

2/26/2025 5:11:23 PM



NEW CONSTRUCTION FOR

TAKE 5 OIL CHANGE

400 NE M STATE ROUTE 291
LEE'S SUMMIT, MISSOURI 64086

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2 Take 5 Perspective

GENERAL NOTES:

- THE GENERAL CONTRACTOR IS RESPONSIBLE TO SUPPLY ALL SUBCONTRACTORS WITH CONSTRUCTION DRAWINGS AND SPECIFICATIONS NECESSARY TO BID AND/OR CONSTRUCT THIS PROJECT.
- ALL DIMENSIONS ON THE FLOOR PLANS, UNLESS OTHERWISE NOTED, ARE TAKEN FROM FACES OF STUDS OF EXTERIOR WALLS AND INTERIOR WALLS.
- THE OWNER SHALL BE RESPONSIBLE FOR NOTIFYING THE GENERAL CONTRACTOR OF ANY ADDITIONAL ITEMS TO BE INSTALLED THAT ARE NOT SHOWN ON THE DRAWINGS.
- ANY PENETRATIONS OF, OR MODIFICATIONS TO CONCRETE MUST BE COORDINATED WITH ARCHITECT PRIOR TO CONSTRUCTION.
- IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND SHALL NOT BE LIMITED TO NORMAL WORKING HOURS. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO INSURE THE SAFETY OF THE PUBLIC AND/OR WORK PERSONS ON THE JOB AND TO PREVENT ACCIDENTS OR INJURY TO ANY PERSON ON, ABOUT OR ADJACENT TO THE PREMISES. THE CONTRACTOR SHALL COMPLY WITH ALL LAWS, ORDINANCES, CODES, RULES AND REGULATIONS RELATIVE TO SAFETY AND THE PREVENTION OF ACCIDENTS.
- WHETHER OR NOT SPECIFICALLY INDICATED ON THE DRAWINGS, ALL CONTRACTORS SHALL BE RESPONSIBLE FOR REMOVING OR DEMOLISHING EXISTING CONSTRUCTION (INCLUDING UTILITIES) WHICH WILL INTERFERE WITH NEW WORK.
- PRIOR TO THE SHUT-DOWN OR TYING INTO ANY UTILITY, APPROVAL SHALL BE OBTAINED FROM THE OWNER'S REPRESENTATIVE.
- COORDINATE WITH OWNER'S REPRESENTATIVE, LOCATION OF CONTRACTORS' EQUIPMENT AND MATERIAL STORAGE.
- ALL MECHANICAL WORK SHALL BE PERFORMED BY A LICENSED MECHANICAL CONTRACTOR AND IN ACCORDANCE WITH ALL APPLICABLE CODES AND STANDARDS.
- ALL PLUMBING WORK SHALL BE PERFORMED BY A LICENSED PLUMBING CONTRACTOR ALL IN ACCORDANCE WITH ALL APPLICABLE CODES AND STANDARDS.
- ALL ELECTRICAL WORK SHALL BE PERFORMED BY A LICENSED ELECTRICAL CONTRACTOR AND IN ACCORDANCE WITH ALL APPLICABLE CODES AND STANDARDS.
- ALL STRUCTURAL FRAMING WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE CODES AND STANDARDS.

PROJECT INFORMATION:

OCCUPANCY CLASSIFICATION: S1

IBC: REPAR GARAGE

NFPA:

TYPE OF CONSTRUCTION: VB

NUMBER OF STORIES: 1 STORY

BUILDING HEIGHT: 20'-0"

TOTAL BUILDING AREA: 1,415 S.F.

OCCUPANCY LOAD: 14 (S-1 = 100 sq ft/ person)

PROJECT DESCRIPTION:

This project involves:

New site work and a wood framed building for a Take 5 Oil change center.

Proper adherence to all state and local codes and provisions shall be followed.

PROFESSIONAL OF RECORD

Fusion Architects

3488 Brentwood Drive, Suite 101
Baton Rouge, LA 70809
P 225.766.4848 F 225.766.4724

Contact: Matt Daigrepont, AIA
matt@fusionbcb.com

DEVELOPER / OWNER

Driven Assets LLC

6335 Markita Avenue
TX, Dallas 75214

Contact: Hank Hopkins
hank@drivenassets.com

GENERAL CONTRACTOR

Marquez Construction Inc.

1850 Tennyson Road
Kansas City, KS 66104
P 913.275.3090

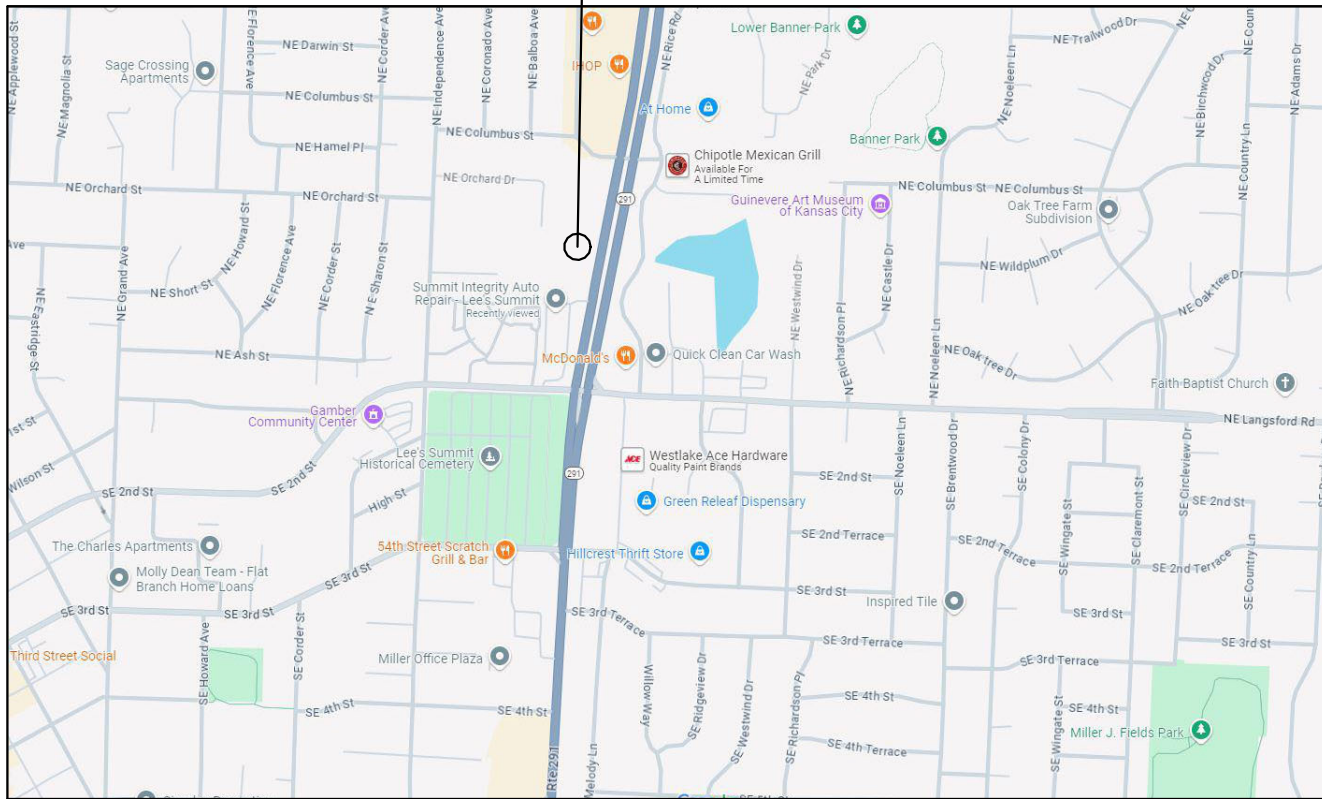
Contact: Jamie Marquez
jmarquezconst@gmail.com

APPLICABLE BUILDING CODES AND STANDARDS:

- International Building Code - 2018 Edition
- International Mechanical Code - 2018 Edition
- International Plumbing Code - 2018 Edition
- International Fuel Gas Code - 2018 Edition
- International Fire Code - 2018 Edition
- National Electric Code - 2017 Edition
- Americans with Disabilities Act Accessibility Guidelines (ADA-AG September 1994)
- ICC/ANSI A117.1-2009 as amended and adopted by the City of Lee's Summit

VICINITY MAP:

PROJECT SITE
N
400 NE M STATE ROUTE 291
LEE'S SUMMIT, MISSOURI 64086



SYMBOLS LEGEND:

| | | | | |
|---------|-----------------|------------|-----|---------------|
| XXX | ROOM NUMBER | DETAIL TAG | X | KEY NOTE |
| XXX | DOOR NUMBER | PHOTO TAG | P-X | PARTITION TAG |
| X | WINDOW TAG | KEY NOTE | | |
| XX | COLUMN GRID TAG | KEY NOTE | | |
| X-XX.XX | ELEVATION TAG | KEY NOTE | | |
| X-XX.XX | SECTION TAG | KEY NOTE | | |

CONSULTANTS:

CIVIL

High Tide Consultants, LLC

434 Columbia Street - Suite 200A
Covington, LA 70433
P 985.446.1110 Ext: 1005
hightidela.com
Contact: Richard "Ricky" Galloway, P.E.
ricky@hightidela.com
C 985.227.5462

LANDSCAPE

McKnight Landscape Architects

688 S. Foster Drive, Suite 101
Baton Rouge, LA 70806
P 225.924.1265 F 225.709.0748
mcknight-LA.com
Contact: Wesley Wilkerson PLA, ASLA
wes@mcknight-la.com

STRUCTURAL

Salas O'Brien

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New Orleans, LA, 70124
P 225.266.0619
salasobrien.com
Contact: Brad Carville, PE
brad.carville@salasobrien.com

MECHANICAL ELECTRICAL & PLUMBING

Thompson Luke & Assoc. LLC

10705 Rieger Road - Suite 101
Baton Rouge, LA 70809
P 225.293.9474
www.tlaeng.com
Contact: Kyle Baudoin, E.I.
Kyle@tlaeng.com

HATCH LEGEND:

| | | |
|-----------------|----------------|-------------------------|
| PLAN: | SPANDREL GLASS | PLYWOOD |
| NEW WALL | SECTION: | RIGID INSULATION |
| BRICK | BRICK | GYP. BD / M.D.F. / SAND |
| ELEVATION: | C.M.U. | EARTH |
| GYP. BD./STUCCO | CONCRETE | |
| CLEAR GLASS | STEEL | |

New Construction For Take 5 Oil Change

400 NE M State Route 291
Lee's Summit, Missouri 64086



PROJECT NO: 33-006-22
PHASE: Final Dev. Submittal
DATE: 26 July, 2024
PROJ. ARCHITECT: MRD

TITLE SHEET

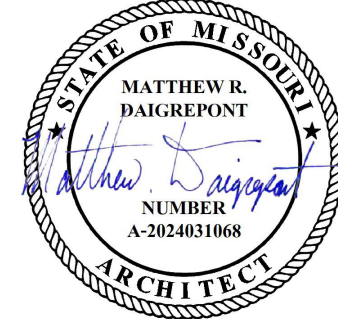
SHEET NO.

G1.00

OF

FUSION ARCHITECTS

3488 BRENTWOOD DRIVE
BATON ROUGE, LA 70809
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Scales as stated hereon are valid on the original drawing only.

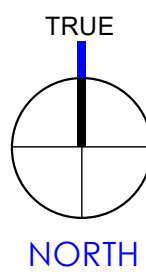
These plans were prepared in this office under our personal supervision, and to the best of our knowledge comply with state and local codes. Will generally administer construction.

By: Matthew Daigrepont

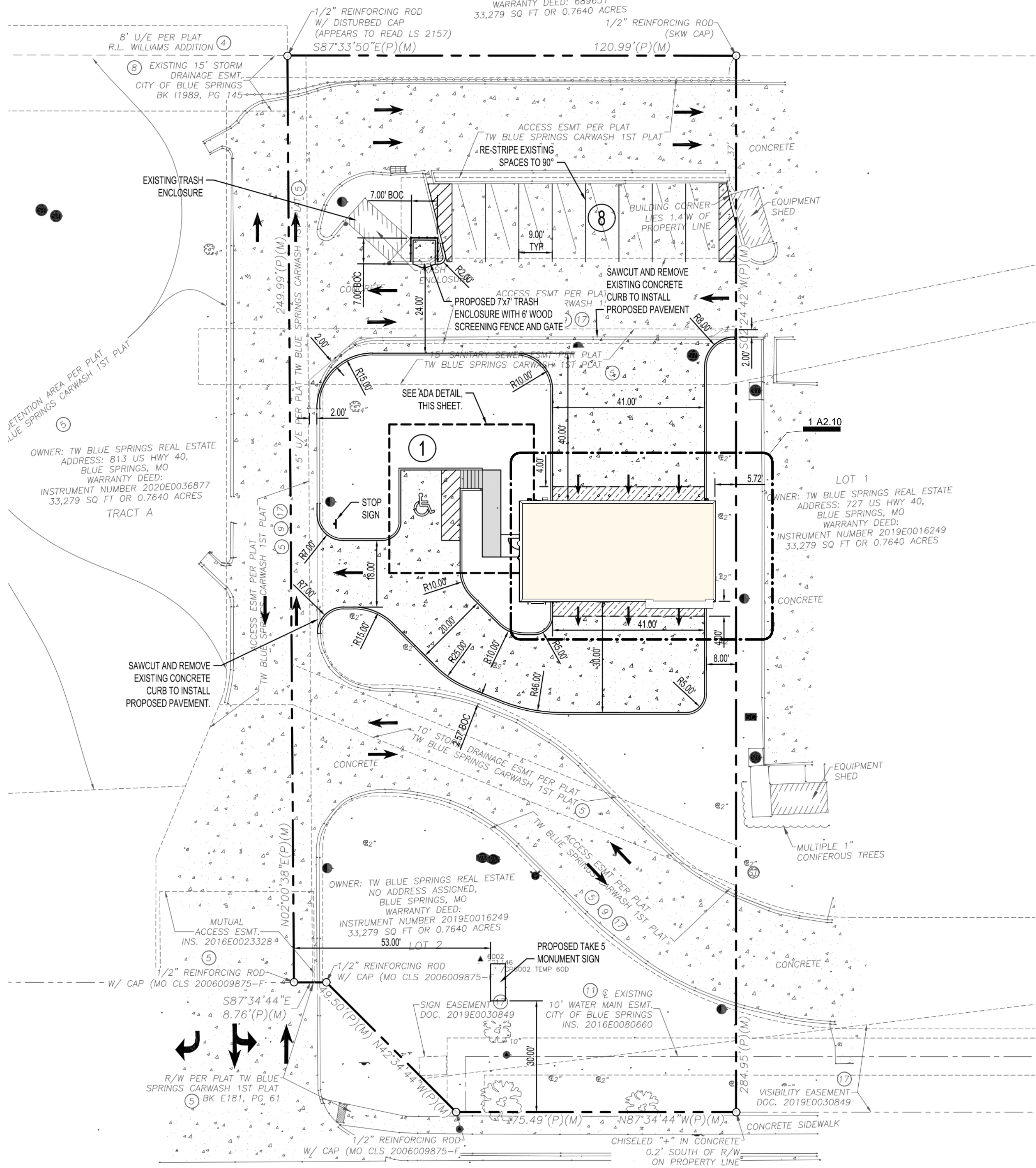
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REVISION
Revised P City Comment

2/26/2025 5:11:20 PM

C:\Users\jensen\Documents\33- Lee's Summit, MO (24) Central Model - jensenGFV5Z.rvt



1 SITE PLAN
1" = 20'-0"



US-40 HIGHWAY
VARIABLE WIDTH
PUBLIC R/W
U.S. HIGHWAY 40

HIGHWAY 40 FEATURES
SHOWN ARE
APPROXIMATE

| NO. | REVISION | DATE |
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Scales as stated hereon are valid on the original drawing only.

These plans were prepared in this office under our personal supervision, and to the best of our knowledge comply with state and local codes. We will generally administer construction.

