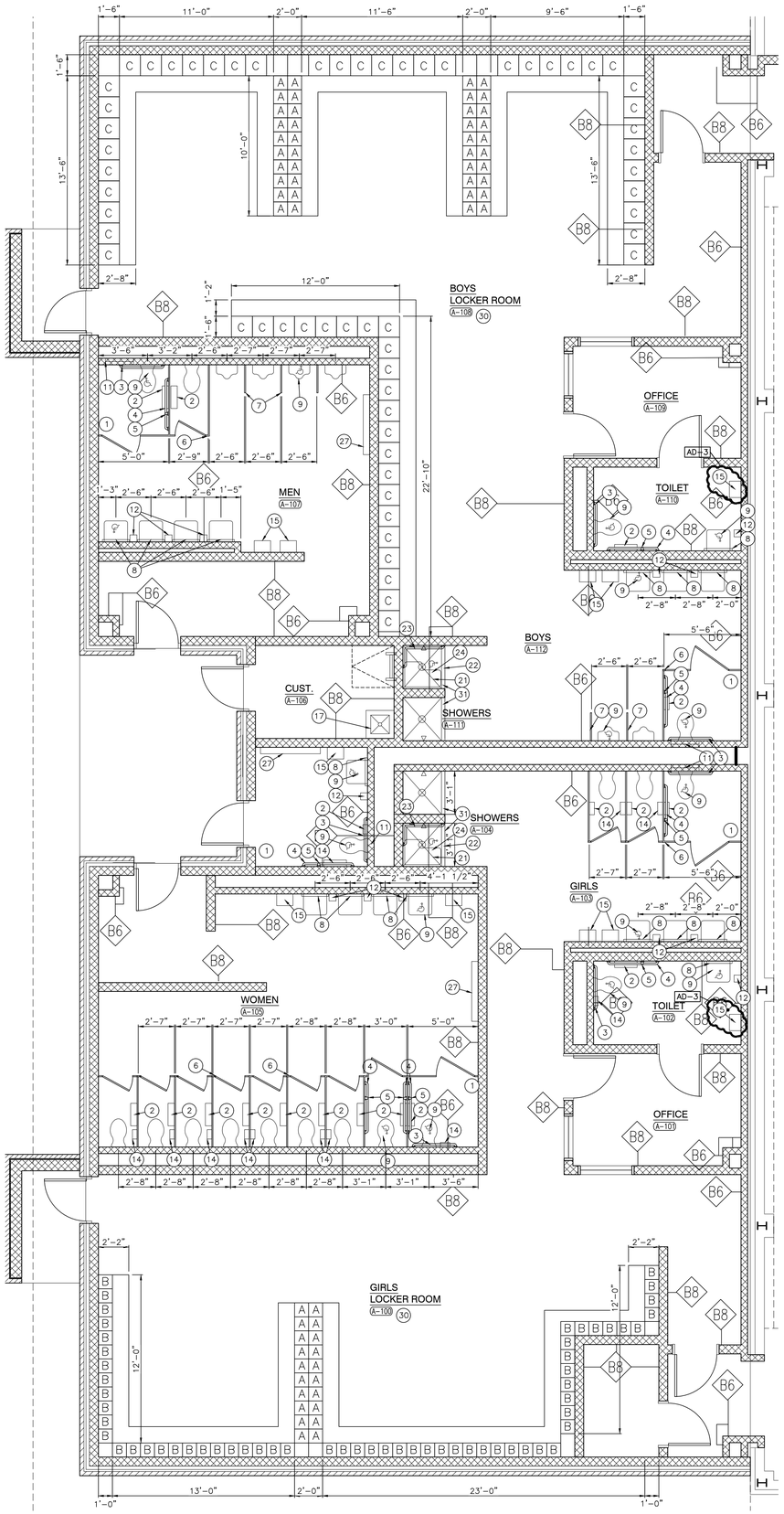

ENLARGED TOILET ROOM PLAN

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

1
A-422

GENERAL RESTROOM PLAN NOTES:

A. FOR GENERAL NOTES, MATERIAL INDICATIONS LEGEND, SYMBOL LEGEND, ABBREVIATIONS, ETC. SEE SHEET G-201.

B. DEPTH OF ALL TOILET ENCLOSURES SHALL BE A MINIMUM OF 5'-0" CLEAR INSIDE DIMENSION UNLESS NOTED OTHERWISE.

C. REFER TO PLUMBING DRAWINGS FOR FIXTURE TYPES AND FLOOR DRAIN LOCATIONS.

D. COORDINATE HEIGHT OF GRAB BAR WITH TANK OF FLOOR MOUNTED WATER CLOSET OR FLUSH VALVE OF WALL MOUNTED WATER CLOSET.

E. INSTALL LAVATORIES AND URINALS AT 2'-6" ON CENTER MINIMUM UNLESS NOTED OTHERWISE.

F. WHERE EXISTING PARTITIONS ARE REPLACED AND NEW PARTITION BRACKETS DO NOT COVER OLD MOUNTING HOLES, PATCH HOLE OR REPLACE TILE TO MATCH ADJACENT WALL FINISH.

G. WHERE EXISTING PARTITIONS ARE REPLACED AND NO DIMENTIONS ARE INDICATED, VERIFY LOCATION OF EXISTING PARTITIONS AND INSTALL NEW PARTITIONS IN SAME LOCATION.

RESTROOM PLAN NOTES:

(ALL PLAN NOTES MAY NOT BE INDICATED ON THIS SHEET.)

1. ACCESSIBLE FACILITIES. — 1 / A-400
2. TOILET PAPER HOLDER. (OFCI)
3. 3'-0" HANDICAPPED GRAB BAR, REFER TO G-301
4. 3'-6" HANDICAPPED GRAB BAR, REFER TO G-301
5. 18" VERTICAL HANDICAPPED GRAB BAR, REFER TO G-301
6. TOILET PARTITION.
7. URINAL SCREEN WALL.
8. 2'-0" W x 3'-0" H MIRROR WITH BOTTOM OF REFLECTIVE SURFACE MOUNTED AT 40"A.F.F.
9. ACCESSIBLE FIXTURE (LAVATORY/URNAL). SEE PLUMBING DRAWINGS.
10. PAPER TOWEL DISPENSER. (OFCI)
11. 24"x24" ACCESS PANEL. MOUNT TOP OF PANEL AT 5'-4" A.F.F. COORDINATE LOCATION W/ SENSOR HEIGHT.
12. SOAP DISPENSER. (OFCI)
13. FLOOR DRAIN. SEE PLUMBING DRAWINGS.
14. FEMININE NAPKIN DISPOSAL.
15. ELECTRIC HAND DRYER
16. 2'-0" x 5'-0" MIRROR BOTTOM @ 1'-4" A.F.F.
17. MOP SINK. SEE PLUMBING.
18. ELECTRIC WATER COOLER.
19. ELECTRIC WATER COOLER.(ADA)
20. CABINET HEATER. SEE MECHANICAL
21. ACCESSIBLE INDIVIDUAL SHOWER, REFER TO G-301
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PROJECT

WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS

DUNELAND SCHOOL CORPORATION
CHESTERTON, INDIANA

GIBRALTAR DESIGN
9102 N. Meridian St., Ste. 300
Indianapolis, IN 46260
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PROJECT
21-141
DATE
02/28/22
COORDINATED BY
DJW
DRAWN BY
CND KLS
CHECKED BY
BCB

DALE J. WAGNER
REGISTERED
NO.
19600171
STATE OF
INDIANA
ARCHITECT

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REVISIONS

MARK	DATE	ISSUED FOR
AD-2	03/21/22	ADDENDUM NO. 2
AD-3	03/30/22	ADDENDUM NO. 3

DRAWING
ENLARGED RESTROOM PLANS

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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SHEET
A-422

Tuesday, 3/29/2022 - 4:14 PM - LAST SAVED BY:NWESLEY
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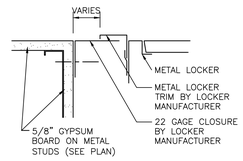
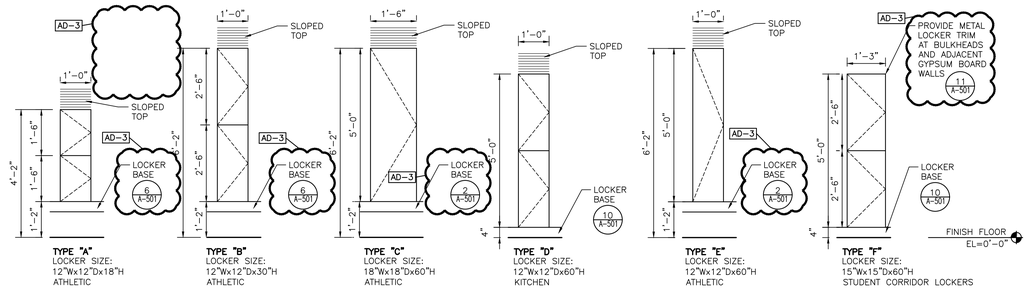
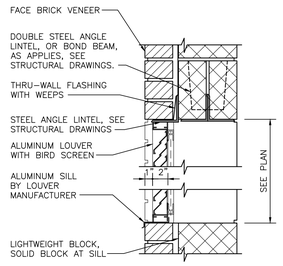


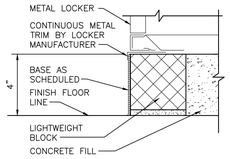
LOCKER CLOSURE
SCALE: 3" = 1'-0"
11 / A-501



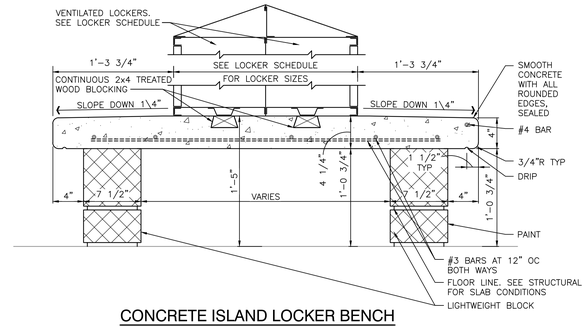
TYPICAL LOCKER ELEVATIONS
SCALE: 1/2" = 1'-0"
3 / A-501



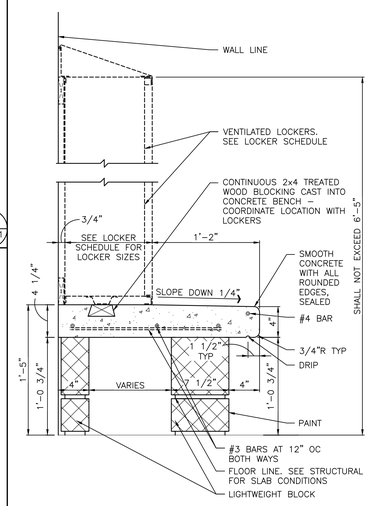
LOUVERS
SCALE: 1 1/2" = 1'-0"
15 / A-501



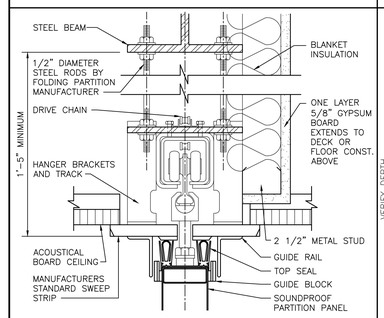
LOCKER BASE
SCALE: 3" = 1'-0"
10 / A-501



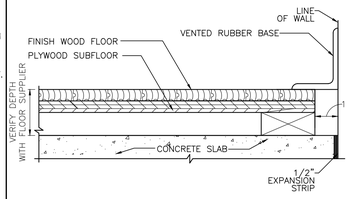
CONCRETE ISLAND LOCKER BENCH
SCALE: 1 1/2" = 1'-0"
6 / A-501



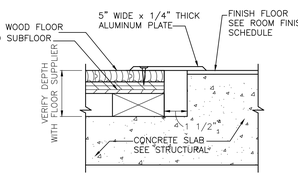
CONCRETE LOCKER BENCH
SCALE: 1 1/2" = 1'-0"
2 / A-501



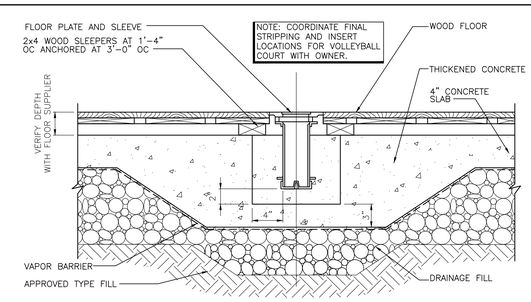
FOLDING PARTITION HEAD
SCALE: 3" = 1'-0"
19 / A-501



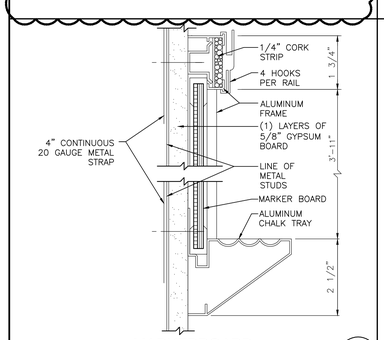
WOOD FLOOR WITH VENTED RUBBER BASE
SCALE: 3" = 1'-0"
14 / A-501



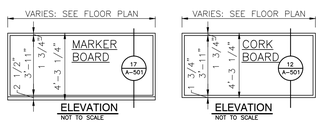
WOOD FLOOR COVER PLATE
SCALE: 3" = 1'-0"
9 / A-501



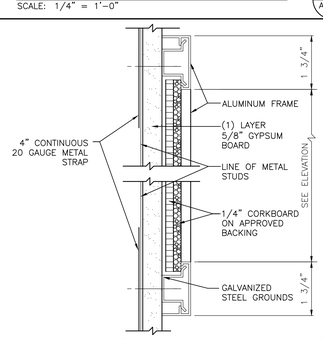
WOOD FLOOR INSERT
SCALE: 1 1/2" = 1'-0"
5 / A-501



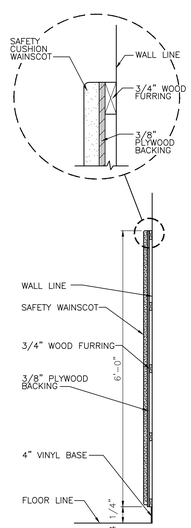
MARKERBOARD
SCALE: 6" = 1'-0"
17 / A-501



MARKER/CORKBOARD ELEVATIONS
SCALE: 1/4" = 1'-0"
13 / A-501

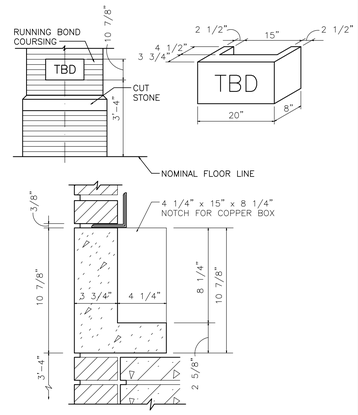


CORKBOARD
SCALE: 6" = 1'-0"
12 / A-501

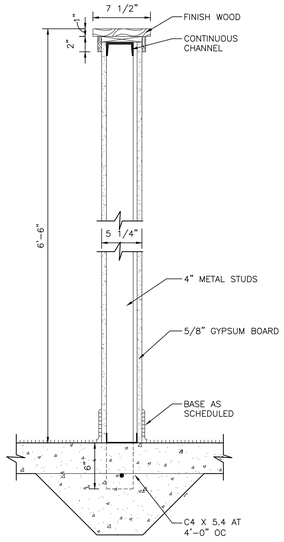


SECTION
SCALE: 3/4" = 1'-0"

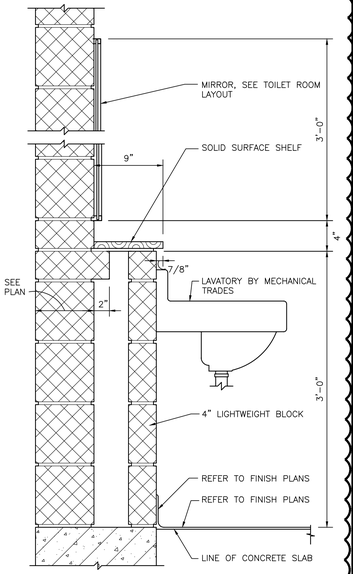
SAFETY CUSHION WAINSCOT
SCALE: 3/4" = 1'-0"
8 / A-501



DATE STONE DETAIL
SCALE: 3/4" = 1'-0"
7 / A-501



PARTIAL HEIGHT WALL
SCALE: 1 1/2" = 1'-0"
4 / A-501



LAVATORY SHELF
SCALE: 1 1/2" = 1'-0"
1 / A-501

GIBRALTAR DESIGN
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PROJECT
WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS
DUNELAND SCHOOL CORPORATION
CHESTERTON, INDIANA

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PROJECT 21-141
DATE 02/28/22
COORDINATED BY DJW
DRAWN BY KLS
CHECKED BY BCB

DALE J. WAGNER REGISTERED NO. 19600171 STATE OF INDIANA ARCHITECT

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REVISIONS

MARK	DATE	ISSUED FOR
AD-3	03/30/22	ADDENDUM NO. 3

DRAWING
TYPICAL DETAILS

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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SHEET
A-501

Tuesday, 3/29/2022 – 4:13 PM – LAST SAVED BY:KWESLEY
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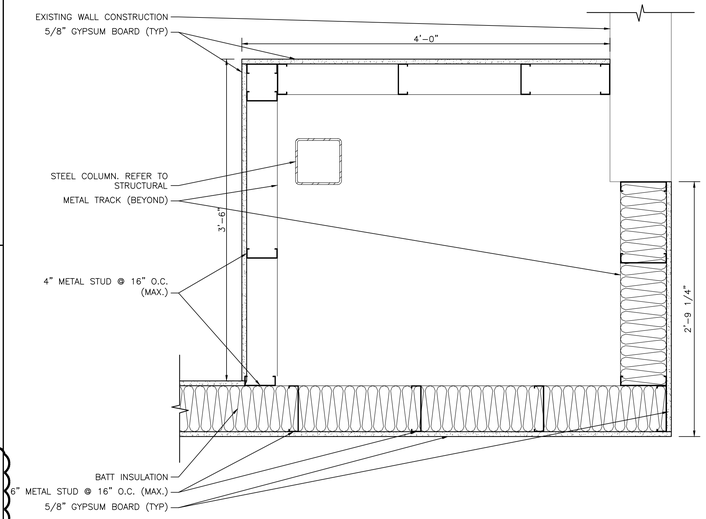

PLAN DETAIL
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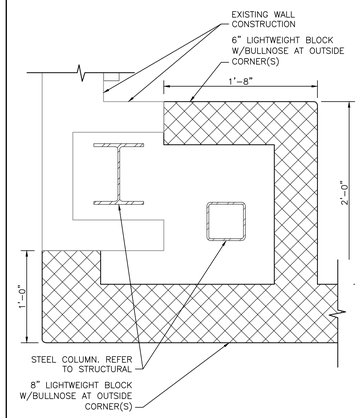
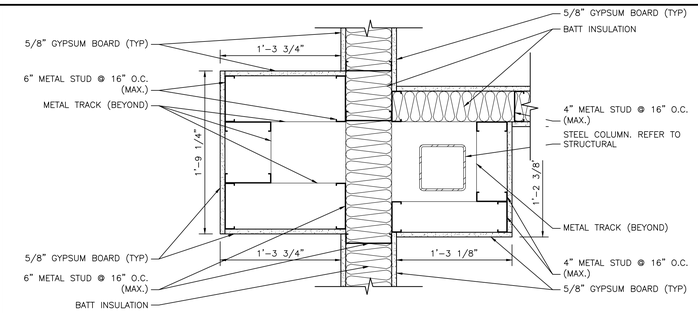
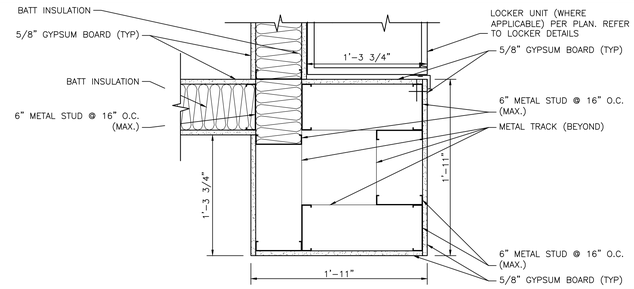
12 A-502



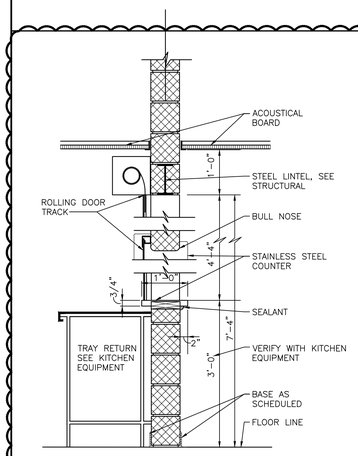
PLAN DETAIL
SCALE: 1 1/2" = 1'-0"
9 A-502



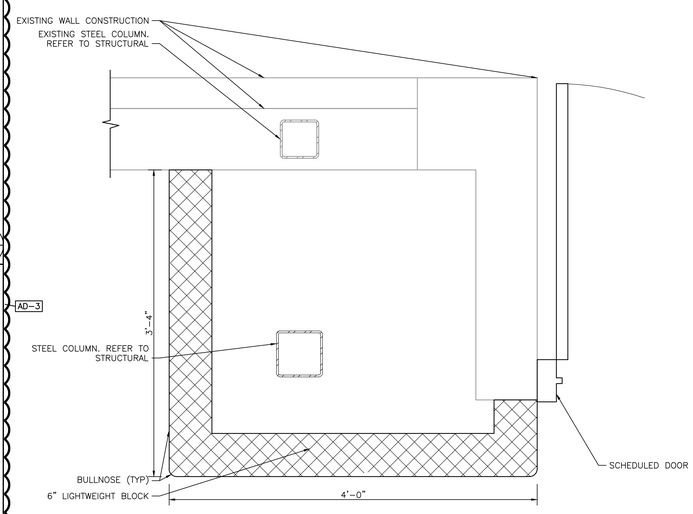
PLAN DETAIL
SCALE: 1 1/2" = 1'-0"
5 A-502



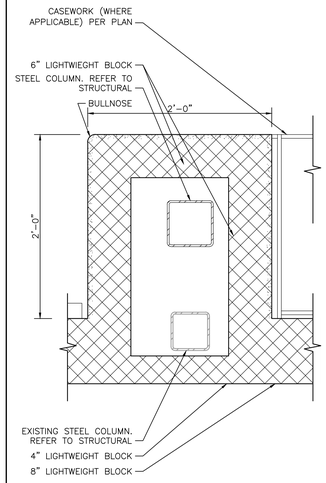
PLAN DETAIL
SCALE: 1 1/2" = 1'-0"
4 A-502



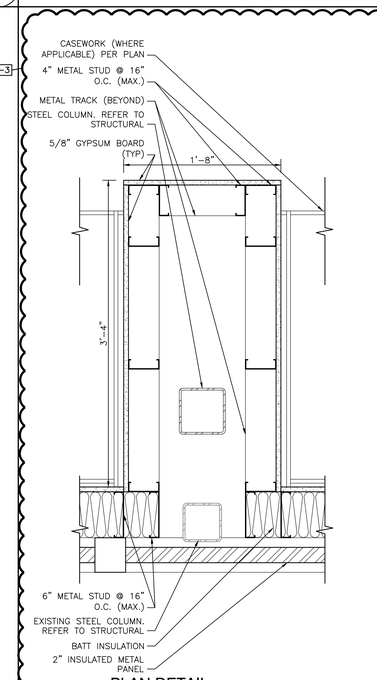
DISH F-117 COUNTER SECTION
SCALE: 3/4" = 1'-0"
15 A-502



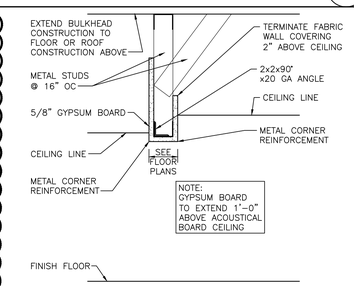
PLAN DETAIL
SCALE: 1 1/2" = 1'-0"
11 A-502



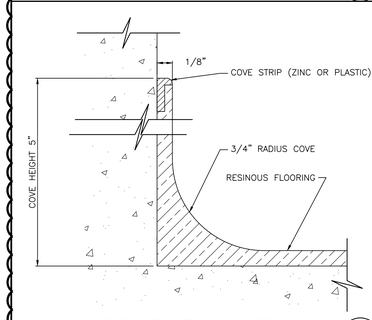
PLAN DETAIL
SCALE: 1 1/2" = 1'-0"
8 A-502



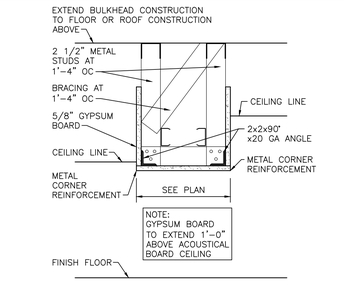
PLAN DETAIL
SCALE: 1 1/2" = 1'-0"
7 A-502



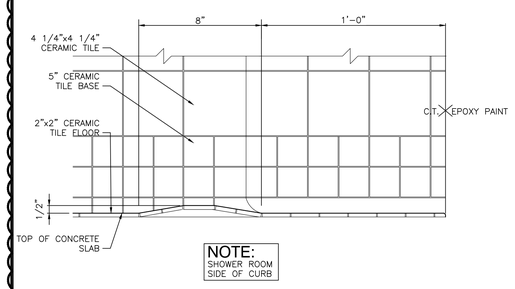
GYPSUM BOARD BULKHEAD
SCALE: 1 1/2" = 1'-0"
3 A-502



COVE BASE WITH CAP DETAIL
SCALE: NTS
13 A-501



GYPSUM BOARD BULKHEAD
SCALE: 1 1/2" = 1'-0"
2 A-502



SHOWER CURB DETAIL
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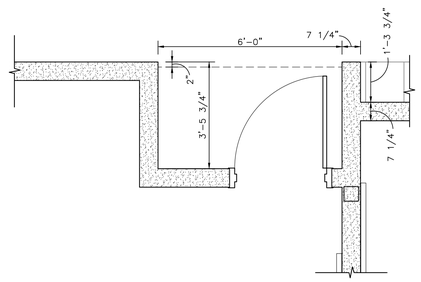
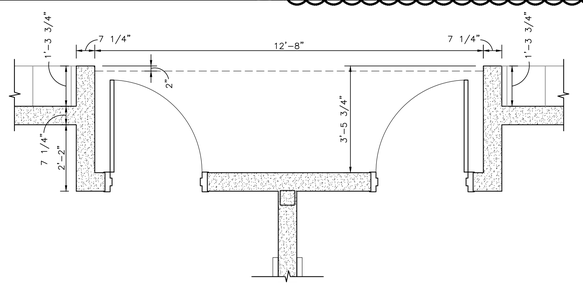
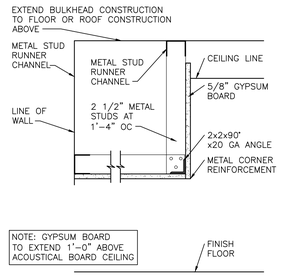
14 A-502



TYPICAL CLASSROOM ENTRY
SCALE: 1/2" = 1'-0"
10 A-502



TYPICAL CLASSROOM ENTRY
SCALE: 1/2" = 1'-0"
6 A-502

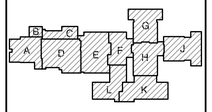


GYPSUM BOARD BULKHEAD
SCALE: 1 1/2" = 1'-0"
1 A-502

GIBRALTAR DESIGN
ARCHITECTURE • ENGINEERING • INTERIOR DESIGN

PROJECT
WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS

DUNELAND SCHOOL CORPORATION
CHESTERTON, INDIANA



KEY PLAN

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PROJECT 21-141
DATE 02/28/22
COORDINATED BY DJW
DRAWN BY MMM
CHECKED BY BCB

DALE J. WAGNER REGISTERED NO. 19600171 STATE OF INDIANA ARCHITECT

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REVISIONS

MARK	DATE	ISSUED FOR
AD-3	03/30/22	ADDENDUM NO. 3

DRAWING
TYPICAL DETAILS

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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SHEET
A-502

Wednesday, 3/30/2022 – 2:47 PM – LAST SAVED BY:NWESLEY
Y:\21-141 DUNELAND SC – WESTCHESTER INTERMEDIATE SCHOOL ADDITIONS AND RENOVATIONS\21-141 DRAWINGS\03 ARCH\A-502.DWG

DOOR SCHEDULE NOTES (REMARKS):

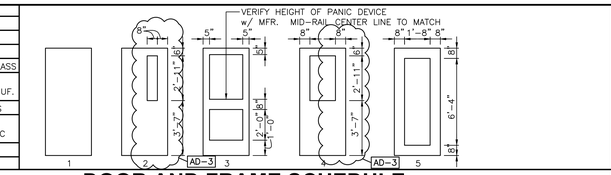
1. PANIC DEVICE TO HAVE ELECTRIC LATCH BOLT. PREPARE FRAME FOR ELECTRIFIED HINGE.
2. DOOR TO BE CONTROLLED BY CARD READER/FOB. REFER TO ELECTRICAL DRAWINGS FOR ROUGH IN.
3. PROVIDE POWER ASSISTED OPERATOR ON ONE LEAF OF DOUBLE DOORS.
4. DOOR THICKNESS TO BE 2 1/2" THICK.
5. KEYED REMOVABLE MULLION.
6. PROVIDE SOUND INSULATING DOOR AND SOUND GASKETING SEALS. AD-3
7. NOT USED
8. PROVIDE DOOR RELEASE ON AI PHONE LOCATED AT RECEPTION DESK.
9. NOT USED AD-3
10. EXISTING DOOR FRAME TO REMAIN AND RECEIVE NEW LEAF.

GENERAL DOOR NOTES

A. JAMB, HEAD, AND SILL DO NOT SHOW WALL CONSTRUCTION. SEE FLOOR PLAN FOR WALL MATERIALS. REFER TO A800 SERIES DRAWINGS FOR WALL FINISHES.
B. SEAL ALL JAMBS AND HEADS WHERE FRAMES MEET EXPOSED MASONRY AND/OR GYPSUM BOARD.
C. PROVIDE A SCRIBE MOLD AT ALL EXTERIOR DOOR FRAMES AND WHERE NOTED ON DRAWINGS. SCRIBE MOLD TO BE 3/4" X 3/4" METAL AT EXTERIOR OF METAL FRAMES AND AT BOTH SIDES OF ALUMINUM FRAMES. SET SCRIBE MOLDS IN SEALANT.
D. PROVIDE GLAZING AND GLASS STOPS AS REQUIRED.
E. FIELD VERIFY ALL DIMENSIONS AND CONDITIONS, BOTH NEW AND EXISTING.
F. SHIM SPACE IS NOT SHOWN ON DOOR FRAME ELEVATIONS FOR ALUMINUM STOREFRONT. TAKE THESE DIMENSIONS INTO ACCOUNT AND ADJUST DIMENSIONS ACCORDINGLY.
G. FOR DOOR POSITION WITHIN WALL REFER TO FRAME MOUNTING DETAIL 4-A603.
H. FOR ELECTRICAL ROUGH-IN AT DOORS REFER TO DETAIL 4-A603.
I. FOR HOLLOW METAL FRAME ELEVATIONS (HM) REFER TO 1-A603. FOR HOLLOW METAL (HM) FRAME PROFILES REFER TO 5-A603.
J. ALUMINUM STOREFRONT ELEVATIONS (SF) REFER TO 1-A604. FOR STOREFRONT (SF) FRAME PROFILES REFER TO 2-A604.
K. GLASS NOTED IN SIDELIGHT COLUMN FOR STOREFRONT WITH NO DOOR APPLIES TO ALL OPENINGS IN FRAME UNLESS NOTED OTHERWISE.
L. REFER TO FLOOR PLANS FOR LOCATIONS OF NEW AND EXISTING ADA PUSH PADS FOR POWER ASSISTED OPERATORS.
M. WHERE FRAMES INDICATE 2 OF MORE OPENINGS FOR DOORS, EACH SINGLE OR PAIR OF DOORS IS SCHEDULED SEPARATELY AND FRAME INDICATED.

GLASS SCHEDULE

MK	GLASS TYPES
A	1/4" CLEAR TEMPERED
B	1" INSUL. GLASS
C	1" INSUL. SPANDREL GLASS
D	FIRE RATED GLASS – THICKNESS TBD BY MANUF.
E	1/2" ACOUSTICAL GLASS
F	ACOUSTICAL GLASS – THICKNESS TBD BY SPEC



DOOR AND FRAME SCHEDULE

DOOR NO	DESCRIPTION	TYPE	DOOR SIZE (WxH) (INCHES)	MATERIAL	LOU	GLASS DOOR	GLASS SIDE LGT	GLASS TRA	FRAME MAT'L	WIDTH	JAMB	HEAD	SILL	ELEV	LABEL	HARDWARE EXIT DEVICE	HARDWARE CLOSER	NOTES
F-104A	SINGLE	2	36 x 84	WD		A			HM	8 3/8"	SEE ELEV	SEE ELEV	SEE ELEV	HM1				
F-106A	SINGLE	2	36 x 84	WD		A			HM	8 3/8"	SEE ELEV	SEE ELEV	SEE ELEV	HM1				
F-108A	SINGLE	2	36 x 84	WD		A			HM	8 3/8"	SEE ELEV	SEE ELEV	SEE ELEV	HM1				
F-109A	SINGLE	1	36 x 84	WD					EX	0"								2,10
F-116A	SINGLE	3	36 x 86	AL		A			AL	4 1/2"	SEE ELEV	SEE ELEV	SEE ELEV	SF21		YES	YES	
F-117A	SINGLE	1	36 x 86	WD		A			AL	4 1/2"	SEE ELEV	SEE ELEV	SEE ELEV	SF22				
F-118A	SINGLE	2	36 x 84	WD		A			HM	8 3/8"	SEE ELEV	SEE ELEV	SEE ELEV	HM1				
F-119A	SINGLE	2	36 x 84	WD		A			HM	8 3/8"	SEE ELEV	SEE ELEV	SEE ELEV	HM1				
F-122A	SINGLE	1	36 x 86	WD		A			AL	4 1/2"	SEE ELEV	SEE ELEV	SEE ELEV	SF22				
F-123A	DOUBLE	3	PR 36 x 84	AL		B	B	B	AL	4 1/2"	SEE ELEV	SEE ELEV	SEE ELEV	SF19		YES	YES	
F-127A	SINGLE	1	36 x 84	WD			A		HM	5 3/4"	SEE ELEV	SEE ELEV	SEE ELEV	HM5				
F-128A	SINGLE	1	36 x 84	WD					HM	8 3/4"	SEE ELEV	SEE ELEV	SEE ELEV	HM1			YES	
F-129A	SINGLE	1	36 x 84	WD					HM	8 3/4"	SEE ELEV	SEE ELEV	SEE ELEV	HM1			YES	
F-130A	SINGLE	1	36 x 84	WD					HM	8 3/4"	SEE ELEV	SEE ELEV	SEE ELEV	HM1				
F-131A	SINGLE	2	36 x 84	WD		A			HM	8 3/4"	SEE ELEV	SEE ELEV	SEE ELEV	HM1				
F-132A	SINGLE	1	36 x 84	WD			A		HM	5 3/4"	SEE ELEV	SEE ELEV	SEE ELEV	HM5				
G-100A	DOUBLE	3	PR 36 x 84	AL		B	B	B	AL	4 1/2"	SEE ELEV	SEE ELEV	SEE ELEV	SF10		YES	YES	1,2
G-100B	DOUBLE	3	PR 36 x 84	AL		A	A	A	AL	4 1/2"	SEE ELEV	SEE ELEV	SEE ELEV	SF10			YES	
G-101A	SINGLE	2	36 x 84	WD		A			HM	8 3/8"	SEE ELEV	SEE ELEV	SEE ELEV	HM1				
G-102A	SINGLE	2	36 x 84	WD		A			HM	8 3/8"	SEE ELEV	SEE ELEV	SEE ELEV	HM1				
G-103A	SINGLE	2	36 x 84	WD		A			HM	8 3/8"	SEE ELEV	SEE ELEV	SEE ELEV	HM1				
G-104A	SINGLE	2	36 x 84	WD		A			HM	8 3/8"	SEE ELEV	SEE ELEV	SEE ELEV	HM1		YES	YES	
G-105A	SINGLE	2	36 x 84	WD		A			HM	8 3/8"	SEE ELEV	SEE ELEV	SEE ELEV	HM1		YES	YES	
G-106A	DOUBLE	3	PR 36 x 84	AL		B	B	B	AL	4 1/2"	SEE ELEV	SEE ELEV	SEE ELEV	SF10		YES	YES	1,2
G-106B	DOUBLE	3	PR 36 x 84	AL		A	A	A	AL	4 1/2"	SEE ELEV	SEE ELEV	SEE ELEV	SF10			YES	
G-107A	SINGLE	1	36 x 84	WD					HM	8 3/8"	SEE ELEV	SEE ELEV	SEE ELEV	SF7				
G-108A	SINGLE	1	36 x 84	WD		A	A		AL	4 1/2"	SEE ELEV	SEE ELEV	SEE ELEV	SF7				
G-110A	SINGLE	1	36 x 84	WD		A	A		AL	4 1/2"	SEE ELEV	SEE ELEV	SEE ELEV	SF7				
G-111A	SINGLE	1	36 x 84	WD					HM	8 3/8"	SEE ELEV	SEE ELEV	SEE ELEV	HM1				
G-118A	SINGLE	2	36 x 84	WD		A			HM	8 3/8"	SEE ELEV	SEE ELEV	SEE ELEV	HM1				
G-118B	SINGLE	2	36 x 84	WD		A			HM	8 3/8"	SEE ELEV	SEE ELEV	SEE ELEV	HM1				
G-119A	SINGLE	1	36 x 84	WD					HM	8 3/8"	SEE ELEV	SEE ELEV	SEE ELEV	HM1				
G-120A	SINGLE	1	36 x 84	WD					HM	8 3/8"	SEE ELEV	SEE ELEV	SEE ELEV	HM1				
G-121A	SINGLE	1	36 x 84	WD					HM	8 3/4"	SEE ELEV	SEE ELEV	SEE ELEV	HM2			YES	
G-122A	SINGLE	1	36 x 84	WD					HM	8 3/4"	SEE ELEV	SEE ELEV	SEE ELEV	HM2			YES	
G-124A	SINGLE	1	36 x 84	WD					HM	8 3/4"	SEE ELEV	SEE ELEV	SEE ELEV	HM2				
G-133A	SINGLE	1	36 x 84	WD					HM	8 3/8"	SEE ELEV	SEE ELEV	SEE ELEV	HM1				
G-133B	SINGLE	1	36 x 84	WD					HM	8 3/8"	SEE ELEV	SEE ELEV	SEE ELEV	HM1				
H-100B	SINGLE	3	36 x 84	AL		B	B	B	AL	4 1/2"	SEE ELEV	SEE ELEV	SEE ELEV	SF11		YES	YES	
H-100C	SINGLE	3	36 x 84	AL		B	B	B	AL	4 1/2"	SEE ELEV	SEE ELEV	SEE ELEV	SF11		YES	YES	1,2
H-101B	SINGLE	3	36 x 84	AL		B	B	B	AL	4 1/2"	SEE ELEV	SEE ELEV	SEE ELEV	SF11		YES	YES	
H-101C	SINGLE	3	36 x 84	AL		B	B	B	AL	4 1/2"	SEE ELEV	SEE ELEV	SEE ELEV	SF11		YES	YES	1,2
H-102A	SINGLE	2	36 x 84	WD		A			HM	8 3/4"	SEE ELEV	SEE ELEV	SEE ELEV	HM1				
H-103A	SINGLE	2	36 x 84	WD		A			HM	8 3/4"	SEE ELEV	SEE ELEV	SEE ELEV	HM1				
H-103B	SINGLE	2	36 x 84	WD		A			HM	6 3/8"	SEE ELEV	SEE ELEV	SEE ELEV	HM1				
H-104A	SINGLE	2	36 x 84	WD		A			HM	6 3/8"	SEE ELEV	SEE ELEV	SEE ELEV	HM1				

DOOR AND FRAME SCHEDULE

DOOR NO	DESCRIPTION	TYPE	DOOR SIZE (WxH) (INCHES)	MATERIAL	LOU	GLASS DOOR	GLASS SIDE LGT	GLASS TRA	FRAME MAT'L	WIDTH	JAMB	HEAD	SILL	ELEV	LABEL	HARDWARE EXIT DEVICE	HARDWARE CLOSER	NOTES
D-125A	DOUBLE	1	PR 36 x 84	WD					HM	8 3/8"	SEE ELEV	SEE ELEV	SEE ELEV	HM4				
D-128A	SINGLE	2	36 x 84	WD		A			HM	5 3/4"	SEE ELEV	SEE ELEV	SEE ELEV	HM1		YES	YES	
D-130A	DOUBLE	1	PR 36 x 84	WD					HM	8 3/8"	SEE ELEV	SEE ELEV	SEE ELEV	HM4				
D-131A	SINGLE	1	36 x 84	WD					HM	5 3/4"	SEE ELEV	SEE ELEV	SEE ELEV	HM1				
D-132A	DOUBLE	1	PR 36 x 84	WD					HM	8 3/8"	SEE ELEV	SEE ELEV	SEE ELEV	HM4				
D-133A	DOUBLE	2	PR 36 x 84	WD		E			HM	8 3/8"	SEE ELEV	SEE ELEV	SEE ELEV	HM4				6
D-134A	SINGLE	1	36 x 84	WD					HM	5 3/4"	SEE ELEV	SEE ELEV	SEE ELEV	HM1				
D-135A	SINGLE	1	32 x 84	WD					EX	0"								10
D-137A	SINGLE	1	36 x 84	WD					HM	8 3/4"	SEE ELEV	SEE ELEV	SEE ELEV	HM1		YES	YES	
D-137B	SINGLE	1	32 x 84	WD					HM	5 3/4"	SEE ELEV	SEE ELEV	SEE ELEV	HM1		YES	YES	
D-138A	SINGLE	2	36 x 84	WD		A			HM	8 3/4"	SEE ELEV	SEE ELEV	SEE ELEV	HM1				
D-139A	SINGLE	1	36 x 84	WD					HM	8 3/4"	SEE ELEV	SEE ELEV	SEE ELEV	HM1			YES	
D-142A	SINGLE	1	36 x 84	WD					HM	8 3/4"	SEE ELEV	SEE ELEV	SEE ELEV	HM1				
D-143A	SINGLE	2	36 x 84	WD		A			HM	8 3/4"	SEE ELEV	SEE ELEV	SEE ELEV	HM1				
D-144A	SINGLE	1	36 x 84	WD					HM	8 3/4"	SEE ELEV	SEE ELEV	SEE ELEV	HM1		YES	YES	
D-145A	SINGLE	2	36 x 84	WD		A			HM	8 3/4"	SEE ELEV	SEE ELEV	SEE ELEV	HM1				
D-146A	SINGLE	1	36 x 84	WD					HM	8 3/4"	SEE ELEV	SEE ELEV	SEE ELEV	HM1			YES	
D-150A	SINGLE	1	36 x 84	WD					HM	5 3/4"	SEE ELEV	SEE ELEV	SEE ELEV	HM1			YES	
E-100A	SINGLE	3	36 x 84	AL		B	B	B	AL	4 1/2"	SEE ELEV	SEE ELEV	SEE ELEV	SF11		YES	YES	
E-100B	SINGLE	3	36 x 84	AL		B	B	B	AL	4 1/2"	SEE ELEV	SEE ELEV	SEE ELEV	SF11		YES	YES	1,2
E-105A	SINGLE	2	36 x 84	WD		A			HM	8 3/8"	SEE ELEV	SEE ELEV	SEE ELEV	HM1				
E-105B	SINGLE	2	36 x 84	WD		A			HM	8 3/8"	SEE ELEV	SEE ELEV	SEE ELEV	HM1				
E-107A	SINGLE	1	36 x 84	WD					HM	8 3/4"	SEE ELEV	SEE ELEV	SEE ELEV	HM1			YES	
E-108A	SINGLE	1	36 x 84	WD					HM	8 3/4"	SEE ELEV	SEE ELEV	SEE ELEV	HM1			YES	
E-109A	SINGLE	1	36 x 84	WD					HM	8 3/4"	SEE ELEV	SEE ELEV	SEE ELEV	HM1				
E-110A	SINGLE	2	36 x 84	WD		A			HM	8 3/8"	SEE ELEV	SEE ELEV	SEE ELEV	HM1				
E-111A	SINGLE	1	36 x 84	WD					HM	8 3/8"	SEE ELEV	SEE ELEV	SEE ELEV	HM1				
E-119A	SINGLE	1	36 x 84	WD					HM	8 3/4"	SEE ELEV	SEE ELEV	SEE ELEV	HM2			YES	
E-120A	SINGLE	1	36 x 84	WD					HM	8 3/4"	SEE ELEV	SEE ELEV	SEE ELEV	HM2			YES	
E-121A	SINGLE	1	36 x 84	WD					HM	8 3/4"	SEE ELEV	SEE ELEV	SEE ELEV	HM2				
E-122A	SINGLE	2	42 x 84	WD		A			HM	8 3/4"	SEE ELEV	SEE ELEV	SEE ELEV	HM2				
E-125A	SINGLE	1	36 x 84	WD					HM	8 3/4"	SEE ELEV	SEE ELEV	SEE ELEV	HM2				
E-126A	SINGLE	1	36 x 84	WD					HM	8 3/4"	SEE ELEV	SEE ELEV	SEE ELEV	HM2				
E-127A	SINGLE	1	36 x 84	WD					HM	8 3/4"	SEE ELEV	SEE ELEV	SEE ELEV	HM2				
E-127B	DOUBLE	1	PR 36 x 84	AL					AL	4 1/2"	SEE ELEV	SEE ELEV	SEE ELEV	SF6			YES	
E-128A	SINGLE	2	36 x 84	AL		B			AL	5 3/4"	SEE ELEV	SEE ELEV	SEE ELEV	SF28			YES	1,2
E-129A	DOUBLE	1	PR 36 x 84	WD					HM	5 3/4"	SEE ELEV	SEE ELEV	SEE ELEV	HM4			YES	
E-130A	SINGLE	1	36 x 84	WD					HM	8 3/4"	SEE ELEV	SEE ELEV	SEE ELEV	HM1				
E-131A	DOUBLE	1	PR 36 x 84	WD					HM	8 3/4"	SEE ELEV	SEE ELEV	SEE ELEV	HM3			YES	
E-132A	DOUBLE	2	PR 36 x 84	AL		B			AL	4 1/2"	SEE ELEV	SEE ELEV	SEE ELEV			YES	YES	1,2
F-100A	DOUBLE	3	PR 36 x 84	AL		B	B	B	AL	4 1/2"	SEE ELEV	SEE ELEV	SEE ELEV	SF5		YES	YES	1,2,8
F-100B	DOUBLE	3	PR 36 x 84	AL		B	B	B	AL	4 1/2"	SEE ELEV	SEE ELEV	SEE ELEV	SF5		YES	YES	1,3
F-100C	DOUBLE	3	PR 36 x 84	AL		A	A	A	AL	4 1/2"	SEE ELEV	SEE ELEV	SEE ELEV	SF19		YES	YES	1,2
F-100D	DOUBLE	3	PR 36 x 84	AL		A	A	A	AL	4 1/2"	SEE ELEV	SEE ELEV	SEE ELEV	SF19		YES	YES	1,3
F-101A	SINGLE	3	36 x 84	AL		A			AL	4 1/2"	SEE ELEV	SEE ELEV	SEE ELEV	SF25		YES	YES	
F-103A	SINGLE	2	36 x 84	WD		A			HM	8 3/8"	SEE ELEV	SEE ELEV	SEE ELEV	HM1				

DOOR AND FRAME SCHEDULE

DOOR NO	DESCRIPTION	TYPE	DOOR SIZE (WxH) (INCHES)	MATERIAL	LOU	GLASS DOOR	GLASS SIDE LGT	GLASS TRA	FRAME MAT'L	WIDTH	JAMB	HEAD	SILL	ELEV	LABEL	HARDWARE EXIT DEVICE	HARDWARE CLOSER	NOTES
A-100A	SINGLE	1	36 x 84	AL					AL	4 1/2"	SEE ELEV	SEE ELEV	SEE ELEV	SF28		YES	YES	1,2
A-100B	SINGLE	1	36 x 84	WD					HM	8 3/4"	SEE ELEV	SEE ELEV	SEE ELEV	HM2		YES	YES	
A-101A	SINGLE	2	36 x 84	WD		A			HM	8 3/4"	SEE ELEV	SEE ELEV	SEE ELEV	HM2				
A-102A	SINGLE	1	36 x 84	WD					HM	8 3/4"	SEE ELEV	SEE ELEV	SEE ELEV	HM2			YES	
A-105A	SINGLE	1	36 x 84	AL					AL	4 1/2"	SEE ELEV	SEE ELEV	SEE ELEV	SF28			YES	
A-106A	SINGLE	1	36 x 84	AL					AL	4 1/2"	SEE ELEV	SEE ELEV	SEE ELEV	SF28			YES	
A-107A	SINGLE	1	36 x 84	AL					AL	4 1/2"	SEE ELEV	SEE ELEV	SEE ELEV	SF28			YES	
A-108A	SINGLE	1	36 x 84	AL					AL	4 1/2"	SEE ELEV	SEE ELEV	SEE ELEV	SF28		YES	YES	1,2
A-108B	SINGLE	1	36 x 84	WD					HM	8 3/4"	SEE ELEV	SEE ELEV	SEE ELEV	HM2		YES	YES	
A-109A	SINGLE	2	36 x 84	WD		A			HM	8 3/4"	SEE ELEV	SEE ELEV	SEE ELEV	HM2				
A-110A	SINGLE	1	36 x 84	WD					HM	8 3/4"	SEE ELEV	SEE ELEV	SEE ELEV	HM2			YES	
A-116A	SINGLE	1	36 x 84	WD					HM	8 3/4"	SEE ELEV	SEE ELEV	SEE ELEV	HM2				
A-117A	DOUBLE	1	PR 36 x 84	WD					HM	8 3/4"	SEE ELEV	SEE ELEV	SEE ELEV	HM4				
A-118A	SINGLE	1	36 x 84	AL					AL	4 1/2"	SEE ELEV	SEE ELEV	SEE ELEV	SF28			YES	
B-102A	DOUBLE	1	PR 36 x 84	WD					HM	5 3/4"	SEE ELEV	SEE ELEV	SEE ELEV	HM3				
C-101A	DOUBLE	3	PR 36 x 84	AL		B	B	B	AL	4 1/2"	SEE ELEV	SEE ELEV	SEE ELEV	SF1		YES	YES	1,2
C-102A	DOUBLE	2	PR 36 x 84	WD		E			HM	8 3/8"	SEE ELEV	SEE ELEV	SEE ELEV	HM4				6
C-103A	DOUBLE	2	PR 36 x 84	WD		E			HM	8 3/8"	SEE ELEV	SEE ELEV	SEE ELEV	HM4				6
C-105A	DOUBLE	2	PR 36 x 84	WD		E			HM	8 3/8"	SEE ELEV	SEE ELEV	SEE ELEV	HM4		YES	YES	6
C-106A	SINGLE	4	36 x 84	WD		A			HM	8 3/8"	SEE ELEV	SEE ELEV	SEE ELEV	HM1				
C-107A	DOUBLE	1	PR 36 x 84	WD					HM	8 3/8"	SEE ELEV	SEE ELEV	SEE ELEV	HM4				
C-108A	SINGLE	5	36 x 84	HM		F			HM	8 3/8"	SEE ELEV	SEE ELEV	SEE ELEV	HM1				4,6
C-109A	SINGLE	5	36 x 84	HM		F			HM	8 3/8"	SEE ELEV	SEE ELEV	SEE ELEV	HM1				4,6
C-110A	SINGLE	5	36 x 84	HM		F			HM	8 3/8"	SEE ELEV	SEE ELEV	SEE ELEV	HM1				4,6
D-100A	DOUBLE	3	PR 36 x 84	AL		B	B	B	AL	4 1/2"	SEE ELEV	SEE ELEV	SEE ELEV	SF3		YES	YES	1,3
D-100B	DOUBLE	3	PR 36 x 84	AL		B	B	B	AL	4 1/2"	SEE ELEV	SEE ELEV	SEE ELEV	SF3		YES	YES	1,2,8
D-100C	DOUBLE	3	PR 36 x 84	AL		A	A		AL	4 1/2"	SEE ELEV	SEE ELEV	SEE ELEV	SF2		YES	YES	1,3
D-100D	DOUBLE	3	PR 36 x 84	AL		A	A		AL	4 1/2"	SEE ELEV	SEE ELEV	SEE ELEV	SF2		YES	YES	1,2
D-104A	SINGLE	2	36 x 84	WD		A			HM	5 3/4"	SEE ELEV	SEE ELEV	SEE ELEV	HM1			YES	8
D-104B	SINGLE	2	36 x 84	WD		A			HM	8 3/4"	SEE ELEV	SEE ELEV	SEE ELEV	HM1			YES	
D-105A	SINGLE	1	36 x 84	WD					HM	8 3/8"	SEE ELEV	SEE ELEV	SEE ELEV	HM2			YES	
D-106A	SINGLE	1	36 x 84	WD					HM	8 3/8"	SEE ELEV	SEE ELEV	SEE ELEV	HM2			YES	
D-107A	SINGLE	2	36 x 84	WD		A			HM	8 3/8"	SEE ELEV	SEE ELEV	SEE ELEV	HM2				
D-108A	SINGLE	2	36 x 84	WD		A			HM	8 3/8"	SEE ELEV	SEE ELEV	SEE ELEV	HM2				
D-111A	SINGLE	4	36 x 84	WD		A			HM	5 3/4"	SEE ELEV	SEE ELEV	SEE ELEV	HM1				
D-112A	SINGLE	5	36 x 84	HM		F			HM	5 3/4"	SEE ELEV	SEE ELEV	SEE ELEV	HM1	AD-3			4,6
D-113A	SINGLE	5	36 x 84	HM		F			HM	5 3/4"	SEE ELEV	SEE ELEV	SEE ELEV	HM1				4,6
D-114A	SINGLE	1	36 x 84	WD					EX	0"								10
D-115A	SINGLE	1	36 x 84	WD					EX	0"								10
D-117A	SINGLE	3	42 x 84	AL					AL	4 1/2"	SEE ELEV	SEE ELEV	SEE ELEV	SF4		YES	YES	1,2
D-119A	SINGLE	4	36 x 84	WD		A			HM	8 3/8"	SEE ELEV	SEE ELEV	SEE ELEV	HM1				
D-120A	SINGLE	5	36 x 84	HM		F			HM	8 3/8"	SEE ELEV	SEE ELEV	SEE ELEV	HM1				4,6
D-121A	SINGLE	5	36 x 84	HM		F			HM	8 3/8"	SEE ELEV	SEE ELEV	SEE ELEV	HM1				4,6
D-122A	SINGLE	1	36 x 84	WD					HM	8 3/8"	SEE ELEV	SEE ELEV	SEE ELEV	HM1				
D-123A	SINGLE	1	36 x 84	WD					HM	8 3/8"	SEE ELEV	SEE ELEV	SEE ELEV	HM1				
D-124A	SINGLE	3	42 x 84	AL					AL	4 1/2"	SEE ELEV	SEE ELEV	SEE ELEV	SF4		YES	YES	1,2

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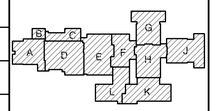
PROJECT

WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS

DUNELAND SCHOOL CORPORATION
CHESTERTON, INDIANA



KEY PLAN

GIBRALTAR DESIGN
9102 N. Meridian St., Ste. 300
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Homepage www.GibraltarDesign.com
Email info@GibraltarDesign.com
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PROJECT
21-141
DATE
02/28/22
COORDINATED BY
DJW
DRAWN BY
BCB
CHECKED BY
BCB

DALE J. WAGLER
REGISTERED
NO. 19600171
STATE OF INDIANA
ARCHITECT

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REVISIONS

MARK	DATE	ISSUED FOR
AD-2	03/21/22	ADDENDUM NO. 2
AD-3	03/30/22	ADDENDUM NO. 3

DRAWING
DOOR AND FRAME SCHEDULE

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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SHEET
A-601

Tuesday, 3/29/2022 - 3:17 PM - LAST SAVED BY:NWESLEY
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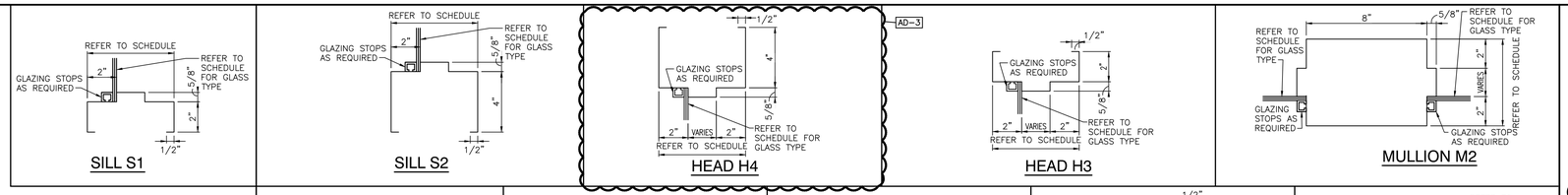
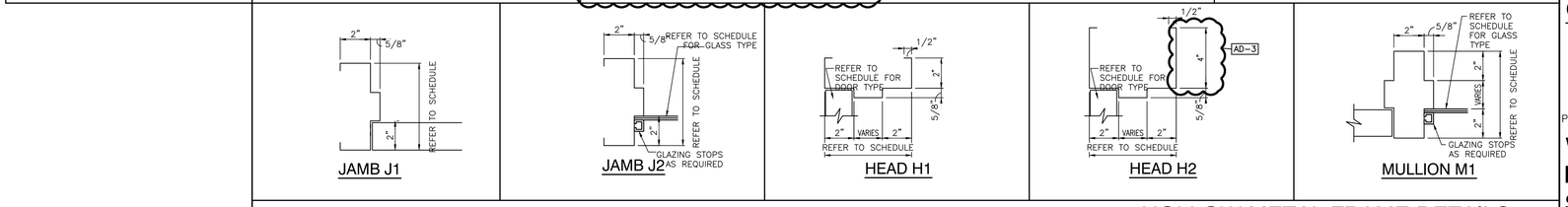


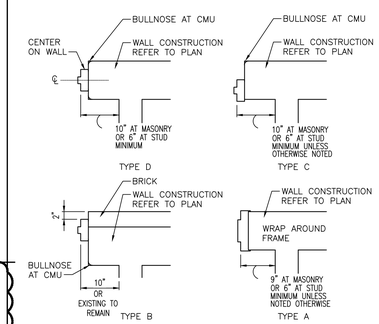
SILL S1 | SILL S2 | HEAD H4 | HEAD H3 | MULLION M2



HOLLOW METAL FRAME DETAILS

SCALE: 3" = 1'-0"

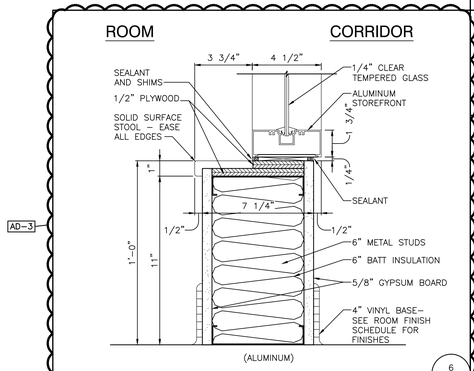
5 / A-603



FRAME MOUNTING DETAILS

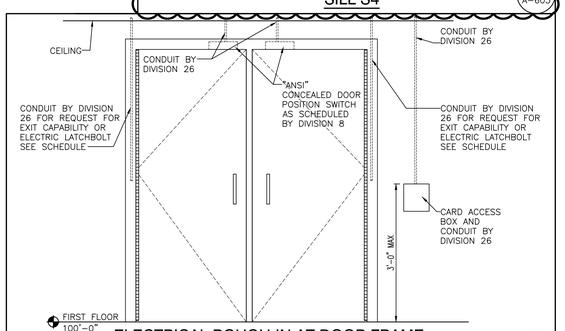
SCALE: NTS

4 / A-603



SILL S4

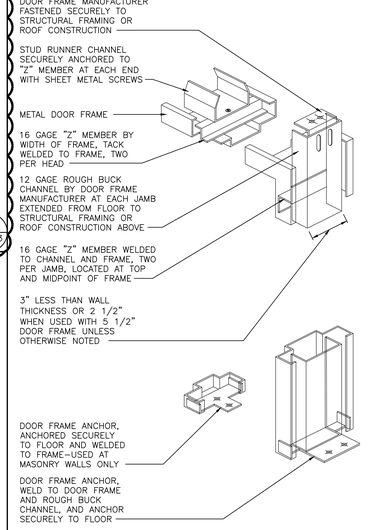
6 / A-603



ELECTRICAL ROUGH-IN AT DOOR FRAME

SCALE: 3/4" = 1'-0"

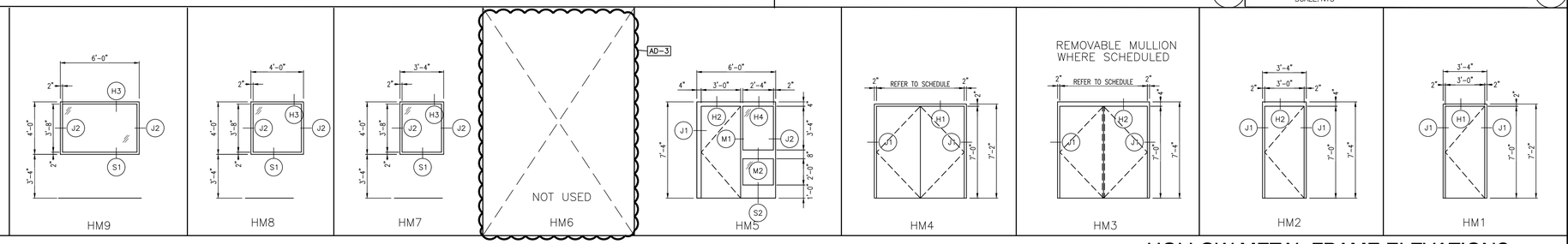
3 / A-603



TYPICAL HEAD & JAMB ANCHORAGE

SCALE: NTS

2 / A-603



HOLLOW METAL FRAME ELEVATIONS

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

1 / A-603

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PROJECT

WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS

DUNELAND SCHOOL CORPORATION
CHESTERTON, INDIANA

GIBRALTAR DESIGN
9102 N. Meridian St., Ste. 300
Indianapolis, IN 46260
Homepage www.GibraltarDesign.com
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Phone 317.580.5777 Fax 317.580.5778

PROJECT 21–141
DATE 02/28/22
COORDINATED BY DJW
DRAWN BY KLS
CHECKED BY BCB

DALE J. WAGNER REGISTERED NO. 19600171 STATE OF INDIANA ARCHITECT

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REVISIONS

MARK	DATE	ISSUED FOR
AD-3	03/30/22	ADDENDUM NO. 3

DRAWING
HOLLOW METAL ELEVATIONS AND DETAILS

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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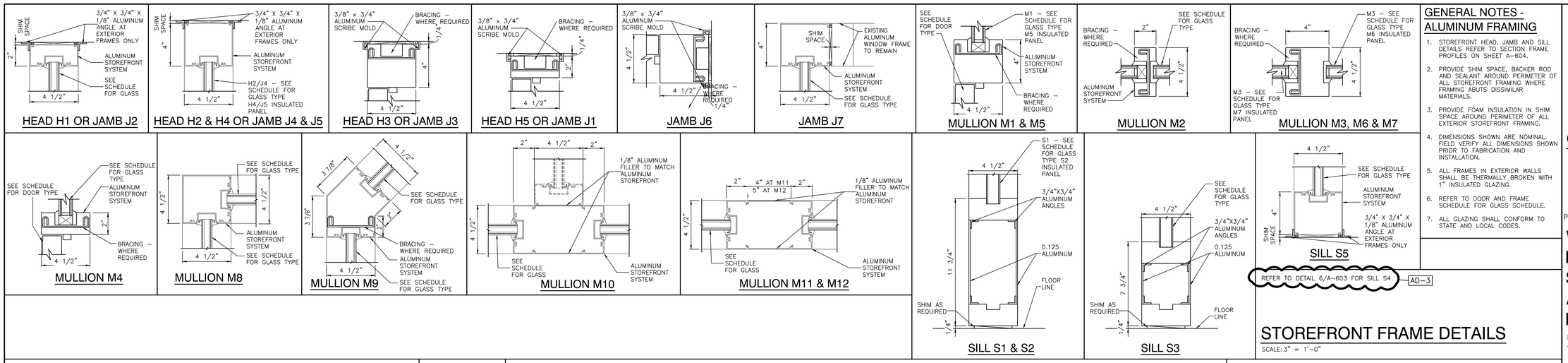
SHEET
A-603

Wednesday, 3/30/2022 – 3:42 PM – LAST SAVED BY:NWESLEY
Y:\21-141 DUNELAND SC – WESTCHESTER INTERMEDIATE SCHOOL ADDITIONS AND RENOVATIONS\21-141 DRAWINGS\05 ARCH\A-603.DWG

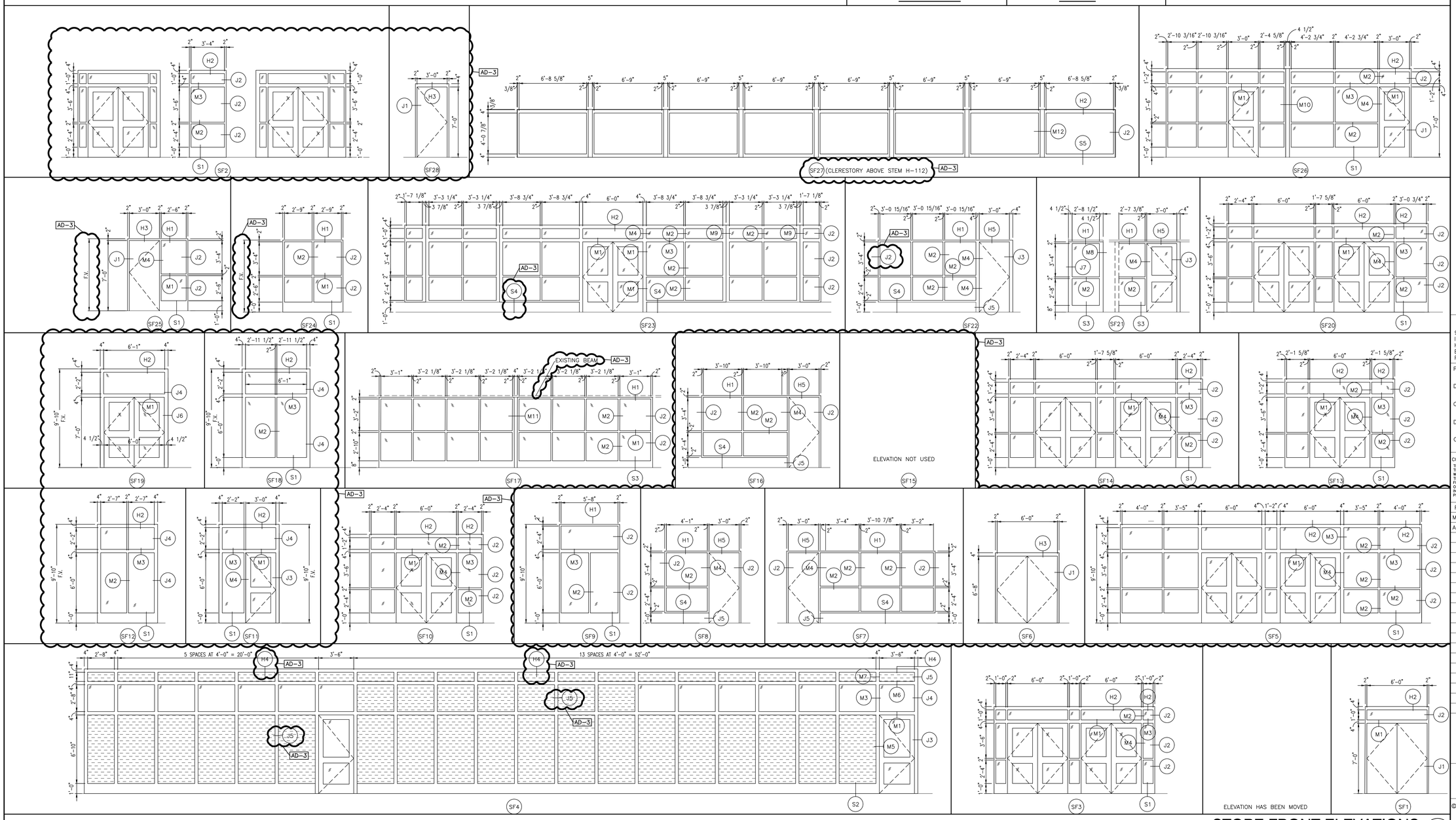


GENERAL NOTES - ALUMINUM FRAMING

1. STOREFRONT HEAD, JAMB AND SILL DETAILS REFER TO SECTION FRAME PROFILES ON SHEET A-604.
2. PROVIDE SHIM SPACE, BACKER ROD AND SEALANT AROUND PERIMETER OF ALL STOREFRONT FRAMING WHERE FRAMING ABUTS DISSIMILAR MATERIALS.
3. PROVIDE FOAM INSULATION IN SHIM SPACE AROUND PERIMETER OF ALL EXTERIOR STOREFRONT FRAMING.
4. DIMENSIONS SHOWN ARE NOMINAL. FIELD VERIFY ALL DIMENSIONS SHOWN PRIOR TO FABRICATION AND INSTALLATION.
5. ALL FRAMES IN EXTERIOR WALLS SHALL BE THERMALLY BROKEN WITH 1" INSULATED GLAZING.
6. REFER TO DOOR AND FRAME SCHEDULE FOR GLASS SCHEDULE.
7. ALL GLAZING SHALL CONFORM TO STATE AND LOCAL CODES.

STOREFRONT FRAME DETAILS

SCALE: 3" = 1'-0"



STORE FRONT ELEVATIONS

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

1 / A-604

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PROJECT

WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS

DUNELAND SCHOOL CORPORATION
CHESTERTON, INDIANA

GIBRALTAR DESIGN
9102 N. Meridian St., Ste. 300
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PROJECT 21-141
DATE 02/28/22
COORDINATED BY DJW
DRAWN BY KLS MMM
CHECKED BY BCB

DALE J. WAGNER REGISTERED NO. 19600171 STATE OF INDIANA ARCHITECT

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REVISIONS

MARK	DATE	ISSUED FOR
AD-3	03/30/22	ADDENDUM NO. 3

DRAWING
STOREFRONT ELEVATIONS AND DETAILS

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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SHEET
A-604

Wednesday, 3/30/2022 – 3:14 PM – LAST SAVED BY:KNWESLEY
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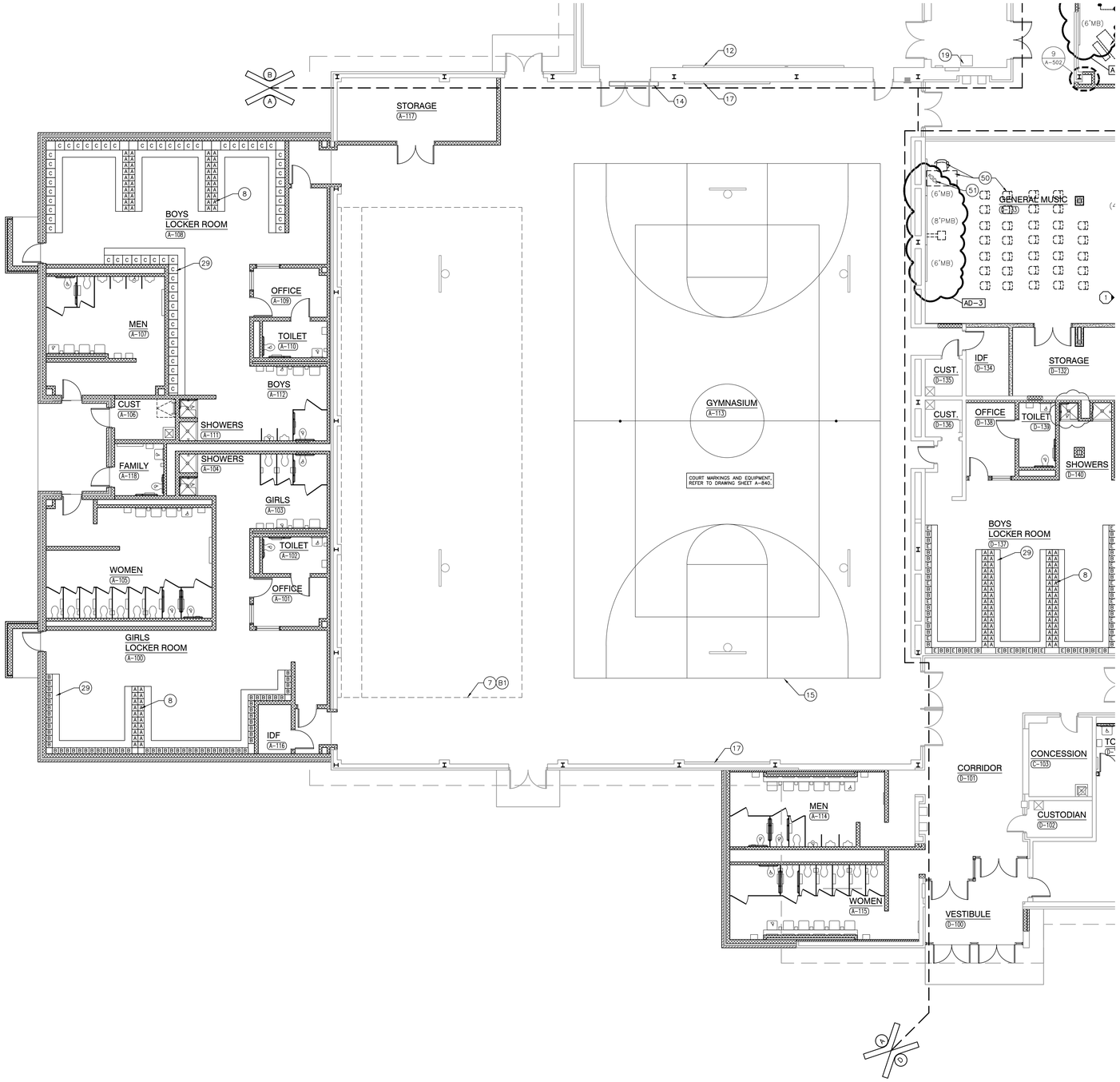

UNIT "A" EQUIPMENT FIRST FLOOR PLAN

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

GENERAL EQUIPMENT PLAN NOTES:

A. REFER TO SPECIFICATIONS AND FINISH LEGEND FOR ADDITIONAL INFORMATION.
B. FIELD VERIFY ALL DIMENSIONS.
C. CASEWORK AND/OR MILLWORK INSTALLER TO COORDINATE ELECTRICAL AND PLUMBING WORK. REFER TO ELECTRICAL DRAWINGS AND SCHEDULES FOR ELECTRICAL DEVICE TYPES, HEIGHTS, AND LOCATIONS.
D. REFER TO G SERIES DRAWINGS FOR MOUNTING HEIGHTS.
E. REFER TO EQUIPMENT PLANS FOR REFERENCE TO ENLARGED TOILET ROOM PLANS AND TOILET ROOM ACCESSORIES.

EQUIPMENT PLAN LEGEND:

(--) INDICATES CASEWORK ELEVATION SYMBOL – REFER TO A-700 SERIES DRAWINGS FOR ELEVATIONS AND DETAILS.
------- INDICATES ITEMS TO BE PART OF LOOSE EQUIPMENT PACKAGE BY OWNER. (NOT INCLUDED IN CONSTRUCTION CONTRACT).
---- INDICATES BULKHEADS OR OTHER OVERHEAD ITEMS (INCLUDED IN ONSTRUCTION CONTRACTS).
(⌉ CG) INDICATES CORNER GUARD.
(TB) INDICATES 4' HIGH TACK BOARD LENGTH AS INDICATED, REFER TO MOUNTING HEIGHT G SERIES DRAWING.
(MB) INDICATES 4' HIGH MARKER BOARD LENGTH AS INDICATED, REFER TO MOUNTING HEIGHT DRAWING G SERIES DRAWING.
(PMB) INDICATES 4' HIGH PROJECTABLE MARKER BOARD. REFER TO MOUNTING HEIGHT DRAWING G SERIES DRAWING.
(TV) TELEVISION MONITOR, REFER TO TECHNOLOGY DRAWING.
(MH) INDICATES MOP HOLDER ABOVE SERVICE SINK.
(WDB) INDICATES INTERIOR WINDOW BLINDS.
(RS) INDICATES ROLLER SHADE.

EQUIPMENT PLAN NOTES:

(ALL PLAN NOTES MAY NOT BE INDICATED ON THIS PLAN)

1. ROOF ACCESS LADDER, REFER TO FLOOR PLANS.
2. UTILITY SINK, REFER TO PLUMBING DRAWINGS.
3. FOLDING PARTITION (ELECTRICALLY OPERATED). — 19/A-501
4. CUBICLE CURTAIN AND TRACK (1'-0" RADIUS AT CORNER). — 18/A-501
5. WALL MIRRORS, REFER TO INTERIOR ELEVATIONS.
6. PROJECTION SCREEN (ELECTRICALLY OPERATED). REFER TO TECHNOLOGY
7. BLEACHERS, REFER TO BLEACHER KEY NOTES.
8. LOCKER, LETTER INDICATES LOCKER TYPE. — 3/A-501
9. NOT USED.
10. FORWARD FOLD GLASS BASKETBALL BACKSTOP AND SUPPORT FRAMING (MOTORIZED, ADJUSTABLE HEIGHT).
11. BACKWARD FOLD GLASS BASKETBALL BACKSTOP AND SUPPORT FRAMING (MOTORIZED, ADJUSTABLE HEIGHT).
12. SAFETY CUSHION WAINSCOT. — 8/A-501
13. NOT USED.
14. NEW SCOREBOARD
15. COURT MARKINGS AND EQUIPMENT. — 1/A-840
16. NOT USED
17. EXISTING SAFETY CUSHION WAINSCOT TO REMAIN.
18. OVERHEAD RETRACTABLE POWER CORD (TYPICAL), REFER TO ELECTRICAL DRAWINGS.
19. SOUND CABINET, REFER TO ELECTRICAL/TECHNOLOGY DRAWINGS.
20. NOT USED.
21. PEGBOARD WITH DRAIN, REFER TO SCIENCE CASEWORK.
22. FUME HOOD, REFER TO SCIENCE CASEWORK / MECHANICAL DRAWINGS.
23. FIRE BLANKET CABINET, REFER TO SCIENCE CASEWORK DRAWINGS.
24. SAFETY GOGGLE CABINET, REFER TO SCIENCE CASEWORK DRAWINGS.
25. GAS COCK, REFER TO SCIENCE CASEWORK / MECHANICAL DRAWINGS.
26. SEMI RECESSED ADA EYE WASH STATION, REFER TO SCIENCE CASEWORK / PLUMBING DRAWINGS.
27. EMERGENCY SHOWER AND FLOOR DRAIN, REFER TO PLUMBING DRAWINGS.
28. DRINKING FOUNTAIN, REFER TO MECHANICAL DRAWINGS.
29. LOCKER BENCH — 6/A-501
30. NOT USED
31. ACID STORAGE CABINET, REFER TO SCIENCE EQUIPMENT SHEET
32. FLAMMABLE CABINET, REFER TO SCIENCE EQUIPMENT SHEET
33. CONTINUOUS COUNTERTOP.

OWNER FURNISHED EQUIPMENT PLAN NOTES:

50. LOOSE FURNITURE, BY OWNER, INDICATED ON PLAN FOR ELECTRICAL AND TECHNOLOGY COORDINATION.
51. COMPUTER/MONITOR, BY OWNER
52. PRINTER/COPIER, BY OWNER
53. REFRIGERATOR WITH ICE MAKER, BY OWNER
54. RANGE WITH HOOD, BY OWNER (PROVIDE 30" WIDE OPENING).
55. MICROWAVE, BY OWNER
56. NOT USED.
57. CLOTHES WASHER, BY OWNER
58. CLOTHES DRYER, BY OWNER
59. VENDING MACHINE, BY OWNER
60. CLINIC COTS, BY OWNER
61. DEMONSTRATION TABLE, BY OWNER
62. STEPPED MUSIC PLATFORM, BY OWNER
63. PIANO, BY OWNER
64. COMMERCIAL ICE MAKER, BY OWNER
65. KILN, BY OWNER, REFER TO MECHANICAL DRAWINGS FOR EXAUST
66. ROBOTICS ARENA, BY OWNER.
67. DISHWASHER BY OWNER (PROVIDE 24" WIDE OPENING).
68. PORTABLE STAGE, BY OWNER.
69. TRAINING TABLES, BY OWNER.
70. SPRAY BOOTH, BY OWNER, REFER TO MECHANICAL FOR EXHAUST.
71. CHANGING TABLE, BY OWNER.
72. INSTRUMENT STORAGE, BY OWNER.

BLEACHER KEY NOTES:

B1 BLEACHERS (2 LOCATIONS)
1. WALL ATTACHED.
2. TELESCOPING BLEACHERS.
3. ELECTRICALLY OPERATED.

GENERAL BLEACHER NOTE:
LAYOUT OF BLEACHERS IS NOT INTENDED TO RESTRICT THE BLEACHER MANUFACTURER, BUT IS TO PROVIDE DESIGN LAYOUT GUIDELINES. THE MANUFACTURER HAS FLEXIBILITY IN ADA LOCATIONS, AISLE SPACING, SECTIONS, ETC. AS APPROVED BY THE ARCHITECT THROUGH SHOP DRAWING SUBMITTALS.

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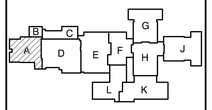
PROJECT
WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS
DUNELAND SCHOOL CORPORATION
CHESTERTON, INDIANA



KEY PLAN

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9102 N. Meridian St., Ste. 300
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Phone 317.580.5777 Fax 317.580.5778

PROJECT 21-141
DATE 02/28/22
COORDINATED BY DJW
DRAWN BY CLN
CHECKED BY DJW

DALE J. WAGNER REGISTERED NO. 19600171 STATE OF INDIANA ARCHITECT

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REVISIONS

MARK	DATE	ISSUED FOR
AD-2	03/21/22	ADDENDUM NO. 2
AD-3	03/30/22	ADDENDUM NO. 3

DRAWING
UNIT "A" FIRST FLOOR EQUIPMENT PLAN

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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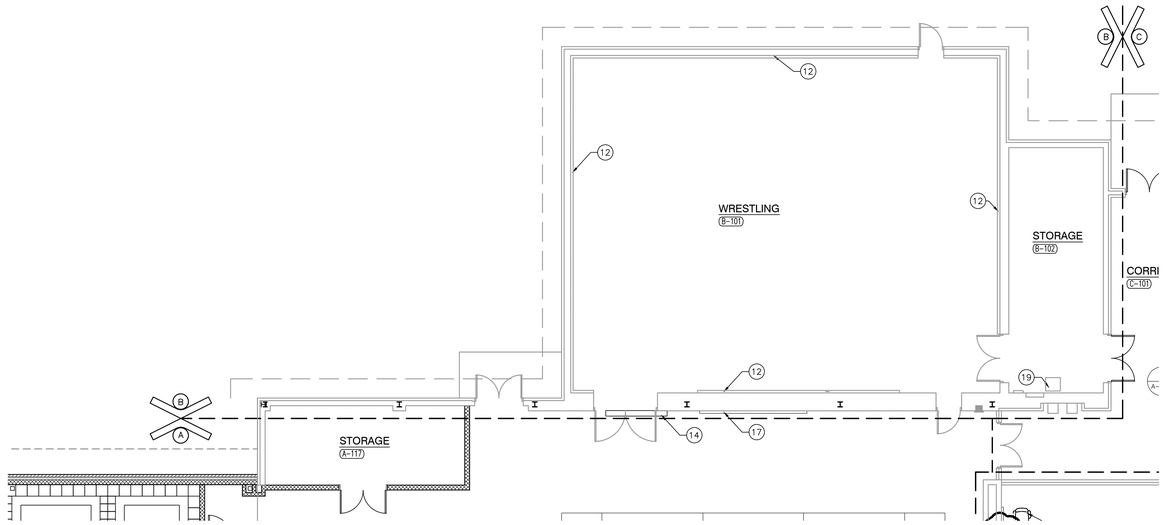
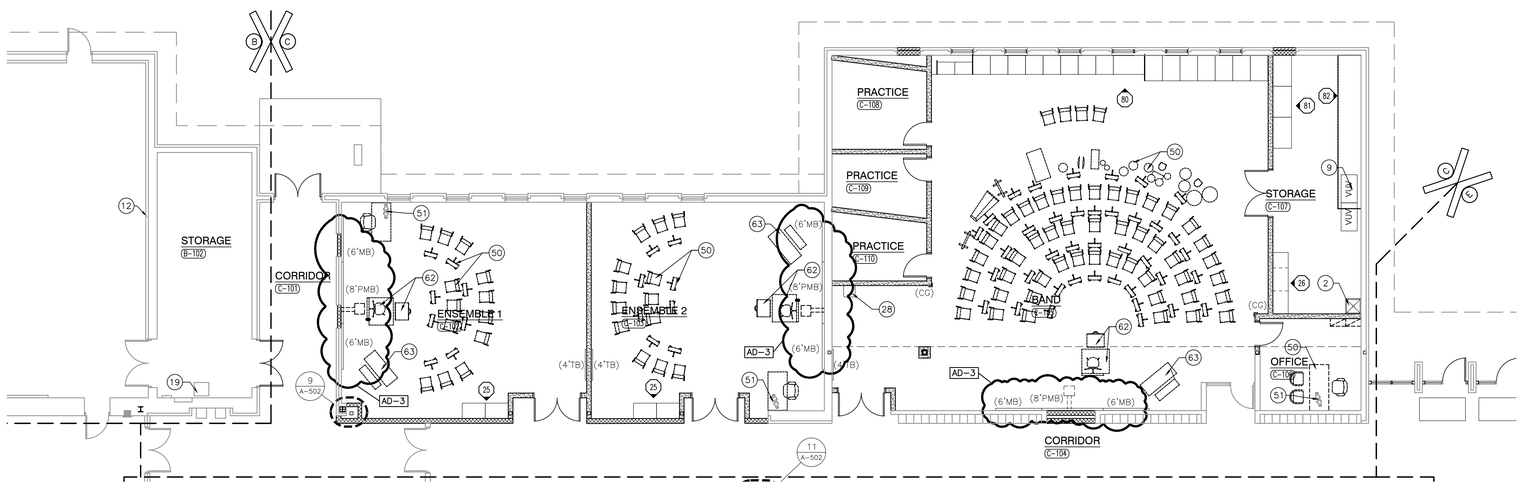
SHEET A
A-701

Wednesday, 3/30/2022 – 3:51 PM – LAST SAVED BY:CNELSON
Y:\21-141 DUNELAND SC – WESTCHESTER INTERMEDIATE SCHOOL ADDITIONS AND RENOVATIONS\21-141 DRAWINGS\05 ARCH\A-701.DWG



UNIT "B" EQUIPMENT FIRST FLOOR PLAN

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



UNIT "C" EQUIPMENT FIRST FLOOR PLAN

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

GENERAL EQUIPMENT PLAN NOTES:

A. REFER TO SPECIFICATIONS AND FINISH LEGEND FOR ADDITIONAL INFORMATION.

B. FIELD VERIFY ALL DIMENSIONS.

C. CASEWORK AND/OR MILLWORK INSTALLER TO COORDINATE ELECTRICAL AND PLUMBING WORK. REFER TO ELECTRICAL DRAWINGS AND SCHEDULES FOR ELECTRICAL DEVICE TYPES, HEIGHTS, AND LOCATIONS.

D. REFER TO G SERIES DRAWINGS FOR MOUNTING HEIGHTS.

E. REFER TO EQUIPMENT PLANS FOR REFERENCE TO ENLARGED TOILET ROOM PLANS AND TOILET ROOM ACCESSORIES.

EQUIPMENT PLAN LEGEND:

(--) INDICATES CASEWORK ELEVATION SYMBOL – REFER TO A–700 SERIES DRAWINGS FOR ELEVATIONS AND DETAILS.

------- INDICATES ITEMS TO BE PART OF LOOSE EQUIPMENT PACKAGE BY OWNER. (NOT INCLUDED IN CONSTRUCTION CONTRACT).

---- INDICATES BULKHEADS OR OTHER OVERHEAD ITEMS (INCLUDED IN ONSTRUCTION CONTRACTS).

(⌉ CG) INDICATES CORNER GUARD.

(TB) INDICATES 4' HIGH TACK BOARD LENGTH AS INDICATED, REFER TO MOUNTING HEIGHT G SERIES DRAWING.

(MB) INDICATES 4' HIGH MARKER BOARD LENGTH AS INDICATED, REFER TO MOUNTING HEIGHT DRAWING G SERIES DRAWING.

(PMB) INDICATES 4' HIGH PROJECTABLE MARKER BOARD. REFER TO MOUNTING HEIGHT DRAWING G SERIES DRAWING.

(TV) TELEVISION MONITOR, REFER TO TECHNOLOGY DRAWING.

(MH) INDICATES MOP HOLDER ABOVE SERVICE SINK.

(WDB) INDICATES INTERIOR WINDOW BLINDS.

(RS) INDICATES ROLLER SHADE.

EQUIPMENT PLAN NOTES:

(ALL PLAN NOTES MAY NOT BE INDICATED ON THIS PLAN)

1. ROOF ACCESS LADDER, REFER TO FLOOR PLANS.
2. UTILITY SINK, REFER TO PLUMBING DRAWINGS.
3. FOLDING PARTITION (ELECTRICALLY OPERATED). — 19/A-501
4. CUBICLE CURTAIN AND TRACK (1'-0" RADIUS AT CORNER). — 18/A-501
5. WALL MIRRORS, REFER TO INTERIOR ELEVATIONS.
6. PROJECTION SCREEN (ELECTRICALLY OPERATED). REFER TO TECHNOLOGY
7. BLEACHERS, REFER TO BLEACHER KEY NOTES.
8. LOCKER, LETTER INDICATES LOCKER TYPE. — 3/A-501
9. NOT USED.
10. FORWARD FOLD GLASS BASKETBALL BACKSTOP AND SUPPORT FRAMING (MOTORIZED, ADJUSTABLE HEIGHT).
11. BACKWARD FOLD GLASS BASKETBALL BACKSTOP AND SUPPORT FRAMING (MOTORIZED, ADJUSTABLE HEIGHT).
12. SAFETY CUSHION WAINSCOT. — 8/A-501
13. NOT USED.
14. NEW SCOREBOARD
15. COURT MARKINGS AND EQUIPMENT. — 1/A-540
16. NOT USED
17. EXISTING SAFETY CUSHION WAINSCOT TO REMAIN.
18. OVERHEAD RETRACTABLE POWER CORD (TYPICAL), REFER TO ELECTRICAL DRAWINGS.
19. SOUND CABINET, REFER TO ELECTRICAL/TECHNOLOGY DRAWINGS.
20. NOT USED.
21. PEGBOARD WITH DRAIN, REFER TO SCIENCE CASEWORK.
22. FUME HOOD, REFER TO SCIENCE CASEWORK / MECHANICAL DRAWINGS.
23. FIRE BLANKET CABINET, REFER TO SCIENCE CASEWORK DRAWINGS.
24. SAFETY GOGGLE CABINET, REFER TO SCIENCE CASEWORK DRAWINGS.
25. GAS COCK, REFER TO SCIENCE CASEWORK / MECHANICAL DRAWINGS.
26. SEMI RECESSED ADA EYE WASH STATION, REFER TO SCIENCE CASEWORK / PLUMBING DRAWINGS.
27. EMERGENCY SHOWER AND FLOOR DRAIN, REFER TO PLUMBING DRAWINGS.
28. DRINKING FOUNTAIN, REFER TO MECHANICAL DRAWINGS.
29. LOCKER BENCH — 6/A-501
30. NOT USED
31. ACID STORAGE CABINET, REFER TO SCIENCE EQUIPMENT SHEET
32. FLAMMABLE CABINET, REFER TO SCIENCE EQUIPMENT SHEET
33. CONTINUOUS COUNTERTOP.

OWNER FURNISHED EQUIPMENT PLAN NOTES:

50. LOOSE FURNITURE, BY OWNER, INDICATED ON PLAN FOR ELECTRICAL AND TECHNOLOGY COORDINATION.
51. COMPUTER/MONITOR, BY OWNER
52. PRINTER/COPIER, BY OWNER
53. REFRIGERATOR WITH ICE MAKER, BY OWNER
54. RANGE WITH HOOD, BY OWNER (PROVIDE 30" WIDE OPENING).
55. MICROWAVE, BY OWNER
56. NOT USED.
57. CLOTHES WASHER, BY OWNER
58. CLOTHES DRYER, BY OWNER
59. VENDING MACHINE, BY OWNER
60. CLINIC COTS, BY OWNER
61. DEMONSTRATION TABLE, BY OWNER
62. STEPPED MUSIC PLATFORM, BY OWNER
63. PIANO, BY OWNER
64. COMMERCIAL ICE MAKER, BY OWNER
65. KILN, BY OWNER, REFER TO MECHANICAL DRAWINGS FOR EXAUST
66. ROBOTICS ARENA, BY OWNER.
67. DISHWASHER BY OWNER (PROVIDE 24" WIDE OPENING).
68. PORTABLE STAGE, BY OWNER.
69. TRAINING TABLES, BY OWNER.
70. SPRAY BOOTH, BY OWNER, REFER TO MECHANICAL FOR EXHAUST.
71. CHANGING TABLE, BY OWNER.
72. INSTRUMENT STORAGE, BY OWNER.

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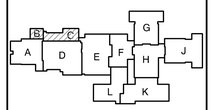
PROJECT

WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS

DUNELAND SCHOOL CORPORATION
CHESTERTON, INDIANA



KEY PLAN

GIBRALTAR DESIGN
9102 N. Meridian St., Ste. 300
Indianapolis, IN 46260
Homepage www.GibraltarDesign.com
Email info@GibraltarDesign.com
Phone 317.580.5777 Fax 317.580.5778

PROJECT
21–141
DATE
02/28/22
COORDINATED BY
DJW
DRAWN BY
CLN
CHECKED BY
DJW

DALE J. WAGNER
REGISTERED
NO.
19600171
STATE OF
INDIANA
ARCHITECT

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REVISIONS

MARK	DATE	ISSUED FOR
AD–2	03/21/22	ADDENDUM NO. 2
AD–3	03/30/22	ADDENDUM NO. 3

DRAWING
UNIT "B & C" FIRST FLOOR EQUIPMENT PLAN

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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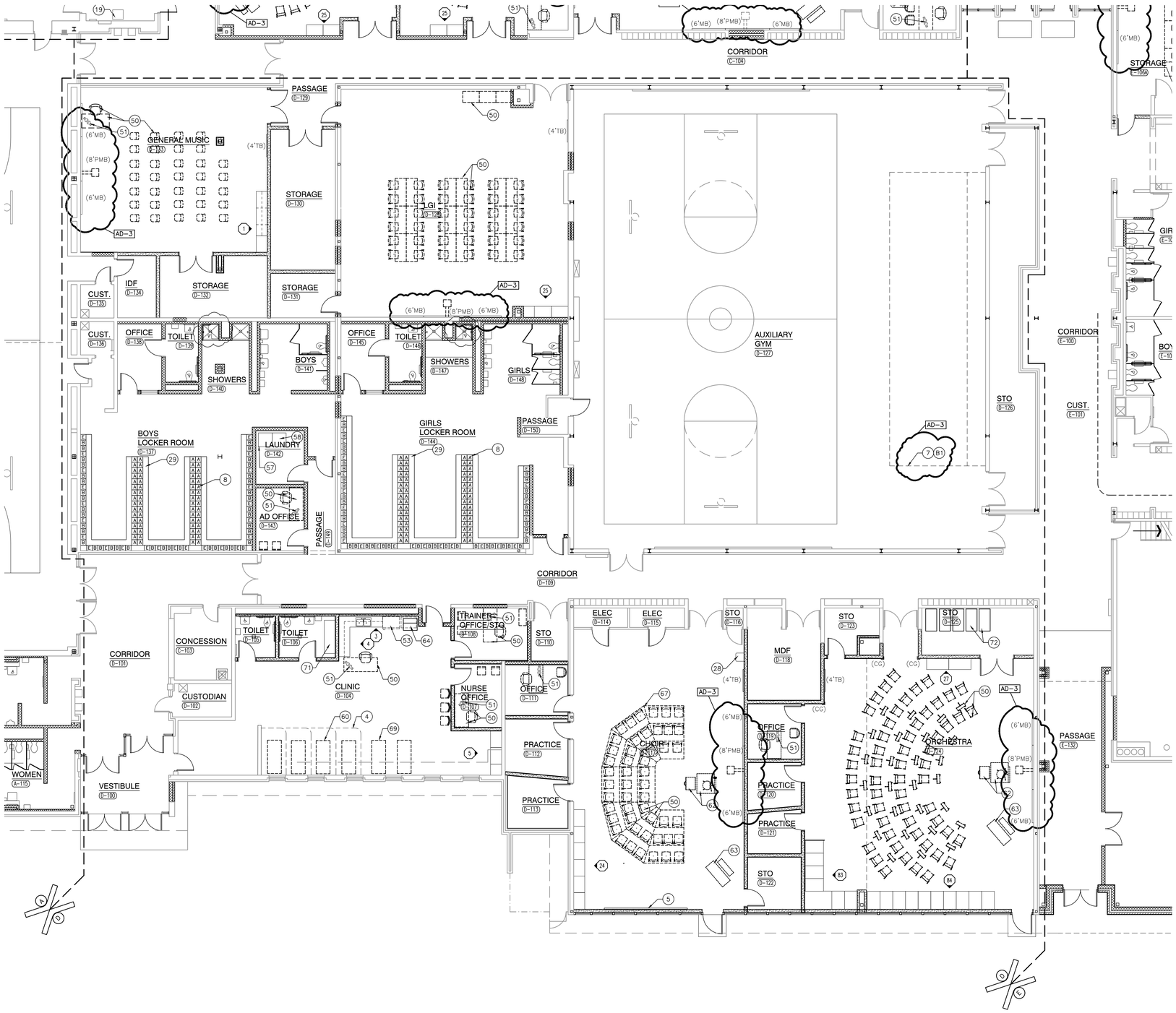
SHEET
B/C A-702

Wednesday, 3/30/2022 – 3:53 PM – LAST SAVED BY:CNELSON
Y:\21-141 DUNELAND SC – WESTCHESTER INTERMEDIATE SCHOOL ADDITIONS AND RENOVATIONS\21-141 DRAWINGS\05 ARCH\A-702.DWG



UNIT "D" EQUIPMENT FIRST FLOOR PLAN

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

NORTH

GENERAL EQUIPMENT PLAN NOTES:

A. REFER TO SPECIFICATIONS AND FINISH LEGEND FOR ADDITIONAL INFORMATION.

B. FIELD VERIFY ALL DIMENSIONS.

C. CASEWORK AND/OR MILLWORK INSTALLER TO COORDINATE ELECTRICAL AND PLUMBING WORK. REFER TO ELECTRICAL DRAWINGS AND SCHEDULES FOR ELECTRICAL DEVICE TYPES, HEIGHTS, AND LOCATIONS.

D. REFER TO G SERIES DRAWINGS FOR MOUNTING HEIGHTS.

E. REFER TO EQUIPMENT PLANS FOR REFERENCE TO ENLARGED TOILET ROOM PLANS AND TOILET ROOM ACCESSORIES.

EQUIPMENT PLAN LEGEND:

(--) INDICATES CASEWORK ELEVATION SYMBOL – REFER TO A-700 SERIES DRAWINGS FOR ELEVATIONS AND DETAILS.

------- INDICATES ITEMS TO BE PART OF LOOSE EQUIPMENT PACKAGE BY OWNER. (NOT INCLUDED IN CONSTRUCTION CONTRACT).

- - - - INDICATES BULKHEADS OR OTHER OVERHEAD ITEMS (INCLUDED IN ONSTRUCTION CONTRACTS).

(⌉ CG) INDICATES CORNER GUARD.

(TB) INDICATES 4' HIGH TACK BOARD LENGTH AS INDICATED, REFER TO MOUNTING HEIGHT G SERIES DRAWING.

(MB) INDICATES 4' HIGH MARKER BOARD LENGTH AS INDICATED, REFER TO MOUNTING HEIGHT DRAWING G SERIES DRAWING.

(PMB) INDICATES 4' HIGH PROJECTABLE MARKER BOARD. REFER TO MOUNTING HEIGHT DRAWING G SERIES DRAWING.

(TV) TELEVISION MONITOR, REFER TO TECHNOLOGY DRAWING.

(MH) INDICATES MOP HOLDER ABOVE SERVICE SINK.

(WDB) INDICATES INTERIOR WINDOW BLINDS.

(RS) INDICATES ROLLER SHADE.

EQUIPMENT PLAN NOTES:

(ALL PLAN NOTES MAY NOT BE INDICATED ON THIS PLAN)

1. ROOF ACCESS LADDER, REFER TO FLOOR PLANS.
2. UTILITY SINK, REFER TO PLUMBING DRAWINGS.
3. FOLDING PARTITION (ELECTRICALLY OPERATED). — 19/A-501
4. CUBICLE CURTAIN AND TRACK (1'-0" RADIUS AT CORNER). — 18/A-501
5. WALL MIRRORS, REFER TO INTERIOR ELEVATIONS.
6. PROJECTION SCREEN (ELECTRICALLY OPERATED). REFER TO TECHNOLOGY
7. BLEACHERS, REFER TO BLEACHER KEY NOTES.
8. LOCKER, LETTER INDICATES LOCKER TYPE. — 3/A-501
9. NOT USED.
10. FORWARD FOLD GLASS BASKETBALL BACKSTOP AND SUPPORT FRAMING (MOTORIZED, ADJUSTABLE HEIGHT).
11. BACKWARD FOLD GLASS BASKETBALL BACKSTOP AND SUPPORT FRAMING (MOTORIZED, ADJUSTABLE HEIGHT).
12. SAFETY CUSHION WAINSCOT. — 8/A-501
13. NOT USED.
14. NEW SCOREBOARD
15. COURT MARKINGS AND EQUIPMENT. — 1/A-540
16. NOT USED
17. EXISTING SAFETY CUSHION WAINSCOT TO REMAIN.
18. OVERHEAD RETRACTABLE POWER CORD (TYPICAL), REFER TO ELECTRICAL DRAWINGS.
19. SOUND CABINET, REFER TO ELECTRICAL/TECHNOLOGY DRAWINGS.
20. NOT USED.
21. PEGBOARD WITH DRAIN, REFER TO SCIENCE CASEWORK.
22. FUME HOOD, REFER TO SCIENCE CASEWORK / MECHANICAL DRAWINGS.
23. FIRE BLANKET CABINET, REFER TO SCIENCE CASEWORK DRAWINGS.
24. SAFETY GOGGLE CABINET, REFER TO SCIENCE CASEWORK DRAWINGS.
25. GAS COCK, REFER TO SCIENCE CASEWORK / MECHANICAL DRAWINGS.
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27. EMERGENCY SHOWER AND FLOOR DRAIN, REFER TO PLUMBING DRAWINGS.
28. DRINKING FOUNTAIN, REFER TO MECHANICAL DRAWINGS.
29. LOCKER BENCH — 6/A-501
30. NOT USED
31. ACID STORAGE CABINET, REFER TO SCIENCE EQUIPMENT SHEET
32. FLAMMABLE CABINET, REFER TO SCIENCE EQUIPMENT SHEET
33. CONTINUOUS COUNTERTOP.

OWNER FURNISHED EQUIPMENT PLAN NOTES:

50. LOOSE FURNITURE, BY OWNER, INDICATED ON PLAN FOR ELECTRICAL AND TECHNOLOGY COORDINATION.
51. COMPUTER/MONITOR, BY OWNER
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69. TRAINING TABLES, BY OWNER.
70. SPRAY BOOTH, BY OWNER, REFER TO MECHANICAL FOR EXHAUST.
71. CHANGING TABLE, BY OWNER.
72. INSTRUMENT STORAGE, BY OWNER.

BLEACHER KEY NOTES:

(B1) BLEACHERS (2 LOCATIONS)
1. WALL ATTACHED.
2. TELESCOPING BLEACHERS.
3. ELECTRICALLY OPERATED.

GENERAL BLEACHER NOTE:
LAYOUT OF BLEACHERS IS NOT INTENDED TO RESTRICT THE BLEACHER MANUFACTURER, BUT IS TO PROVIDE DESIGN LAYOUT GUIDELINES. THE MANUFACTURER HAS FLEXIBILITY IN ADA LOCATIONS, AISLE SPACING, SECTIONS, ETC. AS APPROVED BY THE ARCHITECT THROUGH SHOP DRAWING SUBMITTALS.

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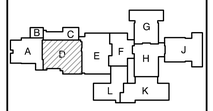
PROJECT

WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS

DUNELAND SCHOOL CORPORATION
CHESTERTON, INDIANA



KEY PLAN

GIBRALTAR DESIGN
9102 N. Meridian St., Ste. 300
Indianapolis, IN 46260
Homepage www.GibraltarDesign.com
Email info@GibraltarDesign.com
Phone 317.580.5777 Fax 317.580.5778

PROJECT 21-141
DATE 02/28/22
COORDINATED BY DJW
DRAWN BY CLN
CHECKED BY DJW

DALE J. WAGNER REGISTERED NO. 19600171 STATE OF INDIANA ARCHITECT

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REVISIONS

MARK	DATE	ISSUED FOR
AD-2	03/21/22	ADDENDUM NO. 2
AD-3	03/30/22	ADDENDUM NO. 3

DRAWING

UNIT "D" FIRST FLOOR EQUIPMENT PLAN

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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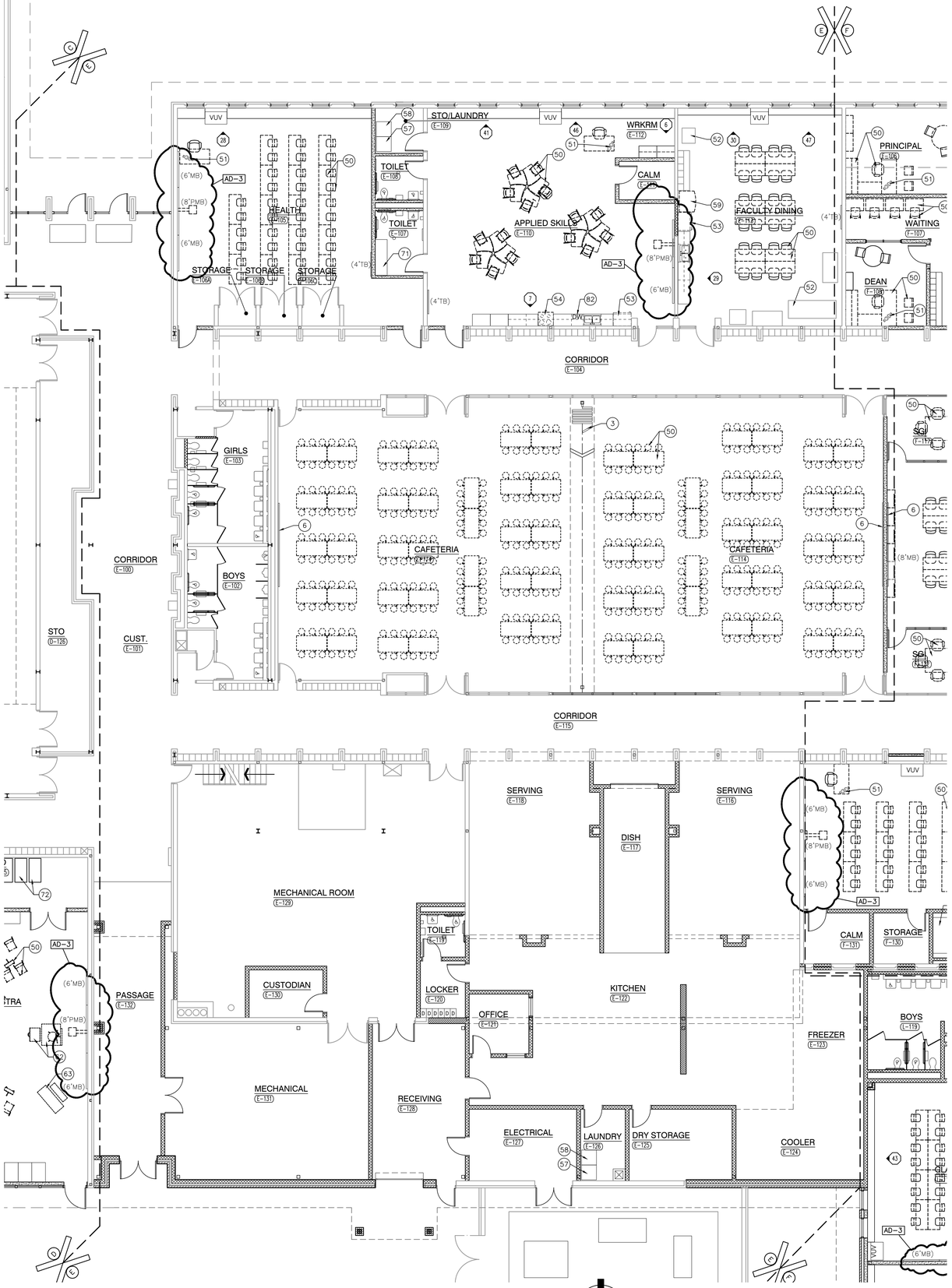
SHEET D A-703

Wednesday, 3/30/2022 – 3:54 PM – LAST SAVED BY:CNELSON
Y:\21-141 DUNELAND SC – WESTCHESTER INTERMEDIATE SCHOOL ADDITIONS AND RENOVATIONS\21-141 DRAWINGS\05 ARCH\A-703.DWG



UNIT "E" EQUIPMENT FIRST FLOOR PLAN

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

GENERAL EQUIPMENT PLAN NOTES:

A. REFER TO SPECIFICATIONS AND FINISH LEGEND FOR ADDITIONAL INFORMATION.

B. FIELD VERIFY ALL DIMENSIONS.

C. CASEWORK AND/OR MILLWORK INSTALLER TO COORDINATE ELECTRICAL AND PLUMBING WORK. REFER TO ELECTRICAL DRAWINGS AND SCHEDULES FOR ELECTRICAL DEVICE TYPES, HEIGHTS, AND LOCATIONS.

D. REFER TO G SERIES DRAWINGS FOR MOUNTING HEIGHTS.

E. REFER TO EQUIPMENT PLANS FOR REFERENCE TO ENLARGED TOILET ROOM PLANS AND TOILET ROOM ACCESSORIES.

EQUIPMENT PLAN LEGEND:

(--) INDICATES CASEWORK ELEVATION SYMBOL – REFER TO A-700 SERIES DRAWINGS FOR ELEVATIONS AND DETAILS.

------- INDICATES ITEMS TO BE PART OF LOOSE EQUIPMENT PACKAGE BY OWNER. (NOT INCLUDED IN CONSTRUCTION CONTRACT).

- - - - INDICATES BULKHEADS OR OTHER OVERHEAD ITEMS (INCLUDED IN ONSTRUCTION CONTRACTS).

(⌉ CG) INDICATES CORNER GUARD.

(TB) INDICATES 4' HIGH TACK BOARD LENGTH AS INDICATED, REFER TO MOUNTING HEIGHT G SERIES DRAWING.

(MB) INDICATES 4' HIGH MARKER BOARD LENGTH AS INDICATED, REFER TO MOUNTING HEIGHT DRAWING G SERIES DRAWING.

(PMB) INDICATES 4' HIGH PROJECTABLE MARKER BOARD. REFER TO MOUNTING HEIGHT DRAWING G SERIES DRAWING.

(TV) TELEVISION MONITOR, REFER TO TECHNOLOGY DRAWING.

(MH) INDICATES MOP HOLDER ABOVE SERVICE SINK.

(WDB) INDICATES INTERIOR WINDOW BLINDS.

(RS) INDICATES ROLLER SHADE.

EQUIPMENT PLAN NOTES:

(ALL PLAN NOTES MAY NOT BE INDICATED ON THIS PLAN)

1. ROOF ACCESS LADDER, REFER TO FLOOR PLANS.
2. UTILITY SINK, REFER TO PLUMBING DRAWINGS.
3. FOLDING PARTITION (ELECTRICALLY OPERATED). — 19/A-501
4. CUBICLE CURTAIN AND TRACK (1'-0" RADIUS AT CORNER). — 18/A-501
5. WALL MIRRORS, REFER TO INTERIOR ELEVATIONS.
6. PROJECTION SCREEN (ELECTRICALLY OPERATED). REFER TO TECHNOLOGY
7. BLEACHERS, REFER TO BLEACHER KEY NOTES.
8. LOCKER, LETTER INDICATES LOCKER TYPE. — 3/A-501
9. NOT USED.
10. FORWARD FOLD GLASS BASKETBALL BACKSTOP AND SUPPORT FRAMING (MOTORIZED, ADJUSTABLE HEIGHT).
11. BACKWARD FOLD GLASS BASKETBALL BACKSTOP AND SUPPORT FRAMING (MOTORIZED, ADJUSTABLE HEIGHT).
12. SAFETY CUSHION WAINSCOT. — 8/A-501
13. NOT USED.
14. NEW SCOREBOARD
15. COURT MARKINGS AND EQUIPMENT. — 1/A-840
16. NOT USED
17. EXISTING SAFETY CUSHION WAINSCOT TO REMAIN.
18. OVERHEAD RETRACTABLE POWER CORD (TYPICAL), REFER TO ELECTRICAL DRAWINGS.
19. SOUND CABINET, REFER TO ELECTRICAL/TECHNOLOGY DRAWINGS.
20. NOT USED.
21. PEGBOARD WITH DRAIN, REFER TO SCIENCE CASEWORK.
22. FUME HOOD, REFER TO SCIENCE CASEWORK / MECHANICAL DRAWINGS.
23. FIRE BLANKET CABINET, REFER TO SCIENCE CASEWORK DRAWINGS.
24. SAFETY GOGGLE CABINET, REFER TO SCIENCE CASEWORK DRAWINGS.
25. GAS COCK, REFER TO SCIENCE CASEWORK / MECHANICAL DRAWINGS.
26. SEMI RECESSED ADA EYE WASH STATION, REFER TO SCIENCE CASEWORK / PLUMBING DRAWINGS.
27. EMERGENCY SHOWER AND FLOOR DRAIN, REFER TO PLUMBING DRAWINGS.
28. DRINKING FOUNTAIN, REFER TO MECHANICAL DRAWINGS.
29. LOCKER BENCH — 6/A-501
30. NOT USED
31. ACID STORAGE CABINET, REFER TO SCIENCE EQUIPMENT SHEET
32. FLAMMABLE CABINET, REFER TO SCIENCE EQUIPMENT SHEET
33. CONTINUOUS COUNTERTOP.

OWNER FURNISHED EQUIPMENT PLAN NOTES:

50. LOOSE FURNITURE, BY OWNER, INDICATED ON PLAN FOR ELECTRICAL AND TECHNOLOGY COORDINATION.
51. COMPUTER/MONITOR, BY OWNER
52. PRINTER/COPIER, BY OWNER
53. REFRIGERATOR WITH ICE MAKER, BY OWNER
54. RANGE WITH HOOD, BY OWNER (PROVIDE 30" WIDE OPENING).
55. MICROWAVE, BY OWNER
56. NOT USED.
57. CLOTHES WASHER, BY OWNER
58. CLOTHES DRYER, BY OWNER
59. VENDING MACHINE, BY OWNER
60. CLINIC COTS, BY OWNER
61. DEMONSTRATION TABLE, BY OWNER
62. STEPPED MUSIC PLATFORM, BY OWNER
63. PIANO, BY OWNER
64. COMMERCIAL ICE MAKER, BY OWNER
65. KILN, BY OWNER, REFER TO MECHANICAL DRAWINGS FOR EXAUST
66. ROBOTICS ARENA, BY OWNER.
67. DISHWASHER BY OWNER (PROVIDE 24" WIDE OPENING).
68. PORTABLE STAGE, BY OWNER.
69. TRAINING TABLES, BY OWNER.
70. SPRAY BOOTH, BY OWNER, REFER TO MECHANICAL FOR EXHAUST.
71. CHANGING TABLE, BY OWNER.
72. INSTRUMENT STORAGE, BY OWNER.

