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205-988-9112

ADDENDUM NO. 5
NEW SOFTBALL COMPLEX FOR TRUSSVILLE CITY SCHOOLS
Architect Job No. 23-72
April 17, 2024
DCM # 20240224

BIDS DUE:

**Thursday, April 25, 2024, until
2:00 p.m., local time at
Trussville City Board of Education,
476 Main Street
Trussville AL 35173**

The Plans and Specifications are here by amended. The following supersedes all contrary and/or conflicting information and is made part of the contract documents.

GENERAL

1. See the attached Mandatory Pre-Bid Conference Sign-In Sheet.
Please note: Attendance to the Mandatory Pre-Bid Meeting held on April 10, 2024, was required to bid this project.
2. See the attached **REVISED** Proposal Form, **Attachment – Unit Prices**, Accounting of Sales Tax Attachment to be included in bid documents in lieu of any previous version.

SPECIFICATIONS

1. Reference Section 01020 – Allowances **REVISE** as follows:

3.3 Schedule of Allowances

Allowance No. 1: Include a contingency allowance of \$100,000.00 for the Owner's use throughout the project for unforeseen conditions as directed by the Architect.

Allowance No. 2: Include a quantity allowance of 2,500 cubic yards of replacement of unsuitable soils with compacted structural fill. This Base Bid grading shall include the required cutting and filling of the existing grade to the proposed subgrade elevation. Onsite Geotechnical engineer shall determine if unsuitable soils are present. Unit price is provided for the addition to or deletion from this assumed amount. Refer to Section 02300. This allowance shall include all costs associated with removing unsuitable soil from below subgrade elevation, off-site disposal, and placement of the structural fill as directed by the geotechnical engineer.

Allowance No. 3: Include a contingency allowance of \$10,000.00 as an AID -to-Construction for utility fees.

Allowance No. 4: Include a quantity allowance under base bid for providing an additional 1 ton of in-place medium – heavy structural steel system construction, not otherwise indicated, to be shop fabricated, primed, and installed at the direction of the architect. This steel may be used throughout the project at multiple locations of any divisible quantity denomination or location, including but not limited to: lintels, beams, columns, shelf angles, edge angles, bent plates, rebar, joists, etc.

Allowance No. 5: Include a quantity allowance under base bid for providing an additional 1/2 ton of in-place miscellaneous steel system construction, not otherwise indicated, to be fabricated, primed, and installed at the direction of the architect. This steel may be used throughout the project at multiple locations of any divisible quantity denomination or location, including but not limited to: finished railings, clip angles, embeds, stair components, etc.

Allowance No. 6: Include a lump sum allowance of \$105,000 to provide and install additional plant, shrub, sod, soil, irrigation, and mulch materials/labor. Unit price is provided for the addition to or deletion from this assumed amount. Refer to Unit Price schedule.

Allowance No. 7: Geogrid

Include a quantity allowance of 5,000 square yards of geogrid to be used in combination with or in lieu of undercutting unsuitable soils. This allowance shall include all costs associated with providing and placement of the geogrid as directed by the geotechnical engineer. Onsite Geotechnical engineer shall determine if unsuitable soils are present. Unit price is provided for the addition to or deletion from this assumed amount.

Allowance No. 8: ALDOT #57 stone

Include a quantity allowance of 500 tons of ALDOT #57 stone to be used in combination with or in lieu of undercutting unsuitable soils. This allowance shall include all costs associated with providing and placement of stone as directed by the geotechnical engineer. Onsite Geotechnical engineer shall determine if unsuitable soils are present. Unit price is provided for the addition to or deletion from this assumed amount.

Allowance No. 9: ALDOT 825B Stone

Include a quantity allowance of 550 tons of ALDOT 825B stone to be used in combination with or in lieu of undercutting unsuitable soils. This allowance shall include all costs associated with providing and placement of stone as directed by the geotechnical engineer. Onsite Geotechnical engineer shall determine if unsuitable soils are present. Unit price is provided for the addition to or deletion from this assumed amount.

ADD: Allowance No. 10: Include a contingency allowance of \$110,000.00 for the Owner's use throughout the project for purchase and installation of lockers as directed by the Architect.

END OF SECTION

2. Reference **Section 04200 – Unit Masonry** REVISE as follows:

2.2 Concrete Masonry Units

- A. General: Provide shapes indicated and as follows for each form of concrete masonry unit required:
 - 1. Provide special shapes for lintels, corners, jambs, sash, control joints, headers, bonding and other special conditions.
 - 2. Bullnose units are required for all outside corners of vertical surfaces, unless otherwise indicated.

- B. Concrete Masonry Units: ASTM C 90 and as follows:
 - 1. Unit Compressive Strength: Provide units with minimum average net-area compressive strength of 2,000 psi.
 - 2. Weight Classification: **NORMAL**
 - 3. Aggregates: Do not use aggregate made from pumice, scoria or tuff.
 - 4. Provide Type N-I moisture-controlled units
 - 5. Size: Manufactured to the actual dimensions indicated on Drawings within tolerances specified in the applicable referenced ASTM specification. Typical unit 8" nominal, 6" nominal, 4" nominal, or 12" nominal as indicated on drawings.

- C. Ground-Faced Units: ASTM C 90, hollow block, with manufacturers standard ground face.
 - 1. Normal weight; not less than 125 pounds per cubic foot.
 - 2. Provide scored block to simulate 8 x 8 inch block.
 - 3. Colors and styles: 2 Integral colors as selected by Architect from manufacturers standard colors.
 - a. Ground Face Color # 1: Canary Cream.
 - b. Ground Face Color #2: Kent Black.
 - 4. Water-repellant treatment: Integral treatment with Dry-Block (W.R Grace)
 - 5. Manufacturer: Decra-Stone Ground Face as manufactured by Smyrna Ready Mix Concrete, LLC.
 - 6. Other acceptable manufacturers:
 - a. Cemex USA; Product Designerstone: www.cemexusa.com
 - b. Trenwyth Industries; Product Trendstone: www.trenwyth.com
 - 7. Substitutions: See Section 01600 – Product Requirements.

- 3. See the attached **REVISED Section 05120 – Structural Steel**, current revised version is to replace any previous version in its entirety.
- 4. See the attached **REVISED Section 08710 – Finish Hardware**, current revised version is to replace any previous version in its entirety.

DRAWINGS

- 1. See the attached REVISED Sheet **C0.1** for revisions to Civil Notes.
- 2. See the attached REVISED Sheet **C5.0** for revisions to Site Utility Plan.
- 3. See the attached REVISED Sheet **C5.1** for revisions to JCES Plan & Profile.
- 4. See the attached REVISED Sheet **A2.5** for revisions to Door and Window Schedule and Details changed finish and operation of coiling service door on the schedule.

5. See the attached REVISED Sheet **A3.1** for revisions to Concessions / Bleacher Elevations adding building signage.
6. See the attached REVISED Sheet **A3.2** for revisions to Locker Room / Hitting Facility Elevations adding building signage.
7. See the attached REVISED Sheet **S2.2** for revisions to Press Box Foundation and Upper Framing Plan.
8. See the attached REVISED Sheet **S2.3** for Press Box Roof Framing Plan.
9. See the attached REVISED Sheet **E1.1** for revisions to Schedules, Symbols, and Notes.
10. See the attached REVISED Sheet **E2.1** for revisions to Site Plan and Single Line Diagram.
11. See the attached REVISED Sheet **E3.1** for revisions to Floor Plans – Lighting.
12. See the attached REVISED Sheet **E4.2** for revisions to Floor Plans – Power.
13. See the attached REVISED Sheet **E6.1** for revisions to Softball Field Lighting Plan.

CLARIFICATIONS

1. Reference **Section 08340 – Coiling Service Doors** provide motorized operation of coiling service doors in lieu of hand crank operation as specified.
2. The height of the backstop tension netting system shall be 30’.
3. Turf fiber shall be PE Slit Film. If thatch is required, that is PE or Nylon Monofilament.
4. Fence shall include bottom rail as indicated in the drawings.

APPROVED MANUFACTURERS

The following manufacturers have submitted data for prior approval and have been approved by our office, **contingent upon the stipulation that their products must meet or exceed the contract specifications.**

Product

13341 Angle Frame Bleachers
 02731 Hitting Cage
 02731 Safe Shell/Olive Pit Infill

Bleachers
 Major Play Batting Cage Turf
 Elia Renufill (Turf Infill)

Manufacturer

Sturdisteel
 Major Play
 Safe Play LLC

PROPOSAL FORM

To: Trussville City Board of Education Date: _____

In compliance with your Advertisement for Bids and subject to all the conditions thereof, the undersigned,

(Legal name of Bidder)

hereby proposes to furnish all labor and materials and perform all work required for the construction of
WORK: New Softball Complex for Trussville City Schools, Architect's Job No. 23-72, in accordance with
Drawings and Specifications, dated, March 15, 2024, prepared by Lathan Associates Architects, P.C.,
300 Chase Park South, Suite 200, Hoover, AL 35244, Architect.

The Bidder, which is organized and existing under the laws of the State of _____,
having its principal offices in the City of _____,
is: _____ a Corporation _____ a Partnership _____ an individual _____ (other) _____,

LISTING OF PARTNERS OR OFFICERS: If Bidder is a Partnership, list all partners and their addresses; if
Bidder is a Corporation, list the names, titles and business addresses of its Officers:

BIDDER'S REPRESENTATION: The Bidder declares that it has examined the site of the Work, having
become fully informed regarding all pertinent conditions, and that it has examined the Drawings and
Specifications (including all Addenda received) for the Work and the other Bid and Contract Documents
relative thereto; and that it has satisfied itself relative to the Work to be performed.

ADDENDA: The Bidder acknowledges receipt of Addenda Nos. _____ through _____
inclusively.

ALLOWANCES: The Bidder acknowledges by initials _____ that he/she has read Specification
Section 01020 - Allowances and has included cost of same in bid.

ALABAMA IMMIGRATION LAW COMPLIANCE: The Bidder acknowledges by initials _____ that he/she will
comply with H.B. 56 - Alabama Immigration Law Compliance.

BASE BID: For construction complete as shown and specified, the sum of _____
Dollars (\$ _____)

ALTERNATES: If alternates as set forth in the Bid Documents are accepted, the following adjustments are
to be made to the Base Bid: **N/A**

UNIT PRICES: See Attachment

BID SECURITY: The undersigned agrees to enter into a Construction Contract and furnish the prescribed Performance and Payment Bonds and evidence of insurance within fifteen calendar days, or such other period stated in the Bid Documents, after the contract forms have been presented for signature, provided such presentation is made within 30 calendar days after the opening of bids, or such other period stated in the Bid Documents. As security for this condition, the undersigned further agrees that the funds represented by the Bid Bond (or cashier's check) attached hereto may be called and paid into the account of the Awarding Authority as liquidated damages for failure to comply.

Attached hereto is a: *(Mark the appropriate space and provide the applicable information.)*

____ Bid Bond, executed by _____ as Surety,
____ cashier's check on the _____ Bank of _____,
for the sum of _____ Dollars
(\$ _____) made payable to the Awarding Authority.

BIDDER'S ALABAMA LICENSE:

State License for General Contracting: _____
License Number Bid Limit Type(s) of Work

CERTIFICATIONS: The undersigned certifies that he or she is authorized to execute contracts on behalf of the Bidder as legally named, that this proposal is submitted in good faith without fraud or collusion with any other bidder, that the information indicated in this document is true and complete, and that the bid is made in full accord with State law. Notice of acceptance may be sent to the undersigned at the address set forth below.

The Bidder also declares that a list of all proposed major subcontractors and suppliers will be submitted at a time subsequent to the receipt of bids as established by the Architect in the Bid Documents but in no event shall this time exceed twenty-four (24) hours after receipt of bids.

Legal Name of Bidder _____

Mailing Address _____

* **By (Legal Signature)** _____ (Seal)

* Name & Title (print) _____

Telephone Number _____

Email Address _____

* If other than an individual proprietor, or an above named member of the Partnership, or the above named president, vice-president, or secretary of the Corporation, attach written authority to bind the Bidder. Any modification to a bid shall be over the initials of the person signing the bid, or of an authorized representative.

Note: A completed DCM Form C-3A: Accounting of Sales Tax must be submitted with DCM Form C-3: Proposal Form. Submission of DCM Form C-3A is required, it is not optional. A proposal shall be rendered non-responsive if an Accounting of Sales Tax is not provided.

PROPOSAL FORM ATTACHMENT

UNIT PRICES

For certain items of **credit or extra work**, if required, the undersigned proposes UNIT PRICES as follows:

Remove/Replace Unsuitable Soils	\$ _____ /per cu. yd.
Geogrid	\$ _____ /per cu. yd.
Aldot #57	\$ _____ /per ton
Aldot 825B Stone	\$ _____ /per ton
Natchez Crapeyrrtle (8'-10' HT).	\$ _____ /per ea.
Bosque Elm (3"-3.5" cal.)	\$ _____ /per ea.
Oakleaf Holly (6-7" HT)	\$ _____ /per ea.
Nellie R. Stevens Holly (6-7' HT)	\$ _____ /per ea.
Limelight Hydrangea (7g)	\$ _____ /per ea.
Pink Muhly Grass (3g)	\$ _____ /per ea.
Adagio Maiden Grass (3g)	\$ _____ /per ea.
Copperstone Distylium (7g)	\$ _____ /per ea.
419 Bermuda Sod	\$ _____ /per sq yd.
Pine Straw Mulch (3" Depth)	\$ _____ /per sq ft.
Screened Topsoil	\$ _____ /per cu. yd.
6' HT. Black Vinyl Coated Fencing	\$ _____ /per LF.
4' Fence Gate. Match Fence Material	\$ _____ /per ea.
10' Fence Gate. Match Fence Material	\$ _____ /per ea.
1" Class 200 PVC Pipe	\$ _____ /per LF.
2" Class 200 PVC Pipe	\$ _____ /per LF.
3" Class 200 PVC Pipe	\$ _____ /per LF.
1" Rainbird PGA Valve	\$ _____ /per ea.
2" Rainbird PGA Valve	\$ _____ /per ea.
Rainbird 1806 Body W/ He-Van Nozzle	\$ _____ /per ea.
Rainbird VE	\$ _____ /per ea.

Medium – Heavy Structural Steel \$ _____/per ton

Miscellaneous Steel \$ _____/per ton

Note: All grading shown on the drawings shall be included in the Base Bid as Unclassified to required subgrade elevations. This Base Bid grading shall include the required cutting and filling of the existing grade to the proposed subgrade elevation. Onsite Geotechnical engineer shall determine if unsuitable soils are present.

Refer to SECTION 02300 - EARTHWORK for additional information regarding undercut & replacement of unsuitable soils and associated quantity allowance.

Note: Costs for profit and overhead shall be included in Unit Prices.

Note: Unit Prices are provided for the addition to or deletion from the contract Base Bid.

BIDDER (to be signed by an Officer of the Company)

_____ by _____
(Name/Title) (Legal Signature)

WITNESS (to the above signature)

_____ by _____
(Name/Title) (Legal Signature)

ACCOUNTING OF SALES TAX

Attachment to DCM Form C-3: Proposal Form

To: Trussville City Board of Education **Date:** _____

(Awarding Authority)

NAME OF PROJECT: New Softball Complex for Trussville City Schools

SALES TAX ACCOUNTING

Pursuant to Act 2013-205, Section 1(g) the Contractor accounts for the sales tax NOT included in the bid proposal form as follows:

	<u>ESTIMATED SALES TAX AMOUNT</u>
BASE BID:	\$ _____

Failure to provide an accounting of sales tax shall render the bid non-responsive. Other than determining responsiveness, sales tax accounting shall not affect the bid pricing nor be considered in the determination of the lowest responsible and responsive bidder.

Legal Name of Bidder _____

Mailing Address _____

* By (Legal Signature) _____

* Name (type or print) _____

* Title _____ (Seal)

Telephone Number _____

Email Address _____

Note: A completed DCM Form C-3A: Accounting of Sales Tax must be submitted with DCM Form C-3: Proposal Form. Submission of DCM Form C-3A with DCM Form C-3 is required, it is not optional. A proposal shall be rendered non-responsive if an Accounting of Sales Tax is not provided.



ADDENDUM #5

SECTION 05120 - STRUCTURAL STEEL

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section includes fabrication and erection of structural steel work, as shown on drawings including schedules, notes, and details showing size and location of members, typical connections, and types of steel required.
 - 1. Structural steel is that work defined in American Institute of Steel Construction (AISC) "Code of Standard Practice" and as otherwise shown on drawings.
 - 2. Miscellaneous Metal Fabrications are specified elsewhere in Division 5.
 - 3. Refer to Division 3 for anchor bolt installation in concrete and Division 4 for anchor bolt installation in masonry.

1.3 SUBMITTALS

- A. General: Submit the following in accordance with Conditions of Contract and Division 1 Specification Sections.
 - 1. Submit all shop drawings on three copies only unless specified otherwise in the general conditions. Two prints will be returned to the architect. All copies required by the Contractor are the responsibility of the Contractor and shall be made after reproducible is returned.
- B. Product data or manufacturer's specifications and installation instructions for following products. Include laboratory test reports and other data to show compliance with specifications (including specified standards). This data is submitted for information only.
 - 1. Structural steel (each type), including certified copies of mill reports covering chemical and physical properties.
 - 2. High-strength bolts (each type), including nuts and washers.
 - a. Include Direct Tension Indicators if used.
 - 3. Structural steel primer paint.
 - 4. Shrinkage-resistant grout.
- C. Shop drawings including complete details and schedules for fabrication and assembly of structural steel members, procedures, and diagrams.
 - 1. Include details of cuts, connections, splices, camber, holes, and other pertinent data.

2. Include embedment drawings.
 3. Indicate welds by standard AWS symbols, distinguishing between shop and field welds, and show size, length, and type of each weld.
 4. Indicate type, size, and length of bolts, distinguishing between shop and field bolts. Identify pretensioned and slip-critical high-strength bolted connections.
 5. Contract documents shall not be used for shop drawing, including erection plans or details.
 6. All shop drawings which are resubmitted for any reason shall have all revised items clouded or identified for each submittal.
 7. All structural steel connections not specifically detailed on the drawings shall be designed to resist forces indicated, by the Contractor.
 8. For structural-steel connections indicated to comply with design loads, include structural analysis data, signed and sealed by the qualified professional engineer responsible for their preparation.
 9. For each connection, the following shall be noted on the shop drawings:
 - a. Required design reaction
 - b. Calculation sheet number for design
 - c. Capacity of detailed connection
 - d. Stamp of Engineer submitting calculations for the connection
 10. All shop drawings which do not provide this information will be returned unchecked as an incomplete submittal.
- D. Test reports conducted on shop- and field-bolted and welded connections. Include data on type(s) of tests conducted and test results.

1.4 QUALITY ASSURANCE

- A. Codes and Standards: Comply with provisions of following, except as otherwise indicated:
1. American Institute of Steel Construction (AISC) "Code of Standard Practice for Steel Buildings and Bridges", dated June 10, 1992.
 - a. General: AISC "Code of Standard Practice" shall apply except to the extent that references are made to the responsibility of the Owner and/or Architect or Engineer in which event those references shall have no applicability. Where a conflict exists between the Code of Standard Practice and the Contract Documents, the Contract Documents shall govern.
 2. AISC "Specifications for Structural Steel Buildings," including "Commentary".
 3. AISC "Specifications for Structural Steel Buildings, Section 10, Architecturally Exposed Structural Steel".
 4. "Specifications for Structural Joints using ASTM A325 or A490 Bolts" approved by the Research Council on Structural Connections.

5. American Welding Society (AWS) D1.1 "Structural Welding Code - Steel."
 6. ASTM A6 "General Requirements for Delivery of Rolled Steel Plates, Shapes, Sheet Piling and Bars for Structural Use."
- B. Qualifications for Welding Work: Qualify welding procedures and welding operators in accordance with AWS "Qualification" requirements.
1. Provide certification that welders to be employed in work have satisfactorily passed AWS qualification tests.
 2. If re-certification of welders is required, retesting will be Contractor's responsibility.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials to site at such intervals to ensure uninterrupted progress of work.
- B. Deliver anchor rods and anchorage devices, which are to be embedded in cast-in-place concrete or masonry, in ample time to not to delay work.
- C. Store materials to permit easy access for inspection and identification. Keep steel members off ground by using pallets, platforms, or other supports. Protect steel members and packaged materials from erosion and deterioration. If bolts and nuts become dry or rusty, clean and relubricate before use.
1. Do not store materials on structure in a manner that might cause distortion or damage to members or supporting structures. Repair or replace damaged materials or structures as directed.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Metal Surfaces, General: For fabrication of work that will be exposed to view, use only materials that are smooth and free of surface blemishes including pitting, rust and scale seam marks, roller marks, rolled trade names, and roughness. Remove such blemishes by grinding, or by welding and grinding, prior to cleaning, treating, and applying surface finishes.
- B. Structural Steel: ASTM A992, Grade 50 for wide flange beams; ASTM A36 elsewhere.
- C. Cold-Formed Steel Tubing: ASTM A500, Grade B.
- D. Hot-Formed Steel Tubing: ASTM A501.
- E. Steel Pipe: ASTM A53, Type E or S, Grade B; or ASTM A501.
- F. Moment Connection Material: Unless noted otherwise on the drawings, stiffener plates, doubler plates, gusset plates and the connecting plates shall be the same grade of steel as members being connected.
- G. Headed Stud-Type Shear Connectors: ASTM A108, Grade 1015 or 1020, cold-finished carbon steel with dimensions complying with AISC Specifications.

- H. Anchor Rods: ASTM A307 Grade A, headed type with supplementary requirements S1, unless otherwise indicated.
- I. Unfinished Threaded Fasteners: ASTM A307, Grade A, regular low-carbon steel bolts and nuts.
 - 1. Provide either hexagonal or square heads and nuts, except use only hexagonal units for exposed connections.
- J. High-Strength Threaded Fasteners: Heavy hexagon structural bolts, heavy hexagon nuts, and hardened washers, as follows:
 - 1. Quenched and tempered medium-carbon steel bolts, nuts, and washers, complying with ASTM A325.
 - a. Where indicated as galvanized, provide units that are zinc coated, either mechanically deposited complying with ASTM B695, Class 50, or hot-dip galvanized complying with ASTM A153.
 - 2. Quenched and tempered alloy steel bolts, nuts, and washers, complying with ASTM A490.
- K. Electrodes for Welding: Comply with AWS Code.
- L. Structural Steel Primer Paint: Red oxide primer.
- M. Cement Grout: Portland cement (ASTM C150, Type I or Type III) and clean, uniformly graded, natural sand (ASTM C404, Size No. 2). Mix at a ratio of 1.0 part cement to 3.0 parts sand, by volume, with minimum water required for placement and hydration.
- N. Nonmetallic Shrinkage-Resistant Grout: Premixed, nonmetallic, noncorrosive, nonstaining product containing selected silica sands, Portland cement, shrinkage compensating agents, plasticizing and water-reducing agents, complying with CE-CRD-C621.
 - 1. Available Products: Subject to compliance with requirements, products that may be incorporated in the work include, but are not limited to, the following:
 - a. 100 Non-Shrink Grout (Non-Metallic); Conspec, Inc.
 - b. Supreme Grout; Cormix, Inc.
 - c. Sure Grip Grout; Dayton Superior.
 - d. Euco N.S.; Euclid Chemical Co.
 - e. Crystex; L & M Construction Chemicals, Inc.
 - f. Masterflow 713; Master Builders.
 - g. Sealtight 588 Grout; W. R. Meadows.
 - h. Propak; Protex Industries, Inc.
 - i. Set Non-Shrink; Set Products, Inc.
 - j. Five Star Grout; U.S. Grout Corp.

2.2 FABRICATION

- A. Shop Fabrication and Assembly: Fabricate and assemble structural assemblies in shop to greatest extent possible. Fabricate items of structural steel in accordance with AISC Specifications and as indicated on final shop drawings. Provide camber in structural members where indicated.
 - 1. Properly mark and match-mark materials for field assembly. Fabricate for delivery sequence

that will expedite erection and minimize field handling of materials.

2. Where finishing is required, complete assembly, including welding of units, before start of finishing operations. Provide finish surfaces of members exposed in final structure free of markings, burrs, and other defects.
- B. Connections: Weld or bolt shop connections, as indicated.
1. Bolt field connections, except where welded connections or other connections are indicated.
 - a. Provide high-strength threaded fasteners for all principal bolted connections, except where unfinished bolts are indicated.
- C. Simple Beam Connections: Standard double angle framed beam connections using bolts as specified.
1. Seated Beam Connections and Stiffened Seated Beam Connections shall not be used unless indicated on the drawings or unless Engineer approval is obtained to verify capacity of supporting member for the resulting eccentricity. The fabricator must verify and bear responsibility that the use of such connections does not interfere with Architectural or MEP requirements.
- D. High-Strength Bolted Construction: Install high-strength threaded fasteners in accordance with AISC "Specifications for Structural Joints using ASTM A325 or A490 Bolts."
- E. Welded Construction: Comply with AWS Code for procedures, appearance and quality of welds, and methods used in correcting welding work.
- F. Steel Wall Framing: Select members that are true and straight for fabrication of steel wall framing. Straighten as required to provide uniform, square, and true members in completed wall framing.
- G. Holes for Other Work: Provide holes required for securing other work to structural steel framing and for passage of other work through steel framing members, as shown on final shop drawings.
- H. Provide threaded nuts welded to framing and other specialty items as indicated to receive other work.
- I. Cut, drill, or punch holes perpendicular to metal surfaces. Do not flame-cut holes or enlarge holes by burning. Drill holes in bearing plates.

2.3 GALVANIZING

- A. Hot-Dip Galvanized Finish: Apply zinc coating by the hot-dip process to structural steel according to ASTM A 123/ A 123M.
1. Fill vent holes and grind smooth after galvanizing.
 2. Galvanize **lintels shelf angles** attached to structural-steel frame and located in exterior walls.
 3. Galvanizing Repair Paint: SSPC-Paint 20.

2.4 STEEL THAT IS GALVANIZED AND THEN PAINTED – HIGH-PERFORMANCE SYSTEM #5

- A. Hot-Dip Galvanized: Apply zinc coating by the hot-dip process to structural steel according to ASTM A 123.
- B. Surface Preparation after galvanizing and immediately before application of paint:
 - 1. SSPC-SP 7/NACE No. 4, "Brush-Off Blast Cleaning."
- C. Intermediate Coat: Provide one coat of shop applied Polyamide Epoxy, such as Tnemec Series 66 Hi-Build Epoxoline or Sherwin Williams Macropoxy 646 Fast Cure Epoxy, at 4.0 to 6.0 mils DFT.
- D. Touch-Up Painting/Preparation before Finish Paint: Immediately after erection all surfaces shall be cleaned per SSPC – SP1, SP2, and SP3. Remove all foreign materials and contaminates, clean field welds, bolted connections, and abraded areas of shop paint. All damaged and abraded areas shall have feathered edges. Field touch-up with one coat of Intermediate Coat, paint applied at 4.0-6.0 Mils DFT prior to finish coat.
- E. Finish Paint: Provide one finish coat of an Aliphatic Acrylic Polyurethane, such as Tnemec Series 1075 Endura-Shield II or Sherwin Williams Hi-Solids Polyurethane, at 3.0 to 5.0 mils DFT.
- F. Any Field Painting to be brush or roller applied.

2.5 SHOP PAINTING

- A. General: Shop-paint structural steel, except those members or portions of members to be embedded in concrete or mortar. Paint embedded steel that is partially exposed on exposed portions and initial 2 inches of embedded areas only.
 - 1. Do not paint surfaces to be welded or high-strength bolted with slip-critical-type connections.
 - 2. Do not paint surfaces scheduled to receive sprayed-on fireproofing.
 - 3. Apply 2 coats of paint to surfaces that are inaccessible after assembly or erection. Change color of second coat to distinguish it from first.
- B. Painting: Provide a one-coat, shop-applied paint system complying with Steel Structures Painting Council (SSPC) Paint System Guide No. 7.00.
- C. Painting of steel exposed to weathering in the finished configuration of the structure:
 - 1. Surface Preparation: Clean surfaces to be painted. Remove rust and mill scale and spatter, slag, or flux deposits. Prepare surfaces according to the following specifications and standards:

SSPC-SP 6/NACE No. 3, "Commercial Blast Cleaning."
 - 2. Prime Coat: Immediately after surface preparation, provide one coat of grey shop applied Organic Zinc Rich Urethane Primer, such as Tnemec 90-97, at 2.5 to 3.5 mils DFT which meets the following performance requirements:
 - a. Solids by Volume: 63%
 - b. Zinc Content: 83% y weight.

- c. Salt Spray (Fog): ASTM B 117, Scribed Panels, 50,000 hours exposure.
 - d. Adhesion: ASTM 4541 – Type V – no less than 2,083 psi(14.36 MPa) pull.
 - e. Prohesion: ASTM G85 Prohesion Cabinet Testing. 15,000 hours.
 - f. Cathodic Disbondment: ASTM G8, Method A.
 - g. Immersion: ASTM D 870 Potable Water Immersion. 7 year exposure.
 - h. AISC Static Fatigue: Primer shall meet requirements of a Class B surface with a mean slip coefficient no less than 0.50 and a tension creep not in excess of .005 inch over SSPC-SP6 prepared substrate.
3. Touch Up Primer/Preparation before Finish Coats: Immediately after erection all surfaces shall be cleaned per SSPC – SP1 followed by spot repair preparation of SSPC-SP11 Power tool clean to white metal. Remove all foreign materials and contaminates, clean field welds, bolted connections, and abraded areas of shop paint. All damaged and abraded areas shall have feathered edges. Field touch-up with one coat of Prime Coat, paint applied at 2.5-3.5 Mils DFT prior to finish coat.
 4. Intermediate Coat: Provide one grey finish coat of an Aliphatic Acrylic Polyurethane, such as Tnemec Series 1075 Endura-Shield II, at 3.0 to 5.0 mils DFT which meets the following performance requirements:
 - a. Solids by Volume: 71%
 - b. Salt Spray (Fog): ASTM B 117, 2,000 hours exposure.
 - c. Abrasion: ASTM 4060 (CS-17 Wheel, 1,000 gram load, 1,000 cycles). No more than 139 mg loss.
 - d. Adhesion: ASTM 4541 – no less than 1,423 psi(9.81 MPa) pull.
 - e. Flexibility: ASTM D 522 (Method A) – no less than 14.4% elongation.
 - f. Hardness: ASTM 3363- no gouging with an HB or less pencil.
 - g. Humidity: ASTM 4585- 4,000 hours exposure.
 - h. Impact: ASTM B 2794 – no cracking or delamination of film after 35 inch-pounds direct impact.
 - i. Prohesion: ASTM G85 – 10,000 hours exposure.
 5. Finish Coat: Provide one finish coat (color to be selected by architect) of an Advanced Thermoset Solution Fluoropolymer, such as Tnemec Series 1070 Fluoronar, at 2.0 to 3.0 mils DFT which meets the following performance requirements:
 - a. Solids by Volume: 60%
 - b. Salt Spray (Fog): ASTM B 117 – 10,000 hours exposure
 - c. Abrasion: ASTM 4060 – (CS-17 Wheel, 1,000 gram load, 1,000 cycles) no more than 103 mg loss.
 - d. Adhesion: ASTM 4541 – Type V – no less than 1,930 psi(13.3 MPa) pull.
 - e. Flexibility: ASTM D 522 (Method A)- no less than 14.83% elongation.
 - f. Hardness: ASTM 3363 – no gouging with an 8H or less pencil.
 - g. Humidity: ASTM 4585 – 3,000 hours exposure.
 - h. Impact: ASTM B 2794 - no cracking or delamination of film after 35 inch-pounds direct impact.
 6. Any Field Painting to be brush or roller applied.
 7. Owners testing agent to continuously review the surface preparation and application of the painting of steel exposed to weathering in the finished configuration of the structure.

2.6 SOURCE QUALITY CONTROL

- A. General: Materials and fabrication procedures are subject to inspection and tests in mill, shop,

and field, conducted by a qualified inspection agency. Such inspections and tests will not relieve Contractor of responsibility for providing materials and fabrication procedures in compliance with specified requirements.

1. Promptly remove and replace materials or fabricated components that do not comply.
- B. Design of Members and Connections: Details shown are typical; similar details apply to similar conditions, unless otherwise indicated. Verify dimensions at site whenever possible without causing delay in the work.
1. Promptly notify Architect whenever design of members and connections for any portion of structure are not clearly indicated.

PART 3 - EXECUTION

3.1 ERECTION

- A. Surveys: Employ a licensed land surveyor for accurate erection of structural steel. Check elevations of concrete and masonry bearing surfaces, and locations of anchor bolts and similar devices, before erection work proceeds, and report discrepancies to Architect. Do not proceed with erection until corrections have been made or until compensating adjustments to structural steel work have been agreed upon with Architect.
- B. Temporary Shoring and Bracing: Provide temporary shoring and bracing members with connections of sufficient strength to bear imposed loads. Remove temporary members and connections when permanent members are in place and final connections are made. Provide temporary guy lines to achieve proper alignment of structures as erection proceeds.
- C. Temporary Planking: Provide temporary planking and working platforms as necessary to effectively complete work.
- D. Setting Bases and Bearing Plates: Clean concrete and masonry bearing surfaces of bond-reducing materials and roughen to improve bond to surfaces. Clean bottom surface of base and bearing plates.
1. Set loose and attached base plates and bearing plates for structural members on wedges or other adjusting devices.
 2. Tighten anchor bolts after supported members have been positioned and plumbed. Do not remove wedges or shims, but if protruding, cut off flush with edge of base or bearing plate prior to packing with grout.
 3. Pack grout solidly between bearing surfaces and bases or plates to ensure that no voids remain. Finish exposed surfaces, protect installed materials, and allow to cure.
 4. For proprietary grout materials, comply with manufacturer's instructions.
- E. Field Assembly: Set structural frames accurately to lines and elevations indicated. Align and adjust various members forming part of complete frame or structure before permanently fastening. Clean bearing surfaces and other surfaces that will be in permanent contact before assembly. Perform necessary adjustments to compensate for discrepancies in elevations and alignment.

- F. Level and plumb individual members of structure within specified AISC tolerances.
- G. Establish required leveling and plumbing measurements on mean operating temperature of structure. Make allowances for difference between temperature at time of erection and mean temperature at which structure will be when completed and in service.
- H. Splice members only where indicated and accepted on shop drawings.
- I. Erection Bolts: On exposed welded construction, remove erection bolts, fill holes with plug welds, and grind smooth at exposed surfaces. Each erection bolt on shop drawings shall be noted "Erection Bolt".
 - 1. Comply with AISC Specifications for bearing, adequacy of temporary connections, alignment, and removal of paint on surfaces adjacent to field welds.
 - 2. Do not enlarge unfair holes in members by burning or by using drift pins, except in secondary bracing members. Ream holes that must be enlarged to admit bolts.
- J. Gas Cutting: Do not use gas cutting torches in field for correcting fabrication errors in primary structural framing. Cutting will be permitted only on secondary members that are not under stress, as acceptable to Architect. Finish gas-cut sections equal to a sheared appearance when permitted.
- K. Touch-Up Painting: Immediately after erection, clean field welds, bolted connections, and abraded areas of shop paint. Apply paint to exposed areas using same material as used for shop painting.
 - 1. Apply by brush or spray to provide minimum dry film thickness of 1.5 mils.

3.2 QUALITY CONTROL

- A. Owner will engage an independent testing and inspection agency to inspect high-strength bolted connections and welded connections and to perform tests and prepare test reports.
- B. Testing agency shall conduct and interpret tests, state in each report whether test specimens comply with requirements, and specifically state any deviations therefrom.
- C. Provide access for testing agency to places where structural steel work is being fabricated or produced so that required inspection and testing can be accomplished.
- D. Testing agency may inspect structural steel at plant before shipment.
- E. Correct deficiencies in structural steel work that inspections and laboratory test reports have indicated to be not in compliance with requirements. Perform additional tests, at Contractor's expense, as necessary to reconfirm any noncompliance of original work and to show compliance of corrected work.
- F. Field Inspections and Tests:
 - 1. Check steel as received in the field for possible shipping damage workmanship, piece making and verification of required camber.
- G. Shop-Bolted Connections:

1. Inspect or test in accordance with AISC specifications.
 2. For bolted connections (bearing-type), all connections shall be visually observed to assure that all bolts, nuts and washers are in place and that all plies of connection material have been drawn together. All bolts shall be verified to be snug tight only.
- H. Shop Welding: Inspect and test during fabrication of structural steel assemblies, as follows:
1. Certify welders and conduct inspections and tests as required. Record types and locations of defects found in work. Record work required and performed to correct deficiencies.
 2. Perform visual inspection of all welds, including but not limited to fit-up, intermediate passes and final weld.
 3. Perform tests of welds as follows. Inspection procedures listed
 - a. Ultrasonic Inspection: ASTM E164. Perform on all full and partial penetration welds.
- I. Field-Bolted Connections:
1. Inspect in accordance with AISC specifications.
 2. For bolted connections (bearing-type), all connections shall be visually observed to assure that all bolts, nuts and washers are in place and that all plies of connection material have been drawn together. All bolts shall be verified to be snug tight only.
 3. Bolts in slotted holes at expansion joints shall have nuts finger tight with threads damaged.
- J. Field Welding: Inspect and test during erection of structural steel as follows:
1. Certify welders and conduct inspections and tests as required. Record types and locations of defects found in work. Record work required and performed to correct deficiencies.
 2. Perform visual inspection of all welds, including but not limited to fit-up, intermediate passes and final weld.
 3. Perform tests of welds as follows:
 - a. Ultrasonic Inspection: ASTM E164. Perform on all full and partial penetration welds.

END OF SECTION 05120.

1.0 - GENERAL

1.1 Related Documents

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

1.2 Summary

- A. This Section includes items known commercially as finish or door hardware that are required for swing, sliding, and folding doors, except special types of unique hardware specified in the same sections as the doors and door frames on which they are installed.
- B. This Section includes the following:
 - 1. Hinges
 - 2. Continuous hinges
 - 3. Key control system
 - 4. Lock cylinders and keys
 - 5. Lock and latch sets
 - 6. Exit devices
 - 7. Closers
 - 8. Overhead holders
 - 9. Miscellaneous door control devices
 - 10. Door trim units
 - 11. Protection plates
 - 12. Weatherstripping for exterior doors
 - 13. Thresholds
- C. Related Sections: The following Sections contain requirements that relate to the following sections.
 - 1. Section 08110: Hollow Metal Doors and Frames
 - 2. Section 08215: Wood Doors
- D. Products furnished but not installed under this Section to include:
 - 1. Cylinders for locks on entrance doors.
 - 2. Final replacement cores and keys to be installed by Owner.

1.3 References

- A. Standards of the following as referenced:
 - 1. American National Standards Institute (ANSI)
 - 2. Door and Hardware Institute (DHI)
 - 3. Factory Mutual (FM)
 - 4. National Fire Protection Association (NFPA)
 - 5. Underwriters' Laboratories, Inc. (UL)
 - a. UL 10C - Fire Tests Door Assemblies
 - 6. Warnock Hersey
- B. Regulatory standards of the following as referenced:
 - 1. Department of Justice, Office of the Attorney General, *Americans with Disabilities Act*, Public Law 101-336 (ADA).
 - 2. CABO/ANSI A117.1: *Providing Accessibility and Usability for Physically Handicapped People*, 2010 edition.