By: *Matthew Baigrepost*

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**New Construction For
Take 5 Oil Change**
400 NE M State Route 291
Lee's Summit, Missouri 64086



PROJECT NO: 33-006-22
PHASE: Final Dev. Submittal
DATE: 8 July, 2024
PROJ. ARCHITECT: MRD

CIVIL COVER SHEET

SHEET NO.
COVER
OF

Structural Spec Cast In Place Concrete:

SECTION 03 33 00 - CAST-IN-PLACE CONCRETE

This Section uses the term "Architect." Change this term to match that used to identify the design professional as defined in the General and Supplementary Conditions. Verify that Section titles referenced in this Section are correct for this Project's Specifications; Section titles may have changed.

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 specifies cast-in-place concrete, including formwork, reinforcement, concrete materials, mixture design, placement procedures, and finishes, for the following:

1. Grade Beams

2. Slabs-On-Grade

1.3 DEFINITIONS

Definition in paragraph below refers to those materials that make up the cementitious component of the water-cementitious materials ratio.

- A. Cementitious Materials: Portland cement alone or in combination with one or more of the following: blended hydraulic cement, fly ash and other pozzolans, ground granulated blast-furnace slag, and silica fume; subject to compliance with requirements.

1.4 SUBMITTALS

- B. Product Data: For each type of product indicated.

C. Design Mixtures: For each concrete mixture. Submit alternate design mixtures when characteristics of materials, Project conditions, weather test results, or other circumstances warrant adjustments.

1. Indicate amounts of mixing water to be withheld for later addition at Project site.

C. Steel Reinforcement Shop Drawings: Placing drawings that detail fabrication, bending, and placement. Include bar sizes, lengths, material, grade, bar schedules, stirrup spacing, bent bar diagrams, bar arrangement, splices and laps, mechanical connections, tie spacing, hook spacing, and supports for concrete reinforcement.

Delete first paragraph and subparagraph below if not required.

- D. Formwork Shop Drawings: Prepared by or under the supervision of a qualified professional engineer detailing fabrication, assembly, and support of formwork.

Delete subparagraph below if no shoring and reshoring are required.

Retain paragraph below if procedures for welder certification are retained in "Quality Assurance" Article.

Coordinate paragraph below with qualification requirements in Division 1 Section "Quality Requirements" and as supplemented in "Quality Assurance" Article.

- E. Qualification Data: For testing agency.

Delete paragraph and subparagraph below if material test reports are not required.

F. Material Test Reports: For the following, from a qualified testing agency, indicating compliance with requirements: Retain option in subparagraph below if retaining service record data with "Normal-Weight Aggregates" Paragraph in Part 2 "Concrete Materials" Article.

1. Aggregates.

Delete paragraph and subparagraphs below if material certificates are not required.

- G. Material Certificates: For each of the following, signed by manufacturers:

Edit list to suit Project.

1. Cementitious materials.

2. Admixtures.

3. Form materials and form-release agents.

4. Steel reinforcement and accessories.

5. Waterstops.

6. Curing compounds.

7. Floor and slab treatments.

8. Bonding agents.

9. Adhesives.

10. Vapor retarders.

11. Semirigid joint filler.

12. Joint-filler strips.

13. Repair materials.

Retain paragraph below if Contractor engages testing agency for measuring floor surface flatness and levelness.

Retain paragraph below if Contractor is responsible for field quality-control testing and inspections other than special inspections.

- H. Field quality-control test and inspection reports.

Delete paragraph below if no preinstallation conference.

1.5 QUALITY ASSURANCE

Delete first paragraph below if not required. See Division 1 Section "Quality Requirements" for general installer qualifications. Verify availability of qualified personnel with a local ACI chapter or concrete contractors. These desirable programs may have limited grass-roots penetration.

- A. Installer Qualifications: A qualified installer who employs on Project personnel qualified as ACI-certified Flatwork Technician and Finisher and a supervisor who is an ACI-certified Concrete Flatwork Technician.

B. 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.

Delete subparagraph below if not required.

1. Manufacturer certified according to NRMCA's "Certification of Ready Mixed Concrete Production Facilities."

Retain paragraph below if Contractor or manufacturer selects testing agency for concrete mixture design, material test reports, or field quality control. Retain option if field quality-control testing agency employed by Contractor must be approved by authorities having jurisdiction.

- C. Testing Agency Qualifications: An independent agency, acceptable to authorities having jurisdiction, qualified according to ASTM C 1077 and ASTM E 329 for testing indicated, as documented according to ASTM E 548.

Retain subparagraph below, required by ACI 301 and ASTM C 311/C 31M, if emphasis is needed. ASTM C 1077 notes relevant field or laboratory technician certification by ACI, NRMCA, and PCA, or the National Institute for Certification in Engineering Technologies may demonstrate evidence of competence.

Retain subparagraph below if requiring minimum qualifications for laboratory personnel performing testing and for laboratory supervisor.

- D. Source Limitations: Obtain each type or class of cementitious material of the same brand from the same manufacturer's plant, obtain aggregate from one source, and obtain admixtures through one source from a single manufacturer.

Delete first paragraph below if no welding. Retain "Welding certificates" Paragraph in "Submittals" Article if retaining below. AWS states that welding qualifications remain in effect indefinitely unless welding personnel have not welded for more than six months or there is a specific reason to question their ability.

- E. ACI Publications: Comply with the following unless modified by requirements in the Contract Documents: Retain second option in first subparagraph below if ACI 301, Section 7, for structural lightweight concrete is applicable.

1. ACI 301, "Specification for Structural Concrete," Sections 1 through 5.

- F. ACI 117, "Specifications for Tolerances for Concrete Construction and Materials."

Concrete Testing Service: Engage a qualified independent testing agency to perform material evaluation tests and to design concrete mixtures.

Delete paragraph and subparagraphs below if not required. If retaining, indicate location, concrete type, and other details of mockups on Drawings or by inserts. Revise wording if only one mockup is required or if mockup of concrete in another location in a building is required.

Revise size of panel in subparagraph below if required. Panel for slab-on-grade may need to be enlarged if powered riding trowels will be used and if it could be a portion of the floor slab.

1.6 DELIVERY, STORAGE, AND HANDLING

Retain option in first paragraph below if zinc- or epoxy-coated steel reinforcement is required.

- A. Steel Reinforcement: Deliver, store, and handle steel reinforcement to prevent bending and damage.

B. Waterstops: Store waterstops under cover to protect from moisture, sunlight, dirt, oil, and other contaminants.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

See Editing Instruction No. 1 in the Evaluations for cautions about naming manufacturers and products.

Edit this Article with Part 2 articles in which manufacturers and products, or manufacturers only, are named. See Division 1 Section "Product Requirements" for an explanation of the terms "Available Products," "Products," "Available Manufacturers," and "Manufacturers" and the effect these terms have on "Comparable Product" and "Product Substitution" requirements.

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

1. Products: Subject to compliance with requirements, provide one of the products specified.

2. Manufacturers: Subject to compliance with requirements, provide products by one of the manufacturers specified.

2.2 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.

1. Plywood, metal, or other approved panel materials.

Retain subparagraph above if generic specification is enough; revise if necessary. Retain subparagraph below if plywood selection is required. If Finish overlaid birch plywood is required, add below and delete DOC PS 1 and other four choices of plywood.

- 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.

Forms in first paragraph below leave joint impressions in spiral or straight lines. Limit types of forms if a particular pattern of joint is required. Different release treatments of forms also affect appearance of as-cast surfaces.

Retain void forms, sometimes called "carton forms," in paragraph below if required for expansive soils or block outs.

- C. Void Forms: Biodegradable paper surface, treated for moisture resistance, structurally sufficient to support weight of plastic concrete and other superimposed loads.

Delete first paragraph below if chamfering is not permitted.

- D. Chamfer Strips: Wood, metal, PVC, or rubber strips, 3/4 by 3/4 inch (19 by 19 mm), minimum.

- E. Rustication Strips: Wood, metal, PVC, or rubber strips, keyed for ease of form removal.

- F. Form-Release Agent: Commercially formulated form-release agent that will not bond with, stain, or adversely affect concrete surfaces and will not impair subsequent treatments of concrete surfaces.

1. Formulate form-release agent with rust inhibitor for steel form-facing materials.

G. Form Ties: Factory-fabricated, removable or snap-off metal or glass-fiber-reinforced plastic form ties designed to resist lateral pressure of fresh concrete on forms and to prevent spalling of concrete on removal.

Delete or revise three subparagraphs below to suit Project.

2.3 STEEL REINFORCEMENT

Delete or revise this Article to suit steel reinforcement requirements.

- A. Reinforcing Bars: ASTM A 615/A 615M, Grade 60 (Grade 420), deformed.

Retain paragraph below for reinforcement that is welded or if added ductility is sought.

Retain paragraph below for galvanized steel reinforcement. Select type of reinforcement from first set of options and zinc coating class from second set. Class I has at least 50 percent more zinc weight than Class II.

- B. Plain-Steel Welded Wire Reinforcement: ASTM A 185, plain, fabricated from as-drawn steel wire into flat sheets.

2.4 REINFORCEMENT ACCESSORIES

Add other products for dowels or dowel sleeves if required. These include circular and rectangular plastic dowel sleeves, square dowels, and plastic-surfaced or reinforced-paper-covered dowels.

- A. Joint Dowel Bars: ASTM A 615/A 615M, Grade 60 (Grade 420), plain-steel bars, cut bars true to length with ends square and free of burrs.

B. 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," of greater compressive strength than concrete and as follows:

Delete or revise three subparagraphs below to suit Project.

1. For concrete surfaces exposed to view where legs of wire bar supports contact forms, use CRSI Class 1 plastic-protected steel wire or CRSI Class 2 stainless-steel bar supports.

Add mechanical splices and connections for steel reinforcement here if required.

2.5 CONCRETE MATERIALS

- A. Cementitious Material: Use the following cementitious materials, of the same type, brand, and source, throughout Project: Select type and color of portland cement from options in subparagraph below.

1. Portland Cement: ASTM C 150, Type III, gray. Supplement with the following at contractor's discretion: Select supplementary cementing materials from two subparagraphs below if permitted. Ready-mix concrete manufacturer blends these materials with portland cement. Fly ash, slag, or pozzolanic materials may slow rate of concrete strengthening and affect color uniformly. Availability of Class F fly ash predominates over Class C fly ash.

- a. Fly Ash: ASTM C 618, Class F.

- b. Ground Granulated Blast-Furnace Slag: ASTM C 989, Grade 100 or 120.

Retain subparagraph below if factory-blended hydraulic cement is permitted; verify availability of options before specifying. Fly ash, slag, or pozzolanic materials in the nonportland cement part of blended hydraulic cement may slow rate of concrete strengthening and affect color uniformly.

Silica fume below is most often used in high-strength concrete and in special applications such as bridge decks to enhance durability by lowering permeability of concrete. ACI 301 identifies silica fume as a cementitious material.

Select class of aggregate from options in paragraph below or revise to suit Project. ASTM C 33 limits deleterious substances in coarse aggregate depending on climate severity and in-service location of concrete. Classes in first set of options are ASTM C 33 default classes for concrete exposed to weather for Severe, Moderate, and Negligible weathering regions, respectively. Revise first two options to Class AS or Class 45 or 4M for wetting. Retain last option if damage caused by concrete expansion from alkali silica or alkali carbonate reactions is anticipated.

- B. Normal-Weight Aggregates: ASTM C 33, Class 3M coarse aggregate or better, graded. Provide aggregates from a single source.

Select coarse-aggregate size from three options in subparagraph below; add gradation requirements if preferred. Aggregate size limits relate to spacing of steel reinforcement, depth of slab, or thickness of concrete member.

1. Maximum Coarse-Aggregate Size: Per ACI 318 limitations related to spacing of steel reinforcement, depth of slab or thickness of concrete member.

2. Fine Aggregate: Free of materials with deleterious reactivity to alkali in cement.

- C. Lightweight Aggregate: ASTM C 330, 1/2-inch nominal maximum aggregate size.

Retain first paragraph below if using lightweight aggregate for structural lightweight concrete. Select size limit from four options below.

- D. Water: ASTM C 94/C 94M and potable.

2.6 ADMIXTURES

If subparagraphs titled "Available Products," "Products," "Available Manufacturers," or "Manufacturers" are retained in this Article, coordinate with Part 2 "Manufacturers" Article. Retain "Available" for nonproprietary and delete for semiproprietary specifications.

- A. Air-Entraining Admixture: ASTM C 260.

B. Chemical Admixtures: 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.

Select one or more chemical admixtures from six subparagraphs below.

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. Micro Fiber Reinforcement required at all conventionally reinforced concrete exposed to view as a final product.

7. Shrinkage Inhibiting Admixture (SRA): SRA shall be Master Life SRA 20 manufactured by BASF Corporation or approved equal. Dosage rate shall be in accordance with the manufacturer's recommendations for the designated usage with a maximum shrinkage allowance of 0.025% but not less than 1.5gal/yd.

Retain paragraph and subparagraphs below if set-accelerating corrosion inhibitors are required. Set-accelerating products are usually calcium nitrite-based admixtures and comply with ASTM C 494/C 494M, Type C.

Retain paragraph and subparagraphs below if corrosion inhibitors that do not affect concrete setting time are required.

Retain paragraph and subparagraphs below for integrally colored concrete.

Add other admixtures, such as integral waterproofing admixtures, if required.

2.7 WATERSTOPS

If subparagraphs titled "Available Products," "Products," "Available Manufacturers," or "Manufacturers" are retained in this Article, coordinate with Part 2 "Manufacturers" Article. Retain "Available" for nonproprietary and delete for semiproprietary specifications.

Retain one of three paragraphs and associated subparagraphs below if flexible waterstops produced from rubber, thermoplastic elastomer rubber, or PVC are required.

- A. Self-Expanding Rubber Strip Waterstops: Manufactured rectangular or trapezoidal strip, bentonite-free hydrophilic polymer modified chloroprene rubber, for adhesive bonding to concrete, 3/8 by 3/4 inch (10 by 19 mm).

1. Products:

- a. Deneef Construction Chemicals; Swellselc.

- b. Greenstreak; Hydrotite.

- c. Mitsubishi International Corporation; Adeka Ultra Seal.

- d. Progress Unlimited, Inc.; Superstop.

2.8 VAPOR RETARDERS

If subparagraphs titled "Available Products" or "Products" are retained in this Article, coordinate with Part 2 "Manufacturers" Article. Retain "Available" for nonproprietary and delete for semiproprietary specifications.

Retain one of three paragraphs and associated subparagraphs below if plastic vapor vapor retarders are required. ASTM E 1745 sets three performance classes for plastic vapor vapor retarders: Classes A, B, and C. The water-vapor permeance value is the same for each class. Class A sets the highest tensile-strength and puncture-resistance requirements, while Class C sets the lowest. Thickness is not governed by ASTM E 1745.

- A. Plastic Vapor Retarder: Refer to architectural specifications.

Retain option in paragraph below if generic polyethylene is permitted. Minimum thickness recommended by ACI 302.1R for polyethylene film used as a vapor retarder is 10 mils (0.25 mm).

Delete two paragraphs below if not using a granular course over vapor retarder. Products are based on ACI 302.1R descriptions of granular materials.

Retain paragraph below for a "crusher-run" course at least 4 inches (100 mm) thick.

2.9 CURING MATERIALS

If subparagraphs titled "Available Products" or "Products" are retained in this Article, coordinate with Part 2 "Manufacturers" Article. Retain "Available" for nonproprietary and delete for semiproprietary specifications.

Evaporation retarder in paragraph below temporarily reduces moisture loss from concrete surfaces awaiting finishing in hot, dry, and windy conditions. Evaporation retarders are not curing compounds.

- A. Evaporation Retarder: Waterborne, monomolecular film forming, manufactured for application to fresh concrete.

1. Products:

- a. Axim Concrete Technologies; Cimfilm.

- b. Burke by Edco; Spartan Cote WB II.

- c. ChemMasters; Spray-Film.

- d. Conspec Marketing & Manufacturing Co., Inc., a Dayton Superior Company; AquaFilm.

- e. Dayton Superior Corporation; Sure Film.

- f. Euclid Chemical Company (The); Eucobar.

- g. Kauffman Products, Inc.; Vapor Aid.

- h. Lambert Corporation; Lambco Skin.

- i. L&M Construction Chemicals, Inc.; E-Con.

- j. MBT Protection and Repair, Div. of ChemRex; Confilm.

- k. Meadows, W. R., Inc.; Sealtight Evapre.

- l. Metacrete Industries; Waterhold.

