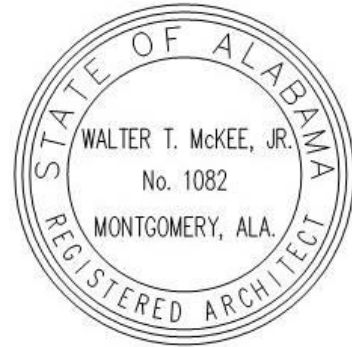


Addendum No. 3
Date: December 6, 2023



Project:

**Additions To Robertsdale High School
For The Baldwin County Board of Education
Robertsdale, Alabama**

MCKEE PROJECT NO. 23-195
ALABAMA DIVISION OF CONSTRUCTION MANAGEMENT NO. 2023533

The following changes and/or substitutions to the plans and specifications are hereby made a part of same and are incorporated in full force as part of the contract.

Bidders shall acknowledge receipt of this Addendum in writing on their Proposal Form.

A3.1 GENERAL MODIFICATIONS:

A. Refer to 00031 Table of Contents Vol 1 of 2 (Revised 12.05.23), herein

A3.2 SPECIFICATIONS MODIFICATIONS:

- A. Refer to **Section 02789 Synthetic Turf**, herein.
- B. Refer to **Section 02831 Vinyl Chain Link Fence and Gates** and **DELETE** in its entirety.
- C. Refer to **Section 02900 Irrigation System (Revised 12.05.23)**, herein.
- D. Refer to **Section 09681 Synthetic Turf** and **DELETE** in its entirety.
- E. Refer to **Section 12500 Window Treatment (Revised 12.05.23)**, herein.
- F. The following manufacturers are hereby approved subject to the plans and specifications:
 - 1. Section **08310, Coiling Counter Doors** – C.H.I. Overhead Doors, Arthur, Illinois; Ph: 800.677.2650
 - 2. Section **09290, Glass Fiber Reinforced Cement Column Covers** – ARC Limited (Architectural Restoration Castings), Leetsdale, PA; Ph: 412.749.1223
 - 3. Section **09672, Resinous Flooring** – Plexi-Chemie Inc., Jacksonville, FL; Ph: 904.693.8800
 - 4. Section **13120, Pre-Engineered Metal Building** – Kirby Building Systems, Portland, TN; Ph: 615.325.4165
 - 5. Section **15000, Mechanical** – Bryant Heating & Cooling Systems | Ph: 800.428.4326

A3.3 DRAWING MODIFICATIONS:

- A. See the attached Revised Drawings as follows:
 - 1. Sheets **C-4.1, C-6.2 (Revised 11-29-2023)**, herein.
 - 2. Sheets **A1.1, A5.1, A5.2, A6.1, A6.2, A6.3, A6.5, A10.1 (Revised 11-29-2023)**, herein.

3. Sheets **E0.1, E1.0, E1.1, E5.1 (Revised 11-29-2023)**, herein.

A3.4 CLARIFICATIONS & RESPONSES:

- A. The tap fee for the 1" irrigation water line is \$1,650.00.

END OF ADDENDUM

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Additions to Robertsdale High School

for the
Baldwin County Board of Education
Bay Minette, Alabama

MCKEE PROJECT NO. 23.195

BIDDING REQUIREMENTS

- Advertisement For Bids
- Request For Information (McKee Form)
- Prior Approval/Substitution Request Form (McKee Form)
- Proposal Form (DCM Form C-3, August 2021)
- Accounting of Sales Tax (DCM Form C-3A, August 2021), Attachment to DCM Form C-3
- Form Of Bid Bond (DCM Form C-4, August 2021)
- Instructions To Bidders (DCM Form C-2, August 2021)
- Special Instructions To Bidders (McKee Form July 2020)

CONTRACT FORMS

- Construction Contract (DCM Form C-5, August 2021)
- State of Alabama Department of Finance, Construction Management Division - Administrative Code 355-16-1 Collection of User Fees
- State of Alabama Department of Finance, Real Property Management, Division of Construction Management Permit Fee & Permit Re-Inspection Fee Calculation Worksheet (Revised August 2021)
- State Of Alabama Department of Revenue "Notice" regarding Tax Guidance for Contractors, Subcontractors and Alabama Governmental Entities Regarding Construction related contracts including Application for Sales and Use Tax Certificate of Exemption Form (Form ST:EXC-01 dated 8/18).
- State of Alabama Disclosure Statement Form, Required by Article 3B of Title 41, Code of Alabama 1975 (Revised 09/2013) with Information and Instructions regarding Relationships Between Contractor/Grantees and Public Officials/Employees.
- State of Alabama E-Verify Memorandum of Understanding Instructions (Revised August 2021) *with* ABC Bulletin (May 29, 2012) *and* Revised Alabama Immigration Law Guidance for School Boards (Revised May 2012).
- Act 2009-657 Requiring Certification Of Fire Alarm Contractors (ABC Memorandum January 19, 2021)
- State Of Alabama Department Of Insurance – Application For State Fire Marshal's Certified Fire Alarm Contractor Permit
- Performance Bond (DCM Form C-6, August 2021)
- Payment Bond (ABC Form C-7, August 2021)

GENERAL CONDITIONS

- General Conditions of the Contract (DCM Form C-8, Revised October 2022)
- Instructions for Contractor's Insurance Company (Article 37 of DCM Form C-8, Revised October 2022)
- Supplement to General Conditions of the Contract (McKee Form August 2020)
- Supplemental Accounting Requirement
- Application and Certificate for Payment (DCM Form C-10, Revised July 2022)
- Schedule Of Values, (DCM Form C-10SOV, Revised October 2021) Attachment to DCM Form C-10
- Inventory Of Stored Materials, (DCM Form C-10SM, Revised October 2021) Attachment to DCM Form C-10
- Pre-Construction Conference Checklist (DCM Form B-8, Revised November 2022)
- Progress Schedule and Report (DCM Form C-11, August 2021)
- Project Data Form (DCM Form B-9, August 2021)
- Statement Of Field Observations (DCM Form B-10, August 2021)
- Change Order Checklist, (DCM Form B-12, August 2021) For Use With DCM Form C-12
- Contract Change Order (DCM Form C-12 (fully locally-funded K-12 Schools), August 2021)
- Change Order Justification (DCM Form B-11, August 2021) Attachment to DCM Form C-12
- Final Payment Checklist (DCM Form B-13, Revised October 2022)
- Certificate of Substantial Completion (DCM Form C-13, Revised November 2022)
- Form of Advertisement for Completion (DCM Form C-14, August 2021)
- Contractor's Affidavit of Payment of Debts and Claims (DCM Form C-18, August 2021)
- Contractor's Affidavit of Release of Liens (DCM Form C-19, August 2021)
- Consent of Surety to Final Payment (DCM Form C-20, August 2021)
- Detail Of Project Sign (DCM Form C-15, Revised December 2021)
- Detail Of Plaque (ABC Form C-16, August 2001)
- General Contractor's Roofing Guarantee (DCM Form C-9, August 2021)
- Certificate of Asbestos Free Building Materials (McKee Form)

TECHNICAL SPECIFICATIONS

DIVISION 01	GENERAL REQUIREMENTS
01010	Scope of Work
01011	Contingency Allowances
01250	Contract Modification Procedures
01290	Payment Procedures
01320	Construction Progress Documentation
01322	Photographic Documentation
01330	Submittal Requirements

01500	Temporary Facilities and Controls
01600	Product Requirements
01700	Execution Requirements
01770	Closeout Procedures
01781	Project Record Documents
01782	Operation and Maintenance Data
01820	Demonstration and Training

DIVISION 02 SITE WORK

02070	Selective Demolition
02100	Site Preparation
02200	Earthwork
02282	Termite Control
02513	Asphaltic Concrete Paving
02514	Portland Cement and Concrete Paving
02660	Water Distribution System
02720	Storm Sewers
02730	Sanitary Sewers
02789	Synthetic Turf
02810	Sodding and Topsoil
02811	Seeding and Topsoil
02830	Temporary Chain Link Fencing & Gates
02900	Irrigation System

DIVISION 03 CONCRETE

03310	Cast-In-Place Concrete
03368	UV Floor System (Sealed Concrete)

DIVISION 04 MASONRY

04200	Unit Masonry
04400	Cast Stone

DIVISION 05 METAL

05120	Structural Steel
05500	Miscellaneous Steel and Metal Fabrications
05540	Metal Studs

DIVISION 06 CARPENTRY

06100	Rough Carpentry
06241	Solid Surface Fabrications

DIVISION 07 MOISTURE PROTECTION

07115	Bituminous Damp-proofing
07200	Insulation
07240	Exterior Insulation Finish System (EIFS)
07260	Under Slab Vapor Barrier
07410	Preformed Metal Roofing and Underlayment
07411	Metal Wall Panels
07600	Flashing and Sheetmetal
07900	Joint Sealers

DIVISION 08 DOORS, WINDOWS AND GLASS

08100	Steel Door Frames
08211	Wood Doors
08220	FRP Doors
08310	Coiling Counter Doors
08330	Coiling Doors
08345	Sound Control Door Assemblies
08410	Aluminum Storefronts
08520	Aluminum Windows (Fixed Impact)
08700	Finish Hardware
08800	Glazing

DIVISION 09 FINISHES

09250	Gypsum Drywall
09301	Porcelain Tile
09290	Glass Fiber Reinforced Cement Column Covers
09500	Linear Metal Ceiling/Soffit System
09510	Acoustical Ceilings
09624	Synthetic Sports Floor System
09650	Rubber Base
09651	Luxury Vinyl Tile (LVT)
09672	Resinous Flooring
09811	Acoustical Sound Diffusers

09843	Sound Absorbing Wall Panels (AWP)
09900	Painting

END OF TABLE OF CONTENTS – VOLUME 1 of 2

SECTION 02789 - SYNTHETIC TURF (INDOOR)

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SCOPE OF WORK

- A. The field turf is indicated on the drawings.
- B. The General Contractor shall be responsible for all quantities of all materials for the furnishing and installation of the synthetic turf system. As stated in the General Conditions the General Contractor shall field verify all existing conditions prior to submitting his proposal. Therefore, the actual quantity of the coverage area for the field turf shall be the responsibility of the General Contractor.
- C. It shall be the responsibility of the turf contractor to provide all labor, materials, equipment and tools necessary for the complete installation of a synthetic grass system, with a specially formulated resilient infill component. The tufted infill system and shall consist of, but not necessarily be limited to, the following:
 - 1. A complete synthetic turf system, consisting of a nominal 2" to 2.5" long polyethylene-blended, monofilament fiber, tufted into a dimensionally stable, three component primary backing with a secondary backing consisting of a minimum of 22- 26 ounces of urethane per square yard.
 - 2. A resilient infill system consisting of a mixture of rubber granules and rounded silica sand, specifically designed to provide the feel, performance, and safety of an optimally maintained natural grass surface. The finished surface shall have the planarity and subtle undulations normally associated with typical natural grass athletic fields/soccer.
 - 3. A compacted layer of Open Graded Stone-installed above a geo-textile membrane.
 - 4. The artificial turf shall be specifically designed, manufactured and installed for the intended sports and events. Typically sports include but are not limited to football. At the time of substantial completion, the system's shock attenuation shall have an average G-max value less than 125 based on ASTM-F355A. At no time shall the G-max value exceed 175 throughout the life of the warranty.
 - 5. Acceptance of prepared sub-base.
 - 6. Coordination with related trades to ensure a complete, integrated, and timely installation: Aggregate base course, sub-base material (tested for permeability), grading and compacting, piping and drain components (when required); as provided under its respective trade section.

1.3 REFERENCE STANDARDS

- 1. FM Factory Mutual
- 2. P7825 - Approval Guide; Factory Mutual Research Corporation; current edition
- 3. ASTM – American Society for Testing and Materials.
- 4. D1577 - Standard Test Method for Linear Density of Textile Fiber
- 5. D5848 - Standard Test Method for Mass Per Unit Area of Pile Yarn Floor Covering
- 6. D1338 - Standard Test Method for Tuft Bind of Pile Yarn Floor Covering
- 7. D1682 - Standard Method of Test for Breaking Load and Elongation of Textile Fabrics
- 8. D5034 - Standard Test Method of Breaking Strength and Elongation of Textile Fabrics (Grab Test)
- 9. F1015 - Standard Test Method for Relative Abrasiveness of Synthetic Turf Playing Surfaces

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10. D4491 - Standard Test Methods for Water Permeability of Geotextiles by Permittivity
11. D2859 - Standard Test Method for Ignition Characteristics of Finished Textile Floor Covering Materials
12. F355 - Standard Test Method for Shock-Absorbing Properties of Playing Surfaces.
13. F1936 - Standard Test Method for Shock-Absorbing Properties of North American Football Field Playing Systems as Measured in the Field
14. D1557 - Test Method for Laboratory Compaction Characteristics of Soil Using Modified Effort.
15. ASTM F355-10, Procedure A: Testing Services Inc test number TSI 1202

1.4 SUBMITTALS

- A. Substitutions: Other products are acceptable if in compliance with all requirements of these specifications. Submit alternate products to Architect for approval prior to bidding.
- B. Product Substitution Procedures:
 1. Provide substantiation that the proposed system does not violate any other manufacturer's patents, patents allowed or patents pending.
 2. Provide a sample copy of insured, non-prorated warranty and insurance policy information.
- A. Submittals: Comply with Submittals Procedures. Submit for approval prior to fabrication.
- B. Prior to order of materials, the Turf Contractor shall submit the following:
 1. Shop Drawings
 2. Product Data including Independent Test Lab Results
 3. Materials Samples
 4. Installation Details
 5. Sample Warranty
 6. Field layout and striping plans
 7. Details on construction, especially any details that may deviate from plans and specifications.
- C. Shop Drawings:
 1. Indicate field layout; field marking plan and details for the specified sports; i.e., NCAA Football; roll/seaming layout; methods of attachment, field openings and perimeter conditions.
 2. Show installation methods and construction indicating field verified conditions, clearances, measurements, terminations, drainage.
 3. Provide joint submission with related trades when requested by Architect.
- D. Product Data:
 1. Submit manufacturer's catalog cuts, material safety data sheets (MSDS), brochures, specifications; preparation and installation instructions and recommendations; storage, handling requirements and recommendations.
 2. Submit the fiber manufacturer's name, type of fiber and composition of fiber.
 3. Submit data in sufficient detail to indicate compliance with the contract documents.
 4. Submit manufacturer's instructions for installation.
 5. Submit manufacturer's instructions for maintenance for the proper care and preventative maintenance of the synthetic turf system, including painting and markings.
- E. Samples:

1. Submit samples, 12 x 12 inches, illustrating details of finished product in amounts as required by General Requirements, or as requested by Architect.
 2. One (1) 12" x 12" sample of proposed synthetic turf carpet and one (1) 12" x 12" boxed turf sample including infill representative of finished synthetic turf system. Also submit three (3) copies of product data and testing documents demonstrating that the proposed system meets or exceeds all specified requirements.
 3. Material Certificates and Samples: Provide seven (7) copies for each material from the material producer that will be used for this project. Each material certificate must be stamped and checked as approved by the Field Builder before submittal to the Architect.
 4. Provide to the Architect materials samples of the following: Two (2) bagged samples each of rubber and sand infill material, two (2) 12" x 12" samples of synthetic turf carpet and color yarn samples.
- F. Product Certification:
1. Submit manufacturer's certification that products and materials comply with requirements of the specifications.
 2. Submit test results indicating compliance with Reference Standards.
- G. Project Record Documents: Record actual locations of seams, drains and other pertinent information in accordance with Division 1 Specifications Series, General Requirements.
- H. List of existing installations: Submit list including respective Owner's representative and telephone number.
- I. Warranties: Submit warranty and ensure that forms have been completed in Owner's name and registered with approved manufacturer.
- J. Testing data to the Owner to substantiate that the finished field meets the required shock attenuation, as per ASTM F1936.
- K. Testing Certification: Submit certified copies of independent (third-party) laboratory reports on ASTM testing:
1. Pile Height, Face Weight & Total Fabric Weight ASTM D5848.
 2. Primary & Secondary Backing Weights ASTM D5848.
 3. Tuft Bind ASTM D1335.
 4. Grab Tear Strength ASTM D1682 or D5034
 5. Shock Attenuation ASTM F1936
 6. Water Permeability ASTM D4491

1.5 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section. The turf contractor and/or the turf manufacturer:
1. Shall be experienced in the manufacture and installation of specified type of synthetic infill and monofilament fiber tufted grass system for a minimum of five (5) years with the same manufacturer, product and company they are proposing for this field.
 2. Shall have 10 fields in play for at least three years with the same manufacturer and company they are proposing for this field. Fields shall be 65,000 ft² or more that are at least 3 years old, which is equal to the respective warranty period, with the same infill system.
 3. Shall provide third party certification confirming that the tuft bind exceeds the Synthetic Turf Council minimums.
 4. Manufacturer's documentation of field turf compliance of DOC FF-1 "pill test" (CPSC 16 CFR, Part 1630), must be obtained prior to installation.

- B. Installer: It is the owner's desire to insure both quality materials and installation. Therefore, all prospective bidders must comply with the following:
 - 1. All turf contractors must have been actively installing infilled synthetic grass systems for a minimum of eight years.
 - 2. **Subcontractors shall be acceptable for the approved manufacturers as listed in this specification section PART 2- PRODUCTS; MATERIALS; Manufacturers, for the infilled synthetic grass system installation. The installer shall be certified by the manufacturer and licensed.**
 - 3. All turf contractors shall demonstrate that they meet the minimum eight-year experience requirement by submitting in writing the project names, contacts and telephone numbers of past installations, where the turf contractor has installed in-filled synthetic grass systems over the last three years.
 - 4. The designated Supervisory Personnel on the project shall be certified, in writing by the turf manufacturer, as competent in the installation of specified monofilament material, including sewing seams and proper installation of the infill mixture.
 - 5. The installer supervisor shall have a minimum of 5 years' experience as either a construction manager or a supervisor of synthetic turf installations
- C. Pre-Installation Conference: Conduct conference at project site at time to be determined by Architect. Review methods and procedures related to installation including, but not limited to, the following:
 - 1. Inspect and discuss existing conditions and preparatory work performed under other contracts.
 - 2. In addition to the Contractor and the installer, arrange for the attendance of installers affected by the Work, The Owner's representative, and the Architect.
- D. The Contractor shall verify special conditions required for the installation of the system.
- E. The Contractor shall notify the Architect of any discrepancies.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Comply with Section, Product Requirements.
- B. Prevent contact with materials that may cause dysfunction.
- C. Deliver and store components with labels intact and legible.
- D. Store materials/components in a safe place, under cover, and elevated above grade.
- E. Protect from damage during delivery, storage, handling and installation. Protect from damage by other trades.
- F. Inspect all delivered materials and products to ensure they are undamaged and in good condition.
- G. Comply with manufacturer's recommendations.

1.7 SEQUENCING AND SCHEDULING

- A. Coordinate the Work with installation of work of related trades as the Work proceeds.
- B. Sequence the Work in order to prevent deterioration of installed system.

1.8 WARRANTY AND GUARANTEE

- A. The Contractor shall provide a warranty to the Owner that covers defects in materials and workmanship of the turf and sub-base for a period of eight (8) years from the date of substantial completion.
- B. The turf manufacturer must verify that their representative has inspected the installation and that the work conforms to the manufacturer's requirements. The manufacturer's warranty shall include general wear and damage caused by UV degradation. The warranty shall specifically exclude vandalism and acts of God beyond the control of the Owner or the manufacturer. The

warranty shall be fully third party insured; pre paid for the entire 8 year term and be non-prorated. The Contractor shall provide a warranty to the Owner that covers defects in the installation workmanship, and further warrant that the installation was done in accordance with both the manufacturer's recommendations and any written directives of the manufacturer's representative. Prior to final payment for the synthetic turf, the Contractor shall submit to owner notification in writing that the field is officially added to the annual policy coverage, guaranteeing the warranty to the Owner. The insurance policy must be underwritten by an "AM Best" A rated carrier and must reflect the following values:

1. Pre-Paid 8-year insured warranty.
2. Insured Warranty Coverage must be provided in the form of 1 single policy.
3. Per Incident limit of no less than Seven Million dollars (\$7,000,000) per claim.
4. Annual Aggregate amount of no less than sixty million dollars (\$60,000,000).
5. Must cover full 100% replacement value of total square footage installed, minimum of \$7.00 per sq ft. (in case of complete product failure, which will include removal and disposal of the existing surface).
6. Policies that include self insurance or self retention clauses shall not be considered.
7. Policy cannot include any form of deductible amount.

Sample policy must be provided at time of contract execution to prove that policy is in force. A letter from an agent or a sample Certificate of Insurance will not be acceptable.

- C. At the time of substantial completion, the system's shock attenuation shall have an average G-max value less than **125** based on ASTM-F355A. At no time shall the G-max value exceed **175** throughout the life of the warranty.

1.9 MAINTENANCE SERVICE

- A. Contractor shall train the Owner's facility maintenance staff in the use of the turf manufacturer's recommended maintenance equipment.
- B. Manufacturer must provide maintenance guidelines and a maintenance video to the facility maintenance staff.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. The following manufacturers' products have been used to establish minimum standards for materials, workmanship and function:
 1. Basis of Design: by Shaw Sports Turf; Legion; www.shawSPORTsturf.com; 185 South Industrial Boulevard, Calhoun, Georgia, 30701; Contact Wynn Vinson: Phone: 601.416.4767; Email: wynn.vinson@shawinc.com.
- B. The following manufacturers are hereby approved subject to the specifications:
 1. AstroTurf; www.astroTurf.com; Contact: Zack Riddleberger (336)238-9060; email:zriddleberger@astroTurf.com
 2. FieldTurf; www.fieldTurf.com; Craig Yancey, Regional Sales Manager, (205)908-5608; Calhoun, Georgia
 3. Sprinturf, LLC; www.sprinturf.com; Charlie Welsh, (651)239-0400; Daniel Island, SC 29492.
 4. Hellas: www.hellasconstruction.com; 1-800-233-5714; Austin, TX

2.1 SYNTHETIC GRASS MATERIALS

- A. The synthetic turf material and resilient infill shall be in accordance with the following:
 1. Shall be tufted, polyethylene, grass-like fabric coated with a secondary backing of high-grade polyurethane. Refer to grid in section 12 below. The two fibers specified in this grid shall be

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- tufted through the same needle in a grass-like fabric to a finished pile-height also specified in the grid.
2. All components and their installation method shall be designed and manufactured for use on outdoor and indoor athletic fields. The materials, as hereinafter specified, shall withstand full climatic exposure in all climates, be resistant to insect infestation, rot, fungus and mildew; to ultra-violet light and heat degradation, and shall have the basic characteristic of flow through-drainage allowing free movement of surface run-off through the turf fabric where such water may flow to the existing subbase and into the field drainage system.
 3. The finished playing surface shall appear as mowed grass with no irregularities and shall afford excellent traction for conventional athletic shoes of all types. The finished surface shall resist abrasion and cutting from normal use. The installed system shall be suitable for football, soccer, lacrosse, baseball, softball, physical education classes, intramurals and recreational use.
 4. The pile yarn (polyethylene) shall be a proven athletic caliber yarn designed specifically for outdoor use and stabilized to resist the effect of ultraviolet degradation, heat, foot traffic, water and airborne pollutants.
 5. The system shall be tufted at the pile height and gauge listed in specification grid, refer to grid in section 9 below.
 6. The Primary Backing must be a multi-layer backing, contain UV stabilizers and must pass 3000 hours of QUV A testing, refer to grid in section 9 below.
 7. The Secondary Backing of high-grade polyurethane shall be applied to the Primary Backing. Secondary Backing adds resistance to water degradation and strengthens grip on fibers, refer to grid in section 9 below.
 8. The entire backing shall be coated with holes perforated throughout the backing at the Synthetic Turf Manufacturer's recommended interval to allow for drainage. Partially coated backings or latex coating materials shall not be acceptable.
 9. Perimeter and interior edge details, underground storm sewer piping and connections, and goal post foundations required for the system shall be as detailed and recommended by the manufacturer and as approved by the Architect.
 10. All designs, markings, layouts, and materials shall conform to all currently applicable National Federation or NCAA rules and other standards that may apply to this type of synthetic grass installation.
 11. All field markings including numbers, arrows, hash marks, and sport specific lines or other designations will either be tufted in at the factory or inlaid on site. **Painted markings are not to be used.** Provide as follows:
 - a. **See Drawings.**
 12. Composition:

Pile Yarn	Polyethelene Monofilament/Slit Film	METHOD
Linear Density (Denier) Mono/Slit*	7,200/5,000	ASTM D 1577
Yarn Thickness Mono/Slit	240/100 microns	ASTM D 3218
Pile Weight****	46 oz./yd ²	ASTM D 5848
Finished Pile Height****	2.25	ASTM D 5823
Product Weight (total)***	74 oz./yd ²	ASTM D 5848
Primary Backing Weight****	8 oz./yd ²	ASTM D 5848
Secondary Coating Weight+	20 oz./yd ²	ASTM D 5848

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Fabric Width	15' (4.57m)	ASTM D 5793
Tuft Gauge	1/2"	ASTM D 5793
Grab Tear Strength Avg.	> 200 lb.-F	ASTM D 5034
Tuft Bind (Avg.)	> 10 lb.-F	ASTM D 1335
Infilltrometer	> 25	ASTM D3885

Except where noted the above specifications are nominal.

* Values are +/- 8%. ***Values are +/- 10 oz. ****Values are +/- 5%. +Values are +/- 3 oz./yd2.

13. Infill materials must conform to the following:

Property	Standard	Specification
Rubber Granule Comp	N/A	All black SBR
Rubber Granule Shape	EN 14955	Spherical, Moderate, Angular
Rubber Sieve Analysis	ASTM D 5644	10 / 20MESH (2.0mm – 0.85mm)
Sand Granule Shape	ASTM D442	Semi-rounded to rounded angularity
Sand Sieve Analysis	ASTM E11	20 / 40 MESH (0.85mm - 0.425 mm)
Infill Lbs. of Rubber	N/A	3.10 lbs.
Infill Lbs. of Sand	N/A	3.10 lbs.

2.2 FIELD GROOMER & SWEEPER

A. Contractor shall furnish a field groomer and sweeper as part of the work.

1. Field Groomer and Field Sweeper shall be by the manufacture of the turf system.
2. Field Sweeper shall include a towing attachment compatible with a field utility vehicle.

2.3 QUALITY CONTROL IN MANUFACTURING

- The manufacturer shall own and operate its own manufacturing plant in North America. Both tufting of the field fibers into the backing materials and coating of the turf system must be done in-house by the turf manufacturer. Outsourcing of either is unacceptable.
- The manufacturer shall have full-time certified in-house inspectors at their manufacturing plant that are experts with industry standards.
- The manufacturer's full-time in-house certified inspectors shall perform pre-tufting fiber testing on tensile strength, elongation, tenacity, denier, shrinkage, and twist i.e., turns per inch, upon receipt of fiber spools from fiber manufacturer.
- Primary backing shall be inspected by the manufacturer's full-time certified in-house inspectors before tufting begins.
- The manufacturer's full-time in-house certified inspectors shall verify "pick count", yarn density in relation to the backing, to ensure the accurate amount of face yarn per square inch.
- The manufacturer's full-time, in-house, certified inspectors shall perform turf inspections at all levels of production including during the tufting process and at the final stages before the turf is loaded onto the truck for delivery.
- The manufacturer shall have its own, in-house laboratory where samples of turf are retained and analyzed, based on standard industry tests, performed by full-time, in-house, certified inspectors.

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- H. The manufacturer must have ISO 9001, ISO 14001 and OHSAS 18001 certifications demonstrating its manufacturing efficiency with regards to quality, environment and safety management systems.

PART 3 - EXECUTION

3.1 GENERAL

- A. **Prior to ordering materials, submit a seam layout of field, striping plan and all details of construction that deviate from the plans and specifications.**

3.2 EXAMINATION

- A. Base Acceptance: The Architect and/or Owner's Representative and Turf Contractor must jointly approve the base before turf installation can begin.
- B. Verify that all sub-base leveling is complete prior to installation.
- C. Installer shall examine the surface to receive the synthetic turf and accept the sub-base planarity in writing prior to the beginning of installation.
 - 1. Acceptance is dependent upon the Contractors test results indicating compaction and planarity are in compliance with manufacturer's specifications.
 - 2. The surface shall be accepted by Installer as "clean" as installation commences and shall be maintained in that condition throughout the process.
- D. Compaction of the aggregate base shall be 95%, in accordance with ASTM D1557 (Modified Proctor procedure); and the surface tolerance shall not exceed 0-1/4 inch over 10 feet and 0-1/2" from design grade.
- E. Correct conditions detrimental to timely and proper completion of Work.
- F. Do not proceed until unsatisfactory conditions are corrected.
- G. Beginning of installation means acceptance of existing conditions.

3.3 PREPARATION

- A. Prior to the beginning of installation, inspect the sub-base for tolerance to grade.
- B. Sub-base acceptance shall be subject to receipt of test results (by the Contractor) for compaction and planarity that sub-base is in compliance with manufacturer's specifications and recommendations.
- C. Dimensions of the field and locations for markings shall be measured by a registered surveyor to verify conformity to the specifications and applicable standards. A record of the finished field as-built measurements shall be made.
- D. When requested by Architect, installed sub-base shall be tested for porosity prior to the installation of the turf. A sub base that drains poorly is an unacceptable substrate.

3.4 BASE

- A. The synthetic turf Base Contractor shall strictly adhere to the installation procedures outlined under this section. Any variance from these requirements must be accepted in writing by the Turf Contractor's on-site representative, and submitted to the Architect/Owner, verifying that the changes do not in any way affect the warranty.
- B. Install geotextile fabric over excavated and prepared sub-grade in accordance Architect's recommendations. Provide a 36" minimum overlap at all seams. The entire field shall be covered with fabric prior to the base aggregate application.
- C. Pressure Treated Wood Turf Nailer: The synthetic turf perimeter fastening structure shall be installed before the drainage aggregate.

1. Install a pressure treated wood 2x4 nailer. Pressure treated wood nailer shall be set below the top of the floor slab as specified by means of a Tapcon or ramset every 12 inches. This shall be the responsibility of the Base Contractor.
- D. Base Drainage Aggregate: The installation of the base drainage aggregate shall only begin after the base grade soil has been inspected and approved by Architect/Owner's Representative and installer. Installation of the Free Draining Base Aggregate shall follow procedures that protect the base grade soils.
1. The base grade subsoil shall be dry before undertaking the placement of base aggregate.
 2. Delivery trucks shall enter the field only from the designated entrance point. Base course stone shall be dumped closest to the entrance first and continuously worked towards the furthest point of the field. Extreme care must be taken not to disturb the subgrade.
 3. Track-type dozers shall push out the stone from behind the pile onto and toward the field center. Dozers shall only traffic the aggregate they are spreading.
 4. Bulldozer blades shall be equipped with a laser-guided hydraulic system. Care shall be taken not to disturb or contact the base grade soil with the dozer blades or tracks. All equipment trafficking over the drainage aggregate shall insure there is a minimum depth of 4" of aggregate between the geotextile fabric and the dozer track ground contact position.

When the aggregate spreading is completed, the surface shall be further-firmed by a 5-ton roller. Static vibration shall not be part of this process.
 5. The stone shall be left firm, but not over-compacted as to protect the porosity and drainage capabilities of the aggregate profile.
 6. After the drainage stone has been uniformly spread throughout the surface, the surface shall receive a final laser finished grade. This process shall be accomplished using a turf-type tractor, or lightweight grader, equipped with high flotation tires and a hydraulically controlled laser blade.
 7. The free-draining base course must be installed to a depth of 5 inches and shall be independently tested for an overall compaction rate of 95% proctor.
- E. Choker Levels: The base drainage stone final elevations shall mirror the proposed choker layer final grade material. Care shall be taken not to allow the coarser aggregate to surface into the profile or finished grade of the choker layer.
1. The choker layer shall be applied using high flotation grading equipment. The choker material shall be evenly spread throughout the proposed field surface to the final pre-pad or pre-turf elevations.
 2. After the choker material has been uniformly spread throughout the surface by the described method, the surface shall receive a final laser finish grade. This process shall be accomplished using a turf-type tractor, or lightweight grader, equipped with high flotation tires and a hydraulically controlled laser blade.
 3. Care shall be taken throughout the installation not to force the choker material into the porosity of the base aggregate below.
 4. The final choke layer must be graded by means of a laser within 0 to 1/2 inch from design grade. The finished surface tolerance must not exceed 1/4 inch over 10 feet in all directions. Base Contractor must provide a topographical survey with a minimum of 200 shots demonstrating finished grade meets all written requirements.
 5. The final layer of stone must be installed at a depth of one (1) inch. Finished aggregate base must be proof-rolled by means of 2- to 5-ton roller. The finished aggregate base must achieve an overall compaction rate of 95% proctor in accordance with ASTM D1557. It shall also be flush with top of pressure treated wood nailer.
 6. The Contractor is required to stringline the entire field every five feet to identify high and low spots. Any identified high and low spots must be eliminated prior to installation of the synthetic turf.

3.5 TURF INSTALLATION - GENERAL

- A. The installation shall be performed in full compliance with approved Shop Drawings.
- B. Only trained technicians, skilled in the installation of athletic caliber synthetic turf systems working under the direct supervision of the approved installer supervisors, shall undertake any cutting, sewing, gluing, shearing, topdressing or brushing operations.
- C. The designated Supervisory personnel on the project must be certified, in writing by the turf manufacturer, as competent in the installation of this material, including seams and proper installation of the Infill mixture.
- D. Designs, markings, layouts, and materials shall conform to all currently applicable National Collegiate Athletic Association rules, NFHS rules, and/or other rules or standards that may apply to this type of synthetic grass installation. Designs, markings and layouts shall first be approved by the Architect or Owner in the form of final shop drawings. All markings will be in full compliance with final shop drawings.