1.4 Submittals

- A. General: Submit the following in accordance with Conditions of Contract and Division 1 Specification sections.
- B. Product data including manufacturers' 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. For items other than those scheduled in the "Headings" of Section 3, provide catalog information for the specified items and for those submitted.
- C. Final hardware schedule coordinated with doors, frames, and related work to ensure proper size, thickness, hand, function, and finish of door hardware.
 - 1. Final Hardware Schedule Content: Based on hardware indicated, organize schedule into vertical format "hardware sets" indicating complete designations of every item required for each door or opening. Use specification heading numbers with any variations suffixed a, b, etc. Include the following information:
 - a. Type, style, function, size, and finish of each hardware item.
 - b. Name and manufacturer of each item.
 - c. Fastenings and other pertinent information.
 - d. Location of each hardware set cross-referenced to indications on Drawings both on floor plans and in door and frame schedule.
 - e. Explanation of all abbreviations, symbols, and codes contained in schedule.
 - f. Mounting locations for hardware.
 - g. Door and frame sizes and materials.
 - h. Keying information.
 - i. Cross-reference numbers used within schedule deviating from those specified.
 - 1) Column 1: State specified item and manufacturer.
 - 2) Column 2: State prior approved substituted item and its manufacturer.
 - 2. Submittal Sequence: Submit final schedule at earliest possible date particularly where acceptance of hardware schedule must precede fabrication of other work that is critical in the Project construction schedule. Include with schedule the product data, samples, shop drawings of other work affected by door hardware, and other information essential to the coordinated review of schedule.
 - 3. Keying Schedule: Submit separate detailed schedule indicating clearly how the Owner's final instructions on keying of locks has been fulfilled.
- D. Provide samples if requested of each type of exposed hardware unit in finish indicated and tagged with full description for coordination with schedule. Submit samples prior to submission of final hardware schedule.
 - 1. Samples will be returned to the supplier. Units that are acceptable and remain undamaged through submittal, review, and field comparison process may, after final check of operation, be incorporated in the Work, within limitations of keying coordination requirements.
- E. Templates for doors, frames, and other work specified to be factory prepared for the installation of door hardware. Check shop drawings of other work to confirm that adequate provisions are made for locating and installing door hardware to comply with indicated requirements.
- F. Contract closeout submittals:
 - 1. Operation and maintenance data: Complete information for installed door hardware.
 - 2. Warranty: Completed and executed warranty forms.

1.5 Quality Assurance

- A. Single Source Responsibility: Obtain each type of hardware (latch and locksets, hinges, closers, etc.) from a single manufacturer.
 - 1. Supplier Qualifications: A recognized architectural door hardware supplier, with warehousing facilities in the Project's vicinity, that has a record of successful in-service performance for supplying door hardware similar in quantity, type, and quality to that indicated for this Project and that employs an experienced Architectural Hardware Consultant (AHC) who is available for consultation to Owner, Architect, and Contractor, at reasonable times during the course of the Work.

- B. Coordination Meetings:
 - 1. Contractor to set up and attend the following:
 - a. Lock distributor to meet with the Owner to finalize lock functions and keying requirements and to obtain final instructions in writing.
 - b. Lock distributor and lock, closer and exit device manufacturer to meet with the installer prior to beginning of installation of door hardware. Instruct installer on proper installation of specified products.

- C. Fire-Rated Openings: Provide door hardware for fire-rated openings that complies with NFPA Standard No. 80 requirements of authorities having jurisdiction.
 - 1. Provide only items of door hardware that are listed and tested by UL or Warnock Hersey for given type/size opening and degree of label. Provide proper latching hardware, door closers, approved-bearing hinges and seals whether listed in the Hardware Schedule or not. All hardware to comply with State and local codes and UL 10C.
 - 2. Where emergency exit devices are required on fire-rated doors, (with supplementary marking on doors' UL labels indicating "Fire Door to be equipped with Fire Exit Hardware") provide UL label on exit devices indicating "Fire Exit Hardware".

- D. All hardware is to comply with Federal and State Handicap laws.

- E. Substitutions: Request for substitutions of items of hardware other than those listed as "acceptable and approved" shall be made to the architect in writing no later than fourteen (14) days prior to bid opening. Approval of substitutions will only be given in writing by Addenda. Requests for substitutions shall be accompanied by samples and/or detailed information for each manufacturer of each product showing design, functions, material thickness and any other pertinent information needed to compare your product with that specified. Lack of this information will result in a refusal.

1.6 Product Handling

- A. Tag each item or package separately with identification related to final hardware schedule, and include basic installation instructions with each item or package.

- B. Packaging of door hardware is responsibility of supplier. As material is received by hardware supplier from various manufacturers, sort and repackage in containers clearly marked with appropriate hardware set number to match set numbers of approved hardware schedule. Two or more identical sets may be packed in same container.

- C. Inventory door hardware jointly with representatives of hardware supplier and hardware installer until each is satisfied that count is correct.

- D. Deliver individually packaged door hardware items promptly to place of

installation (shop or Project site).

- E. Provide secure lock-up for door hardware delivered to the Project, but not yet installed. Control handling and installation of hardware items that are not immediately replaceable so that completion of the Work will not be delayed by hardware losses both before and after installation.

1.7 Warranty

- A. Special warranties:
 - 1. Door Closers: Thirty year period
 - 2. Locks and Cylinders: Three year period
 - 3. Exit Devices: Two year period

1.8 Maintenance

- A. Maintenance Tools and Instructions: Furnish a complete set of specialized tools and maintenance instructions that are packed in hardware items for Owner's continued adjustment, maintenance, and removal and replacement of door hardware.

2.0 - PRODUCTS

2.1 Manufactured Units

(*Denotes preferred manufacturer)

A. Hinges:

- 1. Acceptable manufacturers:
 - a. Ives*
 - b. Bommer
 - c. McKinney
- 2. Characteristics:
 - a. Templates: Provide only template-produced units.
 - b. Screws: Provide Phillips flat-head screws complying with the following requirements:
 - 1) For metal doors and frames install machine screws into drilled and tapped holes.
 - 2) For wood doors and frames install threaded-to-the-head wood screws.
 - 3) For fire-rated wood doors install #12 x 1-1/4 inch, threaded-to-the-head steel wood screws.
 - 4) Finish screw heads to match surface of hinges or pivots.
 - c. Hinge pins: Except as otherwise indicated, provide hinge pins as follows:
 - 1) Out-Swing Exterior Doors: Non-removable pins.
 - 2) Out-Swing Corridor Doors with Locks: Non-removable pins.
 - 3) Interior Doors: Non-rising pins.
 - 4) Tips: Flat button and matching plug. Finished to match leafs.
 - d. Size: Size hinges in accordance with specified manufacturer's published recommendations.
 - e. Quantity: Furnish one pair of hinges for all doors up to 5'-0" high. Furnish one hinge for each additional 2-1/2 feet or fraction thereof, unless otherwise specified in Hardware Headings.

B. Continuous Hinges:

- 1. Acceptable manufacturers:
 - a. Ives*
 - b. Select Products
 - c. Pemko
- 2. Characteristics:
 - a. Continuous gear hinges to be manufactured of extruded 6063-T6 aluminum alloy with anodized finish, or factory painted finish as

scheduled.

- b. All hinges are to be manufactured to template. Uncut hinges to be non-handed and to be a pinless assembly of three interlocking extrusions applied to the full height of the door and frame without mortising.
- c. Vertical door loads to be carried on chemically lubricated polyacetal thrust bearings. The door and frame leaves to be continually geared together for the entire hinge length and secured with a full cover channel. Hinge to operate to a full 180°.
- d. Hinges to be milled, anodized and assembled in matching pairs. Fasteners supplied to be steel self-drilling, self-tapping 12-24 x 3/4" screws.
- e. Provide UL listed continuous hinges at fire doors. Continuous hinges at fire doors (suffix -FR) to meet the required ratings without the use of auxiliary fused pins or studs.

C. Cylinders:

- 1. Acceptable manufacturers:
 - a. Match existing Sargent keying system
- 2. Characteristics:
 - a. Except as otherwise indicated, provide new master key system for project.
 - b. Metals: Construct lock cylinder parts from brass or bronze, stainless steel, or nickel silver.
 - c. Comply with Owner's instructions for master keying and, except as otherwise indicated, provide individual change key for each lock that is not designated to be keyed alike with a group of related locks.
 - 1) Permanently inscribe each key with number of lock that identifies cylinder manufacturer's key symbol, and notation, "DO NOT DUPLICATE".
 - d. Key Material: Provide keys of nickel silver only.
 - e. Key Quantity: Furnish (3) change keys for each lock, (5) master keys for each master system, (5) grandmaster keys for each grandmaster system, (10) construction master keys, (2) construction Control Keys.
 - 1) Furnish one extra blank for each lock.
 - 2) Furnish construction master keys to General Contractor.
 - 3) Deliver keys to Owner.

D. Mortise Locksets and Latchsets: as scheduled.

- 1. Acceptable manufacturers:
 - a. Sargent 8200 Series*
 - b. Or Approved Equal
- 2. Required Features:
 - a. Chassis: Cold-rolled steel, handing field-changeable without disassembly.
 - b. Latchbolts: 3/4-inch throw stainless steel anti-friction type.
 - c. Lever Trim: Through-bolted, accessible design, cast or solid rod lever as scheduled. Spindles: Independent break-away.
 - d. Thumbturns: Accessible design not requiring pinching or twisting motions to operate.
 - e. Deadbolts: Stainless steel 1-inch throw.

- f. Strikes: 16 gage curved stainless steel, bronze or brass with 1" deep box construction, lips of sufficient length to clear trim and protect clothing.
- g. Scheduled Lock Series and Design: **FIELD VERIFY AND MATCH EXISTING LEVER DESIGN.**
- h. Certifications:
 - 1) ANSI A156.13, 1994, Grade 1 Operational, Grade 1 Security.
 - 2) ANSI/ASTM F476-84 Grade 30 UL Listed.

E. Exit Devices:

- 1. Acceptable manufacturers:
 - a. Sargent 80 Series*
 - b. Or Approved Equal
- 2. Characteristics:
 - a. Exit devices to be UL Listed for life safety. Exit devices for fire rated openings to have "UL" labels for "Fire Exit Hardware."
 - b. Exit devices mounted on labeled wood doors to be mounted on the door per the door manufacturer's requirements.
 - c. All trim to be thru-bolted to the lock stile case.
 - d. Lever trim to be solid case material with a break-away feature to limit damage to the unit from vandalism. Lever design to match locksets.
 - e. All exit devices to be made of brass, bronze, stainless steel, or aluminum material, powder coated, anodized, or plated to the standard architectural finishes to match the balance of the door hardware.
 - f. Provide glass bead conversion kits to shim exit devices on doors with raised glass beads.
 - g. All exit devices to be one manufacturer. No deviation will be considered.
 - h. All series exit devices to incorporate a fluid damper, which decelerates the touchpad on its return stroke and eliminates noise associated with exit device operation. All exit devices to be non-handed. Touchpad to extend a minimum of 1/2 of the door width and to extend to the height of the cross rail housing for a "no pinch" operation. Plastic touchpads are not acceptable. All latchbolts to be the deadlocking type. Latchbolts to have a self-lubricating coating to reduce wear. Plated or plastic coated latchbolts are not acceptable. Plastic linkage and "dogging" components are not acceptable.
 - i. Surface vertical rod devices to be UL labeled for fire door applications without the use of bottom rod assemblies. Where bottom rods are required for security applications, the devices to be UL labeled for fire doors applications with rod and latch guards by the device manufacturer.
 - j. Exit devices to include impact resistant, flush mounted end cap design to avoid damage due to carts and other heavy objects passing through an opening. End cap to be of heavy-duty metal alloy construction and provide horizontal adjustment to provide alignment with device cover plate. When exit device end cap is installed, no raised edges will protrude.

- F. Closers and Door Control Devices:
1. Acceptable manufacturers:
 - a. Sargent 281 Series*
 - b. Or Approved Equal
 2. Characteristics:
 - a. Door Closers shall be cast construction, minimum 1 ½" closer piston diameter, manufactured in USA, to be certified to exceed ten million (10,000,000) full load cycles by a recognized independent testing laboratory and shall have minimum ten year service record in K-12 school environments. Requests for approval for surface door closers shall be accompanied by project references. Approval shall be solely at the architect's discretion. All closers (overhead, surface and concealed) to be of one manufacturer and carry manufacturer's thirty year warranty
 - b. Door closers to have fully hydraulic, full rack and pinion action.
 - c. All closers to utilize a stable fluid withstanding temperature range of 120°F to -30°F without seasonal adjustment of closer speed to properly close the door. Closers for fire-rated doors to be provided with temperature stabilizing fluid that complies with standards UBC 7-2 (1997) and UL 10C.
 - d. Spring power to be continuously adjustable over the full range of closer sizes, and allow for reduced opening force for the physically handicapped. Spring power adjustment (LCN Fast™ Power Adjust) allows for quick and accurate power adjustment and visually shows closer power size settings by way of dial adjustment gauge located on closer spring tube. Hydraulic regulation to be by tamper-proof, non-critical valves. Closers to have separate adjustment for latch speed, general speed and back check.
 - e. All closers to have solid forged steel main arms (and forearms for parallel arm closers) and where specified to have a cast-in solid stop on the closer shoe ("CUSH"). All parallel arm mounted closers to have "EDA" type arms or, where door travel on out-swing doors must be limited, use "CUSH" or "SCUSH" type closers. Auxiliary stops are not required when "CUSH" type closers are used. Provide drop plates where top rail of door is not sufficient for closer mounting. Provide "cush shoe supports" and "blade stop spacers" where dictated by frame details.
 - f. Access-Free Manual Closers: Where manual closers are indicated for doors required to be accessible to the physically handicapped provide adjustable units complying with ADA and ANSI A-117.1 provisions for door opening force.
 - g. Closers to be installed to allow door swing as shown on plans. Doors swinging into exit corridors to provide for corridor clear width as required by code. Where possible, mount closers inside rooms.
 - h. Powder coating finish to be certified to exceed 100 hours salt spray testing by ETL, an independent testing laboratory used by BHMA for ANSI certification.
- F. Floor Stops and Wall Bumpers:
1. Acceptable manufacturers:
 - a. Ives*
 - b. Trimco
 - c. Rockwood Manufacturing*
 2. Characteristics: Refer to Hardware Headings.

- G. Protective Plates:
 - 1. Acceptable manufacturers:
 - a. Ives*
 - b. Trimco
 - c. Rockwood Manufacturing
 - 2. Characteristics:
 - a. Provide manufacturers standard exposed fasteners for door trim units consisting of either machine screws or self-tapping screws.
 - b. Materials:
 - 1) Metal Plates: Stainless Steel, .050 inch (U.S. 18 gage).
 - c. Fabricate protection plates not more than 2 inches less than door width on push side and not more than 1 inch less than door width on pull side.
 - d. Heights:
 - 1) Kick plates to be 8 inches in height.
 - 2) Mop plates to be 6 inches in height.
 - 3) Kick plates and Mop plates to be 1" less than bottom rail height where applicable.

- H. Thresholds:
 - 1. Acceptable manufacturers:
 - a. Zero*
 - b. Pemko*
 - c. National Guard Products, Inc.
 - 2. Types: Indicated in Hardware Headings.

- I. Door Seals/Gasketing:
 - 1. Acceptable manufacturers:
 - a. Zero*
 - b. Pemko*
 - c. National Guard Products, Inc.
 - 2. Types: Indicated in Hardware Headings.

2.2 Materials And Fabrication

- A. Manufacturer's Name Plate: Do not use manufacturers' products that have manufacturer's name or trade name displayed in a visible location (omit removable nameplates) except in conjunction with required fire-rated labels and as otherwise acceptable to Architect.
 - 1. Manufacturer's identification will be permitted on rim of lock cylinders only.

- B. Base Metals: Produce hardware units of basic metal and forming method indicated, using manufacturer's standard metal alloy, composition, temper, and hardness, but in no case of lesser (commercially recognized) quality than specified for applicable hardware units by applicable ANSI/BHMA A156 series standards for each type of hardware item and with ANSI/BHMA A156.18 for finish designations indicated. Do not furnish "optional" materials or forming methods for those indicated, except as otherwise specified.

- C. Fasteners: Provide hardware manufactured to conform to published templates, generally prepared for machine screw installation.
 - 1. Do not provide hardware that has been prepared for self-tapping sheet metal screws, except as specifically indicated.

2. Furnish screws for installation with each hardware item. Provide Phillips flat-head screws except as otherwise indicated. Finish exposed (exposed under any condition) screws to match hardware finish or, if exposed in surfaces of other work, to match finish of this other work as closely as possible including "prepared for paint" surfaces to receive painted finish.
3. Provide concealed fasteners for hardware units that are exposed when door is closed except to the extent no standard units of type specified are available with concealed fasteners.
4. Use thru-bolts for installation of all exit devices, closers, and surface-mounted overhead stops. Coordinate with wood doors and metal doors and frames. Where thru-bolts are used, provide sleeves for each thru-bolt as a means of reinforcing the work, or provide sex nuts and bolts.

2.3 Hardware Finishes

- A. Match items to the manufacturer's standard color and texture finish for the latch and lock sets (or push-pull units if no latch or lock sets).
- B. Provide finishes that match those established by ANSI or, if none established, match the Architect's sample.
- C. Provide quality of finish, including thickness of plating or coating (if any), composition, hardness, and other qualities complying with manufacturer's standards, but in no case less than specified by referenced standards for the applicable units of hardware.
- D. Provide protective lacquer coating on all exposed hardware finishes of brass, bronze, and aluminum, except as otherwise indicated. The suffix "-NL" is used with standard finish designations to indicate "no lacquer."
- E. The designations used to indicate hardware finishes are those listed in ANSI/BHMA A156.18, "Materials and Finishes," including coordination with the traditional U.S. finishes shown by certain manufacturers for their products.
 1. **FIELD VERIFY AND MATCH EXISTING HARDWARE FINISH.**

3.0 - EXECUTION

3.1 Installation

- A. Mount hardware units at heights indicated in following applicable publications, except as specifically indicated or required to comply with governing regulations and except as otherwise directed by Architect.
 1. "Recommended Locations for Builders Hardware for Standard Steel Doors and Frames" by the Door and Hardware Institute.
 2. "Recommended Locations for Builders Hardware for Custom Steel Doors and Frames" by the Door and Hardware Institute.
 3. NWWDA Industry Standard I.S.1.7, "Hardware Locations for Wood Flush Doors."
- B. Install each hardware item in compliance with the manufacturer's instructions and recommendations. Where cutting and fitting is required to install hardware onto or into surfaces that are later to be painted or finished in another way, coordinate removal, storage, and reinstallation or application of surface protection with finishing work specified in the Division 9 Sections. Do not install surface-mounted items until finishes have been completed on the substrates involved.

- C. Set units level, plumb, and true to line and location. Adjust and reinforce the attachment substrate as necessary for proper installation and operation.
- D. Drill and countersink units that are not factory prepared for anchorage fasteners. Space fasteners and anchors in accordance with industry standards.
- E. Set thresholds for exterior doors in full bed of butyl-rubber or polyisobutylene mastic sealant complying with requirements specified in Division 7 Section "Joint Sealers".
- F. Weatherstripping and Seals: Comply with manufacturer's instructions and recommendations to the extent installation requirements are not otherwise indicated.

3.2 ADJUSTING, CLEANING, AND DEMONSTRATING

- A. Adjust and check each operating item of hardware and each door to ensure proper operation or function of every unit. Replace units that cannot be adjusted to operate freely and smoothly or as intended for the application made.
 - 1. Where door hardware is installed more than one month prior to acceptance or occupancy of a space or area, return to the installation during the week prior to acceptance or occupancy and make final check and adjustment of all hardware items in such space or area. Clean operating items as necessary to restore proper function and finish of hardware and doors. Adjust door control devices to function properly with final operation of heating and ventilating equipment.
- B. Clean adjacent surfaces soiled by hardware installation.
- C. Door Hardware Supplier's Field Service:
 - 1. Inspect door hardware items for correct installation and adjustment after complete installation of door hardware.
 - 2. Instruct Owner's personnel in the proper adjustment and maintenance of door hardware and hardware finishes.
 - 3. File written report of this inspection to Architect.

HARDWARE SCHEDULE

HARDWARE SET: A
EACH TO HAVE:

67 HINGE
1 HINGE
MCK

T4A3386 32D NRP5BB1HW 4.5 X 4.5 NRP 630
T4A3386 32D NRP QC12

MCKIVE

1	<u>WIRE HARNESS</u>	<u>QC-012P Harness</u>	<u>MCK</u>
1	<u>WIRE HARNESS</u>	<u>QC-1500 Harness</u>	<u>MCK</u>
2	<u>POWER TRANSFER</u>	<u>EPT10</u>	<u>VON</u>
1	REMOVABLE MULLION	L980S x 651 kit	SAR
1	<u>ELEC PANIC HARDWARE</u>	<u>56-8810-TB8810 ET L</u>	SAR
1	ELEC PANIC HARDWARE	<u>56-8804-TB65 SN 200 8876 24V BIPS-0E ET L</u>	SAR
2	CYL/CORE	AS REQUIRED	
2	SURFACE CLOSER	MC-CPS <u>354281</u> TB	SAR
2	KICK PLATE	8400 8" X 2" LDW B-CS	IVE
1	MULLION SEAL	139N PSA	ZER
1	RAIN DRIP	142AA (AS REQ'D)	ZER
2	MEETING STILE	328AA-S (PAIR)	ZER
1	GASKETING	8144SBK PSA	ZER
2	DOOR SWEEP	8198AA	ZER
1	THRESHOLD	65A	ZER
1	<u>POWER SUPPLY</u>	<u>BPS 24-4</u>	<u>SEC</u>
1	<u>CONTROLLER</u>	<u>KERI NXT 4D MSC</u>	<u>KERI</u>
1	<u>READER INTERFACE MODULE</u>	<u>NXT-RM3</u>	<u>KERI</u>
1	CREDENTIAL READER	BY SECURITY/ACCESS CTRL SYSTEMS	
2	DOOR CONTACT	BY SECURITY/ACCESS CTRL SYSTEMS	
4	<u>POWER SUPPLY</u>	<u>BY SECURITY/ACCESS CTRL SYSTEMS</u>	

COORDINATE HARDWARE WITH ELECTRICAL, SECURITY AND ACCESS CONTROL SYSTEMS.
BALANCE OF EAC COMPONENTS BY ELECTRICAL, SECURITY AND ACCESS CONTROL SYSTEMS.
NEEDS TO BE STUBBED AT MIDDLE HINGE TO ABOVE CEILING DATA ROOM

HARDWARE SET: B
EACH TO HAVE:

32	HINGE	<u>T4A3386 32D NRP5BB1HW 4.5 X 4.5 NRP-630</u>	<u>IVEMCK</u>
14	<u>HINGEPOWER TRANSFER</u>	<u>EPT10 T4A3386 32D NRP QC12</u>	<u>VONMCK</u>
1	<u>WIRE HARNESS</u>	<u>QC-306PHarness</u>	<u>MCK</u>
1	<u>WIRE HARNESS</u>	<u>QC-1500 Harness</u>	<u>MCK</u>
1	ELEC PANIC HARDWARE	<u>64 SN 200 8876 24V BIPS-0E ET L56-8804-TB</u>	SAR
1	CYL/CORE	AS REQUIRED	
1	SURFACE CLOSER	MC-CPS <u>354281</u> TB	SAR
1	KICK PLATE	8400 8" X 2" LDW B-CS	IVE
1	RAIN DRIP	142AA (AS REQ'D)	ZER
1	GASKETING	8144SBK PSA	ZER
1	DOOR SWEEP	8198AA	ZER
1	THRESHOLD	65A	ZER
	<u>POWER SUPPLY</u>	<u>(PROVIDED UNDER HWSET: A)</u>	<u>SEC</u>
	<u>CONTROLLER</u>	<u>(PROVIDED UNDER HWSET: A)</u>	<u>KERI</u>
1	<u>READER INTERFACE MODULE</u>	<u>NXT-RM3</u>	<u>KERI</u>
1	CREDENTIAL READER	BY SECURITY/ACCESS CTRL SYSTEMS	
1	DOOR CONTACT	BY SECURITY/ACCESS CTRL SYSTEMS	
1	POWER SUPPLY	BY SECURITY/ACCESS CTRL SYSTEMS	

COORDINATE HARDWARE WITH ELECTRICAL, SECURITY AND ACCESS CONTROL SYSTEMS.
BALANCE OF EAC COMPONENTS BY ELECTRICAL, SECURITY AND ACCESS CONTROL SYSTEMS.

HARDWARE SET: C

EACH TO HAVE:

<u>23</u>	<u>HINGE</u>	<u>T4A3386 32D NRP5BB1HW 4.5 X 4.5 NRP-630</u>	<u>MCK</u>
<u>14</u>	<u>HINGE</u>	<u>POWER TRANSFER</u>	<u>T4A3386 32D NRP QC12EPT10</u>
<u>1</u>	<u>WIRE HARNESS</u>	<u>QC-012P Harness</u>	<u>MCK</u>
<u>1</u>	<u>WIRE HARNESS</u>	<u>QC-1500 Harness</u>	<u>MCK</u>
1	EU MORTISE LOCK	<u>8274-LNL64 SN 200 82281-24V BIPS-DE-LN</u>	SAR
1	CYL/CORE	AS REQUIRED	
1	SURFACE CLOSER	MC-CPS <u>354281</u> TB	SAR
1	KICK PLATE	8400 8" X 2" LDW B-CS	IVE
1	RAIN DRIP	142AA (AS REQ'D)	ZER
1	GASKETING	8144SBK PSA	ZER
1	DOOR SWEEP	8198AA	ZER
1	THRESHOLD	65A	ZER
<u>1</u>	<u>POWER SUPPLY</u>	<u>BPS 24-3 (PROVIDE ONE SUPPLY PER TWO DOORS)</u>	<u>SEC</u>
<u>1</u>	<u>CONTROLLER</u>	<u>KERI NXT 2D MSC (PROVIDE ONE SUPPLY PER TWO DOORS)</u>	<u>KERI</u>
<u>1</u>	<u>READER INTERFACE MODULE</u>	<u>NXT-RM3</u>	<u>KERI</u>
1	CREDENTIAL READER	BY SECURITY/ACCESS CTRL SYSTEMS	
1	DOOR CONTACT	BY SECURITY/ACCESS CTRL SYSTEMS	
<u>4</u>	<u>POWER SUPPLY</u>	<u>BY SECURITY/ACCESS CTRL SYSTEMS</u>	

COORDINATE HARDWARE WITH ELECTRICAL, SECURITY AND ACCESS CONTROL SYSTEMS.
BALANCE OF EAC COMPONENTS BY ELECTRICAL, SECURITY AND ACCESS CONTROL SYSTEMS.

HARDWARE SET: D

EACH TO HAVE:

3	HINGE	5BB1HW 4.5 X 4.5 NRP 630	IVE
1	CLASSROOM DEAD LOCK	4877	SAR
1	CYL/CORE	AS REQUIRED	
1	PUSH PLATE	8200 4" X 16"	IVE
1	PULL PLATE	8303 10" 4" X 16"	IVE
1	SURFACE CLOSER	MC-P10 <u>354281</u> TB	SAR
1	KICK PLATE	8400 8" X 2" LDW B-CS	IVE
1	FLOOR STOP	FS18S	IVE
1	RAIN DRIP	142AA (AS REQ'D)	ZER
1	GASKETING	8144SBK PSA	ZER
1	DOOR SWEEP	8198AA	ZER
1	THRESHOLD	65A	ZER

HARDWARE SET: E

EACH TO HAVE:

1	CONT. HINGE	224XY	IVE
1	CLASSROOM DEAD LOCK	4877	SAR
1	CYL/CORE	AS REQUIRED	
1	PUSH PLATE	8200 4" X 16"	IVE
1	PULL PLATE	8303 10" 4" X 16"	IVE
1	SURFACE CLOSER	MC-P10 <u>354281</u> TB	SAR
1	KICK PLATE	8400 8" X 2" LDW B-CS	IVE
1	FLOOR STOP	FS18S	IVE

TEMPLATE CLOSER FOR 180/MAX DEGREE SWING AS WALL CONDITION ALLOWS.

HARDWARE SET: F

EACH TO HAVE:

1	CONT. HINGE	224XY	IVE
1	CLASSROOM DEAD LOCK	4877	SAR
1	CYL/CORE	AS REQUIRED	
1	PUSH PLATE	8200 4" X 16"	IVE
1	PULL PLATE	8303 10" 4" X 16"	IVE
1	SURFACE CLOSER	4111 SCUSH MC TBWMS	LCN
1	MOP PLATE	8400 6" X 1" LDW B-CS	IVE
1	KICK PLATE	8400 8" X 2" LDW B-CS	IVE

HARDWARE SET: G

EACH TO HAVE:

1	CONT. HINGE	224XY	IVE
1	CLASSROOM DEAD LOCK	4877	SAR
1	CYL/CORE	AS REQUIRED	
1	PUSH PLATE	8200 4" X 16"	IVE
1	PULL PLATE	8303 10" 4" X 16"	IVE
1	SURFACE CLOSER	4111 EDA MC TBWMS	LCN
1	KICK PLATE	8400 8" X 2" LDW B-CS	IVE
1	WALL STOP	WS401/402CVX	IVE

HARDWARE SET: H

EACH TO HAVE:

1	CONT. HINGE	224XY	IVE
1	PUSH PLATE	8200 4" X 16"	IVE
1	PULL PLATE	8303 10" 4" X 16"	IVE
1	SURFACE CLOSER	4111 EDA MC TBWMS	LCN
1	KICK PLATE	8400 8" X 2" LDW B-CS	IVE
1	WALL STOP	WS401/402CVX	IVE

HARDWARE SET: J

EACH TO HAVE:

3	HINGE	5BB1WT 5 X 7 NRP	IVE
1	TURN I/S DEAD LOCK	L4876 -LB	SAR
1	DOOR PULL, 3/4" RND	8102HD 8" STD	IVE
1	WALL STOP/HOLDER	FS495	IVE
1	GASKETING	8144SBK PSA	ZER

USE "TOP OF DOOR" MOUNTING OPTION FOR FS495, SEE INSTALLATION INSTRUCTIONS.

HARDWARE SET: K

EACH TO HAVE:

6	HINGE	5BB1HW 4.5 X 4.5 NRP 630	IVE
1	CONST LATCHING BOLT	FB51P (HMD)	IVE
1	DUST PROOF STRIKE	DP1	IVE
1	STOREROOM LOCK	8204 LNL	SAR
1	CYL/CORE	AS REQUIRED	
2	OH STOP	100S	GLY
2	KICK PLATE	8400 8" X 2" LDW B-CS	IVE
1	GASKETING	8144SBK PSA	ZER
1	ASTRAGAL	43STST (ACTIVE LEAF)	ZER
2	DOOR SWEEP	8198AA	ZER
1	THRESHOLD	65A	ZER

HARDWARE SET: L

EACH TO HAVE:

3	HINGE	5BB1HW 4.5 X 4.5 NRP 630	IVE
1	CORRIDOR LOCK W/ OUTSIDE INDICATOR	8225 LNL LB	SAR
1	CYL/CORE	AS REQUIRED	
1	SURFACE CLOSER	MC-CPS <u>354281</u> TB	SAR
1	KICK PLATE	8400 8" X 2" LDW B-CS	IVE
1	RAIN DRIP	142AA (AS REQ'D)	ZER
1	GASKETING	8144SBK PSA	ZER
1	DOOR SWEEP	8198AA	ZER
1	THRESHOLD	65A	ZER

HARDWARE SET: M

EACH TO HAVE:

3	HINGE	5BB1 4.5 X 4.5 NRP	IVE
1	STOREROOM LOCK	8204 LNL	SAR
1	CYL/CORE	AS REQUIRED	
1	SURFACE CLOSER	4111 SCUSH MC TBWMS	LCN
1	KICK PLATE	8400 8" X 2" LDW B-CS	IVE

HARDWARE SET: N

EACH TO HAVE:

3	HINGE	5BB1 4.5 X 4.5 NRP	IVE
1	STOREROOM LOCK	8204 LNL	SAR
1	CYL/CORE	AS REQUIRED	
1	OH STOP	90S	GLY
1	MOP PLATE	8400 6" X 1" LDW B-CS	IVE
1	KICK PLATE	8400 8" X 2" LDW B-CS	IVE

HARDWARE SET: P

EACH TO HAVE:

3	HINGE	5BB1 4.5 X 4.5 NRP	IVE
1	STOREROOM LOCK	8204 LNL	SAR
1	CYL/CORE	AS REQUIRED	
1	KICK PLATE	8400 8" X 2" LDW B-CS	IVE
1	WALL STOP	WS401/402CVX	IVE

HARDWARE SET: Q

EACH TO HAVE:

3	HINGE	5BB1 4.5 X 4.5 NRP	IVE
1	OFFICE/ENTRY LOCK	8205 LNL	SAR
1	CYL/CORE	AS REQUIRED	
1	OH STOP	90S	GLY
1	KICK PLATE	8400 8" X 2" LDW B-CS	IVE

HARDWARE SET: R

EACH TO HAVE:

3	HINGE	5BB1 4.5 X 4.5 NRP	IVE
1	PRIVACY W/DEADBOLT	V20-8265-LNL LB	SAR
1	MOP PLATE	8400 6" X 1" LDW B-CS	IVE
1	KICK PLATE	8400 8" X 2" LDW B-CS	IVE
1	WALL STOP	WS401/402CVX	IVE

HARDWARE SET: S

EACH TO HAVE:

6	HINGE	5BB1 4.5 X 4.5	IVE
1	CONST LATCHING BOLT	FB51P (HMD)	IVE
1	DUST PROOF STRIKE	DP1	IVE
1	TURN I/S DEAD LOCK	L4876 -LB	SAR
2	DOOR PULL, 3/4" RND	8102HD 8" STD	IVE
2	OH STOP & HOLDER	100H	GLY

HARDWARE SET: T

EACH TO HAVE:

3	HINGE	5BB1 4.5 X 4.5	IVE
1	CLASSROOM LOCK	8237LNL	SAR
1	CYL/CORE	AS REQUIRED	
1	WALL STOP	WS401/402CVX	IVE

HARDWARE SET: U

EACH TO HAVE:

3	HINGE	5BB1 4.5 X 4.5	IVE
1	PRIVACY W/DEADBOLT	V20-8265-LNL	SAR
1	SURFACE CLOSER	MC-CPS <u>354281</u> TB	SAR
1	KICK PLATE	8400 8" X 2" LDW B-CS	IVE

HARDWARE SET: V

EACH TO HAVE:

3	HINGE	5BB1 4.5 X 4.5	IVE
1	STOREROOM LOCK	8204 LNL	SAR
1	CYL/CORE	AS REQUIRED	
1	SURFACE CLOSER	MC <u>354281</u> TB	SAR
1	KICK PLATE	8400 8" X 2" LDW B-CS	IVE
1	WALL STOP	WS401/402CVX	IVE

END OF SECTION

GENERAL NOTES:

1. LBVD, INC. SHALL NOT HAVE AUTHORITY OVER THE SITE OR BUILDING CONTRACTOR'S WORK OR RESPONSIBILITIES. LBVD IS NOT RESPONSIBLE FOR SITE SAFETY PROCEDURES OR METHODS OF CONSTRUCTION.
2. ALL EXISTING UTILITIES SHOWN ON THESE DRAWINGS ARE APPROXIMATE AND OTHER UTILITIES MAY EXIST. CONTRACTOR MUST HAVE EXISTING UTILITIES LOCATED BY UNDERGROUND LINE LOCATORS AS WELL AS FIELD VERIFIED BY ON-SITE PERSONNEL PRIOR TO ORDERING MATERIALS OR BEGINNING CONSTRUCTION. ANY DISCREPANCIES SHALL BE REPORTED TO LBVD IMMEDIATELY.
3. EXISTING UTILITIES TO REMAIN MAY BE LOCATED WITHIN PROPOSED DEMOLITION AREAS. CONTRACTOR SHALL USE EXTREME CAUTION WHILE WORKING IN THESE AREAS TO ENSURE NO UTILITY SERVICE INTERRUPTIONS TO FACILITIES THAT REMAIN OR TO ADJACENT PROPERTIES.
4. ALL EXISTING IMPROVEMENTS WITHIN THE LIMITS OF CONSTRUCTION ARE TO BE REMOVED UNLESS SPECIFICALLY NOTED, TO REMAIN.
5. THE CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO PROTECT ADJACENT PROPERTIES AND IS RESPONSIBLE FOR ANY DAMAGE TO EXISTING IMPROVEMENTS ON OR OFF SITE DUE TO THE CONSTRUCTION OF THIS PROJECT. ANY DAMAGE WILL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
6. CONTRACTOR SHALL VERIFY SITE BOUNDARY AND EXISTING TOPOGRAPHY. NOTIFY LBVD OF ANY DISCREPANCIES PRIOR TO SUBMITTING PRICES OR ORDERING MATERIALS.
7. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROTECT ALL BENCHMARKS AND PROPERTY CORNERS. ANY REPLACEMENT WILL BE AT THE CONTRACTOR'S EXPENSE.
8. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN ALL NECESSARY PERMITS REQUIRED TO CONSTRUCT THIS PROJECT AND PAY ALL PERMIT FEES. ALL PERMITS MUST BE IN-HAND PRIOR TO CONSTRUCTION.
9. BOUNDARY AND TOPOGRAPHIC INFORMATION PROVIDED BY THE OWNER AND PERFORMED BY ARRINGTON ENGINEERING & LAND SURVEYING, CO.
10. TOPOGRAPHIC INFORMATION WAS PERFORMED VIA GROUND RUN FORMAT.
11. GENERAL CONTRACTOR IS RESPONSIBLE FOR OBTAINING ADEM PERMIT PRIOR TO START OF CONSTRUCTION. CONSTRUCTION SITE IS WITHIN ADEM PRIORITY WATERSHED. FULL CBMP PLAN WILL BE REQUIRED BY THE CONTRACTOR. 3 PHASE EROSION CONTROL PLANS ARE INCLUDING HEREIN; CONTRACTOR SHALL REFERENCE BMP'S NECESSARY TO MEET ALL PERMIT REQUIREMENTS.

SITE DEMOLITION NOTES:

1. CONTRACTOR TO COORDINATE WITH OWNER PRIOR TO ANY DEMOLITION REGARDING ITEMS TO BE SALVAGED, RECYCLED, AND REUSED. CONTRACTOR SHALL REMOVE ITEMS TO BE SALVAGED WITH EXTREME CAUTION TO PREVENT DAMAGE. CONTRACTOR SHALL TURN ALL SALVAGED ITEMS OVER TO OWNER.
2. CONTRACTOR SHALL COORDINATE WITH OWNER AND THE UTILITY PROVIDER PRIOR TO THE DISCONNECTING OR REMOVAL OF ANY UTILITY SERVICE TO THE EXISTING BUILDINGS. ALL UTILITIES TO BE REMOVED ARE TO BE CAPPED OR PLUGGED OR TERMINATED ACCORDING TO THE UTILITY OWNERS REQUIREMENTS.
3. REFER TO SITE GRADING AND UTILITY PLANS FOR PROPOSED UTILITY AND DRAINAGE INSTALLATION AND REMOVAL.
4. REFER TO LAYOUT AND LANDSCAPE PLANS FOR ADDITIONAL INFORMATION RELATING TO PAVING, CURB, SIDEWALKS, HARDSCAPES, ETC. REMOVE EXISTING CURBS AS NEEDED TO INSTALL PROPOSED IMPROVEMENTS.
5. CONTRACTOR SHALL COORDINATE WITH OWNER AND THE UTILITY PROVIDER PRIOR TO THE DISCONNECTING OF ANY UTILITY SERVICE TO THE EXISTING BUILDINGS.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL, RELOCATION OR PROTECTION OF ALL ABOVE AND BELOW GROUND EXISTING IMPROVEMENTS THAT ARE IN CONFLICT WITH THE PROPOSED IMPROVEMENTS UNLESS NOTED.
7. ALL DEMOLITION AND CONSTRUCTION DEBRIS SHALL BE TRANSPORTED AND DISPOSED OF AT LEAST WEEKLY IN A LEGAL AND APPROVED MANNER.
8. ALL EXISTING PAVING, CURBS, HARDSCAPE, ETC. SHALL BE SAW CUT AT THE LIMITS OF REMOVAL IN ORDER TO PROVIDE A CLEAN EDGE. EXISTING PAVING AT EDGE SHALL BE MILLED BACK A MINIMUM OF 1.5" TO ENSURE SMOOTH TRANSITION.

