

**Addendum No. 1  
September 27, 2021**

Project: **Harrisburg Middle School No. 3**  
Harrisburg, South Dakota  
Architecture Incorporated Project #2903

Architect: Architecture Incorporated

Letting: Thursday, October 7, 2021  
2:00 PM

Location: Community Center Conference Room at the Harrisburg School District Administration Offices, 200 Willow Street, Harrisburg, South Dakota 57032. (Enter from southeast community center entrance).

Scope of this Addendum:

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

**GENERAL ITEMS:**

1) TABLE OF CONTENTS

- a) Add SECTION 101419 - DIMENSIONAL LETTER SIGNAGE, pages 1 – 4, attached to this addendum.
- b) There is no SECTION 321817 – ATHLETIC TRACK MARKING & PAINTING associated with this project and it can be struck from the Table of Contents.

2) SECTION 072419 – WATER-DRAINAGE EXTERIOR INSULATION AND FINISH SYSTEM (EIFS)

- a) Replace Article 2.2.F.6. with the following:

***6. Foam Shapes: Provide with profiles and dimensions indicated on the Drawings.***

- a. Furnish and install 2" thick EIFS at insulated steel stud walls.***
- b. Furnish and install 3" thick EIFS at concrete masonry unit walls.***

3) SECTION 088000 - GLAZING

- a) Disregard all references to utilizing fully-tempered glass as plies of laminated glass. Replace Article 2.11.A. with the following:

***A. Glass Type: Clear, laminated glass with two plies of [float glass] [heat-strengthened float glass].***



4) SECTION 101419 - DIMENSIONAL LETTER SIGNAGE

- a) Reference attached Specification Section 101419 – Dimensional Letter Signage, pages 1 – 4, for signage included in the project.

5) SECTION 102239 - FOLDING PANEL PARTITIONS

- a) Replace Article 2.2.A.1. with the following:

**1. Basis-of-Design Product: [Hufcor 642 Series; Electric].**

- b) Replace Article 2.2.H. with the following:

**H. Panel Thickness: [4 inches (102 mm)].**

6) SECTION 104413 – FIRE PROTECTION CABINETS

- a) Add Article 2.1.C.2. as follows:

**2. Basis-of-Design Product for [Semi-Recessed Cabinet in Kitchen]: Provide semi-recessed units based on JL Industries [Ambassador Series – Semi-Recessed Model 2017] painted steel fire extinguisher cabinet.**

**a. Rolled-Edge Trim: [2 1/2-inch] backbend depth, unless indicated otherwise.**

**1) Size cabinet to properly accommodate fire extinguisher.**

**b. Door Style: Based on JL Industries [Type V (vertical duo)] glazed door.**

**c. Glazing: [Clear tempered glass].**

**d. Color: [White].**

**e. Application: Provide at Kitchen only.**

7) SECTION 104416 – FIRE EXTINGUISHERS

- a) Add Article 2.2.A.3. as follows:

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

**a. For use in the Kitchen only.**



8) SECTION 114000 – FOOD SERVICE EQUIPMENT

- a) Equipment Item #35: Plastic shelving unit size to be [24” x 48”]; disregard all references to plastic shelving unit with 24” x 60” size.

9) SECTION 126100 – FIXED AUDIENCE SEATING

- a) Provide a total of four hundred ninety five (495) seats in Auditorium A102 as indicated per the updated seating layout on revised drawing Sheet 4.70, dated 9-27-21, attached to the end of Addendum #1.
  - i) Total seating count shall be comprised of four hundred seventy four (474) fixed seating units & twenty-one (21) removable seating units, as indicated.
    - (1) Provide portable removable seats at all “removable” seat locations; provide a total of twenty-one (21) removable seating units, as indicated.
- b) ADD Article 2.2.F. as follows:

***B. Portable Removable Seats: Basis of Design: Hussey: Clarin Premium Series***

- 1. Folding removable chair. No arm rests. Chair to have upholstered seat, back rest and back of seat.***
- 2. Fabric selection and colors same as fixed seats.***
- 3. Provide portable removable seats at all removable seat locations; reference revised drawing Sheet 4.70 attached to the end of Addendum #1.***

10) SECTION 126600 – TELESCOPING STANDS

- a) Replace Article 2.2.B.1. with the following:
  - 1. Length: Overall length to be 83’-0”; 81-0” platform length plus end rails; 3 equal sections; 12 Rows high (@ 24” spacing).***

11) SHEET 1.20 – CODE PLAN

- a) Change Code to 2018 International Building Code.

12) SHEET 2.31 – SITE PLAN-AREA A

- a) Bike racks shall be furnished and installed by the Contractor as a part of this Project, as specified per Section 129300 “Site and Street Furnishings”.
  - i) Disregard all plan notes stating that bike racks are *BY OWNER*.

13) SHEET 2.32 – SITE PLAN-AREA B

- a) Bike racks shall be furnished and installed by the Contractor as a part of this Project, as specified per Section 129300 “Site and Street Furnishings”.
  - i) Disregard all plan notes stating that bike racks are *BY OWNER*.



14) SHEET 2.34 – SITE PLAN-AREA D

- a) Bike racks shall be furnished and installed by the Contractor as a part of this Project, as specified per Section 129300 “*Site and Street Furnishings*”.
- i) Disregard all plan notes stating that bike racks are *BY OWNER*.

15) SHEET 4.11 – FLOOR PLAN – AREA A

- a) The gymnasium divider curtain shall be furnished and installed by the Contractor as a part of this Project, as specified per Section 116623 “*Gymnasium Equipment*”.
- i) Disregard all plan notes stating that the gym divider curtain is *BY OWNER*.
- b) The overall length of the bleachers in Gym A108 shall be 83’-0”. The bleachers shall be comprised of three (3) equal sections with an 81-0” overall platform length (plus end rails).
- i) Reference Section 126600 “*Telescoping Stands*” for additional information.
- c) Omit the sink in Office A130.
- d) Reference attached supplemental drawing SD6 dated September 27, 2021 for Semi-Recessed Fire Extinguisher Cabinet in Hall A134.
- e) Omit the sink in Office A130.
- f) Disregard total seat count of 508 seats shown on Sheet 4.11. Reference revised architectural drawing Sheet 4.70, dated 9-27-21, attached to the end of this addendum for seat count clarifications.
- g) Provide continuous wall-mounted steel pipe handrails along the Type D2 masonry walls that flank upper seating rows K thru R in Auditorium A102.
- i) Reference supplemental drawing SD5, dated September 27, 2021, attached to the end of this addendum for additional information.

16) SHEET 4.12 – FLOOR PLAN – AREA B

- a) Reference attached supplemental drawing SD7 dated September 27, 2021 for Semi-Recessed Fire Extinguisher Cabinet in Commons B157.
- b) Reference attached supplemental drawing SD8 dated September 27, 2021 for Semi-Recessed Fire Extinguisher Cabinet in B110 Wait.
- c) Reference attached supplemental drawing SD9 dated September 27, 2021 for Semi-Recessed Fire Extinguisher Cabinet with class K wet chemical fire extinguisher in Kitchen B154.
- d) Reference attached supplemental drawing SD10 dated September 27, 2021 for Wall-Mounted Fire Extinguisher Cabinet in Receiving B147.
- e) Provide a semi-recessed fire extinguisher cabinet in Hall B154A adjacent to borrowed lite Type 3.



17) SHEET 4.13 – FLOOR PLAN – AREA C

- a) Reference attached supplemental drawing SD11 dated September 27, 2021 for Semi-Recessed Fire Extinguisher Cabinet in Hall C100.

18) SHEET 4.14 – FLOOR PLAN – AREA D

- a) CLARIFICATION: The Contractor shall include furnishing and installing concrete stoops outside of doors D120 and D122 under the Base Bid. As such, the Contractor should not include furnishing and installing concrete stoops outside of doors D120 and D122 in the cost of ADD Alternate #1.
- b) CLARIFICATION: The Contractor shall include furnishing and installing the Semi-Recessed Fire Extinguisher Cabinet outside of Tutor D113A under the Base Bid. As such, the Contractor should not include furnishing and installing Semi-Recessed Fire Extinguisher Cabinet in Hall D122 in the cost of ADD Alternate #1.
- c) Reference attached supplemental drawing SD12 dated September 27, 2021 for Semi-Recessed Fire Extinguisher Cabinet in Hall D119.

19) SHEET 4.14 – FLOOR PLAN – AREA E

- a) Reference attached supplemental drawing SD13 dated September 27, 2021 for Semi-Recessed Fire Extinguisher Cabinet in Hall E126.

20) SHEET 4.16 – PENTHOUSE PLAN – AREA A

- a) Penthouse – Area A: Furnish and install 4” concrete pads with fiber mesh reinforcing by G.C. at each air handling units 1 – 5. Verify exact size and location with mechanical contractor. Reference Drawing 8.55 – Mezzanine Floor Plans – Ventilation and A/C for air handling unit locations.

21) SHEET 4.20 – FINISH PLAN – AREA A

- a) Omit the sink in Office A130.
- b) CLARIFICATION regarding Finish Plan General Note G:
  - i) Marker boards and tack boards shall be furnished by the Owner and installed by the Contractor; the Contractor shall also provide backing as indicated.
  - ii) Smartboards (i.e. – monitors) will be furnished and installed by the Owner; the Contractor shall provide backing as indicated.

22) SHEET 4.21 – FINISH PLAN – AREA B

- a) CLARIFICATION regarding Finish Plan General Note G:
  - i) Marker boards and tack boards shall be furnished by the Owner and installed by the Contractor; the Contractor shall also provide backing as indicated.
  - ii) Smartboards (i.e. – monitors) will be furnished and installed by the Owner; the Contractor shall provide backing as indicated.



23) SHEET 4.21A – FINISH PLAN – AREA B ALTERNATE

- a) CLARIFICATION regarding Finish Plan General Note G:
  - i) Marker boards and tack boards shall be furnished by the Owner and installed by the Contractor; the Contractor shall also provide backing as indicated.
  - ii) Smartboards (i.e. – monitors) will be furnished and installed by the Owner; the Contractor shall provide backing as indicated.

24) SHEET 4.22 – FINISH PLAN – AREA C

- a) Chase C136: Omit reference to FRP in the chase; not required.
- b) CLARIFICATION regarding Finish Plan General Note G:
  - i) Marker boards and tack boards shall be furnished by the Owner and installed by the Contractor; the Contractor shall also provide backing as indicated.
  - ii) Smartboards (i.e. – monitors) will be furnished and installed by the Owner; the Contractor shall provide backing as indicated.

25) SHEET 4.23 – FINISH PLAN – AREA D

- a) Chase D110: Omit reference to FRP in the chase; not required.
- b) CLARIFICATION regarding Finish Plan General Note G:
  - i) Marker boards and tack boards shall be furnished by the Owner and installed by the Contractor; the Contractor shall also provide backing as indicated.
  - ii) Smartboards (i.e. – monitors) will be furnished and installed by the Owner; the Contractor shall provide backing as indicated.

26) SHEET 4.24 – FINISH PLAN – AREA E

- a) Chase E138: Omit reference to FRP in the chase; not required.
- b) CLARIFICATION regarding Finish Plan General Note G:
  - i) Marker boards and tack boards shall be furnished by the Owner and installed by the Contractor; the Contractor shall also provide backing as indicated.
  - ii) Smartboards (i.e. – monitors) will be furnished and installed by the Owner; the Contractor shall provide backing as indicated.

27) SHEET 4.31 – DOOR DETAILS

- a) Borrowed lite Type 2A: Frame shall have 2” head and 3’-6” high glass.
- b) Borrowed lite Type 4A: Frame shall have 2” head and 3’-6” high glass. Sill shall be installed at 3’-4” above finished floor.



- c) Borrowed lite Type 5A: Change frame material to ALUM.
- d) Insert the following information into the Borrowed Lite Types Schedule at Frame Type 5B:

<i><u>Matl.</u></i>	<i><u>Glass</u></i>	<i><u>Head Detail</u></i>	<i><u>Jamb Detail</u></i>	<i><u>Sill Detail</u></i>
<i><b>HM</b></i>	<i><b>¼" Clear</b></i>	<i><b>1 /4.31</b></i>	<i><b>2 /4.31</b></i>	<i><b>3 /4.31</b></i>

28) SHEET 4.37 – PLAN DETAILS

- a) Detail 9/4.37: Reference detail 17/3.62 Steel Beam Bearing @ Operable Partition Support Beam for steel stud framing for the Operable Partitions.

29) SHEET 4.40 – ENLARGED PLANS

- a) Chase C136: Omit reference to FRP in the chase; not required.
- b) CLARIFICATION: The Contractor shall furnish and install 12" x 12" x 60" metal lockers at all locations originally shown per the Enlarged Locker Room Plan on Sheet 4.40 to receive 12" x 12" x 15" (4 tier) lockers.
  - i) Reference revised architectural drawing Sheet 4.53, revision dated 9-27-21, attached to the end of Addendum #1 for additional information.
- c) Reference supplemental drawing SD-14, dated 9-27-21, attached to the end of addendum #1 for revision / clarification regarding the concealed wood backing location(s) for marker boards and tack boards.
  - i) CLARIFICATION: Marker boards and tack boards shall be furnished by the Owner and installed by the Contractor, as noted per the Finish Plans. Smartboards (i.e. – monitors) will be furnished and installed by the Owner; the Contractor shall provide backing.

30) SHEET 4.41 – ENLARGED PLANS

- a) Chase D110 and Chase E138: Omit reference to FRP in the chases; not required.
- b) Enlarged Plans of Toilet D100A, D100B and D100C; reference SD4, dated September 27, 2021, attached to the end of Addendum #1.

31) SHEET 4.52 – INTERIOR ELEVATIONS

- a) 1 /4.52 – A108 NORTH ELEVATION: Raise the bottom of all tectum wall panels to 15'-0".
- b) 2 /4.52 – A108 EAST ELEVATION: Raise the bottom of all tectum wall panels to 15'-0".
- c) 3 /4.52 – A108 SOUTH ELEVATION: Raise the bottom of all tectum wall panels to 15'-0".



### 32) SHEET 4.53 – INTERIOR ELEVATIONS

- a) 1 /4.53 – A108 WEST ELEVATION:
  - i) Raise the bottom of all tectum wall panels to 15'-0".
  - ii) The painted mural by Owner will be centered above the basketball backstop.
  - iii) Disregard / omit the 8' x 6' rectangle located between the 4<sup>th</sup> and 5<sup>th</sup> precast panels from the south.
- b) The Contractor shall furnish and install 12" x 12" x 60" metal lockers at locations where 12" x 12" x 15" (4 tier) lockers were originally identified; reference interior elevations 2, 3, 4, 6, 7 & 8 / 4.53.
  - i) See revised architectural drawing Sheet 4.53, revision dated 9-27-21, attached to the end of Addendum #1 for additional information.

### 33) SHEET 4.70 – FURNITURE PLAN – AREA A

- a) CLARIFICATION: Auditorium Seating Count: Provide a total of four hundred ninety five (495) seats in Auditorium A102 as indicated per the updated seating layout on revised drawing Sheet 4.70, dated 9-27-21, attached to the end of Addendum #1.
  - i) Total seating count shall be comprised of four hundred seventy four (474) fixed seating units & twenty-one (21) removable seating units, as indicated.
    - (1) Provide portable removable seats at all "*removable*" seat locations; provide a total of twenty-one (21) removable seating units, as indicated.
- b) CLARIFICATION: Furnish and install two (2) U-shaped permanent pipe guard rails in front of the removable seats in seating Row H as shown on Sheet 4.70.
- c) CLARIFICATION: Furnish and install two (2) straight permanent pipe guard rails in front of the end-of-row seats in seating Row K (i.e. - behind the removable seats in seating Row J) as shown on Sheet 4.70.
- d) Provide continuous wall-mounted steel pipe handrails along the Type D2 masonry walls that flank upper seating rows K thru R in Auditorium A102.
  - i) Reference supplemental drawing SD5, dated September 27, 2021, attached to the end of this addendum for additional information.

### 34) SHEET 5.10 – EXTERIOR ELEVATIONS

- a) Elevation A/5.10: Exterior signage shall be furnished and installed by the General Contractor. Reference Section 101419 "*Dimensional Letter Signage*" attached to the end of addendum #1 for additional information.
  - i) ---- indicates four letters.
  - ii) ##### indicates four street address numbers.



- b) Detail 1/5.10: Provide 1 inch deep V-groove as shown on Detail 1/5.10. EIFS thickness shall be 2" thick at insulated steel stud walls and 3" thick at concrete masonry unit walls.
- c) Area A – North Elevation: Change BRG 0" to **BRL 0"**; change BRG 8" to **BRL 8"**.
- d) Area A – West Elevation: Change BRG 8" to **BRL 8"**; change BRG -8" to **BRL -8"**.

35) SHEET 5.11 – EXTERIOR ELEVATIONS

- a) Area B – North Elevation: Add **BRL -8"**.
- b) Area B – South Elevation: Add **BRL -8"**.
- c) Area B – South Elevation - Lobby: Add **BRL -8"**.

36) SHEET 5.13 – EXTERIOR ELEVATIONS

- a) Area B – East Elevation - Commons: Add **BRL -8"**.
- b) Area B – East Elevation – Media Center: Add **BRL -8"**.
- c) Area D – East Elevation: Add **BRL -8"**.

37) SHEET 5.20 – BUILDING SECTIONS

- a) Section 2/5.20: The finished floor elevation in Penthouse A200 shall be 12'-4".

38) SHEET 5.22 – BUILDING SECTIONS

- a) Section 2/5.22: Change Penthouse finish floor (TOC) to 12'-4". Change bearing height of corefloor at PE Classroom A112 roof structure to 11'-4". Change corefloor thickness to 8" with 4" topping.

39) SHEET 5.24 – STAIR AND RAMP SECTIONS AND DETAILS

- a) Stair Section Area A – Penthouse: The finished floor elevation in Penthouse A200 shall be 12'-4".
- b) Add the following note to Stair Section 4/5.24:

***INSTALL 5/8" GYPSUM BOARD OVER 7/8" HAT CHANNELS AT UNDERSIDE OF STAIRS WHERE EXPOSED TO OFFICE A128. PAINT EXPOSED GYPSUM BOARD.***

- c) The stairs shown in section 5 on Sheet 5.24 shall be steel grate treads with open risers. See detail 6/5.24. Likewise, the stairs at all catwalks shall be steel grate treads with open risers.
- d) Detail 8/5.24: Concrete topping shall be 4" except at Storage A201. Concrete topping at Storage A201 shall be 2" concrete topping.
- e) Detail 12/5.24: Change Top of Masonry elevation to 14'-0".
- f) Provide continuous wall-mounted steel pipe handrails along the Type D2 masonry walls that flank upper seating rows K thru R in Auditorium A102 as indicated per supplemental drawing SD5, dated September 27, 2021, attached to the end of this addendum.



40) SHEET 5.25–RAMP & SECTIONS DETAILS

- a) Detail 3/5.25 – Omit Concrete Mud Pit detail by General Contractor; Separator Pit shall be provided by the Plumbing Contractor. See Mechanical.

41) SHEET 5.40 – SECTION DETAILS

- a) Add the following note to Detail 5/5.40:

***2x2 TREATED WOOD FRAMING AT 16” O.C.***

- b) Revised Detail 6/5.40: Reference SD3, dated September 27, 2021, attached to the end of Addendum #1.
- c) Detail 9/5.40: Reference Structural Detail 17/3.64 For Concrete End Pour At Corefloor.

42) SHEET 5.42 – SECTION DETAILS

- a) Detail 5/5.42: Reference Structural Detail 6/3.62 for typical joist bearing section.
- b) Revised Detail 6/5.42: Reference SD1 , dated September, 2021, attached to the end of Addendum #1.
- c) Detail 7/5.42: Add note “***1-5/8” STEEL STUDS AT 16” O.C.***” at each side of beam for attachment of gypsum board.

43) SHEET 5.43 – SECTION DETAILS

- a) Detail 6/5.43: Reference Structural Detail 6/3.62 for typical joist bearing section.

44) SHEET 5.45 – SECTION DETAILS

- a) Detail 4/5.45: Change corefloor bearing to 11’-4”. The finished floor elevation of the penthouse shall be 12’-4”.
- b) Detail 4/5.45: The finished floor elevation of the penthouse shall be 12’-4”.
- c) Revised Detail 5/5.45: Reference SD2, dated September 27, 2021, attached to the end of Addendum #1.

45) SHEET 5.47 – SECTION DETAILS

- a) Detail 4/5.47: Reference Structural Detail 6/3.62 for typical joist bearing section.

46) SHEET 5.50 – ROOF PLAN

- a) At Computer E122, change corefloor bearing to 12’-0”.



47) SHEET 6.10 – REFLECTED CEILING PLAN – AREA A

- a) The ceilings in showers A115, A117, A120, A122 and A150 shall be constructed with 5/8” Exterior Gypsum Soffit Board and shall be finished with a textured polymer coating, as specified per Section 092900.
  - i) Disregard all reference to 5/8” water-resistant gypsum board and painting.
  - ii) Polymer Coating Color: [**As selected by Architect**].

48) SHEET 6.11 – REFLECTED CEILING PLAN – AREA B

- a) Storage B130: Change ceiling height to 8’-8”. Align the ceiling grid with the adjacent FCS Lab B131. Omit reference to Detail 6/6.16. There shall be no bulkhead between Storage B130 and FCS Lab B131.
- b) Changing B124: The ceiling over the shower stall shall be constructed with 5/8” Exterior Gypsum Soffit Board and shall be finished with a textured polymer coating, as specified per Section 092900.

49) SHEET 6.13 – REFLECTED CEILING PLAN – AREA D

- a) Add the following note to Detail 8/6.13:

***OMIT 5/8" GYPSUM BOARD SHOWN APPLIED DIRECTLY TO THE UNDERSIDE OF HOLLOW CORE AT PRACTICE ROOMS A126 AND A127. PAINT EXPOSED COREFLOOR. ALL EXPOSED HOLLOW CORES JOINTS TO BE FINISHED IN A MANNER THAT LEAVES THEM VISUALLY APPEALING.***

**MECHANICAL ITEMS:**

1) SECTION 220400 – PLUMBING – SUBSECTION 1.16 – WATER SOFTENER

- a) Change model number from “CTM-90-DF” to “CTM-120-DF”.

2) GENERAL MECHANICAL DRAWING ITEMS

- a) Revise all section callouts on Drawing Sheets 8.50-8.55 to refer to Drawing Sheet 8.56.

3) SHEET 8.10 – LEGENDS & DETAILS

- a) Refer to revised mechanical drawing Sheet 8.10, revision dated 9-27-21, attached to the end of Addendum #1 for the following:
  - i) Revisions made to “WATER HEATER PIPING DETAIL”.
  - ii) Add “DOUBLE CATCH BASIN DETAIL”.
  - iii) Revisions made to “CABINET UNIT HEATER PIPING DETAIL”.



- iv) Revisions made to “UNIT HEATER PIPING DETAIL”.
  - v) Revisions made to “AHU-7 HEATING/COOLING COIL PIPING DIAGRAM”.
- 4) SHEET 8.21 – FOOTING & FOUNDATION PLAN – AREA B – PLMB & HTG
- a) Refer to revised mechanical drawing Sheet 8.21, revision dated 9-27-21, attached to the end of Addendum #1 for the following:
    - i) Add “GREASE TRAP DETAIL”.
    - ii) Add grade CO to match “GREASE TRAP DETAIL” on floor plan.
    - iii) Revise routing for waste for FSK under hood in kitchen to go to the grease trap.
    - iv) Add sand-oil interceptor in lieu of floor drain with sediment bucket, including corresponding vent piping, cleanouts, and pipe routing.
    - v) Revise FSK & FD routing to new sand-oil interceptor, including removal of venting and inclusion of note describing the drains being untrapped and unvented.
- 5) SHEET 8.25 – FLOOR PLAN – AREA A PLUMBING & HEATING
- a) Refer to revised mechanical drawing Sheet 8.25, revision dated 9-27-21, attached to the end of Addendum #1 for the following:
    - i) Corrected urinal specification for “UR-1” in Toilet A116.
- 6) SHEET 8.26 – FLOOR PLAN – AREA B – PLUMBING & HEATING
- a) Refer to revised mechanical drawing Sheet 8.26, revision dated 9-27-21, attached to the end of Addendum #1 for the following:
    - i) Corrected pipe sizes in Hall B135.
    - ii) Added pipe sizes in FCS Lab B131.
    - iii) Added pipe sizes in Work B119 and continuing along that domestic branch of piping.
    - iv) Added pipe sizes in Sp Ed B127.
    - v) Corrected keynote to include the dishwasher connection for the sink in Staff B118.
    - vi) Revised location of VTR in FCS Lab B131, Women B121, and Nurse B114.
    - vii) Remove vent piping for FD in Receiving B147, which is no longer trapped or vented. Revise associated keynote.
    - viii) Add sand-oil interceptor, including associated vent pipe revisions, cleanout additions, etc. Refer to detail.
    - ix) Revised HWS/HWR pipe size from Mechanical B141 to UH-B147.
    - i) Revised location of UH-B147.



- ii) Add UB-1 in “Sp Ed B127”.
- iii) Corrected roll under sink specification to “SK-9” in Art B132.

7) SHEET 8.31 – ENLARGED PLANS & RISERS – AREA B – PLMB & HTG

- a) Refer to revised mechanical drawing Sheet 8.31, revision dated 9-27-21, attached to the end of Addendum #1 for the following:
  - i) Add keynote for designation of stack economizer.
  - ii) Revise gas size to water heaters to match associated detail.
  - iii) Add more shock absorbers to “Domestic Riser – B144/B145/B146”.
  - iv) Revise HWS/HWR pipe size out of room to Receiving B147.
  - v) Delete UH-B141.

8) SHEET 8.32 – KITCHEN PLANS – AREA B – PLMB & HTG

- a) Refer to revised mechanical drawing Sheet 8.32, revision dated 9-27-21, attached to the end of Addendum #1 for the following:
  - i) Revise FSK at Kitchen Equipment #9 to be a half grate to match the other FSK’s.
  - ii) Revise FD’s in “Toilet B154C” and “Wash B156” to be square for tile floor installation to match specifications.
  - iii) Add water hammer arrestor in “Kitchen B154”.
  - iv) Correct CW piping to kitchen disposer units to match detail.
  - v) Remove vent piping for FSK in “Receiving B147”, which is no longer trapped or vented.
  - vi) Add vent piping for sand-oil interceptor in “Receiving B147”.

9) SHEET 8.51 – FLOOR PLAN – AREA B – VENTILATION & A/C

- a) Refer to revised mechanical drawing Sheet 8.51, revision dated 9-27-21, attached to the end of Addendum #1 for the following:
  - i) Delete IH-B141, associated ductwork, and motorized damper.
  - ii) Relocate UH-B147 thermostat.
  - iii) Revise exhaust ductwork routing to “Toilet B158” to avoid fire rated walls.

10) SHEET 8.60 – SCHEDULES

- a) Refer to revised mechanical drawing Sheet 8.60, revision dated 9-27-21, attached to the end of Addendum #1 for the following:
  - i) Water Heater Schedule:



- (1) Remove reference to incorrect sheet number in Remark 4.
- (2) Add Remark 6: ***PROVIDE WITH AMTROL ST-12 EXPANSION TANK, OR EQUAL.***
- (3) Add Remark 7: ***PROVIDE CONDENSATE NEUTRALIZER. EXTEND CONDENSATE TO FLOOR DRAIN.***
- ii) Unit Heater Schedule:
  - (1) Delete UH-B141.
  - (2) Revise UH-B147 as shown.
- iii) Plumbing Fixture Schedule:
  - (1) Add SK-9.
  - (2) SK-3: Change REMARKS from ~~ACID-RESISTANT P-TRAPS~~ to ***17 GA C.P. P-TRAP.***

#### 11) SHEET 8.61 – SCHEDULES

- a) Refer to revised mechanical drawing Sheet 8.61, revision dated 9-27-21, attached to the end of Addendum #1 for the following:
  - i) DSS-A109 shall be renamed to DSS-1.
  - ii) CU-1: “MATCHED AHU” shall be revised from ~~DSS-A109~~ to ***DSS-1.***

#### ELECTRICAL ITEMS:

##### 1) SECTION 260500 – RACEWAYS & BOXES

- a) Add the following paragraph to Article 1.5:

***B. Electrical Contractor shall furnish and install embedded electrical conduit, electrical box assemblies, and required hardware into the precast wall panels. The Electrical Contractor will provide locations on the precast shop drawing submittal and tradesmen in the precast production plant for this scope of work. Precast Supplier will provide coordination and production schedule with dates for each individual panel requiring electrical so the Electrical Contractor can schedule their workforce accordingly.***

##### 2) SECTION 277350 – SYNCHRONIZED WIRELESS MASTER-SATELLITE TIME SYSTEM

- a) This system shall be furnished by the Owner. All clocks shall be installed by the Contractor.

##### 3) SECTION 277400 – COMMUNICATIONS & DATA-PROCESSING EQUIPMENT

- a) Paragraph 2.3.D.2: The rack in room B143 shall be a 4 post rack.

##### 4) SHEET 9.22 – FLOOR PLAN AREA “B” – LIGHTING

- a) Room B157: Shift the type “N2” luminaires so that they are located in the display cases.



5) SHEET 9.23 – FLOOR PLAN AREA “B” – POWER & SIGNAL

- a) Room B131: Approximately 30” of base cabinet has moved from the south two labs to the north two labs (see architectural drawings) with the labs shifting south. Adjust electrical devices accordingly and add one additional above counter duplex receptacle at each north lab, connect them to LB2-50,52.
- b) Room B147: Unit heater UH-B147 will be moving to the west of the shown location, see mechanical addendum.

6) SHEET 9.31 – ENLARGED MECH – POWER & SIGNAL

- a) Room B141: Delete unit heater UH-B141.