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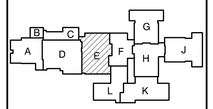
PROJECT

WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS

DUNELAND SCHOOL CORPORATION
CHESTERTON, INDIANA



KEY PLAN

GIBRALTAR DESIGN
9102 N. Meridian St., Ste. 300
Indianapolis, IN 46260
Homepage www.GibraltarDesign.com
Email info@GibraltarDesign.com
Phone 317.580.5777 Fax 317.580.5778

PROJECT 21-141
DATE 02/28/22
COORDINATED BY DJW
DRAWN BY CLN
CHECKED BY DJW

DALE J. WAGNER REGISTERED NO. 19600171 STATE OF INDIANA ARCHITECT

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REVISIONS

MARK	DATE	ISSUED FOR
AD-2	03/21/22	ADDENDUM NO. 2
AD-3	03/30/22	ADDENDUM NO. 3

DRAWING
UNIT "E" FIRST FLOOR EQUIPMENT PLAN

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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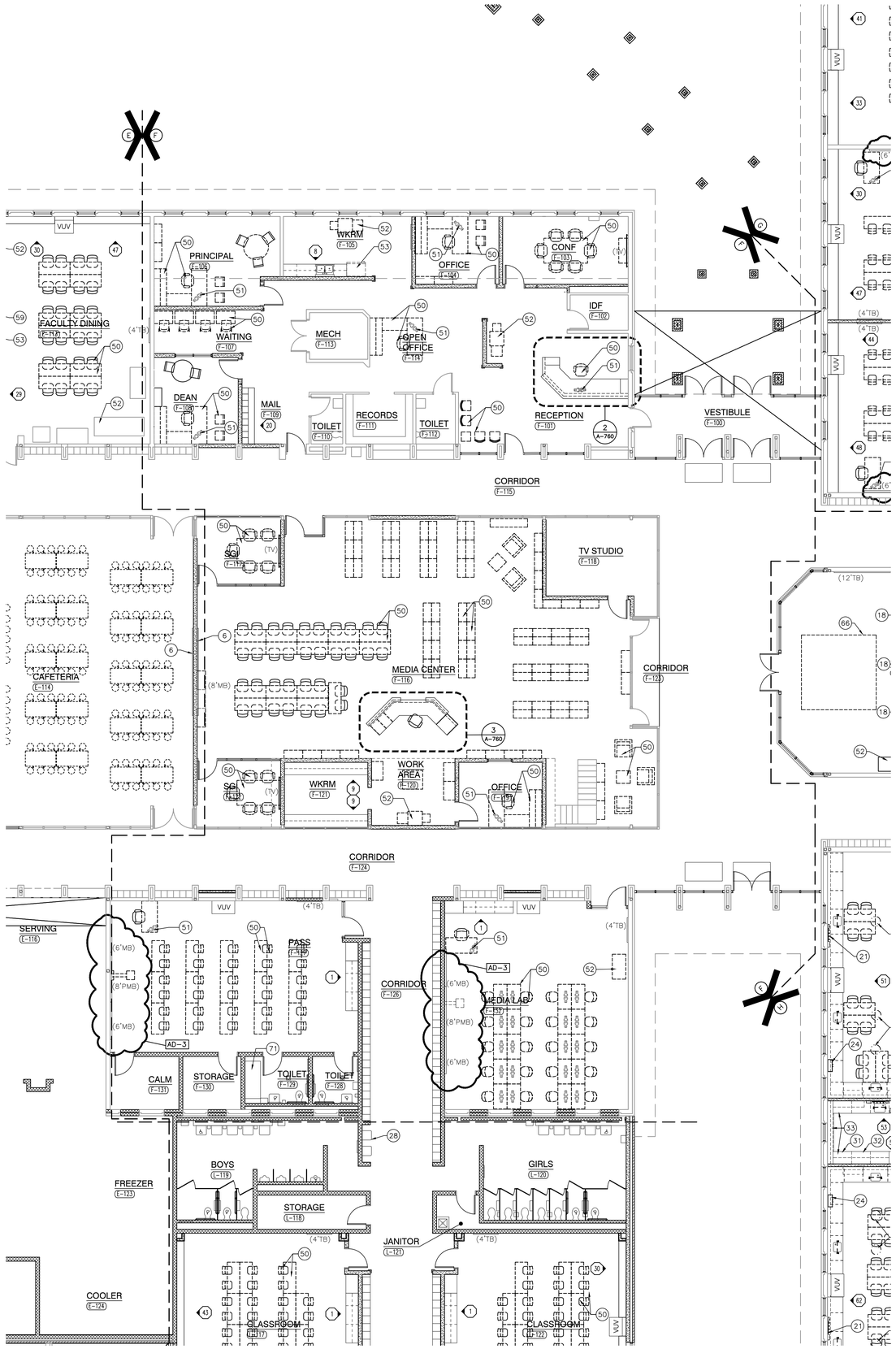
SHEET E A-704

Wednesday, 3/30/2022 – 3:56 PM – LAST SAVED BY:CNELSON
Y:\21-141 DUNELAND SC – WESTCHESTER INTERMEDIATE SCHOOL ADDITIONS AND RENOVATIONS\21-141 DRAWINGS\05 ARCH\A-704.DWG



UNIT "F" EQUIPMENT FIRST FLOOR PLAN

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

GENERAL EQUIPMENT PLAN NOTES:

A. REFER TO SPECIFICATIONS AND FINISH LEGEND FOR ADDITIONAL INFORMATION.

B. FIELD VERIFY ALL DIMENSIONS.

C. CASEWORK AND/OR MILLWORK INSTALLER TO COORDINATE ELECTRICAL AND PLUMBING WORK. REFER TO ELECTRICAL DRAWINGS AND SCHEDULES FOR ELECTRICAL DEVICE TYPES, HEIGHTS, AND LOCATIONS.

D. REFER TO G SERIES DRAWINGS FOR MOUNTING HEIGHTS.

E. REFER TO EQUIPMENT PLANS FOR REFERENCE TO ENLARGED TOILET ROOM PLANS AND TOILET ROOM ACCESSORIES.

EQUIPMENT PLAN LEGEND:

(E) INDICATES CASEWORK ELEVATION SYMBOL – REFER TO A-700 SERIES DRAWINGS FOR ELEVATIONS AND DETAILS.

------ INDICATES ITEMS TO BE PART OF LOOSE EQUIPMENT PACKAGE BY OWNER. (NOT INCLUDED IN CONSTRUCTION CONTRACT).

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(TV) TELEVISION MONITOR, REFER TO TECHNOLOGY DRAWING.

(MH) INDICATES MOP HOLDER ABOVE SERVICE SINK.

(WDB) INDICATES INTERIOR WINDOW BLINDS.

(RS) INDICATES ROLLER SHADE.

EQUIPMENT PLAN NOTES:

(ALL PLAN NOTES MAY NOT BE INDICATED ON THIS PLAN)

1. ROOF ACCESS LADDER, REFER TO FLOOR PLANS.
2. UTILITY SINK, REFER TO PLUMBING DRAWINGS.
3. FOLDING PARTITION (ELECTRICALLY OPERATED). — 19/A-501
4. CUBICLE CURTAIN AND TRACK (1'-0" RADIUS AT CORNER). — 18/A-501
5. WALL MIRRORS, REFER TO INTERIOR ELEVATIONS.
6. PROJECTION SCREEN (ELECTRICALLY OPERATED). REFER TO TECHNOLOGY
7. BLEACHERS, REFER TO BLEACHER KEY NOTES.
8. LOCKER, LETTER INDICATES LOCKER TYPE. — 3/A-501
9. NOT USED.
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12. SAFETY CUSHION WAINSCOT. — 8/A-501
13. NOT USED.
14. NEW SCOREBOARD
15. COURT MARKINGS AND EQUIPMENT. — 1/A-840
16. NOT USED
17. EXISTING SAFETY CUSHION WAINSCOT TO REMAIN.
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66. ROBOTICS ARENA, BY OWNER.
67. DISHWASHER BY OWNER (PROVIDE 24" WIDE OPENING).
68. PORTABLE STAGE, BY OWNER.
69. TRAINING TABLES, BY OWNER.
70. SPRAY BOOTH, BY OWNER, REFER TO MECHANICAL FOR EXHAUST.
71. CHANGING TABLE, BY OWNER.
72. INSTRUMENT STORAGE, BY OWNER.

GIBRALTAR DESIGN
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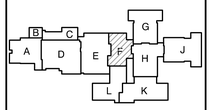
PROJECT

WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS

DUNELAND SCHOOL CORPORATION
CHESTERTON, INDIANA



KEY PLAN

GIBRALTAR DESIGN
9102 N. Meridian St., Ste. 300
Indianapolis, IN 46260
Homepage www.GibraltarDesign.com
Email info@GibraltarDesign.com
Phone 317.580.5777 Fax 317.580.5778

PROJECT 21-141
DATE 02/28/22
COORDINATED BY DJW
DRAWN BY CLN
CHECKED BY DJW

DALE J. WAGNER REGISTERED NO. 19600171 STATE OF INDIANA ARCHITECT

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REVISIONS

MARK	DATE	ISSUED FOR
AD-2	03/21/22	ADDENDUM NO. 2
AD-3	03/30/22	ADDENDUM NO. 3

DRAWING
UNIT "F" FIRST FLOOR EQUIPMENT PLAN

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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F

SHEET A-705

Wednesday, 3/30/2022 – 3:57 PM – LAST SAVED BY:CNELSON
Y:\21-141 DUNELAND SC – WESTCHESTER INTERMEDIATE SCHOOL ADDITIONS AND RENOVATIONS\21-141 DRAWINGS\03 ARCH\A-705.DWG

GENERAL EQUIPMENT PLAN NOTES:

A. REFER TO SPECIFICATIONS AND FINISH LEGEND FOR ADDITIONAL INFORMATION.

B. FIELD VERIFY ALL DIMENSIONS.

C. CASEWORK AND/OR MILLWORK INSTALLER TO COORDINATE ELECTRICAL AND PLUMBING WORK. REFER TO ELECTRICAL DRAWINGS AND SCHEDULES FOR ELECTRICAL DEVICE TYPES, HEIGHTS, AND LOCATIONS.

D. REFER TO G SERIES DRAWINGS FOR MOUNTING HEIGHTS.

E. REFER TO EQUIPMENT PLANS FOR REFERENCE TO ENLARGED TOILET ROOM PLANS AND TOILET ROOM ACCESSORIES.

EQUIPMENT PLAN LEGEND:

(--) INDICATES CASEWORK ELEVATION SYMBOL – REFER TO A–700 SERIES DRAWINGS FOR ELEVATIONS AND DETAILS.

------- INDICATES ITEMS TO BE PART OF LOOSE EQUIPMENT PACKAGE BY OWNER. (NOT INCLUDED IN CONSTRUCTION CONTRACT).

- - - - INDICATES BULKHEADS OR OTHER OVERHEAD ITEMS (INCLUDED IN ONSTRUCTION CONTRACTS).

(⌉ CG) INDICATES CORNER GUARD.

(TB) INDICATES 4' HIGH TACK BOARD LENGTH AS INDICATED, REFER TO MOUNTING HEIGHT G SERIES DRAWING.

(MB) INDICATES 4' HIGH MARKER BOARD LENGTH AS INDICATED, REFER TO MOUNTING HEIGHT DRAWING G SERIES DRAWING.

(PMB) INDICATES 4' HIGH PROJECTABLE MARKER BOARD. REFER TO MOUNTING HEIGHT DRAWING G SERIES DRAWING.

(TV) TELEVISION MONITOR, REFER TO TECHNOLOGY DRAWING.

(MH) INDICATES MOP HOLDER ABOVE SERVICE SINK.

(WDB) INDICATES INTERIOR WINDOW BLINDS.

(RS) INDICATES ROLLER SHADE.

EQUIPMENT PLAN NOTES:

(ALL PLAN NOTES MAY NOT BE INDICATED ON THIS PLAN)

1. ROOF ACCESS LADDER, REFER TO FLOOR PLANS.
2. UTILITY SINK, REFER TO PLUMBING DRAWINGS.
3. FOLDING PARTITION (ELECTRICALLY OPERATED). — 19/A–501
4. CUBICLE CURTAIN AND TRACK (1'–0" RADIUS AT CORNER). — 18/A–501
5. WALL MIRRORS, REFER TO INTERIOR ELEVATIONS.
6. PROJECTION SCREEN (ELECTRICALLY OPERATED). REFER TO TECHNOLOGY
7. BLEACHERS, REFER TO BLEACHER KEY NOTES.
8. LOCKER, LETTER INDICATES LOCKER TYPE. — 3/A–501
9. NOT USED.
10. FORWARD FOLD GLASS BASKETBALL BACKSTOP AND SUPPORT FRAMING (MOTORIZED, ADJUSTABLE HEIGHT).
11. BACKWARD FOLD GLASS BASKETBALL BACKSTOP AND SUPPORT FRAMING (MOTORIZED, ADJUSTABLE HEIGHT).
12. SAFETY CUSHION WAINSCOT. — 8/A–501
13. NOT USED.
14. NEW SCOREBOARD
15. COURT MARKINGS AND EQUIPMENT. — 1/A–840
16. NOT USED
17. EXISTING SAFETY CUSHION WAINSCOT TO REMAIN.
18. OVERHEAD RETRACTABLE POWER CORD (TYPICAL), REFER TO ELECTRICAL DRAWINGS.
19. SOUND CABINET, REFER TO ELECTRICAL/TECHNOLOGY DRAWINGS.
20. NOT USED.
21. PEGBOARD WITH DRAIN, REFER TO SCIENCE CASEWORK.
22. FUME HOOD, REFER TO SCIENCE CASEWORK / MECHANICAL DRAWINGS.
23. FIRE BLANKET CABINET, REFER TO SCIENCE CASEWORK DRAWINGS.
24. SAFETY GOGGLE CABINET, REFER TO SCIENCE CASEWORK DRAWINGS.
25. GAS COCK, REFER TO SCIENCE CASEWORK / MECHANICAL DRAWINGS.
26. SEMI RECESSED ADA EYE WASH STATION, REFER TO SCIENCE CASEWORK / PLUMBING DRAWINGS.
27. EMERGENCY SHOWER AND FLOOR DRAIN, REFER TO PLUMBING DRAWINGS.
28. DRINKING FOUNTAIN, REFER TO MECHANICAL DRAWINGS.
29. LOCKER BENCH — 6/A–501
30. NOT USED
31. ACID STORAGE CABINET, REFER TO SCIENCE EQUIPMENT SHEET
32. FLAMMABLE CABINET, REFER TO SCIENCE EQUIPMENT SHEET
33. CONTINUOUS COUNTERTOP.

OWNER FURNISHED EQUIPMENT PLAN NOTES:

50. LOOSE FURNITURE, BY OWNER, INDICATED ON PLAN FOR ELECTRICAL AND TECHNOLOGY COORDINATION.
51. COMPUTER/MONITOR, BY OWNER
52. PRINTER/COPIER, BY OWNER
53. REFRIGERATOR WITH ICE MAKER, BY OWNER
54. RANGE WITH HOOD, BY OWNER (PROVIDE 30" WIDE OPENING).
55. MICROWAVE, BY OWNER
56. NOT USED.
57. CLOTHES WASHER, BY OWNER
58. CLOTHES DRYER, BY OWNER
59. VENDING MACHINE, BY OWNER
60. CLINIC COTS, BY OWNER
61. DEMONSTRATION TABLE, BY OWNER
62. STEPPED MUSIC PLATFORM, BY OWNER
63. PIANO, BY OWNER
64. COMMERCIAL ICE MAKER, BY OWNER
65. KILN, BY OWNER, REFER TO MECHANICAL DRAWINGS FOR EXAUST
66. ROBOTICS ARENA, BY OWNER.
67. DISHWASHER BY OWNER (PROVIDE 24" WIDE OPENING).
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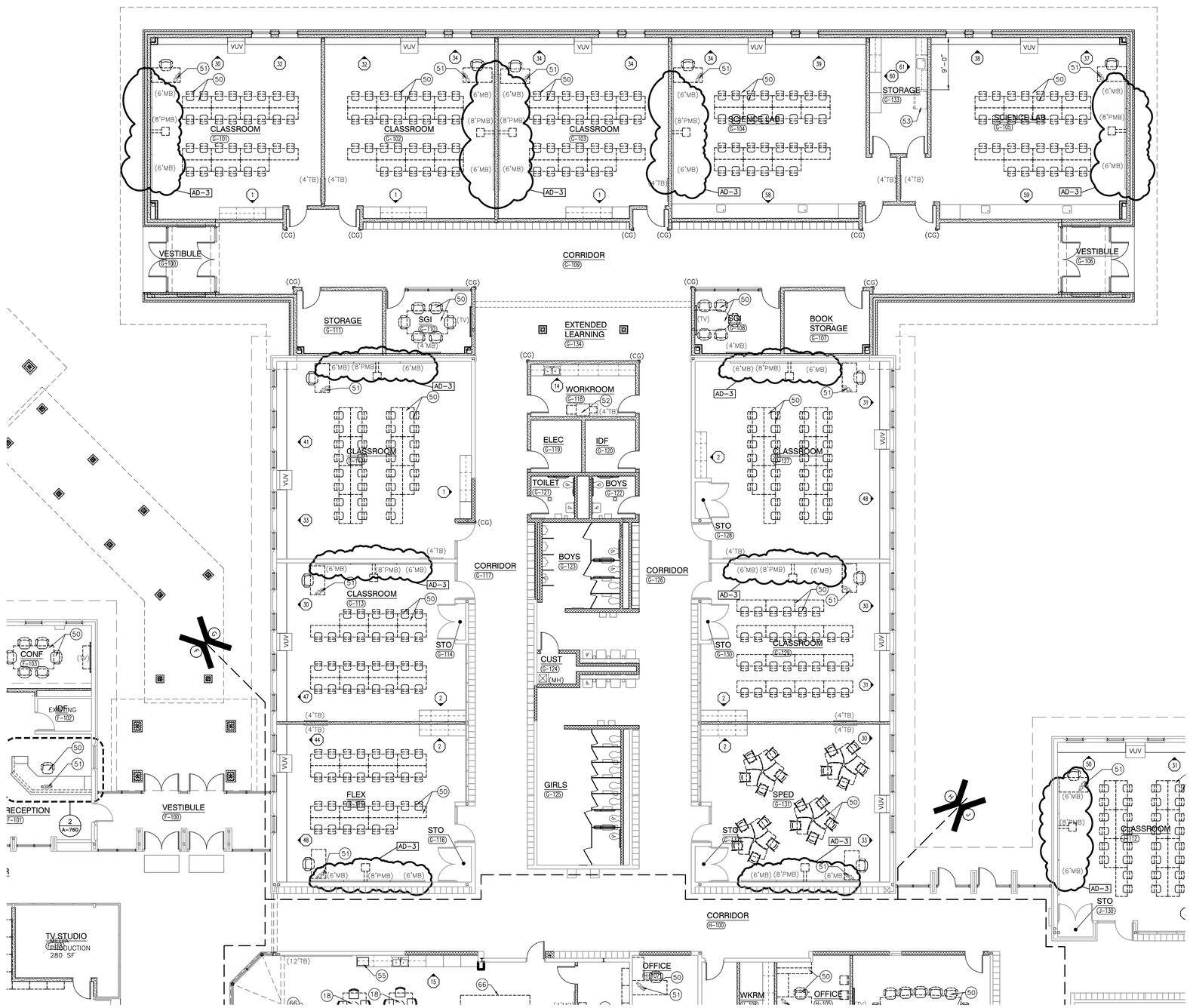
70. SPRAY BOOTH, BY OWNER, REFER TO MECHANICAL FOR EXHAUST.
71. CHANGING TABLE, BY OWNER.
72. INSTRUMENT STORAGE, BY OWNER.



UNIT "G" EQUIPMENT FIRST FLOOR PLAN

SCALE: 1/8" = 1'–0"

NORTH

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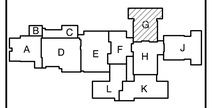
PROJECT

WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS

DUNELAND SCHOOL CORPORATION
CHESTERTON, INDIANA



KEY PLAN

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Phone 317.580.5777 Fax 317.580.5778

PROJECT 21–141
DATE 02/28/22
COORDINATED BY DJW
DRAWN BY CLN
CHECKED BY DJW

DALE J. WAGNER REGISTERED NO. 19600171 STATE OF INDIANA ARCHITECT

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AD–2	03/21/22	ADDENDUM NO. 2
AD–3	03/30/22	ADDENDUM NO. 3

DRAWING
UNIT "G" FIRST FLOOR EQUIPMENT PLAN

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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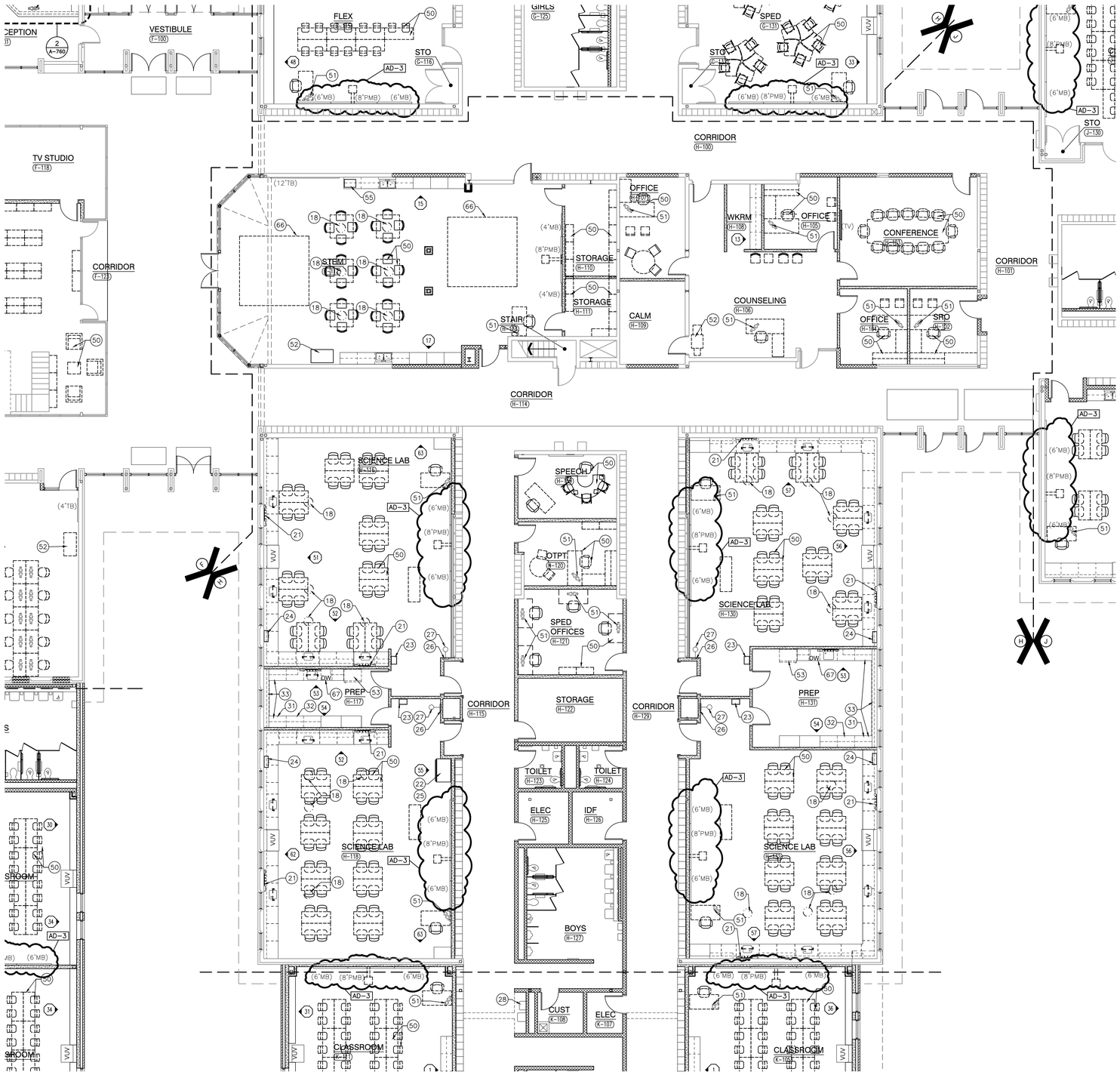
SHEET G A-706

Wednesday, 3/30/2022 – 3:58 PM – LAST SAVED BY:CNELSON
Y:\21-141 DUNELAND SC – WESTCHESTER INTERMEDIATE SCHOOL ADDITIONS AND RENOVATIONS\21-141 DRAWINGS\05 ARCH\A-706.DWG



UNIT "H" EQUIPMENT FIRST FLOOR PLAN

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

GENERAL EQUIPMENT PLAN NOTES:

A. REFER TO SPECIFICATIONS AND FINISH LEGEND FOR ADDITIONAL INFORMATION.

B. FIELD VERIFY ALL DIMENSIONS.

C. CASEWORK AND/OR MILLWORK INSTALLER TO COORDINATE ELECTRICAL AND PLUMBING WORK. REFER TO ELECTRICAL DRAWINGS AND SCHEDULES FOR ELECTRICAL DEVICE TYPES, HEIGHTS, AND LOCATIONS.

D. REFER TO G SERIES DRAWINGS FOR MOUNTING HEIGHTS.

E. REFER TO EQUIPMENT PLANS FOR REFERENCE TO ENLARGED TOILET ROOM PLANS AND TOILET ROOM ACCESSORIES.

EQUIPMENT PLAN LEGEND:

(--) INDICATES CASEWORK ELEVATION SYMBOL – REFER TO A-700 SERIES DRAWINGS FOR ELEVATIONS AND DETAILS.

------- INDICATES ITEMS TO BE PART OF LOOSE EQUIPMENT PACKAGE BY OWNER. (NOT INCLUDED IN CONSTRUCTION CONTRACT).

- - - - INDICATES BULKHEADS OR OTHER OVERHEAD ITEMS (INCLUDED IN ONSTRUCTION CONTRACTS).

(⌉ CG) INDICATES CORNER GUARD.

(TB) INDICATES 4' HIGH TACK BOARD LENGTH AS INDICATED, REFER TO MOUNTING HEIGHT G SERIES DRAWING.

(MB) INDICATES 4' HIGH MARKER BOARD LENGTH AS INDICATED, REFER TO MOUNTING HEIGHT DRAWING G SERIES DRAWING.

(PMB) INDICATES 4' HIGH PROJECTABLE MARKER BOARD. REFER TO MOUNTING HEIGHT DRAWING G SERIES DRAWING.

(TV) TELEVISION MONITOR, REFER TO TECHNOLOGY DRAWING.

(MH) INDICATES MOP HOLDER ABOVE SERVICE SINK.

(WDB) INDICATES INTERIOR WINDOW BLINDS.

(RS) INDICATES ROLLER SHADE.

EQUIPMENT PLAN NOTES:

(ALL PLAN NOTES MAY NOT BE INDICATED ON THIS PLAN)

1. ROOF ACCESS LADDER, REFER TO FLOOR PLANS.
2. UTILITY SINK, REFER TO PLUMBING DRAWINGS.
3. FOLDING PARTITION (ELECTRICALLY OPERATED). — 19/A-501
4. CUBICLE CURTAIN AND TRACK (1'-0" RADIUS AT CORNER). — 18/A-501
5. WALL MIRRORS, REFER TO INTERIOR ELEVATIONS.
6. PROJECTION SCREEN (ELECTRICALLY OPERATED). REFER TO TECHNOLOGY
7. BLEACHERS, REFER TO BLEACHER KEY NOTES.
8. LOCKER, LETTER INDICATES LOCKER TYPE. — 3/A-501
9. NOT USED.
10. FORWARD FOLD GLASS BASKETBALL BACKSTOP AND SUPPORT FRAMING (MOTORIZED, ADJUSTABLE HEIGHT).
11. BACKWARD FOLD GLASS BASKETBALL BACKSTOP AND SUPPORT FRAMING (MOTORIZED, ADJUSTABLE HEIGHT).
12. SAFETY CUSHION WAINSCOT. — 8/A-501
13. NOT USED.
14. NEW SCOREBOARD
15. COURT MARKINGS AND EQUIPMENT. — 1/A-540
16. NOT USED
17. EXISTING SAFETY CUSHION WAINSCOT TO REMAIN.
18. OVERHEAD RETRACTABLE POWER CORD (TYPICAL), REFER TO ELECTRICAL DRAWINGS.
19. SOUND CABINET, REFER TO ELECTRICAL/TECHNOLOGY DRAWINGS.
20. NOT USED.
21. PEGBOARD WITH DRAIN, REFER TO SCIENCE CASEWORK.
22. FUME HOOD, REFER TO SCIENCE CASEWORK / MECHANICAL DRAWINGS.
23. FIRE BLANKET CABINET, REFER TO SCIENCE CASEWORK DRAWINGS.
24. SAFETY GOGGLE CABINET, REFER TO SCIENCE CASEWORK DRAWINGS.
25. GAS COCK, REFER TO SCIENCE CASEWORK / MECHANICAL DRAWINGS.
26. SEMI RECESSED ADA EYE WASH STATION, REFER TO SCIENCE CASEWORK / PLUMBING DRAWINGS.
27. EMERGENCY SHOWER AND FLOOR DRAIN, REFER TO PLUMBING DRAWINGS.
28. DRINKING FOUNTAIN, REFER TO MECHANICAL DRAWINGS.
29. LOCKER BENCH — 6/A-501
30. NOT USED
31. ACID STORAGE CABINET, REFER TO SCIENCE EQUIPMENT SHEET
32. FLAMMABLE CABINET, REFER TO SCIENCE EQUIPMENT SHEET
33. CONTINUOUS COUNTERTOP.

OWNER FURNISHED EQUIPMENT PLAN NOTES:

50. LOOSE FURNITURE, BY OWNER, INDICATED ON PLAN FOR ELECTRICAL AND TECHNOLOGY COORDINATION.
51. COMPUTER/MONITOR, BY OWNER
52. PRINTER/COPIER, BY OWNER
53. REFRIGERATOR WITH ICE MAKER, BY OWNER
54. RANGE WITH HOOD, BY OWNER (PROVIDE 30" WIDE OPENING).
55. MICROWAVE, BY OWNER
56. NOT USED.
57. CLOTHES WASHER, BY OWNER
58. CLOTHES DRYER, BY OWNER
59. VENDING MACHINE, BY OWNER
60. CLINIC COTS, BY OWNER
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64. COMMERCIAL ICE MAKER, BY OWNER
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66. ROBOTICS ARENA, BY OWNER.
67. DISHWASHER BY OWNER (PROVIDE 24" WIDE OPENING).
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69. TRAINING TABLES, BY OWNER.
70. SPRAY BOOTH, BY OWNER, REFER TO MECHANICAL FOR EXHAUST.
71. CHANGING TABLE, BY OWNER.
72. INSTRUMENT STORAGE, BY OWNER.

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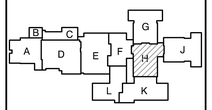
PROJECT

WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS

DUNELAND SCHOOL CORPORATION
CHESTERTON, INDIANA



KEY PLAN

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Indianapolis, IN 46260
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Phone 317.580.5777 Fax 317.580.5778

PROJECT 21-141
DATE 02/28/22
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DALE J. WALCKER REGISTERED NO. 19600171 STATE OF INDIANA ARCHITECT

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REVISIONS

MARK	DATE	ISSUED FOR
AD-2	03/21/22	ADDENDUM NO. 2
AD-3	03/30/22	ADDENDUM NO. 3

DRAWING
UNIT "H" FIRST FLOOR EQUIPMENT PLAN

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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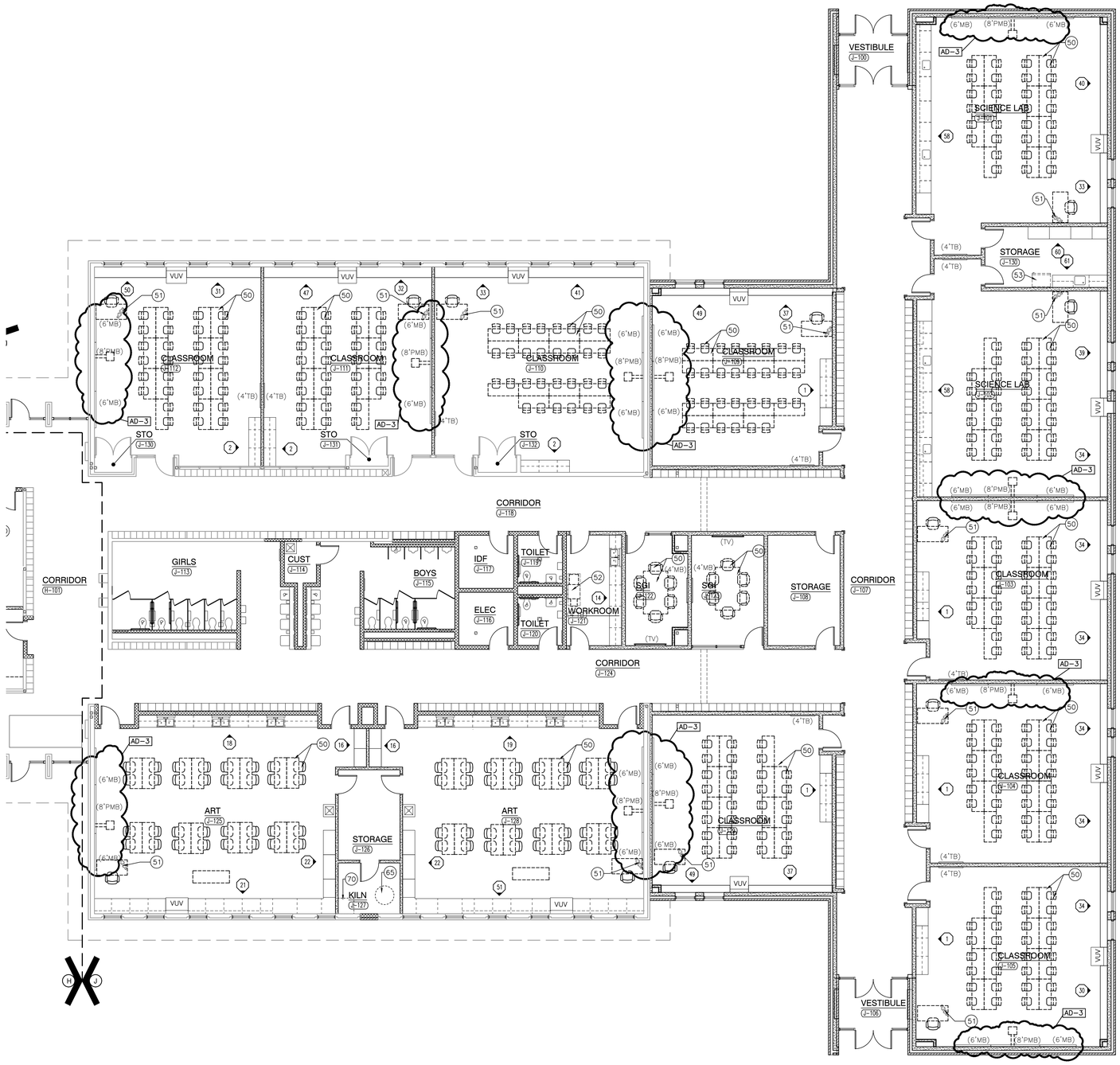
H

SHEET A-707

Wednesday, 3/30/2022 – 3:59 PM – LAST SAVED BY:CNELSON
Y:\21-141 DUNELAND SC – WESTCHESTER INTERMEDIATE SCHOOL ADDITIONS AND RENOVATIONS\21-141 DRAWINGS\05 ARCH\A-707.DWG



UNIT "J" EQUIPMENT FIRST FLOOR PLAN

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

NORTH

GENERAL EQUIPMENT PLAN NOTES:

A. REFER TO SPECIFICATIONS AND FINISH LEGEND FOR ADDITIONAL INFORMATION.

B. FIELD VERIFY ALL DIMENSIONS.

C. CASEWORK AND/OR MILLWORK INSTALLER TO COORDINATE ELECTRICAL AND PLUMBING WORK. REFER TO ELECTRICAL DRAWINGS AND SCHEDULES FOR ELECTRICAL DEVICE TYPES, HEIGHTS, AND LOCATIONS.

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(RS) INDICATES ROLLER SHADE.

EQUIPMENT PLAN NOTES:

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4. CUBICLE CURTAIN AND TRACK (1'-0" RADIUS AT CORNER). — 18/A-501
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6. PROJECTION SCREEN (ELECTRICALLY OPERATED). REFER TO TECHNOLOGY
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12. SAFETY CUSHION WAINSCOT. — 8/A-501
13. NOT USED.
14. NEW SCOREBOARD
15. COURT MARKINGS AND EQUIPMENT. — 1/A-540
16. NOT USED
17. EXISTING SAFETY CUSHION WAINSCOT TO REMAIN.
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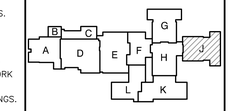
CHESTERTON, INDIANA



KEY PLAN

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Phone 317.580.5777 Fax 317.580.5778

PROJECT
21–141
DATE
02/28/22
COORDINATED BY
DJW
DRAWN BY
CLN
CHECKED BY
DJW

DALE J. WACKER
REGISTERED
NO.
19600171
STATE OF
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ARCHITECT

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AD–3	03/30/22	ADDENDUM NO. 3

DRAWING
UNIT "J" FIRST FLOOR EQUIPMENT PLAN

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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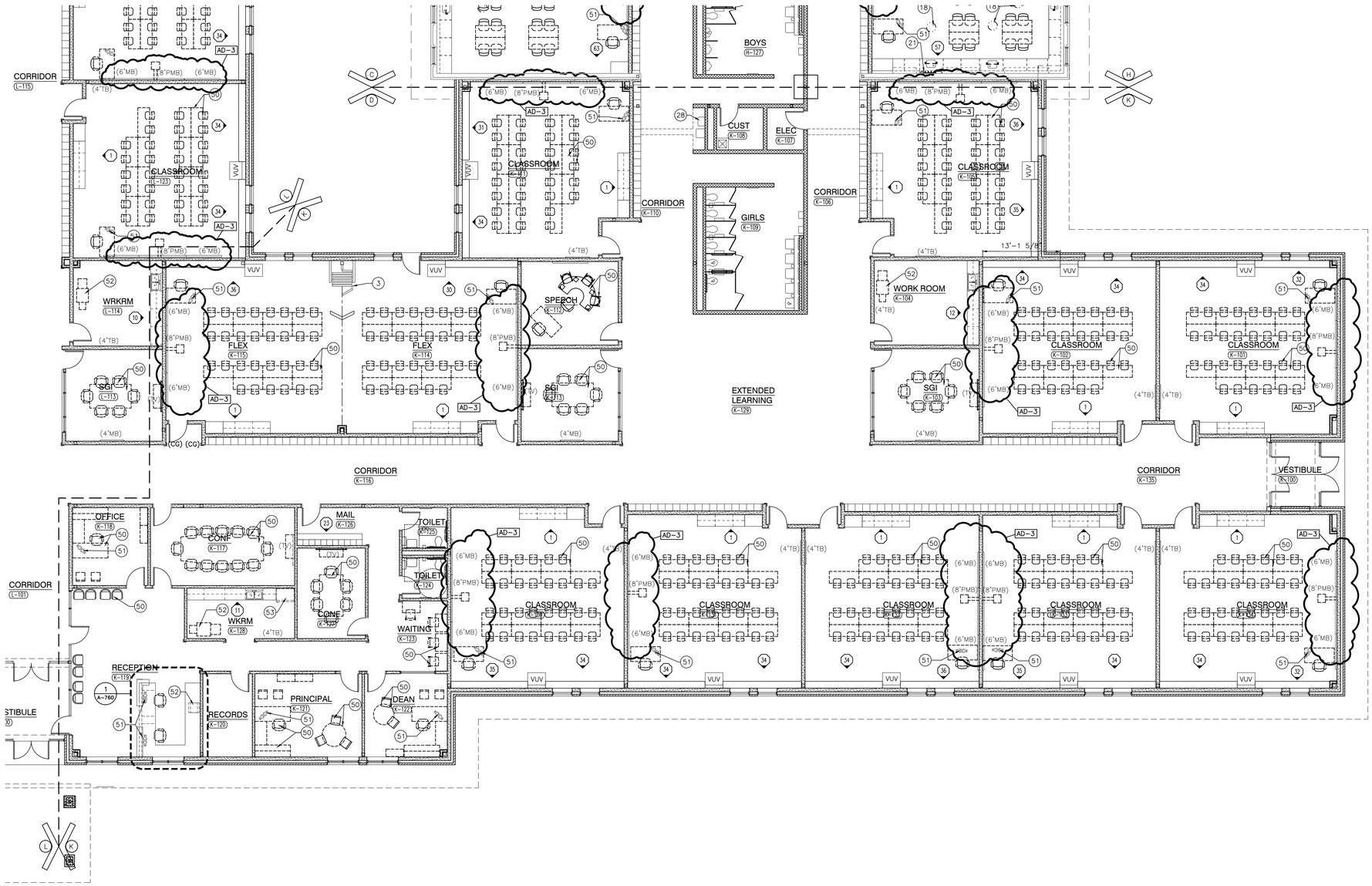
J

SHEET
A-708

Wednesday, 3/30/2022 – 3:59 PM – LAST SAVED BY:CNELSON
Y:\21-141 DUNELAND SC – WESTCHESTER INTERMEDIATE SCHOOL ADDITIONS AND RENOVATIONS\21-141 DRAWINGS\05 ARCH\A-708.DWG



UNIT "K" EQUIPMENT FIRST FLOOR PLAN

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

NORTH

GENERAL EQUIPMENT PLAN NOTES:

A. REFER TO SPECIFICATIONS AND FINISH LEGEND FOR ADDITIONAL INFORMATION.

B. FIELD VERIFY ALL DIMENSIONS.

C. CASEWORK AND/OR MILLWORK INSTALLER TO COORDINATE ELECTRICAL AND PLUMBING WORK. REFER TO ELECTRICAL DRAWINGS AND SCHEDULES FOR ELECTRICAL DEVICE TYPES, HEIGHTS, AND LOCATIONS.

D. REFER TO G SERIES DRAWINGS FOR MOUNTING HEIGHTS.

E. REFER TO EQUIPMENT PLANS FOR REFERENCE TO ENLARGED TOILET ROOM PLANS AND TOILET ROOM ACCESSORIES.

EQUIPMENT PLAN LEGEND:

(--) INDICATES CASEWORK ELEVATION SYMBOL – REFER TO A–700 SERIES DRAWINGS FOR ELEVATIONS AND DETAILS.

------- INDICATES ITEMS TO BE PART OF LOOSE EQUIPMENT PACKAGE BY OWNER. (NOT INCLUDED IN CONSTRUCTION CONTRACT).

- - - - INDICATES BULKHEADS OR OTHER OVERHEAD ITEMS (INCLUDED IN ONSTRUCTION CONTRACTS).

(⌉ CG) INDICATES CORNER GUARD.

(TB) INDICATES 4' HIGH TACK BOARD LENGTH AS INDICATED, REFER TO MOUNTING HEIGHT G SERIES DRAWING.

(MB) INDICATES 4' HIGH MARKER BOARD LENGTH AS INDICATED, REFER TO MOUNTING HEIGHT DRAWING G SERIES DRAWING.

(PMB) INDICATES 4' HIGH PROJECTABLE MARKER BOARD. REFER TO MOUNTING HEIGHT DRAWING G SERIES DRAWING.

(TV) TELEVISION MONITOR, REFER TO TECHNOLOGY DRAWING.

(MH) INDICATES MOP HOLDER ABOVE SERVICE SINK.

(WDB) INDICATES INTERIOR WINDOW BLINDS.

(RS) INDICATES ROLLER SHADE.

EQUIPMENT PLAN NOTES:

(ALL PLAN NOTES MAY NOT BE INDICATED ON THIS PLAN)

1. ROOF ACCESS LADDER, REFER TO FLOOR PLANS.
2. UTILITY SINK, REFER TO PLUMBING DRAWINGS.
3. FOLDING PARTITION (ELECTRICALLY OPERATED). — 19/A-501
4. CUBICLE CURTAIN AND TRACK (1'-0" RADIUS AT CORNER). — 18/A-501
5. WALL MIRRORS, REFER TO INTERIOR ELEVATIONS.
6. PROJECTION SCREEN (ELECTRICALLY OPERATED). REFER TO TECHNOLOGY
7. BLEACHERS, REFER TO BLEACHER KEY NOTES.
8. LOCKER, LETTER INDICATES LOCKER TYPE. — 3/A-501
9. NOT USED.
10. FORWARD FOLD GLASS BASKETBALL BACKSTOP AND SUPPORT FRAMING (MOTORIZED, ADJUSTABLE HEIGHT).
11. BACKWARD FOLD GLASS BASKETBALL BACKSTOP AND SUPPORT FRAMING (MOTORIZED, ADJUSTABLE HEIGHT).
12. SAFETY CUSHION WAINSCOT. — 8/A-501
13. NOT USED.
14. NEW SCOREBOARD
15. COURT MARKINGS AND EQUIPMENT. — 1/A-540
16. NOT USED
17. EXISTING SAFETY CUSHION WAINSCOT TO REMAIN.
18. OVERHEAD RETRACTABLE POWER CORD (TYPICAL), REFER TO ELECTRICAL DRAWINGS.
19. SOUND CABINET, REFER TO ELECTRICAL/TECHNOLOGY DRAWINGS.
20. NOT USED.
21. PEGBOARD WITH DRAIN, REFER TO SCIENCE CASEWORK.
22. FUME HOOD, REFER TO SCIENCE CASEWORK / MECHANICAL DRAWINGS.
23. FIRE BLANKET CABINET, REFER TO SCIENCE CASEWORK DRAWINGS.
24. SAFETY GOGGLE CABINET, REFER TO SCIENCE CASEWORK DRAWINGS.
25. GAS COCK, REFER TO SCIENCE CASEWORK / MECHANICAL DRAWINGS.
26. SEMI RECESSED ADA EYE WASH STATION, REFER TO SCIENCE CASEWORK / PLUMBING DRAWINGS.
27. EMERGENCY SHOWER AND FLOOR DRAIN, REFER TO PLUMBING DRAWINGS.
28. DRINKING FOUNTAIN, REFER TO MECHANICAL DRAWINGS.
29. LOCKER BENCH — 6/A-501
30. NOT USED
31. ACID STORAGE CABINET, REFER TO SCIENCE EQUIPMENT SHEET
32. FLAMMABLE CABINET, REFER TO SCIENCE EQUIPMENT SHEET
33. CONTINUOUS COUNTERTOP.

OWNER FURNISHED EQUIPMENT PLAN NOTES:

50. LOOSE FURNITURE, BY OWNER, INDICATED ON PLAN FOR ELECTRICAL AND TECHNOLOGY COORDINATION.
51. COMPUTER/MONITOR, BY OWNER
52. PRINTER/COPIER, BY OWNER
53. REFRIGERATOR WITH ICE MAKER, BY OWNER
54. RANGE WITH HOOD, BY OWNER (PROVIDE 30" WIDE OPENING).
55. MICROWAVE, BY OWNER
56. NOT USED.
57. CLOTHES WASHER, BY OWNER
58. CLOTHES DRYER, BY OWNER
59. VENDING MACHINE, BY OWNER
60. CLINIC COTS, BY OWNER
61. DEMONSTRATION TABLE, BY OWNER
62. STEPPED MUSIC PLATFORM, BY OWNER
63. PIANO, BY OWNER
64. COMMERCIAL ICE MAKER, BY OWNER
65. KILN, BY OWNER, REFER TO MECHANICAL DRAWINGS FOR EXAUST
66. ROBOTICS ARENA, BY OWNER.
67. DISHWASHER BY OWNER (PROVIDE 24" WIDE OPENING).
68. PORTABLE STAGE, BY OWNER.
69. TRAINING TABLES, BY OWNER.
70. SPRAY BOOTH, BY OWNER, REFER TO MECHANICAL FOR EXHAUST.
71. CHANGING TABLE, BY OWNER.
72. INSTRUMENT STORAGE, BY OWNER.

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DESIGN
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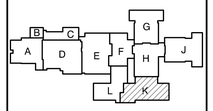
PROJECT

WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS

DUNELAND SCHOOL CORPORATION
CHESTERTON, INDIANA



KEY PLAN

GIBRALTAR DESIGN
9102 N. Meridian St., Ste. 300
Indianapolis, IN 46260
Homepage www.GibraltarDesign.com
Email info@GibraltarDesign.com
Phone 317.580.5777 Fax 317.580.5778

PROJECT 21-141
DATE 02/28/22
COORDINATED BY DJW
DRAWN BY CLN
CHECKED BY DJW

DALE J. WAGNER REGISTERED NO. 19600171 STATE OF INDIANA ARCHITECT

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REVISIONS

MARK	DATE	ISSUED FOR
AD-2	03/21/22	ADDENDUM NO. 2
AD-3	03/30/22	ADDENDUM NO. 3

DRAWING
UNIT "K" FIRST FLOOR EQUIPMENT PLAN

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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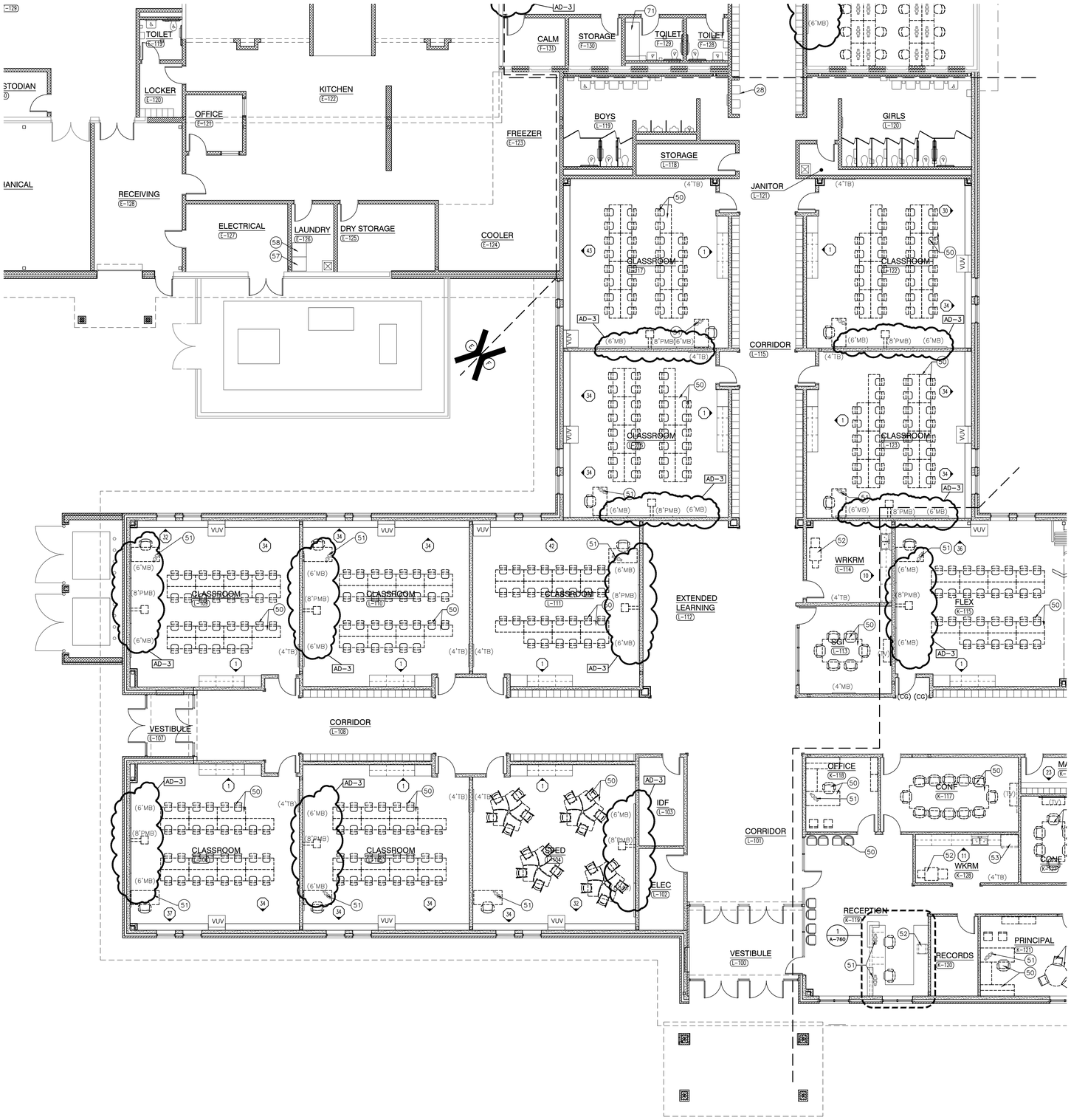
K

SHEET A-709

Wednesday, 3/30/2022 – 4:01 PM – LAST SAVED BY:CNELSON
Y:\21-141 DUNELAND SC – WESTCHESTER INTERMEDIATE SCHOOL ADDITIONS AND RENOVATIONS\21-141 DRAWINGS\03 ARCH\A-709.DWG



UNIT "L" EQUIPMENT FIRST FLOOR PLAN

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

GENERAL EQUIPMENT PLAN NOTES:

A. REFER TO SPECIFICATIONS AND FINISH LEGEND FOR ADDITIONAL INFORMATION.

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C. CASEWORK AND/OR MILLWORK INSTALLER TO COORDINATE ELECTRICAL AND PLUMBING WORK. REFER TO ELECTRICAL DRAWINGS AND SCHEDULES FOR ELECTRICAL DEVICE TYPES, HEIGHTS, AND LOCATIONS.

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11. BACKWARD FOLD GLASS BASKETBALL BACKSTOP AND SUPPORT FRAMING (MOTORIZED, ADJUSTABLE HEIGHT).
12. SAFETY CUSHION WAINSCOT. — 8/A-501
13. NOT USED.
14. NEW SCOREBOARD
15. COURT MARKINGS AND EQUIPMENT. — 1/A-840
16. NOT USED
17. EXISTING SAFETY CUSHION WAINSCOT TO REMAIN.
18. OVERHEAD RETRACTABLE POWER CORD (TYPICAL), REFER TO ELECTRICAL DRAWINGS.
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26. SEMI RECESSED ADA EYE WASH STATION, REFER TO SCIENCE CASEWORK / PLUMBING DRAWINGS.
27. EMERGENCY SHOWER AND FLOOR DRAIN, REFER TO PLUMBING DRAWINGS.
28. DRINKING FOUNTAIN, REFER TO MECHANICAL DRAWINGS.
29. LOCKER BENCH — 5/A-501
30. NOT USED
31. ACID STORAGE CABINET, REFER TO SCIENCE EQUIPMENT SHEET
32. FLAMMABLE CABINET, REFER TO SCIENCE EQUIPMENT SHEET
33. CONTINUOUS COUNTERTOP.

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WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS

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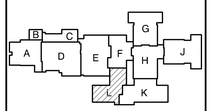
CHESTERTON, INDIANA



KEY PLAN

GIBRALTAR DESIGN
9102 N. Meridian St., Ste. 300
Indianapolis, IN 46260
Homepage www.GibraltarDesign.com
Email info@GibraltarDesign.com
Phone 317.580.5777 Fax 317.580.5778

PROJECT 21-141
DATE 02/28/22
COORDINATED BY DJW
DRAWN BY CLN
CHECKED BY DJW

DALE J. WAGNER REGISTERED NO. 19600171 STATE OF INDIANA ARCHITECT

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REVISIONS

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AD-2	03/21/22	ADDENDUM NO. 2
AD-3	03/30/22	ADDENDUM NO. 3

DRAWING
UNIT "L" FIRST FLOOR EQUIPMENT PLAN

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

© GIBRALTAR DESIGN

L

SHEET A-710

Wednesday, 3/30/2022 – 4:01 PM – LAST SAVED BY:CNELSON
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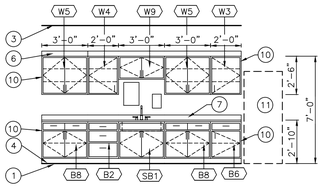
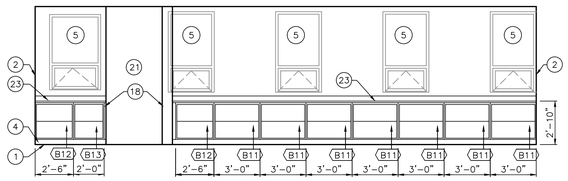
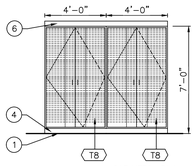


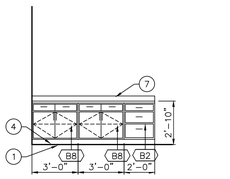
ELEVATION 29
SCALE: 1/4"=1'-0"
ROOM: E113
CABINETS: PL1
COUNTERTOP: PL2



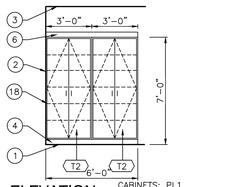
ELEVATION 28
SCALE: 1/4"=1'-0"
ROOM: E105
CABINETS: PL1
COUNTERTOP: PL2



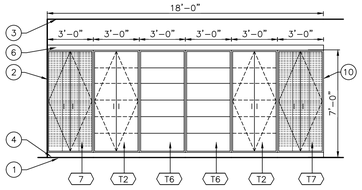
ELEVATION 27
SCALE: 1/4"=1'-0"
ROOM: D124
CABINETS: PL1
COUNTERTOP: PL2



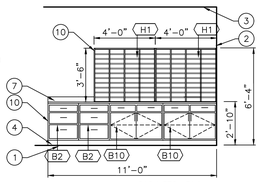
ELEVATION 26
SCALE: 1/4"=1'-0"
ROOM: C107
CABINETS: PL1
COUNTERTOP: PL2



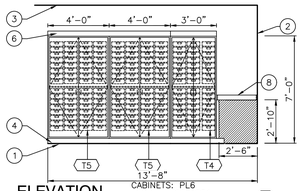
ELEVATION 25
SCALE: 1/4"=1'-0"
ROOM: C102, D128
OPPOSITE HAND: C103
CABINETS: PL1
COUNTERTOP: PL2



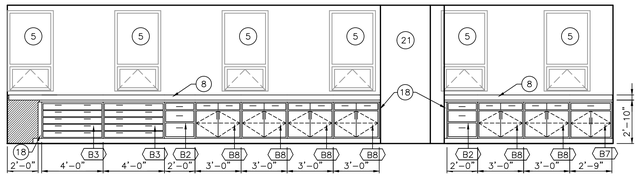
ELEVATION 24
SCALE: 1/4"=1'-0"
ROOM: D117
CABINETS: PL6
COUNTERTOP: PL5



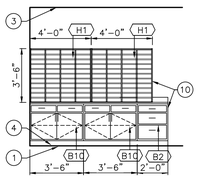
ELEVATION 23
SCALE: 1/4"=1'-0"
ROOM: K126
CABINETS: PL6
COUNTERTOP: PL5



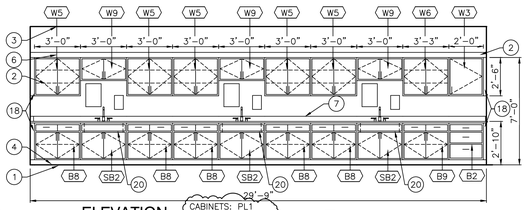
ELEVATION 22
SCALE: 1/4"=1'-0"
ROOM: J125
OPPOSITE HAND: J128
CABINETS: PL6
COUNTERTOP: SS1



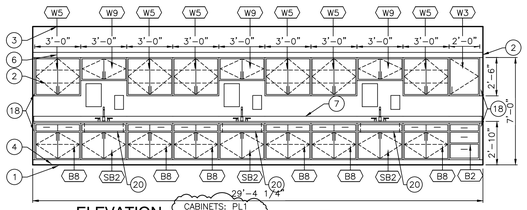
ELEVATION 21
SCALE: 1/4"=1'-0"
ROOM: J125
CABINETS: PL6
COUNTERTOP: SS1



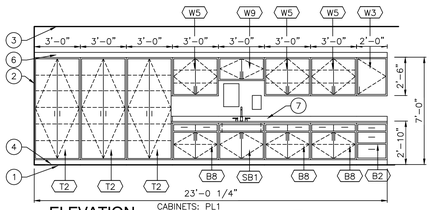
ELEVATION 20
SCALE: 1/4"=1'-0"
ROOM: F109
CABINETS: PL6
COUNTERTOP: PL5



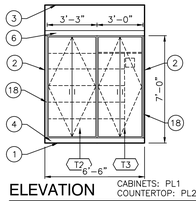
ELEVATION 19
SCALE: 1/4"=1'-0"
ROOM: J128
CABINETS: PL1
COUNTERTOP: SS1
AD-3



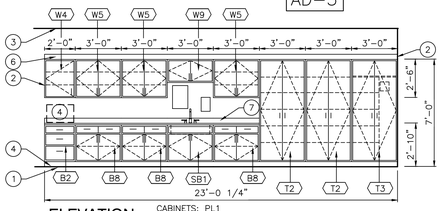
ELEVATION 18
SCALE: 1/4"=1'-0"
ROOM: J125
CABINETS: PL1
COUNTERTOP: SS1
AD-3



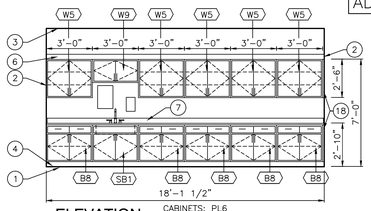
ELEVATION 17
SCALE: 1/4"=1'-0"
ROOM: H112
CABINETS: PL1
COUNTERTOP: PL2



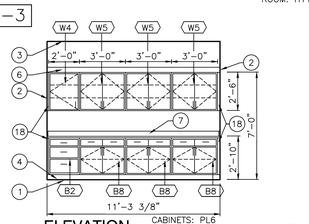
ELEVATION 16
SCALE: 1/4"=1'-0"
ROOM: J125
OPPOSITE HAND: J128
CABINETS: PL1
COUNTERTOP: PL2



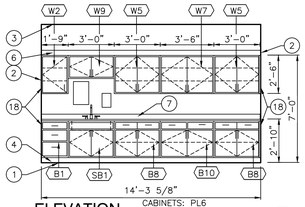
ELEVATION 15
SCALE: 1/4"=1'-0"
ROOM: H112
CABINETS: PL1
COUNTERTOP: PL2



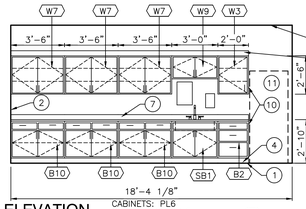
ELEVATION 14
SCALE: 1/4"=1'-0"
ROOM: G118, J121
CABINETS: PL6
COUNTERTOP: PL5



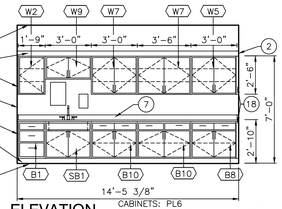
ELEVATION 13
SCALE: 1/4"=1'-0"
ROOM: H108
CABINETS: PL6
COUNTERTOP: PL5



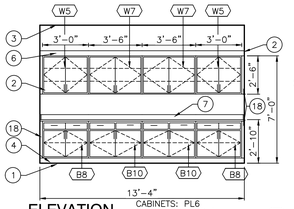
ELEVATION 12
SCALE: 1/4"=1'-0"
ROOM: K104
CABINETS: PL6
COUNTERTOP: PL5



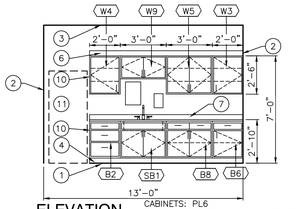
ELEVATION 11
SCALE: 1/4"=1'-0"
ROOM: K128
CABINETS: PL6
COUNTERTOP: PL5



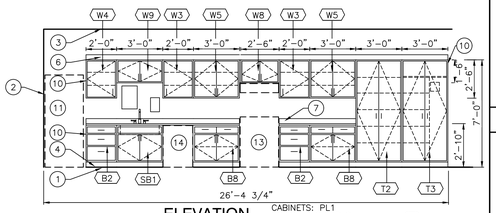
ELEVATION 10
SCALE: 1/4"=1'-0"
ROOM: L114
CABINETS: PL6
COUNTERTOP: PL5



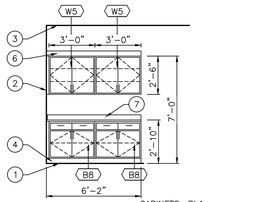
ELEVATION 9
SCALE: 1/4"=1'-0"
ROOM: F121
CABINETS: PL6
COUNTERTOP: PL5



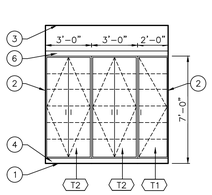
ELEVATION 8
SCALE: 1/4"=1'-0"
ROOM: F105
CABINETS: PL6
COUNTERTOP: PL5



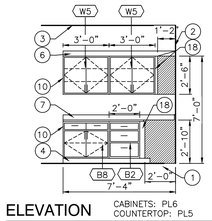
ELEVATION 7
SCALE: 1/4"=1'-0"
ROOM: E110
CABINETS: PL1
COUNTERTOP: PL2



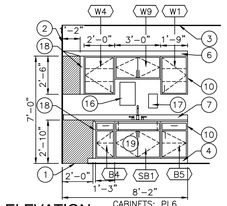
ELEVATION 6
SCALE: 1/4"=1'-0"
ROOM: E112
CABINETS: PL1
COUNTERTOP: PL2



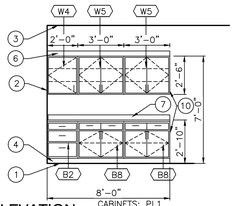
ELEVATION 5
SCALE: 1/4"=1'-0"
ROOM: D104
CABINETS: PL6
COUNTERTOP: PL5



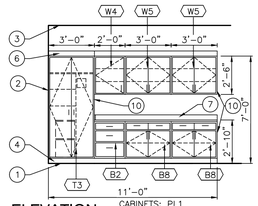
ELEVATION 4
SCALE: 1/4"=1'-0"
ROOM: D104
CABINETS: PL6
COUNTERTOP: PL5



ELEVATION 3
SCALE: 1/4"=1'-0"
ROOM: D104
CABINETS: PL6
COUNTERTOP: PL5



ELEVATION 2
SCALE: 1/4"=1'-0"
ROOM: G113, G127, G131, J111
OPPOSITE HAND: G115, G129, J110, J112
CABINETS: PL1
COUNTERTOP: PL2



ELEVATION 1
SCALE: 1/4"=1'-0"
ROOM: F127, F132, G101, G103, J103, J104, J129, K102, K105, K114, K132, K134, L104, L109, L110, L116, L122
OPPOSITE HAND: D133, G102, G112, J105, J109, K101, K111, K115, K130, K131, K133, L105, L106, L111, L117, L122, L123
CABINETS: PL1
COUNTERTOP: PL2

PLASTIC LAMINATE CASEWORK SCHEDULE

MARK	CATALOG NUMBER	WIDTH	DESCRIPTION
B1	10339	21"	24"D X 32"H 3 DRAWERS, FULL EXTENSION
B2	10339	24"	24"D X 32"H 3 DRAWERS, FULL EXTENSION
B3	10403	48"	24"D X 32"H 5 DRAWERS, FULL EXTENSION
B4	10422	15"	24"D X 32"H DRAWER, DOOR, HINGED LEFT, ADJUSTABLE SHELF
B5	10421	21"	24"D X 32"H DRAWER, DOOR, HINGED RIGHT, ADJUSTABLE SHELF
B6	10421	24"	24"D X 32"H DRAWER, DOOR, HINGED RIGHT, ADJUSTABLE SHELF
B7	10432	33"	24"D X 32"H DRAWERS, DOORS, ADJUSTABLE SHELF
B8	10432	36"	24"D X 32"H DRAWERS, DOORS, ADJUSTABLE SHELF
B9	10432	39"	24"D X 32"H DRAWERS, DOORS, ADJUSTABLE SHELF
B10	10432	42"	24"D X 32"H DRAWERS, DOORS, ADJUSTABLE SHELF
B11	10101	36"	14"D X 32"H OPEN SHELF, ADJUSTABLE SHELF
B12	10101	30"	14"D X 32"H OPEN SHELF, ADJUSTABLE SHELF
B13	10101	24"	14"D X 32"H OPEN SHELF, ADJUSTABLE SHELF
B14	10101	39"	14"D X 32"H OPEN SHELF, ADJUSTABLE SHELF
B15	10101	33"	14"D X 32"H OPEN SHELF, ADJUSTABLE SHELF
B16	10101	27"	14"D X 32"H OPEN SHELF, ADJUSTABLE SHELF
B17	10339	27"	24"D X 32"H 3 DRAWERS, FULL EXTENSION
SB1	10479	36"	24"D X 32"H FALSE FRONT, DOORS, REMOVABLE BACK
SB2	10479	36"	24"D X 32"H FALSE FRONT, DOORS, REMOVABLE BACK. 10"D SINK
W1	16120	21"	14"D X 30"H DOOR, HINGED RIGHT, ADJUSTABLE SHELF
W2	16121	21"	14"D X 30"H DOOR, HINGED LEFT, ADJUSTABLE SHELF
W3	16120	24"	14"D X 30"H DOOR, HINGED RIGHT, ADJUSTABLE SHELF
W4	16121	24"	14"D X 30"H DOOR, HINGED LEFT, ADJUSTABLE SHELF
W5	16129	36"	14"D X 30"H DOORS, ADJUSTABLE SHELF
W6	16129	39"	14"D X 30"H DOORS, ADJUSTABLE SHELF
W7	16129	42"	14"D X 30"H DOORS, ADJUSTABLE SHELF
W8	16129	30"	14"D X 18"H DOORS
W9	16129	36"	14"D X 18"H DOORS
T1	26129	24"	24"D X 84"H DOOR, ADJUSTABLE SHELVES, FIXED SHELF
T2	26129	36"	24"D X 84"H DOORS, ADJUSTABLE SHELVES, FIXED SHELF
T3	26609	36"	24"D X 84"H LOCKABLE DOORS, FIXED SHELF, WARDROBE, FILE DWR
T4	26271	36"	24"D X 84"H DOORS, TRAY WITH CARD HOLDER (48) SA902 TRAYS
T5	26281	48"	24"D X 84"H DOORS, TRAY WITH CARD HOLDER (64) SA902 TRAYS
T6	20101	36"	24"D X 84"H OPEN ADJUSTABLE SHELVES
T7	57252	36"	24"D X 84"H DOORS, CHORAL FOLIO, EQUAL SPACED (126)
T8	57272	48"	24"D X 84"H DOORS, ORCHESTRA/BAND FOLIO, EQ. SPACED (126)
H1	16252	48"	14"D X 47"H OPEN FACE, EQUAL SPACED COMPARTMENTS (44)

GENERAL NOTES (APPLIES TO PLASTIC LAMINATE CASEWORK)

A. REFER TO EQUIPMENT PLANS FOR CASEWORK LOCATIONS AND FINISH LEGEND IN "A-800" SERIES DRAWINGS FOR FINISH INFORMATION. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.

B. FOR SCHEDULING PURPOSES ONLY, MODEL NUMBERS ARE TAKEN FROM STEVENS INDUSTRIES, INC (UNLESS NOTED OTHERWISE) AND ARE FOR CABINET REQUIREMENTS ONLY. SEE SPECIFICATIONS FOR CABINET CONSTRUCTION METHODS.

C. VERIFY ALL PLAN AND CASEWORK DIMENSIONS WITH CASEWORK MANUFACTURER.

D. ALL COUNTERTOPS TO BE PLASTIC LAMINATE WITH 4" HIGH PLASTIC LAMINATE BACKSPLASH AND/OR ENDSPASH AT ALL LOCATIONS WHERE COUNTERTOP MEETS ADJACENT SURFACE (UNLESS NOTED OTHERWISE).

E. PROVIDE 3MM PVC EDGE ON ALL PLASTIC LAMINATED COUNTERTOPS AND BACKSPLASHES.

F. PROVIDE A 4" HIGH TOE SPACE ON ALL BASE AND FULL HEIGHT CABINETS.

G. ALL EXPOSED CASEWORK SURFACES TO BE PLASTIC LAMINATE FINISHED, INCLUDING OPEN INTERIORS OF CABINETRY (UNLESS NOTED OTHERWISE).

H. ALL EXPOSED CASEWORK ENDS SHALL BE FINISHED TO MATCH CASEWORK FRONTS.

I. PROVIDE CONTINUOUS PLASTIC LAMINATE SLOPED TOPS ON ALL WALL AND FULL HEIGHT CABINETS (UNLESS OTHERWISE NOTED).

J. FILLER PANELS, TRIM, AND MOLDING PROVIDED SHALL BE CONTINUOUS AS NECESSARY TO MAKE CASEWORK CONTINUOUS TO ADJACENT PARTITION, CEILING, AND/OR BULKHEAD. CASEWORK MANUFACTURER / INSTALLER SHALL PROVIDE ALL FILLERS AND SCRIBES AS REQUIRED FOR A COMPLETE AND FINISHED CASEWORK INSTALLATION.

K. PROVIDE LOCKS ON ALL WARDROBE CABINETS, KEYED BY ROOM.

L. ALL ADJOINING CABINETS SHALL BE ALIGNED.

M. WHERE CASEWORK REQUIRES SHIMMING, PROVIDE ONLY APPROVED METAL SHIMS.

N. CABINETS LOCATED IN FRONT OF A PIPE CHASE SHALL HAVE REMOVABLE BACKS.

O. PROVIDE JOINT SEALANT AT ALL JUNCTIONS OF CASEWORK / COUNTERTOPS WITH ADJACENT WALL OR CASEWORK.

P. PROVIDE 4" HIGH VINYL COVE BASE AT ALL TOE SPACE AREAS AND AT EXPOSED SURFACES AND SIDES OF CABINETS ADJACENT TO TOE SPACES. BY FLOORING INSTALLER.

Q. REFER TO ELECTRICAL DRAWINGS AND SCHEDULES FOR DEVICE TYPES, HEIGHTS AND LOCATIONS.

R. REFER TO PLUMBING DRAWINGS AND SCHEDULES FOR FIXTURE TYPES AND LOCATIONS. REFER TO PLUMBING DRAWINGS FOR PLUMBING CONNECTIONS.

S. ALL CUTTING, DRILLING AND PATCHING OF CASEWORK AND COUNTERTOPS AS REQUIRED FOR INSTALLATION OF PIPING OR CONDUIT SHALL BE BY CASEWORK MANUFACTURER / INSTALLER.

T. REFER TO "G" SERIES SHEETS FOR MOUNTING HEIGHTS OF EQUIPMENT AND ACCESSORIES.

KEY NOTES (APPLIES TO PLASTIC LAMINATE CASEWORK)

1. LINE OF FINISHED FLOOR
2. WALL LINE
3. CEILING LINE
4. 4" TOE SPACE WITH VINYL BASE BY FLOORING INSTALLER
5. WINDOW, REFER TO FLOOR PLANS
6. SLOPED TOP (CONTINUOUS)
7. 25"D COUNTERTOP WITH 4" BACKSPLASH AND SIDESPLASH UNLESS NOTED OTHERWISE
8. 30"D COUNTERTOP WITH 4" BACKSPLASH AND SIDESPLASH UNLESS NOTED OTHERWISE
9. KNEE SPACE
10. FINISHED BACK/END PANEL
11. REFRIGERATOR, BY OWNER
12. MICROWAVE, BY OWNER
13. RANGE WITH HOOD, BY OWNER
14. DISHWASHER, BY OWNER
15. NULL
16. PAPER TOWEL DISPENSER (OFCI)
17. SOAP DISPENSER (OFCI)
18. FILLER PANEL FINISHED TO MATCH FACE OF CABINETS.
19. SINK, REFERENCE PLUMBING DRAWINGS
20. 10" DEEP SINK, REFERENCE PLUMBING DRAWINGS
21. VUV, REFERENCE MECHANICAL DRAWINGS
22. 15"D COUNTERTOP WITH 4" BACKSPLASH AND SIDESPLASH UNLESS NOTED OTHERWISE. VERIFY HEIGHT OF WINDOW SILL TO ALLOW CASEWORK BACKSPLASH TO BUTT UNDER SILL.
23. 21"D COUNTERTOP WITH 4" BACKSPLASH AND SIDESPLASH UNLESS NOTED OTHERWISE. VERIFY HEIGHT OF WINDOW SILL TO ALLOW CASEWORK BACKSPLASH TO BUTT UNDER SILL.
24. REFER TO ROOMS LISTED UNDER ELEVATION TO DETERMINE DEPTH OF COUNTERTOP.

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PROJECT
WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS
DUNELAND SCHOOL CORPORATION
CHESTERTON, INDIANA

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PROJECT 21-141
DATE 02/28/22
COORDINATED BY DJW
DRAWN BY CLN
CHECKED BY DJW

DALE J. WAGNER REGISTERED NO. 19600171 STATE OF INDIANA ARCHITECT

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REVISIONS

MARK	DATE	ISSUED FOR
AD-2	03/21/22	ADDENDUM NO. 2
AD-3	03/30/22	ADDENDUM NO. 3

DRAWING
CASEWORK SCHEDULE AND ELEVATIONS

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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A-730

Tuesday, 3/29/2022 - 4:13 PM - LAST SAVED BY:CNELSON
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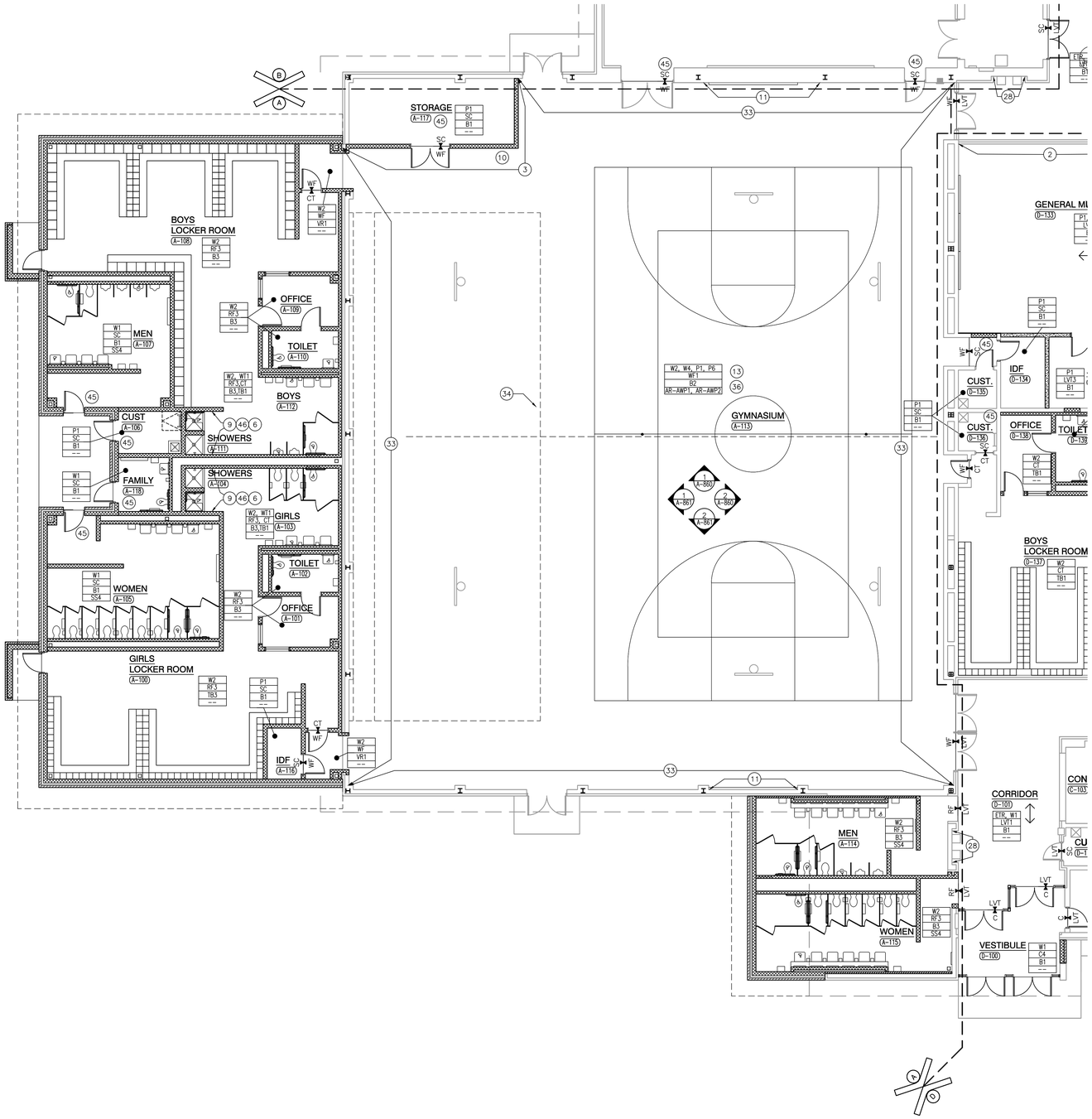

UNIT "A" FIRST FLOOR FINISH PLAN

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

GENERAL FINISH PLAN NOTES:

A. REFERENCE FINISH LEGEND FOR FINISH INFORMATION.

B. REFERENCE FLOOR PATTERN PLANS, EQUIPMENT PLANS, INTERIOR ELEVATIONS, REFLECTED CEILING PLANS AND WRITTEN SPECIFICATIONS FOR ADDITIONAL FINISH INFORMATION.

C. PRIOR TO INSTALLATION OF NEW FINISHES CONTRACTOR SHALL INSPECT ALL SUBSTRATES. IF A SUBSTRATE IS DEEMED UNACCEPTABLE THE CONTRACTOR SHALL TAKE THE NECESSARY STEPS TO RECTIFY THE SITUATION OR CONTACT THE ARCHITECT WITH THE CONCERN. PROCEEDING WITH THE INSTALLATION OF FINISHES WILL BE CONSTRUED THAT THE INSTALLER AND /OR FINISHER HAS ACCEPTED SAID SUBSTRATE. NO CHANGE ORDER WILL BE ISSUED TO RECTIFY CONCEALED, OR UNSATISFACTORY SUBSTRATE ONCE FINISH WORK HAS PROCEEDED.

D. PREPARE ALL WALL CONSTRUCTION, NEW AND EXISTING, TO RECEIVE NEW FINISHES AS PER MANUFACTURE'S RECOMMENDED INSTALLATION METHODS AND MATERIALS FOR ALL FINISHES.

E. ALL FLOORING IS TO BE LEVELED WITHIN 1/4" IN 10'-0" WITH LATEX MATERIAL. MOISTURE CONTENT IN AREA IS TO BE TESTED PRIOR TO INSTALLATION OF FLOORING MATERIAL. CONTRACTOR TO INSTALL FLOORING PER MANUFACTURER'S RECOMMENDED METHOD.

F. FLOORING CONTRACTOR TO SUBMIT A SEAMING DIAGRAM FOR FLOORING MATERIAL INCLUDING NOTATION OF MATERIAL DIRECTION.

G. ALL FLOORING TRANSITIONS SHALL COMPLY WITH ADA GUIDELINES.

H. ALL EXPOSED METAL SURFACES, SUCH AS GRILLES, FIRE EXTINGUISHER CABINETS, ETC, THAT ARE NOTED TO BE PAINTED, SHALL BE PAINTED WITH ALKYD TYPE PAINT. COLOR TO BE COORDINATED WITH DESIGNER UNLESS OTHERWISE NOTED.

I. CONTRACTOR TO PROVIDE AND INSTALL FLOORING TRANSITIONS AS INDICATED ON PLANS. WHERE NONE ARE NOTED, CONTRACTOR SHALL VERIFY REQUIRED TYPE/COLOR WITH ARCHITECT.

J. THE CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY THAT ALL NEW INTERIOR WALL AND CEILING FINISHES WILL BE CLASS B MINIMUM, WITH A FLAME SPREAD RATING OF 75 MAXIMUM, AND A SMOKE DEVELOPED INDEX OF 450 MAXIMUM, PER IBC SECTION 803.

K. PAINT ALL DOOR FRAMES P4 – ALL SIDES UNLESS NOTED OTHERWISE.

FINISH SYMBOL LEGEND:

P1	WALL FINISH
C1	FLOOR FINISH
B1	BASE FINISH
--	MISC FINISH INFORMATION

FLOOR TRANSITION STRIP AS REQUIRED

INDICATES DIRECTION OF FLOOR MATERIAL GRAIN

FINISH PLAN NOTES:

(ALL PLAN NOTES MAY NOT BE INDICATED ON THIS PLAN)

1. NO NEW FINISHES THIS ROOM, EXCLUDING DOOR FRAMES CONNECTED TO OTHER ROOMS THAT RECEIVE NEW FINISHES.
2. PAINT, P3.
3. WALLCOATING, MATCH ADJACENT EXISTING PAINT COLOR.
4. PAINT, W4.
5. ACOUSTIC PANELS, CEILING HUNG, ETR.
6. CT, CERAMIC FLOOR TILE IN SHOWER TO EXTEND 1'0" PAST THRESHOLD. ALIGN WITH WALL TILE. REFER TO 13/A-520.
7. WALLCOATING, W3.
8. REFERENCE FLOOR PATTERN PLANS.
9. WALL TILE, VERTICAL STRAIGHT LAY, WT1.
10. PAINT SLOPED ROOF, P1.
11. SAFETY CUSHION WAINSCOT, ETR.
12. END WALLCOVERING HERE.
13. PAINT ALL EXPOSED CEILING DECK AND JOIST, HVAC DUCT PAINT, P6.
14. PATCH FLOORING WITH TZ1.
15. WALLCOVERING, WC3.
16. WALLCOVERING, WC2
17. BRICK COLUMNS, ETR.
18. WALLCOVERING, WC4.
19. ALTERNATE, PROVIDE TERRAZZO FLOOR FINISH TZ1 AND TZ2.
20. BASE, B1 AD-3
21. PAINT, MATCH EXISTING WALL FINISHES.
22. WALLCOATING, W1.
23. MEZZANINE, ETR.
24. PAINT BOTTOM AND FACE OF BULKHEAD, P4.
25. BRICK, ETR.
26. STAIR TREADS, HANDRAILS, AND STRINGERS, ETR.
27. NOT USED.
28. WALL TILE, ETR.
29. WALL TILE PATTERN, SHEET 1/A-862.
30. PAINT BEAMS IN THIS AREA TO MATCH EXISTING IN CAFETERIA.
31. VITRIFY EXISTING TERRAZZO. AD-3
32. WALL TILE PATTERN, 2/A-862.
33. WALLCOATING WAINSCOT TO TOP OF CMU WALL, MATCH EXISTING COLOR.
34. LINE OF NEW BLEACHRS.
35. PRIVACY CURTAIN, PC1.
36. REFER TO GYMNASIUM COURTLINE PLAY, SHEET A-840.
37. WALK-OFF CARPET, C4.
38. REFERENCE FLOOR PATTERN PLAN, 5/A-830.
39. REFERENCE FLOOR PATTERN PLAN, 6/A-830.
40. REFERENCE FLOOR PATTERN PLAN, 7/A-830.
41. REFERENCE FLOOR PATTERN PLAN, 8/A-830.
42. PATCH TERRAZZO, TZ1, REFER TO FLOOR PATTERN PLAN, 9/A-830.
43. NEW SAFETY CUSHION WAINSCOT.
44. WALL PATTERN TILE, 3/A-862.
45. METAL TRIM TRANSITION, TRIM1.
46. METAL TRIM TRANSITION, PLACED AT EDGE OF WALL TILE, TRIM2.
47. NEW LOCKERS AND PAINT ABOVE TO MATCH EXISTING ADJACENT WALL, BASE: B1.

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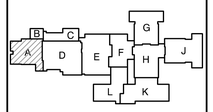
PROJECT

WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS

DUNELAND SCHOOL CORPORATION
CHESTERTON, INDIANA



KEY PLAN

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PROJECT 21-141
DATE 02/28/22
COORDINATED BY DJW
DRAWN BY SDT
CHECKED BY DJW

DALE J. WAGNER REGISTERED NO. 19600171 STATE OF INDIANA ARCHITECT

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REVISIONS

MARK	DATE	ISSUED FOR
AD - 2	03/21/22	ADDENDUM NO. 2
AD - 3	03/30/22	ADDENDUM NO. 3

DRAWING
UNIT "A" FIRST FLOOR FINISH PLAN

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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A

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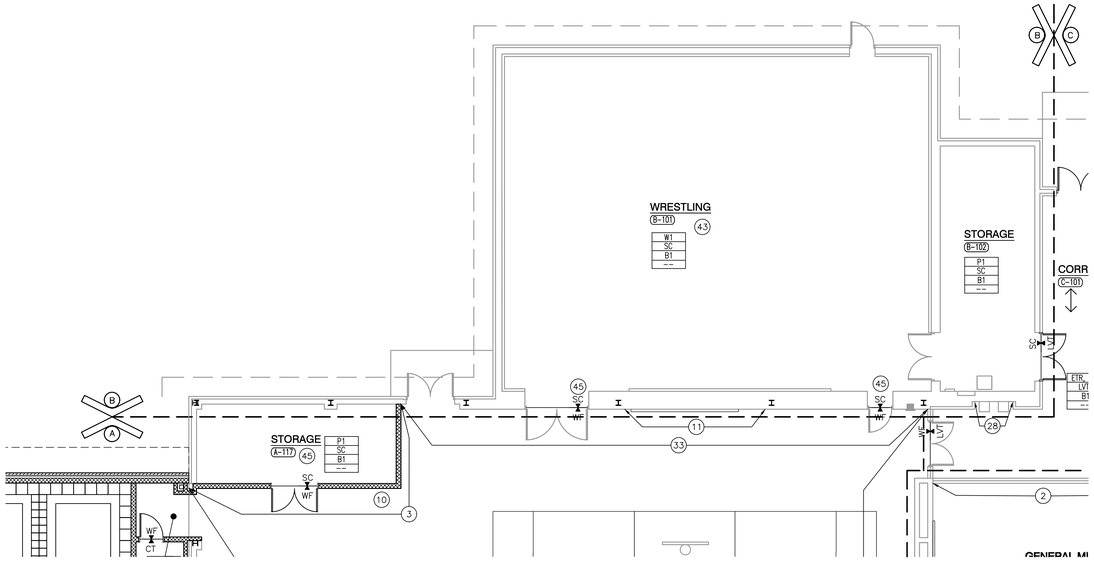
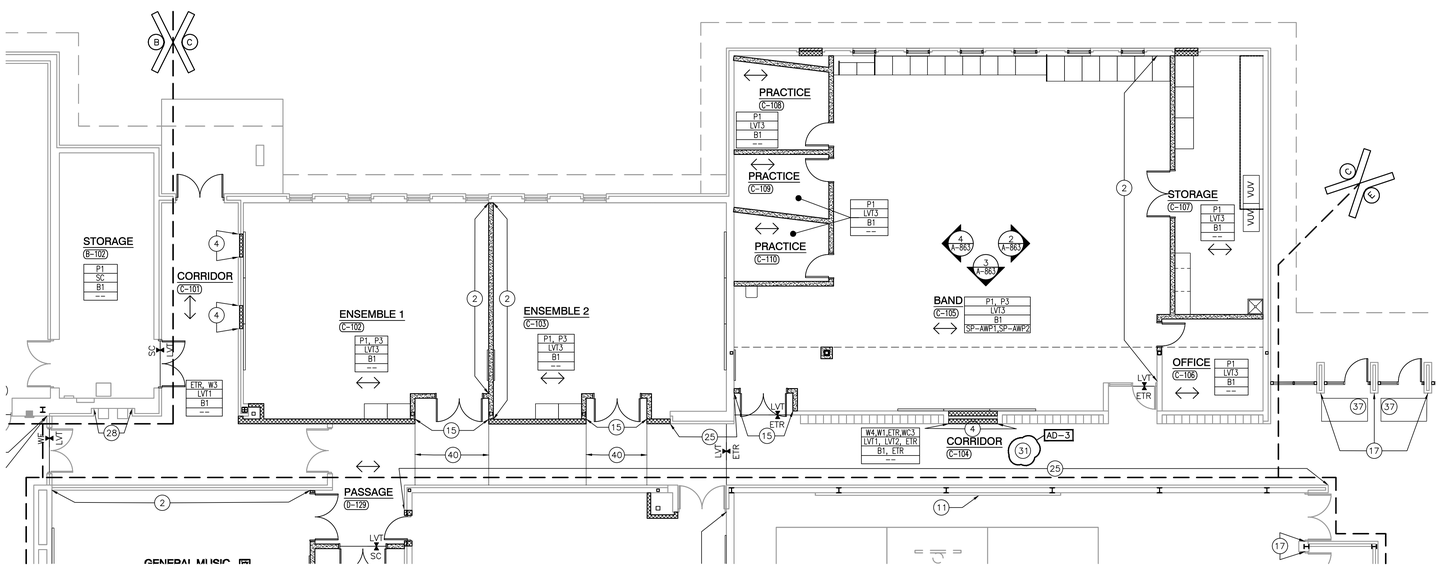
Y:\21-141 DUNELAND SC – WESTCHESTER INTERMEDIATE SCHOOL ADDITIONS AND RENOVATIONS\21-141 DRAWINGS\03 ARCH\A-801.DWG



UNIT "B" ARCHITECTURAL FIRST FLOOR PLAN

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



UNIT "B/C" FIRST FLOOR FINISH PLAN

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

GENERAL FINISH PLAN NOTES:

A. REFERENCE FINISH LEGEND FOR FINISH INFORMATION.

B. REFERENCE FLOOR PATTERN PLANS, EQUIPMENT PLANS, INTERIOR ELEVATIONS, REFLECTED CEILING PLANS AND WRITTEN SPECIFICATIONS FOR ADDITIONAL FINISH INFORMATION.

C. PRIOR TO INSTALLATION OF NEW FINISHES CONTRACTOR SHALL INSPECT ALL SUBSTRATES. IF A SUBSTRATE IS DEEMED UNACCEPTABLE THE CONTRACTOR SHALL TAKE THE NECESSARY STEPS TO RECTIFY THE SITUATION OR CONTACT THE ARCHITECT WITH THE CONCERN. PROCEEDING WITH THE INSTALLATION OF FINISHES WILL BE CONSTRUED THAT THE INSTALLER AND /OR FINISHER HAS ACCEPTED SAID SUBSTRATE. NO CHANGE ORDER WILL BE ISSUED TO RECTIFY CONCEALED, OR UNSATISFACTORY SUBSTRATE ONCE FINISH WORK HAS PROCEEDED.

D. PREPARE ALL WALL CONSTRUCTION, NEW AND EXISTING, TO RECEIVE NEW FINISHES AS PER MANUFACTURE'S RECOMMENDED INSTALLATION METHODS AND MATERIALS FOR ALL FINISHES.

E. ALL FLOORING IS TO BE LEVELED WITHIN 1/4" IN 10'-0" WITH LATEX MATERIAL. MOISTURE CONTENT IN AREA IS TO BE TESTED PRIOR TO INSTALLATION OF FLOORING MATERIAL. CONTRACTOR TO INSTALL FLOORING PER MANUFACTURER'S RECOMMENDED METHOD.

F. FLOORING CONTRACTOR TO SUBMIT A SEAMING DIAGRAM FOR FLOORING MATERIAL INCLUDING NOTATION OF MATERIAL DIRECTION.

G. ALL FLOORING TRANSITIONS SHALL COMPLY WITH ADA GUIDELINES.

H. ALL EXPOSED METAL SURFACES, SUCH AS GRILLES, FIRE EXTINGUISHER CABINETS, ETC, THAT ARE NOTED TO BE PAINTED, SHALL BE PAINTED WITH ALKYD TYPE PAINT. COLOR TO BE COORDINATED WITH DESIGNER UNLESS OTHERWISE NOTED.

I. CONTRACTOR TO PROVIDE AND INSTALL FLOORING TRANSITIONS AS INDICATED ON PLANS. WHERE NONE ARE NOTED, CONTRACTOR SHALL VERIFY REQUIRED TYPE/COLOR WITH ARCHITECT.

J. THE CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY THAT ALL NEW INTERIOR WALL AND CEILING FINISHES WILL BE CLASS B MINIMUM, WITH A FLAME SPREAD RATING OF 75 MAXIMUM, AND A SMOKE DEVELOPED INDEX OF 450 MAXIMUM, PER IBC SECTION 803.

K. PAINT ALL DOOR FRAMES P4 – ALL SIDES UNLESS NOTED OTHERWISE.

FINISH SYMBOL LEGEND:

P1	WALL FINISH
C1	FLOOR FINISH
B1	BASE FINISH
--	MISC FINISH INFORMATION

FLOOR TRANSITION STRIP AS REQUIRED

INDICATES DIRECTION OF FLOOR MATERIAL GRAIN

FINISH PLAN NOTES:

(ALL PLAN NOTES MAY NOT BE INDICATED ON THIS PLAN)

1. NO NEW FINISHES THIS ROOM, EXCLUDING DOOR FRAMES CONNECTED TO OTHER ROOMS THAT RECEIVE NEW FINISHES.
2. PAINT, P3.
3. WALLCOATING, MATCH ADJACENT EXISTING PAINT COLOR.
4. PAINT, W4.
5. ACOUSTIC PANELS, CEILING HUNG, ETR.
6. CT, CERAMIC FLOOR TILE IN SHOWER TO EXTEND 1'0" PAST THRESHOLD. ALIGN WITH WALL TILE. REFER TO 13/A-520.
7. WALLCOATING, W3.
8. REFERENCE FLOOR PATTERN PLANS.
9. WALL TILE, VERTICAL STRAIGHT LAY, WT1.
10. PAINT SLOPED ROOF, P1.
11. SAFETY CUSHION WAINSCOT, ETR.
12. END WALLCOVERING HERE.
13. PAINT ALL EXPOSED CEILING DECK AND JOIST, HVAC DUCT PAINT, P6.
14. PATCH FLOORING WITH TZ1.
15. WALLCOVERING, WC3.
16. WALLCOVERING, WC2
17. BRICK COLUMNS, ETR.
18. WALLCOVERING, WC4.
19. ALTERNATE, PROVIDE TERRAZZO FLOOR FINISH TZ1 AND TZ2.
20. BASE, B1. AD-3
21. PAINT, MATCH EXISTING WALL FINISHES.
22. WALLCOATING, W1.
23. MEZZANINE, ETR.
24. PAINT BOTTOM AND FACE OF BULKHEAD, P4.
25. BRICK, ETR.
26. STAIR TREADS, HANDRAILS, AND STRINGERS, ETR.
27. NOT USED.
28. WALL TILE, ETR.
29. WALL TILE PATTERN, SHEET 1/A-862.
30. PAINT BEAMS IN THIS AREA TO MATCH EXISTING IN CAFETERIA.
31. VITRIFY EXISTING TERRAZZO. AD-3
32. WALL TILE PATTERN, 2/A-862.
33. WALLCOATING WAINSCOT TO TOP OF CMU WALL, MATCH EXISTING COLOR.
34. LINE OF NEW BLEACHRS.
35. PRIVACY CURTAIN, PC1.
36. REFER TO GYMNASIUM COURTLINE PLAY, SHEET A-840.
37. WALK-OFF CARPET, C4.
38. REFERENCE FLOOR PATTERN PLAN, 5/A-830.
39. REFERENCE FLOOR PATTERN PLAN, 6/A-830.
40. REFERENCE FLOOR PATTERN PLAN, 7/A-830.
41. REFERENCE FLOOR PATTERN PLAN, 8/A-830.
42. PATCH TERRAZZO, TZ1, REFER TO FLOOR PATTERN PLAN, 9/A-830.
43. NEW SAFETY CUSHION WAINSCOT.
44. WALL PATTERN TILE, 3/A-862.
45. METAL TRIM TRANSITION, TRIM1.
46. METAL TRIM TRANSITION, PLACED AT EDGE OF WALL TILE, TRIM2.
47. NEW LOCKERS AND PAINT ABOVE TO MATCH EXISTING ADJACENT WALL, BASE: B1.

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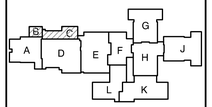
PROJECT

WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS

DUNELAND SCHOOL CORPORATION
CHESTERTON, INDIANA



KEY PLAN

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PROJECT
21-141

DATE
02/28/22

COORDINATED BY
DJW

DRAWN BY
SDT

CHECKED BY
DJW

DALE J. WACKER REGISTERED NO. 19600171 STATE OF INDIANA ARCHITECT

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REVISIONS

MARK	DATE	ISSUED FOR
AD - 2	03/21/22	ADDENDUM NO. 2
AD - 3	03/30/22	ADDENDUM NO. 3

DRAWING
UNITS "B" & "C"
FIRST FLOOR FINISH PLAN

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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B/C

SHEET
A-802

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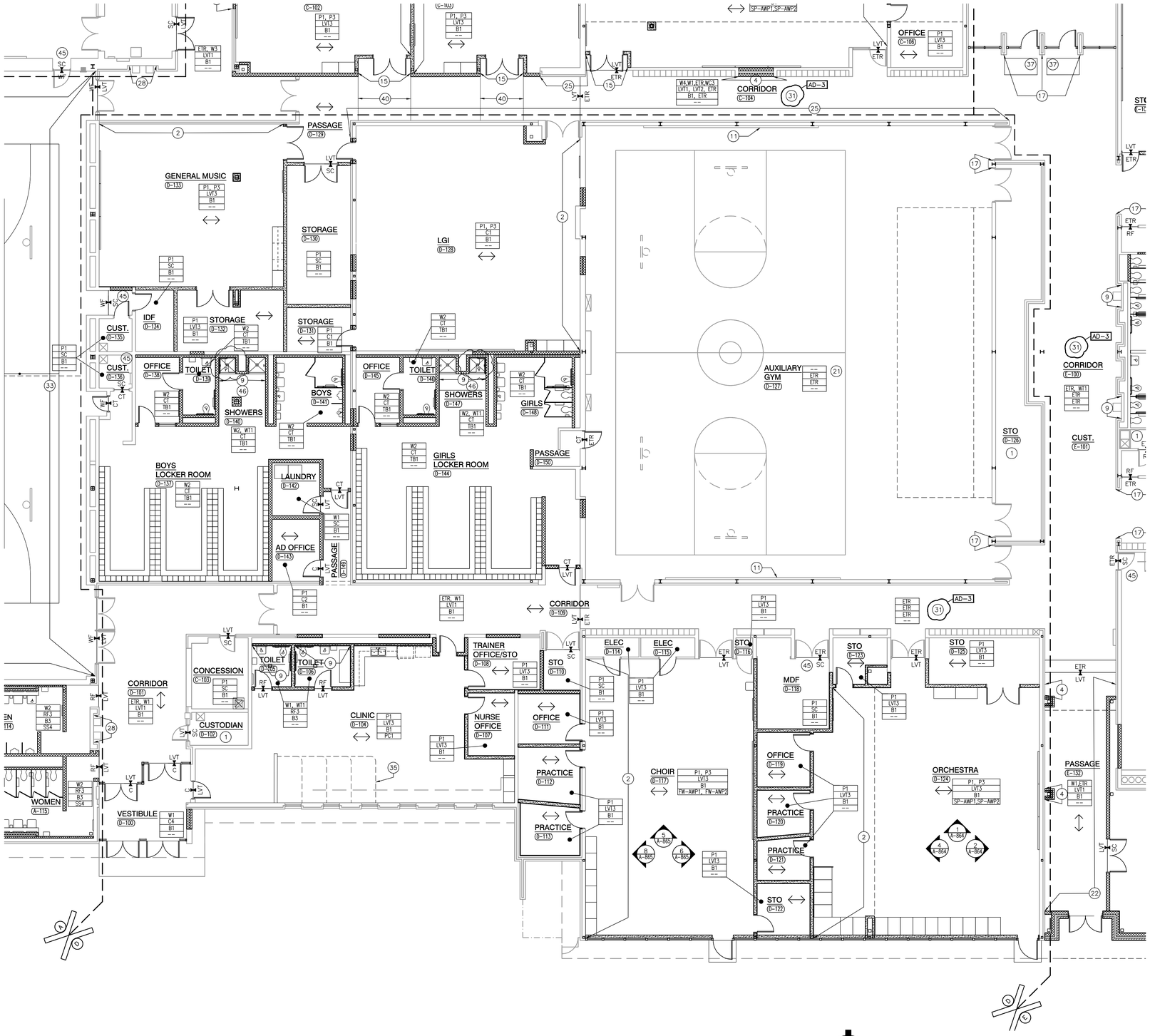

UNIT "D" FIRST FLOOR FINISH PLAN

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

GENERAL FINISH PLAN NOTES:

A. REFERENCE FINISH LEGEND FOR FINISH INFORMATION.

B. REFERENCE FLOOR PATTERN PLANS, EQUIPMENT PLANS, INTERIOR ELEVATIONS, REFLECTED CEILING PLANS AND WRITTEN SPECIFICATIONS FOR ADDITIONAL FINISH INFORMATION.

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F. FLOORING CONTRACTOR TO SUBMIT A SEAMING DIAGRAM FOR FLOORING MATERIAL INCLUDING NOTATION OF MATERIAL DIRECTION.

G. ALL FLOORING TRANSITIONS SHALL COMPLY WITH ADA GUIDELINES.

H. ALL EXPOSED METAL SURFACES, SUCH AS GRILLES, FIRE EXTINGUISHER CABINETS, ETC, THAT ARE NOTED TO BE PAINTED, SHALL BE PAINTED WITH ALKYD TYPE PAINT. COLOR TO BE COORDINATED WITH DESIGNER UNLESS OTHERWISE NOTED.

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K. PAINT ALL DOOR FRAMES P4 – ALL SIDES UNLESS NOTED OTHERWISE.

FINISH SYMBOL LEGEND:

P1	WALL FINISH
C1	FLOOR FINISH
B1	BASE FINISH
--	MISC FINISH INFORMATION

FLOOR TRANSITION STRIP AS REQUIRED

INDICATES DIRECTION OF FLOOR MATERIAL GRAIN

FINISH PLAN NOTES:

(ALL PLAN NOTES MAY NOT BE INDICATED ON THIS PLAN)

1. NO NEW FINISHES THIS ROOM, EXCLUDING DOOR FRAMES CONNECTED TO OTHER ROOMS THAT RECEIVE NEW FINISHES.
2. PAINT, P3.
3. WALLCOATING, MATCH ADJACENT EXISTING PAINT COLOR.
4. PAINT, W4.
5. ACOUSTIC PANELS, CEILING HUNG, ETR.
6. CT, CERAMIC FLOOR TILE IN SHOWER TO EXTEND 1'0" PAST THRESHOLD. ALIGN WITH WALL TILE. REFER TO 13/A-520.
7. WALLCOATING, W3.
8. REFERENCE FLOOR PATTERN PLANS.
9. WALL TILE, VERTICAL STRAIGHT LAY, WT1.
10. PAINT SLOPED ROOF, P1.
11. SAFETY CUSHION WAINSCOT, ETR.
12. END WALLCOVERING HERE.
13. PAINT ALL EXPOSED CEILING DECK AND JOIST, HVAC DUCT PAINT, P6.
14. PATCH FLOORING WITH TZ1.
15. WALLCOVERING, WC3.
16. WALLCOVERING, WC2
17. BRICK COLUMNS, ETR.
18. WALLCOVERING, WC4.
19. ALTERNATE, PROVIDE TERRAZZO FLOOR FINISH TZ1 AND TZ2.
20. BASE, B1. AD-3
21. PAINT, MATCH EXISTING WALL FINISHES.
22. WALLCOATING, W1.
23. MEZZANINE, ETR.
24. PAINT BOTTOM AND FACE OF BULKHEAD, P4.
25. BRICK, ETR.
26. STAIR TREADS, HANDRAILS, AND STRINGERS, ETR.
27. NOT USED.
28. WALL TILE, ETR.
29. WALL TILE PATTERN, SHEET 1/A-862.
30. PAINT BEAMS IN THIS AREA TO MATCH EXISTING IN CAFETERIA.
31. VITRIFY EXISTING TERRAZZO. AD-3
32. WALL TILE PATTERN, 2/A-862.
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37. WALK-OFF CARPET, C4.
38. REFERENCE FLOOR PATTERN PLAN, 5/A-830.
39. REFERENCE FLOOR PATTERN PLAN, 6/A-830.
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43. NEW SAFETY CUSHION WAINSCOT.
44. WALL PATTERN TILE, 3/A-862.
45. METAL TRIM TRANSITION, TRIM1.
46. METAL TRIM TRANSITION, PLACED AT EDGE OF WALL TILE, TRIM2.
47. NEW LOCKERS AND PAINT ABOVE TO MATCH EXISTING ADJACENT WALL, BASE: B1.

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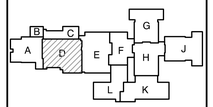
PROJECT

WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS

DUNELAND SCHOOL CORPORATION
CHESTERTON, INDIANA



KEY PLAN

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9102 N. Meridian St., Ste. 300
Indianapolis, IN 46260
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PROJECT 21-141
DATE 02/28/22
COORDINATED BY DJW
DRAWN BY SDT
CHECKED BY DJW

DALE J. WACKER REGISTERED NO. 19600171 STATE OF INDIANA ARCHITECT

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REVISIONS

MARK	DATE	ISSUED FOR
AD - 2	03/21/22	ADDENDUM NO. 2
AD - 3	03/30/22	ADDENDUM NO. 3

DRAWING
UNIT "D" FIRST FLOOR FINISH PLAN

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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D

SHEET A-803

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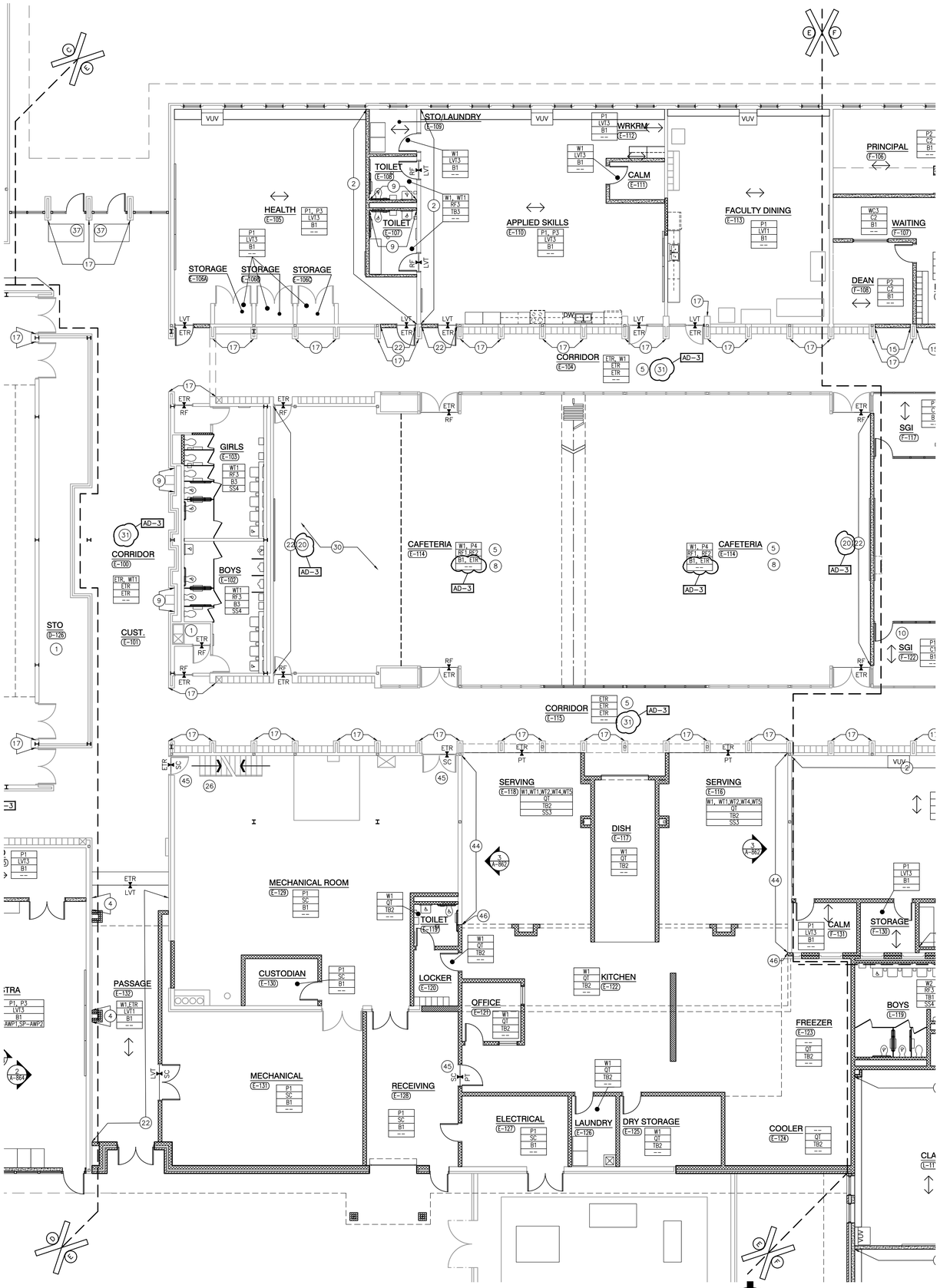

UNIT "E" FIRST FLOOR FINISH PLAN

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

GENERAL FINISH PLAN NOTES:

A. REFERENCE FINISH LEGEND FOR FINISH INFORMATION.

B. REFERENCE FLOOR PATTERN PLANS, EQUIPMENT PLANS, INTERIOR ELEVATIONS, REFLECTED CEILING PLANS AND WRITTEN SPECIFICATIONS FOR ADDITIONAL FINISH INFORMATION.

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F. FLOORING CONTRACTOR TO SUBMIT A SEAMING DIAGRAM FOR FLOORING MATERIAL INCLUDING NOTATION OF MATERIAL DIRECTION.

G. ALL FLOORING TRANSITIONS SHALL COMPLY WITH ADA GUIDELINES.

H. ALL EXPOSED METAL SURFACES, SUCH AS GRILLES, FIRE EXTINGUISHER CABINETS, ETC, THAT ARE NOTED TO BE PAINTED, SHALL BE PAINTED WITH ALKYD TYPE PAINT. COLOR TO BE COORDINATED WITH DESIGNER UNLESS OTHERWISE NOTED.

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J. THE CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY THAT ALL NEW INTERIOR WALL AND CEILING FINISHES WILL BE CLASS B MINIMUM, WITH A FLAME SPREAD RATING OF 75 MAXIMUM, AND A SMOKE DEVELOPED INDEX OF 450 MAXIMUM, PER IBC SECTION 803.

K. PAINT ALL DOOR FRAMES P4 – ALL SIDES UNLESS NOTED OTHERWISE.

FINISH SYMBOL LEGEND:

P1	—WALL FINISH
C1	—FLOOR FINISH
B1	—BASE FINISH
--	—MISC FINISH INFORMATION

FLOOR TRANSITION STRIP AS REQUIRED

INDICATES DIRECTION OF FLOOR MATERIAL GRAIN

FINISH PLAN NOTES:

(ALL PLAN NOTES MAY NOT BE INDICATED ON THIS PLAN)

1. NO NEW FINISHES THIS ROOM, EXCLUDING DOOR FRAMES CONNECTED TO OTHER ROOMS THAT RECEIVE NEW FINISHES.
2. PAINT, P3.
3. WALLCOATING, MATCH ADJACENT EXISTING PAINT COLOR.
4. PAINT, W4.
5. ACOUSTIC PANELS, CEILING HUNG, ETR.
6. CT, CERAMIC FLOOR TILE IN SHOWER TO EXTEND 1'0" PAST THRESHOLD. ALIGN WITH WALL TILE. REFER TO 13/A-520.
7. WALLCOATING, W3.
8. REFERENCE FLOOR PATTERN PLANS.
9. WALL TILE, VERTICAL STRAIGHT LAY, WT1.
10. PAINT SLOPED ROOF, P1.
11. SAFETY CUSHION WAINSCOT, ETR.
12. END WALLCOVERING HERE.
13. PAINT ALL EXPOSED CEILING DECK AND JOIST, HVAC DUCT PAINT, P6.
14. PATCH FLOORING WITH TZ1.
15. WALLCOVERING, WC3.
16. WALLCOVERING, WC2
17. BRICK COLUMNS, ETR.
18. WALLCOVERING, WC4.
19. ALTERNATE, PROVIDE TERRAZZO FLOOR FINISH TZ1 AND TZ2.
20. BASE, B1 AD-3
21. PAINT, MATCH EXISTING WALL FINISHES.
22. WALLCOATING, W1.
23. MEZZANINE, ETR.
24. PAINT BOTTOM AND FACE OF BULKHEAD, P4.
25. BRICK, ETR.
26. STAIR TREADS, HANDRAILS, AND STRINGERS, ETR.
27. NOT USED.
28. WALL TILE, ETR.
29. WALL TILE PATTERN, SHEET 1/A-862.
30. PAINT BEAMS IN THIS AREA TO MATCH EXISTING IN CAFETERIA.
31. VITRIFY EXISTING TERRAZZO. AD-3
32. WALL TILE PATTERN, 2/A-862.
33. WALLCOATING WAINSCOT TO TOP OF CMU WALL, MATCH EXISTING COLOR.
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42. PATCH TERRAZZO, TZ1, REFER TO FLOOR PATTERN PLAN, 9/A-830.
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45. METAL TRIM TRANSITION, TRIM1.
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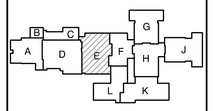
47. NEW LOCKERS AND PAINT ABOVE TO MATCH EXISTING ADJACENT WALL, BASE: B1.