- m. Nox-Crete Products Group, Kinsman Corporation; Monofilm.

- n. Sika Corporation, Inc.; SikaFilm.

- o. Symons Corporation, a Dayton Superior Company; Finishing Aid.

- p. Unitek; Pro-Film.

- q. US Mix Products Company; US Spec Monofilm ER.

- r. Vexcon Chemicals, Inc.; Certi-Vex EnvioAssist.

Select curing aids and materials from remaining paragraphs.

- B. Water: Potable.

Retain paragraph and subparagraphs below if a dissipating-type, waterborne, membrane-forming curing compound is required. Although the EPA mandates maximum VOC emissions of 350 g/L for curing compounds, verify VOC emission limits of authorities having jurisdiction. If slow breakdown of curing membrane could interfere with bonding of floor coverings, retain removal subparagraph in "Concrete Protecting and Curing" Article in Part 3.

Retain paragraph and subparagraphs below if a nondissipating-type, waterborne, membrane-forming curing compound with minimal solids content is required. Although the EPA mandates maximum VOC emissions of 350 g/L for curing compounds, verify VOC emission limits of authorities having jurisdiction. Retain option if applicable.

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

Verify with manufacturer that selected products have been tested against interference with bonding of floor covering.

1. Products:

- a. Anti-Hydro International, Inc.; AH Clear Cure WB.

- b. Burke by Edco; Spartan Cote WB II.

- c. ChemMasters; Safe-Cure & Seal 20.

- d. Conspec Marketing & Manufacturing Co., Inc., a Dayton Superior Company; Cure and Seal WB.

- e. Dayton Superior Corporation; Safe Cure and Seal (J-18).

- f. Euclid Chemical Company (The); Aqua Cure VOX.

- g. Kauffman Products, Inc.; Cure & Seal 309 Emulsion.

- h. Lambert Corporation; Glazecrete Sealer-20.

- i. L&M Construction Chemicals, Inc.; Dress & Seal WB.

- j. Meadows, W. R., Inc.; Vocomp-20.

- k. Metacrete Industries; Metcure.

- l. Nox-Crete Products Group, Kinsman Corporation; Cure & Seal 150E.

- m. Symons Corporation, a Dayton Superior Company; Cure & Seal 18 Percent E.

- n. Tamms Industries, Inc.; Clearseal WB 150.

- o. Unitek; Hydro Seal.

- p. US Mix Products Company; US Spec Hydrasheen 15 percent

- q. Vexcon Chemicals, Inc.; Starseal 309.

Retain paragraph and subparagraphs below if a nondissipating-type, waterborne, membrane-forming curing compound with a higher solids content is required. This product will partially seal the concrete. Although the EPA mandates maximum VOC emissions of 350 g/L for curing compounds, verify VOC emission limits of authorities having jurisdiction. Retain option if applicable.

2.10 RELATED MATERIALS

Select one or all options in paragraph below. Joint-filler strips are used in floor isolation joints.

- A. Expansion- and Isolation-Joint-Filler Strips: ASTM D 1751, asphalt-saturated cellulosic fiber or ASTM D 1752, cork or self-expanding cork.

Select one of two options in paragraph below if semirigid joint filler is required to fill joints and support edges of trafficked contraction and construction joints.

- B. Semirigid Joint Filler: Two-component, semirigid, 100 percent solids, per ASTM D 2240.

Bonding agent in first paragraph below may be used directly from container or as an admixture in cement or sand-cement slurries and rubbing grout.

- C. Bonding Agent: ASTM C 1059, Type II, non-redispersible, acrylic emulsion or styrene butadiene.

Retain first paragraph below if reglets are not spliced elsewhere. Coordinate product requirements with Division 7 Section "Sheet Metal Flashing and Trim" or "Manufactured Roof Specialties" or in other Sections where reglets are supplied as auxiliary products with waterproofing or roofing membrane flashings.

- D. Reglets: Fabricate reglets of not less than 0.0217-inch- (0.55-mm-) thick, galvanized steel sheet. Temporarily fill or cover face opening of reglet to prevent intrusion of concrete or debris.

Dovetail Anchor Slots: Hot-dip galvanized steel sheet, not less than 0.0336 inch (0.85 mm) thick, with bent tab anchors. Temporarily fill or cover face opening of slots to prevent intrusion of concrete or debris.

2.11 CONCRETE MIXTURES, GENERAL

- 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.

1. Use a qualified independent testing agency for preparing and reporting proposed mixture designs based on laboratory trial mixtures.

- B. Limit the water-cementitious materials (w/cm) ratio in concrete for floors to receive moisture-sensitive flooring to no higher than 0.45.

Retain paragraph and subparagraphs below if limiting percentage of cementitious material that can replace portland cement. Neither ACI 301 nor ACI 318 (ACI 318M) limit amount of cementitious material that can replace portland cement unless concrete is exposed to deicing chemicals

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Structural Spec Rough Carpentry:

SECTION 06 10 00
ROUGH CARPENTRY
This Section uses the term "Architect." Change this term to match that used to identify the design professional as defined in the General and Supplementary Conditions.
Verify that Section titles referenced in this Section are correct for this Project's Specifications; Section titles may have changed.

- 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 the following:
Adjust list below to suit Project.
1. Framing with dimension lumber.
Retain first subparagraph below for timber incidental to conventional framing. For extensive timber framing, use Division 6 Section "Heavy Timber Construction."
2. Framing with engineered wood products.
Delete first subparagraph below if bases and curbs are exclusively metal.
3. Wood blocking and nailers.
4. Wood furring.
5. Wood sleepers.
6. Plywood backing panels.
B. Related Sections include the following:
List below only products and construction that the reader might expect to find in this Section but are specified elsewhere.
Borate treatment in Section referenced in first subparagraph below may be an acceptable substitute for borate-treated wood specified in this Section. Delete if borate treatment is specified in this Section.
1. Division 2 Section "Termite Control" for site application of borate treatment to wood framing.
2. Division 6 Section "Sheathing."
3. Division 6 Section "Metal-Plate-Connected Wood Trusses."
4. Division 6 Section "Wood Deck"

- 1.3 DEFINITIONS
Delete first paragraph below if no exposed framing.
A. Exposed Framing: Framing not concealed by other construction.
B. Dimension Lumber: Lumber of 2 inches nominal or greater but less than 5 inches nominal in least dimension.
Delete first paragraph below if no timber.
C. Timber: Lumber of 5 inches nominal or greater in least dimension.
Delete paragraph and list below if lumber grading agencies are not referenced with products.
D. Lumber grading agencies, and the abbreviations used to reference them, include the following:
Coordinate list below with product lists; delete those not required. See Evaluations.
1. NELMA: Northeastern Lumber Manufacturers' Association.
2. NLGA: National Lumber Grades Authority.
3. RIS: Redwood Inspection Service.
4. SPB: The Southern Pine Inspection Bureau.
5. WCLB: West Coast Lumber Inspection Bureau.
6. WWP: Western Wood Products Association.

- 1.4 SUBMITTALS
A. Product Data: For each type of process and factory-fabricated product. Indicate component materials and dimensions and include construction and application details.
1. Include data for wood-preserved treatment from chemical treatment manufacturer and certification by treating plant that treated materials comply with requirements. Indicate type of preservative used and net amount of preservative retained.
Delete subparagraph below if fire-retardant-treated wood is not required.
Delete first subparagraph below if not applicable.
2. For products receiving a waterborne treatment, include statement that moisture content of treated materials was reduced to levels specified before shipment to Project site.
3. Include data for fire-retardant treatment from chemical treatment manufacturer and certification by treating plant that treated materials comply with requirements. Include physical properties of treated materials based on testing by a qualified independent testing agency.
4. For fire-retardant treatments specified to be High-Temperature (HT) type, include physical properties of treated lumber both before and after exposure to elevated temperatures, based on testing by a qualified independent testing agency according to ASTM D 5664.
5. Include copies of warranties from chemical treatment manufacturers for each type of treatment.
Delete first paragraph below if no exposed framing or if fastener patterns are shown on Drawings.
Retain paragraph below if applicable; delete if species and grade are indicated for each use.
B. Material Certificates: For dimension lumber specified to comply with minimum allowable unit stresses. Indicate species and grade selected for each use and design values approved by the ALSC Board of Review.
Insert specific model code organization in paragraph below or revise if report must be from another source.
C. Research/Evaluation Reports: For the following, showing compliance with building code in effect for Project:
Edit list below to retain only those products retained in Part 2.
1. Wood-preserved-treated wood.
2. Engineered wood products.
3. Fire-retardant-treated wood.
4. Power-driven fasteners.
5. Powder-actuated fasteners.
6. Expansion anchors.
7. Metal framing anchors.

- 1.5 QUALITY ASSURANCE
A. Source Limitations for Engineered Wood Products: Obtain each type of engineered wood product through one source from a single manufacturer.
Paragraph and subparagraphs below may be retained to specify lumber and other wood products made from certified wood for LEED Credit MR 7, which requires that a minimum of 50 percent of wood-based materials be certified. An alternative method of meeting LEED Credit MR 7 requirement is to retain requirement in Division 1 Section "LEED Requirements" that gives Contractor option and responsibility for determining how LEED Credit MR 7 requirement will be met.
B. Forest Certification: For the following wood products, provide materials produced from wood obtained from forests certified by an FSC-accredited certification body to comply with FSC 1.2, "Principles and Criteria."
Coordinate list below with products retained in Part 2. Delete items not required to be made from certified wood; verify that certified wood is available for each item before retaining.
1. Dimension lumber framing.
2. Laminated veneer lumber.
3. Parallel-strand lumber.
4. Miscellaneous lumber.
1.6 DELIVERY, STORAGE, AND HANDLING
A. Stack lumber flat with spacers between each bundle to provide air circulation. Provide for air circulation around stacks and under coverings.

- PART 2 - PRODUCTS**
2.1 WOOD PRODUCTS, GENERAL
A. Lumber: DOC PS 20 and applicable rules of grading agencies indicated. If no grading agency is indicated, provide lumber that complies with the applicable rules of any rules-writing agency certified by the ALSC Board of Review. Provide lumber graded by an agency certified by the ALSC Board of Review to inspect and grade lumber under the rules indicated.
1. Factory mark each piece of lumber with grade stamp of grading agency.
Select only first option in subparagraph below if authorities having jurisdiction require grade stamps on all materials.
In DOC PS 20, dressed sizes of green lumber are larger than dry lumber.
Revise subparagraph below if rough lumber is acceptable for all work.
2. Provide dressed lumber, S4S, unless otherwise indicated.
Delete paragraph and subparagraph below if engineered wood products are not used.
B. Engineered Wood Products: Provide 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.
1. Allowable Design Stresses: Provide engineered wood products with allowable design stresses, as published by manufacturer, that meet or exceed those indicated. Manufacturer's published values shall be determined from empirical data or by rational engineering analysis and demonstrated by comprehensive testing performed by a qualified independent testing agency.
2.2 WOOD-PRESERVATIVE-TREATED LUMBER
Delete this Article if not applicable. See Evaluations for discussion of formulations.
A. Preservative Treatment by Pressure Process: AWWA C2.
See Evaluations for information about treatment chemicals.
1. Preservative Chemicals: Acceptable to authorities having jurisdiction.
Delete subparagraph below if no exposed framing or if considered unnecessary.
B. Kiln-dry lumber after treatment to a maximum moisture content of 19 percent. Do not use material that is warped or does not comply with requirements for untreated material.
C. Mark lumber with treatment quality mark of an inspection agency approved by the ALSC Board of Review.
Select only first option in subparagraph below if authorities having jurisdiction require quality mark on all materials.
Select first option in paragraph below and delete subparagraphs if total treatment is required; otherwise, select second option and retain appropriate subparagraphs.
D. Application: Treat the following:
Retain subparagraph below if Project includes wood adjacent to roofing or waterproofing.
1. 1. Wood cants, nailers, curbs, equipment support bases, blocking, stripping, and similar members in connection with roofing, flashing, vapor barriers, and waterproofing.
Retain applicable items below. Insert other items that require treatment but are not likely to be indicated on Drawings.
2. Wood sills, sleepers, blocking, and similar concealed members in contact with masonry or concrete.
3. Wood floor plates that are installed over concrete slabs-on-grade.

- 2.3 FIRE-RETARDANT-TREATED MATERIALS
Delete this Article if not applicable.
A. General: Comply with performance requirements in AWWA C20 (lumber) and AWWA C27 (plywood).
Adhesive type is suitable for both exterior and interior applications. Interior type is only for interior applications. See Evaluations.
1. Use Exterior type for exterior locations and where indicated.
Delete first subparagraph below if not applicable. Revise description of locations to suit Project requirements.
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.
B. Identify fire-retardant-treated wood with appropriate classification marking of testing and inspecting agency acceptable to authorities having jurisdiction.
Select only first option in subparagraph below if authorities having jurisdiction require classification marking on all materials.
1. For exposed lumber indicated to receive a stained or natural finish, mark end or back of each piece.
Delete or revise paragraph below if no exposed framing or if staining will hide colorants.
C. For exposed items indicated to receive a stained or natural finish, use chemical formulations that do not bleed through, contain colorants, or otherwise adversely affect finishes.
Select first option in paragraph below and delete subparagraphs if all wood is required to be fire-retardant treated; otherwise, select second option and retain appropriate subparagraphs.
D. Application: Treat items indicated on Drawings.
Edit list below suit local code and Project.
2.4 DIMENSION LUMBER FRAMING
Select one of five options in paragraph below, or delete paragraph if green lumber is acceptable in all thicknesses. Verify availability of lumber with 15 percent maximum moisture content before retaining. Lumber more than 2 inches nominal (38 mm actual) in thickness is often shipped green. See Evaluations.
A. Maximum Moisture Content: 19 percent.
1. First 10 paragraphs below provide several choices for specifying different categories of framing. Edit to retain no more than four paragraphs (usually two or three), and select paragraph titles so that together they describe all the framing required. For simple projects, two paragraphs titled "Interior Partitions" and "Framing Other Than Interior Partitions" might be retained; for other projects, three paragraphs titled "Non-Load-Bearing Interior Partitions," "Exterior and Load-Bearing Walls," and "Joists, Rafter, and other Framing Not Listed Above" might be retained. If retaining titles that refer to non-load-bearing or load-bearing construction, indicate load-bearing walls and framing on Drawings. In each paragraph where grade designations are used, grades are listed in order of decreasing quality (and cost).
B. Non-Load-Bearing Interior Walls: Grade and species per plans.
Delete paragraph above or below. Select one of three options for grade or revise to suit Project; verify with structural requirements.
If retaining paragraph below, select one of three options for grade or revise to suit Project; verify with structural requirements.
C. Exterior and Load-Bearing Walls: Grade and species per plans.
Edit list below; usually retain all species that meet requirements except those not available in Project's location. Species groups are listed in order of decreasing strength (extreme fiber in bending).
Paragraph below is an example for machine stress-rated lumber that can be used instead of paragraph above. If retaining, select one of two titles and select or insert a grade to suit structural requirements of Project. Three grades listed are most commonly available.
2.5 ENGINEERED WOOD PRODUCTS
Paragraphs and subparagraphs in this Article are examples of descriptive and property requirements based on product data of various manufacturers. Verify that current products comply or revise. See Evaluations. Retain option in paragraph below if low-emitting materials are required for LEED Credit EQ 4.4. Laminated-veneer lumber usually contains no urea formaldehyde.
A. Laminated-Veneer Lumber: Structural composite lumber made from wood veneers with grain primarily parallel to member lengths, evaluated and monitored according to ASTM D 5456 and manufactured with an exterior-type adhesive complying with ASTM D 2559.
See Editing Instruction No. 1 in the Evaluations for cautions about naming manufacturers and products. Retain one of first two subparagraphs and list of manufacturers below. See Division 1 Section "Product Requirements."
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:
2. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
a. Boise Cascade Corporation.
b. RedBuilt.
c. Finnforest USA.
d. Georgia-Pacific.
e. Louisiana-Pacific Corporation.
f. Pacific Woodtech Corporation.
g. Roseburg Forest Products Co.
h. Weldwood of Canada Limited; Subsidiary of International Paper Corporation.
i. Weyerhaeuser Company.
3. Extreme Fiber Stress in Bending, Edgewise: Refer to Drawings.
4. Modulus of Elasticity, Edgewise: Refer to Drawings.
Insert other properties of laminated veneer lumber here if critical. Retain option in paragraph below if low-emitting materials are required for LEED Credit EQ 4.4. Structural composite lumber usually contains no urea formaldehyde.
B. Parallel-Strand Lumber: Structural composite lumber made from wood strand elements with grain primarily parallel to member lengths, evaluated and monitored according to ASTM D 5456 and manufactured with an exterior-type adhesive complying with ASTM D 2559.
See Editing Instruction No. 1 in the Evaluations for cautions about naming manufacturers and products. Retain one of first two subparagraphs and list of manufacturers below. See Division 1 Section "Product Requirements."
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:
2. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
a. Weyerhaeuser Company.
3. Extreme Fiber Stress in Bending, Edgewise: Refer to Drawings.
4. Modulus of Elasticity, Edgewise: Refer to Drawings.
Insert other properties of parallel-strand lumber here if critical.

