BUILDING SCOPE ADDENDUM NO. 01

This Addendum is a summary of clarifications, interpretations, corrections and/or modifications to the Contract Documents for the Conestoga High School Athletic Fields Project prepared by Heckendorn Shiles Architects.

The changes, revisions, modifications, deletions and additions referenced in this Addendum shall supercede and supplement all portions of the Drawings and Specifications, including any previously issued Addenda with which they conflict. All provisions of previously executed Contract Documents not modified by information contained in this Addendum remain in effect.

General

Site civil documents were provided as reference. The bid proposals for this project are for the construction of the buildings only. Drawing indexes indicate which sheets are applicable to the building project. Below is the description that was from the published advertisement for this project. The advertisement has also been attached to this addendum.

Project Description:
This multi-prime project (General Trades, Mechanical, Electrical, and Plumbing) consists of the construction of two one story buildings supporting the athletic fields facility.
The +/- 9,700 sq.ft. Field House is inclusive of, but not limited to, team rooms, restrooms, concession, trainer, storage, and mechanical spaces.
The +/- 4,100 sq.ft. Grounds & Fields building is inclusive of, but not limited to, grounds maintenance, field storage, and restroom spaces.

The work is required to be sequenced/scheduled to ensure construction coordination with sitework for sports field construction, being completed under separate contract.

1. Question: Looking through the drawing sets there is information that the tennis court area will be used as a staging area but the specifications for the courts aren't listed…size, coating requirements, colors, etc.
   Response: The bids for this project are for the construction of the buildings only. All site work and sports construction is under a separate contract. Refer to the statement above and the attached advertisement.

2. Question: Will the Grading CAD files be available for bidding purposes?
   Response: No. Refer to the statement above and the attached advertisement.

3. Question: Will the owner be entertaining alternate artificial turf manufacturers?
4. Response: The bids for this project are for the construction of the buildings only. All site work and sports construction is under a separate contract. Refer to the statement above and the attached advertisement.

5. Question: Will the owner entertain alternate court surface manufacturers?
   Response: The bids for this project are for the construction of the buildings only. All site work and sports construction is under a separate contract. Refer to the statement above and the attached advertisement.

6. Question: Referencing the Contractor Scope of Work by Sheet on Drawing A001. Please confirm that the "Building Prime Contractor" is the GC scope of work and that the "Athletic Fields Contractor" is the Site Contractor scope of work, which will be handled under a separate contract.
   Response: As listed on sheet A001 the "Building Prime Contractor" is the multi-prime contractor's scope of work mainly GC scope of work and the "Athletic Fields Contractor" is the Site Contractor scope of work, which will be handled under a separate contract.

7. Question: Can the prebid sign-in sheet be provided?
   Response: It is attached to this addendum.

8. Question: The bid bond form provided in the Contract Documents is the AIA Document A310 Bid Bond from 1970. The AIA updated the A310 Bid Bond in 2010. Would you accept an AIA A310 – 2010 bid bond or a surety's bid bond that conforms with the AIA A310 -2010 Bid Bond?
   Response: Provide the Bid Bond that is included in the bid documents.

9. Question: Please reconsider the Limits listed below, they seem more in line with GC's, than (MEP) primes. $15 M Umbrella & $3M GL occurrence limit & the Owners & Contractors Protective Liability policy. There is a huge added cost to add the above limits to the standard MEP Prime limits. Please let us know.
   Response: The Limits are as specified.

10. Question: Is the maintenance term 1 year as stated in the General Conditions, or 2 years as stated in the Performance Bond?
    Response: 2 years as stated in the Performance Bond.

11. Question: What are the "Required Documents" that should be uploaded under that tab on PennBid?
    Response: Reference specification 04 Instruction to Bidders and the 17 Bidder's Checklist.

12. Question: Is an estimated contract value available for the GC portion of the work?
    Response: No.

13. Question: It appears per specification section 051200-2 1.8, A. that AISC certification is required. We would like to request a waiver for the AISC certification requirement. Please advise.
    Response: There will be no waiver. Certification requirements will remain as specified.

14. Question: Please confirm if the GC is responsible for all of the items listed on the A601 equipment schedule. It appears that some of the items (such as the sinks) may overlap with the plumbing contractor's scope. Also, please provide model numbers for the Advance Tabco tables and Scranton Products lockers and benches. These items do not appear in the specifications.
    Response: The item numbers were added to the equipment schedule on A601 which is attached to the addendum.

15. Question: After looking at the drawings, there are some details missing that would help us provide an accurate quote on the roof trusses for the field house. Please provide/refer us to the following information: 1. Roof pitches 2. Overhang lengths 3. Heel heights 4. Did you want OSB on the gables?
    Response: Roof pitches, Overhang lengths, and heel dimensions have been provided in the updated sheets attached to the addendum. The gables are masonry and do not need to be OSB.

16. Question: Bleachers are shown on the A drawings but no detail or specification section is provided. A note states "delegated design". Are bleachers part of the General Construction contract? If so, will a specification or basis of design be provided?
    Response: The bids for this project are for the construction of the buildings only. All site work and sports construction is under a separate contract. Refer to the statement above and the attached advertisement.

17. Question: The General Requirements specification is clear on which prime contractor is responsible for each temporary utility. However, can you please clarify if these temporary utilities will be metered? Will the GC be charged for use of water, electricity, etc?
    Response: The temporary electric and water utilities would come from the existing facilities and not separately metered. As per the general requirements specification section 14 each prime is responsible

for the heating, cooling, and ventilation as needed for their scope before weathertight enclosure is complete.

18. Question: Please provide specifications for the lockers, if they are the GC's responsibility. The equipment schedule on A601 states "Scranton Products" but does not provide a model number for the basis of design or the product specifications needed in order to acquire pricing.
Response: The equipment schedule on A601 indicates product and size. The lockers would be a custom configuration, so they do not have a specific model number. Configuration is shown on sheet A401 in elevations. An updated sheet A601 is attached with addendum.

19. Question: Please confirm if Columbia Lockers is an acceptable "approved equal" for Solid Plastic Lockers? Product literature can be emailed if required. There does not appear to be a way to submit any attachments through the PennBid messaging system. The Locker Supplier has also requested: • If you can send specs for the Lockers? • If you can send elevations for the Lockers?
Response: Any substitutions proposed would follow section 16 of the instructions to bidders. Elevations for the lockers are on sheet A401.

20. Question: Page GR-6: Section 7: E: notes that "work occurring on or after August 21, 2024, and subject to liquidated damages, shall be performed on Second Shift..." Is the year a typo? Should it be August 21, 2025?
Response: The year is a typo. The date is 8-21-2025. An updated general requirements specification has been attached to the addendum.

21. Question: On the AF-150 FRP door frames, should they be provided knockdown or welded?
Response: The FRP frames are aluminum frames. An updated sheet A601 is attached to this addendum.

22. Question: Will you allow casework that meets AWI standards but is not QCP?
Response: The project does not have casework.

23. Question: Who is responsible for hooking up the electrical door hardware components? GC or EC?
Response: The GC would install the door hardware; the EC would install 120V power and the security vendor would install low voltage wiring. All will need coordination with district security vendors as per specification.

24. Question: Do we have installation locations and quantities for AED boxes?
Response: AED locations to be tennis, turf fields, trainer and field house.

25. Question: Do we have installation locations and quantities for Fire extinguisher cabinets?
Response: Quantity and locations show on updated A100. They are mounted on brackets, no cabinets required.

26. Question: Who is responsible for supplying aluminum louvers for the building? MC or GC? Are they installed by the GC or the MC?
Response: GC to supply and install louvers as indicated on documents.

27. Question: Who is responsible for providing the items on the equipment schedule? Owner or GC?
Response: GC. Except for EQ-9 and 10 would be provided by the PC.

28. Question: Detail 7 on A501 shows a partition detail for the field house at the partitions. Is the intent to build a soffit with metal studs and drywall? Please advise.

Response: Correct it would be a soffit to wrap the steel for the ceiling hung toilet partitions. The soffit would be made out of metal studs and drywall.

29. Question: The drawing list provided on sheet A001 lists 18 drawings that were not provided on PennBid (in the .zip folder) or included in the Architectural Drawings PDF within that folder (drawings A700 through A717). Looking at the titles of these missing sheets, it also appears the specifications manual is lacking specifications sections for all of the athletic equipment that I assume will be detailed on the missing drawings. Please provide us with drawings A700 - A717 and the corresponding specification sections.
Response: The bids for this project are for the construction of the buildings only. All site work and sports construction is under a separate contract. Refer to the statement above and the attached advertisement.

30. Question: Bleachers are shown on the A drawings but no detail or specification section is provided. A note states "delegated design". Are bleachers part of the General Construction contract? If so, will a specification or basis of design be provided?
Response: The bids for this project are for the construction of the buildings only. All site work and sports construction is under a separate contract. Refer to the statement above and the attached advertisement.

31. Question: Manual roller shades are noted on the A drawings and finish schedule but no specification section is provided. Will a specification section be issued?
Response: On sheet A601 in the finish schedule the basis of design product is scheduled for the roller shades.

32. Question: Please clarify whether the food service and other miscellaneous equipment listed on the A601 Equipment Schedule is to be provided by the GC or the owner.
Response: GC. Except for EQ-9 and 10 would be provided by the PC.

33. Question: We are having difficulty identifying who was awarded the separate site contract. Can you please provide the name of the company?
Response: The site contractor once awarded will be provided to the building primes for coordination.

34. Question: The specifications and plans do not contain a signage schedule for the ADA wayfinding signs. Should the signage be created using the door schedule? Can a signage schedule be provided? Please advise.
Response: As per specification section 101423 Signage, room identification and code signage is to be provided using same room designations as indicated on drawings.

35. Question: Quantity of each size ADA sign needed?
Response: Refer to specification section 101423 Signage.

36. Question: What is the style of ADA sign needed?
37. Response: Refer to specification section 101423 Signage.

38. Question: CONESTOGA large letters – Are these ½" plate, 1" plate or 2" deep formed aluminum letters?
Response: The letter signage you are referencing is part of the site contract scope of work.

39. Question: RESTROOMS / CONCESSIONS - Are these ½" plate, 1" plate or 2" deep formed aluminum letters
Response: Refer to specification section 101419 Dimensional Letter Signage.

40. Question: Does it need to be clear ano finish for the letters or is brushed aluminum finish ok?
Response: As per documents it is to be clear finish.

41. Question: spec. 233113-13 H-1-b. talks of spin-in's which MKT is not figuring unless told otherwise)
Response: Provide all round duct branch connections as 45 degree boot or bellmouth fitting per Detail 1, DWG M501.

42. Question: Per spec. 233300-3/4/5 2.3 Should Fabricators figure volume dampers as purchased type, if you would like it differently please let us know
Response: Please provide standard purchased manual volume dampers per specification 233300-2.3-A.

43. Question:-Per spec. 233113-4/5 2.4/233113-12 F. Should fabricators figure duct liner, if you would like it differently please let us know (subject to change)
1" 1.5lb.
(rect only) -Provide acoustical lining 10 ft upstream and downstream of all air handling equipment on supply and return ductwork, whether indicated on the drawings or not. Air handling equipment includes, but is not limited to, air handling units, roof top units, blower coil units. If a branch takeoff occurs in the 10 ft, line entire takeoff. Provide acoustical lining for all outside air plenums, return air plenums and transfer ducts.
Provide acoustical lining 10 ft downstream of all exhaust fans, whether indicated on the drawings or not
• 2" board (rect only)
-RA/Exh fan plenums
• 1" board(rect only)
SA fan plenums

Response: Provide acoustical lining 10 ft upstream and downstream of all air handling equipment on supply, return and exhaust ductwork as required by specification 233113-3.9-F.

44. Question: Per spec. 233113-3 2.2 Fabricators are figuring round as spiral, if you would like it differently please let us know

Response: Round spiral duct is acceptable.

45. Question: Spec. 233113-5 2.4 C-8 talks of securing liner with perf metal which would make all lined duct DBWL , is this your intent?
Response: Double wall ducts and perforated sheet metal inner duct liners are not required.

46. Question: Spec. 233300-3/4 2.3 A. talks of standard purchased vd's but B. talks of low leakage purchased vd's which is the intent?
Response: Please provide standard purchased manual volume dampers per specification 233300-2.3-A. Low leakage volume dampers are not required.

47. Question: Spec. 281600 shows the "Intrusion Detection System". The Following is a (2) Part Question: 1) Per Drawing E001 this System is not identified on the "CONTRACTORS RESPONSIBILITY MATRIX". 2) Per Drawing E001, at "Symbol Legend" for "Door Contact" it states that the G.C. provides and installs. Does this mean the G.C. provides the Intrusion Detection System as (1) complete Package as well per the specification? If not please clarify.

Response: Refer to revised drawing E001 for clarification. Intrusion Detection System will now be provided by Owners Vendor. EC will still need to wire door contacts. Door contacts to be provided by others.

48. Question: Refer to Drawing #E101, at "LIGHTING" portion. No Exit Signs are shown. Please show Types and locations accordingly.

    Response: Exit signs are not required.

49. Question: Refer to Drawing #E303, that shows the "MECHANICAL EQUIPMENT - ELEC. DATA SCH." Per the Schedule the HVAC and Mech. Equip. are not shown on Drawings #E101 and #E102. Please provide locations on the Electrical Drawings accordingly.

    Response: Per the notes on drawings E101, E102, and E303, "REFER TO MECHANICAL AND PLUMBING DRAWINGS FOR FINAL LOCATIONS OF MECHANICAL AND PLUMBING EQUIPMENT."

50. Question: Regarding the above Subject (Field House Panel ELFH) we offer the Following for clarification: Refer to Drawing E201, Single Line, Keyed Note #4 and E301, Panel Schedules. As noted on both Drawings (1) 150/3 Sub-Feed Breaker is shown. We are assuming that this Breaker will be provided by the "Site Electrical Contractor", correct? If not please clarify.

    Response: Correct. The 150A sub feed breaker is provided by the Site Electrical Contractor. Each contractor is to provide their panels complete with all circuit breakers shown regardless of which contractor is wiring to them.

Architectural

1. Specification – 15 General Requirements
2. Specification – 087100 Door Hardware
3. Drawing – A000 Cover Sheet
4. Drawing – A001 Updated drawing list
5. Drawing – A100 Updated plans
6. Drawing – A102 Added roof slopes
7. Drawing – A110 Updated plans
8. Drawing – A200 Updated elevations and notes
9. Drawing – A201 Updated elevations and notes
10. Drawing – A300 Updated sections
11. Drawing – A303 Updated sections and call outs
12. Drawing – A305 Updated sections and call outs
13. Drawing – A400 Updated plans and elevations
14. Drawing – A401 Updated plans and elevations
15. Drawing – A500 Updated details
16. Drawing – A502 Updated details
17. Drawing – A503 Updated details
18. Drawing – A601 Added frame details and schedule updates

Structural

1. Drawing – S100 Updated steel support in restroom.

Mechanical

1. Drawing – M102 Clarified louver description

Plumbing

1. Specification – 221319 Sanitary Waste Piping Specialties – Added Section
2. Drawing – P001 Updated drawing list
3. Drawing – PS01 Updating scope of work between contractors.
4. Drawing – P101 Added floor drains
5. Drawing – P301 Changed model number for fixure P-2
6. Drawing – P401 Modified NG riser diagram to show scope of work between contractors.
7. Drawing – P402 Modified note on San riser diagram and added floor drains. Updated floor drain nomenclature to match floor plans.

Electrical

1. Specification - 281600 Intrusion Detection - Remove this section in its entirety.
2. Drawing – E001 Updated symbols and Contractor Responsibiliy Matrix
3. Drawing – E101 Added receptacle for AV Rack and shifted lights.
4. Drawing – E302 Added circuits for AV Rack and added additional spare breakers.

Attachments

- Pre-Bid Sign-In Sheet
- Advertisement
- SECTION 15 General Requirements
- SECTION 087100 DOOR HARDWARE
- SECTION 221319 Sanitary Waste Piping Specialties
- DWG A000
- DWG A001
- DWG A100
- DWG A102
- DWG A110
- DWG A200
- DWG A201
- DWG A300
- DWG A303
- DWG A304
- DWG A305
- DWG A400
- DWG A401
- DWGA500
- DWG A501
- DWG A502
- DWG A503
- DWG A601
- DWG P001
- DWG PS01
- DWG P101
- DWG P301
- DWG P401
- DWG P402

- DWG E001
- DWG E101
- DWG E301

END OF BUILDING SCOPE ADDENDUM NO. 1

Tredyffrin/Easttown School District

Administration Offices, West Valley Business Center
940 West Valley Road, Suite 1700, Wayne, PA 19087 **Phone: 610-240-1942**
Fax: 610-240-1882

Purchasing Department

March 13, 2024

legals@mainlinemedianews.com
Main Line Media News
134 N. Wayne Avenue
Wayne, PA 19087

Attn: LEGALS

Please publish the following legal advertisement on Sunday, March 24, and March 31. Send proof of publication and invoice to:

Mr. Arthur J. McDonnell
Board of School Directors
Tredyffrin/Easttown School District
Administration Offices
940 W. Valley Road, Suite #1700
Wayne, PA 19087-1856

"May 9, 2024 - The Tredyffrin/Easttown School District requests sealed bids for Conestoga High School Athletic Fields Project. (Project # 21-019)

This multi-prime project (General Trades, Mechanical, Electrical, and Plumbing) consists of the construction of two one story buildings supporting the athletic fields facility.

The +/- 9,700 sq.ft. Field House is inclusive of, but not limited to, team rooms, restrooms, concession, trainer, storage, and mechanical spaces.
The +/- 4,100 sq.ft. Grounds & Fields building is inclusive of, but not limited to, grounds maintenance, field storage, and restroom spaces.

The work is required to be sequenced/scheduled to ensure construction coordination with sitework for sports field construction, being completed under separate contract.
CHS Athletic Fields Project (Project # 21-019)
Sealed bids will be received electronically via PennBid.

Bids are to be received electronically before 2:00 P.M., May 9, 2024, at which time bids will be opened on the PennBid website with results displayed publicly. The results will also be read aloud at the School District Administration Offices. The Board of School Directors reserves the right to reject any or all bids and to waive errors or technical defects in the bid or bid forms.

Detailed specifications, and requirements for bidding may be obtained at no cost on the PennBid website, www.PennBid.net. Questions regarding this project shall be submitted via the PennBid website.

A mandatory Pre-Bid Meeting will be held at Conestoga High School on Thursday, April 4, 2024, at 9:00 A.M. Room 142.

Shanette Bernard, Purchasing Manager"

DIVISION 1 - GENERAL REQUIREMENTS

Index

Section 1 - SUMMARY OF THE WORK

A. The work includes but is not limited to:

Conestoga High School Athletic Fields Project for the Tredyffrin/Easttown School District

C. The location of the project is:

Conestoga High School
200 Irish Road
Berwyn, PA 19312

Section 2 - CUTTING AND PATCHING

A. Each Prime Contractor shall be responsible for the proper fitting of work in place, and for coordination with other Prime Contractors, subcontractors, and Owner's contractors in the proper fitting and building-in of said contractor's work with that of other contractors, subcontractors and with existing conditions.

B. The Contractor shall form any holes, chases, recesses, and openings in building construction and finish materials, for existing, new or relocated plumbing, heating, electrical, special equipment, and all other utilities or building appurtenances. This shall include verification of data, which may be indicated dimensionally on the Drawings, as well as chases and openings required, but not shown. Generally stated, the Contractor who requires such penetrations to be made shall be responsible for making the penetration and sealing around the new, or relocated utility after installation, and to repair the wall/floor/grade to original condition. In all instances where cutting is required, the Contractor shall inform the Engineer/Architect in advance. No cutting will be permitted which endangers the stability or the structural quality of the building.
   1. The exception is that any openings required in the roof or exterior building envelope shall be the responsibility of the General Contractor, and shall be performed by a technician (roofing subcontractor, mason and/or sealant subcontractor) who is skilled and experienced in the required trade.
   2. Layout of openings to be completed by the Prime Contractor installing the new work and must coordinate with the General Contractor.
   3. See also the Technical Sections (024119 & 070151) of these specifications for additional information. Take special note of roofing information for requirements of this trade.
   4. With regards to holes cored through exterior building envelope, the General Contractor shall not complete more than (1) hole in each exterior envelope system prior to review from Owner or Architect.

Section 3 - DEMOLITION

A. Description of Work:
   1. The extent of demolition is described herein and shown on the Drawings.
   2. Demolition includes removal and disposal of demolished materials, rubbish, abandoned equipment, flotsam and jetsam, etc., in the area of new construction, renovations and sitework; removal of miscellaneous fixed items presently located on the building site; and excavation for structures as shown on the Drawings.
   3. Any work, which extends past the Contract Completion Date, and is duly subject to liquidated damages, and coincides with the school session, shall be scheduled as approved by the owner. Additionally, it must conform to the regulations of Tredyffrin Township.
   4. It is the intent that the Contractor will remove all items or equipment which will impede or restrict providing a space, surface or area as it was intended to be, or for the work of another contractor,

subcontractor or Owner. This will include pipes, conduits, angles, dirt, debris, equipment, etc., even though they may not be exposed or shown on the Drawings.

B. Responsibilities of Contractors - Demolition: The project includes renovations of the existing building and equipment. As clearly as possible, demolition responsibility is divided as follows:

1. Where required, demolition of electrical conduits, and other items described in Division 26, which are considered in the trade to be a part of electrical construction shall be demolished and removed from the site by a licensed electrical contractor.
2. Demolition of ducts, fans, radiators, pumps, boilers, etc., and other items described in Division 23, which are considered in the trade to be a part of mechanical or HVAC construction, shall be demolished and removed from the site by the mechanical contractor.
3. Demolition of plumbing fixtures, piping, valves, etc., which are considered in the trade to be a part of plumbing construction, shall be demolished and removed from the site by the plumbing contractor.
4. When demolition is inferred, described or drawn as a necessary step to provide for the renovations, then this shall be included in the related contract.
5. Interior and exterior walls, ceilings, soffits, partitions, stairs, floors, building appurtenances etc., shall be demolished and removed from the site by the General Contractor. It is the intent that this includes all material considered, in the trade, to be a part of general construction.
6. Chases, holes, openings, etc., required by any of the subcontractors, in existing construction, shall be opened, closed and reinforced by the contractors requiring the opening, except that any openings in the existing roof, roof deck, and building envelope shall be made and closed by the General Contractor and roofing subcontractor. See also Section 2 of these General Requirements.
8. Routes of ingress and egress, for bringing in materials and equipment and for removal of rubbish from areas in the existing site where renovation work is in progress, shall be subject to the restrictions of and in accordance with the instructions of the Architect and Owner and strictly in accordance with local and state laws and ordinances, and all authorities having jurisdiction.
9. Pollution Controls: Contractors shall use water sprinkling, temporary enclosures, sweeping compounds, exhaust fans and other suitable methods to limit the amount of dust and dirt rising and scattering in the air to the lowest practical level. Temporary enclosures, for containing dust, dirt and debris must conform to requirements of authorities having jurisdiction. No additional compensation will be paid for complying with this provision.
10. Contractors shall comply with governing regulations pertaining to environmental protection. Water will not be used when it may create hazardous or objectionable conditions such as ice, flooding or pollution.
11. Contractors shall clean adjacent areas and improvements of dust, dirt, and debris caused by demolition operations, related to their scope of operations, as directed by the Architect, and return adjacent areas to conditions existing prior to the start of the work. Such cleaning shall occur daily.
12. Except where indicated otherwise on the Drawings and specifications, or materials, or items of equipment to be retained by the Owner, all dismantled materials shall become the property of the Contractor and shall be removed from the premises in accordance with all laws, codes and regulations, and all authorities having jurisdiction. Recycling of materials and equipment not expressly required is strongly recommended.
13. Demolition may proceed in any safe, feasible manner.
    a. Masonry walls shall be demolished in small sections. Remaining sections will be properly braced during the work and at the end of each day.
    b. Windows and door frames shall not be removed until the work has progressed down to their elevation in the walls.
14. Any contractor operating in the area of an existing utility line or any operating service line shall be responsible for maintenance of that line during the operation or relocation in order to avoid interruption in operation. Any break in any line will be repaired according to the requirements of the code or the utility company by the contractor responsible for the break. All contractors doing excavating or demolition should carefully investigate the areas to be excavated or demolished prior to beginning the work. Contact **Pennsylvania One Call System, Inc., 800-242-1776**, a

minimum of three days prior to any digging operation, to locate underground utility lines, per Pennsylvania Law. It is the responsibility of the contractors doing the work to accurately locate all existing lines.

15. Refer to related sections of the Specifications for further information on this phase of the work.
16. Where demolition is performed and surfaces are left uneven, with holes, unpainted, or any other blemish, the contractor doing the demolition will be required to patch and repair that area to an equal level of finish, color and texture as the surrounding surfaces. The work must be performed by a contractor skilled in that trade.
17. Contractors responsible for protection of existing building elements that are to remain. Contractors responsible for costs to repair any damaged building elementsto remain. Each Prime contractor responsible for protection of existing conditions within their scope of work, unless otherwise identified on the drawings or specifications.
    a. ***When temporary flooring protection (for existing or new construction) is required for the scope of work or when dictated by owner or architect, contractor is required to provide (at a minimum) Masonite protection board with taped seams for floor protection, at no extra cost to the owner. Contractor responsible for installation and removal of temporary floor protection.***

Section 4 - PERMITS, LICENSES, AND CERTIFICATIONS

A. The ***owner*** shall apply for and procure all applicable permits and licenses and give all notices necessary for the commencement of their work. It shall be the Owner's responsibility to pay for a local "building" permit, which will be obtained from and required by the Tredyffrin Township. The contractor shall be required, however, ***to coordinate with owner.*** All other permits and contractor registration fees and licenses shall be obtained and paid for by the contractors. The contractors are responsible for contacting the Township and Chester County to determine all permits, licenses, applications, etc. which are required as part of this project.

Section 5 - PROJECT MEETINGS

A. Regular job progress meetings will be held weekly, at which the Contractor shall be present, for the purpose of coordinating the work. If particular subcontractors would add needed information at a meeting, then that subcontractor should be present. The contractors' representative attending these meetings shall be fully authorized to represent said contractor in the matters brought before the meeting and shall have a full understanding of the field activities of both the contractor's own forces and those of the contractor's subcontractors. The Architect may, at the Architect's discretion, require each contractor to be represented by both their project manager and their construction superintendent (foreman). The Architect shall publish minutes of the meeting and distribute them to all interested parties.

B. **All Prime Contractors** shall submit in writing at each job meeting a list of work completed during the previous week, or time period between job meetings, and the work proposed to be completed during the subsequent week. Any and all verbal instructions from the Architect received by the Contractor during the week should be noted on the Contractor's set of drawings and brought up at the next meeting to become a matter of record.

C. A job information sheet will be given to the Contractor at the pre-construction meeting, which will cover minor responsibilities of the Contractors such as number of submissions, emergency numbers, procedures, etc., as noted in these General Requirements and the Supplementary General Conditions contained in these Specifications.

Section 6 - JOB SITE ADMINISTRATION

A. Access to the construction sites shall be as directed by the Owner and the Township. If necessary for safety, movable barricades to be furnished by the General Contractor and used by the contractors. Establishing and maintaining this access will be the responsibility of the General Contractor.
   1. Contractors will be required to sign-in and sign-out when entering or leaving the site.
   2. The District has a Security Guard assigned to each School. Every day Security Guard will validate Background Checks, have contractors sign-in, Issue and ID that must be returned at end of day

B. It is the intent that at times when the contractors are not reliably represented on the site, they shall be responsible for securely closing all openings and for locking any other possible means of access which are being used in connection with their construction contract.

C. Offices, sheds, toilets, lay down areas, etc., shall not be located without prior approval of the Owner and Architect. All supplies and/or equipment delivered to the site must be stored, according to the manufacturer's written recommendations, outside the existing building unless prior approval is granted by the Owner and the Architect. The storage of supplies and/or equipment must be carried out so as not to void warranties, and to protect from damage and vandalism.

D. Work Area: The Contractor shall keep his operations and storage of materials within as small an area at any one time as is feasible. He shall meet with the Architect and Owner to establish the work area and notify them and receive their approval for any required changes. It shall be the Contractors' responsibility to study the proposed schedule included in the Contract Documents and make the necessary allowances and preparations for safe operations. Any relaxation of this schedule must be agreeable to the Owner, Contractor and Architect.

E. The Contractor shall be responsible for the behavior of such Contractor's workmen. Inappropriate language will not be tolerated and will be cause for removal from the project. Contractor social interaction with students will not be tolerated and will be cause for removal from the project. Use of "Boom Box" radios will not be allowed. Smoking is not permitted in or on school district property.

F. Notice to the Owner shall be made and all provisions agreed upon before commencing any movement of men or materials, or performance of any of the work outside of the protected limits. Normal traffic area must remain unobstructed, and any required change in these travel patterns must be worked out with the Owner and Township beforehand.

G. Except for Second-Shift hours, provided for the in the contract, the Contractor must reimburse the Owner and Owner's Representative for security beyond the normal work hours, 7:00 AM through 3:30 PM, Monday though Friday. See Section 12 of the Instructions to Bidders.

The cost is:	Monday through Friday	$64.00 /hour
	Saturday, Sunday, and Holidays	$85.00/hour

H. Contractor's shall provide a list of phone numbers where the job superintendent and two responsible members of the organization can be reached in an emergency by the Owner or the Architect. These contact numbers shall include 24 hour, 7 days per week contacts for use in an emergency. If contractor does not respond to an emergency, the Owner reserves the right to respond and charge the Contractor for any costs incurred by the School District.

I. Each Prime Contractor shall maintain a full-time site superintendent throughout the entire course of construction (from the start of the work through completed punch list), and who shall be present on site at all times the Contractor's staff, subcontractors, or other Prime Contractors' staff or subcontractors are present. The Contractor shall maintain the same superintendent from the start of the project until finished closeout. Regular contractor's job site superintendent and work staff must sign in and out daily with the Owner's representative.

1. Each Prime Contractor shall keep a written log showing the condition of the existing building, daily weather conditions, condition of the new work, and schedule of progress. In addition, this log shall include lists of workmen on site, identified by trade. This log shall be available to the Owner upon request at any time throughout the work and shall be included in the Closeout Materials provided at the end of the job.
2. Shop drawing log requirements are described below.
3. Weekly Superintendent meetings.

J. Contractors to submit a "Request for Shutdown" to Owner 7 days in advance, via email.

Section 7 - CONSTRUCTION SCHEDULE

A. The **General Contractor** will be responsible for producing and distributing a comprehensive project schedule, within 2 (two) weeks after the Award of the Project, to the Owner, the Architect, and to all other Prime Contractors. All contractors must review the schedule and incorporate their schedules on the General Contractor's master. A final schedule, revised by the General Contractor, will be derived from this input, and distributed to the parties noted above, no later than 4 (four weeks) after Award of the Project. Schedule Updates to be provided on a weekly basis.

B. **All Prime Contractors** shall provide a list of subcontractors, subsubcontractors, material suppliers and/or installers, and proposed dates for submissions of shop drawings. The list of subcontractors shall be submitted within two weeks of the contract award.

C. A shop drawing schedule will be required of each Prime Contractor, to indicate length of delivery time, any long lead items, submission date, a reasonable turn around time, and expected delivery date of the product and approximate date(s) for incorporation into the work.

D. Each Prime Contractor shall maintain a Daily Log of construction activities, entrance and commencement of trades on site, deliveries, and agreements made. Notation shall be included of inspections made by authorities having jurisdiction, or by the Owner's inspection and testing agency. In addition, when there are items for which time and materials calculations must be determined, the Daily Log shall reflect the time for each workman expended directly to address the item.

E. Though not a part of the work schedule, the Contractors are advised that all work occurring on or after **August 21, 2025**, and subject to liquidated damages, shall be performed on Second Shift, 3:30pm to 11:00 pm at no additional cost to the Owner.

F. Primes working overtime and shift work is at Prime Contractors expense and not additional cost to TESD; including work performed after substantial completion

G. Project Coordinator will prepare a preliminary combined Contractors' construction schedule for entire Project, which is included in the Contract Documents. Project Coordinator shall create a detailed CPM schedule.

1. Computer Scheduling Software: Prepare schedules using current version of a program that has been developed specifically to manage construction schedules.

2. Refer to Specification Section 01041 – Project Coordination Multiple Primes Contracts for additional information.

H. When periodic update indicates the Work is 14 or more calendar days behind the current approved schedule, submit a separate recovery schedule indicating means by which Contractor intends to regain compliance with the schedule. Indicate changes to working hours, working days, crew sizes, and equipment required to achieve compliance, and date by which recovery will be accomplished.

Section 8 - CONSTRUCTION NOISE CONTROL

A. As defined by Township Ordinance

Section 9 - SHOP DRAWINGS, SAMPLES, & SPECIFICATIONS

A. Shop drawings required by Article 4 of the General Conditions shall be checked, dated, stamped and signed by the submitting contractor prior to issuing them to the Architect/Engineer. When submitted, the contractor asserts that they conform to measurements at the site, the requirements of the contract documents, and the requirements of all trades whose work must be coordinated with that shown on the Drawings.

B. Emphasis shall be on the expediting of shop drawings of long delivery items and early installation work, so that no delays will occur. Work covered by shop drawings shall not be started until final review has been made, is given by the Architect/Engineer, and the final, reviewed shop drawings are in the hands of the Contractor.

C. Any omission by the Architect during the shop drawing review does not relieve the Contractor from conforming with the Contract Documents, Codes, laws and Manufacturer's Requirement.

D. Submissions shall provide all information for a product to be completely and successfully ordered. All required information, including, but not limited to, samples, color samples of actual material (printed colors are not acceptable), textures, patterns, specifications, drawings, warranties, installation instructions, safety data sheets, etc., must be provided at the time of first submission.

E. A current set of shop drawings and submittals with the Architect's approval stamp will be kept at the site at all times.

F. The superintendent shall read the Specifications carefully in advance of the entry of the trade and/or material on the job. Each Prime Contractor shall provide Specifications for their Subcontractors' use. Superintendent shall confirm that Subcontractors have read Specifications prior to the starting of their work.

G. All manufacturer's specifications should be kept on file at the job site. Provide material safety data sheets on all applicable products.

H. See also Section 01330 – Submittal Procedures of these Specifications.

Section 10 – INSPECTIONS & TESTING

A. The **Owner** will engage testing agencies for Environmental, Concrete and Steel Testing and Inspection**, as required.**

B. Each Prime Contractor will provide Pre-Construction testing of materials **if required,** other than listed above.

Section 11 - LAYOUT DATA

A. Before ordering material or doing any work, **the Contractor shall verify all measurements & elevations at the site.** No extra compensation will be allowed because of difference between actual measurements and dimensions shown, but such difference shall be referred to the Architect/Engineer for consideration before proceeding with the work.

Section 12 - PARKING

A. Contractor's employees' cars shall be parked in a location approved by the Owner of the site. The contractors who park on the street, if allowed, shall be considerate of the residential neighbors who are paying for the project. All local parking regulations will be adhered to.

Section 13 - TEMPORARY ELECTRICITY

A. Refer to Specification ***Section 011200*** – Project Coordination Multiple Primes Contracts for additional information.

B. Electrical Contractor shall extend electric service to a point convenient to each of the areas in which work will be performed. This location may be within the area of construction or immediately outside the area; in any case, it shall be a location acceptable to the General Contractor. The service to be provided, unless otherwise specifically mentioned in the Contract Specifications, shall be as required by for the equipment and as available from the existing facilities. This service shall be installed within three days after written request have been made to the electrical contractor, but a contractor requiring such service.

C. Electrical Contractor to provide and pay for all maintenance, servicing, operation, and supervision of lines.

D. Electrical Contractor to provide temporary wiring throughout the building, properly insulated and installed in a safe and workmanlike manner and per applicable codes. All maintenance for the system throughout the project shall be included.

E. Electrical Contractor to provide 120V four plex GFCI receptacles every 40 feet each floor, at a minimum. Receptacles shall conform to NEC and rules and regulations prescribed by OSHA as well as other agencies having jurisdiction. When such codes or regulations are inconsistent, the more stringent will prevail.

F. Electrical Contractor shall extend electrical service to all construction and owner’s trailers on the site as determined during the first job meeting.

G. In addition to the electrical service provided for above, the electrical contractor shall install one work light in each room and shall service the lights and supply lamps as required.

H. Temporary lighting and power should be provided in each phase within 5 days.

I. When the electrical lines and temporary lighting are no longer required, they shall be removed.

Section 14 - TEMPORARY HEAT, COOLING, VENTILATION

A. Refer to Specification ***Section 011200*** – Project Coordination Multiple Primes Contracts for additional information.

B. Each Prime Contractor is responsible for temporary heating, cooling, and ventilation as needed for their scope before weathertight enclosure of ***entire*** building is complete. Usage charges are responsibility of each prime. Where forbidden by codes and safe construction standards, temporary heating equipment fuels shall not be stored within the ’buildings’. Adequate temporary heating level must be maintained as per manufacturers requirements, but no temporary heating units can be left unattended while they are within the buildings or accessible by residents or students.

C. Mechanical Contractor is responsible for temporary heating, cooling, and ventilation after ***weathertight enclosure of entire*** building is complete and Owner will pay utility-use charges.

D. The use of new heating or HVAC units for temporary heat or cooling will not be permitted, unless given written approval by the Architect, engineer and owner. If this approval is granted, the equipment will be maintained by the contractor. ***Filters*** will be changed on a weekly basis and the warranty for the unit and its components will not start until the substantial completion date. All ducts and the unit will be cleaned at the end of the job to the satisfaction of the owner.

Section 15 - TEMPORARY WATER

A. Plumbing Contractor to provide and maintain temporary water service from existing building for use during construction. Contractor shall provide two (2) ¾" hose bib connections. Locations to be coordinated with needs of all primes. Remove temporary waters service back to the source when directed by Owner and/or Architect.

B. The source of the water shall be coordinated and approved by the owner.

C. Electrical Contractor to provide all heat tracing associated with the Temporary Water as specified in plumbing primes scope of work.

Section 16a – TEMPORARY FIELD OFFICE

A. The GC Prime Contractor shall provide a field office construction trailer. The trailer shall be setup prior to the start of construction and removed after the completion of construction. At a minimum, the trailer shall be/include:
   1. Single wide (14'x45') with Furniture
   2. Large conference room for project meetings
   3. Steps and skirting
   4. Additional trailers acceptable with owner and architect approval.
   5. Heat and Cooling

B. Each Prime contractor may place up to 1 field office trailer, if necessary. Primes must submit request to owner/architect for approval.

C. All trailer sizes, interior layout, and position on site to be reviewed by owner and architect prior to delivery and installation.

   1. The Electrical Contractor shall provide temporary electric service for all field office trailers. This shall be provided within 3 days of installation of trailer. Remove the temporary service at the completion of the project when directed by Owner and/or Architect.

Section 16 - TEMPORARY SANITARY FACILITIES

A. The Contractors will not be allowed to utilize the toilet facilities at the school. The General Contractor shall provide temporary toilet facilities, and in a location agreeable to the Owner and the Township and complying with State and Local laws and Board of Health.
   1) Maintain, service and clean facilities on a regular basis but not less than twice per week.
   2) Quantity of toilets facilities shall be sufficient for use by all contractors and subcontractors' personnel.

Section 17 – TELEPHONE CONTACT

A. Each Prime Contractor shall furnish cell phone contact information for their Project Manager and Field Site Superintendent, and Foreman at a minimum.

Section 18 - PROJECT IDENTIFICATION

A. Provide Project signs as indicated. Unauthorized signs are not permitted.
   1. Identification Signs: Provide Project identification signs as indicated on Drawings.
   2. Temporary Signs: Provide other signs as indicated and as required to inform public and individuals seeking entrance to Project.
      a. Provide temporary, directional signs for construction personnel and visitors.
   3. Maintain and touchup signs so they are legible at all times

B. No nameplates, signs, bills, advertising or displays will be allowed at the site under construction.

Section 19 - CONSTRUCTION FENCES

A. Laydown and Storage areas must be securely enclosed with a minimum of 6’ high chain-link fence. Location shall be coordinated with the Owner and shall be acceptable to Authorities Having Jurisdiction. Each Prime Contractor shall be responsible for securing and paying for fencing. To the extent possible, Contractors are asked to work together to limit the amount of fencing required.

Section 20 - TREE AND PLANT PROTECTION

A. No existing vegetation shall be cut, pruned, tied or removed unless and until the approval of the Owner is obtained. The contractors shall be held responsible for any such damage as a result of his contract. The Architect/Engineer shall determine responsibility for plant damage, and therefore who shall replace or restore the damaged tree or shrub. It is the Owner's intent that existing trees be carefully protected in the area of construction. Each Prime Contractor shall be responsible for protection associated with scope of work with a sound, rigid fence as described in the landscape documents. Lawns damaged by construction activities shall be repaired with sod and established by the Contractor before turning over to the owner.

Section 21 - PRODUCTS

A. Proprietary Articles - In such case where fixtures, materials, or appliances of a special brand are specified without specifically stating that an approved equal may be substituted for them, it shall be understood that articles which are, in the opinion of the Architect/Engineer, of a quality necessary to meet the specifications, or superior in every respect to the originally specified fixture, material or appliance, may be substituted for them upon the written request by the Contractor and written consent by the Architect/Engineer. See also Section 16 of the Instructions to Bidders, and Section 22 below.

B. Manufacturers' Specifications - Mention of a product by a specific name shall imply application of the manufacturer's specifications, except where more stringent specifications are mentioned elsewhere. A copy of the manufacturers' specifications, which apply shall be kept available at the job site. This shall include association specifications having bearing upon related work and work at the site but may be excluded where such qualifications concern only shop-made materials.

C. Substitution of Alternative Materials - To the extent deemed necessary by the Architect/Engineer, producers of alternative materials will be required to furnish samples, literature, test and performance data, record of their installation, names of owners, Architect/Engineers, contractors and subcontractors as references, statement of current financial condition, and any other appropriate technical information. Refer to Instructions to Bidders, Section 16, for the procedure to be used for submission of Substitutes, and to Section 22 below.

Section 22 - STANDARDS OF QUALITY

A. Standards of quality are established by description, by reference to trade names, or by reference to manufacturers' names. The various materials and products specified in this specification by name or description are given to establish a standard of quality and of cost for bid purposes.

B. Where the term "or alternatives of the quality necessary to meet the specifications" may occur it acknowledges the presence of many similar products, unknown or known but not named, which may receive consideration by the Architect/Engineer where an advantage to the Owner might result, such as lower cost, better quality, better color selection, better delivery, or other particulars. Do not base value of the work upon products not named in such instances. Consideration of such alternative products will be given based on difference in contract price where a price difference exists.

C. These provisions are intended to place all bidders on an equal footing; it is not intended to make the documents restrictive, but rather to establish an absolute minimum standard.

Section 23 - CLEANING UP

A. Cleanup is to receive constant attention from start to finish.

1. Each Prime Contractor shall be responsible for securing and paying for dumpsters and trash bins as required for the disposal of demolition and construction debris during the project. To the extent possible, Contractors are asked to work together to limit the quantity of dumpsters required on site at any one time, however, each Prime Contractor remains responsible for the debris of its trade.

    a. The Project Coordinator shall be responsible to coordinate the layout of the construction yard built on site, for exterior material storage, contractor offices, dumpsters, etc. The Project Coordinator shall receive space needs within the yard from all other Prime Contractors and shall issue a coordination drawing to the Owner, Architect, and other Prime Contractors, for the purpose organizing the use of this area and for maintaining this area as small as possible on site.

B. The Contractors are responsible to remove Debris and Trash to the dumpster daily.

1. Owner to notify contractors in writing regarding any failure to clean up site accordingly. If the Contractor fails within seven (7) days after written notice from Owner to correct failures, the Owner may correct, remedy or complete such deficiency. All direct and indirect costs of the Owner exercising such rights shall be charged against the Contractor in an amount verified by the Architect and a Change Order shall be issued incorporating (a) the necessary revisions in the Contract Documents and (b) a reduction in the Contract sum.

C. The Contractors shall protect all surfaces, fixtures and equipment in the area of the work, from dust and debris. If required, the contractor shall clean such surfaces, fixtures and equipment, at the conclusion of the work or intermittently as directed by Owner and/or Architect.

D. The Contractors shall protect all exterior surfaces subject to damage by work vehicles, construction trailers, and/or materials storage. Any damage to hardscape (asphalt, concrete, etc.) and/or lawns and landscape, shall be repaired by the responsible Contractor to a condition equal to, or better than the original, undamaged surface, and at no additional cost to the Owner.

Section 24 – STRUCTURAL OR MEP DEFECTS

A. Contractors shall report in writing to the architect any structural, mechanical or electrical defects that are exposed.

D. No corrective work shall take place before the solution is reviewed with the Architect.

Section 25 - EXPOSED MEP COMPONENTS

A. Any and all mechanical, electrical, and plumbing that is to be exposed in any occupied and/or furnished space shall require written approval from the Architect prior to its installation. The Architect will further direct the location, attachment method, and finish treatment, that these components require as a result of being approved to be exposed.

Section 26 - RETAINAGE

A. Retainage on completed work shall be made on each monthly payment in the amount of ten (10%) percent of the amount due the Contractor until 50% of the contract is completed.

B. When the Contract is fifty (50%) percent completed, the retainage on completed work thereafter on each monthly payment shall be in the amount of five (5%) percent of the amount due the Contractor; provided that the Contractor is making satisfactory progress and there is no specific cause for greater withholding.

C. Provided, however, that in the event that a dispute arises between the contracting body and the prime contractor, which dispute is based upon increased costs claimed by the Prime Contractor occasioned by delays or other actions of others, additional retainage in the sum of one and one-half times the amount of any possible liability may be withheld until such time as a final resolution is agreed to by all parties directly or indirectly involved, unless the Contractor causing the additional claim furnishes a bond satisfactory to the contracting body to indemnify such contracting body against the claim. However, all such monies retained by the contracting body may be withheld from the Contractor until substantial completion of the Contract.

Section 27 - TOUCH-UP AND REPAIR

A. It is the responsibility of the Contractors to walk the project with the Owner and the Architect prior to the start of any work in an area to establish the existing conditions prior to any possible damage. Damage to a part of the existing project, which was not present at the start, which will remain, will be repaired or replaced by the Contractor doing the damage at no cost to the Owner.

Section 28 - ACT 287

A. In accordance with Commonwealth of Pennsylvania Act 287, the Contractor must notify the appropriate underground utility companies at least 72 hours before any excavation is begun. See Section 3, Paragraph B, Item 14, of this General Requirements for the Pennsylvania One Call System, Inc. information.

Section 29 - PUMPING AND BAILING

A. The Contractor will be responsible for removing accumulations of water at all times from the work while the work is in progress, regardless of whether caused by nature, accident, or otherwise. The water must be removed promptly and continuously, if necessary, in order to maintain the progress of all contractors.

Section 30 - WEATHER AND PROTECTION OF WORK

A. The Contractor shall furnish and maintain proper protection for his work, existing facilities, and new and existing materials from damage by cold or inclement weather or windstorm, and if, in the opinion of the Architect/Engineer, any of the work or Contractor's materials, or other portions of the building, shall have been damaged or injured by reason of Contractor's failure to provide such protection, such damage or injury shall be rectified by that Contractor at his own expense (less any amount collectible under any insurance coverage in effect). There shall be no limit to the scope of this protection.

Section 31 - EQUAL OPPORTUNITY

A. Prime Contractors and all subcontractors, performing any portion of the work, shall not discriminate against any employee or applicant for employment because of race, religion, color, sex or national origin. Contractor shall take affirmative action to ensure that applicants are employed, and the employees are treated during employment, without regard to their race, religion, color, sex or national origin. Such action shall include, but not be limited to, the following: employment, demotion or transfer; recruitment of recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. Contractors agree to post in conspicuous places, available to employees and applicants for employment, notices setting forth the policies of non-discrimination.

B. Contractor and all subcontractors shall in all solicitations or advertisements for employees placed by them or on their behalf, state the all qualified applicants will receive consideration for employment without regard to race, religion, color, sex or national origin.

Section 32 - PUBLIC WORKS EMPLOYMENT VERIFICATION ACT REQUIREMENTS

A. The Contractor and every subcontractor performing work under the contract shall utilize the E-Verify Program (EVP) operated by the United States Department of Homeland Security to electronically verify the employment eligibility of each new employee hired after January 1, 2013.

B. The Contractor, as a precondition of the contract, shall submit the Public Works Employment Verification Form to the District along with its Payment Bond, Performance Bond, Certificates of Insurance and Form Contract.

C. Every subcontractor shall submit a completed Public Works Employment Verification Form to the District prior to performing work on the Project.

D. During the term of the Contract, each new employee hired by the Contractor, regardless of whether the employee will be working onsite or offsite of the Project, shall be verified within 5 business days of his or her start date.

E. During the Project, a new employee hired by a subcontractor, regardless of whether the employee will be working onsite or offsite of a public work or otherwise, shall be verified within 5 business days of his or her start date.

F. Subcontracts between the Contractor and its subcontractors and between subcontractors of any tier and their subcontractors are required to contain notification of the applicability of the Act, information regarding the use of EVP and reference to the Department's web site at www.dgs.state.pa.us to obtain a copy of the Form.

G. The Contractor and all subcontractors shall cooperate with the Department during an investigation or audit arising under the Act.

H. The Contractor and every subcontractor shall maintain documentation of continued compliance with the Act by utilizing the EVP for new employees hired throughout the duration of the public work contract.

Section 33 - AS BUILT DRAWINGS AND CLOSE OUT BINDERS

A. All required documentation shall be furnished to the Owner and Architect in electronic form, in addition to the paper copy described below. Provide all information on USB Drive (2 total).

B. It will be necessary to produce "As-Built" drawings, at completion of the project, in order to receive final retainage monies. The necessary sets of base drawings will be furnished by the Owner to the contractor for **(1) one set** of such “As-Built” drawings.

C. The Contractor will be responsible for documenting their respective work as well as their subcontractors’ work. A job record of material delivery dates, commencement of significant installations, and other job issues shall be turned over to the Owner at the completion of the project.

D. The Contractor shall always keep said contractor’s project drawings up to date, marking final location data on them in colored pencil or ink. When requested, they shall mark all location and dimension data on a clean set of base drawings and send them to the Architect, certifying on the prints that the information shown has been verified and found correct. At the conclusion of the project, the Contractor will turn over to the Architect the original record set of field verified “As built” drawings and one exact copy.
   1. The Contractor shall mark the cover sheet of the “As-Built” set of drawings with their company name, address, phone number and website address, as well as with the title, “Contractor’s As-Built Drawings”.

E. At the conclusion of the project the Contractor shall turn over to the Owner **one (1) three-ring binder** containing the following materials:
   a. Written warranties on all equipment and material.
   b. Specification sheets provided by manufacturers for all equipment and material (same as final, approved submittal).
   c. Equipment and material maintenance manuals.
   d. Final project accounting report indicating all change orders and final costs.
   e. Executed Release of Liens.
   f. See also General Conditions, Item 9.10.2 for additional Closeout Requirements.

END OF GENERAL REQUIREMENTS

SECTION 08 71 00 – DOOR HARDWARE

PART 1 - GENERAL

1.01 SUMMARY

A. Section includes:

1. Mechanical and electrified door hardware
2. Electronic access control system components
3. Field verification, preparation and modification of existing doors and frames to receive new door hardware.

B. Section excludes:

1. Windows
2. Cabinets (casework), including locks in cabinets
3. Signage
4. Toilet accessories
5. Overhead doors

C. Related Sections:

1. Division 01 Section “Alternates” for alternates affecting this section.
2. Division 06 Section “Rough Carpentry”
3. Division 06 Section "Finish Carpentry”
4. Division 07 Section “Joint Sealants” for sealant requirements applicable to threshold installation specified in this section.
5. Division 08 Sections:

   a. “Metal Doors and Frames”
   b. “Flush Wood Doors”
   c. “Stile and Rail Wood Doors”
   d. “Interior Aluminum Doors and Frames”
   e. "Aluminum-Framed Entrances and Storefronts"
   f. “Stainless Steel Doors and Frames”
   g. “Special Function Doors”
   h. "Entrances”

6. Division 09 sections for touchup, finishing or refinishing of existing openings modified by this section.
7. Division 26 “Electrical” sections for connections to electrical power system and for low-voltage wiring.
8. Division 28 “Electronic Safety and Security” sections for coordination with other components of electronic access control system and fire alarm system.

1.02 REFERENCES

A. UL - Underwriters Laboratories

1. UL 10B - Fire Test of Door Assemblies
2. UL 10C - Positive Pressure Test of Fire Door Assemblies
3. UL 1784 - Air Leakage Tests of Door Assemblies
4. UL 305 - Panic Hardware

B. DHI - Door and Hardware Institute

1. Sequence and Format for the Hardware Schedule
2. Recommended Locations for Builders Hardware
3. Keying Systems and Nomenclature
4. Installation Guide for Doors and Hardware

C. NFPA – National Fire Protection Association

1. NFPA 70 – National Electric Code
2. NFPA 80 – 2016 Edition – Standard for Fire Doors and Other Opening Protectives
3. NFPA 101 – Life Safety Code
4. NFPA 105 – Smoke and Draft Control Door Assemblies
5. NFPA 252 – Fire Tests of Door Assemblies

D. ANSI - American National Standards Institute

1. ANSI A117.1 – 2017 Edition – Accessible and Usable Buildings and Facilities
2. ANSI/BHMA A156.1 - A156.29, and ANSI/BHMA A156.31 - Standards for Hardware and Specialties
3. ANSI/BHMA A156.28 - Recommended Practices for Keying Systems
4. ANSI/WDMA I.S. 1A - Interior Architectural Wood Flush Doors
5. ANSI/SDI A250.8 - Standard Steel Doors and Frames

1.03 SUBMITTALS

A. General:

1. Submit in accordance with Conditions of Contract and Division 01 Submittal Procedures.
2. Prior to forwarding submittal:

   a. Comply with procedures for verifying existing door and frame compatibility for new hardware, as specified in PART 3, “EXAMINATION” article, herein.
   b. Review drawings and Sections from related trades to verify compatibility with specified hardware.
   c. Highlight, encircle, or otherwise specifically identify on submittals: deviations from Contract Documents, issues of incompatibility or other issues which may detrimentally affect the Work.

B. Action Submittals:

1. Product Data: Submit technical product data for each item of door hardware, installation instructions, maintenance of operating parts and finish, and other information necessary to show compliance with requirements.
2. Riser and Wiring Diagrams: After final approval of hardware schedule, submit details of electrified door hardware, indicating:

    a. Wiring Diagrams: For power, signal, and control wiring and including:
        1) Details of interface of electrified door hardware and building safety and security systems.
        2) Schematic diagram of systems that interface with electrified door hardware.
        3) Point-to-point wiring.
        4) Risers.

3. Samples for Verification: If requested by Architect, submit production sample of requested door hardware unit in finish indicated and tagged with full description for coordination with schedule.

    a. Samples will be returned to supplier. Units that are acceptable to Architect may, after final check of operations, be incorporated into Work, within limitations of key coordination requirements.

4. Door Hardware Schedule:

    a. Submit concurrent with submissions of Product Data, Samples, and Shop Drawings. Coordinate submission of door hardware schedule with scheduling requirements of other work to facilitate fabrication of other work critical in Project construction schedule.
    b. Submit under direct supervision of a Door Hardware Institute (DHI) certified Architectural Hardware Consultant (AHC) or Door Hardware Consultant (DHC) with hardware sets in vertical format as illustrated by Sequence of Format for the Hardware Schedule published by DHI.
    c. Indicate complete designations of each item required for each opening, include:
        1) Door Index: door number, heading number, and Architect’s hardware set number.
        2) Quantity, type, style, function, size, and finish of each hardware item.
        3) Name and manufacturer of each item.
        4) Fastenings and other pertinent information.
        5) Location of each hardware set cross-referenced to indications on Drawings.
        6) Explanation of all abbreviations, symbols, and codes contained in schedule.
        7) Mounting locations for hardware.
        8) Door and frame sizes and materials.
        9) Degree of door swing and handing.
        10) Operational Description of openings with electrified hardware covering egress, ingress (access), and fire/smoke alarm connections.

5. Key Schedule:

    a. After Keying Conference, provide keying schedule that includes levels of keying, explanations of key system's function, key symbols used, and door numbers controlled.

b. Use ANSI/BHMA A156.28 “Recommended Practices for Keying Systems” as guideline for nomenclature, definitions, and approach for selecting optimal keying system.
c. Provide 3 copies of keying schedule for review prepared and detailed in accordance with referenced DHI publication. Include schematic keying diagram and index each key to unique door designations.
d. Index keying schedule by door number, keyset, hardware heading number, cross keying instructions, and special key stamping instructions.
e. Provide one complete bitting list of key cuts and one key system schematic illustrating system usage and expansion. Forward bitting list, key cuts and key system schematic directly to Owner, by means as directed by Owner.
f. Prepare key schedule by or under supervision of supplier, detailing Owner’s final keying instructions for locks.

C. Informational Submittals:

1. Provide Qualification Data for Supplier, Installer and Architectural Hardware Consultant.
2. Provide Product Data:

a. Certify that door hardware approved for use on types and sizes of labeled fire-rated doors complies with listed fire-rated door assemblies.
b. Include warranties for specified door hardware.

D. Closeout Submittals:

1. Operations and Maintenance Data: Provide in accordance with Division 01 and include:

a. Complete information on care, maintenance, and adjustment; data on repair and replacement parts, and information on preservation of finishes.
b. Catalog pages for each product.
c. Final approved hardware schedule edited to reflect conditions as installed.
d. Final keying schedule
e. Copy of warranties including appropriate reference numbers for manufacturers to identify project.
f. As-installed wiring diagrams for each opening connected to power, both low voltage and 110 volts.

E. Inspection and Testing:

1. Submit written reports to the Owner and Authority Having Jurisdiction (AHJ) of the results of functional testing and inspection for:

a. fire door assemblies, in compliance with NFPA 80.
b. required egress door assemblies, in compliance with NFPA 101.

1.04 QUALITY ASSURANCE

A. Qualifications and Responsibilities:

1. Supplier: Recognized architectural hardware supplier with a minimum of 5 years documented experience supplying both mechanical and electromechanical door hardware similar in quantity, type, and quality to that indicated for this Project. Supplier to be recognized as a factory direct distributor by the manufacturer of the primary materials with a warehousing facility in the Project's vicinity. Supplier to have on staff, a certified Architectural Hardware Consultant (AHC) or Door Hardware Consultant (DHC) available to Owner, Architect, and Contractor, at reasonable times during the Work for consultation.
2. Installer: Qualified tradesperson skilled in the application of commercial grade hardware with experience installing door hardware similar in quantity, type, and quality as indicated for this Project.
3. Architectural Hardware Consultant: Person who is experienced in providing consulting services for door hardware installations that are comparable in material, design, and extent to that indicated for this Project and meets these requirements:

   a. For door hardware: DHI certified AHC or DHC.
   b. Can provide installation and technical data to Architect and other related subcontractors.
   c. Can inspect and verify components are in working order upon completion of installation.
   d. Capable of producing wiring diagram and coordinating installation of electrified hardware with Architect and electrical engineers.

4. Single Source Responsibility: Obtain each type of door hardware from single manufacturer.

B. Certifications:

1. Fire-Rated Door Openings:

   a. Provide door hardware for fire-rated openings that complies with NFPA 80 and requirements of authorities having jurisdiction.
   b. Provide only items of door hardware that are listed products tested by Underwriters Laboratories, Intertek Testing Services, or other testing and inspecting organizations acceptable to authorities having jurisdiction for use on types and sizes of doors indicated, based on testing at positive pressure and according to NFPA 252 or UL 10C and in compliance with requirements of fire-rated door and door frame labels.

2. Smoke and Draft Control Door Assemblies:

   a. Provide door hardware that meets requirements of assemblies tested according to UL 1784 and installed in compliance with NFPA 105
   b. Comply with the maximum air leakage of 0.3 cfm/sq. ft. (3 cu. m per minute/sq. m) at tested pressure differential of 0.3-inch wg (75 Pa) of water.

3. Electrified Door Hardware

   a. Listed and labeled as defined in NFPA 70, Article 100, by testing agency acceptable to authorities having jurisdiction.

4. Accessibility Requirements:

    a. Comply with governing accessibility regulations cited in "REFERENCES" article 087100, 1.02.D3 herein for door hardware on doors in an accessible route. This project must comply with all Federal Americans with Disability Act regulations and all Local Accessibility Regulations.

C. Pre-Installation Meetings

1. Keying Conference

    a. Incorporate keying conference decisions into final keying schedule after reviewing door hardware keying system including:
        1) Function of building, flow of traffic, purpose of each area, degree of security required, and plans for future expansion.
        2) Preliminary key system schematic diagram.
        3) Requirements for key control system.
        4) Requirements for access control.
        5) Address for delivery of keys.

2. Pre-installation Conference

    a. Review and finalize construction schedule and verify availability of materials, Installer's personnel, equipment, and facilities needed to make progress and avoid delays.
    b. Inspect and discuss preparatory work performed by other trades.
    c. Inspect and discuss electrical roughing-in for electrified door hardware.
    d. Review sequence of operation for each type of electrified door hardware.
    e. Review required testing, inspecting, and certifying procedures.
    f. Review questions or concerns related to proper installation and adjustment of door hardware.

3. Electrified Hardware Coordination Conference:

    a. Prior to ordering electrified hardware, schedule and hold meeting to coordinate door hardware with security, electrical, doors and frames, and other related suppliers.

1.05 DELIVERY, STORAGE, AND HANDLING

A. Inventory door hardware on receipt and provide secure lock-up for hardware delivered to Project site. Promptly replace products damaged during shipping.

B. Tag each item or package separately with identification coordinated with final door hardware schedule, and include installation instructions, templates, and necessary fasteners with each item or package. Deliver each article of hardware in manufacturer's original packaging.

C. Maintain manufacturer-recommended environmental conditions throughout storage and installation periods.

D. Provide secure lock-up for door hardware delivered to Project. Control handling and installation of hardware items so that completion of Work will not be delayed by hardware losses both before and after installation.

E. Handle hardware in manner to avoid damage, marring, or scratching. Correct, replace or repair products damaged during Work. Protect products against malfunction due to paint, solvent, cleanser, or any chemical agent.

F. Deliver keys to manufacturer of key control system for subsequent delivery to Owner.

1.06 COORDINATION

A. Coordinate layout and installation of floor-recessed door hardware with floor construction. Cast anchoring inserts into concrete.

B. Installation Templates: Distribute for doors, frames, and other work specified to be factory or shop prepared. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing door hardware to comply with indicated requirements.

C. Security: Coordinate installation of door hardware, keying, and access control with Owner's security consultant.

D. Electrical System Roughing-In: Coordinate layout and installation of electrified door hardware with connections to power supplies and building safety and security systems.

E. Existing Openings: Where existing doors, frames and/or hardware are to remain, field verify existing functions, conditions and preparations and coordinate to suit opening conditions and to provide proper door operation.

1.07 WARRANTY

A. Manufacturer's standard form in which manufacturer agrees to repair or replace components of door hardware that fail in materials or workmanship within published warranty period.

1. Warranty does not cover damage or faulty operation due to improper installation, improper use or abuse.
2. Warranty Period: Beginning from date of Substantial Completion, for durations indicated in manufacturer’s published listings.

a. Mechanical Warranty
1) Locks
a) Schlage ND Series: 10 year
2) Exit Devices
a) Von Duprin: 3 year
3) Closers
a) LCN 4000 Series: 30 year
4) Automatic Operators
a) LCN: 2 years

Electrical Warranty

5) Exit Devices
   a) Von Duprin: 1 year

1.08 MAINTENANCE

A. Furnish complete set of special tools required for maintenance and adjustment of hardware, including changing of cylinders.

B. Turn over unused materials to Owner for maintenance purposes.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

A. The Owner requires use of certain products for their unique characteristics and project suitability to ensure continuity of existing and future performance and maintenance standards. After investigating available product offerings, the Awarding Authority has elected to prepare proprietary specifications. These products are specified with the notation: “No Substitute.”

1. Where “No Substitute” is noted, submittals and substitution requests for other products will not be considered.

B. Approval of manufacturers and/or products other than those listed as “Scheduled Manufacturer” or “Acceptable Manufacturers” in the individual article for the product category shall be in accordance with QUALITY ASSURANCE article, herein.

C. Approval of products from manufacturers indicated in “Acceptable Manufacturers” is contingent upon those products providing all functions and features and meeting all requirements of scheduled manufacturer’s product.

D. Where specified hardware is not adaptable to finished shape or size of members requiring hardware, furnish suitable types having same operation and quality as type specified, subject to Architect's approval.

2.02 MATERIALS

A. Fabrication

1. Provide door hardware manufactured to comply with published templates generally prepared for machine, wood, and sheet metal screws. provide screws according to manufacturer’s recognized installation standards for application intended.
2. Finish exposed screws to match hardware finish, or, if exposed in surfaces of other work, to match finish of this other work including prepared for paint surfaces to receive painted finish.

3. Provide concealed fasteners wherever possible for hardware units exposed when door is closed. Coordinate with “Metal Doors and Frames”, “Flush Wood Doors”, “Stile and Rail Wood Doors” to ensure proper reinforcements. Advise the Architect where visible fasteners, such as thru bolts, are required.

B. Modification and Preparation of Existing Doors: Where existing door hardware is indicated to be removed and reinstalled.

1. Provide necessary fillers, Dutchmen, reinforcements, and fasteners, compatible with existing materials, as required for mounting new opening hardware and to cover existing door and frame preparations.
2. Use materials which match materials of adjacent modified areas.
3. When modifying existing fire-rated openings, provide materials permitted by NFPA 80 as required to maintain fire-rating.