GIBRALTAR DESIGN
ARCHITECTURE • ENGINEERING • INTERIOR DESIGN

PROJECT

WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS

DUNELAND SCHOOL CORPORATION
CHESTERTON, INDIANA



KEY PLAN

GIBRALTAR DESIGN
9102 N. Meridian St., Ste. 300
Indianapolis, IN 46260
Homepage www.GibraltarDesign.com
Email info@GibraltarDesign.com
Phone 317.580.5777 Fax 317.580.5778

PROJECT 21-141
DATE 02/28/22
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DALE J. WAGNER REGISTERED NO. 19600171 STATE OF INDIANA ARCHITECT

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AD - 2	03/21/22	ADDENDUM NO. 2
AD - 3	03/30/22	ADDENDUM NO. 3

DRAWING
UNIT "E" FIRST FLOOR FINISH PLAN

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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E

SHEET A-804

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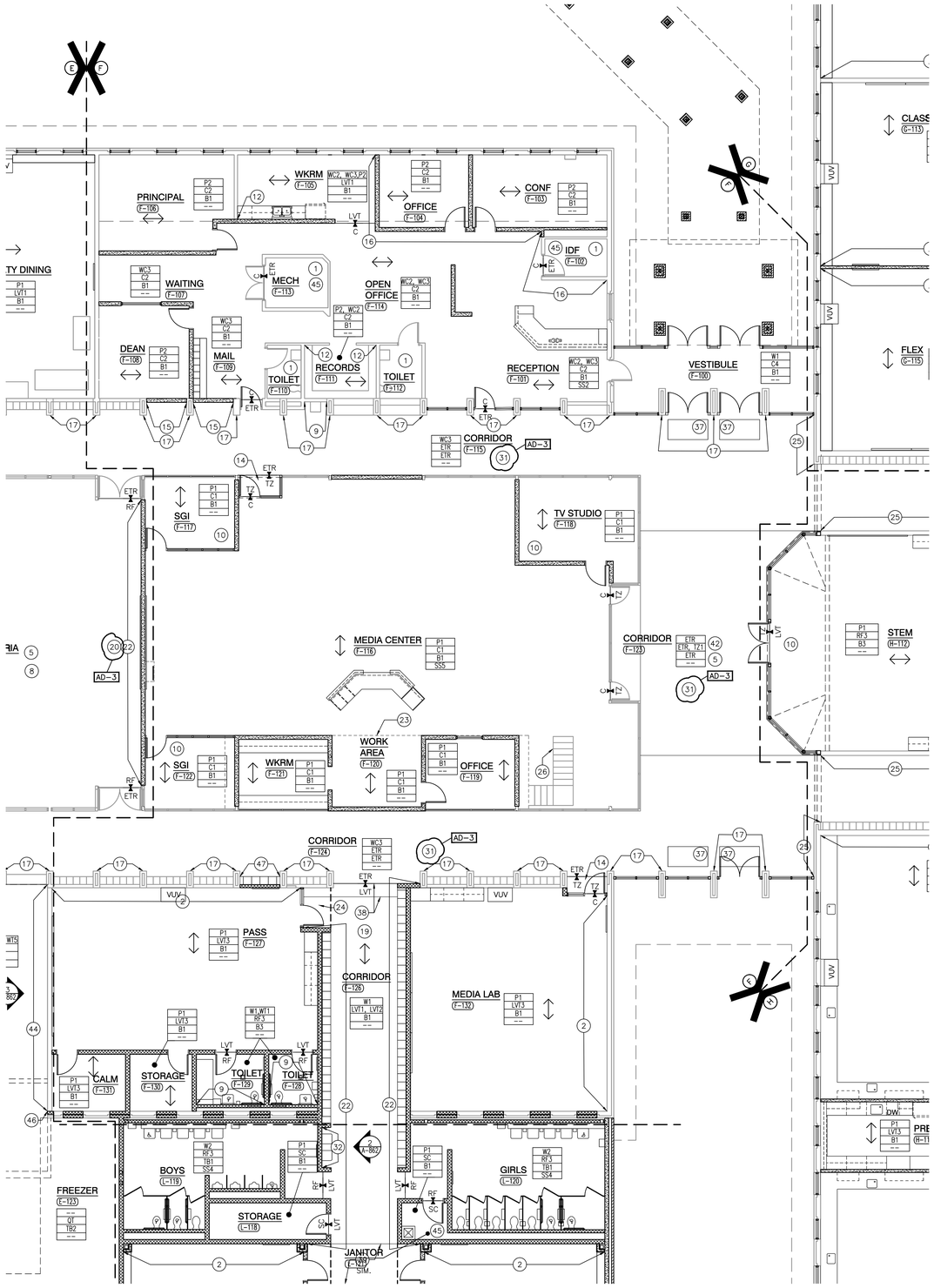

UNIT "F" FIRST FLOOR FINISH PLAN

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

NORTH

GENERAL FINISH PLAN NOTES:

A. REFERENCE FINISH LEGEND FOR FINISH INFORMATION.

B. REFERENCE FLOOR PATTERN PLANS, EQUIPMENT PLANS, INTERIOR ELEVATIONS, REFLECTED CEILING PLANS AND WRITTEN SPECIFICATIONS FOR ADDITIONAL FINISH INFORMATION.

C. PRIOR TO INSTALLATION OF NEW FINISHES CONTRACTOR SHALL INSPECT ALL SUBSTRATES. IF A SUBSTRATE IS DEEMED UNACCEPTABLE THE CONTRACTOR SHALL TAKE THE NECESSARY STEPS TO RECTIFY THE SITUATION OR CONTACT THE ARCHITECT WITH THE CONCERN. PROCEEDING WITH THE INSTALLATION OF FINISHES WILL BE CONSTRUED THAT THE INSTALLER AND /OR FINISHER HAS ACCEPTED SAID SUBSTRATE. NO CHANGE ORDER WILL BE ISSUED TO RECTIFY CONCEALED, OR UNSATISFACTORY SUBSTRATE ONCE FINISH WORK HAS PROCEEDED.

D. PREPARE ALL WALL CONSTRUCTION, NEW AND EXISTING, TO RECEIVE NEW FINISHES AS PER MANUFACTURE'S RECOMMENDED INSTALLATION METHODS AND MATERIALS FOR ALL FINISHES.

E. ALL FLOORING IS TO BE LEVELED WITHIN 1/4" IN 10'-0" WITH LATEX MATERIAL. MOISTURE CONTENT IN AREA IS TO BE TESTED PRIOR TO INSTALLATION OF FLOORING MATERIAL. CONTRACTOR TO INSTALL FLOORING PER MANUFACTURER'S RECOMMENDED METHOD.

F. FLOORING CONTRACTOR TO SUBMIT A SEAMING DIAGRAM FOR FLOORING MATERIAL INCLUDING NOTATION OF MATERIAL DIRECTION.

G. ALL FLOORING TRANSITIONS SHALL COMPLY WITH ADA GUIDELINES.

H. ALL EXPOSED METAL SURFACES, SUCH AS GRILLES, FIRE EXTINGUISHER CABINETS, ETC, THAT ARE NOTED TO BE PAINTED, SHALL BE PAINTED WITH ALKYD TYPE PAINT. COLOR TO BE COORDINATED WITH DESIGNER UNLESS OTHERWISE NOTED.

I. CONTRACTOR TO PROVIDE AND INSTALL FLOORING TRANSITIONS AS INDICATED ON PLANS. WHERE NONE ARE NOTED, CONTRACTOR SHALL VERIFY REQUIRED TYPE/COLOR WITH ARCHITECT.

J. THE CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY THAT ALL NEW INTERIOR WALL AND CEILING FINISHES WILL BE CLASS B MINIMUM, WITH A FLAME SPREAD RATING OF 75 MAXIMUM, AND A SMOKE DEVELOPED INDEX OF 450 MAXIMUM, PER IBC SECTION 803.

K. PAINT ALL DOOR FRAMES P4 – ALL SIDES UNLESS NOTED OTHERWISE.

FINISH SYMBOL LEGEND:

P1	WALL FINISH
C1	FLOOR FINISH
B1	BASE FINISH
--	MISC FINISH INFORMATION

FLOOR TRANSITION STRIP AS REQUIRED

INDICATES DIRECTION OF FLOOR MATERIAL GRAIN

FINISH PLAN NOTES:

(ALL PLAN NOTES MAY NOT BE INDICATED ON THIS PLAN)

1. NO NEW FINISHES THIS ROOM, EXCLUDING DOOR FRAMES CONNECTED TO OTHER ROOMS THAT RECEIVE NEW FINISHES.
2. PAINT, P3.
3. WALLCOATING, MATCH ADJACENT EXISTING PAINT COLOR.
4. PAINT, W4.
5. ACOUSTIC PANELS, CEILING HUNG, ETR.
6. CT, CERAMIC FLOOR TILE IN SHOWER TO EXTEND 1'0" PAST THRESHOLD. ALIGN WITH WALL TILE. REFER TO 13/A-520.
7. WALLCOATING, W3.
8. REFERENCE FLOOR PATTERN PLANS.
9. WALL TILE, VERTICAL STRAIGHT LAY, WT1.
10. PAINT SLOPED ROOF, P1.
11. SAFETY CUSHION WAINSCOT, ETR.
12. END WALLCOVERING HERE.
13. PAINT ALL EXPOSED CEILING DECK AND JOIST, HVAC DUCT PAINT, P6.
14. PATCH FLOORING WITH TZ1.
15. WALLCOVERING, WC3.
16. WALLCOVERING, WC2
17. BRICK COLUMNS, ETR.
18. WALLCOVERING, WC4.
19. ALTERNATE, PROVIDE TERRAZZO FLOOR FINISH TZ1 AND TZ2.
20. BASE, B1. AD-3
21. PAINT, MATCH EXISTING WALL FINISHES.
22. WALLCOATING, W1.
23. MEZZANINE, ETR.
24. PAINT BOTTOM AND FACE OF BULKHEAD, P4.
25. BRICK, ETR.
26. STAIR TREADS, HANDRAILS, AND STRINGERS, ETR.
27. NOT USED.
28. WALL TILE, ETR.
29. WALL TILE PATTERN, SHEET 1/A-862.
30. PAINT BEAMS IN THIS AREA TO MATCH EXISTING IN CAFETERIA.
31. VITRIFY EXISTING TERRAZZO. AD-3
32. WALL TILE PATTERN, 2/A-862.
33. WALLCOATING WAINSCOT TO TOP OF CMU WALL, MATCH EXISTING COLOR.
34. LINE OF NEW BLEACHRS.
35. PRIVACY CURTAIN, PC1.
36. REFER TO GYMNASIUM COURTLINE PLAY, SHEET A-840.
37. WALK-OFF CARPET, C4.
38. REFERENCE FLOOR PATTERN PLAN, 5/A-830.
39. REFERENCE FLOOR PATTERN PLAN, 6/A-830.
40. REFERENCE FLOOR PATTERN PLAN, 7/A-830.
41. REFERENCE FLOOR PATTERN PLAN, 8/A-830.
42. PATCH TERRAZZO, TZ1, REFER TO FLOOR PATTERN PLAN, 9/A-830.
43. NEW SAFETY CUSHION WAINSCOT.
44. WALL PATTERN TILE, 3/A-862.
45. METAL TRIM TRANSITION, TRIM1.
46. METAL TRIM TRANSITION, PLACED AT EDGE OF WALL TILE, TRIM2.
47. NEW LOCKERS AND PAINT ABOVE TO MATCH EXISTING ADJACENT WALL, BASE: B1.

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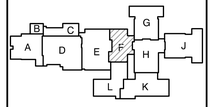
PROJECT

WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS

DUNELAND SCHOOL CORPORATION
CHESTERTON, INDIANA



KEY PLAN

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PROJECT
21-141
DATE
02/28/22
COORDINATED BY
DJW
DRAWN BY
SDT
CHECKED BY
DJW

DALE J. WAGNER REGISTERED NO. 19600171 STATE OF INDIANA ARCHITECT

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REVISIONS

MARK	DATE	ISSUED FOR
AD - 2	03/21/22	ADDENDUM NO. 2
AD - 3	03/30/22	ADDENDUM NO. 3

DRAWING
UNIT "F" FIRST FLOOR FINISH PLAN

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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F

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A-805

Tuesday, 3/29/2022 – 5:38 PM – LAST SAVED BY:STERRILL
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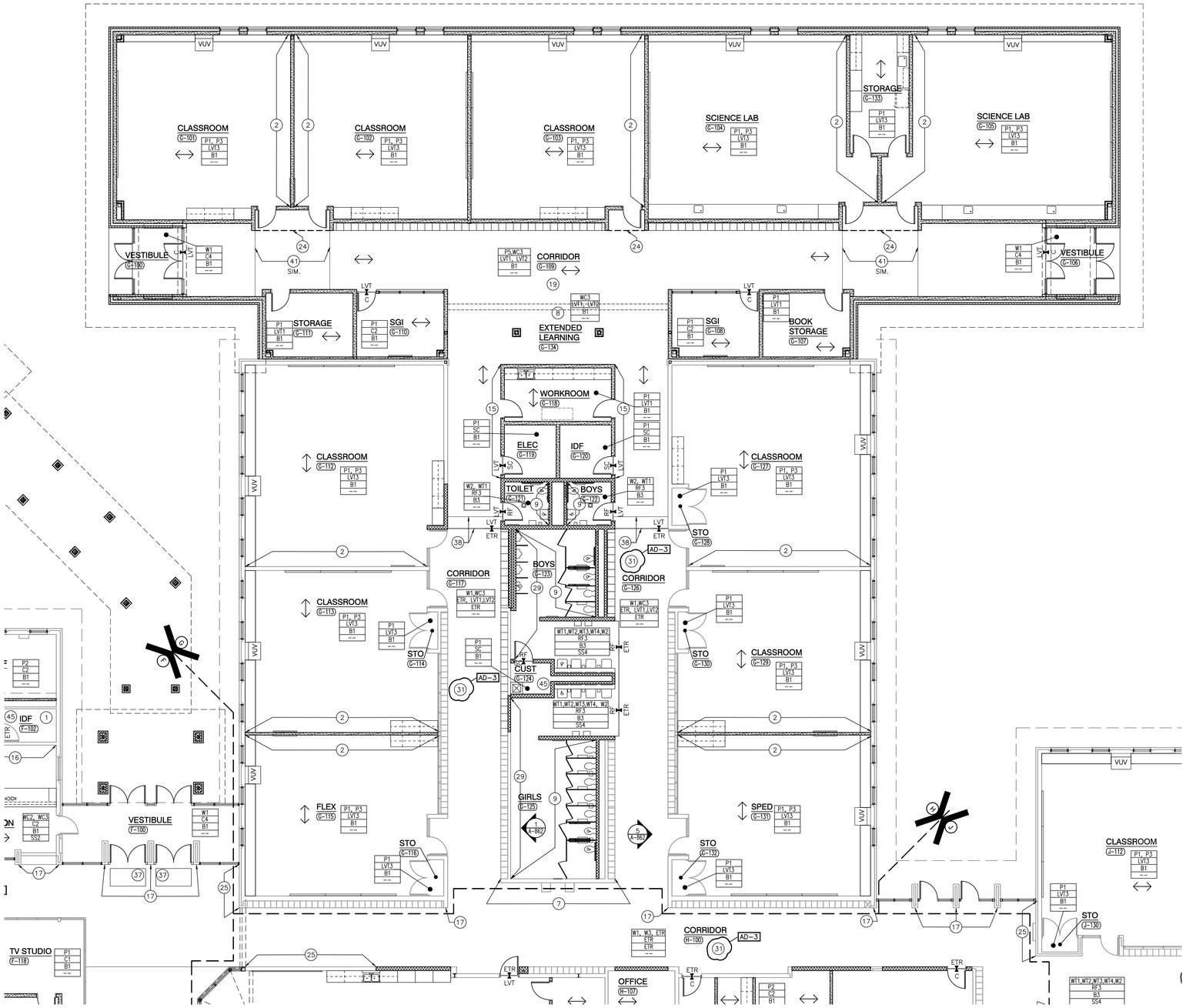

UNIT "G" FIRST FLOOR FINISH PLAN

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

NORTH

GENERAL FINISH PLAN NOTES:

A. REFERENCE FINISH LEGEND FOR FINISH INFORMATION.

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G. ALL FLOORING TRANSITIONS SHALL COMPLY WITH ADA GUIDELINES.

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K. PAINT ALL DOOR FRAMES P4 – ALL SIDES UNLESS NOTED OTHERWISE.

FINISH SYMBOL LEGEND:

P1	WALL FINISH
C1	FLOOR FINISH
B1	BASE FINISH
--	MISC FINISH INFORMATION

FLOOR TRANSITION STRIP AS REQUIRED

INDICATES DIRECTION OF FLOOR MATERIAL GRAIN

FINISH PLAN NOTES:

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1. NO NEW FINISHES THIS ROOM, EXCLUDING DOOR FRAMES CONNECTED TO OTHER ROOMS THAT RECEIVE NEW FINISHES.
2. PAINT, P3.
3. WALLCOATING, MATCH ADJACENT EXISTING PAINT COLOR.
4. PAINT, W4.
5. ACOUSTIC PANELS, CEILING HUNG, ETR.
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7. WALLCOATING, W3.
8. REFERENCE FLOOR PATTERN PLANS.
9. WALL TILE, VERTICAL STRAIGHT LAY, WT1.
10. PAINT SLOPED ROOF, P1.
11. SAFETY CUSHION WAINSCOT, ETR.
12. END WALLCOVERING HERE.
13. PAINT ALL EXPOSED CEILING DECK AND JOIST, HVAC DUCT PAINT, P6.
14. PATCH FLOORING WITH TZ1.
15. WALLCOVERING, WC3.
16. WALLCOVERING, WC2
17. BRICK COLUMNS, ETR.
18. WALLCOVERING, WC4.
19. ALTERNATE, PROVIDE TERRAZZO FLOOR FINISH TZ1 AND TZ2.
20. BASE, B1. AD-3
21. PAINT, MATCH EXISTING WALL FINISHES.
22. WALLCOATING, W1.
23. MEZZANINE, ETR.
24. PAINT BOTTOM AND FACE OF BULKHEAD, P4.
25. BRICK, ETR.
26. STAIR TREADS, HANDRAILS, AND STRINGERS, ETR.
27. NOT USED.
28. WALL TILE, ETR.
29. WALL TILE PATTERN, SHEET 1/A-862.
30. PAINT BEAMS IN THIS AREA TO MATCH EXISTING IN CAFETERIA.
31. VITRIFY EXISTING TERRAZZO. AD-3
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43. NEW SAFETY CUSHION WAINSCOT.
44. WALL PATTERN TILE, 3/A-862.
45. METAL TRIM TRANSITION, TRIM1.
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47. NEW LOCKERS AND PAINT ABOVE TO MATCH EXISTING ADJACENT WALL, BASE: B1.

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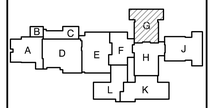
PROJECT

WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS

DUNELAND SCHOOL CORPORATION
CHESTERTON, INDIANA



KEY PLAN

GIBRALTAR DESIGN
9102 N. Meridian St., Ste. 300
Indianapolis, IN 46260
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Email info@GibraltarDesign.com
Phone 317.580.5777 Fax 317.580.5778

PROJECT
21-141
DATE
02/28/22
COORDINATED BY
DJW
DRAWN BY
SDT
CHECKED BY
DJW

DALE J. WAGNER
REGISTERED
NO.
19600171
STATE OF
INDIANA
ARCHITECT

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REVISIONS

MARK	DATE	ISSUED FOR
AD - 2	03/21/22	ADDENDUM NO. 2
AD - 3	03/30/22	ADDENDUM NO. 3

DRAWING
UNIT "G" FIRST FLOOR FINISH PLAN

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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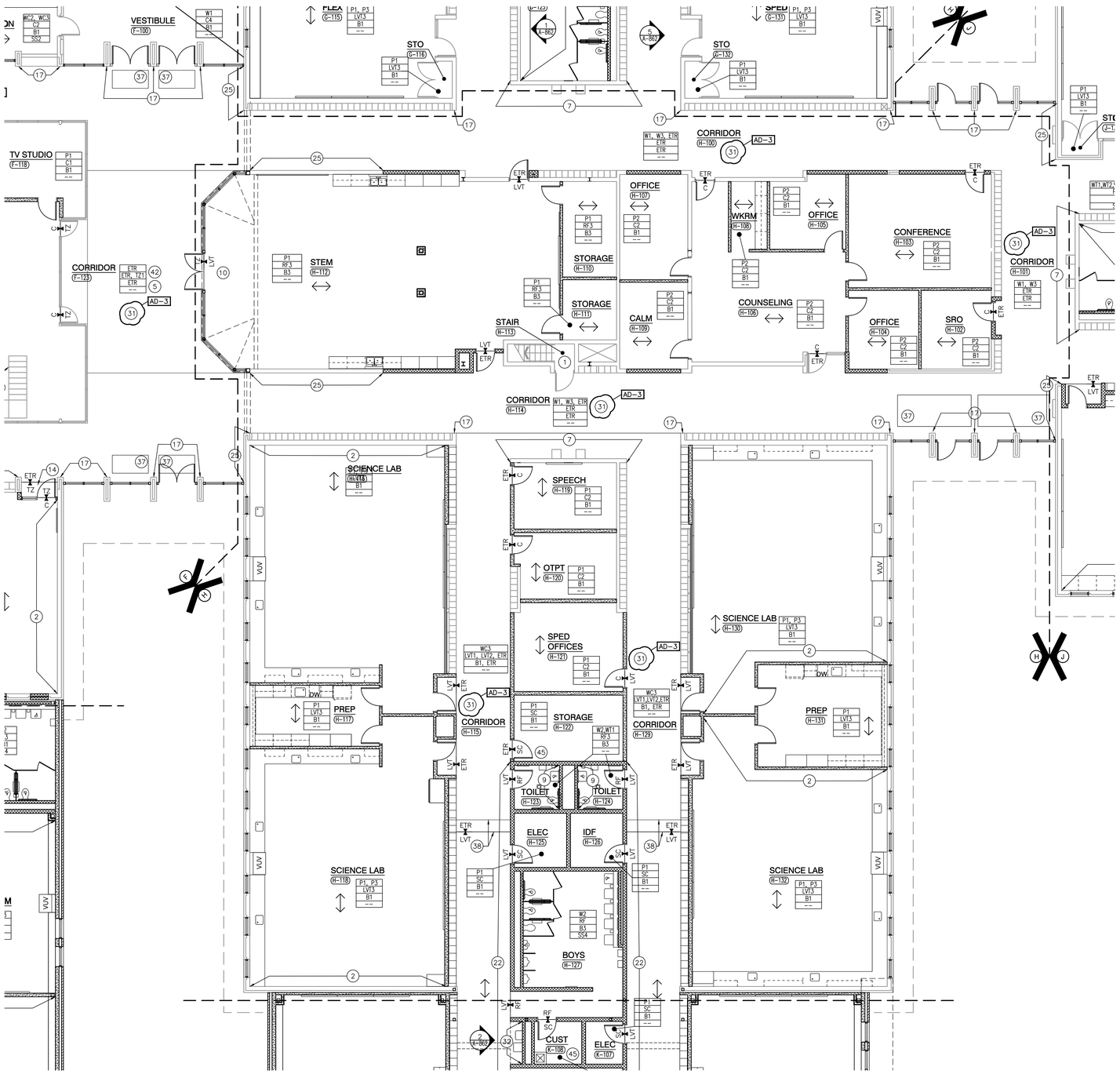
SHEET
G
A-806

Tuesday, 3/29/2022 - 5:39 PM - LAST SAVED BY:STERRILL
Y:\21-141 DUNELAND SC - WESTCHESTER INTERMEDIATE SCHOOL ADDITIONS AND RENOVATIONS\21-141 DRAWINGS\DS ARCH\A-806.DWG



UNIT "H" FIRST FLOOR FINISH PLAN

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

NORTH

GENERAL FINISH PLAN NOTES:

A. REFERENCE FINISH LEGEND FOR FINISH INFORMATION.

B. REFERENCE FLOOR PATTERN PLANS, EQUIPMENT PLANS, INTERIOR ELEVATIONS, REFLECTED CEILING PLANS AND WRITTEN SPECIFICATIONS FOR ADDITIONAL FINISH INFORMATION.

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F. FLOORING CONTRACTOR TO SUBMIT A SEAMING DIAGRAM FOR FLOORING MATERIAL INCLUDING NOTATION OF MATERIAL DIRECTION.

G. ALL FLOORING TRANSITIONS SHALL COMPLY WITH ADA GUIDELINES.

H. ALL EXPOSED METAL SURFACES, SUCH AS GRILLES, FIRE EXTINGUISHER CABINETS, ETC, THAT ARE NOTED TO BE PAINTED, SHALL BE PAINTED WITH ALKYD TYPE PAINT. COLOR TO BE COORDINATED WITH DESIGNER UNLESS OTHERWISE NOTED.

I. CONTRACTOR TO PROVIDE AND INSTALL FLOORING TRANSITIONS AS INDICATED ON PLANS. WHERE NONE ARE NOTED, CONTRACTOR SHALL VERIFY REQUIRED TYPE/COLOR WITH ARCHITECT.

J. THE CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY THAT ALL NEW INTERIOR WALL AND CEILING FINISHES WILL BE CLASS B MINIMUM, WITH A FLAME SPREAD RATING OF 75 MAXIMUM, AND A SMOKE DEVELOPED INDEX OF 450 MAXIMUM, PER IBC SECTION 803.

K. PAINT ALL DOOR FRAMES P4 – ALL SIDES UNLESS NOTED OTHERWISE.

FINISH SYMBOL LEGEND:

P1	WALL FINISH
C1	FLOOR FINISH
B1	BASE FINISH
--	MISC FINISH INFORMATION

FLOOR TRANSITION STRIP AS REQUIRED

INDICATES DIRECTION OF FLOOR MATERIAL GRAIN

FINISH PLAN NOTES:

(ALL PLAN NOTES MAY NOT BE INDICATED ON THIS PLAN)

1. NO NEW FINISHES THIS ROOM, EXCLUDING DOOR FRAMES CONNECTED TO OTHER ROOMS THAT RECEIVE NEW FINISHES.
2. PAINT, P3.
3. WALLCOATING, MATCH ADJACENT EXISTING PAINT COLOR.
4. PAINT, W4.
5. ACOUSTIC PANELS, CEILING HUNG, ETR.
6. CT, CERAMIC FLOOR TILE IN SHOWER TO EXTEND 1'0" PAST THRESHOLD. ALIGN WITH WALL TILE. REFER TO 13/A-520.
7. WALLCOATING, W3.
8. REFERENCE FLOOR PATTERN PLANS.
9. WALL TILE, VERTICAL STRAIGHT LAY, WT1.
10. PAINT SLOPED ROOF, P1.
11. SAFETY CUSHION WAINSCOT, ETR.
12. END WALLCOVERING HERE.
13. PAINT ALL EXPOSED CEILING DECK AND JOIST, HVAC DUCT PAINT, P6.
14. PATCH FLOORING WITH TZ1.
15. WALLCOVERING, WC3.
16. WALLCOVERING, WC2
17. BRICK COLUMNS, ETR.
18. WALLCOVERING, WC4.
19. ALTERNATE, PROVIDE TERRAZZO FLOOR FINISH TZ1 AND TZ2.
20. BASE, B1. AD-3
21. PAINT, MATCH EXISTING WALL FINISHES.
22. WALLCOATING, W1.
23. MEZZANINE, ETR.
24. PAINT BOTTOM AND FACE OF BULKHEAD, P4.
25. BRICK, ETR.
26. STAIR TREADS, HANDRAILS, AND STRINGERS, ETR.
27. NOT USED.
28. WALL TILE, ETR.
29. WALL TILE PATTERN, SHEET 1/A-862.
30. PAINT BEAMS IN THIS AREA TO MATCH EXISTING IN CAFETERIA.
31. VITRIFY EXISTING TERRAZZO. AD-3
32. WALL TILE PATTERN, 2/A-862.
33. WALLCOATING WAINSCOT TO TOP OF CMU WALL, MATCH EXISTING COLOR.
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47. NEW LOCKERS AND PAINT ABOVE TO MATCH EXISTING ADJACENT WALL, BASE: B1.

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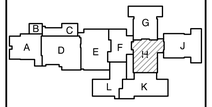
PROJECT

WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS

DUNELAND SCHOOL CORPORATION
CHESTERTON, INDIANA



KEY PLAN

GIBRALTAR DESIGN
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Indianapolis, IN 46260
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Email info@GibraltarDesign.com
Phone 317.580.5777 Fax 317.580.5778

PROJECT 21-141
DATE 02/28/22
COORDINATED BY DJW
DRAWN BY SDT
CHECKED BY DJW

DALE J. WAGNER REGISTERED NO. 19600171 STATE OF INDIANA ARCHITECT

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MARK	DATE	ISSUED FOR
AD - 2	03/21/22	ADDENDUM NO. 2
AD - 3	03/30/22	ADDENDUM NO. 3

DRAWING
UNIT "H" FIRST FLOOR FINISH PLAN

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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H

SHEET A-807

Tuesday, 3/29/2022 – 5:39 PM – LAST SAVED BY:STERRILL
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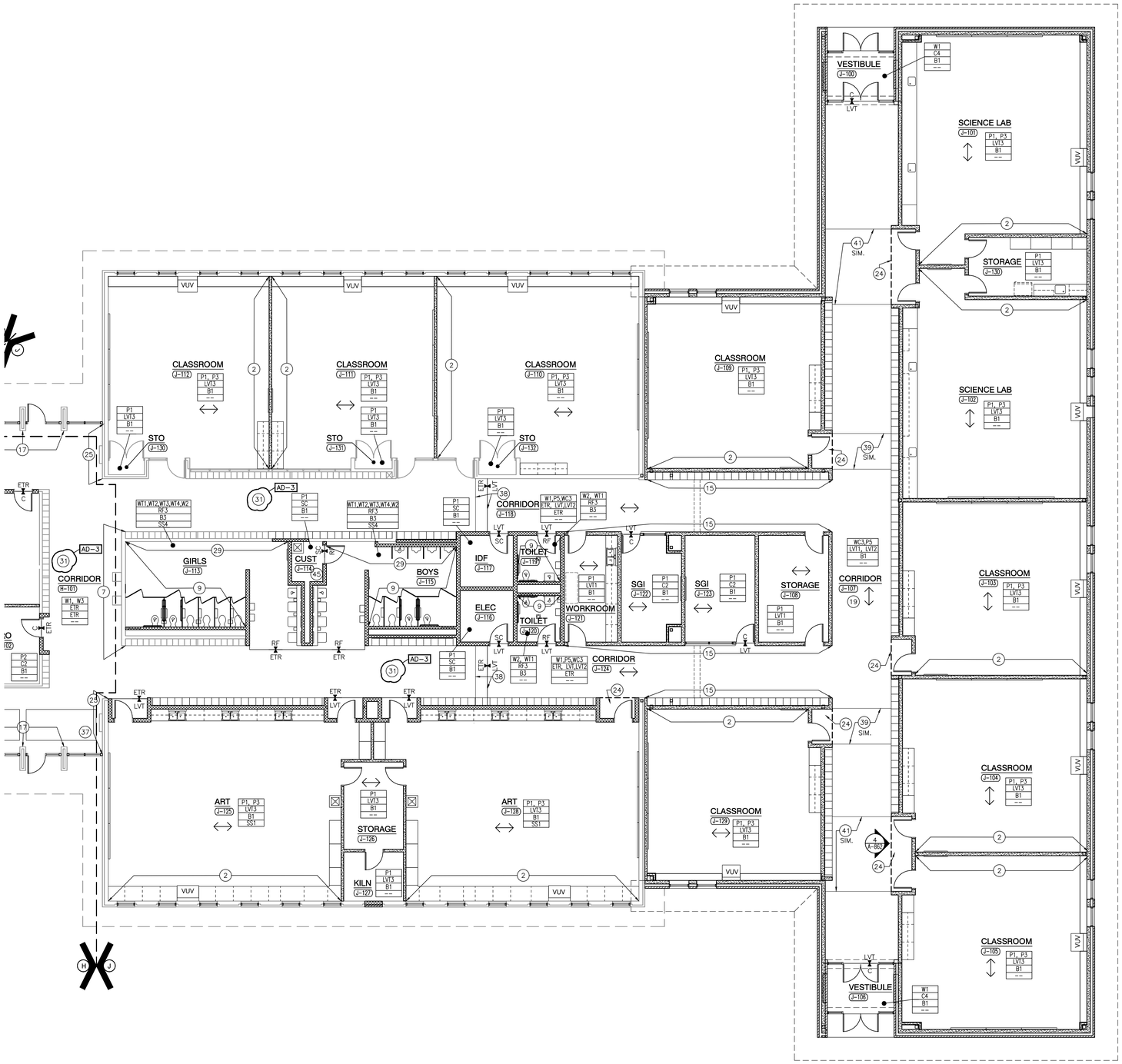

UNIT "J" FIRST FLOOR FINISH PLAN

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

NORTH

GENERAL FINISH PLAN NOTES:

A. REFERENCE FINISH LEGEND FOR FINISH INFORMATION.

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J. THE CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY THAT ALL NEW INTERIOR WALL AND CEILING FINISHES WILL BE CLASS B MINIMUM, WITH A FLAME SPREAD RATING OF 75 MAXIMUM, AND A SMOKE DEVELOPED INDEX OF 450 MAXIMUM, PER IBC SECTION 803.

K. PAINT ALL DOOR FRAMES P4 – ALL SIDES UNLESS NOTED OTHERWISE.

FINISH SYMBOL LEGEND:

P1	WALL FINISH
C1	FLOOR FINISH
B1	BASE FINISH
--	MISC FINISH INFORMATION

FLOOR TRANSITION STRIP AS REQUIRED

INDICATES DIRECTION OF FLOOR MATERIAL GRAIN

FINISH PLAN NOTES:

(ALL PLAN NOTES MAY NOT BE INDICATED ON THIS PLAN)

1. NO NEW FINISHES THIS ROOM, EXCLUDING DOOR FRAMES CONNECTED TO OTHER ROOMS THAT RECEIVE NEW FINISHES.
2. PAINT, P3.
3. WALLCOATING, MATCH ADJACENT EXISTING PAINT COLOR.
4. PAINT, W4.
5. ACOUSTIC PANELS, CEILING HUNG, ETR.
6. CT, CERAMIC FLOOR TILE IN SHOWER TO EXTEND 1'0" PAST THRESHOLD. ALIGN WITH WALL TILE. REFER TO 13/A-520.
7. WALLCOATING, W3.
8. REFERENCE FLOOR PATTERN PLANS.
9. WALL TILE, VERTICAL STRAIGHT LAY, WT1.
10. PAINT SLOPED ROOF, P1.
11. SAFETY CUSHION WAINSCOT, ETR.
12. END WALLCOVERING HERE.
13. PAINT ALL EXPOSED CEILING DECK AND JOIST, HVAC DUCT PAINT, P6.
14. PATCH FLOORING WITH TZ1.
15. WALLCOVERING, WC3.
16. WALLCOVERING, WC2
17. BRICK COLUMNS, ETR.
18. WALLCOVERING, WC4.
19. ALTERNATE, PROVIDE TERRAZZO FLOOR FINISH TZ1 AND TZ2.
20. BASE, B1. AD-3
21. PAINT, MATCH EXISTING WALL FINISHES.
22. WALLCOATING, W1.
23. MEZZANINE, ETR.
24. PAINT BOTTOM AND FACE OF BULKHEAD, P4.
25. BRICK, ETR.
26. STAIR TREADS, HANDRAILS, AND STRINGERS, ETR.
27. NOT USED.
28. WALL TILE, ETR.
29. WALL TILE PATTERN, SHEET 1/A-862.
30. PAINT BEAMS IN THIS AREA TO MATCH EXISTING IN CAFETERIA.
31. VITRIFY EXISTING TERRAZZO. AD-3
32. WALL TILE PATTERN, 2/A-862.
33. WALLCOATING WAINSCOT TO TOP OF CMU WALL, MATCH EXISTING COLOR.
34. LINE OF NEW BLEACHRS.
35. PRIVACY CURTAIN, PC1.
36. REFER TO GYMNASIUM COURTLINE PLAY, SHEET A-840.
37. WALK-OFF CARPET, C4.
38. REFERENCE FLOOR PATTERN PLAN, 5/A-830.
39. REFERENCE FLOOR PATTERN PLAN, 6/A-830.
40. REFERENCE FLOOR PATTERN PLAN, 7/A-830.
41. REFERENCE FLOOR PATTERN PLAN, 8/A-830.
42. PATCH TERRAZZO, TZ1, REFER TO FLOOR PATTERN PLAN, 9/A-830.
43. NEW SAFETY CUSHION WAINSCOT.
44. WALL PATTERN TILE, 3/A-862.
45. METAL TRIM TRANSITION, TRIM1.
46. METAL TRIM TRANSITION, PLACED AT EDGE OF WALL TILE, TRIM2.
47. NEW LOCKERS AND PAINT ABOVE TO MATCH EXISTING ADJACENT WALL, BASE: B1.

GIBRALTAR DESIGN
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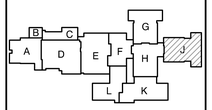
PROJECT

WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS

DUNELAND SCHOOL CORPORATION
CHESTERTON, INDIANA



KEY PLAN

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PROJECT 21-141
DATE 02/28/22
COORDINATED BY DJW
DRAWN BY SDT
CHECKED BY DJW

DALE J. WAGNER REGISTERED NO. 19600171 STATE OF INDIANA ARCHITECT

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REVISIONS

MARK	DATE	ISSUED FOR
AD - 2	03/21/22	ADDENDUM NO. 2
AD - 3	03/30/22	ADDENDUM NO. 3

DRAWING
UNIT "J" FIRST FLOOR FINISH PLAN

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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J

SHEET A-808

Tuesday, 3/29/2022 – 5:40 PM – LAST SAVED BY:STERRILL
Y:\21-141 DUNELAND SC – WESTCHESTER INTERMEDIATE SCHOOL ADDITIONS AND RENOVATIONS\21-141 DRAWINGS\05 ARCH\A-808.DWG

UNIT "K" FIRST FLOOR FINISH PLAN

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

NORTH

GENERAL FINISH PLAN NOTES:

A. REFERENCE FINISH LEGEND FOR FINISH INFORMATION.

B. REFERENCE FLOOR PATTERN PLANS, EQUIPMENT PLANS, INTERIOR ELEVATIONS, REFLECTED CEILING PLANS AND WRITTEN SPECIFICATIONS FOR ADDITIONAL FINISH INFORMATION.

C. PRIOR TO INSTALLATION OF NEW FINISHES CONTRACTOR SHALL INSPECT ALL SUBSTRATES. IF A SUBSTRATE IS DEEMED UNACCEPTABLE THE CONTRACTOR SHALL TAKE THE NECESSARY STEPS TO RECTIFY THE SITUATION OR CONTACT THE ARCHITECT WITH THE CONCERN. PROCEEDING WITH THE INSTALLATION OF FINISHES WILL BE CONSTRUED THAT THE INSTALLER AND /OR FINISHER HAS ACCEPTED SAID SUBSTRATE. NO CHANGE ORDER WILL BE ISSUED TO RECTIFY CONCEALED, OR UNSATISFACTORY SUBSTRATE ONCE FINISH WORK HAS PROCEEDED.

D. PREPARE ALL WALL CONSTRUCTION, NEW AND EXISTING, TO RECEIVE NEW FINISHES AS PER MANUFACTURE'S RECOMMENDED INSTALLATION METHODS AND MATERIALS FOR ALL FINISHES.

E. ALL FLOORING IS TO BE LEVELED WITHIN 1/4" IN 10'-0" WITH LATEX MATERIAL. MOISTURE CONTENT IN AREA IS TO BE TESTED PRIOR TO INSTALLATION OF FLOORING MATERIAL. CONTRACTOR TO INSTALL FLOORING PER MANUFACTURER'S RECOMMENDED METHOD.

F. FLOORING CONTRACTOR TO SUBMIT A SEAMING DIAGRAM FOR FLOORING MATERIAL INCLUDING NOTATION OF MATERIAL DIRECTION.

G. ALL FLOORING TRANSITIONS SHALL COMPLY WITH ADA GUIDELINES.

H. ALL EXPOSED METAL SURFACES, SUCH AS GRILLES, FIRE EXTINGUISHER CABINETS, ETC, THAT ARE NOTED TO BE PAINTED, SHALL BE PAINTED WITH ALKYD TYPE PAINT. COLOR TO BE COORDINATED WITH DESIGNER UNLESS OTHERWISE NOTED.

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K. PAINT ALL DOOR FRAMES P4 – ALL SIDES UNLESS NOTED OTHERWISE.

FINISH SYMBOL LEGEND:

P1	WALL FINISH
C1	FLOOR FINISH
B1	BASE FINISH
--	MISC FINISH INFORMATION

FLOOR TRANSITION STRIP AS REQUIRED

INDICATES DIRECTION OF FLOOR MATERIAL GRAIN

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11. SAFETY CUSHION WAINSCOT, ETR.
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13. PAINT ALL EXPOSED CEILING DECK AND JOIST, HVAC DUCT PAINT, P6.
14. PATCH FLOORING WITH TZ1.
15. WALLCOVERING, WC3.
16. WALLCOVERING, WC2
17. BRICK COLUMNS, ETR.
18. WALLCOVERING, WC4.
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28. WALL TILE, ETR.
29. WALL TILE PATTERN, SHEET 1/A-862.
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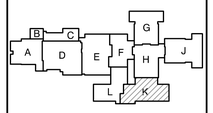
PROJECT

WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS

DUNELAND SCHOOL CORPORATION
CHESTERTON, INDIANA



KEY PLAN

GIBRALTAR DESIGN
9102 N. Meridian St., Ste. 300
Indianapolis, IN 46260
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Email info@GibraltarDesign.com
Phone 317.580.5777 Fax 317.580.5778

PROJECT 21-141
DATE 02/28/22
COORDINATED BY DJW
DRAWN BY SDT
CHECKED BY DJW

DALE J. WAGNER REGISTERED NO. 19600171 STATE OF INDIANA ARCHITECT

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REVISIONS

MARK	DATE	ISSUED FOR
AD - 2	03/21/22	ADDENDUM NO. 2
AD - 3	03/30/22	ADDENDUM NO. 3

DRAWING
UNIT "K" ARCHITECTURAL FIRST FLOOR PLAN

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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K

SHEET A-809

Tuesday, 3/29/2022 – 5:41 PM – LAST SAVED BY:STERRILL
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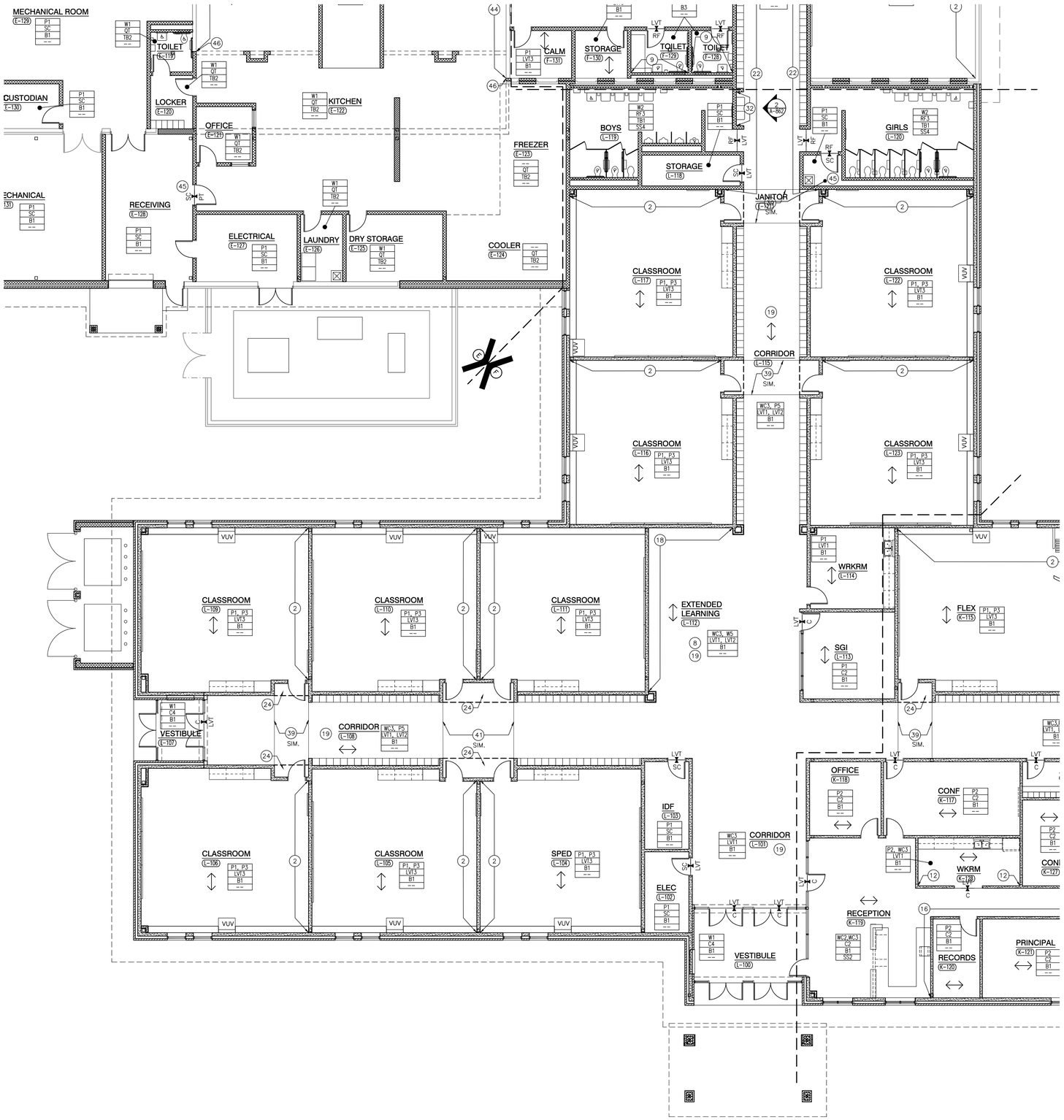

UNIT "L" FIRST FLOOR FINISH PLAN

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

NORTH

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8. REFERENCE FLOOR PATTERN PLANS.
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11. SAFETY CUSHION WAINSCOT, ETR.
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16. WALLCOVERING, WC2
17. BRICK COLUMNS, ETR.
18. WALLCOVERING, WC4.
19. ALTERNATE, PROVIDE TERRAZZO FLOOR FINISH TZ1 AND TZ2.
20. BASE, B1 AD-3
21. PAINT, MATCH EXISTING WALL FINISHES.
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47. NEW LOCKERS AND PAINT ABOVE TO MATCH EXISTING ADJACENT WALL, BASE: B1.

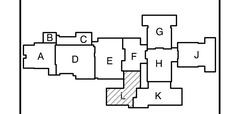
GIBRALTAR DESIGN

ARCHITECTURE • ENGINEERING • INTERIOR DESIGN

PROJECT

WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS

DUNELAND SCHOOL CORPORATION
CHESTERTON, INDIANA



KEY PLAN

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PROJECT 21-141
DATE 02/28/22
COORDINATED BY DJW
DRAWN BY SDT
CHECKED BY DJW

DALE J. WAGNER REGISTERED NO. 19600171 STATE OF INDIANA ARCHITECT

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REVISIONS

MARK	DATE	ISSUED FOR
AD - 2	03/21/22	ADDENDUM NO. 2
AD - 3	03/30/22	ADDENDUM NO. 3

DRAWING
UNIT "L" FIRST FLOOR FINISH PLAN

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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SHEET L A-810

Tuesday, 3/29/2022 – 5:42 PM – LAST SAVED BY:STERRILL
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FINISH LEGEND

SURFACE	MARK	DESCRIPTION	MANUFACTURER	PATTERN/FINISH	NUMBER/COLOR	SIZE	COMMENTS
WALL BASE							
	B1	VINYL BASE	TARKETT	COVE	BURNT UMBER	4"	--
	B2	VENTED BASE	TARKETT	BASE	BLACK	4"	--
	TB1	TILE BASE	DALTILE	MB5B UPTOWN TAUPE	5" x 12"	5"	COVE BASE
	TB2	QUARRY TILE BASE	DALTILE	QUARRY TEXTURES Q3565	ASHEN GRAY	5" x 6"	COVE BASE
	B3	RESINOUS BASE	SHERWIN WILLIAMS	BASE	FUZZY WOOL BC23	5"	SEE SHEET A-502
FLOOR MATERIALS							
	C1a	CARPET TILE	MANNINGTON	MOUNTAIN FOLD	14392 PENGUIN	24"x24"	INSTALLATION: MONOLITHIC
AD-3	C1b	CARPET TILE	TARKETT	GO051 SHEARED HERRINGBONE	57203 TYPESET	24"x24"	INSTALLATION: VERTICAL ASHLAR
	C2a	CARPET TILE	MANNINGTON	VALLEY FOLD	14392 PENGUIN	24"x24"	INSTALLATION: MONOLITHIC
AD-3	C2b	CARPET TILE	TARKETT	GO052 AIDA CLOTH	57203 TYPESET	24"x24"	INSTALLATION: VERTICAL ASHLAR
	LVT1a	LUXURY VINYL TILE	MANNINGTON	CRISSCROSS	ALC401 POP	6" X 36"	FIELD COLOR: INSTALLATION: ASHLAR
	LVT1b	LUXURY VINYL TILE	TARKETT	COLOR POP	C147 SAND DOLLAR	9" x 36"	FIELD COLOR
	LVT2a	LUXURY VINYL TILE	MANNINGTON	CRISSCROSS	ALC407 POP CHARCOAL	6" X 36"	INSTALLATION: ASHLAR
	LVT2b	LUXURY VINYL TILE	TARKETT	COLOR POP	C145 SEASALT	9" x 36"	--
	LVT3a	LUXURY VINYL TILE	MANNINGTON	GROOVE	C115 CHINCHILLA	18" X 18"	INSTALLATION: ASHLAR
	LVT3b	LUXURY VINYL TILE	TARKETT	PCFC FACTOR	10737 SAND BAR	18" X 18"	INSTALLATION: ASHLAR
	TZ1	TERRAZZO	TERROXY	--	EPOXY TO MATCH SW 7043 ITALLIAN BOTTICINO #1 – 30% ITALLIAN BOTTICINO #2 – 30% BLACK STALLION #2 – 5% BURGUNDY #1 – 10% BURGUNDY #2 – 10% YELLOW VERONA #2 – 15%	--	FIELD COLOR AD-3
	TZ2	TERRAZZO	TERROXY	--	EPOXY TO MATCH SW 7595 BLACK STALLION #1 – 10% DUSTY ROSE #1 – 20% DUSTY ROSE #2 – 30% SALMON #1 – 20% SALMON #2 – 20%	--	ACCENT COLOR
	QT	QUARRY TILE	DALTILE	QUARRY TEXTURES	ASHEN GRAY	6" X 6"	--
	CT	CERAMIC TILE	DALTILE	D202 UPTOWN TAUPE SPECKLE	--	2"x2"	--
	SC	SEALED CONCRETE	--	--	--	--	--
	WF1	WOOD SPRING FLOOR SYSTEM	MAPA	--	--	--	--
	RF1	RESINOUS FLOOR	SHERWIN WILLIAMS	1/4" RESUFLOR DECO FLAKE	MILKY WAY	--	--
	RF2	RESINOUS FLOOR	SHERWIN WILLIAMS	1/4" RESUFLOR DECO FLAKE	VELVET FEATHER	--	--
	RF3	RESINOUS FLOOR	SHERWIN WILLIAMS	DECO QUARTZ	FUZZY WOOL	--	--
	C3	NOT USED	--	--	--	--	-- AD-3
WALL MATERIALS							
	P1	PAINT	SHERWIN WILLIAMS	--	SW 7043 WORLDLY GRAY	--	CLASSROOMS, LOCKER ROOMS, CORRIDORS
	P2	PAINT	SHERWIN WILLIAMS	--	SW 7044 AMAZING GRAY	--	ADMIN OFFICES, COUNSELING SUITE, RR
	P3	PAINT	SHERWIN WILLIAMS	--	SW 9171 FELTED WOOL	--	CLASSROOM ACCENT
	P4	PAINT	SHERWIN WILLIAMS	--	MATCH EXISTING BURGANDY DOOR FRAME	--	
	P5	NOT USED	--	--	--	--	--
	P6	PAINT	SHERWIN WILLIAMS	--	SW 7661 REFLECTION	--	GYM CEILING
	W1	WALLCOATING	SHERWIN WILLIAMS	--	SW 7043 WORLDY GRAY	--	--
	W2	WALLCOATING	SHERWIN WILLIAMS	--	SW 7044 AMAZING GRAY	--	--
	W3	WALLCOATING	SHERWIN WILLIAMS	--	SW 9171 FELTED WOOL	--	--
	W4	WALLCOATING	SHERWIN WILLIAMS	--	MATCH EXISTING BURGANDY	--	--
	WC1	WALLCOVERING	MDC	GENON CONTRACT	EPIC DUNE W2EP07/4525	--	--
	WC2	WALLCOVERING	MDC	BOLTA CONTRACT	HAYFIELD SLATE BBHF24/4525	--	--
	WC3	WALLCOVERING	MDC	CHARISMA	--	--	--
	WC4	WALLCOVERING	MDC	CHARISMA	Y46390CH MAGNET	--	--
	WT1	CERAMIC WALL TILE	AMERICAN OLEAN	GLOSS	0035 CALM	4"X12"	--
	WT2	CERAMIC WALL TILE	AMERICAN OLEAN	GLOSS	0019 PASSION	4"X12"	--
	WT3	CERAMIC WALL TILE	AMERICAN OLEAN	GLOSS	0053 DEPENDABLE	4"X12"	--
	WT4	CERAMIC WALL TILE	AMERICAN OLEAN	GLOSS	0055 STABLE	4"X12"	--
	WT5	NOT USED	--	--	--	--	--
	FW-AWP1	ACOUSTICAL PANEL	GUILFORD OF MAINE	FR701 2100	--	2' 0" X 4' 0"	LGI, CHOIR, CENERAL MUSIC, ENSEMBLE
	FW-AWP2	ACOUSTICAL PANEL	GUILFORD OF MAINE	FR701 2100	--	2' 0" X 4' 0"	LGI, CHOIR, GENERAL MUSIC, ENSEMBLE
	AR-AWP1	ACOUSTICAL PANEL	TECTUM	--	SW 9171 FELTED WOOL	--	GYM
	AR-AWP2	ACOUSTICAL PANEL	TECTUM	--	SW 7043 WORLDLY GRAY	--	GYM
	SP-AWP1	ACOUSTICAL PANEL	KINETICS NOISE CONTROL	GEOMETRIC DIFFUSERS	–	2' 0" X 4' 0"	BAND ORCHESTRA – CONVEX PANELS
	SP-AWP2	ACOUSTICAL PANEL	KINETICS NOISE CONTROL	TAD	–	2' 0" X 4' 0"	BAND ORCHESTRA – FLAT PANELS
CASEWORK AND MILLWORK							
	PL1	PLASTIC LAMINATE	WILSONART		PEWTER MESH 4878-38	--	CLASSROOM CABINETS
	PL2	PLASTIC LAMINATE	PIONITE	--	CAVALCADE SOUTH AT650SD	--	CLASSROOM COUNTER
	PL3	PLASTIC LAMINATE	PIONITE	--	OLD FRIEND AG415-SD	--	ADMIN OFFICES RECEPTION DESK
	PL4	PLASTIC LAMINATE	WILSONART	--	CARBON FV 4820-60	--	ADMIN OFFICES RECEPTION DESK
	PL5	PLASTIC LAMINATE	WILSONART	--	RAW COTTON	--	WORKROOM
	PL6	PLASTIC LAMINATE	FORMICA	--	CITADEL WRAP 5882-28	--	WORKROOM
	PL7	PLASTIC LAMINATE	PIONITE	--	AG611 GRAVEYARD OF THE ATLANTIC	--	MEDIA CENTER
	PL8	PLASTIC LAMINATE	FORMICA	--	PORT D14-40	--	MEDIA CENTER
	PL9	PLASTIC LAMINATE	WILSONART	--	NATURAL COTTON 4946-60	--	ADMIN RECEPTION DESK COUNTER
	SS1	SOLID SURFACE	CORIAN	--	DEEP CLOUD	--	WINDOW SILLS
	SS2	SOLID SURFACE	CORIAN	--	CARBON AGGREGATE	--	ADMIN RECEPTION DESK
	SS3	SOLID SURFACE	CORIAN	--	COSMOS PRIMA	--	KITCHEN SERVING
	SS4	SOLID SURFACE	CORIAN	--	CONCRETE	--	RESTROOMS
	SS5	SOLID SURFACE	CORIAN	--	NEUTRAL AGGREGATE	--	MEDIA CENTER
MISCELLANEOUS							
	RS1	WINDOW ROLLER SHADE	MECHO	--	--	--	--
	CG	CORNER GUARD	--	--	--	--	--
	L1	LOCKERS	LYON	--	3005-5F WINE RED	--	--
	TP1	TOLIET PARTION	ASI ACCURATE PARTITION	SOLID PLASTIC	BURGANDY 9211	--	--
	PC1	PRIVACY CURTAIN	ARCHITEX	--	MOUNTAIN	--	--
	WDT1	WOOD TRIM	--	--	--	--	--
	TRIM1	METAL TRIM	SCHLUTER	--	--	--	--
	TRIM2	METAL TRIM	SCHLUTER	--	--	--	--
	PTN	FABRIC/NET PARTITION	--	--	--	--	--
		BLEACHER SEAT	HUSSEY	--	050 GREY	--	--
		DISPLAY CASE FABRIC	--	--	--	--	--
		WOOD DOOR	--	--	--	--	MATCH EXISTING
		ALL TRAVELLERS, BOARDERS, KM FABRICS LEGS & CYCLORAMA CURTAINS	--	--	--	--	--
		MAIN VALENCE	--	--	--	--	--
		DOOR FRAMES	--	--	--	--	MATCH EXISTING
	C4a	WALK-OFF CARPET	MANNINGTON	CHARGE	34365 STATIC	--	WALK-OFF CARPET
	C4b	WALK-OFF CARPET	TARKETT	04837 ASSERTIVE ACTION	26201 CHROMIUM	--	WALK-OFF CARPET

ETR = EXISTING TO REMAIN

* CUSTOM GRAPHIC: MDC PREPRESS/DESIGN (MAKING SCALE AND COLOR ADJUSTMENTS), MDC IMAGE RESOURCE OR SHUTTERSTOCK IMAGE, ONE CUSTOM COLOR. RIDGID SUBSTRATE DIBOND SHALL BE USED, CLEAT MOUNTING.

CUSTOM WALLCOVERING: FLEXIBLE SUBSTRATE SUEDE ; MDC PREPRESS/DESIGN (MAKING SCALE AND COLOR ADJUSTMENTS), MDC IMAGE RESOURCE OR SHUTTERSTOCK IMAGE, ONE CUSTOM COLOR.

GIBRALTAR DESIGN
ARCHITECTURE • ENGINEERING • INTERIOR DESIGN

PROJECT
WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS
DUNELAND SCHOOL CORPORATION
CHESTERTON, INDIANA

GIBRALTAR DESIGN
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PROJECT 21-141
DATE 02/28/22
COORDINATED BY DJW
DRAWN BY SDT
CHECKED BY DJW

DALE J. WAGNER REGISTERED NO. 19600171 STATE OF INDIANA ARCHITECT

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REVISIONS

MARK	DATE	ISSUED FOR
AD - 2	03/21/22	ADDENDUM NO. 2
AD - 3	03/30/22	ADDENDUM NO. 3

DRAWING
FINISH LEGEND

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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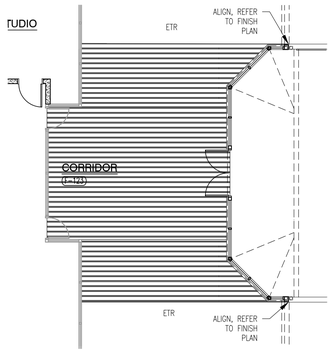
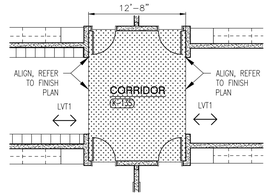
SHEET
A-820

Wednesday, 3/30/2022 – 10:12 AM – LAST SAVED BY:STERRILL
Y:\21-141 DUNELAND SC – WESTCHESTER INTERMEDIATE SCHOOL ADDITIONS AND RENOVATIONS\21-141 DRAWINGS\05 ARCH\A-820.DWG



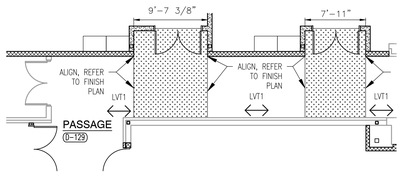
MEDIA CENTER & STEM CORRIDOR FLOOR PATTERN PLAN (9 / A-830)

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



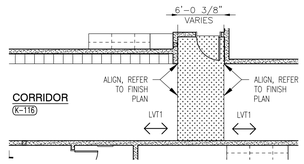
TYPICAL TRANSITION FLOOR PATTERN PLAN (8 / A-830)

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



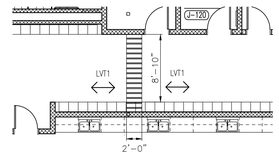
TYPICAL DOUBLE DOOR FLOOR PATTERN PLAN (7 / A-830)

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



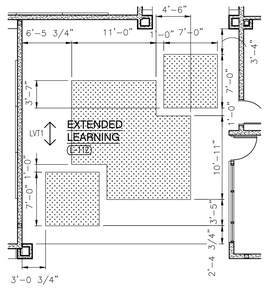
TYPICAL TRANSITION FLOOR PATTERN PLAN (6 / A-830)

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



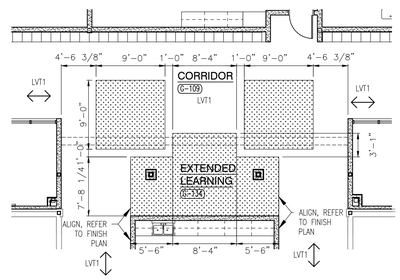
TYPICAL CORRIDOR TRANSITION PATTERN PLAN (5 / A-830)

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



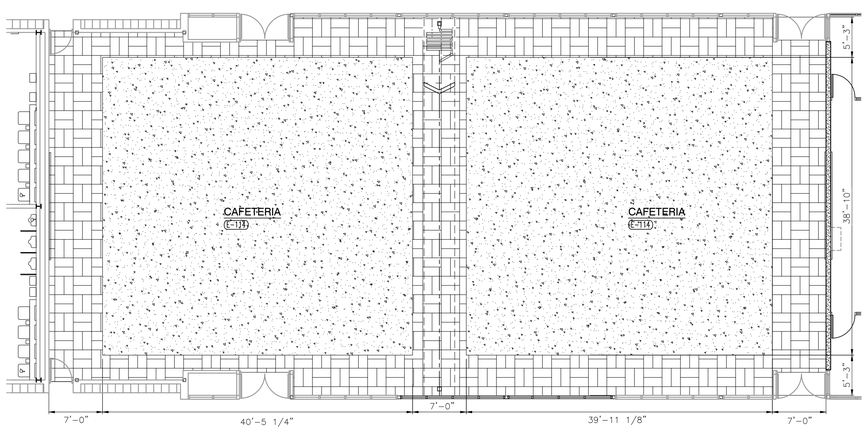
EXTENDED LEARNING L-112 FLOOR PATTERN PLAN (4 / A-830)

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



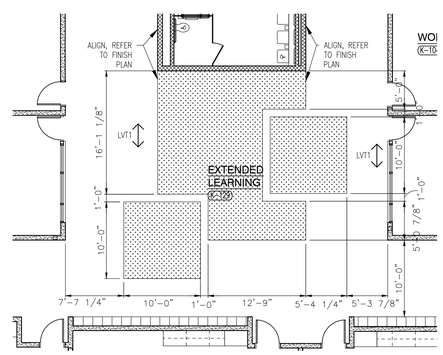
EXTENDED LEARNING G-134 FLOOR PATTERN PLAN (3 / A-830)

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



CAFETERIA E-114 FLOOR PATTERN PLAN (2 / A-830)

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



EXTENDED LEARNING K-129 FLOOR PATTERN PLAN (1 / A-830)

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

GENERAL FINISH PLAN NOTES:

A. REFERENCE FINISH LEGEND FOR FINISH INFORMATION.

B. REFERENCE FLOOR PATTERN PLANS, EQUIPMENT PLANS, INTERIOR ELEVATIONS, REFLECTED CEILING PLANS AND WRITTEN SPECIFICATIONS FOR ADDITIONAL FINISH INFORMATION.

C. PRIOR TO INSTALLATION OF NEW FINISHES CONTRACTOR SHALL INSPECT ALL SUBSTRATES. IF A SUBSTRATE IS DEEMED UNACCEPTABLE THE CONTRACTOR SHALL TAKE THE NECESSARY STEPS TO RECTIFY THE SITUATION OR CONTACT THE ARCHITECT WITH THE CONCERN. PROCEEDING WITH THE INSTALLATION OF FINISHES WILL BE CONSTRUED THAT THE INSTALLER AND /OR FINISHER HAS ACCEPTED SAID SUBSTRATE. NO CHANGE ORDER WILL BE ISSUED TO RECTIFY CONCEALED, OR UNSATISFACTORY SUBSTRATE ONCE FINISH WORK HAS PROCEEDED.

D. PREPARE ALL WALL CONSTRUCTION, NEW AND EXISTING, TO RECEIVE NEW FINISHES AS PER MANUFACTURE'S RECOMMENDED INSTALLATION METHODS AND MATERIALS FOR ALL FINISHES.

E. ALL FLOORING IS TO BE LEVELED WITHIN 1/4" IN 10'-0" WITH LATEX MATERIAL. MOISTURE CONTENT IN AREA IS TO BE TESTED PRIOR TO INSTALLATION OF FLOORING MATERIAL. CONTRACTOR TO INSTALL FLOORING PER MANUFACTURER'S RECOMMENDED METHOD.

F. FLOORING CONTRACTOR TO SUBMIT A SEAMING DIAGRAM FOR FLOORING MATERIAL INCLUDING NOTATION OF MATERIAL DIRECTION.

G. ALL FLOORING TRANSITIONS SHALL COMPLY WITH ADA GUIDELINES.

H. ALL EXPOSED METAL SURFACES, SUCH AS GRILLES, FIRE EXTINGUISHER CABINETS, ETC, THAT ARE NOTED TO BE PAINTED, SHALL BE PAINTED WITH ALKYD TYPE PAINT. COLOR TO BE COORDINATED WITH DESIGNER UNLESS OTHERWISE NOTED.

I. CONTRACTOR TO PROVIDE AND INSTALL FLOORING TRANSITIONS AS INDICATED ON PLANS. WHERE NONE ARE NOTED, CONTRACTOR SHALL VERIFY REQUIRED TYPE/COLOR WITH ARCHITECT.

J. THE CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY THAT ALL NEW INTERIOR WALL AND CEILING FINISHES WILL BE CLASS B MINIMUM, WITH A FLAME SPREAD RATING OF 75 MAXIMUM, AND A SMOKE DEVELOPED INDEX OF 450 MAXIMUM, PER IBC SECTION 803.

K. PAINT ALL DOOR FRAMES P2 – ALL SIDES UNLESS NOTED OTHERWISE.

FINISH SYMBOL LEGEND:

P1	WALL FINISH
C1	FLOOR FINISH
B1	BASE FINISH
--	MISC FINISH INFORMATION

FLOOR TRANSITION STRIP AS REQUIRED

INDICATES DIRECTION OF FLOOR MATERIAL GRAIN

LUXURY VINYL TILE, LVT1 FIELD COLOR / ALTER. TZ1.

LUXURY VINYL TILE, LVT2 / ALTER. TZ2

RESINOUS FLOOR, RF1

RESINOUS FLOOR, RF2

AD-3

TERRAZZO, TZ1

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PROJECT

WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS

DUNELAND SCHOOL CORPORATION
CHESTERTON, INDIANA

GIBRALTAR DESIGN
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PROJECT 21-141
DATE 02/28/22
COORDINATED BY DJW
DRAWN BY SDT
CHECKED BY DJW

DALE J. WAGNER REGISTERED NO. 19600171 STATE OF INDIANA ARCHITECT

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REVISIONS

MARK	DATE	ISSUED FOR
AD - 2	03/21/22	ADDENDUM NO. 2
AD - 3	03/30/22	ADDENDUM NO. 3

DRAWING
TYPICAL FLOOR PATTERN PLAN

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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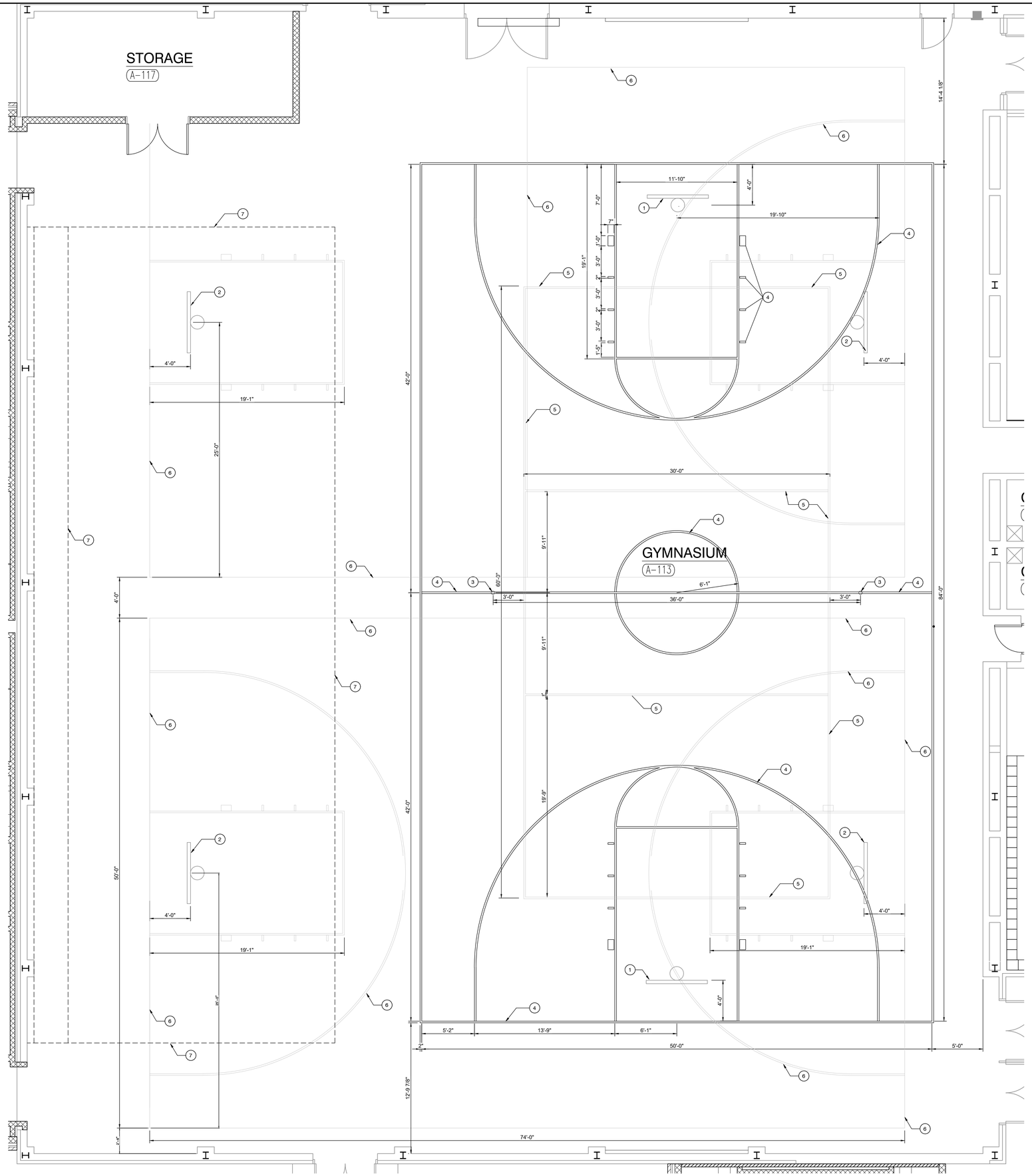
SHEET
A-830

Tuesday, 3/29/2022 – 5:43 PM – LAST SAVED BY:STERRILL
Y:\21-141 DUNELAND SC – WESTCHESTER INTERMEDIATE SCHOOL ADDITIONS AND RENOVATIONS\21-141 DRAWINGS\03 ARCH\A-830.DWG



GENERAL NOTES

A. FOR GENERAL NOTES, MATERIAL INDICATIONS LEGEND, SYMBOL LEGEND, ABBREVIATIONS, ETC. SEE SHEET G-301.

B. VERIFY DIMENSION AND LINE THICKNESS SHOWN WITH CURRENT INDIANA HIGH SCHOOL ATHLETIC ASSOCIATION (IHSAA) STANDARDS.

C. CLEAR STAIN COAT IS PRIMARY FINISH.

D. ACCENT STAIN COLOR WHERE NOTED.

E. VERIFY EXISTING COURT MARKING LAYOUT, LINE WIDTHS, COLORS AND INSERTS. DOCUMENT INFORMATION ON DRAWINGS AND SUBMIT FOR APPROVAL PRIOR TO DEMOLITION OF EXISTING FLOOR FINISHES. NEW COURT MARKINGS TO BE LOCATED IN SAME LOCATION AS ORIGINAL MARKINGS.

VERIFY COLORS WITH OWNER AND ARCHITECT PRIOR TO INSTALLATION.

PLAN NOTES

1. EXISTING BASKETBALL BACKSTOP TO REMAIN.
2. NEW BASKETBALL BACKSTOP, HOOP AND NET ONLY.
3. FLOORPLATE/SLEEVE FOR VOLLEYBALL OR TENNIS NET UPRGHTS. (5 / A-501)

FINISH PLAN NOTES

4. 2" MAIN BASKETBALL COURT LINES, BLACK.
5. 2" VOLLEYBALL COURTLINES, YELLOW.
6. 1" CROSS PRACTICE BASKETBALL COURT LINES, TAN.
7. BLEACHERS, REFER TO EQUIPMENT PLANS.

ENTIRE SHEET SHALL BE RESUBMITTED IN ADDENDUM NO. 3.

AD-3

GYMNASIUM COURT MARKING PLAN

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

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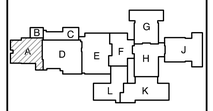
PROJECT

WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS

DUNELAND SCHOOL CORPORATION
CHESTERTON, INDIANA



KEY PLAN

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PROJECT 21-141
DATE 02/28/22
COORDINATED BY DJW
DRAWN BY CLN
CHECKED BY DJW

DALE J. WAGNER REGISTERED NO. 19600171 STATE OF INDIANA ARCHITECT

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REVISIONS

MARK	DATE	ISSUED FOR
AD-3	03/30/22	ADDENDUM NO. 3

DRAWING
GYMNASIUM COURT MARKING PLAN

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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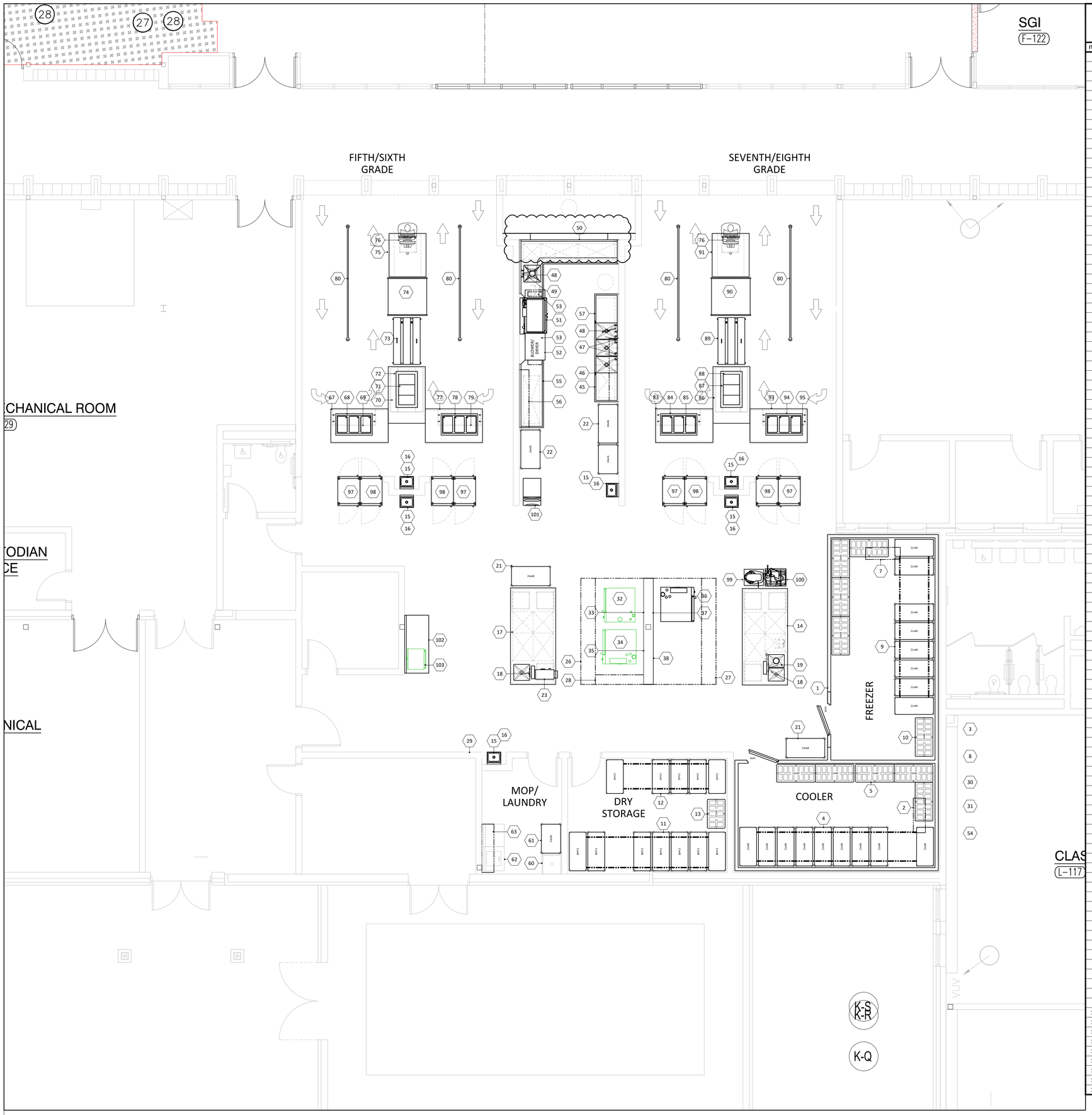
SHEET
A-840

Wednesday, 3/30/2022 - 1:07 PM - LAST SAVED BY:CNELSON
Y:\21-141 DUNELAND SC - WESTCHESTER INTERMEDIATE SCHOOL ADDITIONS AND RENOVATIONS\21-141 DRAWINGS\05 ARCH\A-840.DWG



EQUIPMENT SCHEDULE

ITEM	QTY	ITEM DESCRIPTION	MANUFACTURER	MODEL
1	1	WALK-IN COOLER/FREEZER	KOLPAK	CUSTOM
2	1	WALK-IN COOLER COIL	PART OF ITEM #1	
3	1	WALK-IN COOLER COMPRESSOR	PART OF ITEM #1	
4	LOT	HI-DENSITY TOP TRACK COOLER SHELVING	INTERMETRO	SUPER ERECTA PRO
5	5	COOLER DUNNAGE RACK	INTERMETRO	HP2248PDMB
6		SPARE NUMBER		
7	1	WALK-IN FREEZER COIL	PART OF ITEM #1	
8	1	WALK-IN FREEZER COMPRESSOR	PART OF ITEM #1	
9	LOT	HI-DENSITY TOP TRACK FREEZER SHELVING	INTERMETRO	SUPER ERECTA PRO
10	5	FREEZER DUNNAGE RACK	INTERMETRO	HP2248PDMB
11	LOT	HI-DENSITY TOP TRACK DRY STORAGE SHELVING	INTERMETRO	SUPER ERECTA
12	LOT	HI-DENSITY TOP TRACK DRY STORAGE SHELVING	INTERMETRO	SUPER ERECTA
13	1	DRY STORAGE DUNNAGE RACK	INTERMETRO	HP2236PDMB
14	1	ISLAND WORKTABLE W/ 2 COMP SINK	CUSTOM	ST. STL.
15	6	WALL MOUNT HAND SINK	JOHN BOOS	PBHS-W-1410-SSLR
16	6	HAND SINK FAUCET	T&S BRASS	B-1146-04-CR
17	1	ISLAND WORKTABLE W/ PREP SINK	CUSTOM	ST. STL.
18	2	SPLASH MOUNT FAUCET	T&S BRASS	MPJ-8WLV-12-CR
19	1	GARBAGE DISPOSAL SYSTEM	INSINKERATOR	SS-200-7-AS101
20	*6	HEAVY-DUTY BUN PAN RACK	CHANNEL	401A
21	2	CLEAN DISH SHELVING	INTERMETRO	PR48VX3-XDR
22	3	CLEAN DISH SHELVING	INTERMETRO	PR**VX*-XDR
23	1	HOT WATER DISPENSER	HATCO	AWD-12
24		SPARE NUMBER		
25		SPARE NUMBER		
26	1	EXHAUST HOOD	ALLIED AIR	CUSTOM
27	1	EXHAUST HOOD	PART OF ITEM #26	ST. STL.
28	1	FIRE SUPPRESSION SYSTEM	PART OF ITEM #26	
29	1	FIRE SUPPRESSION SYSTEM PULL	PART OF ITEM #26	
30	1	COOKLINE EXHAUST FAN	PART OF ITEM #26	
31	1	COOKLINE MAKE UP AIR FAN	PART OF ITEM #26	
32	1	COMBI OVEN/STEAMER - 6 PAN	EXISTING - RELOCATED BY KEC	
33	1	COMBI OVEN/STEAMER FILTER	RATIONAL	1900.1150US
34	1	COMBI OVEN/STEAMER - 10 PAN	EXISTING - RELOCATED BY KEC	
35	1	COMBI OVEN/STEAMER FILTER	RATIONAL	1900.1150US
36	1	COMBI OVEN/STEAMER -20 PAN	RATIONAL	ICP 20-FULL-NG
37	1	COMBI OVEN/STEAMER FILTER	PART OF ITEM #36	
38	1	FUTURE DOUBLE STACK COMBI		
39		SPARE NUMBER		
40		SPARE NUMBER		
41		SPARE NUMBER		
42		SPARE NUMBER		
43		SPARE NUMBER		
44		SPARE NUMBER		
45	1	THREE COMPARTMENT SINK	CUSTOM	ST. STL.
46	1	WALL SHELF	CUSTOM	ST. STL.
47	2	SPLASH MOUNT FAUCET	T&S BRASS	B-0290
48	2	SPLASH MOUNT PRE-RINSE FAUCET	T&S BRASS	B-0133-CR-B-SWV
49	1	GARBAGE DISPOSAL SYSTEM	INSINKERATOR	SS-200-7-AS101
50	1	SOILED DISH TABLE	CUSTOM	ST. STL.
51	1	DISH MACHINE W/BOOSTER HEATER	HOBART	CL44EN-BAS+BUILDUP
52	1	DISH MACHINE BLOWER DRYER	HOBART	BDELRAB-HTSDOM
53	2	VENT RISER	ALLIED AIR	CUSTOM
54	1	DISH MACHINE EXHAUST FAN	PART OF ITEM #53	
55	1	CLEAN DISH TABLE	CUSTOM	ST. STL.
56	1	WALL SHELF	ST. STL.	CUSTOM
57	LOT	TRASH CONTAINERS	BY OWNER	NOT IN KEC CONTRACT
58		SPARE NUMBER		
59		SPARE NUMBER		
60	1	JANITORIAL MOP SINK	ADVANCE TABCO	9-OP-20
61	1	CHEMICAL SHELVING UNIT	INTERMETRO	SEC53C
62	1	WASHER/DRYER	BY OWNER	NOT IN KEC CONTRACT
63	1	STAINLESS STEEL WALL CABINET	ADVANCE TABCO	WCH-15-60
64	6	LOCKERS (FULL SIZE)	BY ARCHITECT	NOT IN KEC CONTRACT
65		SPARE NUMBER		
66		SPARE NUMBER		
67	1	HOT SERVING COUNTER	CUSTOM	ST. STL./MILLWORK
68	1	DROP-IN HOT WELLS	LTI	TW-DW-3
69	1	SELF-SERVE BREATH GUARD W/LIGHTS	VERSA GARD	VG7
70	1	MOBILE COLD SERVING COUNTER	CUSTOM	ST. STL./MILLWORK
71	1	DROP-IN COLD WELL UNIT	LTI	DI-2063TA
72	1	DOUBLE SIDED BREATH GUARD	VERSA GARD	VG7
73	1	DOUBLE SIDED MILK COOLER	TRUE	TMC-58-DS-HC
74	1	DOUBLE SIDED AIR CURTAIN MERCHANDISER	STRUCTURAL CONCEPTS	FSC463R
75	1	DOUBLE-SIDED CASHIER COUNTER	CUSTOM	ST. STL./MILLWORK
76	2	POINT OF SALE SYSTEM	BY OWNER	NOT IN KEC CONTRACT
77	1	HOT SERVING COUNTER	CUSTOM	ST. STL./MILLWORK
78	1	DROP-IN HOT WELL UNIT	LTI	TW-DW-3
79	1	SELF-SERVE BREATH GUARD W/LIGHTS	VERSA GARD	VG7
80	4	TRAFFIC CONTROL RAILS	BY ARCHITECT	NOT IN KEC CONTRACT
81		SPARE NUMBER		
82		SPARE NUMBER		
83	1	HOT SERVING COUNTER	CUSTOM	ST. STL./MILLWORK
84	1	DROP-IN HOT WELL UNIT	LTI	TW-DW-3
85	1	SELF-SERVE BREATH GUARD W/LIGHTS	VERSA GARD	VG7
86	1	MOBILE COLD SERVING COUNTER	CUSTOM	ST. STL./MILLWORK
87	1	DROP-IN COLD WELL UNIT	LTI	DI-2063TA
88	1	DOUBLE SIDED BREATH GUARD	VERSA GARD	VG7
89	1	DOUBLE SIDED MILK COOLER	TRUE	TMC-58-DS-HC
90	1	DOUBLE SIDED AIR CURTAIN MERCHANDISER	STRUCTURAL CONCEPTS	FSC463R
91	1	DOUBLE-SIDED CASHIER COUNTER	CUSTOM	ST. STL./MILLWORK
92		SPARE NUMBER		
93	1	HOT SERVING COUNTER	CUSTOM	ST. STL./MILLWORK
94	1	DROP-IN HOT WELL UNIT	LTI	TW-DW-3
95	1	SELF-SERVE BREATH GUARD W/LIGHTS	VERSA GARD	VG7
96		SPARE NUMBER		
97	4	SINGLE DOOR PASS-THRU HEATED CABINET	TRUE	STA1HPT-1G-1S
98	4	SINGLE DOOR PASS-THRU REFRIGERATOR	TRUE	STA1RPT-1G-1S-HC
99	1	20 QT. MIXER	HOBART	HL200-15TD
100	1	SLICER WITH STAND	HOBART	HS8-1
101	1	ICE MAKER W/ BIN	MANITOWOC ICE	IYT0420A
102	1	WORK TABLE	CUSTOM	ST. STL
103	1	HIGH SPEED MICROWAVE STEAMER	EXISTING - RELOCATED BY KEC	
104	6*	MOBILE TRAY DISPENSERS	DELFIELD	TT2-1014
105	1*	MANUAL CAN OPENER	EDLUND	S-11
106	1*	ELECTRIC CAN OPENER	EDLUND	270/115V
107	1*	DIGITAL SCALE	EDLUND	WSC-10
108	4*	HEAVY-DUTY UTILITY CART	LAKESIDE	744

* - ITEM OR QUANTITY NOT SHOWN

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PROJECT

WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS

DUNELAND SCHOOL CORPORATION
CHESTERTON, INDIANA

GIBRALTAR DESIGN
9102 N. Meridian St., Ste. 300
Indianapolis, IN 46260
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PROJECT 21-139
DATE 03/03/2022
COORDINATED BY
DRAWN BY JJN
CHECKED BY RDG

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REVISIONS

MARK	DATE	ISSUED FOR
	03.30.22	ADDENDUM #03

DRAWING
FOODSERVICE EQUIPMENT PLAN

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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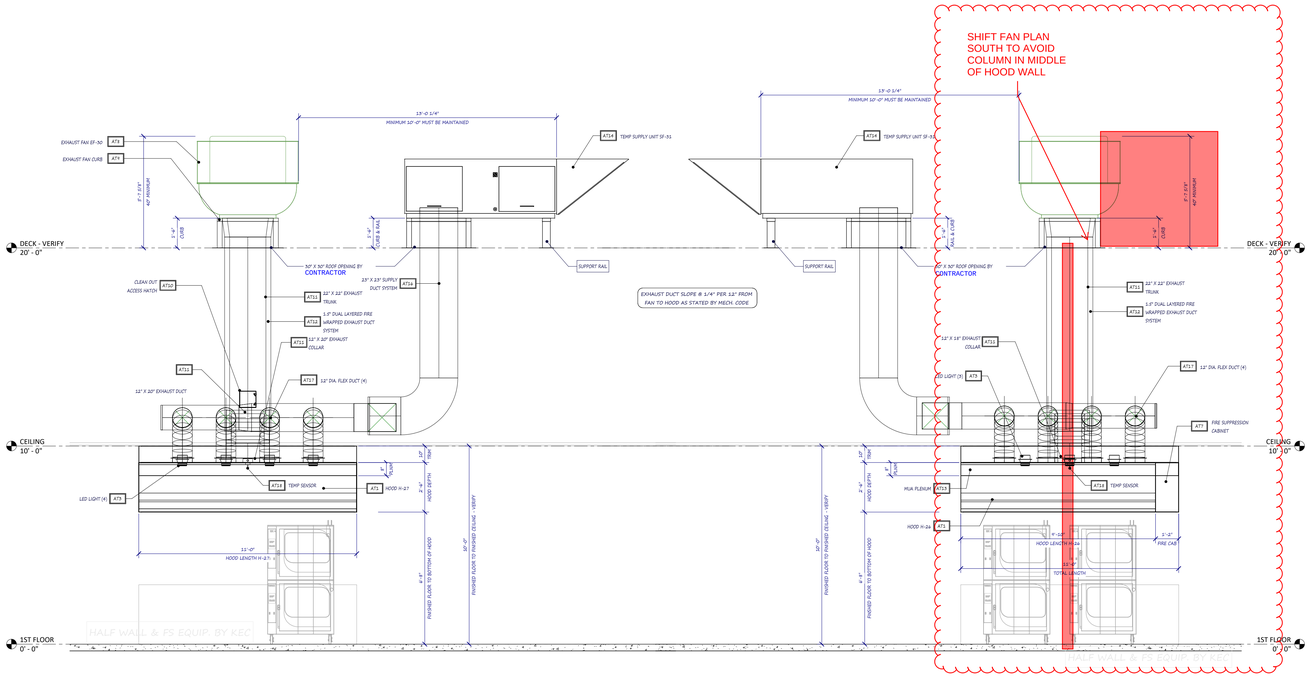
SHEET
K-101

Wednesday, 3/30/2022 - 3:04 PM - LAST SAVED BY:JONATHAN NIKKEL
G:\SHARED DRIVES\RDG PROJECT DATA\RDG PROJECT FOLDER (2021)\2021-030-GIBRALTAR-DUNELAND WESTCHESTER\03 K\K-DRAWINGS\K-CAD\QP-2021-030-PLAN.DWG

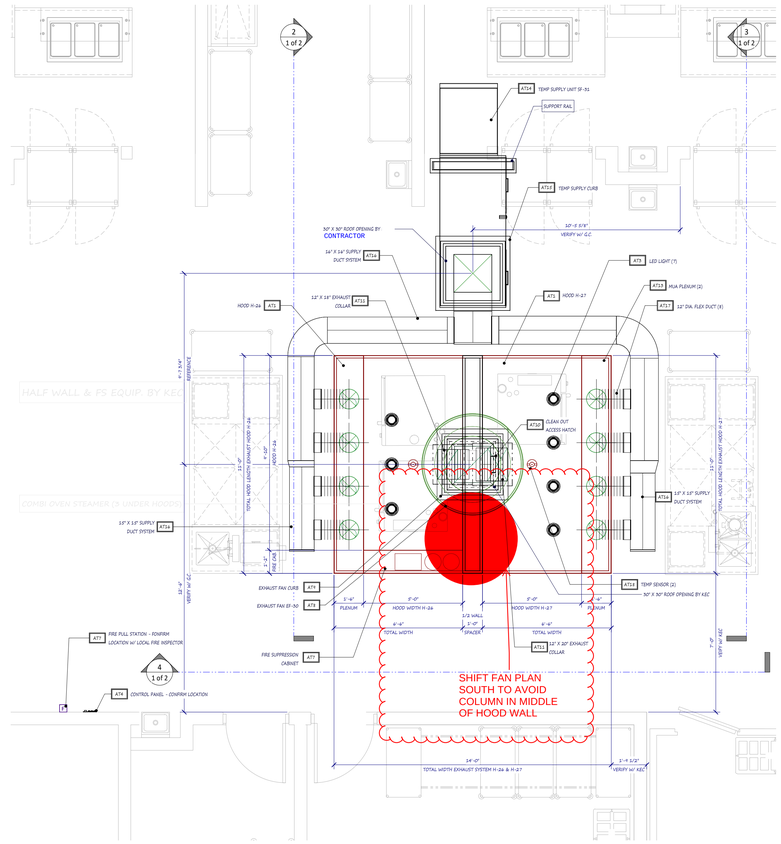


SECTION - EXHAUST HOOD H-27

SCALE: 3/8" = 1'-0"

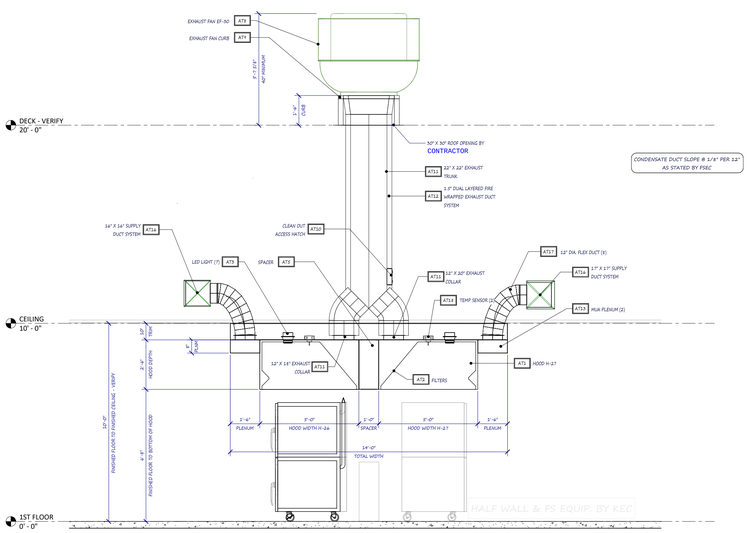
SECTION - EXHAUST HOOD H-26

SCALE: 3/8" = 1'-0"



EXHAUST SYSTEM PLAN

SCALE: 3/8" = 1'-0"



SECTION - EXHAUST HOOD PROFILE H-26 & 27

SCALE: 3/8" = 1'-0"

ALLIED AIR PACKAGED EXHAUST VENTILATION SYSTEM

ITEM	SYSTEM PARTS	QTY.	MODEL	U.L. AND/OR ETL LISTINGS	REMARKS
AT1	EXHAUST HOOD	2	CH SERIES	U.L. 710 LISTING & NSF 2	TYPE 300, 16 GA. S/S CONSTRUCTION
AT2	GREASE BAFFLE FILTERS	LOT	CHG FSD	R6293 CONTROL #8495G	STAINLESS BAFFLE FILTERS-16" TALL
AT3	VAPOR PROOF LIGHTS	7	LEDR-108	U.L. E79283 & NSF 2.	VAPOR PROOF LED LIGHT FIXTURES
AT4	REMOTE MOUNTED CONTROL PANEL	1	SEE DWG.	INCLUDED W/ EXHAUST HOOD	FLUSH - WALL MOUNTED - WIRED BY E.C
AT5	SPACER	1	CUSTOM	TO MEET LOCAL CODE	TYPE 300, 16 GAUGE S/S CONSTRUCTION - 12" WIDE
AT6	S/S TRIM ENCLOSURE	*LOT	CUSTOM	TO MEET LOCAL CODE	FROM TOP OF HOOD TO +2" ABOVE CEILING
AT7	FIRE SYSTEM	1	ANSUL R-102.	U.L. 300 DESIGN	PRE-ENGINEERED - WET CHEMICAL
AT8	EXHAUST FAN	1	STXBHPRHUL27	U.L. 762	SEE DRAWING DETAILS
AT9	EXHAUST FAN ROOF CURB	1	VERIFY ROOF	TO MEET LOCAL CODE	18 GAUGE GALVANIZED INSULATED STEEL CONSTRUCTION
AT10	EXHAUST DUCT CLEAN-OUT ACCESS	1	THERMAL CERAMICS	TO MEET LOCAL CODE	INSTALLED EVERY 10'-0" OF HORIZONTAL RUN OR CHANGE DIRECTION
AT11	EXHAUST DUCT SYSTEM INSTALLED	LOT	CUSTOM FIELD MEASURE	TO MEET LOCAL CODE	16 GAUGE, FULLY WELDED (LIQUID TIGHT) SEE DRAWING FOR DETAILS
AT12	EXHAUST DUCT FIRE RATED WRAP	LOT	THERMAL CERAMICS	TO MEET LOCAL CODE	FIELD VERIFY BUILDING MATERIALS FOR COMPLIANCE
AT13	PERFORATED MAKE-UP AIR PLENUM	2	BOTTOM DISCHARGE	INCLUDED W/ EXHAUST HOOD	S/S CONSTRUCTION WITH BALANCING DAMPERS & PERFORATED BOTTOM
AT14	TEMP SUPPLY UNIT	1	V-3 (SEE SCHEDULE)	ETL/227441	SEE DRAWING DETAILS
AT15	TEMP SUPPLY UNIT CURB	1	VERIFY ROOF	TO MEET LOCAL CODE	18 GAUGE GALVANIZED INSULATED STEEL CONSTRUCTION
AT16	MAKE-UP AIR DUCT SYSTEM INSTALLED	LOT	CUSTOM FIELD MEASURE	TO MEET LOCAL CODE	22 GAUGE LOW PRESSURE STEEL PER SMACNA STANDARDS
AT17	MAKE-UP AIR ROUND FLEXIBLE DUCT	8	CUSTOM FIELD MEASURE	TO MEET LOCAL CODE	INSULATED FLEXIBLE DUCT WITH BALANCING DAMPERS AT EACH CONNECTION TO PLENUM
AT18	TEMP SENSOR	2	AS-SNS/WTD905	TO MEET LOCAL CODE	"AUTO START" CONTROL W/ INTERLOCK TIME DELAY RELAY
AT19	S/S WALL PANELS	0	NA	TO MEET LOCAL CODE	TYPE 300 S/S CONSTRUCTION
AT20	S/S END PANELS	0	NA	TO MEET LOCAL CODE	TYPE 300 S/S CONSTRUCTION

KITCHEN EQUIPMENT CONTRACTOR TO COORDINATE WITH GENERAL, ROOFING, STRUCTURAL, ELECTRICAL, HVAC AND PLUMBING CONTRACT DOCUMENTS.
HOOD SYSTEM INSTALLER TO FIELD MEASURE KITCHEN VENTILATION SYSTEM BEFORE PRODUCT CONSTRUCTION AND INSTALL.

*TRIM MAY BE INCLUDED UPON VERIFICATION OF CEILING HEIGHT

AVTEC INDUSTRIES
520 S. COLDWATER RD.
WEDMAN, MI 48893

	400F MAX COOKING TEMP	600F MAX COOKING TEMP	700F MAX COOKING TEMP
EXH. CFM/FT	275	304	N/A
SUP. CFM/FT	N/A	N/A	N/A
FRONT OVERHANG	6"	6"	N/A
SIDE OVERHANG	6"	6"	N/A
SPACE BETWEEN HOOD & COOKING EQUIPMENT (MIN).	42"	42"	N/A

FOR USE WITH UL CLASSIFIED AL OR STEEL GREASE FILTERS
REPLACE FUSIBLE LINK WITH UL LISTED 3-20LB 165°F LINK

CH HOOD LABEL

SCALE: NOT TO SCALE

ALLIED AIR REFERENCE (ATI) HOOD SCHEDULE

HOOD ITEM	HOOD SIZE	HOOD WEIGHT	EXHAUST CFM	EXHAUST COLLAR SIZE	EXHAUST DUCT VELOCITY	EXHAUST S.P.	SUPPLY CFM	SUPPLY AIR DUCT SIZE	SUPPLY AIR DUCT VELOCITY	SUPPLY S.P.
H-26	*4'-10" X 5'-0"	**825	2,750	12" X 18"	1,800 FPM	1"	2,200	(4) 12" DIA.	705	2"
H-27	13'-0" X 5'-0"	825	3,025	12" X 20"	1,800 FPM	1"	2,420	(4) 12" DIA.	775	2"

*DOES NOT INCLUDE 1'-3" FIRE CABINET ATTACHED TO HOOD **INCLUDES FIRE CABINET ATTACHED TO HOOD

EXHAUST HOOD CFM		CONDENSATE EXHAUST CFM	
EXHAUSTED AIR (CFM)	5,775	EXHAUSTED CONDENSATE AIR (CFM)	-0-
HEATED MAKE-UP AIR (CFM)	4,620	MAKE-UP AIR (CFM)	-0-

EXHAUST CFM TOTAL: 5,775 REMOVED BY HOODS: 5,775 RETURNED BY MUA: 4,620 BALANCE REQUIRED BY HVAC: 1,155 CFM

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PROJECT
WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS
DUNELAND SCHOOL CORPORATION
CHESTERTON, INDIANA

GIBRALTAR DESIGN
9102 N. Meridian St., Ste. 300
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PROJECT 21-139
DATE 03/03/2022
COORDINATED BY
DRAWN BY JJN
CHECKED BY RDG

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REVISIONS

MARK	DATE	ISSUED FOR
	03.30.22	ADDENDUM #03

Allied Technologies Food Equipment, Inc.
926 SAYRE DRIVE
GREENWOOD, IN 46142
317.887.2020
www.alliedfoodequipment.com

WESTCHESTER INTERMEDIATE SCHOOL
CHESTERTON, IN

RDG

CHRIS OXFORD
Date 2.28.22
Revisions:
@ 00.00.00
@ 00.00.00
@ 00.00.00

1 of 2

Scale: As indicated

Project Number WIS22522

DRAWING
EXHAUST VENTILATION SYSTEM DRAWING, DETAILS & SCHEDULE

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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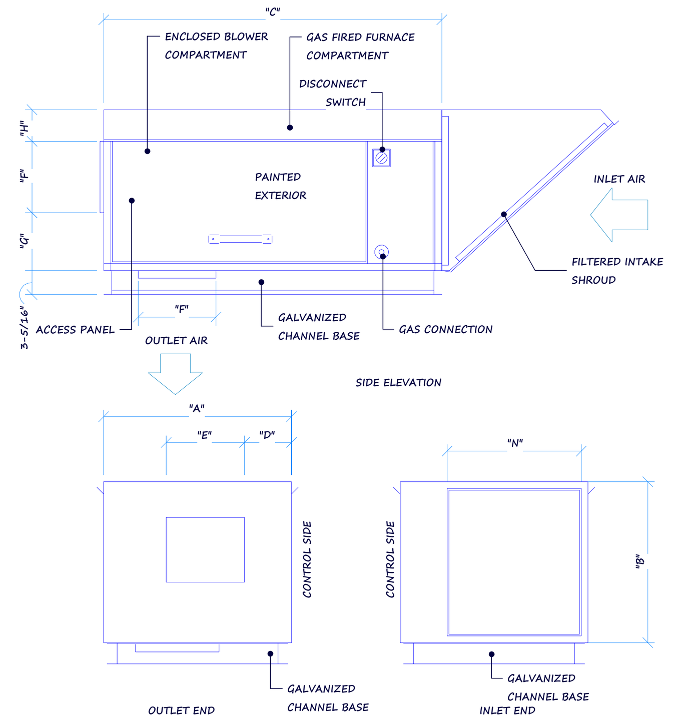
SHEET
K-500

Thursday, 3/3/2022 – 3:01 PM – LAST SAVED BY:JONATHAN NIKKEL
G:\SHARED DRIVES\RDG PROJECT DATA\RDG PROJECT FOLDER (2021)\2021-030-GIBRALTAR-DUNELAND WESTCHESTER, 21-139 - 9900 WOODVA, CAD\QF-2021-030-HOOD.DWG

MAKE-UP AIR FAN SCHEDULE

FAN DESCRIPTION			FAN DIMENSIONS											FAN RATING									
ITEM #	QUAN.	MODEL	"A"	"B"	"C"	"D"	"E"	"F"	"G"	CURB I.D.	CURB O.D.	ROOF OPENING	LBS.	VOLTS	PH	HP	AMPS	MOP	RPM	STATIC	CFM	CONN.	BTU
SF-31	1	V3	40"	33"	92"	9-11/16"	20-5/8"	17 7/8"	9-3/8"	33" X 33"	36" X 36"	30" X 30"	550	460	3	3	7.1	40	1,030	2"	4,620	3/4"	368,676



NOTES:

MOTOR COMPARTMENT TO BE PROVIDED WITH FORCED AIR COOLING, COMPARTMENT TO BE SEALED FROM DUST AND VERMIN.

MAINTAIN A MINIMUM OF 30" CLEARANCE AROUND UNIT FOR SERVICE.

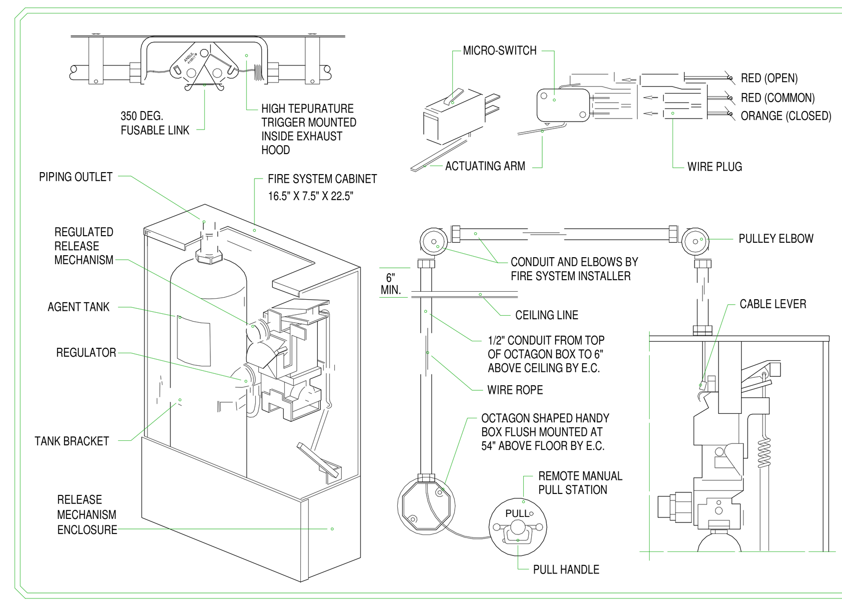
STANDARD OPTIONS:

WEATHER-TIGHT HOUSING (PAINTED)
FOIL-FACED INTERIOR INSULATION
BOTTOM DISCHARGE
FAN & MOTOR VIBRATION ISOLATORS
WIRING HARNESS 50'-0"
NON-FUSED DISCONNECT SWITCH
DIRECT FIRED FURNACE
MOTORIZED INLET DAMPER
MOTOR STARTERS
LOW-TEMP LIMIT SWITCH

LISTED

REVISE FANS TO BE 208V/60/3 30 AMP MOP - NO 480V POWER AVAILABLE AT THIS SCHOOL

AT14 - MAKE-UP AIR UNIT DETAIL
SCALE: NOT TO SCALE



GENERAL NOTES:

1. THIS INSTALLATION TO BE MADE IN ACCORDANCE WITH THE R-102 INSTALLATION MANUAL AND ALL STATE AND LOCAL CODES.
2. THIS DRAWING MAY BE USED FOR APPROVAL PURPOSES.
3. ALL PIPE FITTINGS AND NOZZLES ARE TO BE WRENCH TIGHTENED AND SECURELY SUPPORTED. ALL NOZZLES ARE TO BE AIMED AS INDICATED IN THE R-102 INSTALLATION MANUAL.
4. THE WIRE ROPE FOR THE DETECTOR AND REMOTE PULL STATION TO BE INSTALLED BY AN AUTHORIZED AND FACTORY TRAINED INSTALLER.
5. INSTALLATION TO BE INSPECTED, ACTIVATED AND CERTIFIED BY AN AUTHORIZED AND FACTORY TRAINED REPRESENTATIVE.
6. E.C. TO PROVIDE ALL CONTACTS AND WIRING FOR APPLIANCE SHUT-OFF.
7. ANSUL R-102 RESTAURANT FIRE SUPPRESSION SYSTEMS HAVE BEEN UL TESTED, LISTED AND COMPLY WITH ALL RELEVANT DOCUMENTATION AND NFPA 96 WHEN INSTALLED AS DIRECTED BY AN AUTHORIZED AND FACTORY TRAINED INSTALLER.
8. ALL EXHAUST HOOD PENETRATIONS TO BE SEALED PER NFPA 96.
9. ALL PIPE LENGTHS TO BE FIELD VERIFIED.
10. ALL PIPE TO BE 3/8" SCH. 40 BLACK PIPE, CHROME PLATED OR S/S.
11. PIPE ENDS TO BE REAMED. PIPE ENDS AND INTERIOR TO BE FREE OF ALL OIL, DIRT AND DEBRIS.
12. PIPING DIMENSIONS ARE FROM CENTER TO CENTER OF FITTINGS.
13. FINAL NOZZLE LOCATIONS MAY NOT VARY FROM LOCATION SHOWN.

AT7 - HOOD MOUNTED FIRE SUPPRESSION DETAIL - ITEM #26 & # 27
SCALE: NTS

ADD DISH MACHINE FAN, DUCTWORK, AND VENT COWLS PER PREVIOUSLY ISSUED SPECIFICATIONS

DISHMACHINE VENTILATION SYSTEM SCHEDULE (ITEM #54)

EXHAUST VENTILATION ELECTRICAL REQUIREMENTS

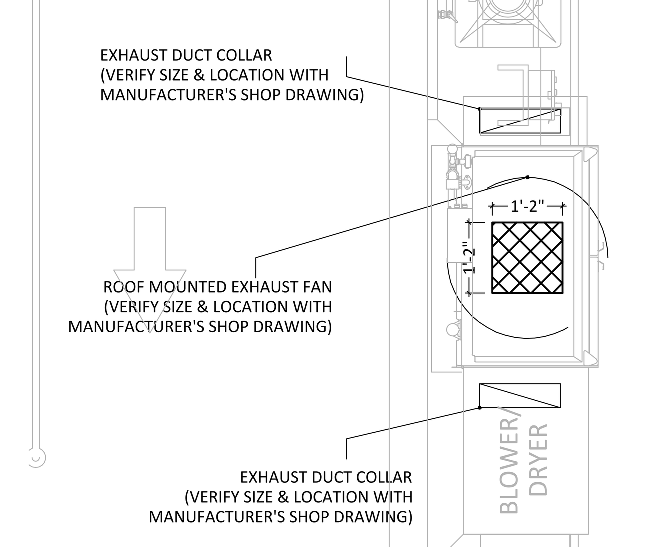
ITEM	EQUIPMENT DESCRIPTION	VOLTAGE	PHS	AMP	HP	AFF	REMARKS
E54	CONDENSATE EXHAUST FAN	120	1	6.4	0.33	ROOF	SEE NOTES

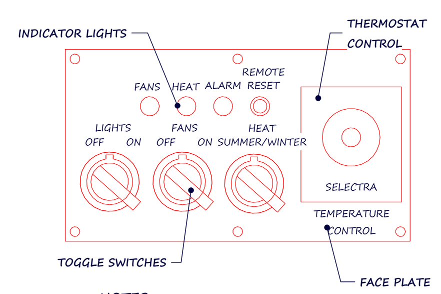
EXHAUST VENTILATION MECHANICAL REQUIREMENTS

ITEM	EQUIPMENT DESCRIPTION	CFM REQ. EXHAUST	CFM REQ. SUPPLY	WEIGHT (LBS)	GAS SIZE	GAS BTU	REMARKS
P53	CONDENSATE EXHAUST VENT COWLS			N/A			SEE NOTES
P54	CONDENSATE EXHAUST FAN	600		137			SEE NOTES

EXHAUST VENTILATION WORK BY OTHERS

ITEM	EQUIPMENT	MAKE-UP AIR BALANCE REQUIRED BY BUILDING HVAC RESOURCES (CFM)	ROOF OPENING BY G.C. EXHAUST FAN	ROOF OPENING BY G.C. SUPPLY FAN
55	DISHMACHINE VENTILATION SYSTEM	600	14" x 14"	

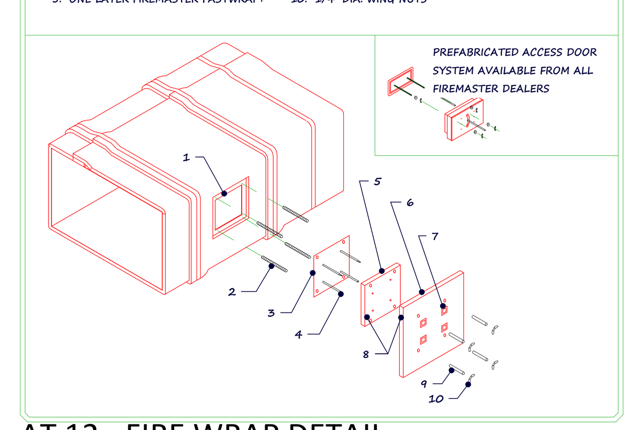




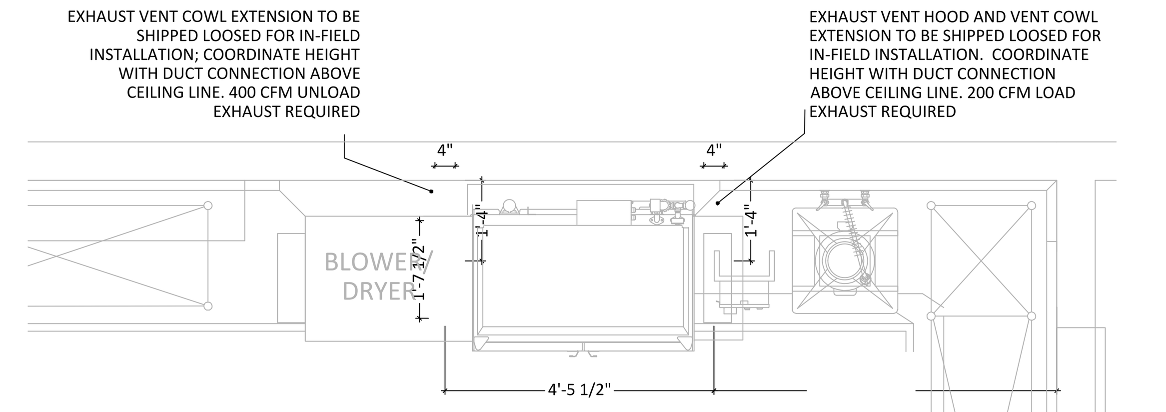
NOTES:
1. WALL MOUNTED CONTROL PANEL.
2. DESIGNED FOR OPERATION ON 24V CIRCUIT.