3.6 INSTALLATION

- A. Install at location(s) indicated, to comply with final shop drawings, manufacturer's / installer's instructions.
- B. Only factory-trained technicians, skilled in the installation of athletic caliber synthetic turf systems working under the direct supervision of the synthetic turf manufacturer's installation supervisors shall undertake the placement of the system.
- C. The surface to receive the synthetic turf shall be inspected and certified by the turf manufacturer as ready for the installation of the synthetic turf system and must be perfectly clean as the installation commences and shall be maintained in that condition throughout the process.
- D. The Contractor shall strictly adhere to specified procedures. Any variance from these requirements shall be provided in writing, by the manufacturer's on-site representative, and submitted to the Architect and/or Owner, verifying that the changes do not in any way affect the Warranty. Infill materials shall be approved by the manufacturer and installed in accordance with the manufacturer's standard procedures.
- E. The subbase and curbs shall be inspected by the Engineer or Sitework Contractor by means of a laser level and plotted on a 10-foot grid. Based upon the Turf Contractor's inspection of the topographical survey, the Sitework Contractor shall fine grade the subbase suitably - including properly rolling and compacting the base to achieve a surface planarity within $\frac{1}{4}$ " in 10 feet (+0, - $\frac{1}{4}$ "0). OWNER, ENGINEER OR PRIME CONTRACTOR SHALL NOT APPROVE THE SUBBASE FOR TOLERANCE TO GRADE WITHOUT OBTAINING THE TOPOGRAPHICAL SURVEY.
- F. The Turf Project Superintendent shall thoroughly inspect all materials delivered to the site both for quality and quantity to assure that the entire installation shall have sufficient materials to maintain the schedule and proper mixing ratios.
- G. Synthetic turf shall be loose laid across the field and attached to the perimeter edge detail. Turf shall be of sufficient length to permit full cross-field installation. No head or cross seams will be allowed, except as required for inlaid fabric striping or to accommodate programmed cut-outs.
- H. All seams shall be flat, tight, and permanent with no separation or fraying. Selvedge edges of all panels must be cut and discarded prior to being sewn together. A butt-stitch method of seaming must be implemented and a double-lock stitch with cord recommended by the Synthetic Turf Manufacturer shall be utilized. Bagger stitching is prohibited. Seaming tape is to be constructed of high tenacity, coated non-woven fabric. Inlaid markings shall be adhered to seaming tape with a high strength polyurethane adhesive applied per the Synthetic Turf Manufacturer's standard procedures for outdoor applications.
- I. All main fabric seams shall be transverse to the field direction (i.e. run perpendicularly across the field).

- J. Infill materials shall be properly applied in numerous lifts using special broadcasting equipment. The synthetic turf shall be raked and brushed properly as the mixture is applied. The infill material shall be installed to a settled depth of approximately 5/8 inches of the fiber exposed. The infill materials can only be applied when the synthetic turf fabric is dry.
- K. g-Max (shock attenuation) must test below 125 at installation.

3.7 FIELD MARKINGS

- A. Field markings shall be installed in accordance with approved shop drawings. Football is designated as the primary sport, all yard lines will be tufted-in.
- B. All sports markings will be inlaid in accordance with the Drawings.
- C. Center field logo shall be inlaid according to artwork indicated on Drawings and in accordance with Owners palette of colors.
- D. End-zone letters and logos shall be inlaid according to artwork and fonts indicated on the Drawings, and in accordance with Owners palette of colors.

3.8 ADJUSTMENT AND CLEANING

- A. Do not permit traffic over unprotected surface.
- B. Contractor shall provide the labor, supplies, and equipment as necessary for final cleaning of surfaces and installed items.
- C. All usable remnants of new material shall become the property of the Owner.
- D. The Contractor shall keep the area clean throughout the project and clear of debris.
- E. Surfaces, recesses, enclosures, and related spaces shall be cleaned as necessary to leave the work area in a clean, immaculate condition ready for immediate occupancy and use by the Owner.

3.9 PROTECTION

- A. Protect installation throughout construction process until date of final completion.

END OF SECTION

SECTION 02900 - IRRIGATION SYSTEM

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the contract including General and Supplementary Conditions and Division 1 Specification Sections apply to work of this section.

1.2 DESCRIPTION OF WORK

- A. Work included: General Contractor shall provide irrigation system **as designed by the Irrigation supplier** for the entire new Band Field, shown on sheet C-4.1. The work includes, but is not limited to:
 - 1. Complete in place, tested and approved, including but not necessarily limited to, the lawn sprinkler system, automatic controller and remote-control valves and separate irrigation water meter.
 - 2. Trench, backfill and compaction for irrigation lines.
 - 3. Automatically controlled landscape irrigation system; backflow preventer; pressure reducing valve; isolation gate valves; piping and sleeves under paving; repair of paving, main and lateral lines; electrical valves and wiring; valve boxes and controllers; sprinklers; couplings; connectors; fittings; and tap and meter.
 - 4. Test all systems and make operative.
 - 5. Submit Record Drawings and Maintenance Manual.
 - 6. One-year Guarantee Period.
 - 7. Maintain and operate for 1-year beyond Date of completion of Substantial Completion punch list.
 - 8. Automatic controller shall be located on the south wall of room 854 Utility.

1.3 QUALITY ASSURANCE

- A. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.
- B. Installer Qualifications:
 - 1. Firm shall hold Alabama General Contractors License for Specialty Construction, Sub-classification - Landscaping or Other Specialty Construction (specified as Irrigation). Firm experienced in the successful installation of a minimum of five (5) projects within the past five (5) years similar in scope, quality, and contract value to that indicated for this project. Firm shall have sufficient manpower, equipment and financial resources to complete the Work of this Section.
 - 2. The Owner and the Architect reserve the right to reject any and all materials and workmanship, which they deem to be not in accordance with Drawings and Specifications. Rejected materials and work shall be removed from site immediately and replaced with that of the specified quality.
- C. Applicable Standards:
 - 1. ASTM:
 - a. D1785: Poly (Vinyl Chloride) (PVC) Plastic Pipe, Schedule 40.
 - b. D2464: Poly (Vinyl Chloride) (PVC) Plastic Pipe Fittings, Threaded, Schedule 40.
 - c. D2466: Poly (Vinyl Chloride) (PVC) Plastic Pipe Fittings, Socket Type, Schedule 40.
 - d. D2564: Solvent Cements for Poly (Vinyl Chloride) (PVC) Plastic Pipe and Fittings.
 - 2. Applicable Codes:

- a. Currently adopted edition of the International Plumbing Code.
 - b. Currently adopted edition International Building Code.
 - c. All applicable local codes and ordinances.
 - d. National Electrical Code.
 - e. Should Specification's requirements differ from local requirements, consider Contract Document requirements to be the minimum acceptable and comply with any more stringent local requirements.
- D. Permits and Fees:
1. Obtain all permits and pay required fees to any agency having jurisdiction over the work.
 2. Arrange inspections required by local ordinances during the course of construction.
 3. Upon completion of the work, furnish satisfactory evidence to show that all work has been installed in accordance with the ordinances and code requirements.

1.4 SUBMITTALS

- A. Product Data: Within thirty (30) calendar days after the Contractor has received the Owner's Notice to Proceed, submit:
1. Materials list of items proposed to be provided under this Section.
 2. Manufacturer's specifications and other data needed to prove compliance with the specified requirements.
 3. Manufacturer's recommended installation procedures which, when approved by the Architect, will become the basis for accepting or rejecting actual installation procedures used for the Work.
- B. As-built Drawings: Any changes in the layout and/or arrangements of the proposed irrigation system, or any other differences between the proposed system and actual installed conditions are to be recorded by the Irrigation Contractor in the form of an "As-Built" drawing. Provide the Owner and the Architect with a copy of the drawings before work under this Contract will be considered for acceptance. All isolation valve locations shall be shown with actual measurements to reference points so they may be located easily in the field.

1.5 WARRANTY

- A. Warranty for all work for a period of one (1) year after date of final acceptance of the work in total, against defects in materials, equipment, workmanship and any repairs required resulting from leaks or other defects of workmanship, material or equipment.
1. Repair unsatisfactory conditions promptly at no cost to the Owner.
 2. Emergency repairs may be made by the Owner without relieving the Irrigation Contractor of his warranty obligations.
 3. Repair settling of backfilled trenches occurring during the warranty period, including restoration of damaged plantings, paving or improvements resulting from settling of trenches or repair operations.
 4. Respond to Owner's request for repair work within five (5) calendar days. If not, Owner may proceed with such necessary repairs at the Contractor's expense.

PART 2 – PRODUCTS

2.1 PIPE

- A. Plastic Pipe:

1. Use three quarter inch ($\frac{3}{4}$ ") and one inch (1") sizes, Class 200 polyvinyl chloride; and one and one quarter inch ($1\frac{1}{4}$ ") and up, Class 160 polyvinyl chloride, bearing the seal of the National Sanitation Foundations, unless otherwise specified by local codes.
2. Fittings: Use Schedule 40 polyvinyl chloride, type I-II, bearing the seal of the National Sanitation Foundation, and complying with ASTM D2466.
3. For joining, use a solvent complying with ASTM D2466 and recommended by the manufacturer of the approved pipe.
4. Plastic Pipe Identification: Continuously and permanently mark with manufacturer's name, pipe size, schedule number, type of material and code number.

2.1 RISERS

- A. Lawn Heads: Polyethylene cut-off type or swing joints.
- B. Quick Coupling Valves: Use Schedule 80 PVC. Pipe nipples and Schedule 40 Street Ells as a three elbow swing joint to permit readjustment of valve angle.

2.2 VALVES

- A. Gate Valve:
 1. Provide one hundred and twenty-five (125) pound rated screwed valve of size required for the line as shown on the Drawings.
 2. Acceptable manufacturers:
 - a. Harvard
 - b. Crane
 - c. Equal products of other manufacturers may be used in the work provided, such products have been approved, by the Architect, not less than Ten (10) days prior to scheduled bid opening.
- B. Quick Coupling Valves
 1. Provide specified size, one piece construction, all brass to fit single or double lug couplers.
 2. Deliver to the Owner the following items, all matching the approved quick coupling valves:
 - a. coupler keys - quantities as specified
 - b. hose swivels - quantities as specified
 3. Acceptable Manufacturers:
 - a. Toro
 - b. Rainbird
 - c. Equal products of other manufacturers may be used in the work provided, such products have been approved, by the Architect, not less than Ten (10) days prior to scheduled bid opening.

2.3 MANUAL AND AUTOMATIC VALVE SLEEVES

- A. For Manual Control Valve:
 1. Provide flexible plastic sleeve and four inch (4") cyclac marker.
- B. For Gate Valves:
 1. Provide round reinforced plastic boxes with lids, with the word "WATER" cast into the lids.
- C. Acceptable manufacturers:
 1. Ametek
 2. Equal products of other manufacturers may be used in the work provided, such products

have been approved, by the Architect, not less than Ten (10) days prior to scheduled bid opening.

2.4 SPRINKLER HEADS

- A. Provide the sprinkler heads as located by Irrigation Contractor.

2.5 BACKFLOW PREVENTER

- A. Provide at the new irrigation meter (in this project). Double check type backflow preventer.
- B. Acceptable manufacturers:
 - 1. Watts #700
 - 2. Equal products of other manufacturers may be used in the work provided, such products have been approved, by the Architect, not less than Ten (10) days prior to scheduled bid opening.

2.6 OTHER MATERIALS

- A. Provide other materials, not specifically described but required for a complete and proper installation as selected by the Contractor subject to the approval of the Architect.

PART 3 – EXECUTION

3.1 SURFACE CONDITIONS

- A. Examine the areas and conditions under which work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the Work. Do not proceed until unsatisfactory conditions are corrected.

3.2 FIELD MEASUREMENTS

- A. Make necessary measurements in the field to ensure precise fit of items in accordance with the approved design.

3.3 TRENCHING AND BACKFILLING

- A. Trench, backfill and compact in accordance with the detail on the drawings.

3.4 INSTALLATION OF PIPING

- A. Lay out the piping system in accordance with arrangement shown on the Drawings.
- B. Where piping is shown on the Drawings to be under paved areas but running parallel and adjacent to planted areas, the intention is to install the piping in the planted areas.
- C. Unless otherwise indicated, comply with requirements of Uniform Plumbing Code.
- D. Piping Depth: Install piping with at least the following minimum depth:
 - 1. Main lines - 18"
 - 2. Laterals - 12"
- E. Plastic Pipe:
 - 1. Exercise care in handling, loading, unloading and storing plastic pipe and fittings:
 - a. Store under cover until ready to install.
 - b. Transport only in a vehicle with a bed long enough to allow the pipe to lay flat to avoid undue bending and concentrated external load.
 - c. Repair dented and damaged pipe by cutting out and discarding the dented or damaged section, and rejoining with a coupling.
 - d. In jointing, use only the specified solvent and make joints in accordance with the manufacturer's recommendations as approved by the Landscape Architect.

- e. Center load plastic pipe with a small amount of backfill to prevent arching and whipping under pressure.
- f. For plastic-to-steel connections:
 - i. Work the steel connection first.
 - ii. Use Teflon tape on threaded plastic-to-steel connections.
 - iii. Use only light wrench pressure.

3.5 INSTALLATION OF EQUIPMENT

- A. Install manual and automatic control valves where indicated on the Drawings and in accordance with the manufacturer's recommendations as approved by the Architect.
- B. Quick Coupling Valves:
- C. Install in lawn areas with the top flush with the finish grade, and eight inches (8") from pavements and heads.
- D. Lawn Sprinkler Heads:
 - 1. Install in accordance with the manufacturer's recommendations as approved by the Architect. Set heads at finished grade.

3.6 TESTING AND INSPECTING

- A. Testing:
 - 1. Notify Architect twenty-four (24) hours prior to pressure test. Unless otherwise instructed, Architect shall be present at pressure test.
 - 2. Make necessary provision for thoroughly bleeding the line of air and debris.
 - 3. After valves have been installed, test live water lines for leaks at a pressure of one hundred (100) psi for a period of two (2) hours, with a five (5) psi pressure loss.
 - 4. Observe lateral lines for leaks during operation.
 - 5. Provide required testing equipment and personnel.
 - 6. Repair leaks, and retest until acceptance by the Architect.
- B. Final Inspection:
 - 1. Clean, adjust, and balance all systems. Verify that:
 - a. Remote control valves are properly balanced.
 - b. Heads are properly adjusted for radius and arc of coverage;
 - c. The installed system is workable, clean and efficient.

3.7 INSTRUCTIONS

- A. Attach legible legend inside each controller door, stating the areas covered by each remote control valve.
- B. After the system has been completed, inspected and approved, instruct the Owner's maintenance personnel in the operation and maintenance of the system.

3.8 CLEAN UP AND PROTECTION

- A. During irrigation work, keep pavements clean and work area in an orderly condition.
- B. Upon completion of work, clear grounds of debris, superfluous materials and all equipment. Remove from site to satisfaction of Architect and Owner.
- C. Protect landscape work and materials from damage due to irrigation operations, operations by other contractors and trades and trespassers. Maintain protection during installation and

maintenance periods. Treat, repair or replace damaged work as directed, at no additional cost to the Owner.

END OF SECTION

SECTION 12500 - WINDOW TREATMENT

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 work of this section.

1.2 DESCRIPTION OF WORK

- A. Types of window treatment work in this section include:
 - 1. 2" Horizontal Faux Wood Slat Blinds and operating hardware.
- B. Location: All exterior windows.

1.3 QUALITY ASSURANCE

- A. General: Provide window treatment units which are complete assemblies produced by one manufacturer for each type required, including hardware, accessory items, mounting brackets, and fastenings.
- B. Furnish materials in colors and patterns as indicated, or, if not indicated, as selected by Architect from manufacturer's standard colors/patterns.
- C. Manufacturer Qualifications: Company specializing in manufacturing the Products specified in this section with minimum three years documented experience.

1.4 REFERENCE STANDARDS

- A. WCMA A100.1 - Safety of Corded Window Covering Products; Window Covering Manufacturers Association; 2010. (ANSI/WCMA A101.1)

1.5 SUBMITTALS

- A. Product Data: Submit manufacturer's specifications and installation instructions for each type of window treatment unit required. Include methods of installation for each type of opening and supporting structure.
- B. Shop Drawings: Submit shop drawings for special components and application conditions of window treatment units which are not fully dimensioned or detailed in manufacturer's product data. Show relationship to adjoining work.
 - 1. Include typical elevation layout indicating proposed division between blind units and meeting edges at corners. Provide sections and details at head and sill between blind units and corners including inclined installations.
 - 2. Provide schedule of all units to be furnished, including field measurements at each location.
- C. Samples: For selection of colors, submit manufacturer's color charts consisting of sections of exposed components with integral or applied finishes showing full range of colors, materials, etc. available for each type of window treatment assembly required.

1.6 WARRANTY

- A. Products shall be manufactured exempt of any sharp edges, burrs, or other defects.
- B. Provide manufacturer's limited lifetime warranty on head rail and other components.
- C. Provide 5 year manufacturer's warranty for slats.

PART 2 - PRODUCTS

2.1 MANUFACTURER

- A. The following manufacturers' products have been used to establish minimum standards for materials, workmanship and function:

1. CACO, Inc. Window Fashions; www.cacoinc.com; 119 Perma R Rd., Johnson City, TN 37604; PH: 1.800.552.5278
 2. Bali; www.baliblinds.com; 8467 Route 405 Highway South, P.O. Box 500, Montgomery, PA 17752; Phone: 877.792.0002
 3. Levolor; www.levolor.com; 3 Glenlake Parkway NE, 10th Floor, Atlanta, GA 30328; 1.800.752.9677
 4. Graber Industries, Inc.; www.graberblinds.com; 8467 Route 405 Highway South, P.O. Box 500, Montgomery, PA 17752; Phone: 877.792.0002
- B. Equal products of other manufacturers may be used in the work, provided such products have been approved by the Architect not less than Ten (10) days prior to scheduled bid opening.

2.1 BLINDS AND BLIND COMPONENTS

- A. Head Rail:
1. U shaped configuration
 2. 2 1/2" deep by 2" high with rolled edges at the top.
 3. Fabricate from 0.024 inch thick iron phosphate treated steel.
 4. Acrylic primed with a finish coat of baked on polyester enamel in color selected by Architect.
 5. Provide reinforcing end caps in color to match head rail.
- B. Slats:
1. Extrude to a flat rigid form from PVC foam.
 2. Provide an anti-static dust inhibiting coating to surface to minimize dust accumulation.
 3. Nominal Width: 2 inches wide
 4. Nominal Thickness: .122 inches
 5. PVC foam to meet or exceed requirements of NFPA 701.
- C. Bottom Rail:
1. Profile: Trapezoidal
 2. Nominal Thickness: 7/8 inches
 3. Nominal Width: 2 inches
 4. Fabricate from extruded PVC, finish to match slats.
- D. Valance:
1. Provide manufacturer's standard valance.
 2. Nominal Thickness: 3/8 inch
 3. Nominal Width: 2 1/2 inches

2.2 ACCESSORIES

- A. Tapes and Ladders:
1. Standard color coordinate braided ladders shall be constructed of polyester yarn with a double crossed inter-braided cable thread design.
 2. Supported latter ladders using ladder tape without any visible distortion.
 3. Ladder rung distances shall not exceed 44mm.
 4. Distances between ladders shall not exceed 12-inches.
 5. Distance from end of ladder to end of slat shall not exceed 5-inches.

B. Tape Rolls and Supports:

1. Fabricate from low friction thermoplastic which are self lubricating and maintenance free for smooth operation and diminished wear on lift cords and braded ladders.
2. Tape rolls shall be designed to hold tape end by means of a "U" shaped brass grommet which shall be inserted into tape rolls, allowing for a more precise placement of ladders when secured.
3. Tape rolls shall include a projecting thermoplastic cylindrical collar integrated on each end. Tilt rod is centered though both tape drum and collar project.
4. Self lubricating thermoplastic collars are designed to snap securely into tape drum supports for near effortless tilting operation.

C. Crash Proof Cord Lock:

1. Snap-in design with nylon roller. Provided a secured steel roller on a hinged lock to facilitate "crash-proof" feature.

D. Tilt Wand:

1. Standard wand tilter.
 - a. Self-lubricating thermoplastic worm and gear mechanism with fully encased plastic housing.
 - b. Color coordinate plastic.
 - c. 3/8" diameter
 - d. Length as required to coordinate with window sizes.
 - e. Provide corrosion resistant metal clip for attachment of wand to tilter shaft.

E. Lift Cords:

1. Color coordinate lift cords constructed of braided polyester jacket with a rayon center core.
2. Provide in lengths required to properly facilitate the raising and lowering of blinds.
3. 1.8mm diameter.
4. End Support Brackets:
 5. Galvanized steel bracket with riveted hinged cover.
 6. Nominal thickness: 0.038 inch
 7. Baked polyester enamel finish.
 8. Color to coordinate with blind assembly.
 9. Coordinate bracket anchorage with jamb and sill conditions.

2.3 FABRICATION AND OPERATION

- A. Prior to fabrication, verify actual opening dimensions by accurate site measurements. Adjust dimensions for proper fit at openings. Cooperate with other trades for securing tracks to substrates and other finished surfaces.
- B. Fabricate window treatment components from non-corrosive, non- staining, non-fading materials which are completely compatible with each other, and which do not require lubrication during normal expected life.
- C. Fabricate blind units to completely fill the openings as shown, from head-to-sill and jamb-to-jamb.
- D. For continuous window wall installations, fabricate blinds so that ends occur only over mullions or other defined vertical separation, unless otherwise indicated.

- E. Space supporting ladders to comply with manufacturer's standards, unless otherwise indicated.
- F. Space louver blades to provide a minimum overlap of 3/8" for light exclusion when in fully-closed position. Gear operating equipment for reduction of the ratio of hand-movement to louver position, so that blinds operate easily and can be set accurately and smoothly.
- G. Equip horizontal blind units, unless otherwise indicated for the following operation.
 - 1. Full-tilting operation with slats rotating approximately 180°. Place tilt operating controls on left-hand side of blind units, unless otherwise indicated.
 - 2. Full-height raising to manufacturer's minimum stacking dimension, with lifting cord locks for stopping blind at any point of ascending or descending travel.
 - 3. Place pull cords on right-hand side of blind units, unless otherwise indicated.

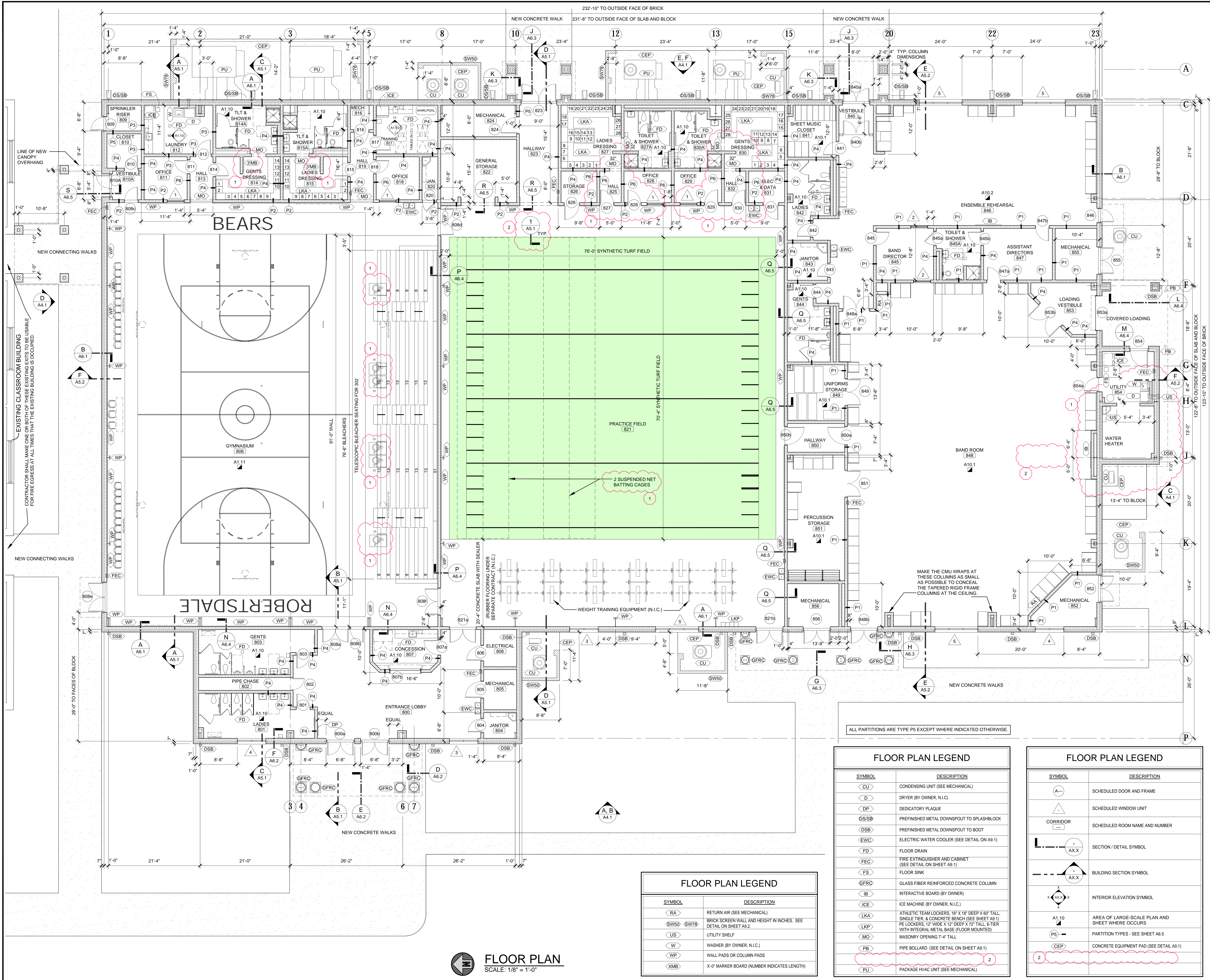
PART 3 - EXECUTION

3.1 INSTALLATION

- A. General: Install window treatment units in manner indicated to comply with manufacturer's instructions. Position units level, plumb, secure, at proper height and location relative to adjoining window units and other related work. Securely anchor units with proper clips, brackets, anchorages, suited to type of mounting indicated.
- B. Coordinate the placement of concealed blocking to support blinds.
- C. Verify that openings are ready to receive the work.
- D. Ensure structural blocking and supports are correctly placed.
- E. Provide adequate clearance between sash and blinds to permit unencumbered operation of sash hardware.
- F. Isolate metal parts from concrete and mortar to prevent galvanic action. Use tape or thick coating or other means recommended by manufacturer to effect separation.
- G. Protect installed units to ensure their being in operating condition, without damage, blemishes, or indication of use at completion of project. Repair or replace damaged units as directed by Architect.
- H. Adjust blinds for smooth operation.
- I. Clean blind surfaces just prior to occupancy.
- J. Furnish the following for the Owner's use in maintenance of project:
 - 1. Extra Blind Assemblies: One of each size.
 - 2. Extra Slats: 20 of each type and size.
 - 3. Extra Lift Cords, Control Cords, and Wands: Two of each type.

END OF SECTION

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ADDITIONS
TO
ROBERTSDALE HIGH SCHOOL
FOR THE
ROBERTSDALE, ALABAMA
BALDWIN COUNTY BOARD OF EDUCATION

MCKEE & ASSOCIATES
ARCHITECTS, INC.
631 SOUTH HILL STREET, MONTGOMERY, ALABAMA 36104 (334) 834-9833

STATE OF ALABAMA
WALTER MCKEE JR.
No. 1082
MONTGOMERY, ALA.
REGISTERED ARCHITECT

SHEET TITLE : FLOOR PLAN

MCKEE JOB # : 23-195

DRAWN BY : VH

DATE: 10-11-2023

REVISED DATE: 1 11-17-2023

REVISED DATE: 2 11-29-2023

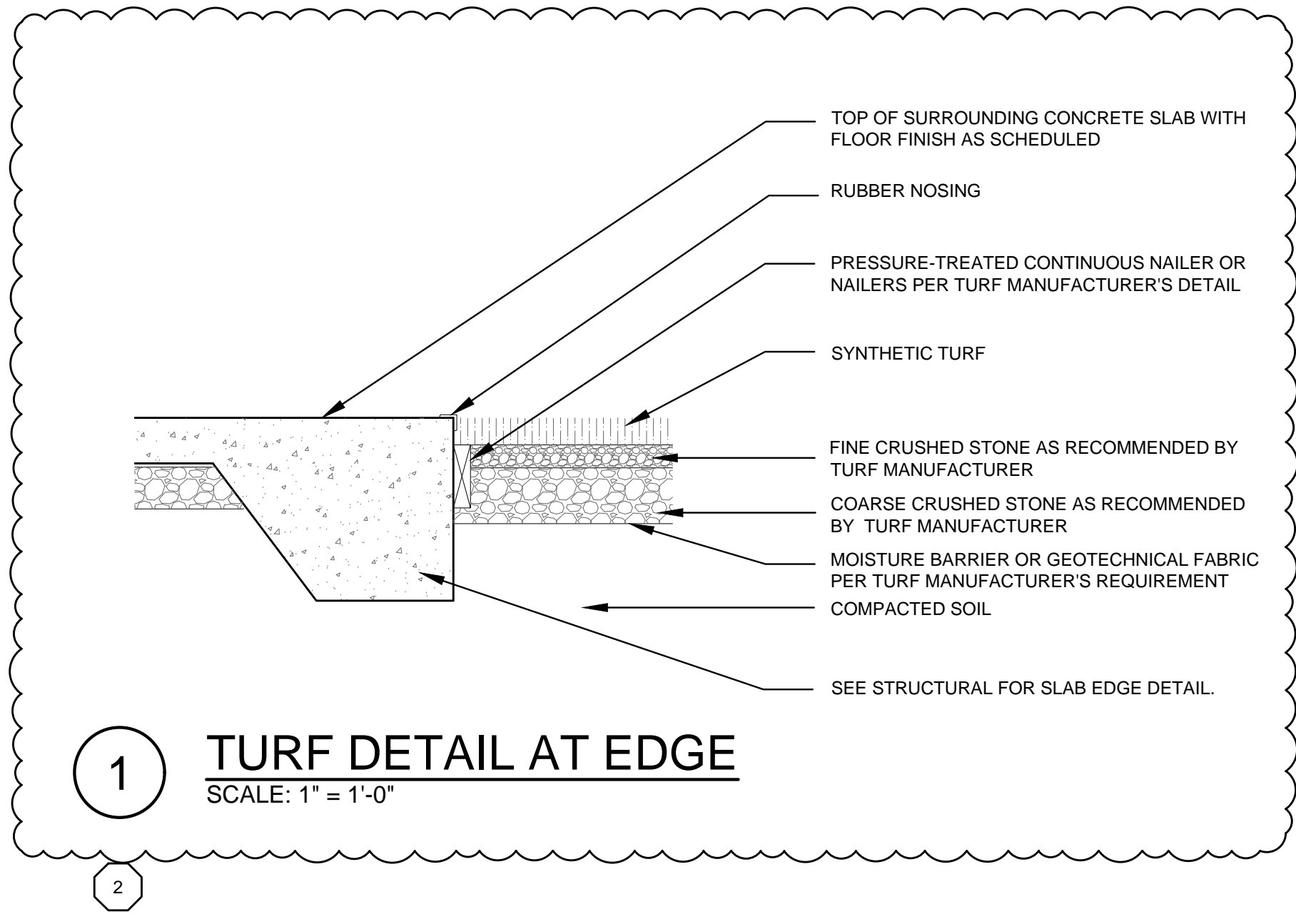
REVISED DATE:

SHEET NO. : A1.1

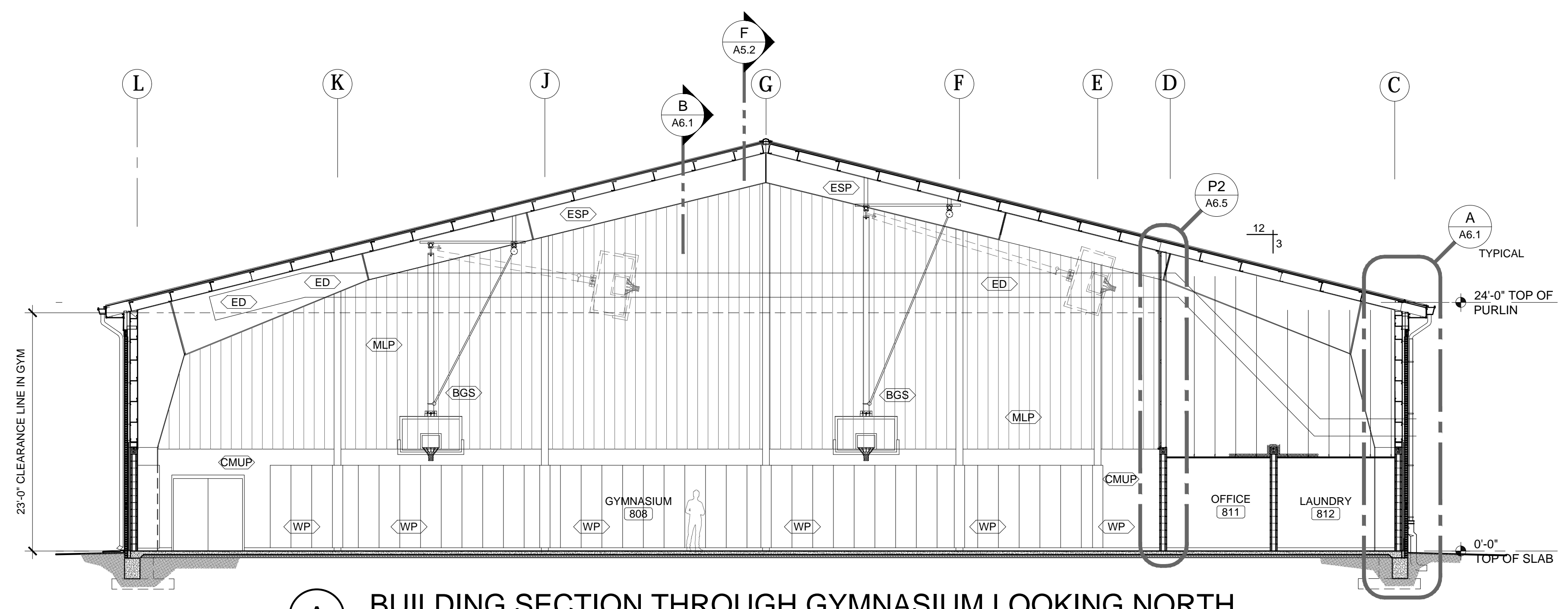
FLOOR PLAN LEGEND	
SYMBOL	DESCRIPTION
<RA>	RETURN AIR (SEE MECHANICAL)
<SW50> <SW78>	BRICK SCREEN WALL AND HEIGHT IN INCHES. SEE DETAIL ON SHEET A9.2.
<US>	UTILITY SHELF
<W>	WASHER (BY OWNER, N.I.C.)
<WP>	WALL PADS OR COLUMN PADS
<XMB>	X-0" MARKER BOARD (NUMBER INDICATES LENGTH)

FLOOR PLAN LEGEND	
SYMBOL	DESCRIPTION
<CU>	CONDENSING UNIT (SEE MECHANICAL)
<D>	DRYER (BY OWNER, N.I.C.)
<DP>	DEDICATORY PLAQUE
<OS/SB>	PREFINISHED METAL DOWNSPOUT TO SPLASHBLOCK
<DSB>	PREFINISHED METAL DOWNSPOUT TO ROOF
<EWC>	ELECTRIC WATER COOLER (SEE DETAIL ON A8.1)
<FD>	FLOOR DRAIN
<FEC>	FIRE EXTINGUISHER AND CABINET (SEE DETAIL ON SHEET A9.1)
<FS>	FLOOR SINK
<GFRC>	GLASS FIBER REINFORCED CONCRETE COLUMN
<IB>	INTERACTIVE BOARD (BY OWNER)
<ICE>	ICE MACHINE (BY OWNER, N.I.C.)
<LKA>	ATHLETIC TEAM LOCKERS, 18" X 18" DEEP X 60" TALL, SINGLE TIER, & CONCRETE BENCH (SEE SHEET A9.1)
<LKP>	PE LOCKERS, 12" WIDE X 12" DEEP X 72" TALL, 6-TIER WITH INTEGRAL METAL BASE (FLOOR MOUNTED)
<MO>	MASONRY OPENING 7'-4" TALL
<PB>	PIPE BOLLARD (SEE DETAIL ON SHEET A8.1)
<PU>	PACKAGE HVAC UNIT (SEE MECHANICAL)