SITE LAYOUT NOTES:

1. ALL HANDICAP RAMPS, SIGNS, SYMBOLS, AND PAINTED ISLANDS AND ACCESS ROUTES MUST CONFORM TO THE LATEST ADA REQUIREMENTS.
2. THE MAXIMUM SLOPE IN HANDICAP PARKING AREAS SHALL NOT EXCEED 2.0% GRADE IN ANY DIRECTION. SLOPE IN THE DIRECTION OF TRAVEL IN ALL HANDICAP ACCESS ROUTES SHALL NOT EXCEED 5.0% GRADE AND 2.0% CROSS SLOPE.
3. ALL DIMENSIONS AND COORDINATES SHOWN ARE TO THE OUTSIDE FACE OF BUILDING, TO THE BACK OF CURB, OR TO THE EDGE OF SURFACING UNLESS OTHERWISE NOTED. REFER TO ARCHITECTURAL PLANS FOR SPECIFIC BUILDING INFORMATION.
4. ALL STRIPING TO BE PER THE LATEST EDITION OF THE MUTCD UNLESS NOTED OTHERWISE.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PREPARING A SITE CONSTRUCTION TRAFFIC CONTROL PLAN AND OBTAINING ANY REQUIRED APPROVALS FROM THE LOCAL JURISDICTIONAL AUTHORITY. THE SITE CONSTRUCTION TRAFFIC CONTROL PLAN SHALL TAKE INTO ACCOUNT THE ENTERING AND EXITING OF CONSTRUCTION TRAFFIC ONTO THE ROADWAY AND THE IMPACT TO THE FLOW OF TRAFFIC. THIS PLAN SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MUTCD. THIS SITE CONSTRUCTION TRAFFIC CONTROL PLAN SHALL BE IN ADDITION TO ANY TRAFFIC CONTROL PLAN PROVIDED IN THE PLAN SET FOR ROADWAY IMPROVEMENTS.
6. CONTRACTOR IS RESPONSIBLE FOR ADJUSTING ELEVATIONS OF ALL AT-GRADE STRUCTURES AND UTILITIES TO REMAIN (VALVE BOXES, MANHOLES, INLETS, VAULTS, ETC.) TO MATCH PROPOSED FINISHED GRADES.

GRADING NOTES:

1. THE OWNER SHALL BE RESPONSIBLE FOR PROVIDING COMPACTION TESTING.
2. ALL TOPSOIL SHALL BE STRIPPED WITHIN THE PROPOSED LIMITS OF GRADING AND SHALL BE STOCKPILED ON-SITE IN AN APPROVED LOCATION FOR LATER USE WITH ANY EXCESS TO BE DISPOSED OF OFF-SITE ONCE ALL LANDSCAPED AREAS HAVE BEEN BROUGHT TO FINISH GRADE UNLESS OTHERWISE NOTED ON THE PLANS.
3. SUBGRADE SHALL BE PROOF ROLLED WITH A HEAVILY LOADED DUMP TRUCK AND APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO PLACING FILL. ANY AREAS SHOWING SIGNS OF PUMPING, RUTTING, OR ANY UNSUITABLE (ORGANIC, SOFT, WET, LOOSE) MATERIAL FOUND IN PLACE SHALL BE UNDERCUT AND REPLACED, OR MOISTURE CONDITIONED AND COMPACTED TO THE SPECIFIED DENSITY AND MOISTURE CONTENT LISTED BELOW.
4. ALL EXPOSED SUBGRADE SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 12", MOISTURE CONDITIONED, AND RECOMPACTED, AS NEEDED TO ACHIEVE THE SPECIFIED DENSITY AND MOISTURE CONTENT LISTED BELOW, UNLESS OTHERWISE DETERMINED BY A GEOTECHNICAL ENGINEER.
5. CONTRACTOR SHALL BE RESPONSIBLE TO PROTECT PREPARED SUBGRADE AND RESTORE TO PROJECT SPECIFICATIONS IF DAMAGED OR COMPROMISED DUE TO INCLIMENT WEATHER AND/OR CONSTRUCTION TRAFFIC.
6. FILL MATERIAL SHALL HAVE THE FOLLOWING PROPERTIES: VIRTUALLY FREE OF ORGANICS, NO ROCK FRAGMENTS GREATER THAN 4" WITHIN 4" OF FINISH GRADE, LIQUID LIMIT NOT EXCEEDING 50, PLASTICITY INDEX NOT EXCEEDING 10, AND A MAXIMUM DRY DENSITY OF NO LESS THAN 100PCF AS DETERMINED BY ASTM D-698, STANDARD PROCTOR.
7. PLACE FILL MATERIAL IN 8" MAXIMUM LOOSE LIFTS AND COMPACT TO REQUIREMENTS LISTED BELOW.
8. COMPACTION TESTS SHALL BE TAKEN AT THE RECOMMENDATION OF THE ON-SITE GEOTECHNICAL ENGINEER, BUT AT A MINIMUM EVERY 2,500 SQUARE FEET OF AREA PER 8" LIFT.
9. FILL MATERIAL TO BE WITHIN ±2.0% OF OPTIMUM MOISTURE CONTENT AT THE TIME OF COMPACTION, UNLESS OTHERWISE DETERMINED BY A GEOTECHNICAL ENGINEER.

MINIMUM COMPACTION REQUIREMENTS FOR EXPOSURE TO VEHICLES AND SIDEWALKS	LANDSCAPE
DENSITY AS DETERMINED BY ASTM D-698, STANDARD PROCTOR	% MAXIMUM DRY DENSITY
98%	98%
96%	96%
98%	95%

*STRUCTURAL AREAS INCLUDE ZONES OF INFLUENCE AROUND THE BUILDING, PAVEMENT AREAS, FILL SLOPES, ETC.

11. COMPACTION WITHIN LIMITED SPACES (I.E. MANHOLES, INLETS, UTILITY TRENCHES) SHOULD BE BACKFILLED AND COMPACTED SYSTEMATICALLY, AT THE DIRECTION OF THE ON-SITE GEOTECHNICAL ENGINEER. STONE BACKFILL SHALL BE INSTALLED IN 12" MAXIMUM LOOSE LIFTS AND COMPACTED WITH 6-8 PASSES OF A VIBRATORY COMPACTOR.
12. CLEARING LIMITS SHALL BE 5' OUTSIDE OF ALL PROPOSED GRADED AREAS OR NOT BEYOND THE PROPERTY LINES WHICHEVER IS LESS.
13. NO GRADING OFF-SITE OR IN ANY ROAD RIGHT-OF-WAY WITHOUT PROPER APPROVALS AND PRIOR NOTIFICATION.
14. COORDINATE THE SEQUENCING OF ALL GRADING OPERATIONS WITH THE EROSION CONTROL PLAN.
15. THE MAXIMUM SLOPE IN HANDICAP PARKING AREAS SHALL NOT EXCEED 2.0% GRADE IN ANY DIRECTION. SLOPE IN THE DIRECTION OF TRAVEL IN ALL HANDICAP ACCESS ROUTES SHALL NOT EXCEED 5.0% GRADE AND 2.0% CROSS SLOPE.
16. ALL GRADING ADJACENT TO EXISTING OR PROPOSED BUILDINGS SHALL BE SLOPED AWAY FROM THE STRUCTURES AT A MINIMUM OF 1.0% GRADE. THE CONTRACTOR SHALL ENSURE POSITIVE DRAINAGE AWAY FROM THE STRUCTURES. NOTIFY LBVD OF ANY DISCREPANCIES.
17. PROPOSED GRADES INDICATED ON THIS PLAN ARE TO FINISH GRADE. THE CONTRACTOR SHALL MAKE SUBGRADE ADJUSTMENTS FOR TOPSOIL, PAVING, BUILDING PAD, ETC.
18. FILL SLOPES SHOULD BE BENCHED INTO THE EXISTING SLOPES AND SHOULD BE COORDINATED WITH THE ONSITE

- GEOTECHNICAL ENGINEER FOR BENCH DETAILS (HEIGHT AND DEPTH OF BENCH INTO THE SLOPE.)
19. RETAINING WALL GRADES: GTW INDICATES FINISHED GRADE AT TOP OF WALL, GBW INDICATES FINISHED GRADE AT BOTTOM OF WALL. ACTUAL WALL HEIGHT MUST BE A MINIMUM OF 6" ABOVE FINISHED GRADE AT TOP OF WALL.
 22. A GEOTECHNICAL REPORT HAS BEEN PREPARED BY TERRACON PROJECT NUMBER E1235230 AND IS AVAILABLE FOR INFORMATION PURPOSES. THE CONTRACTOR SHALL REVIEW THIS REPORT, VISIT THE SITE AND COMPLETE ANY ADDITIONAL EXPLORATIONS THAT IT FEELS NECESSARY IN ORDER TO PROVIDE A SATISFACTORY BID.
 24. DEWATERING SHALL BE SOLELY THE RESPONSIBILITY OF THE CONTRACTOR. PREVENT SURFACE WATER AND GROUND WATER FROM ENTERING EXCAVATIONS, FROM PONDING ON PREPARED SUBGRADES, AND FROM FLOODING PROJECT SITE AND SURROUNDING AREA. PROTECT SUBGRADES FROM SOFTENING, UNDERMINING, WASHOUT, AND DAMAGE BY RAIN OR WATER ACCUMULATION. REROUTE SURFACE WATER RUNOFF AWAY FROM EXCAVATED AREAS. DO NOT ALLOW WATER TO ACCUMULATE IN EXCAVATIONS. DO NOT USE EXCAVATED TRENCHES AS TEMPORARY DRAINAGE DITCHES. INSTALL A DEWATERING SYSTEM TO KEEP SUBGRADES DRY AND CONVEY GROUND WATER AWAY FROM EXCAVATIONS. MAINTAIN UNTIL DEWATERING IS NO LONGER REQUIRED. IF GROUNDWATER DEWATERING IS REQUIRED, CONTRACTOR IS TO OBTAIN ANY PERMITS AS MAY BE REQUIRED PRIOR TO DISCHARGE OF EFFLUENT FROM DEWATERING.
 25. GRADING ADJACENT TO THE BUILDING SHALL BE COORDINATED WITH ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR FOUNDATION WALLS, STEM WALLS, DRAINS, AND OTHER CONDITIONS. THE CONTRACTOR SHALL NOTIFY LBVD INC. OF ANY DISCREPANCIES.

MODULAR WALL NOTES:

1. MODULAR RETAINING WALLS SHALL BE A TOTAL DESIGN BUILD BY THE CONTRACTOR. THE CONTRACTOR'S WALL DESIGNER/INSTALLER SHALL HAVE AT LEAST 10 YEARS OF EXPERIENCE IN THE DESIGN AND INSTALLATION OF SEGMENTAL RETAINING WALLS.
2. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS, INCLUDING WALL DETAILS AND DESIGN PARAMETERS, STAMPED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF ALABAMA.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR HIRING A GEOTECHNICAL ENGINEER TO PERFORM SITE EXPLORATION TO GATHER INFORMATION CONCERNING SUBSURFACE SOILS TO BE USED IN THE DESIGN OF THE WALL. A WALL SPECIFIC GEOTECHNICAL REPORT/LETTER STAMPED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF ALABAMA SHALL BE SUBMITTED ALONG WITH THE SHOP DRAWINGS.
4. WALL DESIGNER SHALL EVALUATE INTERNAL STABILITY, EXTERNAL STABILITY, AND OVERALL GLOBAL STABILITY FOR THE WALL DESIGN. SAFETY FACTORS FOR THE WALL DESIGN SHALL BE IN ACCORDANCE WITH NATIONAL CONCRETE MASONRY ASSOCIATION (NCMA) DESIGN MANUAL FOR SEGMENTAL RETAINING WALLS.
5. CONTRACTOR SHALL ACCOUNT FOR ANY DRAINAGE CONDITIONS OCCURRING ABOVE THE WALL SUCH AS A FLUME OR SWALE TO ELIMINATE DRAINAGE RUNOFF OVER THE TOP OF THE WALL.

STORM DRAINAGE NOTES:

1. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS ON ALL STORM PIPE MATERIALS TO LBVD PRIOR TO INSTALLATION AND/OR FABRICATION.
2. ALL PROPOSED STORM INLETS (GRATES, CURB, YARD, AREA DRAINS) ARE TO BE LOCATED AT THE LOWPOINTS. GRADING SHALL BE TO DIRECT RUNOFF TO THESE INLETS. NOTIFY LBVD OF ANY DISCREPANCIES.
3. STORM DRAINAGE SYSTEMS SHALL BE CONSTRUCTED FROM DOWNSTREAM TO UPSTREAM. VERIFY ALL PIPE SLOPES, INVERTS, AND POINTS OF CONNECTION PRIOR TO CONSTRUCTION. NOTIFY LBVD OF ANY DISCREPANCIES.
4. THE CONTRACTOR SHALL VERIFY ALL EXISTING AND PROPOSED STORM PIPE GRADES AND POINTS OF CONNECTION PRIOR TO INSTALLATION. LBVD SHALL BE NOTIFIED OF ANY DEVIATIONS PRIOR TO CONSTRUCTION.
5. PROPOSED STORM PIPES 30" AND LESS SHALL BE BEDDED IN 4" OF CRUSHED AGGREGATE AND STORM PIPES 36" AND GREATER SHALL BE BEDDED IN A 6" OF CRUSHED AGGREGATE.
6. ALL STORM PIPES 15" AND LESS SHALL BE SMOOTH LINED HIGH DENSITY POLYETHYLENE (HDPE) OR SCHEDULE 40 POLYVINYL CHLORIDE (PVC) WITH WATER-TIGHT JOINTS UNLESS OTHERWISE NOTED, INSTALLED PER MANUFACTURERS RECOMMENDATIONS. ALL STORM PIPES 18" AND GREATER SHALL BE CLASS 3 REINFORCED CONCRETE PIPE (RCP) BELL AND SPIGOT INSTALLED WITH WATERTIGHT JOINTS UNLESS OTHERWISE NOTED.
7. ALL STORM MANHOLES SHALL BE PRECAST CONE, RISER, AND BASE SECTIONS WITH GASKETED JOINTS MEETING ALDOT SPECIAL DRAWING # MH-612-1.
8. ALL BURIED JUNCTION BOXES SHALL BE PER ALDOT SPECIAL DRAWING # JB-620-B OR TB-620-C DEPENDING ON FILL HEIGHT.
9. CONTRACTOR SHALL PROVIDE CAST IRON DOWNSPOUT BOOTS, CLEANOUTS AND COLLECTOR LINES FROM ALL EXTERIOR DOWNSPOUTS TO CONNECT TO PRIMARY STORM DRAINAGE SYSTEM. COORDINATE WITH EXTERIOR ELEVATIONS, ROOF AND PLUMBING PLANS FOR DOWNSPOUT LOCATIONS. COORDINATE DOWNSPOUT MODEL NUMBER WITH THE ARCHITECT.
10. CONTRACTOR SHALL COORDINATE ROOF DRAIN COLLECTOR LINES, DOWNSPOUTS AND BOOTS WITH FOOTING ELEVATIONS ON THE STRUCTURAL PLANS PRIOR TO POURING FOOTINGS. TOP OF FOOTINGS SHALL BE A MINIMUM OF 3' BELOW GRADE AT ALL ROOF DRAIN DOWNSPOUT LOCATIONS TO ENSURE ADEQUATE COVER TO TRANSITION TO BELOW GRADE PIPING.
11. PROVIDE 4" PVC SCHEDULE 40 GRAVITY DRAIN LINE FROM ALL BELOW GRADE UTILITY VAULTS TO THE NEAREST STORM DRAINAGE INLET OR DAYLIGHT AT GRADE.

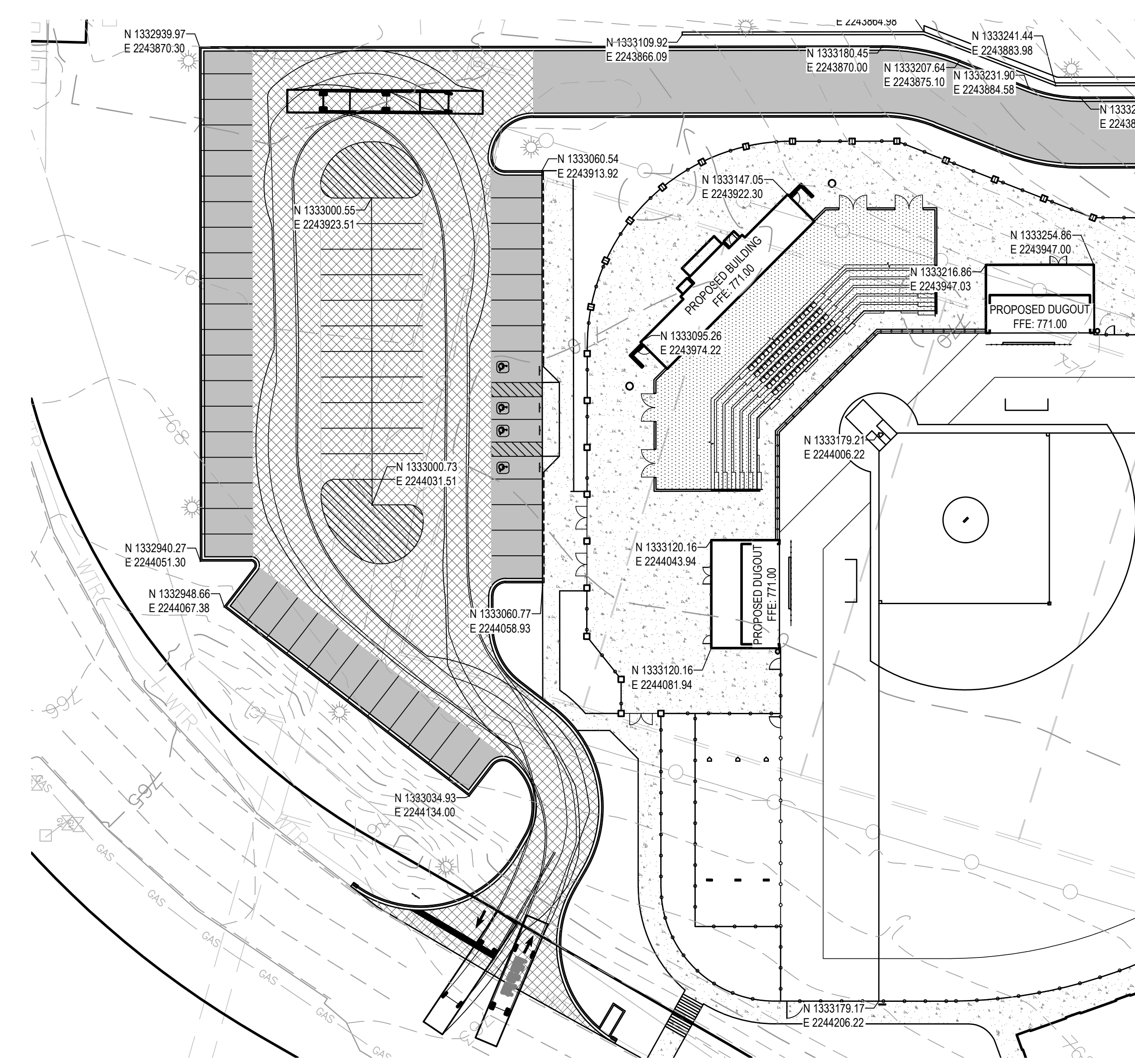
EROSION CONTROL NOTES:

1. SITE EROSION CONTROL MEASURES SHALL BE IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL LAWS, CODES, AND REGULATIONS.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A "NOTICE OF INTENT"(NOI) FROM ADEM. THE OWNER SHALL BE RESPONSIBLE FOR ALL MONITORING, INSPECTIONS, ETC. TO ENSURE THAT THE SITE IS AT ALL TIMES IN ACCORDANCE WITH ADEM RULES & REGULATIONS. DOCUMENTATION OF INSPECTIONS BY A Q.C.I. OR Q.C.P. SHALL BE MAINTAINED BY THE CONTRACTOR AND PROVIDED TO THE OWNER AT HIS/HER REQUEST. ANY AND ALL FEES, FINES, ETC., SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
3. ALL EROSION CONTROL DEVICES SHALL BE PROPERLY MAINTAINED DURING THE CONSTRUCTION PROCESS AND UNTIL ALL DISTURBED AREAS HAVE BEEN PERMANENTLY STABILIZED. ALL EROSION CONTROL INSTALLATION AND MAINTENANCE SHALL BE SOLELY THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE AT NO ADDITIONAL COST TO THE OWNER.
4. EROSION CONTROL DEVICES SHOWN ON THESE PLANS ARE A MINIMUM AND ARE DEPENDENT ON THE CONTRACTOR'S CONSTRUCTION PHASING OF THE PROJECT. ADDITIONAL DEVICES SHALL BE INSTALLED AS REQUIRED TO PREVENT SILTATION, EROSION AND OTHER DEGRADATION OR POLLUTION TO THE SITE OR ADJACENT PROPERTIES, STREAMS, DITCHES, AND PUBLIC ROADWAYS. ADDITIONAL MEASURES MAY INCLUDE, AS MINIMUM, TEMPORARY SEDIMENT BASINS, CONSTRUCTION EXITS PAD, VEHICLE WASH RACKS, SILT FENCING, STRAW AND RIP RAP CHECK DAMS, DIVERSION DITCHES, ETC. THESE ADDITIONAL MEASURES SHALL BE AT NO ADDITIONAL COST TO THE OWNER.
5. EROSION CONTROL DEVICES SHALL INCLUDE, BUT NOT LIMITED, TO THE FOLLOWING DEVICES: SILT FENCING, BRUSH BERMS, SEDIMENT BASINS, DETENTION PONDS, STRAW WATTLES, CHECK DAMS, FILTER BERMS, JUTE MATTING, VEGETATIVE FILTER STRIPS, TURF REINFORCEMENT MAT, DIVERSION BERMS, ETC.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL EROSION CONTROL DEVICES IN GOOD OPERATING CONDITION DURING ALL LAND DISTURBING ACTIVITIES. THIS RESPONSIBILITY SHALL INCLUDE THE CLEANUP AND/OR REPAIRS TO THE DEVICES AT NO ADDITIONAL COST TO THE OWNER.
7. EROSION CONTROL DEVICES SHALL BE MONITORED AND MAINTAINED UNTIL THE SITE HAS BEEN PERMANENTLY STABILIZED AND AFTER EACH RAINFALL GREATER THAN 0.75 INCHES IN A 24 HOUR PERIOD, ANY WIND GUSTS GREATER THAN 25 MPH, AND ANY SUSTAINED WINDS GREATER THAN 20 MPH IN A 24 HOUR PERIOD.
8. AFTER ALL LAND DISTURBANCE ACTIVITIES HAVE CEASED AND AFTER ALL DISTURBED AREAS HAVE BEEN PERMANENTLY STABILIZED, THE EROSION CONTROL DEVICES SHALL BE REMOVED BY THE CONTRACTOR AND THE AREA CLEANED AND DRESSED.
9. DEWATERING OPERATIONS MAY NOT BE DISCHARGED IN A MANNER THAT CAUSES EROSION OF THE SITE OR POLLUTION TO ADJACENT PROPERTIES, STREAMS, DITCHES, OR PUBLIC ROADWAYS.
10. A GRAVELED ACCESS DRIVE OF SUFFICIENT SIZE SHALL BE AT EACH SITE ENTRANCE/EXIT TO PREVENT TRACKING OF DIRT AND SEDIMENT ONTO PUBLIC OR PRIVATE ROADWAYS. IF SEDIMENT REACHES THE ROADWAY, THEN IT MUST BE CLEANED AT THE END OF EACH WORKDAY.
11. ALL LAND DISTURBANCE ACTIVITIES SHALL BE CONDUCTED IN A LOGICAL SEQUENCE TO MINIMIZE THE EXPOSURE OF BARE AREAS AT ANY ONE TIME.
12. ALL DISTURBED AREAS LEFT INACTIVE FOR MORE THAN 13 DAYS SHALL BE SEEDED AND MULCHED IN ACCORDANCE WITH ALDOT SPECIFICATIONS SECTION 652 AND 656.
13. ALL PREVIOUSLY GRADED AREAS SHALL RECEIVE 4 INCHES OF TOPSOIL AND PERMANENT GRASSING UNLESS OTHERWISE INDICATED ON THE LANDSCAPE PLAN.
14. PRIOR TO SITE CLEARING, ALL PERIMETER SILT FENCING, BRUSH BERMS, ETC. AND GRAVELED ACCESS DRIVES SHALL BE INSTALLED.
15. ALL EXISTING STREAMS, DITCHES, ETC. SHALL BE PROTECTED FROM SEDIMENTS AND SILTS BY SILT FENCING, WATTLES, BRUSH BERMS, ETC.
16. WATTLES OR SILT FENCING SHALL BE INSTALLED AT ALL INLETS UPON THE COMPLETION OF EACH INLET AS INSTALLED.
17. RIP RAP SHALL BE PLACED AT EACH HEADWALL IMMEDIATELY FOLLOWING CONSTRUCTION OF EACH HEADWALL.
18. GEOTEXTILE SHALL BE PLACED ON ALL 2:1 SIDE SLOPES. GEOTEXTILE SHALL BE NORTH AMERICAN GREEN [SC150] OR APPROVED EQUAL UNLESS OTHERWISE NOTED ON PLANS. ALL GEOTEXTILES SHALL BE INSTALLED PER THE MANUFACTURER'S RECOMMENDATIONS.
19. GEOTEXTILE SHALL BE PLACED ON ALL 3:1 SIDE SLOPES. GEOTEXTILE SHALL BE NORTH AMERICAN GREEN S150 OR

- APPROVED EQUAL UNLESS OTHERWISE NOTED ON PLANS. ALL GEOTEXTILES SHALL BE INSTALLED PER THE MANUFACTURER'S RECOMMENDATIONS.
20. GEOTEXTILE SHALL BE PLACED ON ALL DITCH BOTTOMS & 1' UP EACH SIDE. GEOTEXTILE SHALL BE NORTH AMERICAN GREEN SC150 OR APPROVED EQUAL UNLESS OTHERWISE NOTED ON PLANS. ALL GEOTEXTILES SHALL BE INSTALLED PER THE MANUFACTURER'S RECOMMENDATIONS.

UTILITY NOTES:

1. THE SITE CONTRACTOR IS RESPONSIBLE FOR COMPLETING ALL UTILITY SERVICES (WATER, SEWER, GAS, ELECTRICAL, TELEPHONE, CABLE TV) FROM THE POINT THE RESPECTIVE UTILITY COMPANY COMPLETES THEIR WORK TO THE POINT OF CONNECTION AT THE BUILDING.
2. REFER TO ARCHITECTURAL, MECHANICAL, PLUMBING, ELECTRICAL, ETC. PLANS FOR ALL PROPOSED UTILITY POINTS OF CONNECTION AT THE BUILDING. NOTIFY ARCHITECT OF ANY DISCREPANCIES.
3. GRAVITY SEWER SYSTEMS SHALL BE CONSTRUCTED FROM DOWNSTREAM TO UPSTREAM. VERIFY ALL PIPE SLOPES, INVERTS, AND POINTS OF CONNECTION PRIOR TO CONSTRUCTION. NOTIFY LBVD OF ANY DISCREPANCIES.
4. THE CONTRACTOR SHALL VERIFY ALL EXISTING AND PROPOSED GRAVITY SEWER PIPE GRADES AND POINTS OF CONNECTION PRIOR TO INSTALLATION. LBVD SHALL BE NOTIFIED OF ANY DEVIATIONS PRIOR TO CONSTRUCTION.
5. BACKFLOW PREVENTION AND METERING SHALL BE PROVIDED ON THE FIRE, DOMESTIC, AND IRRIGATION SERVICES IN ACCORDANCE WITH THE LOCAL UTILITY COMPANY AND FIRE DEPARTMENT'S REQUIREMENTS.
6. WATER MAINS 4 INCHES IN DIAMETER AND GREATER SHALL BE PVC C900 (CL 20 DR-14) AND WATER MAINS LESS THAN 3 INCHES IN DIAMETER SHALL BE PVC (SCHD 40) UNLESS OTHERWISE INDICATED ON THE PLANS.
7. WATER MAINS AND SERVICES SHALL BE A MINIMUM OF 10 FEET HORIZONTAL AND 2 FEET VERTICAL FROM ALL SANITARY SEWER MAINS AND LATERALS.
8. WATER MAINS AND SERVICES SHALL BE INSTALLED IN ACCORDANCE WITH THE LOCAL UTILITY COMPANY'S REQUIREMENTS. ALL MAINS AND SERVICES SHALL BE INSTALLED WITH A MINIMUM OF 36" COVER UNLESS OTHERWISE INDICATED ON PLANS.
9. ALL SANITARY SEWER MAINS AND LATERALS SHALL BE DUCTILE IRON (CL 350) UNLESS OTHERWISE REQUIRED BY THE LOCAL UTILITY COMPANY.
10. ALL UNDERGROUND [ELECTRICAL, TELEPHONE, AND CABLE TV] SHALL BE INSTALLED IN PVC CONDUIT OR CONCRETE ENCASED DUCT BANK WITH PULL WIRE MEETING THE LOCAL UTILITY COMPANY'S REQUIREMENTS. INFORMATION SHOWN ON CIVIL DRAWINGS FOR REFERENCE ONLY. REFER TO ELECTRICAL PLANS FOR SPECIFIC INFORMATION.
11. GAS SERVICE SHALL BE PER THE LOCAL UTILITY COMPANY'S REQUIREMENTS. INFORMATION SHOWN ON CIVIL DRAWINGS FOR REFERENCE ONLY. COORDINATE WITH MECHANICAL ENGINEER AND UTILITY COMPANY.
12. UTILITY TRENCHES SHALL BE BACKFILLED WITH COMPACTED FILL PLACED IN 6 INCH LOOSE LIFTS. FILL SHALL BE COMPACTED TO 98% STANDARD PROCTOR AND OPTIMUM MOISTURE CONTENT WITHIN ±2.0%.
13. WHEN INSTALLING UTILITIES IN EXISTING PAVED AREAS OR IN AREAS WHERE SOILS ARE CONSIDERED UNSUITABLE FOR BEDDING OR BACKFILLING, UTILITY TRENCHES SHALL BE BACKFILLED FULL DEPTH WITH CRUSHED AGGREGATE.
14. WHERE UTILITIES ARE TO BE INSTALLED IN AREAS OF EXISTING PAVING, HARDSCAPE, SIDEWALKS, ETC. CONTRACTOR SHALL SAWCUT AND REMOVE EXISTING PAVING, HARDSCAPE, SIDEWALK ETC. AND REPLACE IN LIKE KIND AND RESTRIPE AS NECESSARY. BACKFILL TRENCH FULL DEPTH WITH STONE.
15. CONTRACTOR IS RESPONSIBLE FOR ADJUSTING ELEVATIONS OF ALL AT-GRADE EXISTING AND PROPOSED STRUCTURES AND UTILITIES TO REMAIN (VALVE BOXES, MANHOLES, INLETS, VAULTS, ETC.) TO MATCH PROPOSED FINISHED GRADES.
16. CONTRACTOR IS RESPONSIBLE FOR PROVIDING TAMPER SWITCHES AND ASSOCIATED CONDUIT, WIRING, ETC ON FIRE SERVICE POST INDICATOR VALVES AND VALVES IN FIT MOUNTED FIRE BACKFLOW PREVENTOR ASSEMBLIES. COORDINATE WITH FIRE PROTECTION AND ELECTRICAL PLANS.
17. PROVIDE 4" PVC SCHEDULE 40 GRAVITY DRAIN LINE FROM ALL BELOW GRADE UTILITY VAULTS TO THE NEAREST STORM DRAINAGE INLET OR DAYLIGHT AT GRADE.



FIRE TRUCK ROUTING PLAN



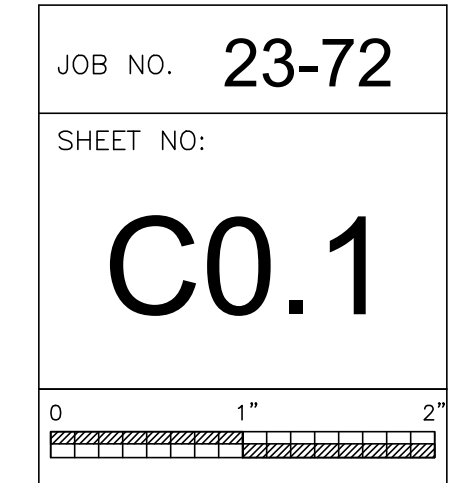
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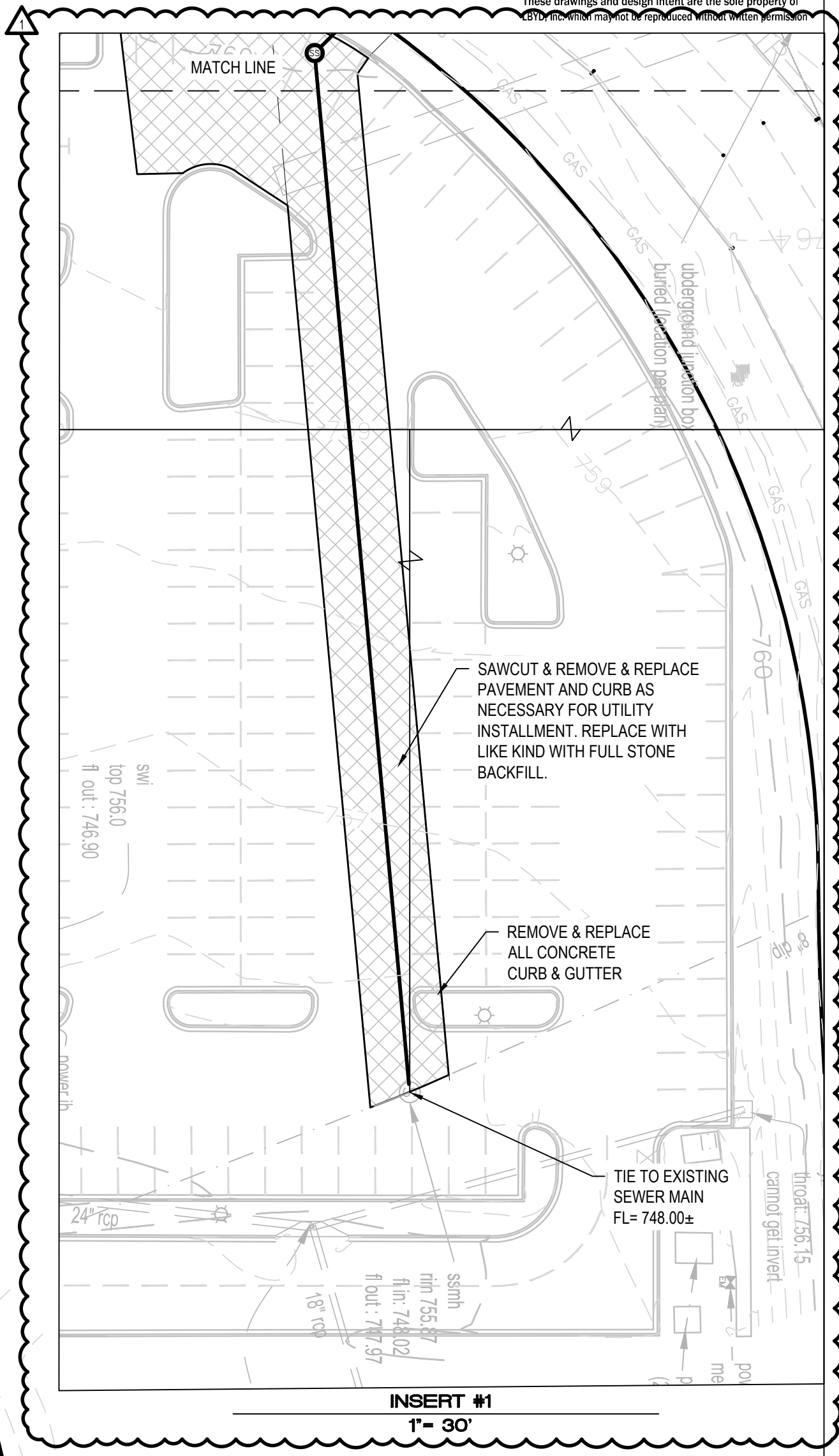
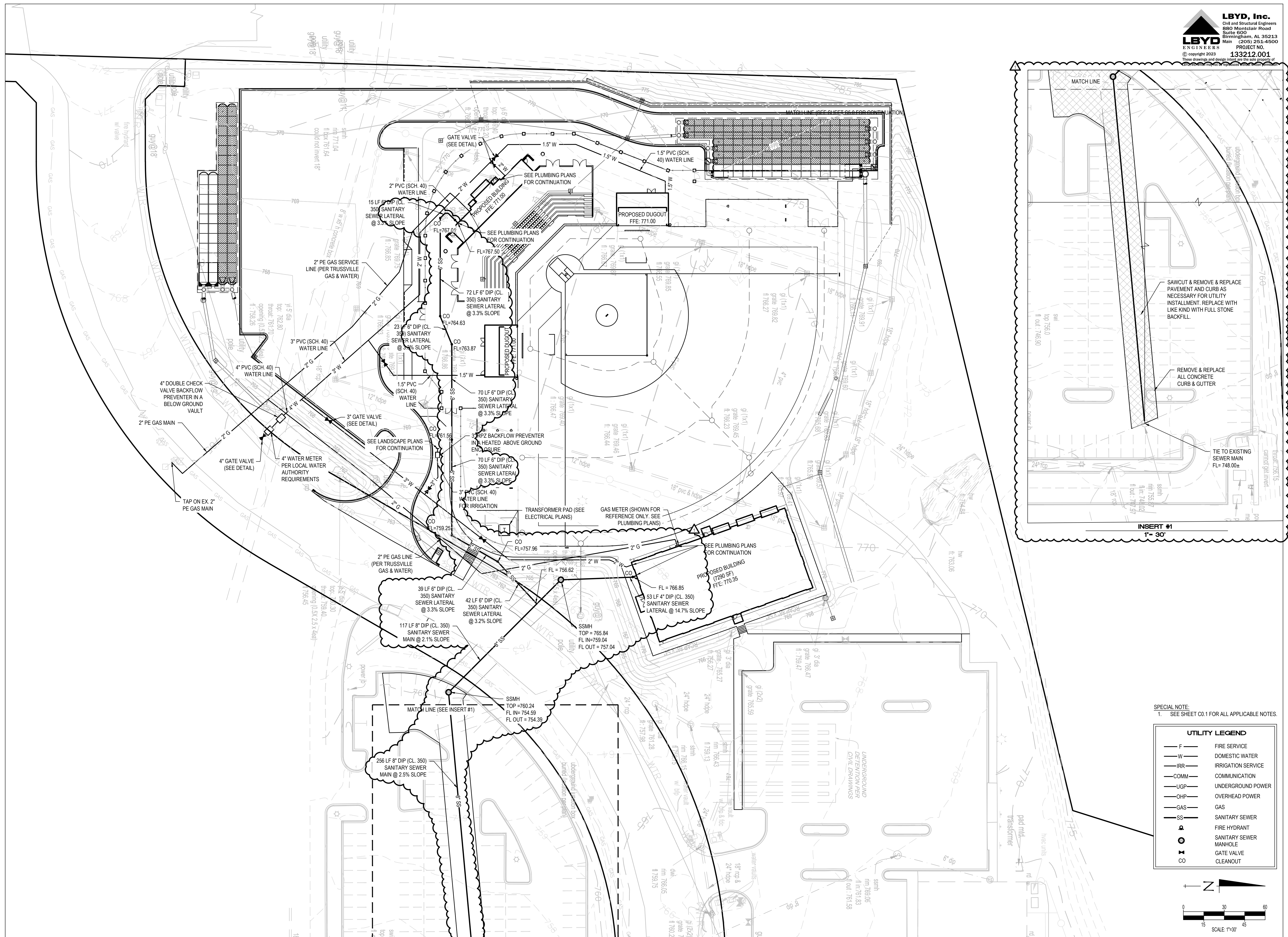


SHEET TITLE:
CIVIL NOTES

PROJ. MGR.: MTH
 DRAWN: IJB
 DATE: MARCH 13, 2024
 REVISIONS
 Δ ADDENDUM 4

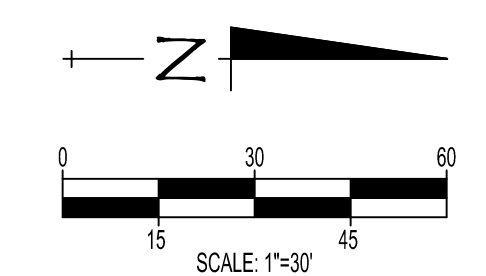
JOB NO. **23-72**
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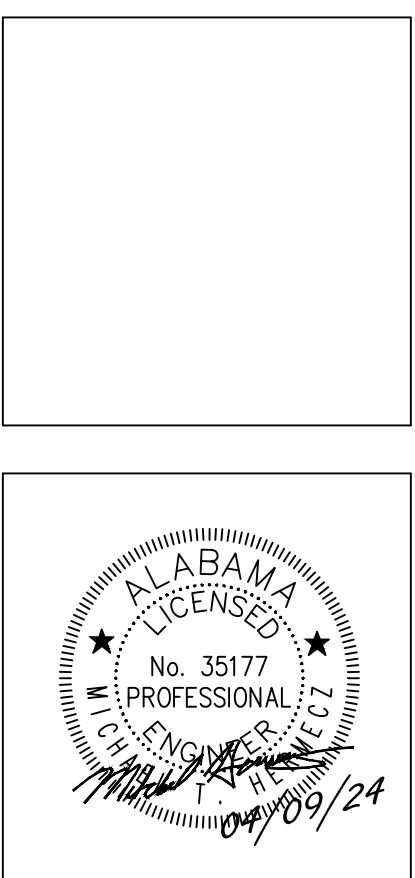


SPECIAL NOTE:
1. SEE SHEET CO.1 FOR ALL APPLICABLE NOTES.