AT4 - REMOTE-WALL MOUNTED CONTROL PANEL (3 SWITCH)
SCALE: 12" = 1'-0"

1. DOOR HOLE
2. 1/4" DIA. ALL THREAD RODS
3. ACCESS COVER - 16 GAUGE
4. INSULATION PINS - WELDED
5. ONE LAYER FIREMASTER FASTWRAP+
6. TWO LAYERS FIREMASTER FASTWRAP + 1" OVERLAP
7. SPEED CLIPS
8. ALUMINUM TAPE COVERING ALL EXPOSED EDGES
9. SPOOL PIECES FOR THREADED RODS
10. 1/4" DIA. WING NUTS

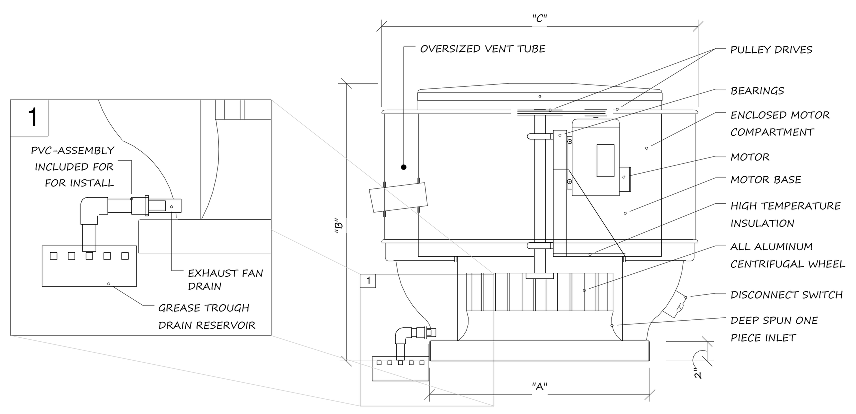


AT 12 - FIRE WRAP DETAIL
SCALE: NOT TO SCALE



EXHAUST FAN SCHEDULE

FAN DESCRIPTION			FAN DIMENSIONS							FAN RATING						
ITEM #	QTY.	MODEL	"A"	"B"	"C"	CURB I.D.	CURB O.D.	ROOF OPENING	LBS.	VOLTS	PH	HP	AMPS	RPM	STATIC	CFM
EF-30	1	STXBHPRHUL27	36"	51.63"	61.31"	31" X 31"	34" X 34"	30" X 30"	413	460	3	2	3.3	705	1"	5,775



NOTES:

MOTOR COMPARTMENT TO BE PROVIDED WITH FORCED AIR COOLING, COMPARTMENT TO BE SEALED FROM CONTAMINATED EXHAUST AIR.
EXTERNALLY MOUNTED JUNCTION BOX
NEOPRENE ISOLATORS ARE INCLUDED TO REDUCE NOISE AND VIBRATION.

STANDARD ACCESSORIES:
GREASE TROUGH
HINGED CURB
UL762 RESTAURANT LISTING
INSULATED GALVANIZED CURB

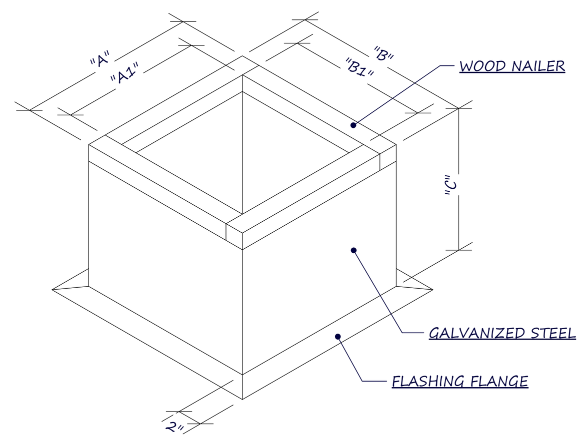
EXHAUST FAN ASSEMBLY DESCRIPTION

DRIVES	SIZED FOR 150% OF DRIVE H.P., ADJUSTIBLE PITCH SHEAVES
OVERSIZED VENT TUBE	FOR MAXIMUM MOTOR COOLING
BEARINGS	BALL BEARING TYPE PERMANENTLY SEALED AND LUBRICATED
ENCLOSED MOTOR COMPARTMENT	ISOLATES MOTOR ANDS DRIVES FOR EXHAUST AIR
MOTOR	OPEN DRIP-PROOF CONSTURCTION STANDARD.
MOTOR BASE	MOTOR IS ADJUSTIBLE FOR PROPER BELT TENSION
INSULATION	HIGH TEMPERATURE INSULATION PROVIDES LONGER MOTOR LIFE
ALL ALUMINUM CENTRIFUGAL WHEEL	NON-OVERLOADING, BACKWARDS INCLINE TAPERED BLADES FOR MAXIMUM EFFICIENCY AND MINIMUM SOUND
DISCONNECT SWITCH	RAINPROOF ELECTRICAL BOX WITH WIRING CHASE. ELIMINATES THE NEED TO UNWIRE AND REWIRE THE MOTOR WHEN REMOVING MOTOR COMPARTMENT HOUSING
DEEP SPUN ONE PIECE INLET	NON-OVERLOADING, BACKWARDS INCLINE TAPERED BLADES FOR MAXIMUM EFFICIENCY AND MINIMUM SOUND

AT8 - UPBLAST EXHAUST FAN DETAIL
SCALE: NOT TO SCALE

CURB SCHEDULE

CURB DIMENSIONS					
FAN #	"A"	"A1"	"B"	"B1"	"C"
EF-30	"34"	31"	"34"	"31"	"18"
SF-31	"36"	33"	"36"	"33"	"18"

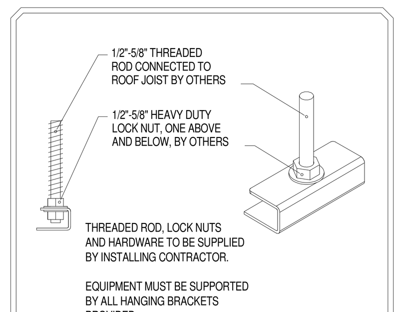


NOTES:
18 GAUGE GALVANIZED INSULATED STEEL CONSTRUCTION

1-1/2" THICK 3 LBS DENSITY RIGID FIBERGLASS INSULATION

2" FLASHING STRIP FACTORY INSTALLED WOOD NAILER

AT15 - CURB DETAIL
SCALE: NOT TO SCALE

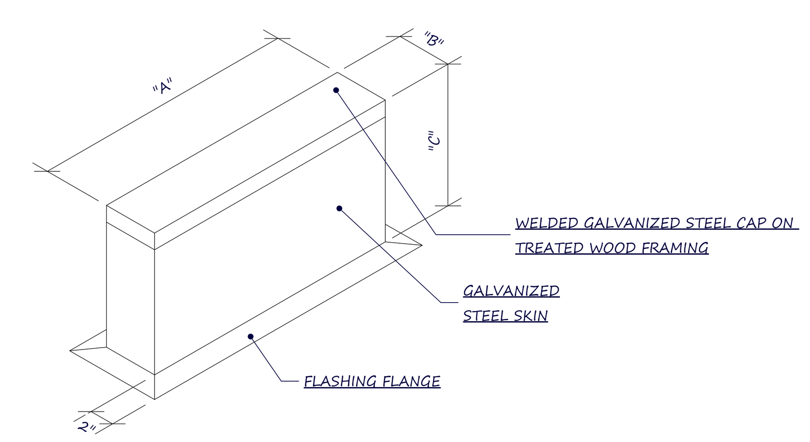


BRACKET DETAIL
SCALE: NOT TO SCALE

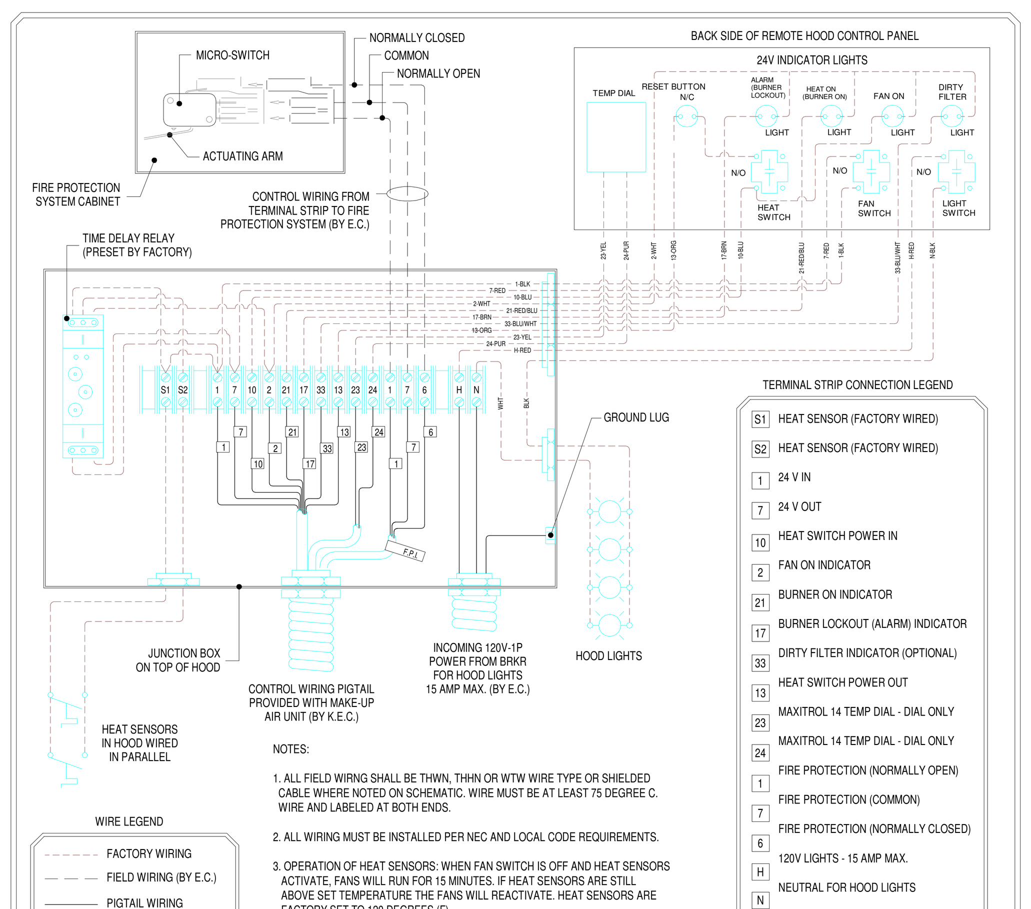
SUPPORT RAIL SCHEDULE

CURB DIMENSIONS			
FAN #	"A"	"B"	"C"
SF-31	"49.5"	"5"	"15.75"

NOTES:
-18 GAUGE GALVANIZED STEEL CONSTRUCTION
-2" FLASHING STRIP
-FACTORY INSTALLED WOOD NAILER



SUPPORT RAIL DETAIL
SCALE: NOT TO SCALE

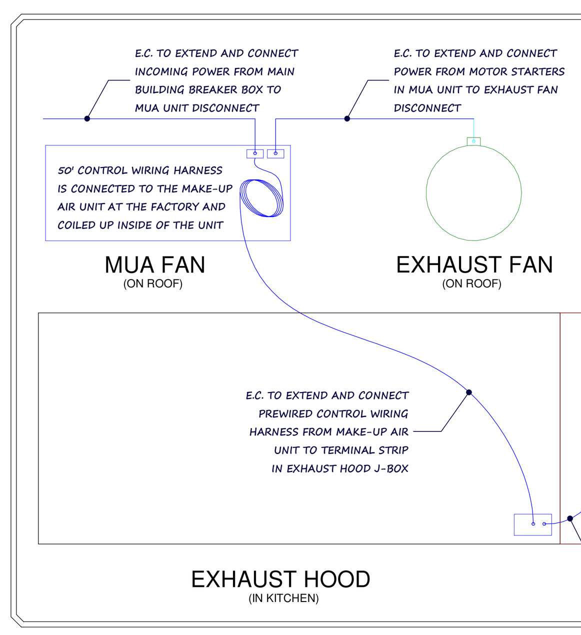


NOTES:
1. ALL FIELD WIRING SHALL BE THWN, THHN OR WTW WIRE TYPE OR SHIELDED CABLE WHERE NOTED ON SCHEMATIC. WIRE MUST BE AT LEAST 75 DEGREE C. WIRE AND LABELED AT BOTH ENDS.
2. ALL WIRING MUST BE INSTALLED PER NEC AND LOCAL CODE REQUIREMENTS.
3. OPERATION OF HEAT SENSORS: WHEN FAN SWITCH IS OFF AND HEAT SENSORS ACTIVATE, FANS WILL RUN FOR 15 MINUTES. IF HEAT SENSORS ARE STILL ABOVE SET TEMPERATURE THE FANS WILL REACTIVATE. HEAT SENSORS ARE FACTORY SET TO 120 DEGREES (F).

TERMINAL STRIP CONNECTION LEGEND

S1	HEAT SENSOR (FACTORY WIRED)
S2	HEAT SENSOR (FACTORY WIRED)
1	24 V IN
7	24 V OUT
10	HEAT SWITCH POWER IN
2	FAN ON INDICATOR
21	BURNER ON INDICATOR
17	BURNER LOCKOUT (ALARM) INDICATOR
33	DIRTY FILTER INDICATOR (OPTIONAL)
13	HEAT SWITCH POWER OUT
23	MAXITROL 14 TEMP DIAL - DIAL ONLY
24	MAXITROL 14 TEMP DIAL - DIAL ONLY
1	FIRE PROTECTION (NORMALLY OPEN)
7	FIRE PROTECTION (COMMON)
6	FIRE PROTECTION (NORMALLY CLOSED)
H	120V LIGHTS - 15 AMP MAX.
N	NEUTRAL FOR HOOD LIGHTS

TYPICAL WIRE ROUTING DETAIL - REMOTE MOUNTED
SCALE: NOT TO SCALE



NOTES:
1. ALL WIRE, CONDUIT AND HARDWARE FOR INCOMING POWER TO BE SUPPLIED AND INSTALLED BY THE ELECTRICAL CONTRACTOR.
2. CONTROL WIRING FROM THE EXHAUST HOOD TO THE FIRE SUPPRESSION SYSTEM TO BE SUPPLIED AND INSTALLED BY THE ELECTRICAL CONTRACTOR.
3. ALL WIRE, CONDUIT AND HARDWARE FROM MOTOR STARTER(S) IN MUA UNIT TO EXHAUST FANS TO BE SUPPLIED AND INSTALLED BY THE E.C.

WIRE ROUTING DETAIL - HOOD W/ CABINET
SCALE: NOT TO SCALE

KITCHEN VENTILATION RESPONSIBILITIES BY OTHER TRADES

GENERAL CONTRACTOR:

CUT OUT ROOF AND/OR WALL OPENINGS AS REQUIRED. NO OPENINGS ARE TO BE CUT UNTIL THE SIZE AND LOCATION IS VERIFIED WITH THE HOOD SYSTEM INSTALLER UPON SITE INSPECTION. SET IN PLACE ROOF CURBS AND SUPPORTS SUPPLIED AND LOCATED BY THE HOOD SYSTEM PROVIDER. FRAME AND REINFORCE ROOF STRUCTURE AS REQUIRED. COORDINATE JOIST OR STRUCTURAL MEMBER INSTALLATION TO PROVIDE REQUIRED CLEARANCES FOR DUCTWORK AND RATED ASSEMBLIES.

ELECTRICAL CONTRACTOR:

PROVIDE 120/60/1 20 AMP CIRCUIT, FOR HOOD LIGHTS AND CONTROLS TO JUNCTION BOX ON TOP OF HOOD AND CONNECT POWER TO ALL ADJOINING HOODS AS NECESSARY FOR LIGHTS IN ALL HOODS TO BE CONTROLLED FROM THE SAME SWITCH. PROVIDE 3 PHASE CIRCUIT (FOR FAN MOTORS) FROM BUILDING POWER SOURCE TO DISCONNECT MOUNTED IN MAKE-UP AIR UNIT CABINET. EXTEND POWER WIRING FROM MOTOR STARTER PANEL TO CONNECTION POINT ON EXHAUST FANS. EXTEND CONTROL WIRE WHIP (PROVIDED IN THE MAKE-UP AIR UNIT) TO JUNCTION BOX ON TOP OF THE EXHAUST HOOD AND CONNECT PER DETAIL ON THIS SHEET. PROVIDE CONDUIT AND THREE WIRES FROM TERMINAL BLOCK ON HOOD TO MICRO-SWITCH OF FIRE PROTECTION SYSTEM. INTERLOCK WIRING OF THE SUPPLY FANS MOTOR CONTROL DEVICE THROUGH THE FIRE SYSTEM MICRO SWITCH, SHUTTING OFF SUPPLY AIR IN THE EVENT OF FIRE SYSTEM ACTUATION. PROVIDE AND INSTALL AN OCTAGON BOX FOR THE FIRE SYSTEM PULL STATION, MOUNTING THE CENTERLINE OF THE BOX AT 54" ABOVE THE FINISHED FLOOR. RUN 1/2" CONDUIT FROM THE TOP OF THE BOX TO 6" ABOVE THE CEILING. PULL STATION TO BE PROVIDED WITH FIRE SYSTEM. PROVIDE AND INSTALL AUTOMATIC POWER SHUT OFF DEVICES (SHUNT TRIP BREAKERS, OR DEFINITE PURPOSE CONTACTORS) WITH INTERLOCK TO FIRE SYSTEM MICRO SWITCH, SHUTTING OFF ALL POWER BELOW THE HOOD (INCLUDING CONTROL VOLTAGE) IN THE EVENT OF FIRE SYSTEM ACTUATION. THIS WORK MUST BE IN ACCORDANCE WITH N.F.P.A. 17A, IEC, AND THE I.E.C.

HVAC CONTRACTOR:

PROVIDE NET ROOM AIR DEMAND AS INDICATED ON THE HOOD SYSTEM DRAWINGS. THIS AIR VOLUME IS REQUIRED ONLY WHEN HOOD SYSTEM IS IN OPERATION. PROVIDE NORMAL HEATING AND COOLING OF THE KITCHEN AREA.

PLUMBING CONTRACTOR:

INSTALL GAS VALVE (SUPPLIED WITH THE FIRE SUPPRESSION SYSTEM) IN THE MAIN SUPPLY LINE SERVING THE COOKING EQUIPMENT TO SHUT OFF GAS SERVICE TO THE COOKING EQUIPMENT IN THE EVENT OF FIRE SYSTEM ACTUATION. PROVIDE AND INSTALL SERVICE TO GAS FIRED FURNACE ON ROOF. PROVIDE AND INSTALL GAS PIPING TO ROOF (SIZE AS REQUIRED) AND CONNECT TO MAKE-UP AIR UNIT PER IMC.

Allied Technologies
Food Equipment, Inc.
926 SAYRE DRIVE
GREENWOOD, IN 46142
317.887.2020
www.alliedfoodequipment.com

WESTCHESTER INTERMEDIATE SCHOOL
CHESTERTON, IN

RDG

CHRIS OXFORD
Date 2.28.22
Revisions:
00.00.00
00.00.00
00.00.00
2 of 2
Scale: As indicated
Project Number WIS22522

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PROJECT
WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS
DUNELAND SCHOOL CORPORATION
CHESTERTON, INDIANA

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PROJECT 21–139
DATE 03/03/2022
COORDINATED BY
DRAWN BY JJN
CHECKED BY RDG

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REVISIONS

MARK	DATE	ISSUED FOR
	03.30.22	ADDENDUM #03

DRAWING
EXHAUST VENTILATION SYSTEM DRAWING, DETAILS & SCHEDULE

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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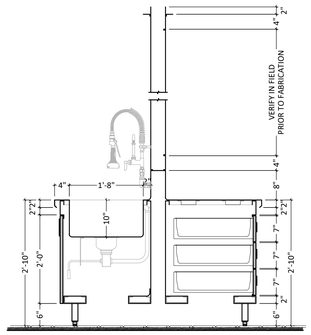
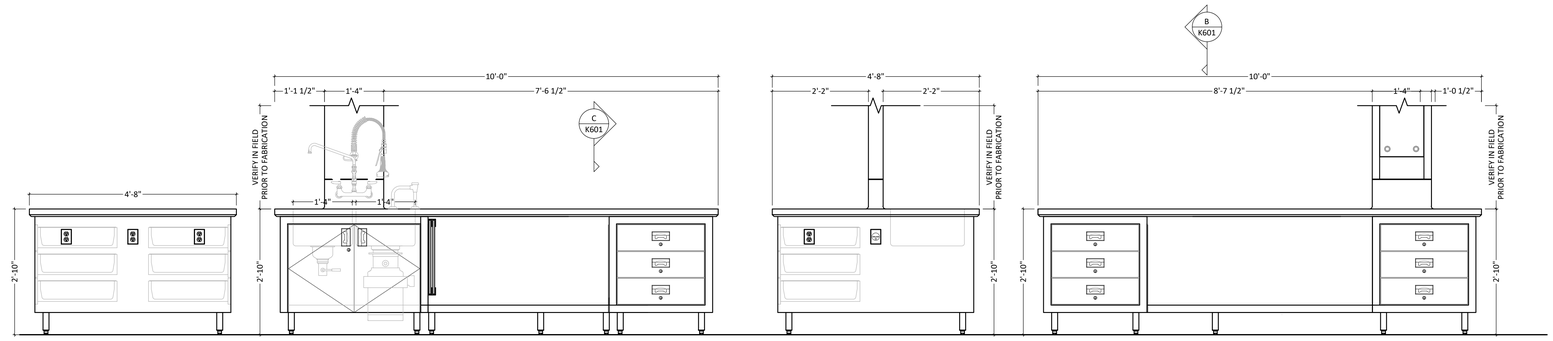
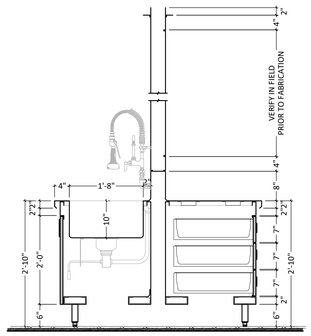
Thursday, 3/3/2022 – 3:00 PM – LAST SAVED BY:JONATHAN NIKIEL
G:\SHARED DRIVES\RDG PROJECT DATA\RDG PROJECT FOLDER (2021)\2021-030-GIBRALTAR-DUNELAND WESTCHESTER IS\3. DRAWINGS\A. CAD\QF-2021-030-HOOD.DWG



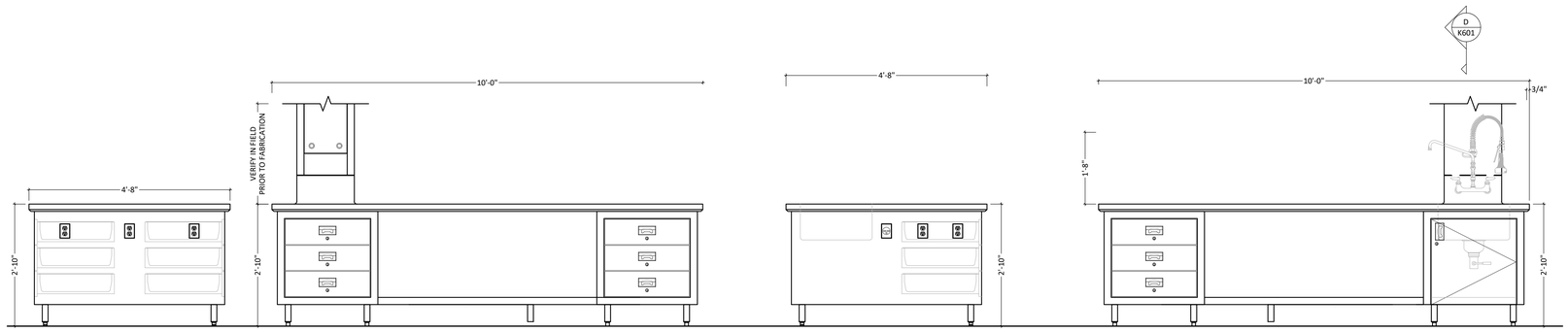
SECTION @ ISLAND PREP WORKTABLE | SCALE 3/4" = 1'-0" | B



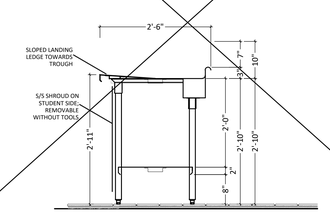
ITEM #14 - ISLAND VEGETABLE PREP WORKTABLE | SCALE 3/4" = 1'-0" | A



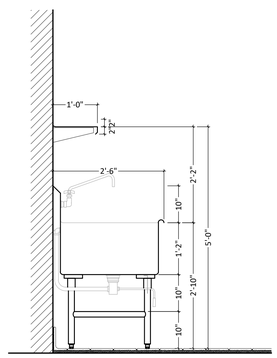
SECTION AT ISLAND WORKTABLE | SCALE 3/4" = 1'-0" | D



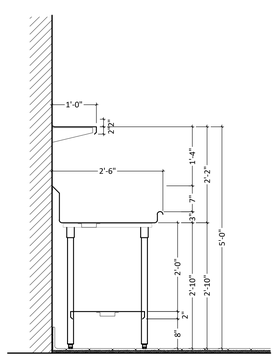
ITEM #17 - ISLAND PREP WORKTABLE | SCALE 3/4" = 1'-0" | C



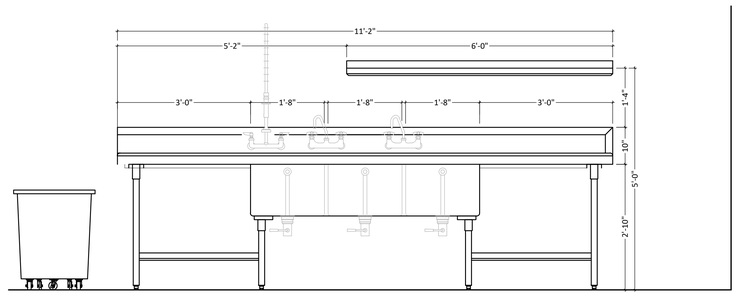
SECTION @ SOILED DISH DROP | SCALE 3/4" = 1'-0" | H



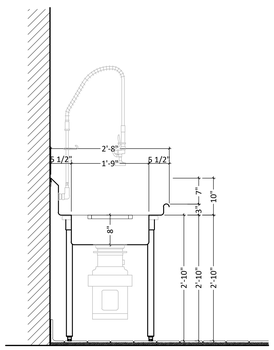
SECTION @ THREE COMPARTMENT SINK | SCALE 3/4" = 1'-0" | G



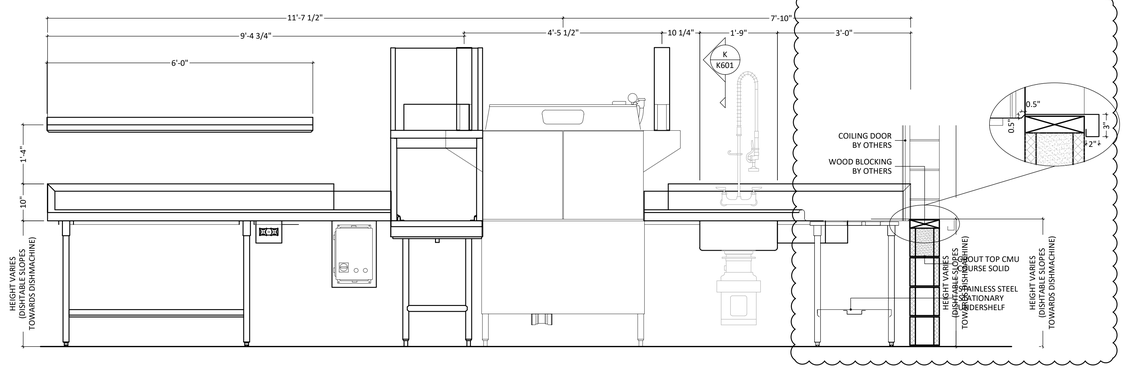
SECTION @ THREE COMPARTMENT SINK | SCALE 3/4" = 1'-0" | F



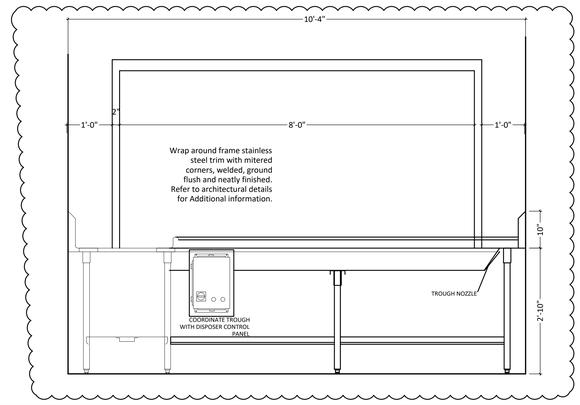
ITEM# 45 - THREE COMPARTMENT SINK | SCALE 3/4" = 1'-0" | E



SECTION @ SOILED DISHTABLE | SCALE 3/4" = 1'-0" | K



ITEM #50 & 55 - CLEAN & SOILED DISHTABLE | SCALE 3/4" = 1'-0" | J



ITEM #50 - SOILED DISHTABLE | SCALE 3/4" = 1'-0" | I

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PROJECT

WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS

DUNELAND SCHOOL CORPORATION
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PROJECT 21–139
DATE 03/03/2022
COORDINATED BY
DRAWN BY JJN
CHECKED BY RDG

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REVISIONS

MARK	DATE	ISSUED FOR
	03.30.22	ADDENDUM #03

DRAWING
FOODSERVICE EQUIPMENT DETAILS, ELEVATIONS & SECTIONS

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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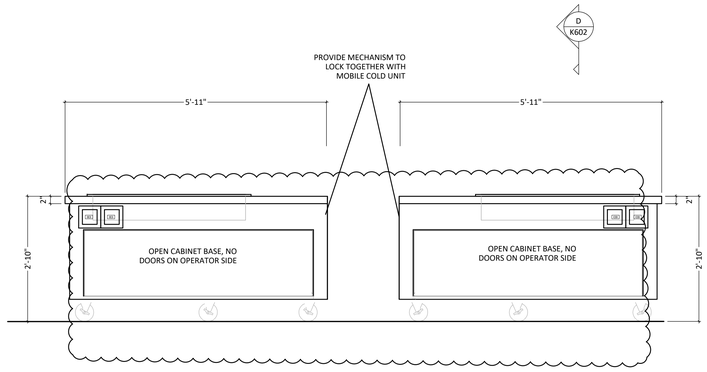
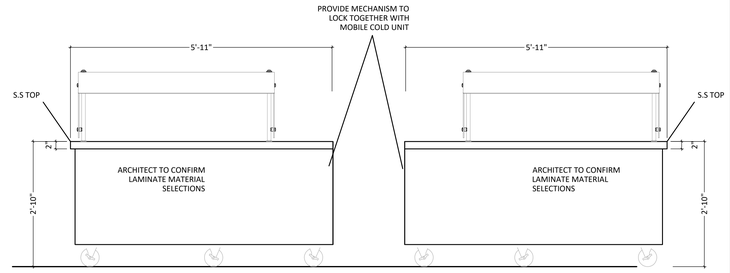
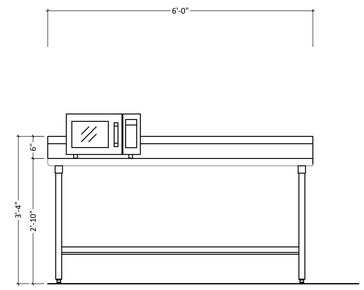
G:\SHARED DRIVES\RDG PROJECT DATA\RDG PROJECT
FOLDER (2021)\2021-030-GIBRALTAR-DUNELAND
WESTCHESTER IS\1 PRELIMINARY DRAWINGS\
CAD\QF-2021-030-ELEV.DWG



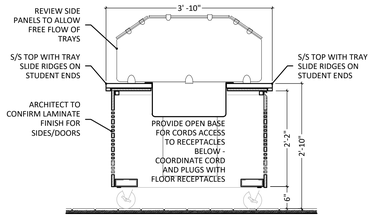
ITEM#67, 79, 83, AND 93 - SERVING COUNTERS | SCALE 3/4" = 1'-0" | C



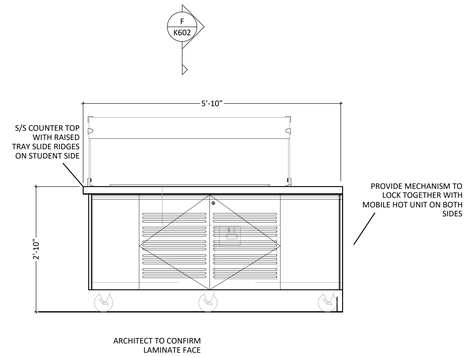
ITEM#67, 79, 83, AND 93 - SERVING COUNTERS | SCALE 3/4" = 1'-0" | B



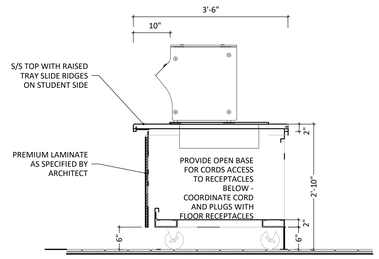
ITEM#102 - WORKTABLE | SCALE 3/4" = 1'-0" | A



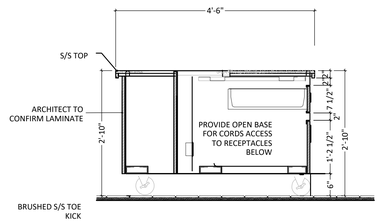
ITEM#70 AND 86 COLD WELL COUNTER | SCALE 3/4" = 1'-0" | F



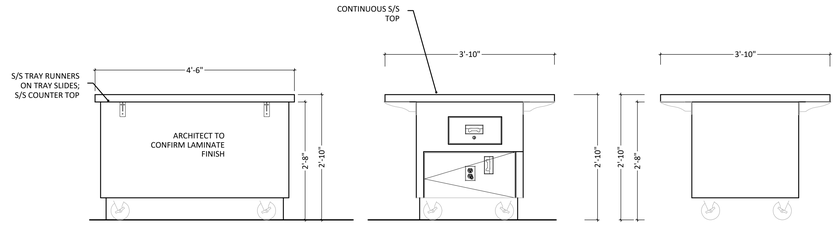
ITEM#70 AND 86 COLD WELL COUNTER | SCALE 3/4" = 1'-0" | E



SECTION AT HOT WELL | SCALE 3/4" = 1'-0" | D



SECTION AT POINT OF SALE COUNTER | SCALE 3/4" = 1'-0" | B



ITEM #75 AND 91 - POINT OF SALE COUNTER | SCALE 3/4" = 1'-0" | A

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WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS

DUNELAND SCHOOL CORPORATION
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PROJECT 21—139
DATE 03/03/2022
COORDINATED BY
DRAWN BY JJN
CHECKED BY RDG

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REVISIONS

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	03.30.22	ADDENDUM #03

DRAWING
FOODSERVICE EQUIPMENT DETAILS, ELEVATIONS & SECTIONS

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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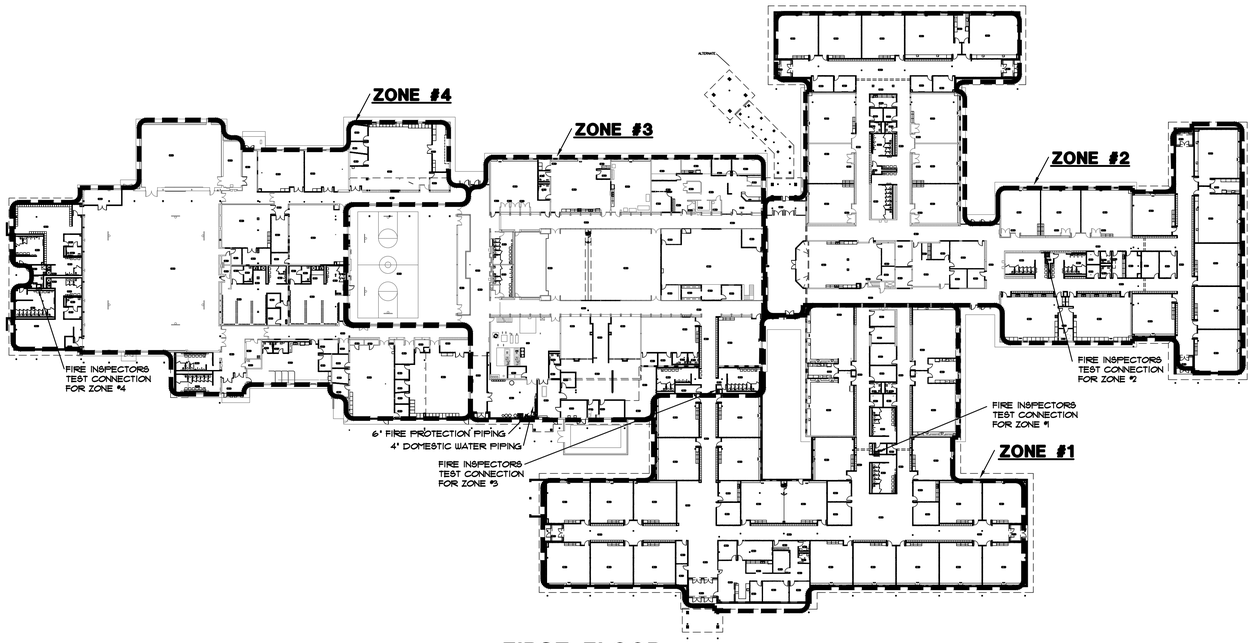
FIRE PROTECTION ZONING PLAN / FIRE INSPECTORS TEST CONNECTION



FIRST FLOOR

(INCLUDE ALL MEZZANINE AND INTERSTITIAL SPACES)

FIRE PROTECTION GENERAL NOTES

A. WORK SHALL COMPLY WITH LOCAL, MUNICIPAL, STATE FIRE PROTECTION CODES, THE LATEST NFPA 13 REQUIREMENTS.

B. THE SCOPE OF WORK SPECIFIED HEREIN AND IN THE SPECIFICATIONS SHALL BE COORDINATED WITH THE CONSTRUCTION MANAGER - REFER TO THE SCOPE OF WORK FOR EACH TRADE. ANY DISCREPANCIES BETWEEN THE CONSTRUCTION DOCUMENTS AND CONSTRUCTION MANAGERS SCOPE SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER FOR CLARIFICATION. THE ARCHITECT/ENGINEER'S DECISION SHALL BE FINAL.

C. THE ENTIRE BUILDING OR THE NEW ADDITIONS SHALL BE FURNISHED AND INSTALLED WITH A COMPLETE AUTOMATIC SPRINKLER SYSTEM. EXISTING, REMODELED AND NEW ADDITION AREAS OF THIS BUILDING SHALL BE COVERED INCLUDING TUNNEL, ATTIC, CRAWLSPACE AND INTERSTITIAL SPACES.

D. THE BUILDING HAS MULTIPLE OCCUPANCY CLASSIFICATIONS AND THE SPRINKLER SYSTEM SHALL BE DESIGNED FOR EACH CLASSIFICATION ACCORDING TO NFPA REQUIREMENTS. FOR PORTIONS OF THE FACILITY WITH AREAS OF DIFFERENT CLASSIFICATIONS THAT ARE NOT PHYSICALLY SEPARATED BY A BARRIER OR PARTITION, THE REQUIRED SPRINKLER PROTECTION FOR THE MORE DEMANDING AREA SHALL EXTEND 15'-0" BEYOND ITS PERIMETER.

1. GENERAL AREAS ARE LIGHT HAZARD, 0.10 GPM/SQFT. FOR THE MOST REMOTE 1500 SQFT.
2. KITCHEN AREA IS ORDINARY HAZARD (GROUP 1), 0.15 GPM SQFT. FOR THE MOST REMOTE 1500 SQFT.

E. LAYOUT IS DIAGRAMMATIC. INSTALL PIPING AND EQUIPMENT TO MEET ACTUAL FIELD CONDITIONS. REVIEW PROJECT SPECIFICATIONS BEFORE STARTING ANY WORK. SUBMIT SHOP DRAWINGS OF WORK AS PER SPECIFICATIONS.

F. VERIFY IF EXISTING ASBESTOS WILL BE ENCOUNTERED PRIOR TO STARTING ANY WORK. IF ASBESTOS IS PRESENT, THE OWNER WILL PROVIDE FOR THE REMOVAL OF ANY MATERIAL CONTAINING ASBESTOS. SEE SPECIFICATIONS FOR FURTHER REQUIREMENTS.

G. COORDINATE PHASING OF WORK AND PROVIDE TEMPORARY PIPING AND SERVICES AS REQUIRED FOR THE IMPLEMENTATION OF WORK WHILE MAINTAINING SERVICES TO PORTIONS OF BUILDING TO REMAIN OCCUPIED.

H. SCHEDULE WORK TO AVOID DOWNTIME AND INCONVENIENCE TO OWNER. OWNER'S EXISTING FACILITY SHALL REMAIN IN OPERATION AT TIMES. REQUIRED SHUTDOWN OF EXISTING UTILITIES SHALL BE SCHEDULED WITH OWNER'S OPERATING PERSONNEL. NOTIFY OWNER'S REPRESENTATIVE 48 HOURS IN ADVANCE PRIOR TO ANY SHUTDOWN OF EXISTING SYSTEMS.

I. FIRE PROTECTION PIPING ROUTING TO BE FIELD COORDINATED WITH NEW AND EXISTING HVAC DUCTWORK, HVAC PIPING, PLUMBING PIPING AND STRUCTURE TO ENSURE NO CONFLICTS WILL OCCUR DUE TO INTERFERENCE.

J. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR HVAC DIFFUSER LAYOUT AND ELECTRICAL SPECIALTY DEVICES IN CONJUNCTION WITH ELECTRICAL LIGHTING, SPRINKLER HEAD LAYOUT, AND CEILING GRID SYSTEM.

K. COORDINATE EQUIPMENT ELECTRICAL REQUIREMENTS (VOLTAGES, PHASE, LOAD, ETC.) PRIOR TO ORDERING ANY EQUIPMENT.

L. INSTALL ELECTRIC ALARM DEVICES AND SUPERVISORY DEVICES. COORDINATE WIRING OF DEVICES.

M. VISIT SITE PRIOR TO BIDDING TO DETERMINE FIELD CONDITIONS. COORDINATE NEW INSTALLATIONS WITH EXISTING SYSTEMS. EXISTING CONDUIT, PIPING, DUCTWORK, EQUIPMENT, ETC. SHALL BE REWORKED AS REQUIRED TO AVOID CONFLICTS WITH THE INSTALLATION OF THE NEW FIRE PROTECTION SYSTEMS. NO EXTRAS WILL BE ALLOWED AFTER BIDDING FOR ANY REWORK OF EXISTING FIELD CONDITIONS TO RESOLVE CONFLICTS OR NOT FULLY UNDERSTANDING THE SCOPE OF THE WORK REQUIRED.

N. EXISTING INFORMATION IDENTIFIED ON THE CONTRACT DOCUMENTS IS SCHEMATIC ONLY AS AN AID TO THE CONTRACTOR. PROPERLY ADDRESS EXISTING CONDITIONS FOR A COMPLETE AND PROPER INSTALLATION OF NEW SYSTEMS. EXISTING EQUIPMENT NOT IDENTIFIED SHALL BE REPORTED IN WRITTEN FORM FOR REVIEW AS TO WHETHER THE EQUIPMENT SHALL REMAIN AND BE RECONNECTED TO THE NEW SERVICES, BE RELOCATED, BE ABANDONED, ETC.

O. HIDDEN CONDITIONS IDENTIFIED THROUGH THE COURSE OF CONSTRUCTION SHALL BE IMMEDIATELY REPORTED IN WRITTEN FORM FOR REVIEW AND DIRECTION. FAILURE TO DO SO SHALL MAKE THE CONTRACTOR RESPONSIBLE FOR REQUIRED CHANGES AND COSTS TO CORRECT SAID HIDDEN CONDITION.

P. COORDINATE NEW INSTALLATIONS WITH EXISTING SYSTEMS. EXISTING CONDUIT, PIPING, DUCTWORK, EQUIPMENT, ETC. SHALL BE REWORKED AS REQUIRED TO AVOID CONFLICTS WITH THE INSTALLATION OF THE NEW FIRE PROTECTION SYSTEMS. NO EXTRAS WILL BE ALLOWED AFTER BIDDING FOR ANY REWORK OF EXISTING FIELD CONDITIONS TO RESOLVE CONFLICTS OR NOT FULLY UNDERSTANDING THE SCOPE OF THE WORK REQUIRED.

Q. CUT OR CHANNEL INTO EXISTING WALL CONSTRUCTIONS AS REQUIRED FOR INSTALLATION OF NEW PIPING WITHIN EXISTING WALLS. PATCH WALL SURFACES AND FINISH AS REQUIRED TO MATCH EXISTING CONDITIONS

R. REMOVE EXISTING CEILINGS REQUIRED FOR INSTALLATION OF NEW WORK. REINSTALL CEILING UPON COMPLETION OF WORK - REPLACE DAMAGED CEILING MATERIALS TO MATCH EXISTING. GYPSUM BOARD CEILINGS: PROVIDE CONCEALED CONTROL JOINT AT EDGES ABUTTING EXISTING GYPSUM BOARD CEILINGS. TAPE IN NEW AREAS TO EXISTING FLUSH - PROVIDE TEXTURE TO MATCH EXISTING.

S. REMOVE EXISTING SPRINKLER HEADS AND ASSOCIATED BRANCH SPRINKLER PIPING COMPLETE AS REQUIRED. EXTEND AND MODIFY EXISTING PIPING AS REQUIRED FOR NEW SPRINKLER HEAD LAYOUT.

T. PATCH EXISTING CEILING, FLOOR, WALL AND ROOF OPENINGS AND SURROUNDING FINISHES RESULTING FROM REMOVAL OF EXISTING MATERIALS AND EQUIPMENT SO THAT FINISH WILL MATCH EXISTING IN SURROUNDING AREAS.

U. PROVIDE FINISHING OF EXISTING CEILING, FLOOR, AND WALL SURFACES AT LOCATIONS EFFECTED BY REMOVAL OF EXISTING MATERIALS AND EQUIPMENT SO THAT NEW FINISH WILL MATCH EXISTING IN SURROUNDING AREAS.

W. REMOVE EXISTING CEILINGS AND LIGHT FIXTURES REQUIRED FOR INSTALLATION OF NEW WORK. REINSTALL CEILING AND LIGHT FIXTURES UPON COMPLETION OF WORK. REPLACE DAMAGED CEILING MATERIALS TO MATCH EXISTING.

X. CUT OR CHANNEL INTO EXISTING WALL CONSTRUCTIONS AS REQUIRED FOR INSTALLATION OF NEW PIPING WITHIN EXISTING WALLS. PATCH WALL SURFACES AND FINISH AS REQUIRED TO MATCH EXISTING CONDITIONS.

Y. SPRINKLER HEADS IN FINISHED CEILING SPACES SHALL BE CONCEALED TYPE. SPRINKLER HEADS IN UNFINISHED SPACES SHALL BE PENDENT, UPRIGHT, OR SIDEWALL TYPE.

Z. SPRINKLER HEADS LOCATED IN SUSPENDED LAY-IN CEILING SYSTEMS SHALL BE CENTERED IN EACH RESPECTIVE TILE. PROVIDE 6' SWINGS TO PLACE THE SPRINKLER IN THE CENTER OF THE TILE.

AA. PIPING SHALL BE HYDROSTATICALLY TESTED AT 200 PSI OR 50 PSI OVER THE MAXIMUM OPERATING PRESSURE, WHICHEVER IS GREATER, FOR A PERIOD OF TWO HOURS.

BB. PIPES SHALL BE SUPPORTED FROM THE BUILDING STRUCTURE IN ACCORDANCE WITH THE LATEST NFPA #13.

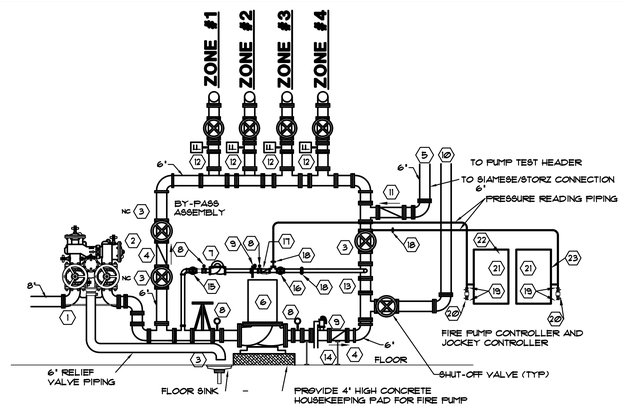
CC. PIPING, EQUIPMENT, ETC. SHALL NOT BE SUPPORTED FROM THE BOTTOM CHORD OF ENGINEERED JOISTS WITHOUT WRITTEN APPROVAL FROM THE STRUCTURAL ENGINEER.

DD. WET SYSTEM PIPING SHALL BE INSTALLED LEVEL, TO DRAIN BACK TO THE SYSTEM RISER. TRAPPED SECTIONS OF PIPING SHALL HAVE AUXILIARY DRAIN CONNECTIONS IN ACCORDANCE WITH LATEST NFPA #13.

CC. PROVIDE 1" INSPECTOR'S TEST CONNECTIONS FOR EACH ZONE TO ALLOW THE FLOW TESTING OF THE WATER FLOW INDICATOR SWITCH IN THE SPRINKLER RISER. THE TEST CONNECTION SHALL HAVE A 1" GLOBE VALVE LOCATED AT 7'-0" ABOVE THE FLOOR AND SHALL BE ARRANGED TO DISCHARGE THROUGH A 1/2" SMOOTH BORE BRASS BUSHING.

FIRE PROTECTION SERVICE DIAGRAM

NTS



1. 8" FIRE PROTECTION SERVICE
2. 6" REDUCED PRESSURE BACKFLOW PREVENTOR W/ OS&Y VALVES W/ TAMPER SWITCHES. ROUTE AIR GAP TO FLOOR DRAIN.
3. 6" OS&Y VALVE W/ TAMPER SWITCH
4. 6" CHECK VALVE
5. 6" FIRE DEPARTMENT WALL MOUNTED STORZ CONNECTION
6. FIRE PUMP ON CONCRETE PAD
7. INLINE JOCKEY PUMP
8. PRESSURE GAUGE
9. RELIEF VALVE ASSEMBLY
10. WALL MOUNTED PUMP TEST HEADER- 3 HOSE VALVE 2-1/2" WITH CAP AND CHAIN
11. 6" CHECK VALVE
12. FLOW SWITCH
13. 6" OS&Y VALVE W/ TAMPER SWITCH
14. PIPE STAND
15. MILWAUKEE "BUTTERBALL" BUTTERFLY (OR EQUAL) SLOW CLOSING VALVE W/ TAMPER SWITCH
16. MILWAUKEE "BUTTERBALL" BUTTERFLY (OR EQUAL) SLOW CLOSING VALVE W/ TAMPER SWITCH
17. CHECK VALVE
18. GROUND FACE UNION
19. GLOBE VALVE
20. PLUG FITTING
21. PRESSURE SWITCH ASSEMBLY
22. JOCKEY PUMP CONTROLLER
23. FIRE PUMP CONTROLLER - PROVIDE W/ INTEGRAL ATS

6 MAIN FIRE PUMP

ITT A-C MODEL NO. 1580 4x4x9.5, 30 HP, 3 PH, 208V, CONFORMING TO THE STANDARDS OF NFPA 20 LATEST EDITION FOR INSTALLATION OF CENTRIFUGAL FIRE PUMPS; THE PUMP SHALL BE VERTICAL IN-LINE, BRONZE FITTED, SINGLE STAGE, VERTICAL TOP PULL OUT DESIGN CASING CENTRIFUGAL PUMP DESIGNED FOR 175 PSI WORKING PRESSURE AND OF STANDARD INDUSTRIAL QUALITY AND COMPLETELY INTERCHANGEABLE WITH MANUFACTURER'S OTHER PUMPS. THE FLANGES ARE TO BE 125 PSI ANSI. THE PUMP SHALL HAVE A CAPACITY OF 500 GPM AND A DESIGN HEAD OF 75 PSI DISCHARGE WHEN OPERATING AT 20 PSI SUCTION PRESSURE.

AD-3

7 JOCKEY PUMP

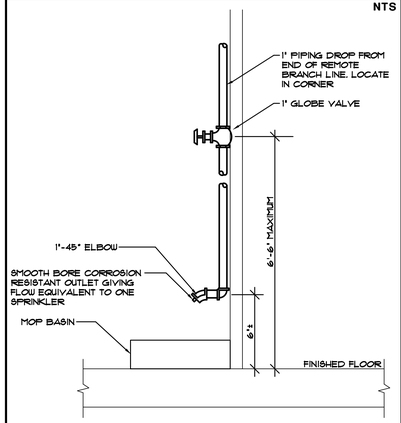
CENTRIFUGAL JOCKEY PUMP UNIT DESIGNED TO MAINTAIN 5 GPM AT 85 PSI DIFFERENTIAL PRESSURE (WITH 10 MIN PSI RESIDUAL.), MULTI-STAGE, COMPLETE WITH 1/2 HP, 3450 RPM MOTOR. THE PUMP SHALL BE EQUIPPED WITH MECHANICAL SEAL WITH STAINLESS STEEL INTERNAL PARTS. THE MOTOR SHALL BE ODP AND SHALL OPERATE ON 208 VOLT, 3 PHASE, 60 CYCLE CURRENT.

SYMBOLS/ABBREVIATIONS

FP	EXISTING FIRE PROTECTION PIPING
	EXISTING PIPING
FP	FIRE PROTECTION PIPING
	PIPE DOWN
	PIPE UP
	SHUT-OFF VALVE
	CHECK VALVE
	BALANCING COCK/MANUAL FLOW CONTROL VALVE
	SHEET NOTE TAG
	KITCHEN EQUIPMENT TAG
	MECHANICAL EQUIPMENT TAG
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
CI	CAST IRON
CO	CLEANOUT
CTE	CONNECT TO EXISTING
DBBP	DOMESTIC BOOSTER PUMP
DN	DOWN
EX.	EXISTING
FCO	FLOOR CLEANOUT
FD	FLOOR DRAIN
FHC	FIRE HOSE CABINET
FP	FIRE PROTECTION
FS	FLOOR SINK
MH	MANHOLE
NIC	NOT IN CONTRACT
PRV	PRESSURE REDUCING VALVE
YCO	YARD CLEANOUT
YH	YARD HYDRANT

INSPECTOR'S TEST PIPE DETAIL

NTS



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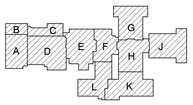

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PROJECT 21-141
DATE 02/28/22
COORDINATED BY JC
DRAWN BY MDG/TT
CHECKED BY DJ

DAVID G. JANNETT REGISTERED NO. 10302590 STATE OF INDIANA PROFESSIONAL ENGINEER

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AD-3	03/30/22	ADDENDUM NO. 3

DRAWING
FIRE PROTECTION NOTES, DIAGRAMS, SYMBOLS & ABBREVIATIONS

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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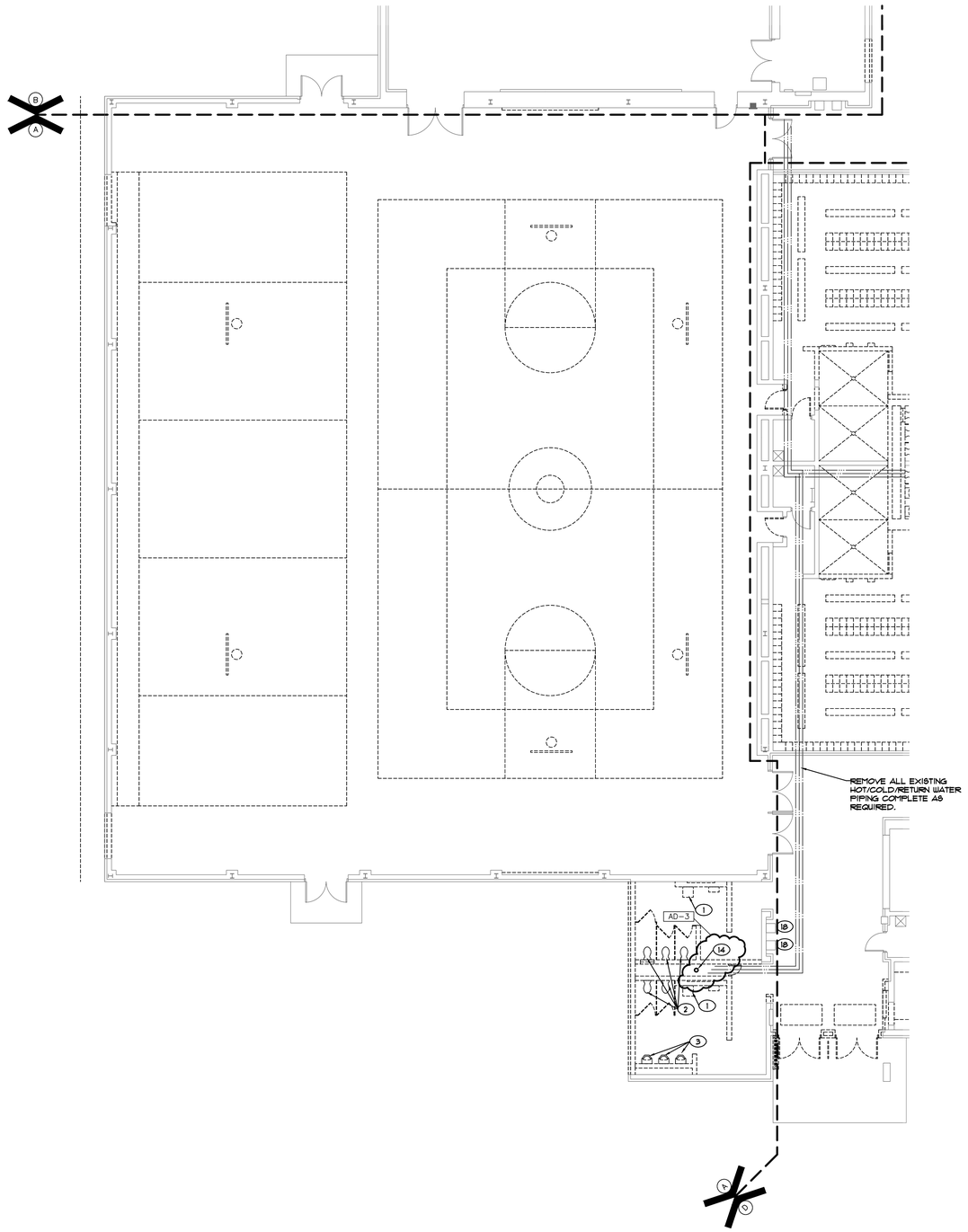

SHEET NOTES

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4. REMOVE EXISTING SINK AND FAUCET AND ALL ASSOCIATED HOT/COLD WATER, SANITARY AND VENT PIPING COMPLETE AS REQUIRED.
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6. REMOVE EXISTING MOP BASIN AND FAUCET AND ALL ASSOCIATED HOT/COLD WATER, SANITARY AND VENT PIPING COMPLETE AS REQUIRED.
7. REMOVE EXISTING SILLCOCK AND ALL ASSOCIATED COLD WATER PIPING COMPLETE AS REQUIRED.
8. REMOVE EXISTING FLOOR DRAIN AND ALL ASSOCIATED VENT PIPING AND CAP EXISTING SANITARY BELOW FLOOR AIR/WATERTIGHT COMPLETE AS REQUIRED.
9. REMOVE EXISTING FLOOR SINK AND ALL ASSOCIATED VENT PIPING AND CAP EXISTING SANITARY BELOW FLOOR AIR/WATERTIGHT COMPLETE AS REQUIRED.
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11. REMOVE EXISTING ELECTRIC HOT WATER RETURN PUMP AND ALL ASSOCIATED ELECTRICAL CONNECTIONS, VALVES, ETC. COMPLETE AS REQUIRED.
12. REMOVE EXISTING TEMPERED WATER MIXING VALVE AND ALL ASSOCIATED HOT/COLD/TEMPERED WATER PIPING COMPLETE AS REQUIRED.
13. REMOVE EXISTING SHOWER AND FAUCET AND ALL ASSOCIATED HOT/COLD WATER, SANITARY AND VENT PIPING COMPLETE AS REQUIRED.
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18. REMOVE, PROTECT AND REINSTALL EXISTING ELECTRIC WATER COOLER, ALL ASSOCIATED COLD WATER, SANITARY AND VENT PIPING COMPLETE AS REQUIRED.

UNIT "A" PLUMBING FIRST FLOOR DEMOLITION PLAN

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

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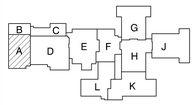
WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS

DUNELAND SCHOOL CORPORATION
CHESTERTON, INDIANA



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PROJECT 21-141

DATE 02/28/22

COORDINATED BY JC

DRAWN BY MDG/JM

CHECKED BY DJ

DAVID G. JANNEY REGISTERED NO. 10302590 STATE OF INDIANA PROFESSIONAL ENGINEER

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UNIT "A" PLUMBING FIRST FLOOR DEMOLITION PLAN

PROJECT

WESTCHESTER IS - ADDITIONS & RENOVATIONS

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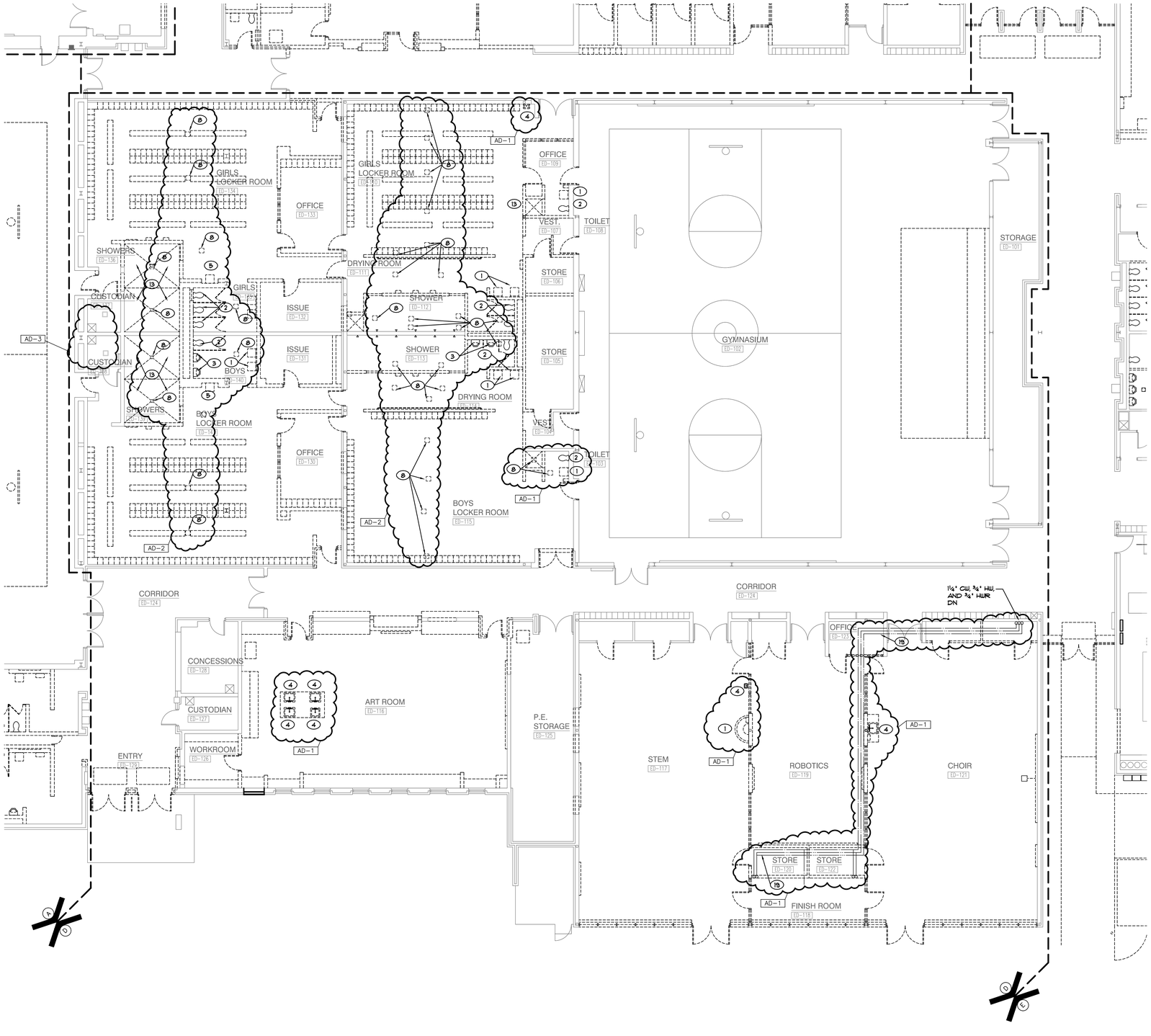

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18. REMOVE, PROTECT AND REINSTALL EXISTING ELECTRIC WATER COOLER, ALL ASSOCIATED COLD WATER, SANITARY AND VENT PIPING COMPLETE AS REQUIRED.
19. REMOVE EXISTING ALL HOT/COLD/RETURN WATER PIPING COMPLETE AS REQUIRED.

AD-1

UNIT "D" PLUMBING FIRST FLOOR DEMOLITION PLAN

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

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PROJECT
WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS

DUNELAND SCHOOL CORPORATION
CHESTERTON, INDIANA

KEY PLAN

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DATE 02/28/22
COORDINATED BY JC
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CHECKED BY DJ

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AD-1	03/16/22	ADDENDUM NO. 1
AD-2	03/21/22	ADDENDUM NO. 2
AD-3	03/30/22	ADDENDUM NO. 3

DRAWING
UNIT "D" PLUMBING FIRST FLOOR DEMOLITION PLAN

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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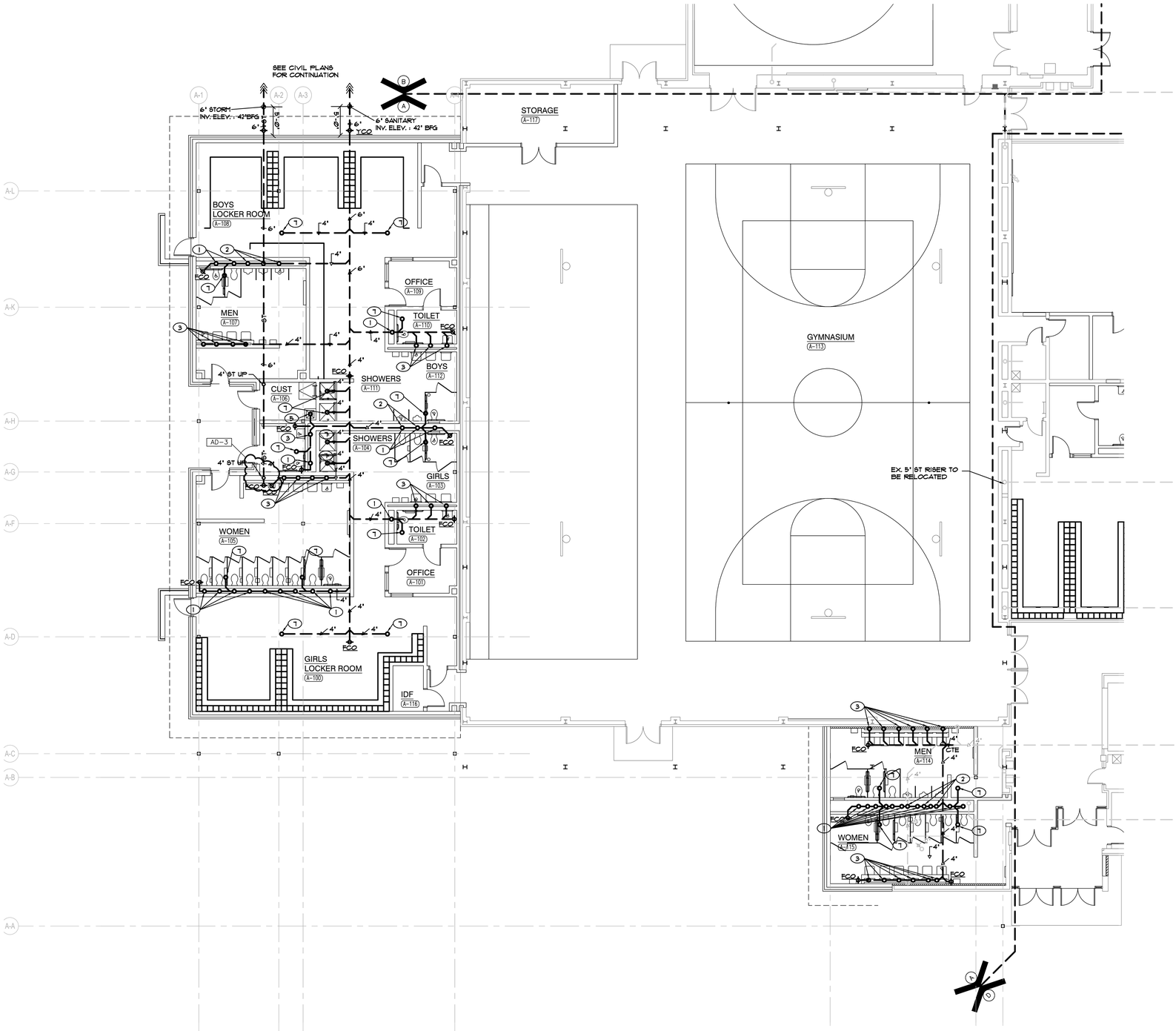
SHEET NOTES

1. 4" SANITARY UP TO WATER CLOSET
2. 1½" SANITARY UP TO URINAL
3. 1½" SANITARY UP TO LAVATORY
4. 2" SANITARY UP TO SINK
5. 4" SANITARY UP TO MOP BASIN
6. 1½" SANITARY UP TO ELECTRIC WATER COOLER
7. 4" SANITARY UP TO FLOOR DRAIN
8. 2" SANITARY UP TO PLUMBER'S BOX
9. 2" SANITARY UP TO EMERGENCY SHOWER



UNIT "A" PLUMBING UNDERFLOOR PLAN
SCALE: 1/8" = 1'-0"

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DRAWING
UNIT "A" PLUMBING UNDERFLOOR PLAN

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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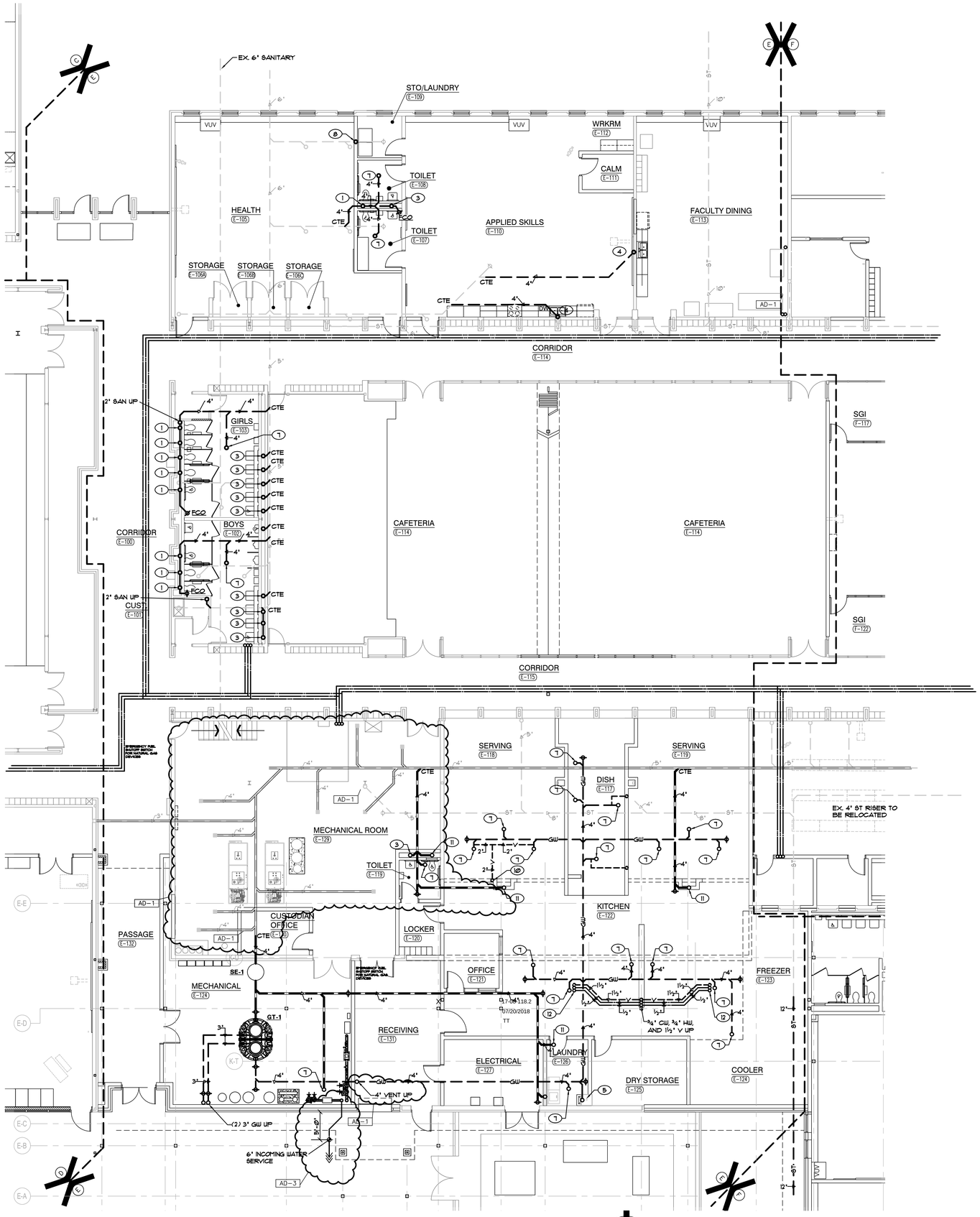

UNIT "E" PLUMBING UNDERFLOOR PLAN

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

SHEET NOTES

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2. 1½" SANITARY UP TO URINAL
3. 1½" SANITARY UP TO LAVATORY
4. 2" SANITARY UP TO SINK
5. 4" SANITARY UP TO MOP BASIN
6. 1½" SANITARY UP TO ELECTRIC WATER COOLER
7. 4" SANITARY UP TO FLOOR DRAIN/FLOOR SINK
8. 2" SANITARY UP TO PLUMBER'S BOX
9. 2" SANITARY UP TO EMERGENCY SHOWER.
10. 2" VENT UP.
11. 1½" SANITARY UP TO KITCHEN EQUIPMENT.
12. ½" CW, ½" HW, 1½" VENT UP TO KITCHEN EQUIPMENT.

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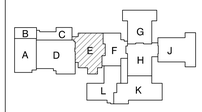

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DRAWING
UNIT "E" PLUMBING UNDERFLOOR PLAN

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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SHEET E P-104

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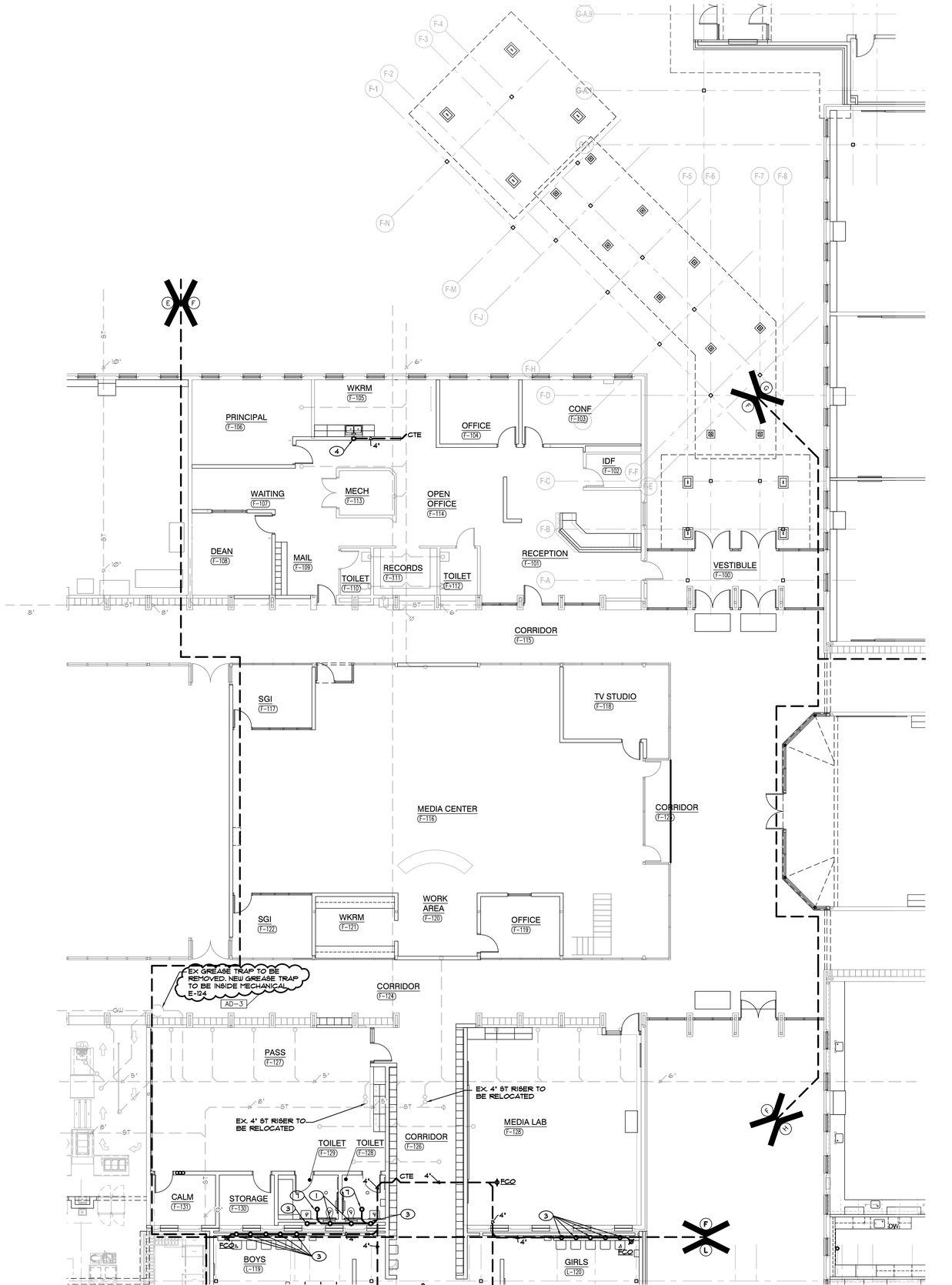

UNIT "F" PLUMBING UNDERFLOOR PLAN

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

NORTH

SHEET NOTES

1. 4" SANITARY UP TO WATER CLOSET
2. 1½" SANITARY UP TO URINAL
3. 1½" SANITARY UP TO LAVATORY
4. 2" SANITARY UP TO SINK
5. 4" SANITARY UP TO MOP BASIN
6. 1½" SANITARY UP TO ELECTRIC WATER COOLER
7. 4" SANITARY UP TO FLOOR DRAIN
8. 2" SANITARY UP TO PLUMBER'S BOX
9. 2" SANITARY UP TO EMERGENCY SHOWER

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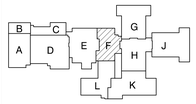
PROJECT
WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS

DUNELAND SCHOOL CORPORATION
CHESTERTON, INDIANA



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PROJECT
21-141
DATE
02/28/22
COORDINATED BY
JC
DRAWN BY
MDG
CHECKED BY
DJ

DAVID G. JANNEY
REGISTERED
NO.
10302590
STATE OF
INDIANA
PROFESSIONAL ENGINEER

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REVISIONS

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AD-3	03/30/22	ADDENDUM NO. 3

DRAWING
UNIT "F" PLUMBING UNDERFLOOR PLAN

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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SHEET NOTES

1. 4" SANITARY UP TO WATER CLOSET
2. 1½" SANITARY UP TO URINAL
3. 1½" SANITARY UP TO LAVATORY
4. 2" SANITARY UP TO SINK
5. 4" SANITARY UP TO MOP BASIN
6. 1½" SANITARY UP TO ELECTRIC WATER COOLER
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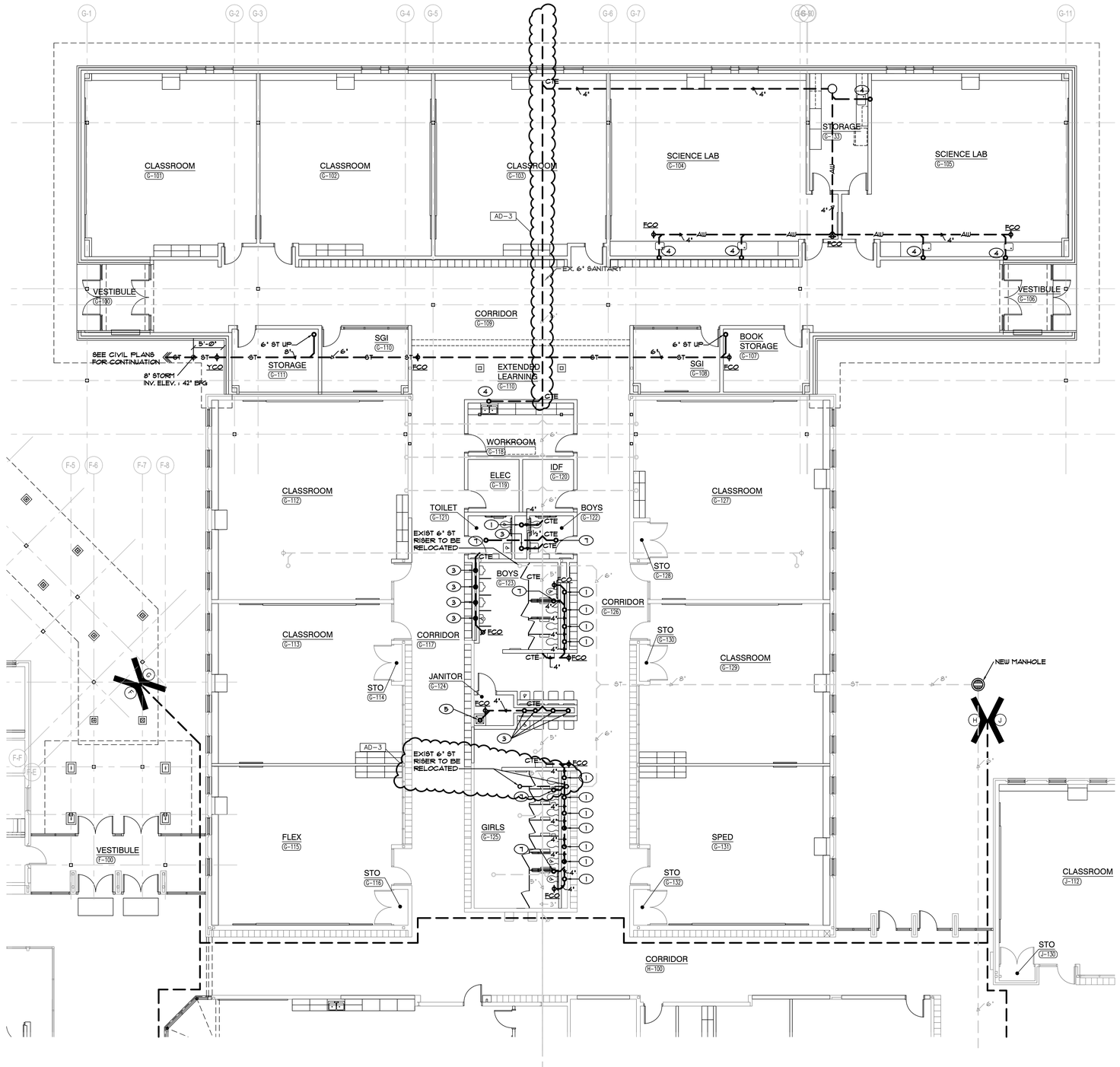

UNIT "G" PLUMBING UNDERFLOOR PLAN
SCALE: 1/8" = 1'-0"

NORTH

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PROJECT
WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS

DUNELAND SCHOOL CORPORATION
CHESTERTON, INDIANA

KEY PLAN

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COORDINATED BY JC
DRAWN BY MDG
CHECKED BY DJ

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DRAWING
UNIT "G" PLUMBING UNDERFLOOR PLAN

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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SHEET NOTES

1. 4" SANITARY UP TO WATER CLOSET
2. 1½" SANITARY UP TO URINAL
3. 1½" SANITARY UP TO LAVATORY
4. 2" SANITARY UP TO SINK
5. 4" SANITARY UP TO MOP BASIN
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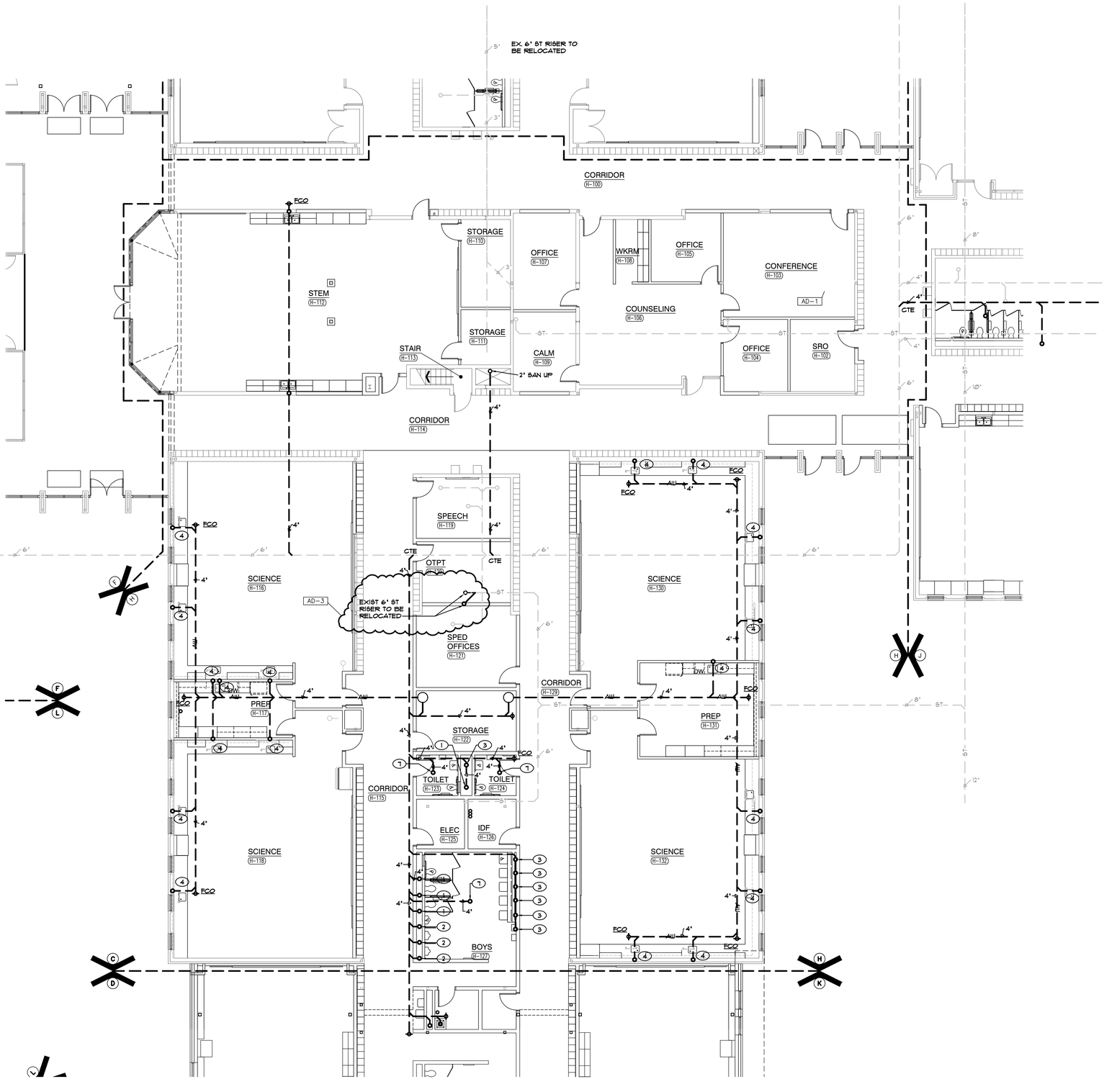

UNIT "H" PLUMBING UNDERFLOOR PLAN
SCALE: 1/8" = 1'-0"

NORTH

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PROJECT
WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS

DUNELAND SCHOOL CORPORATION
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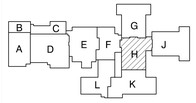

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PROJECT 21-141
DATE 02/28/22
COORDINATED BY JC
DRAWN BY MDG/JM
CHECKED BY DJ

DAVID G. JANNETT REGISTERED NO. 10302590 STATE OF INDIANA PROFESSIONAL ENGINEER

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AD-1	03/16/22	ADDENDUM NO. 1
AD-3	03/30/22	ADDENDUM NO. 3

DRAWING
UNIT "H" PLUMBING UNDERFLOOR PLAN

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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SHEET NOTES

1. 4" SANITARY UP TO WATER CLOSET
2. 1½" SANITARY UP TO URINAL
3. 1½" SANITARY UP TO LAVATORY
4. 2" SANITARY UP TO SINK
5. 4" SANITARY UP TO MOP BASIN
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7. 4" SANITARY UP TO FLOOR DRAIN
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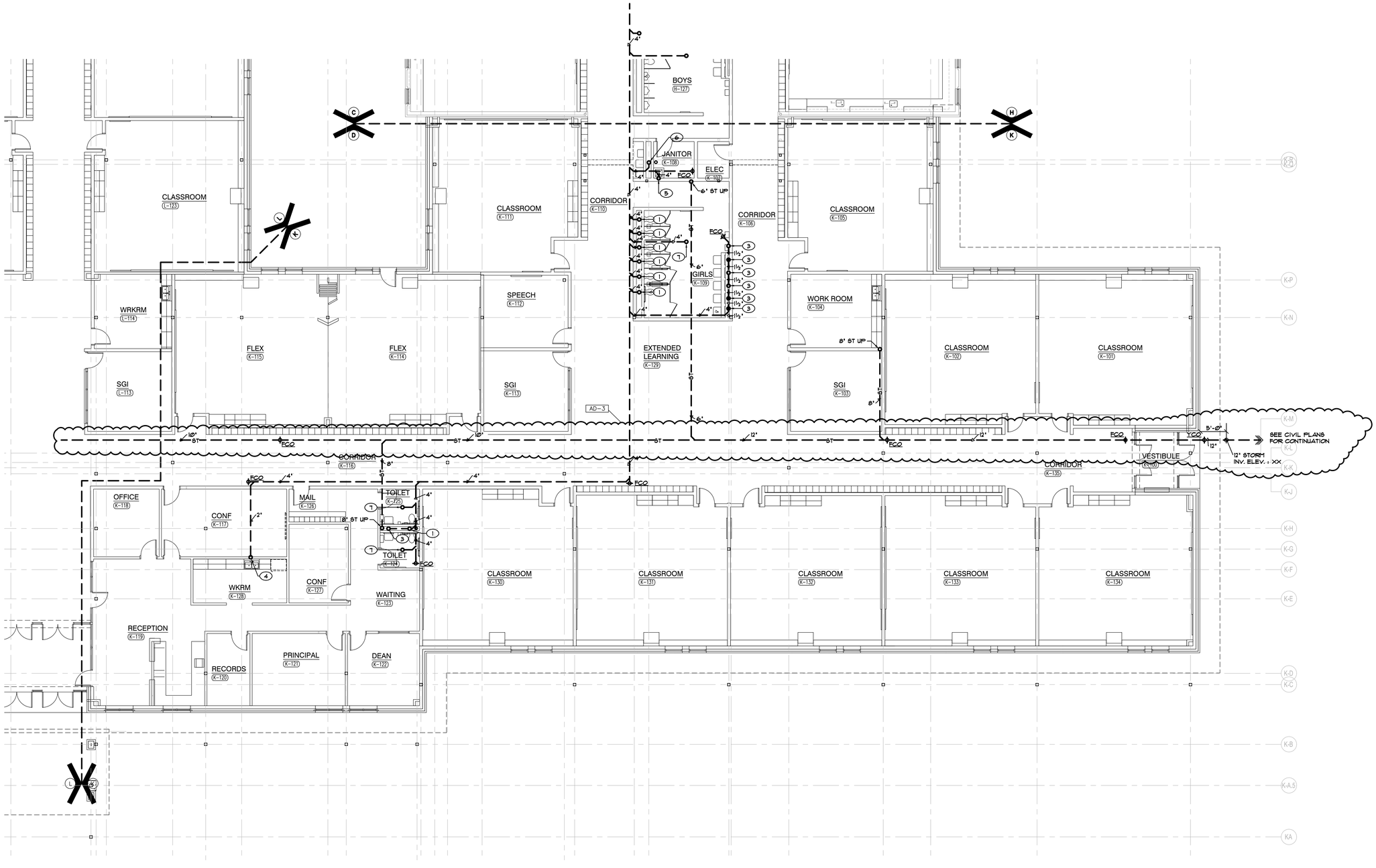

UNIT "K" PLUMBING UNDERFLOOR PLAN

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

NORTH

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PROJECT

WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS

DUNELAND SCHOOL CORPORATION
CHESTERTON, INDIANA

KEY PLAN

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AD-3	03/30/22	ADDENDUM NO. 3

DRAWING
UNIT "K" PLUMBING UNDERFLOOR PLAN

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WESTCHESTER IS - ADDITIONS & RENOVATIONS

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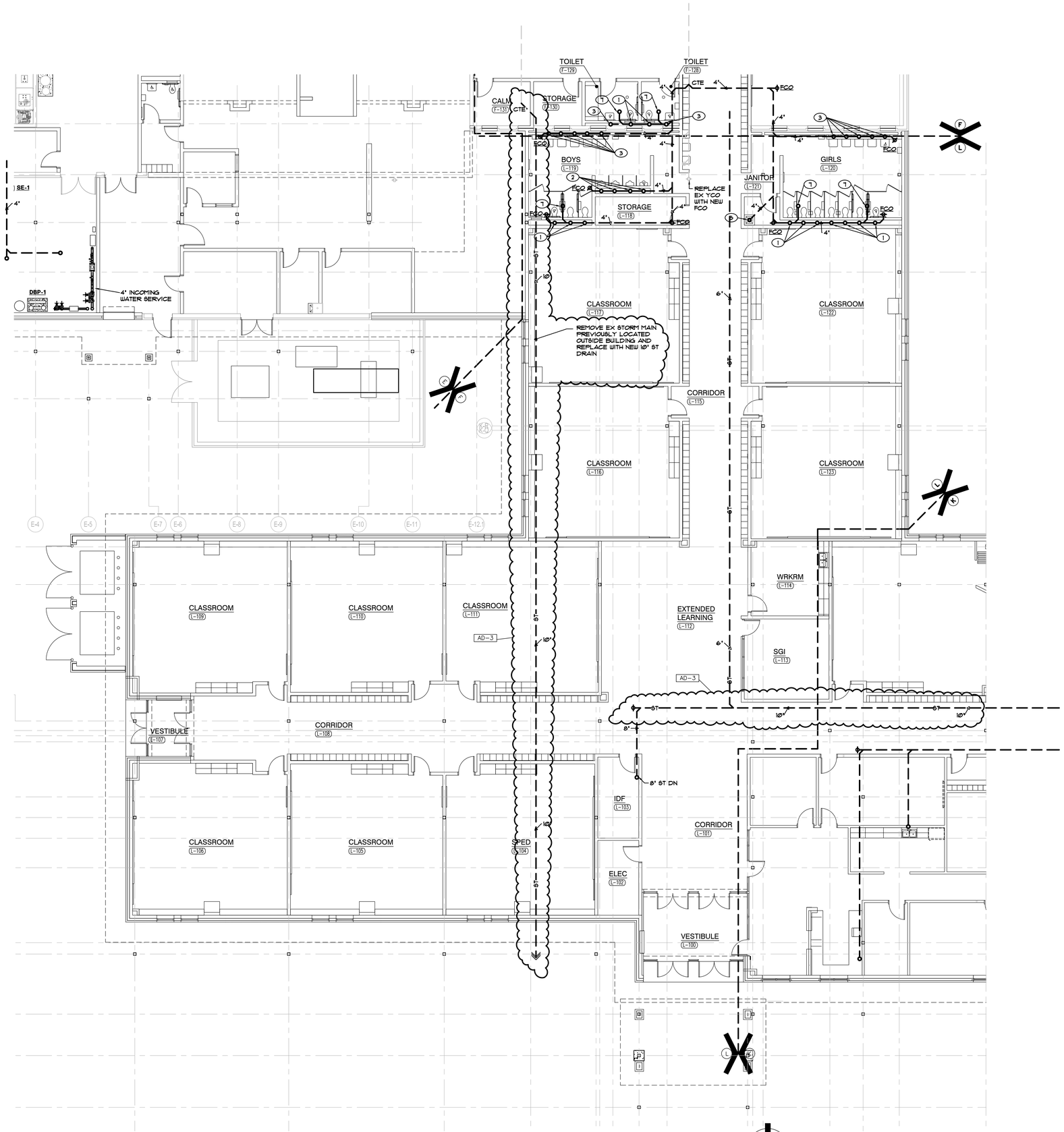

UNIT "L" PLUMBING UNDERFLOOR PLAN
SCALE: 1/8" = 1'-0"

SHEET NOTES

1. 4" SANITARY UP TO WATER CLOSET
2. 1½" SANITARY UP TO URINAL
3. 1½" SANITARY UP TO LAVATORY
4. 2" SANITARY UP TO SINK
5. 4" SANITARY UP TO MOP BASIN
6. 1½" SANITARY UP TO ELECTRIC WATER COOLER
7. 4" SANITARY UP TO FLOOR DRAIN
8. 2" SANITARY UP TO PLUMBER'S BOX
9. 2" SANITARY UP TO EMERGENCY SHOWER

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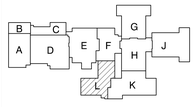
PROJECT
WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS

DUNELAND SCHOOL CORPORATION
CHESTERTON, INDIANA



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PROJECT 21-141
DATE 02/28/22
COORDINATED BY JC
DRAWN BY MDG/JM
CHECKED BY DJ

DAVID G. JANNEY REGISTERED NO. 10302590 STATE OF INDIANA PROFESSIONAL ENGINEER

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REVISIONS

MARK	DATE	ISSUED FOR
AD-3	03/30/22	ADDENDUM NO. 3

DRAWING
UNIT "L" PLUMBING UNDERFLOOR PLAN

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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P-110

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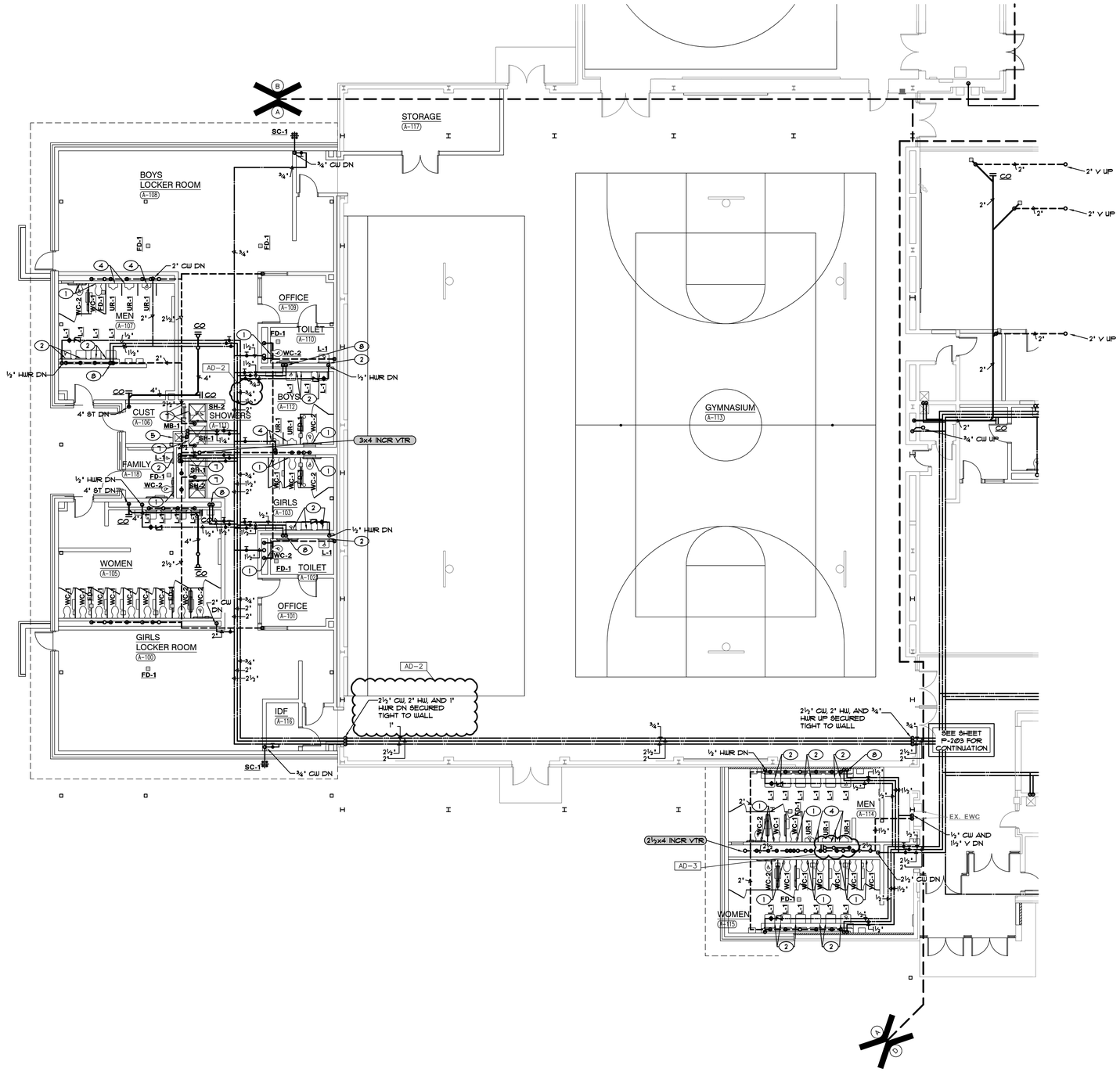
SHEET NOTES

1. 1½" CW, 4" SANITARY, AND 2" V DOWN TO WATER CLOSET.
2. ½" CW, ½" HW, 1½" SANITARY AND 1½" V DOWN TO LAVATORY.
3. ¾" DN TO BILLCOCK.
4. ¾" CW, 2" SANITARY AND 1½" V DOWN TO URINAL.
5. ½" CW, ½" HW, 4" SANITARY, AND 2" V DOWN TO MOP BASIN.
6. ½" CW, 1½" SANITARY, AND 1½" V DOWN TO ELECTRIC WATER COOLER.
7. ¾" CW, ¾" HW, 4" SANITARY, AND 2" V DOWN TO SHOWER.
8. 1½" CW AND 1½" HW DOWN IN CHASE.



UNIT "A" PLUMBING FIRST FLOOR PLAN
SCALE: 1/8" = 1'-0"

NORTH

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PROJECT
WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS

DUNELAND SCHOOL CORPORATION
CHESTERTON, INDIANA

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PROJECT 21-141
DATE 02/28/22
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MARK	DATE	ISSUED FOR
AD-2	03/21/22	ADDENDUM NO. 2
AD-3	03/30/22	ADDENDUM NO. 3

DRAWING
UNIT "A" PLUMBING FIRST FLOOR PLAN

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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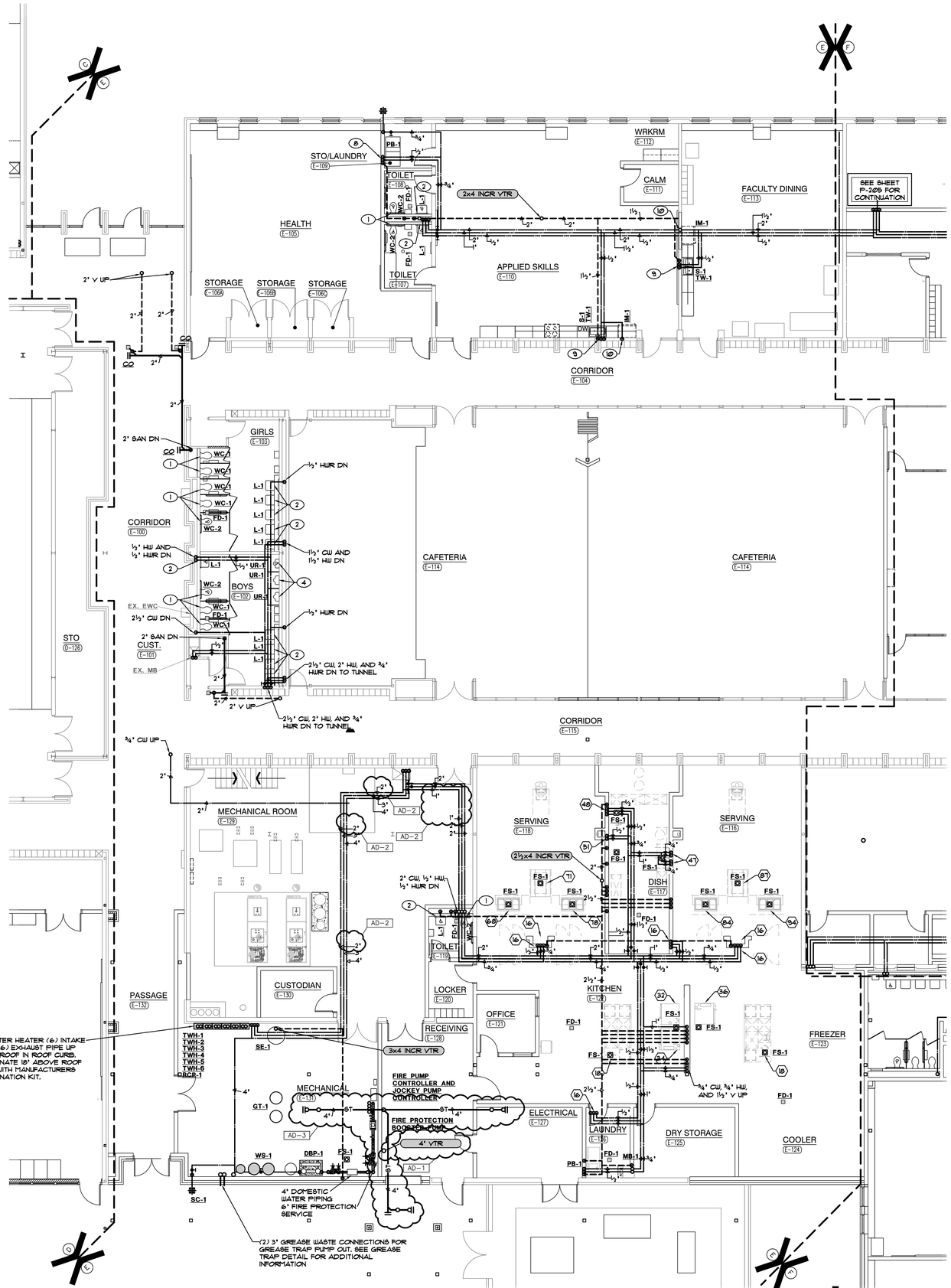

UNIT "E" PLUMBING FIRST FLOOR PLAN

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

SHEET NOTES

1. 1½" CW, 4" SANITARY, AND 2" V DOWN TO WATER CLOSET.
2. ½" CW, ½" HW, 1½" SANITARY AND 1½" V DOWN TO LAVATORY.
3. ¾" DN TO SILLCOCK.
4. ¾" CW, 2" SANITARY AND 1½" V DOWN TO URINAL.
5. ½" CW, ½" HW, 4" SANITARY, AND 2" V DOWN TO MOP BASIN.
6. ½" CW, 1½" SANITARY, AND 1½" V DOWN TO ELECTRIC WATER COOLER.
7. ¾" CW, ¾" HW, 4" SANITARY, AND 2" V DOWN TO SHOWER.
8. ½" CW, ½" HW, 4" SANITARY, AND 2" V DOWN TO PLUMBERS BOX.
9. ½" CW, ½" HW, 2" SANITARY AND 1½" V DOWN TO SINK.
10. ½" CW DOWN TO ICE MAKER.

PLUMBING KITCHEN EQUIPMENT SCHEDULE

CONN. NO.	CONNECT TO	COLD WATER	HOT WATER	WASTE	FLOOR DRAINS	REMARKS
2	WALK-IN COOLER COIL	-	-	-	FD-1	-
7	WALK IN FREEZER COIL	-	-	-	FD-1	-
14	ISLAND WORKTABLE W/ 2 COMP SINK	-	-	-	FS-1	-
15	WALL MOUNT HAND SINK	-	-	1½"	-	-
16	HAND SINK FAUCET	½"	½"	-	-	-
17	ISLAND WORKTABLE W/PREP SINK	-	-	-	FS-1	-
18	SPLASH MOUNT FAUCET	½"	½"	-	-	-
19	GARBAGE DISPOSAL SYSTEM	½"	-	2"	-	-
32	COMBI OVEN/STEAMER	¾"	-	-	FS-1	-
34	COMBI OVEN/STEAMER	¾"	-	-	FS-1	-
36	COMBI OVEN/STEAMER	¾"	-	-	FS-1	-
38	COMBI OVEN/STEAMER	¾"	-	-	FS-1	-
45	THREE COMPARTMENT SINK	-	-	-	FS-1	-
47	SPLASH MOUNT FAUCET	¾"	¾"	-	-	-
48	SPLASH MOUNT PRE RINSE FAUCET	½"	½"	-	-	-
49	GARBAGE DISPOSAL SYSTEM	½"	-	2"	-	-
52	DISH MACHINE W/ BOOSTER HEATER	½"	½"	-	FS-1	-
68	DROP-IN HOT/COLD WELL UNIT	-	-	-	FS-1	-
71	DROP-IN COLD WELL UNIT	-	-	-	FS-1	-
78	DROP-IN HOT/COLD WELL UNIT	-	-	-	FS-1	-
84	DROP-IN HOT/COLD WELL UNIT	-	-	-	FS-1	-
87	DROP-IN COLD WELL UNIT	-	-	-	FS-1	-
94	DROP-IN HOT/COLD WELL UNIT	-	-	-	FS-1	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
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THIS CONTRACTOR SHALL PROVIDE ALL ROUGH-IN AND FINAL SERVICES AND CONNECT ALL WATER LINES, WASTE LINES, INDIRECT PIPING, ETC. FOR FIXTURES AND KITCHEN EQUIPMENT ITEMS. PROVIDE AND INSTALL ALL VALVES, STOPS, TRAPS, AND PRESSURE REGULATORS NECESSARY TO CONNECT LINES. FOR FURTHER INFORMATION AND DESCRIPTION OF KITCHEN EQUIPMENT BEING SUPPLIED REFER TO ARCHITECTURAL DRAWINGS, KITCHEN EQUIPMENT DRAWINGS, AND ENLARGED KITCHEN AREA DRAWINGS.

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PROJECT

WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS

DUNELAND SCHOOL CORPORATION
CHESTERTON, INDIANA

KEY PLAN

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REVISIONS

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AD-1	03/16/22	ADDENDUM NO. 1
AD-2	03/21/22	ADDENDUM NO. 2
AD-3	03/30/22	ADDENDUM NO. 3

DRAWING
UNIT "E" PLUMBING FIRST FLOOR PLAN

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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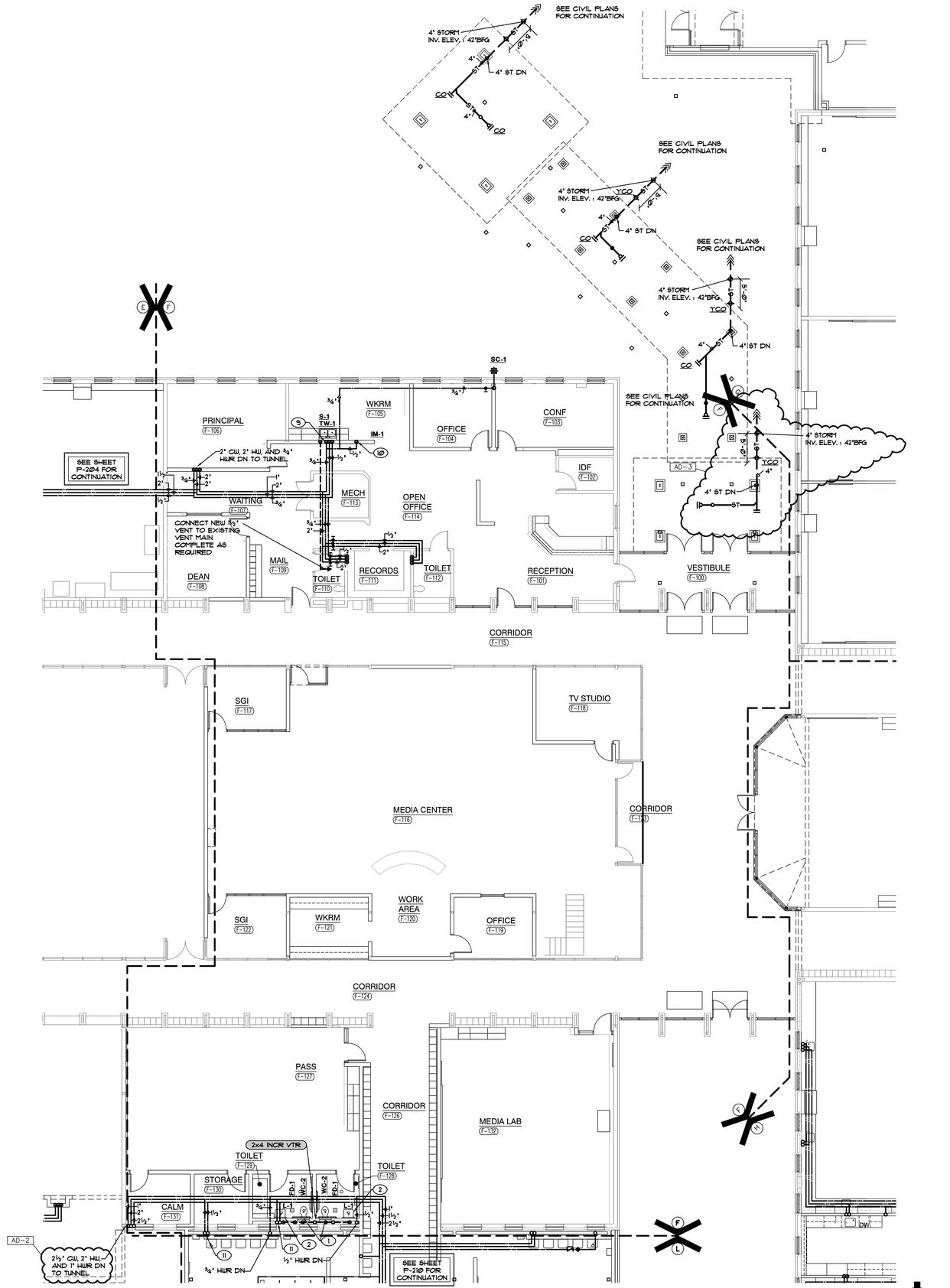

UNIT "F" PLUMBING FIRST FLOOR PLAN
SCALE: 1/8" = 1'-0"

SHEET NOTES

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5. ½" CW, ½" HW, 4" SANITARY, AND 2" V DOWN TO MOP BASIN.
6. ½" CW, 1½" SANITARY, AND 1½" V DOWN TO ELECTRIC WATER COOLER.
7. ¾" CW, ¾" HW, 4" SANITARY, AND 2" V DOWN TO SHOWER.
8. ½" CW, ½" HW, 4" SANITARY, AND 2" V DOWN TO PLUMBERS BOX.
9. ½" CW, ½" HW, 2" SANITARY AND 1½" V DOWN TO SINK.
10. ½" CW DOWN TO ICE MAKER.
11. 1½" CW AND 1½" HW DOWN IN CHASE.