7) SHEET 9.42 – ELECTRICAL SCHEDULES

- a) Panel “LB1”: The first section shall have 54 circuits. Provide 6 additional 20A/1P spare circuit breakers.

GENERAL APPROVALS:

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

<u>SECTION</u>	<u>ITEM</u>	<u>MANUFACTURER</u>
042000	Unit Masonry Assemblies (Face Brick)	Brick Color #1: <b><i>Interstate Brick</i></b>  Color: <i>Platinum</i>  Brick Color #2: <b><i>Yankee Hill</i></b>  Color: <i>Capital IS</i> ; velour & smooth
062023	Interior Finish Carpentry	Showplace
123216	Manufactured Plastic-Laminate-Face Casework	Showplace
123623	Plastic-Laminate-Clad Countertops	Showplace
123661	Simulated Stone Countertops	Showplace
129300	Bike Racks	Performance Sports Systems
220600 – 1.10	Suction Diffusers	Patterson Pump Co.
220600 – 1.11	Expansion Tanks	Patterson Pump Co.



220600 – 1.12	Air Separators	Patterson Pump Co.
220600 – 1.13	Air Vent	Patterson Pump Co.
220600 – 1.20	Automatic Flow Control Valves	HCI
220600 – 1.23	In-Floor Radiant Heating System	Heat Link
230800 – 1.06	Kitchen Hood	CaptiveAire, GreaseMaster
230800 – 1.07/1.08	Duct Free Condensing Unit/Duct Free Fan Coil Unit	Samsung, Bosch
230800 – 1.09	Central Vacuum	Micro Air, A.C.T. Dust Collectors, Oneida Air Systems
230800 – 1.12	Power Roof Ventilators	GreaseMaster
230800 – 1.21	Gas Vent System	DuraVent, Metal-Fab
230800 – 1.31	Fabric Duct System	KE Fibertec, DurkeeSox,

END OF ADDENDUM No. 1



## SECTION 101419 - DIMENSIONAL LETTER SIGNAGE

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. Section Includes:
  - 1. Cast dimensional characters.

#### 1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Shop Drawings: For dimensional letter signs.
  - 1. Include fabrication and installation details and attachments to other work.
  - 2. Show sign mounting heights, locations of supplementary supports to be provided by others, and accessories.
  - 3. Show message list, typestyles, graphic elements, and layout for each sign at least [**half size**]
- C. Samples for Initial Selection: For each type of sign assembly, exposed component, and exposed finish.
  - 1. Include representative Samples of available typestyles and graphic symbols.

#### 1.4 WARRANTY

- A. Special Warranty: Manufacturer agrees to repair or replace components of signs that fail in materials or workmanship within specified warranty period.
  - 1. Failures include, but are not limited to, the following:
    - a. Deterioration of finishes beyond normal weathering.
    - b. Separation or delamination of sheet materials and components.
  - 2. Warranty Period: [**Five**] years from date of Substantial Completion.

### PART 2 - PRODUCTS

#### 2.1 PERFORMANCE REQUIREMENTS



- A. Thermal Movements: For exterior **[fabricated channel dimensional characters]** , allow for thermal movements from ambient and surface temperature changes.

## 2.2 DIMENSIONAL CHARACTERS

- A. Cast Characters : Characters with uniform faces, sharp corners, and precisely formed lines and profiles, and as follows:
  - 1. Manufacturers: Subject to compliance with requirements, **[available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following]**:
    - a. ACE Sign Systems, Inc.
    - b. APCO Graphics, Inc.
    - c. ASI Sign Systems, Inc.
    - d. Gemini Incorporated.
    - e. Metal Arts; Division of L & H Mfg. Co.
    - f. Metallic Arts.
    - g. Seton Identification Products.
  - 2. Character Material: Cast **[aluminum]**.
  - 3. TEXT: Provide the following as identified on the exterior elevations.
    - a. 30" Character height: HARRISBURG
    - b. 24" Character height: ---- MIDDLE SCHOOL; ----- indicates four (4) letters.
    - c. 12" Character height: Four (4) address numbers; indicated ##### on the drawings.
  - 4. Thickness: **[Manufacturer's standard for size of character]**
  - 5. Finishes:
    - a. Integral Aluminum Finish: **[Clear anodized]**.
    - b. Overcoat: **[Manufacturer's standard baked-on clear coating]**.
  - 6. Mounting: **[Concealed studs]**.

## 2.3 DIMENSIONAL CHARACTER MATERIALS

- A. Aluminum Castings: ASTM B 26/B 26M, alloy and temper recommended by sign manufacturer for casting process used and for type of use and finish indicated.

## 2.4 ACCESSORIES

- A. Fasteners and Anchors: Manufacturer's standard as required for secure anchorage of signage, noncorrosive and compatible with each material joined, and complying with the following:
  - 1. Use concealed fasteners and anchors unless indicated to be exposed.
  - 2. Sign Mounting Fasteners:
    - a. Concealed Studs: Concealed (blind), threaded studs welded or brazed to back of sign material, screwed into back of sign assembly, or screwed into tapped lugs cast integrally into back of cast sign material, unless otherwise indicated.

## 2.5 FABRICATION



- A. General: Provide manufacturer's standard sign assemblies according to requirements indicated.
  - 1. Preassemble signs and assemblies in the shop to greatest extent possible. Disassemble signs and assemblies only as necessary for shipping and handling limitations. Clearly mark units for reassembly and installation; apply markings in locations concealed from view after final assembly.
  - 2. Mill joints to a tight, hairline fit. Form assemblies and joints exposed to weather to resist water penetration and retention.
  - 3. Comply with AWS for recommended practices in welding and brazing. Provide welds and brazes behind finished surfaces without distorting or discoloring exposed side. Clean exposed welded and brazed connections of flux, and dress exposed and contact surfaces.
  - 4. Conceal connections if possible; otherwise, locate connections where they are inconspicuous.
  - 5. Internally brace signs for stability and for securing fasteners.
  - 6. Provide rebates, lugs, and brackets necessary to assemble components and to attach to existing work. Drill and tap for required fasteners. Use concealed fasteners where possible; use exposed fasteners that match sign finish.
  - 7. Castings: Fabricate castings free of warp, cracks, blowholes, pits, scale, sand holes, and other defects that impair appearance or strength. Grind, wire brush, sandblast, and buff castings to remove seams, gate marks, casting flash, and other casting marks before finishing.

## 2.6 GENERAL FINISH REQUIREMENTS

- A. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.
- B. Appearance of Finished Work: Noticeable variations in same piece are not acceptable. Variations in appearance of adjoining components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.
- C. Organic, Anodic, and Chemically Produced Finishes: Apply to formed metal after fabrication but before applying contrasting polished finishes on raised features unless otherwise indicated.

## 2.7 ALUMINUM FINISHES

- A. Clear Anodic Finish: AAMA 611, [**Class I, 0.018 mm**] or thicker.

# PART 3 - EXECUTION

## 3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of signage work.
- B. Verify that sign-support surfaces are within tolerances to accommodate signs without gaps or irregularities between backs of signs and support surfaces unless otherwise indicated.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

## 3.2 INSTALLATION



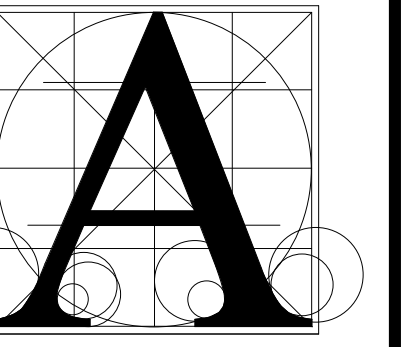
- A. General: Install signs using mounting methods indicated and according to manufacturer's written instructions.
  - 1. Install signs level, plumb, true to line, and at locations and heights indicated, with sign surfaces free of distortion and other defects in appearance.
  - 2. Before installation, verify that sign surfaces are clean and free of materials or debris that would impair installation.
  - 3. Corrosion Protection: Coat concealed surfaces of exterior aluminum in contact with grout, concrete, masonry, wood, or dissimilar metals, with a heavy coat of bituminous paint.
- B. Mounting Methods:
  - 1. Concealed Studs: Using a template, drill holes in substrate aligning with studs on back of sign. Remove loose debris from hole and substrate surface.
    - a. Masonry Substrates: Fill holes with adhesive. Leave recess space in hole for displaced adhesive. Place sign in position and push until flush to surface, embedding studs in holes. Temporarily support sign in position until adhesive fully sets.
    - b. Thin or Hollow Surfaces: Place sign in position and flush to surface, install washers and nuts on studs projecting through opposite side of surface, and tighten.

### 3.3 ADJUSTING AND CLEANING

- A. Remove and replace damaged or deformed characters and signs that do not comply with specified requirements. Replace characters with damaged or deteriorated finishes or components that cannot be successfully repaired by finish touchup or similar minor repair procedures.
- B. Remove temporary protective coverings and strippable films as signs are installed.
- C. On completion of installation, clean exposed surfaces of signs according to manufacturer's written instructions, and touch up minor nicks and abrasions in finish. Maintain signs in a clean condition during construction and protect from damage until acceptance by Owner.

END OF SECTION 101419

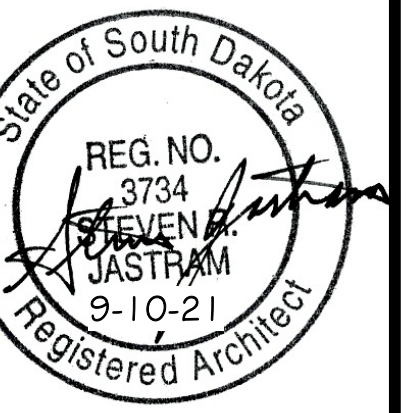




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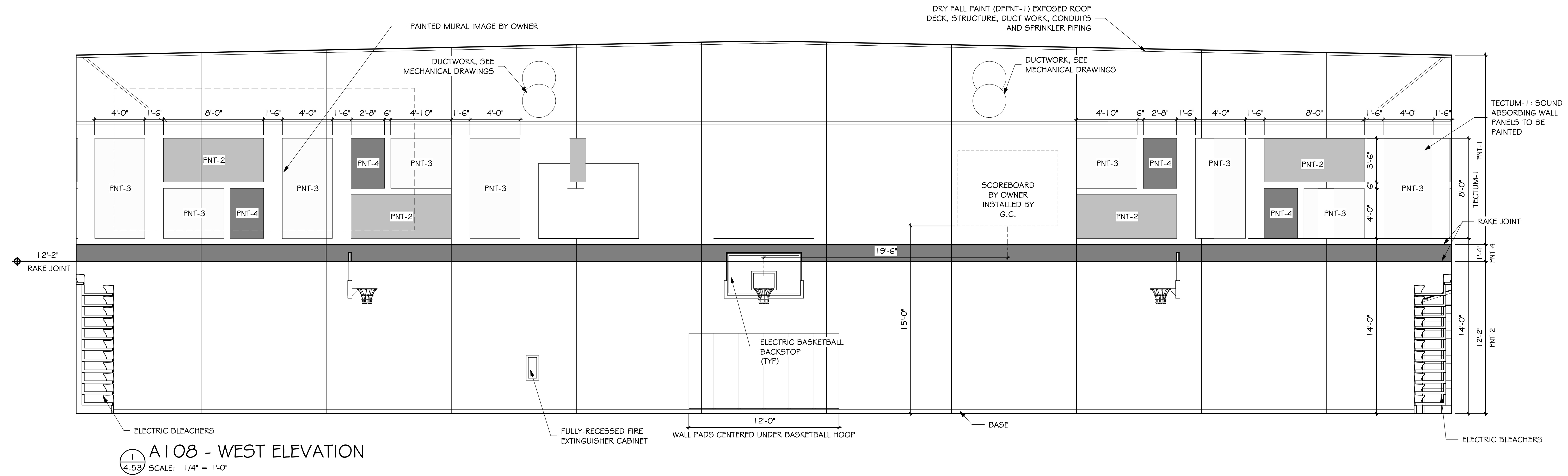


Project  
**HARRISBURG MIDDLE SCHOOL #3**  
sheet contents

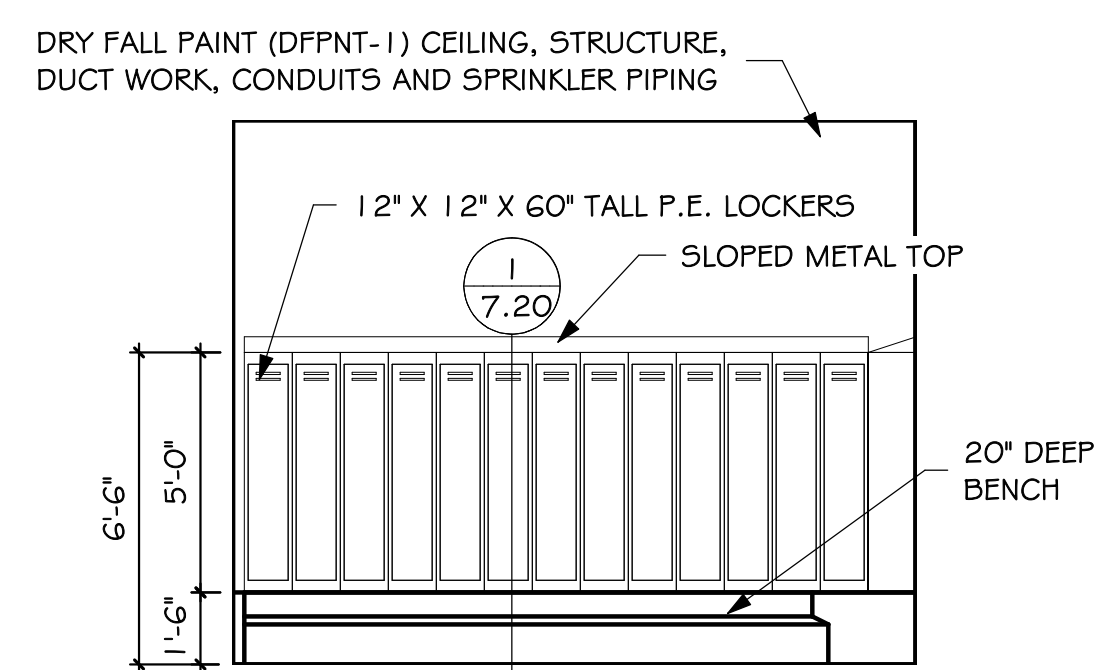
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Number	1002.2903.20	
Date	September 10, 2021	
Revision		
Drawn by	ALL/BJO checked SRJ	
NO.	DATE	DESCRIPTION
1	SEP 27, 2021	ADDENDUM #1

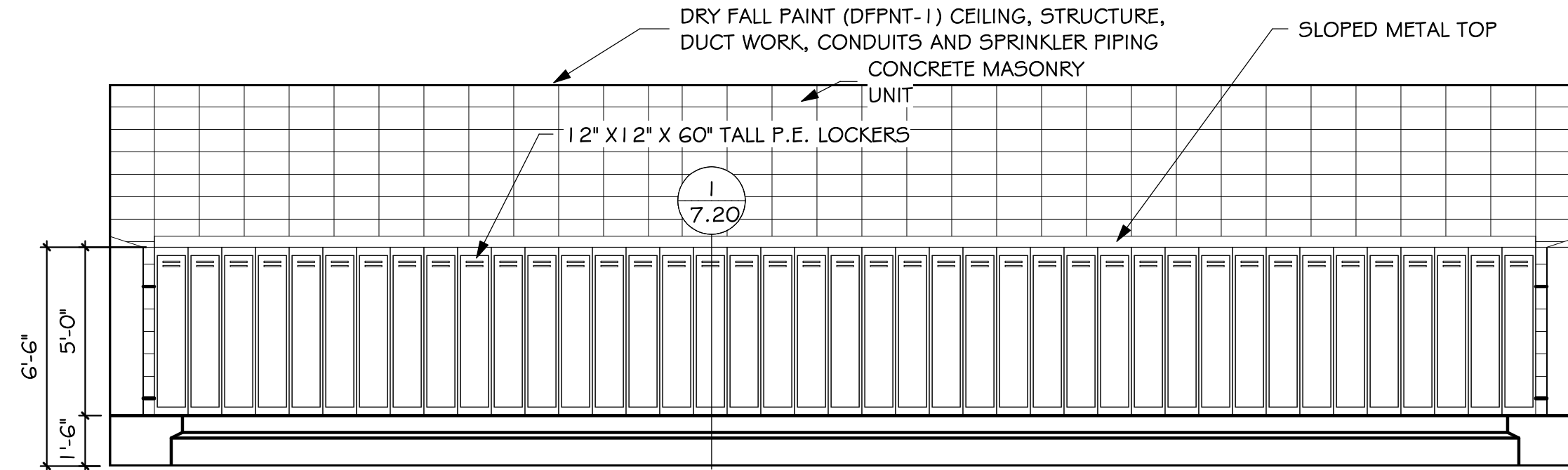
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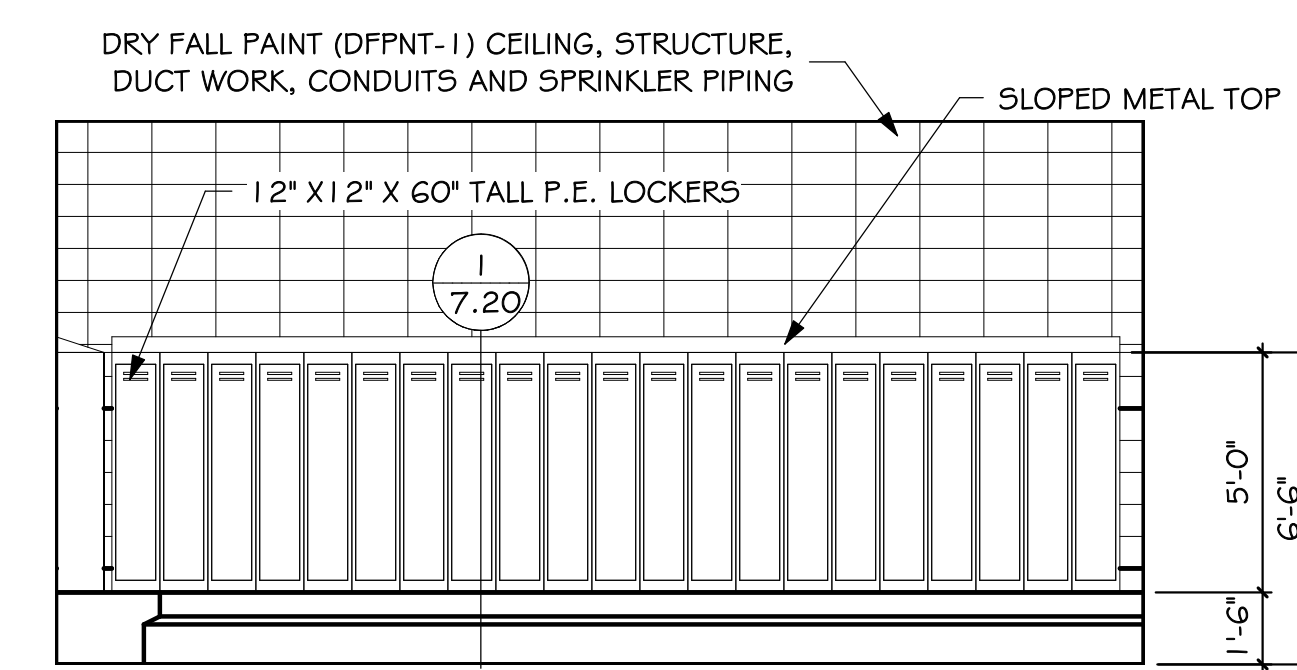
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A108 - WEST ELEVATION  
4.53 SCALE: 1/4" = 1'-0"



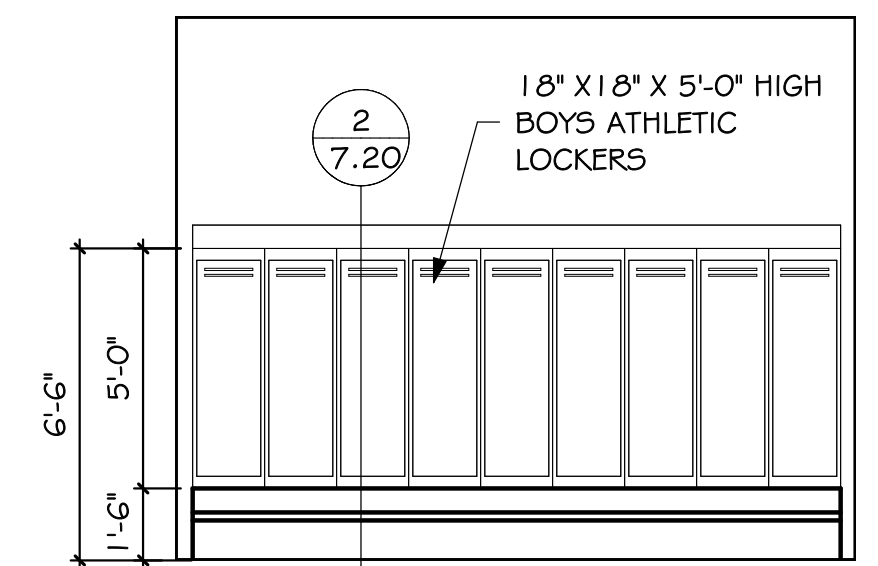
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A114 - SOUTH ELEVATION  
4.53 SCALE: 1/4" = 1'-0"



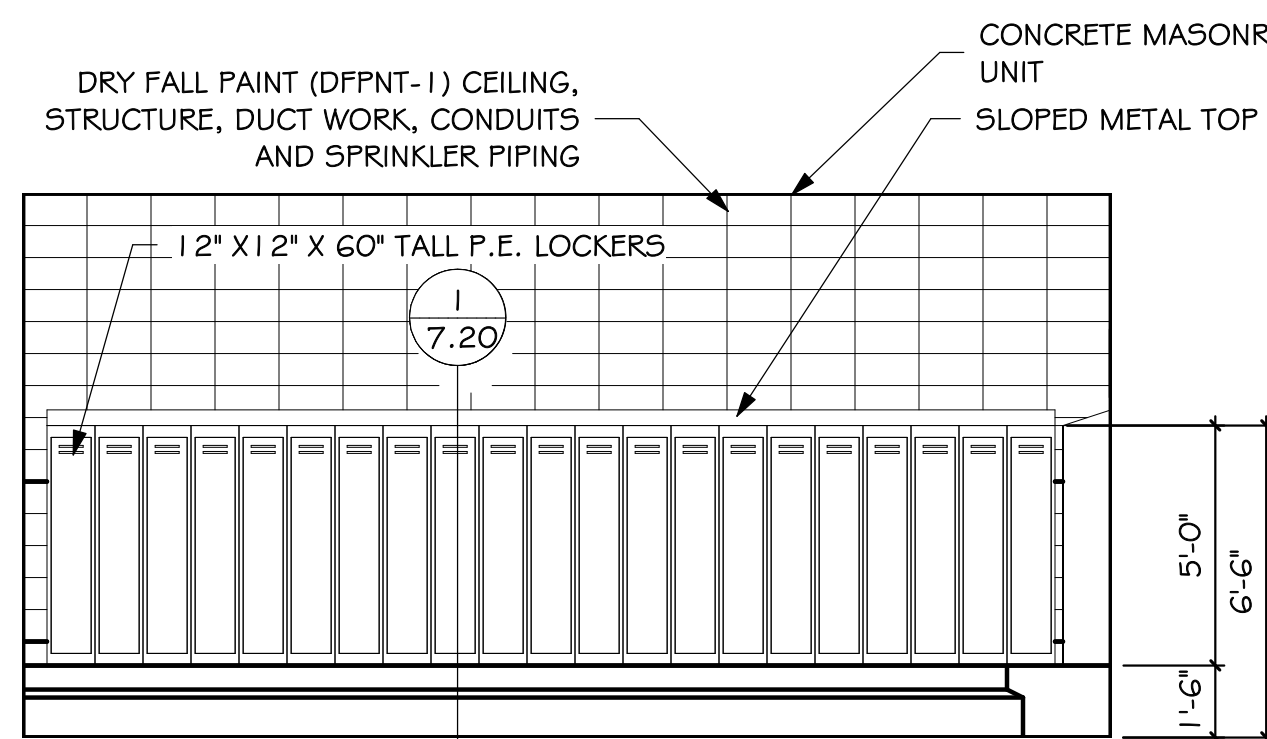
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A114 - WEST ELEVATION  
4.53 SCALE: 1/4" = 1'-0"



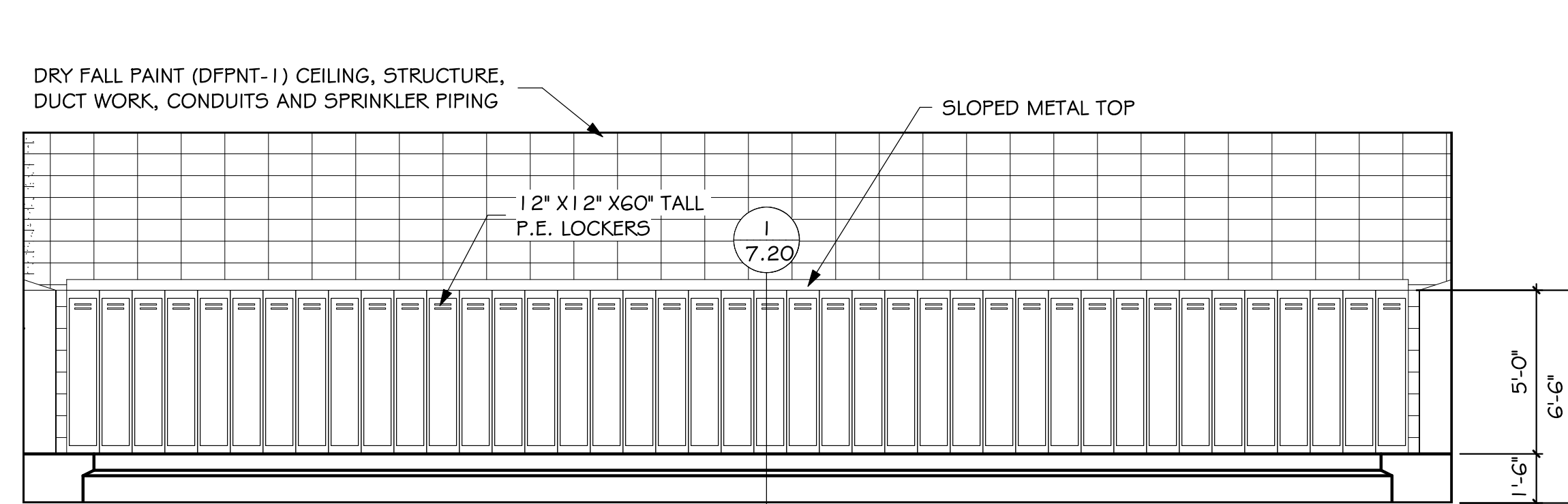
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A114 - NORTH ELEVATION  
4.53 SCALE: 1/4" = 1'-0"



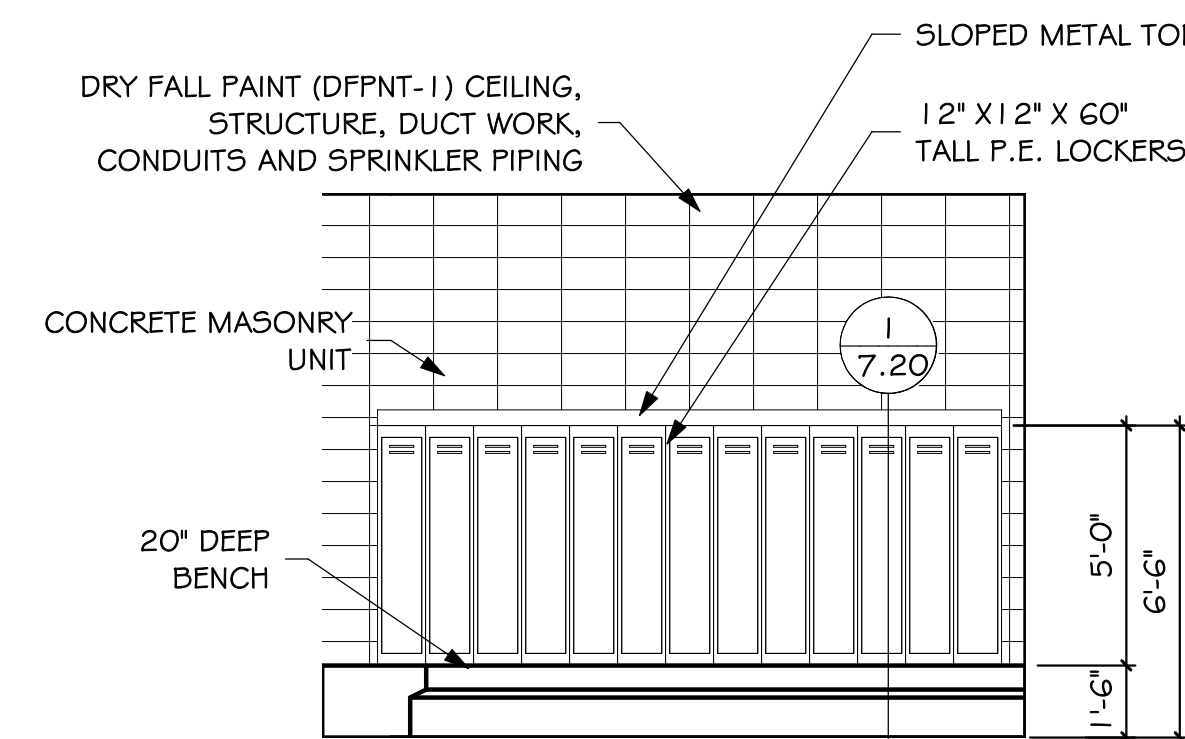
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A114 - CENTER  
4.53 SCALE: 1/4" = 1'-0"