C. Provide screws, bolts, expansion shields, drop plates and other devices necessary for hardware installation.

1. Where fasteners are exposed to view: Finish to match adjacent door hardware material.

2.03 CONTINUOUS HINGES

A. Manufacturers:

1. Scheduled Manufacturer:

a. Ives

2. Acceptable Manufacturers:

a. Stanley
b. Hager

B. Requirements:

1. Provide aluminum geared continuous hinges conforming to ANSI/BHMA A156.26, Grade 1.
2. Provide aluminum geared continuous hinges, where specified in the hardware sets, fabricated from 6063-T6 aluminum.
3. Provide split nylon bearings at each hinge knuckle for quiet, smooth, self-lubricating operation.
4. Provide hinges capable of supporting door weights up to 450 pounds, and successfully tested for 1,500,000 cycles.
5. On fire-rated doors, provide aluminum geared continuous hinges classified for use on rated doors by testing agency acceptable to authority having jurisdiction.
6. Provide aluminum geared continuous hinges with electrified option scheduled in the hardware sets. Provide with number and gage of wires enough to accommodate electric function of specified hardware.

7. Provide hinges 1 inch (25 mm) shorter in length than nominal height of door, unless otherwise noted or door details require shorter length and with symmetrical hole pattern.

2.04 ELECTRIC POWER TRANSFER

A. Manufacturers:

1. Scheduled Manufacturer and Product:

a. Von Duprin EPT-10

2. Acceptable Manufacturers and Products:

a. ABH PT1000
b. Precision EPT-12C

B. Requirements:

1. Provide power transfer with electrified options as scheduled in the hardware sets. Provide with number and gage of wires enough to accommodate electric function of specified hardware.
2. Locate electric power transfer per manufacturer’s template and UL requirements, unless interference with operation of door or other hardware items.

2.05 CYLINDRICAL LOCKS – GRADE 1

A. Manufacturers and Products:

1. Scheduled Manufacturer and Product:

a. Best 9K series

2. Acceptable Manufacturers and Products:

a. Schlage ND series
b. Sargent 11-Line
c. Corbin-Russwin CL3100 series

B. Requirements:

1. Provide cylindrical locks conforming to ANSI/BHMA A156.2 Series 4000, Grade 1, and UL Listed for 3-hour fire doors.
2. Cylinders: Refer to “KEYING” article, herein.
3. Provide locks with standard 2-3/4 inches (70 mm) backset, unless noted otherwise, with 1/2-inch latch throw. Provide proper latch throw for UL listing at pairs.
4. Provide locksets with separate anti-rotation thru-bolts, and no exposed screws.
5. Provide independently operating levers with two external return spring cassettes mounted under roses to prevent lever sag.
6. Provide standard ASA strikes unless extended lip strikes are necessary to protect trim.

7. Provide electrified options as scheduled in the hardware sets.
8. Lever Trim: Solid cast levers without plastic inserts and wrought roses on both sides.

    a. Lever Design: Rhodes

2.06 EXIT DEVICES

A. Manufacturers and Products:

1. Scheduled Manufacturer and Product:

    a. Von Duprin 98/35A series
        1) District Standard

B. Requirements:

1. Provide exit devices tested to ANSI/BHMA A156.3 Grade 1 and UL listed for Panic Exit or Fire Exit Hardware.
2. Cylinders: Refer to “KEYING” article, herein.
3. Provide smooth touchpad type exit devices, fabricated of brass, bronze, stainless steel, or aluminum, plated to standard architectural finishes to match balance of door hardware.
4. Touchpad must extend a minimum of one half of door width. No plastic inserts are allowed in touchpads.
5. Provide exit devices with deadlatching feature for security and for future addition of alarm kits and/or other electrified requirements.
6. Provide exit devices with weather resistant components that can withstand harsh conditions of various climates and corrosive cleaners used in outdoor pool environments.
7. Provide flush end caps for exit devices.
8. Provide exit devices with manufacturer’s approved strikes.
9. Provide exit devices cut to door width and height. Install exit devices at height recommended by exit device manufacturer, allowable by governing building codes, and approved by Architect.
10. Mount mechanism case flush on face of doors or provide spacers to fill gaps behind devices. Where glass trim or molding projects off face of door, provide glass bead kits.
11. Provide cylinder or hex-key dogging as specified at non fire-rated openings.
12. Removable Mullions: 2 inches (51 mm) x 3 inches (76 mm) steel tube. Where scheduled as keyed removable mullion, provide type that can be removed by use of a keyed cylinder, which is self-locking when re-installed.
13. Provide factory drilled weep holes for exit devices used in full exterior application, highly corrosive areas, and where noted in hardware sets.
14. Provide electrified options as scheduled.
15. Top latch mounting: double- or single-tab mount for steel doors, face mount for aluminum doors eliminating requirement of tabs, and double tab mount for wood doors.
16. Provide exit devices with optional trim designs to match other lever and pull designs used on the project.
17. Special Options:

a. QM: Rim Exit Devices: provide devices with damper-controlled re-latching to reduce operational noise. Where lever trim is specified, provide damper controlled lever return.
b. governing delayed egress, and/or other local and national fire codes acceptable to authority having jurisdiction as required.
    1) Provide non-handed and field sizable device with 3/4 (19mm) throw deadlocking latch bolt. Device incorporates an internal RX switch that detects attempt to exit from applying less than 15lbs to the push pad, which causes this switch to start an irreversible alarm cycle. Key switch in device is capable of arming, disarming, or resetting the device; and indicator lamp determines status of the device
    2) Provide devices capable of standard 15 second release delay and indefinite release delay as required by code, when tied into fire alarm system will release immediately when an alarm condition exists.
    3) Provide devices with all control inputs – door position input, external inhibit input, fire alarm input; auxiliary locking; nuisance alarm and internal horn; and, remote signaling output self-contained in the device assembly.

2.07 PUSHBUTTONS

A. Manufacturers and Products:

1. Scheduled Manufacturer and Product:

    a. Schlage 660 Series

2. Acceptable Manufacturers and Products:

    a. No Substitute

B. Requirements:

1. Provide push buttons as specified in hardware groups.

2.08 POWER SUPPLIES

A. Manufacturers and Products:

1. Scheduled Manufacturer and Product:

    a. Schlage/Von Duprin PS900 Series

2. Acceptable Manufacturers and Products:

    a. Precision ELR series
    b. Security Door Controls 600 series

B. Requirements:

1. Provide power supplies approved by manufacturer of supplied electrified hardware.

2. Provide appropriate quantity of power supplies necessary for proper operation of electrified locking components as recommended by manufacturer of electrified locking components with consideration for each electrified component using power supply, location of power supply, and approved wiring diagrams. Locate power supplies as directed by Architect.
3. Provide regulated and filtered 24 VDC power supply, and UL class 2 listed.
4. Provide power supplies with the following features:

    a. 12/24 VDC Output, field selectable.
    b. Class 2 Rated power limited output.
    c. Universal 120-240 VAC input.
    d. Low voltage DC, regulated and filtered.
    e. Polarized connector for distribution boards.
    f. Fused primary input.
    g. AC input and DC output monitoring circuit w/LED indicators.
    h. Cover mounted AC Input indication.
    i. Tested and certified to meet UL294.
    j. NEMA 1 enclosure.
    k. Hinged cover w/lock down screws.
    l. High voltage protective cover.

2.09 CYLINDERS

1. Manufacturers:

    a. Scheduled Manufacturer and Product:
        1) Best

    b. Acceptable Manufacturers and Products:

        1) No Substitute

2. Requirements:

    a. Provide cylinders/cores to match Owner's existing key system, compliant with ANSI/BHMA A156.5; latest revision; cylinder face finished to match lockset, manufacturer's series as indicated. Refer to "KEYING" article, herein.

2.10 DOOR CLOSERS

A. Manufacturers and Products:

1. Scheduled Manufacturer and Product:

    a. LCN 4040XP series
        1) District Standard

B. Requirements:

1. Provide door closers conforming to ANSI/BHMA A156.4 Grade 1 requirements by BHMA certified independent testing laboratory. ISO 9000 certify closers. Stamp units with date of manufacture code.
2. Provide door closers with fully hydraulic, full rack and pinion action with high strength cast iron cylinder, and full complement bearings at shaft.
3. Cylinder Body: 1-1/2-inch (38 mm) diameter with 5/8-inch (16 mm) diameter double heat-treated pinion journal.
4. Hydraulic Fluid: Fireproof, passing requirements of UL10C, and requiring no seasonal closer adjustment for temperatures ranging from 120 degrees F to -30 degrees F.
5. Spring Power: Continuously adjustable over full range of closer sizes, and providing reduced opening force as required by accessibility codes and standards.
6. Hydraulic Regulation: By tamper-proof, non-critical valves, with separate adjustment for latch speed, general speed, and backcheck.
7. Provide closers with solid forged steel main arms and factory assembled heavy-duty forged forearms for parallel arm closers.
8. Pressure Relief Valve (PRV) Technology: Not permitted.
9. Finish for Closer Cylinders, Arms, Adapter Plates, and Metal Covers: Powder coating finish which has been certified to exceed 100 hours salt spray testing as described in ANSI Standard A156.4 and ASTM B117, or has special rust inhibitor (SRI).
10. Provide special templates, drop plates, mounting brackets, or adapters for arms as required for details, overhead stops, and other door hardware items interfering with closer mounting.

2.11 ELECTRO-MECHANICAL AUTOMATIC OPERATORS

A. Manufacturers and Products:

1. Scheduled Manufacturer and Product:

   a. LCN Senior Swing

B. Requirements:

1. Provide low energy automatic operator units that are electro-mechanical design complying with ANSI/BHMA A156.19.

   a. Opening: Powered by DC motor working through reduction gears.
   b. Closing: Spring force.
   c. Manual, hydraulic, or chain drive closers: Not permitted.
   d. Operation: Motor is off when door is in closing mode. Door can be manually operated with power on or off without damage to operator. Provide variable adjustments, including opening and closing speed adjustment.
   e. Cover: Aluminum.

2. Provide units with manual off/auto/hold-open switch, push and go function to activate power operator, vestibule interface delay, electric lock delay, hold-open delay adjustable from 1 to 32 seconds, and logic terminal to interface with accessories, mats, and sensors.
3. Provide drop plates, brackets, and adapters for arms as required to suit details.

4. Provide hard-wired motion sensors and/or actuator switches, and receivers for operation as specified. Provide weather-resistant actuators at exterior applications.
5. Provide key switches, with LED's, recommended and approved by manufacturer of automatic operator as required for function as described in operation description of hardware sets. Cylinders: Refer to "KEYING" article, herein.
6. Provide complete assemblies of controls, switches, power supplies, relays, and parts/material recommended and approved by manufacturer of automatic operator for each individual leaf. Actuators control both doors simultaneously at pairs. Sequence operation of exterior and vestibule doors with automatic operators to allow ingress or egress through both sets of openings as directed by Architect. Locate actuators, key switches, and other controls as directed by Architect.

2.12 DOOR TRIM

A. Manufacturers:

1. Scheduled Manufacturer:

   a. Ives.

2. Acceptable Manufacturers:

   a. Trimco
   b. Burns

B. Requirements:

1. Provide push plates, push bars, pull plates, pulls, and hands-free reversible door pulls with diameter and length as scheduled.

2.13 PROTECTION PLATES

A. Manufacturers:

1. Scheduled Manufacturer:

   a. Ives

2. Acceptable Manufacturers:

   a. Burns
   b. Trimco

B. Requirements:

1. Provide protection plates with a minimum of 0.050 inch (1 mm) thick, beveled four edges as scheduled. Furnish with sheet metal or wood screws, finished to match plates.

2. Sizes plates 2 inches (51 mm) less width of door on single doors, pairs of doors with a mullion, and doors with edge guards. Size plates 1 inch (25 mm) less width of door on pairs without a mullion or edge guards.
3. At fire rated doors, provide protection plates over 16 inches high with UL label.

2.14 THRESHOLDS, SEALS, DOOR SWEEPS, AUTOMATIC DOOR BOTTOMS, AND GASKETING

A. Manufacturers:

1. Scheduled Manufacturer:

   a. Zero International

2. Acceptable Manufacturers:

   a. National Guard
   b. Pemko

B. Requirements:

1. Provide thresholds, weather-stripping, and gasketing systems as specified and per architectural details. Match finish of other items.
2. Smoke- and Draft-Control Door Assemblies: Where smoke- and draft-control door assemblies are required, provide door hardware that meets requirements of assemblies tested according to UL 1784 and installed in compliance with NFPA 105.
3. Provide door sweeps, seals, astragals, and auto door bottoms only of type where resilient or flexible seal strip is easily replaceable and readily available.
4. Size thresholds 1/2 inch (13 mm) high by 5 inches (127 mm) wide by door width unless otherwise specified in the hardware sets or detailed in the drawings.

2.15 DOOR POSITION SWITCHES

A. Manufacturers:

1. Scheduled Manufacturer:

   a. Schlage

2. Acceptable Manufacturers:

   a. GE-Interlogix
   b. Sargent

B. Requirements:

1. Provide recessed or surface mounted type door position switches as specified.

2. Coordinate door and frame preparations with door and frame suppliers. If switches are being used with magnetic locking device, provide minimum of 4 inches (102 mm) between switch and magnetic locking device.

2.16 FINISHES

A. Finish: BHMA 626/652 (US26D); except:

1. Hinges at Exterior Doors: BHMA 630 (US32D)
2. Aluminum Geared Continuous Hinges: BHMA 628 (US28)
3. Push Plates, Pulls, and Push Bars: BHMA 630 (US32D)
4. Protection Plates: BHMA 630 (US32D)
5. Overhead Stops and Holders: BHMA 630 (US32D)
6. Door Closers: Powder Coat to Match
7. Wall Stops: BHMA 630 (US32D)
8. Latch Protectors: BHMA 630 (US32D)
9. Weatherstripping: Clear Anodized Aluminum
10. Thresholds: Mill Finish Aluminum

PART 3 - EXECUTION

3.01 EXAMINATION

A. Prior to installation of hardware, examine doors and frames, with Installer present, for compliance with requirements for installation tolerances, labeled fire-rated door assembly construction, wall and floor construction, and other conditions affecting performance. Verify doors, frames, and walls have been properly reinforced for hardware installation.

B. Field verify existing doors and frames receiving new hardware and existing conditions receiving new openings. Verify that new hardware is compatible with existing door and frame preparation and existing conditions.

C. Examine roughing-in for electrical power systems to verify actual locations of wiring connections before electrified door hardware installation.

D. Submit a list of deficiencies in writing and proceed with installation only after unsatisfactory conditions have been corrected.

3.02 PREPARATION

A. Where on-site modification of doors and frames is required:

1. Carefully remove existing door hardware and components being reused. Clean, protect, tag, and store in accordance with storage and handling requirements specified herein.
2. Field modify and prepare existing doors and frames for new hardware being installed.
3. When modifications are exposed to view, use concealed fasteners, when possible.

4. Prepare hardware locations and reinstall in accordance with installation requirements for new door hardware and with:

   a. Steel Doors and Frames: For surface applied door hardware, drill and tap doors and frames according to ANSI/SDI A250.6.
   b. Wood Doors: DHI WDHS.5 "Recommended Hardware Reinforcement Locations for Mineral Core Wood Flush Doors."
   c. Doors in rated assemblies: NFPA 80 for restrictions on on-site door hardware preparation.

3.03 INSTALLATION

A. Mount door hardware units at heights to comply with the following, unless otherwise indicated or required to comply with governing regulations.

   1. Standard Steel Doors and Frames: ANSI/SDI A250.8.
   2. Custom Steel Doors and Frames: HMMA 831.
   3. Interior Architectural Wood Flush Doors: ANSI/WDMA I.S. 1A
   4. Installation Guide for Doors and Hardware: DHI TDH-007-20

B. Install door hardware in accordance with NFPA 80, NFPA 101 and provide post-install inspection, testing as specified in section 1.03.E unless otherwise required to comply with governing regulations.

C. Install each hardware item in compliance with manufacturer’s instructions and recommendations, using only fasteners provided by manufacturer.

D. Do not install surface mounted items until finishes have been completed on substrate. Protect all installed hardware during painting.

E. Set units level, plumb and true to line and location. Adjust and reinforce attachment substrate as necessary for proper installation and operation.

F. Drill and countersink units that are not factory prepared for anchorage fasteners. Space fasteners and anchors according to industry standards.

G. Install operating parts so they move freely and smoothly without binding, sticking, or excessive clearance.

H. Hinges: Install types and in quantities indicated in door hardware schedule but not fewer than quantity recommended by manufacturer for application indicated.

I. Wiring: Coordinate with Division 26, ELECTRICAL and Division 28 ELECTRONIC SAFETY AND SECURITY sections for:

   1. Conduit, junction boxes and wire pulls.
   2. Connections to and from power supplies to electrified hardware.
   3. Connections to fire/smoke alarm system and smoke evacuation system.

4. Connection of wire to door position switches and wire runs to central room or area, as directed by Architect.
5. Connections to panel interface modules, controllers, and gateways.
6. Testing and labeling wires with Architect's opening number.

J. Key Control System: Tag keys and place them on markers and hooks in key control system cabinet, as determined by final keying schedule.

K. Door Closers: Mount closers on room side of corridor doors, inside of exterior doors, and stair side of stairway doors from corridors. Mount closers so they are not visible in corridors, lobbies and other public spaces unless approved by Architect.

L. Closer/Holders: Mount closer/holders on room side of corridor doors, inside of exterior doors, and stair side of stairway doors.

M. Power Supplies: Locate power supplies as indicated or, if not indicated, above accessible ceilings or in equipment room, or alternate location as directed by Architect.

N. Thresholds: Set thresholds in full bed of sealant complying with requirements specified in Division 07 Section "Joint Sealants."

O. Stops: Provide floor stops for doors unless wall or other type stops are indicated in door hardware schedule. Do not mount floor stops where they may impede traffic or present tripping hazard.

P. Perimeter Gasketing: Apply to head and jamb, forming seal between door and frame.

Q. Meeting Stile Gasketing: Fasten to meeting stiles, forming seal when doors are closed.

R. Door Bottoms and Sweeps: Apply to bottom of door, forming seal with threshold when door is closed.

3.04 ADJUSTING

A. Initial Adjustment: Adjust and check each operating item of door hardware and each door to ensure proper operation or function of every unit. Replace units that cannot be adjusted to operate as intended. Adjust door control devices to compensate for final operation of heating and ventilating equipment and to comply with referenced accessibility requirements.

1. Spring Hinges: Adjust to achieve positive latching when door can close freely from an open position of 30 degrees.
2. Electric Strikes: Adjust horizontal and vertical alignment of keeper to properly engage lock bolt.
3. Door Closers: Adjust sweep period to comply with accessibility requirements and requirements of authorities having jurisdiction.

B. Occupancy Adjustment: Approximately three to six months after date of Substantial Completion, examine and readjust each item of door hardware, including adjusting operating forces, as necessary to ensure function of doors and door hardware.

3.05 CLEANING AND PROTECTION

A. Clean adjacent surfaces soiled by door hardware installation.

B. Clean operating items per manufacturer’s instructions to restore proper function and finish.

C. Provide final protection and maintain conditions that ensure door hardware is without damage or deterioration at time of Substantial Completion.

3.06 DOOR HARDWARE SCHEDULE

A. The intent of the hardware specification is to specify the hardware for interior and exterior doors, and to establish a type, continuity, and standard of quality. However, it is the door hardware supplier’s responsibility to thoroughly review existing conditions, schedules, specifications, drawings, and other Contract Documents to verify the suitability of the hardware specified.

B. Discrepancies, conflicting hardware, and missing items are to be brought to the attention of the architect with corrections made prior to the bidding process. Omitted items not included in a hardware set should be scheduled with the appropriate additional hardware required for proper application.

C. Hardware items are referenced in the following hardware schedule. Refer to the above specifications for special features, options, cylinders/keying, and other requirements.

D. Hardware Sets:

END OF SECTION

Legend:
🗎 Link to catalog cut sheet
⚡ Electrified Opening

Hardware Group No. 00

For use on Door #(s):

2B	2C	6C	6D	6E	21B
21C	21D	21F			

Provide each RU door(s) with the following:

QTY	DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1		HARDWARE BY DOOR MANUFACTURER		

Hardware Group No. 01

For use on Door #(s):
2A 6A 6B 21A

Provide each PR door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER			FINISH	MFR
2	EA	CONT. HINGE	224XY TWP CON			628	IVE
1	EA	RIM CYLINDER	12E72 STD			626	BES
3	EA	MORTISE CYLINDER	1E74			626	BES
1	EA	ELEC PANIC HARDWARE	SD-LX-RX-9827-EO-LBR			626	VON
1	EA	ELEC PANIC HARDWARE	SD-LX-RX-QEL-9827-NL-LBR 24 VDC			626	VON
1	EA	SURFACE CLOSER	4040XP SCUSH			689	LCN
1	EA	MULLION SEAL	8780NBK PSA			BK	ZER
2	EA	DOOR SWEEP	8197AA			AA	ZER
1	EA	THRESHOLD	545A			A	ZER
2	EA	DOOR CONTACT	679-05HM/WD AS REQ			BLK	SCE
1	EA	POWER SUPPLY	PS904 900-4R 120/240 VAC			LGR	SCE
1			CARD READER - WORK OF SECURITY INTEGRATOR				
1			POWER SUPPLY - WORK OF DIVISION 26				
1			PROVIDE FACTORY POINT TO POINT WIRING DIAGRAMS				
1			WEATHERSTRIP BY DOOR/FRAME MANUFACTURER				

DOOR NORMALLY CLOSED AND LOCKED
ENTRY BY VALID CREDENTIAL OR KEY OVERRIDE
FREE EGRESS AT ALL TIMES
UPON POWER FAILURE DOOR REMAINS LOCKED
DOOR CONTACT MONITORS THE DOOR POSITION

Hardware Group No. 02

For use on Door #(s):
1

Provide each PR door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
2	EA	CONT. HINGE	224XY TWP CON	628	IVE
1	EA	CONST LATCHING BOLT	FB51P	630	IVE
1	EA	DUST PROOF STRIKE	DP2	626	IVE
1	EA	RIM CYLINDER	12E72 STD	626	BES
1	EA	EU STOREROOM LOCK	9KW37D15DS3 12V/24V DC	626	BES
1	EA	COORDINATOR	COR X FL	628	IVE
2	EA	MOUNTING BRACKET	MB/MB2 AS REQ	689	IVE
2	EA	SURFACE CLOSER	4040XP SCUSH	689	LCN
1	EA	MULLION SEAL	8780NBK PSA	BK	ZER
2	EA	DOOR SWEEP	8197AA	AA	ZER
1	EA	THRESHOLD	545A	A	ZER
2	EA	DOOR CONTACT	679-05HM/WD AS REQ	BLK	SCE
1	EA	POWER SUPPLY	PS904 900-4R 120/240 VAC	LGR	SCE
1			CARD READER - WORK OF SECURITY INTEGRATOR		
1			POWER SUPPLY - WORK OF DIVISION 26		
1			PROVIDE FACTORY POINT TO POINT WIRING DIAGRAMS		
1			WEATHERSTRIP BY DOOR/FRAME MANUFACTURER		

DOOR NORMALLY CLOSED AND LOCKED
ENTRY BY VALID CREDENTIAL OR KEY OVERRIDE
FREE EGRESS AT ALL TIMES
UPON POWER FAILURE DOOR REMAINS LOCKED
DOOR CONTACT MONITORS THE DOOR POSITION

Hardware Group No. 03

For use on Door #(s):
23

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	EA	CONT. HINGE	224HD	628	IVE
1	EA	RIM CYLINDER	12E72 STD	626	BES
1	EA	PRIVACY LOCK	9K37L15DS3	626	BES
1	EA	SURFACE CLOSER	4040XP REG OR PA AS REQ	689	LCN
1	EA	DOOR STOP	WS406/407CCV/FS436	630	IVE
1			WEATHERSTRIP BY DOOR/FRAME MANUFACTURER		

Hardware Group No. 04

For use on Door #(s):

2D	3	4	5	7	8
21E					

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	EA	CONT. HINGE	224HD EPT	628	IVE
1	EA	POWER TRANSFER	EPT10	689	VON
2	EA	RIM CYLINDER	12E72 STD	626	BES
1	EA	MORTISE CYLINDER	1E74	626	BES
1	EA	ELEC PANIC HARDWARE	SD-LX-RX-QEL-98-NL-OP-110MD 24 VDC	626	VON
1	EA	SURFACE CLOSER	4040XP SCUSH	689	LCN
1	EA	DOOR SWEEP	8197AA	AA	ZER
1	EA	THRESHOLD	545A	A	ZER
1	EA	DOOR CONTACT	679-05HM/WD AS REQ	BLK	SCE
1	EA	POWER SUPPLY	PS904 900-4R 120/240 VAC	LGR	SCE
1			CARD READER - WORK OF SECURITY INTEGRATOR		
1			POWER SUPPLY - WORK OF DIVISION 26		
1			PROVIDE FACTORY POINT TO POINT WIRING DIAGRAMS		
1			WEATHERSTRIP BY DOOR/FRAME MANUFACTURER		

DOOR NORMALLY CLOSED AND LOCKED
ENTRY BY VALID CREDENTIAL OR KEY OVERRIDE
FREE EGRESS AT ALL TIMES
UPON POWER FAILURE DOOR REMAINS LOCKED
DOOR CONTACT MONITORS THE DOOR POSITION

Hardware Group No. 05

For use on Door #(s):

9 13 14

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER			FINISH	MFR
1	EA	CONT. HINGE	224HD EPT			628	IVE
1	EA	POWER TRANSFER	EPT10			689	VON
2	EA	RIM CYLINDER	12E72 STD			626	BES
1	EA	EU STOREROOM LOCK	9KW37D15DS3 12V/24V DC			626	BES
1	EA	SURFACE CLOSER	4040XP REG OR PA AS REQ			689	LCN
1	EA	DOOR STOP	WS406/407CCV/FS436			630	IVE
1	EA	DOOR SWEEP	8197AA			AA	ZER
1	EA	THRESHOLD	545A			A	ZER
1	EA	DOOR CONTACT	679-05HM/WD AS REQ			BLK	SCE
1	EA	POWER SUPPLY	PS904 900-4R 120/240 VAC			LGR	SCE
1			CARD READER - WORK OF SECURITY INTEGRATOR				
1			POWER SUPPLY - WORK OF DIVISION 26				
1			PROVIDE FACTORY POINT TO POINT WIRING DIAGRAMS				
1			WEATHERSTRIP BY DOOR/FRAME MANUFACTURER				

DOOR NORMALLY CLOSED AND LOCKED
ENTRY BY VALID CREDENTIAL OR KEY OVERRIDE
FREE EGRESS AT ALL TIMES
UPON POWER FAILURE DOOR REMAINS LOCKED
DOOR CONTACT MONITORS THE DOOR POSITION

Hardware Group No. 06

For use on Door #(s):
11 12

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	EA	CONT. HINGE	224HD EPT	628	IVE
1	EA	POWER TRANSFER	EPT10	689	VON
1	EA	PRIVACY LOCK W/ OUTSIDE INDICATOR	L9040 17A 09-544 OS-OCC	626	SCH
1	EA	ELECTRIC STRIKE	6211 FSE 12/16/24/28 VAC/VDC	630	VON
1	EA	SURFACE CLOSER	4040XP SCUSH	689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS	630	IVE
1	EA	DOOR SWEEP	8197AA	AA	ZER
1	EA	THRESHOLD	545A	A	ZER
1	EA	DOOR CONTACT	679-05HM/WD AS REQ	BLK	SCE
1	EA	POWER SUPPLY	PS904 900-4R 120/240 VAC	LGR	SCE
1			CARD READER - WORK OF SECURITY INTEGRATOR		
1			POWER SUPPLY - WORK OF DIVISION 26		
1			PROVIDE FACTORY POINT TO POINT WIRING DIAGRAMS		
1			WEATHERSTRIP BY DOOR/FRAME MANUFACTURER		

DOOR NORMALLY CLOSED AND LOCKED
ENTRY BY VALID CREDENTIAL OR KEY OVERRIDE
FREE EGRESS AT ALL TIMES
UPON POWER FAILURE DOOR REMAINS LOCKED
DOOR CONTACT MONITORS THE DOOR POSITION

Hardware Group No. 07

For use on Door #(s):
10

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER			FINISH	MFR
1	EA	CONT. HINGE	224HD EPT			628	IVE
1	EA	POWER TRANSFER	EPT10			689	VON
2	EA	RIM CYLINDER	12E72 STD			626	BES
1	EA	EU STOREROOM LOCK	9KW37D15DS3 12V/24V DC			626	BES
1	EA	SURFACE CLOSER	4040XP REG OR PA AS REQ			689	LCN
1	EA	DOOR STOP	WS406/407CCV/FS436			630	IVE
1	EA	DOOR SWEEP	8197AA			AA	ZER
1	EA	THRESHOLD	545A			A	ZER
1	EA	DOOR CONTACT	679-05HM/WD AS REQ			BLK	SCE
1	EA	POWER SUPPLY	PS904 900-4R 120/240 VAC			LGR	SCE
1			CARD READER - WORK OF SECURITY INTEGRATOR				
1			POWER SUPPLY - WORK OF DIVISION 26				
1			PROVIDE FACTORY POINT TO POINT WIRING DIAGRAMS				
1			WEATHERSTRIP BY DOOR/FRAME MANUFACTURER				

DOOR NORMALLY CLOSED AND LOCKED
DURING EVENTS DOORS WILL BE IN THE UNLOCKED STATE TO ALLOW FOR USE OF RESTROOMS
ENTRY BY VALID CREDENTIAL OR KEY OVERRIDE DURING OFF HOURS
FREE EGRESS AT ALL TIMES
UPON POWER FAILURE DOOR REMAINS LOCKED
DOOR CONTACT MONITORS THE DOOR POSITION

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. This Section includes the following fuel-fired water heaters:

1. Commercial, high-efficiency, gas water heaters.
2. Compression tanks.
3. Water heater accessories.

1.3 DEFINITIONS

A. LP Gas: Liquefied-petroleum fuel gas.

1.4 SUBMITTALS

A. Product Data: For each type and size of water heater indicated. Include rated capacities, operating characteristics, furnished specialties, and accessories.

B. Shop Drawings: Diagram power, signal, and control wiring.

C. Product Certificates: For each type of commercial water heater, signed by product manufacturer.

D. Source quality-control test reports.

E. Field quality-control test reports.

F. Operation and Maintenance Data: For water heaters to include in emergency, operation, and maintenance manuals.

G. Warranty: Special warranty specified in this Section.

1.5 QUALITY ASSURANCE

A. Source Limitations: Obtain same type of water heaters through one source from a single manufacturer.

B. Product Options: Drawings indicate size, profiles, and dimensional requirements of water heaters and are based on the specific system indicated. Refer to Division 01 Section "Product Requirements."

C. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.

D. ASHRAE/IESNA 90.1 Compliance: Applicable requirements in ASHRAE/IESNA 90.1.

E. ASME Compliance:

1. Where ASME-code construction is indicated, fabricate and label commercial water heater storage tanks to comply with ASME Boiler and Pressure Vessel Code: Section VIII, Division 1.
2. Where ASME-code construction is indicated, fabricate and label commercial, finned-tube water heaters to comply with ASME Boiler and Pressure Vessel Code: Section IV.

F. Comply with NSF 61, "Drinking Water System Components - Health Effects; Sections 1 through 9" for all components that will be in contact with potable water.

1.6 COORDINATION

A. Coordinate size and location of concrete bases with Architectural and Structural Drawings.

1.7 WARRANTY

A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of fuel-fired water heaters that fail in materials or workmanship within specified warranty period.

1. Failures include, but are not limited to, the following:

   a. Structural failures including storage tank and supports.
   b. Faulty operation of controls.
   c. Deterioration of metals, metal finishes, and other materials beyond normal use.

2. Warranty Period(s): From date of Substantial Completion:

   a. Commercial, Gas Water Heaters:

      1) Storage Tank & Heating Elements: Five years.
      2) Controls and Other Components: Two years.

   b. Compression Tanks: Two year(s).

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. In other Part 2 articles where titles below introduce lists, the following requirements apply to product selection:

1. Manufacturers: Subject to compliance with requirements, provide a product by one of the available manufacturers.
    a. Bradford White Corporation.
    b. Smith, A. O. Water Products Company.
    c. State Industries, Inc.

2.2 COMMERCIAL, GAS WATER HEATERS

A. Commercial, High-Efficiency, Gas Water Heaters: Comply with ANSI Z21.10.3/CSA 4.3. Refer to plumbing Domestic Water Heater Schedule on drawing P301 for make and model of water heater.

1. Description: Manufacturer's proprietary design to provide at least 95 percent combustion efficiency at optimum operating conditions. The following features and attributes may be modified or omitted if water heater otherwise complies with requirements for performance.
2. Storage-Tank Construction: ASME-code steel with 150-psig minimum working-pressure rating.

    a. Tappings: Factory fabricated of materials compatible with tank. Attach tappings to tank before testing.

        1) NPS 2 and Smaller: Threaded ends according to ASME B1.20.1.
        2) NPS 2-1/2 and Larger: Flanged ends according to ASME B16.5 for steel and stainless-steel flanges, and according to ASME B16.24 for copper and copper-alloy flanges.

    b. Interior Finish: Comply with NSF 61 barrier materials for potable-water tank linings, including extending finish into and through tank fittings and outlets.
    c. Lining: Glass complying with NSF 61 barrier materials for potable-water tank linings, including extending lining into and through tank fittings and outlets.

3. Factory-Installed, Storage-Tank Appurtenances:

    a. Anode Rod: Replaceable magnesium.
    b. Dip Tube: Provide unless cold-water inlet is near bottom of tank.
    c. Drain Valve: Corrosion-resistant metal complying with ASSE 1005.
    d. Insulation: Comply with ASHRAE/IESNA 90.1. Surround entire storage tank except connections and controls.
    e. Jacket: Steel with enameled finish.
    f. Combination Temperature and Pressure Relief Valves: ANSI Z21.22/CSA 4.4. Include one or more relief valves with total relieving capacity at least as great as heat input and include pressure setting less than water heater working-pressure rating. Select one relief valve with sensing element that extends into storage tank.

4. Burner or Heat Exchanger: Comply with UL 795 or approved testing agency requirements for high-efficiency water heaters and for natural-gas fuel.
5. Temperature Control: Adjustable thermostat.
6. Safety Controls: Automatic, high-temperature-limit and low-water cutoff devices or systems.
7. Building Automation System Interface: Normally closed dry contacts for enabling and disabling water heater.

2.3 COMPRESSION TANKS

A. Description: Steel, pressure-rated tank constructed with welded joints and factory-installed, butyl-rubber diaphragm. Include air precharge to minimum system-operating pressure at tank.

1. Available Manufacturers:

   a. AMTROL Inc.
   b. Armstrong Pumps, Inc.
   c. Watts Regulator Co.

2. Construction:

   a. Tappings: Factory-fabricated steel, welded to tank before testing and labeling. Include ASME B1.20.1 pipe thread.
   b. Interior Finish: Comply with NSF 61 barrier materials for potable-water tank linings, including extending finish into and through tank fittings and outlets.
   c. Air-Charging Valve: Factory installed.
   d. ASME Construction: Required.

3. Capacity and Characteristics:

   a. Working-Pressure Rating: 150 psig.
   b. Capacity Acceptable: See hot water heater details compression tanks.

2.4 WATER HEATER ACCESSORIES

A. Gas Shutoff Valves: ANSI Z21.15/CGA 9.1, manually operated. Furnish for installation in piping.

B. Gas Pressure Regulators: ANSI Z21.18, appliance type. Include pressure rating, capacity, and pressure differential required between gas supply and water heater.

C. Gas Automatic Valves: ANSI Z21.21, appliance, electrically operated, on-off automatic valve.

D. Combination Temperature and Pressure Relief Valves: Include relieving capacity at least as great as heat input and include pressure setting less than water heater working-pressure rating. Select each relief valve with sensing element that extends into storage tank.

1. Gas Water Heaters: ANSI Z21.22/CSA 4.4.

E. Pressure Relief Valves: Include pressure setting less than working-pressure rating of water heater.

1. Gas Water Heaters: ANSI Z21.22/CSA 4.4.

F. Water Heater Mounting Brackets: Water heater manufacturer's factory-fabricated steel bracket for wall mounting and capable of supporting water heater and water.

G. Piping Manifold Kits: Water heater manufacturer's factory-fabricated inlet and outlet piping arrangement for multiple-unit installation. Include piping and valves for field assembly that is capable of isolating each water heater and of providing balanced flow through each water heater.

H. Piping-Type Heat Traps: Field-fabricated piping arrangement according to ASHRAE/IESNA 90.1 or ASHRAE 90.2.

2.5 SOURCE QUALITY CONTROL

A. Test and inspect water heater storage tanks, specified to be ASME-code construction, according to ASME Boiler and Pressure Vessel Code.

B. Hydrostatically test commercial water heater storage tanks before shipment to minimum of one and one-half times pressure rating.

C. Prepare test reports.

PART 3 - EXECUTION

3.1 WATER HEATER INSTALLATION

A. Install commercial water heaters on concrete bases.

1. Exception: Omit concrete bases for commercial water heaters if installation on stand, bracket, suspended platform, or direct on floor is indicated.
2. Concrete base construction requirements are specified in Division 22 Section "Common Work Results for Plumbing."

B. Install water heaters level and plumb, according to layout drawings, original design, and referenced standards. Maintain manufacturer's recommended clearances. Arrange units so controls and devices needing service are accessible.

C. Install gas water heaters according to NFPA 54.

D. Install gas shutoff valves on gas supplies to gas water heaters without shutoff valves.

E. Install gas pressure regulators on gas supplies to gas water heaters without gas pressure regulators if gas pressure regulators are required to reduce gas pressure at burner.

F. Install automatic gas valves on gas supplies to gas water heaters, if required for operation of safety control.

G. Install combination temperature and pressure relief valves in top portion of storage tanks. Use relief valves with sensing elements that extend into tanks. Extend commercial-water-heater, relief-valve outlet, with drain piping same as domestic water piping in continuous downward pitch, and discharge by positive air gap onto closest floor drain.

H. Install combination temperature and pressure relief valves in water piping for water heaters without storage. Extend commercial-water-heater relief-valve outlet, with drain piping same as domestic water piping in continuous downward pitch, and discharge by positive air gap onto closest floor drain.

I. Install water heater drain piping as indirect waste to spill by positive air gap into open drains or over floor drains. Install hose-end drain valves at low points in water piping for water heaters that do not have tank drains. Refer to Division 22 Section "Domestic Water Piping Specialties" for hose-end drain valves.

J. Install thermometer on outlet piping of water heaters. Refer to Division 22 Section "Meters and Gages for Plumbing Piping" for thermometers.

K. Install pressure gage(s) on inlet and outlet piping of commercial, fuel-fired water heater piping. Refer to Division 22 Section "Meters and Gages for Plumbing Piping" for pressure gages.

L. Assemble and install inlet and outlet piping manifold kits for multiple water heaters. Fabricate, modify, or arrange manifolds for balanced water flow through each water heater. Include shutoff valve and thermometer in each water heater inlet and outlet, and throttling valve in each water heater outlet. Refer to Division 22 Section "General-Duty Valves for Plumbing Piping" for general-duty valves and to Division 22 Section "Meters and Gages for Plumbing Piping" for thermometers.

M. Install piping-type heat traps on inlet and outlet piping of water heater storage tanks without integral or fitting-type heat traps.

N. Fill water heaters with water.

O. Charge compression tanks with air.

3.2 CONNECTIONS

A. Piping installation requirements are specified in other Division 22 Sections. Drawings indicate general arrangement of piping, fittings, and specialties.

B. Install piping adjacent to water heaters to allow service and maintenance. Arrange piping for easy removal of water heaters.

C. Ground equipment according to Division 26 Section "Grounding and Bonding for Electrical Systems."

D. Connect wiring according to Division 26 Section "Low-Voltage Electrical Power Conductors and Cables."

3.3 FIELD QUALITY CONTROL

A. Manufacturer's Field Service: Engage a factory-authorized service representative to inspect, test, and adjust field-assembled components and equipment installation, including connections, and to assist in field testing. Report results in writing.

B. Perform the following field tests and inspections and prepare test reports:

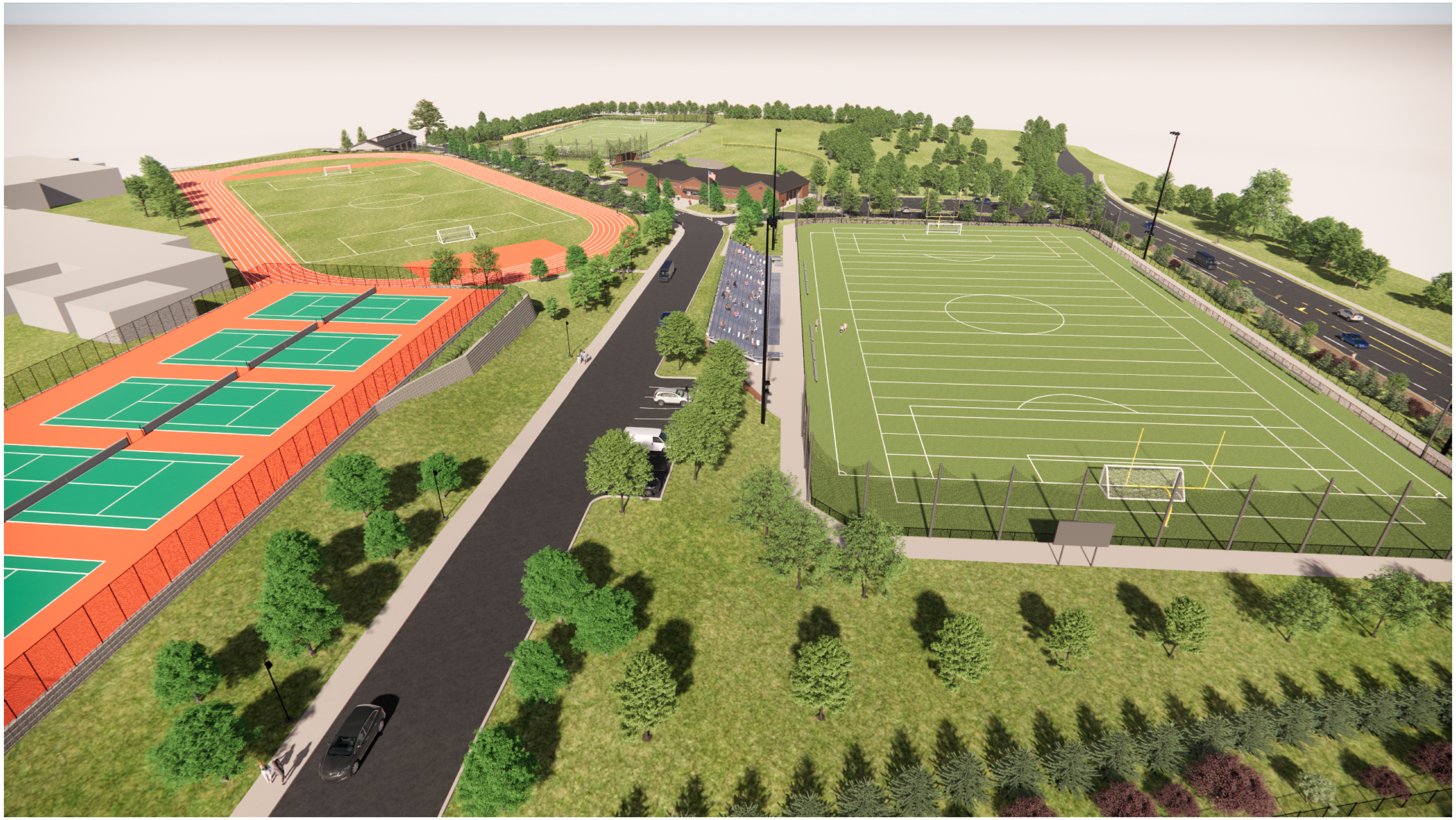
1. Leak Test: After installation, test for leaks. Repair leaks and retest until no leaks exist.
2. Operational Test: After electrical circuitry has been energized, confirm proper operation.
3. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.

C. Remove and replace water heaters that do not pass tests and inspections and retest as specified above.

3.4 DEMONSTRATION

A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain commercial water heaters. Refer to Division 01 Section "Demonstration and Training."

END OF SECTION 22 34 00



TESD CONESTOGA ATHLETIC FIELDS

TREDYFFRIN TOWNSHIP
CHESTER COUNTY, PA

2024-04-23 ADDENDUM #01

CLIENT
Tredyffrin/Easttown School District
940 West Valley Road, Suite 1700
Wayne, PA 19087
(610) 240-1900

ARCHITECTURAL
Heckendorn Shiles Architects
347 East Conestoga Road
Wayne, PA 19087
610-994-3500

STRUCTURAL ENGINEER
A.W. Lookup Structural Engineers
500 Fayette Street, Suite 100
Conshohocken, PA 19428
(610) 825-2600

MEPFP ENGINEER
Schiller and Hersh Associates, Inc.
636 Skippack Pike, Suite 200
Blue Bell, PA 19422
(215) 886-8947

SITE / CIVIL
Pennoni Associates, Inc
One South Church Street, 2nd Floor
West Chester, PA 19382
(610) 429-8907

IT CONSULTANT
Teranet Consulting & Technical Services
(215) 527-9825

POWER AND COMM. LEGEND

OUTLETS

- WALL MTD. DUPLEX RECEPTACLE OUTLET
- WALL MTD. DUPLEX RECEPTACLE OUTLET GFI = GROUND FAULT INTERRUPTER
- WALL MTD. DUPLEX RECEPTACLE OUTLET W/ UNINTERRUPTED POWER SOURCE
- WALL MTD. QUADRAPLEX RECEPTACLE
- WALL MTD. QUADRAPLEX RECEPTACLE OUTLET GFI = GROUND FAULT INTERRUPTER
- WALL MTD. DEDICATED DUPLEX RECEPTACLE OUTLET
- WALL MTD. TEL. OUTLET
- WALL MTD. DATA OUTLET
- WALL MTD. COMBINATION TELEPHONE AND DATA OUTLET
- 2 DATA / 2 PHONE JACKS (WALL MOUNTED OR BASE FEED)
- JUNCTION BOX

ALTERNATE SYMBOLS SELECTION:
COORDINATE WITH PROJECT MEP ENGINEER'S SYMBOLS

- COMBINATION POWER, TELEPHONE AND DATA FLOOR OUTLET (FLUSH MOUNTED)
- THRU-WALL POWER/COMMUNICATIONS INFEED
- TELEVISION OUTLET

FIRE ALARM AND SAFETY

- FA — FIRE ALARM SPEAKER
- S — PA SPEAKER
- FW — FIRE WARDEN STATION
- H/S — COMBINATION HORN & STROBE
- F — MANUAL FIRE ALARM PULL STATION (SEE MTG. HEIGHT SCHEDULE)
- S — WALL MOUNTED STROBE
- FEC — FEC (FIRE EXTINGUISHER CABINET)
- FE — FE (FIRE EXTINGUISHER - WALL MOUNTED)

SWITCHES

- MD — MOTION DETECTOR

ELECTRONIC HARDWARE

- H — HOLD OPEN
- ML — MAGNETIC LOCK (SEE HARDWARE SCHEDULE)
- EL — ELECTRIC LOCKSET (SEE HARDWARE SCHEDULE)
- ES — ELECTRIC STRIKE (SEE HARDWARE SCHEDULE)
- DC — DOOR CONTACTS
- CR — CARD READER

SIGNAL SYSTEMS

- STATIONARY SECURITY CAMERA
- PTZ — ZOOM, PAN, TILT SECURITY CAMERA
- 2 — EQUIPMENT ITEM - SEE SCHEDULE

CEILING LEGEND

- 0' - 0" / ABC-1 — CEILING HEIGHT / CEILING TYPE
- SUSPENSION GRID & 2' X 2' LAY-IN ACOUSTIC CEILING TILE
- SUSPENSION GRID & 2' X 4' LAY-IN ACOUSTIC CEILING TILE
- GWB SOFFIT OR CEILING
- 2X2 SURFACE LIGHT FIXTURE
- 2X4 SURFACE LIGHT FIXTURE
- 1X4 SURFACE LIGHT FIXTURE
- 4' SURFACE MOUNT LINEAR LIGHT FIXTURE
- SURFACE MOUNTED
- RECESSED DOWNLIGHT
- 2X2 RECESSED LIGHT FIXTURE
- 2X4 RECESSED LIGHT FIXTURE
- 1X4 RECESSED LIGHT FIXTURE
- TRACK LIGHTING FIXTURE
- WALL SCONCE
- PENDANT MOUNTED LINEAR
- WALL MOUNTED EMERGENCY LIGHTING
- SUPPLY AIR DIFFUSER
- DIRECTIONAL SUPPLY AIR DIFFUSER
- LINEAR SLOT DIFFUSER
- RETURN AIR DIFFUSER
- SPRINKLER HEAD
- EXIT SIGN - WALL MOUNTED ILLUMINATED SINGLE & DOUBLE FACE DIRECTIONAL ARROWS AS INDICATED
- EXIT SIGN - CEILING MOUNTED ILLUMINATED SINGLE & DOUBLE FACE DIRECTIONAL ARROWS AS INDICATED
- SD — CEILING MOUNTED SMOKE DETECTOR
- FA — FIRE ALARM SPEAKERS
- S — PA SPEAKER
- WP — START OF CONSTRUCTION/CEILING WORK POINT

ARCHITECTURAL LEGEND

- ROOM NAME / 101 — ROOM IDENTIFICATION
- 101B — DOOR IDENTIFICATION
- 1 / AXXX — ENLARGED PLAN OR DETAIL MARK
- 1 / XXX — MULTIPLE ELEVATION REFERENCE
- 1 — ELEVATION REFERENCE
- 1 / AXXX / SIM — SECTION REFERENCE
- WP — WORKING POINT OR DATUM
- PARTITION TYPE
- XX — COLUMN GRID
- PLAN NORTH / PLAN NORTH — NORTH ARROW
- SPOT ELEVATION TAG
- P-1 — FINISH TAG
- X-XX — PLUMBING FIXTURE TAG
- XXX — EQUIPMENT TAG
- FINISH FLOOR ELEVATION TAG
- 1 — WINDOW TAG
- EXISTING CONSTRUCTION
- DEMOLISH; REMOVE CONSTRUCTION
- NEW CONSTRUCTION
- BUILT-IN CASEWORK
- SOFFIT, OPEN ABOVE
- REMOVE DOOR, FRAME, & HARDWARE

MATERIALS LEGEND (VIEWED IN SECTION)

- EARTH, UNDISTRUBED
- EARTH, COMPACTED FILL
- CRUSHED ROCK GRAVEL
- CONCRETE, CAST STONE (SECTION OR ELEVATION)
- CONCRETE MASONRY
- BRICK
- RIGID INSULATION
- PLASTER OR GYPSUM BOARD (SECTION OR ELEVATION)
- SOLID WOOD (SECTION OR ELEVATION)
- PLYWOOD
- PARTICLE BOARD
- SOLID SURFACE
- STONE (MARBLE/GRANITE)
- WOOD BLOCKING OR SHIM
- WOOD FRAMING, CONTINUOUS
- STEEL

ABBREVIATIONS

ACOUSTIC	ACST
ACOUSTIC TILE	ACT
ABOVE FINISHED FLOOR	AFF
ADJACENT	ADJ
ADJUSTABLE	ADJST
ALUMINUM	AL OR ALUM
ARCHITECT, ARCHITECTURAL	ARCH
BOARD	BD
BOTTOM OF	B.O. (BOT. OF)
BUILDING	BLDG
CABINET	CAB
CARPET	CPT
CEILING	CLG
CEILING JOIST	C.J.
CENTER LINE	CL OR C
CLEAR	CLR
COLD WATER	CW
COLUMN	COL
CONCRETE	CONC
CONCRETE MASONRY UNIT	CMU
CONSTRUCTION	CONST
CONTINUOUS	CONT
CUBIC FEET	CU FT
DEMOLITION	DEMO
DIAMETER	DIA
DIMENSION	DIM
DOWN	DN
DRAWING	DWG
EACH	EA
ELECTRIC	ELEC
ELECTRIC WATER COOLER	EWC
EQUIPMENT	EQUIP
ESTIMATE	EST
EXISTING	EXIST
FEET, FOOT	' OR FT
FINISH	FIN
FINISH FLOOR	F.F.
FIRE EXTINGUISHER	F.E.
FIRE EXTINGUISHER CABINET	F.E.C.
FIRE RETARDANT TREATED	F.R.T.
FLUORESCENT	FLUOR
FURNITURE	FURN
GAUGE	GA
GENERAL CONTRACTOR	G.C.
GLASS	GL
GYPSUM WALL BOARD	GWB
HARDWARE	HDW
HEIGHT	HT OR HGT
HOLLOW CORE WOOD	HCW
HOLLOW METAL	HM
HECKENDORN SHILES ARCHITECTS	HSA
HORIZONTAL	HORIZ
HOT WATER	HW
INCH	" OR IN
INSULATION	INSUL
INTERIOR	INT
JUNCTION BOX	J OR JB
LAVATORY	LAV
MANUFACTURER	MFR
MASONRY OPENING	MO
MAXIMUM	MAX
MECHANICAL	MECH
METAL	MTL
MINIMUM	MIN
MISCELLANEOUS	MISC
MOUNTING	MTG
NOMINAL	NOM
NOT IN CONTRACT	NIC
NOT TO SCALE	NTS
OPPOSITE	OPP
PAINT, PAINTED	PT, PTD
PLASTIC LAMINATE	PLAM
PLYWOOD	PWD
QUANTITY	QTY
QUARRY TILE	QT
RADIUS	R
REFERENCE	REF
REINFORCE	REINF
REQUIRED	REQD
REVISION (REVISED)	REV('D)
ROOM	RM
ROUGH OPENING	RO
RAIN WATER CONDUCTOR	RWC
SIMILAR	SIM
SOLID CORE	SC
SPECIFICATIONS	SPECS
SQUARE FEET	SF OR DQ. FT.
SQUARE INCHES	SQ. IN.
STAINLESS STEEL	S.S.
STANDARD	STD
STEEL	STL
SUSPENDED	SUSP
SYSTEM	SYS
TELEPHONE	TEL
TOP OF	T.O.
TYPICAL	TYP
UNLESS NOTED OTHERWISE	UNO
VALUE ENGINEERING	VE
VERIFY IN THE FIELD	VIF
VERTICAL	VERT
VINYL COMPOSITION TILE	VCT
VINYL WALLCOVERING	VWC
WATER CLOSET	WC
WEIGHT	WT
WIDTH	W
WITH	W/
WITHOUT	W/O
WOOD	WD
WORK POINT	WP
YARD	YD

DEMOLITION GENERAL NOTES

1. THESE DRAWINGS ARE MEANT TO OUTLINE GENERAL SCOPE OF DEMOLITION FOR THE CONTRACTOR. THE SPECIFIC AREAS, ITEMS, DETAILS, MATERIALS, ETC. OF DEMOLITION WILL BE A RESULT OF FIELD CONDITIONS. THE INTENT IS THAT ALL DEMOLITION REQUIRED TO PROPERLY CONSTRUCT THIS PROJECT IS THE RESPONSIBILITY OF THE PRIME CONTRACTOR. THE CONTRACTOR WILL INSURE THAT THE EXIST. BUILDING RETAINS STRUCTURAL INTEGRITY AND REMAINS WATER AND WEATHER-TIGHT DURING THE DEMOLITION AND CONSTRUCTION PHASES OF THE WORK.
2. CONTRACTOR MUST REVIEW NEW WORK INDICATED IN 'A' SERIES DRAWINGS AND COORDINATE DEMOLITION WORK WITH NEW WORK.
3. CONTRACTOR MUST COORDINATE ALL ARCHITECTURAL DEMOLITION WITH MECHANICAL/ELECTRICAL/PLUMBING/FIRE PROTECTION DEMOLITION WORK AS SHOWN ON 'M', 'P', 'E', 'FP' SERIES DRAWINGS. THE PRIME CONTRACTORS WILL BE RESPONSIBLE FOR THE CONTINUOUS INTERNAL UTILITIES DISTRIBUTION INCLUDING BUT NOT LIMITED TO THE WATER & ELECTRICAL DISTRIBUTION SYSTEMS.
4. CONTRACTOR MUST COORDINATE ALL ARCHITECTURAL DEMOLITION WITH STRUCTURAL DEMOLITION WORK AS SHOWN ON 'S' SERIES DRAWINGS.
5. CONTRACTOR MUST COORDINATE ALL ARCHITECTURAL DEMOLITION WITH SITE/ CIVIL DEMOLITION WORK AS SHOWN ON SITE/ CIVIL DRAWINGS.
6. CONTRACTOR MUST COORDINATE COURSE OF DEMOLITION WORK WITH OVERALL CONSTRUCTION SCHEDULE.
7. CAREFULLY COORDINATE ALL DEMOLITION WORK WITH EXIST. CONSTRUCTION TO REMAIN. ANY EXIST. CONSTRUCTION TO REMAIN THAT IS DAMAGED BY DEMOLITION SHALL BE REPAIRED/REPLACED TO MATCH ORIGINAL CONDITION. SEE SPECIFICATIONS FOR CLARIFICATION OF RESPONSIBILITY.
8. GENERAL CONTRACTOR IS RESPONSIBLE TO PATCH/REPAIR ALL FINISH SURFACES AFFECTED BY DEMOLITION WORK. SEE THE GENERAL REQUIREMENTS SECTIONS OF THE SPECIFICATION.
9. GENERAL CONTRACTOR SHALL COORDINATE, PRIOR TO ANY DEMOLITION, WHAT MATERIALS OR ITEMS OF EQUIPMENT ARE TO BE RETAINED BY THE OWNER. ALL OTHER DISMANTLED MATERIALS SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE PREMISES ACCORDING TO ALL APPLICABLE CODES.
10. CARE SHOULD BE TAKEN TO AVOID DISTURBING ANY SYSTEM LINES WHICH ARE TO REMAIN. PRIOR TO THE START OF CONSTRUCTION, GENERAL CONTRACTOR MUST COORDINATE W/ ELECTRICAL CONTRACTOR WHICH LINES ARE TO REMAIN IN SERVICE.
11. GENERAL CONTRACTOR MUST CAREFULLY COORDINATE DEMOLITION OF EXTERIOR WALLS WITH THE INTENT OF THE NEW CONSTRUCTION. ALL FOOTINGS AND STRUCTURAL MEMBERS SHALL REMAIN INTACT, UNLESS NOTED OTHERWISE. CONTRACTOR TO COORDINATE W/ STRUCTURAL DWGS.
12. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
13. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR ALL TEMPORARY SHORING AND BRACING OF STRUCTURE PRIOR TO AND DURING DEMILITION AND NEW CONSTRUCTION.
14. WHERE WALLS ARE INDICATED TO BE REMOVED, CONTRACTOR MUST FIELD VERIFY IF THE WALLS ARE STRUCTURAL BEARING WALLS. IF IT IS DETERMINED THAT THE WALLS TO BE REMOVED ARE BEARING, THE CONTRACTOR IS RESPONSIBILE TO PROVIDE TEMPORARY SUPPORT AT AREAS WHERE WALLS ARE TO BE REMOVED. IF THE CONTRACTOR CANNOT DETERMINE IF THE WALL IS BEARING, THE CONTRACTOR MUST CONTACT THE PROJECT STRUCTURAL ENGINEER FOR CLARIFICATION PRIOR TO COMMENCING WORK.

CONSTRUCTION GENERAL NOTES

1. ALL DRAWINGS ARE TO BE USED IN CONJUNCTION WITH SPECIFICATIONS IN DETERMINING THE FULL PROJECT SCOPE.
2. REFER TO MEP/FP DWGS FOR MECHANICAL, ELECTRICAL, PLUMBING & FIRE PROTECTION WORK.
3. REFER TO STRUCTURAL DWGS FOR STRUCTURAL WORK.
4. REFER TO MASONRY SCOPE DOCUMENTS FOR MASONRY WORK.
5. REFER TO SITE/ CIVIL DWGS FOR SITE/ CIVIL WORK.
6. DO NOT SCALE DRAWINGS: WRITTEN DIMENSIONS GOVERN PARTITION LOCATIONS, DIMENSIONS AND TYPES. IN CASE OF CONFLICT, NOTIFY ARCHITECT FOR WRITTEN CLARIFICATIONS PRIOR TO PROCEEDING W/ CONSTRUCTION. CONSTRUCTION PLAN BY ARCHITECT SUPERCEDES OTHER PLANS.
7. DIMENSIONS MARKED "CLEAR" OR "CLR" SHALL BE MAINTAINED AND SHALL ALLOW FOR THICKNESS OF FINISHES INCLUDING CARPET, VCT, ETC. CONTRACTOR SHALL NOT ADJUST DIMENSIONS WITHOUT WRITTEN INSTRUCTIONS FROM THE ARCHITECT.
8. DIMENSIONS SHOWN AS "VIF" SHALL BE VERIFIED BY THE CONTRACTOR IN THE FIELD BY LAYING OUT THE PARTITIONS. CONTRACTOR SHALL NOTIFY ARCHITECT OF ANY DISCREPANCY IN DIMENSIONS PRIOR TO PROCEEDING WITH THE WORK IN THE AREA.
9. PARTITION CONSTRUCTION SHALL COMMENCE ONLY AFTER THE ARCHITECT HAS REVIEWED LAYOUT.
10. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND JOB CONDITIONS PRIOR TO STARTING WORK AND SHALL REPORT TO THE ARCHITECT ANY DISCREPANCIES OR OMISSIONS WHICH WOULD INTERFERE WITH SATISFACTORY COMPLETION OF WORK.
11. ALL BUILDING DEPARTMENT PERMITS SHALL BE OBTAINED PRIOR TO COMMENCEMENT OF WORK.
12. PROVIDE PORTABLE FIRE EXTINGUISHERS IN COMPLIANCE WITH INTERNATIONAL FIRE CODE SECTION 906
13. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.

DRAWING LIST

NUMBER	SHEET NAME	2022-09-12 PROGRESS ISSUE	2022-09-26 70% DESIGN ISSUE	2024-02-09 PROGRESS ISSUE	2024-03-18 BID ISSUE	2024-04-23 ADDENDUM #01
ARCHITECTURAL						
A000	GRAPHIC COVER SHEET	X	X	X	X	X
A001	ABBREVIATIONS, GENERAL NOTES, DRAWING LIST	X	X	X	X	X
A002	CODE ABSTRACT	X				
A100	PROPOSED FIRST FLOOR PLAN - FIELD HOUSE AND GROUNDS & FIELDS BUILDING	X	X	X	X	X
A101	PROPOSED FIRST FLOOR PLAN - ATHLETIC STANDS	X	X	X	X	
A102	PROPOSED ROOF PLAN - FIELD HOUSE AND GROUNDS & FIELDS BUILDING	X	X	X	X	X
A103	PROPOSED PLAN - SOFTBALL DUGOUTS			X	X	
A110	PROPOSED REFLECTED CEILING PLAN - FIELD HOUSE AND GROUNDS & FIELDS BUILDING	X	X	X	X	X
A120	PROPOSED FINISH PLAN - FIELD HOUSE AND GROUNDS & FIELDS BUILDING	X	X	X	X	
A200	PROPOSED ELEVATIONS - FIELD HOUSE	X	X	X	X	X
A201	PROPOSED ELEVATIONS - GROUNDS & FIELDS BUILDING	X	X	X	X	X
A300	PROPOSED SECTIONS - FIELD HOUSE	X	X	X	X	X
A301	PROPOSED SECTIONS - GROUNDS & FIELDS BUILDING	X	X	X	X	
A302	PROPOSED SECTIONS - ATHLETIC STANDS	X	X	X	X	
A303	PROPOSED WALL SECTIONS - FIELD HOUSE	X	X	X	X	X
A304	PROPOSED WALL SECTIONS - FIELD HOUSE	X	X	X	X	X
A305	PROPOSED SECTIONS - GROUNDS & FIELDS BUILDING	X	X	X	X	X
A400	PROPOSED ENLARGED PLANS - FIELD HOUSE	X	X	X	X	X
A401	PROPOSED ENLARGED PLANS - FIELD HOUSE	X	X	X	X	
A402	PROPOSED ENLARGED PLANS - GROUNDS & FIELDS BUILDING	X	X	X	X	
A403	PROPOSED ENLARGED PLANS - SOFTBALL DUGOUTS				X	
A500	PROPOSED WALL & FOOTING DETAILS - FIELD HOUSE	X			X	
A501	PROPOSED WALL & INTERIOR DETAILS - FIELD HOUSE	X		X	X	
A502	PROPOSED ROOF DETAILS - FIELD HOUSE			X	X	
A503	PROPOSED WALL & FOOTING DETAILS - GROUNDS & FIELDS BUILDING	X			X	
A504	PROPOSED DETAILS - SOFTBALL DUGOUTS & ATHLETIC STANDS				X	
A600	SCHEDULES AND DIAGRAMS	X		X	X	
A601	SCHEDULES AND DIAGRAMS	X	X	X	X	X
A700	OVERALL SITE PLAN		X		X	
A701	TURF FIELD 1		X		X	
A702	SOFTBALL FIELD		X		X	
A703	TURF FIELD 2		X		X	
A704	SOCCER - Portable Goal		X		X	
A705	BallStopper System		X		X	
A706	Aluminum Portable Bench		X		X	
A707	Score Board		X		X	
A708	Field Hockey Goal		X		X	
A709	Portable Press Box		X		X	
A710	Lacrosse Goal		X		X	
A711	Portable Bleachers		X		X	
A712	Backstop System		X		X	
A713	Permanent Batting Tunnel		X		X	
A714	Football Goal Post		X		X	
A715	Outfield Fencing		X		X	
A716	Soccer Accessories		X		X	
A717	Football Accessories		X		X	
STRUCTURAL						
S100	FIELD HOUSE FOUNDATION AND ROOF FRAMING PLANS				X	X
S101	GROUNDS & FIELDS BUILDING FOUNDATION AND ROOF FRAMING PLANS				X	
S102	ATHLETIC STANDS FOUNDATION PLAN & DETAILS				X	
S103	EQUIPMENT FOUNDATIONS				X	
S104	SOFTBALL DUGOUTS & BACKSTOP FOUNDATIONS AND FRAMING PLANS				X	
S201	GENERAL NOTES				X	
S202	GENERAL NOTES, FOUNDATION SECTIONS AND DETAILS				X	
S203	TYPICAL DETAILS				X	
S204	SECTION AND DETAILS				X	
S205	SECTIONS AND DETAILS				X	

REFER TO CIVIL, MECHANICAL, ELECTRICAL AND PLUMBING COVER SHEETS, FOR DRAWING LIST INFORMATION.