UTILITY LEGEND	
— F —	FIRE SERVICE
— W —	DOMESTIC WATER
— IRR —	IRRIGATION SERVICE
— COMM —	COMMUNICATION
— UGP —	UNDERGROUND POWER
— OHP —	OVERHEAD POWER
— GAS —	GAS
— SS —	SANITARY SEWER
⊙	FIRE HYDRANT
⊙	SANITARY SEWER MANHOLE
⊙	GATE VALVE
CO	CLEANOUT



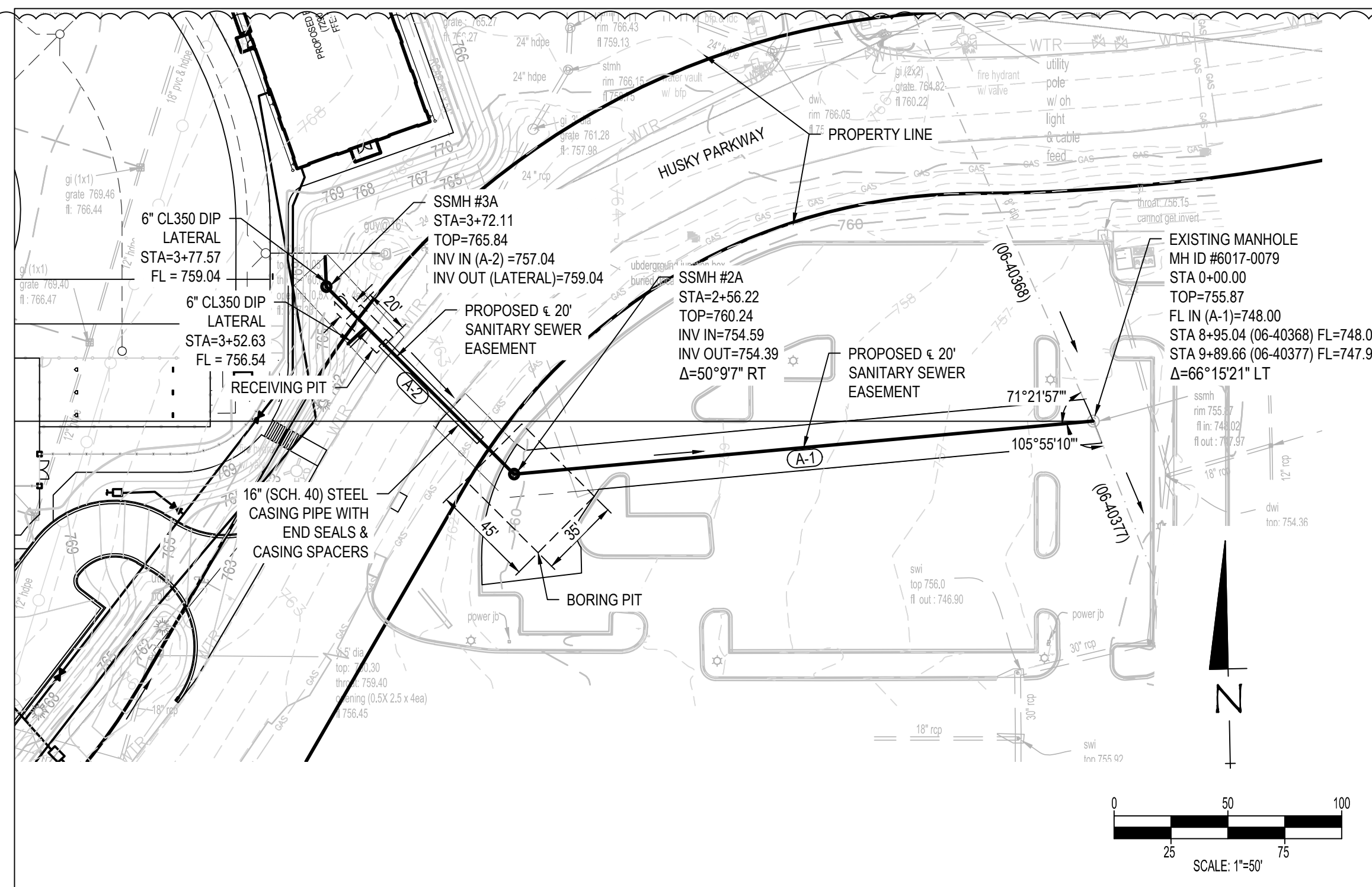
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SHEET TITLE:
SITE UTILITY PLAN

PROJ. MGR.: MTH
DRAWN: JJB
DATE: MARCH 13, 2024
REVISIONS
▲ ADDENDUM 4

JOB NO. 23-72
SHEET NO:
C5.0



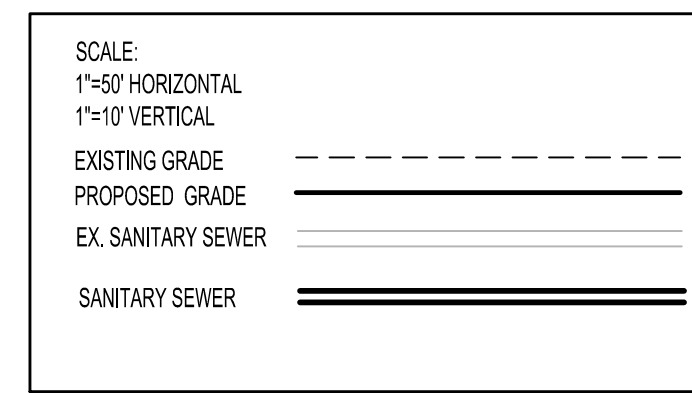
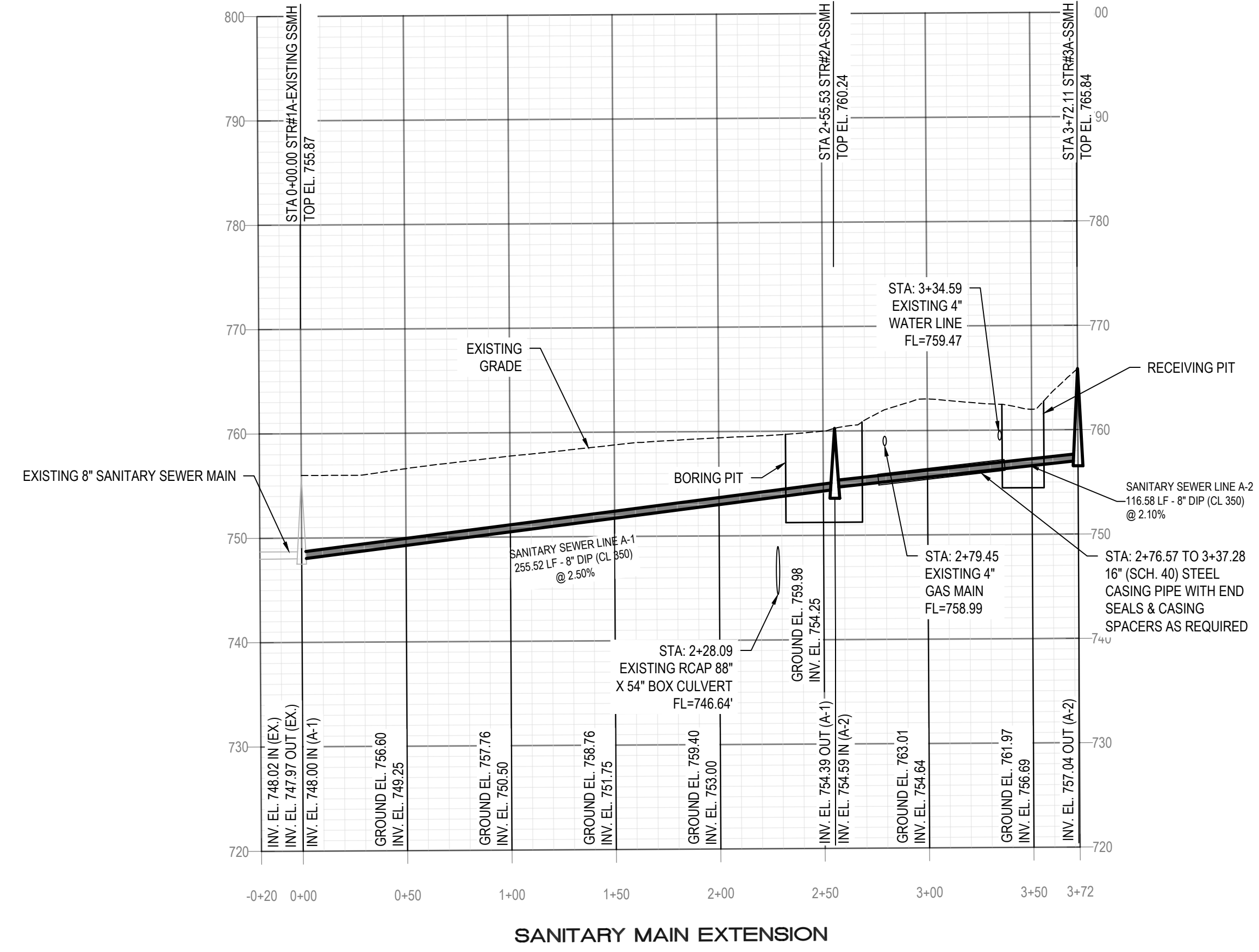
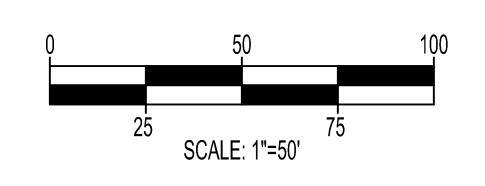
JEFFERSON COUNTY STANDARD NOTES FOR 8 INCH AND LARGER SANITARY SEWERS:

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF JEFFERSON COUNTY, THE LOCAL MUNICIPALITY AND/OR THE STATE HIGHWAY DEPARTMENT, AND APPLICABLE O.S.H.A. REGULATIONS, AS APPLICABLE.
- THE CONTRACTOR SHALL NOTIFY THE JEFFERSON COUNTY ENVIRONMENTAL SERVICES DEPARTMENT AT 205/325-5127 AT LEAST 24 HOURS PRIOR TO BEGINNING CONSTRUCTION. THERE SHALL BE NO CHANGES IN DRAWINGS WITHOUT WRITTEN APPROVAL BY THE JEFFERSON COUNTY ENVIRONMENTAL SERVICES DEPARTMENT.
- DUCTILE IRON PIPE SHALL BE CLASS 350 OR BETTER.
- PVC PIPE SHALL BE AWWA C900, CAST IRON (CI) STANDARD DIMENSIONS. DIMENSION RATIO (DR) 18. PRESSURE CLASS (PC) 150 PSI OR BETTER.
- IN EARTH TRENCHES, 4" OF CRUSHED STONE SHALL BE PLACED UNDER SEWER LINES OF 12" IN DIAMETER OR SMALLER AND 6" OF CRUSHED STONE SHALL BE PLACED UNDER SEWER LINES LARGER THAN 12" IN DIAMETER. IN ROCK TRENCHES, 6" OF CRUSHED STONE SHALL BE PLACED UNDER ALL SEWERS. THE DITCH SHALL BE BACKFILLED WITH CRUSHED STONE TO A DEPTH OF 12" ABOVE THE TOP OF THE PIPE. WHEN CROSSING EXISTING ROADS AND STREETS, THE TOTAL BACKFILL SHALL BE CRUSHED STONE AND PROPERLY CHOKED.
- AT THE DIRECTION OF THE ESD INSPECTOR, A CONNECTION OF SANITARY SEWER PIPES (8" THROUGH 16") OF DISSIMILAR SIZES OR FOR REPAIR OF SANITARY SEWER PIPES OF SIMILAR MATERIALS MAY BE MADE BY MEANS OF AN APPROVED MECHANICAL SEAL TYPE ADJUSTABLE COUPLING. COUPLINGS WITH ANY REQUIRED ADAPTING BUSHINGS SHALL BE MANUFACTURED OF AN APPROVED PREFORMED ELASTOMERIC MATERIAL SPECIFICALLY FOR DIMENSIONS OF THE PIPE MATERIALS TO BE CONNECTED. COUPLINGS OF THE MECHANICAL SEAL TYPE SHALL HAVE NUT AND BOLT TIGHTENING CLAMPS OR DEVICES MADE OF 316 STAINLESS STEEL, WITH AN ADJUSTABLE STAINLESS STEEL SHEAR RING, AND STAINLESS STEEL HARDWARE. A CONCRETE COLLAR AS SHOWN ON APPENDIX STANDARD DRAWING SD2060 IS REQUIRED. THE ADJUSTABLE COUPLING SHALL BE INSTALLED AS RECOMMENDED AND SPECIFIED BY THE MANUFACTURER. EACH COUPLING SHALL BEAR THE MANUFACTURER'S NAME AND REQUIRED MARKINGS.
- MANHOLES SHALL MEET ASTM SPECIFICATIONS C-478. JOINTS BETWEEN THE MANHOLES SECTIONS SHALL BE OFFSET TONGUE AND GROOVE "PUSH ON" TYPE. SUPPLIED WITH TYLOX SUPER SEAL PRE-LUBRICATED GASKET AS MANUFACTURED BY HAMILTON KENT MEETING THE REQUIREMENTS OF ASTM C443. EACH JOINT SHALL ALSO BE SUPPLIED WITH CONSAL CS-231 WATERSTOP SEALANT AS MANUFACTURED BY CONCRETE SEALANTS. IN WIDTHS AS RECOMMENDED BY THE MANUFACTURER. MANHOLES SHALL HAVE A MINIMUM DIAMETER OF 48" AND A MINIMUM THICKNESS OF 5". ALL MANHOLE CONES SHALL BE OF THE CONCENTRIC TYPE. MANHOLES MAY BE FINISHED TO STREET GRADE WITH BRICK AND MORTAR. THIS ADJUSTMENT HEIGHT SHALL NOT EXCEED 6".
- STUBOUTS FOR SANITARY SEWER SERVICE LINES SHALL END ON OR NEAR THE PROPERTY LINE UNLESS OTHERWISE NOTED. ON "DOWNHILL" SIDE LOTS INSTALL LATERALS ON A MINIMUM 1% GRADE. ON "UPHILL" SIDE LOTS, INSTALL SERVICE LINES TO GRADE THAT WILL TERMINATE A MAXIMUM DEPTH OF 10 FEET. THE FIRST JOINT OUT OF A MANHOLE, FOR BUILDING OR HOUSE SERVICE, SHALL BE DUCTILE IRON PIPE CLASS 52 OR BETTER (MINIMUM 8 FEET). ANY BUILDING SERVICE LINE SET OUTSIDE OF EASEMENT OR R.O.W. MUST BE INSTALLED BY A MASTER PLUMBER AND HAVE A SEWER CONNECTION PERMIT FOR EACH LOT.
- IF THE CONTRACTOR IS INSTALLING SERVICE LINES AT THE SAME TIME AS MAIN LINE, THE SERVICE LINE SHALL BE INSTALLED IN ACCORDANCE WITH JEFFERSON COUNTY STANDARDS FOR CONSTRUCTION OF SERVICE LINES AND CONNECTIONS, AND INSPECTED/TESTED BY COUNTY INSPECTOR BEFORE IT IS BACKFILLED.
- ALL SERVICE LINE STUBOUTS INSTALLED IN ROAD ROW OR UNDER ASPHALT SHALL BE PER STANDARD SPECIFICATIONS FOR SANITARY SEWER SERVICE LINES AND CONNECTIONS SECTION 4.
- CONSTRUCTION SIGNS FOR WORK WITHIN AND ADJACENT TO PUBLIC ROADS, HIGHWAYS, AND ALLEYS SHALL BE IN ACCORDANCE WITH ALDOT STANDARDS.
- CONTRACTOR WILL BE RESPONSIBLE FOR THE CONTINUOUS AND PROPER OPERATION OF ALL EXISTING UTILITIES LOCATED ON OR ADJACENT TO THE PROJECT SITE AND WITHIN THE CONSTRUCTION LIMITS OF THIS PROJECT.
- ALL EMBANKMENT FILL AREAS SHALL BE FILLED AND COMPACTED PRIOR TO EXCAVATION OF SEWER LINE TRENCHES.
- CONTRACTOR WILL BE RESPONSIBLE FOR THE CONSTRUCTION AND MAINTENANCE OF EROSION AND SEDIMENTATION CONTROLS AND FOR ACQUISITION OF ALL PERMITS DURING CONSTRUCTION TO INSURE THAT DAMAGE DOES NOT OCCUR TO ADJACENT PROPERTIES, PUBLIC ROADS AND/OR DITCHES (CREEKS, STREAMS).
- UPON COMPLETION OF ALL OR ANY PART OF A SANITARY SEWER LINE, THE CONTRACTOR WILL BE REQUIRED TO TEST SAID SEWER FOR ACCEPTABILITY. GRAVITY SEWERS WILL BE PRESSURE TESTED WITH AIR. FORCE MAIN SEWERS WILL BE PRESSURE TESTED WITH WATER. MANHOLES WILL BE VACUUM TESTED. ALL TESTS WILL BE CONDUCTED IN THE PRESENCE OF THE COUNTY SEWER CONSTRUCTION INSPECTOR IN ACCORDANCE WITH SECTION 5.00 STANDARDS FOR COMMERCIAL AND RESIDENTIAL CONSTRUCTION OF SANITARY SEWER SYSTEMS. GRAVITY SANITARY SEWERS WILL BE TELEVISION INSPECTED FOLLOWING AIR TESTING WITH THE FINAL VIDEO TAPE AND LOG FURNISHED TO THE COUNTY FOR RECORD INFORMATION.

LBVD, Inc.
Civil and Structural Engineers
880 Montclair Road
Suite 600
Birmingham, AL 35213
Main (205) 251-4500
PROJECT NO. 133212.001
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LATHAN ARCHITECTS
LATHAN • BRYANT • CALMA

NEW SOFTBALL COMPLEX FOR
TRUSSVILLE CITY SCHOOLS
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TRUSSVILLE CITY BOARD OF EDUCATION



- NOTES:**
- ANY SECTION OF SEWER MAIN WITH LESS THAN 3' OF COVER WILL REQUIRE CONCRETE ENCASEMENT.

PROJECT CONTACTS

OWNER:
TRUSSVILLE CITY SCHOOLS
476 MAIN STREET
TRUSSVILLE, AL 35173
PHONE: (205) 226-3900
CONTACT: PATRICK MARTIN

ENGINEER:
LBVD, INC.
880 MONTCLAIR RD, SUITE 600
BIRMINGHAM, AL 35213
PHONE: (205) 251-4500
CONTACT: MICHAEL HERMECZ, PE

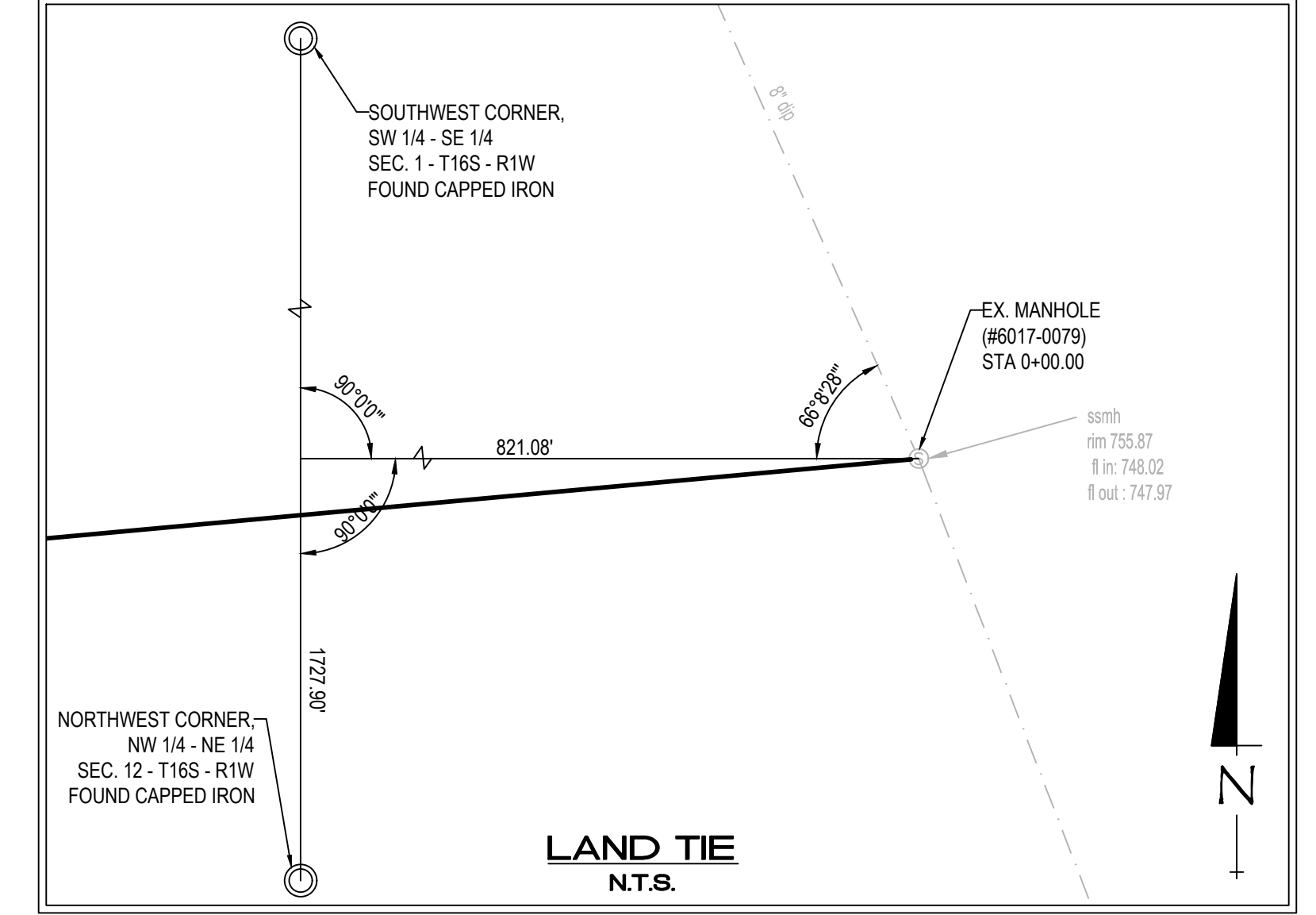
SURVEYOR:
ARRINGTON ENGINEERING & LAND SURVEYING INC.
2032 VALLEYDALE RD
BIRMINGHAM, AL 35244
PHONE: (205) 985-9315
CONTACT: DAVE ARRINGTON

SURVEY CONTROL

THE BASIS OF BEARINGS AND OR COORDINATES SHOWN ON THIS SURVEY ARE BASED ON ALABAMA STATE PLANE WEST ZONE, GRID NORTH, NAD 83 (2011) AND VERTICAL DATUM IS NAVD 88 (GEOID 12B) ELEVATION AND POSITION WAS OBTAINED FROM R.T.K OBSERVATION USING THE ALDOT CORS NETWORK AS CONTROL.

PARCEL ID: 12 00 12 1 000 001.001
SITE ADDRESS: 6344 HUSKY PARKWAY, TRUSSVILLE, AL 35173

SECTION INFORMATION
1/2 SEC. 12, TOWNSHIP 16 SOUTH,
RANGE 1 WEST, JEFFERSON COUNTY, ALABAMA



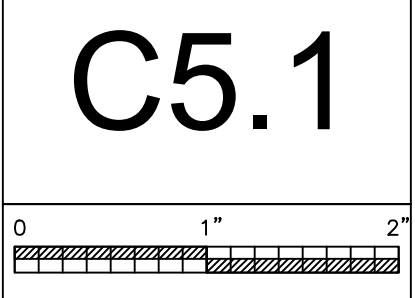
SHEET TITLE:
JCES PLAN & PROFILE

PROJ. MGR.: MTH
DRAWN: IJB
DATE: MARCH 13, 2024

REVISIONS

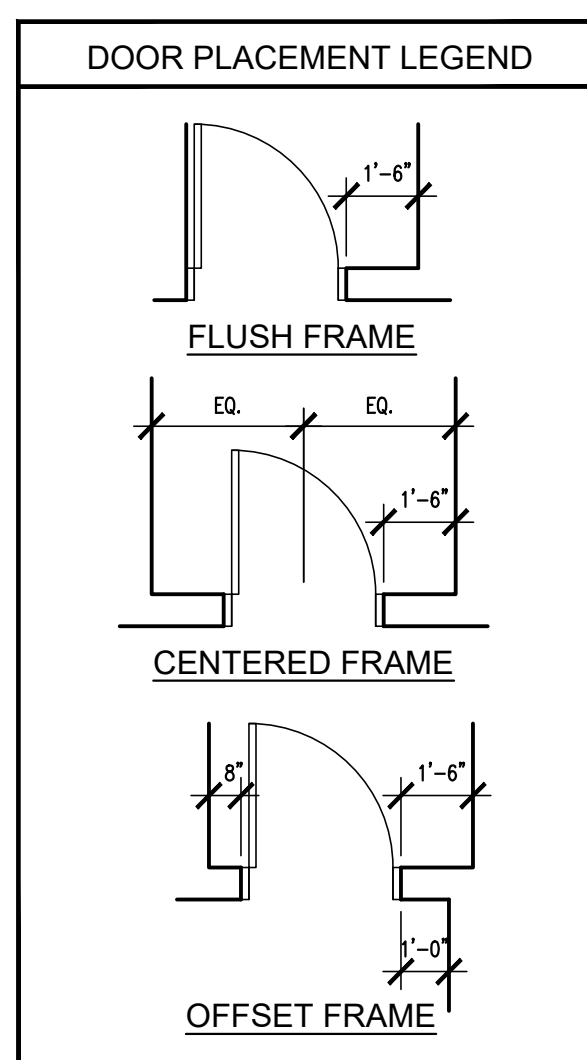
NO.	DESCRIPTION

JOB NO. 23-72
SHEET NO. C5.1

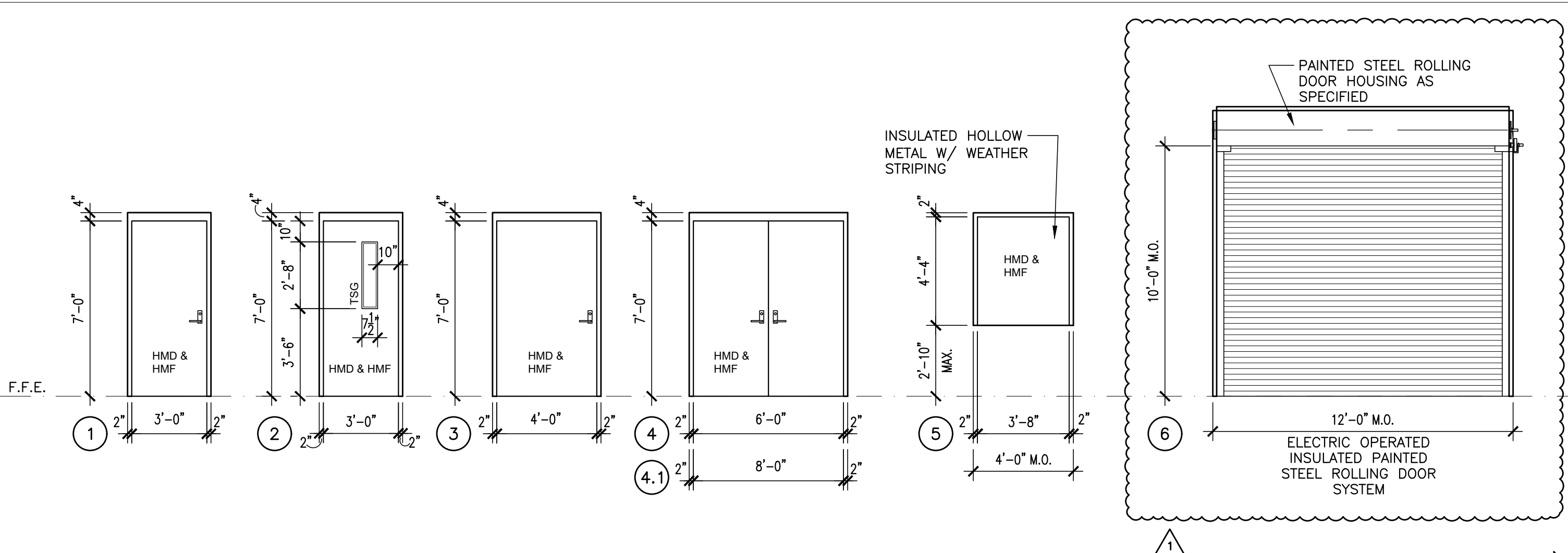


SHEET 1 OF 1

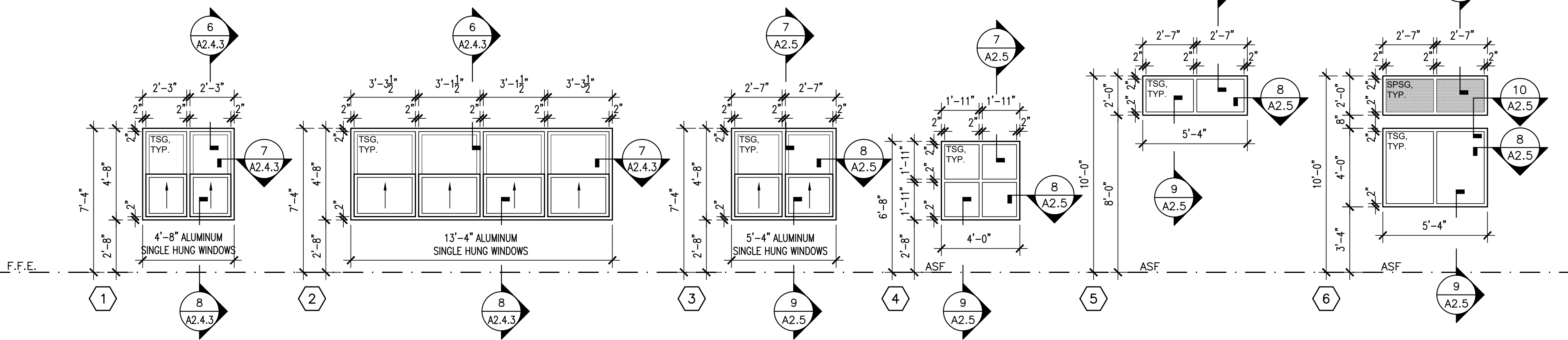
DOOR AND WINDOW LEGEND	
CSG	1/4" THICK CLEAR TEMPERED SAFETY GLASS.
TSG	1" TINTED INSULATED LOW-E TEMPERED SAFETY GLASS AS SPECIFIED.
SPSG	1" SPANDREL INSULATED TEMPERED SAFETY GLASS AS SPECIFIED.
HMD	HOLLOW METAL DOOR
HMF	HOLLOW METAL FRAME
ASF	PREFINISHED ALUMINUM STOREFRONT FRAME SYSTEM AS SPECIFIED.
AC	ACCESS CONTROL SYSTEM AS SPECIFIED SEE ALSO ELEC.



DOOR RATING LEGEND	
DOOR TYPE (2)	NO RATING

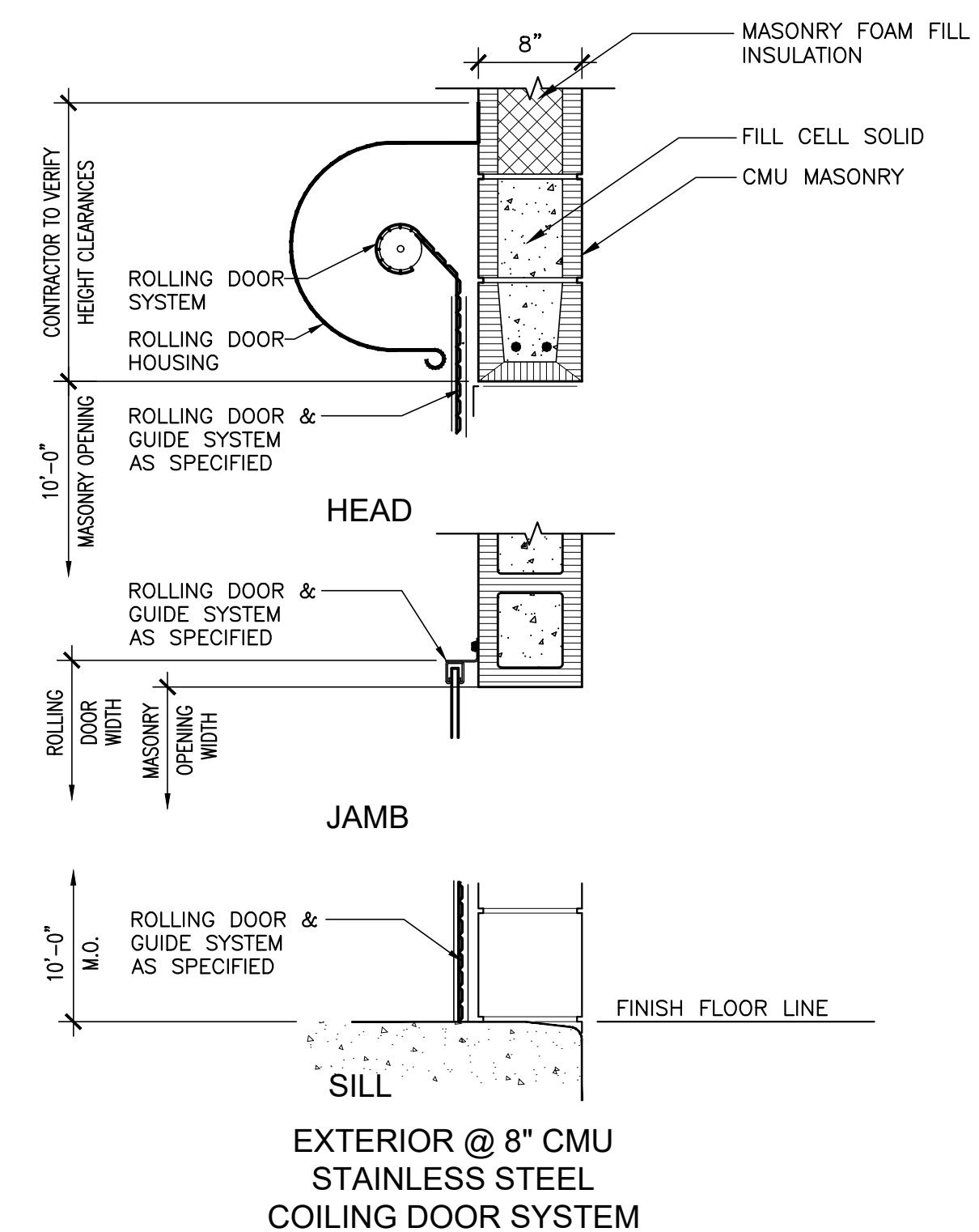


1 DOOR AND FRAME SCHEDULE
SCALE: 1/4" = 1'-0"

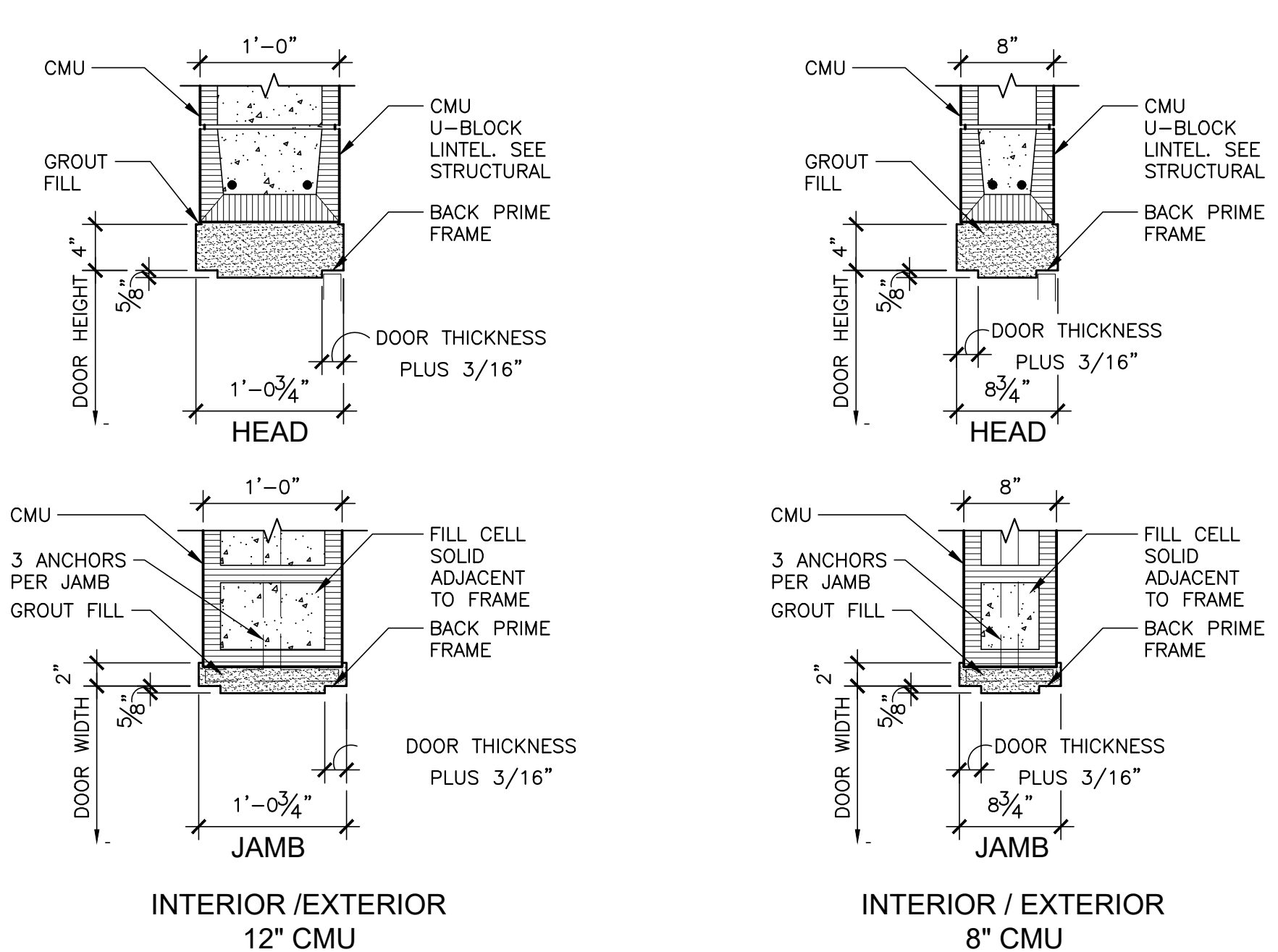


2 STOREFRONT SCHEDULE
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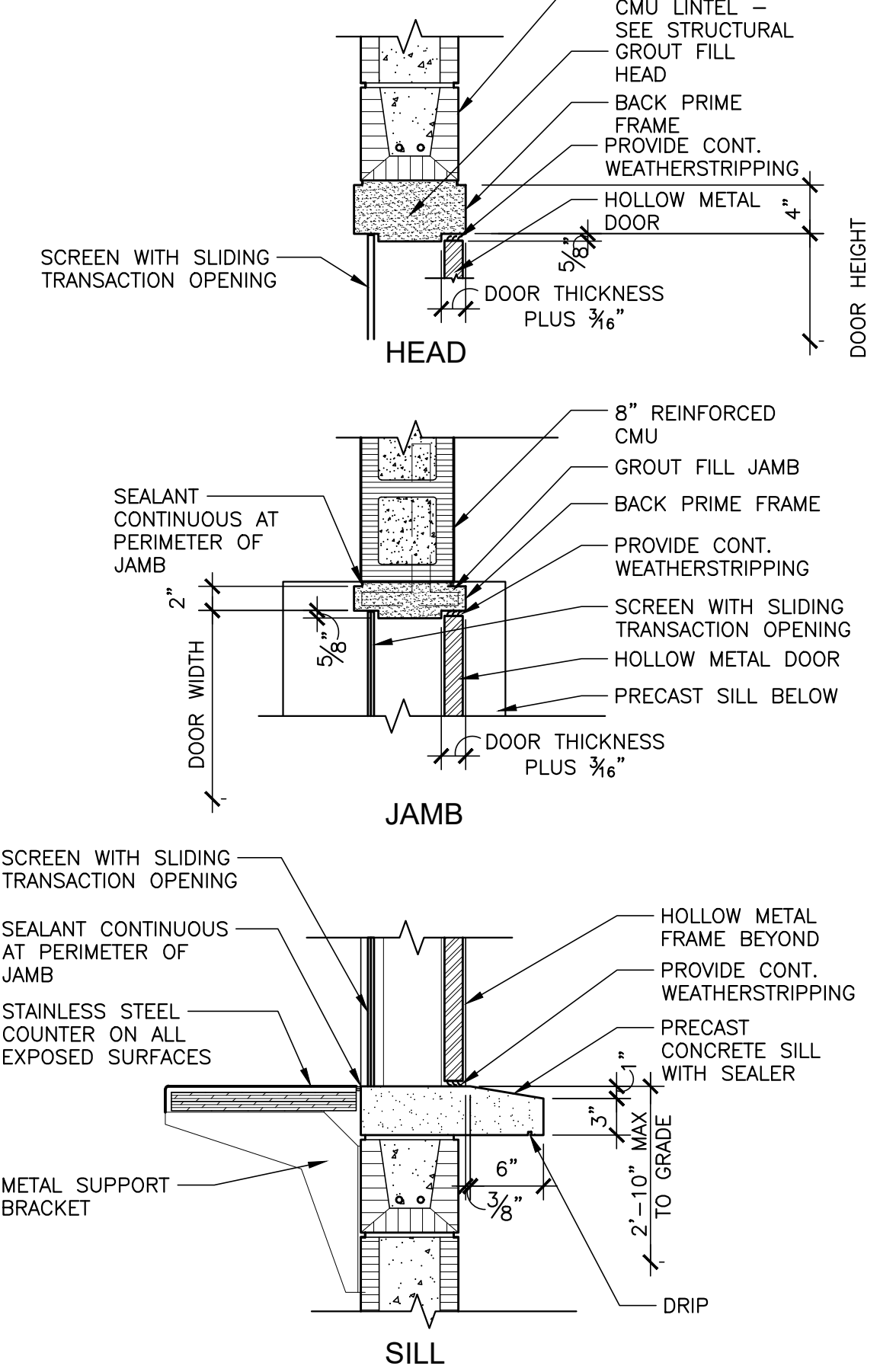
3 INTERIOR HOLLOW METAL VIEW WINDOW SCHEDULE
SCALE: 1/4" = 1'-0"