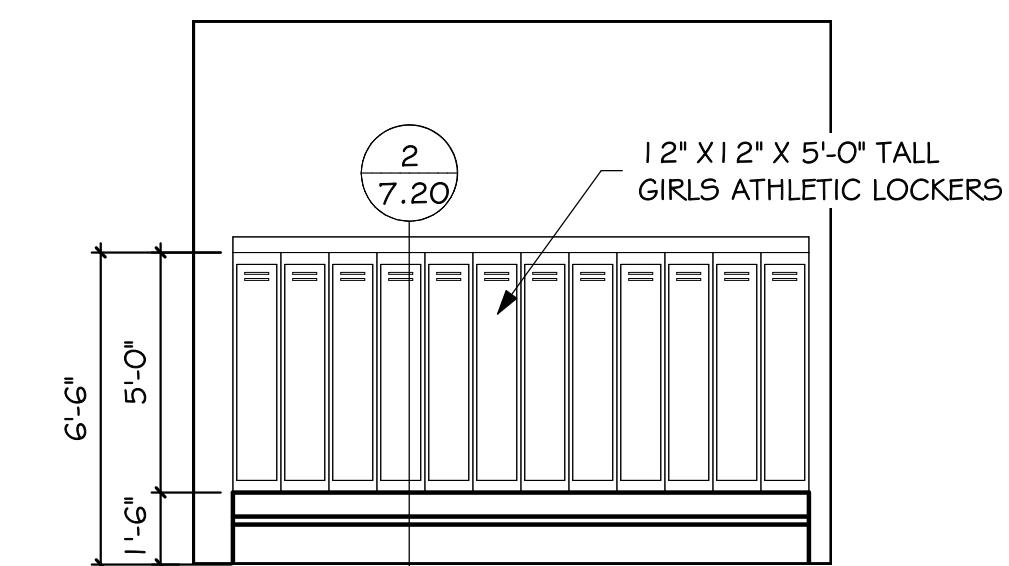
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A123 - NORTH ELEVATION  
4.53 SCALE: 1/4" = 1'-0"



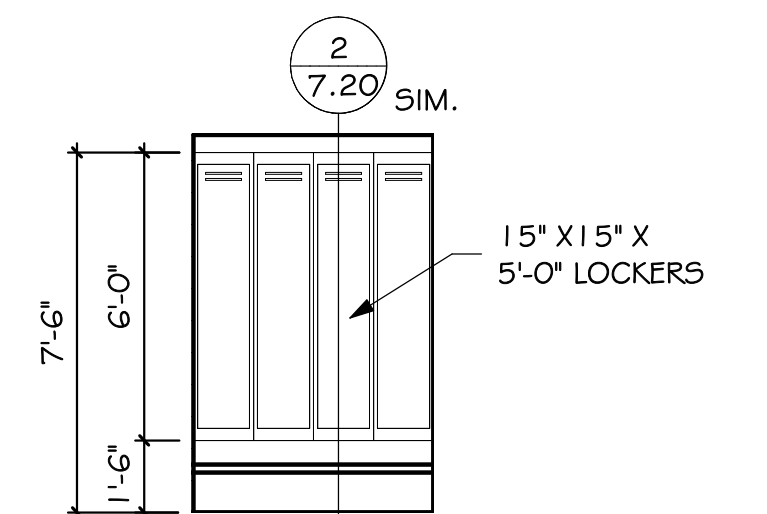
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A123 - EAST ELEVATION  
4.53 SCALE: 1/4" = 1'-0"



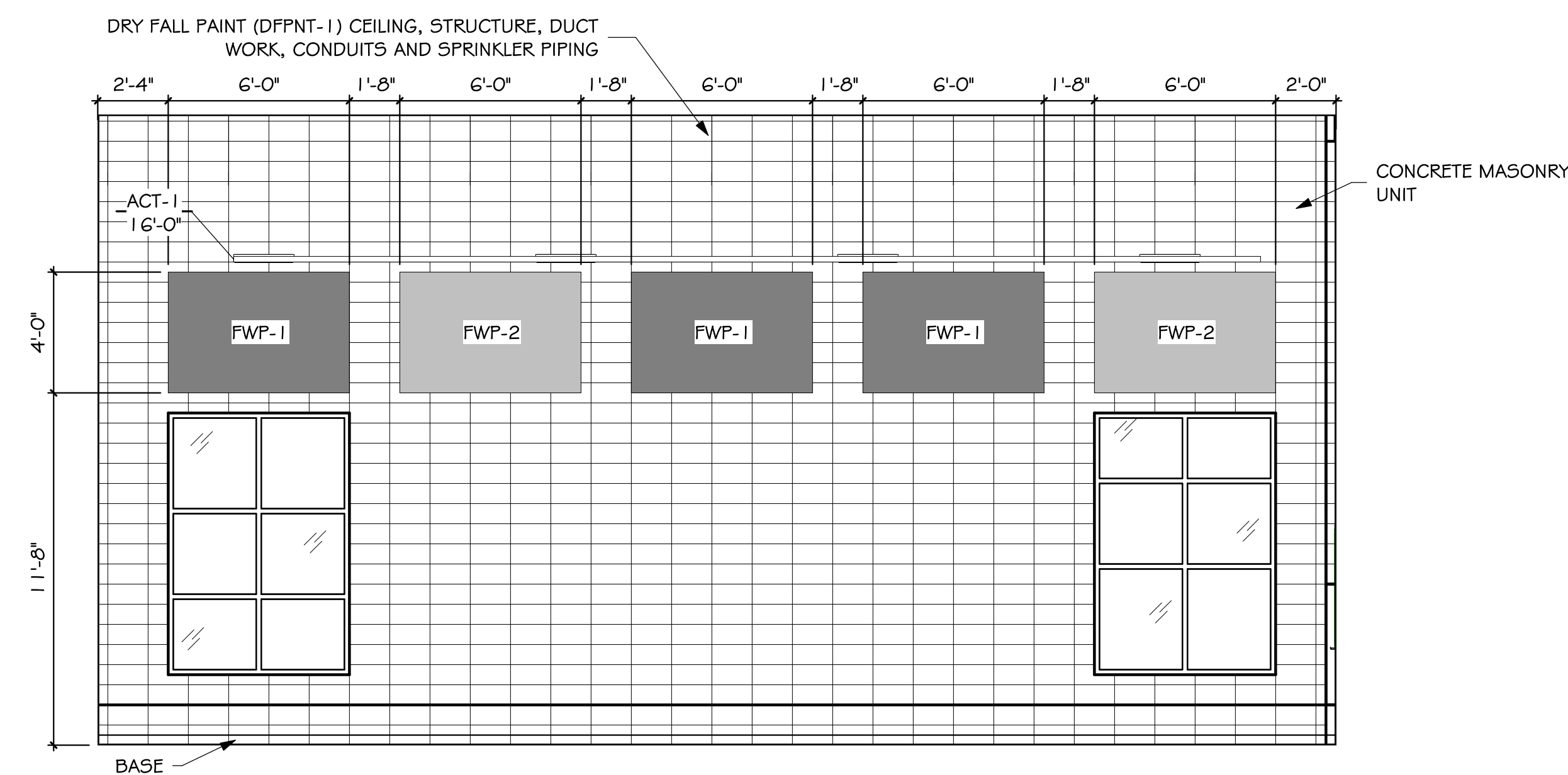
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A123 - SOUTH ELEVATION  
4.53 SCALE: 1/4" = 1'-0"



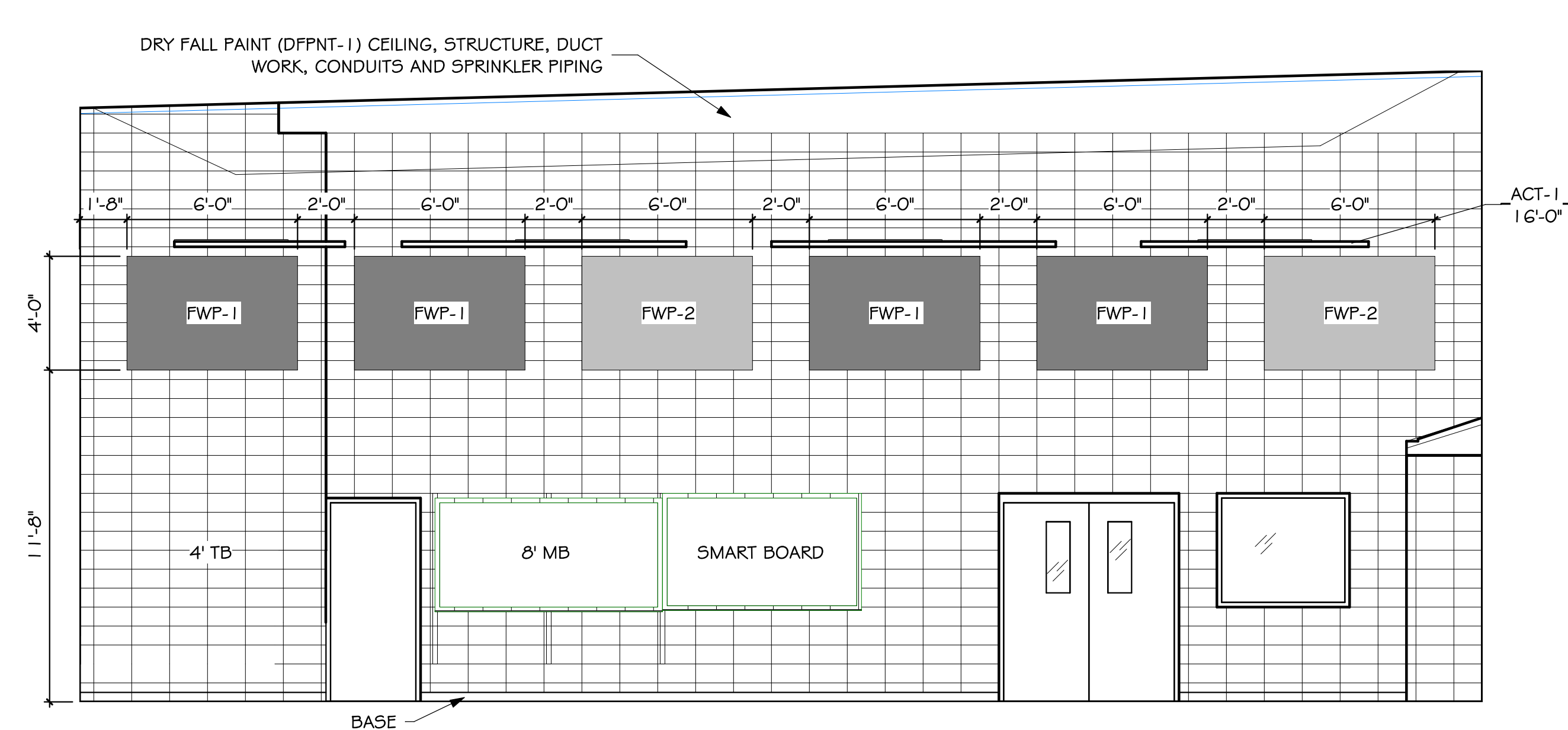
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A123 - CENTER  
4.53 SCALE: 1/4" = 1'-0"



10  
A118 & A119  
4.53 SCALE: 1/4" = 1'-0"



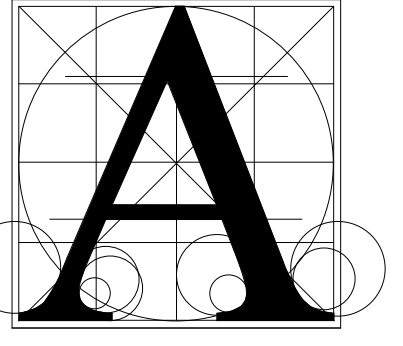
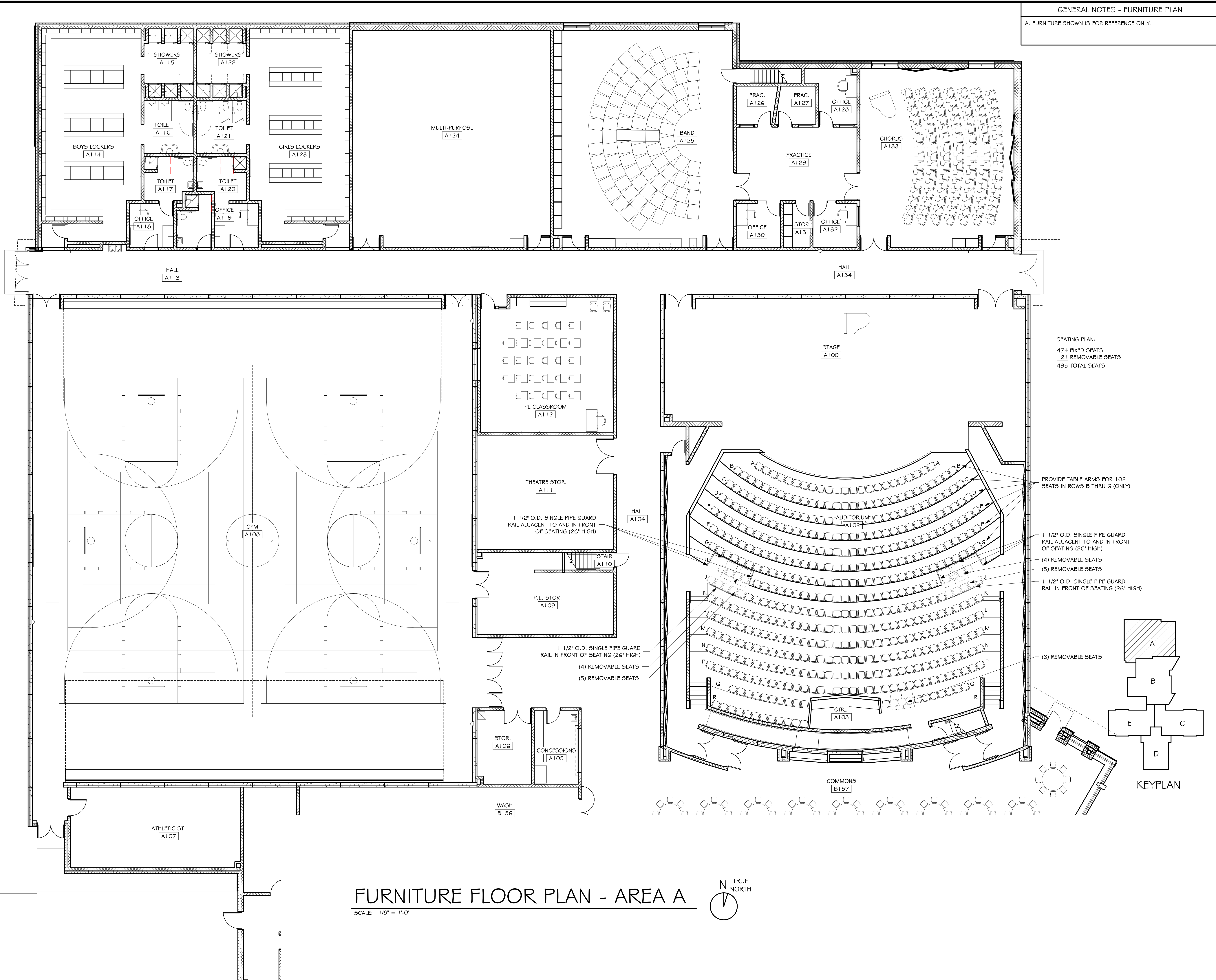
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A125 - NORTH ELEVATION  
4.53 SCALE: 1/4" = 1'-0"



12  
A125 - EAST ELEVATION  
4.53 SCALE: 1/4" = 1'-0"



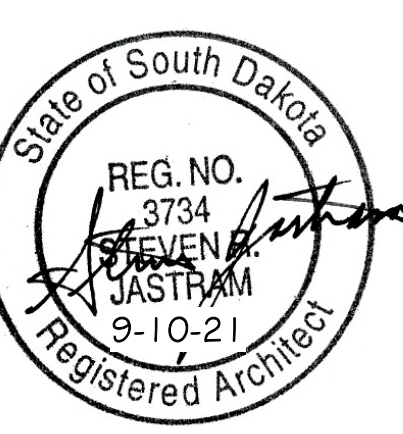
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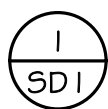
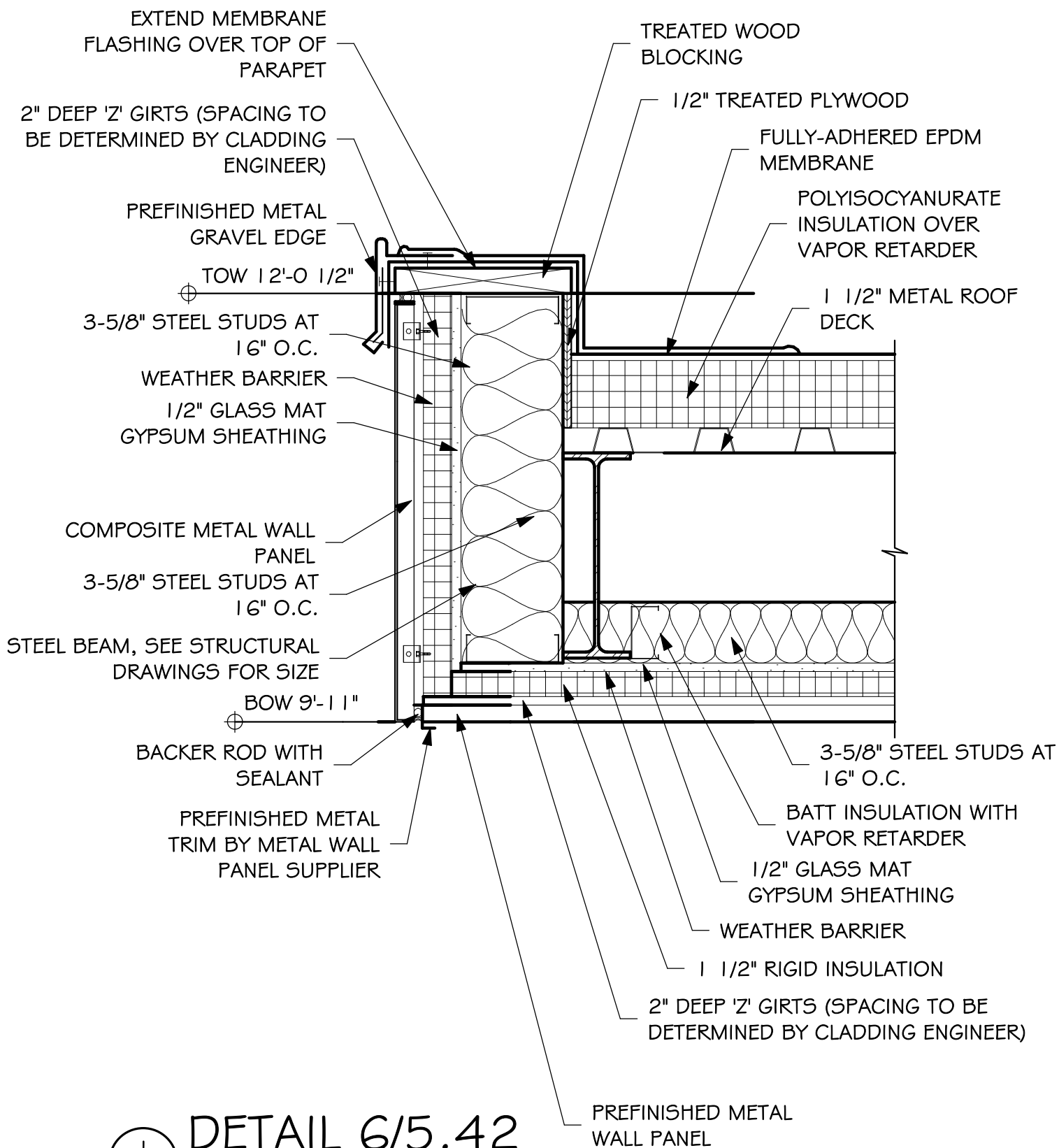
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**HARRISBURG MIDDLE SCHOOL #3**  
sheet contents

**FURNITURE PLAN - AREA A**

number	1002.2903.20	
date	September 10, 2021	
revision		
drawn	HJM	checked SRJ
	DATE	DESCRIPTION
	SEP 27, 2021	ADDENDUM #1

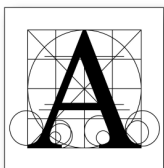
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DETAIL 6/5.42

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



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number 1002.2903.20 drawn CJM checked SRJ

date SEPT 27, 2021 revision \_\_\_\_\_

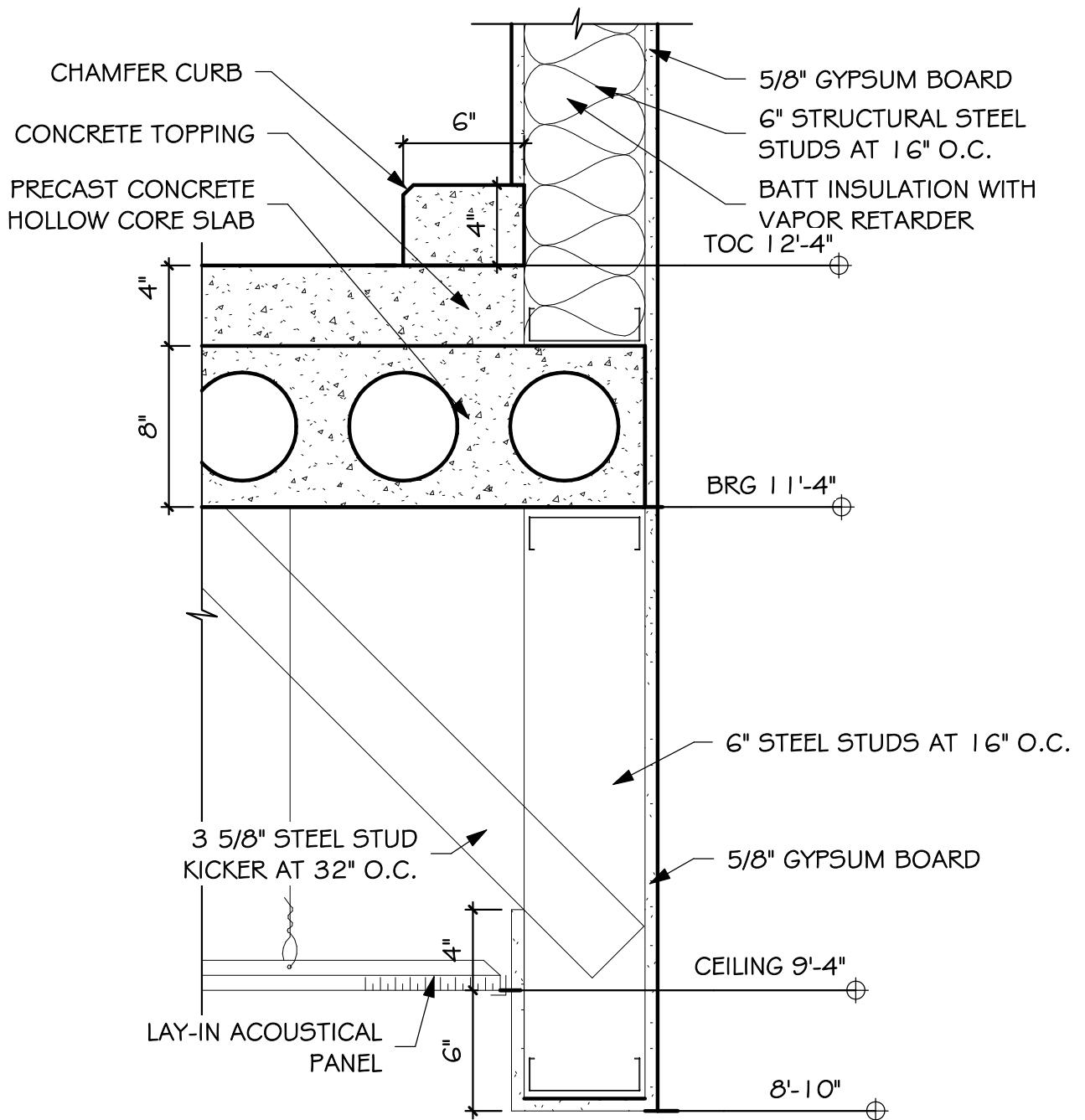
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## DETAIL 5/5.45

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



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number 1002.2903.20

date SEPT 27, 2021

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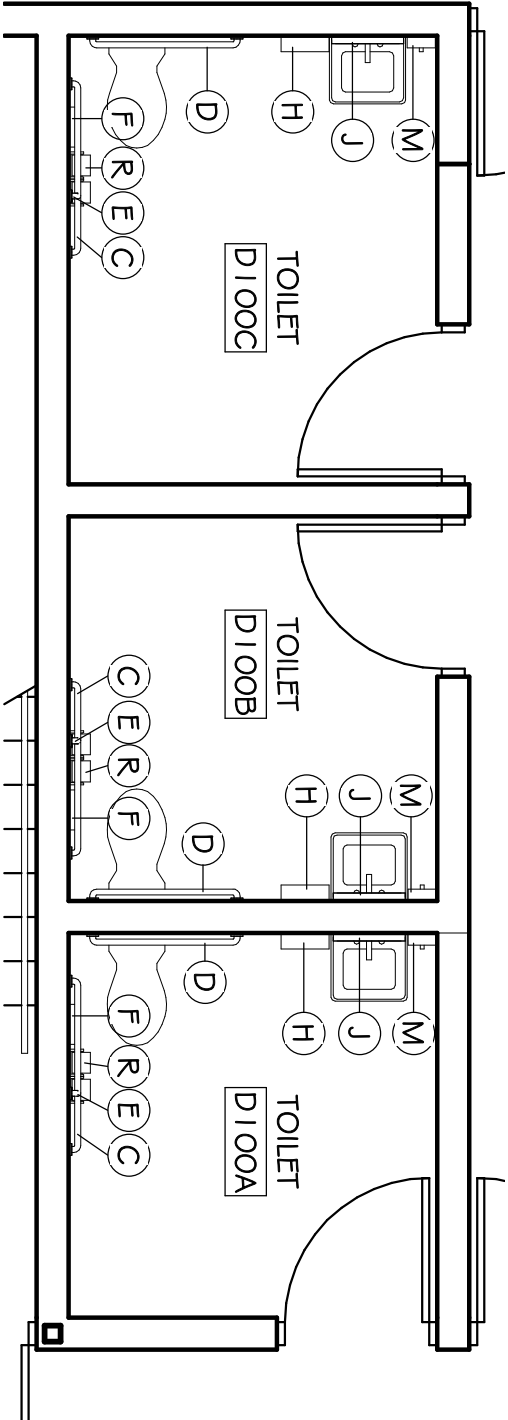
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## SD2







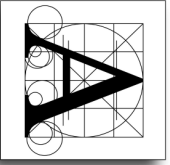


ACCESSORY NOTES
1. CONTRACTOR PROVIDED, CONTRACTOR INSTALLED 2. OWNER PROVIDED, OWNER INSTALLED 3. OWNER PROVIDED, CONTRACTOR INSTALLED AND VERIFY PLACEMENT WITH OWNER. 4. SEE MECHANICAL SPECIFICATIONS 5. MOUNT VERTICALLY 6. SURFACE MOUNTED
ACCESSORY SYMBOLS
Ⓐ ACCESSORY SYMBOL
GENERAL NOTES - ENLARGED PLANS
A. SEE SHEET 4.23 FOR FLOOR AND WALL TILE PATTERNS.

