



ST. TAMMANY PARISH

MICHAEL B. COOPER
PARISH PRESIDENT

June 19, 2020

Please find the following addendum to the below mentioned BID.

Addendum No.: 4

Bid#: 20-7-2

Project Name: Fairgrounds Phase 3

Bid Due Date: June 24, 2020

QUESTIONS & ANSWERS:

QUESTION #1: The finish schedule as shown on drawing S2.2 calls for concrete floors in restrooms to be coated with epoxy. There is no specification for the epoxy coating for concrete floors in 0911 or in 09972 concrete sealers.

ANSWER #1: ALL FLOORS SHALL BE SEALED CONCRETE AS STATED IN ADDENDUM #3.

QUESTION #2: The drawings show CMU walls and gypsum ceilings in a few of the rooms. However, the paint spec 0911 is specifically for Gypsum walls. Do you want the same system on the CMU walls?

ANSWER #2: REFER TO SPECIFICATION SECTION 09920 – INTERIOR, EXTERIOR CMU PAINTS AND COATINGS BEING ADDED AS A PART OF THIS ADDENDUM.

QUESTION #3: As per addendum 2 #8 – the requirement for pressure washing. Is there any requirement on amount of water pressure? We have smaller 3,000 psi units, but also have 5,000 psi units. We typically only use the 5,000 units if we are removing old dead paint and the surface will be repainted. 5,000 and up will remove paint/coatings. With the size of the buildings I would probably recommend a 4k unit as you will lose a lot in extra hose length.



ST. TAMMANY PARISH

MICHAEL B. COOPER
PARISH PRESIDENT

ANSWER #3: CONTRACTOR SHALL USE WHAT SIZE UNIT THEY DEEM APPROPRIATE FOR PRESSURE-WASHING WITHOUT DAMAGING THE SURFACES BEING CLEANED.

QUESTION #4: Is there any requirement to capture and dispose of the waste water and any debris removed from pressure washing activities? This can be done, but will drive the cost up dramatically.

ANSWER #4: NO.

QUESTION #5: Is there ample water supply on the site for the Pressure Washing? We are looking at 6 units on site to try and keep the duration reasonable.

ANSWER #5: YES, THE SITE HAS A GOOD WATER SUPPLY THAT IS AVAILABLE FOR THIS WORK.

QUESTION #6: Are the roofs of the building included in this required Pressure Washing?

ANSWER #6: YES.



ST. TAMMANY PARISH

MICHAEL B. COOPER
PARISH PRESIDENT

ATTACHMENTS:

Specification Section 09920 – Interior, Exterior CMU Paints and Coatings

<< End of Addendum #4 >>

SECTION 09920 - INTERIOR, EXTERIOR CMU PAINTS AND COATINGS

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Interior paint and coatings systems including surface preparation.
- B. Interior high-performance paint and coatings systems including surface preparation.
- C. Exterior paint and coatings systems including surface preparation.

1.2 RELATED SECTIONS

- A. Section 04220 - Unit Masonry: Concrete Masonry Units (CMU) and brick.

1.3 REFERENCES

- A. Material Safety Data Sheets / Environmental Data Sheets: Per manufacturer's MSDS/EDS for specific VOCs (calculated per 40 CFR 59.406). VOCs may vary by base and sheen.

1.4 SUBMITTALS

- A. Submit under provisions as indicated in General Conditions.
- B. Product Data: For each paint system indicated, including.
 - 1. Product characteristics.
 - 2. Surface preparation instructions and recommendations.
 - 3. Primer requirements and finish specification.
 - 4. Storage and handling requirements and recommendations.
 - 5. Application methods.
 - 6. Cautions for storage, handling and installation.
- C. Selection Samples: Submit a complete set of color chips that represent the full range of manufacturer's products, colors and sheens available.
- D. Verification Samples: For each finish product specified, submit samples that represent actual product, color, and sheen.
- E. Only submit complying products based on project requirements (i.e. LEED). One must also comply with the regulations regarding VOCs (CARB, OTC, SCAQMD, LADCO). To ensure compliance with district regulations and other rules, businesses that perform coating activities should contact the local district in each area where the coating will be used.

1.5 QUALITY ASSURANCE

- A. Installer Qualifications: A firm or individual experienced in applying paints and coatings similar in material, design, and extent to those indicated for this Project, whose work has resulted in applications with a record of successful in-service performance.

- B. Paint exposed surfaces. If a color of finish, or a surface is not specifically mentioned, Architect will select from standard products, colors and sheens available.
- C. Do not paint prefinished items, concealed surfaces, finished metal surfaces, operating parts, and labels unless indicated.
- D. Mock-Up: Provide a mock-up for evaluation of surface preparation techniques and application workmanship.
 - 1. Finish surfaces for verification of products, colors and sheens.
 - 2. Finish area designated by Architect.
 - 3. Provide samples that designate primer and finish coats.
 - 4. Do not proceed with remaining work until the Architect approves the mock-up.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Delivery: Deliver manufacturer's unopened containers to the work site. Packaging shall bear the manufacturer's name, label, and the following list of information.
 - 1. Product name, and type (description).
 - 2. Application and use instructions.
 - 3. Surface preparation.
 - 4. VOC content.
 - 5. Environmental handling.
 - 6. Batch date.
 - 7. Color number.
- B. Storage: Store and dispose of solvent-based materials, and materials used with solvent-based materials, in accordance with requirements of local authorities having jurisdiction.
- C. Store materials in an area that is within the acceptable temperature range, per manufacturer's instructions. Protect from freezing.
- D. Handling: Maintain a clean, dry storage area, to prevent contamination or damage to the coatings.

1.7 PROJECT CONDITIONS

- A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's recommended limits.

1.8 EXTRA MATERIALS

- A. Furnish Owner with an additional one percent of each material and color, but not less than 1 gal (3.8 l) or 1 case, as appropriate.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Products: Subject to compliance with requirements, provide one of the products in the paint schedules.
- B. Manufacturers Names: The following manufacturer is referred to in the paint schedule by use if shortened versions of the name, which is shown below.
 - 1. Pittsburgh® Paints, PPG Industries, Inc.
 - 2. Sherwin Williams
 - 3. Benjamin Moore
 - 4. Prep-Rite
 - 5. Pro-Mar
 - 6. Or Approved equal.
- C. This specification is used only to denote the quality standard of the products desired.
 - 1. This does not restrict bidders to the specific brand, make, manufacturer or specification named.
 - 2. This specification is used only to set forth and convey to prospective bidders the general style, type, character and quality of the products desired.
 - 3. Equivalent products will be acceptable, but only with written prior approval as described in previous sections.

2.2 APPLICATIONS/SCOPE

- A. Interior Paints and Coatings:
 - 1. Masonry: Concrete masonry units, including split-face, scored, and smooth block.
- B. Interior High Performance Paints and Coatings:
 - 1. Masonry: CMU - concrete, split face, scored, smooth, stucco.
- C. Exterior Paints and Coatings:
 - 1. Masonry: Concrete masonry units, cinder or concrete block.

2.3 PAINT MATERIALS - GENERAL

- A. Paints and Coatings:
 - 1. Unless otherwise indicated, provide factory-mixed coatings. When required, mix coatings to correct consistency in accordance with manufacturer's instructions before application. Do not reduce, thin, or dilute coatings or add materials to coatings unless such procedure is specifically described in manufacturer's product instructions.
 - 2. For opaque finishes, tint each coat including primer coat and intermediate coats, one-half shade lighter than succeeding coat, with final finish coat as base color. Or follow manufactures product instructions for optimal color conformance.

- B. Primers: Where the manufacturer offers options on primers for a particular substrate, use primer categorized as "best" by the manufacturer.
- C. Coating Application Accessories: Provide all primers, sealers, cleaning agents, cleaning cloths, sanding materials, and clean-up materials required, per manufacturer's specifications.
- D. Color: Refer to Finish Schedule for paint colors, and as selected.

2.4 INTERIOR PAINT SYSTEMS

- A. MASONRY: CMU - Concrete, Split Face, Scored, Smooth, High Density, Low Density, Fluted.
 - 1. Latex Systems:
 - a. Gloss Finish High Performance:
 - 1) 1st Coat: S-W PrepRite Block Filler, B25W25 (75-125 sq ft/gal).
 - 2) 2nd Coat: S-W Pro Industrial Gloss Acrylic Coating, B66-600 Series.
 - 3) 3rd Coat: S-W Pro Industrial Gloss Acrylic Coating, B66-600 Series (6.0 mils wet, 2.5 mils dry per coat).
 - b. Semi-Gloss Finish:
 - 1) 1st Coat: S-W PrepRite Block Filler, B25W25 (75-125 sq ft/gal).
 - 2) 2nd Coat: S-W ProMar 200 Zero VOC Latex Semi-Gloss, B31-2600 Series.
 - 3) 3rd Coat: S-W ProMar 200 Zero VOC Latex Semi-Gloss, B31-2600 Series (4 mils wet, 1.6 mils dry per coat).

2.5 EXTERIOR PAINT SYSTEMS

- A. MASONRY: Concrete Masonry Units (CMU)- Cinder or Concrete Block.
 - 1. Elastomeric System:
 - a. Flat Finish:
 - 1) 1st Coat: S-W Loxon BlockSurfacer, A24W00200 (16.0 mils wet, 8.8 mils dry).
 - 2) 2nd Coat: S-W ConFlex XL Elastomeric High Build Coating, CF11W50 Series.
 - 3) 3rd Coat: S-W ConFlex XL Elastomeric High Build Coating, CF11W50 Series (13.0-16.0 mils wet, 6.0-7.5 mils dry per coat).
 - b. Flat Finish:
 - 1) 1st Coat: S-W Loxon BlockSurfacer, LX01W200 (16.0 mils wet, 8.8 mils dry).
 - 2) 2nd Coat: S-W Conflex SherLastic Elastomeric Masonry Coating, CF16W50 Series.
 - 3) 3rd Coat: S-W Conflex SherLastic Elastomeric Masonry Coating, CF16W50 Series (10.0-14.0 mils wet, 4.0-6.0 mils dry per coat).

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Do not begin installation until substrates have been properly prepared; notify Architect of unsatisfactory conditions before proceeding. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.
- B. Proceed with work only after conditions have been corrected and approved by all parties, otherwise application of coatings will be considered as an acceptance of surface conditions.

- C. Previously Painted Surfaces: Verify that existing painted surfaces do not contain lead based paints, notify Architect immediately if lead based paints are encountered.

3.2 SURFACE PREPARATION

- A. General: Surfaces shall be dry and in sound condition. Remove oil, dust, dirt, loose rust, peeling paint or other contamination to ensure good adhesion.
 1. Prior to attempting to remove mildew, it is recommended to test any cleaner on a small, inconspicuous area prior to use. Bleach and bleaching type cleaners may damage or discolor existing paint films. Bleach alternative cleaning solutions are advised.
 2. Remove mildew before painting by washing with a solution of 1 part liquid household bleach and 3 parts of warm water. Apply solution and scrub the mildewed area. Allow solution to remain on the surface for 10 minutes. Rinse thoroughly with clean water and allow surface to dry before painting. Wear protective glasses or goggles, waterproof gloves, and protective clothing. Quickly wash off any of the mixture that comes in contact with your skin. Do not add detergents or ammonia to the bleach/water solution.
 3. Remove items including but not limited to thermostats, electrical outlets, switch covers and similar items prior to painting. After completing painting operations in each space or area, reinstall items removed using workers skilled in the trades involved.
 4. No exterior painting should be done immediately after a rain, during foggy weather, when rain is predicted, or when the temperature is below 50 degrees F (10 degrees C), unless products are designed specifically for these conditions. On large expanses of metal siding, the air, surface and material temperatures must be 50 degrees F (10 degrees F) or higher to use low temperature products.
- B. Block (Cinder and Concrete): Remove all loose mortar and foreign material. Surface must be free of laitance, concrete dust, dirt, form release agents, moisture curing membranes, loose cement, and hardeners. Concrete and mortar must be cured at least 30 days at 75 degrees F (24 degrees C). The pH of the surface should be between 6 and 9, unless the products are designed to be used in high pH environments. On tilt-up and poured-in-place concrete, commercial detergents and abrasive blasting may be necessary to prepare the surface. Fill bug holes, air pockets, and other voids with a cement patching compound.
- C. Drywall - Exterior: Must be clean and dry. All nail heads must be set and spackled. Joints must be taped and covered with a joint compound. Spackled nail heads and tape joints must be sanded smooth and all dust removed prior to painting. Exterior surfaces must be spackled with exterior grade compounds.
- D. Drywall - Interior: Must be clean and dry. All nail heads must be set and spackled. Joints must be taped and covered with a joint compound. Spackled nail heads and tape joints must be sanded smooth and all dust removed prior to painting.

3.3 INSTALLATION

- A. Apply all coatings and materials with the manufacturer's specifications in mind. Mix and thin coatings according to manufacturer's recommendations.
- B. Do not apply to wet or damp surfaces. Wait at least 30 days before applying to new concrete or masonry. Or follow manufacturer's procedures to apply appropriate coatings prior to 30 days. Test new concrete for moisture content. Wait until wood is fully dry after rain or morning fog or dew.
- C. Apply coatings using methods recommended by manufacturer.

- D. Uniformly apply coatings without runs, drips, or sags, without brush marks, and with consistent sheen.
- E. Apply coatings at spreading rate required to achieve the manufacturers recommended dry film thickness.
- F. Regardless of number of coats specified, apply as many coats as necessary for complete hide, and uniform appearance.
- G. Inspection: The coated surface must be inspected and approved by the Architect just prior to the application of each coat.

3.4 PROTECTION

- A. Protect finished coatings from damage until completion of project.
- B. Touch-up damaged coatings after substantial completion, following manufacturer's recommendation for touch up or repair of damaged coatings. Repair any defects that will hinder the performance of the coatings.

END OF SECTION 09920



ST. TAMMANY PARISH

MICHAEL B. COOPER
PARISH PRESIDENT

June 18, 2020

Please find the following addendum to the below mentioned BID.

Addendum No.: 3

Bid#: 20-7-2

Project Name: Fairgrounds Phase 3

Bid Due Date: June 24, 2020

GENERAL INFORMATION:

1. Prior approvals:
 - a. Uniflex Wet-Dry Roof Cement is NOT an approved equal to the specified project, Karnak 229 AR-Elastomeric Roof Coating. A thermoplastic-rubber mastic product is required as specified.
 - b. The following light manufacturers are recognized as capable of producing equipment equal to those specified and are approved for bidding:

| <u>Light Fixture Type</u> | <u>Manufacturer</u> |
|---------------------------|---------------------------|
| F1 | Aleddra Lighting, Ecolite |
| F2 | Newstar, Eclipse |
| F3E | Surelites, Beghelli |
| F4 | Metalux, Komee |
| F5 | Ecolite, Optec |
| F6 | Tracelite, Delviro |
| F6A | Tracelite, Delviro |
| EM | Exitronix, Lithonia |
| EM1 | Exitronix, Lithonia |
| EE | Surelites, Lithonia |

However, detailed brochures and the lighting layout with calculations must be submitted during the shop drawing review period. The equipment



ST. TAMMANY PARISH

MICHAEL B. COOPER
PARISH PRESIDENT

must meet the requirements of the plans and specifications. It is the contractor's obligation to ensure that the equipment meets the requirements of the contract documents.

2. Specification Section 10155 – Toilet Partitions is being added as part of this addendum.
3. Specification Section 10800 – Toilet Room Accessories is being added as part of this addendum.



ST. TAMMANY PARISH

MICHAEL B. COOPER
PARISH PRESIDENT

QUESTIONS & ANSWERS:

Question #1: Is it the intent to size/supply the new dry pipe system from the existing dry pipe riser and air compressor?

Answer #1: YES. THE NEW DRY PIPING STARTS FROM THE EXISTING PUMP HOUSE (ADJACENT TO CONCESSION STAND LOCATION). SEE M2.2 FOR CONNECTION AND M2.1 FOR SPRINKLER TRUNK LINE RUN.

Question #2: Will bleachers be installed in the new addition?

Answer #2: NEW BLEACHERS ARE NOT IN THE SCOPE OF THIS PROJECT.

Question #3: Plan sheet A0.0 shows the existing fence and gates around the property. Plan sheet C1.0 seems to show (3) new double gates, not shown on A0.0 but the plans do not specify that new gates are required? Please clarify and include a detail sketch/drawing and specifications.

Answer #3: SINGLE POLE GATES AND FENCES ARE NOT IN THE SCOPE OF THIS PROJECT. THESE ARE ALREADY EXISTING.

Question #4: Plan Sheets C1.0 and A2.1/Detail 2 show installing a new single-pole barricade with gate. What is this? Please provide details and specs on it and clarify how many and what specific locations it is required.

Answer #4: SINGLE POLE GATES AND FENCES ARE NOT IN THE SCOPE OF THIS PROJECT. THESE ARE ALREADY EXISTING.

Question #5: Plan Sheet S2.0 Column line 10 and 11 show existing concrete pedestals and supports for the existing metal building, but Plan Sheet C1.0 and C3.0 show that those three locations highlighted bold as if they're new. Please confirm the total quantity new of concrete pedestals?

Answer #5: TWELVE (12) NEW CONCRETE PEDESTALS ARE REQUIRED.

Question #6: Please provide a specification for the aluminum soffit panels at the concession stand hallway ceiling shown on sheet A1.0 detail 2



ST. TAMMANY PARISH

MICHAEL B. COOPER
PARISH PRESIDENT

Answer #6: PANELS ARE ROLL-FORMED FROM .032 ALUMINUM. PANELS ARE 12" WIDE WITH A "VEE" GROOVE EVERY 6" CENTER-TO-CENTER. "J" CHANNEL IN MATCHING COLOR. (PAC-750 SOFFIT OR EQUAL)

Question #7: The finish schedule on Sheet A2.2 shows polished concrete in several rooms, but the specification only includes a specification for concrete sealer. Is the finish schedule supposed to show concrete sealer for these rooms? If not, please provide a specification for the polished concrete and confirm if the specification for concrete sealer is still applicable to this project and if so, where is it required.

Answer #7: SEALED CONCRETE SHALL BE USED AT ALL INDICATED POLISHED CONCRETE LOCATIONS

Question #8: Please provide a specification for the fixed ladder with a ladder gate shown on Plan Sheet A2.0 details 4 & 6

Answer #8: STEEL LADDER GUARD, 8 FT. X 16" WIDE POWDER COATED- VERTICAL FIXED STEEL LADDER 21'-0" (COTTERMAN F19W OR EQUAL)

Question #9: The plans are calling for R-31 insulation on top of acoustical ceiling tile but all that is allowed by the manufacture is 6-1/4 " R-19 insulation. R-31 will cause the ceiling tile to sag and will void the ceiling warranty. Please confirm that R-19 is acceptable for use above the acoustical ceilings.

Answer #9: PROVIDE R-31 INSULATION AT ROOF JOIST. SECURE WITH INSULATION STRAPS AS NECESSARY

Question #10: The plan shows epoxy finish for the concession and restroom floors but does not state if this is a resinous epoxy finish or a painted epoxy finish. Please confirm which epoxy finish is required at these locations and provide a specification.

ANSWER #10: SEALED CONCRETE SHALL BE USED AT ALL INDICATED EPOXY FINISH LOCATIONS

Question #11: Please clarify the following for the covered lean-to only:

- a) The title page of the drawings calls out an assembly building for the covered area which is a risk cat III. Sheet S3.1 calls out for a risk cat II. If it is to be a risk cat III, what is the correct wind load to be used?
- b) What is the required collateral load?
- c) What is the projection of the low side eave canopy from the face of column?



ST. TAMMANY PARISH

MICHAEL B. COOPER
PARISH PRESIDENT

- d) Does the existing building have flush or bypass girts and what is the girt depth?
- e) Is 6" insulation required on the partial walls?
- f) What is the profile and gauge of the soffit and liner panel to be?
- g) Are the soffit panels to be SMP or kynar colored?
- h) What is the profile and gauge of the wall panels to be?
- i) Are the wall panels to be SMP or kynar colored?
- j) Is the roof to be galvalume or kynar colored?
- k) Is the primary steel to be red primed or hot dip galvanized?
- l) Is the secondary to be red primed or pre-galvanized?
- m) Sheet A2.1 calls out a 1:12 pitch. Sheet A3.1 calls out a ½:12 pitch. Which is correct?
- n) Since this building will be taking water from the existing building, provide the width, length, eave height and roof pitch of the existing building

Answer #11: The following are clarifications for the covered lean-to:

- a) **RISK CATEGORY III, 141 MPH.**
- b) **PER PRE-ENGINEERED METAL BUILDING MANUFACTURER**
- c) **3'-0"**
- d) **FLUSH GIRTS – SEE A3.1**
- e) **YES**
- f) **26GA, PBR**
- g) **KYNAR**
- h) **26GA, PBR**
- i) **MATCH EXISTING**
- j) **KYNAR**
- k) **HOT DIP GALVANIZED**
- l) **HOT DIP GALVANIZED**
- m) **½ : 12**
- n) **WIDTH=73'-6", LENGTH=282'-0", EAVE HEIGHT=46'-0", ROOF PITCH=3:12**

Question #12: What elevation is the bottom of the wall sheeting to be in relation to finished floor?

Answer #12: 17' -10 ¾". CONTRACTOR TO VERIFY IN FIELD PRIOR TO ANY WORK DONE

Question #13: Please confirm that all site sewer and building sewer are to be cast iron bell and spigot with rubber gaskets.

Question #14: Please confirm that all above ground sewer and vents are to be cast iron no hub.



ST. TAMMANY PARISH

MICHAEL B. COOPER
PARISH PRESIDENT

Answer #13/14: SANITARY PIPING (UNDERGROUND) PIPING AND FITTINGS BELOW GROUND SHALL BE STANDARD WEIGHT CAST IRON SOIL PIPE AND FITTINGS OF BELL AND SPIGOT PATTERN CONFORMING TO ASTM A74.

SANITARY PIPING (UNDERGROUND 5'-0" OUTSIDE THE BUILDING) PIPING AND FITTINGS SHALL BE SCHEDULE 40, SOLID CORE PIPE AND FITTINGS.

SANITARY PIPING (ABOVE GROUND) PIPING AND FITTINGS SHALL BE STANDARD WEIGHT CAST IRON PIPE AND FITTINGS. JOINTS SHALL BE APPROVED TYPE HEAVY DUTY, ELASTOMER SLEEVE WITH STAINLESS STEEL CLAMP AND SCREW.

Question #15: Concerning the pre-engineered metal building, please provide the following design criteria: wind speed, exposure, collateral load and deflection as well as what type of roof panels, wall panels and liner panels are needed.

Answer #15: RISK CATEGORY III, 141 MPH WIND SPEED SHALL APPLY. ALL OTHER DESIGN FACTORS BY PRE-ENGINEERED METAL BUILDING MANUFACTURER. ALSO, SEE ANSWERS TO QUESTION #11.

Question #16: What color panels and trim are on the existing building?

Answer #16: MATCH EXISTING ON SITE. KYNAR WHITE BASIS ALL METAL PANELS AND TRIM.

Question #17: Please provide dimensions to verify the height of the wall opening and the width of the canopy.

Answer #17: SEE RESPONSE TO QUESTION #12

Question #18: Plan sheet S3.1 call for 24" wide x 20'-0" deep shaft holes to be drilled for the (12) concrete pedestal supports. Please confirm this is correct? If this is correct, please provide details as to how you this to be achieved, such as drilling type, form type (earth formed, Sona tube material), Etc. 20'-0" deep just seems incorrect, so please confirm all details.

Answer #18: THE INDICATED SIZE OF THE DRILLED SHAFTS IS CORRECT AND SHOULD BE AUGER CAST.



ST. TAMMANY PARISH

MICHAEL B. COOPER
PARISH PRESIDENT

Question #19: What is the dimension for the overhang at the low side of lean to

Answer #19: 3'-0

Question #20: What is the dimension of the overhang on the Lean-to rake / end walls.

Answer #20: 3'-0"

Question #21: Match existing roof, wall panels, and soffit panels

- a) What is the profile /gauge/ finish of roof?
- b) What is the profile /gauge/ finish of roof?
- c) What is the profile /gauge/ finish of roof?

Answer #21:

- a) BASED ON STRATOSHIELD/24GA/SNOWWHITE**
- b) OUTSIDE METAL WALL PANEL PBR/26GA/POLAR WHITE**
- c) INTERIOR METAL LINER PANEL PBR/26GA/POLAR WHITE**

Question #22: Are we to provide X bracing or portal frames on the low side of lean to

- a) Looks like portal frame may be showing on 1/A2.1
- b) Specs call for X bracing.

Answer #22: DESIGN PER PRE-ENGINEERED METAL BUILDING MANUFACTURER.

Question #23: Drawing E1.0 - Electrical Key Notes:

a) Existing conduit for new electrical feeders and special system. See riser diagram for more details. Existing conduits do not exist

Answer #23: REVISE KEY NOTE NO. 1. "CONTRACTOR SHALL ROUTE NEW CONDUIT AS INDICATED FOR ELECTRICAL FEEDERS AND SPECIAL SYSTEMS."

REVISE KEY NOTE NO. 4. "APPROXIMATE LOCATION OF NEW NEMA 3R JUNCTION BOX. SEE RISER DIAGRAM, SHEET E3.0 FOR DETAILS."



ST. TAMMANY PARISH

MICHAEL B. COOPER
PARISH PRESIDENT

CONTRACTOR SHALL FIELD COORDINATE EXACT LOCATION PRIOR TO INSTALLATION.

Question #24: Drawing E3.0 - Electric Key Notes:

- a) Existing 4" conduit. Contractor to verify that the conduit is empty and has pull string.
Existing conduit does not exist
- b) Two (2) existing 2" conduits with pull string each.
Existing conduit does not exist

Answer #24: REVISE – ALL INDICATED EXISTING JUNCTION BOXES SHALL BE NEW. ALL JUNCTION BOXES SHALL BE NEMA 3R AND SIZED PER NEC.

REVISE KEY NOTE NO. 1. "TWO (2) 2 ½" CONDUITS WITH FOUR (4) #4/0 AWG CONDUCTORS WITH A #3 AWG GROUND EACH. THERE SHALL BE NO SPLICES IN ANY OF THE JUNCTION BOXES.

REVISE KEY NOTE NO. 2. "TWO (2) 2" CONDUITS WITH PULL-STRING EACH.

REVISE KEY NOTE NO. 3. "TWO (2) 2 ½" CONDUITS WITH FOUR (4) #4/0 AWG CONDUCTORS WITH A #3 AWG GROUND EACH.

CLARIFICATION – KEY NOTE NO. 6. CONTRACTOR SHALL PROVIDE AND INSTALL NEW 30A/3P SIEMENS LIGHTING CONTACTOR – MODEL #LEN00C003120A. CONTRACTOR SHALL CONNECT TO THE EXISTING TIMECLOCK AND INSTALL IN A NEW LOCKABLE NEMA 3R ENCLOSURE. CONTRACTOR SHALL PROVIDE AND INSTALL A KEYED SWITCH TO CONTROL THE LIGHTING CONTACTORS WITHIN THE JUNCTION BOX. THIS SWITCH SHALL BE RATED FOR THE TOTAL AMPERAGE OF THE FOUR COILS FOR THE NEW CONTACTORS. PROVIDE AND FABRICATE STRUCTURAL SUPPORTS AS NECESSARY.



ST. TAMMANY PARISH

MICHAEL B. COOPER
PARISH PRESIDENT

ATTACHMENTS:

Specification Section 10155 – Toilet Partitions

Specification Section 10800 – Toilet Room Accessories

<< End of Addendum #3 >>

SECTION 10800 – TOILET ROOM ACCESSORIES

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Work included: Furnish and Install toilet room accessories where indicated on the Drawings, as specified herein, and as needed for a complete and proper installation.
- B. Existing accessories removed from this construction area, in good condition, may be reused.

1.2 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.

1.3 SUBMITTALS

- A. Comply with pertinent provisions of Section 01300.
- B. Submit the following product data:
 - 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 data clearly defining the required support and other details of installation to enable proper interface with the work of other trades.
- C. Manufacturer's recommended installation procedures which, when approved by the Architect, will become the basis for accepting or rejecting actual installation procedures used on the Work.

1.4 PRODUCT HANDLING

- A. Comply with pertinent provisions of Specifications.

PART 2 - PRODUCTS

2.1 ACCEPTABLE MANUFACTURERS

- A. Substitutions: Under provisions of Section 01600 and Instructions to Bidders.

2.2 MATERIALS

- A. Anchors and fasteners:
 - 1. Provide anchors and fasteners capable of developing a retaining force commensurate with the strength of the accessory to be mounted, and well suited for use with the supporting construction.
 - 2. Where exposed fasteners are permitted, provide oval head fasteners with finish matching the accessory.

- B. Provide stainless steel with satin finish on all items of this Section.
- C. Provide all items (1 thru 6) from a single manufacturer if available.
- D. Where indicated on the Drawings or specified below provide and install the following items (or approved substitute):
 - 1. Custom Mirror, as noted on drawings.
 - 2. Grab Bars with concealed mounting as shown on drawings, (Bobrick item for reference purposes) #B-5806. Provide concealed anchor plates for stud walls (typical).
 - 3. Coat Hooks, (Bobrick item for reference purposes) B-6717: one located on the toilet room side of each toilet door, unless otherwise indicated on drawings.
 - 4. Toilet Tissue Dispenser: (Bobrick item for reference purposes) B-2730
 - 5. Towel Dispenser: (Bobrick item for reference purposes) B-4262
 - 6. Soap Dispenser: (Bobrick item for reference purposes) B-4112

2.3 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 or Engineer.

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.
- B. Contractor shall provide blocking within the wall for support of this equipment and accessories.

3.2 INSTALLATION

- A. Coordinate as required with other trades to assure proper and adequate provision in the work of those trades for interface with the work of this Section.
- B. Install each item in its proper location, firmly anchored into position, level and plumb, and in accordance with the manufacturer's recommendations.
- C. Contractor to coordinate number and scheduling of toilet room accessories with owner to allow for adequate lead time consideration.

END OF SECTION 10800

SECTION 10155 - TOILET PARTITIONS

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Powder-coated steel toilet compartments.

1.2 RELATED SECTIONS

- A. Section 10800 – Toilet Room Accessories.

1.3 REFERENCES

- A. ASTM B 117 - Standard Practice for Operating Salt Spray (Fog) Apparatus; 2002.
- B. ASTM D 522 - Standard Test Method for Mandrel Bend Test of Attached Organic Coatings; 1993a(2001).
- C. ASTM D 523 - Standard Test Method for Specular Gloss; 1989(1999).
- D. ASTM D 2794 - Standard Test Method for Resistance of Organic Coatings to the Effects of Rapid Deformation (Impact); 1993(1999)e1.
- E. ASTM D 3359 - Standard Test Methods for Measuring Adhesion by Tape Test; 2002.
- F. ASTM D 3363 - Standard Test Method for Film Hardness by Pencil Test; 2000.

1.4 SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. Product Data: Manufacturer's printed literature on each product to be used, including:
- C. Printed information indicating typical panel, pilaster, door, hardware and fastening.
- D. Preparation instructions.
- E. Storage and handling requirements.
- F. Installation instructions.
- G. Shop Drawings: Submit six sets of the following:
- H. Dimensioned plans indicating layout of toilet compartments.
- I. Dimensioned elevations indicating heights of doors, pilasters, dividing panels, and other components; indicate locations and sizes of openings in compartment dividing panels for toilet and bath accessories to be installed in partitions; indicate floor and ceiling clearances.
- J. Details indicating anchoring components and methods for project conditions; indicate components required for installation, but not supplied by toilet compartment manufacturer.
- K. Samples: Two manufacturer's color cards representing manufacturer's full color palette.

1.5 DELIVERY, STORAGE AND HANDLING

- A. Store compartment components until installation in unopened cartons laid flat, with adequate support to ensure flatness and to prevent damage to prefinished surfaces.
- B. Store and dispose of solvent-based materials, and materials used with solvent-based materials, in accordance with requirements of local authorities having jurisdiction.
- C. Do not store material where ambient temperature exceeds 120 degrees F (49 degrees C).

1.6 ENVIRONMENTAL REQUIREMENTS

- A. Do not deliver materials or begin construction activities of this section until building is enclosed, with complete protection from outside weather.

1.7 WARRANTY

- A. Powder Coated Steel Material: Against chipping, flaking, cracking, or discoloration for 3 years, assuming proper maintenance according to manufacturer's recommendations.
- B. Stainless Steel Material: Against corrosion or discoloration for 5 years, assuming proper maintenance according to manufacturer's recommendations.
- C. Solid Plastic HDPE Material: Against breakage, corrosion, and delamination for 15 years.
- D. Plastic Laminate Material: Against discoloration or delamination for 2 years, assuming proper maintenance according to manufacturer's recommendations.
- E. Phenolic Material: Against delamination, breakage, or corrosion for 10 years, assuming proper maintenance according to manufacturer's recommendations.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable Manufacturer: Global Partitions, which is located at: 2171 Liberty Hill Rd. ; Eastanollee, GA 30538; Tel: 706-827-2700; Email: request info (sales@globalpartitions.com); Web: www.globalpartitions.com
- B. Or approved equal.

2.2 POWDER-COAT ENAMELED STEEL TOILET COMPONENTS

2.3 Doors, Panels, Screens, and Pilasters: Stretcher leveled, cold-rolled electrogalvanized or electrogalvannealed steel face sheet, bonded under pressure with non-toxic adhesive to a sound deadening honeycomb core.

- A. Doors, Screens, and Panels: 1 inch (25 mm) thick, 22 gage (0.760 mm) steel.
- B. Pilasters: 1-1/4 inches (32 mm) thick, 22 gage (0.760 mm) steel.
- C. Edge Moldings: 22 gage (0.760 mm) interlocking molding, with molding corners welded to each other and to face sheets and ground smooth.

2.4 Finish: Hybrid polyester powder-coat finish, 1.3 mil (0.03 mm) minimum thickness, on chemically cleaned, degreased, phosphatized surface; color selected from manufacturer's standard color palette.

- A. Flexibility: Pass conical mandrel test by 1/8 inch (3 mm) when tested in accordance with ASTM D 522.
- B. Adhesion, Cross Hatch: Pass, with classification 5B, when tested in accordance with ASTM D 3359, method B.
- C. Adhesion, Impact Resistance: Minimum of 100 inch pounds (11 N m) direct and reverse, when tested in accordance with ASTM D 2794.

- D. Hardness: 2H pencil hardness, when tested in accordance with ASTM D 3363.
- E. Gloss: 60 to 80, plus or minus 5 dependent on specific color, when evaluated in accordance with ASTM D 523.
- F. Salt Spray: No corrosion creep more than 1/16 inch (1.6 mm) from scribe after 1000 hours, with salt spray administered in accordance with ASTM B 117.

2.5 Door Hardware: Heavy duty, die-cast non-ferrous chrome-plated.

- A. Top Hinge: Recessed and interlocked in door, with nylon pin in the plane of the door, through-bolted.
- B. Bottom Hinge: Recessed in door, with mating box and pintle nylon cams providing the bearing surface; adjustable to allow door to rest at any position within a 270-degree range; through-bolted.
- C. Latch: Concealed, with emergency access.
- D. Stop and Keeper: Through-bolted.
- E. Coat Hook and Bumper: Surface mounted.
- F. Fastening Hardware: Theft-resistant heads. Mounting Brackets: Heavy duty, die-cast non-ferrous chrome-plated stirrup brackets, with chrome-plated theft-resistant screws.
- G. Pilaster Shoes: Type 304 stainless steel, No. 4 satin finish, held in place with concealed fastening clips.
- H. Headrail: Manufacturer's standard anodized aluminum rail with anti-grip profile.
- I. Pilaster Anchors, Floor Anchored/Overhead Braced: Inverted stirrup with jack bolt for leveling during installation and permanent height adjustment, welded to base of pilaster, with "L" brackets coupled to stirrup bracket and floor for full range adjustment; concealed by pilaster shoe after installation.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verification of Conditions:
 - 1. Measure areas to receive compartments; verify area dimensions are in accordance with shop drawings.
 - 2. Verify built-in framing, anchorage, bracing, and plumbing fixtures are in correct location.
- B. Installer's Examination:
 - 1. Have installer of this section examine conditions under which construction activities of this section are to be performed, then submit written notification if such conditions are unacceptable.
 - 2. Transmit two copies of installer's report to Architect within 24 hours of receipt.
 - 3. Beginning construction activities of this section before unacceptable conditions have been corrected is prohibited.
 - 4. Beginning construction activities of this section indicates installer's acceptance of conditions.

3.2 PREPARATION

A. Surface Preparation:

1. Prepare openings in compartment dividing panels for toilet and bath accessories to be installed in partitions; marring of partition finish is prohibited.
2. Locate openings in accordance with shop drawings and accessory manufacturer's installation instructions and templates.

3.3 INSTALLATION

- A. Install compartments to specified tolerances in accordance with shop drawings and manufacturer's printed installation instructions.
- B. Attach components to adjacent materials and to other components using purpose-designed fastening devices.
- C. Adjust pilaster anchors for floor or ceiling variations, as applicable; conceal anchors with pilaster shoes.
- D. Fit each compartment door with hinges and door latch.
- E. Install door strike keeper on pilasters in alignment with door latch.
- F. Fit each compartment door with one coat hook and bumper.
- G. Installation Tolerances:
 1. Maximum variation from plumb or level: 1/8 inch (3mm).
 2. Clearance between wall surface and panels or pilasters: 1-1/2 inch (38 mm) maximum.

3.4 ADJUSTING

- A. Adjust door hardware for uniform clearance between doors and pilasters.
- B. Adjust door hinges to attain free movement.
- C. Adjust door hardware to align door strike keeper on each pilaster with door latch.

3.5 PROTECTION OF INSTALLED PRODUCTS

- A. Prevent damage to product finishes by subsequent construction activities.
- B. Touch up, repair, or replace components having damaged finish before Substantial Completion.
- C. Remove factory protective coverings and clean finish surfaces in accordance with manufacturer's instructions before final inspection.

SCHEDULE

- A. Refer to plan for partition layout and elevations
- B. Color to be selected by architect from FULL range of available colors.

END OF SECTION 10155



ST. TAMMANY PARISH

MICHAEL B. COOPER
PARISH PRESIDENT

June 10, 2020

Please find the following addendum to the below mentioned BID.

Addendum No.: 2

Bid#: 20-7-2

Project Name: Fairgrounds Phase 3

Bid Due Date: June 24, 2020

GENERAL INFORMATION:

1. Bidders are reminded to closely follow are the requirements of the contract documents when preparing and submitting their bid.
2. The following were topics discussed during the pre-bid meeting:
 - a. Certified payrolls are not required for this project.
 - b. Davis-Bacon wage rates do not apply to this project.
 - c. Bids will be required to be reviewed/approved by the Grantor prior to awarding by the parish. This cause delay execution of contract.
 - d. Any change orders that might occur during construction will also be required to be reviewed/approved by Grantor prior to final execution by the parish.
 - e. Contractor shall use standard AIA Pay Application Forms G702 and G703 for monthly applications for payment. Contractor shall be responsible for obtaining and using the proper forms.
3. The license classification for this project is Building Construction. Only those bidders having this license classification are eligible to bid on this project.
4. There is no objection to working on the weekend. Contractor will be responsible for providing advanced notice of weekend work and coordinating with the parish on any particular conflicts.



ST. TAMMANY PARISH

MICHAEL B. COOPER
PARISH PRESIDENT

5. Contractor is responsible for providing their own temporary restroom facilities for their workers for the duration of the contract.
6. All concrete wash-out will be required to be removed from the site by the Contractor.
7. **The existing fence along W. 33rd Avenue requires some repair. The Contractor shall include in their bid the cost to provide all labor, equipment and material necessary to replace all of the existing fence posts along the stretch of existing chain-link fence along W. 33rd Avenue (approx. 350 feet long). The existing poles will need to be removed and new footings/poles installed in. All of the remaining portions of the fence shall be re-used and re-attached to the existing poles. The same alignment of the existing fence needs to be maintained. See attached sketch/aerial showing the location of the fence repair work.**
8. **Contractor shall include in their bid the cost to provide all labor, equipment and material necessary to pressure-wash the entire Fletcher Building. The entire Fletcher Building includes the large arena and lean-to section over the small area as well as the older, original section. The entire exterior of all of these buildings and well as the interior portions of the small and large arenas shall be pressure-washed. Contractor shall coordinate this cleaning with the final cleaning of the new project. See attached sketch/aerial showing the outline of the buildings to be included.**
9. **Due to the addition of the pre-washing, the contract time is hereby extended to 210 calendar days as a part of this addendum. In addition, the Contractor will be allowed a 30-day assembly period prior to the official Notice-to-Proceed to submit shop drawings/submittals for the project. Liquidated damages are \$500 per calendar day if not extended by change order.**
10. **Sheet C1.0 is being revised and re-issued as a part of this addendum to modify the wash-down area.**
11. **Sheet C2.0 is being revised and re-issued as a part of this addendum to adjust the grading of the wash-down area.**
12. **Contractor shall include in their bid the cost to provide all labor, equipment and material necessary to replace all of the existing light fixtures with new LED fixtures that will be provided by the owner. There are 55 light fixtures that require replacement.**



ST. TAMMANY PARISH

MICHAEL B. COOPER
PARISH PRESIDENT

QUESTIONS & ANSWERS:

Question #1: On C1.0 there is a grid layout consisting of roughly 12'x13' sections of concrete. Does this grid represent saw cuts? Metal key? If saw cuts, what's the depth? If key, any dowels? On same page there are expansion joints shown. Are these joints to be redwood with caulking? Treated 1x8 with no caulking? Dowels?

Answer #1: THE DETAILS FOR THE 8" CONCRETE SLAB AS WELL AS THE JOINT LAYOUT ARE BEING MODIFIED. SHEET C1.0 AND C4.0 ARE BEING REVISED AND RE-ISSUED AS PART OF ADDENDUM #2.

Question #2: Also, on C1.0 there is a detail 1 over C1.0. Where does this occur?

Answer #2: THE REFERENCED SECTION CUT SHOULD BE SECTION A/C1.0 AS CUT ON THE PLAN VIEW TO SHOW THE TRENCH DRAIN DETAIL FOR THE WASH-DOWN AREA. THIS IS BEING ADDRESSED ON REVISED SHEET C1.0 BEING RE-ISSUED AS PART OF ADDENDUM #2.

Question #3: Same page, there is note that reads "single pole barricade..."; what is this about?

Answer #3: THIS NOTE IS REFERRING TO THE NEWLY INSTALLED GATES AND BARRICADES. THIS IS AN EXISTING BARRICADE THAT IS NOT A PART OF THIS CONTRACT.

Question #4: There are no specifications concerning the pre-engineered building.

Answer #4: SPECIFICATION SECTION 13120 – METAL BUILDING SYSTEM IS BEING ADDED AS A PART OF ADDENDUM #2.

Question #5: On S3.0, the concession building foundation scale shows $\frac{3}{4}" = 1 \text{ ft.}$ Should that be $\frac{1}{8}" = 1 \text{ ft.}$?

Answer #5: THE SCALE OF THIS SHEET SHOULD BE $\frac{1}{8}" = 1'-0"$.



ST. TAMMANY PARISH

MICHAEL B. COOPER
PARISH PRESIDENT

Question #6: Do you have a geo-tech report?

Answer #6: YES. A GEOTECHNICAL INVESTIGATION REPORT BY GULFSOUTH ENGINEERING AND TESTING, INC., DATED FEBRUARY 5, 2014, IS PROVIDED FOR REFERENCE AS PART OF ADDENDUM #2.

Question #7: There is no spec on the toilet partitions. Please provide.

Answer #7: THIS SPECIFICATION WILL BE PROVIDED IN THE NEXT ADDENDUM.

Question #8: There is no spec on the toilet accessories. Please provide.

Answer #8: THIS SPECIFICATION WILL BE PROVIDED IN THE NEXT ADDENDUM.

Question #9: Who currently monitors the fire alarm?

Answer #9: UNITED SECURITY.

Question #10: Is there a reason for the lean-to metal building to be insulated?

Answer #10: YES, HEAT AND SOUND ABSORPTION AND MATCHING EXISTING CONSTRUCTION.



ST. TAMMANY PARISH

MICHAEL B. COOPER
PARISH PRESIDENT

ATTACHMENTS:

Sign-in sheet from pre-bid meeting.

Sketch/Aerial showing the building limits to be pressure-washed and limits of fence repair area

Revised Drawings – Sheets C1.0, C2.0 and C4.0 (revised 06.10.20)

Specification Section 13120 – Metal Building System

Geotech Report by GulfSouth Engineering and Testing, Inc., dated February 5, 2014

<< End of Addendum #2 >>

St. Tammany Parish Government

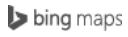
PROJECT NAME: Fairgrounds Phase 3
 Bid No. 20-7-2

DATE: Wednesday, June 3, 2020

TIME: 10:00 AM

MEETING: Pre-Bid Conference

| | NAME | COMPANY | PHONE NUMBER | EMAIL |
|----|-------------------|-------------------------|----------------|--|
| 1 | Eddie Powell | Kyle Associates | 985-727-9377 | epowell@kyleassociates.net |
| 2 | Brandon Bartholat | M&B Maintenance, LLC | 225-928-5569 | bids@mbdperformers.com |
| 3 | Marcus Amal | McDonald Const. | 985-960-0010 | marnie.mcdonaldconstruction@yahoo.com |
| 4 | Carol Scott | CM Combs Const | 985-867-4960 | Frontdesk@cmcombs.com |
| 5 | Brittini Hawkins | S-RD | 985-373-0100 | construction.com |
| 6 | Bruce K. Couch | STP - GOV | 985-898-2792 | steek@stp.gov |
| 7 | Joel Dixon | Dixon contracting group | 601-569-9453 | bruce@stpgov.org |
| 8 | | | | Joel Dixon Joe Dixon contracting group LLC, LLC |
| 9 | Gary Buis | Natal Contractor Inc | 985-645-2713 | patricia@m.natal.com |
| 10 | Carole Gifford | Gifford Contracting LLC | (985) 893-3773 | carole@gifford-us.com |
| 11 | Christie Eastman | STPG | 985-807-5095 | ceastman@stpgov.org |
| 12 | Cline Mathies | STPG | 985-268-1295 | temathies@stpgov.org |
| 13 | | | | |
| 14 | | | | |
| 15 | | | | |
| 16 | | | | |
| 17 | | | | |
| 18 | | | | |
| 19 | | | | |
| 20 | | | | |
| 21 | | | | |

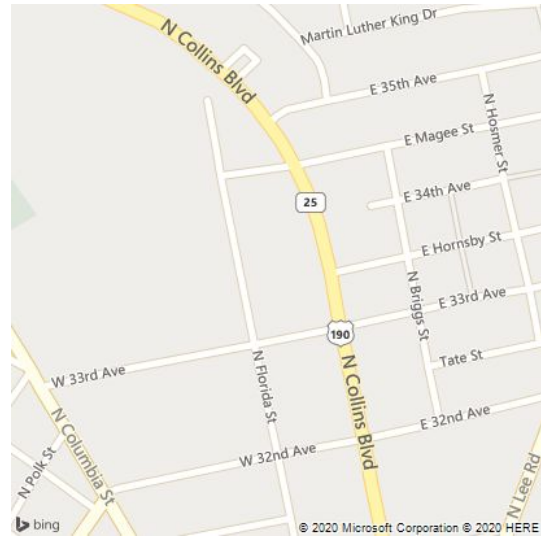


Notes

ST. TAMMANY PARISH
FAIRGROUNDS - PHASE 3

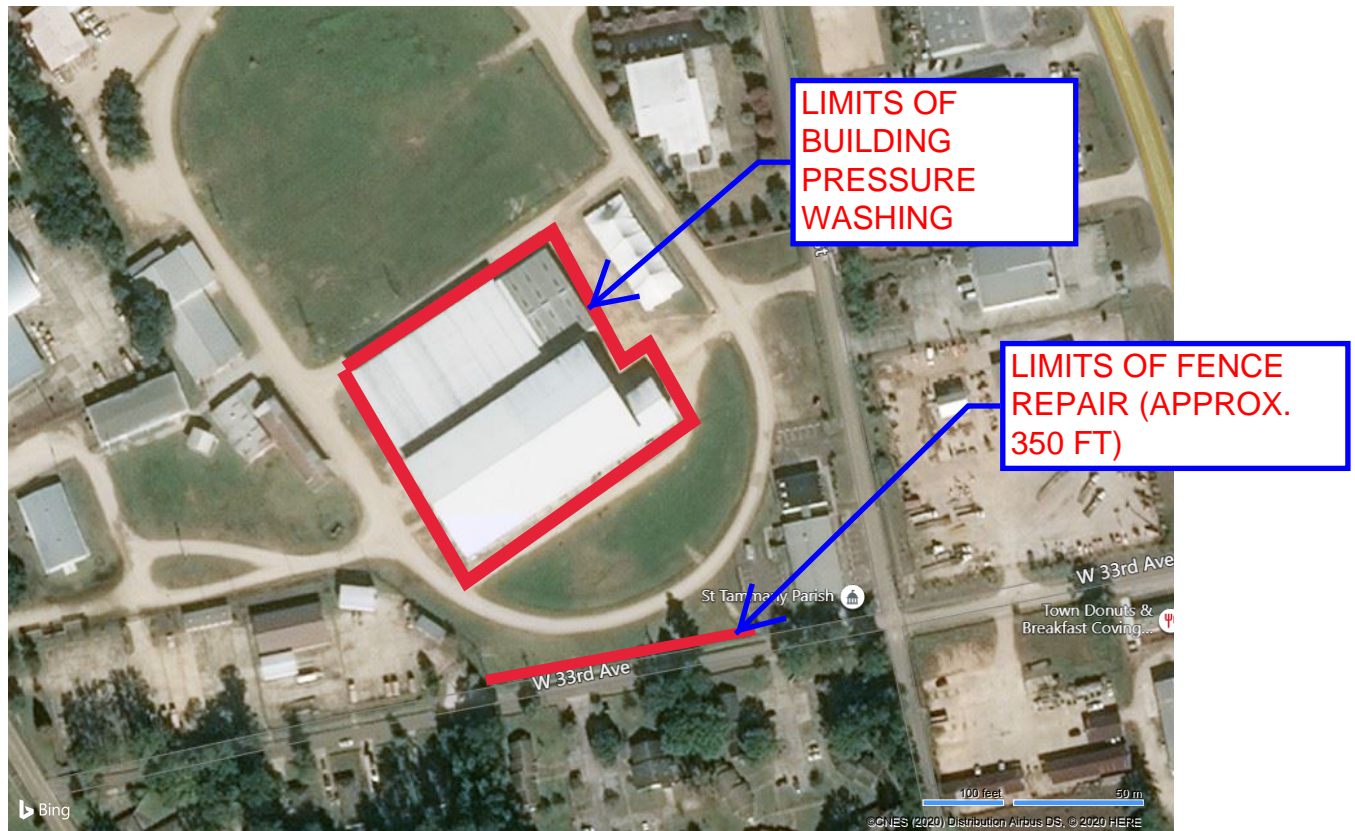
ADDENDUM #2

LIMITS OF PRESSURE-WASHING AND FENCE
REPAIR



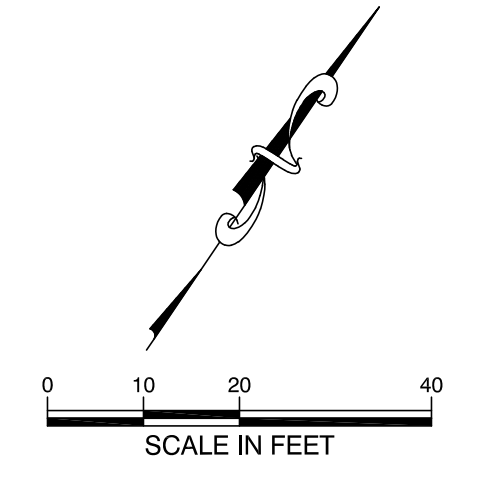
<https://www.bing.com/maps/>

1/2



<https://www.bing.com/maps/>

2/2



LEGEND:

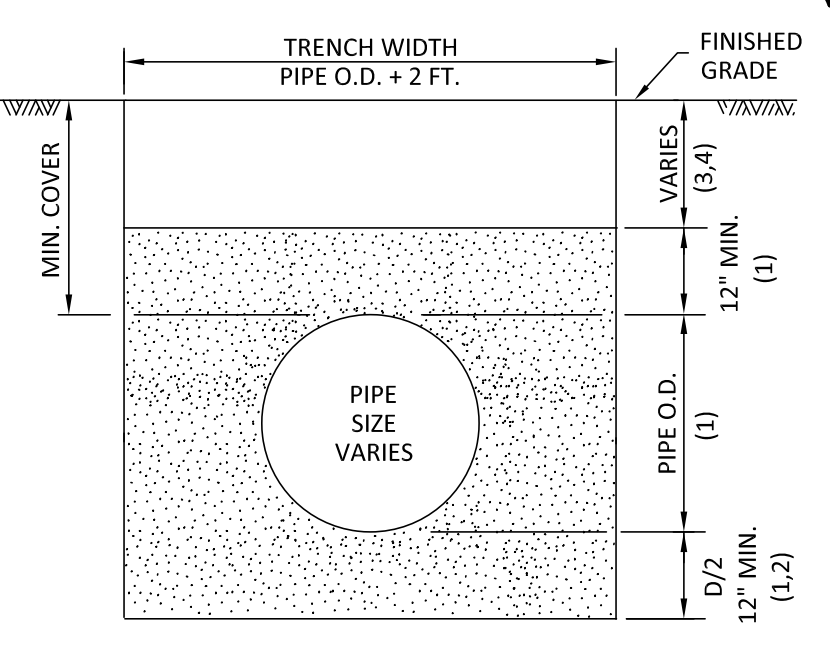
- 8" REINFORCED CONCRETE SLAB PAVEMENT (SEE DETAIL, SHT. C4.0)
- 6" CONCRETE PAVEMENT (W/6x6-6 GAGE W.W.R.)
- 4" CONCRETE SIDEWALK (W/6x6-6 GAGE W.W.R.)
- CONSTRUCTION JOINT
- EXPANSION JOINT
- REQ'D SEWER LINE
- REQ'D CLEANOUT

NOTE

THE NEW SEWER SHOWN ON THIS SHEET SHALL NOT BE STARTED UNTIL THE CONTRACTOR HAS LOCATED AND SHOT ELEVATIONS OF THE EXISTING SEWER LINE AT THE INDICATED TIE IN POINT TO DETERMINE THE AMOUNT OF FALL AVAILABLE. ANY PIPING INSTALLED WITHOUT VERIFICATION OF THE TIE IN POINT ELEVATION SHALL BE REWORKED AT NO COST TO THE OWNER.

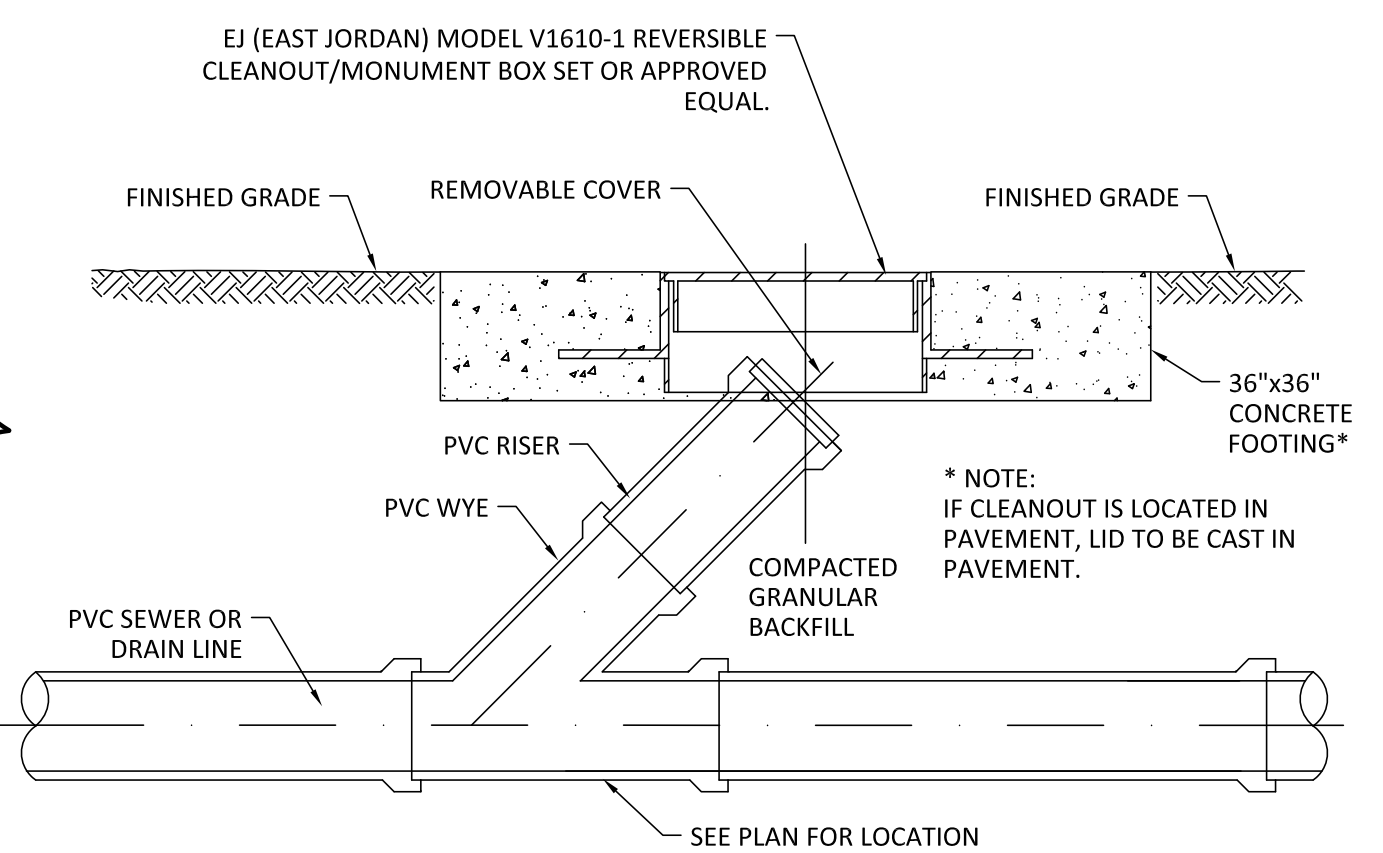
NOTES:

1. COMPACTED GRANULAR MATERIAL MIN. DENSITY 95% STANDARD PROCTOR (ASTM D698) 6" MAX. LAYERS.
2. PROVIDE BELL HOLES AT EACH JOINT.
3. SELECT EXCAVATED MATERIAL FREE OF STUMPS, DEBRIS AND VOIDS FOR NON-PAVED AREA.
4. COMPACTED GRANULAR MATERIAL WITHIN THE STREETS RIGHT-OF-WAY MIN. DENSITY 95% STANDARD PROCTOR (ASTM D698) 6" MAX. LAYERS.
5. WHERE GROUND WATER OR UNSTABLE TRENCH BOTTOM EXISTS, TRENCH BOTTOM SHALL BE STABILIZED (ASTM D2321) TO PROVIDE A WORKING PLATFORM.
6. TRENCH DETAIL SHOWN SHALL BE MINIMUM REQUIREMENTS TO SAFEGUARD THE INTEGRITY OF THE UTILITY LINE INSTALLATION AT REQUIRED DEPTHS. THE CONTRACTOR SHALL PROVIDE SUFFICIENT SHEETING AND BRACING TO PROVIDE SAFE WORKING CONDITIONS FOR HIS WORKERS.



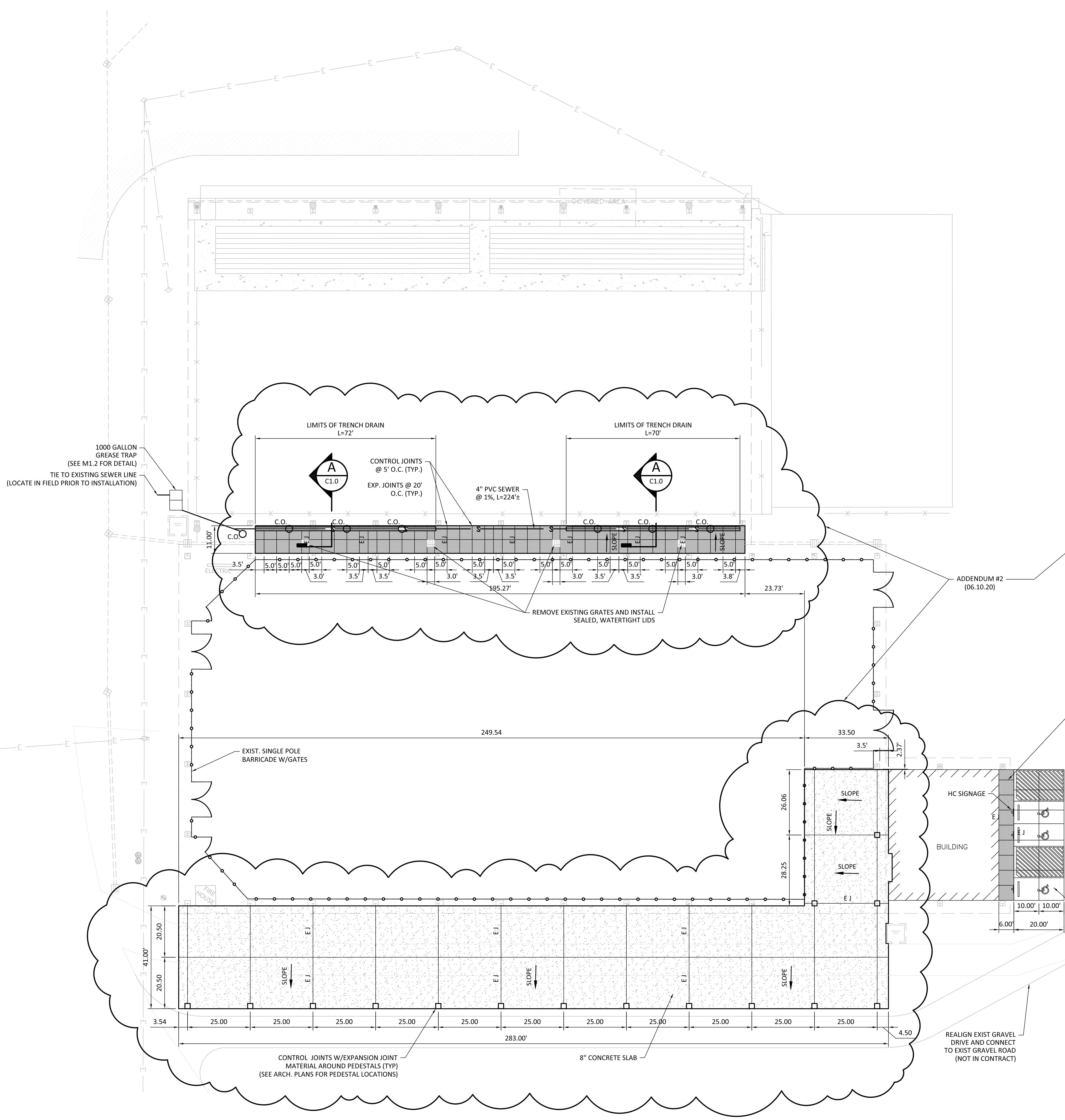
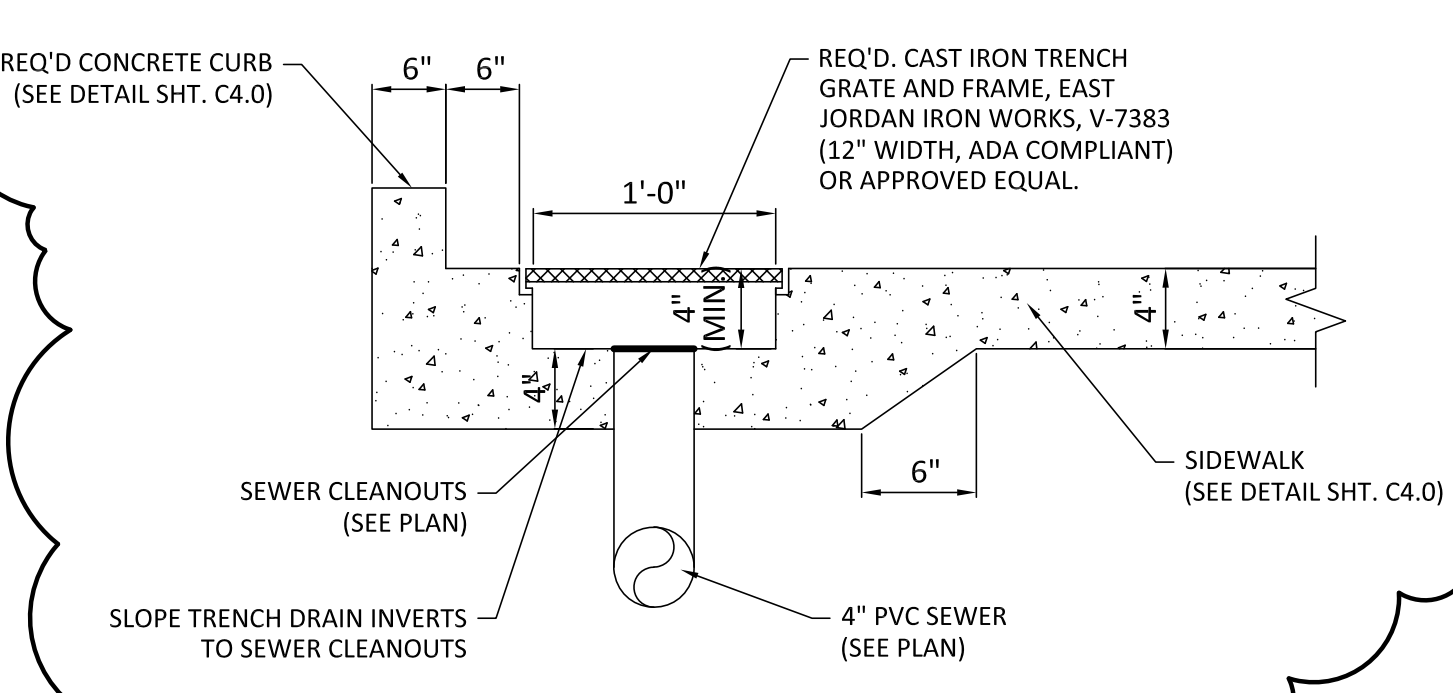
STANDARD UTILITY TRENCH DETAIL

N.T.S.

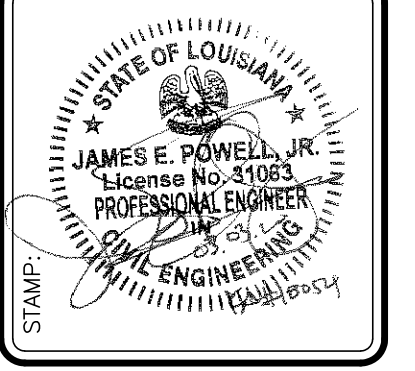


TYPICAL CLEANOUT DETAIL

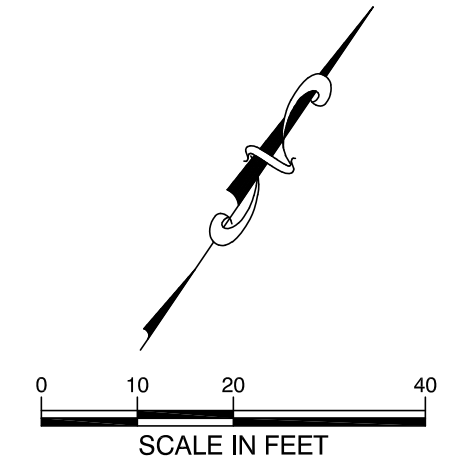
N.T.S.



| REVISIONS | DATE | REMARKS | APP'D | J.E.P. |
|-----------|----------|---------------|-------|--------|
| | 03.03.20 | ISSUE FOR BID | | |
| | 06.10.20 | ADDENDUM #2 | | |

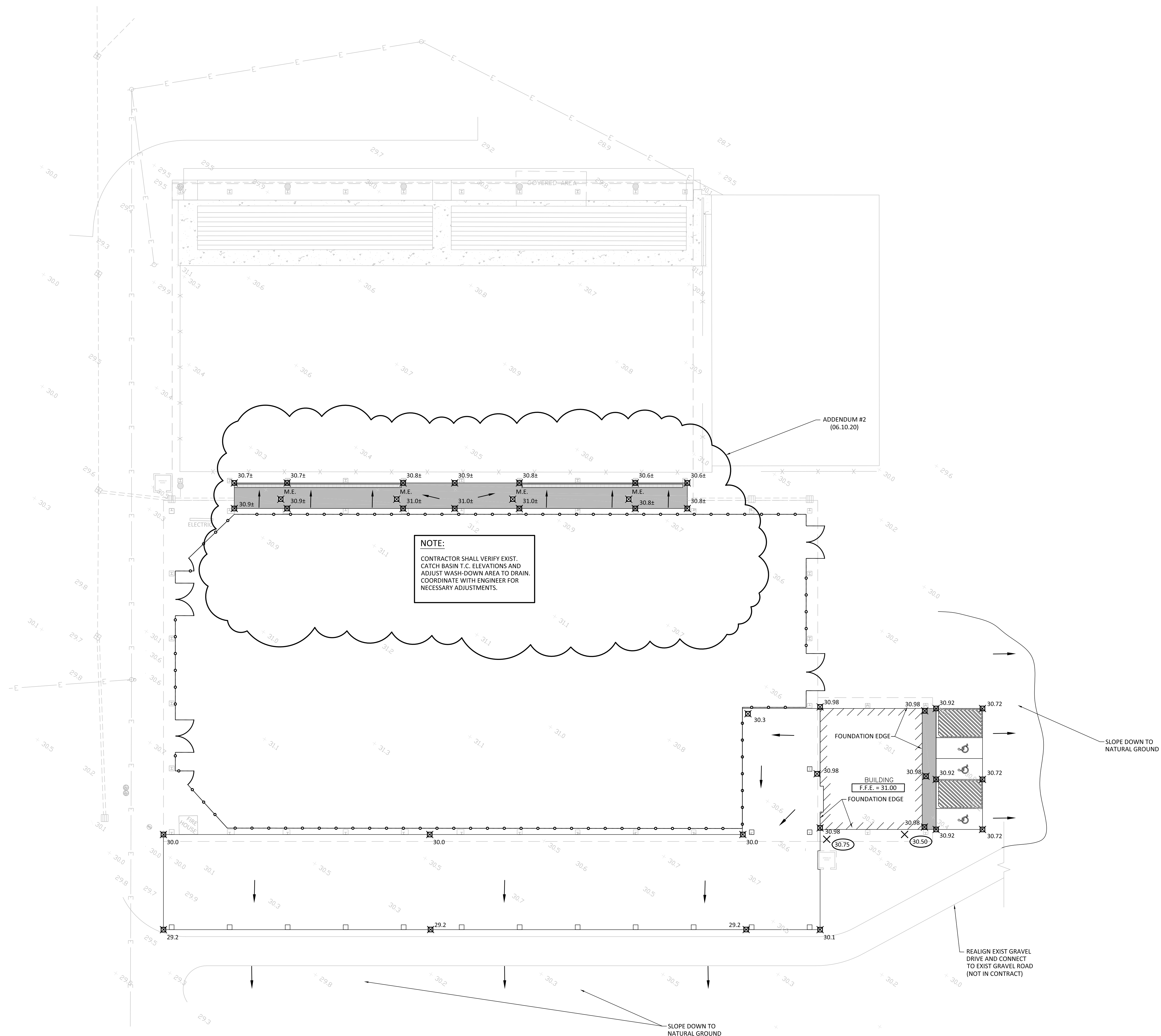


| | | | |
|-------------------------------|-------------------------------|--------------------|------------------|
| DESIGNED BY: JEP | DRAWN BY: MMM/NBZ | CHECKED BY: JEP | JOB NO. 18054 |
| SCALE: (24x36) 1" = 20'-0" | SCALE: (11x17) 1" = 40'-0" | DATE: 03.MAR.20 | |



LEGEND:

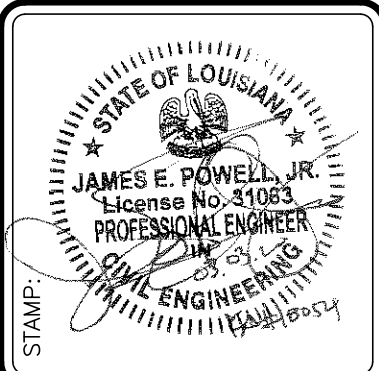
- PROPERTY LINE
- - - - - EXISTING BUILDING OUTLINE
- ⊗ 30.00 PROPOSED GRADE (TOP OF SIDEWALK/PAVEMENT)
- ⊗ 30.50 FINISHED GRADE
- + 30.2 EXISTING GRADES



NOTE:
CONTRACTOR SHALL VERIFY EXIST. CATCH BASIN T.C. ELEVATIONS AND ADJUST WASH-DOWN AREA TO DRAIN. COORDINATE WITH ENGINEER FOR NECESSARY ADJUSTMENTS.

FAIRGROUNDS PHASE 3
1515 N FLORIDA ST.
COVINGTON, LA
GRADING PLAN

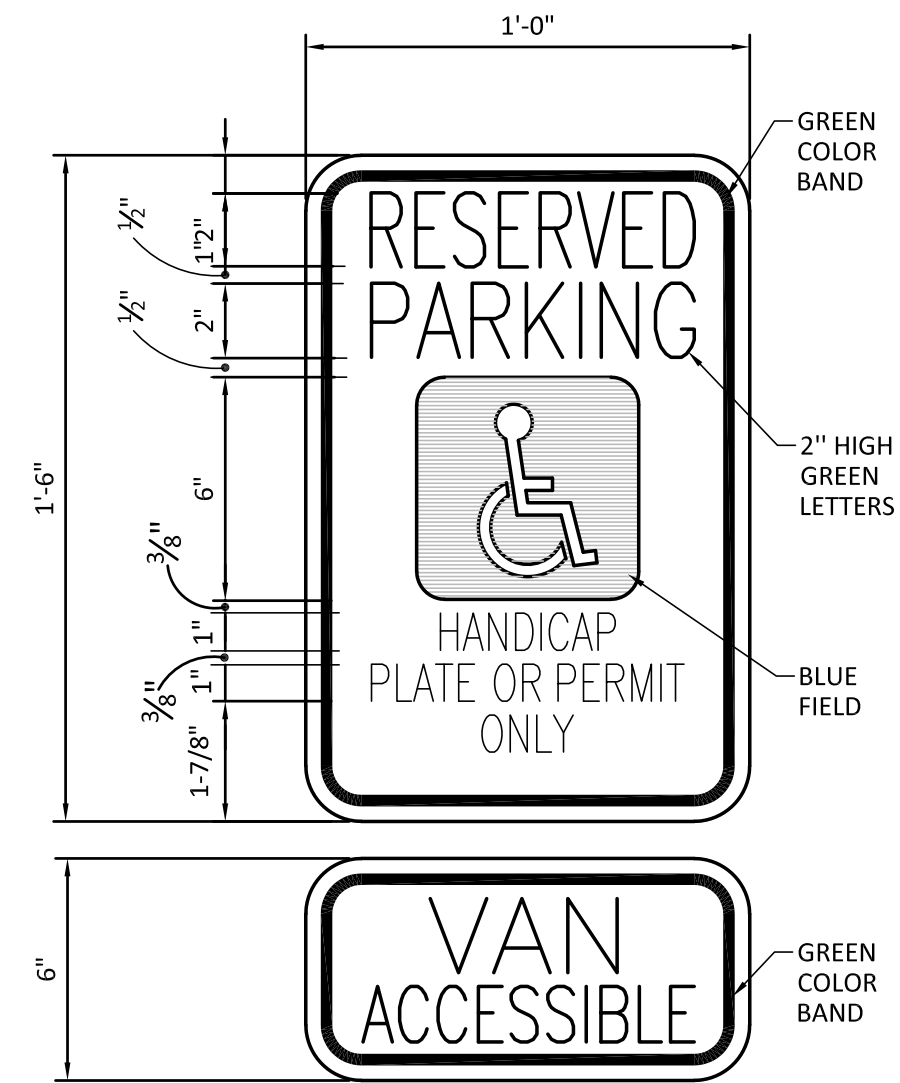
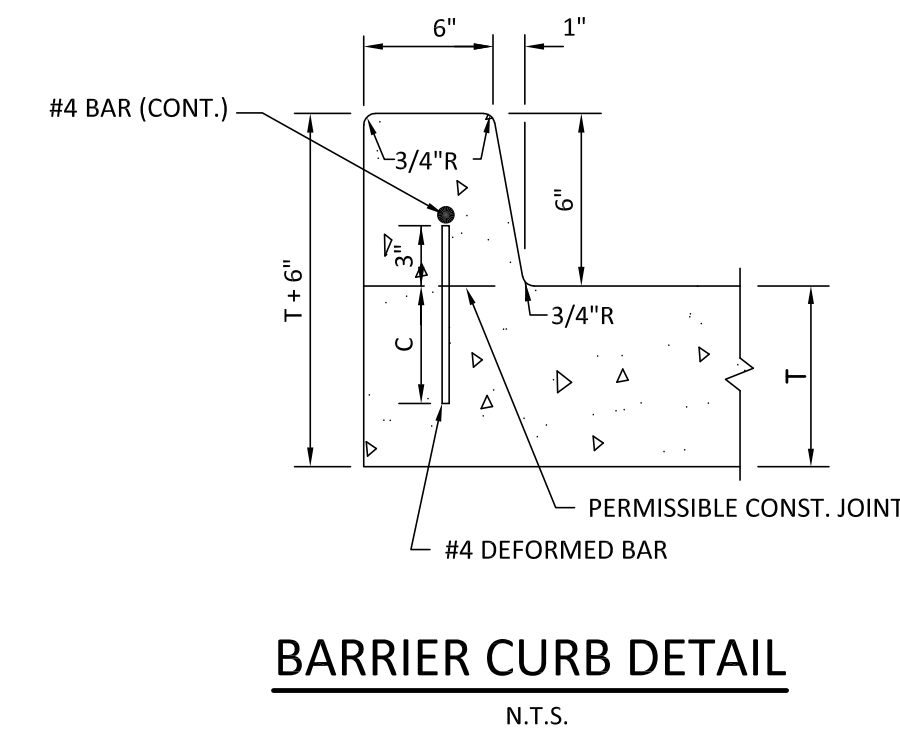
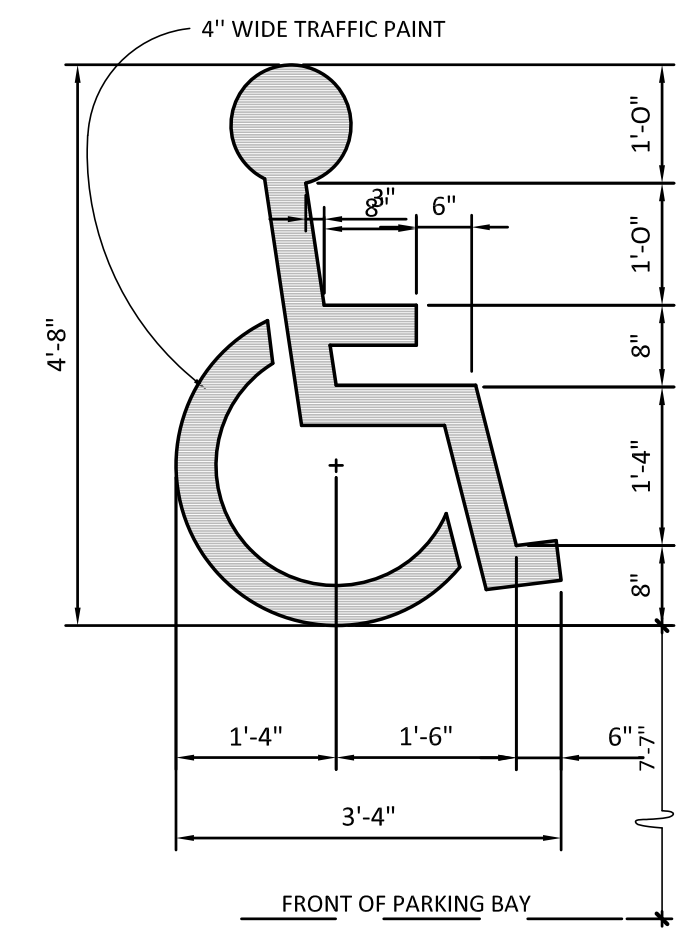
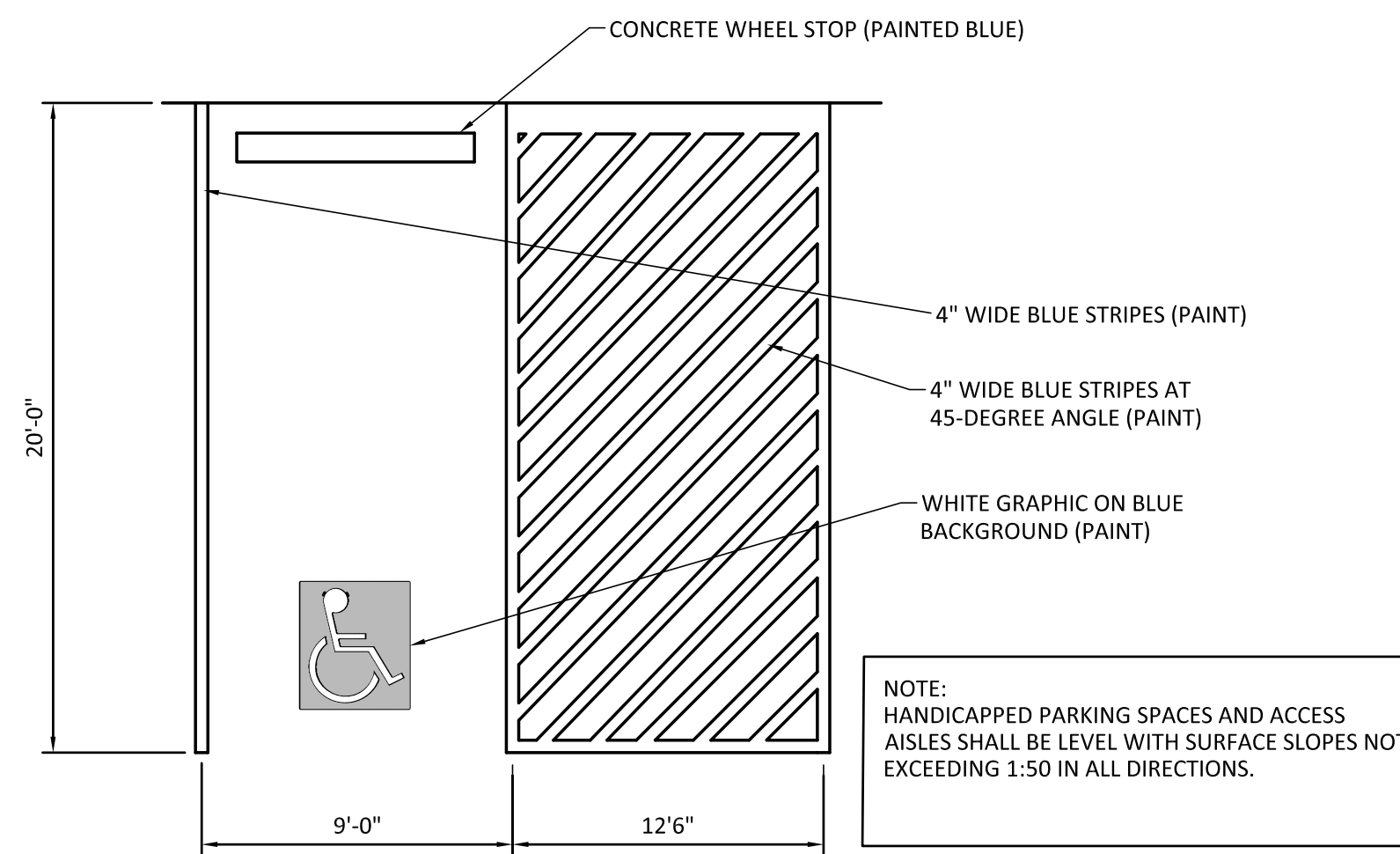
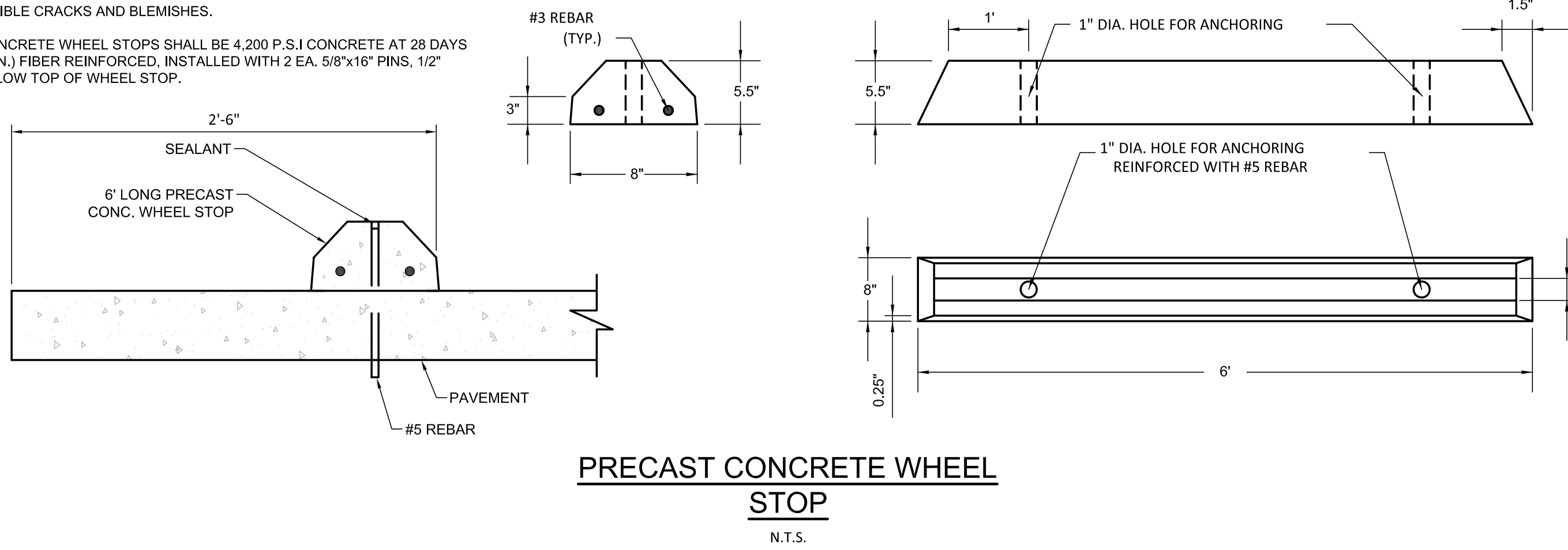
| DATE | REVISIONS | APP'D | J.E.P. |
|--|-----------------------------------|-------|--------|
| 03.03.20 <td>ISSUE FOR BID <td></td> <td></td> </td> | ISSUE FOR BID <td></td> <td></td> | | |
| 06.10.20 <td>ADDENDUM #2 <td></td> <td></td> </td> | ADDENDUM #2 <td></td> <td></td> | | |



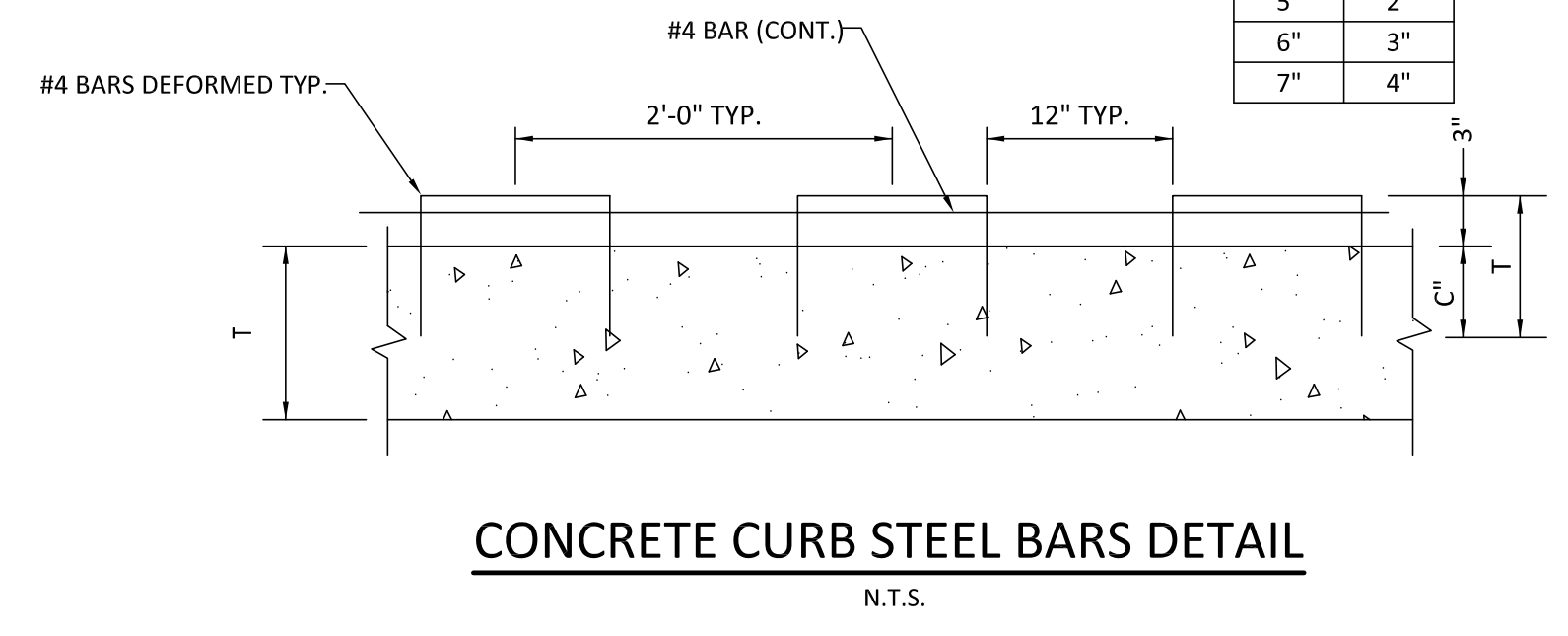
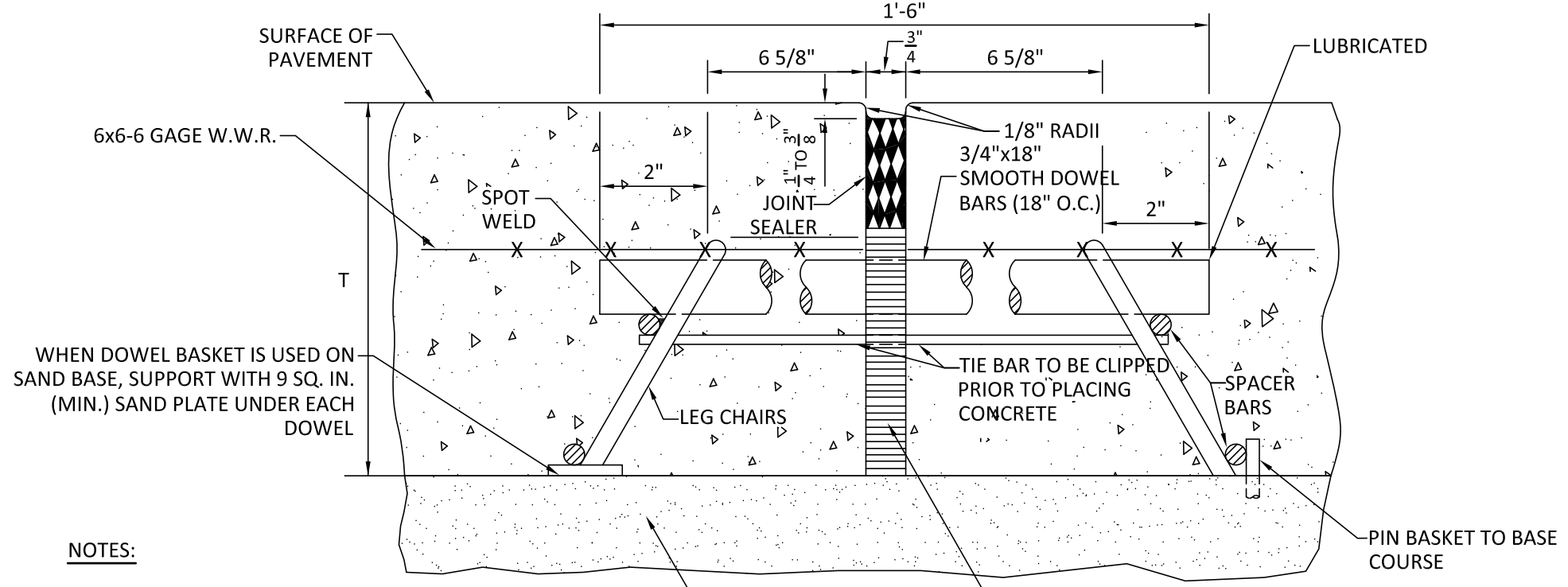
Kyle Associates, LLC
Planning, Engineering, and Landscape Architecture
638 Village Lane N., Mandeville, LA 70471 • 985.727.0377

NOTES:

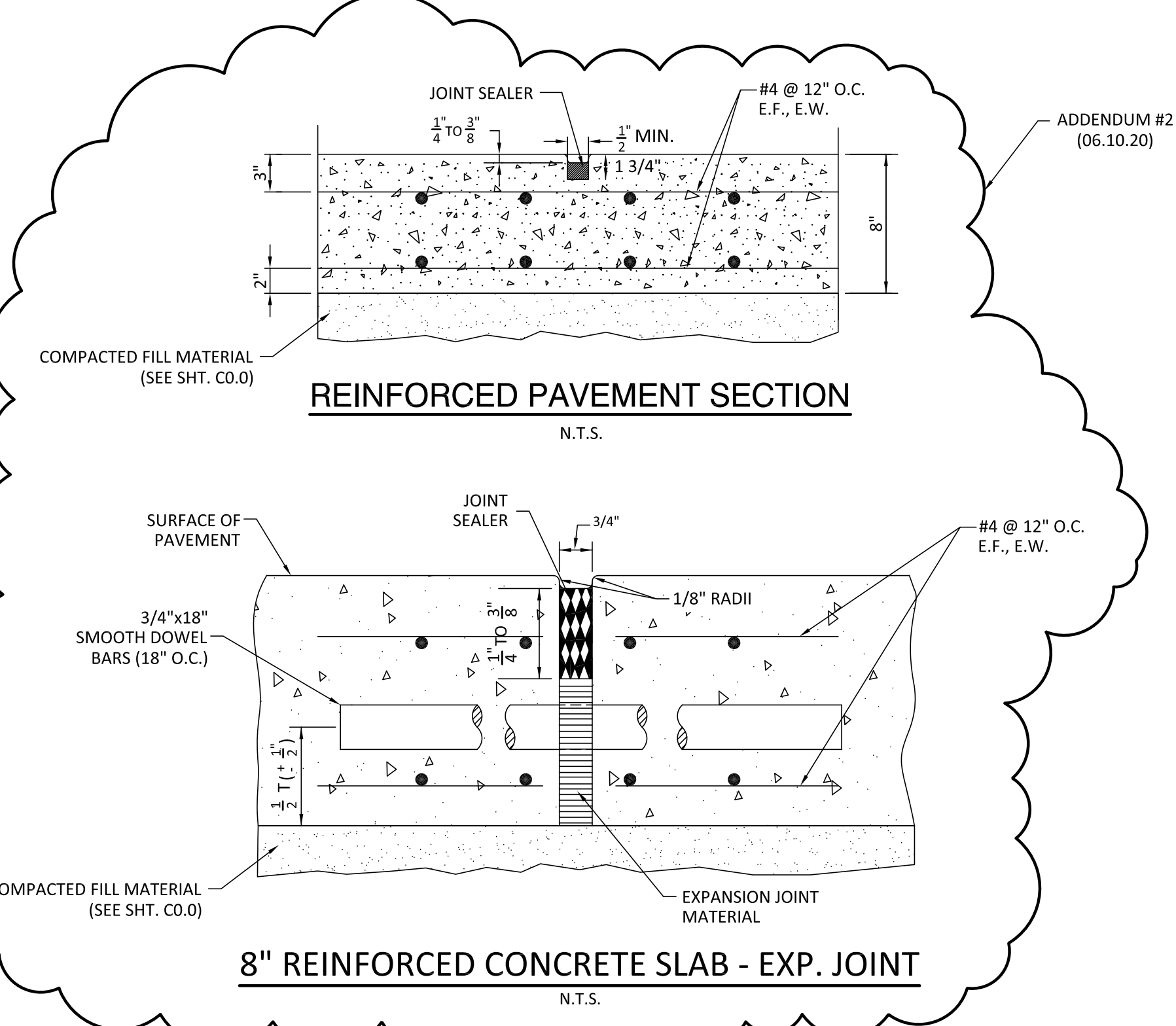
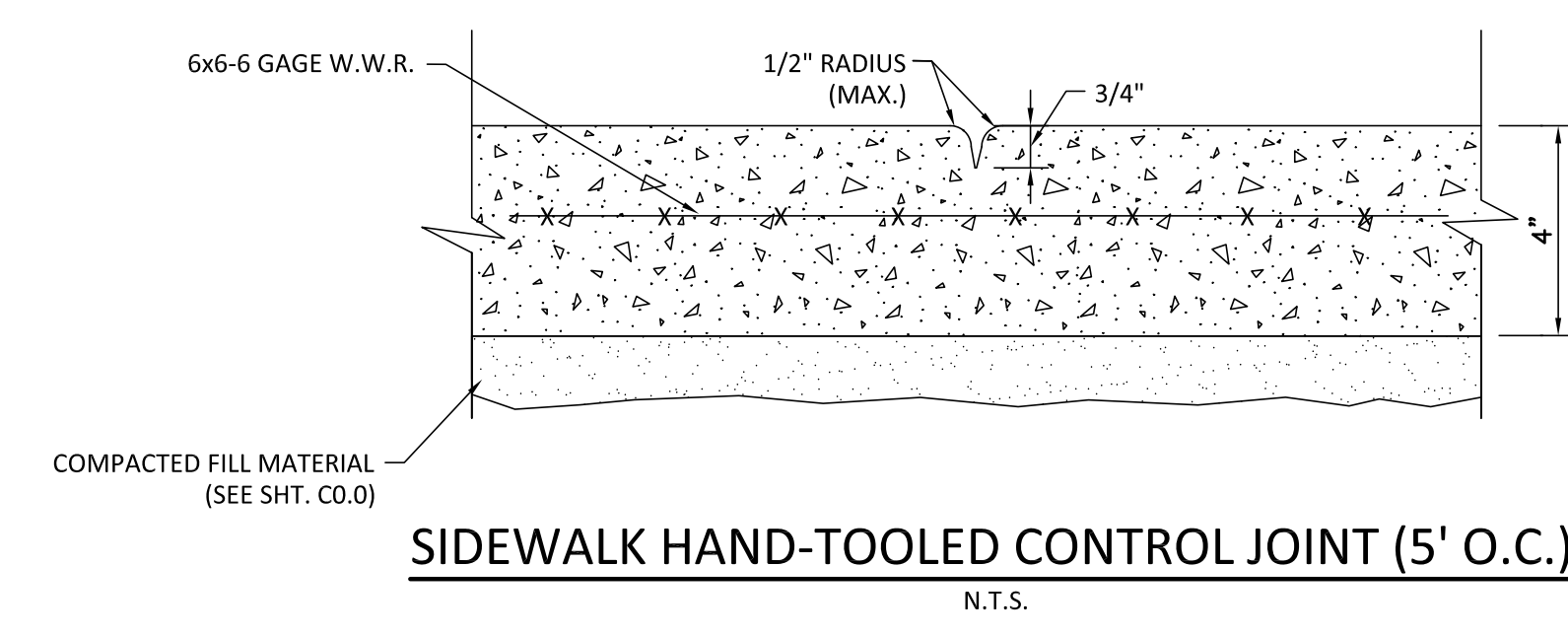
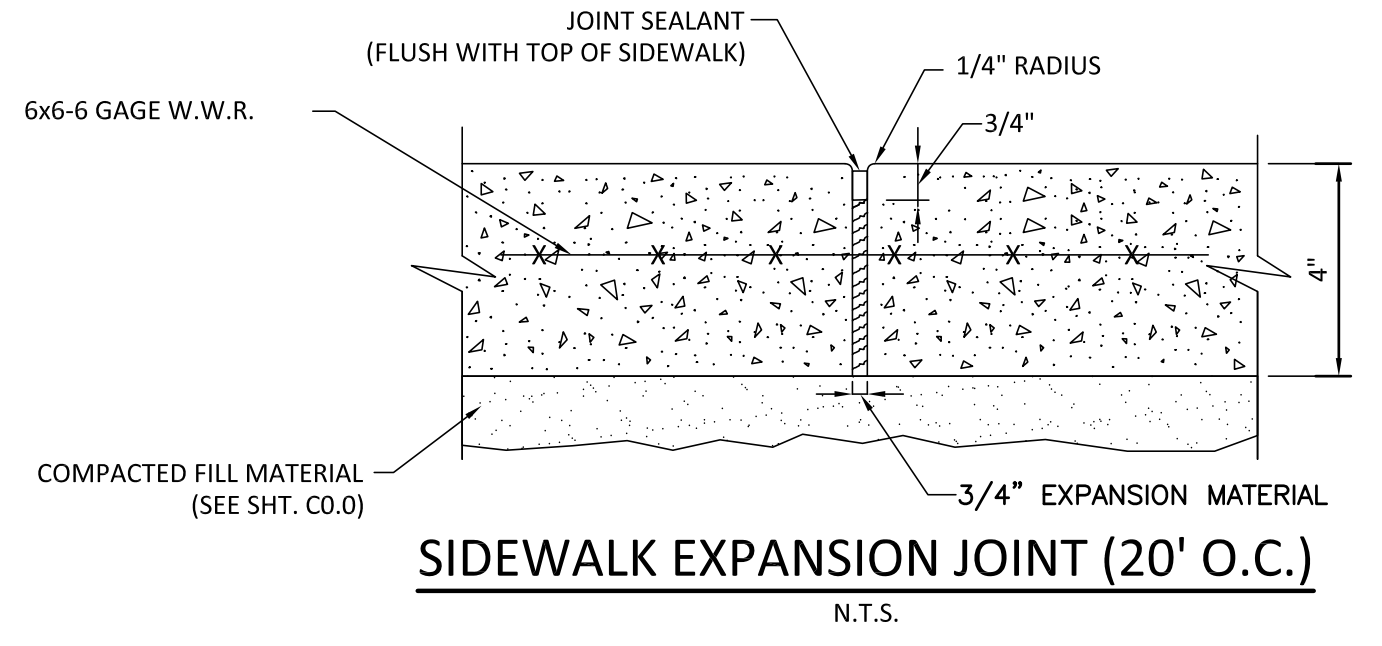
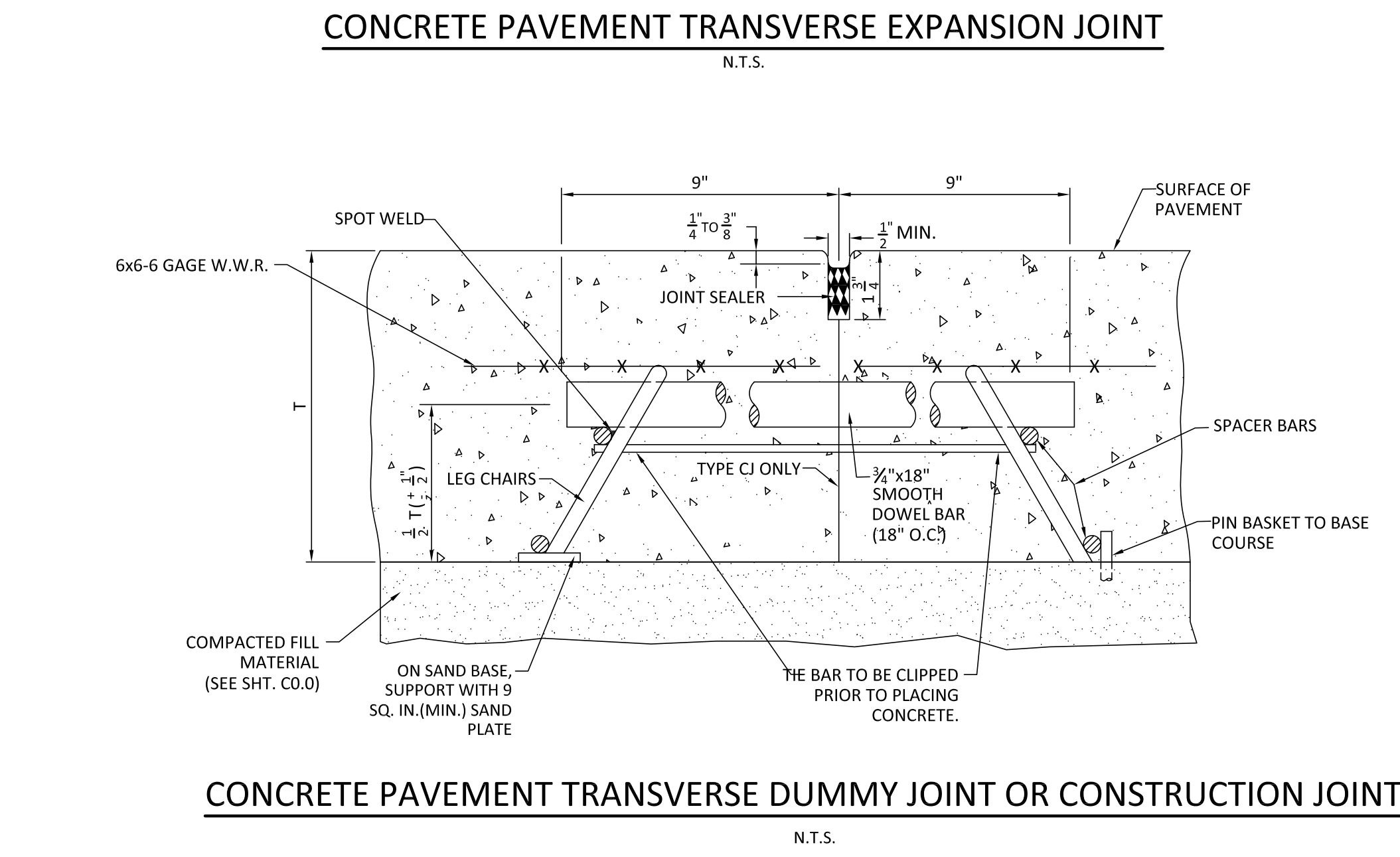
1. WHEEL STOPS ARE TO BE DELIVERED AND INSTALLED FREE OF VISIBLE CRACKS AND BLEMISHES.
2. CONCRETE WHEEL STOPS SHALL BE 4,200 P.S.I CONCRETE AT 28 DAYS (MIN.) FIBER REINFORCED, INSTALLED WITH 2 EA. 5/8"x16" PINS, 1/2" BELOW TOP OF WHEEL STOP.



- NOTES:**
1. THE BOTTOM OF THE SIGN SHOULD BE NO LESS THAN 72 INCHES ABOVE FINISH GRADE.
 2. SIGNS SHALL BE PROPERLY CENTERED WITHIN THE PARKING SPACE AND POLE MOUNTED.
 3. THE SIGN FACE SHOULD BE LOCATED NO FARTHER THAN 6 FEET FROM THE FRONT OF EACH PARKING SPACE.
 4. ALL LETTERING SERIES 'C', GREEN COLOR.
 5. INTERNATIONAL SYMBOL OF ACCESSIBILITY SHOWN WHITE ON 6"x6" BLUE FIELD WITH 1/2 RADIUS CORNERS.
 6. THE VAN ACCESSIBLE SIGN SHALL BE CENTERED UNDER THE ACCESSIBLE PARKING SIGN AS SHOWN (IF APPLICABLE).
 7. THE SIGN SHALL NOT BE OBSCURED BY A VEHICLE PARKED IN THE SPACE.
 8. A "RESERVED PARKING" SIGN SHALL BE REQUIRED BEHIND THE SIDEWALK AT EACH HANDICAP ACCESSIBLE PARKING SPOT.
 9. ALL HANDICAP SIGNS AND STRIPING SHALL BE IN ACCORDANCE WITH APPLICABLE ADA STANDARDS.



- NOTES:**
1. T = THICKNESS OF PAVEMENT
 2. ALL JOINTS TO BE USED WHERE SHOWN ON THIS SHEET OR AS SHOWN ELSEWHERE IN THE PLANS OR AS OTHERWISE DIRECTED BY THE ENGINEER.



CADD FILE NAME: 18054 - DT-PAV-PARK.dwg

DESIGNED BY: JEP
DRAWN BY: TM
CHECKED BY: MMB/MBZ
DATE: 03.MAR.20

SCALE: (24x36)
SCALE: (11x17)

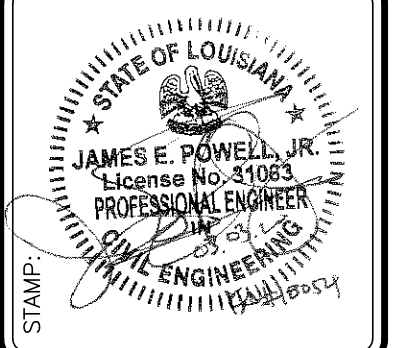
JOB NO: 18054

FAIRGROUNDS PHASE 3
1515 N FLORIDA ST.
COVINGTON, LA

CIVIL DETAILS

REVISIONS

| DATE | REMARKS | APP'D | J.E.P. |
|--|-----------------------------------|-------|--------|
| 03.03.20 <td>ISSUE FOR BID <td></td> <td></td> </td> | ISSUE FOR BID <td></td> <td></td> | | |
| 06.10.20 <td>ADDENDUM #2 <td></td> <td></td> </td> | ADDENDUM #2 <td></td> <td></td> | | |



Kyle Associates, LLC
Planning, Engineering, and Landscape Architecture
638 Village Lane N., Mandeville, LA 70471 • 885.727.0377

SECTION 13120 – METAL BUILDING SYSTEM

PART 1 - GENERAL

1.1 SECTION REQUIREMENTS

- A. Metal Building System Description: Rigid clear span
 - 1. Eave Height: As required to provide height indicated on Drawings
 - 2. Dimensions and Bay Spacing: As indicated on Drawings
 - 3. Roof Slope: 1:12
- B. Structural Performance: Provide metal building systems capable of withstanding the effects of gravity loads and the following loads and stresses within limits and under conditions indicated:
 - 1. Engineer metal building systems according to procedures in MBMA's "Metal Building Systems Manual."
 - 2. Design Loads: As indicated or required by MBMA's "Metal Building Systems Manual"
- C. Wind-Uplift Resistance: Provide metal roof panel assemblies that comply with UL 580 for Class 60.
- D. Submittals: Product Data, Samples, Shop Drawings, and structural analysis data signed and sealed by a qualified professional engineer registered in the state where Project is located.
 - 1. Submit letter of design certification, signed and sealed by a qualified professional engineer. Indicate name and location of Project, name of manufacturer, order number, name of contractor, governing building code and standards including year of edition, design loads and load combinations, building use category, and load importance factors.
- E. Comply with AISC's "Specification for Structural Steel Buildings - Allowable Stress Design, Plastic Design," or AISC's "Load and Resistance Factor Design Specification for Structural Steel Buildings"; and AISI's "Specification for the Design of Cold-Formed Steel Structural Members," or AISI's "Load and Resistance Factor Design Specification for Steel Structural Members."

PART 2 - PRODUCTS

2.1 METAL BUILDINGS

- A. Structural-Framing Materials:
 - 1. Rigid frame, sidewall columns, rafter beams, and canopy beams shall be shop-welded, built-up "I" shapes. Members shall be of constant depth, having base plates, necessary clips, and splice plates for completely field-bolted assembly and attachment of secondary members.
 - 2. Rafter beams and endwall columns shall be either built-up "I" shapes, "WF" shapes, or roll-formed "C" sections as required to satisfy load and span requirements.
 - 3. Purlins and girts shall be roll-formed "Z" or "C" sections of adequate size and

thickness as determined by the design criteria. Purlins and girts shall be either simple-span or continuous members.

4. Eave struts shall be roll-formed or brake-formed "C" sections.
5. Wind bracing shall consist of diagonal cable, rod, or angle bracing. Adjustment to cable braces shall be made by an eyebolt assembly. Adjustment to rod bracing may be by threaded assembly. Angle bracing is not adjustable and may require final field welding.
6. Flange bracing shall consist of angle bracing connected to the web of the purlin or girt and to the compression flange of the primary structural member. Flange braces shall be attached to bar joists via field welding.

B. Roof and Wall Panels:

1. Roof Panels: "R"-Panel shall be precision roll-formed from 26-gage steel Galvalume aluminum-zinc alloy coated steel sheet in accordance with ASTM A-792.
2. Wall Panels:
WP-1: Galvalume steel sheeting shall be aluminum-zinc alloy coated steel sheet in accordance with ASTM A-792. Wall panels for exterior application are to be precision roll-formed from pre-painted Galvalume coils. Design panels for mechanical attachment to structure using exposed fasteners, lapping major ribs at panel edges. Color TBD.
3. Trim and Flashing:
 - a. Color-coated trim and flashing shall be supplied in 26 gauge.
 - b. Trim shall be provided at eave, base, corners, framed openings, and where necessary to insure a properly constructed building.
 - c. All exposed trim and flashing material shall be manufactured from Galvalume, steel strip.
4. Fasteners:
 - a. Panel to structural fastener for all wall panels shall be a No. 12 self-drilling carbon steel screw, hex head, 1-1/4" long. Fastener shall have a painted head to match panel and/or trim color. Panel to panel, stitch fastener for all wall panels shall be a No. 12 self-drilling carbon steel screw, hex head, 7/8" long. Fastener shall have a painted head to match panel and/or trim color.
 - b. Roof panel to secondary structural fastener shall be a No. 12 self-drilling carbon steel screw, hex washer head with sealing washer, 1-1/4" long. Fastener shall have a 20-year corrosion resistant coating. Fastener shall have a painted head to match panel and/or trim color when used with painted material. Panel to panel, flash to flash, (stitch) fastener for roof shall be a No. 12 self-drilling carbon steel screw, hex washer head with sealing washer, 7/8" long. Fastener shall have a 20-year corrosion resistant coating. Fastener shall have a painted head to match panel and/or trim color when used with painted materials.
5. Sealants: Mastic for sidelaps, endlaps and flashing shall be an isobutylene tripolymer rubber pressure sensitive tape mastic. Tape mastic for sidelaps shall be 3/32" thick x 1/2" wide and mastic for endlaps shall be 1/8" thick x 3/4" wide. Tube sealants shall be of the non-hardening elastomeric type. This sealant is to be used at all trim and flashing endlaps.
6. Gutters and Downspouts: Match gutters to profile of gable trim and finish gutters to match roof fascia and rake trim. Finish downspouts to match wall panels.

C. Accessories:

1. Personnel Doors: Steel doors, 1-3/4 inches thick and steel frames, with 2-inch wide faces. Prepare and reinforce doors and frames to receive hardware according to DHI A115 Series.

PART 3 - EXECUTION

3.1 ERECTION

A. Setting Base and Bearing Plates: Clean concrete and masonry of bond-reducing materials and roughen surfaces before setting plates. Clean bottom surface of plates.

1. Set plates for structural members on wedges, shims, or setting nuts.
2. Tighten anchor rods after supported members have been positioned and plumbed.
3. Pack grout solidly between bearing surfaces and plates so no voids remain. Neatly finish exposed surfaces; protect grout and allow to cure.

B. Erect framing true to line, level, plumb, rigid, and secure. Comply with AISC specifications referenced in this Section.

1. Make field connections for primary framing using high-strength bolts installed according to RCSC's "Specification for Structural Joints Using ASTM A 325 or A 490 Bolts," snug tightened or pre-tensioned.
2. Fasten secondary framing to primary framing using clips and non-high-strength bolts. Hold rigidly to a straight line by sagrods.
3. Install joists, girders, and accessories plumb, square, and true to line; securely fasten to supporting construction according to SJI's "Standard Specifications, Load Tables, and Weight Tables for Steel Joists and JoistGirders."
4. Bracing: Install bracing in roof and sidewalls where indicated on erection drawings.
5. Framing for Openings: Provide shapes of proper design and size to reinforce openings and to carry loads and vibrations imposed, including equipment furnished under mechanical and electrical work. Securely attach to structural framing.

C. Roof Panel Installation: Provide roof panels of full length from eave to ridge when possible.

1. Install screws with power tools having controlled torque to compress neoprene washer without damage to washer, screw threads, or panels. Install screws in predrilled holes.
2. Use aluminum or stainless-steel fasteners for exterior and galvanized fasteners for interior.
3. Locate panel splices over, but not attached to, structural supports; stagger panel splices.
4. Standing-Seam Roof Panels: Fasten to purlins with concealed clips at each standing-seam joint. Install clips over top of insulation. Crimp standing seams with manufacturer-approved motorized seamer tool. Rigidly fasten eave end of metal roof panels and allow ridge end free movement due to thermal expansion and contraction.
5. Lap-Seam Roof Panels: Fasten to purlins with exposed fasteners at each lapped joint. Arrange and nest side-lap joints so prevailing winds blow over, not into, lapped joints. Apply a continuous ribbon of sealant tape to weather-side surface of fastenings on lap seams. At splices, lap panels 6 inches (150 mm), seal with butyl sealant and fasten together with interlocking clamping plates.

- D. Wall Panel Installation: Provide panels full height of building unless otherwise indicated.
1. Arrange and nest side-lap joints so prevailing winds blow over, not into, lapped joints.
 2. When 2 rows of panels are required, lap panels 4 inches minimum. Locate panel splices over structural supports.
 3. Rigidly fasten base end of metal wall panels and allow eave end free movement due to thermal expansion and contraction. Pre-drill panels.
 4. Apply elastomeric sealant continuously between base of metal panel and concrete, and elsewhere as necessary for waterproofing.
 5. Apply a continuous ribbon of sealant tape to weather-side surface of fastenings on lap seams.
 6. Install screws with power tools having controlled torque to compress neoprene washer without damage to washer, screw threads, or panels. Install screws in predrilled holes.
 7. Use aluminum or stainless-steel fasteners for exterior and galvanized fasteners for interior.
- E. Insulation Installation: Install insulation concurrently with panel installation. Set vapor-retarder-faced units with vapor retarder to warm side of construction. Tape joints and ruptures in vapor retarder, and seal each continuous area of insulation to surrounding construction to ensure airtight installation.
1. Over-Framing Installation: Extend over and perpendicular to top flange of secondary framing members. Hold in place by panels fastened to secondary framing.
 2. Between-Purlin Installation: Extend between purlins. Carry facing up and over purlin, overlapping adjoining facing. Hold in place with bands and crossbands below insulation.
 3. Over-Purlin-with-Spacer-Block Installation: Extend over and perpendicular to top flange of secondary framing members. Install layer of unfaced insulation over first layer to fill space formed by roof panel standoffs. Hold in place by panels fastened to standoffs.
 4. Two-Layers-between-Purlin-with-Spacer-Block Installation: Extend between purlins. Carry facing up and over purlin, overlapping adjoining facing. Install layer of unfaced insulation over first layer to fill space between purlins formed by thermal spacer blocks. Hold in place with bands and crossbands below insulation.
- F. Accessory Installation:
1. Seal perimeter of door and window frames with elastomeric sealant used for panels.
 2. Install personnel doors and frames straight, level, and plumb. Securely anchor frames to building structure.
 3. Install windows level, plumb, and true to line, without warp or rack, anchored securely in place. Set sill members in a bed of sealant and seal perimeter of each unit.
 4. Pipe Flashing: Form flashing around pipe penetrations. Fasten and seal to panels.
 5. Adjust and check each operating item of hardware to ensure proper operation and function. Replace units that cannot be adjusted to operate freely and smoothly.
- G. Gutters, Downspouts, Flashing, and Trim Installation: Comply with SMACNA's "Architectural Sheet Metal Manual." Provide for thermal expansion; conceal fasteners where possible, and set units true to line and level. Install work with laps and seams that will be permanently watertight.

END OF SECTION 13120

GEOTECHNICAL INVESTIGATION REPORT

**FAIRGROUNDS IN COVINGTON
PROPOSED EXPANSION
1304 N. COLUMBIA ST.
COVINGTON, LOUISIANA**

FOR

**KYLE ASSOCIATES, LLC
MANDEVILLE, LA**

GULF SOUTH ENGINEERING AND TESTING FILE NO. 14-003

February 5, 2014



2201 Aberdeen Street, Suite B, Kenner, LA 70062

PN: 504.305.4401 FN: 504.305.4408 E-mail: info@gulfsoutheng.com



2201 Aberdeen Street, Suite B, Kenner, LA 70062

PN: 504.305.4401 FN: 504.305.4408 E-mail: info@gulfsoutheng.com

February 5, 2014

Kyle Associates, LLC
638 Village Lane North
Covington, LA 70471

Attention: Mr. Franklin Kyle
PN: (985) 727-9377
E-mail: fkyle@kyleassociates.net

Re:
Geotechnical Investigation Report
Fairgrounds in Covington
Proposed Expansion
Covington, LA
Gulf South Engineering & Testing File No. 14-003

Dear Franklin,

Please find attached our geotechnical investigation report that was completed for the referenced project. We appreciate the opportunity to serve your geotechnical needs. Please contact us should you have any questions.

Sincerely,
GULF SOUTH ENGINEERING AND TESTING, INC.

CHAD M. POCHÉ, P.E.
Principal/Vice President

TABLE OF CONTENTS

Page No.

| | |
|---|---|
| 1.0 INTRODUCTION & LIMITATIONS | 1 |
| 2.0 SOIL BORINGS | 2 |
| 3.0 LABORATORY TESTING | 3 |
| 4.0 SUBSOIL CONDITIONS | 3 |
| 4.1 Subsoil Description | 3 |
| 4.2 Groundwater..... | 3 |
| 5.0 FURNISHED INFORMATION AND FOUNDATION RECOMMENDATIONS | 4 |
| 6.0 SHALLOW FOUNDATIONS | 5 |
| 6.1 Allowable Soil Bearing Capacities | 5 |
| 6.2 Estimated Settlement..... | 5 |
| 6.3 Site Preparation & Fill Materials..... | 6 |
| 6.4 Fill Placement and Compaction | 7 |
| 6.5 Vibrations..... | 7 |
| 7.0 CLOSING | 7 |

FIGURE - 1

APPENDIX – Boring Logs

GEOTECHNICAL INVESTIGATION REPORT

**FAIRGROUNDS IN COVINGTON
PROPOSED EXPANSION
1304 N. COLUMBIA ST.
COVINGTON, LOUISIANA**

GULF SOUTH ENGINEERING AND TESTING FILE NO. 14-003

1.0 INTRODUCTION & LIMITATIONS

This report contains the results of a geotechnical investigation made at the subject site. Instructions to proceed with the investigation were received from Kyle Associates (Client) via approval of our proposal dated January 15, 2014.

The study included the drilling of five (5) soil test borings and the performance of soil mechanics laboratory tests to evaluate the soil's physical characteristics. Engineering analyses were made and based on the field and laboratory test data to develop recommendations for the project.

The analyses and recommendations presented in this report are based on the provided project information and the results of the investigation. While it is not likely that conditions will differ significantly from those observed during the field investigation it is always possible that variations can occur away from the borehole location(s).

If it becomes apparent during construction that subsurface conditions differing significantly from those observed in our boring(s) are being encountered, Gulf South should be notified at once. Also, should the nature of the project change or should any of the stated assumptions be inaccurate, the recommendations provided in this report should be re-evaluated.

KYLE ASSOCIATES, LLC

This report has been prepared for the exclusive use of our Client. The recommendations provided in this report are site specific and are not intended for use at any other site or for any other project. This report provides recommendations for design and construction and should not be used as construction specifications.

Gulf South considers the materials testing and onsite inspection during construction an extension of our geotechnical investigation and a key component to ensuring the recommendations provided in this report are followed. For this type of project, these services may consist of earthwork testing and monitoring, concrete testing and inspection, vibration monitoring, and steel inspection. Gulf South should be retained to provide the construction inspection services for this project.

2.0 SOIL BORINGS

Five (5) undisturbed sample type soil borings (Borings B-1 through B-5) were each drilled to a depth of 20 feet below the ground surface on January 24, 2014. The borings were made with a truck mounted drill rig at the designated location as approximately shown on Figure 1.

Undisturbed sampling was performed continuously or on approximate 5 foot centers in all cohesive or semi-cohesive materials with a three inch diameter thin wall tube sampler. The samples were extruded in the field, representative portions of each sample were trimmed and placed in moisture proof containers, the samples were properly labeled, and then secured for transport to the laboratory.

KYLE ASSOCIATES, LLC

When cohesionless material was encountered or when soils could not be adequately sampled by undisturbed methods, the Standard Penetration Test was performed. This test consists of driving a two inch diameter split spoon sampler a total of approximately 18 inches with a 140 lb. hammer falling 30 inches. The number of blows required to drive the sampler per 6 inch increment is recorded and gives an indication of the density of the material. The blows per foot shown on the boring log are the total of the blow counts for the final 12 inches of penetration.

3.0 LABORATORY TESTING

Soil mechanics laboratory tests were performed on samples obtained from the borings. The testing consisted of natural moisture content, unit weight, and unconfined compression (strength testing). The results of the laboratory tests are shown on the soil boring logs provided in the Appendix of this report.

4.0 SUBSOIL CONDITIONS

4.1 Subsoil Description

Reference to the borings shows there is medium stiff sandy clay and sand from the ground surface to the approximate 2 foot depth. Soft to very stiff silty clay and clay were encountered below this depth to the borings' termination depth of 20 feet.

4.2 Groundwater

At the time of making the borings, groundwater was initially encountered at the approximate 2.5 to 11.5 foot depths below the ground surface. After a short waiting period, approximately 15 minutes, no or very little rise was detected in the groundwater level.

KYLE ASSOCIATES, LLC

Groundwater can fluctuate with seasonal precipitation, drainage, and prolonged drought. If the depth to groundwater is important to construction, it should be measured at that time.

5.0 FURNISHED INFORMATION AND FOUNDATION RECOMMENDATIONS

Furnished information indicates the construction of several open air buildings/pavilions are planned at the existing Fairgrounds in Covington facility (1304 N. Columbia St.) in Covington, LA. Design structural loads were not provided but are expected to be typical for these types of structures.

The near surface silty clay and clay soils encountered in the borings appear adequate for support of the proposed structures using shallow foundations. The footings should be placed to bear at a minimum depth of 2 feet below the ground surface.

Structural analyses and the structural adequacy of the foundations are outside our scope of work for the project. Utilities to and from the structure should be attached to the slab using suitable hangers and flexible connections.

Should the values provided in this report for bearing and settlement not be tolerable, deep foundation support should be used for support. Deep foundations may consist of driven treated timber piles or drilled, cast in place, concrete shafts and should be used for support of all structural loads, including floor slabs. Deep foundation can be provided if needed.

Preliminary laboratory test results indicate the near surface soils at the site have slight shrink/swell potential. Care should be taken during and after construction to limit activities that could affect moisture within the soils below and around the foundations. By precluding surface waters from saturating the soils, the resulting volumetric movements will be minimized. In this regard, good roof and surface drainage should be assured with positive collection and runoff of these waters.

6.0 SHALLOW FOUNDATIONS

6.1 Allowable Soil Bearing Capacities

We estimate allowable soil bearing capacities of 1,300 lbs. per sq. ft. (psf) and 1,500 psf are available for design of shallow strip or square footings, respectively. These allowable soil bearing capacities assume the footings are seated in firm soils as described and encountered in our borings.

Foundation excavations should be thoroughly inspected to assure that the footings are seated in firm and well drained soil. The allowable soil bearing capacities contain a factor of safety of at least 3.0 against failure but do not preclude settlements, as will be discussed.

6.2 Estimated Settlement

Settlement analyses were made using applied pressures equal to 100% of the allowable soil bearing values. Long-term settlement of square footings no larger than 6 feet in width and strip footings no wider than 3 feet in width is estimated to be on the order of ½ to 1 inch. Settlement will increase with the size of the footing and/or loading and if larger footings are needed for support, revised settlement analyses should be made.

Long term consolidation settlement at the center of an approximate 60 ft. by 60 ft. flexible slab is estimated to be on the order of ½ to 1 inch using a uniform loading of up to 200 psf. The estimated settlement should occur over most of the loaded area while the edge settlements should be approximately one-half (1/2) of the center settlement and may only occur over a limited range near the perimeter. Slab settlement should be added to the estimates calculated for footings if footings are used in conjunction with the slab.

KYLE ASSOCIATES, LLC

In view of the magnitude of the estimated settlement and to bridge any undetected soft or loose areas, good rigidity should be assured in the foundations to minimize the effects of differential settlements. This may be accomplished by using a post tensioned slab, a ribbed or waffle type slab, etc. The provided settlement estimates for a flexible slab can be reduced by 15% if a rigid slab is used. Adequate steel reinforcement should be designed and included within the foundations. If the estimated settlements for shallow footings are considered prohibitive, driven piles or drilled shafts should be used for support of the structure.

6.3 Site Preparation & Fill Materials

Prior to construction, the foundation area should be stripped of all vegetation, debris, soft or loose surface soils, deleterious materials, etc., and should be well drained. Subsequent to stripping, the foundation areas should be proof rolled using a heavy wheeled vehicle.

Any “soft” soils noted during the proof rolling or observed within excavations should be removed to a depth where stiffer soils are encountered or to a minimum depth of 2 feet. Excavated soils should be replaced with controlled-compacted structural fill. If fill is needed, the area should be brought to grade using a clean, select, fill material free from debris or organic matter.

A cohesionless soil described as clean sand with less than 10% passing the U.S. No. 200 Sieve may be used for fill. Alternatively, a lean, silty or sandy clay (CL - USCS Classification) may be used for fill. The clay fill should have a Liquid Limit of less than 40 and a Plasticity Index (PI) of less than 20.

6.4 Fill Placement and Compaction

Fill should be placed in 10 to 12 inch loose lifts. Minimum compaction criteria of a dry density at least equal to 95% of its maximum, as determined by the Standard Proctor compaction test (ASTM D698), should be used for fill that will support foundations.

6.5 Vibrations

Vibrations due to construction should be expected and monitored. In general, vibrations should be limited to about 0.25 inch/sec. (average peak particle velocity) at all existing nearby sensitive structures. Construction should be stopped if peak values exceed about 0.5 in./sec.

7.0 CLOSING

Gulf South is available to answer any questions you may have concerning this report. Should additional analyses be required or requested, additional fees may be necessary.

As previously discussed, Gulf South considers the materials testing and onsite inspection during construction an extension of our geotechnical investigation. Gulf South should be retained to provide the construction inspection services.

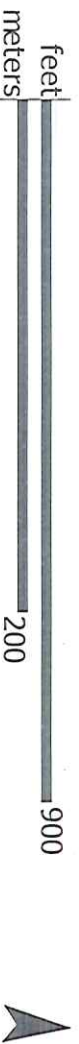
We appreciate the opportunity to provide this report and look forward to working with you again in the future.

GULF SOUTH ENGINEERING AND TESTING, INC.



CHAD M. POCHÉ, P.E.
Principal/Vice President





Gulf South File 14-003



**Fairgrounds in
Covington -**

**Proposed Expansion
1304 N. Columbia St
Covington, LA**

For

**Kyle Associates, LLC
Mandeville, LA**

BORING PLAN

Figure No. 1

APPENDIX

(BORING LOGS)





Boring No. B-1

Project: Fairgrounds in Covington
 Proposed Expansion
 1304 N. Columbia St
 Covington, LA
Client: Kyle Associates, LLC
 Mandeville, LA

GSE&T File No.: 14-003
Date: 1/24/2014
Technician: T.Binder III
Rig Type: Truck
Page: 1 of 1

| Depth (Feet) | Sample # | (Field Test) PP/SPT | Comp. Strength (tsf) | Water Content (%) | Wet Density (pcf) | LL (%) | PI (%) | % Passing #200 Sv | Termination | Description of Stratum |
|--------------|----------|---------------------|----------------------|-------------------|-------------------|--------|--------|-------------------|-------------|---|
| 0 | | n/a | | 10.5 | | | | | | Brown SAND (SP) with roots |
| 5 | | 1.50 (PP) | 0.868 | 23.0 | 127 | 37 | 17 | | | Medium Stiff to Stiff light gray SANDY CLAY (CL) |
| | | 1.50 (PP) | | 19.4 | | | | | | |
| | | 2.00 (PP) | 1.506 | 18.5 | 132 | | | | | Medium Stiff light gray SANDY CLAY (CL) |
| | | 2.50 (PP) | | 20.2 | | | | | | |
| | | 4.50 (PP) | | | | | | | | Medium Stiff light gray CLAY (CH) with sand pockets |
| | | 1.00 (PP) | 0.643 | 48.2 | 113 | | | | | |
| | | 0.75 (PP) | | | | | | | | Soft light gray SANDY CLAY (CL) with trace silt |
| | | 3.00 (PP) | | 18.0 | | | | | | |
| | | 2.00 (PP) | 0.318 | 21.1 | 127 | | | | | Boring completed at 20 feet below ground surface |
| | | | | | | | | | | |
| 20 | | | | | | | | | | |
| 25 | | | | | | | | | | |
| 30 | | | | | | | | | | |
| 35 | | | | | | | | | | |
| 40 | | | | | | | | | | |

Sample Legend:

-  Core (Shelby Tube)
-  Standard Penetration (SPT)
-  No Recovery
-  Auger Sample

Comments/Notes:

- Borehole backfilled per LA DOTD & LA DEQ requirements upon completion
- Dry Auger Depths = 0-20 ft.
- Rotary Wash Depths = n/a
- Water depth (initial) = 11.5 ft.. Rise to 7 ft.. after 15 minutes.



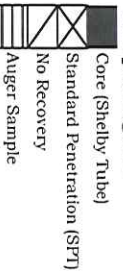
Boring No. B-2

Project: Fairgrounds in Covington
 Proposed Expansion
 1304 N. Columbia St
Location: Covington, LA
Client: Kyle Associates, LLC
 Mandeville, LA

GSE&T File No.: 14-003
Date: 1/24/2014
Technician: T.Binder III
Rig Type: Truck
Page: 1 of 1

| Depth (feet) | Sample # | (Field Test) PP/SPT | Comp. Strength (tsf) | Water Content (%) | Wet Density (pcf) | LL (%) | PI (%) | % Passing #200 Sv | Termination | Description of Stratum |
|--------------|----------|---------------------|----------------------|-------------------|-------------------|--------|--------|-------------------|-------------|---|
| 0 | | 3.00 (PP) | 0.907 | 15.6 | 133 | | | | | Coord: 30° 29' 29.2" N; 90° 5' 52.7" W |
| | | 0.25 (PP) | | 21.6 | | 23 | 6 | | | Medium Stiff light gray and tan SILTY CLAY (CL-MI) with sand |
| | | 0.75 (PP) | 0.920 | 24.3 | 127 | | | | | |
| | | 2.00 (PP) | | | | | | | | Stiff to Very Stiff light gray SANDY CLAY (CL) with trace silt |
| | | 4.00 (PP) | | 18.6 | | | | | | Tan CLAYEY SAND (SC) |
| | | 1.50 (PP) | | 15.3 | 130 | | | | | |
| | | 1.25 (PP) | | 40.4 | | | | | | Light gray CLAY (CH) |
| | | 1.25 (PP) | | 15.8 | | | | | | Medium Stiff gray SANDY CLAY (CL) with silt pockets |
| | | n/a | | 18.7 | | | | | | Medium Stiff light gray and tan SANDY CLAY (CL) with trace silt |
| | | 3.00 (PP) | 0.693 | 18.8 | 124 | | | | | |
| | | | | | | | | | | Boring completed at 20 feet below ground surface |
| 20 | | | | | | | | | | |
| 25 | | | | | | | | | | |
| 30 | | | | | | | | | | |
| 35 | | | | | | | | | | |
| 40 | | | | | | | | | | |

Sample Legend:



Comments/Notes:

- Borehole backfilled per LA DOTD & LA DEQ requirements upon completion
- Dry Auger Depths = 0-20 ft.
- Rotary Wash Depths = n/a
- Water depth (initial) = 2.5 ft.