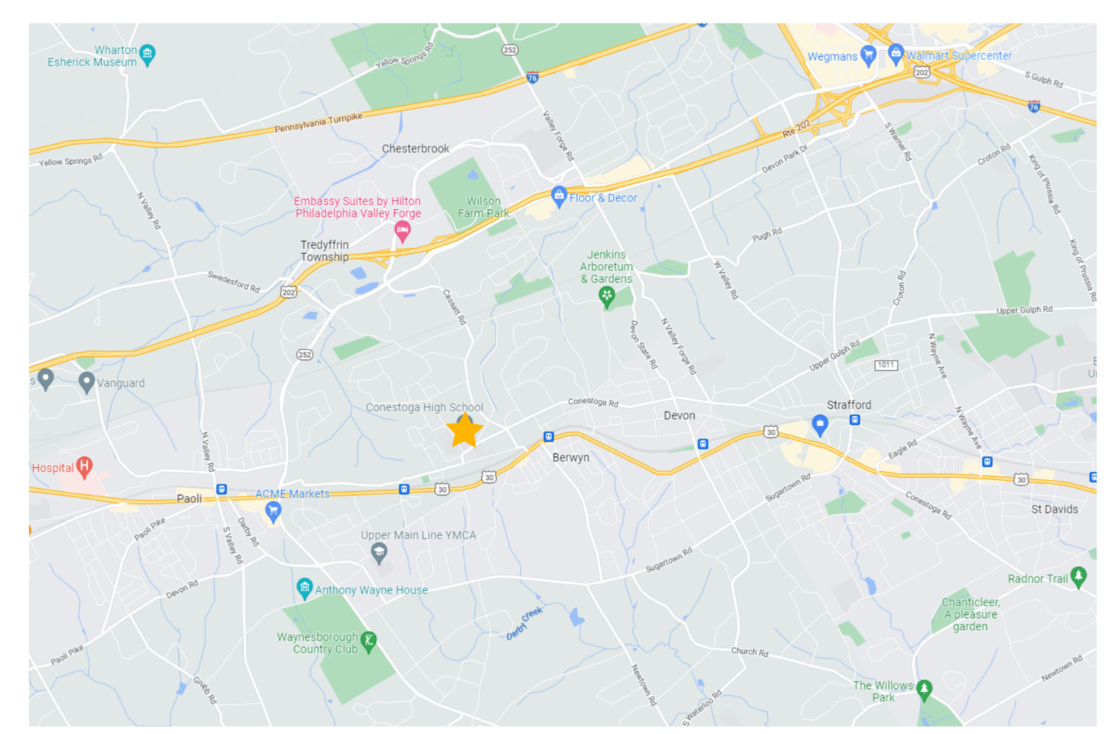
CONTRACTOR SCOPE OF WORK BY SHEET

BUILDING PRIME CONTRACTORS
SHEETS A001, A100, A102, A110-A301, A303-A402, A500-A601, S100, S101, S201-205

ATHLETIC FIELDS CONTRACTOR
SHEETS A001, A101, A103, A302, A403, A504, A700-A717, S102-S203, REFER TO S100 AND 2101 FOR THE RETAINING WALL SECTIONS ASSOCIATED TO THE BUILDING LOCATIONS

ALL DRAWINGS HAVE BEEN PROVIDED TO ALL CONTRACTORS FOR COORDINATION AND REFERENCE

SITE LOCATION MAP



TESD CONESTOGA ATHLETIC FIELDS

TREDYFFRIN TOWNSHIP
CHESTER COUNTY, PA

HSA PROJECT # :21-019

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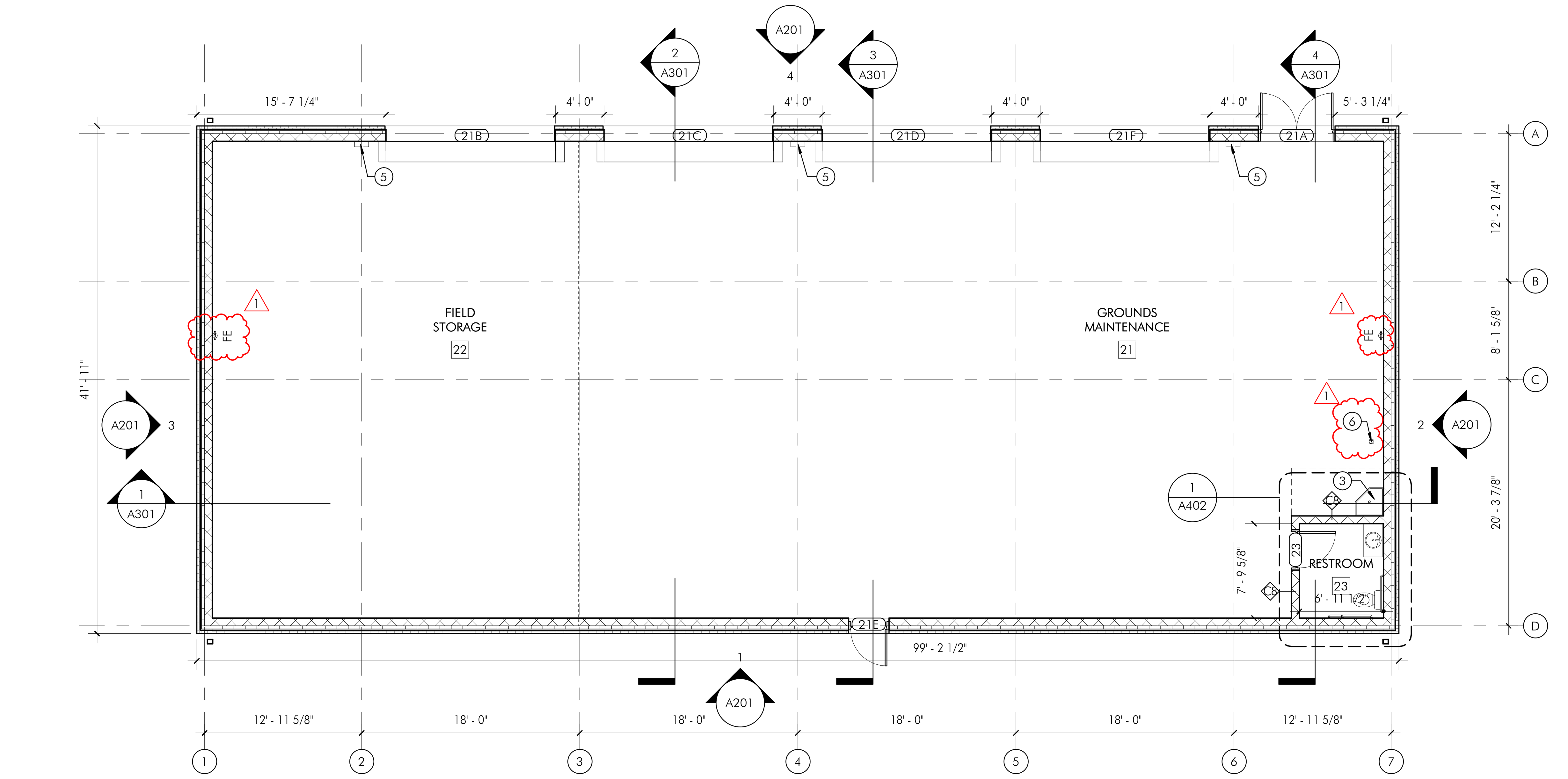
SHEET TITLE

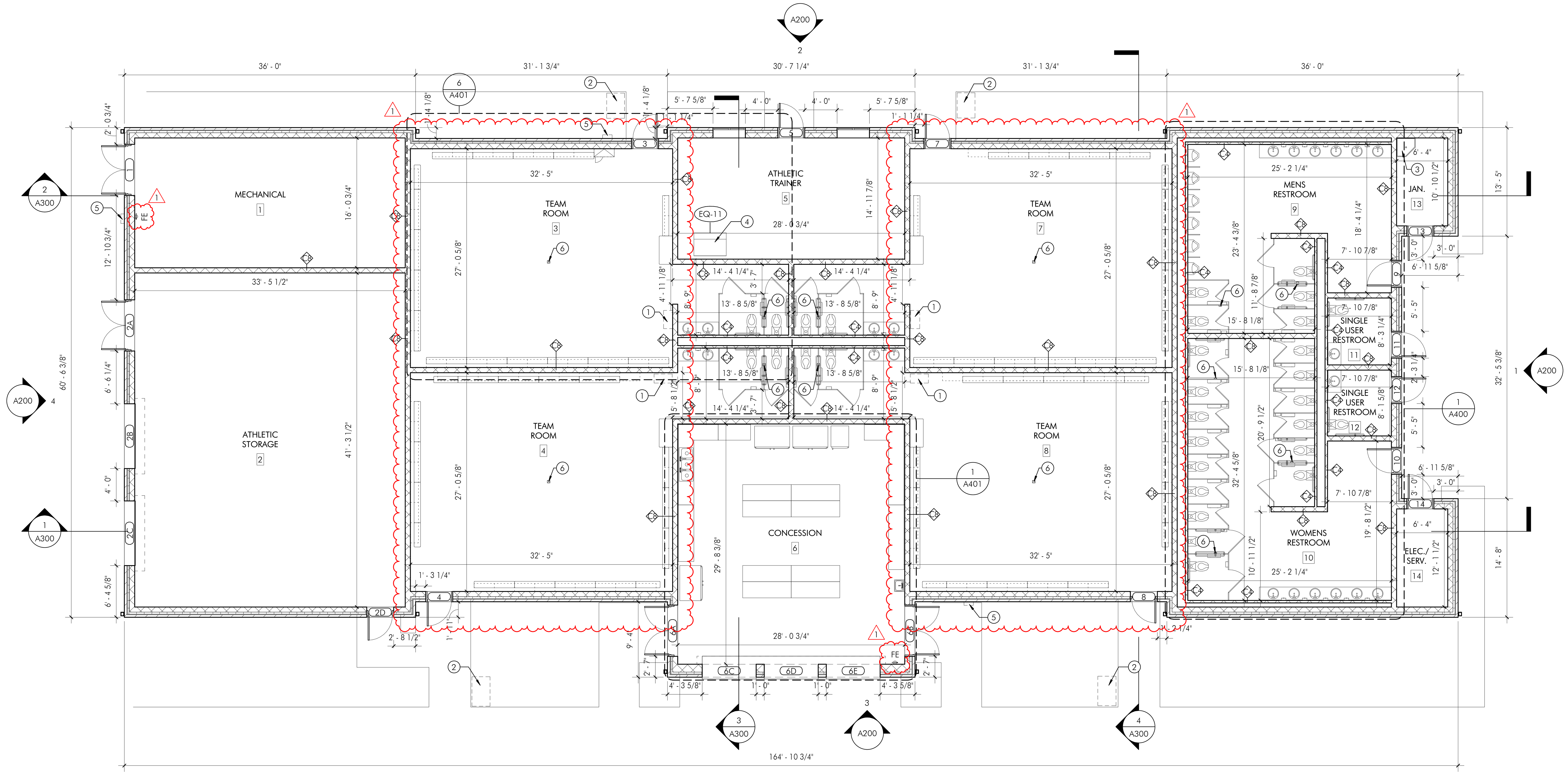
ABBREVIATIONS, GENERAL NOTES, DRAWING LIST

DRAWING NUMBER

A001



2 A100 GROUNDS & FIELDS BUILDING FIRST FLOOR PLAN
1/8" = 1'-0"



1 A100 FIELD HOUSE FIRST FLOOR PLAN
1/8" = 1'-0"

SHEET NOTES

1. ALL DIMENSIONS ARE TO FINISH FACES U.N.O.; REFER TO A400 SERIES FOR ADDITIONAL DIMENSIONS
2. REFER TO A001 FOR GENERAL CONSTRUCTION NOTES
3. REFER TO MEP DRAWINGS FOR ADDITIONAL INFORMATION
4. REFER TO CIVIL DRAWINGS FOR ADDITIONAL INFORMATION
5. REFER TO STRUCTURAL DRAWINGS FOR ADDITIONAL INFORMATION.
6. REFER TO ELEVATIONS AND SECTIONS FOR ADDITIONAL DIMENSIONS
7. REFER TO SHEETS A600 AND A601 FOR PARTITION, DOOR, WINDOW, EQUIPMENT AND ACCESSORY SCHEDULES AND TYPES
8. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION

SHEET KEYNOTES

1 BOTTLE FILLER
2 REFILL STATION
3 MOP SINK
4 ICE MACHINE
5 HOSE BIB
6 FLOOR DRAIN

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PLAN NORTH

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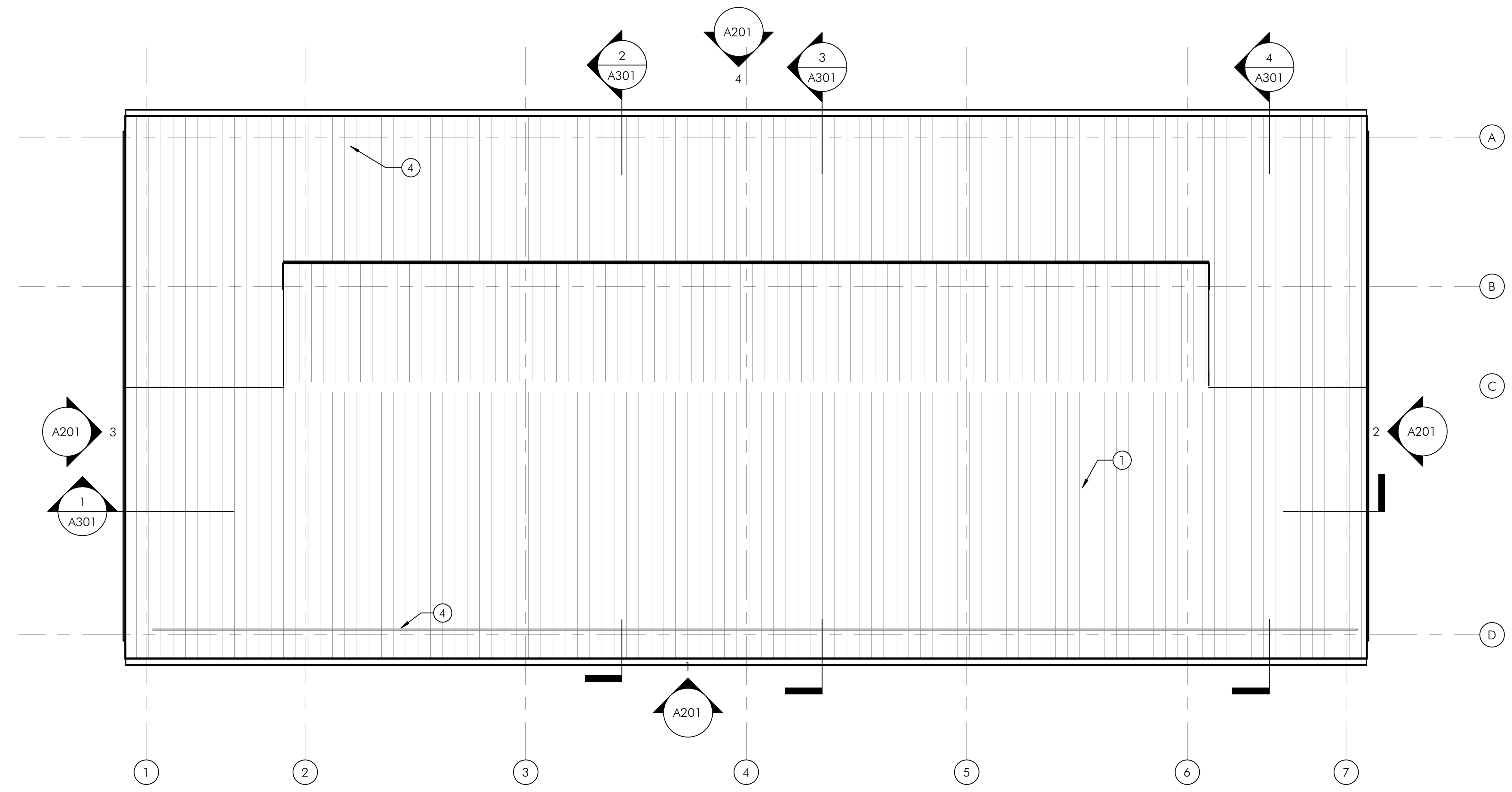
1	2024-04-23	ADDENDUM #01

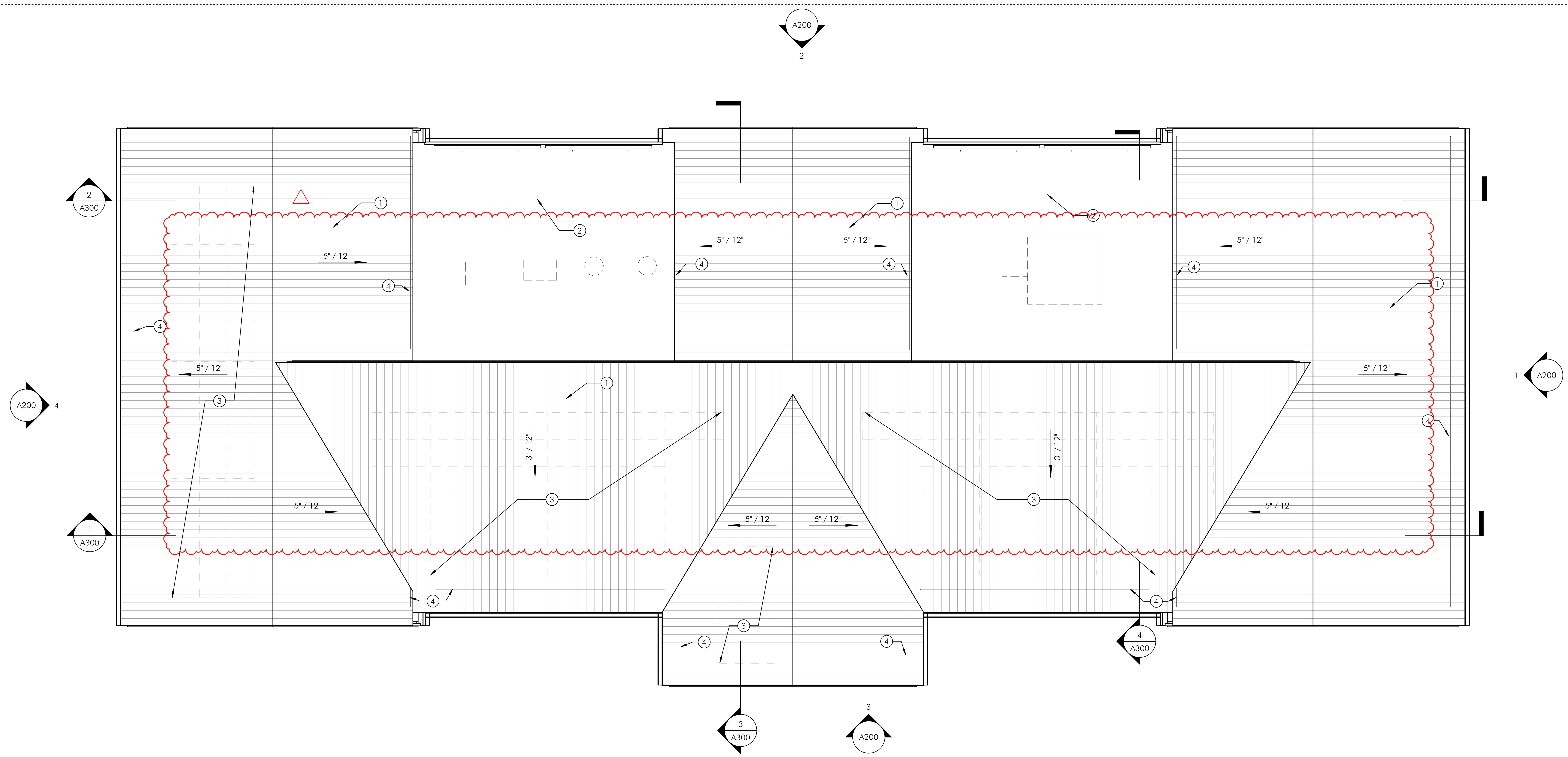
SHEET TITLE
PROPOSED FIRST FLOOR PLAN - FIELD HOUSE AND GROUNDS & FIELDS BUILDING

DRAWING NUMBER
A100

4/23/2024 4:23:20 PM



2 A102 GROUNDS & FIELDS BUILDING ROOF PLAN
1/8" = 1'-0"



1 A102 FIELD HOUSE ROOF PLAN
1/8" = 1'-0"

SHEET NOTES

1. ALL DIMENSIONS ARE TO FINISH FACES U.N.O.; REFER TO A400 SERIES FOR ADDITIONAL DIMENSIONS
2. REFER TO A001 FOR GENERAL CONSTRUCTION NOTES
3. REFER TO MEP DRAWINGS FOR ADDITIONAL INFORMATION
4. REFER TO CIVIL DRAWINGS FOR ADDITIONAL INFORMATION
5. REFER TO STRUCTURAL DRAWINGS FOR ADDITIONAL INFORMATION.
6. REFER TO ELEVATIONS AND SECTIONS FOR ADDITIONAL DIMENSIONS
7. REFER TO SHEETS A600 AND A601 FOR PARTITION, DOOR, WINDOW, EQUIPMENT AND ACCESSORY SCHEDULES AND TYPES
8. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION

SHEET KEYNOTES

1 STANDING SEAM METAL ROOF
2 EPDM MEMBRANE ROOF
3 PV PANELS. SEE ELECTRICAL DWGS
4 SNOW GUARDS

TESD CONESTOGA ATHLETIC FIELDS

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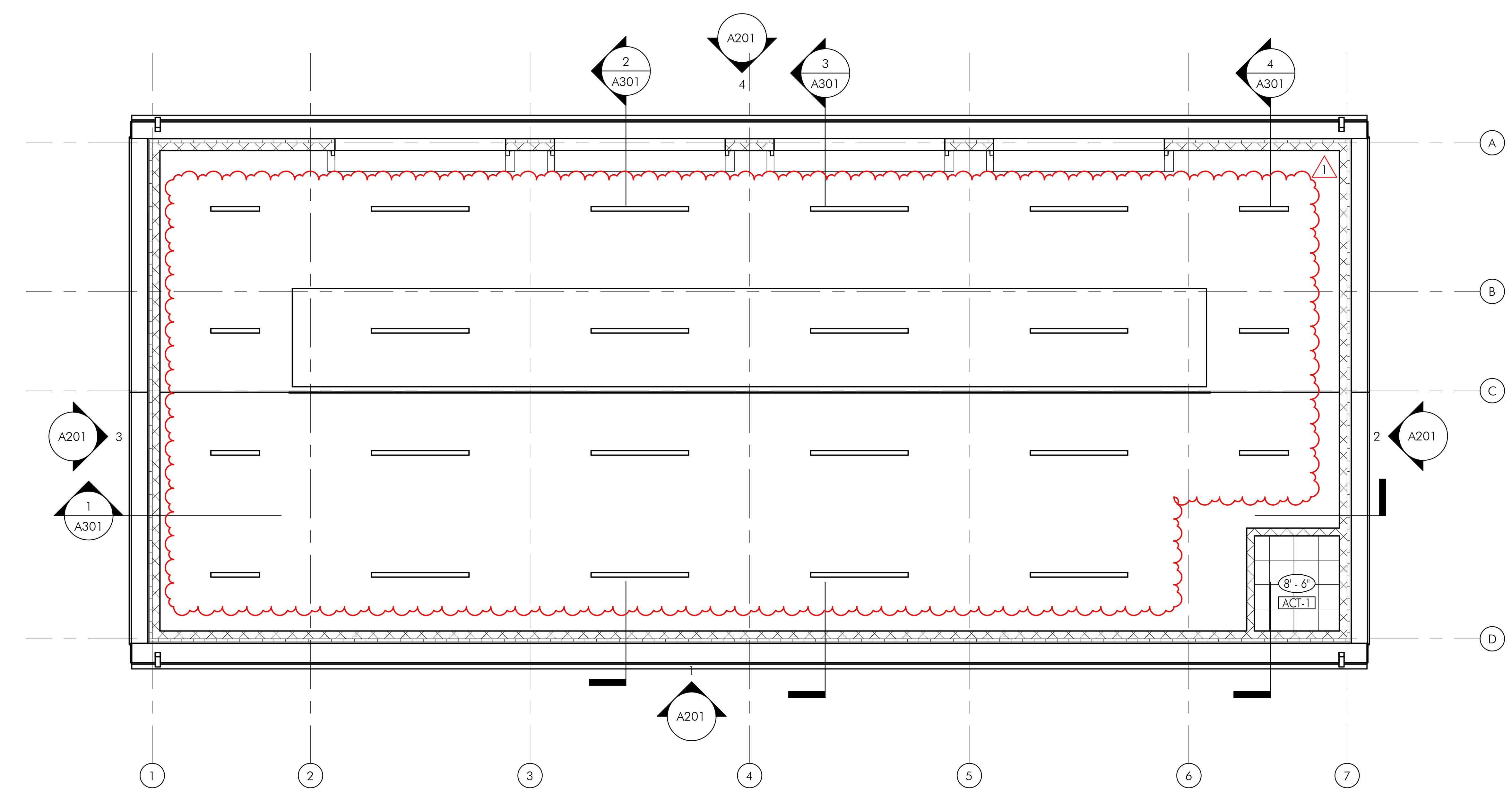
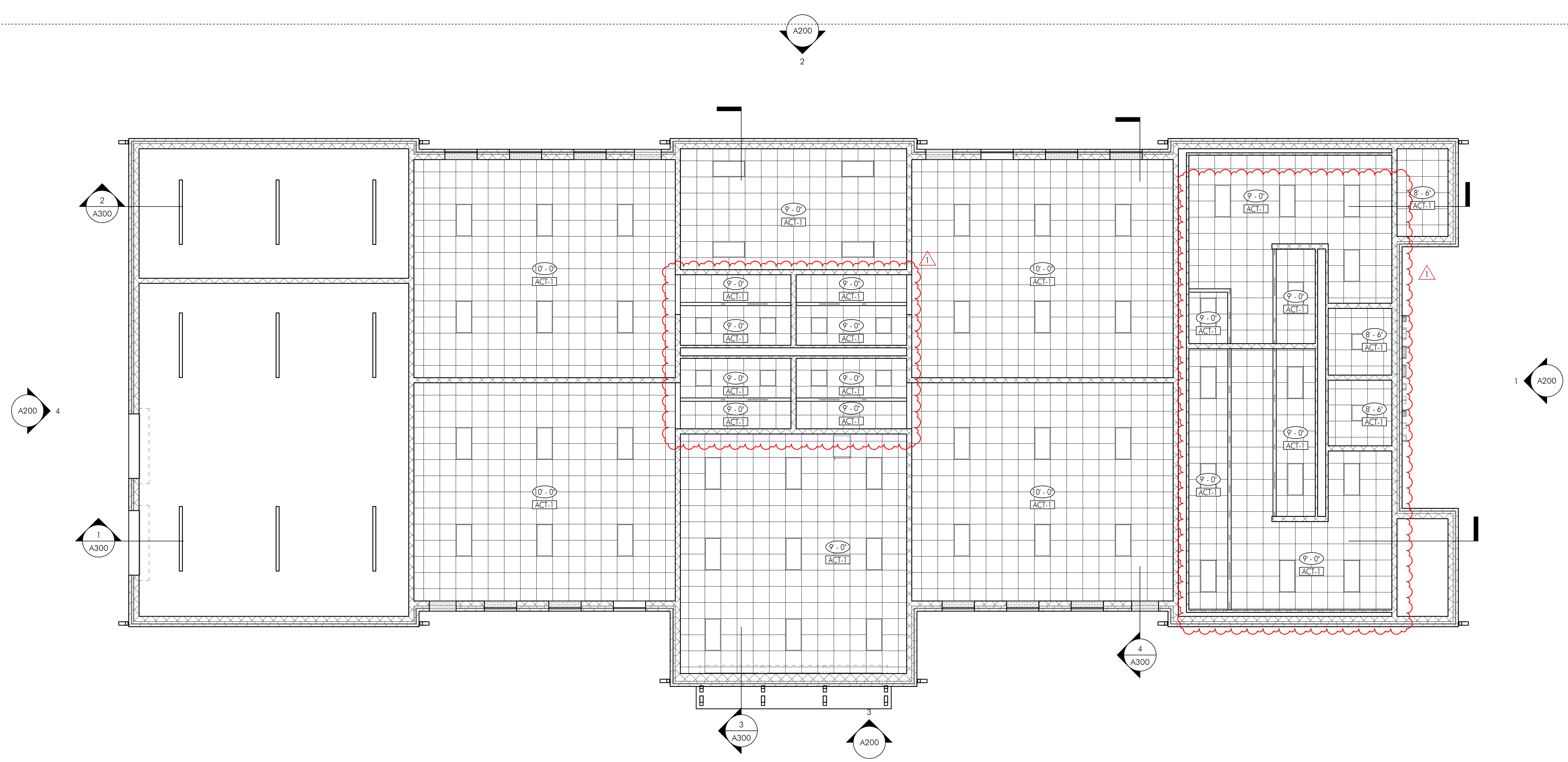
SHEET TITLE
PROPOSED ROOF PLAN - FIELD HOUSE AND GROUNDS & FIELDS BUILDING

DRAWING NUMBER
A102

4/23/2024 4:23:25 PM



2 A110 GROUNDS & FIELDS BUILDING REFLECTED CEILING PLAN
1/8" = 1'-0"



1 A110 FIELD HOUSE REFLECTIVE CEILING PLAN
1/8" = 1'-0"

SHEET NOTES

1. CEILING HEIGHTS ARE FROM FINISHED FLOOR
2. CENTER ACT IN SPACE U.N.O.
3. REFER TO MEP DRAWINGS FOR ADDITIONAL INFORMATION
4. ALL DIMENSIONS TO FINISHED FACE, U.N.O.
5. REFER TO ELECTRICAL DWGS FOR EMERGENCY SIGNAGE/LIGHTING AND DETAILED LIGHT FIXTURE SCHEDULE

SHEET KEYNOTES

1. NEW ACT CEILING AND GRID
2. NEW SCHEDULED LIGHT FIXTURES THROUGHOUT. REFER TO ELECTRICAL DRAWINGS

TESD CONESTOGA ATHLETIC FIELDS

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CHESTER COUNTY, PA

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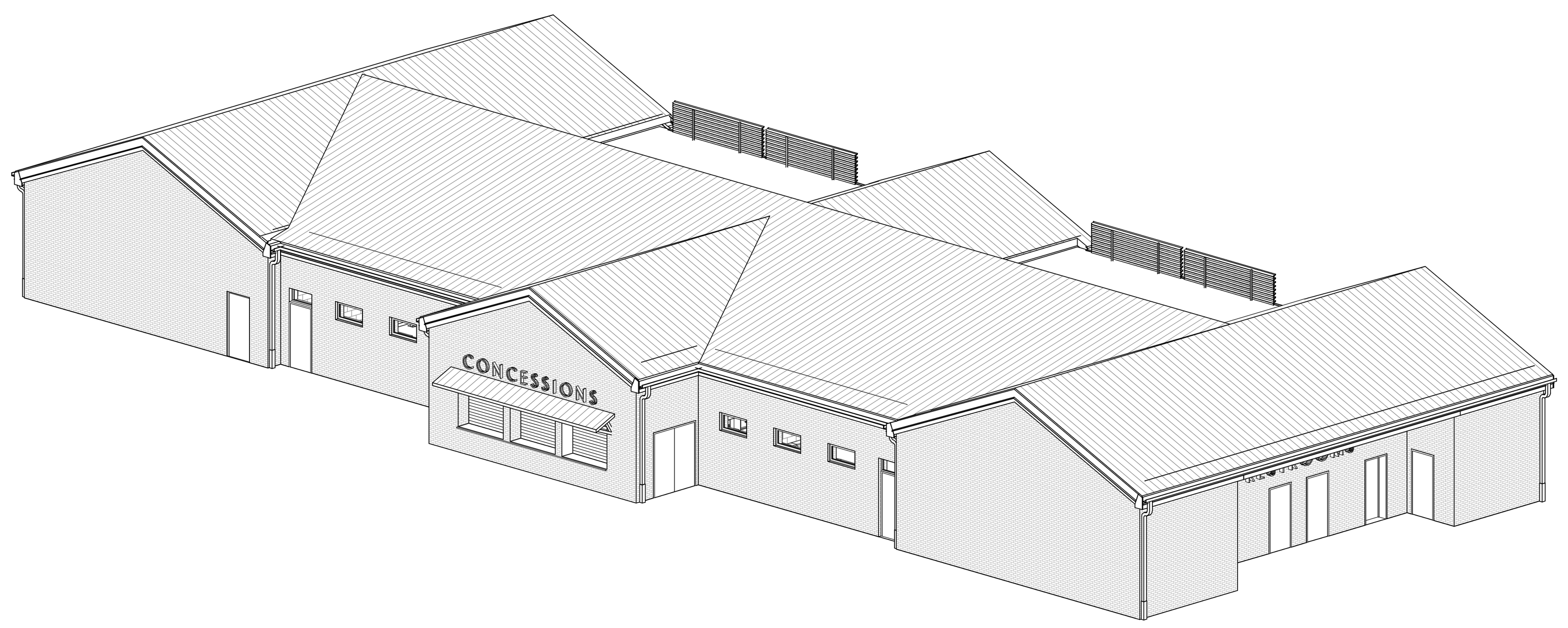
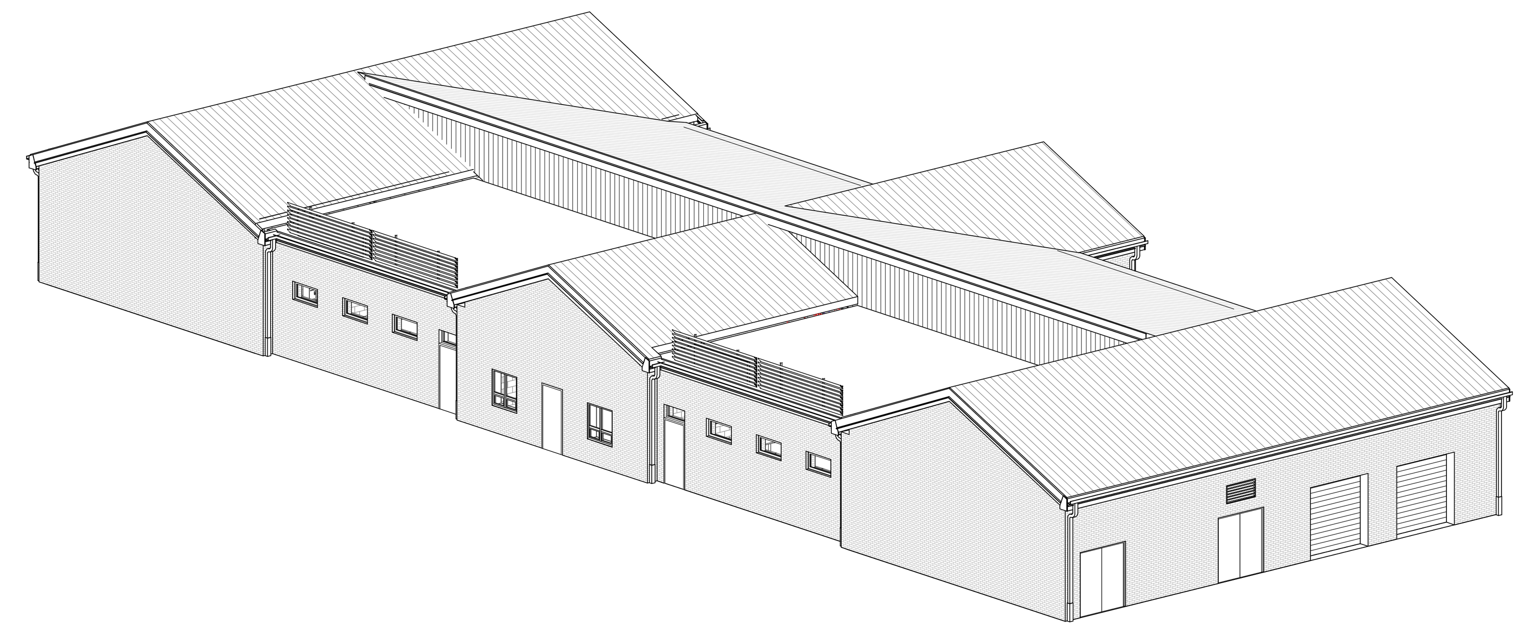
SHEET TITLE
PROPOSED REFLECTED CEILING PLAN - FIELD HOUSE AND GROUNDS & FIELDS BUILDING

DRAWING NUMBER
A110

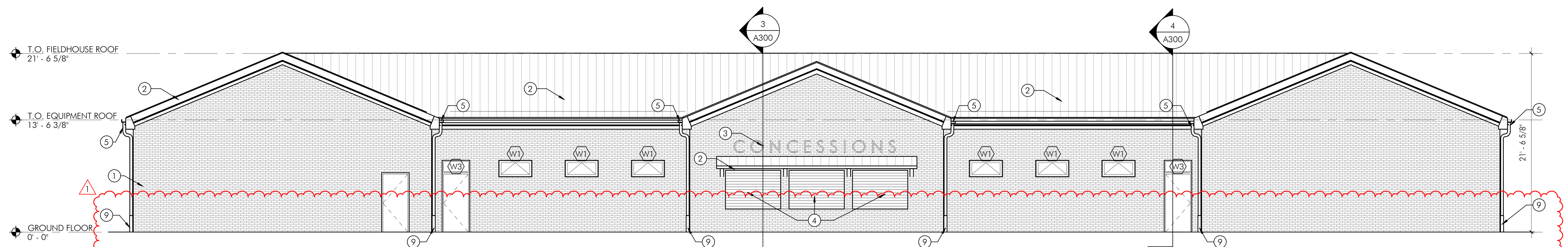
4/23/2024 4:23:28 PM



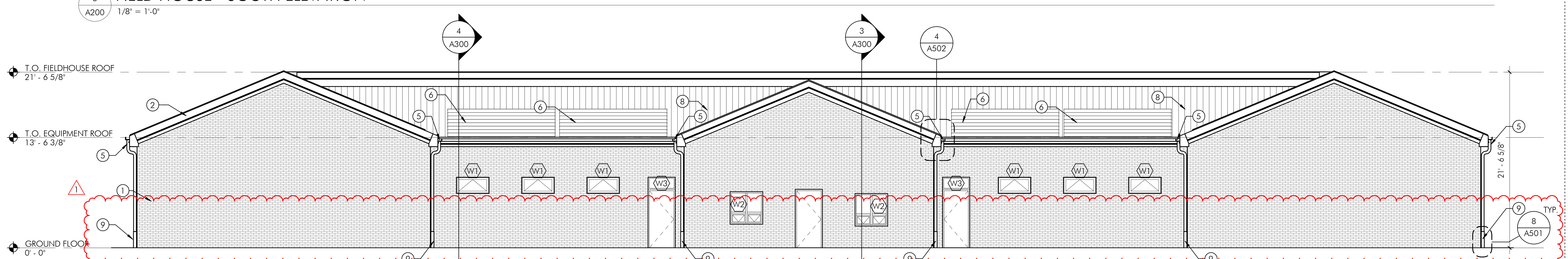
6 A200 FIELD HOUSE AXON SOUTH (FOR REFERENCE ONLY)



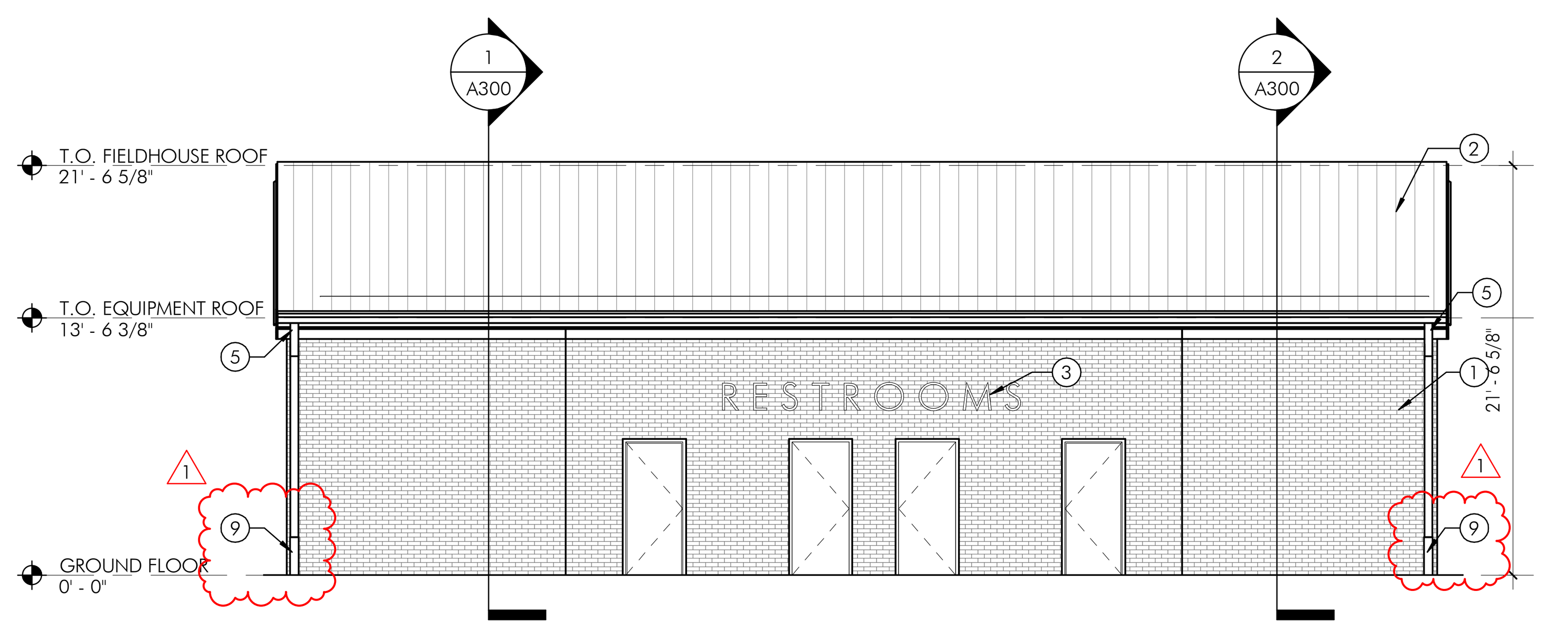
5 A200 FIELD HOUSE AXON NORTH (FOR REFERENCE ONLY)



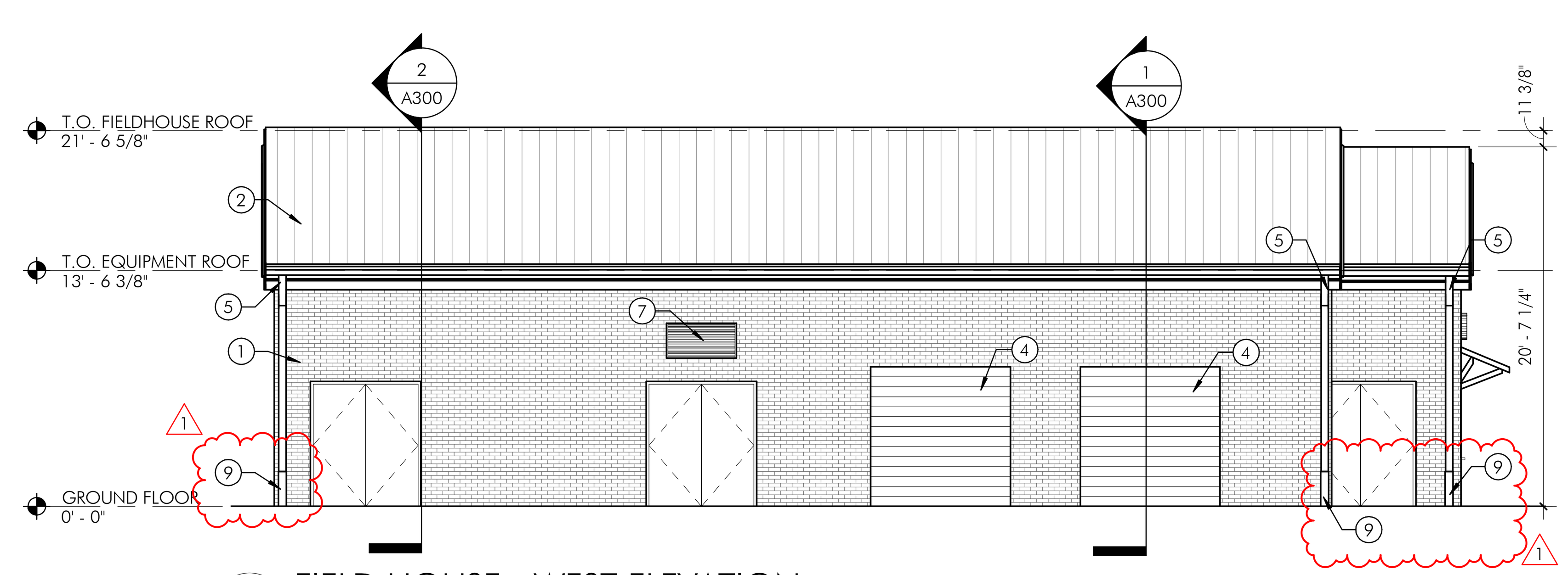
FIELD HOUSE - SOUTH ELEVATION
3 A200 1/8" = 1'-0"



FIELD HOUSE - NORTH ELEVATION
2 A200 1/8" = 1'-0"



FIELD HOUSE - EAST ELEVATION
1 A200 1/8" = 1'-0"



FIELD HOUSE - WEST ELEVATION
4 A200 1/8" = 1'-0"

SHEET NOTES

1. SEE SHEET A601 FOR DOOR AND WINDOW SCHEDULES
2. CONFIRM ALL ROOF / PARAPET COPING AND EDGE TRIM FINISH WITH ARCHITECT

SHEET KEYNOTES

1. BRICK MASONRY EXTERIOR WALL FINISH
2. STANDING SEAM METAL ROOF
3. 18" CLEAR ANODIZED ALUMINUM PIN LETTERS TYP
4. OVERHEAD COILING DOOR
5. ALUMINUM GUTTER & DOWNSPOUTS
6. ROOF SCREENS
7. LOUVER, REFER TO MECHANICAL DWGS FOR ADD'L INFO
8. VERTICAL METAL WALL PANEL
9. CAST IRON DOWNSPOUT BOOT

TESD CONESTOGA ATHLETIC FIELDS

TREDYFFRIN TOWNSHIP
CHESTER COUNTY, PA

HSA PROJECT # :21-019

HSA
Heckendorn Shiles Architects

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1	2024-04-23	ADDENDUM #01

SHEET TITLE
PROPOSED ELEVATIONS - FIELD HOUSE

DRAWING NUMBER
A200

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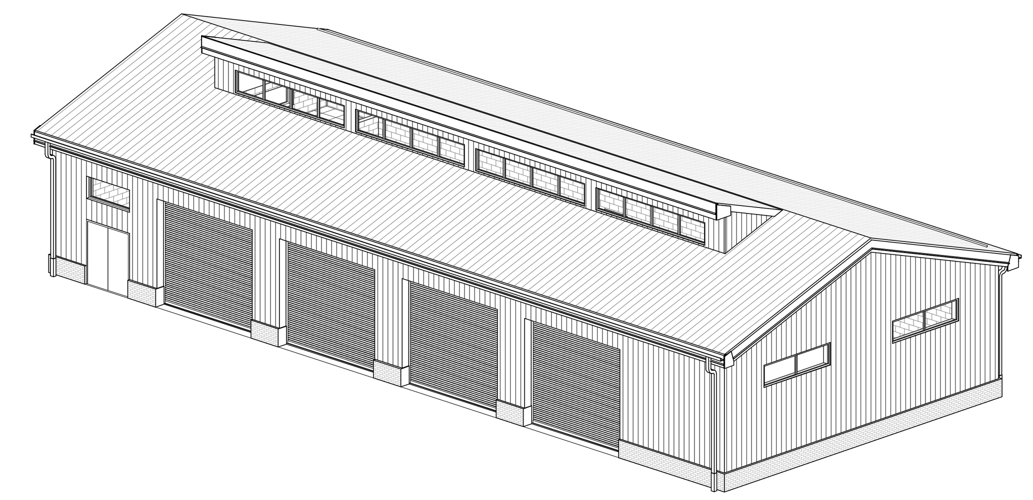
SHEET NOTES

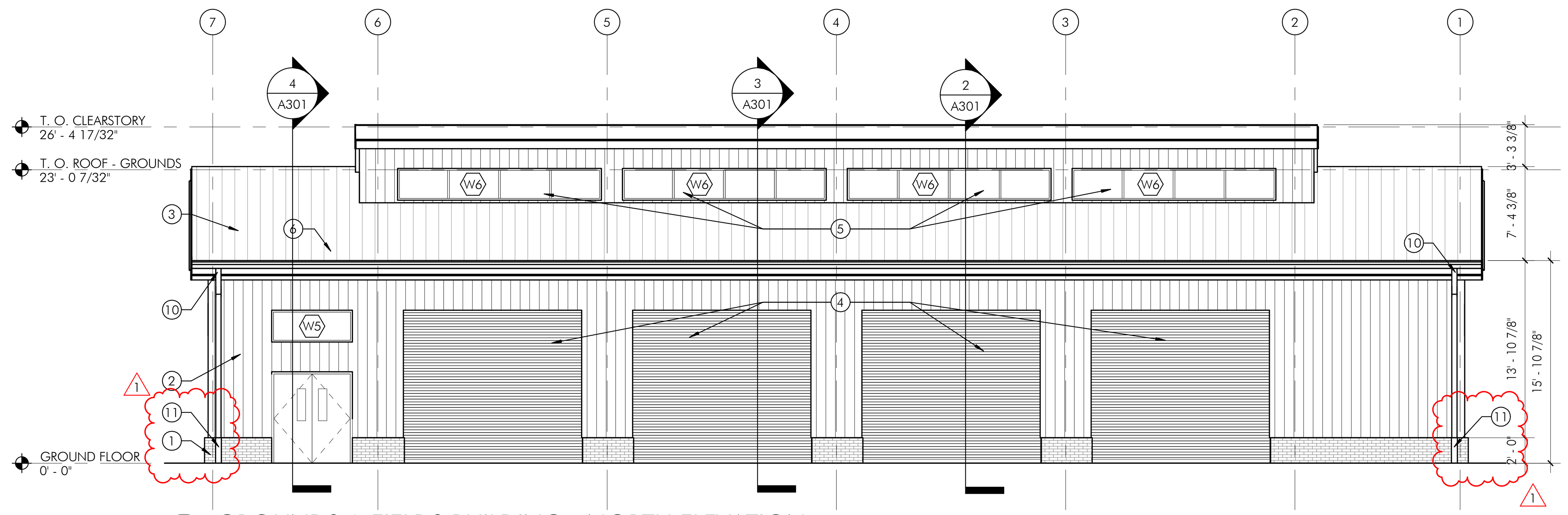
1. SEE SHEET A601 FOR DOOR AND WINDOW SCHEDULES
2. CONFIRM ALL ROOF / PARAPET COPING AND EDGE TRIM FINISH WITH ARCHITECT

SHEET KEYNOTES

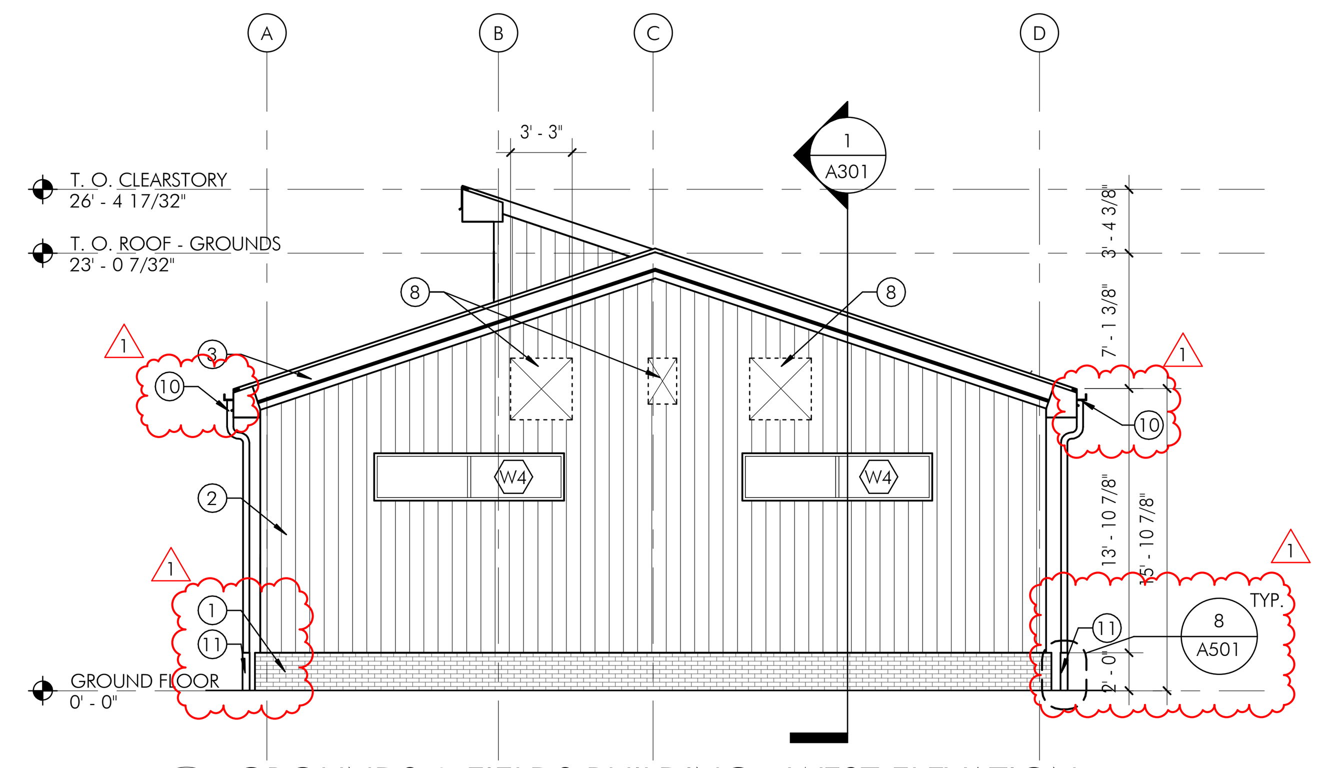
1. BRICK MASONRY EXTERIOR FINISH AT BASE.
2. VERTICAL METAL PANEL WALL EXTERIOR.
3. STANDING SEAM METAL ROOF.
4. OVERHEAD COILING DOOR.
5. TRASNLUCENT INSULATED PANEL
6. SNOW GUARDS
7. LOUVER, REFER TO MECHANICAL DWGS FOR ADD'L INFO
8. EXHAUST FAN, REFER TO MECHANICAL DWGS FOR ADD'L INFO
9. INTAKES, REFER TO MECHANICAL DWGS FOR ADD'L INFO
10. ALUMINUM GUTTER & DOWNSPOUTS
11. CAST IRON DOWNSPOUT BOOT



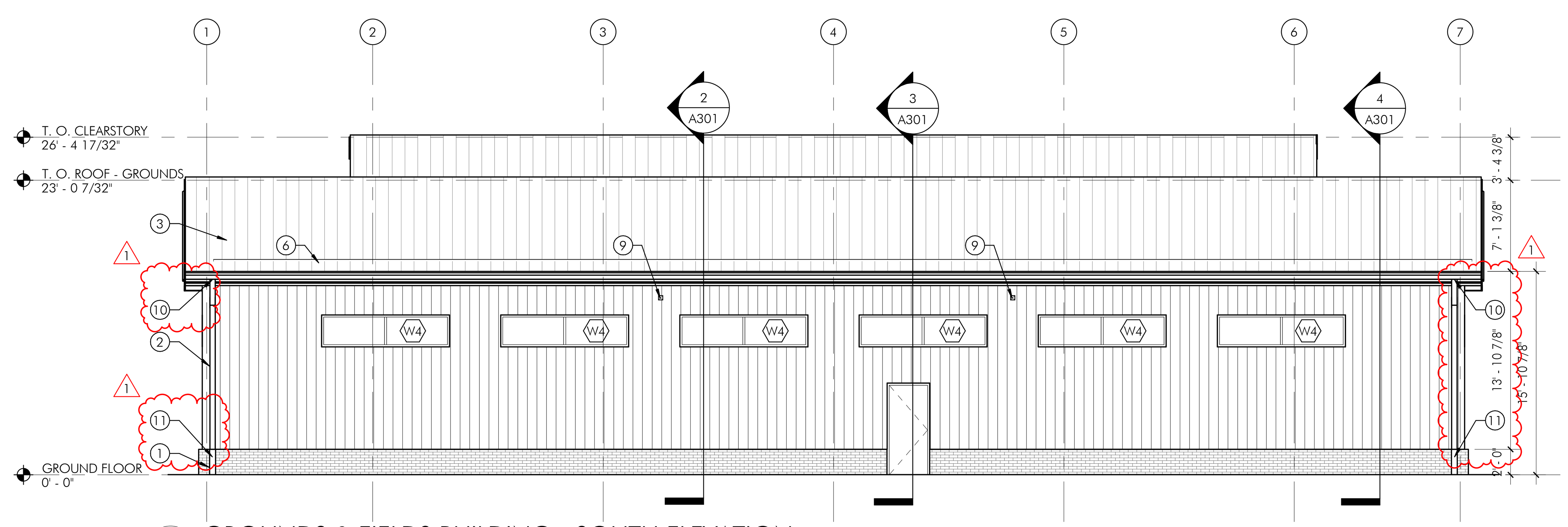
5 A201 GROUNDS & FIELDS BUILDING AXON EAST (FOR REFERENCE ONLY)



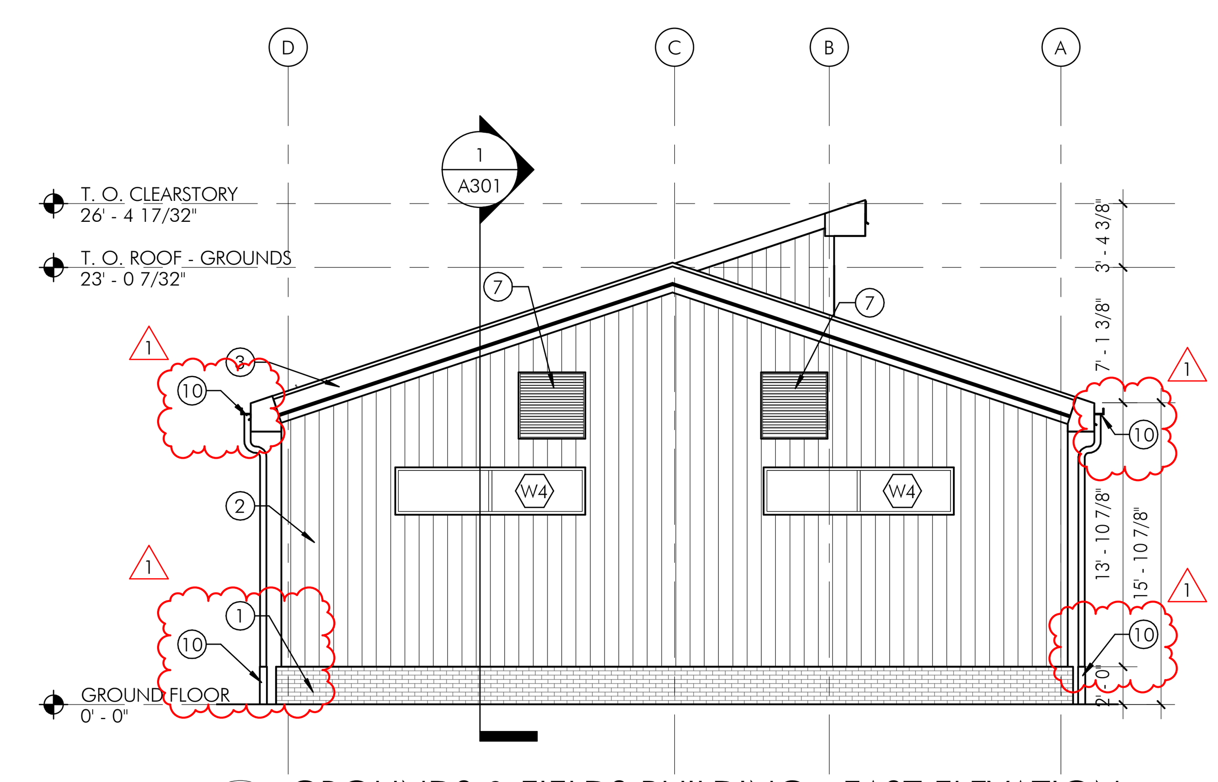
4 A201 GROUNDS & FIELDS BUILDING - NORTH ELEVATION
1/8" = 1'-0"



3 A201 GROUNDS & FIELDS BUILDING - WEST ELEVATION
1/8" = 1'-0"



1 A201 GROUNDS & FIELDS BUILDING - SOUTH ELEVATION
1/8" = 1'-0"



2 A201 GROUNDS & FIELDS BUILDING - EAST ELEVATION
1/8" = 1'-0"

TESD CONESTOGA ATHLETIC FIELDS

TREDYFFRIN TOWNSHIP
CHESTER COUNTY, PA

HSA PROJECT # :21-019

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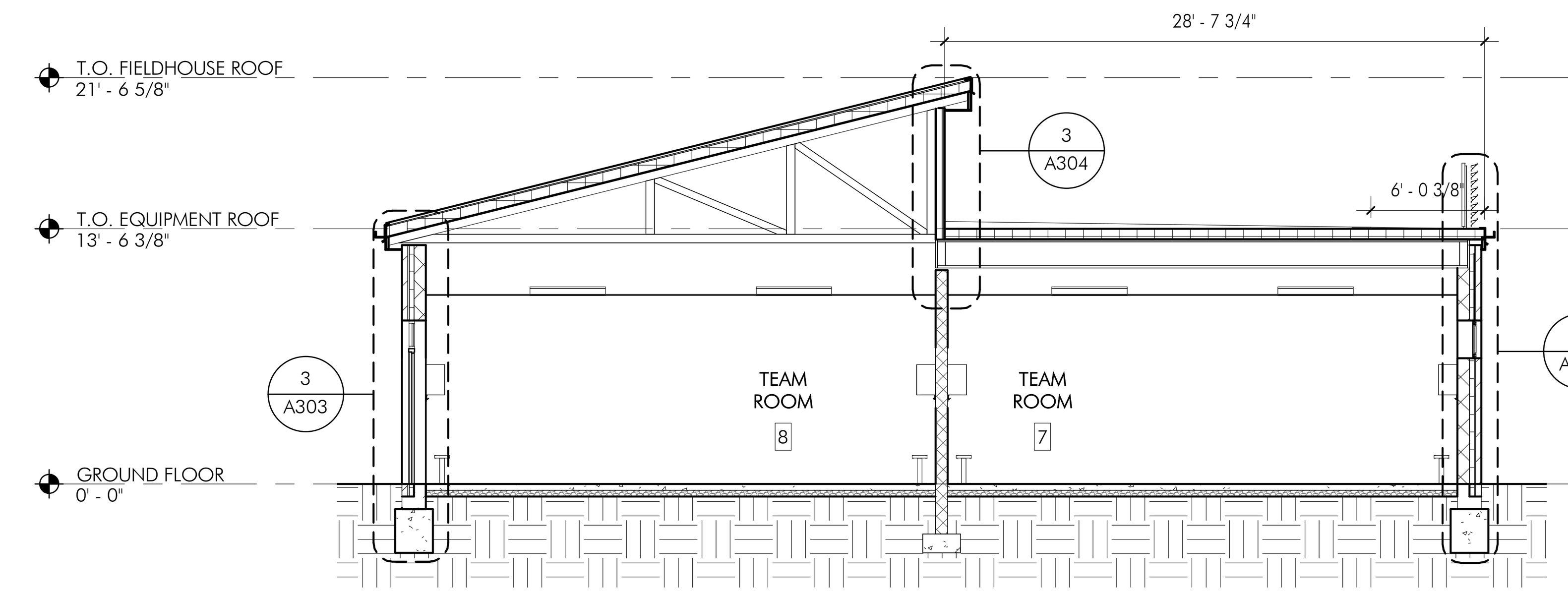
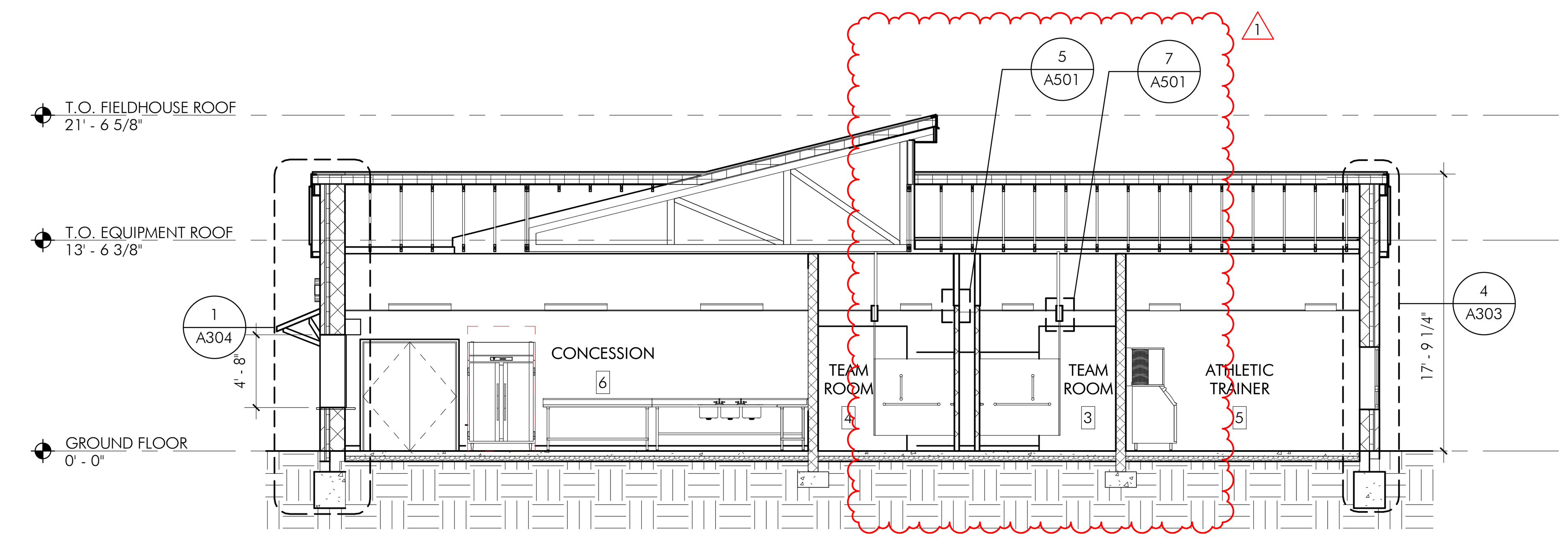
SHEET TITLE
PROPOSED ELEVATIONS - GROUNDS & FIELDS BUILDING