ACCESSORY SCHEDULE		
MARK	ACCESSORY	NOTES
A	FLOOR MOUNTED O.H. BRACED TOILET PARTITIONS	1,6
B	URINAL SCREEN	1,6
C	1 1/2" O.D. GRAB BAR 42" LONG	1,6
D	1 1/2" O.D. GRAB BAR 36" LONG	1,6
E	1 1/2" O.D. GRAB BAR 18" LONG	1,5,6
F	SANITARY NAPKIN DISPOSAL	3,6
H	PAPER TOWEL DISPENSER	3,6
J	1'-6"W X 3'-0"H FRAMED MIRROR	1,6
K	3'-0"W X 3'-0"H FRAMED MIRROR	1,6
M	SOAP DISPENSER	3,6
N	MOP & BROOM HOLDERSHELF (BY M.C.)	1,4
P	SHOWER CURTAIN WITH STAINLESS STEEL ROD	1
Q	CLOTHES HOOK	1,6
R	TOILET PAPER DISPENSER	3,6
S	SANITARY NAPKIN DISPENSER	1,6
T	SHOWER GRAB BAR	1,6
U	SOLID PHENOLIC FOLDING SHOWER SEAT	1
V	BABYCHANGING STATION	1,6





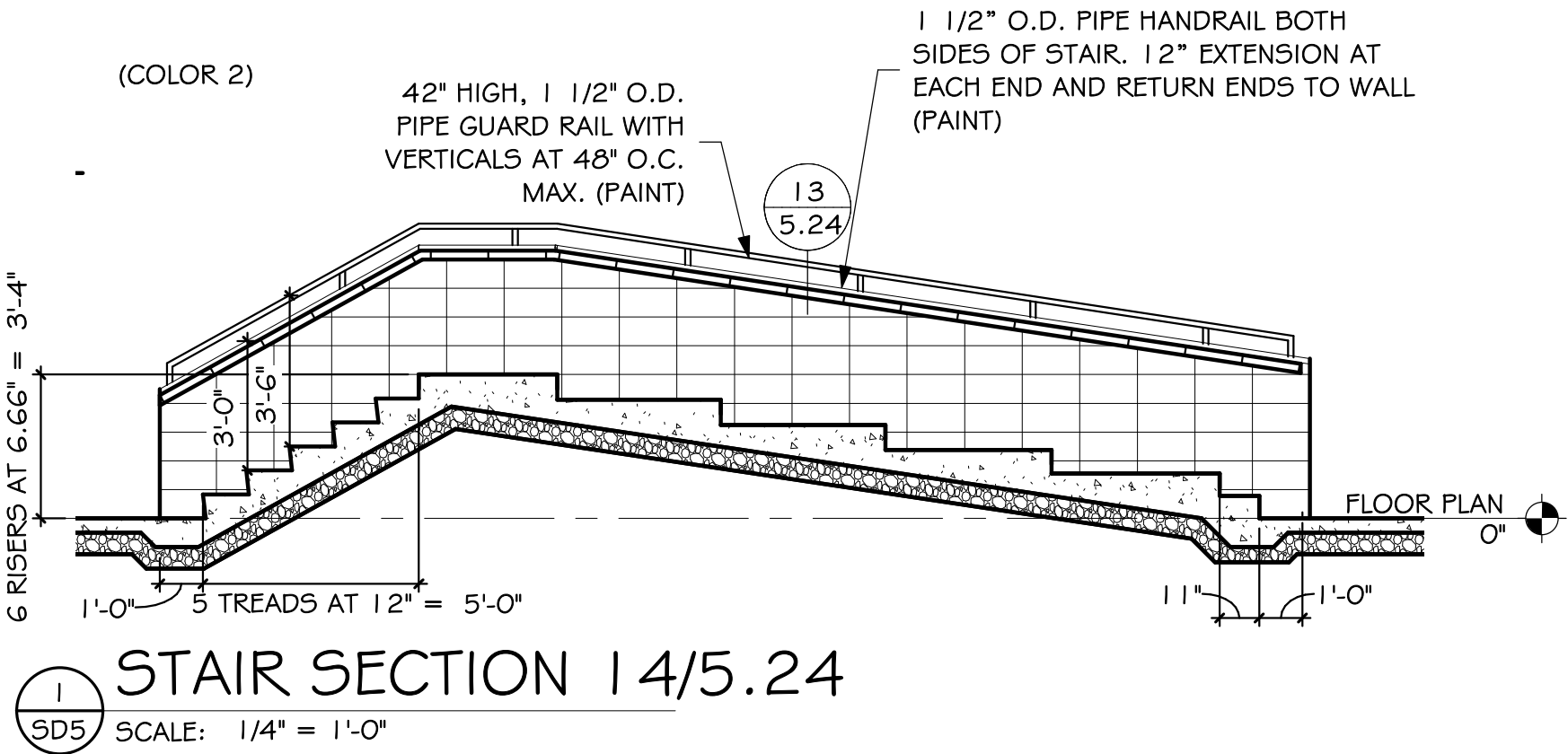


project **HARRISBURG MIDDLE SCHOOL #3**  
number **1002.2903.20**  
date **SEPT 27, 2021**  
drawn **CJM** checked **SRJ**  
revision

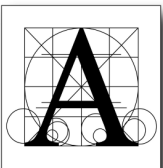
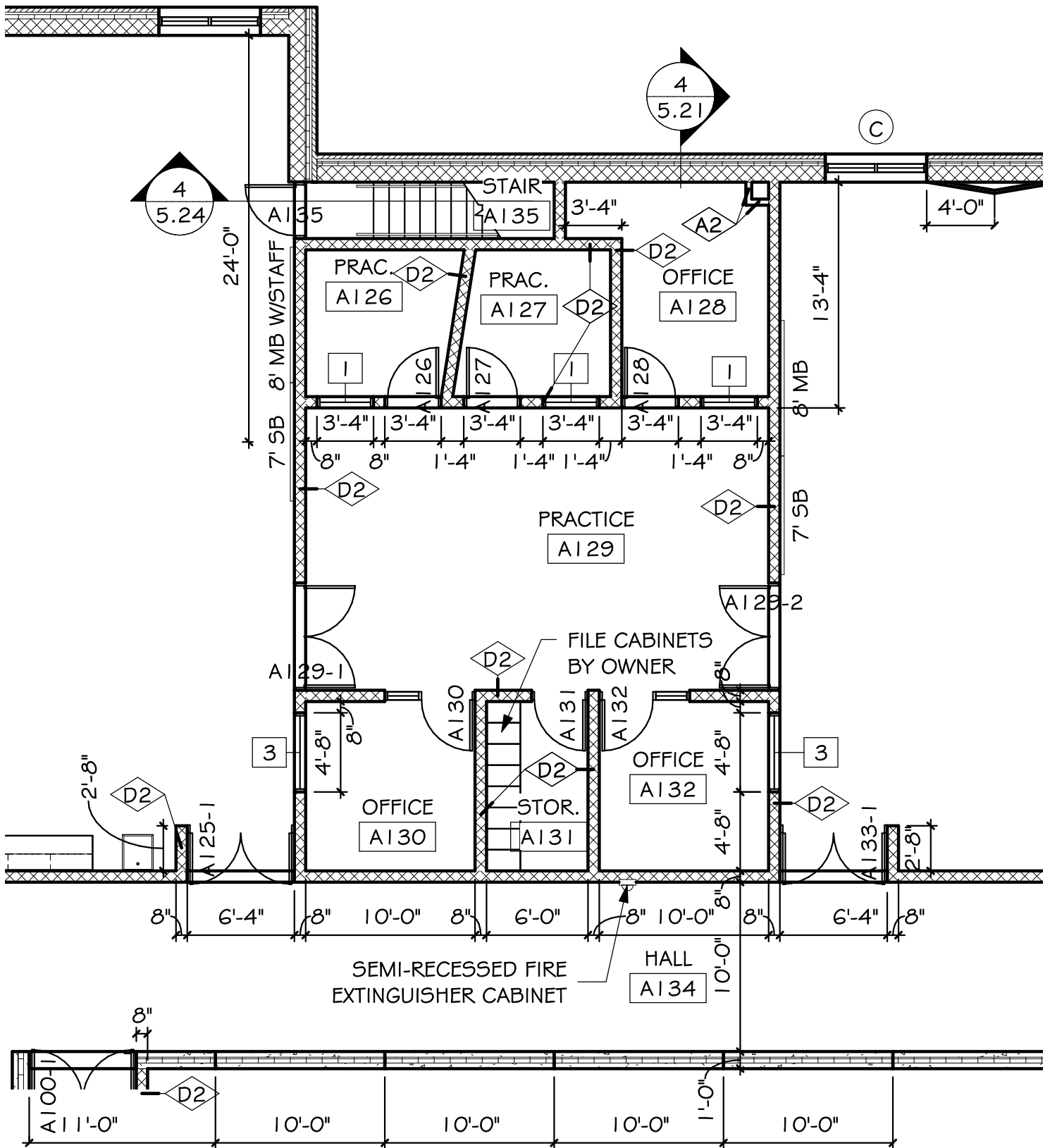
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**SD5**







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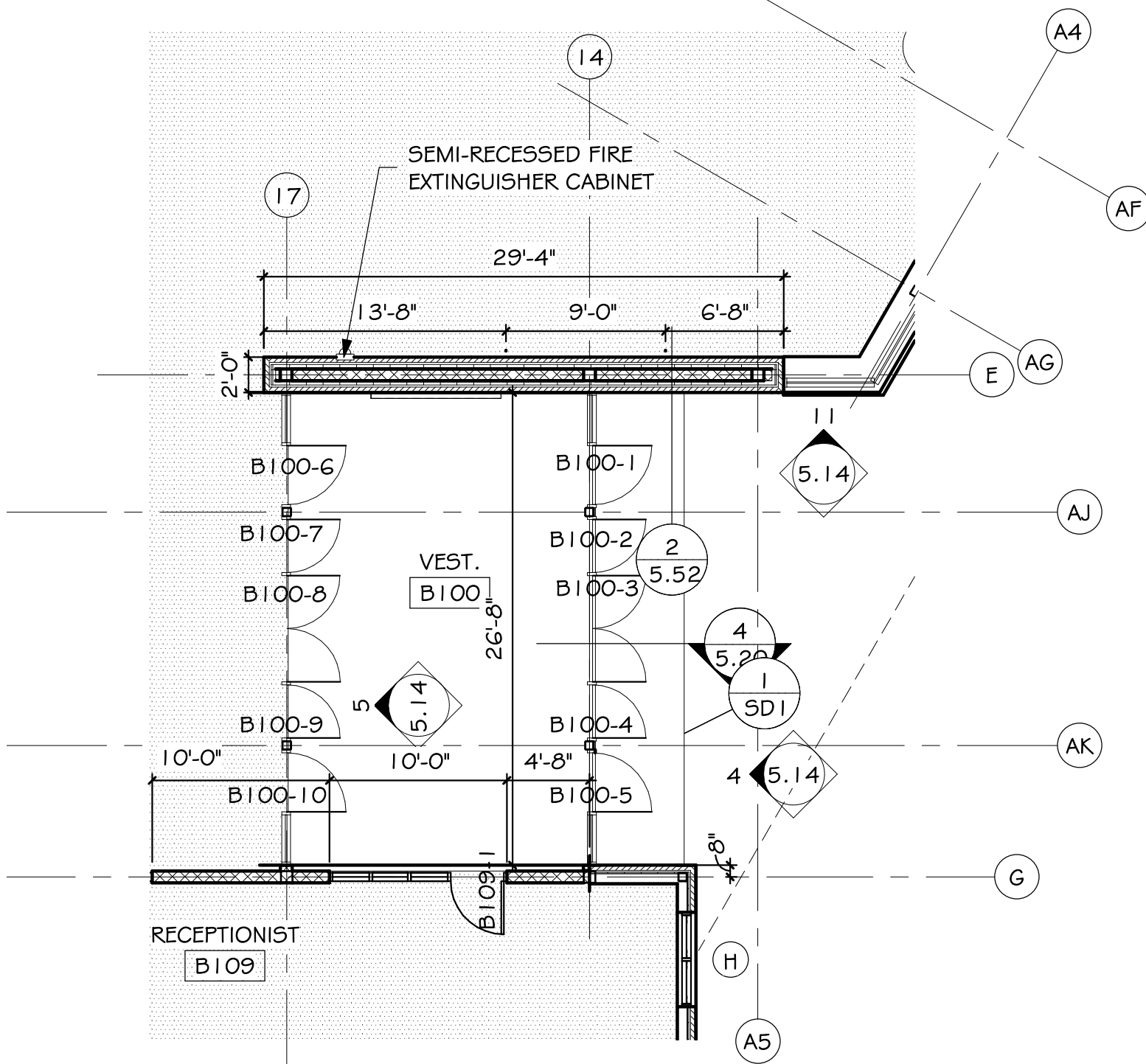
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**SD6**

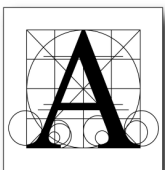




1  
SD7

## SD7- PARTIAL FLOOR PLAN - AREA B

SCALE: 1/8" = 1'-0"



project HARRISBURG MIDDLE SCHOOL #3

number 1002.2903.20

drawn CJM

checked SRJ

date SEPT 27, 2021

revision

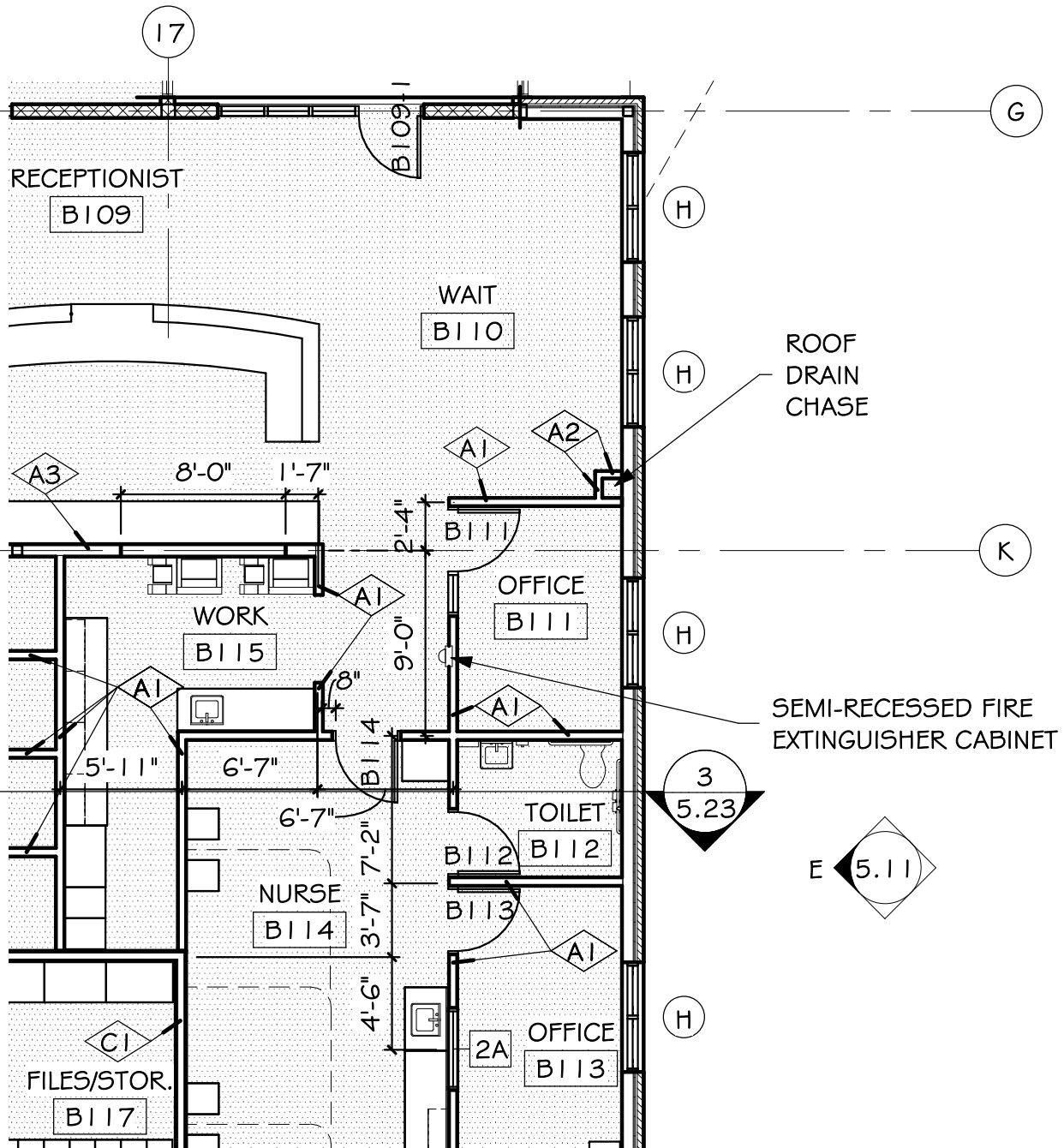
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SD7

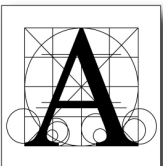




**SD8- PARTIAL FLOOR PLAN - AREA B**



SCALE: 1/8" = 1'-0"



project HARRISBURG MIDDLE SCHOOL #3  
 number 1002.2903.20 drawn CJM checked SRJ  
 date SEPT 27, 2021 revision \_\_\_\_\_

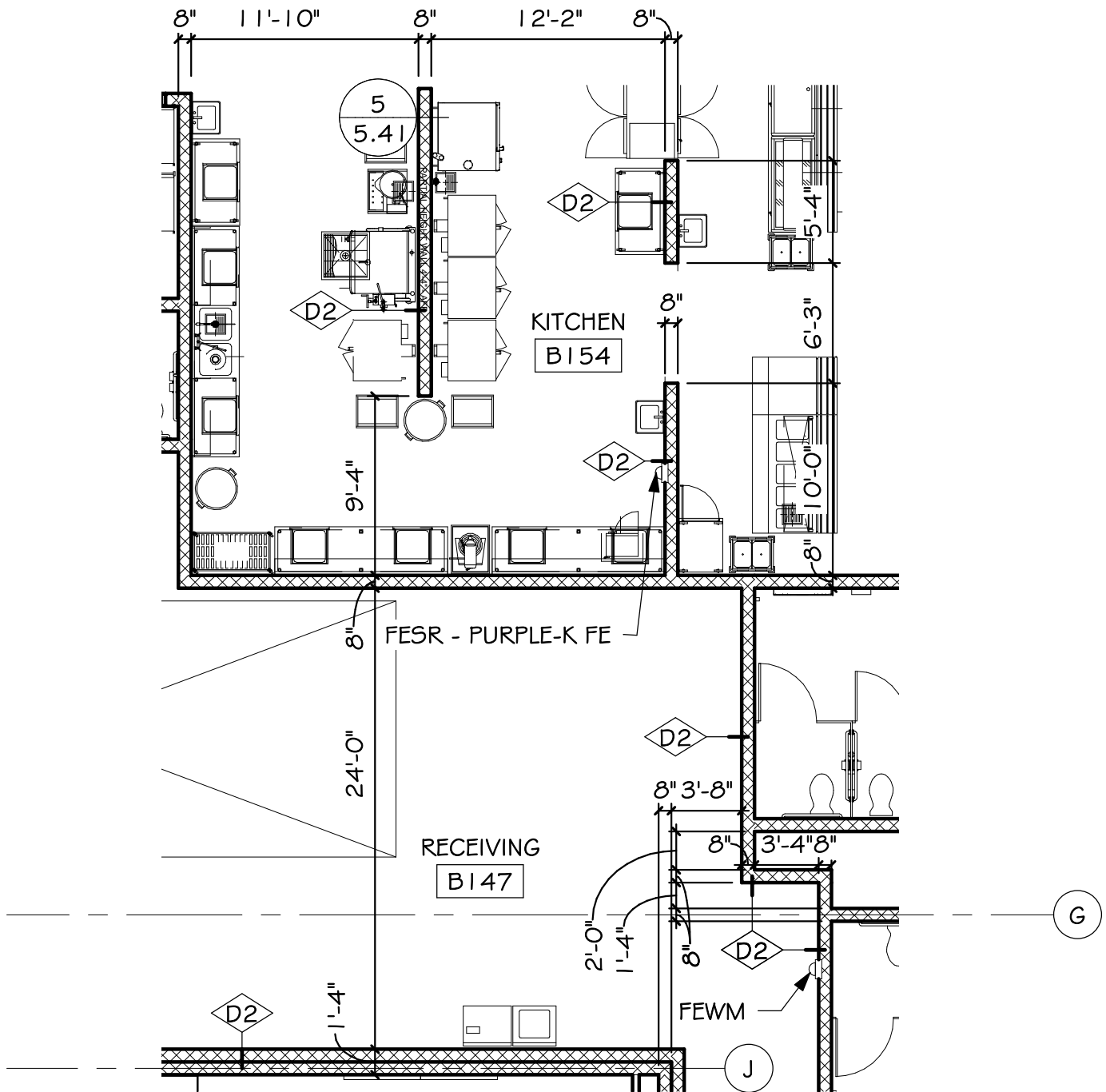
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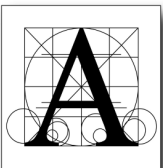
**SD8**





**SD9- PARTIAL FLOOR PLAN - AREA B**

SCALE: 1/8" = 1'-0"



project HARRISBURG MIDDLE SCHOOL #3

number 1002.2903.20 drawn CJM checked SRJ

date SEPT 27, 2021 revision \_\_\_\_\_

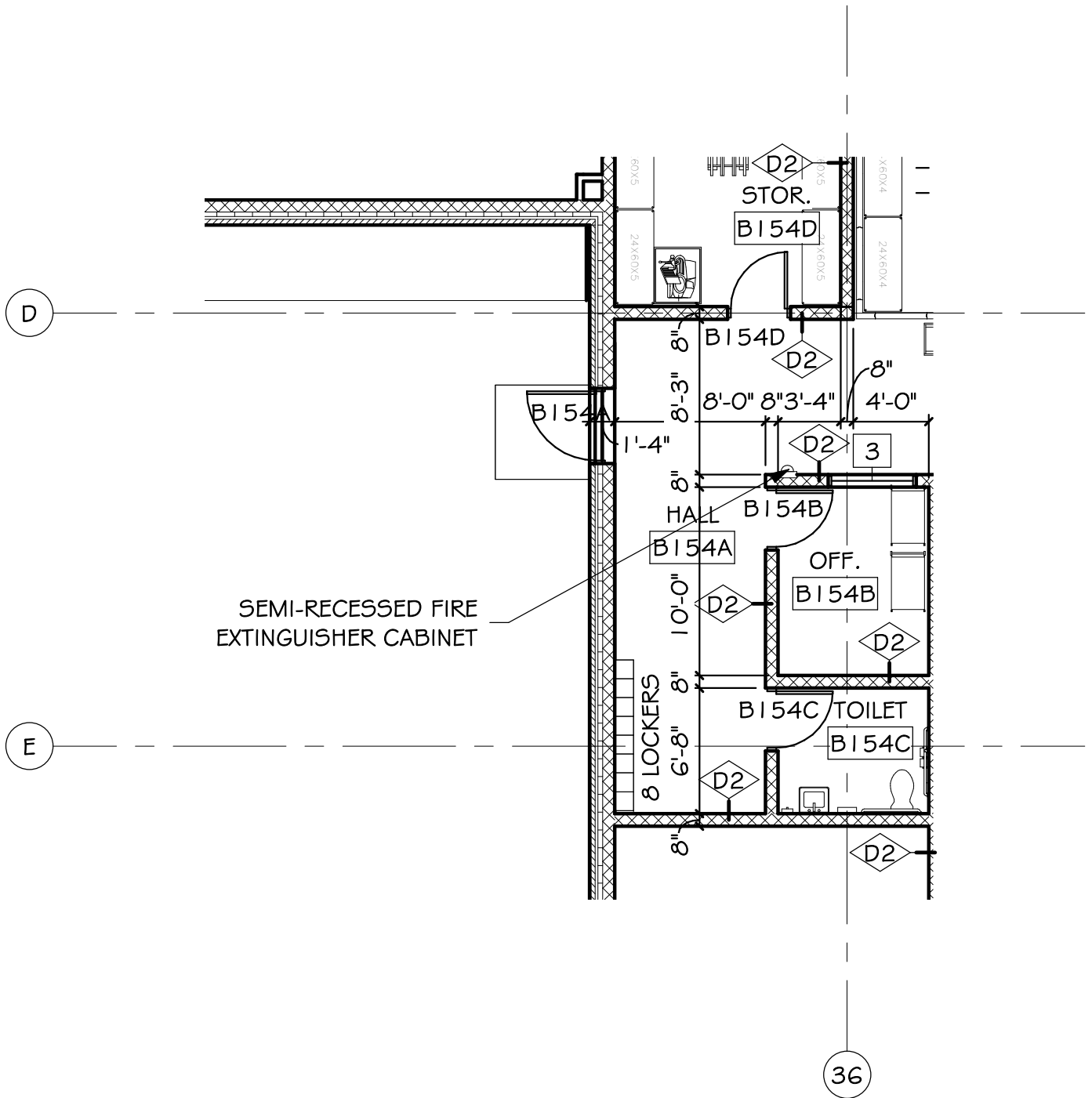
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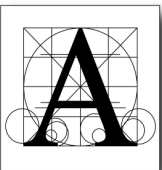
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**SD9**





# 1 SD10- PARTIAL FLOOR PLAN - AREA B SD10 SCALE: 1/8" = 1'-0"



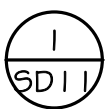
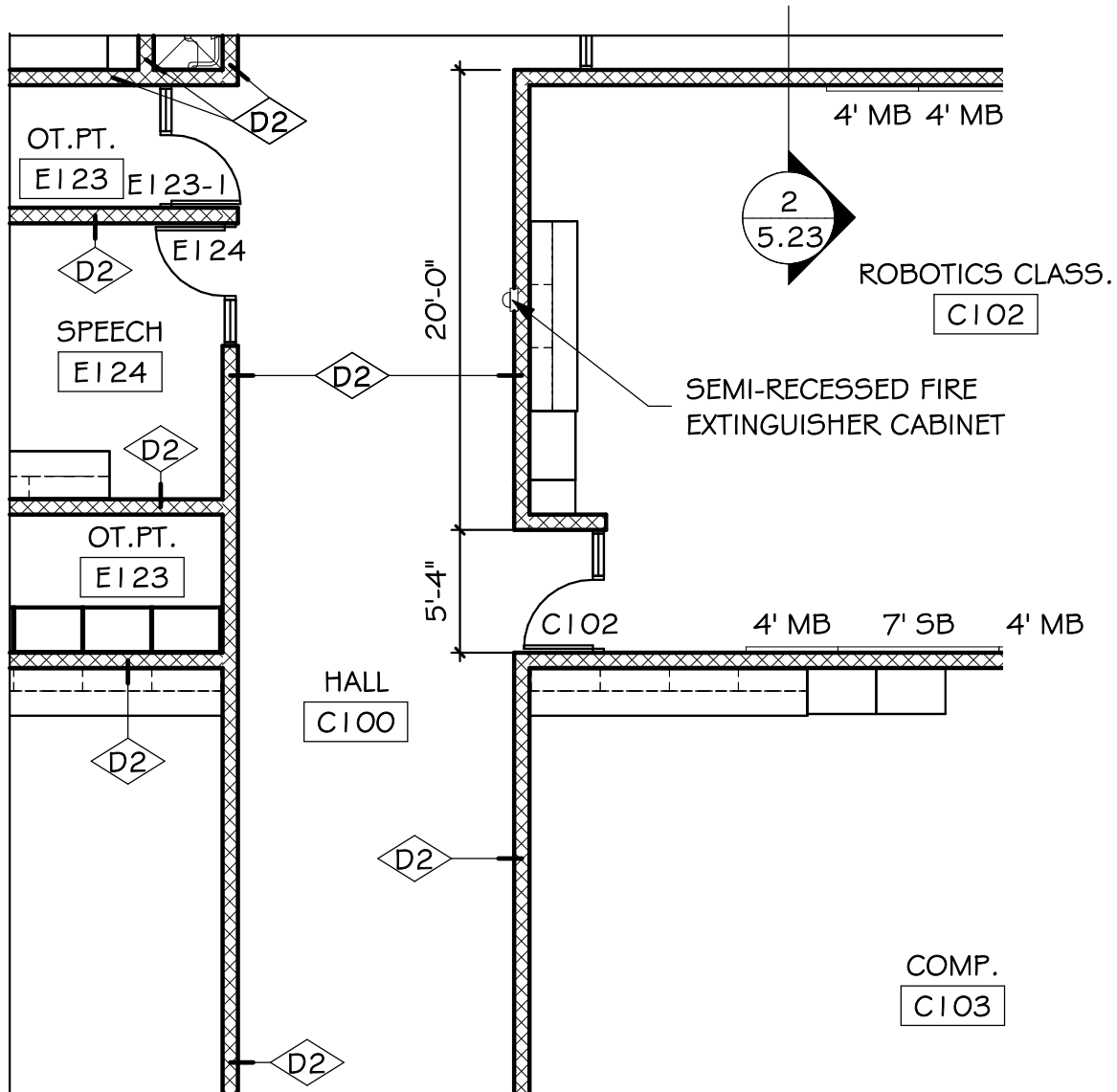
project HARRISBURG MIDDLE SCHOOL #3  
 number 1002.2903.20 drawn CJM checked SRJ  
 date SEPT 27, 2021 revision \_\_\_\_\_

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DRAWING

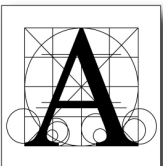
SD10





# SD11 - PARTIAL FLOOR PLAN - AREA C

SCALE: 1/8" = 1'-0"



project HARRISBURG MIDDLE SCHOOL #3

number 1002.2903.20

date SEPT 27, 2021

drawn CJM

checked SRJ

revision \_\_\_\_\_

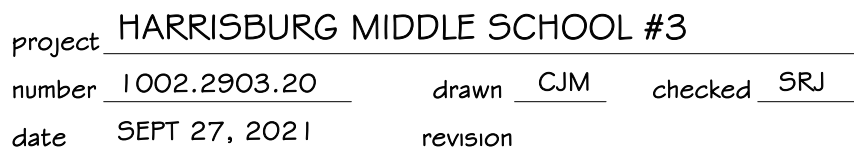
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DRAWING