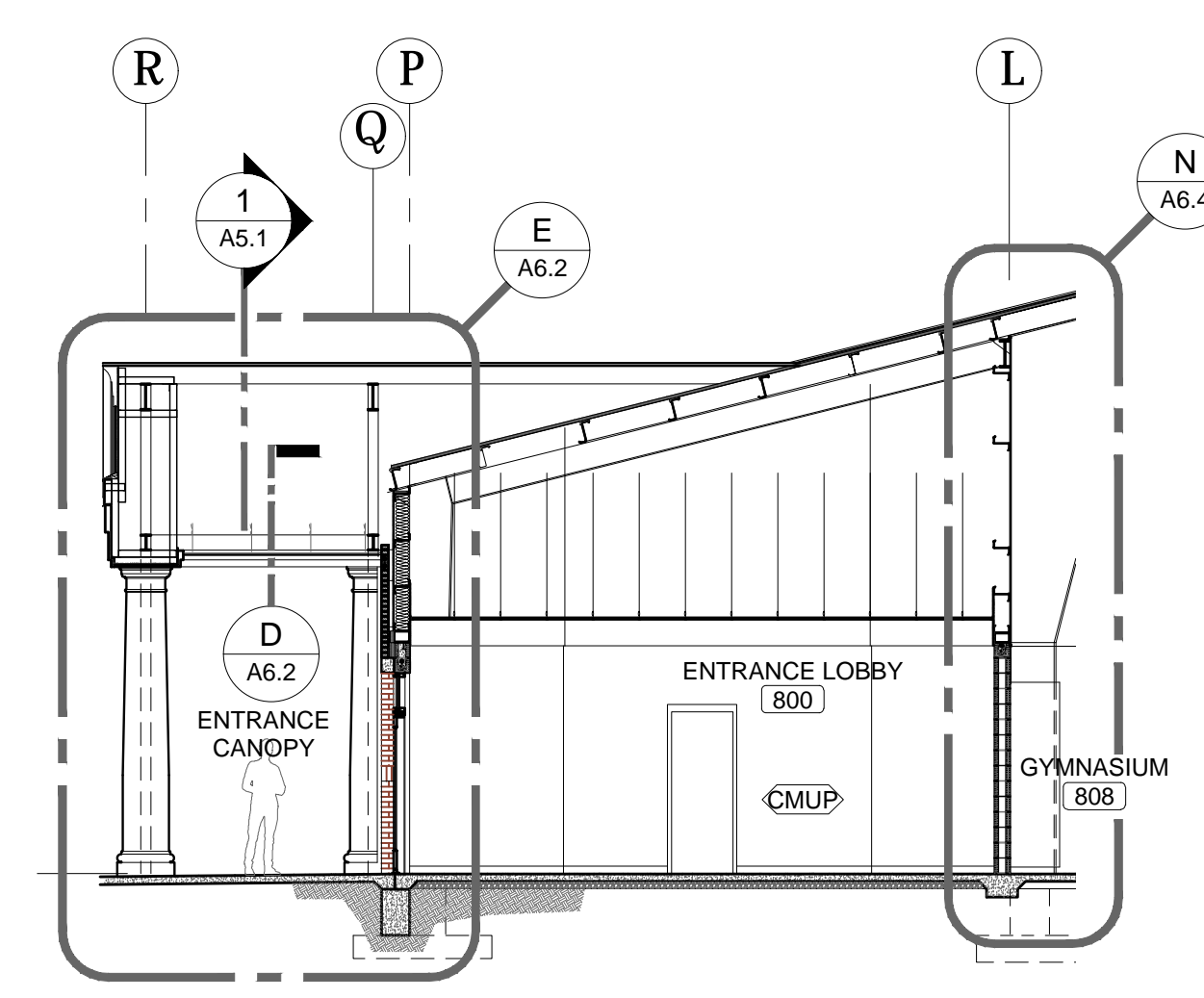
FLOOR PLAN LEGEND	
SYMBOL	DESCRIPTION
A---	SCHEDULED DOOR AND FRAME
△	SCHEDULED WINDOW UNIT
CORRIDOR	SCHEDULED ROOM NAME AND NUMBER
AX.X	SECTION / DETAIL SYMBOL
AX.X	BUILDING SECTION SYMBOL
AX.X	INTERIOR ELEVATION SYMBOL
A1.10	AREA OF LARGE-SCALE PLAN AND SHEET WHERE OCCURS
PS	PARTITION TYPES - SEE SHEET A6.5
CEP	CONCRETE EQUIPMENT PAD (SEE DETAIL A9.1)



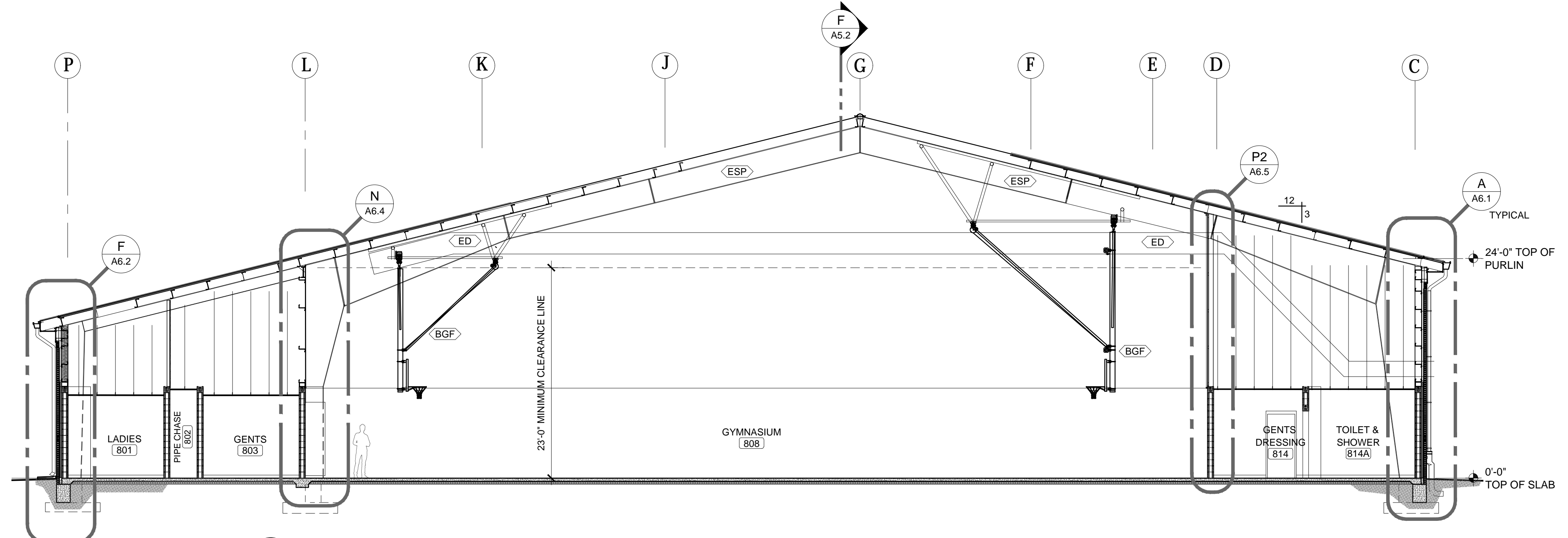
1 TURF DETAIL AT EDGE
SCALE: 1" = 1'-0"



A BUILDING SECTION THROUGH GYMNASIUM LOOKING NORTH
SCALE: 1/8" = 1'-0"

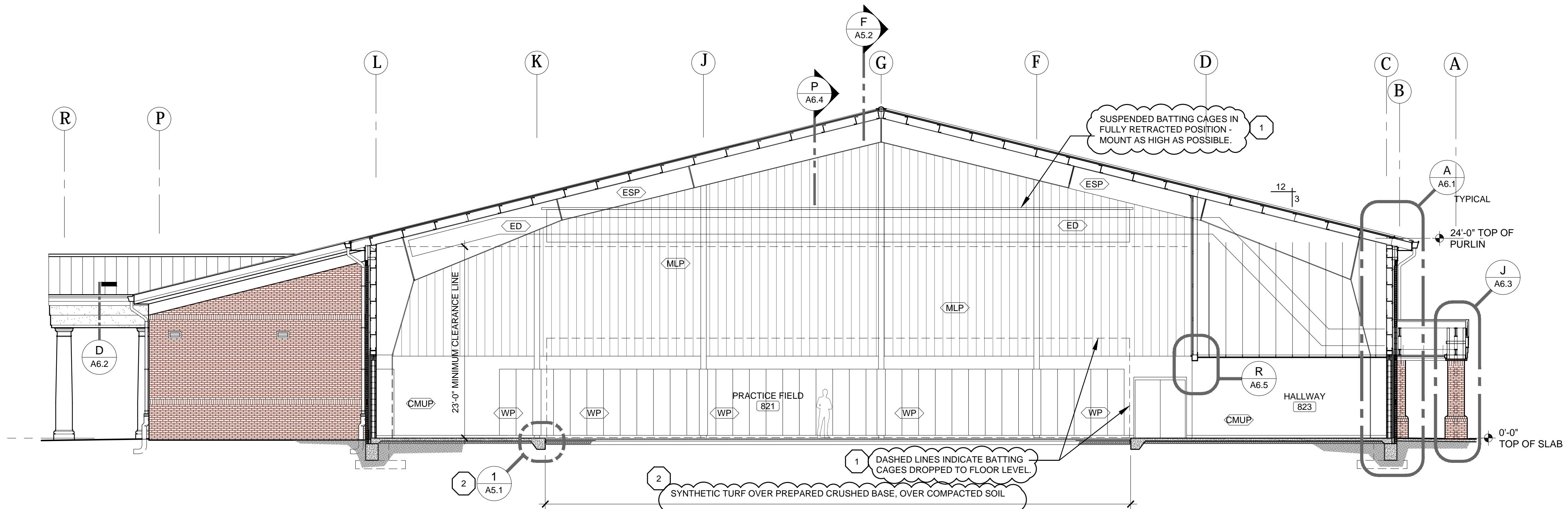


B LOBBY SECTION AT CANOPY
SCALE: 1/8" = 1'-0"



C BUILDING SECTION THROUGH GYMNASIUM AT ENTRANCE LOBBY - LOOKING NORTH
SCALE: 1/8" = 1'-0"

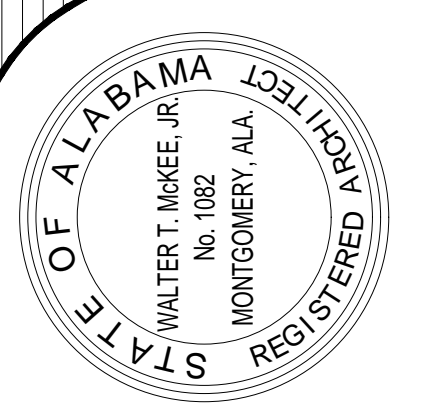
"MINIMUM CLEARANCE LINE" IS THE MINIMUM HEIGHT REQUIRED FOR BASKETBALL BACKSTOPS IN THEIR RETRACTED POSITIONS, LIGHT FIXTURES, DUCTS, AND OTHER ITEMS THAT ARE HUNG FROM THE UPPER STRUCTURE. THIS APPLIES TO THE AREA ABOVE THE BASKETBALL COURT, THE TWO TRANSVERSE VOLLEYBALL COURTS, AND THE AREA ABOVE THE PRACTICE FIELD TURF.



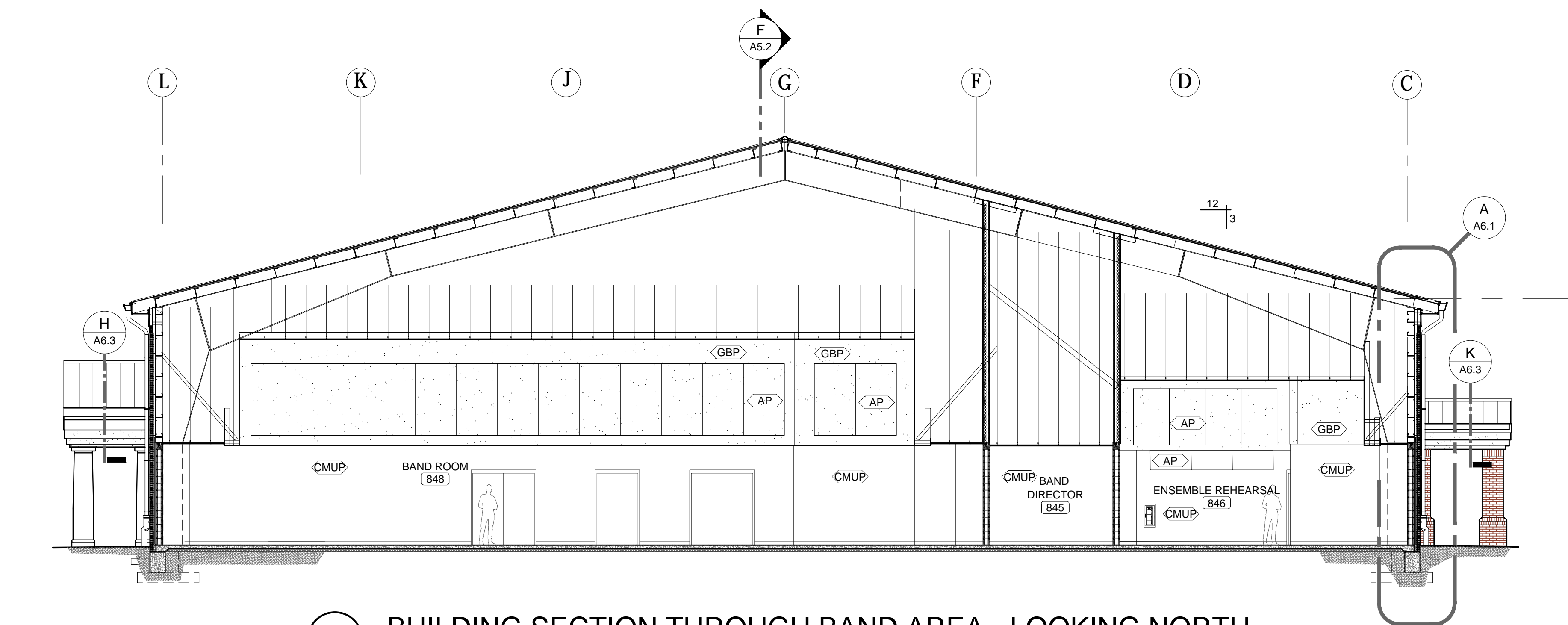
D BUILDING SECTION THROUGH PRACTICE FIELD - LOOKING NORTH
SCALE: 1/8" = 1'-0"

BUILDING SECTION LEGEND	
SYMBOL	DESCRIPTION
<AP>	ACOUSTICAL WALL PANELS
<BGF>	BASKETBALL GOAL BACKSTOP - FORWARD FOLD
<BGS>	BASKETBALL GOAL BACKSTOP - SIDE FOLD
<CMUP>	CONCRETE MASONRY UNIT - PAINT
<ED>	EXPOSED DUCTWORK - NO PAINT (FABRIC DUCT)
<ESP>	EXPOSED STRUCTURE - PAINT
<GBP>	GYPSUM BOARD - PAINT
<MO>	MASONRY OPENING
<MLP>	METAL LINER PANELS
<TGS>	TELESCOPIC GYMNASIUM SEATING
<WP>	WALL PADS

ADDITIONS
TO
ROBERTSDALE HIGH SCHOOL
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MCKEE & ASSOCIATES
ARCHITECTS, INC.
631 SOUTH HULL STREET, MONTGOMERY, ALABAMA 36104 (334) 834-9933



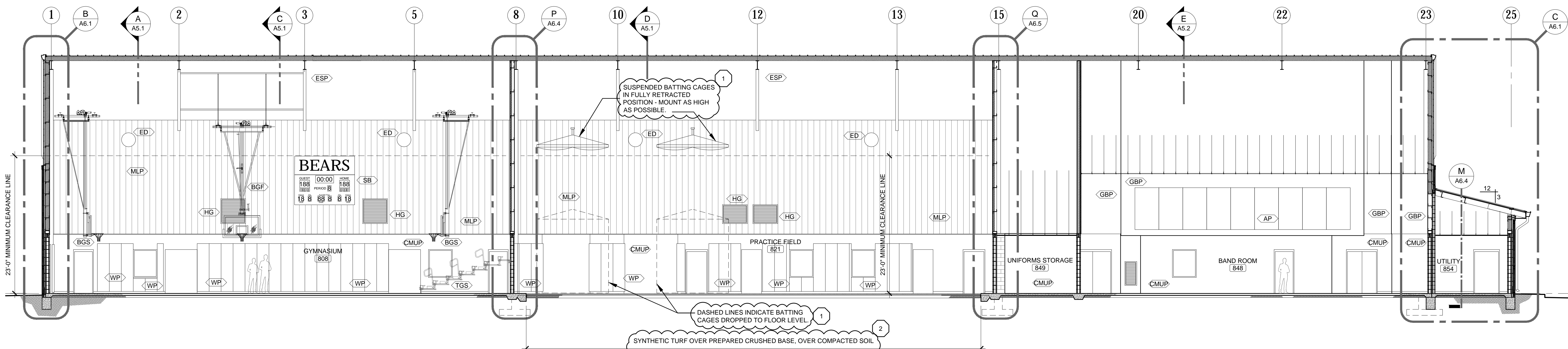
SHEET TITLE : BUILDING SECTIONS
MCKEE JOB # : 23-195
DRAWN BY : VH
DATE : 10-11-2023
REVISED DATE : 1 11-17-2023
REVISED DATE : 2 11-29-2023
REVISED DATE :
SHEET NO. : A5.1



E BUILDING SECTION THROUGH BAND AREA - LOOKING NORTH
SCALE: 1/8" = 1'-0"

- "MINIMUM CLEARANCE LINE" IS THE MINIMUM HEIGHT REQUIRED FOR BASKETBALL BACKSTOPS IN THEIR RETRACTED POSITIONS, LIGHT FIXTURES, DUCTS, AND OTHER ITEMS THAT ARE HUNG FROM THE UPPER STRUCTURE. THIS APPLIES TO THE AREA ABOVE THE BASKETBALL COURT, THE TWO TRANSVERSE VOLLEYBALL COURTS, AND THE AREA ABOVE THE PRACTICE FIELD TURF.
- SEE SHEETS A10.1 AND A10.2 FOR LAYOUTS OF BAND ROOM MUSIC CASEWORK AND ACOUSTICAL WALL PANELS.

BUILDING SECTION LEGEND	
SYMBOL	DESCRIPTION
<AP>	ACOUSTICAL WALL PANELS
<BGF>	BASKETBALL GOAL BACKSTOP - FORWARD FOLD
<BGS>	BASKETBALL GOAL BACKSTOP - SIDE FOLD
<CMUP>	CONCRETE MASONRY UNIT - PAINT
<ED>	EXPOSED DUCTWORK - NO PAINT (FABRIC DUCT)
<ESP>	EXPOSED STRUCTURE - PAINT
<GBP>	GYPSUM BOARD - PAINT
<HG>	HVAC GRILLE - SEE MECHANICAL
<MO>	MASONRY OPENING
<MLP>	METAL LINER PANELS
<SB>	SCOREBOARD (1 OF 2 IN THE GYMNASIUM)
<TGS>	TELESCOPIC GYMNASIUM SEATING
<WP>	WALL PADS



F BUILDING SECTION NEAR BUILDING MIDPOINT, LOOKING EAST
SCALE: 1/8" = 1'-0"

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SHEET TITLE : BUILDING SECTIONS

MCKEE JOB # : 23-195

DRAWN BY : VH

DATE : 10-11-2023

REVISED DATE : 1 11-17-2023

REVISED DATE : 2 11-29-2023

REVISED DATE :

SHEET NO. : **A5.2**

SHEET NO.: **A6.2**

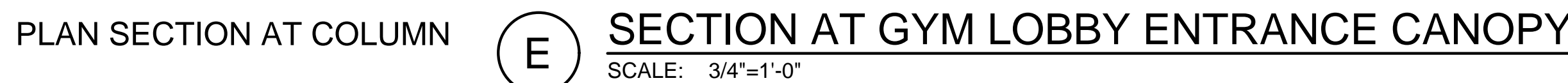
TO
ROBERTSDALE HIGH SCHOOL

ROBERTSDALE, ALABAMA

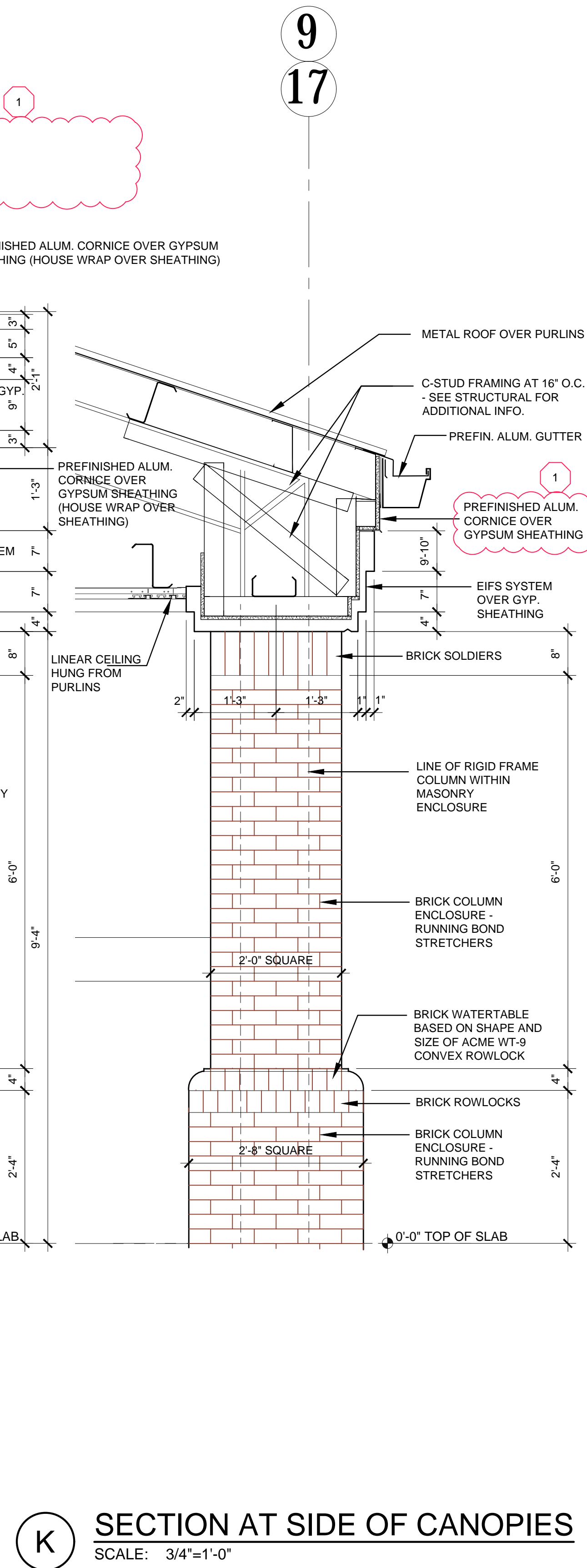
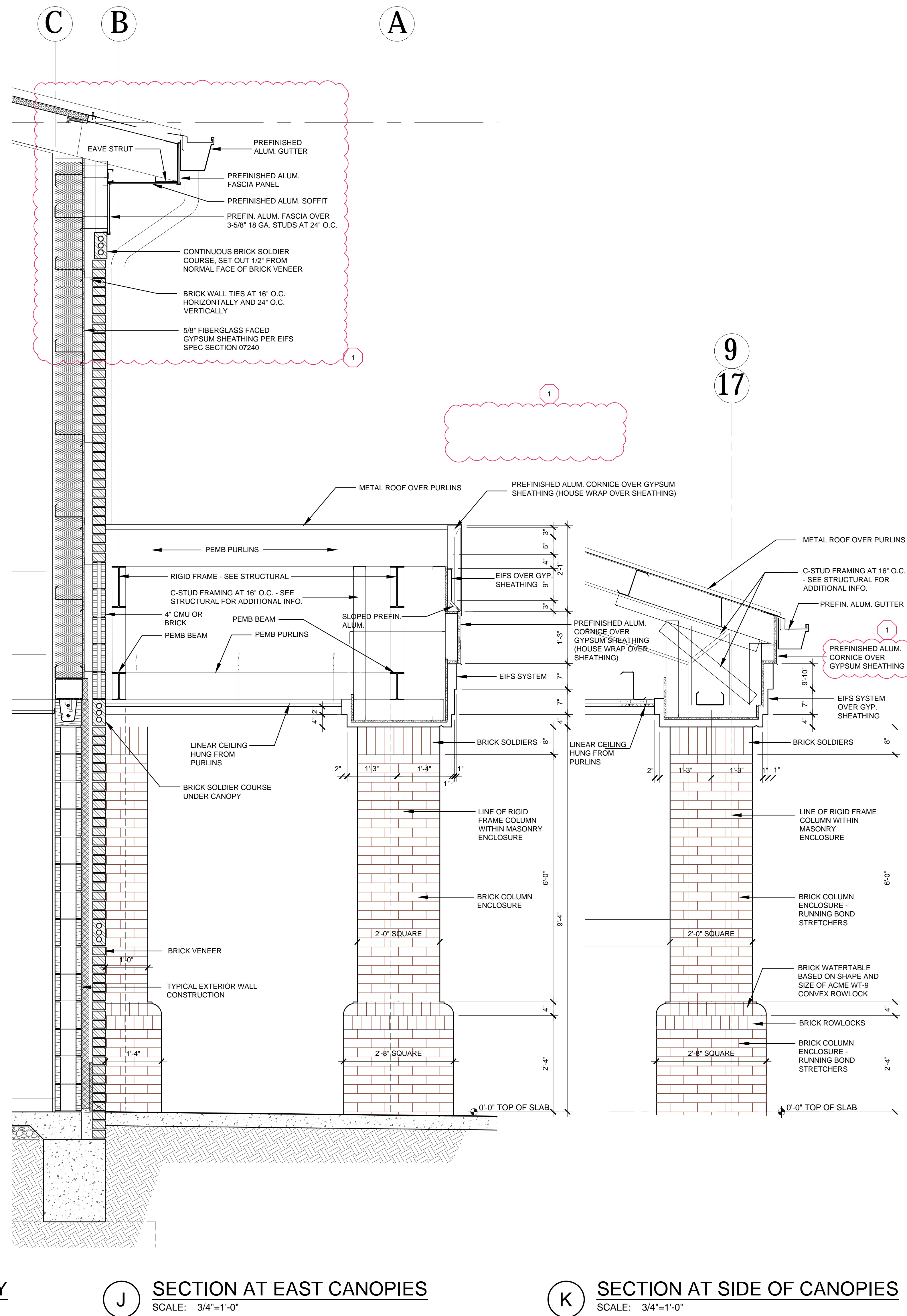
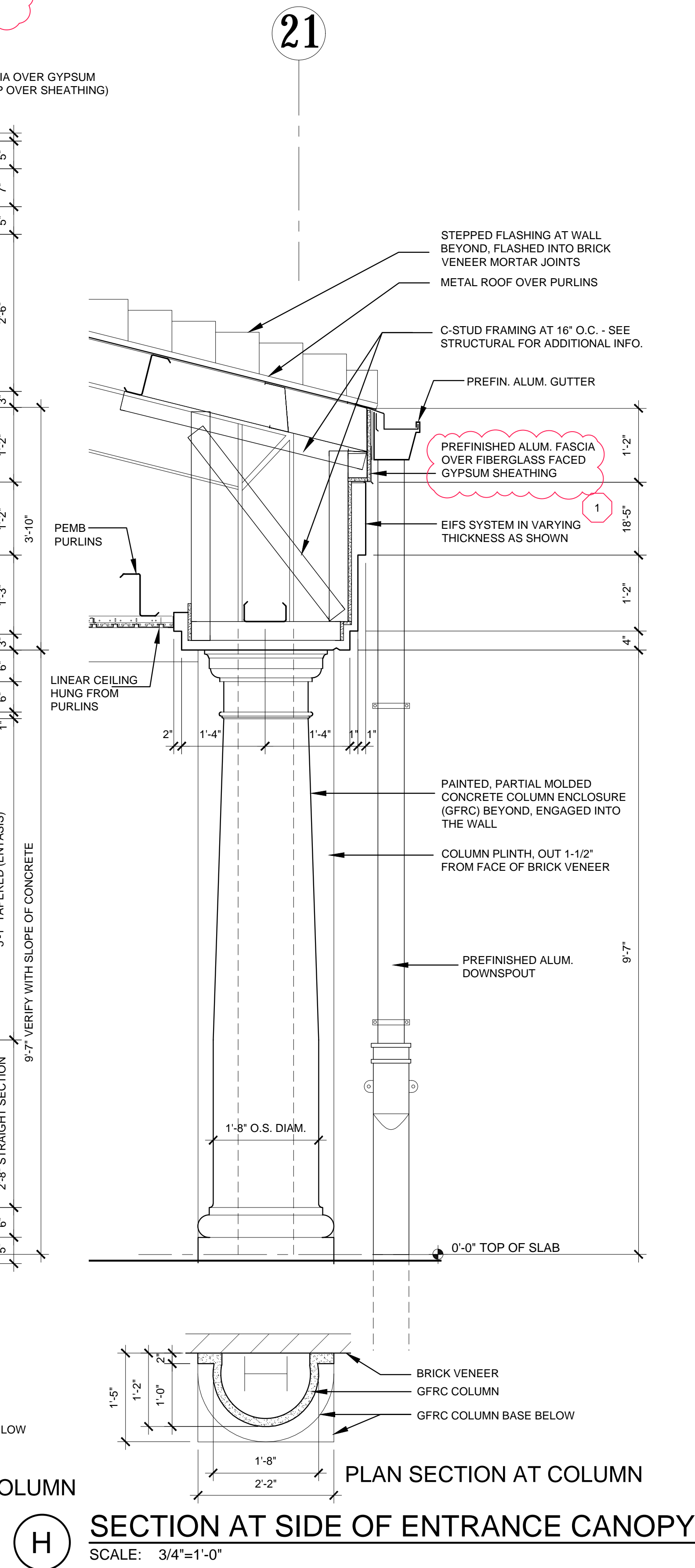
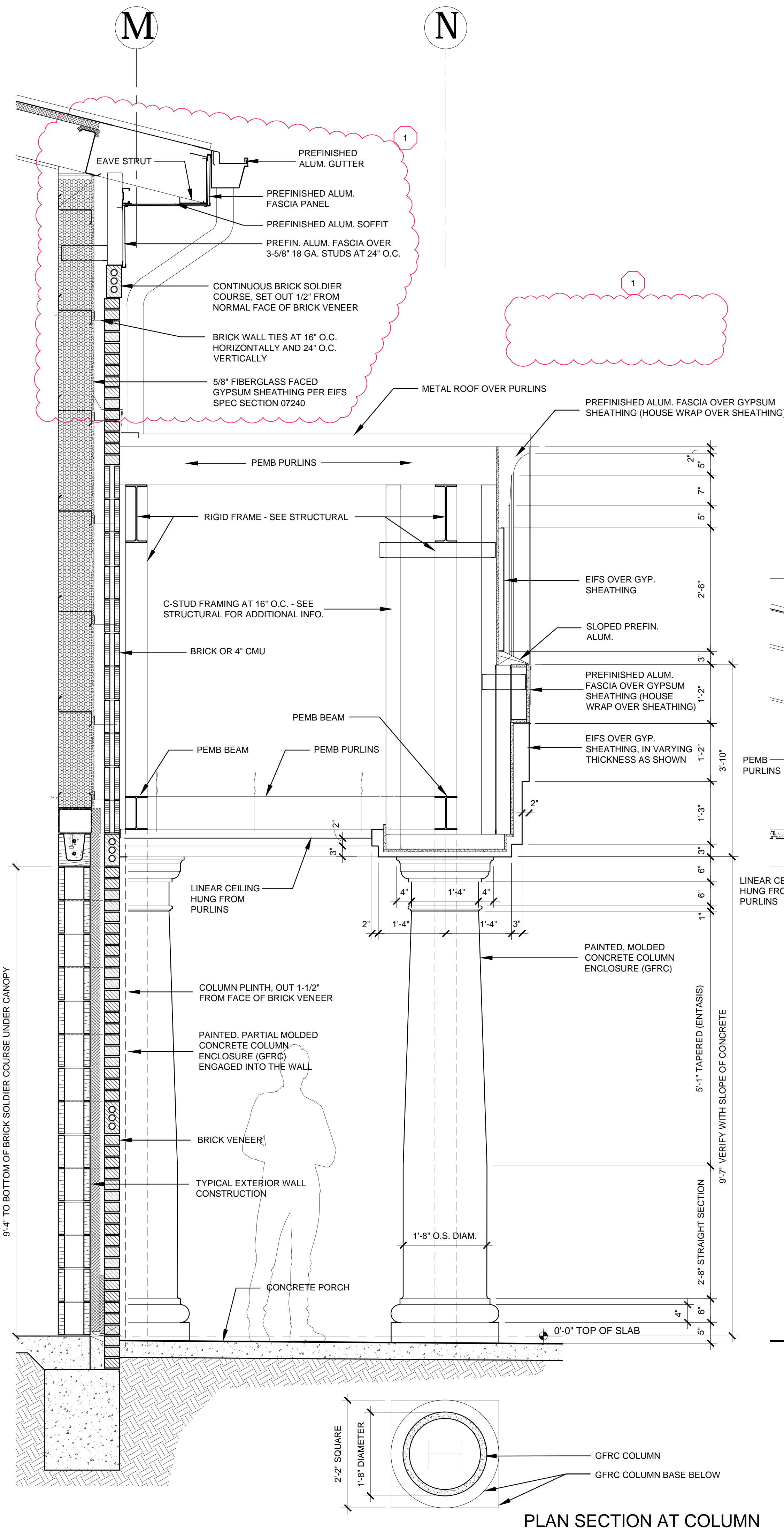
BALDWIN COUNTY BOARD OF EDUCATION

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- Z:\2023\23-195 Additions to Robertsdales High School\CAD Drawings\Architectural\A6.1 Wall Sections.dwg
- Wednesday, December 6, 2023 10:49:24 AM



ADDITIONS
TO
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SHEET TITLE : WALL SECTIONS