DRAWING NUMBER
A201

4/23/2024 4:23:39 PM

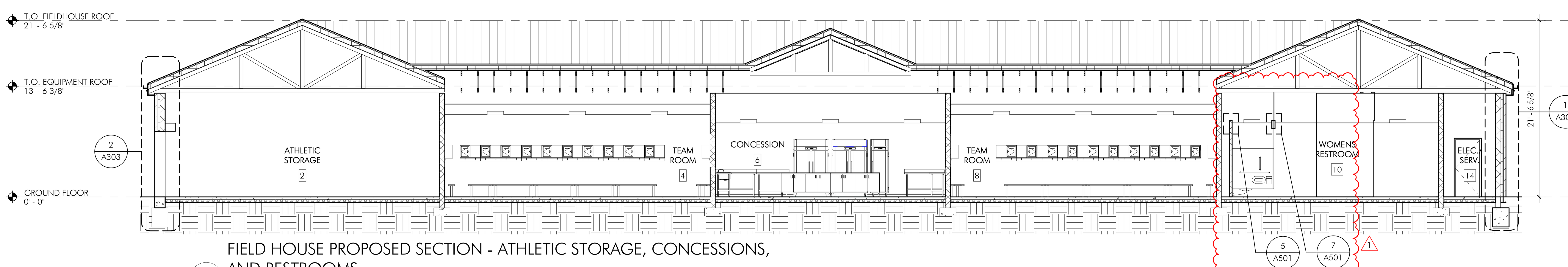


4 A300 FIELD HOUSE PROPOSED SECTION - TEAM ROOMS
1/8" = 1'-0"



3 A300 FIELD HOUSE PROPOSED SECTION - CONCESSIONS AND ATHLETIC TRAINER
1/8" = 1'-0"

2 A300 FIELD HOUSE PROPOSED SECTION - MECHANICAL, TEAM ROOMS, AND ATHLETIC TRAINER
1/8" = 1'-0"



1 A300 FIELD HOUSE PROPOSED SECTION - ATHLETIC STORAGE, CONCESSIONS, AND RESTROOMS
1/8" = 1'-0"

4/23/2024 4:23:42 PM

TESD CONESTOGA ATHLETIC FIELDS

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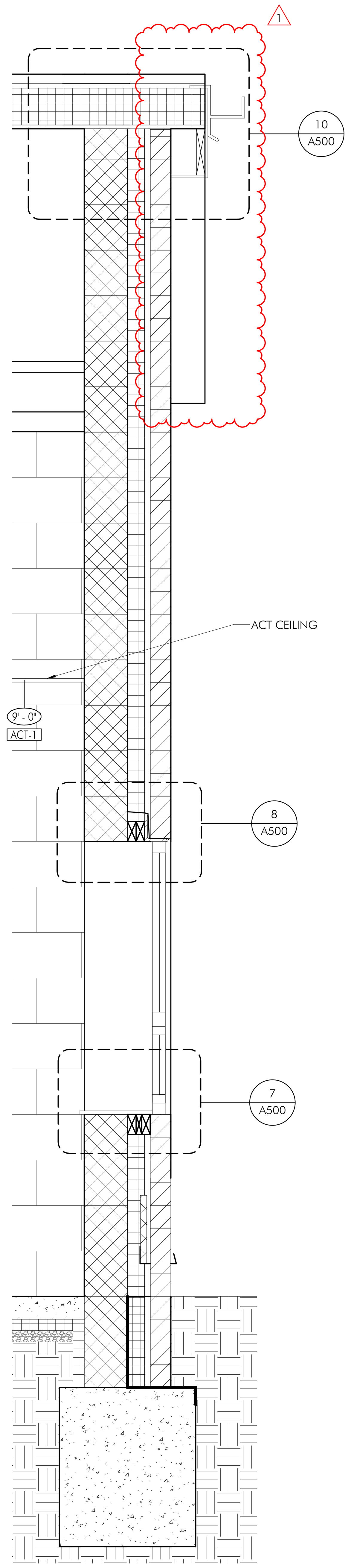
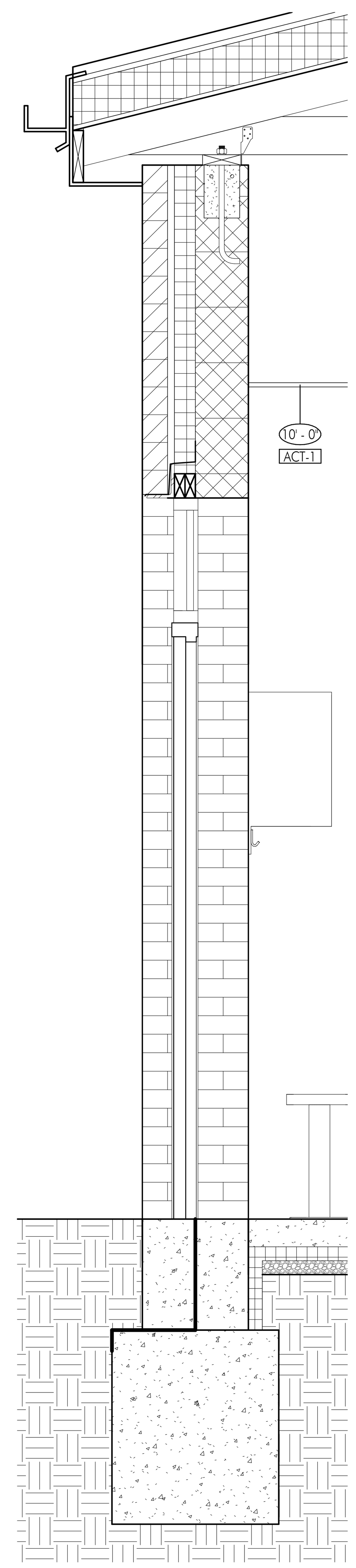
SHEET TITLE
PROPOSED SECTIONS - FIELD HOUSE

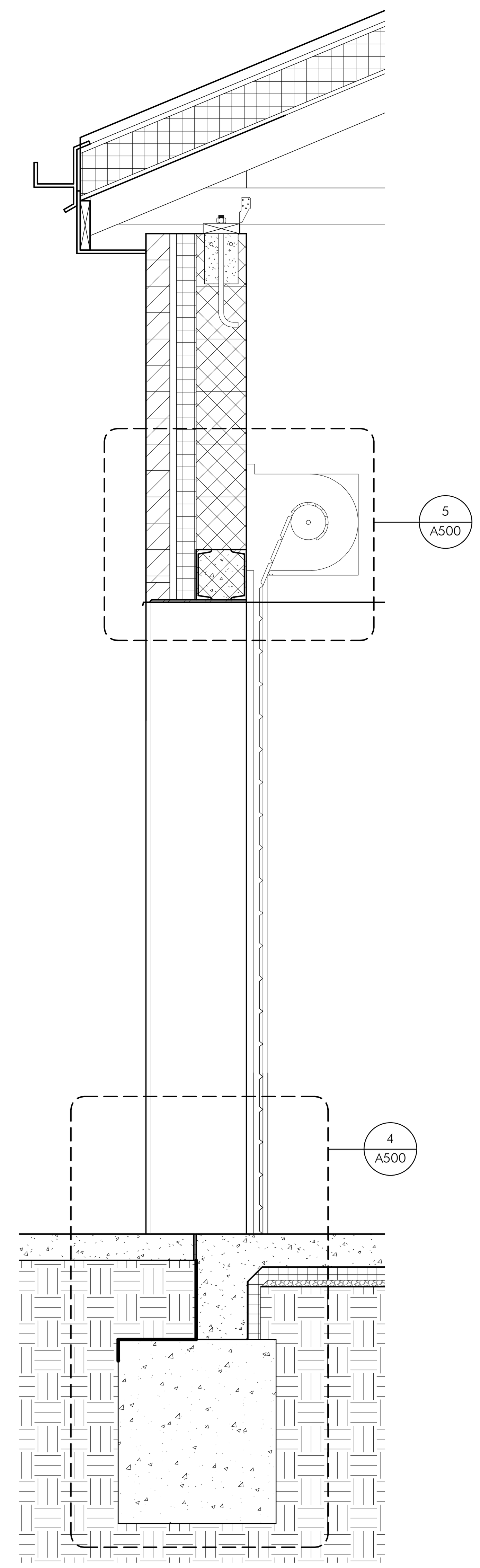
DRAWING NUMBER
A300



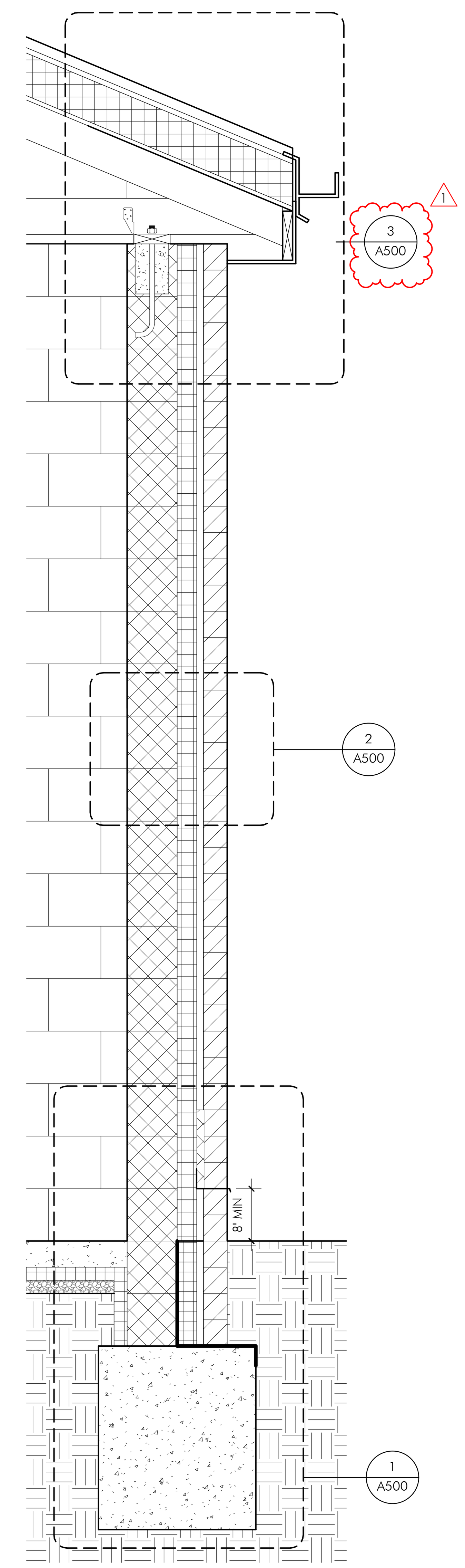
4 FIELD HOUSE WALL SECTION - AT DOORWAY
A303 3/4" = 1'-0"



3 FIELD HOUSE WALL SECTION - AT WINDOW
A303 3/4" = 1'-0"



2 FIELD HOUSE WALL SECTION - ATHLETIC STORAGE DOOR
A303 3/4" = 1'-0"



1 FIELD HOUSE WALL SECTION - TYPICAL
A303 3/4" = 1'-0"

TESD CONESTOGA ATHLETIC FIELDS

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SHEET TITLE
PROPOSED WALL SECTIONS - FIELD HOUSE

DRAWING NUMBER
A303

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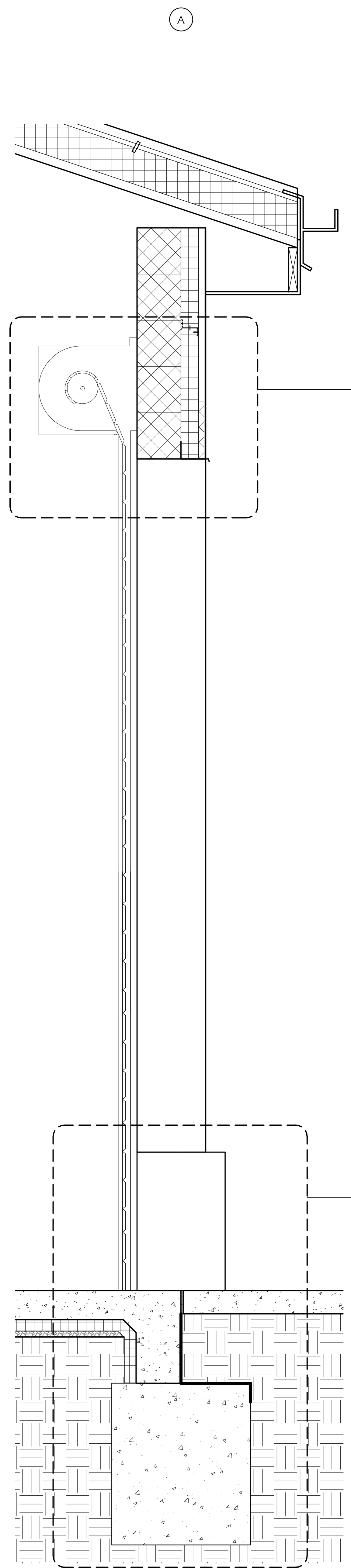
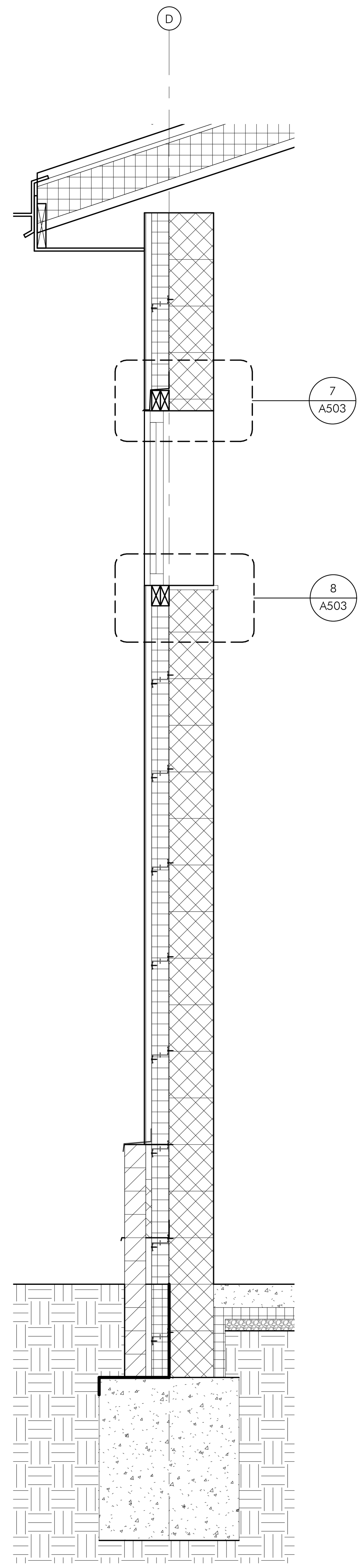
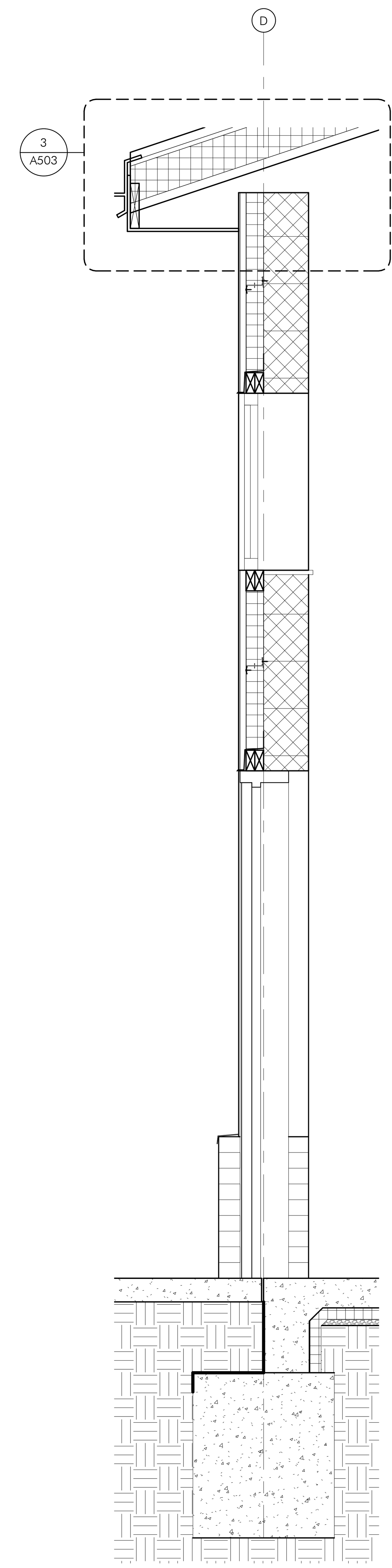


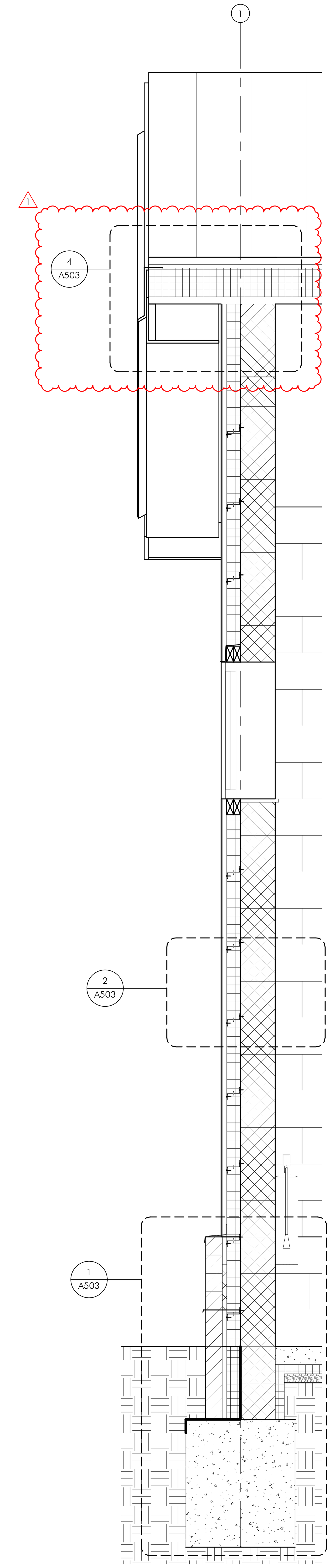
4 A305 GROUNDS & FIELDS BUILDING WALL SECTION - AT OVERHEAD DOOR
3/4" = 1'-0"



3 A305 GROUNDS & FIELDS BUILDING WALL SECTION - AT WINDOW
3/4" = 1'-0"



2 A305 GROUNDS & FIELDS BUILDING WALL SECTION - AT DOORWAY
3/4" = 1'-0"



5 A305 GROUNDS & FIELDS BUILDING WALL SECTION - TYPICAL
3/4" = 1'-0"

TESD CONESTOGA ATHLETIC FIELDS

TREDYFFRIN TOWNSHIP
CHESTER COUNTY, PA

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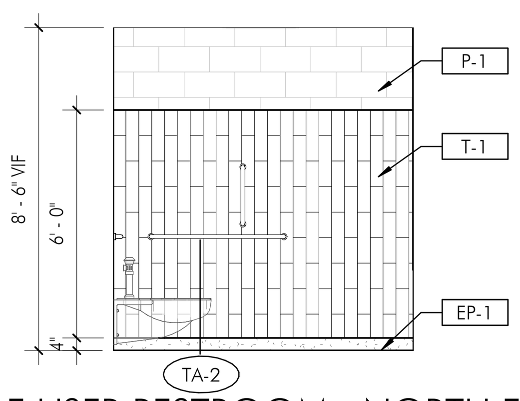
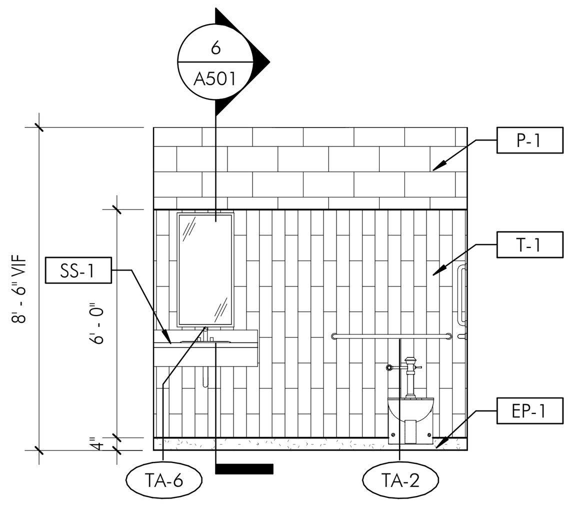
SHEET TITLE
PROPOSED SECTIONS - GROUNDS & FIELDS BUILDING

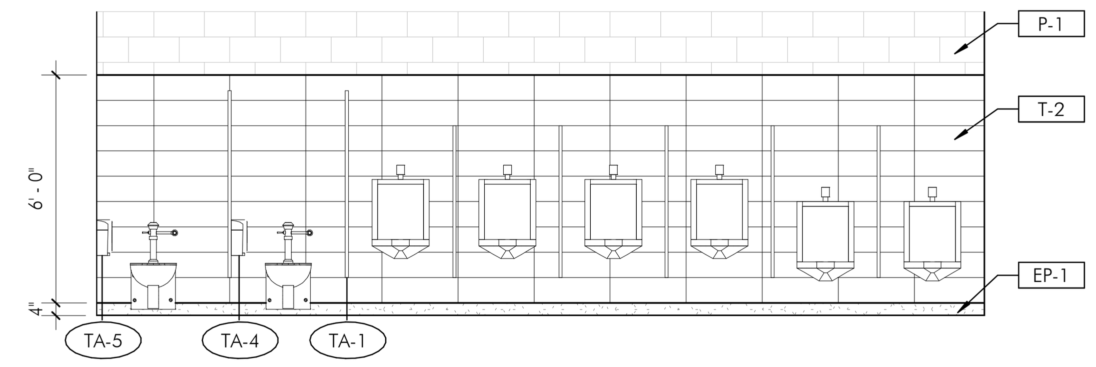
DRAWING NUMBER
A305



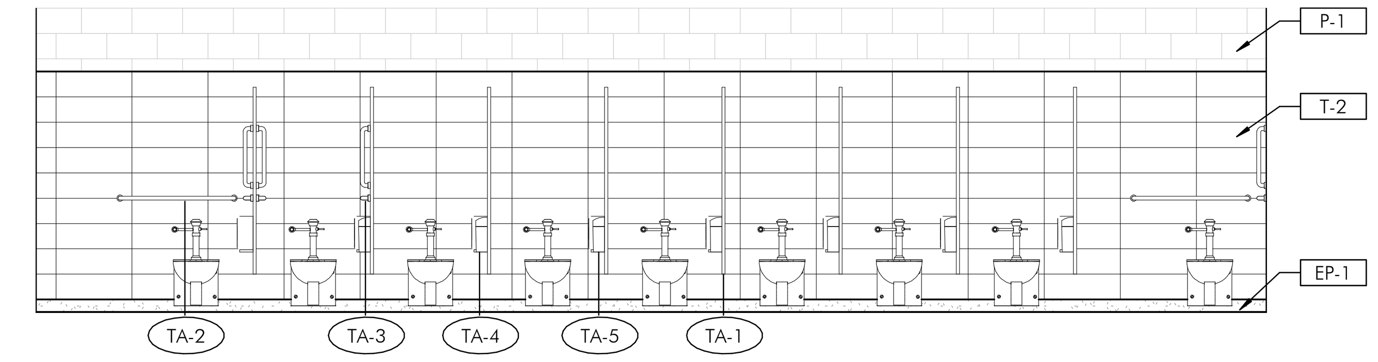
17 A400 SINGLE USER RESTROOM - NORTH ELEVATION
1/4" = 1'-0"



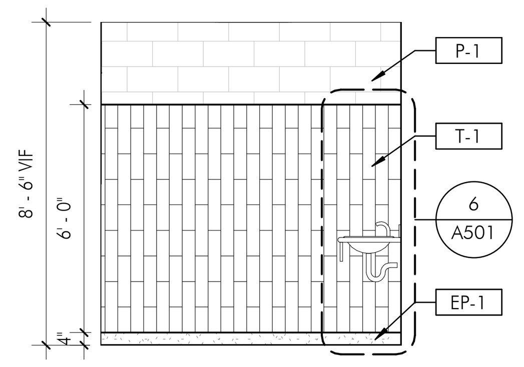
16 A400 SINGLE USER RESTROOM - WEST ELEVATION
1/4" = 1'-0"



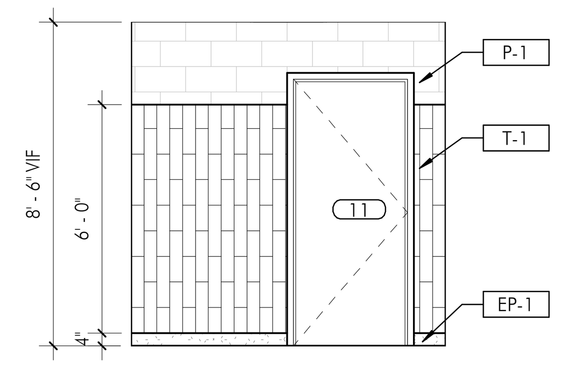
9 A400 MENS RESTROOM - WEST ELEVATION STALLS
1/4" = 1'-0"



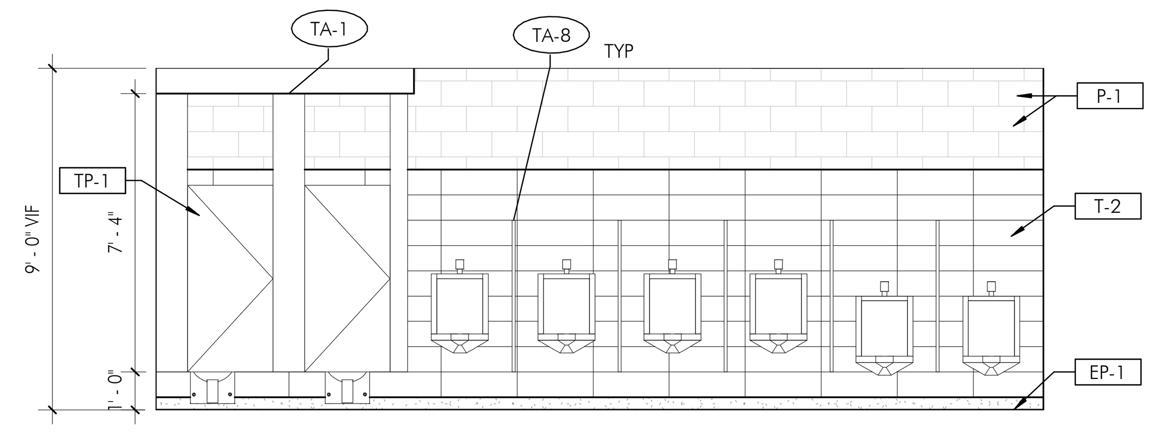
3 A400 WOMEN'S RESTROOM - WEST ELEVATION STALLS
1/4" = 1'-0"



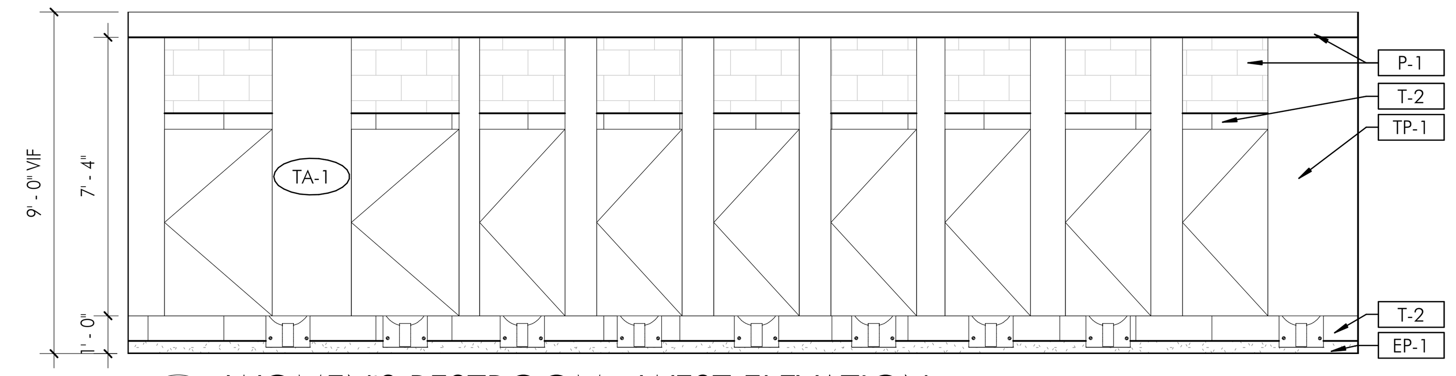
15 A400 SINGLE USER RESTROOM - SOUTH ELEVATION
1/4" = 1'-0"



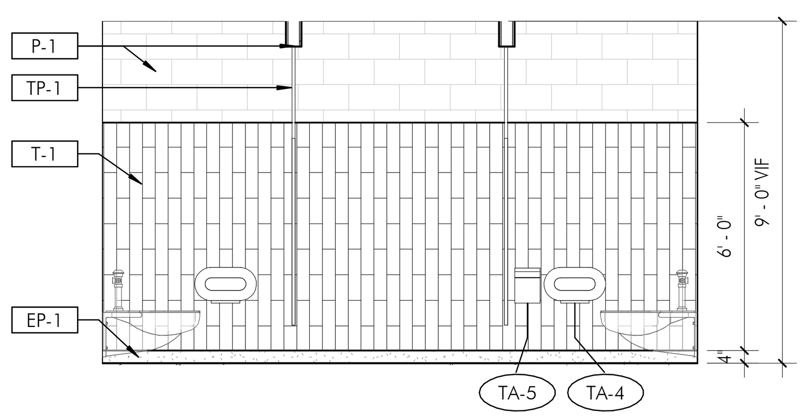
14 A400 SINGLE USER RESTROOM - EAST ELEVATION
1/4" = 1'-0"



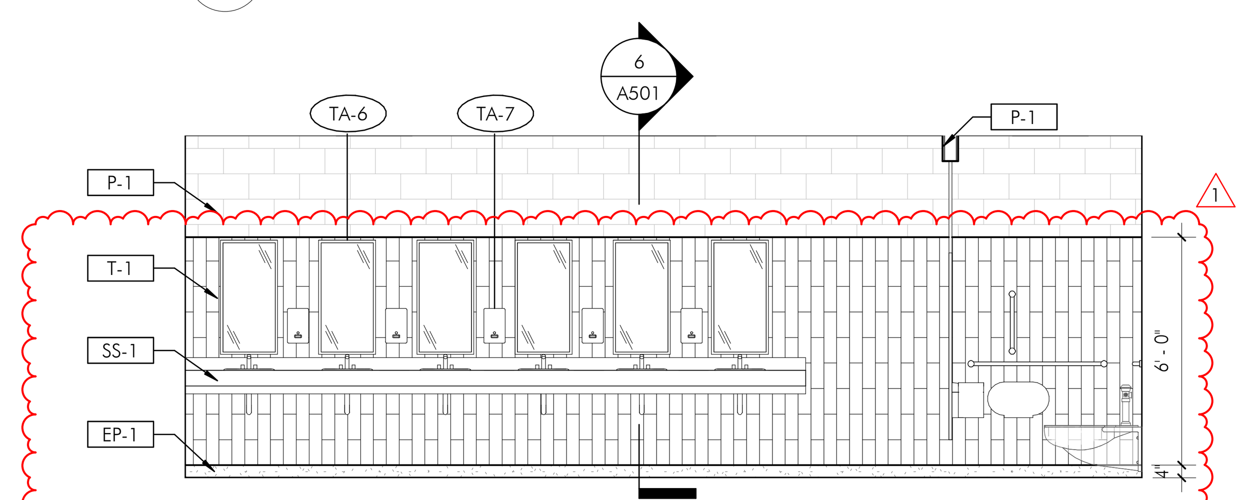
8 A400 MENS RESTROOM - WEST ELEVATION
1/4" = 1'-0"



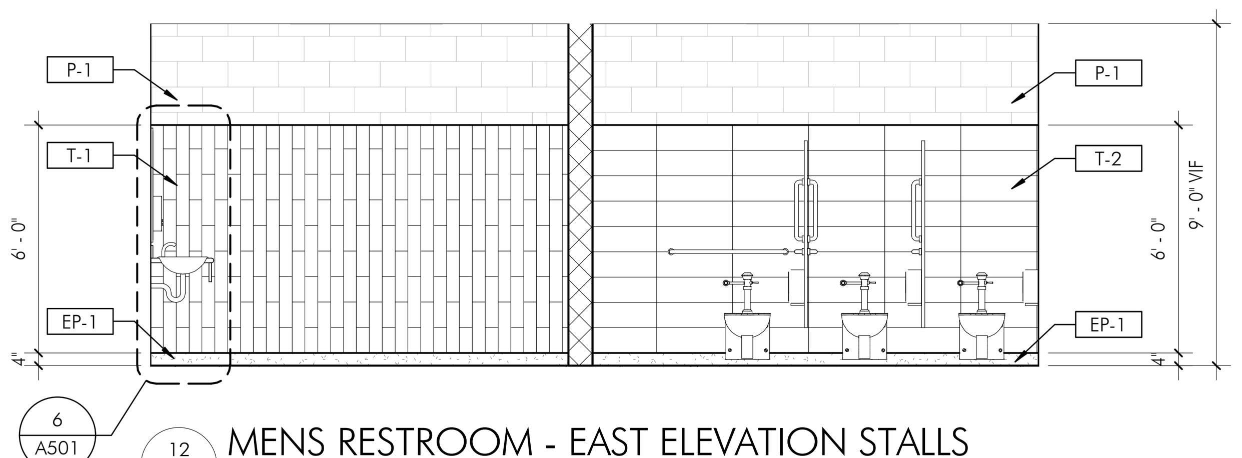
2 A400 WOMEN'S RESTROOM - WEST ELEVATION
1/4" = 1'-0"



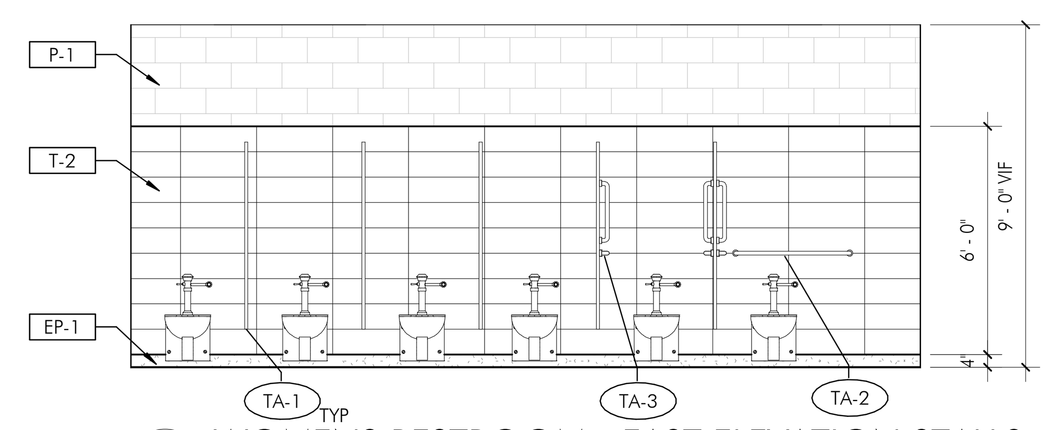
13 A400 MENS RESTROOM - SOUTH ELEVATION
1/4" = 1'-0"



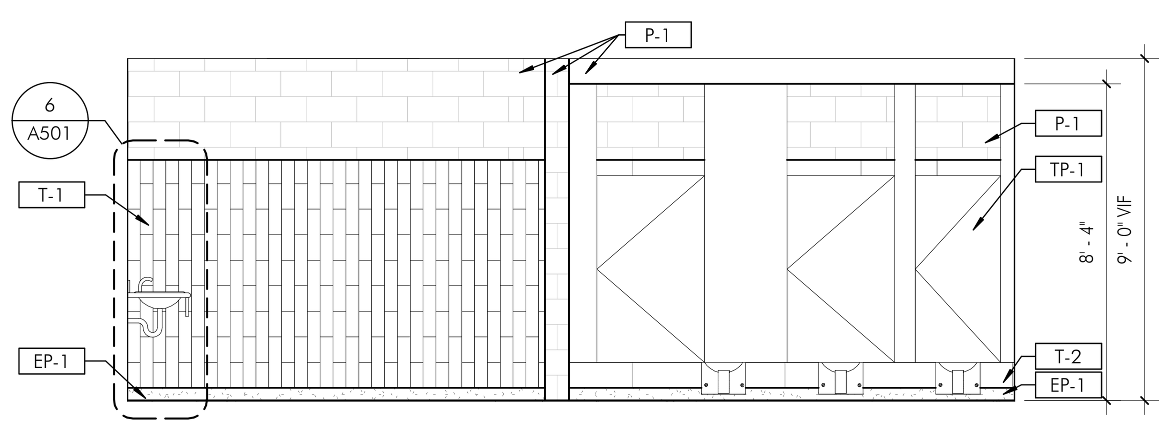
7 A400 WOMENS RESTROOM - SOUTH ELEVATION
1/4" = 1'-0"



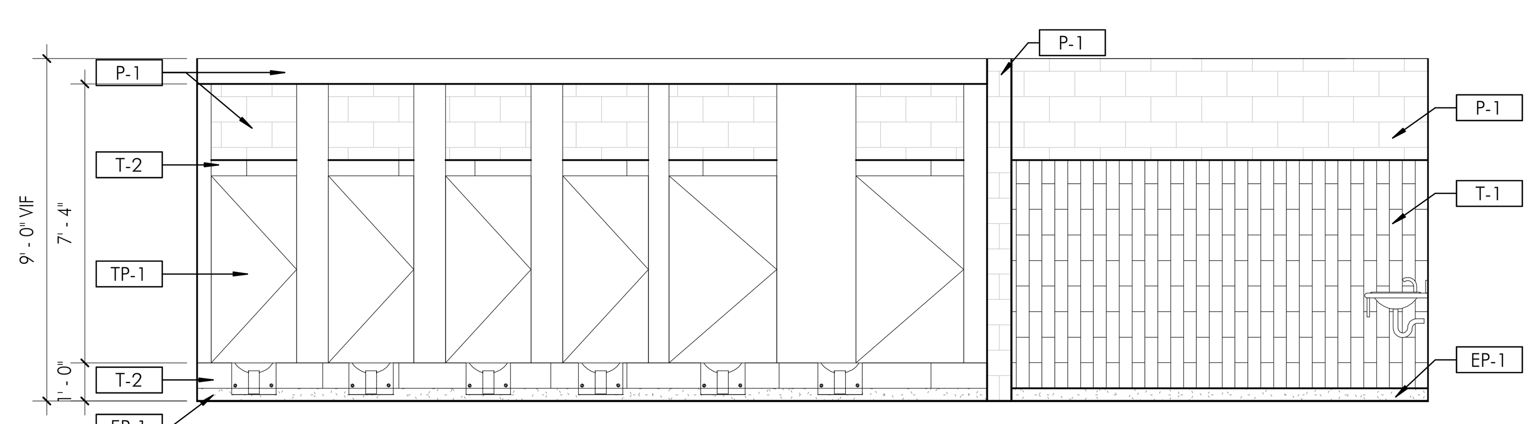
12 A400 MENS RESTROOM - EAST ELEVATION STALLS
1/4" = 1'-0"



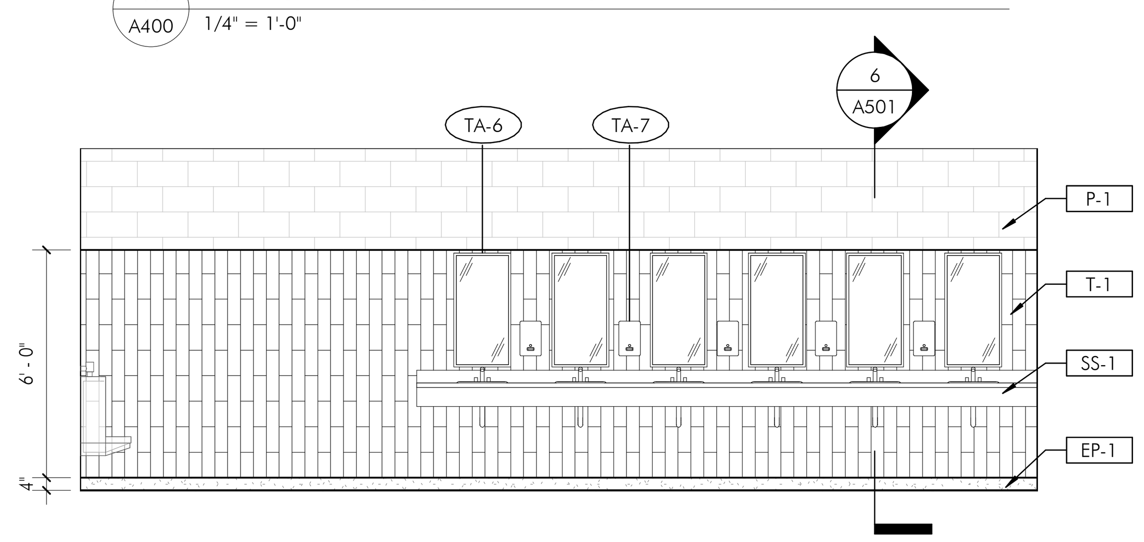
6 A400 WOMENS RESTROOM - EAST ELEVATION STALLS
1/4" = 1'-0"



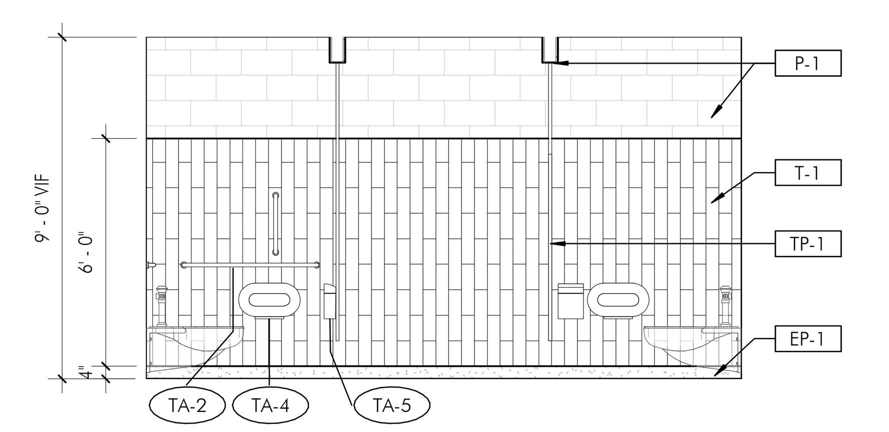
11 A400 MENS RESTROOM - EAST ELEVATION
1/4" = 1'-0"



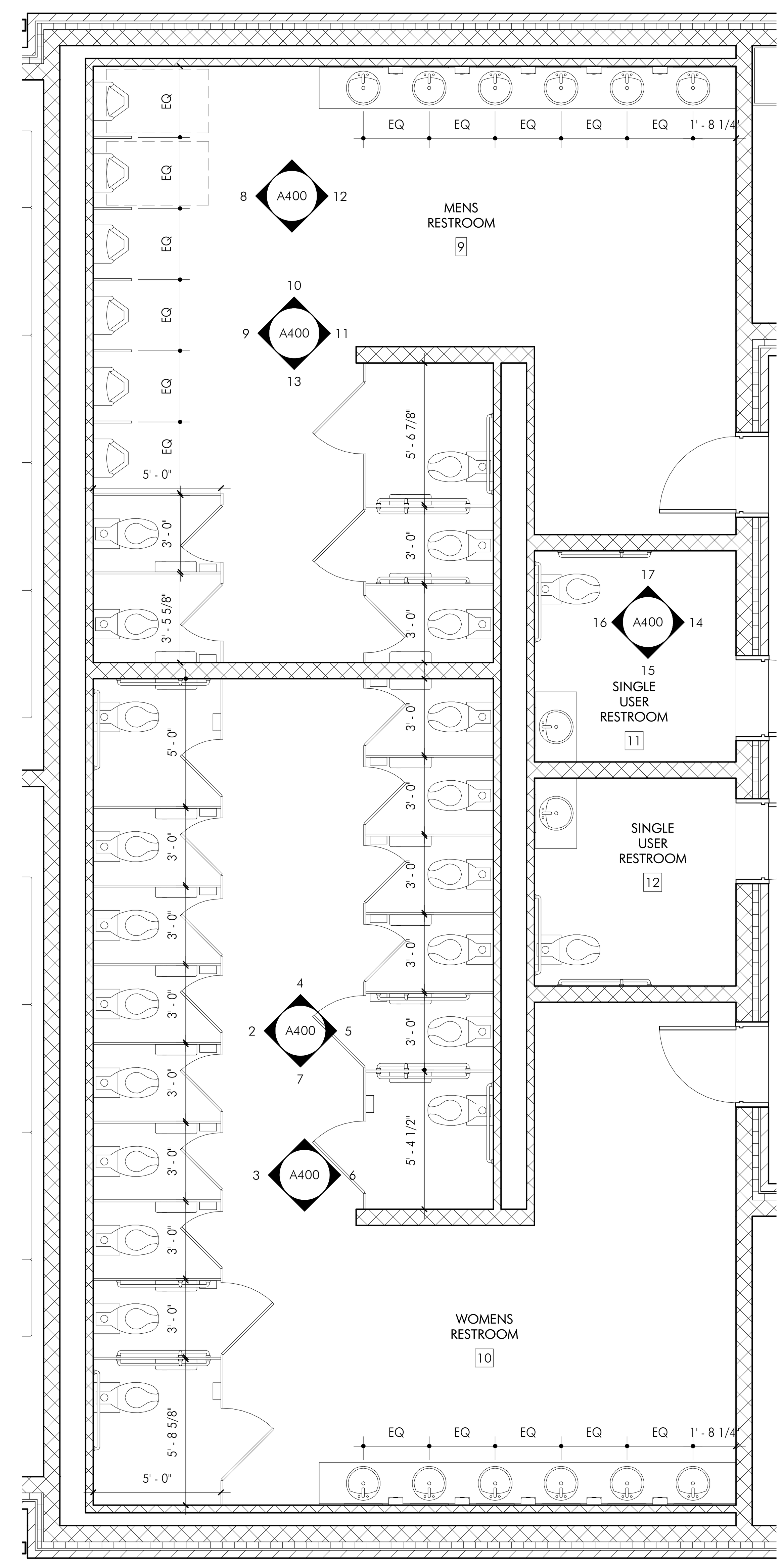
5 A400 WOMENS RESTROOM - EAST ELEVATION
1/4" = 1'-0"



10 A400 MENS RESTROOM - NORTH ELEVATION
1/4" = 1'-0"



4 A400 WOMENS RESTROOM - NORTH ELEVATION
1/4" = 1'-0"



1 A400 FIELD HOUSE ENLARGED PLAN - RESTROOMS
1/4" = 1'-0"

TESD CONESTOGA ATHLETIC FIELDS

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CHESTER COUNTY, PA

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PLAN NORTH

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SHEET TITLE
PROPOSED ENLARGED PLANS - FIELD HOUSE

DRAWING NUMBER
A400

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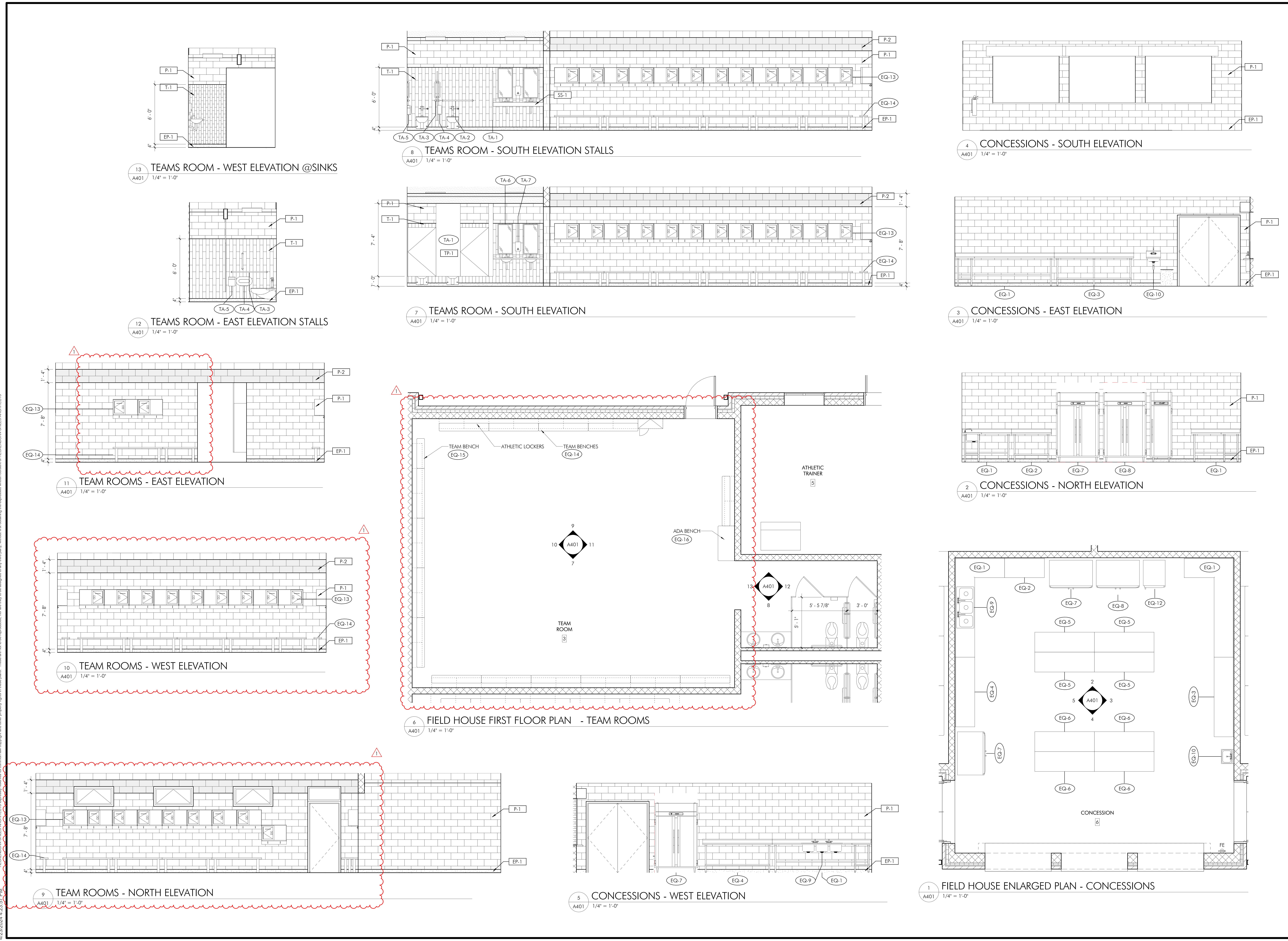

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NOT FOR CONSTRUCTION

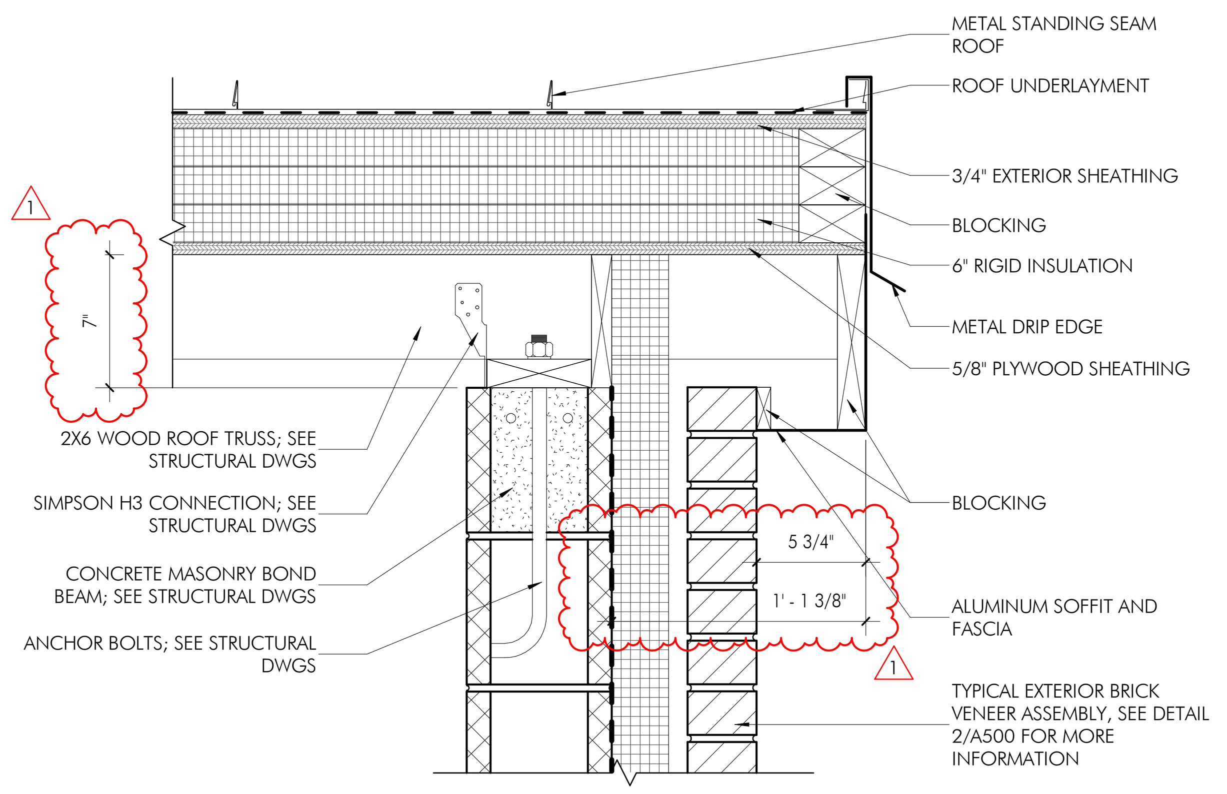
PLAN NORTH

ISSUE HISTORY

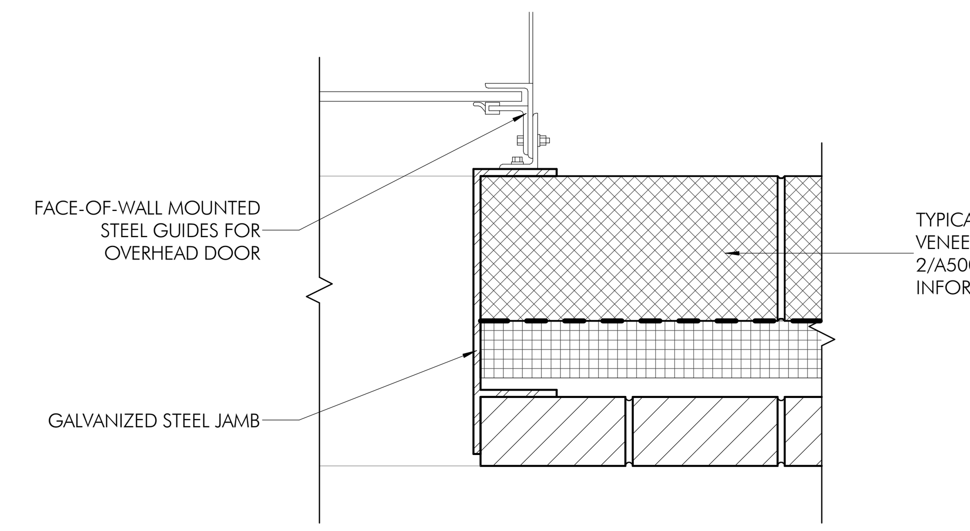
Δ	DATE	ISSUED FOR
	2022-09-12	PROGRESS ISSUE
	2022-09-26	70% DESIGN ISSUE
	2024-02-09	PROGRESS ISSUE
	2024-03-18	BID ISSUE
1	2024-04-23	ADDENDUM #01

SHEET TITLE
PROPOSED ENLARGED PLANS - FIELD HOUSE

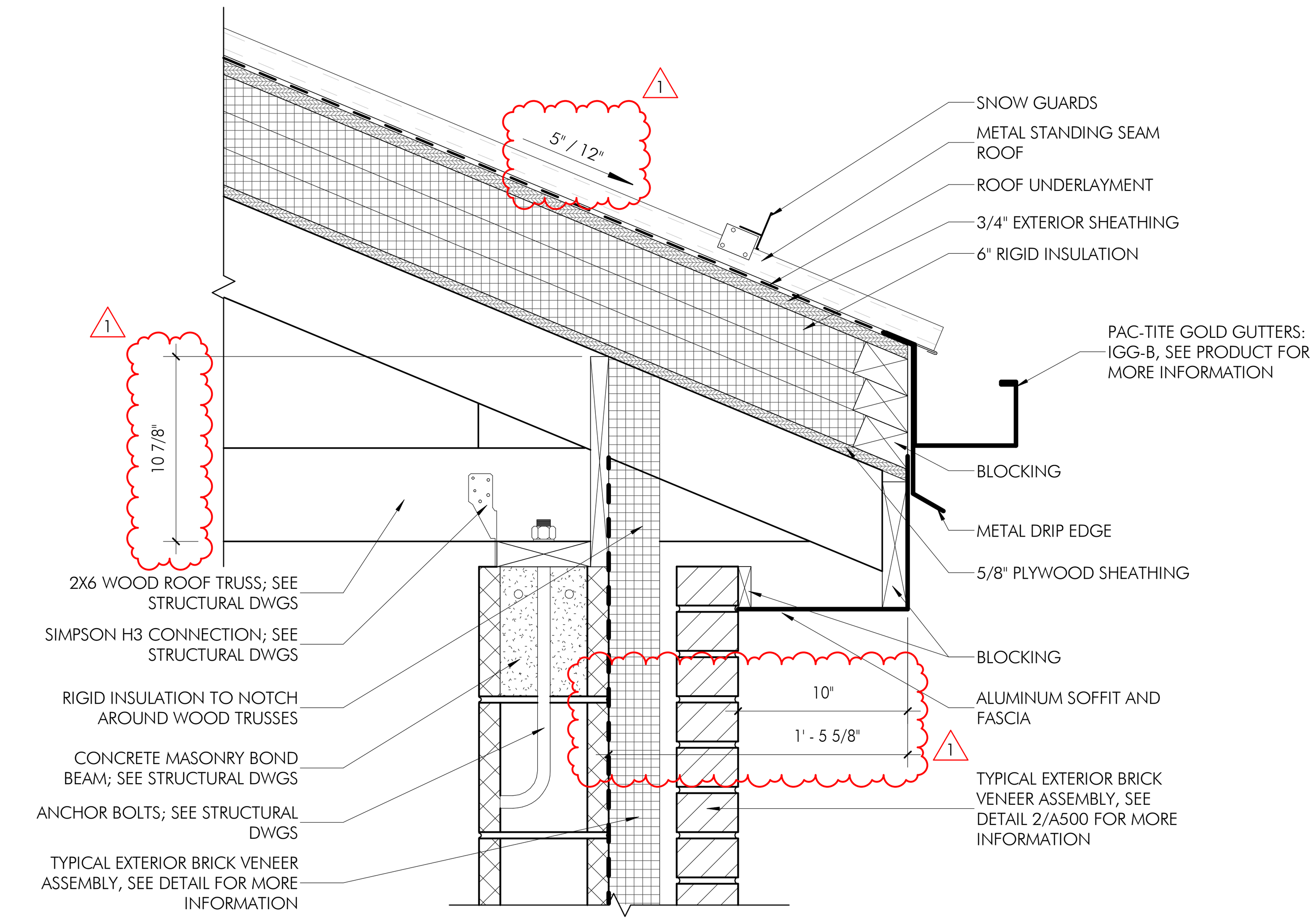
DRAWING NUMBER
A401



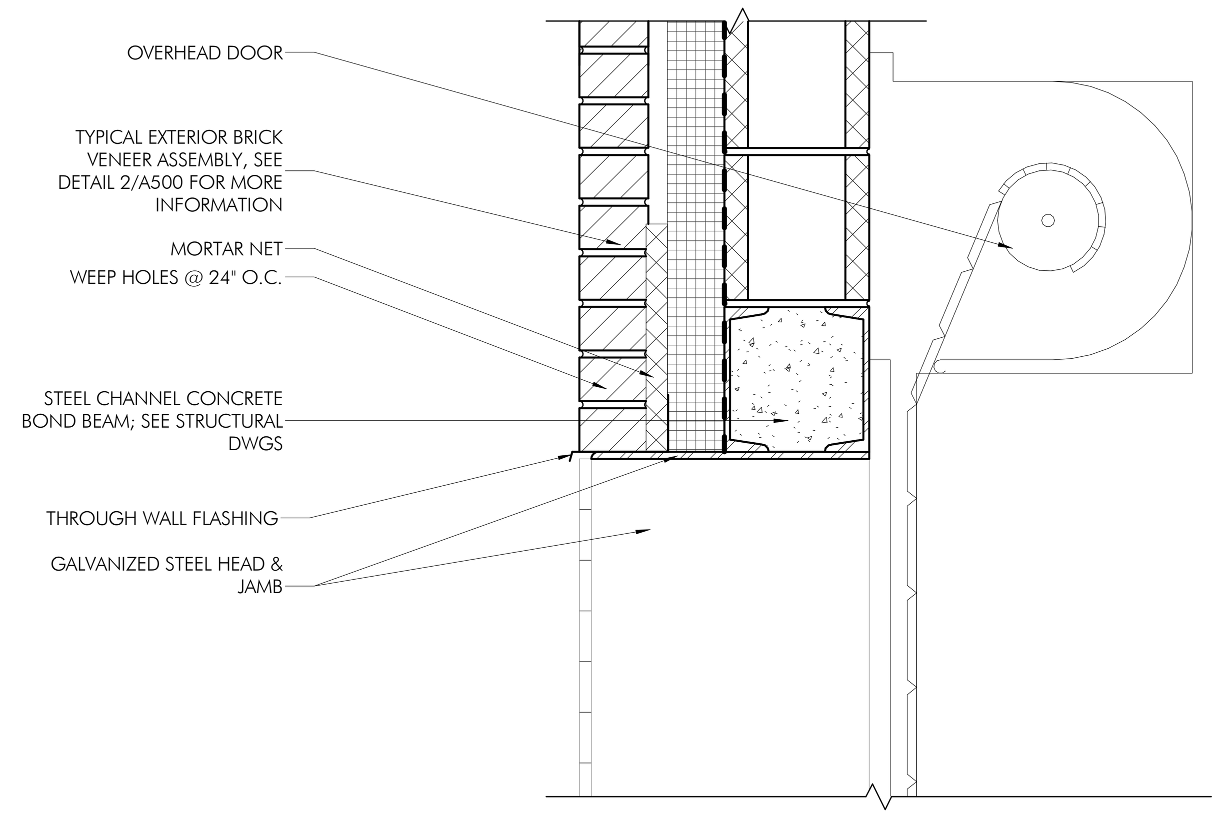
10 A500 TYPICAL EXTERIOR ROOF EAVE DETAIL - FIELD HOUSE
1 1/2" = 1'-0"