- 2.6 MISCELLANEOUS LUMBER
A. General: Provide miscellaneous lumber indicated and lumber for support or attachment of other construction, including the following:
1. Blocking.
2. Nailers.
Delete subparagraph below if prefabricated metal units are used. Prefabricated metal units may still require blocking or nailers.
Delete subparagraph below if roof membrane used does not require cants or if cants of another material are used.
Delete any or all of three items below if not required.
4. Furring.
B. For items of dimension lumber size, provide Standard, Stud, or No. 3 grade lumber with 19 percent maximum moisture content of any species.
Delete paragraph above or below. Select one of two options for grade in either paragraph. 19 percent moisture is usually adequate for untreated support and attachment items. Select 15 percent if required and available.
Delete first paragraph below if not acceptable.
C. For blocking not used for attachment of other construction, Utility, Stud, or No. 3 grade lumber of any species may be used provided that it is cut and selected to eliminate defects that will interfere with its attachment and purpose.
D. For blocking and nailers used for attachment of other construction, select and cut lumber to eliminate knots and other defects that will interfere with attachment of other work.
E. For furring strips for installing plywood or hardboard paneling, select boards with no knots capable of producing bent-over nails and damage to paneling.
2.7 PLYWOOD BACKING PANELS
A. Telephone and Electrical Equipment Backing Panels: DOC PS 1, Exposure 1, C-D Plugged, in thickness indicated or, if not indicated, not less than 1/2-inch nominal thickness.
2.8 FASTENERS
A. General: Provide fasteners of size and type indicated that comply with requirements specified in this Article for material and manufacture.
1. Where rough carpentry is exposed to weather, in ground contact, pressure-preservative treated, or in area of high relative humidity, provide fasteners with hot-dip zinc coating complying with ASTM A 153.
B. Nails, Brads, and Staples: ASTM F 1667.
Standard in first paragraph below covers power-driven staples, nails, P-nails, and allied fasteners.
C. Power-Driven Fasteners: NES NER-272.
D. Wood Screws: ASME B18.6.1.
E. Lag Bolts: ASME B10.2.1.
F. Bolts: Steel bolts complying with ASTM A 307, Grade A; with ASTM A 563 hex nuts and, where indicated, flat washers.
G. Expansion Anchors: Anchor bolt and sleeve assembly of material indicated below with capability to sustain, without failure, a load equal to 6 times the load imposed when installed in unit masonry assemblies and equal to 4 times the load imposed when installed in concrete as determined by testing per ASTM E 488 conducted by a qualified independent testing and inspecting agency.
1. Material: Carbon-steel components, zinc plated to comply with ASTM B 633, Class Fe/Zn 5.

- Subparagraph above and below are examples only. Above protects against corrosion in an indoor atmosphere; revise to suit other service conditions after verifying availability of thicker coatings.
2.9 METAL FRAMING ANCHORS
See Editing Instruction No. 1 in the Evaluations for cautions about naming manufacturers and products. If naming manufacturers or products, retain one of three, retain one of three subparagraphs and list of manufacturers below. Refer to Division 1 Section "Product Requirements."
A. 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:
B. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
C. Basis-of-Design Products: Subject to compliance with requirements, provide products indicated on Drawings or comparable products by one of the following:
1. Alpine Engineered Products, Inc.
2. Cleveland Steel Specialty Co.
3. Harlen Metal Products, Inc.
4. KC Metals Products, Inc.
5. Simpson Strong-Tie Co., Inc.
6. Southeastern Metals Manufacturing Co., Inc.
7. USP Structural Connectors.
If retaining first option in first paragraph below, indicate design loads for metal framing anchors on Drawings.
D. Galvanized Steel Sheet: Hot-dip, zinc-coated steel sheet complying with ASTM A 653, G60 coating designation.
1. Use for interior locations where stainless steel is not indicated.
Paragraph above is typical for most manufacturers and is suitable for most applications. Delete paragraph and subparagraph below if not required. Type 304 is usually standard for stainless steel; Type 316 gives better corrosion resistance for exposed applications in coastal environments.
12 paragraphs below are examples only. Revise to suit Project or delete all if "Basis-of-Design Products" Paragraph is used and they are not needed to provide salient characteristics for products.

- 2.10 MISCELLANEOUS MATERIALS
A. Sill-Sealer Gaskets: Glass-fiber-resilient insulation, fabricated in strip form, for use as a sill sealer; or closed-cell neoprene foam, selected from manufacturer's standard widths to suit width of sill members indicated.
B. Adhesives for Gluing Furring and Sleepers to Concrete or Masonry: Formulation complying with ASTM D 3498 that is approved for use indicated by adhesive manufacturer.
Retain subparagraph below if low-emitting materials are required for LEED Credit EQ 4.1. VOC limit is that for multipurpose construction adhesives in South Coast Air Quality Management District Rule #1168.
1. Use adhesives that have a VOC content of 70 g/L or less when calculated according to 40 CFR 59, Subpart D.
EPA Method 24.
Treatment below is for exposed ends of posts and beams, not for treating cuts in preservative-treated lumber.
C. Water-Repellent Preservative: NWWDA-tested and -accepted formulation containing 3-iodo-2-propynyl butyl carbamate, combined with an insecticide containing chlorpyrifos as its active ingredient.

- PART 3 - EXECUTION**
3.1 INSTALLATION, GENERAL
A. Set rough carpentry to required levels and lines, with members plumb, true to line, cut, and fitted. Fit rough carpentry to other construction; scribe and cope as needed for accurate fit. Locate furring, nailers, blocking, and similar supports to comply with requirements for attaching other construction.
B. Framing Standard: Comply with AF&PA's "Details for Conventional Wood Frame Construction," unless otherwise indicated.
Delete paragraph below if engineered wood products are not used.
C. Framing with Engineered Wood Products: Install engineered wood products to comply with manufacturer's written instructions.
Delete first paragraph below if metal framing anchors are not used.
D. Metal Framing Anchors: Install metal framing to comply with manufacturer's written instructions.
E. Do not splice structural members between supports, unless otherwise indicated.
F. Provide blocking and framing as indicated and as required to support facing materials, fixtures, specialty items, and trim.
1. Provide metal clips for fastening gypsum board or lath at corners and intersections where framing or blocking does not provide a surface for fastening edges of panels. Space clips not more than 16 inches o.c.
G. Provide fire blocking in furred spaces, stud spaces, and other concealed cavities as indicated on Drawings.
Delete first subparagraph below if no furred walls.
H. Sort and select lumber so that natural characteristics will not interfere with installation or with fastening other materials to lumber. Do not use materials with defects that interfere with function of member or pieces that are too small to use with minimum number of joints or optimum joint arrangement.
I. Comply with AWWA M4 for applying field treatment to cut surfaces of preservative-treated lumber.
1. Use inorganic boron for items that are continuously protected from liquid water.
2. Use copper naphthenate for items not continuously protected from liquid water.
J. Securely attach rough carpentry work to substrate by anchoring and fastening as indicated, complying with the following:
If retaining subparagraph below, verify that this is acceptable to authorities having jurisdiction. Also retain one of the other subparagraphs that references a model code fastener schedule complying with local requirements. Fasteners covered by NES NER-272 are manufactured by member companies of the International Staple, Nail and Tool Association.
Retain one of six subparagraphs below, with or without subparagraph above, as required to comply with requirements of Project and local codes.
2. Table 2306.1, "Fastening Schedule," in SBCCI's Standard Building Code.

- Revise paragraph below to include other kinds of nails if required.
K. Use common wire nails, unless otherwise indicated. Select fasteners of size that will not fully penetrate members where opposite side will be exposed to view or will receive finish materials. Make tight connections between members. Install fasteners without splitting wood; do not countersink nail heads, unless otherwise indicated.
Delete paragraph and subparagraphs below if no exposed framing.
Indicate locations of other fasteners, such as wood screws, bolts, and lag screws, on Drawings.
3.2 WOOD BLOCKING AND NAILER INSTALLATION
A. Install where indicated and where required for attaching other work. Form to shapes indicated and cut as required for true line and level of attached work. Coordinate locations with other work involved.
B. Attach items to substrates to support applied loading. Recess bolts and nuts flush with surfaces, unless otherwise indicated.
Retain paragraph below for conventional, not veneer, plaster.
Insert other specific requirements as needed for work.
3.3 WOOD FURRING INSTALLATION
A. Install level and plumb with closure strips at edges and openings. Shim with wood as required for tolerance of finish work.
Retain applicable types from two paragraphs below; revise if closer spacing is required for material fastened.
B. Furring to Receive Plywood or Hardboard Paneling: Install 1-by-3-inch nominal-size furring horizontally and vertically at 24 inches o.c.
C. Furring to Receive Gypsum Board: Install 1-by-2-inch nominal-size furring vertically at 16 inches o.c.
If framing is minor in scope and importance, delete remaining framing installation articles. Review framing requirements for compliance with local building code.
3.4 WALL AND PARTITION FRAMING INSTALLATION
A. General: Provide single bottom plate and double top plates using members of 2-inch nominal thickness whose widths equal that of studs, except single top plate may be used for non-load-bearing partitions. Fasten plates to supporting construction, unless otherwise indicated.
Select one of two stud sizes and one of four spacings in subparagraph below; third and fourth stud spacings are for metric module.
B. Construct corners and intersections with three or more studs.
C. Frame openings with multiple studs and headers. Provide nailed header members of thickness equal to width of studs.
Support headers on jamb studs.
Two subparagraphs below refer to load-bearing and non-load-bearing construction. Designate load-bearing walls on Drawings if retaining this distinction.
1. For non-load-bearing partitions, provide double-jamb studs and headers of depth indicated.
Retain subparagraph above or below if applicable. Revise if single-jamb studs are acceptable.
2. For load-bearing walls, provide double-jamb studs for openings 60 inches and less in width, and triple-jamb studs for wider openings. Provide headers of depth indicated.
Retain paragraph below unless sheathing provides required bracing. If retaining second option below, indicate locations on Drawings. Change "bracing" to "wind bracing," "seismic bracing," etc., to match term used in code, where applicable.
Insert requirements for framing gables, bays, and other special conditions or show on Drawings.
3.5 PROTECTION
Delete this Article if site-applied boron treatment is specified in Division 2 Section "Termite Control."
Delete paragraph below if option allowing inorganic boron treatment is not retained in Part 2.
A. Protect wood that has been treated with inorganic boron (SBX) from weather. If, despite protection, inorganic boron-treated wood becomes wet, apply EPA-registered borate treatment. Apply borate solution by spraying to comply with EPA-registered label.
Retain paragraph below instead of above if boron-treated wood is not used, but borate treatment of wood that has become wet is used to help prevent mold and mildew. Delete if site-applied boron treatment is specified in Division 2 Section "Termite Control."
B. Protect rough carpentry from weather. If, despite protection, rough carpentry becomes wet, apply EPA-registered borate treatment. Apply borate solution by spraying to comply with EPA-registered label.
END OF SECTION 06 10 00

PROJECT NO: 33-006-22

PHASE: Final Dev. Submittal

DATE: 04/13/21

PROJ. ARCHITECT: Designer

STATE OF MISSOURI
MATTHEW K. BAIGREPOST
ARCHITECT
NUMBER A-202403006

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Scales as stated hereon are valid on the original drawing only.
These plans were prepared in the office under our personal supervision, and to the best of our knowledge comply with state and local codes. Will generally administer construction.
By: Matthew Baigrepost

REVISION

No.

DATE

New Construction For

Take 5 Oil Change

400 NE M State Route 291
Lee's Summit, Missouri 64086

3488 BRENTWOOD DRIVE
BATON ROUGE, LA 70809
P. 225.766.4948 F. 225.766.4724
tusionnap.com

TAKE 5 OIL CHANGE

CARPENTRY SPECIFICATIONS

SHEET NO. G1.22 OF

C:\Users\djensen\Documents\33-Lee's Summit, MO (24) Central Model.dwg 6/5/24 2/26/2025 5:11:28 PM

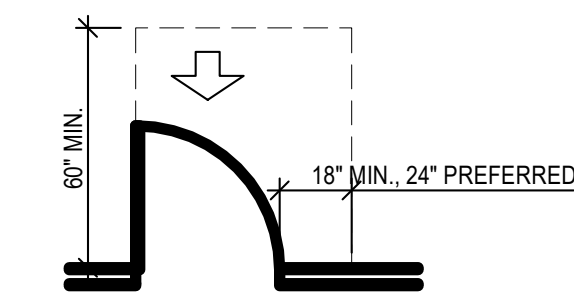
GENERAL NOTES:

- DETAILS AND NOTES ON THIS SHEET SHALL GOVERN STANDARD DIMENSIONS, CLEARANCES AND MOUNTING LOCATIONS. CONTRACTOR SHALL IMMEDIATELY BRING TO ARCHITECT'S ATTENTION ANY DISCREPANCIES BETWEEN INFORMATION ON THIS SHEET AND ANY OTHER INFORMATION IN PLANS.
- ALL NOTES, ABBREVIATIONS AND DETAILS MAY NOT APPLY.