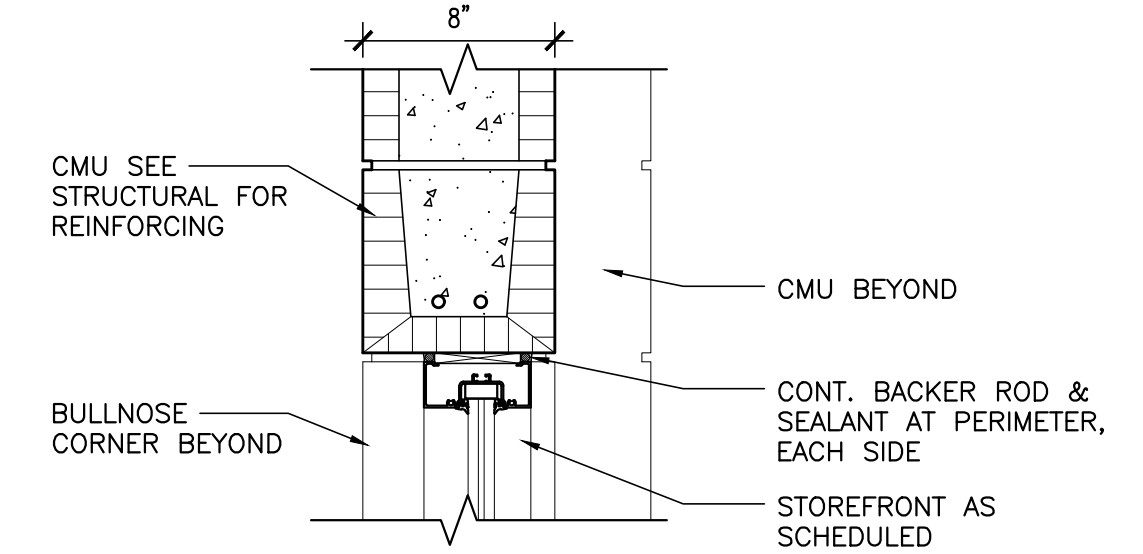
4 EXTERIOR OVERHEAD ROLLING DOOR DETAIL
SCALE: 1" = 1'-0"



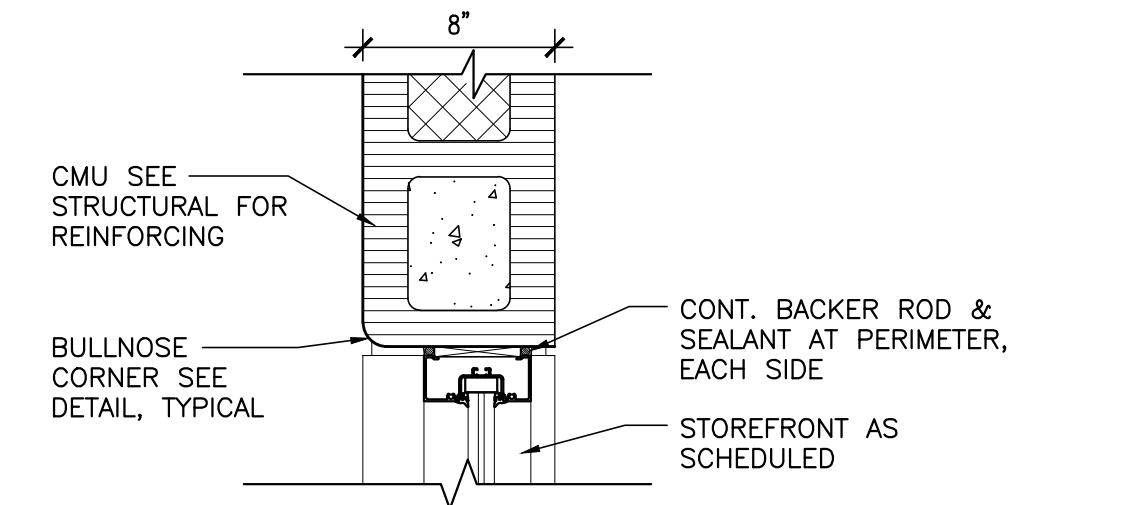
5 HOLLOW METAL FRAME DETAILS
SCALE: 1" = 1'-0"



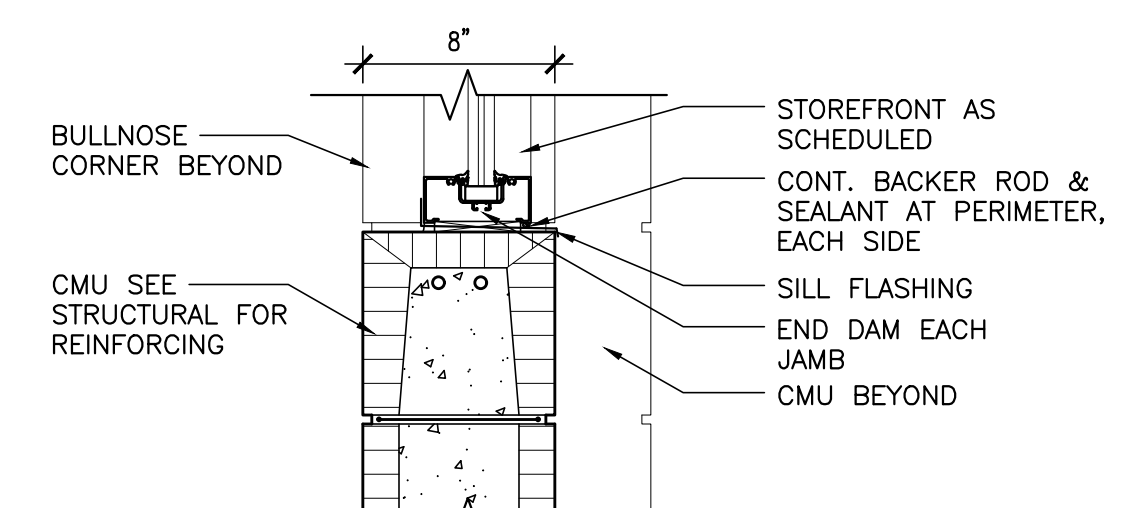
6 CONCESSION DOOR DETAILS
SCALE: 1" = 1'-0"



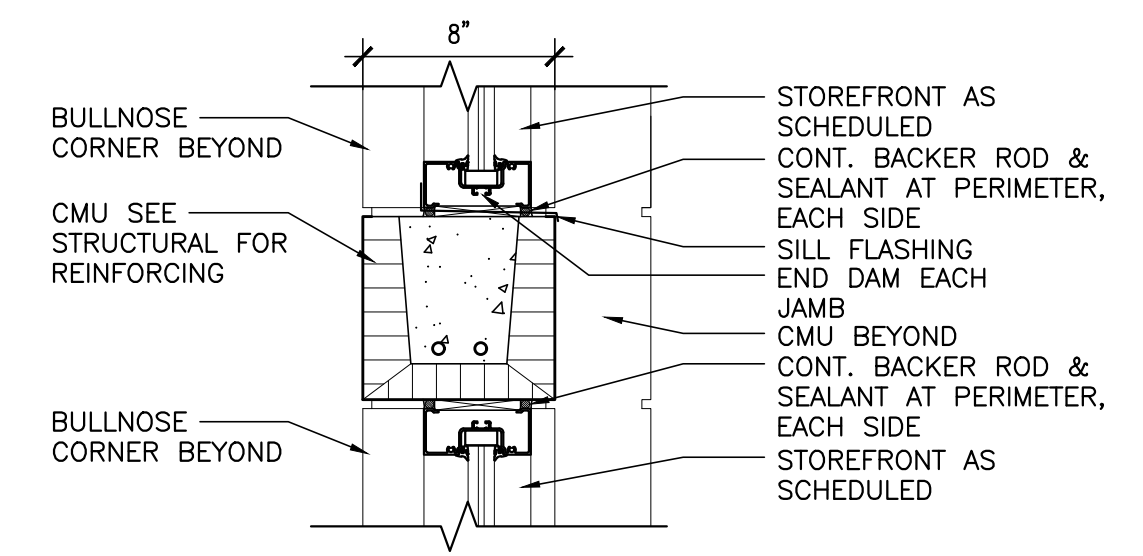
7 DETAIL @ HEAD
SCALE: 1 1/2" = 1'-0"



8 DETAIL @ JAMB
SCALE: 1 1/2" = 1'-0"

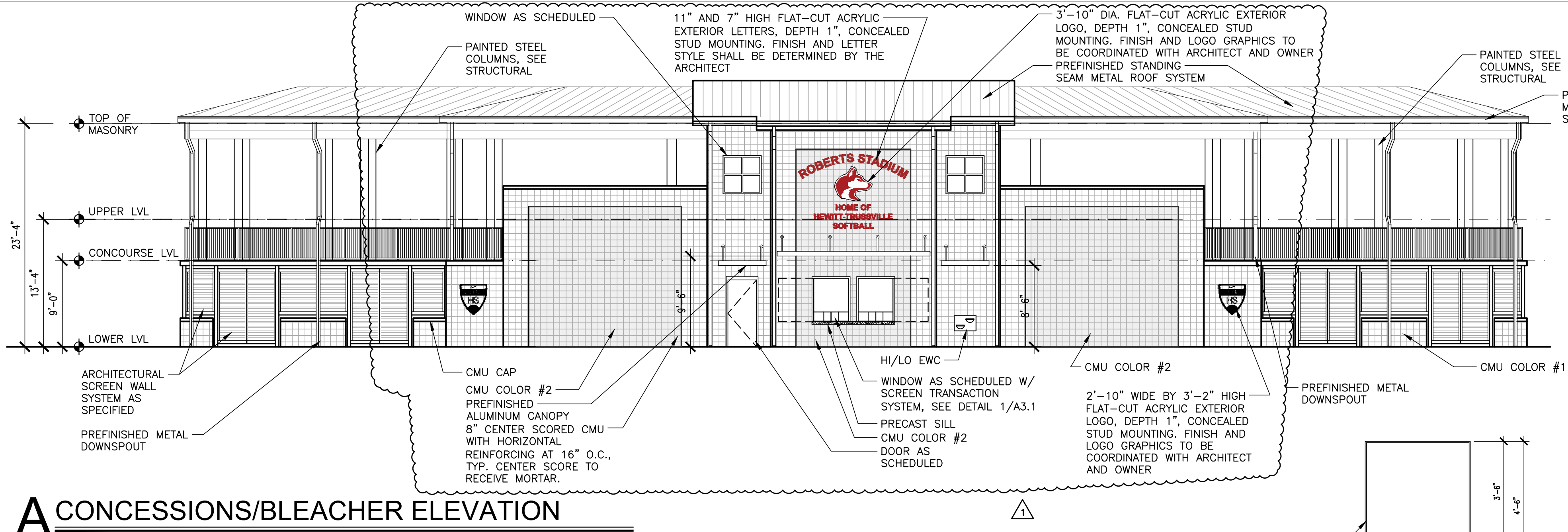


9 DETAIL @ SILL
SCALE: 1 1/2" = 1'-0"

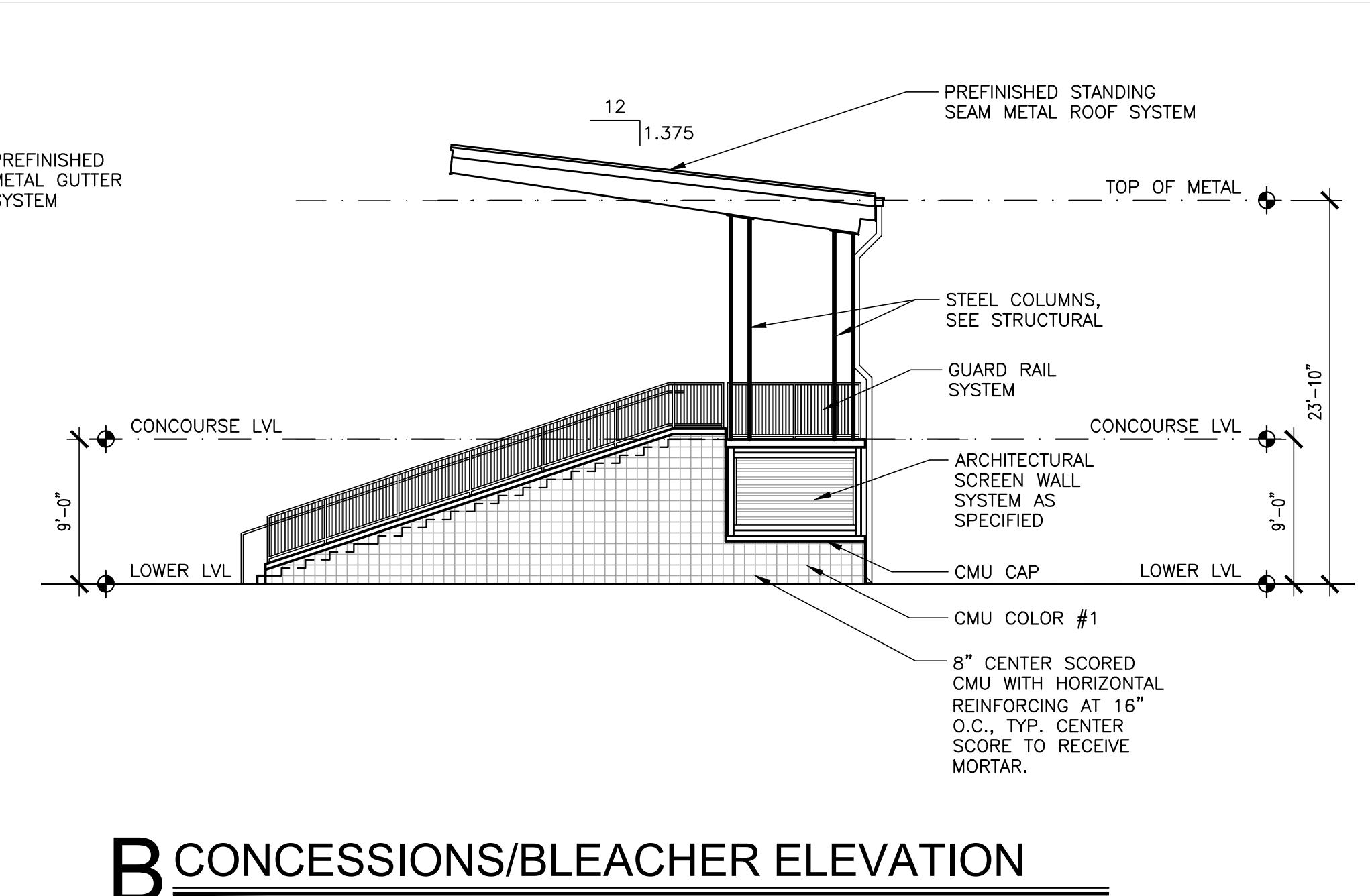


10 DETAIL
SCALE: 1 1/2" = 1'-0"

GENERAL NOTE:
PROTECT PRECAST CONCRETE DURING CONSTRUCTION FROM CHIPPING OR STAINING/DISCOLORATION. GC WILL BE RESPONSIBLE FOR REPLACING PRECAST IF EITHER CONDITION IS FOUND

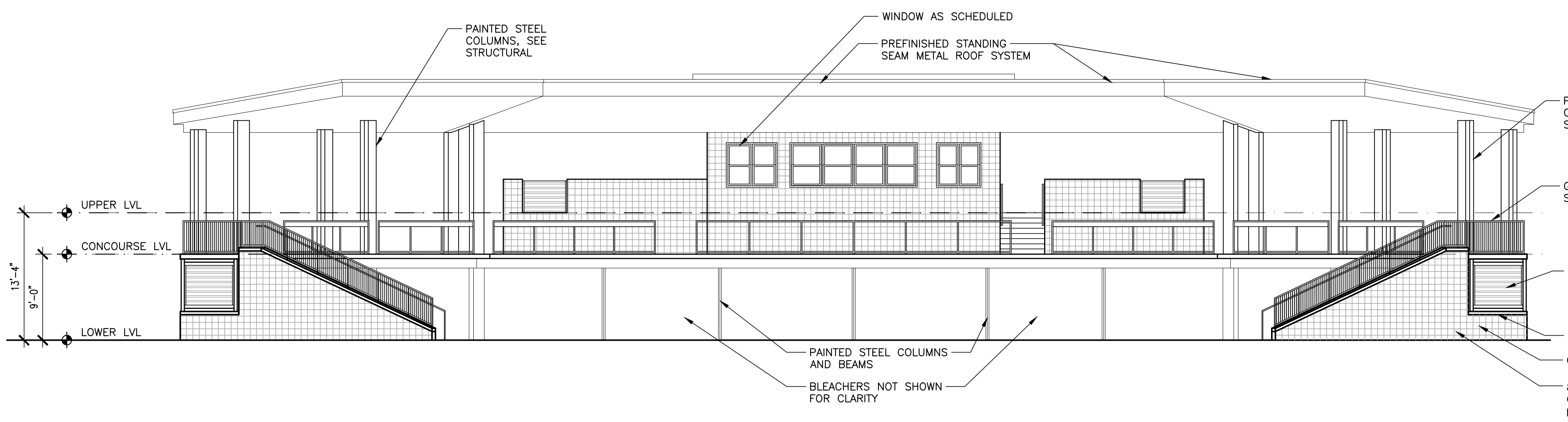


A CONCESSIONS/BLEACHER ELEVATION

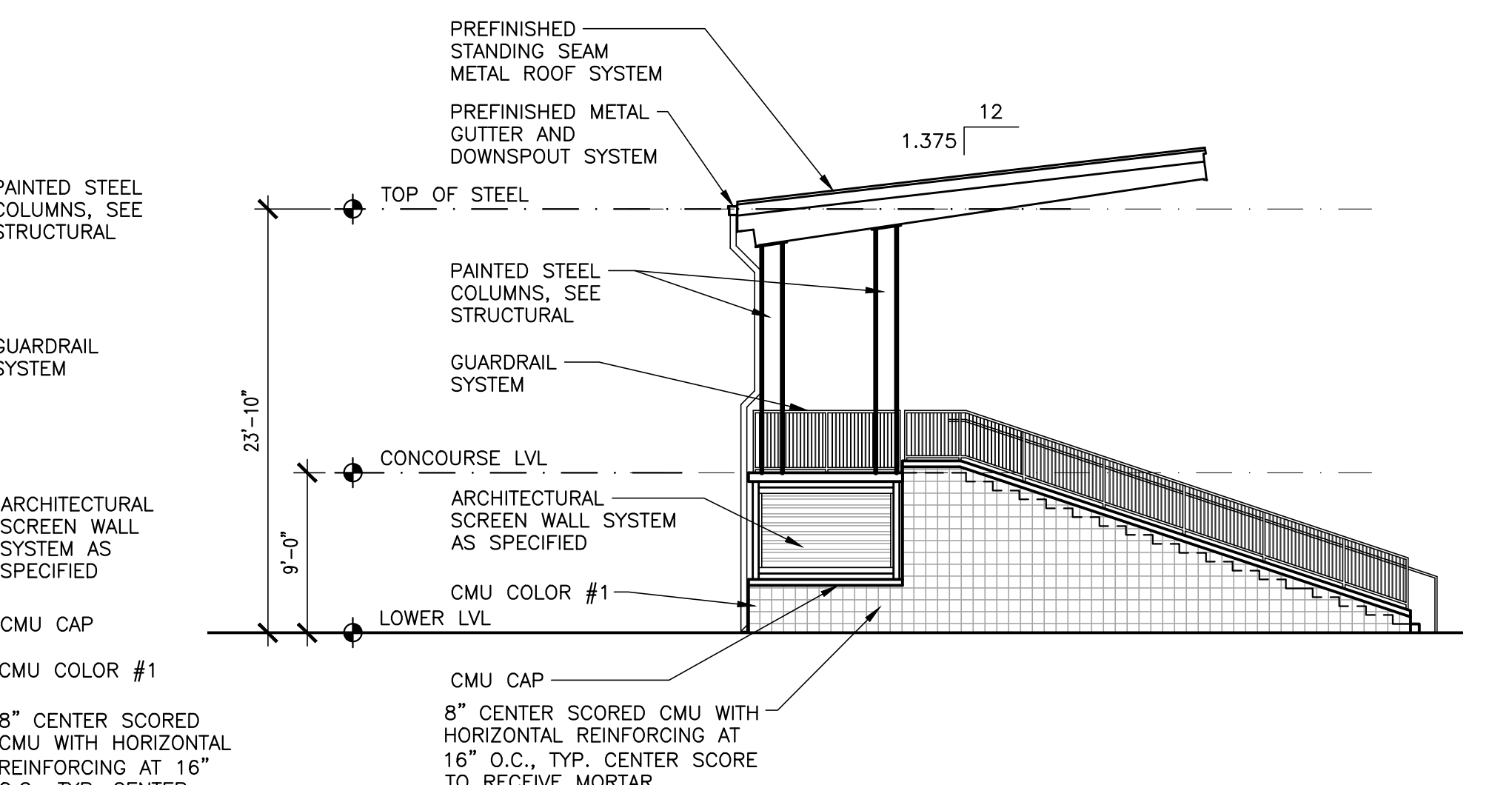


B CONCESSIONS/BLEACHER ELEVATION

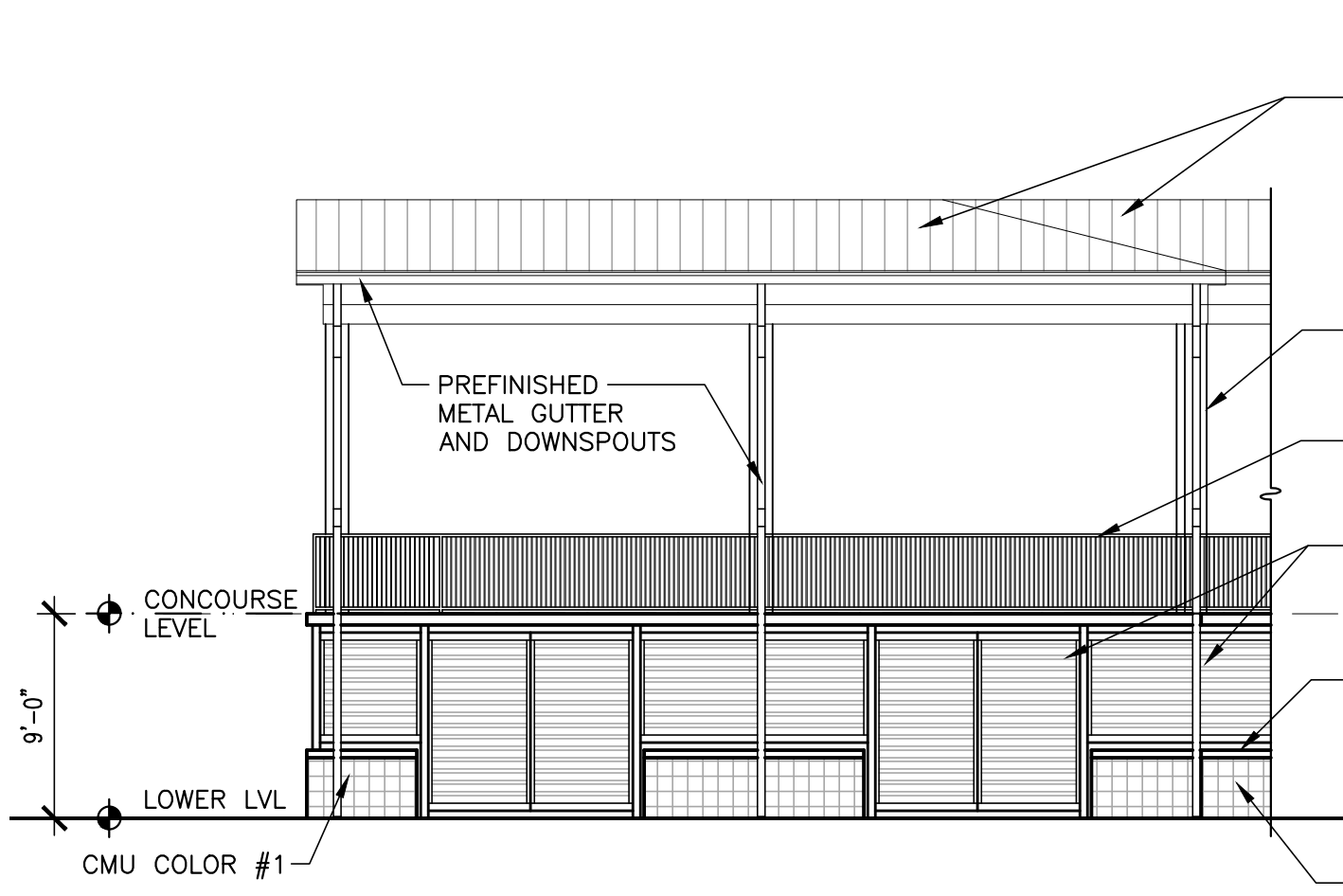
1 SCREEN DETAIL



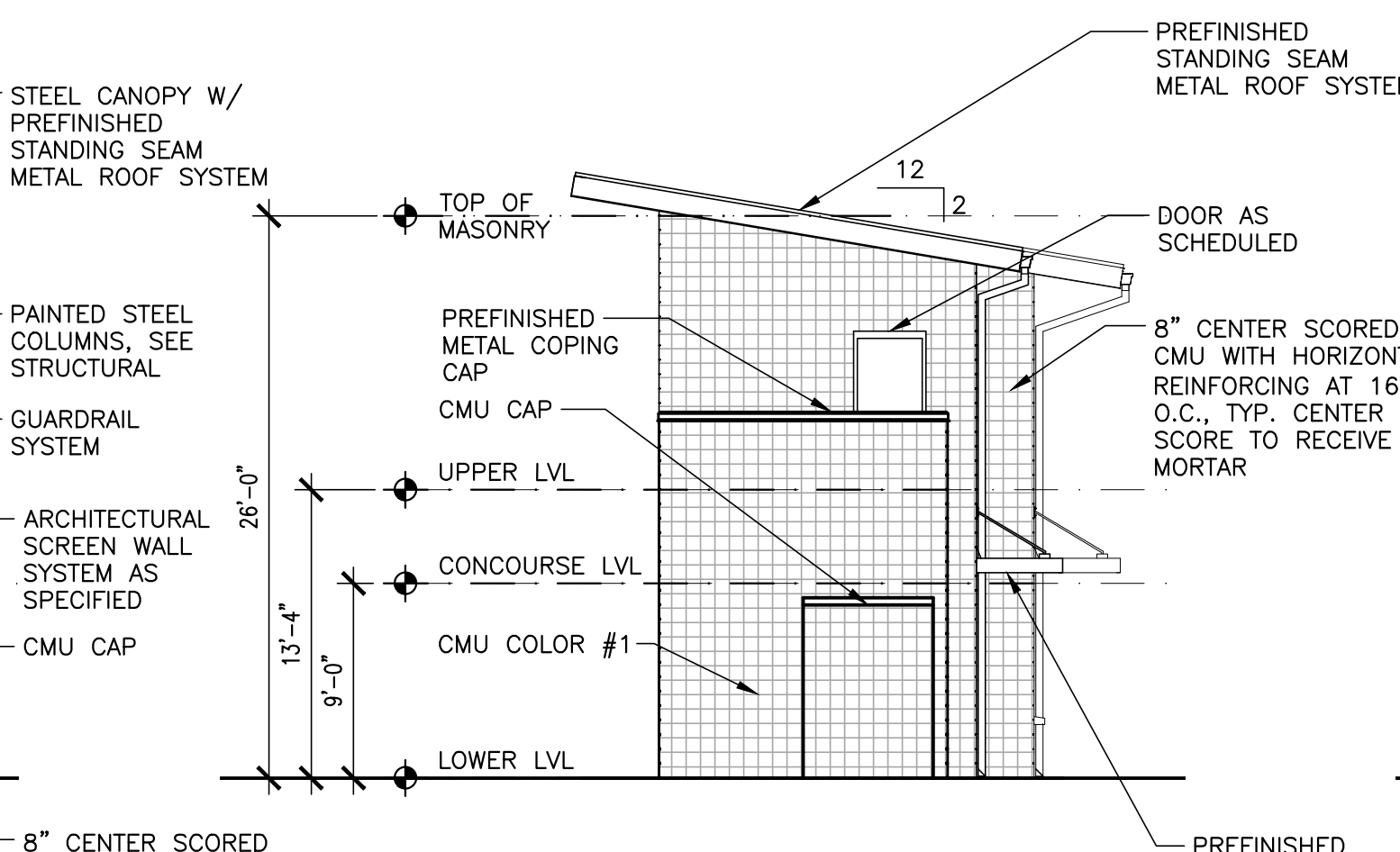
C CONCESSIONS/BLEACHER ELEVATION



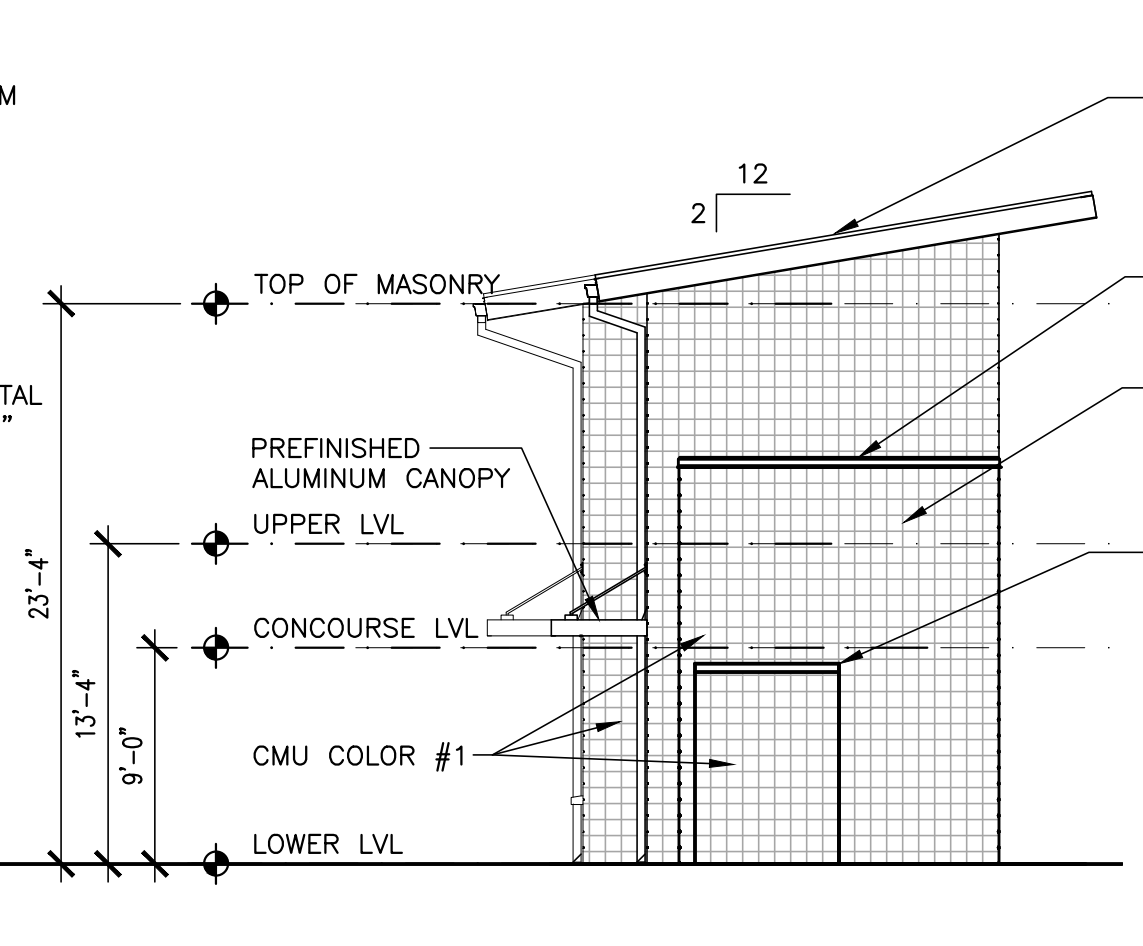
D CONCESSIONS/BLEACHER ELEVATION



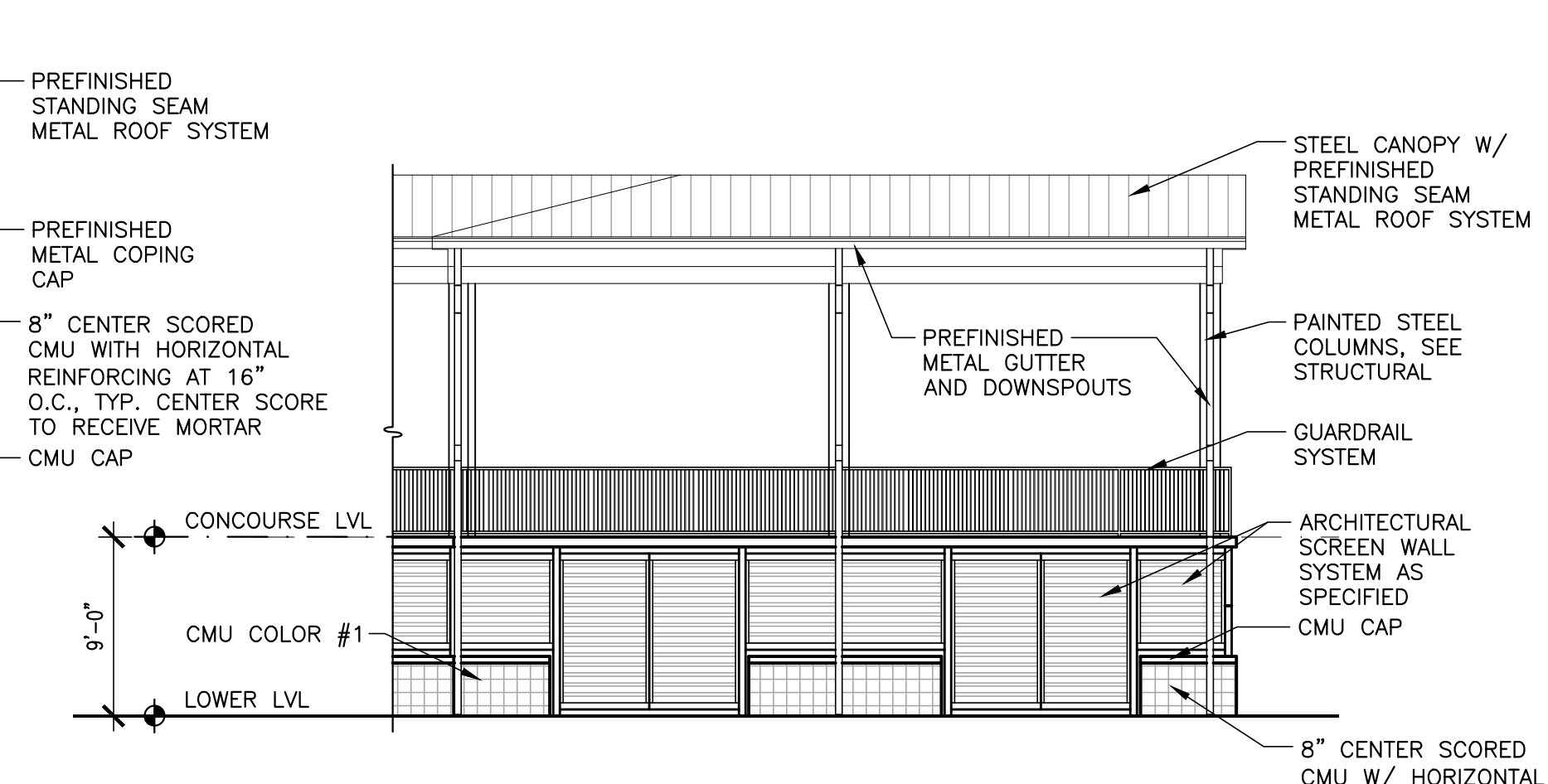
E CONCESSIONS/ BLEACHER ELEVATION



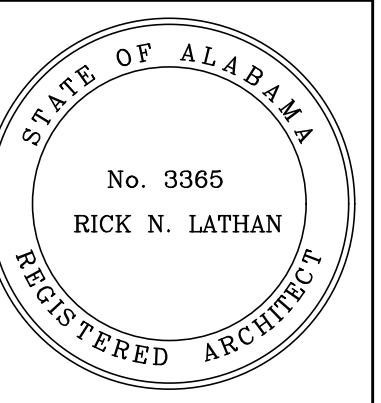
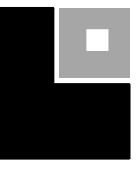
F CONCESSIONS/ BLEACHER ELEVATION