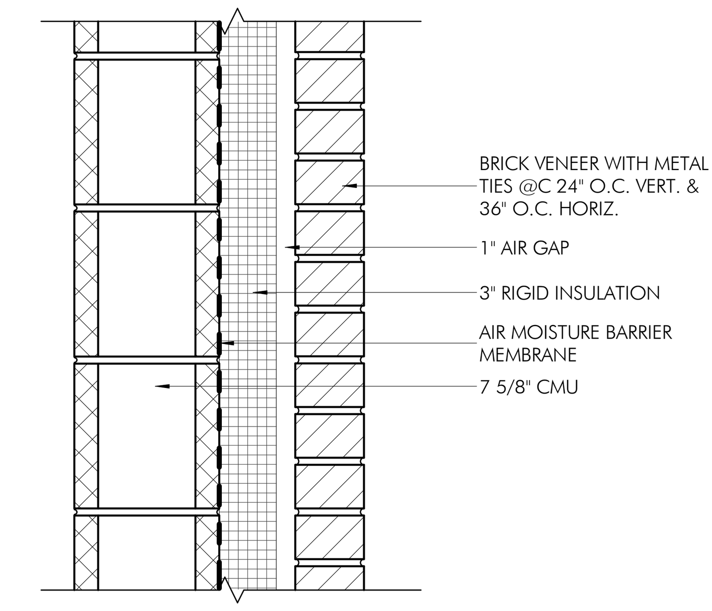
6 A500 STORAGE DOOR JAMB DETAIL - FIELD HOUSE
1 1/2" = 1'-0"



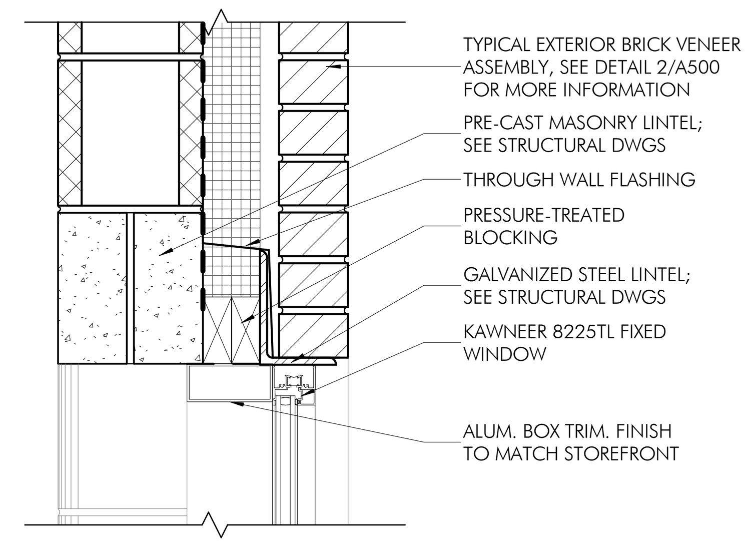
3 A500 TYPICAL EXTERIOR PITCHED ROOF EAVE DETAIL - FIELD HOUSE
1 1/2" = 1'-0"



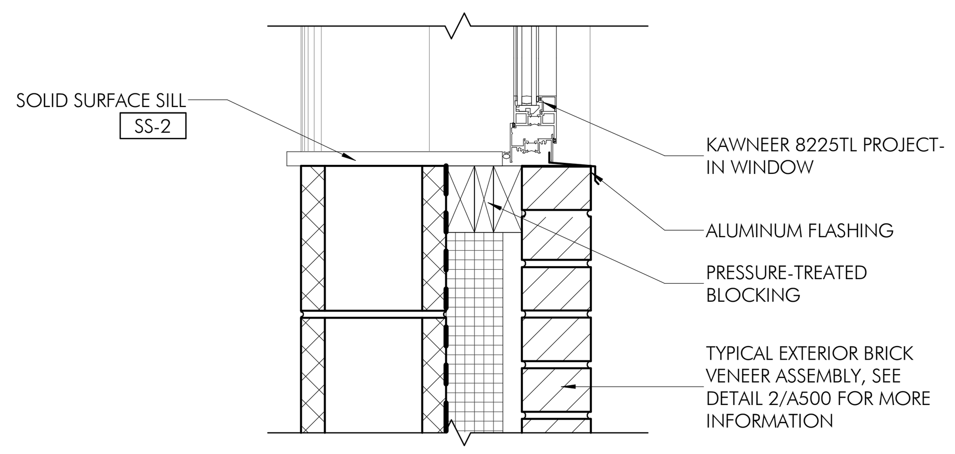
5 A500 STORAGE DOOR HEAD DETAIL - FIELD HOUSE
1 1/2" = 1'-0"



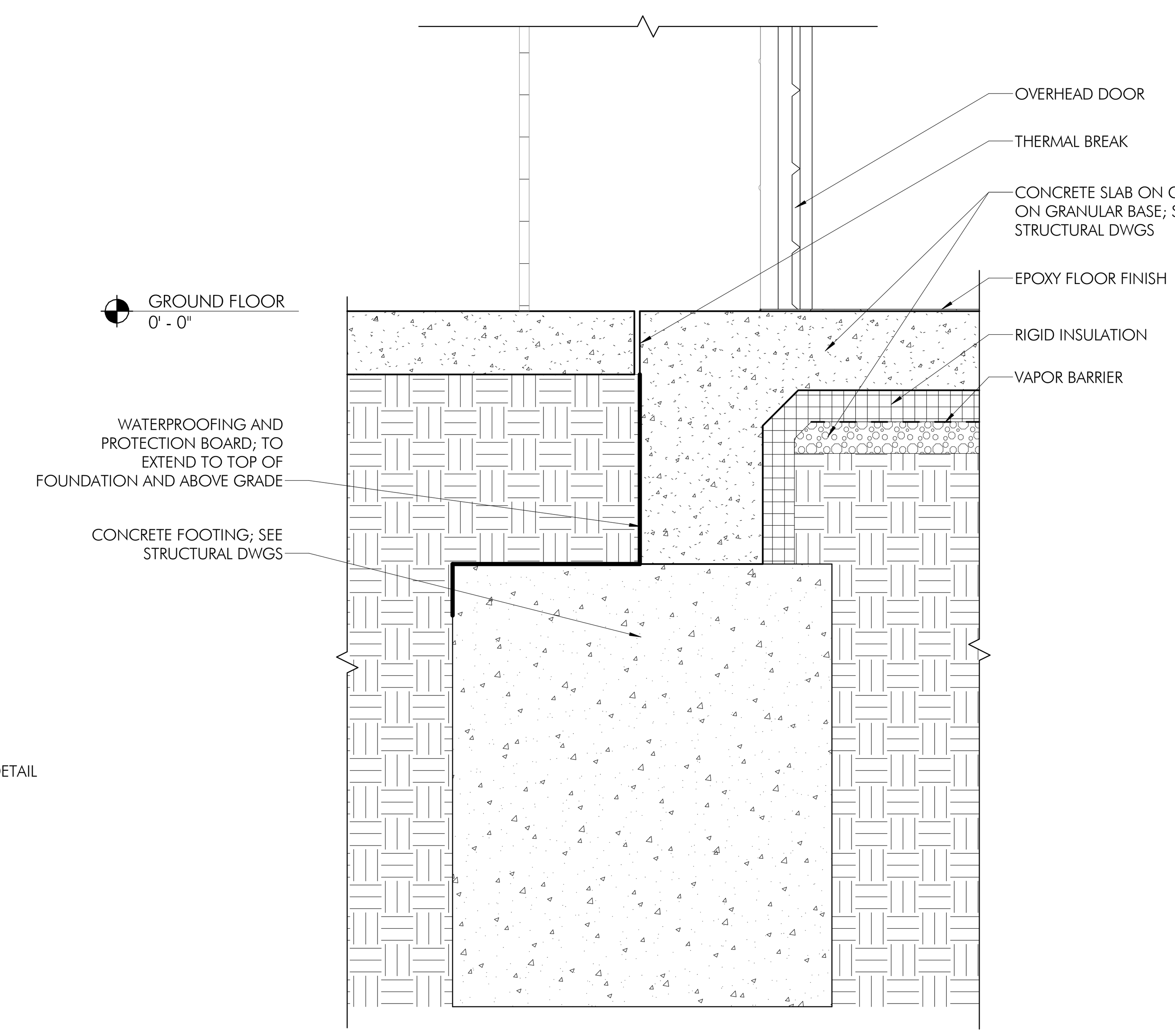
2 A500 TYPICAL EXTERIOR WALL DETAIL - FIELD HOUSE
1 1/2" = 1'-0"



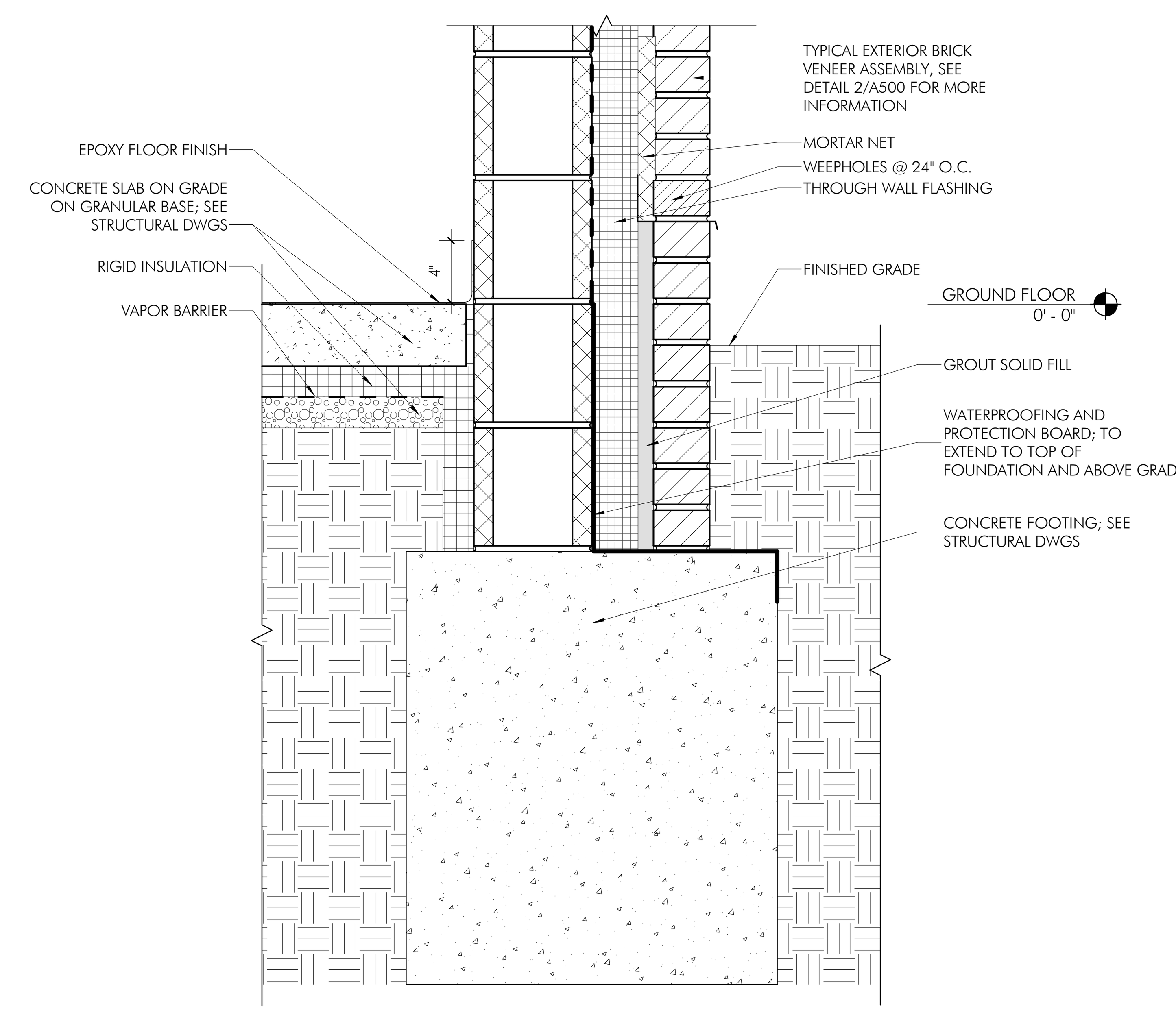
8 A500 TYPICAL WINDOW HEAD DETAIL - FIELD HOUSE
1 1/2" = 1'-0"



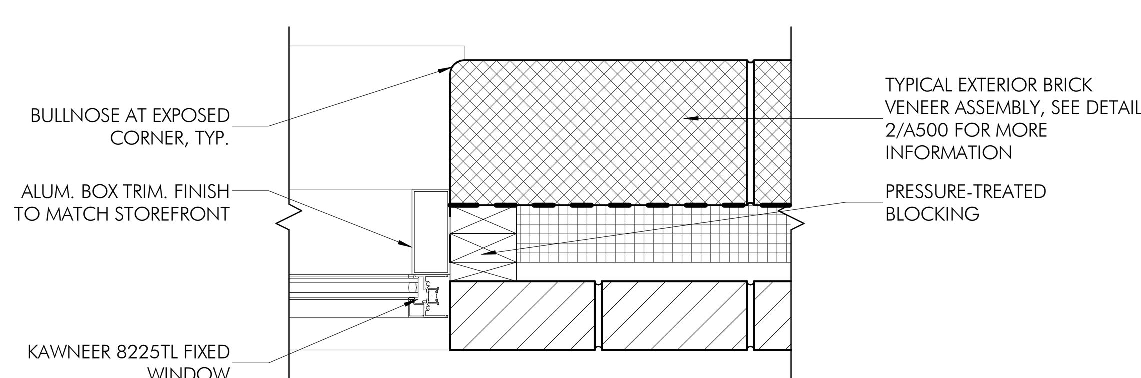
7 A500 TYPICAL WINDOW SILL DETAIL - FIELD HOUSE
1 1/2" = 1'-0"



4 A500 STORAGE DOOR FOUNDATION DETAIL - FIELD HOUSE
1 1/2" = 1'-0"



1 A500 TYPICAL FOUNDATION DETAIL - FIELD HOUSE
1 1/2" = 1'-0"



9 A500 TYPICAL WINDOW JAMB DETAIL - FIELD HOUSE
1 1/2" = 1'-0"

TESD CONESTOGA ATHLETIC FIELDS

TREDYFFRIN TOWNSHIP
CHESTER COUNTY, PA

HSA PROJECT # :21-019

HSA
Heckendorn Shiles Architects

PROJECT TEAM

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	2022-09-12	PROGRESS ISSUE
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SHEET TITLE
PROPOSED WALL & FOOTING DETAILS - FIELD HOUSE

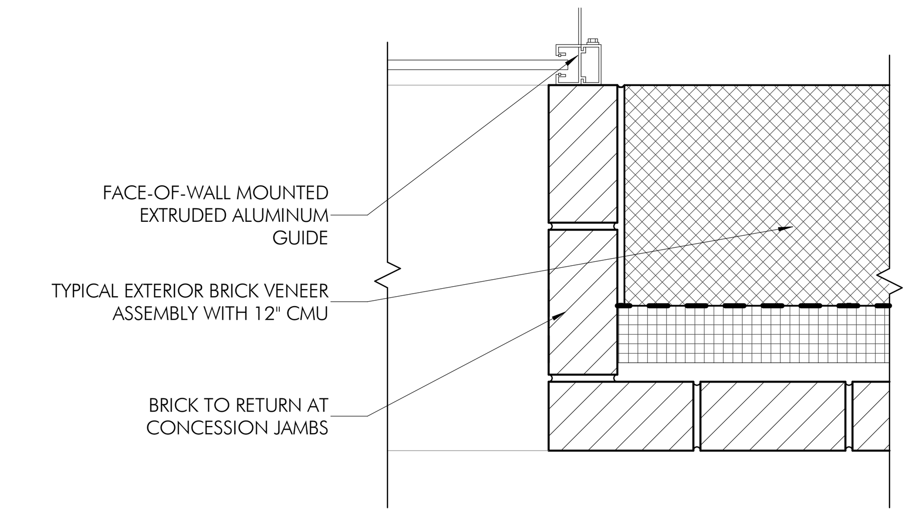
DRAWING NUMBER
A500

TESD CONESTOGA ATHLETIC FIELDS

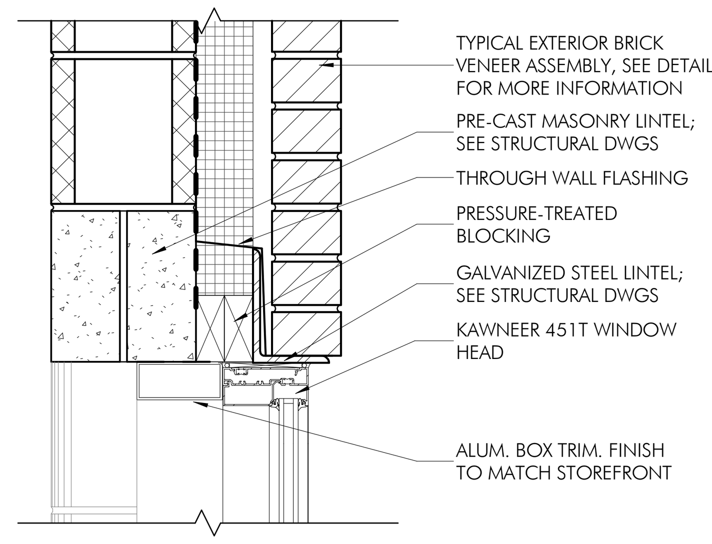
TREDYFFRIN TOWNSHIP
CHESTER COUNTY, PA

HSA PROJECT # :21-019

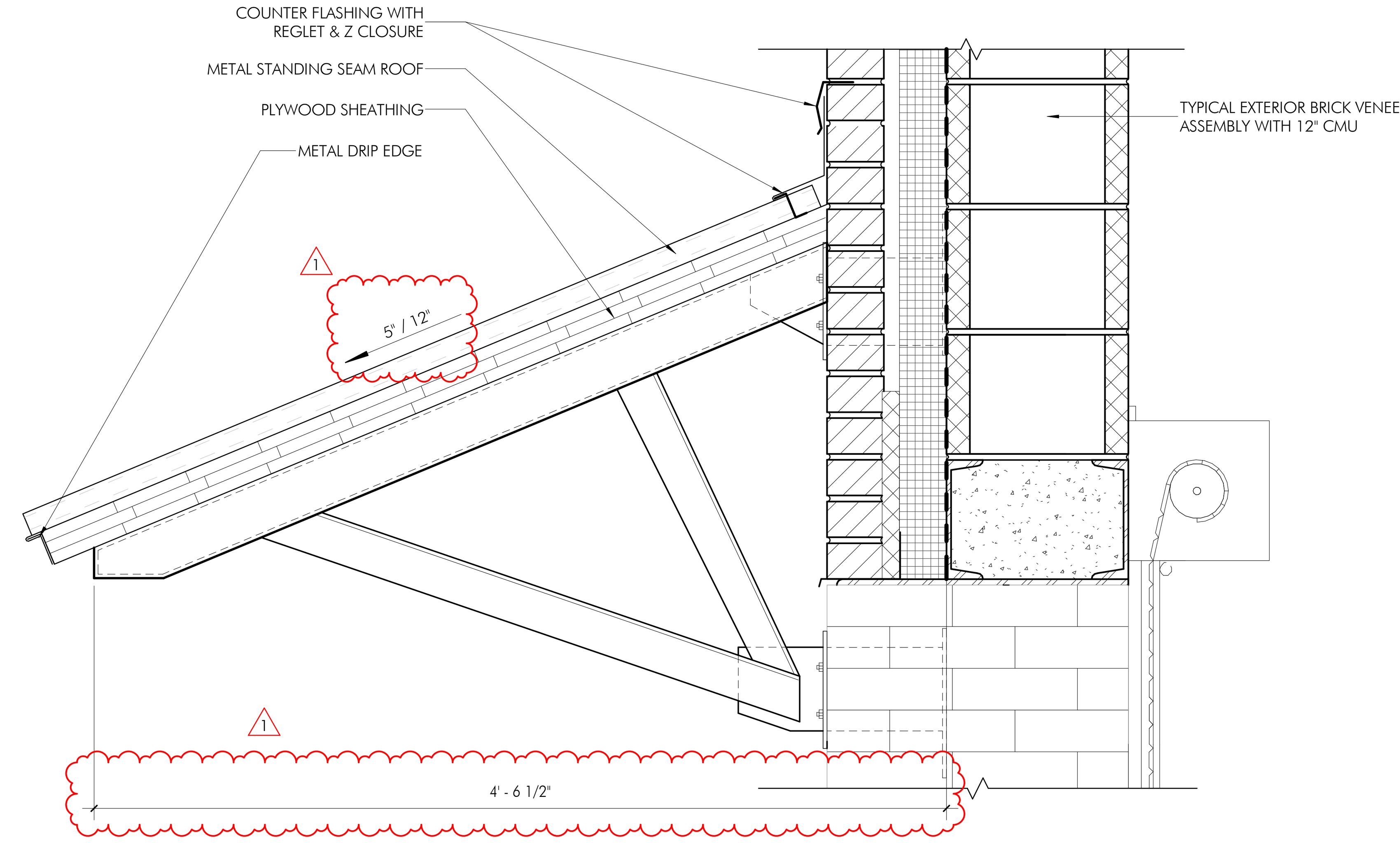
Heckendorn Shiles Architects



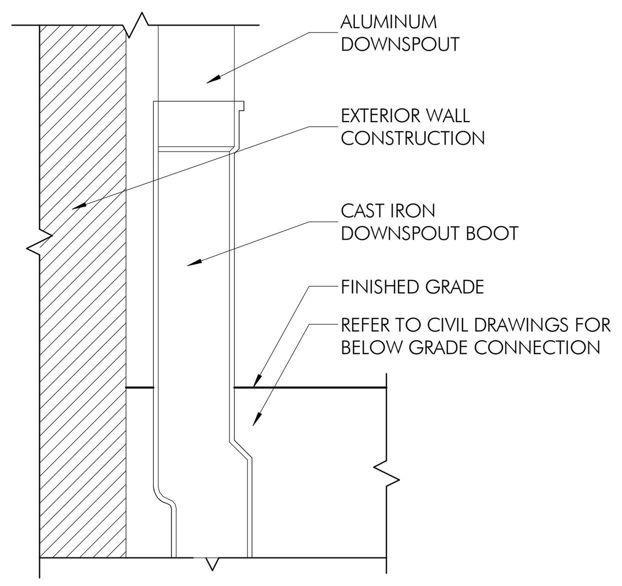
4 A501 CONCESSION STAND JAMB DETAIL - FIELD HOUSE
1 1/2" = 1'-0"



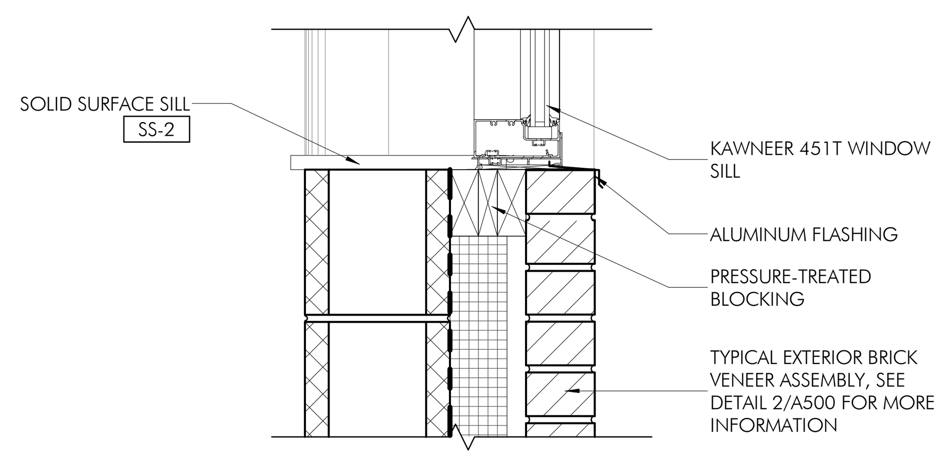
10 A501 WINDOW HEAD DETAIL - FIELD HOUSE
1 1/2" = 1'-0"



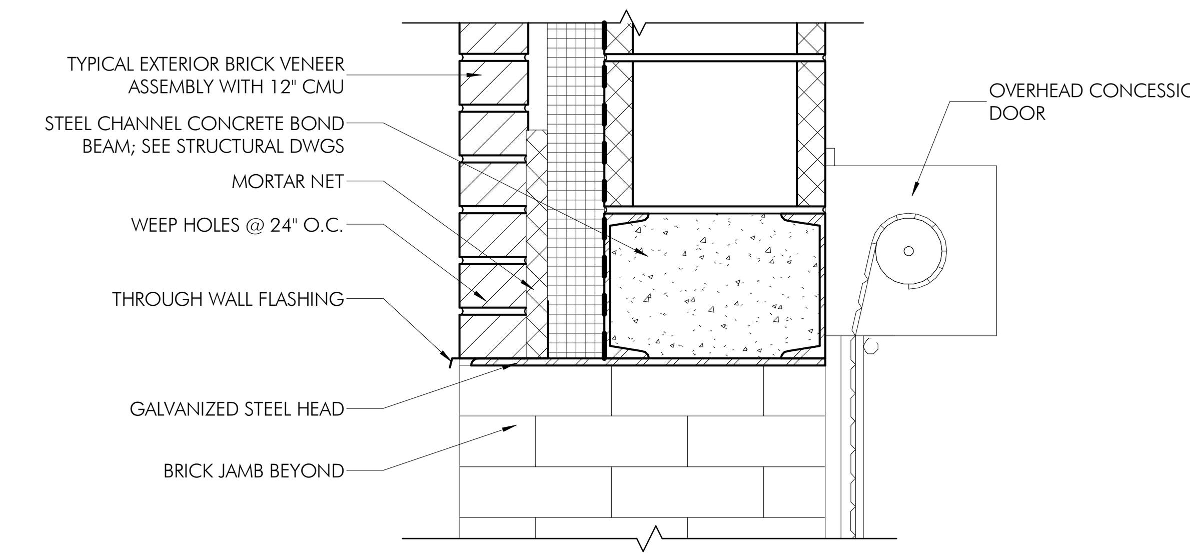
3 A501 CONCESSION STAND CANOPY DETAIL - FIELD HOUSE
1 1/2" = 1'-0"



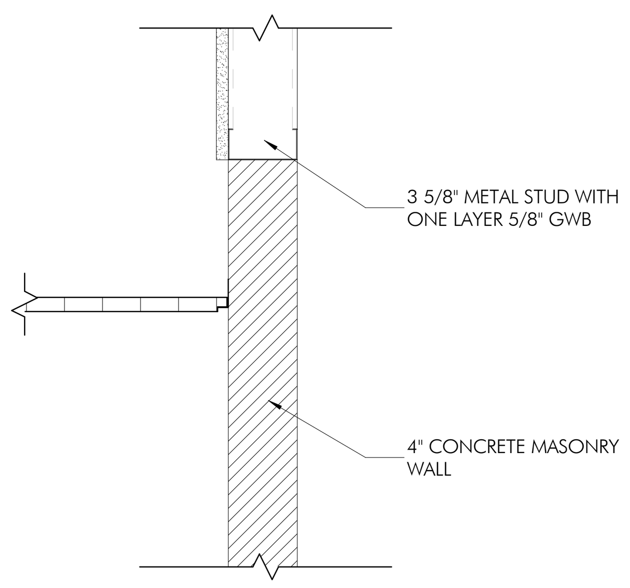
8 A501 TYPICAL DOWNSPOUT BOOT DETAIL
1 1/2" = 1'-0"



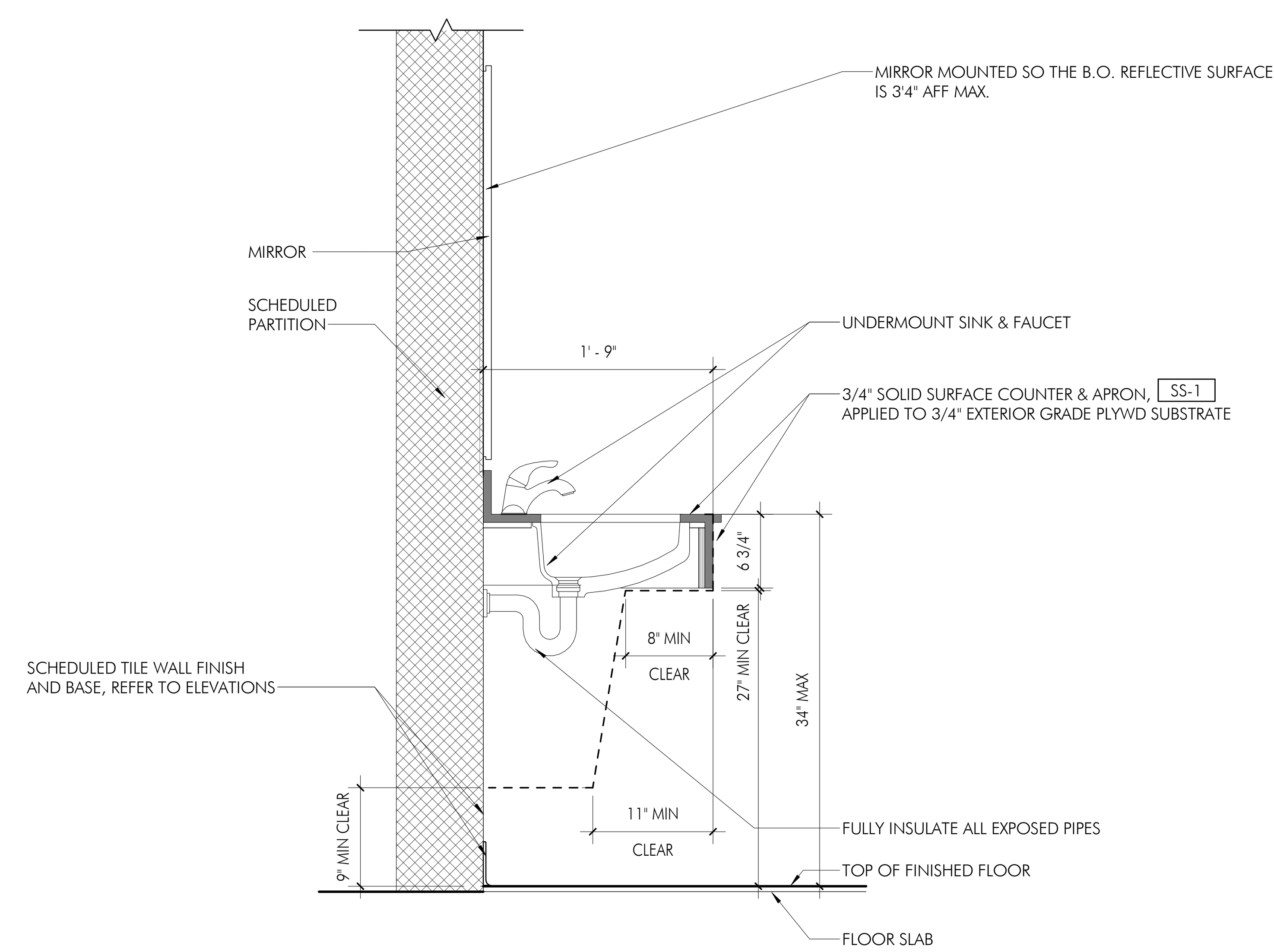
9 A501 WINDOW SILL DETAIL - FIELD HOUSE
1 1/2" = 1'-0"



2 A501 CONCESSION STAND HEAD DETAIL - FIELD HOUSE
1 1/2" = 1'-0"

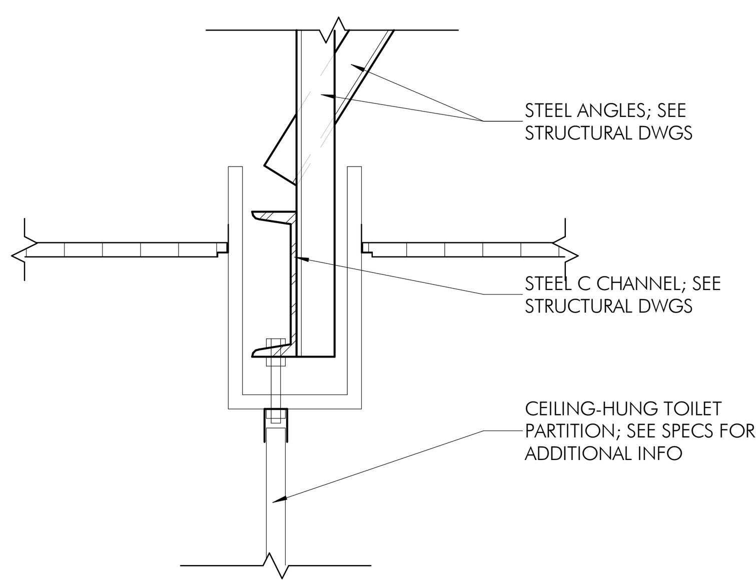


5 A501 RESTROOM CAVITY WALL HEAD DETAIL - FIELD HOUSE
1 1/2" = 1'-0"

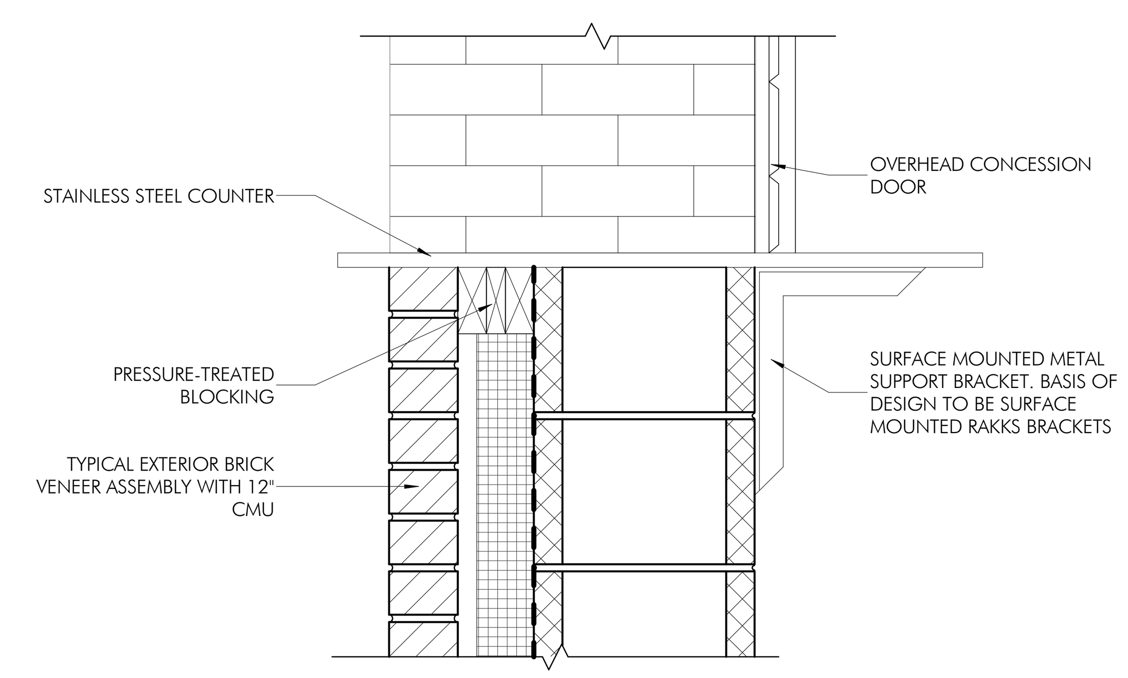


NOTE: PROVIDE BLOCKING AS REQUIRED.

6 A501 SECTION DETAIL - RESTROOM COUNTERTOP @ SINK
1" = 1'-0"



7 A501 CEILING HUNG PARTITION DETAIL - FIELD HOUSE
1 1/2" = 1'-0"



1 A501 CONCESSION STAND COUNTER DETAIL - FIELD HOUSE
1 1/2" = 1'-0"

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	2022-09-12	PROGRESS ISSUE
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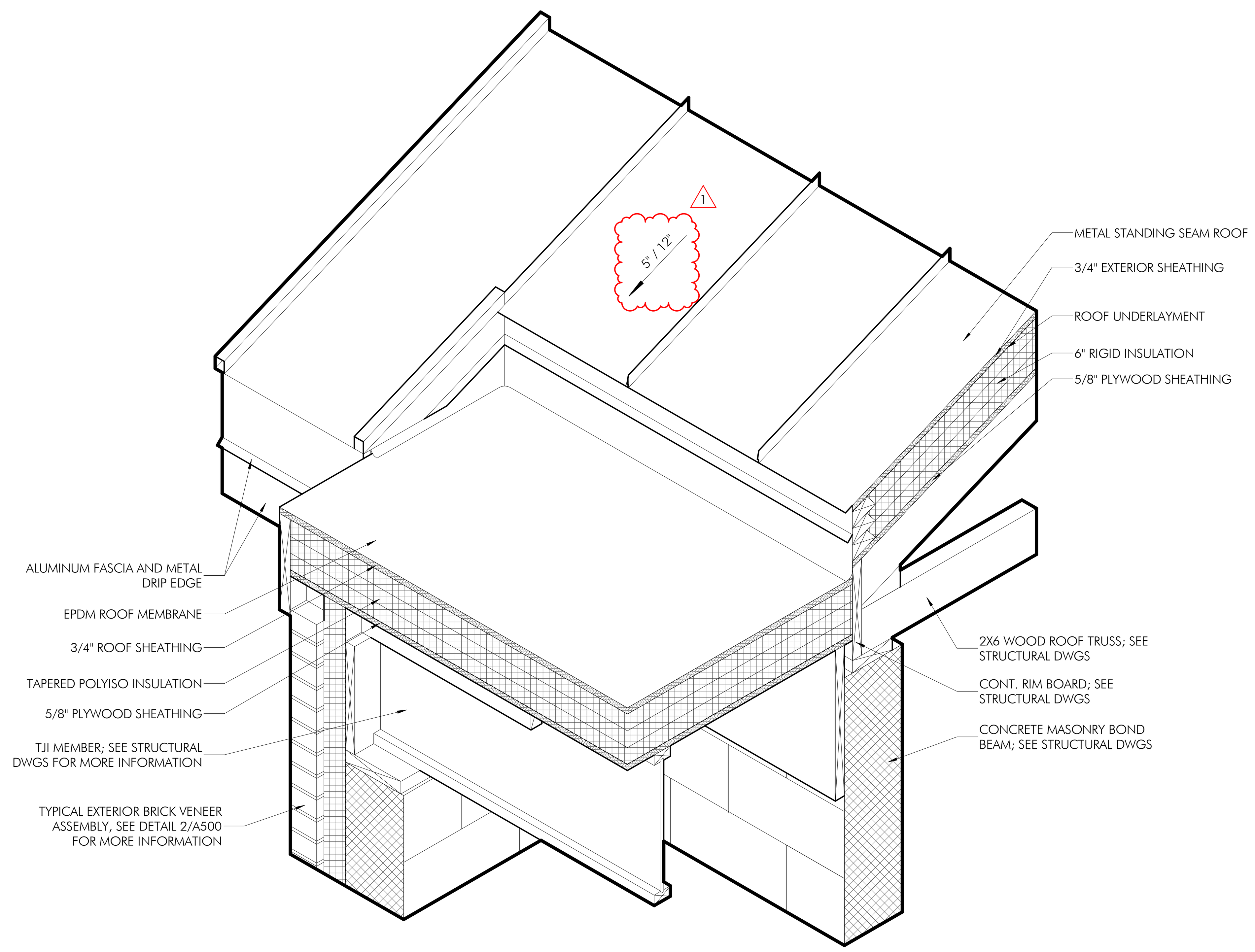
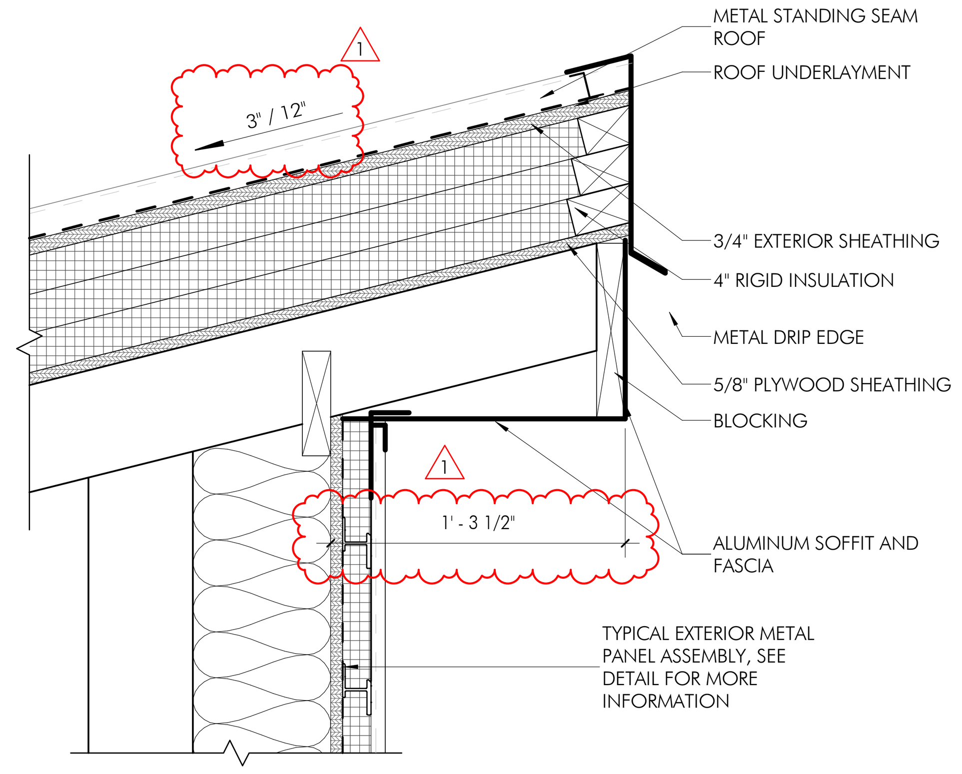
	2024-03-18	BID ISSUE
1	2024-04-23	ADDENDUM #01

SHEET TITLE
PROPOSED WALL & INTERIOR DETAILS - FIELD HOUSE

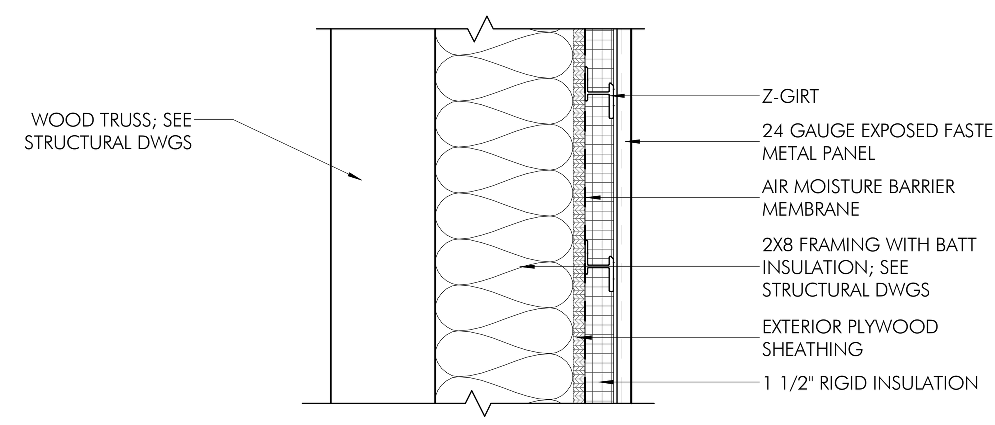
DRAWING NUMBER
A501



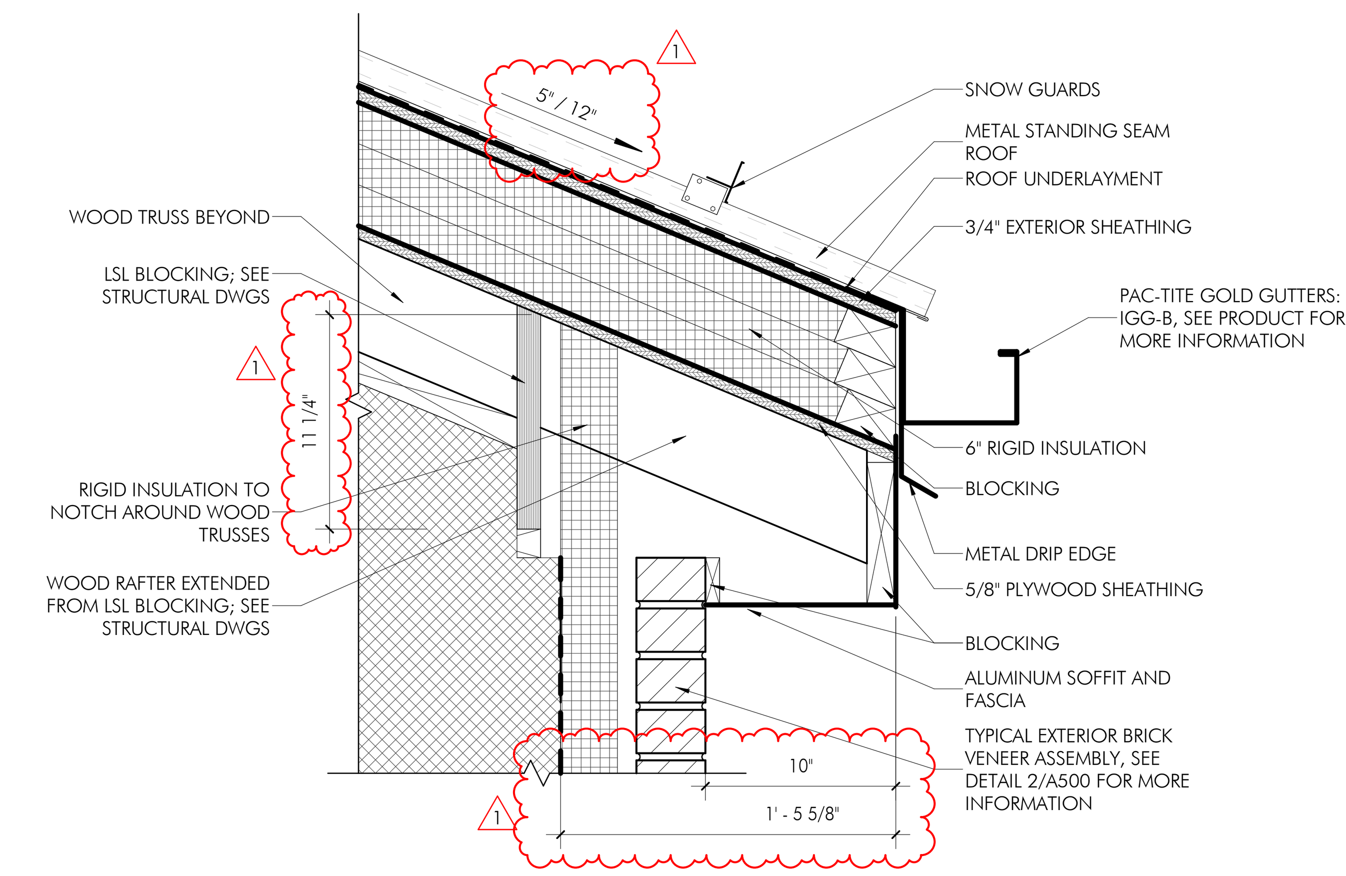
6 A502 TYPICAL SLOPED TO FLAT ROOF CORNER TRANSITION - FIELD HOUSE
1" = 1'-0"



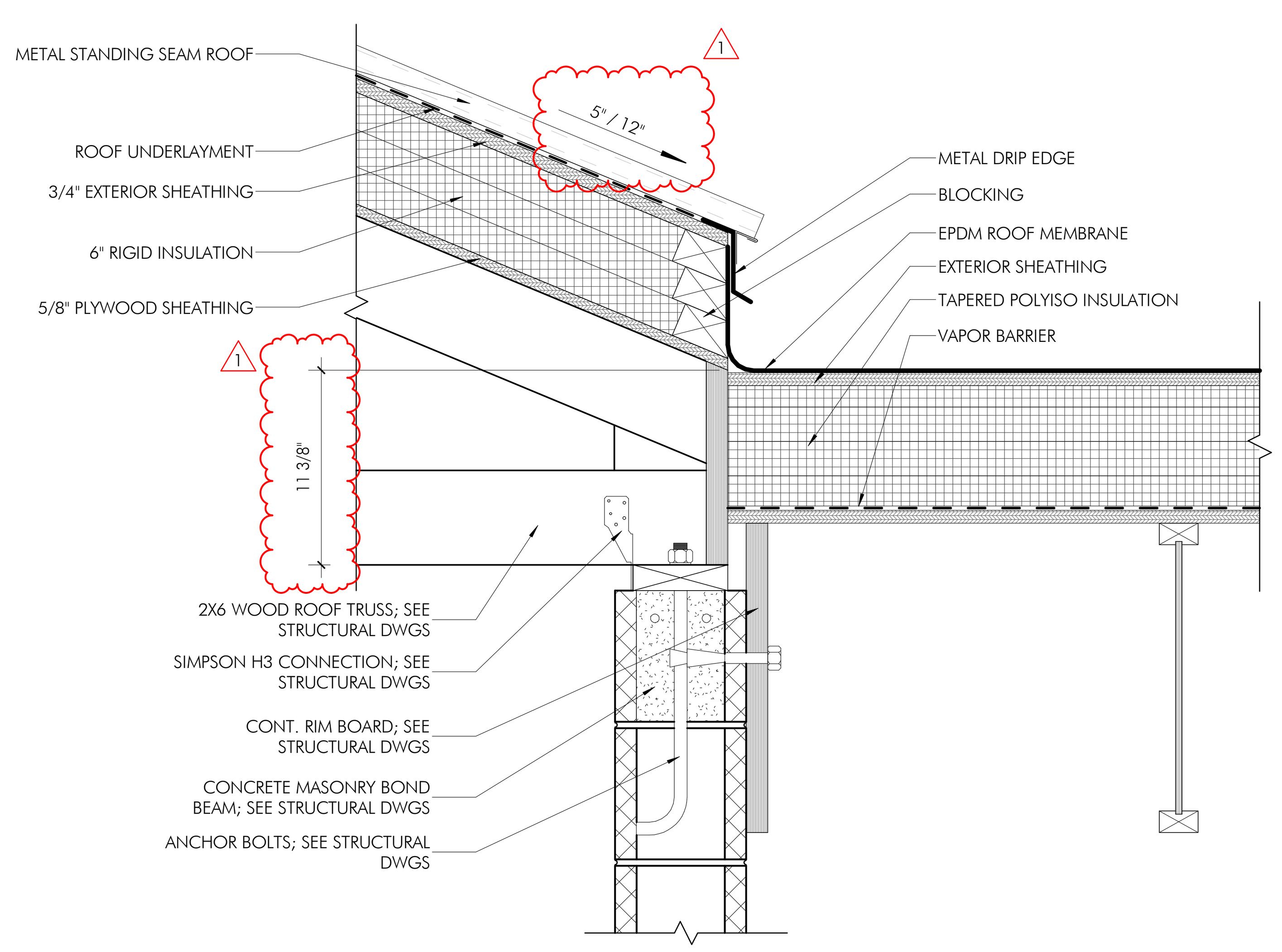
3 A502 EQUIPMENT ROOF EAVE DETAIL - FIELD HOUSE
1 1/2" = 1'-0"



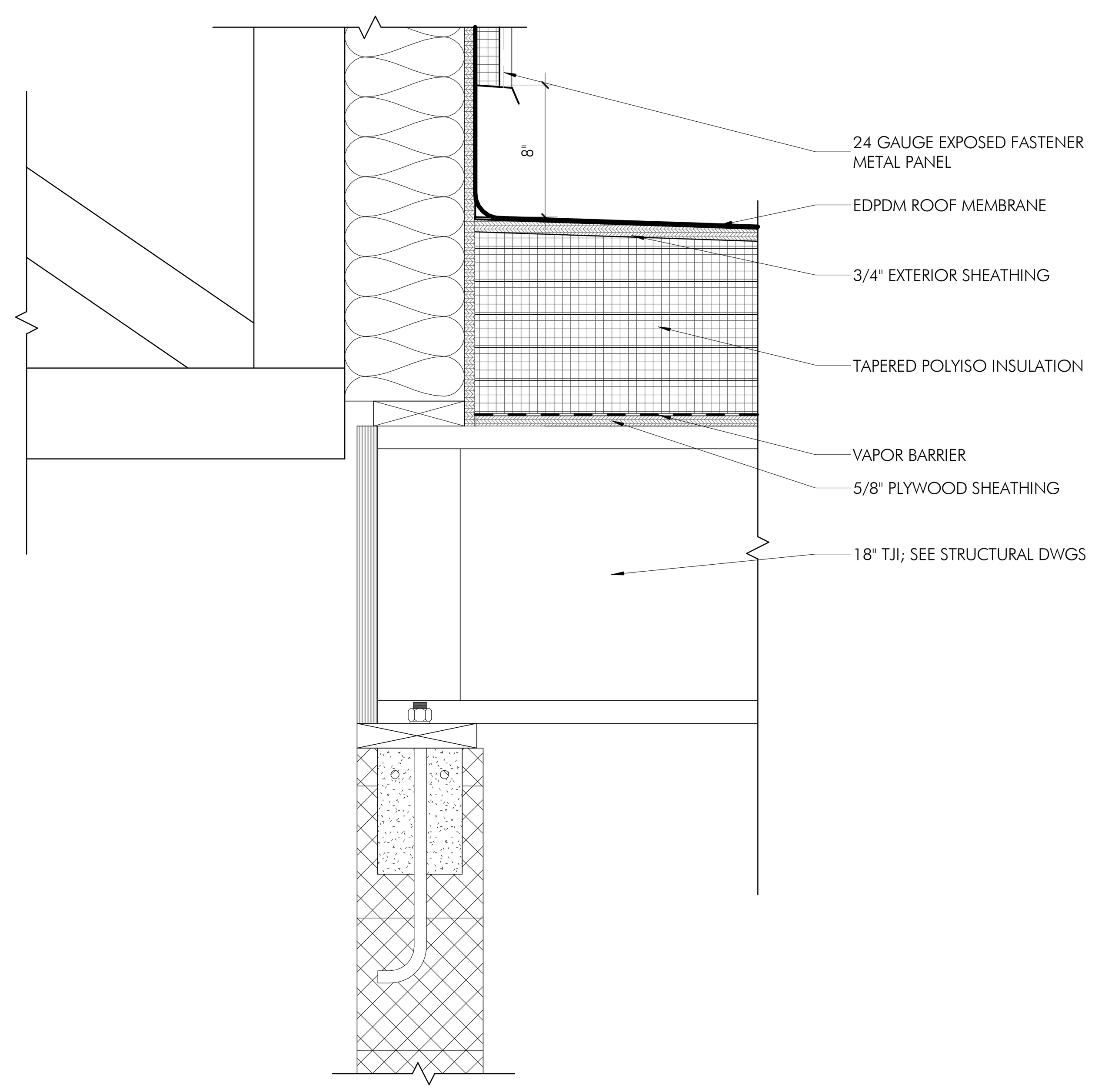
7 A502 TYPICAL EXTERIOR WALL DETAIL METAL PANEL - FIELD HOUSE
1 1/2" = 1'-0"



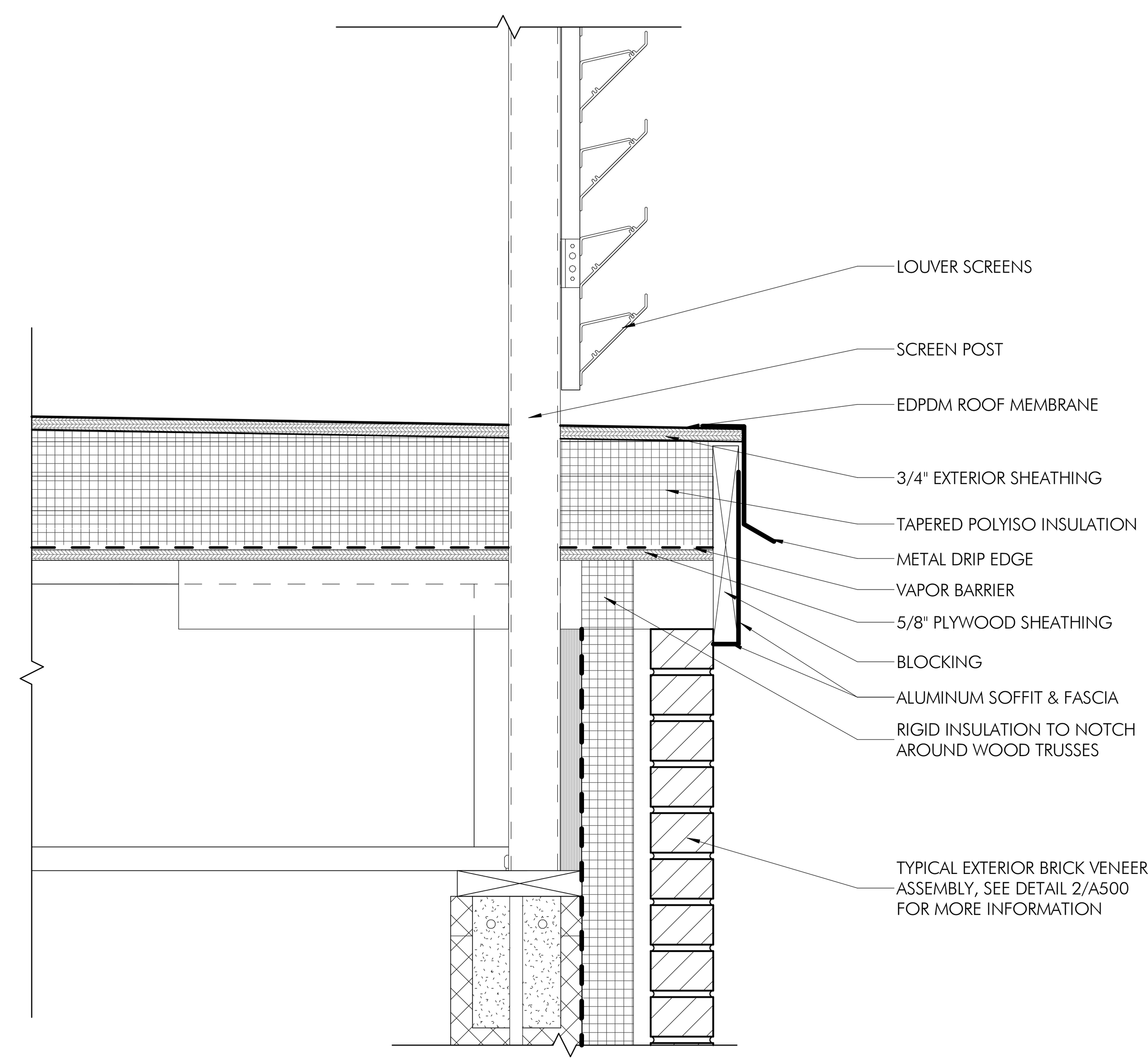
4 A502 EXTERIOR CORNER ROOF EAVE DETAIL - FIELD HOUSE
1 1/2" = 1'-0"



5 A502 TYPICAL SLOPED TO FLAT ROOF TRANSITION - FIELD HOUSE
1 1/2" = 1'-0"



2 A502 EQUIPMENT ROOF WALL - FIELD HOUSE
1 1/2" = 1'-0"



1 A502 WALL TO FLAT ROOF DETAIL - FIELD HOUSE
1 1/2" = 1'-0"

TESD CONESTOGA ATHLETIC FIELDS

TREDYFFRIN TOWNSHIP
CHESTER COUNTY, PA

HSA PROJECT # :21-019

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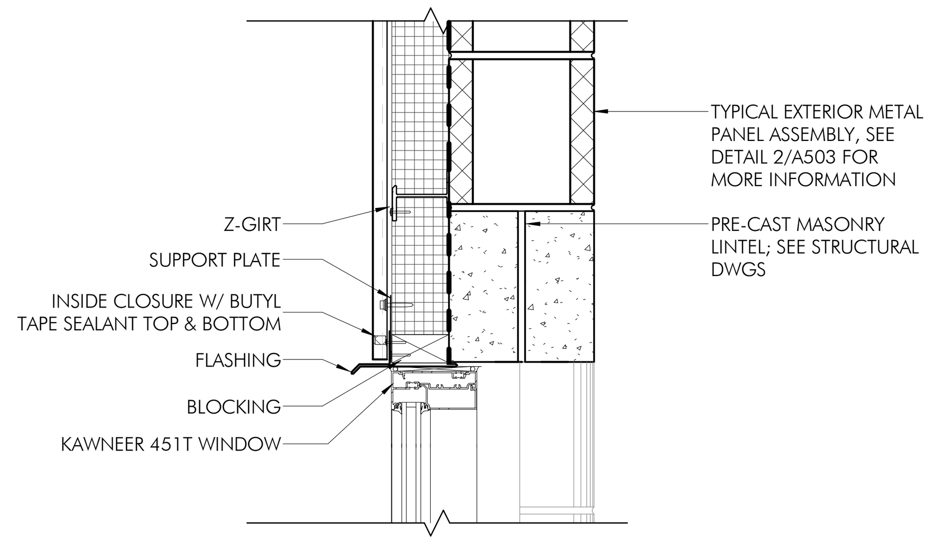
	2024-02-09	PROGRESS ISSUE
	2024-03-18	BID ISSUE
1	2024-04-23	ADDENDUM #01

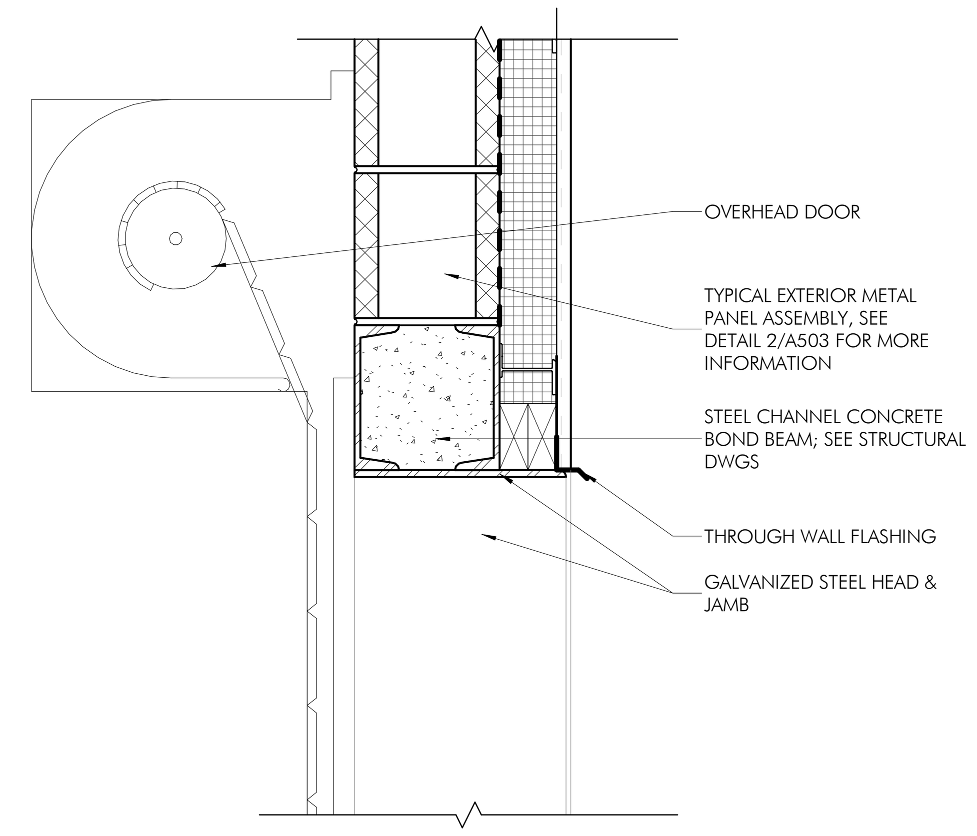
SHEET TITLE
PROPOSED ROOF DETAILS - FIELD HOUSE