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AD-3	03/30/22	ADDENDUM NO. 3

DRAWING
UNIT "F" PLUMBING FIRST FLOOR PLAN

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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F

SHEET
P-205

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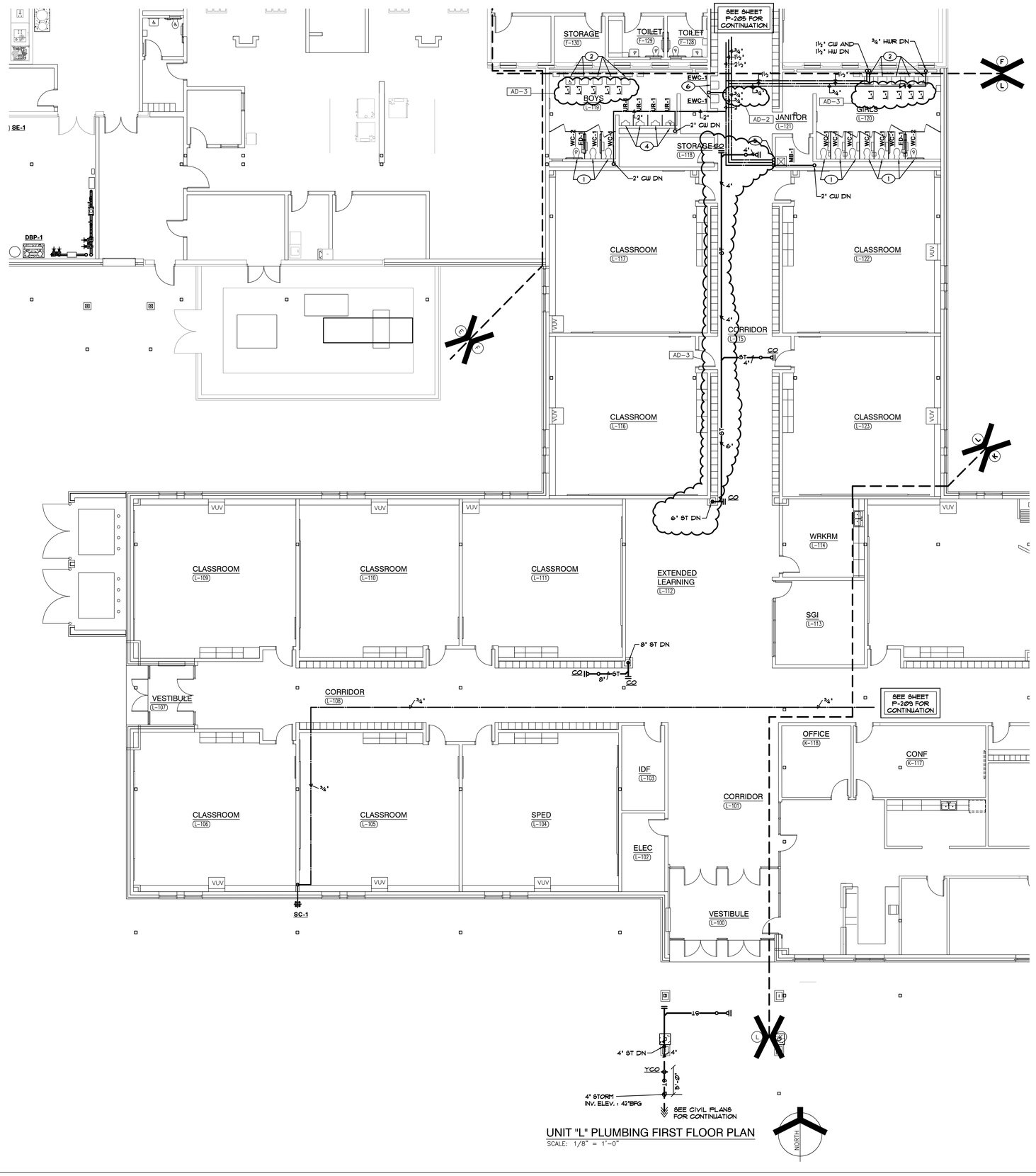
SHEET NOTES

1. 1½" CW, 4" SANITARY, AND 2" V DOWN TO WATER CLOSET.
2. ½" CW, ½" HW, 1½" SANITARY AND 1½" V DOWN TO LAVATORY.
3. ¾" DN TO BILLCOCK.
4. ¾" CW, 2" SANITARY AND 1½" V DOWN TO URINAL.
5. ½" CW, ½" HW, 4" SANITARY, AND 2" V DOWN TO MOP BASIN.
6. ½" CW, 1½" SANITARY, AND 1½" V DOWN TO ELECTRIC WATER COOLER.
7. ¾" CW, ¾" HW, 4" SANITARY, AND 2" V DOWN TO SHOWER.



UNIT "L" PLUMBING FIRST FLOOR PLAN

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

GIBRALTAR DESIGN

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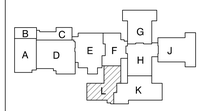
MILLIES ENGINEERING GROUP (219) 924-5400 www.milliesengineeringgroup.com

PROJECT

WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS

DUNELAND SCHOOL CORPORATION
CHESTERTON, INDIANA



KEY PLAN

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PROJECT 21-141
DATE 02/28/22
COORDINATED BY JC
DRAWN BY MDG/JM
CHECKED BY DJ

DAVID G. JANNEY REGISTERED NO. 10302590 STATE OF INDIANA PROFESSIONAL ENGINEER

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REVISIONS

MARK	DATE	ISSUED FOR
AD-2	03/21/22	ADDENDUM NO. 2
AD-3	03/30/22	ADDENDUM NO. 3

DRAWING
UNIT "L" PLUMBING FIRST FLOOR PLAN

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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L

SHEET P-210

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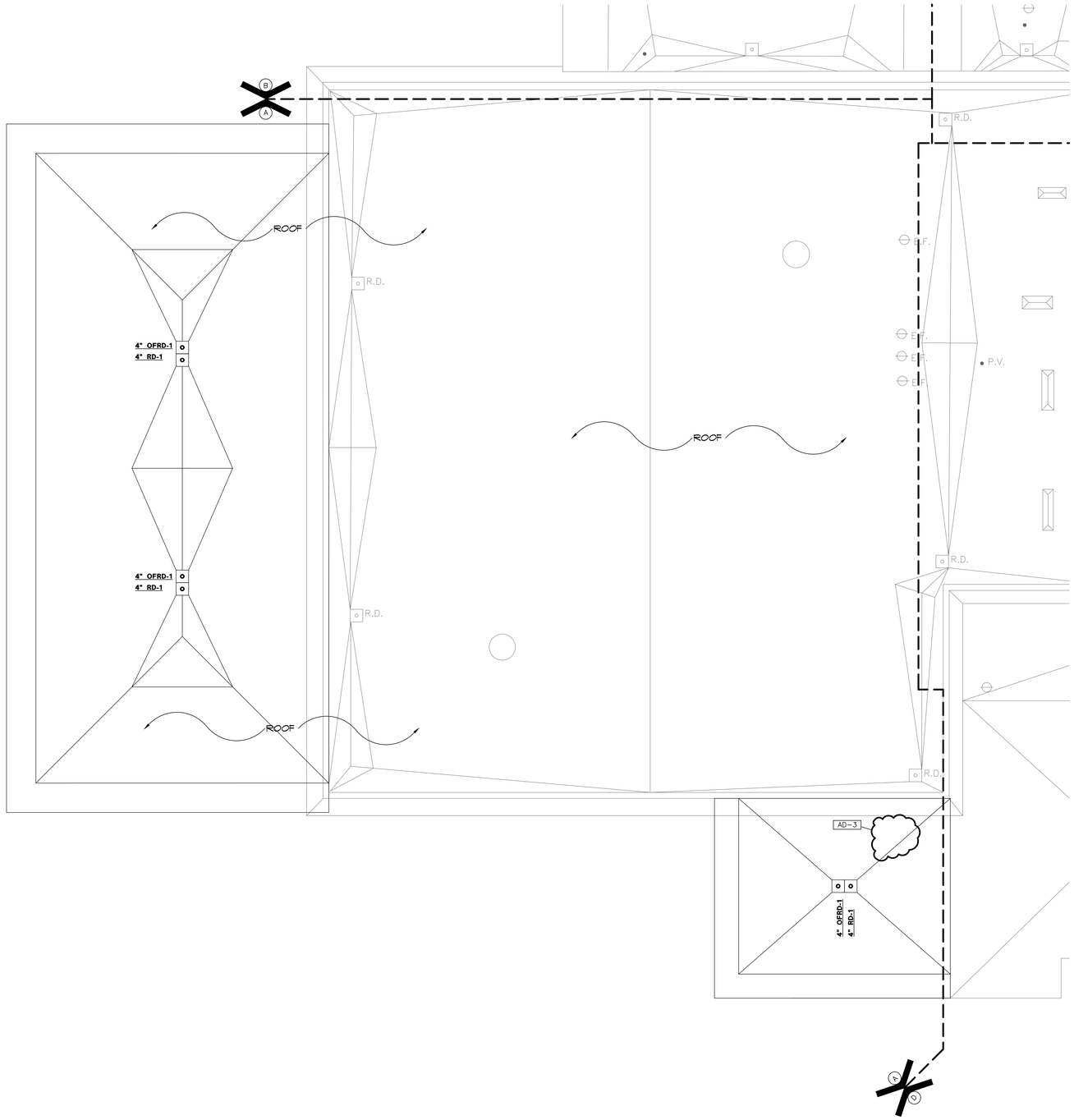

UNIT "A" PLUMBING ROOF PLAN

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

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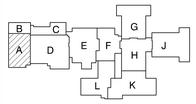
WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS

DUNELAND SCHOOL CORPORATION
CHESTERTON, INDIANA



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AD-3	03/30/22	ADDENDUM NO. 3

DRAWING
UNIT "A" PLUMBING ROOF PLAN

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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A

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PLUMBING EQUIPMENT AND FIXTURE SCHEDULE

TAG NO.	FIXTURE/EQUIPMENT TYPE	FIXTURE/EQUIPMENT DESCRIPTION	FIXTURE/EQUIPMENT MANUFACTURER AND MODEL NO.	ACCEPTABLE MANUF.	FIXTURE VALVE/FAUCET TYPE	FIXTURE VALVE/FAUCET TYPE	ACCEPTABLE MANUF.	ACCESSORIES/REMARKS (SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION)	ELECTRICAL DATA HP	KW	FLA	AMPS	MOCP	VOLT	PH	HZ.
WC-1	WATER CLOSET	VITREOUS CHINA, WALL MOUNTED	AMERICAN STANDARD #2257.103	NOTE #1	BATTERY SENSOR FLUSH VALVE	SLOAN 'G2 OPTIMA' #8116-1.6	NOTE #9	BEMIS #2155-C SEAT	-	-	-	-	-	-	-	-
WC-2	WATER CLOSET	VITREOUS CHINA, WALL MOUNTED, ADA	AMERICAN STANDARD #2257.103	NOTE #1	BATTERY SENSOR FLUSH VALVE	SLOAN 'G2 OPTIMA' #8111-1.6	NOTE #9	BEMIS #2155-C SEAT	-	-	-	-	-	-	-	-
UR-1	URINAL	BATTERY SENSOR FLUSH VALVE	SLOAN 'G2 OPTIMA' #8111-1.6	NOTE #1	BATTERY SENSOR FLUSH VALVE	SLOAN 'G2 OPTIMA' #8111-1.6	NOTE #9	-	-	-	-	-	-	-	-	-
L-1	LAVATORY	VITREOUS CHINA, WALL MOUNTED, 20"x18", ADA	AMERICAN STANDARD #0355.012	NOTE #1	ELECTRONIC BATTERY SENSOR, 4" CENTERS	SLOAN #EBF-187	NOTE #10	MCGUIRE #PW-2150-WC 1-1/2" PROWRAP, MCQUIRE #H2167CCLK SUPPLIES	-	-	-	-	-	-	-	-
EWC-1	ELECTRIC WATER COOLER	ELECTRIC WALL MOUNTED	ELKAY #EZ8	NOTE #2	-	-	-	-	-	-	-	-	-	120	1	60
S-1	SINK	TWO COMPARTMENT STAINLESS STEEL SINK, 33"x19"x6"	ELKAY #LRADQ-3319	NOTE #3	2 HANDLE, HIGH GOOSENECK	ELKAY #LKD2448BH	NOTE #10	ELKAY #35 STRAINER, ELKAY #LK-53 DRAIN ASSEMBLY, MCGUIRE #H2167CCLK SUPPLIES	-	-	-	-	-	-	-	-
S-2	SINK	1-COMPARTMENT STAINLESS STEEL SINK, 22"x19-1/2"x6-1/2"	ELKAY #LRADQ-2219	NOTE #3	2 HANDLE, HIGH GOOSENECK	CHICAGO FAUCET CO. #50-317XKABCP	NOTE #10	MCGUIRE #B-8912-CSDF P-TRAP, MCGUIRE #H2167CCLK SUPPLIES	-	-	-	-	-	-	-	-
S-3	SINK	VITREOUS CHINA, WALL MOUNTED, 20"x18", ADA	AMERICAN STANDARD #0355.012	NOTE #1	0.5 GPM-SINGLE LEVER HANDLE, 4" CENTERS	CHICAGO FAUCET #2200-ABCP-E2605JKCP	NOTE #10	MCGUIRE #PW-2150-WC 1-1/2" PROWRAP, MCQUIRE #H2167CCLK SUPPLIES	-	-	-	-	-	-	-	-
S-4	SINK	TWO COMPARTMENT STAINLESS STEEL SINK, 33"x19"x6"	ELKAY #LRADQ-3319	NOTE #3	2 HANDLE, HIGH GOOSENECK	ELKAY #LKD2442BHC	NOTE #4	MCGUIRE #B-8912-CSDF P-TRAP, MCGUIRE #H2167CCLK SUPPLIES, JOSAM #61030 SOLIDS INTERCEPTOR	-	-	-	-	-	-	-	-
LS-1	LAB SINK	SINK IS INTEGRAL TO COUNTERTOP	-	-	LAB SINK FAUCET, TWO LEVER	CHICAGO FAUCET CO. #930-VR-317-GN2BJKCP-E22JKCP-E7	NOTE #2	W/ 1-1/2" TAILPIECE, P-TRAP, SUPPLIES	-	-	-	-	-	-	-	-
MB-1	MOP BASIN	MOLDED STONE, 30"x30"x6"H	FIAT #SB-3030	NOTE #4	WALL MOUNTED SERVICE FAUCET	CHICAGO FAUCET CO. #897	NOTE #10	W/ 3/4" HOSE THREAD, VACUUM BREAKER, WALL BRACE	-	-	-	-	-	-	-	-
SS-1	SERVICE SINK	VITREOUS CHINA WALL MOUNTED, 22"x20"x13-1/2"D	AMERICAN STANDARD #7695.008	-	WALL MOUNTED SERVICE FAUCET	CHICAGO FAUCET CO. #897-CP	NOTE #10	W/ 3/4" HOSE THREAD, VACUUM BREAKER, WALL BRACE	-	-	-	-	-	-	-	-
PB-1	PLUMBERS BOX	FOR CLOTHES WASHER	GUY GRAY #B200TS	-	-	-	-	-	-	-	-	-	-	-	-	-
SH-1	SHOWER	-	-	-	1-HANDLE PRESSURE/TEMP. BALANCED	POWERS #E710-M-2	NOTE #10	-	-	-	-	-	-	-	-	-
SH-2	SHOWER	-	-	-	1-HANDLE PRESSURE/TEMP. BALANCED	POWERS #E710-M-2-6-B-W	NOTE #10	HANDHELD SHOWER HEAD, HOSE, WALL BRACKET, VACUUM BREAKER AND 24" SLIDEBAR	-	-	-	-	-	-	-	-
FD-1	FLOOR DRAIN	CAST IRON BODY, ADJUSTABLE 6"x6" NICKEL BRONZE TOP	WADE #1100-G6	NOTE #5	-	-	-	VANDALPROOF SCREWS, PLUGGED TRAP PRIMER	-	-	-	-	-	-	-	-
FS-1	FLOOR SINK	CAST IRON, 8-1/8" DEEP, ACID RESISTING, 12"x12" TOP	WADE #9140	NOTE #5				ALUMINUM DOME STRAINER, SECURED HINGED GRATE, SLOPED RIM	-	-	-	-	-	-	-	-
SC-1	SILLCOCK	NON-FREEZE, VACUUM BREAKER, REMOVABLE KEY	WADE #8600	NOTE #6	-	-	-	-	-	-	-	-	-	-	-	-
HB-1	HOSEBIBB	VACUUM BREAKER, 3/4" HOSE THREAD	CHICAGO FAUCET CO. #952	NOTE #6	-	-	-	-	-	-	-	-	-	-	-	-
NB-1	NEUTRALIZATION BASIN	55 GALLON	ORION #T5	-	-	-	-	PROVIDE ONE SPARE "NB-1" FOR OWNER STOCK	-	-	-	-	-	-	-	-
RD-1	ROOF DRAIN	CAST IRON BODY, GRAVEL STOP, LARGE SUMP	MIFAB #R1200-EU	NOTE #5	-	-	-	-	-	-	-	-	-	-	-	
OFRD-1	OVERFLOW ROOF DRAIN	CAST IRON BODY, GRAVEL STOP, LARGE SUMP	MIFAB #R1200-W	NOTE #5	-	-	-	-	-	-	-	-	-	-	-	
WS-1	WATER SOFTENER	FLOW RATE 252 GPM, BRINE TANK 30"x50"H	CULLIGAN # CSM600-2	-	-	-	-	-	-	-	-	-	-	120	1	60
DBP-1	DOMESTIC BOOSTER PUMP	279 GPM @ 72 PSI DISCHARGE W/ SUCTION @ 52 PSI	METROPOLITAN #MS-MTIII-55D-PIH-72	NOTE #12	-	-	-	W/ 120 GAL. HYDROPNEUMATIC TANK, 4" SUCTION/ 4" DISCHARGE, (165 GPM @ 58' TDH EA. PUMP)	(2) 5.0	-	-	-	-	208	3	60
TW-1	TEMPERED WATER VALVE	TEMPERED WATER VALVE	BRADLEY #S59-4000A TMV	NOTE #7	-	-	-	-	-	-	-	-	-	-	-	-
TW-2	TEMPERED WATER VALVE	TEMPERED WATER VALVE	BRADLEY #S19-2000 EFX8	NOTE #7	-	-	-	-	-	-	-	-	-	-	-	-
TW-3	TEMPERED WATER VALVE	TEMPERED WATER VALVE	BRADLEY # S19-2150	NOTE #7	-	-	-	-	-	-	-	-	-	-	-	-
EMSH-1	EM. SHOWER	EMERGENCY SHOWER	BRADLEY #S19-110BF	-	-	-	-	PROVIDE WITH BRADLEY #S19-2100 THERMOSTATIC MIXING VALVE.	-	-	-	-	-	-	-	-
TWH-1	TANKLESS WATER HEATER	199 MBH, 4.1 GPM @ 90 DEGREE RISE (GAS FIRED)	NORITZ #NCC199CDV	-	-	-	-	ISOLATION KIT, TEMP. RELIEF VALVE, DRAIN VALVE AND CONDENSATE PIPED TO FLOOR DRAIN	-	-	-	-	-	120	1	60
TWH-2	TANKLESS WATER HEATER	199 MBH, 4.1 GPM @ 90 DEGREE RISE (GAS FIRED)	NORITZ #NCC199CDV	-	-	-	-	ISOLATION KIT, TEMP. RELIEF VALVE, DRAIN VALVE AND CONDENSATE PIPED TO FLOOR DRAIN	-	-	-	-	-	120	1	60
TWH-3	TANKLESS WATER HEATER	199 MBH, 4.1 GPM @ 90 DEGREE RISE (GAS FIRED)	NORITZ #NCC199CDV	-	-	-	-	ISOLATION KIT, TEMP. RELIEF VALVE, DRAIN VALVE AND CONDENSATE PIPED TO FLOOR DRAIN	-	-	-	-	-	120	1	60
TWH-4	TANKLESS WATER HEATER	199 MBH, 4.1 GPM @ 90 DEGREE RISE (GAS FIRED)	NORITZ #NCC199CDV	-	-	-	-	ISOLATION KIT, TEMP. RELIEF VALVE, DRAIN VALVE AND CONDENSATE PIPED TO FLOOR DRAIN	-	-	-	-	-	120	1	60
TWH-5	TANKLESS WATER HEATER	199 MBH, 4.1 GPM @ 90 DEGREE RISE (GAS FIRED)	NORITZ #NCC199CDV	-	-	-	-	ISOLATION KIT, TEMP. RELIEF VALVE, DRAIN VALVE AND CONDENSATE PIPED TO FLOOR DRAIN	-	-	-	-	-	120	1	60
TWH-6	TANKLESS WATER HEATER	199 MBH, 4.1 GPM @ 90 DEGREE RISE (GAS FIRED)	NORITZ #NCC199CDV	-	-	-	-	ISOLATION KIT, TEMP. RELIEF VALVE, DRAIN VALVE AND CONDENSATE PIPED TO FLOOR DRAIN	-	-	-	-	-	120	1	60
RCP-1	RECIRCULATING PUMP	27 GPM @ 25' HEAD, ALL BRONZE CONSTRUCTION	B&G # PI-55	NOTE #8	-	-	-	W/ STRAP ON AQUASTAT	2/5	-	-	-	-	480	3	60
SE-1	DUPLEX SEWAGE EJECTOR	2" SOLIDS HANDLING, 100 GPM @ 10' T.D.H.	METROPOLITAN SE60M-03	-	-	-	-	W/ DUPLEX NEMA-1 HIGH WATER ALARM PANEL, BASIN 30"x72"D W/ STEEL GASTIGHT COVER.	-	-	(2) 4.7	-	-	208	1	60
GT-1	GREASE TRAP	100 GPM, 210 GAL. SOLIDS, 753 GAL. LIQUID	SCHIER GB-1000	NOTE 11	-	-	-	PROVIDE WITH DUAL 3" PUMP OUT PORT CONNECTIONS.	-	-	-	-	-	-	-	-
IM-1	PLUMBERS BOX	FOR ICE MAKER	GUY GRAY #BIM875AB	-	-	-	-	-	-	-	-	-	-	-	-	

NOTE #1: GERBER, CRANE, KOHLER, ZURN
NOTE # 2: OASIS, HAWS, SUNROC
NOTE #3: JUST
NOTE #4: MUSTEE, SWAN
NOTE #5: ZURN, JOSAM, J.R. SMITH, MIFAB
NOTE #6: JOSAM, ZURN, J.R. SMITH, WOODFORD
NOTE #7: LEONARD, POWERS, LAWLER
NOTE #8: METROPOLITAN, TACO
NOTE #9: ZURN, TOTO
NOTE #10: ZURN, DELTA, T&S BRASS, CHICAGO FAUCET CO.
NOTE #11: SCHIER, ZURN
NOTE #12: AMT, B&G

AD-3

PLUMBING GENERAL NOTES

GENERAL

A. WORK SHALL COMPLY WITH LOCAL, MUNICIPAL, AND STATE PLUMBING CODES.

B. THE SCOPE OF WORK SPECIFIED HEREIN AND IN THE SPECIFICATIONS SHALL BE COORDINATED WITH THE CONSTRUCTION MANAGER - REFER TO THE SCOPE OF WORK FOR EACH TRADE. ANY DISCREPANCIES BETWEEN THE CONSTRUCTION DOCUMENTS AND CONSTRUCTION MANAGERS SCOPE SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER FOR CLARIFICATION. THE ARCHITECT/ENGINEER'S DECISION SHALL BE FINAL.

C. LAYOUT IS DIAGRAMMATIC. INSTALL PIPING AND EQUIPMENT TO MEET ACTUAL FIELD CONDITIONS. REVIEW PROJECT SPECIFICATIONS BEFORE STARTING ANY WORK. SUBMIT SHOP DRAWINGS OF WORK AS PER SPECIFICATIONS.

GENERAL COORDINATION

D. COORDINATE PHASING OF WORK AND PROVIDE TEMPORARY PIPING AND SERVICES AS REQUIRED FOR THE IMPLEMENTATION OF WORK WHILE MAINTAINING SERVICES TO PORTIONS OF BUILDING TO REMAIN OCCUPIED.

E. FIELD VERIFY IF EXISTING ASBESTOS WILL BE ENCOUNTERED PRIOR TO STARTING ANY WORK. IF ASBESTOS IS PRESENT, THE OWNER WILL PROVIDE FOR THE REMOVAL OF ANY MATERIAL CONTAINING ASBESTOS. SEE SPECIFICATIONS FOR FURTHER REQUIREMENTS.

F. LAYOUT WORK TO AVOID CONFLICTS BETWEEN DUCTWORK, LIGHTING, CEILINGS, PIPING AND BUILDING STRUCTURE.

G. SCHEDULE WORK TO AVOID DOWNTIME AND INCONVENIENCE TO OWNER. OWNER'S EXISTING FACILITY SHALL REMAIN IN OPERATION AT TIMES. REQUIRED SHUTDOWN OF EXISTING UTILITIES SHALL BE SCHEDULED WITH OWNER'S OPERATING PERSONNEL. NOTIFY OWNER'S REPRESENTATIVE 48 HOURS IN ADVANCE PRIOR TO ANY SHUTDOWN OF EXISTING PLUMBING SYSTEMS.

H. VERIFY LOCATION AND ELEVATION OF PLUMBING EQUIPMENT, FIXTURES, PIPING, PANELS, ETC. EXPOSED WITHIN OCCUPIED SPACES BEFORE THE START OF ANY ROUGH-IN OR INSTALLATION.

TRADE COORDINATION

I. COORDINATE EQUIPMENT ELECTRICAL REQUIREMENTS (VOLTAGES, PHASE, LOAD, ETC.) BEFORE ORDERING ANY EQUIPMENT.

J. COORDINATE VENT THROUGH ROOF LOCATIONS WITH OUTDOOR AIR INTAKE LOCATIONS TO MAINTAIN A MINIMUM SEPARATION OF TEN FEET.

WORK IN EXISTING CONDITIONS

K. VISIT SITE PRIOR TO BIDDING TO DETERMINE FIELD CONDITIONS. VERIFY EXISTING INTERIOR AND EXTERIOR PLUMBING SYSTEMS TO VERIFY QUANTITIES AND LOCATIONS OF EXISTING SYSTEMS TO DETERMINE EXTENT OF NEW AND DEMOLITION WORK. VERIFY EXISTING INTERIOR AND EXTERIOR STORM AND SANITARY PIPING SYSTEMS AS TO ROUTING, SIZE AND INVERT ELEVATION PRIOR TO ANY INSTALLATION OF NEW AND REMOVAL OF ANY EXISTING.

L. COORDINATE NEW INSTALLATIONS WITH EXISTING SYSTEMS. ANY EXISTING CONDUIT, PIPING, DUCTWORK, EQUIPMENT, ETC., SHALL BE REWORKED AS REQUIRED TO AVOID CONFLICTS WITH THE INSTALLATION OF THE NEW PLUMBING SYSTEMS. NO EXTRAS WILL BE ALLOWED AFTER BIDDING FOR ANY REWORK OF EXISTING FIELD CONDITIONS TO RESOLVE ANY CONFLICTS OR NOT FULLY UNDERSTANDING THE SCOPE OF THE WORK REQUIRED. EXISTING EQUIPMENT, FIXTURES AND PIPING, ETC., SHALL BE REMOVED AS NOTED ON DRAWINGS AND AS REQUIRED TO MEET NEW SCOPE OF WORK.

M. REMOVE EXISTING EQUIPMENT, FIXTURES, PIPING, ETC. PRESENTLY SERVING AREAS THAT ARE BEING RENOVATED AND THAT ARE NOT REQUIRED TO STAY IN SERVICE. NO EQUIPMENT, FIXTURES, PIPING, SUPPORTS, HANGERS, ETC, IS TO BE LEFT ABANDONED. VERIFY QUANTITY, LOCATION AND ELEVATION OF EXISTING TO BE REMOVED IN FIELD. REMOVE EXISTING ABANDONED EQUIPMENT, FIXTURES AND PIPING IN AREAS THAT ARE TO BE RENOVATED.

N. EXISTING INFORMATION IDENTIFIED ON THE CONTRACT DOCUMENTS IS SCHEMATIC ONLY AS AN AID TO THE CONTRACTOR. PROPERLY ADDRESS EXISTING CONDITIONS FOR A COMPLETE AND PROPER INSTALLATION OF NEW SYSTEMS. EXISTING EQUIPMENT NOT IDENTIFIED SHALL BE REPORTED IN WRITTEN FORM FOR REVIEW AS TO WHETHER THE EQUIPMENT SHALL REMAIN AND BE RECONNECTED TO THE NEW SERVICES, BE RELOCATED, BE ABANDONED, ETC.

O. ANY HIDDEN CONDITIONS IDENTIFIED THROUGH THE COURSE OF CONSTRUCTION SHALL BE IMMEDIATELY REPORTED IN WRITTEN FORM FOR REVIEW AND DIRECTION. FAILURE TO DO SO SHALL MAKE THE CONTRACTOR RESPONSIBLE FOR ANY REQUIRED CHANGES AND COSTS TO CORRECT SAID HIDDEN CONDITION.

P. EXISTING EQUIPMENT SHALL REMAIN PROPERTY OF THE OWNER AND OWNER SHALL DETERMINE IF CONTRACTOR IS TO STORE EQUIPMENT ON SITE AT OWNER SELECTED LOCATION OR IF CONTRACTOR IS TO ABANDON OR REMOVE EQUIPMENT FROM SITE.

Q. REMOVED PIPING IS TO BE TERMINATED PROPERLY BACK TO EXISTING MAINS. CAP PIPING WATERTIGHT. PROVIDE ADDITIONAL PIPING AS REQUIRED TO MAINTAIN CONTINUITY OF EXISTING SYSTEMS MODIFIED DUE TO REMOVAL OF PORTION OF SYSTEMS.

R. PATCH EXISTING CEILING, FLOOR, WALL AND ROOF OPENINGS AND SURROUNDING FINISHES RESULTING FROM REMOVAL OF EXISTING MATERIALS AND EQUIPMENT SO THAT FINISH WILL MATCH EXISTING IN SURROUNDING AREAS.

S. PROVIDE FINISHING OF EXISTING CEILING, FLOOR, AND WALL SURFACES AT LOCATIONS AFFECTED BY REMOVAL OF EXISTING MATERIALS AND EQUIPMENT SO THAT NEW FINISH WILL MATCH EXISTING IN SURROUNDING AREAS.

T. REMOVE EXISTING CEILINGS REQUIRED FOR INSTALLATION OF NEW WORK. REINSTALL CEILING UPON COMPLETION OF WORK. REPLACE DAMAGED CEILING MATERIALS TO MATCH EXISTING.

U. PROVIDE CUTTING, CORE DRILLING AND PATCHING OF EXISTING FLOOR, WALL AND ROOF CONSTRUCTIONS REQUIRED FOR THE INSTALLATION OF NEW PIPING. SEAL PENETRATIONS THROUGH FLOOR, WALL AND ROOF STRUCTURE WATERTIGHT AND WITH AN APPROVED FIRE STOPPING MATERIAL, INCLUDING APPROVED FIRE RATED SLEEVE.

V. WORK ON THE ROOF SHALL BE PERFORMED IN STRICT ACCORDANCE WITH THE EXISTING ROOFING MANUFACTURER'S RECOMMENDATIONS. ROOF WORK SHALL BE PERFORMED BY CERTIFIED INSTALLERS AS TO MAINTAIN THE EXISTING ROOF WARRANTY. PRIOR TO THE START OF ANY WORK ON THE ROOF, THE EXISTING ROOF SHALL BE INSPECTED AND CERTIFIED BY THE EXISTING ROOFING MANUFACTURER. ANY DEFICIENCIES WHICH OCCUR BETWEEN THE INITIAL AND FINAL INSPECTIONS SHALL BE CORRECTED AT NO COST TO THE OWNER. CORRECTIVE MEASURES SHALL BE PERFORMED BY CERTIFIED INSTALLERS TO MAINTAIN THE EXISTING ROOF WARRANTY.

W. PROVIDE CUTTING, TRENCHING AND PATCHING OF EXISTING FLOOR SLAB REQUIRED FOR THE INSTALLATION OF NEW UNDERGROUND PIPING.

X. CUT OR CHANNEL INTO EXISTING WALL CONSTRUCTIONS AS REQUIRED FOR INSTALLATION OF NEW PIPING WITHIN EXISTING WALLS. PATCH WALL SURFACES AND FINISH AS REQUIRED TO MATCH EXISTING CONDITIONS.

Y. PROVIDE A WATERTIGHT SHEET METAL DRIP PAN OVER ELECTRICAL EQUIPMENT INSTALLED UNDER OR NEAR PIPING SYSTEMS. DRIP PAN TO EXTEND MINIMUM 3" OVER FRONT AND SIDES OF ELECTRICAL EQUIPMENT AND BE PITCHED AT A MINIMUM 30° ANGLE. SEAL DRIP PAN WATERTIGHT TO WALL.

Z. PROVIDE ROUGH-IN AND FINAL CONNECTIONS TO PLUMBING EQUIPMENT AND FIXTURES. SET FIXTURES/EQUIPMENT AND FURNISH AND INSTALL NECESSARY FITTINGS, TRAPS, STOPS, ETC. AS REQUIRED.

AA. PROVIDE ALL ROUGH-IN AND FINAL SERVICES AND CONNECT ALL WATER LINES, WASTE LINES, INDIRECT PIPING, ETC. FOR FIXTURES AND KITCHEN EQUIPMENT ITEMS. PROVIDE ALL VALVES, STOPS, TRAPS, AND PRESSURE REGULATORS NECESSARY TO CONNECT LINES. FOR FURTHER INFORMATION AND DESCRIPTION OF KITCHEN EQUIPMENT BEING SUPPLIED REFER TO ARCHITECTURAL DRAWINGS, KITCHEN EQUIPMENT DRAWINGS, AND ENLARGED KITCHEN AREA DRAWINGS.

BB. PLUMBING PIPING ROUTING TO BE FIELD COORDINATED WITH NEW AND EXISTING HVAC DUCTWORK, HVAC PIPING, FIRE PROTECTION PIPING, ELECTRICAL AND STRUCTURE TO ENSURE NO CONFLICTS WILL OCCUR DUE TO INTERFERENCE.

CC. PIPING, EQUIPMENT, ETC. SHALL NOT BE SUPPORTED FROM THE BOTTOM CHORD OF ENGINEERED JOISTS WITHOUT WRITTEN APPROVAL FROM THE STRUCTURAL ENGINEER.

DD. ISOLATION VALVES SHALL BE INSTALLED OVER ACCESSIBLE CEILINGS. WHEN ISOLATION VALVES ARE INSTALLED OVER INACCESSIBLE CEILING AREAS, IT SHALL BE THE RESPONSIBILITY OF THIS CONTRACTOR TO FURNISH AND INSTALL 12" X 12" (MINIMUM) CEILING ACCESS DOORS. TYPE TO BE VANDALPROOF, TAMPERPROOF ASSEMBLIES. INSTALLATION TO BE COORDINATED WITH GENERAL CONTRACTOR.

EE. INVERT ELEVATIONS SHALL BE FIELD COORDINATED WITH FINAL GRADING PLANS TO ENSURE PROPER INSTALLATION.

FF. REFER TO ARCHITECTURAL INTERIOR ELEVATIONS FOR FINAL MOUNTING HEIGHTS OF PLUMBING FIXTURES.

GG. PROTECT NEW AND EXISTING DRAIN OPENINGS AND SANITARY LINES DURING CONSTRUCTION TO PREVENT BLOCKAGE. ROD-OUT EXISTING SANITARY PIPING. PIPING SHALL BE FREE OF BLOCKAGE.

HH. REPAIR AND/OR REPLACE DAMAGED PIPE INSULATION THAT OCCURS AS THE RESULT OF THIS CONSTRUCTION.

II. PIPING PENETRATING AIR PLENUM CEILING AREAS SHALL BE PROPERLY SEALED TO MAKE AIRTIGHT. REFER TO MECHANICAL DUCTWORK DRAWINGS FOR AIR PLENUM LOCATIONS.

JJ. PRIME AND PAINT EXPOSED PIPING IN FINISHED AREAS IN COLOR AS SELECTED BY OWNERS REPRESENTATIVE.

KK. VIDEOTAPE EXISTING SANITARY MAIN TO CONFIRM EXISTING BRANCH SANITARY CONNECTION POINTS, INVERTS AND CONDITION OF PIPING AS REQUIRED TO COMPLETE WORK. PROVIDE REPORT INDICATING CONNECTION POINT LOCATIONS, INVERTS, AND ANY DEFICIENCIES IN EXISTING SANITARY PIPING SYSTEM PRIOR TO STARTING WORK.

SYMBOLS/ABBREVIATIONS

SYMBOL	DESCRIPTION
	EXISTING UNDERGROUND SANITARY PIPING
— ST —	EXISTING UNDERGROUND STORM SEWER
	EXISTING COLD WATER PIPING
	EXISTING HOT WATER PIPING
	EXISTING HOT WATER RECIRCULATION PIPING
— G —	EXISTING GAS PIPING
— FP —	EXISTING FIRE PROTECTION PIPING
	EXISTING PIPING
	EXISTING PIPING TO BE REMOVED OR ABANDONED
	NEW UNDERGROUND SANITARY SEWER
— ST —	NEW UNDERGROUND STORM SEWER
	NEW COLD WATER PIPING
	NEW HOT WATER PIPING
	NEW HOT WATER RECIRCULATION PIPING
	NEW VENT PIPING
— ST —	NEW OVERHEAD STORM PIPING
	NEW OVERHEAD SANITARY PIPING
— AV —	ACID VENT PIPING
— AW —	ACID WASTE PIPING
	PIPE DOWN
	PIPE UP
	SHUT-OFF VALVE
	CHECK VALVE
	HOSE BIBB/SILL COCK
	RELIEF VALVE
	SHOWER HEAD
	BALANCING COCK/MANUAL FLOW CONTROL VALVE
T	THERMOMETER
P	PRESSURE GAUGE
	SHEET NOTE TAG
	KITCHEN EQUIPMENT TAG

ABBREVIATION	MEANING
AV	ACID VENT
AW	ACID WASTE
CO	CLEANOUT
CW	COLD WATER
DBP	DOMESTIC BOOSTER PUMP
DN	DOWN
EMSH	EMERGENCY SHOWER
EWC	ELECTRIC WATER COOLER
FCO	FLOOR CLEANOUT
FD	FLOOR DRAIN
FS	FLOOR SINK
GT	GREASE TRAP
HARD	HARD WATER
HB	HOSE BIBB
HW	HOT WATER
HWR	HOT WATER RECIRCULATION
IM	ICEMAKER VALVE BOX
INV. EL.	INVERT ELEVATION
L	LAVATORY
LT	LAUNDRY TUB
MB	MOP BASIN
MH	MANHOLE
NB	NEUTRALIZATION BASIN
OFRD	OVERFLOW ROOF DRAIN
OSD	OPEN SITE DRAIN
PB	PLUMBERS BOX
RCP	HOT WATER RECIRCULATION PUMP
RD	ROOF DRAIN
S	SINK
SC	SILL COCK
SH	SHOWER
SP	SUMP PUMP
SS	SERVICE SINK
TW	TEMPERED WATER
UR	URINAL
V	VENT
VTR	VENT THROUGH ROOF
WC	WATER CLOSET
WCO	WALL CLEANOUT
WH	WATER HEATER
YCO	YARD CLEANOUT

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PROJECT
WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS

DUNELAND SCHOOL CORPORATION
CHESTERTON, INDIANA

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DRAWN BY MDG/TT
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REGISTERED
NO. 10302590
STATE OF INDIANA
PROFESSIONAL ENGINEER

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AD-3	03/30/22	ADDENDUM NO. 3

DRAWING
PLUMBING SCHEDULE, NOTES, SYMBOLS & ABBREVIATIONS

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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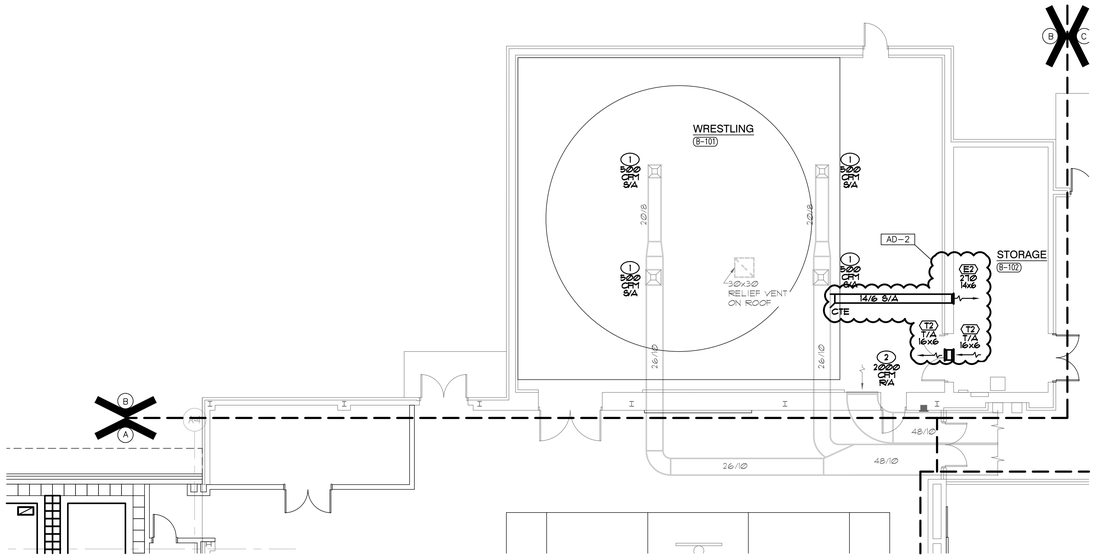
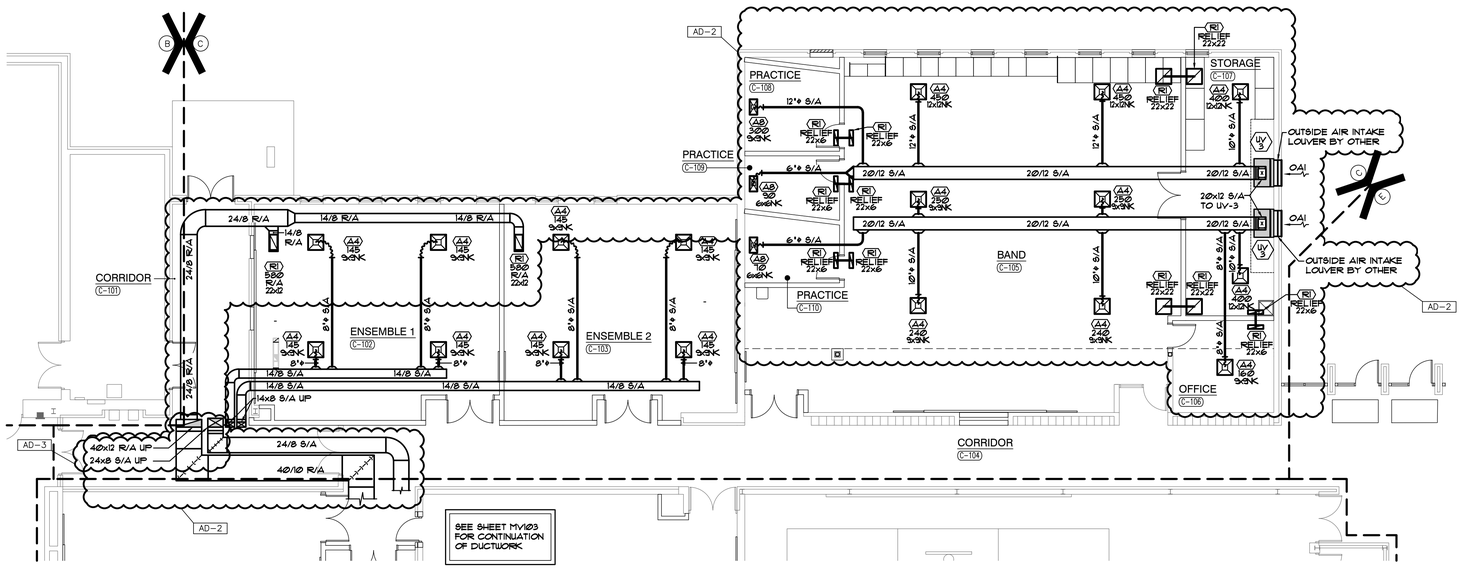
SHEET NOTES

1. EXISTING SUPPLY AIR DIFFUSER TO REMAIN. INSPECT AND CLEAN EXISTING DIFFUSER COMPLETE AS REQUIRED. BALANCE EXISTING SUPPLY AIR DIFFUSER TO AIRFLOW QUANTITY INDICATED ON PLAN.
2. EXISTING RETURN AIR GRILLE TO REMAIN. INSPECT AND CLEAN EXISTING GRILLE COMPLETE AS REQUIRED. BALANCE EXISTING RETURN AIR GRILLE TO AIRFLOW QUANTITY INDICATED ON PLAN.



UNIT "B" MECHANICAL FIRST FLOOR VENTILATION PLAN
SCALE: 1/8" = 1'-0"



UNIT "C" MECHANICAL FIRST FLOOR VENTILATION PLAN
SCALE: 1/8" = 1'-0"

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PROJECT
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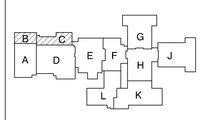
DUNELAND SCHOOL CORPORATION
CHESTERTON, INDIANA



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DRAWING
UNITS "B" & "C"
MECHANICAL FIRST
FLOOR VENTILATION PLAN

PROJECT
WESTCHESTER IS -
ADDITIONS & RENOVATIONS

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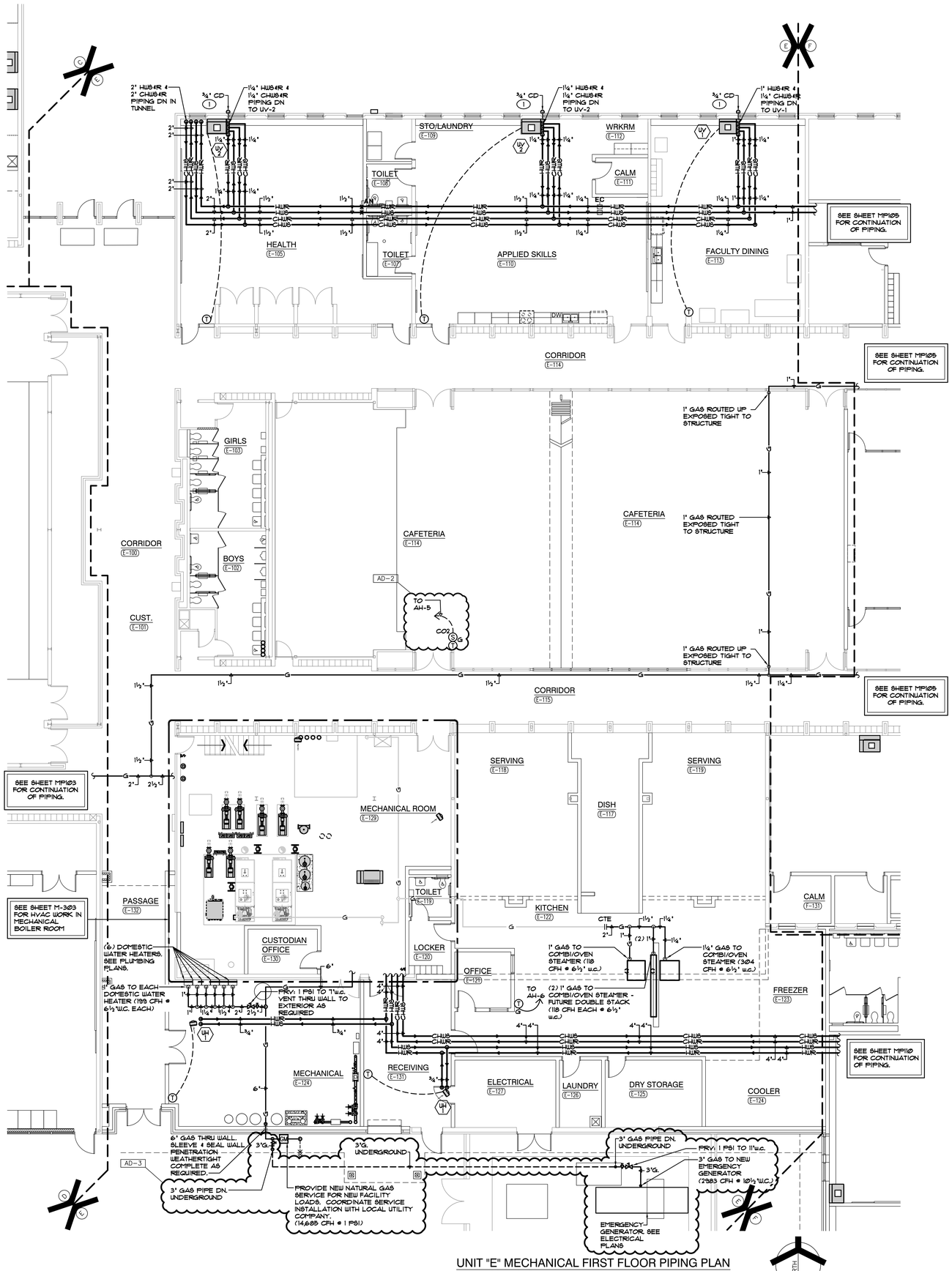

UNIT "E" MECHANICAL FIRST FLOOR PIPING PLAN

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

SHEET NOTES

1. EXTEND CONDENSATE PIPING FROM UNIT THRU WALL. TERMINATE WITH 45 DEGREE ELBOW DOWN TO GRADE. SLEEVE AND SEAL PIPE THROUGH WALL PENETRATION WEATHERTIGHT.

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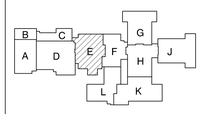
PROJECT

WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS

DUNELAND SCHOOL CORPORATION
CHESTERTON, INDIANA



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DRAWING
UNIT "E" MECHANICAL FIRST FLOOR PIPING PLAN

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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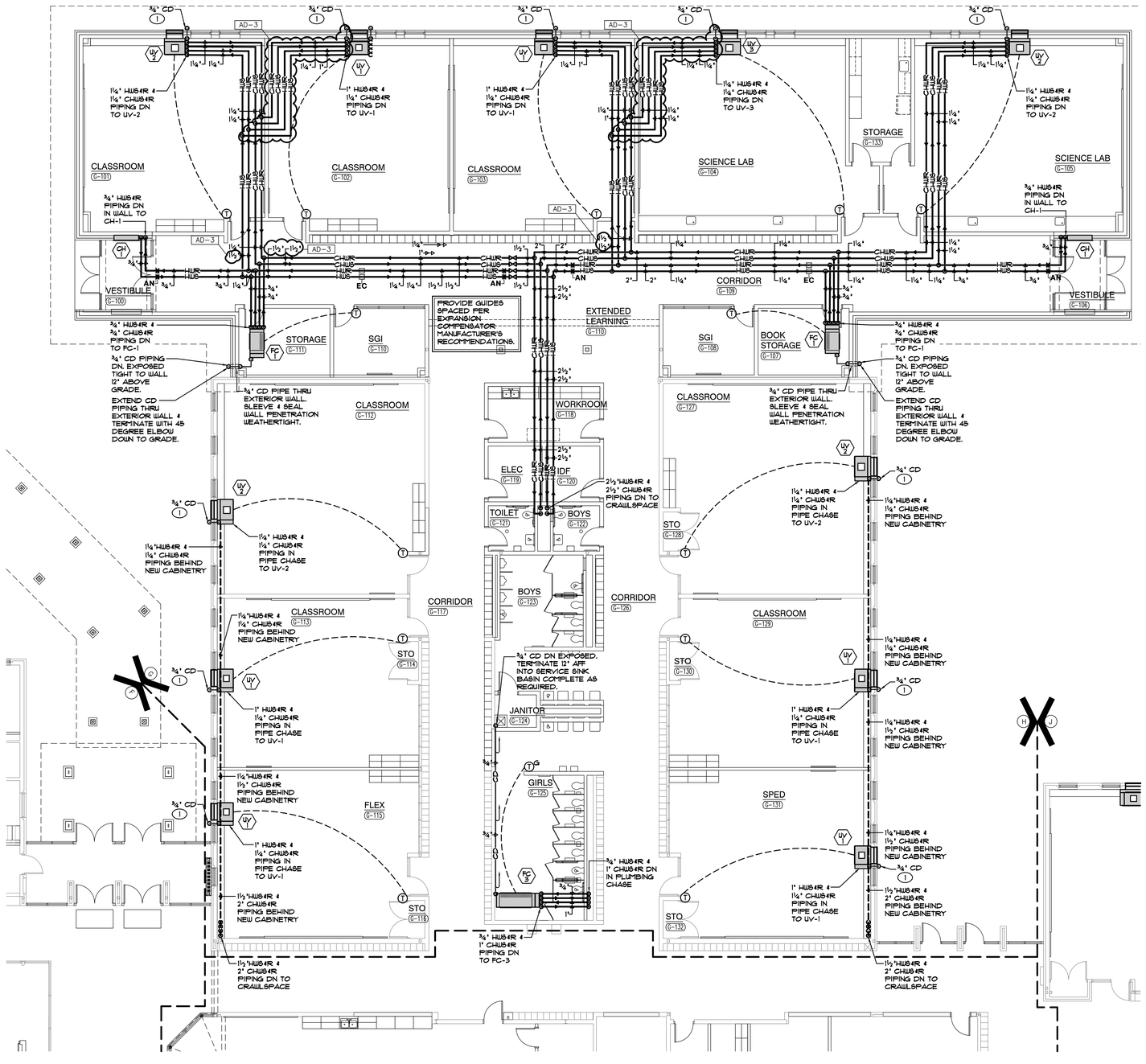
1. EXTEND CONDENSATE PIPING FROM UNIT THRU WALL TERMINATE WITH 45 DEGREE ELBOW DOWN TO GRADE. SLEEVE AND SEAL PIPE THROUGH WALL PENETRATION WEATHERTIGHT.



UNIT "G" MECHANICAL FIRST FLOOR PIPING PLAN

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

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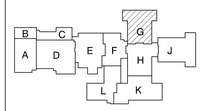
PROJECT

WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS

DUNELAND SCHOOL CORPORATION
CHESTERTON, INDIANA



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AD-3	03/30/22	ADDENDUM NO. 3

DRAWING

UNIT "G" MECHANICAL FIRST FLOOR PIPING PLAN

PROJECT

WESTCHESTER IS - ADDITIONS & RENOVATIONS

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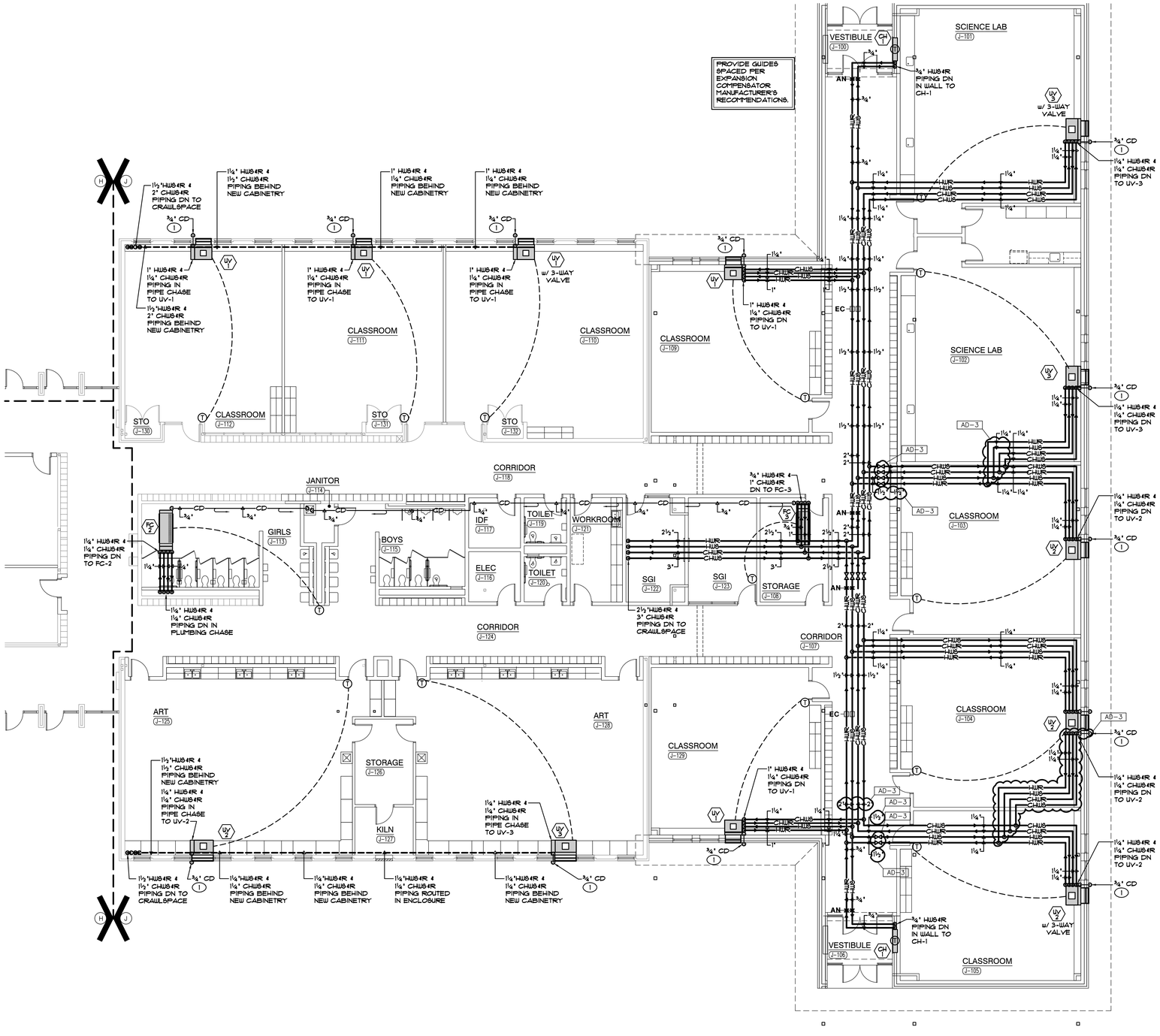

UNIT "J" MECHANICAL FIRST FLOOR PIPING PLAN

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

NORTH

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WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS

DUNELAND SCHOOL CORPORATION
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DRAWING
UNIT "J" MECHANICAL FIRST FLOOR PIPING PLAN

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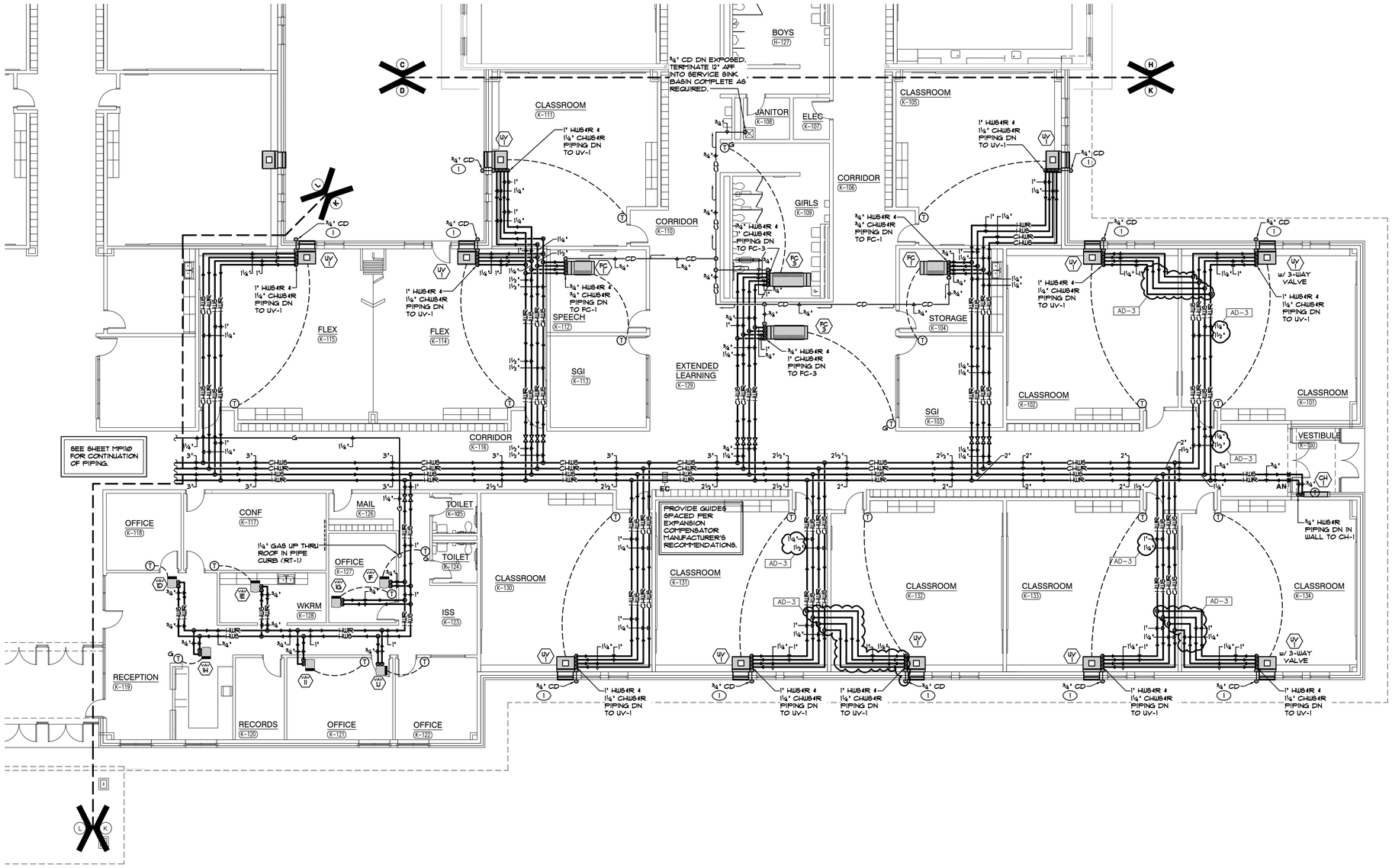

UNIT "K" MECHANICAL FIRST FLOOR PIPING PLAN

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

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PROJECT

WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS

DUNELAND SCHOOL CORPORATION
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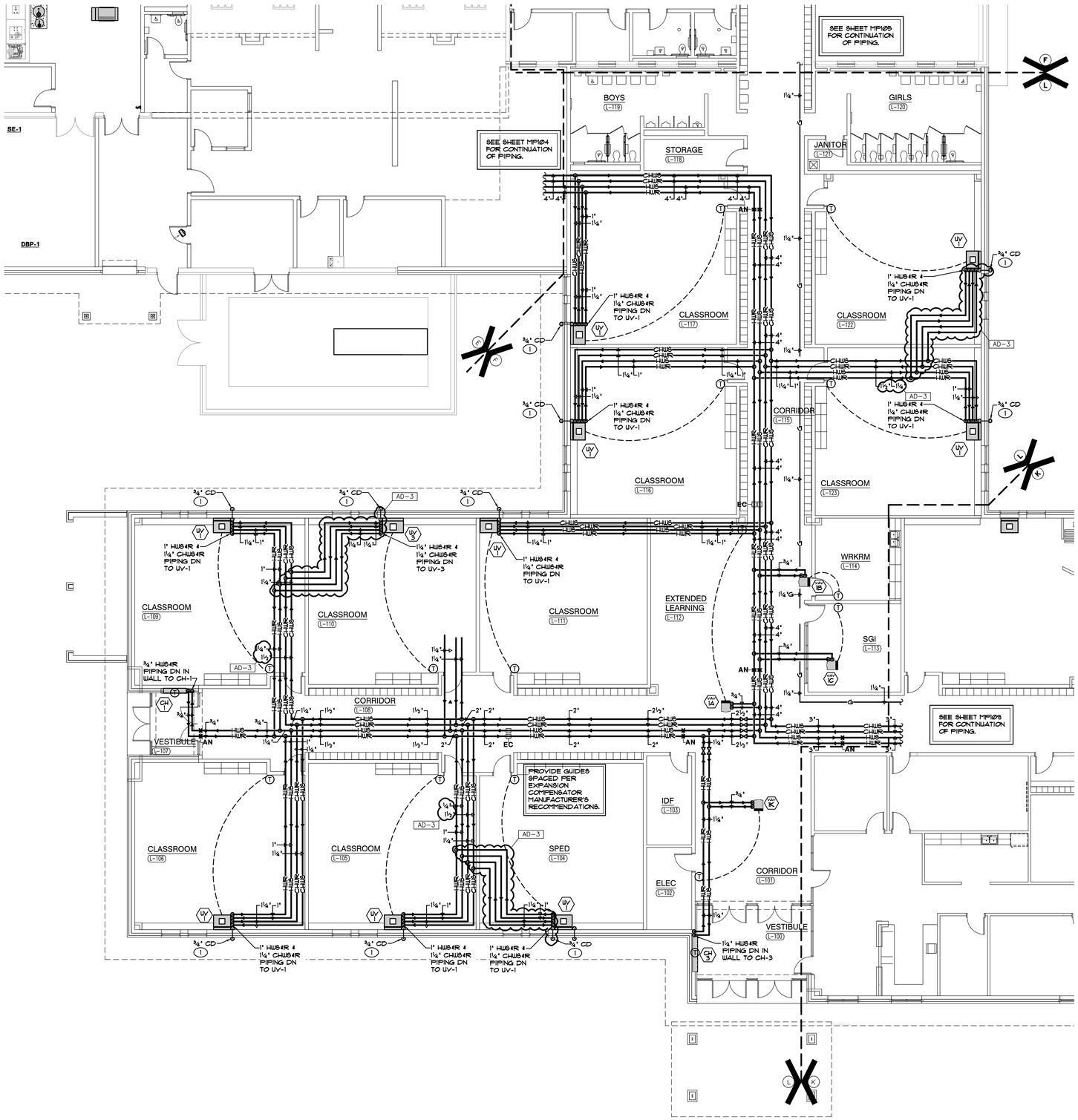

UNIT "L" MECHANICAL FIRST FLOOR PIPING PLAN

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

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PROJECT

WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS

DUNELAND SCHOOL CORPORATION
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DRAWING
UNIT "L" MECHANICAL FIRST FLOOR PIPING PLAN

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WESTCHESTER IS - ADDITIONS & RENOVATIONS

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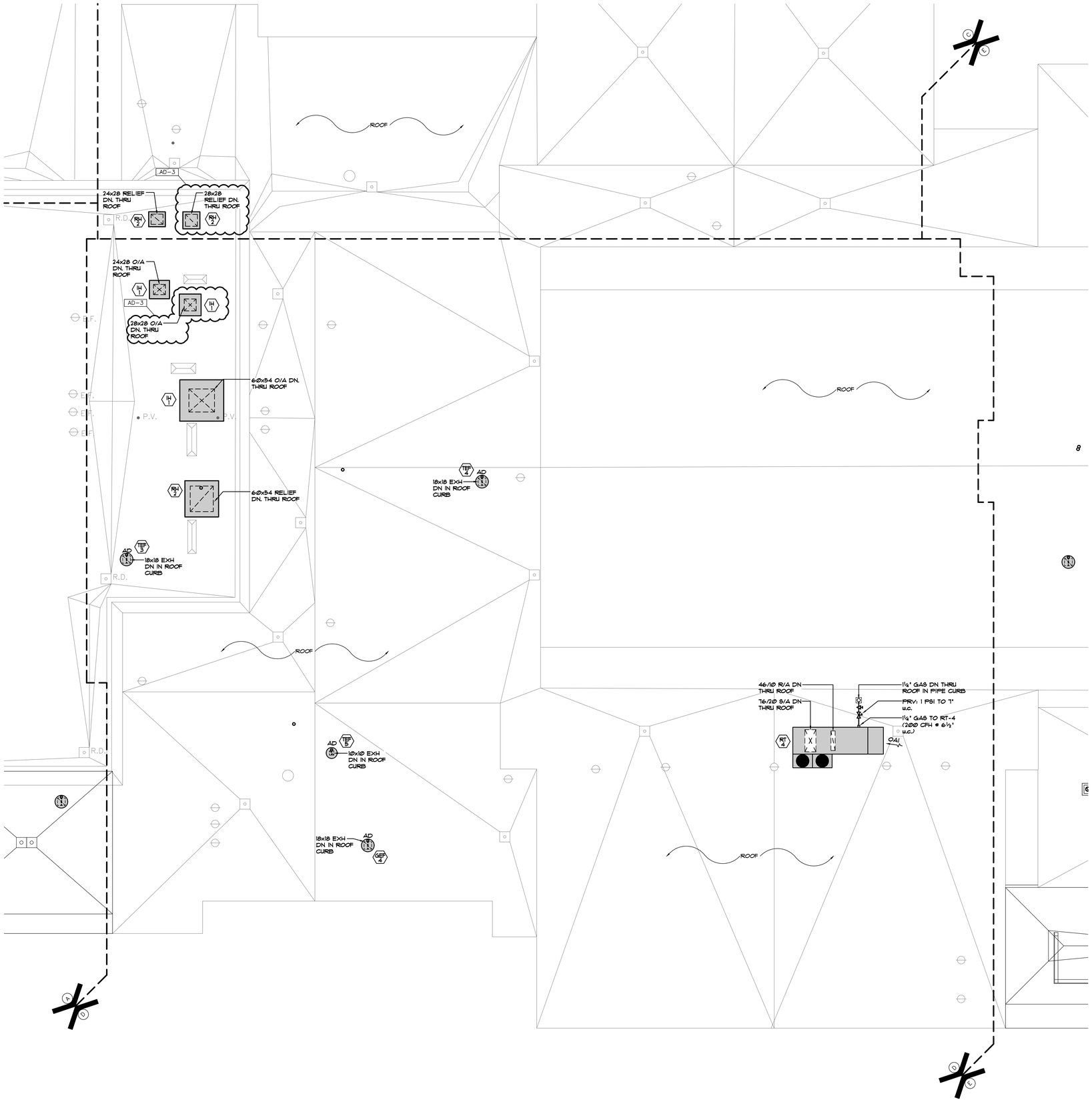

UNIT "D" MECHANICAL HVAC ROOF PLAN

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

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PROJECT

WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS

DUNELAND SCHOOL CORPORATION
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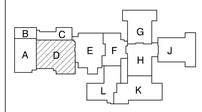

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DRAWING
UNIT "D" MECHANICAL HVAC ROOF PLAN

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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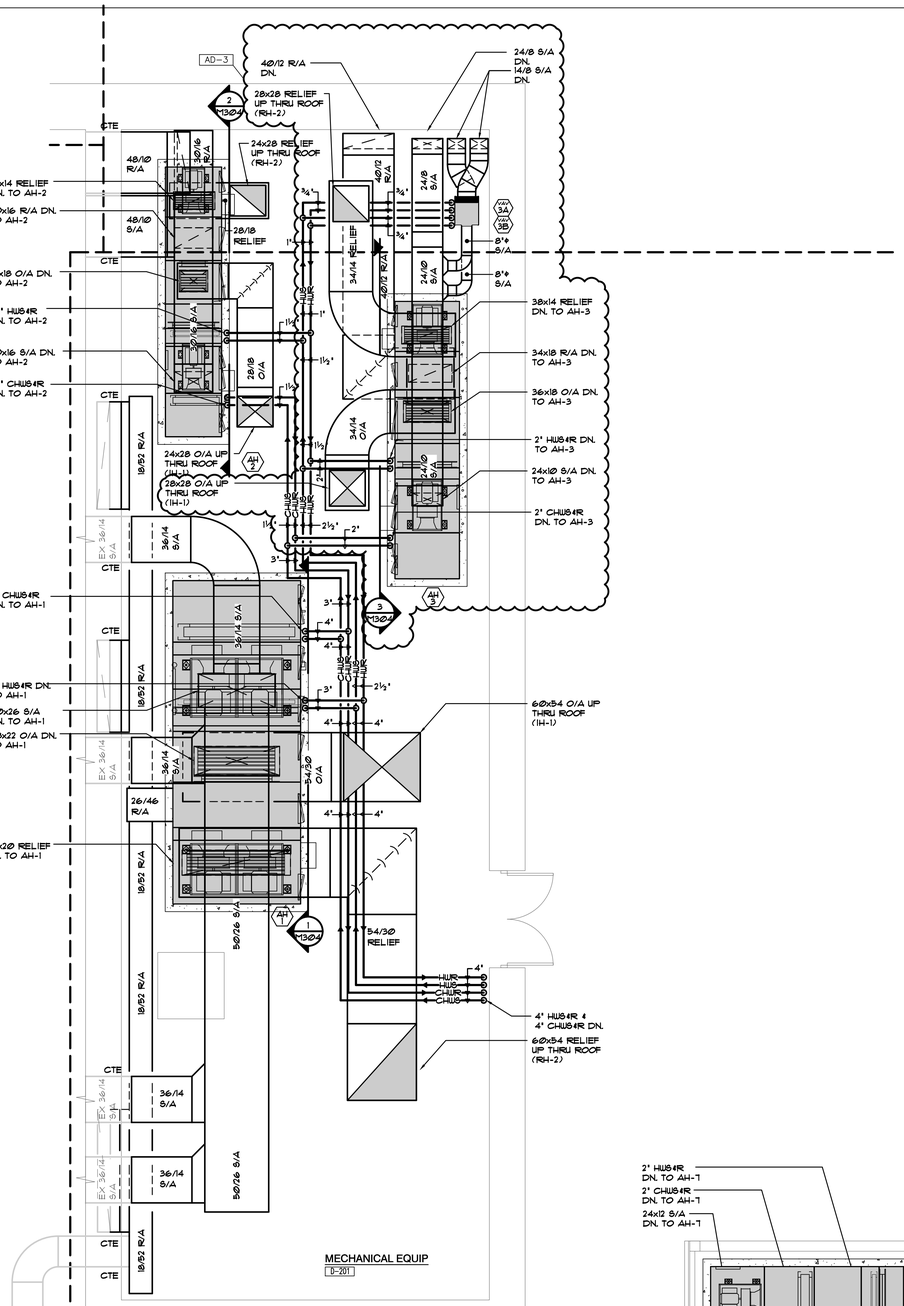
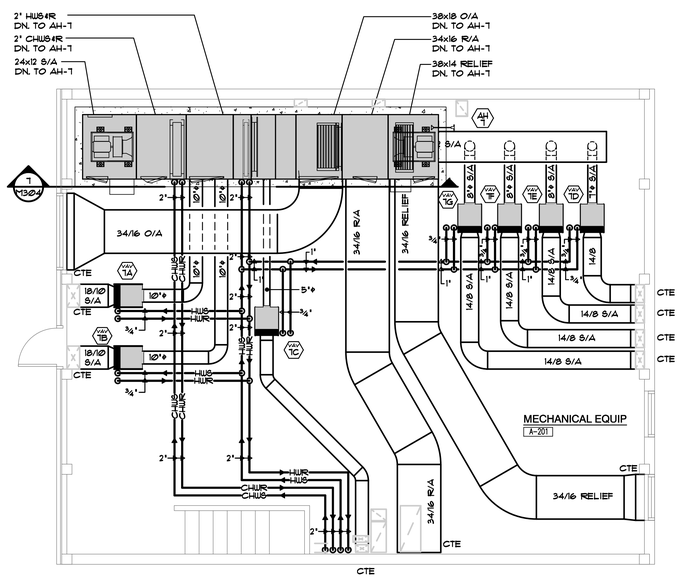


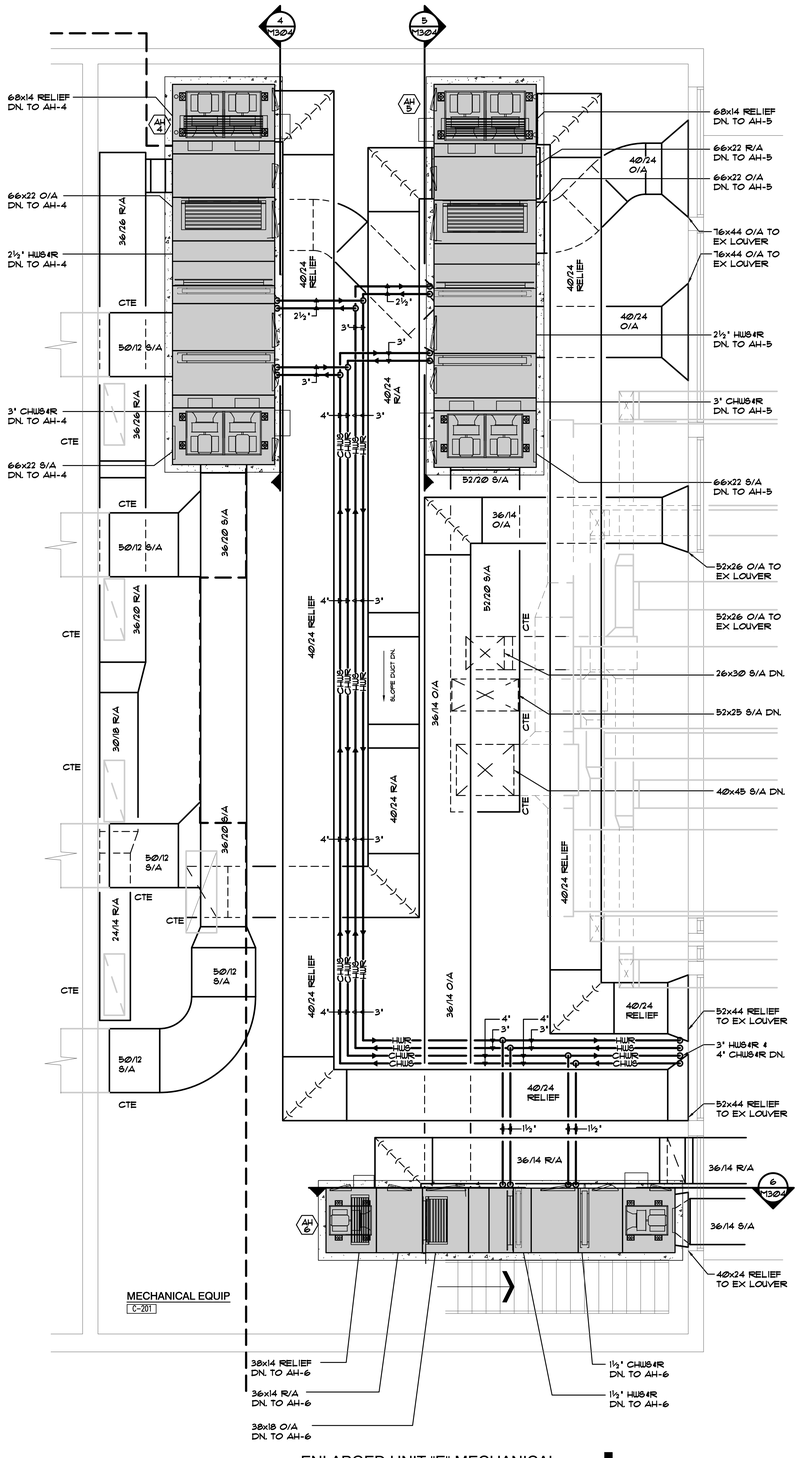
ENLARGED UNIT "D" MECHANICAL MEZZANINE PLAN

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



ENLARGED UNIT "H" MECHANICAL MEZZANINE PLAN

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



ENLARGED UNIT "E" MECHANICAL MEZZANINE PLAN

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

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PROJECT
WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS

DUNELAND SCHOOL CORPORATION
CHESTERTON, INDIANA

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PROJECT 21-141
DATE 02/28/22
COORDINATED BY JC
DRAWN BY AUTHOR
CHECKED BY DJ

DAVID G. JANNEY REGISTERED NO. 10302590 STATE OF INDIANA PROFESSIONAL ENGINEER

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WESTCHESTER IS - ADDITIONS & RENOVATIONS

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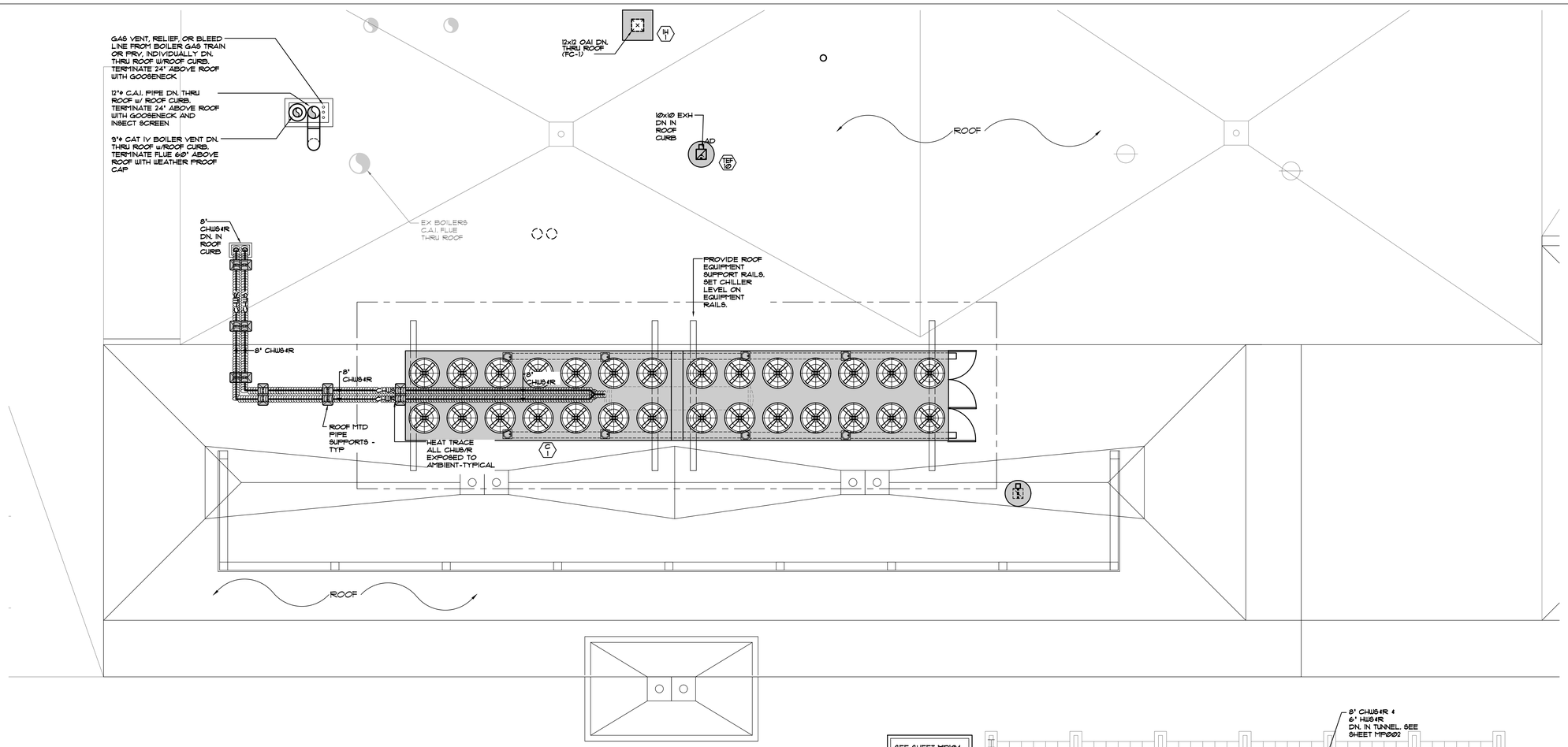

ENLARGED UNIT "E" MECHANICAL PARTIAL ROOF PLAN

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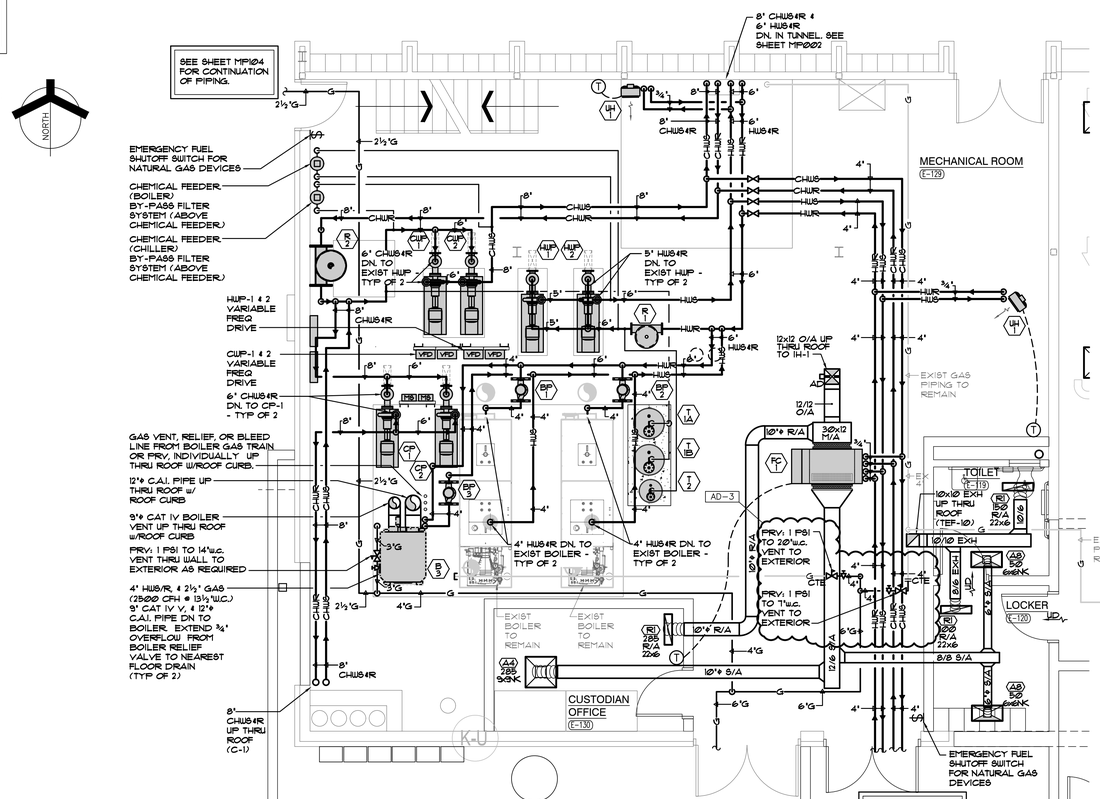

ENLARGED UNIT "E" MECHANICAL FLOOR PLAN

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

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ENLARGED MECHANICAL PLANS

PROJECT
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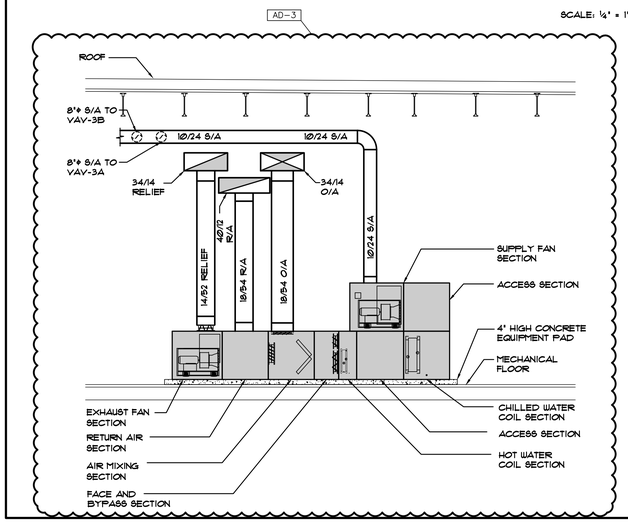
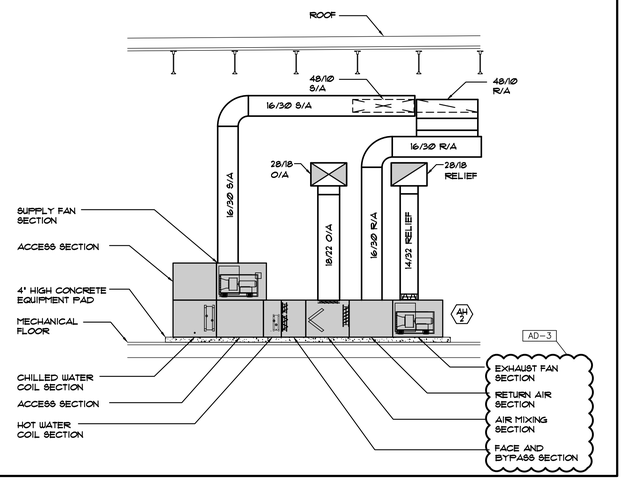
3 / M304 DUCTWORK SECTION FOR AH-3 THRU MECH RM

SCALE: ¼" = 1'-0"



2 / M304 DUCTWORK SECTION FOR AH-2 THRU MECH RM

SCALE: ¼" = 1'-0"



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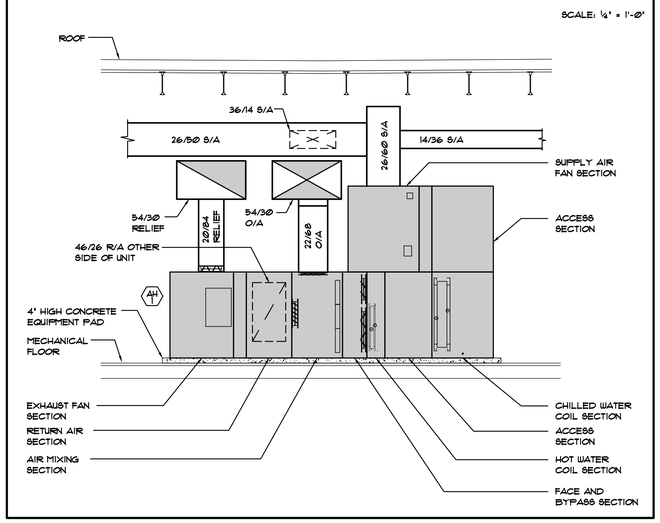

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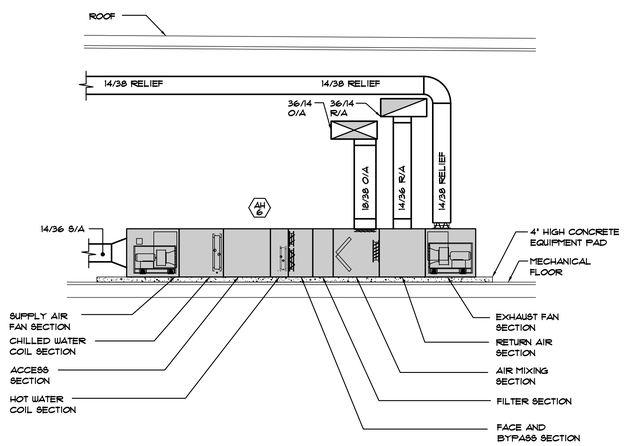
SCALE: ¼" = 1'-0"



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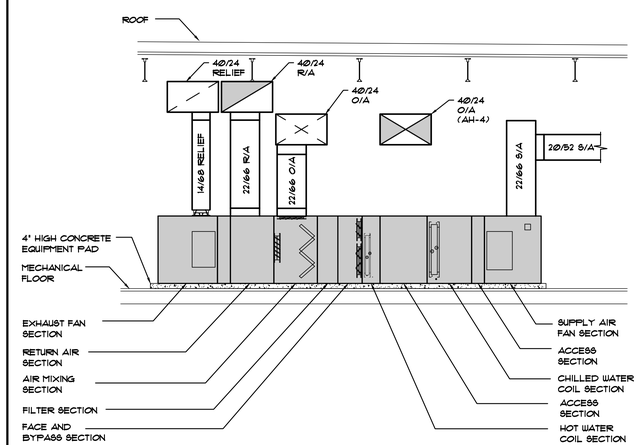
SCALE: ¼" = 1'-0"



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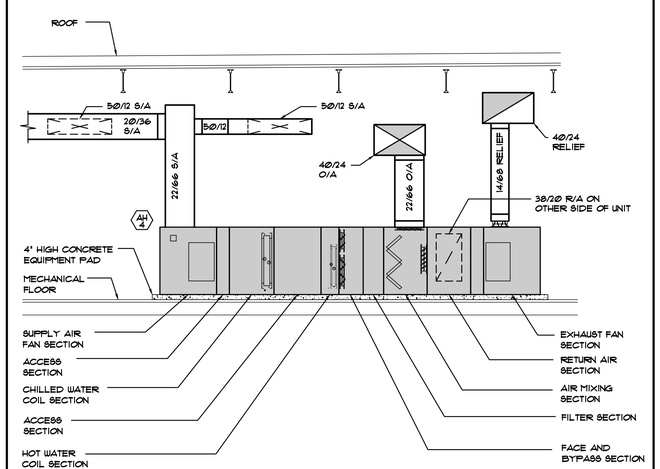
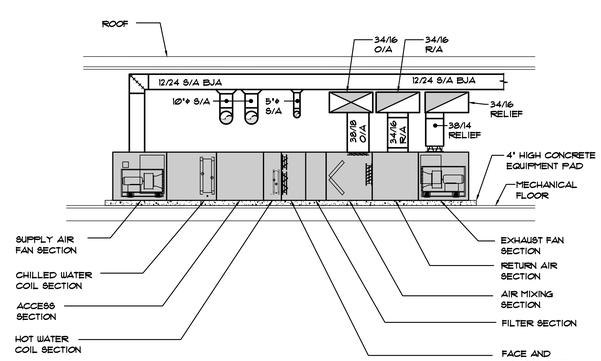


7 / M304 DUCTWORK SECTION FOR AH-7 THRU MECH RM

SCALE: ¼" = 1'-0"



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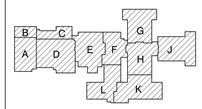

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PROJECT
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MECHANICAL EQUIPMENT SCHEDULE

AD-2

TAG	MANUFACTURER	MODEL NO.	DESCRIPTION	FAN MOTOR DATA CFM	MIN OAI HIGH	MIN OAI LOW	ESP	BHP	HP	RPM	DX COOLING EQUIPMENT/COIL DATA MBH	SHC	EDB	EWB	LDB	LWB	CAT	STGS	GAS FIRED HEATING DATA MBH (IN)	MBH (OUT)	EAT	LAT	STGS
C-1	TRANE	ACR5000	ROOF MOUNTED AIR COOLED CHILLER	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B-3	CAMUS	DR2500	GAS FIRED HW CONDENSING BOILER w/SEALED COMBUSTION	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AH-1	TRANE	CSAA 035	INTERIOR CENTRAL STATION AIR HANDLING UNIT	1840	645	1845	-	22.4	(2) 15	2357	-	-	-	-	-	-	-	-	-	-	-	-	-
ER-1			HOT WATER HEATING / CHILLED WATER COOLING - SZVAV	1840	-	-	-	13	(2) 7.5	2044	-	-	-	-	-	-	-	-	-	-	-	-	-
AH-2	TRANE	CSAA 004	INTERIOR CENTRAL STATION AIR HANDLING UNIT	2000	1025	2000	-	2.01	3	3449	-	-	-	-	-	-	-	-	-	-	-	-	-
ER-2	AD-3		HOT WATER HEATING / CHILLED WATER COOLING - SZVAV	2000	-	-	-	1.08	1.5	3286	-	-	-	-	-	-	-	-	-	-	-	-	-
AH-3	TRANE	CSAA 008	INTERIOR CENTRAL STATION AIR HANDLING UNIT	4000	1600	4000	-	5.16	7.5	2889	-	-	-	-	-	-	-	-	-	-	-	-	-
ER-3			HOT WATER HEATING / CHILLED WATER COOLING - VAV	4000	-	-	-	2.27	3	2196	-	-	-	-	-	-	-	-	-	-	-	-	-
AH-4	TRANE	CSAA 021	INTERIOR CENTRAL STATION AIR HANDLING UNIT	10750	2500	10750	-	14.4	(2) 7.5	2607	-	-	-	-	-	-	-	-	-	-	-	-	-
ER-4			HOT WATER HEATING / CHILLED WATER COOLING - SZVAV	10750	-	-	-	7.02	(2) 5	2068	-	-	-	-	-	-	-	-	-	-	-	-	-
AH-5	TRANE	CSAA 021	INTERIOR CENTRAL STATION AIR HANDLING UNIT	10000	4700	10000	-	13.4	(2) 7.5	2551	-	-	-	-	-	-	-	-	-	-	-	-	-
ER-5			HOT WATER HEATING / CHILLED WATER COOLING - SZVAV	10000	-	-	-	5.4	(2) 3	1616	-	-	-	-	-	-	-	-	-	-	-	-	-
AH-6	TRANE	CSAA 008	INTERIOR CENTRAL STATION AIR HANDLING UNIT	4000	3200	-	-	4.65	5	2691	-	-	-	-	-	-	-	-	-	-	-	-	-
ER-6			HOT WATER HEATING / CHILLED WATER COOLING - SZVAV	4000	-	-	-	1.58	2	1724	-	-	-	-	-	-	-	-	-	-	-	-	-
AH-7	TRANE	CSAA 008	INTERIOR CENTRAL STATION AIR HANDLING UNIT	4400	740	4400	-	6.84	10	3059	-	-	-	-	-	-	-	-	-	-	-	-	-
ER-7			HOT WATER HEATING / CHILLED WATER COOLING - VAV	4400	-	-	-	2.32	3	1946	-	-	-	-	-	-	-	-	-	-	-	-	-
RT-1	TRANE	YZD 150	ROOF MOUNTED GAS FIRED / DX COOLING ROOFTOP UNIT-VAV	4200	910	-	-	2.65	3	778	80	64	79.5	64.0	53.1	52.1	95	MOD	350	283	70	131	MOD
RT-2	TRANE	YZC 072	ROOF MOUNTED GAS FIRED / DX COOLING ROOFTOP UNIT-VAV	2170	350	-	-	0.85	2.75	1182	63	61	78.2	62.0	53.3	52.1	95	MOD	150	122	70	122	MOD
RT-3	TRANE	OAD D070	ROOF MOUNTED GAS FIRED / DX COOLING ROOFTOP UNIT-MAU w/ERV	6000	6000	-	-	4.9	7.5	1503	255	182	81.8	67.6	54.3	53.9	95	MOD	400	320	40	89.2	MOD
RT-4	TRANE	OAD D010	ROOF MOUNTED GAS FIRED / DX COOLING ROOFTOP UNIT-VAV w/ERV	1350	1535	375	-	2.81	5	2277	128	98	76.6	64.2	52.8	52.6	95	MOD	200	160	62.9	102	MOD
UV-1	ENGINEERED AIRE	RUV-1200	VERTICAL UNIT VENTILATOR - 4 PIPE HOT/CHILLED WATER	1200	420	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
UV-2	ENGINEERED AIRE	RUV-1400	VERTICAL UNIT VENTILATOR - 4 PIPE HOT/CHILLED WATER	1400	530	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
UV-3	ENGINEERED AIRE	RUV-1600	VERTICAL UNIT VENTILATOR - 4 PIPE HOT/CHILLED WATER	1600	540	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FC-1	TRANE	FCCB040	HORIZONTAL CONCEALED CEILING MOUNTED FAN COIL	385	80	-	0.4	0.15	0.1	1734	-	-	-	-	-	-	-	-	-	-	-	-	-
FC-2	TRANE	FCCB120	HORIZONTAL CONCEALED CEILING MOUNTED FAN COIL	1150	85	-	0.4	0.27	0.2	1652	-	-	-	-	-	-	-	-	-	-	-	-	-
FC-3	TRANE	FCCB120	HORIZONTAL CONCEALED CEILING MOUNTED FAN COIL	1175	185	-	0.4	0.27	0.2	1731	-	-	-	-	-	-	-	-	-	-	-	-	-
CH-1	TRANE	FFHB040	VERTICAL RECESSED MOUNTED CABINET HEATER	400	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CH-2	TRANE	FFBB060	VERTICAL SURFACE MOUNTED CABINET HEATER	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CH-3	TRANE	FFHB120	VERTICAL RECESSED MOUNTED CABINET HEATER	1200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CH-4	TRANE	FFBB120	VERTICAL SURFACE MOUNTED CABINET HEATER	1200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
UH-1	VULCAN	HV-24	HOT WATER UNIT HEATER	450	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TEF-1	TWIN CITY	DCRD-180	ROOF MOUNTED TOILET EXHAUST FAN	3335	-	-	0.6	0.87	1	1099	-	-	-	-	-	-	-	-	-	-	-	-	-
TEF-2	TWIN CITY	DCRD-180	ROOF MOUNTED TOILET EXHAUST FAN	2980	-	-	0.6	0.74	1	1041	-	-	-	-	-	-	-	-	-	-	-	-	-
TEF-3	TWIN CITY	DCRD-160	ROOF MOUNTED TOILET EXHAUST FAN	1930	-	-	0.5	0.43	1/2	1079	-	-	-	-	-	-	-	-	-	-	-	-	-
TEF-4	TWIN CITY	DCRD-160	ROOF MOUNTED TOILET EXHAUST FAN	2165	-	-	0.6	0.61	1	1211	-	-	-	-	-	-	-	-	-	-	-	-	-
TEF-5	TWIN CITY	DCRD-160	ROOF MOUNTED TOILET EXHAUST FAN	1830	-	-	0.6	0.5	1	1134	-	-	-	-	-	-	-	-	-	-	-	-	-
TEF-6	TWIN CITY	DCRD-095	ROOF MOUNTED TOILET EXHAUST FAN	510	-	-	0.6	0.11	1/8	1514	-	-	-	-	-	-	-	-	-	-	-	-	-
TEF-7	TWIN CITY	DCRD-160	ROOF MOUNTED TOILET EXHAUST FAN	1410	-	-	0.5	0.29	1/2	961	-	-	-	-	-	-	-	-	-	-	-	-	-
TEF-8	TWIN CITY	DCRD-095	ROOF MOUNTED TOILET EXHAUST FAN	360	-	-	0.5	0.06	1/8	1320	-	-	-	-	-	-	-	-	-	-	-	-	-
TEF-9	TWIN CITY	DCRD-085	ROOF MOUNTED TOILET EXHAUST FAN	200	-	-	0.5	0.05	1/8	1287	-	-	-	-	-	-	-	-	-	-	-	-	-
TEF-10	TWIN CITY	DCRD-090	ROOF MOUNTED TOILET EXHAUST FAN	235	-	-	0.5	0.05	1/8	1278	-	-	-	-	-	-	-	-	-	-	-	-	-
TEF-11	TWIN CITY	DCRD-160	ROOF MOUNTED TOILET EXHAUST FAN	1270	-	-	0.5	0.26	1/2	932	-	-	-	-	-	-	-	-	-	-	-	-	-
TEF-12	TWIN CITY	DCRD-160	ROOF MOUNTED TOILET EXHAUST FAN	1160	-	-	0.5	0.24	1/2	911	-	-	-	-	-	-	-	-	-	-	-	-	-
TEF-13	TWIN CITY	DCRD-160	ROOF MOUNTED TOILET EXHAUST FAN	2320	-	-	0.6	0.65	1	1232	-	-	-	-	-	-	-	-	-	-	-	-	-
TEF-14	TWIN CITY	DCRD-095	ROOF MOUNTED TOILET EXHAUST FAN	300	-	-	0.5	0.06	1/8	1286	-	-	-	-	-	-	-	-	-	-	-	-	-
TEF-15	TWIN CITY	DCRD-160	ROOF MOUNTED TOILET EXHAUST FAN	1730	-	-	0.5	0.45	1/2	1099	-	-	-	-	-	-	-	-	-	-	-	-	-
TEF-16	TWIN CITY	DCRD-095	ROOF MOUNTED TOILET EXHAUST FAN	260	-	-	0.5	0.05	1/8	1271	-	-	-	-	-	-	-	-	-	-	-	-	-
TEF-17	TWIN CITY	DCRD-160	ROOF MOUNTED TOILET EXHAUST FAN	1930	-	-	0.5	0.51	1	1140	-	-	-	-	-	-	-	-	-	-	-	-	-
TEF-18	TWIN CITY	DCRD-095	ROOF MOUNTED TOILET EXHAUST FAN	300	-	-	0.5	0.06	1/8	1286	-	-	-	-	-	-	-	-	-	-	-	-	-
GEF-1	TWIN CITY	DCRD-095	ROOF MOUNTED GENERAL EXHAUST FAN	400	-	-	0.6	0.09	1/8	1449	-	-	-	-	-	-	-	-	-	-	-	-	-
GEF-2	TWIN CITY	DCRD-180	ROOF MOUNTED GENERAL EXHAUST FAN	2685	-	-	0.6	0.55	1	945	-	-	-	-	-	-	-	-	-	-	-	-	-
GEF-3	TWIN CITY	DCRD-120	ROOF MOUNTED GENERAL EXHAUST FAN	1055	-	-	0.6	0.22	1/3	1513	-	-	-	-	-	-	-	-	-	-	-	-	-
GEF-4	TWIN CITY	DCRD-160	ROOF MOUNTED GENERAL EXHAUST FAN	1260	-	-	0.6	0.31	1/2	936	-	-	-	-	-	-	-	-	-	-	-	-	-
GEF-5	TWIN CITY	DCRD-160	ROOF MOUNTED GENERAL EXHAUST FAN	1470	-	-	0.6	0.4	1/3	1036	-	-	-	-	-	-	-	-	-	-	-	-	-
GEF-6	TWIN CITY	DCRD-160	ROOF MOUNTED GENERAL EXHAUST FAN	1510	-	-	0.6	0.4	1/2	1046	-	-	-	-	-	-	-	-	-	-	-	-	-
GEF-7	TWIN CITY	DCRD-160	ROOF MOUNTED GENERAL EXHAUST FAN	1520	-	-	0.6	0.4	1/2	1048	-	-	-	-	-	-	-	-	-	-	-	-	-
GEF-8	TWIN CITY	DCRD-160	ROOF MOUNTED GENERAL EXHAUST FAN	1470	-	-	0.6	0.4	1/2	1037	-	-	-	-	-	-	-	-	-	-	-	-	-
GEF-9	TWIN CITY	DCRD-160	ROOF MOUNTED GENERAL EXHAUST FAN	1770	-	-	0.6	0.5	1	1101	-	-	-	-	-	-	-	-	-	-	-	-	-
GEF-10	TWIN CITY	DCRD-160	ROOF MOUNTED GENERAL EXHAUST FAN	1740	-	-	0.6	0.5	1/2	1097	-	-	-	-	-	-	-	-	-	-	-	-	-
GEF-11	TWIN CITY	DCRD-160	ROOF MOUNTED GENERAL EXHAUST FAN	1770	-	-	0.6	0.5	1/2	1103	-	-	-	-	-	-	-	-	-	-	-	-	-
GEF-12	TWIN CITY	DCRD-160	ROOF MOUNTED GENERAL EXHAUST FAN	1770	-	-	0.6	0.5	1/2	1103	-	-	-	-	-	-	-	-	-	-	-	-	-
GEF-13	TWIN CITY	DCRD-160	ROOF MOUNTED GENERAL EXHAUST FAN	1770	-	-	0.6	0.5	1/2	1103	-	-	-	-	-	-	-	-	-	-	-	-	-
GEF-14	TWIN CITY	DCRD-160	ROOF MOUNTED GENERAL EXHAUST FAN	1770	-	-	0.6	0.5	1/2	1103	-	-	-	-	-	-	-	-	-	-	-	-	-
GEF-15	TWIN CITY	DCRD-085	ROOF MOUNTED GENERAL EXHAUST FAN	220	-	-	0.6	0.06	1/6	1410	-	-	-	-	-	-	-	-	-	-	-	-	-

TAG	CHILLED WATER COOLING EQUIPMENT/COIL DATA MBH	SHC	GPM	EDB	EWB	LDB	LWB	EWT	LWT	MAX WPD	CAT	HOT WATER HEATING DATA MBH (IN)	MBH (OUT)	GPM	EAT	LAT	EWT	LWT	MAX WPD	HOT WATER PREHEATING COIL DATA MBH (OUT)	GPM	EAT	LAT	EWT	LWT	MAX WPD	LOAD HP	MCA	FLA	AMPS	MOCP	ELECTRICAL DATA VOLT	PHASE	HZ.	STARTER: MC.	EC.	UNITS CTRL'D BY	EQUIP WEIGHT	REMARKS
C-1	5758	-	1147	-	-	-	-	55	43	12	95	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1121	-	-	1200	208	3	60	X	-	FMS	22000	NOTE 1.
B-3	-	-	-	-	-	-	-	-	-	-	-	2500	2363	237	-	-	160	180	30	-	-	-	-	-	-	-	-	18	-	-	30	120	1	60	X	-	FMS	920	NOTE 2.
AH-1	775	494	154	80.5	68.6	56.2	55.4	44	54	12	-	-	929	93	44	90	180	160	12	-	-	-	-	-	-	-	-	165	-	-	250	208	3	60	X	-	FMS	8966	NOTE 3
ER-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	FMS	-	-
AH-2	98.2	66	20	83.2	68.8	53.3	53	44	54	12	-	-	128	13	31	90	180	160	12	-	-	-	-	-	-	-	-	26	-	-	40	208	3	60	X	-	FMS	2363	NOTE 3
ER-2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	FMS	-	-
AH-3	200	139	40	82.1	67.1	50.8	50.7	44	54	12	-	-	-	-	-	-	-	-	-	265	26	-6	55	180	160	12	-	50	-	-	70	208	3	60	X	-	FMS	4166	NOTE 3
ER-3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	FMS	-	-
AH-4	505	308	101	80.9	69.2	55	54.4	44	54	12	-	-	549	55	41	89	180	160	12	-	-	-	-	-	-	-	-	106	-	-	150	208	3	60	X	-	FMS	4891	NOTE 3
ER-4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	FMS	-	-
AH-5	508	329	101	82.7	68.9	52.9	52.5	44	54	12	-	-	603	60	34	90	180	160	12	-	-	-	-	-	-	-	-	91	-	-	125	208	3	60	X	-	FMS	4947	NOTE 3
ER-5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	FMS	-	-
AH-6	103	102	21	76	61.1	52.6	51.9	44	54	12	-	-	144	14	6.9	102	180	160	12	-	-	-	-	-	-	-	-	34	-	-	50	208	3	60	X	-	FMS	2658	NOTE 3
ER-6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	FMS	-	-
AH-7	172	141	34	79.7	64	50.4	50.3	44	54	12	-	-	-	-	-	-	-	-	-	271	27	-6	51	180	160	12	-	68	-	-	100	208	3	60	X	-	FMS	2889	NOTE 3
ER-7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	FMS	-	-
RT-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	71	-	-	80	208	3	60	X	-	FMS	3060	NOTE 4
RT-2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	39	-	-	50	208	3	60	X	-	FMS	1188	NOTE 4
RT-3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	108	-	-	125	208	3	60	X	-	FMS	5404	NOTE 5
RT-4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	70	-	-	80	208	3	60	X	-	FMS	4735	NOTE 6
UV-1	44.2	31	9.0	80	67	56.0	55.3	44	54	5	-	-	64.6	6.6	40	90	160	140	5	-	-	-	-	-	-	-	-	1/2	-	-	-	120	1	60	X	-	FMS	590	NOTE 7
UV-2	52.4	37	10.0	80	67	55.8	55.1	44	54	5	-	-	73.9	8.0	40	93	160	140	5	-	-	-	-	-	-	-	-	3/4	-	-	-	120	1	60	X	-	FMS	645	NOTE 7
UV-3	62.9	43	12.0	80	67	55.1	54.4	44	54	5	-	-	107	11	40	95	160	140	5	-	-	-	-	-	-	-	-	3/4	-	-	-	120	1	60	X	-	FMS	700	NOTE 7
FC-1	13.5	11	2.7	79.7	64.9	53.6	52.9	44	54	5	-	-	18.6	1.9	54	98	180	160	5	-	-	-	-	-	-	-	-	2.8	-	-	15	120	1	60	X	-	FMS	109	NOTE 8
FC-2	24.3	23	4.9	77.5	63.1	58.8	56	44	54	5	-	-	73.6	3.7	63	122	180	140	5	-	-	-	-	-	-	-	-	6.1	-	-	15	120	1	60	X	-	FMS	200	NOTE 8
FC-3	34.6	31	6.9	77.5	63.1	53.7	52.9	44	54	10	-	-	42.9	1.7	63	96	180	130	10	-	-	-	-	-	-	-	-	6.1	-	-	15	120	1	60	X	-	FMS	200	NOTE 8
CH-1	-	-	-	-	-	-	-	-	-	-	-	-	29.4	2.9	60	128	180	160	5	-	-	-	-	-	-	-	-	2.8	-	-	15	120	1	60	X	-	FMS	88	NOTE 9
CH-2	-	-	-	-	-	-	-	-	-	-	-	-	44.5	4.4	60	128	180	160	5	-	-	-	-	-	-	-	-	3.9	-	-	15	120	1	60	X	-	FMS	155	NOTE 9
CH-3	-	-	-	-	-	-	-	-	-	-	-	-	87.8	8.8	60	127	180	160	5	-	-	-	-	-	-	-	-	6.1	-	-	15	120	1	60	X	-	FMS	253	NOTE 9
CH-4	-	-	-	-	-	-	-	-	-	-	-	-	87.8	8.8	60	127	180	160	5	-	-	-	-	-	-	-	-	6.1	-	-	15	120	1	60	X	-	FMS	218	NOTE 9
UH-1	-	-	-	-	-	-	-	-	-	-	-	-	17.4	1.8	60	100	180	160	5	-	-	-	-	-	-	-	-	0.8	-	-	15	120	1	60	X	-	FMS	65	NOTE 10
TEF-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	120	1	60	X	-	FMS	130	NOTE 11
TEF-2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	120	1	60	X	-	FMS	130	NOTE 11
TEF-3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1/2	-	-	-	120	1	60	X	-	FMS	100	NOTE 11
TEF-4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	120	1	60	X	-	FMS	100	NOTE 11
TEF-5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	120	1	60	X	-	FMS	100	NOTE 11
TEF-6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1/8	-	-	-	120	1	60	X	-	FMS	65	NOTE 11
TEF-7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1/2	-	-	-	120	1	60	X	-	FMS	100	NOTE 11
TEF-8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1/8	-	-	-	120	1	60	X	-	FMS	65	NOTE 11
TEF-9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1/8	-	-	-	120	1	60	X	-	FMS	65	NOTE 11
TEF-10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1/8	-	-	-	120	1	60	X	-	FMS	65	NOTE 11
TEF-11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1/2	-	-	-	120	1	60	X	-	FMS	100	NOTE 11
TEF-12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1/2	-	-	-	120	1	60	X	-	FMS	100	NOTE 11
TEF-13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	120	1	60	X	-	FMS	100	NOTE 11
TEF-14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1/8	-	-	-	120	1	60	X	-	FMS	65	NOTE 11
TEF-15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1/2	-	-	-	120	1	60	X	-	FMS	100	NOTE 11
TEF-16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1/8	-	-	-	120	1	60	X	-	FMS	65	NOTE 11
TEF-17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	120	1	60	X	-	FMS	100	NOTE 11
TEF-18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1/8	-	-	-	120	1	60	X	-	FMS	65	NOTE 11
GEF-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1/8	-	-	-	120	1	60	X	-	FMS	65	NOTE 11
GEF-2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	120	1	60	X	-	FMS	120	NOTE 11
GEF-3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1/3	-	-	-	120	1	60	X	-	FMS	70	NOTE 11
GEF-4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1/2	-	-	-	120	1	60	X	-	FMS	100	NOTE 11
GEF-5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1/3	-	-	-	120	1	60	X	-	FMS	100	NOTE 11
GEF-6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1/2	-	-	-	120	1	60	X	-	FMS	100	NOTE 11
GEF-7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1/2	-	-	-	120	1	60	X	-	FMS	100	NOTE 11
GEF-8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1/2	-	-	-	120	1	60	X	-	FMS	100	NOTE 11
GEF-9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	120	1	60	X	-	FMS	100	NOTE 11
GEF-10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1/2	-	-	-	120	1	60	X	-	FMS	100	NOTE 11
GEF-11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1/2	-	-	-	120	1	60	X	-	FMS	100	NOTE 11
GEF-12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1/2	-	-	-	120	1	60	X	-	FMS	100	NOTE 11
GEF-13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1/2	-	-	-	120	1	60	X	-	FMS	100	NOTE 11
GEF-14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1/2	-	-	-	120	1	60	X	-	FMS	100	NOTE 11
GEF-15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1/6	-	-	-	120	1	60	X	-	FMS	60	NOTE 11