G CONCESSIONS/ BLEACHER ELEVATION



H CONCESSIONS/ BLEACHER ELEVATION



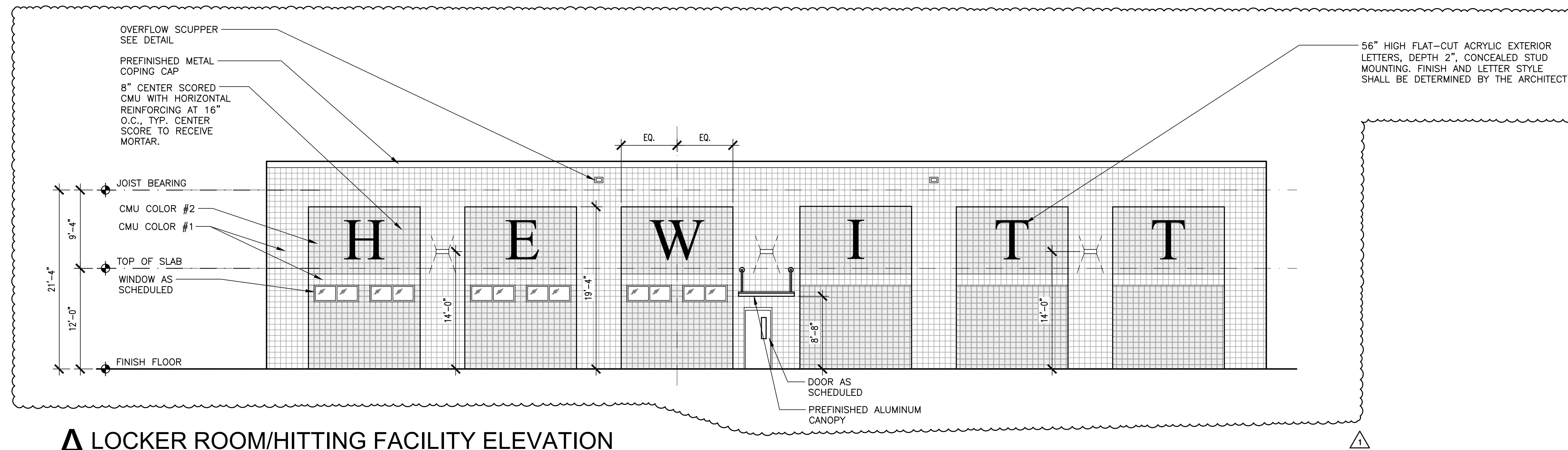
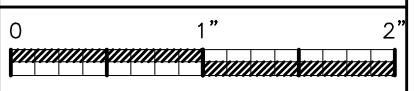
SHEET TITLE:
LOCKER ROOM / HITTING FACILITY ELEVATIONS

PROJ. MGR.: R.VERNON
DRAWN: TSS
DATE: MARCH 13, 2024
REVISIONS
ADDENDUM NO.5 / 4-11-2024

JOB NO. 23-72
SHEET NO:

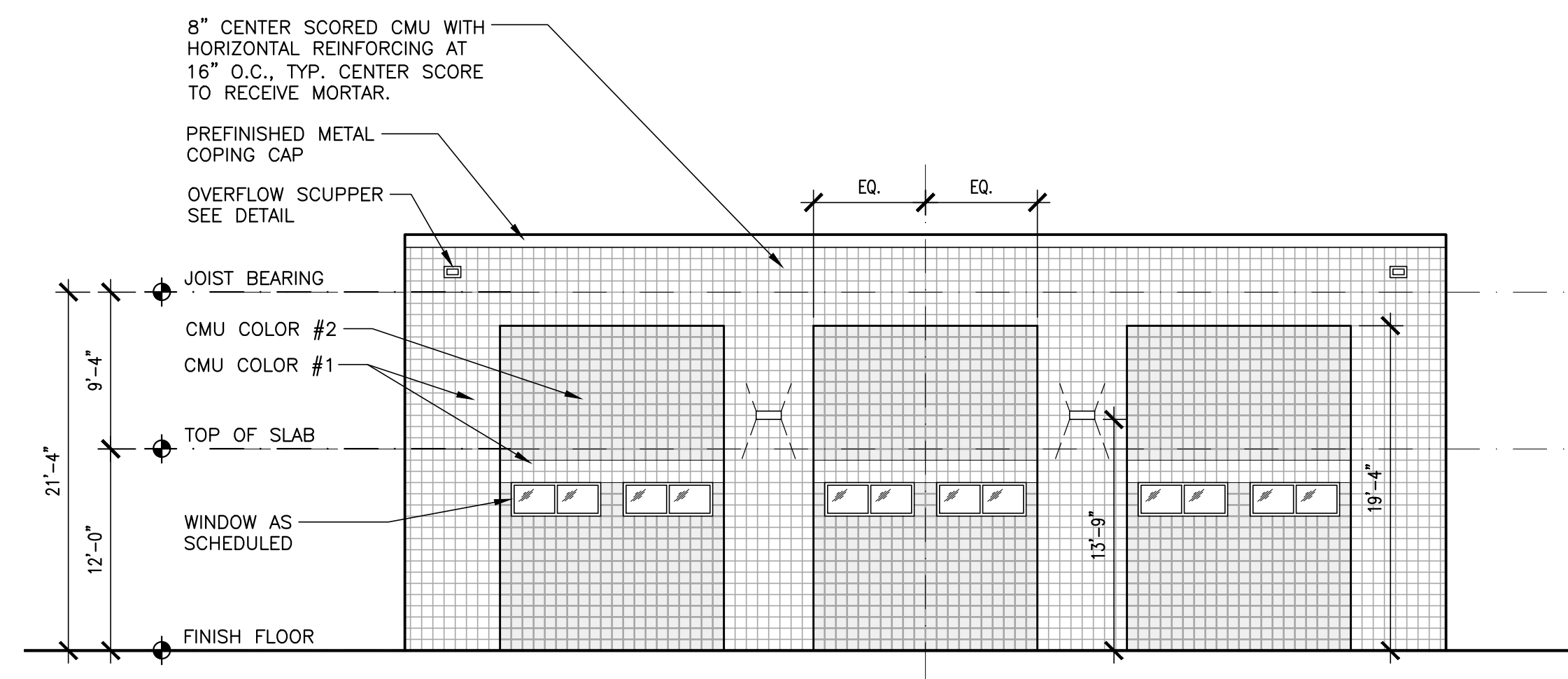
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12 OF 33



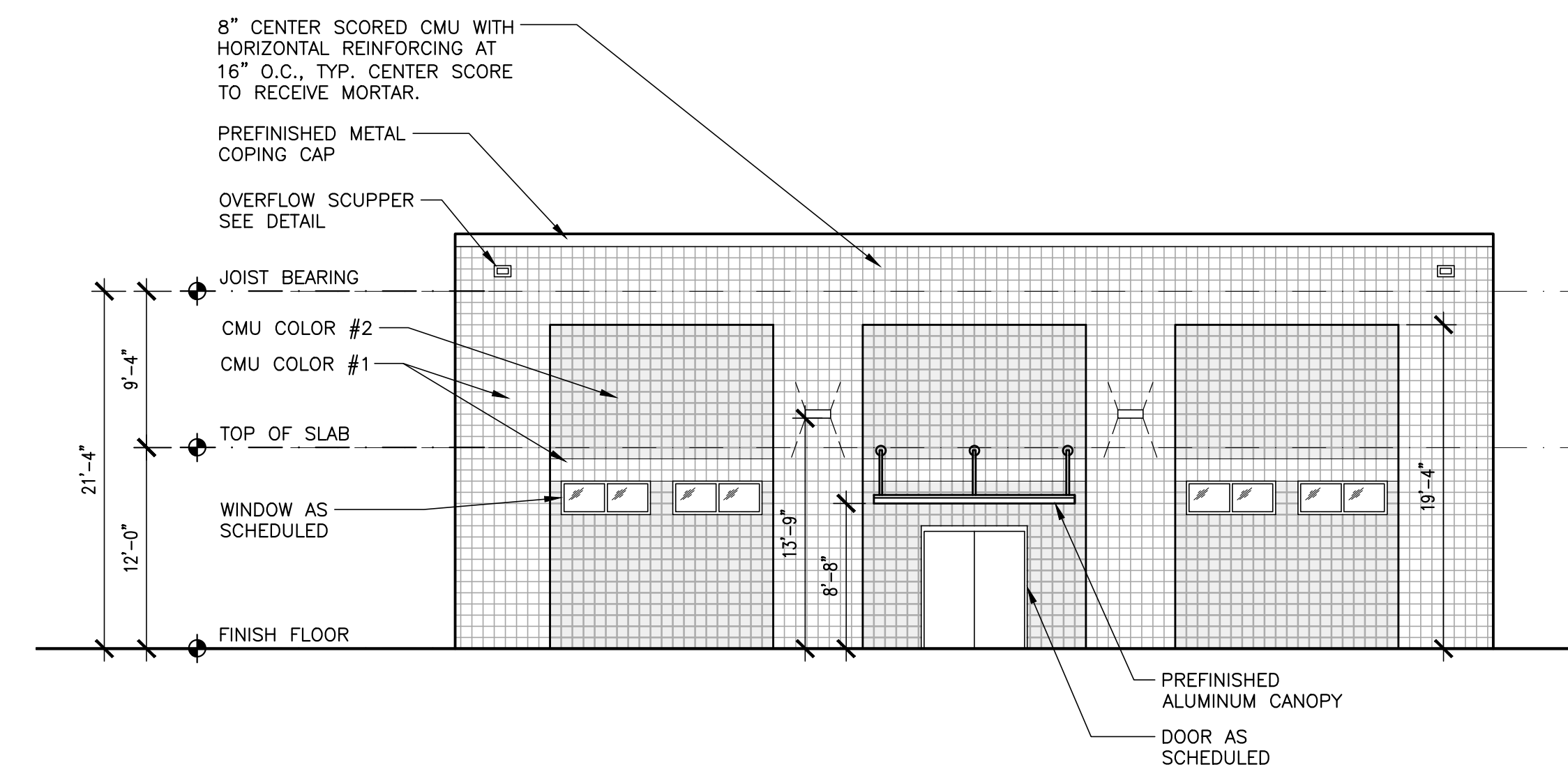
A LOCKER ROOM/HITTING FACILITY ELEVATION

1/8" = 1'-0"



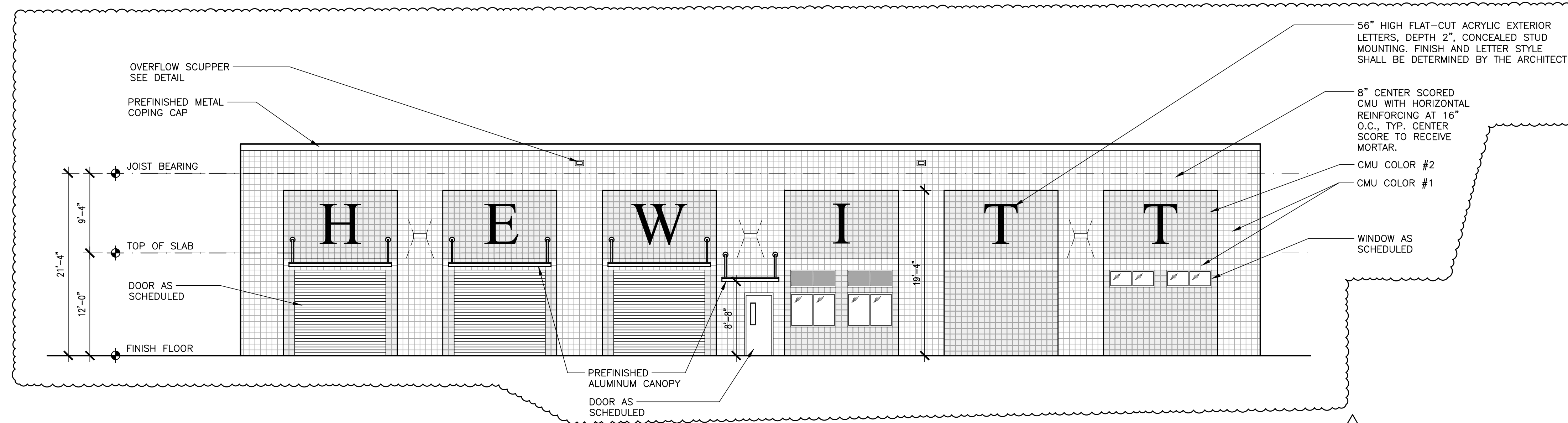
B LOCKER ROOM/HITTING FACILITY ELEVATION

1/8" = 1'-0"



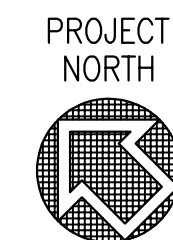
C LOCKER ROOM/HITTING FACILITY ELEVATION

1/8" = 1'-0"

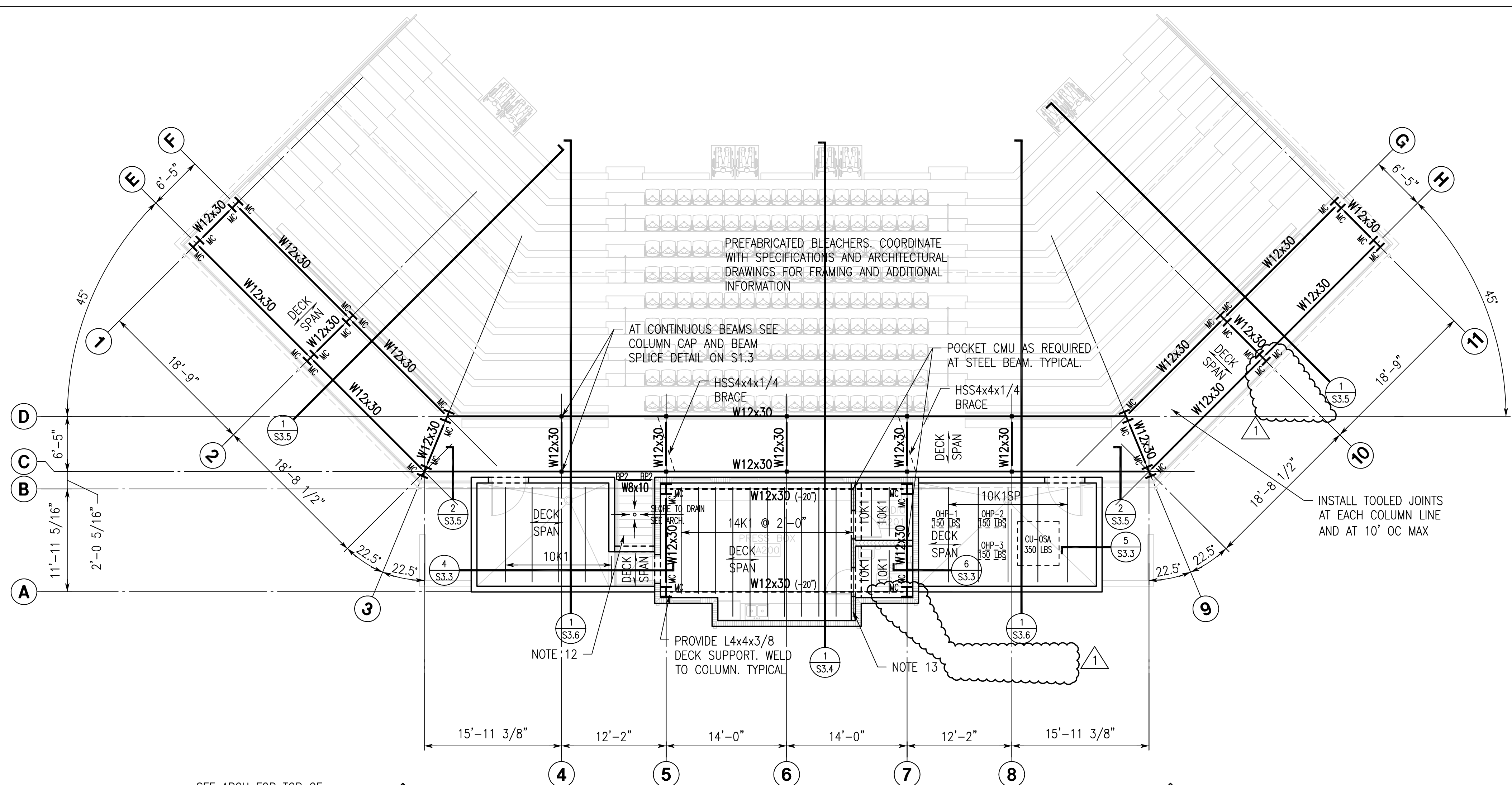


D LOCKER ROOM/HITTING FACILITY ELEVATION

1/8" = 1'-0"



PRESS BOX UPPER LEVEL FRAMING PLAN
1/8"=1'-0"



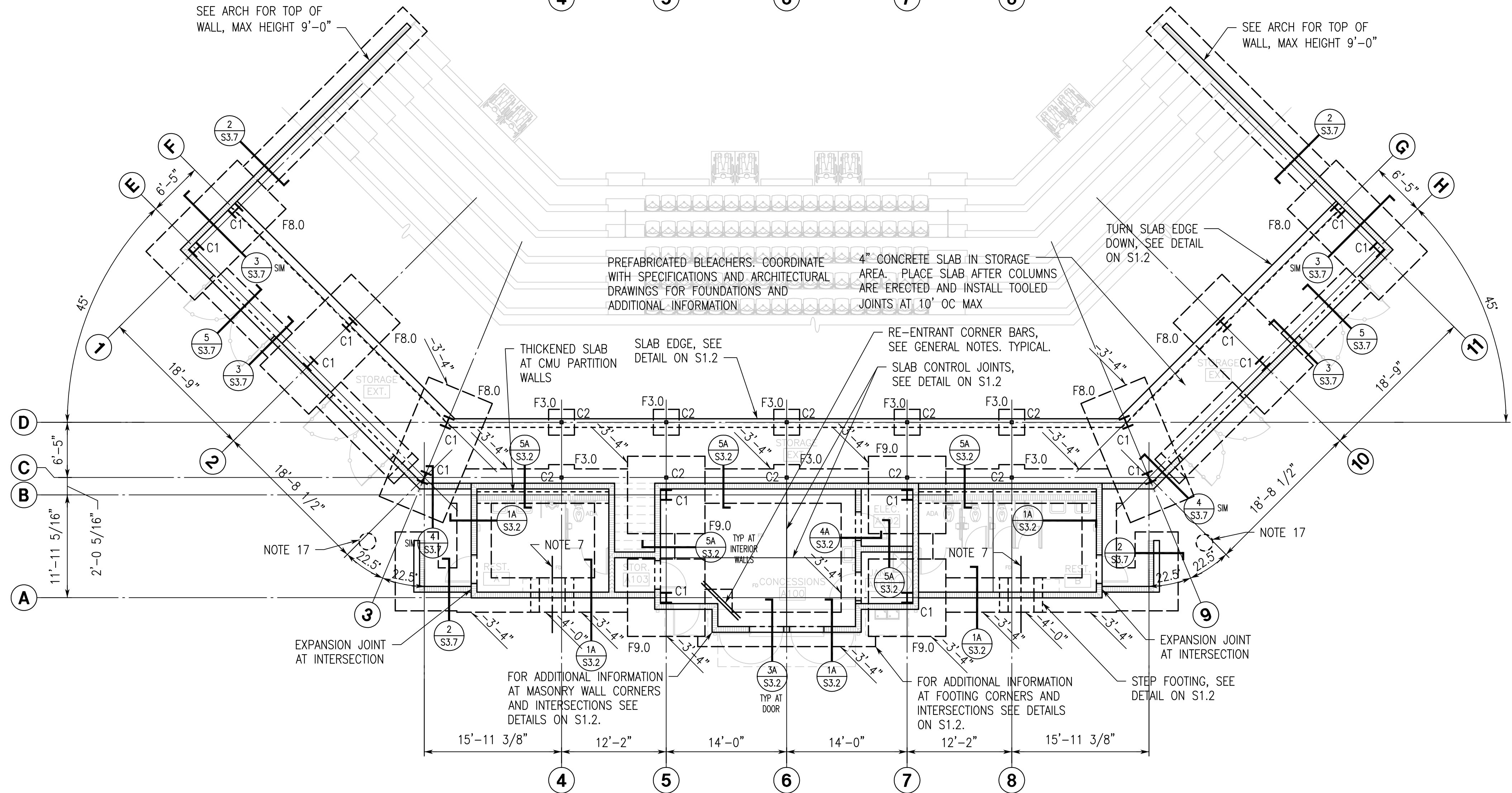
- FINISH FLOOR (TOP OF SLAB) ELEVATION:
PRESS BOX: 13'-4", UNLESS NOTED
BLEACHER WALKWAY: 9'-0", UNLESS NOTED
- TOP OF STEEL ELEVATION OF ALL BEAMS AND JOIST SHALL BE AS INDICATED ON PLANS AND SECTIONS AND COORDINATED WITH ARCHITECTURAL DRAWINGS.
- PRESS BOX FLOOR SYSTEM: 3 7/16" NORMAL WEIGHT CONCRETE SLAB ON 9/16" NON-COMPOSITE STEEL FORM DECK (4" TOTAL). SEE GENERAL NOTES.
BLEACHER WALKWAY FLOOR SYSTEM: 3 1/2" NORMAL WEIGHT CONCRETE SLAB ON 2" COMPOSITE STEEL DECK (5 1/2" TOTAL). SEE GENERAL NOTES.
- TOP OF STEEL IS EITHER LEVEL OR SLOPING UNIFORMLY BETWEEN NOTED ELEVATIONS.
- SPACE STEEL JOISTS EQUALLY BETWEEN BEAMS OR CMU WALLS, UNLESS NOTED.
- THE GENERAL CONTRACTOR SHALL COORDINATE AND VERIFY THE SIZE, WEIGHT AND LOCATION OF ALL CONCENTRATED AND MECHANICAL LOADS WITH THE JOIST MANUFACTURER.
- HANGER LOCATIONS FOR PIPING LARGER THAN 3 INCHES IN DIAMETER MUST BE COORDINATED BY GENERAL CONTRACTOR WITH THE JOIST MANUFACTURER. FOR PIPING WEIGHTS SEE TABLE ON SHEET S1.4.
- COORDINATE MECHANICAL OPENINGS WITH MECHANICAL DRAWINGS AND UNIT MANUFACTURER.
- PROVIDE LOAD BEARING MASONRY LINTEL AT ALL MASONRY LINTEL LOCATIONS SUPPORTING JOISTS. SEE S1.4 FOR MASONRY LINTEL SCHEDULE.
- NOT USED.
- NOT USED.
- EXTEND BLEACHER WALKWAY FLOOR SYSTEM UNDER STAIRS AT WALKWAY FINISHED FLOOR ELEVATION. SPAN DECK SHORT DIRECTION. ATTACH DECK TO L6x4x3/8 (LLV) CONT ON THREE SIDES. DRILL AND ATTACH L6x4x3/8 IN PLACE W/ 3/4" Ø EXPANSION ANCHORS W/ 6" EMBEDMENT. RUN 16" DEEP BOND BEAM W/ 2#5 CONT EACH COURSE AT THIS ELEVATION ALL THREE WALLS.
- LOCATE JOIST DIRECTLY UNDER 6" CMU WALL. REINFORCE WALL W/ #4@48 VERT. EPOXY GROUT REBAR 2" INTO CONCRETE SLAB. JOIST MANUFACTURER SHALL DESIGN JOIST FOR AN ADDITIONAL SERVICE DEAD LOAD OF 360PLF.
- 'BP' INDICATES BEAM BEARING PLATE. SEE TYPICAL DETAIL ON SHEET S1.3.
- ALL STEEL BEAM REACTIONS SHALL BE DESIGNED AS A MINIMUM OF 12k SERVICE UNLESS NOTED ON PLAN.
- 'MC' INDICATES MOMENT CONNECTION. SEE DETAIL ON S1.5 FOR ADDITIONAL INFORMATION.
- ALL STRUCTURAL STEEL, INCLUDING BASEPLATES, ANCHOR RODS, BOLTS, CONNECTIONS, AND STRUCTURAL STEEL MEMBERS ASSOCIATED WITH THE CANOPY FRAMING, SHALL BE PAINTED WITH A HIGH PERFORMANCE COATING. SEE STRUCTURAL STEEL SPECIFICATIONS AND ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION.
- PROVIDE 4" DEEP JOIST SEATS AT ALL LOCATIONS UNLESS NOTED.

RESTROOM ROOF FRAMING NOTES:

- JOIST BEARING ELEVATION 11'-4" ABOVE FINISH FLOOR SLAB. ROOF JOISTS ARE FLAT AND INSTALLED IN ONE PLANE. ROOF SLOPES ARE ACHIEVED WITH TAPERED INSULATION.
- ROOF SYSTEM: 1 1/2" DEEP, GALVANIZED STEEL DECK ON STEEL JOISTS SPACED AT 4'-0" MAXIMUM ON CENTER, SEE GENERAL NOTES AND TYPICAL DETAILS.
- TOP OF STEEL IS EITHER LEVEL OR SLOPING UNIFORMLY BETWEEN NOTED ELEVATIONS.
- SPACE STEEL JOISTS EQUALLY BETWEEN WALLS, UNLESS NOTED.
- HANGER LOCATIONS FOR PIPING LARGER THAN 3 INCHES IN DIAMETER MUST BE COORDINATED BY GENERAL CONTRACTOR WITH THE JOIST MANUFACTURER. FOR PIPING WEIGHTS SEE TABLE ON SHEET S1.4.
- SEE ROOF EQUIPMENT FRAME DETAIL ON S1.5 FOR MECHANICAL UNIT FRAMING, UNLESS NOTED OTHERWISE IN PLAN.
- EQUIPMENT LOCATIONS AND WEIGHTS SHOWN ARE APPROXIMATE. THE GENERAL CONTRACTOR SHALL COORDINATE AND VERIFY THE SIZE, WEIGHT AND LOCATION OF ALL MECHANICAL UNITS AND AV EQUIPMENT WITH THE JOIST MANUFACTURER. DO NOT SCALE FROM THIS DRAWING.
- PROVIDE 2 1/2" DEEP JOIST SEATS AT ALL LOCATIONS UNLESS NOTED.

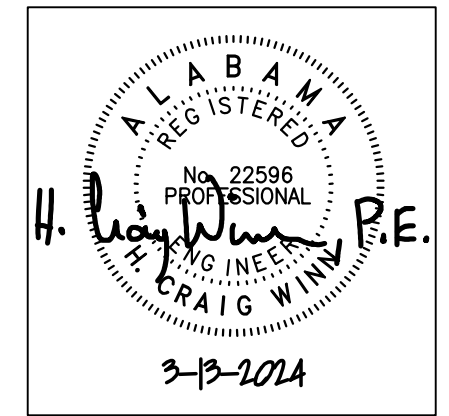


PRESS BOX FOUNDATION PLAN
1/8"=1'-0"



- FINISH FLOOR (TOP OF SLAB) ELEVATION 0'-0", UNLESS NOTED.
- TOP OF FOOTING ELEVATION -2'-0", UNLESS NOTED.
- FOR SLAB ON GRADE CONSTRUCTION, SEE GENERAL NOTES AND TYPICAL DETAILS.
- FOR SLAB RECESS AND RAMP LOCATIONS, SEE ARCHITECTURAL DRAWINGS.
- GENERAL CONTRACTOR SHALL COORDINATE TILE JOINT LOCATIONS WITH CONTROL JOINTS COORDINATE WITH ARCHITECTURAL DRAWINGS FOR LOCATIONS OF ALL CMU WALLS. NOTE ALL EXTERIOR PLAN DIMENSIONS ARE TO EXTERIOR FACE OF CMU.
- GENERAL CONTRACTOR SHALL COORDINATE ALL FOOTING STEPS WITH CIVIL, PLUMBING AND UTILITY DRAWINGS. FOR FOOTING STEP AT UTILITIES, SEE DETAIL ON S1.2.
- FOOTING WIDTHS INDICATED ON PLAN MAY NOT BE TO SCALE. COORDINATE WITH SECTION CUTS FOR FOOTING WIDTHS AND ADDITIONAL INFORMATION.
- FOR PAVEMENT AND HARDSCAPE INFORMATION, SEE ARCHITECTURAL DRAWINGS AND CIVIL DRAWINGS.
- CONTRACTOR SHALL COORDINATE EMBEDS INTO MASONRY WITH LOUVER OR DOOR MANUFACTURER. PROVIDE MODIFICATIONS TO CMU AS REQUIRED TO FULLY COMPLY WITH MANUFACTURER INSTALLATION DETAILS, TYPICAL FOR ENTIRE STRUCTURE. SUBMIT ANY MODIFICATIONS TO DESIGN TEAM FOR REVIEW.
- C1 INDICATES W14x132 COLUMN W/ 1 1/4x22x22 BP ANCHORED W/ (4)1" Ø HEADED STUDS MINIMUM 1'-0" EMBEDMENT. SEE COLUMN BASE AND FOOTING DETAIL ON S1.5
- C2 INDICATES HSS4x4x3/8 COLUMN W/ 3/4x10x10 BP ANCHORED W/ (4)3/4" Ø HEADED STUDS MINIMUM 9" EMBEDMENT. SEE COLUMN BASE AND FOOTING DETAIL ON S1.5
- F3.0 INDICATES 3'-0"x3'-0"x1'-0" THICK SPREAD FOOTING. REINFORCE W/ 3#5 EW T&B.
- F8.0 INDICATES 8'-0"x15'-0"x1'-6" THICK SPREAD FOOTING. REINFORCE W/ #6@12 EW T&B.
- F9.0 INDICATES 9'-0"x9'-0"x1'-6" THICK SPREAD FOOTING. REINFORCE W/ 9#6 EW T&B.
- ALL STRUCTURAL STEEL, INCLUDING BASEPLATES, ANCHOR RODS, BOLTS, CONNECTIONS, AND STRUCTURAL STEEL MEMBERS ASSOCIATED WITH THE CANOPY FRAMING, SHALL BE PAINTED WITH A HIGH PERFORMANCE COATING. SEE STRUCTURAL STEEL SPECIFICATIONS AND ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION.
- BACKSTOP NETTING SUPPORT COLUMN AND FOOTING, SEE CIVIL.

NEW SOFTBALL COMPLEX FOR
TRUSSVILLE CITY SCHOOLS
6344 HUSKY PARKWAY, TRUSSVILLE, AL 35773
TRUSSVILLE CITY BOARD OF EDUCATION



SHEET TITLE:
PRESS BOX FOUNDATION AND UPPER FRAMING PLAN

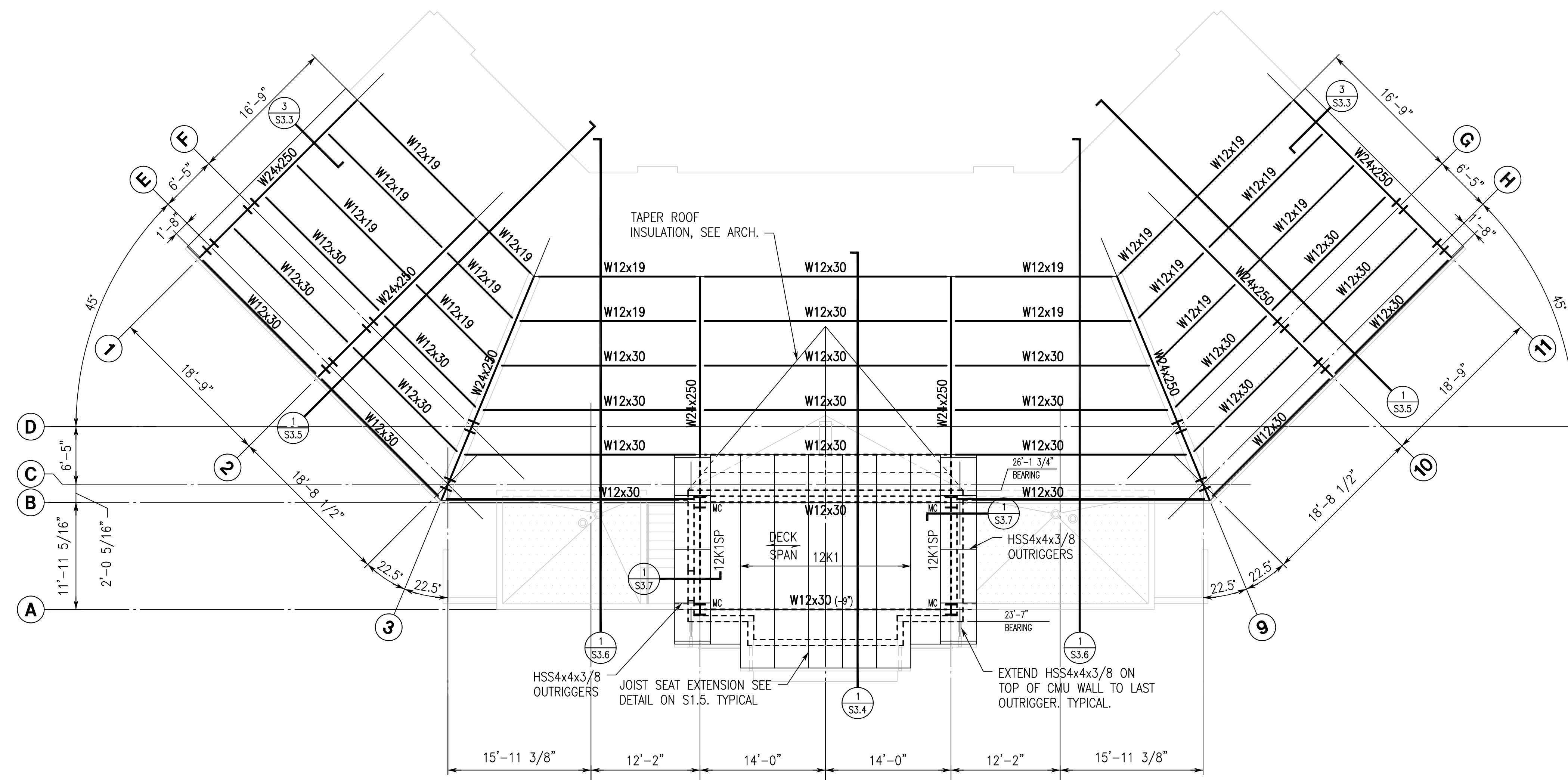
PROJ. MGR.: HCW
DRAWN: SPH

DATE: MARCH 13, 2024

REVISIONS
ADDENDUM #5
4-11-2024

JOB NO. 23-72

SHEET NO. S2.2



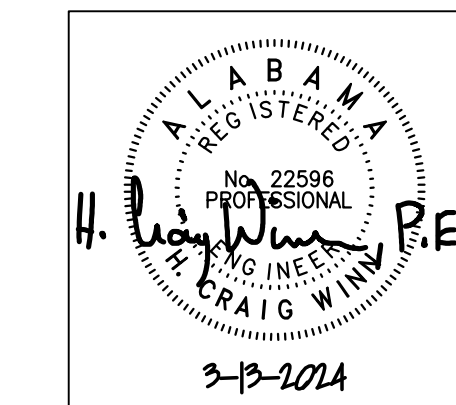
PROJECT
NORTH



PRESS BOX ROOF FRAMING PLAN

1/8"=1'-0"

1. JOIST BEARING ELEVATION VARIES, SEE PLAN. SEE ARCHITECTURAL DRAWINGS FOR CANOPY ELEVATIONS.
2. PRESS BOX ROOF SYSTEM: 1 1/2" DEEP, GALVANIZED STEEL DECK ON STEEL JOISTS SPACED AT 4'-0" MAXIMUM ON CENTER, SEE GENERAL NOTES AND TYPICAL DETAILS.
CANOPY ROOF SYSTEM: 3" DEEP, GALVANIZED STEEL DECK ON STEEL BEAMS SPACED AT 6'-0" MAXIMUM ON CENTER, SEE GENERAL NOTES AND TYPICAL DETAILS.
3. TOP OF STEEL IS EITHER LEVEL OR SLOPING UNIFORMLY BETWEEN NOTED ELEVATIONS.
4. BEAMS PARALLEL TO JOISTS ARE 4" HIGHER THAN SUPPORTING MEMBERS, UNLESS NOTED.
5. SPACE STEEL JOISTS EQUALLY BETWEEN BEAMS OR COLUMN LINES, UNLESS NOTED.
6. HANGER LOCATIONS FOR PIPING LARGER THAN 3 INCHES IN DIAMETER MUST BE COORDINATED BY GENERAL CONTRACTOR WITH THE JOIST MANUFACTURER. FOR PIPING WEIGHTS SEE TABLE ON SHEET S1.4.
7. SEE ROOF EQUIPMENT FRAME DETAIL ON S1.5 FOR MECHANICAL UNIT FRAMING, UNLESS NOTED OTHERWISE IN PLAN.
8. EQUIPMENT LOCATIONS AND WEIGHTS SHOWN ARE APPROXIMATE. THE GENERAL CONTRACTOR SHALL COORDINATE AND VERIFY THE SIZE, WEIGHT AND LOCATION OF ALL MECHANICAL UNITS AND AV EQUIPMENT WITH THE JOIST MANUFACTURER. DO NOT SCALE FROM THIS DRAWING.
9. PROVIDE CMU LINTEL OVER OPENING. SEE 'LOAD BEARING STACK BOND MASONRY LINTEL SCHEDULE' ON S1.2 FOR ADDITIONAL INFORMATION.
10. ALL STEEL BEAM REACTIONS SHALL BE DESIGNED AS A MINIMUM OF 12K SERVICE UNLESS NOTED ON PLAN.
11. ALL ROOF JOIST SEATS 4" IN DEPTH.
12. 'MC' INDICATES MOMENT CONNECTION. SEE DETAIL ON S1.5 FOR ADDITIONAL INFORMATION.
13. ALL STRUCTURAL STEEL, INCLUDING BASEPLATES, ANCHOR RODS, BOLTS, CONNECTIONS, AND STRUCTURAL STEEL MEMBERS ASSOCIATED WITH THE CANOPY FRAMING, SHALL BE PAINTED WITH A HIGH PERFORMANCE COATING. SEE STRUCTURAL STEEL SPECIFICATIONS AND ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION.



SHEET TITLE:
PRESS BOX ROOF
FRAMING PLAN

PROJ. MGR.: HCW
DRAWN: SPH

DATE: MARCH 13, 2024

REVISIONS

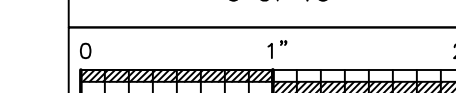
ADDENDUM #5
4-11-2024

JOB NO. 23-72

SHEET NO.

S2.3

9 OF 19



LIGHTING FIXTURE SCHEDULE

MARK	MANUFACTURER	CATALOG NO.	LAMPS			MOUNTING HEIGHT	TYPE MOUNTING	RECESS DEPTH	REMARKS
			NO.	WATTS	TYPE				
A	METALUX	24FP6440C-UNV	FURNISHED WITH FIXTURE			CEILING	RECESSED	3-1/4"	
A (EM)	METALUX	24FP6440C-UNV EBPLED14W	FURNISHED WITH FIXTURE			CEILING	RECESSED	3-1/4"	SEE NOTE 1
B	METALUX	22FP4740C-UNV	FURNISHED WITH FIXTURE			CEILING	RECESSED	3-1/4"	
B (EM)	METALUX	22FP4740C-UNV EBPLED14W	FURNISHED WITH FIXTURE			CEILING	RECESSED	3-1/4"	SEE NOTE 1
C	ASD LIGHTING	ASD-LFL-01-22-40-40	FURNISHED WITH FIXTURE			CEILING	SEMI-RECESS		
C (EM)	ASD LIGHTING	ASD-LFL-01-22-40-40 EBPLED14W	FURNISHED WITH FIXTURE			CEILING	SEMI-RECESS		SEE NOTE 1
D	METALUX	4SNLED-LD4-4600SL- LW-UNV-L840-CD1	FURNISHED WITH FIXTURE			CEILING	SURFACE		
D (EM)	METALUX	4SNLED-LD4-4600SL- LW-UNV-EL14-L835-CD1	FURNISHED WITH FIXTURE			CEILING	SURFACE		SEE NOTE 1
E	SURE-LITES	SEL-D-W-60- BK-SD-120	FURNISHED WITH FIXTURE			+8'	BRACKET		
F	MCGRAW-EDISON	ISW-E02-LED-E1- BL4-BZ-TR-OSB	FURNISHED WITH FIXTURE			+9'	BRACKET		
F (EM)	MCGRAW-EDISON	ISW-E02-LED-E1- BL4-BZ-TR-BBB	FURNISHED WITH FIXTURE			+9'	BRACKET		SEE NOTE 1
G	FAIL-SAFE	HVSL4-8-LD4-2-STD- 35-UNV-O-EDC1-BK	FURNISHED WITH FIXTURE			VERIFY	SURFACE		
H	ELLIPTIPAR	S-175-H-8-H-06-M- 00-0-935-RGB-ZH-HFA	FURNISHED WITH FIXTURE			CEILING	BRACKET		
K	LUMIERE	303-W1-LED81-3000- 120-T2-XX	FURNISHED WITH FIXTURE			VERIFY WITH ARCHITECT	BRACKET		
L	FAIL-SAFE	HVSL8-8-LD4-2-STD- 35-UNV-O-EDC1-BK	FURNISHED WITH FIXTURE			CEILING	SURFACE		
L (EM)	FAIL-SAFE	HVSL8-8-LD4-2-STD-35- UNV-O-EDC1-EL14W-BK	FURNISHED WITH FIXTURE			CEILING	SURFACE		SEE NOTE 1
M	PATHWAY LIGHTING	6VFLFX-3000-35K-DA- 6LEDMD-SCLF	FURNISHED WITH FIXTURE			CEILING	RECESSED	6"	
P1	NLS LIGHTING	NV-1-T4-64L- 7-40K-UNV-BRZ	FURNISHED WITH FIXTURE			+30'	POLE		POLE #555-2585-4-DM19AS COLOR BRONZE (VER.)
R	LIGMAN LIGHTING	UOD-50011-36W-N- W40-01-120V	FURNISHED WITH FIXTURE			MOUNT ON SCOREBOARD	FLOOD		FLAG POLE FLOOD COORDINATE FOR MOUNTING
S	HALO	SLD405-8-35- UNV-UNV	FURNISHED WITH FIXTURE			CEILING	RECESSED	1.5"	
T	SPECTRUM LIGHTING	EB0910GV-27L-40K-EX- TF1-PA-RED-WLKA	FURNISHED WITH FIXTURE			SHEET E3.1	BRACKET		COORDINATE WITH OWNER FOR "TRUSSVILLE RED"
X	SURE-LITES	APX-7-R-WH	FURNISHED WITH FIXTURE			ABOVE DOOR	BRACKET		

NOTES:

- FEED ALL "EM" FIXTURES WITH SWITCHED AND UNSWITCHED HOT LEGS. UNSWITCHED HOT LEG IS USED FOR VOLTAGE SENSING.
- VERIFY ALL FIXTURE COLORS WITH ARCHITECT PRIOR TO SUBMITTALS.
- EQUAL FIXTURES BY LITHONIA, DAYBRITE, PARKER, AND COLUMBIA WILL BE CONSIDERED APPROVED EQUALS.