ABBREVIATIONS:

| | AMPERS | F.F. | FINISH FLOOR | OH | OVER HEAD |
|----------------------|---------------------------------|----------|---|---------------|-----------------------------|
| A.B. | ANCHOR BOLT | F.F.E. | FINISH FLOOR ELEVATION | OPNG. | OPENING |
| A.F.F. | ABOVE FINISHED FLOOR | F.N. | FIELD NAILING | OPPO. | OPPOSITE |
| A.F.G. | ABOVE FINISHED GRADE | F.O. | FACE OF | P.C. | PRECAST CONCRETE |
| A/C | AIR CONDITIONING | F.S. | FLOOR SINK | P.L. or P | PROPERTY LINE |
| ABC | AGGREGATE BASE COURSE | FIG | FIBERGLASS | P.LAM. | PLASTIC LAMINATE |
| ABS | ACRYLONITRILE-BUTADIENE-STYRENE | FAB. | FABRICATE | P.O.C. | POINT OF CONNECTION |
| ABV | ABOVE | FACP | FIRE ALARM CONTROL PANEL | PERF. | PERFORATED |
| ACB | ASBESTOS-CEMENT BOARD | FDC | FIRE DEPARTMENT CONNECTION | PERP. or J | PERPENDICULAR |
| ACOU. | ACOUSTIC | FDN. | FOUNDATION | PH or Ø | PHASE |
| ACT | ACOUSTICAL CEILING TILE | FHC | FIRE HOSE CABINET | PL. | PLASTER |
| ADD. | ADDITION or ADDENDUM | FIN. | FINISH | PL. or P | PLATE |
| AG | ABOVE GRADE | FL. | FLOOR | PLAS. | PLASTIC |
| AHU | AIR HANDLING UNIT | FLG. | FLOORING | PLUMB. | PLUMBING |
| AL. or ALUM | ALUMINUM | FLUOR. | FLUORESCENT | PLYWD. | PLYWOOD |
| ALT. | ALTERNATE | FP | FIRE PROOF | PORC. | PORCELAIN |
| ANL. | ANNEALED | FRP | FIBER REINFORCED PLASTIC | PREFAB. | PREFABRICATED |
| ASPH. | ASPHALT | FTG. | FOOTING | PSF | POUNDS PER SQUARE FOOT |
| AVG | AVERAGE | FURN. | FURNISH | PSI | POUNDS PER SQUARE INCH |
| AWG | AMERICAN WIRE GAUGE | G.I. | GALVANIZED IRON | PTN. | PARTITION |
| ▲ | ANGLE | GA. | GAUGE | PVC | POLYVINYLCHLORIDE |
| B.M. | BENCH MARK | GALV. | GALVANIZED | PWR. | POWER |
| B.N. | BOUNDARY NAILING | GAR. | GARAGE | Q.T. | QUARRY TILE |
| B.O. | BOTTOM OF | GFCI | GROUND FAULT CIRCUIT INTERRUPTER | QTY. | QUANTITY |
| B.O.F. | BOTTOM OF FOOTING | | INTERRUPTER | R | RADIUS |
| B.U. | BUILT UP | GFI | GROUND FAULT INTERRUPTER | RCP | REINFORCED CONCRETE PIPE |
| B.C. | BACK OF CURB | GL | GLASS | R.D.L. | ROOF DRAIN LEADER |
| BD. | BOARD | GLB | GLUE LAMINATED BEAM | R.D.O. | ROOF DRAIN OVERFLOW |
| BLDG. | BUILDING | GM | GRADE MARK | R.O. | ROUGH OPENING |
| BLK. | BLOCK | GV | GATE VALVE | R.O.W. or | RIGHT OF WAY |
| BLKG. | BLOCKING | GRC | GALVANIZED RIGID TUBING | R/W | |
| BM | BEAM | GYP. | GYPSPUM | REF | REFRIGERATOR |
| BR. | BRASS | GYP. BD. | GYPSPUM BOARD | RE | REFERENCE |
| BRG. | BEARING | H.B. | HOSE BIBB | REINF. | REINFORCED |
| BRZ. | BRONZE | H.C. | HOLLOW CORE | REO'D. | REQUIRED |
| C.A.P. | CONCRETE ASBESTOS PIPE | H.M. | HOLLOW METAL | RET. | RETURN |
| C.D. | CONSTRUCTION DOCUMENTS | HIC | HANDICAPPED | REV. | REVISION |
| C.I.P. | CAST IN PLACE | HDBD. | HARDBOARD | RM | ROOM |
| C.J. | CONTROL JOINT | HDW. | HARDWARE | RMV. | REMOVE |
| C.O. | CLEAN OUT | HGT. | HEIGHT | S.C. | SOLID CORE |
| C.T. | CERAMIC TILE | HOR. | HORIZONTAL | S.D. | SMOKE DETECTOR |
| CAB | CABINET | HTR. | HEATER | S.O.V. | SHUT OFF VALVE |
| CAM. | CAMBER | HVAC | HEATING, VENTILATING & AIR CONDITIONING | S/L | SKYLIGHT |
| CCTV | CLOSED CIRCUIT TELEVISION | | | S/S | STAINLESS STEEL |
| CEM. | CEMENT | HW | HOT WATER | SC | SELF CLOSING |
| CER | CERAMIC | HYD. | HYDRAULIC | SCHED. | SCHEDULE |
| CFM | CUBIC FEET PER MINUTE | I.C. | INTERCOM OUTLET | SECT. | SECTION |
| CH or C | CHANNEL | ID. | INSIDE DIAMETER | SES | SERVICE ENTRANCE SECTION |
| CKT. BKR. | CIRCUIT BREAKER | I.F. | INSIDE FACE | SH | SHEET |
| CL or C _L | CENTERLINE | ID | IDENTIFICATION | SHTG. | SHEATHING |
| CLG. | CEILING | IG | IMPREGNATED GROUNDING CABLE | SIM. | SIMILAR |
| CLKG. | CAULKING | IMC | IMPREGNATED METAL CLAD | SPA | SPACE |
| CLO. | CLOSET | IMP.G. | IMPREGNATED | SPECS | SPECIFICATIONS |
| CLR. | CLEAR | INCL. | "INCLUDE, INCLUSIVE" | SPKR | SPEAKER |
| CMP. | CORRUGATED METAL PIPE | INSUL. | INSULATION | SQ. FT. or SF | SQUARE FEET |
| CMU | CONCRETE MASONRY UNIT | INT. | INTERIOR | SQ. IN. | SQUARE INCHES |
| CNTRD. | CENTERED | J-BOX | JUNCTION BOX | STC | SOUND TRANSMISSION CLASS |
| COL. | COLUMN | JCT. | JUNCTION | STD. | STANDARD |
| COMB. | COMBINATION | JST. | JOIST | STL. | STEEL |
| CONC. | CONCRETE | JT. | JOINT | SUSP. | SUSPENDED |
| CONST. | CONSTRUCTION | K-D | KNOCK DOWN | SW | SWITCH |
| CONT. | CONTINUOUS | KD | KILN DRIED | SYM | SYMMETRICAL |
| CONTR. | CONTRACTOR | KO | KNOCK OUT | SYS. | SYSTEM |
| CU | COPPER | L.E.D. | LIGHT EMITTING DIODE | T & G | TONGUE AND GROOVE |
| d | PENNY | L.F.T. | LINEAR FEET | T.B. | THROUGH BOLT |
| D.F. | DRINKING FOUNTAIN | LAM | LAMINATE | T.M.B. | TELEPHONE MOUNTING BOARD |
| D.G. | DECOMPOSED GRANITE | LAT. | LATERAL | T.O. | TOP OF |
| D.S. | DOWN SPOUT | LAV | LAVATORY | T.O.B. | TOP OF BEAM |
| DW | DISHWASHER | LD. | LEAD | T.O.C. | TOP OF CURB |
| DBL | DOUBLE | LIN. | LINEAR | T.O.F. | TOP OF FOOTING |
| DEMO | DEMOLITION | LINO. | LINOLEUM | T.O.J. | TOP OF JOIST |
| DIA. or Ø | DIAMETER | LT. | LIGHT | T.O.M. | TOP OF MASONRY |
| DIAG. | DIAGONAL | LTG. | LIGHTING | T.O.S. | TOP OF SLAB or TOP OF STEEL |
| DIM. | DIMENSION | LVL | LAMINATED VENEER LUMBER | T.O.W. | TOP OF WALL |
| DL | DEAD LOAD | M.B. | MACHINE BOLT | T.S. | TUBE STEEL |
| DN. | DOWN | M.H. | MANHOLE | T.V. | TELEVISION OUTLET |
| DR | DOOR | M.I. | MALLEABLE IRON | TEL | TELEPHONE |
| E.A. | EXPANSION ANCHOR | M.O. | MASONRY OPENING | TH. | THRESHOLD |
| E.F. | EXHAUST FAN | MAR. | MARBLE | THD. | THREADED |
| E.J. | EXPANSION JOINT | MAS. | MASONRY | THK. | THICK |
| E.N. | END NAILING | MATL. | MATERIAL | THRU | THROUGH |
| E.W. | EACH WAY | MAX. | MAXIMUM | TLT. | TOILET |
| EA. | EACH | MECH. | MECHANICAL | TRANS. | TRANSFORMER |
| EL | ELEVATION | MED. | MEDIUM | TYP. | TYPICAL |
| ELECT. | "ELECTRIC, ELECTRICAL" | MPG. | MANUFACTURING | UNF. | UNFINISHED |
| ELEV. | ELEVATOR | MFR. | MANUFACTURER | U.N.O. | UNLESS NOTED OTHERWISE |
| EMC | ELECT. METALLIC CONDUIT | MIN. | MINIMUM | UR | URINAL |
| EMT | ELECT. METALLIC TUBING | MISC. | MISCELLANEOUS | V.B. | VAPOR BARRIER |
| ENT | ELECT. NON-METALLIC TUBING | MOD | MODULAR | V.I.F. | VERIFY IN FIELD |
| EQ. | EQUAL | MTL. | METAL | VA | VOLT AMPERE |
| EQUIP. | EQUIPMENT | MUL. | MULLION | VCT | VINYL COMPOSITION TILE |
| EST. | ESTIMATE | N.I.C. | NOT IN CONTRACT | VERT. | VERTICAL |
| EVAP. | EVAPORATIVE COOLER | N.T.S. | NOT TO SCALE | V.O.J. | VERIFY ON JOB |
| EW | ELECTRIC DRINKING COOLER | NCM | NON-CORROSIVE METAL | W/C | WATER CLOSET |
| EXC | EXCAVATE | NFC | NOT FOR CONSTRUCTION | WDW | WINDOW |
| EXH. | EXHAUST | NLR. | NAILER | WCT | WAINSCOT |
| EXIST. | EXISTING | NO. | NUMBER | WP | WEATHER PROOF |
| EXT. | EXTERIOR | NOM. | NOMINAL | WT. | WEIGHT |
| F.A. | FIRE ALARM | O.C. | ON CENTER | W/ | WITH |
| F.C. | FAN COIL | O.D. | OUTSIDE DIAMETER | W/O | WITHOUT |
| F.C.O. | FLOOR CLEAN OUT | O.H. | OVER HANG | WD. | WOOD |
| F.D. | FLOOR DRAIN | O.I. | ORNAMENTAL IRON | W.I. | WROUGHT IRON |
| F.E. | FIRE EXTINGUISHER | O.R. | OUTSIDE RADIUS | YD. | YARD |
| | | OAI | OUTSIDE AIR INTAKE | | |

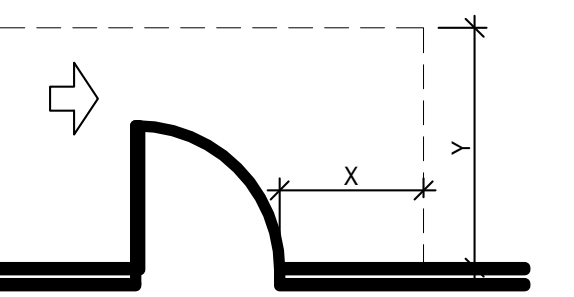
PULL SIDE



NOTE: ALL DOORS IN ALCOVES SHALL COMPLY WITH THE CLEARANCES FOR FRONT APPROACHES.

FRONT APPROACHES - SWINGING DOORS

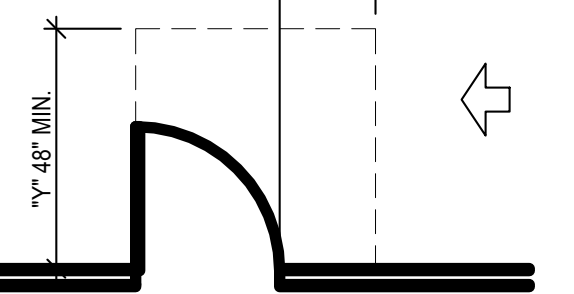
PULL SIDE



NOTE: X = 36IN MINIMUM IF Y = 60IN;
X = 42IN MINIMUM IF Y = 54IN

HINGE SIDE APPROACHES - SWINGING DOORS

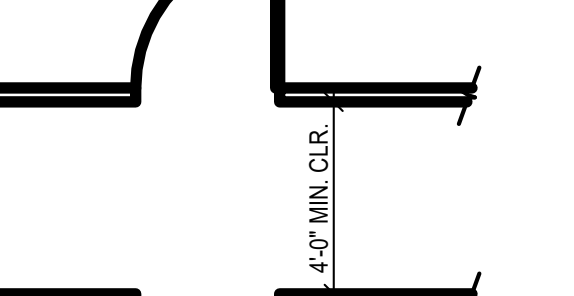
PULL SIDE



NOTE: ALL REQUIRED CLEAR FLOOR AREA SHALL BE LEVEL. EXTERIOR LANDINGS SHALL BE SLOPED NO GREATER THAN 1:50.

LATCH SIDE APPROACHES - SWINGING DOORS

PULL SIDE

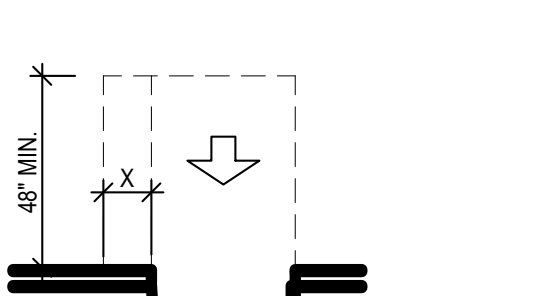


DOORS IN SERIES

5

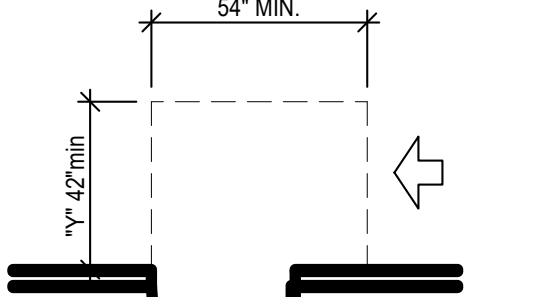
SCALE: 1/4" = 1'-0"

PUSH SIDE



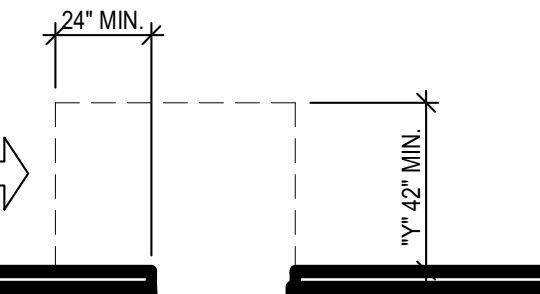
NOTE: X = 12 IN IF DOOR HAS BOTH A LATCH AND CLOSER

PUSH SIDE



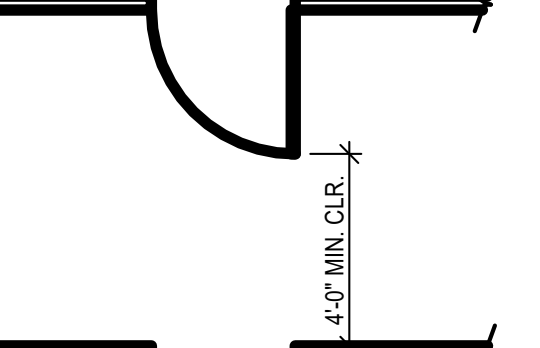
NOTE: Y = 48IN MINIMUM IF DOOR HAS BOTH A LATCH AND CLOSER

PUSH SIDE



NOTE: Y = 54IN MINIMUM IF DOOR HAS A CLOSER.