MCKEE JOB # : 23-195

DRAWN BY : VH

DATE : 10-11-2023

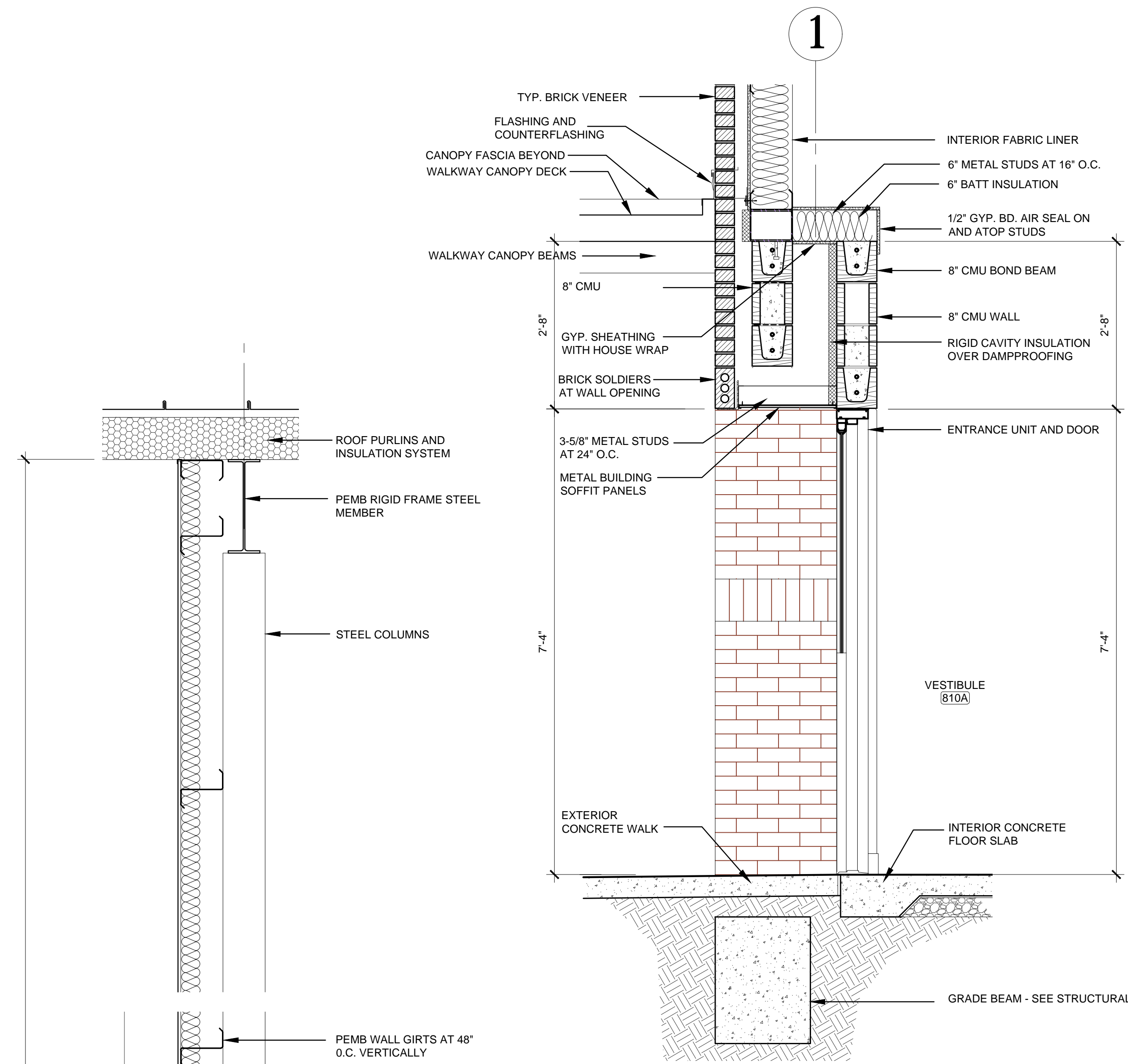
REVISED DATE : 11-29-2023

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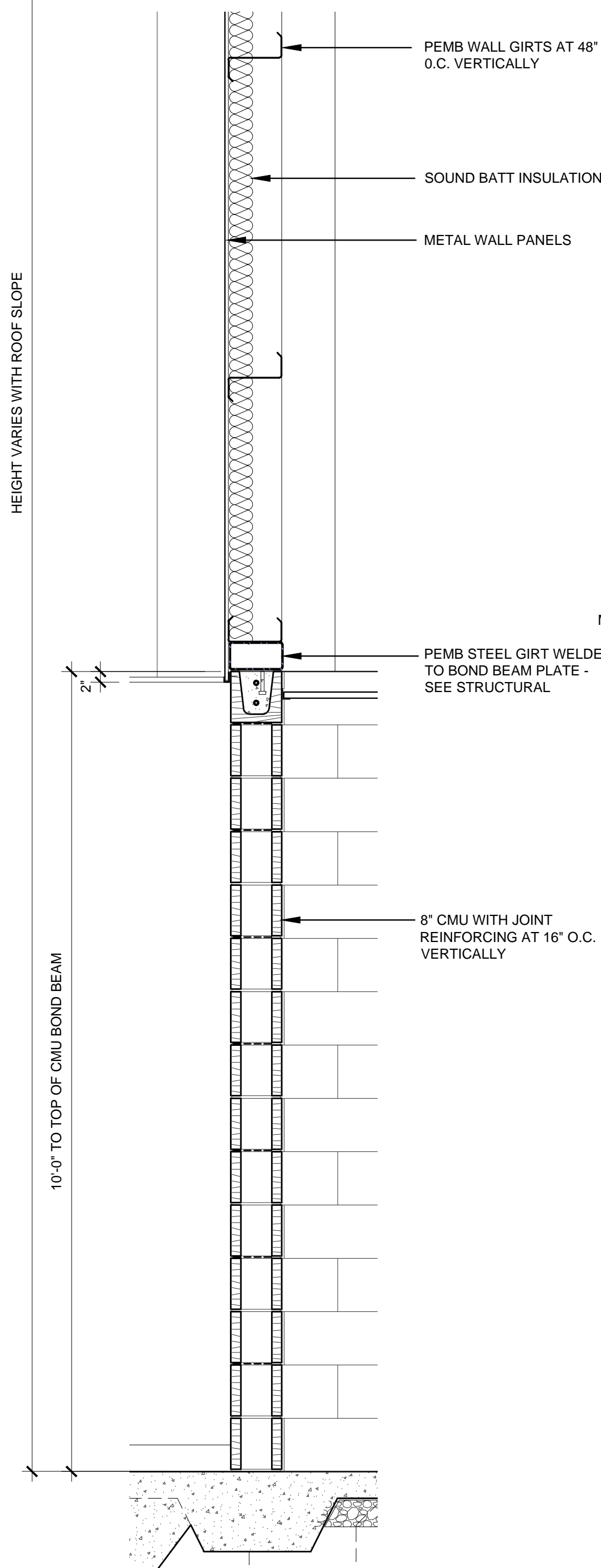
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SHEET NO. : **A6.3**

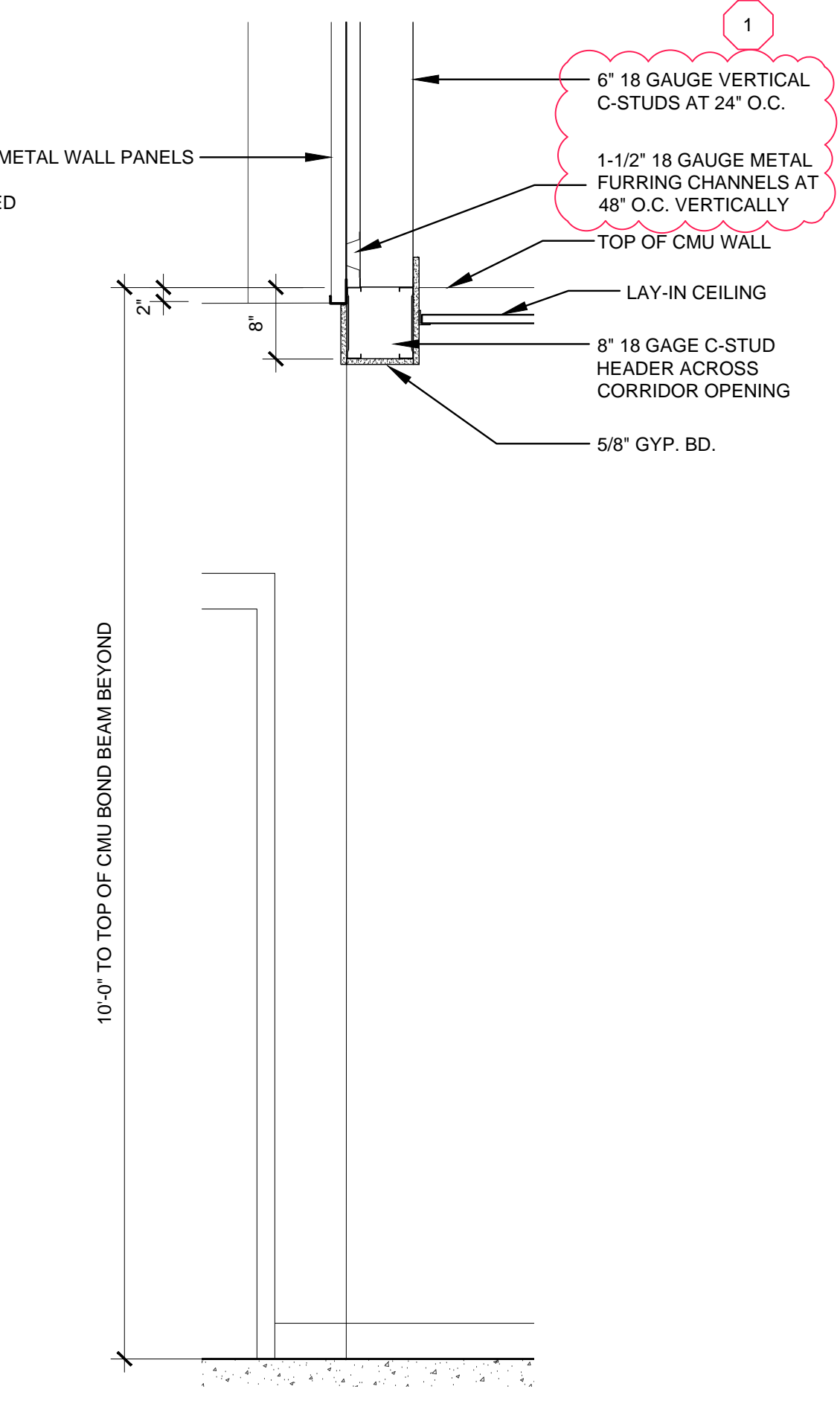
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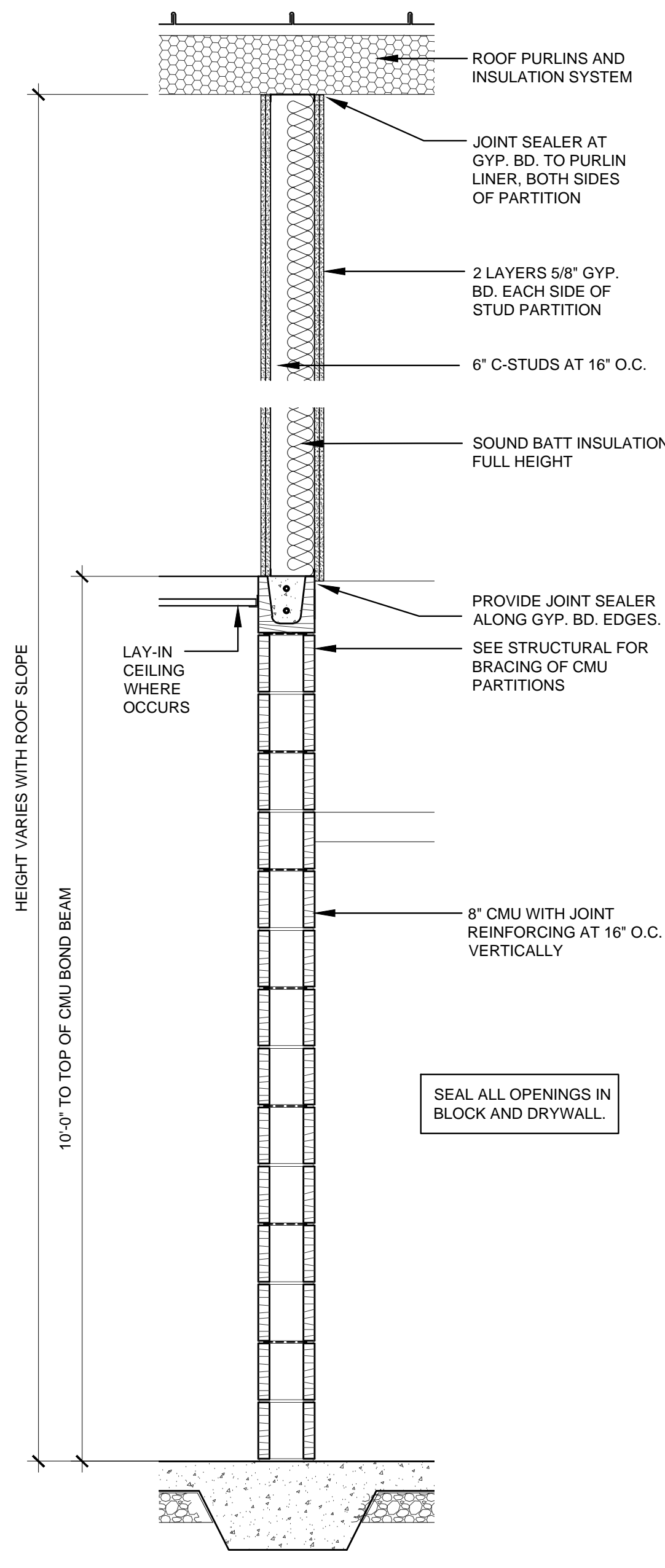
(S) ENTRANCE SECTION
SCALE: 3/4"=1'-0"



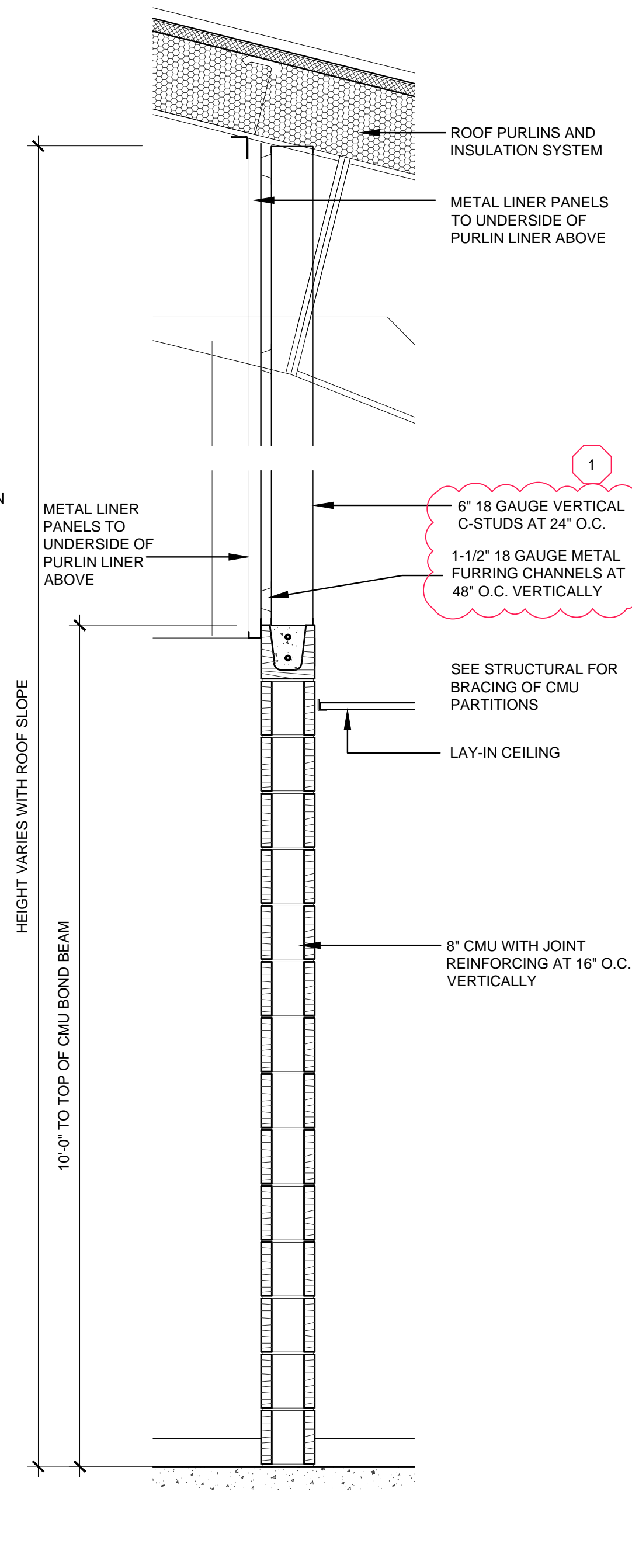
(Q) INTERIOR WALL
SCALE: 3/4"=1'-0"
CEILING ON ONE SIDE



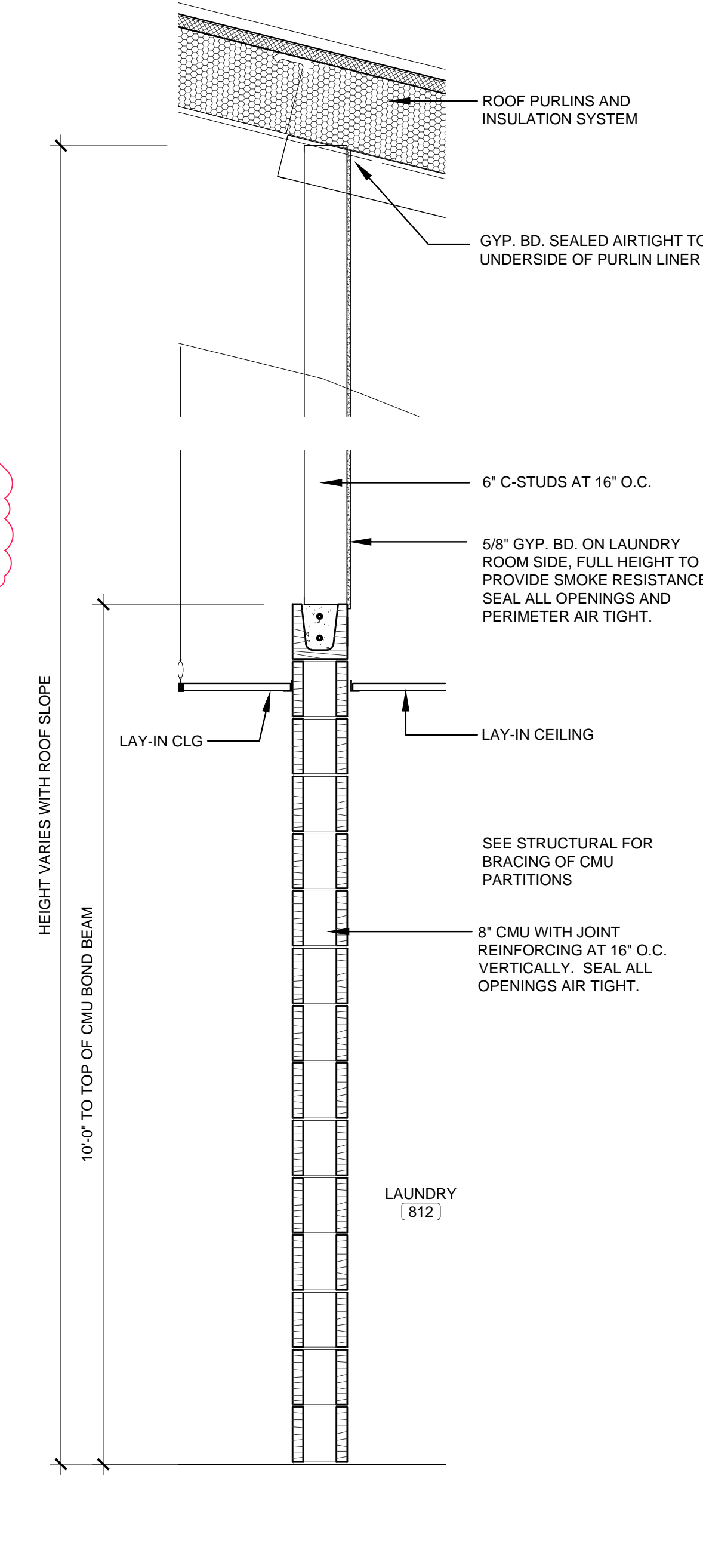
(R) PARTITION DETAIL
SCALE: 3/4"=1'-0"



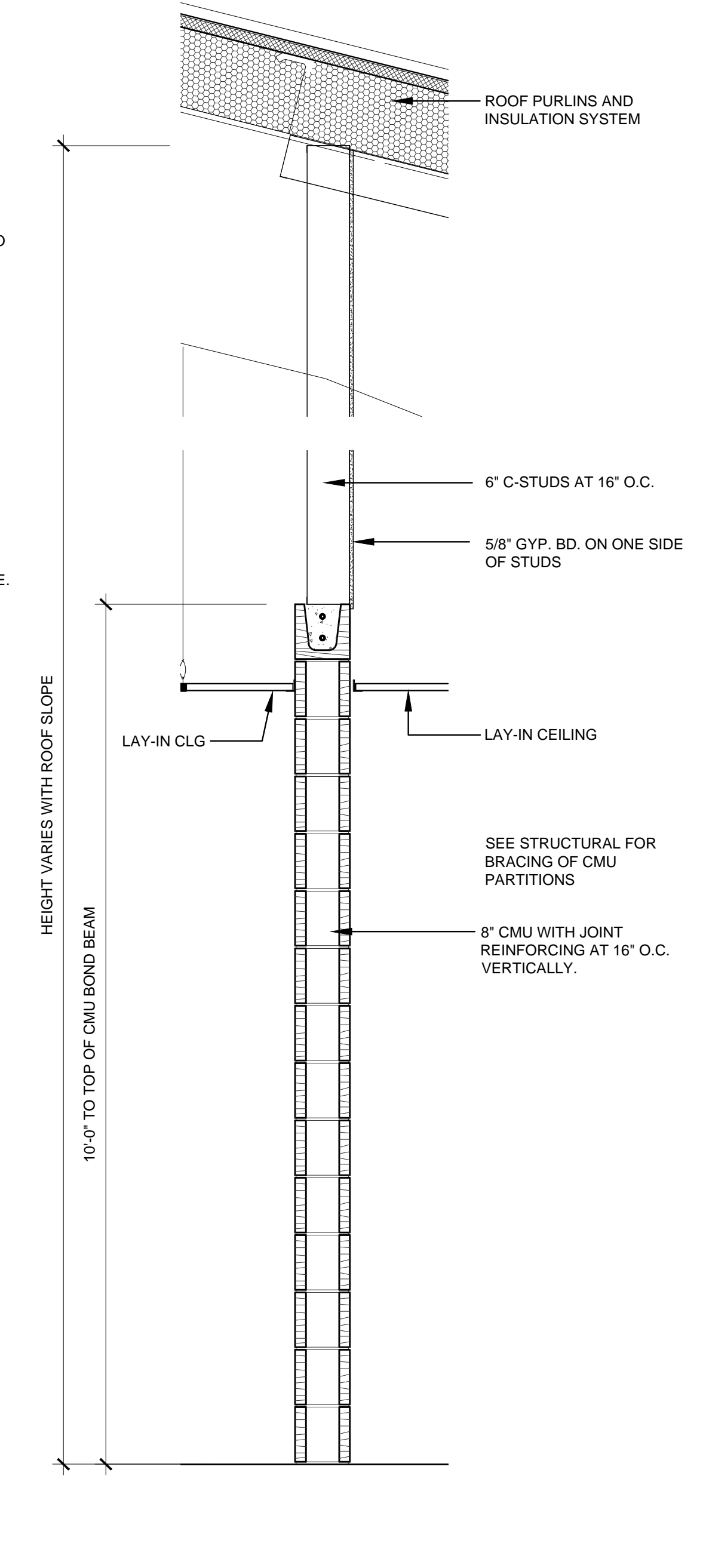
(P1) SOUND PARTITION
SCALE: 3/4"=1'-0"
PARTITION TO RESIST THE PASSAGE OF SOUND.



(P2) PARTITION TYPE
SCALE: 3/4"=1'-0"
CEILING ON ONE SIDE

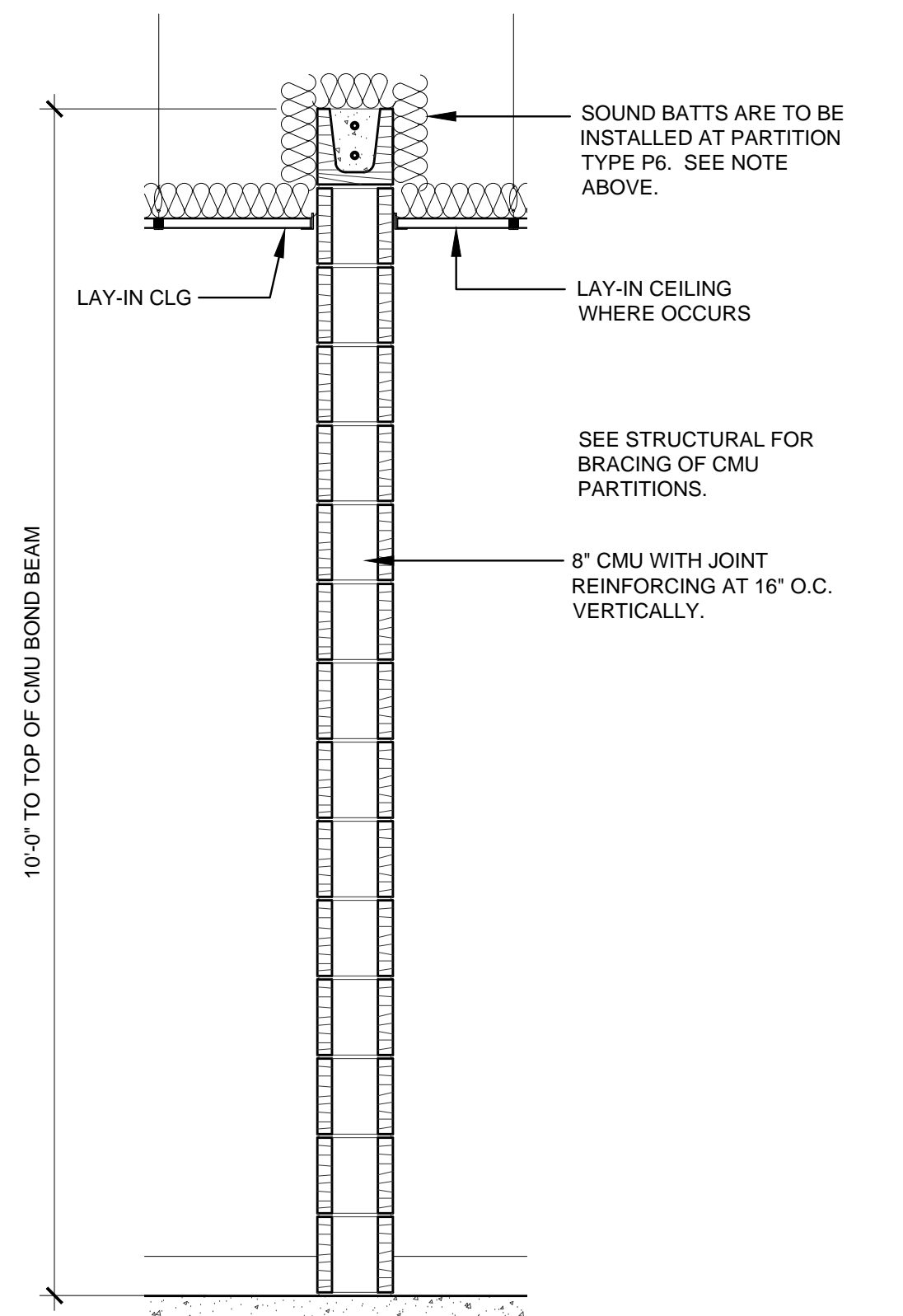


(P3) PARTITION TYPE
SCALE: 3/4"=1'-0"
PARTITION TO RESIST THE PASSAGE OF SMOKE



(P4) PARTITION TYPE
SCALE: 3/4"=1'-0"

NOTE:
WHERE SOUND BATTS OCCUR, INSTALL SOUND ATTENUATION BLANKETS OVER CEILING PANELS. EXTEND 48 INCHES BEYOND PARTITION ON EACH SIDE. TIGHTLY FIT AROUND ALL GRILLES, HANGERS AND OTHER VERTICAL PENETRATIONS. CAREFULLY FIT BATTS AROUND (NOT OVER) RECESSED LIGHT FIXTURES.



(P5) (P6) PARTITION TYPE
SCALE: 3/4"=1'-0"
INSTALL SOUND BATTS ONLY AT TYPE P6.

ADDITIONS

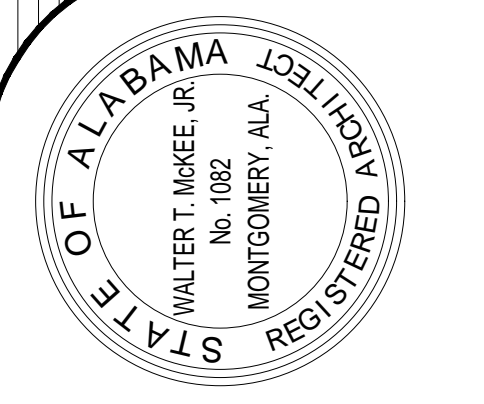
TO
ROBERTSDALE HIGH SCHOOL

ROBERTSDALE, ALABAMA
FOR THE

BALDWIN COUNTY BOARD OF EDUCATION

MCKEE & ASSOCIATES
ARCHITECTS, INC.