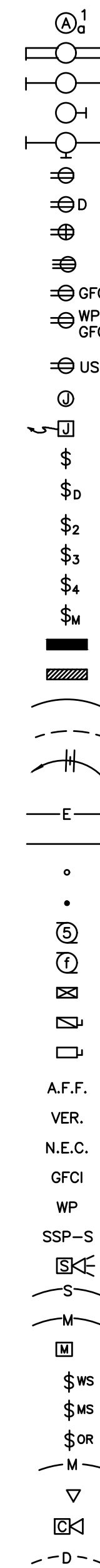
GENERAL NOTES

- SERVICE TO PROJECT IS 120/208 VOLTS, 3 PHASE, 4 WIRE.
- VERIFY ALL DOOR SWINGS WITH ARCHITECTURAL DRAWINGS BEFORE ROUGHING IN SWITCHES.
- VERIFY EXACT LOCATION OF ALL MOTORS AND EQUIPMENT BEFORE ROUGHING IN.
- CONTRACTOR TO VERIFY LOCATION OF ALL OUTLETS PRIOR TO INSTALLATION.
- THE ELECTRICAL CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF COUNTERTOPS AND BACKSPLASHES ON ARCHITECTURAL DETAILS AND/OR CASEWORK SHOP DRAWINGS AND ADJUST SPECIFIED MOUNTING HEIGHT OF WALL OUTLETS AS REQUIRED TO AVOID CONFLICTS.
- CONTRACTOR WILL CHECK ALL LIGHTING FIXTURES FOR EXACT TYPE MOUNTING AND SPACE REQUIRED BEFORE ROUGHING IN.
- SUPPORT OF ALL LIGHTING FIXTURES TO BE THE RESPONSIBILITY OF THIS CONTRACTOR. FIXTURES TO BE SUPPORTED INDEPENDENT OF CEILING FROM STRUCTURAL MEMBERS OF THE BUILDING.
- ELECTRICAL CONTRACTOR MUST CHECK THE CORRESPONDING MECHANICAL SHEETS AND BE RESPONSIBLE FOR INCLUDING PROPER SERVICE AND CONNECTIONS TO ALL MECHANICAL ITEMS SHOWN THEREON REGARDLESS OF ITS BEING OR NOT BEING SHOWN ON ELECTRICAL SHEETS.
- ALL CONDUIT CONCEALED UNLESS SPECIFICALLY SHOWN EXPOSED.
- COORDINATE SERVICES WITH POWER AND COMMUNICATIONS COMPANIES. REMOVE OR RELOCATE ALL POWER AND COMMUNICATIONS CIRCUITS ABOVE OR BELOW GRADE THAT WOULD OBSTRUCT THE CONSTRUCTION OF THE PROJECT OR CONFLICT IN ANY MANNER WITH COMPLETION OF THE PROJECT OR ANY CODE PERTAINING THERETO. IF UTILITY COMPANY REQUIREMENTS ARE AT VARIANCE WITH THESE DRAWINGS AND SPECIFICATIONS, THE CONTRACT PRICE SHALL INCLUDE THE ADDITIONAL COST.
- IT IS INTENDED THAT SPECIFICATIONS AND PLANS SHALL INCLUDE EVERYTHING REQUIRED AND NECESSARY FOR PROPER AND COMPLETE INSTALLATION OF THE COMPLETE SYSTEMS SHOWN EVEN THOUGH EVERY ITEM MAY NOT BE PARTICULARLY MENTIONED IN DETAIL. THE CONTRACTOR SHALL DELIVER TO OTHER TRADES ANY EQUIPMENT THAT MUST BE INSTALLED DURING CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD MEASUREMENTS AND COORDINATION OF THE PHYSICAL SIZE OF ALL EQUIPMENT WITH THE ARCHITECTURAL REQUIREMENTS OF THE SPACES INTO WHICH THE EQUIPMENT WILL BE INSTALLED.
- THIS CONTRACTOR SHALL INSTALL EQUIPMENT GROUNDS THROUGHOUT THIS PROJECT, USING GREEN INSULATED GROUND WIRE. USE OF CONDUIT AS THE ONLY GROUND CONDUCTOR WILL NOT BE ALLOWED. (SIZE GROUND WIRES PER N.E.C.)

COLOR CODE FOR ELECTRICAL WIRING

- 120/208 V, 60Hz, 3 PHASE, 4 WIRE SYSTEM
PHASE A-BLACK
B-RED
C-BLUE
N-WHITE
- GROUND-GREEN

ELECTRICAL SYMBOLS



- CEILING OUTLET - FIXTURE "A", CIRCUIT 1, SWITCH a.
- CEILING OUTLET - FLUORESCENT FIXTURE.
- CEILING OUTLET - FLUORESCENT INDUSTRIAL OR STRIP TYPE.
- WALL OUTLET - INCANDESCENT BRACKET TYPE.
- WALL OUTLET - FLUORESCENT BRACKET TYPE.
- WALL OUTLET - DUPLEX OUTLET, 20A, 125V, GROUNDED, PASS & SEYMOUR PT5362A-GRY WITH PT6STR PLUG TAIL CONNECTOR.
- WALL OUTLET - DOUBLE DUPLEX OUTLET, 20A, 125V, GROUNDED, PASS & SEYMOUR PT5362A-GRY WITH PT6STR PLUG TAIL CONNECTOR.
- WALL OUTLET - DUPLEX OUTLET, 20A, 125V, GROUNDED, PASS & SEYMOUR PT5362A-GRY WITH PT6STR PLUG TAIL CONNECTOR - MOUNT AT 6" ABOVE COUNTER.
- WALL OUTLET - SINGLE OUTLET, 30A, 250V, 3W, BY HUBBELL OR APPROVED EQUAL.
- WALL OUTLET - DUPLEX OUTLET, 20A, 125V, GROUNDED, PASS & SEYMOUR PT2095-GRY WITH PT6STR PLUG TAIL CONNECTOR.
- WALL OUTLET - DUPLEX OUTLET, 20A, 125V, GROUNDED, WEATHERPROOF, PASS & SEYMOUR PT2095-GRY WITH PT6STR PLUG TAIL CONNECTOR. INSTALL #WUC10-CAGV WEATHERPROOF COVER. DEVICE SHALL BE LABELED AS "EXTRA DUTY".
- WALL OUTLET - DUPLEX OUTLET, 20A, 125V, GROUNDED, LEGRAND P1TR20ACUSB-GRY WITH PT6STR PLUG TAIL CONNECTOR.
- CEILING OUTLET - JUNCTION BOX.
- WALL OUTLET - JUNCTION BOX WITH FLEXIBLE CONNECTION TO EQUIPMENT.
- SWITCH OUTLET - AC TYPE, SINGLE POLE, 20A, 120/277V, HUBBELL #1221 - GREY. ("N" DENOTES NARROW)
- SWITCH OUTLET - FLUORESCENT DIMMER - LUTRON NOVA-T SERIES #NTF-103P.
- SWITCH OUTLET - AC TYPE, TWO POLE, 20A, 120/277V, HUBBELL #1222 - GREY.
- SWITCH OUTLET - AC TYPE, THREE WAY, 20A, 120/277V, HUBBELL #1223 - GREY.
- SWITCH OUTLET - AC TYPE, FOUR WAY, 20A, 120/277V, HUBBELL #1224 - GREY.
- SWITCH MANUAL MOTOR STARTER, SINGLE POLE WITH OVERLOAD PROTECTION.
- LIGHTING PANEL - SEE SPECIFICATIONS AND SCHEDULE.
- POWER PANELS - SEE SPECIFICATIONS AND SCHEDULE.
- BRANCH CIRCUIT CONCEALED IN WALL OR CEILING.
- BRANCH CIRCUIT CONCEALED IN FLOOR OR GROUND.
- HOMERUN TO PANELBOARD - ANY CIRCUIT WITHOUT FURTHER DESIGNATION 2 # 12 & 1 # 12(G) - 1/2" CONDUIT.
3 # 12 & 1 # 12(G) - 3/4" CONDUIT. 4 # 12 & 1 # 12(G) - 3/4" CONDUIT.
- EMPTY CONDUIT - 3/4".
- BRANCH CIRCUIT EXPOSED.
- CONDUIT RUN DOWN WALLS, CONCEALED
- CONDUIT RUN UP WALLS, CONCEALED
- MOTOR SHOWN 5hp (TYPICAL) OR 40 AMPS (TYPICAL).
- EXHAUST FAN MOTOR - FRACTIONAL HORSEPOWER.
- MAGNETIC MOTOR STARTER.
- NON-FUSED DISCONNECT SWITCH. (RT - RAINIGHT).
- FUSED DISCONNECT SWITCH.
- A.F.F. ABOVE FINISHED FLOOR.
- VER. VERIFY LOCATION.
- N.E.C. NATIONAL ELECTRICAL CODE.
- GFCI GROUND FAULT CIRCUIT INTERRUPTER
- WP WEATHER PROOF
- SSP-S SOUND SYSTEM RACK - PRESS BOX - SEE SPEC.
- SOUND SYSTEM - POLE MOUNTED SPEAKER - SEE SPEC.
- SOUND SYSTEM - WIRING IN 1" CONDUIT - SEE SPEC.
- SOUND SYSTEM - MICROPHONE WIRING IN 1" CONDUIT - SEE SPEC.
- SOUND SYSTEM - MICROPHONE OUTLET - SEE SPEC.
- WALL STATION - COOPER #RC-45TB-0S3 WITH WALL PLATE
- WALL SWITCH WITH BUILT IN MOTION SENSOR - COOPER #ONW-D-1001-MV-W WITH WALL PLATE
- LIGHTING CONTROL PANEL OVERRIDE SWITCH - DIGITA 5-1B
- MOTION SENSOR WIRING - LOW VOLTAGE WIRING (#14 THHN AS REQUIRED)
- COMPUTER OUTLET - RUN CAT 6 CABLING AS NOTED IN 3/4" CONDUIT (CONDUIT TO ABOVE LAY-IN CEILING UNLESS OTHERWISE NOTED).
- FUTURE CAMERA OUTLET - RUN 1 CAT 6 CABLE TO IDF IN 3/4" CONDUIT.
- DATA CONDUIT - BELOW GRADE DATA CONDUIT WITH DATA CABLES (3/4" UNLESS OTHERWISE SPECIFIED)

CODE EXCEPTION NOTE

THIS PROJECT HAS BEEN DESIGNED UNDER ASHRAE 90.1 2013, EXCEPT AS FOLLOWS: WE TAKE EXCEPTION TO SECTION 8.4.2 FOR REQUIRING CONTROLLED RECEPTACLES, AND SECTION 8.4.3 FOR REQUIRING ENERGY MONITORING. WE OFFICIALLY REQUEST THAT THIS PROJECT BE APPROVED WITHOUT THOSE ITEMS.

COLOR CODE FOR JUNCTION BOXES

NOTE:
PAINT ALL JUNCTION BOXES AND COVERS WITH COLORS AS SHOWN BELOW. PAINTING COVERS ONLY IS NOT ACCEPTABLE.

FUNCTION:	COLOR:
LIGHTING	BLUE
POWER	GREEN
MISC. AUXILIARIES (SOUND, ETC.)	BROWN

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ELECTRICAL CONSULTANTS**

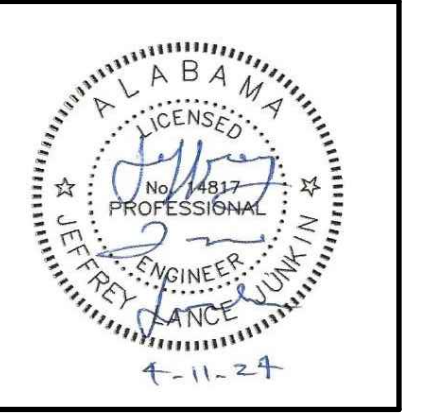
P.O. Box 2233 (36202)
300 East 7th Street (36207)
Anniston, Alabama
Phone: 256/237-0891
Fax No.: 256/237-1077
Email: services@stewartengineering.org

Electrical Consultants

Engineer: J. Lance Junkin, P.E.
Alabama Reg. 14817

Project Number:
23129

NEW SOFTBALL COMPLEX FOR
TRUSSVILLE CITY SCHOOLS
6844 HUSKY PARKWAY, TRUSSVILLE, AL 35173
TRUSSVILLE CITY BOARD OF EDUCATION



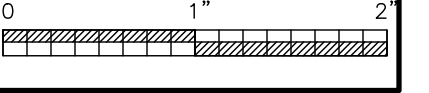
SHEET TITLE:
SCHEDULES, SYMBOLS,
AND NOTES

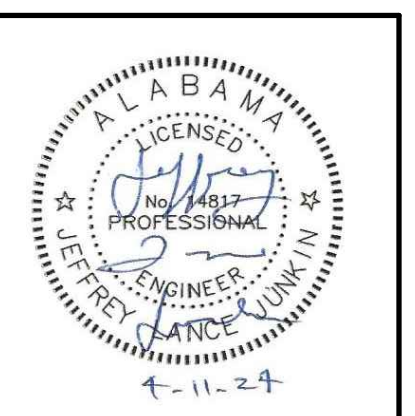
PROJ. MGR.: LANCE JUNKIN	DRAWN: SEC
DATE: MARCH 13, 2024	REVISIONS
ADDENDUM NO. 5 4.11.24	

JOB NO. **23-72**

SHEET NO:
E11

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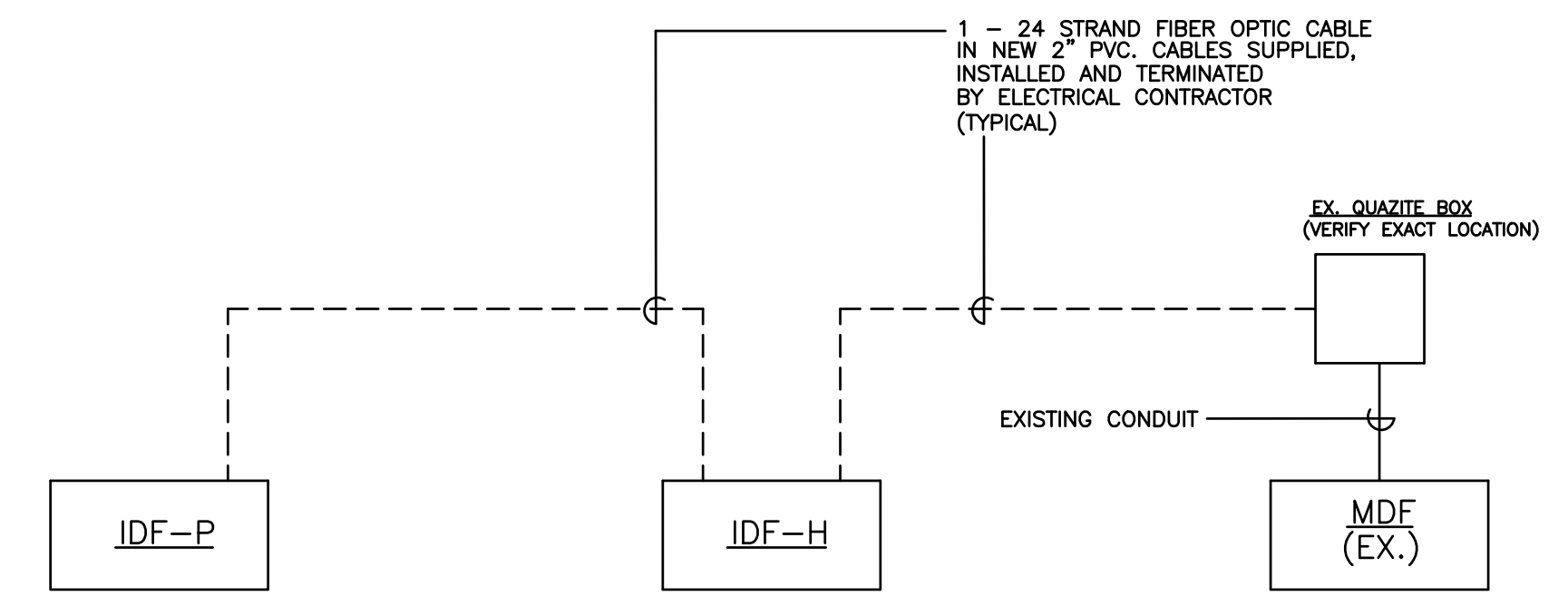


SHEET TITLE:
SITE PLAN AND
SINGLE LINE DIAGRAM

PROJ. MGR.: LANCE JUNKIN
DRAWN: SEC
DATE: MARCH 13, 2024
REVISIONS

ADDENDUM NO. 5
4.11.24

JOB NO. **23-72**
SHEET NO:
E21
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MDF FIBER OPTIC CABLE RISER DIAGRAM
N.T.S.

PANELBOARD SCHEDULE

MARK	TYPE	MAINS		BRANCHES					LUG LOCATION	TYPE MOUNTING	AREA PANEL LOCATED	AVAILABLE FAULT CURRENT	REMARKS	
		TYPE	AMPS	SERVICE	1 POLE	2 POLE	3 POLE	SPARES						SPACES
MPS	I-LINE	M/B	600	120/208V 3ø, 4W			1-60 2-100 3-225	2-20/3	5-3PS	BOTTOM	SURFACE	STOR A102	13,000	SEE NOTES 1, 2, 3, 4, 5, & 6
RPS	NOOD	LUGS	225	120/208V 3ø, 4W	35-20			6-20/1	13-1PS	BOTTOM	RECESSED	CONC A100	10,000	SEE NOTES 1, 2, 5, 6, & 7 54 SPACE PANEL
PPS	NOOD	LUGS	225	120/208V 3ø, 4W			1-20 1-25	6-20/1	18-1PS	BOTTOM	RECESSED	RADIO A201	12,000	SEE NOTES 1, 2, 5, 6, & 7
LPS	NOOD	LUGS	225	120/208V 3ø, 4W			3-20 2-30 2-50	6-20/1	22-1PS	BOTTOM	SURFACE	STOR A102	13,000	SEE NOTES 1, 2, 5, & 6
RPVD	NOOD	M/B	100	120/208V 1ø, 3W	4-20	1-20		6-20/1	18-1PS	BOTTOM	RECESSED	STOR C101	10,000	SEE NOTES 1, 2, 5, 6, & 7
RPVD	NOOD	M/B	100	120/208V 1ø, 3W	7-20	1-20 1-30		6-20/1	13-1PS	BOTTOM	RECESSED	REF B101	10,000	SEE NOTES 1, 2, 5, 6, & 7
MPH	I-LINE	M/B	600	120/208V 3ø, 4W			1-60 1-225 1-400	2-20/3	5-3PS	BOTTOM	SURFACE	EXTERIOR	19,000	SEE NOTES 1, 2, 3, 4, 5, & 6 NEMA 3R PANEL
RPH	NOOD	LUGS	225	120/208V 3ø, 4W	49-20			5-20/1		BOTTOM	SURFACE	MEZZ D200	15,000	SEE NOTES 1, 2, 5, & 6 54 SPACE PANEL
PPH	NOOD	LUGS	400	120/208V 3ø, 4W	5-20	1-20	2-20 1-35 4-45	6-20/1	20-1PS	BOTTOM	SURFACE	MEZZ D200	16,000	SEE NOTES 1, 2, 5, & 6 54 SPACE PANEL

- NOTES:**
- ALL PANELBOARDS SHALL BE CAPABLE OF WITHSTANDING AND INTERRUPTING THE AVAILABLE FAULT CURRENTS AS LISTED ABOVE.
 - ALL PANELBOARDS SHALL HAVE MICARTA LABELS SHOWING PANELBOARD DESIGNATION, AND OPERATING VOLTAGE.
 - SHALL BE RATED FOR SERVICE ENTRANCE EQUIPMENT.
 - SHALL BE EQUIPPED WITH BUILT-IN SURGE PROTECTION, CAPABLE OF WITHSTANDING A TRANSIENT SURGE OF 160,000 AMPS. (PROVIDE BREAKER AS REQUIRED FOR THIS PURPOSE IN MPS AND MPH).
 - NO SERIES RATING WILL BE ALLOWED ON ANY PANELBOARDS.
 - ALL BREAKERS AND PANELBOARDS 100 AMPS AND LARGER, SHALL HAVE TERMINALS RATED FOR 75°C.
 - ON ALL RECESSED PANELBOARDS, CONTRACTOR SHALL SUPPLY AND INSTALL (5) EMPTY 3/4" CONDUITS TO ABOVE LAY-IN CEILING.

- PANELBOARD NOTES:**
- MANUFACTURER OF SWITCHBOARDS AND/OR PANELBOARDS SHALL PERFORM FAULT CURRENT CALCULATIONS, COORDINATION STUDY, AND ARC FLASH HAZARD ANALYSIS, AND LABEL ALL PANELBOARDS, IN ACCORDANCE WITH NFPA 70E-2009 (ARTICLE 130) AND NFPA 70-2008 (ARTICLE 110.16).
 - CONTRACTOR SHALL FIELD MARK ELECTRICAL SERVICE EQUIPMENT WITH A CONSPICUOUS AND PERMANENT LABEL THAT INDICATES THE AVAILABLE FAULT CURRENT PER NEC 110.24.
 - CONTRACTOR SHALL FIELD MARK ELECTRICAL PANELS WITH A CONSPICUOUS AND PERMANENT LABEL THAT INDICATES WHERE PANELS ARE FED FROM PER NEC 408.4(B).

APCO NOTES

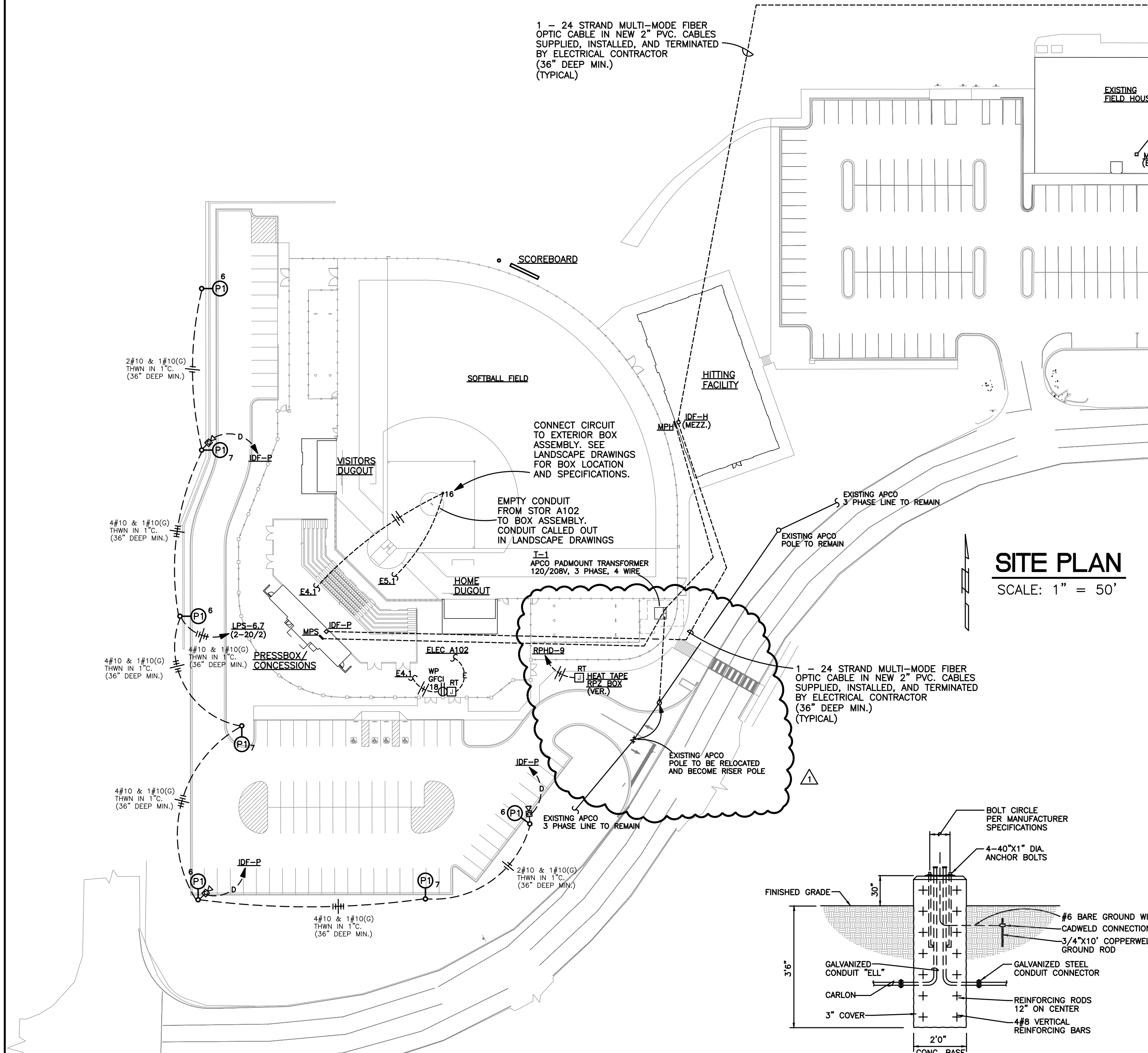
- CONTRACTOR SHALL COORDINATE CLOSELY WITH ALABAMA POWER, AND SHALL PROVIDE AND INSTALL ANY AND ALL LABOR AND/OR MATERIAL, AS REQUIRED BY ALABAMA POWER, REGARDLESS OF ITS BEING OR NOT BEING SHOWN ON ELECTRICAL DRAWINGS.
- ANY AND ALL COSTS ASSOCIATED WITH PROVIDING THIS LABOR AND/OR MATERIAL SHALL BE INCLUDED IN BID PRICE.
- CONTRACTOR SHALL OBTAIN ALL DIRECT CHARGES FROM ALABAMA POWER, AND INCLUDE THESE CHARGES IN BID PRICE. CONTRACTOR IS RESPONSIBLE FOR CONTACTING ALABAMA POWER DURING THE BID PROCESS.

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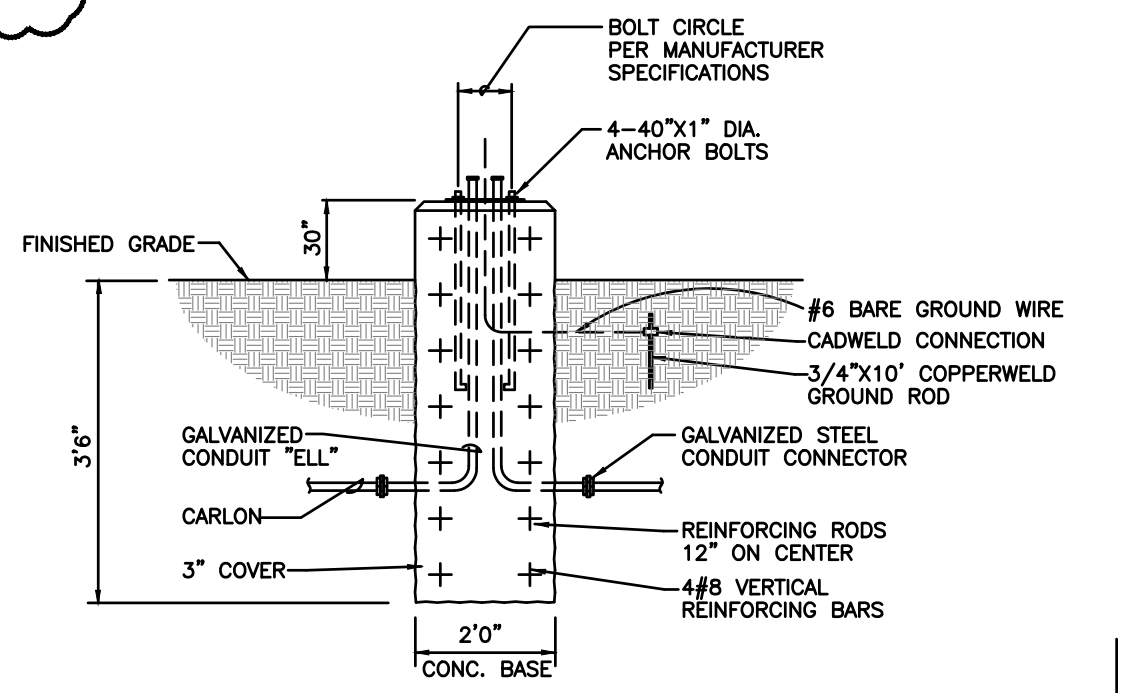
P.O. Box 2233 (36202)
300 East 7th Street (36207)
Anniston, Alabama
Phone: 256/237-0891
Fax No.: 256/237-1077
Email: services@stewartengineering.org

Engineer: J. Lance Junkin, P.E.
Alabama Reg. 14817

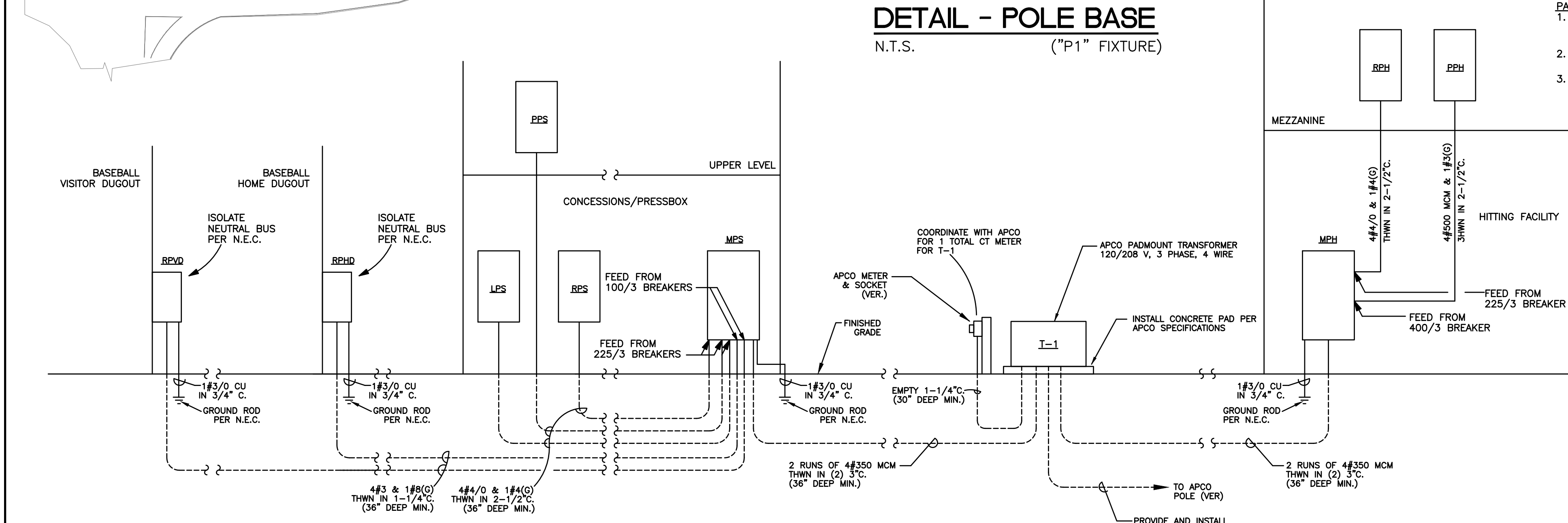
Project Number: 23129



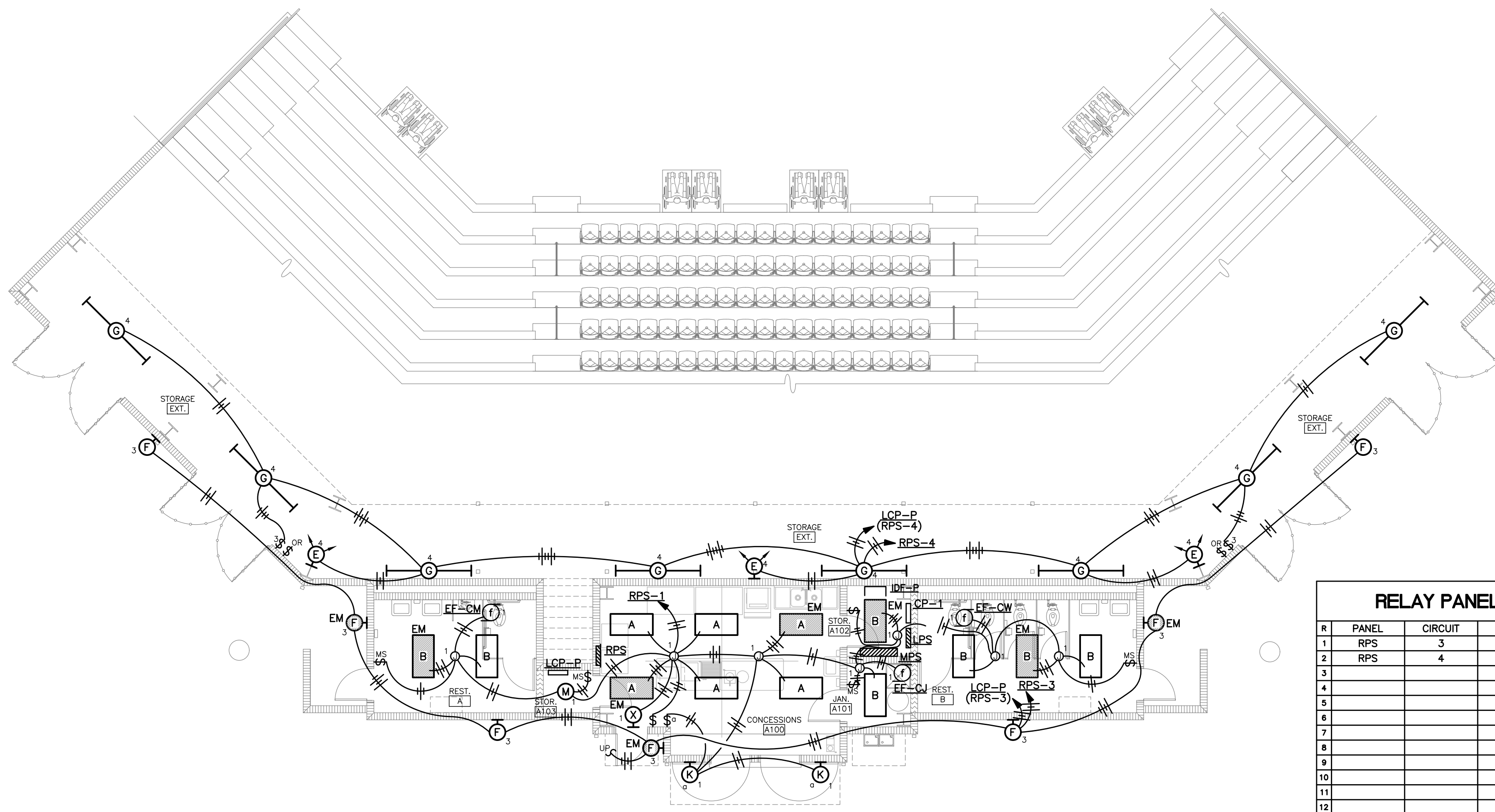
SITE PLAN
SCALE: 1" = 50'



DETAIL - POLE BASE
N.T.S. ("P1" FIXTURE)



ELECTRICAL SINGLE LINE DIAGRAM
N.T.S.