Boring No. B-3

Project: Fairgrounds in Covington
 Proposed Expansion
 1304 N. Columbia St
 Location: Covington, LA
 Client: Kyle Associates, LLC
 Mandeville, LA

GSE&T File No.: 14-003
 Date: 1/24/2014
 Technician: T. Binder III
 Rig Type: Truck
 Page: 1 of 1

| Depth (Feet) | Sample | (Field Test) PP/SPR | Comp. Strength (ksf) | Water Content (%) | Wet Density (pcf) | LL (%) | PI (%) | % Passing #200 Sv | Test | Description of Stratum |
|--------------|--------|---------------------|----------------------|-------------------|-------------------|--------|--------|-------------------|------|--|
| 0 | | n/a | | 84.0 | | | | | 1 | Coord: 30° 29' 28.3" N; 90° 5' 51.4" W Brown CLAY (CH) with roots, gravel, shells |
| | | n/a | | 20.3 | | | | | 2 | Light gray and tan CLAY (CH) with trace sand |
| 5 | | 4.50+ (PP) | 2.462 | 14.8 | 124 | | | | 3 | Very Stiff light gray SANDY CLAY (CL) with sand pockets |
| | | 2.50 (PP) | 2.263 | 16.6 | 126 | | | | 4 | |
| | | 1.50 (PP) | | 47.4 | | | | | 5 | Light Gray CLAY (CH) |
| | | 1.75 (PP) | | | | | | | 6 | |
| | | 1.50 (PP) | 0.753 | 20.0 | 135 | | | | 7 | Medium Stiff light gray SILTY CLAY (CL) with sand with sand pockets |
| | | 1.25 (PP) | | 17.4 | | | | | 8 | |
| | | 3.25 (PP) | | | | | | | 9 | Stiff to Very Stiff light gray CLAY (CH) with sand |
| 20 | | | | | | | | | 10 | Boring completed at 20 feet below ground surface |
| 25 | | | | | | | | | 11 | |
| 30 | | | | | | | | | 12 | |
| 35 | | | | | | | | | 13 | |
| 40 | | | | | | | | | 14 | |

Sample Legend:

-  Core (Shelby Tube)
-  Standard Penetration (SP)
-  No Recovery
-  Auger Sample

Comments/Notes:

- Borehole backfilled per LA DOTD & LA DEQ requirements upon completion
- Dry Auger Depths = 0-20 ft.
- Rotary Wash Depths = n/a
- Water depth (initial) = n/a







Boring No. B-4

Project: Fairgrounds in Covington
 Proposed Expansion
 1304 N. Columbia St
 Covington, LA
Client: Kyle Associates, LLC
 Mandeville, LA

GSE&T File No.: 14-003
Date: 1/24/2014
Technician: T. Binder III
Rig Type: Truck
Page: 1 of 1

| Depth (Feet) | Sample | (Field Test) PP/SPT | Comp. Strength (tsf) | Water Content (%) | Wet Density (pcf) | LL (%) | PI (%) | % Passing #200 Sv | Termination | Description of Stratum |
|-----------------|--------|---------------------|----------------------|-------------------|-------------------|--------|--------|-------------------|-------------|---|
| 0 | | n/a | | 17.1 | | | | | | Gray SILTY CLAY (CL) with sand |
| 1.00 | | (PP) | 0.937 | 26.8 | 122 | 54 | 31 | | | Medium Stiff light gray and tan CLAY (CH) with sand pockets |
| 2.00 | | (PP) | 1.769 | 20.6 | 129 | | | | | Stiff light gray and tan SILTY CLAY (CL) with sand pockets |
| 3.00 | | (PP) | | | | | | | | |
| 0.75 | | (PP) | 0.426 | 22.6 | 126 | | | | | Soft light gray SANDY CLAY (CL) with sand pockets |
| 0.75 | | (PP) | | 17.5 | 127 | | | | | |
| 1.75 | | (PP) | 0.640 | 42.4 | 113 | | | | | Medium Stiff light gray CLAY (CH) |
| n/a | | | | 17.2 | | | | | | Stiff to Very Stiff brown SANDY CLAY (CL) |
| 15 b/f (9-7-8) | | | | 14.9 | | | | | | with silt |
| 15 b/f (10-8-7) | | | | 19.3 | | | | | | |
| | | | | | | | | | | Boring completed at 20 feet below ground surface |
| 20 | | | | | | | | | | |
| 25 | | | | | | | | | | |
| 30 | | | | | | | | | | |
| 35 | | | | | | | | | | |
| 40 | | | | | | | | | | |

Sample Legend:

-  Core (Shelby Tube)
-  Standard Penetration (SPT)
-  No Recovery
-  Auger Sample

Comments/Notes:

- Borehole backfilled per LA DOTD & LA DEQ requirements upon completion
- Dry Auger Depths = 0-20 ft.
- Rotary Wash Depths = n/a
- Water depth (initial) = n/a



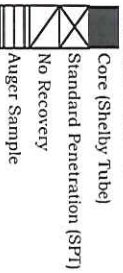
Boring No. B-5

Project: Fairgrounds in Covington
 Proposed Expansion
 1304 N. Columbia St
Location: Covington, LA
Client: Kyle Associates, LLC
 Mandeville, LA

GSE&T File No.: 14-003
Date: 1/24/2014
Technician: T.Binder III
Rig Type: Truck
Page: 1 of 1

| Depth (feet) | Sample | (Field Test) PP/SPT | Comp. Strength (tsf) | Water Content (%) | Wet Density (pcf) | LL (%) | PI (%) | % Passing #200 Sv | Termination | Description of Stratum |
|--------------|--------|---------------------|----------------------|-------------------|-------------------|--------|--------|-------------------|-------------|---|
| 0 | | n/a | | 16.0 | | | | | | Brown SANDY CLAY (CL) with silt |
| 1.00 (PP) | | | 0.831 | 21.7 | 125 | | | | | Medium Stiff light gray and tan SILTY CLAY (CL) with sand |
| 2.75 (PP) | | | 0.932 | 21.9 | 127 | | | | | |
| 4.50+(PP) | | | | | | | | | | Medium Stiff gray CLAY (CH) with sand pockets with silt |
| 1.75 (PP) | | | 0.973 | 44.3 | 111 | | | | | |
| 0.75 (PP) | | | 0.652 | 37.0 | 115 | | | | | |
| 1.50 (PP) | | | 0.716 | 21.9 | 137 | | | | | Very Stiff gray CLAY (CH) with silt |
| 2.50 (PP) | | | 2.483 | 17.9 | 126 | | | | | |
| 20 | | | | | | | | | | Boring completed at 20 feet below ground surface |
| 25 | | | | | | | | | | |
| 30 | | | | | | | | | | |
| 35 | | | | | | | | | | |
| 40 | | | | | | | | | | |

Sample Legend:



Comments/Notes:

- Borehole backfilled per LA DOTD & LA DEQ requirements upon completion
- Dry Auger Depths = 0-20 ft.
- Rotary Wash Depths = n/a
- Water depth (initial) = 4.75 ft.



SOIL BORING LOG - DESCRIPTION OF TERMS AND SYMBOLS

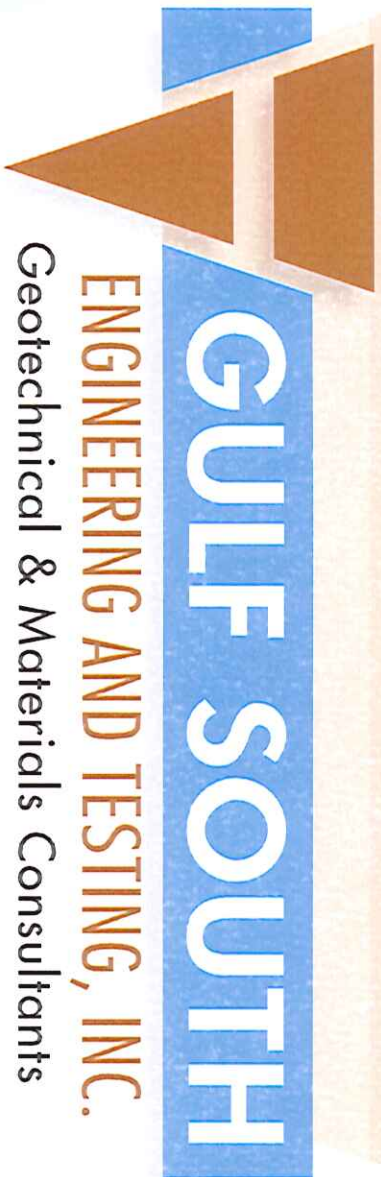
| Depth (feet) | Sample | Field Test (PP or SPT) | Comp. Strength (ksf) | Water Content (%) | Wet Density (pcf) | Atterberg Limits (LL %) | Atterberg Limits (PI %) | Type | Description of Stratum |
|--------------|--------|------------------------|--|-------------------|-------------------|-------------------------|-------------------------|------|--|
| 0 | | | | | | | | | <p style="text-align: center;">Description of Stratum</p> <p>Field Test (PP or SPT): Pocket penetrometer (PP) results in tsf or standard penetration test (SPT) results</p> <p>Comp. Strength: Value based on peak strength in tsf determined by an unconfined compressive strength test unless noted otherwise</p> <p>Water Content (%): As determined in general accordance with ASTM D2216</p> <p>Wet Density (PCF): As determined in general accordance with ASTM D2937</p> <p>Atterberg Limits (LL and PI): Atterberg limits as determined in general accordance with ASTM D3118. LL = Liquid Limit; PI = Plasticity Index (LL-PI)</p> <p>Description of Stratum: Classifications are based on visual observations and laboratory test results (where available) as well as judgment by a geotechnical engineer (where appropriate)</p> <p>Type: Misc. Fill - limestone, bricks, broken concrete, etc.</p> <p>Type: USCS Classification - High plasticity clay (CH)</p> <p>Type: USCS Classification - Low plasticity clay (CL)</p> <p>Type: USCS Classification - Low or high plasticity silt (ML or MH)</p> <p>Type: USCS Classification - Silty or clayey sand or gravel, well graded or poorly graded sand or gravel (SM, SC, SW, SP, GM, GC, GW, GP)</p> <p>Type: USCS Classification - Organic clay or silt, peat (OL, OH, PL) or Wood</p> |
| 5 | | -- Core (Shelby Tube) | | | | | | | |
| 10 | | 15 b/f (7-6-9) | Standard Penetration Test (SPT): No. of blows per last foot of driving (blows per six inch increments) or PSS = Pushed Split Spoon | | | | | | |
| 10 | | -- No Recovery | | | | | | | |
| 15 | | -- Auger Sample | | | | | | | |
| 20 | | | | | | | | | |
| 25 | | | | | | | | | |
| 30 | | | | | | | | | |
| 35 | | | | | | | | | |
| 40 | | | | | | | | | |

Sample Legend:

- Core (Shelby Tube)
- Standard Penetration Test (SPT)
- No Recovery
- Auger Sample

Comments/Notes:

General notes or comments regarding boring and data



ENGINEERING AND TESTING, INC.

Geotechnical & Materials Consultants

2201 Aberdeen Street, Suite B • Kenner LA 70062

504-305-4401 / 504-305-4408 fax / gulfsoutheng.com



ST. TAMMANY PARISH

MICHAEL B. COOPER
PARISH PRESIDENT

May 28, 2020

Please find the following addendum to the below mentioned BID.

Addendum No.: 1

Bid#: 20-7-2

Project Name: Fairgrounds Phase 3

Bid Due Date: June 24, 2020

GENERAL INFORMATION:

A non-mandatory pre-bid will be held on Wednesday, June 3, 2020 @ 10:00 AM on site at the Fairgrounds 1304 N. Columbia St., Covington, LA 70433. Please meet under the big barn promptly at 10:00 AM.

End of Addendum # 1

BID PROPOSAL

ST. TAMMANY PARISH
GOVERNMENT



BID PACKAGE FOR
FAIRGROUNDS PHASE 3

BID NO.: 20-7-2

March 3, 2020

Section 01

Table of Contents

| | |
|------------|--|
| Section 01 | Table of Contents |
| Section 02 | Notice to Bidders & Instructions to Bidders |
| Section 03 | Summary of Work |
| Section 04 | LA Uniform Public Work Bid Form |
| Section 05 | Affidavits, Louisiana (Pursuant to LSA-R.S. 38:2224, 38:2227 and 38:2212.10) |
| Section 06 | Insurance Requirements |
| Section 07 | Project Sign |
| Section 08 | General Conditions |
| Section 09 | Section 01200 – Project Meetings |
| Section 10 | Section 01410 – Testing Laboratory Services |
| Section 11 | Section 03300 – Cast-in-Place Concrete |
| Section 12 | Section 04220 – Concrete Masonry Units |
| Section 13 | Section 05310 – Steel Decking |
| Section 14 | Section 05400 – Cold Formed Metal Framing |
| Section 15 | Section 06100 – Rough & Finished Carpentry |
| Section 16 | Section 07920 – Joint Sealants |
| Section 17 | Section 08113 – Steel Doors and Frames |
| Section 18 | Section 08331 – Overhead Coiling Doors |
| Section 19 | Section 08510 – Steel Windows |
| Section 20 | Section 08800 – Glazing |
| Section 21 | Section 09290 – Gypsum Board Section |
| Section 22 | 09511 – Acoustical Panel Ceilings Section 09911 – Painting |
| Section 23 | Section 09972 – Concrete Sealers |
| Section 24 | Section 15010 – Mechanical – General Provisions |
| Section 25 | |

| | |
|------------|--|
| Section 26 | Section 15400 – Mechanical – Plumbing Systems |
| Section 27 | Section 15500 – Mechanical – Fire Protection |
| Section 28 | Section 15600 – Mechanical – Heating, Ventilating and Air Conditioning |
| Section 29 | Section 16010 – Basic Electrical Requirements |
| Section 30 | Section 16100 – Basic Electrical Materials and Methods |
| Section 31 | Section 16400 – Panel Boards |
| Section 32 | Section 16500 – Lighting Fixtures |
| Section 33 | Section 16600 – Fire Alarm |



#

ST. TAMMANY PARISH
MICHAEL B. COOPER
PARISH PRESIDENT

NOTICE TO BIDDERS

Sealed bids will be received by the Department of Procurement, until 2:00 p.m., **Wednesday, June 24, 2020** and then opened and read publicly at that time by the Procurement Staff for the following project:

Bid #20-7-2 – Fairgrounds Phase 3

Each paper bid must be submitted in a sealed envelope. The outside of the envelope shall show the Name and Address of the Bidder, the State Contractor's License Number of the Bidder (if the work is estimated at \$50k or more), the Project Name and the Bid Number.

The project classification is:

Building Construction

Specifications may be obtained from the St. Tammany Parish Government Department of Procurement, 21454 Koop Dr., Suite 2F, Mandeville LA. 70471, no cost or at www.bidexpress.com.

Bids will be received at 21454 Koop Dr., Suite 2F, Mandeville, LA 70471 from each bidder or his agent and given a written receipt, by certified mail with return receipt requested, or electronically at www.bidexpress.com.

Due to the COVID-19 pandemic, and in an effort to help slow the spread of the virus, Openings will take place outside at the "Pavilion" of Building B located at 21454 Koop Drive, Mandeville, La. 70471. Any questions regarding this should be directed to the Department of Procurement via email at purchasing@stpgov.org. Please call the Procurement office at 985-898-2520 and we will meet you at the front entrance of Building B to collect bids and issue a receipt.

Procurement Department

Section 02

Instructions to Bidders

Bidders are urged to promptly review the requirements of this specification and submit questions for resolution as early as possible during the bid period. Questions or concerns must be submitted in writing to the Procurement Department no later than 2:00 CST seven (7) working days prior to the bid opening date. Otherwise, this will be construed as acceptance by the bidders that the intent of the specifications is clear and that competitive bids may be obtained as specified herein. Protests with regard to the specification documents will not be considered after bids are opened.

1. Bid security is required. Be sure that your bid includes such security as is necessary to meet Parish requirements and is properly signed. The bid must be fully completed. All applicable Louisiana license numbers must be affixed.
2. The Owner is the St. Tammany Parish Government (the "Parish").
3. The terms "he/his" and "it/its" may be used interchangeably.
4. The terms "Owner," the "Parish," and "St. Tammany Parish" may be used interchangeably.
5. The successful Bidder understands the limited contract time in the contract is **One Hundred Eighty (180) calendar days**, and shall submit any request for an extension of time in accordance with the General and Supplementary Conditions. Said request will reflect the days requested and the reason for same. No extension request is guaranteed or absolute.
6. Bidder specifically understands that acknowledgment of the General Conditions is required. Bidder specifically understands that signature of receipt of the General Conditions is mandated. **The Bidder's signature on the "Louisiana Uniform Public Work Bid Form" will serve as acknowledgment of the Bidder's receipt and understanding of the General Conditions as well as any Supplementary Conditions.**
7. ***If any additional work is performed by the contractor without written approval by owner, the cost of the work will be borne by the contractor and will not be reimbursed by the Parish.***
8. **Only** the Louisiana Uniform Public Bid Form, the Unit Price Form (if necessary), the bid security, and written evidence of authority of person signing the bid shall be submitted on or before the bid opening time and date provided for in the Bid Documents. Necessary copies of the Louisiana Uniform Public Work Forms and Unit Price Forms (if necessary) will be furnished for Bidding. Bound sets of the Contract Documents are for Bidder's information and should not be used in submitting Bids.
9. All other documents and information required are to be submitted by the low Bidder within ten (10) days after the opening of the bids, and at the same time of day and location as given for the opening of the bids in the Bid Documents.
10. Each Bid must be submitted in a sealed envelope, unless submitted electronically. The outside of the envelope shall show the name and address of the Bidder, the State Contractor's License Number of the Bidder (if work requires contractor's license), and the Project name and the Bid number. In the case of an electronic bid proposal, a contractor may submit an authentic digital signature on the electronic bid proposal accompanied by the contractor's license number, Project name and the Bid number.
11. The price quoted for the Work shall be stated in words and figures on the Bid Form, and in figures only on the Unit Price Form. The price in the Bid shall include all costs necessary for the complete performance of the Work in full conformity with the conditions of the Contract Documents, and shall include all applicable Federal, State, Parish, Municipal or other taxes. The price bid for the items listed on the Unit Price Form will include the cost of all related items not listed, but which are normally required to do the type of Work bid.

12. The Bid shall be signed by the Bidder. The information required on the Louisiana Uniform Public Work Bid Form must be provided. Evidence of agency, corporate, or partnership authority is required and shall be provided in conformance with LSA-R.S. 38:2212(B).
13. Only a Contractor licensed by the State to do the type of Work as indicated on the Notice to Bidders can submit a Bid. The Bidder's signature on the Bid Form certifies that he holds an active license under the provisions of Chapter 24 of Louisiana Revised Statutes Title 37. Failure to be properly licensed constitutes authority for the Owner to reject the Bid.
14. Bidders shall not attach any conditions or provisions to the Bid. Any conditions or provisions so attached may, at the sole option of the Owner, cause rejection of the Bid.
15. A Bid Guarantee of five percent (5%) of the amount of the total Bid, including Alternates, must accompany the Proposal and, at the option of the Bidder, may be a cashier's check, certified check or a satisfactory Bid Bond. The Bid Guarantee must be attached to the Louisiana Uniform Public Work Bid Form. No Bid will be considered unless it is so guaranteed. Cashier's check or certified check must be made payable to the order of the Owner. Cash deposits will not be accepted. The Owner reserves the right to cash or deposit the cashier's check or certified check. Such guarantees shall be made payable to the Parish of St. Tammany. In accordance with LSA-R.S. 38:2218(C), if a bid bond is used, it shall be written by a surety or insurance company currently on the U.S. Department of the Treasury Financial Management Service list of approved bonding companies which is published annually in the Federal Register, or by a Louisiana domiciled insurance company with at least an A- rating in the latest printing of the A.M. Best's Key Rating Guide to write individual bonds up to ten percent of policyholders' surplus as shown in the A.M. Best's Key Rating Guide or by an insurance company in good standing licensed to write bid bonds which is either domiciled in Louisiana or owned by Louisiana residents. It is **not** required to be on any AIA form.
16. Bid securities of the three (3) lowest Bidders will be retained by the Owner until the Contract is executed or until final disposition is made of the Bids submitted. Bid securities of all other Bidders will be returned promptly after the canvas of Bids. Bids shall remain binding for forty-five (45) days after the date set for Bid Opening. The Parish shall act within the forty-five (45) days to award the contract to the lowest responsible bidder or reject all bids. However, the Parish and the lowest responsible bidder, by mutual written consent, may agree to extend the deadline for award by one or more extensions of thirty (30) calendar days. In the event the Owner issued the Letter of Award during this period, or any extension thereof, the Bid accepted shall continue to remain binding until the execution of the Contract.
17. A Proposal may be withdrawn at any time prior to the scheduled closing time for receipt of Bids, provided the request is in writing, executed by the Bidder or its duly authorized representative and is filed with the Owner prior to that time. When such a request is received, the Proposal will be returned to the Bidder unopened. A bid withdrawn under the provisions of LSA-R.S. 38:2214(C) cannot be resubmitted.
18. Written communications, over the signature of the Bidder, to modify Proposals will be accepted and the Proposal corrected in accordance therewith if received by the Owner prior to the scheduled closing time for receipt of Bids. Oral, telephonic or telegraphic Modifications will not be considered.
19. No oral interpretation obligating the Owner will be made to any Bidder as to the meaning of the Drawings, Specifications and Contract Documents. Every request for such an interpretation shall be made in writing and addressed and forwarded to the Owner. Inquiries received within seven (7) days prior to the day fixed for opening of the Bids may not be given consideration. Every interpretation made to the Bidder shall be in the form of an addendum to the Specifications. All such Addenda shall become part of the Contract Documents. Failure of the Owner to send or failure of Bidder to receive any such interpretation shall not relieve any Bidder from any obligation under this Bid as submitted without Modification. All Addenda shall be issued in accordance with the Public Bid Law, LSA-R.S. 38:2212(O).
20. The Owner reserves the right to reject any or all Bids for just cause in accordance with the Public Bid Law, LSA-R.S. 38:2214(B). Incomplete, informal, illegible, or unbalanced Bids may be rejected. Reasonable grounds for belief that any one Bidder is concerned directly or indirectly with more than one Bid will cause rejection of all Bids wherein such Bidder

is concerned. If required, a Bidder shall furnish satisfactory evidence of its competence and ability to perform the Work stipulated in its Proposal. Incompetence will constitute cause for rejection. If the Parish determines that the bidder is not responsive or responsible for any reason whatsoever, the bid may be rejected in accordance with State law.

21. The Contractor shall indemnify and hold harmless the Owner from any and all suits, costs, penalties or claims for infringement by reason of use or installation of any patented design, device, material or process, or any trademark and copyright in connection with the Work agreed to be performed under this Contract, and shall indemnify and hold harmless the Owner for any costs, expenses and damages which it may be obliged to pay by reason of any such infringement at any time during the prosecution or after completion of the Work.
22. Bidders shall familiarize themselves with and shall comply with all applicable Federal and State Laws, municipal ordinances and the rules and regulations of all authorities having jurisdiction over construction of the Project, which may directly or indirectly affect the Work or its prosecution. These laws and/or ordinances will be deemed to be included in the Contract, as though herein written in full.
23. Each Bidder shall visit the site of the proposed Work and fully acquaint itself with all surface and subsurface conditions as they may exist so that it may fully understand this Contract. Bidder shall also thoroughly examine and be familiar with drawings, Specifications and Contract Documents. The failure or omission of any Bidder to receive or examine any form, instrument, Drawing or document or to visit the site and acquaint itself with existing conditions shall in no way relieve any Bidder from any obligation with respect to its Bid and the responsibility in the premises.
24. The standard contract form enclosed with the Proposal documents is a prototype. It is enclosed with the Contract Documents for the guidance of the Owner and the Contractor. It has important legal consequences in all respects and consultation with an attorney is encouraged. Contractor shall be presumed to have consulted with its own independent legal counsel.
25. When one set of Contract plans show the Work to be performed by two or more prime Contractors, it is the responsibility of each Bidder to become knowledgeable of the Work to be performed by the other where the Work upon which this bid is submitted is shown to come into close proximity or in conflict with the Work of the other. In avoiding conflicts, pressure pipe lines must be installed to avoid conflict with gravity pipe lines and the Bidder of the smaller gravity pipe line in conflict with the larger gravity pipe line must include in his Bid the cost of a conflict box at these locations. The location of and a solution to the conflicts do not have to be specifically noted as such on the plans.
26. Bidder shall execute affidavit(s) attesting compliance with LSA-R.S. 38:2212.10, 38:2224, 38:2227, each as amended, and other affidavits as required by law, prior to execution of the contract.
27. Sealed Bids shall be delivered to St. Tammany Parish Government at the office of **St. Tammany Parish Government, Department of Procurement, 21454 Koop Drive, Suite 2-F, Mandeville, LA 70471**, and a receipt given, until the time and date denoted in Notice to Bidders, at which time and place the Bids shall be publicly opened and read aloud to those present. In accordance with LSA-R.S. 38:2212(H), the designer's final estimated cost of construction shall be read aloud upon opening bids. Sealed Bids may also be mailed by certified mail to **St. Tammany Parish Government, Department of Procurement, 21454 Koop Drive, Suite 2-F, Mandeville, LA 70471**, and must be received before the bid opening. Bids may also be submitted electronically. Information concerning links for electronic bidding is contained in the Notice to Bidders. It is the responsibility of the Bidders to insure that bids are delivered in a timely fashion. **Late bids, regardless of reason, will not be considered, and will be returned to bidder.**
28. Paper bids shall be placed in a sealed envelope, marked plainly and prominently as indicated in the Notice to Bidders, and these Instructions, and addressed:

**St. Tammany Parish Government
Department of Procurement
21454 Koop Drive, Suite 2-F
Mandeville, LA 70471**

29. Complete sets of Drawings, Specifications and Contract Documents may be secured at the Office of the Owner. See Notice to Bidders for deposit schedule and availability via electronic methods.
30. The successful Bidder shall be required to post in each direction a public information sign, 4' x 8' in size, at the location of the project containing information required by the Owner. The Owner shall supply this information.
31. The award of the Contract, if it is awarded, will be to the lowest responsible Bidder, in accordance with State Law. No award will be made until the Owner has concluded such investigations as it deems necessary to establish the responsibility, qualifications, and financial ability and stability of the Bidder to do the Work in accordance with the Contract Documents to the satisfaction of the Owner within the time prescribed as established by the Department based upon the amount of work to be performed and the conditions of same. The written contract and bond shall be issued in conformance with LSA-R.S. 38:2216. If the Contract is awarded, the Owner shall give the successful Bidder written notice of the award within forty-five (45) calendar days after the opening of the Bids in conformance with LSA-R.S. 38:2215(A), or any extension as authorized thereunder.
32. At least three days prior to the execution of the Contract, the Contractor shall deliver to the Owner the required Bonds.
33. Failure of the successful Bidder to execute the Contract and deliver the required Bonds within twenty (20) days of the Notice of the Award shall be just cause for the Owner to annul the award and declare the Bid and any guarantee thereof forfeited. Award may then be made to the next lowest responsible bidder.
34. In order to ensure the faithful performance of each and every condition, stipulation and requirement of the Contract and to indemnify and hold harmless the Owner from any and all damages, either directly or indirectly arising out of any failure to perform same, the successful Bidder to whom the Contract is awarded shall furnish a Performance and Payment Bond in an amount of at least equal to one hundred percent (100%) of the Contract Price. The Contract shall not be in force or binding upon the Owner until such satisfactory Bond has been provided to and approved by the Parish. The cost of the Bond shall be paid for by the Contractor unless otherwise stipulated in the Special Provisions.
35. No surety Company will be accepted as a bondsman which has no permanent agent or representative in the State upon whom notices referred to in the General Conditions of these Specifications may be served. Service of said notice on said agent or representative in the State shall be equal to service of notice on the President of the Surety Company, or such other officer as may be concerned.
36. In conformance with LSA-R.S. 38:2219(A)(1)(a), (b), and (c):

Any surety bond written for a public works project shall be written by a surety or insurance company currently on the U.S. Department of the Treasury Financial Management Service list of approved bonding companies which is published annually in the Federal Register, or by a Louisiana domiciled insurance company with at least an A- rating in the latest printing of the A.M. Best's Key Rating Guide, to write individual bonds up to ten percent of policyholders' surplus as shown in the A.M. Best's Key Rating Guide or by an insurance company that is either domiciled in Louisiana or owned by Louisiana residents and is licensed to write surety bonds.

For any public works project, no surety or insurance company shall write a bond which is in excess of the amount indicated as approved by the U.S. Department of the Treasury Financial Management Service list or by a Louisiana domiciled insurance company with an A- rating by A.M. Best up to a limit of ten percent of policyholders' surplus as shown by A.M. Best; companies authorized by this Paragraph who are not on the treasury list shall not write a bond when the penalty exceeds fifteen percent of its capital and surplus, such capital and surplus being the amount by which the company's assets exceed its liabilities as reflected by the most recent financial statements filed by the company with the Department of Insurance.

In addition, any surety bond written for a public works project shall be written by a surety or insurance company that is currently licensed to do business in the state

of Louisiana. All contractors must comply with any other applicable provisions of LSA-R.S. 38:2219.

37. Should the Contractor's Surety, even though approved and accepted by the Owner, subsequently remove its agency or representative from the State or become insolvent, bankrupt, or otherwise fail, the Contractor shall immediately furnish a new Bond in another company approved by the Owner, at no cost to the Owner. The new Bond shall be executed under the same terms and conditions as the original Bond. The new bond shall be submitted within thirty (30) days of such time as the Owner notifies Contractor or from the time Contractor learns or has reason to know that the original surety is no longer financially viable or acceptable to the Parish, whichever occurs first. In the event that Contractor fails or refuses to timely secure additional surety, then the Owner may secure such surety and thereafter deduct such cost or expense from any sum due, or to become due to Contractor.
38. The Contractor's bondsman shall obligate itself to all the terms and covenants of these Specifications and of contracts covering the Work executed hereunder. The Owner reserves the right to do Extra Work or make changes by altering, adding to deducting from the Work under the conditions and in the manner herein before described without notice to the Contractor's surety and without in any manner affecting the liability of bondsman or releasing it from any of its obligations hereunder.
39. The Bond shall also secure for the Owner the faithful performance of the Contract in strict accordance with plans, specifications, and other Contract Documents. It shall protect the Owner against all lien laws of the State and shall provide for payment of reasonable attorney's fees for enforcement of Contract and institution or concursus proceedings, if such proceedings become necessary. Likewise, it shall provide for all additional expenses of the Owner occurring through failure of the Contractor to perform.
40. The surety of the Contractor shall be and does hereby declare and acknowledge itself by acceptance to be bound to the Owner as a guarantor, jointly and in solido, with the Contractor, for fulfillment of terms of the Contract.
41. The performance Bond and Labor and Material Bond forming part of this Contract shall be continued by Contractor and its Surety for a period of one (1) year from date of acceptance of the Work/Project by Owner to assure prompt removal and replacement of all defective material, equipment, components thereof, workmanship, etc., and to assure payment of any damage to property of Owner or others as a result of such defective materials, equipment, workmanship, etc.
42. Contractor shall pay for cost of recording the Contract, Bond, and any change orders required to be recorded, as well as the cost of canceling any of the foregoing. Contractor shall also secure and pay for all Clear Lien and Privilege Certificates (together with any updates) which will be required before any final payment is made, and that may be required before any payment, at the request of the Owner, its representative, agent, architect, engineer and the like. All recordation and Clear Lien and Privilege Certificate requirements shall be in accordance with those requirements noted herein before in contract Specifications.
43. Contractor shall secure and maintain at its expense such insurance that will protect it and the Parish from claims for injuries to persons or damages to property which may arise from or in connection with the performance of Services or Work hereunder by the Contractor, his agents, representatives, employees, and/or subcontractors. The cost of such insurance shall be included in Contractor's bid.
44. The Contractor shall not commence work until it has obtained all insurance as required for the Parish Project. If the Contractor fails to furnish the Parish with the insurance protection required and begins work without first furnishing Parish with a currently dated certificate of insurance, the Parish has the right to obtain the insurance protection required and deduct the cost of insurance from the first payment due the Contractor. Further deductions are permitted from future payments as are needed to protect the interests of the Parish including, but not limited to, renewals of all policies.
45. Payment of Premiums: The insurance companies issuing the policy or policies shall have no recourse against the Parish of St. Tammany for payment of any premiums or for assessments under any form of policy.

46. Deductibles: Any and all deductibles in the described insurance policies shall be assumed by and be at the sole risk of the Contractor.
47. Authorization of Insurance Company(ies) and Rating: All insurance companies must be authorized to do business in the State of Louisiana and shall have an A.M. Best rating of no less than A-, Category VII.
48. Policy coverages and limits must be evidenced by Certificates of Insurance issued by Contractor's carrier to the Parish and shall reflect:

Date of Issue: Certificate must have current date.

Named Insured: The legal name of Contractor under contract with the Parish and its principal place of business shall be shown as the named insured on all Certificates of Liability Insurance.

Name of Certificate Holder: St. Tammany Parish Government, Office of Risk Management, P. O. Box 628, Covington, LA 70434

Project Description: A brief project description, including Project Name, Project Number and/or Contract Number, and Location.

Endorsements and Certificate Reference: All policies must be endorsed to provide, and certificates of insurance must evidence the following:

Waiver of Subrogation: The Contractor's insurers will have no right of recovery or subrogation against the Parish of St. Tammany, it being the intention of the parties that all insurance policy(ies) so affected shall protect both parties and be the primary coverage for any and all losses covered by the below described insurance. *Policy endorsements required for all coverages.*

Additional Insured: The Parish of St. Tammany shall be named as additional named insured with respect to general liability, marine liability, pollution/environmental liability, automobile liability and excess liability coverages. *Policy endorsements required.*

Hold Harmless: Contractor's liability insurers shall evidence their cognizance of the Hold Harmless and Indemnification in favor of St. Tammany Parish Government by referencing same on the face of the Certificate(s) of Insurance.

Cancellation Notice: Producer shall provide thirty (30) days prior written notice to the Parish of policy cancellation or substantive policy change.

49. The types of insurance coverage the Contractor is required to obtain and maintain throughout the duration of the Contract shall be designated by a separate document issued by the Office of Risk Management.
50. It is the intent of these instructions that they are in conformance with State Bid Laws. Should there be any discrepancy or ambiguity in these provisions, the applicable State Bid Law shall apply.
51. The letting of any public contract in connection with funds that are granted or advanced by the United States of America shall be subject to the effect, if any, of related laws of said United States and valid rules and regulations of federal agencies in charge, or governing use and payment of such federal funds.
52. Protests based on alleged solicitation improprieties that are apparent before bid opening, or the time set for receipt of initial proposals must be filed with and received by the Procurement Department BEFORE these times. Any other protest shall be filed no later than ten (10) calendar days after: the opening of the bid; the basis of the protest is known; or the basis of the protest should have been known (whichever is earlier).
53. It is the Parish's policy to provide a method to protest exclusion from a competition or from the award of a contract, or to challenge an alleged solicitation irregularity. It is always

better to seek a resolution within the Parish system before resorting to outside agencies and/or litigation to resolve differences. All protests must be made in writing, and shall be concise and logically presented to facilitate review by the Parish. The written protest shall include:

The protester's name, address, and fax and telephone numbers and the solicitation, bid, or contract number;

A detailed statement of its legal and factual grounds, including a description of the resulting prejudice to the protester;

Copies of relevant documents;

All information establishing that the protester is an interested party and that the protest is timely; and

A request for a ruling by the agency; and a statement of the form of relief requested.

The protest shall be addressed to St. Tammany Parish Government Department of Procurement, P.O. Box 628, Covington, LA 70434

The protest review shall be conducted by the Parish Legal Department.

Only protests from interested parties will be allowed. Protests based on alleged solicitation improprieties that are apparent before bid opening, or the time set for receipt of initial proposals, must be filed with and received by the Department of Procurement BEFORE those deadlines.

Any other protest shall be filed no later than ten (10) calendar days after the basis of the protest is known, or should have been known (whichever is earlier).

The Parish will use its best efforts to resolve the protest within thirty (30) days of the date that it is received by the Parish. The written response will be sent to the protestor via mail and fax, if a fax number has been provided by the protestor. The protester can request additional methods of notification.

54. The last day to submit questions and/or verification on comparable products will be no later than 2:00 pm CST, seven (7) working days prior to the opening date of the bid/proposal due date. Further, any questions or inquires must be submitted via fax to 985-898-5227, or via email to Purchasing@stpgov.org. Any questions or inquiries received after the required deadline to submit questions or inquiries will not be answered.
55. St. Tammany Parish Government contracts to be awarded are dependent on the available funding and/or approval by members designated and/or acknowledged by St. Tammany Parish Government. At any time St. Tammany Parish Government reserves the right to cancel the award of a contract if either or both of these factors is deficient.
56. Any action by the Parish to disqualify any Bidder on the grounds that they are not a responsible Bidder shall be conducted in accordance with LSA-R.S. 38:2212(X).
57. If any part of the provisions contained herein and/or in the Specifications and Contract for the Work shall for any reason be held invalid, illegal or unenforceable in any respect, such invalidity, illegality or unenforceability shall not affect any other provisions of this Agreement or attachment, but it shall be construed as if such invalid, illegal, or unenforceable provision or part of a provision had never been contained herein.

Section 03

Summary of Work

I. Work to Include:

The project shall consist of the construction of a concession building (approx. 2,277 sq ft) as an addition to the existing structure. The building shall include a concession stand, offices, storage, restrooms, parking lot and all associated civil site improvements per the plans and specifications. The project shall also include a covered area (approx. 12,170 sq ft) and a wash-down area.

II. Location of Work:

1515 N. Florida Street, Covington, LA

III. Documents: Bid Documents dated March 3, 2020, and entitled:

FAIRGROUNDS PHASE 3

BID NO. 20-7-2

IV. OTHER REQUIREMENTS (as applicable)

When not otherwise specified herein, all work and materials shall conform to the requirements of the Louisiana Department of Transportation and Development hereafter called LDOTD (2006 Edition of Louisiana Standard Specifications for Roads and Bridges).

Section 04

LOUISIANA UNIFORM PUBLIC WORK BID FORM

TO: St. Tammany Parish Government
21454 Koop Dr., Suite 2F
Mandeville, La 70471

BID FOR: Fairgrounds Phase 3
1515 N. Florida Street, Covington, LA 70433
Bid No.: 20-7-2

(Owner to provide name and address of owner)

(Owner to provide name of project and other identifying information.)

The undersigned bidder hereby declares and represents that she/he; a) has carefully examined and understands the Bidding Documents, b) has not received, relied on, or based his bid on any verbal instructions contrary to the Bidding Documents or any addenda, c) has personally inspected and is familiar with the project site, and hereby proposes to provide all labor, materials, tools, appliances and facilities as required to perform, in a workmanlike manner, all work and services for the construction and completion of the referenced project, all in strict accordance with the Bidding Documents prepared by: Kyle Associates, LLC and dated: March 3, 2020.

(Owner to provide name of entity preparing bidding documents.)

Bidders must acknowledge all addenda. The Bidder acknowledges receipt of the following ADDENDA: (Enter the number the Designer has assigned to each of the addenda that the Bidder is acknowledging)

TOTAL BASE BID: For all work required by the Bidding Documents (including any and all unit prices designated "Base Bid" * but not alternates) the sum of:

Dollars (\$)

ALTERNATES: For any and all work required by the Bidding Documents for Alternates including any and all unit prices designated as alternates in the unit price description.

Alternate No. 1 (Owner to provide description of alternate and state whether add or deduct) for the lump sum of:

N/A Dollars (\$)

Alternate No. 2 (Owner to provide description of alternate and state whether add or deduct) for the lump sum of:

N/A Dollars (\$)

Alternate No. 3 (Owner to provide description of alternate and state whether add or deduct) for the lump sum of:

N/A Dollars (\$)

NAME OF BIDDER:

ADDRESS OF BIDDER:

LOUISIANA CONTRACTOR'S LICENSE NUMBER:

NAME OF AUTHORIZED SIGNATORY OF BIDDER:

TITLE OF AUTHORIZED SIGNATORY OF BIDDER:

SIGNATURE OF AUTHORIZED SIGNATORY OF BIDDER **:

DATE:

THE FOLLOWING ITEMS ARE TO BE INCLUDED WITH THE SUBMISSION OF THIS LOUISIANA UNIFORM PUBLIC WORK BID FORM:

* The Unit Price Form shall be used if the contract includes unit prices. Otherwise it is not required and need not be included with the form. The number of unit prices that may be included is not limited and additional sheets may be included if needed.

** A CORPORATE RESOLUTION OR WRITTEN EVIDENCE of the authority of the person signing the bid for the public work as prescribed by LA R.S. 38:2212(B)(5).

BID SECURITY in the form of a bid bond, certified check or cashier's check as prescribed by LA R.S. 38:2218(A) attached to and made a part of this bid.

Section 05

**AFFIDAVIT PURSUANT TO LSA-R.S. 38:2224 and 38:2227
FOR BIDDERS FOR PUBLIC WORKS CONTRACTS**

STATE OF _____

PARISH/COUNTY OF _____

BEFORE ME, the undersigned authority, in and for the above stated State and Parish (or County), personally came and appeared:

Print Name

who, after first being duly sworn, did depose and state:

1. That affiant is appearing on behalf of _____, who is seeking a public contract with St. Tammany Parish Government.
2. That affiant employed no person, corporation, firm, association, or other organization, either directly or indirectly, to secure the public contract under which he received payment, other than persons regularly employed by the affiant whose services in connection with the construction, alteration or demolition of the public building or project or in securing the public contract were in the regular course of their duties for affiant; and
3. That no part of the contract price received by affiant was paid or will be paid to any person, corporation, firm, association, or other organization for soliciting the contract, other than the payment of their normal compensation to persons regularly employed by the affiant whose services in connection with the construction, alteration or demolition of the public building or project were in the regular course of their duties for affiant.
4. If affiant is a sole proprietor, that after July 2, 2010, he/she has not been convicted of, or has not entered a plea of guilty or *nolo contendere* to any of the crimes or equivalent federal crimes listed in LSA-R.S. 38:2227(B).
5. If affiant is executing this affidavit on behalf of a juridical entity such as a partnership, corporation, or LLC, etc., that no individual partner, incorporator, director, manager, officer, organizer, or member, who has a minimum of a ten percent ownership in the bidding entity, has been convicted of, or has entered a plea of guilty or *nolo contendere* to any

of the crimes or equivalent federal crimes listed in LSA-R.S. 38:2227(B).

6. If affiant is a sole proprietor, that neither affiant, nor his/her immediate family is a public servant of St. Tammany Parish Government or the Contract is not under the supervision or jurisdiction of the public servant's agency.

7. If affiant is executing this affidavit on behalf of a juridical entity such as a partnership, corporation, or LLC, etc., that no public servant of St. Tammany Parish Government, or his/her immediate family, either individually or collectively, has more than a 25% ownership interest in the entity seeking the Contract with St. Tammany Parish Government if the Contract will be under the supervision or jurisdiction of the public servant's agency.

Printed Name: _____
Title: _____
Entity name: _____

THUS SWORN TO AND SUBSCRIBED BEFORE ME,
THIS _____, DAY OF _____, 202__.

Notary Public
Print Name: _____
Notary I.D./Bar No.: _____
My commission expires: _____

**AFFIDAVIT PURSUANT TO LSA-R.S. 38:2212.10 CONFIRMING
REGISTRATION AND PARTICIPATION IN A STATUS VERIFICATION
SYSTEM**

STATE OF _____

PARISH/COUNTY OF _____

BEFORE ME, the undersigned authority, in and for the above stated State and Parish (or County), personally came and appeared:

Print Name

who, after first being duly sworn, did depose and state:

1. That affiant is appearing on behalf of _____, a private employer seeking a bid or a contract with St. Tammany Parish Government for the physical performance of services within the State of Louisiana.

2. That affiant is registered and participates in a status verification system to verify that all employees in the state of Louisiana are legal citizens of the United States or are legal aliens; and

3. That affiant shall continue, during the term of the contract, to utilize a status verification system to verify the legal status of all new employees in the state of Louisiana.

4. That affiant shall require all subcontractors to submit to the affiant a sworn affidavit verifying compliance with this law.

Printed Name: _____
Title: _____
Name of Entity: _____

**THUS SWORN TO AND SUBSCRIBED BEFORE ME,
THIS _____, DAY OF _____, 202__.**

Notary Public
Print Name: _____
Notary I.D./Bar No.: _____
My commission expires: _____



INSURANCE REQUIREMENTS*

Essential Services Project: Fairgrounds Phase III

Project/Quote/Bid#: 20-7-2

*****IMPORTANT – PLEASE READ*****

Prior to submitting your quote or bid, it is recommended that you review these insurance requirements with your insurance broker/agent.

These requirements modify portions of the insurance language found in the General Conditions and/or Supplementary General Conditions; however, there is no intention to remove all sections pertaining to insurance requirements and limits set forth in the General Conditions and/or Supplementary General Conditions, only to amend and specify those items particular for this Project.

- A. The Provider shall secure and maintain at its expense such insurance that will protect it and St. Tammany Parish Government (the "Parish") from claims for bodily injury, death or property damage as well as from claims under the Workers' Compensation Acts that may arise from the performance of services under this agreement. All certificates of insurance shall be furnished to the Parish and provide that insurance will not be canceled without thirty (30) days prior notice of cancellation given to the Parish, in writing, on all of the required coverage. Where possible, all policies and notices should name the Provider and the Parish. The Provider shall make its policies available for review and examination by The Parish as reasonably requested.
- B. All policies shall provide for and certificates of insurance shall indicate the following:
1. Waiver of Subrogation: The Provider's insurers will have no right of recovery or subrogation against the Parish of St. Tammany, it being the intention of the parties that all insurance policy(ies) so affected shall protect both parties and be the primary coverage for any and all losses covered by the below described insurance.
 2. Additional Insured: St. Tammany Parish Government shall be named as Additional Insured with respect to general liability, automobile liability and excess liability coverages, as well as marine liability and pollution/environmental liability, when those coverages are required or necessary.
 3. Payment of Premiums: The insurance companies issuing the policy or policies will have no recourse against St. Tammany Parish Government for payment of any premiums or for assessments under any form of policy.
 4. Deductibles/Self-Insured Retentions: Any deductibles and/or self-insured retentions in the described insurance policies **must be declared on the Certificate of Insurance**, and are both assumed by and the sole risk of the Provider. The Parish will have the sole discretion to accept or reject deductibles and/or self-insured retentions exceeding \$100,000 as it deems appropriate. The Parish may require Provider to produce evidence of verifiable financial ability to satisfy its deductibles and/or self-insured retentions; however, the Parish assumes no liability or obligation resulting from its examination, acceptance, or rejection of information presented.
 5. Project Reference: The project(s) and location(s) shall be referenced in the Comment or Description of Operations section of the Certificate of Insurance (Project ##-###, or Bid # if applicable, Type of Work, Location).
- C. Coverage must be issued by insurance companies authorized to do business in the State of Louisiana. Companies must have an A.M. Best rating of no less than A-, Category VII. St. Tammany Parish Risk Management Department may waive this requirement only for Workers Compensation coverage at their discretion.

Provider shall secure and present proof of insurance on forms acceptable to St. Tammany Parish Government, Office of Risk Management no later than the time of submission of the Contract to the Parish. However, should any work performed under this Contract by or on behalf of Provider include exposures that are not covered by those insurance coverages, Provider is not relieved of its obligation to maintain appropriate levels and types of insurance necessary to protect itself, its agents and employees, its subcontractors, St. Tammany Parish Government (Owner), and all other interested third parties, from any and all claims for damage or injury in connection with the services performed or provided throughout the duration of this Project, as well as for any subsequent periods required under this Contract.

The insurance coverages checked (✓) below are those required for this Contract.



1. **Commercial General Liability*** insurance – **Occurrence Form** - with a Combined Single Limit for bodily injury and property damage of at least \$1,000,000 per Occurrence / \$2,000,000 General Aggregate and \$2,000,000 Products-Completed Operations. Contracts over \$1,000,000 may require higher limits. The insurance shall provide for and the certificate(s) of insurance shall indicate the following coverages:
 - a) Premises - operations;
 - b) Broad form contractual liability;
 - c) Products and completed operations;
 - d) Personal/Advertising Injury;
 - e) Broad form property damage (for Projects involving work on Parish property);
 - f) Explosion, Collapse and Damage to underground property.
 - g) Additional Insured forms CG 2010 and CG 2037 in most current edition are required.



2. **Business Automobile Liability*** insurance with a Combined Single Limit of \$1,000,000 per Occurrence for bodily injury and property damage, and shall include coverage for the following:
 - a) Any auto;

or

 - b) Owned autos; **and**
 - c) Hired autos; **and**
 - d) Non-owned autos.

Endorsement for Pollution coverage for all vehicles used to transport fuel.



3. **Workers' Compensation/Employers Liability insurance*** - Workers' Compensation coverage as required by State law. Employers' liability limits shall be a minimum of \$1,000,000 each accident, \$1,000,000 each disease, \$1,000,000 disease policy aggregate. When water activities are expected to be performed in connection with this project, coverage under the USL&H Act, Jones Act and/or Maritime Employers Liability (MEL) must be included. **Coverage for owners, officers and/or partners in any way engaged in the Project shall be included in the policy.** The names of any excluded individual must be shown in the Description of Operations/Comments section of the Certificate.



4. **Pollution Liability and Environmental Liability*** insurance in the minimum amount of \$1,000,000 per occurrence / \$2,000,000 aggregate including full contractual liability and third party claims for bodily injury and/or property damage, for all such hazardous waste, pollutants and/or environmental exposures that may be affected by this project stemming from pollution/environmental incidents as a result of Contractor's operations.

If coverage is provided on a claims-made basis, the following conditions apply:

- 1) the retroactive date must be prior to or coinciding with the effective date of the Contract, or prior to the commencement of any services provided by the Contractor on behalf of the Parish, whichever is earlier; AND
- 2) continuous coverage must be provided to the Parish with the same retro date for 24 months following acceptance or termination of the Project by the Parish either by
 - a) continued renewal certificates **OR**
 - b) a 24 month Extended Reporting Period

*The Certificate must indicate whether the policy is written on an occurrence or claims-made basis and, if claims-made, the applicable retro date must be stated.

5. **Contractor's Professional Liability/Errors and Omissions*** insurance in the sum of at least \$1,000,000 per claim / \$2,000,000 aggregate is required when work performed by Contractor or on behalf of Contractor includes professional or technical services including, but not limited to, construction administration and/or management, engineering services such as design, surveying, and/or inspection, technical services such as testing and laboratory analysis, and/or environmental assessments. An occurrence basis policy is preferred.

If coverage is provided on a claims-made basis, the following conditions apply:

- 1) the retroactive date must be prior to or coinciding with the effective date of the Contract, or prior to the commencement of any services provided by the Contractor on behalf of the Parish, whichever is earlier; AND
- 2) continuous coverage must be provided to the Parish with the same retro date for 24 months following acceptance or termination of the Project by the Parish either by
 - a) continued renewal certificates **OR**
 - b) a 24 month Extended Reporting Period

*The Certificate must indicate whether the policy is written on an occurrence or claims-made basis and, if claims-made, the applicable retro date must be stated.

6. **Marine Liability/Protection and Indemnity*** insurance is required for any and all vessel and/or marine operations in the minimum limits of \$1,000,000 per occurrence / \$2,000,000 per project general aggregate. The coverage shall include, but is not limited to, the basic coverages found in the Commercial General Liability insurance and coverage for third party liability

***Excess/Umbrella Liability** insurance may be provided to meet the limit requirements for any Liability coverage. For example: if the General Liability requirement is \$3,000,000 per occurrence, but the policy is only \$1,000,000 per occurrence, then the excess policy should be at least \$2,000,000 per occurrence thereby providing a combined per occurrence limit of \$3,000,000.)

7. **Janitorial Bond:** Provider shall secure and maintain at its expense a Janitorial Services Bond, covering all employees, part-time and full-time, from fraudulent and dishonest acts in a minimum amount of \$50,000.00.

- D. All policies of insurance shall meet the requirements of the Parish prior to the commencing of any work. The Parish has the right, but not the duty, to approve all insurance policies prior to commencement of work. If any of the required policies are or become unsatisfactory to the Parish as to form or substance; or if a company issuing any policy is or becomes unsatisfactory to the Parish, the Provider shall promptly obtain a new policy, timely submit same to the Parish for approval, and submit a certificate thereof as provided above. The Parish agrees not to unreasonably withhold approval of any insurance carrier selected by Provider. In the event that Parish cannot agree or otherwise authorize a carrier, Provider shall have the option of selecting and submitting a new insurance carrier within 30 days of said notice by the Parish. In the event that the second submission is insufficient or is not approved, then the Parish shall have the unilateral opportunity to thereafter select a responsive and responsible insurance carrier all at the cost of Provider and thereafter deduct from Provider's fee the cost of such insurance.
- E. Upon failure of Provider to furnish, deliver and/or maintain such insurance as above provided, this contract, at the election of the Parish, may be declared suspended, discontinued or terminated. Failure of the Provider to maintain insurance shall not relieve the Provider from any liability under the contract, nor shall the insurance requirements be construed to conflict with the obligation of the Provider concerning indemnification.
- F. Provider shall maintain a current copy of all annual insurance policies and agrees to provide same to the Parish on an annual basis or as may be reasonably requested. Provider further shall ensure that all insurance policies are maintained in full force and effect throughout the duration of the Project and shall provide the Parish with annual renewal certificates of insurance evidencing continued coverage, without any prompting by the Parish.

- G. It shall be the responsibility of Provider to require that these insurance requirements are met by all contractors and sub-contractors performing work for and on behalf of Provider. Provider shall further ensure the Parish is named as an additional insured on all insurance policies provided by said contractor and/or sub-contractor throughout the duration of the project.
- H. Certificates of Insurance shall be issued as follows:

**St. Tammany Parish Government
Attn: Risk Management
P O Box 628
Covington, LA 70434**

To avoid contract processing delays, be certain the project name/number is included on all correspondence including Certificates of Insurance.

***NOTICE: St. Tammany Parish Government reserves the rights to remove, replace, make additions to and/or modify any and all of the insurance requirements at any time.**

Any inquiry regarding these insurance requirements should be addressed to:

**St. Tammany Parish Government
Office of Risk Management
P O Box 628
Covington, LA 70434
Telephone: 985-898-2797
Fax: 985-898-3070
Email: riskman@stpgov.org**

HOLD HARMLESS AGREEMENT

_____ (Contractor) agrees to protect, defend, indemnify, save, and hold harmless St. Tammany Parish Government, its elected and appointed officials, departments, agencies, boards and commissions, its officers, agents servants, employees, including volunteers, from and against any and all claims, demands, expense and liability arising out of injury or death to any person or the damage, loss or destruction of any property to the extent caused by any act or omission of Contractor, its agents, servants, employees, and subcontractors, or any and all costs, expense and/or attorney fees incurred as a result of any claim, demands, and/or causes of action that results under the performance or non-performance of this contract.

_____ (Contractor) agrees to investigate, handle, respond to, provide defense for and defend any such claims, demand, or suit, as described in the paragraph above, at its sole expense and agrees to bear all other costs and expenses related thereto, even if it (claims, etc.) is groundless, false or fraudulent.

SIGNED, this ____ day of _____, 2020

WITNESSES:

Print Name: _____

Print Name: _____

STATE OF _____

PARISH/COUNTY OF _____

SWORN TO and subscribed before me, Notary, on this ____ day of _____, 2020.

BY: _____
(Signature of Authorized Officer)

Print Name: : _____

Title: _____

NOTARY PUBLIC

My Commission Expires: _____

Please complete the following:

Claims contact for this project will be:

(Print name and title of Contact Person)

Address

Email address

Telephone#

Cell #

Fax #

Section 07

Project Signs

1. General

- a. Work to include providing and installing project sign(s) at the beginning of the project. Some projects may require multiple signs. Should more than one sign be required, it will be reflected in the bidding documents.

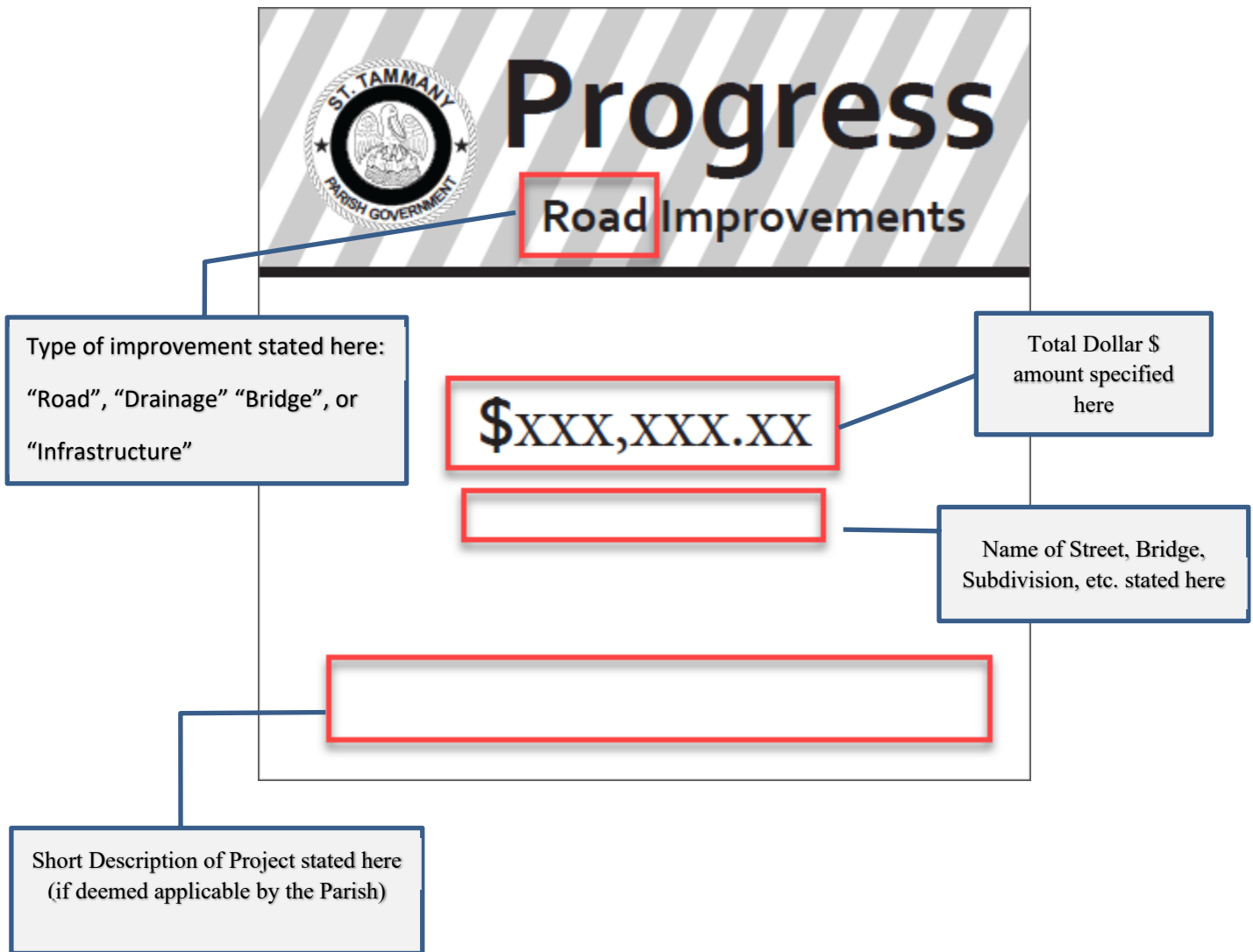
2. Materials

- a. The printed project sign(s) shall be 3/8" primed Medium Density Overlay (MDO) **OR** 3 millimeter corrugated plastic secured to exterior plywood (4' x 4').
- b. Contractor shall not use previously provided templates and/or fonts.

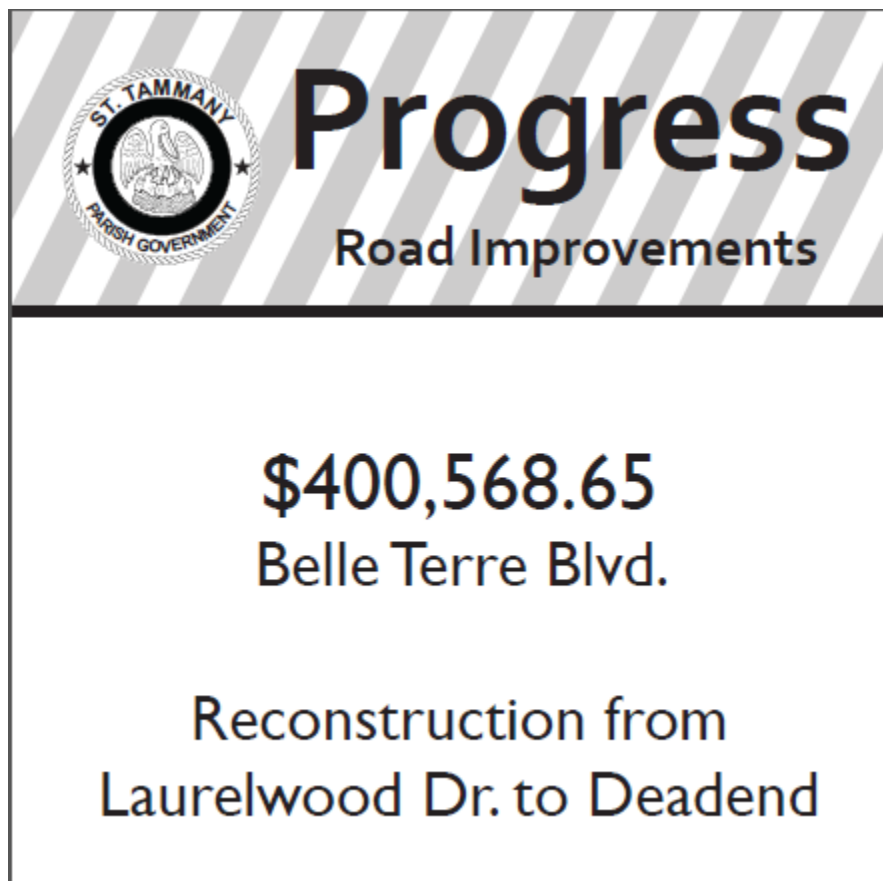
3. Execution

- a. The sign(s) shall be printed on a project-by-project basis in black and white, using the template and font provided to the Contractor by the St. Tammany Parish Government Project Manager.
- b. All signage proofed and approved by State Tammany Parish Government before project sign(s) are to be produced by the Contractor.
- c. Exact placement of the project sign(s) must be coordinated with, and approved by, the St. Tammany Parish Government Project Manager prior to sign installation.
- d. The sign(s) is to be installed such that the bottom of the sign is a minimum of 5' above the existing ground elevation.
- e. Sign(s) is to be maintained throughout the period of construction. If sign(s) is damaged or destroyed, repair and/or replacement of sign(s) will be at Contractor's expense.
- f. Contractor is responsible for the removal of all project signs upon issuance of final acceptance by the St. Tammany Parish Government Project Manager at no direct pay.
- g. Cost to be included in "Temporary Signs and Barricades

Blank Template of Parish Project Sign:



Example of a Completed Parish Project Sign:



Section 08

General Conditions for St. Tammany Parish Government

This index is for illustrative purposes only and is not intended to be complete nor exhaustive.

All bidders/contractors are presumed to have read and understood the entire document. Some information contained in these conditions may not be applicable to all projects.

GENERAL CONDITIONS INDEX

| | |
|--------------------------------|--|
| A.A.S.H.T.O | 01.01 |
| A.C.I. | 01.02 |
| ADDENDA | 01.03, 01.05, 01.12, 02.13, 02.13, 06.02, 06.03 |
| ADVERTISEMENT | 01.04, 01.12, 02.21, 02.22, 02.23 |
| AGREEMENT | 01.05, 01.11, 01.12, 01.14, 01.15, 01.19, 03.02, 03.03, 03.04, 06.01, 06.02, 10.01, 11.03, 12.01, 14.02, 29.06, 32.01, 32.02, 33.06, 33.07 |
| APPLICATION FOR PAYMENT | 01.06, 29.07 |
| A.S.T.M. | 01.07 |
| AWARD | 03.00, 03.01, 03.04, 03.05 |
| BID | 01.08, 01.12, 01.26, 02.02, 02.04, 02.08, 02.09, 02.10, 02.13, 02.14, 02.17, 02.19, 02.21, 03.01, 03.04, 04.02, 14.03, 22.01, 23.01, 28.08 |
| BIDDER | 01.04, 01.08, 01.09, 01.26, 01.28, 02.02, 02.04, 02.06, 02.08, 02.09, 02.10, 02.12, 03.13, 02.14, 02.16, 02.17, 02.19, 02.20, 02.21, 02.24, 03.01, 03.04, 03.05, 23.01 |
| BONDS | 01.10, 01.12, 02.02, 02.09, 03.00, 03.03, 03.04, 03.05, 03.07, 03.08, 03.10, 03.12, 03.13, 27.06 |
| CHANGE ORDER | 01.11, 01.19, 04.01, 09.04, 11.07, 16.02, 16.06, 16.07, 21.06, 21.08, 21.10, 21.11, 29.06, 33.07 |
| CLAIMS | 02.15, 04.05, 09.05, 14.01, 16.04, 16.05, 21.16, 24.01 |
| CLOSING ROADS COMMENCE WORK | 16.06, 16.07, 16.15 04.04, 07.04, 09.02, 11.02, 14.02, 16.13, 24.02 |
| COMPLETION OF WORK OR PROJECT | 01.14, 02.15, 08.03, 09.01, 09.04, 11.00, 11.03, 12.01, 13.01, 13.11, 20.01, 25.01, 28.02, 29.04 |
| CONDITIONS AT JOB SITE | 16.17 |
| CONTRACT DOCUMENTS | 01.03, 01.03, 01.10, 01.12, 01.13, 01.16, 01.17, 01.18, 01.19, 01.29, 01.22, 01.25, 01.30, 01.33, 02.02, 02.05, 02.13, 02.17, 02.18, 02.23, 03.01, 03.02, 04.01, 04.02, 04.03, 04.04, 04.05, 06.00, 06.01, 06.02, 06.03, 07.02, 07.03, 07.05, 08.01, 10.06, 11.03, 13.01, 13.02, 21.01, 21.09, 21.10, 21.11, 28.01, 28.04, 33.01 |
| CONTRACT PRICE | 01.11, 01.13, 03.05, 04.01, 12.01, 14.02, 21.06, 21.10, 21.11, 27.05, 28.01, 28.02, 28.03, 28.08 |

| | |
|----------------------------------|---|
| CONTRACT TIME | 01.11, 01.14, 01.22, 10.06, 11.01, 21.06, 29.04 |
| CONTRACTOR - (Defined) | 01.15 |
| DAMAGE | 02.15, 03.05, 03.12, 04.05, 09.05, 11.09, 13.11, 14.01, 14.02, 16.01, 16.02, 16.03, 16.04, 16.05, 19.01, 19.03, 20.01, 20.08, 23.03, 24.01, 24.07, 24.12, 26.03, 28.05, 28.01, 28.10, 33.07 |
| DEFECTIVE WORK | 01.16, 10.03, 21.00, 21.01, 21.07, 21.08, 21.09, 21.10, 28.03 |
| DELAYS | 07.02, 11.05, 11.09, 12.01, 16.07, 18.02, 19.01, 28.04 |
| DRAWINGS | 01.12, 01.17, 02.13, 02.17, 02.23, 06.01, 06.02, 06.03, 13.15, 22.02, 01.27, 01.33, 03.12, 04.01, 06.02, 09.01, 10.01, 10.02, 11.07, 13.00, 13.01, 13.03, 13.05, 13.11, 13.12, 13.15, 14.02, 14.07, 14.08, 14.09, 16.09, 16.13, 21.01, 21.06, 21.07, 21.14, 24.07, 27.05, 27.07, 28.01, 28.05, 28.10, 29.03, 13.00, 13.11 |
| ENGINEER STATUS (NOT APPLICABLE) | 15.00 |
| EXTRA WORK | 03.09, 14.00, 14.03, 14.04, 14.05, 14.08, 14.09, 14.10, 14.11, 14.12, 16.01, 22.02 |
| FAILURE OF CONTRACTOR | 03.10, 04.05, 06.02, 09.05, 10.01, 10.03, 13.10, 16.03, 20.01, 24.09, 27.02, 28.10 |
| FAILURE OF OWNER | 02.13 |
| FAILURE OF SUCCESSFUL BIDDER | 02.13, 02.17, 03.04 |
| FIELD ORDER | 01.18 |
| FORCE ACCOUNT | 14.04, 14.05, 14.11, 14.12 |
| FUNDING | 33.09 |
| INDEMNIFY / HOLD HARMLESS | 02.15, 03.05, 04.05, 13.11, 16.04, 16.05, 20.02, 24.06, 24.09 |
| INDEMNIFYING INFRINGEMENT CLAUSE | 02.15 |
| INJURIES | 16.00, 16.01, 16.02, 19.01, 19.03, 20.01, 24.02, 24.07 |
| INSPECTION FEES | 13.12 |
| INSPECTIONS, GENERALLY | 01.16, 13.05, 16.13, 21.00, 21.03, 21.04, 21.05, 21.06, 21.14, 21.15, 28.04, 29.02, 29.03 |
| INSURANCE | 01.05, 14.05, 16.13, 24.00 - 12, 27.07, 28.05 |
| INTENTION OF CONTRACT DOCUMENTS | 06.00, 06.01 |
| INTENTION OF GENERAL CONDITIONS | 31.00 |

| | |
|----------------------|--|
| LABOR | 01.33, 03.12, 09.01, 13.00, 13.01, 13.02, 13.08, 13.10, 13.11, 13.12, 14.05, 16.06, 16.07, 21.06, 21.07, 21.15, 27.01, 28.10, 29.03 |
| LAWS | 01.10, 01.20, 02.06, 02.13, 02.14, 02.16, 02.20, 03.01, 03.10, 13.12, 16.06, 16.07, 20.02, 21.02, 21.09, 27.01, 29.06, 33.00, 33.01, 33.08 |
| LIQUIDATED DAMAGES | 11.03, 12.00, 12.01, 29.04 |
| MATERIALS | 01.33, 03.12, 04.01, 06.02, 07.01, 09.01, 10.01, 10.02, 13.00, 13.01, 13.03, 13.04, 13.05, 13.12, 13.13, 13.15, 14.01, 14.11, 20.01, 12.01, 21.07, 21.14, 21.15, 23.03, 27.01, 27.05, 27.07, 28.01, 28.05, 28.07, 28.08, 28.10 |
| MODIFICATIONS | 01.12, 01.19, 02.12, 02.13, 06.01, 06.02, 24.07, 32.02 |
| NOTICE OF AWARD | 01.20, 03.01, 03.04, 04.01 |
| NOTICE OF DEFAULT | 12.01, 33.08 |
| NOTICE TO BIDDER | 2.21 |
| NOTICE TO CONTRACTOR | 01.12, 01.21, 21.11, 30.01 |
| NOTICE TO OWNER | 13.07, 24.06, 27.07 |
| NOTICE TO PROCEED | 01.22, 09.02, 11.01, 11.03 |
| OBSTRUCTIONS | 16.09, 16.11, 16.15, 23.00, 23.01, 23.02 |
| OCCUPANCY | 25.00 |
| ORAL INTERPRETATIONS | 02.13 |
| OWNER - (Defined) | 01.23 |
| PAYMENT | 01.30, 03.10, 03.12, 03.13, 04.12, 09.03, 11.04, 11.09, 14.04, 14.12, 16.02, 16.16, 19.02, 21.07, 21.08, 21.09, 21.10, 21.11, 21.16, 24.02, 24.03, 24.12, 27.01, 27.07, 28.00, 28.01, 28.02, 28.03, 28.04, 28.05, 28.06, 28.08, 28.09, 28.10, 29.00, 29.03, 29.05, 29.07 |
| PERMITS | 13.00, 13.12, 16.13, 28.08 |
| PRICE | 02.05, 14.02, 14.03, 14.04, 14.05, 22.01 |
| PROGRESS PAYMENT | 01.06, 28.06 |
| PROGRESS SCHEDULE | 09.03, 09.05, 21.11 |
| PROGRESS OF WORK | 09.00, 11.09, 13.07, 16.01, 16.12, 21.11, 21.12, 22.02, 27.02 |
| PROJECT | 01.24, 01.29, 01.30, 02.04, 03.07, 06.01, 07.03, 10.02, 11.04, 11.06, 13.08, 13.13, 14.08, 14.11, 16.15, 24.07, 24.11, 28.07, 29.03, 29.07 |

| | |
|----------------------------|---|
| PROJECT REPRESENTATIVE | 01.23, 21.16 |
| PROPERTY | 16.00, 16.01, 16.02, 16.03, 16.12, 16.13, 16.17, 18.01, 19.00, 19.01, 19.02, 19.03, 23.03, 24.01, 24.07, 26.03, 28.10, 29.08, 33.05 |
| PROPOSAL | 01.26, 02.00, 02.01, 02.03, 02.05, 02.06, 02.07, 02.08, 02.09, 02.10, 02.11, 02.12, 02.14, 02.18, 02.21, 02.22, 11.03, 12.01, 14.01, 14.02, 14.03, 19.02, 23.02, 28.08 |
| PROTESTS | 33.10 |
| PUNCH LIST | 29.03, 29.04 |
| QUANTITIES OF ESTIMATES | 14.00, 14.01, 14.02, 14.04 |
| RAILROADS | 16.13, 19.01 |
| RECORD DRAWINGS | 08.00, 18.01, 18.02, 18.03 |
| RECORDATION OF DOCUMENTS | 03.13, 28.03, 29.05, 29.06 |
| REJECTION OF BIDS | 02.03, 02.07, 02.08, 02.10, 02.14, 03.01 |
| RENTAL OF EQUIPMENT | 14.07, 14.09 |
| RIGHTS OF WAY | 18.00 |
| SAFETY | 16.01, 16.07, 16.14, 16.17 |
| SANITARY PROVISIONS | 13.01, 17.00 |
| SCHEDULE OF WORK | 09.03, 09.04, 9.05, 11.06, 13.09 |
| SEVERABILITY | 32.01, 32.02 |
| SHOP DRAWINGS | 01.27, 06.03, 07.00, 07.01, 07.02, 07.03, 07.04, 07.05 |
| SITE | 02.17, 7.04, 13.05, 13.07, 13.11, 14.06, 16.09, 21.08, 21.09, 21.12, 22.02, 23.01, 24.07 |
| SOLICITATION OF EMPLOYMENT | 13.14 |
| SPECIFICATIONS | 01.01, 01.02, 01.05, 01.07, 01.12, 01.28, 02.13, 02.17, 02.23, 03.06, 03.09, 03.10, 03.13, 06.01, 06.02, 06.03, 07.04, 07.05, 11.03, 13.05, 13.15, 20.01, 21.12, 22.02, 28.01, 28.04, 32.01 |
| SUBCONTRACTOR | 01.27, 01.29, 04.01, 04.02, 04.03, 04.04, 04.05, 16.02, 16.04, 16.05, 20.01, 20.02, 21.07, 24.01, 24.07, 27.01, 28.07 |
| SUBCONTRACTS | 04.00, 13.09 |
| SUBSURFACE CONDITIONS | 02.17, 22.00, 22.01, 22.02 |
| SUBSTANTIAL COMPLETION | 01.30, 11.04, 21.09, 28.04, 29.01, 29.02, 29.03, 29.04, 29.06 |
| SUPERINTENDENT | 01.21, 01.31, 13.07, 14.05 |

| | |
|------------------------------|---|
| SUPERVISION | 13.01, 13.06 |
| SURETY | 01.05, 01.10, 02.09, 03.05, 03.06, 03.07, 03.08, 03.09, 03.11, 03.12, 04.05, 05.01, 14.03, 27.03, 27.05 |
| SURVEY | 13.02, 26.00, 26.01 |
| TAXES | 02.05, 13.00, 13.12, 13.13, 14.05, 28.07, 28.08, 28.10 |
| TERMINATION OF CONTRACT | 13.10, 24.09, 27.00, 27.01, 27.02, 27.03, 27.04, 27.05, 27.06, 27.07 |
| TESTS, GENERALLY | 21.00, 21.02, 21.03, 21.04, 21.05, 21.06 |
| TIME | 01.32 |
| TRAFFIC | 16.06, 16.07, 16.10, 16.15, 16.16 |
| TRAFFIC HAZARDS | 16.16 |
| TREES AND SHRUBS | 19.02 |
| VERBAL INSTRUCTIONS | 21.16 |
| WAIVERS | 24.06, 29.03, 33.08 |
| WARNING DEVICES | 16.13, 16.14, 16.15 |
| WARRANTY | 21.01, 21.08, 21.09, 33.04, 33.06 |
| WORK | 01.31, 20.01 |
| WORK BY OTHERS | 10.03, 10.04, 10.05 |
| WORK BY OWNER | 10.02, 10.04, 10.05 |
| WORK FOR OTHER, RESTRICTIONS | 16.12 |
| WORK ORDER | 28.01 |

01.00 DEFINITIONS OF TERMS

Whenever used in these General Conditions or in other Contract Documents, the following terms shall have the meanings indicated, and these shall be applicable to both the singular and plural thereof.

- 01.01 A.A.S.H.T.O American Association of State Highway and Transportation Officials. When A.A.S.H.T.O. is referred to in these Specifications it takes the meaning of the specification for materials and methods of testing specified by this association and the specification stated is considered to be a part of the Specifications as if written herein in full.
- 01.02 A.C.I American Concrete Institute. When A.C.I. is referred to in these Specifications it takes the meaning of the specification for materials and methods of testing specified by this institute and the specification stated is considered to be a part of the Specifications as if written herein in full.
- 01.03 Addenda Written or graphic instruments issued prior to the opening of bids which clarify, correct, modify or change the bidding or Contract Documents.
- 01.04 Advertisement The written instrument issued by the Owner at the request of the Owner used to notify the prospective bidder of the nature of the Work. It becomes part of the Contract Documents.
- 01.05 Agreement The written agreement or contract between the Owner and the Contractor covering the Work to be performed and the price that the Owner will pay. Other documents, including the Proposal, Addenda, Specifications, plans, surety, insurance, etc., are made a part thereof.
- 01.06 Application for Payment The form furnished by the Owner which is to be used by the Contractor in requesting incremental (progress) payments and which is to include information required by Section 28.01 and an affidavit of the Contractor. The affidavit shall stipulate that progress payments theretofore received from the Owner on account of the Work have been applied by Contractor to discharge in full of all Contractor's obligations reflected in prior applications for payment.
- 01.07 A.S.T.M. American Society of Testing Materials. When A.S.T.M. is referred to in these Specifications it takes the meaning of the specification for materials and methods of testing specified by this society and the specification stated is considered to be a part of the Specifications as if written herein in full.
- 01.08 Bid The offer or Proposal of the Bidder submitted on the prescribed form setting forth all the prices for the Work to be performed.
- 01.09 Bidder Any person, partnership, firm or corporation submitting a Bid for the Work.
- 01.10 Bonds Bid, performance and payment bonds and other instruments of security, furnished by the Contractor and its surety in accordance with the Contract Documents and Louisiana law.
- 01.11 Change Order A written order to the Contractor signed by the Owner authorizing an addition, deletion or revision in the Work, or an adjustment in the Contract Price or the Contract Time after execution of the Agreement.
- 01.12 Contract Documents The Agreement, Addenda, Contractor's Bid and any documentation accompanying or post-bid documentation when attached as an exhibit, the Bonds, these General Conditions, the Advertisement for Bid, Notice to Contractor, all supplementary conditions, the Specifications, the Drawings, together with all Modifications issued after the execution of the Agreement.
- 01.13 Contract Price The total monies payable to the Contractor under the Contract Documents.

- 01.14 Contract Time The number of consecutive calendar days stated in the Agreement for the completion of the Work.
- 01.15 Contractor The person, firm, corporation or provider with whom the Owner has executed the Agreement.
- 01.16 Defective Work Work which is unsatisfactory, faulty or deficient for any reason whatsoever, or does not conform to the Contract Documents, or does not meet the requirements of any inspection, test or approval referred to in the Contract Documents, or has been damaged prior to the Owner's recommendation or acceptance.
- 01.17 Drawings The Drawings and plans which show the character and scope of the Work to be performed and which have been prepared or approved by the Owner and are referred to in the Contract Documents.
- 01.18 Field Order A written order issued by the Owner or his agent which clarifies or interprets the Contract Documents.
- 01.19 Modification (a) A written amendment of the Contract Documents signed by both parties, (b) A Change Order, (c) A written clarification or interpretation issued by the Owner or his agent. Modification may only be issued after execution of the Agreement.
- 01.20 Notice of Award The written notice by Owner to the lowest responsible Bidder stating that upon compliance of the conditions enumerated in the Notice of Award, or enumerated in the Bid documents, the Owner will deliver the Contract Documents for signature. The time for the delivery of the Contract Documents can be extended in conformance with Louisiana Law.
- 01.21 Notice to Contractor Instructions, written or oral given by Owner to Contractor and deemed served if given to the Contractor's superintendent, foreman or mailed to Contractor at his last known place of business.
- 01.22 Notice to Proceed A written notice given by the Owner fixing the date on which the Contract Time will commence, and on which date the Contractor shall start to perform his obligation under the Contract Documents. Upon mutual consent by both parties, the Notice to Proceed may be extended.
- 01.23 Owner St. Tammany Parish Government, acting herein through its duly constituted and authorized representative, including but not limited to the Office of the Parish President or its designee, its Chief Administrative Officer, and/or Legal Counsel. St. Tammany Parish Government (hereinafter, the "Parish") and Owner may be used interchangeably.
- 01.24 Project The entire construction to be performed as provided in the Contract Documents.
- 01.25 Project Representative The authorized representative of the Owner who is assigned to the Project or any parts thereof.
- 01.26 Proposal The Bid submitted by the Bidder to the Owner on the Proposal form setting forth the Work to be done and the price for which the Bidder agrees to perform the Work.
- 01.27 Shop Drawings All drawings, diagrams, illustrations, brochures, schedules and other data which are prepared by the Contractor, Subcontractor, Manufacturer, Supplier or Distributor and which illustrate the equipment, material or some portion of the Work.
- 01.28 Specifications The Instructions to Bidders, these General Conditions, the Special Conditions and the Technical Provisions. All of the documents listed in the "Table of Contents."
- 01.29 Subcontractor An individual, firm or corporation having a direct Contract with the Contractor or with any other Subcontractor for the performance of a part of the Project Work.
- 01.30 Substantial Completion The date as certified by the Owner or its agent when the construction of the Project or a specified part thereof is sufficiently complete in accordance with the Contract Documents so that the Project or specified part can be utilized for the

purposes for which it was intended; or if there is no such certification, the date when final payment is due in accordance with Section 28.

- 01.31 Superintendent Contractor's site representative. The person on the site who is in full and complete charge of the Work.
- 01.32 Time Unless specifically stated otherwise, all time delays shall be calculated in calendar days.
- 01.33 Work Any and all obligations, duties and responsibilities necessary to the successful completion of the Project assigned to or undertaken by the Contractor under the Contract Documents, usually including the furnishing of all labor, materials, equipment and other incidentals.
- 01.34 The terms "he/himself" may be used interchangeably with "it/itself."

02.00 PROPOSAL

- 02.01 All papers bound with or attached to the Proposal Form are a necessary part thereof and must not be detached.
- 02.02 For submitting Bids, the only forms allowed shall be the "Louisiana Uniform Public Work Bid Form", "Louisiana Uniform Public Works Bid Form Unit Price Form" (if necessary), the Bid Bond, and written evidence of authority of person signing the bid. Necessary copies of the Louisiana Uniform Public Work Forms will be furnished for Bidding. Bound sets of the Contract Documents are for Bidder's information and should not be used in submitting Bids.
- 02.03 Proposal forms must be printed in ink or typed, unless submitted electronically. Illegibility or ambiguity therein may constitute justification for rejection of the Bid.
- 02.04 Each Bid must be submitted in a sealed envelope, unless submitted electronically. The outside of the envelope shall show the name and address of the Bidder, the State Contractor's License Number of the Bidder (if work requires contractor's license), and the Project name and number for which the Bid is submitted, along with the Bid number.
- 02.05 The price quoted for the Work shall be stated in words and figures on the Bid Form, and in numbers only on the Unit Price Form. The price in the Proposal shall include all costs necessary for the complete performance of the Work in full conformity with the conditions of the Contract Documents, and shall include all applicable Federal, State, Parish, Municipal or other taxes. The price bid for the items listed on the Unit Price Form will include the cost of all related items not listed, but which are normally required to do the type of Work bid.
- 02.06 The Bid shall be signed by the Bidder. The information required on the Louisiana Uniform Public Work Bid Form must be provided. Evidence of agency, corporate, or partnership authority is required and shall be provided in conformance with LSA-R.S. 38:2212(B).
- 02.07 Only the Contractors licensed by the State to do the type of Work involved can submit a Proposal for the Work. The envelope containing the Proposal shall have the Contractor's license number on it. Failure to be properly licensed constitutes authority by the Owner for rejection of Bid.
- 02.08 Bidders shall not attach any conditions or provisions to the Proposal. Any conditions or provisions so attached may, at the sole option of the Owner, cause rejection of the Bid or Proposal.
- 02.09 A Bid Guarantee of five percent (5%) of the amount of the total Bid, including Alternates, must accompany the Proposal and, at the option of the Bidder, may be a cashier's check, certified check or a satisfactory Bid Bond. The Bid Guarantee must be attached to the Louisiana Uniform Public Work Bid Form. No Bid will be considered unless it is so guaranteed. Cashier's check or certified check must be made payable to the order of the Owner. Cash deposits will not be accepted. The Owner reserves the right to cash or deposit the cashier's check or certified check. Such guarantees shall be made payable to the Parish

of St. Tammany. In accordance with LSA-R.S. 38:2218(C), if a bid bond is used, it shall be written by a surety or insurance company currently on the U.S. Department of the Treasury Financial Management Service list of approved bonding companies which is published annually in the Federal Register, or by a Louisiana domiciled insurance company with at least an A- rating in the latest printing of the A.M. Best's Key Rating Guide to write individual bonds up to ten percent of policyholders' surplus as shown in the A.M. Best's Key Rating Guide, or by an insurance company in good standing licensed to write bid bonds which is either domiciled in Louisiana or owned by Louisiana residents. It is **not** required to be on any AIA form.

- 02.10 Bid securities of the three (3) lowest Bidders will be retained by the Owner until the Contract is executed or until final disposition is made of the Bids submitted. Bid securities of all other Bidders will be returned promptly after the canvas of Bids. Bids shall remain binding for forty-five (45) days after the date set for Bid Opening. The Parish shall act within the forty-five (45) days to award the contract to the lowest responsible bidder or reject all bids as permitted by Public Bid Law. However, the Parish and the lowest responsible bidder, by mutual written consent, may agree to extend the deadline for award by one or more extensions of thirty (30) calendar days. In the event the Owner issued the Letter of Award during this period, or any extension thereof, the Bid accepted shall continue to remain binding until the Execution of the Contract.
- 02.11 A Proposal may be withdrawn at any time prior to the scheduled closing time for receipt of Bids, provided the request is in writing, executed by the Bidder or its duly authorized representative and is filed with the Owner prior to that time. When such a request is received, the Proposal will be returned to the Bidder unopened.
- 02.12 Written communications, over the signature of the Bidder, to modify Proposals will be accepted and the Proposal corrected in accordance therewith if received by the Owner prior to the scheduled closing time for receipt of Bids. Oral, telephonic or telegraphic Modifications will not be considered.
- 02.13 No oral interpretation obligating the Owner will be made to any Bidder as to the meaning of the Drawings, Specifications and Contract Documents. Every request for such an interpretation shall be made in writing and addressed and forwarded to the Owner. No inquiry received within seven (7) days prior to the day fixed for opening of the Bids shall be given consideration. Every interpretation made to the Bidder shall be in the form of an addendum to the Specifications. All such Addenda shall become part of the Contract Documents. Failure of Bidder to receive any such interpretation shall not relieve any Bidder from any obligation under this Bid. All Addenda shall be issued in accordance with the Public Bid Law, LSA-R.S. 38:2212(O)(2)(a) and (b).
- 02.14 The Owner reserves the right to reject any or all Bids for just cause in accordance with the Public Bid Law, LSA-R.S. 38:2214(B). Incomplete, informal or unbalanced Bids may be rejected. Reasonable grounds for belief that any one Bidder is concerned directly or indirectly with more than one Bid will cause rejection of all Bids wherein such Bidder is concerned. If required, a Bidder shall furnish satisfactory evidence of its competence and ability to perform the Work stipulated in its Proposal. Incompetence will constitute cause for rejection. If the Parish determines that the bidder is not responsive or responsible for any reason whatsoever, the bid may be rejected in accordance with State law.
- 02.15 The Contractor shall indemnify and hold harmless the Owner from any and all suits, costs, penalties or claims for infringement by reason of use or installation of any patented design, device, material or process, or any trademark and copyright in connection with the Work agreed to be performed under this Contract, and shall indemnify and hold harmless the Owner for any costs, expenses and damages which it may be obliged to pay by reason of any such infringement at any time during the prosecution or after completion of the Work.
- 02.16 Bidders shall familiarize themselves with and shall comply with all applicable Federal and State Laws, municipal ordinances and the rules and regulations of all authorities having jurisdiction over construction of the Project, which may directly or indirectly affect the Work or its prosecution. These laws and/or ordinances will be deemed to be included in the Contract, as though herein written in full.
- 02.17 Each Bidder shall visit the site of the proposed Work and fully acquaint itself with all surface and subsurface conditions as they may exist so that it may fully understand this

Contract. Bidder shall also thoroughly examine and be familiar with drawings, Specifications and Contract Documents. The failure or omission of any Bidder to receive or examine any form instrument, Drawing or document or to visit the site and acquaint itself with existing conditions, shall in no way relieve any Bidder from any obligation with respect to its Bid and the responsibility in the premises.

- 02.18 The standard contract form enclosed with the Proposal documents is a prototype. It is enclosed with the Contract Documents for the guidance of the Owner and the Contractor. It has important legal consequences in all respects and consultation with an attorney is encouraged. Contractor shall be presumed to have consulted with its own independent legal counsel.
- 02.19 When one set of Contract plans show the Work to be performed by two or more prime Contractors, it is the responsibility of each Bidder to become knowledgeable of the Work to be performed by the other where the Work upon which this bid is submitted is shown to come into close proximity or into conflict with the Work of the other. In avoiding conflicts, pressure pipe lines must be installed to avoid conflict with gravity pipe lines and the Bidder of the smaller gravity pipe line in conflict with the larger gravity pipe line must include in his Bid the cost of a conflict box at these locations. The location of and a solution to the conflicts do not have to be specifically noted as such on the plans.
- 02.20 Bidder shall execute affidavit(s) attesting compliance with LSA-R.S. 38:2212.10, 38:2224, 38:2227, each as amended, and other affidavits as required by law, prior to execution of the contract.
- 02.21 Sealed Proposals (Bid) shall be received by St. Tammany Parish Government at the office of St. Tammany Parish Government, Department of Procurement, 21454 Koop Drive, Suite 2-F, Mandeville, LA 70471, until the time and date denoted in Notice to Bidders, at which time and place the Proposals (Bids), shall be publicly opened and read aloud to those present. In accordance with LSA-R.S. 38-2212(A)(3)(c)(i), the designer's final estimated cost of construction shall be read aloud upon opening bids. Sealed Proposals (Bids) may also be mailed by certified mail to St. Tammany Parish Government, Department of Procurement, 21454 Koop Drive, Suite 2-F, Mandeville, LA 70471, and must be received before the bid opening. Bids may also be submitted electronically. Information concerning links for electronic bidding is contained in the Notice to Bidders.
- 02.22 Proposals (Bids) shall be executed on Forms furnished and placed in a sealed envelope, marked plainly and prominently as indicated in the Notice to Bidders, and these General Conditions, and addressed:

St. Tammany Parish Government
Department of Procurement
21454 Koop Drive, Suite 2-F
Mandeville, LA 70471

- 02.23 Complete sets of Drawings, Specifications, and Contract Documents may be secured at the Office of the Owner. See Notice to Bidders for deposit schedule.
- 02.24 The successful bidder shall be required to post in each direction a public information sign, 4' x 8' in size, at the location of the project containing information required by the Owner. The Owner shall supply this information.

03.00 AWARD, EXECUTION OF DOCUMENTS, BONDS, ETC.

- 03.01 The award of the Contract, if it is awarded, will be to the lowest responsible Bidder, in accordance with State Law. No award will be made until the Owner has concluded such investigations as it deems necessary to establish the responsibility, qualifications and financial ability and stability of the Bidder to do the Work in accordance with the Contract Documents to the satisfaction of the Owner within the time prescribed as established by the Department based upon the amount of work to be performed and the conditions of same. The written contract and bond shall be issued in conformance with LSA-R.S. 38:2216. The Owner reserves the right to reject the Bid of any Bidder in accordance with the Public Bid Law, LSA-R.S. 38:2214. If the Contract is awarded, the Owner shall give the successful Bidder written notice of the award within forty-five (45) calendar days after

the opening of the Bids in conformance with LSA-R.S. 38:2215(A), or any extension as authorized thereunder.

- 03.02 At least three counterparts of the Agreement and of such other Contract Documents as practicable shall be signed by the Owner and the Contractor. The Owner shall identify those portions of the Contract Documents not so signed and such identification shall be binding on both parties. The Owner and the Contractor shall each receive an executed counterpart of the Contract Documents.
- 03.03 Prior to the execution of the Agreement, the Contractor shall deliver to the Owner the required Bonds.
- 03.04 Failure of the successful Bidder to execute the Agreement and deliver the required Bonds within twenty (20) days of the Notice of the Award shall be just cause for the Owner to annul the award and declare the Bid and any guarantee thereof forfeited.
- 03.05 In order to ensure the faithful performance of each and every condition, stipulation and requirement of the Contract and to indemnify and save harmless the Owner from any and all damages, either directly or indirectly arising out of any failure to perform same, the successful Bidder to whom the Contract is awarded shall furnish a surety Bond in an amount of at least equal to one hundred percent (100%) of the Contract Price. The Contract shall not be in force or binding upon the Owner until such satisfactory Bond has been provided to and approved by the Parish. The cost of the Bond shall be paid for by the Contractor unless otherwise stipulated in the Special Provisions.
- 03.06 No surety Company will be accepted as a bondsman who has no permanent agent or representative in the State upon whom notices referred to in the General Conditions of these Specifications may be served. Services of said notice on said agent or representative in the State shall be equal to service of notice on the President of the Surety Company, or such other officer as may be concerned.
- 03.07 In conformance with LSA-R.S. 38:2219(A)(1)(a), (b), and (c):

Any surety bond written for a public works project shall be written by a surety or insurance company currently on the U.S. Department of the Treasury Financial Management Service list of approved bonding companies which is published annually in the Federal Register, or by a Louisiana domiciled insurance company with at least an A- rating in the latest printing of the A.M. Best's Key Rating Guide, to write individual bonds up to ten percent of policyholders' surplus as shown in the A.M. Best's Key Rating Guide or by an insurance company that is either domiciled in Louisiana or owned by Louisiana residents and is licensed to write surety bonds.

For any public works project, no surety or insurance company shall write a bond which is in excess of the amount indicated as approved by the U.S. Department of the Treasury Financial Management Service list or by a Louisiana domiciled insurance company with an A- rating by A.M. Best up to a limit of ten percent of policyholders' surplus as shown by A.M. Best; companies authorized by this Paragraph who are not on the treasury list shall not write a bond when the penalty exceeds fifteen percent of its capital and surplus, such capital and surplus being the amount by which the company's assets exceed its liabilities as reflected by the most recent financial statements filed by the company with the Department of Insurance.

In addition, any surety bond written for a public works project shall be written by a surety or insurance company that is currently licensed to do business in the state of Louisiana. All contractors must comply with any other applicable provisions of LSA-R.S. 38:2219.

- 03.08 Should the Contractor's Surety, even though approved and accepted by the Owner, subsequently remove its agency or representative from the State or become insolvent, bankrupt, or otherwise fail, the Contractor shall immediately furnish a new Bond in another company approved by the Owner, at no cost to the Owner. The new Bond shall be executed under the same terms and conditions as the original Bond. The new bond shall be submitted within thirty (30) days of such time as the Owner notifies Contractor or from the time Contractor learns or has reason to know that the original surety is no longer financially viable or acceptable to the Parish, whichever occurs first. In the event that Contractor fails

or refuses to timely secure additional surety, then the Owner may secure such surety and thereafter deduct such cost or expense from any sum due or to become due Contractor.

- 03.09 The Contractor's bondsman shall obligate itself to all the terms and covenants of these Specifications and of contracts covering the Work executed hereunder. The Owner reserves the right to do Extra Work or make changes by altering, adding to deducting from the Work under the conditions and in the manner herein before described without notice to the Contractor's surety and without in any manner affecting the liability of bondsman or releasing it from any of its obligations hereunder.
- 03.10 The Bond shall also secure for the Owner the faithful performance of the Contract in strict accordance with plans and Specifications. It shall protect the Owner against all lien laws of the State and shall provide for payment of reasonable attorney fees for enforcement of Contract and institution or concursus proceedings, if such proceedings become necessary. Likewise, it shall provide for all additional expenses of the Owner occurring through failure of the Contractor to perform.
- 03.11 The surety of the Contractor shall be and does hereby declare and acknowledge itself by acceptance to be bound to the Owner as a guarantor, jointly and in solido, with the Contractor, for fulfillment of terms of Section 03.00.
- 03.12 The performance Bond and Labor and Material Bond forming part of this Contract shall be continued by Contractor and its Surety for a period of one (1) year from date of acceptance of this Contract by Owner to assure prompt removal and replacement of all defective material, equipment, components thereof, workmanship, etc., and to assure payment of any damage to property of Owner or others as a result of such defective materials, equipment, workmanship, etc.
- 03.13 Contractor shall pay for the cost of recording the Contract and Bond and the cost of canceling same. Contractor shall also secure and pay for all Clear Lien and Privilege Certificates (together with any updates) which will be required before any final payment is made, and that may be required before any payment, at the request of the Owner, its representative, agent, architect, engineer and the like. All recordation and Clear Lien and Privilege Certificate requirements shall be in accordance with those requirements noted herein before in contract Specifications.

04.00 SUBCONTRACTS

- 04.01 Contractor shall be fully responsible for all acts and omissions of its Subcontractors and of persons and organizations for whose acts any of them may be liable to the same extent that it is responsible for the acts and omissions of persons directly employed by it. Nothing in the Contract Documents shall create any contractual relationship between Owner and any Subcontractor or other person or organization having a direct Contract with Contractor, nor shall it create any obligation on the part of the Owner to pay or to see to the payment of any monies due any Subcontractor.
- 04.02 Nothing in the Contract Documents shall be construed to control the Contractor in dividing the Work among approved Subcontractors or delineating the Work to be performed by any trade.
- 04.03 The Contractor agrees to specifically bind every Subcontractor to all of the applicable terms and conditions of the Contract Documents prior to commencing Work. Every Subcontractor, by undertaking to perform any of the Work, shall thereby automatically be deemed bound by such terms and conditions.
- 04.04 The Contractor shall indemnify and hold harmless the Owner and their agents and employees from and against all claims, damages, losses and expenses including Attorney's fees arising out of or resulting from the Contractor's failure to bind every Subcontractor and Contractor's surety to all of the applicable terms and conditions of the Contract Documents.

05.00 ASSIGNMENT

05.01 Neither party to this Contract shall assign or sublet its interest in this Contract without prior written consent of the other, nor shall the Contractor assign any monies due or to become due to it under this Contract without previous written consent of the Owner, nor without the consent of the surety unless the surety has waived its right to notice of assignment.

06.00 CORRELATION, INTERPRETATION AND INTENT OF CONTRACT DOCUMENTS.

06.01 It is the intent of the Specifications and Drawings to describe a complete Project to be constructed in accordance with the Contract Documents. The Contract Documents comprise the entire Agreement between Owner and Contractor. Alterations, modifications and amendments shall only be in writing between these parties.

06.02 The Contract Documents are intended to be complimentary and to be read *in pari materii*, and what is called for by one is as binding as if called for by all. If Contractor finds a conflict, error or discrepancy in the Contract Documents, it shall call it to the Owner's attention, in writing, at once and before proceeding with the Work affected thereby; however, it shall be liable to Owner for its failure to discover any conflict, error or discrepancy in the Specifications or Drawings. In resolving such conflicts, errors and discrepancies, the documents shall be given precedence in the following order: Agreement, Modifications, Addenda, Special Conditions, General Conditions, Construction Specifications and Drawings. The general notes on the plans shall be considered special provisions. Figure dimensions on Drawings shall govern over scale dimensions and detail Drawings shall govern over general Drawings. Where sewer connections are shown to fall on a lot line between two lots, the Contractor shall determine this location by measurement not by scale. Any Work that may reasonably be inferred from the Specifications or Drawings as being required to produce the intended result shall be supplied whether or not it is specifically called for. Work, materials or equipment described herein which so applied to this Project are covered by a well-known technical meaning or specification shall be deemed to be governed by such recognized standards unless specifically excluded.

06.03 Unless otherwise provided in the Contract Documents, the Owner will furnish to the Contractor (free of charge not to exceed ten (10) copies) Drawings and Specifications for the execution of Work. The Drawings and Specifications are the property of the Owner and are to be returned to it when the purpose for which they are intended have been served. The Contractor shall keep one copy of all Drawings and Specifications, including revisions, Addenda, details, Shop Drawings, etc. on the Work in good order and available to the Owner or the regulatory agency of the governmental body having jurisdiction in the area of the Work.

07.00 SHOP DRAWINGS, BROCHURES AND SAMPLES

07.01 After checking and verifying all field measurements, Contractor shall submit to Owner for approval, five copies (or at Owner's option, one reproducible copy) of all Shop Drawings, which shall have been checked by and stamped with the approval of Contractor and identified as Owner may require. The data shown on the Shop Drawings will be complete with respect to dimensions, design criteria, materials of construction and the like to enable Owner to review the information as required.

07.02 Contractor shall also submit to Owner, for review with such promptness as to cause no delay in Work, all samples as required by the Contract Documents. All samples will have been checked by and stamped with the approval of Contractor identified clearly as to material, manufacturer, any pertinent catalog numbers and the use for which intended. At the time of each submission, Contractor shall in writing call Owner's attention to any deviations that the Shop Drawings or samples may have from the requirements of the Contract Documents.

07.03 Owner will review with reasonable promptness Shop Drawings and samples, but its review shall be only for conformance with the design concept of the Project and for compliance with the information given in the Contract Documents. The review of a separate item as such will not indicate approval of the assembly in which the item functions. Contractor shall make any corrections required by Owner and shall return the required number of

corrected copies of Shop Drawings and resubmit new samples for review. Contractor shall direct specific attention in writing or on resubmitted Shop Drawings to revisions other than the corrections called for by Owner on previous submissions. Contractor's stamp of approval on any Shop Drawing or sample shall constitute a representation to Owner that Contractor has determined and verified all quantities, dimensions, field construction criteria, materials catalog numbers and similar data and thereafter assumes full responsibility for doing so, and that it has reviewed or coordinated each Shop Drawing or sample with the requirements of the Work and the Contract Documents.

07.04 Where a Shop Drawing or sample submission is required by the Specifications, no related Work shall be commenced until the submission has been reviewed by Owner. A copy of each reviewed shop Drawing and each inspected sample shall be kept in good order by Contractor at the site and shall be available to Owner.

07.05 Owner's review of Shop Drawings or samples shall not relieve Contractor from its responsibility for any deviations from the requirements of the Contract Documents unless Contractor has in writing called Owner's attention to such deviation at the time of submission and Owner has given written approval to the specific deviation, nor shall any review by Owner relieve Contractor from responsibility for errors or omissions in the Shop Drawings. The mere submittal of shop drawings which contain deviations from the requirements of plans, specifications and/or previous submittals in itself does not satisfy this requirement.

08.00 RECORD DRAWINGS

08.01 The Contractor shall keep an accurate record in a manner approved by the Owner of all changes in the Contract Documents during construction. In Work concerning underground utilities, the Contractor shall keep an accurate record in a manner approved by the Owner of all valves, fittings, etc. Before the Work is accepted by the Owner, and said acceptance is recorded, the Contractor shall furnish the Owner a copy of this record.

08.02 Contractor shall keep an accurate drawing measured in the field to the nearest 0.1' of the location of all sewer house connections. The location shown shall be the end of the connection at the property line measured along the main line of pipe from a manhole.

08.03 Contractor shall keep an accurate drawing of the storm water drainage collection system. Inverts to the nearest 0.01' and top of castings shall be shown as well as location of all structures to the nearest 0.1'. Upon completion of the Work, the plan will be given to the Owner.

09.00 PROGRESS OF WORK

09.01 Contractor shall conduct the Work in such a professional manner and with sufficient materials, equipment and labor as is considered necessary to ensure its completion within the time limit specified.

09.02 The Owner shall issue a Notice to Proceed to the Contractor within twenty (20) calendar days from the date of execution of the Contract. Upon mutual consent by both parties, the Notice to Proceed may be extended. The Contractor is to commence Work under the Contract within ten (10) calendar days from the date the Notice to Proceed is issued by the Owner.

09.03 The Contractor, immediately after being awarded the Contract, shall prepare and submit for the Owner's approval an estimated progress schedule for the work to be performed, as well as a construction signing layout for all roads within the project area. The Contractor shall not start work or request partial payment until the work schedule has been submitted to the Owner for approval.

09.04 Revisions to the original schedule will be made based on extension of days granted for inclement weather or change orders issued under the contract. No other revision shall be made which affects the original completion or updated completion date, whichever is applicable.

09.05 Failure of the Contractor to submit an estimated progress schedule or to complete timely and on schedule the Work shown on the progress schedule negates any and all causes or claims by the Contractor for accelerated completion damages. These accelerated damage claims shall be deemed forfeited.

09.06 Meetings will be held as often as necessary to expedite the progress of the job. Meetings will be held during normal working hours at the jobsite and shall be mandatory for the Contractor and all Sub-Contractors working on the project. Meetings may be requested by the Owner at any time and at the discretion of the Owner.

10.00 OWNER'S RIGHT TO PROCEED WITH PORTIONS OF THE WORK

10.01 Upon failure of the Contractor to comply with any notice given in accordance with the provisions hereof, the Owner shall have the alternative right, instead of assuming charge of the entire Work, to place additional forces, tools, equipment and materials on parts of the Work. The cost incurred by the Owner in carrying on such parts of the Work shall be payable by the Contractor. Such Work shall be deemed to be carried on by the Owner on account of the Contractor. The Owner may retain all amounts of the cost of such Work from any sum due Contractor or those funds that may become due to Contractor under this Agreement.

10.02 Owner may perform additional Work related to the Project by itself or it may let any other direct contract which may contain similar General Conditions. Contractor shall afford the other contractors who are parties to such different contracts (or Owner, if it is performing the additional Work itself) reasonable opportunity for the introduction and storage of materials and equipment and the execution of Work, and shall properly connect and coordinate its Work with the subsequent work.

10.03 If any part of Contractor's Work depends upon proper execution or results upon the Work of any such other contractor (or Owner), Contractor shall inspect and promptly report to Owner in writing any defects or deficiencies in such Work that render it unsuitable for such proper execution and results. Failure to so report shall constitute an acceptance of the other Work as fit and proper for the relationship of its Work except as to defects and deficiencies which may appear in the other Work after the execution of its Work.

10.04 Whatever Work is being done by the Owner, other Contractors or by this Contractor, the parties shall respect the various interests of the other parties at all times. The Owner may, at its sole discretion, establish additional rules and regulations concerning such orderly respect of the rights of various interests.

10.05 Contractor shall do all cutting, fitting and patching of its Work that may be required to integrate its several parts properly and fit to receive or be received by such other Work. Contractor shall not endanger any Work of others by cutting, excavating or otherwise altering Work and will only alter Work with the written consent of Owner and of the other contractors whose Work will be affected.

10.06 If the performance of additional Work by other contractors or Owner is not noted in the Contract Documents, written notice thereof shall be given to Contractor prior to starting any such additional Work. If Contractor believes that the performance of such additional Work by Owner or others may cause additional expense or entitles an extension of the Contract Time, the Contractor may make a claim therefor. The claim must be in writing to the Owner within thirty (30) calendar days of receipt of notice from the Owner of the planned additional Work by others.

11.00 TIME OF COMPLETION

11.01 The Notice to Proceed will stipulate the date on which the Contractor shall begin work. That date shall be the beginning of the Contract Time charges.

11.02 Contractor shall notify the Owner through its duly authorized representative, in advance, of where Contractor's work shall commence each day. A daily log shall be maintained by Contractor to establish dates, times, persons contacted, and location of work. Specific notice shall be made to the Owner if the Contractor plans to work on Saturday, Sunday, or

a Parish approved holiday. If notice is not received, no consideration will be given for inclement weather and same shall be considered a valid work day.

- 11.03 The Work covered by the Plans, Specifications and Contract Documents must be completed sufficiently for acceptance within the number of calendar days specified in the Proposal and/or the Contract, commencing from the date specified in the Notice to Proceed. It is hereby understood and mutually agreed, by and between the Contractor and the Owner, that the time of completion is an essential condition of this Contract, and it is further mutually understood and agreed that if the Contractor shall neglect, fail or refuse to complete the Work within the time specified, or any proper extension thereof granted by the Owner, then the Contractor does hereby agree, as partial consideration for the awarding of this Contract, to pay the Owner \$500.00 per day as specified in the Contract, not as a penalty, but as liquidated damages for such breach of contract for each and every calendar day that the Contractor shall be in default after the time stipulated in the Contract for completing the Work. It is specifically understood that the Owner shall also be entitled to receive a reasonable attorney fee and all costs in the event that Contractor fails to adhere to this agreement and this contract is referred to counsel for any reason whatsoever. Reasonable attorney fees shall be the prevailing hourly rate of the private sector, and in no event shall the hourly rate be less than \$175.00 per hour. All attorney fees shall be paid to the operating budget of the Office of the Parish President.
- 11.04 Prior to final payment, the Contractor may, in writing to the Owner, certify that the entire Project is substantially complete and request that the Owner or its agent issue a certificate of Substantial Completion. See Section 29.00.
- 11.05 The Owner may grant an extension(s) of time to the Contractor for unusual circumstances which are beyond the control of the Contractor and could not reasonably be foreseen by the Contractor prior to Bidding. Any such request must be made in writing to the Owner within seven (7) calendar days following the event occasioning the delay. The Owner shall have the exclusive and unilateral authority to determine, grant, and/or deny the validity of any such claim.
- 11.06 Extensions of time for inclement weather shall be processed as follows:

Commencing on the start date of each job, the Parish Inspector assigned to same shall keep a weekly log, indicating on each day whether inclement weather has prohibited the Contractor from working on any project within the specific job, based upon the following:

1. Should the Contractor prepare to begin work on any day in which inclement weather, or the conditions resulting from the weather, prevent work from beginning at the usual starting time, and the crew is dismissed as a result, the Contractor will not be charged for a working day whether or not conditions change during the day and the rest of the day becomes suitable for work.
2. If weather conditions on the previous day prevent Contractor from performing work scheduled, provided that no other work can be performed on any project within the package. The Parish Inspector shall determine if it is financially reasonable to require the Contractor to deviate from the schedule and relocate to another location.
3. If the Contractor is unable to work at least 60% of the normal work day due to inclement weather, provided that a normal working force is engaged on the job.

Any dispute of weather conditions as related to a specific job shall be settled by records of the National Weather Service.

- 11.07 Extensions of time for change orders

When a change order is issued, the Owner and Contractor will agree on a reasonable time extension, if any, to implement such change. Consideration shall be given for, but not limited to, the following:

1. If material has to be ordered;
2. Remobilization and or relocation of equipment to perform task; and
3. Reasonable time frame to complete additional work.

Time extensions for change orders shall be reflected on the official document signed by the Owner and Contractor.

- 11.08 At the end of each month, the Owner or its agent will furnish to the Contractor a monthly statement which reflects the number of approved days added to the contract. The Contractor will be allowed fourteen (14) calendar days in which to file a written protest setting forth in what respect the monthly statement is incorrect; otherwise, the statement shall be considered accepted by the Contractor as correct.
- 11.09 Apart from extension of time for unavoidable delays, no payment or allowance of any kind shall be made to the Contractor as compensation for damages because of hindrance or delay for any cause in the progress of the Work, whether such delay be avoidable or unavoidable.

12.00 LIQUIDATED DAMAGES

- 12.01 In case the Work is not completed in every respect within the time that may be extended, it is understood and agreed that per diem deductions of the sum of \$500.00 for liquidated damages, as stipulated in the Proposal and/or Contract, shall be made from the total Contract Price for each and every calendar day after and exclusive of the day on which completion was required, and up to the completion of the Work and acceptance thereof by the Owner. It is understood and agreed that time is of the essence to this Contract, and the above sum being specifically herein agreed upon in advance as the measure of damages to the Owner on account of such delay in the completion of the Work. It is further agreed that the expiration of the term herein assigned or as may be extended for performing the Work shall, *ipso facto*, constitute a putting in default, the Contractor hereby waiving any and all notice of default. The Contractor agrees and consents that the Contract Price, reduced by the aggregate of the entire damages so deducted, shall be accepted in full satisfaction of all Work executed under this Contract. It is further understood and agreed that Contractor shall be liable for a reasonable attorney fee and all costs associated with any breach of this agreement, including but not limited to this subsection. In the event that any dispute or breach herein causes referrals to counsel, then Contractor agrees to pay a reasonable attorney fee at the prevailing hourly rate of the private sector. In no event shall the hourly rate be less than \$175.00 per hour.

13.00 LABOR, MATERIALS, EQUIPMENT, SUPERVISION, PERMITS AND TAXES

- 13.01 The Contractor shall provide and pay for all labor, materials, equipment, supervision, subcontracting, transportation, tools, fuel, power, water, sanitary facilities and all incidentals necessary for the completion of the Work in substantial conformance with the Contract Documents.
- 13.02 The Contractor shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. It shall at all times maintain good discipline and order at the site.
- 13.03 Unless otherwise specifically provided for in the Specifications, all workmanship, equipment, materials, and articles incorporated in the Work covered by this Contract are to be new and of the best grade of their respective kinds for the purpose intended. Samples of materials furnished under this Contract shall be submitted for approval to the Owner when and as directed.
- 13.04 Whenever a material or article required is specified or shown on the plans by using the name of a proprietary product or of a particular manufacturer or vendor, any material or article which shall perform adequately the duties imposed by the general design will be considered equal, and satisfactory, providing the material or article so proposed is of equal substance and function and that all technical data concerning the proposed substitution be approved by the Owner prior to the Bidding. The Owner shall have the exclusive and unilateral discretion to determine quality and suitability in accordance with LSA-R.S. 38:2212(T)(2).

- 13.05 Materials shall be properly and securely stored so as to ensure the preservation of quality and fitness for the Work, and in a manner that leaves the material accessible to inspection. Materials or equipment may not be stored on the site in a manner such that it will interfere with the continued operation of streets and driveways or other contractors working on the site.
- 13.06 The Contractor, by entering into the Contract for this Work, sets itself forth as an expert in the field of construction and it shall supervise and direct the Work efficiently and with its best skill and attention. It shall be solely responsible for the means, methods, techniques, sequences and procedures of construction.
- 13.07 Contractor shall keep on the Work, at all times during its progress, a competent resident Superintendent, who shall not be replaced without written Notice to Owner except under extraordinary circumstances. The Superintendent will be Contractor's representative at the site and shall have authority to act on behalf of Contractor. All communications given to the Superintendent shall be as binding as if given to the Contractor. Owner specifically reserves the right to approve and/or disapprove the retention of a new superintendent, all to not be unreasonably withheld.
- 13.08 Any foreman or workman employed on this Project who disregards orders or instructions, does not perform his Work in a proper and skillful manner, or is otherwise objectionable, shall, at the written request of the Owner, be removed from the Work and shall be replaced by a suitable foreman or workman.
- 13.09 The Contractor and/or its assigned representative shall personally ensure that all subcontracts and divisions of the Work are executed in a proper and workmanlike manner, on scheduled time, and with due and proper cooperation.
- 13.10 Failure of the Contractor to keep the necessary qualified personnel on the Work shall be considered cause for termination of the Contract by the Owner.
- 13.11 Only equipment in good working order and suitable for the type of Work involved shall be brought onto the job and used by the Contractor. The Contractor is solely responsible for the proper maintenance and use of its equipment and shall hold the Owner harmless from any damages or suits for damages arising out of the improper selection or use of equipment. No piece of equipment necessary for the completion of the Work shall be removed from the job site without approval of the Owner.
- 13.12 All Federal, State and local taxes due or payable during the time of Contract on materials, equipment, labor or transportation, in connection with this Work, must be included in the amount bid by the Contractor and shall be paid to proper authorities before acceptance. The Contractor shall furnish all necessary permits and certificates and comply with all laws and ordinances applicable to the locality of the Work. The cost of all inspection fees levied by any governmental entity whatsoever shall be paid for by the Contractor.
- 13.13 In accordance with St. Tammany Police Jury Resolution 86-2672, as amended, the Contractor must provide in a form suitable to the Owner an affidavit stating that all applicable sales taxes for materials used on this project have been paid.
- 13.14 During the period that this Contract is in force, neither party to the Contract shall solicit for employment or employ an employee of the other.
- 13.15 All materials or equipment shown on the Drawings or included in these specifications shall be furnished unless written approval of a substitute is obtained from the Designer, or Owner if no separate designer.
- 13.16 If a potential supplier wishes to submit for prior approval a particular product other than a product specified in the contract documents, he shall do so no later than seven working days prior to the opening of bids. Within three days, exclusive of holidays and weekends, after such submission, the prime design professional shall furnish to both the public entity and the potential supplier written approval or denial of the product submitted. The burden of proof of the equality of the proposed substitute is upon the proposer and only that information formally submitted shall be used by the Designer in making its decision.

13.17 The decision of the Designer/Owner shall be given in good faith and shall be final.

14.00 QUANTITIES OF ESTIMATE, CHANGES IN QUANTITIES, EXTRA WORK

14.01 Whenever the estimated quantities of Work to be done and materials to be furnished under this Contract are shown in any of the documents, including the Proposal, such are given for use in comparing Bids and the right is especially reserved, except as herein otherwise specifically limited, to increase or diminish same not to exceed twenty-five percent (25%) by the Owner to complete the Work contemplated by this Contract. Such increase or diminution shall in no way vitiate this Contract, nor shall such increase or diminution give cause for claims or liability for damages.

14.02 The Owner shall have the right to make alterations in the line, grade, plans, form or dimensions of the Work herein contemplated, provided such alterations do not change the total cost of the Project, based on the originally estimated quantities, and the unit prices bid by more than twenty-five percent (25%) and provided further that such alterations do not change the total cost of any major item, based on the originally estimated quantities and the unit price bid by more than twenty-five (25%). (A major item shall be construed to be any item, the total cost of which is equal to or greater than ten percent (10%) of the total Contract Price, computed on the basis of the Proposal quantity and the Contract unit price). Should it become necessary, for the best interest of the Owner, to make changes in excess of that herein specified, the same shall be covered by supplemental agreement either before or after the commencement of the Work and without notice to the sureties. If such alterations diminish the quantity of Work to be done, such shall not constitute a claim for damages for anticipated profits for the Work dispensed with, but when the reduction in amount is a material part of the Work contemplated, the Contractor shall be entitled to only reasonable compensation as determined by the Owner for overhead and equipment charges which it may have incurred in expectation of the quantity of Work originally estimated, unless specifically otherwise provided herein; if the alterations increase the amount of Work, the increase shall be paid according to the quantity of Work actually done and at the price established for such Work under this Contract except where, in the opinion of the Owner, the Contractor is clearly entitled to extra compensation.

14.03 Without invalidating the Contract, the Owner may order Extra Work or make changes by altering, adding to, or deducting from the Work, the Contract sum being adjusted accordingly. The consent of the surety must first be obtained when necessary or desirable, all at the exclusive discretion of the Owner. All the Work of the kind bid upon shall be paid for at the price stipulated in the Proposal, and no claims for any Extra Work or material shall be allowed unless the Work is ordered in writing by the Owner.

14.04 Extra Work for which there is no price or quantity included in the Contract shall be paid for at a unit price or lump sum to be agreed upon in advance in writing by the Owner and Contractor. Where such price and sum cannot be agreed upon by both parties, or where this method of payment is impracticable, the Owner may, at its exclusive and unilateral discretion, order the Contractor to do such Work on a Force Account Basis.

14.05 In computing the price of Extra Work on a Force Account Basis, the Contractor shall be paid for all foremen and labor actually engaged on the specific Work at the current local rate of wage for each and every hour that said foremen and labor are engaged in such Work, plus ten percent (10%) of the total for superintendence, use of tools, overhead, direct & indirect costs/expenses, pro-rata applicable payroll taxes, pro-rata applicable workman compensation benefits, pro-rata insurance premiums and pro-rata reasonable profit. The Contractor shall furnish satisfactory evidence of the rate or rates of such insurance and tax. The Contractor will not be able to collect any contribution to any retirement plans or programs.

14.06 For all material used, the Contractor shall receive the actual cost of such material delivered at the site of the Work, as shown by original receipted bill, to which shall be added five percent (5%). There will be absolutely no additional surcharges or additional fees attached hereto with respect to this subsection.

14.07 For any equipment used that is owned by the Contractor, the Contractor shall be allowed a rental based upon the latest prevailing rental price, but not to exceed a rental price as determined by the Associated Equipment Distributors (A.E.D. Green Book).

- 14.08 The Contractor shall also be paid the actual costs of transportation for any equipment which it owns and which it has to transport to the Project for the Extra Work. There will be absolutely no additional surcharges or additional fees attached hereto with respect to this subsection.
- 14.09 If the Contractor is required to rent equipment for Extra Work, but not required for Contract items, it will be paid the actual cost of rental and transportation of such equipment to which no percent shall be added. The basis upon which rental cost are to be charged shall be agreed upon in writing before the Work is started. Actual rental and transportation costs shall be obtained from receipted invoices and freight bills.
- 14.10 No compensation for expenses, fees or costs incurred in executing Extra Work, other than herein specifically mentioned herein above, will be allowed.
- 14.11 A record of Extra Work on Force Account basis shall be submitted to the Owner on the day following the execution of the Work, and no less than three copies of such record shall be made on suitable forms and signed by both the Owner or his representative on the Project and the Contractor. All bids for materials used on extra Work shall be submitted to the Owner by the Contractor upon certified statements to which will be attached original bills covering the costs of such materials.
- 14.12 Payment for Extra Work of any kind will not be allowed unless the same has been ordered in writing by the Owner.

15.00 STATUS OF THE ENGINEER (NOT APPLICABLE)

16.00 INJURIES TO PERSONS AND PROPERTY

- 16.01 The Contractor shall be held solely and exclusively responsible for all injuries to persons and for all damages to the property of the Owner or others caused by or resulting from the negligence of itself, its employees or its agents, during the progress of or in connection with the Work, whether within the limits of the Work or elsewhere under the Contract proper or as Extra Work. This requirement will apply continuously and not be limited to normal working hours or days. The Owner's construction review is for the purpose of checking the Work product produced and does not include review of the methods employed by the Contractor or to the Contractor's compliance with safety measures of any nature whatsoever. The Contractor agrees to pay a reasonable attorney fee and other reasonable attendant costs of the Owner in the event it becomes necessary for the Owner to employ an attorney to enforce this section or to protect itself against suit over the Contractor's responsibilities. Attorney fees shall be at the prevailing hourly rate of the private sector. The attorney fee hourly rate shall not be less than \$175.00 per hour. All attorney fees collected shall be paid to the operating budget of the Office of the Parish President.
- 16.02 The Contractor must protect and support all utility infrastructures or other properties which are liable to be damaged during the execution of its Work. It shall take all reasonable and proper precautions to protect persons, animals and vehicles or the public from the injury, and wherever necessary, shall erect and maintain a fence or railing around any excavation, and place a sufficient number of lights about the Work and keep same burning from twilight until sunrise, and shall employ one or more watchmen as an additional security whenever needed. The Contractor understands and agrees that the Owner may request that security be placed on the premises to ensure and secure same. The Owner shall have exclusive authority to request placement of such security. Contractor agrees to retain and place security as requested, all at the sole expense of Contractor. Additional security shall not be considered a change order or reason for additional payment by the Owner. The Contractor must, as far as practicable and consistent with good construction, permit access to private and public property and leave fire hydrants, catch basins, streets, etc., free from encumbrances. The Contractor must restore at its own expense all injured or damaged property caused by any negligent act of omission or commission on its part or on the part of its employees or subcontractors, including, but not limited to, sidewalks, curbing, sodding, pipes conduits, sewers, buildings, fences, bridges, retaining walls, tanks, power lines, levees or any other building or property whatsoever to a like condition as existed prior to such damage or injury.

- 16.03 In case of failure on the part of the Contractor to restore such property or make good such damage, the Owner may upon forty-eight (48) hours' notice proceed to repair or otherwise restore such property as may be deemed necessary, and the cost thereof will be deducted from any monies due or which may become due under its Contract.
- 16.04 Contractor agrees to protect, defend, indemnify, save, and hold harmless St. Tammany Parish Government, its elected and appointed officials, departments, agencies, boards and commissions, their officers, agents servants, employees, including volunteers, from and against any and all claims, demands, expense and liability arising out of injury or death to any person or the damage, loss or destruction of any property to the extent caused by any negligent act or omission or willful misconduct of Contractor, its agents, servants, employees, and subcontractors, or any and all costs, expense and/or attorney fees incurred by St. Tammany Parish Government as a result of any claim, demands, and/or causes of action that results from the negligent performance or non-performance by Contractor, its agents, servants, employees, and subcontractors of this contract. Contractor agrees to investigate, handle, respond to, provide defense for and defend any such claims, demand, or suit at its sole expense and agrees to bear all other costs and expenses related thereto caused by any negligent act or omission or willful misconduct of Contractor, its agents, servants, employees, and subcontractors.
- 16.05 As to any and all claims against Owner, its agents, assigns, representatives or employees by any employee of Contractor, any Subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts as may be liable, the indemnification obligation under Paragraph 16.04 shall not be limited in any way or by any limitation on the amount or type of damages, compensation or benefits payable by or for Contractor or any Subcontractor under workmen's compensation acts, disability benefit acts or other employee benefit acts.
- 16.06 No road shall be closed by the Contractor to the public except by written permission of the Owner. If so closed, the Contractor shall maintain traffic over, through and around the Work included in his Contract, with the maximum practical convenience, for the full twenty-four hours of each day of the Contract, whether or not Work has ceased temporarily. The Contractor shall notify the Owner at the earliest possible date after the Contract has been executed and, in any case, before commencement of any construction that might in any way inconvenience or endanger traffic, in order that necessary and suitable arrangements may be determined. Any and all security, maintenance, labor or costs associated with traffic control herein shall be at the sole expense of Contractor. This expense shall be paid directly by the Contractor. This expense shall not be considered as a change order nor shall it allow the Contractor any additional cost reimbursement whatsoever. All traffic deviations herein shall be coordinated with the appropriate law enforcement officials of this Parish.
- 16.07 The convenience of the general public and residents along the Works shall be provided for in a reasonable, adequate and satisfactory manner. Where existing roads are not available as detours, and unless otherwise provided, all traffic shall be permitted to pass through the Work. In all such cases, the public shall have precedence over Contractor's vehicles insofar as the traveling public's vehicles shall not be unduly delayed for the convenience of the Contractor. In order that all unnecessary delay to the traveling public may be avoided, the Contractor shall provide and station competent flagmen whose sole duties shall consist of directing and controlling the movement of public traffic either through or around the Work. Any and all security, maintenance, labor or costs associated with traffic control herein shall be at the sole expense of Contractor. This expense shall be paid directly by the Contractor. This expense shall not be considered as a change order nor shall it allow the Contractor any additional cost reimbursement whatsoever. All traffic deviations herein shall be coordinated with the appropriate law enforcement officials of this Parish.
- 16.08 The Contractor shall arrange its Work so that no undue or prolonged blocking of business establishments will occur.
- 16.09 Material and equipment stored on the right of way or work site shall be so placed and the Work at times shall be so conducted as to ensure minimum danger and obstruction to the traveling public.
- 16.10 During grading operations when traffic is being permitted to pass through construction, the Contractor shall provide a smooth, even surface that will provide a satisfactory passageway

for use of traffic. The road bed shall be sprinkled with water if necessary to prevent a dust nuisance, provided the dust nuisance is a result of the Work.

- 16.11 Fire hydrants shall be accessible at all times to the Fire Department. No material or other obstructions shall be placed closer to a fire hydrant than permitted by ordinances, rules or regulations or within fifteen (15) feet of a fire hydrant, in the absence of such ordinance, rules or regulations.
- 16.12 The Contractor shall not, without the written permission of the Owner, do Work for a resident or property owner abutting the Work at the time that this Work is in progress.
- 16.13 No Work of any character shall be commenced on railroad right-of-way until the Railroad Company has issued a permit to the Owner and has been duly notified by the Contractor in writing (with a copy forwarded to the Owner) of the date it proposes to begin Work, and until an authorized representative of the Railroad Company is present, unless the Railroad Company waives such requirements. All Work performed by the Contractor within the right-of-way limits of the railroad shall be subject to the inspection and approval of the chief engineer of the Railroad Company or its authorized representative. Any precautions considered necessary by said chief engineer to safeguard the property, equipment, employees and passengers of the Railroad Company shall be taken by the Contractor without extra compensation. The Contractor shall, without extra compensation, take such precautions and erect and maintain such tell-tale or warning devices as the Railroad Company considers necessary to safeguard the operation of its trains. The temporary vertical and horizontal clearance specified by the chief engineer of the Railroad Company in approving these shall be maintained at all times. No steel, brick, pipe or any loose material shall be left on the ground in the immediate vicinity of the railway track. Before any Work is done within Railroad right of way, the Contractor shall provide and pay all costs of any special insurance requirements of the Railroad.
- 16.14 The Contractor, shall, without extra compensation, provide, erect, paint and maintain all necessary barricades. Also, without extra compensation, the Contractor shall provide suitable and sufficient lights, torches, reflectors or other warning or danger signals and signs, provide a sufficient number of watchmen and flagmen and take all the necessary precautions for the protection of the Work and safety of the Public.
- 16.15 The Contractor shall erect warning signs beyond the limits of the Project, in advance of any place on the Project where operations interfere with the use of the road by traffic, including all intermediate points where the new Work crosses or coincides with the existing road. All barricades and obstructions shall be kept well painted and suitable warning signs shall be placed thereon. All barricades and obstructions shall be illuminated at night and all lights or devices for this purpose shall be kept burning from sunset to sunrise.
- 16.16 Whenever traffic is maintained through or over any part of the Project, the Contractor shall clearly mark all traffic hazards. No direct payment will be made for barricades, signs and illumination therefore or for watchmen or flagmen.
- 16.17 The Contractor will be solely and completely responsible for conditions on the job site, including safety of all persons and property during performance of the Work. This requirement will apply continuously and not be limited to normal working hours. The duty of the Owner to conduct construction review of the Contractor's performance is not intended to include review of the adequacy of the Contractor's safety measures, in, or near the construction site.

17.00 SANITARY PROVISIONS

- 17.01 The Contractor shall provide and maintain in a neat, sanitary condition such accommodations for the use of its employees as may be necessary to comply with the rules and regulations of the State Health Agency or of the other authorities having jurisdiction and shall permit no public nuisance.

18.00 RIGHTS OF WAY

18.01 The Owner will furnish the Contractor with all necessary rights-of-way for the prosecution of the Work. The rights of way herein referred to shall be taken to mean only permission to use or pass through the locations or space in any street, highway, public or private property in which the Contractor is to prosecute the Work.

18.02 It is possible that all lands and rights of way may not be obtained as herein contemplated before construction begins, in which event the Contractor shall begin its Work upon such land and rights of way as the Owner may have previously acquired. Any delay in furnishing these lands by the Owner can be deemed proper cause for adjustment in the Contract amount and/or in the time of completion.

19.00 PROTECTION AND RESTORATION OF PROPERTY AND LANDSCAPE

19.01 The Contractor shall not enter upon private property for any purpose without first obtaining permission from the Owner, as well as the private property owner and/or and private property Lessees. The Contractor shall use every precaution necessary for the preservation of all public and private property, monuments, highway signs, telephone lines, other utilities, etc., along and adjacent to the Work; the Contractor shall use every precaution necessary to prevent damage to pipes, conduits, and other underground structures; and shall protect carefully from disturbance or damage all land monuments and property marks until an authorized agent has witnessed or otherwise referenced their location and shall not remove them until directed. The street and highway signs and markers that are to be affected by the Work shall be carefully removed when the Work begins and stored in a manner to keep them clean and dry. The Contractor must obtain all necessary information in regard to existing utilities and shall give notice in writing to the owners or the proper authorities in charge of streets, gas, water, pipes, electric, sewers and other underground structures, including conduits, railways, poles and pole lines, manholes, catch basins, fixtures, appurtenances, and all other property that may be affected by the Contractor's operations, at least forty-eight (48) hours before its operations will affect such property. The Contractor shall not hinder or interfere with any person in the protection of such Work or with the operation of utilities at any time. When property, the operation of railways, or other public utilities are endangered, the Contractor shall at its own expense, maintain flagmen or watchmen and any other necessary precautions to avoid interruption of service or damage to life or property, and it shall promptly repair, restore, or make good any injury or damage caused by its negligent operations in an acceptable manner. The Contractor must also obtain all necessary information in regard to the installation of new cables, conduits, and transformers, and make proper provisions and give proper notifications, in order that same can be installed at the proper time without delay to the Contractor or unnecessary inconvenience to the Owner.

19.02 The Contractor shall not remove, cut or destroy trees, shrubs, plants, or grass that are to remain in the streets or those which are privately owned, without the proper authority. Unless otherwise provided in the Special Provisions or the Proposal, the Contractor shall replace and replant all plants, shrubs, grass and restore the grounds back to its original good condition to the satisfaction of the Owner and/or the property owner. The Contractor shall assume the responsibility of replanting and guarantees that plants, shrubs, grass will be watered, fertilized and cultivated until they are in a growing condition. No direct payment will be made for removing and replanting of trees, shrubs, plants or grass unless such items are set forth in the Proposal.

19.03 When or where direct damage or injury is done to public or private property by or on account of any negligent act, omission, neglect or otherwise of the Contractor, it shall make good such damage or injury in an acceptable manner.

20.00 CONTRACTORS RESPONSIBILITY FOR WORK

20.01 Until final acceptance of the Work by the Owner as evidence by approval of the final estimate, the Work shall be in the custody and under the charge and care of the Contractor and it shall take every necessary precaution against injury or damage to any part thereof by the action of the elements or from the non-execution of the Work; unless otherwise provided for elsewhere in the Specifications or Contract. The Contractor shall rebuild, repair, restore and make good, without extra compensation, all injuries or damages to any portion of the Work occasioned by any of the above causes before its completion and

acceptance, and shall bear the expenses thereof. In case of suspension of the Work from any cause whatever, the Contractor shall be responsible for all materials and shall properly and securely store same, and if necessary, shall provide suitable shelter from damage and shall erect temporary structures where necessary. If in the exclusive discretion of the Owner, any Work or materials shall have been damaged or injured by reason of failure on the part of the Contractor or any of its Subcontractors to so protect the Work, such materials shall be removed and replaced at the sole expense of the Contractor. Such amount shall be deducted from any sum due or to be due Contractor.

20.02 The Contractor shall give all notice and comply with all Federal, State, and local laws, ordinances, and regulations in any manner affecting the conduct of the Work, and all such orders and decrees as exist, or may be enacted by bodies or tribunals having any jurisdiction or authority over the Work, and shall indemnify and hold harmless the Owner against any claim or liability arising from, or based on, the violation of any such law, ordinance, regulation, order or decree, whether by itself, its employees or Subcontractors.

21.00 TESTS AND INSPECTIONS CORRECTION & REMOVAL OF DEFECTIVE WORK

21.01 Contractor warrants and guarantees to Owner that all materials and equipment will be new unless otherwise specified and that all Work will be of good quality and free from faults or defects and in accordance with the requirements of the Contract Documents. All unsatisfactory Work, all faulty or Defective Work and all Work not conforming to the requirements of the Contract Documents at the time of acceptance shall be considered Defective. Prompt and reasonable notice of all defects shall be given to the Contractor.

21.02 If the Contract Documents, laws, ordinances, rules, regulations or orders of any public authority having jurisdiction require any Work to specifically be inspected, tested or approved by some public body, Contractor shall assume full responsibility therefor, pay all costs in connection therewith and furnish Owner the required certificates of inspection, testing or approval. All other inspections, tests and approval required by the Contract Documents shall be performed by organizations acceptable to Owner and Contractor and the costs thereof shall be borne by the Contractor unless otherwise specified.

21.03 Contractor shall give Owner timely notice of readiness of the Work for all inspections, tests or approvals. If any such Work required to be inspected, tested or approved is covered without written approval of Owner, it must, if requested by Owner, be uncovered for observation, and such uncovering shall be at Contractor's expense unless Contractor has given Owner timely notice of its intention to cover such Work and Owner has not acted with reasonable promptness in response to such notice.

21.04 Neither observations by Owner nor inspections, tests or approvals shall relieve Contractor from its obligations to perform the Work in accordance with the requirements of the Contract Document.

21.05 Owner and its representatives will at reasonable times have access to the Work. Contractor shall provide proper and safe facilities for such access and observation of the Work and also for any inspection or testing thereof by others.

21.06 If any Work is covered contrary to the written request of Owner, it must, be uncovered for Owner's observation and replaced at Contractor's expense. If any Work has been covered which Owner has not specifically requested to observe prior to its being covered, or if Owner considers it necessary or advisable that covered Work be inspected or tested by others, the Contractor, at Owner's request, shall uncover, expose or otherwise make available for observations, inspections or testing as Owner may require, that portion of the Work in question, furnishing all necessary labor, material and equipment. If it is found that such Work is Defective, Contractor shall bear all the expenses of such uncovering, exposure, observation, inspection and testing and of satisfactory reconstruction, including compensation for additional professional services, and an appropriate deductive Change Order shall be issued. If, however, such Work is not found to be Defective, Contractor shall be allowed an increase in the Contract Price or an extension of the Contract Time, or both, directly attributable to such uncovering, exposure, observation, inspection, testing and reconstruction.

- 21.07 If the Work is Defective, or Contractor fails to supply sufficient skilled workmen or suitable materials or equipment, or if the Contractor fails to make prompt payments to Subcontractors or for labor, materials or equipment, Owner may order Contractor to stop the Work, or any portion thereof, until the cause of such order has been eliminated; however, this right of Owner to stop the Work shall not give rise to any duty on the part of Owner to exercise this right for the benefit of Contractor or any other party.
- 21.08 Prior to approval of final payment, Contractor shall promptly, without cost to Owner and as specified by Owner, either correct any Defective Work, whether or not fabricated, installed or completed, or if the Work has been rejected by Owner, remove it from the site and replace it with non-defective Work. If Contractor does not correct such Defective Work or remove and replace such rejected Work within a reasonable time, all as specified in a written notice from Owner, Owner may have the deficiency corrected or the rejected Work removed and replaced. All direct or indirect costs of such correction or removal and replacement including compensation for additional professional services shall be paid by Contractor, and an appropriate deductive Change Order shall be issued. Contractor shall also bear the expense of making good all Work of others destroyed or damaged by its correction, removal or replacement of its Defective Work.
- 21.09 If, after the approval of final payment and prior to the expiration of one year after the date of Substantial Completion or such longer period of time as may be prescribed by law or by the terms of any applicable special guarantee required by the Contract Documents, any Work is found to be Defective, Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions, either correct such Defective Work or if it has been rejected by Owner, remove it from the site and replace it with non-defective Work. If Contractor does not promptly comply with the terms of such instructions, Owner may have the Defective Work corrected or the rejected Work removed and replaced, and all direct and indirect costs of such removal and replacement, including compensation for additional professional services, shall be paid by Contractor. The Contractor agrees to pay a reasonable attorney fee and other reasonable attendant costs of the Owner in the event it becomes necessary for the Owner to employ an attorney to enforce this section or to protect itself against suit over the Contractor's responsibilities. Attorney fees shall be at the prevailing hourly rate of the private sector. The attorney fee hourly rate shall not be less than \$175.00 per hour. All attorney fees collected shall be paid to the operating budget of the Office of the Parish President.
- 21.10 If, instead of requiring correction or removal and replacement of Defective Work, Owner (and prior to approval of final payment) prefers to accept it, the Owner may do so. In such case, if acceptance occurs prior to approval of final payment, a Change Order shall be issued incorporating the necessary revisions in the Contract Documents, including appropriate reduction in the Contract Price, or, if the acceptance occurs after approval of final payment, an appropriate amount shall be paid by Contractor to Owner.
- 21.11 If Contractor should fail to progress the Work in accordance with the Contract Documents, including any requirements of the Progress Schedule, Owner, after seven (7) days written Notice to Contractor, may, without prejudice to any other remedy Owner may have, make good such deficiencies and the cost thereof including compensation for additional professional services shall be charged against Contractor. In such cases, a Change Order shall be issued incorporating the necessary revisions in the Contract Documents including an appropriate reduction in the Contract Price. If the payments then or thereafter due Contractor are not sufficient to cover such amount, Contractor shall pay the difference to Owner.
- 21.12 The Owner may appoint representatives to make periodic visits to the site and observe the progress and quality of the executed Work. These representatives shall be governed by the same restrictions placed on the Owner by these Specifications. The governing body of the Federal, State or local government exercising authority in the area of the Work may appoint representatives to observe the progress and quality of the Work. Contractor shall cooperate with and assist these representatives in the performance of their duties.
- 21.13 The Contractor shall be responsible for the faithful execution of its Contract and the presence or absence of the Owner's or Government's Representative is in no way or manner to be presumed or assumed to relieve in any degree the responsibility or obligation of the Contractor.