# SD11

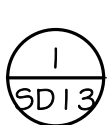
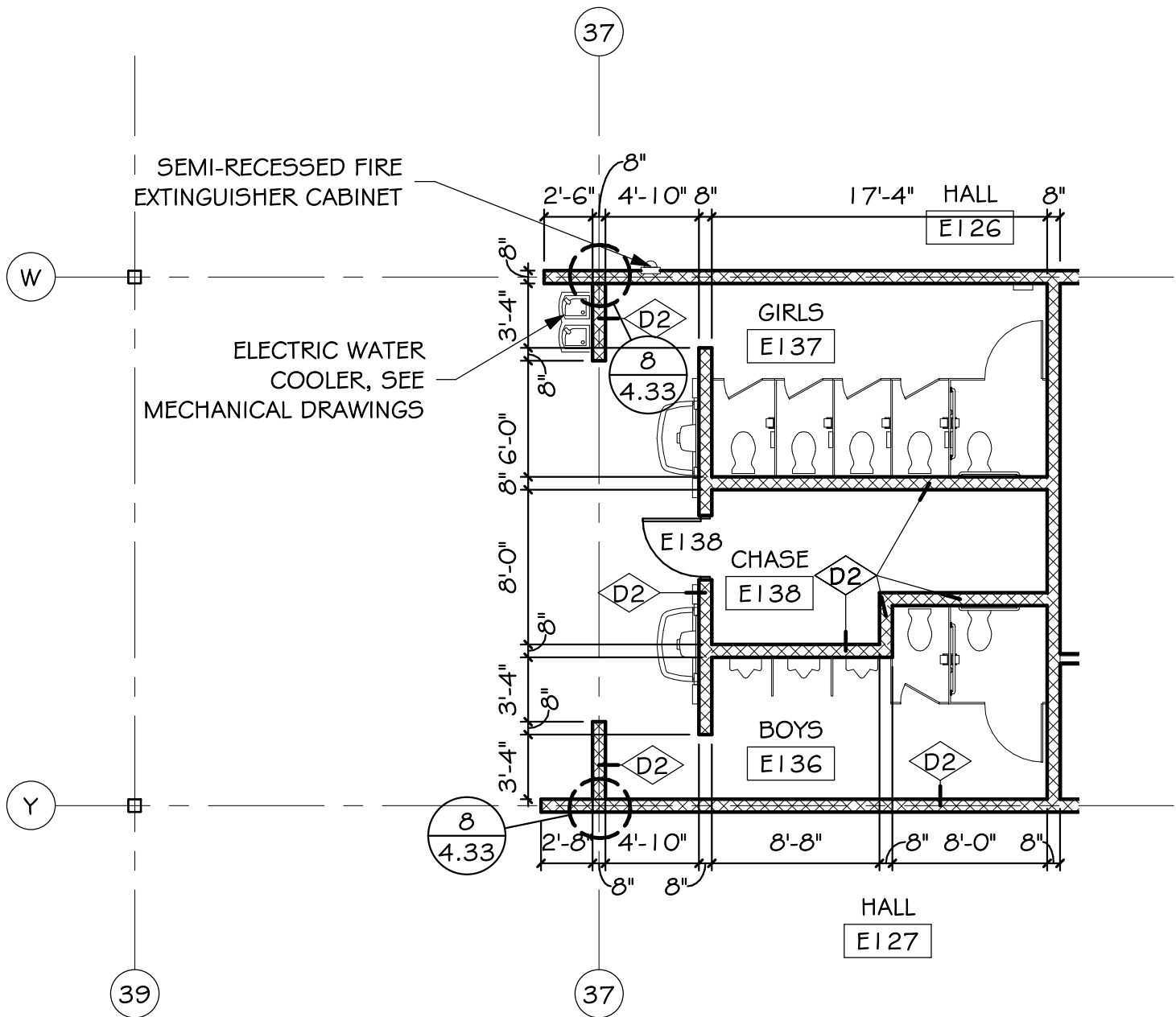




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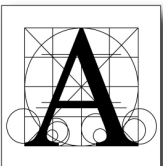
SD12





# SD13 - PARTIAL FLOOR PLAN - AREA E

SCALE: 1/8" = 1'-0"



project HARRISBURG MIDDLE SCHOOL #3

number 1002.2903.20 drawn CJM checked SRJ

date SEPT 27, 2021 revision \_\_\_\_\_

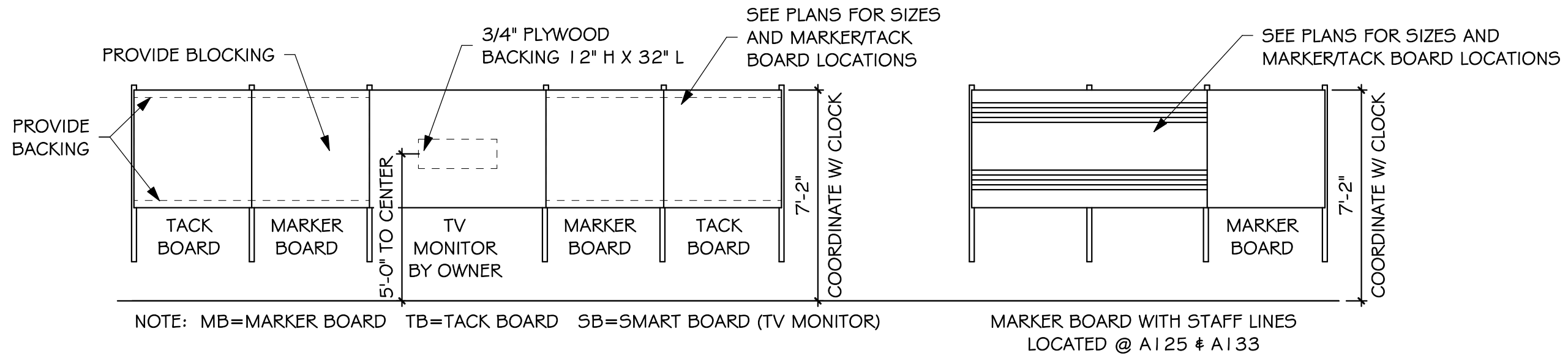
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DRAWING

**SD13**





1  
SD14

## TYP. DISPLAY BOARD MOUNTING HEIGHTS

SCALE: 1/4" = 1'-0"

DRAWING

SD14

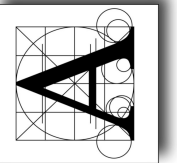
project HARRISBURG MIDDLE SCHOOL #3

number 1002.2903.20 drawn BJO checked SRJ

date SEPTEMBER 27, 2021 revision

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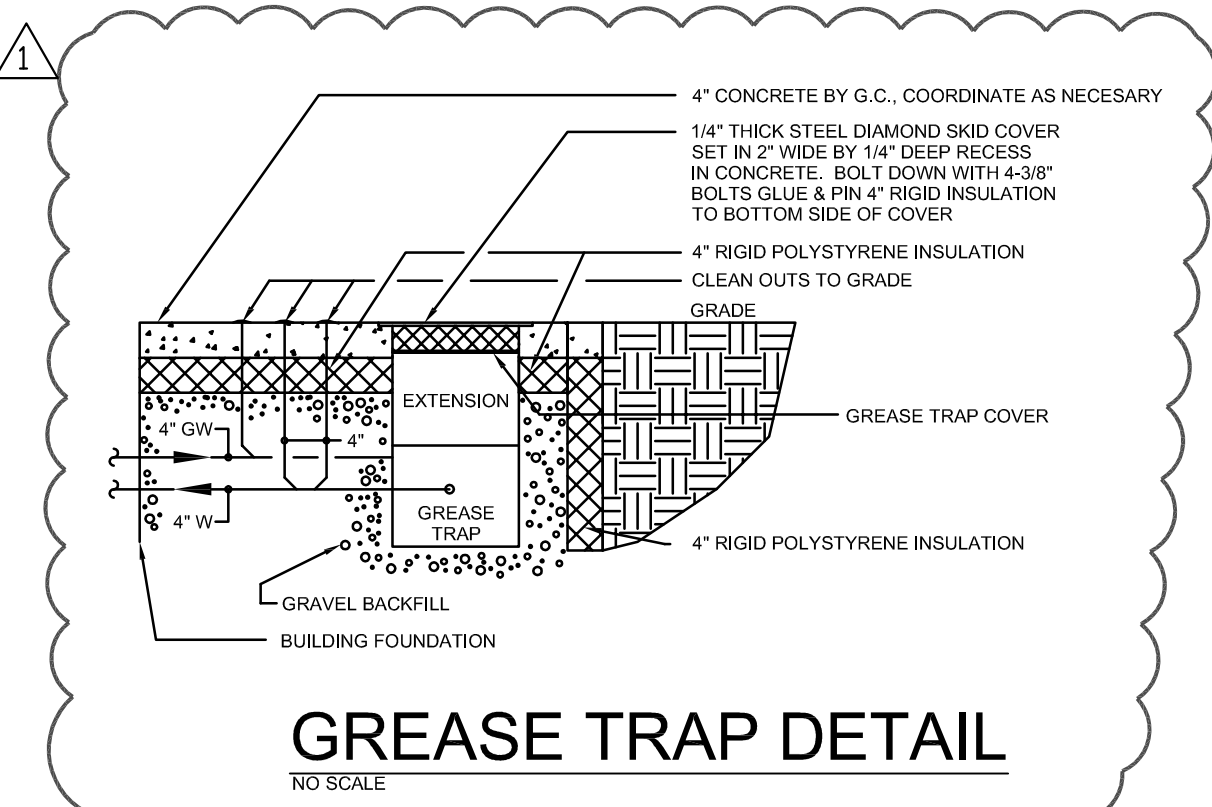
415 south main avenue, sioux falls, south dakota 57101 (605)339-1711



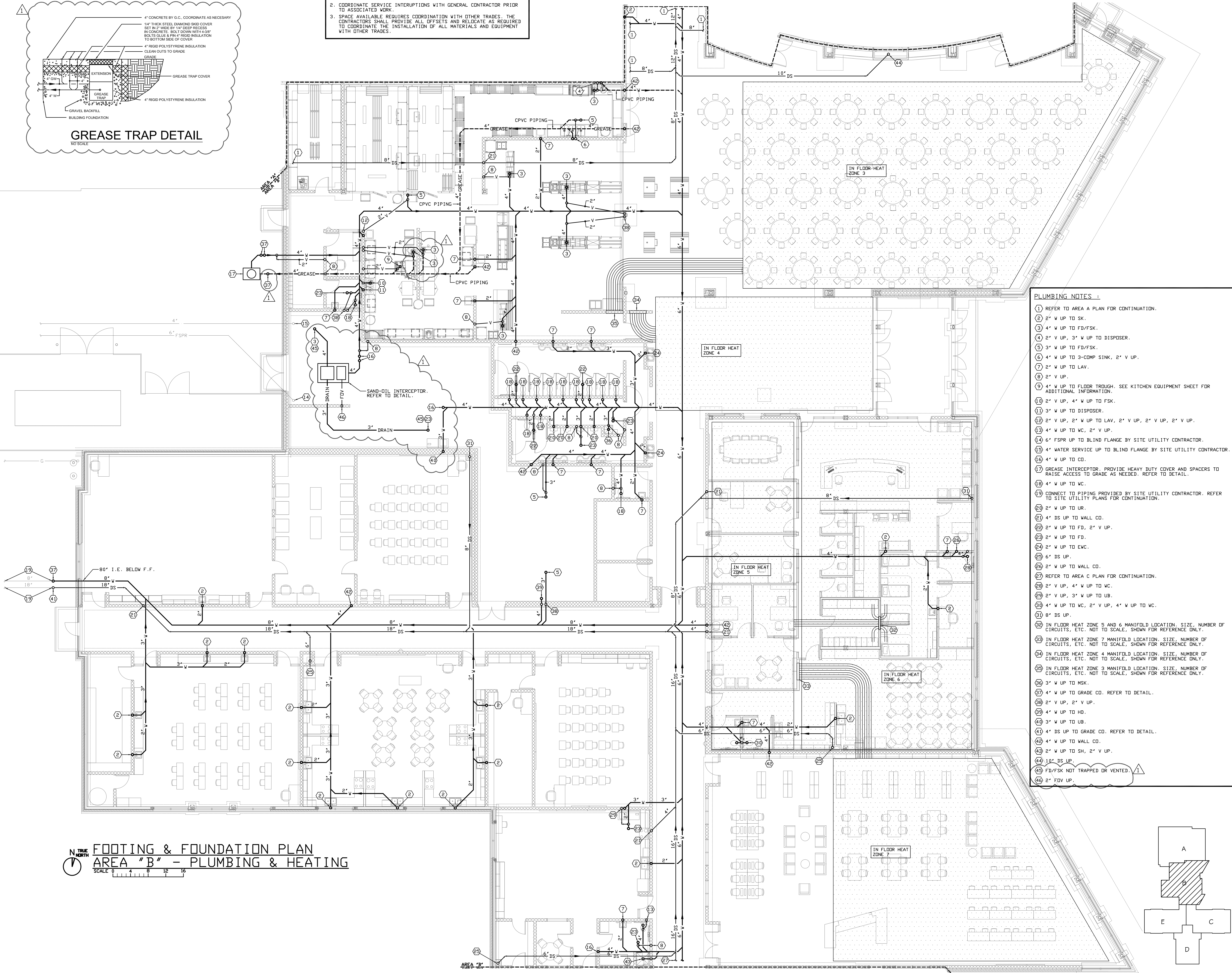






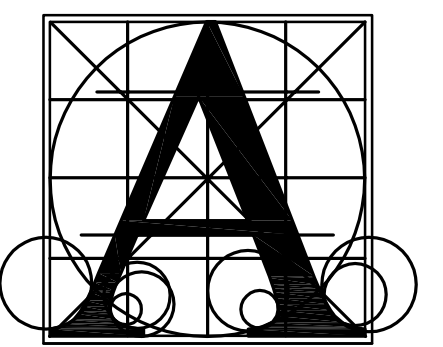
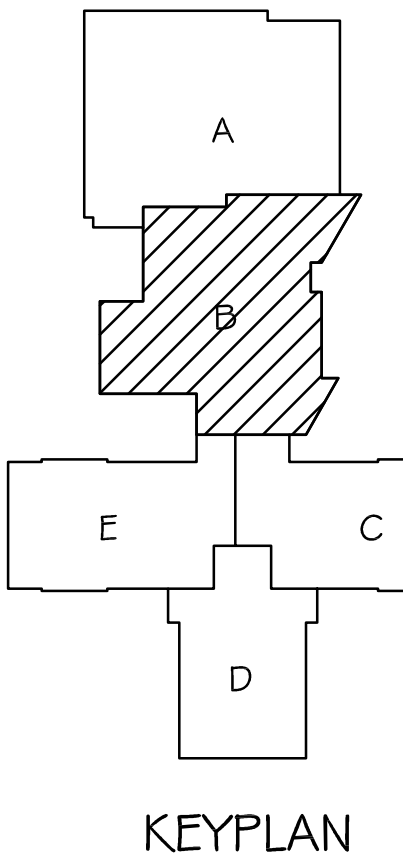


- GENERAL NOTES:
1. VERIFY SIZES AND LOCATIONS PRIOR TO ASSOCIATED WORK.
  2. COORDINATE SERVICE INTERRUPTIONS WITH GENERAL CONTRACTOR PRIOR TO ASSOCIATED WORK.
  3. SPACE AVAILABLE REQUIRES COORDINATION WITH OTHER TRADES. THE CONTRACTORS SHALL PROVIDE ALL OFFSETS AND RELOCATE AS REQUIRED TO COORDINATE THE INSTALLATION OF ALL MATERIALS AND EQUIPMENT WITH OTHER TRADES.



- PLUMBING NOTES:
1. REFER TO AREA A PLAN FOR CONTINUATION.
  2. 2" W UP TO SK.
  3. 4" W UP TO FD/FSK.
  4. 2" V UP, 3" W UP TO DISPOSER.
  5. 3" W UP TO FD/FSK.
  6. 4" W UP TO 3-COMP SINK, 2" V UP.
  7. 2" W UP TO LAV.
  8. 2" V UP.
  9. 4" W UP TO FLOOR TROUGH. SEE KITCHEN EQUIPMENT SHEET FOR ADDITIONAL INFORMATION.
  10. 2" V UP, 4" W UP TO FSK.
  11. 3" W UP TO DISPOSER.
  12. 2" V UP, 2" W UP TO LAV, 2" V UP, 2" V UP.
  13. 4" W UP TO WC, 2" V UP.
  14. 6" FSPR UP TO BLIND FLANGE BY SITE UTILITY CONTRACTOR.
  15. 4" WATER SERVICE UP TO BLIND FLANGE BY SITE UTILITY CONTRACTOR.
  16. 4" W UP TO CD.
  17. GREASE INTERCEPTOR. PROVIDE HEAVY DUTY COVER AND SPACERS TO RAISE ACCESS TO GRADE AS NEEDED. REFER TO DETAIL.
  18. 4" W UP TO WC.
  19. CONNECT TO PIPING PROVIDED BY SITE UTILITY CONTRACTOR. REFER TO SITE UTILITY PLANS FOR CONTINUATION.
  20. 2" W UP TO UR.
  21. DS UP TO WALL CD.
  22. 2" W UP TO FD, 2" V UP.
  23. 2" W UP TO FD.
  24. 2" W UP TO EWC.
  25. 6" DS UP.
  26. 2" W UP TO WALL CD.
  27. REFER TO AREA C PLAN FOR CONTINUATION.
  28. 2" V UP, 4" W UP TO WC.
  29. 2" V UP, 3" W UP TO UB.
  30. 4" W UP TO WC, 2" V UP, 4" W UP TO WC.
  31. 8" DS UP.
  32. IN FLOOR HEAT ZONE 5 AND 6 MANIFOLD LOCATION. SIZE, NUMBER OF CIRCUITS, ETC. NOT TO SCALE. SHOWN FOR REFERENCE ONLY.
  33. IN FLOOR HEAT ZONE 7 MANIFOLD LOCATION. SIZE, NUMBER OF CIRCUITS, ETC. NOT TO SCALE. SHOWN FOR REFERENCE ONLY.
  34. IN FLOOR HEAT ZONE 4 MANIFOLD LOCATION. SIZE, NUMBER OF CIRCUITS, ETC. NOT TO SCALE. SHOWN FOR REFERENCE ONLY.
  35. IN FLOOR HEAT ZONE 3 MANIFOLD LOCATION. SIZE, NUMBER OF CIRCUITS, ETC. NOT TO SCALE. SHOWN FOR REFERENCE ONLY.
  36. 3" W UP TO MSK.
  37. 4" W UP TO GRADE CD. REFER TO DETAIL.
  38. 2" V UP, 2" V UP.
  39. 4" W UP TO HD.
  40. 3" W UP TO UB.
  41. 4" DS UP TO GRADE CD. REFER TO DETAIL.
  42. 4" W UP TO WALL CD.
  43. 2" W UP TO SH, 2" V UP.
  44. 10" DS UP.
  45. FD/FSK NOT TRAPPED OR VENTED.
  46. 2" FDV UP.

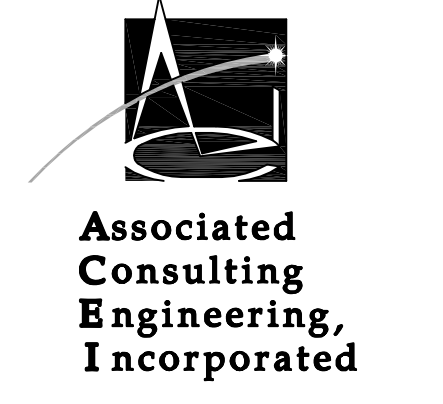
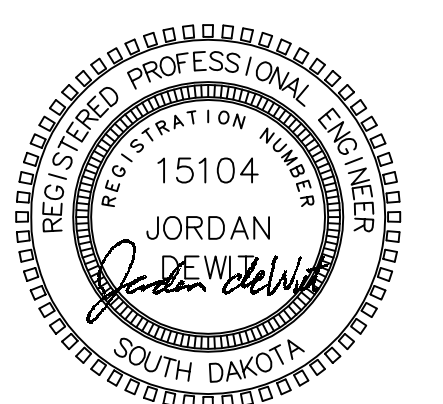
FOOTING & FOUNDATION PLAN  
AREA "B" - PLUMBING & HEATING  
SCALE 0 4 8 12 16  
N TRUE NORTH



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Project  
**HARRISBURG MIDDLE SCHOOL #3**

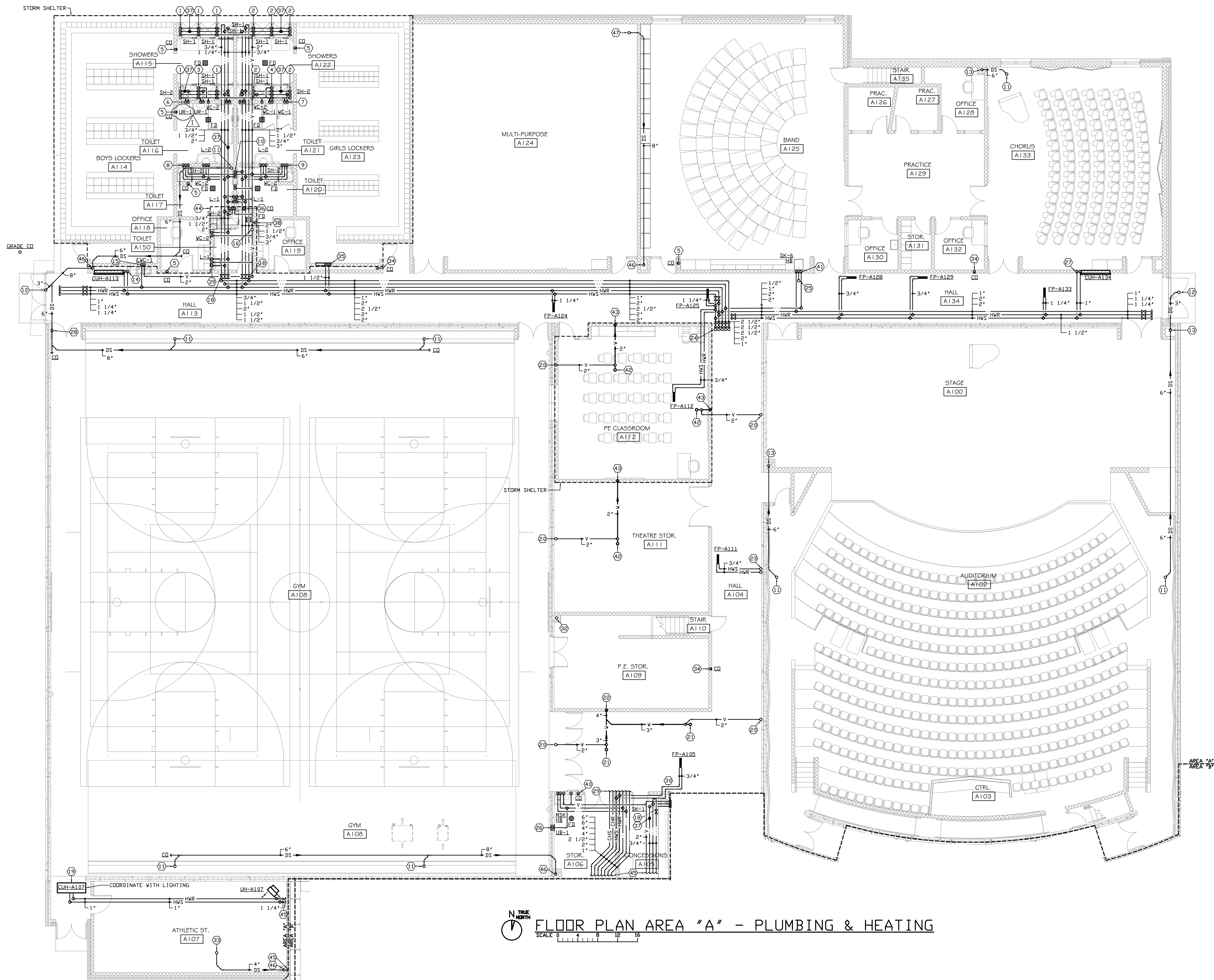
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**FOOTING & FOUNDATION PLAN- AREA B- PLMB & HTG**

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date	September 10, 2021
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drawn	TS/DM
checked	Td

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8.21





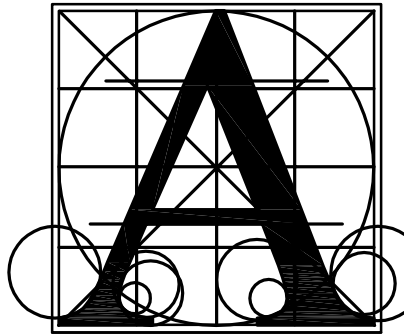
FLOOR PLAN AREA "A" - PLUMBING & HEATING

GENERAL NOTES:

1. VERIFY SIZES AND LOCATIONS PRIOR TO ASSOCIATED WORK.
2. THE CEILING SPACE AVAILABLE REQUIRES EXTENSIVE COORDINATION WITH OTHER TRADES. THE CONTRACTORS SHALL PROVIDE ALL OFFSETS AND RELOCATE AS REQUIRED TO COORDINATE THE INSTALLATION OF ALL MATERIALS AND EQUIPMENT WITH OTHER TRADES.
3. ANY MECHANICAL PENETRATION INTO OR OUT OF A STORM SHELTER SHALL BE PROTECTED FROM INCOMING PROJECTILES BY CONCRETE BAFFLES. SEE ARCHITECTURAL CODE PLAN FOR EXTENTS OF STORM SHELTERS.

PLUMBING NOTES:

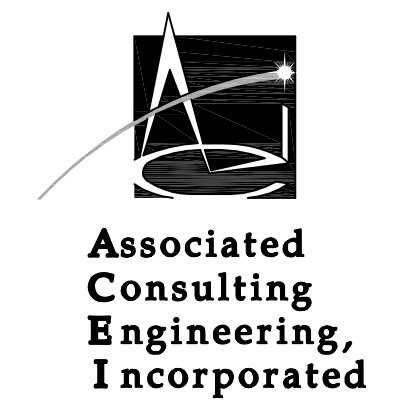
- 1 1/2" CW DN, 1/2" HW DN, 2" V DN.
- 1 1/2" HW DN, 1/2" CW DN, 2" V DN.
- 2" V DN, 1/2" CW DN, 1/2" HW DN, 2" V DN.
- 2" V DN, 1/2" HW DN, 1/2" CW DN, 2" V DN.
- 4" W DN FROM WALL CD.
- 2" V/W DN, 1" CW DN, 2" V/W DN, 1" CW DN, 2" V DN, 2" V DN, 1 1/4" CW DN.
- 1 1/4" CW DN, 2" V DN, 2" V DN, 2" V DN, 1 1/4" CW DN, 2" V DN.
- 1/2" HW DN, 1/2" CW DN, 2" V DN, 3/4" CW DN, 2" V/W DN, 3/4" HW DN.
- 3/4" CW DN, 2" V/W DN, 3/4" HW DN, 2" V DN, 1/2" HW DN, 1/2" CW DN.
- 1 1/4" CW DN, 2" V DN, 1 1/4" CW DN, 2" V DN, 2" V DN, 1/2" HOT AND COLD WATER DOWN FOR EACH SINK, 2" V/W DN.
- 6" DS UP TO 6" RD.
- 3" DS UP TO 3" RD.
- 6" DS DN, PROVIDE W/ CD 24" AFF.
- 1" HWS DN, 1" HWR DN TO CUH.
- 1/2" CW DN, 2" V/W DN.
- 4" V UP (4" VTR).
- PROVIDE W/ CD'S AT DROPS.
- CALIBRATED BALANCE VALVE.
- HYDRONIC CABINET UNIT HEATER SUSPENDED FROM STRUCTURE. PROVIDE VIBRATION-ISOLATING HANGING KIT.
- 2" V UP.
- 3" W UP TO FSK.
- 4" W DN, PROVIDE W/ CD 24" AFF.
- 3/4" HWS UP, 3/4" HWR UP TO PENTHOUSE. REFER TO ENLARGED PLAN FOR CONTINUATION.
- 2 1/2" HWS UP, 2 1/2" HWR UP, 2 1/2" CW UP, 2" HW UP, 1" RHW UP, TO PENTHOUSE. REFER TO ENLARGED PLAN FOR CONTINUATION.
- 2" V UP (4" VTR).
- 1/2" CW DN TO UB.
- 1" HWR DN, 1" HWS DN TO CUH.
- COORDINATE WITH TRANSFER AIR DUCTWORK/GRILLE. PROVIDE W/ CD AT DROP.
- SEE PENTHOUSE FLOOR PLAN FOR CONTINUATION.
- 2" V/W DN, 1/2" HW DN, 1/2" CW DN.
- SEE AREA B PLANS FOR CONTINUATION.
- 8" DS UP/DN. PROVIDE W/ CD 24" AFF.
- 4" DS UP TO 4" RD.
- 4" DS DN FROM WALL CD.
- 1 1/2" HWS DN, 1 1/2" HWR DN TO IN FLOOR HEAT MANIFOLDS FOR ZONES #1 & #2. REFER TO INFLOOR HEAT PIPING DETAIL.
- 1/2" HW DN, 1/2" CW DN, 2" V DN, 4" V DN FROM WALL CD.
- WATER HAMMER ARRESTOR.
- 2" V DN.
- 1/2" HW DN, 2" W/V DN, 1/2" CW DN, 2" V DN, 1 1/4" CW DN.
- 1/2" HW DN, 3/4" CW DN, 2" V DN, 2" V DN, 4" W DN FROM WALL CD. PROVIDE W/ HB MTD 60" AFF.
- 1/2" HW DN, 2" V/3" W DN, 3/4" CW DN. PROVIDE W/ HB MTD 60" AFF.
- 2" W UP TO FSK.
- 2" W DN, PROVIDE W/ CD 24" AFF.
- PIPE PENETRATIONS THROUGH NORTH WALL OF TOILET A150 SHALL BE LESS THAN 3-1/2" IN DIAMETER.
- SEE ENLARGED KITCHEN PLAN FOR CONTINUATION.
- 8" DS DN. PROVIDE W/ CD 24" AFF.
- 8" DS UP TO RD.