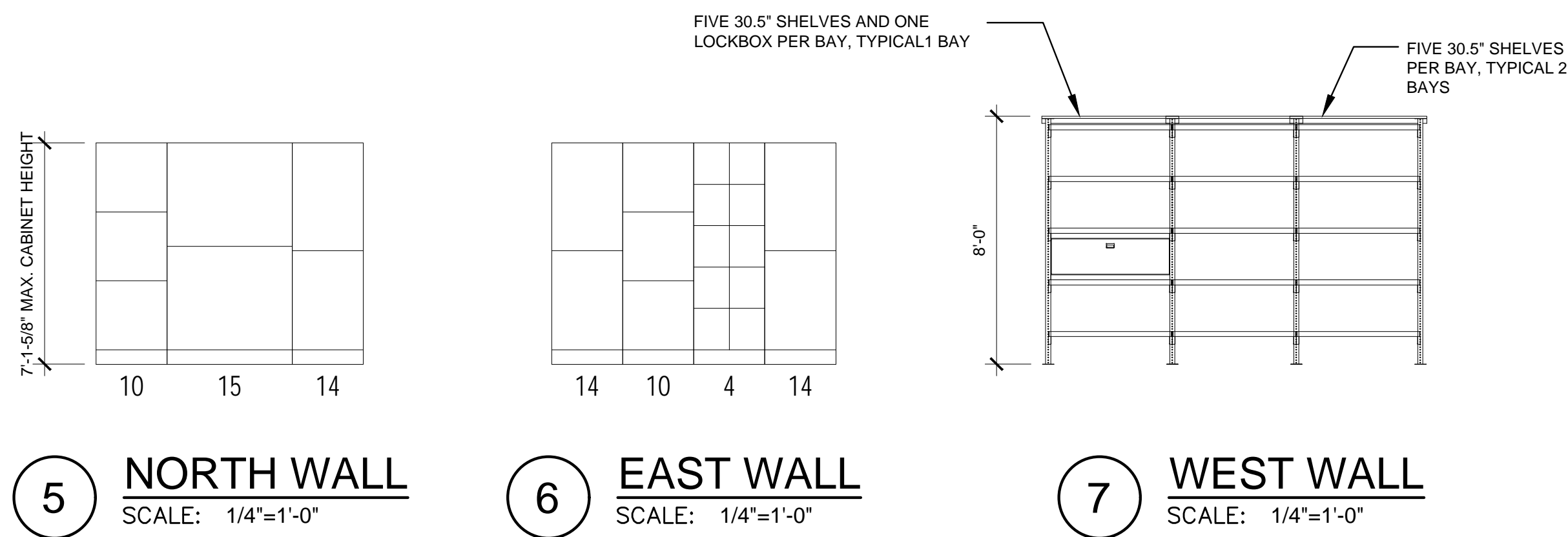
631 SOUTH HILL STREET, MONTGOMERY, ALABAMA 36104 (334) 834-9933



SHEET TITLE : WALL SECTION AND PARTITION TYPES
MCKEE JOB # : 23-195
DRAWN BY : VH
DATE: 10-11-2023
REVISED DATE: 1 11-29-2023
REVISED DATE:
REVISED DATE:

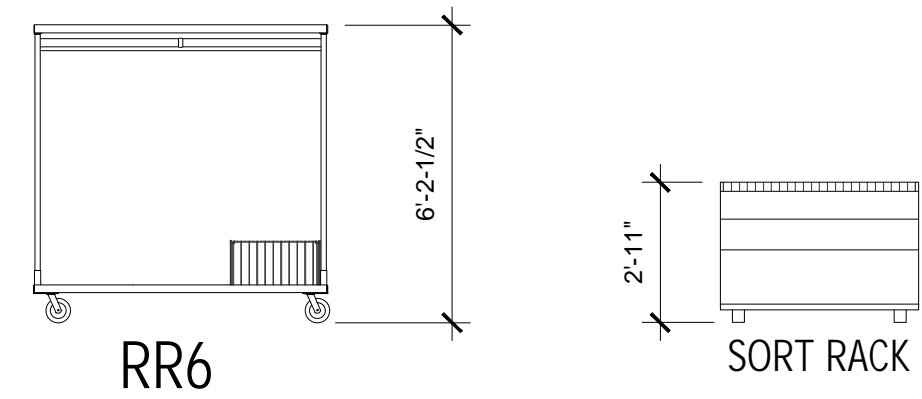
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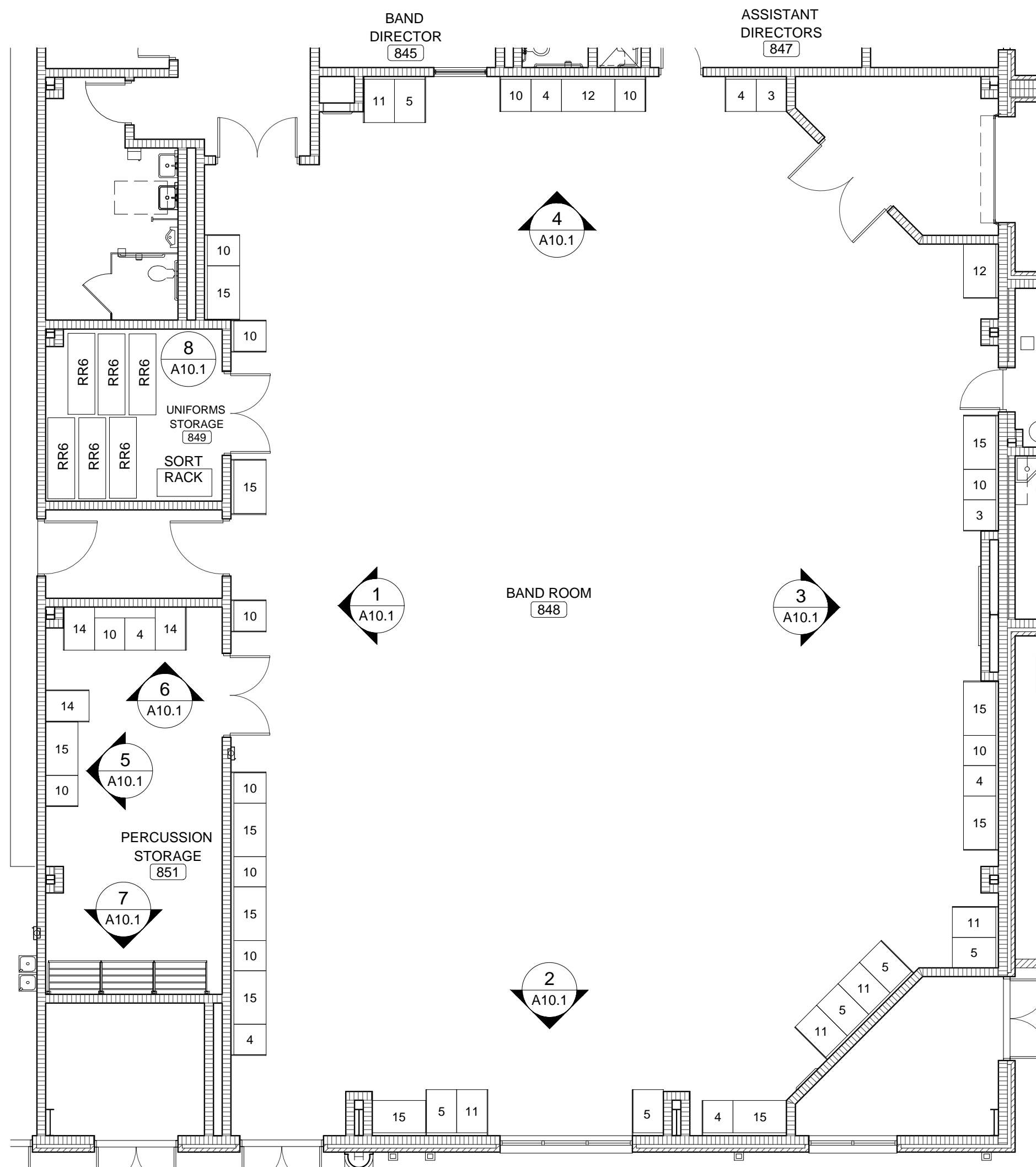
ROOM 851 PERCUSSION STORAGE

ROOM 851	
QTY.	DESCRIPTION
1	#04 CABINET
2	#10 CABINET
3	#14 CABINET
1	#15 CABINET
2	GEARBOSS SHELF ADD-ON BAY
1	GEARBOSS SHELF LOCK BOX
1	GEARBOSS SHELF STARTER BAY
15	GEARBOSS SHELF, 30 1/2"
26	TOTAL

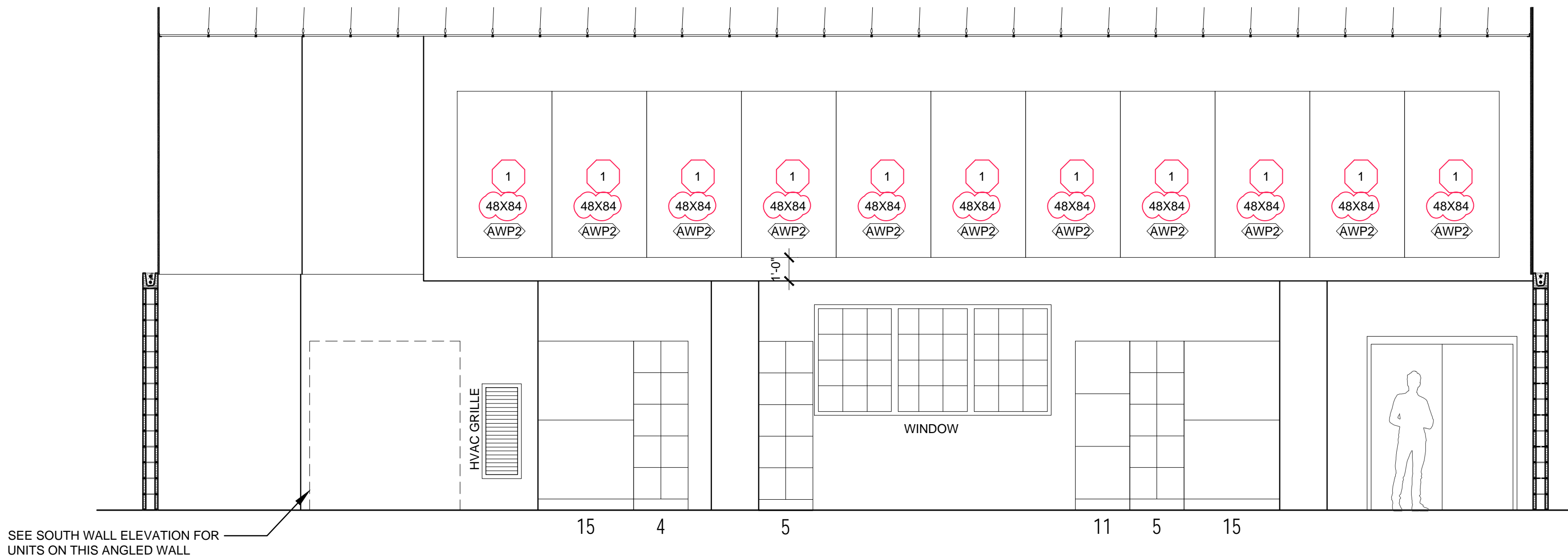
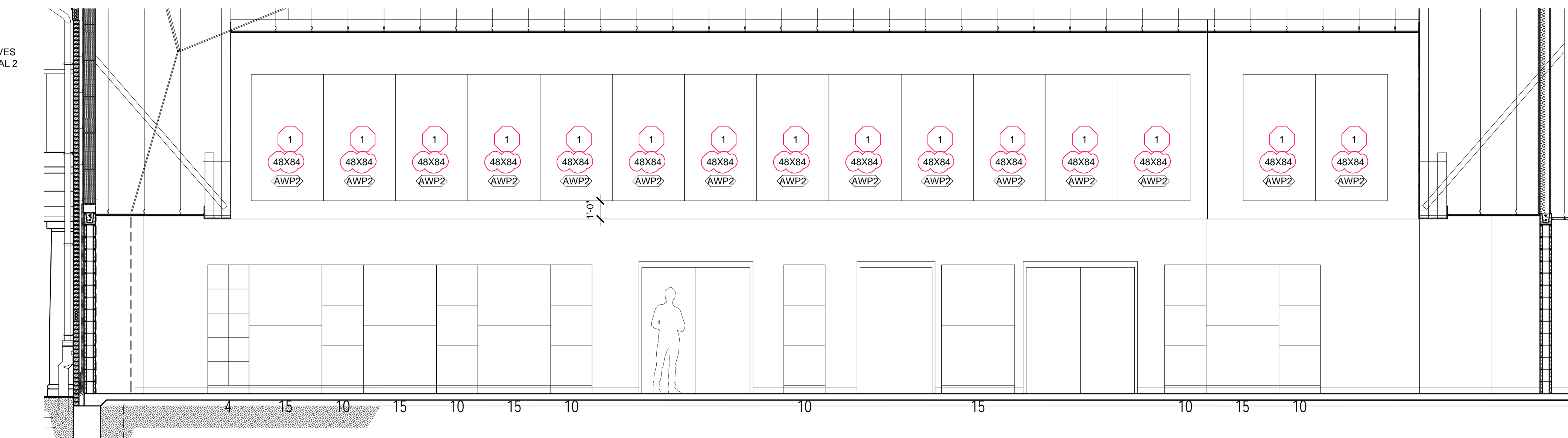


ROOM 849	
QTY.	DESCRIPTION
6	6 FT RACK N ROLL
1	MUSIC SORTING RACK
7	TOTAL

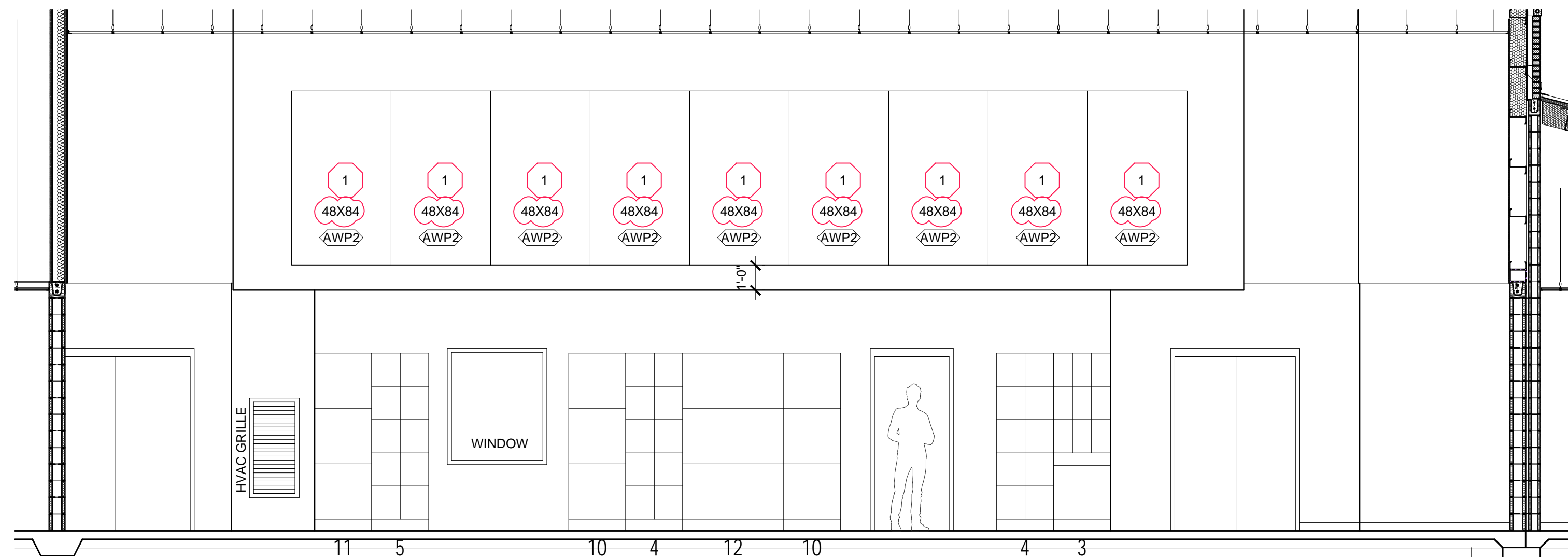
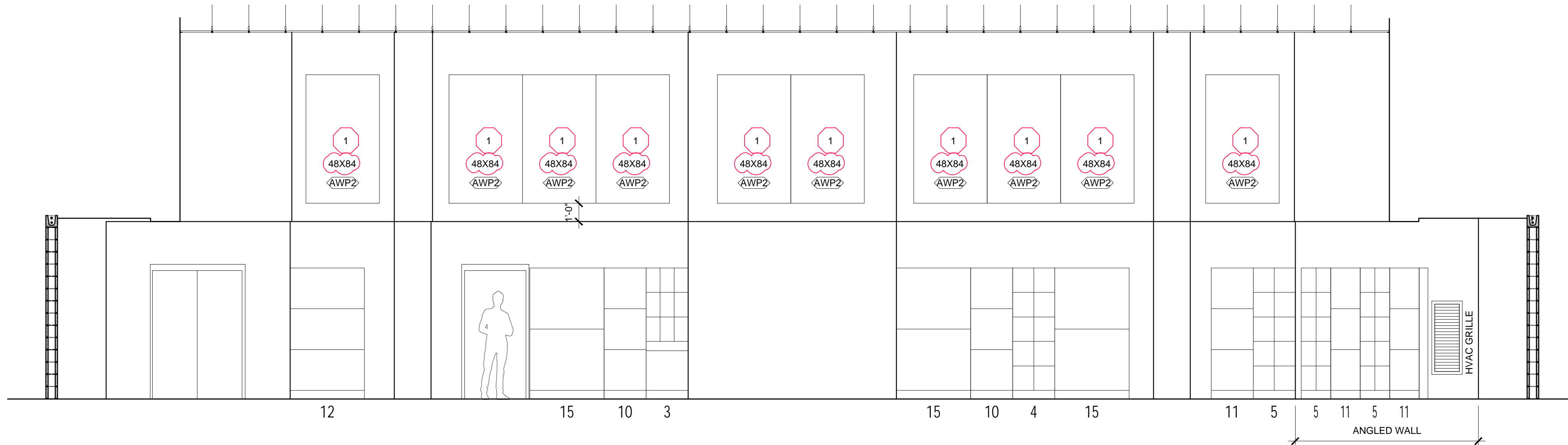
8 ROOM 849 UNIFORMS STORAGE
SCALE: 1/4"=1'-0"



FLOOR PLAN - BAND ROOM AREA
SCALE: 1/8" = 1'-0"



- GENERAL NOTES:
- SEE SPECIFICATIONS FOR PRODUCT MANUFACTURERS. PRODUCT NAMES AND NUMBERS ON THIS SHEET ARE FROM WENGER CORPORATION, SHOWN FOR CONVENIENCE TO CLARIFY THE PRODUCTS.
 - VERIFICATION OF BUILDING DIMENSIONS TO BE CONFIRMED BY GENERAL CONTRACTOR PRIOR TO CONSTRUCTION. PRODUCT IS PREFABRICATED IN STANDARD SIZES.
 - WALL AND FLOOR AREAS SHOWN FOR PRODUCT INSTALLATION MUST BE FREE OF OBSTRUCTIONS SUCH AS LIGHT SWITCHES, OUTLETS, HVAC, CLOCKS, SIGNS, ETC.
 - PROVIDE CLOSURE PANELS AS PER DRAWINGS. PROVIDE END COVER PANELS SHOWN AS PER DRAWING. PROVIDE MANUFACTURERS STANDARD COLOR COMBINATIONS.
- GENERAL CABINET NOTES:
- CABINET DOORS SHALL HAVE LATCHES READY TO RECEIVE STANDARD PADLOCKS. PADLOCKS ARE N.T.C.
- ACOUSTIC CABINET NOTES:
- INSTRUMENT CABINETS SHALL HAVE WIRE GRILLE DOORS TO MINIMIZE CUBIC VOLUME LOSS AND REDUCE SOUND VIBRATION.
 - CABINET INTERIOR BACKS SHALL HAVE ACOUSTICALLY ABSORPTIVE MATERIAL.



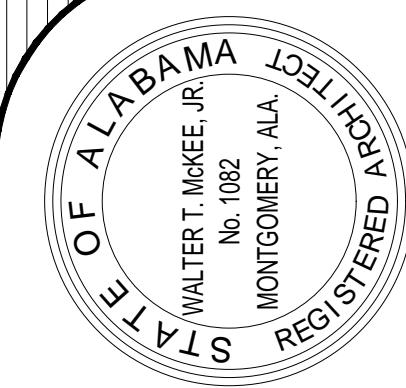
ACOUSTICAL WALL PANELS LEGEND	
SYMBOL	DESCRIPTION
48XB4	INDICATES WALL PANEL SIZE IN INCHES
AWP2	ACOUSTICAL WALL PANEL TYPE

ROOM 848	
QTY.	DESCRIPTION
PLAN	#03 ACOUSTICABINET
PLAN	#04 ACOUSTICABINET
PLAN	#05 ACOUSTICABINET
PLAN	#10 ACOUSTICABINET
PLAN	#11 ACOUSTICABINET
PLAN	#12 ACOUSTICABINET
PLAN	#15 ACOUSTICABINET

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SHEET TITLE : BAND ROOM 848 - MUSIC CASEWORK & WALL PANELS

MCKEE JOB # : 23-195

DRAWN BY : VH

DATE: 10-11-2023

REVISED DATE: 1 11-29-2023

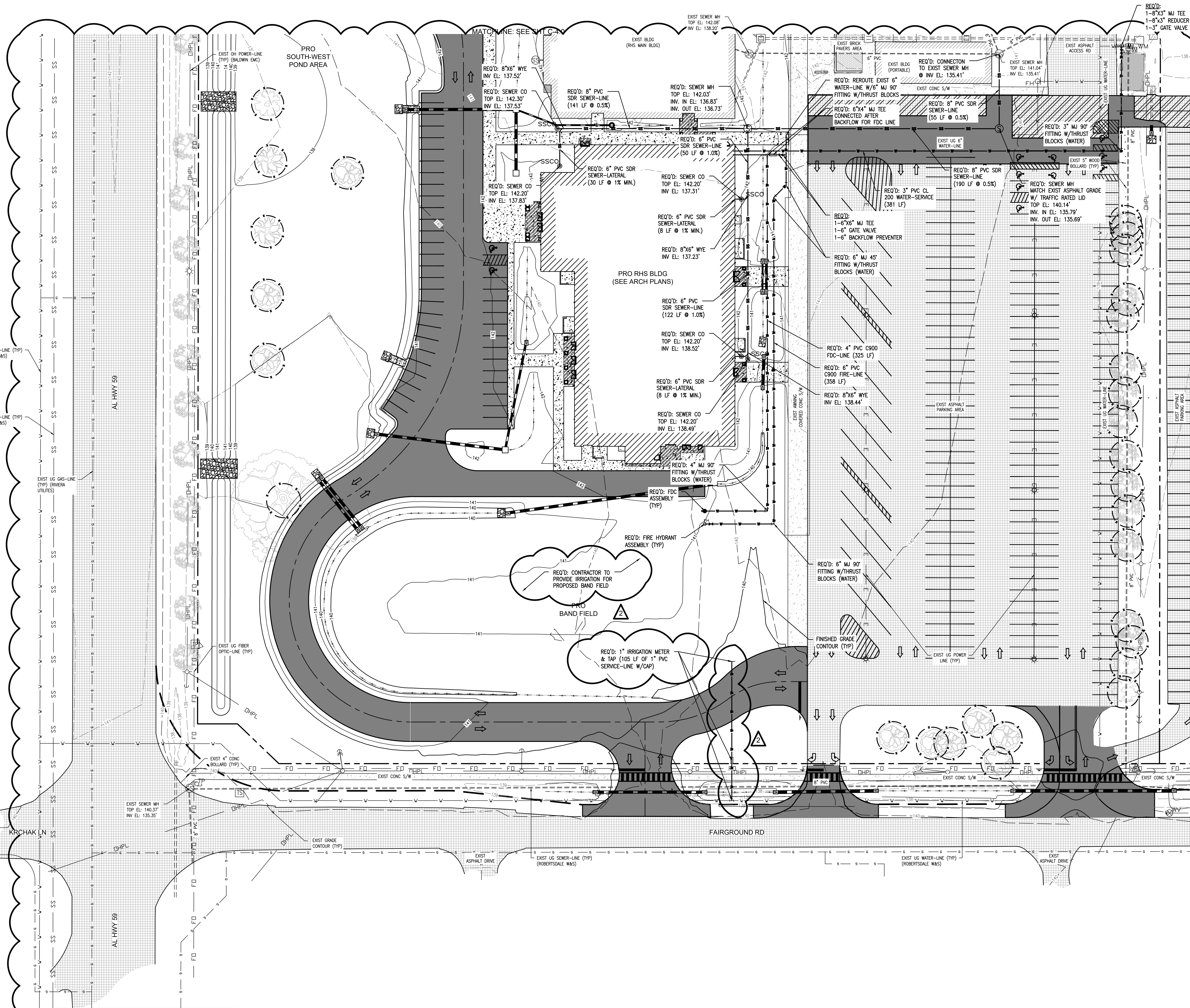
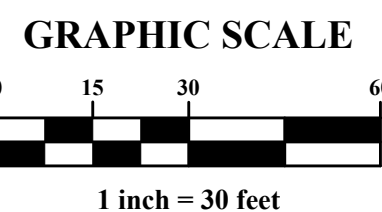
REVISED DATE:

REVISED DATE:

SHEET NO. : A10.1

LEGEND

- W W
EX WATER-LINE
EX WATER VALVE
EX FIRE HYDRANT
EX WATER METER
PR WATER-LINE
PR FIRE HYDRANT
PR FDC
EX SEWER-LINE
EX SEWER MH
PR-SEWER-LINE
PR-SEWER MH
PR-SEWER CO
EX FIBER-LINE
EX TEL PED
EX DRAINAGE PIPE
PR DRAINAGE SWALE
EX DRAINAGE MH
EX GRATE INLET
EX FENCE
EX UTILITY VALVE
EX WOOD-LINE
EX US POWER-LINE
EX OH POWER-LINE
EX ELEC BOX
EX TRANSFORMER
EX AC UNIT
EX SIGNAL BOX
EX GENERATOR
EX SIGNAL POLE
EX POWER POLE
EX LIGHT POLE
EX GUY WIRE
EX BLDG AREA
EX ASPHALT AREA
EX CONC AREA
PR MEDIUM-DUTY ASPHALT AREA
PR LIGHT-DUTY ASPHALT AREA
PR MILL-OVERLAY ASPHALT AREA
PR CONC AREA
PR BLDG
PR AWNING AREA
MILLING AREA
EXIST US WATER-LINE (TYP)
(ROBERTSDALE WAS)
EXIST US SEWER-LINE (TYP)
(ROBERTSDALE WAS)
EXIST US GAS-LINE (TYP)
(RIVERA UTILITIES)
EXIST US FIBER OPTIC-LINE (TYP)



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300719 E. 11/20/2020 Thomas Davis, Engineer P.E. No. 36077



SHEET TITLE : UTILITY PLAN 2

MCKEE JOB # : 23-195

DRAWN BY : BAT

DATE : 10-11-23

REVISED DATE : 11-28-23

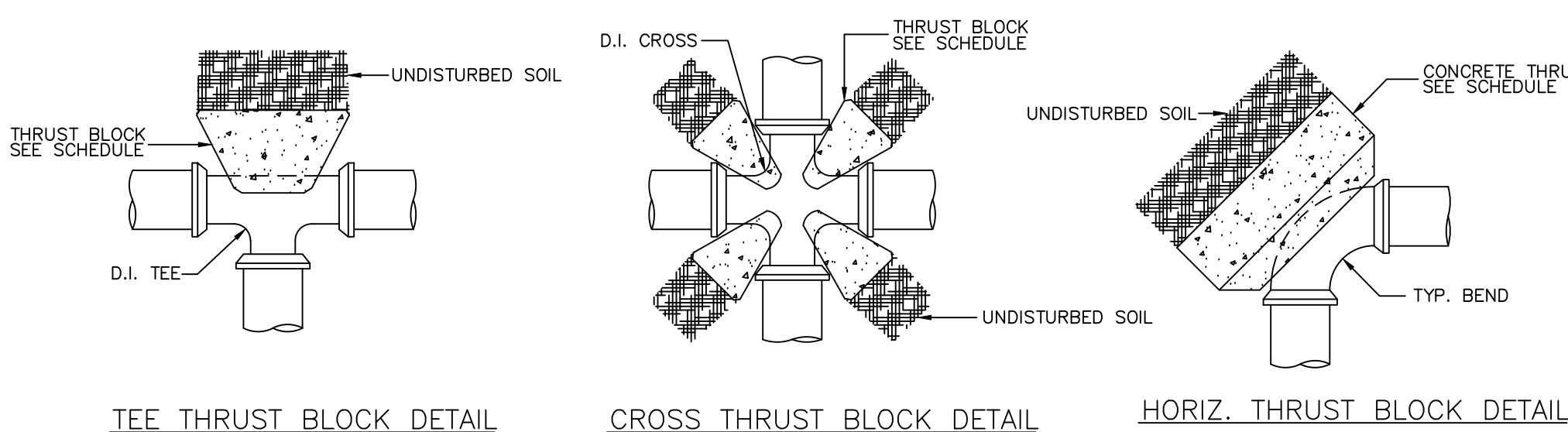
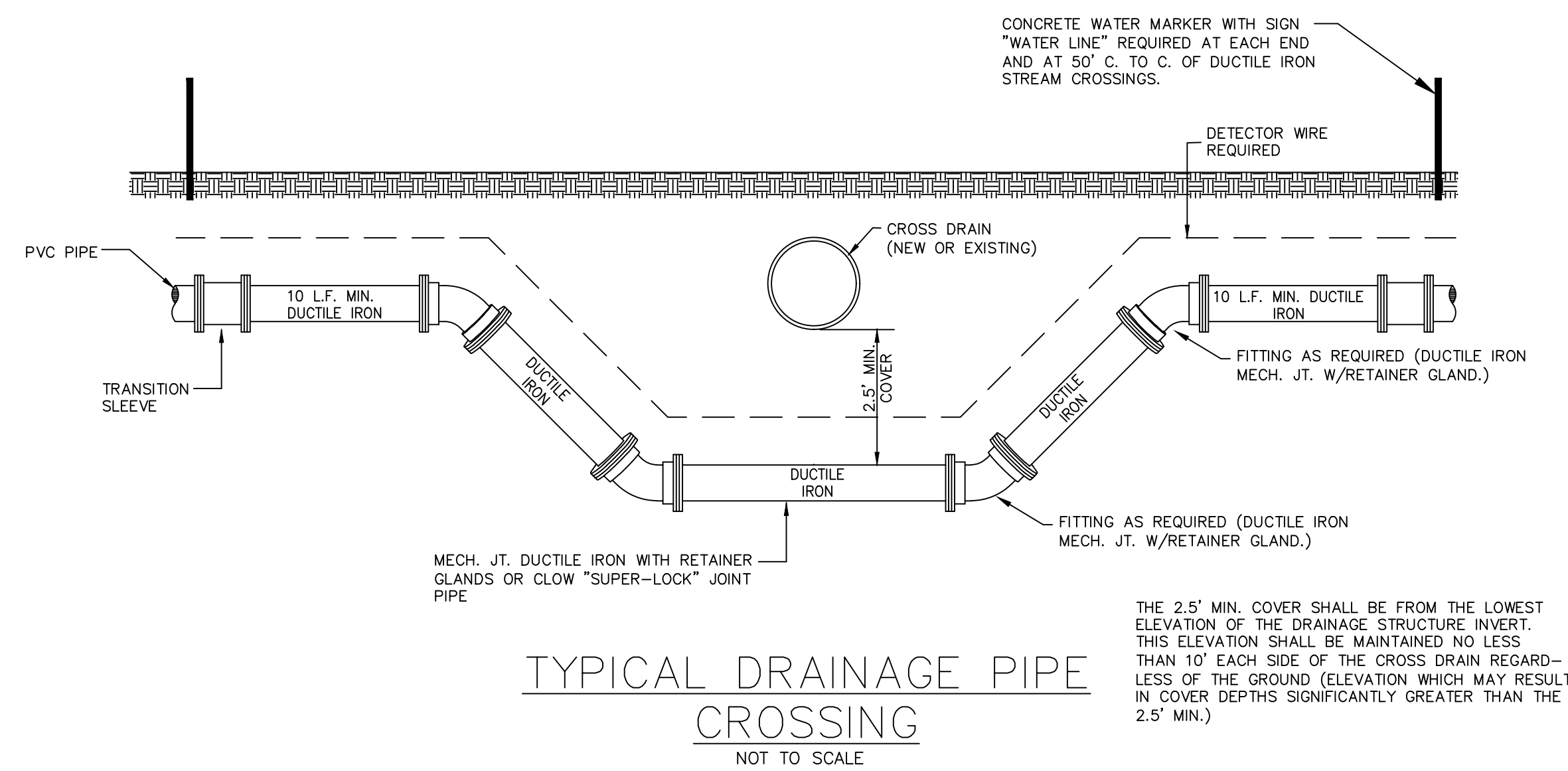
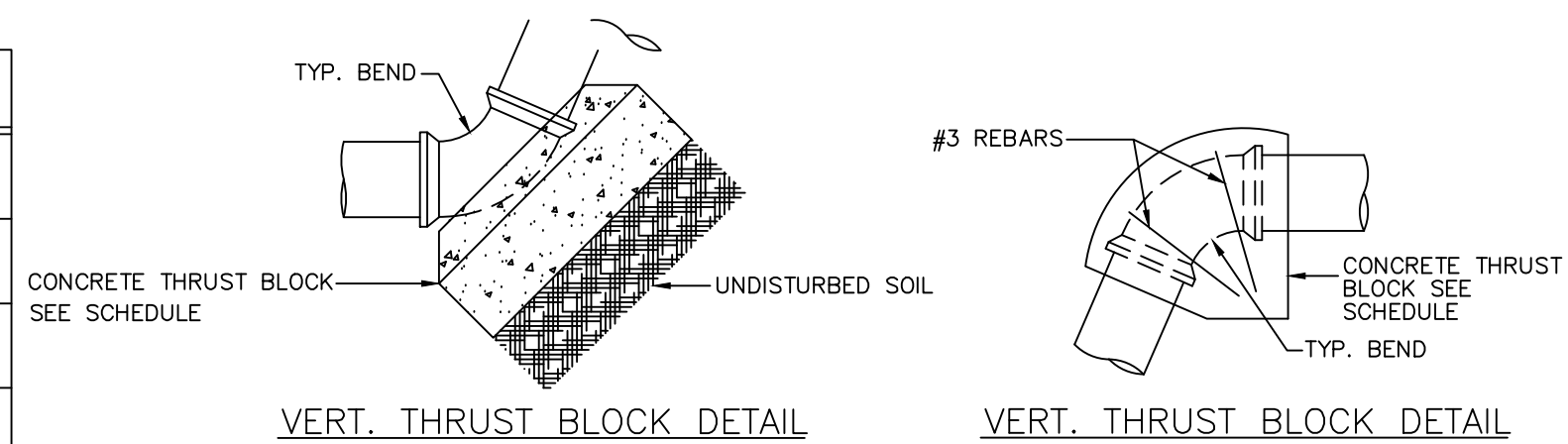
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REVISED DATE :

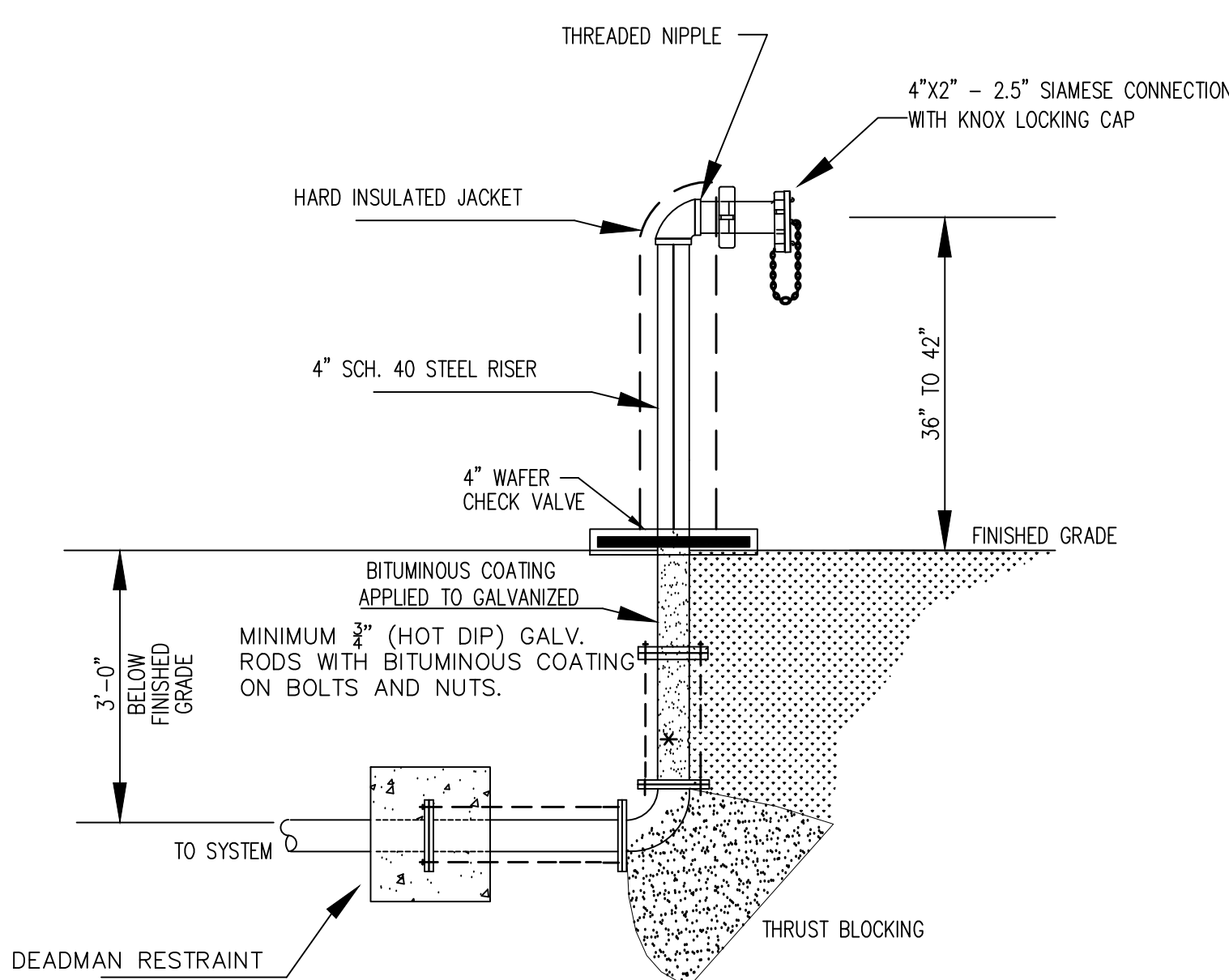
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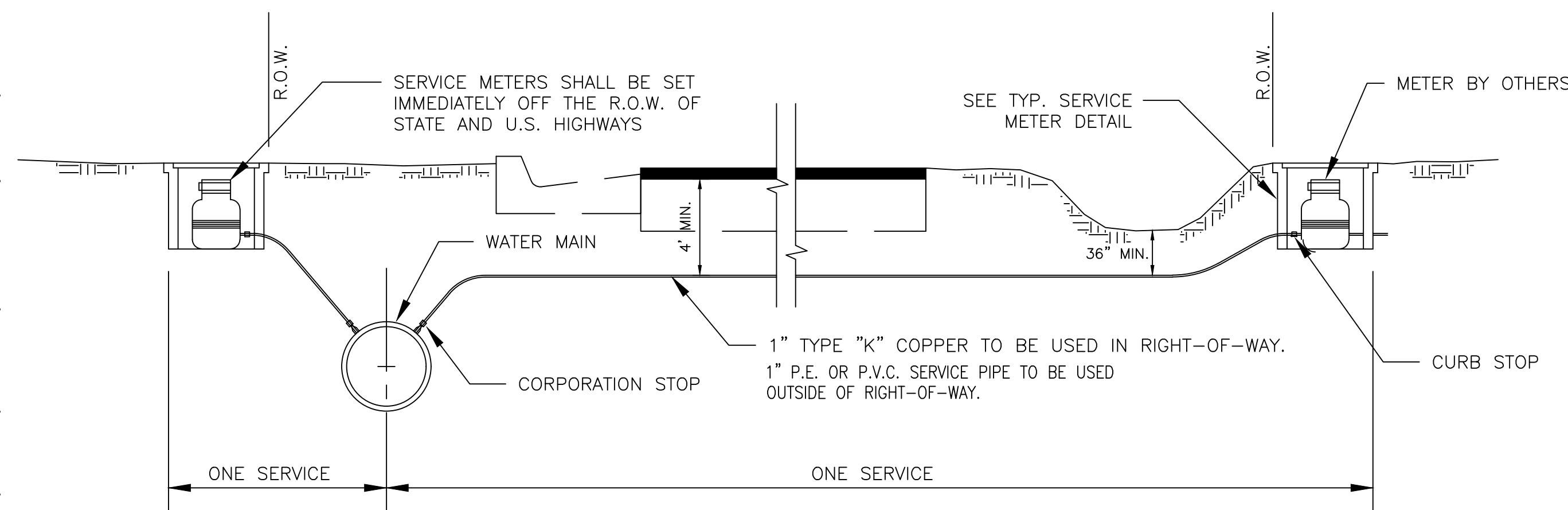
THRUST BLOCK BEARING AREAS (SQ. FT.)						VERTICAL ANCHOR BLOCK VOLUMES		
SIZE	PLUGGED END OR TEE	90° BEND	45° BEND	22-1/2° BEND	11-1/4° BEND	45° VERT. BEND	22-1/2° VERT. BEND	GATE VALVE
2" DIA. PIPE LINE	1.0	1.0	1.0	1.0	1.0	9.3 CU. FT.	4 CU. FT.	0.5 CU. FT.
4" DIA. PIPE LINE	1.9	2.6	1.4	1.0	1.0	21.1 CU. FT.	9.8 CU. FT.	0.8 CU. FT.
6" DIA. PIPE LINE	3.6	5.0	2.7	1.4	1.0	50 CU. FT.	16 CU. FT.	1.0 CU. FT.
8" DIA. PIPE LINE	5.8	8.2	4.4	2.25	1.2			1.5 CU. FT.