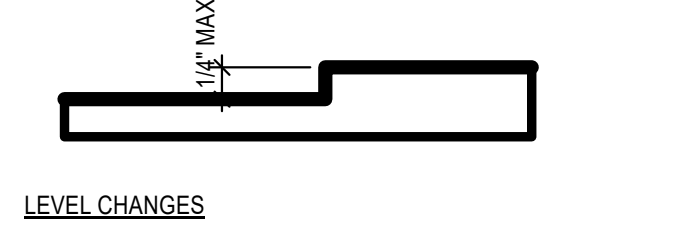
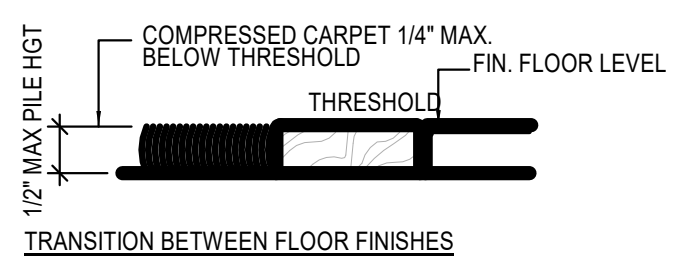
PUSH SIDE



PUSH SIDE

6

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



8 THRESHOLD / LEVEL CHANGES

SCALE: 6\"/>

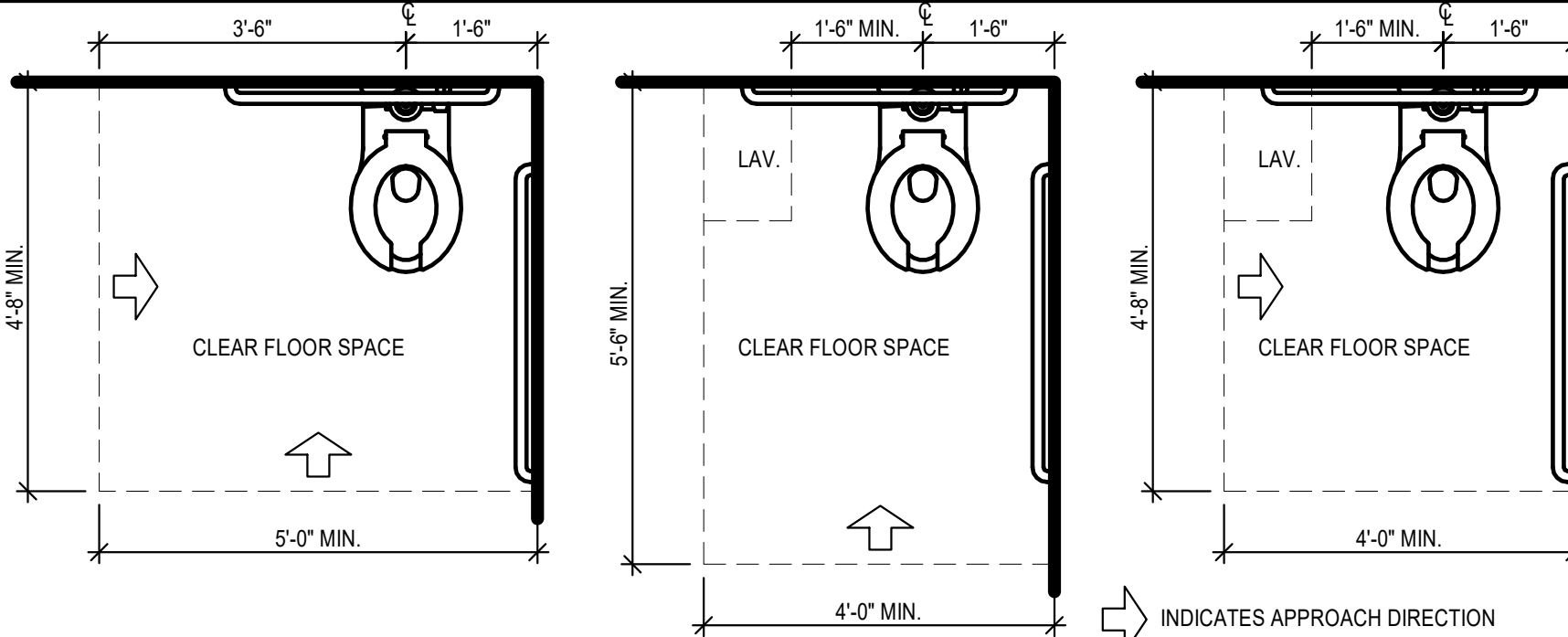
DETECTABLE WARNING SURFACES INSIDE PROPERTY LINES
WARNING AREAS SHALL CONSIST OF A REGULARLY SPACED, CONTINUOUS PATTERN OF GROOVES RUNNING PERPENDICULAR TO THE RUN OF A CURB RAMP OR PARALLEL TO THE EDGE BETWEEN A CIRCULATION PATH AND A HAZARDOUS AREA. GROOVES SHALL BE 1/4\"/>

DETECTABLE WARNING SURFACES OUTSIDE PROPERTY LINES
DETECTABLE WARNING SURFACES SHALL CONSIST OF RAISED TRUNCATED DOMES WITH A DIAMETER OF NOMINAL 0.9\"/>

DETECTABLE WARNING SURFACES AT HAZARDOUS VEHICULAR AREAS
DETECTABLE WARNING SURFACES AT HAZARDOUS VEHICULAR AREAS ARE WALK CROSSES OR ADJOINS A VEHICULAR WAY, AND THE WALKING SURFACES ARE NOT SEPARATED BY CURBS, RAILINGS, OR OTHER ELEMENTS BETWEEN THE PEDESTRIAN AREAS AND VEHICULAR AREAS. THE BOUNDARY BETWEEN THE AREAS SHALL BE DEFINED BY A CONTINUOUS DETECTABLE WARNING WHICH IS 36\"/>

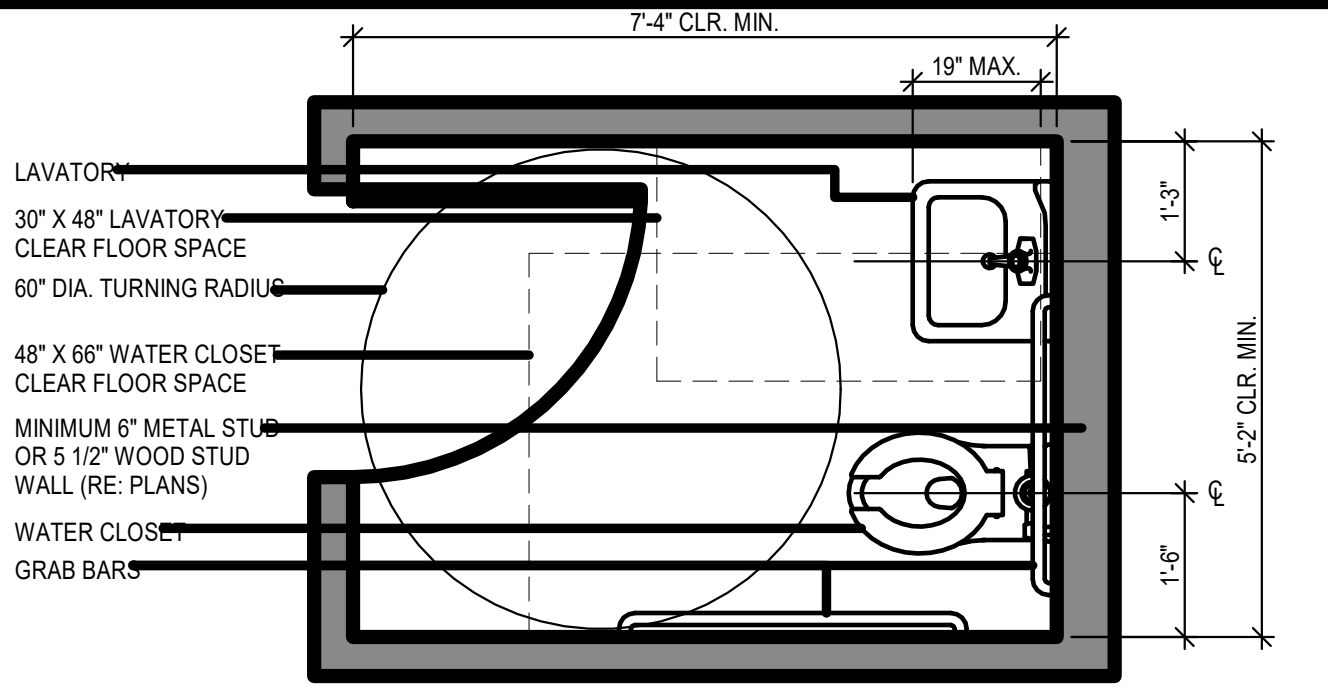
10 DETECTABLE WARNING SURFACES

SCALE: 3\"/>



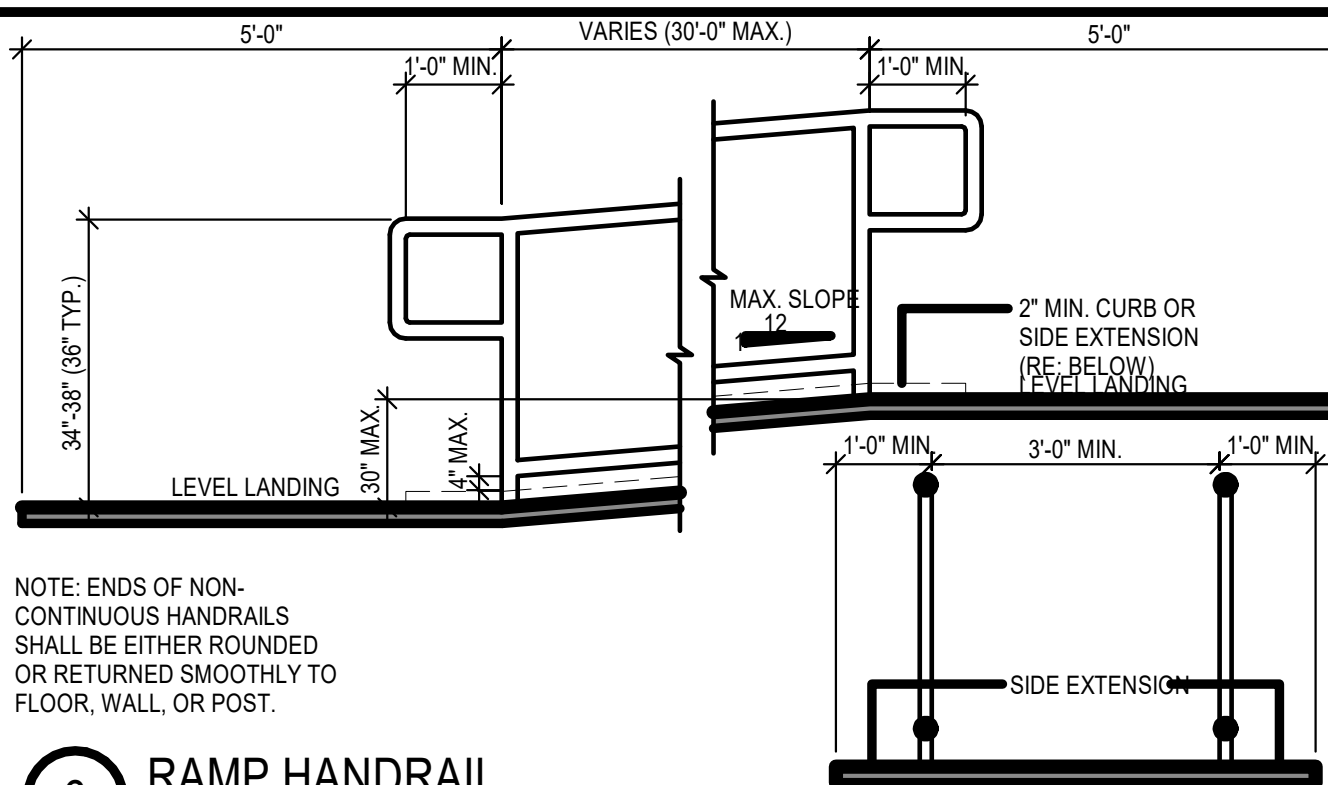
1 CLEAR FLOOR SPACE AT ACCESSIBLE WATER CLOSETS

SCALE: 1/2\"/>



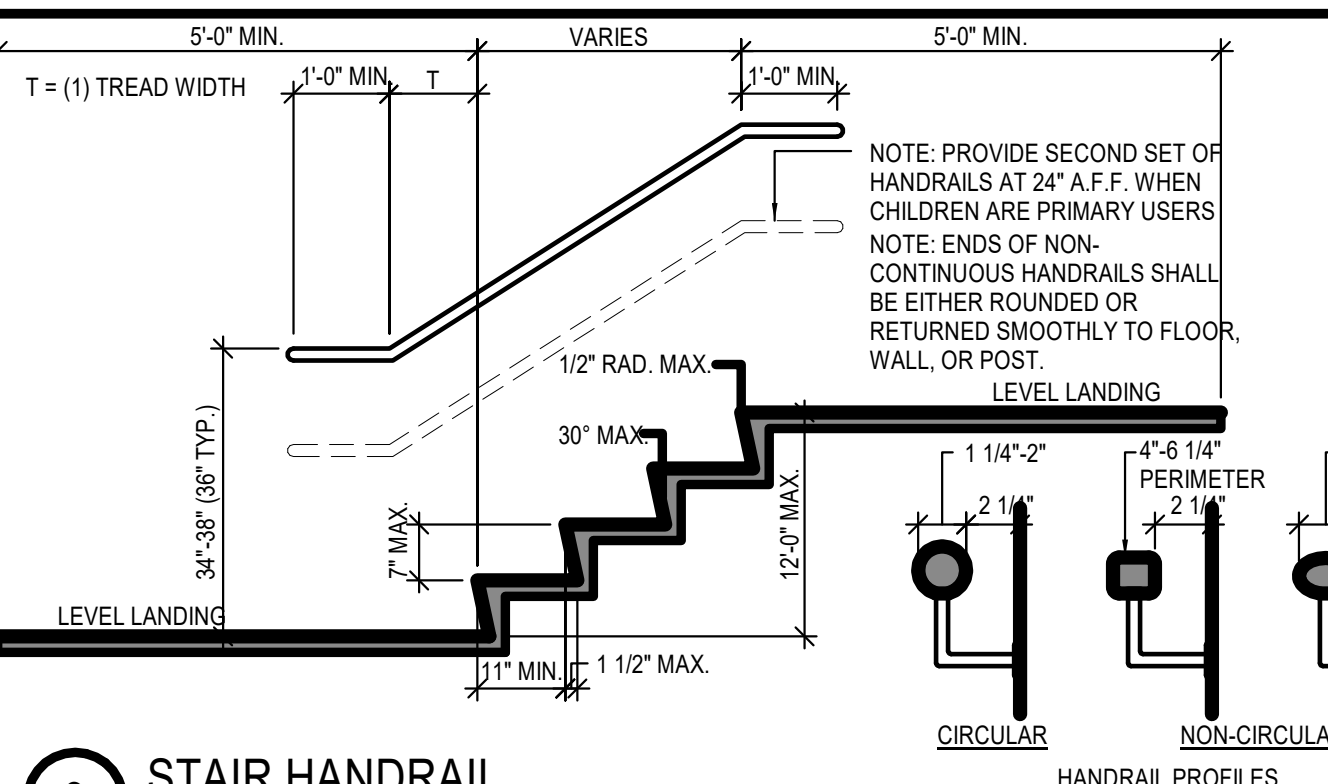
3 STANDARD ACCESSIBLE SINGLE FIXTURE TOILET