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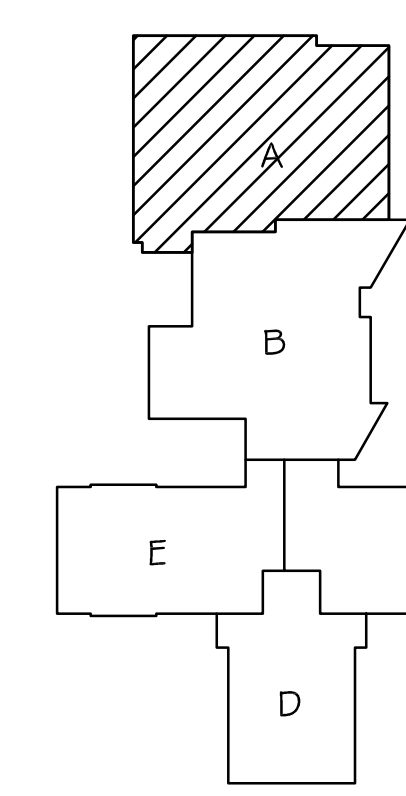
Project  
**HARRISBURG MIDDLE SCHOOL #3**

Sheet contents  
**FLOOR PLAN - AREA A - PLUMBING & HEATING**

number	1002.2903.20
date	September 10, 2021
revision	
drawn	TSDM
checked	Td

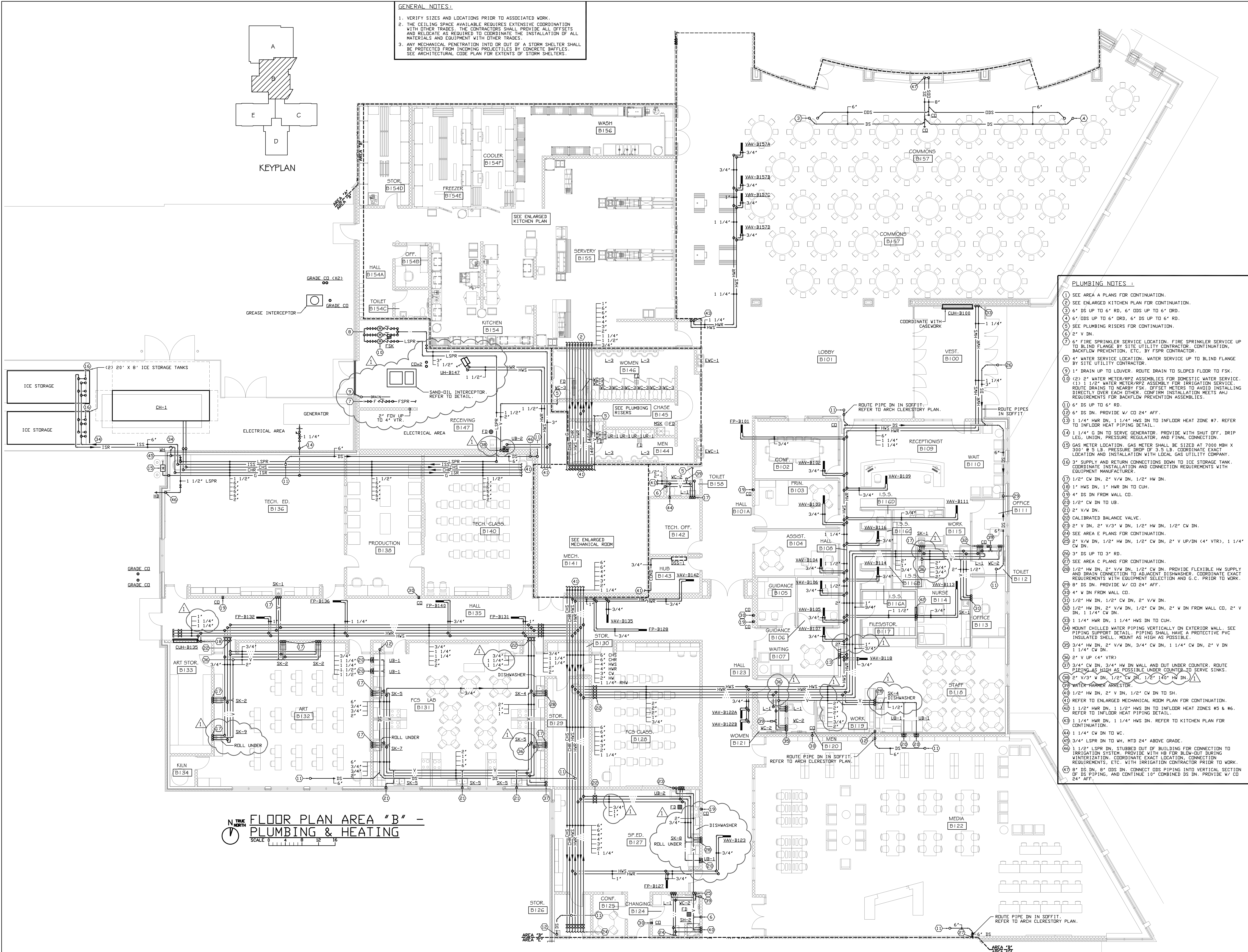
NO.	DATE	DESCRIPTION
1	9/27/21	ADDENDUM #1

8.25



KEYPLAN





GENERAL NOTES:

1. VERIFY SIZES AND LOCATIONS PRIOR TO ASSOCIATED WORK.
2. THE CEILING SPACE AVAILABLE REQUIRES EXTENSIVE COORDINATION WITH OTHER TRADES. THE CONTRACTORS SHALL PROVIDE ALL OFFSETS AND RELOCATE AS REQUIRED TO COORDINATE THE INSTALLATION OF ALL MATERIALS AND EQUIPMENT WITH OTHER TRADES.
3. ANY MECHANICAL PENETRATION INTO OR OUT OF A STORM SHELTER SHALL BE PROTECTED FROM INCOMING PROJECTILES BY CONCRETE BAFFLES. SEE ARCHITECTURAL CODE PLAN FOR EXTENTS OF STORM SHELTERS.

- PLUMBING NOTES:
1. SEE AREA A PLANS FOR CONTINUATION.
  2. SEE ENLARGED KITCHEN PLAN FOR CONTINUATION.
  3. 6" DS UP TO 6" RD, 6" ODS UP TO 6" RD.
  4. 6" ODS UP TO 6" RD, 6" DS UP TO 6" RD.
  5. SEE PLUMBING RISERS FOR CONTINUATION.
  6. 2" V DN.
  7. FIRE SPRINKLER SERVICE LOCATION. FIRE SPRINKLER SERVICE UP TO BLIND FLANGE BY SITE UTILITY CONTRACTOR. CONTINUATION, BACKFLOW PREVENTION, ETC., BY FSPR CONTRACTOR.
  8. WATER SERVICE LOCATION. WATER SERVICE UP TO BLIND FLANGE BY SITE UTILITY CONTRACTOR.
  9. 1" DRAIN UP TO LOUVER. ROUTE DRAIN TO SLOPED FLOOR TO FSK.
  10. (2) 2" WATER METER/PPZ ASSEMBLIES FOR DOMESTIC WATER SERVICE. (1) 1 1/2" WATER METER/PPZ ASSEMBLY FOR IRRIGATION SERVICE. ROUTE DRAINS TO NEARBY FSK. OFFSET METERS TO AVOID INSTALLING DIRECTLY OVER EACH OTHER. CONFIRM INSTALLATION MEETS AHJ REQUIREMENTS FOR BACKFLOW PREVENTION ASSEMBLIES.
  11. 6" DS UP TO 6" RD.
  12. 6" DS DN. PROVIDE W/ CD 24" AFF.
  13. 1 1/4" HWR DN, 1 1/4" HWS DN TO INFLOOR HEAT ZONE #7. REFER TO INFLOOR HEAT PIPING DETAIL.
  14. 1 1/4" G DN TO SERVE GENERATOR. PROVIDE WITH SHUT OFF, DRIP LEG, UNION, PRESSURE REGULATOR, AND FINAL CONNECTION.
  15. GAS METER LOCATION. GAS METER SHALL BE SIZED AT 7000 MBH X 300" Ø 5 LB. PRESSURE DROP OF 3.5 LB. COORDINATE EXACT LOCATION AND INSTALLATION WITH LOCAL GAS UTILITY COMPANY.
  16. 3" SUPPLY AND RETURN CONNECTIONS DOWN TO ICE STORAGE TANK. COORDINATE INSTALLATION AND CONNECTION REQUIREMENTS WITH EQUIPMENT MANUFACTURER.
  17. 1/2" CV DN, 2" V/W DN, 1/2" HW DN.
  18. 1" HWS DN, 1" HWR DN TO CUH.
  19. 4" DS DN FROM WALL CD.
  20. 1/2" CV DN TO UB.
  21. 2" V/W DN.
  22. CALIBRATED BALANCE VALVE.
  23. 2" V DN, 2" V/3" W DN, 1/2" HW DN, 1/2" CV DN.
  24. SEE AREA E PLANS FOR CONTINUATION.
  25. 2" V/W DN, 1/2" HW DN, 1/2" CV DN, 2" V UP/DN (4" VTR), 1 1/4" CV DN.
  26. 3" DS UP TO 3" RD.
  27. SEE AREA C PLANS FOR CONTINUATION.
  28. 1/2" HW DN, 2" V/W DN, 1/2" CV DN. PROVIDE FLEXIBLE HW SUPPLY AND DRAIN CONNECTION TO ADJACENT DISHWASHER. COORDINATE EXACT REQUIREMENTS WITH EQUIPMENT SELECTION AND G.C. PRIOR TO WORK.
  29. 8" DS DN. PROVIDE W/ CD 24" AFF.
  30. 4" V DN FROM WALL CD.
  31. 1/2" HW DN, 1/2" CV DN, 2" V/W DN.
  32. 1/2" HW DN, 2" V/W DN, 1/2" CV DN, 2" V DN FROM WALL CD, 2" V DN, 1 1/4" CV DN.
  33. 1 1/4" HWR DN, 1 1/4" HWS DN TO CUH.
  34. MOUNT CHILLED WATER PIPING VERTICALLY ON EXTERIOR WALL. SEE PIPING SUPPORT DETAIL. PIPING SHALL HAVE A PROTECTIVE PVC INSULATED SHELL. MOUNT AS HIGH AS POSSIBLE.
  35. 3/4" HW DN, 2" V/W DN, 3/4" CV DN, 1 1/4" CV DN, 2" V DN, 1 1/4" CV DN.
  36. 2" V UP (4" VTR).
  37. 3/4" CV DN, 3/4" HW DN WALL AND OUT UNDER COUNTER. ROUTE PIPING AS HIGH AS POSSIBLE UNDER COUNTER TO SERVE SINKS.
  38. 2" V/3" W DN, 1/2" CV DN, 1/2" 140° HW DN.
  39. WATER HAMMER ARRESTOR.
  40. 1/2" HW DN, 2" V DN, 1/2" CV DN TO SH.
  41. REFER TO ENLARGED MECHANICAL ROOM PLAN FOR CONTINUATION.
  42. 1 1/2" HWR DN, 1 1/2" HWS DN TO INFLOOR HEAT ZONES #5 & #6. REFER TO INFLOOR HEAT PIPING DETAIL.
  43. 1 1/4" HWR DN, 1 1/4" HWS DN. REFER TO KITCHEN PLAN FOR CONTINUATION.
  44. 1 1/4" CV DN TO WC.
  45. 3/4" LSPR DN TO WH, MTD 24" ABOVE GRADE.
  46. 1 1/2" LSPR DN, STUBBED OUT OF BUILDING FOR CONNECTION TO IRRIGATION SYSTEM. PROVIDE WITH HB FOR BLOW-OUT DURING WINTERIZATION. COORDINATE EXACT LOCATION, CONNECTION REQUIREMENTS, ETC. WITH IRRIGATION CONTRACTOR PRIOR TO WORK.
  47. 8" DS DN, 8" ODS DN. CONNECT ODS PIPING INTO VERTICAL SECTION OF DS PIPING, AND CONTINUE 10' COMBINED DS DN. PROVIDE W/ CD 24" AFF.

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Project

HARRISBURG MIDDLE SCHOOL #3

Sheet Contents

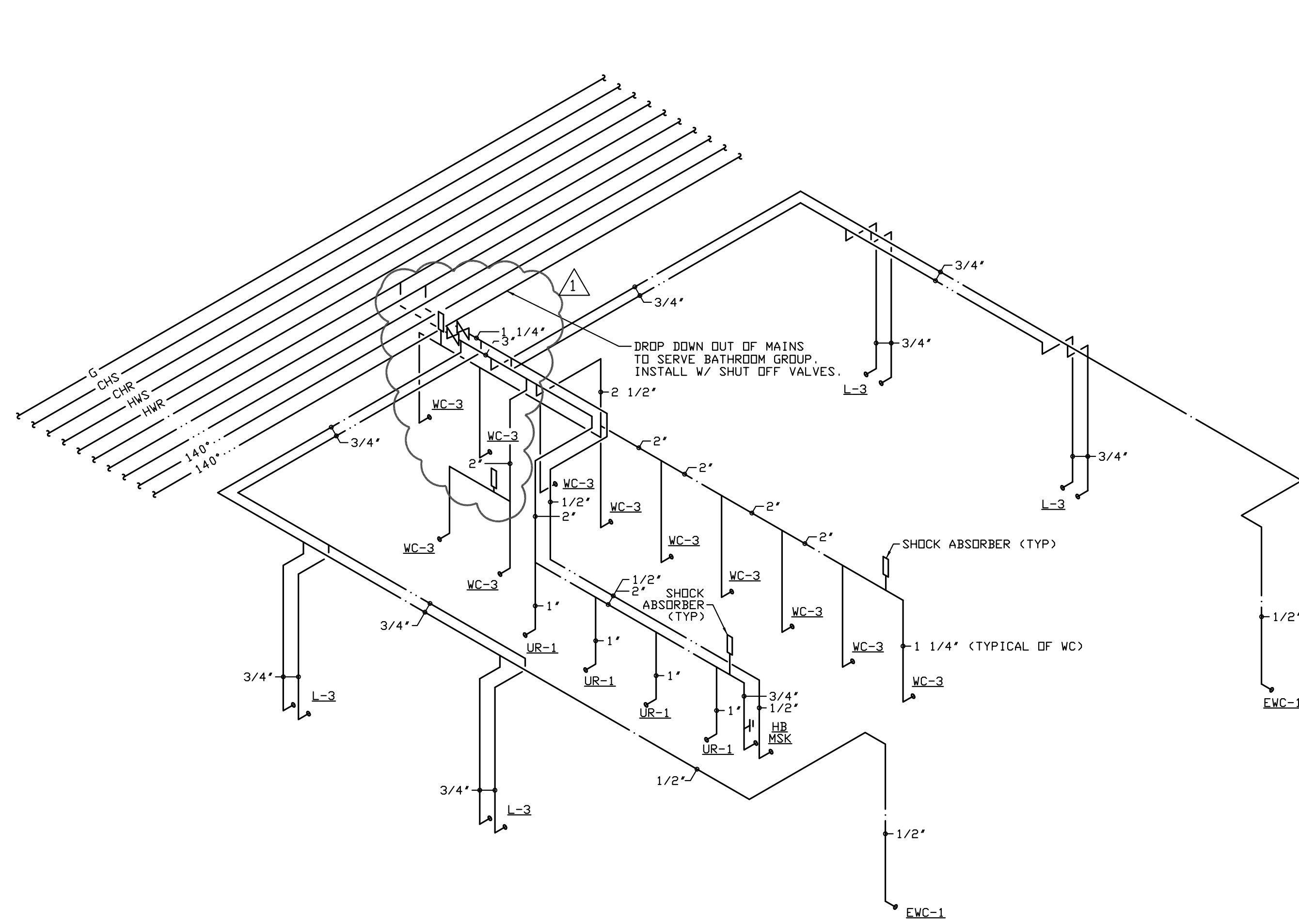
FLOOR PLAN - AREA B - PLUMBING & HEATING

number	1002.2903.20	
date	September 10, 2021	
revision		
drawn	TS/DN	
checked	Td	
NO.	DATE	DESCRIPTION
1	9/27/21	ADDENDUM #1

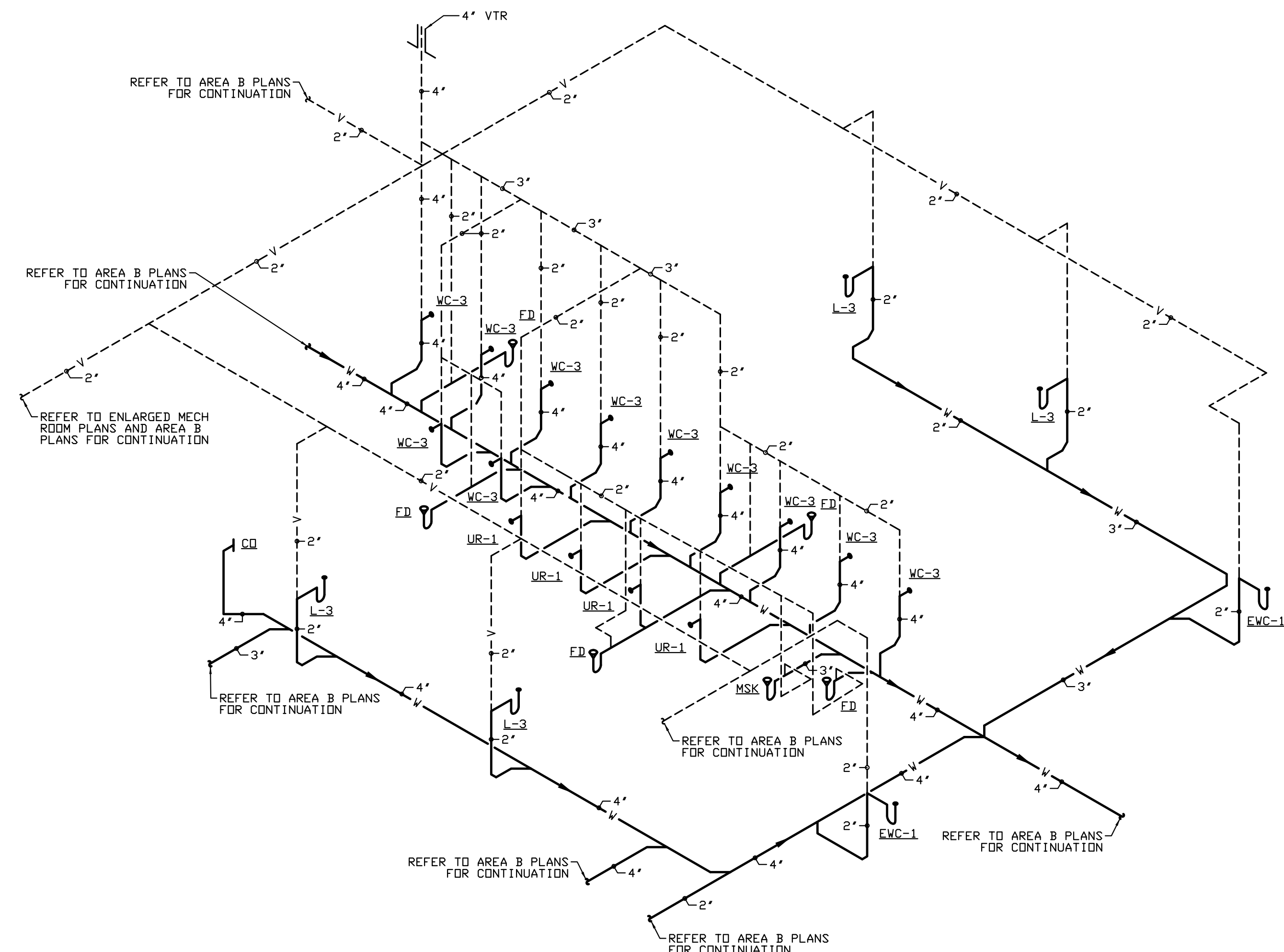
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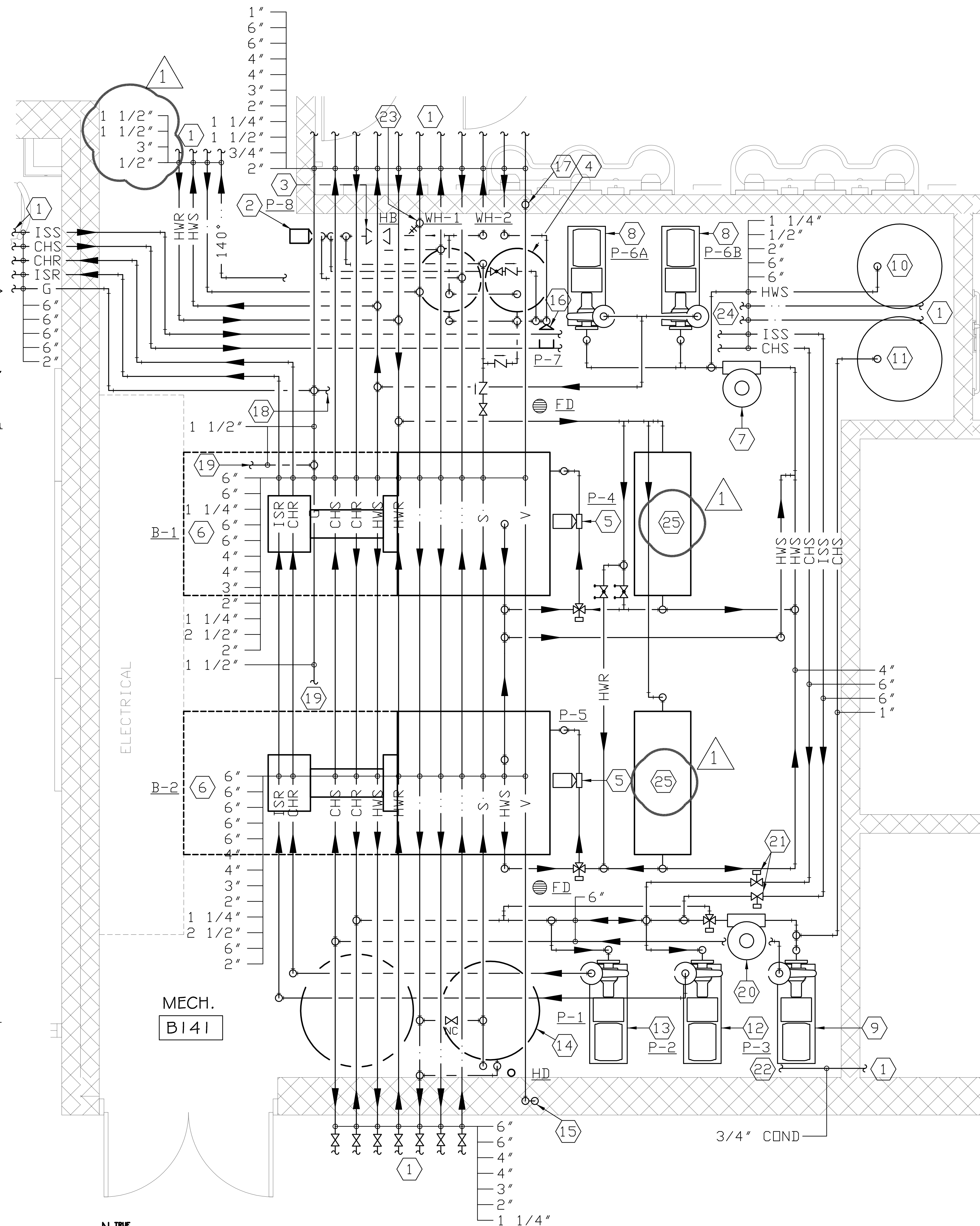
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DOMESTIC RISER - B144/B145/B146  
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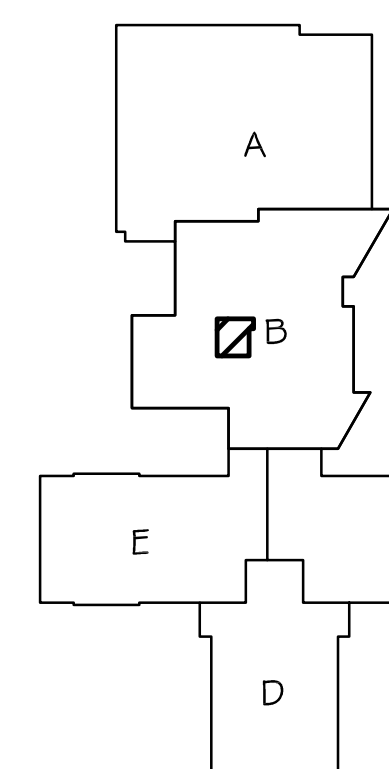


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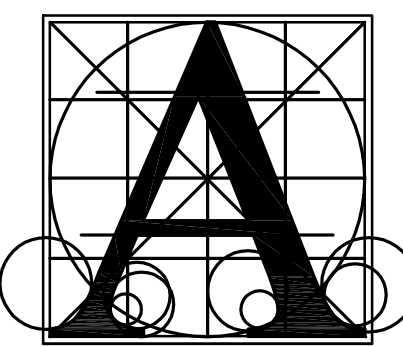


ENLARGED PLAN - AREA B MECH ROOM - PLUMBING & HEATING  
SCALE 0 1 2 3  
N TRUE NORTH

- GENERAL NOTES:**
1. VERIFY SIZES AND LOCATIONS PRIOR TO ASSOCIATED WORK.
  2. THE CEILING SPACE AVAILABLE REQUIRES EXTENSIVE COORDINATION WITH OTHER TRADES. THE CONTRACTORS SHALL PROVIDE ALL OFFSETS AND RELOCATE AS REQUIRED TO COORDINATE THE INSTALLATION OF ALL MATERIALS AND EQUIPMENT WITH OTHER TRADES.
- PLUMBING NOTES:**
1. SEE AREA B PLANS FOR CONTINUATION.
  2. DOMESTIC HOT WATER RECIRCULATING PUMP MOUNTED 5' A.F.F. SEE WATER HEATER PIPING DETAIL.
  3. THERMOSTATIC MIXING VALVE MOUNTED 5' A.F.F. SEE WATER HEATER PIPING DETAIL.
  4. (2) GAS FIRED WATER HEATERS ON CONCRETE HOUSEKEEPING PAD. HOUSEKEEPING PAD BY OTHERS. ROUTE 3/4" GAS PIPING DN TO SERVE EACH WATER HEATER. INCLUDE SHUT OFF VALVE, DRIP LEG, UNION, GAS PRESSURE REGULATOR, AND FINAL CONNECTION AT EACH WATER HEATER. SEE WATER HEATER PIPING DETAIL.
  5. BOILER CIRCULATING PUMP. SEE INLINE PUMP DETAIL.
  6. GAS FIRED BOILER ON CONCRETE HOUSEKEEPING PAD. HOUSEKEEPING PAD BY OTHERS.
  7. HEATING WATER SYSTEM AIR SEPARATOR. SEE EXPANSION TANK PIPING DETAIL.
  8. BASE MOUNTED SECONDARY HEATING WATER PUMPS. SEE BASE MOUNTED PUMP DETAIL.
  9. BASE MOUNTED SECONDARY CHILLED WATER PUMP. SEE BASE MOUNTED PUMP DETAIL.
  10. HEATING WATER THERMAL EXPANSION TANK. BLADDER STYLE TANK. B&G D-260V, OR EQUIVALENT. SEE THERMAL EXPANSION TANK DETAIL.
  11. CHILLED WATER THERMAL EXPANSION TANK. BLADDER STYLE TANK. B&G D-144V, OR EQUIVALENT. SEE THERMAL EXPANSION TANK DETAIL.
  12. BASE MOUNTED ICE STORAGE PUMP. SEE BASE MOUNTED PUMP DETAIL.
  13. BASE MOUNTED PRIMARY CHILLED WATER PUMP. SEE BASE MOUNTED PUMP DETAIL.
  14. WATER SOFTENER AND BRINE TANK. PROVIDE 2 1/2" CONNECTIONS W/ ISOLATION SHUT-OFF VALVES AND BYPASS VALVE ASSEMBLY. BYPASS VALVES SHALL BE FULL PORT BALL VALVES. ROUTE BACKWASH TO HUB DRAIN ASSEMBLY.
  15. 2" V DN, 2" V DN.
  16. DOMESTIC 140" HW RECIRCULATING PUMP MOUNTED 5' A.F.F. SEE HOT WATER HEATER PIPING DETAIL.
  17. 2" V DN.
  18. CONTINUE 1" G TO WHTR'S. REFER TO DETAIL FOR CONTINUATION. FIELD COORDINATE EXACT ROUTING.
  19. ROUTE G PIPING TO BOILERS. PROVIDE WITH SHUT OFF VALVE, DRIP LEG, UNION, GAS PRESSURE REGULATOR, AND FINAL CONNECTION AT EACH BOILER. FIELD COORDINATE EXACT ROUTING. SEE BOILER DETAIL.
  20. CHILLED WATER SYSTEM AIR SEPARATOR. SEE EXPANSION TANK PIPING DETAIL.
  21. MOTORIZED ISOLATION VALVES.
  22. ROUTE PUMPED CONDENSATE FROM DSS TO HD.
  23. 3/4" CV DN TO HB. PROVIDE W/ SHUT-OFF DN VERTICAL RISER.
  24. FIELD COORDINATE/CONFIRM EXACT ROUTING OF CW & HW BRANCH PIPING BACK TO MAINS. SHOWN BROKEN FOR CLARITY.
  25. STACK ECONOMIZER. REFER TO DETAIL.