SEE SHEET M-502 FOR MECHANICAL NOTES

AD-2

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PROJECT
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PROJECT 21-141
DATE 02/28/22
COORDINATED BY JC
DRAWN BY GL
CHECKED BY DJ

REGISTERED PROFESSIONAL ENGINEER DAVID G. JANNETT NO. 10302590 STATE OF INDIANA

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REVISIONS

MARK	DATE	ISSUED FOR
AD-2	03/21/22	ADDENDUM NO. 2
AD-3	03/30/22	ADDENDUM NO. 3

DRAWING
MECHANICAL SCHEDULES

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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SHEET
M-501

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NATURAL GAS CONNECTION SCHEDULE

TAG	DESCRIPTION	LOCATION	CAPACITY CFH	REMARKS
RT-1	ROOF MOUNTED GAS FIRED / DX COOLING ROOFTOP UNIT-VAV	ROOF	350	-
RT-2	ROOF MOUNTED GAS FIRED / DX COOLING ROOFTOP UNIT-VAV	ROOF	150	-
RT-3	ROOF MOUNTED GAS FIRED / DX COOLING ROOFTOP UNIT-MAU	ROOF	400	-
RT-4	ROOF MOUNTED GAS FIRED / DX COOLING ROOFTOP UNIT-VAV	ROOF	200	-
-	EXISTING GAS FIRED BOILER	MECH ROOM-E129	3000	-
-	EXISTING GAS FIRED BOILER	MECH ROOM-E129	3000	-
B-3	GAS FIRED HOT WATER BOILER	MECH ROOM-E129	2500	-
-	COMBI OVEN/STEAMER RELOCATED	KITCHEN-E122	118	-
-	COMBI OVEN/STEAMER	KITCHEN-E122	304	-
-	COMBI OVEN/STEAMER FUTURE DOUBLE STACK	KITCHEN-E122	236	-
TWH-1	GAS FIRED TANKLESS WATER HEATER	MECH ROOM-E124	199	-
TWH-2	GAS FIRED TANKLESS WATER HEATER	MECH ROOM-E124	199	-
TWH-3	GAS FIRED TANKLESS WATER HEATER	MECH ROOM-E124	199	-
TWH-4	GAS FIRED TANKLESS WATER HEATER	MECH ROOM-E124	199	-
TWH-5	GAS FIRED TANKLESS WATER HEATER	MECH ROOM-E124	199	-
TWH-6	GAS FIRED TANKLESS WATER HEATER	MECH ROOM-E124	199	-
-	EXISTING MISC. GAS LOAD	-	250	-
-	NEW EMERGENCY GENERATOR (7'-11" w.c.)	-	2983	-
		TOTAL	14685	CFH @ 1 PSI

AD-3

DUCTWORK INSULATION/LINING SCHEDULE

REFER TO SPECIFICATIONS FOR ADDITIONAL INSULATION REQUIREMENTS

DUCTWORK TYPE	INSULATION TYPE	
	CONCEALED	EXPOSED
SUPPLY AIR DUCTWORK		
RECTANGULAR	1½" LINER	1½" LINER
ROUND	1½" WRAP, NOTE 1.	PERFORATED DOUBLE WALL
OUTSIDE AIR DUCTWORK		
RECTANGULAR	1½" WRAP	1½" WRAP
ROUND	1½" WRAP	1½" WRAP OR PERFORATED DOUBLE WALL
RETURN AIR DUCTWORK		
RECTANGULAR	1½" LINER	1½" LINER
ROUND	PERFORATED DOUBLE WALL	PERFORATED DOUBLE WALL
TRANSFER AIR DUCTWORK	½" LINER	½" LINER
DOAS SUPPLY AIR DUCTWORK		
RECTANGULAR	1½" LINER	1½" LINER
ROUND	1½" WRAP, NOTE 1.	PERFORATED DOUBLE WALL
DOAS EXHAUST DUCTWORK		
RECTANGULAR	1½" LINER, WITHIN 30'-0" OF UNIT	1½" LINER, WITHIN 30'-0" OF UNIT
ROUND	PERFORATED DOUBLE WALL, WITHIN 30'-0" OF UNIT	PERFORATED DOUBLE WALL, WITHIN 30'-0" OF UNIT
VAV & FAN-POWERED BOXES		
INLET COLLAR	1½" WRAP	1½" WRAP
HOT WATER REHEAT COIL	1½" WRAP	1½" WRAP
EXHAUST DUCTWORK		
WITHIN 10'-0" OF EXHAUST FAN	½" LINER	½" LINER

NOTE 1: ROUND DUCT SUPPLYING ONE DIFFUSER AND MORE THAN 30'-0" FROM UNIT

MECHANICAL SCHEDULE NOTES

NOTE 1:
PROVIDE WITH:
- ROOF SUPPORTS
- RAILS
- VIBRATION ISOLATORS
- SOUND ATTENUATION KIT

SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS

NOTE 2:
PROVIDE WITH:
- COMBUSTION AIR INTAKE DAMPER

SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS

NOTE 3:
SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS

NOTE 4:
PROVIDE WITH:
- INTEGRATED ECONOMIZER WITH DIFFERENTIAL ENTHALPY SENSORS
- DISCONNECT SWITCH
- HINGED ACCESS PANELS
- VIBRATION ISOLATION ROOF CURB W/ HUSHCORE DECK DS-52 ACOUSTICAL TREATMENT

SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS

NOTE 5:
PROVIDE WITH:
- INTEGRATED ECONOMIZER WITH DIFFERENTIAL ENTHALPY SENSORS
- DISCONNECT SWITCH
- HINGED ACCESS PANELS
- VIBRATION ISOLATION ROOF CURB W/ HUSHCORE DECK DS-52 ACOUSTICAL TREATMENT
- SEE HEAT RECOVERY SCHEDULE

SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS

NOTE 6:
PROVIDE WITH:
- INTEGRATED ECONOMIZER WITH DIFFERENTIAL ENTHALPY SENSORS
- DISCONNECT SWITCH
- HINGED ACCESS PANELS
- VIBRATION ISOLATION ROOF CURB W/ HUSHCORE DECK DS-52 ACOUSTICAL TREATMENT
- SEE HEAT RECOVERY SCHEDULE

SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS

NOTE 7:
PROVIDE WITH:
- INTEGRATED ENTHALPY ECONOMIZER
- DISCONNECT SWITCH
- FACE/BYPASS DAMPER
- FILTERS

SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS

NOTE 8:
PROVIDE WITH:
- DISCONNECT SWITCH
- VIBRATION ISOLATION HANGERS
- TERMINAL STRIPS FOR DDC READY

SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS

NOTE 9:
PROVIDE WITH:
- INTEGRAL THERMOSTAT
- DISCONNECT SWITCH

SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS

NOTE 10:
PROVIDE WITH:
- VIBRATION ISOLATION HANGERS

SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS

NOTE 11:
PROVIDE WITH:
- PROVIDE WITH DISCONNECT SWITCH
- ECM MOTOR WITH POTENTIOMETER SPEED CONTROLLER
- MOTORIZED DAMPER
- BIRD SCREEN
- ROOF CURB

SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS

RT-1 VAV TERMINAL SCHEDULE

TAG	MANUFACTURER	MODEL	INLET DIA.	CFM SETTING MAX CFM	CFM SETTING MIN CFM	HW REHEAT COIL DATA MBH	GPM	WPD	EWT	CONTROL SEQUENCE OPEN/CLOSED	OPEN/CLOSED/OPEN	REMARKS
1A	NAILOR	D30RW-08	8"	800	165	21.7	2.2	5'	180	X	-	-
1B	NAILOR	D30RW-05	5"	200	40	5.4	0.5	5'	180	X	-	-
1C	NAILOR	D30RW-05	5"	200	40	5.4	0.5	5'	180	X	-	-
1D	NAILOR	D30RW-05	5"	160	35	4.3	0.4	5'	180	X	-	-
1E	NAILOR	D30RW-06	6"	400	85	10.9	1.1	5'	180	X	-	-
1F	NAILOR	D30RW-06	6"	300	60	8.1	0.8	5'	180	X	-	-
1G	NAILOR	D30RW-05	5"	260	55	7.1	0.7	5'	180	X	-	-
1H	NAILOR	D30RW-08	8"	600	125	19.5	2.0	5'	180	-	X	-
1I	NAILOR	D30RW-06	6"	400	85	13.0	1.3	5'	180	-	X	-
1J	NAILOR	D30RW-05	5"	240	50	7.8	0.8	5'	180	-	X	-
1K	NAILOR	D30RW-08	8"	650	135	21.2	2.1	5'	180	-	X	-

RT-2 VAV TERMINAL SCHEDULE

TAG	MANUFACTURER	MODEL	INLET DIA.	CFM SETTING MAX CFM	CFM SETTING MIN CFM	HW REHEAT COIL DATA MBH	GPM	WPD	EWT	CONTROL SEQUENCE OPEN/CLOSED	OPEN/CLOSED/OPEN	REMARKS
2A	NAILOR	D30RW-05	5"	220	70	7.2	0.7	5'	180	-	X	-
2B	NAILOR	D30RW-05	5"	220	70	7.2	0.7	5'	180	-	X	-
2C	NAILOR	D30RW-05	5"	135	45	4.4	0.4	5'	180	-	X	-
2D	NAILOR	D30RW-06	6"	320	105	10.4	1.0	5'	180	-	X	-
2E	NAILOR	D30RW-05	5"	190	60	5.2	0.5	5'	180	X	-	-
2F	NAILOR	D30RW-05	5"	200	65	5.4	0.5	5'	180	X	-	-
2G	NAILOR	D30RW-07	7"	420	135	11.4	1.1	5'	180	X	-	-
2H	NAILOR	D30RW-05	5"	50	15	1.6	0.2	5'	180	-	X	-
2I	NAILOR	D30RW-06	6"	310	100	10.1	1.0	5'	180	-	X	-
2J	NAILOR	D30RW-05	5"	230	75	6.2	0.6	5'	180	X	-	-

AH-3 VAV TERMINAL SCHEDULE

TAG	MANUFACTURER	MODEL	INLET DIA.	CFM SETTING MAX CFM	CFM SETTING MIN CFM	HW REHEAT COIL DATA MBH	GPM	WPD	EWT	CONTROL SEQUENCE OPEN/CLOSED	OPEN/CLOSED/OPEN	REMARKS
3A	NAILOR	D30RW-08	8"	580	200	18.9	1.9	5'	180	-	X	-
3B	NAILOR	D30RW-08	8"	580	200	18.9	1.9	5'	180	-	X	-
3C	NAILOR	D30RW-10	10"	950	330	25.8	2.6	5'	180	X	-	-
3D	NAILOR	D30RW-14	14"	1,850	650	51.3	5.1	5'	180	X	-	-

AD-3

RT-4 VAV TERMINAL SCHEDULE

TAG	MANUFACTURER	MODEL	INLET DIA.	CFM SETTING MAX CFM	CFM SETTING MIN CFM	HW REHEAT COIL DATA MBH	GPM	WPD	EWT	CONTROL SEQUENCE OPEN/CLOSED	OPEN/CLOSED/OPEN	REMARKS
4A	NAILOR	D30RW-14	14"	1,900	610	61.8	6.2	5'	180	-	X	-
4B	NAILOR	D30RW-06	6"	310	100	10.1	1.0	5'	180	-	X	-
4C	NAILOR	D30RW-12	12"	1,410	455	45.9	4.6	5'	180	-	X	-
4D	NAILOR	D30RW-06	6"	340	110	11.1	1.1	5'	180	-	X	-

AH-7 VAV TERMINAL SCHEDULE

TAG	MANUFACTURER	MODEL	INLET DIA.	CFM SETTING MAX CFM	CFM SETTING MIN CFM	HW REHEAT COIL DATA MBH	GPM	WPD	EWT	CONTROL SEQUENCE OPEN/CLOSED	OPEN/CLOSED/OPEN	REMARKS
7A	NAILOR	D30RW-10	10"	1,095	350	29.7	3.0	5'	180	X	-	-
7B	NAILOR	D30RW-10	10"	1,095	350	29.7	3.0	5'	180	X	-	-
7C	NAILOR	D30RW-05	5"	240	75	6.5	0.7	5'	180	X	-	-
7D	NAILOR	D30RW-07	7"	450	145	12.2	1.2	5'	180	X	-	-
7E	NAILOR	D30RW-08	8"	600	195	16.3	1.6	5'	180	X	-	-
7F	NAILOR	D30RW-08	8"	600	195	16.3	1.6	5'	180	X	-	-
7G	NAILOR	D30RW-08	8"	600	195	16.3	1.6	5'	181	X	-	-

PUMP SCHEDULE

TAG	MANUFACTURER	MODEL NUMBER	DESCRIPTION	GPM	HEAD (FT.)	PUMP MOTOR DATA HP	RPM	VOLT	PHASE	HZ.	STARTER: MC.	STARTER: EC.	SUCTION/DISCHARGE SIZE	REMARKS
BP-1	BELL & GOSSETT	SERIES 80; 4x4x7B	HOT WATER BOILER RECIR PUMP (EX BOILER)	275	20	3	1750	208	3	60	X	-	4" / 4"	-
BP-2	BELL & GOSSETT	SERIES 80; 4x4x7B	HOT WATER BOILER RECIR PUMP (EX BOILER)	275	20	3	1750	208	3	60	X	-	4" / 4"	-
BP-3	BELL & GOSSETT	SERIES 80; 4x4x7B	HOT WATER BOILER RECIRCUALTION PUMP (B-3)	237	50	5	1750	208	3	60	X	-	4" / 4"	-
HWP-1	BELL & GOSSETT	SERIES 1510; 3GB	HOT WATER DISTRIBUTION PUMP	394	100	20	1750	208	3	60	X	-	4" / 3"	HOT WATER PRIMARY PUMPS W/VFD OPERATING IN PARALLEL. 788 GPM AT 100 FT. HD. WITH DUAL POWER FEEDERS
HWP-2	BELL & GOSSETT	SERIES 1510; 3GB	HOT WATER DISTRIBUTION PUMP	394	100	20	1750	208	3	60	X	-	4" / 3"	
CP-1	BELL & GOSSETT	SERIES 1510; 3BD	CHILLED WATER RECICULATION PUMP (C-1)	574	50	10	1750	208	3	60	X	-	3" / 4"	-
CP-2	BELL & GOSSETT	SERIES 1510; 3BD	CHILLED WATER RECICULATION PUMP (C-1)	574	50	10	1750	208	3	60	X	-	3" / 4"	-
CWP-1	BELL & GOSSETT	SERIES 1510; 4EB	CHILLED WATER DISTRIBUTION PUMP	574	110	25	1750	208	3	5710	X	-	5" / 4"	CHILLED WATER PRIMARY PUMPS W/VFD OPERATING IN PARALLEL. 1148 GPM AT 110 FT. HD. WITH DUAL POWER FEEDERS
CWP-2	BELL & GOSSETT	SERIES 1510; 4EB	CHILLED WATER DISTRIBUTION PUMP	574	110	25	1750	208	3	60	X	-	5" / 4"	

AD-3

GRILLE, REGISTER & DIFFUSER SCHEDULE

TAG	MANUFACTURER	MODEL NO.	DESCRIPTION	AIR PATTERN	MOUNTING	SIZE	TYPE OF CONTROL	REMARKS
A3	NAILOR	6500-O	SUPPLY CEILING DIFFUSER	3-WAY	2' X 2' LAY-IN PANEL	SEE PLANS	O.B.D.	-
A4	NAILOR	6500-O	SUPPLY CEILING DIFFUSER	4-WAY	2' X 2' LAY-IN PANEL	SEE PLANS	O.B.D.	-
A5	NAILOR	6500-O	SUPPLY CEILING DIFFUSER	2-WAY CORNER	2' X 2' LAY-IN PANEL	SEE PLANS	O.B.D.	-
A8	NAILOR	6500-O	SUPPLY CEILING DIFFUSER	3-WAY	2' X 1' LAY-IN PANEL	SEE PLANS	O.B.D.	-
A9	NAILOR	6500-O	SUPPLY CEILING DIFFUSER	4-WAY	2' X 1' LAY-IN PANEL	SEE PLANS	O.B.D.	-
A10	NAILOR	6500-O	SUPPLY CEILING DIFFUSER	2-WAY CORNER	2' X 1' LAY-IN PANEL	SEE PLANS	O.B.D.	-
C4	NAILOR	6200-OA	SUPPLY CEILING DIFFUSER	4-WAY	2' X 2' LAY-IN PANEL	SEE PLANS	O.B.D.	ALUMINUM CONSTRUCTION
E2	NAILOR	61DH-O	SUPPLY CEILING REGISTER	DOUBLE DEFLECTION	SURFACE MOUNTED	SEE PLANS	O.B.D.	HORIZONTAL FRONT BARS, VERTICAL BACK BARS
J4	NAILOR	6550-O	SUPPLY CEILING DIFFUSER	4-WAY	2' X 2' LAY-IN PANEL	SEE PLANS	O.B.D.	-
K1	NAILOR	61DHC	SUPPLY REGISTER	DOUBLE DEFLECTION	DUCT MOUNTED	SEE PLANS	VOLUME DAMPER	MILL FINISH
L4	NAILOR	50/15	CONTINUOUS 1½" SLOT LINEAR SA DIFFUSER	ADJ. PATTERN CONTROLLER	SURFACE MOUNT W/ GYP.BD MTG. FRAME	SEE PLAN FOR #SLOTS/LGTH	NONE	NARROW FLANGE, END CAPS. WHITE FRAME AND WHITE INTERIOR FINISH.
L9	NAILOR	50/15R	CONTINUOUS 1½" SLOT LINEAR R/A DIFFUSER	NO PATTERN CONTROLLER	SURFACE MOUNT W/ GYP.BD MTG. FRAME	SEE PLAN FOR #SLOTS/LGTH	NONE	NARROW FLANGE, END CAPS. WHITE FRAME AND WHITE INTERIOR FINISH.
R1	NAILOR	6145H-O	RETURN/EXHAUST REGISTER	LOUVERED GRILLE	LAY-IN PANEL	SEE PLANS	O.B.D.	-
R2	NAILOR	6145H-O	RETURN/EXHAUST REGISTER	LOUVERED GRILLE	SURFACE MOUNTED	SEE PLANS	O.B.D.	-
R3	NAILOR	5145H-O	RETURN/EXHAUST REGISTER	LOUVERED GRILLE	LAY-IN PANEL	SEE PLANS	O.B.D.	ALUMINUM CONSTRUCTION
T1	NAILOR	6145H	RETURN/EXHAUST/T.A. GRILLE	LOUVERED GRILLE	LAY-IN PANEL	SEE PLANS	-	-
T2	NAILOR	6145H	RETURN/EXHAUST/T.A. GRILLE	LOUVERED GRILLE	SURFACE MOUNTED	SEE PLANS	-	-
T3	NAILOR	5145H	RETURN/EXHAUST/T.A. GRILLE	LOUVERED GRILLE	LAY-IN PANEL	SEE PLANS	-	ALUMINUM CONSTRUCTION
T8	NAILOR	6145H-HD	RETURN/EXHAUST/T.A. GRILLE	LOUVERED GRILLE	SURFACE MOUNTED	SEE PLANS	-	HEAVY DUTY GRILLE

* ALL DIFFUSERS AND REGISTERS SHALL HAVE A WHITE FINISH UNLESS OTHERWISE NOTED

INTAKE/RELIEF HOOD SCHEDULE

TAG	MANUFACTURER	MODEL *	THROAT SIZE	DESCRIPTION	HOOD LOCATION	REMARKS
IH-1	ACME	#TIV	SEE PLANS	OUTSIDE AIR INTAKE HOOD FOR FC'S AND AH'S	SEE PLANS	PROVIDE W/ BIRDSCREEN, AND 18" HIGH ROOF CURB.
RH-1	ACME	#TIV	SEE PLANS	RELIEF AIR HOOD FOR UV'S AND FC'S	SEE PLANS	PROVIDE W/ BIRDSCREEN, BAROMETRIC RELIEF DAMPER, AND 18" HIGH ROOF CURB.
RH-2	ACME	#TEV	SEE PLANS	EXHAUST/RELIEF AIR HOOD FOR AH'S	SEE PLANS	PROVIDE W/ BIRDSCREEN, AND 18" HIGH ROOF CURB.

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PROJECT
WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS

DUNELAND SCHOOL CORPORATION
CHESTERTON, INDIANA

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PROJECT 21-141
DATE 02/28/22
COORDINATED BY JC
DRAWN BY GL
CHECKED BY DJ

REGISTERED NO. 10302590 STATE OF INDIANA PROFESSIONAL ENGINEER DAVID G. JANNEY

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REVISIONS

MARK	DATE	ISSUED FOR
AD-3	03/30/22	ADDENDUM NO. 3

DRAWING
MECHANICAL SCHEDULES

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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SHEET
M-502

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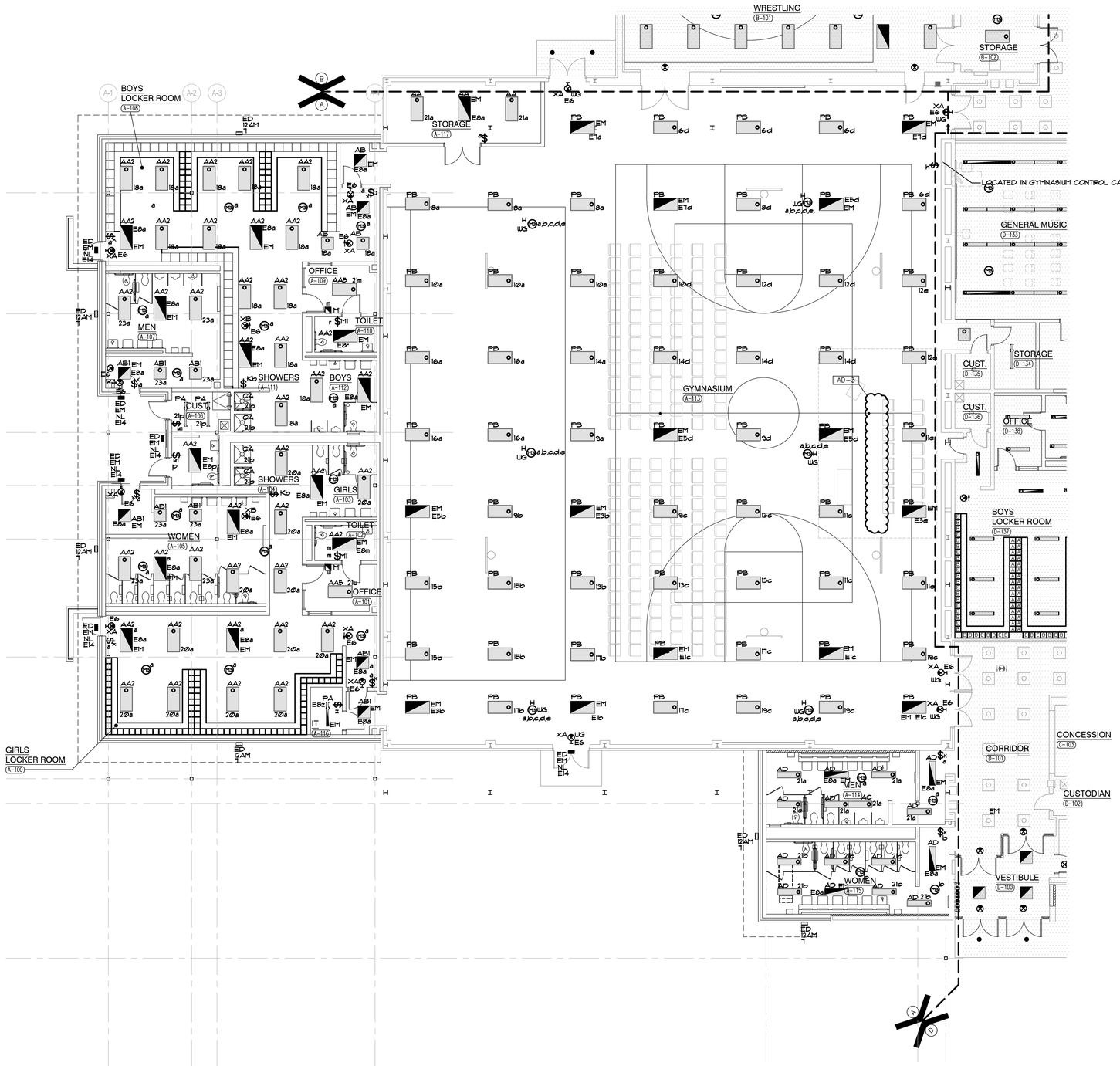
GENERAL NOTES

1. CIRCUIT ALL NORMAL LIGHTING FIXTURES TO PANEL LP-10 UNLESS OTHERWISE NOTED.
2. SHADED FIXTURES, FIXTURES WITH 'EM' TAGS AND EXIT SIGNS SHALL BE PROVIDED WITH AN EMERGENCY LIFE SAFETY POWER SOURCE.
3. EXIT SIGNS SHALL BE CONNECTED TO CIRCUIT INDICATED IN EMERGENCY LIFE SAFETY PANEL EM-4.
4. FIXTURES WITH A 'NL' TAG SHALL BE CONNECTED TO THE NIGHT LIGHT CIRCUIT INDICATED IN EMERGENCY LIFE SAFETY PANEL EM-4.
5. CIRCUIT TAGS WITH AN 'E' PREFIX SHOWN WITH A SWITCH LEG SHALL BE A SWITCHED EMERGENCY FIXTURE CONNECTED TO PANEL EM-4. THE FIXTURE SHALL BE PROVIDED WITH A UL924 RATED BYPASS DEVICE TO ALLOW THE FIXTURE TO BE CONTROLLED ALONG WITH THE NORMAL FIXTURES IN THE ROOM. UPON LOSS OF POWER, THE FIXTURE SHALL BE IMMEDIATELY POWERED TO 100% REGARDLESS OF SWITCH POSITION.
6. CIRCUIT ALL NORMAL EXTERIOR LIGHTING FIXTURES TO PANEL LP-1 VIA TIMECLOCK, PHOTOCELL AND CONTACTORS.
7. EXTERIOR LIGHTING FIXTURES WITH AN 'E' PREFIX SHOWN SHALL BE ROUTED TO LIFE SAFETY PANEL EM-1 VIA TIMECLOCK, CONTACTORS, PHOTOCELL AND UL924 BYPASS DEVICES AS REQUIRED TO ALLOW FIXTURE TO OPERATE AND SWITCH ALONG WITH ADJACENT NORMAL LIGHTING. UPON LOSS OF POWER, THE FIXTURE SHALL BE IMMEDIATELY POWERED TO 100% REGARDLESS OF SWITCH POSITION.
8. EMERGENCY SENSING LEADS SHALL BE CONNECTED TO CONSTANT HOT FEEDS FROM NORMAL LIGHTING IN ROOM. THIS FEED SHALL BE TAKEN AHEAD OF ANY EMERGENCY SHUTDOWN, RELAYS, CONTACTORS OR SWITCHES.
9. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT LOCATION OF ALL CEILING MOUNTED LIGHT FIXTURES.
10. ROUTE CONDUIT AS TIGHT TO THE EXPOSED CEILINGS AND STRUCTURE AS POSSIBLE TO MAXIMIZE CEILING SPACE.
11. VERIFY TEACHING SURFACE WITH OWNER'S REPRESENTATIVE IN FIELD PRIOR TO INSTALLATION AND ADJUST SWITCHING TO PROPERLY ILLUMINATE TEACHING SURFACE. CAREFULLY COORDINATE FINAL SWITCHING WITH FINAL FURNITURE PLANS AND TEACHING WALL LOCATIONS.



UNIT "A" ELECTRICAL FIRST FLOOR LIGHTING PLAN

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

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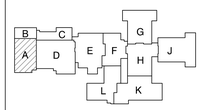
PROJECT

WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS

DUNELAND SCHOOL CORPORATION
CHESTERTON, INDIANA



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PROJECT 21-141

DATE 02/28/22

COORDINATED BY JC

DRAWN BY MS

CHECKED BY DJ

DAVID G. JANNETT REGISTERED NO. 10302590 STATE OF INDIANA PROFESSIONAL ENGINEER

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AD-3	03/30/22	ADDENDUM NO. 3

DRAWING

UNIT "A" ELECTRICAL FIRST FLOOR LIGHTING PLAN

PROJECT

WESTCHESTER IS - ADDITIONS & RENOVATIONS

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SHEET A

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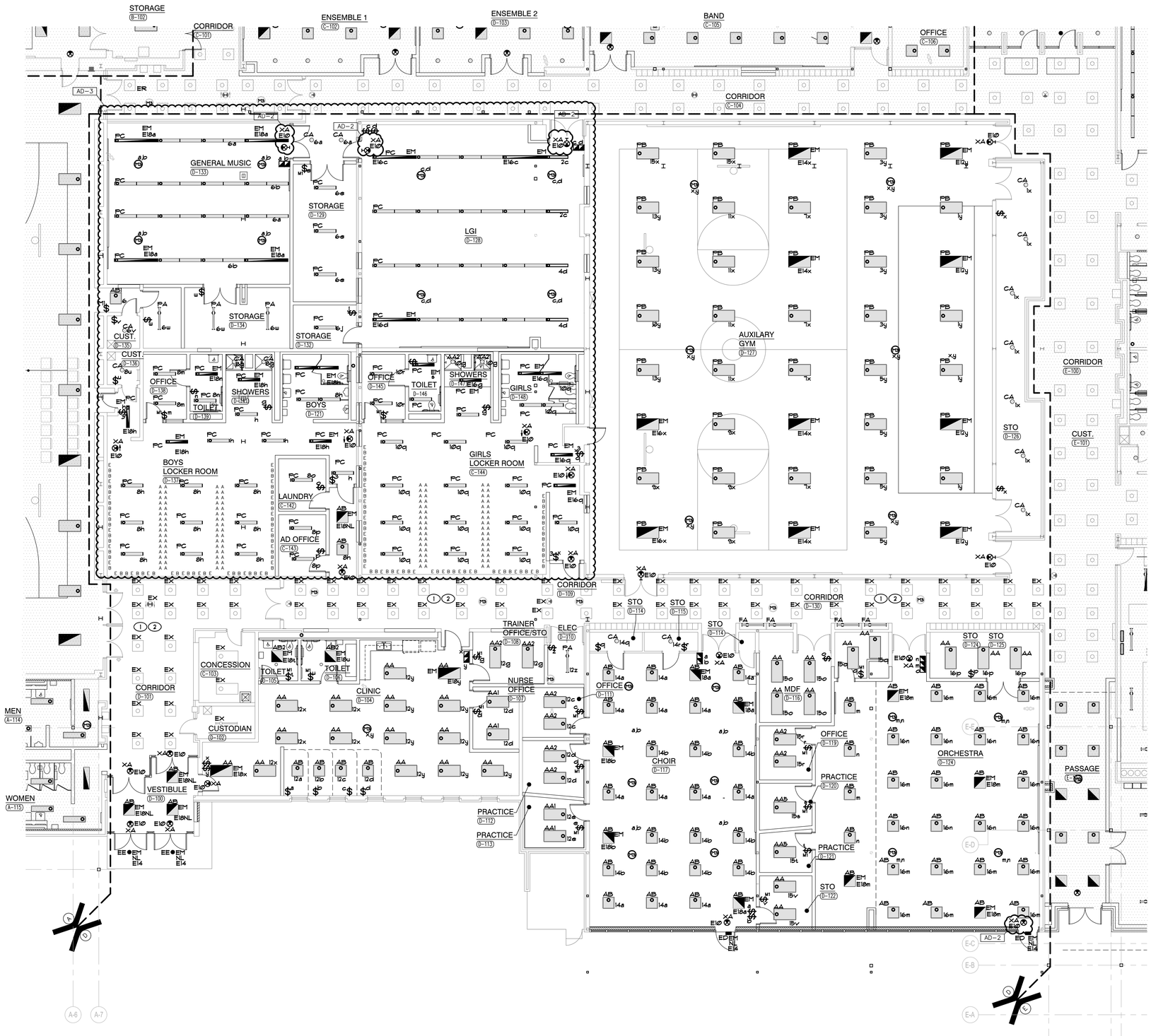

UNIT "D" ELECTRICAL FIRST FLOOR LIGHTING PLAN

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

NORTH

GENERAL NOTES

1. CIRCUIT ALL NORMAL LIGHTING FIXTURES TO PANEL LP-8 UNLESS OTHERWISE NOTED.
2. SHADED FIXTURES, FIXTURES WITH 'EM' TAGS AND EXIT SIGNS SHALL BE PROVIDED WITH AN EMERGENCY LIFE SAFETY POWER SOURCE.
3. EXIT SIGNS SHALL BE CONNECTED TO CIRCUIT INDICATED IN EMERGENCY LIFE SAFETY PANEL EM-4.
4. FIXTURES WITH A 'NL' TAG SHALL BE CONNECTED TO THE NIGHT LIGHT CIRCUIT INDICATED IN EMERGENCY LIFE SAFETY PANEL EM-4.
5. CIRCUIT TAGS WITH AN 'E' PREFIX SHOWN WITH A SWITCH LEG SHALL BE A SWITCHED EMERGENCY FIXTURE CONNECTED TO PANEL EM-4. THE FIXTURE SHALL BE PROVIDED WITH A UL924 RATED BYPASS DEVICE TO ALLOW THE FIXTURE TO BE CONTROLLED ALONG WITH THE NORMAL FIXTURES IN THE ROOM. UPON LOSS OF POWER, THE FIXTURE SHALL BE IMMEDIATELY POWERED TO 100% REGARDLESS OF SWITCH POSITION.
6. CIRCUIT ALL NORMAL EXTERIOR LIGHTING FIXTURES ACCORDING TO PANEL 11 VIA TIMECLOCK, PHOTOCELL AND CONTACTORS.
7. EXTERIOR LIGHTING FIXTURES WITH AN 'E' PREFIX SHOWN SHALL BE ROUTED TO LIFE SAFETY PANEL 11 VIA TIMECLOCK, CONTACTORS, PHOTOCELL AND UL924 BYPASS DEVICES AS REQUIRED TO ALLOW FIXTURE TO OPERATE AND SWITCH ALONG WITH ADJACENT NORMAL LIGHTING. UPON LOSS OF POWER, THE FIXTURE SHALL BE IMMEDIATELY POWERED TO 100% REGARDLESS OF SWITCH POSITION.
8. EMERGENCY SENSING LEADS SHALL BE CONNECTED TO CONSTANT HOT FEEDS FROM NORMAL LIGHTING IN ROOM. THIS FEED SHALL BE TAKEN AHEAD OF ANY EMERGENCY SHUTDOWN, RELAYS, CONTACTORS OR SWITCHES.
9. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT LOCATION OF ALL CEILING MOUNTED LIGHT FIXTURES.
10. ROUTE CONDUIT AS TIGHT TO THE EXPOSED CEILINGS AND STRUCTURE AS POSSIBLE TO MAXIMIZE CEILING SPACE.
11. VERIFY TEACHING SURFACE WITH OWNER'S REPRESENTATIVE IN FIELD PRIOR TO INSTALLATION AND ADJUST SWITCHING TO PROPERLY ILLUMINATE TEACHING SURFACE. CAREFULLY COORDINATE FINAL SWITCHING WITH FINAL FURNITURE PLANS AND TEACHING WALL LOCATIONS.

SHEET NOTES

1. RECONNECT EXISTING LIGHT FIXTURES TO NEW LIGHTING CIRCUITRY IN NEW PANELS INSTALLED COMPLETE AS REQUIRED, MAXIMUM 1400W PER 120 VOLT CIRCUIT. WHERE NECESSARY, DUE TO LIMITATIONS IN THE EXISTING BRANCH CIRCUITRY, THIS CONTRACTOR SHALL FURNISH AND INSTALL 20A-1 POLE CIRCUIT BREAKERS AS REQUIRED IN NEW PANEL AND EXTEND 2 #12 AND 1 #12 GRD IN 3/4" CONDUIT COMPLETE AS REQUIRED. VERIFY CONDITIONS AND REQUIREMENTS IN FIELD.
2. INTERCEPT AND EXTEND EXISTING LIFE SAFETY BRANCH CIRCUITRY TO NEW EM PANEL SERVING LIFE SAFETY LIGHTING IN THIS AREA. MAXIMUM 1400W PER 120 VOLT CIRCUIT. WHERE NECESSARY, DUE TO LIMITATIONS IN THE EXISTING BRANCH CIRCUITRY, THIS CONTRACTOR SHALL FURNISH AND INSTALL 20A-1 POLE CIRCUIT BREAKERS AS REQUIRED IN NEW PANEL AND EXTEND 2 #12 AND 1 #12 GRD IN 3/4" CONDUIT COMPLETE AS REQUIRED. VERIFY CONDITIONS AND REQUIREMENTS IN FIELD.

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PROJECT
WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS

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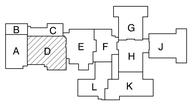
CHESTERTON, INDIANA



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PROJECT 21-141
DATE 02/28/22
COORDINATED BY JC
DRAWN BY MS
CHECKED BY DJ

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PROFESSIONAL ENGINEER

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REVISIONS

MARK	DATE	ISSUED FOR
AD-2	03/18/22	ADDENDUM NO. 2
AD-3	03/30/22	ADDENDUM NO. 3

DRAWING
UNIT "D" ELECTRICAL FIRST FLOOR LIGHTING PLAN

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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D

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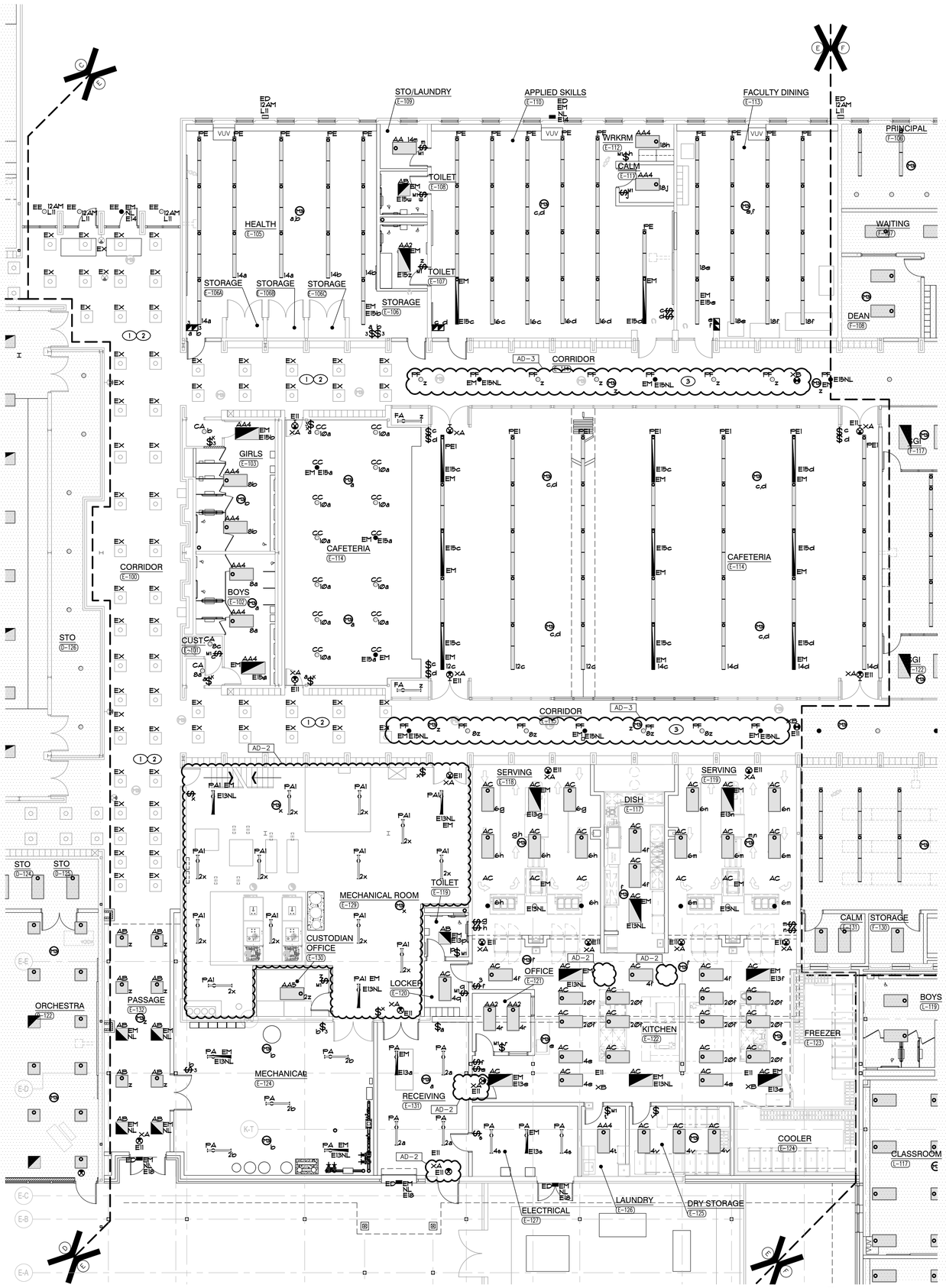

UNIT "E" ELECTRICAL FIRST FLOOR LIGHTING PLAN

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

GENERAL NOTES

1. CIRCUIT ALL NORMAL LIGHTING FIXTURES TO PANEL LP-1 UNLESS OTHERWISE NOTED.
2. SHADED FIXTURES, FIXTURES WITH 'EM' TAGS AND EXIT SIGNS SHALL BE PROVIDED WITH AN EMERGENCY LIFE SAFETY POWER SOURCE.
3. EXIT SIGNS SHALL BE CONNECTED TO CIRCUIT INDICATED IN EMERGENCY LIFE SAFETY PANEL EM-1.
4. FIXTURES WITH A 'NL' TAG SHALL BE CONNECTED TO THE NIGHT LIGHT CIRCUIT INDICATED IN EMERGENCY LIFE SAFETY PANEL EM-1.
5. CIRCUIT TAGS WITH AN 'E' PREFIX SHOWN WITH A SWITCH LEG SHALL BE A SWITCHED EMERGENCY FIXTURE CONNECTED TO PANEL EM-1. THE FIXTURE SHALL BE PROVIDED WITH A UL924 RATED BYPASS DEVICE TO ALLOW THE FIXTURE TO BE CONTROLLED ALONG WITH THE NORMAL FIXTURES IN THE ROOM. UPON LOSS OF POWER, THE FIXTURE SHALL BE IMMEDIATELY POWERED TO 100% REGARDLESS OF SWITCH POSITION.
6. CIRCUIT ALL NORMAL EXTERIOR LIGHTING FIXTURES ACCORDING TO PANEL 77 VIA TIMECLOCK, PHOTOCELL AND CONTACTORS.
7. EXTERIOR LIGHTING FIXTURES WITH AN 'E' PREFIX SHOWN SHALL BE ROUTED TO LIFE SAFETY PANEL 77 VIA TIMECLOCK, CONTACTORS, PHOTOCELL AND UL924 BYPASS DEVICES AS REQUIRED TO ALLOW FIXTURE TO OPERATE AND SWITCH ALONG WITH ADJACENT NORMAL LIGHTING. UPON LOSS OF POWER, THE FIXTURE SHALL BE IMMEDIATELY POWERED TO 100% REGARDLESS OF SWITCH POSITION.
8. EMERGENCY SENSING LEADS SHALL BE CONNECTED TO CONSTANT HOT FEEDS FROM NORMAL LIGHTING IN ROOM. THIS FEED SHALL BE TAKEN AHEAD OF ANY EMERGENCY SHUTDOWNS, RELAYS, CONTACTORS OR SWITCHES.
9. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT LOCATION OF ALL CEILING MOUNTED LIGHT FIXTURES.
10. ROUTE CONDUIT AS TIGHT TO THE EXPOSED CEILINGS AND STRUCTURE AS POSSIBLE TO MAXIMIZE CEILING SPACE.
11. VERIFY TEACHING SURFACE WITH OWNER'S REPRESENTATIVE IN FIELD PRIOR TO INSTALLATION AND ADJUST SWITCHING TO PROPERLY ILLUMINATE TEACHING SURFACE. CAREFULLY COORDINATE FINAL SWITCHING WITH FINAL FURNITURE PLANS AND TEACHING WALL LOCATIONS.

SHEET NOTES

1. RECONNECT EXISTING LIGHT FIXTURES TO NEW LIGHTING CIRCUITRY IN NEW PANELS INSTALLED COMPLETE AS REQUIRED. MAXIMUM 1400W PER 120 VOLT CIRCUIT. WHERE NECESSARY, DUE TO LIMITATIONS IN THE EXISTING BRANCH CIRCUITRY, THIS CONTRACTOR SHALL FURNISH AND INSTALL 20A-1 POLE CIRCUIT BREAKERS AS REQUIRED IN NEW PANEL AND EXTEND 3 #12 AND 1 #12 GRD IN ¾" CONDUIT COMPLETE AS REQUIRED. VERIFY CONDITIONS AND REQUIREMENTS IN FIELD.
2. INTERCEPT AND EXTEND EXISTING LIFE SAFETY BRANCH CIRCUITRY TO NEW EM PANEL SERVING LIFE SAFETY LIGHTING IN THIS AREA. MAXIMUM 1400W PER 120 VOLT CIRCUIT, WHERE NECESSARY, DUE TO LIMITATIONS IN THE EXISTING BRANCH CIRCUITRY, THIS CONTRACTOR SHALL FURNISH AND INSTALL 20A-1 POLE CIRCUIT BREAKERS AS REQUIRED IN NEW PANEL AND EXTEND 2 #12 AND 1 #12 GRD IN ¾" CONDUIT COMPLETE AS REQUIRED. VERIFY CONDITIONS AND REQUIREMENTS IN FIELD.
3. RE-USE EXISTING CONDUIT WHERE POSSIBLE WITH NEW FIXTURES. (AD-3)

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PROJECT
WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS

DUNELAND SCHOOL CORPORATION
CHESTERTON, INDIANA

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PROJECT 21-141
DATE 02/28/22
COORDINATED BY JC
DRAWN BY MS
CHECKED BY DJ

DAVID G. JANNEY REGISTERED NO. 10302590 STATE OF INDIANA PROFESSIONAL ENGINEER

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REVISIONS

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AD-2	03/18/22	ADDENDUM NO. 2
AD-3	03/30/22	ADDENDUM NO. 3

DRAWING
UNIT "E" ELECTRICAL FIRST FLOOR LIGHTING PLAN

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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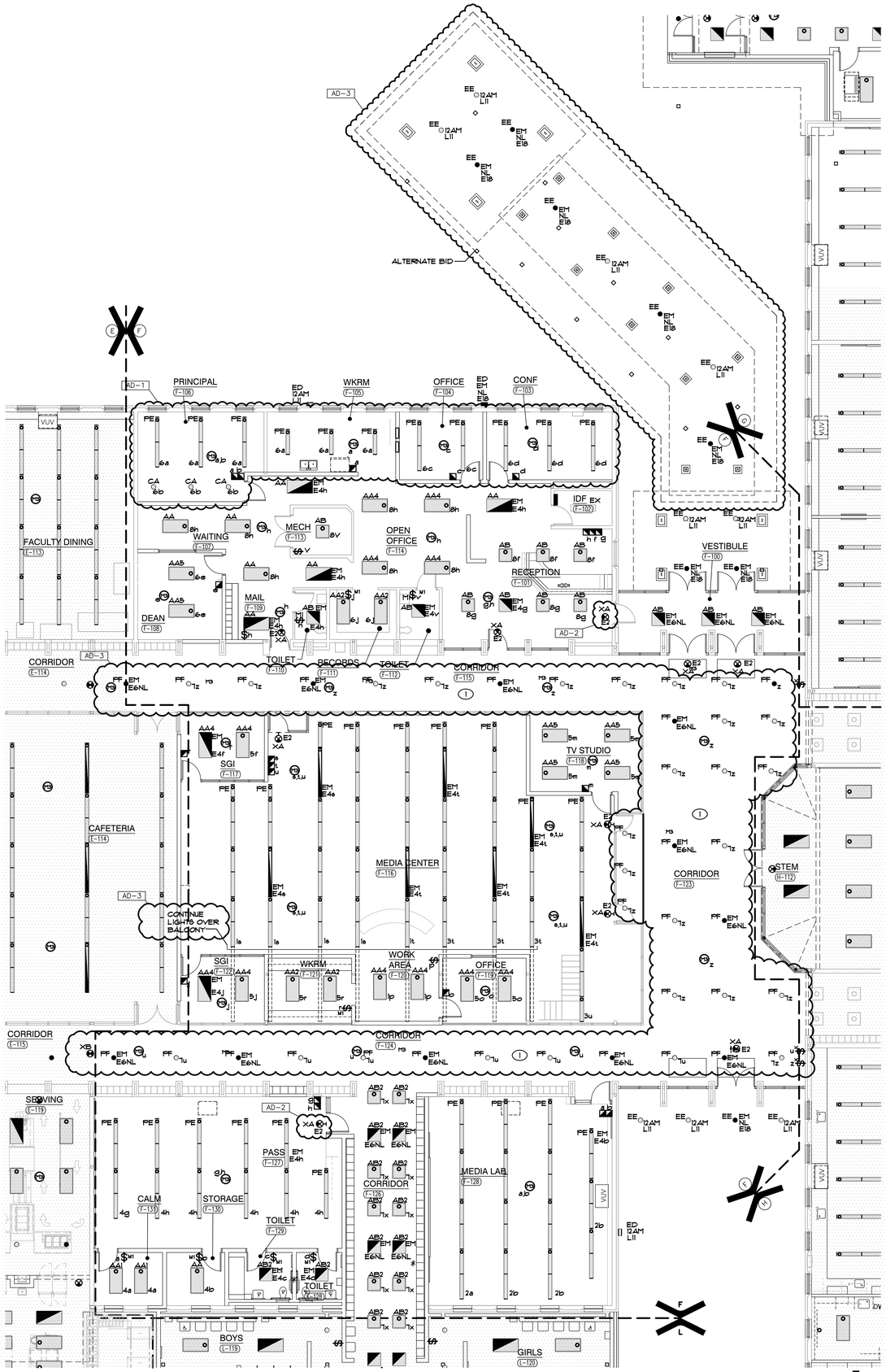

UNIT "F" ELECTRICAL FIRST FLOOR LIGHTING PLAN

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

GENERAL NOTES

1. CIRCUIT ALL NORMAL LIGHTING FIXTURES TO PANEL LP-1 UNLESS OTHERWISE NOTED.
2. SHADED FIXTURES, FIXTURES WITH 'EM' TAGS AND EXIT SIGNS SHALL BE PROVIDED WITH AN EMERGENCY LIFE SAFETY POWER SOURCE.
3. EXIT SIGNS SHALL BE CONNECTED TO CIRCUIT INDICATED IN EMERGENCY LIFE SAFETY PANEL EM-1.
4. FIXTURES WITH A 'NL' TAG SHALL BE CONNECTED TO THE NIGHT LIGHT CIRCUIT INDICATED IN EMERGENCY LIFE SAFETY PANEL EM-1.
5. CIRCUIT TAGS WITH AN 'E' PREFIX SHOWN WITH A SWITCH LEG SHALL BE A SWITCHED EMERGENCY FIXTURE CONNECTED TO PANEL EM-1. THE FIXTURE SHALL BE PROVIDED WITH A UL924 RATED BYPASS DEVICE TO ALLOW THE FIXTURE TO BE CONTROLLED ALONG WITH THE NORMAL FIXTURES IN THE ROOM. UPON LOSS OF POWER, THE FIXTURE SHALL BE IMMEDIATELY POWERED TO 100% REGARDLESS OF SWITCH POSITION.
6. CIRCUIT ALL NORMAL EXTERIOR LIGHTING FIXTURES ACCORDING TO PANEL 77 VIA TIMECLOCK, PHOTOCELL AND CONTACTORS.
7. EXTERIOR LIGHTING FIXTURES WITH AN 'E' PREFIX SHOWN SHALL BE ROUTED TO LIFE SAFETY PANEL 77 VIA TIMECLOCK, CONTACTORS, PHOTOCELL AND UL924 BYPASS DEVICES AS REQUIRED TO ALLOW FIXTURE TO OPERATE AND SWITCH ALONG WITH ADJACENT NORMAL LIGHTING. UPON LOSS OF POWER, THE FIXTURE SHALL BE IMMEDIATELY POWERED TO 100% REGARDLESS OF SWITCH POSITION.
8. EMERGENCY SENSING LEADS SHALL BE CONNECTED TO CONSTANT HOT FEEDS FROM NORMAL LIGHTING IN ROOM. THIS FEED SHALL BE TAKEN AHEAD OF ANY EMERGENCY SHUTDOWNS, RELAYS, CONTACTORS OR SWITCHES.
9. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT LOCATION OF ALL CEILING MOUNTED LIGHT FIXTURES.
10. ROUTE CONDUIT AS TIGHT TO THE EXPOSED CEILINGS AND STRUCTURE AS POSSIBLE TO MAXIMIZE CEILING SPACE.
11. VERIFY TEACHING SURFACE WITH OWNER'S REPRESENTATIVE IN FIELD PRIOR TO INSTALLATION AND ADJUST SWITCHING TO PROPERLY ILLUMINATE TEACHING SURFACE. CAREFULLY COORDINATE FINAL SWITCHING WITH FINAL FURNITURE PLANS AND TEACHING WALL LOCATIONS.

SHEET NOTES

AD-3

1. RE-USE EXISTING CONDUIT WHERE POSSIBLE WITH NEW FIXTURES.

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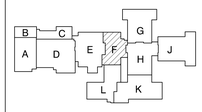
PROJECT

WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS

DUNELAND SCHOOL CORPORATION
CHESTERTON, INDIANA



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DATE 02/28/22
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DAVID G. JANNEY REGISTERED NO. 10302590 STATE OF INDIANA PROFESSIONAL ENGINEER

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REVISIONS

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AD-1	03/15/22	ADDENDUM NO. 1
AD-2	03/18/22	ADDENDUM NO. 2
AD-3	03/30/22	ADDENDUM NO. 3

DRAWING

UNIT "F" ELECTRICAL FIRST FLOOR LIGHTING PLAN

PROJECT

WESTCHESTER IS - ADDITIONS & RENOVATIONS

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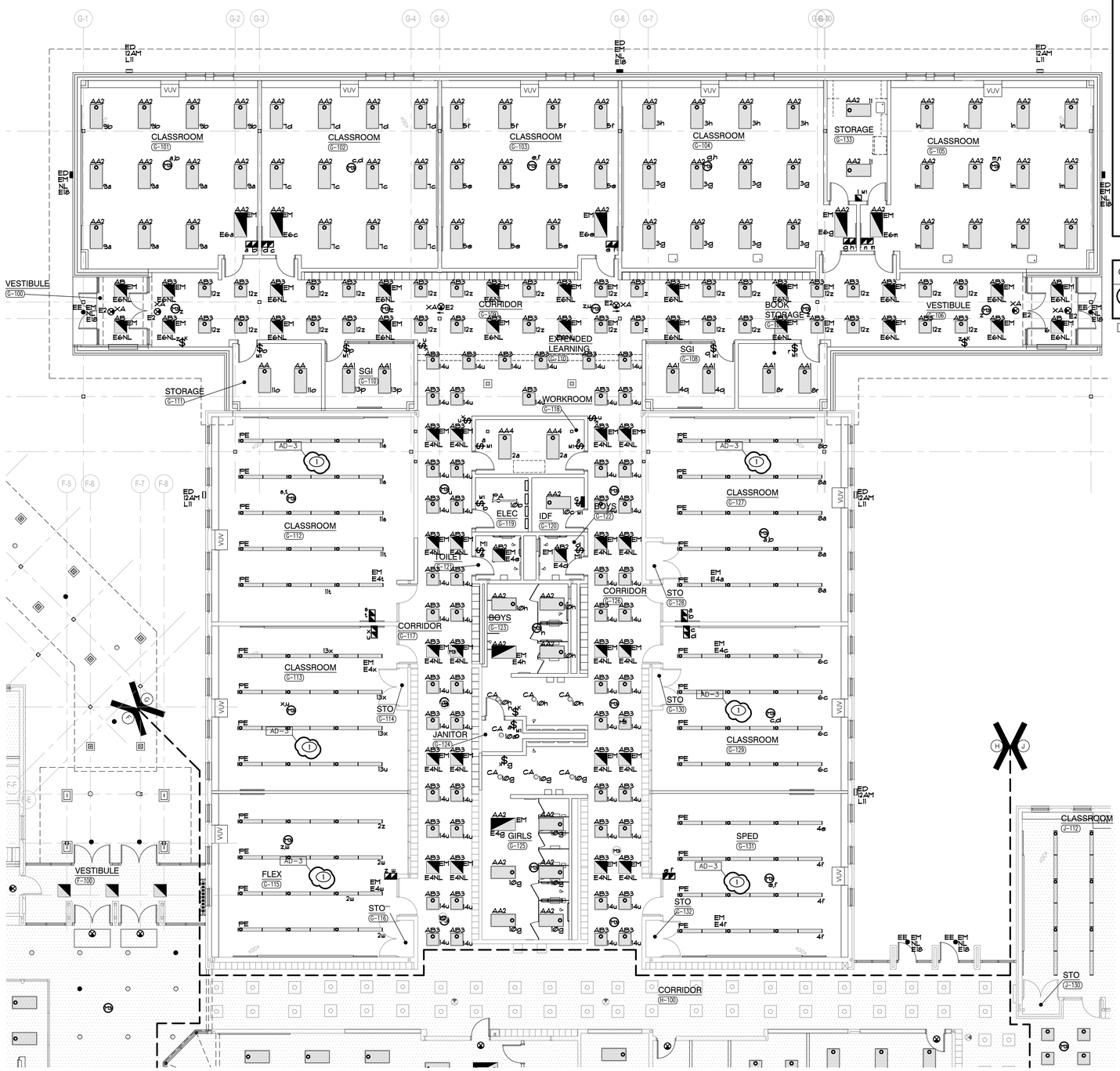
GENERAL NOTES

1. CIRCUIT ALL NORMAL LIGHTING FIXTURES TO PANEL LP-6 UNLESS OTHERWISE NOTED.
2. SHADED FIXTURES, FIXTURES WITH 'EM' TAGS AND EXIT SIGNS SHALL BE PROVIDED WITH AN EMERGENCY LIFE SAFETY POWER SOURCE.
3. EXIT SIGNS SHALL BE CONNECTED TO CIRCUIT INDICATED IN EMERGENCY LIFE SAFETY PANEL EM-3.
4. FIXTURES WITH A 'NL' TAG SHALL BE CONNECTED TO THE NIGHT LIGHT CIRCUIT INDICATED IN EMERGENCY LIFE SAFETY PANEL EM-3.
5. CIRCUIT TAGS WITH AN 'E' PREFIX SHOWN WITH A SWITCH LEG SHALL BE A SWITCHED EMERGENCY FIXTURE CONNECTED TO PANEL EM-3. THE FIXTURE SHALL BE PROVIDED WITH A UL924 RATED BYPASS DEVICE TO ALLOW THE FIXTURE TO BE CONTROLLED ALONG WITH THE NORMAL FIXTURES IN THE ROOM. UPON LOSS OF POWER, THE FIXTURE SHALL BE IMMEDIATELY POWERED TO 100% REGARDLESS OF SWITCH POSITION.
6. CIRCUIT ALL NORMAL EXTERIOR LIGHTING FIXTURES ACCORDING TO PANEL LP-1 VIA TIMECLOCK, PHOTOCELL AND CONTACTORS.
7. EXTERIOR LIGHTING FIXTURES WITH AN 'E' PREFIX SHOWN SHALL BE ROUTED TO LIFE SAFETY PANEL 11 VIA TIMECLOCK, CONTACTORS, PHOTOCELL AND UL924 BYPASS DEVICES AS REQUIRED TO ALLOW FIXTURE TO OPERATE AND SWITCH ALONG WITH ADJACENT NORMAL LIGHTING. UPON LOSS OF POWER, THE FIXTURE SHALL BE IMMEDIATELY POWERED TO 100% REGARDLESS OF SWITCH POSITION.
8. EMERGENCY SENSING LEADS SHALL BE CONNECTED TO CONSTANT HOT FEEDS FROM NORMAL LIGHTING IN ROOM. THIS FEED SHALL BE TAKEN AHEAD OF ANY EMERGENCY SHUTDOWN, RELAYS, CONTACTORS OR SWITCHES.
9. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT LOCATION OF ALL CEILING MOUNTED LIGHT FIXTURES.
10. ROUTE CONDUIT AS TIGHT TO THE EXPOSED CEILINGS AND STRUCTURE AS POSSIBLE TO MAXIMIZE CEILING SPACE.
11. VERIFY TEACHING SURFACE WITH OWNER'S REPRESENTATIVE IN FIELD PRIOR TO INSTALLATION AND ADJUST SWITCHING TO PROPERLY ILLUMINATE TEACHING SURFACE. CAREFULLY COORDINATE FINAL SWITCHING WITH FINAL FURNITURE PLANS AND TEACHING WALL LOCATIONS.

SHEET NOTES

1. RE-USE EXISTING CONDUIT WHERE POSSIBLE FOR NEW LIGHTING AND CONTROLS.

AD-3



UNIT "G" ELECTRICAL FIRST FLOOR LIGHTING PLAN

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

NORTH

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PROJECT

WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS

DUNELAND SCHOOL CORPORATION
CHESTERTON, INDIANA

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PROJECT 21-141
DATE 02/28/22
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REVISIONS

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AD-3	03/30/22	ADDENDUM NO. 3

DRAWING
UNIT "G" ELECTRICAL FIRST FLOOR LIGHTING PLAN

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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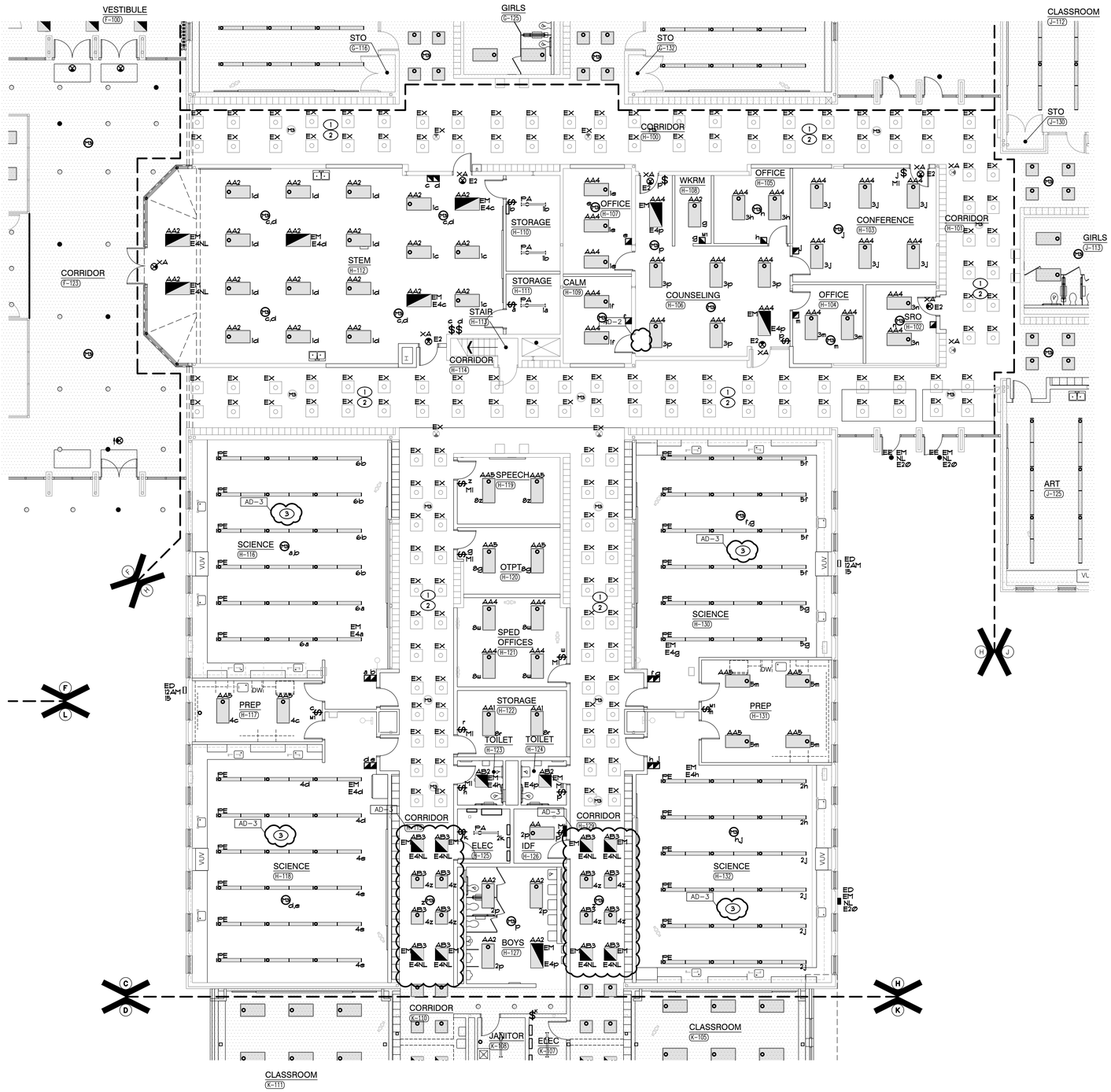

UNIT "H" ELECTRICAL FIRST FLOOR LIGHTING PLAN

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

NORTH

GENERAL NOTES

1. CIRCUIT ALL NORMAL LIGHTING FIXTURES TO PANEL LP4 UNLESS OTHERWISE NOTED.
2. SHADED FIXTURES, FIXTURES WITH 'EM' TAGS AND EXIT SIGNS SHALL BE PROVIDED WITH AN EMERGENCY LIFE SAFETY POWER SOURCE.
3. EXIT SIGNS SHALL BE CONNECTED TO CIRCUIT INDICATED IN EMERGENCY LIFE SAFETY PANEL EM-2.
4. FIXTURES WITH A 'NL' TAG SHALL BE CONNECTED TO THE NIGHT LIGHT CIRCUIT INDICATED IN EMERGENCY LIFE SAFETY PANEL EM-2.
5. CIRCUIT TAGS WITH AN 'E' PREFIX SHOWN WITH A SWITCH LEG SHALL BE A SWITCHED EMERGENCY FIXTURE CONNECTED TO PANEL EM-2. THE FIXTURE SHALL BE PROVIDED WITH A UL924 RATED BYPASS DEVICE TO ALLOW THE FIXTURE TO BE CONTROLLED ALONG WITH THE NORMAL FIXTURES IN THE ROOM. UPON LOSS OF POWER, THE FIXTURE SHALL BE IMMEDIATELY POWERED TO 100% REGARDLESS OF SWITCH POSITION.
6. CIRCUIT ALL NORMAL EXTERIOR LIGHTING FIXTURES ACCORDING TO PANEL LP-1 VIA TIMECLOCK, PHOTOCELL AND CONTACTORS.
7. EXTERIOR LIGHTING FIXTURES WITH AN 'E' PREFIX SHOWN SHALL BE ROUTED TO LIFE SAFETY PANEL 11 VIA TIMECLOCK, CONTACTORS, PHOTOCELL AND UL924 BYPASS DEVICES AS REQUIRED TO ALLOW FIXTURE TO OPERATE AND SWITCH ALONG WITH ADJACENT NORMAL LIGHTING. UPON LOSS OF POWER, THE FIXTURE SHALL BE IMMEDIATELY POWERED TO 100% REGARDLESS OF SWITCH POSITION.
8. EMERGENCY SENSING LEADS SHALL BE CONNECTED TO CONSTANT HOT FEEDS FROM NORMAL LIGHTING IN ROOM. THIS FEED SHALL BE TAKEN AHEAD OF ANY EMERGENCY SHUTDOWNS, RELAYS, CONTACTORS OR SWITCHES.
9. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT LOCATION OF ALL CEILING MOUNTED LIGHT FIXTURES.
10. ROUTE CONDUIT AS TIGHT TO THE EXPOSED CEILINGS AND STRUCTURE AS POSSIBLE TO MAXIMIZE CEILING SPACE.
11. VERIFY TEACHING SURFACE WITH OWNER'S REPRESENTATIVE IN FIELD PRIOR TO INSTALLATION AND ADJUST SWITCHING TO PROPERLY ILLUMINATE TEACHING SURFACE. CAREFULLY COORDINATE FINAL SWITCHING WITH FINAL FURNITURE PLANS AND TEACHING WALL LOCATIONS.

SHEET NOTES

1. RECONNECT EXISTING LIGHT FIXTURES TO NEW LIGHTING CIRCUITRY IN NEW PANELS INSTALLED COMPLETE AS REQUIRED. MAXIMUM 1400W PER 120 VOLT CIRCUIT. WHERE NECESSARY, DUE TO LIMITATIONS IN THE EXISTING BRANCH CIRCUITRY, THIS CONTRACTOR SHALL FURNISH AND INSTALL 20A-1 POLE CIRCUIT BREAKERS AS REQUIRED IN NEW PANEL AND EXTEND 3 #2 AND 1 #12 GRD IN 3/4" CONDUIT COMPLETE AS REQUIRED. VERIFY CONDITIONS AND REQUIREMENTS IN FIELD.
2. INTERCEPT AND EXTEND EXISTING LIFE SAFETY BRANCH CIRCUITRY TO NEW EM PANEL SERVING LIFE SAFETY LIGHTING IN THIS AREA. MAXIMUM 1400W PER 120 VOLT CIRCUIT, WHERE NECESSARY, DUE TO LIMITATIONS IN THE EXISTING BRANCH CIRCUITRY, THIS CONTRACTOR SHALL FURNISH AND INSTALL 20A-1 POLE CIRCUIT BREAKERS AS REQUIRED IN NEW PANEL AND EXTEND 2 #2 AND 1 #12 GRD IN 3/4" CONDUIT COMPLETE AS REQUIRED. VERIFY CONDITIONS AND REQUIREMENTS IN FIELD.
3. RE-USE EXISTING CONDUIT WHERE POSSIBLE FOR NEW LIGHTING AND CONTROLS. (AD-3)

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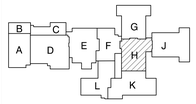
PROJECT
WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS

DUNELAND SCHOOL CORPORATION
CHESTERTON, INDIANA



KEY PLAN

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PROJECT 21-141
DATE 02/28/22
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REVISIONS

MARK	DATE	ISSUED FOR
AD-3	03/30/22	ADDENDUM NO. 3

DRAWING
UNIT "H" ELECTRICAL FIRST FLOOR LIGHTING PLAN

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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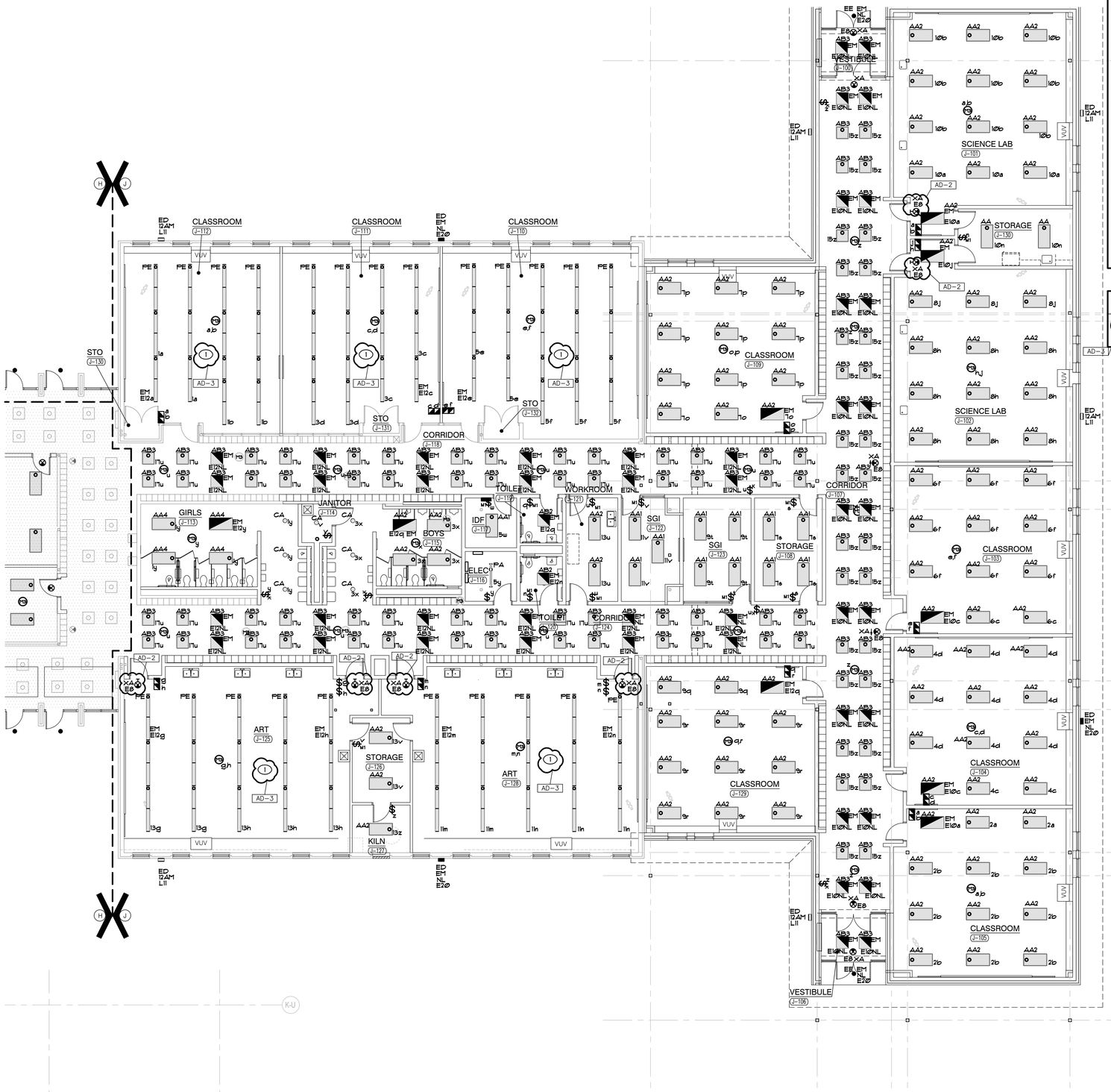

UNIT "J" ELECTRICAL FIRST FLOOR LIGHTING PLAN
SCALE: 1/8" = 1'-0"

NORTH

GENERAL NOTES

1. CIRCUIT ALL NORMAL LIGHTING FIXTURES TO PANEL LP-5 UNLESS OTHERWISE NOTED.
2. SHADED FIXTURES, FIXTURES WITH 'EM' TAGS AND EXIT SIGNS SHALL BE PROVIDED WITH AN EMERGENCY LIFE SAFETY POWER SOURCE.
3. EXIT SIGNS SHALL BE CONNECTED TO CIRCUIT INDICATED IN EMERGENCY LIFE SAFETY PANEL EM-1.
4. FIXTURES WITH A 'NL' TAG SHALL BE CONNECTED TO THE NIGHT LIGHT CIRCUIT INDICATED IN EMERGENCY LIFE SAFETY PANEL EM-1.
5. CIRCUIT TAGS WITH AN 'E' PREFIX SHOWN WITH A SWITCH LEG SHALL BE A SWITCHED EMERGENCY FIXTURE CONNECTED TO PANEL EM-1. THE FIXTURE SHALL BE PROVIDED WITH A UL924 RATED BYPASS DEVICE TO ALLOW THE FIXTURE TO BE CONTROLLED ALONG WITH THE NORMAL FIXTURES IN THE ROOM. UPON LOSS OF POWER, THE FIXTURE SHALL BE IMMEDIATELY POWERED TO 100% REGARDLESS OF SWITCH POSITION.
6. CIRCUIT ALL NORMAL EXTERIOR LIGHTING FIXTURES ACCORDING TO PANEL LP-1 VIA TIMECLOCK, PHOTOCELL AND CONTACTORS.
7. EXTERIOR LIGHTING FIXTURES WITH AN 'E' PREFIX SHOWN SHALL BE ROUTED TO LIFE SAFETY PANEL 11 VIA TIMECLOCK, CONTACTORS, PHOTOCELL AND UL924 BYPASS DEVICES AS REQUIRED TO ALLOW FIXTURE TO OPERATE AND SWITCH ALONG WITH ADJACENT NORMAL LIGHTING. UPON LOSS OF POWER, THE FIXTURE SHALL BE IMMEDIATELY POWERED TO 100% REGARDLESS OF SWITCH POSITION.
8. EMERGENCY SENSING LEADS SHALL BE CONNECTED TO CONSTANT HOT FEEDS FROM NORMAL LIGHTING IN ROOM. THIS FEED SHALL BE TAKEN AHEAD OF ANY EMERGENCY SHUTDOWNS, RELAYS, CONTACTORS OR SWITCHES.
9. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT LOCATION OF ALL CEILING MOUNTED LIGHT FIXTURES.
10. ROUTE CONDUIT AS TIGHT TO THE EXPOSED CEILINGS AND STRUCTURE AS POSSIBLE TO MAXIMIZE CEILING SPACE.
11. VERIFY TEACHING SURFACE WITH OWNER'S REPRESENTATIVE IN FIELD PRIOR TO INSTALLATION AND ADJUST SWITCHING TO PROPERLY ILLUMINATE TEACHING SURFACE. CAREFULLY COORDINATE FINAL SWITCHING WITH FINAL FURNITURE PLANS AND TEACHING WALL LOCATIONS.

SHEET NOTES

1. RE-USE EXISTING CONDUIT WHERE POSSIBLE FOR NEW LIGHTING AND CONTROLS.

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DRAWING
UNIT "J" ELECTRICAL FIRST FLOOR LIGHTING PLAN

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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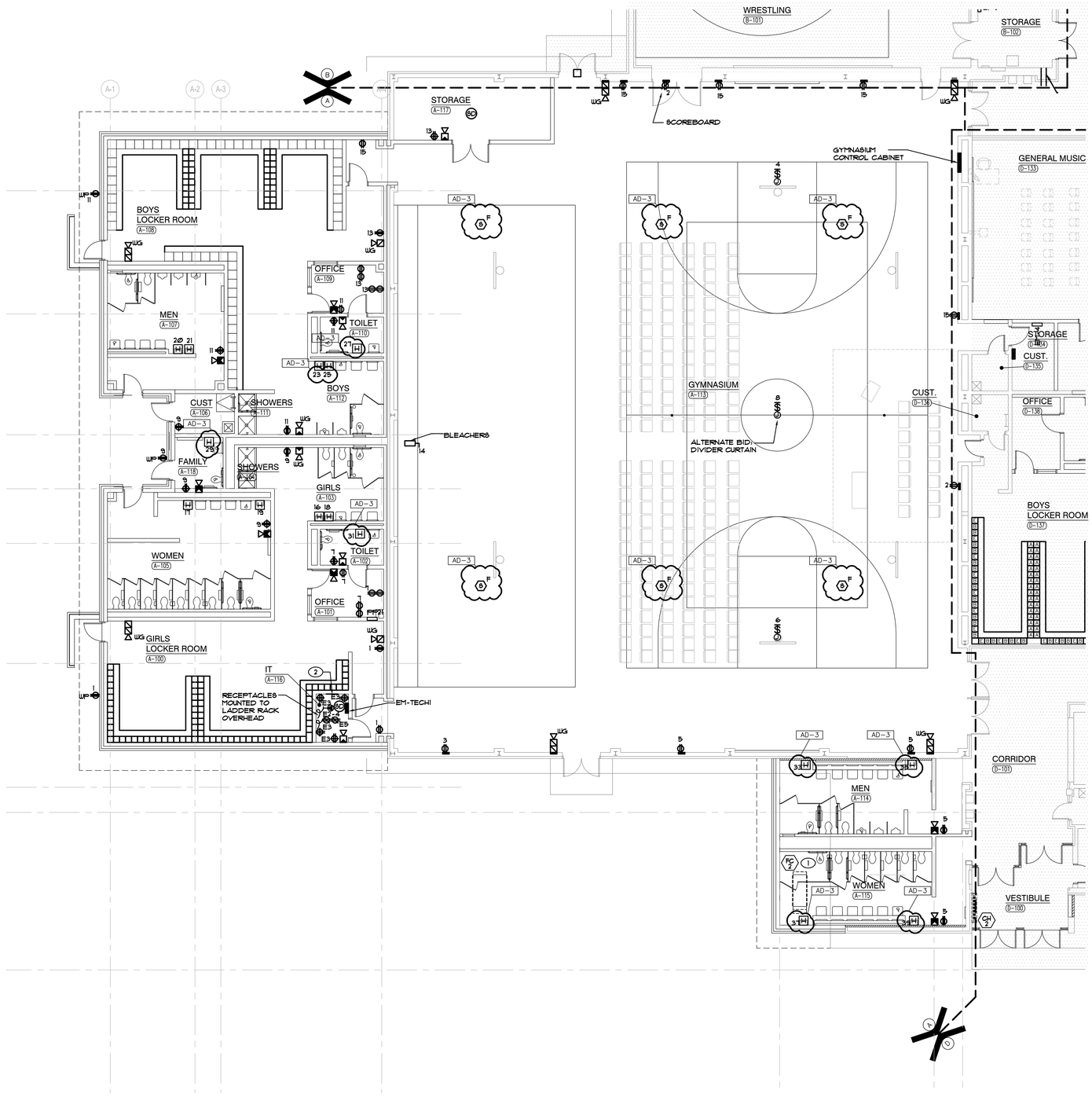

UNIT "A" ELECTRICAL FIRST FLOOR POWER PLAN

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

NORTH

GENERAL NOTES

1. CIRCUIT ALL DEVICES TO PANEL PP21 UNLESS OTHERWISE NOTED.
2. REFER TO LOW VOLTAGE DRAWING FOR ROUGH-IN AND RACEWAY INFORMATION FOR ACCESS CONTROL, SOUND SYSTEMS, TECHNOLOGY SYSTEMS AND EQUIPMENT. SEE TECHNOLOGY DRAWINGS AND SPECIFICATIONS FOR LOCATIONS OF DEVICES/EQUIPMENT, MOUNTING HEIGHTS AND ELECTRICAL REQUIREMENTS. COORDINATE AND VERIFY EXACT LOCATIONS OF ALL OF THESE ROUGH-INS AND REQUIREMENTS WITH TECH DYNE, ARCHITECT, OWNER, CONSTRUCTION MANAGER AND DIVISION 21 CONTRACTOR PRIOR TO ROUGH-IN.
3. ALL DEVICES WITH BOX BASES SHALL BE SURFACE MOUNTED TO THE EXISTING WALL. CONTRACTOR SHALL PROVIDE NEW NEATLY ROUTED SURFACE RACEWAY AND SURFACE RACEWAY BACKBOXES FOR NEW DEVICES LOCATED ON EXISTING WALLS. CONTRACTOR SHALL VERIFY EXACT ROUTING OF SURFACE RACEWAY WITH ARCHITECT PRIOR TO INSTALLATION.
4. CIRCUIT ALL DEVICES WITH A 'E' PREFIX TO NEW PANEL EM-TECH1.

SHEET NOTES

1. REFER TO MECHANICAL EQUIPMENT CONNECTION SCHEDULE FOR ELECTRICAL CIRCUITING AND WIRING REQUIREMENTS.
2. TELECOM GROUNDING BUSBAR, COORDINATE FINAL LOCATION IN ROOM WITH TECHNOLOGY EQUIPMENT INSTALLER. REFER TO GROUNDING DETAIL AND GROUNDING BUSBAR DETAIL FOR ADDITIONAL INFORMATION.
3. ALTERNATE BID: DIVIDER CURTAIN. VERIFY REQUIREMENTS WITH MANUFACTURER AND CONSTRUCTION MANAGER PRIOR TO ROUGH-IN. PROVIDE COMPLETE AND FULLY FUNCTIONAL SYSTEM.

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PROJECT
WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS

DUNELAND SCHOOL CORPORATION
CHESTERTON, INDIANA

KEY PLAN

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PROJECT 21-141
DATE 02/28/22
COORDINATED BY JC
DRAWN BY MS
CHECKED BY DJ

REGISTERED DAVID G. JANEY NO. 10302590 STATE OF INDIANA PROFESSIONAL ENGINEER

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REVISIONS

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AD-3	03/30/22	ADDENDUM NO. 3

DRAWING
UNIT "A" ELECTRICAL FIRST FLOOR POWER PLAN

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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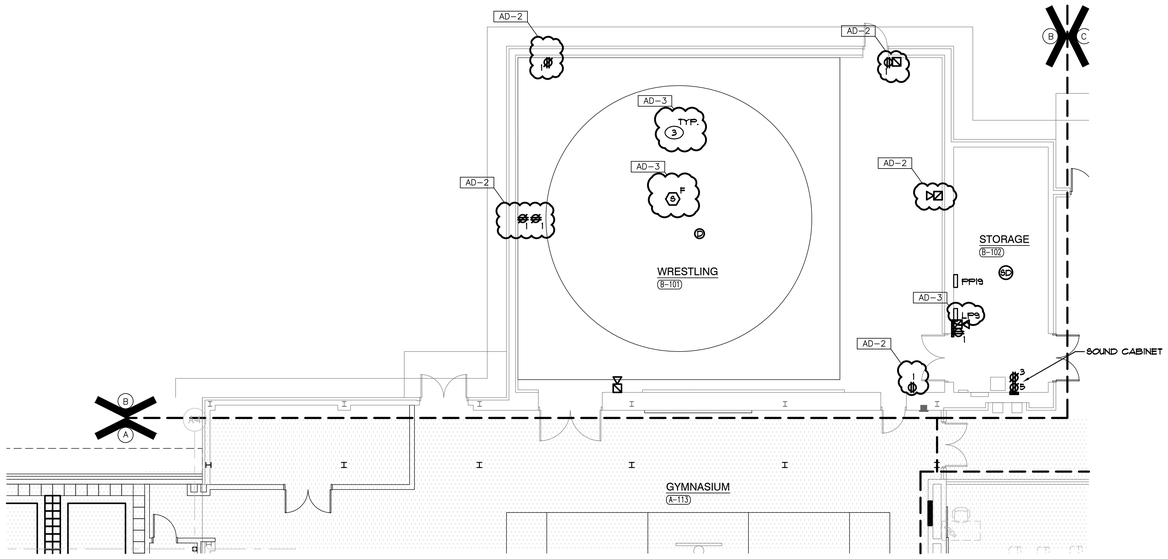
GENERAL NOTES

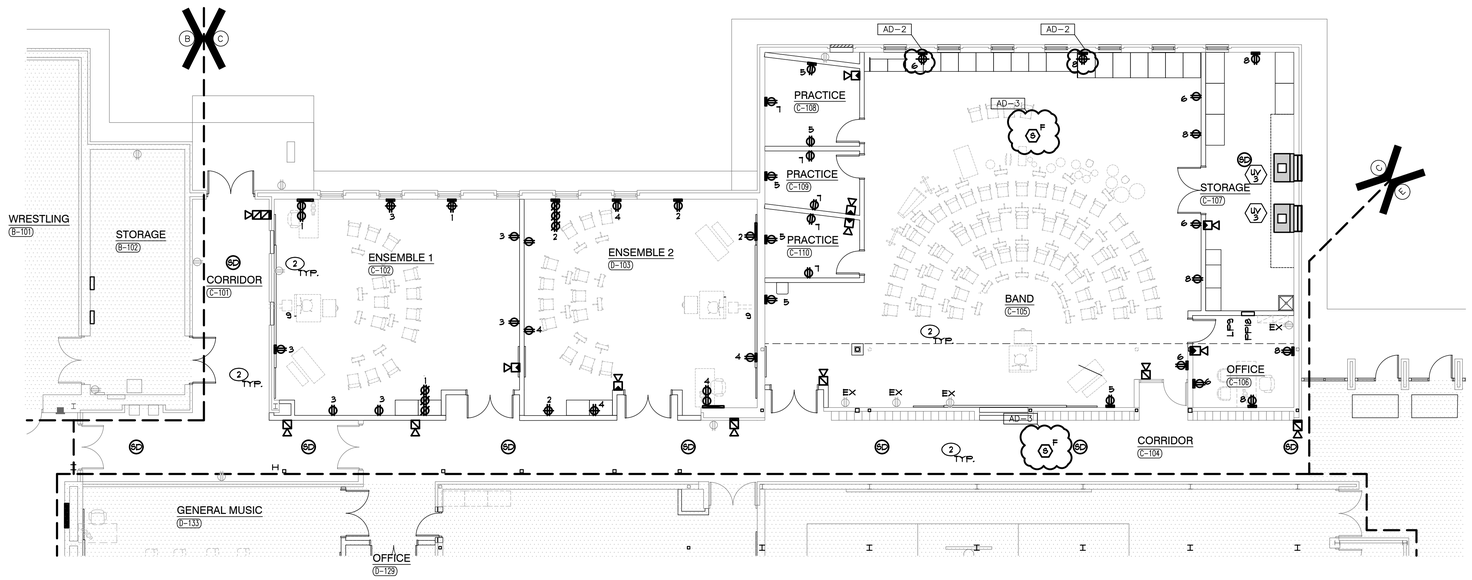
1. REFER TO LOW VOLTAGE DRAWING FOR ROUGH-IN AND RACEWAY INFORMATION FOR ACCESS CONTROL, SOUND SYSTEMS, TECHNOLOGY SYSTEMS AND EQUIPMENT. SEE TECHNOLOGY DRAWINGS AND SPECIFICATIONS FOR LOCATIONS OF DEVICES/EQUIPMENT, MOUNTING HEIGHTS AND ELECTRICAL REQUIREMENTS. COORDINATE AND VERIFY EXACT LOCATIONS OF ALL OF THESE ROUGH-INS AND REQUIREMENTS WITH TECH DYNE, ARCHITECT, OWNER, CONSTRUCTION MANAGER AND DIVISION 27 CONTRACTOR PRIOR TO ROUGH-IN.
2. ALL DEVICES WITH BOX BASES SHALL BE SURFACE MOUNTED TO THE EXISTING WALL. CONTRACTOR SHALL PROVIDE NEW NEATLY ROUTED SURFACE RACEWAY AND SURFACE RACEWAY BACKBOXES FOR NEW DEVICES LOCATED ON EXISTING WALLS. CONTRACTOR SHALL VERIFY EXACT ROUTING OF SURFACE RACEWAY WITH ARCHITECT PRIOR TO INSTALLATION.
3. CIRCUIT ALL DEVICES WITH A 'E' PREFIX TO NEW PANEL EM-TECH1.

SHEET NOTES

1. REFER TO MECHANICAL EQUIPMENT CONNECTION SCHEDULE FOR ELECTRICAL CIRCUITING AND WIRING REQUIREMENTS.RECONNECT
2. RECONNECT EXISTING RECEPTACLES TO NEW NORMAL POWER BRANCH CIRCUITRY IN NEW PANELS INSTALLED COMPLETE AS REQUIRED. MAXIMUM 1400W PER 120 VOLT CIRCUIT. WHERE NECESSARY, DUE TO LIMITATIONS IN THE EXISTING BRANCH CIRCUITRY, THIS CONTRACTOR SHALL FURNISH AND INSTALL 20A-1 POLE CIRCUIT BREAKERS AS REQUIRED IN NEW PANEL AND EXTEND 2 #2 AND 1 #2 GRD IN 3/4" CONDUIT COMPLETE AS REQUIRED. VERIFY CONDITIONS AND REQUIREMENTS IN FIELD.
3. RE-USE EXISTING CONDUIT WHERE POSSIBLE FOR NEW WIRING DEVICES. FIELD DETERMINE EXISTING ROUTING.



UNIT "B" ELECTRICAL FIRST FLOOR POWER PLAN
SCALE: 1/8" = 1'-0"



UNIT "C" ELECTRICAL FIRST FLOOR POWER PLAN
SCALE: 1/8" = 1'-0"

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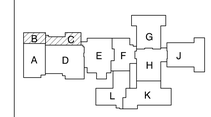
PROJECT
WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS

DUNELAND SCHOOL CORPORATION
CHESTERTON, INDIANA



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21-141
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02/28/22
COORDINATED BY
JC
DRAWN BY
MS
CHECKED BY
DJ

DAVID G. JANNEY
REGISTERED
NO. 10302590
STATE OF INDIANA
PROFESSIONAL ENGINEER

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REVISIONS

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AD-2	03/18/22	ADDENDUM NO. 2
AD-3	03/30/22	ADDENDUM NO. 3

DRAWING
UNITS "B" & "C"
ELECTRICAL FIRST FLOOR POWER PLAN

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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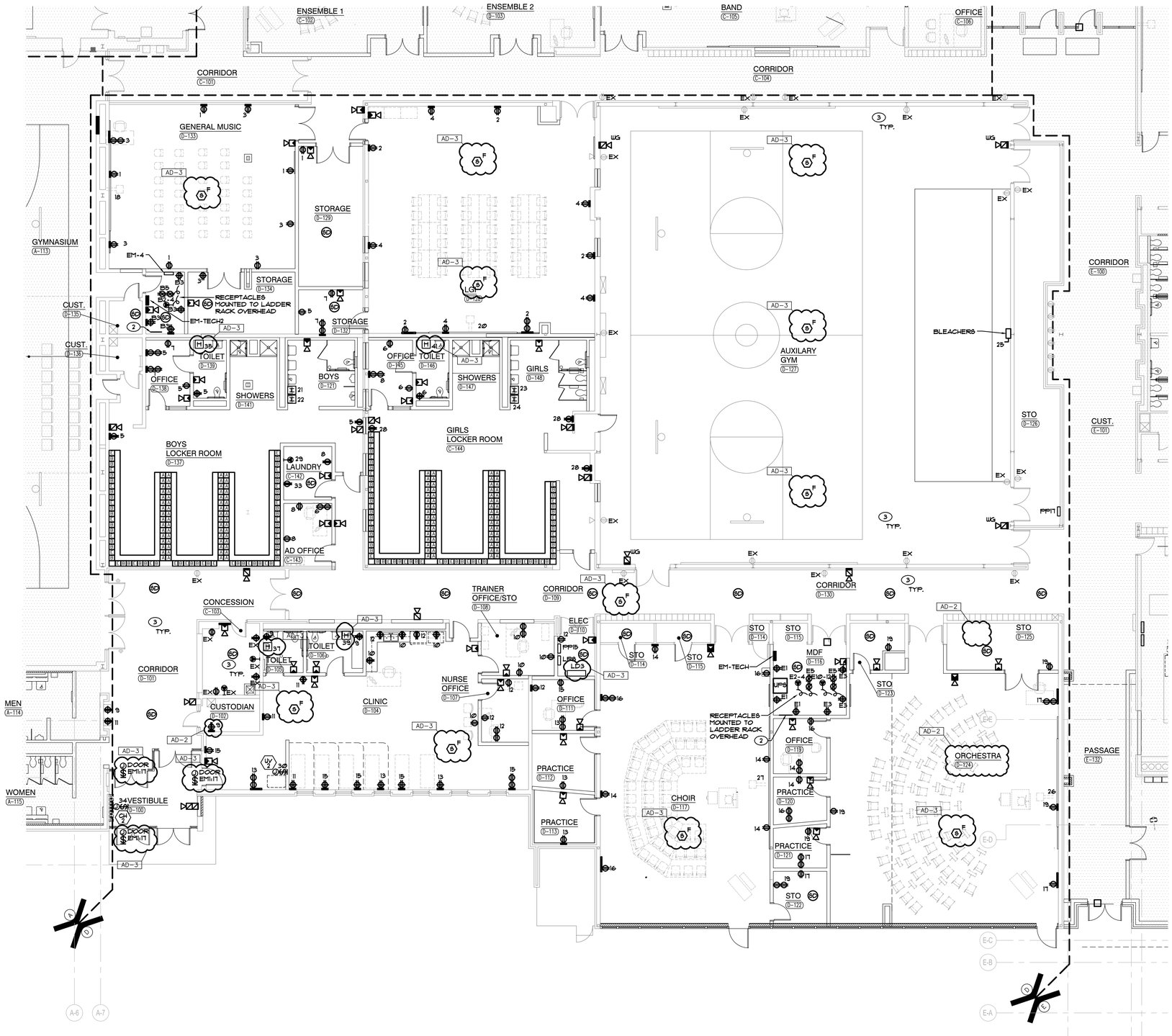

UNIT "D" ELECTRICAL FIRST FLOOR POWER PLAN

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

NORTH

GENERAL NOTES

1. CIRCUIT ALL DEVICES TO PANEL PP1B UNLESS OTHERWISE NOTED.
2. REFER TO LOW VOLTAGE DRAWING FOR ROUGH-IN AND RACEWAY INFORMATION FOR ACCESS CONTROL, SOUND SYSTEMS, TECHNOLOGY SYSTEMS AND EQUIPMENT. SEE TECHNOLOGY DRAWINGS AND SPECIFICATIONS FOR LOCATIONS OF DEVICES/EQUIPMENT, MOUNTING HEIGHTS AND ELECTRICAL REQUIREMENTS. COORDINATE AND VERIFY EXACT LOCATIONS OF ALL OF THESE ROUGH-INS AND REQUIREMENTS WITH TECH DYNE, ARCHITECT, OWNER, CONSTRUCTION MANAGER AND DIVISION 21 CONTRACTOR PRIOR TO ROUGH-IN.
3. ALL DEVICES WITH BOX BASES SHALL BE SURFACE MOUNTED TO THE EXISTING WALL. CONTRACTOR SHALL PROVIDE NEW NEATLY ROUTED SURFACE RACEWAY AND SURFACE RACEWAY BACKBOXES FOR NEW DEVICES LOCATED ON EXISTING WALLS. CONTRACTOR SHALL VERIFY EXACT ROUTING OF SURFACE RACEWAY WITH ARCHITECT PRIOR TO INSTALLATION.
4. CIRCUIT ALL DEVICES WITH A 'E' PREFIX TO NEW PANEL EM-TECH.
5. CIRCUIT ALL DEVICES WITH A 'B' PREFIX TO NEW PANEL EM-TECH2.

SHEET NOTES

1. REFER TO MECHANICAL EQUIPMENT CONNECTION SCHEDULE FOR ELECTRICAL CIRCUITING AND WIRING REQUIREMENTS.
2. TELECOM GROUNDING BUSBAR. COORDINATE FINAL LOCATION IN ROOM WITH TECHNOLOGY EQUIPMENT INSTALLER. REFER TO GROUNDING DETAIL AND GROUNDING BUSBAR DETAIL FOR ADDITIONAL INFORMATION.
3. RECONNECT EXISTING RECEPTACLES TO NEW NORMAL POWER BRANCH CIRCUITRY IN NEW PANELS INSTALLED COMPLETE AS REQUIRED. MAXIMUM 1440W PER 120 VOLT CIRCUIT. WHERE NECESSARY, DUE TO LIMITATIONS IN THE EXISTING BRANCH CIRCUITRY, THIS CONTRACTOR SHALL FURNISH AND INSTALL 20A-1 POLE CIRCUIT BREAKERS AS REQUIRED IN NEW PANEL AND EXTEND 2 #12 AND 1 #12 GRD IN ¾" CONDUIT COMPLETE AS REQUIRED. VERIFY CONDITIONS AND REQUIREMENTS IN FIELD.

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PROJECT
WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS

DUNELAND SCHOOL CORPORATION
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REVISIONS

MARK	DATE	ISSUED FOR
AD-2	03/18/22	ADDENDUM NO. 2
AD-3	03/30/22	ADDENDUM NO. 3

DRAWING
UNIT "D" ELECTRICAL FIRST FLOOR POWER PLAN

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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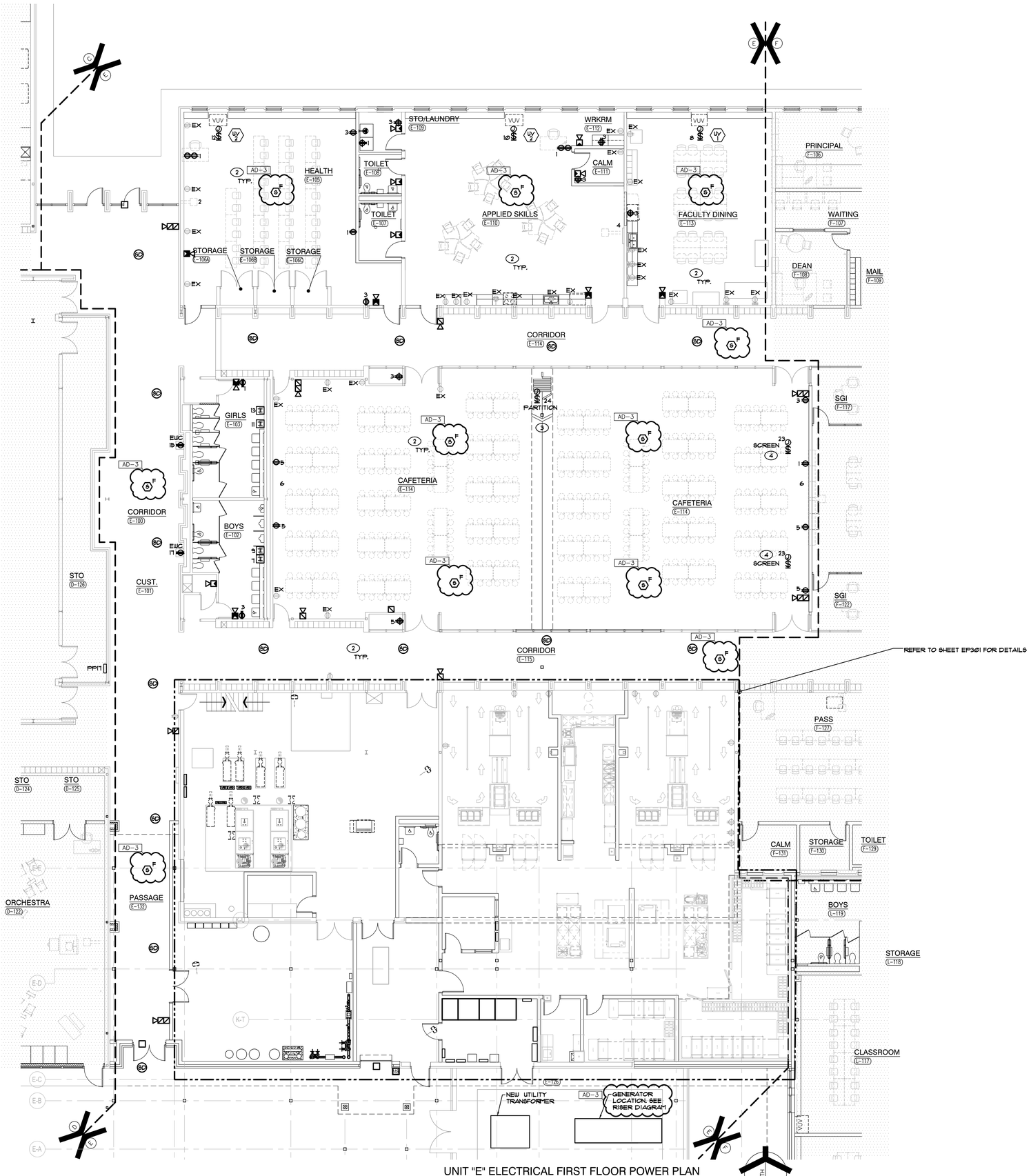

UNIT "E" ELECTRICAL FIRST FLOOR POWER PLAN

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

GENERAL NOTES

1. CIRCUIT ALL DEVICES TO PANEL PP1 UNLESS OTHERWISE NOTED.
2. REFER TO LOW VOLTAGE DRAWING FOR ROUGH-IN AND RACEWAY INFORMATION FOR ACCESS CONTROL, SOUND SYSTEMS, TECHNOLOGY SYSTEMS AND EQUIPMENT. SEE TECHNOLOGY DRAWINGS AND SPECIFICATIONS FOR LOCATIONS OF DEVICES/EQUIPMENT, MOUNTING HEIGHTS AND ELECTRICAL REQUIREMENTS. COORDINATE AND VERIFY EXACT LOCATIONS OF ALL OF THESE ROUGH-INS AND REQUIREMENTS WITH TECH DYNE, ARCHITECT, OWNER, CONSTRUCTION MANAGER AND DIVISION 21 CONTRACTOR PRIOR TO ROUGH-IN.
3. ALL DEVICES WITH BOX BASES SHALL BE SURFACE MOUNTED TO THE EXISTING WALL. CONTRACTOR SHALL PROVIDE NEW NEATLY ROUTED SURFACE RACEWAY AND SURFACE RACEWAY BACKBOXES FOR NEW DEVICES LOCATED ON EXISTING WALLS. CONTRACTOR SHALL VERIFY EXACT ROUTING OF SURFACE RACEWAY WITH ARCHITECT PRIOR TO INSTALLATION.

KITCHEN GENERAL NOTES

1. CIRCUIT ALL DEVICES TO PANEL KP-1 UNLESS OTHERWISE NOTED.
2. CIRCUIT ALL DEVICES WITH A 'K' PREFIX TO PANEL KP-2.
3. SPECIFIC AMP LOAD AND CONNECTIONS TO BE COORDINATED WITH FINAL EQUIPMENT SELECTIONS PROVIDED BY KEC DOCUMENTATION POST BID AWARD.
4. REFER TO KITCHEN EQUIPMENT CONNECTION SCHEDULE FOR ADDITIONAL CIRCUITING AND WIRING INFORMATION.
5. THE CONTRACTOR SHALL FULLY REVIEW THE KITCHEN DRAWINGS AS PART OF THE CONTRACT DOCUMENT REQUIREMENTS. THE CONTRACTOR SHALL PROVIDE ALL POWER, FIRE ALARM CONNECTIONS, LOW VOLTAGE AND LOW VOLTAGE ROUGH-INS AS REQUIRED AND AS SHOWN ON THE KITCHEN DRAWINGS FOR A COMPLETE AND PROPER INSTALLATION OF ALL SYSTEMS. IN ADDITION, FINAL OVERCURRENT SIZES, FEEDER SIZES, DISCONNECT SWITCH REQUIREMENTS, THERMAL SWITCH REQUIREMENTS, JUNCTION BOX SIZES/TYPES AND CONNECTION TYPES SHALL BE VERIFIED PRIOR TO START OF ROUGH-IN. VERIFY CONDITIONS AND REQUIREMENTS IN FIELD, OTHER TRADES, FINAL EQUIPMENT SHOP DRAWINGS AND WITH KITCHEN DRAWINGS, COMPLETE AS REQUIRED.
6. CUT AND PATCH FLOOR AS REQUIRED TO CONCEAL CONDUIT AND CIRCUITRY. VERIFY EXACT FLOOR ROUTING AND REQUIREMENTS WITH ARCHITECT PRIOR TO ROUGH-IN.

SHEET NOTES

1. REFER TO MECHANICAL EQUIPMENT CONNECTION SCHEDULE FOR ELECTRICAL CIRCUITING AND WIRING REQUIREMENTS.
2. RECONNECT EXISTING RECEPTACLES TO NEW NORMAL POWER BRANCH CIRCUITRY IN NEW PANELS INSTALLED COMPLETE AS REQUIRED. MAXIMUM 1400W PER 120 VOLT CIRCUIT. WHERE NECESSARY, DUE TO LIMITATIONS IN THE EXISTING BRANCH CIRCUITRY, THIS CONTRACTOR SHALL FURNISH AND INSTALL 20A-1 POLE CIRCUIT BREAKERS AS REQUIRED IN NEW PANEL AND EXTEND 2 #2 AND 1 #2 GRD IN 3/4" CONDUIT COMPLETE AS REQUIRED. VERIFY CONDITIONS AND REQUIREMENTS IN FIELD.
3. VERIFY REQUIREMENTS WITH MANUFACTURER FOR FOLDING PARTITION. PROVIDE COMPLETE WITH CIRCUIT TO ELECTRIC MOTOR, CONDUIT AND WIRE TO CONTROL LIMIT SWITCH. PROVIDE (2) KEYED STATIONS COMPLETE WITH WIRING AS REQUIRED FOR A FULLY OPERATIONAL SYSTEM.
4. VERIFY REQUIREMENTS WITH MANUFACTURER FOR MOTORIZED SCREEN. PROVIDE COMPLETE WITH ASSOCIATED CONDUIT TO CONTROL STATION.

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ADDITIONS & RENOVATIONS

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PROJECT 21-141

DATE 02/28/22

COORDINATED BY JC

DRAWN BY MS

CHECKED BY DJ

DAVID G. JANNEY REGISTERED NO. 10302590 STATE OF INDIANA PROFESSIONAL ENGINEER

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REVISIONS

MARK	DATE	ISSUED FOR
AD-3	03/30/22	ADDENDUM NO. 3

DRAWING

UNIT "E" ELECTRICAL FIRST FLOOR POWER PLAN

PROJECT

WESTCHESTER IS - ADDITIONS & RENOVATIONS

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E

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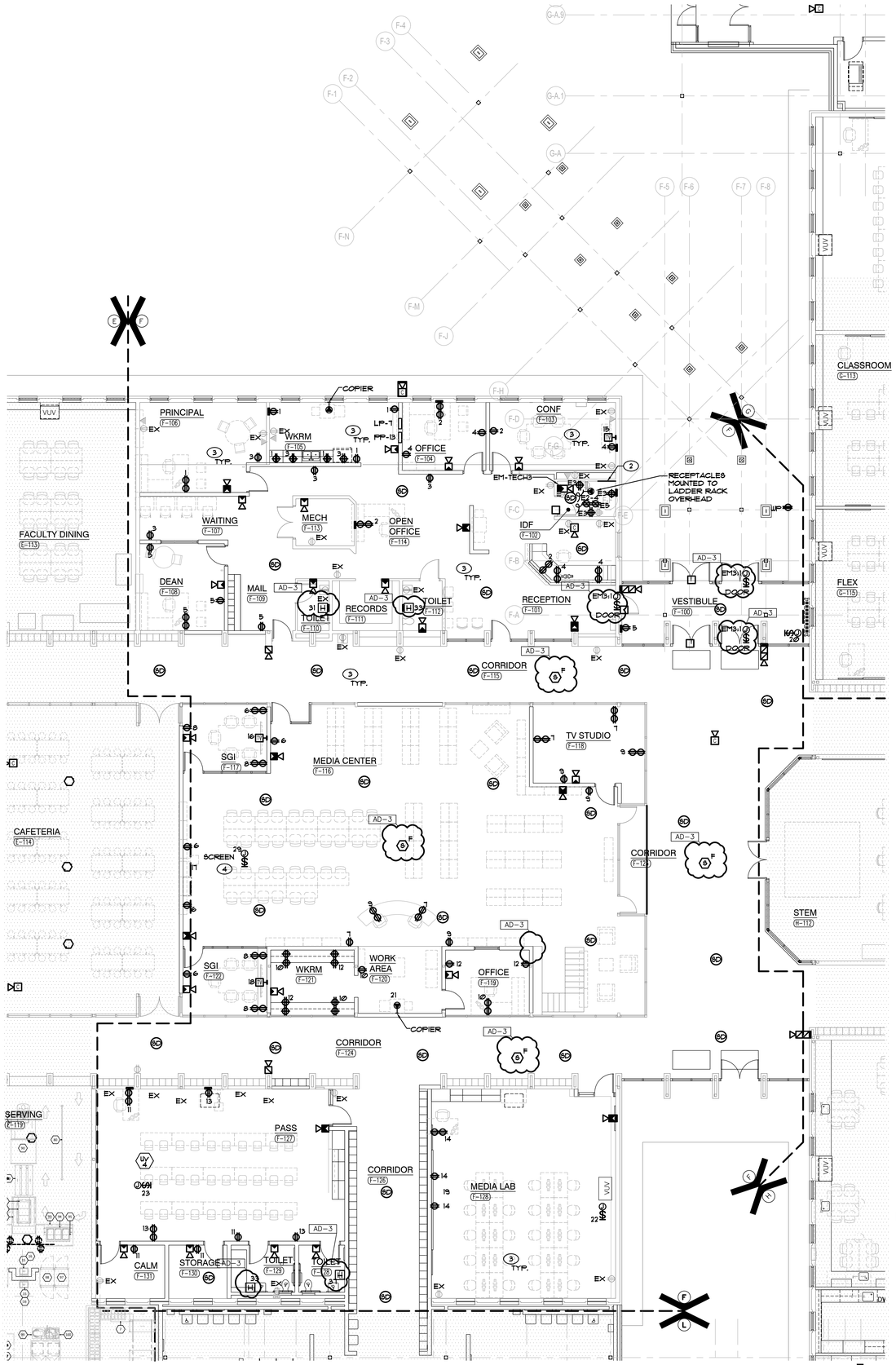

UNIT "F" ELECTRICAL FIRST FLOOR POWER PLAN

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

GENERAL NOTES

1. CIRCUIT ALL DEVICES TO PANEL PP13 UNLESS OTHERWISE NOTED.
2. REFER TO LOW VOLTAGE DRAWING FOR ROUGH-IN AND RACEWAY INFORMATION FOR ACCESS CONTROL, SOUND SYSTEMS, TECHNOLOGY SYSTEMS AND EQUIPMENT. SEE TECHNOLOGY DRAWINGS AND SPECIFICATIONS FOR LOCATIONS OF DEVICES/EQUIPMENT, MOUNTING HEIGHTS AND ELECTRICAL REQUIREMENTS. COORDINATE AND VERIFY EXACT LOCATIONS OF ALL OF THESE ROUGH-INS AND REQUIREMENTS WITH TECH DYNE, ARCHITECT, OWNER, CONSTRUCTION MANAGER AND DIVISION 21 CONTRACTOR PRIOR TO ROUGH-IN.
3. ALL DEVICES WITH BOX BASES SHALL BE SURFACE MOUNTED TO THE EXISTING WALL. CONTRACTOR SHALL PROVIDE NEW NEATLY ROUTED SURFACE RACEWAY AND SURFACE RACEWAY BACKBOXES FOR NEW DEVICES LOCATED ON EXISTING WALLS. CONTRACTOR SHALL VERIFY EXACT ROUTING OF SURFACE RACEWAY WITH ARCHITECT PRIOR TO INSTALLATION.
4. CIRCUIT ALL DEVICES WITH A 'E' PREFIX TO NEW PANEL EM-TECH3.

SHEET NOTES

1. REFER TO MECHANICAL EQUIPMENT CONNECTION SCHEDULE FOR ELECTRICAL CIRCUITING AND WIRING REQUIREMENTS.
2. TELECOM GROUNDING BUSBAR. COORDINATE FINAL LOCATION IN ROOM WITH TECHNOLOGY EQUIPMENT INSTALLER. REFER TO GROUNDING DETAIL AND GROUNDING BUSBAR DETAIL FOR ADDITIONAL INFORMATION.
3. RECONNECT EXISTING RECEPTACLES TO NEW NORMAL POWER BRANCH CIRCUITRY IN NEW PANELS INSTALLED COMPLETE AS REQUIRED. MAXIMUM 1400W PER 120 VOLT CIRCUIT. WHERE NECESSARY, DUE TO LIMITATIONS IN THE EXISTING BRANCH CIRCUITRY, THIS CONTRACTOR SHALL FURNISH AND INSTALL 20A-1 POLE CIRCUIT BREAKERS AS REQUIRED IN NEW PANEL AND EXTEND 2 #2 AND 1 #2 GRD IN 3/4" CONDUIT COMPLETE AS REQUIRED. VERIFY CONDITIONS AND REQUIREMENTS IN FIELD.
4. VERIFY REQUIREMENTS WITH MANUFACTURER FOR MOTORIZED SCREEN. PROVIDE COMPLETE WITH ASSOCIATED CONDUIT TO CONTROL STATION.