- 21.14 The Contractor shall notify the Owner and the Governmental Agency having jurisdiction as to the exact time at which it is proposed to begin Work so the Owner may provide for inspection of all materials, foundations, excavations, equipment, etc., and all or any part of the Work and to the preparation or manufacture of materials to be used whether within the limits of the Work or at any other place.
- 21.15 The Owner or its representatives shall have free access to all parts of the Work and to all places where any part of the materials to be used are procured, manufactured or prepared. The Contractor shall furnish the Owner all information relating to the Work and the material therefor, which may be deemed necessary or pertinent, and with such samples of materials as may be required. The Contractor, at its own expense, shall supply such labor and assistance as may be necessary in the handling of materials for proper inspection or for inspection of any Work done by it.
- 21.16 No verbal instructions given to the Contractor by the Owner, Project Representative or any of their agents shall change or modify the written Contract. Contractors shall make no claims for additional payments or time based upon verbal instructions.

22.00 SUBSURFACE CONDITIONS

- 22.01 It is understood and agreed that the Contractor is familiar with the subsurface conditions that will be encountered and its price bid for the Work includes all of the costs involved for Work in these conditions and it is furthermore agreed that it has taken into consideration, prior to its Bid and acceptance by Owner, all of the subsurface conditions normal or unusual that might be encountered in the location of the Work.
- 22.02 Should the Contractor encounter during the progress of the Work subsurface conditions at the site materially differing from those shown on the Drawings or indicated in the Specifications, the attention of the Owner shall be directed to such conditions before the conditions are disturbed. If the Owner finds that the conditions materially differ from those shown on the Drawings or indicated in the Specifications, it shall at once make such changes in the Drawings or Specifications as it may find necessary, and any increase or decrease in cost or extension of time resulting from such changes shall be adjusted in the same manner as provided for changes for Extra Work. The Contractor shall submit breakdowns of all costs in a manner as instructed and approved by the Owner.

23.00 REMOVAL AND DISPOSAL OF STRUCTURES AND OBSTRUCTIONS

- 23.01 Bidder shall thoroughly examine the site of the Work and shall include in its Bid the cost of removing all structures and obstructions in the way of the Work.
- 23.02 The Contractor shall remove any existing structures or part of structures, fence, building or other encumbrances or obstructions that interfere in any way with the Work. Compensations for the removal of any structure shall be made only if the item(s) to be removed was/were listed as pay item(s) on the Proposal.
- 23.03 If called for in the Special Conditions, all privately and publicly owned materials and structures removed shall be salvaged without damage and shall be piled neatly and in an acceptable manner upon the premises if it belongs to an abutting property owner, otherwise at accessible points along the improvements. Materials in structures which is the property of the Owner or property of any public body, private body or individual which is fit for use elsewhere, shall remain property of the original Owner. It shall be carefully removed without damage, in sections which may be readily transported; same shall be stored on or beyond the right of way. The Contractor will be held responsible for the care and preservation for a period of ten (10) days following the day the last or final portion of the materials stored at a particular location are placed thereon. When privately owned materials are stored beyond the right of way, the Contractor will be held responsible for such care and preservation for a period of ten (10) days responsibility period for care and preservation of the materials begins. The Contractor must furnish the Owner with evidence satisfactory that the proper owner of the materials has been duly notified by the Contractor that the said owner must assume responsibility for its materials on the date following the Contractor's ten (10) day responsibility.

24.00 INSURANCE

- 24.01 Contractor shall secure and maintain at its expense such insurance that will protect it and the Parish from claims for injuries to persons or damages to property which may arise from or in connection with the performance of Services or Work hereunder by the Contractor, his agents, representatives, employees, and/or subcontractors. The cost of such insurance shall be included in Contractor's bid.
- 24.02 The Contractor shall not commence work until it has obtained all insurance as required for the Parish Project. If the Contractor fails to furnish the Parish with the insurance protection required and begins work without first furnishing Parish with a currently dated certificate of insurance, the Parish has the right to obtain the insurance protection required and deduct the cost of insurance from the first payment due the Contractor. Further deductions are permitted from future payments as are needed to protect the interests of the Parish including, but not limited to, renewals of all policies.
- 24.03 Payment of Premiums: The insurance companies issuing the policy or policies shall have no recourse against the Parish of St. Tammany for payment of any premiums or for assessments under any form of policy.
- 24.04 Deductibles: Any and all deductibles in the described insurance policies shall be assumed by and be at the sole risk of the Contractor.
- 24.05 Authorization of Insurance Company(ies) and Rating: All insurance companies must be authorized to do business in the State of Louisiana and shall have an A.M. Best rating of no less than A-, Category VII.
- 24.06 Policy coverages and limits must be evidenced by Certificates of Insurance issued by Contractor's carrier to the Parish and shall reflect:

Date of Issue: Certificate must have current date.

Named Insured: The legal name of Contractor under contract with the Parish and its principal place of business shall be shown as the named insured on all Certificates of Liability Insurance.

Name of Certificate Holder: St. Tammany Parish Government, Office of Risk Management, P. O. Box 628, Covington, LA 70434

Project Description: A brief project description, including Project Name, Project Number and/or Contract Number, and Location.

Endorsements and Certificate Reference: All policies must be endorsed to provide, and certificates of insurance must evidence the following:

Waiver of Subrogation: The Contractor's insurers will have no right of recovery or subrogation against the Parish of St. Tammany, it being the intention of the parties that all insurance policy(ies) so affected shall protect both parties and be the primary coverage for any and all losses covered by the below described insurance. *Policy endorsements required for all coverages.*

Additional Insured: The Parish of St. Tammany shall be named as additional named insured with respect to general liability, marine liability, pollution/environmental liability, automobile liability and excess liability coverages. *Policy endorsements required.*

Hold Harmless: Contractor's liability insurers shall evidence their cognizance of the Hold Harmless and Indemnification in favor of St. Tammany Parish Government by referencing same on the face of the Certificate(s) of Insurance.

Cancellation Notice: Producer shall provide thirty (30) days prior written notice to the Parish of policy cancellation or substantive policy change.

24.07 The types of insurance coverage the Contractor is required to obtain and maintain throughout the duration of the Contract, include, but is not limited to:

1. Commercial General Liability insurance with a Combined Single Limit for bodily injury and property damage of at least \$1,000,000 per Occurrence/\$3,000,000 General Aggregate/Products-Completed Operations Per Project. The insurance shall provide for and the certificate(s) of insurance shall indicate the following coverages:
 - a) Premises - operations;
 - b) Broad form contractual liability;
 - c) Products and completed operations;
 - d) Personal Injury;
 - e) Broad form property damage;
 - f) Explosion and collapse.
2. Marine Liability/Protection and Indemnity insurance is required for any and all vessel and/or marine operations in the minimum limits of \$1,000,000 per occurrence/\$2,000,000 per project general aggregate. The coverage shall include, but is not limited to, the basic coverages found in the Commercial General Liability insurance and coverage for third party liability.
3. Contractors' Pollution Liability and Environmental Liability insurance in the minimum amount of \$1,000,000 per occurrence, \$2,000,000 general aggregate and include coverage for full contractual liability and for all such environmental and/or hazardous waste exposures affected by this project.
4. Business Automobile Liability insurance with a Combined Single Limit of \$1,000,000 per Occurrence for bodily injury and property damage, and shall include coverage for the following:
 - a) Any automobiles;
 - b) Owned automobiles;
 - c) Hired automobiles;
 - d) Non-owned automobiles;
 - e) Uninsured motorist.
5. Workers' Compensation/Employers Liability insurance: worker's compensation insurance coverage and limits as statutorily required; Employers' Liability Coverage shall be not less than \$1,000,000 each accident, \$1,000,000 each disease, \$1,000,000 disease policy aggregate, except when projects include exposures covered under the United States Longshoremen and Harbor Workers Act, Maritime and/or Jones Act and/or Maritime Employers Liability (MEL) limits shall be not less than \$1,000,000/\$1,000,000/\$1,000,000. *Coverage for owners, officers and/or partners shall be included in the policy and a statement of such shall be made by the insuring producer on the face of the certificate.*
6. Owners Protective Liability (OPL) (formerly Owners and Contractors Protective Liability (OCP) Insurance) shall be furnished by the Contractor naming St. Tammany Parish Government as the Named Insured and shall provide coverage in the minimum amount of \$1,000,000 combined single limit (CSL) each occurrence, \$2,000,000 aggregate. Any project valued in excess of \$3,000,000 shall be set by the Office of Risk Management. The policy and all endorsements shall be addressed to St. Tammany Parish Government, Office of Risk Management, P. O. Box 628, Covington, LA 70434.
7. Builder's Risk Insurance shall be required on buildings, sewage treatment plants and drainage pumping stations, and shall be written on an "all-risk" or equivalent policy form in the amount of the full value of the initial Contract sum, plus value of subsequent Contract modifications and cost of materials supplied or installed by others, comprising 100% total value for the entire project including foundations. Deductibles should not exceed \$5,000 and Contractor shall be responsible for any and all policy deductibles. This insurance shall cover portions of the work stored off the site, and also portions of the work in transit. In addition, Installation Floater

Insurance, on an “all-risk” form, will be carried on all pumps, motors, machinery and equipment on the site or installed. Both the Builder’s Risk Insurance and the Installation Floater Insurance shall include the interests of the Owner, Contractor, Subcontractors, and Sub-subcontractors and shall terminate only when the Project has been accepted. St. Tammany Parish Government, P. O. Box 628, Covington, LA 70434 shall be the first named insured on the Builder’s Risk and Installation Floater Insurance.

8. Professional Liability (errors and omissions) insurance in the sum of at least One Million Dollars (\$1,000,000) per claim with Two Million Dollars (\$2,000,000) annual aggregate.
 9. An umbrella policy or excess policy may be required and/or allowed to meet minimum coverage limits, subject to the review and approval by St. Tammany Parish Government, Office of Risk Management.
- 24.08 All policies of insurance shall meet the requirements of the Parish of St. Tammany prior to the commencing of any work. The Parish of St. Tammany has the right, but not the duty, to approve all insurance policies prior to commencing of any work. If at any time, it becomes known that any of the said policies shall be or becomes unsatisfactory to the Parish of St. Tammany as to form or substance; or if a company issuing any such policy shall be or become unsatisfactory to the Parish of St. Tammany, the Contractor shall promptly obtain a new policy, timely submit same to the Parish of St. Tammany for approval and submit a certificate thereof as provided above. The Parish agrees to not unreasonably withhold approval of any insurance carrier selected by Contractor. In the event that Parish cannot agree or otherwise authorize said carrier, Contractor shall have the option of selecting and submitting new insurance carrier within 30 days of said notice by the Parish. In the event that the second submission is insufficient or is not approved, then the Parish shall have the unilateral opportunity to thereafter select a responsive and responsible insurance carrier all at the cost of Contractor and thereafter deduct from Contractor's fee the cost of such insurance.
- 24.09 Upon failure of Contractor to furnish, deliver and/or maintain such insurance as above provided, the contract, at the election of the Parish of St. Tammany, may be forthwith declared suspended, discontinued or terminated. Failure of the Contractor to maintain insurance shall not relieve the Contractor from any liability under the contract, nor shall the insurance requirements be construed to conflict with the obligation of the Contractor concerning indemnification.
- 24.10 Contractor shall maintain a current copy of all annual insurance policies and provide same to the Parish of St. Tammany as may be reasonably requested.
- 24.11 It shall be the responsibility of Contractor to require that these insurance requirements are met by all contractors and sub-contractors performing work for and on behalf of Contractor. Contractor shall further ensure the Parish is named as additional insured on all insurance policies provided by said contractor and/or sub-contractor throughout the duration of the project, and that renewal certificates for any policies expiring prior to the Parish’s final acceptance of the project shall be furnished to St. Tammany Parish Government, Department of Legal, Office of Risk Management, without prompting.

NOTICE:

These are only an indication of the coverages that are generally required. Additional coverages and/or limits may be required for projects identified as having additional risks or exposures. Please note that some requirements listed may not necessarily apply to your specific services. St. Tammany Parish Government reserves the right to remove, replace, make additions to and/or modify any and all of the insurance requirement language upon review of the final scope of services presented to Department of Legal, Office of Risk Management prior to execution of a contract for services.

For inquiries regarding insurance requirements, please contact:

St. Tammany Parish Government

Legal Department

Office of Risk Management

P. O. Box 628

Covington, LA 70434

Telephone: 985-898-2797

Fax: 985-898-3070

Email: riskman@stpgov.org

24.12 Nothing contained in these insurance requirements is to be construed as limiting the extent of the Contractor's Responsibility for payment of damages resulting from its operations under this Contract.

25.00 OWNER'S RIGHT TO OCCUPANCY

25.01 The Owner shall have the right to use, at any time, any and all portions of the Work that have reached such a stage of completion as to permit such occupancy, provided such occupancy does not hamper the Contractor or prevent its efficient completion of the Contract or be construed as constituting an acceptance of any part of the Work.

25.02 The Owner shall have the right to start the construction of houses, structures or any other building concurrent with the Contractor's Work.

26.00 SURVEY HORIZONTAL AND VERTICAL CONTROL

26.01 The Owner shall provide surveys for construction to establish reference points which in its judgment are necessary to enable Contractor to layout and proceed with its Work. Contractor shall be responsible for surveying and laying out the Work and shall protect and preserve the established reference points and shall make no changes or relocations without the prior written approval of the Owner. Contractor shall report to Owner whenever any reference point is lost or destroyed and the Owner shall decide if the reference point shall be replaced by its or the Contractor's forces.

26.02 The Contractor shall establish lines and grades with its own forces in sufficient number and location for the proper execution of the Work.

26.03 If the Contractor, during the construction, damages the established property corners and/or other markers and thereafter requests the Owner to re-stake same in order to complete the project, this expense will be borne solely by the Contractor.

27.00 TERMINATION OF THE CONTRACT, OWNER'S AND CONTRACTORS RIGHT TO STOP WORK.

27.01 If the Contractor should be adjudged bankrupt (voluntarily or involuntarily) or if it should make a general assignment for the benefit of its creditors, or if a receiver should be appointed on account of its insolvency, or if it should persistently or repeatedly refuse or should fail (except in cases for which extension of time is provided) to supply enough properly skilled workmen or proper materials, or if it should fail to make prompt payment to Subcontractors or for material or labor, or persistently disregard laws, ordinances or the

instructions of the Owner, or otherwise be guilty of a substantial violation of any provision of the Contract, then the Owner, upon the certificate of the Owner that, in its unilateral discretion and judgment, believes sufficient cause exists to justify such action, may, without prejudice to any other right or remedy and after giving the Contractor ten (10) calendar days written notice, terminate the employment of the Contractor and take possession of the premises and of all materials, tools and appliances thereon and finish the Work by whatever method the Owner may deem expedient.

- 27.02 Failure of the Contractor to start the Work within the time limit specified herein or substantial evidence that the progress being made by the Contractor is sufficient to complete the Work within the specified time shall be grounds for termination of the Contract by the Owner.
- 27.03 Before the Contract is terminated, the Contractor and its surety will first be notified in writing by the Owner of the conditions which make termination of the Contract imminent. When after ten (10) calendar days' notice is given and if satisfactory effort has not been made by the Contractor or its surety to correct the conditions, the Owner may declare, in its exclusive discretion, that the Contract is terminated and so notify the Contractor and its surety accordingly.
- 27.04 Upon receipt of notice from the Owner that the Contract has been terminated, the Contractor shall immediately discontinue all operations. The Owner may then proceed with the Work in any lawful manner that it may elect until Work is finally completed.
- 27.05 The exclusive right is reserved to the Owner to take possession of any machinery, implements, tools or materials of any description that shall be found upon the Work, to account for said equipment and materials, and to use same to complete the Project. When the Work is finally completed, the total cost of same will be computed. If the total cost is less than the Contract Price, the difference will not be paid to the Contractor or its surety.
- 27.06 In case of termination, all expenses incident to ascertaining and collecting losses under the Bond, including legal services, shall be assessed against the Bond.
- 27.07 If the Work should be stopped under any order of any court or public authority for period of sixty (60) calendar days, through no act or fault of the Contractor or anyone employed by it, or if the Owner shall fail to pay the Contractor within a reasonable time any sum certified by the Owner, then the Contractor may, upon ten (10) calendar days written notice to the Owner, stop Work or terminate this Contract and recover from the Owner payment for all Work properly and professionally executed in a workmanlike manner. This loss specifically includes actual cost of materials and equipment, together with all wages inclusive of all federal, state, and local tax obligations. This loss specifically includes reimbursement of all insurances on a pro-rata basis from the date of termination to date of policy period. This loss excludes and specifically does not include recovery by the Contractor for lost profit, indirect & direct expenses, overhead, and the like.

28.00 PAYMENTS TO THE CONTRACTOR

- 28.01 Monthly certificates for partial payment, in a form approved by the Owner, shall be transmitted to the Owner upon receipt from the Contractor and acceptance by the Owner. In accordance with LSA-R.S. 38:2248(A), when the Contract Price is less than five hundred thousand dollars, these certificates shall be equal to ninety percent (90%) of both the Work performed and materials stored at the site; and when the Contract Price is five hundred thousand dollars or more, these certificates shall be equal to ninety-five percent (95%) of both the Work performed and materials stored at the site. Partial payment certificates shall include only Work, materials and equipment that are included in official Work Order and which meet the requirements of plans, Specifications and Contract Documents. These monthly estimates shall show the amount of the original estimate for each item, the amount due on each item, the gross total, the retained percentage, the amount previously paid and the net amount of payment due.
- 28.02 After final completion and acceptance by the Owner of the entire Work, and when the Contract Price is less than five hundred thousand dollars, the Owner shall issue to the Contractor Certificate of Payment in sum sufficient to increase total payments to ninety percent (90%) of the Contract Price. After final completion and acceptance by the Owner

of the entire Work, and when the Contract Price is five hundred thousand dollars or more, the Owner shall issue to the Contractor Certificate of Payment in sum sufficient to increase total payments to ninety-five percent (95%) of the Contract Price.

- 28.03 When the Contract Price is less than five hundred thousand dollars, the final payment certificate of the remaining ten percent (10%) of the Contract Price, minus any deduction for deficient or Defective Work or other applicable deductions, will be issued by the Owner forty-five (45) days after filing acceptance in the Mortgage Office of the Parish and a Clear Liens and Privilege Certificate has been secured. When the Contract Price is five hundred thousand dollars or more, the final payment certificate of the remaining five percent (5%) of the Contract Price, minus any deduction for deficient or Defective Work or other applicable deductions, will be issued by the Owner forty-five (45) days after filing acceptance in the Mortgage Office of the Parish and a Clear Liens and Privilege Certificate has been secured. Before issuance of the final payment certificate, the Contractor shall deposit with the Owner a certificate from the Clerk of Court and Ex-Officio Recorder of Mortgages from the Parish in which the Work is performed to the effect that no liens have been registered against Contract Work.
- 28.04 When, in the opinion of the Contractor, the Work provided for and contemplated by the Contract Documents has been substantially completed, the Contractor shall notify the Owner in writing that the Work is substantially complete and request a final inspection. The Owner shall proceed to perform such final inspection accompanied by the Contractor. Any and all Work found by this inspection to be Defective or otherwise not in accordance with the plans and Specifications shall be corrected to the entire satisfaction of the Owner and at the sole expense of the Contractor. If the Contract is found to be incomplete in any of its details, the Contractor shall at once remedy such defects, and payments shall be withheld and formal acceptance delayed until such Work has been satisfactorily completed.
- 28.05 If payment is requested on the basis of materials and equipment not incorporated in the Work, but delivered and suitably stored and protected from damage and theft at the site, the Request for Payment shall also be accompanied by such data, satisfactory to the Owner, as will establish Owner's title to the material and equipment and protect its interest therein, including applicable insurance.
- 28.06 Each subsequent Request for Payment shall include an affidavit of Contractor stating that all previous progress payments received on account of the Work have been applied to discharge in full all of Contractor's obligations reflected in prior Request for Payment.
- 28.07 Each subsequent request for payment shall include an affidavit by Contractor that Contractor, all subcontractors, agents, material suppliers and all other persons supplying material to the project upon which State of Louisiana and/or St. Tammany sales taxes are lawfully due have paid these taxes and that all supplies and materials purchased for this project and for which Contractor has been paid have had all lawfully due State and/or St. Tammany sales taxes paid.
- 28.08 The Bid Proposal, unless otherwise modified in writing, and the Contract constitute the complete Project. The Contract Prices constitute the total compensation payable to Contractor and the cost of all of the Work and materials, taxes, permits and incidentals must be included into the Bid submitted by the Contractor and included into those items listed on the Proposal.
- 28.09 Any additional supporting data required by the Owner in order to substantiate Contractor's request for payment shall be furnished by Contractor at no cost to the Owner.
- 28.10 Owner may withhold from payment to Contractor as may be necessary to protect itself from loss on account of:
- (1) Defective and/or inferior work;
 - (2) Damage to the property of Owner or others caused by Contractor;
 - (3) Failure by Contractor to make payments properly to sub-contractors or to pay for labor, materials or equipment used on this project;
 - (4) Failure by Contractor to pay taxes due on materials used on this project;
 - (5) Damage by Contractor to another Contractor;
 - (6) Insolvency;
 - (7) Bankruptcy, voluntary or involuntary;

- (8) Revocation of corporate status;
- (9) Failure to follow corporate formalities;
- (10) Unprofessional activities;
- (11) Unworkmanlike performance;
- (12) Fraud and/or misrepresentation of any kind.

29.00 ACCEPTANCE AND FINAL PAYMENT(S)

- 29.01 Upon receipt of written notice from Contractor that the work is substantially complete and usable by Owner or the Public in suitable manner, the Owner and the Contractor shall jointly inspect the work.
- 29.02 If the Owner by inspection determines that the work is not substantially complete in a suitable manner for use by the Owner or the Public, then the Owner shall so notify the Contractor in writing stating such reason. All reasons need not be disclosed unless actually known. The Owner is afforded an opportunity to amend said notices as are reasonably possible.
- 29.03 If the Owner by its inspection determines that the work is substantially complete, it shall prepare a list of all items not satisfactorily completed and shall notify the Contractor and Owner in writing that the work is substantially complete and subject to satisfactory resolution of those items on the list (punch list). Punch lists may be amended from time to time by Owner in the event that additional deficiencies are discovered. In accordance with LSA-R.S. 38:2248(B), any punch list generated during a construction project shall include the cost estimates for the particular items of work the design professional has developed based on the mobilization, labor, material, and equipment costs of correcting each punch list item. The design professional shall retain his working papers used to determine the punch list items cost estimates should the matter be disputed later. The contract agency shall not withhold from payment more than the value of the punch list. Punch list items completed shall be paid upon the expiration of the forty-five (45) day lien period. The provisions of this Section shall not be subject to waiver.
- 29.04 Upon determination of substantial completeness with the punch list, the Contract Time is interrupted and the Contractor is given a reasonable time not to exceed thirty (30) consecutive calendar days to effect final completion by correcting or completing all of those items listed on the punch list. If the items on the punch list are not completed in a satisfactory manner within the thirty day period, then the Contract Time will begin to run again and will include for purposes of determining liquidated damages the thirty day period the grace period being withdrawn.
- 29.05 Upon receipt by Owner of written determination that all work embraced by the contract has been completed in a satisfactory manner, the Owner shall provide a written acceptance to Contractor who shall record Owner's written acceptance with the recorder of Mortgages, St. Tammany Parish. The Contractor shall properly prepare, submit and pay for all costs associated with said Acceptance. The Contractor is also responsible for preparation, re-submission and payment of any and all updated certificates.
- 29.06 Retainage monies, minus those funds deducted in accordance to the requirements of this agreement including but not limited to Paragraph 28.10, shall be due Contractor not earlier than forty-six (46) calendar days after recordation of certificate of Owner's acceptance provided the following:
- (1) Contractor shall prepare, secure, pay for and submit clear lien and privilege certificate, signed and sealed by Clerk of Court or Recorder of Mortgages, Parish of St. Tammany and dated at least forty-six (46) days after recordation of certificate of acceptance;
 - (2) Ensure that the official representative of the Owner has accepted as per LSA-R.S. 38:2241.1, *et seq.* and that all following sub-sections have been properly satisfied as per law;
 - (3) Ensure that all signatures are affixed and that there exists the requisite authority for all signatures;
 - (4) Ensure accurate and proper legal descriptions;

- (5) Properly identify all parties and/or signatories;
- (6) Properly identify all mailing addresses;
- (7) Correctly set for the amount of the contract, together with all change orders;
- (8) Set out a brief description of the work performed;
- (9) Reference to any previously recorded contract, lien or judgment inscription that may affect the property;
- (10) Certification that substantial completion has occurred, together with any applicable date(s);
- (11) Certification that no party is in default and/or that the project has been abandoned.

29.07 After securing the clear lien and privilege certificate the Contractor shall prepare its final application for payment and submit to Owner. The Owner shall approve application for payment, or state its objections in writing and forward to Contractor for resolution.

30.00 NOTICE AND SERVICE THEREOF

30.01 Any Notice to Contractor from the Owner relative to any part of this Contract shall be in writing and shall be considered delivered and the service thereof completed when said notice is posted; by certified mail, return receipt requested to the said Contractor at its last given address, or delivered in person to said Contractor or its authorized representative on the Work.

31.00 INTENTION OF THESE GENERAL CONDITIONS

31.01 These General Conditions shall be applicable to all contracts entered into by and between the Owner and Contractors, except as may be altered or amended with the consent of the Owner, and/or provided for in the Special Conditions of each contract. Contractor shall be presumed to have full knowledge of these General Conditions which shall be applicable to all contracts containing these General Conditions, whether Contractor has obtained a copy thereof or not.

32.00 SEVERABILITY

32.01 If any one or more or part of any of the provisions contained herein and/or in the Specifications and Contract for the Work shall for any reason be held invalid, illegal or unenforceable in any respect, such invalidity, illegality or unenforceability shall not affect any other provisions of this Agreement or attachment, but it shall be construed as if such invalid, illegal, or unenforceable provision or part of a provision had never been contained herein.

32.02 **CHANGING THESE CONDITIONS:** Owner reserves the right to change or modify these General Conditions as it deems best, or as required by law. The General Conditions may also be modified for a particular project by the use of Special Conditions prior to the issuance of the Advertisement for Bid. However, once an advertisement for bid is made for any specific project, any changes to the General Conditions as they affect that specific project must be made in writing and issued via an addendum in accordance with State Law.

33.00 LAW OF THE STATE OF LOUISIANA

33.01 The Contract Documents shall be governed by the Law of the State of Louisiana.

33.02 The Contractor agrees to pay reasonable attorney's fees and other reasonable attendant costs, in the event that it becomes necessary for the Owner to employ an attorney in order

to enforce compliance with or any remedy relating to any covenants, obligations, or conditions imposed upon the Contractor by this Agreement. Attorney fees shall be based upon the prevailing hourly rate of attorney rates in the private sector. In no case shall the hourly rate be less than \$175.00 per hour. All attorney fees collected shall be paid the operating budget of the Office of the Parish President.

- 33.03 The jurisdiction and venue provisions shall apply to all contractors, sureties, and subcontractors. The 22nd Judicial District for the Parish of St. Tammany shall be the court of exclusive jurisdiction and venue for any dispute arising from these General Conditions and/or any contract executed in conjunction with these General Conditions. All parties specifically waive any rights they have or may have for removal of any disputes to Federal Court, or transfers to different State District Court.
- 33.04 Contractor warrants that it has and/or had received a copy of these General Conditions at all times material hereto; Contractor further agrees that it has read and fully and completely understands each and every condition herein.
- 33.05 The property description will be more fully set out by an attached exhibit.
- 33.06 The Contractor warrants that it has the requisite authority to sign and enter this agreement.
- 33.07 It is specifically understood and agreed that in the event Contractor seeks contribution from the Parish or pursues its legal remedies for any alleged breach of this agreement by the Parish, then the following list of damages SHALL NOT BE RECOVERABLE BY CONTRACTOR. This list includes, but is not limited to:

1. indirect costs and/or expenses;
2. direct costs and/or expenses;
3. time-related costs and/or expenses;
4. award of extra days;
5. costs of salaries or other compensation of Contractor's personnel at Contractor's principal office and branch offices;
6. expenses of Contractor's principal, branch and/or field offices;
7. any part of Contractor's capital expenses, including any interest on Contractor's capital employed for the work;
8. any other charges related to change orders;
9. overhead and general expenses of any kind or the cost of any item not specifically and expressly included in Cost of Work.

33.08 DEFAULT AND WAIVERS

It is understood that time is of the essence. It is specifically understood between the parties that Contractor waives any and all notice to be placed in default by the Owner. This subsection shall supersede and prime any other subsection herein above that is in conflict. The Owner specifically reserves its right and specifically does not waive the requirement to be placed in default by the Contractor as per law.

- 33.09 St. Tammany Parish Government contracts to be awarded are dependent on the available funding and/or approval by members designated and/or acknowledged by St. Tammany Parish Government. At any time St. Tammany Parish Government reserves the right to cancel the award of a contract if either or both of these factors is deficient.
- 33.10 It is the Parish's policy to provide a method to protest exclusion from a competition or from the award of a contract, or to challenge an alleged solicitation irregularity. It is always better to seek a resolution within the Parish system before resorting to outside agencies and/or litigation to resolve differences. All protests must be made in writing, and shall be concise and logically presented to facilitate review by the Parish. The written protest shall include:
1. The protester's name, address, and fax and telephone numbers and the solicitation, bid, or contract number;
 2. A detailed statement of its legal and factual grounds, including a description of the resulting prejudice to the protester;

3. Copies of relevant documents;
4. All information establishing that the protester is an interested party and that the protest is timely; and
5. A request for a ruling by the agency; and a statement of the form of relief requested.

The protest shall be addressed to Mr. Anthony Smith, Director of Procurement, St. Tammany Parish Government, P.O. Box 628, Covington, LA 70434.

The protest review shall be conducted by the Parish Procurement Department.

Only protests from interested parties will be allowed. Protests based on alleged solicitation improprieties that are apparent before bid opening, or the time set for receipt of initial proposals must be filed with and received by the Procurement Department BEFORE those deadlines.

Any other protest shall be filed no later than ten (10) calendar days after the basis of the protest is known, or should have been known (whichever is earlier).

The Parish will use its best efforts to resolve the protest within thirty (30) days of the date that it is received by the Parish. The written response will be sent to the protestor via mail and, fax, if a fax number has been provided by the protestor. The protestor can request additional methods of notification.

Last day to submit questions and/or verification on comparable products will be no later than 2:00 pm CST, seven (7) working days prior to the opening date of the bid/proposal due date. Further any questions or inquires must be submitted via fax to 985-898-5227, or via email to Purchasing@stpgov.org. Any questions or inquires received after the required deadline to submit questions or inquires will not be answered.

SECTION 01200 - PROJECT MEETINGS

PART 1 - GENERAL

1.1 SCOPE OF WORK

- A. Schedule, attend, and administer as specified, preconstruction conference, periodic progress meetings, and specially called meetings throughout progress of the Work.
- B. Representatives of Contractor, subcontractors and suppliers attending meetings shall be qualified and authorized to act on behalf of the entity each represents.
- C. Meetings administered by Owner may be tape recorded. If recorded, tapes will be used to prepare minutes and retained by Owner for future reference.
- D. Meetings, in addition to those specified in this Section, may be held when requested by the Owner, Engineer or Contractor.

1.2 PRECONSTRUCTION CONFERENCE

- A. A preconstruction conference will be held within ten days after award of Contract and before Work is started. The conference will be scheduled and administered by the Construction Manager.
- B. The Construction Manager will preside at the conference, prepare the minutes of the meeting and distribute copies of same to all participants who so request by fully completing the attendance form to be circulated at the beginning of the conference.
- C. Attendance:
 - 1. Contractor's project manager.
 - 2. Contractor's superintendent.
 - 3. Any subcontractor or supplier representatives whom the Contractor may desire to invite or the Owner may request.
 - 4. Construction Manager
 - 5. Engineer's representatives.
 - 6. Owner's representatives.
 - 7. Others as appropriate.
- D. Preliminary Agenda:
 - 1. Introductions
 - 2. Schedule completion dates and Liquidated Damages.
 - 3. Construction Scheduling, including critical path.
 - 4. Designation of responsible personnel.
 - 5. Authority of Contractor.
 - 6. Authority of Construction Manager and Engineer.
 - 7. Submittals.
 - 8. Procedures for Change Orders, CMRs, PCMs, Field Orders, RFIs, etc.
 - 9. Record Drawings
 - 10. Quality control.
 - 11. Safety Procedures.
 - 12. Temporary construction facilities.

13. Temporary utilities facilities.
14. Security and Work after Normal Hours.
15. Measurement and payment.
16. City Administrative Procedures, including M/WBE procedures.
17. Project Work Summary
18. Correspondence Routing
19. Pay Request format, submittal cutoff date, pay date, and retainage
20. Work staging areas

1.3 PROGRESS MEETINGS

- A. Formal project coordination meetings will be held periodically (not more than once weekly, nor less than once monthly). Meetings will be scheduled and administered by Construction Manager. Additional progress meetings to discuss specific topics will be conducted on an as-needed basis. Such additional meetings shall include, but not be limited to:
 1. Coordinating plant/equipment shutdowns.
 2. Installation of equipment.
 3. Start-up of equipment or plant.
 4. Problem Area Resolutions
 5. Equipment approval.
- B. The Construction Manager will preside at progress meetings, prepare the minutes of the meeting and distribute copies of same to all participants who so request by fully completing the attendance form to be circulated at the beginning of each meeting.
- C. Attendance: Same as preconstruction conference.
- D. Preliminary Agenda:
 1. Review, approval of minutes of previous meeting.
 2. Review of work progress since previous meeting.
 3. Field observations, problems, conflicts.
 4. Problems which impede construction schedule.
 5. Review of off-site fabrication, delivery schedules.
 6. Review of construction interfacing and sequencing requirements with other construction contracts.
 7. Corrective measures and procedures to regain projected schedule.
 8. Revisions to construction schedule.
 9. Progress, schedule, during succeeding work period.
 10. Coordination of schedules.
 11. Review submittal schedules.
 12. Maintenance of quality standards.
 13. Pending changes and substitutions.
 14. Review proposed changes for:
 - a. Effect on construction schedule and on completion date.
 - b. Effect on other contracts of the Project.
 15. Review Record Documents.
 16. Review monthly pay request.
 17. Review status of RFIs.

END OF SECTION 01200

SECTION 01410 - TESTING LABORATORY SERVICES

PART 1 - GENERAL

1.1 Scope

- A. This Section includes all testing required to verify work performed by the Contractor is in accordance with the requirements of the, Contract Documents, and also includes testing the Owner may require, beyond that testing required of the manufacturer, to determine if materials provided for the Project meet the requirements of the Contract Documents.
- B. The testing laboratory or laboratories will be selected by the Owner. The testing laboratory or laboratories will work for the Owner.

1.2 Payment for Testing Services

- A. The cost of testing services required by the Contract Documents will be paid for directly by the Owner. The cost of additional testing services not specifically required but requested by the Owner or Engineer, will be paid for directly by the Owner.
- B. The cost of material testing described in various sections of these Specifications and as required in referenced standards to be provided by a material manufacturer, shall be included in the price bid for that item.
- C. The cost of retesting any item that fails to meet the requirements of the Contract Documents shall be paid for by the Contractor. Retesting will be performed by the testing laboratory working for the Owner.
- D. Inspections and tests required by codes or ordinances or by a plan approval authority, and made by a legally constituted authority, shall be the responsibility of, and shall be paid for by the Contractor, unless otherwise provided in the Contract Documents.
- E. Inspection or testing performed exclusively for the Contractor's convenience shall be the sole responsibility of the Contractor.

1.3 Laboratory Duties

- A. Cooperate with the Owner, Engineer and Contractor.
- B. Provide qualified personnel promptly on notice.
- C. Perform specified inspections, sampling and testing of materials, as required.
 - 1. Comply with specified standards, ASTM, other recognized authorities, and as specified.
 - 2. Ascertain compliance with requirements of the Contract Documents
- D. Promptly notify the Engineer and Contractor of irregularity or deficiency of work which are observed during performance of services.
- E. Promptly submit sufficient copies to the Engineer and to the Contractor of all reports of inspections and tests with the following information included:

1. Date issued
2. Project title and number
3. Testing laboratory name and address
4. Name and signature of inspector
5. Date of inspection or sampling
6. Record of temperature and weather
7. Date of test
8. Identification of product and Specification section
9. Location of Project
10. Type of inspection or test
11. Results of test
12. Observations regarding compliance with the Contract Documents

- F. Transporting all samples to the testing laboratory.
- G. The laboratory is not authorized to release, revoke, alter or enlarge on requirements of the Contract Documents, or approve or accept any portion of the work.

1.4 Contractor Responsibilities

- A. The Contractor shall cooperate with laboratory personnel, provide access to work and/or manufacturer's requirements.
- B. The Contractor shall provide to the laboratory, representative samples, in required quantities, of materials to be tested.
- C. The Contractor shall furnish required labor, equipment, and facilities to:
1. Provide access to work to be tested;
 2. Obtain and handle samples at the site;
 3. Facilitate inspections and tests;
 4. Build or furnish a holding box for concrete cylinders or other samples as required by the laboratory.
- D. The Contractor shall notify the laboratory sufficiently in advance of operation to allow for the assignment of personnel and schedules of tests.
- E. Copies of all correspondence between the Contractor and testing agencies shall be provided to the Engineer.

1.5 Quality Assurance

- A. Testing shall be in accordance with all pertinent codes and regulations and with procedures and requirements of the American Society for Testing and Materials (ASTM).

1.6 Schedules for Testing

A. Establishing Schedule

B. The Contractor shall, by advance discussion with the testing laboratory selected by the Owner, determine the time required for the laboratory to perform its tests and to issue each of its findings, and make all arrangements for the testing laboratory to be on site to provide the required testing.

1. The Contractor shall provide all required time for testing within the construction schedule.

C. When changes of construction schedule are necessary during construction, the Contractor shall coordinate all such changes of schedule with the testing laboratory as required.

D. When the testing laboratory is ready to test according to the determined schedule, but is prevented from testing or taking specimens due to incompleteness of the work, all extra costs for testing attributable to the delay will be paid by the Contractor.

END OF SECTION

SECTION 03300 - CAST-IN-PLACE CONCRETE

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes cast-in-place concrete, including formwork, reinforcement, concrete materials, mixture design, placement procedures, and finishes.
- B. Related Sections:
 - 1. Division 02 Section "Earthwork" for drainage drilled shafts.

1.2 ACTION SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Design Mixtures: For each concrete mixture.
- C. Steel Reinforcement Shop Drawings: Placing drawings showing all fabrication dimensions and locations for placing reinforcement shall be submitted for review. All submittals shall be made on sheets having a minimum size of 22" x 34". The procedure and quantity of submittals shall be in accordance with the requirements given in the submittal section of the project specifications.
- D. Formwork Shop Drawings: Submittal of shop drawings or procedures for formwork, shoring, or reshoring will not be required or reviewed by the Structural Engineer. Design, placement, and removal of shoring, reshoring, and formwork are the responsibility of the Contractor. No review, comments, or approval of the structural adequacy or time of removal of shores, reshores, or forms will be made by the Structural Engineer.

1.3 INFORMATIONAL SUBMITTALS

- A. Material certificates.
- B. Material test reports.
- C. Floor surface flatness and levelness measurements. Unless directed otherwise, all floor slabs in excess of 10,000 square feet shall be tested for flatness in accordance with ACI 117 and shall have minimum F numbers of FF =25 and FL=20.

1.4 QUALITY ASSURANCE

- A. Manufacturer Qualifications: A firm experienced in manufacturing ready-mixed concrete products and that complies with ASTM C 94/C 94M requirements for production facilities and equipment.
 - 1. Manufacturer certified according to NRMCA's "Certification of Ready Mixed Concrete Production Facilities."

- B. Testing Agency Qualifications: An independent agency qualified according to ASTM C 1077 and ASTM E 329 for testing indicated.
- C. ACI Publications: Comply with the following unless modified by requirements in the Contract Documents:
 - 1. ACI 301, "Specifications for Structural Concrete."
 - 2. ACI 117, "Specifications for Tolerances for Concrete Construction and Materials."
- D. Concrete Testing Service: Engage a qualified independent testing agency to perform material evaluation tests and to design concrete mixtures. The Contractor shall submit the concrete mix design to the testing laboratory for review. Every mix for the project shall have a unique identifying name or number and this identification shall appear on the mix design submittal, the backup documentation, and on all tickets for the concrete actually delivered to the site. The Testing Laboratory shall submit a written review of the design mix to the Architect and Engineer prior to commencement of concrete work. The Laboratory shall verify that the mix submitted meets all requirements of this specification, including the identification criteria listed above.
- E. Pre-installation Conference: Conduct conference at location to be determined by the Architect.

PART 2 - PRODUCTS

2.1 FORM-FACING MATERIALS

- A. Smooth-Formed Finished Concrete: Form-facing panels that will provide continuous, true, and smooth concrete surfaces. Furnish in largest practicable sizes to minimize number of joints.
- B. Rough-Formed Finished Concrete: Plywood, lumber, metal, or another approved material Provide lumber dressed on at least two edges and one side for tight fit.

2.2 STEEL REINFORCEMENT

- A. Reinforcing Bars: ASTM A 615, Grade 60, deformed.
- B. Plain-Steel Welded Wire Reinforcement: ASTM A 185, plain, fabricated from as-drawn steel wire into flat sheets. Wire for welded wire fabric shall conform to ASTM A82.
- C. Deformed-Steel Welded Wire Reinforcement: ASTM A 497, flat sheet.
- D. Bar Supports: Bolsters, chairs, spacers, and other devices for spacing, supporting, and fastening reinforcing bars and welded wire reinforcement in place. Manufacture bar supports from steel wire, plastic, or precast concrete according to CRSI's "Manual of Standard Practice.
- E. No field bending or straightening of reinforcement partially embedded in concrete (including existing reinforcement) will be allowed.

2.3 CONCRETE MATERIALS

- A. Cementitious Material: Use the following cementitious materials, of the same type, brand, and source, throughout Project:

1. Portland Cement: ASTM C 150, Contractor may supplement with the following:
 - a. Fly Ash: Class C fly ash conforming to ASTM C618 may be used in the mix providing it constitutes no more than 20% of the total weight of the cementitious material.
 - b. Ground Granulated Blast-Furnace Slag: Blast furnace slag conforming to ASTM C989 may be used providing it constitutes no more than 20% of the total weight of the cementitious material.

B. Normal-Weight Aggregates: ASTM C 33, graded.

1. Maximum Coarse-Aggregate Size: 1-1/2 inches nominal.
2. Fine Aggregate: Free of materials with deleterious reactivity to alkali in cement.

C. Water: ASTM C 94 and potable.

2.4 ADMIXTURES

A. Air-Entraining Admixture: Unless indicated otherwise on the drawings, air entrainment will not be required. Where it is required it shall comply with ASTM C 260.

B. Chemical Admixtures: Admixtures may be used in concrete at contractor's option and with the approval of the Testing Laboratory and Structural Engineer. Provide admixtures certified by manufacturer to be compatible with other admixtures and that will not contribute water-soluble chloride ions exceeding those permitted in hardened concrete. Do not use calcium chloride or admixtures containing calcium chloride. When admixtures (plasticizers, water reducers, etc.) are utilized to increase slump the admixtures shall be added at the job site and the slump shall be measured prior to introduction of the admixture.

1. Water-Reducing Admixture: ASTM C 494/C 494M, Type A.
2. Retarding Admixture: ASTM C 494/C 494M, Type B.
3. Water-Reducing and Retarding Admixture: ASTM C 494/C 494M, Type D.
4. High-Range, Water-Reducing Admixture: ASTM C 494/C 494M, Type F.
5. High-Range, Water-Reducing and Retarding Admixture: ASTM C 494/C 494M, Type G.
6. Plasticizing and Retarding Admixture: ASTM C 1017/C 1017M, Type II.

2.5 WATERSTOPS

A. Waterstops: Type, size, and location as detailed on the drawings.

2.6 VAPOR RETARDERS

A. Sheet Vapor Retarder: ASTM E 1745, Class A for commercial projects. Include manufacturer's recommended adhesive or pressure-sensitive tape. Polyethylene sheet, ASTM D 4397, not less than 10 mils thick for residential projects.

2.7 CURING MATERIALS

- A. Clear, Waterborne, Membrane-Forming Curing Compound: ASTM C 309, Type 1, Class B, non-dissipating, certified by curing compound manufacturer to not interfere with bonding of floor covering.

2.8 RELATED MATERIALS

- A. Expansion- and Isolation-Joint-Filler Strips: ASTM D 1751.

2.9 CONCRETE MIXTURES

- A. Prepare design mixtures for each type and strength of concrete, proportioned on the basis of laboratory trial mixture or field test data, or both, according to ACI 301.
- B. Cementitious Materials: Contractor may use fly ash and ground granulated blast-furnace slag as needed to reduce the total amount of Portland cement. The contractor shall not use less than 60% Portland. Concrete or concrete that is pumped shall have at least 0.5 more sacks of cementitious material per cubic yard than concrete of the same strength that is not pumped.
- C. Admixtures: Use admixtures according to manufacturer's written instructions.
 - 1. Use admixtures in concrete, as required, for placement and workability.
 - 2. Use water-reducing and retarding admixture when required by high temperatures, low humidity, or other adverse placement conditions.
 - 3. Use water-reducing admixture as required.
- D. Proportions of concrete mixtures shall be determined by the following:
 - 1. Minimum Compressive Strength: as shown on the drawings.
 - 2. Slump Limit: 4 inches, plus or minus 1 inch.

2.10 FABRICATING REINFORCEMENT

- A. Fabricate steel reinforcement according to CRSI's "Manual of Standard Practice."

2.11 CONCRETE MIXING

- A. Ready-Mixed Concrete: Measure, batch, mix, and deliver concrete according to ASTM C 94, and furnish batch ticket information.
- B. When air temperature is between 85 and 90 deg F, reduce mixing and delivery time from 1-1/2 hours to 75 minutes; when air temperature is above 90 deg F, reduce mixing and delivery time to 60 minutes.

PART 3 - EXECUTION

3.1 FORMWORK

- A. Design, erect, shore, brace, and maintain formwork, according to ACI 301, to support vertical, lateral, static, and dynamic loads, and construction loads that might be applied, until structure can support such loads.
- B. Construct formwork so concrete members and structures are of size, shape, alignment, elevation, and position indicated, within tolerance limits of ACI 117.
- C. Chamfer exterior corners and edges of permanently exposed concrete where detailed.
- D. Earth cuts may be used as forms for footings or grade beams providing dimensions are controlled. The contractor shall be responsible for providing any dewatering or dry bottoms necessary to place concrete to the dimensions and elevations shown on the drawings.

3.2 EMBEDDED ITEMS

- A. Place and secure anchorage devices and other embedded items required for adjoining work that is attached to or supported by cast-in-place concrete. Use setting drawings, templates, diagrams, instructions, and directions furnished with items to be embedded.

3.3 VAPOR RETARDER

- A. Sheet Vapor Retarders: Place, protect, and repair sheet vapor retarder according to ASTM E 1643 and manufacturer's written instructions.
 - 1. Lap joints 6 inches minimum or per manufacturers recommendations and seal with manufacturers recommended tape.

3.4 STEEL REINFORCEMENT

- A. General: Comply with CRSI's "Manual of Standard Practice" for placing reinforcement.
 - 1. Do not cut or puncture vapor retarder. Repair damage and reseal vapor retarder before placing concrete.
 - 2. Unless shown otherwise on the drawings all reinforcement shall be continued through construction joints and bonded on both sides of the joint.
 - 3. Reinforcement or other items bonded to the concrete (except dowels bonded to only one side of joints) shall not be permitted to extend continuously through any expansion joints.
 - 4. Maximum spacing of expansion joints in non-pile supported sidewalks shall be 10 feet. Expansion joint filler shall be ASTM D1751 or D1752.

3.5 JOINTS

- A. General: Construct joints true to line with faces perpendicular to surface plane of concrete.
- B. Construction Joints: Install so strength and appearance of concrete are not impaired, at locations indicated or as approved by Architect.

- C. Contraction Joints in Slabs-on-Grade: Form weakened-plane contraction joints, sectioning concrete into areas as indicated. Construct contraction joints for a depth equal to at least one-fifth of concrete thickness as follows:
- D. Waterstops: Install in construction joints and at other joints indicated according to manufacturer's written instructions.
- E. All control, construction, or expansion joints in paving shall extend continuously through any curbs, sidewalks, etc. poured with or on the paving.

3.6 CONCRETE PLACEMENT

- A. Before placing concrete, verify that installation of formwork, reinforcement, and embedded items is complete and that required inspections and field reviews have been performed.
- B. Deposit concrete continuously in one layer or in horizontal layers of such thickness that no new concrete will be placed on concrete that has hardened enough to cause seams or planes of weakness. If a section cannot be placed continuously, provide construction joints as indicated. Deposit concrete to avoid segregation.
 - 1. Consolidate placed concrete with mechanical vibrating equipment according to ACI 301.
- C. Cold-Weather Placement: Comply with ACI 306.1.
- D. Hot-Weather Placement: Comply with ACI 301.

3.7 FINISHING FORMED SURFACES

- A. Rough-Formed Finish: As-cast concrete texture imparted by form-facing material with tie holes and defects repaired and patched. Remove fins and other projections that exceed specified limits on formed-surface irregularities.
 - 1. Apply to concrete surfaces not exposed to public view.
- B. Smooth-Formed Finish: As-cast concrete texture imparted by form-facing material, arranged in an orderly and symmetrical manner with a minimum of seams. Repair and patch tie holes and defects. Remove fins and other projections that exceed specified limits on formed-surface irregularities.
 - 1. Apply to concrete surfaces exposed to public view, to receive a rubbed finish, to be covered with a coating or covering material applied directly to concrete.
- C. Rubbed Finish: Apply the following to smooth-formed finished as-cast concrete where indicated:
 - 1. Smooth-Rubbed Finish: Not later than one day after form removal, moisten concrete surfaces and rub with carborundum brick or another abrasive until producing a uniform color and texture. Do not apply cement grout other than that created by the rubbing process.
 - 2. Grout-Cleaned Finish: Wet concrete surfaces and apply grout of a consistency of thick paint to coat surfaces and fill small holes. Mix one part Portland cement to one and one-

half parts fine sand with a 1:1 mixture of bonding admixture and water. Add white Portland cement in amounts determined by trial patches so color of dry grout will match adjacent surfaces. Scrub grout into voids and remove excess grout. When grout whitens, rub surface with clean burlap and keep surface damp by fog spray for at least 36 hours.

- D. Related Unformed Surfaces: At tops of walls, horizontal offsets, and similar unformed surfaces adjacent to formed surfaces, strike off smooth and finish with a texture matching adjacent formed surfaces. Continue final surface treatment of formed surfaces uniformly across adjacent unformed surfaces unless otherwise indicated.

3.8 FINISHING FLOORS AND SLABS

- A. General: Comply with ACI 302.1R recommendations for screeding, restraighening, and finishing operations for concrete surfaces. Do not wet concrete surfaces.
- B. Scratch Finish: While still plastic, texture concrete surface that has been screeded and bull-floated or darbied. Use stiff brushes, brooms, or rakes to produce a profile amplitude of 1/4 inch in one direction.
 - 1. Apply scratch finish to surfaces where indicated, to receive concrete floor toppings, and to receive mortar setting beds for bonded cementitious floor finishes.
- C. Float Finish: Consolidate surface with power-driven floats or by hand floating if area is small or inaccessible to power driven floats. Restraighten, cut down high spots, and fill low spots. Repeat float passes and restraighening until surface is left with a uniform, smooth, granular texture.
 - 1. Apply float finish to surfaces where indicated to receive trowel finish, and to be covered with fluid-applied or sheet waterproofing, built-up or membrane roofing, or sand-bed terrazzo
- D. Trowel Finish: After applying float finish, apply first troweling and consolidate concrete by hand or power-driven trowel. Continue troweling passes and restraighten until surface is free of trowel marks and uniform in texture and appearance. Grind smooth any surface defects that would telegraph through applied coatings or floor coverings.
 - 1. Apply a trowel finish to surfaces exposed to view or to be covered with resilient flooring, carpet, ceramic or quarry tile set over a cleavage membrane, paint, or another thin-film-finish coating system.
- E. Trowel and Fine-Broom Finish: Apply a first trowel finish to surfaces indicated and or where ceramic or quarry tile is to be installed by either thickset or thin-set method. While concrete is still plastic, slightly scarify surface with a fine broom.
 - 1. Comply with flatness and levelness tolerances for trowel-finished floor surfaces.
- F. Broom Finish: Apply a broom finish to exterior concrete platforms, steps, ramps, and elsewhere as indicated.

3.9 CONCRETE PROTECTING AND CURING

- A. General: Protect freshly placed concrete from premature drying and excessive cold or hot temperatures. Comply with ACI 306.1 for cold-weather protection and ACI 301 for hot- weather protection during curing.
- B. Evaporation Retarder: Apply evaporation retarder to unformed concrete surfaces if hot, dry, or windy conditions cause moisture loss before and during finishing operations. Apply according to manufacturer's written instructions after placing, screeding, and bull floating or darbying concrete, but before float finishing.
- C. Cure concrete according to ACI 308.1.
 - 1. Curing and Sealing Compound: Apply uniformly to floors and slabs indicated in a continuous operation by power spray or roller according to manufacturer's written instructions. Recoat areas subjected to heavy rainfall within three hours after initial application. Repeat process 24 hours later and apply a second coat. Maintain continuity of coating and repair damage during curing period.
 - 2. As noted on drawings.

3.10 CONCRETE SURFACE REPAIRS

- A. Defective Concrete: Repair and patch defective areas when approved by Architect. Remove and replace concrete that cannot be repaired and patched to Architect's approval.

3.11 FIELD QUALITY CONTROL

- A. Testing and Inspecting: Inspection and testing shall be performed by a firm selected and paid for by the Owner in accordance with the Quality Control section of this specification and Section 1.6 of ACI 301-99. Additional concrete cylinders requested by the Contractor for his information shall be paid for by the Contractor.
- B. Testing reports for concrete delivered to the site shall contain the unique identification of the specific mix for the concrete being supplied for the reported pour.
- C. Nondestructive testing shall not be used to establish concrete strength or suitability unless specifically authorized by the Structural Engineer.
- D. For any concrete pour the strength level of the concrete will be considered satisfactory only if the results of every compressive cylinder break for that concrete pour equals or exceeds the specified compressive strength.
- E. Prior to placing any concrete notify Architect and Structural Engineer when reinforcing steel placement and all other necessary preparations will be complete. Give a minimum of twenty-four (24) and maximum of forty-eight (48) hours notice.

END OF SECTION

SECTION 04220 - CONCRETE UNIT MASONRY

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Concrete masonry units (CMU's).
2. Decorative concrete masonry units.
3. Pre-faced concrete masonry units.
4. Steel reinforcing bars.
5. Masonry-cell insulation.

1.2 PRECONSTRUCTION TESTING

A. Preconstruction Testing Service: Owner will engage a qualified independent testing agency to perform preconstruction testing indicated below. Retesting of materials that fail to comply with specified requirements shall be done at Contractor's expense.

1. Concrete Masonry Unit Test: For each type of unit required, according to ASTM C 140 for compressive strength.
2. Mortar Test (Property Specification): For each mix required, according to ASTM C 109/C 109M for compressive strength.
3. Mortar Test (Property Specification): For each mix required, according to ASTM C 780 for compressive strength.
4. Grout Test (Compressive Strength): For each mix required, according to ASTM C 1019.

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product indicated.

B. Shop Drawings: For reinforcing steel. Detail bending and placement of unit masonry reinforcing bars. Comply with ACI 315, "Details and Detailing of Concrete Reinforcement".

1.4 INFORMATIONAL SUBMITTALS

A. Material Certificates: For each type and size of product indicated.

B. Mix Designs: For each type of mortar and grout. Include description of type and proportions of ingredients.

1. Include test reports for mortar mixes required to comply with property specification. Test according to ASTM C 109/C 109M for compressive strength, ASTM C 1506 for water retention, and ASTM C 91 for air content.
2. Include test reports, according to ASTM C 1019, for grout mixes required to comply with compressive strength requirement.

1.5 QUALITY ASSURANCE

- A. Masonry Standard: Comply with ACI 530.1/ASCE 6/TMS 602 unless modified by requirements in the Contract Documents.

1.6 PROJECT CONDITIONS

- A. Cold-Weather Requirements: Do not use frozen materials or materials mixed or coated with ice or frost. Do not build on frozen substrates. Remove and replace unit masonry damaged by frost or by freezing conditions. Comply with cold-weather construction requirements contained in ACI 530.1/ASCE 6/TMS 602.
- B. Hot-Weather Requirements: Comply with hot-weather construction requirements contained in ACI 530.1/ASCE 6/TMS 602.

PART 2 - PRODUCTS

2.1 MASONRY UNITS, GENERAL

- A. Defective Units: Referenced masonry unit standards may allow a certain percentage of units to contain chips, cracks, or other defects exceeding limits stated in the standard. Do not use units where such defects will be exposed in the completed Work.
- B. Fire-Resistance Ratings: Where indicated, provide units that comply with requirements for fire-resistance ratings indicated as determined by testing according to ASTM E 119, by equivalent masonry thickness, or by other means, as acceptable to authorities having jurisdiction.

2.2 CONCRETE MASONRY UNITS

- A. Shapes: Provide shapes indicated and for lintels, corners, jambs, sashes, movement joints, headers, bonding, and other special conditions.
- B. CMU's: ASTM C 90.
 - 1. Unit Compressive Strength: per general notes.
 - 2. Density Classification: Normal weight.

2.3 MASONRY LINTELS

- A. General: Provide one of the following:
- B. Masonry Lintels: Prefabricated or built-in-place masonry lintels made from bond beam CMUs with reinforcing bars placed as indicated and filled with coarse grout.

2.4 MORTAR AND GROUT MATERIALS

- A. Portland Cement: ASTM C 150, Type I or II. Provide natural color or white cement as required to produce mortar color indicated.

- B. Hydrated Lime: ASTM C 207, Type S.
- C. Portland Cement-Lime Mix: Packaged blend of portland cement and hydrated lime containing no other ingredients.
- D. Aggregate for Mortar: ASTM C 144.
 - 1. For joints less than 1/4 inch thick, use aggregate graded with 100 percent passing the No. 16 sieve.
- E. Aggregate for Grout: ASTM C 404.
- F. Water: Potable.

2.5 REINFORCEMENT

- A. Uncoated Steel Reinforcing Bars: ASTM A 615 or ASTM A 996, Grade 60.
- B. Masonry Joint Reinforcement, General: ASTM A 951.
 - 1. Interior Walls: galvanized, carbon steel.
 - 2. Exterior Walls: Hot-dip galvanized steel.
 - 3. Wire Size for Side Rods: 0.187-inch diameter.
 - 4. Wire Size for Veneer Ties: 0.187-inch diameter.
 - 5. Spacing of Cross Rods, Tabs, and Cross Ties: Not more than 16 inches o.c.
 - 6. Provide in lengths of not less than 10 feet, with prefabricated corner and tee units.

2.6 TIES AND ANCHORS

- A. Materials: Provide ties and anchors specified in this article that are made from materials that comply with the following unless otherwise indicated.
 - 1. Hot-Dip Galvanized, Carbon-Steel Wire: ASTM A 82; with ASTM A 153, Class B-2 coating.
 - 2. Steel Plates, Shapes, and Bars: ASTM A 36.
- B. Adjustable Anchors for Connecting to Structural Steel Framing: Provide anchors that allow vertical or horizontal adjustment but resist tension and compression forces perpendicular to plane of wall.
 - 1. Anchor Section for Welding to Steel Frame: Crimped 1/4-inch diameter, hot-dip galvanized steel wire.
 - 2. Tie Section: Triangular-shaped wire tie, sized to extend within 1 inch of masonry face, made from 0.25-inch diameter, hot-dip galvanized steel wire.
- C. Adjustable Anchors for Connecting to Concrete: Provide anchors that allow vertical or horizontal adjustment but resist tension and compression forces perpendicular to plane of wall.
- D. Partition Top anchors: as detailed on drawings.
- E. Rigid Anchors: as detailed on drawings.

2.7 MISCELLANEOUS MASONRY ACCESSORIES

- A. Compressible Filler: Pre-molded filler strips complying with ASTM D 1056, Grade 2A1; compressible up to 35 percent; formulated from neoprene, urethane, or PVC.
- B. Preformed Control-Joint Gaskets: designed to fit standard sash block and to maintain lateral stability in masonry wall; size and configuration as indicated.
- C. Bond-Breaker Strips: Asphalt-saturated, organic roofing felt complying with ASTM D 226, Type I (No. 15 asphalt felt).

2.8 MORTAR AND GROUT MIXES

- A. General: Do not use admixtures, including pigments, air-entraining agents, accelerators, retarders, water-repellent agents, antifreeze compounds, or other admixtures unless otherwise indicated.
 - 1. Do not use calcium chloride in mortar or grout.
 - 2. Use portland cement-lime or mortar cement mortar unless otherwise indicated.
- B. Pre-blended, Dry Mortar Mix: Furnish dry mortar ingredients in form of a preblended mix. Measure quantities by weight to ensure accurate proportions, and thoroughly blend ingredients before delivering to Project site.
- C. Mortar for Unit Masonry: Comply with ASTM C 270, Specification. Provide the following types of mortar for applications stated unless another type is indicated.
 - 1. For masonry below grade or in contact with earth, use Type N.
 - 2. For reinforced masonry, use Type N.
 - 3. For mortar parge coats, use Type N.
 - 4. For exterior, above-grade, load-bearing and non-load-bearing walls and parapet walls; for interior load-bearing walls; for interior non-load-bearing partitions; and for other applications where another type is not indicated, use Type N.
- D. Grout for Unit Masonry: Comply with ASTM C 476.
 - 1. Use grout of type indicated or, if not otherwise indicated, of type (fine or coarse) that will comply with Table 1.15.1 in ACI 530.1/ASCE 6/TMS 602 for dimensions of grout spaces and pour height.
 - 2. Proportion grout in accordance with ASTM C 476, paragraph 4.2.2 for specified 28-day compressive strength indicated, but not less than 1500 psi.
 - 3. Provide grout with a slump of 8 to 11 inches as measured according to ASTM C 143/C 143M.

PART 3 - EXECUTION

3.1 TOLERANCES

- A. Dimensions and Locations of Elements: per ACI 530.1.
- B. Lines and Levels: per ACI 530.1.

- C. Joints: per ACI 530.1.

3.2 LAYING MASONRY WALLS

- A. Lay out walls in advance for accurate spacing of surface bond patterns with uniform joint thicknesses and for accurate location of openings, movement-type joints, returns, and offsets. Avoid using less-than-half-size units, particularly at corners, jambs, and, where possible, at other locations.
- B. Use full-size units without cutting if possible. If cutting is required to provide a continuous pattern or to fit adjoining construction, cut units with motor-driven saws; provide clean, sharp, unchipped edges. Allow units to dry before laying unless wetting of units is specified. Install cut units with cut surfaces and, where possible, cut edges concealed.
- C. Bond Pattern for Exposed Masonry: Unless otherwise indicated, lay exposed masonry in running bond; do not use units with less than nominal 4-inch horizontal face dimensions at corners or jambs.
- D. Built-in Work: As construction progresses, build in items specified in this and other Sections. Fill in solidly with masonry around built-in items.
- E. Fill space between steel frames and masonry solidly with mortar unless otherwise indicated.
- F. Where built-in items are to be embedded in cores of hollow masonry units, place a layer of metal lath, wire mesh, or plastic mesh in the joint below and rod mortar or grout into core.
- G. Fill cores in hollow CMU's with grout 24 inches under bearing plates, beams, lintels, posts, and similar items unless otherwise indicated.

3.3 MORTAR BEDDING AND JOINTING

- A. Lay hollow CMU's as follows:
 - 1. With face shells fully bedded in mortar and with head joints of depth equal to bed joints.
 - 2. With webs fully bedded in mortar in all courses of piers, columns, and pilasters.
 - 3. With webs fully bedded in mortar in grouted masonry, including starting course on footings.
 - 4. With entire units, including areas under cells, fully bedded in mortar at starting course on footings where cells are not grouted.
- B. Lay solid masonry units with completely filled bed and head joints; butter ends with sufficient mortar to fill head joints and shove into place. Do not deeply furrow bed joints or slush head joints.
- C. Tool exposed joints slightly concave when thumbprint hard, using a jointer larger than joint thickness unless otherwise indicated.
- D. Cut joints flush for masonry walls to receive plaster or other direct-applied finishes (other than paint) unless otherwise indicated.

3.4 MASONRY-CELL INSULATION

- A. Pour granular insulation into cavities to fill void spaces. Maintain inspection ports to show presence of insulation at extremities of each pour area. Close the ports after filling has been confirmed. Limit the fall of insulation to one story high, but not more than 20 feet.
- B. Install molded-polystyrene insulation units into masonry unit cells before laying units.

3.5 MASONRY JOINT REINFORCEMENT

- A. General: Install entire length of longitudinal side rods in mortar with a minimum cover of 5/8 inch on exterior side of walls, 1/2 inch elsewhere. Lap reinforcement a minimum of 6 inches.
 - 1. Space reinforcement not more than 16 inches o.c.
 - 2. Space reinforcement not more than 8 inches o.c. in foundation walls and parapet walls.
 - 3. Provide reinforcement not more than 8 inches above and below wall openings and extending 16 inches beyond openings in addition to continuous reinforcement.
- B. Interrupt joint reinforcement at control and expansion joints unless otherwise indicated.
- C. Provide continuity at wall intersections by using prefabricated T-shaped units.
- D. Provide continuity at corners by using prefabricated L-shaped units.

3.6 ANCHORING MASONRY TO STRUCTURAL STEEL AND CONCRETE

- A. Anchor masonry to structural steel and concrete where masonry abuts or faces structural steel or concrete to comply with the following as detailed in the drawings.

3.7 REINFORCED UNIT MASONRY INSTALLATION

- A. Temporary Formwork and Shores: Construct formwork and shores as needed to support reinforced masonry elements during construction.
 - 1. Construct formwork to provide shape, line, and dimensions of completed masonry as indicated. Make forms sufficiently tight to prevent leakage of mortar and grout. Brace, tie, and support forms to maintain position and shape during construction and curing of reinforced masonry.
 - 2. Do not remove forms and shores until reinforced masonry members have hardened sufficiently to carry their own weight and other loads that may be placed on them during construction.
- B. Placing Reinforcement: Comply with requirements in ACI 530.1/ASCE 6/TMS 602.
- C. Grouting: Do not place grout until entire height of masonry to be grouted has attained enough strength to resist grout pressure.
 - 1. Comply with requirements in ACI 530.1/ASCE 6/TMS 602 for cleanouts and for grout placement, including minimum grout space and maximum pour height.

3.8 FIELD QUALITY CONTROL

- A. Testing and Inspecting: Owner will engage special inspectors to perform tests and inspections and prepare reports. Allow inspectors access to scaffolding and work areas, as needed to perform tests and inspections. Retesting of materials that fail to meet specified requirements shall be done at Contractor's expense.
- B. Inspections: Level 1 special inspections according to the "International Building Code."
 - 1. Begin masonry construction only after inspectors have verified proportions of site-prepared mortar.
 - 2. Place grout only after inspectors have verified compliance of grout spaces and of grades, sizes, and locations of reinforcement.
 - 3. Place grout only after inspectors have verified proportions of site-prepared grout.
- C. Testing Prior to Construction: One set of tests.
- D. Testing Frequency: One set of tests for each 5000 sq. ft. of wall area or portion thereof.
- E. Concrete Masonry Unit Test: For each type of unit provided, according to ASTM C 140 for compressive strength.
- F. Mortar Aggregate Ratio Test (Proportion Specification): For each mix provided, according to ASTM C 780.
- G. Mortar Test (Property Specification): For each mix provided, according to ASTM C 780. Test mortar for compressive strength.
- H. Grout Test (Compressive Strength): For each mix provided, according to ASTM C 1019.

3.9 PARGING

- A. Parge exterior faces of below-grade masonry walls, where indicated, in 2 uniform coats to a total thickness of 3/4 inch.
- B. Use a steel-trowel finish to produce a smooth, flat, dense surface. Form a wash at top of parging and a cove at bottom.
- C. Damp-cure parging for at least 24 hours and protect parging until cured.

3.10 REPAIRING, POINTING, AND CLEANING

- A. In-Progress Cleaning: Clean unit masonry as work progresses by dry brushing to remove mortar fins and smears before tooling joints.
- B. Final Cleaning: After mortar is thoroughly set and cured, clean exposed masonry as follows:
 - 1. Test cleaning methods on sample wall panel; leave one-half of panel un-cleaned for comparison purposes.
 - 2. Clean concrete masonry by cleaning method indicated in NCMA TEK 8-2A applicable to type of stain on exposed surfaces.

3.11 MASONRY WASTE DISPOSAL

- A. Waste Disposal as Fill Material: Dispose of clean masonry waste, including excess or soil-contaminated sand, waste mortar, and broken masonry units, by crushing and mixing with fill material as fill is placed.
- B. Excess Masonry Waste: Remove excess clean masonry waste that cannot be used as fill, as described above, and other masonry waste, and legally dispose of off Owner's property.

END OF SECTION 04220

SECTION 05310 - STEEL DECKING

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Roof deck.
 - 2. Composite floor deck.
 - 3. Non-composite form deck.

1.2 ACTION SUBMITTALS

- A. Product Data: For each type of deck, accessory, and product indicated.
- B. Shop Drawings:
 - 1. Include layout and types of deck panels, anchorage details, reinforcing channels, pans, cut deck openings, special jointing, accessories, and attachments to other construction.

1.3 INFORMATIONAL SUBMITTALS

- A. Welding certificates.
- B. Product certificates.
- C. Evaluation reports.
- D. Field quality-control reports.

1.4 QUALITY ASSURANCE

- A. Testing Agency Qualifications: Qualified according to ASTM E 329 for testing indicated.
- B. Welding Qualifications: Qualify procedures and personnel according to AWS D1.3, "Structural Welding Code - Sheet Steel."

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Protect steel deck from corrosion, deformation, and other damage during delivery, storage, and handling.
- B. Stack steel deck on platforms or pallets and slope to provide drainage. Protect with a waterproof covering and ventilate to avoid condensation.

PART 2 - PRODUCTS

2.1 ROOF DECK

- A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
1. ASC Profiles, Inc.; a Blue Scope Steel company.
 2. Canam United States; Canam Group Inc.
 3. CMC Joist & Deck.
 4. Consolidated Systems, Inc.; Metal Dek Group.
 5. Cordeck.
 6. DACS, Inc.
 7. Epic Metals Corporation.
 8. Marlyn Steel Decks, Inc.
 9. New Millennium Building Systems, LLC.
 10. Nucor Corp.; Vulcraft Group.
 11. Roof Deck, Inc.
 12. Valley Joist; Subsidiary of EBSCO Industries, Inc.
 13. Verco Manufacturing Co.
 14. Wheeling Corrugating Company; Div. of Wheeling-Pittsburgh Steel Corporation.
- B. Roof Deck: Fabricate panels, without top-flange stiffening grooves, to comply with "SDI Specifications and Commentary for Steel Roof Deck," in SDI Publication No. 31, and with the following:
1. Galvanized-Steel Sheet as detailed on plan: ASTM A653, Structural Steel, Grade 80, G90 zinc coating. (note, designations are per Nucor Corp.; Vulcraft Group).

2.2 ACCESSORIES

- A. General: Provide manufacturer's standard accessory materials for deck that comply with requirements indicated.
- B. Mechanical Fasteners: Corrosion-resistant, low-velocity, power-actuated or pneumatically driven carbon-steel fasteners; or self-drilling, self-threading screws.
- C. Side-Lap Fasteners: as noted in general notes.
- D. Flexible Closure Strips: Vulcanized, closed-cell, synthetic rubber.
- E. Miscellaneous Sheet Metal Deck Accessories: Steel sheet, minimum yield strength of 33,000 psi, not less than 0.0359-inch design uncoated thickness, of same material and finish as deck; of profile indicated or required for application.
- F. Flat Sump Plates: Single-piece steel sheet, 0.0747 inch thick, of same material and finish as deck. For drains, cut holes in the field.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

- A. Install deck panels and accessories according to applicable specifications and commentary in SDI Publication No. 31, manufacturer's written instructions, and requirements in this Section.
- B. Place deck panels on supporting frame and adjust to final position with ends accurately aligned and bearing on supporting frame before being permanently fastened. Do not stretch or contract side-lap interlocks.
- C. Place deck panels flat and square and fasten to supporting frame without warp or deflection.
- D. Cut and neatly fit deck panels and accessories around openings and other work projecting through or adjacent to deck.
- E. Provide additional reinforcement and closure pieces at openings as required for strength, continuity of deck, and support of other work.
- F. Comply with AWS requirements and procedures for manual shielded metal arc welding, appearance and quality of welds, and methods used for correcting welding work.
- G. Mechanical fasteners may be used in lieu of welding to fasten deck. Locate mechanical fasteners and install according to deck manufacturer's written instructions.
- H. Roof Sump Pans and Sump Plates: Install over openings provided in roof deck and weld or mechanically fasten flanges to top of deck. Space welds or mechanical fasteners not more than 12 inches apart with at least one weld or fastener at each corner.
- I. Miscellaneous Roof-Deck Accessories: Install ridge and valley plates, finish strips, end closures, and reinforcing channels according to deck manufacturer's written instructions. Weld] or mechanically fasten to substrate to provide a complete deck installation.
 - 1. Weld cover plates at changes in direction of roof-deck panels unless otherwise indicated.
- J. Pour Stops and Girder Fillers: Weld steel-sheet pour stops and girder fillers to supporting structure according to SDI recommendations unless otherwise indicated.
- K. Floor-Deck Closures: Weld steel-sheet column closures, cell closures, and Z-closures to deck, according to SDI recommendations, to provide tight-fitting closures at open ends of ribs and sides of deck. Allow minimum 1-1/2 inch bearing when supported by structural steel and minimum 4 inch bearing when supported by masonry.

3.2 FIELD QUALITY CONTROL

- A. Testing Agency: Engage a qualified testing agency to perform tests and inspections.
- B. Field welds will be subject to inspection.
- C. Testing agency will report inspection results promptly and in writing to Contractor and Architect.
- D. Remove and replace work that does not comply with specified requirements.

- E. Additional inspecting, at Contractor's expense, will be performed to determine compliance of corrected work with specified requirements.

3.3 PROTECTION

- A. Galvanizing Repairs: Prepare and repair damaged galvanized coatings on both surfaces of deck with galvanized repair paint according to ASTM A 780 and manufacturer's written instructions.

END OF SECTION 05310

SECTION 05400 - COLD-FORMED METAL FRAMING

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes the following:
 - 1. Exterior load-bearing wall framing.
 - 2. Interior load-bearing wall framing.
 - 3. Exterior non-load-bearing wall framing.
 - 4. Floor joist framing.
 - 5. Roof trusses.

1.2 ACTION SUBMITTALS

- A. Product Data: For each type of product and accessory indicated.
- B. Shop Drawings: Show layout, spacings, sizes, thicknesses, and types of cold-formed metal framing; fabrication; and fastening and anchorage details, including mechanical fasteners.

1.3 INFORMATIONAL SUBMITTALS

- A. Qualification data.
- B. Welding certificates.
- C. Product test reports.
- D. Research/evaluation reports.

1.4 QUALITY ASSURANCE

- A. Product Tests: Mill certificates or data from a qualified independent testing agency indicating steel sheet complies with requirements.
- B. Welding: Qualify procedures and personnel according to AWS D1.3, "Structural Welding Code-Sheet Steel."
- C. Fire-Test-Response Characteristics: Where indicated, provide cold-formed metal framing identical to that of assemblies tested for fire resistance per ASTM E 119 by a testing and inspecting agency acceptable to authorities having jurisdiction.
- D. AISI Specifications and Standards: Comply with AISI's "North American Specification for the Design of Cold-Formed Steel Structural Members" and its "Standard for Cold-Formed Steel Framing - General Provisions."
 - 1. Comply with AISI's "Standard for Cold-Formed Steel Framing - Truss Design."
 - 2. Comply with AISI's "Standard for Cold-Formed Steel Framing - Header Design."

- E. Comply with AISI's "Standard for Cold-Formed Steel Framing - Prescriptive Method for One and Two Family Dwellings."

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Steel Sheet: ASTM A 1003, Structural Grade, Type H, metallic coated, of grade and coating weight as follows:
 - 1. Grade: For 18 gage and lighter comply with ASTM A653, Grade 33, 33,000 psi minimum yield point. For 16 gage and heavier comply with ASTM A653, Grade 50, 50,000 psi minimum yield point..
 - 2. Coating: **G90**.

2.2 LOAD-BEARING WALL FRAMING

- A. Steel Studs: Manufacturer's standard C-shaped steel studs, of web depths indicated, punched, with stiffened flanges, and as shown in drawings.
- B. Steel Track: Manufacturer's standard U-shaped steel track, of web depths indicated, unpunched, with straight flanges, and same minimum base-metal thickness as steel studs or as detailed in the drawings.
- C. Steel Box or Back-to-Back Headers: Manufacturer's standard C-shapes used to form header beams, of web depths indicated, punched, with stiffened flanges, and as detailed in the drawings.

2.3 EXTERIOR NON-LOAD-BEARING WALL FRAMING

- A. Steel Studs: Manufacturer's standard C-shaped steel studs, of web depths indicated, punched, with stiffened flanges, and as detailed in the drawings.
- B. Steel Track: Manufacturer's standard U-shaped steel track, of web depths indicated, unpunched, with unstiffened flanges, and same minimum base-metal thickness as steel studs or as detailed in the drawings.

2.4 FLOOR JOIST FRAMING

- A. Steel Joists: Manufacturer's standard C-shaped steel joists, of web depths indicated, with stiffened flanges, and as detailed in the drawings.
- B. Steel Joist Track: Manufacturer's standard U-shaped steel joist track, of web depths indicated, unpunched, with unstiffened flanges, and as detailed in the drawings.

2.5 ROOF TRUSSES

- A. Roof Truss Members: Manufacturer's standard C-shaped steel sections, un-punched, with stiffened flanges.

2.6 FRAMING ACCESSORIES

- A. Fabricate steel-framing accessories from steel sheet, ASTM A 1003, Structural Grade, Type H, metallic coated, of same grade and coating weight used for framing members, unless otherwise indicated.
- B. Steel Shapes and Clips: ASTM A 36, zinc coated by hot-dip process according to ASTM A 123.
- C. Anchor Bolts: as detailed in the drawings.
- D. Expansion Anchors: Fabricated from corrosion-resistant materials, with capability to sustain, without failure, a load equal to 5 times design load, as determined by testing per ASTM E 488 conducted by a qualified independent testing agency.
- E. Power-Actuated Anchors: Fastener system of type suitable for application indicated, fabricated from corrosion-resistant materials, with capability to sustain, without failure, a load equal to 10 times design load, as determined by testing per ASTM E 1190 conducted by a qualified independent testing agency.
- F. Welding shall be in accordance with AWS D1.3.
- G. Mechanical Fasteners: ASTM C 1513, corrosion-resistant-coated, self-drilling, self-tapping steel drill screws.
 - 1. Head Type: Low-profile head beneath sheathing, manufacturer's standard elsewhere.

2.7 MISCELLANEOUS MATERIALS

- A. Galvanizing Repair Paint: SSPC-Paint 20 or DOD-P-21035.
- B. Cement Grout: Portland cement, ASTM C 150, Type I; and clean, natural sand, ASTM C 404. Mix at ratio of 1 part cement to 2-1/2 parts sand, by volume, with minimum water required for placement and hydration.
- C. Shims: Load bearing, high-density multimonomer plastic, nonleaching.
- D. Sealer Gaskets: Closed-cell neoprene foam, 1/4 inch thick, selected from manufacturer's standard widths to match width of bottom track or rim track members.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Install load bearing shims or grout between the underside of wall bottom track or rim track and the top of foundation wall or slab at stud or joist locations to ensure a uniform bearing surface on supporting concrete or masonry construction.
- B. Install sealer gaskets to isolate the underside of wall bottom track or rim track and the top of foundation wall or slab at stud or joist locations.

3.2 INSTALLATION, GENERAL

- A. Install cold-formed metal framing according to AISI's "Standard for Cold-Formed Steel Framing - General Provisions" and to manufacturer's written instructions unless more stringent requirements are indicated.
- B. Install cold-formed metal framing and accessories plumb, square, and true to line, and with connections securely fastened.
- C. Install framing members in one-piece lengths.
- D. Install temporary bracing and supports to secure framing and support loads comparable in intensity to those for which structure was designed. Maintain braces and supports in place, undisturbed, until entire integrated supporting structure has been completed and permanent connections to framing are secured.
- E. Do not bridge building expansion and control joints with cold-formed metal framing. Independently frame both sides of joints.
- F. Install insulation, specified in Division 07 Section "Thermal Insulation," in built-up exterior framing members, such as headers, sills, boxed joists, and multiple studs at openings, that are inaccessible on completion of framing work.
- G. Fasten hole reinforcing plate over web penetrations that exceed size of manufacturer's standard punched openings. Align and secure top and bottom tracks with a minimum of one #8 screw in each flange of every stud. The maximum gap between either end of any stud and the top or bottom track shall be 1/16".
- H. At track joints, pieces of track shall be securely anchored to a common structural element, or fully spliced together.
- I. Where multiple studs are required at window jambs, door jambs, or the sides of other openings they shall be attached to each other sufficiently to work as a unit to resist all loads from the opening.
- J. All headers, sills, etc. shall be properly connected and supported at their ends to allow all vertical and lateral loads to be transferred to the supporting elements.
- K. Jack studs or cripples shall be installed below window sills, above window and door heads, and elsewhere at the same spacing as wall studs. They shall be securely attached to supporting members.
- L. Fit track under and above openings.
- M. Stud splicing is not permissible
- N. Bridging for studs shall be attached in a manner to prevent stud rotation. Bridging rows shall be spaced as recommended by the manufacturer of the system.
- O. Unless shown otherwise on the drawings bridging for joists or rafters shall be manufacturer's standard placed as follows:

| Span | Number of Rows |
|--------------|----------------|
| up to 14 ft. | 1 |
| 14 to 20 ft. | 2 |
| 20 to 26 ft. | 3 |

- P. Coordinate erection of studs with requirements of door and window frames; install supports and attachments.
- Q. Construct corners using a minimum of three studs.
- R. Coordinate installation of wood bucks, anchors, and wood blocking with electrical and mechanical work to be placed within or behind stud framing.
- S. Where galvanized surfaces or components are damaged, repair in accordance with ASTM A780.
- T. All bearing wall studs shall be adequately braced at all times during construction to prevent lateral buckling prior to placement of wall board, sheetrock, sheathing, plywood or other permanent finish material.
- U. Erection Tolerances: Install cold-formed metal framing level, plumb, and true to line to a maximum allowable tolerance variation of 1/8 inch in 10 feet and as follows:
 1. Space individual framing members no more than plus or minus 1/8 inch from plan location. Cumulative error shall not exceed minimum fastening requirements of sheathing or other finishing materials.
 2. Maximum Variation From True Position: 1/8 inch.
 3. Maximum Variation of any Member from Plane: 1/8 inch.
 4. Maximum Variation from Plumb: 1/8 inch.

3.3 LOAD-BEARING WALL INSTALLATION

- A. Install continuous top and bottom tracks sized to match studs. Align tracks accurately and securely anchor at corners and ends, and at spacings as follows:
 1. Anchor Spacing: as detailed.
- B. Squarely seat studs against top and bottom tracks with gap not exceeding of 1/8 inch between the end of wall framing member and the web of track. Fasten both flanges of studs to top and bottom tracks. Space studs as follows as detailed on drawings.
- C. Set studs plumb, except as needed for diagonal bracing or required for non-plumb walls or warped surfaces and similar configurations.
- D. Align studs vertically where floor framing interrupts wall-framing continuity. Where studs cannot be aligned, continuously reinforce track to transfer loads.
- E. Align floor and roof framing over studs. Where framing cannot be aligned, continuously reinforce track to transfer loads.
- F. Anchor studs abutting structural columns or walls, including masonry walls, to supporting structure as indicated.
- G. Install headers over wall openings wider than stud spacing. Locate headers above openings as indicated. Fabricate headers of compound shapes indicated or required to transfer load to supporting studs, complete with clip-angle connectors, web stiffeners, or gusset plates.

1. Frame wall openings with not less than a double stud at each jamb of frame as indicated on Shop Drawings. Fasten jamb members together to uniformly distribute loads.
 2. Install runner tracks and jack studs above and below wall openings. Anchor tracks to jamb studs with clip angles or by welding, and space jack studs same as full-height wall studs.
- H. Install supplementary framing, blocking, and bracing in stud framing indicated to support fixtures, equipment, services, casework, heavy trim, furnishings, and similar work requiring attachment to framing.
1. If type of supplementary support is not indicated, comply with stud manufacturer's written recommendations and industry standards in each case, considering weight or load resulting from item supported.
- I. Install horizontal bridging in stud system, spaced 48 inches max or as detailed. Fasten at each stud intersection.
1. Bridging: Cold-rolled steel channel, welded or mechanically fastened to webs of punched studs with a minimum of 2 screws into each flange of the clip angle for framing members up to 6 inches deep.
 2. Bridging: Combination of flat, taut, steel sheet straps of width and thickness indicated and stud-track solid blocking of width and thickness to match studs. Fasten flat straps to stud flanges and secure solid blocking to stud webs or flanges.
 3. Bridging: Proprietary bridging bars installed according to manufacturer's written instructions.
- J. Install steel sheet diagonal bracing straps to both stud flanges, terminate at and fasten to reinforced top and bottom tracks. Fasten clip-angle connectors to multiple studs at ends of bracing and anchor to structure.
- K. Install miscellaneous framing and connections, including supplementary framing, web stiffeners, clip angles, continuous angles, anchors, and fasteners, to provide a complete and stable wall-framing system.

3.4 EXTERIOR NON-LOAD-BEARING WALL INSTALLATION

- A. Install continuous tracks sized to match studs. Align tracks accurately and securely anchor to supporting structure as indicated.
- B. Fasten both flanges of studs to [**top and**] bottom track, unless otherwise indicated. Space studs as follows:
1. Stud Spacing: as detailed on drawings.
- C. Set studs plumb, except as needed for diagonal bracing or required for nonplumb walls or warped surfaces and similar requirements.
- D. Isolate non-load-bearing steel framing from building structure to prevent transfer of vertical loads while providing lateral support.
- E. Install horizontal bridging in wall studs, spaced in rows indicated on Shop Drawings but not more than 48 inches apart. Fasten at each stud intersection.

1. Bridging: Cold-rolled steel channel, welded or mechanically fastened to webs of punched studs.
 2. Bridging: Combination of flat, taut, steel sheet straps of width and thickness indicated and stud-track solid blocking of width and thickness to match studs. Fasten flat straps to stud flanges and secure solid blocking to stud webs or flanges.
 3. Bridging: Proprietary bridging bars installed according to manufacturer's written instructions.
- F. Install miscellaneous framing and connections, including stud kickers, web stiffeners, clip angles, continuous angles, anchors, fasteners, and stud girts, to provide a complete and stable curtain-wall-framing system.

3.5 JOIST INSTALLATION

- A. Install perimeter joist track sized to match joists. Align and securely anchor or fasten track to supporting structure at corners, ends, and spacings indicated on Shop Drawings.
- B. Install joists bearing on supporting frame, level, straight, and plumb; adjust to final position, brace, and reinforce. Fasten joists to both flanges of joist track.
1. Install joists over supporting frame with a minimum end bearing of as detailed.
 2. Reinforce ends and bearing points of joists with web stiffeners, end clips, joist hangers, steel clip angles, or steel-stud sections as indicated on Shop Drawings.
- C. Space joists not more than 2 inches from abutting walls, and as follows:
1. Joist Spacing: as detailed.
- D. Frame openings with built-up joist headers consisting of joist and joist track, nesting joists, or another combination of connected joists if indicated.
- E. Install joist reinforcement at interior supports with single, short length of joist section located directly over interior support, with lapped joists of equal length to joist reinforcement, or as detailed.
1. Install web stiffeners to transfer axial loads of walls above.
- F. Install bridging at intervals as detailed or 7'-0" o.c. max. Fasten bridging at each joist intersection as follows:
1. Bridging: Joist-track solid blocking of width and thickness indicated, secured to joist webs.
 2. Bridging: Combination of flat, taut, steel sheet straps of width and thickness indicated and joist-track solid blocking of width and thickness indicated. Fasten flat straps to bottom flange of joists and secure solid blocking to joist webs.
- G. Secure joists to load-bearing interior walls to prevent lateral movement of bottom flange.
- H. Install miscellaneous joist framing and connections, including web stiffeners, closure pieces, clip angles, continuous angles, hold-down angles, anchors, and fasteners, to provide a complete and stable joist-framing assembly.

3.6 TRUSS INSTALLATION

- A. Install, bridge, and brace trusses according to Shop Drawings and requirements in this Section.
- B. Truss Spacing: as detailed on drawings.
- C. Do not alter, cut, or remove framing members or connections of trusses.
- D. Erect trusses with plane of truss webs plumb and parallel to each other, align, and accurately position at spacings indicated.
- E. Erect trusses without damaging framing members or connections.
- F. Align webs of bottom chords and load-bearing studs or continuously reinforce track to transfer loads to structure. Anchor trusses securely at all bearing points.
- G. Install continuous bridging and permanently brace trusses as indicated on Shop Drawings and designed according to LGSEA's Technical Note 551e, "Design Guide for Permanent Bracing of Cold-Formed Steel Trusses."].

3.7 FIELD QUALITY CONTROL

- A. Testing: Owner will engage a qualified independent testing and inspecting agency to perform field tests and inspections and prepare test reports.
- B. Field and shop welds will be subject to testing and inspecting.
- C. Testing agency will report test results promptly and in writing to Contractor and Architect.
- D. Remove and replace work where test results indicate that it does not comply with specified requirements.
- E. Additional testing and inspecting, at Contractor's expense, will be performed to determine compliance of replaced or additional work with specified requirements.

3.8 REPAIRS AND PROTECTION

- A. Galvanizing Repairs: Prepare and repair damaged galvanized coatings on fabricated and installed cold-formed metal framing with galvanized repair paint according to ASTM A 780 and manufacturer's written instructions.
- B. Provide final protection and maintain conditions, in a manner acceptable to manufacturer and Installer, that ensure that cold-formed metal framing is without damage or deterioration at time of Substantial Completion.

END OF SECTION 054000

SECTION 06100- ROUGH & FINISHED CARPENTRY

PART 1 - GENERAL

1.1 SECTION REQUIREMENTS

- A. The general provisions of the contract, including General and Supplementary Conditions and other general requirement sections, shall pertain to and govern all work under this section.
- B. Submittals: Model code evaluation reports for wood-preservative treated wood, engineered wood products and metal framing anchors.

1.2 Quality Assurance and Controls:

- A. Grades specified shall conform to the most recent grading rules of the Southern Pine Association, the West Coast Lumber Inspection Bureau, American Plywood Association, or Western Wood Products Association, under whose rules the lumber was produced.
- B. Maximum moisture content: 15%.
- C. Grading Requirements: Grade and trade mark each piece of lumber (or bundle in bundled stock). Use only the recognized official marks of association under whose rule it is graded. Grade and trademarks will not be required if each shipment is accompanied by certificate of inspection issued by grading association. Provide best quality of its respective grades and kinds.

PART 2 - PRODUCTS

2.1 WOOD PRODUCTS, GENERAL

- A. Lumber:
 - 1. Provide dressed lumber, S4S, marked with grade stamp of inspection agency.
- B. Engineered Wood Products: Acceptable to authorities having jurisdiction and for which current model code research or evaluation reports exist that show compliance with building code in effect for Project.

2.2 TREATED MATERIALS

- A. Preservative-Treated Materials: AWPA C2, except that lumber not in ground contact and not exposed to the weather may be treated according to AWPA C31 with inorganic boron (SBX)

1. Use treatment containing no arsenic or chromium.
2. Kiln-dry lumber after treatment to a maximum moisture content of 19 percent.
3. Mark lumber with treatment quality mark of an inspection agency approved by the ALSC Board of Review.

B. Provide preservative-treated materials for all rough carpentry, unless otherwise indicated.

1. Wood members in connection with roofing, flashing, vapor barriers, and waterproofing.
2. Concealed members in contact with masonry or concrete.
3. Wood framing members that are less than 18 inches above the ground.
4. Wood floor plates that are installed over concrete slabs-on-grade.

C. Fire-Retardant-Treated Materials: Comply with performance requirements in AWPAC20.

1. Use Exterior type for exterior locations and where indicated.
2. Use Interior Type A, High Temperature (HT) for enclosed roof framing, framing in attic spaces, and where indicated.
3. Use Interior Type A, unless otherwise indicated.
4. Identify with appropriate classification marking of a testing and inspecting agency acceptable to authorities having jurisdiction.

2.3 2.3 LUMBER

A. A. Dimension Lumber:

1. Maximum Moisture Content: 15 percent.
2. Framing Other Than Non-Load-Bearing Partitions: No. 2 Construction or No. 2 Construction, Stud, or No. 3: Hem-fir (north): NLGA; Southern pine: SPIB.

B. Miscellaneous Lumber: Construction, or No. 2 grade with 15 percent maximum moisture content of any species. Provide for nailers, blocking, and similar members.

2.4 ENGINEERED WOOD PRODUCTS

A. Engineered wood products with allowable design stresses, as published by manufacturer, that meet or exceed those indicated. Manufacturer's published values shall be demonstrated by comprehensive testing.

2.5 MISCELLANEOUS PRODUCTS

A. Fasteners – Untreated wood:

1. For roof and wall sheathing, provide fasteners with hot-dip zinc coating complying with ASTM A 153/A 153M.

2. 2. Power-Driven Fasteners: CABO NER-272.
- B. Fasteners – Treated Wood
1. Provide fasteners of Type 304 stainless steel.
 2. Power-Driven Fasteners: CABONER-272.
 3. Bolts: Steel bolts complying with ASTM A 307, Grade A; with ASTM A 563 hex nuts and, where indicated, flat washers.
- C. Metal Framing Anchors: Structural capacity, type, and size indicated.
1. Use anchors made from hot-dip galvanized steel complying with ASTM A 653/A653M, G60 coating designation for interior locations where stainless steel is not indicated.
 2. Use anchors made from stainless steel complying with ASTM A 666, Type 304 for exterior locations and where indicated.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Set rough carpentry to required levels and lines, with members plumb, true to line, cut, and fitted. Locate nailers, blocking, and similar supports to comply with requirements for attaching other construction.
- B. Contractor to separate metal products from treated lumber using Ice and Water Shield. 2-ply membrane roofing system may be used on roof scope. Refer to architectural details for more information.
- C. Securely attach rough carpentry to substrates, complying with the following:
1. CABO NER-272 for power-driven fasteners.
 2. Published requirements of metal framing anchor manufacturer.
 3. Table 23-II-B-1, "Nailing Schedule," and Table 23-II-B-2, "Wood Structural Panel Roof Sheathing Nailing Schedule," in ICBO's Uniform Building Code.

END OF SECTION 06100

SECTION 07920 - JOINT SEALANTS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Silicone joint sealants.
2. Urethane joint sealants.
3. Silyl-terminated polyether joint sealants
4. Latex joint sealants.
5. Solvent-release-curing joint sealants.
6. Preformed joint sealants.
7. Acoustical joint sealants.

1.2 PRECONSTRUCTION TESTING

- A. Preconstruction Compatibility and Adhesion Testing: Submit to joint-sealant manufacturers 8 samples of materials that will contact or affect joint sealants. Use standard test method to determine whether priming and other specific joint preparation techniques are required to obtain rapid, optimum adhesion of joint sealants to joint substrates.
- B. Preconstruction Field-Adhesion Testing: Before installing sealants, field test their adhesion to Project joint substrates. Test joint sealants according to Method A, Field-Applied Sealant Joint Hand Pull Tab, in Appendix X1 in ASTM C 1193 or Method A, Tail Procedure, in ASTM C 1521.

1.3 ACTION SUBMITTALS

- A. Product Data: For each joint-sealant product indicated.
- B. LEED Submittals:
1. Product Data for Credit IEQ 4.1: For sealants and sealant primers used inside the weatherproofing system, documentation including printed statement of VOC content.
 2. Laboratory Test Reports for Credit IEQ 4: For sealants and sealant primers used inside the weatherproofing system, documentation indicating that they comply with the testing and product requirements of the California Department of Health Services' "Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers."
- C. Samples: For each kind and color of joint sealant required.
- D. Joint-Sealant Schedule: Include the following information:
1. Joint-sealant application, joint location, and designation.
 2. Joint-sealant manufacturer and product name.
 3. Joint-sealant formulation.
 4. Joint-sealant color.

1.4 INFORMATIONAL SUBMITTALS

- A. Product test reports.
- B. Preconstruction compatibility and adhesion test reports.
- C. Preconstruction field-adhesion test reports.
- D. Field-adhesion test reports.
- E. Warranties.

1.5 QUALITY ASSURANCE

- A. Testing Agency Qualifications: Qualified according to ASTM C 1021 to conduct the testing indicated.
- B. Preinstallation Conference: Conduct conference at Project site.

1.6 WARRANTY

- A. Special Installer's Warranty: Manufacturer's standard form in which Installer agrees to repair or replace joint sealants that do not comply with performance and other requirements specified in this Section within specified warranty period.
 - 1. Warranty Period 2 years from date of Substantial Completion.
- B. Special Manufacturer's Warranty: Manufacturer's standard form in which joint-sealant manufacturer agrees to furnish joint sealants to repair or replace those that do not comply with performance and other requirements specified in this Section within specified warranty period.
 - 1. Warranty Period: 2 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 MATERIALS, GENERAL

- A. VOC Content of Interior Sealants: Sealants and sealant primers used inside the weatherproofing system shall comply with the following limits for VOC content when calculated according to 40 CFR 59, Subpart D (EPA Method 24):
 - 1. Architectural Sealants: 250 g/L.
 - 2. Sealant Primers for Nonporous Substrates: 250 g/L.
 - 3. Sealant Primers for Porous Substrates: 775 g/L.
- B. Low-Emitting Interior Sealants: Sealants and sealant primers used inside the weatherproofing system shall comply with the testing and product requirements of the California Department of Health Services' "Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers."

- C. Liquid-Applied Joint Sealants: Comply with ASTM C 920 and other requirements indicated for each liquid-applied joint sealant specified, including those referencing ASTM C 920 classifications for type, grade, class, and uses related to exposure and joint substrates.
 - 1. Suitability for Immersion in Liquids. Where sealants are indicated for Use I for joints that will be continuously immersed in liquids, provide products that have undergone testing according to ASTM C 1247. Liquid used for testing sealants is deionized water, unless otherwise indicated.
- D. Stain-Test-Response Characteristics: Where sealants are specified to be nonstaining to porous substrates, provide products that have undergone testing according to ASTM C 1248 and have not stained porous joint substrates indicated for Project.
- E. Suitability for Contact with Food: Where sealants are indicated for joints that will come in repeated contact with food, provide products that comply with 21 CFR 177.2600.

2.2 SILICONE JOINT SEALANTS

- A. Neutral-Curing Silicone Joint Sealant ASTM C 920.
 - 1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following]:
 - 2. Basis-of-Design Product: Subject to compliance with requirements, provide product indicated on Drawings] or comparable product by one of the following:
 - a. BASF Building Systems.
 - b. Dow Corning Corporation.
 - c. GE Advanced Materials - Silicones.
 - d. May National Associates, Inc.
 - e. Pecora Corporation.
 - f. Polymeric Systems, Inc.
 - g. Schnee-Morehead, Inc.
 - h. Sika Corporation; Construction Products Division.
 - i. Tremco Incorporated.
 - 3. Type: Single component (S)
 - 4. Grade: nonsag (NS).
 - 5. Class: 100/50
 - 6. Uses Related to Exposure: Nontraffic (NT).

2.3 URETHANE JOINT SEALANTS

- A. Urethane Joint Sealant : ASTM C 920.
 - 1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - 2. Basis-of-Design Product: Subject to compliance with requirements, provide product indicated on Drawings or comparable product by one of the following:
 - a. BASF Building Systems.
 - b. Bostik, Inc.

- c. Lymtal, International, Inc.
- d. May National Associates, Inc.
- e. Pacific Polymers International, Inc.
- f. Pecora Corporation.
- g. Polymeric Systems, Inc.
- h. Schnee-Morehead, Inc.
- i. Sika Corporation; Construction Products Division.
- j. Tremco Incorporated.

- 3. Type: Single component (S)
- 4. Grade: nonsag (NS).
- 5. Class: 100/50.
- 6. Uses Related to Exposure: Nontraffic (NT).

2.4 SILYL-TERMINATED POLYETHER JOINT SEALANTS

- A. Single-Component, Nonsag, Silyl-Terminated Polyether Joint Sealant; ASTM C 920, Type S, Grade NS, Class 25, for use NT, A, G, M, O.
 - 1. Basis-of-Design Product: Subject to compliance with requirements, provide DAP Products, Inc.; Sidewinder, or a comparable product.
- B. Single-Component, Nonsag, Silyl-Terminated Polyether Joint Sealant; ASTM C 920, Type S, Grade NS, Class 25, for use NT.
 - 1. Basis-of-Design Product: Subject to compliance with requirements, provide DAP Products, Inc.; 3.0 All Purpose, or a comparable product
- C. Mildew-Resistant, Single-Component, Nonsag, Silyl-Terminated Polyether Joint Sealant; ASTM C 920, Type S, Grade NS, Class 25, for use NT.
 - 1. Basis-of-Design Product: Subject to compliance with requirements, provide DAP Products, Inc.; 3.0 Kitchen and Bath with Microban, or a comparable product:
- D. Single Component, Pourable, Traffic-Grade, Silyl-Terminated Polyether, Joint Sealant; ASTM C 920 Type S, Grade P Class 12.5, For use T.
 - 1. Basis-of-Design Product: Subject to compliance with requirements, provide DAP Products, Inc.; 3.0 Self Leveling, or a comparable product:

2.5 LATEX JOINT SEALANTS

- A. Latex Joint Sealant: Acrylic latex or siliconized acrylic latex, ASTM C 834, Type OP, Grade NF.
 - 1. Basis-of-Design Product: Subject to compliance with requirements, provide DAP Products, Inc., or comparable product by one of the following:
 - a. BASF Building Systems.
 - b. Bostik, Inc.
 - c. May National Associates, Inc.
 - d. Pecora Corporation.
 - e. Schnee-Morehead, Inc.
 - f. Tremco Incorporated.

B. Latex Joint Sealant: Acrylic latex or siliconized acrylic latex, ASTM C 920, Grade NS, Type S, Class 25 for use NT, G, A, M, O.

1. Basis-of-Design Product: Subject to compliance with requirements, provide DAP Products, Inc.; Dynaflex 230, or a comparable product:

C. Kitchen & Bath Adhesive Caulk:

1. Basis-of-Design Product: Subject to compliance with requirements, provide DAP Products, Inc.; DAP KWIK SEAL PLUS with Microban, or a comparable product:

2.6 SOLVENT-RELEASE-CURING JOINT SEALANTS

A. Butyl-Rubber-Based Joint Sealant: ASTM C 1311.

1. Basis-of-Design Product: Subject to compliance with requirements, provide DAP Products, Inc.; Butyl Gutter and Flash 18182, or a comparable product by one of the following

- a. Bostik, Inc.
- b. Pecora Corporation.
- c. Tremco Incorporated.

2.7 PREFORMED JOINT SEALANTS

A. Preformed Foam Joint Sealant: Manufacturer's standard preformed, precompressed, open-cell foam sealant manufactured from urethane foam with minimum density of 10 lb/cu. ft. and impregnated with a nondrying, water-repellent agent. Factory produce in precompressed sizes in roll or stick form to fit joint widths indicated; coated on one side with a pressure-sensitive adhesive and covered with protective wrapping.

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

2. Basis-of-Design Product: Subject to compliance with requirements, provide [product indicated on Drawings] or comparable product by one of the following:

- a. Dayton Superior Specialty Chemicals.
- b. EMSEAL Joint Systems, Ltd.
- c. Sandell Manufacturing Co.
- d. Schul International, Inc.
- e. Willseal USA, LLC.

2.8 ACOUSTICAL JOINT SEALANTS

A. Acoustical Joint Sealant: Manufacturer's standard nonsag, paintable, nonstaining latex sealant complying with ASTM C 834. Product effectively reduces airborne sound transmission through perimeter joints and openings in building construction as demonstrated by testing representative assemblies according to ASTM E 90.

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
2. Basis-of-Design Product: Subject to compliance with requirements, provide product indicated on Drawings or comparable product by one of the following:
 - a. Pecora Corporation .
 - b. USG Corporation.

2.9 JOINT SEALANT BACKING

- A. Cylindrical Sealant Backings: ASTM C 1330, Type C (closed-cell material with a surface skin) Type O (open-cell material) Type B (bicellular material with a surface skin)] or any of the preceding types, as approved in writing by joint-sealant manufacturer for joint application indicated, and of size and density to control sealant depth and otherwise contribute to producing optimum sealant performance.
- B. Bond-Breaker Tape: Polyethylene tape or other plastic tape recommended by sealant manufacturer.

2.10 MISCELLANEOUS MATERIALS

- A. Primer: Material recommended by joint-sealant manufacturer where required for adhesion of sealant to joint substrates indicated, as determined from preconstruction joint-sealant-substrate tests and field tests.
- B. Cleaners for Nonporous Surfaces: Chemical cleaners acceptable to manufacturers of sealants and sealant backing materials.
- C. Masking Tape: Nonstaining, nonabsorbent material compatible with joint sealants and surfaces adjacent to joints.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Surface Cleaning of Joints: Clean out joints immediately before installing joint sealants to comply with joint-sealant manufacturer's written instructions.
 1. Remove laitance and form-release agents from concrete.
 2. Clean nonporous joint substrate surfaces with chemical cleaners or other means that do not stain, harm substrates, or leave residues capable of interfering with adhesion of joint sealants.
- B. Joint Priming: Prime joint substrates where recommended by joint-sealant manufacturer or as indicated by preconstruction joint-sealant-substrate tests or prior experience. Apply primer to comply with joint-sealant manufacturer's written instructions. Confine primers to areas of joint-sealant bond; do not allow spillage or migration onto adjoining surfaces.

- C. Masking Tape: Use masking tape where required to prevent contact of sealant or primer with adjoining surfaces that otherwise would be permanently stained or damaged by such contact or by cleaning methods required to remove sealant smears. Remove tape immediately after tooling without disturbing joint seal.

3.2 INSTALLATION

- A. Sealant Installation Standard: Comply with recommendations in ASTM C 1193 for use of joint sealants as applicable to materials, applications, and conditions indicated.
- B. Install sealant backings of kind indicated to support sealants during application and at position required to produce cross-sectional shapes and depths of installed sealants relative to joint widths that allow optimum sealant movement capability.
 - 1. Do not leave gaps between ends of sealant backings.
 - 2. Do not stretch, twist, puncture, or tear sealant backings.
 - 3. Remove absorbent sealant backings that have become wet before sealant application and replace them with dry materials.
- C. Install bond-breaker tape behind sealants where sealant backings are not used between sealants and backs of joints.
- D. Install sealants using proven techniques that comply with the following and at the same time backings are installed:
 - 1. Place sealants so they directly contact and fully wet joint substrates.
 - 2. Completely fill recesses in each joint configuration.
 - 3. Produce uniform, cross-sectional shapes and depths relative to joint widths that allow optimum sealant movement capability.
- E. Tooling of Nonsag Sealants: Immediately after sealant application and before skinning or curing begins, tool sealants according to requirements specified in subparagraphs below to form smooth, uniform beads of configuration indicated; to eliminate air pockets; and to ensure contact and adhesion of sealant with sides of joint.
 - 1. Remove excess sealant from surfaces adjacent to joints.
 - 2. Use tooling agents that are approved in writing by sealant manufacturer and that do not discolor sealants or adjacent surfaces.
 - 3. Provide concave joint profile per Figure 8A in ASTM C 1193, unless otherwise indicated.
- F. Acoustical Sealant Installation: Comply with ASTM C 919 and with manufacturer's written recommendations.
- G. Clean off excess sealant or sealant smears adjacent to joints as the Work progresses by methods and with cleaning materials approved in writing by manufacturers of joint sealants and of products in which joints occur.

3.3 FIELD QUALITY CONTROL

- A. Field-Adhesion Testing: Field test joint-sealant adhesion to joint substrates as follows:
 - 1. Extent of Testing: Test completed and cured sealant joints as follows:

- a. Perform 10 tests for the first 1000 feet of joint length for each kind of sealant and joint substrate.
 - b. Perform 1 test for each 1000 feet of joint length thereafter or 1 test per each floor per elevation.
2. Test Method: Test joint sealants according to Method A, Field-Applied Sealant Joint Hand Pull Tab, in Appendix X1 in ASTM C 1193 or Method A, Tail Procedure, in ASTM C 1521.
- B. Evaluation of Field-Adhesion Test Results: Sealants not evidencing adhesive failure from testing or noncompliance with other indicated requirements will be considered satisfactory. Remove sealants that fail to adhere to joint substrates during testing or to comply with other requirements. Retest failed applications until test results prove sealants comply with indicated requirements.

3.4 JOINT-SEALANT SCHEDULE

- A. Joint-Sealant Application: Exterior joints in horizontal traffic surfaces.
1. Joint Locations:
 - a. Control and expansion joints in brick pavers.
 - b. Isolation and contraction joints in cast-in-place concrete slabs.
 - c. Joints between plant-precast architectural concrete paving units.
 - d. Joints in stone paving units[, including steps].
 - e. Tile control and expansion joints.
 - f. Joints between different materials listed above.
 - g. <Insert other joints>.
 - h. Other joints as indicated.
 2. Joint Sealant: Silicone.
 3. Joint Sealant: Urethane.
 4. Joint Sealant: Silyl-terminated polyether.
 5. Joint Sealant: Preformed foam.
 6. Joint-Sealant Color: As indicated by manufacturer's designationS
- B. Joint-Sealant Application: Exterior joints in vertical surfaces and horizontal nontraffic surfaces.
1. Joint Locations:
 - a. Construction joints in cast-in-place concrete.
 - b. Joints between plant-precast architectural concrete units.
 - c. Control and expansion joints in unit masonry.
 - d. Joints in dimension stone cladding.
 - e. Joints in glass unit masonry assemblies.
 - f. Joints in exterior insulation and finish systems.
 - g. Joints between metal panels.
 - h. Joints between different materials listed above.
 - i. Perimeter joints between materials listed above and frames of doors & windows.
 - j. Control and expansion joints in ceilings and other overhead surfaces.
 - k. Other joints as indicated.
 2. Joint Sealant: Silicone.
 3. Joint Sealant: Urethane.

4. Joint Sealant: Silyl-terminated polyether.
5. Joint Sealant: Preformed foam.
6. Joint Sealant: Joint-Sealant Color: As indicated by manufacturer's designations

C. Joint-Sealant Application: Interior joints in horizontal traffic surfaces.

1. Joint Locations:
 - a. Isolation joints in cast-in-place concrete slabs.
 - b. Control and expansion joints in stone flooring.
 - c. Control and expansion joints in brick flooring.
 - d. Control and expansion joints in tile flooring.
 - e. Other joints as indicated.
2. Joint Sealant: Silicone.
3. Joint Sealant: Urethane.
4. Joint Sealant: Silyl-terminated polyether.
5. Joint Sealant: Preformed foam.
6. Joint-Sealant Color: As indicated by manufacturer's designations.

D. Joint-Sealant Application: Interior joints in vertical surfaces and horizontal nontraffic surfaces.

1. Joint Locations:
 - a. Control and expansion joints on exposed interior surfaces of exterior walls.
 - b. Perimeter joints of exterior openings where indicated.
 - c. Tile control and expansion joints.
 - d. Vertical joints on exposed surfaces of interior unit masonry, concrete, walls and partitions.
 - e. Joints on underside of plant-precast structural concrete beams.
 - f. Perimeter joints between interior wall surfaces and frames of interior doors, windows.
2. Joint Sealant: Latex.
3. Joint-Sealant Color: As indicated by manufacturer's designations.

E. Joint-Sealant Application: Mildew-resistant interior joints in vertical surfaces and horizontal nontraffic surfaces[.

1. Joint Sealant Location:
 - a. Joints between plumbing fixtures and adjoining walls, floors, and counters.
 - b. Tile control and expansion joints where indicated.
2. Joint Sealant: Silicone.
3. Joint-Sealant Color: As indicated by manufacturer's designations.

F. Joint-Sealant Application: Interior acoustical joints in vertical surfaces and horizontal nontraffic surfaces.

1. Joint Location:
 - a. Acoustical joints where indicated.
 - b. Other joints as indicated.

2. Joint Sealant: Acoustical.
3. Joint-Sealant Color: White

END OF SECTION 079200

SECTION 08113- STEEL DOORS AND FRAMES

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Steel doors and steel frames.
- B. Steel frame components for stick assemblies.

1.2 RELATED SECTIONS

- A. Section 04 20 00 - Unit Masonry.
- B. Section 08 71 00 - Door Hardware.
- C. Section 09 90 00 - Painting and Coating: Field painting of doors and frames.

1.3 REFERENCES

- A. ANSI A250.8 - SDI-100 Recommended Specifications for Standard Steel Doors and Frames; 1998.
- B. ANSI A250.3 - Test Procedure and Acceptance Criteria for Factory Applied Finish Painted Steel Surfaces for Steel Doors and Frames.
- C. ANSI A250.10 - Test Procedure and Acceptance Criteria for Prime Painted Steel Surfaces for Steel Doors and Frames; 1998.
- D. ANSI A250.11, Recommended Erection Instructions for Steel Frames.
- E. ASTM A 366/A 366M - Standard Specification for Commercial Steel (CS) Sheet, Carbon, (0.15 Maximum Percent) Cold-Rolled; 1997.
- F. ASTM A 653/A 653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-coated (Galvanized) by the Hot-Dip Process; 1998.
- G. ASTM E-90 - Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements.
- H. DHI A115.1G - Installation Guide for Doors and Hardware; 1994.
- I. NFPA 80 - Standard for Fire Doors and Windows; 1999.
- J. NFPA 252 - Standard Methods of Fire Tests for Door Assemblies; 1995.
- K. UL 10B - Standard for Fire Tests of Door Assemblies; 1997.
- L. UL 10C - Positive Pressure Fire Tests of Door Assemblies.

1.4 SUBMITTALS

- A. Submit under provisions of Section 01 30 00.
- B. Product Data: Manufacturer's data sheets on each product to be used, including:
 - 1. Preparation instructions and recommendations.
 - 2. Storage and handling requirements and recommendations.
 - 3. Installation methods.
- C. Shop Drawings: Include schedule identifying each unit, with door marks or numbers referencing drawings. Show layout, profiles, product components and anchorages.
- D. Samples: 18 by 24 inches (457 by 610 mm) cut away sample door with provisions for lockset, hinge and corner section of frame.
- E. Manufacturer's Certificates: Certify products meet or exceed specified requirements.
- F. Closeout Submittals: Provide manufacturer's maintenance instructions that include recommendations for periodic checking and adjustment of cable tension and periodic cleaning and maintenance of all railing and infill components.

1.5 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Minimum five years documented experience manufacturing products specified this Section.
- B. Installer Qualifications: Minimum five years documented experience installing products specified this Section.
- C. All products shall conform to the requirements of ANSI A250.8, "SDI 100 Recommended Specifications for Standard Steel Doors and Frames".
- D. Acoustical Doors shall have a minimum Sound Transmission Classification (STC) Rating of 38 with standard honeycomb core and be tested in accordance with ASTM E-90-87, "Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements". Optional STC openings available - 42, 43, 47, 48, 50 and 52 - all tested in accordance with ASTM E90 and E413.
- E. Insulated Doors shall have:
 - 1. A "U Factor" of 0.10 for a Polyurethane core.
 - 2. A "U Factor" of 0.13 for a Polystyrene core.
- F. Fire Rated Doors:
 - 1. Doors shall be tested in accordance with UL 10B, "Fire Tests of Door Assemblies", NFPA 252, "Fire Tests of Door Assemblies", and UL 10C, "Positive Pressure Fire Tests of Door Assemblies".
 - 2. Doors must have an approved marking or physical label, applied by an authorized facility, in accordance with the procedure set forth by an independent certification agency.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Handle, store and protect products in accordance with the manufacturers printed instructions and ANSI/SDI A250.10 and NAAMM/HMMA 840.

- B. Store frames in an upright position with heads uppermost under cover. Place on 4 inch (102 mm) high wood sills to prevent rust and damage. Store assembled frames five units maximum in a stack with 2 inch (51 mm) space between frames to promote air circulation.
- C. Do not store under non-vented plastic or canvas shelters.
- D. Remove wrappers immediately if they become wet.

1.7 SEQUENCING

- A. Ensure that locating templates and other information required for installation of products of this section are furnished to affected trades in time to prevent interruption of construction progress.
- B. Ensure that products of this section are supplied to affected trades in time to prevent interruption of construction progress.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 1. Amweld Building Products, Inc.
 - 2. Ceco Door Products; an Assa Abloy Group Company.
 - 3. Curries Company, an Assa Abloy Group.
 - 4. Mesker Door, Inc.
 - 5. Windsor Republic Doors.
 - 6. Steelcraft; an Ingersoll-Rand company.
 - 7. Republic Doors and Frames
- B. Requests for substitutions will be considered in accordance with provisions of Section 01 60 00.

2.2 MATERIALS

- A. Uncoated Steel Sheet: Cold rolled commercial steel sheet complying with ASTM A 366/A 366M.
- B. Galvanized Steel Sheet: ASTM A 653/A 653M, commercial quality, hot-dipped.
 - 1. Coating Thickness: A40 coating - Embossed Panel Doors.
 - 2. Coating Thickness: A60 coating.
 - 3. Coating Thickness: G90 coating (Galvanized.)

2.3 DOORS AND FRAMES

- A. Doors: Full flush (No Vertical Face Seams), complying with ANSI A250.8; face panels laminated to core and complete unit closed with steel perimeter channels projection welded to face sheets.
 - 1. Thickness: 1-3/4 inches (44 mm).
 - a. ANSI Level 1, Model 1; 20 gage (0.8 mm) faces, visible edge seams.
 - 2. Faces:
 - a. Full flush.

- b. Embossed in 4 panel design laminated to a polystyrene core.
 - 3. Face Material:
 - a. Cold Roll steel sheet.
 - 4. Insulated Doors: Insulated; U-value of 0.10, polyurethane core.
 - 5. Insulated Doors: Insulated; U-value of 0.13, polystyrene core.
 - 6. Core: Doors fabricated by laminating panels to a specified core and the complete unit closed with steel perimeter channels, projection welded to the face sheets. Core shall be as follows:
 - a. Mineral fiber core.
 - 7. Steel Stiffened Doors: Steel reinforced with minimum 20 gage (0.794 mm) hat shaped stiffeners welded to the inside of each face sheet at maximum of 6 inches (150 mm) on center, with mineral wool filling spaces between stiffeners. Stiffeners shall be:
 - a. Minimum 20 gage (0.794 mm).
 - 8. Finish: Factory paint finish.
- B. Door Reinforcements:
 - 1. Top and Bottom Channels: 16 gage steel, projection welded to both face sheets at a maximum of 2-1/2 inches (64 mm) on center.
 - a. For exterior Doors fill top channel with epoxy and grind smooth.
 - 2. Hinge Reinforcement: Hinge reinforcing channel shall be projection welded to both face sheets at a maximum of 5 inches (127 mm) on center.
 - a. DL Series: 1-3/4 inch (44 mm) thick. Reinforced with continuous 16 gage channel with additional 9 gage reinforcements located at each hinge preparation.
 - 3. Lock Reinforcing Channel: Lock reinforcing channel shall be projection welded to both face sheets.
 - a. DL Series: Non beveled and reinforced with a continuous 16 gage channel. 16 gage reinforcements for mortised or cylindrical locks are of an integral type in accordance with ANSI A115 standards.
 - b. DE Series: Non beveled and reinforced with a continuous 14 gage steel channel. 14 gage reinforcements for mortised or cylindrical locks are of an integral type in accordance with ANSI A115 standards.
 - 4. Closer Reinforcement: 12 gage box type reinforcement, 18 inches (457 mm) long.
- C. Fire Rated Doors: Ratings as indicated on Door Schedule, when tested in accordance with NFPA 252 or UL 10B.
 - 1. Labeled by UL or WH.
 - 2. Stairwell Doors: 250 degrees F (139 degrees C) temperature rise rating as well as the required fire rating.
- D. Flush Honeycomb Core Acoustical Doors: Sound Transmission Classification (STC) Rating of 38 when tested according to ASTM E 90.

2.4 FRAMES CONSTRUCTION

- A. Frames: Formed steel sheet, with 2 inch (50 mm) wide face jambs and heads unless otherwise indicated; complying with ANSI A250.8.
 - 1. Frame Depth: Fixed, as indicated on drawings.
 - 2. Frame Depth: Adjustable within 2 inches (50 mm) of nominal depth.
 - 3. ANSI Level 1 Doors: 16 gage (1.5 mm) frames.
 - 4. Material: Cold Roll steel sheet.
 - 5. Corners: Mitered; face welded and ground smooth.
 - 6. Finish: Factory prime finish.
- B. Reinforcements for 1-3/4 Inch (44 mm) Frames:
 - 1. Hinge Reinforcements: 9 gage (3.8 mm).

2. Strike Reinforcement: 10 gage (3.4 mm) equivalent.
 3. Closer Reinforcements: 12 gage (2.6 mm).
- C. Reinforcements for 1-3/8 Inch (35 mm) Frames:
1. Hinge Reinforcements: 11 gage (3.0 mm).
 2. Strike Reinforcement: 14 gage (1.9 mm) equivalent.
 3. Closer Reinforcements: 12 gage (2.6 mm).
- D. Frame Anchors: Minimum of six wall anchors and two base anchors. Provide with an additional anchor for every 30 inches (760 mm) over 90 inches (2286 mm).

2.5 STICK ASSEMBLIES

- A. Architectural Stick Assemblies: Standard profile frame material, notched or mitered to coordinate with adjoining frame members and forming square corners.
1. Thickness: 16 gage (1.3 mm).

2.6 FACTORY FINISH

- A. All doors, frames, and stick components shall be cleaned and finished in accordance with ANSI A250.10, "Test Procedure and Acceptance Criteria for Prime Painted Steel Surfaces for Steel Doors and Frames".
- B. Preparation: Clean and phosphatize surfaces of steel doors and frames".
- C. Primer: Apply one coat of a gray, alkyd acrylic enamel primer, forced cured.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Do not begin installation until substrates have been properly prepared.
- B. Verify that substrate conditions are acceptable for installation of doors and frames in accordance with manufacturer's installation instructions and technical bulletins.
- C. Verify door frame openings are installed plumb, true, and level.
- D. Select fasteners of adequate type, number, and quality to perform intended functions.
- E. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

3.2 PREPARATION

- A. Clean surfaces thoroughly prior to installation.
- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

3.3 INSTALLATION

- A. Install in accordance with manufacturer's instructions.
- B. Install frames plumb, level, rigid and in true alignment in accordance with ANSI A250.11, "Recommended Erection Instructions for Steel Frames" and ANSI A115.IG, "Installation Guide for Doors and Hardware".
- C. All frames other than slip-on types shall be fastened to the adjacent structure to retain their position and stability. Drywall slip-on frames shall be installed in prepared wall openings, and shall use pressure type and sill anchors to maintain stability.
- D. Where grouting is required in masonry installations, frames shall be braced or fastened to prevent the pressure of the grout from deforming the frame members. Grout shall be mixed to provide a 4 inch (102 mm) maximum slump and hand troweled into place. Grout mixed to a thin "pumpable" consistency shall not be used.
- E. Install fire-rated doors and frames in accordance with NFPA 80 and local code authority requirements.
- F. Install doors to maintain alignment with frames to achieve maximum operational effectiveness and appearance. Adjust to maintain perimeter clearances as required. Shim as needed to assure the proper clearances are achieved.
- G. Install hardware as specified in Section 08 71 00 in accordance with the hardware manufacturer's recommendations and templates. ANSI A115.IG, "Installation Guide for Doors and Hardware" shall be consulted for other pertinent information.

3.4 CLEARANCES

- A. Clearance between the door and frame head and jambs for both single swing and pairs of doors shall be 1/8 inch (3.2 mm).
- B. Clearance between the meeting edges of pairs of doors shall be 3/16 inch plus or minus 1/16 inch (5 mm plus or minus 1.6 mm). For fire rated applications, the clearance between the meeting edges of pairs of doors shall be 1/8 inch plus or minus 1/16 inch (3.2 mm plus or minus 1.6 mm).
- C. Bottom clearance shall be 3/4 inch (19 mm). (Standard)
- D. The clearance between the face of the door and door stop shall be 1/16 inch to 1/8 inch (1.6 mm plus or minus 3.2 mm).
- E. All clearances shall be, unless otherwise specified, subject to a tolerance of plus or minus 1/32 inch (.4 mm).

3.5 ADJUSTING AND CLEANING

- A. Adjust doors for free swing without binding.
- B. Adjust hinge sets, locksets, and other hardware. Lubricate using a suitable lubricant compatible with door and frame coatings.

- C. Remove temporary coverings and protection of adjacent work areas. Repair or replace damaged installed products. Clean installed products in accordance with manufacturer's instructions before owner's acceptance.
- D. Remove from project site and legally dispose of construction debris associated with this work.

3.6 PROTECTION

- A. Protect installed products until completion of project.
- B. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION

SECTION 08331 - OVERHEAD COILING DOORS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes: **Manually** operated overhead coiling doors, operators, controls and accessories.
- B. Related Sections:
 - 1. Division 5 Sections: Miscellaneous Metals for steel supports.
 - 2. Division 9 Sections: Finish Painting, Field Painting.

1.2 REFERENCES

- A. General: Standards listed by reference, including revisions by issuing authority, form a part of this specification section to the extent indicated. Standards listed are identified by issuing authority, authority abbreviation, designation number, title or other designation established by issuing authority. Standards subsequently referenced herein are referred to by issuing authority abbreviation and standard designation.

1.3 PERFORMANCE REQUIREMENTS

- A. Structural Performance:

1.4 SUBMITTALS

- A. General: Submit listed submittals in accordance with Conditions of the Contract and Division 1 Submittal Procedures Section.
- B. Product Data: Submit manufacturer's product data and installation instructions.
- C. Shop Drawings: Provide drawings indicating guide details, head and jamb conditions, clearances, anchorage, accessories, finish colors, patterns and textures, operator mounts and other related information.
- D. Quality Assurance Submittals: Submit the following:
 - 1. Certificates: Submit manufacturer's certificate that products meet or exceed specified requirements.
 - 2. Certificates: Submit installer qualifications.

3. Closeout Submittals: Submit the following:
4. Warranty documents available at manufacturer .

1.5 QUALITY ASSURANCE

- A. Installer Qualifications: Utilize an installer having demonstrated experience on projects of similar size and complexity, and trained and authorized by the door dealer to perform the work of this section.

1.6 DELIVERY, STORAGE & HANDLING

- A. General: Comply with Division 1 Product Requirements.
- B. Comply with manufacturer's ordering instructions and lead-time requirements to avoid construction delays.
- C. Delivery: Deliver materials in manufacturer's original, unopened, undamaged containers with identification labels intact.
- D. Storage and Protection: Store materials protected from exposure to harmful environmental conditions and at temperature and humidity conditions recommended by the manufacturer.

1.7 WARRANTY

- A. Project Warranty: Refer to Conditions of the Contract for project warranty provisions.
- B. Manufacturer's Warranty: Submit, for Owner's acceptance, manufacturer's standard warranty document executed by authorized company official. Manufacturer's warranty is in addition to, and not a limitation of, other rights Owner may have under contract documents.

PART 2 - PRODUCTS

2.1 MANUFACTURER

- A. Manufacturer: Raynor Door.
- B. Architect approved

- C. Manufacturer Product Designation: DURASHUTTER SELECT. (or equal)

2.2 DOOR OPERATORS

- A. Provide doors designed for **hand crank** operation.
 - 1. Drive Orientation: For hand-chain, hand-crank or electric motor operated doors, orient the drive from the **right-hand** side when facing the reference side of the door (side with counterbalance or hood exposed).

2.3 CURTAIN

- A. Material: Interlocking slats, roll formed from stainless steel, 22 gauge (0.030 inch) thick.
- B. Mounting: Between-Jamb Mounting: fasten between jambs of wall opening.
- C. Integral Frame: Provide frame as follows: Stainless Steel Build-in Frame for use with masonry wall construction.
- D. Color and Finish: Clear anodized
- E. Endlocks: Lateral movement of the slats to be contained by means of zinc-plated stamped steel endlocks fastened to slat..
- F. Bottom Bar and Seal: Tubular type, with 1/4 inch (6.3 mm) thick protective strip to cushion impact of bottom bar on counter top. Finish to match shutter curtain.

2.4 GUIDES

- G. Guide Assemblies: Guide shall be provided in the same material and finish as the shutter curtain, and be fitted with removable curtain stop.
- H. Wear Strips: Rolling counter shutter shall be furnished with wool pile wear strips inside the guides to reduce premature wear and noise.
- I. Jamb Construction: Masonry Jambs with anchor bolt fasteners.

2.4 COUNTERBALANCE SYSTEM

- A. Headplates: Mounting brackets shall be made from 10 gauge galvanized steel plate and attached to the wall and guide.

- B. Barrel: Minimum 4-1/2 inches (114.3 mm) O.D. and 0.120 inch (3.1 mm) wall thickness structural steel pipe. Deflection of pipe under full load shall not exceed 0.03 inch (0.8 mm) per foot of span.
- C. Counterbalance: Torsion Spring: Oil-tempered, helical torsion springs, grease packed and mounted on a continuous steel torsion shaft.

2.5 ENCLOSURES

- A. Hood: Furnish rolling counter shutter with a square hood enclosure comprised of: Aluminum Square Hood: 0.04 inch (1.02 mm) thick aluminum, finished to match curtain
- B. Headplate Cover: Rolling counter shutter shall be furnished with an enclosure for the headplates, in the same material and finish as the shutter curtain.

2.6 HARDWARE

- A. Locks: Furnish counter shutter with: Locking Bar, to receive padlock provided by owner, for use with manual and hand crank operated shutters.

PART 3 - EXECUTION

3.1 MANUFACTURER'S INSTRUCTIONS

- A. Comply with instructions and recommendations of door manufacturer.

3.2 ACCEPTABLE INSTALLERS

- A. Per manufacturers recommendations

3.3 EXAMINATION

- A. Site Verification of Conditions: Verify through direct observation and field measurement that site conditions are acceptable for installation of doors, operators, controls and accessories. Ensure that openings square, flush and plumb.
- B. Do not proceed with installation of doors, operators, controls and accessories until unacceptable conditions are corrected.

3.4 INSTALLATION

- C. General: Install door, guide and operating equipment complete with all necessary accessories and hardware according to shop drawings, manufacturer's instructions.
- D. Site Tolerances:
- E. Related Products Installation: Refer to Related Sections paragraph for related products installation.

3.4 ADJUSTING

- A. General: Lubricate bearings and sliding parts, and adjust doors for proper operation, balance, clearance and similar requirements.

3.5 CLEANING

- A. Remove temporary coverings and protection of adjacent work areas. Repair or replace installed products damaged prior to or during installation.
- B. Clean installed products in accordance with manufacturer's instructions prior to Owner's acceptance. Remove and legally dispose of construction debris from project site.

END OF SECTION

SECTION 08510- STEEL WINDOWS

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Horizontal Slider Steel Windows (Dual Slide)

1.2 RELATED SECTIONS

- A. Section 08800 – Glass, Glazing, and Glazing Materials

1.3 REFERENCES

- A. ASTM A 569-(1991a; R 1993) Steel, Carbon (0.15 Maximum, Percent), Hot-Rolled Sheet and Strip Commercial Quality
- B. ASTM A 653-(1994) Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process
- C. ASTM B 633-(1985; R 1994) Electrodeposited Coatings of Zinc on Iron and Steel
- D. ASTM B 766-(1986; R 1993) Electrodeposited Coatings of Cadmium
- E. ASTM E 283-(1991) Determining the Rate of Air Leakage through Exterior Windows, Curtain Walls, and Doors Under Specific Pressure Differences Across the Specimen
- F. ASTM E 330-(1990) Structural Performance of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference
- G. ASTM E 547-(1993) Water Penetration of Exterior Windows, Curtain Walls, and Doors by Cyclic Static Air Pressure Differential
- H. ASME B18.6.3-(1972; R 1991) Machine Screws and Machine Screw Nuts
- I. ASME B18.6.4-(1981; R 1991) Thread Forming and Thread Cutting Tapping Screws and Metallic Drive Screws (Inch Series)
- J. NFPA 101-(2006) Safety to Life from Fire in Buildings and Structures

1.4 PERFORMANCE REQUIREMENTS

- A. Horizontal sliding steel windows shall conform to the HS-C30 voluntary specifications in AAMA/NWWDA 101/I.S.2-97 and be designed to meet the following performance requirements. Fire-rated windows shall bear the Underwriters Laboratories, Inc. label including the manufacturer's file number for the indicated rating.
 - 1. Structural Performance: Structural test pressures on window units shall be for positive load (inward) and negative load (outward) in accordance with ASTM E 330 at a static pressure of 45

PSF. After testing, there shall be no glass breakage, permanent damage to fasteners, hardware parts, support arms or actuating mechanisms or any other damage which could cause window to be inoperable. There shall be no permanent deformation of any main frame, sash or ventilator member in excess of the requirements established by AAMA/NWWDA 101/I.S.2-97 for the window types specified in this section.

2. Air Infiltration: Air infiltration shall not exceed .05 SCFM per square foot of window area at a static air pressure difference of 1.57 PSF as established by AAMA/NWWDA 101/I.S.2-97 when tested in accordance with ASTM E 283.
3. Water Resistance: When tested in accordance with ASTM E 547, there shall be no water leakage at a static air pressure difference of 4.5 PSF.

- B. Life Safety Criteria: Windows shall conform to NFPA 101 Life Safety Code when rescue and/or second means of escape are indicated.

1.5 SUBMITALS

- A. Manufacturer's descriptive data and catalog cut sheets.
- B. Drawings indicating elevations of windows, rough-opening dimensions for each type and size of windows, section details, fastenings, methods of installation and anchorage, connections with other work, type of wall construction, method of glazing, types and locations of operating hardware, mullion details, weather-stripping details, screen details, and window schedules showing locations of each window type, where required.
- C. Manufacturer's preprinted installation instructions and cleaning instructions.
- D. Manufacturer's standard color samples of painted finishes.

1.6 QUALITY ASSURANCE

- A. Installer Qualifications: Experienced in performing work of this section who has specialized in installation of work similar to that required for this project.
- B. Manufacturer's Qualifications: A firm with not less than 10 years experience in manufacture of similar type steel windows.

1.1 DELIVERY, STORAGE AND HANDLING

- A. Delivery:
 1. Manufacturer's original, unopened, undamaged containers, identification labels intact. Inspect for damage upon delivery.
 2. Handle and store products according to manufacturer's recommendations.
- B. Storage and Protection:
 1. Store materials protected from exposure to harmful weather conditions and at temperature and humidity conditions recommended by manufacturer.
 2. Store windows to prevent damage or marring of finish. Store in shipping containers under cover on building site.

1.7 PROJECT CONDITIONS

- A. Verify actual openings by field measurements before fabrication, show recorded measurements on shop drawings.
- B. Coordinate field measurements and fabrication schedule with construction progress to avoid construction delays.

1.8 WARRANTY

- A. Manufacturer's standard warranty to be 3 years from the date of substantial completion.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Series 300 or 400 Horizontal Sliding Windows as manufactured by D.V. Fyre-Tec, Inc
- B. Architect approved equal.

2.2

- A. Horizontal sliding steel windows shall be designed for inside field glazing, and for glass types scheduled on drawings or otherwise specified. Units shall be complete with glass and glazing provisions to meet requirements of paragraph WINDOW PERFORMANCE. Glazing material shall be compatible with steel, and shall not require painting.

2.3 MATERIALS

A. Steel Frames and Inserts

- 1. Steel frames and inserts shall be fabricated from roll-formed galvanized lock-forming quality steel per ASTM A 653.
- 2. Frame and insert corners shall mitered and welded. Integral muntins where required shall be galvanized roll-formed material fitted and welded.
- 3. Operable insert/sash shall be supported on two field adjustable roller trucks consisting of corrosion resisting steel with integral ball bearing rollers. Rollers are to supported and operate on a stainless steel track.

A. Installation Kits

- 1. Provide attachable fin installation kits for all windows.
- 2. Provide subframe installation kits for all windows.

B. Weather Stripping

- 1. Weather-stripping for the inserts shall be designed to meet water penetration and air infiltration requirements specified under paragraph WINDOW PERFORMANCE, and shall be manufactured of material compatible with steel and resistant to weather. Weather-strips shall be factory applied and easily replaced in the field.

C. Formed Component Parts

1. Formed component parts shall be hot-rolled sheet steel conforming to ASTM A 569, commercial quality with a minimum of 0.15 percent carbon.
 2. Sheet steel shall be zinc coated (galvanized) by the hot-dip process in accordance with ASTM A 653 or ASTM A 924.
- D. Screws and Bolts
1. Screws and bolts shall conform to ASTM B 766, ASME B18.6.3 and ASME B18.6.4.
- E. Fasteners
1. Fastening devices shall be window manufacturer's design made from non-magnetic stainless steel, cadmium-plated steel, zinc-plated steel, nickel/chrome-plated steel or magnetic stainless steel.
- F. Window Anchors
1. Anchors for installing windows shall be stainless steel or hot-dip zinc coated steel conforming to ASTM A 123.
- G. Glass and Glazing

2.4 FABRICATION

- A. Fabricate windows in accordance with approved shop drawings.
- B. Frame sections shall be one piece sections with corners mitered, welded and dressed smooth.
- C. Required muntins shall be securely welded to the frame members and at all intersections.
- D. All windows shall be designed for inside glazing.
- E. All windows shall be factory glazed.