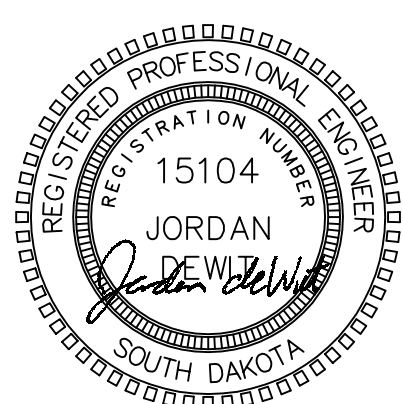
KEYPLAN



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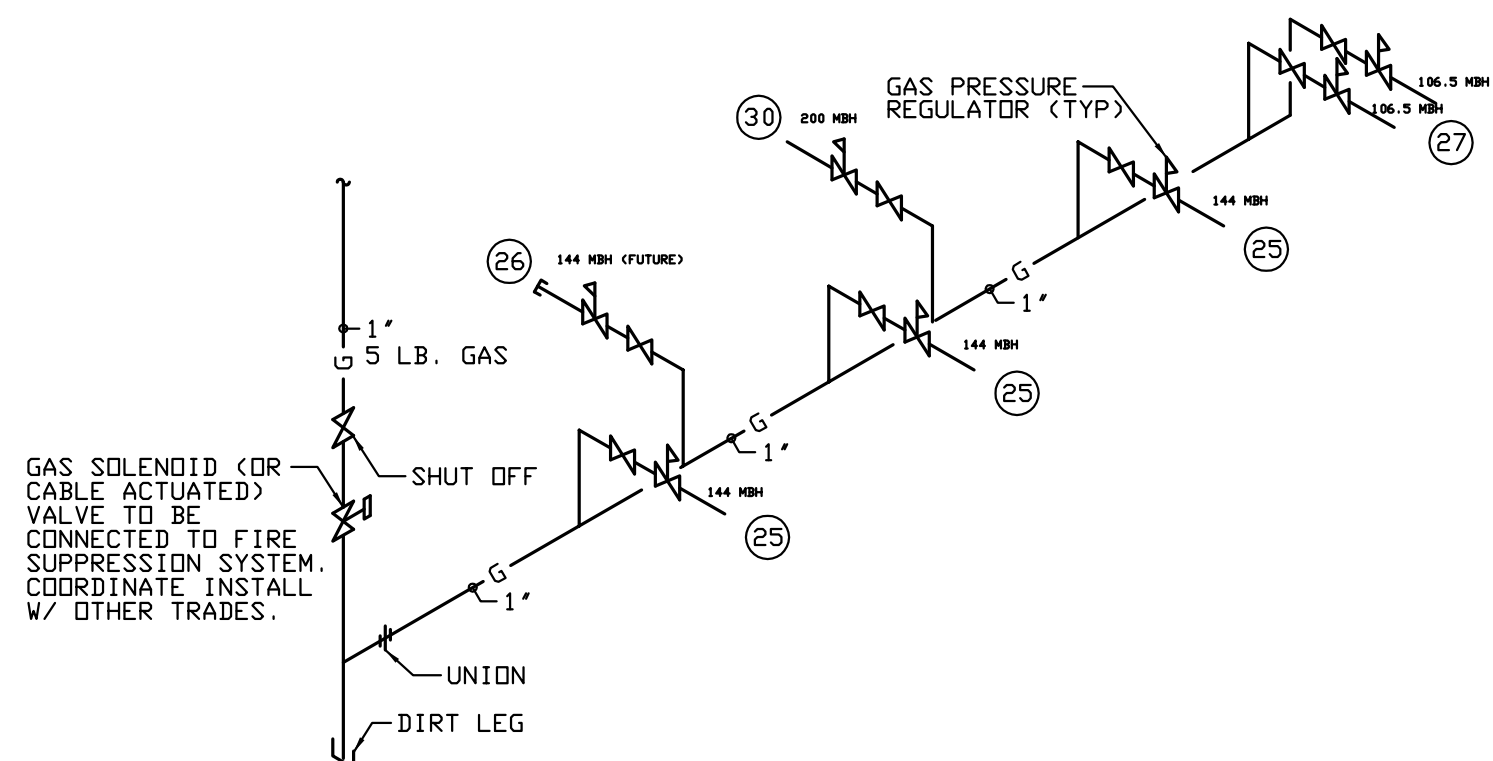
Project: **HARRISBURG MIDDLE SCHOOL #3**

Sheet Contents: **ENLARGED PLANS & RISERS - AREA B - PLMB & HTG**

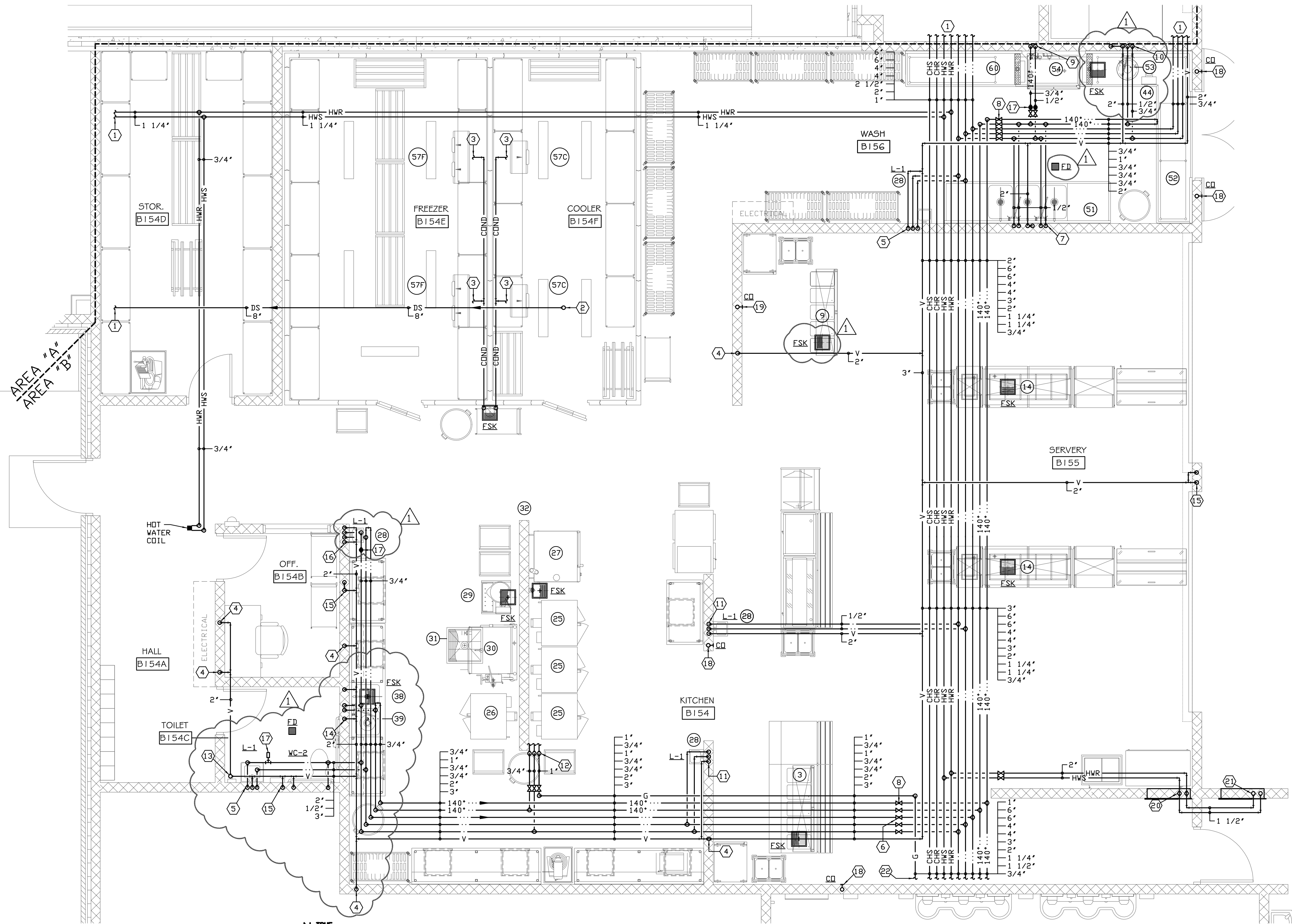
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**8.31**

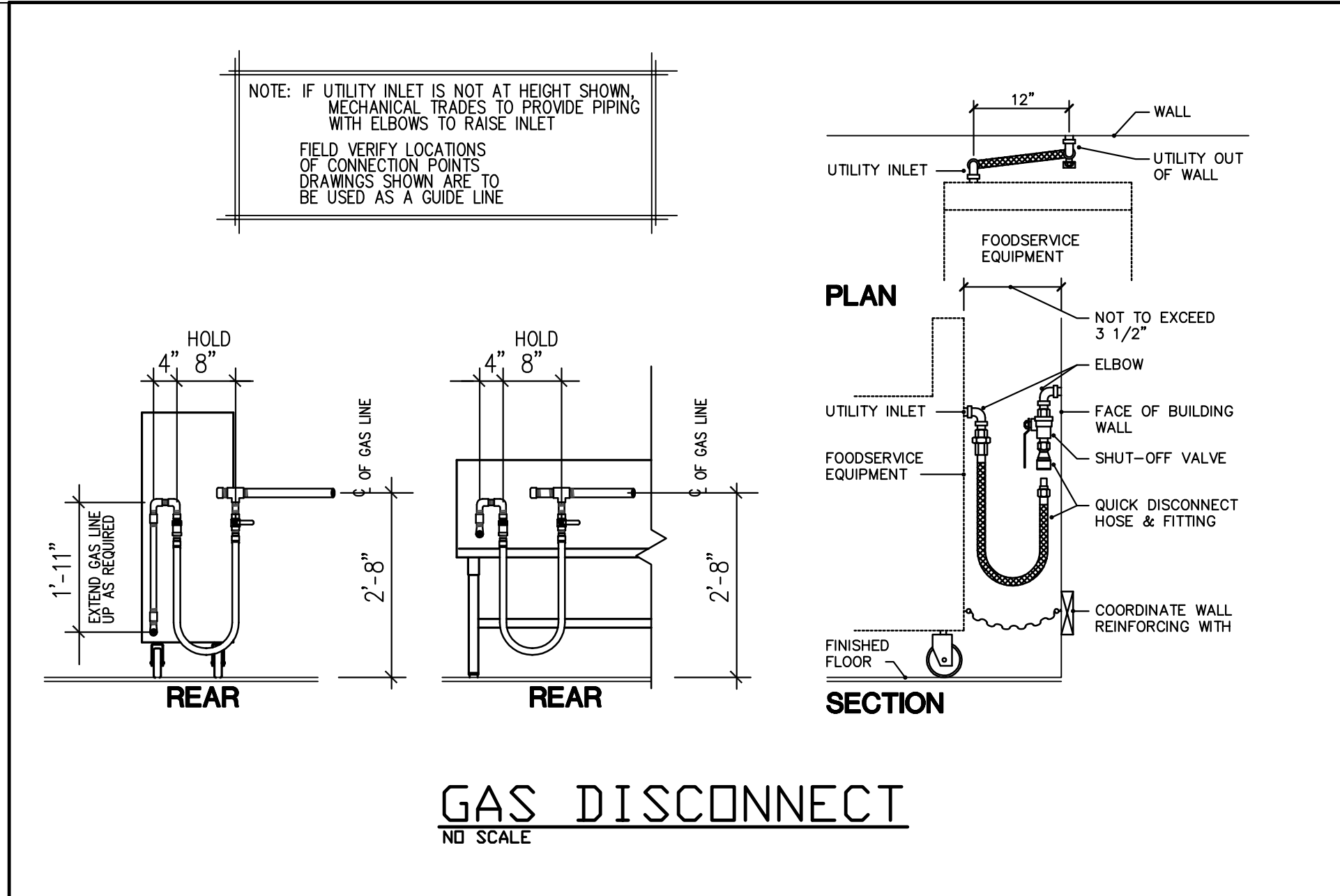




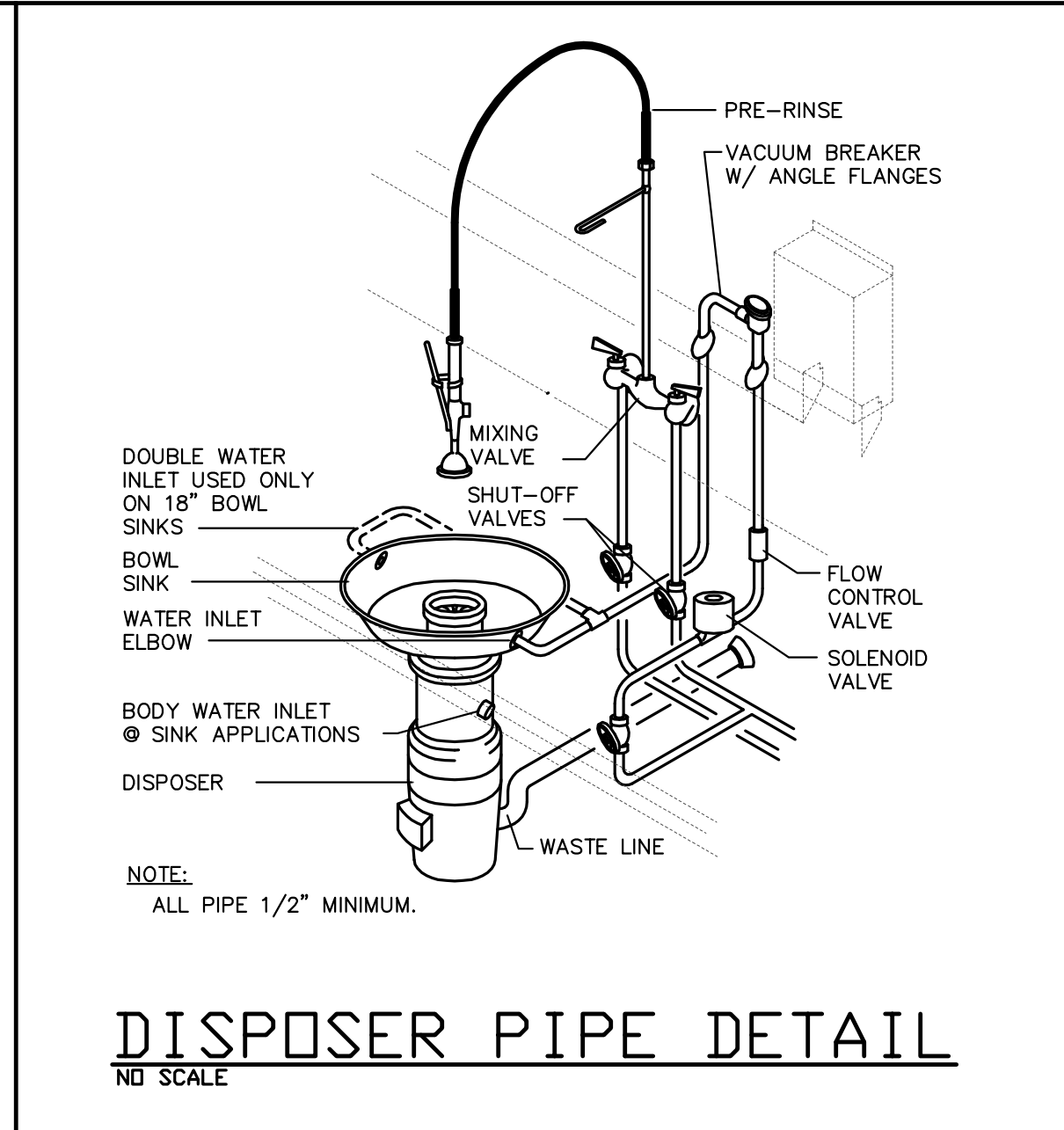
GAS RISER - AREA B KITCHEN  
NO SCALE



ENLARGED PLAN - AREA B KITCHEN - PLUMBING & HEATING  
SCALE 0 2 4 6 8  
N TRUE NORTH



GAS DISCONNECT  
NO SCALE



DISPOSER PIPE DETAIL  
NO SCALE

EQUIPMENT SCHEDULE											
ITEM	QTY	DESCRIPTION	UNIT	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
1	1	HOT FOOD SERVING COUNTER	LF	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"
2	1	HOT FOOD SERVING COUNTER	LF	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"
3	1	HOT AND COLD PAID SERVING COUNTER	LF	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"
4	1	HOT AND COLD PAID SERVING COUNTER	LF	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"
5	1	HOT AND COLD PAID SERVING COUNTER	LF	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"
6	1	HOT AND COLD PAID SERVING COUNTER	LF	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"
7	1	HOT AND COLD PAID SERVING COUNTER	LF	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"
8	1	HOT AND COLD PAID SERVING COUNTER	LF	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"
9	1	HOT AND COLD PAID SERVING COUNTER	LF	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"
10	1	HOT AND COLD PAID SERVING COUNTER	LF	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"
11	1	HOT AND COLD PAID SERVING COUNTER	LF	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"
12	1	HOT AND COLD PAID SERVING COUNTER	LF	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"
13	1	HOT AND COLD PAID SERVING COUNTER	LF	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"
14	1	HOT AND COLD PAID SERVING COUNTER	LF	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"
15	1	HOT AND COLD PAID SERVING COUNTER	LF	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"
16	1	HOT AND COLD PAID SERVING COUNTER	LF	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"
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29	1	HOT AND COLD PAID SERVING COUNTER	LF	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"
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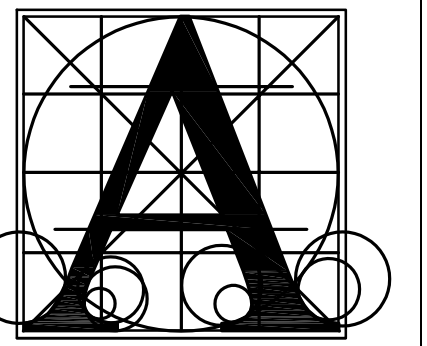
GENERAL NOTES - KITCHEN:

1. PLUMBING CONTRACTOR TO PROVIDE ALL NECESSARY SHUT-OFF VALVES, PRESSURE REGULATORS, FLOW CONTROLS, BACKFLOW PREVENTERS, HAMMER ARRESTORS, ETC. FOR EQUIPMENT INSTALLED AHEAD OF EQUIPMENT CONTROL VALVE, AS REQUIRED PER LOCAL CODES, UNLESS OTHERWISE SPECIFIED.
2. ALL INDIRECT WASTES FOR KITCHEN EQUIPMENT WILL BE EXTENDED TO FLOOR DRAIN/SINKS BY THE PLUMBING CONTRACTOR UNLESS OTHERWISE NOTED.
3. THE KITCHEN EQUIPMENT CONTRACTOR IS RESPONSIBLE FOR SETTING EQUIPMENT IN PLACE, FINAL CONNECTIONS AND INTERCONNECTIONS FOR THIS EQUIPMENT IS THE RESPONSIBILITY OF THE PLUMBING CONTRACTOR.
4. SINK FAUCETS AND WASTES FURNISHED BY KITCHEN EQUIPMENT CONTRACTOR, INSTALLED BY PLUMBING CONTRACTOR. SINK TAILPIECES, P-TRAPS, AND DRAIN CONNECTIONS FURNISHED AND INSTALLED BY PLUMBING CONTRACTOR.
5. HEALTH CODES REQUIRE THAT ALL PLUMBING BE ENCLOSED IN WALL OR FLOOR, AND THAT EXPOSED PIPING RUNS BE AS SHORT AS POSSIBLE. EXPOSED HORIZONTAL PIPING MUST BE 6" ABOVE THE FLOOR AND AT LEAST 1" OFF THE WALL. ALL EXPOSED PIPING TO BE CHROME PLATED.
6. ALL EXPOSED PENETRATING FINISHED WALLS SHALL BE EQUIPPED WITH WALL ESCUTCHEONS.

GENERAL NOTES:

1. VERIFY SIZES AND LOCATIONS PRIOR TO ASSOCIATED WORK.
  2. THE CEILING SPACE AVAILABLE REQUIRES EXTENSIVE COORDINATION WITH OTHER TRADES. THE CONTRACTORS SHALL PROVIDE ALL OFFSETS AND RELOCATE AS REQUIRED TO COORDINATE THE INSTALLATION OF ALL MATERIALS AND EQUIPMENT WITH OTHER TRADES.
  3. REFER TO FOOD SERVICE EQUIPMENT DRAWINGS FOR ADDITIONAL INFORMATION, DETAILS, PIPING AND CONNECTION REQUIREMENTS, ETC.
- PLUMBING NOTES:
1. REFER TO AREA A PLANS FOR CONTINUATION.
  2. 8" DS UP TO 8" RD.
  3. COORDINATE CONDENSATE PIPING INSTALLATION AND ROUTING TO KITCHEN EQUIPMENT WITH FSEC. FSEC TO EXTEND INDIRECT COPPER DRAIN TO FSK. REFER TO KITCHEN EQUIPMENT SCHEDULES AND FSEC DRAWINGS FOR MORE DETAILS. COORDINATE HEAT TRACE WITH OTHER TRADES.
  4. 2" V DN.
  5. 2" V/W DN, 1/2" CW DN, 1/2" HW DN.
  6. CALIBRATED BALANCE VALVE.
  7. 1/2" CW DN, 1/2" 140° HW DN, 2" V/4" W DN, 2" V DN, 1/2" CW DN, 1/2" 140° HW DN.
  8. 140° CALIBRATED BALANCE VALVE.
  9. 3/4" 140° HW DN TO DISHWASHER ASSEMBLY, 1/2" CW DN TO INTEGRAL DRAIN WATER TEMPERING KIT. COORDINATE CONNECTION REQUIREMENTS WITH FSEC. SEE FSEC DRAWINGS FOR ADDITIONAL DETAILS.
  10. 2" V DN, 2" V/3" V DN, 1/2" 140° HW DN, 3/4" CW DN.
  11. 1/2" CW DN, 1/2" HW DN, 2" V/W DN.
  12. 3/4" CW DN, 3/4" 140° HW DN, 1" G DN. ROUTE WATER & GAS PIPING TO SERVE KITCHEN EQUIPMENT. PROVIDE INDIVIDUAL SHUT-OFFS ON THE WATER & GAS PIPING BRANCHES SERVING EACH INDIVIDUAL FIXTURE. REFER TO GAS PIPING & FSEC. SEE KITCHEN EQUIPMENT SHEETS FOR ADDITIONAL PIPING DETAILS/REQUIREMENTS.
  13. 4" V UP (4" VTR).
  14. 2" V DN, 3/4" CW DN, 1/2" 140° HW DN, 2" V/3" W DN.
  15. 2"

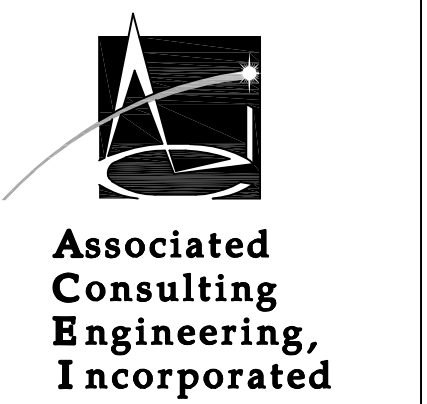
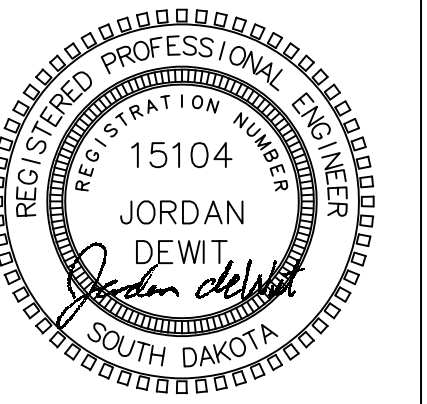




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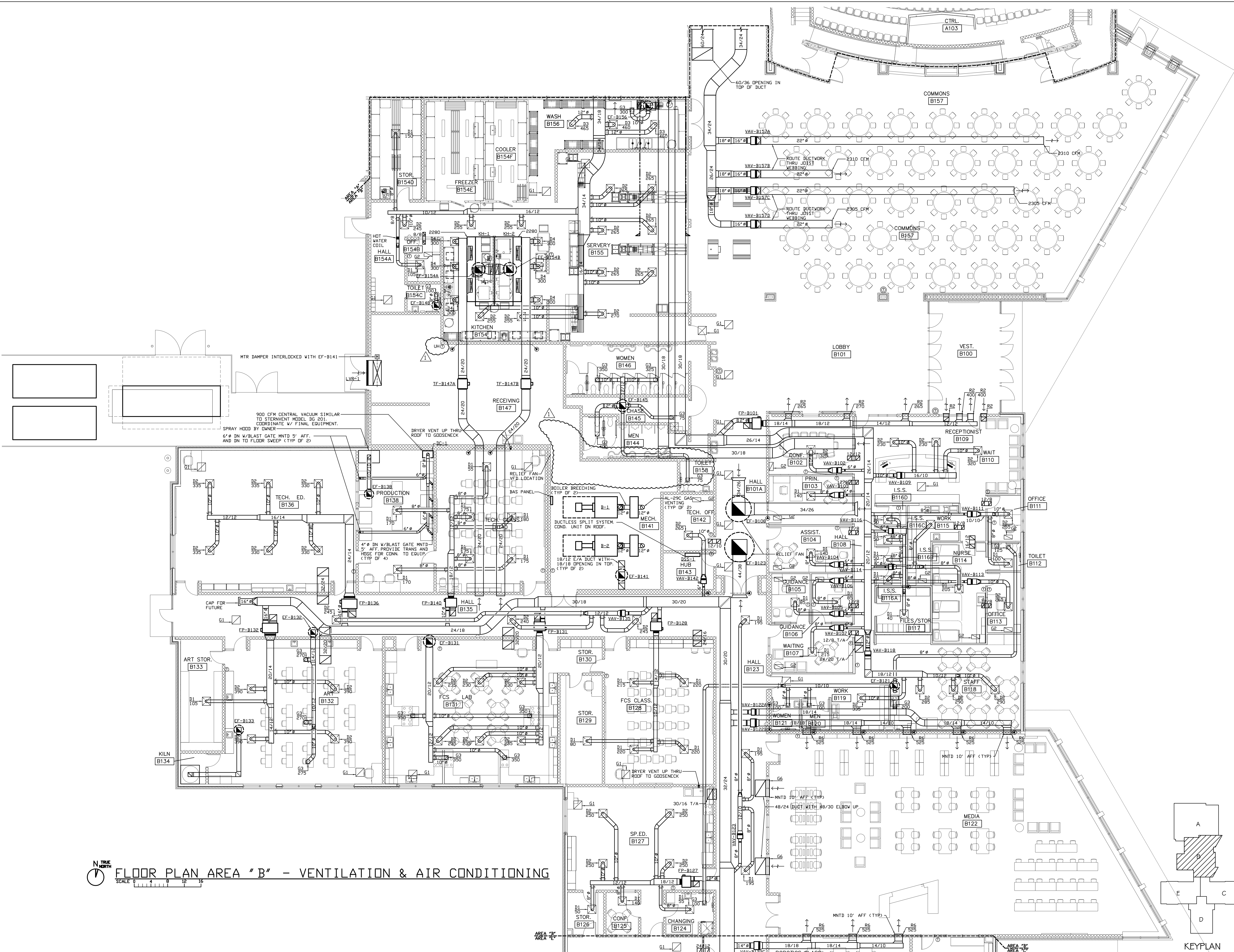
Project: **HARRISBURG MIDDLE SCHOOL #3**  
Sheet Contents

number	1002.2903.20
date	September 10, 2021
revision	
drawn	Jd
checked	Jd

NO.	DATE	DESCRIPTION
1	9/27/21	ADDENDUM #1

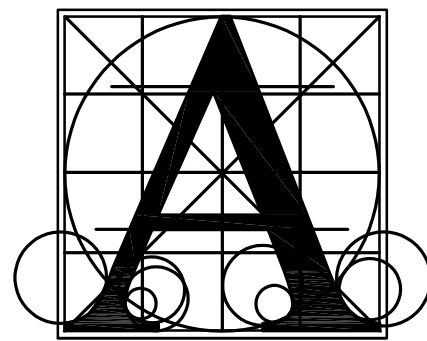
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FLOOR PLAN - AREA B - VENTILATION & A/C



FLOOR PLAN AREA "B" - VENTILATION & AIR CONDITIONING

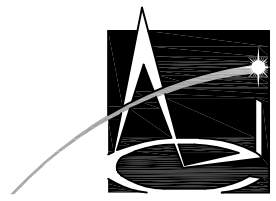
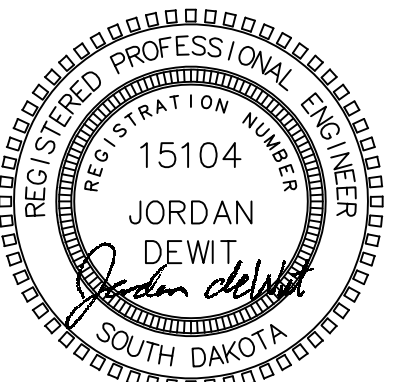




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HARRISBURG MIDDLE SCHOOL #3

SCHEDULES

Project:

number 1002.2903.20  
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revision  
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NO.	DATE	DESCRIPTION
1	9/27/21	ADDENDUM #1