DRAWING NUMBER
A502

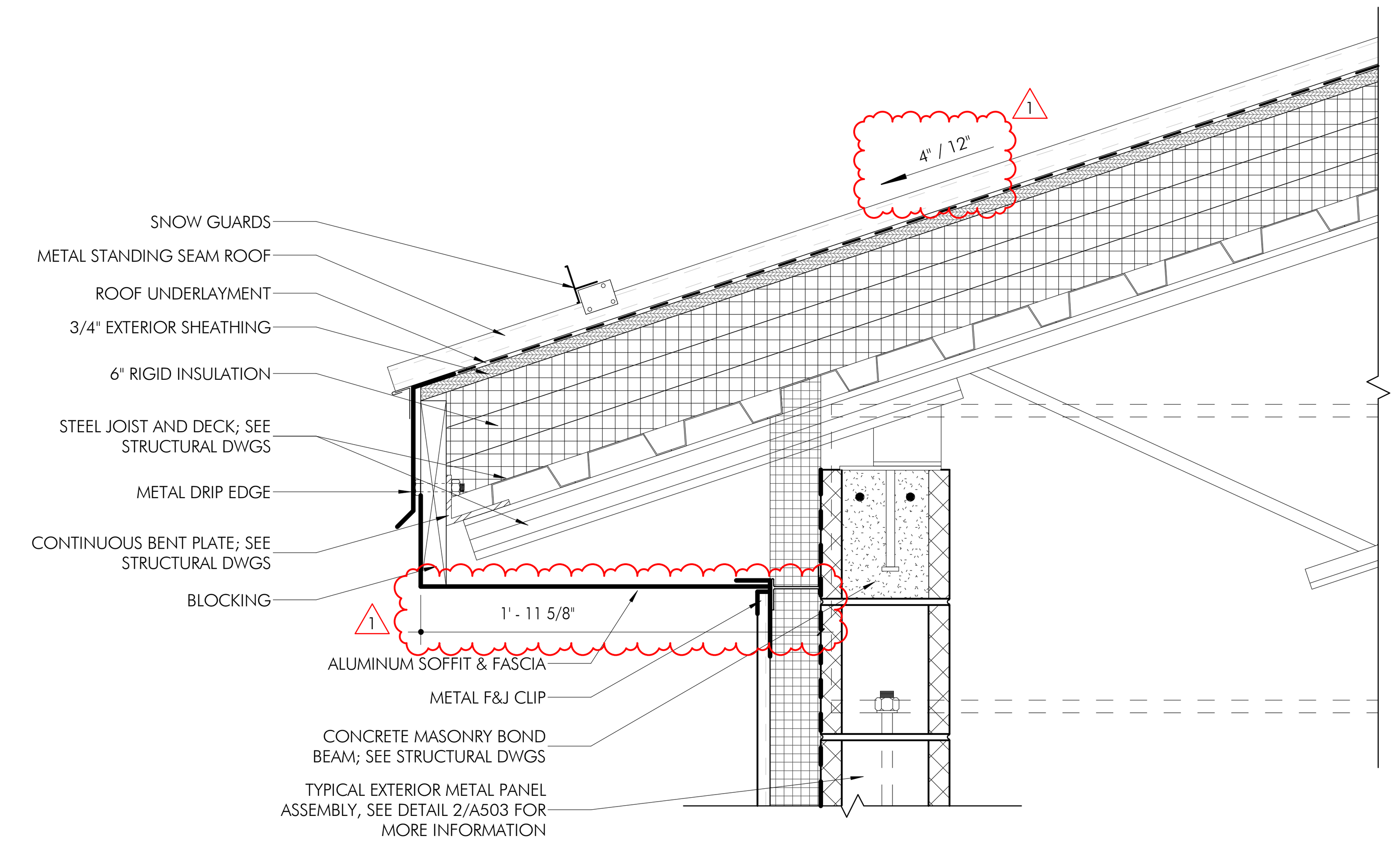
4/23/2024 4:24:06 PM



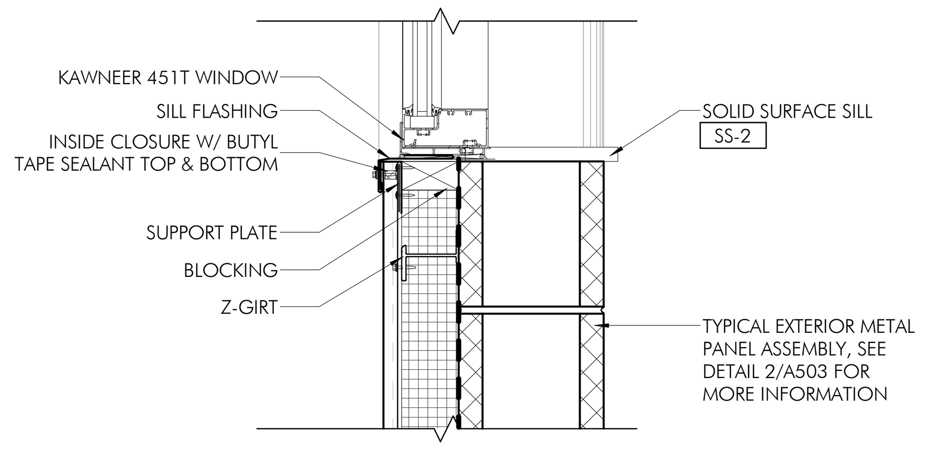
7 A503 FIXED WINDOW HEAD DETAIL - GROUNDS AND FIELDS
1 1/2" = 1'-0"



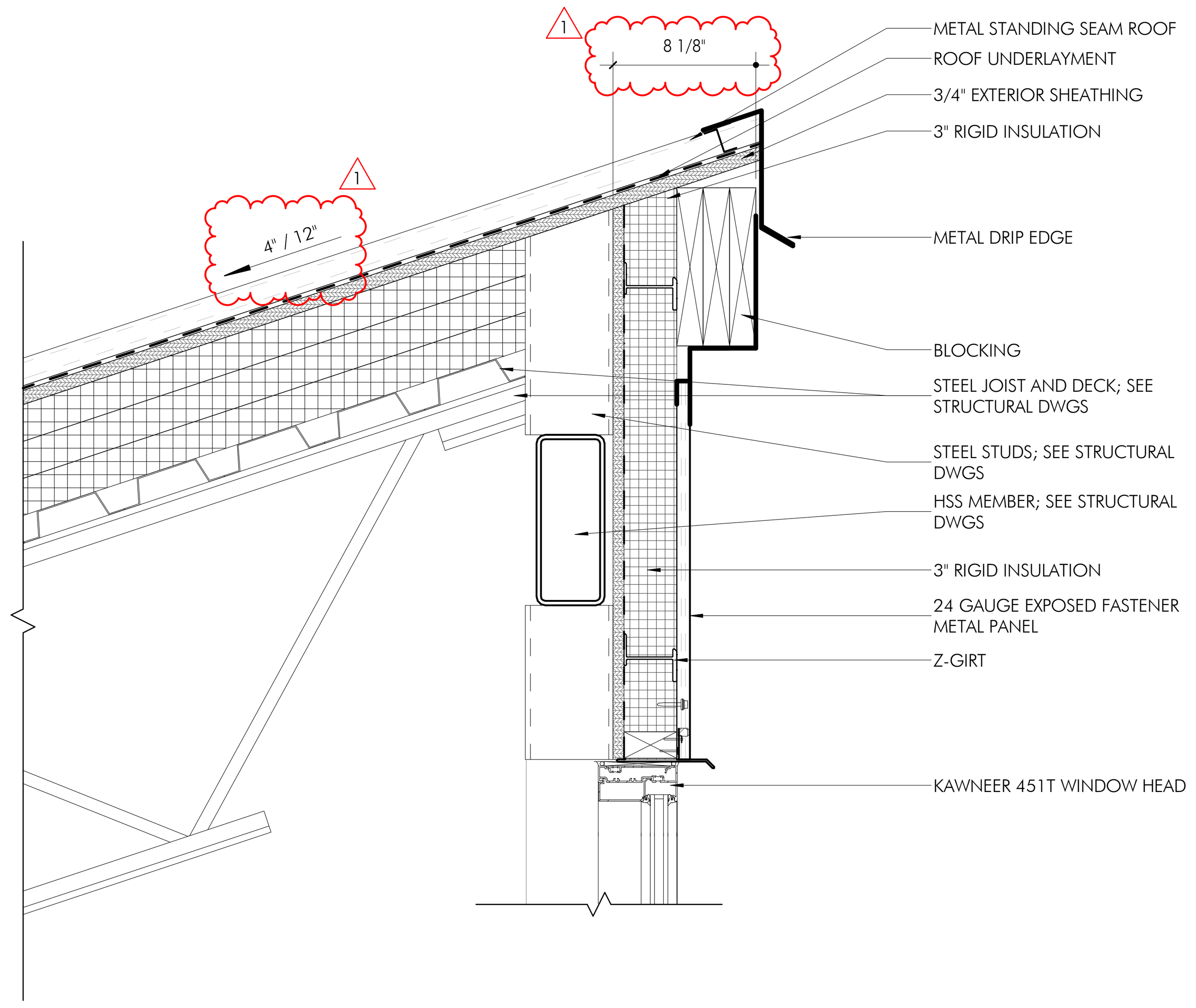
6 A503 STORAGE DOOR HEAD DETAIL - GROUNDS & FIELDS
1 1/2" = 1'-0"



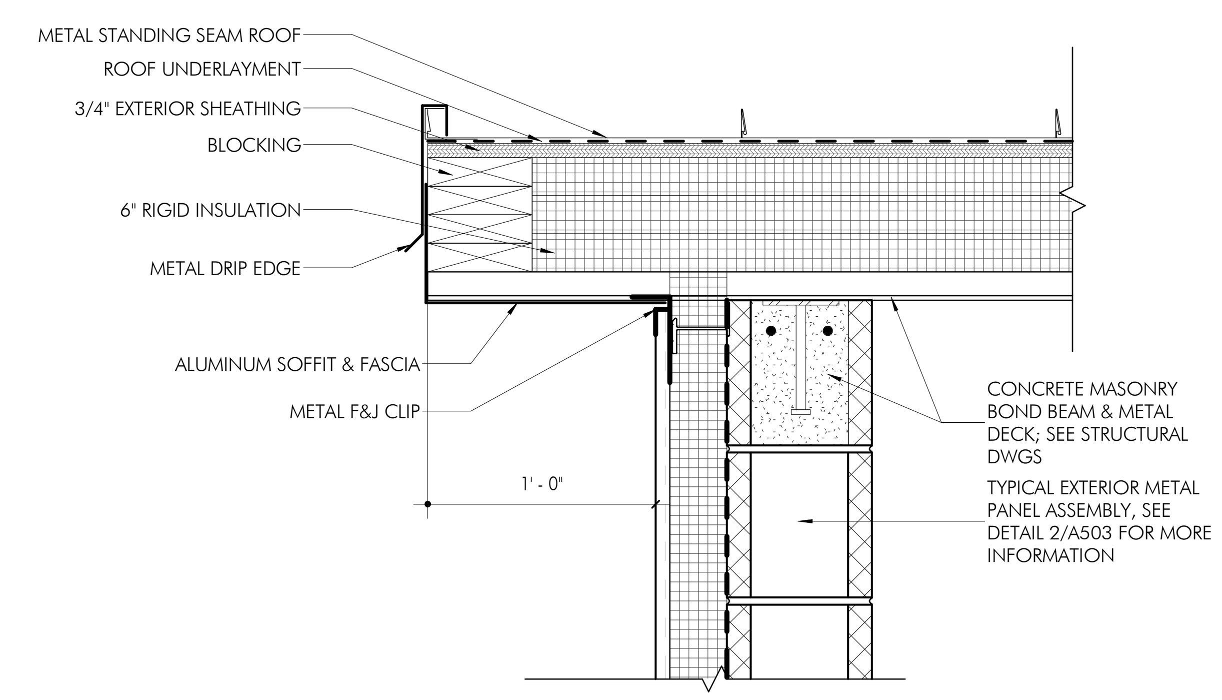
3 A503 TYPICAL EXTERIOR PITCHED ROOF EAVE DETAIL - GROUNDS & FIELDS
1 1/2" = 1'-0"



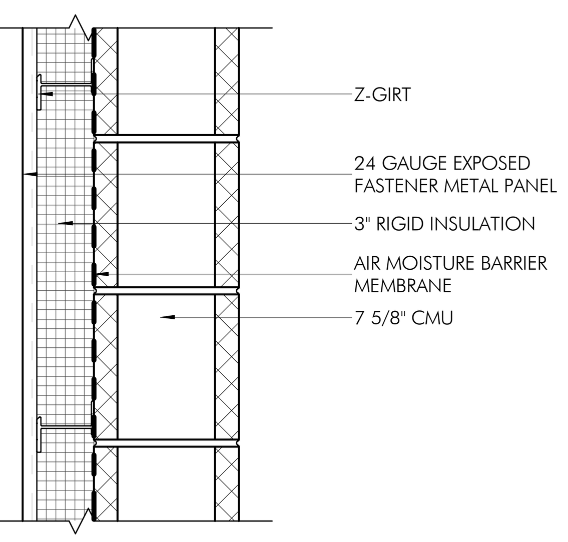
8 A503 FIXED WINDOW SILL DETAIL - GROUNDS AND FIELDS
1 1/2" = 1'-0"



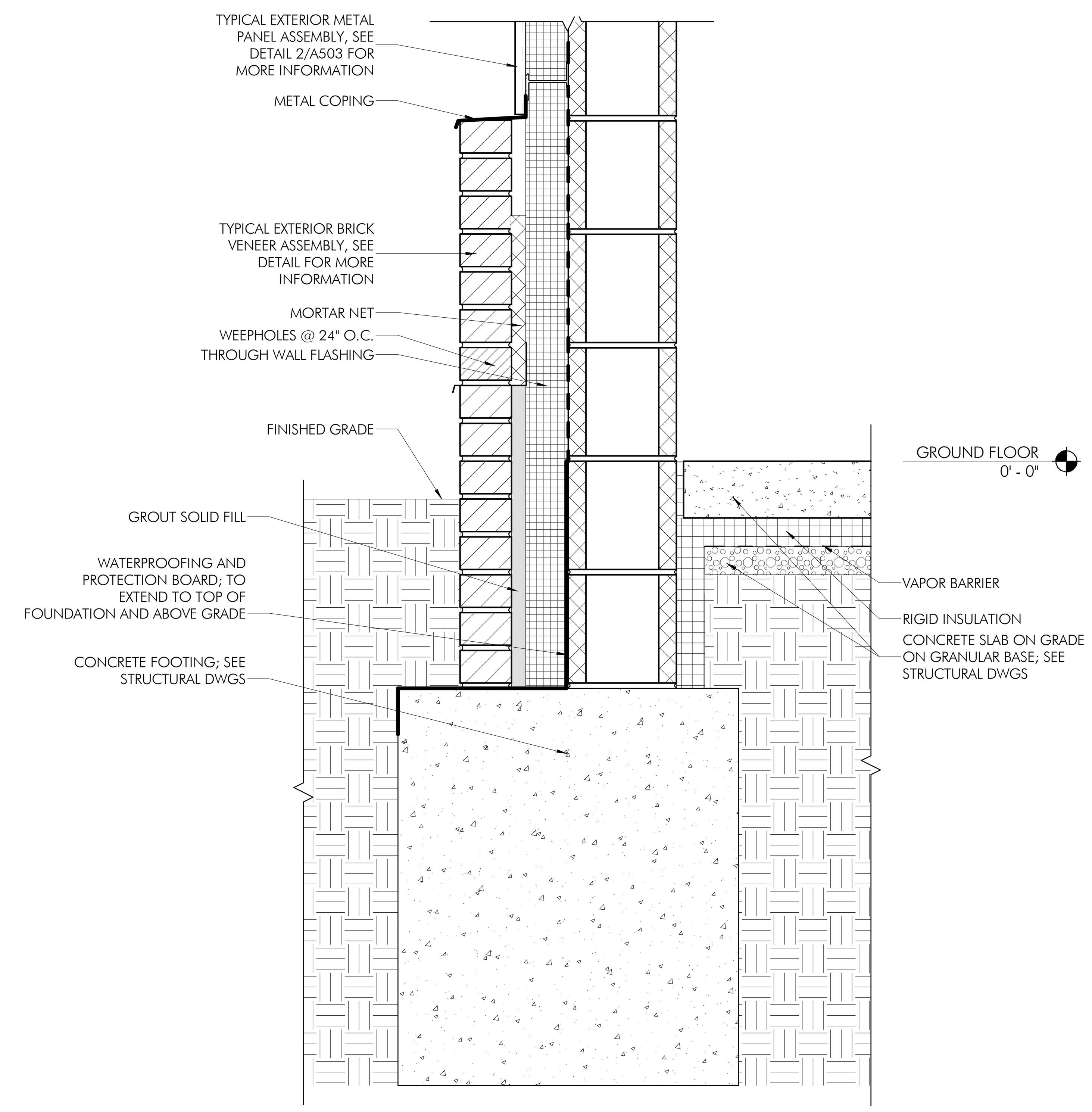
9 A503 EXTERIOR ROOF EAVE DETAIL - GROUNDS & FIELDS
1 1/2" = 1'-0"



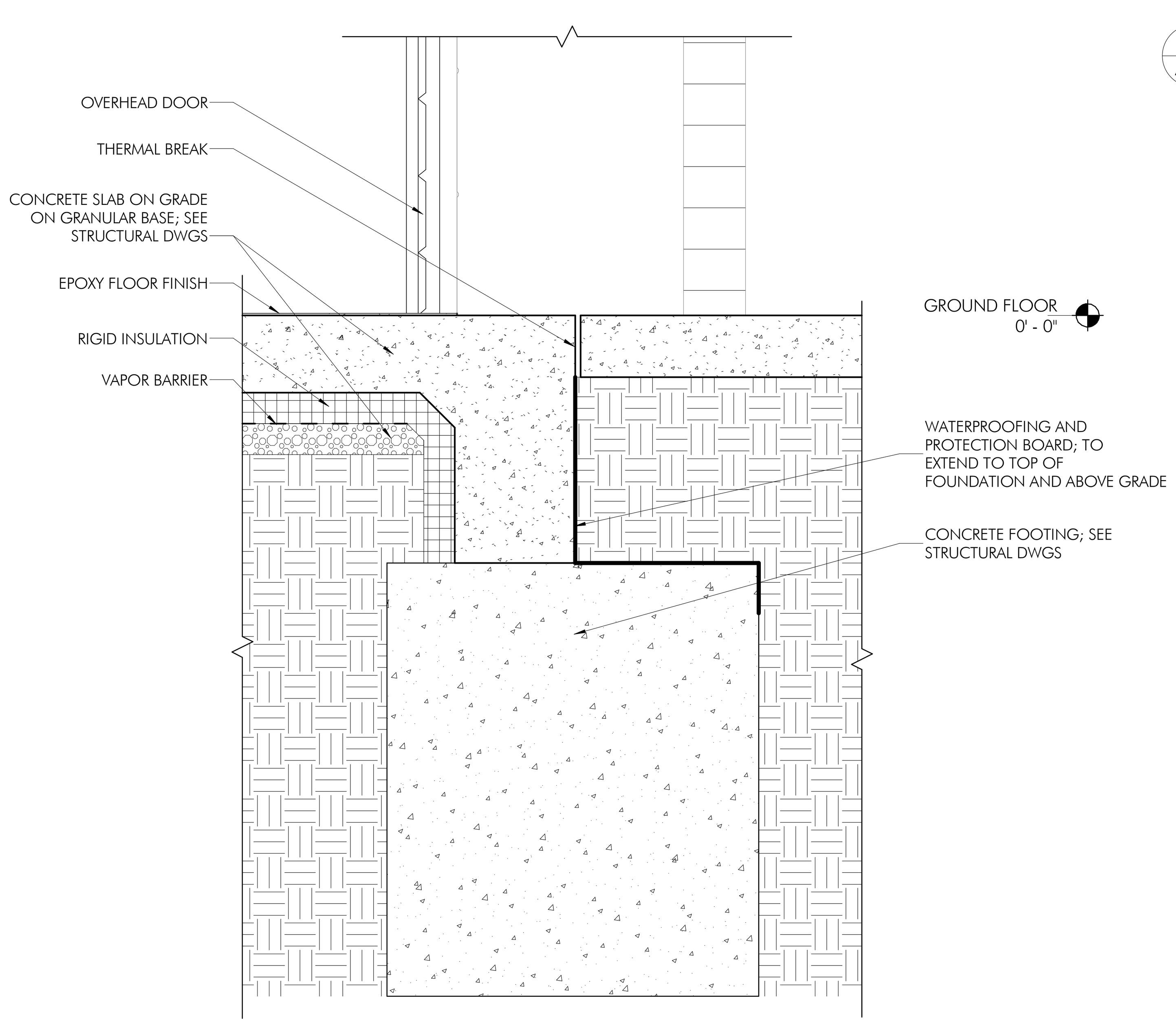
4 A503 TYPICAL EXTERIOR ROOF EAVE DETAIL - GROUNDS & FIELDS
1 1/2" = 1'-0"



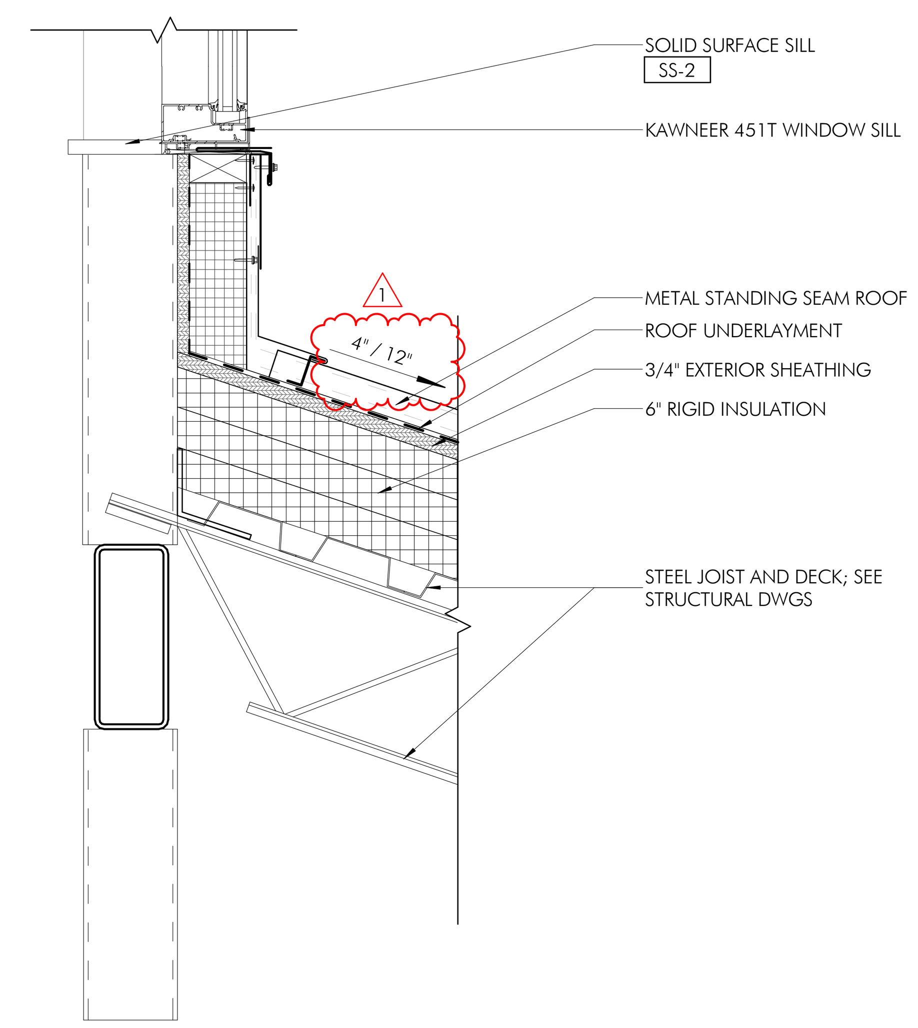
2 A503 TYPICAL EXTERIOR WALL DETAIL - GROUNDS & FIELDS
1 1/2" = 1'-0"



1 A503 TYPICAL FOUNDATION DETAIL - GROUNDS & FIELD
1 1/2" = 1'-0"



5 A503 STORAGE DOOR FOUNDATION DETAIL - GROUNDS & FIELDS
1 1/2" = 1'-0"



10 A503 TYPICAL SLOPED ROOF TO WALL TRANSIITON - GROUNDS & FIELDS
1 1/2" = 1'-0"

TESD CONESTOGA ATHLETIC FIELDS

TREDYFFRIN TOWNSHIP
CHESTER COUNTY, PA

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SHEET TITLE
PROPOSED WALL & FOOTING DETAILS - GROUNDS & FIELDS BUILDING

DRAWING NUMBER
A503

4/23/2024 4:24:08 PM

EQUIPMENT SCHEDULE

TAG	ITEM	SPECIFICATION	SIZE W	SIZE H	SIZE D	LOCATION	REMARKS
EQ-1	CORNER WORK TABLE	Advance Tabco	10' - 0"	2' - 11 1/2"	2' - 0"	CONCESSIONS	KTMS-2410
EQ-2	WORK TABLE	Advance Tabco	4' - 0"	2' - 11 1/2"	2' - 0"	CONCESSIONS	KMS-244
EQ-3	WORK TABLE	Advance Tabco	8' - 0"	2' - 11 1/2"	2' - 0"	CONCESSIONS	KMS-248
EQ-4	WORK TABLE	Advance Tabco	7' - 0"	2' - 11 1/2"	2' - 0"	CONCESSIONS	KMS-247
EQ-5	WORK TABLE W/ ENCLOSED BASE	Advance Tabco	6' - 0"	2' - 11 1/2"	2' - 0"	CONCESSIONS	HB-SS-246
EQ-6	WORK TABLE	Advance Tabco	6' - 0"	2' - 11 1/2"	2' - 0"	CONCESSIONS	MS-246
EQ-7	SPECIALTY REFRIGERATOR	Victory	4' - 4 1/8"	7' - 0 1/4"	2' - 10 7/8"	CONCESSIONS	~~RS-2D-S1-HC~~
EQ-8	SPECIALTY FREEZER	Victory	4' - 4 1/8"	7' - 0 1/4"	2' - 10 7/8"	CONCESSIONS	~~FS-2D-S1-HC~~
EQ-9	DROP-IN SINK	Advance Tabco	4' - 2"	0' - 10"	1' - 9"	CONCESSIONS	Refer to Plumbing Drawings
EQ-10	HAND SINK	Advance Tabco	1' - 8"	0' - 8"	1' - 4"	CONCESSIONS	Refer to Plumbing Drawings
EQ-11	ICE MACHINE	Manitowoc Ice	4' - 0"	2' - 5 1/2"	2' - 0 1/2"	ATHLETIC TRAINER	~~IDT 1500A-261/D970~~
EQ-12	WARMING CABINET	Victory	2' - 2 1/2"	7' - 0 1/8"	2' - 10 7/8"	CONCESSIONS	~~HS-1D-1~~
EQ-13	ATHLETIC LOCKERS	Scranton Products	2' - 6"	1' - 6"	1' - 0"	TEAM TOOMS	Tufftec Custom Configuration
EQ-14	LOCKER BENCHES	Salsbury Industries	5' - 0"	1' - 6"	0' - 9 1/2"	TEAM ROOMS	77785LGT
EQ-15	LOCKER BENCHES	Salsbury Industries	3' - 0"	1' - 6"	0' - 9 1/2"	TEAM ROOMS	77783LGT
EQ-16	LOCKER BENCHES	Salsbury Industries	3' - 6"	1' - 6"	1' - 8"	TEAM ROOMS	77781-ADA-LGT

1

TOILET ACCESSORY SCHEDULE

TAG	ITEM	SPECIFICATION	SIZE W	SIZE H	SIZE D	LOCATION	REMARKS
TA-1							
TA-2	GRAB BAR	BOBRICK B-5806					
TA-3	GRAB BAR	BOBRICK B-5806					
TA-4	TOILET PAPER DISPENSER	VONDREHLE TWIN JUMBO TISSUE DISPENSER #3662					
TA-5	SANITARY NAPKIN DISPOSAL	ASI 0582					
TA-6	WALL MOUNTED CHANNEL FRAME MIRROR	BOBRICK B-165 1836					
TA-7	WALL MOUNTED SOAP DISPENSER	HILLYARD AFFINITY DISPENSER	0' - 3 1/4"	0' - 10 3/4"	0' - 3 3/4"		
TA-8	HDPE WALL MOUNTED URINAL SCREEN	HINY HIDERS, TP-1 FINISH			0' - 1"		

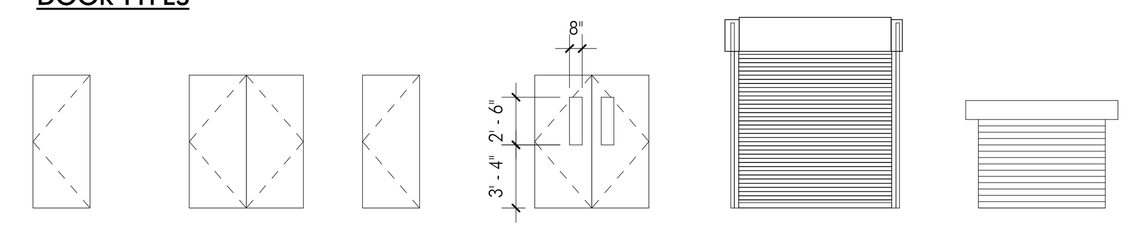
DOOR AND FRAME SCHEDULE

1

NUMBER	ROOM NUMBER	ROOM NAME	DOOR TYPE	DOOR MATERIAL	DOOR FINISH	DOOR WIDTH	DOOR HEIGHT	FRAME TYPE	FRAME MATERIAL	FRAME FINISH	HEAD DETAIL	JAMB DETAIL	FIRE RATING	REMARKS
1	1	MECHANICAL	A2	FRP	PTD	6' - 0"	7' - 0"	A2	ALUM	CL	2/A601	1/A601		SPECIAL-LITE SANDSTONE-TEXTURED - LIGHT GREY #5597
2A	2	ATHLETIC STORAGE	A2	FRP	PTD	6' - 0"	7' - 0"	A2	ALUM	CL	2/A601	1/A601		SPECIAL-LITE SANDSTONE-TEXTURED - LIGHT GREY #5597
2B	2	ATHLETIC STORAGE	B1	ALUM	RAL7047	8' - 0"	8' - 0"	B1	PTD STEEL	RAL7047				INSULATED OVERHEAD DOOR
2C	2	ATHLETIC STORAGE	B1	ALUM	RAL7047	8' - 0"	8' - 0"	B1	PTD STEEL	RAL7047				INSULATED OVERHEAD DOOR
2D	2	ATHLETIC STORAGE	A1	FRP	PTD	3' - 0"	7' - 0"	A1	ALUM	CL	2/A601	1/A601		SPECIAL-LITE SANDSTONE-TEXTURED - LIGHT GREY #5597
3	3	TEAM ROOM	A1	FRP	PTD	3' - 0"	7' - 0"	A1	ALUM	CL	3/A601	1/A601		SPECIAL-LITE SANDSTONE-TEXTURED - LIGHT GREY #5597
4	4	TEAM ROOM	A1	FRP	PTD	3' - 0"	7' - 0"	A1	ALUM	CL	3/A601	1/A601		SPECIAL-LITE SANDSTONE-TEXTURED - LIGHT GREY #5597
5	5	ATHLETIC TRAINER	A1	FRP	PTD	3' - 0"	7' - 0"	A1	ALUM	CL	2/A601	1/A601		SPECIAL-LITE SANDSTONE-TEXTURED - LIGHT GREY #5597
6A	6	CONCESSION	A2	FRP	PTD	6' - 0"	7' - 0"	A2	ALUM	CL	2/A601	1/A601		SPECIAL-LITE SANDSTONE-TEXTURED - LIGHT GREY #5597
6B	6	CONCESSION	A2	FRP	PTD	6' - 0"	7' - 0"	A2	ALUM	CL	2/A601	1/A601		SPECIAL-LITE SANDSTONE-TEXTURED - LIGHT GREY #5597
6C	6	CONCESSION	B2	ALUM	CL	6' - 8"	4' - 8"	B2	PTD STEEL	RAL7047				OVERHEAD CONCESSION DOOR
6D	6	CONCESSION	B2	ALUM	CL	6' - 8"	4' - 8"	B2	PTD STEEL	RAL7047				OVERHEAD CONCESSION DOOR
6E	6	CONCESSION	B2	ALUM	CL	6' - 8"	4' - 8"	B2	PTD STEEL	RAL7047				OVERHEAD CONCESSION DOOR
7	7	TEAM ROOM	A1	FRP	PTD	3' - 0"	7' - 0"	A1	ALUM	CL	3/A601	1/A601		SPECIAL-LITE SANDSTONE-TEXTURED - LIGHT GREY #5597
8	8	TEAM ROOM	A1	FRP	PTD	3' - 0"	7' - 0"	A1	ALUM	CL	3/A601	1/A601		SPECIAL-LITE SANDSTONE-TEXTURED - LIGHT GREY #5597
9	9	MENS RESTROOM	A1	FRP	PTD	3' - 0"	7' - 0"	A1	ALUM	CL	2/A601	1/A601		SPECIAL-LITE SANDSTONE-TEXTURED - LIGHT GREY #5597
10	10	WOMENS RESTROOM	A1	FRP	PTD	3' - 0"	7' - 0"	A1	ALUM	CL	2/A601	1/A601		SPECIAL-LITE SANDSTONE-TEXTURED - LIGHT GREY #5597
11	11	SINGLE USER RESTROOM	A1	FRP	PTD	3' - 0"	7' - 0"	A1	ALUM	CL	2/A601	1/A601		SPECIAL-LITE SANDSTONE-TEXTURED - LIGHT GREY #5597
12	12	SINGLE USER RESTROOM	A1	FRP	PTD	3' - 0"	7' - 0"	A1	ALUM	CL	2/A601	1/A601		SPECIAL-LITE SANDSTONE-TEXTURED - LIGHT GREY #5597
13	13	JAN.	A1	FRP	PTD	3' - 0"	7' - 0"	A1	ALUM	CL	2/A601	1/A601		SPECIAL-LITE SANDSTONE-TEXTURED - LIGHT GREY #5597
14	14	ELEC./ SERV.	A1	FRP	PTD	3' - 0"	7' - 0"	A1	ALUM	CL	2/A601	1/A601		SPECIAL-LITE SANDSTONE-TEXTURED - LIGHT GREY #5597
21A	21	GROUNDS MAINTENANCE	A4	HM	PTD	6' - 0"	7' - 0"	A4	HM	PTD	5/A601	4/A601		FINAL COLOR/FINISH TO BE SELECTED BY ARCHITECT
21B	22	FIELD STORAGE	B1	GALV. STEEL	PTD	14' - 0"	12' - 0"	B1	PTD STEEL	RAL7047				INSULATED OVERHEAD DOOR
21C	21	GROUNDS MAINTENANCE	B1	GALV. STEEL	PTD	14' - 0"	12' - 0"	B1	PTD STEEL	RAL7047				INSULATED OVERHEAD DOOR
21D	21	GROUNDS MAINTENANCE	B1	GALV. STEEL	PTD	14' - 0"	12' - 0"	B1	PTD STEEL	RAL7047				INSULATED OVERHEAD DOOR
21E	21	GROUNDS MAINTENANCE	A3	HM	PTD	3' - 0"	7' - 0"	A3	HM	PTD	5/A601	4/A601		FINAL COLOR/FINISH TO BE SELECTED BY ARCHITECT
21F	21	GROUNDS MAINTENANCE	B1	GALV. STEEL	PTD	14' - 0"	12' - 0"	B1	PTD STEEL	RAL7047				INSULATED OVERHEAD DOOR
23	21	GROUNDS MAINTENANCE	A3	HM	PTD	3' - 0"	7' - 0"	A3	HM	PTD	5/A601	4/A601		FINAL COLOR/FINISH TO BE SELECTED BY ARCHITECT

ALL DOORS AND FRAMES TO BE PAINTED P-3 ,UNO.

DOOR TYPES



TYPE A1 SINGLE DOOR FRP

TYPE A2 PAIR OF DOORS FRP

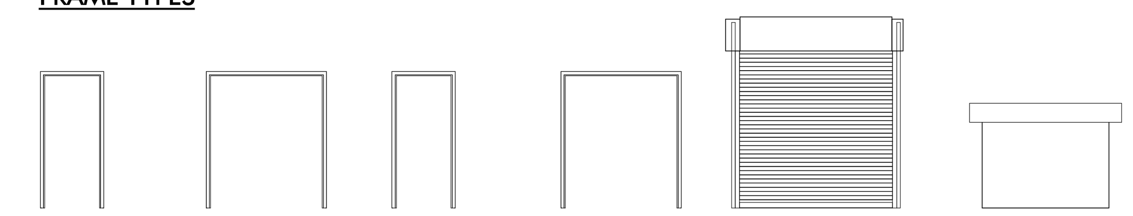
TYPE A3 SINGLE DOOR HM

TYPE A4 PAIR OF DOORS HM W/ VISION LITES

TYPE B1 ROLLING PTD GALVANIZED STEEL INSULATED DOOR

TYPE B2 ROLLING CLEAR ANODIZED ALUMINUM DOOR

FRAME TYPES



FRAME TYPE A1 ALUM FRAME SINGLE DOOR

FRAME TYPE A2 ALUM FRAME FOR PAIR OF DOORS

FRAME TYPE A3 HM FRAME SINGLE DOOR

FRAME TYPE A2 HM FRAME FOR PAIR OF DOORS

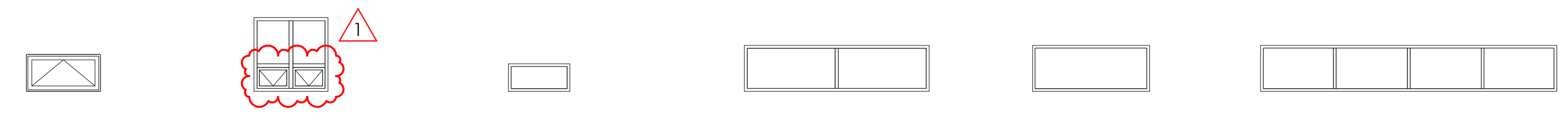
FRAME TYPE B1 JAMB RAILS ROLLING DOOR W/ POWDERGUARD PREMIUM POWDER COAT FINISH

FRAME TYPE B2 JAMB RAILS ROLLING DOOR W/ POWDERGUARD PREMIUM POWDER COAT FINISH

WINDOW SCHEDULE

WINDOW TAG	SIZE WIDTH	SIZE HEIGHT	TYPE	MATERIAL	REMARKS
W1	4' - 0"	2' - 0"	THERMAL HOPPER WINDOW	CLEAR ANODIZED ALUMINUM	
W2	4' - 0"	4' - 0"	FIXED DOUBLE WINDOW W/ OPERABLE BELOW	CLEAR ANODIZED ALUMINUM	
W3	3' - 4"	1' - 6"	FIXED WINDOW	CLEAR ANODIZED ALUMINUM	
W4	10' - 0"	2' - 6"	FIXED DOUBLE WINDOW	CLEAR ANODIZED ALUMINUM	
W5	6' - 4"	2' - 6"	FIXED WINDOW	CLEAR ANODIZED ALUMINUM	
W6	16' - 0"	2' - 6"	FIXED STOREFRONT	CLEAR ANODIZED ALUMINUM	

WINDOW TYPES



TYPE W1 SINGLE WINDOW HOPPER

TYPE W2 DOUBLE WINDOW FIXED ABOVE OPERABLE HOPPERS BELOW

TYPE W3 SINGLE WINDOW FIXED ABOVE SINGLE DOOR

TYPE W4 DOUBLE WINDOW FIXED

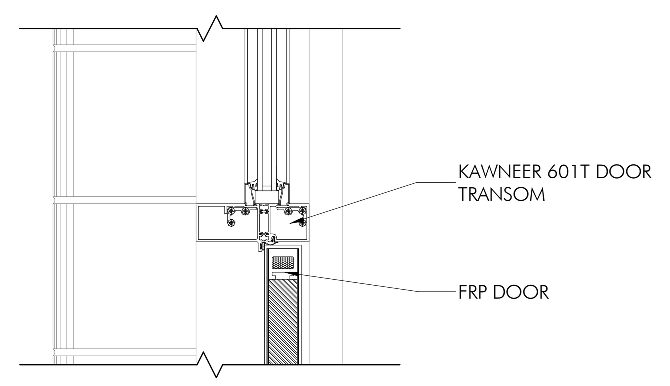
TYPE W5 SINGLE WINDOW FIXED ABOVE DOUBLE DOOR

TYPE W6 4 LITE WINDOW FIXED

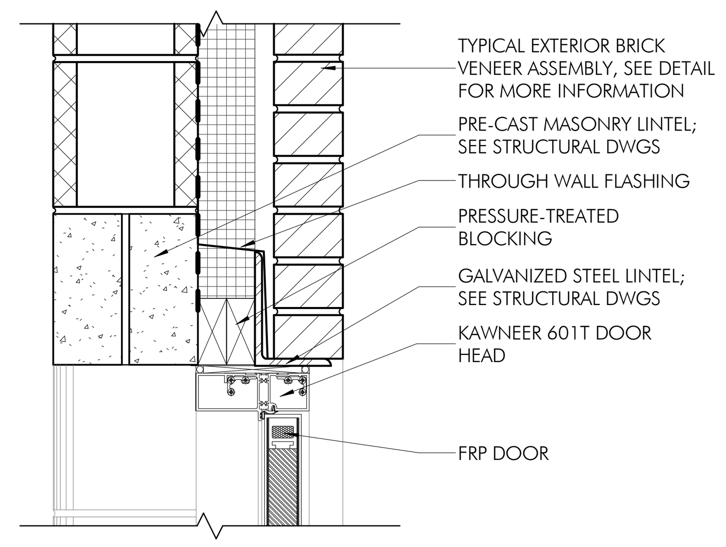
FINISH SCHEDULE

TAG	MANUFACTURER	STYLE	COLOR	REMARKS
ACOUSTIC CEILING TILE				
ACT-1	ARMSTRONG 1732	FINE FISSURED ANGLED TEGULAR	WHITE	24" X 24" GENERAL CEILING TILE. ALUMINUM "T" GRID
CONCRETE				
C-1	SHERWIN WILLIAMS	RESUTILE AQUA 4410/4411	CLEAR	WATER-BASED URETHANE CONCRETE COATING TO BE APPLIED AFTER CONCREATE HAS BEEN SEALED PER SPECIFICATIONS. CONCRETE TO BE PRE-TREATED AS REQUIRED BY MANUFACTURER
EPOXY				
EP-1	SHERWIN WILLIAMS	DECO QUARTZ	FLINTROCK	EPOXY FLOOR AND 4" INTEGRATED WALL BASE; FLINTROCK IS A DISCONTINUED COLOR- MUST MATCH ARCHITECTS SAMPLE
PAINT				
P-1	SHERWIN WILLIAMS		SW7036 ACCESSIBLE BEIGE	GENERAL WALL PAINT
P-2	SHERWIN WILLIAMS		S7585 SUNDRIED TOMATO	ACCENT WALL PAINT @ TEAM ROOMS
P-3	SHERWIN WILLIAMS	EXTERIOR PAINT	SW7019 GAUNTLET GRAY	DOOR AND FRAME PAINT
ROLLER SHADE				
RS-1	MECHOSHADE	THERMOVEIL 1500 SERIES, 3% OPEN	1316 EGGSHELL SHADE WITH ALABASTER TRIM	GENERAL WINDOW SHADE
RUBBER TILE				
RT-1	MANNINGTON	TELES	850 DEWDROP	17.5" X 35" FLOOR TILE AT ATHLETIC OFFICE, 60% FLOORING WILL BE INSTALLED ON SLAB ON GRADE. REFER TO MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR MOISTURE BARRIER REQUIREMENTS; ASHLAR INSTALLATION W/ RANDOM COLOR PLACEMENT
RT-2	MANNINGTON	TELES	997 GREAT LAKES	17.5" X 35" FLOOR TILE AT ATHLETIC OFFICE, 40% FLOORING WILL BE INSTALLED ON SLAB ON GRADE. REFER TO MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR MOISTURE BARRIER REQUIREMENTS; ASHLAR INSTALLATION W/ RANDOM COLOR PLACEMENT
SOLID SURFACE				
SS-1	FORMICA	772	COPPER QUARTZ	GENERAL SS COUNTERTOP
SS-2	CORIAN		DEEP TITANIUM	GENERAL SS WINDOW SILLS
TILE				
T-1	DALTILE	COLORWHEEL	K175 BISCUIT, GLOSS	4"x16" PRIMARY CERAMIC WALL TILE; GROUT: CUSTOM BUILDING #172 URBAN PUTTY; INSTALL METHOD: VERTICAL RUNNING BOND
T-2	DALTILE	COLORWHEEL	0182 SUEDE GRAY, GLOSS	8"x24" ACCENT CERAMIC WALL TILE; GROUT: CUSTOM BUILDING #19 PEWTER; INSTALL METHOD: HORIZONTAL STACKED
TOILET PARTITION				
TP-1	SCRANTON PRODUCTS	HINY HIDERS HDPE	BURGANDY	GENERAL TOILET PARTITION
WALL BASE				
WB-1	JOHNSONITE		63 BURNT UMBER	RUBBER WALL BASE @ RUBBER TILE AND SEALED CONCRETE FLOORING LOCATIONS

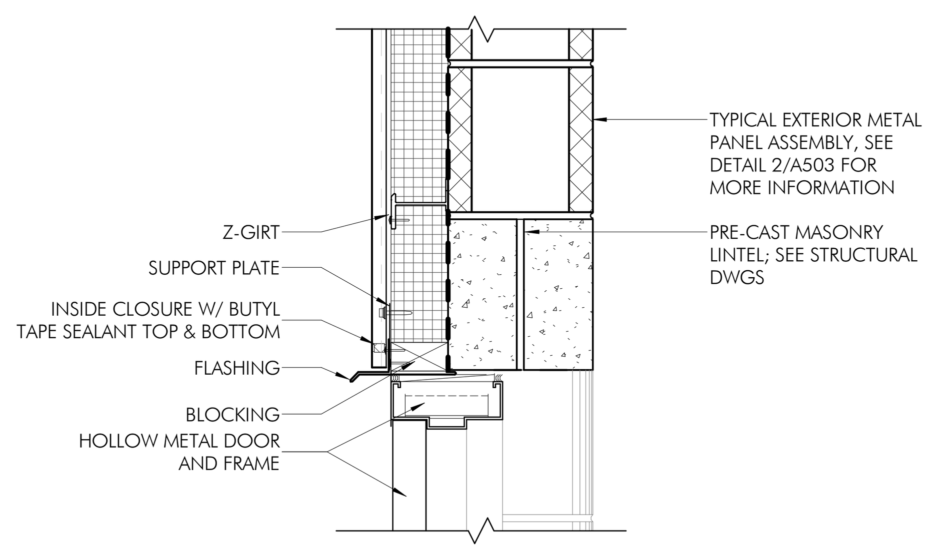
1



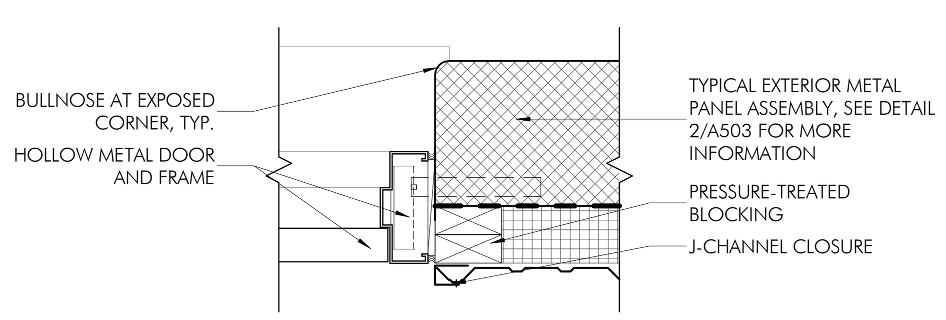
3 A601 TYPICAL ALUMINUM FRAMED FRP DOOR TRANSOM DETAIL
1 1/2" = 1'-0"



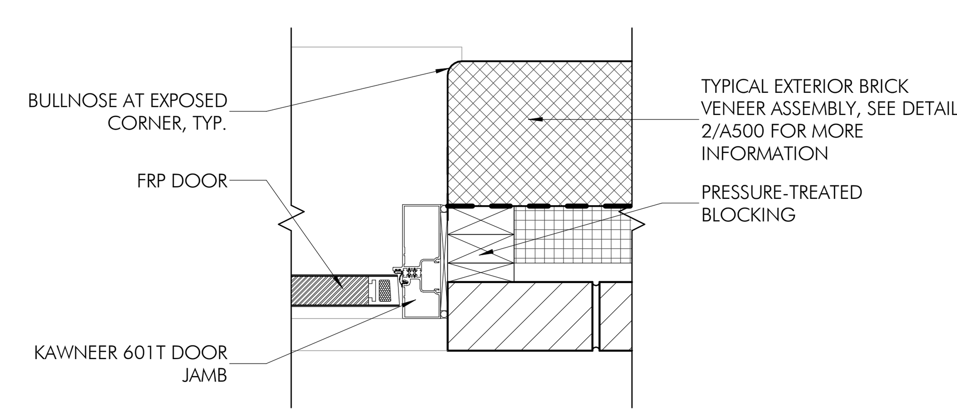
2 A601 TYPICAL ALUMINUM FRAMED FRP DOOR HEAD DETAIL
1 1/2" = 1'-0"



5 A601 TYPICAL HM DOOR AND FRAME HEAD DETAIL
1 1/2" = 1'-0"



4 A601 TYPICAL HM DOOR AND FRAME JAMB DETAIL
1 1/2" = 1'-0"



1 A601 TYPICAL ALUMINUM FRAMED FRP DOOR JAMB DETAIL
1 1/2" = 1'-0"

TESD CONESTOGA ATHLETIC FIELDS

TREDYFFRIN TOWNSHIP
CHESTER COUNTY, PA

HSA PROJECT # :21-019

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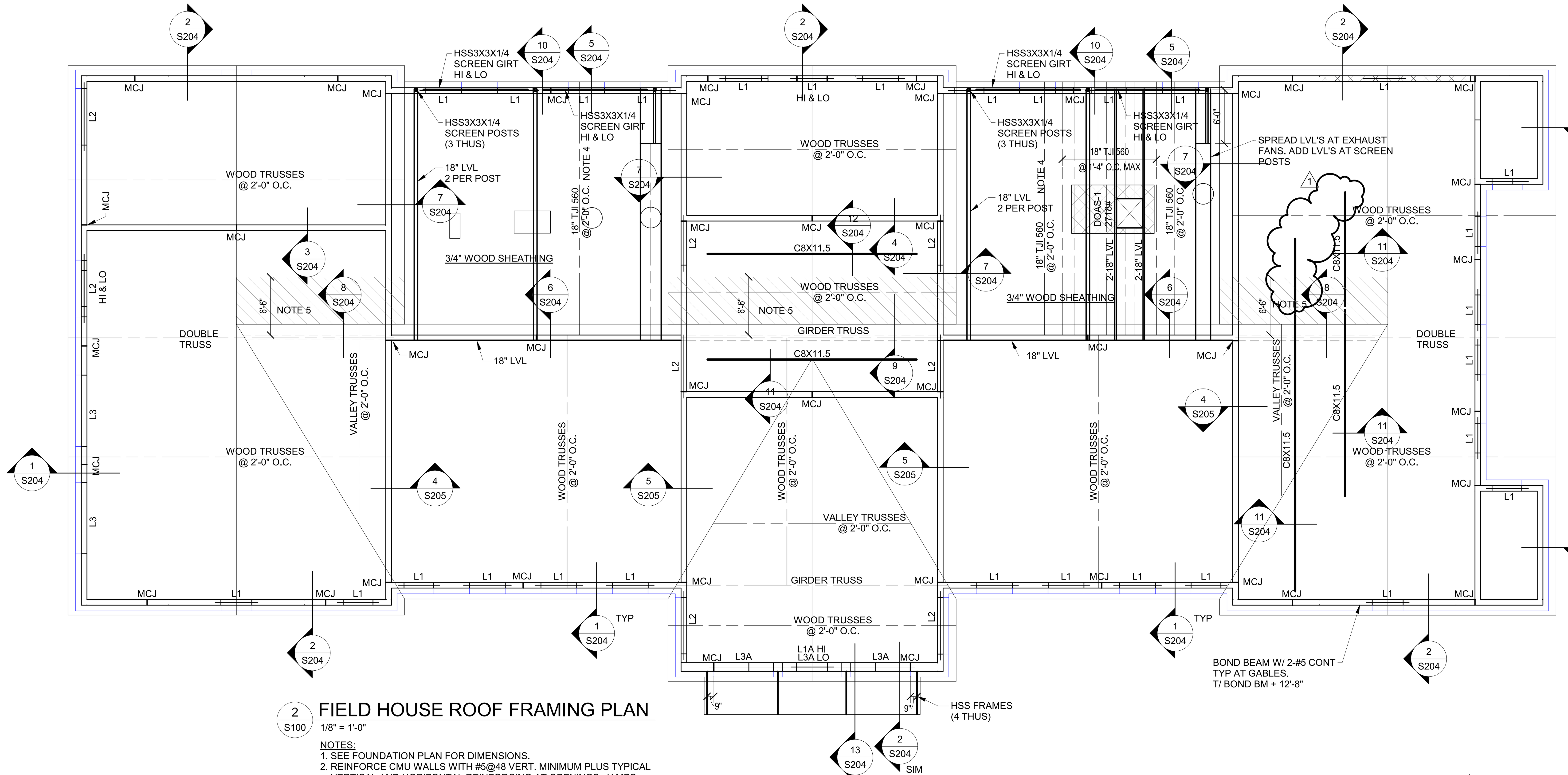
NOT FOR CONSTRUCTION

ISSUE HISTORY

Δ	DATE	ISSUED FOR
	2022-09-12	PROGRESS ISSUE
	2022-09-26	70% DESIGN ISSUE
	2024-02-09	PROGRESS ISSUE
	2024-03-18	BID ISSUE
1	2024-04-23	ADDENDUM #01

SHEET TITLE
SCHEDULES AND DIAGRAMS

DRAWING NUMBER
A601



LINTEL SCHEDULE

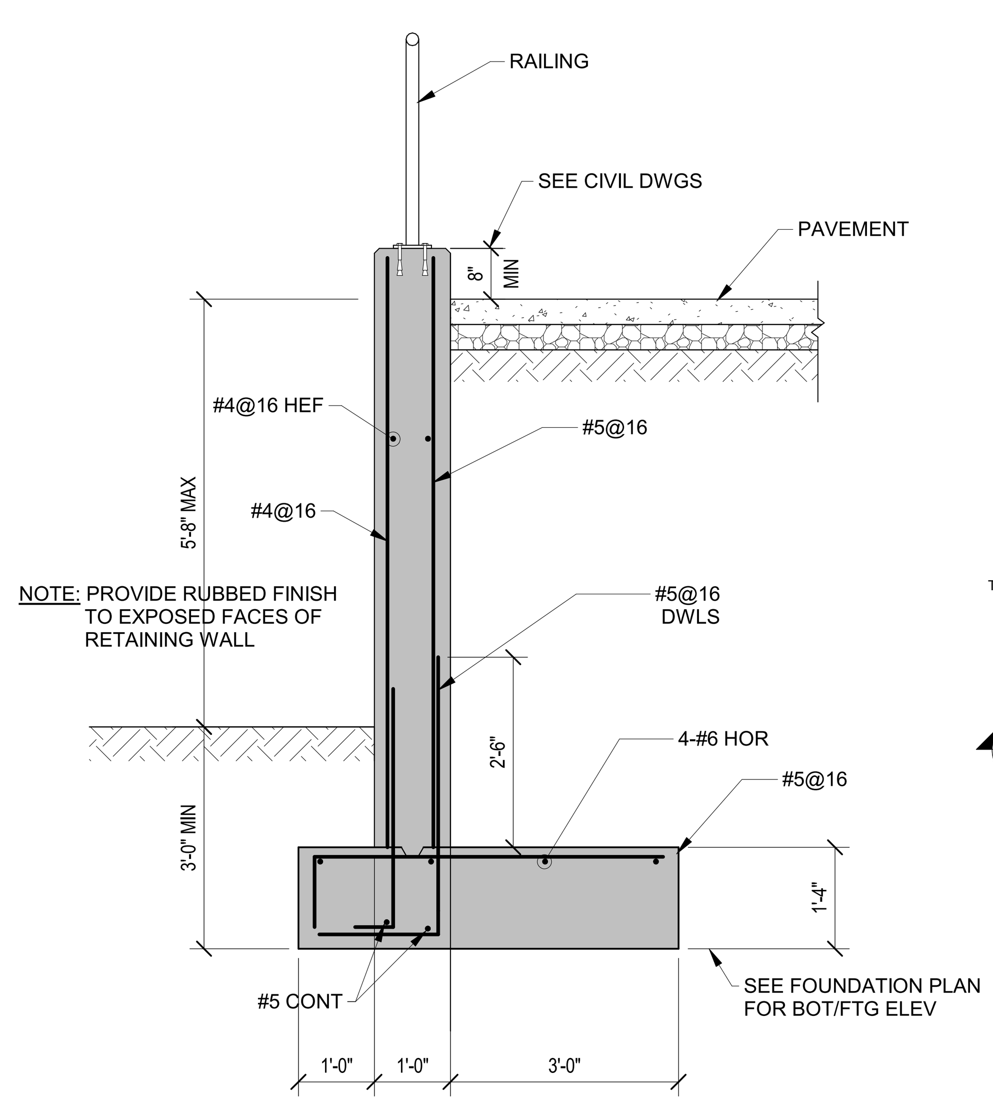
MARK	CONSTRUCTION
L1	2-L5X3 1/2X5/16
L1A	3-L5X3 1/2X5/16
L2	2-L6X3 1/2X5/16
L3	2-C8X11.5 + 3/8" BOT PLATE
L3A	2-C8X11.5 + 3/8" BOT PLATE
L4	2-C10X15.3 + 1/4" BOT PLATE

NOTE: CUT DOUBLE CHANNEL ENDS PER DETAIL 20/S203

2 S100 FIELD HOUSE ROOF FRAMING PLAN

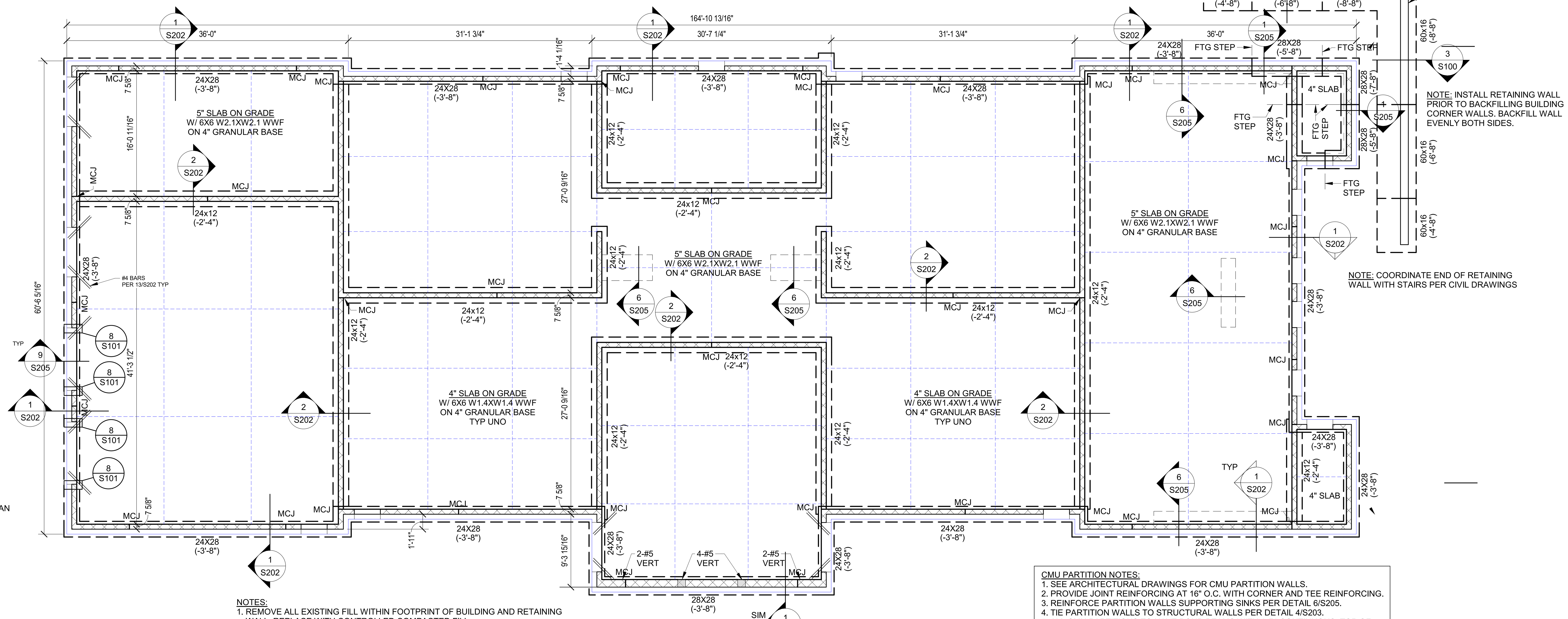
1/8" = 1'-0"

NOTES:
1. SEE FOUNDATION PLAN FOR DIMENSIONS.
2. REINFORCE CMU WALLS WITH #5@48 VERT. MINIMUM PLUS TYPICAL VERTICAL AND HORIZONTAL REINFORCING AT OPENINGS, JAMBS, CORNERS, AND INTERSECTIONS PER DETAILS 1/S203 TO 3/S203.
3. PROVIDE 5/8" WOOD SHEATHING AT SLOPED ROOFS; 3/4" WOOD SHEATHING AT FLAT ROOFS.
4. PROVIDE SIMPSON TB BRIDGING AT 10' O.C. AT FLAT ROOF FRAMING
5. DESIGN TRUSSES FOR ADDITIONAL 25 PSF SNOW LOAD DUE TO DRIFT (55 PSF TOTAL SNOW LOAD AT HATCHED AREA).



3 S100 SECTION

1/2" = 1'-0"



NOTES:
1. REMOVE ALL EXISTING FILL WITHIN FOOTPRINT OF BUILDING AND RETAINING WALL. REPLACE WITH CONTROLLED COMPACTED FILL.
2. TOP OF SLAB ELEVATION 528.75 (REF ELEV. 0'-0")
3. ELEVATION IN PARENTHESIS IS BOTTOM OF FOOTING ELEVATION REFERENCED TO TOP OF SLAB (0'-0")
4. SLAB ON GRADE 4" SLAB UNO.
5. REINFORCE CMU WALLS WITH #5@48 VERT. MINIMUM PLUS TYPICAL VERTICAL AND HORIZONTAL REINFORCING AT OPENINGS, JAMBS, CORNERS, AND INTERSECTIONS PER DETAILS 1/S203 TO 3/S203.
6. MCJ INDICATES MASONRY CONTROL JOINT IN CMU WALL.

1 S100 FIELD HOUSE FOUNDATION PLAN

1/8" = 1'-0"

CMU PARTITION NOTES:
1. SEE ARCHITECTURAL DRAWINGS FOR CMU PARTITION WALLS.
2. PROVIDE JOINT REINFORCING AT 16" O.C. WITH CORNER AND TEE REINFORCING.
3. REINFORCE PARTITION WALLS SUPPORTING SINKS PER DETAIL 6/S205.
4. TIE PARTITION WALLS TO STRUCTURAL WALLS PER DETAIL 4/S203.
5. ALL CMU PARTITIONS TO HAVE BOND BEAMS WITH 1-#4 CONTINUOUS. TOP OF BOND BEAM +8'-8".
6. PROVIDE CORNER AND INTERSECTION BARS (SINGLE BAR) FOR BOND BEAM PER DETAIL 1/S203 FOR BOTH PARTITION WALLS TO PARTITION WALLS AND FOR PARTITION WALLS TO STRUCTURAL WALLS.
7. TIE TOP OF PARTITION WALLS TO STRUCTURAL WALL PER DETAIL 7/S205. TIE DOUBLE PARTITION WALLS TOGETHER PER DETAIL 8/S205.