2.5 FINISHES

- A. Prime Coat
 1. Steel windows, fins, mullions, cover plates and associated parts shall be cleaned, pre-treated with iron phosphate and factory painted manufacturer's standard primer coat in a dry film thickness of not less than 0.025 mm (1.0 mil).
- B. Finish Coat – Manufacturer's Standard Color
 1. Steel windows, fins, mullions, cover plates and associated parts shall be cleaned, pre-treated with iron phosphate and factory powder coated and cured with a manufacturer's standard color in a dry film thickness of not less than 0.050 mm (2.0 mil).

C. Finish Coat – Specified Color Match

1. Steel windows, fins, mullions, cover plates and associated parts shall be cleaned, pre-treated with iron phosphate and factory coated with baked alkyd enamel with a manufacturer's standard color in a dry film thickness of not less than 0.050 mm (2.0 mil).

PART 3 EXECUTION

2.6 EXAMINATION

- A. Window openings shall conform to details and dimensions shown on the approved shop drawings.
- B. Notify the Architect immediately of conditions that may adversely affect the window installation. Correct conditions prior to installing windows

2.7 INSTALLATION

- A. Steel windows shall be installed in accordance with approved shop drawings and manufacturer's approved recommendations.
- B. Steel surfaces in close proximity with masonry, concrete, wood, and dissimilar metals other than stainless steel, zinc, cadmium, or small areas of white bronze shall be protected from direct contact.
- C. Verify that weep features at the bottom of the sills are opened at least 1/8" x 1". Failure to do so may lead to premature finish failures.
- D. The completed window installation shall be watertight.

2.8 ADJUSTING AND CLEANING

- A. Steel window finish and glass shall be cleaned on interior and exterior sides in accordance with window manufacturer's recommendation. Alkaline, abrasive or brick wash agents shall not be used.
- B. Operable sash shall be adjusted per manufacturer's instruction to provide minimal operating force.

2.9 PROTECTION

- A. Protect installed products and finished surfaces from damage during construction.
- B. Touch-up any abraded surface of the window finish with air dry paint furnished by the window manufacturer.

-- END OF SECTION --

SECTION 08800 - GLAZING

PART 1 - GENERAL

1.1 SUMMARY

- A. Related Documents:
 - 1. Drawings and general provisions of the Subcontract apply to this Section.
 - 2. Review these documents for coordination with additional requirements and information that apply to work under this Section.
- B. Section Includes:
 - 1. Glass and glazing required throughout Project and not specified as a part of other Sections.
- C. Related Sections:
 - 1. Division 01 Section "General Requirements."
 - 2. Division 08 Section "Hollow Metal Doors and Frames."
- D. Glass and glazing is specified with the following components. Unless otherwise noted, glass and glazing specified elsewhere shall conform to materials and glazing requirements and procedures specified in this Section.
 - 1. Division 10 Section "Toilet and Janitorial Accessories": Mirrors.

1.2 REFERENCES

- A. General:
 - 1. The following documents form part of the Specifications to the extent stated. Where differences exist between codes and standards, the one affording the greatest protection shall apply.
 - 2. Unless otherwise noted, the referenced standard edition is the current one at the time of commencement of the Work.
 - 3. Refer to Division 01 Section "General Requirements" for the list of applicable regulatory requirements.
- B. "Glazing Manual" published by Flat Glass Marketing Assn.
- C. "Safety Standard for Architectural Glazing Materials (16 CFR 1201) CI and CII issued by the Consumer Product Safety Commission.
- D. California Building Code, Chapter 16 as modified by Division 01 Section "Lateral Force Procedures", and Chapter 24.
- E. ANSI Z 97.1, "Safety Glass Test Requirements".
- F. ASTM International.
 - 1. ASTM C864 Standard Specification for Dense Elastomeric Compression Seal Gaskets, Setting Blocks, and Spacers
 - 2. ASTM C1036 Standard Specification for Flat Glass
 - 3. ASTM C1048 Standard Specification for Heat-Treated Flat Glass—Kind HS, Kind FT Coated and Uncoated Glass
 - 4. ASTM E774 Standard Specification for the Classification of the Durability of Sealed Insulating Glass Units. (This standard is withdrawn and no replacement has been issued).
- G. DD-G-1403.

- H. Sealed Insulating Glass Manufacturers Association (SIGMA) Recommendations.
- I. BAAQMD Regulation 8-51 - Adhesive and Sealant Products.

1.3 SYSTEM DESCRIPTION

- A. Install each piece of glass watertight and airtight. Each installation shall withstand local, normal temperature changes, wind loading, impact loading (for operating sash and doors) without failure of any kind, including loss or breakage of glass, failure of sealants or gaskets to remain watertight, deterioration of glazing materials, and other defects of work.
- B. Where no thickness of glass is given in the glass schedule, it shall be determined by glass manufacturer for the wind loads specified in the California Building Code Chapter 16 as modified by Division 01 Section "Lateral Force Procedures".

1.4 SUBMITTALS

- A. Submit under provisions of Division 01 Section "General Requirements."
- B. Product Data: Manufacturer's product data, material safety data sheets, and specifications for installations indicated, listing specific materials proposed. Indicate completely, recommendations for use of primers, joint preparation and sealant dimensions, and shall state shelf life (from date of shipment by manufacturer to expiration date for use on a project) for the material. Provide necessary information required to translate batch number code into date of manufacture and to thereby determine the latest date of usage from manufacturer's shelf life requirements.
- C. Samples:
 - 1. Each glass type required, minimum size 12 by 12 inches (300 by 300 mm).
 - 2. Each type of glazing material and available colors, and accessories.
- D. Certifications:
 - 1. Certification that all insulating units furnished comply with Class CBA of ASTM E774 and the performance specified.
 - 2. Certification that all sealants are fully compatible with the surfaces and finishes with which they are in contact.
- E. Closeout Submittals: Material Safety Data: Sealant and adhesive quantity use for in accordance with requirements of BAAQMD Regulation 8-51.

1.5 QUALITY ASSURANCE

- A. Regulatory Requirements: Glazing materials and installation shall comply with the requirements of Bay Area Air Quality Management District Regulation 8-51.

1.6 DELIVERY, STORAGE AND HANDLING

- A. Package and deliver glass in manufacturer's sealed unopened containers, fully identified, and each pane clearly labeled with manufacturer's name and product designation.
- B. Protect glass from damage and store in accordance with manufacturer's recommendations. Keep handling to a minimum. Protect edges of laminated and insulated glass from damage.
- C. Glazing Sealants:

1. Deliver sealants and related accessories to the job site in factory sealed, unopened containers bearing manufacturer's name, product designation and batch number.
2. Store in unopened containers. Follow manufacturer's recommendations for storage temperatures and shelf life (see "Submittals" above).
3. Follow manufacturer's recommendations for handling products containing toxic materials. Keep flammable material away from heat, sparks and open flame. Use recommended solvents and cleaning agents for cleaning tools, equipment and skin.

1.7 ENVIRONMENTAL CONDITIONS

- A. Perform no glazing operations when ambient temperature is at or below 40 deg F (4.4 deg C).

1.8 WARRANTIES

- A. Insulating Glass Units: Warrant for 10 years from date of acceptance of Project to be free from delamination and failure of seals and not to develop material obstruction of vision as a result of dust, moisture or film formation on internal glass surfaces.
- B. Low-E Glass: Warrant for 10 years from date of acceptance of Project to be free of peeling or other deterioration of the Low-E coating.
- C. Laminated Glass: Warrant for 10 years from date of acceptance of Project to be free from delamination and discoloration.
- D. Glazing Sealant:s Warrant for 10 years per sealant manufacturer's standard warranty of merchantable quality. Warranty shall certify that cured sealants:
 1. Will perform as a watertight weatherseal.
 2. Will not become brittle or crack due to weathering or normal expansion and contraction of adjacent surfaces.
 3. Will not harden beyond a Shore A durometer of 50, nor soften below a durometer of 10.
 4. Will not change color when used with compatible back-up materials.
 5. Will not bleed.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Glass Manufacturers: PPG, LOF, Guardian Industries, Ford Glass, Hordis Brothers Inc., or equal. Provide all tinted and Low-E glass from the same manufacturer for the entire project.

2.2 MATERIALS

- A. Glass types, thicknesses and fabricated assemblies are scheduled in the Glass Schedule included in PART 3. EXECUTION of this Section. Where no thickness is given, it shall be determined by glass manufacturer as specified in Article 1.04 System Description of this Section. Adjacent tinted and Low-E glass shall have the same light transmittance.
 1. Clear Annealed Float Glass: Clear float glass conforming to ASTM C 1036, Type I, Class 1, quality q3.
 2. Heat Strengthened Clear Float Glass: As specified for clear annealed float glass except heat strengthened to conform to ASTM C 1048, Kind HS.
 3. Tempered Clear Float Glass: As specified for clear annealed float glass except fully tempered to conform to ASTM C 1048, Kind FT.

4. Annealed Tinted Float Glass: Glare reducing float glass conforming to ASTM C 1036, Type I, Class 2, quality q3, 1/4 inch (6 mm) thick.
 - a. PPG "Solex", green color, or equal.
 - b. LOF "Blue-Green ", blue-green color, or equal.
 - c. PPG "Azurelite", blue color, no substitutions.
 - d. PPG "Solargray", gray color, or equal.
 - e. PPG "Solarbronze", bronze color, or equal.
5. Heat Strengthened Tinted Float Glass: As specified for annealed tinted float glass except heat strengthened to conform to ASTM C 1048, Kind HS.
6. Tempered Tinted Float Glass: As specified for annealed tinted float glass except fully tempered to conform to ASTM C 1048, Kind FT.
7. Clear Wire Glass: 1/4 inch (6 mm) thick, clear rolled glass conforming to ASTM C-1036, Type II (flat), Class I, Form 1 (wired and polished both faces), wired with welded polished wires, 1/2 inch (13 mm) x 1/2 inch (13 mm) square pattern, smooth wires vertical, manufactured by Hordis Bros., Sierracin/Transtech, or equal.
8. Annealed Obscure Glass: Conforming to ASTM C 1036, Type II, Class I, Form 3, Finish 1, pattern p3 "hammered" texture glass.
9. Tempered Obscure Glass: As specified for annealed obscure glass except conforming to ASTM C 1048, kind FT.
10. Obscure Wire Glass: As specified for Clear Wire Glass, except Form 3, Finish 1, pattern p3 "hammered" texture glass.
11. Clear Fire Rated Tempered Safety Glass, 20 Minute Rated: "Pyroswiss", no known equal, with UL or Warnock-Hersey label, manufactured by Nippon Electric Glass Co., Ltd., and distributed by Technical Glass Products, 2425 Carillon Point, Kirkland, WA 98003, Tel. 1-800-426-0279.
12. Clear Fire Rated Safety Glass Ceramic, 20 - 90 Minute Rated: "Firelite Plus", no known equal, with UL or Warnock-Hersey label, manufactured by Nippon Electric Glass Co., Ltd., and distributed by Technical Glass Products, 2425 Carillon Point, Kirkland, WA 98003, Tel. 1-800-426-0279.
13. Annealed Low-E Clear Float Glass: PPG "Sungate 500(2)", or equal, clear float glass with transparent reflective coating on inboard (No. 2) surface, conforming to ASTM C 1036, Type I, Class 2, quality q3.
14. Tempered Low-E Clear Float Glass: PPG "Sungate 500(2) ", or equal, [clear][tinted] float glass with transparent reflective coating on inboard (No. 2) surface, tempered to conform to ASTM C 1048, Kind FT.
15. Annealed Low-E Tinted Float Glass: PPG "Sungate 500(2)", or equal, clear float glass with transparent reflective coating on inboard (No. 2) surface, conforming to ASTM C 1036, Type I, Class 2, quality q3.
16. Heat Strengthened Low-E Tinted Float Glass: PPG "Sungate 500(2)", or equal, tinted float glass with transparent reflective coating on inboard (No. 2) surface, heat strengthened to conform to ASTM C 1048, Kind HS.
17. Tempered Low-E Tinted Float Glass: PPG "Sungate 500(2) ", or equal, [clear][tinted] float glass with transparent reflective coating on inboard (No. 2) surface, tempered to conform to ASTM C 1048, Kind FT.
18. Heat Strengthened Low-E Tinted Float Glass: PPG "Sungate 1000(2)", or equal, tinted float glass with transparent reflective coating on inboard (No. 2) surface, heat strengthened to conform to ASTM C 1048, Kind HS.
19. Tempered Low-E Tinted Float Glass: PPG "Sungate 1000(2)", or equal, tinted float glass with transparent reflective coating on inboard (No. 2) surface, tempered to conform to ASTM C 1048, Kind FT.
20. Spandrel Glass: Tempered spandrel glass conforming with DD-G-1403, Grade B, Style II, color as shown or selected by University.
21. Insulating Glass:
 - a. Manufacturer And Unit Fabrication: By a member of the Sealed Insulating Glass Manufacturers Assn. (SIGMA) and fabricated in accordance with SIGMA recommendations, except where more stringent requirements are indicated.
 - b. Class: "CBA" and certified as such by the Insulating Glass Certification Council (IGCC).

- c. Construction: ASTM E 774 organic elastomeric sealed edge (no metal edges permitted) consisting of a polyisobutylene primary seal and a silicone secondary seal, with the interior air space hermetically sealed and provided with a concealed desiccant agent. Secondary seals other than silicone shall not be used.
 - d. Where visible through the glass, the exposed surface of the metal spacer tube shall be painted with thermosetting, siliconized acrylic paint, or equal, color to match the color of aluminum frame at the interior of the building.
 - e. Configuration: As per Glass Schedule.
22. Laminated Glass: Fabricated using heat and pressure with Monsanto, or approved equal, clear polyvinyl butyral sheet interlayer, configuration of assembly as per Glass Schedule. Laminated glass shall conform to requirements of Reference Standard 1.2.B.
23. Glazing Materials and Accessories: Glazing materials and accessories shall be fully compatible with the materials and finishes with which they are in contact. Neoprene and EPDM materials shall not come in contact with silicone sealant materials. Silicone rubber spacers, setting and edge blocks and gaskets shall be either Type I (designed to prevent adhesion) or Type II (designed for adhesion) as per glazing system manufacturer's recommendations for each condition of use.
- a. Glazing Tapes: Preformed, preshimmed polyisobutylene-butyl tape, 1/2 inch (13 mm) wide x thickness to suit proper face clearance of glass, black color; "Pecora BB-50 Extru-Seal", PTI "606", Tremco Preshimmed #440, or "Polyshim" ("Polyshim" only where glass lites exceed 150 united inches), or equal.
 - b. Glazing Sealants: One component, silicone based sealant, black color; Dow-Corning "795" or General Electric "Silpruf 2000", or equal. Sealants shall be recommended by the manufacturer for the particular condition of use.
 - c. Glazing Sealants (Butt Glazing And Steel Windows): One component, silicone based sealant, black color except clear color at butt glazing; Dow-Corning "795" or "999-A", or General Electric "Gesil N 2600", "SCS 100" or "SCS 1200", or equal, as per manufacturer's recommendations for the particular condition of use.
 - d. Primers (If Required For Sealants): Non-staining and non-etching type as recommended by sealant manufacturer.
 - e. Setting Blocks: Neoprene, EPDM or silicone rubber conforming to ASTM C 864, 80-90 Shore A durometer hardness, and which will permit permanent mounting. Blocks shall be 0.1 inch (2.5 mm) long for each square foot of glass area (but no less than 4 inches (100 mm)) x 1/16 inches (1.6 mm) less than full channel width and of thickness to provide proper bite and minimum edge clearance for glass. Where length of block may become excessive, lead blocks having a length of 0.05" for each square foot of glass (4 inches (100 mm) minimum) may be used. Do not use lead blocks for insulating, laminated or wire glass.
 - f. Edge Blocks: Neoprene, EPDM or silicone rubber conforming to ASTM C 864, 60-70 Shore A durometer hardness, and which will permit permanent mounting. Blocks shall be 3 inches (75 mm) minimum length x full channel width and of thickness or configuration to provide 1/8 inch (3 m) (nom.) clearance between block and glass edge.
 - g. Glazing Spacers: Neoprene, EPDM or silicone rubber conforming to ASTM C 864, 60-70 Shore A durometer hardness, size as required by glazing conditions, continuous (do not use intermittent spacers).
 - h. Insulation (Glass Spandrels): Owens-Corning Fiberglas "CW 225-FSK", or approved equal, fiberglass, semi-rigid, friction fit board with integral aluminum foil vapor barrier, "R" value as indicated on Drawings. Include galvanized steel mounting channels as required by job conditions.

2.3 FABRICATION

- A. Cut glass to full fit and play, consistent with glass and glazing material manufacturers' recommendations and the requirements of the Drawings and References, Codes and Standards Article.

- B. Follow code requirements and glass manufacturer's recommendations for minimum bite and edge and face clearances.
- C. Cut lights to smooth straight edges, clean, free of nicks and flares; nipping not permitted. Follow glass manufacturer's directions exactly for tinted and Low-E glass.
- D. Where glass edges (including cut openings) are required to be exposed, grind smooth and polish.
- E. Tempered and heat strengthened glass shall be horizontally treated only. Fabrication and treatment shall, where at all possible, be such that roller distortion lines (where they may occur) will run horizontally (parallel to sill and head) after installation.
- F. Glass Identification:
 - 1. Tempered and heat strengthened glass shall bear the manufacturer's identification as to type and thickness.
 - 2. Glazing in fire rated doors and fire rated windows shall bear UL classification marking in accordance with UL 9.
 - 3. Manufacturer's and UL identifications for glazing shall be permanently etched so as to be visible after glass has been set in place and glazed.
 - 4. Glass other than tempered, heat strengthened and UL-marked glass shall not have labels.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Inspect surfaces to receive glazing materials and report defects which might adversely affect the glazing work. Commencing work implies acceptance of surfaces as satisfactory.
- B. Weep systems shall be open.
- C. Surfaces shall be free of condensation and moisture.
- D. Steel surfaces shall be primed and dry.

3.2 PREPARATION

- A. Clean rebates and glazing reveals free of foreign matter, special coatings, dust, grease, projections and irregularities prior to setting glass. Solvents used for cleaning shall not etch or damage glass or metal surfaces.
- B. Wipe glass free of dust and oil.

3.3 INSTALLATION

- A. Conform to recommendations of glass manufacturer where such covers points not shown on Drawings or specified herein.
- B. Remove "loose" stops furnished with the units and reinstall as a part of the glazing operation.
- C. Handle lites so as to prevent nicks and flares on glass edges.
- D. Install glass exceeding 1/8" thickness on identical setting blocks permanently mounted and centered at 1/4 points. If necessary to reduce deflection of horizontal supporting member, blocks may be

placed at 1/8 points or with the nearest end 6" (whichever is greater) from edge of glass unit. Ensure that blocks are equidistant from centerline of glass. Do not obstruct weep holes.

- E. Provide permanently mounted edge blocks at head and jambs of dry-glazed lights to prevent damage to glass edges during installation and lateral shifting of glass due to thermal and seismic loads and vibrations. Follow recommendations of Flat Glass Marketing Assn. Glazing Manual.
- F. Set glass to maintain bite, edge and face clearance stipulated by code and the glass manufacturer.
- G. Take special precautions to protect laminated glass edges from deterioration of vinyl interlayer by moisture.
- H. Glaze dry-glazed aluminum doors and frames as per manufacturer's directions using glazing gaskets and seals furnished with the units.
- I. Miter gaskets at corners, and install so as to prevent pulling away at corners. Gaskets with gaps or other visible irregularities on door and window units shall be corrected by manufacturer or fabricator at no additional cost to University.
- J. Set interior non-wired glass in fixed stops with glazing tape one face.
- K. Wire glass installed in metal frames and stops shall be embedded in metal sash putty, and all exposed joints between the metal and the glass struck and pointed.
- L. Steel Windows:
 - 1. Clean surfaces to receive glazing materials.
 - 2. Apply glazing tape against fixed stops with corners butted tightly (do not overlap). Install head and sill tape first and extend full width of opening. Tape shall be straight without dips and so placed that it will finish flush with top of stop after glass is installed.
 - 3. Set glass on glazing blocks at 1/4 points (if required by size) and properly position glass in opening. Remove paper backing from tape and press glass against tape to ensure full contact.
 - 4. Snap stops in place making sure that exterior glazing sealant reveal is maintained all around.
 - 5. Apply glazing sealant in exterior reveal all four sides. Tool to uniform, smooth bead with 1/16" watershed surface.
- M. Where butted glass without mullions is required, seal with silicone sealant in strict accord with sealant and glass manufacturer's directions. Set glass so that joint is plumb and glass edges are aligned to provide for a uniform joint width of 3/8" (max.). Mask edges of glass to confine sealant to joints and to avoid contact with either face. Use primers where so required. Neatly tool joints to slightly concave surface using recommended tooling agent. Remove masking from glass and clean glass surfaces completely free of sealant material.
- N. Set pattern glass with smooth side to exterior, and to room side of corridors.
- O. Insulation (Spandrel Glass): Attach mounting channels for insulation to aluminum framing members in accord with glass manufacturer's recommendations and so as to maintain a minimum distance of 1" between glass surface and insulation face. Cut insulation to fit tightly. Orient foil vapor barrier to the interior. Seal edges, joints, penetrations, tears and holes with compatible adhesive foil tape.
- P. Close and tightly seal all partly used sealant containers, and store protected in well-ventilated area at temperature recommended by sealant manufacturer.

3.4 FIELD QUALITY CONTROL

- A. Conduct field check (test) of glazing in exterior for water leakage in accordance with AAMA 501.2.

- B. After substantial cure of exterior glazing sealants which are exposed to the weather, test for water leaks. Flood the joint exposure with water directed from a 3/4 inch (38 mm) garden hose held perpendicular to the wall face, 24 inches (600 mm) from the joint, connected to a water system with 43 psf minimum static water pressure. Move stream of water along joint at an approximate rate of 20 feet (6 m) per minute.
- C. Test approximately 5 percent of total glazing system in locations which are typical of every joint condition and which can be inspected easily for leakage on opposite face. Conduct tests in presence of the Project Manager, who will determine actual percentage of joints to be tested and the actual period of exposure to water from hose, based upon extent of observed leakage or lack thereof.
- D. Repair glazing installation at leaks or, where leakage is excessive, replace glazing sealants.
- E. Where nature of observed leakage indicates possibility of inadequate glazing joint bond strength, the Project Manager may direct that additional testing be performed at a time when joints have been fully cured, followed by natural exposure through both extreme temperatures, and returned to range of temperature in which it is feasible to conduct testing. Repair or replace work as required for permanent elimination of leakage.

3.5 WASTE MANAGEMENT

- A. Separate float glass and place in designated containers for recycling.
- B. Separate tempered glass and place in designated containers for recycling.
- C. Separate corrugated cardboard in accordance with the approved Waste Management Plan in Division 01 Section "Construction Waste Management", and place in designated containers for recycling.
- D. Place used sealant containers in designated containers for legal disposal.

3.6 CLEANING

- A. Initial cleaning of glass surfaces is a part of this Section. Follow glass manufacturer's directions exactly for cleaning tinted and Low-E glass. Do not use abrasive cleaners or sharp instruments. Final cleaning and periodic cleaning of glass for protection from etching due to alkaline runoff from cementitious surfaces or due to construction soil is a part of the General Subcontract and is specified as a part of Division 01.

3.7 PROTECTION

- A. Protect installed glass from damage due to subsequent construction operations.
- B. Identification or caution markers shall not be applied to glass surfaces nor shall they be applied to metal surfaces in any way which would damage or stain the metal.
- C. Replace glass broken or damaged prior to acceptance of Project. Costs occasioned by replacement shall be borne by those causing the damage.

3.8 GLASS SCHEDULE

- A. Glass types are indicated on Drawings.

| Glass Type | Material or Assembly |
|------------|--|
| 1A | Annealed clear float glass, 1/4 inch (6 mm) thick. |
| 2A | Heat strengthened clear float glass, 1/4 inch (6 mm) thick. |
| 3A | Tempered clear float glass, 1/4 inch (6 mm) thick. |
| 3B | Tempered clear float glass, 3/8 inch (thick. |
| 3C | Tempered clear float glass, 1/2 inch (13 mm) thick. |
| 3D | Tempered clear float glass, 3/4 inch (19 mm) thick. |
| 4A | Annealed tinted float glass, 1/4 inch (6 mm) thick. |
| 4B | Heat strengthened tinted float glass, 1/4 inch (6 mm) thick. |
| 4C | Tempered tinted float glass, 1/4 inch (6 mm) thick. |
| 5A | Annealed Low-E clear float glass, 1/4 inch (6 mm) thick. |
| 5B | Tempered Low-E clear float glass, 1/4 inch (6 mm) thick. |
| 6A | Heat strengthened Low-E tinted float glass, 1/4 inch (6 mm) thick. |
| 6B | Tempered Low-E tinted float glass, 1/4 inch (6 mm) thick. |
| 7A | Spandrel glass, 1/4 inch (6 mm) thick. |
| 7B | Spandrel glass, 1/4 inch (6 mm) thick, with insulation. |
| 8A | Annealed obscure glass, 1/4 inch (6 mm) thick. |
| 8B | Tempered obscure glass, 1/4 inch (6 mm) thick. |
| 9A | Clear wire glass, 1/4 inch (6 mm) thick. |
| 9B | Obscure wire glass, 1/4 inch (6 mm) thick. |
| 10A | Insulating glass fabricated with 1/4 inch (6 mm) thick clear annealed float glass outboard light, 1/2 inch (13 mm) air space and 1/4 inch (6 mm) thick clear annealed float glass inboard light. |
| 10B | Insulating glass fabricated with 1/4 inch (6 mm) thick tempered clear float glass outboard light, 1/2 inch (13 mm) air space and 1/4 inch (6 mm) thick clear tempered float glass inboard light. |
| 11A | Insulating glass fabricated with 1/4 inch (6 mm) thick tinted annealed float glass outboard light, 1/2 inch (13 mm) air space and 1/4 inch (6 mm) thick clear annealed float glass inboard light. |
| 11B | Insulating glass fabricated with 1/4 inch (6 mm) thick tinted heat strengthened float glass outboard light, 1/2 inch (13 mm) air space and 1/4 inch (6 mm) thick clear annealed float glass inboard light. |
| 11C | Insulating glass fabricated with 1/4 inch (6 mm) thick tempered tinted float glass outboard light, 1/2 inch (13 mm) air space and 1/4 inch (6 mm) thick clear tempered float glass inboard light. |
| 12A | Insulating glass fabricated with 1/4 inch (6 mm) thick tinted Low-E annealed float glass outboard light, 1/2 inch (13 mm) air space and 1/4 inch (6 mm) thick clear annealed float glass inboard light. |
| 12B | Insulating glass fabricated with 1/4 inch (6 mm) thick tinted Low-E heat strengthened float glass outboard light, 1/2 inch (13 mm) air space and 1/4 inch (6 mm) thick clear annealed float glass inboard light. |

- 12C Insulating glass fabricated with 1/4 inch (6 mm) thick tempered tinted Low-E float glass outboard light, 1/2 inch (13 mm) air space and 1/4 inch (6 mm) thick clear tempered float glass inboard light.
- I3A Laminated glass fabricated with one layer [inner][outer] of 1/4 inch (6 mm) thick heat strengthened clear float glass and one layer [inner][outer] of 1/4 inch (6 mm) thick, tempered clear float glass with 0.060" interlayer.

END OF SECTION 088000

SECTION 09290 – GYPSUM BOARD

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

A. Section Includes:

1. Interior gypsum board.
2. Exterior gypsum board for ceilings and soffits.
3. Tile backing panels.
4. Texture finishes.

B. Related Requirements:

1. Section 092216 "Non-Structural Metal Framing" for non-structural framing and suspension systems that support gypsum board panels.

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product.

B. Samples: For the following products:

1. Trim Accessories: Full-size Sample in 12-inch long length for each trim accessory indicated.
2. Textured Finishes: Manufacturer's standard size for each textured finish indicated and on same backing indicated for Work.

1.4 QUALITY ASSURANCE

A. Mockups: Before beginning gypsum board installation, install mockups of at least 100 sq. ft. in surface area to demonstrate aesthetic effects and set quality standards for materials and execution.

1. Install mockups for the following:

- a. Each level of gypsum board finish indicated for use in exposed locations.
- b. Each texture finish indicated.

2. Apply or install final decoration indicated, including painting and wallcoverings, on exposed surfaces for review of mockups.

3. Simulate finished lighting conditions for review of mockups.

4. Subject to compliance with requirements, approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

1.5 DELIVERY, STORAGE AND HANDLING

- A. Store materials inside under cover and keep them dry and protected against weather, condensation, direct sunlight, construction traffic, and other potential causes of damage. Stack panels flat and supported on risers on a flat platform to prevent sagging.

1.6 FIELD CONDITIONS

- A. Environmental Limitations: Comply with ASTM C 840 requirements or gypsum board manufacturer's written recommendations, whichever are more stringent.
- B. Do not install paper-faced gypsum panels until installation areas are enclosed and conditioned.
- C. Do not install panels that are wet, those that are moisture damaged, and those that are mold damaged.
 1. Indications that panels are wet or moisture damaged include, but are not limited to, discoloration, sagging, or irregular shape.
 2. Indications that panels are mold damaged include, but are not limited to, fuzzy or blotchy surface contamination and discoloration.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. Moisture- and Mold-Resistant Assemblies: Provide and install moisture- and mold-resistant glass-mat gypsum wallboard products with moisture-resistant surfaces complying with ASTM C 1658 and ASTM C 1177 where indicated on Drawings and in all locations which might be subject to moisture exposure during construction. Fire-Resistance-Rated Assemblies: For fire-resistance-rated assemblies, provide materials and construction identical to those tested in assembly indicated according to ASTM E 119 by an independent testing agency.
- C. STC-Rated Assemblies: For STC-rated assemblies, provide materials and construction identical to those tested in assembly indicated according to ASTM E 90 and classified according to ASTM E 413 by an independent testing agency.
- D. Low-Emitting Materials: For ceiling and wall assemblies, provide materials and construction identical to those tested in assembly and complying with the testing and product requirements of the California Department of Health Services' "Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers."

2.2 GYPSUM BOARD, GENERAL

- A. Recycled Content of Gypsum Panel Products: Postconsumer recycled content plus one-half of preconsumer recycled content not less than 25 percent.

- B. Size: Provide maximum lengths and widths available that will minimize joints in each area and that correspond with support system indicated.

2.3 INTERIOR GYPSUM BOARD

- A. Basis-of-Design Product: The design for each type of gypsum board and related products is based on Georgia-Pacific Gypsum products named. Subject to compliance with requirements, provide the named product or a comparable product by one of the following:
 - 1. American Gypsum.
 - 2. CertainTeed Corp.
 - 3. Lafarge North America Inc.
 - 4. National Gypsum Company.
 - 5. PABCO Gypsum.
 - 6. Temple-Inland.
 - 7. USG Corporation.
- B. Gypsum Ceiling Board: ASTM C 1396/C 1396M.
 - 1. Basis-of-Design Product: Georgia-Pacific Gypsum; " ToughRock CD Ceiling Board."
 - 2. Thickness: 1/2 inch.
 - 3. Long Edges: Tapered.

2.4 TRIM ACCESSORIES

- A. Interior Trim: ASTM C 1047.
 - 1. Material: Galvanized or aluminum-coated steel sheet or rolled zinc
 - 2. Shapes:
 - a. Cornerbead.
 - b. Bullnose bead.
 - c. LC-Bead: J-shaped; exposed long flange receives joint compound.
 - d. L-Bead: L-shaped; exposed long flange receives joint compound.
 - e. Expansion (control) joint.
- B. Aluminum Trim: Extruded accessories of profiles and dimensions indicated.
 - 1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Fry Reglet Corp.
 - b. Gordon, Inc.
 - c. Pittcon Industries.
 - 2. Aluminum: Alloy and temper with not less than the strength and durability properties of ASTM B 221, Alloy 6063-T5.
 - 3. Finish: Corrosion-resistant primer compatible with joint compound and finish materials specified

2.5 JOINT TREATMENT MATERIALS

- A. General: Comply with ASTM C 475/C 475M.
- B. Joint Tape:
 - 1. Interior Gypsum Board: Paper.
 - 2. Exterior Gypsum Soffit Board: Paper.
 - 3. Exterior Glass Mat Gypsum Soffit: Fiberglass mesh.
 - 4. Glass-Mat Gypsum Wallboard: 10-by-10 fiberglass mesh.
 - 5. Glass-Mat Gypsum Sheathing Board: 10-by-10 fiberglass mesh.
 - 6. Tile Backing Panels: As recommended by panel manufacturer.
- C. Joint Compound for Interior Gypsum Board: For each coat use formulation that is compatible with other compounds applied on previous or for successive coats.
 - 1. Prefilling: At open joints, rounded or beveled panel edges, and damaged surface areas, use setting-type taping compound.
 - a. Basis-of-Design Product: Georgia-Pacific Gypsum; ToughRock Sandable Setting Compound.
 - 2. Embedding and First Coat: For embedding tape and first coat on joints, fasteners, and trim flanges, use setting-type taping compound.
 - a. Basis-of-Design Product: Georgia-Pacific Gypsum; ToughRock Ready Mix All-Purpose Joint Compound.
 - b. Use setting-type compound for installing paper-faced metal trim accessories.
 - 3. Fill Coat: For second coat, use setting-type, sandable topping compound.
 - a. Basis-of-Design Product: Georgia-Pacific Gypsum; ToughRock Ready Mix Topping Joint Compound.
 - 4. Finish Coat: For third coat, use setting-type, sandable topping compound.
 - a. Basis-of-Design Product: Georgia-Pacific Gypsum; ToughRock Ready Mix Topping Joint Compound.
 - 5. Skim Coat: For final coat of Level 5 finish, use setting-type, sandable topping compound.
 - a. Basis-of-Design Product: Georgia-Pacific Gypsum; ToughRock Ready Mix Topping Joint Compound].
- D. Joint Compound for Exterior Soffit Applications:
 - 1. Basis-of-Design Product: Georgia-Pacific Gypsum; "ToughRock Setting Compound."
 - 2. Exterior Gypsum Soffit Board: Use setting-type taping compound and setting-type, sandable topping compound.
 - 3. Glass-Mat Gypsum Sheathing Board: As recommended by sheathing board manufacturer.
- E. Joint Compound for Tile Backing Panels:

1. Glass-Mat, Water-Resistant Backing Panel: As recommended by backing panel manufacturer.
2. Cementitious Backer Units: As recommended by backer unit manufacturer.

2.6 AUXILIARY MATERIALS

- A. General: Provide auxiliary materials that comply with referenced installation standards and manufacturer's written recommendations.
- B. Steel Drill Screws: ASTM C 1002, unless otherwise indicated.
 1. Use screws complying with ASTM C 954 for fastening panels to steel members from 0.033 to 0.112 inch thick.
 2. For fastening cementitious backer units, use screws of type and size recommended by panel manufacturer.
- C. Acoustical Joint Sealant: Manufacturer's standard nonsag, paintable, nonstaining latex sealant complying with ASTM C 834. Product effectively reduces airborne sound transmission through perimeter joints and openings in building construction as demonstrated by testing representative assemblies according to ASTM E 90.
 1. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Accumetric LLC; BOSS 824 Acoustical Sound Sealant.
 - b. Grabber Construction Products; Acoustical Sealant GSC.
 - c. Pecora Corporation; [AC-20 FTR] [AIS-919].
 - d. Specified Technologies, Inc.; Smoke N Sound Acoustical Sealant.
 - e. USG Corporation; SHEETROCK Acoustical Sealant.
 2. Acoustical joint sealant shall have a VOC content of 250 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24).
 3. Acoustical joint sealant shall comply with the testing and product requirements of the California Department of Health Services' "Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers."

2.7 TEXTURE FINISHES

- A. Primer: As recommended by textured finish manufacturer.
- B. Polystyrene Aggregate Ceiling Finish: Water-based, job-mixed, polystyrene aggregate finish with flame-spread and smoke-developed indexes of not more than 25 when tested according to ASTM E 84.
 1. Basis-of-Design Product: Subject to compliance with requirements, provide Georgia-Pacific Gypsum "ToughRock Ceiling Textures/Polystyrene"; or a comparable product by one of the following:
 - a. National Gypsum Company.
 - b. USG Corporation.
 2. Texture: Medium

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine areas and substrates including welded hollow-metal frames and framing, with Installer present, for compliance with requirements and other conditions affecting performance.
- B. Examine panels before installation. Reject panels that are wet, moisture damaged, and mold damaged.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 APPLYING AND FINISHING PANELS, GENERAL

- A. Comply with ASTM C 840.
- B. Install ceiling panels across framing to minimize the number of abutting end joints and to avoid abutting end joints in central area of each ceiling. Stagger abutting end joints of adjacent panels not less than one framing member.
- C. Install panels with face side out. Butt panels together for a light contact at edges and ends with not more than 1/16 inch of open space between panels. Do not force into place.
- D. Locate edge and end joints over supports, except in ceiling applications where intermediate supports or gypsum board back-blocking is provided behind end joints. Do not place tapered edges against cut edges or ends. Stagger vertical joints on opposite sides of partitions. Do not make joints other than control joints at corners of framed openings.
- E. Form control and expansion joints with space between edges of adjoining gypsum panels.
- F. Cover both faces of support framing with gypsum panels in concealed spaces (above ceilings, etc.), except in chases braced internally.
 - 1. Unless concealed application is indicated or required for sound, fire, air, or smoke ratings, coverage may be accomplished with scraps of not less than 8 sq. ft. in area.
 - 2. Fit gypsum panels around ducts, pipes, and conduits.
 - 3. Where partitions intersect structural members projecting below underside of floor/roof slabs and decks, cut gypsum panels to fit profile formed by structural members; allow 1/4- to 3/8-inch- wide joints to install sealant.
- G. Isolate perimeter of gypsum board applied to non-load-bearing partitions at structural abutments, except floors. Provide 1/4- to 1/2-inch- wide spaces at these locations and trim edges with edge trim where edges of panels are exposed. Seal joints between edges and abutting structural surfaces with acoustical sealant.
- H. Attachment to Steel Framing: Attach panels so leading edge or end of each panel is attached to open (unsupported) edges of stud flanges first.
- I. Wood Framing: Install gypsum panels over wood framing, with floating internal corner construction. Do not attach gypsum panels across the flat grain of wide-dimension lumber, including floor joists and headers. Float gypsum panels over these members or provide control joints to counteract wood shrinkage.

- J. STC-Rated Assemblies: Seal construction at perimeters, behind control joints, and at openings and penetrations with a continuous bead of acoustical sealant. Install acoustical sealant at both faces of partitions at perimeters and through penetrations. Comply with ASTM C 919 and with manufacturer's written recommendations for locating edge trim and closing off sound-flanking paths around or through assemblies, including sealing partitions above acoustical ceilings.
- K. Install sound attenuation blankets before installing gypsum panels unless blankets are readily installed after panels have been installed on one side.

3.3 APPLYING INTERIOR GYPSUM BOARD

- A. Install interior gypsum board in the following locations:
 - 1. Ceiling Type: As indicated on Drawings.
- B. Single-Layer Application:
 - 1. On ceilings, apply gypsum panels before wall/partition board application to greatest extent possible and at right angles to framing unless otherwise indicated.
- C. Multilayer Application:
 - 1. On ceilings, apply gypsum board indicated for base layers before applying base layers on walls/partitions; apply face layers in same sequence. Apply base layers at right angles to framing members and offset face-layer joints one framing member, 16 inches minimum, from parallel base-layer joints, unless otherwise indicated or required by fire-resistance-rated assembly.
 - 2. Fastening Methods: Fasten base layers and face layers separately to supports with screws

3.4 INSTALLING TRIM ACCESSORIES

- A. General: For trim with back flanges intended for fasteners, attach to framing with same fasteners used for panels. Otherwise, attach trim according to manufacturer's written instructions.
- B. Control Joints: Install control joints according to ASTM C 840 and in specific locations approved by Architect for visual effect.
- C. Interior Trim: Install in the following locations:
 - 1. L-Bead: Use where indicated.
 - 2. U-Bead: Use at exposed panel edges .

3.5 FINISHING GYPSUM BOARD

- A. General: Treat gypsum board joints, interior angles, edge trim, control joints, penetrations, fastener heads, surface defects, and elsewhere as required to prepare gypsum board surfaces for decoration. Promptly remove residual joint compound from adjacent surfaces.
- B. Prefill open joints and damaged surface areas.

- C. Apply joint tape over gypsum board joints, except for trim products specifically indicated as not intended to receive tape.
- D. Gypsum Board Finish Levels: Finish panels to levels indicated below and according to ASTM C 840:
 - 1. Level 1: Ceiling plenum areas, concealed areas, and where indicated.
 - a. Primer and its application to surfaces are specified in Section 099123 "Interior Painting."

3.6 APPLYING TEXTURE FINISHES

- A. Surface Preparation and Primer: Prepare and apply primer to gypsum panels and other surfaces receiving texture finishes. Apply primer to surfaces that are clean, dry, and smooth.
- B. Texture Finish Application: Mix and apply finish using powered spray equipment, to produce a uniform texture free of starved spots or other evidence of thin application or of application patterns.
- C. Prevent texture finishes from coming into contact with surfaces not indicated to receive texture finish by covering them with masking agents, polyethylene film, or other means. If, despite these precautions, texture finishes contact these surfaces, immediately remove droppings and overspray to prevent damage according to texture-finish manufacturer's written recommendations.

3.7 PROTECTION

- A. Protect adjacent surfaces from drywall compound and promptly remove from floors and other non-drywall surfaces. Repair surfaces stained, marred, or otherwise damaged during drywall application.
- B. Protect installed products from damage from weather, condensation, direct sunlight, construction, and other causes during remainder of the construction period.
- C. Remove and replace panels that are wet, moisture damaged, and mold damaged.
 - 1. Indications that panels are wet or moisture damaged include, but are not limited to, discoloration, sagging, or irregular shape.
 - 2. Indications that panels are mold damaged include, but are not limited to, fuzzy or blotchy surface contamination and discoloration.

END OF SECTION 092900

SECTION 09511 - ACOUSTICAL PANEL CEILINGS

PART 1 - GENERAL

1.1 SUMMARY

- A. Related Documents:
 - 1. Drawings and general provisions of the Subcontract apply to this Section.
 - 2. Review these documents for coordination with additional requirements and information that apply to work under this Section.
- B. Section Includes:
 - 1. Acoustical surfaces including acoustic lay-in panels, grid systems, and required installation accessories.
- C. Related Sections:
 - 1. Division 01 Section "General Requirements."
 - 2. Division 01 Section "Construction Waste Management."
 - 3. Division 09 Section "Painting" for field painting of lay-in panels.
 - 4. Division 23 Sections for acoustical duct liners, sound insulated metal plenum walls, vibration isolating supports for mechanical equipment, fire sprinklers and similar items of mechanical equipment mounted on or in acoustical surfaces.
 - 5. Division 26 Sections for:
 - a. Light fixtures, smoke detectors and similar items of electrical equipment mounted in or on acoustical surfaces.
 - b. Furnishing and installation of safety wires for recessed lighting fixtures.

1.2 REFERENCES

- A. General:
 - 1. The following documents form part of the Specifications to the extent stated. Where differences exist between codes and standards, the one affording the greatest protection shall apply.
 - 2. Unless otherwise noted, the referenced standard edition is the current one at the time of commencement of the Work.
 - 3. Refer to Division 01 Section "General Requirements" for the list of applicable regulatory requirements.
- B. ASTM International:
 - 1. ASTM C635 - Metal Suspension Systems for Acoustical Tile and Lay-in Panel Ceilings.
 - 2. ASTM C636 - Installation of Metal Ceiling Suspension Systems - Acoustical Tile and Lay-in Panels.
- C. California Building Code (CBC) - conform to combustibility requirements for materials.
- D. CBC Chapters 16 and 25 and CBC Standard No. 25-2 for the design, details and specifications for lateral bracing requirements as modified by Division 01 Section "Lateral Force Procedures".
- E. Ceilings & Interior Systems Construction Association:
 - 1. Ceiling Systems Handbook.
 - 2. Guidelines for Seismic Restraint of Direct-Hung Suspended Ceiling Assemblies—Seismic Zones 3 & 4.

- F. UL - Underwriter's Laboratories System Ratings.

1.3 SUBMITTALS

- A. Submit under provisions of Division 01 Section "General Requirements."
- B. Product Data:
 - 1. Manufacturer's specifications, installation instructions and product data on metal grid system components, acoustical units, and all other products to be used.
 - 2. Approved ICBO report for fasteners proposed to be used to attach acoustical ceilings to building superstructure.
- C. Shop Drawings: Show grid layout and dimensioning, panel layouts, lighting fixtures, air diffusers, grilles, and all other items exposed in acoustical ceilings, locations of seismic braces and hangers, and suspension, seismic and bracing details. Show details of junctions with other work or ceiling finishes, and special conditions.
- D. Calculations showing that suspension systems will provide full compliance with seismic structural requirements of Division 01 Section "Lateral Force Procedures". Calculations shall be checked and sealed by a Civil or Structural Engineer licensed in the State of California.
- E. Samples:
 - 1. Acoustic panels of each type – 6 by 6 inches (150 by 150 mm) minimum.
 - 2. Grid system components, including suspension system main runner, cross runner, edge trim, and all special shapes, in 12 inches (300 mm) lengths.

1.4 QUALITY ASSURANCE

- A. Installer's Qualifications: 5 years minimum experience with and specializing in acoustical ceilings installations.delivery, storage, AND HANDLING
- B. Deliver materials to project site in original, undamaged, unopened containers bearing manufacturer's name, style, color and product number of each type of material.
- C. Comply with manufacturer's recommendations for storage of materials to be used in the work.

1.5 Environmental Requirements

- A. Unless otherwise required by the manufacturers of the materials, temperatures are to be maintained at 60 degrees F. or higher, and humidity at 20 to 40 percent, prior to, during and after installation.

1.6 Sequencing and Scheduling

- A. Do not install acoustical ceilings until building is enclosed, sufficient heat is provided, dust-generating activities have terminated, and overhead work is completed, tested and approved. Schedule installation of acoustic units after interior wet work is dry.

1.7 Extra Materials

- A. Upon completion of work, deliver stock of replacement materials of acoustical panels used in the work to the Project Manager. Furnish at least 10 percent or 100 panels, whichever is greater, of full-size units of each type, color and pattern of acoustical panel installed. Package extra materials in manufacturer's standard, sealed, unopened boxes, labeled with manufacturer's name, style, number and color of unit, local distributor's name, address and telephone number, and locations where installed in Project.

PART 2 - PRODUCTS

2.1 Acoustical Panel (AP) MATERIALS

- A. AP 1: USG "Millennia", 3/4 inches (19 mm) thick, 24 by 24 inches square edge, white, mineral fiber, Class A, CAC range 35-39, NRC Range 0.65-0.75;
- B.
 - 1. Class A material with a flame spread not exceeding 25 and a smoke developed rating not exceeding 50 when tested in accord with ASTM E84.

2.2 GRID Suspension System (GS)

- A. System Description: Systems shall be of steel construction as per CBC Standard 25-2 and shall consist of main and cross runners, perimeter trim, connectors, hangers and all accessories necessary for the complete installation.
 - 1. All systems shall permit the installation of recessed lighting fixtures upon the flanges of the systems and any form of splice or other obstruction which would inhibit or render such installation of fixtures difficult will not be permitted.
 - 2. Each intersection, splice and perimeter joint shall meet all seismic requirements of CBC Standard 25-2.
- B. Finish: Factory finished white baked enamel over bonderized, electro-zinc-coated steel.
- C. Main and Cross Runners:
 - 1. GS 1: 15/16 inch (23 mm) flange suspension system, heavy-duty steel, grid module to suit panel size. Include 15/16 inch (23 mm) wide perimeter trim members with shadow reveal.
- D. Connectors and Clips: Manufacturer's standard.
- E. Hanger and Bracing Wires: Fed. Spec. QQ-W-461, Class 1, galvanized and annealed, 12 gage minimum.
- F. Fasteners: Fasteners used for attachment of acoustical ceilings to building superstructure shall have an approved ICBO report.
- G. Edge Sealer: Latex adhesive designed for the purpose of sealing field-cut edges of acoustic panels, as manufactured by Kelly-Moore, Inc., or equal.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Surfaces shall be dry and wet work completed prior to commencing installation. Inspect surfaces to receive acoustical work and report any defects. Starting work implies acceptance of surfaces and existing conditions.

3.2 INSTALLATION

- A. Coordinate installation with other trades whose work adjoins or combines with acoustical ceilings. Unless otherwise shown, equipment, fixtures, etc., applied on or within acoustical panels are to be located symmetrically with respect to both axes. Provide grid members required to accommodate lay-in air diffusers and similar items of mechanical equipment.
- B. Except as otherwise specified to meet structural requirements, make installation of grid systems and acoustical materials in strict accordance with approved manufacturer's specifications or recommendations and Drawing details. Where details and/or these Specifications are in apparent conflict with manufacturer's recommendations, the more stringent requirement shall apply.
- C. Grid Suspension Systems:
 - 1. Structural Requirements:
 - a. Brace new suspension to comply with CBC requirements a governing resistance to lateral forces and uplift as modified by Division 01 Section "Lateral Force Procedures".
 - b. Attachment to Building Superstructure: Install fasteners used to attach grid suspension system to building superstructure in accordance with the requirements of their approved ICBO report.
 - 1) Install suspension systems in flat, level plane unless otherwise shown, joints in exposed members tight and aligned without offsets. Direction of main runners, where not specifically indicated, shall be determined by fixture layout.
 - 2) Unless closer spacings are required by manufacturer of system, space hanger wires along main runners at 4 feet (1.2 m) maximum. Provide special hangers as required where items above ceiling obstruct normal hanger wires.
 - 3) Provide hold-down clips for lay-in panels where required to prevent lifting and flutter caused by air pressures.
 - 4) Install perimeter trim at wall and abutting vertical surfaces. Flange of trim shall be at the same level as flanges of main and cross runners.
 - 5) Level suspension systems to a tolerance of 1/8 inches (3 mm) in 12 feet
- D. Unless otherwise shown on reflected ceiling plans, align grid members and tile joints parallel to perimeter walls with pattern centered in room areas both directions.
- E. Seal field-cut panel edges of Type AP 2 panels with edge sealer.

3.3 PROTECTION

- A. Protect the finished installation from damage during balance of construction period. Remove any soiled or damaged items and replace with new before acceptance of Project by LBNL.

END OF SECTION 095113

SECTION 09911 - PAINTING

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 this section.

1.2 SUMMARY

- A. This section includes surface preparation and field painting of the following:
 - 1. Exposed exterior items and surfaces.
 - 2. Exposed interior items and surfaces.
 - 3. Surface preparation, priming, and finish coats specified in this Section are in addition to shop priming and surface treatment specified in other Sections. Revise paragraph below to suit the Project.

- B. Related Sections include the following:
 - 1. 05120 "Structural Steel" for shop priming structural steel.
 - 2. 05400 "Cold Form Metal Framing" for shop priming ferrous metal.
 - 3. 08112 "Hollow Metal Doors and Frames" for shop priming steel doors and frames.
 - 4. 09290 "Gypsum Board" for surface preparation for gypsum board.

1.3 DEFINITIONS

- A. General: Standard coating terms.
 - 1. Flat refers to a sheen finish with a gloss range lower than 5 when measured with a 60-degree meter.
 - 2. Eggshell refers to a low-sheen finish with a gloss range between 5 and 10 when measured with a 60-degree meter.
 - 3. Satin refers to a low-sheen finish with a gloss range between 10 and 20 when measured with a 60-degree meter.
 - 4. Semi-Gloss refers to a medium-sheen finish with a gloss range between 35 and 70 when measured with a 60-degree meter.
 - 5. Full gloss refers to a high-sheen finish with a gloss range higher than 70 when measured with a 60-degree meter.

1.4 SUBMITTALS

- A. Product Data: For each paint system specified. Include block fillers and primers.
 - 1. Material List: Provide an inclusive list of required coating materials. Indicate each material and cross-reference specific coating, finish system, and application. Identify each material by manufacturer's catalog number and coating material proposed for use.
 - 2. Manufacturer's Information: Provide manufacturer's technical information, including instructions for handling, storing and applying each coating material proposed for use.
 - 3. Certification by the manufacturer that products supplied comply with local regulations controlling use of volatile organic compounds (VOC's).

- B. Samples for Initial Selection: Manufacturer's color charts showing the full range of colors available for each type of finish-coat material indicated.
 - 1. After color selection, the Architect will furnish color chips for surfaces to be coated.

- C. Product Data Sheets and MSDS for each product to be used as required by the U.S.G.B.C. as proof that each product meets the requirements of either Green Seal's GS-11 or GC-03 documents. This is a requirement in order to receive the possible one point for Credit 4.2 for Low-Emitting Materials in the Indoor Environmental Quality section of the Leadership in Energy and Environmental Design initiative of the U.S. Green Building Council.

1.5 QUALITY ASSURANCE

- A. Applicator Qualifications: Engage an experienced applicator that has completed painting system applications similar in material and extent to that indicated for this Project with a record of successful in-service performance.

- B. Source Limitations: Obtain block fillers, primers and undercoat materials for each coating system from the same manufacturer as the finish coats.

1.6 DELIVERY, STORAGE AND HANDLING

- A. Deliver materials to the Project Site in manufacturer's original, unopened packages and containers bearing manufacturer's name and label, and the following information:
 - 1. Product name or title of material.
 - 2. Product description (generic classification or binder type).
 - 3. Manufacturer's stock number and date of manufacture.
 - 4. Contents by volume, for pigment and vehicle constituents.
 - 5. Thinning instructions.
 - 6. Application instructions.
 - 7. Color name and number.
 - 8. VOC content.

- B. Store materials not in use in tightly covered containers in a well-ventilated area at a minimum ambient temperature of 45 degrees F (7 degrees C). Maintain containers used in storage in a clean condition, free of foreign materials and residue.
 - 1. Protect from freezing. Keep storage area neat and orderly. Remove oily rags and waste daily. Take necessary measures to ensure that workers and work areas are protected from fire and health hazards resulting from handling, mixing and application.

1.7 PROJECT CONDITIONS

- A. Apply water-based paints only when the temperature of surfaces to be painted and surrounding air temperatures are between 50 and 90 degrees F (10 and 32 degrees C) unless otherwise stated on the technical data bulletin.
- B. Apply solvent-thinned paints only when the temperature of surfaces to be painted and surrounding air temperatures are between 45 and 95 degrees F (7.2 and 35 degrees C).
- C. Do not apply paint in snow, rain, fog, or mist, or when the relative humidity exceeds 85 percent, or at temperatures less than 5 degrees F (3 degrees C) above the dew point, or to damp or wet surfaces.
 - 1. Painting may continue during inclement weather if surfaces and areas to be painted are enclosed and heated within temperature limits specified by manufacturer during application and drying periods.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Products: Subject to compliance with requirements, provide one of the products in the paint schedules.
- B. Manufacturers Names: The following manufacturer is referred to in the paint schedule by use if shortened versions of the name, which is shown below.
 - 1. Pittsburgh® Paints, PPG Industries, Inc.
 - 2. Sherwin Williams
 - 3. Benjamin Moore
 - 4. Prep-Rite
 - 5. Pro-Mar
 - 6. Or Approved equal.
- C. This specification is used only to denote the quality standard of the products desired.

1. This does not restrict bidders to the specific brand, make, manufacturer or specification named.
2. This specification is used only to set forth and convey to prospective bidders the general style, type, character and quality of the products desired.
3. Equivalent products will be acceptable, but only with written prior approval as described in previous sections.

2.2 PAINT MATERIALS, GENERAL

- A. **Material Compatibility:** Provide block fillers, primers, undercoaters, and finish-coat materials that are compatible with one another and the substrates indicated under conditions of service and application, as demonstrated by manufacturer based on testing and field experience.
- B. **Material Quality:** Provide manufacturer's best-quality "professional" paint material of the various coating types specified. Paint-material containers not displaying manufacturer's product identification will not be acceptable.
- C. **Colors:** Provide color matches indicated by reference to manufacturer's color designations.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify that site environmental conditions are appropriate for application of coatings specified
- B. Immediately prior to coating application, ensure that surfaces to receive coatings are dry.
- C. Ensure that moisture-retaining substrates to receive coatings have moisture content within tolerances allowed by coating manufacturer, using moisture measurement techniques recommended by coating manufacturer.
- D. Immediately prior to coating application, examine surfaces to receive coatings for surface imperfections and for contaminants which could impair performance or appearance of coatings, including but not limited to, loose primer, rust, scale, oil grease, mildew, algae, or fungus, stains or marks, cracks, indentations, or abrasions.
- E. Correct the above conditions and any other conditions which could impair performance or appearance of coatings in accordance with specified surface preparation procedures before proceeding with coating application.

3.2 PREPARATION

- A. Do not start work until surfaces to be finished are in proper condition to produce finished surfaces of uniform, satisfactory appearance.
- B. Stains and Marks: Remove completely, if possible, using materials and methods recommended by coating manufacturer; seal with shellac or other coating acceptable to paint manufacturer stains and marks that might bleed through paint finishes which cannot be completely removed.
- C. Remove or protect hardware, electrical plates, mechanical grilles and louvers, lighting fixture trim, and other items not indicated to receive coatings which are adjacent to surfaces to receive coatings.
- D. Remove mildew from impervious surfaces by scrubbing with solution of trisodium phosphate and bleach. Rinse with clean water and allow substrate to thoroughly dry.
- E. For specific substrate preparation, see individual specifications.

3.3 APPLICATION

- A. Apply paint products in accordance with manufacturer's printed instructions. Do not apply coatings to surfaces that are not dry.
- B. Apply each coat to uniform thickness and finish in accordance with manufacturer's instructions, with each coat slightly darker than preceding coat. Allow each coat to dry thoroughly before applying nextcoat.
- C. Remove dust and other foreign materials from substrate immediately prior to applying each coat.

3.4 INTERIOR PAINT SCHEDULE

- A. Gypsum Board: Provide the following finish systems over interior gypsum board surfaces:
 - 1. Walls:
 - a. Primer:
 - 1) Pre-Rite High Build Latex Primer. 1 Coar -B28W601
 - 2) Pittsburgh Paints; 6-2 SPEEDHIDE Interior Latex Sealer Quick-Drying (98.00 g/L VOC): Applied at a dry film thickness of not less than 1.0 to 1.3 mils.
 - 3) Or approved equal.

b. Paint (P-1)

- 1) ProMar 200 Latex Eggshell. 2 Coats - B20W200
- 2) Pittsburgh Paints; 9-300 Series Pure Performance Interior Eggshell Latex Paint (0 g/L VOC): Applied at a dry film thickness of not less than 1.5 to 1.8 mils.
- 3) Or approved equal.
- 4) Color: TBD

c. Paint (P-3)

- 1) Sherwin Williams: Waterbased Tile Clad Epoxy. Applied at a dry film thickness of not less than 1.5 to 1.8 mils.
- 2) Pittsburgh Paints: Aquapon WB, 98-1 Series, Water Base Epoxy Paint. Applied at a dry film thickness of not less than 1.5 to 1.8 mils.
- 3) Or approved equal.
- 4) Color: TBD

2. Ceilings:

a. Primer:

- 1) Pre-Rite High Build Latex Primer. 1 Coat - B28W200
- 2) Pittsburgh Paints; 6-2 SPEEDHIDE Interior Latex Sealer Quick-Drying (98.00 g/L VOC): Applied at a dry film thickness of not less than 1.0 to 1.3 mils.
- 3) Or approved equal.

b. Paint (P-2)

- 1) ProMar 200 Latex Flat. 2 Coats - B20W200
- 2) Pittsburgh Paints; 9-300 Series Pure Performance Interior Flat Latex Paint (0 g/L VOC): Applied at a dry film thickness of not less than 1.5 to 1.8 mils.
- 3) Or approved equal.
- 4) Color: TBD

END OF SECTION

SECTION 09972 CONCRETE SEALERS

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section specifies an applied sealer for horizontal cast-in-place concrete surfaces.
- B. Related Sections: Refer to the following specification sections for coordination.
 - 1. Section 033000 - Cast-In-Place Concrete.

1.2 SUBMITTALS

1.3 Product Data: Submit manufacturer's product data and installation instructions.

- A. Mock-Up: Prepare a test area minimum 2 by 2 feet in size to verify suitability of the sealer and final appearance.

1.3 QUALITY ASSURANCE

- A. Manufacturer: Minimum 10 years experience producing concrete coatings.
- B. Installer: Licensed installers experienced and trained in the use of specified products.
- C. Suitability of Substrate: Concrete surface must be clean and dry with all stains, oil, grease, dust and dirt removed prior to application. A thorough pressure washing is highly recommended.
- D. Regulatory Requirements: Comply with requirements of authorities having jurisdiction and applicable codes at the location of the project.

1.4 DELIVERY, STORAGE AND HANDLING

- A. A. Deliver materials and products in unopened factory labeled packages. Protect from damage.
- B. B. Store in a safe place, out of direct sunlight. Keep containers tightly sealed. Do not allow product to freeze. Use within manufacturer's recommended shelf life, approximately 12 months.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Concrete Sealer: High-performance, non-yellowing, clear acrylic-based sealer. Provide the following:

1. Sealer with Gloss Finish: 100 g/L VOC.
2. Sealer with Gloss Finish: 350 g/L VOC.
3. Sealer with Gloss Finish: 400 g/L VOC.
4. Sealer with Gloss Finish: 600 g/L VOC.
5. Sealer with Matte Finish: 100 g/L VOC.
6. Sealer with Matte Finish: 350 g/L VOC.
7. Sealer with Matte Finish: 400 g/L VOC.
8. Sealer with Matte Finish: 600 g/L VOC.

B. Performance: Concrete sealers shall meet or exceed the following:

1. Coverage: As recommended by manufacturer.
2. Moisture Retention, Test ASTM C 309: 0.21 kg/m² at 200 ft² per gallon and 0.32 kg/m² at 300 ft² per gallon.
3. Gasoline Resistance: Slight dulling after 15-minute exposure (ponding).
4. Tg: 50°C.
5. Tukon Hardness: 30 minutes at 180°F, 9.3; 30 minutes at 300°F, 13.7.
6. Pencil Hardness: 30 minutes at 180°F, F; 30 minutes at 300°F, H.
7. Spray Conditions, Viscosity: 19 seconds, No. 2 Zhan cup.
8. Abrasion Resistance: 160 mg lost, CS-17 wheel, 1000 g load, 1000 cycles

PART 3 - EXECUTION

3.1 PREPARATION

A. Inspection: Prior to start of application, inspect existing conditions to ensure surfaces are suitable for installation including the following:

1. Concrete has cured for a minimum of 28 days prior to application of sealer.
2. Surface is completely free of sealers, oils, dirt, paint, alkali, penetrating sealers and foreign materials that would prevent the sealer from penetrating the concrete surface.
3. Concrete has been swept clean.
4. Test area has been approved.

3.2 APPLICATION

A. Concrete Sealer: Strictly comply with manufacturer's installation recommendations including the following.

1. Apply after stain has dried at rate recommended by manufacturer.
2. Clean surface as recommended by manufacturer.
3. All concrete flatwork designated as being sealed in the plans and specifications shall be sealed with 2-3 even coats of sealer, at the rate of approximately 150 to 200 square feet per gallon.

3.3 CLEANING AND PROTECTION

- A. Protection: Do not cover, but protect floor area from paint and other contaminants that could inhibit the sealer.

END OF SECTION

SECTION 15010 – MECHANICAL GENERAL PROVISIONS

1 PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- 1.1.1 General Provisions of Contract, including General, Supplementary and Special Conditions apply to the work in this section.

1.2 DESCRIPTION OF WORK

- 1.2.1 Extent: Work required under this section consists of all mechanical work and related items necessary to complete the work indicated on the drawings and/or described in the specifications.

- 1.2.2 Furnish all labor, equipment, tools, transportation, etc., and furnish and install all materials and equipment necessary for mechanical work hereinafter described all in accordance with the specifications and accompanying drawings.

- 1.2.3 Specifications and accompanying drawings intended to show and describe complete mechanical installation, fully erected, properly installed in workmanlike manner and left in proper operating condition, with Contractor furnishing and installing everything necessary to complete the job.

- 1.2.4 Furnish all labor, equipment, tools, materials, accessories, etc., for all rough-ins and final connections, complete, for all equipment indicated on the drawings, or equipment furnished by others.

- 1.2.5 Related Work: Without restricting required work, the following items of related work are specified and included in other sections of these specifications:

- A. Paint mechanical equipment, pipe, duct, etc.
- B. Furnish and install toilet room accessories.
- C. Install prefabricated fan curbs and air curbs.
- D. Furnish and install temporary water supply and sanitary facilities for construction phase.
- E. Install base flashings and pitch pockets.

1.3 GENERAL REQUIREMENTS

- 1.3.1 Regardless of titles and subdivisions herein employed, consider these specifications as one complete document with General Section applying to all other sections.

- 1.3.2 Check mechanical specifications and drawings with remainder of set, and bring to Architect's attention any conflicts or variations as soon as noted.

- 1.3.3 Specifications and accompanying drawings apply to all contracts or subcontracts entered into for supplying material or labor for construction of work specified herein and shown on drawings.

- 1.3.4 Adequately protect against injury all installed and existing material, equipment, motors, fixtures, piping, insulation, etc.
- 1.3.5 Replace lost or damaged items prior to acceptance of work.
- 1.3.6 Adequate and competent supervision shall be provided by this section to assure that work is done in accordance with good standard practice and workmanship and with intent of drawings and specifications.

1.4 INSTALLER'S QUALIFICATIONS

- 1.4.1 All contractors submitting bids for the work under this contract shall be specialists in their field and shall have the personal experience, training and skill to construct a properly operating mechanical system as described by the contract drawings.
- 1.4.2 If required, the contractor shall be able to furnish evidence of having not less than three years experience and having been responsible for at least three projects comparable in size and complexity to this one.

1.5 WORKMANSHIP

- 1.5.1 All work performed shall be in accordance with best standards of practice by workmen skilled and qualified in type of work to be done. Schedule and perform mechanical work to avoid delays to project.

1.6 CODES AND STANDARDS

- 1.6.1 All work shall be installed in strict accordance with all existing local, parish/county and state codes and ordinances having jurisdiction, and shall also be in accordance with the latest edition of the following national codes:

- National Fire Protection Association
- International Building Code
- International Mechanical Code
- International Plumbing Code
- International Gas Code
- Americans with Disabilities Act

- 1.6.2 All mechanical and plumbing systems, including material and workmanship, shall be in accordance with the latest edition of the following industry standards:

- ASHRAE American Society of Heating Refrigeration and Air Conditioning Engineers
- ASPE American Society of Plumbing Engineers
- SMACNA Sheet Metal and Air Conditioning Contractor's National Association
- AMCA Air Moving and Conditioning Association
- UL Underwriter's Laboratories, Inc.
- NEMA National Electrical Manufacturer's Association
- ANSI American National Standards Institute

| | |
|--------|---|
| ASTM | American Society for Testing and Materials |
| ASME | American Society of Mechanical Engineers |
| NBBPVI | National Board of Boiler and Pressure Vessel Inspectors (for pressure vessel and boilers) |

1.6.3 Local codes shall take precedence over state codes which shall take precedence over national codes and industry standards.

1.6.4 If any conflicts are found between specifications and drawings and above authorities, notify Architect as soon as conflicts are discovered and above codes and requirements will govern.

1.7 PERMITS AND INSPECTIONS

1.7.1 Secure all permits and inspections and pay all fees, assessments and taxes necessary for completion and acceptance of work. Notify Architect and proper authorities in ample time when any work is ready to be inspected or tested.

1.7.2 Obtain certificates of inspection and approval, as applicable to various portions of work, from inspection agency having jurisdiction.

1.7.3 No work shall be buried or concealed without inspection and approval from the architect.

1.8 VISIT TO JOB SITE

1.8.1 Visit and examine job site and check with utility authorities concerned in order to become familiar with all existing conditions pertinent to work to be performed. No additional compensation will be allowed for failure to be so informed.

1.9 DRAWINGS

1.9.1 Bidders must review drawings and specifications of other disciplines including plans, details, diagrams, notes, etc., in order to understand structural conditions, construction requirements, clearances, capacities and methods of installation and erection. Structural and other conditions may require certain modifications and adjustments from conditions shown. Such deviations are permissible; however, specified sizes, capacities and requirements affecting satisfactory performance and operation of installation shall remain unchanged.

1.9.2 Due to small scale of drawings, it is not possible to show all fittings or offsets or to show all accessories. Take advantage of available space and stack ductwork, piping and accessories vertically as required for fit and access.

1.9.3 Contractor is responsible for accuracy of clearances and for coordination with other trades. No equipment, ductwork, piping, etc. shall be fabricated or installed without full coordination. Make allowance in bid for job conditions and interferences which will require offsets in ductwork, piping, etc.

1.9.4 Contractor shall remove and relocate, without additional compensation, any

item that is installed without required coordination and is found to be in conflict with other trades. If field measurements show that equipment, ductwork, etc. cannot fit in the allotted space; it shall be brought to the attention of the architect prior to ordering or installing the equipment.

1.9.5 In event of conflict, any item exposed to view in finished work shall take precedence over items, which are concealed, such as ductwork, piping, etc. Generally, ductwork shall take precedence over piping unless piping requires a specific slope.

1.9.6 Whenever it becomes necessary to shift equipment or pipes, such changes shall be referred to Architect for approval.

1.9.7 Ask for details whenever uncertain about method of installation.

1.10 SERVICES

1.10.1 Make all necessary arrangements and pay all costs involved for securing utility service connections from utility authority concerned for services.

1.10.2 All costs incurred for new services shall be included in the contractor's bid. No additional compensation shall be awarded for failure to determine the costs and to include them in the bid.

1.11 PRODUCT SUBMITTALS

1.11.1 Submit equipment and fixture product data sheets in accordance with requirements described in General, Supplementary and Special Conditions of the Contract Documents prior to releasing equipment for manufacture or shipment. Product data sheets shall be manufacturer's printed literature specifically marked to indicate size and model numbers of equipment being furnished. All accessories required by the contract documents shall be clearly marked.

1.11.2 System capacities for air conditioning systems, fans, etc. shall be clearly and completely indicated on a system summary sheet prepared specifically for that system, fan, etc. The summary sheet shall indicate equipment number designations, manufacturer's model numbers, capacities, electrical characteristics, etc. General data sheets shall not be acceptable for indicating system performance.

1.11.3 All data submitted shall be checked against specifications and drawings. For equipment requiring electrical connections, no approval shall be final or deliveries authorized until electrical characteristics and provisions for wiring are coordinated and cleared with Electrical Section by letter through Contractor or Architect.

1.11.4 Review of product submittals does not relieve the contractor of responsibility for compliance with the contract documents for system capacities or for fitting the equipment in the allotted space. Review is for general compliance with the contract documents.

- 1.11.5 Where the product submitted differs from that specified, the contractor shall flag all differences and specifically request that the substitution be accepted. This applies to differences in physical size, configuration, finishes, capacity, etc.
- 1.11.6 Submittals are required for the following items:
- | | |
|-----------------------------------|-------------------------------------|
| Plumbing fixtures and accessories | Fans |
| Floor drains | Grilles, diffusers, registers, etc. |
| Water heaters | Dampers, louvers, etc. |
| Hose bibbs | Vibration isolators |
| Access panels | Duct liner or duct insulation |
| Manufactured hangers & supports | Piping insulation |
| Cleanout covers | Flexible duct |
| Valves (all types) | Starters, speed controllers, etc. |
| Air conditioning equipment | Temperature control system |
- 1.12 SHOP DRAWINGS
- 1.12.1 Submit shop drawings in accordance with requirements described in General Supplementary and Special, Conditions of the Contract Documents prior to releasing equipment for fabrication or shipment. Shop drawings shall consist of plans, sections, elevations and details as required to clearly indicate size and location of equipment or products being provided. Drawings shall indicate required clearances of equipment being installed by others and shall show clearances with relations to mechanical equipment.
- 1.12.2 Submit shop drawings for the following:
- A. Ductwork layout (including equipment, diffusers, dampers, elevations, sizes, splitters, scoops, access panels) indicating all required clearances
 - B. Equipment room layouts (Detailed plan with sections of any equipment room with Division 15 equipment)
 - C. Field fabricated hangers and supports
 - D. Built up air conditioning equipment
 - E. Temperature control diagrams including electrical interlock and sequence of operation.
- 1.13 MATERIALS AND EQUIPMENT
- 1.13.1 All materials and equipment must be new and product of reputable manufacturer regularly engaged in manufacture of product concerned. All materials shall bear the name of manufacturer and shall be of best quality obtainable unless specified or noted otherwise.
- 1.13.2 All materials and equipment must be of design, type, strength, etc., to satisfactorily accomplish purpose intended.
- 1.13.3 All equipment shall be purchased from authorized factory representative with

established office in New Orleans area, if manufacturer has such an office.

1.14 PROTECTION OF WORK

1.14.1 Contractor shall protect all equipment, fixtures and work from damage. Damaged work will be rejected and replaced at the expense of the Contractor. Where possible, all rooms containing new fixtures or equipment shall be kept locked until the building is turned over to the Owner. Immediately after installation of each fixture, it shall be covered with a fixture protector.

1.14.2 Piping shall be racked and handled in a manner to prevent entrance of dirt and foreign matter. Open pipe ends shall be plugged or capped during erection.

1.14.3 No equipment shall be delivered to the job site until there is an appropriate location for the specific equipment to be stored or installed. No indoor equipment such as air units, fans, ductwork, diffusers, water heaters, plumbing fixtures, etc. shall be stored exterior of the building.

1.15 FRICTION LOSSES, ELECTRICAL RATINGS & SPACE REQUIREMENTS

1.15.1 The values of air and water friction losses, electrical current ratings and space requirements for various pieces of equipment, as contained in these Specifications or as shown on the Drawings, are estimated values and sizes and have been used in obtaining specifications for equipment and for sizing pipe, ducts, electric wiring and motor controls. Any necessary changes in ones shown shall be the responsibility of the Contractor, and shall be subject to the approval of the Architect. Contractor shall pay all costs for additional labor and material required including costs of any other Contractor involved.

1.16 EXCAVATION AND BACKFILL

1.16.1 Do all excavation and backfilling required for mechanical work, unless indicated otherwise on drawings.

1.16.2 Properly and safely slope, reinforce and shore excavations and be responsible for any damages caused by cave-ins, washouts or undermining as a result of these excavations.

1.16.3 Backfill with clean river sand unless otherwise indicated on the drawings or in these specifications. Keep all debris, roots, pieces of wood and pipe, and other trash out of backfill. Add backfill in layers not exceeding twelve inches in depth and tamped to original density. Remove all excess material from premises.

1.17 CUTTING AND PATCHING

1.17.1 Be responsible for all cutting, fittings, etc., affecting mechanical work and coordinate with trades or other sections involved. Do not endanger any work by cutting, excavating or other operations, and do not cut or alter work of any other sections except with specific consent of Architect. Workmen skilled and qualified in trades involved shall do all cutting required under supervision of

Contractor's Job Superintendent.

- 1.17.2 Cutting for piping, ductwork and equipment entry shall be by Mechanical Section.
- 1.17.3 Insure that all necessary chases, openings for pipes, ducts, etc., are provided at proper time as work of other sections progresses; otherwise, be held responsible for all such provisions at own expense.
- 1.17.4 All patching for mechanical work by skilled and qualified workmen
- 1.18 THIMBLES, INSERTS AND EXPANSION SHIELDS
 - 1.18.1 Set in place, as formwork progresses, all necessary inserts and thimbles as required. Cutting of beams, concrete floors or walls not permitted without authorization from the architect.
 - 1.18.2 All thimbles set in walls and all thimbles set in concrete floors that are concealed in walls or chases, shall be of 20 gauge galvanized iron.
 - 1.18.3 Where pipes pass through upper floors other than in chases or walls, thimble shall be of schedule 40 galvanized pipe (plain end) with top of thimble set one inch above finished floor to prevent wash-water from dripping below.
 - 1.18.4 Size thimbles to allow freedom around pipe or around pipe and insulation where pipe is insulated. Caulk between thimble and piping with fire proof caulking.
- 1.19 FLOOR AND CEILING PLATES
 - 1.19.1 Furnish and install properly sized chrome plated brass escutcheon plates to conceal openings where piping or hangers pass exposed through floors, ceilings or walls.
- 1.20 BUCKS, GROUNDS, CHASES, LINTELS, BLOCKOUTS AND GROUTING
 - 1.20.1 Provided by General Section. Mechanical Section responsible for properly informing Contractor of proper locations and sizes and for any errors or omissions in placing same.
- 1.21 MISCELLANEOUS DRAINS
 - 1.21.1 Install drains for all relief valves, piping and equipment requiring it and run to suitable outlet.
- 1.22 FLASHING AND COUNTER FLASHING
 - 1.22.1 Install all items of mechanical work such as pipes, ducts, etc., penetrating roofs a sufficient distance from walls, eaves, etc., to permit proper application of flashings and counter flashings.
 - 1.22.2 Flash vent pipes through built up roofs and pitched shingle roofs with four

pound lead, well turned down into piping and extending twelve inches beyond outside of pipe. Provide lead vent cap. For other types of roofs, contractor shall provide suitable types of flashing as required by the roof manufacturer.

- 1.22.3 Mechanical work requiring less than an eight-inch roof opening shall be provided with flashed pitch pockets of suitable sizes unless detailed otherwise on the plans.
- 1.22.4 Roof drains shall be flashed with four pound lead, extending twelve inches beyond outside of drain. Flashing furnished by Mechanical Section to Contractor for installation.
- 1.22.5 Flashings and counter flashings for other than vent pipes and drains to be of gauges and construction specified in roofing and sheet metal sections of specifications. Coordinate with roofer.
- 1.22.6 Flashing and counter flashings shall be furnished under this section and installed by the general contractor.

1.23 ACCESS PANELS

- 1.23.1 This section shall furnish all access panels to Contractor for installation, necessary for proper access to dampers, valves, traps, cleanouts, fixture connections, motors, drives or other items installed under this contract, except where such panels are shown and/or specified under other sections of specifications.
- 1.23.2 Panels shall be Karp Type DSC or equal, with continuous piano hinges, stainless steel or prime coat steel. Access panels being installed in wet locations such as toilet rooms, exterior, etc. shall be stainless steel. All access panels shall be furnished with spanner head tamper proof latch. Provide minimum of six spanner head drivers to the owner at completion of project. Exact size and location subject to Architect's approval.
- 1.23.3 Access panels in ductwork as hereinafter specified by Mechanical Section.

1.24 PAINTING

- 1.24.1 No painting shall be done under this division of specifications. All exposed equipment, pipes, grilles, louvers, fan housings, etc., shall be painted under other divisions of specifications.
- 1.24.2 Protect all factory finishes. Where damaged, finish to be renewed at this section's expense. This section responsible for preservation of paint and finishes on mechanical equipment and materials during and after installation.

1.25 IDENTIFICATION OF PIPING

- 1.25.1 All service piping which is accessible for maintenance operations shall be identified with semi-rigid plastic (not pressure-sensitive) identification markers.

- 1.25.2 Direction of flow arrows is to be included on each marker, unless otherwise specified.
- 1.25.3 In conformance with "Scheme for the Identification of Piping Systems" (ANSI A13.1-1981), each marker must show (1) approved color-coded background, (2) proper color of legend in relation to background color, (3) approved legend letter size, and (4) approved marker length.
- 1.25.4 For pipes with outside diameter under 3/4 inch (too small for color bands and legends), brass identification tags (1½ inch diameter with depressed 1/4 inch high black-filled letters above 1/2 inch black-filled numbers) will be fastened securely by meter seals or brass jack chain at specified locations.
- 1.25.5 Locations for pipe markers and identification tags to be as follows:
- A. Adjacent to each valve and fitting.
 - B. At each branch and riser take off.
 - C. At each pipe passage through walls, floors or ceilings.
 - D. On all straight pipe runs every 25 feet.

1.26 IDENTIFICATION OF All MECHANICAL EQUIPMENT

- 1.26.1 Identify air handling units, exhaust fans, chillers, pumps, control components, tanks, and water treatment devices with plastic nameplates. All disconnects, starters, etc. shall be labeled as such with name of associated equipment, i.e. 'Disconnect for HWR Pump'. Small devices, such as in-line pumps, may be identified with tags.
- 1.26.2 Provide phenolic signs to locate all valves, dampers, and HVAC equipment above T bar type panel ceilings. Locate sign on the ceiling grid closest to equipment. Each sign shall identify the device located above the ceiling tile, i.e. 'VAV-200-1'. Sign to no wider than the grid and shall be riveted to the ceiling grid.

1.27 HANGERS AND SUPPORT WORK

- 1.27.1 Hang all piping 1½ inches and larger on ten foot maximum centers; ¾" to 1" on 7'-6" maximum centers; ½ inch and below on 4'-0" maximum centers.
- 1.27.2 Hang all cast iron piping at every hub for pipe lengths and every other hub for fittings groups. Support vertical runs of piping with flat steel bar clamp hangers at each floor, or as detailed on drawings.
- 1.27.3 Hangers in building solid or split-type supported by vertical steel rods from masonry inserts, expansion shields or beam clamps. Where two or more piping runs are parallel, and grade to the same point, trapeze-type structural steel hangers may be used. All steel hanger materials shall be primed and painted. Brass, copper or lead insert hangers for insulated copper piping. Piping hangers below grade shall be ¼ inch round stainless steel.
- 1.27.4 Provide galvanized steel saddle between covering and pipe hanger on insulated

pipes; pipe up to four inch diameter, 18 gauge x 12 inches long.

- 1.27.5 Support all piping independently of all equipment and arrange hangers to isolate any vibration transmission from piping to structure.
- 1.27.6 Perforated strap or band hangers not permitted.
- 1.27.7 Furnish and install steel supports and framework for each item of equipment or fixture in accordance with the manufacturer's recommendations or as detailed on drawings. All such work shall meet all applicable requirements specified under structural steel.
- 1.27.8 All mechanical work supported on walls or partitions by means of appropriately sized galvanized toggle bolts.
- 1.28 INSTALLATION OF PIPING
 - 1.28.1 Install all piping so that it may expand and contract freely without damage to equipment, other work or injury to piping system. Support piping independently of all equipment.
 - 1.28.2 Install necessary swing joints, expansion joints or offsets to protect piping systems, equipment or other work from damage whether indicated on drawings or not.
 - 1.28.3 Install unions adjacent to all screwed cocks, control valves, discharge from relief valves. Flanged fittings are considered equivalent to union connections.
 - 1.28.4 Install piping parallel and/or perpendicular to building floor, wall or ceiling planes, unless otherwise shown on drawings.
 - 1.28.5 Install all piping concealed unless specifically noted otherwise, making all necessary offsets, turns, etc., necessary to conceal piping from view.
 - 1.28.6 No piping of dissimilar metals placed in contact with each other. Provide insulating unions whenever piping of dissimilar metals is joined. Insulating couplings not acceptable.
- 1.29 ELECTRICAL WORK
 - 1.29.1 All motors for mechanical equipment furnished under Mechanical Sections. Work shall include setting and aligning integral drive motors in operating position. Motors electrically connected under Division 16, Electrical.
 - 1.29.2 All power wiring and all disconnect switches furnished and installed under Division 16, Electrical.
 - 1.29.3 All other electrical work in connection with air conditioning, heating and ventilating equipment done under Mechanical Section.
 - 1.29.4 Such devices as thermostats, firestats, duct mounted smoke detectors, pilot

lights, control panels, motor starters, crankcase heater, etc., furnished under Mechanical Section and wired in strict accordance with an approved wiring diagram.

1.29.5 Prior to the final release for manufacture or shipment of any equipment, it shall be the responsibility of the mechanical contractor to verify the available electrical service for each piece of equipment with the electrical contractor and to provide equipment that suits the available service.

1.29.6 Any equipment delivered to the site with incorrect voltage or phase shall be replaced at the contractor's expense.

1.30 CLEANING UP

1.30.1 After final testing, clean all fixtures, pipes and exposed work. Thoroughly clean and polish plated and other finished products.

1.30.2 Piping to be free of all obstructions. Remove all debris, surplus and waste materials completely from the job site.

1.31 LUBRICATION

1.31.1 Properly oil, grease and lubricate all motors, pumps, compressors, etc., before starting and until final acceptance of work. Contractor will not be responsible for this type of maintenance during warranty period. It is the Owner's responsibility after acceptance of work to provide proper maintenance work as indicated in maintenance instructions submitted to Owner at acceptance of project. This does not relieve Contractor of his responsibility to guarantee performance of equipment as required by contract documents.

1.32 PARTS CATALOGS AND OPERATING INSTRUCTIONS

1.32.1 Furnish to Architect three complete sets of parts catalogs and operating instructions bound in large 3-ring binders for use of maintenance department. Include information for all equipment, fixtures, etc. submitted to the architect

1.32.2 Each set shall contain:

- A. Copy of original submittal data sheet with review stamp
- B. Detailed operating instructions and instructions for making minor adjustments.
- C. Complete wiring and control diagrams.
- D. Routine maintenance operations.
- E. Manufacturer's catalog data, service instructions and parts listed for each piece of operating equipment.
- F. All equipment warranty documentation
- G. All final inspection certificates for mechanical work

1.32.3 Contractor shall thoroughly instruct Owner or Owner's representative in operation and care of controls, individual equipment and entire mechanical system.

1.32.4 Instruction shall be in the form of two 4-hour instruction sessions given to the owner's representative(s) within six weeks of final acceptance of the project.

1.33 EQUIPMENT WARRANTY

1.33.1 Manufacturer warranties for all mechanical equipment furnished on the project shall run for a period of one year from date of "Substantial Completion" as set by the Architect. During warranty, correct any defects in new equipment, materials or workmanship, without cost to Owner for either parts or labor.

1.33.2 A/C Compressors shall always carry an additional 4 years parts and labor bringing it to a full five year parts and labor on compressors.

1.33.3 Contractor shall arrange with the manufacturer to assure the equipment warranty conforms to the above stipulations and pay any required premiums, extended warranties, etc.

1.33.4 Refer to specific spec sections for any additional warranty requirements.

1.34 TESTING AND BALANCING

1.34.1 A competent and experienced service and installation mechanic shall be employed by the Contractor to start and adjust all equipment. The Architect reserves the right to require the test of any item of equipment or machinery. Such tests shall be conducted by the Contractor in the presence of the Architect or his authorized representative.

1.34.2 As construction progresses, test piping and equipment to pressure hereinafter specified. Where pressures are not mentioned, test to one and one-half times service conditions before concealing or insulating.

1.34.3 Flush all systems until clear water flows or as hereinafter specified.

1.34.4 Furnish all necessary gauges, instruments, pumps, test plugs and temporary connections. Test all equipment under service conditions and make all necessary adjustments to controls, dampers, valves, etc., to obtain best operation. Make initial tests with building unoccupied and final tests under actual heating and cooling conditions.

1.35 GUARANTEE

1.35.1 Guarantee all mechanical installations against all defects in equipment, materials and workmanship for a period of one year from date of "Substantial Completion". During guarantee period, correct any defects in new equipment, materials or workmanship, without cost to Owner for either parts or labor.

1.35.2 Contractor's guarantee includes performance capacities and ratings as specified.

1.35.3

1.36 AS-BUILT DRAWINGS

1.36.1 Contractor shall be furnished a complete set of blue line prints which shall be marked up by Contractor as work progresses to reflect all items of installation which differ significantly from work shown on contract drawings. As-built drawings shall be neatly done, not sketchy or free hand. Final payment will be withheld until drawings are furnished.

1.37 FINALLY

1.37.1 Drawings and specifications are complementary and what is shown and/or called for in one shall be furnished and installed the same as if shown and/or called for in the other.

1.37.2 For any points which are not clear, or for items and/or details which Contractor feels are in need of clarification, consult Architect before submission of proposal.

1.37.3 If no clarifications are requested prior to the bid, the contractor, by submission of his bid, indicates he has a clear and full understanding of the intent of the plans and specifications.

END OF SECTION 15010

SECTION 15400 – MECHANICAL PLUMBING SYSTEMS

1 PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- 1.1.1 Read Section 15010 Mechanical - General, which forms part of this section of the specifications. General Provisions of Contract, including General, Supplementary and Special Conditions, apply to work specified in this section.

1.2 DESCRIPTION OF WORK

- 1.2.1 Work described in this section includes complete plumbing systems for the building including sanitary (sewer, soil, waste, vent), water piping, water supply system, plumbing fixtures, and all piping according to sizes indicated or necessary for equipment indicated.

- 1.2.2 Systems shall be complete and ready for operation. No piping shall be buried, covered, or concealed until it has been inspected, tested and approved.

1.3 CHANGES TO PIPING

- 1.3.1 Should the Contractor desire to make changes in the routing or arrangement of the piping whether for his own convenience to avoid conflict with the work of other trades, or to conform to local codes, such changes shall not be made without the prior approval of the Architect.

1.4 BACKFLOW PREVENTION

- 1.4.1 The building domestic water system in each building shall be isolated from city/campus water supply by a reduced pressure backflow prevention device located at the incoming services.

- 1.4.2 All mechanical piping systems shall be isolated from the building potable water supply by an air gap or a reduced pressure backflow prevention device.

- 1.4.3 Provide in accordance with regulations of local authority having jurisdiction.

2 PART 2 - PRODUCTS

2.1 VALVES

- 2.1.1 Valves shall be furnished and installed in all branches serving more than one piece of equipment or each group of plumbing fixtures, or both sides of equipment, such as pumps, tanks, etc. for shut off of branch mains, eliminating the necessity of interrupting service to the entire building structure for maintenance purposes and where indicated on the drawings. Valves shall be installed with the best workmanship and appearance and grouping so that all are easily accessible. Where valves are installed within chases or above inaccessible ceilings, provide appropriately sized access panel for each valve.

- 2.1.2 All shutoff valves 2½" and smaller shall be rated 150 psi SWP and 600 psi non-shock WOG and will have 2-piece, cast bronze bodies, TFE seats, full port, separate packnut with adjustable stem packing, anti-blowout stems and chrome-plated brass/bronze ball. Valve ends shall have extended solder connections and be manufactured to comply with MSS SP-110. Nibco S-585-70, or approved equal.
- 2.1.3 Where piping is insulated, ball valves shall be equipped with 2" extended handles of non-thermal conductive material similar to Nibco's NIB-SEAL extended handle. Also, provide a protective sleeve that allows operation of the valve without breaking the insulation vapor seal or disturbing the insulation.
- 2.1.4 Check valves 2" and smaller shall be Y-pattern swing-type manufactured in accordance with MSS SP-80, Class 150, bronze, ASTM B-62 body with TFE seat disc. Valve shall be solder-ends. Nibco S-433-Y, or approved equal.
- 2.2 VALVE BOXES
- 2.2.1 Valve boxes shall be provided for all underground valves. Boxes shall have the word "WATER" cast on the top of the cover. Boxes shall be set flush with grade, secured in a concrete collar twelve inches larger than the diameter of the valve box top. Install a cast iron ring and cover with a suitable length of eight-inch plastic pipe notched at bottom to fit over pipe and allow access to valve.
- 2.3 SANITARY PIPING (UNDERGROUND)
- 2.3.1 Piping and fittings below ground shall be standard weight cast iron soil pipe and fittings of bell and spigot pattern conforming to ASTM A74. Fittings shall be made with ASTM C-564 compression type gaskets, equal to Tyler TySeal.
- 2.3.2 All cast iron pipe and fittings shall be marked with the collective trademark of the Cast Iron Soil Pipe Institute and shall be made in the USA. Install the system in accordance with local codes.
- 2.4 SANITARY PIPING (UNDERGROUND 5'-0" OUTSIDE THE BUILDING)
- 2.4.1 Piping and fittings shall be schedule 40, solid core pipe and fittings and shall be manufactured from virgin rigid PVC (polyvinyl chloride) vinyl compounds with a cell class of 12454 as identified in ASTM D 1784. PVC Schedule 40 pipe shall be Iron Pipe Size (IPS) conforming to ASTM D 1785 and ASTM D 2665. Injection molded PVC DWV fittings shall conform to ASTM D 2665. Fabricated PVC DWV fittings shall conform to ASTM F 1866. Pipe and fittings shall conform to NSF International Standard.
- 2.4.2 Below ground piping shall be installed in accordance with ASTM D 2321 and ASTM F 1668.
- 2.4.3 Solvent cement joints shall be made in a two-step process with primer conforming to ASTM F 656 and solvent cement conforming to ASTM D 2564.
- 2.4.4 The system shall be protected from chemical agents, fire-stopping materials, thread

sealant, plasticized-vinyl products or other aggressive chemical agents not compatible with PVC compounds.

2.4.5 Install the system in accordance with local codes. All Pipe and fittings shall be made in the USA.

2.5 SANITARY PIPING (ABOVE GROUND)

2.5.1 Piping and fittings shall be standard weight cast iron pipe and fittings. Joints shall be approved type heavy duty, Elastomer sleeve with stainless steel clamp and screw.

2.5.2 All cast iron pipe and fittings shall be marked with the collective trademark of the Cast Iron Soil Pipe Institute and shall be made in the USA. Install the system in accordance with local codes.

2.6 DOMESTIC WATER PIPING (UNDERGROUND)

2.6.1 Piping and fittings shall be type “K” copper, all tubing to be properly reamed and sized before installing fittings. All underground joints shall be made with silver solder.

2.6.2 Wherever possible, underground water piping shall be installed with no joints below the slab.

2.6.3 Install the system in accordance with local codes. All pipe and fittings shall be made in the USA.

2.7 DOMESTIC WATER PIPING (ABOVE GROUND)

2.7.1 Piping and fittings 3” and smaller shall be type “L” copper tubing with wrought solder-joint fittings, ANSI B16.22, or equal, using 95-5 tin-antimony solder. All connections between steel and copper shall be made with dielectric unions.

2.7.2 Nipple connections at fixtures shall be brass or copper pipe; no steel nipples permitted.

2.7.3 Install the system in accordance with local codes. All pipe and fittings shall be made in the USA.

2.8 FIRE PROTECTION SYSTEM PIPING (UNDERGROUND)

2.8.1 Underground fire service shall be protected by a double check valve assembly. Unless specifically indicated differently on the plans, the assembly shall be located near the city tap in accordance with all local and state code. Assembly shall be insulated.

2.8.2 Refer to wet pipe sprinkler system section for spec on underground piping, backflow preventer, valves, etc.

2.8.3 Any devices installed in the building fire service, including valves, backflow devices, etc., shall be selected and approved by the sprinkler subcontractor

responsible for preparing the sprinkler shop drawings and shall be UL listed and in conformance to NFPA requirements.

2.8.4 Install the system in accordance with local codes. All pipe and fittings shall be made in the USA.

2.9 INSULATION

2.9.1 Domestic cold water pipe and fittings shall be insulated with ½" thick Fiberglas low pressure pipe insulation.

2.9.2 Domestic hot water and hot water return piping shall be insulated with 1" thick Fiberglas low pressure pipe insulation.

2.9.3 Insulate all storm drain and sanitary sewer piping that receive condensate drains from A/C units with 1½" thick flexible fiberglass with vapor seal. This shall include all p-traps, horizontal piping and vertical piping above ceilings and within walls and chases down to the first floor slab or to the exterior wall of the building. Insulation on p-traps shall be flexible fiberglass wrap. All other pipe and fittings shall be as described below.

2.9.4 Insulation shall be furnished with fire retardant jacket and the jacket shall be adhered at longitudinal laps and joint seal strips with a suitable white vapor barrier lap cement.

2.9.5 Insulation shall be applied over clean, dry pipe with all joints butted firmly together. Longitudinal jacket laps and butt strips smoothly secured according to manufacturer's recommendations.

2.9.6 Metal shields applied between hangers or supports and the pipe insulation. Shields formed to fit insulation and extend up to center line of pipe. Shields shall not be required if copper clad hangers are installed in contact with the copper piping.

2.9.7 Fittings, valves and flanges shall be insulated with Zeston PVC fitting covers and Hi-Lo Temp Insulation.

2.9.8 The ends of Hi-Lo Temp Insulation shall be tucked snugly into the throat of the cover and the edges adjacent to the pipe covering tufted and tucked in, fully insulating the pipe fitting. The one piece PVC fitting cover then secured by tack fastening, banding or taping the ends to the adjacent pipe covering.

2.9.9 Fittings shall be insulated to a full thickness the same as the adjacent pipe insulation, with either Hi-Lo inserts or segmented pipe insulation. In addition to sealing the throat of the fitting cover as described above, an intermediate vapor barrier compatible with the PVC shall be applied, completely sealing the insulation prior to installing the Zeston PVC fitting cover. After the PVC fitting cover is installed, the throat and circumferential edges shall be sealed externally with Zeston Z-tape. The tape shall extend over the adjacent pipe insulation, and overlap itself at least 2" on the downward side of the lap.

- 2.9.10 Mitered insulation at fittings with tape will not be acceptable.
- 2.9.11 All p-trap and angle stop assemblies on ADA lavatories and sinks shall be insulated with one piece, abrasion resistant, molded, removable insulation kit equal to model 'Pro-Extreme' as manufactured by Plumberex Specialty Products, Inc. Provide model 'Handi-Shield' soft safety cover on 2" and larger trap assemblies. Provide accessory kit where offset p-trap is installed. Hot and cold water stops and supplies shall be covered. Exterior cover shall be smooth and have 1/8" wall minimum over cushioned foam insert. Color shall be white. Fasteners shall remain substantially out of sight. 'Lav Guard 2' protective kit, as manufactured by Truebro, Inc., shall be considered equal.
- 2.10 UNIONS
- 2.10.1 Unions shall be used on all items of equipment. All unions must be accessible. Use wrought copper solder type ground joint unions up to 2" in size. In steel pipe, use brass to iron seat malleable iron ground joint, 150 pounds unions or union fitting galvanized up to and including 3" sizes.
- 2.11 DIELECTRIC ISOLATORS
- 2.11.1 Where incompatible piping materials come in contact with each other, Contractor shall install an isolator.
- 2.12 FLASHING
- 2.12.1 All vent pipes penetrating the roof shall be flashed as required for type of roof construction with lead sleeves. This contractor shall coordinate all sleeves and flashings with roofer and furnish roofer with all required materials. Roofer installs all sleeves and flashing.
- 2.13 AIR CHAMBERS
- 2.13.1 Install one air chamber on each hot water and each cold water pipe to each plumbing fixture or behind each group of plumbing fixtures. Air chambers shall be constructed from copper pipe. If one air chamber is installed on each cold water pipe behind a group of fixtures, it shall be 3" in diameter, 24" long capped. If one air chamber is installed on each cold water pipe to each plumbing fixture, it shall be the full size of the supply and 12" tall properly capped.
- 2.13.2 At the Contractor's option, he may use factory fabricated chambers with a volume at least equal to those herein specified for each type of installation, and as recommended per the manufacturer for the installed fixture units and in accordance with P.D.I. STD. WH. 201. Approved manufacturers are Josam, Wade, Smith and Zurn.
- 2.14 TRAP PRIMERS
- 2.14.1 Provide one automatic trap primer for each floor drain or as indicated on the plans. Primer shall be dual flow type and shall be automatically activated whenever

sensing a pressure drop or a pressure spike. Provide stainless steel access panel for access to the trap primer.

2.14.2 Trap primer shall be equal to Precision Plumbing Products model number CPO-500 trap primer.

2.15 DRAINS

2.15.1 All drains shall be provided and installed as required and as shown on the drawings. Drains shall have cast iron bodies with gasketed or caulked connections of the sizes and types shown and approved by local codes. Provide deep seal cast iron "P" traps on all floor drains. See Plans and Schedules for descriptions of all floor, roof and special drains.

2.16 ELECTRIC WATER HEATERS

2.16.1 Water heater shall have the UL seal of certification and be factory equipped with a CSA/ASME rated temperature and pressure relief valve. Water heater shall meet or exceed the energy factor requirements of ASHRAE.

2.16.2 Tank interior shall be coated with a high temperature porcelain enamel and furnished with an R-Tech resistored magnesium anode rod rigidly supported. Tank shall have a working pressure rating of 150 psi, and shall be completely assembled. Water heater shall be equipped with copper, resistored, "screw-in" type elements. Tank shall be insulated with 2-1/2" of rigid polyurethane foam insulation. Water heater shall be equipped with surface mounted thermostats each with an integral, manual reset, high limit control

2.16.3 The individual heating elements shall have a watt density no greater than 80 watts per square inch and shall be constructed of incoloy or inconel. All heating elements and magnetic contactor circuits are to be individually used. These multiple elements shall be switched through magnetic contactors and protected by power fuses in each element circuit. An element protective switch shall prevent operation below 30 psi water pressure.

2.16.4 Water heater shall be covered by a three year limited warranty against tank leaks.

2.16.5 Water heater shall be manufactured by Ruud, Rheem, A.O. Smith, Bradford White or approved equal, having capacities as shown on the drawings.

2.17 PLUMBING ACCESSORY ITEMS

2.17.1 Furnish and install where indicated on drawings:

2.17.2 WMB - Clothes washer machines – Guy Grey or equal, PVC recess wall bib – drain box. Provide 1/2" hose bibbs, with Watts 8-A vacuum breakers.

2.17.3 WCB – Water connection box for Refrigerator, Ice Machine, water dispenser, etc. Guy Grey or equal, PVC recess wall bib. Provide 1/2" hose bibb, with Watts 8-A vacuum breaker.

- 2.17.4 For all accessories such as mirrors, paper dispensers, grab bars, robe hooks, etc., see other sections of the specifications.
- 2.18 FIXTURES
- 2.18.1 Furnish, install and connect all plumbing fixtures indicated on drawings, or herein specified. Refer to mechanical, as well as architectural drawings, for location and number of fixtures required, and if any fixtures are shown on architectural plans but not on mechanical plans or vice versa, these fixtures shall be furnished, installed and connected the same as if indicated on all drawings.
- 2.18.2 Fixtures as indicated on architectural and mechanical drawings but not specified shall be called to attention of Architect seven days before bid date for clarifications. Failure to do so will obligate this section to furnish fixture as later specified by Architect.
- 2.18.3 Each plumbing fixture shall be fitted with all necessary and proper fittings, trimmings and operating devices, and shall be left in proper operating condition. Finish of all exposed metal work in connection with fixtures, trimmings and operating devices, where not specifically described otherwise, shall be chromium plate finish. Provide proper backing or carriers for fixtures as required for secure installation.
- 2.18.4 All traps and wall escutcheons shall be chromium plated.
- 2.18.5 Acceptable fixture and trim manufacturers shall be American Standard, Kohler, Crane, Zurn, Elkay, Halsey Tayler, Bradley, Willoughby, Just, Fiat, J. R. Smith, Sloan, Delany, Woodford or approved equal. Fixture manufacturers listed below are meant to set a standard. Fixtures of approved equal type and quantity will be accepted.
- 2.19 FIXTURES ARE AS FOLLOWS:
- 2.19.1 WC-1 - Water Closet – Am. Standard #2234.001 floor mounted, vitreous china; siphon jet; elongated rim bowl; Am. Standard #6065.161.002 battery powered, sensor operated flush valve; white solid plastic open front seat with check hinge.
- 2.19.2 WC-2 - Water Closet - Am. Standard #3043.001 floor mounted, vitreous china; ADA approved, 17” high, siphon jet; elongated rim bowl; Am. Standard #6065.161.002 battery powered, sensor operated flush valve; white solid plastic open front seat with check hinge.
- 2.19.3 U-1 - Urinal - Am. Standard #6541.132 wall hung, vitreous china; siphon jet with flushing rim; Am. Standard #6062.601.002 battery powered , sensor operated flush valve. Provide chair carrier to suit urinal.
- 2.19.4 U-2 - Urinal - Am. Standard #6541.132 wall hung, vitreous china; siphon jet with flushing rim; Am. Standard #6062.601.002 battery powered , sensor operated flush valve Mount at ADA approved height. Provide chair carrier to suit urinal. Mount at ADA approved height.

- 2.19.5 L-1 - Lavatory - Am. Standard #0355.012 wall hung, vitreous china with integral back; Am. Standard #6055.205.002 battery powered , sensor operated faucet with Am. Standard #605XTMV1070 below deck thermostatic mixing valve and trim plate for 4" center set lav, integral grid drain; cast brass p-trap; supplies with stops. Provide carrier to suit lavatory. Provide lavatory protective enclosure equal to True Bro Lav Shield model #2018.
- 2.19.6 L-2 - Lavatory - Am. Standard #0355.012 wall hung, vitreous china with integral back; Am. Standard #6055.205.002 battery powered , sensor operated faucet with below deck thermostatic mixing valve Am. Standard #605XTMV1070 and trim plate for 4" center set lav, integral grid drain; cast brass p-trap; supplies with stops. Provide carrier to suit lavatory Mount at ADA approved height. Provide lavatory protective enclosure equal to True Bro Lav Shield model #2018.
- 2.19.7 HS-1 – Hand Sink - Am. Standard #0355.012 wall hung, vitreous china with integral back; Am. Standard # Am. Standard #6055.205.002 battery powered , sensor operated faucet with below deck thermostatic mixing valve Am. Standard #605XTMV1070 and trim plate for 4" center set lav, integral grid drain; cast brass p-trap; supplies with stops. Provide carrier to suit lavatory Mount at ADA approved height. Provide lavatory protective enclosure equal to True Bro Lav Shield model #2018.
- 2.19.8 S-1 – Three Compartment Sink - Elkay model WNSF-8354-LR triple compartment sink with 8" high backsplash, constructed of 18 gauge, type 302 stainless steel stainless steel with tubular legs, left and drain board on both sides. 102" overall length. Provide two model LK-393 two-handle faucets with gooseneck swing spouts and aerators; three model LK-35 drain outlets; supplies with stops. Provide rigid copper water piping between stops and faucets. Continuous waste shall be full size copper pipe with sweat DWV fittings. Secure sink to wall.
- 2.19.9 DF - 1 - Drinking Fountain – Halsey Taylor model #4705-FR Endura steel fountain, freeze resistant, wall mounted, with textured, powder coat finish. Stainless steel basin with rounded corners. Vandal resistant bubbler and bottom plate. Fountain to be designed for exterior installation. Furnish freeze resistant rough in box with p-trap and freeze resistant valve system. Color to be as selected by the architect.
- 2.19.10 DF - 2 - Drinking Fountain (ADA) – Halsey Taylor model #4705-FR Endura steel fountain, freeze resistant, wall mounted, with textured, powder coat finish. Stainless steel basin with rounded corners. Vandal resistant bubbler and bottom plate. Fountain to be designed for exterior installation. Furnish freeze resistant rough in box with p-trap and freeze resistant valve system. Color to be as selected by the architect. Mount at approved ADA height.
- 2.19.11 MB - Mop Basin - Fiat #TSB-100, 24"x24"x12" precast terrazzo with stainless steel cap and stainless steel drain body cast integral; Chicago Faucet #897-RCF faucet with vacuum breaker, 3'-0" hose, integral stops and brace to wall.
- 2.19.12 FPWH - Freeze Proof Wall Hydrant - Woodford model B65P close coupled freeze proof wall hydrant, lockable box and door, vacuum breaker and loose key. Rough chrome finish.

- 2.19.13 HB-1 - Hose Bibb - Woodford #B24 with lockable box and door, vacuum breaker and loose key. Rough chrome finish.

3 PART 3 - EXECUTION

3.1 GENERAL

- 3.1.1 Exposed and concealed horizontal lines of pipe shall be carried on specified hangers properly spaced to maintain alignment.
- 3.1.2 Piping is to be concealed except where noted. Exposed piping is to be installed parallel to or at right angles with building walls, except where otherwise shown on drawings.
- 3.1.3 Exposed piping passing through walls, floors or ceilings fitted with wall plates securely held in position and allowing clearance for expansion. Provide plates large enough to cover openings around pipe.
- 3.1.4 Install pipe lines true to line and grade.
- 3.1.5 Wherever changes in sizes of piping occur, changes made with reducing fittings. Use of bushings not permitted.
- 3.1.6 Cutting and boring through structural members done only when approved by Architect and/or Structural Engineer.
- 3.1.7 Offsets in all piping above slab made with fittings. Bending of pipe not permitted.

3.2 INSTALLATION OF BELL AND SPIGOT

- 3.2.1 Pipe shall be laid with bell ends pointing upgrade. Pipe shall be graded carefully and shall be supported firmly and uniformly at its proper elevation and grade. Adjacent lengths of pipe shall be adjusted with reference to each other; marking or wedging between hub and spigot will not be permitted.
- 3.2.2
- 3.2.3 All soil lines run beneath slab shall be supported at the hub at 5'-0" maximum spacing with 1/4" stainless steel rods tied to the slab reinforcing steel.
- 3.2.4 Joints in sanitary piping shall have neoprene insert compression type gasket designed for use with plain end pipe and fittings.
- 3.2.5 Fold gasket and place into hub so that retaining lip of gasket is properly seated. Apply approved gasket lubricant to inside of gasket only. Insert end of pipe or fitting into gasket and jack into place using an approved jacking tool.

3.3 INSTALLATION OF SCREW-JOINTED PIPING AND SOLDER-JOINT TUBING

- 3.3.1 All pipe and tubing shall be cut accurately to measurements as established by the Contractor and shall be worked into place without springing or forcing. Proper provision shall be made for the expansion and contraction of all pipe and tubing lines. Pipe and fittings shall be free from fins and burrs.
- 3.3.2 Screw joints shall be made with a lubricant or thread sealing tape applied on the male threads only; threads shall be full cut and not more than three threads on the pipe shall remain exposed.
- 3.3.3 All copper tubing shall be cut with square ends, and all burrs and fins removed. Tubing shall be handled and protected carefully and all tubing cut, dented, or otherwise damaged shall be replaced. Ends of tubing and fittings shall be cleaned and inserted in the fittings to their full depth.
- 3.3.4 Unions shall be provided at connections to all items of equipment and elsewhere where required for ready disconnection.

3.4 INSTALLATION OF SOLVENT JOINT PIPING

- 3.4.1 All piping shall be cut square and accurate. Remove all burrs from outside of pipe and ream inside to remove any chips. Ends of piping shall be beveled and cleaned prior to applying solvent.
- 3.4.2 Apply a complete coating of primer to entire inside of the fitting and to an equivalent area on the outside of the pipe end.
- 3.4.3 Apply a liberal coat of solvent cement to the entire outer surface of the pipe to a width slightly more than the depth of the fitting socket. Apply a light coat of solvent cement to the entire inner surface of the fitting (being careful not to apply excessive quantities and avoid build-up inside socket when pipe is socketed). Apply a second liberal coat of solvent cement to the entire outer surface of the pipe.
- 3.4.4 Immediately after applying the second coat of cement to the pipe, insert the pipe to the full socket depth while rotating the pipe or fitting one-fourth turn. Hold for ten to fifteen seconds to insure joint rigidity.
- 3.4.5 After joining and before joint is set, wipe off all excess cement from circumference of pipe and fittings.

3.5 WATER SYSTEMS

- 3.5.1 The water system shall be installed with the fall toward the shutoff valve for the lowest fixture. Branches from hot and cold water lines shall be provided to all fixtures, and outlets indicated. Shutoff valves shall be provided where shown and on the supply to each fixture not provided with compression stop or with auxiliary shutoff valve. A 12" high air chamber shall be provided at each fixture or group of fixtures on both hot and cold supplies. Air chamber shall be of the same size as the branch feed line and of the same material. Air chambers shall be concealed in chases or partitions.

3.6 SANITARY SYSTEM

- 3.6.1 Sewer connections from soil and waste stack lines shall be connected to the building sewer where shown. Connect to collection system where shown.
- 3.6.2 All horizontal soil and waste pipes shall be graded 1/4" per foot, where possible, but in no case less than 1/8" per foot.
- 3.6.3 Sanitary system shall be provided with Y fittings and 1/8 or 1/16 bends or combination Y and 1/8 bends.
- 3.6.4 All drains, and all fixtures not specified to be provided with traps as integral parts of their assembly, shall have separate deep seal p-traps with cleanouts on above ground traps. Waste lines not less than 1½" in diameter shall be provided for all fixtures. All fixture and drain p-traps shall be vented. Vent lines may be connected at a height of not less than 12" above fixture flood rim and shall be graded 1/4" per foot where possible, but in no case less than 1/8" per foot.
- 3.6.5 Vertical stacks, unless indicated otherwise, shall be extended full size not less than 9" above the roof and shall be placed in position before the roofing is applied. Where applicable, flashing shall be of 2½# sheet lead flashing turned down into the cavity of the pipe and the base shall extend 8" from the outside of the boot in all directions. For metal roofs and specialty roofs, furnish vent flashings applicable for the roof.
- 3.7 CLEANOUTS
- 3.7.1 Of same size as pipes to which connected. Located not more than 50 feet apart.
- 3.7.2 Cleanouts provided at each change of direction of more than 45 degrees, at or near the base of each vertical stack, and where indicated on drawings.
- 3.7.3 Cleanout plugs shall be regulation (flanged) type.
- 3.7.4 Provide access doors for cleanouts in walls or chases.
- 3.8 TEST OF PIPING
- 3.8.1 All tests described below shall be made in the presence of the Architect and a representative of authority having jurisdiction.
- 3.8.2 Water piping shall be subjected to a hydrostatic pressure test of 100 pounds per square inch for one hour. No drop allowed.
- 3.8.3 Before the installation of any fixtures, sanitary piping shall be temporarily capped, and all lines filled to the highest point and allowed to stand without dropping for 30 minutes. Lines shall be tested in sections not less than 10 or more than 40 feet in height. In addition, a smoke or peppermint test may be required by the Architect.

END OF SECTION 15400

SECTION 15500 - MECHANICAL - FIRE PROTECTION

1 PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- 1.1.1 General provisions of Contract, including General, Supplementary and Special Conditions apply to work specified in this section.

1.2 SCOPE

- 1.2.1 Work covered under this section shall include a complete fire standpipe and sprinkler system for the entire building, all as described herein and as shown on the drawings.

- 1.2.2 The entire installation shall be in strict accordance with the latest editions of NFPA 13 for the Installation of Automatic Fire Sprinkler Systems, NFPA 101 for the Life Safety Code, and with the requirements of local authorities having jurisdiction. Each system shall include materials, accessories, and equipment required to provide each system complete and ready for use.

- 1.2.3 Installation of piping is to give full consideration to blind spaces, piping, electrical equipment, ducts, and other construction and equipment. Locate sprinkler heads in a consistent pattern with ceiling grid, lights, and air supply diffuses. Devices and equipment for fire protection service shall be UL FPED listed or FM P7825 approved for use in wet pipe, dry pipe and pre-action sprinkler systems.

1.3 SPRINKLER SYSTEM DESIGN

- 1.3.1 Heads in relation to the ceiling and the spacing of sprinkler heads shall not exceed that permitted by NFPA 13 for Light and Ordinary Hazard Occupancy as applicable. Uniformly space sprinklers on the branch piping.

- 1.3.2 Water distribution shall be uniform throughout the area in which the sprinkler heads will open. Discharge from individual heads in the hydraulically most remote area shall be 100 percent of the specified density.

1.4 DENSITY OF APPLICATION OF WATER

- 1.4.1 The density of application of water shall be based on the specific density for the specific total maximum required flow. The density of application of water is to be based on the design criteria for each occupancy as follows:

| | |
|------------------|-------------------------|
| Public Areas | Light Hazard |
| Offices | Light Hazard |
| Non-public Areas | Ordinary Hazard Group I |
| Covered Parking | Ordinary Hazard Group I |
| Mechanical Rooms | Ordinary Hazard Group I |
| Electrical Rooms | Ordinary Hazard Group I |
| Service Areas | Ordinary Hazard Group I |

Storage Areas

Ordinary Hazard Group II

- 1.4.2 The Light Hazard Occupancy areas shall be designed to provide a minimum of .10 gallons per minute over the most remote 1,500 square feet.
- 1.4.3 The Ordinary Hazard Group I areas on the interior of the building shall be designed to provide a minimum of .15 gallons per minute over the most remote 1,500 square feet.
- 1.4.4 The Ordinary Hazard Group I dry-pipe and pre-action system areas shall be designed to provide a minimum of .15 gallons per minute over the most remote 1,950 square feet.
- 1.4.5 The Ordinary Hazard Group II areas on the interior of the building shall be designed to provide a minimum of .20 gallons per minute over the most remote 1,500 square feet.

1.5 REFERENCES

- 1.5.1 The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA):

| | |
|----------|--|
| NFPA 13 | Standards for the Installation of Sprinkler Systems |
| NFPA 25 | Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems |
| NFPA 70 | National Electrical Code |
| NFPA 101 | Code for Safety to Life from Fire in Buildings and Structures |

UNDERWRITERS LABORATORIES, INC. (UL):

| | |
|---------|-------------------------------------|
| UL FPED | Fire Protection Equipment Directory |
|---------|-------------------------------------|

FACTORY MUTUAL ENGINEERING & RESEARCH CORPORATION (FM):

| | |
|----------|----------------|
| FM P7825 | Approval Guide |
|----------|----------------|

AMERICAN SOCIETY OF MECHANICAL ENGINEERS (ASME):

ASME/ANSI A17.1 Safety Code for Elevators and Escalators

MANUFACTURERS STANDARDIZATION SOCIETY OF THE VALVE AND FITTINGS INDUSTRY, INC. (MSS):

| | |
|-------------|---|
| MSS SP - 58 | Pipe Hangers and Supports, Materials, Design, and Manufacture |
|-------------|---|

1.6 SUBMITTALS

1.6.1 Sprinkler section shall prepare layout and fabrication drawings of sprinkler system and submit same to the local authorities having jurisdiction and Architect for approval before fabrication is started.

1.6.2 Work shall be coordinated with other trades to clear their work. Submit complete material and layout to Architect for clearance before submitting to above mentioned agencies for stamps of approval.

1.7 QUALIFICATION OF INSTALLER

1.7.1 Prior to installation, submit data showing that the Contractor has successfully installed systems of the same type and design as specified herein. Data shall include names and locations of at least two installations where the Contractor has installed such systems. Indicate type and design of each system and certify that each system has performed satisfactorily in the manner intended for not less than 36 months.

1.7.2 Qualifications of System Technicians: Installation supervision shall be by an individual who is a full time employee of the Contractor experienced with the types of works specified herein, and is currently certified by the National Institute of Certification in Engineering Technologies (NICET). The engineering technician must have a minimum Level IV certification in Automatic Sprinkler System Program. Detailed Shop Drawings shall be prepared by an individual who is a full time employee of the Contractor experienced with the types of works specified herein, and is currently certified by the National Institute of Certification in Engineering Technologies (NICET). The engineering technician must have a minimum Level IV certification in Automatic Sprinkler System Program.

1.8 TEST REPORT

1.8.1 Contractor shall provide completed "Contractor's Material and Test Certificate for Above Ground Piping" utilizing the System Acceptance Form NFPA 13 Figure 8-1(a).

2 PART 2 - PRODUCTS

2.1 All new materials, equipment, valves and devices installed and/or furnished under this section shall be listed and/or approved for use in the fire protection installation by the authorities, agencies, codes and standards named in this section of the specifications. Refer to Underwriter's Laboratories - Approved Fire Protection.

2.2 AUTOMATIC SPRINKLER SYSTEM

- 2.2.1 Work covered by this Specification consists of furnishing all labor, equipment, appliances and materials and performing all operations in connection with installation of standard wet pipe automatic sprinkler system throughout entire building in strict accordance with NFPA pamphlet #13, NFPA 101 chapter 9, these Specifications and the local authorities having jurisdiction.
- 2.2.2 Sprinkler section shall connect into risers with Underwriters listed OS&Y control valves with electrical flow indicators with built-in time delay and valve monitoring devices. Piping system shall be arranged to be run clear of all other services, ductwork, piping, etc.
- 2.2.3 Work shall be carefully laid out in advance and this section shall furnish and install sleeves, hangers, etc. before pouring of concrete. Any cutting of construction shall be done only with written permission of Architect. Cutting shall be carefully done and damage to building, piping, wiring or equipment as a result of cutting for installation shall be repaired by skilled mechanics of the trade involved, at no additional expense to Owner; walls shall be left perfectly watertight.
- 2.2.4 All sprinkler piping shall be hydrostatically tested at a minimum of 200 psi for 2 hours without any loss of pressure. The hydrostatic test is to be witnessed by the Authority having Jurisdiction and the Architect.
- 2.3 PIPE AND FITTINGS
- 2.3.1 All fire protection system piping inside the building shall be installed by means of screwed, flanged or welded fittings as specified herein. UL approved grooved coupling system also will be acceptable. No plain-end fittings will be allowed.
- 2.3.2 All screwed fittings and pipe shall have threads cut to standard pipe thread dimensions. Pipe shall be properly reamed after cutting of threads.
- 2.3.3 Joint compound shall be applied to male threads of the screwed pipe and fittings only.
- 2.3.4 Approved expansion joints or flexible couplings shall be provided as necessary. Care shall be taken in making up pipe and fittings such that pipe does not extend into fitting sufficiently to reduce the waterway. Automatic sprinkler pipe for wet-pipe systems shall be Schedule 40 black steel pipe or approved type thin wall pipe. Fittings for use in wet-pipe systems shall be a type specifically approved for use in sprinkler systems and shall be either black standard weight malleable iron screwed fittings conforming to ASTM A 157, latest revision and ANSI B16c, or black standard weight cast iron screwed fittings 125 psi.
- 2.3.5 Piping below grade shall be mechanical joint ductile iron, Class 52, ANSI-A-21.51 with retainer glands.

2.3.6 Fittings below grade to be cast iron, Class 250, mechanical joint with retainer glands.

2.4 VALVES

2.4.1 All gate valves in supply pipes to automatic sprinklers shall be sealed open in a satisfactory manner, with approved tamper switches.

2.4.2 All control, drain, test and dry pipe alarm valves shall be provided with identification signs of the standard design adopted by the automatic sprinkler industry or as required by the agencies named in this section of the specifications.

2.4.3 Gate valves sized 2 ½ inches and larger shall be outside stem and yoke (O.S.&Y.) manufactured by Stockham Model No. "G-634" and/or Nibco Series "F-607-0I".

2.4.4 Gate valves sized 2 inches and smaller shall be outside stem and yoke (O.S.&Y.) bronze screwed gate valve manufactured by Stockham Model No. "B-133" and/or Nibco Series "T-104-0".

2.4.5 Butterfly valves sized 2 ½ inches and larger shall be grooved and equipped with factory supplied supervisory tamper switch manufactured by Central Sprinkler Model "A-BFV-G" and/or Nibco Model "GD-1765-8".

2.4.6 Globe valves shall be bronze screwed with composition disc manufactured by Stockham Figure No. "B-13T" and/or Central Model "F-15". Globe valves shall be used as drain and test valves only.

2.4.7 Angle valves shall be bronze screwed angle with composition seat manufactured by Stockham Figure "B-222T" and/or Central Model "F-16". Angle valves shall be used as drain and test valves only.

2.4.8 Check valves sized 4 inches and larger shall be Underwriter's Pattern, bronze trimmed cast iron body, flanged swing check valves manufactured by Stockham Figure "G-939" and/or Nibco Model "FI908W".

2.4.9 Listed grooved swing check valves shall be manufactured by Central Model "90" and/or Mueller Model "A-2102-52".

2.5 DEVICES

2.5.1 Quick opening device shall be manufactured by Viking Accelerator Model "D-1" or Central Accelerator Model "A".

2.5.2 Supervisory tamper switches shall be manufactured by Potter Electric Model "OSYSU-A2" or System Sensor Model "OSY2".

2.5.3 Waterflow switches shall be manufactured by Potter Electric Model "VSR-F" or System Sensor Model "WFD 10/40".

2.5.4 Pressure switches shall be manufactured by Potter Electric Model "PS10" or System Sensor Model "WPS 10-2".

2.5.5 Supervisory pressure low switch shall be manufactured by Potter Electric Model "PS40" or System Sensor Model "WPS40-2".

2.6 HANGERS

2.6.1 Pipes above ground shall be supported adequately by means of hangers or by wall or floor clamps. Hangers and clamps shall be fabricated from steel or iron by a manufacturer specializing in such articles and shall be standard types suitable for the conditions of installation, subject to the following qualifications:

- The automatic sprinkler piping shall be supported in accordance with NFPA Bulletin No. 13, latest edition.
- Hangers shall be manufactured by Michigan Model "115" and/or Tolco Figure "200".

2.7 SPRINKLER HEADS

2.7.1 All sprinkler heads installed in ceilings shall be 165 degrees semi recessed sprinkler heads. In areas with obstructions below the ceiling and concealed sprinkler piping the sprinklers shall be 165 degree chrome plated brass sprinklers to be installed with two piece chrome escutcheons.

2.7.2 All other sprinklers shall be upright or pendent type brass and shall have a temperature rating of 212 degrees.

2.7.3 All pendant and upright sprinkler heads shall be manufactured by Central Sprinkler Model "A" and/or Reliable Model "G".

2.8 FIRE DEPARTMENT SIAMESE CONNECTIONS

2.8.1 Siamese connection to be Potter-Roemer Figure No. 5021 cast brass two-way inlet with drop clappers and polished brass plate labeled "Standpipe-Auto- Sprinkler".

2.9 STOCK OF SPARE SPRINKLERS

2.9.1 At the sprinkler entry, the contractor shall furnish to the owner a stock of spare sprinkler heads. The quantity of spare heads shall be as per NFPA No. 13. Provide a wall-mounted cabinet next to the sprinkler entry for storage of spare sprinklers. Spare sprinklers shall be furnished with one sprinkler head wrench for each type of sprinkler.

2.10 INSPECTOR'S TEST CONNECTION

- 2.10.1 Provide test connections approximately 6 feet above the floor for each sprinkler system or portion of each sprinkler system equipped with an alarm device; locate at the hydraulically most remote part of each system and/or provide test connection piping to a drain riser where the discharge will be readily visible and where water may be discharged without property damage. Provide discharge orifice of same size as corresponding sprinkler orifice. Provide concrete splash block at discharge location.

2.11 IDENTIFICATION SIGNS

- 2.11.1 Attach properly lettered and approved metal signs to each valve and alarm device. Permanently affix hydraulic design data nameplates to the riser of each system.

2.12 MAIN DRAINS

- 2.12.1 Provide separate drain piping to discharge at safe points outside each building or to sight cones attached to drains of adequate size to readily receive the full flow from each drain under maximum pressure. Provide auxiliary drains as required by NFPA 13. Provide concrete splash block at discharge location.

2.13 PIPE SLEEVES

- 2.13.1 Provide where piping passes entirely through walls and floors. Secure sleeves in position and location during construction. Provide sleeves of sufficient length to pass through entire thickness of walls and floors. Provide one inch minimum clearance between exterior of piping and interior of sleeve or core-drilled hole.
- 2.13.2 Firmly pack space with mineral wool insulation. Seal space at both ends of the sleeve or core-drilled hole with plastic waterproof cement which will dry to a firm but pliable mass, or provide a mechanically adjustable, segmented elastomeric seal. In fire walls and fire floors, seal both ends of pipe sleeves or core-drilled holes with UL listed fill, void, or cavity material.
- 2.13.3 Sleeves in Masonry and Concrete Walls and Floors: Provide hot-dip galvanized steel, ductile-iron, or cast-iron sleeves. Core drilling of masonry and concrete may be provided in lieu of pipe sleeves when cavities in the core-drilled hole are completely grouted smooth.
- 2.13.4 Sleeves in Other Than Masonry and Concrete walls and Floors: Provide 26 gage galvanized steel sheet.

2.14 ESCUTCHEON PLATES

- 2.14.1 Provide split hinge metal plates for piping entering walls, floors, and ceilings in exposed spaces. Provide polished stainless steel plates or chromium-plated finish on copper alloy plates in finished spaces.

3 PART 3 - EXECUTION

3.1 GENERAL

- 3.1.1 Installation, workmanship, fabrication, assembly, erection, examination, inspection, and testing shall be in accordance with NFPA 13, except as modified herein. Install piping straight and true to bear evenly on hangers and supports. Keep the interior and ends of piping thoroughly cleaned of water and foreign matter. Keep piping systems clean during installation by means of plugs or other approved methods. When work is not in progress, securely close open ends of piping to prevent entry of water and foreign matter. Inspect piping before placing into position. Provide Teflon pipe thread paste on male threads. All sprinkler piping shall be pitched to drain in accordance with NFPA 13. Sprinkler head locations shall be centered or where necessary installed at least 6" from the suspended ceiling grids.

3.2 FIELD PAINTING OF SYSTEMS IN FINISHED AREAS

- 3.2.1 Clean, pretreat, prime, and paint new exposed fire extinguishing sprinkler systems including valves, piping, conduit, hangers, supports, miscellaneous metalwork, and accessories. Apply coatings to clean, dry surfaces, using clean brushes. Clean the surfaces to remove dust, dirt, rust, and loose mill scale. Immediately after cleaning, provide the metal surfaces with one coat of pretreatment primer applied to a minimum dry film thickness of 0.3 mil, and one coat of zinc molybdate primer applied to a minimum dry film thickness of 1.0 mil. Provide primed surfaces with one coat of red alkyd gloss enamel applied to a minimum dry film thickness of 1.0 mil.
- 3.2.2 Shield sprinkler heads with protective covering while painting is in progress. Upon completion of painting, remove protective covering from sprinkler heads. Remove sprinkler heads which have been painted and replace with new sprinkler heads.

3.3 PRELIMINARY TESTS

- 3.3.1 Hydrostatically test each system at 200 psi for a 2 hour period with no leakage or reduction in pressure. Flush piping with potable water in accordance with NFPA 13. Piping above suspended ceilings shall be tested, inspected, and approved before installation of ceilings, test the alarms and other devices. Test the water flow alarms by flowing water through the inspector's test connection. When tests have been completed and corrections made, submit a signed and dated certificate.

3.4 FORMAL TESTS AND INSPECTIONS

- 3.4.1 Do not submit a request for formal test and inspection until the preliminary test and corrections are completed and approved. Submit a written request for formal inspection at least 30 days prior to inspection date. An experienced technician regularly employed by the system installer shall be present during the inspection. At this inspection, repeat any or all of the required tests as directed. Correct defects in work provided by the Contractor, and make additional tests until the systems comply with contract requirements. Furnish appliances, equipment, electricity, instruments, connecting devices, and personnel for the tests.

3.5 APPROVED MANUFACTURERS

3.5.1 All components of the automatic sprinkler system indicated on plans or in these specifications shall be as manufactured by an approved manufacturer as follows:

- Reliable Automatic Sprinkler Co.
- Central Sprinkler Co.
- Star Sprinkler Corporation
- Viking Sprinkler Corporation

END OF SECTION 15500

SECTION 15600 - MECHANICAL - HEATING, VENTILATING AND AIR CONDITIONING

1 PART 1 - GENERAL

1.1 SCOPE

1.1.1 Work in this section includes complete and operating year-round air conditioning systems, plus additional ventilation requirements for areas indicated.

1.1.2 It includes fans, air handling units, rooftop air conditioning units with electric heating, Dedicated outside air units, electric furnaces, DX coils, condensing units, motors, motor controllers, grilles, registers and diffusers, sheet metal work, pipe and fittings, insulation, temperature controls, and other work indicated or necessary for complete and operating systems.

1.1.3 No work shall be concealed until it has been inspected, tested and approved by the Architect.

1.1.4 See Section 15010 Mechanical - General Provisions.

1.2 DESIGN CONDITIONS

1.2.1 Inside summer design conditions are 74 degrees dry bulb temperature and 55% relative humidity when the outside conditions do not exceed 95 degrees dry bulb and 80 degrees wet bulb temperature.

1.2.2 Winter inside design temperature is 70 degrees when the outside temperature is not below 25 degrees.

2 PART 2 - PRODUCTS

2.1 AIR HANDLING UNITS

2.1.1 Air handler units shall be completely factory assembled including coil, condensate drain pan, fan motor(s), filters and controls in an insulated casing. The unit shall be capable of being field modified to either vertical or horizontal configuration. Units shall be rated and tested in accordance with ARI standard 10/240, 340/360. Units shall be UL listed and labeled in accordance with UL 465/1995 for indoor blower coil units.

2.1.2 Unit casing shall be constructed of zinc coated, heavy gauge galvanized steel. Exterior surfaces shall be cleaned, phosphatized and finished with a weather resistant baked enamel finish. Casing shall be completely insulated with cleanable, foil faced, fire-retardant, permanent, odorless glass fiber material. All insulation edges shall be either captured or sealed. Knockouts shall be provided for unit electrical power and refrigerant piping connections. Captive screws shall be

- standard on all access panels.
- 2.1.3 The units shall have single or dual refrigeration circuits as indicated on the plans. Each refrigeration circuit is controlled by a factory-installed thermal expansion valve.
- 2.1.4 Evaporator coil shall have aluminum fin surface shall be mechanically bonded to 3/8" internally enhanced copper tubing and factory pressure and leak tested at 375 psig. Coil shall be arranged for draw through airflow and shall provide a double sloped condensate drain pan constructed of PVC plastic. The drain pan shall be removable for cleaning. The condensate drain pan can be installed in any of four positions allowing for vertical or horizontal application and providing external connections on either side of the unit.
- 2.1.5 Evaporator coil shall be completely factory assembled including the expansion valves and drain pans. Unit casing shall be the same as unit casing. The coils shall be convertible to either vertical and/or horizontal airflow configuration.
- 2.1.6 Double inlet, double width, forward curved, centrifugal-type fan(s) with adjustable belt drive shall be provided. Thermal overload protection shall be provided on motor. Fan and motor bearings shall be permanently lubricated. Oversized motors shall be provided where indicated on the plans. All indoor fan motors meet the U.S. Energy Policy Act of 1992 (EPACT).
- 2.1.7 Magnetic evaporator fan contactor, low voltage terminal strip, check valve(s), and single point power entry shall be provided. All necessary controls shall be factory- installed and wired. Evaporator defrost control shall be provided to prevent compressor slugging by temporarily interrupting compressor operation when low evaporator coil temperatures are encountered.
- 2.1.8 Provide one inch, throw-away filters shall be standard on units up to 10 ton air handlers. Filter rack shall be field converted to two inch capability. Two inch, throw- away filters shall be standard on 15 ton and larger air handlers. Filters shall be accessible from the side coil access panel unless indicated differently on the plans.
- 2.1.9 UL and CSA approved electric heat modules of capacity and voltage indicated on the plans shall be provided for installation directly on fan discharge. Electric heater elements shall be constructed of heavy-duty nickel chromium elements internally wye connected on 480/600 volt, three phase and delta connected on 208/240 volt, three phase. Each 208/240 volt heater shall have pilot duty with secondary backup fuse links for automatic reset of high limit controls. Each 480/600 volt heater shall have automatic line break high limit controls.
- 2.1.10 Electric heater and air unit shall incorporate single- point electric power connection and terminal strip connections.

2.1.11 Air units shall be as manufactured by Trane, McQuay, York, Carrier or approved equal.

2.2 AIR COOLED CONDENSING UNITS

2.2.1 Unit shall be weather proof cabinet containing compressor, outdoor coil, fan and motor, refrigerant reservoir, charging valve, all controls and a holding charge of refrigerant. Unit casing shall be constructed of heavy gauge, galvanized steel and painted with a weather-resistant powder paint. Removable panels shall provide access to all components from one side of the unit. Unit shall be equipped with galvanized steel coil guard.

2.2.2 Fan shall be statically and dynamically balanced. Fan shall be driven by heavy duty permanently lubricated motors with built-in thermal overload protection.

2.2.3 Compressor shall be hermetic welded shell type, factory sealed. Controls shall include high and low pressure cutout, locked rotor, over and under voltage and built-in thermal protection.

2.2.4 The coil shall have aluminum tubing as primary surface and heavy aluminum fins as secondary surface. Fins shall be mechanically bonded to tubes. Coils shall be factory tested at 425 psi. Provide coil guards.

2.2.5 Independent control box access panel shall be provided. Controls shall include motor starters

2.2.6 Condensing units shall be as manufactured by Trane, McQuay, York, Carrier or approved equal.

2.3 PACKAGED ROOFTOP A/C UNIT

2.3.1 All units shall be factory assembled, internally wired, fully charged and 100 percent run tested to check cooling operation, fan and blower rotation, and control sequence before leaving the factory. The unit shall be capable of being field modified to either vertical or horizontal configuration.

2.3.2 The operating range shall be between 115°F and 0°F in cooling. Cooling performance shall be rated in accordance with ARI testing procedures. Units shall be UL listed and labeled, classified in accordance to UL 1995/CAN/CSA No. 236-M90 for Central Cooling Air Conditioners.

2.3.3 Unit casing shall be constructed of zinc coated, heavy gauge galvanized steel. Exterior surfaces shall be cleaned, phosphatized, and finished with a weather-resistant baked enamel finish. Unit's surface shall be tested 1000 hours in a salt spray test in compliance with ASTM B117. Cabinet construction shall allow for all maintenance on one side of the unit. Service panels shall have lifting handles and be able to be removed and reinstalled by removing only a single fastener while providing a water and air tight seal.

2.3.4 All exposed vertical panels and top covers in the indoor air section shall be insulated with a cleanable foil-faced, fire-retardant permanent, odorless glass fiber material. The base of the unit shall be insulated with ½ inch, 1 pound density foil-

faced, closed cell material. All insulation edges shall be either captured or sealed. The unit's base pan shall have no penetrations within the perimeter of the curb other than the downflow supply/return openings which shall be raised 1 1/8 inch to provide an added water integrity precaution.

- 2.3.5 The top cover shall be one piece construction or where seams exist, it shall be double-hemmed and gasket sealed.
- 2.3.6 One inch, throwaway filters shall be standard on all 3-5 ton units. The filter rack shall be field converted to accept two inch media. Two inch filters shall be factory supplied on all 6-10 ton units. Just prior to final acceptance of equipment by owner, contractor shall install new 2 inch pleated (30%) filters
- 2.3.7 All units shall have direct drive, hermetic, reciprocating type compressors. The reciprocating type compressors have a centrifugal oil pump providing positive lubrication to moving parts. Motor shall be suction gas cooled and shall have a voltage utilization range of plus or minus 10 percent of unit nameplate voltage. Crankcase heater, internal temperature, and current sensitive motor overloads shall be provided.
- 2.3.8 Compressors shall have internal spring isolation and sound muffling to minimize vibration transmission and noise. Low pressure switches shall be standard.
- 2.3.9 Each refrigerant circuit shall be provided with thermal expansion valve. Service pressure ports, and refrigerant line filter driers are factory-installed as standard. An area shall be provided for replacement suction line driers.
- 2.3.10 Evaporator and condenser coils shall have internally finned, 5/16" copper tubes mechanically bonded to a configured aluminum plate fin shall be standard. Coils shall be leak tested at the factory to ensure the pressure integrity. The evaporator coil and condenser coil shall be leak tested to 200 psig and pressure tested to 450 psig. The condensate drain pan shall be removable, reversible and double-sloped with provision for through the base condensate drain.
- 2.3.11 Electric heat modules shall be installed within unit. Electric heater elements shall be constructed of heavy-duty nickel chromium elements internally delta connected for 240 volt, wye connected for 480 and 600 volt. Each heater package shall have automatically reset high limit control operating through heating element contactors. All heaters shall be individually fused from the factory and shall meet all NEC and CEC requirements. Power assemblies shall provide single point connection.