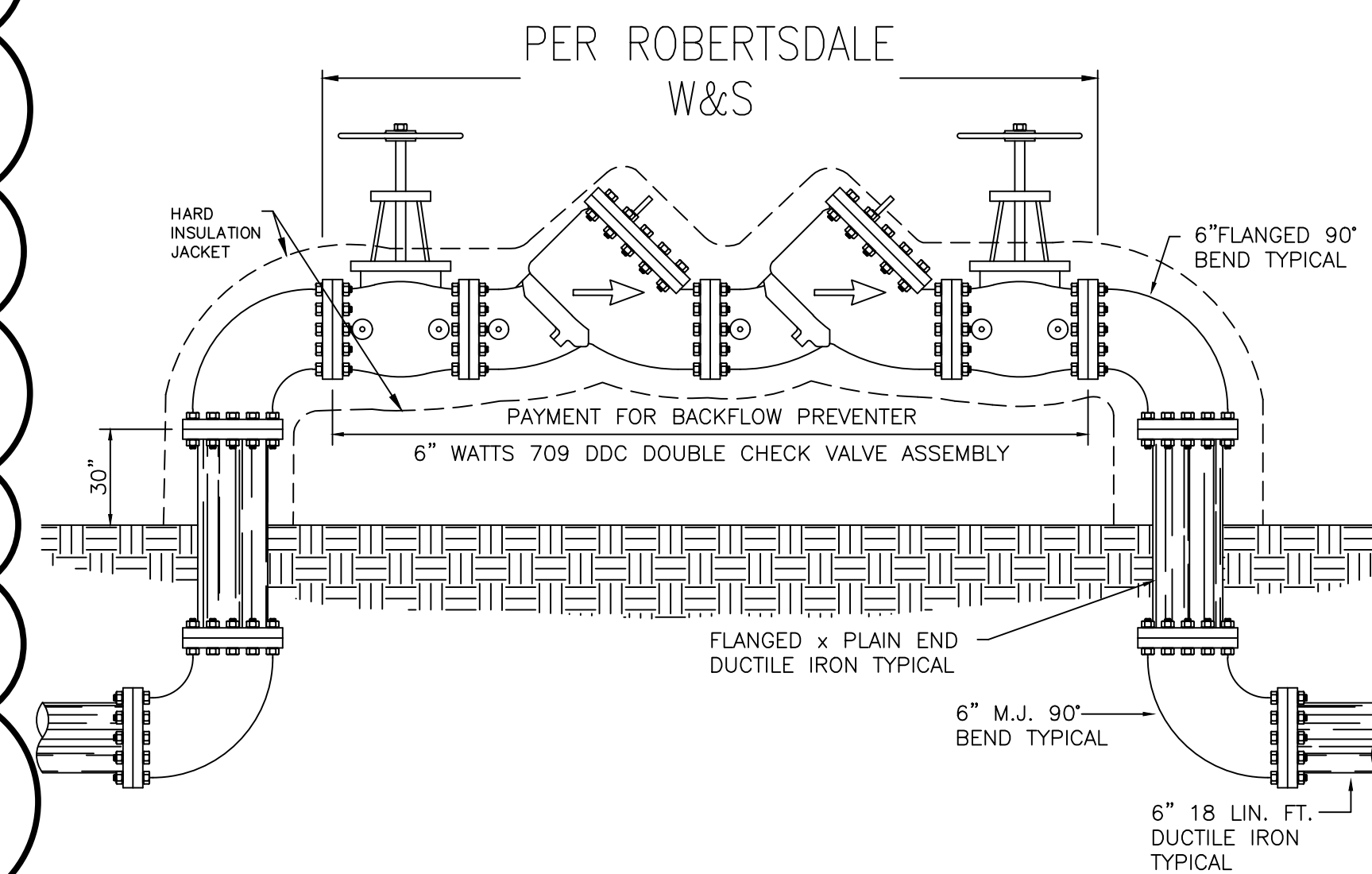
THRUST BLOCK DETAIL



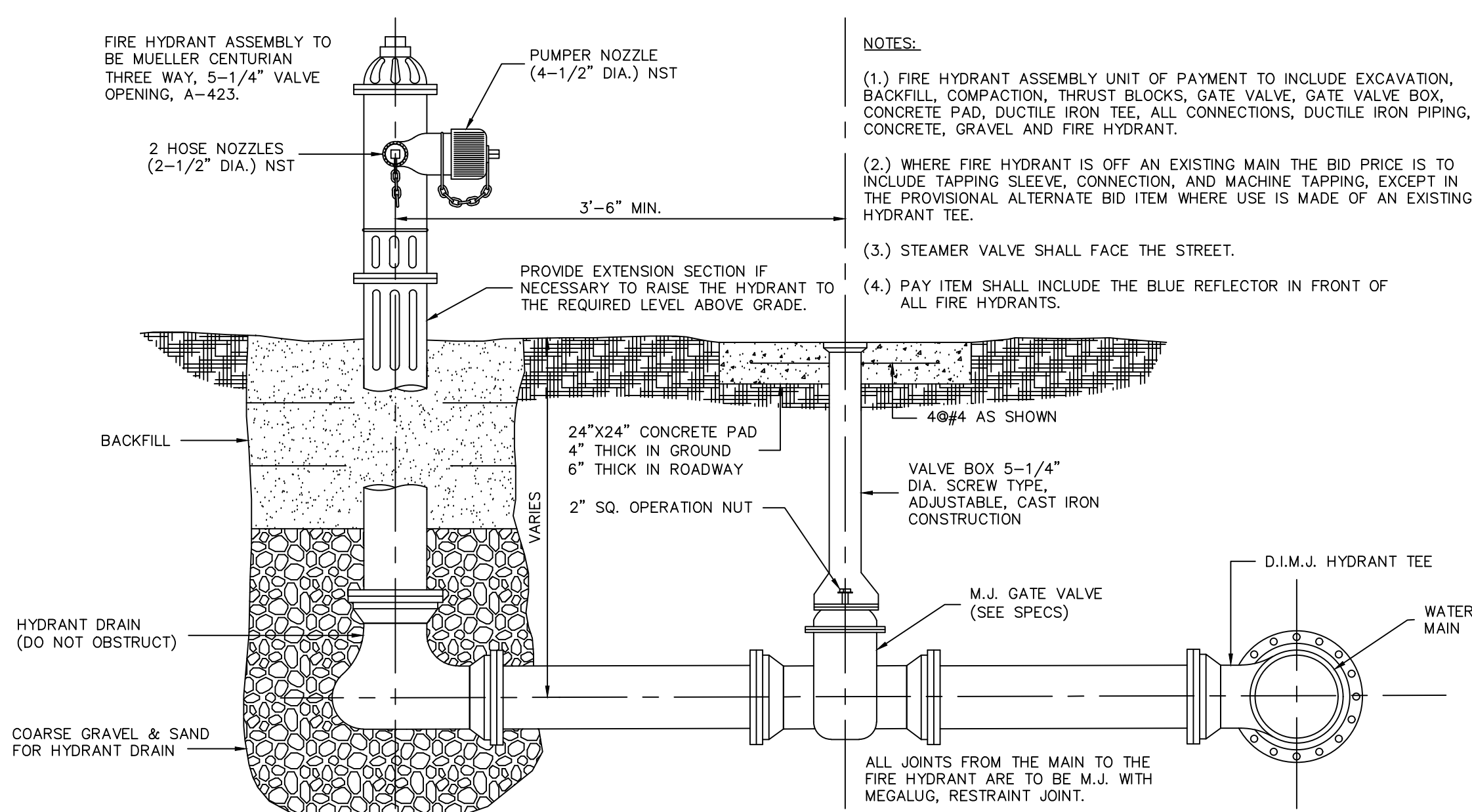
REMOTE FIRE DEPARTMENT CONNECTION (FDC) DETAIL



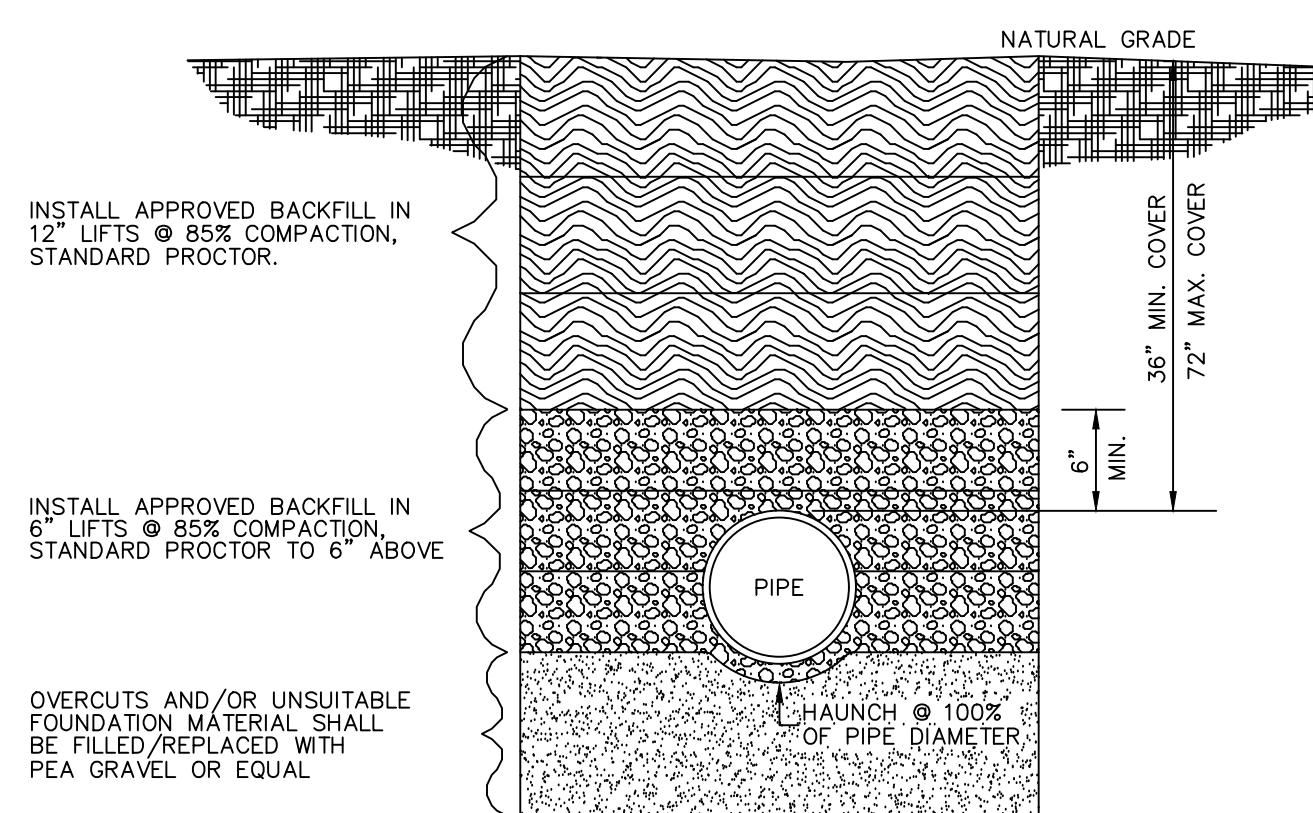
WATER SERVICE CONNECTION



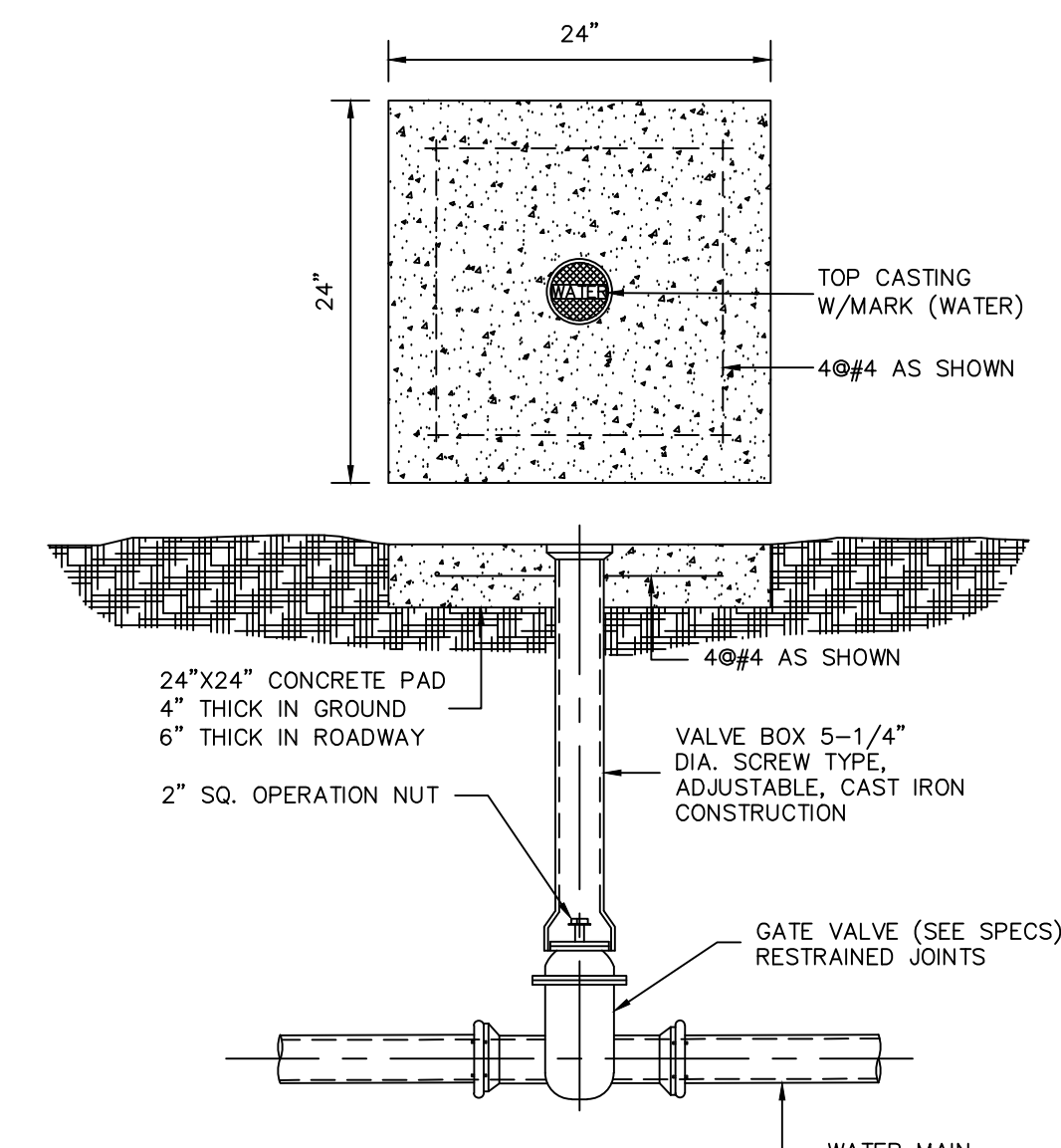
BACKFLOW PREVENTER ASSEMBLY DETAIL
FOR FIRE WATER LINE



FIRE HYDRANT ASSEMBLY



TYPICAL TRENCH DETAIL



WATER GATE VALVE

ADDITIONS

to

ROBERTSDALE HIGH SCHOOL

ROBERTSDALE, ALABAMA

BALDWIN COUNTY BOARD OF EDUCATION

McKEE & ASSOCIATES
ARCHITECTS, INC.

631 SOUTH HULL STREET, MONTGOMERY, ALABAMA 36104 (334) 834-9933



SHEET TITLE : WATER DETAILS

MCKEE JOB # : 23-195

DRAWN BY : BAT

DATE: 10-11-23

REVISÉ DATE: 11-28-23

REVISÉD DATE: 11-29-23

REVISÉD DATE:

SHEET NO. : C-6.2

ELECTRICAL SYMBOL LEGEND	
SYMBOL	DESCRIPTION
	PANELBOARD – SEE RESPECTIVE PANELBOARD SCHEDULE.
	BRANCH CIRCUIT CONDUIT RUN CONCEALED IN WALL OR ABOVE CEILING. ARROWS INDICATE CIRCUIT HOMERUN. HASHMARKS INDICATE NUMBER OF CONDUCTORS. ABSENCE OF HASHMARKS INDICATES TWO CONDUCTORS PLUS GROUND. "A" DENOTES PANELBOARD SERVING CIRCUIT. "1" INDICATES CIRCUIT BREAKER SPACE IN PANELBOARD. SEE RESPECTIVE PANEL CIRCUIT SCHEDULE. MINIMUM CONDUCTOR SIZE = #12 AWG.
	INDICATES CONDUIT RUN UNDERGROUND.
	NON-FUSED DISCONNECT, HEAVY DUTY (SAFETY) SWITCH – SIZE AND TYPE AS NOTED. TOP OF SWITCH 6'-6" A.F.F. PROVIDE MECHANICALLY FASTENED PHENOLIC LABEL.
	ELECTRIC MOTOR – SEE RESPECTIVE EQUIPMENT SCHEDULE.
	20A, 125 VAC 2P., 3W., GROUNDING TYPE, DOUBLE DUPLEX RECEPTACLE, FLUSH WALL MOUNTED 18" A.F.F. WITH GROUND PIN FACING UP UNLESS NOTED OTHERWISE.
	20A, 125 VAC 2P., 3W., GROUNDING TYPE, DUPLEX RECEPTACLE, FLUSH WALL MOUNTED 18" A.F.F. WITH GROUND PIN FACING UP UNLESS NOTED OTHERWISE.
	INDICATES GROUND FAULT CIRCUIT INTERRUPTING RECEPTACLE, FLUSH WALL MOUNTED 18" A.F.F. WITH GROUND PIN FACING UP UNLESS NOTED OTHERWISE.
	20A, 125 VAC 2P., 3W., GROUNDING TYPE, DUPLEX RECEPTACLE WITH TOP OUTLET UNSWITCHED AND THE BOTTOM OUTLET SWITCHED WITH THE LIGHT FIXTURES. PROVIDE PHENOLIC LABEL INDICATING BOTTOM OUTLET IS CONTROLLED WITH THE LIGHT FIXTURES AND WILL SWITCH OFF WHEN THE ROOM IS UNOCCUPIED. RECEPTACLE SHALL BE FLUSH WALL MTD. 18" A.F.F. UNLESS NOTED OTHERWISE.
	20A, 125 VAC 2P., 3W., GROUNDING TYPE, DOUBLE DUPLEX RECEPTACLE WITH TOP OUTLET UNSWITCHED AND THE BOTTOM OUTLET SWITCHED WITH THE LIGHT FIXTURES. PROVIDE PHENOLIC LABEL INDICATING BOTTOM OUTLET IS CONTROLLED WITH THE LIGHT FIXTURES AND WILL SWITCH OFF WHEN THE ROOM IS UNOCCUPIED. RECEPTACLE SHALL BE FLUSH WALL MTD. 18" A.F.F. UNLESS NOTED OTHERWISE.
	(2) 20A, 125 VAC 2P., 3W., GROUNDING TYPE, DUPLEX RECEPTACLES FLUSH MOUNTED IN FLOOR BOX WITH FLUSH FACEPLATE AND (2) TYPE "D2" DATA OUTLETS AS INDICATED ON TELECOM LEGEND. PROVIDE DEVICE MOUNTING BRACKETS FOR EACH DEVICE. ONE OF THE TWO DUPLEX RECEPTACLES SHALL BE SWITCHED ENTIRELY. FLOOR BOX EQUAL TO WIREMOLD CAT# RFB4 SERIES WITH COVER EQUAL TO WIREMOLD CAT# FPCTO(FINISH BY ARCHITECT). PROVIDE A MINIMUM 1" CONDUIT FOR CAT-5e CABLES ROUTED UNDERGROUND OVER TO NEAREST FULL WALL AND UP TO 6" ABOVE ACCESSIBLE CEILING.
	JUNCTION BOX LOCATION, SIZE AND TYPE AS REQUIRED.
	INSTALL OUTLET TO MATCH PLUG ON EQUIPMENT.
	POWER RELAY TO INTERLOCK WITH 277V LIGHTS OR MECHANICAL CONTROLS EQUIPMENT. COORDINATE VOLTAGE REQUIREMENTS WITH THE MECHANICAL CONTRACTOR FOR MECHANICAL EQUIPMENT INTERLOCKS.
	ADDRESSABLE INTELLIGENT FIRE ALARM SYSTEM CONTROL PANEL – WITH CELLULAR AUTO-DIAL OUT. VOICE EVACUATION CAPABLE.
	EMERGENCY RADIO RESPONDER COVERAGE HEAD END EQUIPMENT.
	FIRE ALARM SYSTEM ADDRESSABLE PULL STATION – SEMI FLUSH MOUNTED 48" A.F.F. TO TOP UNLESS NOTED OTHERWISE.
	CARBON MONOXIDE SENSOR
	ADDRESSABLE INTELLIGENT CEILING MOUNTED FIRE ALARM SYSTEM PHOTOELECTRIC TYPE SMOKE DETECTOR WITH BASE.
	ADDRESSABLE INTELLIGENT FIRE ALARM SYSTEM HEAT DETECTOR RATE OF RISE TYPE.
	FIRE ALARM SYSTEM SPEAKER / STROBE DEVICE CEILING MOUNTED, UNLESS NOTED OTHERWISE. ALL STROBES IN COMMON SPACES OR CORRIDORS SHALL BE SYNCHRONIZED. CANDELA VALUE AS INDICATED.
	FIRE ALARM SYSTEM VISUAL DEVICE CEILING MOUNTED, UNLESS NOTED OTHERWISE. ALL STROBES IN COMMON SPACES OR CORRIDORS SHALL BE SYNCHRONIZED. CANDELA VALUE AS INDICATED.
	FIRE ALARM SYSTEM SPEAKER / STROBE DEVICE SEMI FLUSH WALL MOUNTED AT 80" A.F.F. OR 6" BELOW THE FINISHED CEILING WHICHEVER IS LOWER, UNLESS NOTED OTHERWISE. ALL STROBES IN COMMON SPACES OR CORRIDORS SHALL BE SYNCHRONIZED. CANDELA VALUE AS INDICATED.
	EXTERIOR FIRE ALARM SYSTEM AUDIO ALARM (WEATHERPROOF DEVICE WITH WEATHERPROOF CAST BOX). FLUSH MOUNT. COORDINATE MOUNTING LOCATION WITH OBSTACLES AND MOUNT AS REQUIRED.
	ADDRESSABLE INTELLIGENT FIRE ALARM SYSTEM DUCT MOUNTED PHOTOELECTRIC SMOKE DETECTOR COMPLETE WITH HOUSING AND AIR SAMPLING TUBES. "S" DENOTES DETECTOR IN SUPPLY DUCT; "R" DENOTES DETECTOR IN RETURN DUCT.
	FIRE ALARM SYSTEM INTERFACE MODULE – MOUNTED AT EQUIPMENT.
	SPRINKLER SYSTEM FLOW SWITCH, FURNISHED BY FIRE ALARM SYSTEM SUPPLIER, INSTALLED BY FIRE PROTECTION (SPRINKLER) SYSTEM CONTRACTOR, AND CONNECTED TO FIRE ALARM SYSTEM CONTROL PANEL BY FIRE ALARM SYSTEM CONTRACTOR.
	SPRINKLER SYSTEM TAMPER SWITCH, FURNISHED BY FIRE ALARM SYSTEM SUPPLIER, INSTALLED BY FIRE PROTECTION (SPRINKLER) SYSTEM CONTRACTOR, AND CONNECTED TO FIRE ALARM SYSTEM CONTROL PANEL BY FIRE ALARM SYSTEM CONTRACTOR.
	ADDRESSABLE INTELLIGENT FIRE ALARM FIRE FIGHTERS MICROPHONE FLUSH MOUNTED IN WALL. COORDINATE FINAL LOCATION WITH THE AHJ PRIOR TO ROUGH-IN.
	INDICATES DEVICE FLUSH MOUNTED HORIZONTALLY 6" ABOVE COUNTERTOP OR IN BACKSPASH.
	COORDINATE DEVICE LOCATION WITH ELECTRIC WATER COOLER. MOUNT IN AN ACCESSIBLE LOCATION.
	INDICATES WEATHER RESISTANT WIRING DEVICE WITH WEATHER PROOF IN-USE COVER PLATE. OUTLET BOX HOODS INSTALLED IN WET LOCATIONS WITH THIS MARKING SHALL BE IDENTIFIED AS "EXTRA-DUTY."
	INDICATES GROUND FAULT CIRCUIT INTERRUPTER TYPE DEVICE.
	INDICATES RED DEVICE WITH RED FACE PLATE

SYMBOLS NOTES: UNLESS OTHERWISE NOTED THE FOLLOWING SHALL APPLY:

- ALL OUTLETS SHALL BE FLUSH MOUNTED.
- MOUNTING HEIGHTS ARE FROM THE CENTER LINE OF THE DEVICE.
- ALL SINGLE GANG AND TWO GANG DEVICES SHALL USE A 4" SQ. BOX WITH EXTENSION RING.
- ALL MULTI – GANG DEVICES SHALL USE A COMMON COVER PLATE
- ALL DEVICES (i.e. SWITCHES, RECEPTACLES, TELEPHONE OUTLETS, ETC.) SHALL BE GRAY WITH STAINLESS STEEL COVER PLATES.
- A.F.F. INDICATES MOUNTING HEIGHT ABOVE FINISHED FLOOR.
- DO NOT INSTALL OUTLETS BACK TO BACK.
- PROVIDE INDICATES THE ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL.
- WHERE MORE THAN 3 CURRENT CARRYING CONDUCTORS MAY BE RUN IN A SINGLE CONDUIT, NEC SECTION 310.15 SHALL APPLY.

ANY PENETRATIONS THROUGH RATED WALLS SHALL BE SEALED PER THE NEC WITH UL LISTED FIRE STOPPING COMPOUND.

ALL RECEPTACLES LOCATED THROUGHOUT THE SCHOOL SHALL BE LISTED TAMPER-RESISTANT TYPE.

CONTRACTOR SHALL PROVIDE THE OWNER WITH RECORD DRAWINGS AND MANUALS THAT PROVIDE INSTRUCTION ABOUT THE OPERATION AND MAINTENANCE OF THE BUILDING'S ELECTRICAL DISTRIBUTION SYSTEM. REFER TO ASHRAE 90.1 2013 8.7.