AD-1

ADDENDUM #1:
REVISE THIS SHEET IN IT ENTIRETY

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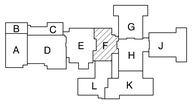
PROJECT
WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS

DUNELAND SCHOOL CORPORATION
CHESTERTON, INDIANA



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CHECKED BY
DJ

REGISTERED DAVID G. JANNEY NO. 10302590 STATE OF INDIANA PROFESSIONAL ENGINEER

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REVISIONS

MARK	DATE	ISSUED FOR
AD-1	03/15/22	ADDENDUM NO. 1
AD-3	03/30/22	ADDENDUM NO. 3

DRAWING
UNIT "F" ELECTRICAL FIRST FLOOR POWER PLAN

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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F

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EP105

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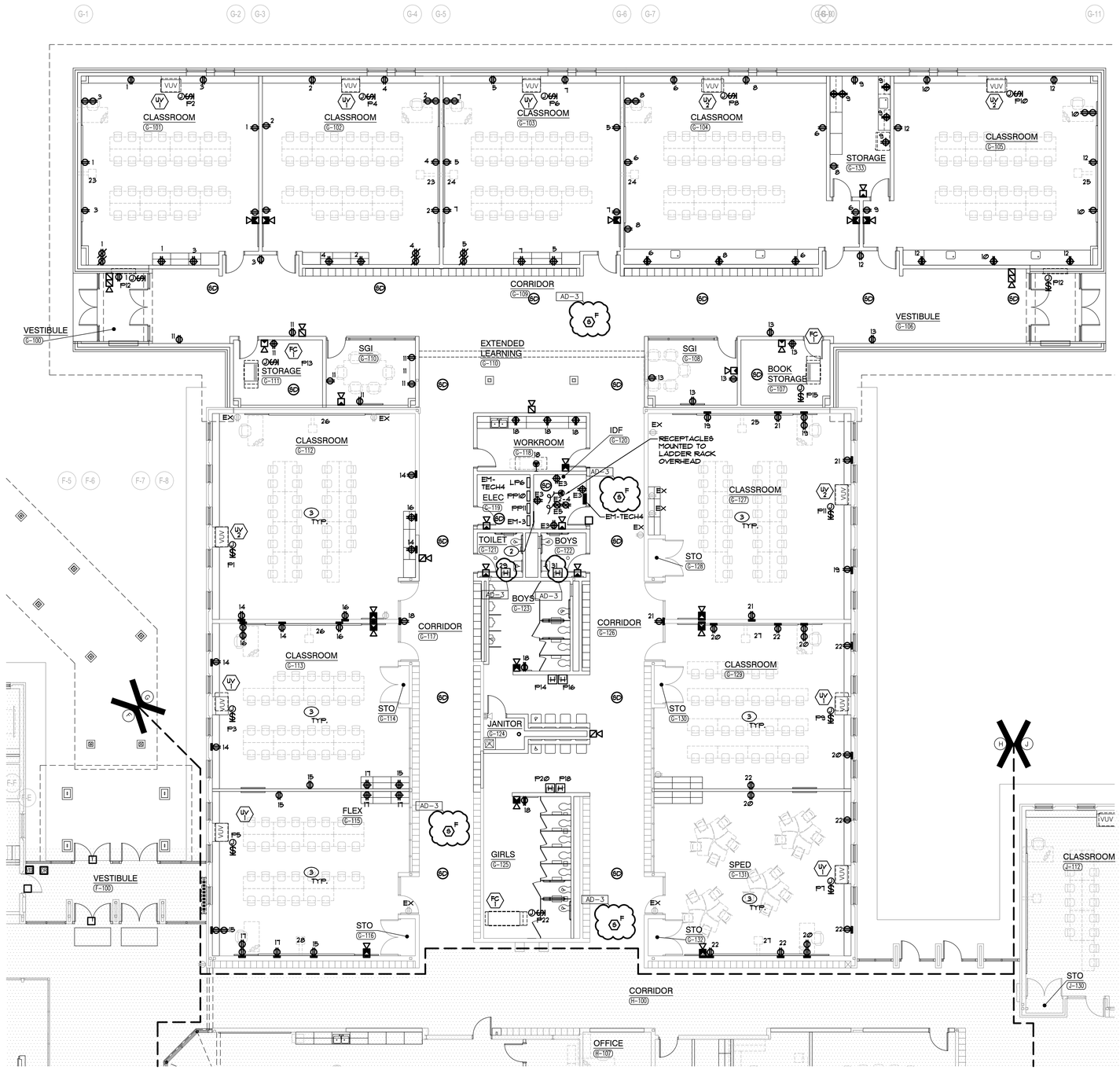
GENERAL NOTES

1. CIRCUIT ALL DEVICES TO PANEL PP10 UNLESS OTHERWISE NOTED. CIRCUIT TAGS WITH 'P' PREFIX SHALL BE CONNECTED TO PP-11.
2. REFER TO LOW VOLTAGE DRAWING FOR ROUGH-IN AND RACEWAY INFORMATION FOR ACCESS CONTROL, SOUND SYSTEMS, TECHNOLOGY SYSTEMS AND EQUIPMENT. SEE TECHNOLOGY DRAWINGS AND SPECIFICATIONS FOR LOCATIONS OF DEVICES/EQUIPMENT, MOUNTING HEIGHTS AND ELECTRICAL REQUIREMENTS. COORDINATE AND VERIFY EXACT LOCATIONS OF ALL OF THESE ROUGH-INS AND REQUIREMENTS WITH TECH DYNE, ARCHITECT, OWNER, CONSTRUCTION MANAGER AND DIVISION 27 CONTRACTOR PRIOR TO ROUGH-IN.
3. ALL DEVICES WITH BOX BASES SHALL BE SURFACE MOUNTED TO THE EXISTING WALL. CONTRACTOR SHALL PROVIDE NEW NEATLY ROUTED SURFACE RACEWAY AND SURFACE RACEWAY BACKBOXES FOR NEW DEVICES LOCATED ON EXISTING WALLS. CONTRACTOR SHALL VERIFY EXACT ROUTING OF SURFACE RACEWAY WITH ARCHITECT PRIOR TO INSTALLATION.
4. CIRCUIT ALL DEVICES WITH A 'E' PREFIX TO NEW PANEL EM-TECH4.

SHEET NOTES

1. REFER TO MECHANICAL EQUIPMENT CONNECTION SCHEDULE FOR ELECTRICAL CIRCUITING AND WIRING REQUIREMENTS.
2. TELECOM GROUNDING BUSBAR. COORDINATE FINAL LOCATION IN ROOM WITH TECHNOLOGY EQUIPMENT INSTALLER. REFER TO GROUNDING DETAIL AND GROUNDING BUSBAR DETAIL FOR ADDITIONAL INFORMATION.
3. RECONNECT EXISTING RECEPTACLES TO NEW NORMAL POWER BRANCH CIRCUITRY IN NEW PANELS INSTALLED COMPLETE AS REQUIRED, MAXIMUM 1400W PER 120 VOLT CIRCUIT. WHERE NECESSARY, DUE TO LIMITATIONS IN THE EXISTING BRANCH CIRCUITRY, THIS CONTRACTOR SHALL FURNISH AND INSTALL 20A-1 POLE CIRCUIT BREAKERS AS REQUIRED IN NEW PANEL AND EXTEND 2 #2 AND 1 #2 GRD IN 3" CONDUIT COMPLETE AS REQUIRED. VERIFY CONDITIONS AND REQUIREMENTS IN FIELD.



UNIT "G" ELECTRICAL FIRST FLOOR POWER PLAN
SCALE: 1/8" = 1'-0"

NORTH

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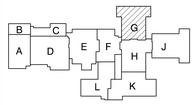
PROJECT
WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS

DUNELAND SCHOOL CORPORATION
CHESTERTON, INDIANA



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REGISTERED NO. 10302590 STATE OF INDIANA PROFESSIONAL ENGINEER DAVID G. JANNEY

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REVISIONS

MARK	DATE	ISSUED FOR
AD-3	03/30/22	ADDENDUM NO. 3

DRAWING
UNIT "G" ELECTRICAL FIRST FLOOR POWER PLAN

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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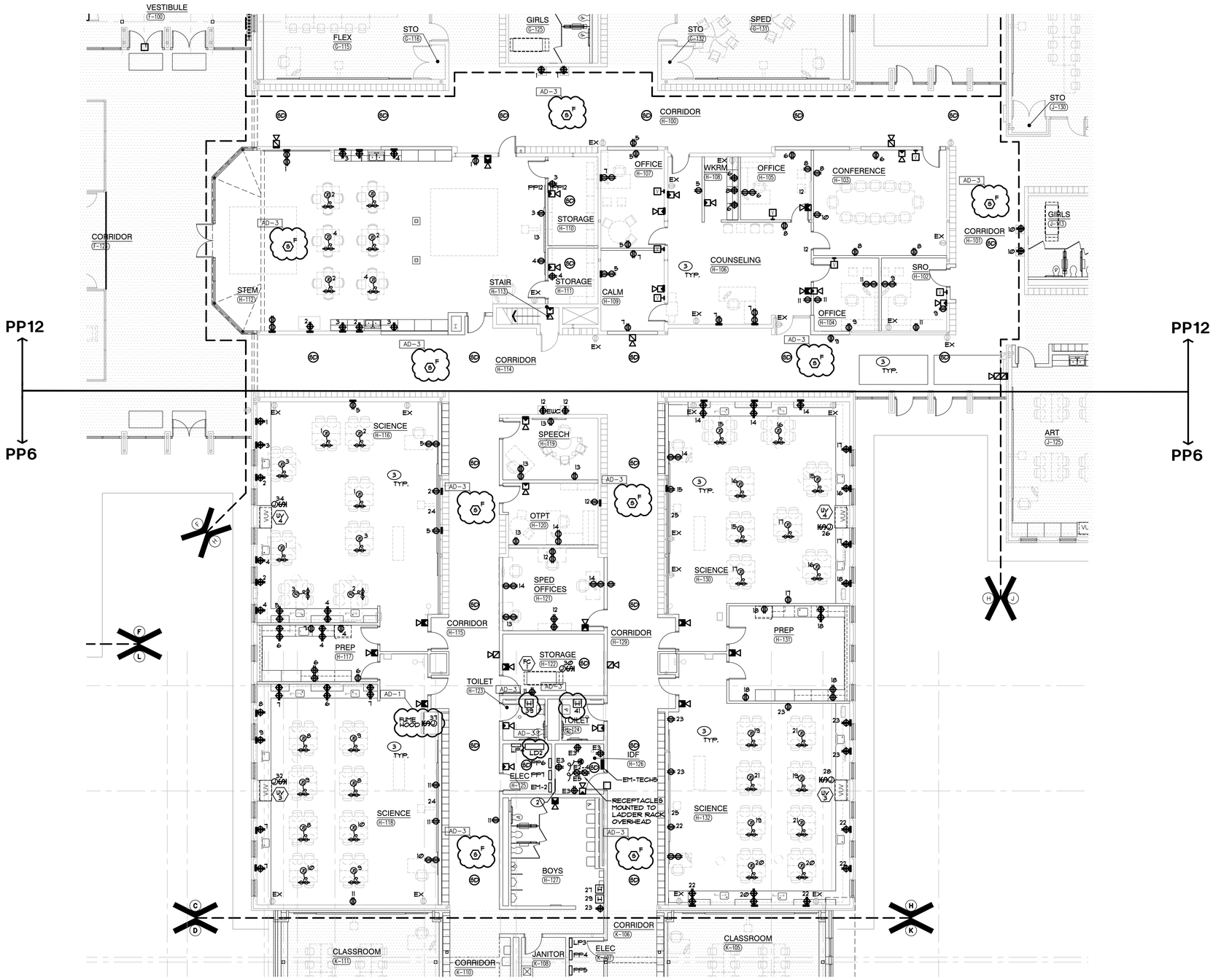
GENERAL NOTES

1. CIRCUIT ALL DEVICES TO PANELS INDICATED BY DIVISION LINES AS SHOWN UNLESS OTHERWISE NOTED.
2. REFER TO LOW VOLTAGE DRAWING FOR ROUGH-IN AND RACEWAY INFORMATION FOR ACCESS CONTROL, SOUND SYSTEMS, TECHNOLOGY SYSTEMS AND EQUIPMENT. SEE TECHNOLOGY DRAWINGS AND SPECIFICATIONS FOR LOCATIONS OF DEVICES/EQUIPMENT, MOUNTING HEIGHTS AND ELECTRICAL REQUIREMENTS. COORDINATE AND VERIFY EXACT LOCATIONS OF ALL OF THESE ROUGH-INS AND REQUIREMENTS WITH TECH DYNE, ARCHITECT, OWNER, CONSTRUCTION MANAGER AND DIVISION 27 CONTRACTOR PRIOR TO ROUGH-IN.
3. ALL DEVICES WITH BOX BASES SHALL BE SURFACE MOUNTED TO THE EXISTING WALL. CONTRACTOR SHALL PROVIDE NEW NEATLY ROUTED SURFACE RACEWAY AND SURFACE RACEWAY BACKBOXES FOR NEW DEVICES LOCATED ON EXISTING WALLS. CONTRACTOR SHALL VERIFY EXACT ROUTING OF SURFACE RACEWAY WITH ARCHITECT PRIOR TO INSTALLATION.
4. CIRCUIT ALL DEVICES WITH A 'E' PREFIX TO NEW PANEL EM-TECH5.
5. VERIFY EXACT LOCATION OF REEL CORDS IN SCIENCE AND STEM ROOM(S) WITH ARCHITECT AND CONSTRUCTION MANAGER PRIOR TO ROUGHING-IN.

SHEET NOTES

1. REFER TO MECHANICAL EQUIPMENT CONNECTION SCHEDULE FOR ELECTRICAL CIRCUITING AND WIRING REQUIREMENTS.
2. TELECOM GROUNDING BUSBAR. COORDINATE FINAL LOCATION IN ROOM WITH TECHNOLOGY EQUIPMENT INSTALLER. REFER TO GROUNDING DETAIL AND GROUNDING BUSBAR DETAIL FOR ADDITIONAL INFORMATION.
3. RECONNECT EXISTING RECEPTACLES TO NEW NORMAL POWER BRANCH CIRCUITRY IN NEW PANELS INSTALLED COMPLETE AS REQUIRED. MAXIMUM 1440VU PER 120 VOLT CIRCUIT. WHERE NECESSARY, DUE TO LIMITATIONS IN THE EXISTING BRANCH CIRCUITRY, THIS CONTRACTOR SHALL FURNISH AND INSTALL 20A-1 POLE CIRCUIT BREAKERS AS REQUIRED IN NEW PANEL AND EXTEND 2 #12 AND 1 #12 GRD IN $\frac{3}{4}$" CONDUIT COMPLETE AS REQUIRED. VERIFY CONDITIONS AND REQUIREMENTS IN FIELD.



UNIT "H" ELECTRICAL FIRST FLOOR POWER PLAN

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

WORK ROOM (K-104)

NORTH

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PROJECT
WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS

DUNELAND SCHOOL CORPORATION
CHESTERTON, INDIANA

KEY PLAN

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PROJECT 21-141
DATE 02/28/22
COORDINATED BY JC
DRAWN BY MS
CHECKED BY DJ

REGISTERED DAVID G. JANEY NO. 10302590 STATE OF INDIANA PROFESSIONAL ENGINEER

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REVISIONS

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AD-1	03/15/22	ADDENDUM NO. 1
AD-3	03/30/22	ADDENDUM NO. 3

DRAWING
UNIT "H" ELECTRICAL FIRST FLOOR POWER PLAN

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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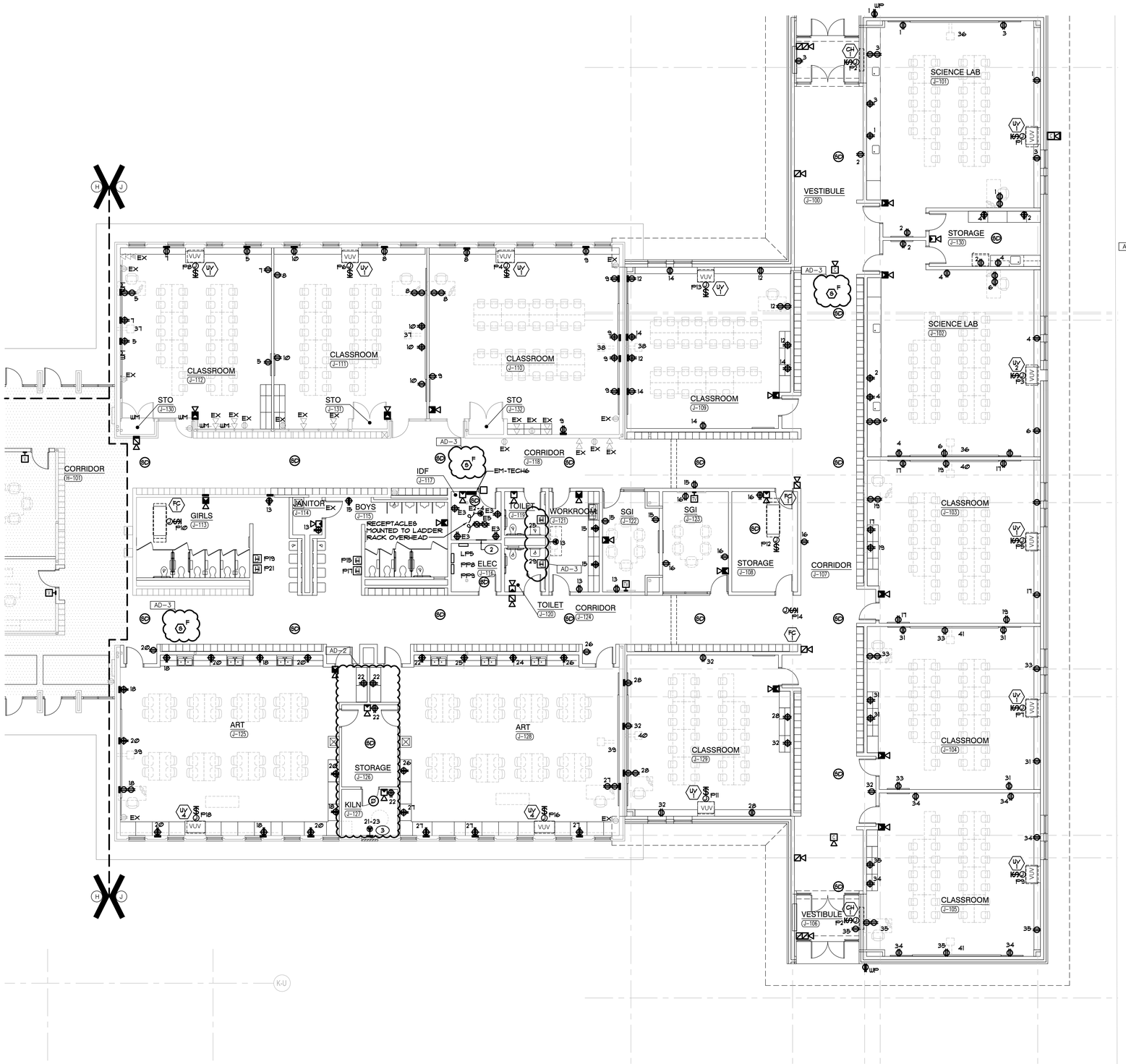
GENERAL NOTES

1. CIRCUIT ALL DEVICES TO PANEL PP8 UNLESS OTHERWISE NOTED. CIRCUIT TAGS WITH A 'P' PREFIX SHALL BE CONNECTED TO PP-9.
2. REFER TO LOW VOLTAGE DRAWING FOR ROUGH-IN AND RACEWAY INFORMATION FOR ACCESS CONTROL, SOUND SYSTEMS, TECHNOLOGY SYSTEMS AND EQUIPMENT. SEE TECHNOLOGY DRAWINGS AND SPECIFICATIONS FOR LOCATIONS OF DEVICES/EQUIPMENT, MOUNTING HEIGHTS AND ELECTRICAL REQUIREMENTS. COORDINATE AND VERIFY EXACT LOCATIONS OF ALL OF THESE ROUGH-INS AND REQUIREMENTS WITH TECH DYNE, ARCHITECT, OWNER, CONSTRUCTION MANAGER AND DIVISION 27 CONTRACTOR PRIOR TO ROUGH-IN.
3. ALL DEVICES WITH BOX BASES SHALL BE SURFACE MOUNTED TO THE EXISTING WALL. CONTRACTOR SHALL PROVIDE NEW NEATLY ROUTED SURFACE RACEWAY AND SURFACE RACEWAY BACKBOXES FOR NEW DEVICES LOCATED ON EXISTING WALLS. CONTRACTOR SHALL VERIFY EXACT ROUTING OF SURFACE RACEWAY WITH ARCHITECT PRIOR TO INSTALLATION.
4. CIRCUIT ALL DEVICES WITH A 'E' PREFIX TO NEW PANEL EM-TECH6.
5. VERIFY EXACT LOCATION OF REEL CORDS IN SCIENCE AND STEM ROOM(S) WITH ARCHITECT AND CONSTRUCTION MANAGER PRIOR TO ROUGHING-IN.

SHEET NOTES

1. REFER TO MECHANICAL EQUIPMENT CONNECTION SCHEDULE FOR ELECTRICAL CIRCUITING AND WIRING REQUIREMENTS.
2. TELECOM GROUNDING BUSBAR. COORDINATE FINAL LOCATION IN ROOM WITH TECHNOLOGY EQUIPMENT INSTALLER. REFER TO GROUNDING DETAIL AND GROUNDING BUSBAR DETAIL FOR ADDITIONAL INFORMATION.
3. 40A/2P KILN SPECIAL PURPOSE RECEPTACLE SHOWN FOR INFORMATION ONLY. COORDINATE WITH EQUIPMENT IN FIELD FOR ELECTRICAL REQUIREMENTS.



UNIT "J" ELECTRICAL FIRST FLOOR POWER PLAN
SCALE: 1/8" = 1'-0"

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PROJECT
WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS

DUNELAND SCHOOL CORPORATION
CHESTERTON, INDIANA

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MARK	DATE	ISSUED FOR
AD-2	03/18/22	ADDENDUM NO. 2
AD-3	03/30/22	ADDENDUM NO. 3

DRAWING
UNIT "J" ELECTRICAL FIRST FLOOR POWER PLAN

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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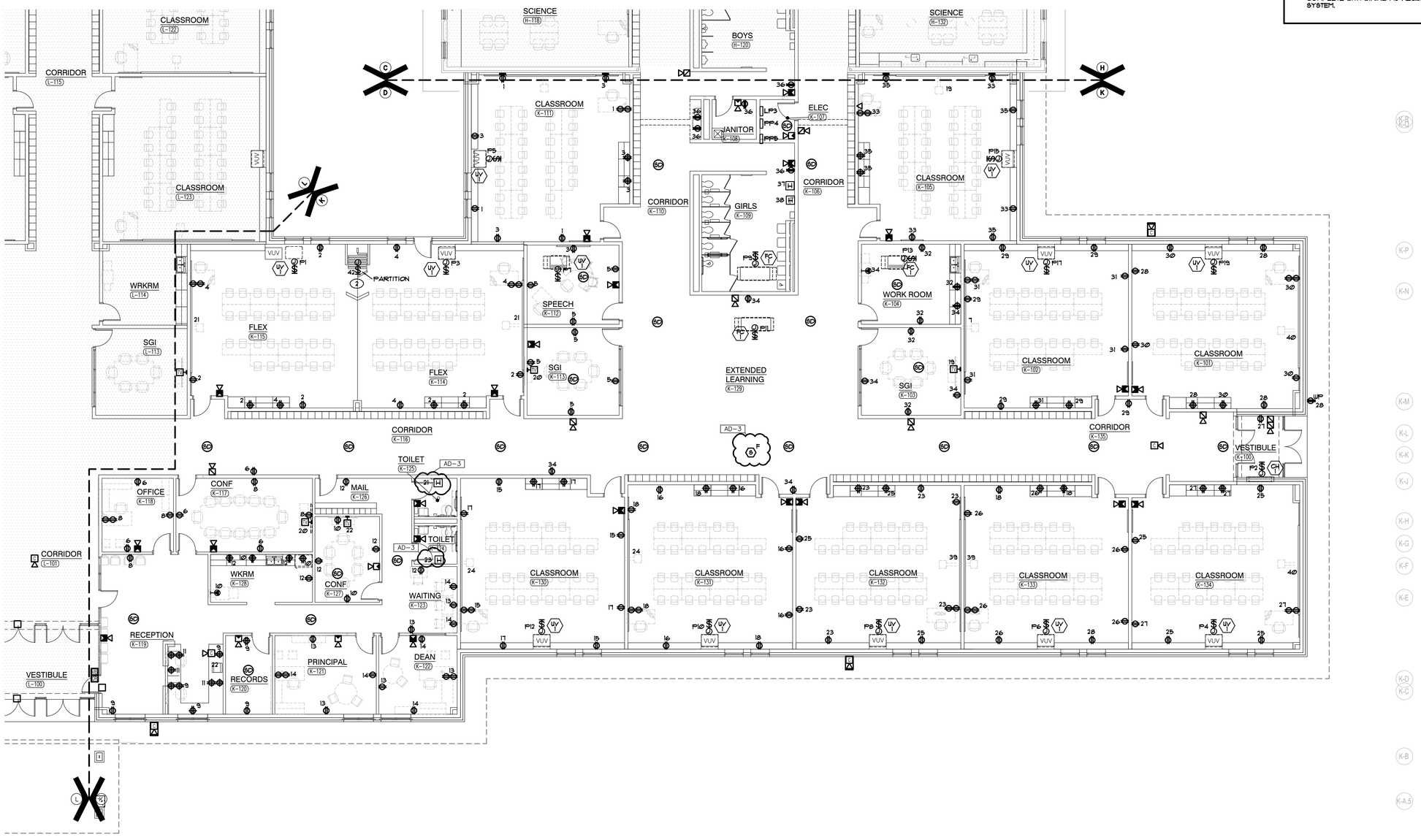
GENERAL NOTES

1. CIRCUIT ALL DEVICES TO PANEL PP4 UNLESS OTHERWISE NOTED. CIRCUIT TAGS WITH 'P' PREFIX SHALL BE CONNECTED TO PP-5.
2. REFER TO LOW VOLTAGE DRAWING FOR ROUGH-IN AND RACEWAY INFORMATION FOR ACCESS CONTROL, SOUND SYSTEMS, TECHNOLOGY SYSTEMS AND EQUIPMENT. SEE TECHNOLOGY DRAWINGS AND SPECIFICATIONS FOR LOCATIONS OF DEVICES/EQUIPMENT, MOUNTING HEIGHTS AND ELECTRICAL REQUIREMENTS. COORDINATE AND VERIFY EXACT LOCATIONS OF ALL OF THESE ROUGH-INS AND REQUIREMENTS WITH TECH DYNE, ARCHITECT, OWNER, CONSTRUCTION MANAGER AND DIVISION 27 CONTRACTOR PRIOR TO ROUGH-IN.
3. ALL DEVICES WITH BOX BASES SHALL BE SURFACE MOUNTED TO THE EXISTING WALL. CONTRACTOR SHALL PROVIDE NEW NEATLY ROUTED SURFACE RACEWAY AND SURFACE RACEWAY BACKBOXES FOR NEW DEVICES LOCATED ON EXISTING WALLS. CONTRACTOR SHALL VERIFY EXACT ROUTING OF SURFACE RACEWAY WITH ARCHITECT PRIOR TO INSTALLATION.

SHEET NOTES

1. REFER TO MECHANICAL EQUIPMENT CONNECTION SCHEDULE FOR ELECTRICAL CIRCUITING AND WIRING REQUIREMENTS.
2. VERIFY REQUIREMENTS WITH MANUFACTURER FOR FOLDING PARTITION. PROVIDE COMPLETE WITH CIRCUIT TO ELECTRIC MOTOR, CONDUIT AND WIRE TO CONTROL LIMIT SWITCH. PROVIDE (2) KEYED STATIONS COMPLETE WITH WIRING AS REQUIRED FOR A FULLY OPERATIONAL SYSTEM.



UNIT "K" ELECTRICAL FIRST FLOOR POWER PLAN
SCALE: 1/8" = 1'-0"

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PROJECT
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DUNELAND SCHOOL CORPORATION
CHESTERTON, INDIANA

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DRAWING
UNIT "K" ELECTRICAL FIRST FLOOR POWER PLAN

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WESTCHESTER IS - ADDITIONS & RENOVATIONS

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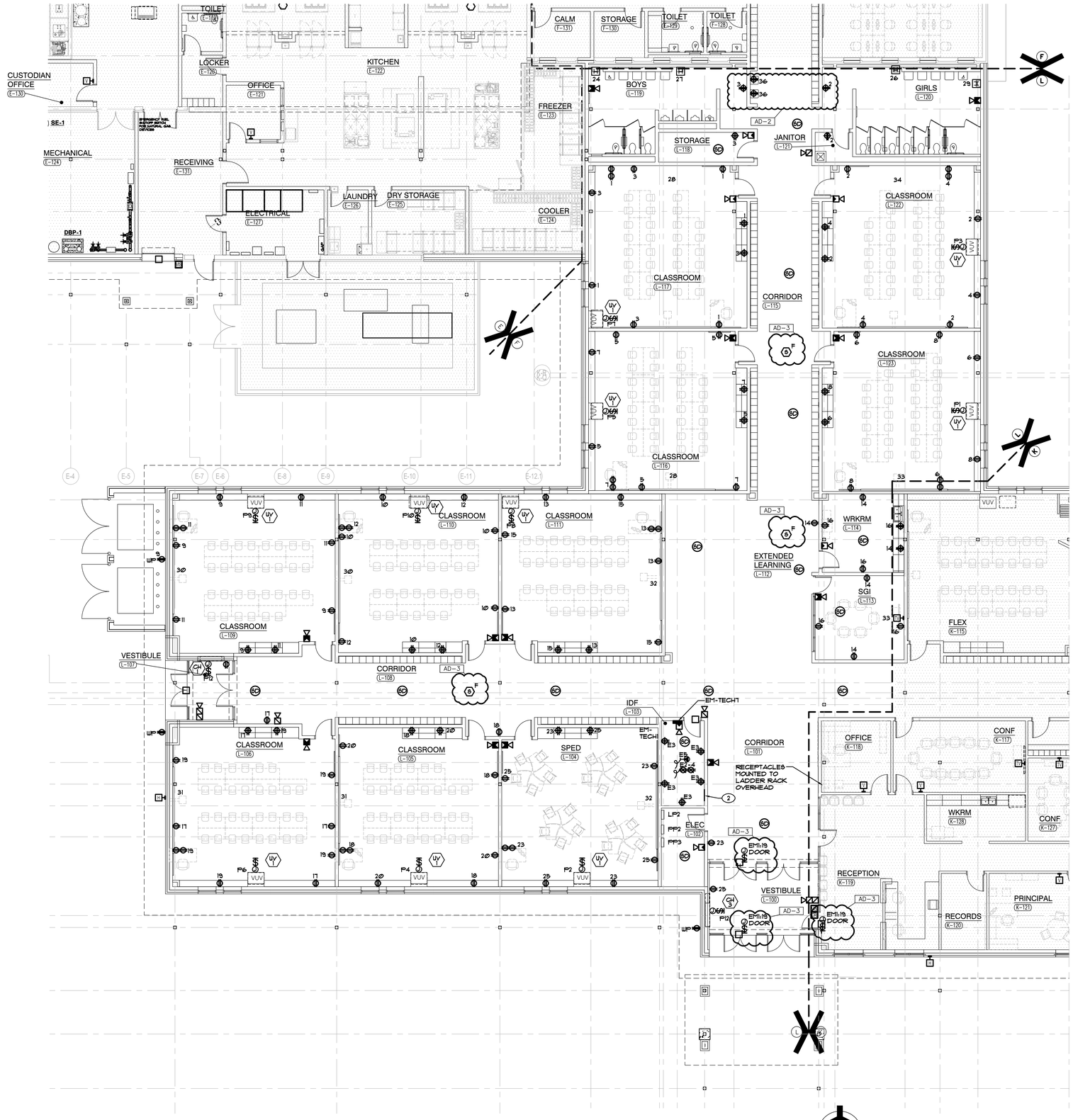

UNIT "L" ELECTRICAL FIRST FLOOR POWER PLAN

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

GENERAL NOTES

1. CIRCUIT ALL DEVICES TO PANEL PP2 UNLESS OTHERWISE NOTED. CIRCUIT TAGS WITH 'P' PREFIX SHALL BE CONNECTED TO PP-3.
2. REFER TO LOW VOLTAGE DRAWING FOR ROUGH-IN AND RACEWAY INFORMATION FOR ACCESS CONTROL, SOUND SYSTEMS, TECHNOLOGY SYSTEMS AND EQUIPMENT. SEE TECHNOLOGY DRAWINGS AND SPECIFICATIONS FOR LOCATIONS OF DEVICES/EQUIPMENT, MOUNTING HEIGHTS AND ELECTRICAL REQUIREMENTS. COORDINATE AND VERIFY EXACT LOCATIONS OF ALL OF THESE ROUGH-INS AND REQUIREMENTS WITH TECH DYNE, ARCHITECT, OWNER, CONSTRUCTION MANAGER AND DIVISION 27 CONTRACTOR PRIOR TO ROUGH-IN.
3. ALL DEVICES WITH BOX BASES SHALL BE SURFACE MOUNTED TO THE EXISTING WALL. CONTRACTOR SHALL PROVIDE NEW NEATLY ROUTED SURFACE RACEWAY AND SURFACE RACEWAY BACKBOXES FOR NEW DEVICES LOCATED ON EXISTING WALLS. CONTRACTOR SHALL VERIFY EXACT ROUTING OF SURFACE RACEWAY WITH ARCHITECT PRIOR TO INSTALLATION.
4. CIRCUIT ALL DEVICES WITH A 'E' PREFIX TO NEW PANEL EM-TECH1.

SHEET NOTES

1. REFER TO MECHANICAL EQUIPMENT CONNECTION SCHEDULE FOR ELECTRICAL CIRCUITING AND WIRING REQUIREMENTS.
2. TELECOM GROUNDING BUSBAR, COORDINATE FINAL LOCATION IN ROOM WITH TECHNOLOGY EQUIPMENT INSTALLER. REFER TO GROUNDING DETAIL AND GROUNDING BUSBAR DETAIL FOR ADDITIONAL INFORMATION.

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PROJECT
WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS

DUNELAND SCHOOL CORPORATION
CHESTERTON, INDIANA

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PROJECT 21-141
DATE 02/28/22
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MARK	DATE	ISSUED FOR
AD-2	03/18/22	ADDENDUM NO. 2
AD-3	03/30/22	ADDENDUM NO. 3

DRAWING
UNIT "L" ELECTRICAL FIRST FLOOR POWER PLAN

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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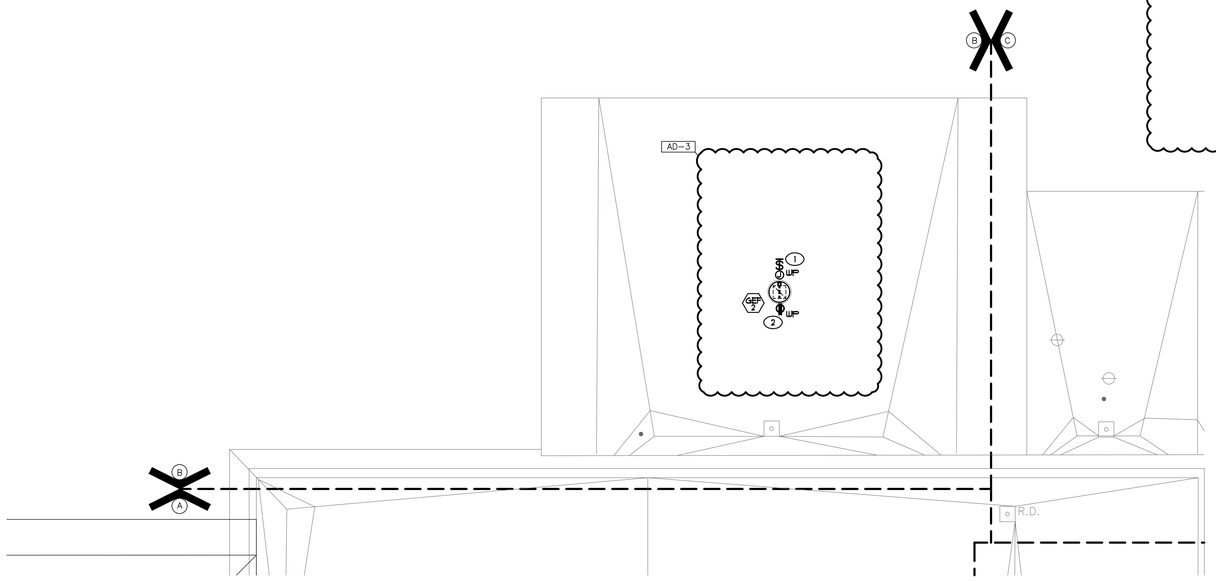
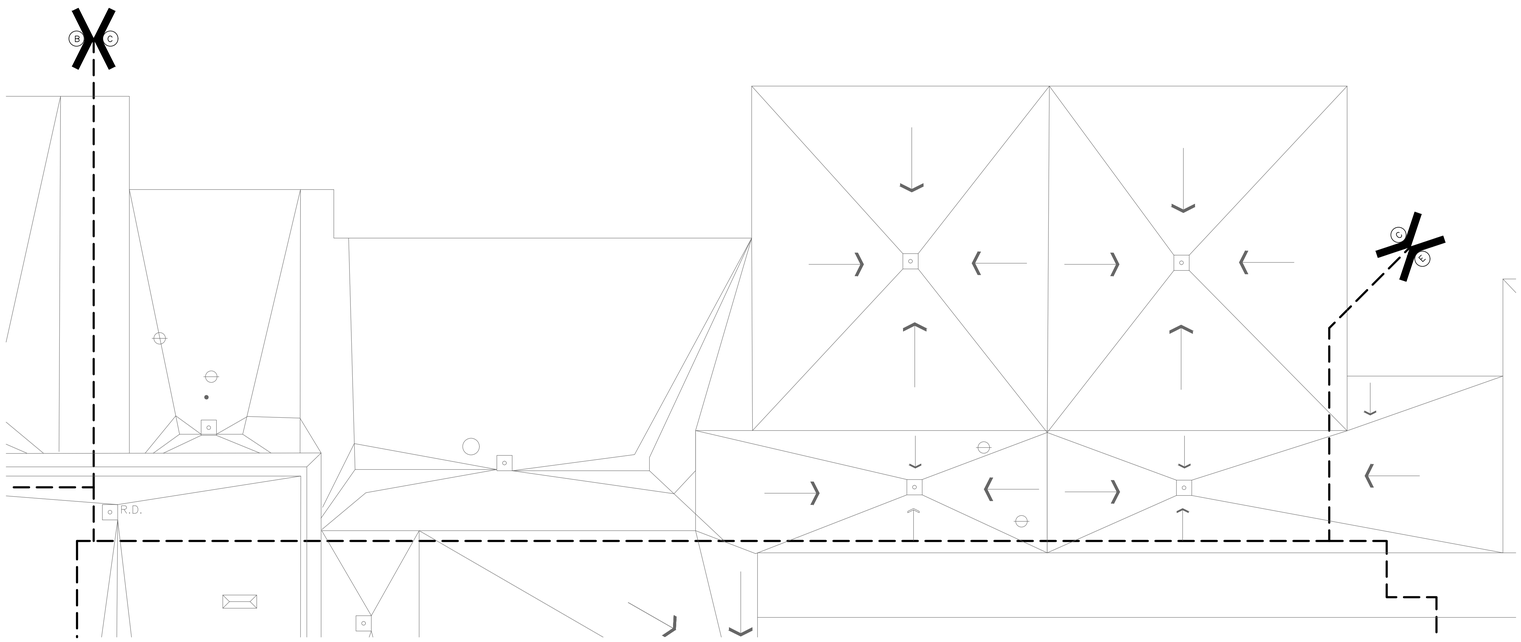
SHEET NOTES

1. REFER TO MECHANICAL EQUIPMENT CONNECTION FOR ADDITIONAL CIRCUITING AND WIRING INFORMATION.
2. LOCATE WEATHERPROOF GFI TYPE RECEPTACLE ON UNIT IN AN APPROVED MANNER. CONNECT TO NEAREST 120V GENERAL RECEPTACLE CIRCUIT WITH AVAILABLE CAPACITY (MAXIMUM 1400W PER 120V CIRCUIT), COMPLETE AS REQUIRED.



UNIT "B" ELECTRICAL POWER ROOF PLAN
SCALE: 1/8" = 1'-0"



UNIT "C" ELECTRICAL POWER ROOF PLAN
SCALE: 1/8" = 1'-0"

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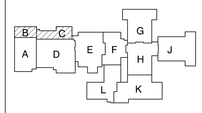
PROJECT
WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS
DUNELAND SCHOOL CORPORATION
CHESTERTON, INDIANA



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PROJECT 21-141
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AD-3	03/30/22	ADDENDUM NO. 3

DRAWING
UNITS "B" & "C" ELECTRICAL POWER ROOF PLAN

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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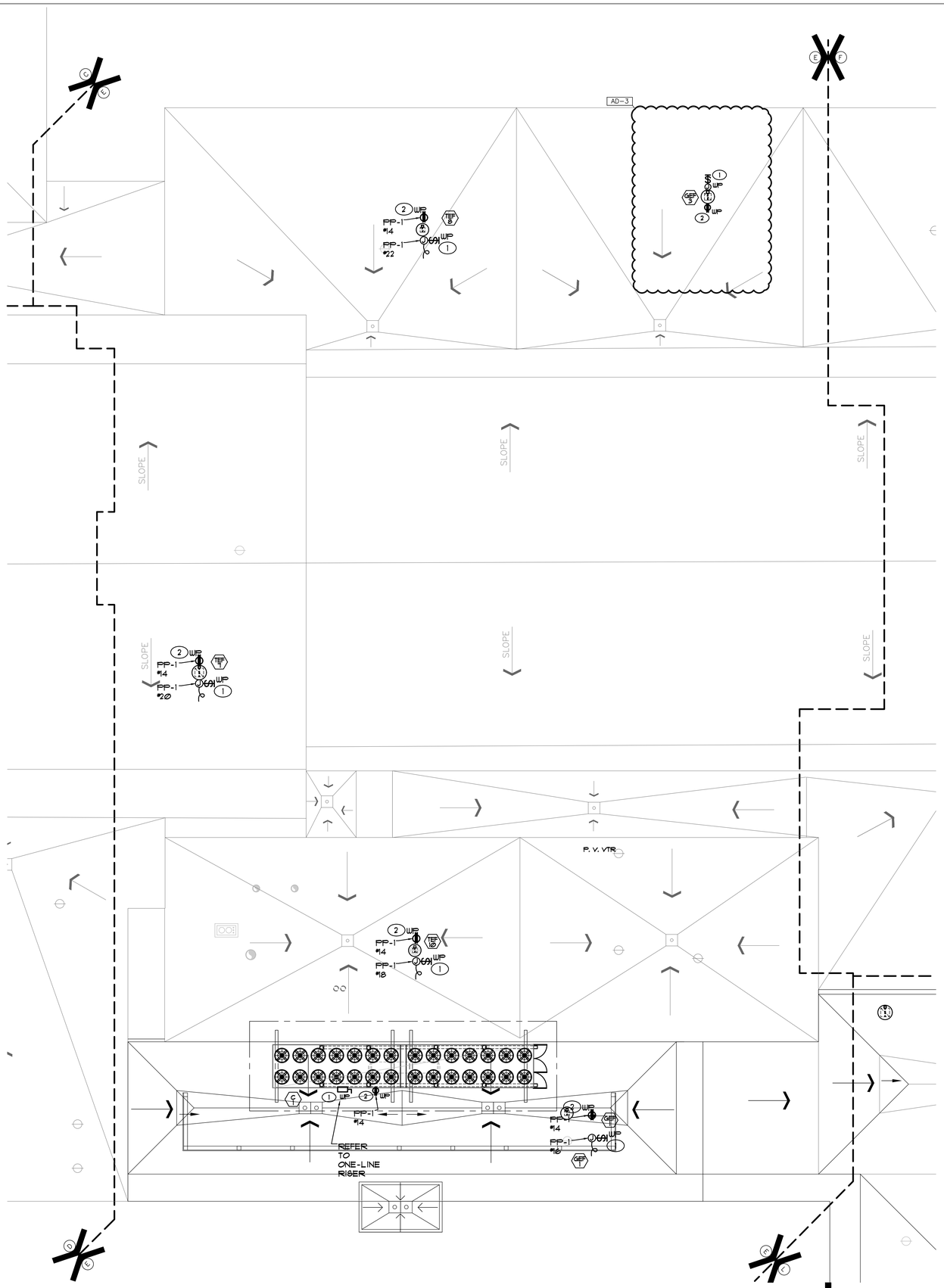

UNIT "E" ELECTRICAL POWER ROOF PLAN
SCALE: 1/8" = 1'-0"

SHEET NOTES

1. REFER TO MECHANICAL EQUIPMENT CONNECTION FOR ADDITIONAL CIRCUITING AND WIRING INFORMATION.
2. LOCATE WEATHERPROOF GFI TYPE RECEPTACLE ON UNIT IN AN APPROVED MANNER.

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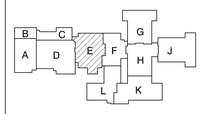
PROJECT
WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS

DUNELAND SCHOOL CORPORATION
CHESTERTON, INDIANA



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PROJECT
21-141
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DRAWN BY
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DRAWING
UNIT "E" ELECTRICAL POWER ROOF PLAN

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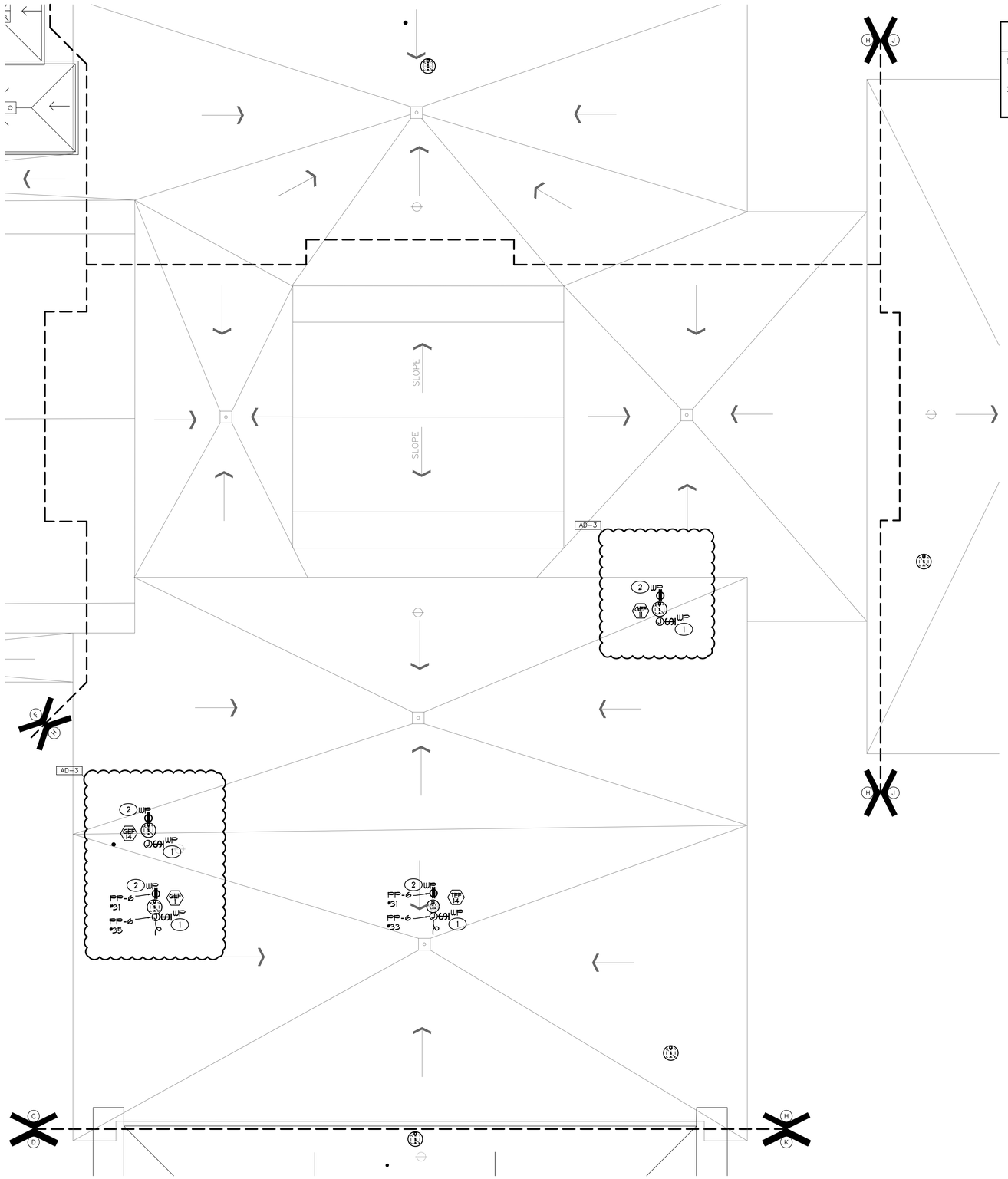

UNIT "H" ELECTRICAL POWER ROOF PLAN

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

NORTH

SHEET NOTES

1. REFER TO MECHANICAL EQUIPMENT CONNECTION FOR ADDITIONAL CIRCUITING AND WIRING INFORMATION.
2. LOCATE WEATHERPROOF GFI TYPE RECEPTACLE ON UNIT IN AN APPROVED MANNER.

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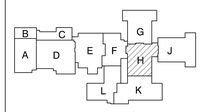
WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS

DUNELAND SCHOOL CORPORATION
CHESTERTON, INDIANA



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DRAWING

UNIT "H" ELECTRICAL POWER ROOF PLAN

PROJECT

WESTCHESTER IS - ADDITIONS & RENOVATIONS

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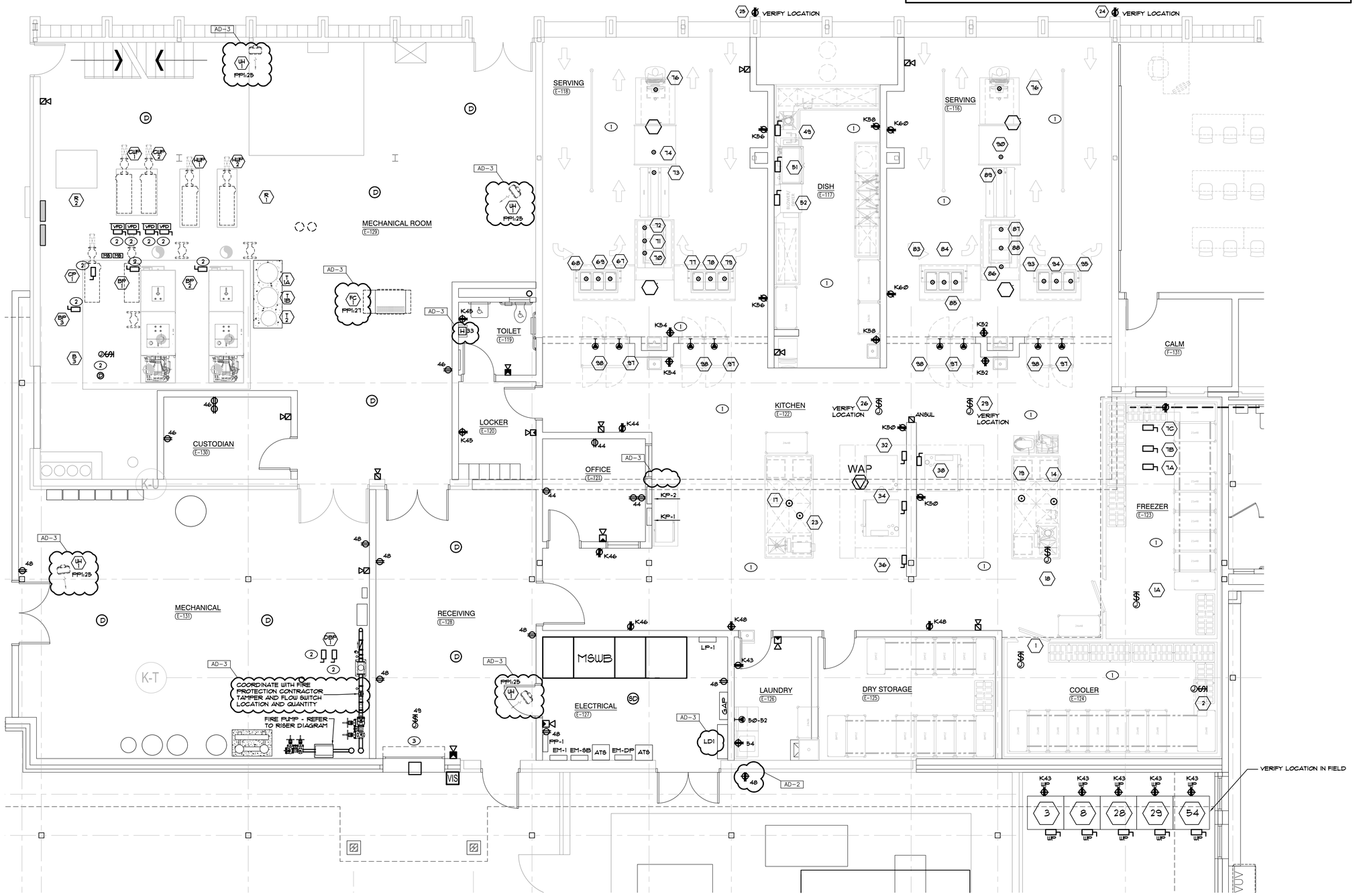
SHEET NOTES

1. REFER TO KITCHEN EQUIPMENT SCHEDULE FOR TAGGED KITCHEN EQUIPMENT CIRCUITING ASSIGNMENTS.
2. REFER TO MECHANICAL SCHEDULE FOR ELECTRICAL CONNECTION AND WIRING REQUIREMENTS.
3. ELECTRIC ROLLING DOOR-PROVIDE WITH WALL SWITCH CONTROL ROUGH IN, VERIFY LOCATION AND REQUIREMENTS IN FIELD.

GENERAL NOTES

1. CIRCUIT ALL DEVICES TO PANEL PP-1 UNLESS OTHERWISE NOTED.
2. CIRCUIT ALL DEVICES WITH A 'K' PREFIX TO PANEL KP-1.
3. SPECIFIC AMP LOAD AND CONNECTIONS TO BE COORDINATED WITH FINAL EQUIPMENT SELECTIONS PROVIDED BY KEC DOCUMENTATION POST BID AWARD.
4. REFER TO KITCHEN EQUIPMENT CONNECTION SCHEDULE FOR ADDITIONAL CIRCUITING AND WIRING INFORMATION.
5. THE CONTRACTOR SHALL FULLY REVIEW THE KITCHEN DRAWINGS AS PART OF THE CONTRACT DOCUMENT REQUIREMENTS. THE CONTRACTOR SHALL PROVIDE ALL POWER, FIRE ALARM CONNECTIONS, LOW VOLTAGE AND LOW VOLTAGE ROUGH-INS AS REQUIRED AND AS SHOWN ON THE KITCHEN DRAWINGS FOR A COMPLETE AND PROPER INSTALLATION OF ALL SYSTEMS. IN ADDITION, FINAL OVERCURRENT SIZES, FEEDER SIZES, DISCONNECT SWITCH REQUIREMENTS, THERMAL SWITCH REQUIREMENTS, JUNCTION BOX SIZES/TYPES AND CONNECTION TYPES SHALL BE VERIFIED PRIOR TO START OF ROUGH-IN. VERIFY CONDITIONS AND REQUIREMENTS IN FIELD, OTHER TRADES, FINAL EQUIPMENT SHOP DRAWINGS AND WITH KITCHEN DRAWINGS, COMPLETE AS REQUIRED.
6. CUT AND PATCH FLOOR AS REQUIRED TO CONCEAL CONDUIT AND CIRCUITRY. VERIFY EXACT FLOOR ROUTING AND REQUIREMENTS WITH ARCHITECT PRIOR TO ROUGH-IN.
7. PROVIDE ALL INTERCONNECTIONS AS REQUIRED FOR EQUIPMENT FURNISHED WITH VFDS.



ENLARGED ELECTRICAL KITCHEN POWER PLAN
SCALE: 1/4" = 1'-0"

NORTH

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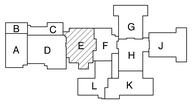
PROJECT
WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS

DUNELAND SCHOOL CORPORATION
CHESTERTON, INDIANA



KEY PLAN

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PROJECT 21-141
DATE 02/28/22
COORDINATED BY JC
DRAWN BY MS
CHECKED BY DJ

DAVID G. JANNEY REGISTERED NO. 10302590 STATE OF INDIANA PROFESSIONAL ENGINEER

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REVISIONS

MARK	DATE	ISSUED FOR
AD-2	03/18/22	ADDENDUM NO. 2
AD-3	03/30/22	ADDENDUM NO. 3

DRAWING
ENLARGED ELECTRICAL KITCHEN POWER PLAN

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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SYMBOL LIST

TECHNOLOGY

- I E — AIPHONE EXTERIOR DOOR INTERCOM SYSTEM, MOUNTED 48" A.F.F. PROVIDE BACK BOX WITH ¾" CONDUIT ROUTED TO THE ACCESSIBLE CEILING SPACE.
- I I — AIPHONE INTERIOR DOOR INTERCOM SYSTEM, MOUNTED ON OWNER'S DESK. PROVIDE BACK BOX AT 42" A.F.F. WITH ¾" CONDUIT ROUTED TO THE ACCESSIBLE CEILING SPACE.
- PS — AIPHONE DOOR INTERCOM POWER SUPPLY. CONNECT TO NEAREST LOCAL RECEPTACLE.
- SB — SCOREBOARD JUNCTION BOX MOUNTED 18" AF OR AS NOTED
- ST — SCORERS TABLE OUTLET MOUNTED 18" A.F.F. OR FLUSH IN FLOOR, AS INDICATED
- L — ELECTRIC DOOR STRIKE - STUB ¾" CONDUIT FROM THE ACCESSIBLE CEILING SPACE TO THE DOOR MULLION FOR WIRING. INTERFACE WIRING FROM THE DOOR STRIKE TO THE DOOR ACCESS SYSTEM FOR A COMPLETE AND PROPERLY OPERATING SYSTEM.
- HOR — HOLD OPEN RELEASE - ROUGH-IN ONLY - REFER TO TECHNOLOGY DRAWINGS FOR CONDUIT, WIRING AND ROUGH-IN INFORMATION
- VIS — VIDEO INTERCOM CALL STATION - ROUGH-IN ONLY - REFER TO TECHNOLOGY DRAWINGS FOR CONDUIT, WIRING AND ROUGH-IN INFORMATION
- VIM — VIDEO INTERCOM MASTER STATION - ROUGH-IN ONLY - REFER TO TECHNOLOGY DRAWINGS FOR CONDUIT, WIRING AND ROUGH-IN INFORMATION
- KP — KEYPAD - ROUGH-IN ONLY - REFER TO TECHNOLOGY DRAWINGS FOR CONDUIT, WIRING AND ROUGH-IN INFORMATION
- DR — DOOR RELEASE - ROUGH-IN ONLY - REFER TO TECHNOLOGY DRAWINGS FOR CONDUIT, WIRING AND ROUGH-IN INFORMATION
- DS — DOOR STATUS SENSOR - ROUGH-IN ONLY - REFER TO TECHNOLOGY DRAWINGS FOR CONDUIT, WIRING AND ROUGH-IN INFORMATION
- CR — PROXIMITY CARD READER - ROUGH-IN ONLY - REFER TO TECHNOLOGY DRAWINGS FOR CONDUIT, WIRING AND ROUGH-IN INFORMATION
- VC — VOLUME CONTROL - ROUGH-IN ONLY - REFER TO TECHNOLOGY DRAWINGS FOR CONDUIT, WIRING AND ROUGH-IN INFORMATION
- S — SPEAKER - ROUGH-IN ONLY - REFER TO TECHNOLOGY DRAWINGS FOR CONDUIT, WIRING AND ROUGH-IN INFORMATION
- C — ANALOG CLOCK - ROUGH-IN ONLY - REFER TO TECHNOLOGY DRAWINGS FOR CONDUIT, WIRING AND ROUGH-IN INFORMATION
- M — MIC INPUT - ROUGH-IN ONLY - REFER TO TECHNOLOGY DRAWINGS FOR CONDUIT, WIRING AND ROUGH-IN INFORMATION.
- VOICE/DATA OUTLET - ROUGH-IN ONLY - REFER TO TECHNOLOGY DRAWINGS FOR CONDUIT, WIRING AND ROUGH-IN INFORMATION.
- DATA OUTLET - ROUGH-IN ONLY - REFER TO TECHNOLOGY DRAWINGS FOR CONDUIT, WIRING AND ROUGH-IN INFORMATION.
- LED CLOCK - ROUGH-IN ONLY - REFER TO TECHNOLOGY DRAWINGS FOR CONDUIT, WIRING AND ROUGH-IN INFORMATION
- H — SPEAKER, HORN TYPE - ROUGH-IN ONLY - REFER TO TECHNOLOGY DRAWINGS FOR CONDUIT, WIRING AND ROUGH-IN INFORMATION
- VP — VIDEO PROJECTOR - ROUGH-IN ONLY - REFER TO TECHNOLOGY DRAWINGS FOR CONDUIT, WIRING AND ROUGH-IN INFORMATION. COORDINATE EXACT MOUNTING HEIGHT OF ADJACENT POWER OUTLET WITH LOW VOLTAGE EQUIPMENT INSTALLER PRIOR TO ROUGH-IN.
- FP — FLAT PANEL - ROUGH-IN ONLY - REFER TO TECHNOLOGY DRAWINGS FOR CONDUIT, WIRING AND ROUGH-IN INFORMATION. COORDINATE EXACT MOUNTING HEIGHT OF ADJACENT POWER OUTLET WITH LOW VOLTAGE EQUIPMENT INSTALLER PRIOR TO ROUGH-IN.
- VIDEO SURVEILLANCE CAMERA OUTLET EXTERIOR WALL - ROUGH-IN ONLY - REFER TO TECHNOLOGY DRAWINGS FOR CONDUIT, WIRING AND ROUGH-IN INFORMATION.
- VIDEO SURVEILLANCE CAMERA OUTLET CEILING MOUNTED - ROUGH-IN ONLY - REFER TO TECHNOLOGY DRAWINGS FOR CONDUIT, WIRING AND ROUGH-IN INFORMATION.
- SOUND CABINET — SOUND CABINET - ROUGH-IN ONLY - REFER TO TECHNOLOGY DRAWINGS FOR CONDUIT, WIRING AND ROUGH-IN INFORMATION.
- WAP — WIRELESS LAN ACCESS POINT CEILING MOUNTED - ROUGH-IN ONLY - REFER TO TECHNOLOGY DRAWINGS FOR CONDUIT, WIRING AND ROUGH-IN INFORMATION.
- BAS — BUILDING AUTOMATION SYSTEMS - ROUGH-IN ONLY - REFER TO TECHNOLOGY DRAWINGS FOR CONDUIT, WIRING AND ROUGH-IN INFORMATION.
- WALKER RFB4 SERIES FLUSH FLOOR BOX WITH TWO (2) 20A GROUNDED DUPLEX RECEPTACLES AND ROUGH-IN FOR DATA JACKS - REFER TO TECHNOLOGY DRAWINGS FOR CONDUIT, WIRING AND ROUGH-IN INFORMATION FOR LOW VOLTAGE ROUGH-IN. PROVIDE SCRUB-RESISTANT COVER AND COORDINATE FINISH WITH ARCHITECT.

SHEET SYMBOLS

- X — HEXAGON TAG REFERENCE TO EQUIPMENT CONNECTION SCHEDULE
- 1 — ELLIPSE TAG REFERENCE TO SHEET NOTES
- TWO DEVICE MOUNTED UNDER COMMON COVER. WHERE LOW VOLTAGE DEVICES ARE MOUNTED UNDER COMMON COVER, COMBINE CONDUIT STUBS MAINTAINING THE EQUIVALENT FREE AREA FOR THE LOW VOLTAGE CABLING.

EQUIPMENT AND WIRING

- JUNCTION BOX - SIZE AND TYPE AS REQUIRED.
- FLEX CONDUIT CONNECTION
- JUNCTION BOX W/ FLEX CONDUIT CONNECTION.
- ELECTRIC MOTOR CONNECTION - PROVIDE LOCAL DISCONNECT SWITCH PER NATIONAL ELECTRIC CODE - CONNECT MISCELLANEOUS ACCESSORIES SUCH AS BACK DRAFT DAMPERS, ETC. COMPLETE AS REQUIRED.
- ELECTRIC PANELBOARDS.
- DISCONNECT SWITCH SIZE AND TYPE AS REQUIRED - COORDINATE AMPERE RATING WITH EQUIPMENT SUPPLIER
- COMBINATION MAGNETIC STARTER WITH DISCONNECT SWITCH.
- MAGNETIC STARTER
- T — TRANSFORMER - SIZE AND TYPE AS REQUIRED
- SP — SURGE SUPPRESSION DEVICE
- TELEPHONE TERMINAL BOARD
- T.T.B. — CONDUIT STUB INTO ACCESSIBLE CEILING SPACE TERMINATE W/ INSULATING BUSHING
- CONDUIT CONCEALED ABOVE CEILING OR IN WALL
- CONDUIT CONCEALED IN OR BELOW FINISHED FLOOR.
- CONDUIT EXPOSED ON CEILING, WALL OR BAR JOIST - ROUTED IN NEAT MANNER
- FLEXIBLE CONDUIT - ROUTED IN NEAT MANNER WITHIN CHASE OF CASEWORK.
- LP-A1 4 — HOMERUN TO PANEL INDICATING PANEL AND CIRCUIT BREAKER NUMBER WITHIN THE PANEL.
- INDICATES NUMBER OF CONDUCTORS IN CONDUIT (CONTRACTOR SHALL VERIFY AND INSTALL ADDITIONAL WHERE REQUIRED) CROSS HATCHED INDICATES NUMBER OF CONDUCTORS (HOT OR SWITCHED LEG, NEUTRAL, GROUND)
- ADA — DOOR OPERATOR PUSH BUTTON FURNISHED BY OTHERS, WIRED AND INSTALLED BY CONTRACTOR. PROVIDE TWO (2) GANG BACK-BOX MOUNTED AT 42" A.F.F. WITH ¾"C. ROUTED DOOR OPERATOR.
- DO — SWING DOOR OPERATOR FURNISHED AND INSTALLED BY OTHERS, WIRED BY CONTRACTOR. COORDINATE ELECTRICAL LOCATION WITH DOOR HARDWARE SUPPLIER.
- H — HAND DRYER (MODEL SPECIFIED BY ARCHITECT), REFER TO ARCHITECTURAL DRAWINGS FOR EXACT MOUNTING LOCATION.
- FLUSH IN FLOOR BOX, SIZE AND TYPE AS REQUIRED. VERIFY IN FIELD EXACT CONDITIONS AND REQUIREMENTS PRIOR TO ROUGH-IN. FURNISH AND INSTALL ACCESSORIES AND APPURTENANCES AS REQUIRED FOR A COMPLETE AND PROPERLY OPERATING SYSTEM.
- CONDUIT STUB UP OUT OF FLOOR

FIRE ALARM

* NOTE:
FIRE ALARM DEVICES, MOUNTING HEIGHT, ETC. SHALL COMPLY WITH 'ADA' STANDARDS.

- AD — MOTORIZED DAMPER - E.C. TO INTERLOCK COMPLETE AS REQUIRED.
- FACP — FIRE ALARM CONTROL PANEL
- FAA — FIRE ALARM ANNUNCIATOR PANEL
- K — KNOX BOX - PER THE LOCAL FIRE DISTRICT STANDARDS, AT THE LOCATION INDICATED. PROVIDE BOTH POWER AND SMOKE EVACUATION KEY CONTROLS. VERIFY ELEVATION OF DEVICE WITH THE LOCAL FIRE DISTRICT PRIOR TO INSTALLING SAME. WHERE REQUIRED, FURNISH AND INSTALL A FLASHING ANNUNCIATOR, TIED TO THE FIRE ALARM SYSTEM, TO IDENTIFY LOCATION OF THE KNOX BOX.
- AD — AD-3 — AUTOMATIC DIALER FOR FIRE, ELEVATOR, AND/OR SECURITY SYSTEM. EXTEND (2) TELEPHONE LINES TO EACH DIALER FROM T.T.B.
- FIRE ALARM SPEAKER / STROBE WITH 110 CANDELA MTD. 80" A.F. OF 6" BELOW FINISHED CEILING WHICHEVER IS LOWER.
- FIRE STROBE MTD 80" AFF. - 15 CANDELA
- FIRE ALARM SPEAKER / STROBE MTD 80" AFF. - 75 CANDELA
- S F — CEILING MOUNTED FIRE ALARM SPEAKER. PROVIDE RECESSED UNITS WHERE CEILINGS EXIST AND SURFACE MOUNT UNITS IN EXPOSED CEILING AREAS.
- D — FIRE ALARM SYSTEM HEAT DETECTOR - COMBINATION TYPE (R/R - FIXED TEMP.) IN BOILER ROOM
- SD — FIRE ALARM SYSTEM SMOKE DETECTOR - CEILING MOUNTED - ABOVE FACP
- SD D — FIRE ALARM SYSTEM DUCT TYPE SMOKE DETECTOR WIRED TO CONTROL LOCAL FAN SHUT DOWN RELAY - DUCT DETECTOR TO BE MOUNTED IN AIR DUCT SYSTEM AND WIRED PER MANUFACTURER'S RECOMMENDATIONS AND NFPA 72
- R — FIRE ALARM CONTROL RELAY IN AIR HANDLING UNIT CONTROL PANEL WIRED TO SHUT DOWN FANS UPON FIRE ALARM SYSTEM ACTIVATION - NOTE: FANS TO AUTOMATICALLY RESTART UPON FIRE ALARM SYSTEM RESET. ALSO, RELAYS SHALL BE INTERFACED TO FIRE DOORS TO DISENGAGE UPON ACTIVATION OF THE FIRE ALARM SYSTEM.
- SFD — SMOKE FIRE DAMPER, CONNECT CONTROL WIRING TO ASSOCIATED SMOKE DUCT DETECTORS.
- SM — SMOKE DAMPER, CONNECT CONTROL WIRING TO ASSOCIATED SMOKE DUCT DETECTORS.
- FS — FIRE PROTECTION SPRINKLER FLOW SWITCH
- TS — FIRE PROTECTION SPRINKLER TAMPER SWITCH
- FIRE PROTECTION SPRINKLER ALARM BELL - INSTALLED AND WIRED
- ELECTROMAGNETIC WALL MOUNTED DOOR HOLDER OR WIRE HARDWARE INSTALLED DOOR CLOSER COMPLETE AS REQUIRED. CONTRACTOR SHALL COORDINATE EXACT LOCATION AND MOUNTING STYLE WITH DOOR SCHEDULE PRIOR TO ROUGHING IN FOR SAME.
- AD-3

SWITCHING

- $ — GENERAL PURPOSE 1-POLE SWITCH - (TYPICAL - MOUNTED 42" A.F.F.) (HUBBELL #21 OR EQUAL) PROVIDE LOW VOLTAGE STYLE SWITCH WHERE REQUIRED TO INTERFACE WITH LIGHTING CONTROL POWER PACK TO ACCOMPLISH REQUIRED LIGHTING CONTROL SEQUENCE.
- $3 — GENERAL PURPOSE 3-WAY SWITCH MTD 42" AFF (HUBBELL #223 OR EQUAL) PROVIDE LOW VOLTAGE STYLE SWITCH WHERE REQUIRED TO INTERFACE WITH LIGHTING CONTROL POWER PACK TO ACCOMPLISH REQUIRED LIGHTING CONTROL SEQUENCE.
- $4 — GENERAL PURPOSE FOUR WAY SWITCH MTD. 42" AFF (HUBBELL #224 OR EQUAL) PROVIDE LOW VOLTAGE STYLE SWITCH WHERE REQUIRED TO INTERFACE WITH LIGHTING CONTROL POWER PACK TO ACCOMPLISH REQUIRED LIGHTING CONTROL SEQUENCE.
- $M1 — FURNISH AND INSTALL WALL SWITCH SINGLE BUTTON DUAL TECHNOLOGY OCCUPANCY SENSOR WITH MANUAL ON OPERATION MTD 42" AFF. SENSORSWITCH #WSX-PDT OR APPROVED EQUAL BY EATON, LEVITON OR HUBBELL CONTROLS.
- 0-10V DIMMER SWITCH - (TYPICAL - MOUNTED 42" A.F.F.) (PROVIDE LEVITON OR LUTRON DIMMER - COORDINATE EXACT MODEL WITH OWNER AND WITH FIXTURE MANUFACTURER FOR COMPATIBILITY)
- OS — FURNISH AND INSTALL CEILING MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR WITH POWER PACK. MANUFACTURERS: SENSORSWITCH #CM-PDT-10-MP-20 (WITH MICROPHONICS) OR APPROVED EQUAL BY EATON, LEVITON OR HUBBELL CONTROLS. SENSOR SHALL BE PROGRAMMED FOR MANUAL ON UNLESS OTHERWISE NOTED.
- OS H — FURNISH AND INSTALL CEILING MOUNTED HIGH BAY OCCUPANCY SENSOR WITH POWER PACK. MANUFACTURERS: SENSORSWITCH #CM-6 OR APPROVED EQUAL BY COOPER OR HUBBELL CONTROLS. SENSOR SHALL BE PROGRAMMED FOR MANUAL ON UNLESS OTHERWISE NOTED.
- WG OS H — FURNISH AND INSTALL CEILING MOUNTED PIR HIGH BAY OCCUPANCY SENSOR WITH POWER PACK AND WIREGUARD PROTECTION. MANUFACTURER: N-LIGHT #NCM-6 OR APPROVED EQUAL BY EATON, LEVITON OR HUBBELL CONTROLS. SENSOR SHALL BE PROGRAMMED FOR MANUAL ON UNLESS OTHERWISE NOTED.
- PC — EXTERIOR LIGHTING CONTROL PHOTOCELL
- $ — UTILITY CONTROLLER FOR SCIENCE LAB SHUT OFF SWITCHES AND EQUIPMENT RECESSED MOUNTED IN WALL. REFER TO THE SCIENCE ROOM SHUT-OFF SCHEMATIC WIRING DIAGRAM FOR ADDITIONAL INFORMATION.
- GG $$$ — GYMNASIUM LIGHTING CONTROL SWITCH (TYPICAL - MTD AT 42" AFF) REFER TO DETAIL FOR ADDITIONAL INFORMATION.
- $K — KEY OPERATED TOGGLE TYPE SWITCH
- $PS — PROJECTOR SCREEN SWITCH ROUGH-IN. PROVIDE SUITABLE BACK BOX AND STAINLESS STEEL ENGRAVED COVER PLATE FOR SWITCH DEVICES FURNISHED BY EQUIPMENT SUPPLIER.
- $ — MANUAL STARTING SWITCH WITH THERMAL OVERLOAD PROTECTION
- DH — WIRELESS CEILING MOUNTED DAYLIGHT HARVESTING SENSOR BY N-LIGHT

RECEPTACLES

- 120V-20A SPECIFICATION GRADE DUPLEX RECEPTACLE - (MOUNTED 18" A.F.F. OR AS NOTED) (HUBBELL #5362 OR EQUAL).
- 120V-20A SPECIFICATION GRADE DUPLEX RECEPTACLE - (MOUNTED 42" A.F.F. OR 2" ABOVE BACKSPLASH IF LOCATED ABOVE COUNTER) (HUBBELL #5362 OR EQUAL)
- 120V-20A SPECIFICATION GRADE DUPLEX RECEPTACLE - (MOUNTED AT SPECIAL HEIGHT - COORDINATE IN FIELD) (HUBBELL #5362 OR EQUAL)
- 120V-20A SPECIFICATION GRADE GROUNDED DUPLEX RECEPTACLE WITH G.F.I. PROTECTION - (MOUNTED 18" A.F.F. OR AS NOTED) (HUBBELL #GF20 OR EQUAL)
- 120V-20A SPECIFICATION GRADE GROUNDED DUPLEX RECEPTACLE WITH G.F.I. PROTECTION (MOUNTED 42" A.F.F. OR 2" ABOVE BACKSPLASH IF LOCATED ABOVE COUNTER) (HUBBELL #GF20 OR EQUAL)
- SPECIAL PURPOSE OUTLET (AS NOTED ON PLAN OR SPECIFICATIONS).
- R — REEL CORD WITH 45' CORD AND 20A DUPLEX GFCI RECEPTACLE, HUBBELL #HBL45123GF20 OR EQUAL, COMPLETE WITH BALL STOP, AND ALL OTHER APPURTENANCES NECESSARY FOR A COMPLETE AND PROPER INSTALLATION. MOUNT REEL CORD TO THE STRUCTURE ABOVE OR TO THE CEILING GRID (WHERE CEILINGS EXIST). VERIFY CONDITIONS, REQUIREMENTS AND LOCATIONS IN FIELD PRIOR TO ROUGH-IN.
- T — PROVIDE LOW VOLTAGE FURNITURE FEED. PROVIDE 2 GANG BACK BOX WITH 2" CONDUIT TO THE ACCESSIBLE CEILING SPACE WITH INSULATED BUSHING. EXTEND 2' FLEXIBLE CONDUIT TO THE FURNITURE. COORDINATE REQUIREMENTS WITH FURNITURE SUPPLIER.
- F — ELECTRICAL POWER FURNITURE FEED. PROVIDE 2 GANG BACK BOX AND EXTEND 1" FLEXIBLE CONDUIT TO THE FURNITURE. COORDINATE REQUIREMENTS WITH THE FURNITURE SUPPLIER.
- WIREMOLD #RC4 SERIES POKE THROUGH DEVICE WITH ALUMINUM FLANGE AND BLACK FACE PLATE. PROVIDED WITH TWO (2) DUPLEX RECEPTACLES, TWO (2) DATA JACKS. PROVIDE CAT-6 PLENUM CABLE, FROM EACH JACK, TO NEAREST IDF OR MDF LOCATION INDICATED ON PLANS. TERMINATE WITH RJ-45 JACK. TEST AND LEAVE 10' SLACK LENGTH. PROVIDE WITH SCRUB RESISTANT GASKETING AND ALL PROPER ACCESSORIES TO BE INSTALLED THROUGH THE FLOOR. PROVIDE COMMUNICATION ADAPTER TO PROPERLY ROUTE LOW VOLTAGE WIRING TO THE ACCESSIBLE CEILING SPACE.

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PROJECT
WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS

DUNELAND SCHOOL CORPORATION
CHESTERTON, INDIANA

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PROJECT 21-141
DATE 02/28/22
COORDINATED BY JC
DRAWN BY MS
CHECKED BY DJ

REGISTERED DAVID G. JANNEY NO. 10302590 STATE OF INDIANA PROFESSIONAL ENGINEER

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REVISIONS

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AD-3	03/30/22	ADDENDUM NO. 3

DRAWING
ELECTRICAL SYMBOLS

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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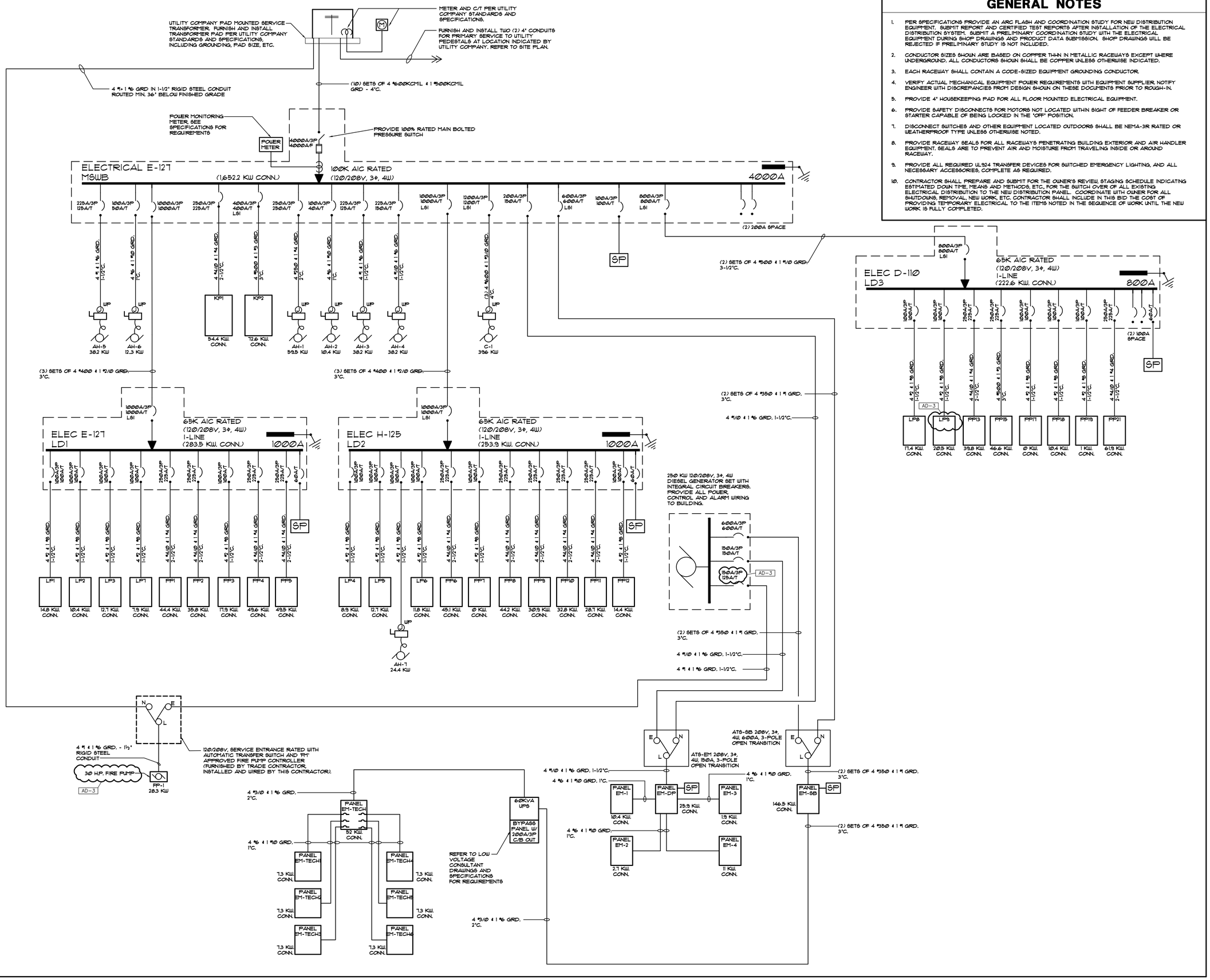
ELECTRICAL SCHEMATIC ONE-LINE DIAGRAM



GENERAL NOTES

1. PER SPECIFICATIONS PROVIDE AN ARC FLASH AND COORDINATION STUDY FOR NEW DISTRIBUTION EQUIPMENT. SUBMIT REPORT AND CERTIFIED TEST REPORTS AFTER INSTALLATION OF THE ELECTRICAL DISTRIBUTION SYSTEM. SUBMIT A PRELIMINARY COORDINATION STUDY WITH THE ELECTRICAL EQUIPMENT DURING SHOP DRAWINGS AND PRODUCT DATA SUBMISSION. SHOP DRAWINGS WILL BE REJECTED IF PRELIMINARY STUDY IS NOT INCLUDED.
2. CONDUCTOR SIZES SHOWN ARE BASED ON COPPER THWN IN METALLIC RACEWAYS EXCEPT WHERE UNDERGROUND. ALL CONDUCTORS SHOWN SHALL BE COPPER UNLESS OTHERWISE INDICATED.
3. EACH RACEWAY SHALL CONTAIN A CODE-SIZED EQUIPMENT GROUNDING CONDUCTOR.
4. VERIFY ACTUAL MECHANICAL EQUIPMENT POWER REQUIREMENTS WITH EQUIPMENT SUPPLIER. NOTIFY ENGINEER WITH DISCREPANCIES FROM DESIGN SHOWN ON THESE DOCUMENTS PRIOR TO ROUGH-IN.
5. PROVIDE 4" HOUSEKEEPING PAD FOR ALL FLOOR MOUNTED ELECTRICAL EQUIPMENT.
6. PROVIDE SAFETY DISCONNECTS FOR MOTORS NOT LOCATED WITHIN SIGHT OF FEEDER BREAKER OR STARTER CAPABLE OF BEING LOCKED IN THE "OFF" POSITION.
7. DISCONNECT SWITCHES AND OTHER EQUIPMENT LOCATED OUTDOORS SHALL BE NEMA-3R RATED OR WEATHERPROOF TYPE UNLESS OTHERWISE NOTED.
8. PROVIDE RACEWAY SEALS FOR ALL RACEWAYS PENETRATING BUILDING EXTERIOR AND AIR HANDLER EQUIPMENT. SEALS ARE TO PREVENT AIR AND MOISTURE FROM TRAVELING INSIDE OR AROUND RACEWAY.
9. PROVIDE ALL REQUIRED UL924 TRANSFER DEVICES FOR SWITCHED EMERGENCY LIGHTING, AND ALL NECESSARY ACCESSORIES, COMPLETE AS REQUIRED.
10. CONTRACTOR SHALL PREPARE AND SUBMIT FOR THE OWNER'S REVIEW, STAGING SCHEDULE INDICATING ESTIMATED DOWN TIME, MEANS AND METHODS, ETC., FOR THE SWITCH OVER OF ALL EXISTING ELECTRICAL DISTRIBUTION TO THE NEW DISTRIBUTION PANEL. COORDINATE WITH OWNER FOR ALL SHUTDOWNS, REMOVAL, NEW WORK, ETC. CONTRACTOR SHALL INCLUDE IN THIS BID THE COST OF PROVIDING TEMPORARY ELECTRICAL TO THE ITEMS NOTED IN THE SEQUENCE OF WORK UNTIL THE NEW WORK IS FULLY COMPLETED.

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PROJECT
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DATE 02/28/22
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CHECKED BY DJ

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DRAWING
ELECTRICAL ONE-LINE DIAGRAM

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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EXTERIOR LIGHTING LUMINAIRE SCHEDULE

TAG	SYMBOL	DESCRIPTION	MANUFACTURER SERIES OR CATALOG NUMBER	VOLTAGE/ BALLAST	LAMPS/CROSS SECTION	MOUNTING	REMARKS
EA		EXTERIOR LED FIXTURE MOUNTED ON A STRAIGHT, SQUARE ALUMINUM POLE	LITHONIA #DSX1 LED-P1-40K-T4M-208-SPA-XX HUBBELL #RAR SERIES OR APPROVED EQUAL	208 VOLT	LED 4000K MIN 7000LM MAX 54W	POLE MTD 25'-0" AFG	
EA1		EXTERIOR LED FIXTURE MOUNTED ON A STRAIGHT, SQUARE ALUMINUM POLE	LITHONIA #DSX2 LED-P2-40K-T3M-208-SPA-XX HUBBELL #RAR SERIES OR APPROVED EQUAL	208 VOLT	LED 4000K MIN 24,000LM MAX 185W	POLE MTD 25'-0" AFG	
EA2		EXTERIOR LED FIXTURE MOUNTED ON A STRAIGHT, SQUARE ALUMINUM POLE	LITHONIA #DSX2 LED-P1-40K-T2S-208-SPA-XX HUBBELL #RAR SERIES OR APPROVED EQUAL	208 VOLT	LED 4000K MIN 20,000LM MAX 140W	POLE MTD 25'-0" AFG	
EA2A		EXTERIOR LED FIXTURE MOUNTED ON A STRAIGHT, SQUARE ALUMINUM POLE	LITHONIA #DSX2 LED-P1-40K-T4M-208-SPA-XX HUBBELL #RAR SERIES OR APPROVED EQUAL	208 VOLT	LED 4000K MIN 19,000LM MAX 140W	POLE MTD 25'-0" AFG	
EA3		EXTERIOR LED FIXTURE MOUNTED ON A STRAIGHT, SQUARE ALUMINUM POLE	LITHONIA #DSX2 LED-P4-40K-T5W-208-SPA-XX HUBBELL #RAR SERIES OR APPROVED EQUAL	208 VOLT	LED 4000K MIN 35,000LM MAX 270W	POLE MTD 25'-0" AFG	
EA4		EXTERIOR LED FIXTURE MOUNTED ON A STRAIGHT, SQUARE ALUMINUM POLE	LITHONIA #DSX2 LED-P7-40K-T5W-208-SPA-XX HUBBELL #RAR SERIES OR APPROVED EQUAL	208 VOLT	LED 4000K MIN 48,000LM MAX 398W	POLE MTD 25'-0" AFG	
EA5		EXTERIOR LED FIXTURE MOUNTED ON A STRAIGHT, SQUARE ALUMINUM POLE	LITHONIA #DSX2 LED-P3-40K-T4W-208-SPA-XX HUBBELL #RAR SERIES OR APPROVED EQUAL	208 VOLT	LED 4000K MIN 28,000LM MAX 217W	POLE MTD 25'-0" AFG	
EA6		EXTERIOR LED FIXTURE MOUNTED ON A STRAIGHT, SQUARE ALUMINUM POLE	LITHONIA #DSX2 LED-P10-40K-T5W-208-SPA-XX HUBBELL #RAR SERIES OR APPROVED EQUAL	208 VOLT	LED 4000K MIN 22,000LM MAX 156W	POLE MTD 25'-0" AFG	
EA7		EXTERIOR LED FIXTURE MOUNTED ON A STRAIGHT, SQUARE ALUMINUM POLE	LITHONIA #DSX2 LED-P3-40K-T3M-208-SPA-XX HUBBELL #RAR SERIES OR APPROVED EQUAL	208 VOLT	LED 4000K MIN 28,631LM MAX 217W	POLE MTD 25'-0" AFG	
EA8		EXTERIOR LED FIXTURE MOUNTED ON A STRAIGHT, SQUARE ALUMINUM POLE	LITHONIA #DSX2 LED-P2-40K-T2M-208-SPA-XX HUBBELL #RAR SERIES OR APPROVED EQUAL	208 VOLT	LED 4000K MIN 24,000LM MAX 185W	POLE MTD 25'-0" AFG	
EA8A		EXTERIOR LED FIXTURE MOUNTED ON A STRAIGHT, SQUARE ALUMINUM POLE	LITHONIA #DSX2 LED-P3-40K-T4M-208-SPA-XX HUBBELL #RAR SERIES OR APPROVED EQUAL	208 VOLT	LED 4000K MIN 28,000LM MAX 217W	POLE MTD 25'-0" AFG	
EB		EXTERIOR LED WALL MOUNTED LIGHT FIXTURE	LITHONIA #DSX-P1-40K-T3S-208-XX OR APPROVED EQUAL HUBBELL #RAR SERIES OR APPROVED EQUAL	208 VOLT	LED 4000K MIN 7,000LM MAX 54W	WALL MTD AS NOTED	-VERIFY FINISH WITH ARCHITECT.
EC		EXTERIOR LED WALL MOUNTED LIGHT FIXTURE	LITHONIA #WST-P3-40K-VF-120-XX OR APPROVED EQUAL HUBBELL #TRP SERIES MCGRAW #ISS SERIES	120 VOLT	LED 4000K MIN 7,000LM MAX 54W	WALL MTD ABV. DOOR OR AS NOTED	-VERIFY FINISH WITH ARCHITECT.
ED		LED 6" DOWNLIGHT WITH TRIM FINISH TO BE SELECTED BY ARCHITECT	LITEISTRY #LTR-6RD-H-SL15L-DM1-1C-LTR-6RD-T-SL-40KS-MD-S HALO #HC615D010 / HM612840 / 61MDHWF SPECTRUM #SGICE6LEDOS SERIES	120 VOLT	LED 4000K MIN 7,000LM MAX 54W	RECESSED CANOPY	-VERIFY FINISH WITH ARCHITECT.
EE		EXTERIOR CANOPY LIGHT	HUBBELL #LSQ1-25-4K7-UNV-X OR APPROVED EQUAL	MV VOLT	LED 4000K MIN 3,000LM MAX 25W	SURFACE CANOPY	-VERIFY FINISH WITH ARCHITECT.

AD-3

LIGHTING FIXTURE GENERAL NOTES

1. INTERIOR FIXTURES, EXTERIOR FIXTURES AND POLE FINISHES AND COLORS TO BE SELECTED BY ARCHITECT. THE ARCHITECT MAY, AT THEIR DISCRETION, CHOOSE A CUSTOM COLOR AT NO ADDITIONAL CHARGE.
2. PENDANT FIXTURES SPECIFIED ON THIS PROJECT SHALL BE CAREFULLY COORDINATED WITH CONTRACT DOCUMENTS AND FIXTURE MANUFACTURER AS EACH PENDANT FIXTURE IS A CUSTOM MANUFACTURED FIXTURE. PROVIDE PENDANT EMERGENCY SECTIONS AND EMERGENCY CIRCUITS AS SHOWN. COORDINATE WITH FIXTURE MANUFACTURER AND PROVIDE ADDITIONAL ACCESSORIES FOR A COMPLETE AND PROPER INSTALLATION. PROVIDE PROPER FIXTURE LENGTH, FEEDS, SINGLE AND DUAL CIRCUITING AND SUSPENSION LENGTH AS SHOWN ON DRAWINGS. PROVIDE FABRICATION DRAWINGS FOR REVIEW AS PART OF THE SHOP DRAWING SUBMITTAL PROCESS.
3. SHADED FIXTURES SHALL HAVE AN EMERGENCY SOURCE OF POWER AS SPECIFIED.
4. EXTERIOR LIGHTING POLES SHALL BE PROVIDED WITH STRAIGHT SQUARE ALUMINUM POLES WITH CAST BASE COVERS AND VIBRATION DAMPENERS. THE POLES SHALL BE SIZED PROPERLY TO SUPPORT FIXTURE WEIGHT AT 100 MPH WIND WITH A 1.3 GUST FACTOR. MINIMUM POLE SIZE TO BE 5" SQUARE. PROVIDE ADDITIONAL MOUNTING ACCESSORIES AS REQUIRED FOR A COMPLETE AND PROPER INSTALLATION.
5. FOR EXTERIOR POLE MOUNTED LIGHTING, PROVIDE FACTORY MOUNTED HOUSE SIDE SHIELDS INTEGRAL TO THE FIXTURE AS SPECIFIED. ADDITIONALLY, PROVIDE CUSTOM FABRICATED POLE MOUNTED HOUSE SIDE SHIELDING AS REQUIRED TO CONTROL LIGHT TRESPASS AND COMPLY WITH LOCAL REQUIREMENTS.
6. CAREFULLY COORDINATE MOUNTING REQUIREMENTS FOR FIXTURES WITH CONTRACT DOCUMENTS AND FIXTURE MANUFACTURER. PROVIDE APPROPRIATE MOUNTING FRAMES FOR LAY-IN OR GYPSUM CEILINGS. VERIFY CEILING REQUIREMENTS WITH FINAL ARCHITECTURAL REFLECTED CEILING PLAN.
7. VERIFY FIXTURE MOUNTING HEIGHTS WITH ARCHITECT PRIOR TO ROUGH-IN.
8. FOR FIXTURES INSTALLED IN CASEWORK, VERIFY FIXTURE FIT WITH CASEWORK SHOP DRAWINGS PRIOR TO ORDERING.
9. PROVIDE CUSTOM ANTI-SWAY BRACING FOR PENDANT TO ELIMINATE PENDANT MOVEMENT DUE TO AIR MOVEMENT OR ENVIRONMENTAL CAUSES.
10. COORDINATE LOCATIONS OF INTERIOR AND EXTERIOR LIGHTING FIXTURES WITH FINAL ARCHITECTURAL DRAWINGS. FIXTURES THAT ARE NOT INSTALLED IN THE CORRECT LOCATION SHALL BE RELOCATED AND REINSTALLED IN THE CORRECT LOCATION AT NO ADDITIONAL CHARGE.
11. FIXTURES SHALL BE PROVIDED WITH ESCUTCHEON PLATES AS REQUIRED TO COVER EXISTING HOLES FROM REMOVED FIXTURES. CANOPY CEILING AROUND NEW FIXTURES SHALL BE REFINISHED TO MATCH EXISTING SURROUNDING CANOPY CEILING SURFACES.
12. PROVIDE 5000K COLOR TEMPERATURE IN SPECIAL EDUCATION SPACES AS SPECIFIED.
13. FIXTURES SHALL BE CAREFULLY COORDINATED WITH MANUFACTURER TO DELIVER THE SPECIFIED PRODUCT IN SUFFICIENT TIME TO MEET PROJECT DEADLINES. EQUIPMENT DELIVERY LEAD TIME SHALL NOT BE HELD AS A VALID REASON FOR REQUESTING LUMINAIRE SUBSTITUTION UNLESS LUMINAIRE LEAD TIME FROM SPECIFIED MANUFACTURER IS IN EXCESS OF 14 WEEKS. IT SHALL BE THE SOLE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO DETERMINE NECESSARY EQUIPMENT LEAD TIMES, DELIVER SUBMITTALS FOR REVIEW IN A TIMELY FASHION, AND PLACE ORDERS ACCORDINGLY TO ENSURE TIMELY DELIVERY.
14. EVALUATION OF APPROVED EQUALS SHALL BE AT THE SOLE DISCRETION OF THE ARCHITECT AND ENGINEER. IF THE PRODUCT SUBMITTED DURING THE REVIEW PROCESS IS NOT JUDGED AS AN EQUAL BY THE REVIEWING ENGINEER, THE CONTRACTOR SHALL PROVIDE THE PRODUCT SPECIFIED.
15. CAREFULLY COORDINATE VOLTAGES OF FIXTURES PRIOR TO ORDERING FIXTURES.
16. APPROVED EQUALS WILL BE CONSIDERED FROM THE FOLLOWING VENDORS: KSA LIGHTING (630.307.6955), FORCE CHICAGO (312.986.1515) OR PG ENLIGHTEN (847.228.1199).
17. CAREFULLY VERIFY COLOR TEMPERATURE OF FIXTURES WITH ARCHITECT PRIOR TO ORDERING.

INTERIOR LIGHTING LUMINAIRE SCHEDULE

TAG	SYMBOL	DESCRIPTION	MANUFACTURER SERIES OR CATALOG NUMBER	VOLTAGE/ BALLAST	LAMPS/CROSS SECTION	MOUNTING	REMARKS
AA		2' X 4' LED DIRECT/INDIRECT FIXTURE	LITHONIA #2BLT4-40L-ADP-EZ1-LP840 COLUMBIA #LCAT24 SERIES METALUX #24CZ2 SERIES	MV VOLT 0-10V DIM - -	LED 4000K MAX 32 W MIN 4000 LM	RECESSED LAY-IN	- - - -
AA1		2' X 4' LED DIRECT/INDIRECT FIXTURE	LITHONIA #2BLT4-48L-ADP-EZ1-LP840 COLUMBIA #LCAT24 SERIES METALUX #24CZ2 SERIES	MV VOLT 0-10V DIM - -	LED 4000K MAX 38 W MIN 4800 LM	RECESSED LAY-IN	- - - -
AA2		2' X 4' LED DIRECT/INDIRECT FIXTURE	LITHONIA #2BLT4-60L-ADP-EZ1-LP840 COLUMBIA #LCAT24 SERIES GE #LVT24 SERIES	MV VOLT 0-10V DIM - -	LED 4000K MAX 48 W MIN 6000 LM	RECESSED LAY-IN	- - - -
AA3		2' X 4' LED DIRECT/INDIRECT FIXTURE	LITHONIA #2BLT4-48L-ADP-EZ1-LP850 COLUMBIA #LCAT24 SERIES METALUX #24CZ2 SERIES	MV VOLT 0-10V DIM - -	LED 5000K MAX 38 W MIN 4800 LM	RECESSED LAY-IN	- - - -
AA4		2' X 4' LED DIRECT/INDIRECT FIXTURE	LITHONIA #2BLT4-72L-ADP-EZ1-LP840 COLUMBIA #LCAT24 SERIES METALUX #24CZ2 SERIES	MV VOLT 0-10V DIM - -	LED 4000K - MIN 7200 LM	RECESSED LAY-IN	- - - -
AA5		2' X 4' LED DIRECT/INDIRECT FIXTURE	LITHONIA #2BLT4-85L-ADP-EZ1-LP840 COLUMBIA #LCAT24 SERIES METALUX #24CZ2 SERIES	MV VOLT 0-10V DIM - -	LED 4000K - MIN 8500 LM	RECESSED LAY-IN	- - - -
AB		2' X 2' LED DIRECT/INDIRECT FIXTURE	LITHONIA #2BLT2-48L-ADP-EZ1-LP840 COLUMBIA #LCAT22 SERIES METALUX #24CZ2 SERIES	MV VOLT 0-10V DIM - -	LED 4000K MAX 44 W MIN 4800 LM	RECESSED LAY-IN	- - - -
AB1		2' X 2' LED DIRECT/INDIRECT FIXTURE	LITHONIA #2BLT2-40L-ADP-EZ1-LP840 COLUMBIA #LCAT22 SERIES METALUX #24CZ2 SERIES	MV VOLT 0-10V DIM - -	LED 4000K MAX 32 W MIN 4000 LM	RECESSED LAY-IN	- - - -
AB2		2' X 2' LED DIRECT/INDIRECT FIXTURE	LITHONIA #2BLT2-60L-ADP-EZ1-LP840 COLUMBIA #LCAT22 SERIES METALUX #24CZ2 SERIES	MV VOLT 0-10V DIM - -	LED 4000K - MIN 6000 LM	RECESSED LAY-IN	- - - -
AB3		2' X 2' LED DIRECT/INDIRECT FIXTURE	LITHONIA #2BLT2-20L-ADP-EZ1-LP840 COLUMBIA #LCAT22 SERIES METALUX #24CZ2 SERIES	MV VOLT 0-10V DIM - -	LED 4000K - MIN 2000 LM	RECESSED LAY-IN	- - - -
AC		2' X 4' LED LENSED KITCHEN TROFFER FIXTURE WITH INVERTED LENS AND TRIPLE GASKETING	LITHONIA #2GTL4-88L-RW-A19INV-MVOLT-EZ1-LP840-ABC COLUMBIA #LJT24 SERIES METALUX #22CZ2 SERIES	MV VOLT 0-10V DIM - -	LED 4000K CRI +85 MIN 8800 LM	RECESSED LAY-IN	-INVERTED LENS AND TRIPLE GASKETING - -
AD		1' X 4' LED DIRECT/INDIRECT FIXTURE	LITHONIA #BLT4-40L-ADP-EZ1-LP840 METALUX #CRUZE SERIES COLUMBIA #LCAT SERIES	MV VOLT 0-10V DIM - -	LED 4000K MAX 38 W MIN 4000 LM	RECESSED LAY-IN	- - - -
AD1		1' X 4' LED DIRECT/INDIRECT FIXTURE	LITHONIA #BLT4-60L-ADP-EZ1-LP840 METALUX #CRUZE SERIES COLUMBIA #LCAT SERIES	MV VOLT 0-10V DIM - -	LED 4000K - MIN 6000 LM	RECESSED LAY-IN	- - - -
CA		6" DIAMETER LED DOWNLIGHT WITH SEMI-SPECULAR ALZAK REFLECTOR, IRIDESCENT FREE FINISH, & WHITE FLANGE	LITHONIA #LDN6-40-15-LO6-AR-LSS-MVOLT-EZ10-XX PRESCOLITE #LTR SERIES PORTFOLIO #LD6B SERIES	MV VOLT 0-10V DIM - -	LED 4000K MAX 18 W MIN 1500 LM	RECESSED LAY-IN/ DRYWALL	-VERIFY TRIM FINISH WITH ARCHITECT
CB		6" DIAMETER LED NARROW BEAM DOWNLIGHT	GOTHAM #EVO6-40-30-AR-ND-LSS-XX-XX PORTFOLIO #LD6B SERIES CON-TECH #RALF2-6 SERIES	MV VOLT 0-10V DIM - -	LED 4000K MAX 30 W MIN 3000 LM	RECESSED LAY-IN/ DRYWALL	-VERIFY TRIM FINISH WITH ARCHITECT
CC		6" DIAMETER LED DOWNLIGHT WITH SEMI-SPECULAR ALZAK REFLECTOR, IRIDESCENT FREE FINISH, & WHITE FLANGE	LITHONIA #LDN6-40-30-LO6-AR-LSS-MVOLT-EZ10-XX PRESCOLITE #LTR SERIES PORTFOLIO #LD6B SERIES	MV VOLT 0-10V DIM - -	LED 4000K MAX 32 W MIN 3000 LM	RECESSED LAY-IN/ DRYWALL	-VERIFY TRIM FINISH WITH ARCHITECT
FA		LINEAR LED FIXTURE FOR DISPLAY CASE WITH 45 DEG. EXTRUSION AND CONTINUOUS LENGTHS AS SHOWN	OPTIC ARTS #LL72-HO-41K-X-X-X-X-X Q-TRAN #SW 24-5.0-DRY-40K / VEVE-FR OR APPROVED EQUAL PROVIDE WITH POWER SUPPLIES AND ALL ACCESSORIES AS REUQIRED	MV VOLT MLV DIM - -	LED 4000K MAX 4.5W/FT MIN 440 LM/FT	SURFACE	-VERIFY FINISH WITH ARCHITECT -COORDINATE MOUNTING WITH CASEWORK
PA		4', LED INDUSTRIAL FIXTURE WITH WIREGUARD AND SAFETY CHAINS	LITHONIA #CLX-L48-7000LM-SEF-FDL-MVOLT-GZ10-40K-80CRI-XX-XX COLUMBIA #MPS SERIES METALUX #SNLED SERIES	MV VOLT 0-10V DIM -	LED 4000K CRI +85 MIN 7000 LM	'Y' CHAIN SUSPEND -	-COORD LOCATIONS WITH DUCTWORK & PIPING
PA1		4', LED INDUSTRIAL FIXTURE WITH WIREGUARD AND SAFETY CHAINS	LITHONIA #CLX-L48-10000LM-SEF-FDL-MVOLT-GZ10-40K-80CRI-XX-XX COLUMBIA #MPS SERIES METALUX #SNLED SERIES	MV VOLT 0-10V DIM -	LED 4000K CRI +85 MIN 10000LM	'Y' CHAIN SUSPEND -	-COORD LOCATIONS WITH DUCTWORK & PIPING
PB		LED HIGH BAY FIXTURE WITH WIREGUARD AND SAFETY CABLE	LITHONIA #IBG-24L-SEF-AFL-GND-MVOLT-GZ10-40K-80CRI-WGX-XX-XX COLUMBIA #PEL4 SERIES METALUX #OHB SERIES	MV VOLT 0-10V DIM -	LED 4000K MAX 146 W 24000 LM	CABLE MTD 6" ABOVE BOTTOM OF STRUCTURE	-PROVIDE WIREGUARD AND SAFETY CABLE - -
PC		LED CONTINUOUS DIRECT/INDIRECT PENDANT FIXTURE	MARK ARCHITECTURAL LIGHTING #S4LID-LLP-X-MSL4-80-40K-1400LMF-80-40K-600LMF-X-MINI-120-WHT-ZT-F2/36A-RDCY-WHTCY-WCRD NULITE #RP44 SERIES LUMENWERX #VIA4PD1 SERIES	MV VOLT 0-10V DIM -	LED 4000 K MIN 1400LM/FT MAX 14W/FT	SUSPENDED VERIFY W/ ARCHITECT -	-PROVIDE LENGTHS AS SHOWN ON DRAWINGS -VERIFY FINISH WITH ARCHITECT -DUAL CIRCUIT FOR EM FIXTURES, SEE FLOOR PLAN -
PE		LED CONTINUOUS DIRECT/INDIRECT PENDANT FIXTURE	MARK ARCHITECTURAL LIGHTING #S4LID-LLP-X-MSL4-80-40K-800LMF-80-40K-600LMF-X-MINI-120-WHT-ZT-F2/36A-RDCY-WHTCY-WCRD NULITE #RP44 SERIES LUMENWERX #VIA4PD1 SERIES	MV VOLT 0-10V DIM -	LED 4000 K MIN 800LM/FT MAX 8W/FT	SUSPENDED VERIFY W/ ARCHITECT -	-PROVIDE LENGTHS AS SHOWN ON DRAWINGS -VERIFY FINISH WITH ARCHITECT -DUAL CIRCUIT FOR EM FIXTURES, SEE FLOOR PLAN -
PE1		LED CONTINUOUS DIRECT/INDIRECT PENDANT FIXTURE	MARK ARCHITECTURAL LIGHTING #S4LID-LLP-X-MSL4-80-40K-1400LMF-80-40K-600LMF-X-MINI-120-WHT-ZT-F2/36A-RDCY-WHTCY-WCRD NULITE #RP44 SERIES LUMENWERX #VIA4PD1 SERIES	MV VOLT 0-10V DIM -	LED 4000 K MIN 1400LM/FT MAX 14W/FT	SUSPENDED VERIFY W/ ARCHITECT -	-PROVIDE LENGTHS AS SHOWN ON DRAWINGS -VERIFY FINISH WITH ARCHITECT -DUAL CIRCUIT FOR EM FIXTURES, SEE FLOOR PLAN -
PF		12' DIAMETER PENDANT	SPI LIGHTING SIP12067-L16W-MV-4000K-28W-90-DF-DF-PSC-X OR APPROVED EQUAL	MV VOLT 0-10V DIM - -	LED 4000K MAX 42 W 1500/3000LM	PENDANT - -	-VERIFY TRIM FINISH WITH ARCHITECT
ZG		NOT USED					
XA		SINGLE FACE EXIT, AC ONLY	DUAL-LITE #SE-S-R-X LITHONIA #LE-S-X-1-R-X SURE-LITES #CX SERIES	120 VOLT - - -	LED MAX 3W - -	CEILING/ WALL - -	-VERIFY FINISH WITH ARCHITECT -PROVIDE WITH ARROWS AS REQUIRED
XB		DUAL FACE EXIT AC ONLY	DUAL-LITE #SE-D-R-X LITHONIA #LE-S-X-2-R-X SURE-LITES #CX SERIES	120 VOLT - - -	LED MAX 3W - -	CEILING/ WALL - -	-VERIFY FINISH WITH ARCHITECT -PROVIDE WITH ARROWS AS REQUIRED
XC		SINGLE FACE EXIT, AC ONLY, BLACK FINISH	DUAL-LITE #SE-S-R-B LITHONIA #LE-S-1-R-X SURE-LITES #CS SERIES	120 VOLT - - -	LED MAX 3W - -	CEILING/ WALL - -	-VERIFY FINISH WITH ARCHITECT -PROVIDE WITH ARROWS AS REQUIRED
EM		FIXTURE ON EMERGENCY LIFE SAFETY GENERATOR CIRCUIT WITH UL924 BYPASSES AS REQUIRED	-	MV VOLT	-	IN FIXTURE/ REMOTE	-PROVIDE TEST SWITCH AND CHARGING INDICATOR
NL		CONSTANT HOT, UNSWITCHED NIGHT LIGHT FIXTURE					

AD-3 AD-2 AD-3

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PROJECT 21-141
DATE 02/28/22
COORDINATED BY JC
DRAWN BY MS
CHECKED BY DJ

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REVISIONS

MARK	DATE	ISSUED FOR
AD-2	03/18/22	ADDENDUM NO. 2
AD-3	03/30/22	ADDENDUM NO. 3

DRAWING
ELECTRICAL SCHEDULES & NOTES

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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SHEET
E-601

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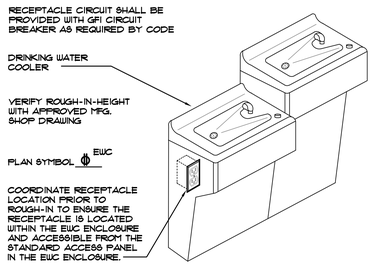
KITCHEN EQUIPMENT SCHEDULE

Item Number	Quantity	Description	Voltage	Amps	Phase	Panel	Circuit
1	1	WALK-IN COOLER/FREEZER	120	16	1	EM-SB	1
1A	1	LIGHTS	120	20	1	EM-SB	38
2	1	WALK-IN COOLER COIL	120		1	EM-SB	3
3	1	WALK-IN COOLER COMPRESSOR	208		3	EM-SB	32-34-36
7A	1	HEAT TAPE	120	15	1	EM-SB	40
7B	1	WALK-IN FREEZER COIL	120		1	EM-SB	17
7C	1	HEATER	208	14.3	1	KP-2	33-35
8	1	WALK-IN FREEZER COMPRESSOR	208		3	EM-SB	26-28-30
14	1	ISLAND WORK TABLE WITH 2 COMP SINK	120	16	1	KP-1	13
17	1	ISLAND WORK TABLE WITH PREP SINK	120	16	1	KP-1	15
19	1	GARBAGE DISPOSAL SYSTEM	208	3.2	3	KP-1	7-9-11
23	1	HOT WATER DISPENCER	208	24	1	KP-1	21-23
24	1	MILK COOLER	120	2.7	1	KP-1	17
25	1	MILK COOLER	120	2.7	1	KP-1	19
26	1	HOOD CONTROL	120	16	1	KP-2	28
27	1	HOOD - SUPPLY/EXHAUST	208	30	3	KP-1	67-69-71
28	1	FAN	208	18	3	KP-2	32-34-36
29	1	ANSUL	120	16	1	KP-2	30
29A	1	FAN	120	17.5	1	KP-2	38-40-42
32	1	COMBI OVEN / STEAMER	208	6.5	1	KP-1	25,27
34	1	COMBI OVEN / STEAMER	208	6.5	1	KP-1	29,31
36	1	COMBI OVEN / STEAMER	208	6.5	1	KP-1	14,16
38	1	COMBI OVEN / STEAMER	208	6.5	1	KP-1	18-20
49	1	GARBAGE DISPOSAL SYSTEM	208	3.2	3	KP-2	27-29-31
51	1	DISH MACHINE W/ BOOSTER HEATER	208	55	3	KP-2	1-3-5
52	1	DISH MACHINE BLOWER DRYER	208	34.2	3	KP-2	2-4-6
54	1	FAN	120	6.4	1	KP-2	37
67	1	HOT SERVING COUNTER	120	16	1	KP-1	47
68	1	DROP-IN HOT / COLD WELL UNIT	120/208	14.4	1	KP-2	23-25
69	1	SELF-SERVE BREATH GUARD W/ LIGHTS	120	6	1	KP-1	49
70	1	MOBILE COUNTER	120	10	1	KP-1	51
71	1	DROP-IN COLD WELL UNIT	120	6.41	1	KP-1	53
72	1	DOUBLE SIDED BREATH GUARD	120	6	1	KP-1	55
73	1	DOUBLE SIDED MILK COOLER	120	2.7	1	KP-1	57
74	1	DOUBLE SIDED AIR CURTAIN MERCHANDISER	208	12	1	KP-2	19-21
76	2	RIGISTER	120	10	1	KP-1	59,61
77	1	HOT SERVING COUNTER	120	16	1	KP-1	38
78	1	DROP-IN HOT / COLD WELL UNIT	120/208	14.4	1	KP-2	15-17
79	1	SELF-SERVE BREATH GUARD	120	6	1	KP-1	41
83	1	HOT SERVING COUNTER	120	16	1	KP-1	34
84	1	DROP-IN HOT / COLD WELL UNIT	120/208	14.4	1	KP-2	11-13
85	1	SELF-SERVE BREATH GUARD W / LIGHTS	120	6	1	KP-1	41
86	1	MOBILE COLD SERVING COUNTER	120	16	1	KP-1	39
87	1	DROP-IN COLD WELL UNIT	120	6.41	1	KP-1	37
88	1	DOUBLE SIDED BREATH GUARD	120	6	1	KP-1	35
89	1	DOUBLE SIDED MILK COOLER	120	2.7	1	KP-1	33
90	1	DOUBLE SIDED AIT CURTAIN MERCHANDISER	208	12	1	KP-2	7-9
93	1	HOT SERVING COUNTER	120	16	1	KP-1	32
94	1	DROP-IN HOT/COLD WELL UNIT	120/208	14.4	1	KP-2	24-26
95	1	SELF-SERVE BREATH GUARD WITH LIGHTS	120	6	1	KP-1	30
97	4	SINGLE DOOR PASS-THRU HEATED CABINET	208	7.21	1	KP-2	VARIES
98	4	SINGLE DOOR PASS-THRU REFRIGERATOR	120	3.8	1	KP-1	24, 26, 28

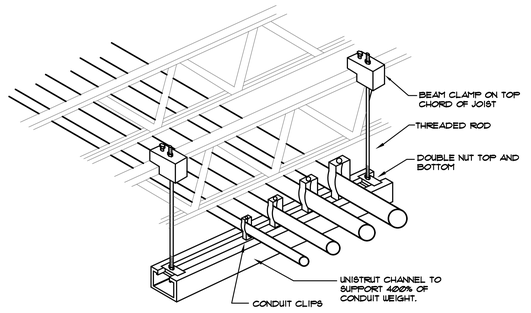
AD-3

WATER COOLER WIRING DETAIL

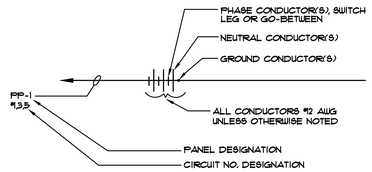
(NTS.)