Electric heat modules shall be UL listed or CSA certified.

- 2.3.12 The outdoor fan shall be direct-drive, statically and dynamically balanced, draw-through in the vertical discharge position. The fan motor shall be permanently lubricated and shall have built-in thermal overload protection.
- 2.3.13 The indoor fan shall be direct-drive, FC, centrifugal fans. All motors shall be thermally protected. All indoor fan motors meet the U.S. Energy Policy Act of 1992 (EPACT).
- 2.3.14 Provide factory furnished roof curb specifically designed to mate with the unit's downflow supply and return and provide support and a water tight installation when installed properly. The roof curb design shall allow for field fabricated rectangular supply/return ductwork to be connected directly to the curb. Curb design shall comply with NRCA requirements. Curb shall be shipped knocked down for field assembly and shall include wood nailer strips.
- 2.3.15 Roof top units shall be as manufactured by Trane, McQuay, York, Carrier or approved equal.

2.4 ENERGY RECOVERY VENTILATOR

- 2.4.1 The unit housing shall be supported by a formed structural base with 20 gauge galvanized steel panels. Unit shall have a weatherproof sheet metal roof. The exterior of the unit shall be coated with an epoxy primer and a polyurethane enamel painting system for added protection. Painting system shall be rated to meet a 750-hour salt spray test. Insulation shall be ½" thick closed-cell neoprene with antimicrobial protection. Insulation shall meet or exceed requirements of UL 181, ASTM G21/C 1338 and ASTM G 22 for resistance to mold, fungi and bacteria.
- 2.4.2 The outdoor air intake opening shall be protected by a galvanized steel sheet metal weather hood and include an automatic rotary blade damper and an electric actuator. The exhaust air discharge shall be covered with a gravity back draft damper and weather hood.
- 2.4.3 Access doors shall be constructed of the same materials as the unit casing and use standard hardware. The wheel cassette shall be easily removable from the unit. The roof of the unit shall also be removable for access.
- 2.4.4 The supply air inlet and exhaust air outlet shall be oriented at opposite ends of the energy recovery ventilator.
- 2.4.5 Fans shall be double width double inlet design with forward curve type wheels. Impellers shall be statically and dynamically balanced. Fans shall be driven by direct drive. Motors shall be standard NEMA frame with open drip-proof enclosures.

- 2.4.6 The total energy wheel rotor media shall be made of coated aluminum. All surfaces shall be coated with a non-migrating adsorbent specifically developed for the selective transfer of water vapor. Verification in writing shall be presented from the desiccant manufacturer confirming that the internal pore diameter distribution inherent in the desiccant being provided limits adsorption to materials not larger than the critical diameter of a water molecule (2.8 angstroms). The face of the media shall be coated with an acid resistant coating to provide maximum protection against face oxidation. Equal sensible and latent recovery efficiencies shall be clearly documented through a certification program conducted in accordance with ASHRAE 84-78P and ARI 1060 standards. The media shall be cleanable with low temperature steam, hot water or light detergent, without degrading the latent recovery. Dry particles up to 600 microns shall freely pass through the media. Wheel media shall be independently tested and shown to conform to the requirements of NFPA-90A, documenting a flame spread of less than 25 and a smoke generation rating of less than 50. The faces of the total energy recovery wheel shall be sealed with a two-part polymer acid resistant coating to limit surface oxidation. The media face coating shall also include an anti-stick additive to effectively limit the collection of dust or smoke particulate and to aid in the surface cleaning process should cleaning be required.
- 2.4.7 The rotor cassette shall be made of galvanized steel. The rotor cassette shall be easily removable from the Energy Recovery Unit. The wheel cassette shall use pillow block bearings. A non-adjustable purge sector shall be included in the cassette.
- 2.4.8 The filters in the outside air hood shall be 2 inch pleated MERV filters and 1 inch thick permanent aluminum washable type mounted in the return air plenum. The filters shall be listed by Underwriters' Laboratories as Class 2.
- 2.4.9 The outdoor air damper shall be constructed of galvanized steel with parallel blades and shall include a manual adjustable blade lock with no control.
- 2.4.10 Provide factory furnished roof curb specifically designed to mate with the unit's downflow duct configuration and provide support and a water tight installation when installed properly. The roof curb design shall allow for field fabricated rectangular ductwork to be connected directly to the curb. Curb design shall comply with NRCA requirements. Curb shall be shipped knocked down for field assembly and shall include wood nailer strips.
- 2.4.11 Energy recovery ventilators shall be as manufactured by SEMCO prior approved equal.
- 2.5 SHEET METAL WORK
- 2.5.1 Ductwork shall be galvanized steel. Gauge and construction standards shall be in accordance with SMACNA manuals, latest edition.

- 2.5.2 Prior to any ductwork fabrication, the sheet metal contractor shall review all structural and architectural drawings to determine all clearances for the ductwork system. Allowances shall be made as required for any offsets in ductwork required due to structural limitations as well as to avoid conflict with other trades. All ductwork shall be mounted as tight to structure.
- 2.5.3 All ductwork shall be properly braced to prevent rattling, breathing or other unnecessary noise. Contractor shall take all measures necessary to secure, support and reinforce ducts. No sharp edges or obstructions shall project into the airstream.
- 2.5.4 Inlet and outlet connections to all fan equipment shall be made with flexible fiberglass cloth or equal. Flexible connection shall be rated for minimum 200 degrees F. Flexible connection shall be 6" long unless otherwise noted.
- 2.5.5 Duct sizes indicated on Drawing are sheet metal sizes. All supply air, return air and outside air ducts shall be externally insulated. Refer to insulation specs for description of insulation system.
- 2.5.6 Exhaust ductwork shall be unlined sheet metal.
- 2.5.7 Flexible duct shall be preinsulated. Provide spin-in fittings with damper.
- 2.5.8 Provide volume dampers and regulators where shown on plans and where required for proper air distribution and balancing of the system.
- 2.5.9 Where necessary to clear obstructions and avoid interference, Contractor shall transform shape of ductwork, provided original cross-section of area is maintained. Where conflict with structural members or pipes smaller than 15% of duct width occurs, the obstruction may pass through the duct if it is suitably streamlined.
- 2.5.10 Approved type fire and/or smoke dampers shall be provided where indicated on drawings and as required by the NFPA.

2.6 DUCTWORK INSULATION

- 2.6.1 Installed in workmanlike manner by skilled workmen regularly engaged in this type of work.
- 2.6.2 All insulation components including the insulation, vapor retardant jacket, adhesives, mastics, coatings, etc. shall have composite 'Fire and Smoke Hazard' ratings as tested under procedure ASTM E-84, NFPA 225 and UL 723, not exceeding flame spread of 25 and smoke developed index of 50.
- 2.6.3 Accessories, such as adhesives, mastics, cements and cloth for fittings shall have the same composite rating as listed above.
- 2.6.4 Insulation applied on clean, dry surfaces. All insulation continuous through wall

and ceiling openings and sleeves.

- 2.6.5 All supply return and outside air ductwork shall be insulated with 2" thick, $\frac{3}{4}$ lb. density duct wrap with scrim foil facing. All joints shall be lapped a minimum of 4" and sealed with vapor barrier (FR) adhesive.

2.7 FIRE DAMPERS

- 2.7.1 Furnish and install, at locations shown on the plans, curtain type, dynamic fire dampers tested, constructed and labeled in accordance with the latest edition of UL Standard 555. Dampers shall have a fire rating of 1 1/2 hours and shall meet the requirements of the latest edition of NFPA90A.
- 2.7.2 Each damper shall include a 165°F fusible link and shall be labeled for use in dynamic systems. Dampers labeled for use in static systems only are not permitted. The damper shall be rated for dynamic closure at 2000 fpm and 4 inches w.g. static pressure and shall be rated to close with airflow in either direction.
- 2.7.3 Each dynamic fire damper shall include a steel sleeve and mounting angles furnished by the damper manufacturer to ensure appropriate installation. Submittal information shall include the fire protection rating, maximum velocity/pressure ratings and the manufacturer's UL installation instructions. The dampers shall be installed in accordance with the manufacturer's UL installation instructions.
- 2.7.4 Fire dampers shall be as manufactured by Ruskin, Lloyd Industries, Greenheck, or approved equal.

2.8 REGISTERS, GRILLES AND DIFFUSERS

- 2.8.1 Registers, grilles and diffusers shall be Titus, Krueger, Carnes, Nailor, Price, Tuttle & Bailey, Metalaire, Millaire or approved equal. Model numbers indicated are Titus numbers unless noted otherwise.
- 2.8.2 Ceiling diffusers shall be insulated with 3/4" thick Armaflex II Sheet Insulation applied with full coverage Armstrong 520 Adhesive.

2.9 LAY-IN CEILINGS

- 2.9.1 Ceiling diffuser - (louver face) – model TDC-A-AA aluminum louvered faced diffuser complete with fully adjustable pattern control elements. Square neck diffuser shall be furnished with square to round transition where required (refer to plans). Module size shall be 12x12 or 24x24 as indicated on the drawings. Furnish with Border Type 3, suitable for lay-in ceiling. Finish shall be off-white baked enamel.
- 2.9.2 Ceiling return grille - model 350FL aluminum grille with 35° blade setting. Single set of blades parallel to the long dimension. Furnish with Border Type 3, suitable for lay-in ceiling. Finish shall be off-white baked enamel.

- 2.9.3 Ceiling exhaust register - model 350FL aluminum grille with 35° blade setting. Single set of blades parallel to the long dimension. Provide model AG-15 opposed blade damper. Furnish with Border Type 7, channel frame. Register shall be mill finished aluminum.
- 2.10 GYP BOARD CEILINGS
- 2.10.1 Ceiling diffusers - (louver face) – model TDC-A-AA aluminum louvered faced type complete with fully adjustable pattern control elements. Square neck diffuser shall be furnished with square to round transition where required (refer to plans). Finish shall be off-white baked enamel. Furnish with Border Type 6, Beveled drop face, for gyp board ceiling.
- 2.10.2 Ceiling return grille - model 350FL aluminum grille with 35° blade setting. Single set of blades parallel to the long dimension. Furnish with Border Type 1, suitable for gyp board ceiling. Finish shall be off-white baked enamel.
- 2.10.3 Ceiling exhaust register - model 350FL aluminum grille with 35° blade setting. Single set of blades parallel to the long dimension. Provide model AG-15 opposed blade damper. Furnish with Border Type 1, suitable for gyp board ceiling. Register shall be mill finished aluminum.
- 2.11 REFRIGERANT PIPING AND INSULATION
- 2.11.1 Refrigerant piping shall be type ‘ACR’ seamless, hard drawn pipe conforming to ASTM B-280. Soft drawn copper shall not be acceptable. Piping shall be factory cleaned and shall have ends capped to protect the interior of the pipe and shall remain capped until ready to be installed. All joints shall be brazed with silver solder.
- 2.11.2 Refrigerant piping sizes shall be per equipment manufacturer’s requirements based on installation conditions.
- 2.11.3 Install piping complete with filter-drier, sight glass and expansion valve.
- 2.11.4 All piping, fittings, valves and surfaces subject to sweating shall be insulated with ¾” thick, flexible, closed cell elastomeric pipe insulation conforming to ASTM C-534 Grade 1, Type I. Insulation shall be AP Armaflex as manufactured by Armacell or prior approved equal.
- 2.11.5 Pipe insulation shall be installed over clean pipe and shall be solid (no longitudinal seam) and shall be installed by slipping the insulation over capped pipes. Longitudinal slitting of insulation shall only occur at mitered sections at fittings. All seams shall be sealed with Armaflex 520 adhesive. Insulation installed outdoors shall be protected with two coats of WB Armaflex Finish weather resistant coating

2.11.6 All insulation components including the insulation, vapor retardant jacket, adhesives, mastics, coatings, etc. shall have composite 'Fire and Smoke Hazard' ratings as tested under procedure ASTM E-84, NFPA 225 and UL 723, not exceeding flame spread of 25 and smoke developed index of 50.

2.12 CONDENSATE PIPING AND INSULATION

2.12.1 Piping shall be Type "L" hard drawn copper tubing with wrought copper, solder joint, drainage type fittings. Install piping with cleanouts at each change of direction. Provide adequate slope in piping system.

2.12.2 All pipe and fittings shall be insulated with ½" thick, flexible, closed cell elastomeric pipe insulation conforming to ASTM C-534 Grade 1, Type I. Insulation shall be AP Armaflex as manufactured by Armacell or prior approved equal.

2.12.3 Pipe insulation shall be installed over clean, dry pipe and shall be solid (no longitudinal seam) and shall be installed by slipping the insulation over capped pipes. Longitudinal slitting of insulation shall only occur at mitered sections at fittings. All seams shall be sealed with Armaflex 520 adhesive. Insulation installed outdoors shall be protected with two coats of WB Armaflex Finish weather resistant coating.

2.12.4 All insulation components including the insulation, vapor retardant jacket, adhesives, mastics, coatings, etc. shall have composite 'Fire and Smoke Hazard' ratings as tested under procedure ASTM E-84, NFPA 225 and UL 723, not exceeding flame spread of 25 and smoke developed index of 50.

2.13 EXHAUST FANS

2.13.1 All exhaust fans shall be furnished and installed complete with all accessories as indicated on the plans. The size and location of all openings shall be verified under this Section.

2.13.2 All fans shall be of the type indicated in the schedule and all fans shall bear the Air Moving and Conditioning Association Certified Rating Performance Seal and shall bear UL label.

2.13.3 Provide prefabricated mounting curbs for all roof-mounted fans. Curbs shall be compatible with roof system. Provide required blocking and supports for wall mounted fans.

2.13.4 Fans shall have a manufacturer's warranty on all parts for a period of one year from date of Substantial Completion as set by the project architect

2.13.5 Fans shall be Cook, Breidert, Carnes, Greenheck, ILG, Jenn Air, Penn-Barry, or

approved equal.

2.14 MOTORS

- 2.14.1 Motors shall be as described herein unless otherwise specified. Motors shall be constant speed, normal or high starting torque (with low starting current) as required for the application, with electrical characteristics indicated on nameplate conforming with electrical supply at the motor locations as indicated on the electrical drawings.
- 2.14.2 Three phase motors shall be squirrel cage induction type.
- 2.14.3 Single phase motors shall be split phase or capacitor start type. If specifically noted under any particular item of equipment, permanently split capacitor type motors are required.
- 2.14.4 All motors shall have either sleeve or prelubricated ball bearings as required for the particular application.
- 2.14.5 Motors shall be guaranteed to operate continuously at full load with 10% voltage variation above or below the particular voltage specified, with a temperature rise not to exceed 40 degrees C.
- 2.14.6 Enclosures shall be drip-proof type, except for motors in outdoor locations or subject to excessive moisture, which shall be totally enclosed or totally enclosed fan cooled. Belt drive motors shall have bases with slide rail.

2.15 FOUNDATIONS AND SUPPORTS

- 2.15.1 The Contractor, unless otherwise specified, shall provide all foundations, supports, etc. necessary for properly supporting his work and equipment furnished by him and shall furnish and install all isolation materials to prevent transmission of vibration to the building structure. Isolation of equipment as shown on drawings is the minimum required, and any additional isolation required to prevent transmission of vibration shall be provided by the Contractor, in accordance with the equipment manufacturer's recommendations.

2.16 TEMPERATURE CONTROLS

- 2.16.1 Automatic temperature control system, low voltage as manufactured by Barber-Colman, Honeywell, Johnson, or approved equal. Upon completion of installation, system shall be tested and adjusted by control representative. He shall completely adjust, ready for use, all thermostats, valves, operators, etc. He shall also be responsible for proper sequence of control of all equipment which includes high voltage interlocking, proper staging of cooling and heating stages, etc.

- 2.16.2 Power wiring will be provided under Electrical Section, but all control wiring and conduit and control disconnects furnished and installed by this Contractor.
- 2.16.3 Control diagrams to be submitted for approval shall indicate all control connections to other equipment furnished by air conditioning, heating and ventilating contractor; such equipment includes but is not limited to temperature control equipment. Terminal numbers shown on diagrams of equipment being furnished shall appear on control manufacturer's diagrams to clarify and facilitate field wiring which is to be installed by this Contractor, magnetic starters and the like shall also be indicated on control manufacturer's wiring diagram. All electrical interlocking of fans, compressors, duct heaters, crankcase heaters and other equipment shall be in accordance with this diagram and shall be installed by this Contractor under the supervision of a factory trained representative of control manufacturer.
- 2.16.4 Standards of material and workmanship as required by National Electrical Code, shall apply to all electrical work required as part of this section. In addition, all splices in low voltage control wiring shall be made at terminal blocks furnished for the purpose; any splices not made at terminal blocks shall be soldered. Color-coded wire shall be used throughout with a minimum of five different colors and all wiring shall be in conduit. All firestats, push-button and other control devices shall be furnished and installed under this section.
- 2.16.5 On every 5 ton or larger system, provide a duct mounted smoke detector in supply and return duct from each air handling unit in accordance with NFPA and the IBC. Wire the smoke detector to stop fan if smoke is detected. Where there is a building fire alarm, the smoke detector shall be addressable and shall be resettable through the Fire Alarm Panel. Where there is no Fire Alarm system, provide a remote wall mounted alarm indicator panel adjacent to the unit thermostat (or as indicated on the plans) along with a remote key switch to allow remote resetting of the smoke alarm.
- 2.16.6 Control of Standard Split A/C system:
- A. Provide wall mounted thermostat of sufficient stages of cooling and heat to suit the equipment being controlled. The thermostat shall equal to Honeywell TH8321U electronic, programmable thermostat with dehumidification mode.
 - B. Unit shall be brought on manually or through time clock mode. The evaporator fan shall run continuously and shall cycle the compressor on when cooling is called for and the electric heat when heat is called for.
- 2.16.7 Control of Systems with Humidity Control:
- A. Provide programmable electronic temperature sensor and humidity sensor, of sufficient stages of cooling and heat to suit the equipment being controlled.

- B. Unit shall be brought on manually or through time clock mode. The evaporator fan shall run continuously and shall cycle the compressor(s) on in stages when cooling is called for and the electric heat when in the heating mode.
- C. When space humidity rises above 60% (adjustable), all stages of cooling shall be brought on. Hot gas reheat shall be staged on as required to maintain space temperature. When humidity levels drop to below 50% (adjustable) control sequence shall return to normal.

2.16.8 Control of 100% Outside Air Unit (roof mounted):

- A. Provide wall mounted thermostat and remote temperature and humidity sensors as indicated on the plans with programmable electronic time clock control with manual override control. The unit shall be energized by the time clock control or through the manual override and the evaporator fan shall run continuously. The associated 'Energy Recovery Ventilator' shall be interlocked to energize whenever the unit is running and shall pretreat all outside air. The RTU shall be set to operate in full economizer mode. Unit shall be brought on manually or through time clock mode. The evaporator fan shall run continuously and shall cycle the compressor on when cooling is called for and the electric heat when in heat is called for.
- B. When space humidity rises above 60% (adjustable), all stages of cooling shall be brought on. Hot gas reheat shall be staged on as required to maintain space temperature. When humidity levels drop to below 50% (adjustable) control sequence shall return to normal.

3 PART 3 - EXECUTION

3.1 OPERATION OF BUILDING AIR CONDITIONING SYSTEM DURING CONSTRUCTION

- 3.1.1 Upon approval from the owner and architect, the contractor may operate the building air conditioning systems. The contractor must maintain a clean dust-free environment the entire time the air units are in operation. Temporary filter media must be installed over every return air and exhaust air grille in the building as well as in the air units, upstream of the internal filters. Internal air unit filters must be checked weekly and replaced when visibly dirty.
- 3.1.2 Temporary filters must be checked daily, replaced when visibly dirty, and always be properly secured. Before the acceptance of the building, the contractor must inspect and clean all grilles, diffusers, ductwork, coils, and interior of air units. Contractor shall provide the owner with a written report stating that the entire HVAC system is clean and in like new condition.

- 3.1.3 It shall be the right of the owner and architect to stop or limit the contractors use of the building air conditioning system should it be determined that the contractor is not following the guidelines put forth in section 3.3.1. Any cost related to the contractor being denied use of the building air conditioning system shall be the responsibility of the general contractor and shall be at no cost to the owner.

3.2 TESTING AND BALANCING

- 3.2.1 The Contractor shall obtain the services of an independent test and balance agency that specializes in and whose business is limited to the testing and balancing of air conditioning systems. All final reports shall be signed by this certified test and balance engineer and shall include his official stamp.
- 3.2.2 Instruments used for testing and balancing of air systems must have been calibrated within a period of six months and checked for accuracy prior to start of work.
- 3.2.3 Three copies of the complete test report shall be submitted to the Consulting Mechanical Engineer prior to final acceptance of the project.
- 3.2.4 The Contractor shall balance all air services to the quantities shown on the drawings, using instruments acceptable to the Architect. Records of all balancing readings, on approved forms, shall be kept and shall be delivered to the Architect upon completion of the project.
- 3.2.5 On air supply systems individual outlets shall be balanced and adjusted until the specified air volume is obtained within a tolerance of 5% and room temperatures equalized.
- 3.2.6 Refrigeration and heating equipment shall be adjusted to provide the temperatures and capacities specified. Cut-in and Cut-out points of all automatic, pressure, safety and limits controls shall be observed and adjusted in accordance with manufacturer's recommendations.

3.3 FLUSHING AND CLEANING

- 3.3.1 All piping, coils, heaters, etc., installed for heating, cooling, and other operations of the building shall be thoroughly flushed of all debris and foreign objects before any system is placed in operation. After flushing, all strainers, traps and dirt legs shall be checked and cleaned. This operation must be acceptable to and approved by the Architect.

END OF SECTION 15600

SECTION 16010 - BASIC ELECTRICAL REQUIREMENTS

1 PART 1 - GENERAL

1.1 RELATED DOCUMENTS

1.1.1 All drawings and general provisions of the contract, including General Conditions, Supplementary Conditions, and other Division 1 Specifications, apply to this section.

1.1.2 Separation of Specifications into Sections is for convenience only and is not intended to establish limits of work or liability. The following sections apply to this project:

- 16010 – Basic Electrical Requirements
- 16100 – Basic Electrical Materials and Methods
- 16400 – Panelboards
- 16500 – Lighting Fixtures
- 16600 – Fire Alarm

1.2 DESCRIPTION OF WORK

1.2.1 Furnish all labor, tools, materials, fixtures, equipment, accessories, transportation, etc., required for a complete electrical lighting and power systems, complete with necessary auxiliaries as indicated on the drawings and specifications.

1.2.2 Also included in the work is the power wiring for connection of items indicated on the architectural plans, as well as power wiring for the equipment specified in DIVISION 15 – MECHANICAL.

1.3 DRAWINGS AND SPECIFICATIONS

1.3.1 The drawings showing the layout of electrical work indicate the approximate location of transformers, switchboards, panelboards, disconnects, outlets, and conduit routing.

1.3.2 The Contractor shall refer to architectural, structural, and mechanical drawings as well as equipment manufacturer's shop drawings and rough-in drawings, and adjust work accordingly to provide a coordinated installation.

1.3.3 All adjustments and minor deviations necessary shall be made without additional cost to the owner. It shall be the electrical contractor's responsibility to see that all equipment such as pull boxes, junction boxes, panelboards, and other apparatus, that may require maintenance from time to time, are made accessible.

1.3.4 Any condition that may occur during construction which conflicts with accessibility to the proposed installation of the electrical equipment, shall be brought to the Architect's attention prior to the point at which a change in location would require additional cost and delays to construction.

1.3.5 The Contractor shall install fire alarm devices as near as possible to the locations indicated on the drawings but shall move them as necessary to avoid conflicts with existing equipment and to be located sufficiently away from heat producing objects.

1.3.6 Smoke detectors, heat detectors, and visual devices shall be located in accordance with NFPA 72 including that the maximum distance between smoke detectors is 30' and the maximum distance from a wall is 15'. The Contractor shall plan for contingencies to include providing additional smoke, heat, and visual devices if necessary.

SECTION 16010 - BASIC ELECTRICAL REQUIREMENTS

- 1.3.7 The drawings and specifications are complementary and what is shown and/or called for on one shall be furnished and installed the same as if shown and/or called for on the other.
- 1.3.8 Where the Contractor is not certain about the method of installation, he shall ask the Architect for further installation details. Lack of details, not requested, will not be an excuse for improper installation.
- 1.4 LAWS, CODES, AND PERMITS
- 1.4.1 The latest accepted edition of the National Electrical Code (NFPA 70), National Fire Alarm Code (NFPA 72), and all State, Parish, City, and local building codes shall be considered a part of these specifications, and pertinent articles will not be repeated herein. These codes establish the minimum acceptable criteria where more stringent requirements have not been defined in these specifications and/or drawings.
- 1.4.2 The Contractor shall apply for all permits and pay all fees incidental to completing the electrical work. This Contractor shall give notice to the proper authorities in ample time for the work to be inspected and approved as it progresses, and no work shall be concealed until inspected and approved by authorized inspectors. If the plans or these specifications in any way conflict with the Code, State or Local Rules, these latter are to be followed, without expense to the Owner, but the Architect shall be notified of this condition and approval secured before changes are made.
- 1.4.3 Upon completion and before acceptance of work, a certificate of approval from the appropriate regulatory agency shall be furnished to the Architect.
- 1.4.4 No work shall be concealed until approved by the local inspector. Local regulations shall be adhered to.
- 1.4.5 The Contractor shall assure that he does not install electrical equipment including raceways in or through areas restricted by the international building code and local building codes including elevator shafts and stairs.
- 1.5 JOB SITE
- 1.5.1 Prior to submitting quotation for electrical work, Contractor shall visit and examine the job site with all authorities concerned in order to become familiar with all existing conditions pertinent to the work to be performed thereon. No additional compensation will be allowed for failure to be so informed.
- 1.5.2 Where existing equipment including raceways and wiring is in conflict with work of this project, the Contractor shall rework/reroute/relocate this equipment as necessary.
- 1.6 TEMPORARY POWER
- 1.6.1 The Contractor shall be responsible for providing temporary light and power to the construction site as necessary to meet all of the OSHA requirements for construction, and as required by the general contractor and various sub-contractors.
- 1.7 SERVICE INTERRUPTIONS
- 1.7.1 Services to the buildings shall be kept in operation at all times during construction. If a situation occurs that the service needs to be interrupted, the Contractor shall be responsible for contacting the proper authorities to schedule the outage at a time that is convenient to the occupants. It shall be understood that this outage may have to be scheduled after regular working hours or on

SECTION 16010 - BASIC ELECTRICAL REQUIREMENTS

the weekends. Allowances shall be added to the Contractors bid to cover the cost of any overtime work. This shall come at no additional cost to the Owner after the bid date.

1.8 WARRANTY

- 1.8.1 The Contractor shall guarantee all labor and materials for a period of twelve (12) months from the date of final acceptance. All defective materials and work shall be replaced with new materials or equipment. This shall come at no additional cost to the Owner.

2 PART 2 – PRODUCTS

2.1 MATERIALS

- 2.1.1 Equipment and materials shall be new and shall be listed by Underwriters Laboratories for the purpose for which they are being used. All material of similar use shall be of the same manufacturer.
- 2.1.2 Substitutions to materials listed on the drawings and specifications can be made as long as they are approved as acceptable by the Architect.
- 2.1.3 All termination lugs shall be rated 75 degree C minimum and shall be compatible with the number and size of wires to be terminated.

2.2 SUBSTITUTIONS

- 2.2.1 Names of manufacturers or catalog numbers are mentioned herein in order to establish a standard as to design quality. Other products similar in design and of equal quality may be used if submitted to the Architect and found acceptable by him. Refer to the general conditions for additional information.
- 2.2.2 When the Contractor elects to use an acceptable alternate manufacturer's equipment, the Contractor shall be responsible to coordinate the change with all trades affected and pay for any additional work required under this or any other division affected by the substitution.

2.3 SUBMITTALS

- 2.3.1 Within thirty days of the award of the contract, the Contractor shall be responsible for submitting six (6) copies of submittals containing catalog cuts and performance data for all material and equipment proposed for use. These submittals shall be reviewed by the Architect for general compliance to the contract documents. The Architect's review of these submittals in no way modifies the contract or relieves the Contractor from compliance with the contract unless a difference is clearly stated in the submission and specific acceptance is given by the Architect as a change to the contract.
- 2.3.2 Submittals shall be identified with the project name and the Contractors name and have the Contractor's stamp showing that he has reviewed the submittal and found it to be in accordance with the plans and specifications. Items of division 16 shall be submitted in one package.
- 2.3.3 Submittals that do not comply with the above will be returned, without review, for resubmission.
- 2.3.4 All shop drawings must be reviewed before the various factories start fabrication.

SECTION 16010 - BASIC ELECTRICAL REQUIREMENTS

3 PART 3 – EXECUTION

3.1 INSTALLATION

- 3.1.1 Ask for details whenever uncertain about installation method. Lack of details requested shall not excuse proper installation and corrections shall be the responsibility of the Contractor.

3.2 AS-BUILT DRAWINGS & OPERATING INSTRUCTIONS

- 3.2.1 The Contractor shall be responsible for providing As-Built drawings to the Architect at the completion of the project. The Contractor shall make a reproducible set of the original contract drawings, and in a neat and understandable manner show any significant changes made during construction. Unless noted otherwise in the contract documents, the Contractor shall provide one additional copy of these drawings to the Architect. The Contractor shall pay for all reproduction costs. Final payment shall be withheld until these drawings are accepted by the Architect.

- 3.2.2 The Contractor shall furnish two bound sets of any operating instructions and maintenance manuals to the Architect upon completion of the project.

3.3 CUTTING AND PATCHING

- 3.3.1 The Contractor shall be responsible for all cutting and patching that is required to complete the installation of the electrical systems. All work shall be coordinated between trades with strict accordance with the requirements of the General Conditions. Structural members shall not be cut or modified without the approval of the Architect.

- 3.3.2 The Contractor shall be responsible for covering, caulking, or otherwise to make weatherproof all openings left in the structure for electrical work. This includes openings around conduit penetrations.

3.4 EXCAVATING AND BACKFILLING

- 3.4.1 The Contractor shall be responsible for all excavating and backfilling required to complete the installation of the electrical systems. All excess material and debris shall be removed. All backfilling shall be with sand. Backfilling shall be thoroughly tamped and compacted.

- 3.4.2 It shall be the Contractor's responsibility to locate all underground utilities before trenching and excavating. Care shall be taken to avoid damage to the existing utilities. Any damage shall be repaired or replaced by the Contractor at no expense to the Owner.

3.5 PAINTING

- 3.5.1 No painting shall be required under DIVISION 16, except for factory-finished items. Any damaged surfaces of factory items shall be repaired by the Contractor to an acceptable level determined by the Architect.

3.6 EXISTING EQUIPMENT

- 3.6.1 The Contractor shall be responsible for the removal and reinstallation of any electrical equipment, such as light fixtures, that shall be reused. Any existing electrical equipment that is removed and not reused shall be returned to the Owner. Any material that the Owner does not wish to keep shall be removed from the site by the Contractor.

SECTION 16010 - BASIC ELECTRICAL REQUIREMENTS

- 3.6.2 When existing electrical items such as outlets are removed from service, care shall be taken to keep the integrity of the remaining electrical systems.

END OF SECTION 16010

SECTION 16100 - BASIC ELECTRICAL MATERIALS AND METHODS

1 PART 1 - GENERAL

1.1 SUMMARY

1.1.1 This Section includes the following:

- 1) Raceways.
- 2) Wires, cables, and connections
- 3) Wiring devices
- 4) Grounding
- 5) Safety Switches and fuses
- 6) Supporting devices for electrical components.
- 7) Equipment for utility company's electricity metering.

1.2 QUALITY ASSURANCE

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

1.2.2 Devices for Utility Company Electricity Metering shall comply with utility company published standards.

1.2.3 Comply with NFPA 70.

1.3 COORDINATION

1.3.1 Coordinate chases, slots, inserts, sleeves, and openings for electrical supports, raceways, and cable with general construction work.

1.3.2 Sequence, coordinate, and integrate installing electrical materials and equipment for efficient flow of the Work. Coordinate installing large equipment that requires positioning before closing in the building.

1.3.3 Coordinate electrical service connections to components furnished by utility companies.

1.3.4 Coordinate installation and connection of exterior underground and overhead utilities and services, including provision for service entrances and electricity-metering components.

1.3.5 Coordinate location of access panels and doors for electrical items that are concealed by finished surfaces.

1.3.6 Where electrical identification devices are applied to field-finished surfaces, coordinate installation of identification devices with completion of finished surface.

2 PART 2 – PRODUCTS

2.1 RACEWAYS

2.1.1 1/2" conduit is not allowed on this project.

2.1.2 EMT: Electrical metallic tubing; ANSI C80.3, zinc-coated steel.

SECTION 16100 - BASIC ELECTRICAL MATERIALS AND METHODS

- 2.1.3 FMC: Flexible metal conduit; zinc-coated steel.
- 2.1.4 IMC: Intermediate metal conduit; ANSI C80.6, zinc-coated steel, with threaded fittings.
- 2.1.5 LFMC: Liquidtight flexible metal conduit; zinc-coated steel with sunlight-resistant and mineral-oil-resistant plastic jacket.
- 2.1.6 RMC: Rigid metal conduit; galvanized rigid steel; ANSI C80.1.
- 2.1.7 RNC: Rigid nonmetallic conduit; NEMA TC 2, Schedule 40 or 80 PVC, with NEMA TC3 fittings.
- 2.1.8 Raceway Fittings: Specifically designed for raceway type with which used.

2.2 WIRES, CABLES, AND CONNECTIONS

- 2.2.1 All conductors shall have 600V insulation type THHN/THWN
- 2.2.2 Conductors, No. 10 AWG and Smaller: Solid or stranded copper.
- 2.2.3 Conductors, Larger Than No. 10 AWG: Stranded copper.
- 2.2.4 No wire shall be smaller than #12 awg unless noted otherwise.
- 2.2.5 All conductors shall be copper.
- 2.2.6 Insulation: Thermoplastic, rated 600 V, 90 deg C minimum, Type THW, THHN-THWN, or USE depending on application.
- 2.2.7 Wire Connectors and Splices: Units of size, ampacity rating, material, type, and class suitable for service indicated.

2.3 WIRING DEVICES

- 2.3.1 Wall Switches shall be 20A, 277V, AC type designed for quiet operation.
- 2.3.2 Duplex receptacles shall be 20A/2 pole, 3-wire, 125V, grounding type.
- 2.3.3 All devices shall be specification grade Hubbell, Leviton, or equal.
- 2.3.4 All device plates shall be brushed stainless steel with matching counter sunk screws unless noted otherwise.
- 2.3.5 Consult with the Architect for color selections before ordering devices.
- 2.3.6 Use multigang plates where devices are grouped together.
- 2.3.7 Boxes and fittings shall comply with article 370 of the NEC. Particular attention shall be paid to the number of conductors allowed in an outlet box or junction box. Contractor shall make provisions to prevent overcrowding outlet and junction boxes regardless of the number of conductors shown on the plans at the outlets.

2.4 GROUNDING

- 2.4.1 The grounding system shall be in accordance with N.E.C. Article 250.

SECTION 16100 - BASIC ELECTRICAL MATERIALS AND METHODS

2.4.2 A grounding conductor shall be provided in all conduit.

2.5 SAFETY SWITCHES AND FUSES

2.5.1 Safety switches shall be of the quick-make, quick-break, heavy-duty, fusible or non-fusible type with cover interlock to prevent opening of the door when the switch is in the "ON" position. Use NEMA 3R enclosures outdoors and NEMA 1 enclosures indoors, unless otherwise noted.

2.5.2 Provide a complete set of dual-element, class RK-1 fuses of ampere rating shown on the drawings. Furnish the owner with 20% spare fuses with at least one set for every rating.

2.5.3 All fuses shall have a minimum interrupting rating of 200,000 A.

2.6 SUPPORTING DEVICES

2.6.1 Material: Cold-formed steel, with corrosion-resistant coating.

2.6.2 Metal Items for Use Outdoors or in Damp Locations: Hot-dip galvanized steel.

2.6.3 Slotted-Steel Channel: Flange edges turned toward web, and 9/16-inch- diameter slotted holes at a maximum of 2 inches o.c., in webs. Strength rating to suit structural loading.

2.6.4 Slotted Channel Fittings and Accessories: Recommended by the manufacturer for use with the type and size of channel with which used.

2.6.5 Raceway and Cable Supports: Manufactured clevis hangers, riser clamps, straps, threaded C-clamps with retainers, ceiling trapeze hangers, wall brackets, and spring-steel clamps or click-type hangers.

2.6.6 Pipe Sleeves: ASTM A 53, Type E, Grade A, Schedule 40, galvanized steel, plain ends.

2.6.7 Cable Supports for Vertical Conduit: Factory-fabricated assembly consisting of threaded body and insulating wedging plug for non-armored electrical cables in riser conduits. Plugs have number and size of conductor gripping holes as required to suit individual risers. Body constructed of malleable-iron casting with hot-dip galvanized finish.

2.6.8 Expansion Anchors: Carbon-steel wedge or sleeve type.

2.6.9 Toggle Bolts: All-steel springhead type.

2.7 EQUIPMENT FOR UTILITY COMPANY'S ELECTRICITY METERING

2.7.1 Comply with requirements of electrical power utility company for current transformer cabinets, meter sockets, and modular meter centers.

3 PART 3 - EXECUTION

3.1 ELECTRICAL EQUIPMENT INSTALLATION

3.1.1 Headroom Maintenance: If mounting heights or other location criteria are not indicated, arrange and install components and equipment to provide maximum possible headroom.

3.1.2 Materials and Components: Install level, plumb, and parallel and perpendicular to other building systems and components, unless otherwise indicated.

SECTION 16100 - BASIC ELECTRICAL MATERIALS AND METHODS

3.1.3 Equipment: Install to facilitate service, maintenance, and repair or replacement of components. Connect for ease of disconnecting, with minimum interference with other installations.

3.1.4 Right of Way: Give to raceways and piping systems installed at a required slope.

3.2 RACEWAY APPLICATION

3.2.1 Outdoor Installations:

1. Exposed: RMC.
2. Concealed: RNC.
3. Underground, Single Run: RNC.
4. Underground, Grouped: RNC.
5. Connection to Vibrating Equipment: LFMC.
6. Boxes and Enclosures: NEMA 250, Type 3R or Type 4, unless otherwise indicated.

3.2.2 Indoor Installations:

1. Exposed: EMT except in wet or damp locations, use IMC.
2. Concealed in Walls or Ceilings: EMT.
3. In Concrete Slab: RNC.
4. Below Slab on Grade or in Crawlspace: RNC.
5. Connection to Vibrating Equipment: FMC; except in wet or damp locations: LFMC.
6. Boxes and Enclosures: NEMA 250, Type 1, unless otherwise indicated.

3.3 RACEWAY AND CABLE INSTALLATION

3.3.1 Conceal raceways and cables, unless otherwise indicated, within finished walls, ceilings, and floors.

3.3.2 Exposed conduits shall be installed with runs arranged perpendicular to walls and ceilings.

3.3.3 Keep legs of raceway bends in the same plane and keep straight legs of offsets parallel.

3.3.4 Install pull wires in empty raceways. Leave at least 12 inches of slack at each end of pull wires.

3.3.5 Connect motors and equipment subject to vibration, noise transmission, or movement with a maximum of 72-inches flexible conduit. Install LFMC in wet or damp locations. Install separate ground conductor across flexible connections.

3.3.6 Set floor boxes level and trim after installation to fit flush to finished floor surface.

3.3.7 Unless a larger size is indicated, raceways, troughs, and junction boxes shall be sized in accordance with the fill requirements of the NEC.

3.4 WIRING METHODS FOR POWER, LIGHTING, AND CONTROL CIRCUITS

3.4.1 Application: Use wiring methods specified below to the extent permitted by applicable codes as interpreted by authorities having jurisdiction.

3.4.2 Exposed Feeders: Insulated single conductors in raceway

SECTION 16100 - BASIC ELECTRICAL MATERIALS AND METHODS

- 3.4.3 Concealed Feeders in Ceilings, Walls, and Gypsum Board Partitions: Insulated single conductors in raceway.
- 3.4.4 Concealed Feeders in Concrete: Insulated single conductors in raceway.
- 3.4.5 Exposed Branch Circuits: Insulated single conductors in raceway.
- 3.4.6 Concealed Branch Circuits in Ceilings, Walls, and Gypsum Board Partitions: Insulated single conductors in raceway.
- 3.4.7 Concealed Branch Circuits: Insulated single conductors in raceway.
- 3.4.8 Underground Feeders and Branch Circuits: Insulated single conductors in raceway.
- 3.4.9 Remote-Control Signaling and Power-Limited Circuits, Classes 1, 2, and 3: Insulated conductors in raceway unless otherwise indicated.
- 3.4.10 Not Allowed: NM for branch circuits.

3.4.11 **Type MC cable shall not be acceptable.**

3.5 WIRING INSTALLATION

- 3.5.1 Make splices and taps that are compatible with conductor material and that possess equivalent or better mechanical strength and insulation ratings than unspliced conductors.
- 3.5.2 No wires shall be pulled in until the conduit system is complete. Ideal "Yellow 77" or other approved pulling lubricant shall be used.

3.6 ELECTRICAL SUPPORTING DEVICE APPLICATION

- 3.6.1 Damp Locations and Outdoors: Hot-dip galvanized materials or nonmetallic, slotted channel system components.
- 3.6.2 Dry Locations: Steel materials.
- 3.6.3 Strength of Supports: Adequate to carry present and future loads, times a safety factor of at least four with, 200-lb minimum design load for each support element.

3.7 SUPPORT INSTALLATION

- 3.7.1 Support parallel runs of horizontal raceways together on trapeze- or bracket-type hangers.
- 3.7.2 Size supports for multiple raceway or cable runs so capacity can be increased by a 25 percent minimum in the future.
- 3.7.3 Support individual horizontal single raceways with separate, malleable-iron pipe hangers or clamps except use spring-steel fasteners for 1-1/2-inch and smaller single raceways above suspended ceilings and for fastening raceways to slotted channel and angle supports.
- 3.7.4 Install sleeves for cable and raceway penetrations of concrete slabs and walls unless core-drilled holes are used. Install sleeves for cable and raceway penetrations of

SECTION 16100 - BASIC ELECTRICAL MATERIALS AND METHODS

masonry and fire-rated gypsum walls and of all other fire-rated floor and wall assemblies. Install sleeves during erection of concrete and masonry walls.

3.7.5 Secure electrical items and their supports to building structure, using the following methods unless other fastening methods are indicated:

1. Wood: Wood screws or screw-type nails.
2. Gypsum Board: Toggle bolts. Seal around sleeves with joint compound, both sides of wall.
3. Masonry: Toggle bolts on hollow block and expansion bolts on solid block. Seal around sleeves with mortar, both sides of wall.
4. New Concrete: Concrete inserts with machine screws and bolts.
5. Existing Concrete: Expansion bolts.
6. Structural Steel: Spring-tension clamps.
7. Light Steel Framing: Sheet metal screws.
8. Fasteners for Damp, Wet, or Weather-Exposed Locations: Stainless steel.
9. Light Steel: Sheet-metal screws.
10. Fasteners: Select so load applied to each fastener does not exceed 25 percent of its proof-test load.

3.8 IDENTIFICATION MATERIALS AND DEVICES

3.8.1 Install at locations for most convenient viewing without interference with operation and maintenance of equipment.

3.8.2 Coordinate names, abbreviations, colors, and other designations used for electrical identification with corresponding designations indicated in the Contract Documents or required by codes and standards. Use consistent designations throughout Project.

3.8.3 Install continuous underground plastic markers during trench backfilling, for exterior underground power, control, signal, and communication lines.

3.9 ELECTRICITY-METERING EQUIPMENT

3.9.1 Install utility company metering equipment according to utility company's written requirements. Provide grounding and empty conduits as required by utility company.

3.10 FIRESTOPPING

3.10.1 Penetrations through rated construction shall be sealed with a material capable of preventing the passage of flames and hot gases when tested in accordance with ASTM-EB14.

a) Notify the Architect for inspection of all completed fire and/or smoke barrier walls before any construction is installed that would conceal construction and prevent a proper inspection. Access to random selected areas may be required by the Architect at the time of final inspection if this notification is not given.

b) Provide detailed instructive cut sheets of the fire penetration sealing system used to the Architect at the time of inspection. Random selective sampling by the Contractor will be observed by the Architect and the Fire Marshall's inspector.

3.11 MOUNTING HEIGHTS

SECTION 16100 - BASIC ELECTRICAL MATERIALS AND METHODS

3.11.1 Unless otherwise noted on the drawings or required by the Architect, the following mounting heights shall apply. Unless noted otherwise, mounting heights are to the centerline of the device:

1. Receptacles 18" above floor
2. Toggle Switches 48" above floor
3. Panelboards 72" to top
4. Telephone Outlets 18" above floor
5. Data Outlets 18" above floor
6. Meter Can 60"-72" to centerline

3.11.2 Mounting heights may be adjusted in masonry applications to simplify installation where approved by the Architect.

END OF SECTION 16100

SECTION 16400 - PANELBOARDS

1 PART 1 - GENERAL

1.1 SUMMARY

1.1.1 This Section includes distribution and branch-circuit panelboards.

1.2 SUBMITTALS

1.2.1 Product Data: For each type of panelboard, overcurrent protective device, accessory, and component indicated. Include dimensions and manufacturers' technical data on features, performance, electrical characteristics, ratings, and finishes.

1.2.2 Shop Drawings: For each panelboard, including the following:

- 1) Dimensioned plans, elevations, sections, and details. Show tabulations of installed devices, equipment features, and ratings. Include the following data:
 - a) Enclosure types and details for types other than NEMA 250, Type 1.
 - b) Bus configuration, and current, and voltage ratings.
 - c) Short-circuit current rating of panelboards and overcurrent protective devices.
 - d) Features, characteristics, ratings, and factory settings of individual overcurrent protective devices.
- 2) Wiring Diagrams: Power, signal, and control wiring.

1.2.3 Panelboard Schedules: For installation in panelboards. Submit final versions after load balancing.

1.2.4 Operation and maintenance data.

1.3 QUALITY ASSURANCE

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

1.3.2 Comply with NEMA PB 1.

1.3.3 Comply with NFPA 70.

2 PART 2 - PRODUCTS

2.1 MANUFACTURERS

2.1.1 Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

1. Eaton Corp.; Cutler-Hammer Products.
2. Siemens Energy & Automation, Inc.
3. Square D Co.
4. G.E.

SECTION 16400 - PANELBOARDS

2.2 FABRICATION AND FEATURES

- 2.2.1 Enclosures: Flush- and surface-mounted cabinets. NEMA PB 1, Type 1, suitable for environmental conditions at installed location.
- 1). Outdoor Locations: NEMA 250, Type 3R.
 - 2). Other Wet or Damp Indoor Locations: NEMA 250, Type 4.
 - 3). Hazardous Areas Indicated on Drawings: NEMA 250, Type 7C.
- 2.2.2 Front: Secured to box with concealed trim clamps. For surface-mounted fronts, match box dimensions; for flush-mounted fronts, overlap box.
- 2.2.3 Finish: Manufacturer's standard enamel finish over corrosion-resistant treatment or primer coat.
- 2.2.4 Directory Card: A clear plastic directory holder shall be mounted inside panelboard door.
- 2.2.5 Bus: Hard-drawn copper, 98 percent conductivity.
- 2.2.6 Equipment Ground Bus: Adequate for feeder and branch-circuit equipment ground conductors; bonded to box.
- 2.2.7 Panelboard Short-Circuit Rating: Fully rated to interrupt symmetrical short-circuit current available at terminals.
- 2.2.8 Panelboards with Main Service Disconnect: Listed for use as service equipment.
- 2.2.9 Spaces for Future Devices: Mounting brackets, bus connections, and necessary appurtenances required for future installation of devices.
- 2.2.10 Feed-through Lugs: Locate at opposite end of bus from incoming lugs or main device.

2.3 LIGHTING AND APPLIANCE BRANCH-CIRCUIT PANELBOARDS

- 2.3.1 Branch Overcurrent Protective Devices: Bolt-on circuit breakers, replaceable without disturbing adjacent units.
- 2.3.2 Doors: Front mounted with concealed hinges; secured with flush latch with tumbler lock; keyed alike.

2.4 DISTRIBUTION PANELBOARDS

- 2.4.1 Doors: Front mounted, and secured with vault-type latch with tumbler lock; keyed alike.
- 2.4.2 Branch overcurrent protective devices shall be one of the following:
- 1) Bolt-on circuit breakers.
 - 2) Fused switches.

2.5 INTEGRATED TRANSIENT VOLTAGE SURGE SUPPRESSION DEVICES

- 2.5.1 Surge Protective Device (SPD)

SECTION 16400 - PANELBOARDS

1. SPD shall be Listed and Component Recognized in accordance with UL 1449 Second Edition to include Section 37.3 highest fault current category. SPD shall be UL 1283 listed.
2. SPD shall be installed by and shipped from the electrical distribution equipment manufacturer's factory.
3. The TVSS devices in lighting and appliance panelboards shall be bus mounted between the main and branch devices. TVSS devices bussed off the end of the panelboard are not allowed. Panelboards with TVSS will accommodate thru-feed lugs and sub-feed circuit breakers in single section and multi-section panelboards.
4. The TVSS devices in power distribution panelboards shall be cable connected.
5. SPD shall provide surge current diversion paths for all modes of protection; L-N, L-G, N-G in WYE systems.
6. SPD shall be modular in design. Each mode including N-G shall be fused with a 200kAIR UL recognized surge rated fuse and incorporate a thermal cutout device. TVSS shall safely reach an end-of-life condition when subjected to fault current levels between 0 and 200 kA, including low level fault currents from 5 to 5000 amperes.
7. Audible diagnostic monitoring shall be by way of audible alarm. This alarm shall activate upon a fault condition. An alarm on/off switch shall be provided to silence the alarm. An alarm push to test switch shall be provided.
8. SPD shall meet or exceed the following criteria:
 - a. Minimum surge current capability (single pulse rated) per phase shall be:
 - 1) Service Entrance Panelboard locations: 240kA per phase
 - 2) Distribution and lighting and Appliance Panelboard locations: 160kA per phase
 - b. UL 1449 Suppression Voltage Ratings:

| <u>VOLTAGE LOCATION</u> | <u>L-N</u> | <u>L-G</u> | <u>N-G</u> |
|-------------------------|------------|------------|------------|
| 208Y/120V Distribution: | 400V | 400V | 400V |
| 480Y/277V Distribution: | 800V | 800V | 800V |
9. SPD shall have a minimum EMI/RFI filtering of up to -30 dB over the range of 100 kHz to 100 MHz.
10. SPD shall be provided with one set of NO/NC dry contacts.
11. The manufacturer of the electrical equipment in which the TVSS is installed shall warrant the integrated TVSS device to be free from defects in material and workmanship for a period of ten (10) years from the date of invoice the manufacturer or its authorized sales channel.

2.6 OVERCURRENT PROTECTIVE DEVICES

2.6.1 Molded-Case Circuit Breaker: NEMA AB 1, with interrupting capacity to meet available fault currents.

1. Thermal-Magnetic Circuit Breakers: Inverse time-current element for low-level overloads, and instantaneous magnetic trip element for short circuits. Adjustable magnetic trip setting for circuit-breaker frame sizes 250 A and larger.
2. GFCI Circuit Breakers: Single- and two-pole configurations with 5mA trip sensitivity.
3. Application Listing: Appropriate for application; Type SWD for switching fluorescent lighting loads; Type HACR for heating, air-conditioning, and refrigerating equipment.
4. Shunt Trip: 120-V trip coil energized from separate circuit, set to trip at 55 percent of rated voltage. Verify exact voltage of shunt trip with fire alarm vendor.

SECTION 16400 - PANELBOARDS

2.6.2 Fused Switch: NEMA KS 1, Type HD; clips to accommodate indicated fuses; lockable handle.

3 PART 3 - EXECUTION

3.1 INSTALLATION

3.1.1 Install panelboards and accessories according to NEMA PB 1.1.

3.1.2 Mounting Heights: Top of trim 86 inches above finished floor, unless otherwise indicated. Highest switch or breaker at 72" max above finished floor.

3.1.3 Mounting: Plumb and rigid without distortion of box. Mount recessed panelboards with fronts uniformly flush with wall finish.

3.1.4 Install filler plates in unused protective device spaces.

3.1.5 Wiring in Panelboard Gutters: Arrange conductors into groups and bundle and wrap with wire ties after completing load balancing.

3.1.6 Locate panelboards so that ratings are not reduced by heat from external sources.

3.2 IDENTIFICATION

3.2.1 Identify field-installed conductors, interconnecting wiring, and components; provide warning signs as specified in Division 16 Section "Basic Electrical Materials and Methods."

3.2.2 Panelboard Nameplates: Label each panelboard with engraved metal or laminated-plastic nameplate mounted with corrosion-resistant screws.

3.2.3 Circuit Directory: Create a directory to indicate installed circuit loads after balancing panelboard loads. Obtain approval before installing. Use a computer or typewriter to create directory; handwritten directories are not acceptable.

3.3 FIELD QUALITY CONTROL

3.3.1 Testing and Inspection: After installing panelboards and after electrical circuitry has been energized, demonstrate product capability and compliance with requirements.

3.3.2 Balancing Loads: After Substantial Completion, but not more than 60 days after Final Acceptance, measure load balancing and make circuit changes as follows:

1. Measure as directed during period of normal system loading.
2. Perform load-balancing circuit changes outside normal occupancy/working schedule of the facility and at time directed. Avoid disrupting critical 24-hour services such as fax machines and on-line data-processing, computing, transmitting, and receiving equipment.
3. After circuit changes, recheck loads during normal load period. Record all load readings before and after changes and submit test records.
4. Tolerance: Difference exceeding 20 percent between phase loads, within a panelboard, is not acceptable. Rebalance and recheck as necessary to meet this minimum requirement.

SECTION 16400 - PANELBOARDS

END OF SECTION 16400

SECTION 16500 - LIGHTING FIXTURES

1 PART 1 - GENERAL

1.2 SUMMARY

1.3 This Section includes the following:

1.4 Lighting fixtures with lamps and ballasts.

1.5 Emergency lighting units.

1.6 Exit signs.

1.7 Accessories, including fluorescent fixture dimmers, occupancy sensors, etc.

1.8 SUBMITTALS

1.8.1 Product Data: For each type of lighting fixture scheduled, arranged in order of fixture designation. Include data on features, photometric data, accessories, and finishes.

1.8.2 Product Certificates: For each type of ballast for dimmer-controlled fixtures, signed by product manufacturer.

1.8.3 Operation and maintenance data.

1.9 QUALITY ASSURANCE

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

1.9.2 Comply with NFPA 70.

1.9.3 Fixtures for hazardous locations shall be listed by Underwriters' Laboratory and labeled for indicated class and division of hazard.

1.9.4 NFPA 101 Compliance: Comply with visibility and luminance requirements for exit signs.

2 PART 2 - PRODUCTS

2.1 LIGHT FIXTURES

2.2 All light fixtures shall be specified on the drawings.

2.3 Fixtures to be installed in damp or wet locations shall be listed by Underwriters' Laboratory for that purpose.

2.4 Recessed incandescent fixtures shall be provided with thermal protectors to automatically deactivate the fixtures due to overheating (fixtures shall be labeled by Underwriters' Laboratory for that purpose).

SECTION 16500 - LIGHTING FIXTURES

- 2.5 Lamps shall be furnished and installed for all fixtures including fixtures furnished by others. Provide lamps of the proper type, wattage and voltage rating as specified in the contract documents.
- 2.6 Fluorescent dimmers and fluorescent dimming ballasts shall be manufactured by the same manufacturer.
- 2.7 Ballasts for operation of all fluorescent lamps shall be HPF Electronic with Class A Sound Rating.
- 2.8 Fluorescent ballasts for operation of F32 T8 rapid start lamps shall be electronic high-efficiency type with the following characteristics:
 - 2.8.1 Lamps may operate in instant start mode.
 - 2.8.2 Operate multiple lamps as parallel circuit, operating remaining lamps at full light out put upon failure of other lamps connected to the same ballast.
 - 2.8.3 Individual ballasts specifically designed and UL Listed are to operate one, two, three, or four lamps as scheduled on the drawings.
 - 2.8.4 Operate lamps at a frequency higher than 20 kHz.
 - 2.8.5 Operate a rated circuit voltage (120 OR 277 VAC) at an input frequency of 60 Hz, and tolerate +/- 10% sustained voltage variation without damage to the ballast, and maintain light output at +/- 10% voltage variation.
 - 2.8.6 Comply with EMI and RFI limits set by the FCC (CRF 47 Part 18) for non-consumer applications and not interfere with normal electrical equipment.
 - 2.8.7 Power Factor shall be not less than 0.95.
 - 2.8.8 Total Harmonic Distortion shall be less than 10%.
 - 2.8.9 Lamp Crest Factor shall be 1.7 or less.
 - 2.8.10 Ballast Factor shall be greater than 0.85 and less than 1.00.
 - 2.8.11 Sound rating shall be "A".
 - 2.8.12 Withstand transients shall be as specified by ANSI C.62.41 for location category A.
 - 2.8.13 Shall comply with applicable ANSI standards.
 - 2.8.14 Shall be provided with a three (3) year warranty.
 - 2.8.15 General: Comply with UL 924; for sign colors and lettering size, comply with authorities having jurisdiction.

3 PART 3 – EXECUTION

3.1 INSTALLATION

SECTION 16500 - LIGHTING FIXTURES

- 3.2 It shall be the Contractors responsibility to meet all local, state and national building codes when installing light fixtures and light fixture supports. All light fixture supports shall be painted fluorescent orange so they can be easily distinguished from the other ceiling grid supports.
- 3.3 Light fixtures shall be set level, plumb, and square with ceilings and walls.
- 3.4 Support for light fixtures in or on Grid-Type Suspended Ceilings shall be supported independently of the ceiling from the structure above.
- 3.5 Fixtures to be installed in or on painted ceilings and/or walls shall not be installed until painting is completed. Fixtures installed with paint applied over factory finishes will be rejected.
- 3.6 Fluorescent fixtures mounted individually on stems shall each have two single stems. Fluorescent fixtures individually surface mounted shall be supported at both ends.
- 3.7 Recessed fixtures shall be installed to their supports so that the trim flanges fit tightly and evenly against the surface of the ceiling.
- 3.8 All locations of fixtures are approximate. The contractor shall refer to architectural plans for exact locations.
- 3.9 In acoustical tile ceilings, recessed 2x2 and 2x4 fluorescent fixtures shall be installed so as to alleviate the necessity for cutting the tile.
- 3.10 For acoustical tile ceilings, surface fixtures shall be centered on a tile or a tile joint, unless noted otherwise.
- 3.11 For linear fluorescent fixtures mounted in a continuous row shall have one support at the beginning of the row, at each connecting joint and at the end of each row.
- 3.12 All incandescent lamps shall be furnished inside frosted except where noted otherwise.
- 3.13 T8 fluorescent lamps shall be four (4') feet long, bi-pin, rapid or instant start, 3500 K, 85 CRI, except where noted otherwise.
- 3.13 All H.I.D. lamps shall be phosphor coated, wattage as specified in the drawings.

END OF SECTION 16500

SECTION 16600 – FIRE ALARM

1 PART 1 - GENERAL

1.1 DESCRIPTION OF WORK

1.1.1 Provide a complete and operational expansion to the existing fire alarm system for the renovated areas.

1.1.2 Provide any and all hardware and software for a complete and operational system.

2 FIRE ALARM SUBMITTALS AND PLAN REVIEW APPLICATION

2.1 Contractor shall have a certified fire alarm installer prepare six sets of shop drawings, equipment product data, and plan review documents. Submittal data for the fire alarm system shall consist of layout of system, including all existing components (if they are not U.L. cross listed with new control panel, with wiring, shop drawings and/or catalog cuts indicating technical data necessary to evaluate the equipment, to include dimensions of all cabinets, fabrication materials and other descriptive data necessary to fully describe the equipment proposed.

2.2 A one-line diagram shall be included with the submittal material including all alarm initiating devices, annunciation devices and control equipment. This diagram is to indicate the fire zoning of all buildings and include all existing components.

2.3 All data required by the Office of State Fire Marshal shall be included in submittal data for review by the Architect. The fire alarm contractor shall make a Plan review application and pay all fees for application to the State Fire Marshal Office. Installation of the fire alarm system shall not begin until the Fire Marshall's review is complete.

2.4 It shall be the responsibility of the Contractor to supply all of the necessary equipment, raceways, etc., whether specifically indicated or not, to provide a complete and operational fire alarm system that meets the requirements of NFPA 72 and the State Fire Marshall's office. This includes any additional devices that the Fire Marshall inspector may require to certify the project. All components shall be U.L. listed with the fire alarm panel for a complete U.L. listed fire alarm system.

END OF SECTION 16600

GENERAL INFORMATION

BUILDING SQUARE FOOTAGE:
 NEW OFFICE BUILDOUT (UNDER EXT STURCTURE)
 TOTAL UNIT: 2,277 SQ. FT.
 NEW COVERED AREA
 TOTAL UNIT: 12,170 SQ. FT.
 EXISTING ARENA -SPRINKLERED
 75,178 SQ. FT.

COVERED AREA - CODE ANALYSIS:

A5- ASSEMBLY

12,170 SQ. FT.

APPLICABLE CODES:

INTERNATIONAL BUILDING CODE 2015 EDITION
 NFPA 101 LIFE SAFETY CODE 2015 EDITION

OCCUPANCY CLASSIFICATION:

INTERNATIONAL BUILDING CODE ASSEMBLY A-5
 NFPA 101 LIFE SAFETY CODE ASSEMBLY

CLASSIFICATION OF HAZARD:

LOW HAZARD

TYPE OF CONSTRUCTION:

INTERNATIONAL BUILDING CODE TYPE IIB SPRINKLERED
 NFPA 101 LIFE SAFETY CODE TYPE II (000) SPRINKLERED

MAXIMUM AREA AND HEIGHT

INTERNATIONAL BUILDING CODE UL
 NFPA 101 LIFE SAFETY CODE UL

FIRE RESISTANCE RATING

INTERNATIONAL BUILDING CODE
 PRIMARY STRUCTURAL FRAME 0 HOURS
 BEARING WALLS
 EXTERIOR 0 HOURS
 INTERIOR 0 HOURS
 NONBEARING WALLS & PARTITIONS
 EXTERIOR 0 HOURS
 INTERIOR 0 HOURS
 FLOOR CONST. & SECONDARY MEMBERS 0 HOURS
 ROOF CONST. & SECONDARY 0 HOURS

OFFICE BUILD OUT - CODE ANALYSIS:

B - BUSINESS

2,277 SQ. FT.

APPLICABLE CODES:

INTERNATIONAL BUILDING CODE 2015 EDITION
 NFPA 101 LIFE SAFETY CODE 2015 EDITION

OCCUPANCY CLASSIFICATION:

INTERNATIONAL BUILDING CODE BUSINESS
 NFPA 101 LIFE SAFETY CODE BUSINESS

CLASSIFICATION OF HAZARD:

LOW HAZARD

TYPE OF CONSTRUCTION:

INTERNATIONAL BUILDING CODE TYPE IIB SPRINKLERED
 NFPA 101 LIFE SAFETY CODE TYPE II (000) SPRINKLERED

MAXIMUM AREA AND HEIGHT

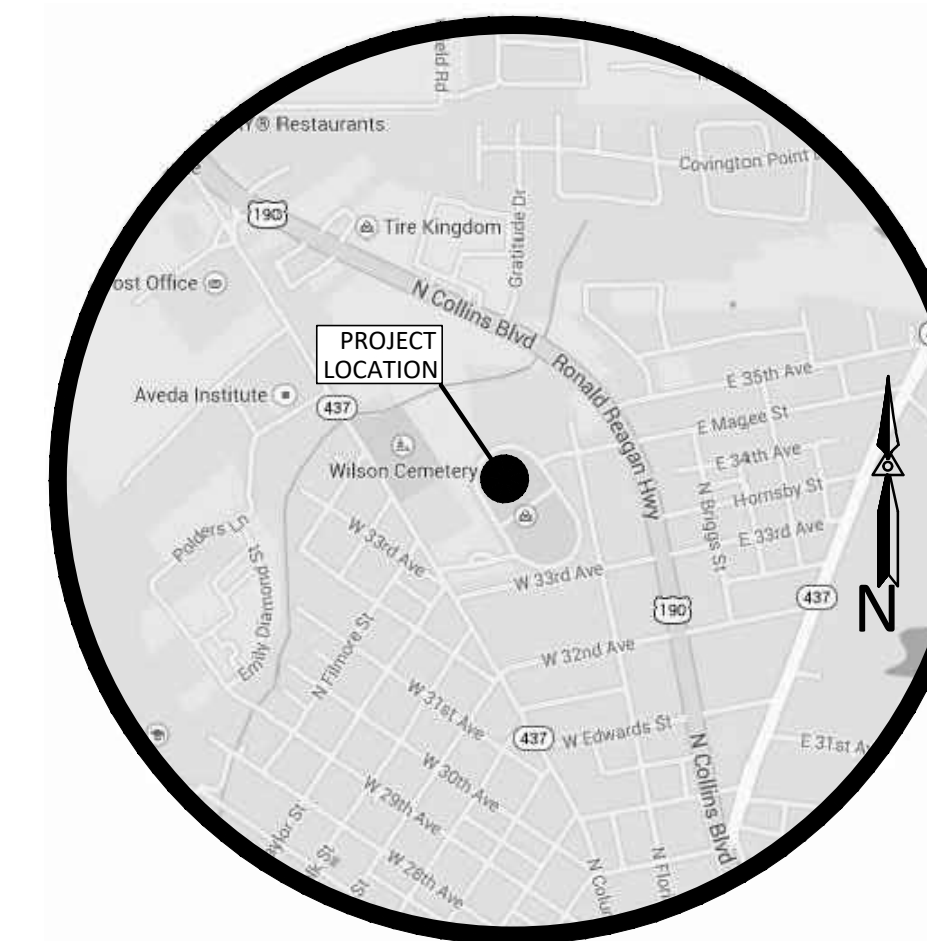
INTERNATIONAL BUILDING CODE 3 STORY / 23,000 SQFT
 NFPA 101 LIFE SAFETY CODE NO LIMIT

FIRE RESISTANCE RATING

INTERNATIONAL BUILDING CODE
 PRIMARY STRUCTURAL FRAME 0 HOURS
 BEARING WALLS
 EXTERIOR 0 HOURS
 INTERIOR 0 HOURS
 NONBEARING WALLS & PARTITIONS
 EXTERIOR 0 HOURS
 INTERIOR 0 HOURS
 FLOOR CONST. & SECONDARY MEMBERS 0 HOURS
 ROOF CONST. & SECONDARY 1 HOUR

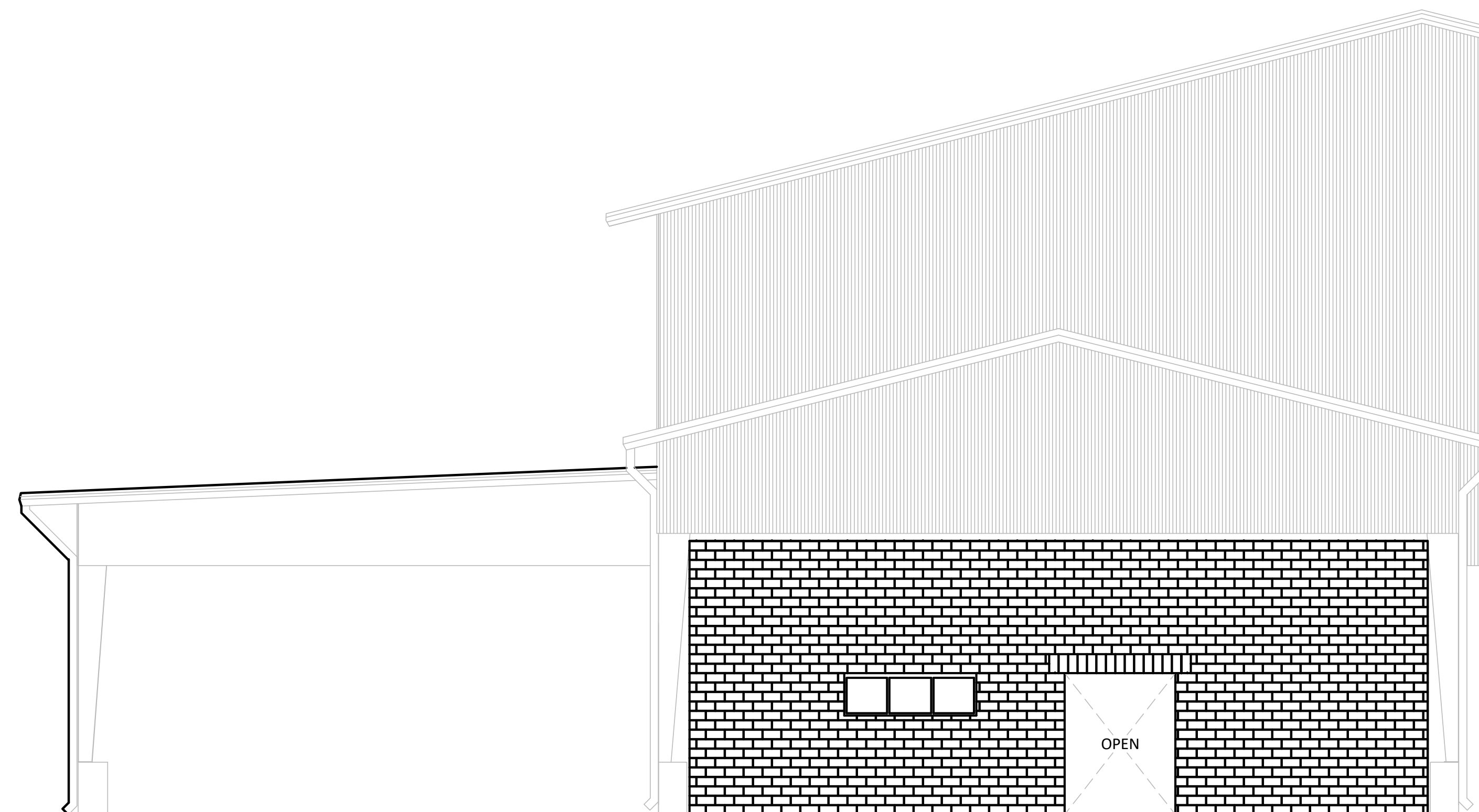
ST. TAMMANY PARISH, LOUISIANA FAIRGROUNDS PHASE 3

1515 N FLORIDA ST.
 COVINGTON LA, 70433
 KA PROJECT NUMBER 18054



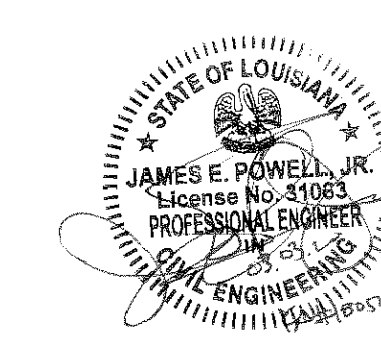
VICINITY MAP

SCALE: NTS



INDEX TO SHEETS

| SHEET NO. | DESCRIPTION | SHEET NO. | DESCRIPTION |
|---------------|-------------------------|------------|---|
| CIVIL | | STRUCTURAL | |
| C0.0 | CIVIL NOTES | S1.0 | GENERAL NOTES AND DETAILS |
| C1.0 | PAVING & SEWER PLAN | S2.0 | FOUNDATION PLAN |
| C2.0 | GRADING PLAN | S3.0 | FOUNDATION PLANS AND DETAILS |
| C3.0 | EROSION CONTROL | S3.1 | FOUNDATION DETAILS |
| C4.0 | CIVIL DETAILS | S4.0 | ROOF FRAMING PLANS AND DETAILS |
| ARCHITECTURAL | | MECHANICAL | |
| A0.0 | ARCHITECTURAL SITE PLAN | M1.1 | NOTES AND LEGENDS |
| A1.0 | BUILDING PLAN | M1.2 | DETAILS |
| A1.1 | COVERED AREA PLAN | M1.3 | DETAILS |
| A2.0 | BUILDING ELEVATIONS | M2.1 | FLOOR PLAN-PLUMBING AND FIRE PROTECTION |
| A2.1 | BUILDING ELEVATIONS | M2.2 | FLOOR PLAN-PLUMBING AND FIRE PROTECTION |
| A2.2 | INTERIOR ELEVATIONS | M2.3 | FLOOR PLAN-HVAC |
| A2.3 | ADA DETAILS | | |
| A2.4 | ADA DETAILS | | |
| A2.5 | ADA DETAILS | | |
| A3.0 | WALL SECTIONS | ELECTRICAL | |
| A3.1 | WALL SECTIONS | E1.0 | ELECTRICAL SITE PLAN |
| | | E2.0 | ELECTRICAL PLAN |
| | | E3.0 | ELECTRICAL RISER PLAN |



ISSUE FOR BID - MARCH 3, 2020

GENERAL NOTES

- ALL WORK MUST CONFORM TO THE REQUIREMENTS OF ST. TAMMANY PARISH AND THE LA DOTD STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES (LATEST EDITION) (LSSRB) AND ALL OTHER AGENCIES AS APPLICABLE.
- THE LOCATIONS OF EXISTING UTILITIES SHOWN ON THE PLANS ARE APPROXIMATE. THE CONTRACTOR SHALL CAREFULLY VERIFY SAME AND TAKE THE NECESSARY PRECAUTIONS TO AVOID DAMAGE TO EXISTING UTILITIES.
- CONTRACTOR SHALL VERIFY TOP-CASTING AND INVERT ELEVATIONS PRIOR TO ORDERING MANHOLES/CATCH BASINS.
- DAMAGES TO EXISTING STREETS, DRAINAGE, OTHER UTILITY STRUCTURES, AND RESIDENT PROPERTIES SHALL BE REPAIRED AT THE EXPENSE OF THE CONTRACTOR TO ORIGINAL AND/OR BETTER CONDITIONS TO THE SATISFACTION OF THE OWNERS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR DESIGN SERVICES, SUPPLYING MATERIALS, AND LABOR NECESSARY TO PROVIDE SHEETING, SHORING, AND BRACING OR SUPPORTS AS REQUIRED TO PROVIDE SAFE WORKING CONDITIONS FOR CONTRACTOR'S PERSONNEL AND TO PROVIDE FOR PROTECTION OF UTILITIES, BUILDINGS, LEVEES, AND STRUCTURES. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO COMPLY WITH THESE REQUIREMENTS. THE CONTRACTOR SHALL PROVIDE AN ADEQUATE SYSTEM TO WITHSTAND LATERAL PRESSURE. SHEET DESIGN AND INSTALLATION SHALL BE INCLUDED IN THE COST OF THE PIPE OR STRUCTURAL INSTALLATION.
- CONTRACTOR SHALL RE-GRADE ALL AREAS AFFECTED BY CONSTRUCTION TO PROVIDE POSITIVE DRAINAGE. WORK SHALL BE IN A WORKMAN LIKE MANNER AND IN ACCORDANCE WITH A/E REQUIREMENTS. IF CONTRACTOR DETERMINES THAT ANY AREAS AFFECTED BY CONSTRUCTION CANNOT BE RE-GRADED TO DRAIN, CONTRACTOR SHALL DOCUMENT (I.E., TAKE ELEVATIONS, PICTURES, ETC.) EXISTING CONDITIONS PRIOR TO CONSTRUCTION.
- ALL DRIVEWAYS DISRUPTED BY EXCAVATION SHALL BE RESTORED USING LIKE MATERIAL TO ORIGINAL OR BETTER CONDITION.
- CONTRACTOR SHALL GIVE THOSE AFFECTED BY CONSTRUCTION 24 HOURS NOTICE PRIOR TO DISRUPTION OF DRIVEWAYS. DRIVEWAYS AND STREETS SHALL NOT REMAIN CLOSED OVERNIGHT.
- CONTRACTOR SHALL NOTIFY THOSE AFFECTED BY CONSTRUCTION 24 HOURS PRIOR TO DISRUPTION OF WATER, SEWER OF OTHER UTILITY SERVICE. UTILITY SERVICES SHALL BE PROMPTLY REPAIRED AND NOT REMAIN OUT OF SERVICE OVERNIGHT.
- CONTRACTOR SHALL AT ALL TIMES CONDUCT HIS OPERATIONS AS TO ENSURE THE LEAST INCONVENIENCE TO THE GENERAL PUBLIC AND ADJACENT PROPERTY OWNERS.
 - CONTRACTOR SHALL PROVIDE ACCESS TO COMMERCIAL/INDUSTRIAL PROPERTIES AT ALL TIMES.
 - CONTRACTOR SHALL PROVIDE ACCESS TO RESIDENTIAL PROPERTIES AT ALL TIMES. VEHICULAR ACCESS SHALL BE PROVIDED AS DIRECTED BY ENGINEER. UPON APPROVAL BY ENGINEER, VEHICULAR ACCESS MAY BE LIMITED DURING PAVING OF DRIVEWAYS. CONTRACTOR SHALL CONTACT AND ADVISE ALL AFFECTED PROPERTY OWNERS.
- CONTRACTOR SHALL COORDINATE AND PAY FOR THE DE-ENERGIZING AND RE-ENERGIZING OF POWER LINES FOR CONSTRUCTION PURPOSES AS REQUIRED BY LOCAL, STATE, AND FEDERAL AGENCIES.
- CONTRACTOR SHALL BRACE UTILITY POLES ADJACENT TO EXCAVATION. BRACING SHALL REMAIN IN PLACE AFTER BACKFILLING UNTIL COMPACTION STANDARDS HAVE BEEN MET. COMPLETE WORK PROMPTLY ONCE EXCAVATION HAS BEGUN ADJACENT TO POLES.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE DIRECTLY WITH THE APPROPRIATE UTILITY COMPANIES TO HAVE THE UTILITIES RELOCATED.
- BACKFILL ALL UTILITY CROSSINGS, EXCAVATION UNDER THE ROADWAY AND SHOULDER WITH GRANULAR MATERIAL.
- PRIOR TO PRE-CONSTRUCTION MEETING, THE CONTRACTOR SHALL VERIFY EXISTING INVERTS AND TIE-INS. IF DISCREPANCIES ARE FOUND, NOTIFY CIVIL ENGINEER IMMEDIATELY TO DETERMINE ANY REQUIRED ADJUSTMENTS.
- ALL ELEVATIONS REFER TO SURVEY PERFORMED BY RANDALL W. BROWN & ASSOCIATES, INC. DATED 01-20-14.
- CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND ABIDING BY REQUIRED LA DEQ STORMWATER DISCHARGE PERMIT FOR CONSTRUCTION ACTIVITIES.

PAVEMENT NOTES

- IN AREAS TO RECEIVE PAVEMENTS, THE SUBGRADE SHALL BE EXCAVATED AND HAULED OFF TO A DEPTH NECESSARY TO REMOVE NON-STRUCTURAL FILL, ROOTS, ORGANICS AND OTHER DELETERIOUS MATERIALS. ALL EXCAVATION AND BACKFILL FOR PAVEMENT WORK SHALL EXTEND AT LEAST ONE (1) FOOT BEYOND FOOTPRINT OF PAVEMENT. THE AREA SHALL THEN BE PROOF ROLLED TO IDENTIFY ANY WEAK SPOTS PRIOR TO PLACING BASE COURSE. PROOF ROLLING SHALL OCCUR WITHIN 48 HOURS OF THE PLACEMENT OF FILL OVER EXISTING SUBGRADE.
- ALL SUBGRADE MATERIAL WHICH WILL NOT SATISFACTORILY COMPACT SHALL BE REMOVED AND REPLACE WITH STRUCTURAL FILL THAT WILL COMPACT SATISFACTORILY. TOP 12 INCHES SHALL BE COMPACTED TO 95% STANDARD PROCTOR. WHERE THE SUBGRADE IS OF NON-UNIFORM COMPACTED NATURE, IT SHALL BE SCARIFIED TO A DEPTH OF AT LEAST 6 INCHES FOR ITS FULL WIDTH AND THE MATERIAL SPREAD AND BROUGHT TO LINE AND GRADE AND COMPACTED AS SPECIFIED ABOVE.
- STRUCTURAL FILL SHALL CONSIST OF SANDY CLAYS (CL) OR CLAYEY SANDS (SC) FREE OF ORGANIC OR OTHER DELETERIOUS MATERIALS. IMPORTED CLAYEY SOIL SHALL HAVE A LIQUID LIMIT OF LESS THAN 45 AND A PLASTICITY INDEX BETWEEN 8 AND 25.
- BASE COURSE FOR CONCRETE PAVEMENT SHALL CONSIST OF 12 INCHES (MIN.) OF STRUCTURAL FILL AS DESCRIBED ABOVE. ADDITIONAL BASE COURSE OVER THE MINIMUM MAY BE REQUIRED TO BRING PAVEMENT UP TO REQUIRED GRADES. BASE COURSE FOR CONCRETE SIDEWALKS SHALL CONSIST OF 6 INCHES (MIN.) OF STRUCTURAL FILL AS DESCRIBED ABOVE.
- BASE COURSE SHALL BE PLACED IN LOOSE LIFTS NO GREATER THAN 6 INCHES IN THICKNESS AND COMPACTED TO 95% OF ITS MAX. DRY DENSITY NEAR ±2% OPTIMUM MOISTURE CONTENT ACCORDING TO ASTM D 698.
- PORTLAND CEMENT CONCRETE PAVEMENT SHALL BE IN ACCORDANCE WITH SECTION 901 OF THE LSSRB FOR TYPE B CONCRETE AND SHALL ATTAIN A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI FOR 28 DAYS. CONCRETE FOR SIDEWALKS SHALL ATTAIN A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI FOR 28 DAYS.
- CONCRETE PAVEMENT FOR PARKING AND DRIVES SHALL HAVE A MEDIUM-TO-FINE-TEXTURED BROOM TYPE FINISH. CONCRETE SIDEWALKS SHALL HAVE A LIGHT BROOM-TEXTURED FINISH.
- JOINT LAYOUT SHOWN ON DRAWINGS IS SUGGESTED. ALL JOINTS ARE TO BE USED WHERE SHOWN ON THE DRAWINGS OR AS DIRECTED BY THE ENGINEER. CONCRETE PANELS SHALL NOT EXCEED TWELVE (12) FEET IN ANY DIRECTION AS SHOWN ON THE PLANS.
- PAVEMENT SHALL NOT BE OPENED TO TRAFFIC AFTER PLACEMENT UNTIL DESIGN STRENGTH IS MET WITHOUT THE APPROVAL OF THE ENGINEER.
- ALL DRAINAGE AND SEWER STRUCTURES WITHIN THE PAVEMENT AREA SHALL BE BOXED OUT WITH EXPANSION JOINTS.
- NO CONCRETE SHALL BE POURED WITHOUT THE SERVICES OF THE TESTING LAB TECHNICIAN TO WITNESS THE POUR, MAKE SLUMP TESTS AND MAKE TEST CYLINDERS.
- IMMEDIATELY AFTER COMPLETION OF FINISHING OPERATIONS AND AS SOON AS MARRING OF CONCRETE WILL NOT OCCUR, THE PAVEMENT SURFACE SHALL BE CURED BY COVERING WITH A WHITE PIGMENTED CURING COMPOUND IN CONFORMANCE WITH DOTD STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES LATEST EDITION.
- JOINT SEALER SHALL BE IN ACCORDANCE WITH SECTION 1005.02 OF DOTD STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES (LATEST EDITION). THE SEALANT AND BACKER MATERIALS SHALL BE APPROVED PRODUCTS LISTED IN DOTD'S QUALIFIED PRODUCT LIST 67.
- JOINTS ENDING AT CURVES SHALL BE CARRIED ONTO THE CURB AND PAVEMENT AT RIGHT ANGLES TO THE TANGENT AT THAT POINT.
- AN APPROVED TESTING LABORATORY, SELECTED BY THE OWNER, SHALL BE RETAINED BY THE OWNER AND SHALL PROVIDE ALL REQUIRED TESTING. TEST REPORTS MUST BE FURNISHED TO THE ENGINEER AND CONTRACTOR/OWNER.
- CONTRACTOR SHALL PROVIDE MEANS FOR TEMPORARY DRAINAGE DURING CONSTRUCTION.
- CONTRACTOR SHALL INSTALL CONCRETE SIDEWALK AT GRADES SHOWN AND SHALL COMPLY WITH ALL APPLICABLE ADA STANDARDS.
- CONTRACTOR SHALL ADJUST GRADE BREAK LOCATIONS OF SIDEWALKS TO COINCIDE WITH NECESSARY JOINT SPACING AS LONG AS ADA REQUIREMENTS ARE MET.
- CONTRACTOR SHALL BACKFILL AND GRADE BEHIND CONCRETE SIDEWALKS TO ALLOW FOR POSITIVE DRAINAGE AWAY FROM ALL BUILDINGS.

REQUIRED TESTING SERVICES

THE FOLLOWING TESTING SERVICES SHALL BE PERFORMED BY AN INDEPENDENT TESTING COMPANY AS SELECTED BY THE ENGINEER/OWNER TO ENSURE CONFORMANCE WITH THE PLANS AND SPECIFICATIONS. ALL FEES ASSOCIATED WITH REQUIRED TESTING SHALL BE PAID FOR DIRECTLY BY THE OWNER.

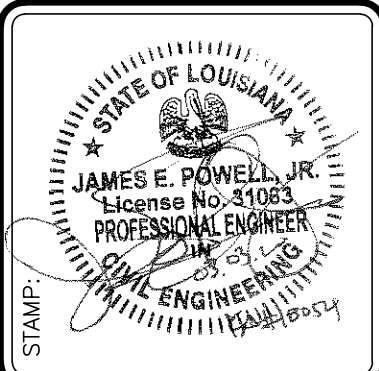
- BASE COURSE/STRUCTURAL FILL:
 - PICK-UP OF SAMPLES OF PROPOSED BASE COURSE MATERIALS, INCLUDING BEDDING AND BACKFILL MATERIAL FOR DRAINAGE PIPE AND STRUCTURES.
 - IN-LAB GRADATION AND PROCTOR TESTING OF SAMPLES FOR CONFORMANCE WITH SPECIFICATIONS.
 - IN-FIELD NUCLEAR DENSITY TESTING OF FILL (MIN. 4 TESTS PER 200 SQ. YDS. PER LIFT OF SECTION TO BE POURED).
 - IN-FIELD NUCLEAR DENSITY TESTING OF DRAINAGE PIPE/STRUCTURE BEDDING AND BACKFILL (MIN. 1 TEST PER 250 LINEAR FEET PER LIFT OF EACH MATERIAL).
- CONCRETE PAVEMENT:
 - REVIEW OF ALL CONCRETE MIX DESIGNS PROPOSED FOR USE ON PROJECT.
 - OBTAINING AND TESTING ONE (1) SET OF CYLINDERS (4 PER SET) FOR EACH 50 CU. YDS. OR PORTION THEREOF PER DAY. ONE (1) CYLINDER SHALL BE BROKEN AT SEVEN (7) DAYS AND THE OTHER TWO (2) SHALL BE BROKEN AT TWENTY-EIGHT (28) DAYS. ONE (1) CYLINDER SHALL BE KEPT IN RESERVE.
- ANY OTHER TESTS SPECIFIED ON DRAWINGS OR SPECIFICATIONS AND AS DIRECTED BY ENGINEER TO ENSURE CONFORMANCE WITH PLANS AND SPECIFICATIONS.

CADD FILE NAME:
18054 - MS-NOTES.dwg

| | | | |
|---------------------|----------------------|--------------------|------------------|
| DESIGNED BY: JEP | DRAWN BY: MMM/NBZ | CHECKED BY: JEP | JOB NO: 18054 |
| SCALE: (24x36) | SCALE: (11x17) | DATE: 03.MAR.20 | |

FAIRGROUNDS PHASE 3
1515 N FLORIDA ST.
COVINGTON, LA
CIVIL NOTES

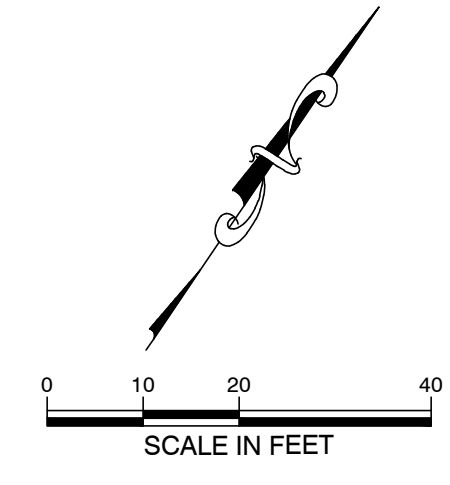
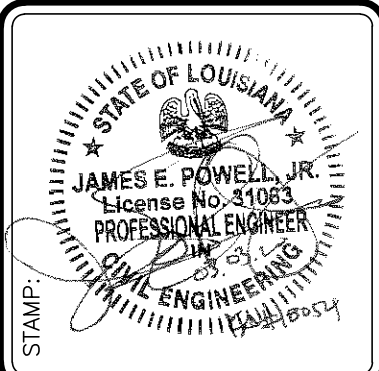
| DATE | REVISIONS | APPR'D | J.E.P. |
|----------|---------------|--------|--------|
| 03.03.20 | ISSUE FOR BID | | |
| | | | |
| | | | |
| | | | |



| | | | |
|-------------------------------|-------------------------------|--------------------|------------------|
| DESIGNED BY: JEP | DRAWN BY: MMM/NBZ | CHECKED BY: JEP | JOB NO: 18054 |
| SCALE: (24x36) 1" = 20'-0" | SCALE: (11x17) 1" = 40'-0" | DATE: 03.MAR.20 | |

FAIRGROUNDS PHASE 3
1515 N FLORIDA ST.
COVINGTON, LA
PAVING & SEWER PLAN

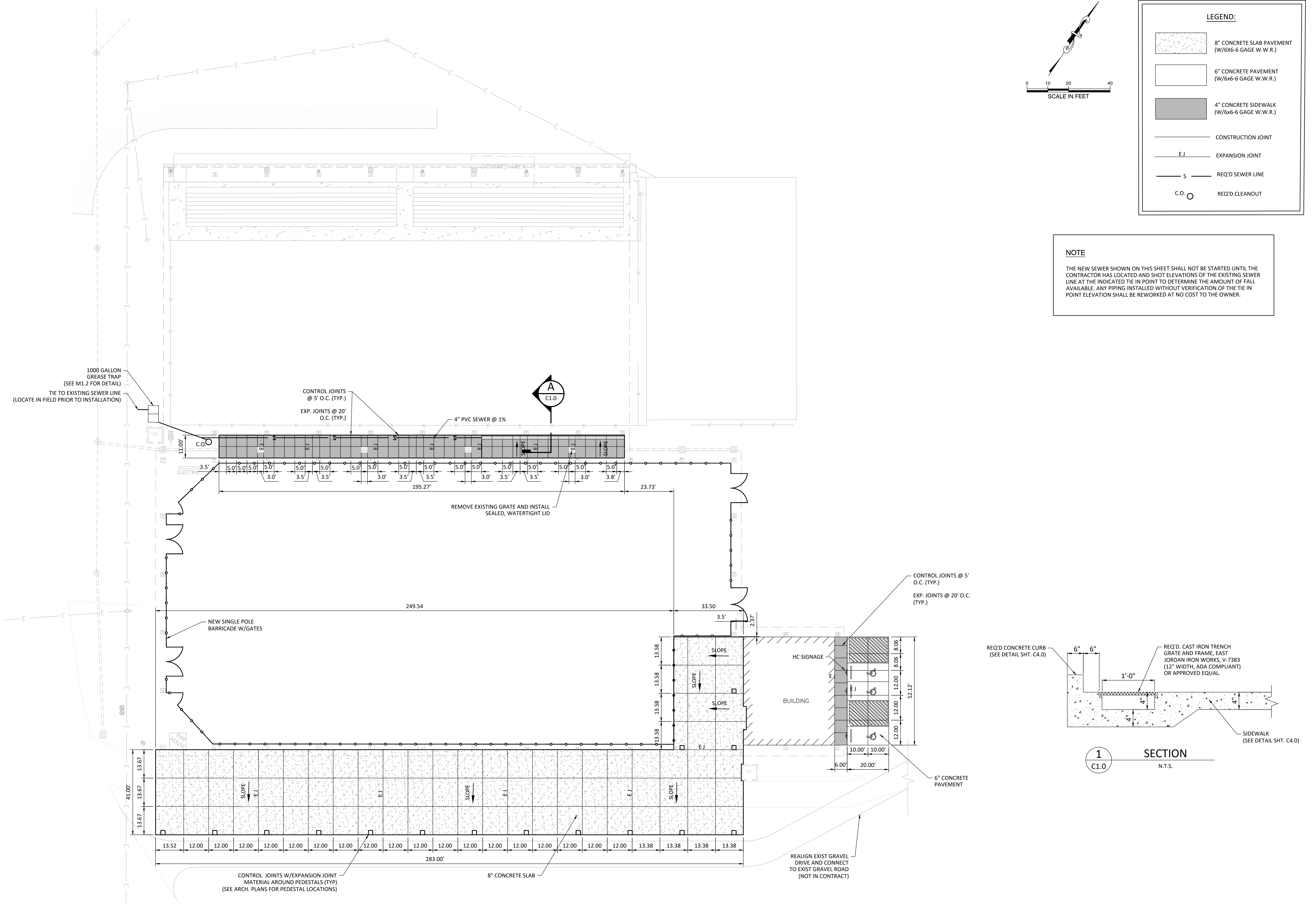
| | | |
|---------------------------|------------|-------------------|
| DATE: 03.03.20 | REVISIONS: | APPR'D: J.E.P. |
| REMARKS: ISSUE FOR BID | | |



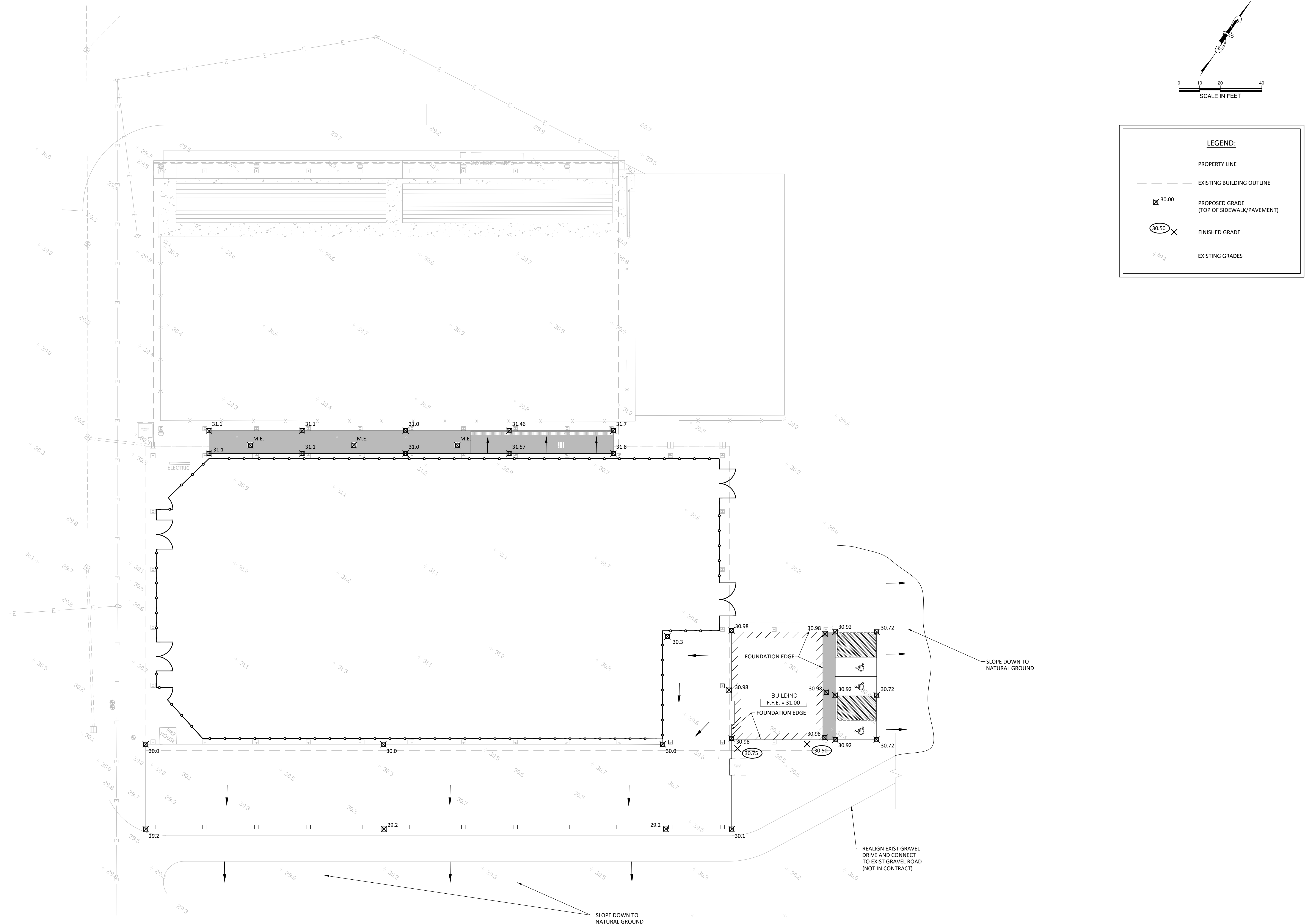
LEGEND:

- 8" CONCRETE SLAB PAVEMENT (W/6x6-6 GAGE W.W.R.)
- 6" CONCRETE PAVEMENT (W/6x6-6 GAGE W.W.R.)
- 4" CONCRETE SIDEWALK (W/6x6-6 GAGE W.W.R.)
- CONSTRUCTION JOINT
- EXPANSION JOINT
- REQ'D SEWER LINE
- REQ'D CLEANOUT

NOTE
THE NEW SEWER SHOWN ON THIS SHEET SHALL NOT BE STARTED UNTIL THE CONTRACTOR HAS LOCATED AND SHOT ELEVATIONS OF THE EXISTING SEWER LINE AT THE INDICATED TIE IN POINT TO DETERMINE THE AMOUNT OF FALL AVAILABLE. ANY PIPING INSTALLED WITHOUT VERIFICATION OF THE TIE IN POINT ELEVATION SHALL BE REWORKED AT NO COST TO THE OWNER.



1
SECTION
N.T.S.

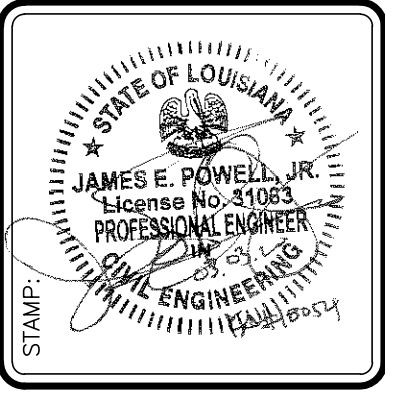


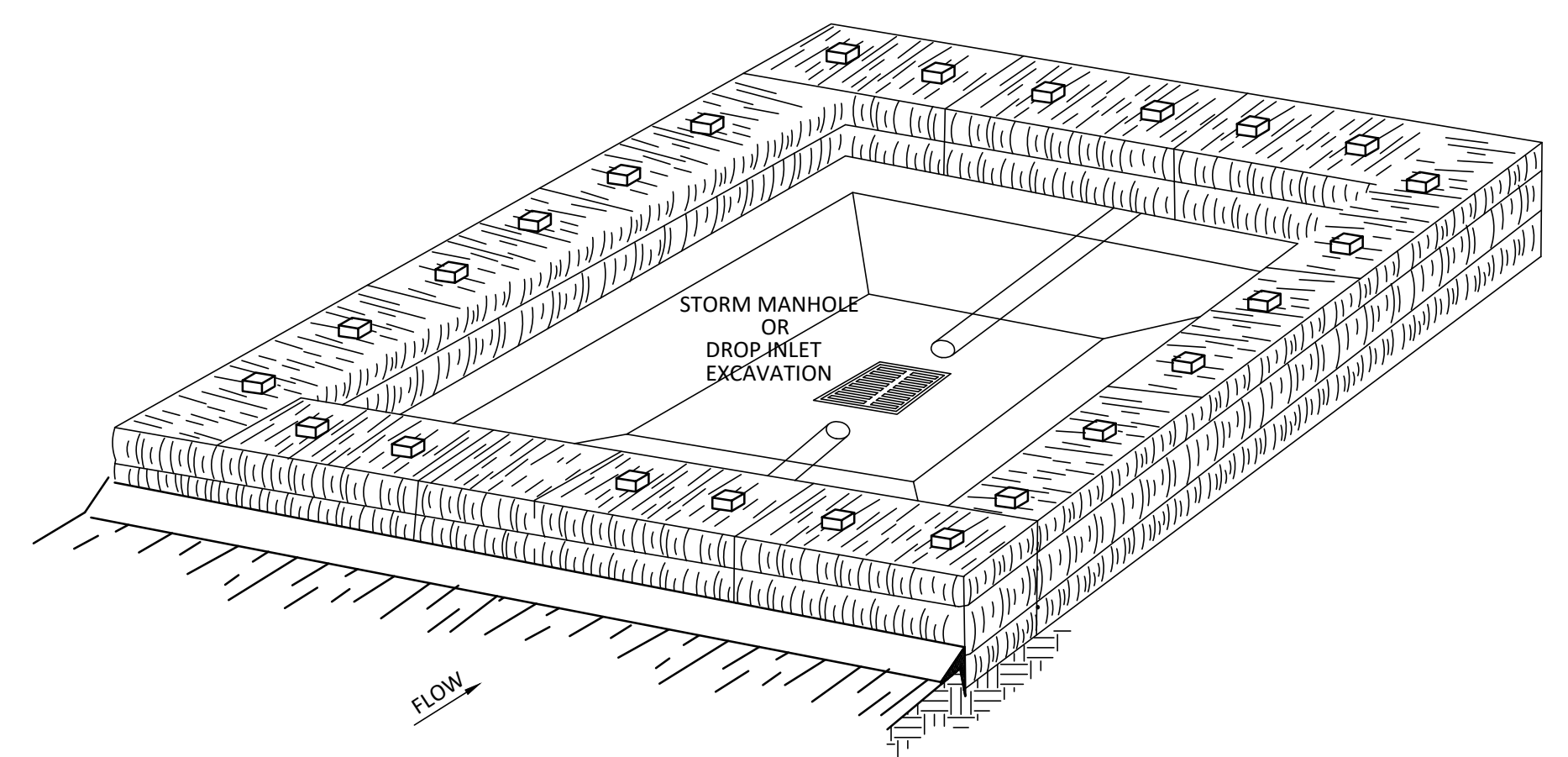
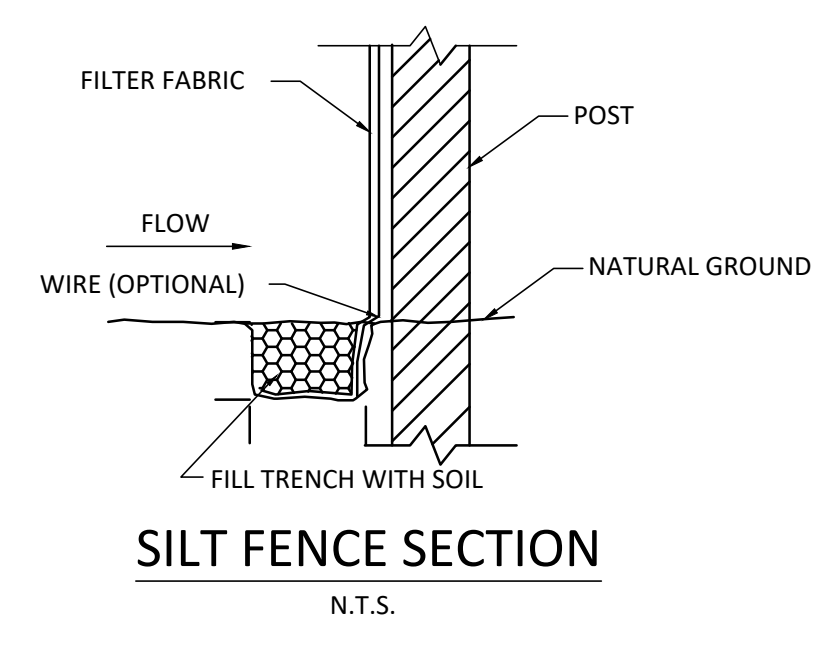
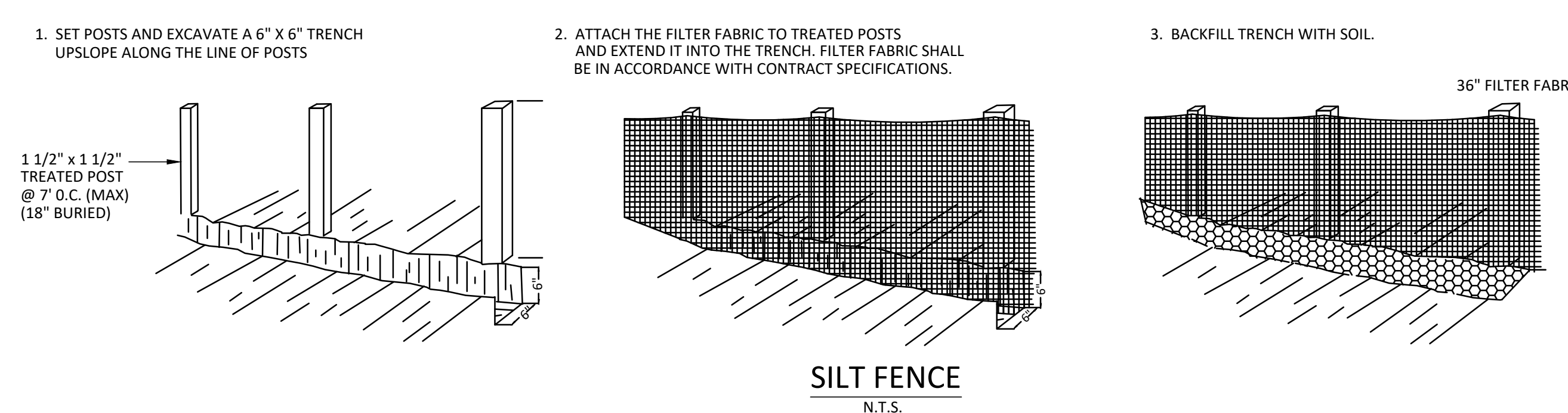
CADD FILE NAME:
18054 - PL-D-GRADE.dwg

| | | | |
|-------------------------------|-------------------------------|--------------------|------------------|
| DESIGNED BY: JEP | DRAWN BY: MMM/NBZ | CHECKED BY: JEP | JOB NO. 18054 |
| SCALE: (24x36) 1" = 20'-0" | SCALE: (11x17) 1" = 40'-0" | DATE: 03.MAR.20 | |

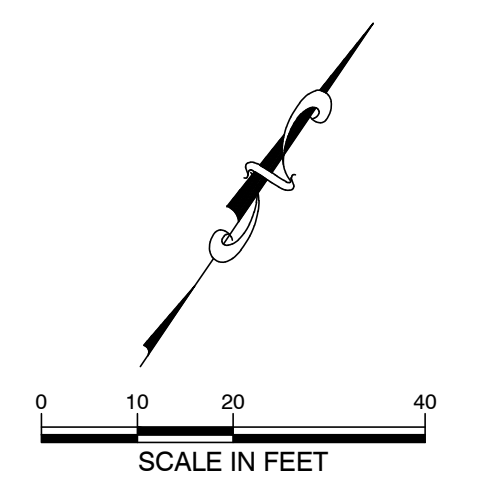
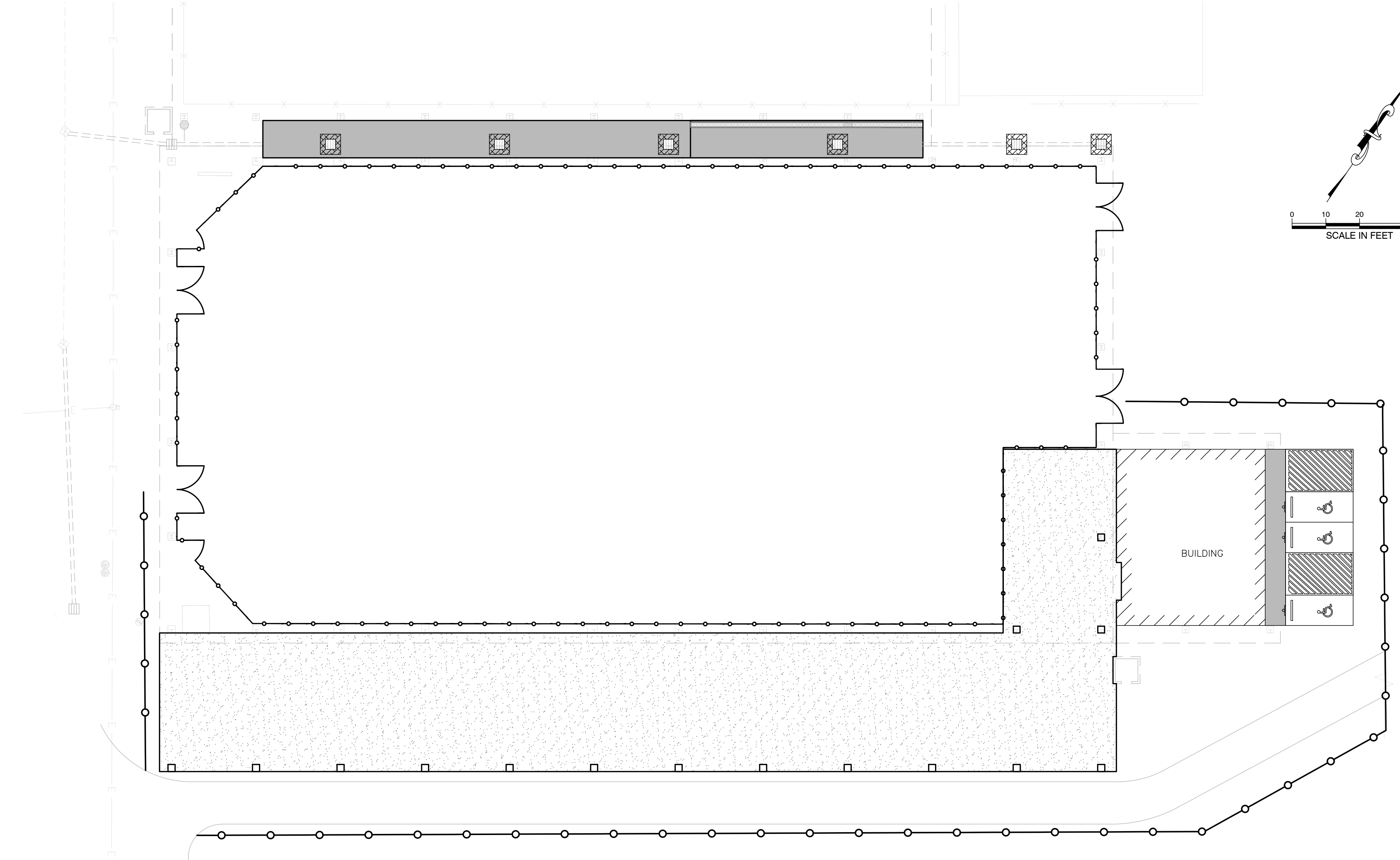
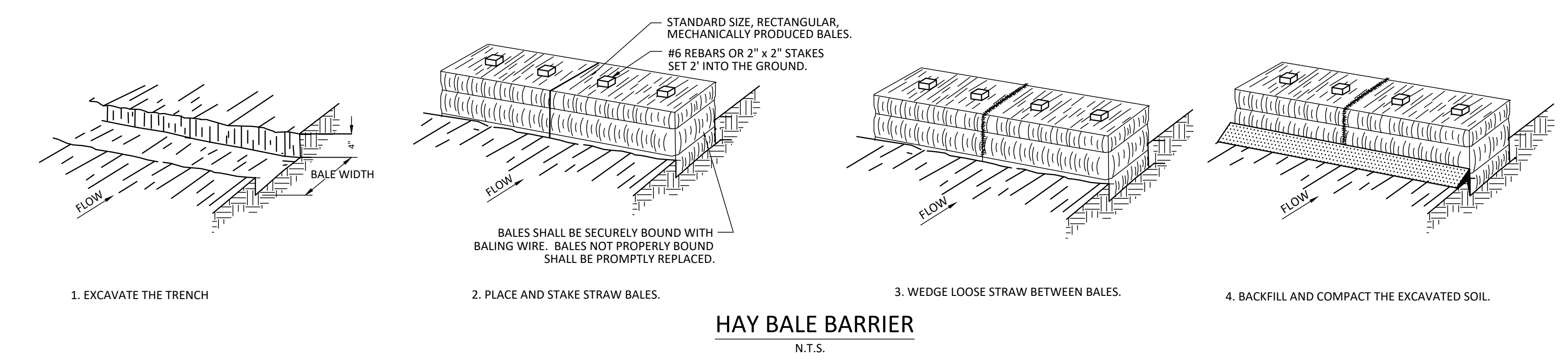
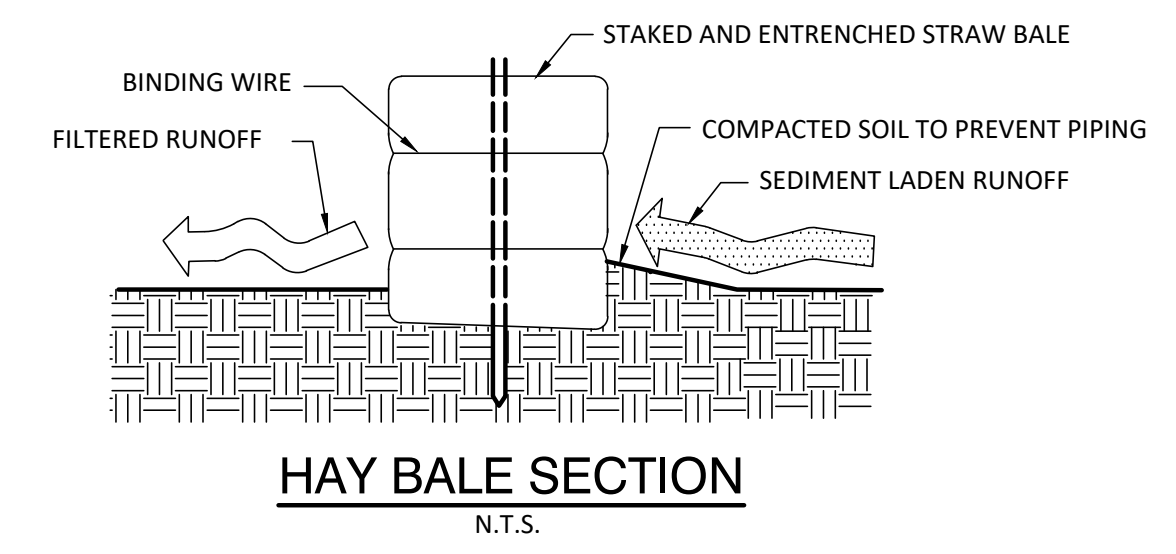
FAIRGROUNDS PHASE 3
1515 N FLORIDA ST.
COVINGTON, LA
GRADING PLAN

| DATE | REVISIONS | APP'D | J.E.P. |
|----------|---------------|-------|--------|
| 03.03.20 | ISSUE FOR BID | | |



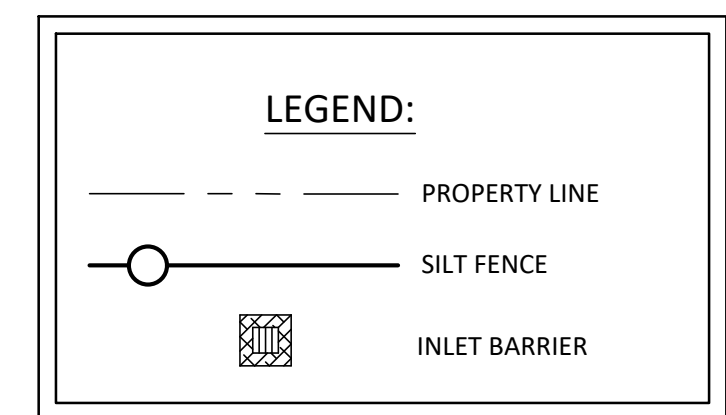


*CONTRACTOR MAY USE 6 OZ. FILTER FABRIC WRAPPED AROUND DROP INLET GRATE IN LIEU OF STRAW BALES AFTER DROP INLETS ARE IN PLACE. CONTRACTOR SHALL MAINTAIN FABRIC FREE OF MUD AND TRASH.

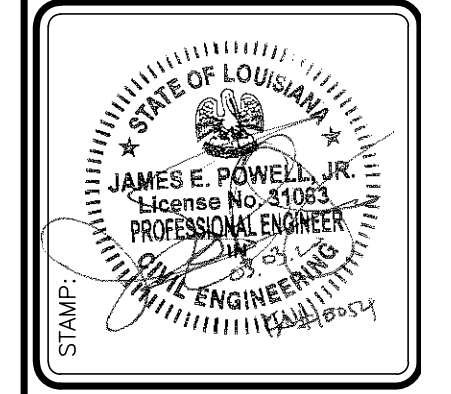


EROSION CONTROL NOTES

1. PRIOR TO ANY OTHER CONSTRUCTION, A STABILIZED CONSTRUCTION EXIT SHALL BE CONSTRUCTED AT EACH POINT OF ENTRY TO OR EXIT FROM THE SITE.
2. IMMEDIATELY AFTER THE ESTABLISHMENT OF CONSTRUCTION ENTRANCES, ALL PERIMETER EROSION CONTROL DEVICES AND STORM WATER MANAGEMENT DEVICES SUCH AS PONDS, SILT FENCING, HAY BALES, ETC. SHALL BE INSTALLED PRIOR TO ANY OTHER CONSTRUCTION AND MAINTAINED UNTIL PERMANENT GROUND COVER IS ESTABLISHED.
3. ADDITIONAL EROSION CONTROL DEVICES SHALL BE INSTALLED IMMEDIATELY AFTER GROUND DISTURBANCE OCCURS. THE LOCATION OF SOME OF THE EROSION CONTROL DEVICES MAY HAVE TO BE ALTERED FROM THAT SHOWN ON THE PLANS IF DRAINAGE PATTERNS DURING CONSTRUCTION ARE DIFFERENT FROM THE FINAL PROPOSED DRAINAGE PATTERNS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ACCOMPLISH EROSION CONTROL FOR ALL DRAINAGE PATTERNS CREATED AT VARIOUS STAGES DURING CONSTRUCTION. ANY DIFFICULTY IN CONTROLLING EROSION DURING ANY PHASE OF CONSTRUCTION SHALL BE REPORTED TO THE ENGINEER IMMEDIATELY.
4. THE LOCATIONS OF EROSION CONTROL DEVICES SHALL BE ADJUSTED AS CONSTRUCTION PROGRESSES TO MAINTAIN A FUNCTIONING EROSION CONTROL SYSTEM.
5. EROSION CONTROL DEVICES SHALL BE INSPECTED AT LEAST WEEKLY AND AFTER EACH RAIN AND REPAIRED BY GENERAL CONTRACTOR.
6. EROSION CONTROL DEVICES SHALL BE CLEANED WHEN SILT EXCEEDS 12" IN DEPTH AND FURTHER REPAIRED AS NECESSARY TO MAINTAIN A FUNCTIONING EROSION CONTROL SYSTEM.
7. EROSION CONTROL DEVICES SHALL BE MAINTAINED UNTIL PERMANENT COVER IS ESTABLISHED AND THEN REMOVED WHEN DIRECTED BY THE CIVIL ENGINEER.
8. ANY DISTURBED AREA LEFT EXPOSED FOR A PERIOD GREATER THAN 21 DAYS SHALL BE STABILIZED WITH TEMPORARY SEEDING.
9. ALL DISTURBED AREAS WITH SLOPES 2:1 OR FLATTER WHICH ARE NOT STABILIZED BY OTHER MEASURES SHALL BE SEEDDED.
10. ADDITIONAL EROSION CONTROL MEASURES WILL BE INSTALLED IF DEEMED NECESSARY BY ON-SITE INSPECTION BY THE CIVIL ENGINEER.
11. CONTRACTOR SHALL REMOVE ALL DIRT AND TRASH FOR NEW AND EXISTING PIPES WHICH MAY BE DISPOSED DURING CONSTRUCTION.



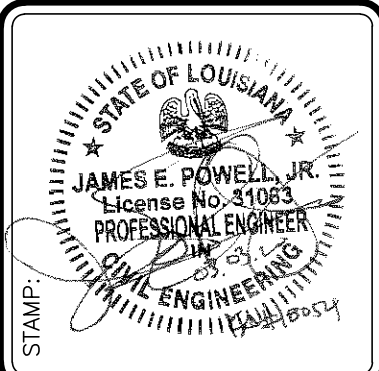
| DATE | REVISIONS | APPROVED |
|--|--------------------------------|----------|
| 03.03.20 <td>ISSUE FOR BID <td>J.E.P. </td></td> | ISSUE FOR BID <td>J.E.P. </td> | J.E.P. |



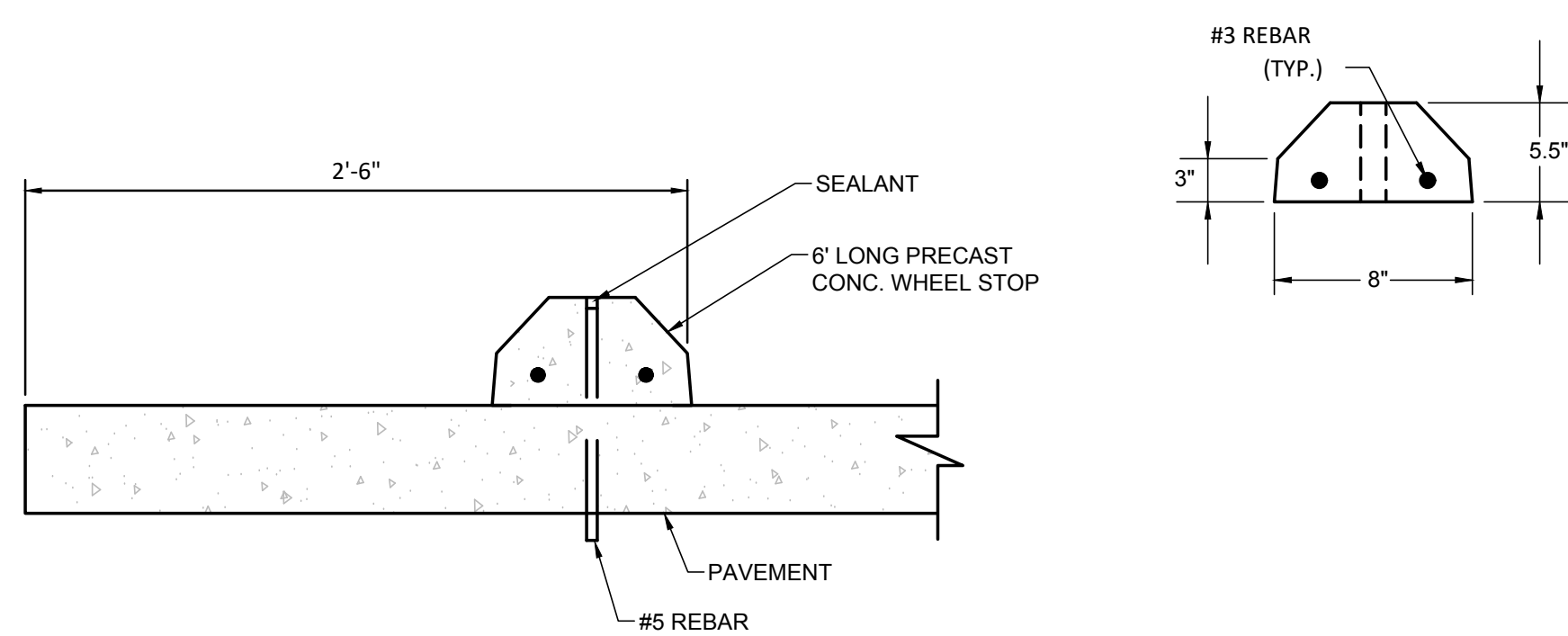
| | | | |
|---------------------|-----------------|-----------------------|------------------|
| DESIGNED BY: JEP | DRAWN BY: TM | CHECKED BY: MM/MBZ | JOB NO: 18054 |
| SCALE: (24x36) | SCALE: (11x17) | DATE: 03.MAR.20 | |

FAIRGROUNDS PHASE 3
1515 N FLORIDA ST.
COVINGTON, LA
CIVIL DETAILS

| | | |
|---------------------------|-----------|-----------------|
| DATE: 03.03.20 | REVISIONS | APP'D J.E.P. |
| REMARKS: ISSUE FOR BID | | |

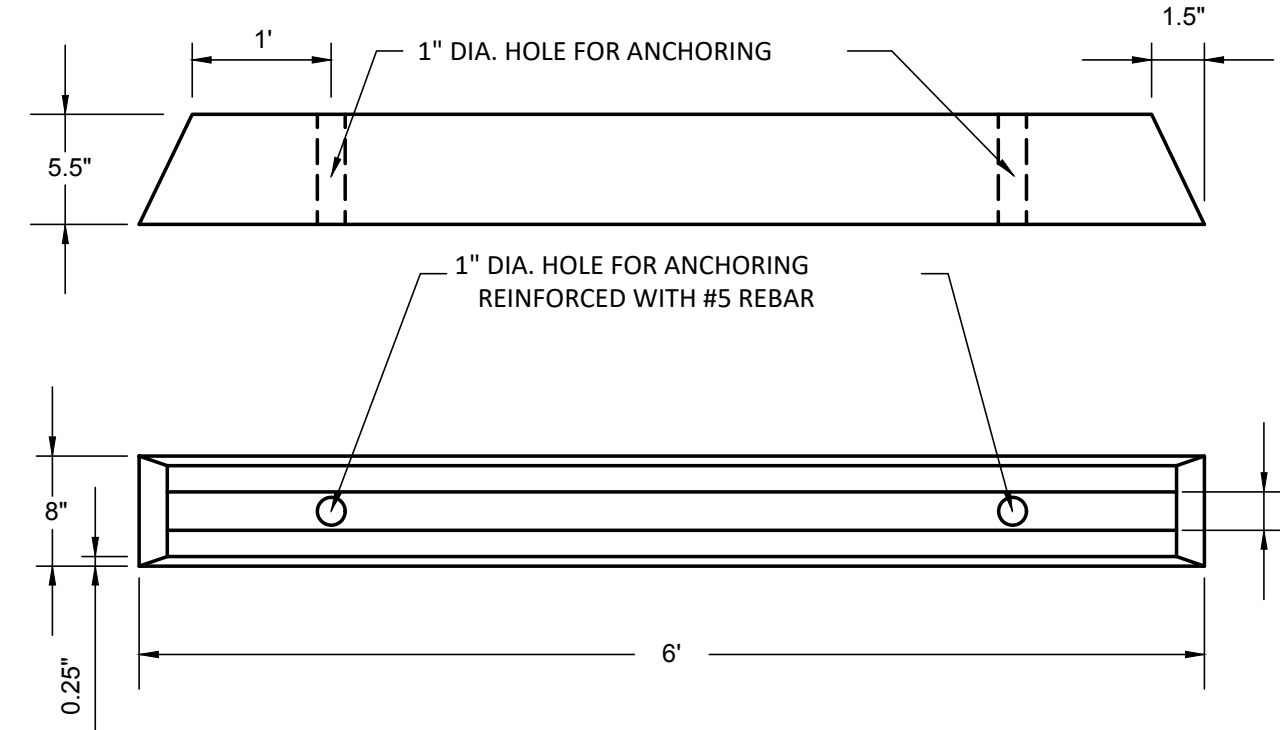


Kyle Associates, LLC
Planning, Engineering, and Landscape Architecture
638 Village Lane N. • Mandeville, LA 70471 • 985.727.0377

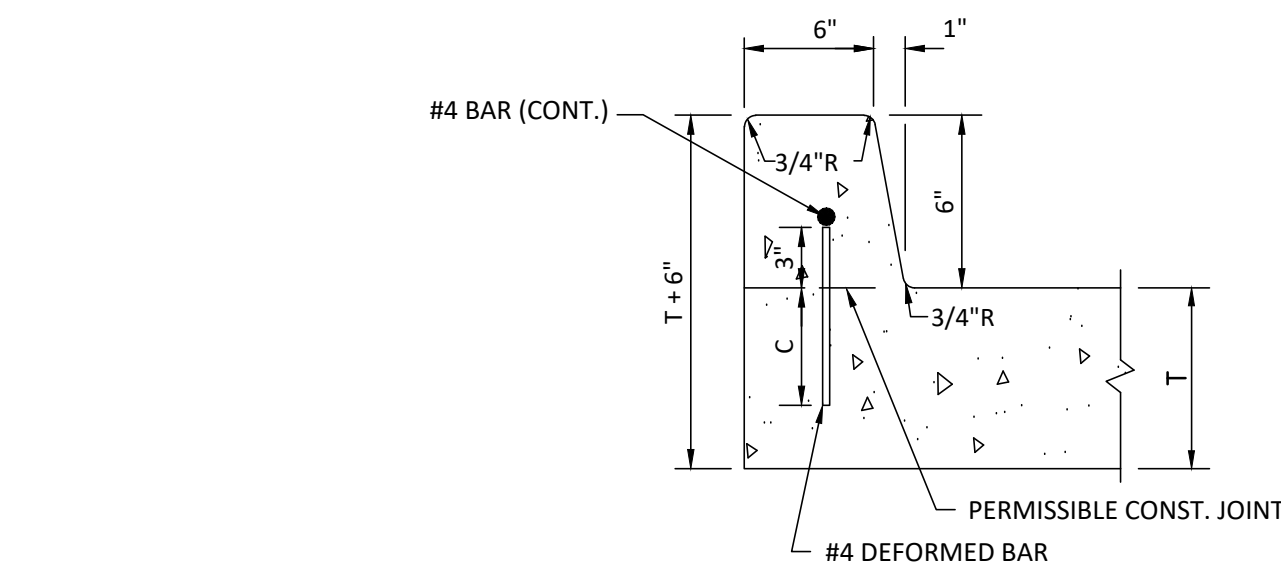


PRECAST CONCRETE WHEEL STOP
N.T.S.

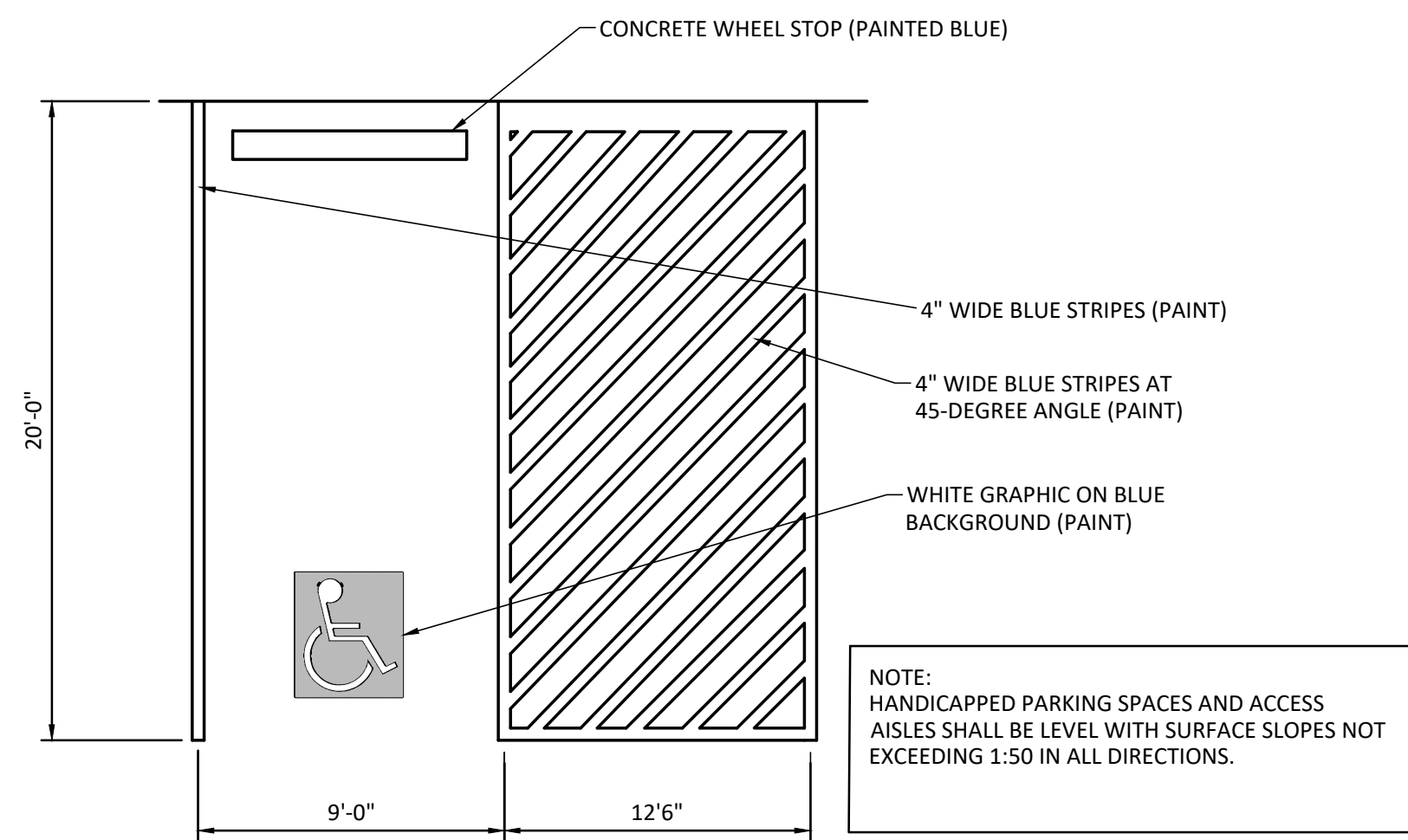
- NOTES:**
1. WHEEL STOPS ARE TO BE DELIVERED AND INSTALLED FREE OF VISIBLE CRACKS AND BLEMISHES.
 2. CONCRETE WHEEL STOPS SHALL BE 4,200 P.S.I CONCRETE AT 28 DAYS (MIN.) FIBER REINFORCED, INSTALLED WITH 2 EA. 5/8"x16" PINS, 1/2" BELOW TOP OF WHEEL STOP.



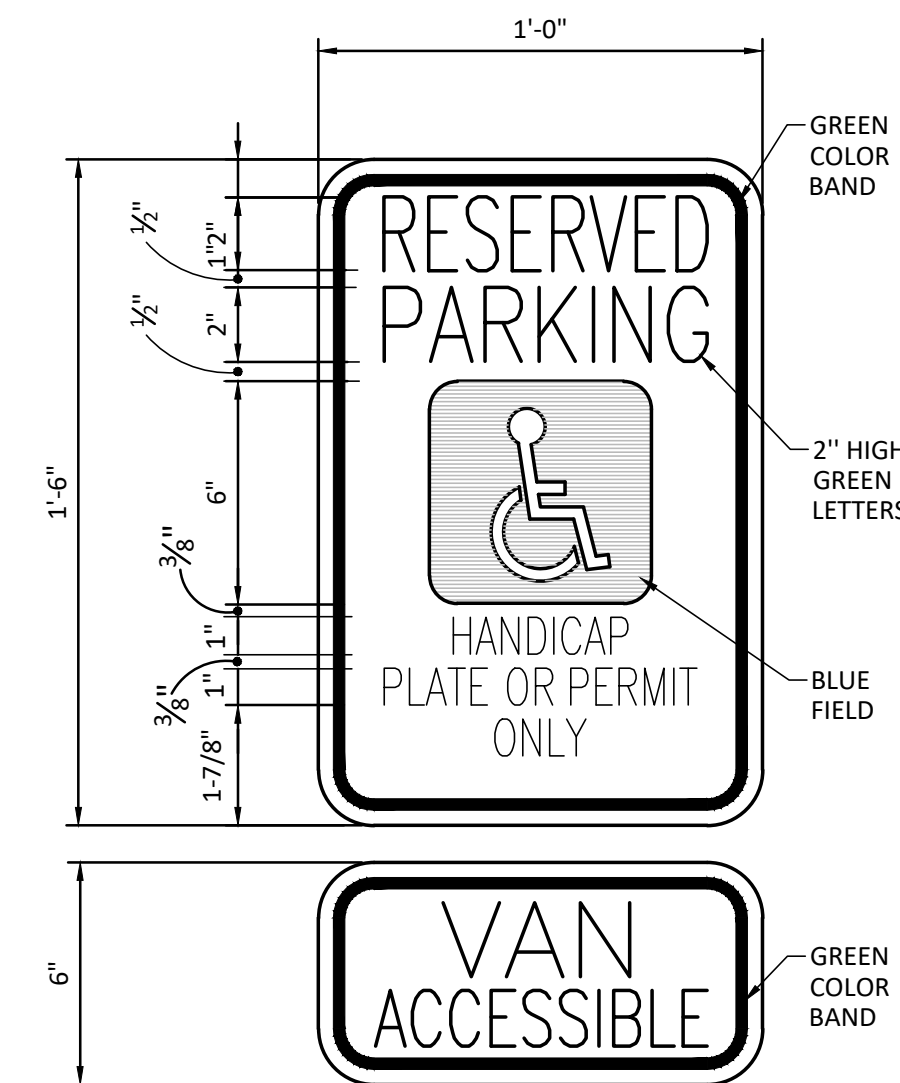
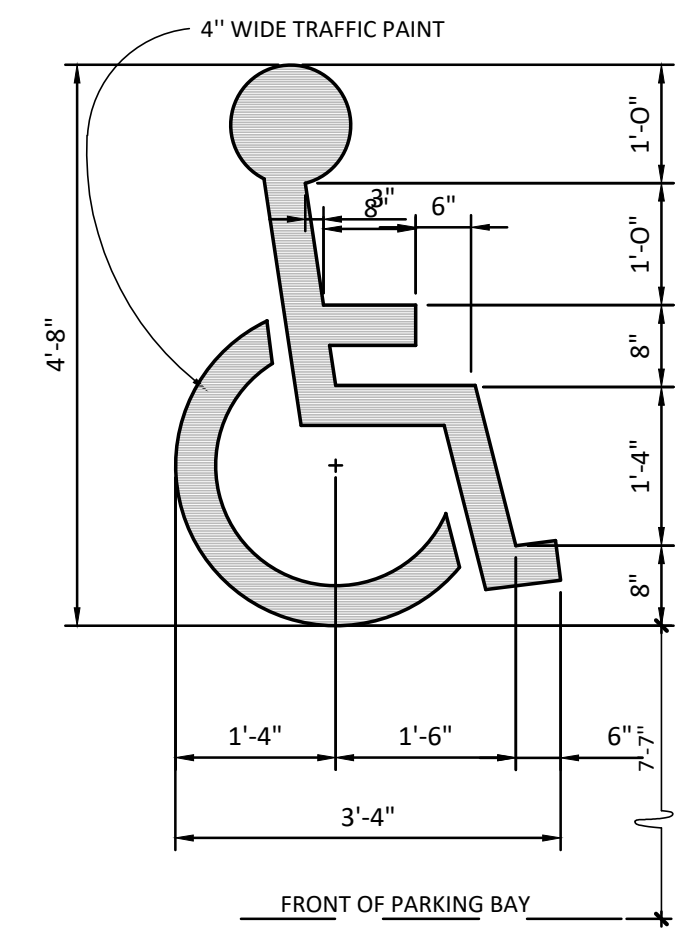
BARRIER CURB DETAIL
N.T.S.