TESD CONESTOGA ATHLETIC FIELDS

TREDYFFRIN TOWNSHIP
CHESTER COUNTY, PA

HSA PROJECT # :21-019

Heckendorn Shiles Architects

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ISSUE HISTORY

Δ	DATE	ISSUED FOR
.	3-18-24	BID ISSUE
	4-23-24	BUILDING ADDENDUM 1

SHEET TITLE
FIELD HOUSE FOUNDATION AND ROOF FRAMING PLANS

DRAWING NUMBER
S100

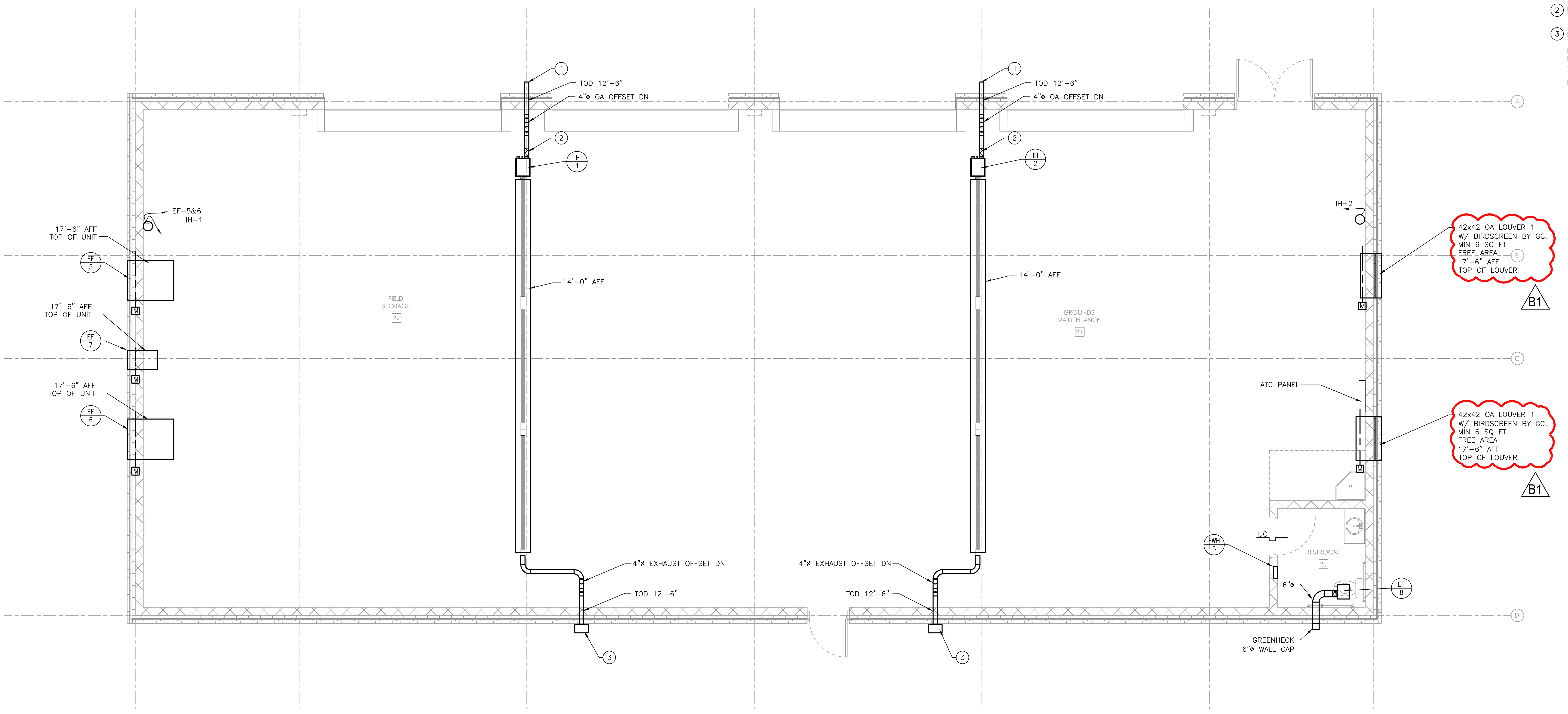
4/22/2024 12:20:08 PM

GENERAL NOTES:

1. REFER TO DRAWING M001 FOR GENERAL NOTES.

NEW WORK KEY NOTES:

1. 4" INFRARED HEATER INTAKE THRU WALL TO ROBERTS GORDON 4" VENT CAP W/ BIRD SCREEN.
2. PROVIDE CORRUGATED 0.006" THICK FLEXIBLE STAINLESS STEEL DUCT CONNECTION.
3. PROVIDE 4" INFRARED HEATER EXHAUST PIPING TERMINATION WITH INTEGRAL WALL THIMBLE ROBERTS GORDON P/N 90502100. SEAL AROUND PENETRATION WITH THERMAL INSULATING CAULKING. CENTER TERMINATION BETWEEN WINDOWS. REFER TO SPECIFICATION 235523 FOR ADDITIONAL EXHAUST VENT REQUIREMENTS.



1 M102 GROUNDS
1/4" = 1'-0"

TESD CONESTOGA ATHLETIC FIELDS

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CHESTER COUNTY, PA

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PLAN NORTH

ISSUE HISTORY

Δ	DATE	ISSUED FOR
	2024-03-18	BID ISSUE
B1	2024-04-23	BUILDING ADDENDUM 1

SHEET TITLE
MECHANICAL GROUNDS & FIELDS BUILDING PLAN

DRAWING NUMBER
M102

ABBREVIATIONS

AB	ABANDONED
AD	AREA DRAIN
AFF	ABOVE FINISHED FLOOR
BFP	BACK FLOW PREVENTER
CA	COMPRESSED AIR
CO	CLEAN OUT
CW	DOMESTIC COLD WATER
DF	DRINKING FOUNTAIN
DN	DOWN
DW	DISHWASHER
(E)	EXISTING
EC	ELECTRICAL CONTRACTOR
EWC	ELECTRIC WATER COOLER
FAI	FRESH AIR INLET
(F)FD	FUTURE FLOOR DRAIN
FD-A	FLOOR DRAIN (A – INDICATES TYPE)
FU	FIXTURE UNIT
GC	GENERAL CONTRACTOR
G	GAS
HB	HOSE BIBB
HW	DOMESTIC HOT WATER
HWH	HOT WATER HEATER
HWR	DOMESTIC HOT WATER RECIRCULATION
IW	INDIRECT WASTE
LAV	LAVATORY
MAX	MAXIMUM
MIN	MINIMUM
MC	MECHANICAL CONTRACTOR
MH	MANHOLE
MR	MOP RECEPTOR
N	NEW WORK
NC	NORMALLY CLOSED
NO	NORMALLY OPEN
NTS	NOT TO SCALE
NIC	NOT IN CONTRACT
OFD	OVERFLOW DRAIN
OS&Y	OUTSIDE SCREW & YOKE GATE VALVE
PC	PLUMBING CONTRACTOR
PRV	PRESSURE REDUCING VALVE
R	REMOVE
RD	ROOF DRAIN
RWC	RAIN WATER CONDUCTOR
SA	SHOCK ABSORBER
SAN	SANITARY
SS	SERVICE SINK
SH	SHOWER
SK	SINK
ST	STORM
SW	SAFE WASTE
TW	TEMPERED WATER
UR	URINAL
VTR	VENT THRU ROOF
V	VENT
W	WASTE
WC	WATER CLOSET
WCO	WALL CLEANOUT
WH	WALL HYDRANT

GENERAL NOTES

1. THE FOLLOWING NOTES APPLY TO ALL PLUMBING DRAWINGS.
2. ALL WORK SHALL BE IN ACCORDANCE WITH THE INTERNATIONAL PLUMBING CODE 2018 AND ALL OTHER APPLICABLE CODES AND STANDARDS.
3. ALL DRAWINGS ARE DIAGRAMMATIC. PLUMBING CONTRACTOR SHALL CAREFULLY EXAMINE EXISTING CONDITIONS PRIOR TO STARTING WORK.
4. CONTRACTOR TO FIELD VERIFY ALL DIMENSIONS, SIZES, CLEARANCES AND LOCATIONS PRIOR TO THE START OF CONSTRUCTION. WHEN CONFLICTS ARISE, MAKE ANY NECESSARY CHANGES TO ROUTING OF DUCTWORK PIPING AT NO ADDITIONAL COST.
5. ALL FLOOR MOUNTED WATER HEATERS SHALL BE INSTALLED ON 4" HIGH CONCRETE HOUSEKEEPING PADS PROVIDED BY THE PLUMBING CONTRACTOR.
6. ALL EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS.
7. SCHEDULES DO NOT REPRESENT EQUIPMENT QUANTITIES. REFER TO THE PLANS FOR ACTUAL QUANTITIES.
8. PLUMBING CONTRACTOR SHALL PROVIDE FIREPROOF PIPE SLEEVES AT ALL NEW PIPING PENETRATIONS THRU FIRE RATED WALLS AND FLOORS.
9. MANUFACTURERS AND MODEL NUMBERS INDICATED ON THE PLANS, SCHEDULES AND SKETCHES ARE PROVIDED AS A BASIS OF DESIGN ONLY. BIDDERS SHALL REFER TO THE SPECIFICATIONS FOR A LISTING OF MULTIPLE ACCEPTABLE MANUFACTURERS FOR EACH OF THESE ITEMS. SIMILAR PRODUCTS FROM ANY OF THESE MANUFACTURERS MAY BE FURNISHED PROVIDED THEY MEET THE INTENT OF THE SPECIFICATIONS. ANY CHANGES TO THE DESIGN REQUIRED AS A RESULT OF A SUBSTITUTION ARE THE RESPONSIBILITY OF THE PLUMBING CONTRACTOR.

LIST OF DRAWINGS

PC PLUMBING CONTRACTOR
PSC PLUMBING SITE CONTRACTOR

S1 B1

SYMBOL LEGEND

	DOMESTIC COLD WATER
	DOMESTIC HOT WATER
	DOMESTIC HOT WATER RECIRCULATION
G	NATURAL GAS PIPING
P	PROPANE LINE
RWC	RAIN WATER CONDUCTOR
TW	TEMPERED WATER
	SANITARY LINE
CD	CONDENSATE DRAIN
V	VENT LINE
BFP	BACK FLOW PREVENTER
M	OS & Y VALVE (M DENOTES MONITORED VALVE)
	GLOBE VALVE
	BALL VALVE
M	MONITORED BALL VALVE
	BUTTERFLY VALVE
M	MONITORED BUTTERFLY VALVE
CO	CLEAN OUT
CO CO	CLEAN OUT
FS	FLOW SWITCH
	GAS COCK
SA	SHOCK ABSORBER
	PRESSURE REDUCING VALVE
HB	HOSE BIBB
WH	WALL HYDRANT
	CHECK VALVE
	RELIEF VALVE
	GAUGE WITH COCK
	THERMOMETER IN THERMOWELL
	CAPPED LINE
	DRAIN VALVE WITH HOSE THREAD
	CIRCUIT SETTER
	SELF CONTAINED TEMPERING VALVE
	EXISTING WORK TO REMAIN
	WORK TO BE REMOVED
	NEW WORK
	DENOTES CONNECT TO EXISTING
	DENOTES LIMIT OF DEMOLITION

TESD CONESTOGA ATHLETIC FIELDS

TREDYFFRIN TOWNSHIP
CHESTER COUNTY, PA

HSA PROJECT # :21-019

Heckendorn Shiles Architects

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PLAN NORTH

ISSUE HISTORY

Δ	DATE	ISSUED FOR
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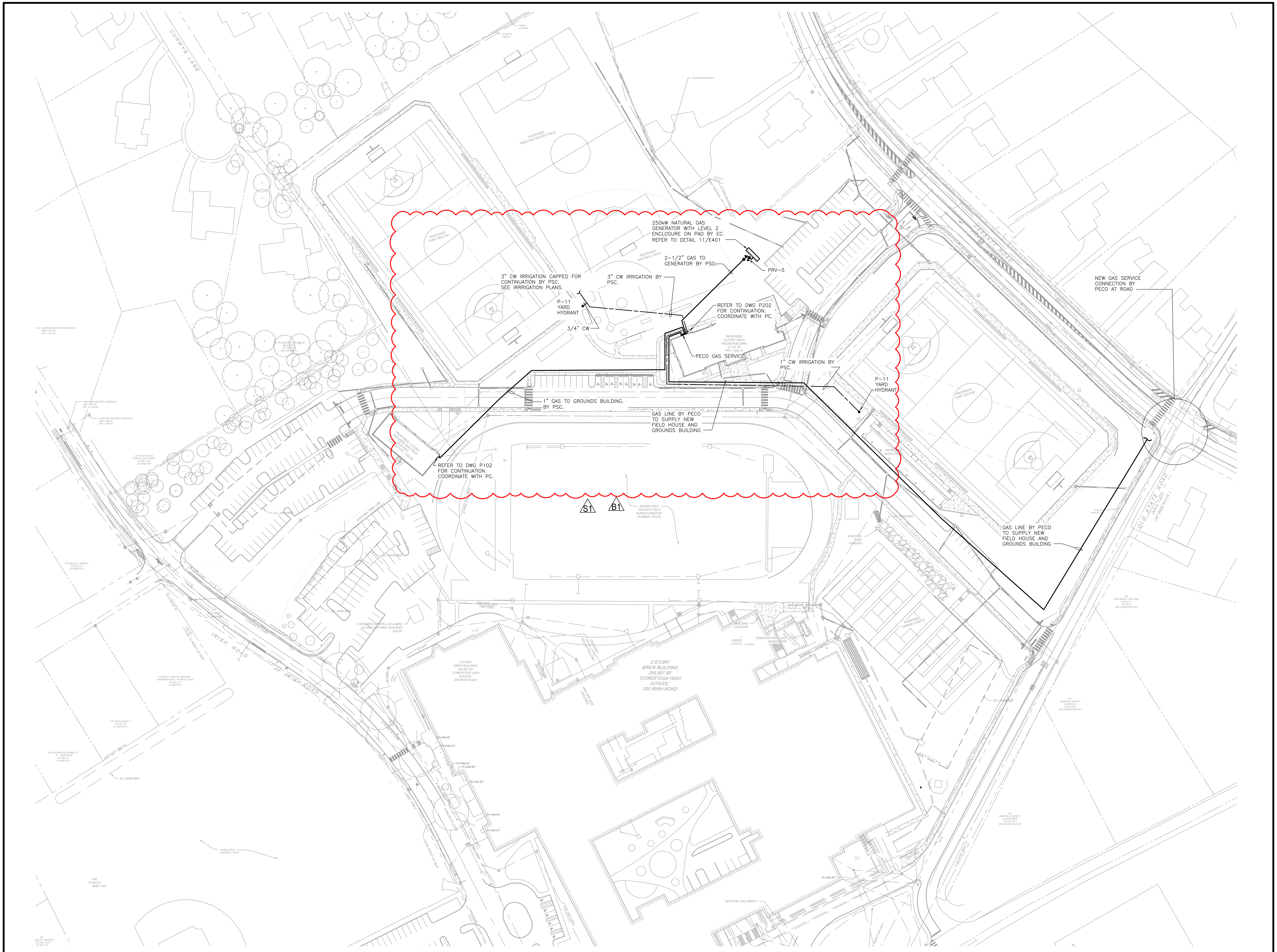
S1	2024-04-09	SITE ADDENDUM 1
B1	2024-04-23	BUILDING ADDENDUM 1

SHEET TITLE

PLUMBING COVER SHEET

DRAWING NUMBER

P001



1 PS01 PLUMBING SITE PLAN
1" = 50'-0"

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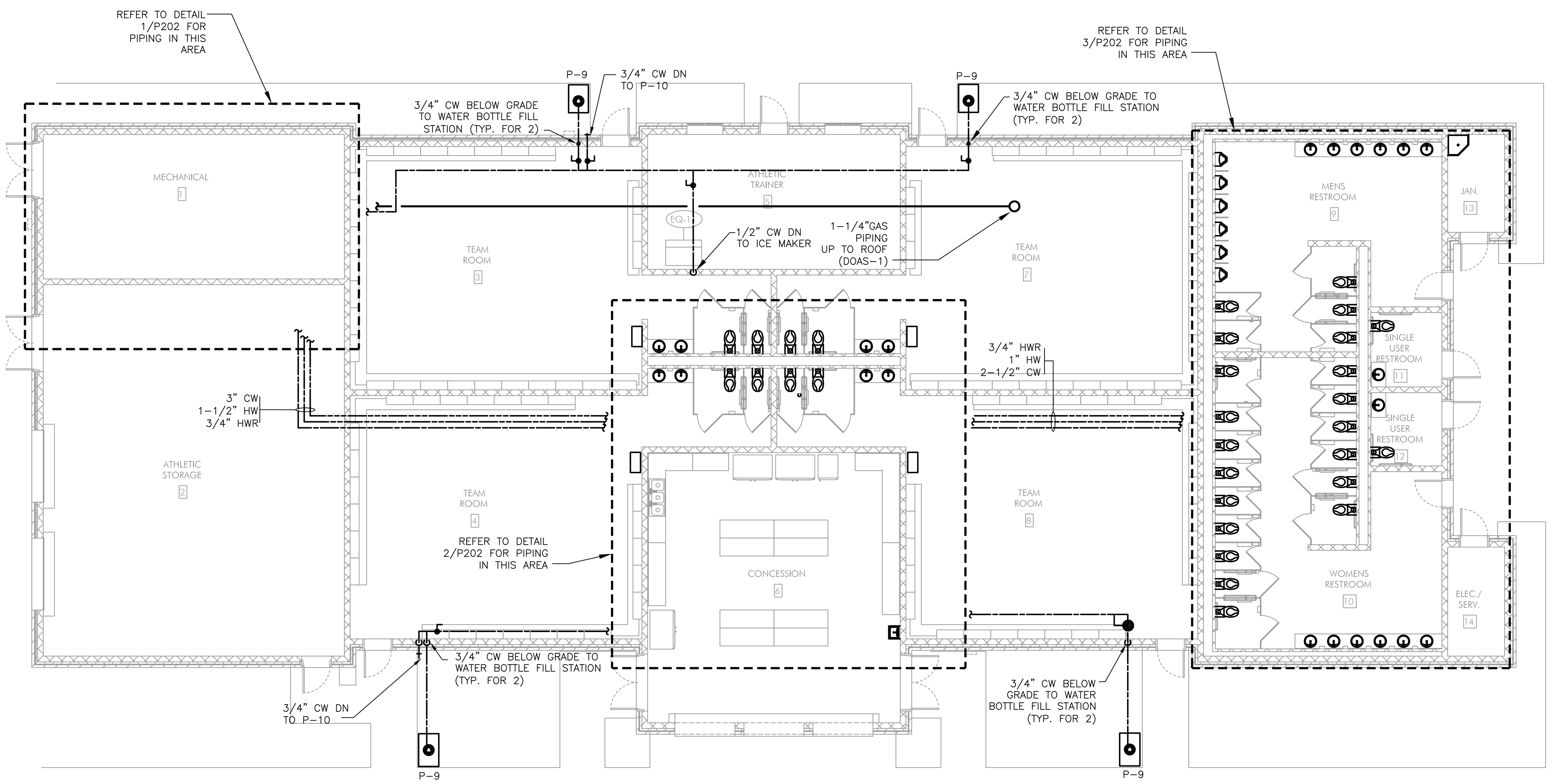
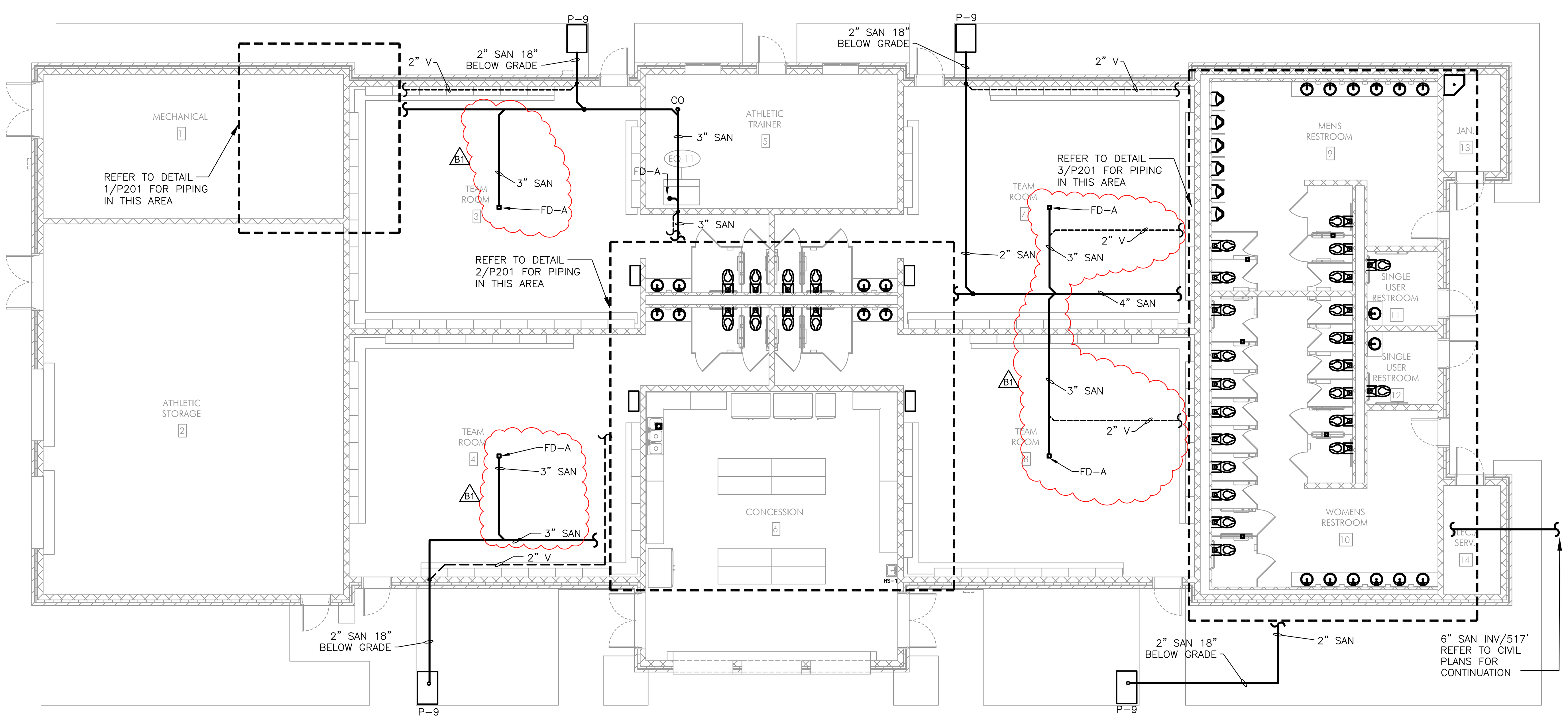
SHEET TITLE
PLUMBING SITE PLAN

DRAWING NUMBER
PS01



1 PLUMBING - FIELD HOUSE DOMESTIC WATER PIPING PLAN
P101 1/8" = 1'-0"



2 PLUMBING - FIELD HOUSE SANITARY PIPING PLAN
P101 1/8" = 1'-0"

PLAN NORTH

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SHEET TITLE
PLUMBING FIELD HOUSE PLANS

DRAWING NUMBER
P101

PUMP SCHEDULE											
PP NO.	SERVICE	GPM	HEAD PRESSURE FT	RPM	H.P.	ELEC. CHAR.			TYPE	MAX. DIM.	MANUFACTURER & MODEL NO.
						VOLTS	PHASE	CYCLE			
RP–1	110° RECIRC.	4	8	3250	1/8	115	1	60	IN LINE	7x7x6	TACO 009–SF3

* RECIRCULATION PUMP TO BE SUITABLE FOR POTABLE WATER SYSTEM.

DOMESTIC BOOSTER PUMP SCHEDULE											
PP NO.	SERVICE	GPM	PRESSURE BOOST (PSI)	RPM	H.P.	ELEC. CHAR.			TYPE	MAX. DIM.	PENN PUMP MODEL NO.
						VOLTS	PHASE	CYCLE			
BP–1	BOOSTER PUMP	0–400	80	3500	(2) 15.0	480	3	60	BOOSTER PUMP	36x34x48H	WPB–200–80–D

NOTES:
BOOSTER PUMP SYSTEM SHALL CONSIST OF (2)328JM PREPACKAGED BOOSTER PUMPS. THE UNITS ARE TO BE PIPED IN PARALLEL. EACH UNIT TO BE PROVIDED COMPLETE WITH SIMPLEX NEMA 1 UL LOGIC CONTROLLER MOUNTED AND WIRED. PROVIDE CONTROLLER WITH SINGLE POINT POWER CONNECTION, MAIN DISCONNECT WITH COVER INTERLOCK, MOTOR CIRCUIT BREAKER, PRESSURE SWITCH, NO FLOW SYSTEM SHUT DOWN AND REMOTE BUILDING MANAGEMENT AUXILIARY CONTACTS. PROVIDE PACKAGED AND PIPED HYDRO–PNUEMATIC TANK WITH NSP APPROVED TANK. COMPLETE DUPLEX SYSTEM TO PROVIDE 0–400 GPM AT WITH A MAXIMUM PRESSURE BOOST OF 80 PSIG PSIG DISCHARGE PRESSURE.

SHOCK ABSORBER SCHEDULE	
TAG NO.	FIXTURE UNITS*
SA–A	1 – 11
SA–B	12 – 32
SA–C	33 – 60
SA–D	61– 113
SA–E	114 – 154

* FIXTURE UNIT VALUES ARE BASED ON THE PLUMBING DRAINAGE INSTITUTE "STANDARD P.D.I. WH–201"

DOMESTIC WATER HEATER SCHEDULE									
WH NO.	AREA SERVED	CAPACITY GALLONS STORAGE	GP/H RECOVERY @100°	CFH	VOLTS	PHASE	CYCLE	MAX DIM	BRADFORD WHITE MODEL NO.
WH–1	FIELD HOUSE	100	331	300	120	1	60	28.25"x77"H	eF–SERIES EF–100T–150E–3N(A)
WH–2	GROUNDS BUILDING	10	6	–	120	1	60	16"øx17.5"H	LE–SERIES LE110U3–1

GREASE INTERCEPTOR						
NO.	DESCRIPTION	MODEL	GPM	MIN. GREASE CAPACITY (LBS.)	INLET/ OUTLET SIZE (IN.)	BASIS OF DESIGN MANUFACTURER* AND MODEL NUMBER
GI–1	GREASE INTERCEPTOR	GT2701	20	40	3	ZURN MODEL GT2700, GREASE INTERCEPTOR. CORROSION–RESISTANT COATED FABRICATED STEEL WITH NO–HUB CONNECTIONS, FLOW DIFFUSING BAFFLE, INTEGRAL TRAP, AND VENTED INLET FLOW CONTROL DEVICE.

*OR APPROVED EQUAL – REFER TO SPECIFICATION AND COORDINATE WITH ARCHITECT WHEN SELECTING APPROVED EQUAL.

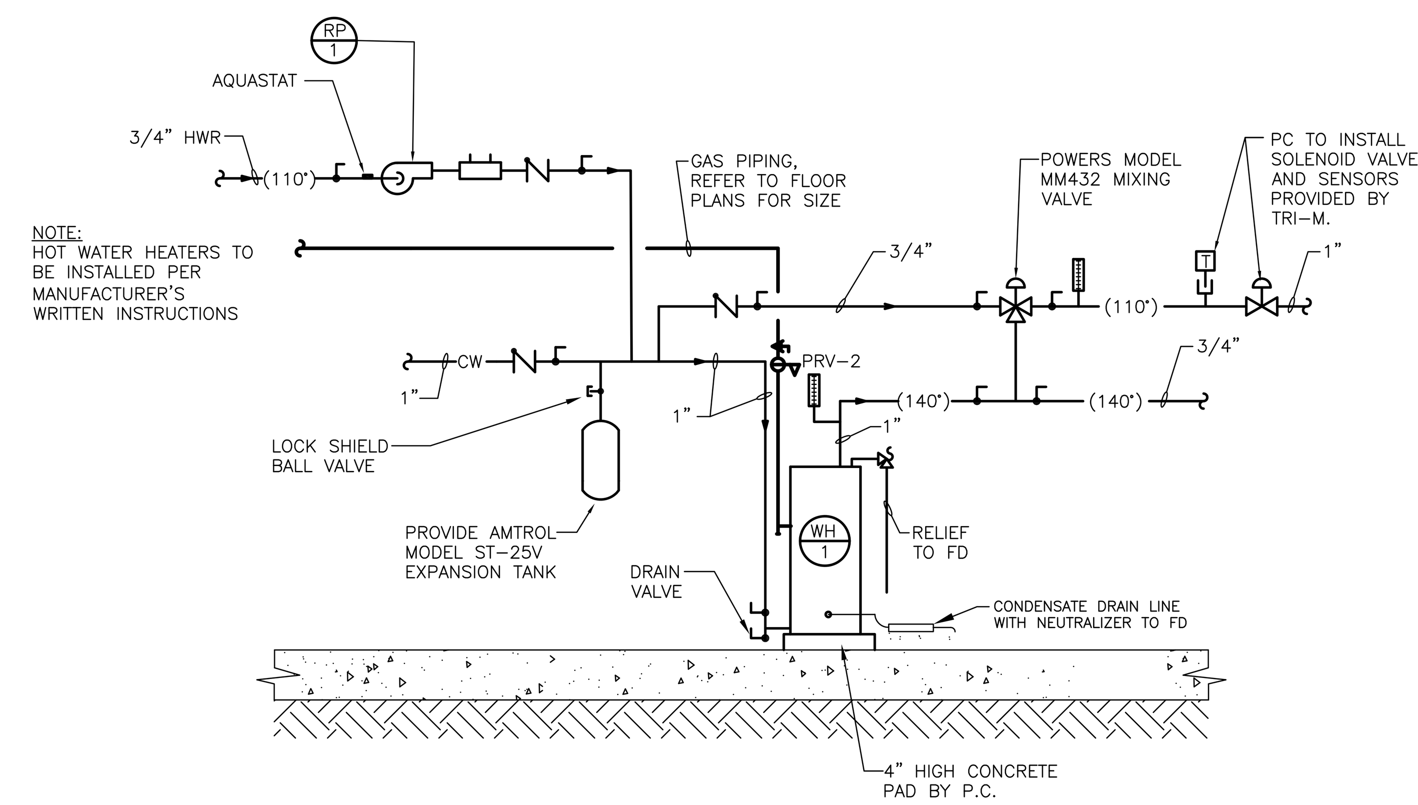
PLUMBING FIXTURE SCHEDULE										
NO.	DESCRIPTION	MOUNTING	TRAP	DRAIN	VENT	CW	HW	REMARKS	FLOW RATE	MANUFACTURER & MODEL NO.
P–1	WATER CLOSET	WALL	INTEGRAL	4"	2"	1–1/4"	–	WALL HUNG ELECTRONIC SENSOR FLUSH VALVE HARD–WIRED	1.28 GPF	AMERICAN STANDARD AFWALL MILLENIUM 1.6 GPF FLOWISE MODEL 3351.101 WITH ELONGATED SEAT. CHURCH 295SSCT 047 HEAVY DUTY OPEN FRONT SEAT, COLOR WHITE, LESS COVER. SLOAN ROYAL 111 SFSM–1.6–HW
P–1A	WATER CLOSET	WALL	INTEGRAL	4"	2"	1"	–	ADA WALL HUNG ELECTRONIC SENSOR FLUSH VALVE HARD–WIRED	1.28 GPF	AMERICAN STANDARD AFWALL MILLENIUM 1.6 GPF FLOWISE MODEL 3351.101 WITH ELONGATED SEAT. CHURCH 295SSCT 047 HEAVY DUTY OPEN FRONT SEAT, COLOR WHITE, LESS COVER. SLOAN ROYAL 111 SFSM–1.6–HW
P–1B	WATER CLOSET	FLOOR	INTEGRAL	4"	2"	1/2"	–	ADA FLOOR MOUNTED, TANK TYPE.	1.6 GPF	AMERICAN STANDARD CHAMPION PRO RIGHT HEIGHT MODEL 211AA.005 WITH ELONGATED BOWL. PROVIDE WITH AMERICAN STANDARD OPEN FRONT SEAT, MODEL 5901.100 WITH 304 STAINLESS STEEL HINGE POSTS. PROVIDE WC SUPPLY WITH ANGLE STOP AND ESCUTCHEON. TRIP LEVER ON LEFT.
P–2	LAVATORY	COUNTERTOP	"P"	1–1/4"	1–1/4"	1/2"	1/2"	ADA/PROTECTIVE SHIELD GUARDS	.5 GPM	B1 KOHLER BACHATA K–2609–SU, SS LAVATORY SINK, PROVIDE T&S AUTOMATIC ~~SENSOR FAUCET EC–3103–VF05, SOLID BRASS,~~ POLISHED CHROME FINISH, 4" CENTERS, AERATOR SPRAY HEAD. PROVIDE WITH BELOW DECK THERMOSTATIC MIXING VALVE SLOAN MODEL MIX–135–A, ASSE 1070 COMPLIANT. PROVIDE WITH 12" LONG LAV SUPPLIES, W/ ANGLE STOP, GRID DRAIN & TAILPIECE, TRAP & ESCUTCHEONS, PLUMBEREX SPECIALTY PRODUCTS HANDY–SHIELD & COVERS.
P–3	URINAL	WALL	INTEGRAL	2"	1–1/2"	3/4"	–	WALL HUNG ELECTRONIC SENSOR FLUSH VALVE HARD–WIRED	.5 GPF	AMERICAN STANDARD WASHBROOK FLOWISE MODEL 6590.001. CHAIR DURA–COATED STEEL STANCHIONS WITH WELDED FEET ADJUSTABLE SUPPORTS WITH PLATES & MOUNTING BOLTS AND TRIM CARRIER. SLOAN ROYAL 186 SFSM EXPOSED SENSOR URINAL FLUSHOMETER. STAINLESS STEEL STRAINER 047068–0070A.
P–3A	URINAL	WALL	INTEGRAL	2"	1–1/2"	3/4"	–	ADA WALL HUNG ELECTRONIC SENSOR FLUSH VALVE HARD–WIRED	.5 GPF	AMERICAN STANDARD WASHBROOK FLOWISE MODEL 6590.001. CHAIR DURA–COATED STEEL STANCHIONS WITH WELDED FEET ADJUSTABLE SUPPORTS WITH PLATES & MOUNTING BOLTS AND TRIM CARRIER. SLOAN ROYAL 186 SFSM EXPOSED SENSOR URINAL FLUSHOMETER. STAINLESS STEEL STRAINER 047068–0070A.
P–4	MOP RECEPTOR	FLOOR	"P"	3"	2"	1/2"	1/2"	–	–	PROVIDE FIAT MODEL TSBC1610 12" MOP SERVICE BASIN WITH 6" DROP FRONT, WITH STAINLESS STEEL CAP ON THRESHOLD. ONE PIECE, PRECAST TERRAZZO MADE OF BLACK AND WHITE MARBLE CHIPS IN GRAY PORTLAND CEMENT. PROVIDE WITH DELTA 28T9 FAUCET, CHECK VALVE ON CW SUPPLY, 8" CENTERS WITH HOSE THREAD OUTLET, INTEGRAL STOPS AND VACUUM BREAKER. PROVIDE WITH DELTA 28T910 STAINLESS STEEL MOP HANGER WITH THREE (3) SPRING LOADED RUBBER GRIP HOLDERS. PROVIDE WITH DELTA 28T911 HEAVY DUTY 48" LONG REINFORCED HOSE AND STAINLESS STEEL HANGER BRACKET WITH RUBBER GRIP.
P–5	FOOD SERVICE HAND SINK	WALL	"P"	1–1/4"	1–1/4"	1/2"	1/2"		–	ADVANCE TABCO MODEL 7–PS–54 STAINLESS STEEL 10" X 14–1/2" X 5" 304 STAINLESS STEEL HAND SINK LEVER DRAIN, P–TRAP OVERFLOW AND K–59 4" O.C. SPLASH MOUNTED GOOSENECK FAUCET, 1–1/2" DRAIN, P–TRAP. PROVIDE 12" LONG LAV SUPPLIES W/ ANGLE STOP
P–6	TRIPLE BOWL SINK	DROP–IN	"P"	1–1/2"	1–1/2"	1/2"	1/2"		1.5 GPM	ADVANCE TABCO STAINLESS STEEL DROP–IN SINK, MODEL DI–3–1410, 50" X 21" X 10". TRIPLE BOWL SINK IS MANUFACTURED FROM 18 GAUGE 304 STAINLESS STEEL WITH ADAVANCE TABCO'S SMART FINISH, CENTER DRAIN PLACEMENT, AND BOWLS ARE SOUND DEADENED. WITH (2) ADVANCE TABCO FAUCET MODEL K–53 DECK MOUNTED 12" SWING SPOUT FAUCET COMPLETE W/4" AND 1.5 GPM AERATOR 12" LONG LAV SUPPLIES W/ ANGLE STOP, ELKAY LKPD1 PERFECT DRAIN & TAILPIECE, TRAP & ESCUTCHEONS, LUMBEREX SPECIALTY PRODUCTS HANDY–SHIELD & COVERS.
P–7	INTERIOR HOSE BIBB	WALL	–	–	–	3/4"	–	––		JAY R SMITH 5670 HOSE VALVE.
P–8	ELECTRIC WATER COOLER	WALL MOUNTED	"P"	1–1/4"	1–1/4"	1/2"	–	––	1.5 GPM	ELKAY EZH2O BOTTLE FILLING STATION & SINGLE ADA COOLER HIGH EFFICIENCY FILTERED REFRIGERATED STAINLESS MODEL LZSG8WSSK. 115V/1PH/60HZ 6 AMPS FLA, 120 WATTS
P–9	BOTTLE FILLER	PEDESTAL	"P"	1–1/4"	1–1/4"	1/2"	–	––	1.5 GPM	ELKAY OUTDOOR EZH2O UPPER BOTTLE FILLING STATION MODEL LK4420BF1UFRK BI–LEVEL PEDESTAL NON–FILTERED NON–REFRIGERATED FREEZE RESISTANT. HEAVY DUTY VANDAL RESISTANT, LAMINAR FLOW, SEALED, FREEZE RESISTANT. FURNISHED WITH VANDAL RESISTANT BUBBLER. MECHANICAL FRONT BUBBLER BUTTON ACTIVATION. PRODUCT SHALL BE FLOOR MOUNT/FREESTANDING, FOR OUTDOOR APPLICATIONS, SERVING 2 STATION(S). ACCESSORIES – DIRECT BURY ADAPTOR.
P–10	EXTERIOR WALL HYDRNT	WALL	–	–	–	3/4"	–	––		Z130 ECOLOTROL WALL HYDRANT ENCASED, NON–FREEZE, ANTI–SIPHON, AUTOMATIC DRAINING.HYDRANT FOR FLUSH INSTALLATION. COMPLETE WITH NON–FREEZE TYPE INTEGRAL BACKFLOW PREVENTER, BRONZE CASING, ALL BRONZE INTERIOR PARTS, NON–TURNING OPERATING ROD WITH FREE–FLOATING COMPRESSION CLOSURE VALVE, REPLACEABLE BRONZE SEAT AND SEAT WASHER, AND COMBINATION 3/4" FEMALE OR 1" MALE STRAIGHT IP INLET. NICKEL BRONZE BOX AND HINGED COVER WITH OPERATING KEY LOCK
P–11	YARD HYDRANT	GROUND	–	–	–		–	––		JAY R SMITH 5904 NON–FREEZE POST/YARD HYDRANT. FOR IRRIGATION PURPOSES ONLY.

4 P301 PLUMBING SCHEDULES
NOT TO SCALE

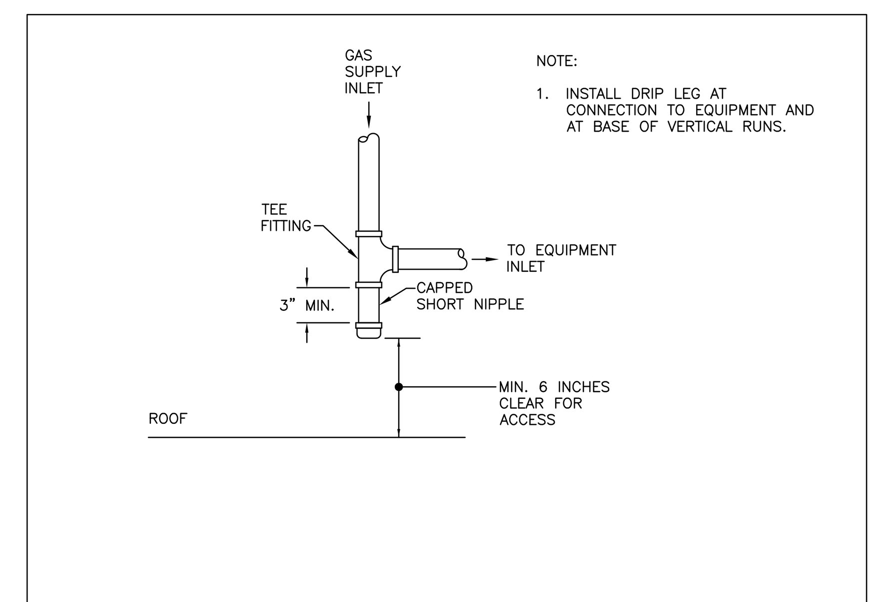
DRAIN AND SPECIALTY SCHEDULE				
NO.	DESCRIPTION	MOUNTING	REMARKS	MANUFACTURER & MODEL NO.
FD–A	FLOOR DRAIN	FLOOR	–	JAY R. SMITH MODEL 2005Y–03–NB FLOOR DRAIN, LIGHT DUTY. CAST IRON BODY, SEEPAGE FLANGE, ANCHOR FLANGE, CLAMPING DEVICE, BOTTOM OUTLET, NICKEL BRONZE TOP AND STRAINER, 5 INCH DIAMETER ROUND TOP. PROVIDE WITH CAST IRON P–TRAP WITH PROSET TRAP GUARD.
FD–B	FLOOR DRAIN	FLOOR	–	JAY R. SMITH MODEL 2350–MBG FLOOR DRAIN, LIGHT DUTY. CAST IRON BODY, SEEPAGE FLANGE, ANCHOR FLANGE, BOTTOM OUTLET, NICKEL BRONZE TOP, 8–1/2" DUCTILE IRON ADJUSTABLE HEIGHT "SURE SET" STRAINER WITH SEDIMENT BUCKET.. PROVIDE WITH CAST IRON P–TRAP WITH PROSET TRAP GUARD.
FS–A	FLOOR SINK	FLOOR	–	JAY R SMITH 345–Y03. ACID RESISTANT ENAMEL FLOOR SINK.

PRESSURE REGULATOR SCHEDULE							
UNIT TAG	SIZE (INCHES)	EQUIPMENT SERVED	CAPACITY (CFH)	INLET PRESSURE	OUTLET PRESSURE	SPRING RANGE	BASIS OF DESIGN MANUFACTURER AND MODEL NO.
PRV–1	1"	DOAS–1	405	2 PSIG	10 IN. W.C.	4–14 IN. W.C.	MAXITROL 325–5L
PRV–2	3/4""	WH–1	150	2 PSIG	14 IN. W.C.	4–14 IN. W.C.	MAXITROL 325–5L
PRV–3	1/2"	GUH–1	85	2 PSIG	14 IN. W.C.	4–14 IN. W.C.	MAXITROL 325–5L
PRV–4	1/2"	IH–1,2	80	2 PSIG	14 IN. W.C.	4–14 IN. W.C.	MAXITROL 325–5L
PRV–5	2–1/2"	GEN–1	3430	2 PSIG	14 IN. W.C.	4–14 IN. W.C.	MAXITROL 210G

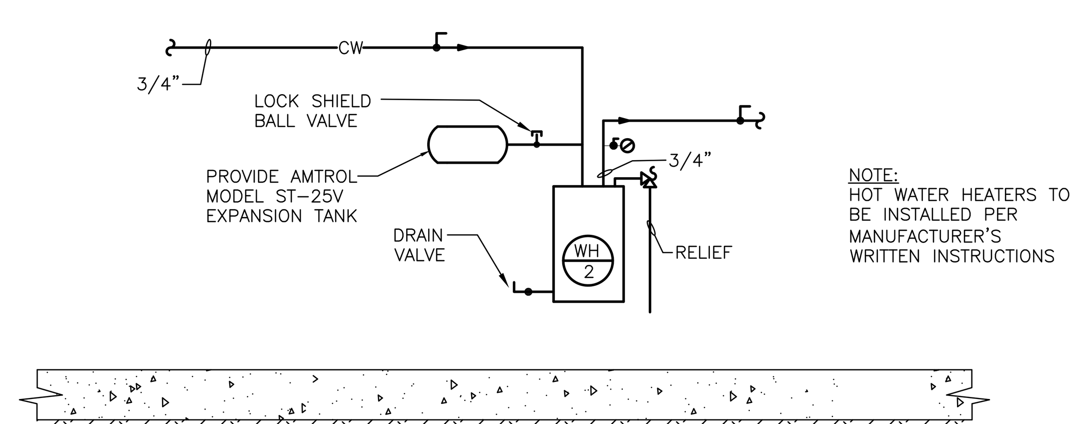
PROVIDE MAXITROL VENT PROTECTOR FOR OUTDOOR APPLICATIONS PROVIDE REMAINING EXTERIOR REGULATORS WITH VENT PROTECTORS & INTERIOR REGULATORS WITH VENT LIMITERS. S1
REFER TO FLOOR PLANS FOR QUANTITIES.



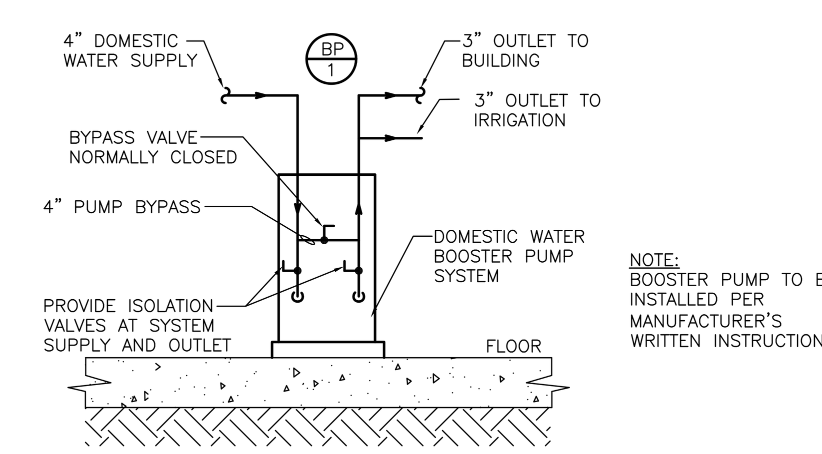
3 P301 GAS WATER HEATER PIPING DETAIL
NOT TO SCALE



1 GAS PIPING DRIP LEG DETAIL
NOT TO SCALE



1 P301 ELECTRIC WATER HEATER PIPING DETAIL
NOT TO SCALE



2 P301 WATER BOOSTER PIPING DETAIL
NOT TO SCALE

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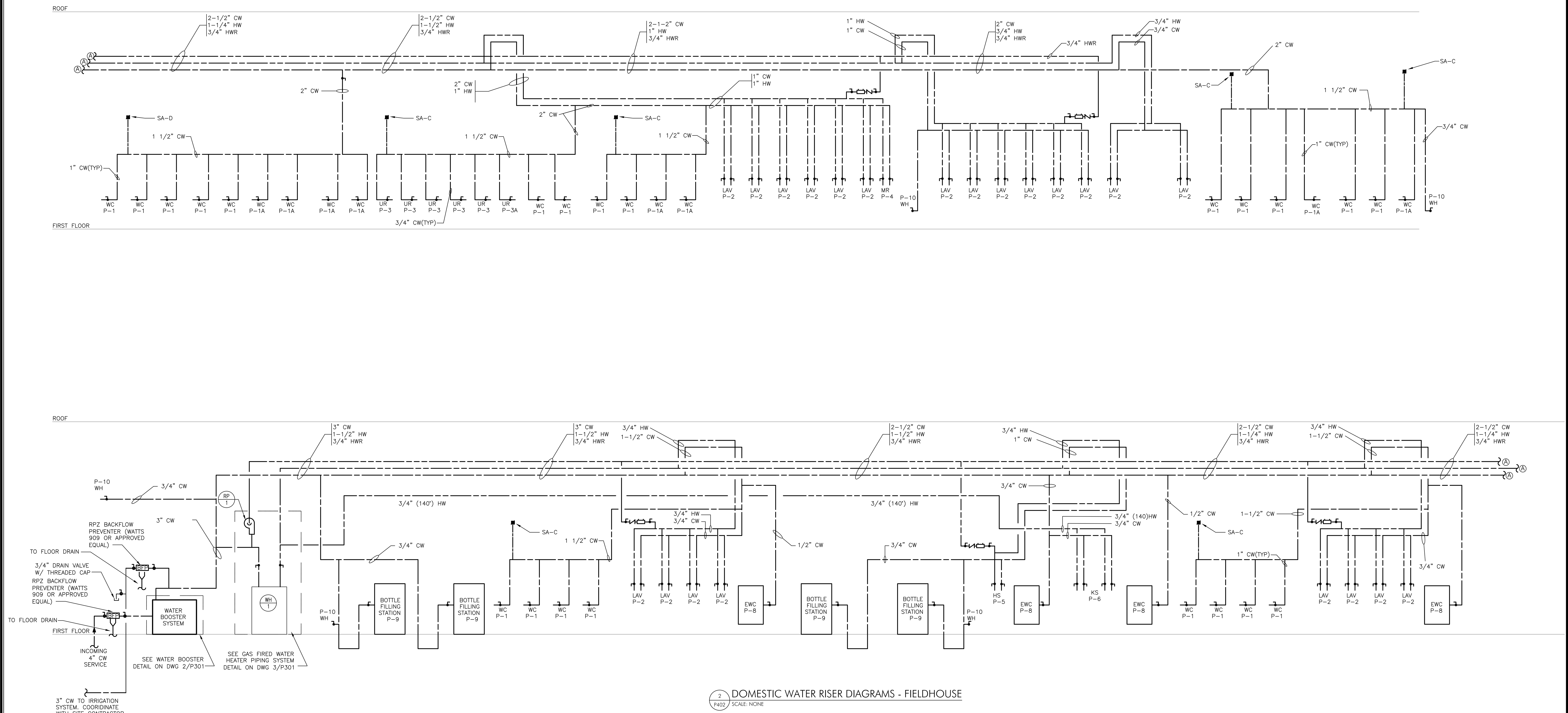
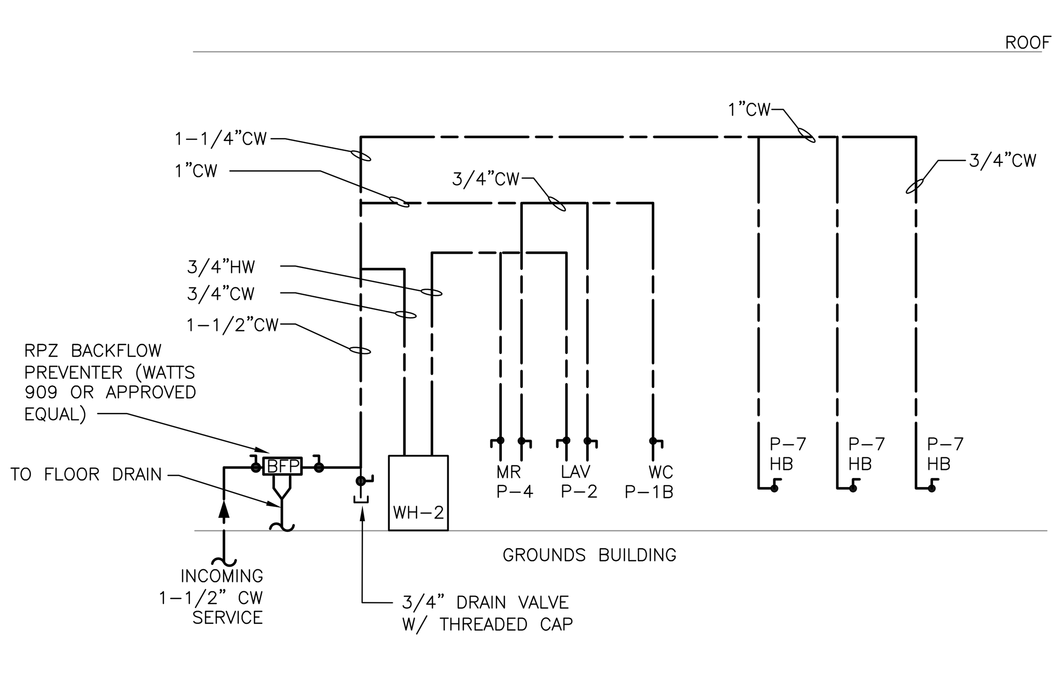
SHEET TITLE
PLUMBING SCHEDULES AND DETAILS

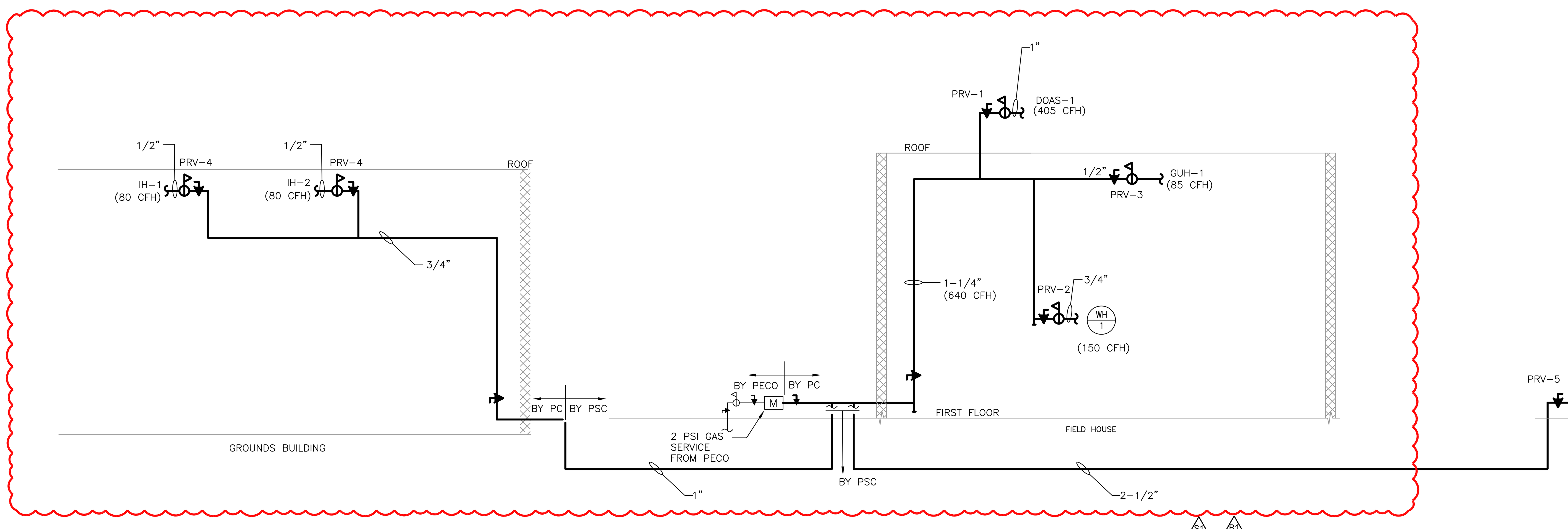
DRAWING NUMBER
P301



2 P402 DOMESTIC WATER RISER DIAGRAMS - FIELDHOUSE
SCALE: NONE



2 P402 DOMESTIC WATER RISER DIAGRAMS - GROUNDS BUILDING
SCALE: NONE



1 P402 GAS RISER DIAGRAM- FIELDHOUSE AND GROUNDS BUILDING
SCALE: NONE

GAS PIPING NOTES:

1. PIPING SIZED ACCORDING TO THE 2018 INTERNATIONAL FUEL GAS CODE, TABLE 402.4(5), WITH A TOTAL EQUIVALENT LENGTH OF 1000', A SUPPLY PRESSURE OF 2 PSI. WITH A 1.0 PSI. PRESSURE DROP.
2. CONTRACTOR RESPONSIBLE TO CONTACT GAS COMPANY FOR COORDINATION OF WORK REQUIRED TO EXISTING GAS SERVICE.

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IT CONSULTANT
Teranet Consulting & Technical Services
(215) 527-9825

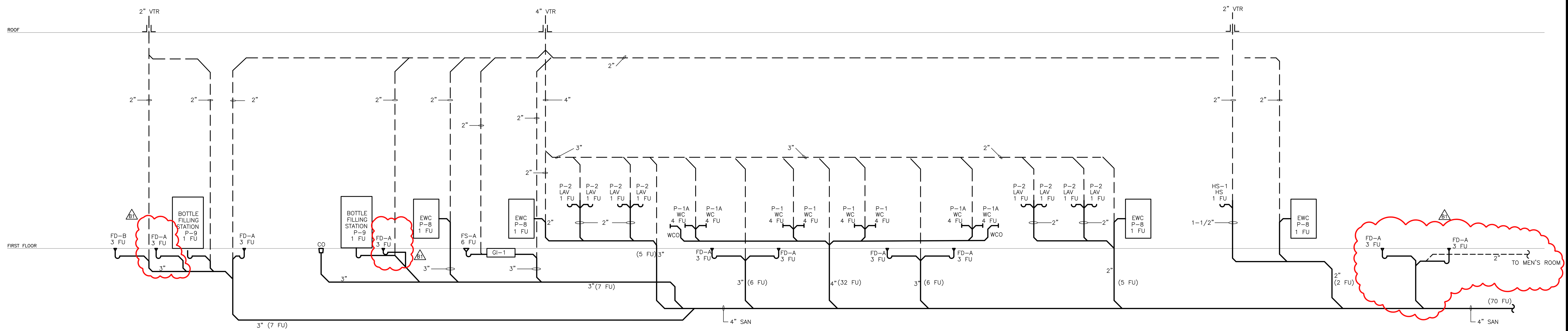
PLAN NORTH

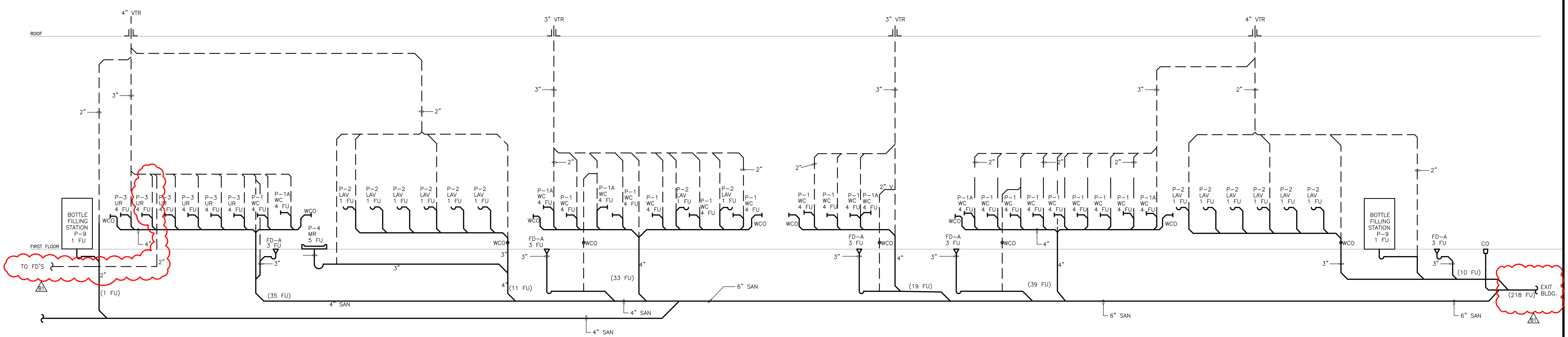
ISSUE HISTORY

Δ	DATE	ISSUED FOR
	2024-03-18	BID ISSUE
S1	2024-04-09	SITE ADDENDUM 1
B1	2024-04-23	BUILDING ADDENDUM 1

SHEET TITLE
PLUMBING RISERS

DRAWING NUMBER
P401





3
P403
SANITARY RISER DIAGRAMS - FIELDHOUSE
SCALE: NONE

TESD CONESTOGA ATHLETIC FIELDS

TREDYFFRIN TOWNSHIP
CHESTER COUNTY, PA

HSA PROJECT # :21-019

Heckendorn Shiles Architects

PROJECT TEAM

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(610) 240-1900

ARCHITECTURAL
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ISSUE HISTORY

△	DATE	ISSUED FOR
	2024-03-18	BID ISSUE
B1	2024-04-23	BUILDING ADDENDUM 1

SHEET TITLE
PLUMBING RISERS

DRAWING NUMBER
P402

SYMBOL LEGEND

	WIRING & CONDUIT CONCEALED ABOVE HUNG CEILING
	EXIT SIGNS (CONTRACTOR TO COORDINATE # OF FACES AND THE FINAL MOUNTING REQUIREMENTS).
	LED LIGHT
	LIGHT FIXTURE PROVIDING EMERGENCY LIGHTING VIA GENERATOR.
	BATTERY POWERED EXIT SIGN WITH LIGHTING HEADS. (CONTRACTOR TO COORDINATE # OF FACES AND THE FINAL MOUNTING REQUIREMENTS)
	EMERGENCY BATTERY UNIT WITH LIGHTING HEADS
CS a	NEW CEILING MOUNTED SENSOR AND ASSOCIATED ROOM CONTROLLERS. IN THIS EXAMPLE, SENSOR SHALL CONTROL FIXTURES ON SWITCH LEG "a". OCCUPANCY OR VACANCY CONTROL DETERMINED BY LIGHTING CONTROL SCHEDULE.
CS HB a	CEILING MOUNTED SENSOR FOR HIGH BAY MOUNTING LOCATIONS AND ASSOCIATED POWER PACKS. IN THIS EXAMPLE, SENSOR SHALL CONTROL FIXTURES ON SWITCH LEG "a". OCCUPANCY OR VACANCY CONTROL DETERMINED BY LIGHTING CONTROL SCHEDULE.
$S_{os}a$	WALL MOUNTED SWITCH TYPE OCCUPANCY SENSOR, CONTROLLING SWITCH LEG "a".
$S_{vs}a$	VACANCY SENSOR – WALL SWITCH TYPE.
Sa	SINGLE POLE SWITCH, CONTROLLING SWITCH LEG "a".
S_k	KEYED SWITCH
S_3a	THREE WAY SWITCH, CONTROLLING SWITCH LEG "a".
$S_{4B}a$	FOUR BUTTON DIGITAL DIMMER SWITCH, CONTROLLING SWITCH LEG "a" WITH ON/OFF/RAISE/LOWER FUNCTIONS.
$S_{2B}a$	ON/OFF 2 BUTTON DIGITAL SWITCH, CONTROLLING SWITCH LEG "a".
$S_{3B}a$	3 PRESET BUTTON DIGITAL SWITCH, CONTROLLING SWITCH LEG "a".
DD1;12	ELECTRICAL CIRCUITING INFORMATION. IN THIS EXAMPLE, EC SHALL WIRE DEVICE TO CIRCUIT #12 IN PANEL "DD1".
e/2	LIGHTING CIRCUITING INFORMATION. IN THIS EXAMPLE, EC SHALL WIRE FIXTURE TO CIRCUIT #2, VIA SWITCH LEG "e".
COX	LIGHTING CONTROL INFORMATION. EC SHALL PROVIDE ALL PARTS AND PIECES TO CONTROL LIGHTS IN THE SPACES AS NOTED IN THE LIGHTING CONTROL SCHEDULE.
	NEW ELECTRICAL PANEL
	DUPLEX CONVENIENCE RECEPTACLE, MOUNT AT 18" AFF UNLESS OTHERWISE NOTED.
	QUAD CONVENIENCE RECEPTACLE, MOUNT AT 18" AFF UNLESS OTHERWISE NOTED.
+	GROUND FAULT INTERRUPTER QUAD CONVENIENCE RECEPTACLE, MOUNT ABOVE COUNTER AT 45" AFF TO TOP OF BOX.
CR	DUPLEX RECEPTACLE RECESSED IN CEILING FOR POWERED CORD REEL. PROVIE (1) HUBBELL HBLC40123TT CORD REEL AT EACH LOCATION. MOUNT CORD REEL ON UNDERSIDE OF ACT CEILING MOUNTED TO UNISTRUT TO STRUCTURE ABOVE CEILING.
USB	DUPLEX CONVENIENCE RECEPTACLE WITH (2) USB CHARGING PORTS, WALL MOUNTED AT 18" AFF, UNLESS OTHERWISE NOTED.
GFI	GROUND FAULT INTERRUPTER DUPLEX RECEPTACLE
GFI/WP	GROUND FAULT INTERRUPTER WEATHER RESISTANT DUPLEX RECEPTACLE WITH CAST ALUMINUM WHILE IN USE COVER HUBBELL TAYMAC MX4280S
	SPECIAL RECEPTACLE. PROVIDE NEMA RATING AS INDICATED ON DRAWING. COORDINATE FINAL REQUIREMENTS WITH APPLIANCES IN THE FIELD
J	JUNCTION BOX
J EWC	JUNCTION BOX FOR WATER COOLER, FURNISHED AND INSTALLED BY PC, WIRED BY BEC. COORDINATE FINAL WIRING AND INSTALLATION REQUIREMENTS AND MOUNTING HEIGHTS IN FIELD WITH PC. BEC TO PROVIDE GFI CIRCUIT BREAKER,
J IR	ABOVE CEILING MOUNTED JUNCTION BOX FOR INFRARED SENSOR OPERATED PLUMBING FIXTURES. BEC TO INSTALL JUNCTION BOX AND LOW-VOLTAGE POWER SUPPLY BY PC. LOW-VOLTAGE WIRING BETWEEN POWER SUPPLY AND PLUMBING FIXTURES TO BE FURNISHED AND INSTALLED BY PC. REFER TO DETAIL 2/E402. WIRE TO TOILET ROOM GFI RECEPTACLE CIRCUIT AHEAD OF ANY GFI DEVICES. COORDINATE FINAL LOCATION AND QUANTITY WITH PC.
S	FIRE ALARM STROBE (CEILING MOUNT).
F	FIRE ALARM HORN AND STROBE (CEILING MOUNT).
F	FIRE ALARM HORM AND STROBE (WALL MOUNT AT MIN 80" AFF OR MAX 96"AFF TO BOTTOM OF DEVICE).
F	MANUAL PULL STATION WITH PROTECTIVE COVER WITHOUT ALARM HORN. (WALL MOUNT AT 42" AFF).
S	SMOKE DETECTOR
H	HEAT DETECTOR
C	CEILING MOUNT COMBINATION SMOKE DETECTOR AND CARBON MONOXIDE DETECTOR BASE. PROVIDE SUPERVISORY SIGNAL AT FIRE ALARM PANEL FOR CO.
SD	DUCT DETECTOR
IAM	INTERFACE ADDRESSABLE MODULE FOR FIRE ALARM SYSTEM
RTS	DUCT SMOKE DETECTOR LED KEYED REMOTE TEST STATION MOUNTED IN ACCESSIBLE CEILING. PROVIDE (1) TEST STATION PER DUCT DETECTOR. LABEL WITH ASSOCIATED MECHANICAL EQUIPMENT NAME AND WHETHER SUPPLY OR RETURN. LOCATE REMOTE INDICATING LIGHT/TEST SWITCH ASSOCIATED WITH EACH DUCT SMOKE DETECTOR. COORDINATE FINAL LOCATIONS WITH ARCHITECT. • MOUNTED IN ACCESSIBLE CEILING.
S	WALL OR POLE MOUNTED LOUDSPEAKER. EC SHALL PROVIDE SPEAKER WIRING BACK TO AV SYSTEM HEAD END. REFER TO DRAWINGS E404 AND E405.
S1 X	(X) QUANTITY RJ-45 DATA JACKS WITH DOUBLE GANG BACKBOX WITH SINGLE GANG FACEPLATE AND 1-1/4" CONDUIT IN WALL TO ABOVE FINISHED CEILING WITH (1) CAT 6 PLENUM RATED CABLE FOR EACH DATA JACK BACK TO CLOSEST MDF/IDF RACK. MOUNTED AT 18" AFF UNLESS OTHERWISE NOTED. FURNISH AND INSTALL STAINLESS STEEL COVER PLATE.
T	(1) RJ-45 TELEPHONE JACK WITH BACKBOX AND 1" CONDUIT IN WALL TO ABOVE FINISHED CEILING WITH (1) CAT 6 PLENUM RATED CABLE BACK TO CLOSEST MDF/IDF RACK. MOUNTED AT 44" AFF TOP OF BOX. FURNISH AND INSTALL STAINLESS STEEL COVER PLATE.
ACP	AUDIO CONNECTION PLATE. REFER TO DRAWING E405. WALL MOUNT AT 18" AFF OR WITHIN OUTDOOR CHARGING STATION.
S1 WAP	CEILING MOUNT WIRELESS ACCESS POINT. WIRELESS ACCESS EQUIPMENT WILL BE PROVIDED AND INSTALLED BY NC. AT EACH LOCATION THERE SHALL BE (1) RJ-45 DATA JACK AND (1) CATEGORY 6A PLENUM RATED CABLE WITH 20' SERVICE LOOP FOR EACH JACK BACK TO IDF RACK. MOUNT IN ACCESSIBLE AREA ABOVE FINISHED CEILING.
WAP	WALL MOUNT WIRELESS ACCESS POINT. WIRELESS ACCESS EQUIPMENT WILL BE PROVIDED AND INSTALLED BY NC. AT EACH LOCATION THERE SHALL BE (1) RJ-45 DATA JACK AND (1) CATEGORY 6A PLENUM RATED CABLE BACK TO IDF RACK WITH SINGLE GANG BACKBOX AND 3/4"C TO ABOVE ACCESSIBLE CEILING. MOUNT AT 12-0" AFG
	2 POST OPEN FLOOR MOUNTED 19"W DATA EQUIPMENT RACK.
CR	CARD READER PROVIDED, INSTALLED AND WIRED BY TRI-M. EC TO PROVIDE SINGLE GANG BOX WITH 3/4" CONDUIT TO ABOVE ACCESSIBLE CEILING.
PS	POWER SUPPLY FOR DOOR HARDWARE. PROVIDED AND INSTALLED BY GC, WIRED BY BEC. POWER SUPPLY TO BE MOUNTED ABOVE ACCESSIBLE CEILING.
DC	DOOR CONTACT PROVIDED AND INSTALLED BY GC. EACH DOOR TO HAVE (2) CONTACTS, ONE FOR DOOR ACCESS AND ONE FOR INTRUSION DETECTION. PROVIDE 1/2" TO ABOVE ACCESSIBLE CEILING. WIRING BY TRI-M FOR DOOR ACCESS CONTACTS AND BEC TO WIRE CONTACTS FOR INTRUSION DETECTION BACK TO SECURITY PANEL WITH 2#22 (B1)
C	WALL MOUNTED CCTV CAMERA. CAMERA PROVIDED AND INSTALLED BY SSI. BEC TO INSTALL (1) CAT6 CABLE FROM CAMERA LOCATION BACK IDF AND TERMINATE IN PATCH PANEL. CABLE TO BE INSTALLED IN CONDUIT WHERE EXPOSED, EXCEPT WHERE ROUTED ABOVE ACCESSIBLE CEILINGS. MOUNT AT 12'-0" AFG.
CB	CAMERA BOX. REFER TO DETAIL 5/E403.
P	POLE FOR CCTV, WAP, AND/OR SPORTS CAMERAS. REFER TO DETAIL 6/E403.
E	EMERGENCY CALL TOWER TO MATCH EXISTING TOWERS. PROVIDE CODE BLUE CB 1-S EMERGENCY CALL TOWER WITH SAFETY BLUE PAINT, SPEAKER PHONE, PUSH FOR HELP BEZEL AND WHITE EMERGENCY GRAPHICS. MOUNT CALL TOWER ON FOUNDATION PER CIVIL DRAWINGS.
	CIRCUIT BREAKER
	TRANSFORMER
	AUTOMATIC TRANSFER SWITCH (ATS)
	CONNECT POINT BETWEEN CONTRACTORS
	MOTOR FOR ROLL UP OR OVERHEAD DOOR. REFER TO DETAIL 3/E402 FOR WIRING INFORMATION
3B	THREE PUSH BUTTON STATION (OPEN, CLOSE, STOP) FOR ROLL UP OR OVERHEAD DOOR. PROVIDED BY GC. WIRED BY BEC. WITH 3/4"C-3#12+1#12GND TO MOTOR. MOUNT AT 48" (TOP OF BOX). REFER TO DETAIL 3/E402 FOR WIRING INFORMATION