SCALE: 1/2\"/>



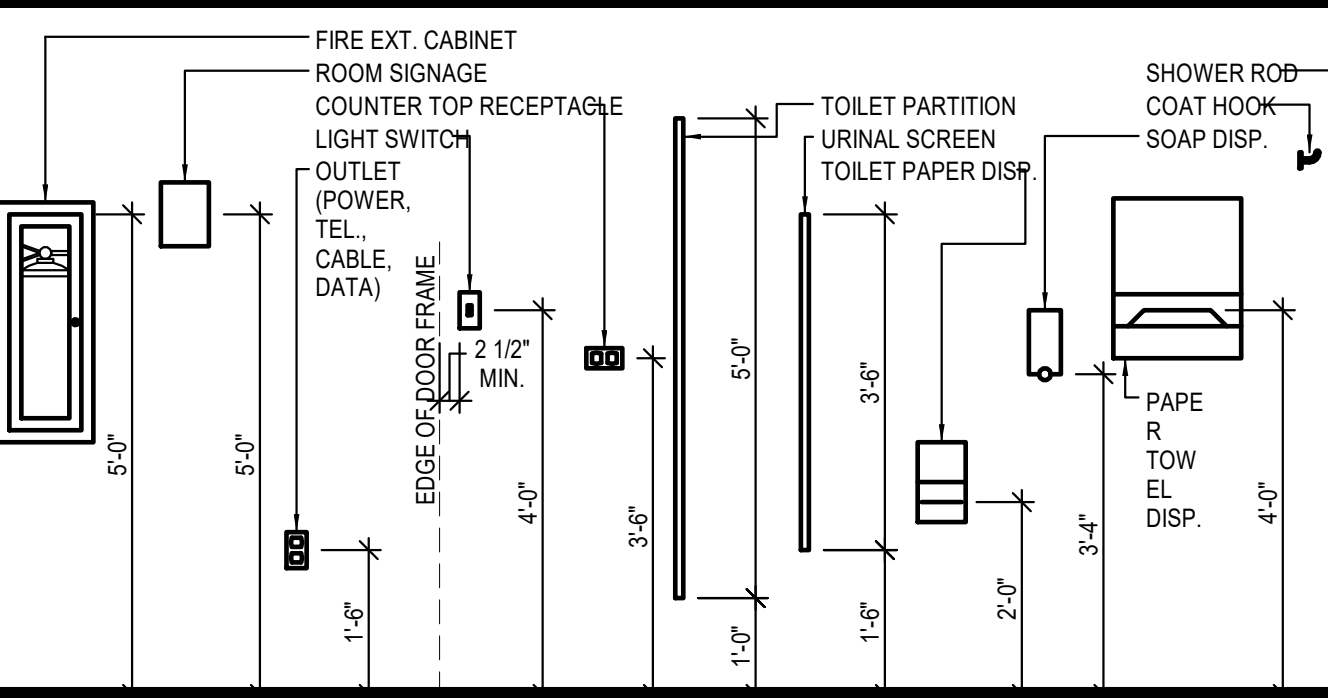
6 RAMP HANDRAIL

SCALE: 1/2\"/>



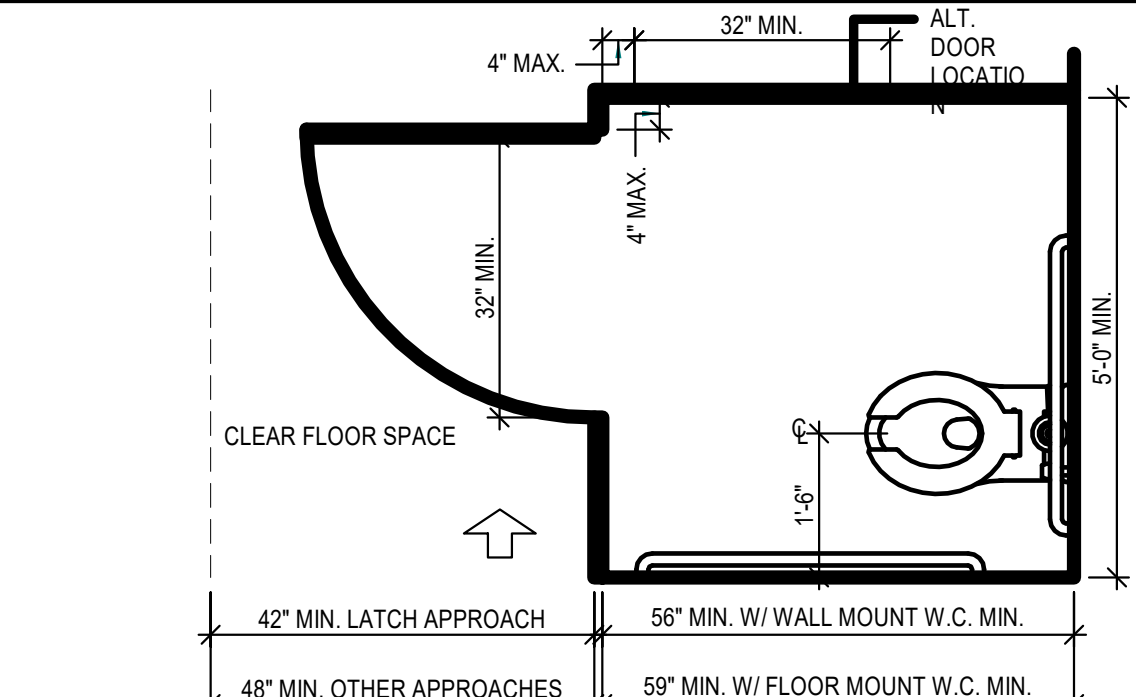
9 STAIR HANDRAIL

SCALE: 1/2\"/>



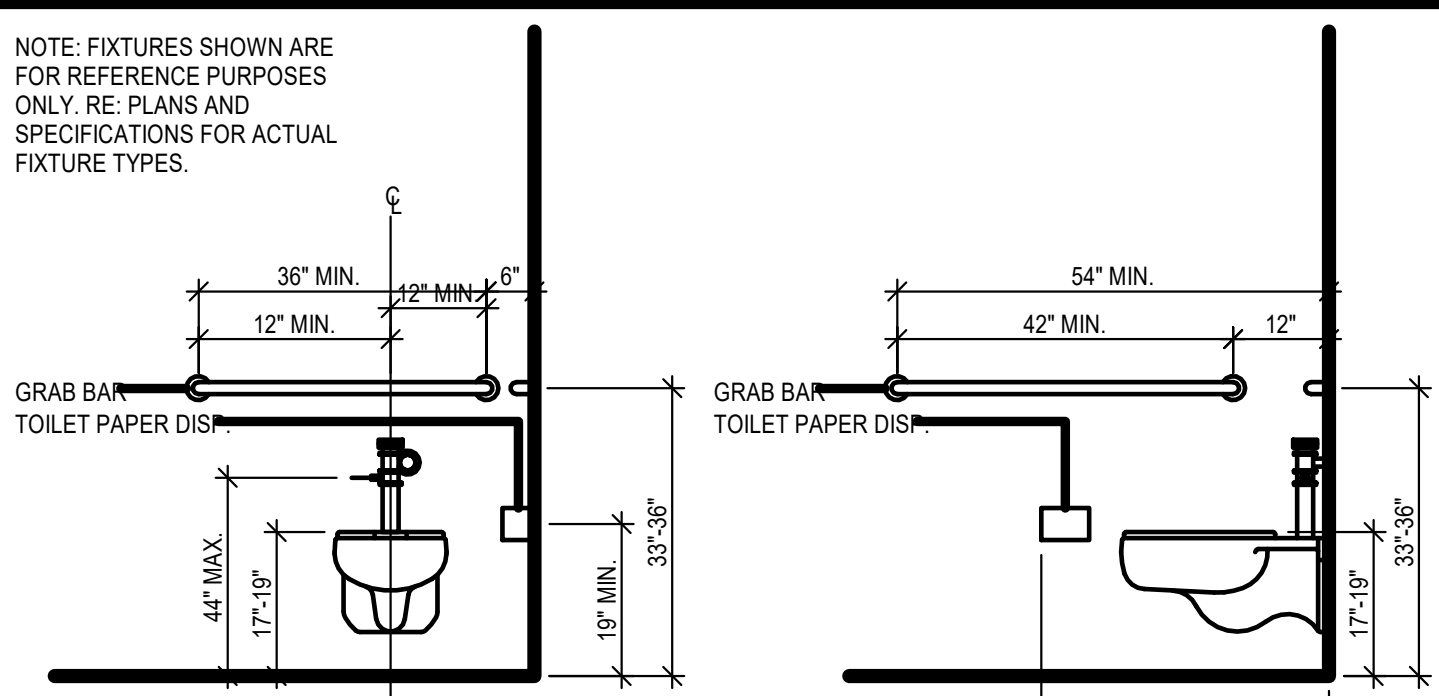
11 STANDARD MOUNTING HEIGHTS

SCALE: 1/2\"/>



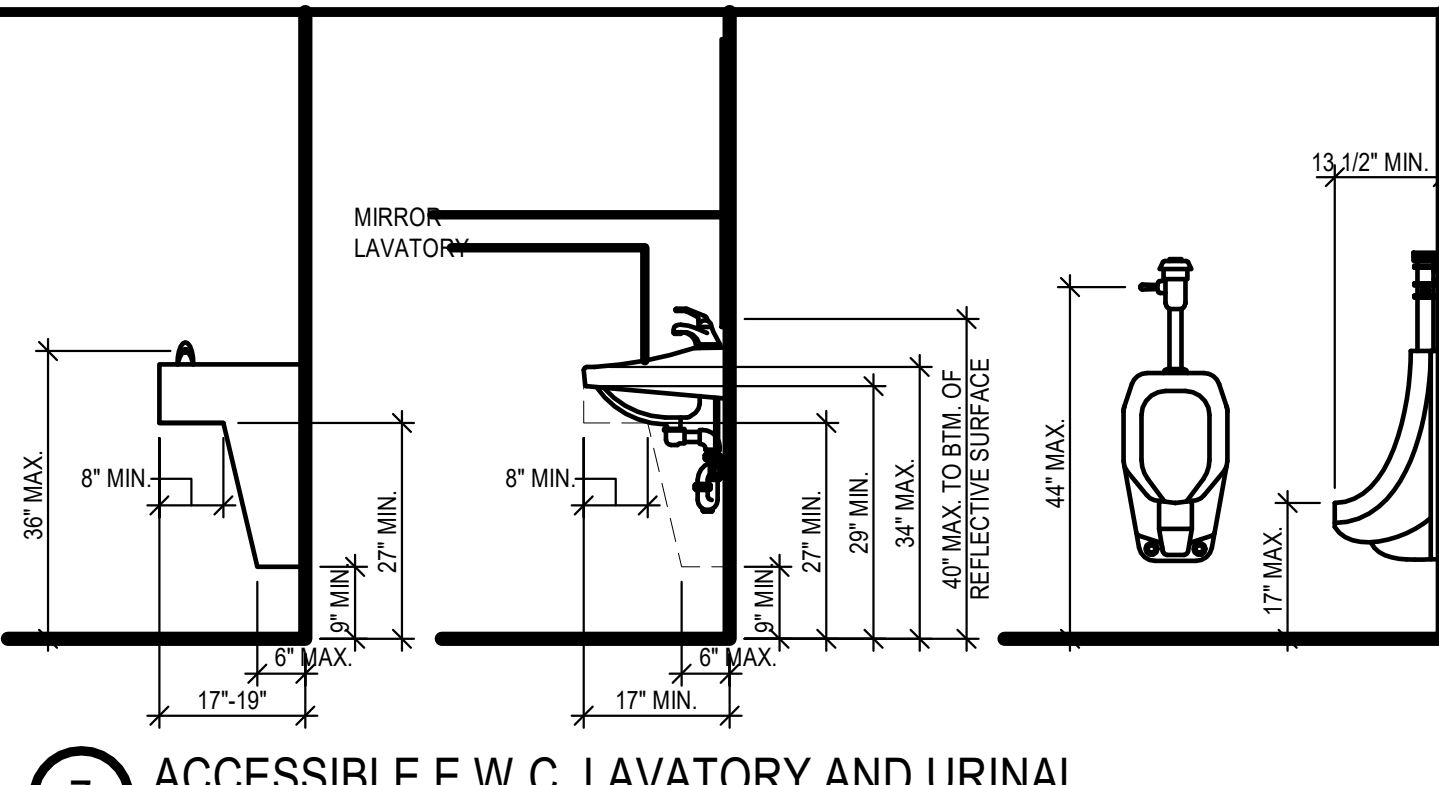
2 ACCESSIBLE TOILET STALL

SCALE: 1/2\"/>



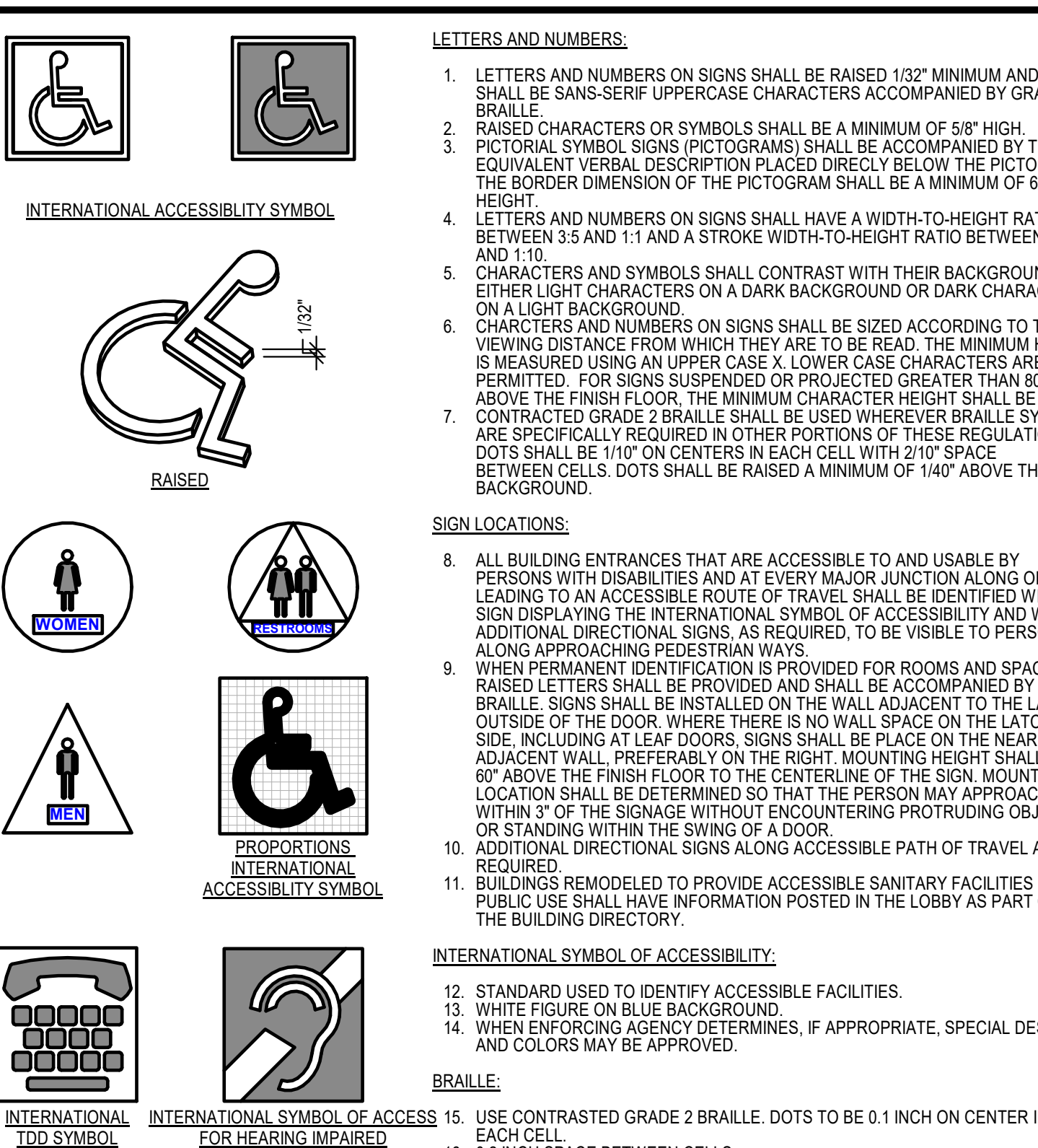
4 MOUNTING HEIGHTS AT ACCESSIBLE WATER CLOSETS

SCALE: 1/2\"/>



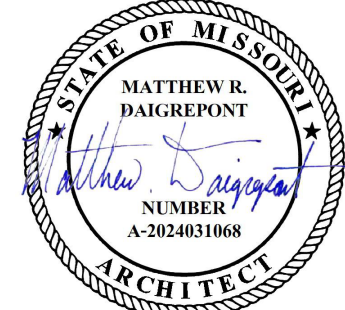
7 ACCESSIBLE E.W.C., LAVATORY AND URINAL

SCALE: 1/2\"/>



12 ACCESSIBLE SIGNAGE

SCALE: NO SCALE



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These plans were prepared in this office under our personal supervision, and to the best of our knowledge comply with state and local codes. Will generally administer construction.

FUSION ARCHITECTS
3488 BRENTWOOD DRIVE
BATON ROUGE, LA 70809
P. 225.766.4848 F. 225.766.4724
tusionapp.com

**New Construction For
Take 5 Oil Change**
400 NE M State Route 291
Lee's Summit, Missouri 64086



PROJECT NO: 33-006-22
PHASE: Final Dev. Submittal
DATE: 02/17/12
PROJ. ARCHITECT: Designer

STANDARDS
SHEET NO.
G2.00
OF

PROPOSED TAKE 5 OIL CHANGE

RTE 291 @ SE LANGSFORD RD
LEE'S SUMMIT, MISSOURI



VICINITY MAP
N.T.S

- NOTE:
- THIS PROJECT IS TO BE CONSTRUCTED WITHIN THE JURISDICTIONAL BOUNDARIES OF THE CITY OF LEE'S SUMMIT, MO.
 - UNLESS OTHERWISE NOTED ALL IMPROVEMENTS SHALL COMPLY WITH THE CITY OF LEE'S SUMMIT, MO STANDARD SPECIFICATIONS AND DRAWINGS.