CONCRETE CURB STEEL BARS DETAIL
N.T.S.

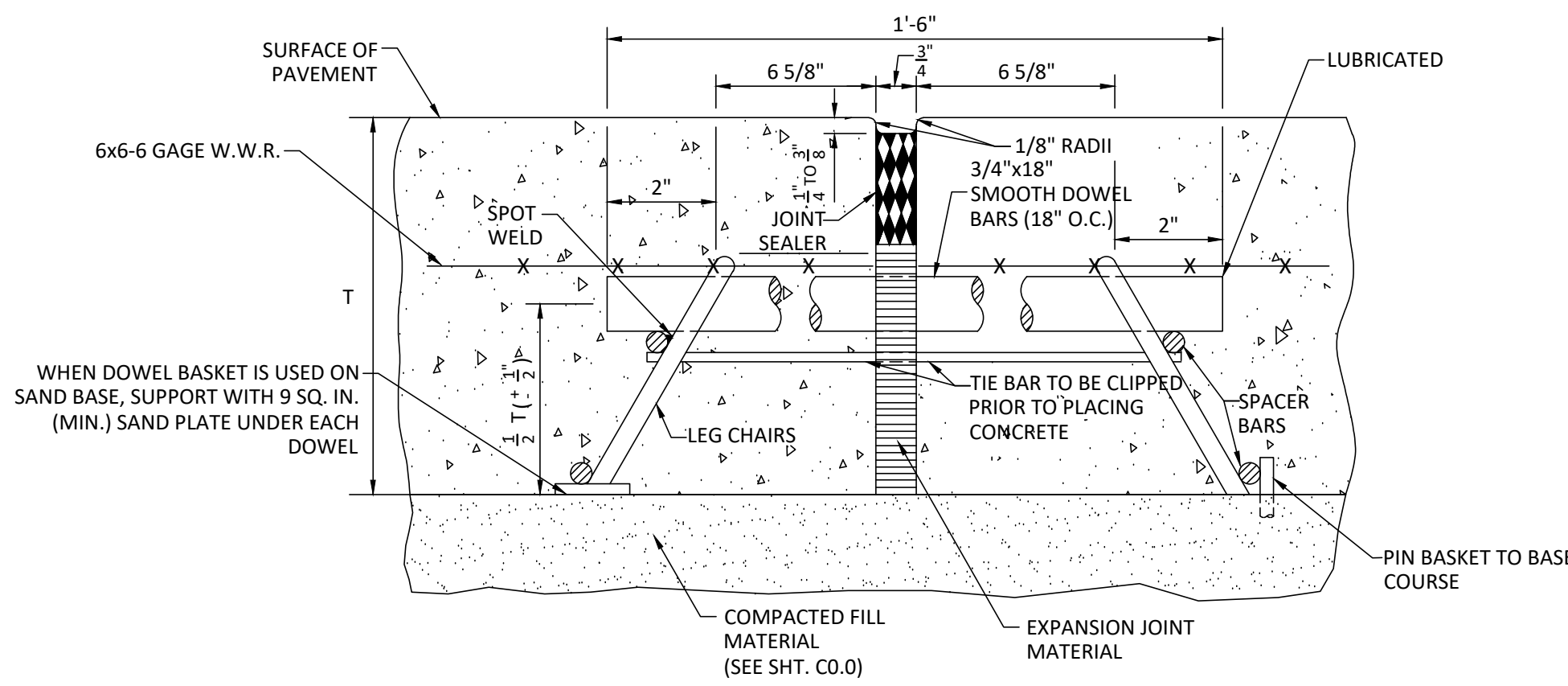


TYPICAL HANDICAP STRIPING DETAIL
N.T.S.



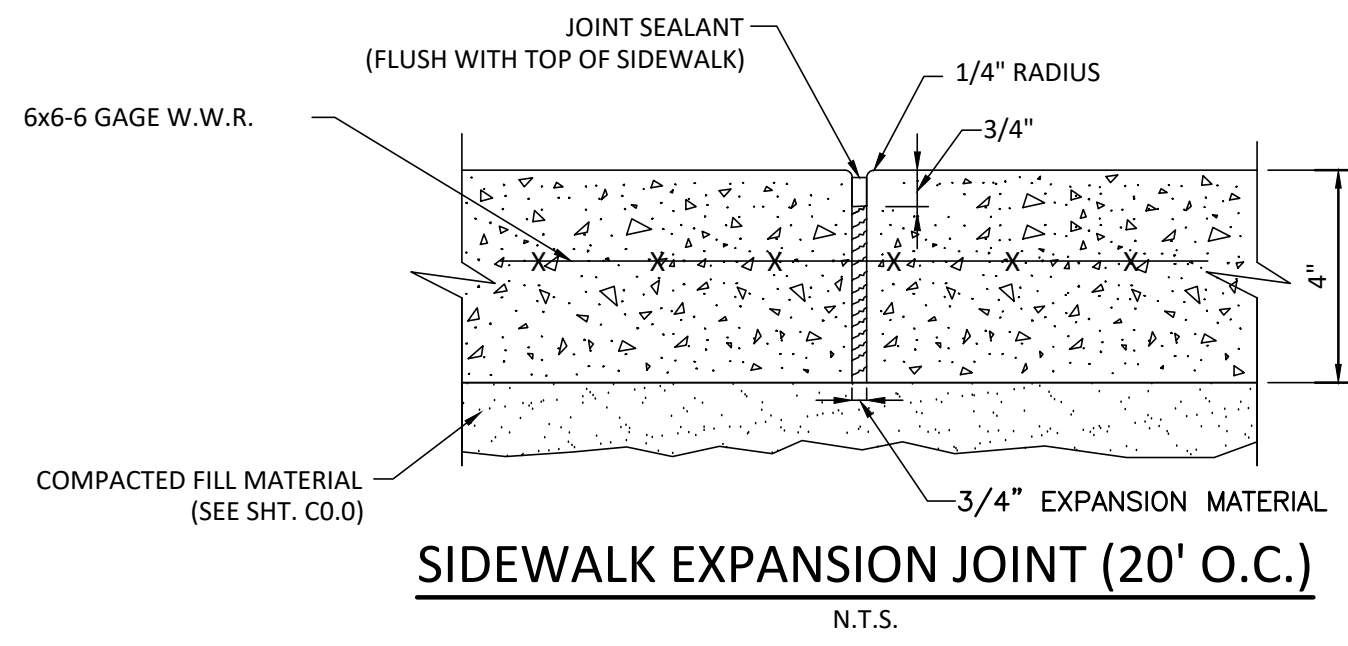
TYPICAL HANDICAP SIGNAGE DETAIL
N.T.S.

- NOTES:**
1. THE BOTTOM OF THE SIGN SHOULD BE NO LESS THAN 72 INCHES ABOVE FINISH GRADE.
 2. SIGNS SHALL BE PROPERLY CENTERED WITHIN THE PARKING SPACE AND POLE MOUNTED.
 3. THE SIGN FACE SHOULD BE LOCATED NO FARTHER THAN 6 FEET FROM THE FRONT OF EACH PARKING SPACE.
 4. ALL LETTERING SERIES 'C', GREEN COLOR.
 5. INTERNATIONAL SYMBOL OF ACCESSIBILITY SHOWN WHITE ON 6"x6" BLUE FIELD WITH 1/2 RADIUS CORNERS.
 6. THE VAN ACCESSIBLE SIGN SHALL BE CENTERED UNDER THE ACCESSIBLE PARKING SIGN AS SHOWN (IF APPLICABLE).
 7. THE SIGN SHALL NOT BE OBTUSCURED BY A VEHICLE PARKED IN THE SPACE.
 8. A "RESERVED PARKING" SIGN SHALL BE REQUIRED BEHIND THE SIDEWALK AT EACH HANDICAP ACCESSIBLE PARKING SPOT.
 9. ALL HANDICAP SIGNS AND STRIPING SHALL BE IN ACCORDANCE WITH APPLICABLE ADA STANDARDS.

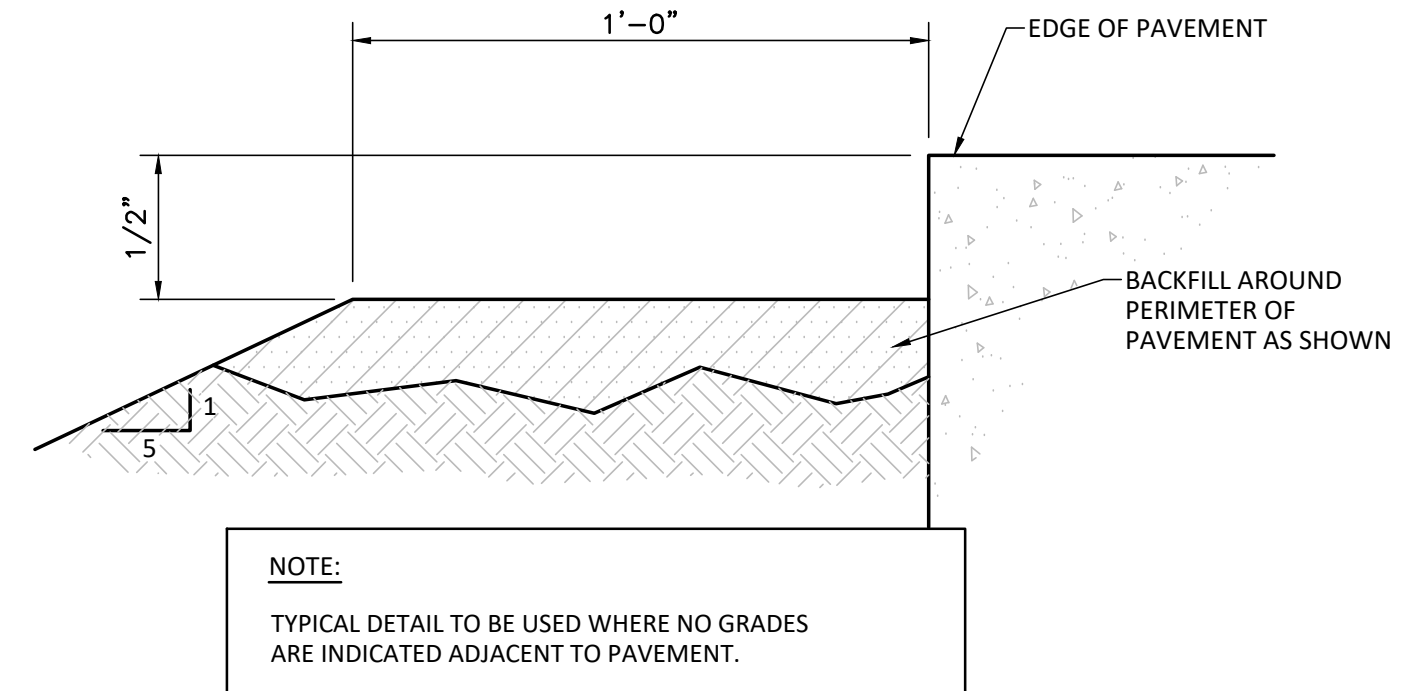


CONCRETE PAVEMENT TRANSVERSE EXPANSION JOINT
N.T.S.

- NOTES:**
1. T = THICKNESS OF PAVEMENT
 2. ALL JOINTS TO BE USED WHERE SHOWN ON THIS SHEET OR AS SHOWN ELSEWHERE IN THE PLANS OR AS OTHERWISE DIRECTED BY THE ENGINEER.

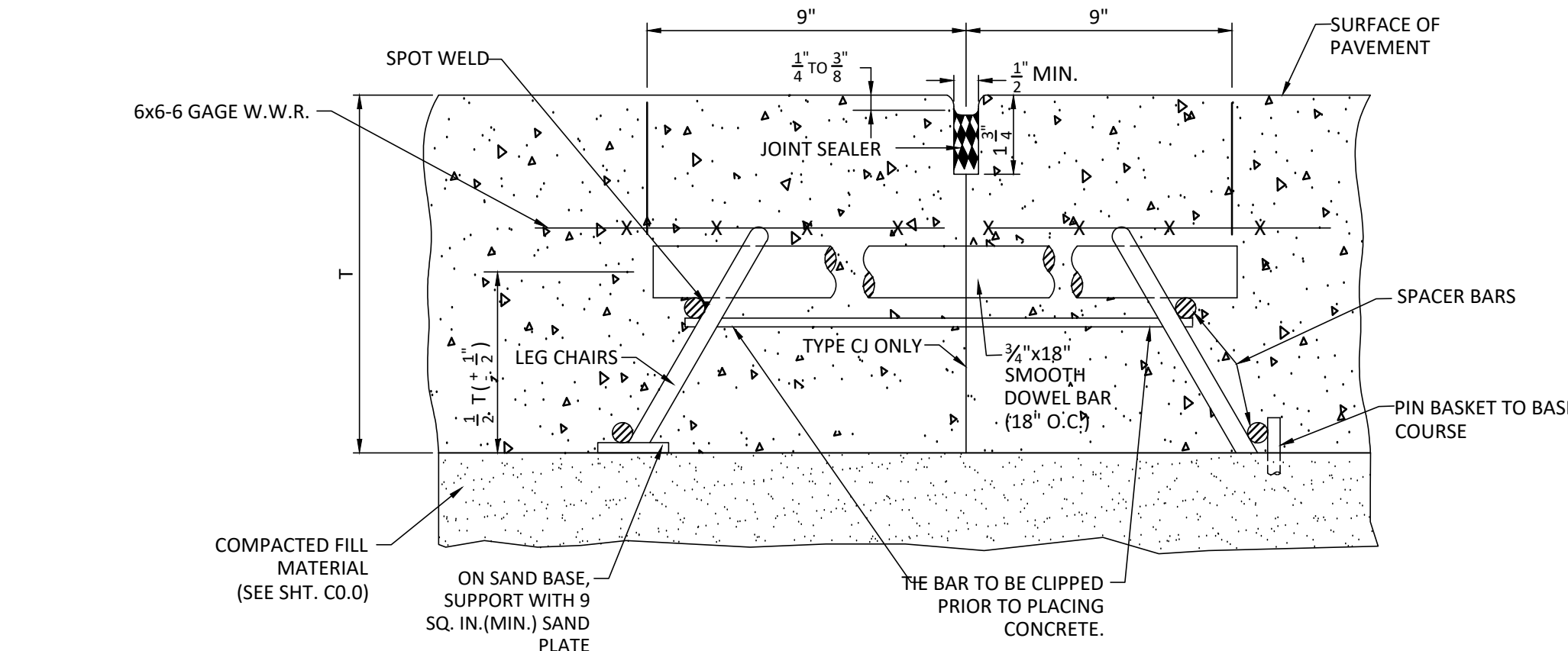


SIDEWALK EXPANSION JOINT (20' O.C.)
N.T.S.

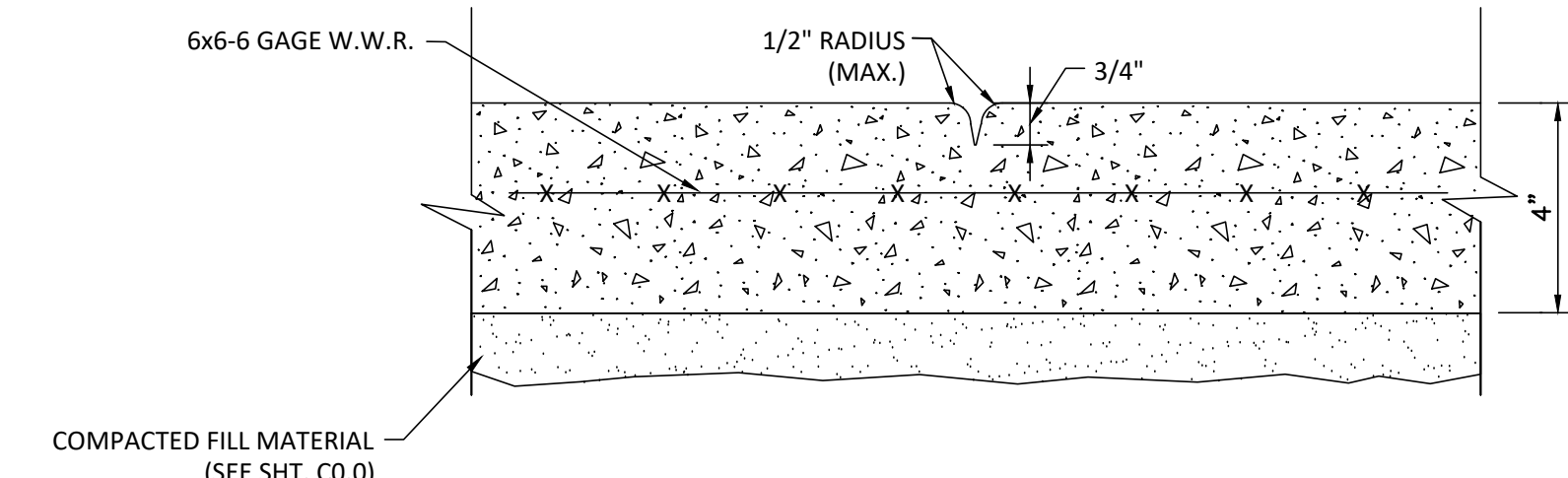


TYPICAL DETAIL - BACKFILL AROUND PAVEMENT
N.T.S.

NOTE:
TYPICAL DETAIL TO BE USED WHERE NO GRADES ARE INDICATED ADJACENT TO PAVEMENT.



CONCRETE PAVEMENT TRANSVERSE DUMMY JOINT OR CONSTRUCTION JOINT
N.T.S.



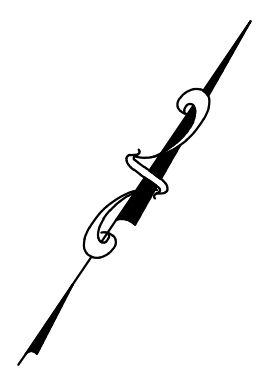
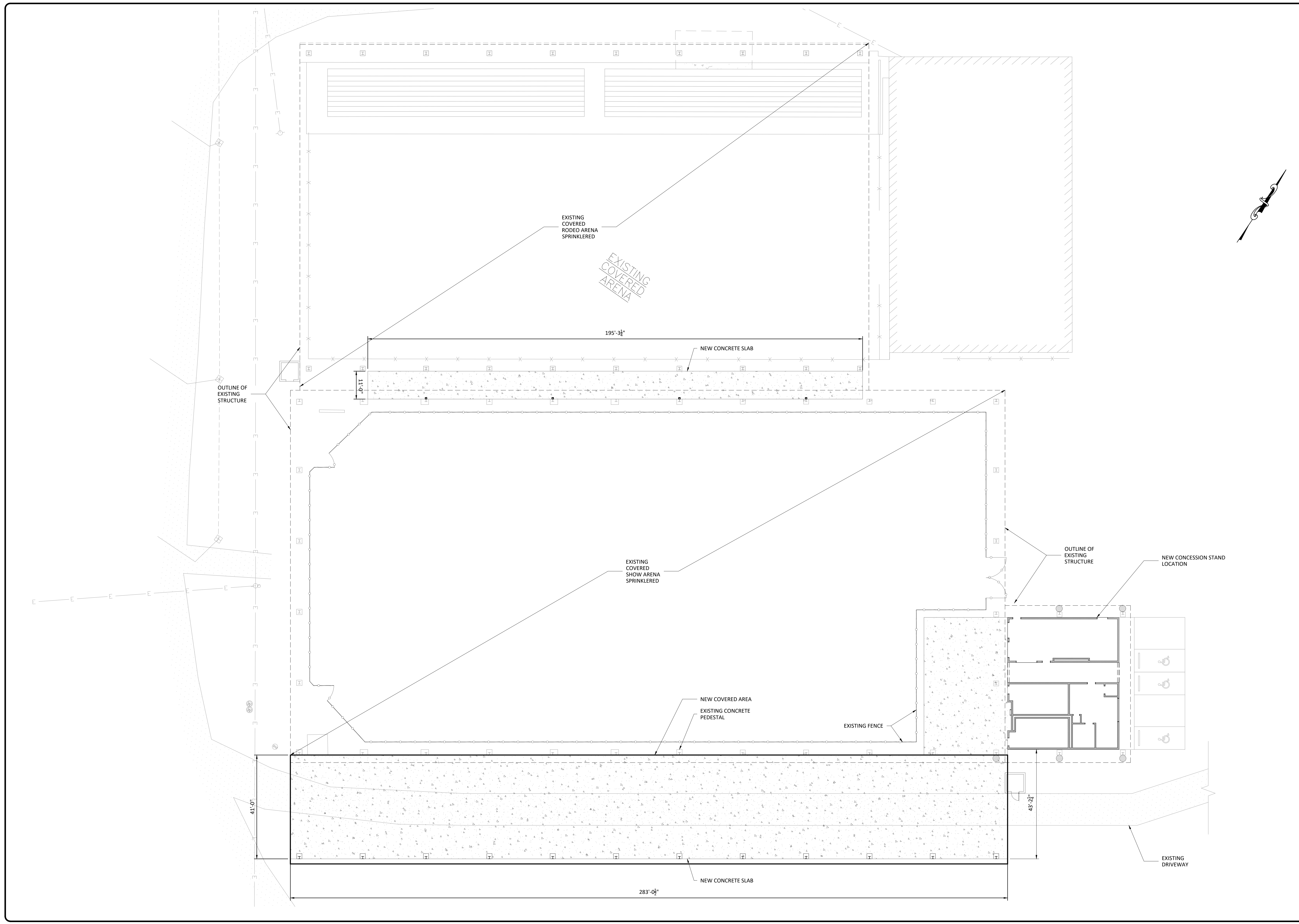
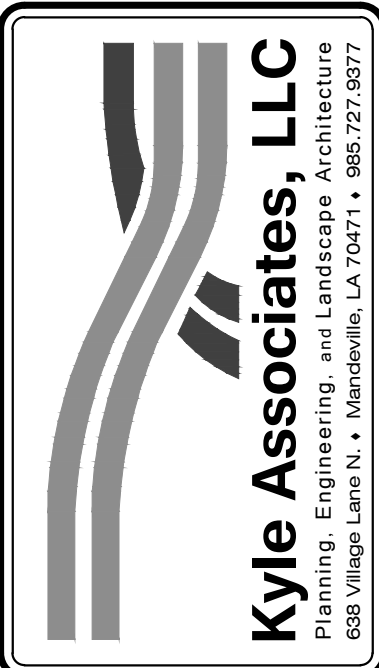
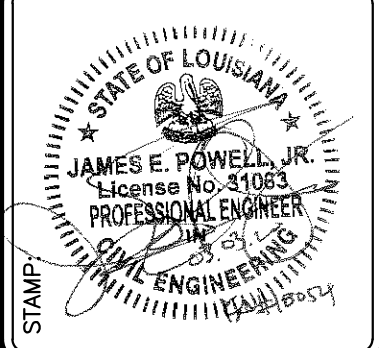
SIDEWALK HAND-TOOLED CONTROL JOINT (5' O.C.)
N.T.S.

| | | | |
|---------------------------------|------------------|-------------|-------------------|
| DESIGNED BY: SAD | DRAWN BY: SAD | CHECKED BY: | JOB NO. 18054 |
| SCALE: (24x36) 1/16" = 1'-0" | SCALE: (11x17) | | DATE 03.MAR.20 |

FAIRGROUNDS PHASE 3
1515 N FLORIDA ST.
COVINGTON, LA

ARCHITECTURAL SITE PLAN

| DATE | REVISIONS | APPROVED |
|----------|---------------|----------|
| DATE | REMARKS | J.E.P. |
| 03.03.20 | ISSUE FOR BID | |
| | | |
| | | |



ARCHITECTURAL GENERAL NOTES:

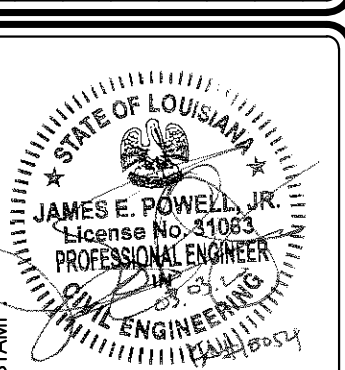
1. ALL WORK SHALL BE OF THE HIGHEST QUALITY FOR THE TRADE INVOLVED.
2. CONTRACTOR TO VERIFY ALL EXISTING CONDITIONS AND NOTIFY ENGINEER/OWNER OF ANY DISCREPANCIES BEFORE STARTING WORK.
3. ALL WORK TO BE PERFORMED TO BE IN ACCORDANCE W/ APPLICABLE FEDERAL, STATE, AND LOCAL CODES AND REGULATIONS.
4. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS TO COMPLETE THE PROJECT.
5. ARCHITECTURAL, STRUCTURAL, MECHANICAL, AND ELECTRICAL REQUIREMENTS MUST BE COORDINATED BEFORE CONTRACTOR PROCEEDS W/ CONSTRUCTION.
6. CONTRACTOR TO FURNISH ENGINEER W/ ALL RATED FLOOR, WALL, AND CEILING PENETRATION UL DESIGN ASSEMBLIES.
7. IN CASES WHERE A CONFLICT MAY OCCUR, SUCH AS BETWEEN ITEMS COVERED BY SPECIFICATIONS AND NOTES ON THE DRAWINGS OR BETWEEN GENERAL NOTES AND SPECIFIC DETAILS, THE ENGINEER IS TO BE NOTIFIED AND HE WILL INTERPRET THE INTENT OF THE CONTRACT DOCUMENTS.
8. THE SHEETS IN THESE CONSTRUCTION DOCUMENTS ARE COMPLEMENTARY TO EACH OTHER. WHAT IS CALLED FOR BY ONE SHALL BE BINDING AS IF CALLED BY ALL.
9. ALL WORK AND MATERIALS SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR MINIMUM FROM THE DATE OF CERTIFICATE OF OCCUPANCY.
10. THE INTENT OF THE CONSTRUCTION DOCUMENTS IS TO INCLUDE ALL ITEMS REQUIRED FOR THE COMPLETION OF WORK. THEREFORE, ALL ITEMS NECESSARY FOR THE COMPLETION OF WORK SHALL BE REQUIRED WHETHER OR NOT THEY ARE SHOWN ON THE DOCUMENTS, BUT ARE INFERABLE AS BEING NECESSARY TO PROVIDE THE INTENDED RESULTS.
11. COORDINATE ALL WORK W/ THE VARIOUS TRADES INVOLVED AS REQUIRED.
12. CONTRACTOR SHALL PASS ALL INSPECTIONS AND APPROVALS AS REQUIRED BY LOCAL AUTHORITIES HAVING JURISDICTION DURING COURSE OF CONSTRUCTION.
13. CONTRACTOR SHALL VERIFY DIMENSIONS BEFORE CONSTRUCTION IS SCHEDULED TO BEGIN. ANY DISCREPANCIES SHALL BE BROUGHT TO ARCHITECT'S ATTENTION.
14. ALL DIMENSIONS TO BE READ OR CALCULATED AND NEVER SCALED. CONTRACTOR TO OBTAIN AND SECURE THE CERTIFICATE OF OCCUPANCY FROM LOCAL AUTHORITIES BEFORE FINAL PAYMENT WILL BE ISSUED.
15. CONTRACTOR TO ASK FOR DETAILS WHENEVER UNCERTAIN ABOUT METHODS OF INSTALLATION. LACK OF DETAILS NOT REQUESTED SHALL NOT EXCUSE IMPROPER INSTALLATION AND CORRECTION TO BE RESPONSIBILITY OF THE CONTRACTOR.
16. CONTRACTOR TO PREPARE AND KEEP CURRENT A SCHEDULE OF SUBMITTALS WHICH IS COORDINATED W/ THE CONSTRUCTION SCHEDULE AND ALLOWS THE ENGINEER REASONABLE TIME TO REVIEW SUBMITTALS.
17. SHOP DRAWING REVIEW IS ONLY FOR GENERAL CONFORMANCE WITH THE DESIGN CONCEPT OF THE PROJECT AND GENERAL COMPLIANCE W/ THE INFORMATION GIVEN IN THE CONTRACT DOCUMENTS. CORRECTIONS OR COMMENTS MADE ON SHOP DRAWINGS DURING REVIEW DO NOT RELIEVE CONTRACTOR FROM COMPLIANCE W/ THE REQUIREMENTS OF THE PLANS AND SPECIFICATIONS. CONTRACTOR SHALL REVIEW FOR COMPLIANCE W/ CONSTRUCTION DOCUMENTS, APPROVE AND THEN SUBMIT TO ENGINEER SHOP DRAWINGS, PRODUCT DATA, SAMPLES AND SIMILAR SUBMITTALS REQUIRED AND W/ REASONABLE PROMPTNESS AS TO CAUSE NO DELAYS.
18. CONTRACTOR SHALL KEEP ON SITE AT ALL TIMES A MARKED-UP "RECORD DOCUMENT" SET OF DRAWINGS AND TO DELIVER TO ENGINEER UPON COMPLETION OF THE PROJECT.
19. DRAWINGS, SPECIFICATIONS AND OTHER DOCUMENTS PREPARED BY THE ENGINEER, AND COPIES THEREOF FURNISHED TO THE CONTRACTOR, ARE FOR USE SOLELY W/ RESPECT TO THIS PROJECT.
20. CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK, USING THE CONTRACTOR'S BEST SKILL AND ATTENTION. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR AND HAVE CONTROL OVER CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES, UNLESS THE CONSTRUCTION DOCUMENTS GIVE OTHER SPECIFIC INSTRUCTIONS CONCERNING THESE MATTERS.
21. WINDOWS, DOORS, AND FRAMES WITHIN A RATED WALL TO BE RATED AS REQUIRED.
22. UPON THE COMPLETION OF WORK, THE CONTRACTOR SHALL PROPERLY CLEAN SITE.
23. CONTRACTOR TO SECURE SITE FROM INTRUSION DURING CONSTRUCTION BY BARRIER SPECIFIED BY THE OWNER.
24. ITEMS NOT PROVIDED FOR IN THE SPECIFICATIONS ARE TO BE SUBMITTED FOR APPROVAL TO THE ARCHITECT/ENGINEER FOR PRIOR APPROVAL.

CADD FILE NAME:
18054 - PLAN.dwg

DESIGNED BY: S.A.D.
DRAWN BY: S.A.D.
CHECKED BY:
SCALE: (24x36)
AS NOTED
SCALE: (1/8"=1'-0")
DATE: 03.MAR.20
JOB NO.: 18054

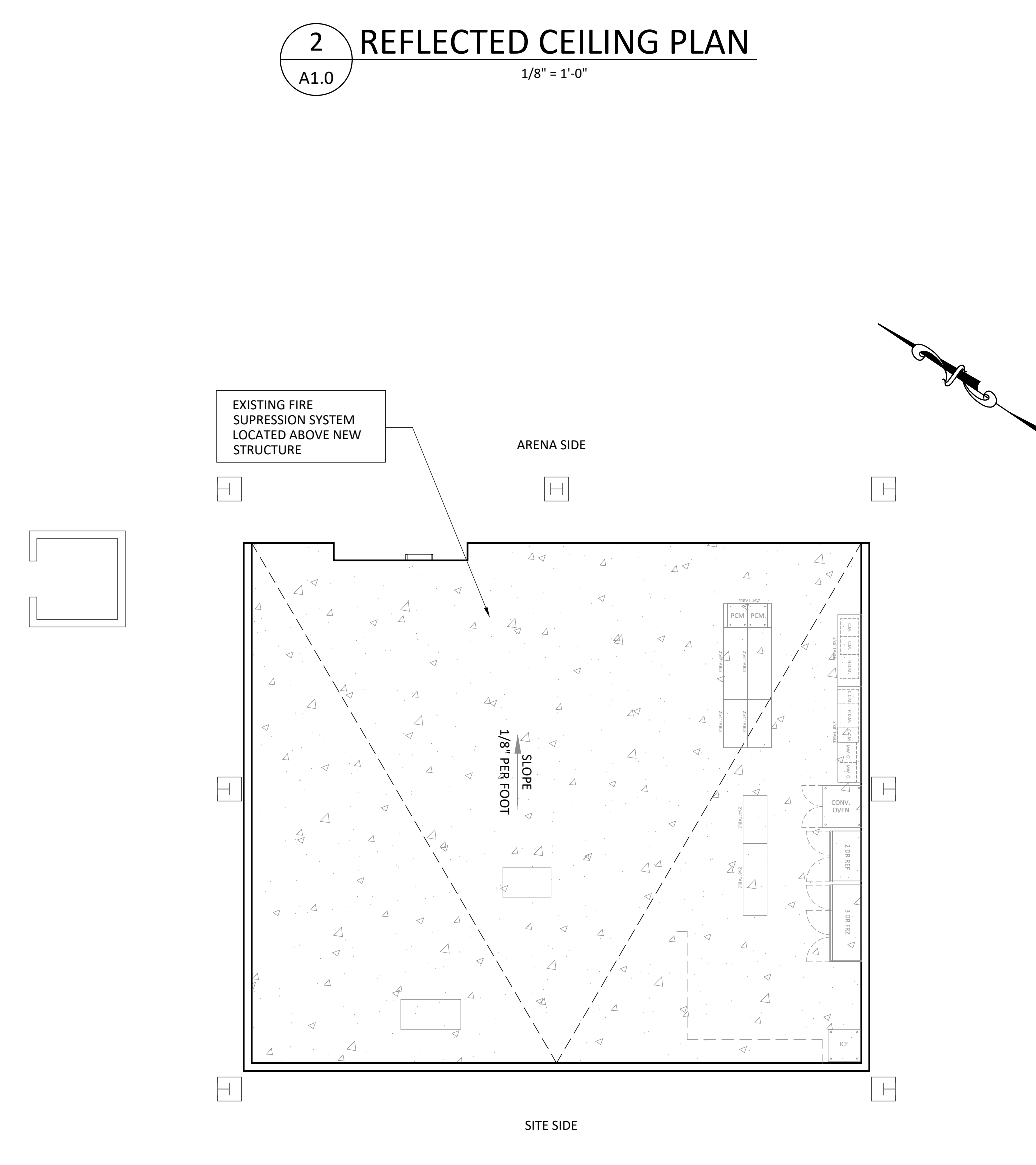
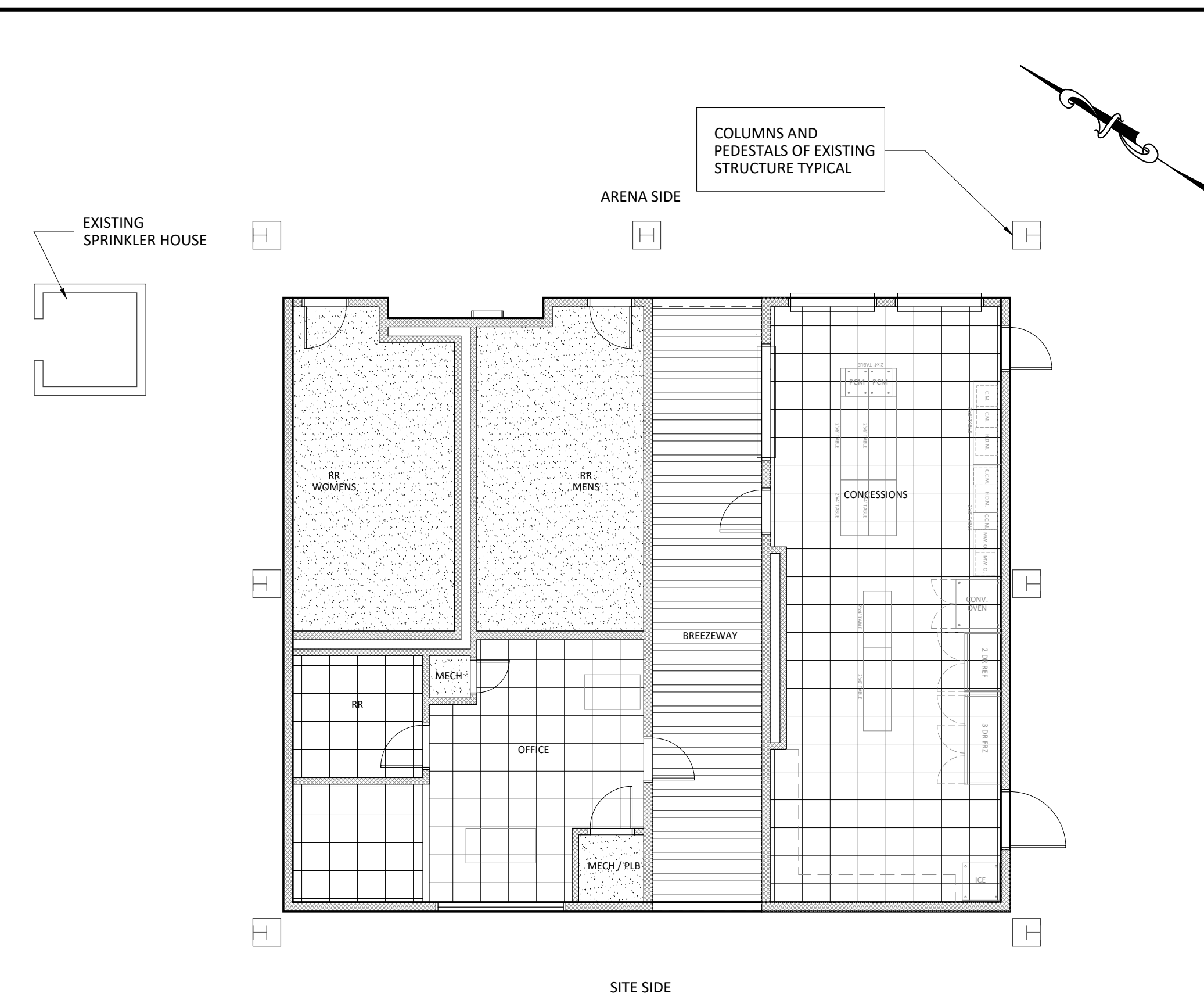
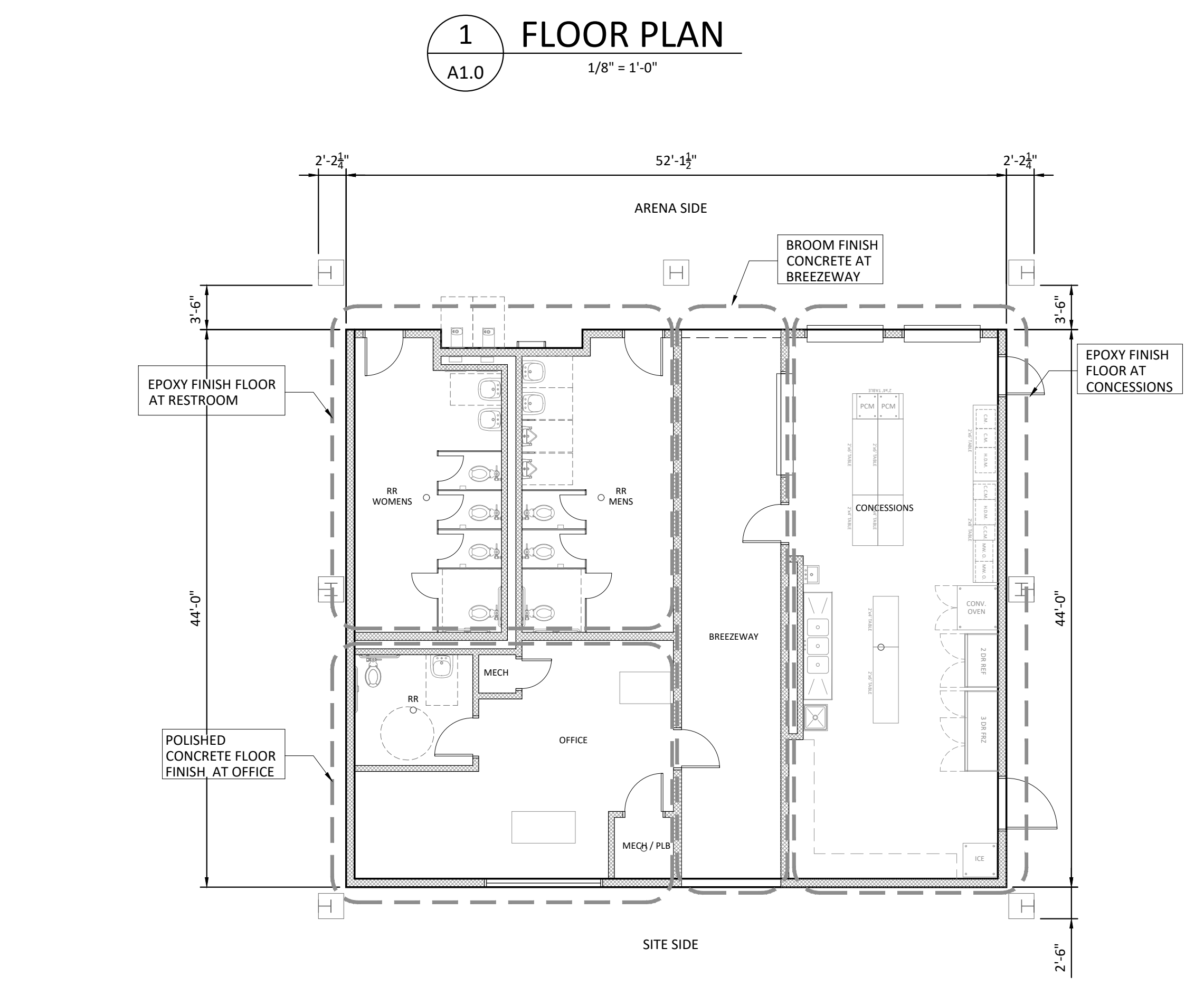
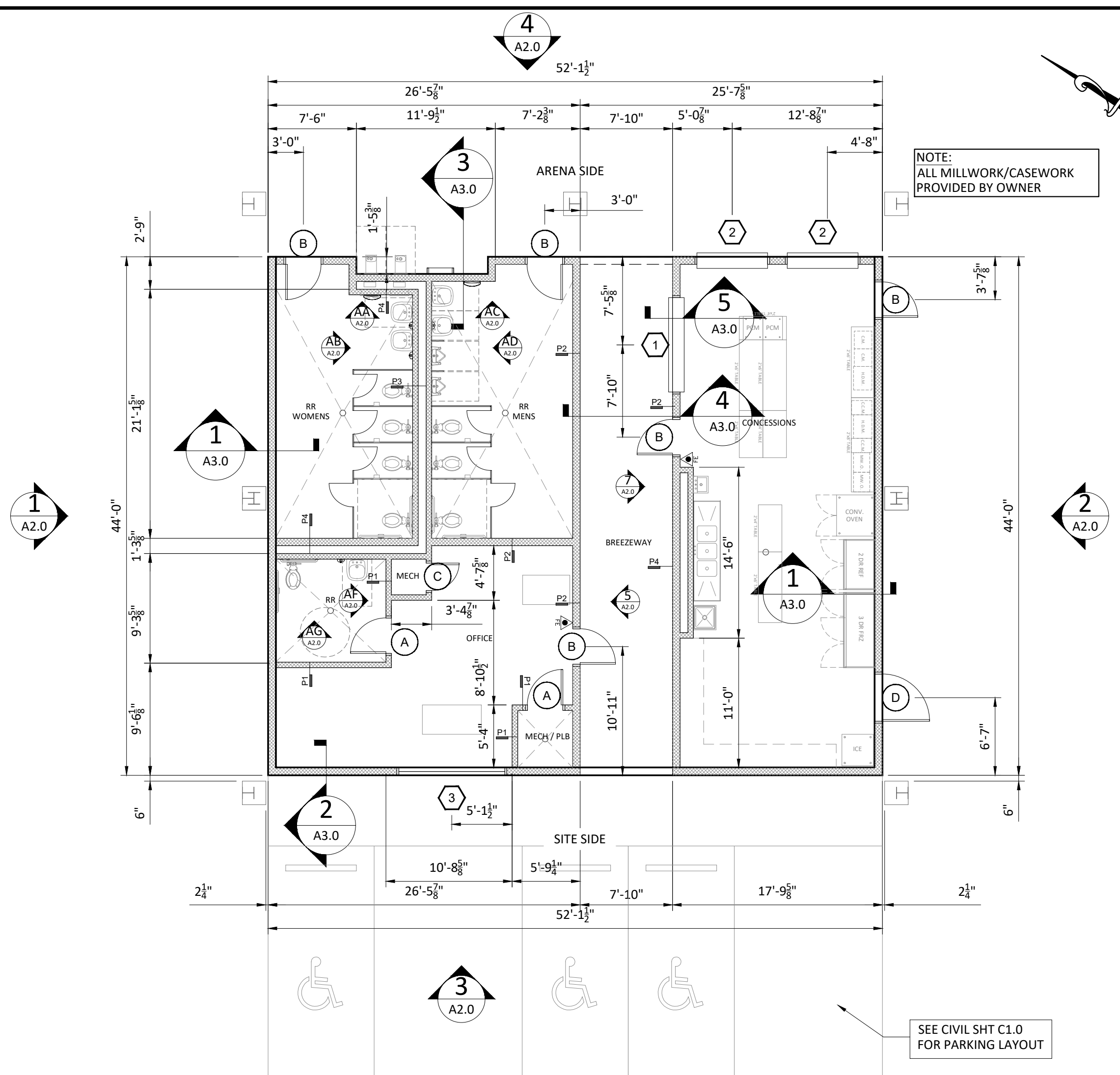
FAIRGROUNDS PHASE 3
1515 N FLORIDA ST.
COVINGTON, LA
BUILDING PLAN

| DATE | ISSUE FOR BID | REVISIONS | APP'D J.E.P. |
|----------|---------------|-----------|--------------|
| 03.03.20 | | | |



SHEET NO.

A1.0

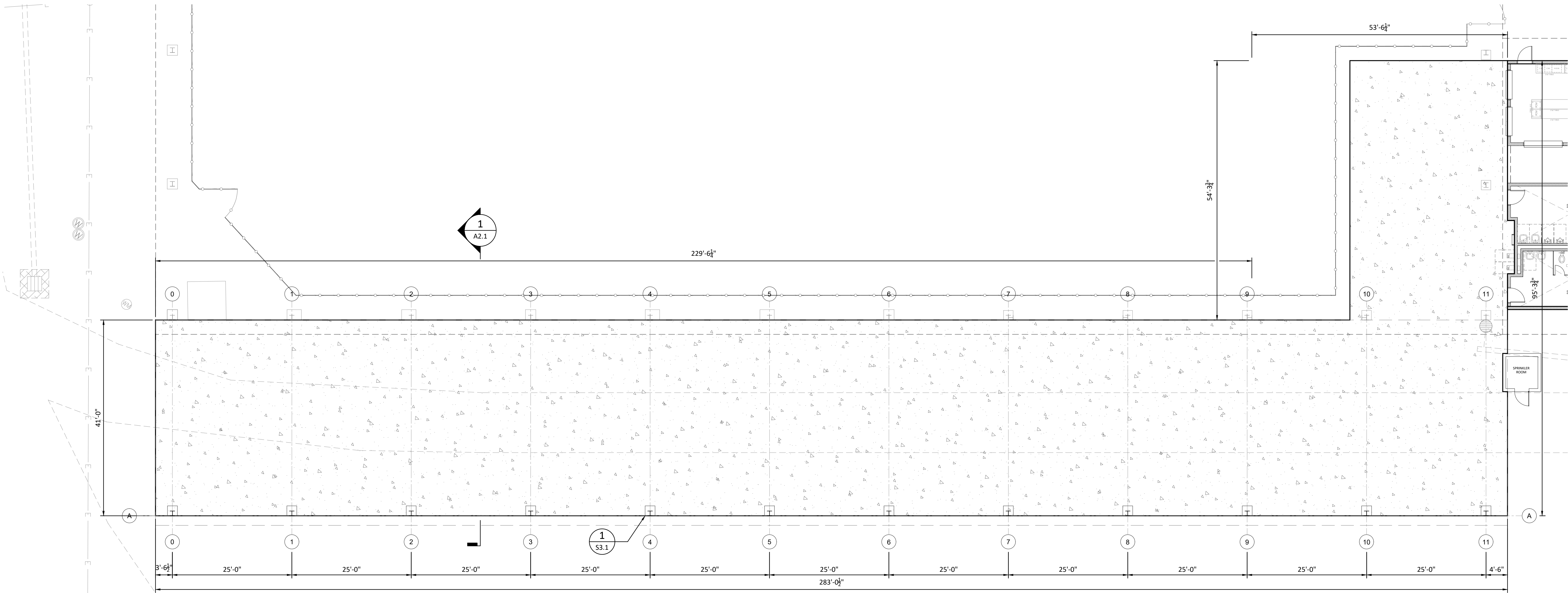
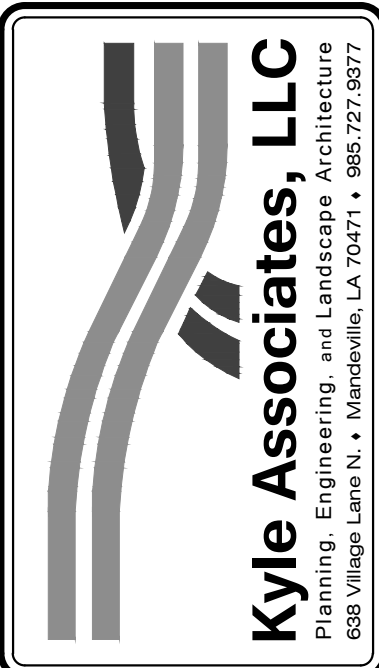
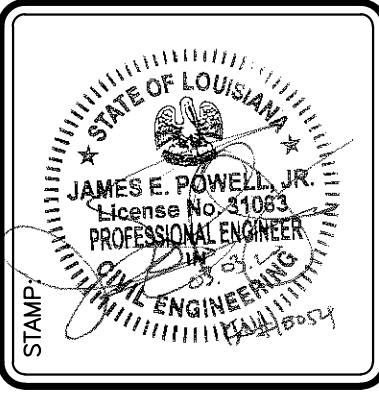


| | | | |
|----------------------------|------------------|-------------|-------------------|
| DESIGNED BY: SAD | DRAWN BY: SAD | CHECKED BY: | JOB NO. 18054 |
| SCALE: (24x36) AS NOTED | SCALE: (11x17) | | DATE 03.MAR.20 |

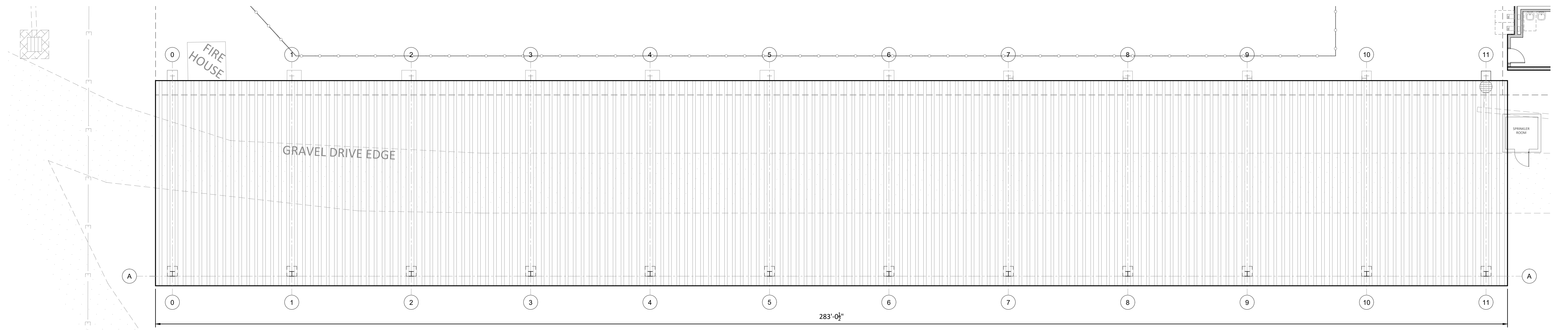
FAIRGROUNDS PHASE 3
1515 N FLORIDA ST.
COVINGTON, LA

COVERED AREA PLAN

| DATE | REVISIONS | APP'D | J.E.P. |
|----------|---------------|-------|--------|
| 03.03.20 | ISSUE FOR BID | | |



1 FLOOR PLAN
A1.0 3/32" = 1'-0"



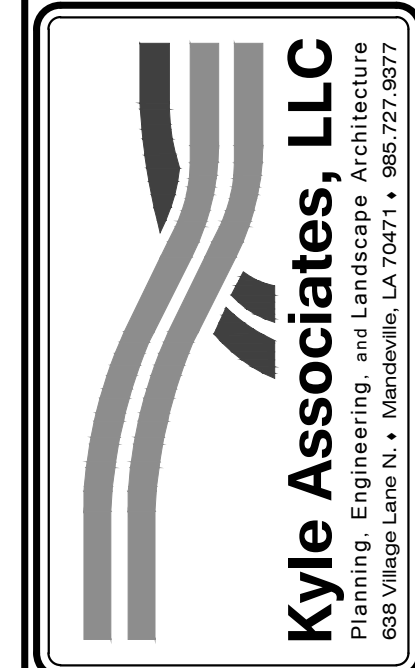
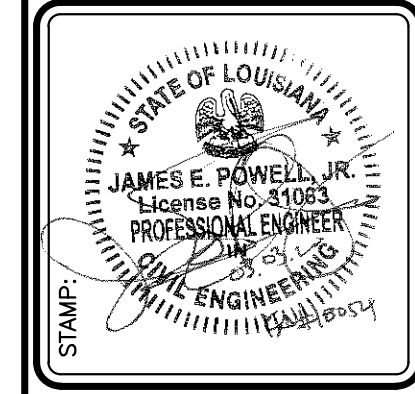
2 ROOF PLAN
A1.0 3/32" = 1'-0"

| | | | |
|-------------------------------------|------------------|-------------|--------------------|
| CADD FILE NAME: 18054 - ELEV.dwg | | | |
| DESIGNED BY: SAD | DRAWN BY: SAD | CHECKED BY: | JOB NO. 18054 |
| AS NOTED | SCALE: (1:1x17) | | DATE: 03.MAR.20 |

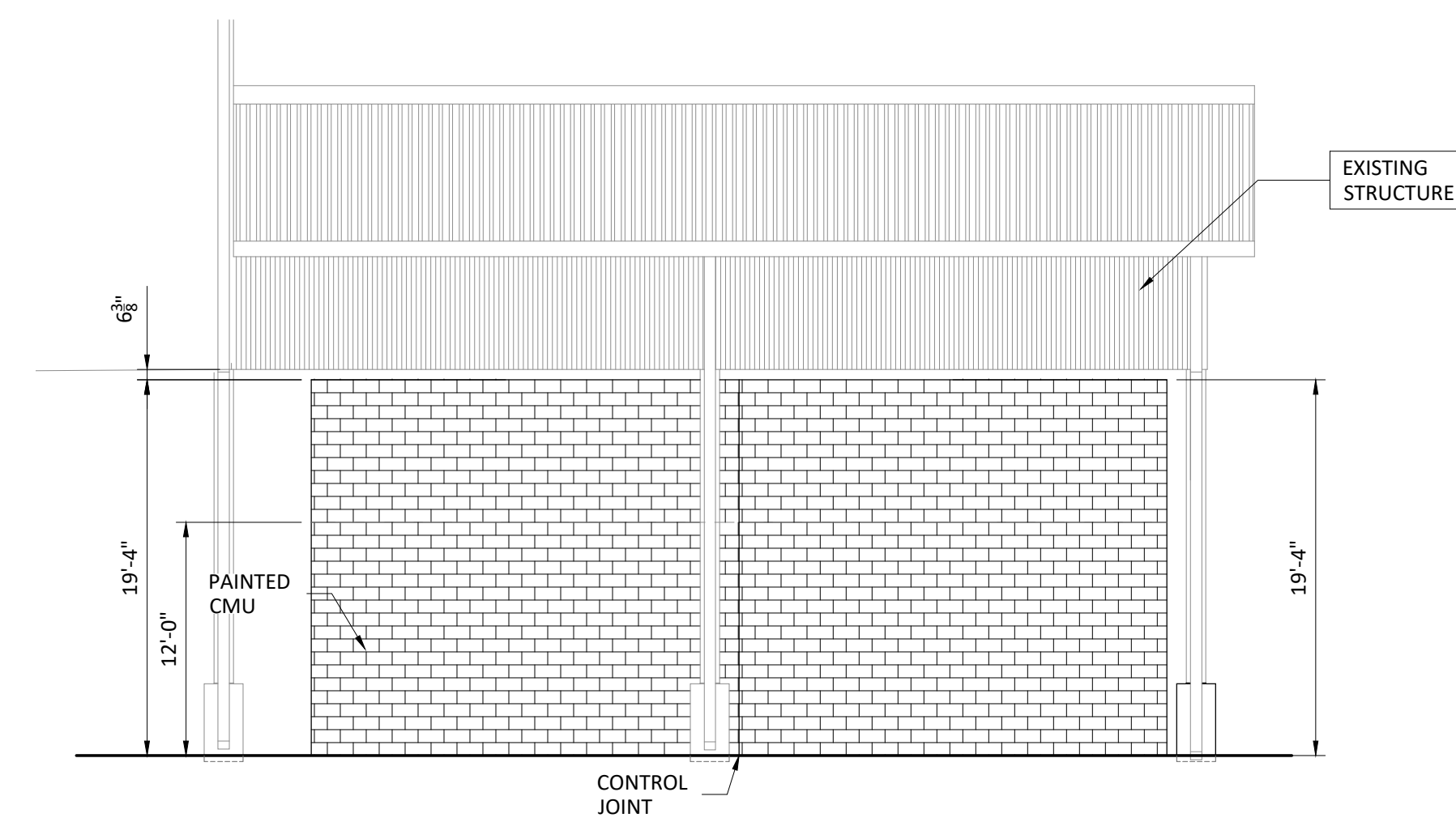
FAIRGROUNDS PHASE 3
1515 N FLORIDA ST.
COVINGTON, LA

BUILDING ELEVATIONS

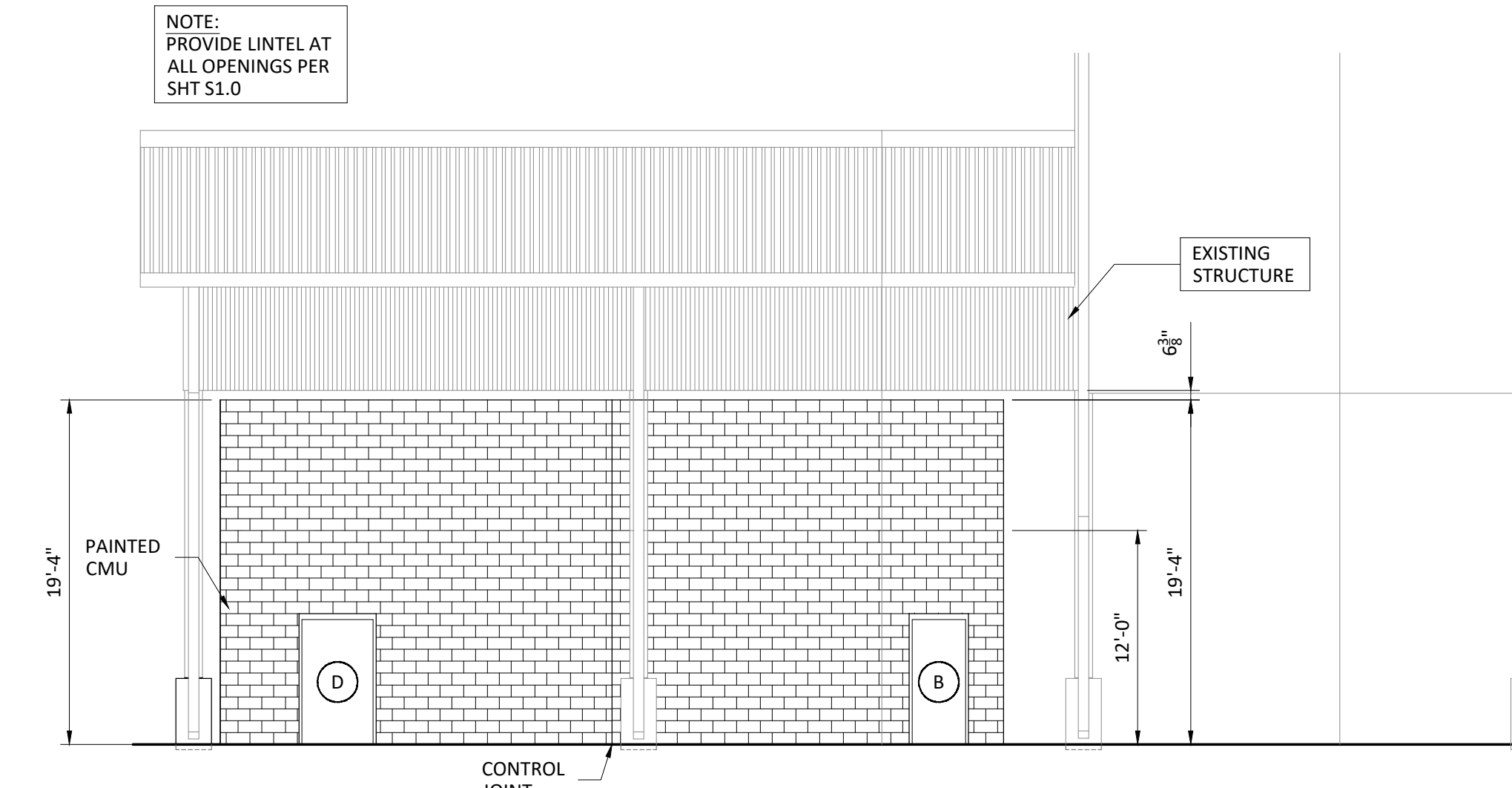
| DATE | REVISIONS | APP'D | J.E.P. |
|----------|---------------|-------|--------|
| 03.03.20 | ISSUE FOR BID | | |



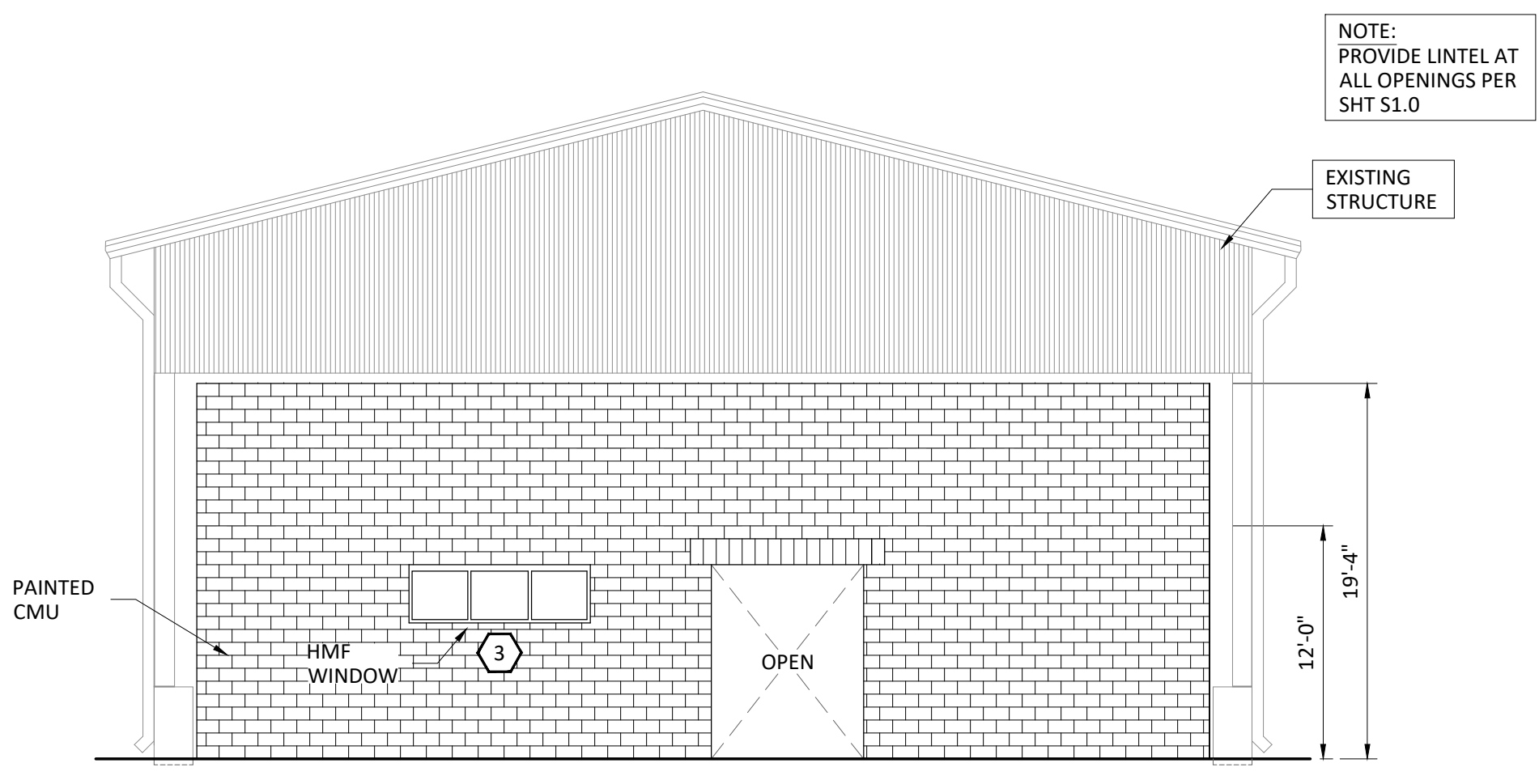
SHEET NO.
A2.0



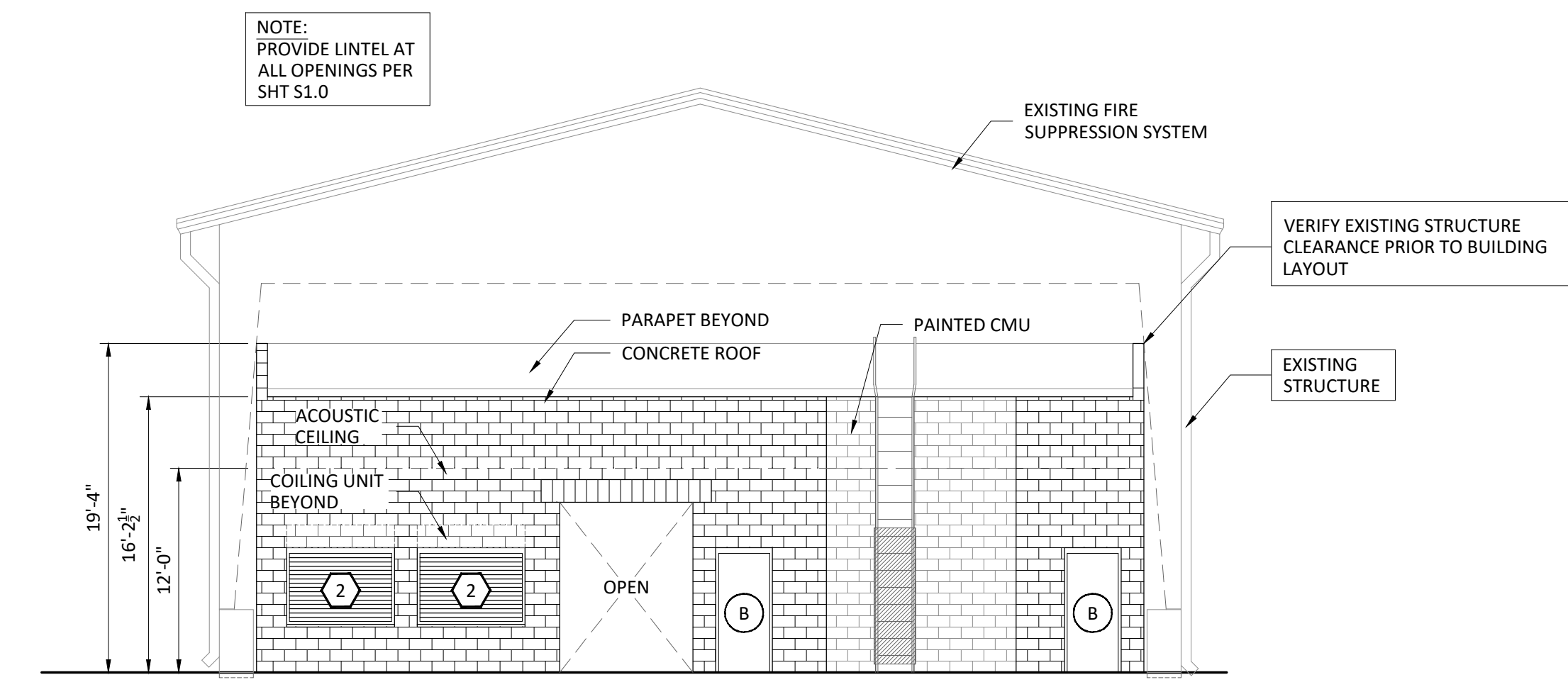
1 PLAN WEST ELEVATION
A2.0 1/8" = 1'-0"



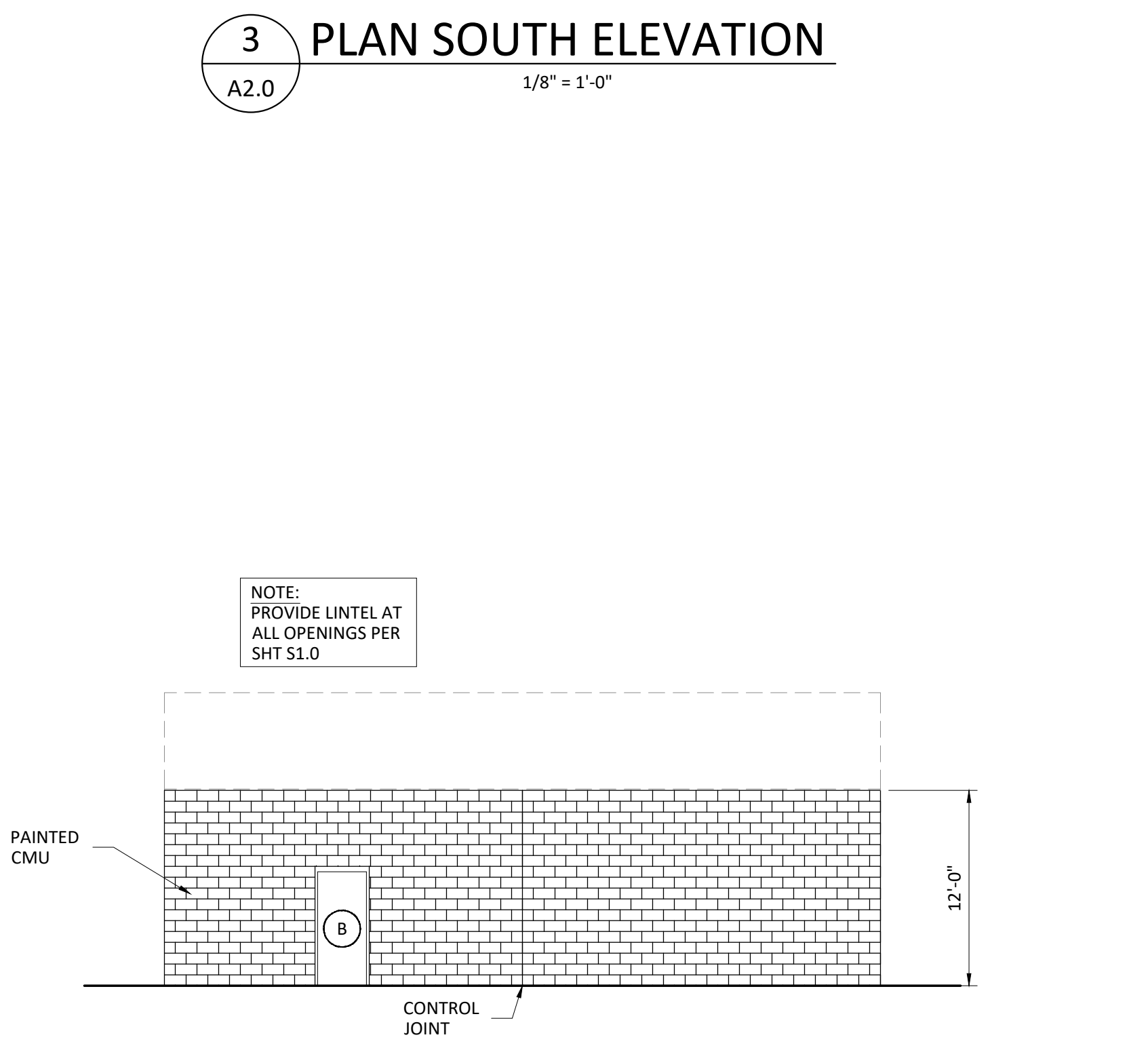
2 PLAN EAST ELEVATION
A2.0 1/8" = 1'-0"



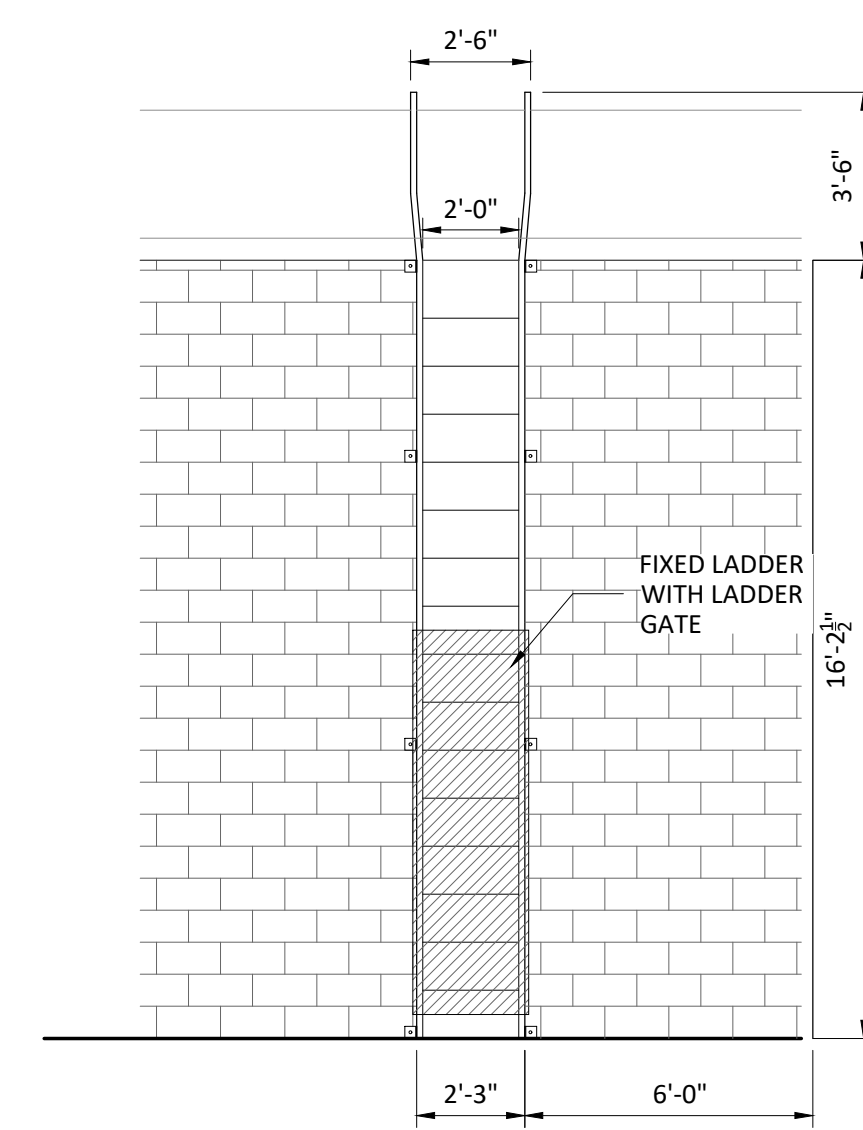
3 PLAN SOUTH ELEVATION
A2.0 1/8" = 1'-0"



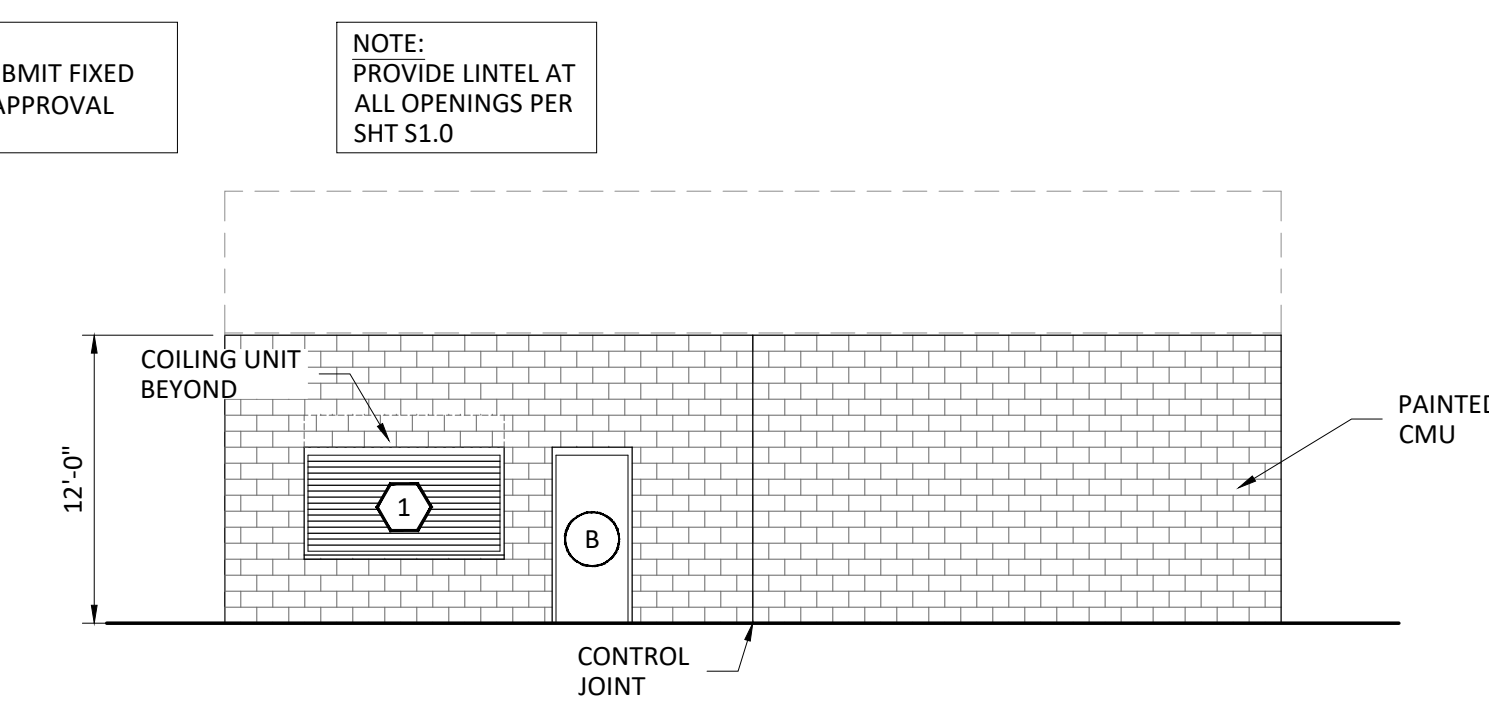
4 PLAN NORTH ELEVATION
A2.0 1/8" = 1'-0"



5 INTERIOR PLAN EAST ELEVATION
A2.0 1/8" = 1'-0"



6 PLAN NORTH ELEVATION
A2.0 1/8" = 1'-0"



7 INTERIOR PLAN WEST ELEVATION
A2.0 1/8" = 1'-0"

NOTE: PROVIDE LINTEL AT ALL OPENINGS PER SHT S1.0

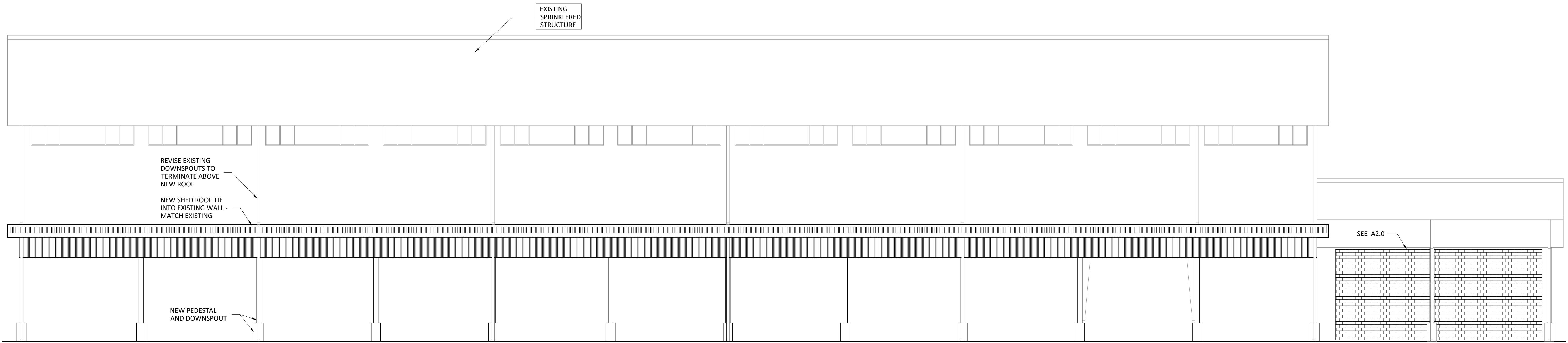
NOTE: GENERAL CONTRACTOR TO SUBMIT FIXED LADDER W/ GATE FOR PRIOR APPROVAL

NOTE: PROVIDE LINTEL AT ALL OPENINGS PER SHT S1.0

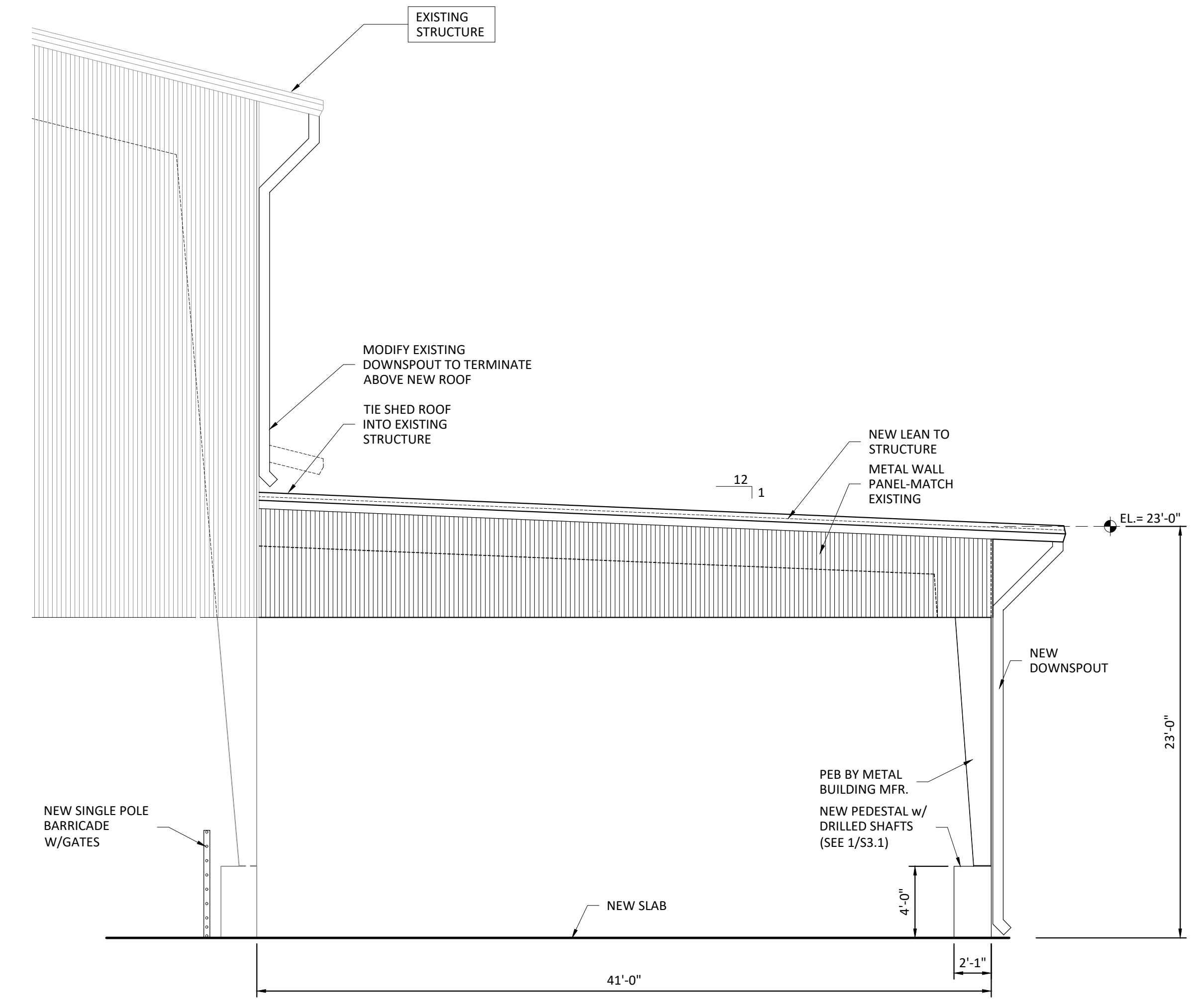
NOTE: PROVIDE LINTEL AT ALL OPENINGS PER SHT S1.0

NOTE: PROVIDE LINTEL AT ALL OPENINGS PER SHT S1.0

| | | | |
|----------------------------|---------------------|-------------------|------------------|
| DESIGNED BY: SAD | DRAWN BY: SAD | CHECKED BY: - | JOB NO. 18054 |
| SCALE: (24x36) AS NOTED | SCALE: (11x17) - | DATE 03.MAR.20 | |



1 PLAN SOUTH ELEVATION
A2.1 3/32" = 1'-0"

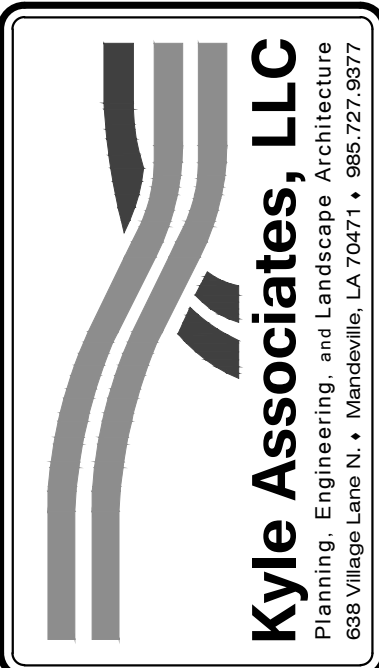
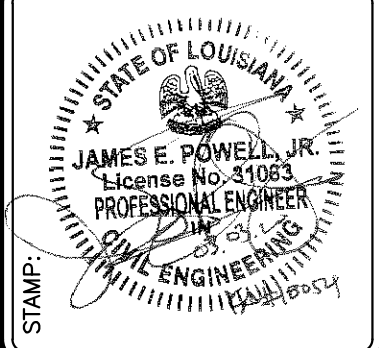


2 PLAN WEST ELEVATION
A2.1 3/16" = 1'-0"

FAIRGROUNDS PHASE 3
1515 N FLORIDA ST.
COVINGTON, LA

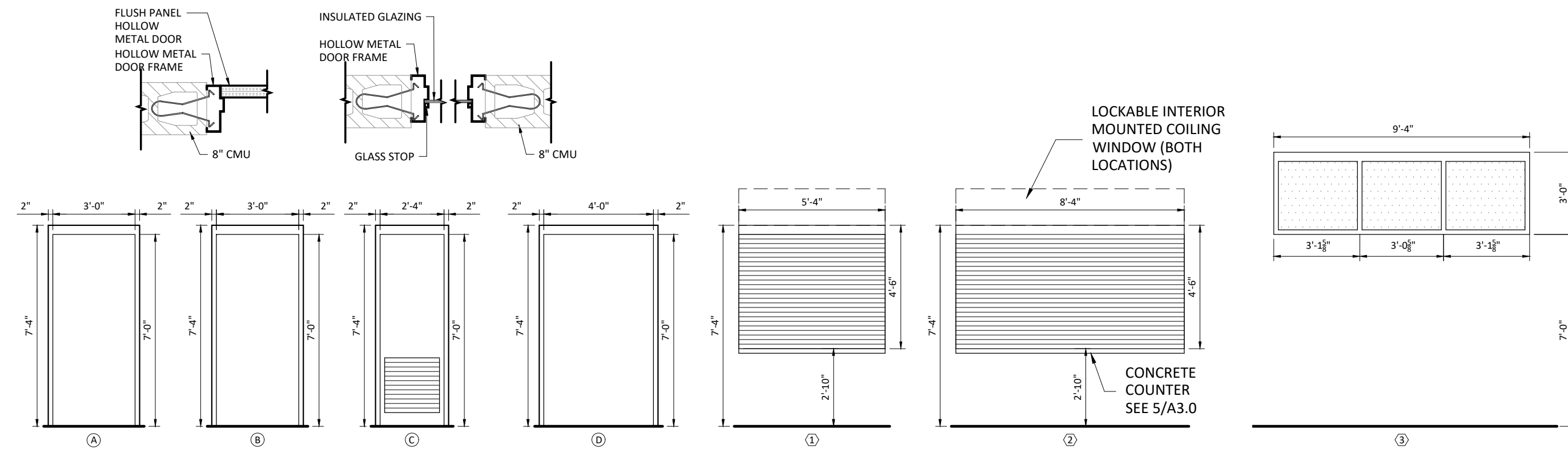
BUILDING ELEVATIONS

| DATE | REVISIONS | APP'D | J.E.P. |
|----------|---------------|-------|--------|
| 03.03.20 | ISSUE FOR BID | | |



SCHEDULE OF OPENINGS

| MARK | DOOR / WINDOW | | FRAME | LABEL / RATING | REMARKS | |
|------|---------------|---------------|--------------|----------------|-----------------------|--|
| | SIZE | THK. MATERIAL | | | | |
| Ⓐ | 3'-0" X 7'-0" | 1-3/4" | WOOD - INT. | HOLLOW METAL | 45 MINUTE - "C" LABEL | WOOD - FLUSH PANEL DOOR, SELF-CLOSING |
| Ⓑ | 3'-0" X 7'-0" | 1-3/4" | METAL - INT. | HOLLOW METAL | 45 MINUTE - "C" LABEL | FLUSH PANEL DOOR, SELF-CLOSING, INSULATION W/ WEATHERSTRIP & THRESHOLD |
| Ⓒ | 2'-4" X 7'-0" | 1-3/4" | WOOD - INT. | HOLLOW METAL | 20 MINUTE | LOUVERED DOOR |
| Ⓓ | 4'-0" X 7'-0" | 1-3/4" | METAL - EXT. | HOLLOW METAL | 45 MINUTE - "C" LABEL | FLUSH PANEL DOOR, SELF-CLOSING, INSULATION W/ WEATHERSTRIP & THRESHOLD |
| Ⓔ | 5'-4" X 4'-6" | | METAL - EXT. | HOLLOW METAL | | METAL COILING DOOR |
| Ⓕ | 8'-4" X 4'-6" | | METAL - EXT. | HOLLOW METAL | | METAL COILING DOOR |
| Ⓖ | 9'-4" X 3'-0" | | METAL - EXT. | HOLLOW METAL | | 1/4" IMPACT RESISTIVE INSULATED GLASS IN HOLLOW METAL FRAME |

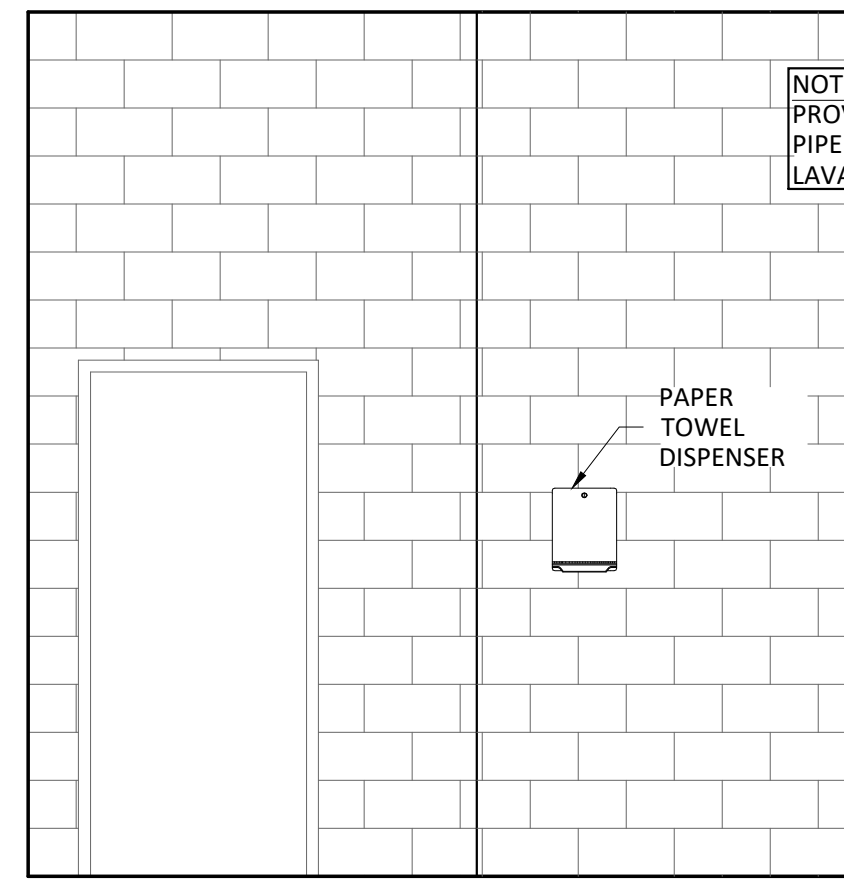


GENERAL NOTES:

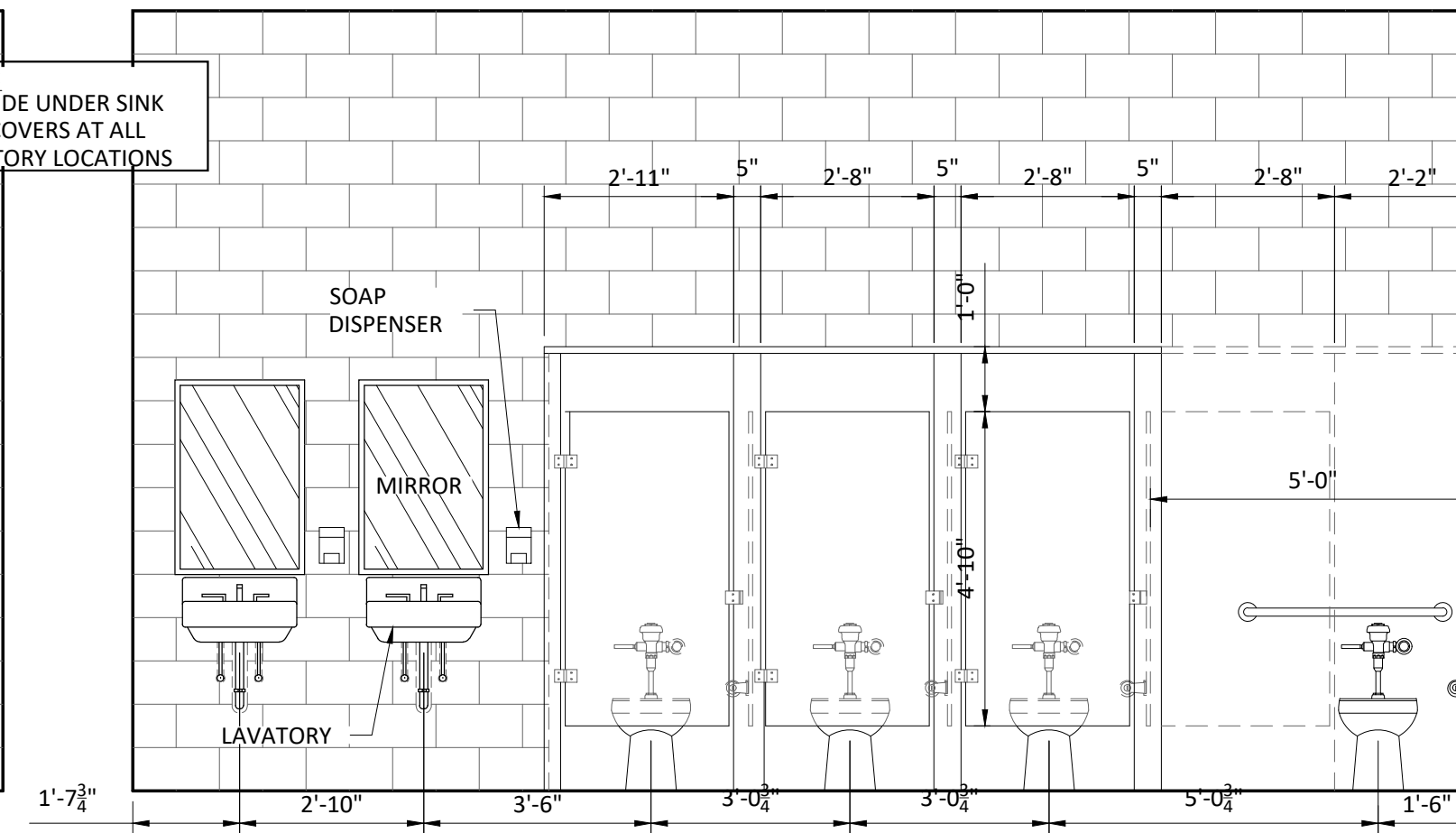
- GENERAL CONTRACTOR TO PROVIDE HARDWARE SCHEDULE FOR PRIOR APPROVAL BY ARCHITECT/ENGINEER.
- CONTRACTOR TO PROVIDE THE FOLLOWING ITEMS AT ALL EGRESS DOORS:
 - CONTINUOUS HINGE
 - LEVER STYLE LOCKABLE LOCKSETS W/PASSAGE INTERIOR
 - CLOSER
 - KICK PLATES INT/EXT
 - DOOR STOPS
- CONTRACTOR TO PROVIDE THE FOLLOWING ITEMS AT ALL INTERIOR OFFICE RESTROOMS:
 - 1 1/2 PAIRS MORTISED HINGE
 - LEVER STYLE LOCKABLE LOCKSETS W/PASSAGE INTERIOR
 - CLOSER
 - KICK PLATES IN/OUT
 - DOOR STOPS
- DOORS NOT SPECIFICALLY ADDRESSED IN NOTES TO RECEIVE:
 - 1 1/2 PAIRS MORTISED HINGE
 - LEVER STYLE LOCKSETS W/PASSAGE NON LOCKING
 - DOOR STOPS
- ALL LOCKSETS TO BE KEYPED ALIKE

SCHEDULE OF FINISHES

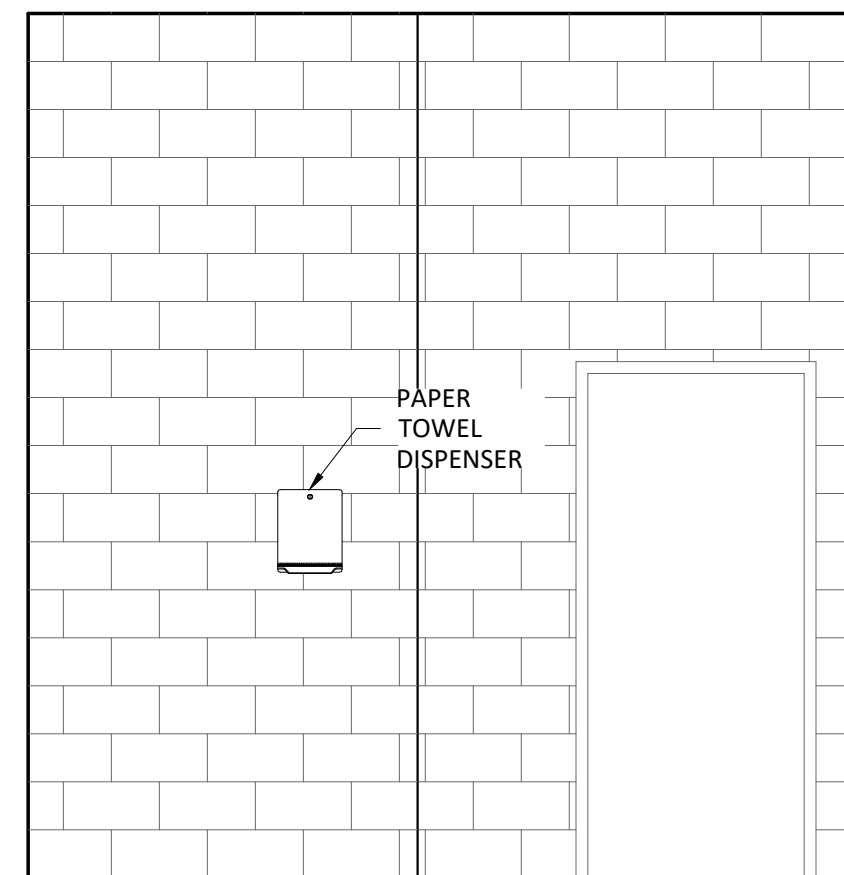
| ROOM NAME | FLOOR | BASE | WALLS | | CEILING | CLG. HT. | NOTES | | | | | | | | | | | | | | | | | | | | |
|------------------|-------|------|---------------------|-------------------------|---|----------|-------|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|---|
| | | | MATERIAL | FINISH | | | | | | | | | | | | | | | | | | | | | | | |
| | | | CONCRETE - EPOXY | CONCRETE - BROOM FINISH | | | | | | | | | | | | | | | | | | | | | | | |
| | | | CONCRETE - POLISHED | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | NONE | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | CMU | PAINT FINISH | SPRINKLER RATED GLASS ACoustic CEILING TILE | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | ALUMINUM SOFFIT | | | | | | | | | | | | | | | | | | | | | | |
| FINISH NUMBER | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | |
| OFFICE | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| REST ROOM | | | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| MECH | | | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| OFFICE | | | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| MECH/PLB | | | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| REST ROOM MENS | | | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| REST ROOM WOMENS | | | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| BREEZEWAY | | | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| CONCESSIONS | | | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |



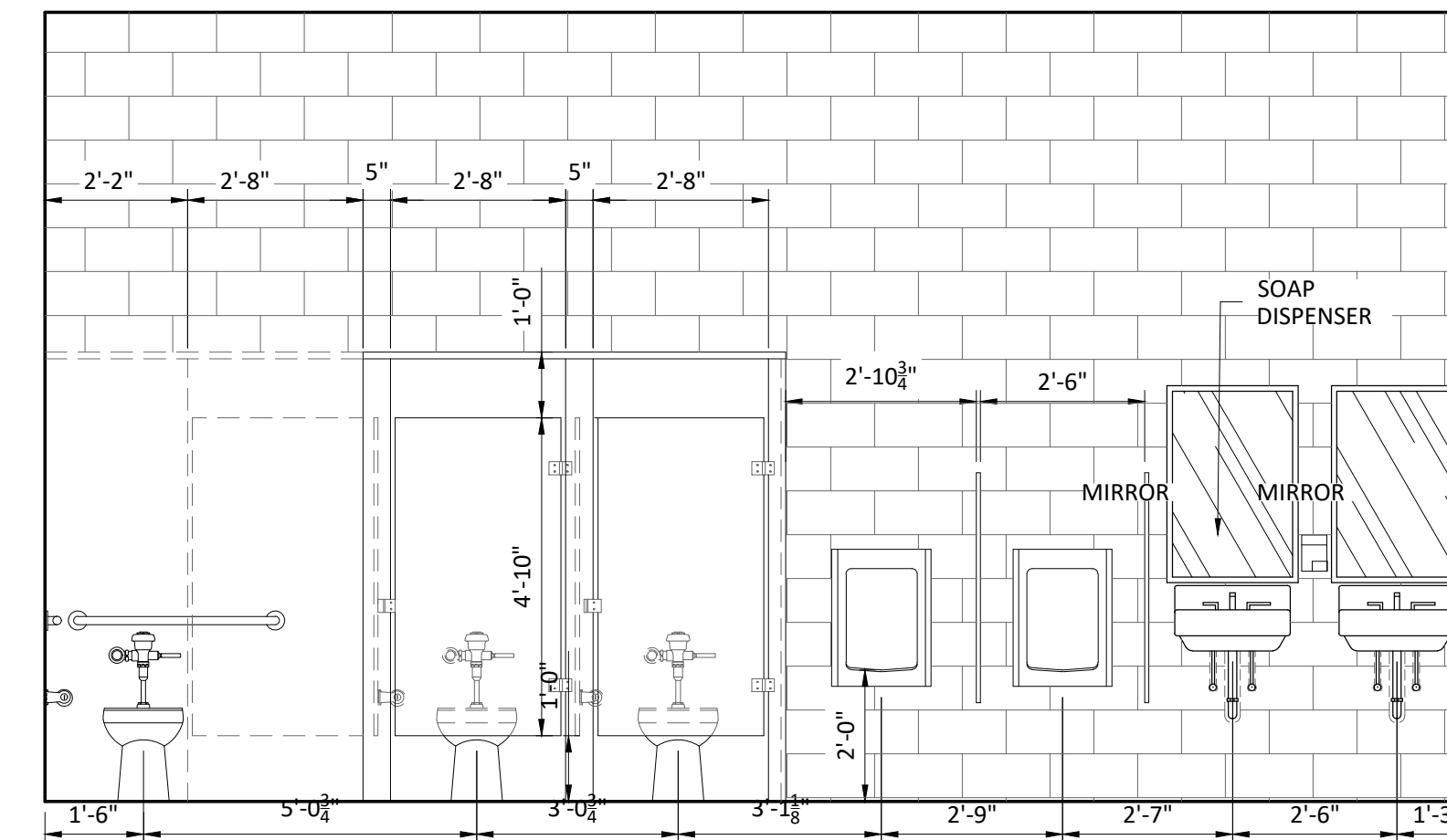
AA INTERIOR ELEVATION
Scale: 3/8"=1'-0"



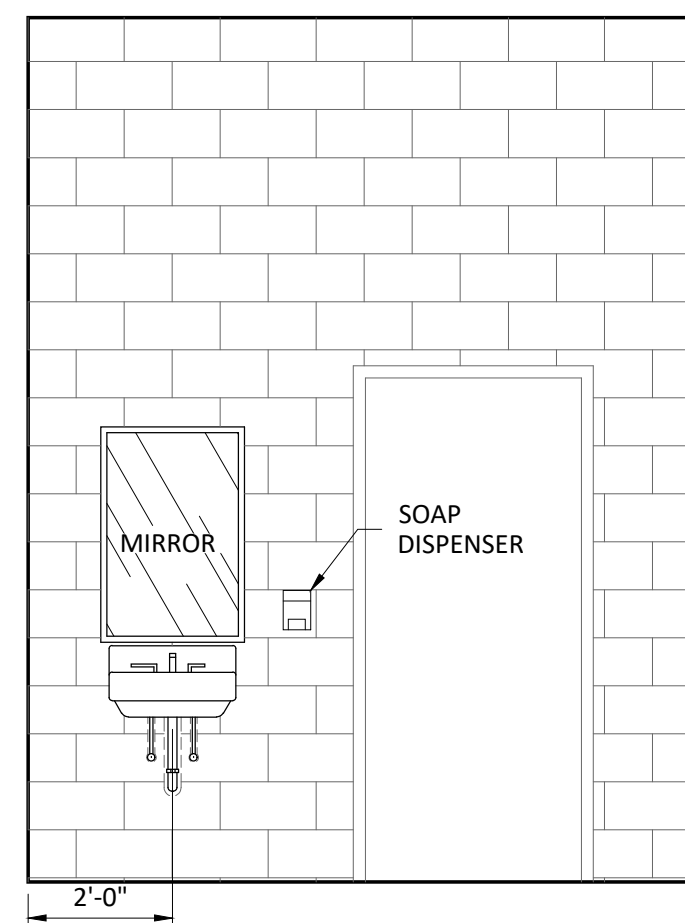
AB INTERIOR ELEVATION
Scale: 3/8"=1'-0"



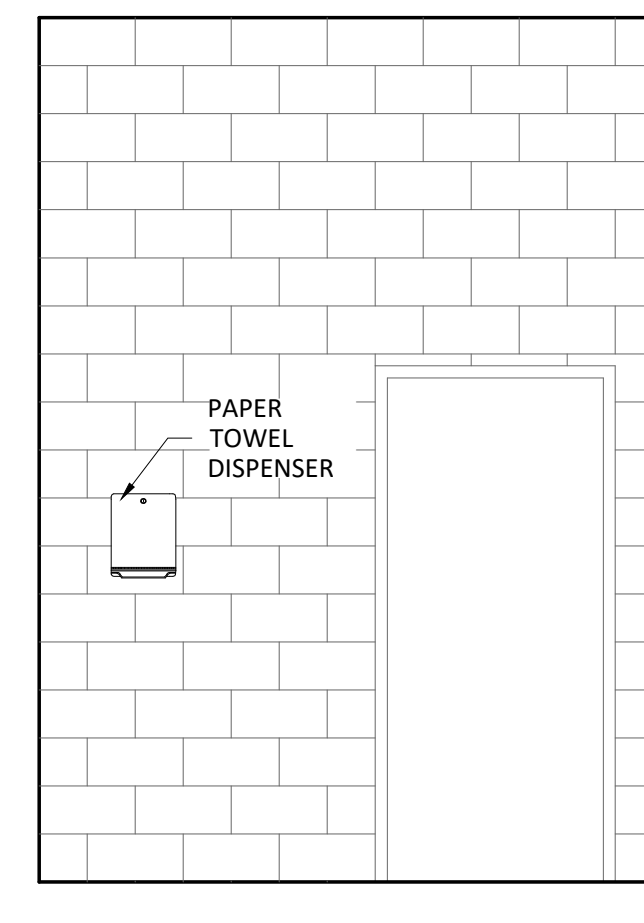
AC INTERIOR ELEVATION
Scale: 3/8"=1'-0"



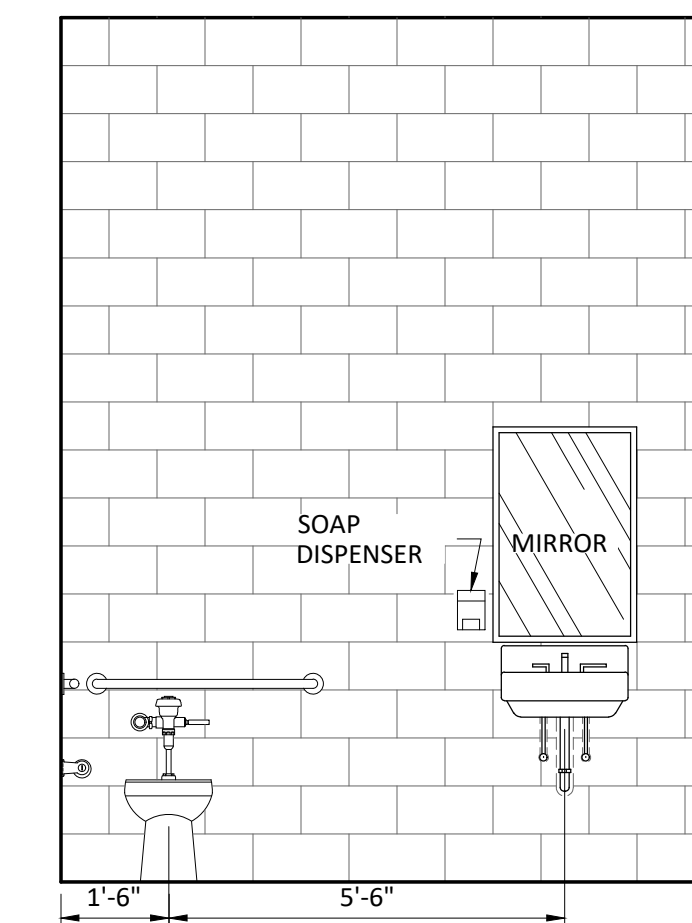
AD INTERIOR ELEVATION
Scale: 3/8"=1'-0"



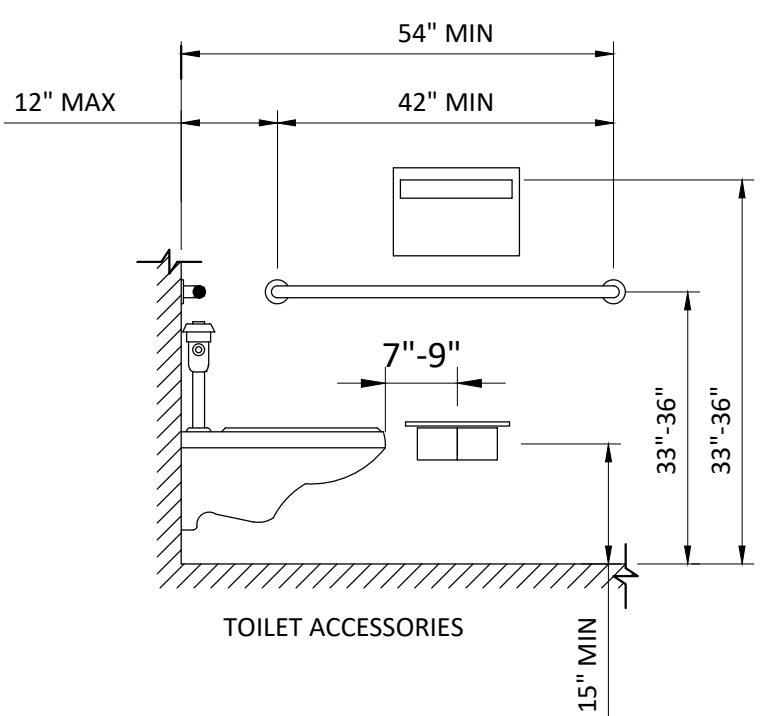
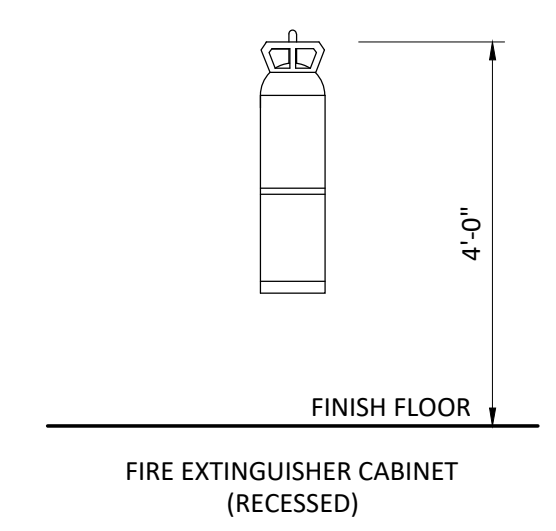
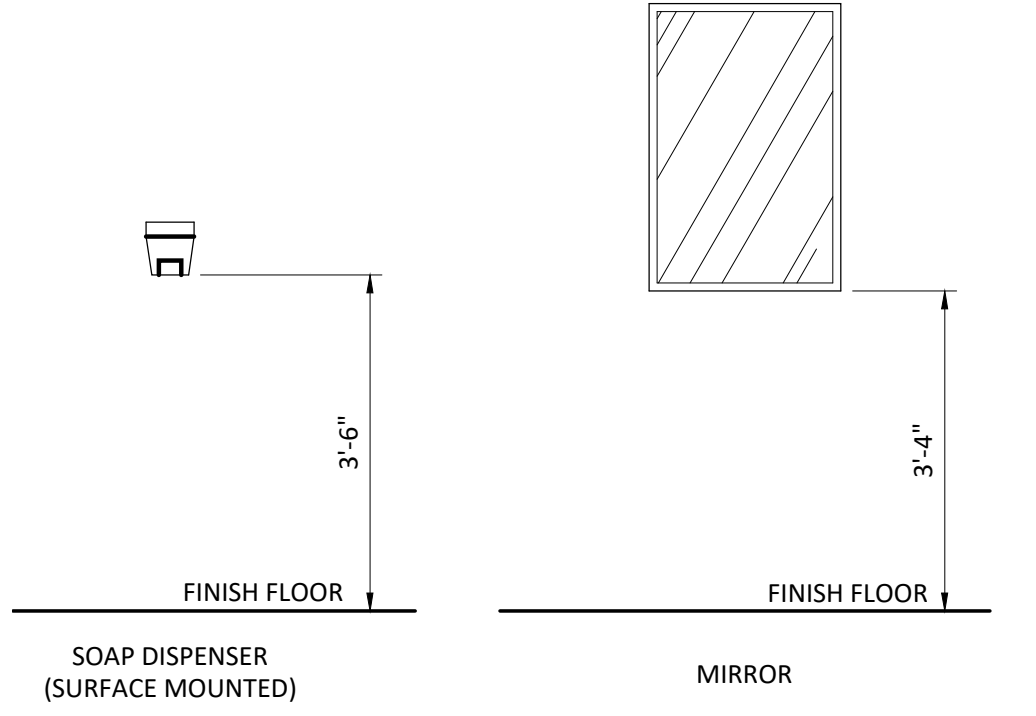
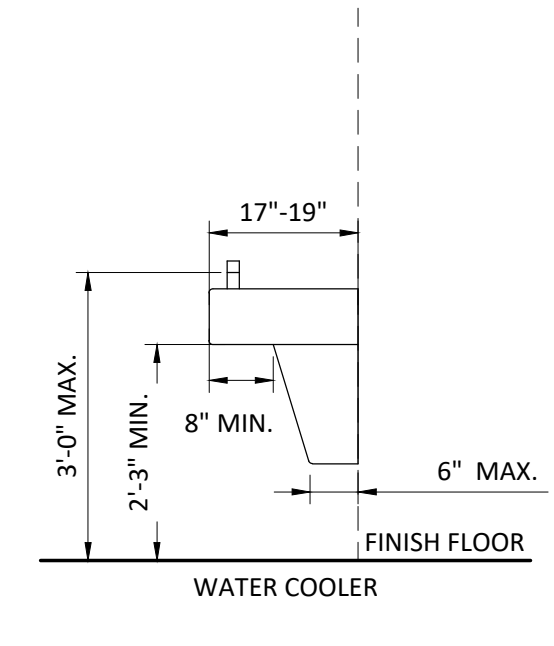
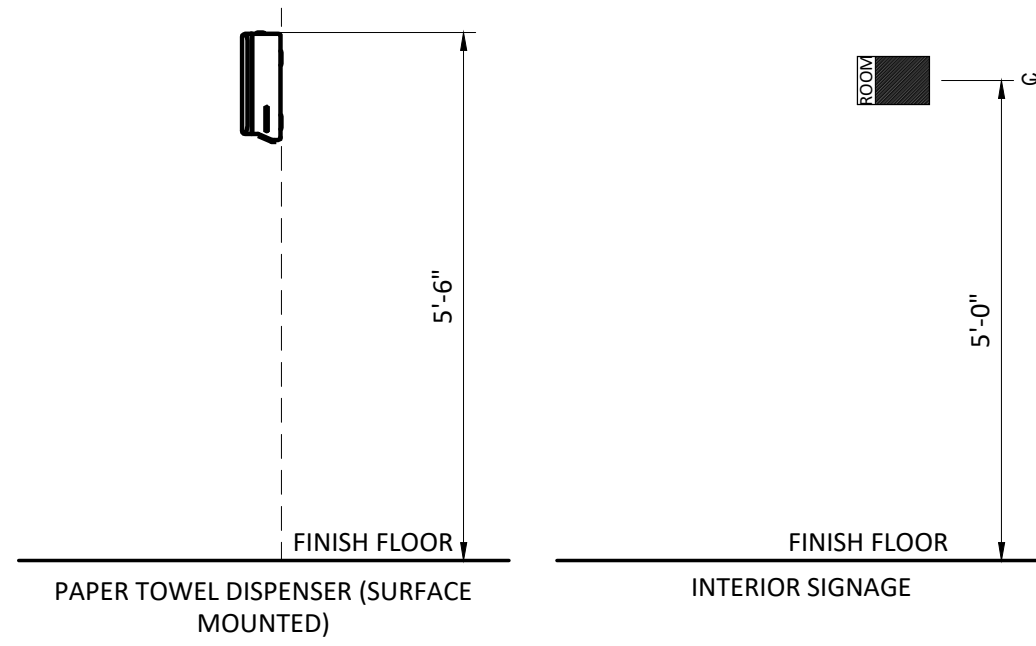
AE INTERIOR ELEVATION
Scale: 3/8"=1'-0"



AF INTERIOR ELEVATION
Scale: 3/8"=1'-0"



AG INTERIOR ELEVATION
Scale: 3/8"=1'-0"



CADD FILE NAME: 18054 - GENNOTES.dwg

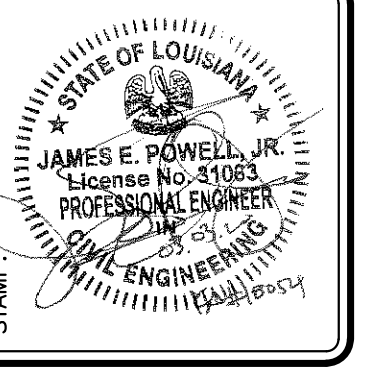
DESIGNED BY: SAD
DRAWN BY: SAD
CHECKED BY: SAD
DATE: 03.MAR.20
JOB NO.: 18054

SCALE: (24x36) AS NOTED
SCALE: (11x17)

FAIRGROUNDS PHASE 3
1515 N FLORIDA ST.
COVINGTON, LA

INTERIOR ELEVATIONS

| DATE | REVISIONS | APPROVED | J.E.P. |
|--|-----------------------------------|----------|--------|
| 03.03.20 <td>ISSUE FOR BID <td></td> <td></td> </td> | ISSUE FOR BID <td></td> <td></td> | | |

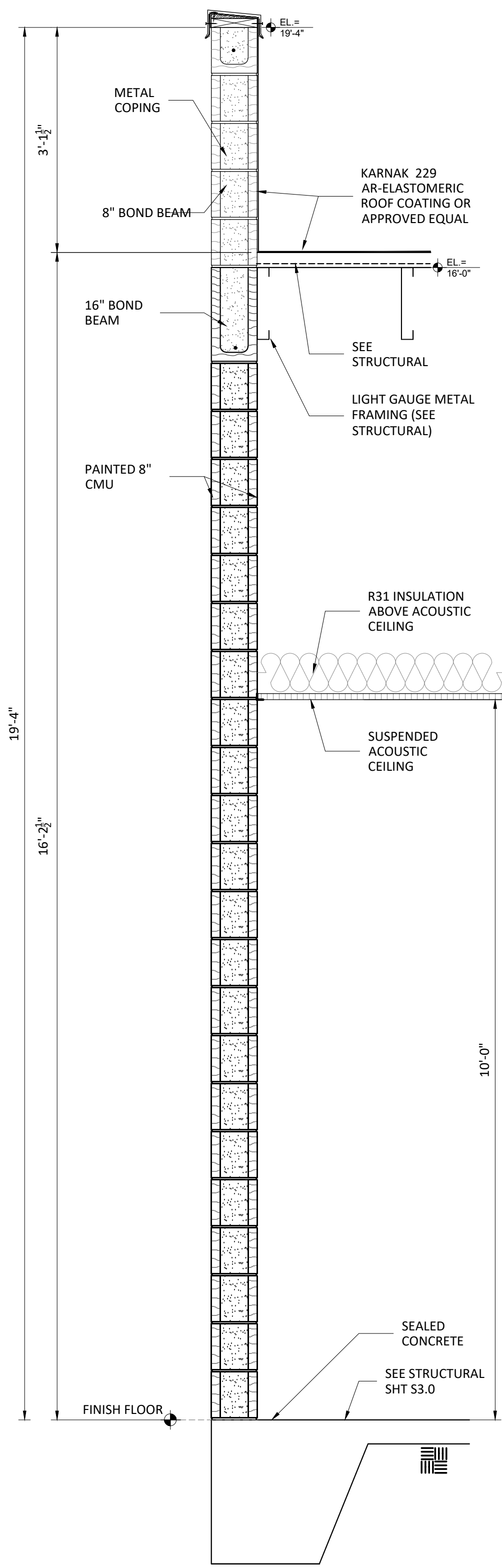


Kyle Associates, LLC
Planning, Engineering, and Landscape Architecture
638 Village Lane N. • Mandeville, LA 70471 • 980-727-0877

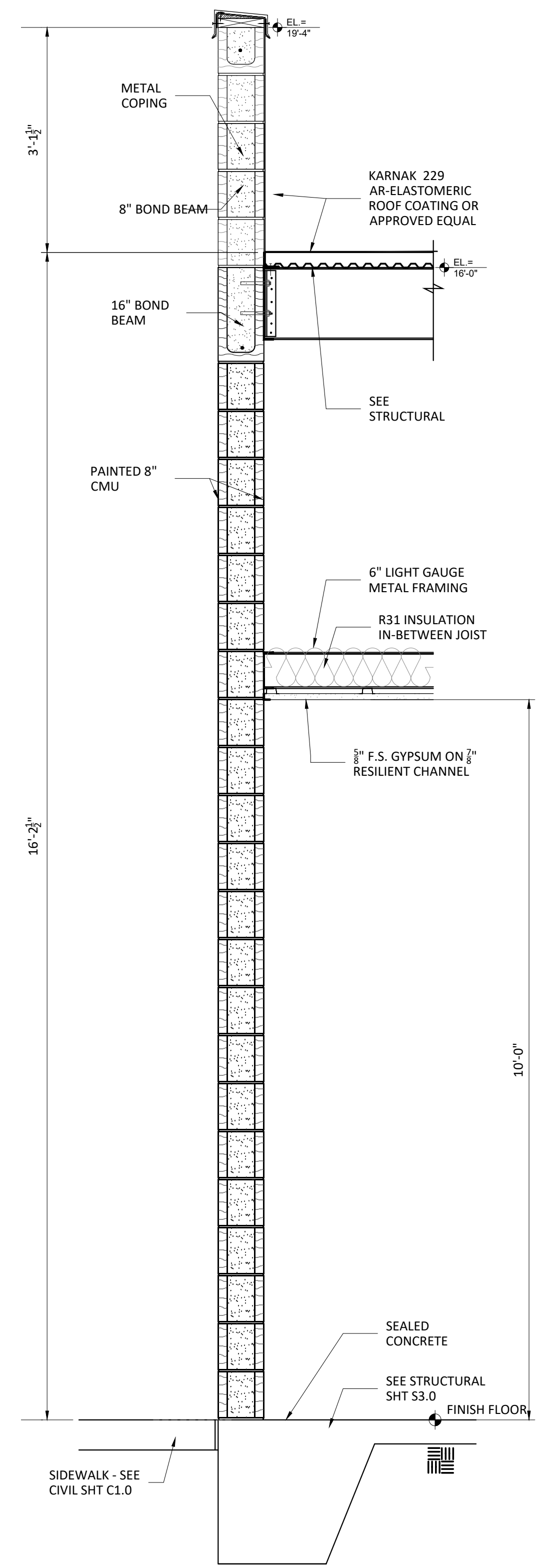
| | | | |
|--|----------------------------|--------------------|------------------|
| CADD FILE NAME: 18054 - DETAILS.dwg | | | |
| DESIGNED BY: SAD | DRAWN BY: SAD | CHECKED BY: SAD | JOB NO. 18054 |
| SCALE: (24x36) AS NOTED | SCALE: (11x17) AS NOTED | DATE: 03.MAR.20 | |

FAIRGROUNDS PHASE 3
1515 N FLORIDA ST.
COVINGTON, LA

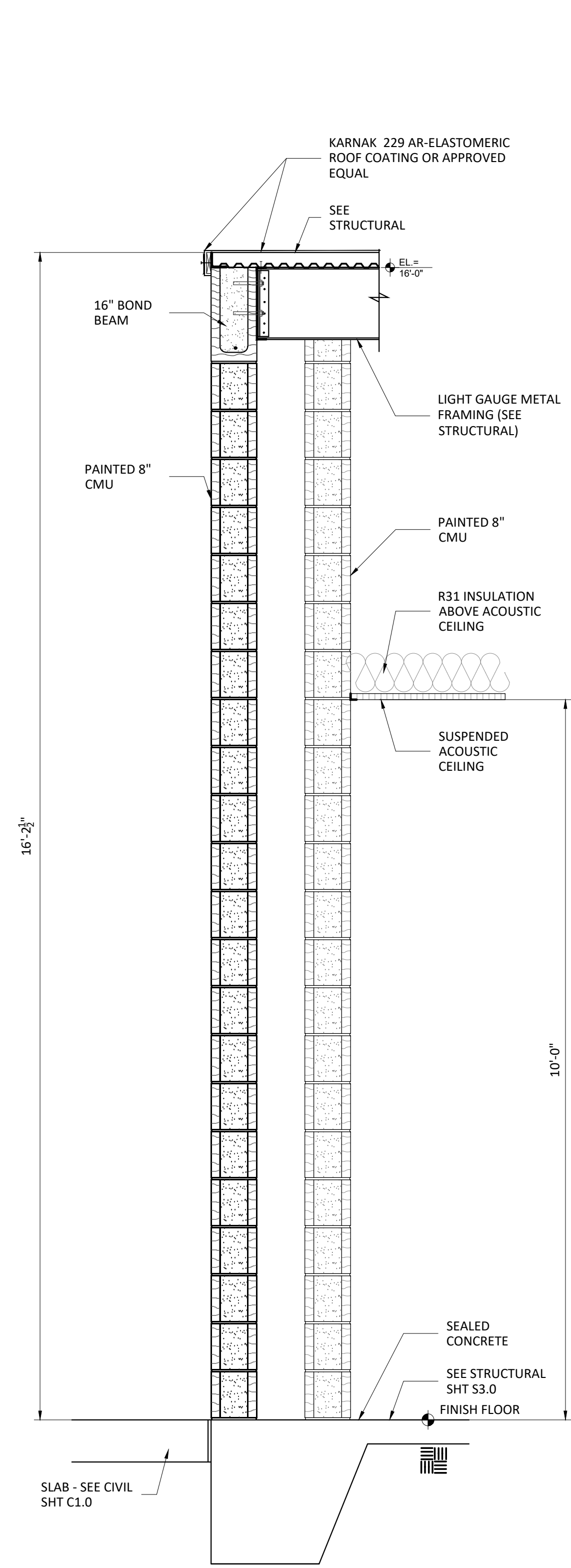
WALL SECTIONS



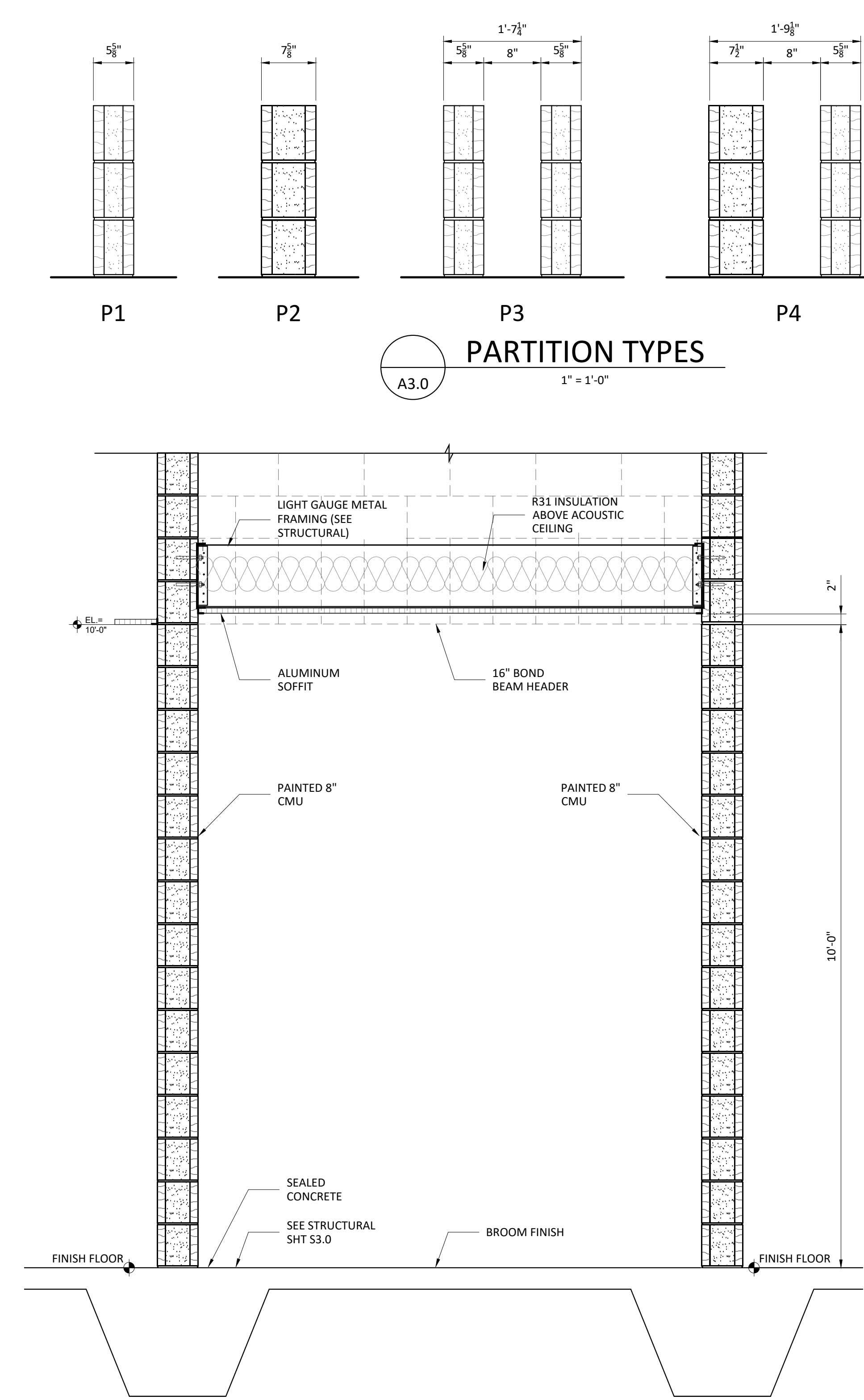
1 WALL DETAIL @ OFFICE
A3.0 3/4" = 1'-0"



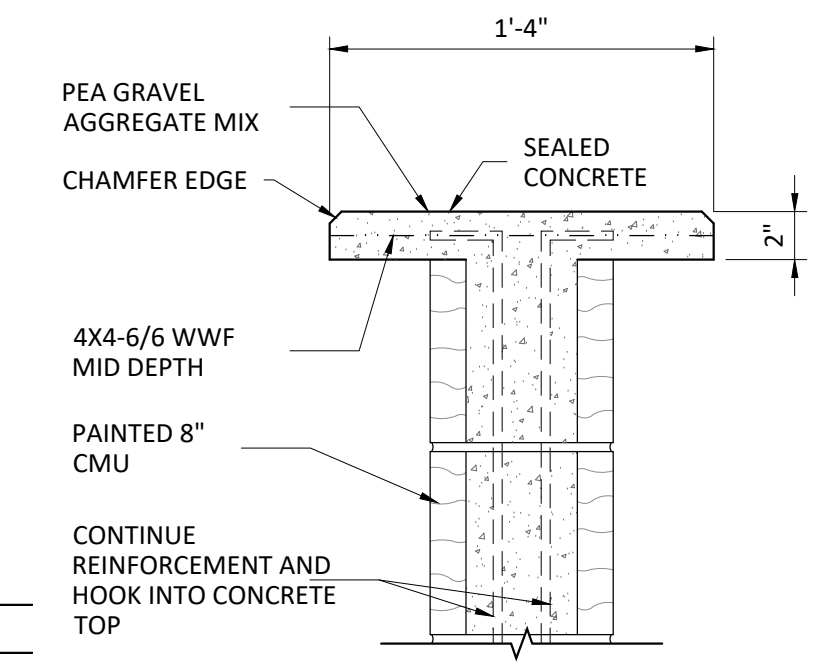
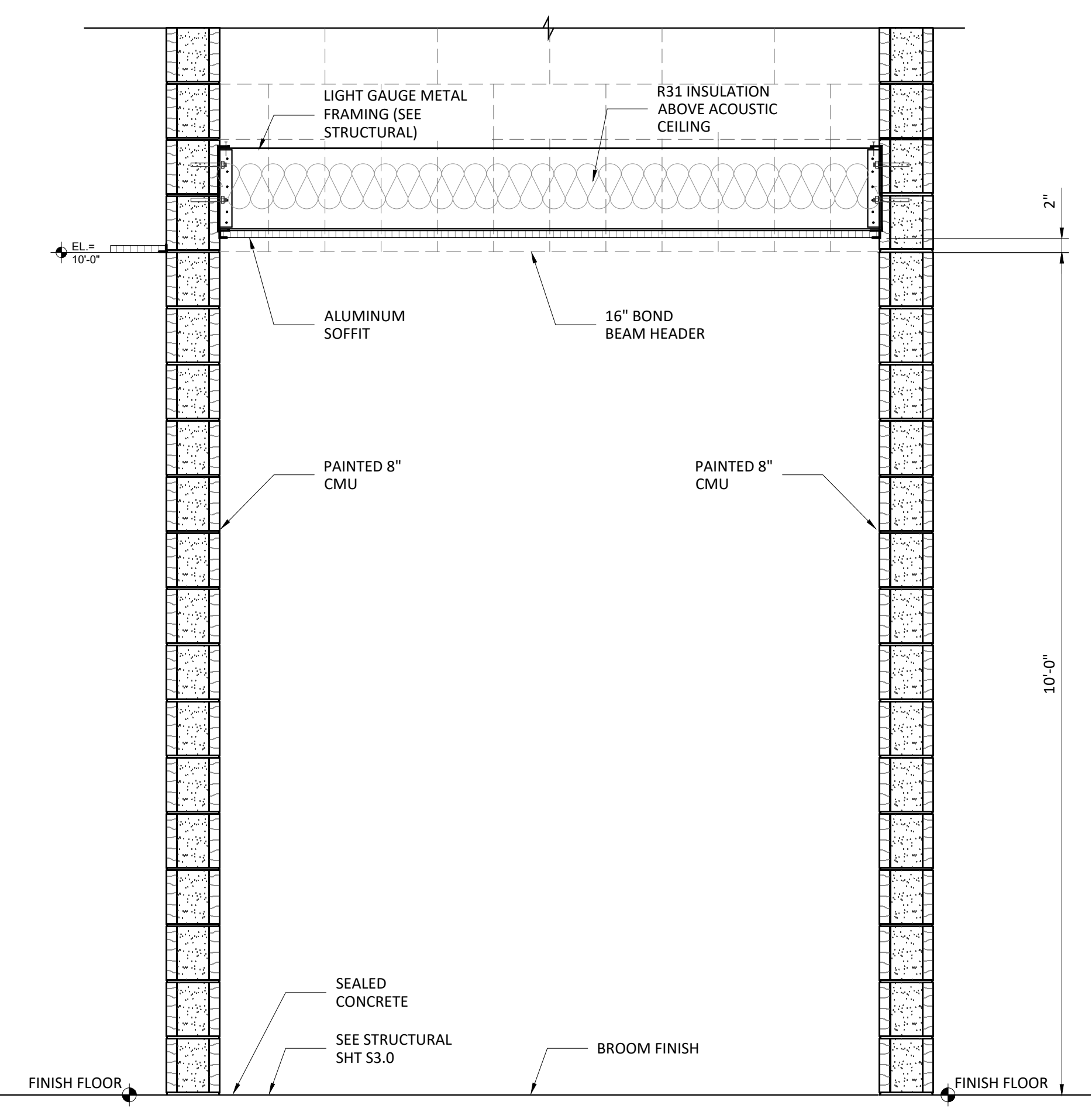
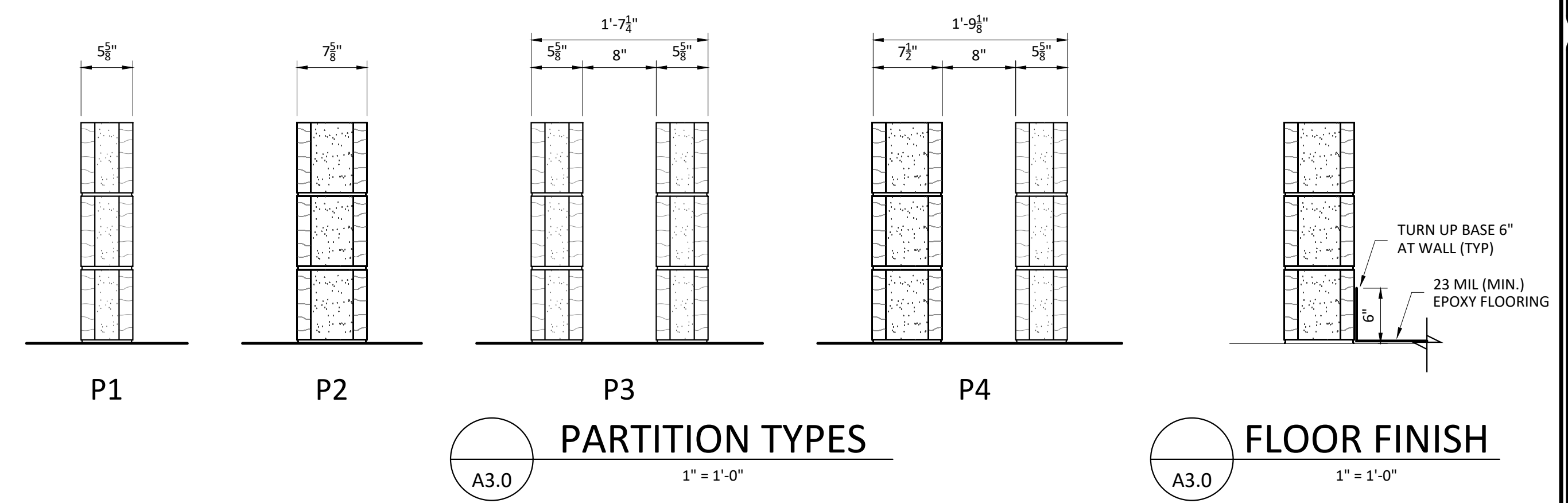
2 WALL DETAIL @ OFFICE
A3.0 3/4" = 1'-0"



3 WALL DETAIL @ OFFICE
A3.0 3/4" = 1'-0"



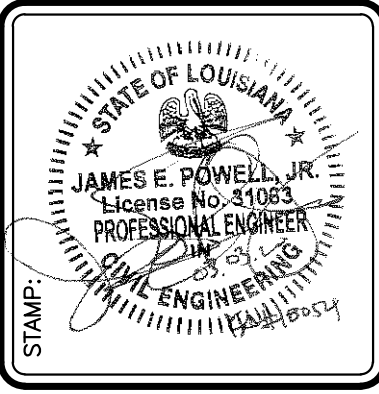
4 WALL DETAIL @ BREEZEWAY
A3.0 3/4" = 1'-0"



5 COUNTER DETAIL
A3.0 1-1/2" = 1'-0"

NOTE:
LOCATED AT 8' AND 5' OPENINGS
COUNTER LENGTHS TO SPAN THE WIDTH
OF OPENINGS

| | | |
|-----------|---------------|--------|
| REVISIONS | APP'D | J.E.P. |
| DATE: | 03.03.20 | |
| REMARKS: | ISSUE FOR BID | |

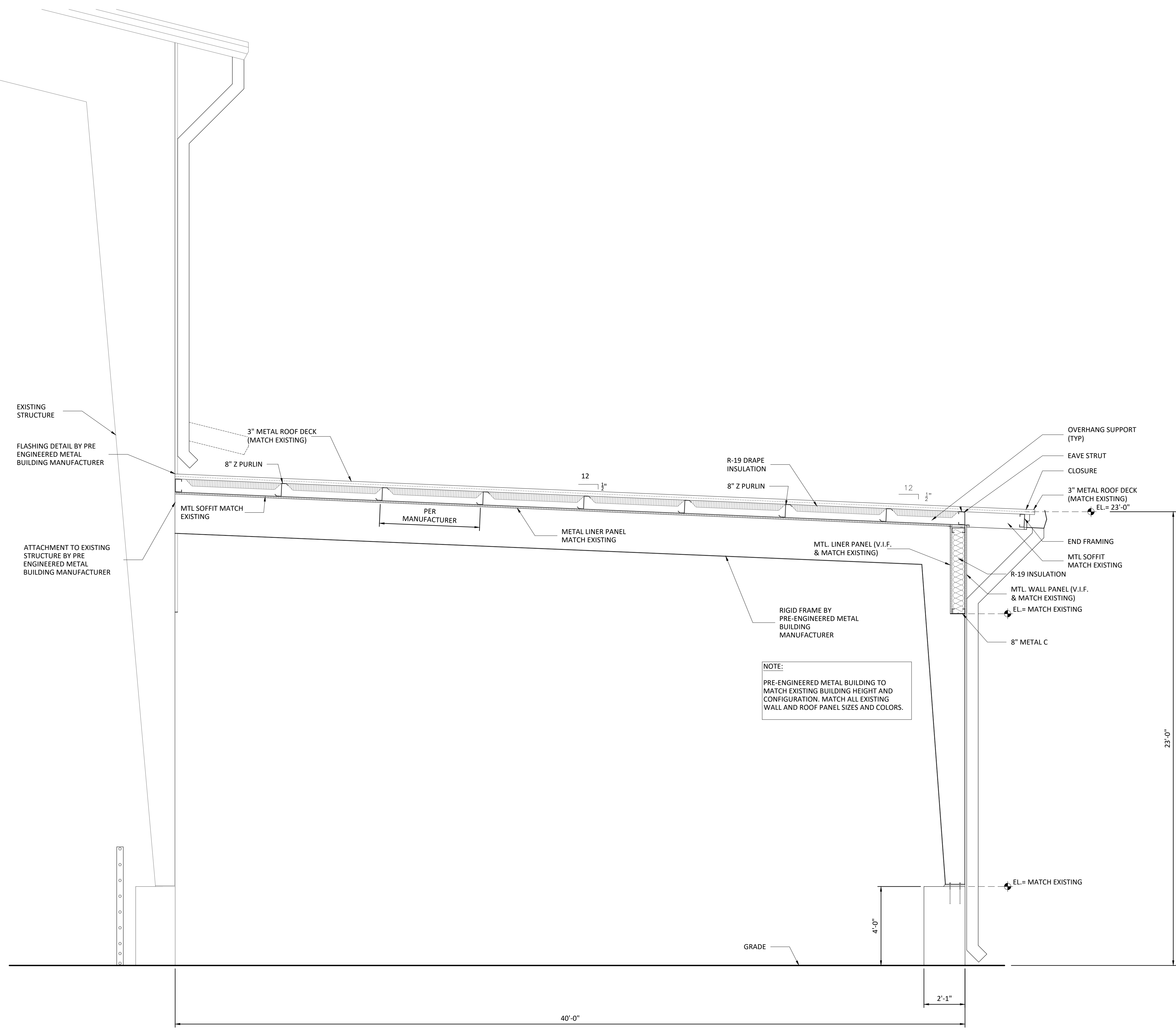


Kyle Associates, LLC
Planning, Engineering, and Landscape Architecture
638 Village Lane N. • Mandeville, LA 70471 • 888-727-0877

SHEET NO.
A3.0

| | | | |
|----------------------------|----------------------------|--------------------|------------------|
| DESIGNED BY: SAD | DRAWN BY: SAD | CHECKED BY: SAD | JOB NO. 18054 |
| SCALE: (24x36) AS NOTED | SCALE: (11x17) AS NOTED | DATE: 03.MAR.20 | |

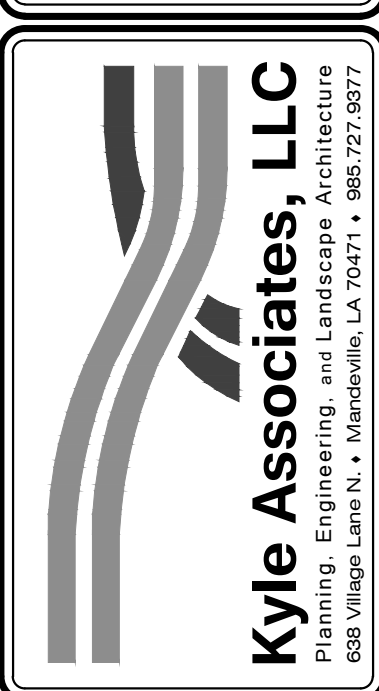
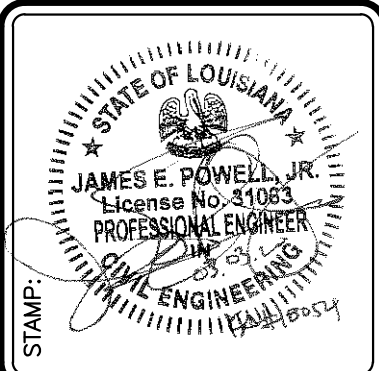
FAIRGROUNDS PHASE 3
1515 N FLORIDA ST.
COVINGTON, LA
WALL SECTIONS



NOTE:
PRE-ENGINEERED METAL BUILDING TO MATCH EXISTING BUILDING HEIGHT AND CONFIGURATION. MATCH ALL EXISTING WALL AND ROOF PANEL SIZES AND COLORS.