ABBREVIATIONS LIST

1P	ONE POLE	IG	ISOLATED GROUND
2P	TWO POLE	IR	INFRARED
3P	THREE POLE	kVA	KILOVOLT AMPERE
ø	PHASE	KW	KILOWATT
A	AMPERE	LLC	WIRE TO LOCAL LIGHTING CIRCUIT
ACT	ARCHITECTURAL CEILING TILE	LS	LIFE SAFETY
AF	AMP FRAME	LSI	LONG TIME, SHORT TIME, AND INSTANTANEOUS PROTECTION
AFC	ABOVE FINISHED CEILING	MC	MECHANICAL CONTRACTOR
AFF	ABOVE FINISHED FLOOR	MCA	MINIMUM CIRCUIT AMPACITY
AFG	ABOVE FINISHED GRADE	MCB	MAIN CIRCUIT BREAKER
AL	ALUMINUM	MDF	MAIN DISTRIBUTION FRAME
ALIC	AUXILIARY LIGHTING INTERFACE CABINET	MDP	MAIN DISTRIBUTION PANEL
ARMS	ARC FLASH REDUCTION MAINTENANCE SWITCH	MH	MANHOLE
AT	AMP TRIP	MLO	MAIN LUGS ONLY
ATC	AUTOMATIC TEMPERATURE CONTROL	NC	NETWORK CONTRACTOR
ATS	AUTOMATIC TRANSFER SWITCH	NE	WIRED ON NORMAL EMERGENCY CIRCUIT
AV	AUDIO VISUAL	OS	OPTIONAL STANDBY
BFC	BELOW FINISHED CEILING	PC	PLUMBING CONTRACTOR
C	CONDUIT	PV	PHOTOVOLTAIC
C/B	CIRCUIT BREAKER	PVEC	PHOTOVOLTAIC ELECTRICAL CONTRACTOR
CCTV	CLOSE CIRCUIT TELEVISION	RCP	REFLECTED CEILING PLAN
CKT	CIRCUIT	(RAR)	REMOVE AND REINSTALL
CT	CURRENT TRANSFORMER	(REL)	RELOCATE
DWG	DRAWING	S	LIGHT SWITCH
(E)	EXISTING	SMFO	SINGLE MODE FIBER OPTIC CABLE
EC	ELECTRICAL CONTRACTOR	SPD	SURGE PROTECTIVE DEVICE
EMH	ELECTRIC POWER MANHOLE	SSI	SECURITY SYSTEM INTERGRATOR
FA	FIRE ALARM	STP	SHIELDED TWISTED PAIR
FLA	FULL LOAD AMPS	TR	TAMPER RESISTANT
FPC	FIRE PROTECTION CONTRACTOR	(TYP)	TYPICAL
FU	FUSE	V	VOLT
GC	GENERAL CONTRACTOR	W	WATT
GFI	GROUND FAULT INTERRUPTER	WP	WEATHERPROOF
GND	GROUND	WG	WIRE GUARD
IDF	INTERMEDIATE DISTRIBUTION FRAME	WWF	WELDED WIRE FABRIC
		Z	IMPEDANCE

LIST OF DRAWINGS

DRAWING NUMBER	DRAWING TITLE	BEC	SEC	PVEC
E001	ELECTRICAL COVER SHEET	X	X	X
ES01	ELECTRICAL SITE PLAN		X	
ES02	LIGHTING SITE PLAN		X	
ES03	ELECTRICAL SITE WIRING SCHEDULES		X	
E101	ELECTRICAL FIRST FLOOR PLANS - FIELD HOUSE	X	X	X
E102	ELECTRICAL FIRST FLOOR PLANS - GROUNDS & FIELDS BUILDING	X	X	
E103	ELECTRICAL PLANS - ATHLETIC STANDS & DUGOUTS		X	
E201	ELECTRICAL SINGLE LINE DIAGRAM	X	X	X
E301	ELECTRICAL SCHEDULES - SEC		X	
E302	ELECTRICAL SCHEDULES - BEC	X		
E303	ELECTRICAL SCHEDULES - BEC	X		
E401	ELECTRICAL DETAILS		X	
E402	ELECTRICAL DETAILS	X	X	
E403	ELECTRICAL DETAILS	X	X	
E404 (S1)	AV DETAILS		X	
E405	AV DETAILS		X	
E501	PV ROOF PLAN - FIELD HOUSE			X
E601	ELECTRICAL 1ST FLOOR PLAN CONESTOGA HIGH SCHOOL		X	
E602	ELECTRICAL 2ND FLOOR PLAN CONESTOGA HIGH SCHOOL		X	

BEC BUILDING ELECTRICAL CONTRACTOR

PVEC PHOTOVOLTAIC ELECTRICAL CONTRACTOR

SEC SITE ELECTRICAL CONTRACTOR

CONTRACTOR RESPONSIBILITY MATRIX

CONTRACTOR RESPONSIBILITY MATRIX

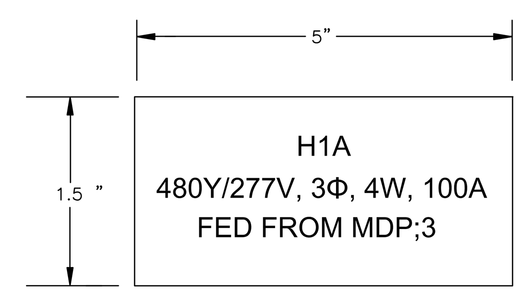
EQUIPMENT	PROVIDED BY	INSTALLED BY	LOW VOLTAGE WIRING BY	POWER, BACKBOX/HANDHOLE/POLE AND/OR CONDUIT BY	PROGRAMMING/ HEAD END TERMINATIONS/TESTING
DATA JACKS, CAT6E CABLING, FACEPLATES	BUILDING ELECTRICAL CONTRACTOR	BUILDING ELECTRICAL CONTRACTOR	BUILDING ELECTRICAL CONTRACTOR	BUILDING ELECTRICAL CONTRACTOR	BUILDING ELECTRICAL CONTRACTOR
FIBER OPTIC CABLES, IDF RACKS, PATCH PANELS	SITE ELECTRICAL CONTRACTOR	SITE ELECTRICAL CONTRACTOR	SITE ELECTRICAL CONTRACTOR	SITE ELECTRICAL CONTRACTOR	SITE ELECTRICAL CONTRACTOR
SITE WIRELESS ACCESS POINTS, NETWORK SWITCHES, RACK UPS	NETWORK CONTRACTOR	NETWORK CONTRACTOR	SITE ELECTRICAL CONTRACTOR	SITE ELECTRICAL CONTRACTOR	NETWORK CONTRACTOR
BUILDING WIRELESS ACCESS POINTS, NETWORK SWITCHES, RACK UPS	NETWORK CONTRACTOR	NETWORK CONTRACTOR	BUILDING ELECTRICAL CONTRACTOR	BUILDING ELECTRICAL CONTRACTOR	NETWORK CONTRACTOR
TELEPHONES AND TELEPHONE EQUIPMENT	OWNER	OWNER	BUILDING ELECTRICAL CONTRACTOR	BUILDING ELECTRICAL CONTRACTOR	OWNER
CARD ACCESS	OWNER'S VENDOR - TRI-M	OWNER'S VENDOR - TRI-M	OWNER'S VENDOR - TRI-M	ELECTRICAL CONTRACTOR	OWNER'S VENDOR - TRI-M
HUDL SPORT CAMERAS	OWNER	OWNER	SITE ELECTRICAL CONTRACTOR	SITE ELECTRICAL CONTRACTOR	OWNER
POLE MOUNTED SITE CCTV CAMERAS	SSI CONTRACTOR	SSI CONTRACTOR	SITE ELECTRICAL CONTRACTOR	SITE ELECTRICAL CONTRACTOR	SSI CONTRACTOR
BUILDING MOUNTED CCTV CAMERAS	SSI CONTRACTOR	SSI CONTRACTOR	BUILDING ELECTRICAL CONTRACTOR	BUILDING ELECTRICAL CONTRACTOR	SSI CONTRACTOR
PA SYSTEM AND SPEAKERS	SITE ELECTRICAL CONTRACTOR	SITE ELECTRICAL CONTRACTOR	SITE ELECTRICAL CONTRACTOR	SITE ELECTRICAL CONTRACTOR	SITE ELECTRICAL CONTRACTOR
FIRE ALARM	BUILDING ELECTRICAL CONTRACTOR	BUILDING ELECTRICAL CONTRACTOR	BUILDING ELECTRICAL CONTRACTOR	BUILDING ELECTRICAL CONTRACTOR	BUILDING ELECTRICAL CONTRACTOR
BUILDING LIGHTING AND CONTROLS	BUILDING ELECTRICAL CONTRACTOR	BUILDING ELECTRICAL CONTRACTOR	BUILDING ELECTRICAL CONTRACTOR	BUILDING ELECTRICAL CONTRACTOR	BUILDING ELECTRICAL CONTRACTOR
SITE LIGHTING	SITE ELECTRICAL CONTRACTOR	SITE ELECTRICAL CONTRACTOR	-	SITE ELECTRICAL CONTRACTOR	SITE ELECTRICAL CONTRACTOR
SITE LIGHTING CONTROLS	SITE ELECTRICAL CONTRACTOR	SITE ELECTRICAL CONTRACTOR	OWNER'S VENDOR - TRI-M	SITE ELECTRICAL CONTRACTOR	
MUSCO SPORTS LIGHTING AND CONTROLS	SITE ELECTRICAL CONTRACTOR	SITE ELECTRICAL CONTRACTOR	SITE ELECTRICAL CONTRACTOR	SITE ELECTRICAL CONTRACTOR	SITE ELECTRICAL CONTRACTOR
PHOTOVALTIC SYSTEM	PV ELECTRICAL CONTRACTOR	PV ELECTRICAL CONTRACTOR	PV ELECTRICAL CONTRACTOR	PV ELECTRICAL CONTRACTOR	PV ELECTRICAL CONTRACTOR
PANELBOARDS, MINI POWER CENTERS	REFER TO DRAWING E201	REFER TO DRAWING E201	-	REFER TO DRAWING E201	-
GENERATOR	SITE ELECTRICAL CONTRACTOR	SITE ELECTRICAL CONTRACTOR	SITE ELECTRICAL CONTRACTOR	SITE ELECTRICAL CONTRACTOR	SITE ELECTRICAL CONTRACTOR
AUTOMATIC TRANSFRER SWITCHES	SITE ELECTRICAL CONTRACTOR	SITE ELECTRICAL CONTRACTOR	-	SITE ELECTRICAL CONTRACTOR	SITE ELECTRICAL CONTRACTOR
LOW VOLTAGE TRANSFORMERS	BUILDING ELECTRICAL CONTRACTOR	BUILDING ELECTRICAL CONTRACTOR	-	BUILDING ELECTRICAL CONTRACTOR	BUILDING ELECTRICAL CONTRACTOR
HIGH VOLTAGE TRANSFORMER	PECO	PECO	PECO (CT WIRING)	SITE ELECTRICAL CONTRACTOR	PECO
EMERGENCY CALL TOWERS	SITE ELECTRICAL CONTRACTOR	SITE ELECTRICAL CONTRACTOR	SITE ELECTRICAL CONTRACTOR	SITE ELECTRICAL CONTRACTOR	SITE ELECTRICAL CONTRACTOR
RECEPTACLES - BUILDING	BUILDING ELECTRICAL CONTRACTOR	BUILDING ELECTRICAL CONTRACTOR	-	BUILDING ELECTRICAL CONTRACTOR	BUILDING ELECTRICAL CONTRACTOR
RECEPTACLES - SITE	SITE ELECTRICAL CONTRACTOR	SITE ELECTRICAL CONTRACTOR	-	SITE ELECTRICAL CONTRACTOR	SITE ELECTRICAL CONTRACTOR
MECHANICAL EQUIPMENT	MECHANICAL CONTRACTOR	MECHANICAL CONTRACTOR	OWNER'S VENDOR - TRI-M	BUILDING ELECTRICAL CONTRACTOR	MECHANICAL CONTRACTOR
PLUMBING EQUIPMENT	PLUMBING CONTRACTOR	PLUMBING CONTRACTOR	PLUMBING CONTRACTOR	BUILDING ELECTRICAL CONTRACTOR	PLUMBING CONTRACTOR
SCOREBOARDS	GENERAL CONTRACTOR	GENERAL CONTRACTOR	SITE ELECTRICAL CONTRACTOR	SITE ELECTRICAL CONTRACTOR	GENERAL CONTRACTOR
MOTORIZED GATES	GENERAL CONTRACTOR	GENERAL CONTRACTOR	OWNER'S VENDOR - TRI-M	SITE ELECTRICAL CONTRACTOR	-
OVER HEAD ROLL UP DOORS	GENERAL CONTRACTOR	GENERAL CONTRACTOR	BUILDING ELECTRICAL CONTRACTOR	BUILDING ELECTRICAL CONTRACTOR	GENERAL CONTRACTOR
DOOR HARDWARE (LATCH RETRACTION, STRIKES, POWER SUPPLIES, DOOR CONTACTS, ETC)	GENERAL CONTRACTOR	GENERAL CONTRACTOR	OWNER'S VENDOR - TRI-M	BUILDING ELECTRICAL CONTRACTOR	-
DOOR CONTACTS FOR SECURITY/INTRUSION DETECTION SYSTEM	GENERAL CONTRACTOR	GENERAL CONTRACTOR	BUILDING ELECTRICAL CONTRACTOR	BUILDING ELECTRICAL CONTRACTOR	
SECURITY/INTRUSION DETECTION SYSTEM	OWNER'S VENDOR - VECTOR	OWNER'S VENDOR - VECTOR	BUILDING ELECTRICAL CONTRACTOR	BUILDING ELECTRICAL CONTRACTOR	OWNER'S VENDOR - VECTOR

THIS CHART SHALL SUPERSEDE ANY OTHER LOCATIONS DESCRIBING CONTRACTOR RESPONSIBILITIES.

B1

GENERAL NOTES

1. ALL OF THE NOTES UNDER THE "GENERAL NOTES" SHALL APPLY TO ALL OF THE ELECTRICAL DRAWINGS.
2. FOR LOCATIONS OF ALL MECHANICAL AND PLUMBING EQUIPMENT REFER TO THE RESPECTIVE MECHANICAL AND PLUMBING DRAWINGS. REFER TO POWER WIRING SCHEDULE FOR MECHANICAL AND PLUMBING EQUIPMENT.
3. ALL DEVICE LOCATIONS SUCH AS RECEPTACLE, DATA JACK, TV JACK, AND FLOOR OUTLETS, ETC., ARE APPROXIMATE. FINAL LOCATIONS AND MOUNTING HEIGHTS SHALL BE FIELD LOCATED BY THE ARCHITECT. THE CONTRACTOR SHALL INSTALL ALL DEVICES AT LOCATIONS AS DIRECTED BY THE ARCHITECT WITHOUT ADDITIONAL COMPENSATION.
4. ALL BRANCH WIRING SHALL BE MINIMUM 3/4"C-2#12+1#12GND.
5. ALL LIGHTING WIRING FOR LED DIMMABLE LIGHTING BRANCH CIRCUITS SHALL BE 2#12+1#12GND +2#16 0-10V IN 3/4"C (ALL 600V RATED WIRING) OR MC-PCS CABLE WHERE ALLOWABLE IN THE SPECIFICATION.
6. EXACT LOCATIONS OF ALL ELECTRICAL EQUIPMENT SHALL BE COORDINATED IN THE FIELD WITH MECHANICAL AND PLUMBING CONTRACTORS. ALL CLEARANCES AS REQUIRED BY ARTICLE 110 OF THE NEC SHALL BE MAINTAINED.
7. RECEPTACLES, DATA JACKS AND OTHER FLUSH MOUNTED DEVICES MOUNTED ON OPPOSITE SIDE OF SAME WALL MUST BE STAGGERED IN SEPARATE JOISTS FOR ACOUSTICS. USE OF BACK TO BACK BOXES IS NOT ACCEPTABLE.
8. COORDINATE OCCUPANCY SENSOR, AND FIRE ALARM DEVICE LOCATIONS WITH LIGHTING FIXTURES, AIR DIFFUSERS, AND OTHER CEILING MOUNTED EQUIPMENT. COORDINATE WITH THE REFLECTED CEILING PLAN.
9. ALL EQUIPMENT ON FIRE ALARM DRAWINGS ARE APPROXIMATE, FINAL LOCATIONS SHALL BE COORDINATED WITH THE ARCHITECT. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT SHOWN, AT LOCATIONS AS DIRECTED BY THE ARCHITECT WITHOUT ADDITIONAL COMPENSATION.
10. FOLLOW DIMENSIONS, DO NOT SCALE DRAWINGS.
11. ALL WORK SHALL BE IN ACCORDANCE WITH THE 2017 NATIONAL ELECTRICAL CODE AND OTHER APPLICABLE CODES AND STANDARDS.
12. FUSES SHALL BE DUAL ELEMENT, TIME DELAY TYPE UNLESS OTHERWISE NOTED. COORDINATE FUSE SIZES WITH THE MOTORS FURNISHED UNDER THE MECHANICAL AND GENERAL CONTRACTS.
13. ALL CONDUCTORS SHALL BE COPPER.
14. FIRE STOPPING: WHERE CONDUITS PENETRATE FIRE AND SMOKE BARRIERS INCLUDING WALLS, PARTITIONS, FLOORS, AND CEILINGS, INSTALL FIRE-STOPPING AT PENETRATIONS AFTER CABLES ARE INSTALLED.
15. MATERIALS FOR FIRE STOPPING SHALL BE UL LISTED AND LABELED AND FM APPROVED FOR FIRE RATINGS CONSISTENT WITH PENETRATED BARRIERS. SLEEVES SHALL BE SCHEDULE 40, WELDED, BLACK STEEL PIPE SLEEVES. SIZES AS REQUIRED FOR EQUIVALENT AREA AS THE WIREWAYS. SEALING FITTINGS SHALL BE SUITABLE FOR SEALING CABLES IN SLEEVES OR CORE DRILLED HOLES. TWO-PART SEALANT: FORMED-IN-PLACE SEALANT FIRE-RESISTANT JOINT SEALERS.
16. UNLESS OTHERWISE NOTED ALL INDOOR ELECTRICAL EQUIPMENT SHALL BE PROVIDED WITH, AND HOUSED IN, A NEMA 1 ENCLOSURE. ALL OUTDOOR ELECTRICAL EQUIPMENT SHALL BE INSTALLED IN NEMA 3R ENCLOSURE.
17. COMMON NEUTRALS ARE NOT ACCEPTABLE.
18. ELECTRICAL CONTRACTORS SHALL EXAMINE THE DRAWINGS OF ALL TRADES AND COORDINATE THEIR WORK TO AVOID INTERFERENCE WITH STRUCTURE, AND ALL EQUIPMENT ABOVE AND BELOW THE CEILING.
19. THE ELECTRICAL CONTRACTORS SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AT THE SITE BEFORE PROCEEDING WITH THE WORK.
20. PROVIDE MATCHING CORD AND PLUGS FOR ALL RECEPTACLES OTHER THAN STANDARD 20A DUPLEX RECEPTACLES.
21. COORDINATION OF THE WORK: COORDINATE LAYOUT AND INSTALLATION OF MANHOLES AND HANDHOLES WITH FINAL ARRANGEMENT OF DUCTS AS INFLUENCED BY ACTUAL FINAL LOCATION OF OTHER UTILITIES IN THE FIELD. COORDINATE ELEVATIONS OF DUCT AND RACEWAY ENTRANCES INTO MANHOLES AND HANDHOLES WITH FINAL PROFILES OF CONDUITS AS DETERMINED BY COORDINATION WITH OTHER UTILITIES AND UNDERGROUND OBSTRUCTIONS. REVISE LOCATIONS AND ELEVATIONS FROM THOSE INDICATED AS REQUIRED TO SUIT FIELD CONDITIONS AND ASSURE DUCT RUNS DRAIN TO MANHOLES AND HANDHOLES AND AS APPROVED BY THE ARCHITECT. IF DUCT ENTRANCE ELEVATIONS IN BUILDINGS ARE HIGHER THAN MANHOLES/HANDHOLES INSTALL RAYCHEM RAYFLATE KITS IN BOTH MANHOLE/HANDHOLES AND IN BUILDINGS.
22. THE BUILDING ELECTRICAL CONTRACTOR SHALL COORDINATE THE MOUNTINGS AND NUMBER OF FACES FOR THE EXIT SIGNS. THE LIGHTING FIXTURE SHOP DRAWING SUBMISSION SHALL REFLECT THIS COORDINATION.
23. CONTRACTOR MUST COORDINATE ROOMS NAMES ON THE PANEL SCHEDULES WITH THE FINAL ROOM NAMES, IN THE FIELD. ALL PANELS SHALL BE PROVIDED WITH TYPED PANEL SCHEDULE.
24. PROVIDE FIBER BUSHINGS ON THE ENDS OF ALL CONDUIT STUBS.
25. CALL BEFORE YOU DIG. PENNSYLVANIA LAW REQUIRES 3 WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND 10 WORKING DAYS IN DESIGN STAGE – STOP CALL – Pennsylvania One Call System, Inc.1-800-242-1776.
26. ALL DEVICES/BOXES IN BLOCK WALLS SHALL HAVE MIN 3/4"C (UNLESS OTHERWISE NOTED) FROM BOX TO ABOVE AN ADJACENT ACCESSIBLE CEILING.
27. ALL SWITCHES, RECEPTACLES, PANELBOARDS, FIRE ALARM PANELS, POWER SUPPLIES AND DISCONNECTS SHALL BE LABELED WITH SOURCE PANEL AND CIRCUIT.
28. ALL EXTERIOR RECEPTACLES SHALL BE PROVIDED WITH A LOCKABLE CAST ALUMINUM WHILE-IN-USE COVER.
29. ALL SPARE AND EXTERIOR CONDUITS SHALL BE PROVIDED WITH A PULL STRING.
30. ALL SPARE INTERIOR UNDERGROUND CONDUITS SHALL BE STUBBED UP IN THEIR FINAL LOCATION AT 6" AFF. CONDUITS SHALL BE CAPPED AND LABELED.
31. ALL SPARE EXTERIOR UNDERGROUND CONDUITS SHALL BE STUBBED UP IN THEIR FINAL LOCATION AT 6" BFG. CONDUITS SHALL BE CAPPED AND MARKED AT THE SURFACE WITH AN OWNER APPROVED MARKER.
32. THESE DRAWINGS SHOW EXISTING CONDITIONS AT THE TIME OF DESIGN. ACTUAL FIELD CONDITIONS MAY CHANGE PRIOR TO CONSTRUCTION. ALL DISCREPANCIES AFFECTING THE COMPLETION OF WORK SHALL BE REPORTED TO ENGINEER FOR RESOLUTION.

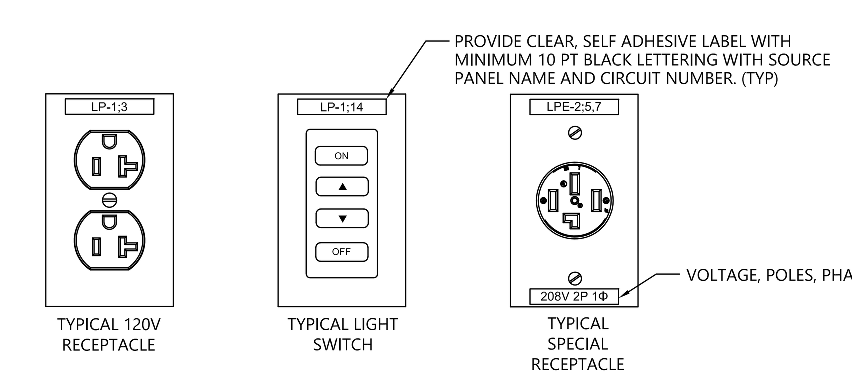


NAME PLATE NOTES:

1. REFER TO SPECIFICATIONS FOR ADDITIONAL NAMEPLATE REQUIREMENTS.
2. NAMEPLATE TO BE 1/16" THICK WHITE LAMINATED ACRYLIC OR MELAMINE LABEL WITH BLACK CENTER LAMINATE. FACE SHALL BE WHITE, ENGRAVED 1/4" LETTERS SHALL BE BLACK.
3. NAMEPLATE INFORMATION SHALL INCLUDE PANEL NAME, SUPPLY VOLTAGE, AMPERAGE AND SOURCE PANEL NAME AND CIRCUIT NUMBER.

2 / E001 TYPICAL PANELBOARD NAMEPLATE DETAIL

NOT TO SCALE



1 / E001 TYPICAL DETAIL FOR DEVICE CIRCUIT LABELING

NOT TO SCALE

TESD CONESTOGA ATHLETIC FIELDS

TREDYFFRIN TOWNSHIP
CHESTER COUNTY, PA

HSA PROJECT # :21-019

Heckendorn Shiles Architects

PROJECT TEAM

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Teranet Consulting & Technical Services
(215) 527-9825

ISSUE HISTORY

Δ	DATE	ISSUED FOR
	2024-03-18	BID ISSUE
S1	2024-04-09	SITE ADDENDUM 1
B1	2024-04-23	BUILDING ADDENDUM 1

SHEET TITLE

ELECTRICAL COVER SHEET

DRAWING NUMBER

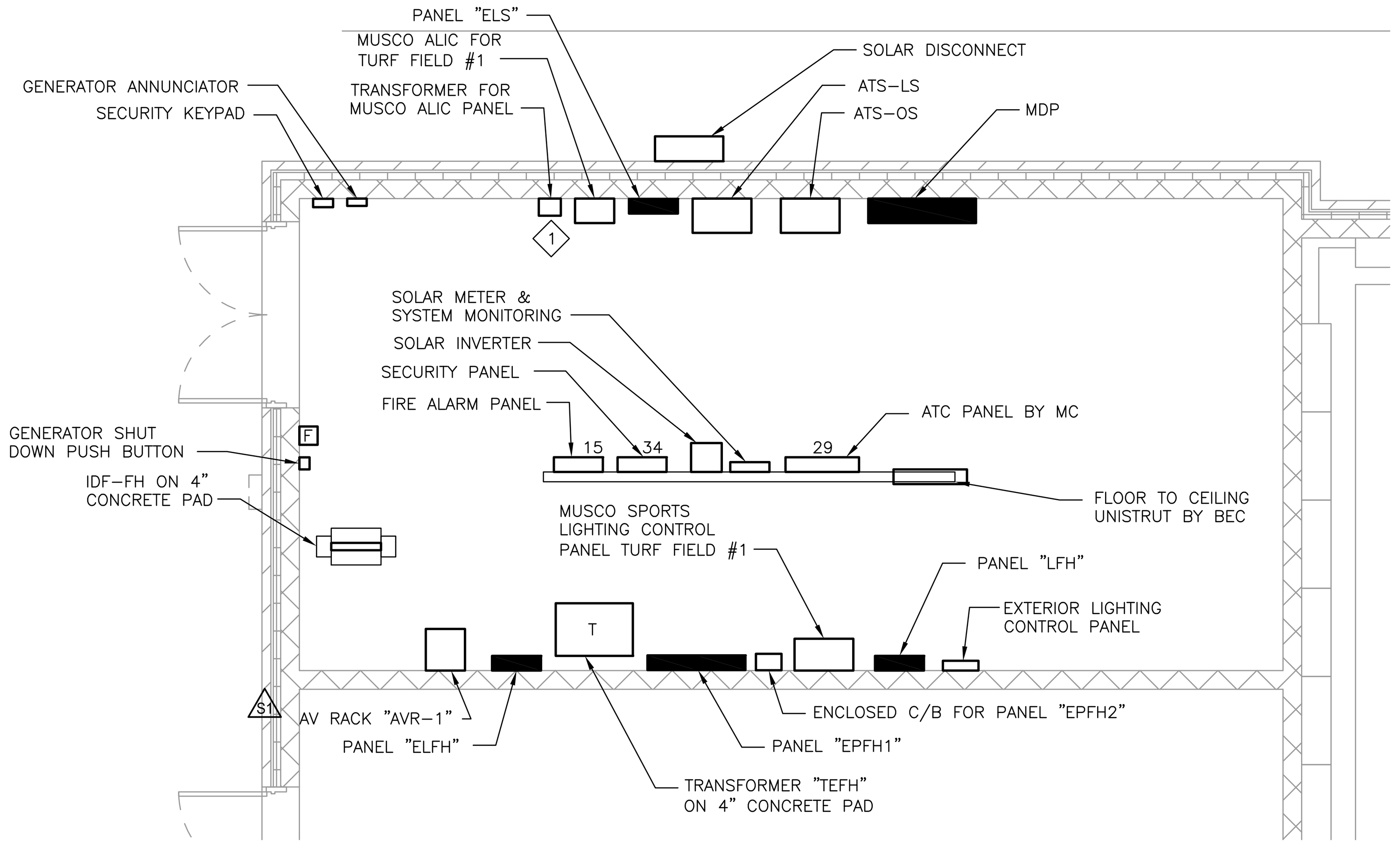
E001

DRAWING SPECIFIC KEYED NOTES:

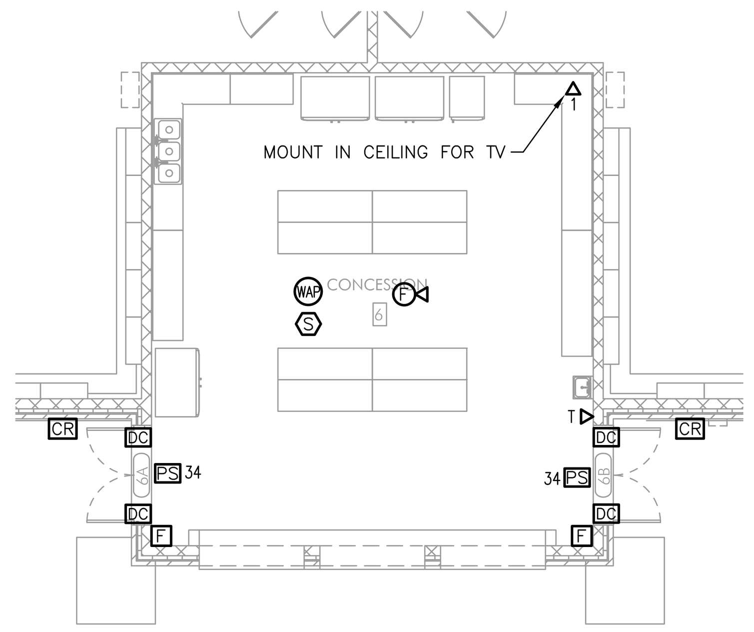
1. COORDINATE TRANSFORMER KVA RATING WITH MUSCO.

NOTES:

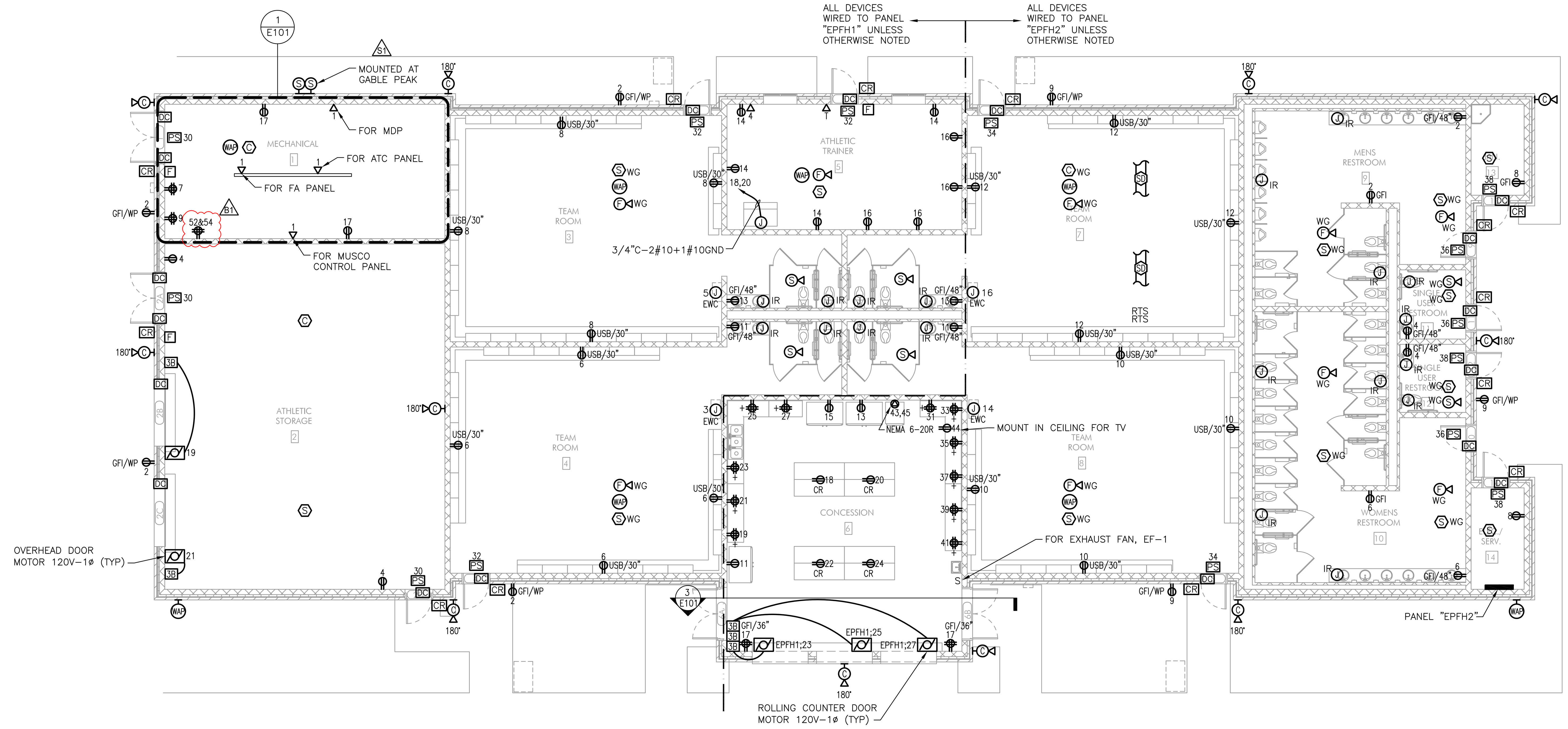
1. ALL WORK SHOWN IS NEW UNLESS OTHERWISE NOTED.
2. REFER TO DRAWING E001 FOR LEGEND, ABBREVIATION, GENERAL NOTES.
3. REFER TO MECHANICAL AND PLUMBING DRAWINGS FOR FINAL LOCATIONS OF MECHANICAL AND PLUMBING EQUIPMENT.
4. ALL EMERGENCY LIGHTING SHALL BE WIRED TO PANEL "ELS;2".
5. ALL "AA1" LIGHT FIXTURES SHALL BE WIRED TO PANEL "ELS;4".



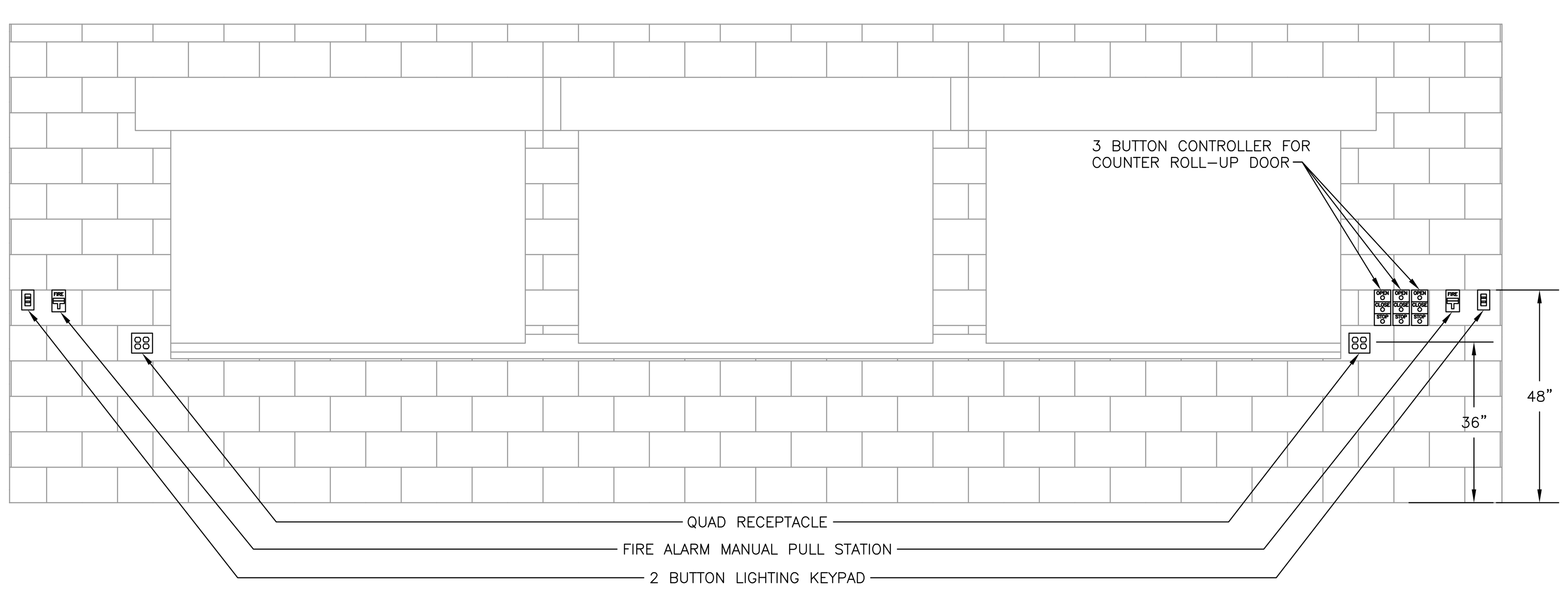
5 ENLARGED MECHANICAL 1 PLAN
E101 1/4" = 1'-0"



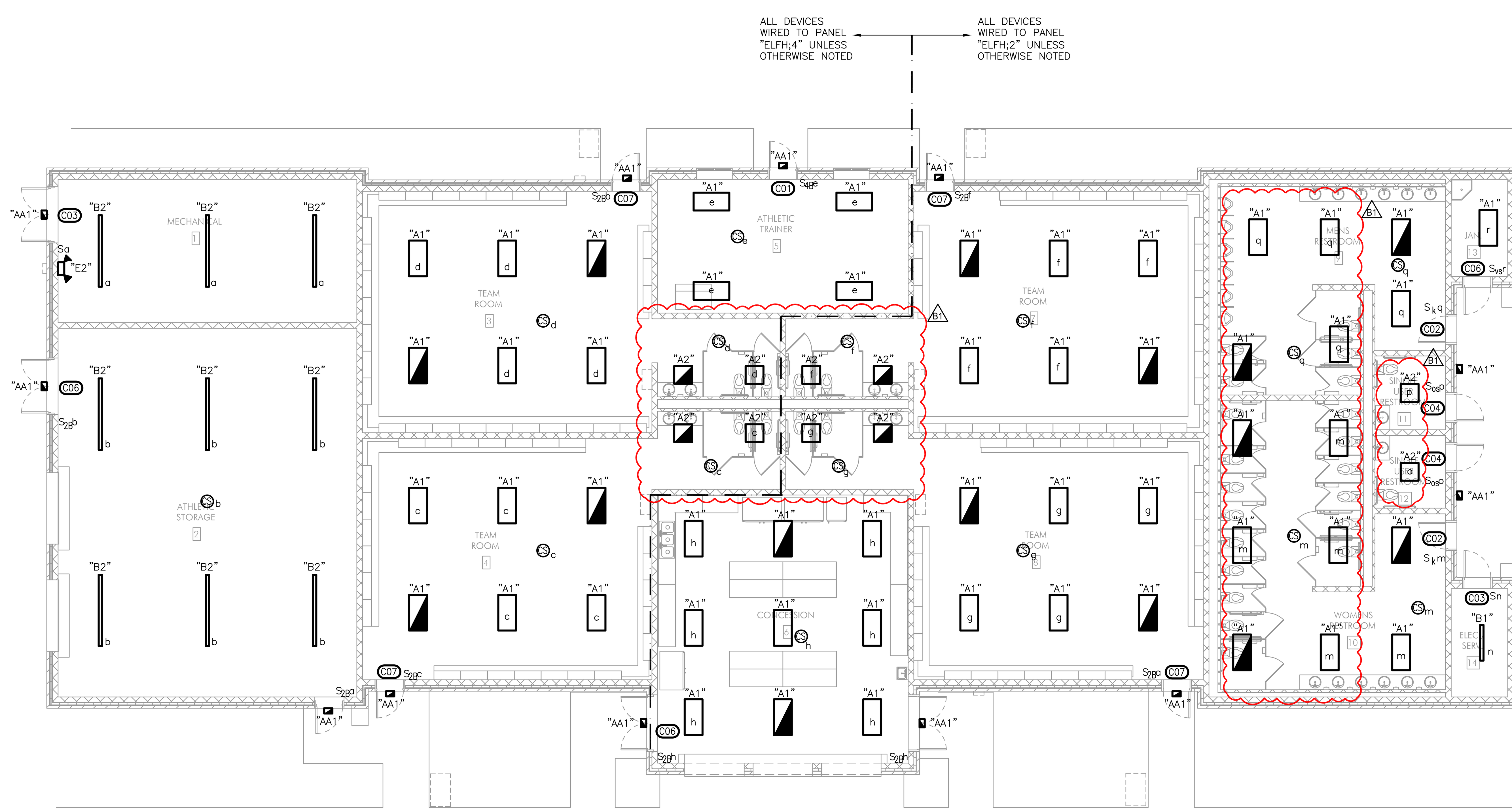
4 CONCESSION 6 - FIRE/COMM
E101 1/8" = 1'-0"



2 FIELD HOUSE - POWER/FIRE/COMM
E101 1/8" = 1'-0"



3 CONCESSION 6 - SOUTH ELEVATION
E101 1/2" = 1'-0"



1 FIELD HOUSE - LIGHTING
E101 1/8" = 1'-0"

PLAN NORTH

TESD CONESTOGA ATHLETIC FIELDS

TREDYFFRIN TOWNSHIP
CHESTER COUNTY, PA

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	2024-03-18	BID ISSUE
S1	2024-04-09	SITE ADDENDUM 1
B1	2024-04-23	BUILDING ADDENDUM 1

SHEET TITLE
ELECTRICAL FIRST FLOOR PLANS - FIELD HOUSE

DRAWING NUMBER
E101

NOTES:

1. REFER TO DRAWING E0.1 FOR GENERAL NOTES.
2. ANY CIRCUIT BREAKERS THAT ARE DETERMINED TO BE SPARE SHALL BE PLACED IN THE OFF POSITION.
3. ALL PANELS ARE TO BE PROVIDED WITH AN ENGRAVED NAMEPLATE. REFER TO DETAIL 2/E001 FOR REQUIREMENTS.

LOCATION: MECHANICAL 1 — PANEL SCHEDULE FOR PANEL: "ELS" 480/277 V, 3PH, 4W, 100A BUS, 100A M.L.O., 35,000A RMS — SURFACE MOUNTED

CKT NO	CIRCUIT POLE	AMP	REMARKS	A	B	C	A	B	C	REMARKS	AMP	CIRCUIT POLE	CKT NO
1	3	20	LIGHTING, EGRESS FIXTURES AT POLE F1-F4	1806			795			FIELD HOUSE EMERGENCY LIGHTING	20	1	2
3					1983			216		FIELD HOUSE EXTERIOR BUILDING MOUNTED LIGHTING	20	1	4
5						1263			0	MUSCO CONTROL	20	1	6
7	1	20	SPARE	0			0			SPARE	20	1	8
9	1	20	SPARE		0			0		SPARE	20	1	10
11	1	20	SPARE			0			0	SPARE	20	1	12
13	1	-	PREPARED SPACE	0			0			PREPARED SPACE	-	1	14
15	1	-	PREPARED SPACE		0			0		PREPARED SPACE	-	1	16
17	1	-	PREPARED SPACE			0			0	PREPARED SPACE	-	1	18
19	1	-	PREPARED SPACE	0			0			PREPARED SPACE	-	1	20
21	1	-	PREPARED SPACE		0			0		PREPARED SPACE	-	1	22
23	1	-	PREPARED SPACE			0			0	PREPARED SPACE	-	1	24
25	1	-	PREPARED SPACE	0			0			PREPARED SPACE	-	1	26
27	1	-	PREPARED SPACE		0			0		PREPARED SPACE	-	1	28
29	1	-	PREPARED SPACE			0			0	PREPARED SPACE	-	1	30
				1806	1983	1263	795	216	0				
										PHASE A:	2.60	KVA	
										PHASE B:	2.20	KVA	
										PHASE C:	1.26	KVA	
										TOTAL:	**6.06**	**KVA**	

LOCATION: GROUNDS MAINTENANCE 21 — PANEL SCHEDULE FOR PANEL: "EPG" 208/120 V, 3PH, 4W, 100A BUS, 100A M.C.B., 22,000A RMS — SURFACE MOUNTED

CKT NO	CIRCUIT POLE	AMP	REMARKS	A	B	C	A	B	C	REMARKS	AMP	CIRCUIT POLE	CKT NO
1	1	15	IH-1	576			360			QUAD RECEPTACLE, GROUNDS MAINTENANCE 21	20	1	2
3	1	15	IH-2		576			360		QUAD RECEPTACLE, GROUNDS MAINTENANCE 21	20	1	4
5	1	20	EWH-5			1500			180	RECEPTACLE, RESTROOM 23	20	1	6
7	1	15	EF-7	342			720			RECEPTACLES, GNDS. MAINT. 21, FIELD STORAGE 22	20	1	8
9	1	15	EF-8		138			180		RECEPTACLE, FIELD STORAGE 22	20	1	10
11	1	20	HWH-2			1500			180	RECEPTACLE, GROUNDS MAINTENANCE 21	20	1	12
13	1	20	SPARE	0			360			RECEPTACLES, GNDS. MAINT. 21, FIELD STORAGE 22	20	1	14
15	2	20	OVERHEAD DOOR MOTOR		1056			360		RECEPTACLES, GNDS. MAINT. 21, FIELD STORAGE 22	20	1	16
17						1056			1200	GATE OPERATOR #3A NORTH LOT	20	1	18
19	2	20	OVERHEAD DOOR MOTOR	1056			1200			GATE OPERATOR #3B NORTH LOT	20	1	20
21					1056			250		FIRE ALARM PANEL	20*	1	22
23	2	20	OVERHEAD DOOR MOTOR			1056			250	SECURITY PANEL	20	1	24
25				1056			250			ATC PANEL	20	1	26
27	2	20	OVERHEAD DOOR MOTOR		1056			500		DOOR ACCESS PANELS	20	1	28
29						1056			720	EXTERIOR RECEPTACLES	20	1	30
31	3	20	E-6	792			0			SPARE	20	1	32
33					792			0		SPARE	20	1	34
35						792			0	SPARE	20	1	36
37	3	20	E-5	792			0			SPARE	20	1	38
39					792			0		SPARE	20	1	40
41						792			0	SPARE	20	1	42
43	1	-	PREPARED SPACE	792			0			PREPARED SPACE	-	1	44
45	1	-	PREPARED SPACE		792			0		PREPARED SPACE	-	1	46
47	1	-	PREPARED SPACE			792			0	PREPARED SPACE	-	1	48
49	1	-	PREPARED SPACE	792			0			PREPARED SPACE	-	1	50
51	1	-	PREPARED SPACE		792			0		PREPARED SPACE	-	1	52
53	1	-	PREPARED SPACE			792			0	PREPARED SPACE	-	1	54
				6198	7050	9336	2890	1650	2530				
	* INDICATES CIRCUIT BREAKER TO BE PROVIDED WITH A HANDLE CLAMP FOR BREAKER AND BREAKER TO BE MARKED RED									PHASE A:	9.09	KVA	
										PHASE B:	8.70	KVA	
										PHASE C:	11.87	KVA	
										TOTAL:	**29.65**	**KVA**	

LOCATION: MECHANICAL 1 — PANEL SCHEDULE FOR PANEL: "EPFH1" SECT.1 208/120 V, 3PH, 4W, 100A BUS, 100A M.C.B., 22,000A RMS WITH FEED THROUGH LUGS — SURFACE MOUNTED

CKT NO	CIRCUIT POLE	AMP	REMARKS	A	B	C	A	B	C	REMARKS	AMP	CIRCUIT POLE	CKT NO
1	1	15	GUH-1	240			720			EXTERIOR RECEPTACLES	20	1	2
3	1	20 GFI	TEAM ROOM 4 ELECTRIC WATER COOLER		720			360		ATHLETIC STORAGE 2 RECEPTACLES	20	1	4
5	1	20 GFI	TEAM ROOM 3 ELECTRIC WATER COOLER			720			720	TEAM ROOM 4 RECEPTACLES	20	1	6
7	1	20	IDF-FH RECEPTACLE MECHANICAL 1	360			720			TEAM ROOM 3 RECEPTACLES	20	1	8
9	1	20	IDF-FH RECEPTACLE MECHANICAL 1		360			480		HWH-1	20	1	10
11	1	20	TEAM ROOM 4 & 8 TOILET ROOM RECEPTACLES			360			456	RP-1	15	1	12
13	1	20	TEAM ROOM 3 & 7 TOILET ROOM RECEPTACLES	360			720			ATHLETIC TRAINER 5 RECEPTACLES	20	1	14
15	1	20*	FIRE ALARM PANEL		250			720		ATHLETIC TRAINER 5 RECEPTACLES	20	1	16
17	1	20	MECHANICAL 1 RECEPTACLES			360			2220	ATHLETIC TRAINER 5 ICE MACHINE	30	2	18
19	1	20	ATHLETIC STORAGE 2 OVERHEAD DOOR	1176			2220						20
21	1	20	ATHLETIC STORAGE 2 OVERHEAD DOOR		1176			264		EF-1	20	1	22
23	1	20	CONCESSIONS 6 ROLLING COUNTER DOOR			1176			1056	EF-3	20	1	24
25	1	20	CONCESSIONS 6 ROLLING COUNTER DOOR	1176			342			EF-4	20	1	26
27	1	20	CONCESSIONS 6 ROLLING COUNTER DOOR		1176			360		EMERGENCY CALL TOWER #1	20	1	28
29	1	20	ATC PANEL			250			750	DOOR ACCESS PANELS, RMS. 1 & 2	20	1	30
31	1	20	SPARE	0			750			DOOR ACCESS PANELS, RMS. 3, 4 & 5	20	1	32
33	1	20	SPARE		0			250		SECURITY PANEL	20	1	34
35	2	20	HP-1/CC-8			1980			0	MUSCO CONTROLS	20	1	36
37				1980			0			SPARE	20	1	38
39	2	15	IHRU-1, IHRU-2		96			252		CC-1 THRU CC-3	15	2	40
41						96			252				42
				5292	3778	4942	5472	2686	5454				
	* INDICATES CIRCUIT BREAKER TO BE PROVIDED WITH A HANDLE CLAMP FOR BREAKER AND BREAKER TO BE MARKED RED									PHASE A:	10.76	KVA	
										PHASE B:	6.46	KVA	
										PHASE C:	10.40	KVA	
										TOTAL:	**27.62**	**KVA**	

LOCATION: MECHANICAL 1 — PANEL SCHEDULE FOR PANEL: "EPFH1" SECT.2 208/120 V, 3PH, 4W, 100A BUS, 100A M.L.O., 22,000A RMS — SURFACE MOUNTED

CKT NO	CIRCUIT POLE	AMP	REMARKS	A	B	C	A	B	C	REMARKS	AMP	CIRCUIT POLE	CKT NO
43	2	15	GENERATOR BATTERY CHARGER	1200			180			ROOFTOP RECEPTACLE	20	1	44
45					1200			1200		GENERATOR BLOCK HEATER	20	2	46
47	1	20	GENERATOR WINDING HEATERS			500			1200				48
49	1	20	SPARE	0			252			GENERATOR RECEPTACLE AND LIGHTS	20	1	50
51	1	20	SPARE		0			180		AV RACK AVR-1 RECEPTACLE	20	1	52
53	1	20	SPARE			0			180	AV RACK AVR-1 RECEPTACLE	20	1	54
55	1	-	PREPARED SPACE	0			0			SPARE	20	1	56
57	1	-	PREPARED SPACE		0			0		SPARE	20	1	58
59	1	-	PREPARED SPACE			0			0	SPARE	20	1	60
61	1	-	PREPARED SPACE	0			0			SPARE	20	1	62
63	1	-	PREPARED SPACE		0			0		PREPARED SPACE	-	1	64
65	1	-	PREPARED SPACE			0			0	PREPARED SPACE	-	1	66
67	1	-	PREPARED SPACE	0			0			PREPARED SPACE	-	1	68
69	1	-	PREPARED SPACE		0			0		PREPARED SPACE	-	1	70
71	1	-	PREPARED SPACE			0			0	PREPARED SPACE	-	1	72
73	1	-	PREPARED SPACE	0			0			PREPARED SPACE	-	1	74
75	1	-	PREPARED SPACE		0			0		PREPARED SPACE	-	1	76
77	1	-	PREPARED SPACE			0			0	PREPARED SPACE	-	1	78
79	1	-	PREPARED SPACE	0			0			PREPARED SPACE	-	1	80
81	1	-	PREPARED SPACE		0			0		PREPARED SPACE	-	1	82
83	1	-	PREPARED SPACE			0			0	PREPARED SPACE	-	1	84
				1200	1200	500	432	1380	1380				
										PHASE A:	1.63	KVA	
										PHASE B:	2.58	KVA	
										PHASE C:	1.88	KVA	
										TOTAL:	**6.09**	**KVA**	

B1

LOCATION: ELEC/SERV 14 — PANEL SCHEDULE FOR PANEL: "EPFH2" SECT.1 208/120 V, 3PH, 4W, 100A BUS, 100A M.C.B., 22,000A RMS WITH FEED THROUGH LUGS — SURFACE MOUNTED

CKT NO	CIRCUIT POLE	AMP	REMARKS	A	B	C	A	B	C	REMARKS	AMP	CIRCUIT POLE	CKT NO
1	1	20	EWH-1	1500			360			MEN'S RESTROOM 9 RECEPTACLES	20	1	2
3	1	20	EWH-2		1500			360		SINGLE USER RESTROOMS 11, 12 RECEPTACLES	20	1	4
5	1	20	EWH-3			1500			360	WOMEN'S RESTROOM 10 RECEPTACLES	20	1	6
7	1	20	EWH-4	1500			360			ELEC 14 & JAN 13 RECEPTACLES	20	1	8
9	1	20	EXTERIOR RECEPTACLES		540			720		TEAM ROOM 8 RECEPTACLES	20	1	10
11	1	20 GFI	CONCESSION 6 REFRIGERATOR			780			720	TEAM ROOM 7 RECEPTACLES	20	1	12
13	1	20 GFI	CONCESSION 6 FREEZER	1260			720			TEAM ROOM 8 ELECTRIC WATER COOLER	20 GFI	1	14
15	1	20 GFI	CONCESSION 6 REFRIGERATOR		780			720		TEAM ROOM 7 ELECTRIC WATER COOLER	20 GFI	1	16
17	1	20	CONCESSION 6 COUNTER TOP RECEPTACLES AT WINDOW			720			360	CONCESSIONS 6 CORD REEL	20 GFI	1	18
19	1	20	CONCESSION 6 COUNTER TOP RECEPTACLES	360			360			CONCESSIONS 6 CORD REEL	20 GFI	1	20
21	1	20	CONCESSION 6 COUNTER TOP RECEPTACLES		360			360		CONCESSIONS 6 CORD REEL	20 GFI	1	22
23	1	20	CONCESSION 6 COUNTER TOP RECEPTACLES			360			360	CONCESSIONS 6 CORD REEL	20 GFI	1	24
25	1	20	CONCESSION 6 COUNTER TOP RECEPTACLES	360			744			EF-3	20	1	26
27	1	20	CONCESSION 6 COUNTER TOP RECEPTACLES		360			1200		GATE OPERATOR #2A CASSATT RD	20	1	28
29	1	20	DOOR ACCESS PANELS, RM. 6			0			1200	GATE OPERATOR #2ABCASSATT RD	20	1	30
31	1	20	CONCESSION 6 COUNTER TOP RECEPTACLES	360			360			EMERGENCY CALL TOWER #2	20	1	32
33	1	20	CONCESSION 6 COUNTER TOP RECEPTACLES		360			500		DOOR ACCESS PANELS, RMS. 7 & 8	20	1	34
35	1	20	CONCESSION 6 COUNTER TOP RECEPTACLES			360			750	DOOR ACCESS PANELS, RMS. 9, 10 & 11	20	1	36
37	1	20	CONCESSION 6 COUNTER TOP RECEPTACLES	360			750			DOOR ACCESS PANELS, RMS. 12, 13 & 14	20	1	38
39	1	20	CONCESSION 6 COUNTER TOP RECEPTACLES		360			478		CEILING CASSETTES, CC-1 THRU CC-8	15	2	40
41	1	20	CONCESSION 6 COUNTER TOP RECEPTACLES			360			478				42
				5700	4260	4080	3654	4338	4228				
										PHASE A:	9.35	KVA	
										PHASE B:	8.60	KVA	
										PHASE C:	8.31	KVA	
										TOTAL:	**26.26**	**KVA**	

LOCATION: ELEC/SERV 14 — PANEL SCHEDULE FOR PANEL: "EPFH2" SECT.2 208/120 V, 3PH, 4W, 100A BUS, 100A M.L.O., 22,000A RMS — SURFACE MOUNTED

CKT NO	CIRCUIT POLE	AMP	REMARKS	A	B	C	A	B	C	REMARKS	AMP	CIRCUIT POLE	CKT NO
43	2	20 GFI	CONCESSION 6 WARMING CABINET	1500			180			CEILING RECEPTACLE CONCESSIONS 6	20	1	44
45					1500			0		SPARE	20	1	46
47	1	20	SPARE			1500			0	SPARE	20	1	48
49	1	-	PREPARED SPACE	0			0			SPARE	20	1	50
51	1	-	PREPARED SPACE		0			0		SPARE	20	1	52
53	1	-	PREPARED SPACE			0			0	SPARE	20	1	54
55	1	-	PREPARED SPACE	0			0			PREPARED SPACE	-	1	56
57	1	-	PREPARED SPACE		0			0		PREPARED SPACE	-	1	58
59	1	-	PREPARED SPACE			0			0	PREPARED SPACE	-	1	60
61	1	-	PREPARED SPACE	0			0			PREPARED SPACE	-	1	62
63	1	-	PREPARED SPACE		0			0		PREPARED SPACE	-	1	64
65	1	-	PREPARED SPACE			0			0	PREPARED SPACE	-	1	66
67	1	-	PREPARED SPACE	0			0			PREPARED SPACE	-	1	68
69	1	-	PREPARED SPACE		0			0		PREPARED SPACE	-	1	70
71	1	-	PREPARED SPACE	0			0			PREPARED SPACE	-	1	72
73	1	-	PREPARED SPACE		0			0		PREPARED SPACE	-	1	74
75	1	-	PREPARED SPACE			0			0	PREPARED SPACE	-	1	76
77	1	-	PREPARED SPACE	0			0			PREPARED SPACE	-	1	78
79	1	-	PREPARED SPACE		0			0		PREPARED SPACE	-	1	80
81	1	-	PREPARED SPACE	0			0			PREPARED SPACE	-	1	82
83	1	-	PREPARED SPACE		0			0		PREPARED SPACE	-	1	84
				1500	1500	1500	180	0	0				
										PHASE A:	1.68	KVA	
										PHASE B:	1.50	KVA	
										PHASE C:	1.50	KVA	
										TOTAL:	**4.68**	**KVA**	

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(610) 240-1900

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STRUCTURAL ENGINEER
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Conshohocken, PA 19428
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MEPFP ENGINEER
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SITE / CIVIL
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(215) 527-9825

ISSUE HISTORY

Δ	DATE	ISSUED FOR
	2024-03-18	BID ISSUE
B1	2024-04-23	BUILDING ADDENDUM 1

SHEET TITLE

ELECTRICAL SCHEDULES - BEC

DRAWING NUMBER

E302