LIGHTING FIXTURE SCHEDULE						
<p>• LIGHTING MANUFACTURERS OTHER THAN THOSE LISTED IN THIS SCHEDULE SHALL SUBMIT PRIOR APPROVAL NO LESS THAN 10 DAYS PRIOR TO BID. NO FIXTURES WILL BE REVIEWED AFTER THE 10 DAY DEADLINE, NO EXCEPTIONS. SUBSTITUTE PACKAGES MAY BE RESUBMITTED ONE TIME FOLLOWING THE INITIAL ENGINEER'S REVIEW. FAILURE TO PROVIDE AN APPROVED EQUIVALENT PACKAGE WILL RESULT IN DISAPPROVAL OF THE ENTIRE SUBSTITUTE PACKAGE. MANUFACTURERS NOT APPROVED PRIOR TO BID SHALL NOT BE SUBMITTED FOR CONSTRUCTION.</p> <p>• MANUFACTURERS LISTED AS EQUALS ON THIS SCHEDULE ARE PRE-APPROVED TO BID. PART NUMBERS LISTED ON THIS SCHEDULE ARE THE "AS SPECIFIED" FIXTURES. ANY MANUFACTURERS LISTED ON THIS SCHEDULE WITHOUT PART NUMBERS ARE NOT CONSIDERED "AS SPECIFIED". THE LIGHTING PACKAGE SUBMITTED FOR CONSTRUCTION SHALL MEET OR EXCEED THE LIGHTING SPECIFICATIONS AND THE "AS SPECIFIED" FIXTURES ON THIS SCHEDULE, AND COMPLY WITH THE DESIGN AND FUNCTIONALITY REQUIREMENTS SHOWN ON THE LIGHTING PLANS, NO EXCEPTIONS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THEIR LIGHTING PACKAGE IS EQUAL TO THE SPECIFICATIONS AND PLANS PRIOR TO BIDDING. ANY FIXTURE PACKAGE SUBMITTED FOR REVIEW DURING THE CONSTRUCTION PHASE THAT IS NOT EQUAL TO THE AS SPECIFIED FIXTURES AND PLANS WILL BE REJECTED. THE ACCEPTANCE OF AN EQUAL PACKAGE SHALL BE AT THE SOLE DISCRETION OF THE ARCHITECT AND ENGINEER. ANY ADDITIONAL COSTS INCURRED BY BRINGING AN INTERIOR LIGHTING PACKAGE UP TO THE STANDARDS OF THE SPECIFICATIONS, AS SPECIFIED FIXTURES, AND PLANS DUE TO LACK OF QUALITY AND/OR FUNCTION OF DESIGN SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND HIS/HER LIGHTING SUPPLIER. NO EXCEPTIONS. THESE REQUIREMENTS SHALL ALSO BE INCLUSIVE OF ALL LIGHTING CONTROL SYSTEMS.</p>						
MARK	LUMENS	LMITS	TYPE	MOUNTING	MANUFACTURER AND CATALOG NUMBER	NOTES
D1S	1000	12.8W	LED 35K	RECESSED FLANGE	H.E. WILLIAMS 60R-TL-110/835-DM1-UNV-SW-OF-CS-WET/CC-N-F1 COTAH EV06SH-35/10-L06-AR-LSS-E21-TRW PORTFOLIO L06	
EX	N/A	1W	LED RED	UNIVERSAL	CHLORIDE ERS5LD3R EMERUSIE BAPW1R ASTRALITE DCA-R-BA-EM-S0	PROVIDE ARROWS AS INDICATED ON PLANS.
EXG	N/A	1W	LED RED	UNIVERSAL	CHLORIDE ERS5LD3R-WGA LITHONIA LE-S-1-R-EL-N-ELA W6 COOPER CTX1670	PROVIDE ARROWS AS INDICATED ON PLANS.
HB40 HB40E	40,000	36AW	LED	SUSPENDED 230" A.F.F.	H.E. WILLIAMS GH-4-L480/840-FA-WG11-CG2/Y18/15-DM-UNV LITHONIA BG-4800LM-SEF-A11-640-WMOLT-C210-40K-80CR-BMH-HB40LM7S-WGB44 METALUX CHS-48E-WF-UNV-L48-40K-WB-WG14-1-TOGGLE-3P-52K	SO CORD IS NOT APPROVED FOR FIXTURE POWER CONNECTION. E – PROVIDE INTEGRAL 10W EMERGENCY BATTERY. PROVIDE ADDITIONAL AIRCRAFT CABLE AS REQUIRED FOR MOUNTING FIXTURE.
L1D L1DSE	3000	21W	LED 35K	SUSPENDED 9'0" A.F.F.	HE WILLIAMS 75R-4-L50/835-1Y61-DRV-UNV LITHONIA CLX-L48-3000LM-SFF-REL-W0-WMOLT-C210-35K-80CR-WH-HC36 M12 METALUX 45MD-L05-30SL-LC-UNV-L835-CD-1-U-AYC	E – PROVIDE INTEGRAL 10W EMERGENCY BATTERY.
L140 L140E	4000	31W	LED 35K	SUSPENDED 9'0" A.F.F.	HE WILLIAMS 75R-4-L50/835-1Y61-DRV-UNV LITHONIA CLX-L48-4000LM-SFF-REL-W0-WMOLT-C210-35K-80CR-WH-HC36 M12 METALUX 45MD-L05-415S-LC-UNV-L835-CD-1-U-AYC	E – PROVIDE INTEGRAL 10W EMERGENCY BATTERY.
L150E	5000	38W	LED 35K	SUSPENDED 9'0" A.F.F.	HE WILLIAMS 75R-4-L50/835-1Y61-DRV-UNV LITHONIA CLX-L48-5000LM-SFF-REL-W0-WMOLT-C210-35K-80CR-WH-HC36 M12 METALUX 45MD-L05-49SL-LC-UNV-L835-CD-1-U-AYC	E – PROVIDE INTEGRAL 10W EMERGENCY BATTERY.
LP30 LP30E	3000	29W	LED 35K	RECESSED GRID	DAYBRITE 2FP230L835-4-DS-UNV-DM LITHONIA EPNL-2X4-3000-80CR-35K-MINI-Z1-MVOLT METALUX 24FP2525C13-L0W	E – PROVIDE INTEGRAL 10W EMERGENCY BATTERY. PROVIDE 1% DIMMING DRIVER.
LP38 LP38E	3800	40.2W	LED 35K	RECESSED GRID	DAYBRITE 2FP238L835-4-DS-UNV-DM LITHONIA EPNL-2X4-4000-80CR-35K-MINI-Z1-MVOLT METALUX 24FP2525C13-MED	E – PROVIDE INTEGRAL 10W EMERGENCY BATTERY. PROVIDE 1% DIMMING DRIVER.
LP43 LP43E	4300	45W	LED 35K	RECESSED GRID	DAYBRITE 2FP243L835-4-DS-UNV-DM LITHONIA EPNL-2X4-4000-80CR-35K-MINI-Z1-MVOLT METALUX 24FP2525C13-MED	E – PROVIDE INTEGRAL 10W EMERGENCY BATTERY. PROVIDE 1% DIMMING DRIVER.
LP48 LP48E	4800	45W	LED 35K	RECESSED GRID	DAYBRITE 2FP248L835-4-DS-UNV-DM LITHONIA EPNL-2X4-4000-80CR-35K-MINI-Z1-MVOLT METALUX 24FP2525C13-MED	E – PROVIDE INTEGRAL 10W EMERGENCY BATTERY. PROVIDE 1% DIMMING DRIVER.
LP54E	5400	56.3W	LED 35K	RECESSED GRID	DAYBRITE 2FP254L835-4-DS-UNV-DM LITHONIA EPNL-2X4-6000-80CR-35K-MINI-Z1-MVOLT METALUX 24FP2525C13-HIGH	E – PROVIDE INTEGRAL 10W EMERGENCY BATTERY. PROVIDE 1% DIMMING DRIVER.
LP60 LP60E	6000	56.3W	LED 35K	RECESSED GRID	DAYBRITE 2FP260L835-4-DS-UNV-DM LITHONIA EPNL-2X4-6000-80CR-35K-MINI-Z1-MVOLT METALUX 24FP2525C13-HIGH	E – PROVIDE INTEGRAL 10W EMERGENCY BATTERY. PROVIDE 1% DIMMING DRIVER.
LP80 LP80E	8000	80.4	LED 35K	RECESSED GRID	DAYBRITE 2FP280L835-4-DS-UNV-DM OR EQUAL	E – PROVIDE INTEGRAL 10W EMERGENCY BATTERY. PROVIDE 1% DIMMING DRIVER.
PL2**	24000	178	LED 40K	POLE 30"Ø A.F.G.	FIGURE GARCOO ECF-S-64L-900-NW-62-2-AR-277-LLC-CM30-IMR7-PCB-BZ POLE GARCOO TRA-CA-7/4-156-30-01-BZ OR EQUAL	PROVIDE WITH INTEGRAL PHOTOCELL ON/OFF CONTROL AND 30% DIMMING AFTER 15 MINUTES NO ACTIVITY.
PL4**	24000	178	LED 40K	POLE 30"Ø A.F.G.	FIGURE GARCOO ECF-S-64L-900-NW-62-4-AR-277-LLC-CM30-IMR7-PCB-BZ POLE GARCOO TRA-CA-7/4-156-30-01-BZ OR EQUAL	PROVIDE WITH INTEGRAL PHOTOCELL ON/OFF CONTROL AND 30% DIMMING AFTER 15 MINUTES NO ACTIVITY.
PL4-2	24000	178 X2	LED 40K	POLE 30"Ø A.F.G.	FIGURE GARCOO ECF-S-64L-900-NW-62-4-AR-277-LLC-CM30-IMR7-PCB-BZ POLE GARCOO TRA-CA-7/4-156-30-02-BZ OR EQUAL	PROVIDE WITH INTEGRAL PHOTOCELL ON/OFF CONTROL AND 30% DIMMING AFTER 15 MINUTES NO ACTIVITY. PROVIDE TWO "PL4" FIXTURES AT 180° APART ON SINGLE POLE.
PL5**	24000	178	LED 40K	POLE 30"Ø A.F.G.	FIGURE GARCOO ECF-S-64L-900-NW-62-5-AR-277-LLC-CM30-IMR7-PCB-BZ POLE GARCOO TRA-CA-7/4-156-30-01-BZ OR EQUAL	PROVIDE WITH INTEGRAL PHOTOCELL ON/OFF CONTROL AND 30% DIMMING AFTER 15 MINUTES NO ACTIVITY.
SF SFE	2600	32	LED 40K	SURFACE	FC LIGHTING FCW3800 UNV 4000K CRI85 26L BR8 SP20 OR EQUAL	E – PROVIDE REMOTE 10W EMERGENCY BATTERY EQUAL TO BRUX
WP2**	9000	70	LED 40K	WALL 17"Ø A.F.G.	GARCOO 121-32L-700-NW-G4-2-277-LLC-CM30-IMR3-PCB-BZ OR EQUAL	PROVIDE WITH INTEGRAL PHOTOCELL ON/OFF CONTROL AND 30% DIMMING AFTER 15 MINUTES NO ACTIVITY.
WP3**	9000	70	LED 40K	WALL 17"Ø A.F.G.	GARCOO 121-32L-700-NW-G4-3-277-LLC-CM30-IMR3-PCB-BZ OR EQUAL	PROVIDE WITH INTEGRAL PHOTOCELL ON/OFF CONTROL AND 30% DIMMING AFTER 15 MINUTES NO ACTIVITY.
WP4**	9000	70	LED 40K	WALL 17"Ø A.F.G.	GARCOO 121-32L-700-NW-G4-4-277-LLC-CM30-IMR3-PCB-BZ OR EQUAL	PROVIDE WITH INTEGRAL PHOTOCELL ON/OFF CONTROL AND 30% DIMMING AFTER 15 MINUTES NO ACTIVITY.
WS2** WS2E**	2700	22	LED 40K	WALL 7"Ø A.F.G.	GARCOO 121-16L-400-NW-G4-2-277-LLC-CM30-IMR2-PCB-BZ OR EQUAL	PROVIDE WITH INTEGRAL PHOTOCELL ON/OFF CONTROL AND 30% DIMMING AFTER 15 MINUTES NO ACTIVITY. E – PROVIDE INTEGRAL COLD WEATHER EMERGENCY BATTERY.
WS4** WS4E**	2700	22	LED 40K	WALL 7"Ø A.F.G.	GARCOO 121-16L-400-NW-G4-4-277-LLC-CM30-IMR2-PCB-BZ OR EQUAL	PROVIDE WITH INTEGRAL PHOTOCELL ON/OFF CONTROL AND 30% DIMMING AFTER 15 MINUTES NO ACTIVITY. E – PROVIDE INTEGRAL COLD WEATHER EMERGENCY BATTERY.
<p>** FIXTURE SHALL BE PROVIDED WITH PHOTO AND MOTION CONTROL AND BE PROGRAMMED TO DIM BY 30% DURING ANY PERIOD WHERE NO ACTIVITY HAS BEEN DETECTED FOR LONGER THAN 15 MINUTES. THE CONTRACTOR SHALL COORDINATE SPECIFIC REQUIREMENTS WITH THE FIXTURE MANUFACTURER. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT ALL CONTROLS AND ACCESSORIES HAVE BEEN PROVIDED WITH THE FIXTURE FOR A COMPLETE AND FUNCTIONAL ASSEMBLY REGARDLESS OF THE SPECIFIED MODEL NUMBER. SEE KEYNOTES ON LIGHTING PLANS FOR ADDITIONAL INFORMATION.</p>						
GENERAL NOTES:						
1. THE MOUNTING HEIGHTS/PENDANT LENGTHS OF ALL FIXTURES SHALL BE COORDINATED WITH THE ARCHITECT PRIOR TO INSTALLATION.						
2. ANY EXPOSED RACEWAY SHALL BE PAINTED TO MATCH THE BACKGROUND COLOR.						
3. PROVIDE FLANGE KITS FOR ALL FIXTURES INSTALLED IN A SHEET ROCK CEILING.						
4. CONTRACTOR SHALL ORDER FIXTURES WITH PROTECTIVE COVER OPTION TO PROTECT FIXTURES DURING CONSTRUCTION.						
5. FIXTURE TAGS THAT INCLUDE "E" SHALL BE PROVIDED WITH EMERGENCY BATTERY BACK UP.						
NECESSARY COMPONENTS (i.e. BOOSTER PANELS) AND MAKE ALL THE NECESSARY CONNECTIONS FROM THE NEW FIRE ALARM DEVICES AND JUNCTION BOX TO THE EXISTING FIRE ALARM CONTROL PANEL IN THE EXISTING ELECTRICAL ROOM AND THE TO ENSURE A FULLY FUNCTIONAL CAMPUS WIDE SYSTEM.						
ALL PHASING OF WORK SHALL BE SCHEDULED WITH THE OWNER AND ARCHITECT PRIOR TO COMMENCEMENT OF WORK. THE CONTRACTOR SHALL SCHEDULE ALL OUTAGES WITH THE OWNER AT LEAST (14) DAYS IN ADVANCE AND ANY GIVEN OUTAGE SHALL NOT BE A DURATION IN EXCESS OF (8) HOURS.						
CONTRACTOR SHALL COORDINATE ALL UNDERGROUND WORK WITH OTHER EXISTING/NEW UTILITIES TO AVOID CONFLICT.						
e. THE CONTRACTOR SHALL PROVIDE WEATHER PROOF / FIRE SEAL AS REQUIRED ON ALL EXTERIOR WALL PENETRATIONS.						
f. IT IS THE RESPONSIBILITY OF THE FIRE ALARM CONTRACTOR TO PROVIDE ANY						

OVERALL ELECTRICAL GENERAL NOTES:

- THE CONTRACTOR SHALL VISIT THE JOB SITE AND BECOME FAMILIAR WITH THE EXTENT OF WORK REQUIRED TO COMPLETE THE JOB PRIOR TO BIDDING.
- THE CONTRACTOR SHALL COORDINATE THE LOCATION OF ALL MECHANICAL EQUIPMENT WITH THE MECHANICAL CONTRACTOR PRIOR TO ROUGH IN AND INSTALLATION.
- ALL PRIMARY CONDUIT SHALL BE RUN AT 48" BELOW FINISHED GRADE. ALL SECONDARY AND EXTERIOR UNDERGROUND BRANCH CIRCUIT CONDUIT(S) SHALL BE RUN 36" BELOW FINISHED GRADE.
- IN ALL MECHANICAL ROOMS, ALL CONDUIT AND BOXES ARE TO BE SURFACE MOUNTED.
- THE CONTRACTOR SHALL PROVIDE WEATHER PROOF / FIRE SEAL AS REQUIRED ON ALL EXTERIOR WALL PENETRATIONS.
- IT IS THE RESPONSIBILITY OF THE FIRE ALARM CONTRACTOR TO PROVIDE ANY

NECESSARY COMPONENTS (i.e. BOOSTER PANELS) AND MAKE ALL THE NECESSARY CONNECTIONS FROM THE NEW FIRE ALARM DEVICES AND JUNCTION BOX TO THE EXISTING FIRE ALARM CONTROL PANEL IN THE EXISTING ELECTRICAL ROOM AND THE TO ENSURE A FULLY FUNCTIONAL CAMPUS WIDE SYSTEM.

ALL PHASING OF WORK SHALL BE SCHEDULED WITH THE OWNER AND ARCHITECT PRIOR TO COMMENCEMENT OF WORK. THE CONTRACTOR SHALL SCHEDULE ALL OUTAGES WITH THE OWNER AT LEAST (14) DAYS IN ADVANCE AND ANY GIVEN OUTAGE SHALL NOT BE A DURATION IN EXCESS OF (8) HOURS.

CONTRACTOR SHALL COORDINATE ALL UNDERGROUND WORK WITH OTHER EXISTING/NEW UTILITIES TO AVOID CONFLICT.

LIGHTING SYMBOL LEGEND	
SYMBOL	DESCRIPTION
	"LED" LIGHTING FIXTURE. LETTER(S) DENOTE TYPE – SEE LIGHTING FIXTURE SCHEDULE.
	"LED" LIGHTING FIXTURE WITH INTEGRAL BATTERY BACKUP.
	LED LIGHTING FIXTURE. LETTER(S) DENOTE TYPE – SEE LIGHTING FIXTURE SCHEDULE.
	"LED" EXIT LIGHT. DARKENED QUADRANTS INDICATE ILLUMINATED FACES, ARROWS AS INDICATED. LETTER(S) DENOTE TYPE – SEE LIGHTING FIXTURE SCHEDULE.
	20 AMP, 120/277 VAC SINGLE POLE TOGGLE SWITCH – FLUSH WALL MOUNTED 48" A.F.F. UNLESS NOTED OTHERWISE. SUBSCRIPT INDICATES AS FOLLOWS:
	3 – 20 AMP, 120/277 VAC THREE WAY TOGGLE SWITCH
	4 – 20 AMP, 120/277 VAC FOUR WAY TOGGLE SWITCH
	DT – DUAL TECHNOLOGY MOTION SENSOR WALL SWITCH. WATSTOPPER DW-100. TIME DELAY DURATION SHALL BE 20 MINUTES MAXIMUM. PROGRAM FOR "MANUAL ON".
	DTA – DUAL TECHNOLOGY MOTION SENSOR WALL SWITCH. WATSTOPPER DW-100. TIME DELAY DURATION SHALL BE 20 MINUTES MAXIMUM. PROGRAM FOR "AUTOMATIC ON".
	DT3 – MULTI-WAY DUAL TECHNOLOGY MOTION SENSOR WALL SWITCH. WATSTOPPER DW-103. TIME DELAY DURATION SHALL BE 20 MINUTES MAXIMUM. PROGRAM FOR "MANUAL ON".
	M – 30 AMP SWITCH EQUAL TO HUBBELL HBL7832D OR HBL7810D, AS REQUIRED. PROVIDE PHENOLIC LABEL.
	MO – LOW VOLTAGE MOMENTARY TOGGLE SWITCH EQUAL TO WATSTOPPER LVS-1 FOR "MANUAL ON" CONTROL OF CEILING MOUNTED EQUIPMENT.
	MOD – LOW VOLTAGE MANUAL ON AND DIMMING WALL SWITCH EQUAL TO WATSTOPPER DCLV2. SEE LIGHTING PLANS AND DETAILS FOR ADDITIONAL REQUIREMENTS. PROGRAM FOR "MANUAL ON" AND "AUTOMATIC OFF".
	LXK – LOW VOLTAGE MOMENTARY WALL SWITCH COMPATIBLE WITH RELAY PANEL. SEE LIGHTING PLANS AND DETAILS FOR ADDITIONAL REQUIREMENTS. PROGRAM FOR "MANUAL ON" AND "AUTOMATIC OFF".
	DTD – DUAL TECHNOLOGY MOTION SENSOR WALL SWITCH. WATSTOPPER DW-311. TIME DELAY DURATION SHALL BE 20 MINUTES MAXIMUM. PROGRAM FOR "MANUAL ON". PROVIDE ALL 0-10V WIRING AS REQUIRED.
	DUAL TECHNOLOGY CEILING-MOUNTED 360° OCCUPANCY SENSOR, WATSTOPPER DT-300. SEE LIGHTING CONTROL WIRING DIAGRAM FOR ADDITIONAL INFORMATION. MOUNT AT LOCATION AS INDICATED ON PLANS. DEVICE SHALL BE PROGRAMMED FOR "AUTOMATIC ON" (UNLESS INDICATED OTHERWISE ON PLANS). PROGRAM SUCH THAT BOTH TECHNOLOGIES ARE REQUIRED TO TRIGGER LIGHTS "ON" AND EITHER TECHNOLOGY SHALL "HOLD" LIGHTS "ON". SEE PLANS FOR SENSOR LOCATIONS THAT ARE "MANUAL ON" ONLY. TIME DELAY DURATION SHALL BE 20 MINUTES MAXIMUM. SEE MANUFACTURERS INSTRUCTIONS FOR APPROPRIATE DIP SWITCH SETTINGS.
	PASSIVE INFRARED, LOW VOLTAGE, HIGH BAY, CEILING-MOUNTED 360° OCCUPANCY SENSOR, WATSTOPPER HB300B-L3. SEE LIGHTING CONTROL WIRING DIAGRAM FOR ADDITIONAL INFORMATION. MOUNT AT LOCATION AS INDICATED ON PLANS. DEVICE SHALL BE PROGRAMMED FOR "AUTOMATIC ON" (UNLESS INDICATED OTHERWISE ON PLANS). SEE PLANS FOR SENSOR LOCATIONS THAT ARE "MANUAL ON" ONLY. TIME DELAY DURATION SHALL BE 20 MINUTES MAXIMUM. SEE MANUFACTURERS INSTRUCTIONS FOR APPROPRIATE DIP SWITCH SETTINGS.
	POWER PACK RELAY FOR CONTROL OF LIGHTING CONTROLS, EQUAL TO WATSTOPPER CAT# BZ-150. MOUNT DEVICE IN AN ACCESSIBLE LOCATION.
	OUTDOOR PIR MOTION SENSOR WITH DAYLIGHT PHOTO CONTROL AND DIMMING EQUAL TO WATSTOPPER FSP-211. SEE LIGHTING PLANS FOR ADDITIONAL INFORMATION. PROVIDE ALL 0-10V WIRING AS REQUIRED.

SYMBOLS LEGEND GENERAL NOTES:

- ALL DEVICES ARE TO BE FLUSH MOUNTED.
- MOUNTING HEIGHTS ARE FROM THE CENTER LINE OF THE DEVICE.
- ALL SINGLE GANG AND TWO GANG DEVICES SHALL USE A 4" SQ. BOX WITH EXTENSION RING.
- ALL MULTI – GANG DEVICES SHALL USE A COMMON COVER PLATE COLORS FOR ALL DEVICES (i.e. SWITCHES, RECEPTACLES, TELEPHONE OUTLETS, ETC.) SHALL BE GRAY WITH STAINLESS STEEL COVER PLATES.
- LIGHTING CONTROL SYSTEM SHALL BE PROGRAMMED BY A CERTIFIED LIGHTING CONTROLS COMMISSIONING INSTALLER.
- CONTRACTOR SHALL REFERENCE DETAIL SHEET FOR LOW VOLTAGE LIGHTING SWITCH WIRING REQUIREMENTS.
- CONTRACTOR SHALL REFERENCE DETAIL SHEET FOR LIGHTING CONTROL WIRING REQUIREMENTS.

CONTRACTOR SHALL PROVIDE A MINIMUM OF 4 HOURS OWNER TRAINING ON THE LIGHTING CONTROL SYSTEM BY A FACTORY CERTIFIED REPRESENTATIVE.

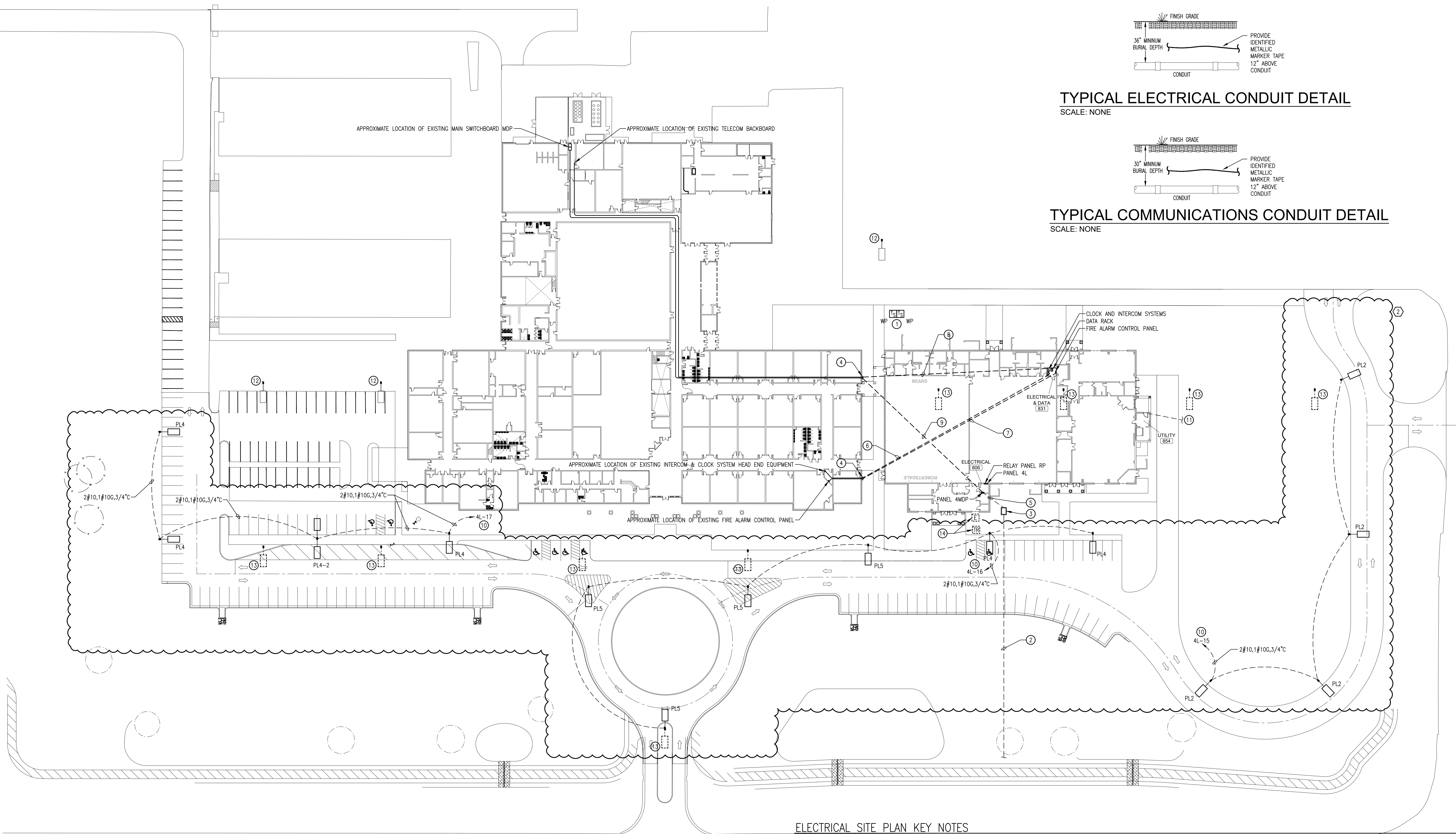
CONTRACTOR SHALL SUBMIT AN OCCUPANCY SENSOR LAYOUT ON A FLOOR PLAN AS PART OF THE SHOP DRAWINGS.

SYSTEMS SYMBOL LEGEND	
SYMBOL	DESCRIPTION
	WIRELESS SMART TV POWER AND DATA. COORDINATE ELEVATION WITH ARCHITECT PRIOR TO ANY ROUGH-IN. LOCATIONS SHOWN ON PLAN ARE APPROXIMATIONS ONLY AND SHALL NOT BE USED FOR SPECIFIC ROUGH-IN LOCATIONS. ALL ROUGH-IN LOCATIONS SHALL BE COORDINATED WITH THE ARCHITECT PRIOR TO BEGINNING ANY WORK. SMART TV IS PROVIDED BY OTHERS. 120V POWER AND DATA IS TO BE CONNECTED BY THE ELECTRICAL CONTRACTOR. PROVIDE AND INSTALL 120V 20A RECEPTACLE AS RECOMMENDED BY THE TV MANUFACTURER. PROVIDE POWER CONNECTION TO LOCAL RECEPTACLE CIRCUIT. FIELD COORDINATE RECEPTACLE MOUNTING HEIGHT WITH ARCHITECT PRIOR TO ROUGH-IN. RECEPTACLE SHALL BE CONCEALED BEHIND TV. CONTRACTOR SHALL INSTALL D2 DATA OUTLET CONCEALED BEHIND SMART TV. FIELD COORDINATE DATA OUTLET MOUNTING HEIGHT WITH ARCHITECT PRIOR TO ROUGH-IN.
	INTERCOM SYSTEM WALL MOUNTED CALL STATION. MOUNT 48" AFF.
	WEATHER-PROOF, WALL MOUNTED, INTERCOM SYSTEM SPEAKER. MOUNT 9'-0" AFF.
	INTERCOM SYSTEM CEILING MOUNTED SPEAKER.
	WIRELESS WALL ANALOG 120V POWERED CLOCK, MOUNTED 1' ABOVE MARKER BOARD. COORDINATE EXACT LOCATION WITH ARCHITECT. PROVIDE ALL POWER CONNECTIONS AS REQUIRED TO POWER CIRCUIT IN SERVING SPACE. COORDINATE WITH CLOCK MANUFACTURER FOR RECEPTACLE REQUIREMENTS PRIOR TO ANY ROUGH-IN. PROVIDE GFCI TYPE RECEPTACLE WHERE REQUIRED BY CODE.
	DATA OUTLET IN A 4" SQUARE BOX WITH 1 GANG EXTENSION RING. DEVICE MOUNTED 18" AFF UNLESS NOTED OTHERWISE. STUB 3/4"Ø FROM BACKBOX TO 6" ABOVE ACCESSIBLE CEILING. PROVIDE CONDUIT BUSHINGS. PROVIDE 1-CAT5E DATA CABLE BACK TO COMMUNICATIONS BACKBOARD. PROVIDE 1-PORT COVER PLATE. COVER PLATE SHALL BE LABELED WITH DATA CLOSET ROOM NUMBER, DATA DROP NUMBER, AND LOCATION OF SERVING DATA CLOSET. ALL CABLES SHALL BE TESTED AND TERMINATED AT OUTLET AND COMMUNICATION BACKBOARD. INSTALLER SHALL HAVE RCDD ON STAFF.
	VOICE/DATA OUTLET IN A 4" SQUARE BOX WITH 1 GANG EXTENSION RING. DEVICE MOUNTED 18" AFF UNLESS NOTED OTHERWISE. STUB 3/4"Ø FROM BACKBOX TO 6" ABOVE ACCESSIBLE CEILING. PROVIDE CONDUIT BUSHINGS. PROVIDE 2-CAT5E VOICE/DATA CABLES BACK TO COMMUNICATIONS BACKBOARD. PROVIDE 2-PORT COVER PLATE. COVER PLATE SHALL BE LABELED WITH DATA CLOSET ROOM NUMBER, DATA DROP NUMBER, AND LOCATION OF SERVING DATA CLOSET. ALL CABLES SHALL BE TESTED AND TERMINATED AT OUTLET AND COMMUNICATION BACKBOARD. INSTALLER SHALL HAVE RCDD ON STAFF.
	CEILING MOUNTED WIRELESS ACCESS POINT COMMUNICATIONS OUTLET. TYPE 'D1', PROVIDE AT LOCATIONS INDICATED.
	GYMNASIUM LOUD SPEAKER. SEE FLOOR PLAN FOR REQUIREMENTS.
	INTERCOM SYSTEM WALL MOUNTED SPEAKER. MOUNT AT 9'-0" AFF.

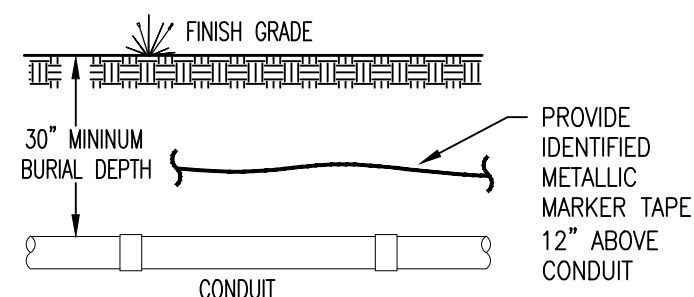
SYSTEMS LEGEND GENERAL NOTES:

- LOW VOLTAGE CABLES SHALL BE SUPPORTED VIA J-HOOKS ON 4"Ø TO 6"Ø CENTERS BASED ON BUILDING STRUCTURE. SECURE J-HOOKS (ERICO CADDY CABLECAT OR EQUAL) TO CEILING, SLAB, OR ROOF RAB JOISTS. PROVIDE VELCRO THE WRAPS ON 5'Ø CENTERS TO ADEQUATELY BUNDLE AND SUPPORT CABLES, NO MORE THAN 24 CABLES PER BUNDLE. THE WRAPS SHALL BE PROVIDED LOOSELY AROUND CABLES AS TO NO DISTORT THE ORIGINAL SHAPE OF ANY INDIVIDUAL CABLE. DO NOT TE THE WRAP CONNECTIONS CABLE TO ANY OTHER CABLE (I.E. HVAC CONTROL, ELECTRICAL CIRCUIT, ETC.). CLIP OFF ALL EXCESS THE WRAP AFTER INSTALLATION. REFERENCE TYPICAL COMMUNICATIONS OUTLET ROUGH-IN MOUNTING DETAIL" ON SHEET E300.2
- PROVIDE CONDUIT SLEEVES FOR CABLE ACCESS THROUGH FIRE WALLS, PROVIDE UL LISTED FIRE STOPPING.
- ALL CONDUIT RACKWAYS FOR LOW VOLTAGE CABLING SHALL BE PROVIDED WITH PLASTIC CONDUIT BUSHINGS.
- ALL LOW VOLTAGE CABLING SHALL BE TESTED AND TERMINATED BY OWNER.
- ALL OUTLETS ARE TO BE FLUSH MOUNTED.
- MOUNTING HEIGHTS ARE FROM THE CENTER LINE OF THE DEVICE.
- ALL SINGLE GANG AND TWO GANG DEVICES SHALL USE A 4" SQ. BOX WITH EXTENSION RING.
- ALL MULTI – GANG DEVICES SHALL USE A COMMON COVER PLATE
- ALL DEVICE COVER PLATES SHALL BE STAINLESS STEEL. SEE SPECIFICATION FOR KEYSTONE COLOR REQUIREMENTS.
- A.F.F. INDICATES MOUNTING HEIGHT ABOVE FINISHED FLOOR.
- LABELED TERMINATIONS ARE TO BE PROVIDED AT ALL CABLE ENDS. ALL CONNECTORS ARE TO BE PROVIDED, INSTALLED AND TESTED BY COMMUNICATIONS CONTRACTOR.
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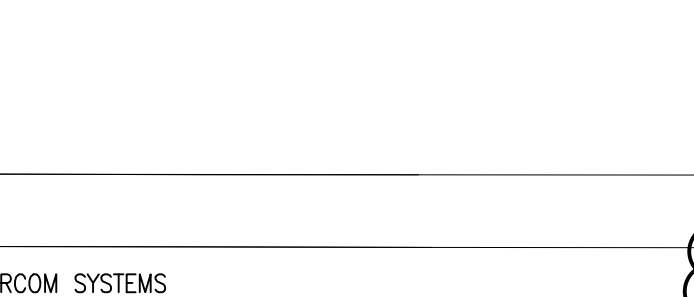
-J:\Jobs_Active\23108 Robertdale High School Band Room\23108E10R2 SITE PLAN.dwg
- Wednesday, November 29, 2023 3:47:20 PM



TYPICAL ELECTRICAL CONDUIT DETAIL
SCALE: NONE

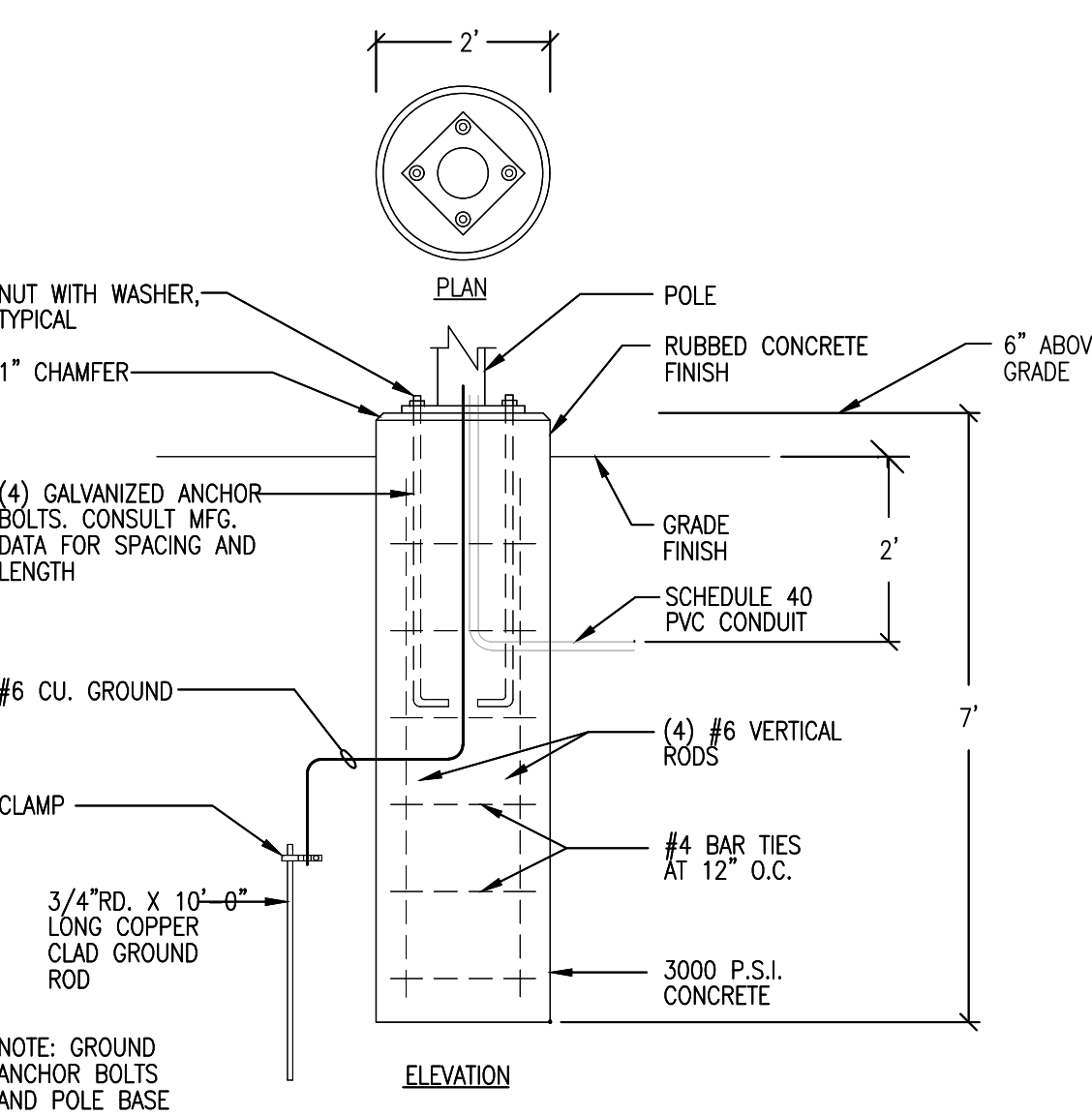


TYPICAL COMMUNICATIONS CONDUIT DETAIL
SCALE: NONE



ELECTRICAL SITE PLAN
SCALE: 1" = 40'-0"