1 COVERED AREA SECTION
A3.0 3/8" = 1'-0"

| DATE | REVISIONS | APP'D | J.E.P. |
|--|-----------------------------------|-------|--------|
| 03.03.20 <td>ISSUE FOR BID <td></td> <td></td> </td> | ISSUE FOR BID <td></td> <td></td> | | |



GENERAL NOTES

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FINAL DIMENSIONS AND FIT-UP OF THE STRUCTURE, INCLUDING VERIFYING ALL EXISTING CONDITIONS AND DIMENSIONS BEFORE COMMENCING WORK.
- THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING ANY WORK. ANY INTERFERENCE SHALL BE BROUGHT TO THE ATTENTION OF THE STRUCTURAL ENGINEER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN, PLACEMENT, MAINTENANCE, ETC. OF ANY AND ALL SHORING, BRACING, TIE BACKS, ETC. NEEDED TO SUPPORT ANY PART OF THE NEW OR EXISTING CONSTRUCTION DURING THE ENTIRE CONSTRUCTION PROCESS TO ENSURE THE SAFETY AND INTEGRITY OF THE STRUCTURE UNTIL THE NECESSARY PERMANENT ELEMENTS ARE IN PLACE.
- SEE ARCHITECTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS FOR EXACT LOCATION OF ALL DEPRESSIONS, SLOPES, OPENINGS, PENETRATIONS, ETC. PENETRATIONS THROUGH BEAMS OR OPENINGS IN STRUCTURAL ELEMENTS NOT SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE STRUCTURAL ENGINEER.
- ALL ELEVATIONS REFER TO FIRST FLOOR = 0'-0".
- ALL SLABS, BEAMS, AND FOOTINGS NOT PILE-SUPPORTED SHALL BE SUPPORTED ON EXISTING UNDISTURBED SOIL OR ON NON-EXPANSIVE TYPE FILL COMPACTED TO 95% OF MAXIMUM STANDARD PROCTOR DENSITY. DESIGN SOIL PRESSURE = 1300 LBS. PER SQ. FT. AS ESTABLISHED BY THE GEOTECHNICAL INVESTIGATION PERFORMED BY GULF SOUTH ENGINEERING AND TESTING, INC AND DATED APRIL 8, 2014.
- PLACE .006 INCH VAPOR BARRIER BENEATH ALL INTERIOR SLABS AND BEAMS ON GRADE. LAP 12" TO ACCOMMODATE CONCRETE POURING DIRECTION.
- ALL CONCRETE HAS BEEN DESIGNED IN ACCORDANCE WITH THE REQUIREMENTS OF ACI 318, LATEST EDITION AND SHALL HAVE A COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS. CONCRETE SHAFTS SHALL HAVE A COMPRESSIVE STRENGTH OF 4000 PSI AT 28 DAYS.
- ALL CONCRETE SHALL BE NORMAL WEIGHT (APPROXIMATELY 150 LB. PER CUBIC FT.).
- CONCRETE AT STEEL DECK SHALL BE SEMI-LIGHT WEIGHT (APPROXIMATELY 115 LBS PER CUBIC FT.).
- CONCRETE IN U-BLOCKS SHALL BE PEA GRAVEL MIX.
- ALL REINFORCING STEEL SHALL BE IN ACCORDANCE WITH ASTM A-615 GRADE 60.
- ALL REINFORCING SHALL BE SPliced WITH A CLASS "B" SPLICE IN ACCORDANCE WITH ACI 318-LATEST EDITION.
- WELDED WIRE FABRIC (WWF) SHALL BE IN ACCORDANCE WITH ASTM A-185. WIRE SHALL CONFORM TO ASTM A82. LAP ALL FABRIC ONE WIRE SPACING PLUS 2 INCHES.
- REINFORCING OR FABRIC ON GRADE SHALL BE CHAIRED WITH 3000 PSI CONCRETE BRICKETTES SPACED TO ADEQUATELY SUPPORT THE REINFORCING, BUT NO GREATER THAN 3'-0" O.C. EACH WAY.
- INSTALL CORNER BARS IN THE OUTSIDE FACE OF EDGE BEAMS AT EVERY CORNER ONE TOP AND ONE BOTTOM. BAR SHALL BE THE SAME SIZE AS THE LARGEST BEAM BAR.
- PROVIDE A 90 DEGREE HOOK ON ALL TOP REINFORCEMENT IN ALL BEAMS AT DISCONTINUOUS ENDS.
- ALL COLUMN VERTICAL REINFORCING SHALL HAVE STANDARD HOOKS AT THE TOP OF THE UPPERMOST SECTION OF EACH COLUMN.
- ALL CONCRETE SIDEWALKS THAT ARE NOT PILE SUPPORTED SHALL BE 4" THICK AND REINFORCED WITH WWF 6X6-10/10.
- ALL FILLED VERTICAL CELLS OR CAVITIES IN MASONRY UNITS SHALL BE FILLED CONTINUOUSLY WITH COARSE GROUT IN ACCORDANCE WITH ACI 530-95 AND ASTM C476. NO VOIDS, HONEYCOMBS, OR GAPS WILL BE ALLOWED. BARS TO BE CENTERED WITHIN CELLS. PROVIDE VERTICAL BARS AT CORNERS, WALL ENDS, WALL INTERSECTIONS, AND EACH SIDE OF OPENINGS.
- ALL MASONRY HAS BEEN DESIGNED IN ACCORDANCE WITH ACI 530.
- ALL MASONRY WALLS SHALL BE SUPPORTED EITHER ALONG THE TOP AT EACH FLOOR LEVEL OR BY VERTICAL PILASTERS ALL AS SHOWN ON THE ARCHITECTURAL DRAWINGS OR AS APPROVED BY THE ARCHITECT.
- ALL HORIZONTAL U-BLOCK BOND BEAMS OR LINTELS MAY BE FILLED WITH EITHER GROUT OR PEA GRAVEL CONCRETE.
- PLACE CONTINUOUS "DUR-O-WALL" JOINT REINFORCING IN EVERY OTHER HORIZONTAL JOINT (16" O.C. VERTICALLY) IN ALL CMU WALLS.
- MAXIMUM SPACING OF CMU CONTROL JOINTS NOT TO EXCEED 20'-0".
- PRISM STRENGTH OF CMU (f_m) TO BE 1500 PSI
- REFER TO "A" DRAWINGS FOR BOTTOM OF MASONRY LINTEL ELEVATION DIMENSIONS.
- REFER TO "A" DRAWINGS FOR THE ROUGH MASONRY OPENING DIMENSIONS.
- LAP ALL VERTICAL CMU REINFORCING A MINIMUM OF 30". ALL BARS SHALL BE TIED.
- STEEL ROOF DECK SHALL BE ATTACHED TO THE STRUCTURE BY HILTI X-ENP-19 L15 POWDER ACTUATED FASTENER OR APPROVED EQUAL FASTENERS SHALL BE LAID OUT IN EQUAL SPACING AS DESCRIBED BELOW. SIDELAPS SHALL BE ATTACHED WITH # 10 TEK SCREWS, OTHERS MAY BE WELDED OR SCREWED.

DECK WELDING PATTERNS SHALL BE IN ACCORDANCE WITH THE STEEL DECK INSTITUTE'S SECOND EDITION OF THE DIAPHRAGM DESIGN MANUAL AS FOLLOWS (SEE VULCRAFT CATALOG OR SDI DIAPHRAGM MANUAL FOR LAYOUT DIAGRAMS):

| VULCRAFT DECK TYPE | FASTENER LAYOUT AT EVERY SUPPORT | SIDELAP FASTENERS/SPAN |
|--------------------|----------------------------------|------------------------|
| VL, VLI | 36/4 | - |
| 0.6C | 30/4 | - |

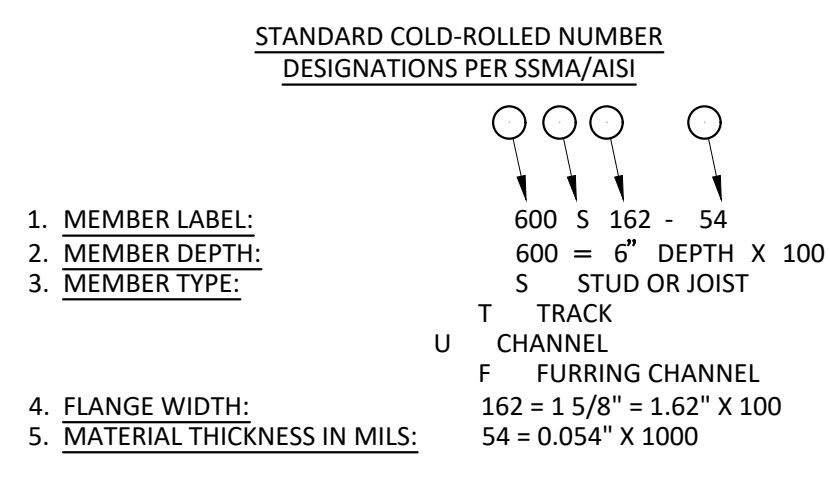
IN ADDITION TO THE ABOVE, ROOF DECK ATTACHMENTS MUST MEET THE REQUIREMENTS AND LOADS PROVIDED BY FACTORY MUTUAL, UL, AND ANSI/ASCE 7.

- ALL COLD-ROLLED STEEL MEMBERS ARE CALLED OUT WITH THE STANDARD DESIGNATION USED BY THE STEEL STUD MANUFACTURERS ASSOCIATION. SEE SHEET S1.0 FOR EXPLANATION.
- UNLESS NOTED OTHERWISE ALL COLD-ROLLED ELEMENTS SHALL BE CONNECTED WITH #10 STEEL SCREWS. SCREWS USED SHALL HAVE THE FOLLOWING MINIMUM DIAMETERS MEASURED OUT TO OUT OF THREADS: #10 - .190", #12 - .216"
- DESIGN LIVE LOADS

| | |
|--|-----------------------------|
| FIRST FLOOR |50 psf |
| ROOF | 20 psf |
| WIND |ASCE 7, LATEST EDITION |
| ANALYTICAL METHOD | |
| RISK CATEGORY II | |
| WIND SPEED 131 MPH | |
| EXPOSURE B | |
| IMPORTANCE FACTOR 1.0 | |
| ENCLOSED STRUCTURE | |
| INTERNAL PRESSURE COEFFICIENT =+/-0.18 | |

SEISMIC DESIGN DATA

- SEISMIC IMPORTANCE FACTOR, I_e..... 1.0
- MAPPED SPECTRAL RESPONSE ACCELERATIONS:
 - SHORT PERIOD, S_s..... 0.102
 - ONE SECOND PERIOD, S₁..... 0.057
- SITE CLASS..... D
- SPECTRAL RESPONSE COEFFICIENTS:
 - SHORT PERIOD, S_s..... 0.109
 - ONE SECOND PERIOD, S₁..... 0.091
- SEISMIC DESIGN CATEGORY..... B
- BASIC SEISMIC-FORCE-RESISTING SYSTEM(S).....
- ORDINARY REINFORCED MASONRY SHEAR WALLS
- SEISMIC RESPONSE COEFFICIENT(S), C_s..... 0.086 (ASD)
- RESPONSE MODIFICATION FACTOR(S), R..... 2
- ANALYSIS PROCEDURE USED..... EQUIVALENT LATERAL FORCE

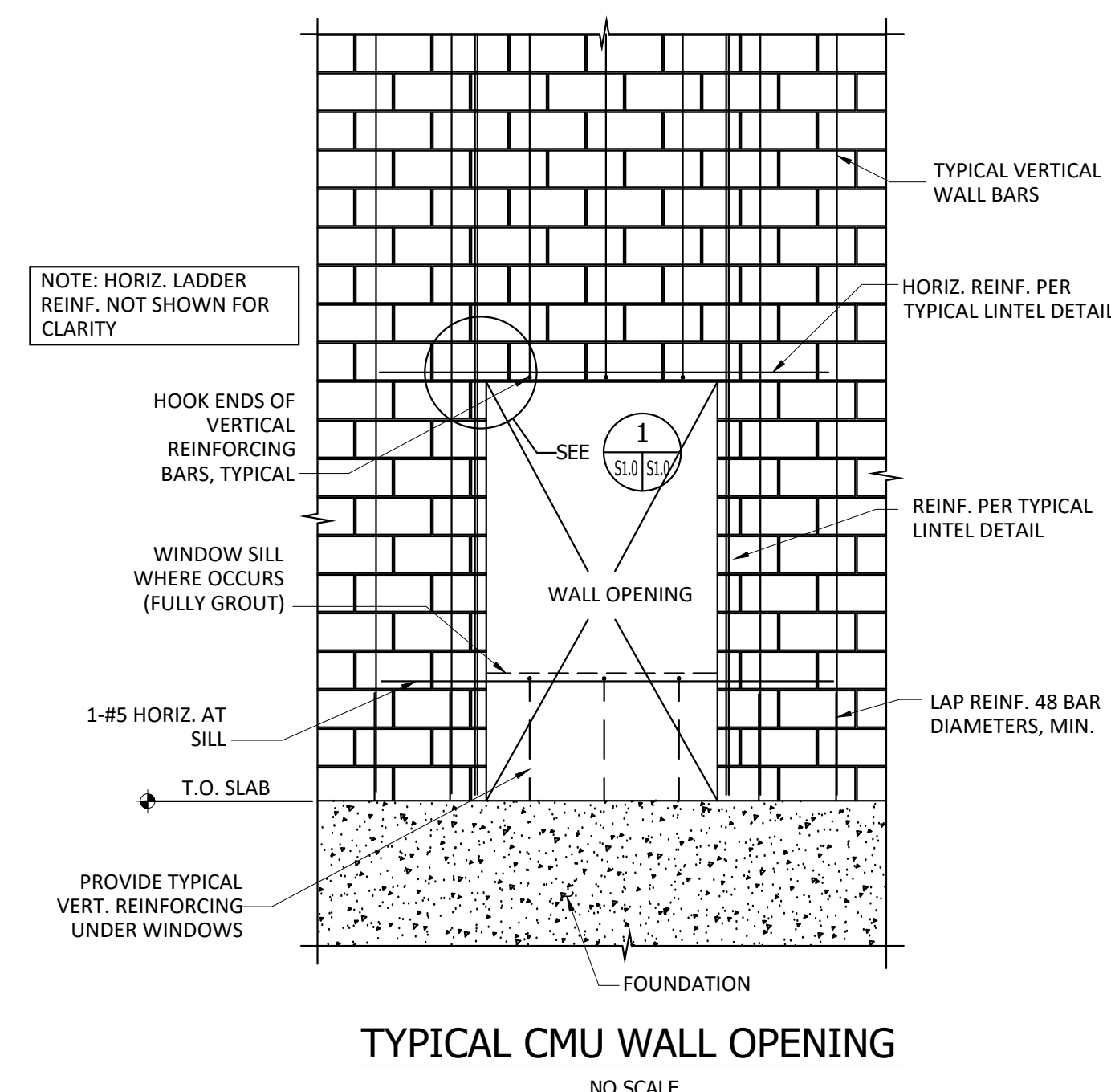


SEE CHART BELOW FOR OTHER DESIGNATIONS

| GAGE | THICKNESS IN MILS |
|--------|-------------------|
| 10 GA. | 118 |
| 12 GA. | 97 |
| 14 GA. | 68 |
| 16 GA. | 54 |
| 18 GA. | 43 |
| 20 GA. | 33 |

GENERAL INFORMATION FOR COLD-ROLLED CONSTRUCTION

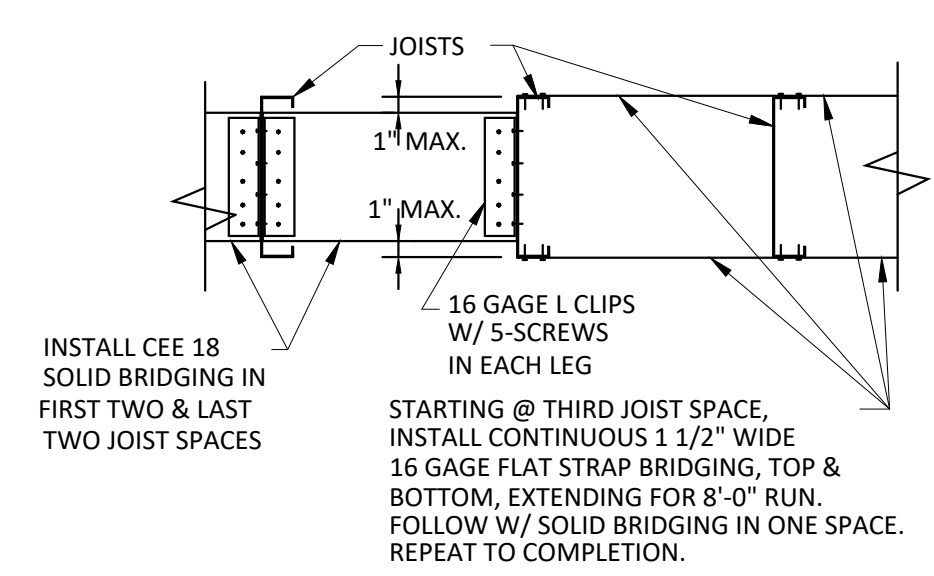
UNLESS NOTED OTHERWISE ALL COLD-ROLLED ELEMENTS SHALL BE CONNECTED WITH #10 AISI-1022 STEEL SCREWS HAVING A MINIMUM DIAMETER OUT TO OUT OF THREADS = 0.190". ALL COLD-ROLLED ELEMENTS SHALL HAVE A MINIMUM YIELD STRENGTH F_y = 50KSI



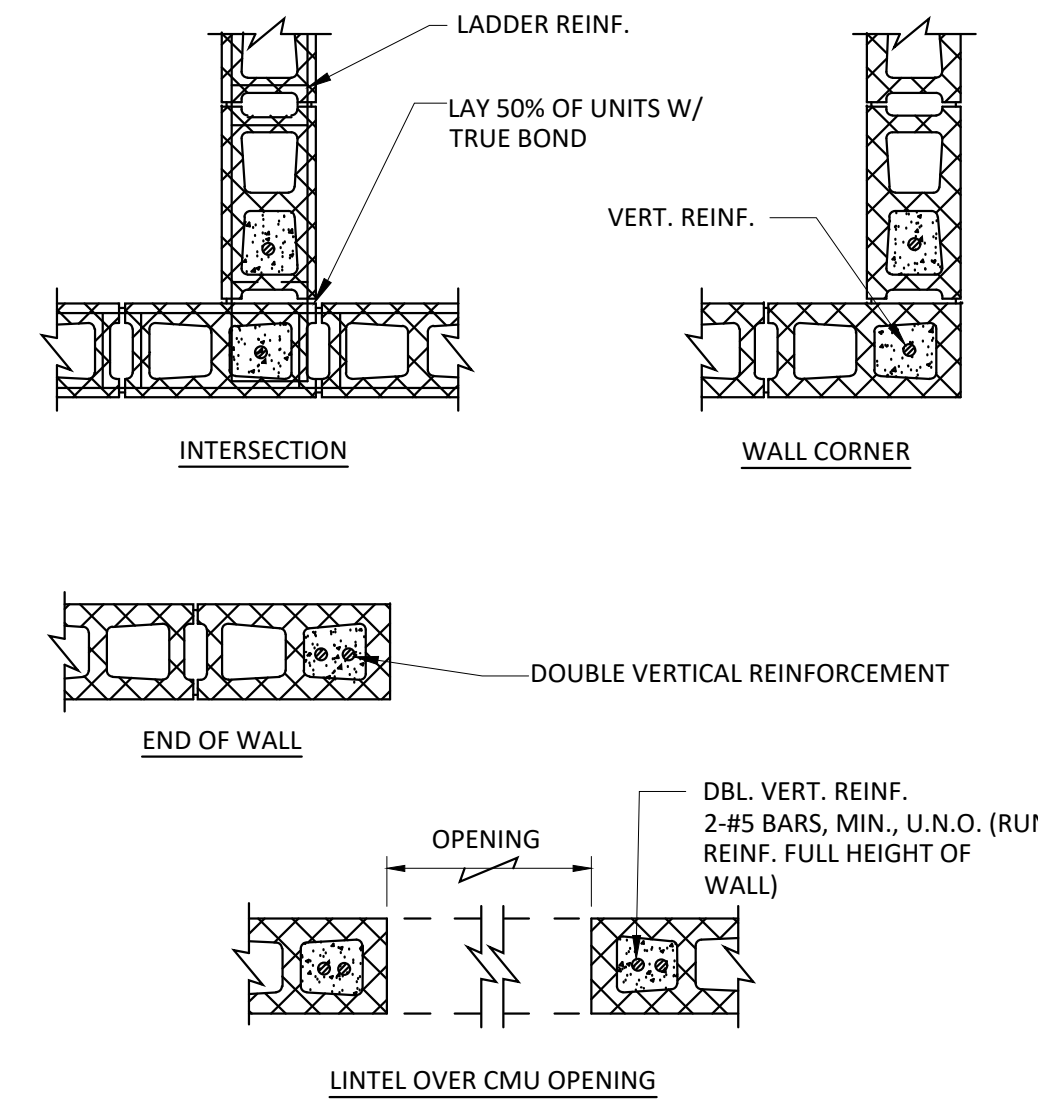
TYPICAL CMU WALL OPENING
NO SCALE

LINTEL SCHEDULE CONCRETE MASONRY UNITS

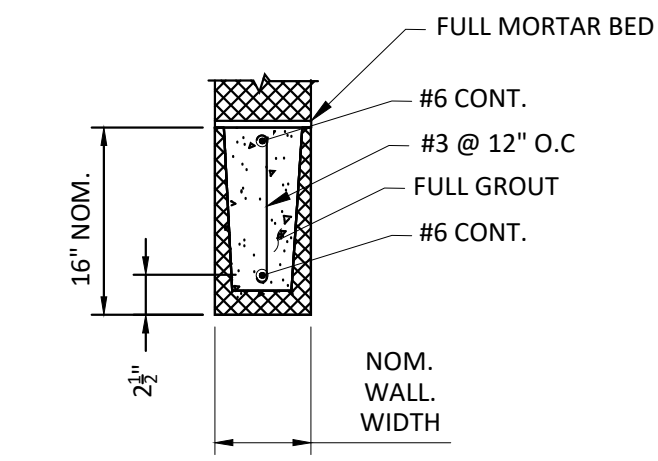
| OPENING SIZE (UP TO & INCLUDING) | LINTEL "U"-BLOCK SIZE AND REINFORCING | JAMBS AT EACH END |
|----------------------------------|--|--------------------------|
| 4'-0" | 8"x8" "U"-BLOCK 1-#5 CONT. BOT. | 8x8 COL. REINF. W/1-#5 |
| 6'-0" | 8"x8" "U"-BLOCK 1-#6 CONT. BOT. | 8x16 COL. REINF. W/2-#5 |
| 8'-0" | 8"x16" "U"-BLOCK 1-#6 CONT. BOT. | 8x16 COL. REINF. W/2-#5 |
| 12'-0" | 2-8"x16" "U" BLOCK 1-#6 CONT. BOT. EA. BLOCK | 8x16 COL. REINF. W/2-#6 |
| > 12'-0" | SEE SPECIFIC DETAILS CUT ON PLAN | 12x16 COL. REINF. W/2-#8 |



TYPICAL RAFTER BRIDGING
(SPACE BRIDGING 4'-0" ON CENTER MAXIMUM)

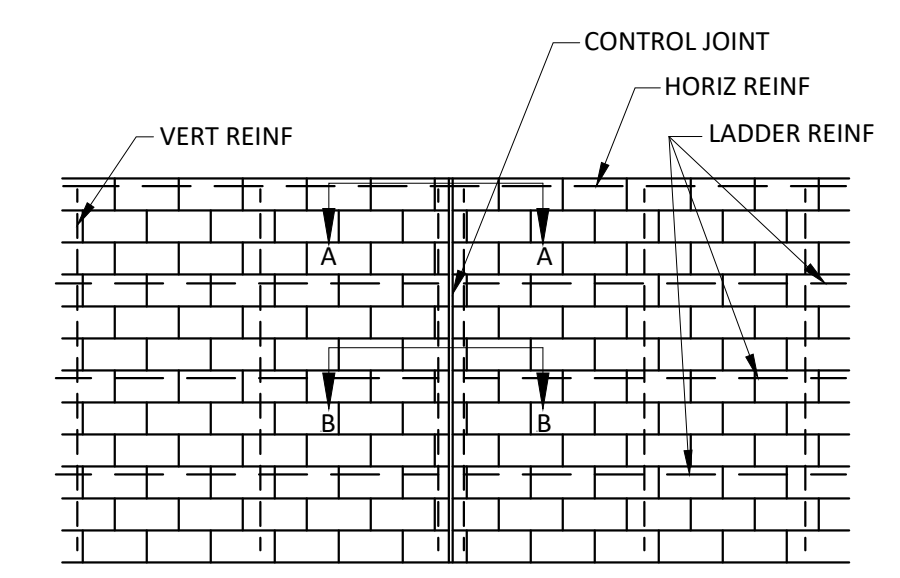


TYPICAL REINFORCED WALL INTERSECTION
N.T.S

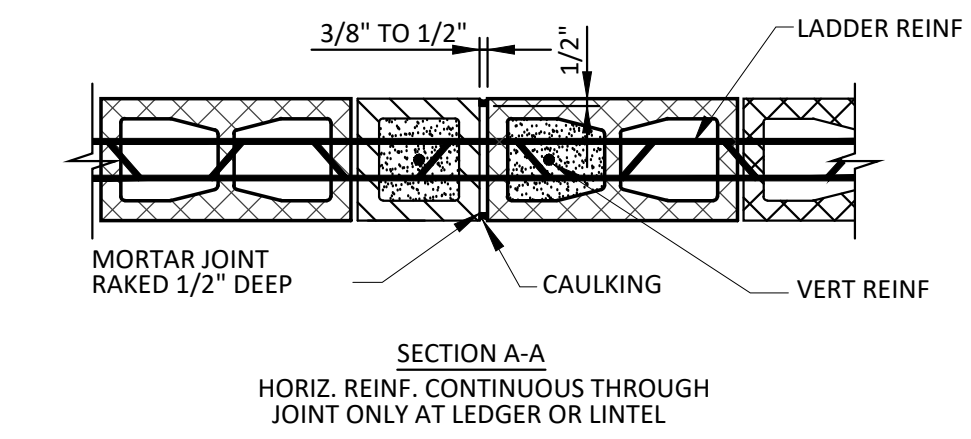


TYPICAL LINTEL DETAIL
NO SCALE

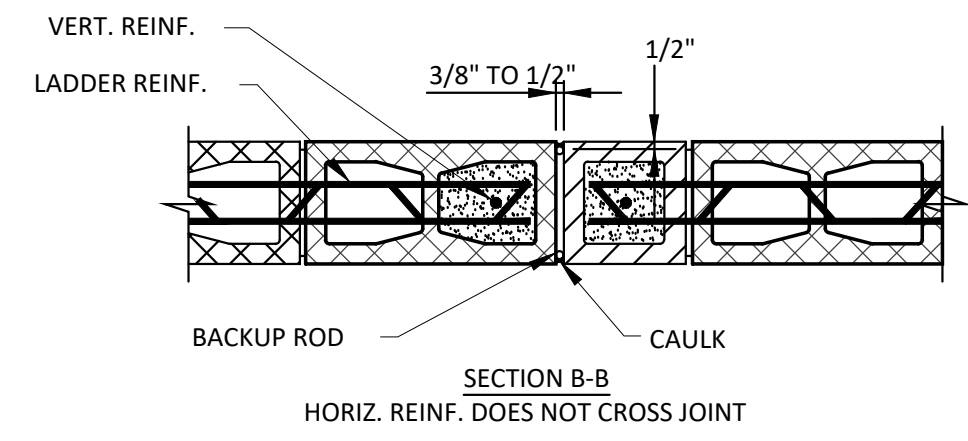
- NOTES:
- SEE A DWGS. FOR SIZES AND LOCATIONS OF OPENINGS
 - PROVIDE 1" OF BEARING AT EACH JAMB FOR EACH FOOT OF CLEAR SPAN BUT NOT LESS THAN 7 5/8" U.N.O. REINFORCEMENT SHALL PROJECT A MINIMUM OF 6" ONTO THE BEARING.
 - MINIMUM MASONRY COMPRESSIVE STRENGTH OF GROUTED PRISM F_m=1500 PSI
 - PRECAST CONCRETE LINTELS AS SHOWN MAY BE USED WITH ARCHITECT APPROVAL. MINIMUM F_c=3000 PSI
 - 8X16= NOMINAL WIDTH X MIN. DEPTH OF LINTEL.



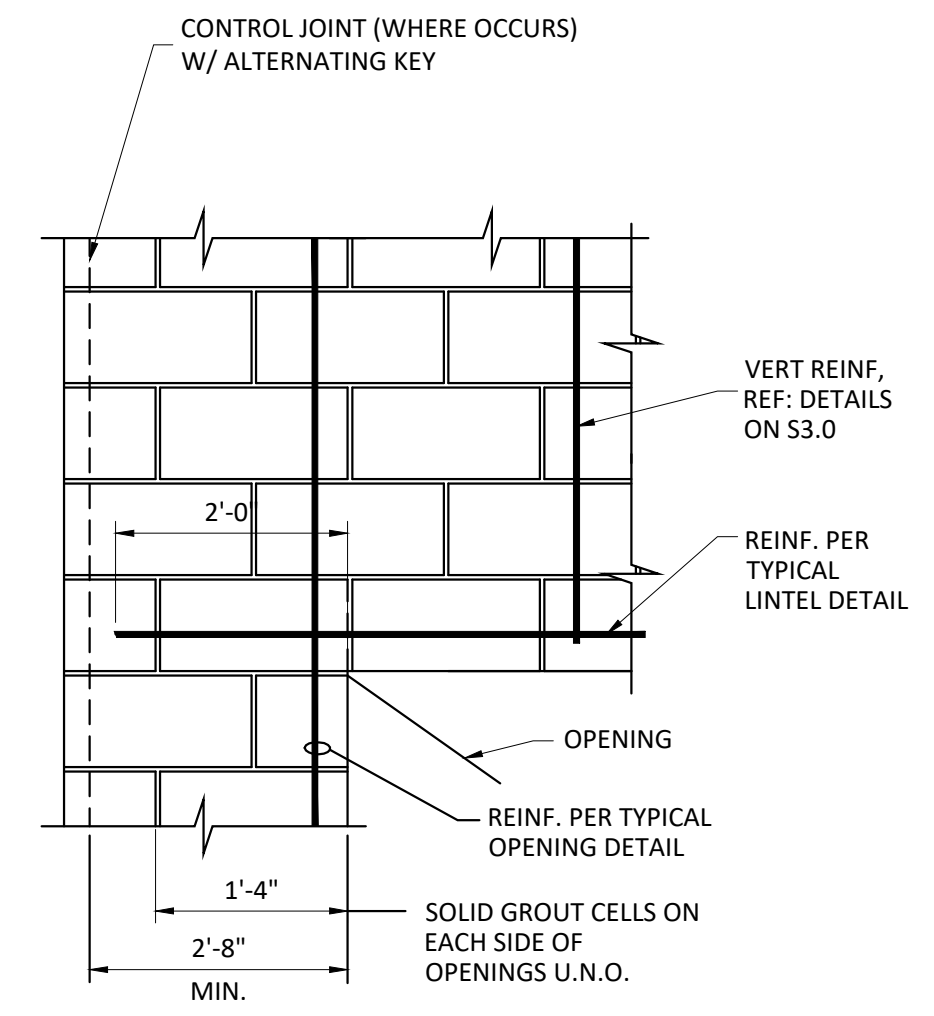
ELEV OF MASONRY WALL WITH CONTROL JOINT



SECTION A-A
HORIZ. REINF. CONTINUOUS THROUGH JOINT ONLY AT LEDGER OR LINTEL



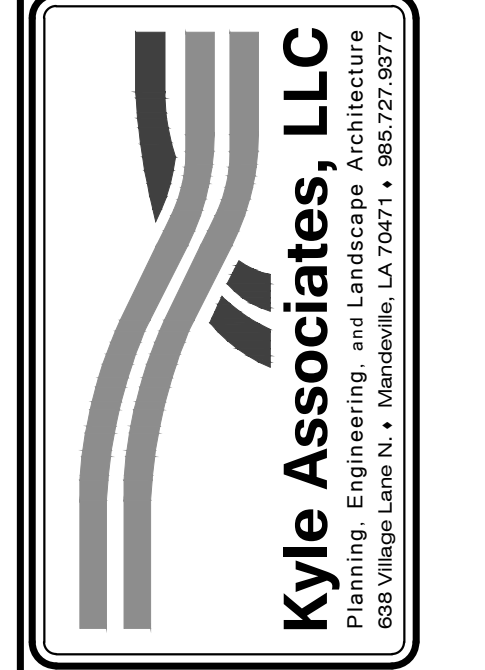
SECTION B-B
HORIZ. REINF. DOES NOT CROSS JOINT
TYPICAL CMU CONTROL JOINTS
N.T.S

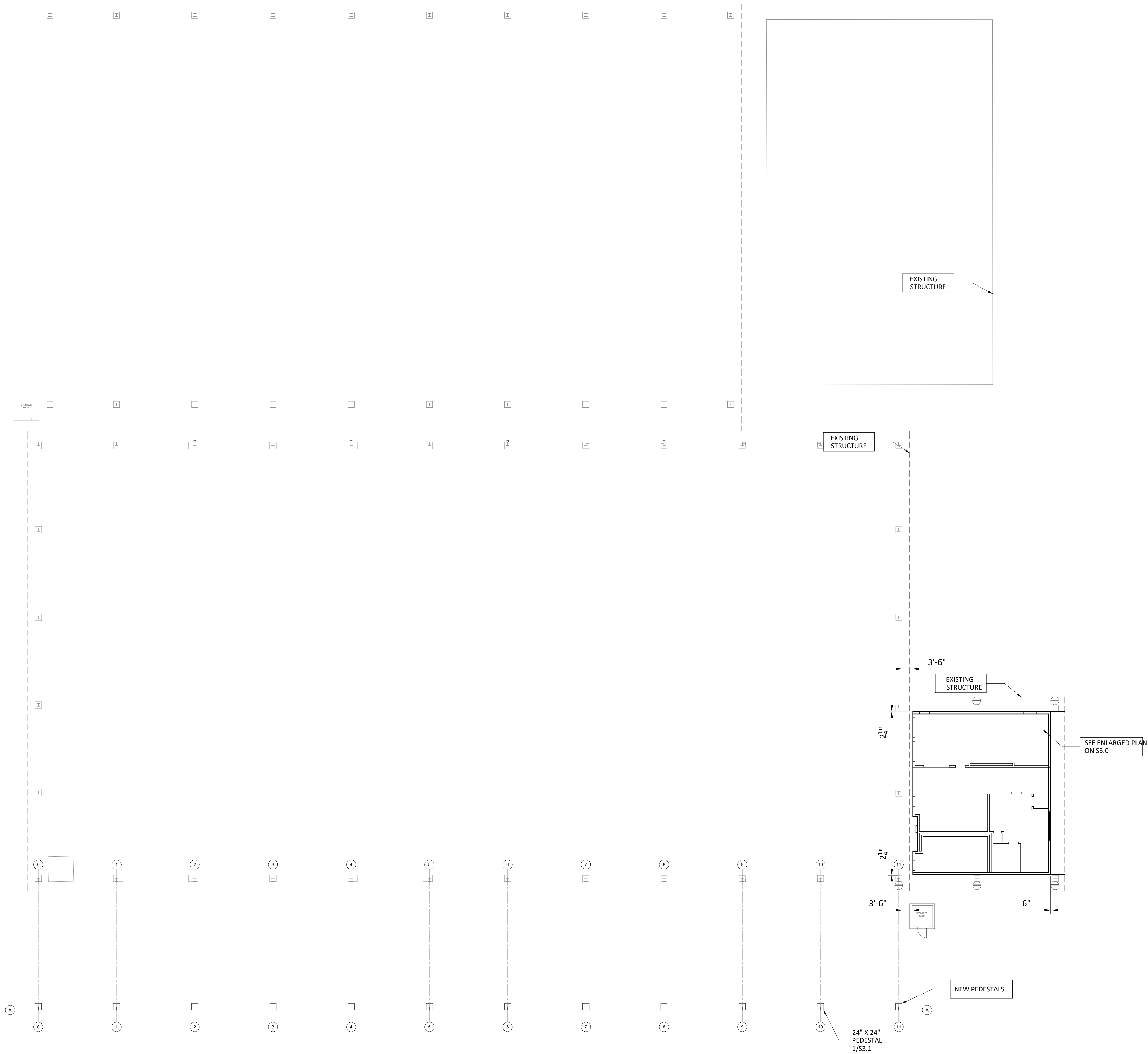


1
S1.0
DETAIL
3/4" = 1'-0"

| DATE | REVISIONS | APPROVED | J.E.P. |
|----------|---------------|----------|--------|
| 03.03.20 | ISSUE FOR BID | | |

STAMP:





1
S2.0

FOUNDATION PLAN

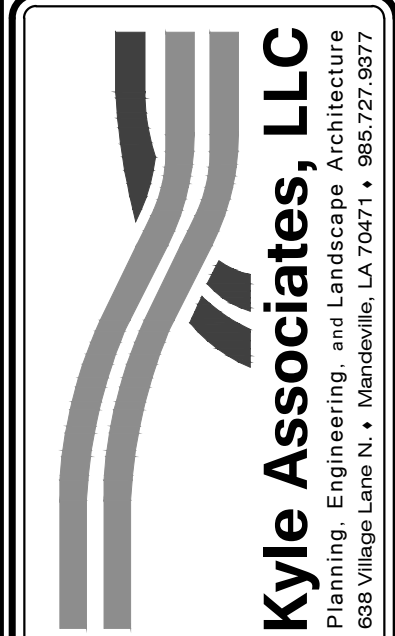
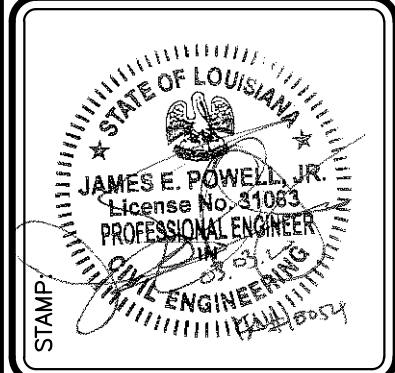
3/32" = 1'-0"

CADD FILE NAME:
18054 - S2.0 Overall foundation plan.dwg

| | |
|---------------|----------------|
| DESIGNED BY: | 1/16" = 1'-0" |
| DRAWN BY: | SCALE (1:1x17) |
| CHECKED BY: | DATE |
| JEP | 03-MAR-20 |
| JOB NO. 18054 | |

FAIRGROUNDS PHASE 3
1515 N FLORIDA ST.
COVINGTON, LA
FOUNDATION PLAN

| DATE | REVISIONS | APPROVED |
|----------|---------------|----------|
| 03.03.20 | ISSUE FOR BID | J.E.P. |
| | | |
| | | |

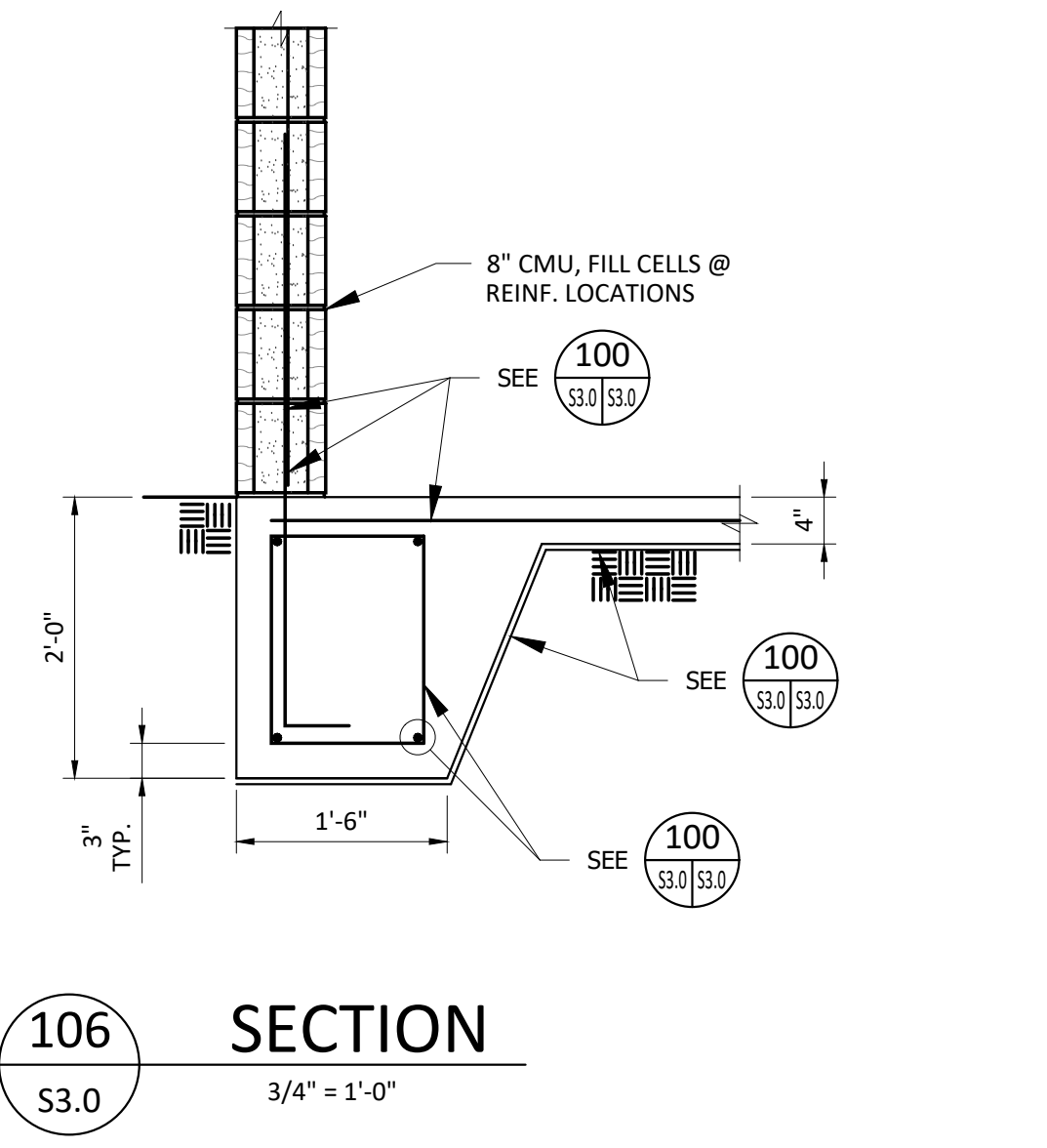
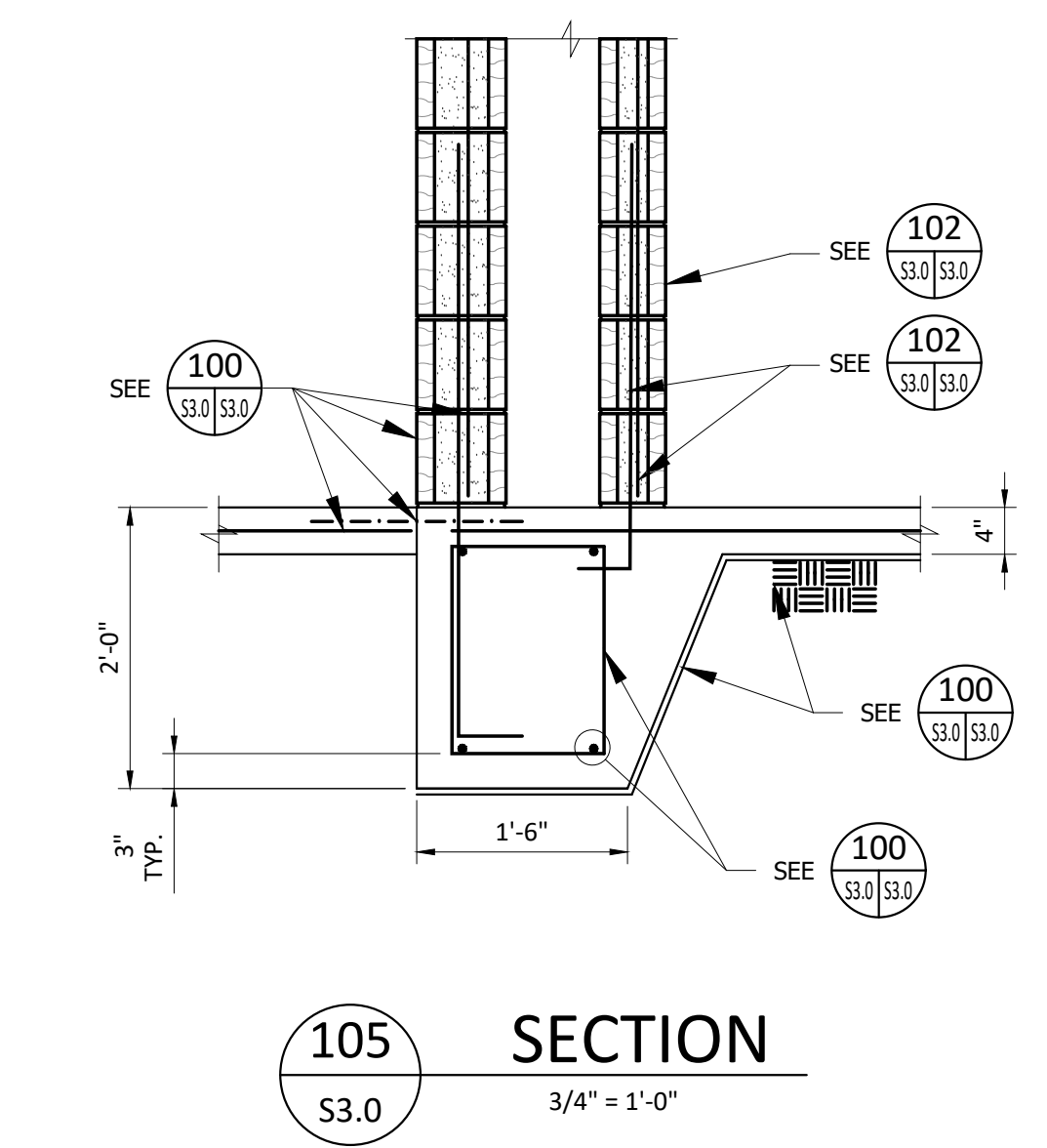
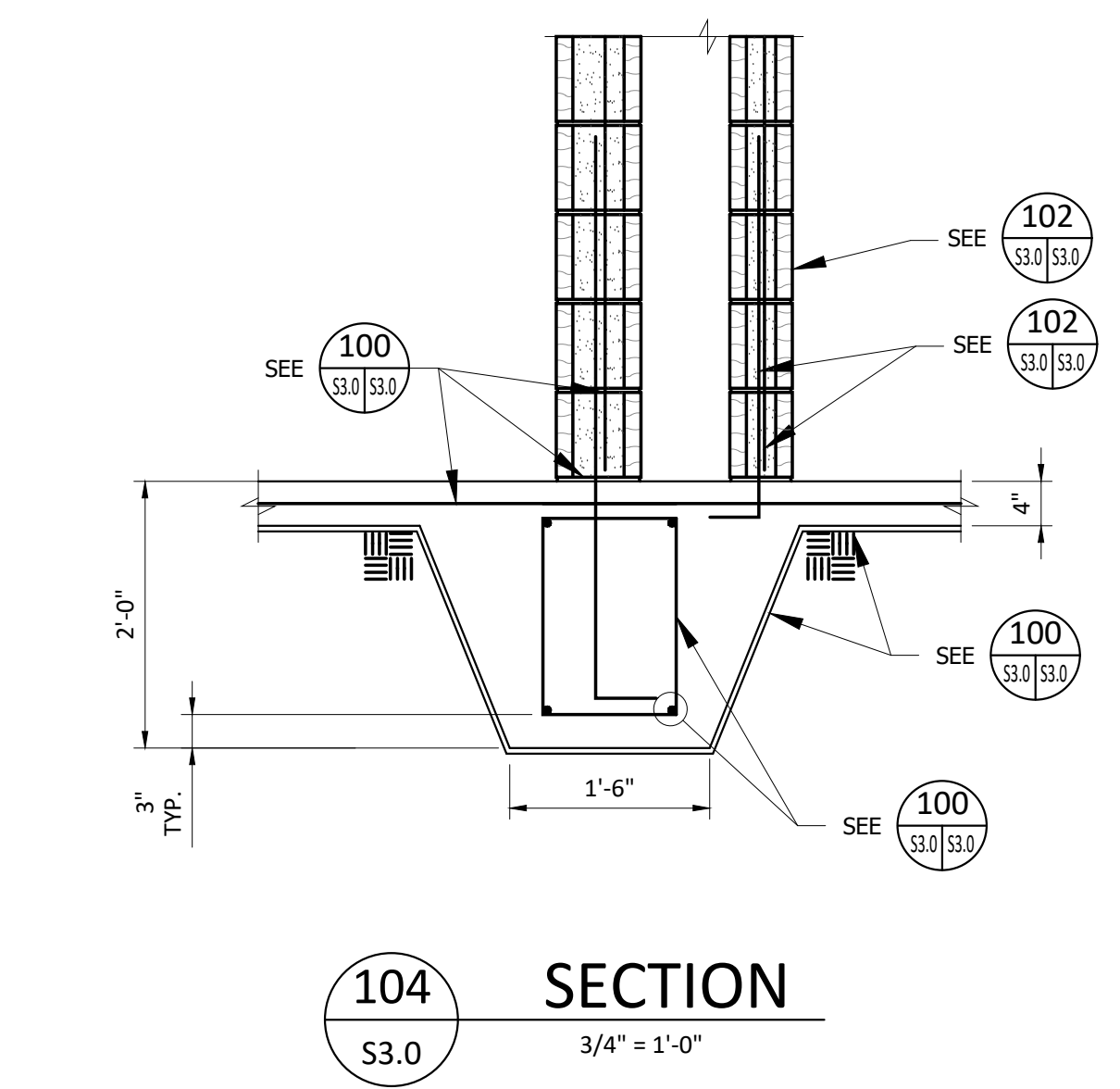
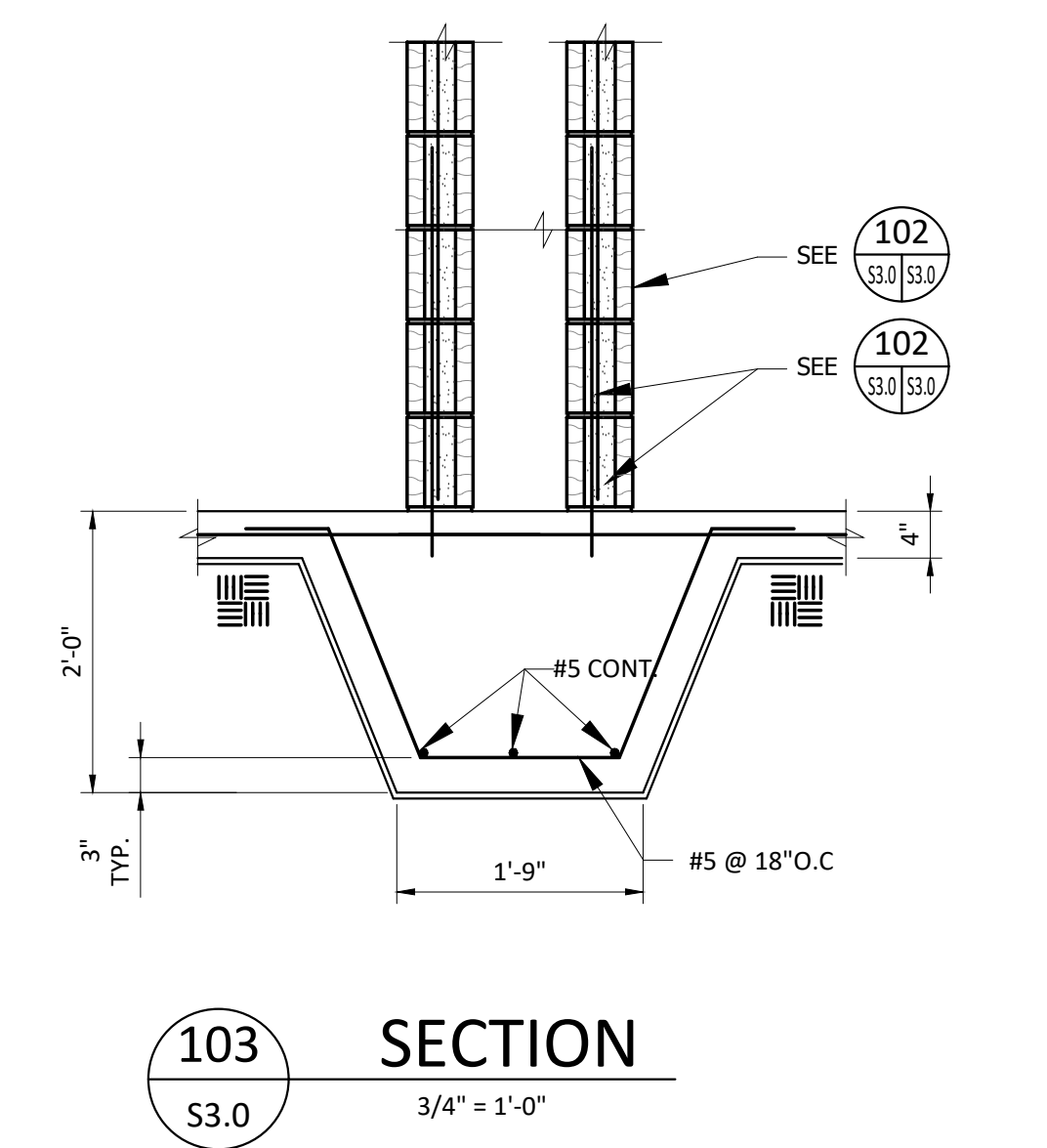
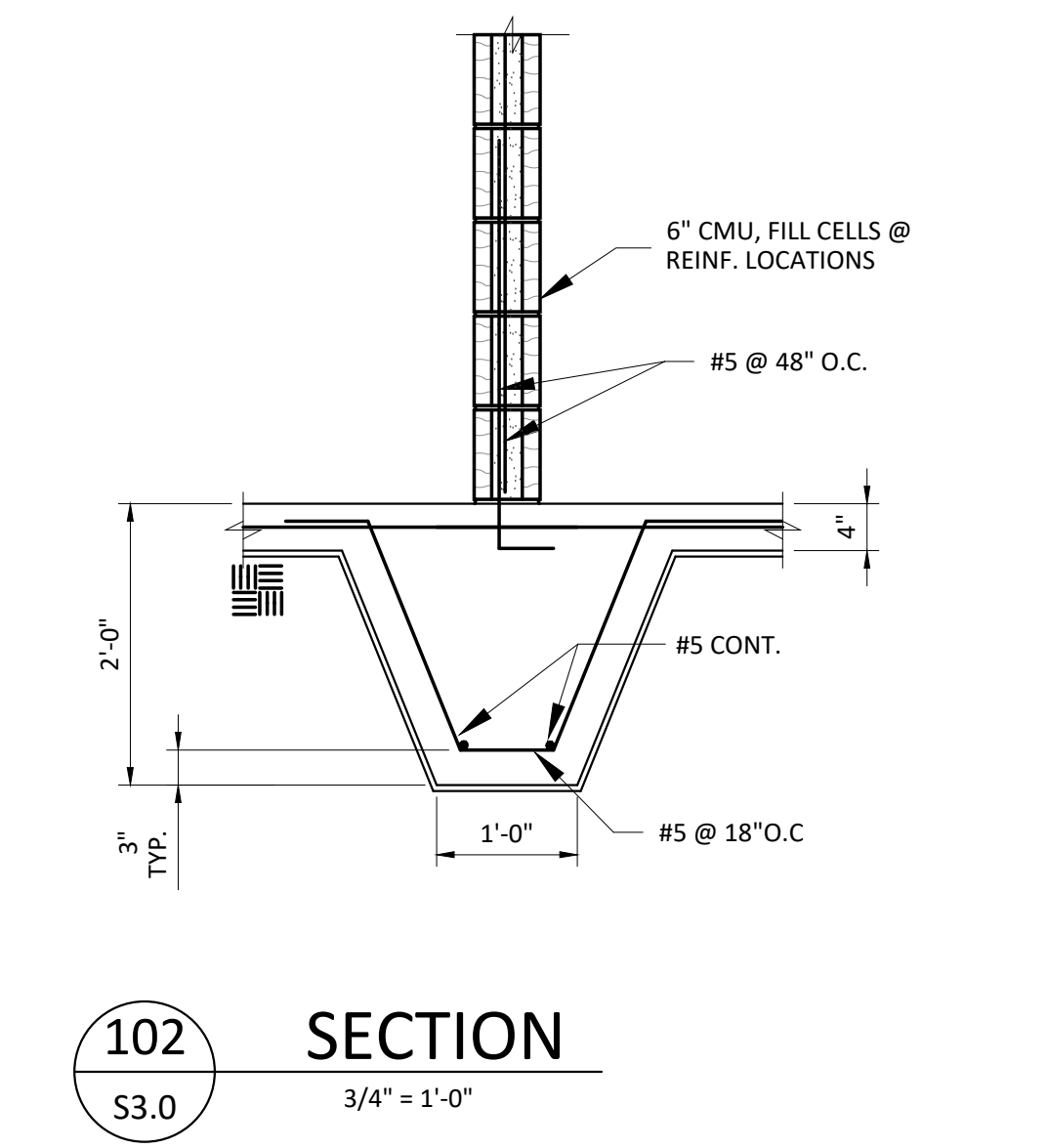
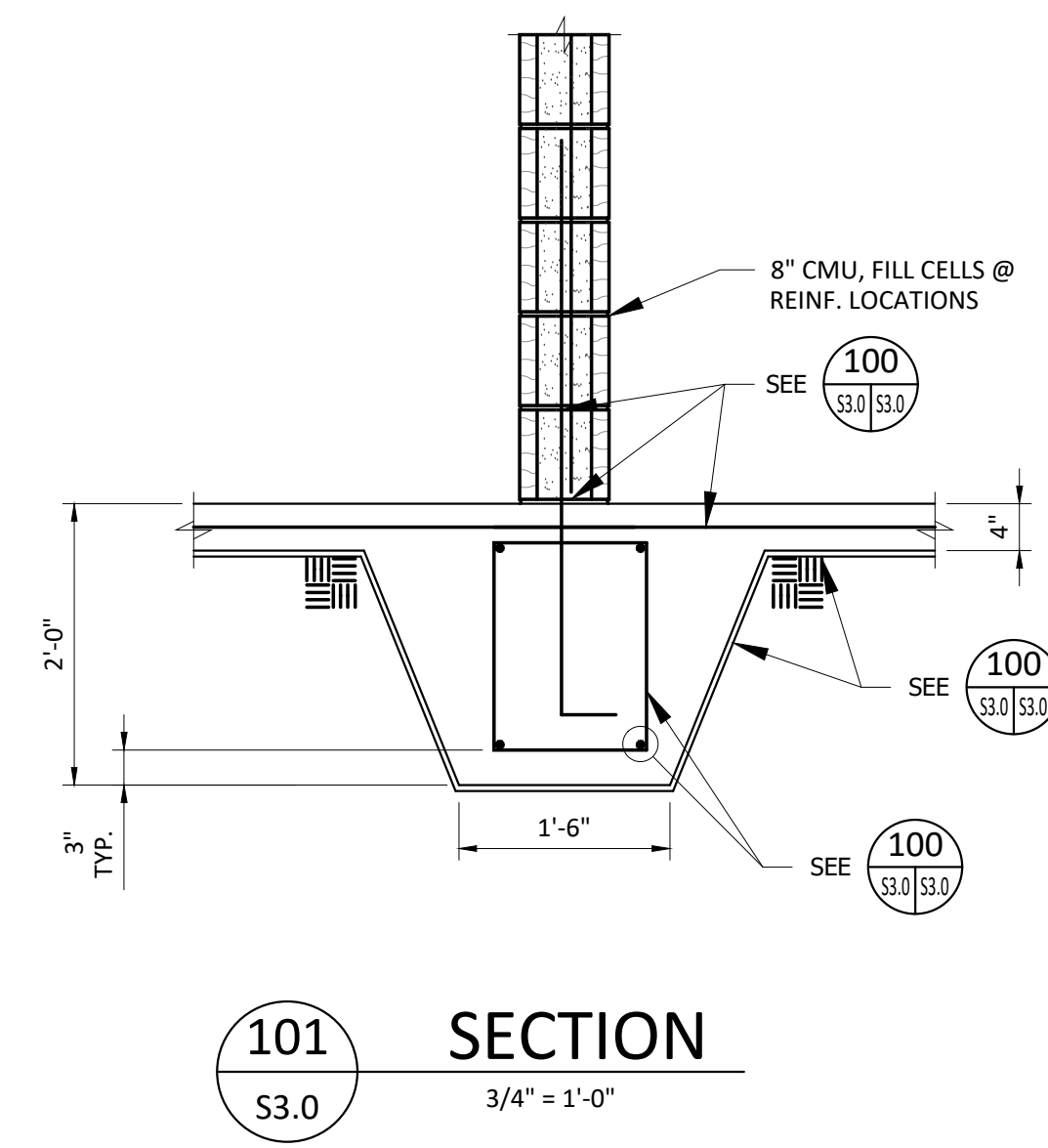
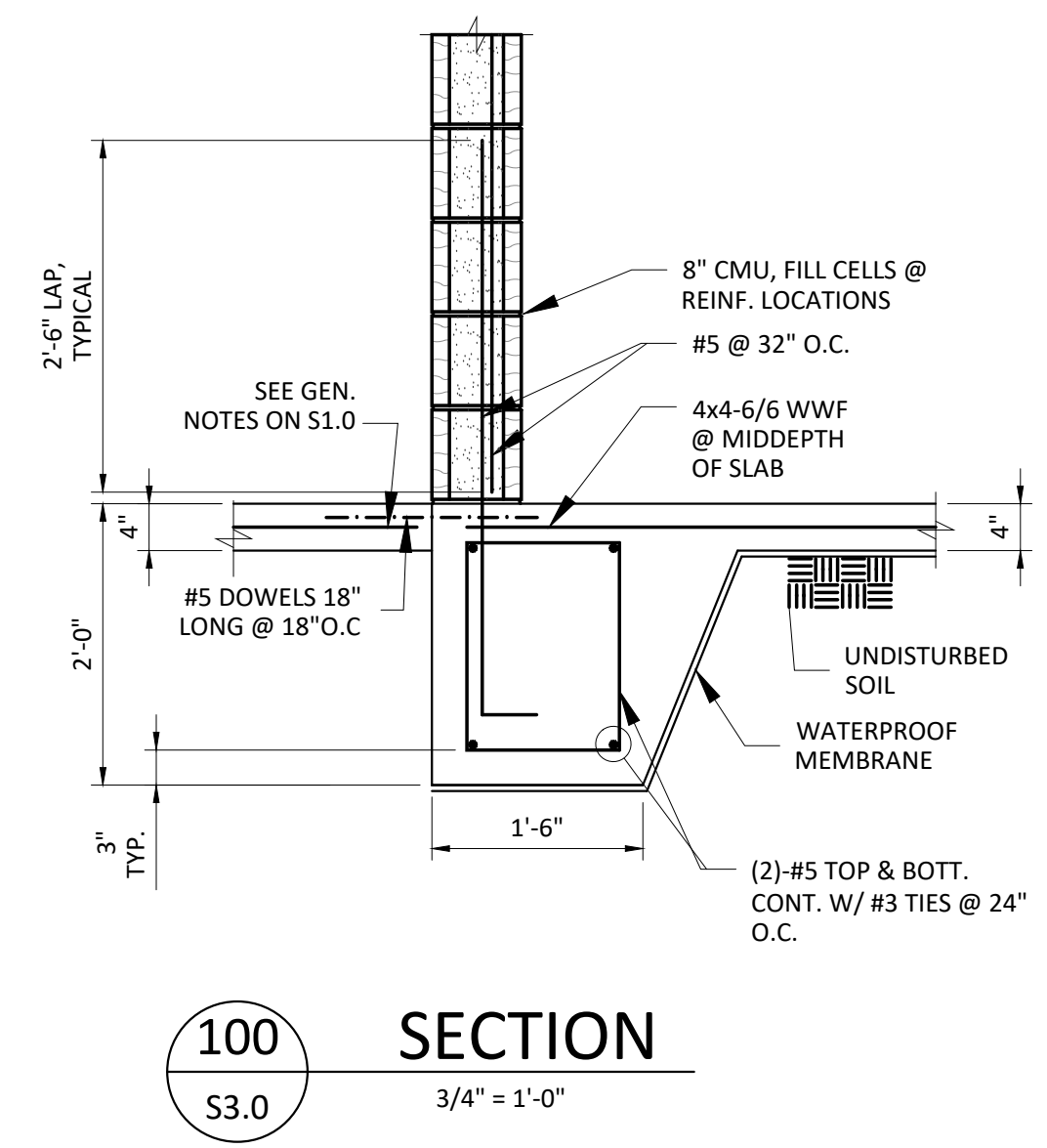
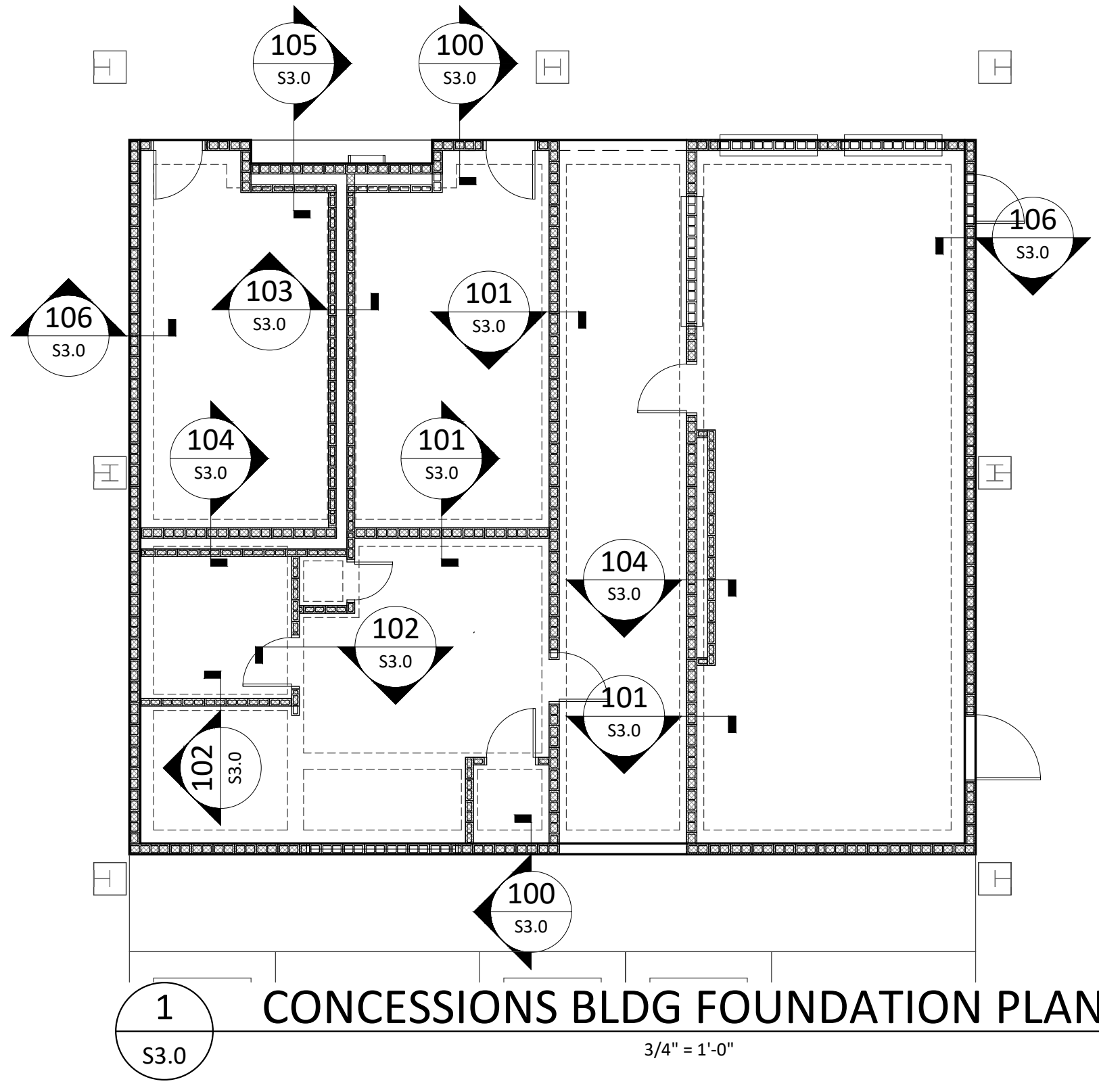


SHEET NO.
S2.0

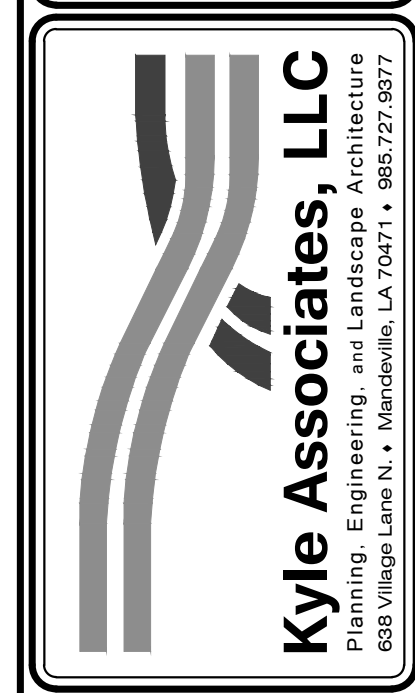
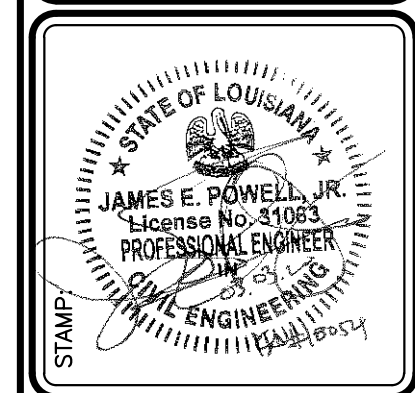
| | | | |
|---|----------------|-------------|-----------|
| CADD FILE NAME: 18054 - S3.0 Foundation plan and details.dwg | | | |
| DESIGNED BY: | DRAWN BY: | CHECKED BY: | JEP |
| SCALE: (24x36) 1/8" = 1'-0" | SCALE: (11x17) | DATE: | 03.MAR.20 |
| JOB NO.: | | | 18054 |

FAIRGROUNDS PHASE 3
1515 N FLORIDA ST.
COVINGTON, LA

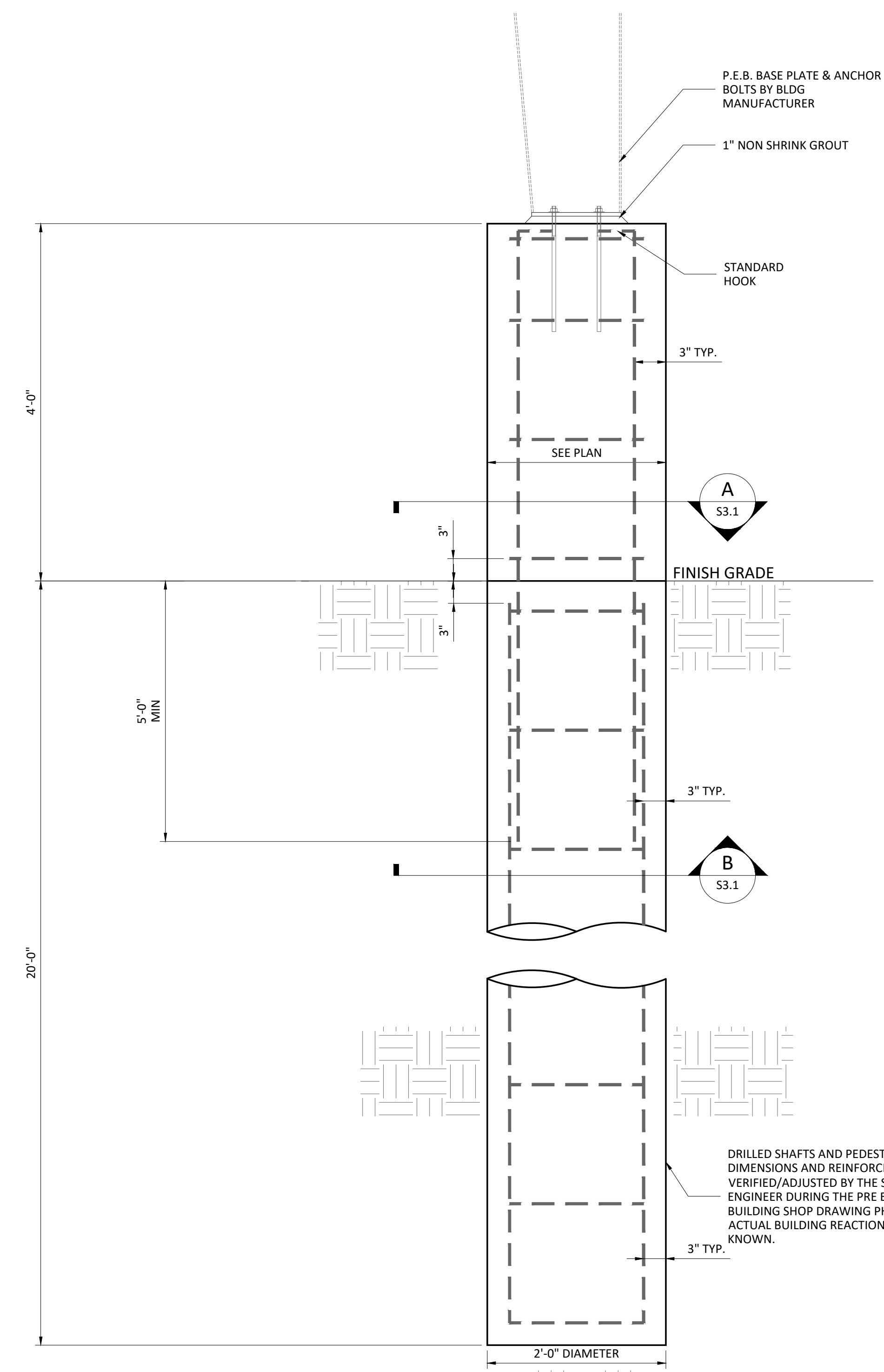
FOUNDATION PLANS AND DETAILS



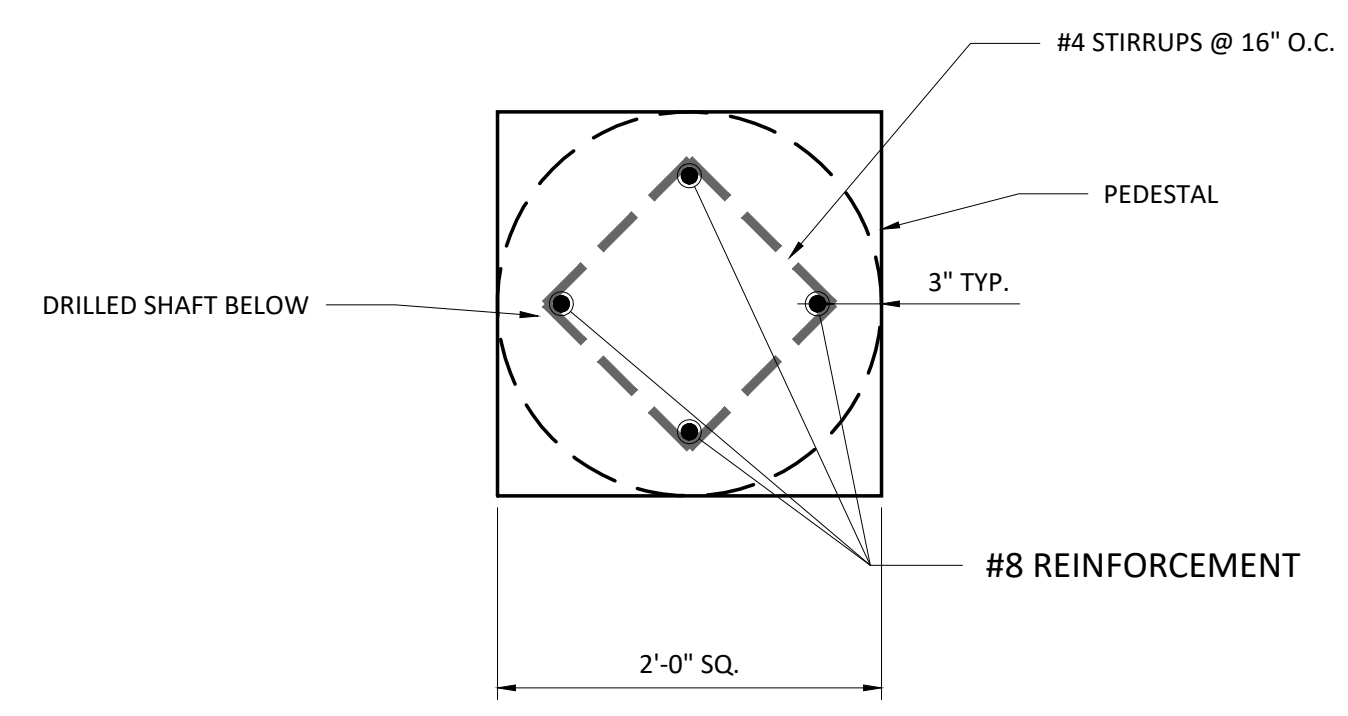
| REVISIONS | DATE | REMARKS | ISSUE FOR BID | APP'D | J.E.P. |
|-----------|----------|---------|---------------|-------|--------|
| | 03.03.20 | | | | |



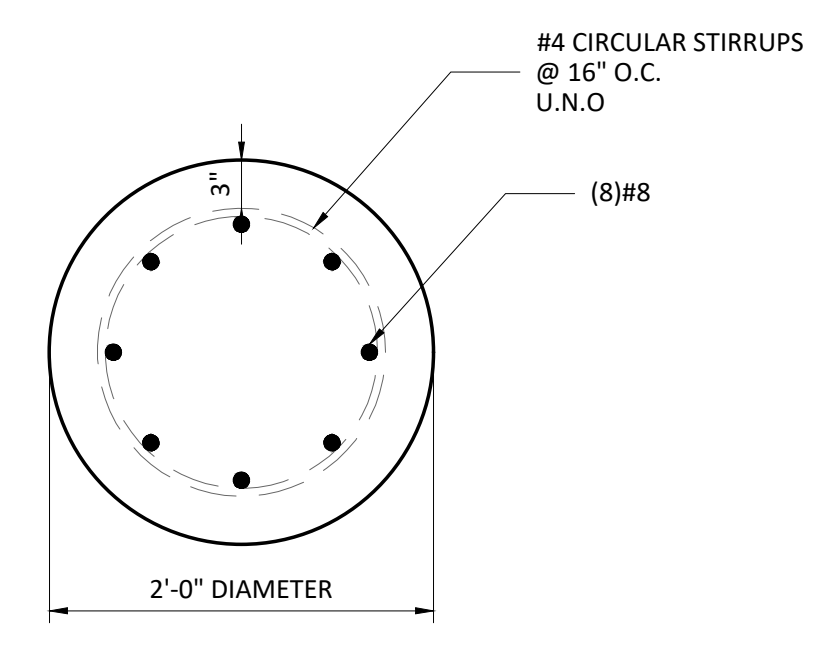
SHEET NO.
S3.0



1
S3.1 FOUNDATION DETAIL
1" = 1'-0"



A
S3.1 PEDESTAL DETAIL
1" = 1'-0"



B
S3.1 SHAFT DETAIL
1" = 1'-0"

STRUCTURAL GENERAL NOTES:

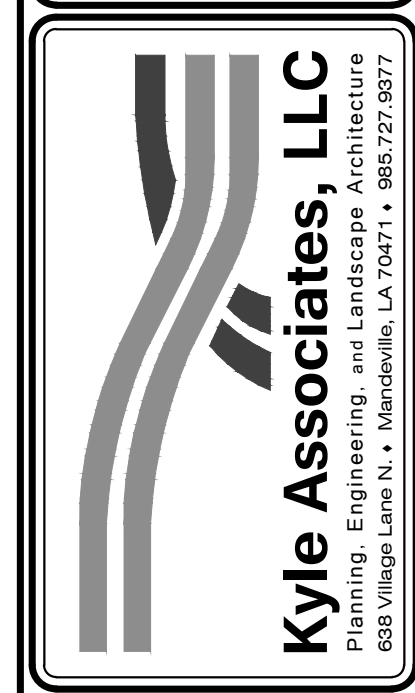
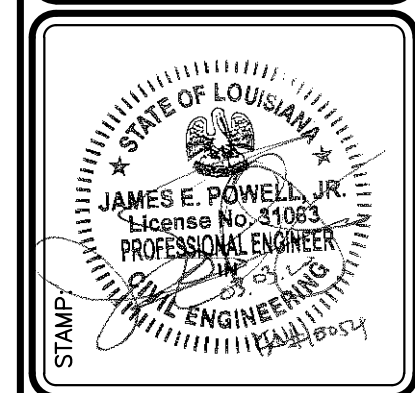
1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FINAL DIMENSIONS AND FIT-UP OF THE STRUCTURE, INCLUDING VERIFYING ALL EXISTING CONDITIONS AND DIMENSIONS BEFORE COMMENCING WORK.
2. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING ANY WORK. ANY INTERFERENCE SHALL BE BROUGHT TO THE ATTENTION OF THE STRUCTURAL ENGINEER.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN, PLACEMENT, MAINTENANCE, ETC. OF ANY AND ALL SHORING, BRACING, TIE BACKS, ETC. NEEDED TO SUPPORT ANY PART OF THE NEW OR EXISTING CONSTRUCTION DURING THE ENTIRE CONSTRUCTION PROCESS TO ENSURE THE SAFETY AND INTEGRITY OF THE STRUCTURE UNTIL THE NECESSARY PERMANENT ELEMENTS ARE IN PLACE.
4. SEE ARCHITECTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS FOR EXACT LOCATION OF ALL DEPRESSIONS, SLOPES, OPENINGS, PENETRATIONS, ETC. PENETRATIONS THROUGH BEAMS OR OPENINGS IN STRUCTURAL ELEMENTS NOT SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE STRUCTURAL ENGINEER.
5. PILING SHALL CONSIST OF DRILLED, CAST IN PLACE, CONCRETE SHAFTS WITH A DIAMETER OF 2 FT WHICH SHALL EXTEND 20 FT BELOW EXISTING GROUND SURFACE. DESIGN LOAD = 26 TONS AS ESTABLISHED BY THE GEOTECHNICAL INVESTIGATION PERFORMED BY GULF SOUTH ENGINEERING AND TESTING, INC AND DATED APRIL 8, 2014.
6. ALL CONCRETE HAS BEEN DESIGNED IN ACCORDANCE WITH THE REQUIREMENTS OF ACI 318, LATEST EDITION AND SHALL HAVE A COMPRESSIVE STRENGTH OF 4000 PSI AT 28 DAYS.
7. ALL CONCRETE SHALL BE NORMAL WEIGHT (APPROXIMATELY 150 LBS. PER CUBIC FT.).
8. ALL REINFORCING STEEL SHALL BE IN ACCORDANCE WITH ASTM A-615 GRADE 60.
9. ALL REINFORCING SHALL BE SPICED WITH A CLASS "B" SPLICE IN ACCORDANCE WITH ACI 318-LATEST EDITION.
10. WELDED WIRE FABRIC (WWF) SHALL BE IN ACCORDANCE WITH ASTM A-185. WIRE SHALL CONFORM TO ASTM A82. LAP ALL FABRIC ONE WIRE SPACING PLUS 2 INCHES.
11. REINFORCING OR FABRIC ON GRADE SHALL BE CHAIRED WITH 3000 PSI CONCRETE BRICKETTES SPACED TO ADEQUATELY SUPPORT THE REINFORCING, BUT NOT GREATER THAN 3'-0" O.C. EACH WAY.
12. INSTALL CORNER BARS IN THE OUTSIDE FACE OF EDGE BEAMS AT EVERY CORNER ONE TOP AND ONE BOTTOM. BAR SHALL BE THE SAME SIZE AS THE LARGEST BEAM BAR.
13. PROVIDE A 90 DEGREE HOOK ON ALL TOP REINFORCEMENT IN ALL BEAMS AT DISCONTINUOUS ENDS.
14. ALL COLUMN VERTICAL REINFORCING SHALL HAVE STANDARD HOOKS AT THE TOP OF THE UPPERMOST SECTION OF EACH COLUMN.
15. WIND ASCE 7-10 ANALYTICAL METHOD WIND SPEED 131 MPH EXPOSURE B RISK CATEGORY = II

| | | | |
|----------------|----------------|-------------|---------|
| DESIGNED BY: | DRAWN BY: | CHECKED BY: | JOB NO. |
| SCALE: (24x36) | SCALE: (11x17) | DATE: | 18054 |
| 1/8" = 1'-0" | JEP | 03-MAR-20 | |

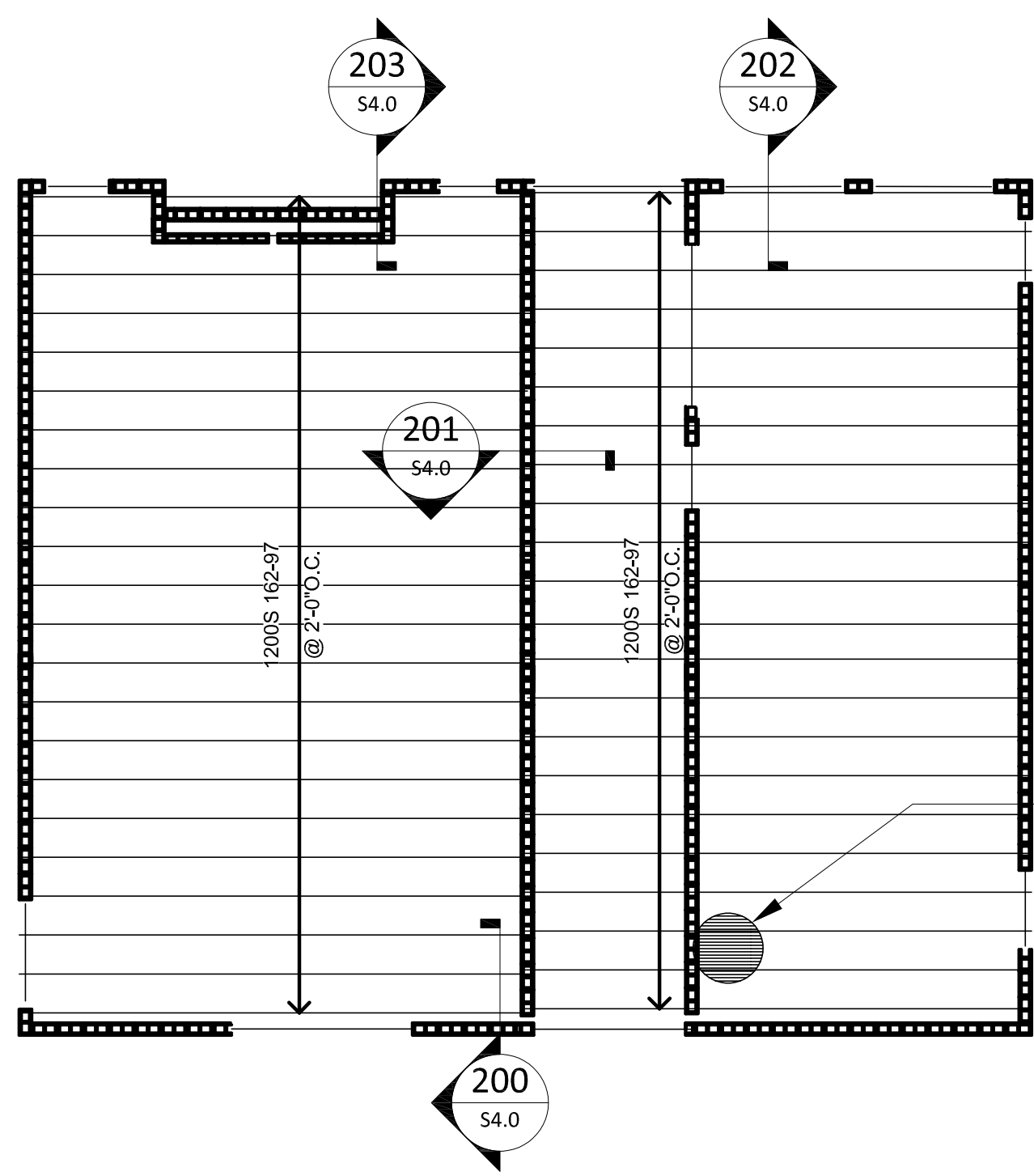
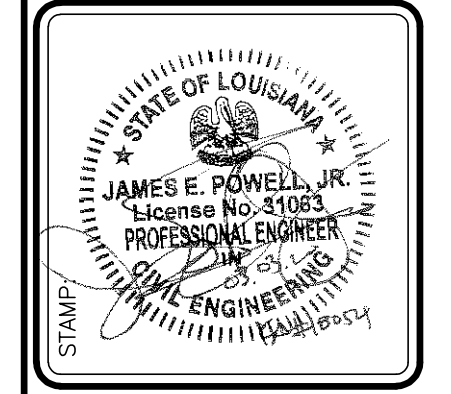
FAIRGROUNDS PHASE 3
1515 N FLORIDA ST.
COVINGTON, LA

FOUNDATION DETAILS

| REVISIONS | DATE | REMARKS | APP'D | J.E.P. |
|-----------|----------|---------------|-------|--------|
| | 03.03.20 | ISSUE FOR BID | | |

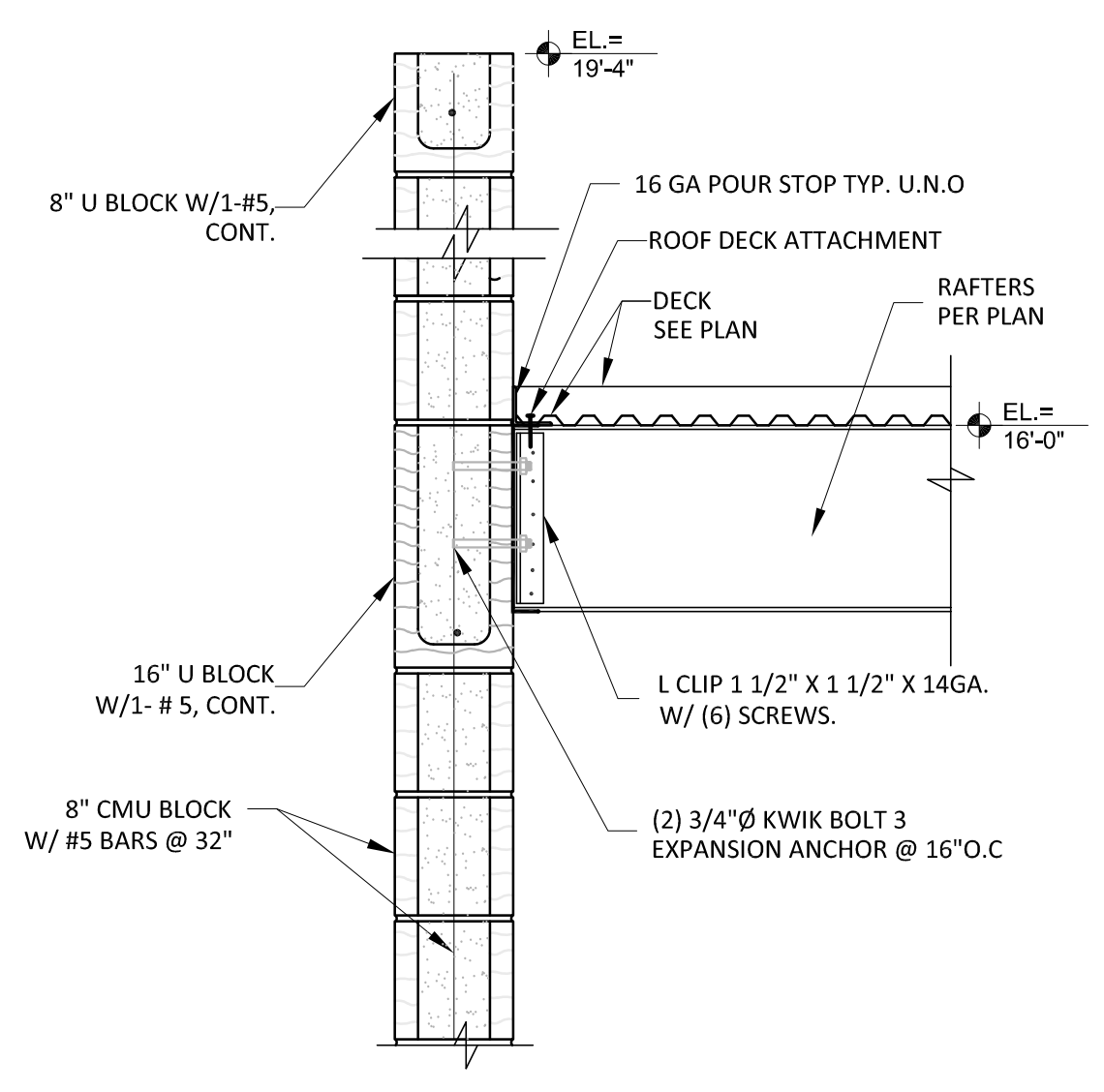


| | | | |
|------------|----------|---------------|--|
| DATE: | 03.03.20 | ISSUE FOR BID | |
| REVISIONS: | | | |
| APP'D: | J.E.P. | | |

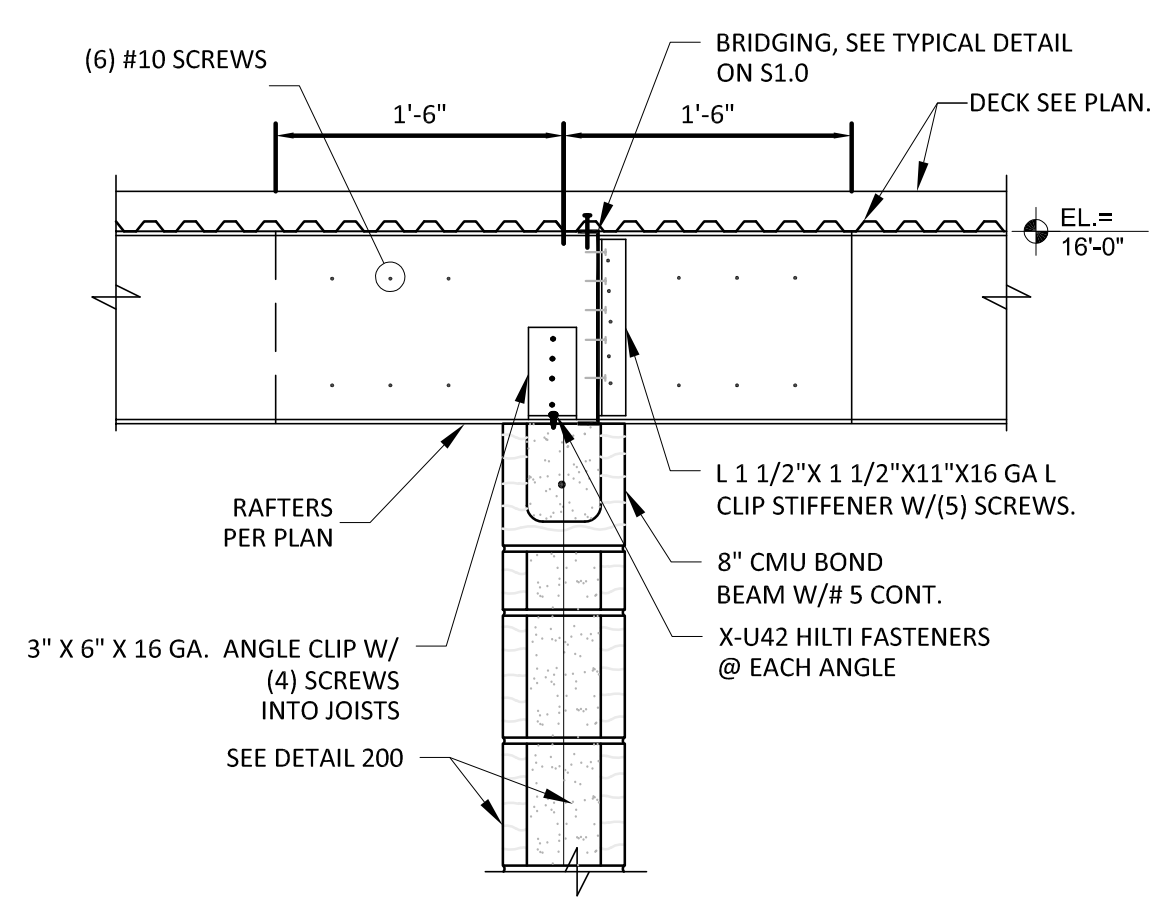


2" LIGHTWEIGHT CONCRETE ON
26 GA 0.6C CONFORM DECK 2.5" TOTAL
THICKNESS, PROVIDE
4X4 10/10 WWF MID-DEPTH

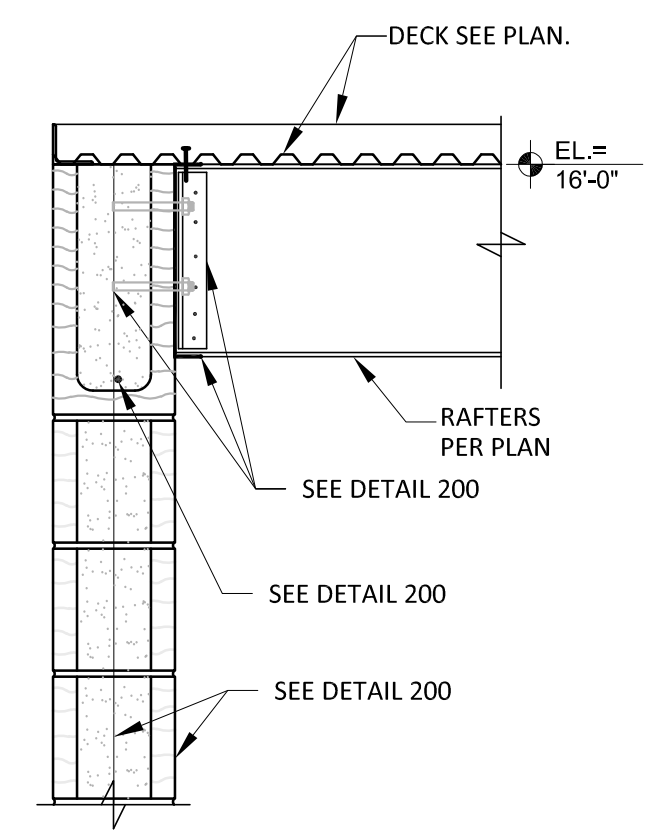
1 CONCESSIONS BLDG ROOF FRAMING PLAN
S4.0
1/8" = 1'-0"



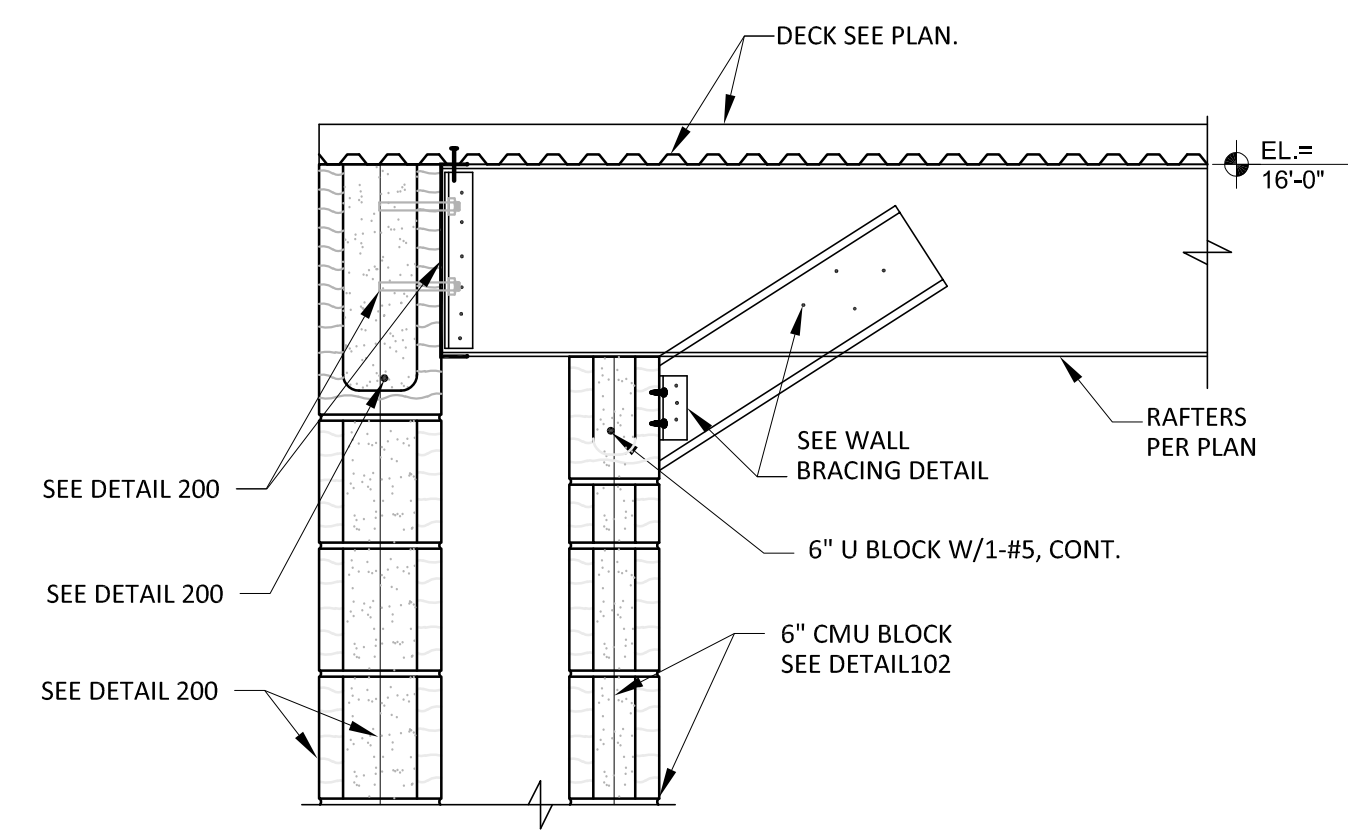
200 SECTION
S4.0
1" = 1'-0"



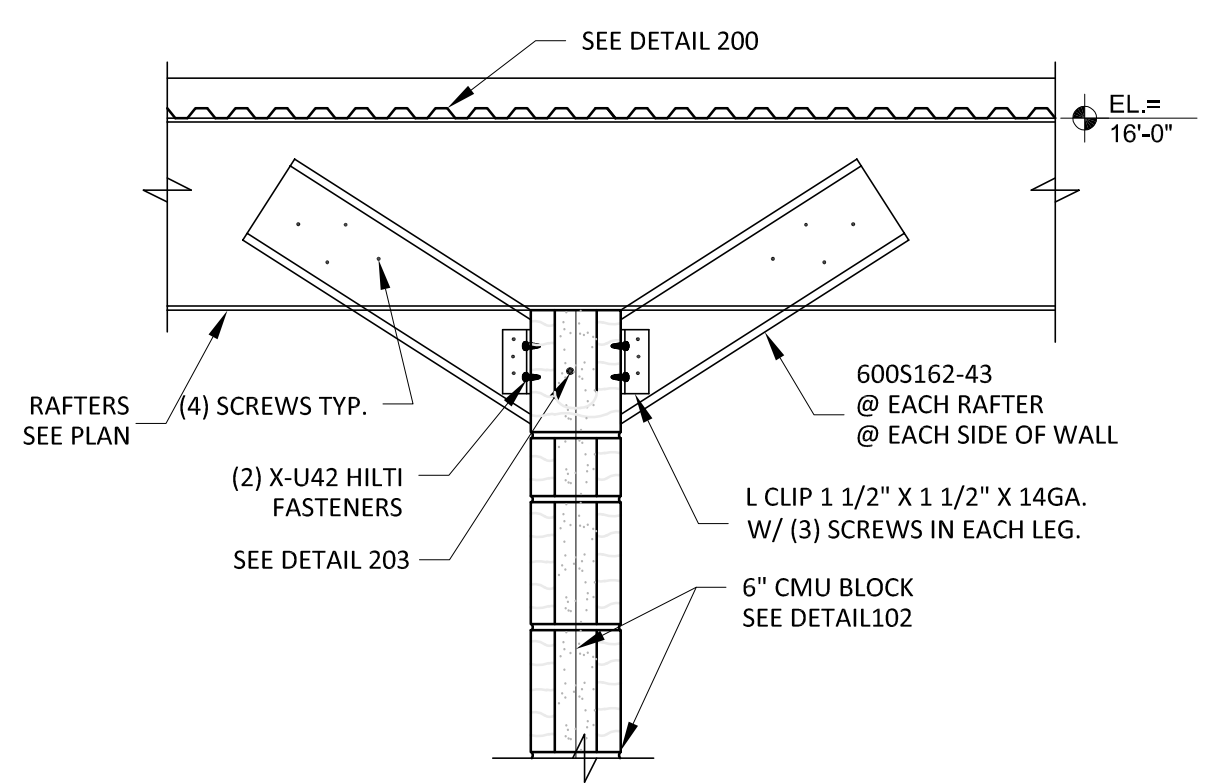
201 SECTION
S4.0
1" = 1'-0"



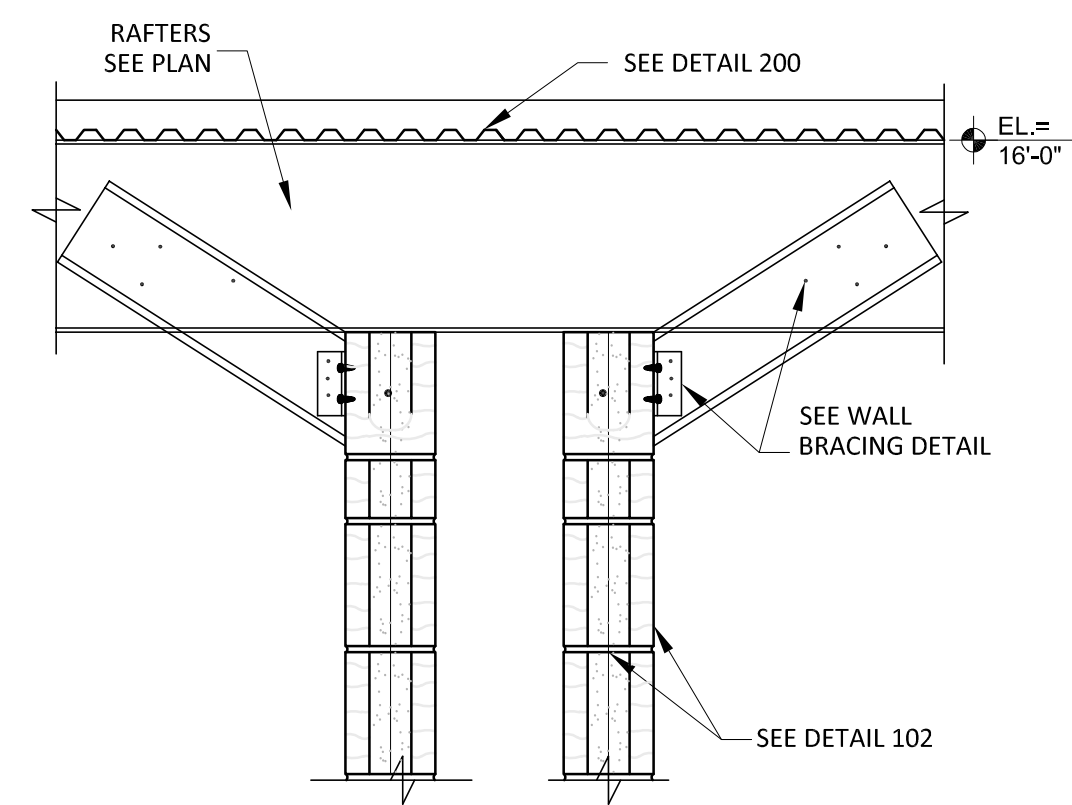
202 SECTION
S4.0
1" = 1'-0"



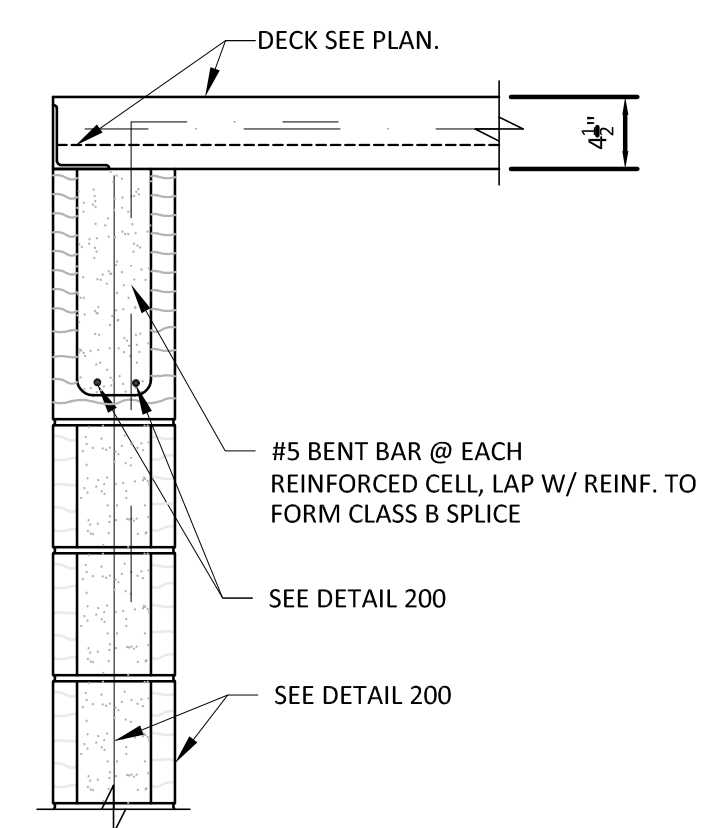
203 SECTION
S4.0
1" = 1'-0"



TYPICAL SINGLE 6" PARTITION WALL BRACING DETAIL
1" = 1'-0"



TYPICAL DOUBLE 6" PARTITION WALL BRACING DETAIL
1" = 1'-0"



204 SECTION
S4.0
1" = 1'-0"

| | | | |
|-------------------------|-------------------------|-------------------------|-----------------|
| DESIGNED BY: SH | DRAWN BY: SH | CHECKED BY: HG | JOB NO. 18054 |
| SCALE: (24x36) AS NOTED | SCALE: (11x17) AS NOTED | SCALE: (11x17) AS NOTED | DATE: 03.MAR.20 |

FAIRGROUNDS PHASE 3
1515 N FLORIDA ST.
COVINGTON, LA
DETAILS

| | |
|-----------|---------------|
| APPROVED | H.R.G. |
| REVISIONS | |
| DATE | REMARKS |
| 03.03.20 | ISSUE FOR BID |

STATE OF LOUISIANA
Heidi Romero Gremillion
REG. NO. 27958
REGISTERED PROFESSIONAL ENGINEER
MECHANICAL ENGINEERING
03-03-2020

Kyle Associates, LLC
Professional Engineers
658 Village Lane, Suite 101 - Metairie, LA 70001 • 504.885.2272

AIR CONDITIONING SYSTEM SCHEDULE

| SYSTEM NO. | AIR CAPACITY | | | COOLING CAPACITY | | | | | AIR HANDLING UNIT | | | ELECTRIC HEAT | | CONDENSING UNIT | | | REMARKS | | |
|------------|--------------|------------------|------------------|------------------|-----------------|---------------|--------------|---------------------|---------------------|-----------|-------------|----------------|---------------|---------------------|-----------|----------------|---------|-------------|---------|
| | TOTAL CFM | MINIMUM O.A. CFM | EXT. S.P. INCHES | TOTAL BTU/HR | SENSIBLE BTU/HR | ENTERING DB F | LEAVING WB F | MAX. COIL FACE VEL. | TRANE CO. MODEL NO. | MOTOR HP | WEIGHT LBS. | KW AT 208V/1PH | CONTROL STEPS | TRANE CO. MODEL NO. | VOLTS/PH. | UNIT MCA/MCOCP | | WEIGHT LBS. | |
| AHU-1 | 100 | 125 | 0.5 | 23,905 | 11,421 | 71.1 | 65.1 | 55.3 | 500 | GAMBEOA24 | 1/3 | 150 | 1.2 | 2 | 4TTB3024 | 208/1 | 11/25 | 250 | 1, 2, 3 |

- REFRIGERANT PIPING SHALL BE SIZED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- AIR UNIT AND ELECTRIC HEATER SECTION SHALL INCORPORATE SINGLE POINT ELECTRICAL CONNECTION.
- VERIFY AVAILABLE VOLTAGE AND PHASE WITH ELECTRICAL CONTRACTOR PRIOR TO RELEASE OF EQUIPMENT FOR MANUFACTURE AND SHIPPING.

ENERGY RECOVERY VENTILATOR SCHEDULE

| NO. | TYPE | AIR CAPACITY | | | | | TOTAL ENERGY WHEEL CAPACITY | | | | ELEC. REHEAT | | AIR UNIT MCA/MCOCP 208V/3PH | WEIGHT LBS. | SECO MODEL NO. | REMARKS | |
|-------|---|--------------|-------------|---------|----------|------------|-----------------------------|---------------|---------------|-------------|--------------|----|-----------------------------|-------------|----------------|---------|--------|
| | | TOTAL CFM | EXHAUST CFM | FAN CFM | FAN H.P. | ESP INCHES | MODE | ENT. AIR DB F | LVG. AIR DB F | W. AIR DB F | W. AIR DB F | KW | | | | | STAGES |
| ERV-1 | CURB MOUNTED BOTTOM INLET/OUTLET TOTAL ENERGY WHEEL | 800 | 800 | | | | SUMMER | 78 | 66.5 | 82.5 | 70.4 | | | 11/25 | 500 | FV-1000 | 1, 2 |

- PROVIDE 14" HIGH ROOF CURB WITH UNIT
- ERV TO BE INTERLOCKED WITH RTU-2 WIRED TO RUN WHEN RTU-2 IS RUNNING

PACKAGED ROOF TOP AIR CONDITIONING UNITS

| UNIT DESIGNATION | TOTAL CFM | MIN. O.A. CFM | EXT. STATIC PRESS. IN W.G. | COOLING CAPACITY | | | | ELECTRICAL DATA | | | | TRANE MODEL NO. | UNIT WEIGHT | REMARKS | | | | | |
|------------------|-----------|---------------|----------------------------|------------------|---------------|--------------------|-------------------|-----------------|------|--------------|----------|-----------------|-------------|---------|------------|----------------------------|---------|------|------------|
| | | | | TOTAL BTUH | SENSIBLE BTUH | ENTERING DB.F/WB.F | LEAVING DB.F/WB.F | V | PH | EVAP. FAN HP | UNIT MCA | | | | UNIT MCOCP | HEATING COIL NO. OF STAGES | | | |
| RTU - 1 | 1500 | 200 | 0.15 | 48,540 | 34,410 | 71.1 | 65.1 | 57.9 | 55.5 | 208 | 3 | 3/4 | 35.3 | 40 | 12 | 2 | THC-041 | 1100 | 1, 3, 4, 5 |
| RTU - 2 | 800 | 800 | 1 | 36,910 | 22,710 | 82.5 | 70.4 | 58.1 | 56.1 | 208 | 3 | 3/4 | 20.6 | 30 | | | THC-036 | 800 | 1, 2, 6 |

- FURNISH 14" HIGH ROOF CURB WITH UNIT
- UNIT SHALL HAVE MINIMUM 100 SEER
- UNIT SHALL BE HIGH EFFICIENCY
- UNIT SHALL HAVE HOT GAS RE-HEAT COIL
- UNIT SHALL HAVE MOTORIZED OUTSIDE AIR DAMPER
- UNIT SHALL BE 100% OUTSIDE AIR UNIT WITH OUTSIDE AIR BEING PRE-TREATED BY ERV-1

EXHAUST FAN SCHEDULE

| FAN DESIG. | TYPE | BALANCE CFM | SELECTION CFM | S.P. IN INCHES | RPM | MOTOR DATA | | | COOL MODEL NO. | REMARKS |
|------------|-----------------|-------------|---------------|----------------|------|------------|-------|-----|----------------|---------------|
| | | | | | | HP | VOLTS | PH. | | |
| EF-1 | CEILING MOUNTED | 75 | 100 | 0.375 | 1500 | 1/4 | 120 | 1 | GC-140 | 1, 3, 4, 5, 6 |
| EF-2 | CEILING MOUNTED | 50 | 100 | 0.375 | 1500 | 1/4 | 120 | 1 | GC-140 | 1, 2, 3, 4, 5 |

- FAN SHALL BE SELECTED BASED ON SELECTION CFM AND STATIC PRESSURE LISTED. FAN SHALL BE BALANCED IN FIELD TO BALANCE CFM INDICATED.
- PROVIDE MANUAL STARTER MOUNTED ON WALL - LOCATION AS INDICATED ON THE PLANS
- PROVIDE SOLID STATE SPEED SWITCH MOUNTED ON FAN FOR USE DURING AIR BALANCE.
- PROVIDE BACK DRAFT DAMPER AND DISCONNECT SWITCH.
- PROVIDE ANODIZED ALUMINUM BRICK VENT WITH FAN, SIZED PER MANUFACTURER'S GUIDELINES OR AS INDICATED ON PLANS
- INTERLOCK FAN TO RUN WHENEVER FAN IN AHU #1 IS RUNNING.

ELECTRIC UNIT HEATER SCHEDULE

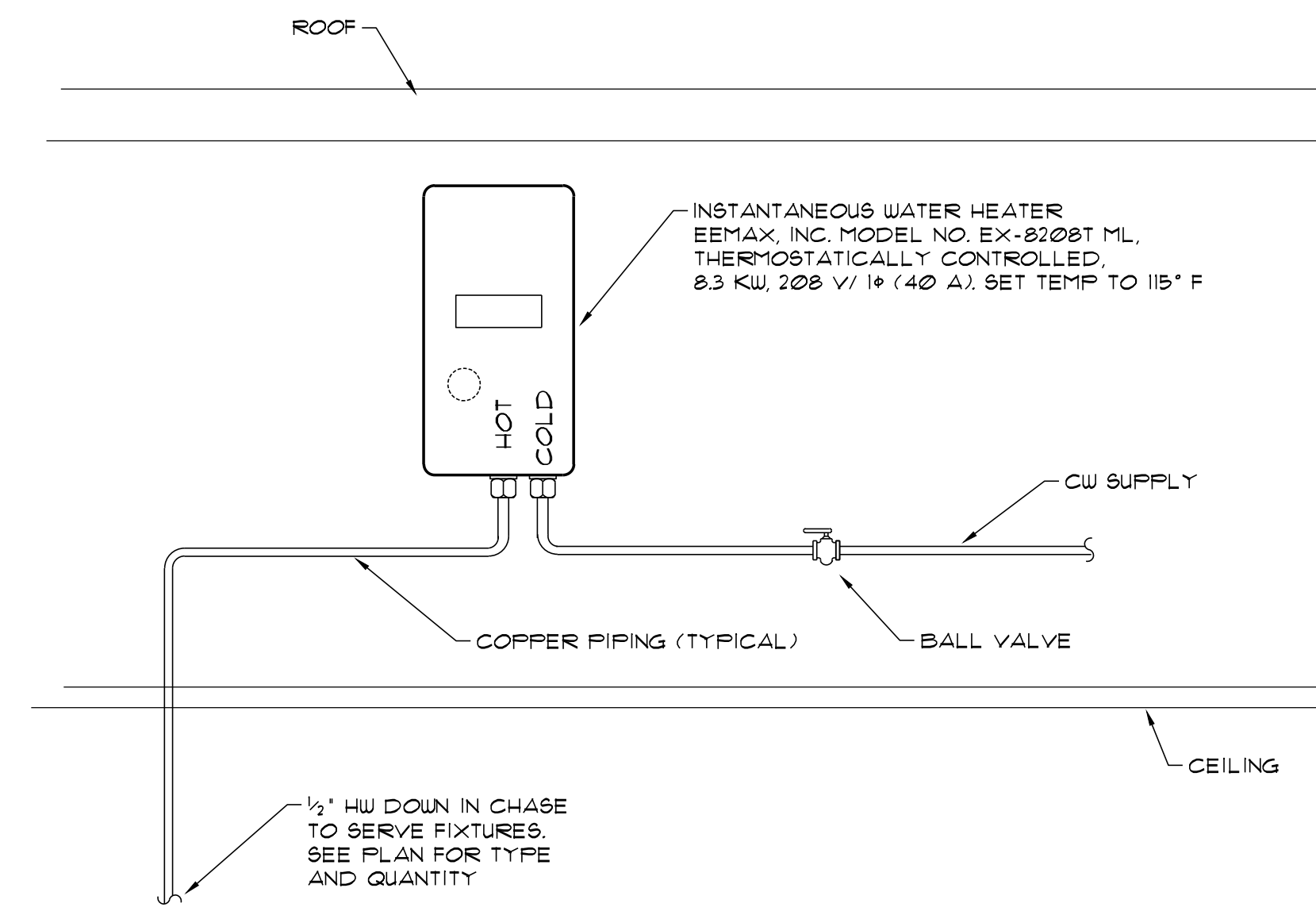
| DESIGNATION | MARKET MODEL NO. | MOTOR | | | THROW TYPE | KW | INLET CFM | OPER. WEIGHT | REMARKS |
|-------------|------------------|-------|-------|-------|------------|-----|-----------|--------------|---------|
| | | H.P. | VOLTS | PHASE | | | | | |
| H-1 | E3323-TD-RP | 1/40 | 120 | 1 | HORIZONTAL | 1.5 | 70 | 52 | 1, 2 |

- PROVIDE UNIT MOUNTED THERMOSTAT WITH FAN ON-OFF SWITCH.
- TOTALLY ENCLOSED, SHADED POLE MOTOR

DUCT HEATER SCHEDULE

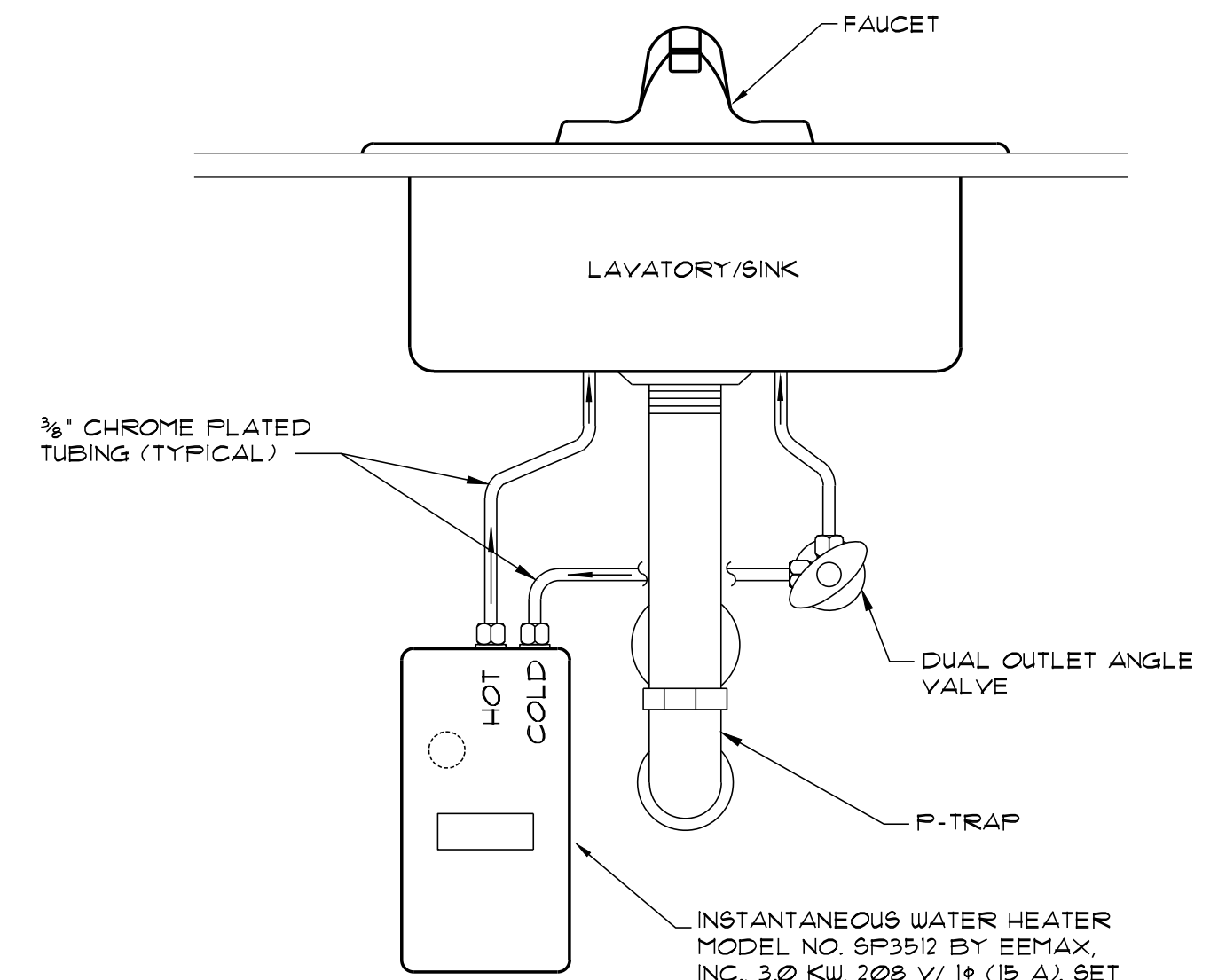
| HEATER DESIG. | CFM | ELECTRIC DATA | | | MARKET MODEL NO. | REMARKS |
|---------------|-----|---------------|----|-----------|------------------|---------|
| | | VOLT/PH. | KW | NO. STEPS | | |
| EDH-1 | 800 | 208/3 | 9 | SCR | HP SERIES | 1, 2, 3 |

- OPEN COIL ELEMENT WITH MAX PRESSURE DROP 0.15".
- FURNISH AUTO RESET THERMAL CUTOFFS FOR OVER TEMPERATURE PROTECTION
- UNIT SHALL BE SLIP IN CONFIGURATION WITH FACTORY WIRED INTEGRAL TERMINAL BOX



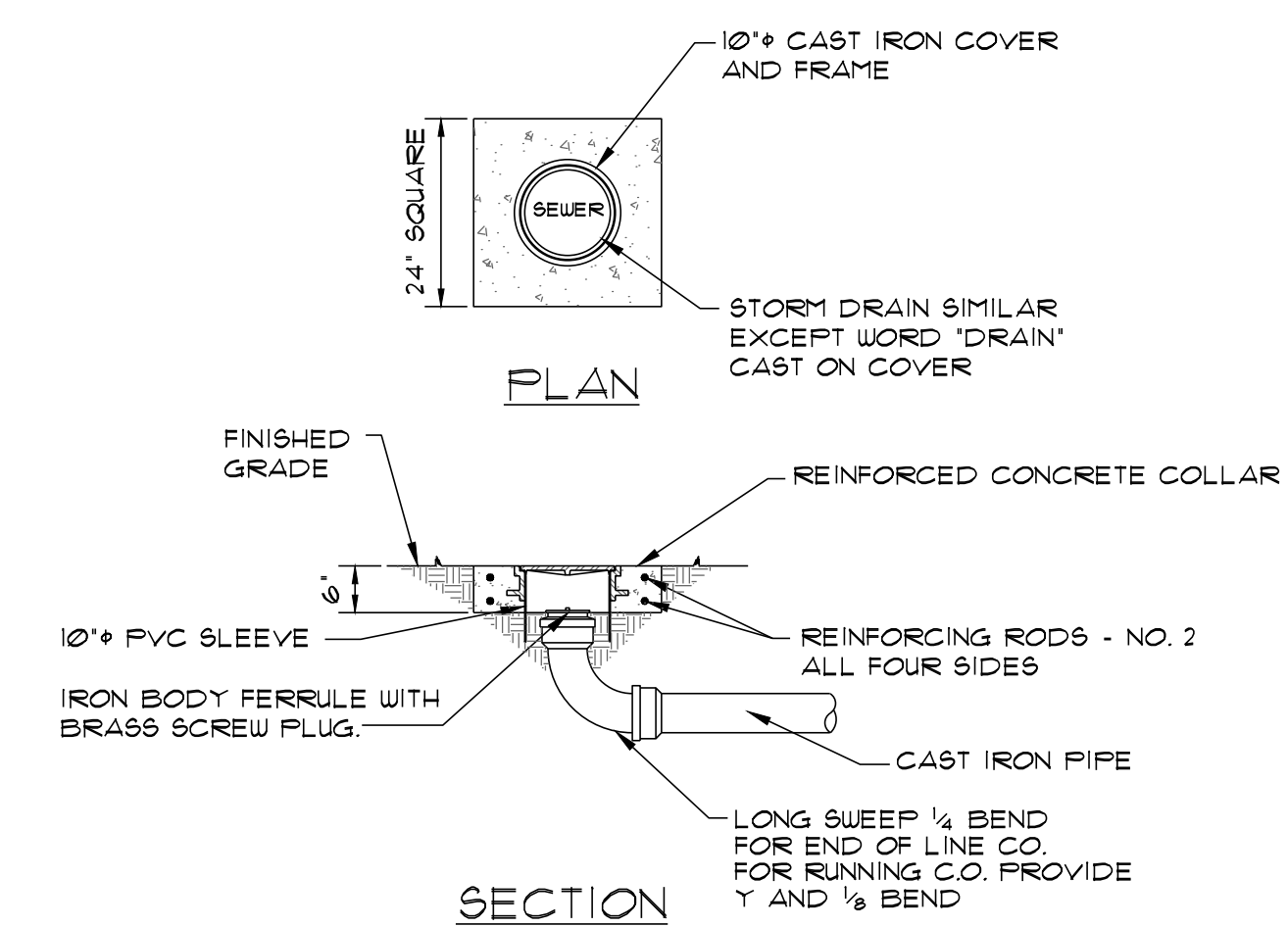
NOTE: PROVIDE ALL REQUIRED SUPPORTS TO MOUNT WATER HEATER TO STRUCTURAL MEMBERS ABOVE THE CEILING.