8.60

PLUMBING FIXTURE SCHEDULE

FIXTURE SYMBOL	TYPE	MANUFACTURER	MODEL NO.	TRIM	SUPPLIES	WASTE	REMARKS
WC-1	WATER CLOSET FLUSH VALVE FLOOR MOUNTED ELONG	AMERICAN STANDARD	2834.001	SLOAN 8111-1.6	----	----	CHURCH 9500SCT SEAT BATTERY OPERATOR
WC-2	WATER CLOSET FLUSH VALVE FLOOR MOUNTED ELONG HANDI	AMERICAN STANDARD	3043.001	SLOAN 8111-1.6	----	----	CHURCH 9500SCT SEAT BATTERY OPERATOR
WC-3	WATER CLOSET FLUSH VALVE WALL HUNG	AMERICAN STANDARD	2634.101	SLOAN 152-1.6 ES-S	----	----	CHURCH 9500SCT SEAT JDSAM SERIES 12000 CARRIER MNT. HEIGHT ON ARCH. PLANS BACK SPUD, SOLENOID OPERATOR
UR-1	URINAL WASHOUT WALL HUNG	SLOAN	SU-7019	SLOAN 195-1-ES-S	----	----	JDSAM SERIES 17000 CARRIER MNT. HEIGHT ON ARCH. PLANS BACK SPUD, SOLENOID OPERATOR
L-1	LAVATORY WALL HUNG HANDI	AMERICAN STANDARD	0355.421	ZURN Z86100-XL-16M SINGLE HOLE LAWLER TMM-1070	BRASSCRAFT DCR19Z	GRID DRAIN	JDSAM SERIES 17000 CARRIER MNT. HEIGHT ON ARCH. PLANS W/TRUBRO WASTE & WATER PIPE PROTECTOR, OFFSET WASTE ARM
L-2	LAVATORY 3-PERSON SEMICIRCULAR	WILLOUGHBY INDUSTRIES	WAF-3603- PPB1	----	BRASSCRAFT DCR19Z	----	17 GA. C. P. P-TRAP MNT. HEIGHT ON ARCH. PLANS
L-3	LAVATORY 3-PERSON	WILLOUGHBY INDUSTRIES	WAV-2333- PPB1	----	BRASSCRAFT DCR19Z	----	17 GA. C. P. P-TRAP MNT. HEIGHT ON ARCH. PLANS
MSK	MDP SINK FLOOR MOUNTED	FIAT	TSBC1610 -B32AA -B89CC	ZURN Z843M1-RC-CS W/ VACUUM BREAKER	----	----	CW HB MTD 5'-0" AFF
SK-1	SINK-STAINLESS STEEL SINGLE COMPARTMENT	ELKAY	PSR-1919	CHICAGO 2302	BRASSCRAFT DCR19Z	LK-35 STRAINER	17 GA. C. P. P-TRAP
SK-2	SINK-STAINLESS STEEL, SINGLE COMPARTMENT ART ROOM	ELKAY	PSR-1919	CHICAGO 2302	BRASSCRAFT DCR19Z	LK-35 STRAINER	STRIEM 'SIDEKICK' SOLIDS INTERCEPTOR
SK-3	SINK-INTEGRAL BOWL SCIENCE SINK	BY OTHERS	----	CHICAGO 930-369	BRASSCRAFT DCR19Z	BASKET STRAINER	17 GA. C. P. P-TRAP
SK-4	SINK-STAINLESS STEEL DOUBLE COMPARTMENT	ELKAY	PSR-3319	CHICAGO 2302 GNBAJKABCP SPOUT	BRASSCRAFT DCR19Z	LK-35 STRAINER LK-53 CNT WASTE	17 GA. C. P. P-TRAP DISHWASHER CONNECTION
SK-5	SINK-STAINLESS STEEL DOUBLE COMPARTMENT	ELKAY	PSR-3319	CHICAGO 2302 GNBAJKABCP SPOUT	BRASSCRAFT DCR19Z	LK-35 STRAINER LK-53 CNT WASTE	17 GA. C. P. P-TRAP
SK-6	UTILITY SINK WALL HUNG	MUSTEE	28CF	----	BRASSCRAFT DCR19Z	STRAINER	17 GA. C. P. P-TRAP
SK-7	SINK-STAINLESS STEEL DOUBLE COMPARTMENT HANDI	ELKAY	LRAD-3319	CHICAGO 2302 GNBAJKABCP SPOUT	BRASSCRAFT DCR19Z	LK-35 STRAINER LK-53 CNT WASTE	17 GA. C. P. P-TRAP OFFSET WASTE ARM, TRUBRO WASTE & WATER PIPE PROTECTOR
SK-8	SINK-STAINLESS STEEL DOUBLE COMPARTMENT HANDI	ELKAY	LRAD-3319	CHICAGO 2302 GNBAJKABCP SPOUT	BRASSCRAFT DCR19Z	LK-35 STRAINER LK-53 CNT WASTE	17 GA. C. P. P-TRAP DISHWASHER CONNECTION OFFSET WASTE ARM, TRUBRO WASTE & WATER PIPE PROTECTOR
SK-9	SINK-STAINLESS STEEL, SINGLE COMPARTMENT HANDI, ART ROOM	ELKAY	LRAD-1919	CHICAGO 2302	BRASSCRAFT DCR19Z	LK-35 STRAINER	STRIEM 'SIDEKICK' SOLIDS INTERCEPTOR MAX AFF IN REAR OF CASEWORK, OFFSET WASTE, TRUBRO WASTE & WATER & INTERCEPTOR PROTECTOR
SH-1	SHOWER	TILE	----	BRADLEY WS-1F-6- AST-SX15-ST-RSD-VS	----	2" FLOOR DRAIN	ALL METAL TRIM, THERMOSTATIC MIXING VALVE, FIXED SHOWER HEAD
SH-2	SHOWER - ADA	TILE	----	BRADLEY HN200-6'- AST-(2) SX15-ST-RSD -VS	----	2" FLOOR DRAIN	ALL METAL TRIM, THERMOSTATIC MIXING VALVE, 2 FIXED SHOWER HEADS
ESH	COMBINATION EYEWASH & SHOWER HANDI	BRADLEY	S19- 120SSBF S19-2245C	----	----	----	17 GA. C. P. P-TRAP, MIXING VALVE, LAWLER MODEL NO. 911 E INLET CHECK VALVES
EVC-1	ELECTRIC WATER COOLER WALL MTD DUAL HEIGHT W/ BOTTLE FILL	ELKAY	LZSTLWSSP	----	BRASSCRAFT DCR19Z	----	17 GA. C. P. P-TRAP MNT. HEIGHT ON ARCH. PLANS
UB-1	ICEMAKER BOX	SILOUX CHIEF	696- G1010MF	----	----	----	MOUNT AT 36" AFF SHOCK ABSORBERS
UB-2	WASHER BOX	SILOUX CHIEF	696- G2313MF	----	----	----	P-TRAP, SHOCK ABSORBERS
UB-3	DRAIN BOX	SILOUX CHIEF	696-3	----	----	----	P-TRAP
REMARKS: 1. HANDICAPPED FLUSH VALVES SHALL BE ADA COMPLIANT. 2. FLUSH VALVES SHALL HAVE A VANDAL RESISTANT STD CAP. 3. FLUSH VALVE ESCUTCHEONS SHALL BE CHROME PLATED WITH HEAVY WALL THICKNESS AND SET SCREW. 4. PROVIDE & INSTALL TRANSFORMERS AS RECOMMENDED BY MFG TO SERVE FIXTURES IN PLUMBING CHASE. 5. PROVIDE & INSTALL INTERCONNECTING LOW VOLTAGE WIRING AND CONNECTIONS TO SENSORS. 6. COORDINATE FAUCET/ANTI-ROTATE REQUIREMENTS WITH COUNTERTOP MFG/GENERAL CONTRACTOR.							

WATER HEATER SCHEDULE

UNIT NO.	MANUFACTURER	MODEL NO.	INPUT MBH/WATTS	EFF.	RECOVERY @ 100" GPH	ELECTRICAL V/PH FLA	REMARKS
WH-1	HEAT TRANSFER	PHOENIX PH-199-119	199.9 MBH	96%	230	120/1 5	ALL
WH-2	HEAT TRANSFER	PHOENIX PH-199-119	199.9 MBH	96%	230	120/1 5	ALL
REMARKS: 1. ASME T & P RELIEF VALVE. 2. DIRECT VENT, SEALED COMBUSTION. 3. 316L STAINLESS STEEL TANK, 90/10 COPERNICKEL HEAT EXCHANGER. 4. REFER TO WATER HEATER PIPING DIAGRAM. 5. ROUTE INTAKE AND EXHAUST PIPING UP THROUGH ROOF. 6. PROVIDE WITH ANTRDOL ST-12 EXPANSION TANK, OR EQUAL. 7. PROVIDE CONDENSATE NEUTRALIZER, EXTEND CONDENSATE TO FLOOR DRAIN.							

BOILER SCHEDULE

BOILER NO.	MANUF	MODEL NO.	AGA INPUT <MBH>	AGA OUTPUT <MBH>	OPER EFF	ELECTRICAL VOLTS PH AMPS	OPER. WT. <LBS>	REMARKS
B-1	HURST	S45-56	2352	1875	79.7	460 3 6.6	7225	ALL
B-2	HURST	S45-56	2352	1875	79.7	460 3 6.6	7225	ALL
REMARKS: 1. PACKAGE SHALL INCLUDE A SINGLE POINT DISCONNECT. 2. ROUTE DRAIN TO FD. SIZE AND INSTALL PER MANUFACTURER'S RECOMMENDATIONS. 3. SIZE BOILER VENTING PER MANUFACTURER'S RECOMMENDATIONS. 4. BURNER CONTROL PANEL SHALL HAVE 5K SCR RATING.								

PUMP SCHEDULE

PUMP NO.	DESCRIPTION	MANUF.	MODEL NO.	STYLE	SIZE	GPM	HEAD (FT)	MOTOR MHP	BHP	RPM	ELEC. VOLTS PH	REMARKS
P-1	CHILLED PRIMARY	B & G	1531	BASE	3BD	360	50	7.5	6.2	1750	460 3	1,2,3
P-2	ICE LDDP	B & G	1531	BASE	3BD	400	75	15	9.72	1750	460 3	1,2,3
P-3	SECONDARY CHILLED	B & G	1531	BASE	4BC	620	70	20	13.53	1750	460 3	1,2
P-4	HEATING PRIMARY	B & G	E80	INLINE	3X3X7C	220	30	3	2.23	1750	460 3	1
P-5	HEATING PRIMARY	B & G	E80	INLINE	3X3X7C	220	30	3	2.23	1750	460 3	1
P-6A	SECONDARY HEATING	B & G	1510	BASE	2 1/2BB	285	75	10	7.34	1750	460 3	1,2
P-6B	SECONDARY HEATING	B & G	1510	BASE	2 1/2BB	285	75	10	7.34	1750	460 3	1,2
P-7	140" HW RETURN	B & G	PL-36	INLINE	---	10	20	1.3KW	---	3300	120 1	4
P-8	110" HW RETURN	B & G	PL-35	INLINE	---	20	30	3KW	---	3250	120 1	4
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REMARKS:  
1. PUMP CAPACITY IS BASED UPON 70% WATER/30% PROPYLENE GLYCOL.  
2. PUMP SHALL INCLUDE A VFD.  
3. PUMP SHALL RUN AT 350 GPM DURING ICE MAKING MODE.  
4. PUMP SHALL BE A BRONZE BODY PUMP AND SHALL INCLUDE TIMER AND AQUASTAT.

UNIT HEATER SCHEDULE

UNIT NO.	MANUFACTURER	UNIT SIZE	TYPE	INTAKE LOCATION	DISCHARGE LOCATION	CFM	FAN MOTOR(S) RPM	FAN HP-1	FAN HP-2	VOLTS PH	HEATING CAPACITY MBH	EWT	LWT	GPM	WPD	REMARKS	
CUH-A107	RITTILING	08	RC	B	B	870	1550	1/7	---	115	1	31.1	130	100	2.7	5'	1, 2, 3, 4, 6
CUH-A113	RITTILING	08	SRVI	F	F	870	1550	1/7	---	115	1	31.1	130	100	2.7	5'	1, 2, 4, 6
CUH-A134	RITTILING	08	SRVI	F	F	870	1550	1/7	---	115	1	31.1	130	100	2.7	5'	1, 2, 4, 6
CUH-B100	RITTILING	12	SRVI	F	F	1300	1550	1/7	---	115	1	52.1	130	100	5.4	5'	1, 2, 4, 6
CUH-B135	RITTILING	08	SRVI	F	F	870	1550	1/7	---	115	1	31.1	130	100	2.7	5'	1, 2, 4, 6
CUH-C130	RITTILING	08	SRVI	F	F	870	1550	1/7	---	115	1	31.1	130	100	2.7	5'	1, 2, 4, 6
CUH-C131	RITTILING	08	SRVI	F	F	870	1550	1/7	---	115	1	31.1	130	100	2.7	5'	1, 2, 4, 6
CUH-D120	RITTILING	08	SRVI	F	F	870	1550	1/7	---	115	1	31.1	130	100	2.7	5'	1, 2, 4, 6
CUH-D122	RITTILING	08	SRVI	F	F	870	1550	1/7	---	115	1	31.1	130	100	2.7	5'	1, 2, 4, 6
CUH-E125	RITTILING	08	SRVI	F	F	870	1550	1/7	---	115	1	31.1	130	100	2.7	5'	1, 2, 4, 6
CUH-E128	RITTILING	08	SRVI	F	F	870	1550	1/7	---	115	1	31.1	130	100	2.7	5'	1, 2, 4, 6

UH-A107	RITTILING	RH-86	HP	B	F	1340	1550	1/10	----	115	1	26.5	130	100	4.2	5'	1,3,6
UH-B147	RITTILING	RH-290	HP	B	F	4300	1075	1/2	----	115	1	89.1	130	100	15.0	5'	1,3,6

MODEL TYPE: F - FLOOR; FI - FLOOR INVERTED FLOW; W - WALL; WI - WALL INVERTED FLOW; FRW - FULLY RECESSED WALL  
FRWI - FULLY RECESSED WALL INVERTED FLOW; SRW - SEMI RECESSED WALL; SRWI - SEMI RECESSED WALL INVERTED FLOW  
C - CEILING; RC - RECESSED CEILING; HP - HORIZONTAL PROPELLER UNIT  
F - FRONT; R - REAR; B - BOTTOM; T - TOP

LOCATIONS:  
REMARKS:  
1. HEATING CAPACITY BASED ON 70% WATER/ 30% PROPYLENE GLYCOL.  
2. PROVIDE TAMPER RESISTANT FASTENERS FOR ACCESS DOOR.  
3. HANG UNIT FROM STRUCTURE WITH NEOPRENE ISOLATORS.  
4. UNIT SHALL HAVE A TWO ROW COIL.  
5. UNIT SHALL BE HUNG FROM ANGLE IRON WALL BRACKET.  
6. PROVIDE WITH DISCONNECT.



## FAN POWERED VAV TERMINAL SCHEDULE (AHU-1)

UNIT NO.	MANUF.	MODEL NO.	INLET SIZE	CFM	MIN CFM	TERM S.P.	EXT S.P.	RAD NC	DISCH NC	MOTOR HP	VOLT/PH	HEATING COIL EAT MBH	GPM	WPD	EWT	LWT	REMARKS	
FP-A105	PRICE	FDC	10	945	290	0.25"	0.5"	29	26	1/2	277/1	64	22.4	1.6	5	130	100	1,2,3,4
FP-A111	PRICE	FDC	8	410	125	0.25"	0.5"	28	22	1/4	277/1	64	6.2	0.5	5	130	100	1,2,3,4
FP-A112	PRICE	FDC	10	990	300	0.25"	0.5"	29	26	1/2	277/1	64	22.0	1.6	5	130	100	1,2,3,4
FP-A124	PRICE	FDC	16	2720	820	0.25"	0.5"	40	35	2x3/4	277/1	64	106.2	7.5	5	130	100	1,2,3,4
FP-A125	PRICE	FDC	16	2180	660	0.25"	0.5"	40	35	2x3/4	277/1	64	81.7	5.8	5	130	100	1,2,3,4
FP-A128	PRICE	FDC	6	195	60	0.25"	0.5"	25	20	1/8	277/1	64	5.8	0.5	5	130	100	1,2,3,4
FP-A129	PRICE	FDC	8	625	190	0.25"	0.5"	28	22	1/4	277/1	64	14.1	1.0	5	130	100	1,2,3,4
FP-A133	PRICE	FDC	16	1995	800	0.25"	0.5"	40	35	2x3/4	277/1	64	98.4	6.9	5	130	100	1,2,3,4

- REMARKS:  
1. SOUND DATA SHALL BE TAKEN FROM ARE STANDARD 880 (LATEST EDITION PUBLISHED DATA # 1.5" DELTA P).  
2. NC RATINGS INCLUDE A RETURN INLET ATTENUATOR.  
3. EXT. S.P. INCLUDES COIL APD.  
4. COIL CAPACITIES ARE BASED UPON CFM AND 70% WATER/30% PROPYLENE GLYCOL. PROVIDE EXTERNAL DUCT COIL IF UNABLE TO MEET COIL MBH.

## FAN POWERED VAV TERMINAL SCHEDULE (AHU-5)

UNIT NO.	MANUF.	MODEL NO.	INLET SIZE	CFM	MIN CFM	TERM S. P.	EXT S. P.	RAD NC	DISCH NC	MOTOR HP	VOLT/PH	HEATING COIL EAT MBH		GPM	WPD	EWT	LWT	REMARKS
FP-B101	PRICE	FDC02	14	1600	800	0.25"	0.5"	33	34	1/2	277/1	64	37.7	2.7	5	130	100	1,2,3,4

- REMARKS:  
1. SOUND DATA SHALL BE TAKEN FROM ARE STANDARD 880 (LATEST EDITION PUBLISHED DATA # 1.5" DELTA P).  
2. NC RATINGS INCLUDE A RETURN INLET ATTENUATOR.  
3. EXT. S.P. INCLUDES COIL APD.  
4. COIL CAPACITIES ARE BASED UPON CFM AND 70% WATER/30% PROPYLENE GLYCOL. PROVIDE EXTERNAL DUCT COIL IF UNABLE TO MEET COIL MBH.

## VAV TERMINAL SCHEDULE (AHU-5)

UNIT NO.	MANUF.	MODEL NO.	INLET SIZE	CLG CFM MAX	CLG CFM MIN	HTG CFM MAX	TERM S.P.	RAD NC	DISCH NC	HEATING COIL EAT MBH	GPM	WPD	EWT	LWT	REMARKS	
VAV-B102	PRICE	SDV	6	325	100	160	0.5"	20	21	55	5.2	0.5	5	130	100	1,2,3,4
VAV-B103	PRICE	SDV	6	140	50	70	0.5"	20	21	55	2.3	0.5	5	130	100	1,2,3,4
VAV-B104	PRICE	SDV	6	140	50	70	0.5"	20	21	55	2.3	0.5	5	130	100	1,2,3,4
VAV-B105	PRICE	SDV	6	85	50	50	0.5"	20	21	55	2.0	0.5	5	130	100	1,2,3,4
VAV-B106	PRICE	SDV	6	85	50	50	0.5"	20	21	55	2.0	0.5	5	130	100	1,2,3,4
VAV-B107	PRICE	SDV	6	215	70	110	0.5"	20	21	55	3.6	0.5	5	130	100	1,2,3,4
VAV-B109	PRICE	SDV	10	780	240	390	0.5"	23	24	55	12.6	0.9	5	130	100	1,2,3,4
VAV-B111	PRICE	SDV	6	355	110	180	0.5"	20	21	55	9.7	1.0	5	130	100	1,2,3,4
VAV-B113	PRICE	SDV	6	265	80	135	0.5"	20	21	55	4.4	0.5	5	130	100	1,2,3,4
VAV-B114	PRICE	SDV	8	465	140	235	0.5"	24	25	55	7.6	0.6	5	130	100	1,2,3,4
VAV-B116	PRICE	SDV	6	240	80	80	0.5"	20	21	55	3.4	0.5	5	130	100	1,2,3,4
VAV-B118	PRICE	SDV	12	1200	360	600	0.5"	25	26	55	19.6	1.4	5	130	100	1,2,3,4
VAV-B157A	PRICE	SDV	16	2305	700	700	0.5"	32	28	55	22.9	1.6	5	130	100	1,2,3,4
VAV-B157B	PRICE	SDV	16	2305	700	700	0.5"	32	28	55	22.9	1.6	5	130	100	1,2,3,4
VAV-B157C	PRICE	SDV	16	2310	700	700	0.5"	32	28	55	22.9	1.6	5	130	100	1,2,3,4
VAV-B157D	PRICE	SDV	16	2310	700	700	0.5"	32	28	55	22.9	1.6	5	130	100	1,2,3,4

- REMARKS:  
1. SOUND DATA SHALL BE TAKEN FROM ARE STANDARD 880 (LATEST EDITION PUBLISHED DATA # 1.5" DELTA P).  
2. TERMINAL S.P. INCLUDES COIL APD.  
3. COIL CAPACITIES ARE BASED UPON CFM AND 70% WATER/30% PROPYLENE GLYCOL. PROVIDE EXTERNAL DUCT COIL IF UNABLE TO MEET COIL MBH.  
4. MINIMUM 2-RDV HEATING COIL.

## FAN POWERED VAV TERMINAL SCHEDULE (AHU-6)

UNIT NO.	MANUF.	MODEL NO.	INLET SIZE	CFM	MIN CFM	TERM S.P.	EXT S.P.	RAD NC	DISCH NC	MOTOR HP	VOLT/PH	HEATING COIL EAT MBH	GPM	WPD	EWT	LVT	REMARKS	
FP-B127	PRICE	FDC02	12	1245	380	0.25'	0.5'	33	34	1/2	277/1	64	36.7	2.6	5	130	100	1,2,3,4
FP-B128	PRICE	FDC	10	955	290	0.25'	0.5'	29	26	1/2	277/1	64	21.9	1.6	5	130	100	1,2,3,4
FP-B131	PRICE	FDC02	12	1400	420	0.25'	0.5'	33	34	1/2	277/1	64	41.6	3.0	5	130	100	1,2,3,4
FP-B132	PRICE	FDC	16	1665	500	0.25'	0.5'	40	35	2x3/4	277/1	64	55.5	3.9	5	130	100	1,2,3,4
FP-B136	PRICE	FDC	16	1995	620	0.25'	0.5'	40	35	2x3/4	277/1	64	63.7	4.5	5	130	100	1,2,3,4
FP-B140	PRICE	FDC	10	1100	375	0.25'	0.5'	29	26	1/2	277/1	64	25.2	1.8	5	130	100	1,2,3,4
FP-C101	PRICE	FDC	8	180	55	0.25'	0.5'	25	20	1/8	277/1	64	5.5	0.7	5	130	100	1,2,3,4
FP-C102	PRICE	FDC	12	1170	350	0.25'	0.5'	29	26	1/2	277/1	64	17.7	1.4	5	130	100	1,2,3,4
FP-C103	PRICE	FDC02	14	1630	490	0.25'	0.5'	33	39	1/2	277/1	64	37.0	2.7	5	130	100	1,2,3,4
FP-C105	PRICE	FDC02	12	1205	370	0.25'	0.5'	33	34	1/2	277/1	64	42.0	3.0	5	130	100	1,2,3,4
FP-C106	PRICE	FDC	10	850	260	0.25'	0.5'	29	26	1/2	277/1	64	26.8	1.9	5	130	100	1,2,3,4
FP-C107	PRICE	FDC	10	840	260	0.25'	0.5'	29	26	1/2	277/1	64	26.2	1.9	5	130	100	1,2,3,4
FP-C108	PRICE	FDC	10	840	260	0.25'	0.5'	29	26	1/2	277/1	64	26.2	1.9	5	130	100	1,2,3,4
FP-C109	PRICE	FDC	10	870	270	0.25'	0.5'	29	26	1/2	277/1	64	34.1	2.5	5	130	100	1,2,3,4
FP-C110A	PRICE	FDC	16	1825	550	0.25'	0.5'	40	35	2x3/4	277/1	64	64.3	4.5	5	130	100	1,2,3,4
FP-C110B	PRICE	FDC	16	1825	550	0.25'	0.5'	40	35	2x3/4	277/1	64	64.3	4.5	5	130	100	1,2,3,4
FP-C116	PRICE	FDC	10	945	290	0.25'	0.5'	29	26	1/2	277/1	64	36.8	2.7	5	130	100	1,2,3,4
FP-C117	PRICE	FDC	10	930	280	0.25'	0.5'	29	26	1/2	277/1	64	28.0	2.0	5	130	100	1,2,3,4
FP-C118	PRICE	FDC	10	930	280	0.25'	0.5'	29	26	1/2	277/1	64	28.0	2.0	5	130	100	1,2,3,4
FP-C119	PRICE	FDC	10	930	280	0.25'	0.5'	29	26	1/2	277/1	64	28.5	2.0	5	130	100	1,2,3,4
FP-C120	PRICE	FDC02	12	1290	390	0.25'	0.5'	33	34	1/2	277/1	64	37.2	2.7	5	130	100	1,2,3,4
FP-C124	PRICE	FDC	10	780	235	0.25'	0.5'	29	26	1/2	277/1	64	14.3	1.0	5	130	100	1,2,3,4
FP-E127	PRICE	FDC	8	500	130	0.25'	0.5'	28	22	1/4	277/1	64	7.8	0.7	5	130	100	1,2,3,4
FP-E100	PRICE	FDC02	8	500	125	0.25'	0.5'	28	22	1/4	277/1	64	7.8	0.7	5	130	100	1,2,3,4
FP-E122	PRICE	FDC02	14	1630	490	0.25'	0.5'	33	39	1/2	277/1	64	37.0	2.7	5	130	100	1,2,3,4
FP-E123	PRICE	FDC	8	670	210	0.25'	0.5'	28	22	1/4	277/1	64	22.0	1.6	5	130	100	1,2,3,4

- REMARKS:  
1. SOUND DATA SHALL BE TAKEN FROM ARE STANDARD 880 (LATEST EDITION PUBLISHED DATA # 1.5" DELTA P).  
2. NC RATINGS INCLUDE A RETURN INLET ATTENUATOR.  
3. EXT. S.P. INCLUDES COIL APD.  
4. COIL CAPACITIES ARE BASED UPON CFM AND 70% WATER/30% PROPYLENE GLYCOL. PROVIDE EXTERNAL DUCT COIL IF UNABLE TO MEET COIL MBH.

## AIR COOLED CHILLER SCHEDULE

			EVAPORATOR BUNDLE (ICE MELT)										EVAPORATOR BUNDLE (ICE BUILD)										ELECTRICAL				SOUND		OPERATING		REMARKS
UNIT NO.	MANUF.	MODEL NO.	MBH	EWT	LWT	WPD	GPM	AMB	TEMP	EER	MBH	EWT	LWT	WPD	GPM	AMB	TEMP	EER	VOLT	PHASE	MCA	MDCP	STEPS	(DB)	WEIGHT (LBS)						
CH-1	TRANE	ACSA0202	2104	54	44	0.5	272	95	9.5	1524	32	23	1.6	352	85	8	3460	3	403	450	16	99	9600	ALL							
REMARKS:																															
1. CAPACITY IS BASED ON 70% WATER/30% PROPYLENE GLYCOL.																															
2. EER IS BASED ON ARI STANDARD CONDITIONS.																															
3. SOUND RATING IS BASED ON ARI-370 OVERALL "A" WEIGHTED SOUND POWER LEVEL.																															
UNIT WAS NOT MOUNTED ON NEUTRINEO OR SPRING TYPE VIBRATION ISOLATORS AS DESIGNED BY THE MANUFACTURER.																															
5. PROVIDE FACTORY SINGLE POINT POWER CONNECTION.																															
6. PROVIDE 6SK SCRR CIRCUIT BREAKER.																															

- REMARKS:  
1. CAPACITY IS BASED ON 70% WATER/30% PROPYLENE GLYCOL.  
2. EER IS BASED ON ARI STANDARD CONDITIONS.  
3. SOUND RATING BASED ON ARI-370 OVERALL "A" WEIGHTED SOUND POWER LEVEL.  
4. UNIT SHALL BE MOUNTED ON NEOPRENE OR SPRING TYPE VIBRATION ISOLATORS AS DESIGNED BY THE MANUFACTURER.  
5. PROVIDE FACTORY SINGLE POINT POWER CONNECTION.  
6. PROVIDE 60K SCOR CIRCUIT BREAKER.

## AHU SCHEDULE

AHU	MANUF.	MODEL NO.	CFM	MIN D/A	ESP	TSP	FAN MHP	BHP	MOTOR VOLTS/PH	MCA	MFS	FAN TYPE/SIZE	RPM	COOLING COIL CAPACITY	MBH	CFM	EAT	LAT	FV	APD	EWT	LWT	GPM	WPD	HEATING COIL CAPACITY	MBH	CFM	EAT	LAT	FV	APD	EWT	LWT	GPM	WPD	PRE FILTER	EFF	AREASQ	MAX FV	APD	THICK	OPER. WTC(LBS)	REMARKS
AHU-1	TRANE	CSAA025	11500	3535	1.50	3.5	(2)	7.5	10.4	460/3	24.8	35	(2)	DD PLENUM 20" SW51	2006	451	82.7/66.2	53.3/53.2	2	460	0.70	45	55	96.7	7.2	362	11500	51	80	465	0.17	130	100	25.0	4.8	30X	50.0	230	0.55	2"	3710	1,2,3,4,5	
AHU-2	TRANE	CSAA021	10780	3745	1.50	3.5	(2)	7.5	9.3	460/3	24.8	35	(2)	DD PLENUM 20" SW51	1948	452	81.7/65.8	52.0/51.9	436	0.70	45	55	98.0	19.2	422	10780	43.3	96.5	89	534	0.42	130	100	44.0	4.8	30X	50.0	216	0.55	2"	3775	1,2,3,4,5	
AHU-3	TRANE	CSAA025	12850	2885	1.50	3.9	(2)	10	13.4	460/3	24.8	35	(2)	DD PLENUM 22.3" SW1	2180	585	79.3/64.0	54.0/53.6	515	0.88	45	55	83.5	11.8	488	12850	54.5	89	534	0.42	130	100	34.5	1.5	30X	50.0	237	0.56	2"	5535	1,2,3,4,5		
AHU-4	TRANE	CSAA010	4765	940	1.50	3.7	(2)	3	4.7	460/3	10.8	15	(2)	DD PLENUM 12.3" SW1	3582	157	79.9/64.7	54.4/53.8	490	0.64	45	55	34.0	10.5	126	4765	55.6	80	477	0.18	130	100	9.0	1.0	30X	13.9	343	0.59	2"	2055	1,2,3,4,5		
AHU-5	TRANE	CSAA030	14620	3740	1.50	3.6	(2)	7.5	12.4	460/3	24.8	35	(2)	DD PLENUM 22.3" SW1	1774	526	80.5/64.7	52.6/52.5	489	0.77	45	55	114.0	10.7	290	14620	61.6	80	489	0.14	130	100	21.0	1.7	30X	56.7	258	0.56	2"	4165	1,2,3,4,5		
AHU-6	TRANE	CSAA080	39875	11040	2.50	4.3	(4)	15	40.2	460/3	89.3	110	(4)	DD PLENUM 24.5" SW1	1783	1504	82.1/65.4	52.8/52.7	506	0.66	45	55	326.0	22.9	1125	39875	54	80	506	0.20	130	100	80.0	3.8	30X	151.1	264	0.56	2"	13515	1,2,3,4,5		
AHU-7	TRANE	CSAA066	34275	10925	2.50	4.4	(4)	15	35.6	460/3	59.5	70	(4)	DD PLENUM 24.5" SW1	1864	1442	83.0/66.5	53.0/52.9	435	0.65	45	55	312.0	10.9	1116	34275	50	80	435	0.15	130	100	80.0	3.8	30X	151.1	267	0.55	2"	12950	1,2,3,4,5		