**LOWER LEVEL PRESS BOX BUILDING
FLOOR PLAN - LIGHTING**

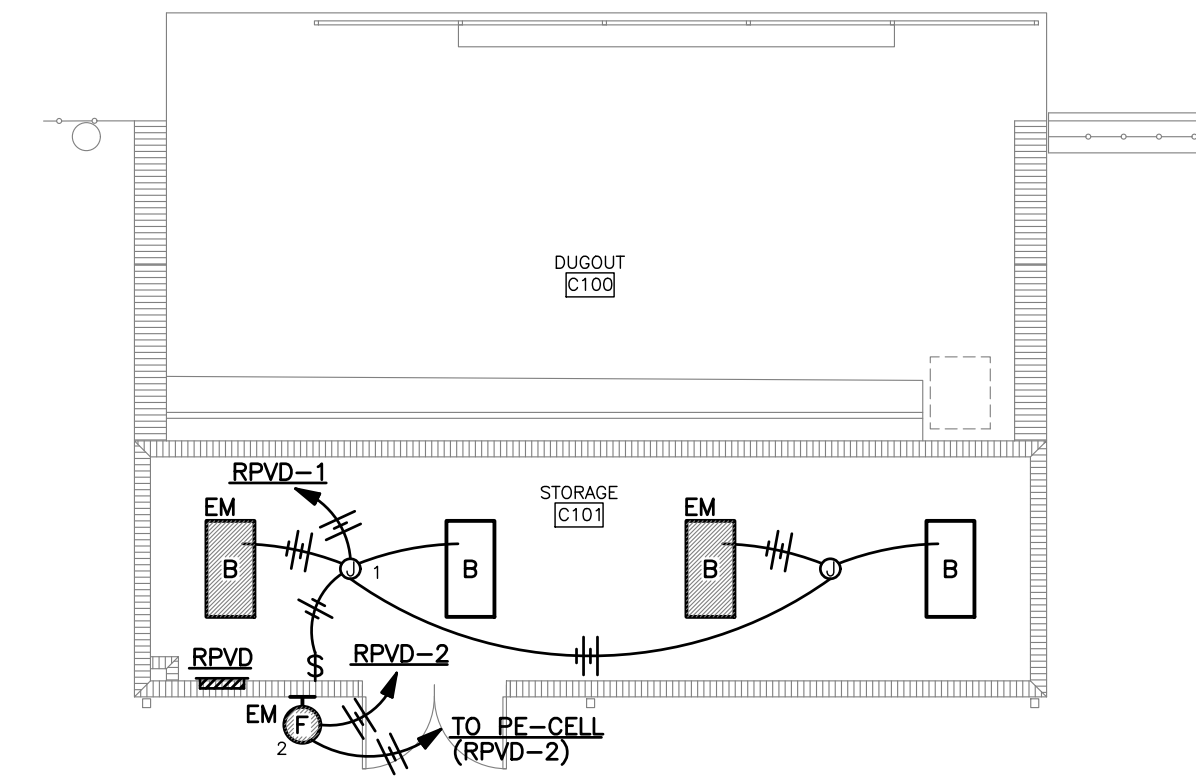
SCALE: 1/8" = 1'-0"

RELAY PANEL LCP-P			
R	PANEL	CIRCUIT	PROGRAM MODE
1	RPS	3	EXTERIOR DTD
2	RPS	4	NORMAL DAY-TO-DAY
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			

COOPER GREENGATE RELAY CABINET (NETWORKABLE)
CONTROLKEEPER 16 (CKT16) WITH 16 RELAYS

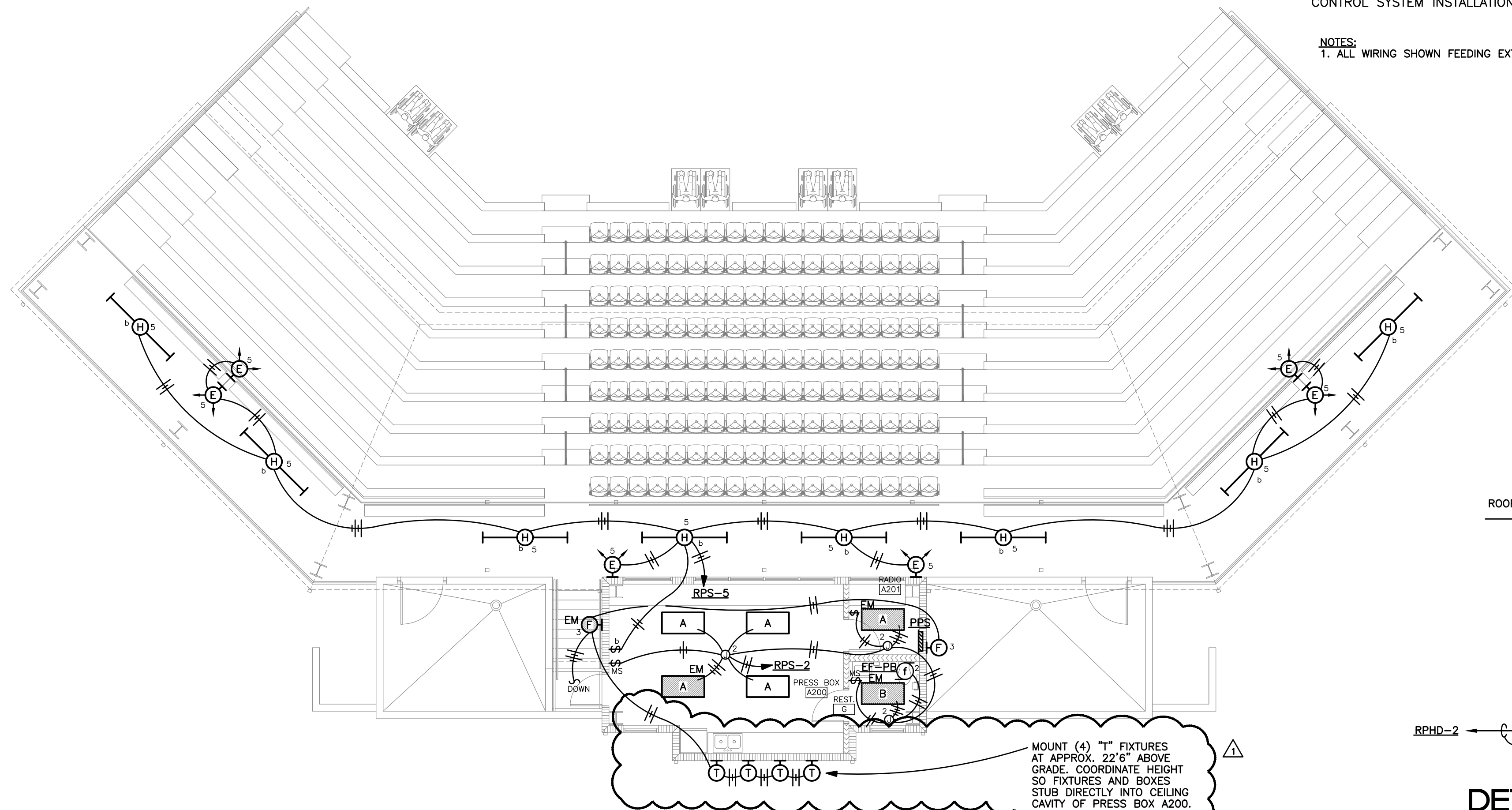
SITE VISIT NOTE:
CONTRACTOR SHALL INCLUDE IN BID PRICE A TOTAL OF (3) SITE VISITS FROM FACTORY TRAINED REPRESENTATIVE FOR LIGHTING CONTROL SYSTEM INSTALLATION, PROGRAMMING, AND TRAINING.

NOTES:
1. ALL WIRING SHOWN FEEDING EXTERIOR FIXTURES SHALL BE #10 THWN.



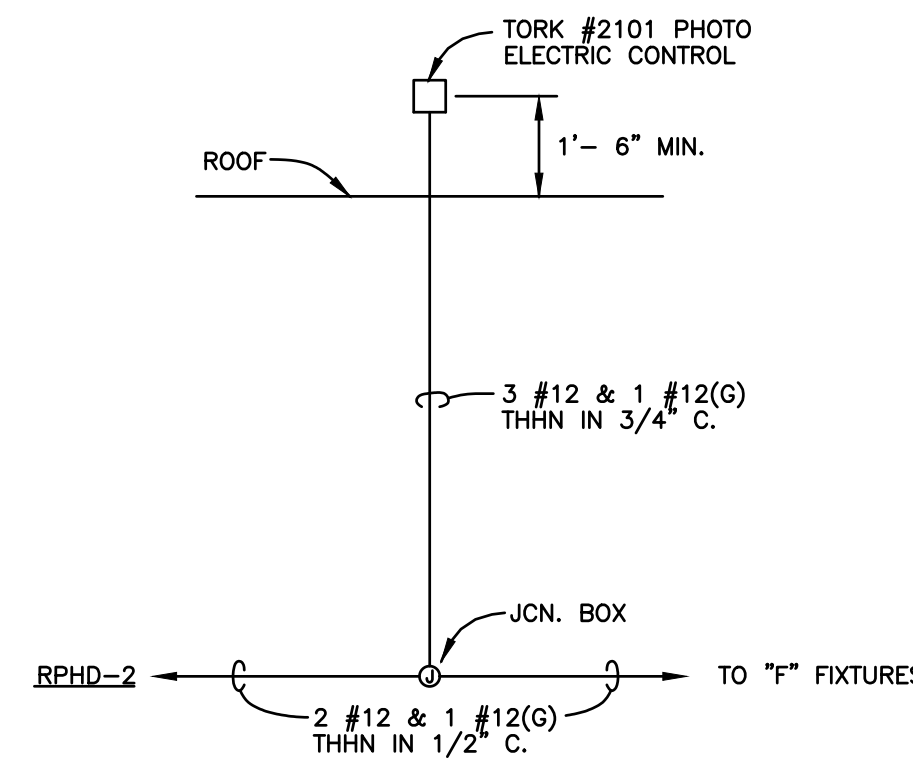
**VISITORS DUGOUT
FLOOR PLAN - LIGHTING**

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



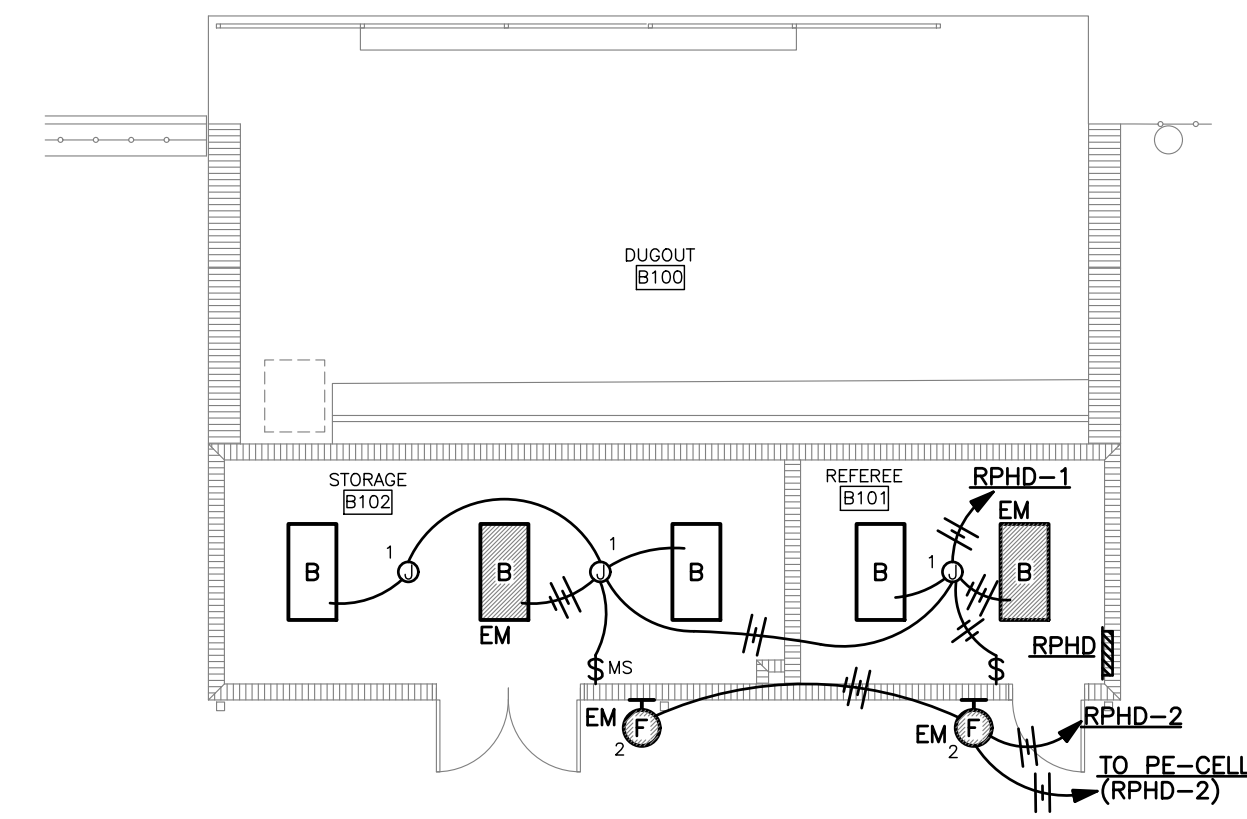
**UPPER LEVEL PRESS BOX BUILDING
FLOOR PLAN - LIGHTING**

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



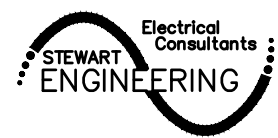
DETAIL - P.E. CELL

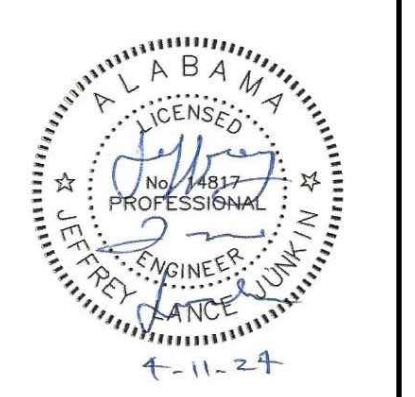
N.T.S. (VISITORS DUGOUT SAME)



**HOME DUGOUT
FLOOR PLAN - LIGHTING**

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

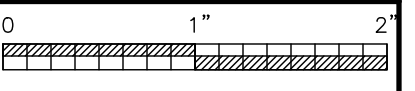
STEWART ENGINEERING ELECTRICAL CONSULTANTS	
P.O. Box 2233 (36202) 300 East 7th Street (36207) Anniston, Alabama Phone: 256/237-0891 Fax No.: 256/237-1077 Email: services@stewartengineering.org	
 Electrical Consultants ENGINEERING	Project Number: 23129
Engineer: J. Lance Junkin, P.E. Alabama Reg. 14817	

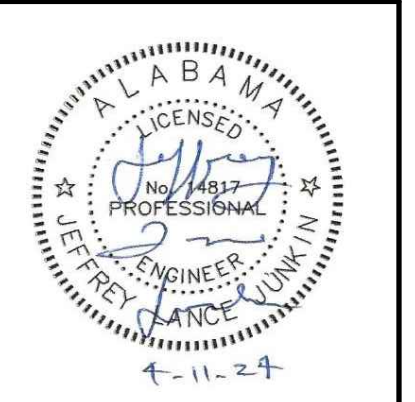


SHEET TITLE:
FLOOR PLANS -
LIGHTING

PROJ. MGR.: LANCE JUNKIN
DRAWN: SEC
DATE: MARCH 13, 2024
REVISIONS
ADDENDUM NO. 5
4.11.24

JOB NO. **23-72**
SHEET NO:
E3.1
3 OF 9





SHEET TITLE:
FLOOR PLANS -
POWER

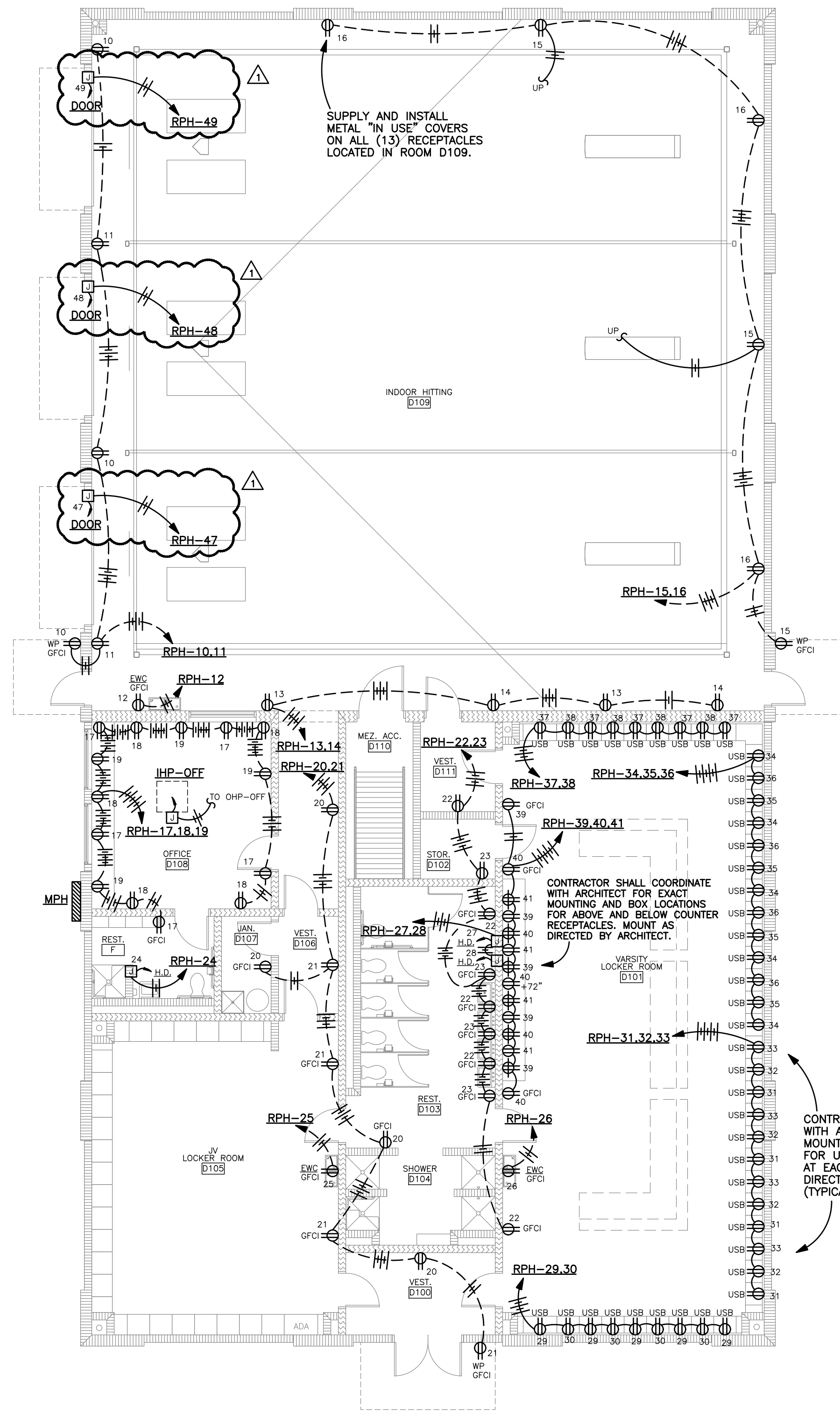
PROJ. MGR.: LANCE JUNKIN
DRAWN: SEC
DATE: MARCH 13, 2024

REVISIONS
ADDENDUM NO. 5
4.11.24

JOB NO. **23-72**
SHEET NO:

E4.2

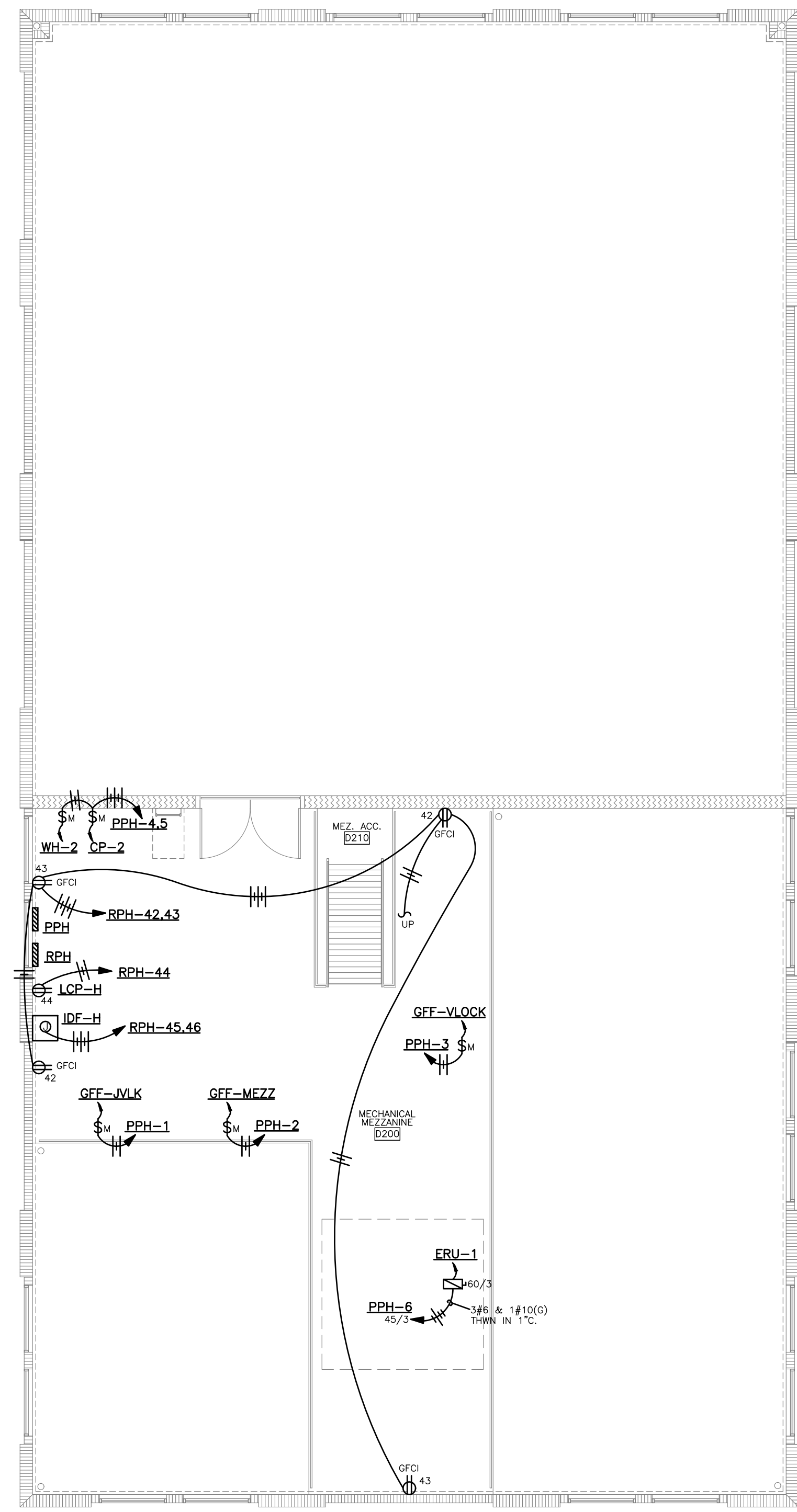
6 OF 9



**LOWER LEVEL LOCKER ROOM/
HITTING FACILITY
FLOOR PLAN - POWER**

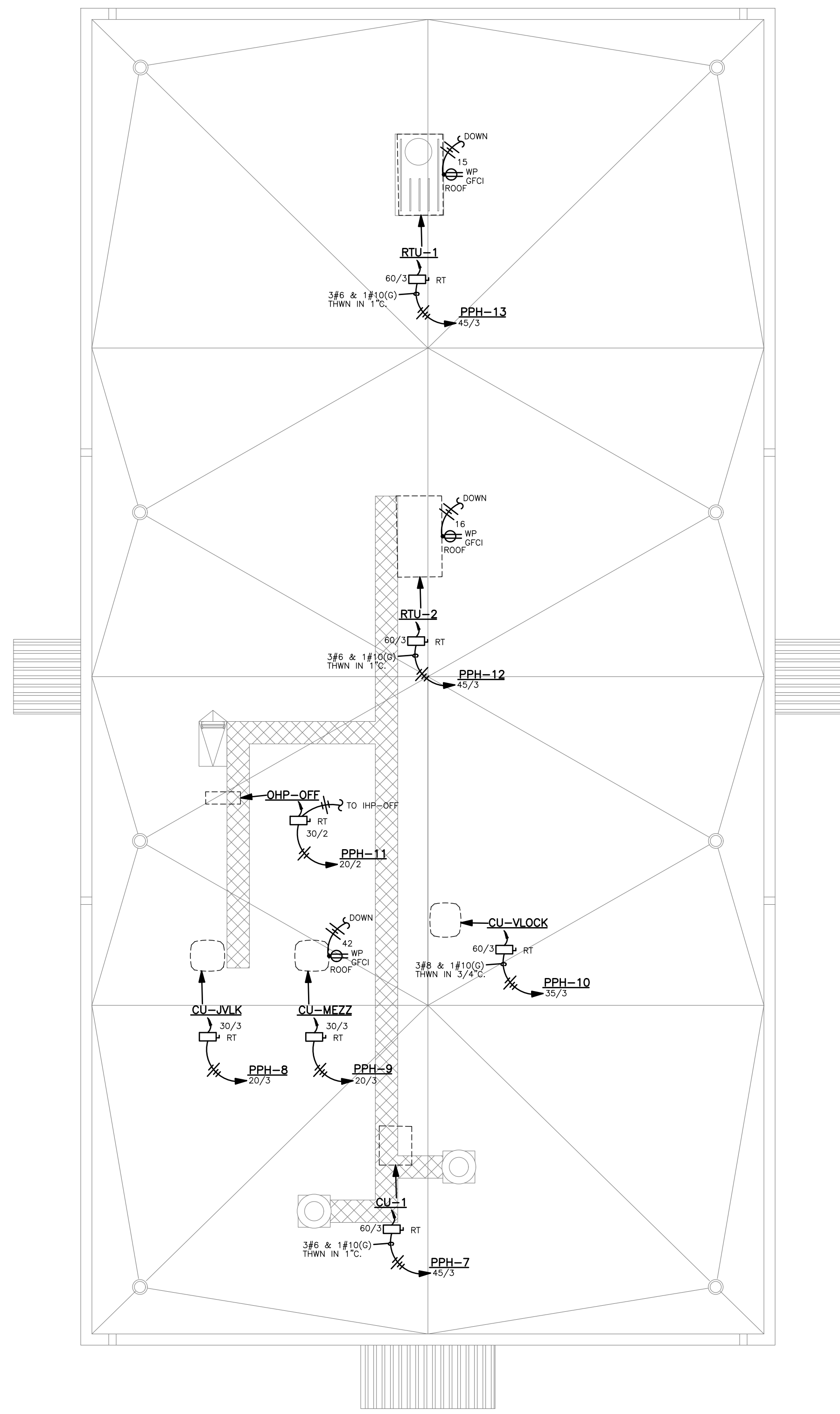
SCALE: 1/8" = 1'-0"

- NOTES:
- COORDINATE ALL OUTLETS AT COUNTER AREAS CLOSELY WITH ARCHITECTURAL CASEWORK DRAWINGS. PLACE OUTLETS BELOW COUNTERS, AT STANDARD MOUNTING HEIGHT, WHEN KNEE SPACE PERMITS ACCESS (COORDINATE INSTALLATION OF HOLES WITH RUBBER GROMMETS IN THOSE CASES).
 - COORDINATE INSTALLATION OF OUTLETS CLOSELY WITH FURNITURE SUPPLIER.
 - ALL BRANCH CIRCUIT HOME RUNS THAT EXCEED 100' IN LENGTH SHALL BE #10 THHN.



**MECHANICAL MEZZANINE LOCKER ROOM/
HITTING FACILITY
FLOOR PLAN - POWER**

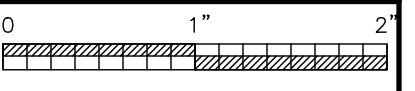
SCALE: 1/8" = 1'-0"

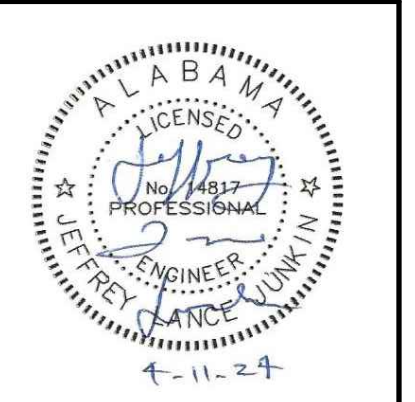


**MECHANICAL MEZZANINE LOCKER ROOM/
HITTING FACILITY
ROOF PLAN - POWER**

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

STEWART ENGINEERING ELECTRICAL CONSULTANTS	
P.O. Box 2233 (36202) 300 East 7th Street (36207) Anniston, Alabama Phone: 256/237-0891 Fax No.: 256/237-1077 Email: services@stewartengineering.org	
Engineer: J. Lance Junkin, P.E. Alabama Reg. 14817	Project Number: 23129





SHEET TITLE:
SOFTBALL FIELD LIGHTING PLAN

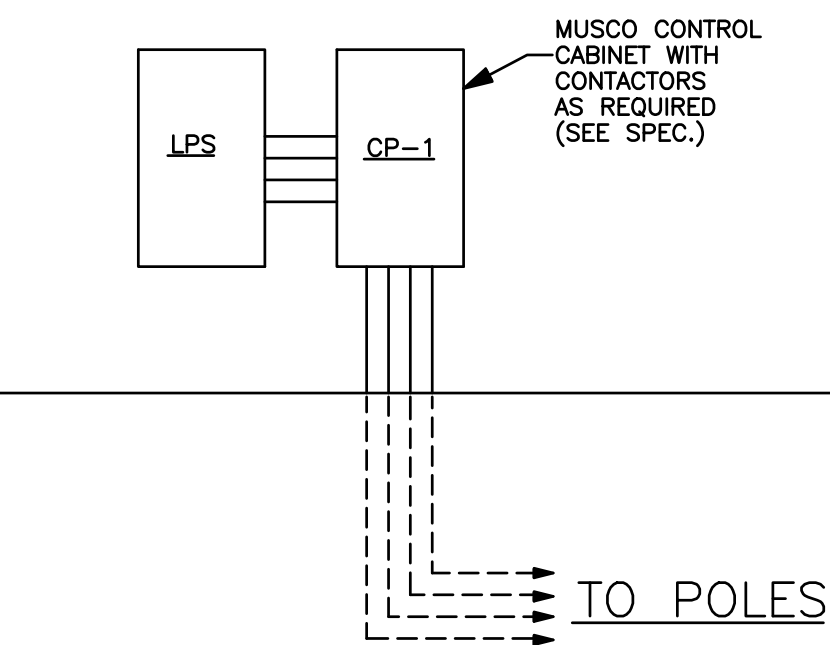
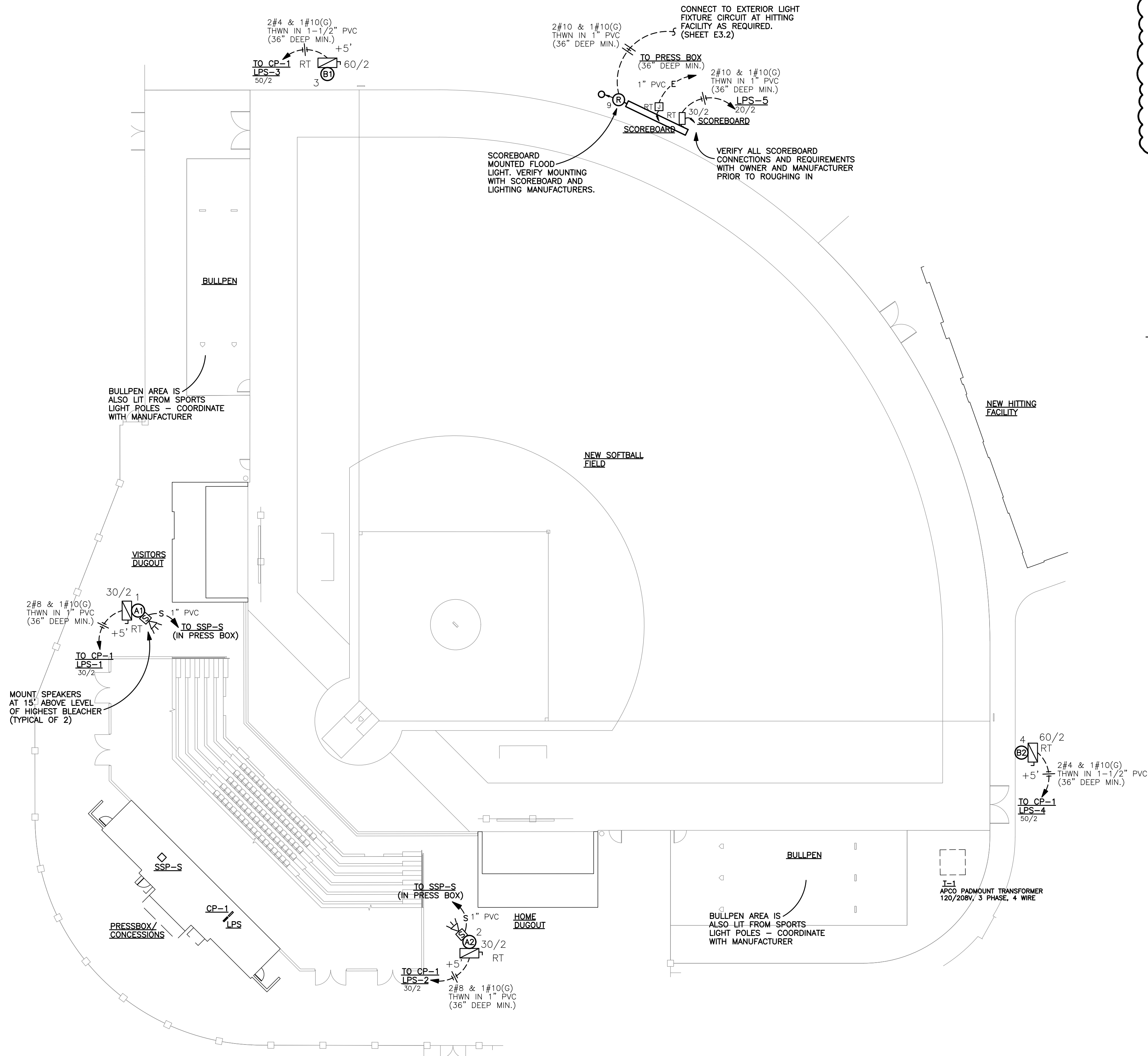
PROJ. MGR.: LANCE JUNKIN
DRAWN: SEC
DATE: MARCH 13, 2024
REVISIONS
ADDENDUM NO. 5
4.11.24

JOB NO. **23-72**
SHEET NO:
E6.1
9 OF 9

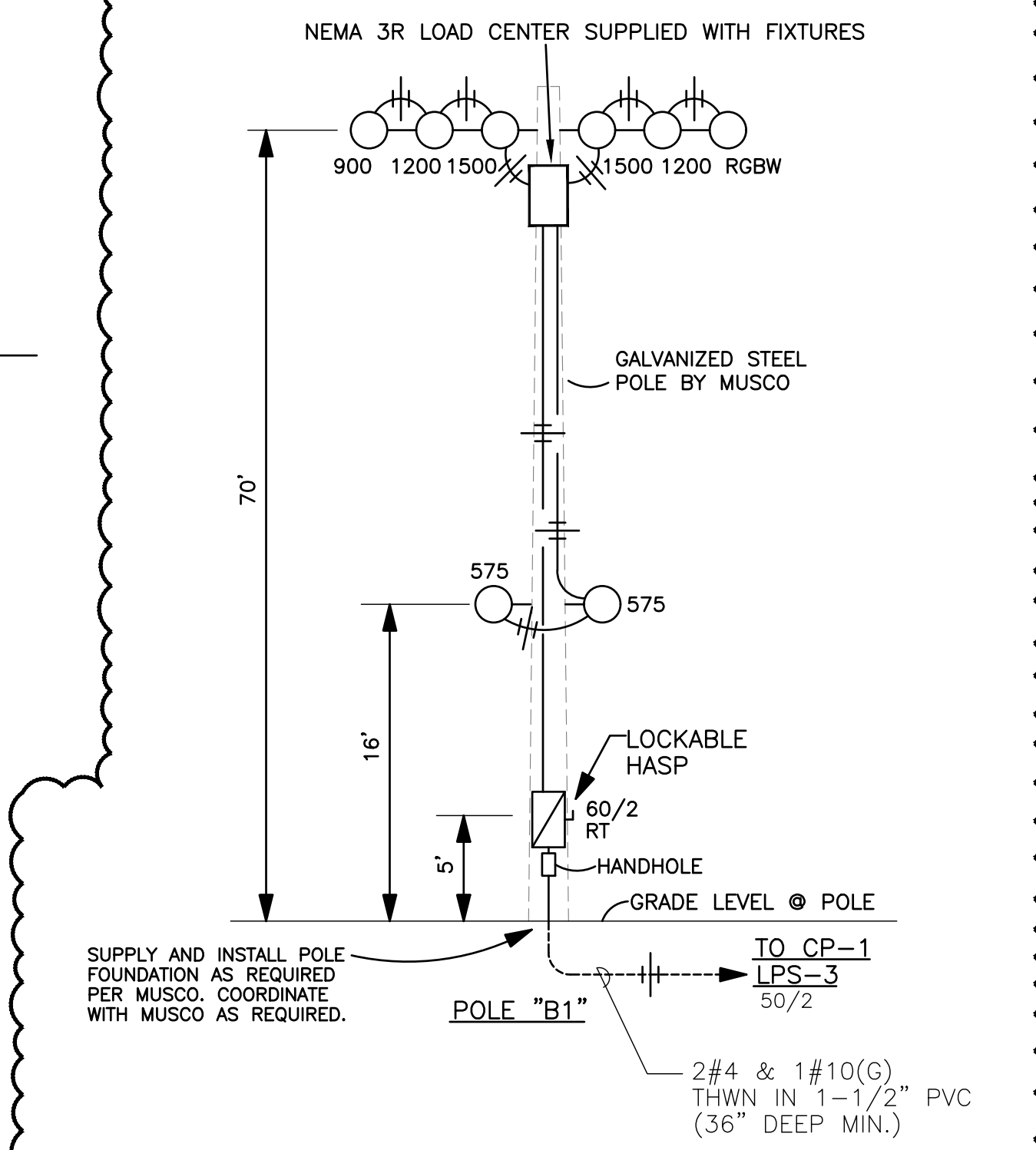
POLE FIXTURE SCHEDULE

MARK	MANUFACTURER	CATALOG NO.	LAMPS			MOUNTING HEIGHT	TYPE MOUNTING	RECESS DEPTH	REMARKS
			NO.	WATTS	TYPE				
A1	MUSCO	TLC-LED-1200, TLC-LED-550, TLC-LED-900, TLC BT-575, TLC-RGBW970	2	1	1200 550	LED	+70' +70'		MUSCO GALVANIZED STEEL POLE
A2	MUSCO	TLC-LED-1200, TLC-LED-550, TLC-LED-900, TLC BT-575, TLC-RGBW970	1	1	1200 550	LED	+70' +23' +70'		MUSCO GALVANIZED STEEL POLE
B1	MUSCO	TLC-LED-1200, TLC-LED-1500, TLC-LED-900, TLC BT-575, TLC-RGBW970	2	2	1200 1500	LED	+70' +23' +70'		MUSCO GALVANIZED STEEL POLE
B2	MUSCO	TLC-LED-1200, TLC-LED-1500, TLC-LED-900, TLC BT-575, TLC-RGBW970	2	1	1200 1500	LED	+70' +16' +70'		MUSCO GALVANIZED STEEL POLE

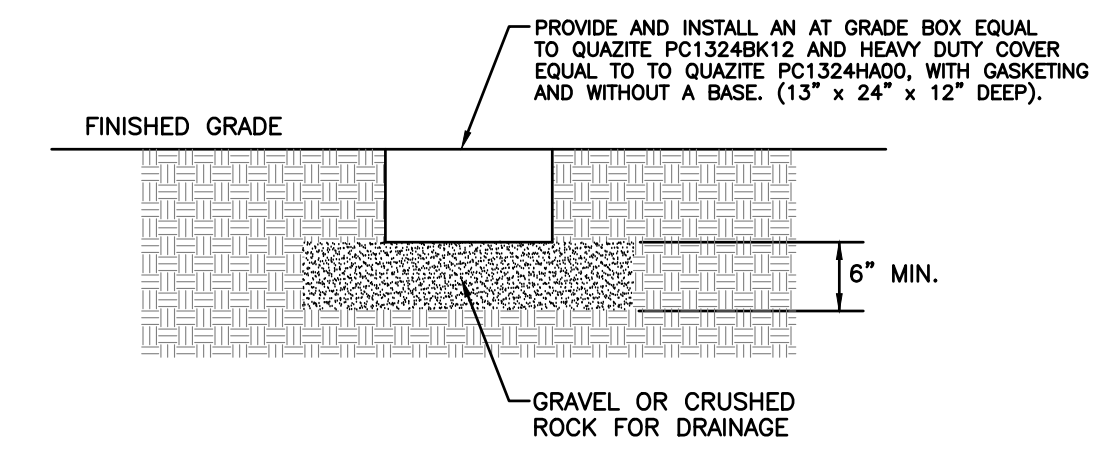
NOTES:
THE MUSCO LIGHTS SHOWN WILL INCLUDE THE SHOW PACKAGE AND COLOR CHANGING. VERIFY WITH MUSCO FOR ANY DATA CABLING RUN FROM THE MUSCO FIXTURES/DRIVERS TO THE PRESSBOX AREA FOR CONTROLS. INCLUDE ANY WIRING AS DIRECTED BY MUSCO.



DETAIL - PANEL CP-1
N.T.S.



DETAIL - POLE WIRING
N.T.S. POLES A1,A2,B2 "SIMILAR"



DETAIL - AT GRADE JUNCTION BOX
N.T.S. (PROVIDE AND INSTALL AS REQUIRED)

WARRANTY NOTE:

- THE ENTIRE SPORTS LIGHTING SYSTEM WORK AS INDICATED TO BE PROVIDED UNDER THIS CONTRACT SHALL INCLUDE A 25 YEAR WRITTEN WARRANTY TO FULLY COVER REPAIR AND/OR REPLACEMENT OF, INCLUDING BUT NOT LIMITED TO: EQUIPMENT, FIXTURES, REMOTE DRIVERS, LAMPS, MOUNTING EQUIPMENT, HARDWARE, CIRCUITRY, LABOR, MILEAGE, ETC. WITHOUT A DOLLAR AMOUNT LIMITATION. A SAMPLE WARRANTY OF SUCH SHALL BE INCLUDED IN THE GENERAL CONTRACTOR'S SEALED BID PROPOSAL PACKAGE AND MAY BE A CONSIDERATION IN DETERMINING THE LOWEST RESPONSIBLE BIDDER.

SOFTBALL FIELD LIGHTING PLAN
SCALE: 1" = 20'
NOTES:
1. ALL POLE EXCAVATION WORK SHALL BE UNCLASSIFIED.

STEWART ENGINEERING ELECTRICAL CONSULTANTS

P.O. Box 2233 (36202)
300 East 7th Street (36207)
Anniston, Alabama
Phone: 256/237-0891
Fax No.: 256/237-1077
Email: services@stewartengineering.org

Engineer: J. Lance Junkin, P.E. Alabama Reg. 14817
Project Number: 23129