INSTANTANEOUS WATER HEATER EWH-3 PIPING DIAGRAM
NOT TO SCALE

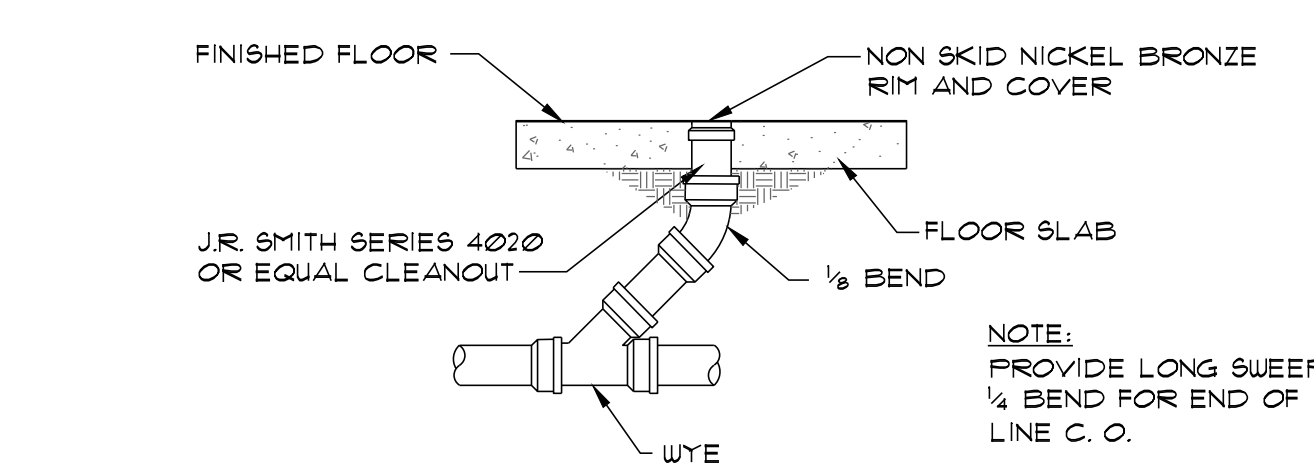


NOTES:
1. INSTALL FAUCET AERATOR FURNISHED WITH WATER HEATER

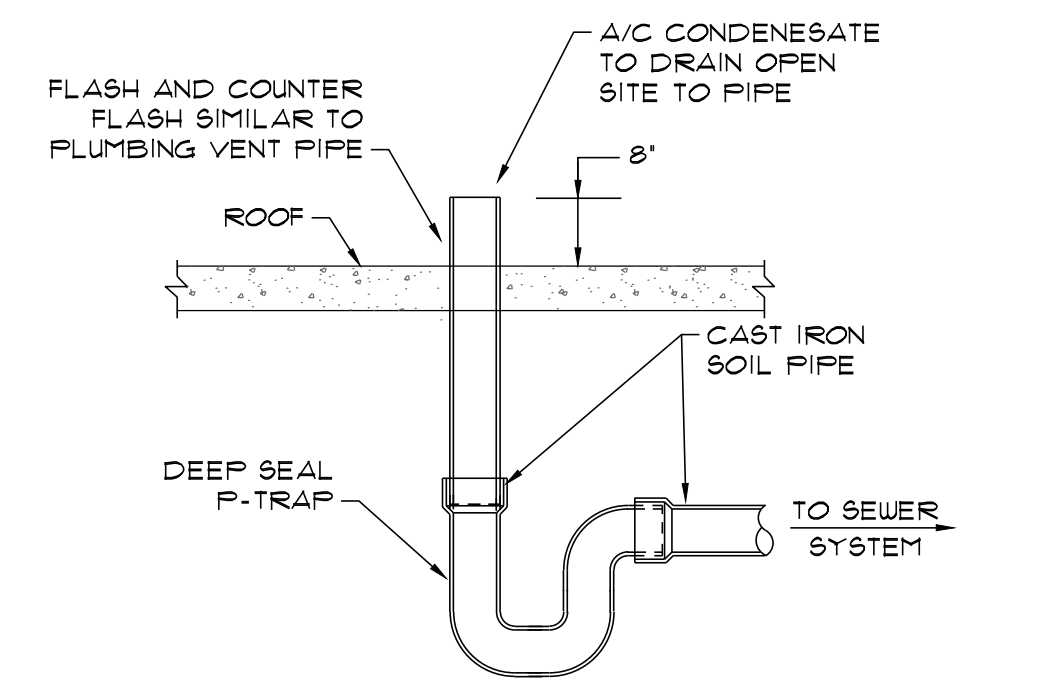
INSTANTANEOUS WATER HEATER EWH-2 PIPING DIAGRAM
NOT TO SCALE



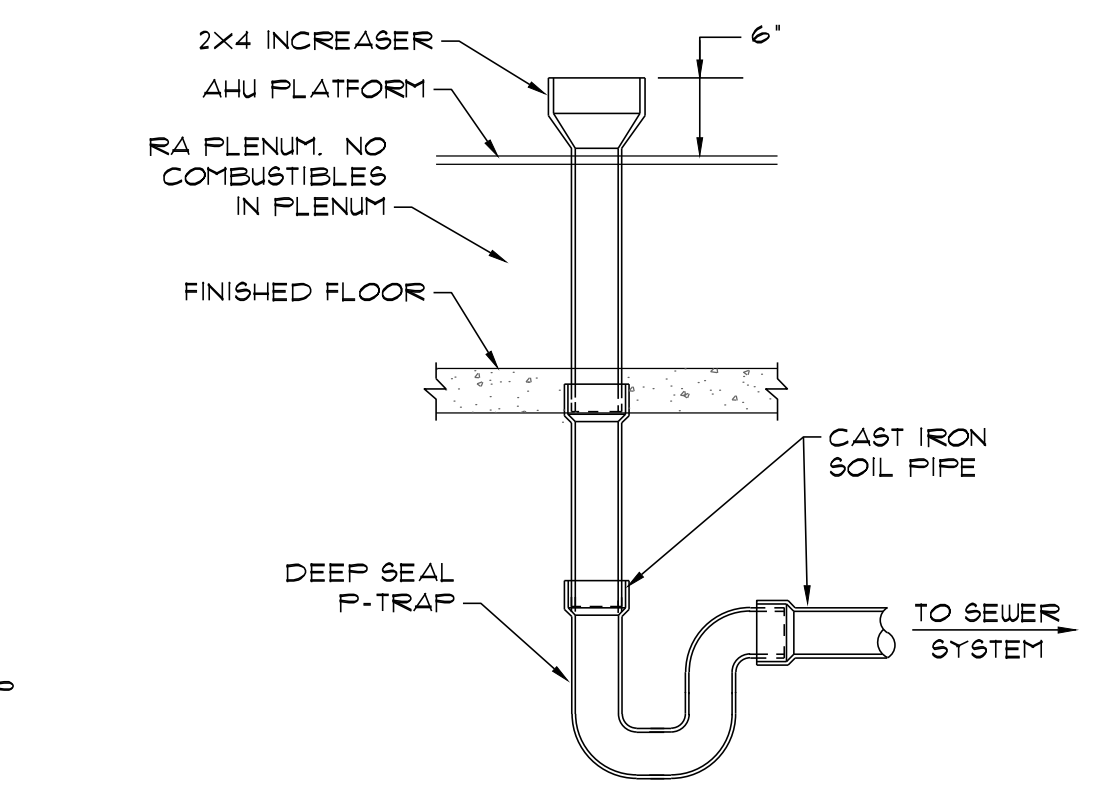
EXTERIOR CLEANOUT DETAIL
NTS



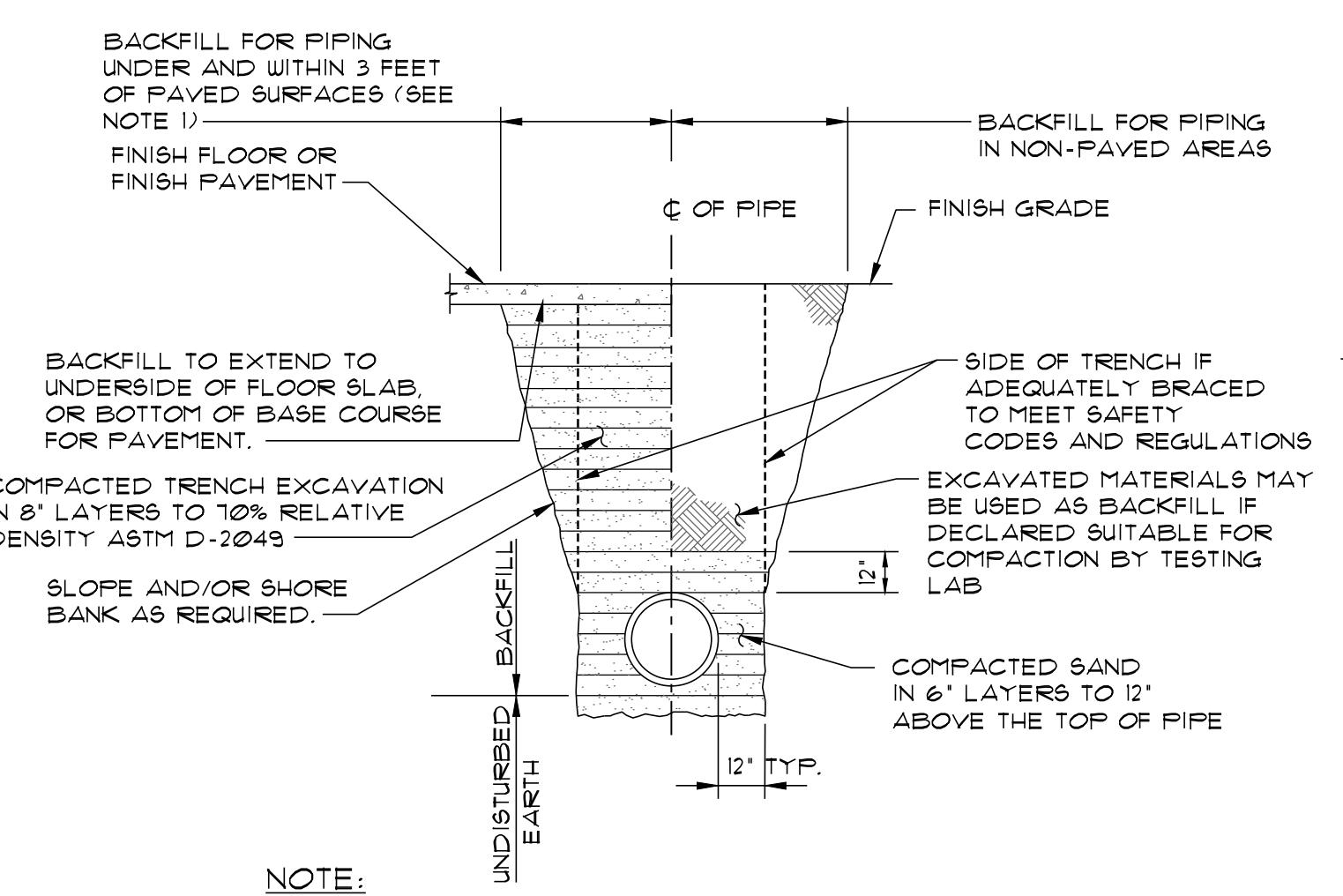
INTERIOR CLEANOUT DETAIL
NTS



HUB DRAIN AT ROOF DETAIL
NOT TO SCALE

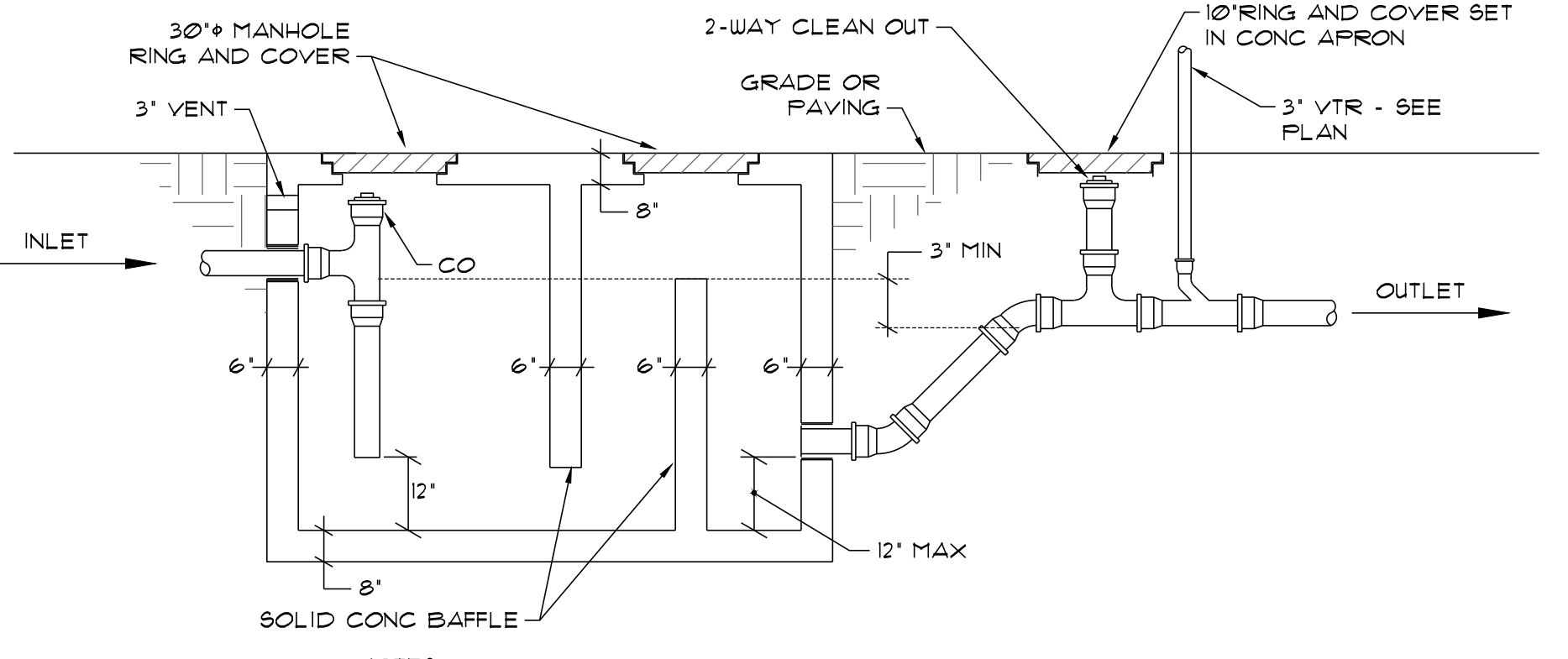


AHU PLATFORM HUB DRAIN DETAIL
NOT TO SCALE



NOTE:
1. PAVED SURFACES INCLUDE CONCRETE AND ASPHALT PAVEMENTS, SIDEWALKS, DRIVEWAYS, PARKING AREAS AND THOSE AREAS INDICATED ON THE PLANS AS FUTURE PAVEMENT.

PIPE BEDDING AND BACKFILL DETAIL
NTS



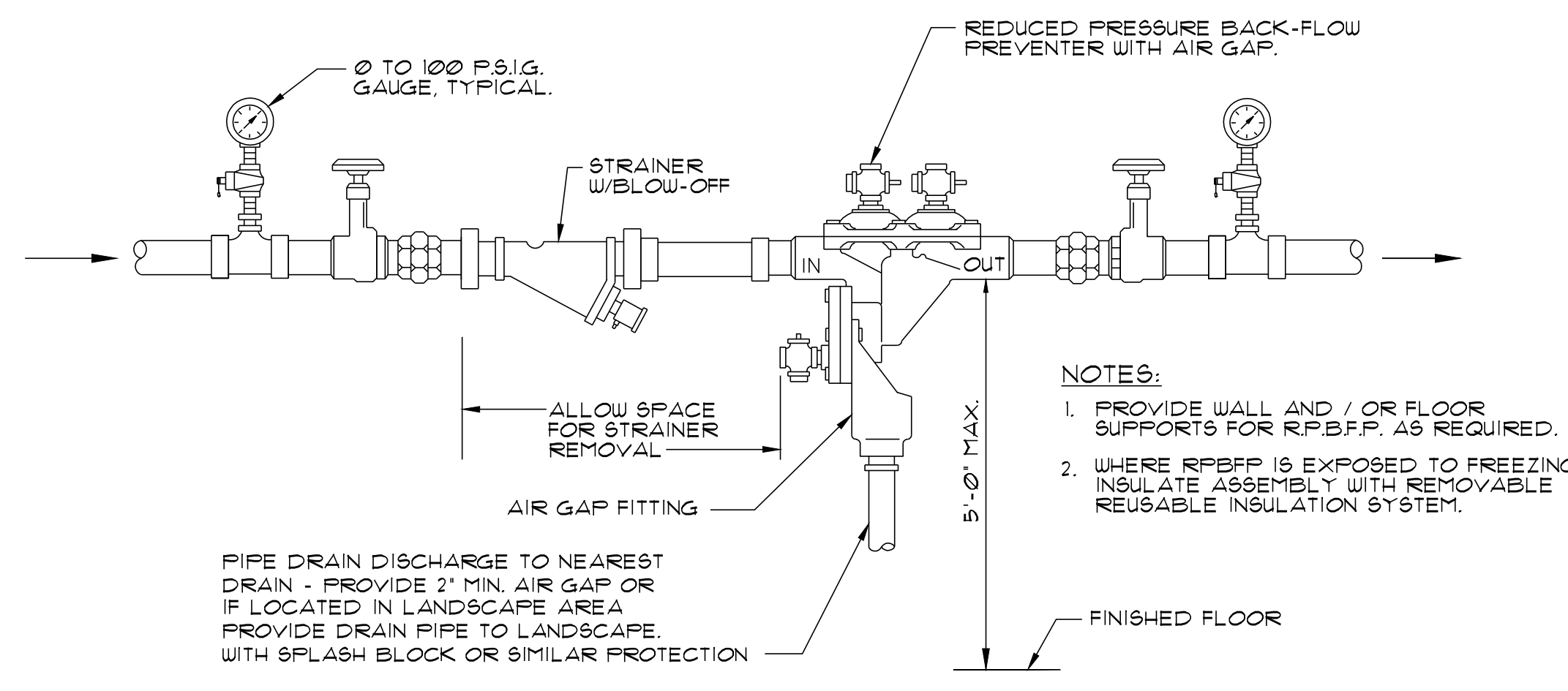
NOTES:
1. SEE PLAN FOR GREASE TRAP CAPACITY.
2. PROVIDE 12" CRUSHED LIMESTONE OR RIVER SAND ON UNDISTURBED EARTH - BELOW GREASE TRAP.
3. GREASE TRAP SHALL BE AS MANUFACTURED BY HANSON PIPE AND PRE-CAST OR EQUAL

GREASE TRAP DETAIL
NOT TO SCALE

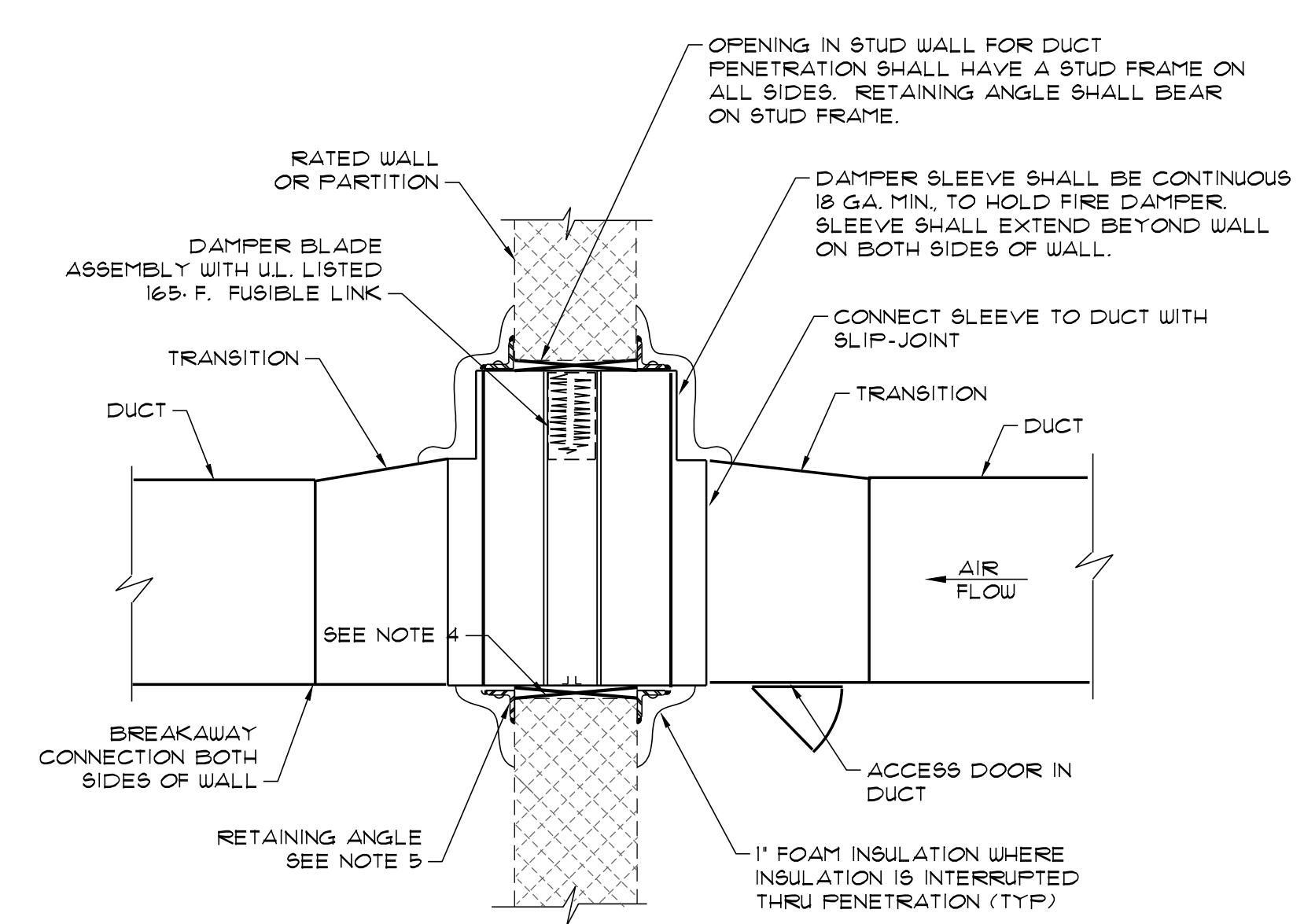
| | | | |
|----------------------------|----------------------------|----------------------------|--------------------|
| DESIGNED BY: SH | DRAWN BY: SH | CHECKED BY: HG | JOB NO. 18054 |
| SCALE: (24x36) AS NOTED | SCALE: (11x17) AS NOTED | SCALE: (11x17) AS NOTED | DATE: 03.MAR.20 |

FAIRGROUNDS PHASE 3
1515 N FLORIDA ST.
COVINGTON, LA

DETAILS

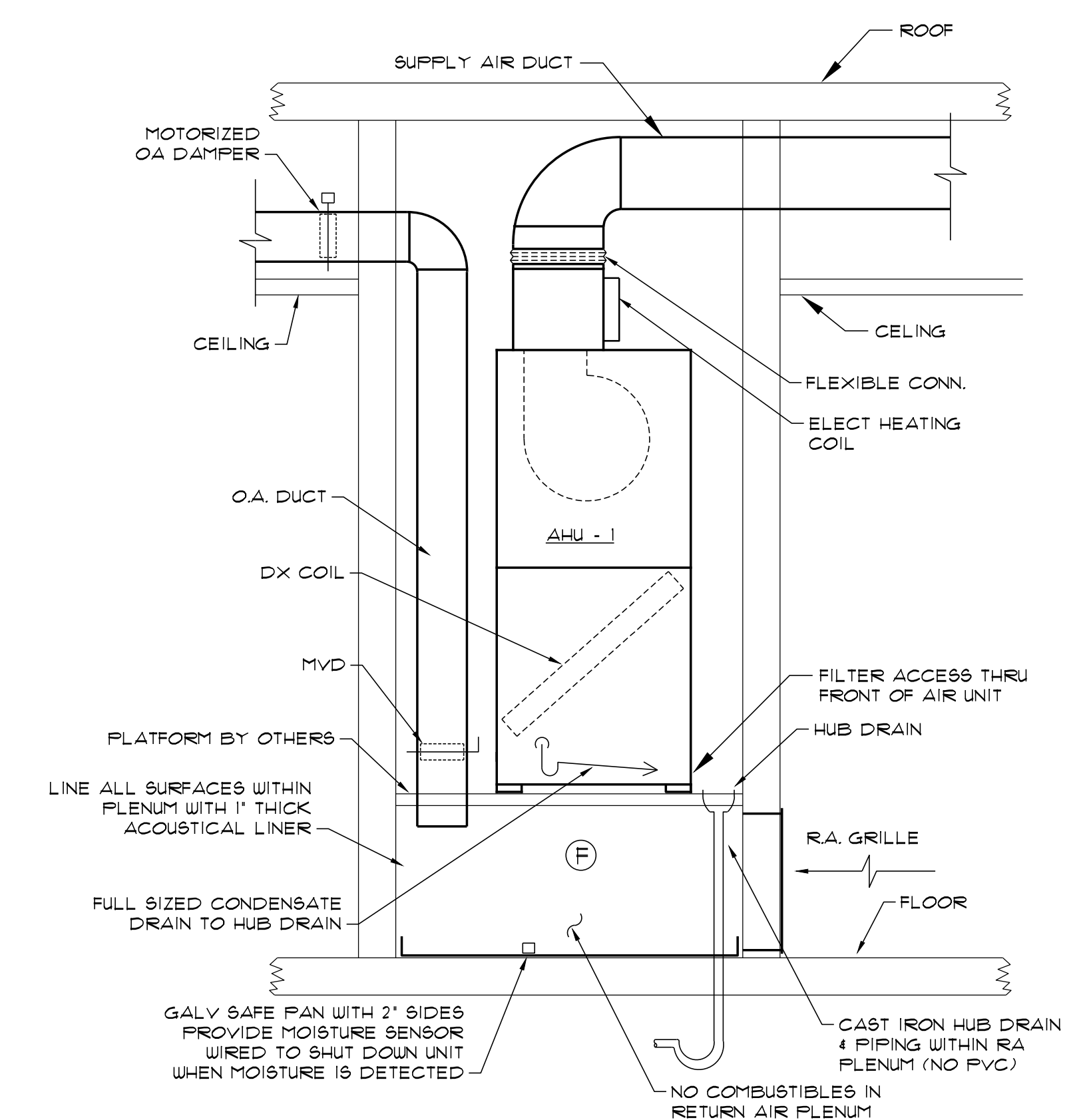


REDUCED PRESSURE BACK-FLOW PREVENTER DETAIL
NTS



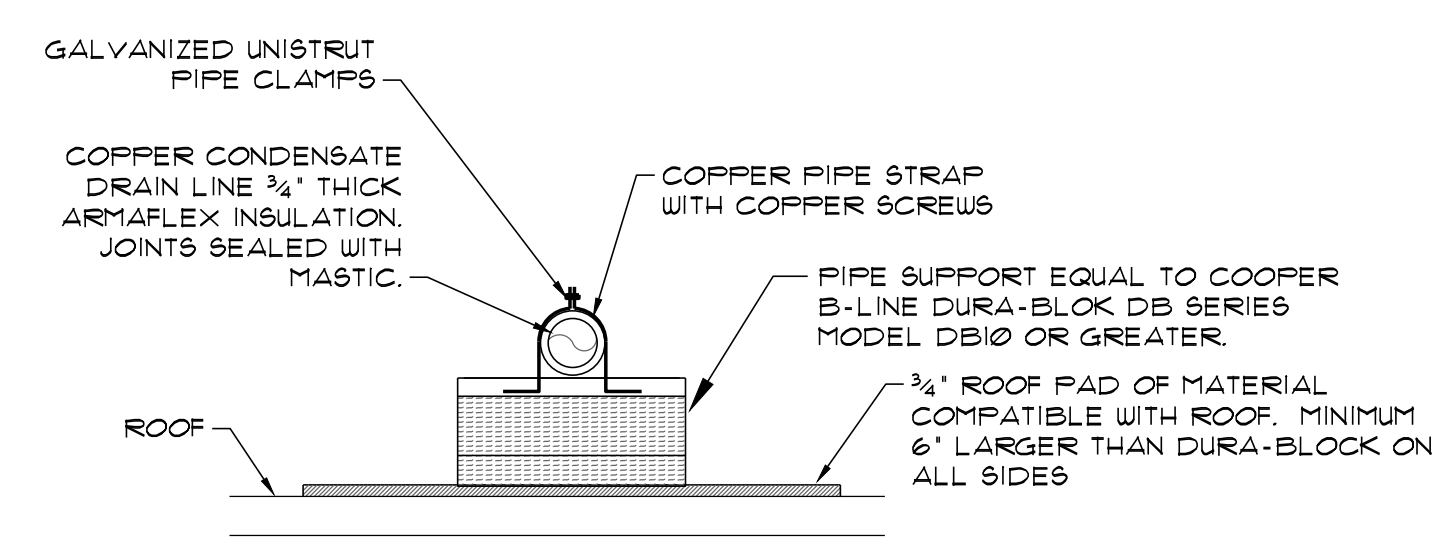
- NOTES:**
1. PROVIDE WALL AND / OR FLOOR SUPPORTS FOR R.P.B.F.P. AS REQUIRED.
 2. WHERE R.P.B.F.P. IS EXPOSED TO FREEZING INSULATE ASSEMBLY WITH REMOVABLE REUSABLE INSULATION SYSTEM.
 3. PROVIDE MIN. 14 GA. SLEEVE. EXTEND BEYOND WALL MAX. 6 INCHES.
 4. PROVIDE EXPANSION SPACE PER MANUFACTURER'S INSTRUCTION, BUT NOT LESS THAN 1/8" PER LINEAR FOOT BOTH DIRECTIONS.
 5. PROVIDE MINIMUM 2"x2"x3/16" RETAINING ANGLE ON TOP, BOTTOM AND SIDES. ATTACH ANGLE TO SLEEVE IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. DAMPER SHALL BE SELF SUPPORTING, INDEPENDENT OF DUCTWORK. ANGLES SHALL OVERLAP WALL MIN. OF ONE INCH.
 6. DAMPER SHALL BE SIZED TO PROVIDE EQUIVALENT FREE AREA OF DUCT. SEE SCHEDULE OF SIZES REQUIRED OR INCREASE DAMPER SIZE CROSS SECTIONAL AREA BY 20% ABOVE CONNECTING DUCT SIZE.

FIRE DAMPER INSTALLATION DETAIL
NOT TO SCALE



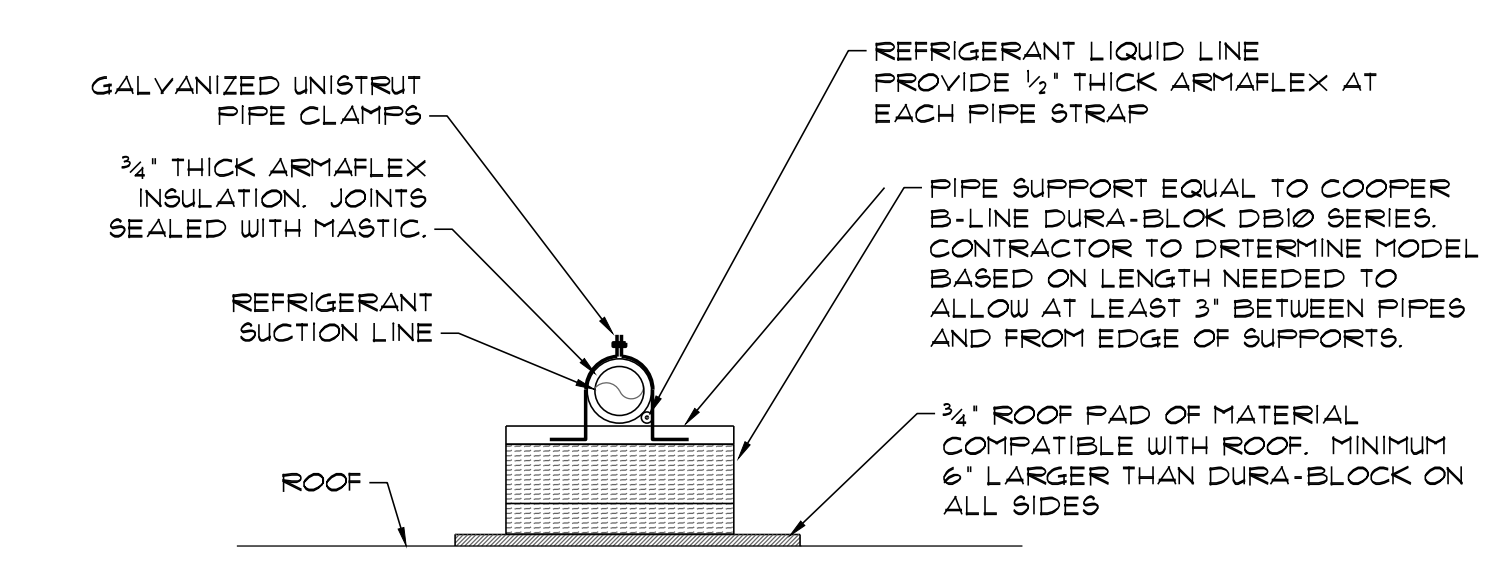
NOTE: PROVIDE FIRESTAT IN THE RETURN AIR WIRED TO SHUT DOWN THE UNIT WHEN TEMPERATURE IS EXCEEDED.

AIR HANDLING UNIT AHU-1 INSTALLATION DETAIL
NOT TO SCALE



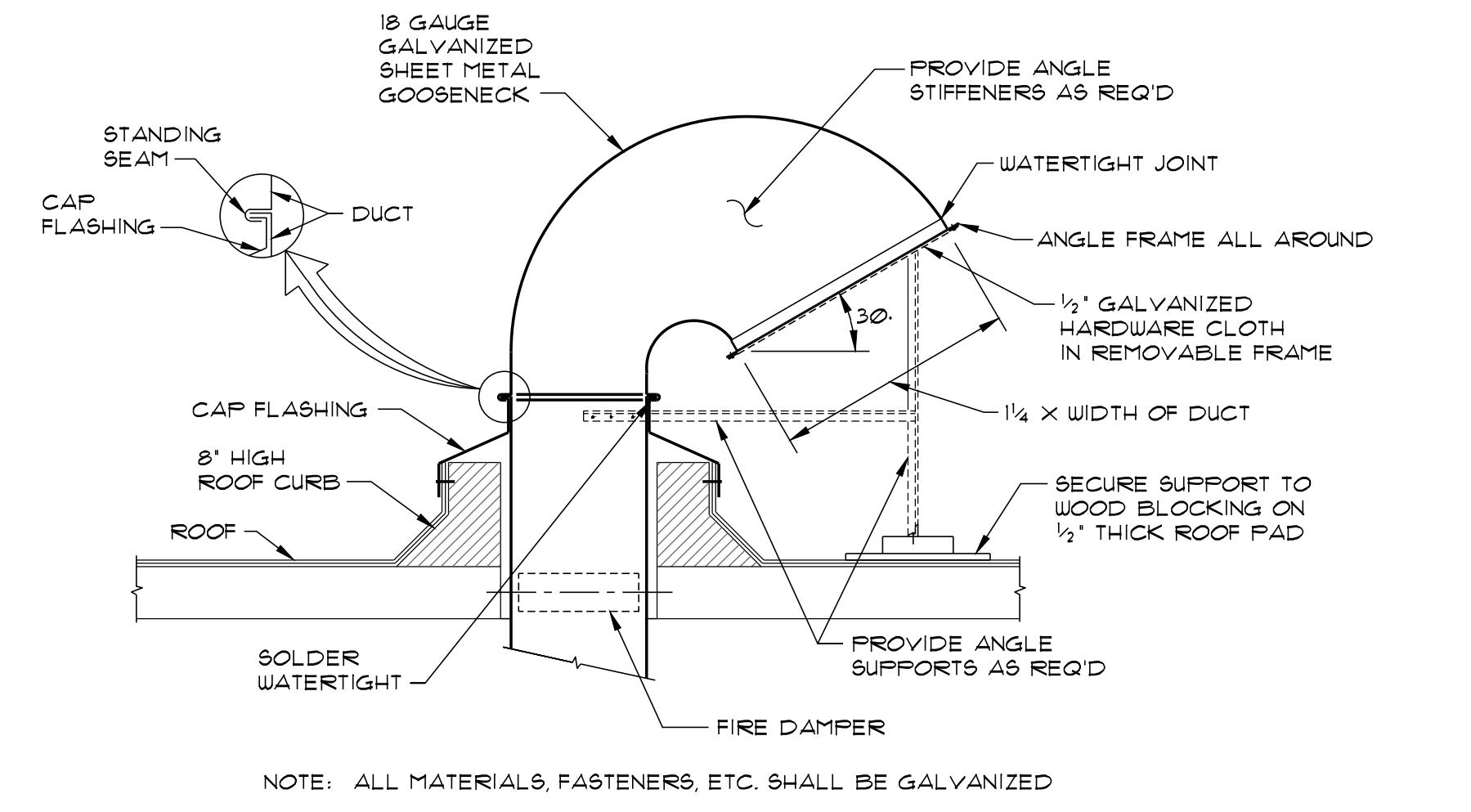
- NOTES:**
1. PROVIDE SUPPORTS @ 6'-0" O.C. MAXIMUM SPACING.
 2. PROVIDE SHIMS AT SUPPORTS AS REQUIRED TO ACHIEVE PROPER SLOPE IN PIPING.

CONDENSATE PIPE SUPPORT DETAIL
NOT TO SCALE



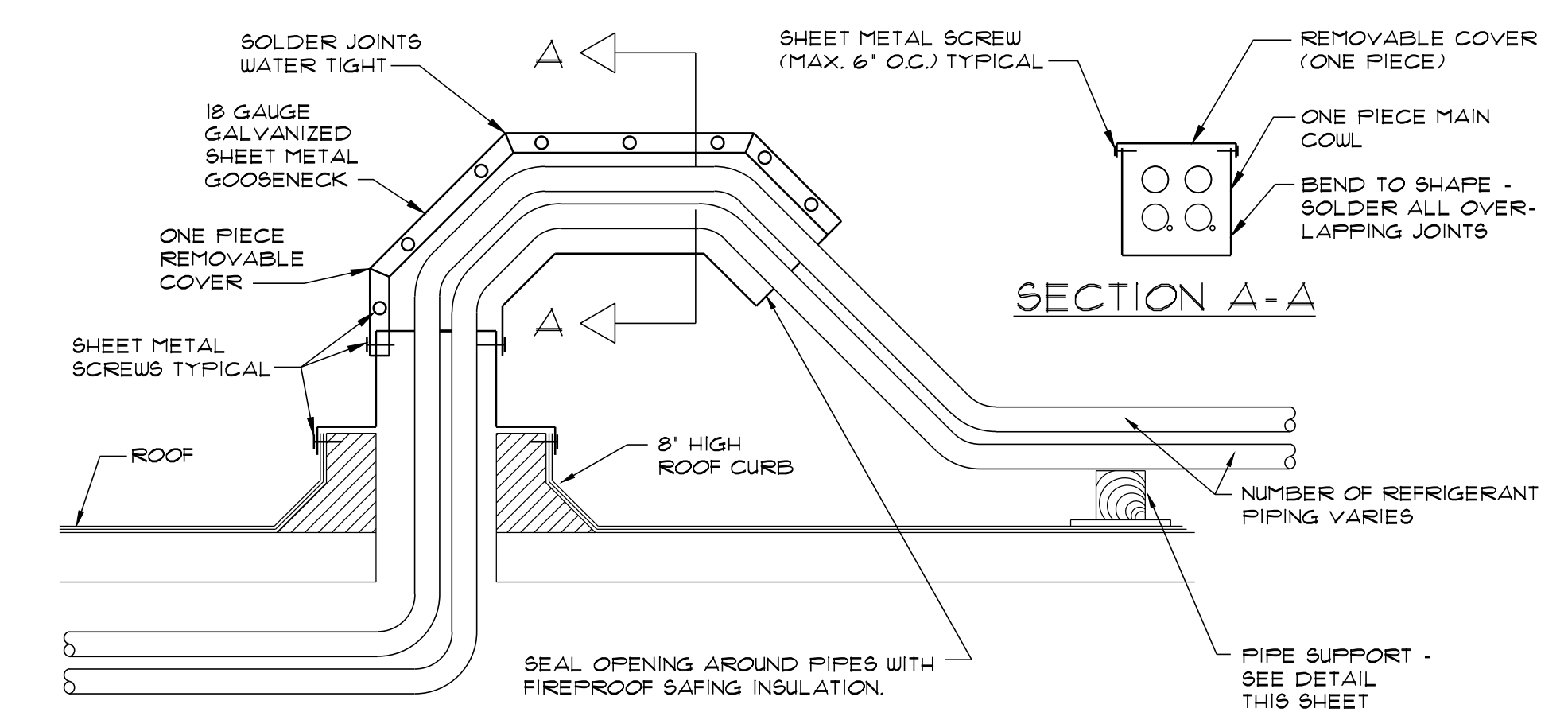
NOTE: PROVIDE PIPE SUPPORTS AT 4'-0" O.C.

REFRIGERANT PIPE SUPPORT DETAIL
NOT TO SCALE

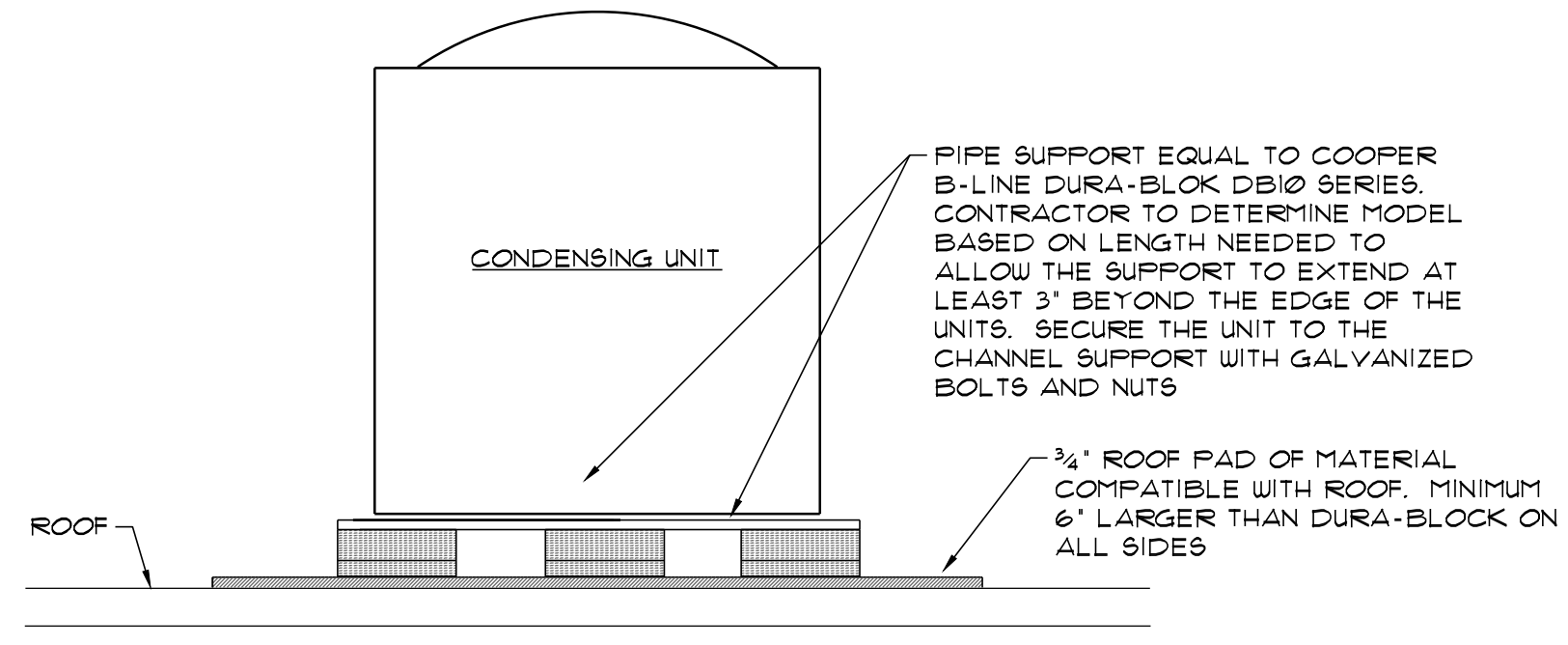


NOTE: ALL MATERIALS, FASTENERS, ETC. SHALL BE GALVANIZED

ROOF COWL DETAIL
NOT TO SCALE

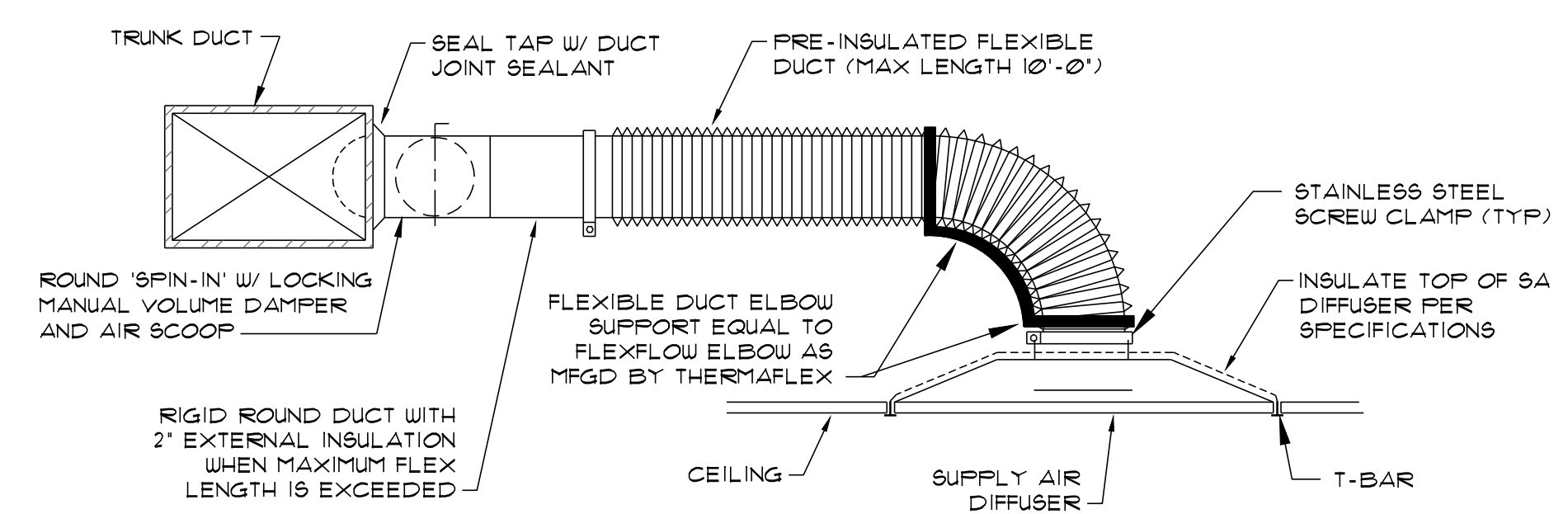


REFRIGERANT PIPING ROOF PENETRATION DETAIL
NOT TO SCALE

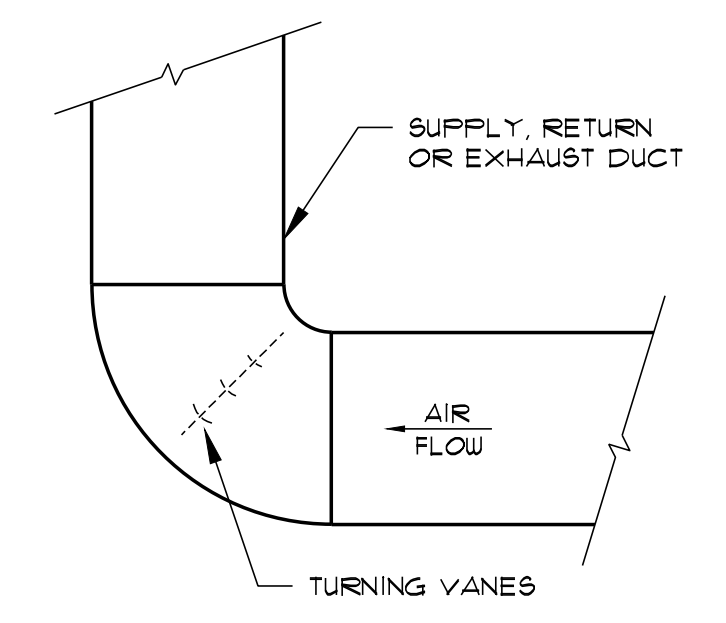


NOTE: BLOCKS SHALL SPAN AT LEAST TWO BAR JOISTS

CONDENSING UNIT MOUNTING DETAIL
NOT TO SCALE



SPIN-IN & CEILING DIFFUSER DETAIL
NOT TO SCALE



RADIUS ELBOW DETAIL
NOT TO SCALE

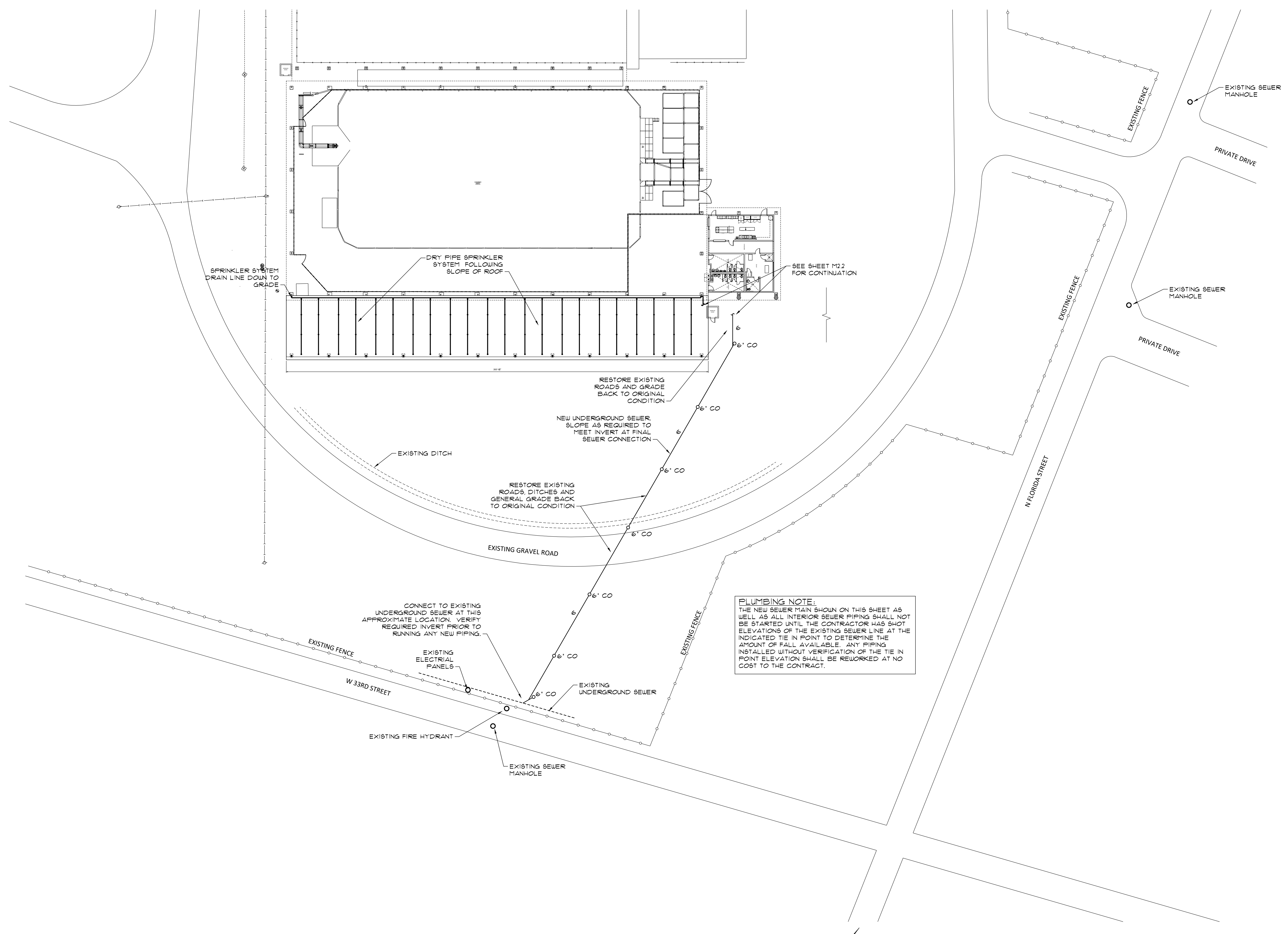
| | | |
|-----------|---------|---------------|
| REVISIONS | APP'D | H.R.G. |
| DATE | REMARKS | ISSUE FOR BID |
| 03.03.20 | | |

STATE OF LOUISIANA
Heidi Romero Gremillion
REG. No. 27958
REGISTERED PROFESSIONAL ENGINEER
MECHANICAL ENGINEERING
03-03-2020

Kyle Associates, LLC
658 Village Lakes Dr. • Metairie, LA 70001 • 985.727.0877

Howell Consultants, L.L.C.
380 Maple Ridge Dr. Mandeville, LA 70471
Phone 985.626.9305 Fax 985.727.9303
HC Project No. 16029

SHEET NO.
M1.3



PLUMBING NOTE:
 THE NEW SEWER MAIN SHOWN ON THIS SHEET AS WELL AS ALL INTERIOR SEWER PIPING SHALL NOT BE STARTED UNTIL THE CONTRACTOR HAS SHOT ELEVATIONS OF THE EXISTING SEWER LINE AT THE INDICATED TIE IN POINT TO DETERMINE THE AMOUNT OF FALL AVAILABLE. ANY PIPING INSTALLED WITHOUT VERIFICATION OF THE TIE IN POINT ELEVATION SHALL BE REWORKED AT NO COST TO THE CONTRACT.

1 SITE PLAN - PLUMBING AND FIRE PROTECTION
 Scale: 1" = 30'-0"

| | | | |
|-------------------------------------|----------------|-------------|-----------------|
| CADD FILE NAME: 16029 - M2.1.dwg | | | |
| DESIGNED BY: | DRAWN BY: | CHECKED BY: | JOB NO. |
| AS NOTED | SH | HG | 18054 |
| SCALE: (24x36) | SCALE: (11x17) | AS NOTED | DATE: 03.MAR.20 |

FAIRGROUNDS PHASE 3
 1515 N FLORIDA ST.
 COVINGTON, LA

FLOOR PLAN - PLUMBING AND FIRE PROTECTION

| DATE | REVISIONS | APP'D | H.R.G. |
|--|-----------------------------------|-------|--------|
| 03.03.20 <td>ISSUE FOR BID <td></td> <td></td> </td> | ISSUE FOR BID <td></td> <td></td> | | |
| | | | |
| | | | |



Howell Consultants, L.L.C.
 360 Maple Ridge Dr. Mandeville, La. 70471
 Phone 985.626.9305 Fax 985.727.9303
 HC Project No. 16029

SHEET NO.
M2.1

| |
|-------------------------------------|
| CADD FILE NAME: 16029 - M2.2.dwg |
| DESIGNED BY: AS NOTED |
| DRAWN BY: SH |
| CHECKED BY: HG |
| JOB NO. 18054 |
| DATE: 03.MAR.20 |

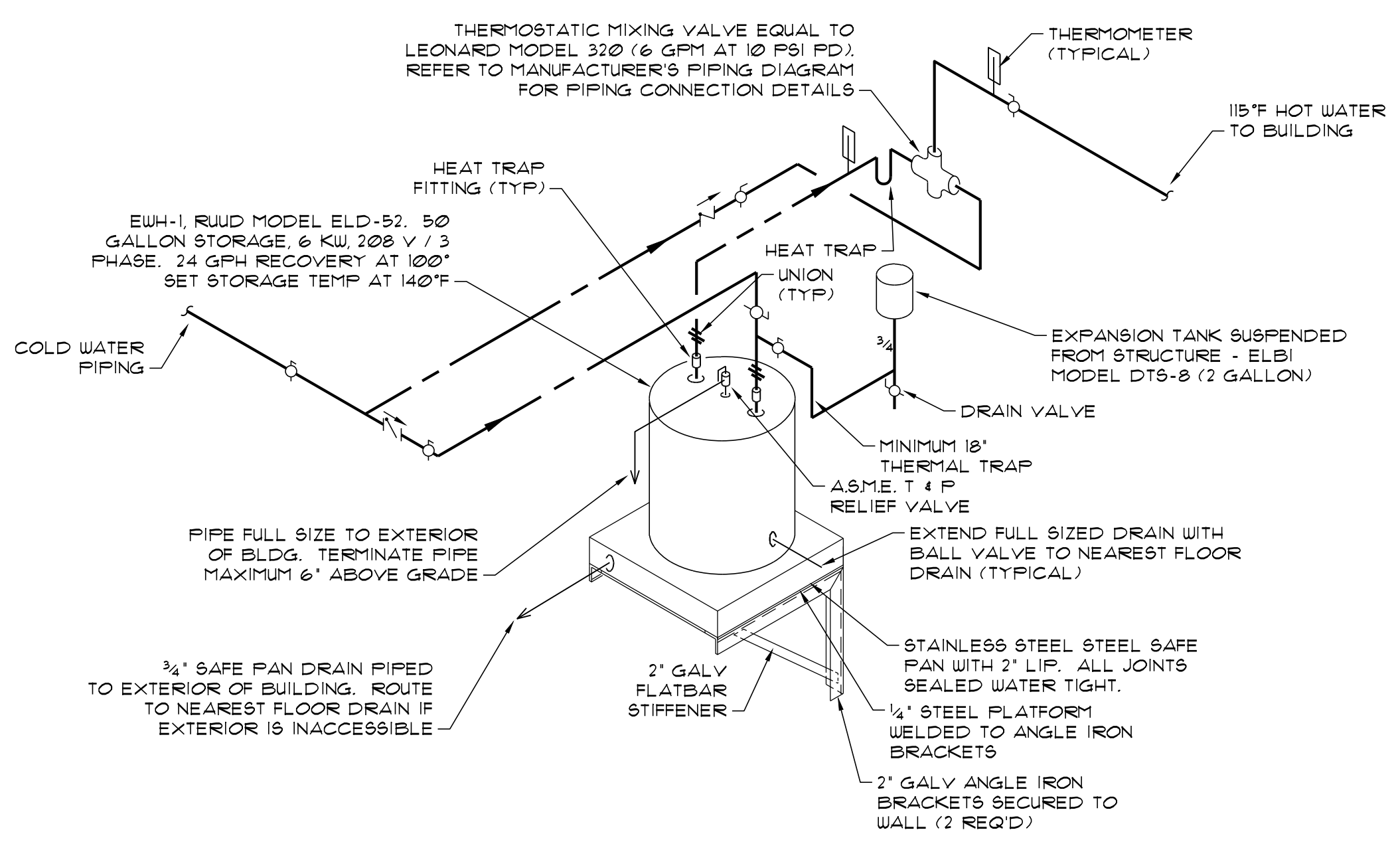
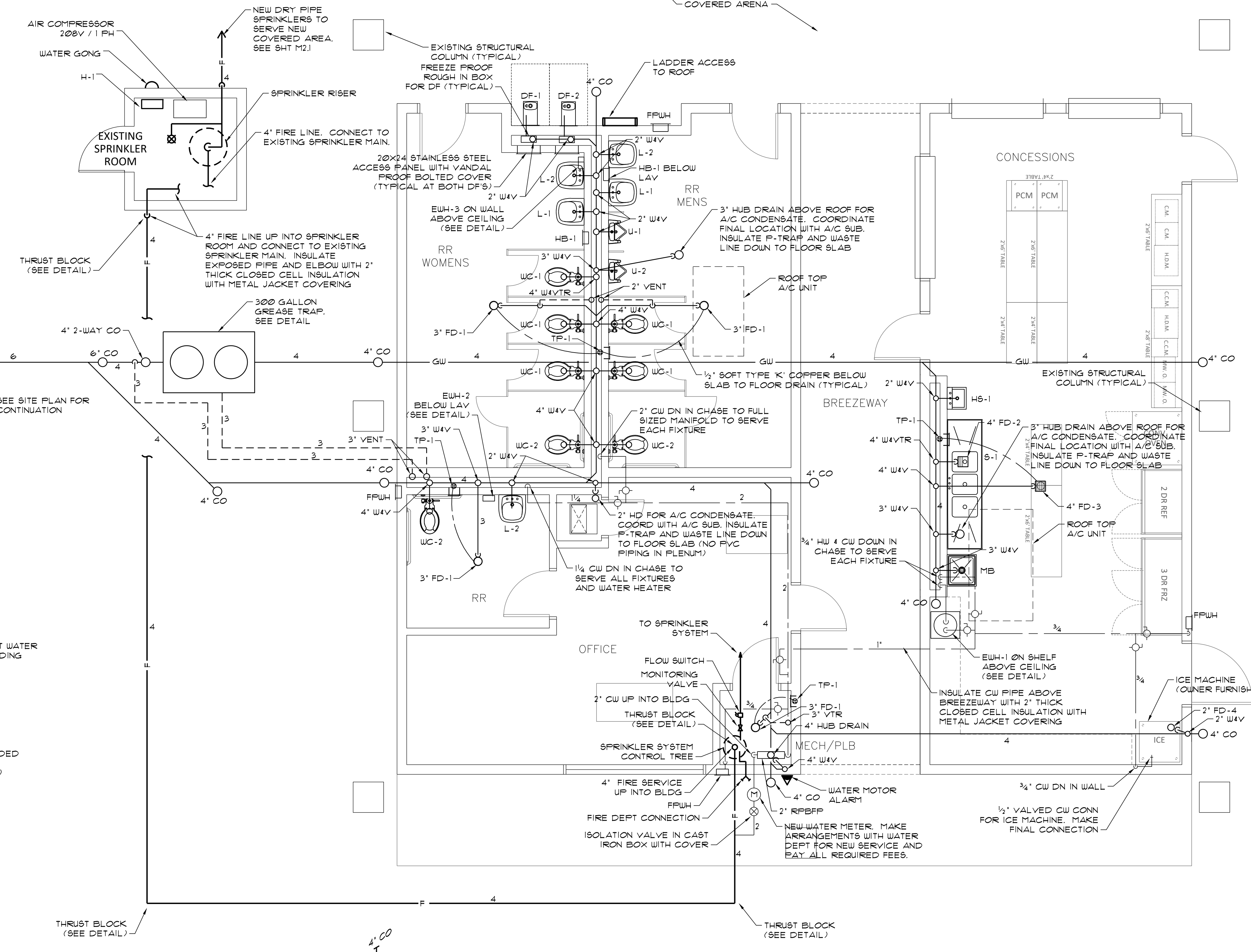
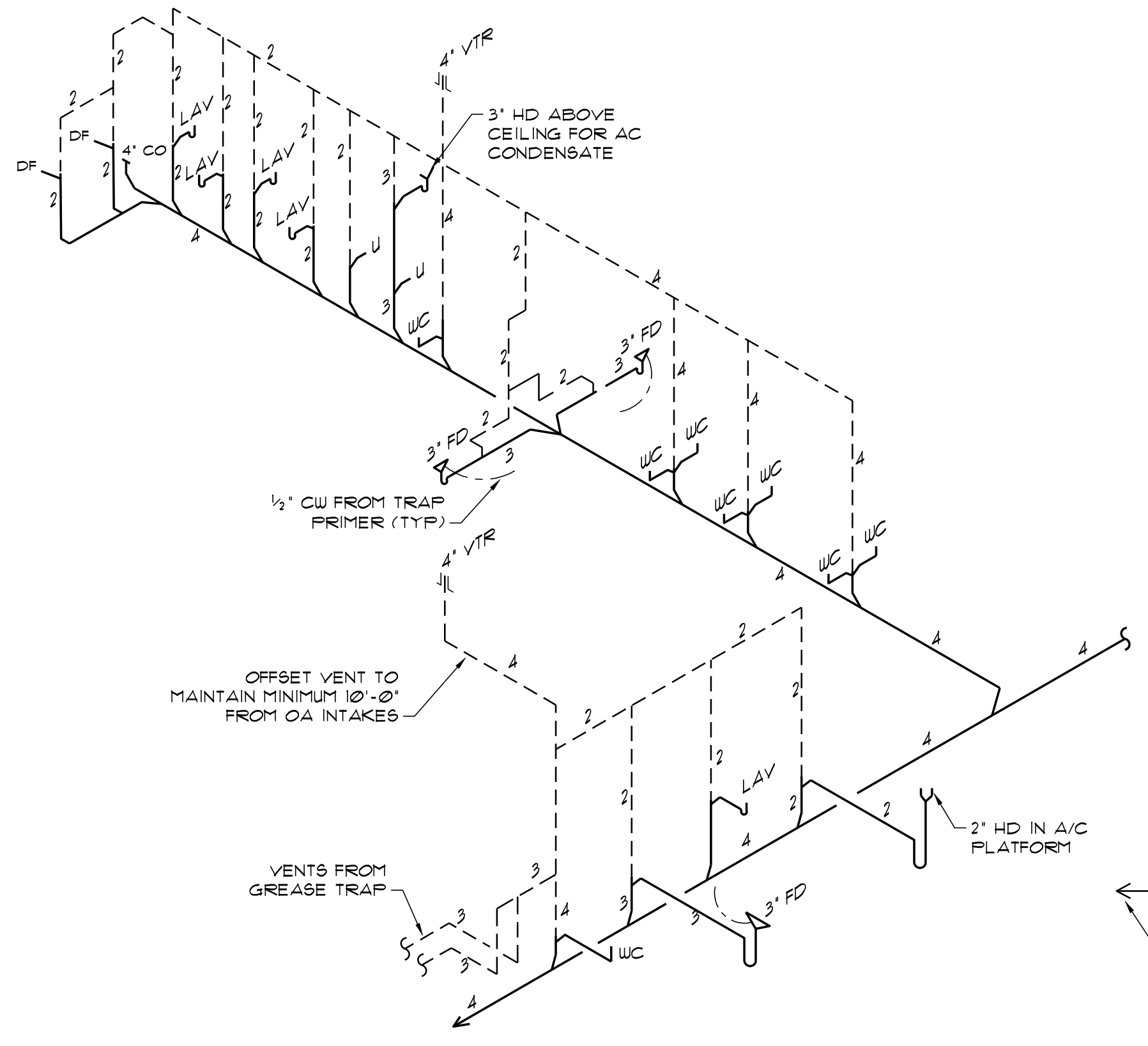
FAIRGROUNDS PHASE 3
1515 N FLORIDA ST.
CONVINGTON, LA

FLOOR PLAN - PLUMBING AND FIRE PROTECTION

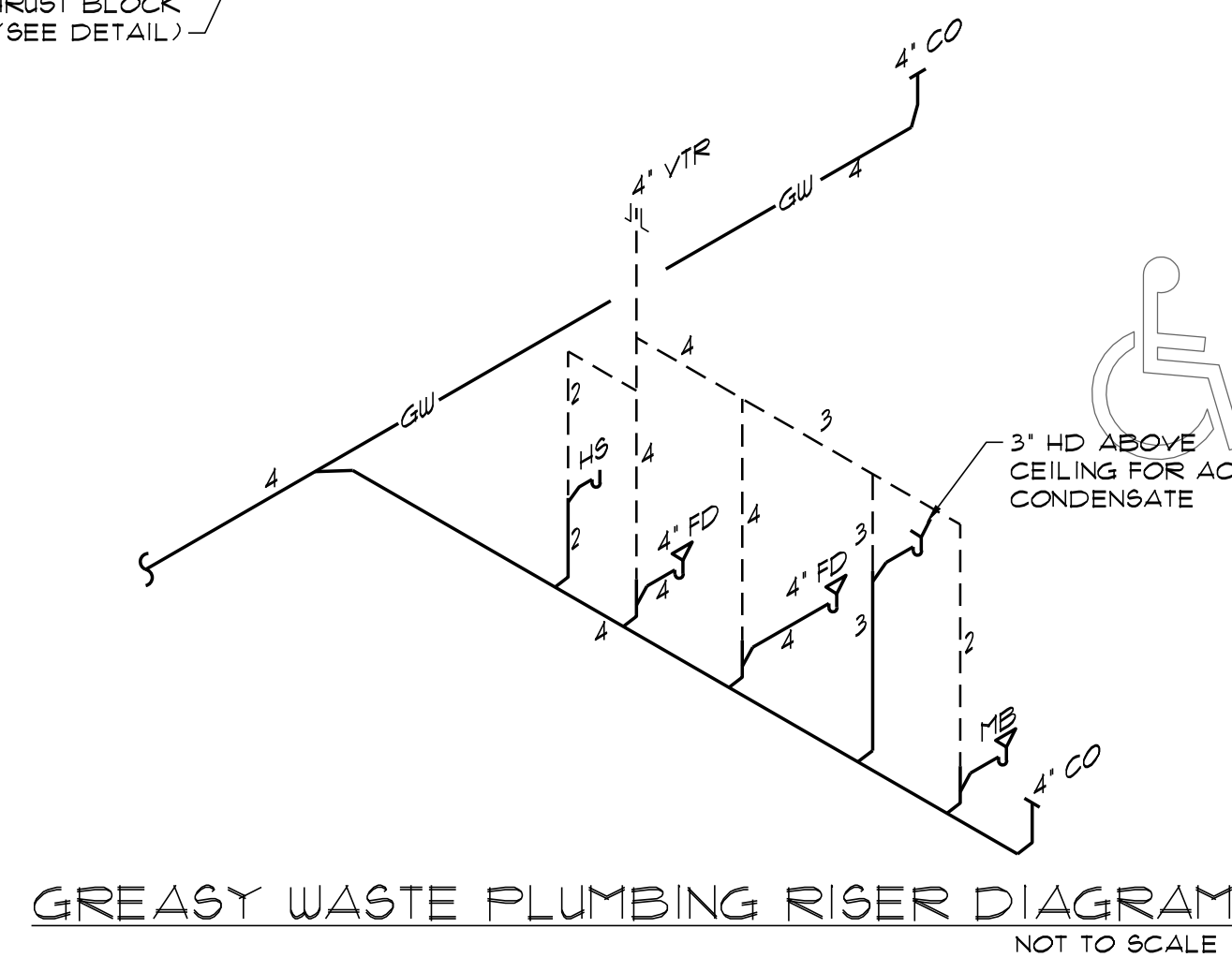
| | | |
|-----------|---------|---------------|
| REVISIONS | APP'D | H.R.G. |
| DATE | REMARKS | ISSUE FOR BID |
| 03.03.20 | | |



Kyle Associates, LLC
Professional Engineers
638 Village Lakes Dr., Metairie, LA 70001 • 985.227.0877



- NOTES:**
- REFER TO FLOOR PLANS FOR PIPE SIZES NOT LISTED
 - PRIOR TO RELEASING WATER HEATER FOR MANUFACTURE, CONTRACTOR SHALL COORDINATE WITH THE ELECTRICIAN ON THE JOB TO ASSURE PROPER VOLTAGE AND PHASE IS DETERMINED. WATER HEATERS SHIPPED TO THE SITE WITH INCORRECT VOLTAGE OR PHASE SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.



DIFFUSER SCHEDULE - ROUND NECK

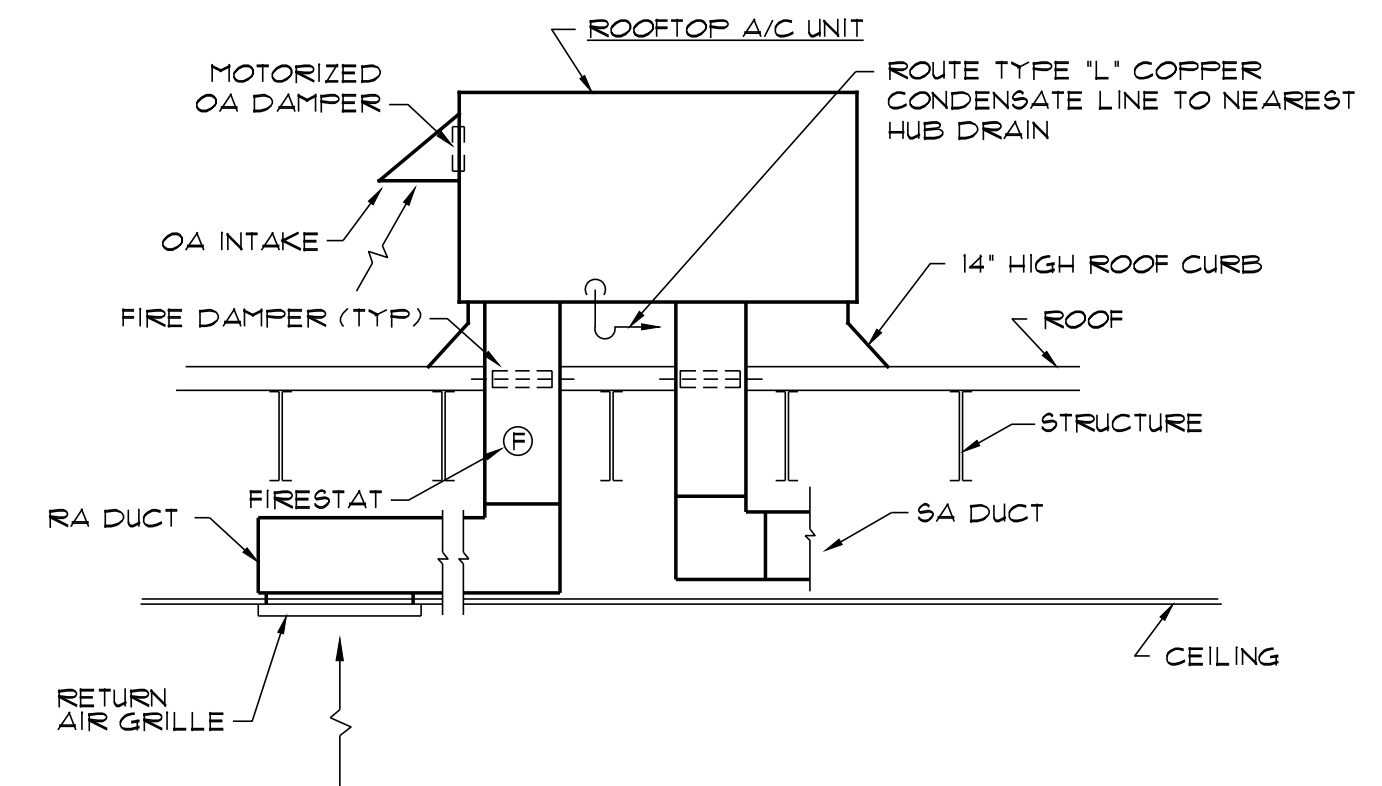
| CFM RANGE | CEILING TYPE | NECK SIZE | FLEX DUCT CONN SIZE | MAX FLEX LENGTH | REMARKS |
|-----------|---------------|-----------|---------------------|-----------------|---------|
| 50-100 | LAY-IN OR GYP | 9x9 | 6" | 12' | 1, 2 |
| 101-200 | LAY-IN OR GYP | 12x12 | 8" | 12' | 1, 2 |
| 201-275 | LAY-IN OR GYP | 12x12 | 10" | 12' | 1, 2 |
| 276-325 | LAY-IN OR GYP | 12x12 | 12" | 12' | 1, 2 |
| 326-400 | LAY-IN OR GYP | 15x15 | 12" | 12' | 1, 2 |
| 401-450 | LAY-IN OR GYP | 15x15 | 14" | 12' | 1, 2 |
| 451-550 | LAY-IN OR GYP | 18x18 | 14" | 12' | 1, 2 |
| 551-1000 | LAY-IN OR GYP | 18x18 | 16" | 12' | 1, 2 |

- SIZES BASED ON TITUS MODEL TDCA-AA ALL ALUMINUM ADJUSTABLE DIFFUSER - REFER TO SPECS FOR EXACT TYPE REQUIRED.
- WHERE INDICATED ON PLANS TO HAVE ROUND DUCT CONNECTION, FURNISH DIFFUSER WITH SQUARE TO ROUND TRANSITION - FRAME STYLE TO SUIT CEILING (DROP BEVELED FACE FOR GYP BD CEILING)

DIFFUSER SCHEDULE - SQUARE NECK

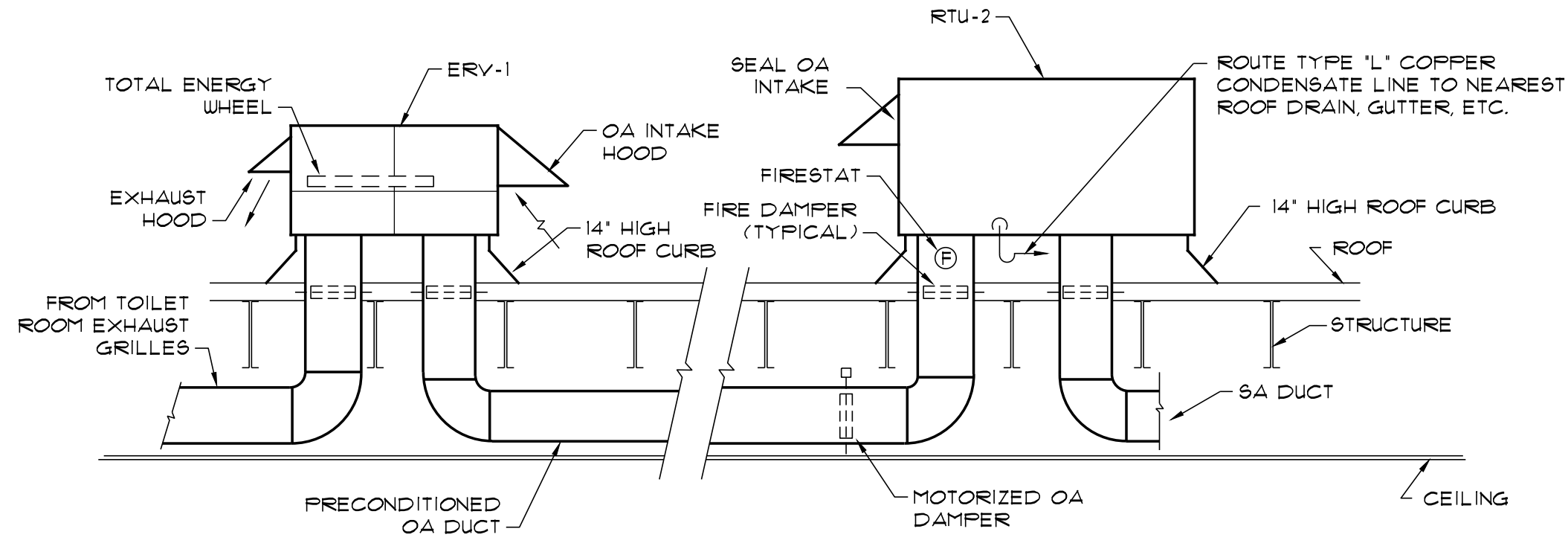
| CFM RANGE | CEILING TYPE | NECK SIZE | REMARKS |
|-----------|--------------|-----------|---------|
| 50-100 | GYP BOARD | 6x6 | 1, 2 |
| 101-200 | GYP BOARD | 9x9 | 1, 2 |
| 201-350 | GYP BOARD | 12x12 | 1, 2 |
| 351-550 | GYP BOARD | 15x15 | 1, 2 |
| 551-800 | GYP BOARD | 18x18 | 1, 2 |
| 801-1100 | GYP BOARD | 21x21 | 1, 2 |
| 1101-1500 | GYP BOARD | 24x24 | 1, 2 |

- SIZES BASED ON TITUS MODEL TDCA-AA ALL ALUMINUM ADJUSTABLE DIFFUSER - REFER TO SPECS FOR EXACT TYPE REQUIRED.
- FURNISH WITH DROP BEVELED FACE.



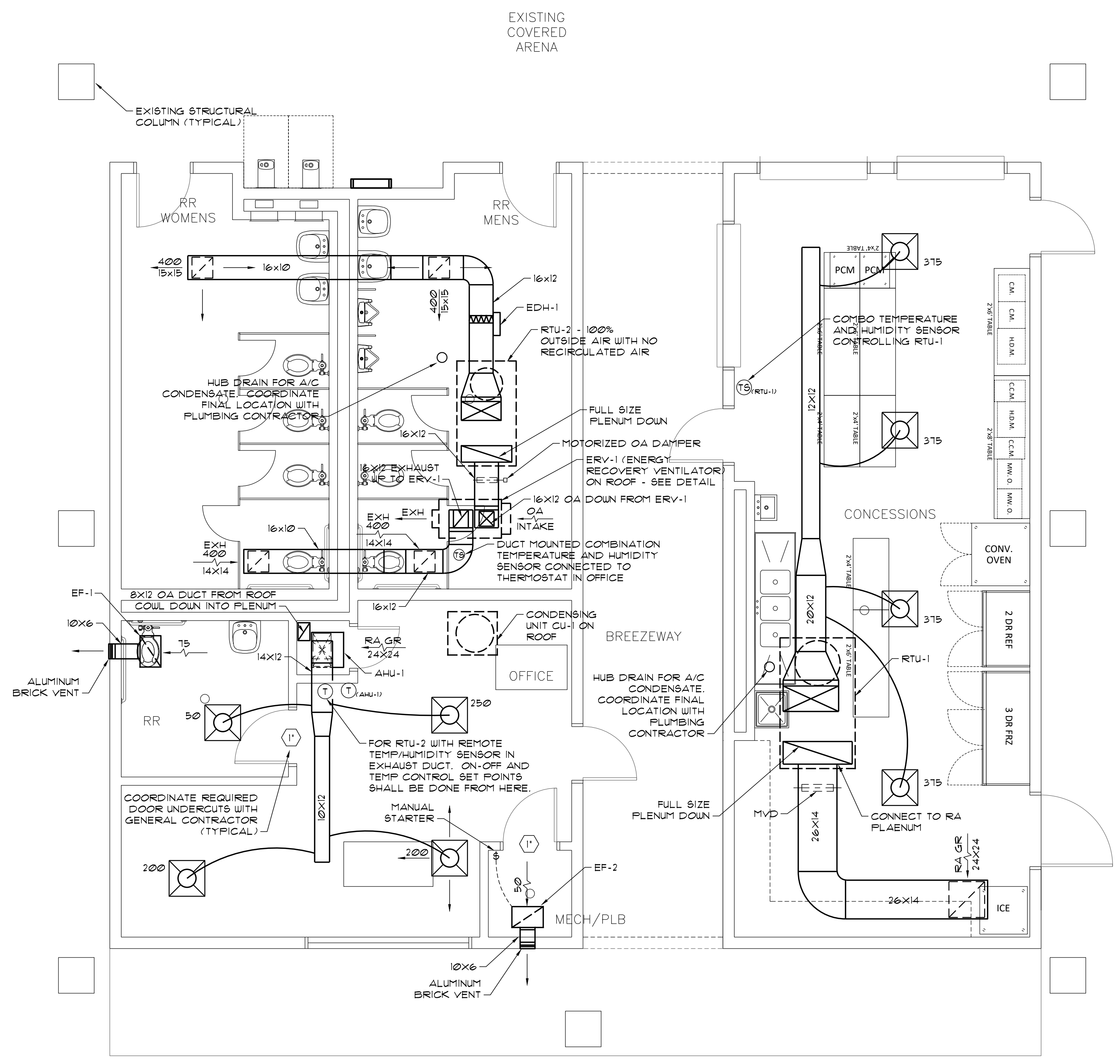
- NOTES:
- ON UNITS UNDER 5 TONS PROVIDE FIRESTAT IN THE RETURN AIR WIRED TO SHUT DOWN THE UNIT WHEN TEMPERATURE IS EXCEEDED.
 - ON UNITS 5 TONS AND LARGER PROVIDE A SMOKE DETECTOR IN THE SUPPLY AND THE RETURN AIR DUCTS WIRED TO SHUT DOWN THE UNIT WHEN SMOKE IS DETECTED. THE SMOKE DETECTOR IN THE RETURN AIR DUCT MAY BE ELIMINATED IF CONTRACTOR RECEIVES APPROVAL FROM THE LOCAL AUTHORITY HAVING JURISDICTION.

ROOFTOP A/C UNIT DETAIL
NOT TO SCALE



- NOTE: PROVIDE FIRESTAT IN THE RETURN AIR OF RTU WIRED TO SHUT DOWN THE UNIT WHEN TEMPERATURE IS EXCEEDED.

RTU-2 & ERV-1 INSTALLATION DETAIL
NOT TO SCALE



1 FLOOR PLAN - HVAC
Scale: 1/4"=1'-0"

CADD FILE NAME:
16029 - M2.3.dwg

| | |
|--------------|-----------------|
| DESIGNED BY: | AS NOTED |
| DRAWN BY: | SCALE: (1:1X17) |
| CHECKED BY: | AS NOTED |
| HG | JOB NO. 18054 |
| DATE: | 03.MAR.20 |

FAIRGROUNDS PHASE 3
1515 N FLORIDA ST.
COVINGTON, LA
FLOOR PLAN - HVAC

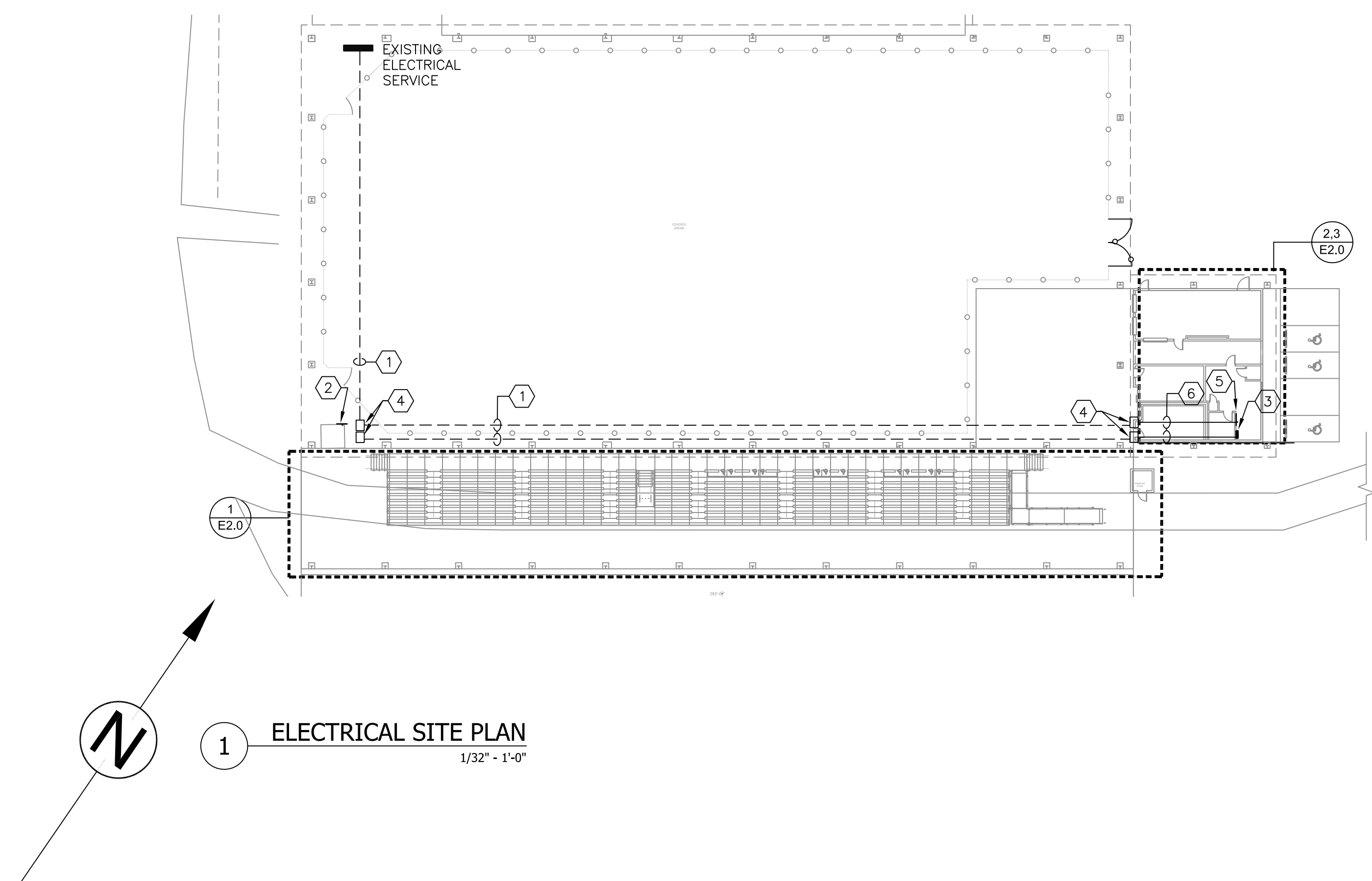
| DATE | REVISIONS | APP'D | J.E.P. |
|--|-----------------------------------|-------|--------|
| 03.03.20 <td>ISSUE FOR BID <td></td> <td></td> </td> | ISSUE FOR BID <td></td> <td></td> | | |

STATE OF LOUISIANA
Heidi Romero Gremillion
REG. No. 27958
REGISTERED PROFESSIONAL ENGINEER
MECHANICAL ELECTRICAL
03-03-2020

Kyle Associates, LLC
1638 Village Lakes Dr. • Metairie, LA 70001 • 985.227.0877

SHEET NO.
M2.3

Howell Consultants, L.L.C.
360 Maple Ridge Dr. Mandeville, La. 70471
Phone 985.626.9305 Fax 985.727.9303
HC Project No. 16029



1 ELECTRICAL SITE PLAN
1/32" - 1'-0"

GENERAL ELECTRICAL NOTES:

- ALL WORK SHALL CONFORM TO THE 2014 EDITION OF THE NATIONAL ELECTRICAL CODE AND ALL LOCAL, STATE AND NATIONAL CODES AND STANDARDS.
- CONTRACTOR SHALL VISIT SITE, REPORT VARYING CONDITIONS TO OWNER'S CONSTRUCTION MANAGER IMMEDIATELY PRIOR BIDDING. PRIOR TO BIDDING VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS. NO EXTRAS WILL BE ALLOWED FOR CONDITIONS THAT A SITE VISIT SHOULD HAVE REVEALED.
- ALL ELECTRICAL LOCATIONS SHOWN ON THESE DRAWINGS ARE APPROXIMATE. CONTRACTOR SHALL FIELD VERIFY ALL INSTALLATIONS WITH THE ARCHITECTURAL DRAWINGS.
- CONTRACTOR SHALL APPLY FOR AND PAY ALL NECESSARY ELECTRICAL PERMIT AND ELECTRICAL INSPECTION FEES.
- CONTRACTOR SHALL COORDINATE THE INSTALLATION OF THE UTILITIES WITH THE RESPECTIVE LOCAL UTILITY COMPANIES AND VERIFY THE AVAILABILITY OF THE SERVICE INDICATED. ANY SERVICE CHARGES SHALL BE PAID BY THE OWNER.
- CONTRACTOR SHALL VERIFY THE ELECTRICAL REQUIREMENTS FOR ALL PLUMBING EQUIPMENT AND MECHANICAL EQUIPMENT WITH THE EQUIPMENT SUPPLIER. BREAKER AND DISCONNECT SIZES SHALL MATCH THE ACTUAL REQUIREMENTS OF THE EQUIPMENT PROVIDED. REFERENCE MECHANICAL DRAWINGS FOR DETAILS, DIMENSIONS, SCHEDULES AND EXACT LOCATIONS OF MECHANICAL EQUIPMENT.
- PENETRATIONS THROUGH FIRE/SMOKE RATED CONSTRUCTION SHALL BE SEALED WITH A MATERIAL CAPABLE OF PREVENTING THE PASSAGE OF FLAMES AND HOT GASES WHEN TESTED IN ACCORDANCE WITH ASTM-E814.

ELECTRICAL KEY NOTES:

- EXISTING CONDUIT FOR NEW ELECTRICAL FEEDERS AND SPECIAL SYSTEMS. SEE RISER DIAGRAM FOR MORE DETAILS.
- APPROXIMATE LOCATION OF EXISTING TELEPHONE BACKBOARD.
- APPROXIMATE LOCATION OF NEW PANEL "D".
- EXISTING OVERHEAD NEMA 3R JUNCTION BOX. SEE RISER DIAGRAM, SHEET E3.0 FOR DETAILS. CONTRACTOR SHALL CONFIRM EXACT LOCATION PRIOR TO BID.
- APPROXIMATE LOCATION OF NEW SPECIAL SYSTEMS BACKBOARD.
- NEW CONDUIT FOR NEW ELECTRICAL FEEDERS AND SPECIAL SYSTEMS. SEE RISER DIAGRAM FOR MORE DETAILS.

ELECTRICAL LEGEND

| | |
|-----|--|
| ⌘ | FLUSH MOUNTED WALL SWITCH WITH STAINLESS STEEL DEVICE PLATE, SINGLE POLE, 20A, 120/277V, SATIN FINISH, MOUNTED AT 48" A.F.F. TO CENTERLINE OR AS NOTED. |
| ⌘⌘⌘ | WALL SWITCHES WITH SAME SPECS AS ABOVE EXCEPT: 3-WAY, 4-WAY, |
| ⌘⌘ | TWO WALL SWITCHES COMBINED FOR SWITCHING DUAL BALLAST FIXTURES. ONE SWITCH FOR THE OUTSIDE LAMPS AND ONE FOR THE INSIDE LAMP. |
| ⌘ | TELEPHONE OUTLET, WALL MOUNTED 18" A.F.F. OR AS NOTED, WITH 3/4" CONDUIT, WITH PULL STRING, STUBBED ABOVE CEILING AND BUSHED. |
| ⌘ | OUTLET, WALL MOUNTED 18" A.F.F. OR AS NOTED, WITH TWO PORTS UNLESS SUBSCRIPT INDICATES OTHERWISE, WITH 1" CONDUIT, WITH PULL STRING, STUBBED ABOVE CEILING AND BUSHED. |
| ⌘ | COMBINATION OUTLET, WALL MOUNTED 18" A.F.F. OR AS NOTED, WITH 3/4" CONDUIT, WITH PULL STRING, STUBBED ABOVE CEILING AND BUSHED. |
| ⌘ | FLUSH WALL MOUNTED DUPLEX RECEPTACLE, 20A, 120V, MOUNTED AT 18" A.F.F. TO CENTERLINE OR AS NOTED. |
| ⌘ | DUPLEX RECEPTACLE WITH SAME SPECS AS ABOVE WITH A SEPARATE ISOLATED GROUND CONDUCTOR CARRIED BACK TO THE BREAKER. |
| ⌘ | DUPLEX RECEPTACLE WITH SAME SPECS AS ABOVE WITH INTERNAL GROUND FAULT CIRCUIT INTERRUPTER. |
| ⌘ | DUPLEX RECEPTACLE WITH SAME SPECS AS ABOVE WITH INTERNAL GROUND FAULT CIRCUIT INTERRUPTER AND A WEATHERPROOF COVER. |
| ⌘ | DUPLEX RECEPTACLE WITH SAME SPECS AS ABOVE FOR A DEDICATED CIRCUIT. |
| ⌘ | QUADRUPLEX RECEPTACLE WITH SAME SPECS AS ABOVE. |
| ⌘ | SPECIALITY RECEPTACLE, PROVIDE PROPER NEMA CONFIGURATION PER EQUIPMENT MANUFACTURER'S SPECIFICATIONS. |
| ⌘ | SPECIALITY RECEPTACLE, NEMA 14-20R TYPE PLUG. |
| ⌘ | FUSED DISCONNECT SWITCH. |
| ⌘ | PANELBOARD, SURFACE OR RECESSED AS SHOWN |
| ⌘ | MOTOR, SIZE AS NOTED, "F" DENOTES FRACTIONAL HP TYPE EXHAUST FAN. MOTOR DRIVE. |
| ⌘ | CONDUIT AND WIRE CONCEALED IN WALL OR ABOVE CEILING. THE ARROW INDICATES A HOMERUN TO THE PANEL. SLASHES MARKS INDICATE THE NUMBER OF #12 WIRES IN THE CONDUIT, ABSENCE OF SLASHES IS (2) #12. SIZE CONDUIT PER N.E.C. A SEPARATE EQUIPMENT GROUND IS REQUIRED BUT IT IS NOT DENOTED WITH A SLASH. #10 DENOTES AN INCREASE IN THE WIRE SIZE. |
| ⌘ | JUNCTION BOX WITH COVER PLATE |
| ⌘ | WEATHERPROOF/RAIN TIGHT |
| ⌘ | NIGHT LIGHT |
| ⌘ | EMERGENCY FIXTURE |
| ⌘ | ABOVE FINISHED FLOOR OR GRADE |
| ⌘ | COUNTER TOP HEIGHT |
| ⌘ | DUCT SMOKE DETECTOR |
| ⌘ | SMOKE DETECTOR |
| ⌘ | HEAT DETECTOR |
| ⌘ | FIRE ALARM VISUAL SIGNAL UNIT |
| ⌘ | FIRE ALARM AUDIBLE SPEAKER/VISUAL SIGNAL UNIT |
| ⌘ | FIRE ALARM PULL STATION |
| ⌘ | FIRE ALARM HORN |
| ⌘ | FIRE ALARM SPEAKER |
| ⌘ | FIRE ALARM CONTROL MODULE |
| ⌘ | FIRE RELAY |
| ⌘ | FIRE ALARM CONTROL PANEL |
| ⌘ | REMOTE ANNUNCIATOR PANEL |
| ⌘ | SECURITY DOOR CONTACTOR |
| ⌘ | FIRE ALARM MONITOR MODULE |
| ⌘ | FLOW SWITCH |
| ⌘ | TAMPER SWITCH |
| ⌘ | TELEVISION OUTLET |
| ⌘ | MOTION DETECTOR FOR SECURITY SYSTEM |
| ⌘ | PHOTOCELL |

THESE PLANS AND SPECIFICATIONS HAVE BEEN PREPARED BY OR UNDER MY CLOSE SUPERVISION, AND TO THE BEST OF MY KNOWLEDGE AND BELIEF THEY COMPLY WITH ALL CITY REQUIREMENTS AND THAT I AM NOT ADMINISTERING THE WORK.

ENGINEER

56 MARK SMITH DR. MANDEVILLE, LA 70471 (504) 875-2121 PROJECT No. 1436A18

FAIRGROUNDS PHASE 3
1515 N FLORIDA ST.
COVINGTON, LA
ELECTRICAL SITE PLAN

| REVISIONS | APP'D | R.C.O. |
|----------------|-------|--------|
| DATE: 03.03.20 | | |
| REMARKS: | | |
| ISSUE FOR BID | | |

STAMP: 11/12/19

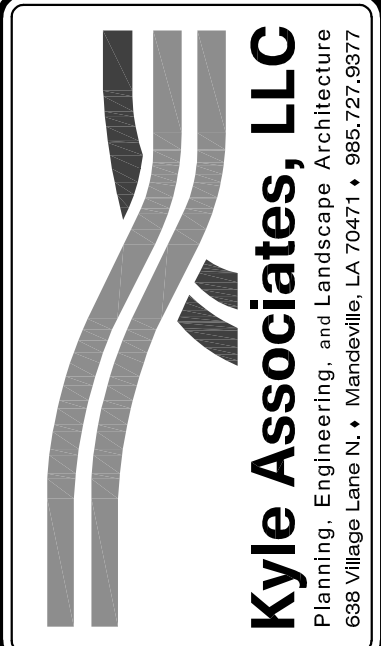
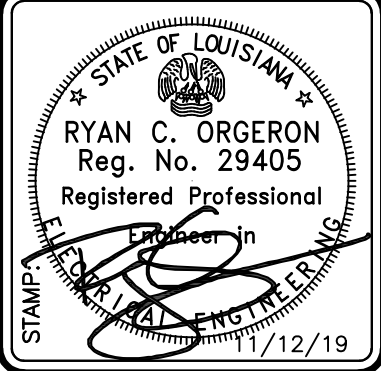
Kyle Associates, LLC
Planning, Engineering, and Landscape Architecture
638 Village Lane N., Mandeville, LA 70471 • 985.227.8377

SHEET NO.
E1.0

| | | | |
|----------------|----------------|-----------------|---------------|
| DESIGNED BY: | DRAWN BY: | CHECKED BY: | JOB NO. 18054 |
| SCALE: (24x36) | SCALE: (11x17) | DATE: 03.MAR.20 | |

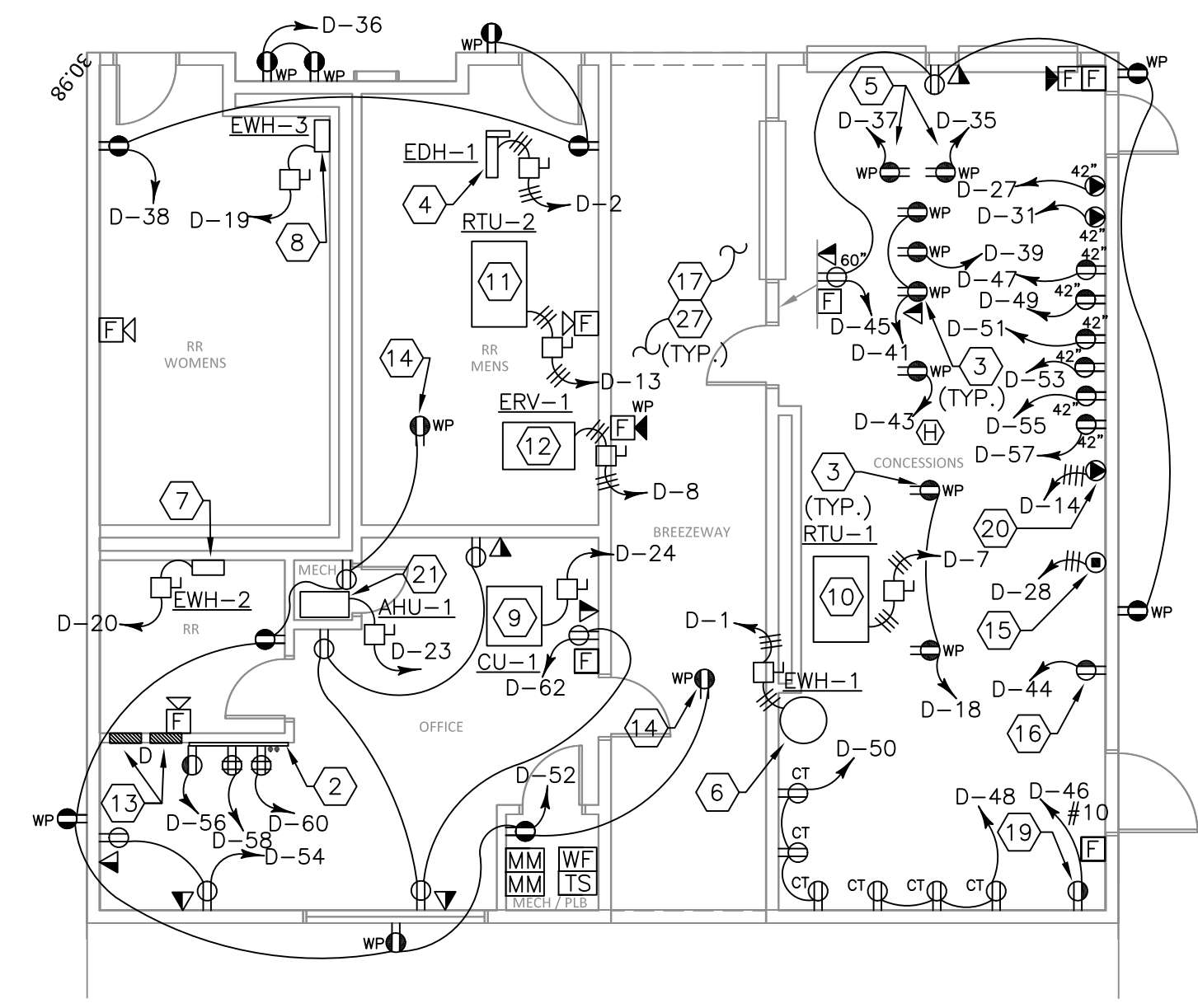
FAIRGROUNDS PHASE 3
1515 N FLORIDA ST.
COVINGTON, LA
ELECTRICAL PLAN

| REVISIONS | APP'D | R.C.O. |
|----------------|-------|--------|
| DATE: 03.03.20 | | |
| REMARKS: | | |
| ISSUE FOR BID | | |

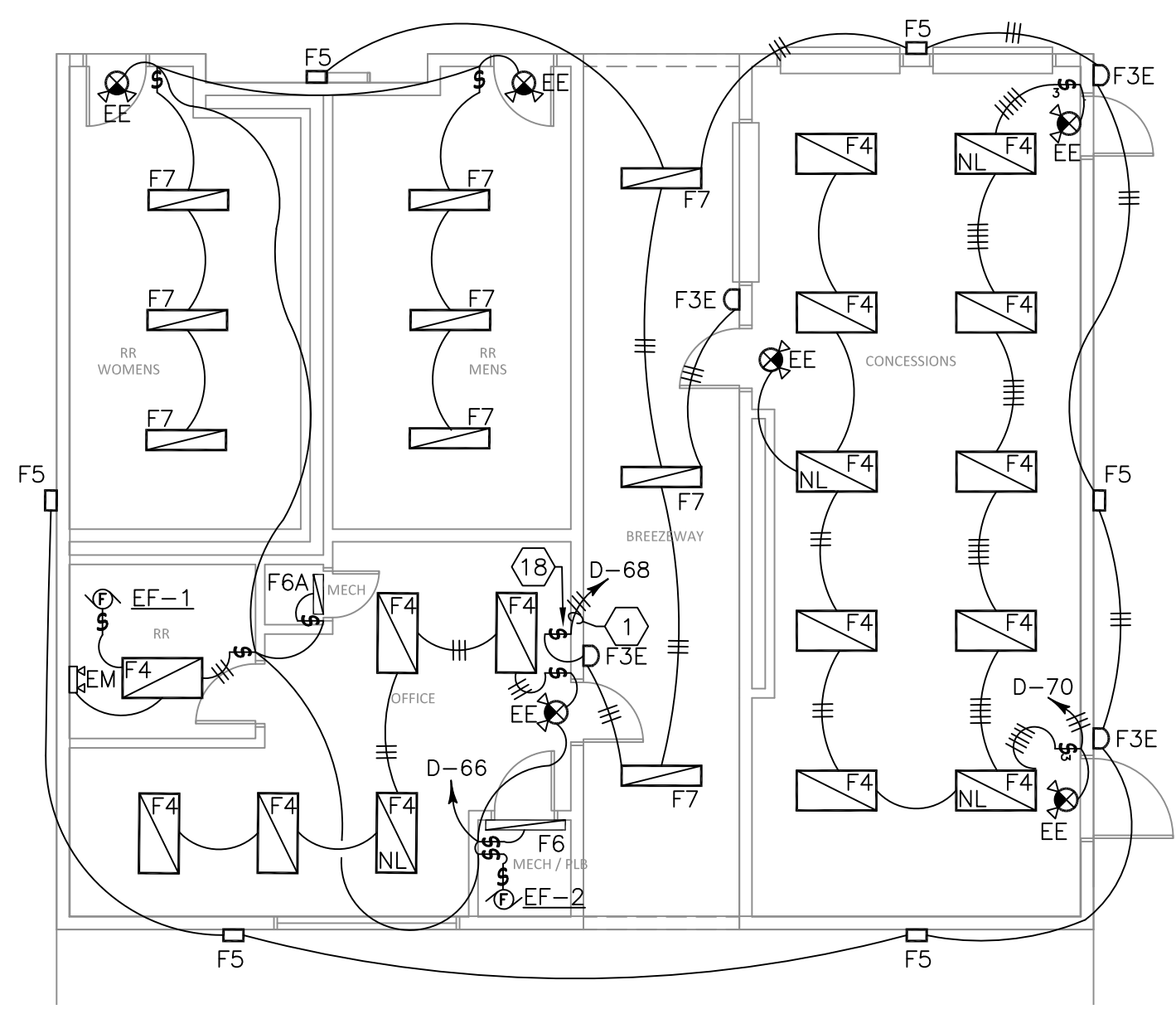


ELECTRICAL KEY NOTES:

- 1 ROUTE EXTERIOR LIGHTING CIRCUIT THROUGH PHOTOCELL. PHOTOCELL SHALL BE MOUNTED SO THAT IT IS NOT OBSTRUCTED AND IS FACING THE NORTH SKY.
- 2 INSTALL 3/4" THICK PIECES OF PLYWOOD AS INDICATED. APPLY TWO COATS OF FIRE RETARDANT PAINT TO BOTH SIDES OF THE BACKBOARD BEFORE INSTALLATION. PROVIDE A #8 AWG ISOLATED GROUND CONDUCTOR CONNECTED DIRECTLY TO THE GROUND BUS IN PANEL PROVIDING POWER TO THE DEVICES MOUNTED TO THE BACKBOARD. ALL ELECTRICAL DEVICES AND EQUIPMENT SHALL BE SURFACED MOUNTED.
- 3 INDICATED RECEPTACLES SHALL BE MOUNTED TO A PEDESTAL UNDERNEATH THE TABLE. CONTRACTOR SHALL VERIFY MOUNTING HEIGHT PRIOR TO INSTALLATION. CONTRACTOR SHALL ROUTE RIGID CONDUIT UNDERGROUND TO SPECIFIED LOCATIONS.
- 4 ELECTRIC DUCT HEATER EDH-1 (9 KW, 208V, 3ø)
60A FUSIBLE DISCONNECT, 3ø, 3W, 250V, NEMA 3R, FUSED AT 40A
3/4" CONDUIT WITH THREE (3) #8 AWG CONDUCTORS AND #10 AWG GROUND.
- 5 POPCORN MAKER (20A, 120V) VERIFY EQUIPMENT SPECIFICATIONS WITH EQUIPMENT VENDOR PRIOR TO INSTALLATION.
- 6 ELECTRIC WATER HEATER EWH-1 (6 KW, 208V, 3ø)
30A FUSIBLE DISCONNECT, 3ø, 3W, 250V, NEMA 1, FUSED AT 25A
3/4" CONDUIT WITH THREE (3) #10 AWG CONDUCTORS & #10 AWG GROUND.
- 7 INSTANTANEOUS WATER HEATER EWH-2 (3KW, 208V, 1ø)
30A FUSIBLE DISCONNECT, 1ø, 2W, 250V, NEMA 1, FUSED AT 20A
3/4" CONDUIT WITH TWO (2) #10 AWG CONDUCTORS & #10 AWG GROUND.
PROVIDE PROPER MEANS OF DISCONNECT PER MANUFACTURER'S RECOMMENDATIONS.
- 8 INSTANTANEOUS WATER HEATER EWH-3 (8.3KW, 208V, 1ø)
60A FUSIBLE DISCONNECT, 1ø, 2W, 250V, NEMA 1, FUSED AT 50A
3/4" CONDUIT WITH TWO (2) #8 AWG CONDUCTORS & #10 AWG GROUND.
- 9 CONDENSING UNIT CU-1 (11 MCA, 208V, 1ø)
30A FUSIBLE DISCONNECT, 1ø, 2W, 250V, NEMA 3R, FUSED AT 25A
3/4" CONDUIT WITH TWO (2) #10 AWG CONDUCTORS AND #10 AWG GROUND.
- 10 ROOF TOP UNIT RTU-1 (35.3 MCA, 208V, 3ø)
60A FUSIBLE DISCONNECT, 3ø, 3W, 250V, NEMA 3R, FUSED AT 40A
3/4" CONDUIT WITH THREE (3) #10 AWG CONDUCTORS AND #10 AWG GROUND.
- 11 ROOF TOP UNIT RTU-2 (20.6 MCA, 208V, 3ø)
30A FUSIBLE DISCONNECT, 3ø, 3W, 250V, NEMA 3R, FUSED AT 30A
3/4" CONDUIT WITH THREE (3) #10 AWG CONDUCTORS AND #10 AWG GROUND.
- 12 ENERGY RECOVERY VENTILATOR ERV-1 (17.1 MCA, 208V, 3ø)
30A FUSIBLE DISCONNECT, 3ø, 3W, 250V, NEMA 3R, FUSED AT 25A
3/4" CONDUIT WITH THREE (3) #10 AWG CONDUCTORS AND #10 AWG GROUND.
- 13 CONTRACTOR SHALL PROVIDE PROPER NEC WORKING CLEARANCE FOR NEW ELECTRICAL PANEL D.
- 14 CONTRACTOR SHALL PROVIDE MAINTENANCE RECEPTACLE. THIS RECEPTACLE SHALL BE LOCATED ON THE ROOF BY THE MECHANICAL EQUIPMENT. CONTRACTOR SHALL BE RESPONSIBLE FOR FABRICATING STRUCTURAL SUPPORT AS NECESSARY TO PROPERLY MOUNT RECEPTACLE. RECEPTACLE SHALL BE PROPERLY GROUND.
- 15 REFRIGERATOR (20A, 208V, 1ø) CONTRACTOR SHALL INSTALL A NEMA 14-20R OUTLET FOR POWER TO REFRIGERATOR. VERIFY EQUIPMENT SPECIFICATIONS WITH EQUIPMENT VENDOR PRIOR TO INSTALLATION.
- 16 FREEZER (20A, 120V) VERIFY EQUIPMENT SPECIFICATIONS WITH EQUIPMENT VENDOR PRIOR TO INSTALLATION.
- 17 VERIFY EXACT RECEPTACLE, DATA OUTLET, AND CONCESSION EQUIPMENT LOCATIONS WITH THE ARCHITECT PRIOR TO INSTALLATION. SEE PANEL SCHEDULE FOR CIRCUIT DESCRIPTION.
- 18 A THREE POSITION SWITCH SHALL BE MOUNTED ON THE INDICATED WALL. THIS SWITCH SHALL BE PROPERLY ENGRAVED AND WIRED TO OPERATE THE LIGHTS AS LISTED BELOW:
"ON" - LIGHTS AND SIGNS SHALL BE TURNED ON.
"OFF" - LIGHTS AND SIGNS SHALL BE TURNED OFF.
"AUTO" - LIGHTS AND SIGNS SHALL BE CONTROLLED THROUGH A PHOTOCELL THAT SHALL BE MOUNTED ON THE EXTERIOR OF THE BUILDING.
- 19 ICE MACHINE (20A, 120V) VERIFY EQUIPMENT SPECIFICATIONS WITH EQUIPMENT VENDOR PRIOR TO INSTALLATION.
- 20 OVEN (30A, 208V, 1ø) CONTRACTOR SHALL PROVIDE A 30A/2P OUTLET FOR OWNER PROVIDED KITCHEN EQUIPMENT. VERIFY EQUIPMENT SPECIFICATIONS WITH EQUIPMENT VENDOR PRIOR TO INSTALLATION.
- 21 AIR HANDLING UNIT AHU-1 (7.2 KW HEAT, 208V, 1ø)
60A FUSIBLE DISCONNECT, 1ø, 2W, 250V, NEMA 1, FUSED AT 50A
1" CONDUIT WITH TWO (2) #8 AWG CONDUCTORS AND #10 AWG GROUND.
- 22 CONTRACTOR SHALL ROUTE THROUGH LIGHTING CONTRACTOR. CONTRACTOR SHALL CONNECT EACH FIXTURE TO THE INDICATED PHASE. SUPERScript LETTER DENOTES PHASE. CONNECT TO INDICATED CIRCUIT USING A 30A/3P BREAKER IN EXISTING PANEL C. CONTRACTOR SHALL PROVIDE BREAKER AND BREAKER ASSEMBLY KIT.
- 23 AIR COMPRESSOR
30A FUSIBLE DISCONNECT, 1ø, 2W, 250V, NEMA 1, FUSED AT 30A
3/4" CONDUIT WITH TWO (2) #10 AWG CONDUCTORS AND #10 AWG GROUND.
VERIFY EQUIPMENT SPECIFICATIONS PRIOR TO PURCHASE OF MATERIALS.
- 24 UNIT HEATER (1.5KW, 120V)
PROVIDE WEATHER PROOF MAINTENANCE SWITCH PER NEC.
VERIFY EQUIPMENT SPECIFICATIONS PRIOR TO PURCHASE OF MATERIALS
- 25 CONTRACTOR SHALL PROVIDE FIXTURE MOUNTING TO MATCH THE EXISTING ARENA.
- 26 CONTRACTOR SHALL VERIFY THE MOUNTING HEIGHT OF ALL ELECTRICAL DEVICES AND LIGHT FIXTURES WITH THE ARCHITECT PRIOR TO INSTALLATION FOR FUTURE VIEWING STANDS.
- 27 CONTRACTOR SHALL PROVIDE A COMPLETE FIRE ALARM SYSTEM EXPANSION PER THE REQUIREMENTS OF NFPA 72 AND THE STATE FIRE MARSHAL'S OFFICE.
- 28 APPROXIMATE LOCATION OF EXISTING ELECTRICAL SERVICE, EXISTING LIGHTING CONTACTORS, AND EXISTING PANEL C.

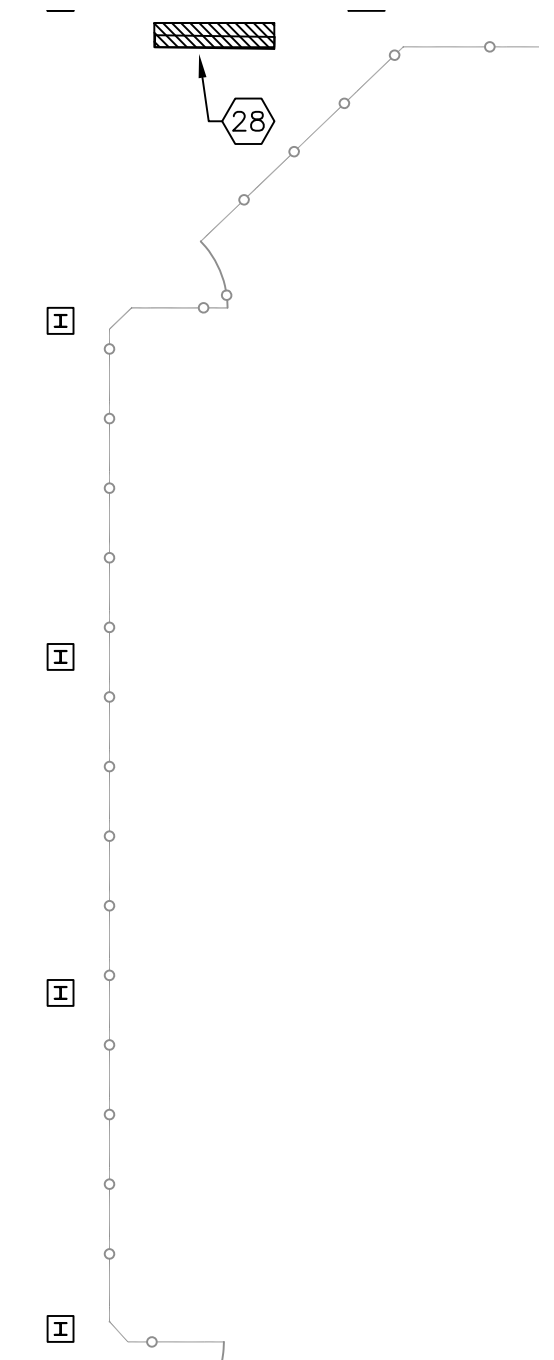


2 CONCESSION STAND POWER PLAN
Scale: 1/8"=1'-0"

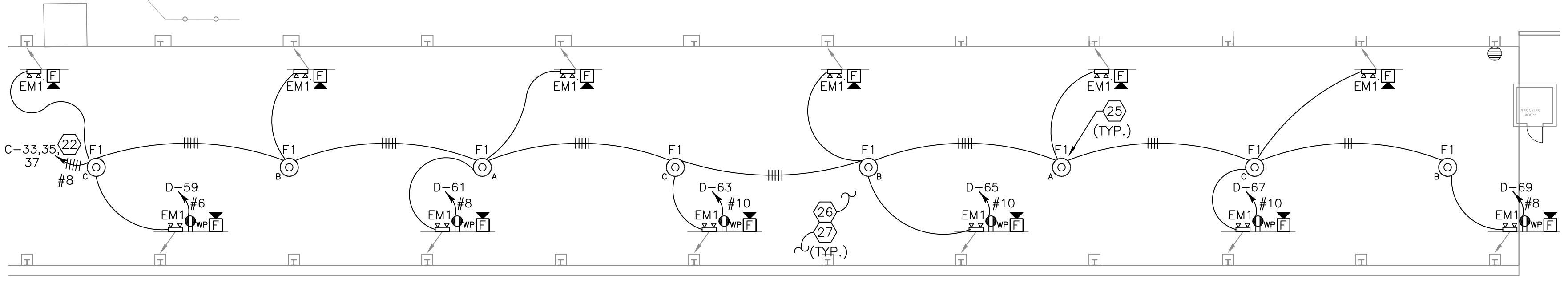


3 CONCESSION STAND LIGHTING PLAN
Scale: 1/8"=1'-0"

| LIGHTING FIXTURE SCHEDULE | | |
|---------------------------|---|--|
| TYPE | MANUFACTURER CAT. NO. | DESCRIPTION |
| F1 | ASD-UHB2-150D50-PRM-WITH MOUNTING BRACKET | 150W LED HI-BAY, 20,227 LUMENS, 5000K COLOR TEMPERATURE, 1/2" STEM PENDANT MOUNT KIT, CONFIRM VOLTAGE |
| F2 | FAILSAFE HVL8-4-LD4-15TD-40-UNV-O-EDD1-S-FINISH | 4' SURFACE MOUNT LED VANDAL RESISTANT FIXTURE, 3595 LUMENS, 34.6W, 4000K COLOR TEMPERATURE, VERIFY FINISH, WITH OPAL LENS. |
| F3E | EXITRONIX TRL-ACEM-FINISH | EXTERIOR ACCENT LIGHT WITH A NORMAL OPERATION, INTEGRAL EMERGENCY BATTERY BACKUP. |
| F4 | TRACELITE LPA24-40-35K | 2'X4' FLAT PANEL LED FIXTURE WITH 5035 LUMEN OUTPUT, 3500K COLOR TEMPERATURE AND ELECTRONIC DRIVER |
| F5 | LUMARK XTOR3A-HA | WALL MOUNTED CROSSTOUR LED, 2710 LUMEN OUTPUT, 26W, 4000K TEMPERATURE, VERIFY FINISH WITH ARCHITECT. |
| F6 | METALUX 4SLSTP4040DD-UNV | 4' SURFACE MOUNT LED STRIP, 4760 LUMEN OUTPUT WITH 4000K COLOR TEMPERATURE, WITH PLASTIC LENS. VERIFY FINISH WITH ARCHITECT. |
| F6A | METALUX 2SNLED-LD5-18SL-LC-UNV-L835-CD1-U | 2' SURFACE MOUNT LED STRIP, 2043 LUMEN OUTPUT WITH 4000K COLOR TEMPERATURE, WITH PLASTIC LENS. VERIFY FINISH WITH ARCHITECT. |
| EM | SURELITES SEL50 | DUAL HEAD EMERGENCY FIXTURE WITH BATTERY BACK-UP, SELF TEST DIAGNOSTICS |
| EM1 | SURELITES SELIN60RSD | INDUSTRIAL GRADE DUAL HEAD LED EMERGENCY FIXTURE WITH BATTERY BACKUP, SELF TEST DIAGNOSTICS |
| EE | EXITRONIX VLED-U-WH-EL90-G2 | EMERGENCY/EXIT LIGHT COMBINATION FIXTURE WITH BATTERY BACK-UP, SELF TEST DIAGNOSTICS |

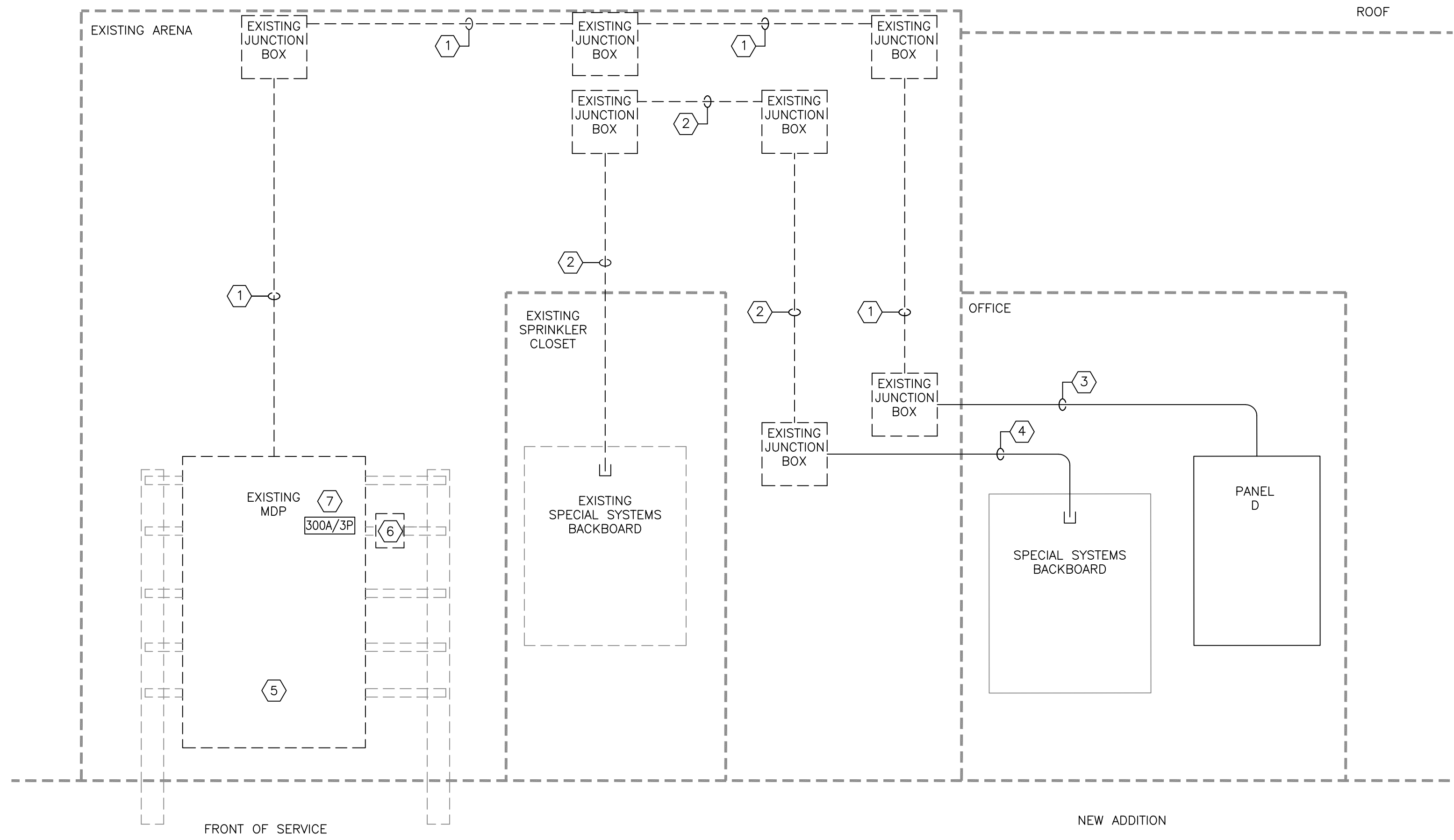


4 SPRINKLER RISER ELECTRICAL PLAN
Scale: 1/4"=1'-0"



1 ARENA EXTENSION ELECTRICAL PLAN
Scale: 1/16"=1'-0"

FAIRGROUNDS PHASE 3
 1515 N FLORIDA ST.
 COVINGTON, LA
ELECTRICAL RISER PLAN



1 ELECTRICAL RISER DIAGRAM
 Scale: NTS

ELECTRICAL KEY NOTES

- ① EXISTING 4" CONDUIT. CONTRACTOR SHALL VERIFY THAT THE CONDUIT IS EMPTY AND HAS PULLSTRING. CONTRACTOR SHALL PULL FOUR (4) #600 KCMIL CONDUCTORS AND #1/0 AWG GROUND. THERE SHALL BE NO SPLICES IN ANY OF THE JUNCTION BOXES.
- ② TWO (2) EXISTING 2" CONDUITS WITH PULLSTRING EACH.
- ③ 4" CONDUIT WITH FOUR (4) #600 KCMIL CONDUCTORS AND #1/0 AWG GROUND.
- ④ TWO (2) 2" CONDUITS WITH PULL STRING EACH.
- ⑤ THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ELECTRICAL POWER THROUGHOUT THE PROJECT. ANY POWER OUTAGES SHALL BE COORDINATED WITH THE OWNER AT A TIME THAT IS CONVENIENT TO THEIR SCHEDULES. THIS MAY REQUIRE WORKING AFTER HOURS OR ON THE WEEKENDS. DOWNTIME SHALL BE KEPT TO A MINIMUM.
- ⑥ EXISTING TIMECLOCK - CONTRACTOR SHALL BE RESPONSIBLE FOR CONNECTING NEW LIGHTING CONTACTORS TO TIMECLOCK/
- ⑦ PROVIDE A NEW 300A/3P BREAKER IN EXISTING SPACE FOR NEW PANEL "D". PROVIDE A BREAKER ASSEMBLY KIT AS NECESSARY.

| DIRECTORY | | CNT. NO. | BKR. AMPS | L1 | L2 | L3 | BKR. AMPS | CNT. NO. | DIRECTORY | |
|---------------|----|----------|-----------|----|----|----|-----------|----------|----------------------|--|
| EWH-1 | 1 | 25 | | ● | ● | ● | 40 | 2 | EDH-1 | |
| | 3 | | | ● | ● | ● | 4 | 4 | | |
| | 5 | | | ● | ● | ● | 6 | 6 | | |
| RTU-1 | 7 | 40 | | ● | ● | ● | 25 | 8 | ERV-1 | |
| | 9 | | | ● | ● | ● | 10 | 10 | | |
| | 11 | | | ● | ● | ● | 12 | 12 | | |
| RTU-2 | 13 | 30 | | ● | ● | ● | 30 | 14 | OVEN | |
| | 15 | | | ● | ● | ● | 16 | 16 | | |
| | 17 | | | ● | ● | ● | 18 | 18 | | |
| EWH-3 | 19 | 50 | | ● | ● | ● | 50 | 20 | EWH-2 | |
| | 21 | | | ● | ● | ● | 22 | 22 | | |
| AHU-1 | 23 | 50 | | ● | ● | ● | 25 | 24 | CU-1 | |
| | 25 | | | ● | ● | ● | 26 | 26 | | |
| COFFEE MAKER | 27 | 30 | | ● | ● | ● | 20 | 28 | REFRIGERATOR/FREEZER | |
| | 29 | | | ● | ● | ● | 30 | 30 | | |
| COFFEE MAKER | 31 | 30 | | ● | ● | ● | 20 | 32 | SPRINKLER COMPRESSOR | |
| | 33 | | | ● | ● | ● | 34 | 34 | | |
| POPCORN MAKER | 35 | 20 | | ● | ● | ● | 40 | 36 | SPARE | |
| POPCORN MAKER | 37 | 20 | | ● | ● | ● | 40 | 38 | | |
| RECEPTACLES | 39 | 20 | | ● | ● | ● | 20 | 40 | SPARE | |
| RECEPTACLES | 41 | 20 | | ● | ● | ● | 20 | 42 | SPARE | |

VOLTAGE: 120/208V 3P.H. 4W. SN MAIN BUS: PANEL NO. PANEL D SEC. 1
 MAIN BREAKER: 300A MAIN BREAKER LOC. CLOSET
 MOUNTING: FLUSH 22,000 A.I.C.
 NOTE: NEMA 1, FEED THRU LUGS, SPD SIZED PER MANUFACTURER'S RECOMMENDATIONS

| DIRECTORY | | CNT. NO. | BKR. AMPS | L1 | L2 | L3 | BKR. AMPS | CNT. NO. | DIRECTORY | |
|-----------------------|----|----------|-----------|----|----|----|-----------|----------|----------------------|--|
| RECEPTACLES | 43 | 20 | | ● | ● | ● | 20 | 44 | FREEZER | |
| RECEPTACLES | 45 | 20 | | ● | ● | ● | 20 | 46 | ICE MACHINE | |
| HOT DOG MAKER | 47 | 20 | | ● | ● | ● | 20 | 48 | RECEPTACLES | |
| CCM KITCHEN EQUIPMENT | 49 | 20 | | ● | ● | ● | 20 | 50 | RECEPTACLES | |
| HOT DOG MAKER | 51 | 20 | | ● | ● | ● | 20 | 52 | RECEPTACLES | |
| CCM KITCHEN EQUIPMENT | 53 | 20 | | ● | ● | ● | 20 | 54 | RECEPTACLES | |
| MICROWAVE | 55 | 20 | | ● | ● | ● | 20 | 56 | FIRE ALARM | |
| MICROWAVE | 57 | 20 | | ● | ● | ● | 20 | 58 | TELEPHONE BACKBOARD | |
| RECEPTACLES | 59 | 20 | | ● | ● | ● | 20 | 60 | TELEPHONE BACKBOARD | |
| RECEPTACLES | 61 | 20 | | ● | ● | ● | 20 | 62 | RECEPTACLES | |
| RECEPTACLES | 63 | 20 | | ● | ● | ● | 20 | 64 | ELECTRIC WALL HEATER | |
| RECEPTACLES | 65 | 20 | | ● | ● | ● | 20 | 66 | LIGHTING | |
| RECEPTACLES | 67 | 20 | | ● | ● | ● | 20 | 68 | EXTERIOR LIGHTING | |
| RECEPTACLES | 69 | 20 | | ● | ● | ● | 20 | 70 | LIGHTING | |
| SPARE | 71 | 20 | | ● | ● | ● | 20 | 72 | SPARE | |
| SPARE | 73 | 20 | | ● | ● | ● | 20 | 74 | SPARE | |
| SPARE | 75 | 20 | | ● | ● | ● | 20 | 76 | SPARE | |
| SPARE | 77 | 20 | | ● | ● | ● | 20 | 78 | SPARE | |
| SPD SPACE | 79 | | | ● | ● | ● | 80 | 80 | SPD | |
| SPD SPACE | 81 | | | ● | ● | ● | 82 | 82 | | |
| SPD SPACE | 83 | | | ● | ● | ● | 84 | 84 | | |

VOLTAGE: 120/208V 3P.H. 4W. SN MAIN BUS: 400A PANEL NO. PANEL D SEC. 2
 MAIN BREAKER: MAIN LUG ONLY LOC. CLOSET
 MOUNTING: FLUSH 22,000 A.I.C.
 NOTE: NEMA 1, SPD SIZED PER MANUFACTURER'S RECOMMENDATIONS

REVISIONS

| DATE | REMARKS | APP'D | R.C.O. |
|---|---------------|-------|--------|
| 03.03.20 <td>ISSUE FOR BID</td> <td></td> <td></td> | ISSUE FOR BID | | |