2 1/2" AND LARGER CONDUIT SUPPORT DETAIL



KEY TO ELECTRICAL CIRCUIT WIRING

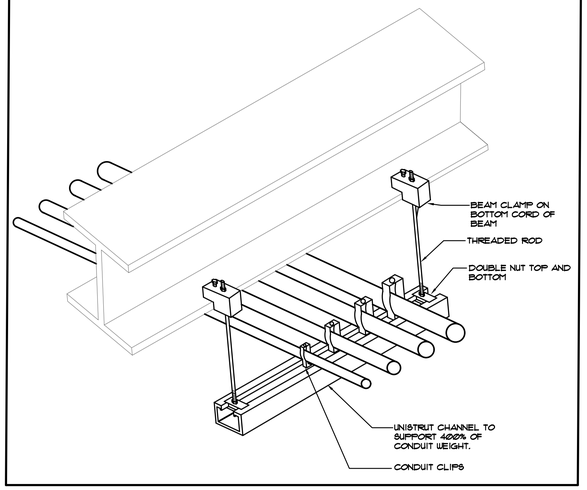


NOTES:

1. ALL WIRING SHALL BE #12 AWG, UNLESS OTHERWISE NOTED.
2. MINIMUM CONDUIT SIZE SHALL BE ¾" EXCEPT FOR THREE (3) WIRES OR LESS, OR CONTROL WIRING WITHIN BUILDINGS, WHICH MAY BE ½" CONDUIT.
3. ½" FLEXSTEEL, GREENFIELD OR SEALITE SHALL BE THE MINIMUM SIZE INSTALLED.

AD-3

2 1/2" AND LARGER CONDUIT SUPPORT DETAIL

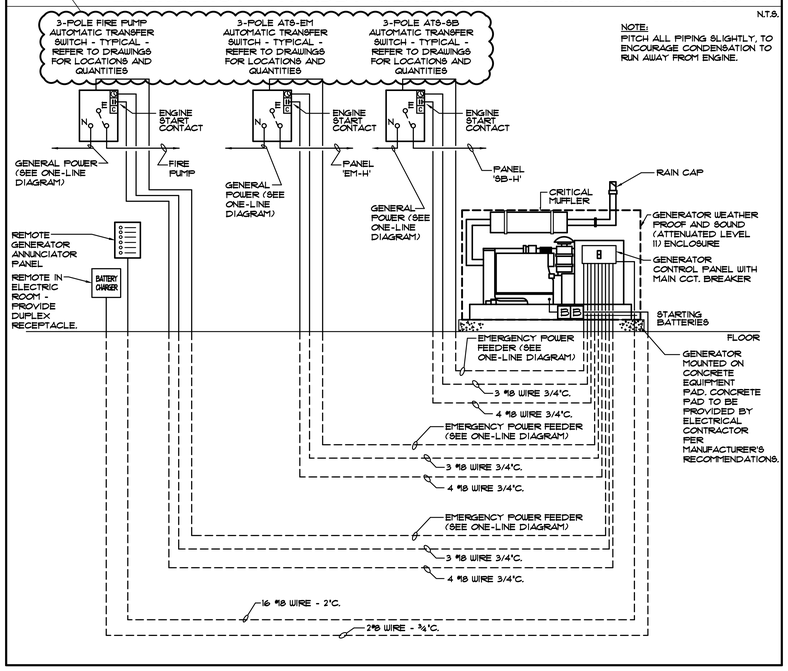


AD-3

EMERGENCY STANDBY GENERATOR WIRING SCHEMATIC

N.T.S.

NOTE:
PITCH ALL PIPING SLIGHTLY, TO ENCOURAGE CONDENSATION TO RUN AWAY FROM ENGINE.



GIBRALTAR DESIGN
ARCHITECTURE • ENGINEERING • INTERIOR DESIGN

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PROJECT
WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS

DUNELAND SCHOOL CORPORATION
CHESTERTON, INDIANA

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PROJECT 21-141
DATE 02/28/22
COORDINATED BY JC
DRAWN BY MS
CHECKED BY DJ

REGISTERED PROFESSIONAL ENGINEER DAVID G. JANECEK NO. 10302590 STATE OF INDIANA

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REVISIONS

MARK	DATE	ISSUED FOR
AD-3	03/30/22	ADDENDUM NO. 3

DRAWING
ELECTRICAL SCHEDULES, DETAILS & DIAGRAMS

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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SHEET
E-602

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EM-DP

TOTAL KW: 25.9 | ENCLOSURE: NEMA-1 | PHASE: 3φ | VOLTAGE: 120 / 208
MOUNTING: SURFACE | BUSSING: COPPER | FAULT CURRENT RATING: 22000 AIC | MLO(AMPS): 150
FEEDER: 4 #0/ + #6 GRD, 1.5"C | LOCATION:

LOAD DESCRIPTION	C/B TRIP	C/B POLE	LOAD A*	LOAD B*	LOAD C*	CCT. NO.		LOAD A*	LOAD B*	LOAD C*	C/B TRIP	C/B POLE	LOAD DESCRIPTION
	60		3368			1	2				20	1	SPARE
EM-1				3786		3	4				20	1	SPARE
	3				3285	5	6				20	1	SPARE
	60		920			7	8				20	1	SPARE
EM-2				1700		9	10				20	1	SPARE
					50	11	12				20	1	SPARE
	60		50			13	14				20	1	SPARE
EM-3				900		15	16				20	1	SPARE
	3				900	17	18				20	1	SPARE
	60		4250			19	20						SPACE
EM-4				3250		21	22						SPACE
	3				3450	23	24						SPACE
SPARE	20	1				25	26						SPACE
SPARE	20	1				27	28						SPACE
SPARE	20	1				29	30						SPACE
SPARE	20	1				31	32						SPACE
SPARE	20	1				33	34						SPACE
SPARE	20	1				35	36						SPACE
SPACE						37	38						SPACE
SPACE						39	40						SPACE
SPACE						41	42						SPACE
			8588	9636	7685			0	0	0			

A= 8,588
B= 9,636
C= 7,685
TOTAL= 25,909

NOTE: REFER TO GENERAL NOTE "B" FOR ADDITIONAL INFORMATION

EM-TECH

TOTAL KW: 52.0 | ENCLOSURE: NEMA-1 | PHASE: 3φ | VOLTAGE: 120 / 208
MOUNTING: SURFACE | BUSSING: COPPER | FAULT CURRENT RATING: 22000 AIC | MLO(AMPS): 200
FEEDER: 4 #3/0 + #6 GRD, 2"C | LOCATION:

LOAD DESCRIPTION	C/B TRIP	C/B POLE	LOAD A*	LOAD B*	LOAD C*	CCT. NO.		LOAD A*	LOAD B*	LOAD C*	C/B TRIP	C/B POLE	LOAD DESCRIPTION
D-116 - RECEPT	20	1	900			1	2	1500			30		D116 - IDF
D-116 - RECEPT	20	1		900		3	4		1500			2	
D116 - DATA RACK	20	1			1200	5	6			1144	30		AC-CU-1
SPARE	20	1				7	8	1144				2	
SPARE	20	1				9	10	1500			30		D116 - IDF
SPARE	20	1				11	12		1500			2	
SPARE	20	1				13	14						SPACE
SPARE	20	1				15	16						SPACE
SPARE	20	1				17	18						SPACE
SPACE						19	20						SPACE
SPACE						21	22						SPACE
SPACE						23	24						SPACE
	60		2644			25	26	2644			60		
EM-TECH1				2300		27	28		2300				EM-TECH4
		3			2344	29	30			2344		3	
	60		2644			31	32	2644			60		
EM-TECH2				2300		33	34		2300				EM-TECH5
		3			2344	35	36			2344		3	
	60		2644			37	38	2644			60		
EM-TECH3				2300		39	40		2300				EM-TECH6
		3			2344	41	42			2344		3	
			8832	7800	8232			10576	8400	8716			

A= 19,408
B= 16,200
C= 16,408
TOTAL= 52,016

NOTE: REFER TO GENERAL NOTE "B" FOR ADDITIONAL INFORMATION

EM-TECH5

TOTAL KW: 7.3 | ENCLOSURE: NEMA-1 | PHASE: 3φ | VOLTAGE: 120 / 208
MOUNTING: SURFACE | BUSSING: COPPER | FAULT CURRENT RATING: 22000 AIC | MLO(AMPS): 60
FEEDER: 4 #6 + 1 #10 GRD, - 1"C. | LOCATION: IDF H-126

LOAD DESCRIPTION	C/B TRIP	C/B POLE	LOAD A*	LOAD B*	LOAD C*	CCT. NO.		LOAD A*	LOAD B*	LOAD C*	C/B TRIP	C/B POLE	LOAD DESCRIPTION
SPARE	20	1				1	2	1500			30		H-126 - IDF
H-126 - RECEPS	20	1		800		3	4		1500			2	
H-126 - DATA RACK	20	1			1200	5	6			1144	30		AC-CU-1
SPARE	20	1				7	8	1144				2	
SPARE	20	1				9	10				20	1	SPARE
SPARE	20	1				11	12				20	1	SPARE
SPACE						13	14						SPACE
SPACE						15	16						SPACE
SPACE						17	18						SPACE
SPACE						19	20						SPACE
SPACE						21	22						SPACE
SPACE						23	24						SPACE
			0	800	1200			2644	1500	1144			

A= 2,644
B= 2,300
C= 2,344
TOTAL= 7,288

NOTE: REFER TO GENERAL NOTE "B" FOR ADDITIONAL INFORMATION

EM-1

TOTAL KW: 12.9 | ENCLOSURE: NEMA-1 | PHASE: 3φ | VOLTAGE: 120 / 208
MOUNTING: SURFACE | BUSSING: COPPER | FAULT CURRENT RATING: 22000 AIC | MLO(AMPS): 60
FEEDER: 4 #6 + #10 GRD, 1"C | LOCATION:

LOAD DESCRIPTION	C/B TRIP	C/B POLE	LOAD A*	LOAD B*	LOAD C*	CCT. NO.		LOAD A*	LOAD B*	LOAD C*	C/B TRIP	C/B POLE	LOAD DESCRIPTION
EM LTG L	20	1	1000			1	2	50			20	1	EXIT F
EXIT L	20	1		50		3	4		1000		20	1	EM LTG F
EM LTG L	20	1			800	5	6			1300	20	1	EM LTG F
EM LTG L	20	1	800			7	8	50			20	1	EXIT J
MEZZ EM LTG	20	1		500		9	10		1000		20	1	EM LTG J
EXIT E	20	1			50	11	12			1000	20	1	EM LTG J
EM LTG E	20	1	1200			13	14	164			20	1	EXT. EM LTG A,D
EM LTG E	20	1		1200		15	16				20	1	EXT. EM LTG B,C
D-100 ADA DOOR	20	1			1250	17	18			132	20	1	EXT. EM LTG E,F,G
L-100 ADA DOOR	20	1	1250			19	20	164			20	1	EXT. EM LTG H,J,K
SPACE						21	22		36		20	1	EXT. EM LTG E,L
SPACE						23	24				20	1	SPARE
			4250	1750	2100			368	2036	2432			

AD-3

A= 4,618
B= 3,786
C= 4,532
TOTAL= 12,936

NOTE: REFER TO GENERAL NOTE "B" FOR ADDITIONAL INFORMATION

EM-TECH1

TOTAL KW: 7.3 | ENCLOSURE: NEMA-1 | PHASE: 3φ | VOLTAGE: 120 / 208
MOUNTING: SURFACE | BUSSING: COPPER | FAULT CURRENT RATING: 22000 AIC | MLO(AMPS): 60
FEEDER: 4 #6 + 1 #10 GRD, - 1"C. | LOCATION: IDF A-116

LOAD DESCRIPTION	C/B TRIP	C/B POLE	LOAD A*	LOAD B*	LOAD C*	CCT. NO.		LOAD A*	LOAD B*	LOAD C*	C/B TRIP	C/B POLE	LOAD DESCRIPTION
SPARE	20	1				1	2	1500			30		A116 - IDF
A116 - RECEPS	20	1		800		3	4		1500			2	
A116 - DATA RACK	20	1			1200	5	6			1144	30		AC-CU-1
SPARE	20	1				7	8	1144				2	
SPARE	20	1				9	10				20	1	SPARE
SPARE	20	1				11	12				20	1	SPARE
SPACE						13	14						SPACE
SPACE						15	16						SPACE
SPACE						17	18						SPACE
SPACE						19	20						SPACE
SPACE						21	22						SPACE
SPACE						23	24						SPACE
			0	800	1200			2644	1500	1144			

A= 2,644
B= 2,300
C= 2,344
TOTAL= 7,288

NOTE: REFER TO GENERAL NOTE "B" FOR ADDITIONAL INFORMATION

EM-TECH6

TOTAL KW: 7.3 | ENCLOSURE: NEMA-1 | PHASE: 3φ | VOLTAGE: 120 / 208
MOUNTING: SURFACE | BUSSING: COPPER | FAULT CURRENT RATING: 22000 AIC | MLO(AMPS): 60
FEEDER: 4 #6 + 1 #10 GRD, - 1"C. | LOCATION:

LOAD DESCRIPTION	C/B TRIP	C/B POLE	LOAD A*	LOAD B*	LOAD C*	CCT. NO.		LOAD A*	LOAD B*	LOAD C*	C/B TRIP	C/B POLE	LOAD DESCRIPTION
SPARE	20	1				1	2	1500			30		J-117- IDF
J-117 - RECEPS	20	1		800		3	4		1500			2	
J-117- DATA RACK	20	1			1200	5	6			1144	30		AC-CU-1
SPARE	20	1				7	8	1144				2	
SPARE	20	1				9	10				20	1	SPARE
SPARE	20	1				11	12				20	1	SPARE
SPACE						13	14						SPACE
SPACE						15	16						SPACE
SPACE						17	18						SPACE
SPACE						19	20						SPACE
SPACE						21	22						SPACE
SPACE						23	24						SPACE
			0	800	1200			2644	1500	1144			

A= 2,644
B= 2,300
C= 2,344
TOTAL= 7,288

NOTE: REFER TO GENERAL NOTE "B" FOR ADDITIONAL INFORMATION

EM-2

TOTAL KW: 2.7 | ENCLOSURE: NEMA-1 | PHASE: 3φ | VOLTAGE: 120 / 208
MOUNTING: SURFACE | BUSSING: COPPER | FAULT CURRENT RATING: 22000 AIC | MLO(AMPS): 60
FEEDER: 4 #6 + #10 GRD, 1"C | LOCATION:

LOAD DESCRIPTION	C/B TRIP	C/B POLE	LOAD A*	LOAD B*	LOAD C*	CCT. NO.		LOAD A*	LOAD B*	LOAD C*	C/B TRIP	C/B POLE	LOAD DESCRIPTION
SPARE	20	1				1	2	20			20	1	EXIT H
SPARE	20	1				3	4		800		20	1	EM LTG H
SPARE	20	1				5	6						SPACE
SPARE	20	1				7	8						SPACE
SPARE	20	1				9	10						SPACE
SPARE	20	1				11	12						SPACE
SPARE	20	1				13	14	900			20	1	EM LTG K
SPARE	20	1				15	16		900		20	1	EM LTG K
SPARE	20	1				17	18			50	20	1	EXIT K
SPARE	20	1				19	20						SPACE
SPARE	20	1				21	22						SPACE
SPARE	20	1				23	24						SPACE
			0	0	0			920	1700	50			

A= 920
B= 1,700
C= 50
TOTAL= 2,670

NOTE: REFER TO GENERAL NOTE "B" FOR ADDITIONAL INFORMATION

EM-TECH2

TOTAL KW: 7.3 | ENCLOSURE: NEMA-1 | PHASE: 3φ | VOLTAGE: 120 / 208
MOUNTING: SURFACE | BUSSING: COPPER | FAULT CURRENT RATING: 22000 AIC | MLO(AMPS): 60
FEEDER: 4 #6 + 1 #10 GRD, - 1"C. | LOCATION: IDF D-134

LOAD DESCRIPTION	C/B TRIP	C/B POLE	LOAD A*	LOAD B*	LOAD C*	CCT. NO.		LOAD A*	LOAD B*	LOAD C*	C/B TRIP	C/B POLE	LOAD DESCRIPTION
SPARE	20	1				1	2	1500			30		D134 - IDF
D134 - RECEPS	20	1		800		3	4		1500			2	
D134 - DATA RACK	20	1			1200	5	6			1144	30		AC-CU-1
SPARE	20	1				7	8	1144				2	
SPARE	20	1				9	10	1500			30		D116 - IDF
SPARE	20	1				11	12		1500			2	
SPACE						13	14						SPACE
SPACE						15	16						SPACE
SPACE						17	18						SPACE
SPACE						19	20						SPACE
SPACE						21	22						SPACE
SPACE						23	24						SPACE
			0	800	1200			2644	1500	1144			

A= 2,644
B= 2,300
C= 2,344
TOTAL= 7,288

NOTE: REFER TO GENERAL NOTE "B" FOR ADDITIONAL INFORMATION

EM-SB

TOTAL KW: 149.7 | ENCLOSURE: NEMA-1 | PHASE: 3φ | VOLTAGE: 120 / 208
MOUNTING: SURFACE | BUSSING: COPPER | FAULT CURRENT RATING: 22000 AIC | MLO(AMPS): 600
FEEDER: 2 SETS - 4 #350 MCM + 1 #1 GRD, - 2½"C. | LOCATION:

LOAD DESCRIPTION	C/B TRIP	C/B POLE	LOAD A*	LOAD B*	LOAD C*	CCT. NO.		LOAD A*	LOAD B*	LOAD C*	C/B TRIP	C/B POLE	LOAD DESCRIPTION
	100		7440			1	2	3840			60		
HWP-1				7440		3	4		3840				BP-1
		3			7440	5	6			3840		3	
	100		7440			7	8	3840			60		
HWP-2				7440		9	10		3840				BP-2
		3			7440	11	12			3840		3	
#1 WALK-IN	20	1	1800			13	14	3840			60		
#2 COIL	20	1		1200		15	16		3840				BP-3
#1B	20	1			1200	17	18			3840		3	AD-3
SPARE	20	1				19	20	1920			30	1	B-2
SPARE	20	1				21	22						SPACE
SPARE	20	1				23	24						SPACE
SPARE	20	1				25	26	2100			25		
SPARE	20	1				27	28		2100				#8 COMPRESSOR
SPARE	20	1				29	30			2100		3	
SPARE	20	1				31	32	960			15		
SPARE	20	1				33	34		960				#3 COMPRESSOR
SPARE	20	1				35	36			960		3	
	200		19400			37	38	1600			20	1	#1A LIGHTS
EM-TECH UPS				16200		39	40		1600		20	1	#1A HEAT TAPE
		3			16400	41	42						SPACE
			36088	32280	32488			18100	16180	14580			

A= 54,188
B= 48,460
C= 47,068
TOTAL= 149,716

NOTE: REFER TO GENERAL NOTE "B" FOR ADDITIONAL INFORMATION

EM-3

TOTAL KW: 3.1 | ENCLOSURE: NEMA-1 | PHASE: 3φ | VOLTAGE: 120 / 208
MOUNTING: SURFACE | BUSSING: COPPER | FAULT CURRENT RATING: 22000 AIC | MLO(AMPS): 60
FEEDER: 4 #6 + #10 GRD, 1"C | LOCATION:

AD-3

LOAD DESCRIPTION	C/B TRIP	C/B POLE	LOAD A*	LOAD B*	LOAD C*	CCT. NO.		LOAD A*	LOAD B*	LOAD C*	C/B TRIP	C/B POLE	LOAD DESCRIPTION
ADA DOOR F-100	20	1	1250			1	2	50			20	1	EXIT G
SPARE	20	1				3	4		900		20	1	EM LTG G
SPARE	20	1				5	6			900	20	1	EM LTG G
SPARE	20	1				7	8						SPACE
SPARE	20	1				9	10						SPACE
SPARE	20	1				11	12						SPACE
SPARE	20	1				13	14						SPACE
SPARE	20	1				15	16						SPACE
SPARE	20	1				17	18						SPACE
SPARE	20	1				19	20						SPACE
SPARE	20	1				21	22						SPACE
SPARE	20	1				23	24						SPACE
			1250	0	0			50	900	900			

A= 1,300
B= 900
C= 900
TOTAL= 3,100

NOTE: REFER TO GENERAL NOTE "B" FOR ADDITIONAL INFORMATION

EM-TECH3

TOTAL KW: 7.3 | ENCLOSURE: NEMA-1 | PHASE: 3φ | VOLTAGE: 120 / 208
MOUNTING: SURFACE | BUSSING: COPPER | FAULT CURRENT RATING: 22000 AIC | MLO(AMPS): 60
FEEDER: 4 #6 + 1 #10 GRD, - 1"C. | LOCATION: IDF F-102

LOAD DESCRIPTION	C/B TRIP	C/B POLE	LOAD A*	LOAD B*	LOAD C*	CCT. NO.		LOAD A*	LOAD B*	LOAD C*	C/B TRIP	C/B POLE	LOAD DESCRIPTION
SPARE	20	1				1	2	1500			30		F102 - IDF
F102 - RECEPS	20	1		800		3	4		1500			2	
F102 - DATA RACK	20	1			1200	5	6			1144	30		AC-CU-1
SPARE	20	1				7	8	1144				2	
SPARE	20	1				9	10				20	1	SPARE
SPARE	20	1				11	12				20	1	SPARE
SPACE						13	14						SPACE
SPACE						15	16						SPACE
SPACE						17	18						SPACE
SPACE						19	20						SPACE
SPACE						21	22						SPACE
SPACE						23	24						SPACE
			0	800	1200			2644	1500	1144			

A= 2,644
B= 2,300
C= 2,344
TOTAL= 7,288

NOTE: REFER TO GENERAL NOTE "B" FOR ADDITIONAL INFORMATION

EM-4

TOTAL KW: 11.0 | ENCLOSURE: NEMA-1 | PHASE: 3φ | VOLTAGE: 120 / 208
MOUNTING: SURFACE | BUSSING: COPPER | FAULT CURRENT RATING: 22000 AIC | MLO(AMPS): 60
FEEDER: 4 #6 + #10 GRD, 1"C | LOCATION:

LOAD DESCRIPTION	C/B TRIP	C/B POLE	LOAD A*	LOAD B*	LOAD C*	CCT. NO.		LOAD A*	LOAD B*	LOAD C*	C/B TRIP	C/B POLE	LOAD DESCRIPTION
GYM EM LTG	20	1	1000			1	2	50			20	1	EXIT B/C
GYM EM LTG	20	1		1000		3	4		1000		20	1	EM LTG B/C
GYM EM LTG	20	1			1000	5	6			50	20	1	EXIT A
GYM EM LTG	20	1	1000			7	8	1000			20	1	EM LTG I
SPARE	20	1				9	10		50		20	1	EXIT D
SPARE	20	1				11	12			1200	20	1	AUX GYM EM LTG
SPARE	20	1				13	14	1200			20	1	AUX GYM EM LTG
SPARE	20	1				15	16		1200		20	1	AUX GYM/LOCKER EM
SPARE	20	1				17	18			1200	20	1	AREA D EM LTG
SPARE	20	1				19	20						SPACE
SPARE	20	1				21	22						SPACE
SPARE	20	1				23	24						SPACE
			2000	1000	1000			2250	2250	2450			

A= 4,250
B= 3,250
C= 3,450
TOTAL= 10,950

NOTE: REFER TO GENERAL NOTE "B" FOR ADDITIONAL INFORMATION

EM-TECH4

TOTAL KW: 7.3 | ENCLOSURE: NEMA-1 | PHASE: 3φ | VOLTAGE: 120 / 208
MOUNTING: SURFACE | BUSSING: COPPER | FAULT CURRENT RATING: 22000 AIC | MLO(AMPS): 60
FEEDER: 4 #6 + 1 #10 GRD, - 1"C. | LOCATION: IDF G-120

LOAD DESCRIPTION	C/B TRIP	C/B POLE	LOAD A*	LOAD B*	LOAD C*	CCT. NO.		LOAD A*	LOAD B*	LOAD C*	C/B TRIP	C/B POLE	LOAD DESCRIPTION
SPARE	20	1				1	2	1500			30		G120 - IDF
G120 - RECEPS	20	1		800		3	4		1500			2	
G120 - DATA RACK	20	1			1200	5	6			1144	30		AC-CU-1
SPARE	20	1				7	8	1144				2	
SPARE	20	1				9	10				20	1	SPARE
SPARE	20	1				11	12				20	1	SPARE
SPACE						13	14						SPACE
SPACE						15	16						SPACE
SPACE						17	18						SPACE
SPACE						19	20						SPACE
SPACE						21	22						SPACE
SPACE						23	24						SPACE
			0	800	1200			2644	1500	1144			

A= 2,644
B= 2,300
C= 2,344
TOTAL= 7,288

NOTE: REFER TO GENERAL NOTE "B" FOR ADDITIONAL INFORMATION

GIBRALTAR DESIGN
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MILLIES ENGINEERING GROUP (219) 924-8400 www.milliesengineeringgroup.com

PROJECT
WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS

DUNELAND SCHOOL CORPORATION
CHESTERTON, INDIANA

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PROJECT 21-141
DATE 02/28/22
COORDINATED BY JC
DRAWN BY MS
CHECKED BY DJ

DAVID G. JANNETT REGISTERED NO. 10302590 STATE OF INDIANA PROFESSIONAL ENGINEER

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REVISIONS

MARK	DATE	ISSUED FOR
AD-3	03/30/22	ADDENDUM NO. 3

DRAWING
ELECTRICAL PANEL SCHEDULES

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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SHEET
E-603

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LD2

TOTAL KW: 253.9 | ENCLOSURE: NEMA-1 | PHASE: 3ϕ | VOLTAGE: 120 / 208
MOUNTING: SURFACE | BUSSING: COPPER | FAULT CURRENT RATING: 22000 AIC | MCB 1000
FEEDER: 3 SETS OF 4 #400 + 1 #2/0 GRD, 3'C | LOCATION:

LOAD DESCRIPTION	C/B TRIP	C/B POLE	LOAD Aϕ	LOAD Bϕ	LOAD Cϕ	CCT. NO.	CCT. NO.	LOAD Aϕ	LOAD Bϕ	LOAD Cϕ	C/B TRIP	C/B POLE	LOAD DESCRIPTION
	100		3200			1	2	12000			225		
LP4				3500		3	4		10800				PP10
		3			2200	5	6			10000		3	
	100		4600			7	8	12120			225		
LP5				4500		9	10		10000				PP11
		3			3600	11	12			6600		3	
	100		5200			13	14	5800			100		
LP6				3300		15	16		4000				PP12
		3			3300	17	18			4600		3	
	225		15000			19	20	8133			100		
PP6				15628		21	22		8133				AH-7
		3			14428	23	24			8133		3	
	100		0			25	26						
PP7				0		27	28						SPACE
		3			0	29	30						
	225		16400			31	32						
PP8				16200		33	34						SPACE
		3			11600	35	36						
	225		11120			37	38				60		
PP9				10828		39	40						SPD
		3			9000	41	42					3	
			55520	53956	44128			38053	32933	29333			

A= 93,573
B= 86,889
C= 73,461
TOTAL= 253,923

NOTE: REFER TO GENERAL NOTE 'B' FOR ADDITIONAL INFORMATION

PP6

(AD-1, AD-3: rows GEF-1, FUME HOOD H-118 and HANDDRYER/123 struck through and clouded)

TOTAL KW: 49.3 | ENCLOSURE: NEMA-1 | PHASE: 3ϕ | VOLTAGE: 120 / 208
MOUNTING: SURFACE | BUSSING: COPPER | FAULT CURRENT RATING: 22000 AIC | MLO(AMPS): 225
FEEDER: 4 #4/0 & 1 #4 GRD. - 2 1/2'C. | LOCATION:

LOAD DESCRIPTION	C/B TRIP	C/B POLE	LOAD Aϕ	LOAD Bϕ	LOAD Cϕ	CCT. NO.	CCT. NO.	LOAD Aϕ	LOAD Bϕ	LOAD Cϕ	C/B TRIP	C/B POLE	LOAD DESCRIPTION
REC/116	20	1	1400			1	2	1400			20	1	REC/116
REC/116	20	1		1400		3	4		1400		20	1	REC/116/117
REC/115	20	1			1200	5	6			1400	20	1	REC/117/118
REC/118	20	1	1200			7	8	1400			20	1	REC/118
REC/118	20	1		1400		9	10		1200		20	1	REC/118
REC/118	20	1			1000	11	12			1400	20	1	REC/114/119/120/121
REC/119/120/121	20	1	1400			13	14	1400			20	1	REC/130
REC/130	20	1		1400		15	16		1400		20	1	REC/130
REC/130	20	1			1400	17	18			1400	20	1	REC/130/131
REC/132	20	1	1200			19	20	1200			20	1	REC/132
REC/132	20	1		1200		21	22		1200		20	1	REC/132
REC/127/132	20	1			1200	23	24			1200	20	1	MONITOR/116/118
MONITOR/130/132	20	1	1200			25	26	1400			20	1	UV-4
HANDDRYER/127	30	1		1600		27	28		1400		20	1	UV-3
HANDDRYER/127	30	1			1600	29	30			1400	20	1	FC-1
RT REC	20	1	400			31	32	1400			20	1	UV-3
TEF-14	20	1		628		33	34		1400		20	1	UV-4
GEF-1	20	1			628	35	36			600	20	1	MEZZ RECEPTS
FUME HOOD H-118	20	1	1000			37	38						SPACE
HANDDRYER/123	20			1600		39	40						SPACE
HANDDRYER/124	20	1			1600	41	42						SPACE
			1800	9228	8628			8200	8000	7400			

A= 16,000
B= 17,228
C= 16,028
TOTAL= 49,256

NOTE: REFER TO GENERAL NOTE 'B' FOR ADDITIONAL INFORMATION

PP10

(AD-3: rows MONITOR/129/131, HAND DRYER 121 and HAND DRYER 122 clouded)

TOTAL KW: 36.0 | ENCLOSURE: NEMA-1 | PHASE: 3ϕ | VOLTAGE: 120 / 208
MOUNTING: SURFACE | BUSSING: COPPER | FAULT CURRENT RATING: 22000 AIC | MLO(AMPS): 225
FEEDER: 4 #4/0 & 1 #4 GRD. - 2 1/2'C. | LOCATION:

LOAD DESCRIPTION	C/B TRIP	C/B POLE	LOAD Aϕ	LOAD Bϕ	LOAD Cϕ	CCT. NO.	CCT. NO.	LOAD Aϕ	LOAD Bϕ	LOAD Cϕ	C/B TRIP	C/B POLE	LOAD DESCRIPTION
REC/101	20	1	1400			1	2	1200			20	1	REC/102
REC/101/109	20	1		1200		3	4		1000		20	1	REC/102
REC/103	20	1			1200	5	6			1200	20	1	REC/104
REC/103	20	1	1200			7	8	1200			20	1	REC/104/133
REC/133	20	1		1400		9	10		1000		20	1	REC/105
REC/109/110/111	20	1			1400	11	12			1200	20	1	REC/105/106
REC/106/107/108	20	1	1200			13	14	1200			20	1	REC/112/113
REC/113/115	20	1		1200		15	16		1000		20	1	REC/112/113
REC/115	20	1			1200	17	18			1400	20	1	REC/118/117/123/125
REC/127	20	1	800			19	20	1400			20	1	REC/129/131
REC/126/127	20	1		800		21	22		1400		20	1	REC/129/131
MONITOR/101/102	20	1			1200	23	24			1200	20	1	MONITOR/103/104
MONITOR/105/127	20	1	1200			25	26	1200			20	1	MONITOR/112/113
MONITOR/129/131	20	1		1200		27	28		600		20	1	MONITOR/115
HAND DRYER 121	20	1			1600	29	30				20	1	SPARE
HAND DRYER 122	20	1	1600			31	32				20	1	SPARE
SPACE						33	34				20	1	SPARE
SPACE						35	36				20	1	SPARE
SPACE						37	38				20	1	SPARE
SPACE						39	40				20	1	SPARE
SPACE						41	42				20	1	SPARE
			7400	5800	6600			6200	5000	5000			

A= 13,600
B= 10,800
C= 11,600
TOTAL= 36,000

NOTE: REFER TO GENERAL NOTE 'B' FOR ADDITIONAL INFORMATION

LP4

TOTAL KW: 8.9 | ENCLOSURE: NEMA-1 | PHASE: 3ϕ | VOLTAGE: 120 / 208
MOUNTING: SURFACE | BUSSING: COPPER | FAULT CURRENT RATING: 22000 AIC | MLO(AMPS): 100
FEEDER: 4 #2 & 1 #8 GRD - 1 1/2'C | LOCATION:

LOAD DESCRIPTION	C/B TRIP	C/B POLE	LOAD Aϕ	LOAD Bϕ	LOAD Cϕ	CCT. NO.	CCT. NO.	LOAD Aϕ	LOAD Bϕ	LOAD Cϕ	C/B TRIP	C/B POLE	LOAD DESCRIPTION
STEM LTG/122	20	1	1200			1	2	1200			20	1	LTG/132/127
LTG/103/104/106	20	1		1200		3	4		1100		20	1	LTG/117/118
LTG/130/131	20	1			1200	5	6			1000	20	1	LTG/118
SPARE	20	1				7	8	800			20	1	LTG/119/120/121/122
SPARE	20	1				9	10		1200		20	1	MEZZ LTG
SPARE	20	1				11	12						SPACE
SPARE	20	1				13	14						SPACE
SPARE	20	1				15	16						SPACE
SPARE	20	1				17	18						SPACE
SPARE	20	1				19	20						SPACE
SPARE	20	1				21	22						SPACE
SPARE	20	1				23	24						SPACE
SPARE	20	1				25	26						SPACE
SPARE	20	1				27	28						SPACE
SPARE	20	1				29	30						SPACE
SPARE	20	1				31	32						SPACE
SPARE	20	1				33	34						SPACE
SPARE	20	1				35	36						SPACE
SPARE	20	1				37	38						SPACE
SPARE	20	1				39	40						SPACE
SPARE	20	1				41	42						SPACE
			1200	1200	1200			2000	2300	1000			

A= 3,200
B= 3,500
C= 2,200
TOTAL= 8,900

NOTE: REFER TO GENERAL NOTE 'B' FOR ADDITIONAL INFORMATION

PP7

(AD-3: rows GEF-2 through GEF-15 clouded)

TOTAL KW: 18.0 | ENCLOSURE: NEMA-1 | PHASE: 3ϕ | VOLTAGE: 120 / 208
MOUNTING: SURFACE | BUSSING: COPPER | FAULT CURRENT RATING: 22000 AIC | MLO(AMPS): 100
FEEDER: 4 #2 & 1 #8 GRD - 1 1/2'C | LOCATION:

LOAD DESCRIPTION	C/B TRIP	C/B POLE	LOAD Aϕ	LOAD Bϕ	LOAD Cϕ	CCT. NO.	CCT. NO.	LOAD Aϕ	LOAD Bϕ	LOAD Cϕ	C/B TRIP	C/B POLE	LOAD DESCRIPTION
GEF-2	30	1	1920			1	2				20	1	SPARE
GEF-3	20	1		1176		3	4				20	1	SPARE
GEF-4	20	1			1176	5	6				20	1	SPARE
GEF-5	20	1	1176			7	8				20	1	SPARE
GEF-6	20	1		1176		9	10				20	1	SPARE
GEF-7	20	1			1176	11	12				20	1	SPARE
GEF-8	20	1	1176			13	14						SPACE
GEF-9	30	1		1920		15	16						SPACE
GEF-10	20	1			1176	17	18						SPACE
GEF-11	20	1	1176			19	20						SPACE
GEF-12	20	1		1176		21	22						SPACE
GEF-13	20	1			1176	23	24						SPACE
GEF-14	20	1	1176			25	26						SPACE
GEF-15	20	1		1176		27	28						SPACE
SPACE						29	30						SPACE
SPACE						31	32						SPACE
SPACE						33	34						SPACE
SPACE						35	36						SPACE
SPACE						37	38						SPACE
SPACE						39	40						SPACE
SPACE						41	42						SPACE
			6624	6624	4704			0	0	0			

A= 6,624
B= 6,624
C= 4,704
TOTAL= 17,952

NOTE: REFER TO GENERAL NOTE 'B' FOR ADDITIONAL INFORMATION

PP11

TOTAL KW: 28.7 | ENCLOSURE: NEMA-1 | PHASE: 3ϕ | VOLTAGE: 120 / 208
MOUNTING: SURFACE | BUSSING: COPPER | FAULT CURRENT RATING: 22000 AIC | MLO(AMPS): 225
FEEDER: 4 #4/0 & 1 #4 GRD. - 2 1/2'C. | LOCATION:

LOAD DESCRIPTION	C/B TRIP	C/B POLE	LOAD Aϕ	LOAD Bϕ	LOAD Cϕ	CCT. NO.	CCT. NO.	LOAD Aϕ	LOAD Bϕ	LOAD Cϕ	C/B TRIP	C/B POLE	LOAD DESCRIPTION
UV-2	20	1	1400			1	2	1400			20	1	UV-1
UV-1	20	1		1400		3	4		1400		20	1	UV-1
UV-1	20	1			1400	5	6			1400	20	1	UV-1
UV-1	20	1	1400			7	8	1400			20	1	UV-2
UV-1	20	1		1400		9	10		1400		20	1	UV-2
UV-1	20	1			1400	11	12			600	20	1	CH-1
FC-1	20	1	1400			13	14	1600			20	1	HAND DRY
FC-1	20	1		1400		15	16		1600		20	1	HAND DRY
RT REC	20	1			200	17	18			1600	20	1	HAND DRY
TEF-13	30	1	1920			19	20	1600			20	1	HAND DRY
SPACE						21	22		1400		20	1	FC-1
SPACE						23	24				20	1	SPARE
SPACE						25	26				20	1	SPARE
SPACE						27	28				20	1	SPARE
SPACE						29	30				20	1	SPARE
SPACE						31	32				20	1	SPARE
SPACE						33	34				20	1	SPARE
SPACE						35	36				20	1	SPARE
SPACE						37	38				20	1	SPARE
SPACE						39	40				20	1	SPARE
SPACE						41	42				20	1	SPARE
			6120	4200	3000			6000	5800	3600			

A= 12,120
B= 10,000
C= 6,600
TOTAL= 28,720

NOTE: REFER TO GENERAL NOTE 'B' FOR ADDITIONAL INFORMATION

LP5

TOTAL KW: 12.7 | ENCLOSURE: NEMA-1 | PHASE: 3ϕ | VOLTAGE: 120 / 208
MOUNTING: SURFACE | BUSSING: COPPER | FAULT CURRENT RATING: 22000 AIC | MLO(AMPS): 100
FEEDER: 4 #2 & 1 #8 GRD - 1 1/2'C | LOCATION:

LOAD DESCRIPTION	C/B TRIP	C/B POLE	LOAD Aϕ	LOAD Bϕ	LOAD Cϕ	CCT. NO.	CCT. NO.	LOAD Aϕ	LOAD Bϕ	LOAD Cϕ	C/B TRIP	C/B POLE	LOAD DESCRIPTION
LTG/112/113	20	1	1000			1	2	800			20	1	LTG/105
LTG/111/115	20	1		1000		3	4		800		20	1	LTG/104
LTG/110/117	20	1			1000	5	6			800	20	1	LTG/103
LTG/109/108	20	1	1000			7	8	800			20	1	LTG/102
LTG/123/129	20	1		1000		9	10		900		20	1	LTG/101/130
LTG/122/128	20	1			1000	11	12				20	1	SPARE
LTG/121/125	20	1	1000			13	14				20	1	SPARE
CORR LTG	20	1		800		15	16				20	1	SPARE
CORR LTG	20	1			800	17	18				20	1	SPARE
SPACE						19	20				20	1	SPARE
SPACE						21	22				20	1	SPARE
SPACE						23	24				20	1	SPARE
SPACE						25	26				20	1	SPARE
SPACE						27	28				20	1	SPARE
SPACE						29	30				20	1	SPARE
SPACE						31	32				20	1	SPARE
SPACE						33	34				20	1	SPARE
SPACE						35	36				20	1	SPARE
SPACE						37	38				20	1	SPARE
SPACE						39	40				20	1	SPARE
SPACE						41	42				20	1	SPARE
			3000	2800	2800			1600	1700	800			

A= 4,600
B= 4,500
C= 3,600
TOTAL= 12,700

NOTE: REFER TO GENERAL NOTE 'B' FOR ADDITIONAL INFORMATION

PP8

(AD-2: rows REC/103 and KILN clouded; AD-3: rows HAND DRYER 119, REC/128 and HAND DRYER 120 clouded)

TOTAL KW: 46.6 | ENCLOSURE: NEMA-1 | PHASE: 3ϕ | VOLTAGE: 120 / 208
MOUNTING: SURFACE | BUSSING: COPPER | FAULT CURRENT RATING: 22000 AIC | MLO(AMPS): 225
FEEDER: 4 #4/0 & 1 #4 GRD. - 2 1/2'C. | LOCATION:

LOAD DESCRIPTION	C/B TRIP	C/B POLE	LOAD Aϕ	LOAD Bϕ	LOAD Cϕ	CCT. NO.	CCT. NO.	LOAD Aϕ	LOAD Bϕ	LOAD Cϕ	C/B TRIP	C/B POLE	LOAD DESCRIPTION
REC/101	20	1	1200			1	2	1200			20	1	REC/100/130
REC/100/101	20	1		1200		3	4		1200		20	1	REC/102/130
REC/112	20	1			800	5	6			1200	20	1	REC/102
REC/112	20	1	1000			7	8	1400			20	1	REC/111/110
REC/110	20	1		1400		9	10		1000		20	1	REC/111
SPARE	20	1				11	12			1000	20	1	REC/109
REC/113/114/121	20	1	1000			13	14	1000			20	1	REC/109
REC/115/121/122	20	1		1200		15	16		1000		20	1	REC/107/108/123
REC/103	20	1			1000	17	18			1400	20	1	REC/125
REC/103	20	1	1000			19	20				20	1	SPARE
KILN	40			2900		21	22		1200		20	1	REC/125/128
		2			2900	23	24				20	1	SPARE
HAND DRYER 119	20	1	1600			25	26	1200			20	1	REC/128
REC/128	20	1		1200		27	28		1000		20	1	REC/129
HAND DRYER 120	20	1			1600	29	30				20	1	SPARE
REC/104	20	1	1200			31	32	1000			20	1	REC/104
REC/104	20	1		1000		33	34		1200		20	1	REC/105
REC/105	20	1			1200	35	36			1200	20	1	MONITOR/101/102
MONITOR/111/112	20	1	1200			37	38	1200			20	1	MONITOR/109/110
MONITOR/125/128	20	1		1200		39	40		1200		20	1	MONITOR/103/129
MONITOR/104/105	20	1			1200	41	42				20	1	SPARE
			8200	10100	8700			7000	7800	4800			

A= 15,200
B= 17,900
C= 13,500
TOTAL= 46,600

NOTE: REFER TO GENERAL NOTE 'B' FOR ADDITIONAL INFORMATION

PP12

TOTAL KW: 14.4 | ENCLOSURE: NEMA-1 | PHASE: 3ϕ | VOLTAGE: 120 / 208
MOUNTING: SURFACE | BUSSING: COPPER | FAULT CURRENT RATING: 22000 AIC | MLO(AMPS): 100
FEEDER: 4 #2 & 1 #8 GRD - 1 1/2'C | LOCATION:

LOAD DESCRIPTION	C/B TRIP	C/B POLE	LOAD Aϕ	LOAD Bϕ	LOAD Cϕ	CCT. NO.	CCT. NO.	LOAD Aϕ	LOAD Bϕ	LOAD Cϕ	C/B TRIP	C/B POLE	LOAD DESCRIPTION
REC/100/112	20	1	1200			1	2	1400			20	1	REC/112
REC/110/112	20	1		1000		3	4		1400		20	1	REC/111/112
REC/100/106/107/109	20	1			1200	5	6			1200	20	1	REC/103/105/108
REC/106/107/109	20	1	1400			7	8	1200			20	1	REC/103/105/108
REC/102/104/114	20	1		1000		9	10		600		20	1	REC/101/103
REC/102/104	20	1			1000	11	12			1200	20	1	MONITOR/105/106
MONITOR/112	20	1	600			13	14				20	1	SPARE
SPACE						15	16				20	1	SPARE
SPACE						17	18				20	1	SPARE
SPACE						19	20				20	1	SPARE
SPACE						21	22				20	1	SPARE
SPACE						23	24				20	1	SPARE
SPACE						25	26				20	1	SPARE
SPACE						27	28				20	1	SPARE
SPACE						29	30				20	1	SPARE
SPACE						31	32				20	1	SPARE
SPACE						33	34				20	1	SPARE
SPACE						35	36				20	1	SPARE
SPACE						37	38				20	1	SPARE
SPACE						39	40				20	1	SPARE
SPACE						41	42				20	1	SPARE
			3200	2000	2200			2600	2000	2400			

A= 5,800
B= 4,000
C= 4,600
TOTAL= 14,400

NOTE: REFER TO GENERAL NOTE 'B' FOR ADDITIONAL INFORMATION

LP6

TOTAL KW: 11.8 | ENCLOSURE: NEMA-1 | PHASE: 3ϕ | VOLTAGE: 120 / 208
MOUNTING: SURFACE | BUSSING: COPPER | FAULT CURRENT RATING: 22000 AIC | MLO(AMPS): 100
FEEDER: 4 #2 & 1 #8 GRD - 1 1/2'C | LOCATION:

LOAD DESCRIPTION	C/B TRIP	C/B POLE	LOAD Aϕ	LOAD Bϕ	LOAD Cϕ	CCT. NO.	CCT. NO.	LOAD Aϕ	LOAD Bϕ	LOAD Cϕ	C/B TRIP	C/B POLE	LOAD DESCRIPTION
LTG/105/133	20	1	900			1	2	900			20	1	LTG/115/118
LTG/104	20	1		800		3	4		900		20	1	LTG/131/108
LTG/103	20	1			800	5	6			800	20	1	LTG/129
LTG/102	20	1	800			7	8	900			20	1	LTG/127/107
LTG/101	20	1		800		9	10		800		20	1	LTH/125/123/119
LTG/111/112	20	1			900	11	12			800	20	1	CORR LTG
LTG/110/113	20	1	900			13	14	800			20	1	CORR LTG
SPACE						15	16				20	1	SPARE
SPACE						17	18				20	1	SPARE
SPACE						19	20				20	1	SPARE
SPACE						21	22				20	1	SPARE
SPACE						23	24				20	1	SPARE
SPACE						25	26				20	1	SPARE
SPACE						27	28				20	1	SPARE
SPACE						29	30				20	1	SPARE
SPACE						31	32				20	1	SPARE
SPACE						33	34				20	1	SPARE
SPACE						35	36				20	1	SPARE
SPACE						37	38				20	1	SPARE
SPACE						39	40				20	1	SPARE
SPACE						41	42				20	1	SPARE
			2600	1600	1700			2600	1700	1600			

A= 5,200
B= 3,300
C= 3,300
TOTAL= 11,800

NOTE: REFER TO GENERAL NOTE 'B' FOR ADDITIONAL INFORMATION

PP9

TOTAL KW: 30.9 | ENCLOSURE: NEMA-1 | PHASE: 3ϕ | VOLTAGE: 120 / 208
MOUNTING: SURFACE | BUSSING: COPPER | FAULT CURRENT RATING: 22000 AIC | MLO(AMPS): 225
FEEDER: 4 #4/0 & 1 #4 GRD. - 2 1/2'C. | LOCATION:

LOAD DESCRIPTION	C/B TRIP	C/B POLE	LOAD Aϕ	LOAD Bϕ	LOAD Cϕ	CCT. NO.	CCT. NO.	LOAD Aϕ	LOAD Bϕ	LOAD Cϕ	C/B TRIP	C/B POLE	LOAD DESCRIPTION
UV-2	20	1	1400			1	2	600			20	1	CH-1
UV-2	20	1		1400		3	4		1400		20	1	UV-1
UV-1	20	1			1400	5	6			1400	20	1	UV-1
UV-1	20	1	1400			7	8	1400			20	1	UV-1
UV-1	20	1		1400		9	10		1400		20	1	FC-1
UV-1	20	1			1400	11	12			1400	20	1	FC-1
UV-1	20	1	1400			13	14	1400			20	1	FC-1
HAND DRY	30	1		1600		15	16		1400		20	1	UV-4
HAND DRY	30	1			1600	17	18			1400	20	1	UV-4
HAND DRY	30	1	1600			19	20				20	1	SPARE
HAND DRY	30	1		1600		21	22				20	1	SPARE
RT REC	20	1			400	23	24				20	1	SPARE
TEF-17	20	1	1920			25	26				20	1	SPARE
TEF-18	20	1		628		27	28				20	1	SPARE
SPACE						29	30				20	1	SPARE
SPACE						31	32				20	1	SPARE
SPACE						33	34				20	1	SPARE
SPACE						35	36				20	1	SPARE
SPACE						37	38				20	1	SPARE
SPACE						39	40				20	1	SPARE
SPACE						41	42				20	1	SPARE
			7720	6628	4800			3400	4200	4200			

A= 11,120
B= 10,828
C= 9,000
TOTAL= 30,948

NOTE: REFER TO GENERAL NOTE 'B' FOR ADDITIONAL INFORMATION

GIBRALTAR
DESIGN
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PROJECT
WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS

DUNELAND SCHOOL CORPORATION
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PROJECT 21-141
DATE 02/28/22
COORDINATED BY JC
DRAWN BY MS
CHECKED BY DJ

DAVID G. JANNEY REGISTERED NO. 10302590 STATE OF INDIANA PROFESSIONAL ENGINEER

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REVISIONS

MARK	DATE	ISSUED FOR
AD-1	03/15/22	ADDENDUM NO. 1
AD-2	03/18/22	ADDENDUM NO. 2
AD-3	03/30/22	ADDENDUM NO. 3

DRAWING
ELECTRICAL PANEL SCHEDULES

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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SHEET
E-604

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LD1

TOTAL KW: 329.0 | ENCLOSURE: NEMA-1 | PHASE: 3Φ | VOLTAGE: 120 / 208
MOUNTING: SURFACE | BUSSING: COPPER | FAULT CURRENT RATING: 22000 AIC | MCB 1000
FEEDER: 3 SETS OF 4 #400 + 1 #1/0 GRD, 3"C | LOCATION:

LOAD DESCRIPTION	C/B TRIP	C/B POLE	LOAD A Φ	LOAD B Φ	LOAD C Φ	CCT. NO.	LOAD A Φ	LOAD B Φ	LOAD C Φ	C/B TRIP	C/B POLE	LOAD DESCRIPTION
LP1	100		5384			1	2	1720				
				4742		3	4		1600			PP4
		3			4716	5	6			1560		
LP2	100		3600			7	8	1672				
				3400		9	10		1696			PP5
		3			3400	11	12			1648		
LP3	100		4900			13	14	9480			110	
				4000		15	16		9480			CWP-1
		3			3800	17	18			9480		3
LP7	100		4100			19	20	9480			110	
				2200		21	22		9480			CWP-2
		3			1600	23	24			9480		3
PP1	225		16386			25	26	5880			90	
				15066		27	28		5880			CP-1
		3			12938	29	30			5880		3
PP2	225		13400			31	32	3840				
				10400		33	34		3840		60	3 CP-2 AD-3
		3			12000	35	36			3840		
PP3	100		6716			37	38				60	
				6000		39	40					SPD
		3			5120	41	42					3
			34846	34808	43574			32600	32716	60328		

A= 117,146
B= 107,984
C= 103,902
TOTAL= 329,032

NOTE: REFER TO GENERAL NOTE "B" FOR ADDITIONAL INFORMATION

LP-7

AD-3

TOTAL KW: 7.9 | ENCLOSURE: NEMA-1 | PHASE: 3Φ | VOLTAGE: 120 / 208
MOUNTING: RECESSED | BUSSING: COPPER | FAULT CURRENT RATING: 22000 AIC | MLO(AMPS): 100
FEEDER: 4 #2 + 1 #8 GRD - 1 1/2"C | LOCATION:

LOAD DESCRIPTION	C/B TRIP	C/B POLE	LOAD A Φ	LOAD B Φ	LOAD C Φ	CCT. NO.	LOAD A Φ	LOAD B Φ	LOAD C Φ	C/B TRIP	C/B POLE	LOAD DESCRIPTION
LTG/116	20	1	1200			1	2	900		20	1	LTG/128
LTG/116	20	1		1200		3	4		1000	20	1	LTG/127
LTG/117/118/122	20	1			800	5	6			800	20	1	LTG/126/123
CORR LTG	20	1	1200			7	8	800			20	1	LTG/114
SPACE						9	10				20	1	SPARE
SPACE						11	12				20	1	SPARE
SPACE						13	14				20	1	SPARE
SPACE						15	16				20	1	SPARE
SPACE						17	18				20	1	SPARE
SPACE						19	20				20	1	SPARE
SPACE						21	22				20	1	SPARE
SPACE						23	24				20	1	SPARE
SPACE						25	26				20	1	SPARE
SPACE						27	28				20	1	SPARE
SPACE						29	30				20	1	SPARE
SPACE						31	32				20	1	SPARE
SPACE						33	34				20	1	SPARE
SPACE						35	36				20	1	SPARE
SPACE						37	38				20	1	SPARE
SPACE						39	40				20	1	SPARE
SPACE						41	42				20	1	SPARE
			2400	1200	800			1700	1000	800		

A= 4,000
B= 2,200
C= 1,600
TOTAL= 7,800

NOTE: REFER TO GENERAL NOTE "B" FOR ADDITIONAL INFORMATION

PP3

TOTAL KW: 17.9 | ENCLOSURE: NEMA-1 | PHASE: 3Φ | VOLTAGE: 120 / 208
MOUNTING: SURFACE | BUSSING: COPPER | FAULT CURRENT RATING: 22000 AIC | MLO(AMPS): 100
FEEDER: 4 #2 + 1 #8 GRD - 1 1/2"C | LOCATION:

LOAD DESCRIPTION	C/B TRIP	C/B POLE	LOAD A Φ	LOAD B Φ	LOAD C Φ	CCT. NO.	LOAD A Φ	LOAD B Φ	LOAD C Φ	C/B TRIP	C/B POLE	LOAD DESCRIPTION
UV-1	20	1	1400			1	2	1400		20	1	UV-1
UV-1	20	1		1400		3	4		1400	20	1	UV-1
UV-1	20	1			1400	5	6			1400	20	1	UV-1
UV-1	20	1	1400			7	8	1400			20	1	UV-1
UV-1	20	1		1400		9	10		1400		20	1	UV-1
TEF-12	30	1			1920	11	12			400	20	1	CH-3
TEF-11	20	1	1176			13	14						SPACE
RT REC	20	1		400		15	16						SPACE
SPARE	20	1				17	18						SPACE
SPARE	20	1				19	20						SPACE
SPARE	20	1				21	22						SPACE
SPARE	20	1				23	24						SPACE
SPARE	20	1				25	26						SPACE
SPARE	20	1				27	28						SPACE
SPARE	20	1				29	30						SPACE
SPARE	20	1				31	32						SPACE
SPARE	20	1				33	34						SPACE
SPARE	20	1				35	36						SPACE
SPARE	20	1				37	38						SPACE
SPARE	20	1				39	40						SPACE
SPARE	20	1				41	42						SPACE
			3976	3200	3320			2800	2800	1800		

A= 6,776
B= 6,000
C= 5,120
TOTAL= 17,896

NOTE: REFER TO GENERAL NOTE "B" FOR ADDITIONAL INFORMATION

LP1

TOTAL KW: 22.6 | ENCLOSURE: NEMA-1 | PHASE: 3Φ | VOLTAGE: 120 / 208
MOUNTING: SURFACE | BUSSING: COPPER | FAULT CURRENT RATING: 22000 AIC | MLO(AMPS): 100
FEEDER: 4 #2 + 1 #8 GRD - 1 1/2"C | LOCATION:

LOAD DESCRIPTION	C/B TRIP	C/B POLE	LOAD A Φ	LOAD B Φ	LOAD C Φ	CCT. NO.	LOAD A Φ	LOAD B Φ	LOAD C Φ	C/B TRIP	C/B POLE	LOAD DESCRIPTION
MEZZ LTG	20	1	1200			1	2	1200		20	1	MECH/BOILER RM LTG
MEZZ LTG	20	1		1200		3	4		1000	20	1	KITCHEN LTG
MEZZ LTG	20	1			1200	5	6			900	20	1	SERVING AREA LTG
EXT. LTG AD	20	1	84			7	8	800			20	1	CORR/RESTRM LTG
EXT. LTG B,C	20	1		70		9	10		1000		20	1	CAFETERIA LTG
EXT. LTG E,F,G	20	1			216	11	12			1000	20	1	CAFETERIA LTG
EXT. LTG H,J,K	20	1				13	14	1200			20	1	HEALTH RM LTG
EXT. LTG E,L	20	1		72		15	16		1400		20	1	APPLIED SKILLS LTG
SPARE	20	1				17	18			1400	20	1	FAC DINING LTG
SITE LIGHTING	20		210			19	20	900			20	1	KITCHEN LTG
		2		210		21	22						SPACE
SITE LIGHTING	20				280	23	24			442			SITE LIGHTING
		2	280			25	26	442					
SITE LIGHTING	20			420		27	28		490				SITE LIGHTING
		2			420	29	30			490			
SITE LIGHTING	20		549			31	32	420					SITE LIGHTING
		2		549		33	34		420				
SITE LIGHTING	20				549	35	36						SPACE
		2	549			37	38						SPACE
SITE LIGHTING	20			497		39	40						SPACE
		2			497	41	42						SPACE
			2872	3018	3162			4962	4310	4232		

A= 7,834
B= 7,328
C= 7,394
TOTAL= 22,556

NOTE: REFER TO GENERAL NOTE "B" FOR ADDITIONAL INFORMATION

PP1

TOTAL KW: 58.2 | ENCLOSURE: NEMA-1 | PHASE: 3Φ | VOLTAGE: 120 / 208
MOUNTING: SURFACE | BUSSING: COPPER | FAULT CURRENT RATING: 22000 AIC | MLO(AMPS): 225
FEEDER: 4 #4/0 + 1 #4 GRD. - 2 1/2"C. | LOCATION:

LOAD DESCRIPTION	C/B TRIP	C/B POLE	LOAD A Φ	LOAD B Φ	LOAD C Φ	CCT. NO.	LOAD A Φ	LOAD B Φ	LOAD C Φ	C/B TRIP	C/B POLE	LOAD DESCRIPTION
REC/103/105	20	1	1200			1	2	600		20	1	MONITOR/105
REC/100/102/114	20	1		1200		3	4		600	20	1	MONITOR/110
REC/100/114	20	1			1000	5	6			1200	20	1	MONITOR/114
HAND DRY	20	1	1600			7	8	1400			20	1	UV-1
HAND DRY	20	1		1600		9	10		1400		20	1	UV-2
HAND DRY	20	1			1600	11	12			1400	20	1	UV-2
HAND DRY	20	1	1600			13	14	1000			20	1	RT REC
EUC	20	1		1000		15	16		628		20	1	GEF-1
EUC	20	1			1000	17	18			628	20	1	TEF-10
MEZZ D RECEPTS	20	1	600			19	20	1176			20	1	TEF-1
MEZZ E RECEPTS	20	1		800		21	22		628		20	1	TEF-8
CAFETERIE SCREEN	20	1			600	23	24			1656	25	1	PARTITION
UH-1	20	1	400			25	26	1200			20	1	TUH-1/2/3
FC-1	20	1		330		27	28		1200		20	1	TUH-4/5/6/RCP-1
HAND DRYER 108	20	1			1600	29	30			1000	20		SE-1
HAND DRYER 107	20	1	1600			31	32	1000				2	
HAND DRYER 119	20	1		1600		33	34		1200		20	1	WS-1
SPARE	20	1				35	36						SPACE
	35		2100			37	38						SPACE
DBP-1				2100		39	40						SPACE
		3			2100	41	42						SPACE
	35		210			43	44	800			20	1	OFFICE 121
DBP-1				210		45	46		800		20	1	CUSTODIAN
		3			210	47	48			1400	20	1	ELEC. RM.
RECEIVING CH DOOR	25	1	1656			49	50	4100			50		DRYER
SPARE	20	1				51	52		4100			2	
SPARE	20	1				53	54			1200	20	1	WASHER
SPARE	20	1				55	56						SPACE
SPARE	20	1				57	58						SPACE
SPARE	20	1				59	60						SPACE
			10966	8840	8110			11276	10556	8484		

A= 22,242
B= 19,396
C= 16,594
TOTAL= 58,232

NOTE: REFER TO GENERAL NOTE "B" FOR ADDITIONAL INFORMATION

PP4

TOTAL KW: 50.3 | ENCLOSURE: NEMA-1 | PHASE: 3Φ | VOLTAGE: 120 / 208
MOUNTING: SURFACE | BUSSING: COPPER | FAULT CURRENT RATING: 22000 AIC | MLO(AMPS): 225
FEEDER: 4 #4/0 + 1 #4 GRD. - 2 1/2"C. | LOCATION:

LOAD DESCRIPTION	C/B TRIP	C/B POLE	LOAD A Φ	LOAD B Φ	LOAD C Φ	CCT. NO.	LOAD A Φ	LOAD B Φ	LOAD C Φ	C/B TRIP	C/B POLE	LOAD DESCRIPTION
REC/115	20	1	1000			1	2	1400		20	1	REC/115
REC/111	20	1		1400		3	4		1400	20	1	REC/115
REC/112/113	20	1			1400	5	6			1000	20	1	REC/117/118
MONITOR/102	20	1	600			7	8	1000			20	1	REC/117/118/119
REC/119/120	20	1		1400		9	10		1000		20	1	REC/127/128
REC/119	20	1			1400	11	12			1400	20	1	REC/123/126/127/128
REC/121/122	20	1	1400			13	14	1200			20	1	REC/121/122/123
REC/130	20	1		1000		15	16		1000		20	1	REC/131
REC/130	20	1			1000	17	18			1400	20	1	REC/131/133
MONITOR/103/105	20	1	1200			19	20	1200			20	1	MONITOR/113/117
MONITOR/114/115	20	1		1200		21	22		1200		20	1	MONITOR/119/127
REC/132	20	1			1400	23	24			1200	20	1	MONITOR/130/131
REC/132	20	1	1400			25	26	1400			20	1	REC/133
REC/100/134	20	1		1200		27	28		1200		20	1	REC/101/133
REC/102/135	20	1			1200	29	30			1200	20	1	REC/101
REC/102	20	1	1200			31	32	1000			20	1	REC/103/104
REC/105	20	1		1000		33	34		1400		20	1	REC/103/104
REC/105	20	1			1000	35	36			1000	20	1	REC/108/109
HANDDRYER/109	20	1	1600			37	38	1600			20	1	HANDDRYER/109
MONITOR/132/133	20	1		1200		39	40		1200		20	1	MONITOR/134/101
SPARE	20	1				41	42			1656	25	1	PARTITION
			8400	8400	7400			8800	8400	8856		

A= 17,200
B= 16,800
C= 16,256
TOTAL= 50,256

NOTE: REFER TO GENERAL NOTE "B" FOR ADDITIONAL INFORMATION

LP2

TOTAL KW: 10.4 | ENCLOSURE: NEMA-1 | PHASE: 3Φ | VOLTAGE: 120 / 208
MOUNTING: SURFACE | BUSSING: COPPER | FAULT CURRENT RATING: 22000 AIC | MLO(AMPS): 100
FEEDER: 4 #2 + 1 #8 GRD - 1 1/2"C | LOCATION:

LOAD DESCRIPTION	C/B TRIP	C/B POLE	LOAD A Φ	LOAD B Φ	LOAD C Φ	CCT. NO.	LOAD A Φ	LOAD B Φ	LOAD C Φ	C/B TRIP	C/B POLE	LOAD DESCRIPTION
LTG/103/103/104	20	1	1000			1	2	900		20	1	LTG/122/120
LTG/105	20	1		800		3	4		900	20	1	LTG/133/114
LTG/106	20	1			800	5	6			900	20	1	LTG/113/116
LTG/109	20	1	800			7	8	900			20	1	LTG/117/118/119
LTG/110	20	1		800		9	10		900		20	1	CORR LTG
LTG/111	20	1			800	11	12			900	20	1	CORR LTG
SPACE						13	14				20	1	SPARE
SPACE						15	16				20	1	SPARE
SPACE						17	18				20	1	SPARE
SPACE						19	20				20	1	SPARE
SPACE						21	22				20	1	SPARE
SPACE						23	24				20	1	SPARE
SPACE						25	26				20	1	SPARE
SPACE						27	28				20	1	SPARE
SPACE						29	30				20	1	SPARE
SPACE						31	32				20	1	SPARE
SPACE						33	34				20	1	SPARE
SPACE						35	36				20	1	SPARE
SPACE						37	38				20	1	SPARE
SPACE						39	40				20	1	SPARE
SPACE						41	42				20	1	SPARE
			1800	1600	1600			1800	1800	1800		

A= 3,600
B= 3,400
C= 3,400
TOTAL= 10,400

NOTE: REFER TO GENERAL NOTE "B" FOR ADDITIONAL INFORMATION

PP2

TOTAL KW: 36.8 | ENCLOSURE: NEMA-1 | PHASE: 3Φ | VOLTAGE: 120 / 208
MOUNTING: SURFACE | BUSSING: COPPER | FAULT CURRENT RATING: 22000 AIC | MLO(AMPS): 225
FEEDER: 4 #4/0 + 1 #4 GRD. - 2 1/2"C. | LOCATION:

LOAD DESCRIPTION	C/B TRIP	C/B POLE	LOAD A Φ	LOAD B Φ	LOAD C Φ	CCT. NO.	LOAD A Φ	LOAD B Φ	LOAD C Φ	C/B TRIP	C/B POLE	LOAD DESCRIPTION
REC/117	20	1	1200			1	2	1000		20	1	REC/122
REC/117	20	1		1000		3	4		1000	20	1	REC/122
REC/116	20	1			1000	5	6			1000	20	1	REC/123
REC/116	20	1	1000			7	8	800			20	1	REC/123
REC/109	20	1		1000		9	10		1000		20	1	REC/110
REC/109	20	1			1000	11	12			1200	20	1	REC/110
REC/111	20	1	1200			13	14	1000			20	1	REC/113/114
REC/111	20	1		800		15	16		1000		20	1	REC/113/113
REC/106	20	1			1000	17	18			1200	20	1	REC/105
REC/106	20	1	1400			19	20	800			20	1	REC/105
SPACE						21	22						SPACE
REC/101/104	20	1			1200	23	24			1600	30	1	HANDDRYER/119
REC/101/104	20	1	1000			25	26	1600			30	1	HANDDRYER/120
HANDDRYER/119	30	1		1600		27	28		1200		20	1	MONITOR/116/117
HANDDRYER/120	30	1			1600	29	30			1200	20	1	MONITOR/109/110
MONITOR/105/106	20	1	1200			31	32	1200			20	1	MONITOR/104/111
MONITOR/113/123	20	1		1200		33	34		600		20		MONITOR/123
SPARE	20	1				35	36			1000	20		EUC
SPARE	20	1				37	38						SPACE
SPARE	20	1				39	40						SPACE
SPARE	20	1				41	42						SPACE
			7000	5600	5800			6400	4800	7200		

A= 13,400
B= 10,400
C= 13,000
TOTAL= 36,800

AD-3 AD-2

NOTE: REFER TO GENERAL NOTE "B" FOR ADDITIONAL INFORMATION

PP5

TOTAL KW: 52.7 | ENCLOSURE: NEMA-1 | PHASE: 3Φ | VOLTAGE: 120 / 208
MOUNTING: SURFACE | BUSSING: COPPER | FAULT CURRENT RATING: 22000 AIC | MLO(AMPS): 225
FEEDER: 4 #4/0 + 1 #4 GRD. - 2 1/2"C. | LOCATION:

LOAD DESCRIPTION	C/B TRIP	C/B POLE	LOAD A Φ	LOAD B Φ	LOAD C Φ	CCT. NO.	LOAD A Φ	LOAD B Φ	LOAD C Φ	C/B TRIP	C/B POLE	LOAD DESCRIPTION
UV-1	20	1	1400			1	2	400		20	1	CH-1
UV-1	20	1		1400		3	4		1400	20	1	UV-1
UV-1	20	1			1400	5	6			1400	20	1	UV-1
FC-1	20	1	1400			7	8	1400			20	1	UV-1
FC-1	20	1		1400		9	10		1400		20	1	UV-1
FC-1	20	1			1400	11	12			1400	20	1	UV-1
FC-1	20	1	1400			13	14	800			20	1	RT REC
UV-1	20	1		1400		15	16		1176		20	1	TEF-15
UV-1	20	1			1400	17	18			528	20	1	TEF-16
UV-1	20	1	1400			19	20	8520			80		
HAND DRYER 123	20	1		1600		21	22		8520				RT-1
HAND DRYER 124	20	1			1600	23	24			8520		3	
SPACE	20	1				25	26						SPACE
SPARE	20	1				27	28						SPACE
SPARE	20	1				29	30						SPACE
SPARE	20	1				31	32						SPACE
SPARE	20	1				33	34						SPACE
SPARE	20	1				35	36						SPACE
SPARE	20	1				37	38						SPACE
SPARE	20	1				39	40						SPACE
SPARE	20	1				41	42						SPACE
			5600	5800	5800			11120	12496	11848		

A= 16,720
B= 18,296
C= 17,648
TOTAL= 52,664

NOTE: REFER TO GENERAL NOTE "B" FOR ADDITIONAL INFORMATION

LP3

TOTAL KW: 12.7 | ENCLOSURE: NEMA-1 | PHASE: 3Φ | VOLTAGE: 120 / 208
MOUNTING: SURFACE | BUSSING: COPPER | FAULT CURRENT RATING: 22000 AIC | MLO(AMPS): 100
FEEDER: 4 #2 + 1 #8 GRD - 1 1/2"C | LOCATION:

LOAD DESCRIPTION	C/B TRIP	C/B POLE	LOAD A Φ	LOAD B Φ	LOAD C Φ	CCT. NO.	LOAD A Φ	LOAD B Φ	LOAD C Φ	C/B TRIP	C/B POLE	LOAD DESCRIPTION
LTG/111/120/121	20	1	1200			1	2	900		20	1	LTG/104/134
LTG/114/117/128	20	1		1200		3	4		900	20	1	LTG/102/109
LTG/115/118/119	20	1			1200	5	6			900	20	1	LTG/101/107/108
LTG/130/123	20	1	1100			7	8	800			20	1	LTG/105
LTG/131/113	20	1		900		9	10		1000		20	1	CORR LTG
LTG/112/132	20	1			900	11	12			800	20	1	CORR LTG
LTG/103/133	20	1	900			13	14				20	1	SPARE
SPACE						15	16				20	1	SPARE
SPACE						17	18				20	1	SPARE
SPACE						19	20				20	1	SPARE
SPACE						21	22				20	1	SPARE
SPACE						23	24				20	1	SPARE
SPACE						25	26				20	1	SPARE
SPACE						27	28				20	1	SPARE
SPACE						29	30				20	1	SPARE
SPACE						31	32				20	1	SPARE
SPACE						33	34				20	1	SPARE
SPACE						35	36				20	1	SPARE
SPACE						37	38				20	1	SPARE
SPACE						39	40				20	1	SPARE
SPACE						41	42				20	1	SPARE
			3200	2100	2100			1700	1900	1700		

A= 4,900
B= 4,000
C= 3,800
TOTAL= 12,700

NOTE: REFER TO GENERAL NOTE "B" FOR ADDITIONAL INFORMATION

GIBRALTAR DESIGN
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PROJECT
WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS

DUNELAND SCHOOL CORPORATION
CHESTERTON, INDIANA

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PROJECT 21-141
DATE 02/28/22
COORDINATED BY JC
DRAWN BY MS
CHECKED BY DJ

REGISTERED NO. 10302590 STATE OF INDIANA PROFESSIONAL ENGINEER DAVID G. JANNEY

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REVISIONS

MARK	DATE	ISSUED FOR
AD-2	03/18/22	ADDENDUM NO. 2
AD-3	03/30/22	ADDENDUM NO. 3

DRAWING
ELECTRICAL PANEL SCHEDULES

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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SHEET
E-605

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PANEL LD3

TOTAL KW: 222.6 | ENCLOSURE: | PHASE: 3φ | VOLTAGE: 120 / 208
MOUNTING: | BUSSING: | FAULT CURRENT RATING: 22000 AIC | MCB(AMPS): 800
FEEDER: 2 SETS OF 4 #500 & 1 #1/0 GRD - 3 1/2"C | LOCATION:

LOAD DESCRIPTION	C/B TRIP	C/B POLE	LOAD Aφ	LOAD Bφ	LOAD Cφ	CCT. NO.	CCT. NO.	LOAD Aφ	LOAD Bφ	LOAD Cφ	C/B TRIP	C/B POLE	LOAD DESCRIPTION
	100		6200			1	2	800			100		
LP8				6600		3	4		0				PP19
		3			4600	5	6			0		3	
	100		7200			7	8	21560			225		
LP10				6500		9	10		19816				PP21
		3			6800	11	12			20560		3	
	225		13020			13	14						
PP13				14748		15	16						SPACE
		3			12020	17	18						
	400		15388			19	20						
PP15				14976		21	22						SPACE
		3			16188	23	24						
	100		0			25	26						
PP17				0		27	28						-
		3			0	29	30						
	100		4600			31	32						
PP18				3600		33	34						-
		3			2200	35	36						
	80		8400			37	38				60		
RT-4				8400		39	40						SPD
		3			8400	41	42					3	
			54808	54824	50208			22360	19816	20560			

A= 77,168
B= 74,640
C= 70,768
TOTAL= 222,576

NOTE: REFER TO GENERAL NOTE 'B' FOR ADDITIONAL INFORMATION

PP15

TOTAL KW: 53.0 | ENCLOSURE: NEMA-1 | PHASE: 3φ | VOLTAGE: 120 / 208
MOUNTING: SURFACE | BUSSING: COPPER | FAULT CURRENT RATING: 22000 AIC | MLO(AMPS): 225
FEEDER: 4 #4/0 & 1 #4 GRD. - 2 1/2"C. | LOCATION:

AD-3

LOAD DESCRIPTION	C/B TRIP	C/B POLE	LOAD Aφ	LOAD Bφ	LOAD Cφ	CCT. NO.	CCT. NO.	LOAD Aφ	LOAD Bφ	LOAD Cφ	C/B TRIP	C/B POLE	LOAD DESCRIPTION
REC/129/133/134	20	1	1400			1	2	1200			20	1	REC/128
REC/133/134	20	1		1400		3	4		1000		20	1	REC/128
REC/137/138/139	20	1			1400	5	6			1000	20	1	REC/144/145/146
REC/132/138	20	1	1200			7	8	1000			20	1	REC/145/146
REC/101/103/105/106	20	1		1200		9	10		1400		20	1	REC/104/108
REC/101/103/104	20	1			1400	11	12			1400	20	1	REC/104/107/110/111
REC/104/111/112/113	20	1	1400			13	14	1400			20	1	REC/117/119
REC/104/111/112/113	20	1		1400		15	16		1400		20	1	REC/117/119/120
REC/121/122/122STOR	20	1			1200	17	18			600	20	1	MONITOR/133
REC/121/122/122STOR	20	1	1400			19	20	600			20	1	MONITOR/128
HANDDRYER/121	30	1		1600		21	22		1600		20	1	HANDDRYER/121
HANDDRYER/148	30	1			1600	23	24			1600	20	1	HANDDRYER/148
BLEACHER/127	20	1	1000			25	26	600			20	1	MONITOR/122
MONITOR/117	20	1		600		27	28		600		20	1	REC/144
DRYER/142	30				2268	29	30			1200	20	1	UV-2
		2	2268			31	32				20	1	SPARE
WASHER/142	20	1		1200		33	34		400		20	1	CH-2
HANDDRYER/139	20	1			1600	35	36			600	20	1	RT REC
HANDDRYER/105	20	1	1600			37	38	1920			30	1	TEF-5
HANDDRYER/106	20	1		1600		39	40		1176		20	1	TEF-3
HANDDRYER/146	20	1			1600	41	42			1920	20	1	
			10268	9000	11068			6720	7576	8320			

A= 16,988
B= 16,576
C= 19,388
TOTAL= 52,952

NOTE: REFER TO GENERAL NOTE 'B' FOR ADDITIONAL INFORMATION

PP21

TOTAL KW: 79.3 | ENCLOSURE: NEMA-1 | PHASE: 3φ | VOLTAGE: 120 / 208
MOUNTING: RECESSED | BUSSING: COPPER | FAULT CURRENT RATING: 22000 AIC | MLO(AMPS): 400
FEEDER: 4 #500MCM & 1 #3 GRD. - 3"C. | LOCATION:

AD-3

LOAD DESCRIPTION	C/B TRIP	C/B POLE	LOAD Aφ	LOAD Bφ	LOAD Cφ	CCT. NO.	CCT. NO.	LOAD Aφ	LOAD Bφ	LOAD Cφ	C/B TRIP	C/B POLE	LOAD DESCRIPTION
REC/116/100	20	1	800			1	2	1000			20	1	SCOREBOARD
REC/116/100/113	20	1		800		3	4		1000		20	1	BACKSTOP
REC/113/114/115	20	1			800	5	6			1000	20	1	BACKSTOP
REC/101/102	20	1	1200			7	8	1000			20	1	CURTAIN
REC/104/105/106	20	1		800		9	10				20	1	SPARE
REC/107/110/111	20	1			1000	11	12				20	1	SPARE
REC/108/109/113	20	1	1200			13	14	1000			20	1	BLEACHERS113
REC/108/113	20	1		1000		15	16		1600		20	1	HANDDRYER-103
HANDRYER/105	20	1			1600	17	18			1600	20	1	HANDDRYER-103
HANDDRYER/105	20	1	1600			19	20				20	1	HANDDRYER-107
HANDDRYER-107	20	1		1600		21	22						SPACE
HANDDRYER-112	20	1			1600	23	24						SPACE
HANDDRYER-112	20	1	1600			25	26						SPACE
HANDDRYER-110	20	1		1600		27	28						SPACE
HANDDRYER-118	20	1			1600	29	30			12840	125		
HANDDRYER-102	20	1	1600			31	32	12840					RT-3
HANDDRYER-114	20	1		1600		33	34		12840			3	
HANDDRYER-114	20	1			1600	35	36			1920	30	1	TEF-1
HANDDRYER-115	20	1	1600			37	38	1920			30	1	TEF-2
HANDDRYER-115	20	1		1600		39	40		1176		20	1	TEF-3
SPARE	20	1				41	42			800	20	1	RT REC
			9600	9000	8200			17760	16616	18160			

A= 27,360
B= 25,616
C= 26,360
TOTAL= 79,336

NOTE: REFER TO GENERAL NOTE 'B' FOR ADDITIONAL INFORMATION

LP8

TOTAL KW: 17.4 | ENCLOSURE: NEMA-1 | PHASE: 3φ | VOLTAGE: 120 / 208
MOUNTING: SURFACE | BUSSING: COPPER | FAULT CURRENT RATING: 22000 AIC | MLO(AMPS): 100
FEEDER: 4 #2 & 1 #8 GRD - 1 1/2"C | LOCATION:

LOAD DESCRIPTION	C/B TRIP	C/B POLE	LOAD Aφ	LOAD Bφ	LOAD Cφ	CCT. NO.	CCT. NO.	LOAD Aφ	LOAD Bφ	LOAD Cφ	C/B TRIP	C/B POLE	LOAD DESCRIPTION
AUX GYM LTG	20	1	1000			1	2	1000			20	1	LGI 128 LTG
AUX GYM LTG	20	1		1000		3	4		1000		20	1	LGI 128LTG
AUX GYM LTG	20	1			1000	5	6			1300	20	1	MUSIC 133 LTG
AUX GYM LTG	20	1	1000			7	8	1000			20	1	LOCKER147 LTG
AUX GYM LTG	20	1		1000		9	10		1000		20	1	LOCKER 144 LTG
AUX GYM LTG	20	1			1000	11	12			1300	20	1	CLINIC 104 LTG
AUX GYM LTG	20	1	1000			13	14	1200			20	1	CHOIR 117
AUX GYM/ORCH LTG	20	1		1200		15	16		1400		20	1	ORCH 124 LTG
SPACE						17	18				20	1	SPARE
SPACE						19	20				20	1	SPARE
SPACE						21	22				20	1	SPARE
SPACE						23	24				20	1	SPARE
SPACE						25	26				20	1	SPARE
SPACE						27	28				20	1	SPARE
SPACE						29	30				20	1	SPARE
SPACE						31	32				20	1	SPARE
SPACE						33	34				20	1	SPARE
SPACE						35	36				20	1	SPARE
SPACE						37	38				20	1	SPARE
SPACE						39	40				20	1	SPARE
SPACE						41	42				20	1	SPARE
			3000	3200	2000			3200	3400	2600			

A= 6,200
B= 6,600
C= 4,600
TOTAL= 17,400

NOTE: REFER TO GENERAL NOTE 'B' FOR ADDITIONAL INFORMATION

PP17

TOTAL KW: 0.0 | ENCLOSURE: NEMA-1 | PHASE: 3φ | VOLTAGE: 120 / 208
MOUNTING: SURFACE | BUSSING: COPPER | FAULT CURRENT RATING: 22000 AIC | MLO(AMPS): 100
FEEDER: 4 #2 & 1 #8 GRD - 1 1/2"C | LOCATION:

LOAD DESCRIPTION	C/B TRIP	C/B POLE	LOAD Aφ	LOAD Bφ	LOAD Cφ	CCT. NO.	CCT. NO.	LOAD Aφ	LOAD Bφ	LOAD Cφ	C/B TRIP	C/B POLE	LOAD DESCRIPTION
SPARE	20	1				1	2				20	1	SPARE
SPARE	20	1				3	4				20	1	SPARE
SPARE	20	1				5	6				20	1	SPARE
SPARE	20	1				7	8				20	1	SPARE
SPARE	20	1				9	10				20	1	SPARE
SPARE	20	1				11	12				20	1	SPARE
SPACE						13	14						SPACE
SPACE						15	16						SPACE
SPACE						17	18						SPACE
SPACE						19	20						SPACE
SPACE						21	22						SPACE
SPACE						23	24						SPACE
SPACE						25	26						SPACE
SPACE						27	28						SPACE
SPACE						29	30						SPACE
SPACE						31	32						SPACE
SPACE						33	34						SPACE
SPACE						35	36						SPACE
SPACE						37	38						SPACE
SPACE						39	40						SPACE
SPACE						41	42						SPACE
			0	0	0			0	0	0			

A= 0
B= 0
C= 0
TOTAL= 0

NOTE: REFER TO GENERAL NOTE 'B' FOR ADDITIONAL INFORMATION

KP1

TOTAL KW: 51.2 | ENCLOSURE: NEMA-1 | PHASE: 3φ | VOLTAGE: 120 / 208
MOUNTING: SURFACE | BUSSING: COPPER | FAULT CURRENT RATING: 22000 AIC | MLO(AMPS): 225
FEEDER: 4 #4/0 & 1 #4 GRD. - 2 1/2"C. | LOCATION:

LOAD DESCRIPTION	C/B TRIP	C/B POLE	LOAD Aφ	LOAD Bφ	LOAD Cφ	CCT. NO.	CCT. NO.	LOAD Aφ	LOAD Bφ	LOAD Cφ	C/B TRIP	C/B POLE	LOAD DESCRIPTION
SPARE	20	1				1	2				20	1	SPARE
SPARE	20	1				3	4				20	1	SPARE
SPARE	20	1				5	6				20	1	SPARE
	15		500			7	8				20	1	SPARE
#19 DISPOSAL				500		9	10				20	1	SPARE
		3			500	11	12				20	1	SPARE
#14 TABLE	20	1	1800			13	14	700			15		COMBI
#17 TABLE	20	1		1800		15	16		700			2	
#24 COOLER	20	1			400	17	18			700	15		COMBI
#25 COOLER	20	1	400			19	20	700				2	
#23 HOT WATER	30			2500		21	22		500		20	1	#98 PASS-THRU REFR.
		2			2500	23	24			500	20	1	#98 FRIDGE
#32 COMBI	15		2500			25	26	500			20	1	#98 FRIDGE
		2		2500		27	28		500		20	1	#98 FRIDGE
#34 COMBI	15				2500	29	30			800	20	1	#95 GUARD
		2	2500			31	32	1800			20	1	#93 HOT COUNTER
#89 COOLER	20	1		400		33	34		1800		20	1	#83 HOT COUNTER
#88 GUARD	20	1			800	35	36			800	20	1	#79 GUARD
#87 COLD WELL	20	1	900			37	38	1600			20	1	#77 HOT COUNTER
#86 COLD COUNTER	20	1		1800		39	40				20	1	SPARE
#85 GUARD	20	1			800	41	42				20	1	SPARE
LANUDRY / RT REC	20	1	1200			43	44	400			20	1	CONV. REC.
LOCKER / REST REC	20	1		400		45	46		400		20	1	CONV. REC.
#67 HOT COUNTER	20	1			1800	47	48			400	20	1	CONV. REC.
#69 GUARD	20	1	800			49	50	400			20	1	CONV. REC.
#70 COLD COUNTER	20	1		1800		51	52		400		20	1	CONV. REC.
#71 COLD WELL	20	1			800	53	54			400	20	1	CONV. REC.
#72 GUARD	20	1	800			55	56	400			20	1	CONV. REC.
#73 COOLER	20	1		400		57	58		400		20	1	CONV. REC.
#76 REGISTER	20	1			1200	59	60			400	20	1	CONV. REC.
#76 REGISTER	20	1	1200			61	62				20	1	SPARE
SPACE						63	64				20	1	SPARE
SPACE						65	66				20	1	SPARE
SPACE						67	68				20	1	SPARE
SPACE						69	70				20	1	SPARE
SPACE						71	72				20	1	SPARE
			12600	12100	11300			6500	4700	4000			

A= 19,100
B= 16,800
C= 15,300
TOTAL= 51,200

NOTE: REFER TO GENERAL NOTE 'B' FOR ADDITIONAL INFORMATION

LP10

TOTAL KW: 20.5 | ENCLOSURE: NEMA-1 | PHASE: 3φ | VOLTAGE: 120 / 208
MOUNTING: SURFACE | BUSSING: COPPER | FAULT CURRENT RATING: 22000 AIC | MLO(AMPS): 100
FEEDER: 4 #2 & 1 #8 GRD - 1 1/2"C | LOCATION:

LOAD DESCRIPTION	C/B TRIP	C/B POLE	LOAD Aφ	LOAD Bφ	LOAD Cφ	CCT. NO.	CCT. NO.	LOAD Aφ	LOAD Bφ	LOAD Cφ	C/B TRIP	C/B POLE	LOAD DESCRIPTION
LTG/101	20	1	1200			1	2	800			20	1	LTG/103
LTG/101/102	20	1		800		3	4		800		20	1	LTG/102
LTG105	20	1			1200	5	6			1000	20	1	GYM LTG
LTG/105/105/108	20	1	800			7	8	1000			20	1	GYM LTG
GYM LTG	20	1		1000		9	10		1000		20	1	GYM LTG
GYM LTG	20	1			1000	11	12			1000	20	1	GYM LTG
GYM LTG	20	1	1000			13	14	1000			20	1	GYM LTG
GYM LTG	20	1		1000		15	16		1000		20	1	GYM LTG
GYM LTG	20	1			1000	17	18			1000	20	1	LTG/108
GYM TRACK	20	1	400			19	20	1000			20	1	LTG/100
LTG/113/114/117	20	1		900		21	22				20	1	SPARE
LOCKER REST	20	1			600	23	24				20	1	SPARE
SPACE						25	26				20	1	SPARE
SPACE						27	28				20	1	SPARE
SPACE						29	30				20	1	SPARE
SPACE						31	32				20	1	SPARE
SPACE						33	34				20	1	SPARE
SPACE						35	36				20	1	SPARE
SPACE						37	38				20	1	SPARE
SPACE						39	40				20	1	SPARE
SPACE						41	42				20	1	SPARE
			3400	3700	3800			3800	2800	3000			

A= 7,200
B= 6,500
C= 6,800
TOTAL= 20,500

NOTE: REFER TO GENERAL NOTE 'B' FOR ADDITIONAL INFORMATION

PP18

TOTAL KW: 10.4 | ENCLOSURE: NEMA-1 | PHASE: 3φ | VOLTAGE: 120 / 208
MOUNTING: SURFACE | BUSSING: COPPER | FAULT CURRENT RATING: 22000 AIC | MLO(AMPS): 100
FEEDER: 4 #2 & 1 #8 GRD - 1 1/2"C | LOCATION:

LOAD DESCRIPTION	C/B TRIP	C/B POLE	LOAD Aφ	LOAD Bφ	LOAD Cφ	CCT. NO.	CCT. NO.	LOAD Aφ	LOAD Bφ	LOAD Cφ	C/B TRIP	C/B POLE	LOAD DESCRIPTION
REC/102	20	1	1200			1	2	1200			20	1	REC/103
REC/102	20	1		1200		3	4		1200		20	1	REC/103
REC/105/108/109	20	1			1200	5	6			1000	20	1	REC/105/106
REC/108/109/110	20	1	1000			7	8	1200			20	1	REC/105/106/107
MONITOR/102/103	20	1		1200		9	10						SPACE
SPARE	20	1				11	12						SPACE
SPARE	20	1				13	14						SPACE
SPARE	20	1				15	16						SPACE
SPARE	20	1				17	18						SPACE
SPARE	20	1				19	20						SPACE
SPARE	20	1				21	22						SPACE
SPARE	20	1				23	24						SPACE
SPARE	20	1				25	26						SPACE
SPARE	20	1				27	28						SPACE
SPARE	20	1				29	30						SPACE
SPARE	20	1				31	32						SPACE
SPARE	20	1				33	34						SPACE
SPARE	20	1				35	36						SPACE
SPARE	20	1				37	38						SPACE
SPARE	20	1				39	40						SPACE
SPARE	20	1				41	42						SPACE
			2200	2400	1200			2400	1200	1000			

A= 4,600
B= 3,600
C= 2,200
TOTAL= 10,400

NOTE: REFER TO GENERAL NOTE 'B' FOR ADDITIONAL INFORMATION

KP2

TOTAL KW: 72.6 | ENCLOSURE: NEMA-1 | PHASE: 3φ | VOLTAGE: 120 / 208
MOUNTING: SURFACE | BUSSING: COPPER | FAULT CURRENT RATING: 22000 AIC | MLO(AMPS): 400
FEEDER: 4 #500MCM & 1 #3 GRD. - 3"C. | LOCATION:

LOAD DESCRIPTION	C/B TRIP	C/B POLE	LOAD Aφ	LOAD Bφ	LOAD Cφ	CCT. NO.	CCT. NO.	LOAD Aφ	LOAD Bφ	LOAD Cφ	C/B TRIP	C/B POLE	LOAD DESCRIPTION
	70		6600			1	2	4104			45		
#51 DISH MACHINE				6600		3	4		4104				#52 DISH DRY
		3			6600	5	6			4104		3	
#90 AIR CURTAIN	20		1250			7	8	750			15		#97 PASS THRU
		2		1250		9	10		750			2	
#84 COLD WELL	20				1500	11	12			750	15		#97 PASS THRU
		2	1500			13	14	750				2	
#78 COLD WELL	20			1500		15	16		750		15		#97 PASS THRU
		2			1500	17	18			750		2	
#74 AIR CURTAIN	20		1250			19	20	750			15		#97 PASS THRU
		2		1250		21	22		750			2	
#68 COLD WELL	20				1500	23	24			1500	15		#94 COLD WELL
		2	1500			25	26	1500				2	
	15			500		27	28		1800		20	1	#26 HOOD
#49 DISPOSAL					500	29	30			1200	20	1	#20 ANSUL
		3	500			31	32	936			15		
#E7C HEATER	20			1500		33	34		936				#28 FAN
		2			1500	35	36			936		3	
#54 FAN	20	1	900			37	38	2100			35		
SPARE	20	1				39	40		2100				#29 SUPPLY FAN
SPARE	20	1				41	42			2100		3	
SPARE	20	1				43	44						SPACE
SPARE	20	1				45	46						SPACE
SPARE	20	1				47	48						SPACE
SPARE	20	1				49	50						SPACE
SPARE	20	1				51	52						SPACE
SPARE	20	1				53	54						SPACE
SPARE	20	1				55	56						SPACE
SPARE	20	1				57	58						SPACE
SPARE	20	1				59	60						SPACE
SPARE	20	1				61	62						SPACE
SPARE	20	1				63	64						SPACE
SPARE	20	1				65	66						SPACE
SPARE	20	1				67	68						SPACE
SPARE	20	1				69	70						SPACE
SPARE	20	1				71	72						SPACE
			13500	12600	13100			10890	11190	11340			

A= 24,390
B= 23,790
C= 24,440
TOTAL= 72,620

NOTE: REFER TO GENERAL NOTE 'B' FOR ADDITIONAL INFORMATION

PP13

AD-3

TOTAL KW: 46.5 | ENCLOSURE: NEMA-1 | PHASE: 3φ | VOLTAGE: 120 / 208
MOUNTING: RECESSED | BUSSING: COPPER | FAULT CURRENT RATING: 22000 AIC | MLO(AMPS): 225
FEEDER: 4 #4/0 & 1 #4 GRD. - 2 1/2"C. | LOCATION:

AD-3

LOAD DESCRIPTION	C/B TRIP	C/B POLE	LOAD Aφ	LOAD Bφ	LOAD Cφ	CCT. NO.	CCT. NO.	LOAD Aφ	LOAD Bφ	LOAD Cφ	C/B TRIP	C/B POLE	LOAD DESCRIPTION
REC/105/106	20	1	1200			1	2	1400			20	1	REC/101/103/104/114
REC/105/106/107	20	1		1200		3	4		1400		20	1	REC/101/103/104
REC/108/109	20	1			1400	5	6			1200	20	1	REC/116/117/122
REC/116/118	20	1	1400			7	8	1400			20	1	REC/117/122
REC/116/118	20	1		1400		9	10		1400		20	1	REC/119/120/121
REC/127/130/131	20	1			1000	11	12			1200	20	1	REC/119/121
REC/127	20	1	800			13	14	800			20	1	REC/128
MONITOR/103	20	1		600		15	16		600		20	1	MONITOR/117
MONITOR/116	20	1			600	17	18			600	20	1	MONITOR/122
MOMITOR/128	20	1	600			19	20	400			20	1	CH-4
COPIER/120	20			1500		21	22		1400		20	1	UV-3
		2			1500	23	24			1400	20	1	REC
COPIER/105	20		1500			25	26	400			20	1	RT REC
		2		1500		27	28		628		20	1	TEF-9
MEDIA CTR SCREEN	20	1			300	29	30			3120	40		
HAND DRYER F-110	20	1	1600			31	32	3120					RT-2
HAND DRYER F-112	20	1		1600		33	34		3120			3	
HAND DRYER F-129	20	1			1600	35	36						SPACE
HAND DRYER F-128	20	1	1600			37	38						SPACE
SPARE	20	1				39	40						SPACE
SPARE	20	1				41	42						SPACE
			8700	7800	6400			7520	8548	7520			

A= 16,220
B= 16,348
C= 13,920
TOTAL= 46,488

NOTE: REFER TO GENERAL NOTE 'B' FOR ADDITIONAL INFORMATION

PP19

TOTAL KW: 0.8 | ENCLOSURE: NEMA-1 | PHASE: 3φ | VOLTAGE: 120 / 208
MOUNTING: SURFACE | BUSSING: COPPER | FAULT CURRENT RATING: 22000 AIC | MLO(AMPS): 100
FEEDER: 4 #2 & 1 #8 GRD - 1 1/2"C | LOCATION:

LOAD DESCRIPTION	C/B TRIP	C/B POLE	LOAD Aφ	LOAD Bφ	LOAD Cφ	CCT. NO.	CCT. NO.	LOAD Aφ	LOAD Bφ	LOAD Cφ	C/B TRIP	C/B POLE	LOAD DESCRIPTION
REC	20	1	800			1	2				20	1	SPARE
SPARE	20	1				3	4				20	1	SPARE
SPARE	20	1				5	6				20	1	SPARE
SPARE	20	1				7	8				20	1	SPARE
SPARE	20	1				9	10				20	1	SPARE
SPARE	20	1				11	12				20	1	SPARE
SPACE						13	14						SPACE
SPACE						15	16						SPACE
SPACE						17	18						SPACE
SPACE						19	20						SPACE
SPACE						21	22						SPACE
SPACE						23	24						SPACE
SPACE						25	26						SPACE
SPACE						27	28						SPACE
SPACE						29	30						SPACE
SPACE						31	32						SPACE
SPACE						33	34						SPACE
SPACE						35	36						SPACE
SPACE						37	38						SPACE
SPACE						39	40						SPACE
SPACE						41	42						SPACE
			800	0	0			0	0	0			

A= 800
B= 0
C= 0
TOTAL= 800

NOTE: REFER TO GENERAL NOTE 'B' FOR ADDITIONAL INFORMATION

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PROJECT 21-141
DATE 02/28/22
COORDINATED BY JC
DRAWN BY MS
CHECKED BY DJ

DAVID G. JANNEY REGISTERED NO. 10302590 STATE OF INDIANA PROFESSIONAL ENGINEER

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REVISIONS

MARK	DATE	ISSUED FOR
AD-3	03/30/22	ADDENDUM NO. 3

DRAWING
ELECTRICAL PANEL SCHEDULES

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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MECHANICAL EQUIPMENT CONNECTION SCHEDULE

TAG	DESCRIPTION	LOAD WATTS	LOAD HP	LOAD MCA	LOAD FLA	LOAD AMPS	MOCP	VOLT	PHASE	PANEL	CKT. NO.	FUSED SWITCH C/B	FEEDER CABLE	FEEDER C	STARTER BY: MC.	STARTER BY: EC.	LOCATION	REMARKS
C-1	ROOF MOUNTED AIR COOLED CHILLER	-	-	1101	-	-	1200	208	3	MSWB	MSWB	1200A/3P	(3 SETS) 4 #600KCMIL & 1 #3/0 GRD.	(3) 4"	X	-	-	-
B-3	GAS FIRED HW CONDENSING BOILER w/SEALED COMBUSTION	-	-	18	-	-	30	120	1	EM-5B	20	30A/1P	2 #10 & 1 #10 GRD.	¾"	X	-	-	-
AH-1	INTERIOR CENTRAL STATION AIR HANDLING UNIT	-	-	1652	-	-	250	208	3	MSWB	MSWB	250A/3P	4 #250KCMIL & 1 #4 GRD.	2.5"	X	-	-	-
ER-1	HOT WATER HEATING / CHILLED WATER COOLING - SZVAV	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AH-2	INTERIOR CENTRAL STATION AIR HANDLING UNIT	-	-	25.8	-	-	40	208	3	MSWB	MSWB	40A/3P	4 #6 & 1 #10 GRD.	1"	X	-	-	-
ER-2	HOT WATER HEATING / CHILLED WATER COOLING - SZVAV	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AH-3	INTERIOR CENTRAL STATION AIR HANDLING UNIT	-	-	91	-	-	125	208	3	MSWB	MSWB	125A/3P	4 #1 & 1 #6 GRD.	1.5"	X	-	-	-
ER-3	HOT WATER HEATING / CHILLED WATER COOLING - VAV	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AH-4	INTERIOR CENTRAL STATION AIR HANDLING UNIT	0	-	105.8	-	-	150	208	3	MSWB	MSWB	150A/3P	4 #1/0 & 1 #6 GRD.	1.5"	X	-	-	-
ER-4	HOT WATER HEATING / CHILLED WATER COOLING - SZVAV	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AH-5	INTERIOR CENTRAL STATION AIR HANDLING UNIT	0	-	91	-	-	125	208	3	MSWB	MSWB	125A/3P	4 #1 & 1 #6 GRD.	1.5"	X	-	-	-
ER-5	HOT WATER HEATING / CHILLED WATER COOLING - SZVAV	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AH-6	INTERIOR CENTRAL STATION AIR HANDLING UNIT	Totals	-	34.3	-	-	50	208	3	MSWB	MSWB	50A/3P	4 #6 & 1 #10 GRD.	1"	X	-	-	-
ER-6	HOT WATER HEATING / CHILLED WATER COOLING - SZVAV	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AH-7	INTERIOR CENTRAL STATION AIR HANDLING UNIT	2160	-	67.7	-	-	100	208	3	ILD2	ILD2	100A/3P	4 #3 & 1 #8 GRD.	1¼"	X	-	-	-
ER-7	HOT WATER HEATING / CHILLED WATER COOLING - VAV	59446	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RT-1	ROOF MOUNTED GAS FIRED / DX COOLING ROOFTOP UNIT-VAV	Totals	-	71	-	-	80	208	3	PP5	20-22-24	80A/3P	4 #3 & 1 #8 GRD.	1¼"	X	-	-	-
RT-2	ROOF MOUNTED GAS FIRED / DX COOLING ROOFTOP UNIT-VAV	-	-	39	-	-	50	208	3	PP13	30-32-34	40A/3P	4 #6 & 1 #10 GRD.	1"	X	-	-	-
RT-3	ROOF MOUNTED GAS FIRED / DX COOLING ROOFTOP UNIT-MAU w/ERV	2160	-	107.6	-	-	125	208	3	PP21	30-32-34	125A/3P	4 #1 & 1 #6 GRD.	1¼"	X			
RT-4	ROOF MOUNTED GAS FIRED / DX COOLING ROOFTOP UNIT-VAV w/ERV	59446	-	69.5	-	-	80	208	3	LD3	37-39-41	80A/3P	4 #4 & 1 #8 GRD.	1"				
UV-1	VERTICAL UNIT VENTILATOR - 4 PIPE HOT/CHILLED WATER	-	1/2	-	-	-	-	120	1	VARIES	VARIES	20A/1P	2 #12 & 1 #12 GRD.	¾"				
UV-2	VERTICAL UNIT VENTILATOR - 4 PIPE HOT/CHILLED WATER	9283.9	3/4	-	-	-	-	120	1	VARIES	VARIES	20A/1P	2 #12 & 1 #12 GRD.	¾"				
UV-3	VERTICAL UNIT VENTILATOR - 4 PIPE HOT/CHILLED WATER	-	3/4	-	-	-	-	120	1	VARIES	VARIES	20A/1P	2 #12 & 1 #12 GRD.	¾"				
FC-1	HORIZONTAL CONCEALED CEILING MOUNTED FAN COIL		-	2.75	-	-	15	120	1	VARIES	VARIES	20A/1P	2 #12 & 1 #12 GRD.	¾"				
FC-2	HORIZONTAL CONCEALED CEILING MOUNTED FAN COIL		-	6.07	-	-	15	120	1	VARIES	VARIES	20A/1P	2 #12 & 1 #12 GRD.	¾"				
FC-3	HORIZONTAL CONCEALED CEILING MOUNTED FAN COIL		-	6.07	-	-	15	120	1	VARIES	VARIES	20A/1P	2 #12 & 1 #12 GRD.	¾"				
CH-1	VERTICAL RECESSED MOUNTED CABINET HEATER	-	-	2.75	-	-	15	120	1	VARIES	VARIES	20A/1P	2 #12 & 1 #12 GRD.	¾"				
CH-2	VERTICAL SURFACE MOUNTED CABINET HEATER	38071	-	3.9	-	-	15	120	1	VARIES	VARIES	20A/1P	2 #12 & 1 #12 GRD.	¾"				
CH-3	VERTICAL RECESSED MOUNTED CABINET HEATER	-	-	6.1	-	-	15	120	1	VARIES	VARIES	20A/1P	2 #12 & 1 #12 GRD.	¾"				
CH-4	VERTICAL SURFACE MOUNTED CABINET HEATER	32745	-	6.1	-	-	15	120	1	VARIES	VARIES	20A/1P	2 #12 & 1 #12 GRD.	¾"				
UH-1	HOT WATER UNIT HEATER	0	-	0.8	-	-	15	120	1	PP9	27	20A/1P	2 #12 & 1 #12 GRD.	¾"	X	-	-	-
TEF-1	ROOF MOUNTED TOILET EXHAUST FAN	-	1	-	-	-	-	120	1	PP21	36	30A/1P	2 #10 & 1 #10 GRD.	¾"	X	-	-	-
TEF-2	ROOF MOUNTED TOILET EXHAUST FAN	59446	1	-	-	-	-	120	1	PP21	38	30A/1P	2 #10 & 1 #10 GRD.	¾"	X	-	-	-
TEF-3	ROOF MOUNTED TOILET EXHAUST FAN	-	1/2	-	-	-	-	120	1	PP15	40	20A/1P	2 #12 & 1 #12 GRD.	¾"	X	-	-	-
TEF-4	ROOF MOUNTED TOILET EXHAUST FAN	9283.9	1	-	-	-	-	120	1	-	-	30A/1P	2 #10 & 1 #10 GRD.	¾"	X	-	-	-
TEF-5	ROOF MOUNTED TOILET EXHAUST FAN	-	1	-	-	-	-	120	1	PP15	38	30A/1P	2 #10 & 1 #10 GRD.	¾"	X	-	-	-
TEF-6	ROOF MOUNTED TOILET EXHAUST FAN	32745	1/8	-	-	-	-	120	1	-	-	20A/1P	2 #12 & 1 #12 GRD.	¾"	X	-	-	-
TEF-7	ROOF MOUNTED TOILET EXHAUST FAN	-	1/2	-	-	-	-	120	1	PP1	20	20A/1P	2 #12 & 1 #12 GRD.	¾"	X	-	-	-
TEF-8	ROOF MOUNTED TOILET EXHAUST FAN	38071	1/8	-	-	-	-	120	1	PP1	22	20A/1P	2 #12 & 1 #12 GRD.	¾"	X	-	-	-
TEF-9	ROOF MOUNTED TOILET EXHAUST FAN	-	1/8	-	-	-	-	120	1	PP13	28	20A/1P	2 #12 & 1 #12 GRD.	¾"	X	-	-	-
TEF-10	ROOF MOUNTED TOILET EXHAUST FAN	32745	1/8	-	-	-	-	120	1	PP1	18	20A/1P	2 #12 & 1 #12 GRD.	¾"	X	-	-	-
TEF-11	ROOF MOUNTED TOILET EXHAUST FAN	-	1/2	-	-	-	-	120	1	PP3	13	20A/1P	2 #12 & 1 #12 GRD.	¾"	X	-	-	-
TEF-12	ROOF MOUNTED TOILET EXHAUST FAN	12343	1/2	-	-	-	-	120	1	PP3	11	20A/1P	2 #12 & 1 #12 GRD.	¾"	X	-	-	-
TEF-13	ROOF MOUNTED TOILET EXHAUST FAN	32745	1	-	-	-	-	120	1	PP11	19	30A/1P	2 #10 & 1 #10 GRD.	¾"	X	-	-	-
TEF-14	ROOF MOUNTED TOILET EXHAUST FAN	-	1/8	-	-	-	-	120	1	PP6	33	20A/1P	2 #12 & 1 #12 GRD.	¾"	X	-	-	-
TEF-15	ROOF MOUNTED TOILET EXHAUST FAN	12343	1/2	-	-	-	-	120	1	PP5	16	20A/1P	2 #12 & 1 #12 GRD.	¾"	X	-	-	-
TEF-16	ROOF MOUNTED TOILET EXHAUST FAN	-	1/8	-	-	-	-	120	1	PP5	18	20A/1P	2 #12 & 1 #12 GRD.	¾"	X	-	-	-
TEF-17	ROOF MOUNTED TOILET EXHAUST FAN	24361	1	-	-	-	-	120	1	PP9	25	30A/1P	2 #10 & 1 #10 GRD.	¾"	X	-	-	-
TEF-18	ROOF MOUNTED TOILET EXHAUST FAN	-	1/8	-	-	-	-	120	1	PP9	27	20A/1P	2 #12 & 1 #12 GRD.	¾"	X	-	-	-
GEF-1	ROOF MOUNTED GENERAL EXHAUST FAN	25549	1/8	-	-	-	-	120	1	PP6	35	20A/1P	2 #12 & 1 #12 GRD.	¾"	X	-	-	-
GEF-2	ROOF MOUNTED GENERAL EXHAUST FAN	14034	1	-	-	-	-	120	1	PP7	1	30A/1P	2 #10 & 1 #10 GRD.	¾"	X	-	-	-
GEF-3	ROOF MOUNTED GENERAL EXHAUST FAN	38719	1/3	-	-	-	-	120	1	PP7	3	20A/1P	2 #12 & 1 #12 GRD.	¾"	X	-	-	-
GEF-4	ROOF MOUNTED GENERAL EXHAUST FAN	25009	1/2	-	-	-	-	120	1	PP7	5	20A/1P	2 #12 & 1 #12 GRD.	¾"	X	-	-	-
GEF-5	ROOF MOUNTED GENERAL EXHAUST FAN	1176	1/3	-	-	-	-	120	1	PP7	7	20A/1P	2 #12 & 1 #12 GRD.	¾"	X	-	-	-
GEF-6	ROOF MOUNTED GENERAL EXHAUST FAN	1656	1/2	-	-	-	-	120	1	PP7	9	20A/1P	2 #12 & 1 #12 GRD.	¾"	X	-	-	-
GEF-7	ROOF MOUNTED GENERAL EXHAUST FAN	1656	1/2	-	-	-	-	120	1	PP7	11	20A/1P	2 #12 & 1 #12 GRD.	¾"	X	-	-	-
GEF-8	ROOF MOUNTED GENERAL EXHAUST FAN	REF1	1/2	-	-	-	-	120	1	PP7	13	20A/1P	2 #12 & 1 #12 GRD.	¾"	X	-	-	-
GEF-9	ROOF MOUNTED GENERAL EXHAUST FAN	330	1	-	-	-	-	120	1	PP7	15	30A/1P	2 #10 & 1 #10 GRD.	¾"	X	-	-	-
GEF-10	ROOF MOUNTED GENERAL EXHAUST FAN	468	1/2	-	-	-	-	120	1	PP7	17	20A/1P	2 #12 & 1 #12 GRD.	¾"	X	-	-	-
GEF-11	ROOF MOUNTED GENERAL EXHAUST FAN	732	1/2	-	-	-	-	120	1	PP7	19	20A/1P	2 #12 & 1 #12 GRD.	¾"	X	-	-	-
GEF-12	ROOF MOUNTED GENERAL EXHAUST FAN	732	1/2	-	-	-	-	120	1	PP7	21	20A/1P	2 #12 & 1 #12 GRD.	¾"	X	-	-	-
GEF-13	ROOF MOUNTED GENERAL EXHAUST FAN	1920	1/2	-	-	-	-	120	1	PP7	23	20A/1P	2 #12 & 1 #12 GRD.	¾"	X	-	-	-
GEF-14	ROOF MOUNTED GENERAL EXHAUST FAN	1920	1/2	-	-	-	-	120	1	PP7	25	20A/1P	2 #12 & 1 #12 GRD.	¾"	X	-	-	-
GEF-15	ROOF MOUNTED GENERAL EXHAUST FAN	1176	1/6	-	-	-	-	120	1	PP7	27	20A/1P	2 #12 & 1 #12 GRD.	¾"	X	-	-	-

AD-3

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PROJECT
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PROJECT 21-141
DATE 02/28/22
COORDINATED BY JC
DRAWN BY MS
CHECKED BY DJ

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REVISIONS

MARK	DATE	ISSUED FOR
AD-3	03/30/22	ADDENDUM NO. 3

DRAWING
ELECTRICAL SCHEDULES

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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PLUMBING & PUMP EQUIPMENT CONNECTION SCHEDULE

TAG	DESCRIPTION	LOAD WATTS	HP	MOCP	VOLT	PHASE	PANEL	CKT. NO.	FUSED SWITCH C/B	FEEDER CABLE	FEEDER C	STARTED BY: MC.	STARTED BY: EC.	LOCATION	REMARKS
BP-1	PUMP	*REF1	3	-	208	3	EM-8B	*2-4-6	20A/3P	4 #12 & 1 #12 GRD.	¾"	-	-	-	-
BP-2	PUMP	-	3	-	208	3	EM-8B	*8-10-12	20A/3P	4 #12 & 1 #12 GRD.	¾"	-	-	-	-
BP-3	PUMP	000	5	-	208	3	EM-8B	*14-16-18	35A/3P	4 #10 & 1 #10 GRD.	¾"	-	-	-	-
HWP-1	PUMP	000	20	-	208	3	EM-8B	*1-3-5	100A/3P	4 #3 & 1 #8 GRD.	1¼"	-	-	-	-
HWP-2	PUMP	000	20	-	208	3	EM-8B	*7-9-11	100A/3P	4 #3 & 1 #8 GRD.	1¼"	-	-	-	-
CP-1	PUMP	000	10	-	208	3	LD-1	LD-1	60A/3P	4 #6 & 1 #10 GRD.	1"	-	-	-	-
CP-2	PUMP	000	10	-	208	3	LD-1	LD-1	60A/3P	4 #6 & 1 #10 GRD.	1"	-	-	-	-
CWP-1	PUMP	000	25	-	208	3	LD-1	LD-1	110A/3P	4 #2 & 1 #6 GRD.	1¼"	-	-	-	-
CWP-2	PUMP	000	25	-	208	3	LD-1	LD-1	110A/3P	4 #2 & 1 #6 GRD.	1¼"	-	-	-	-
EWC-1	ELECTRIC WATER COOLER	000	-	-	120	1	VARIES	VARIES	20A/1P	4 #12 & 1 #12 GRD.	¾"	-	-	-	-
WS-1	WATER SOFTENER	Totals	-	-	120	1	PP-1	*34	20A/1P	4 #12 & 1 #12 GRD.	¾"	-	-	-	-
DBP-1	DOMESTIC BOOSTER PUMP	000	(2) 5.0	-	208	3	PP-1	PP-1	(2) 35A/3P	-(2 SETS) 4 #8 & 1 #10 GRD.	(2) ¾"	-	-	-	-
TWH-1	TANKLESS WATER HEATER	000	-	-	120	1	PP-1	*26	20A/1P	4 #12 & 1 #12 GRD.	¾"	-	-	-	-
TWH-2	TANKLESS WATER HEATER	000	-	-	120	1	PP-1	*26	20A/1P	4 #12 & 1 #12 GRD.	¾"	-	-	-	-
TWH-3	TANKLESS WATER HEATER		-		120	1	PP-1	*26	20A/1P	4 #12 & 1 #12 GRD.	¾"	-	-	-	-
TWH-4	TANKLESS WATER HEATER		-		120	1	PP-1	*28	20A/1P	4 #12 & 1 #12 GRD.	¾"	-	-	-	-
TWH-5	TANKLESS WATER HEATER		-		120	1	PP-1	*28	20A/1P	4 #12 & 1 #12 GRD.	¾"	-	-	-	-
TWH-6	TANKLESS WATER HEATER		-		120	1	PP-1	*28	20A/1P	4 #12 & 1 #12 GRD.	¾"	-	-	-	-
RCP-1	RECIRCULATING PUMP		2/5		120	1	PP-1	*28	20A/1P	4 #12 & 1 #12 GRD.	¾"				
SE-1	DUPLEX SEWAGE EJECTOR		-		208	1	PP-1	*30-32	20A/2P	3 #10 & 1 #10 GRD.	¾"				

AD-3

NEW SHEET ADDED TO CONSTRUCTION DOCUMENTS IN THIS ADDENDUM

GIBRALTAR DESIGN
ARCHITECTURE • ENGINEERING • INTERIOR DESIGN

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PROJECT
WESTCHESTER INTERMEDIATE SCHOOL - ADDITIONS & RENOVATIONS

DUNELAND SCHOOL CORPORATION
CHESTERTON, INDIANA

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PROJECT 21-141
DATE 02/28/22
COORDINATED BY JC
DRAWN BY MS
CHECKED BY DJ

REGISTERED NO. 10302590 STATE OF INDIANA DAVID G. JANEY PROFESSIONAL ENGINEER

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REVISIONS

MARK	DATE	ISSUED FOR
AD-3	03/30/22	ADDENDUM NO. 3

DRAWING
ELECTRICAL SCHEDULES

PROJECT
WESTCHESTER IS - ADDITIONS & RENOVATIONS

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AD-3

SHEET E-608

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