FIELD VERIFY EXISTING SYSTEMS HEAD
END EQUIPMENT AND SWITCHBOARD
LOCATIONS PRIOR TO BID



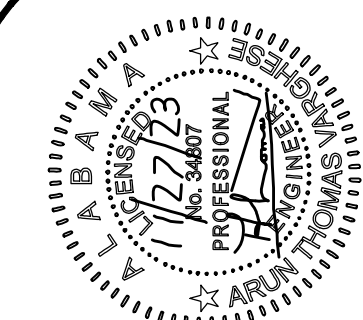
LIGHTING POLE BASE DETAIL
SCALE: NONE

ELECTRICAL SITE PLAN KEY NOTES

- COORDINATE LOCATION OF TAMPER SWITCHES WITH CIVIL ENGINEER AND BACKFLOW PREVENTER.
- NEW UNDERGROUND PRIMARY ELECTRICAL SERVICE TO POWER COMPANY SWITCH/POLE. PROVIDE CONDUITS AS REQUIRED BY POWER COMPANY WITH PULL WIRE AT A MINIMUM OF 48" BELOW GRADE. CAP CONDUIT AT BOTH ENDS. COORDINATE CONDUIT STUB LOCATION AT RIGHT OF WAY WITH POWER COMPANY PRIOR TO ANY ROUGH-IN. ALL UTILITY RELATED FEES SHALL BE INCLUDED IN THE BID PRICE.
- NEW PAD MOUNTED UTILITY TRANSFORMER. SEE SINGLE LINE. COORDINATE REQUIREMENTS, LOCATION, AND CLEARANCES WITH POWER COMPANY PRIOR TO ANY ROUGH-IN.
- CONDUITS SHALL TURN UP AT EXTERIOR WALL AND BE ROUTED OVER TO EXISTING SYSTEMS HEAD END EQUIPMENT/MAIN PANEL. FIELD VERIFY EXACT LOCATION AND REQUIREMENTS PRIOR TO BID. COORDINATE ENTRY LOCATION AT EXISTING BUILDING WITH ARCHITECT AND OWNER. CONDUITS SHALL BE CONCEALED FROM VIEW.
- NEW UNDERGROUND ELECTRICAL SERVICE. COORDINATE ALL REQUIREMENTS WITH LOCAL UTILITY PRIOR TO ANY ROUGH-IN. SEE SINGLE LINE DIAGRAM FOR MORE INFORMATION.
- PROVIDE ONE 2.5" CONDUIT WITH PULL STRING FOR NEW INTERCOM SYSTEM CIRCUITS. ROUTE CONDUIT BELOW GRADE FROM NEW INTERCOM SYSTEM TO EXISTING INTERCOM SYSTEM MASTER CONSOLE. SEE INTERCOM SYSTEM RISER DIAGRAM FOR ADDITIONAL REQUIREMENTS. PROVIDE ALL PULL BOXES AS REQUIRED. PENETRATIONS THROUGH FIRE WALLS SHALL BE PROVIDED WITH UL LISTED FIRE STOPPING COMPOUND. EXISTING CONCRETE/ASPHALT SHALL BE SAW CUT AS REQUIRED TO ACCOMMODATE NEW CONDUIT. ALL AREAS WHERE UNDERGROUND CONDUIT IS ROUTED SHALL BE RETURNED TO ORIGINAL CONDITION. COORDINATE FINAL TERMINATION LOCATION WITH THE OWNER.
- PROVIDE ONE 1.5" CONDUIT WITH PULL STRING FOR NEW FIRE ALARM SYSTEM NETWORK CONNECTION. ROUTE CONDUIT BELOW GRADE FROM NEW FIRE ALARM CONTROL PANEL TO EXISTING FIRE ALARM CONTROL PANEL. SEE FIRE ALARM SYSTEM RISER DIAGRAM FOR ADDITIONAL REQUIREMENTS. PROVIDE ALL PULL BOXES AS REQUIRED. PENETRATIONS THROUGH FIRE WALLS SHALL BE PROVIDED WITH UL LISTED FIRE STOPPING COMPOUND. EXISTING CONCRETE/ASPHALT SHALL BE SAW CUT AS REQUIRED TO ACCOMMODATE NEW CONDUIT. ALL AREAS WHERE UNDERGROUND CONDUIT IS ROUTED SHALL BE RETURNED TO ORIGINAL CONDITION. COORDINATE FINAL TERMINATION LOCATION WITH THE OWNER.
- PROVIDE TWO 3" CONDUITS WITH PULL STRING FOR NEW COMMUNICATIONS/DATA CONNECTION. ROUTE CONDUIT BELOW GRADE FROM NEW COMM EQUIPMENT, TO EXISTING MAIN COMMUNICATIONS ROOM. PROVIDE ALL PULL BOXES AS REQUIRED. PENETRATIONS THROUGH FIRE WALLS SHALL BE PROVIDED WITH UL LISTED FIRE STOPPING COMPOUND. STUB CONDUIT DOWN 6" BELOW CEILING AT EXISTING COMMUNICATIONS/DATA EQUIPMENT. PROVIDE FIBER OPTIC CABLE, INDOOR/OUTDOOR, 6 STRAND COUNT, MULTIMODE, PLENUM RATED, (OPTICAL CABLE CORPORATION D306-0500-WLY/900-07NP) OR APPROVED EQUAL, (3.0dB/km AND 2000 MHz-km @ 850nm, 1.0 dB/km AND 1500 MHz-km @ 1310 nm). TERMINATE ALL FIBERS WITH "ST" CONNECTORS. LEAVE A MINIMUM OF 10FT SLACK BUFFERED FIBER AT EACH TERMINATION POINT. RUN CONTINUOUS FROM SOURCE TO DESTINATION WITH NO SPLICES OR TERMINATIONS. TERMINATE CABLE AT BOTH ENDS. PROVIDE NEW HARDWARE AS REQUIRED TO INTERFACE WITH EXISTING SYSTEM. INSTALLER SHALL HAVE RCDD ON STAFF. EXISTING CONCRETE/ASPHALT SHALL BE SAW CUT AS REQUIRED TO ACCOMMODATE NEW CONDUIT. ALL AREAS WHERE UNDERGROUND CONDUIT IS ROUTED SHALL BE RETURNED TO ORIGINAL CONDITION. COORDINATE FINAL TERMINATION LOCATION WITH THE OWNER.
- PROVIDE ONE 1" C WITH 1/2" O GROUND CONDUCTOR ROUTED ABOVE CEILING FROM NEW ELECTRICAL SERVICE GROUNDING ELECTRODE SYSTEM TO EXISTING SERVICE GROUNDING ELECTRODE SYSTEM. BOND AT BOTH ENDS. PENETRATIONS THROUGH FIRE WALLS SHALL BE PROVIDED WITH UL LISTED FIRE STOPPING COMPOUND. EXISTING CONCRETE/ASPHALT SHALL BE SAW CUT AS REQUIRED TO ACCOMMODATE NEW CONDUIT. ALL AREAS WHERE UNDERGROUND CONDUIT IS ROUTED SHALL BE RETURNED TO ORIGINAL CONDITION. COORDINATE FINAL TERMINATION LOCATION WITH THE OWNER.
- THROUGH RELAY PANEL RP.
- PROVIDE THREE 1" CONDUITS WITH PULLSTRING TO LOCATION DESIGNATED BY IRRIGATION SYSTEM INSTALLER FOR VALVE WIRING. CAP CONDUIT AT BOTH ENDS.
- EXISTING FIXTURE TO REMAIN. ENSURE CIRCUIT REMAINS ENERGIZED WITH THE REMOVAL OF THE INDICATED SITE LIGHTING FIXTURES. PROVIDE MATCHING CONDUIT AND CONDUCTORS AND HANDHOLES AS REQUIRED. REFERENCE CIVIL PLANS FOR ADDITIONAL INFORMATION.
- EXISTING FIXTURE TO REMOVED COMPLETE WITH CONDUIT AND WIRING BACK TO SOURCE. ENSURE DOWNSTREAM FIXTURES REMAIN ENERGIZED. PROVIDE MATCHING CONDUIT AND CONDUCTORS AND HANDHOLES AS REQUIRED. REFERENCE CIVIL PLANS FOR ADDITIONAL INFORMATION.
- COORDINATE REMOVAL OR RELOCATION OF EQUIPMENT WITH THE POWER COMPANY. PROVIDE ADDITIONAL CONDUIT AND CONDUCTORS, TO MATCH EXISTING, AS REQUIRED TO FEED EXISTING SITE LIGHTING TO REMAIN. REFERENCE CIVIL PLANS FOR ADDITIONAL INFORMATION.



ADDITIONS
TO
ROBERTSDALE HIGH SCHOOL
ROBERTSDALE, ALABAMA
FOR THE
BALDWIN COUNTY BOARD OF EDUCATION



McKee and Associates
ARCHITECTS, INC.
837 SOUTH HULL STREET, MONTGOMERY, ALABAMA 36104 (334) 834-9933

SHEET TITLE : ELECTRICAL SITE PLAN

MCKEE JOB # : 23-195

DRAWN BY : RDH

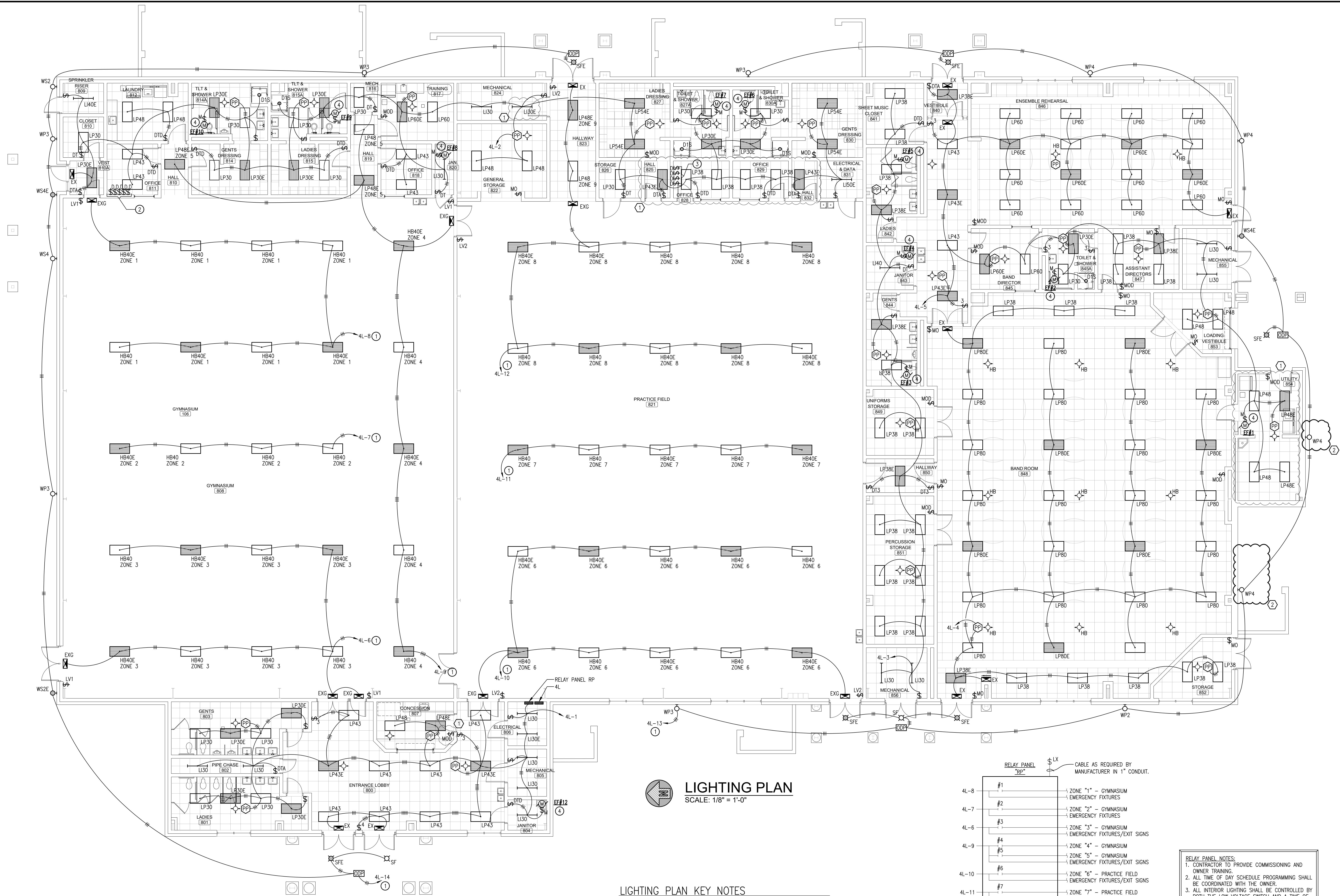
DATE : 10-11-2023

REVISED DATE : 11-29-2023

REVISED DATE :

REVISED DATE :

SHEET NO. : **E1.0**

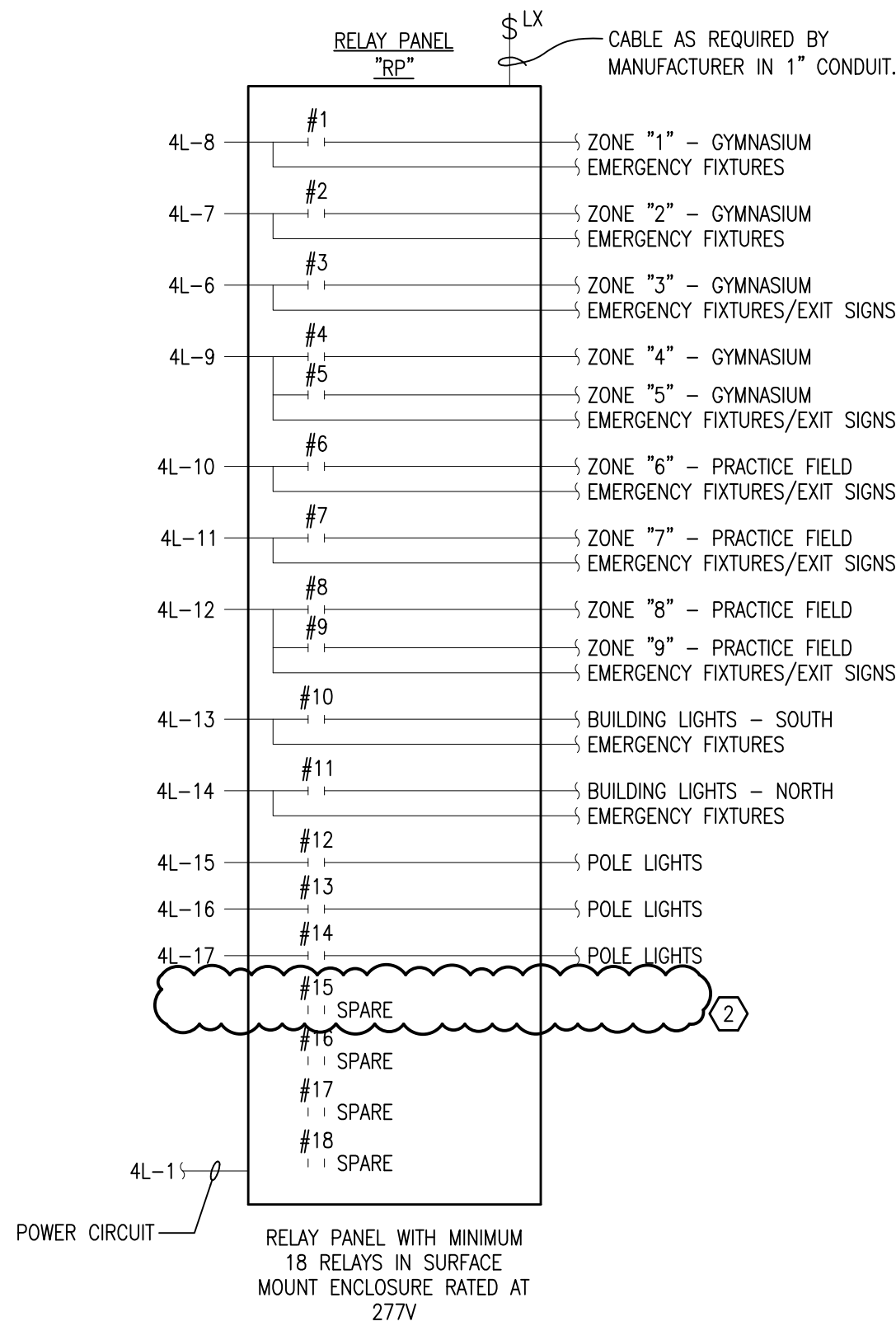


LIGHTING PLAN
SCALE: 1/8" = 1'-0"

LIGHTING PLAN KEY NOTES

- 1 THROUGH RELAY PANEL RP.
- 2 DIMMER SWITCHES FOR CONTROL OF EACH ZONE IN THE GYM. PROVIDE LOW VOLTAGE WIRING IN 1/2" CONDUIT TO EACH FIXTURE IN THE CORRESPONDING ZONE. COORDINATE FINAL LOCATION WITH OWNER PRIOR TO ROUGH-IN.
- 3 DIMMER SWITCHES FOR CONTROL OF EACH ZONE IN THE PRACTICE FIELD. PROVIDE LOW VOLTAGE WIRING IN 1/2" CONDUIT TO EACH FIXTURE IN THE CORRESPONDING ZONE. COORDINATE FINAL LOCATION WITH OWNER PRIOR TO ROUGH-IN.
- 4 PROVIDE CONNECTION TO 277V LIGHTING CIRCUIT. PROVIDE POWER RELAY FOR CONTROL OF 120V FAN.

RELAY PANEL CONNECTION DIAGRAM
SCALE: NONE



RELAY PANEL NOTES:
1. CONTRACTOR TO PROVIDE COMMISSIONING AND OWNER TRAINING.
2. ALL TIME OF DAY SCHEDULE PROGRAMMING SHALL BE COORDINATED WITH THE OWNER.
3. ALL INTERIOR LIGHTING SHALL BE CONTROLLED BY BOTH THE LOW VOLTAGE SWITCH AND A TIME OF DAY SCHEDULE AS PROVIDED BY THE OWNER.
4. ALL EXTERIOR LIGHTING SHALL BE CONTROLLED BY A TIME OF DAY SCHEDULE AS PROVIDED BY THE OWNER.

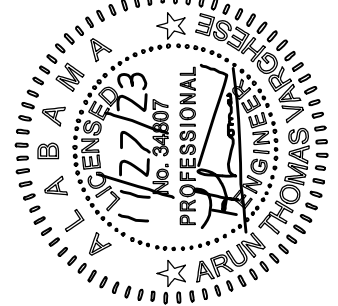
RELAY PANEL SWITCH DESCRIPTIONS
SIX BUTTON SWITCH CONTROLS RELAYS #1, #2, #3, #4, & #5. ONE BUTTON FOR EACH RELAY AND ONE ON/OFF BUTTON FOR ALL RELAYS ON SWITCH.
FIVE BUTTON SWITCH CONTROLS RELAYS #6, #7, #8, & #9. ONE BUTTON FOR EACH RELAY AND ONE ON/OFF BUTTON FOR ALL RELAYS ON SWITCH.

H.M. YONGE & ASSOCIATES, INC.
CONSULTING ENGINEERS // EST. 1988
51 EAST GREGORY STREET PENSACOLA, FLORIDA 32502 PHONE: (850)434-3561
253 ST. ANTHONY STREET MOBILE, ALABAMA 36603 PHONE: (251)690-7446

ADDITIONS

TO
ROBERTSDALE HIGH SCHOOL
ROBERTSDALE, ALABAMA
FOR THE
BALDWIN COUNTY BOARD OF EDUCATION

McKee and Associates
ARCHITECTS, INC.
837 SOUTH HULL STREET, MONTGOMERY, ALABAMA 36104 (334) 834-9933



SHEET TITLE : LIGHTING PLAN

MCKEE JOB # : 23-195

DRAWN BY : RDH

DATE : 10-11-2023

REVISED DATE : ① 11-20-2023

REVISED DATE : ② 11-29-2023

REVISED DATE :

SHEET NO. : **E1.1**

- J:\Jobs_Active\23108 Robertsdale High School Band Room\23108E5R2 ELECTRICAL PANEL SCHEDULES.dwg
- Wednesday, November 29, 2023 3:47:22 PM

NEMA 1 SURFACE MOUNT					PANEL 4MDP SCHEDULE			(A) 19,078 SCA AVAILABLE		
600A M.B. 480Y/277V 3ø 4W								25,000 AIC RATING		
CKT NO.	LOAD DESCRIPTION	BREAKER POLE AMP		KVA	BREAKER AMP POLE		LOAD DESCRIPTION	CKT NO.		
1								2		
3	PANEL 4L	3	60	32.3	183.2	300	PANEL 4ME	4		
5								6		
7								8		
9	PANEL 2P1 (THROUGH XFMR TP1)	3	225	84.0	6.0	15	WATER HEATER WH-1	10		
11								12		
13								14		
15	WATER HEATER WH-5	3	15	6.0	6.0	15	WATER HEATER WH-6	16		
17								18		
19								20		
21	AIR HANDLING UNIT AHU#2	3	45	29.0	13.8	25	HEAT PUMP UNIT HPU#2	22		
23								24		
25								26		
27	AIR HANDLING UNIT AHU#3	3	45	29.0	13.8	25	HEAT PUMP UNIT HPU#3	28		
29								30		
31								32		
33	AIR HANDLING UNIT AHU#6	3	30	16.2	6.9	15	HEAT PUMP UNIT HPU#6	34		
35								36		
37								38		
39	SPARE	3	100	-	-	125	SPACE	40		
41								42		
43								44		
45	SPACE	3	125	-	-	125	SPACE	46		
47								48		
49								50		
51	SPACE	3	30	-	-	30	SURGE PROTECTION DEVICE	52		
53								54		
CONNECTED LOAD					426.2 KVA					
(A) PROVIDE PHENOLIC LABEL AFFIXED TO PANEL INDICATING THIS VALUE ALONG WITH THE DATE OF THE INSTALLATION.										

NEMA 1 SURFACE MOUNT 400A M.L.O. 480Y/277V 3ø 4W PANEL 4ME SCHEDULE 18,000 AIC RATING									
CKT NO.	LOAD DESCRIPTION	BREAKER POLE	AMP	KVA	BREAKER AMP	POLE	LOAD DESCRIPTION	CKT NO.	
1								2	
3	PACKAGED AIR CONDITIONING UNIT PACU#1	3	40	20.9	20.9	40	PACKAGED AIR CONDITIONING UNIT PACU#2	4	
5								6	
7								8	
9	PACKAGED AIR CONDITIONING UNIT PACU#3	3	50	26.5	26.5	50	PACKAGED AIR CONDITIONING UNIT PACU#4	10	
11								12	
13								14	
15	AIR HANDLING UNIT AHU#4	3	15	9.5	5.1	15	HEAT PUMP UNIT HPU#4	16	
17								18	
19								20	
21	AIR HANDLING UNIT AHU#5	3	20	10.9	5.8	15	HEAT PUMP UNIT HPU#5	22	
23								24	
25								26	
27	AIR HANDLING UNIT AHU#1	3	30	19.0	11.1	20	HEAT PUMP UNIT HPU#1	28	
29								30	
31								32	
33	WATER HEATER WH-2	3	15	6.0	6.0	15	WATER HEATER WH-3	34	
35								36	
37								38	
39	WATER HEATER WH-4	3	15	6.0	6.0	15	WATER HEATER WH-7	40	
41								42	
43	ELECTRIC UNIT HEATER - SPRINKLER	1	15	3.0				44	
45	SPARE	1	20	-	-	20	SPACE	46	
47	SPARE	1	20	-	-			48	
49								50	
51	SPACE	3	60	-	-	60	SPACE	52	
53								54	
CONNECTED LOAD				183.2 KVA					

NEMA 1, SURFACE MOUNT				PANEL 4L SCHEDULE				18,000 AIC RATING	
100A M.L.O. 480Y/277V 3ø 4W									
CKT NO.	LOAD DESCRIPTION	BREAKER POLE	AMP	KVA	BREAKER AMP	POLE	LOAD DESCRIPTION	CKT NO.	
1	LTS/EF – ELEC. MECH. JANITOR, CONCESSION, LOBBY, GENTS, LADIES	1	20	0.9	2.3	20	1	LIGHTS/EF'S – EAST SIDE	2
3	LIGHTS/EF – MECH. PERC. HALL, UNIF. GENTS, JANITOR, LADIES, SHEET	1	20	1.1	3.2	20	1	LIGHTS – BAND ROOM, STORAGE	4
5	LIGHTS/EF – BAND DIR. ASSIST. UTIL. TLT&SHWR, MECH. LOAD, ENSEMBLE	1	20	1.8	3.0	20	1	LIGHTS – GYMNASIUM WEST	6
7	LIGHTS – GYMNASIUM MIDDLE	1	20	1.5	3.0	20	1	LIGHTS – GYMNASIUM EAST	8
9	LIGHTS – GYM SEATING & HALLS	1	20	2.0	3.7	20	1	LIGHTS – PRACTICE FIELD WEST	10
11	LIGHTS – PRACTICE FIELD MIDDLE	1	20	1.9	3.8	20	1	LIGHTS – PRACTICE FIELD EAST, HALL	12
13	BUILDING LIGHTS – SOUTH	1	20	0.8	0.4	20	1	BUILDING LIGHTS – NORTH	14
15	POLE LIGHTS – SOUTH DRIVE	1	20	0.8	1.1	20	1	POLE LIGHTS – PARKING	16
17	POLE LIGHTS – PARKING	1	20	1.0	-	20	1	SPARE	18
19	SPARE	1	20	-	-	20	1	SPARE	20
21	SPARE	1	20	-	-	20	1	SPARE	22
23	SPARE	1	20	-	-	20	1	SPARE	24
25	SPACE	1	20	-	-	20	1	SPACE	26
27	SPACE	1	20	-	-	20	1	SPACE	28
29	SPACE	1	20	-	-	20	1	SPACE	30
CONNECTED LOAD				32.3 KVA					
(A) PROVIDE PHENOLIC LABEL AFFIXED TO PANEL INDICATING THIS VALUE ALONG WITH THE DATE OF THE INSTALLATION.									

NEMA 3R, SURFACE MOUNT 400A M.B. 208Y/120V 3ø 4W						PANEL 2P1 SCHEDULE				22,000 AIC RATING	
CKT NO.	LOAD DESCRIPTION		BREAKER POLE	AMP	KVA	BREAKER AMP	POLE	LOAD DESCRIPTION		CKT NO.	
1	RECEPT/EF - GENTS, LADIES, W. EXT	(G)	1	20	0.9	0.8	20	1	RECEPT - ENTRANCE LOBBY 800	2	
3	WATER COOLER - ENTR. LOBBY	(G)	1	20	0.4	0.4	20	1	RECEPT - CONCESSION 807	4	
5	RECEPT - CONCESSION 807		1	20	0.4	-	20	1	SPARE	6	
7	RECEPT - CONCESSION 807	(G)	1	20	0.6	0.6	20	1	RECEPT - ELECT, MECH, JAN	8	
9	DDC PANEL - MECH 805		1	20	0.2	0.9	20	1	RECEPT - PRACTICE FIELD 821	10	
11	WATER COOLER - PRAC. FIELD	(G)	1	20	0.4	1.1	20	1	RECEPT - WEST EXTER, MECH. HALL, PERCUSSION & UNIFORM STORAGE	12	
13	DDC PANEL - MECH 856		1	20	0.2	1.1	20	1	RECEPT - BAND RM, STO, W. EXT	14	
15	RECEPT - BAND ROOM 848		1	20	0.8	1.3	20	1	RECEPT - BAND ROOM 848	16	
17	DDC PANEL - STORAGE 852		1	20	0.2	1.3	20	1	RECEPT - S. EXT, UTIL, LOAD VEST	18	
19	WASHING MACHINE - UTILITY 854 (G)	(G)	1	20	1.2					20	
21	ICE MACHINE - UTILITY 854	(G)	1	20	1.2	4.9	30	2	DRYER - UTILITY 854	(G) 22	
23										24	
25	DUCTLESS SPLIT SYSTEM - UTILITY		2	15	1.7	0.7	20	1	EXHAUST FAN - MECH 856	26	
27										28	
29	DUCTLESS SPLIT SYSTEM - ELECT		2	20	1.8	0.6	20	1	IRRIGATION CONTROLLER - UTILITY	30	
31	BATTING TUNNEL - PRAC FIELD 821		1	25	1.7	1.7	25	1	MOTORIZED BAY DOOR - LOADING	32	
33	SPARE		1	20	-	-	20	1	BATTING TUNNEL - PRAC FIELD 821	34	
35	SPARE		1	20	-	-	20	1	SPARE	36	
37	SPARE		1	20	-	-	20	1	SPARE	38	
39	SPARE		1	20	-	-	20	1	SPARE	40	
41	SPARE		1	20	-	-	20	1	SPARE	42	
43	SPACE		1	20	-	-				44	
45	SPACE		1	20	-	-	30	3	SURGE PROTECTION DEVICE	46	
47	SPACE		1	20	-	-				48	
49										50	
51	PANEL 2P2		3	150	38.6	17.0	60	3	PANEL 2G	52	
53										54	
CONNECTED LOAD						84.0 KVA					
(G) PROVIDE GROUND-FAULT CIRCUIT INTERRUPTER TYPE BREAKER.											

NEMA 1, SURFACE MOUNT				PANEL 2G SCHEDULE				22,000 AIC RATING			
100A M.L.O. 208Y/120V 3ø 4W											
CKT NO.	LOAD DESCRIPTION	BREAKER POLE AMP	KVA	BREAKER AMP POLE	LOAD DESCRIPTION	CKT NO.					
1	RECEPT -- GYM 808, NORTH EXTER	1 20	1.1	0.9	20 1	RECEPT -- GYM 808					
3	SCOREKEEPER'S TABLE -- GYM 808	1 20	0.4	0.5	20 1	SCOREBOARD/SHOT CLOCK SOUTH					
5	SCOREBOARD/SHOT CLOCK NORTH	1 20	0.5	0.4	20 1	SCOREBOARD CENTER COURT					
7	BLEACHERS SOUTH -- GYM 808	1 15	0.8	0.8	15 1	BLEACHERS MIDDLE -- GYM 808					
9	BLEACHERS NORTH -- GYM 808	1 15	0.8	0.8	20 1	GYM SPEAKER SYSTEM AMP -- ELECT					
11											
13	BASKETBALL GOAL WINCH SOUTH	2 15	1.6	1.6	15 2	BASKETBALL GOAL WINCH SOUTHWEST					
15											
17	BASKETBALL GOAL WINCH SOUTHEAST	2 15	1.6	1.6	15 2	BASKETBALL GOAL WINCH NORTHWEST					
19											
21	BASKETBALL GOAL WINCH NORTHEAST	2 15	1.6	1.6	15 2	BASKETBALL GOAL WINCH NORTH					
23	WATER COOLER -- GYM 808 (G)	1 20	0.4	-	20 1	SPARE					
25	SPARE	1 20	-	-	20 1	SPARE					
27	SPARE	1 20	-	-	20 1	SPARE					
29	SPARE	1 20	-	-	20 1	SPARE					
CONNECTED LOAD				17.0 KVA							
(G) PROVIDE GROUND--FAULT CIRCUIT INTERRUPTER TYPE BREAKER.											

NEMA 1, SURFACE MOUNT 225A M.L.O. 208Y/120V 3ø 4W PANEL 2P2 SCHEDULE 10,000 AIC RATING									
CKT NO.	LOAD DESCRIPTION	BREAKER POLE	AMP	KVA	BREAKER AMP	POLE	LOAD DESCRIPTION	CKT NO.	
1	RECEPT - SPRINKLER, CLOSET, VESTIBULE, NORTH EXTERIOR	1	20	0.8	0.4	20	1	RECEPT - LAUNDRY 812	2
3	ICE MACHINE - LAUNDRY 812 (G)	1	20	1.2	1.2	20	1	WASHING MACHINE - LAUNDRY (G)	4
5	DRYER - LAUNDRY 812 (G)	2	30	4.9				RECEPT - OFFICE 811	6
7								RECEPT - GENTS/LADIES DRESSING	8
9	RECEPT - TLT SHWR 814A & 815A EAST EXTERIOR	1	20	0.6	0.9	20	1	RECEPT - OFFICE 818	10
11	RECEPT - TRAINING 817	1	20	0.8	1.2	20	1	ICE MACHINE - TRAINING 817 (G)	12
13	WHIRLPOOL - TRAINING 817	1	20	0.8	0.2	20	1	DDC PANEL - MECH 824	14
15	RECEPT - MECH 824, GEN STO 822, JAN 820, EAST EXTERIOR	1	20	0.9	1.5	20	1	RECEPT - HALL 823, STO 826, EAST EXTER, LADIES/GENTS DRESSING	16
17	RECEPT - TOILET & SHOWER 827A	1	20	0.4	0.4	20	1	RECEPT - TOILET & SHOWER 830A	18
19	RECEPT - OFFICE 828	1	20	0.8	0.8	20	1	RECEPT - OFFICE 829	20
21	RECEPT - SHEET MUSIC, VEST, EAST EXTERIOR, ENSEMBLE REH HALL	1	20	0.8	0.6	20	1	RECEPT - LADIES, JAN, GENTS	22
23	WATER COOLER - ENSEM HALL (G)	1	20	0.4	1.3	20	1	RECEPT - ENSEMBLE REHEARSAL	24
25	RECEPT - ENSEMBLE REHEARSAL	1	20	1.1	0.8	20	1	RECEPT - BAND DIRECTOR 845	26
27	RECEPT - TLT & SHWR 845A, MECH, SOUTH EXTERIOR	1	20	0.6	0.9	20	1	RECEPT - ASSISTANT DIRECTORS	28
29	DDC PANEL - MECH 855	1	20	0.2	0.9	20	1	RECEPT - PRACTICE FIELD 821	30
31	WATER COOLER - PRAC FIELD (G)	1	20	0.4	0.8	20	1	FIRE ALARM CP - DATA 831 (L)	32
33	INTERCOM SYSTEM - DATA 831	1	20	0.6	0.8	20	1	ERCES - DATA 831 (L)	34
35	CLOCK SYSTEM - DATA 831	1	20	0.6	0.6	20	1	COMM RACK - DATA 831	36
37	DUCTLESS SPLIT SYSTEM - DATA 831	2	20	1.8	5.0	30	2	COMM RACK - DATA 831	38
39									40
41	SMOKE DAMPERS - LAUND. 812 (L)	1	20	0.2	-	20	1	SPARE	42
43	SPARE	1	20	-	-	20	1	SPARE	44
45	SPARE	1	20	-	-	20	1	SPARE	46
47	SPARE	1	20	-	-	20	1	SPARE	48</