SHEET INDEX

| | | |
|-------|--------|-------------------------|
| CIVIL | | |
| 1. | COVER | COVER SHEET |
| 2. | SURVEY | |
| 3. | ES-1 | EROSION CONTROL PLAN |
| 4. | ES-2 | EROSION CONTROL DETAILS |
| 5. | C-1 | SITE PLAN |
| 6. | C-1.1 | JOINT LAYOUT PLAN |
| 7. | C-2 | GRADING PLAN |
| 8. | C-2.1 | PROFILES |
| 9. | C-2.2 | DETENTION BASIN PLAN |
| 10. | C-3 | UTILITY PLAN |
| 11. | C-4.1 | SITE DETAILS |
| 12. | C-4.2 | SITE DETAILS |
| 13. | C-4.3 | SITE DETAILS |
| 14. | C-4.4 | DRAINAGE DETAILS |
| 15. | C-4.5 | DRAINAGE DETAILS |
| 16. | C-4.6 | SEWER DETAILS |
| 17. | C-4.7 | UTILITY DETAILS |
| 18. | C-4.8 | UTILITY DETAILS |
| 19. | C-4.9 | UTILITY DETAILS |

| | | |
|-----------|-------|-------------------|
| LANDSCAPE | | |
| 20. | L-1.0 | LANDSCAPE PLAN |
| 21. | L-1.2 | LANDSCAPE DETAILS |

DEVELOPER

DRIVEN ASSETS, LLC
2101 PEARL STREET
BOULDER, CO 80302



| REVISION | BY |
|-------------------------------------|-----|
| 1 10/24/2024 REVISED PER CITY | KRG |
| | |
| | |
| | |

HIGH TIDE

CONSULTANTS LLC

434 N. COLUMBIA ST, SUITE 200A

COVINGTON, LA 70433

www.hightidela.com

SIGNATURE

OCTOBER 24, 2024

DATE

STAMP

PROPOSED TAKE 5
LEE'S SUMMIT, MISSOURI

FOR DRIVEN ASSETS, LLC
2101 PEARL STREET
BOULDER, CO 80302

| |
|---------------------------|
| DRAWN KRG |
| CHECKED RCG |
| ISSUED DATE 07/30/2024 |
| ISSUED FOR PERMITTING |
| PROJECT NO. 22-218 |
| FILE 22-218 COVER |

SHEET
COVER

TOPOGRAPHIC SURVEY

SURVEY PREPARED FOR
DRIVEN ASSETS, LLC
2101 PEARL STREET
BOULDER, CO. 80302
TODD MINIS, MANAGING PARNTER
todd@drivenassets.com

SURVEY NOTES

1. INFORMATION AS SHOWN FOR UNDERGROUND UTILITIES HAS BEEN COMPILED FROM THE RECORDS OF VARIOUS UTILITY COMPANIES CONCERNED, AND AS MARKED IN THE FIELD BY THE MISSOURI ONE CALL SYSTEM, 1 (800) 344-7483. WHEN PRECISE LOCATIONS OF UNDERGROUND UTILITIES ARE NEEDED PRIOR TO EXCAVATION OR CONNECTIONS, THE VARIOUS UTILITY COMPANIES CONCERNED ARE TO FURNISH A CREW TO POINT OUT THE LOCATIONS AT THE JOB SITE. Missouri One Call Ticket #232351453.
3. CONTOURS SHOWN HEREON ARE 1 FOOT INTERVALS AND BASED NAVD88.
4. BASIS OF BEARINGS: MISSOURI STATE PLANE, WEST ZONE.
5. CLASS OF SURVEY: URBAN
6. WE HAVE REVIEWED THE "FLOOD INSURANCE RATE MAP", COMMUNITY PANEL NO. 29095C0436G HAVING AN EFFECTIVE JANUARY 20, 2017 AS PUBLISHED BY FEDERAL EMERGENCY MANAGEMENT AGENCY. OUR REVIEW OF THIS MAP INDICATES THAT THIS PARCEL OF LAND LIES WITHIN ZONE X OTHER FLOOD AREAS, WHICH IS "AREAS OF 0.2%; AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND AREAS PROTECTED BY LEVEES FORM 1% ANNUAL CHANCE FLOOD."

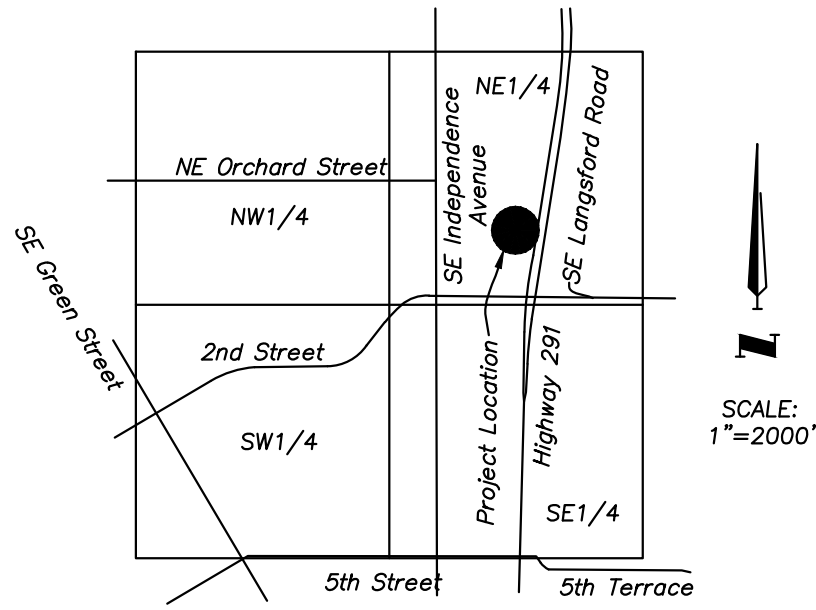
LEGAL DESCRIPTION PER TITLE COMMITMENT

TRACT I:

THE SOUTH 150 FEET OF THE EAST 150 FEET OF THE NORTH 300 FEET OF THE SOUTH 802 FEET OF THE EAST 880 FEET OF THE WEST ONE HALF OF THE NORTHEAST QUARTER OF SECTION 5, TOWNSHIP 47, RANGE 31, IN LEE'S SUMMIT, JACKSON COUNTY, MISSOURI, MORE PARTICULARLY DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHWEST CORNER OF THE NORTHEAST QUARTER OF SAID SECTION 5, TOWNSHIP 47, RANGE 31; THENCE SOUTH 89 DEGREES, 22 MINUTES, 09 SECONDS EAST ALONG THE SOUTH LINE OF THE WEST ONE HALF OF SAID QUARTER SECTION, A DISTANCE OF 1321.26 FEET TO THE SOUTHEAST CORNER OF SAID WEST ONE HALF; THENCE NORTH 00 DEGREES, 40 MINUTES, 00 SECONDS EAST ALONG THE EAST LINE OF SAID WEST ONE HALF, A DISTANCE OF 602.00 FEET TO THE POINT OF BEGINNING; THENCE NORTH 89 DEGREES, 22 MINUTES, 09 SECONDS EAST, PARALLEL WITH THE SOUTH LINE OF SAID WEST ONE HALF, A DISTANCE OF 150.00 FEET; THENCE NORTH 00 DEGREES, 40 MINUTES, 00 SECONDS EAST, PARALLEL WITH THE EAST LINE OF SAID WEST ONE HALF, A DISTANCE OF 150.00 FEET; THENCE SOUTH 89 DEGREES, 22 MINUTES, 09 SECONDS EAST, PARALLEL WITH THE SOUTH LINE OF SAID WEST ONE HALF, A DISTANCE OF 150.00 FEET TO A POINT ON THE EAST LINE OF SAID WEST ONE HALF, THENCE SOUTH 00 DEGREES, 40 MINUTES, 00 SECONDS WEST ALONG SAID EAST LINE, A DISTANCE OF 150.00 FEET TO THE POINT OF BEGINNING.

TRACT II:

COMMENCING AT THE SOUTHWEST CORNER OF THE EAST 1/2 OF THE NORTHEAST 1/4 OF SECTION 5, TOWNSHIP 47, RANGE 31, LEE'S SUMMIT, JACKSON COUNTY, MISSOURI; THENCE ALONG THE WEST LINE OF SAID 1/2 OF 1/4 SECTION NORTH 2 DEGREES, 33 MINUTES, 49 SECONDS EAST 602 FEET TO THE TRUE POINT OF BEGINNING OF THIS TRACT; THENCE ALONG SAID WEST LINE NORTH 2 DEGREES, 33 MINUTES, 49 SECONDS EAST 478.79 FEET; THENCE SOUTH 88 DEGREES, 27 MINUTES, 48 SECONDS EAST 152.53 FEET TO A POINT ON THE WEST LINE OF THE RIGHT-OF-WAY OF M-291; THENCE ALONG SAID RIGHT-OF-WAY LINE AS FOLLOWS: SOUTH 15 DEGREES, 32 MINUTES, 36 SECONDS WEST 73.03 FEET TO A POINT 135 FEET OPPOSITE CENTER LINE STATION 117+00; THENCE SOUTH 11 DEGREES, 23 MINUTES, 57 SECONDS WEST 200 FEET TO A POINT 135 FEET OPPOSITE CENTER LINE STATION 119+00; THENCE SOUTH 1 DEGREE, 11 MINUTES, 44 SECONDS WEST 101.61 FEET TO A POINT 117 FEET OPPOSITE CENTER LINE STATION 120+00; THENCE PARALLEL TO SAID CENTER LINE SOUTH 11 DEGREES, 23 MINUTES, 57 SECONDS WEST 50 FEET; THENCE SOUTH 64 DEGREES, 21 MINUTES, 40 SECONDS WEST 66.40 FEET TO A POINT 170 FEET OPPOSITE CENTER LINE STATION 120+90; THENCE PARALLEL TO SAID CENTER LINE SOUTH 11 DEGREES, 23 MINUTES, 57 SECONDS WEST 31.03 FEET; THENCE LEAVING SAID RIGHT-OF-WAY NORTH 87 DEGREES, 26 MINUTES, 43 SECONDS WEST 35.61 FEET TO THE TRUE POINT OF BEGINNING



VICINITY MAP
5-47-31

LEGEND

- GA = GUY ANCHOR
- MS = METAL SIGN
- PP = POWER POLE
- SSMH = SANITARY SEWER MANHOLE
- Δ = SECTION CORNER
- SCO = SEWER CLEAN OUT
- W = WATER MARKER
- WV = WATER VALVE
- WS = WOOD SIGN
- B = BOLLARD
- PM = GAS METER
- LP = LIGHT POLE w/CONC. BASE

CP 50
1/2" IRON BAR WITH SKW TRAVERSE CAP
1. NORTH 3.0 FEET TO THE SOUTH EDGE OF AN ASPHALT ENTRANCE.
2. SOUTHWEST 8.5 FEET TO THE WEST CURB RETURN.
3. SOUTHEAST 24.0 FEET TO THE SOUTH END OF AN 18" CMP.

CP 51
1/2" IRON BAR WITH SKW CAP
1. EAST 10.50 FEET TO THE WEST EDGE OF HIGHWAY 291.
2. WEST 15.5 FEET TO THE EAST EDGE OF A CONCRETE FLUME.

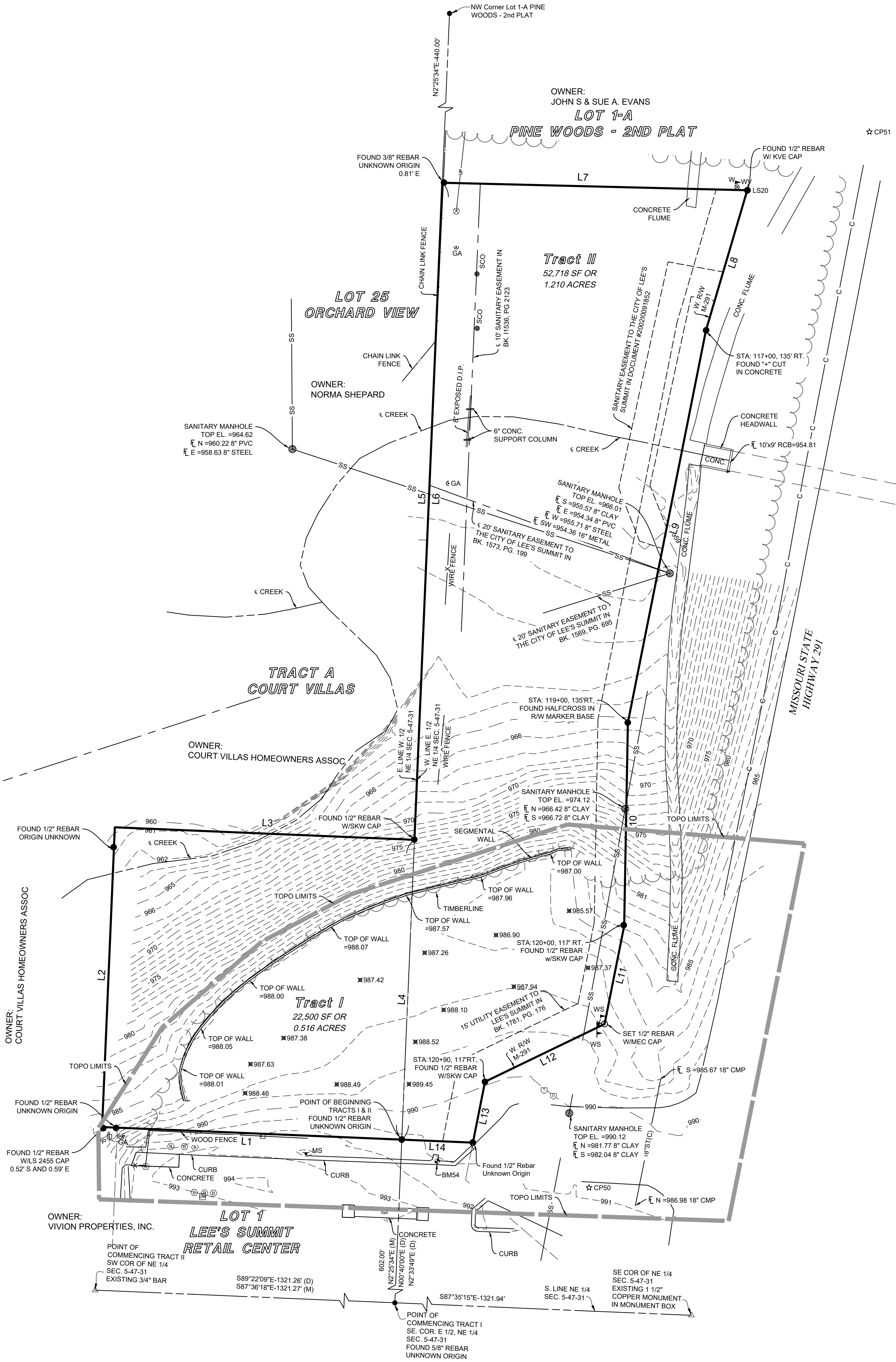
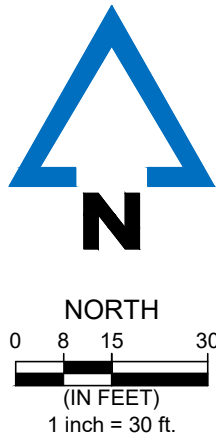
CP 52
MAG & SHINER IN THE TOP OF A CURB AT THE NORTH END OF YELLOW NO PARKING.
1. WEST 28.0 FEET TO THE EAST END OF AN ISLAND.
2. EAST 41.8 FEET TO THE WEST EDGE OF HIGHWAY 291.
3. SOUTH 36.8 FEET TO A FIRE HYDRANT.

BENCHMARK 53
ELEV.: 994.99
SET + CUT THE NORTH BOLT TOP FLANGE OF A FIRE HYDRANT ±150' SOUTHEAST OF THE SOUTHEAST CORNER OF THIS SURVEY.

BENCHMARK 54
ELEV.: 991.62
EXISTING SQUARE CUT ON BACK OF CURB 50'± EAST NORTHEAST OF THE NORTHEAST CORNER OF MEINEKE ON THE NORTH SIDE DRIVE AT THE FLUME.

| PROJECT CONTROL POINTS TABLE | | | | |
|------------------------------|-------------|-------------|---------|-------------|
| CP# | NORTHING | EASTING | ELEV. | DESCRIPTION |
| 50 | 1002321.14' | 2828279.79' | 990.78' | CP 50 |
| 51 | 1002848.95' | 2828419.99' | 979.14' | CP 51 |
| 52 | 1001994.38' | 2828211.00' | 997.15' | CP 52 |
| 53 | 1002195.40' | 2828248.41' | 994.99' | BM 53 |
| 54 | 1002334.35' | 2828203.90' | 991.68' | BM 54 |

| LINE TABLE | | |
|------------|------------------------------------|----------|
| LINE NO. | BEARING | DISTANCE |
| L1 | N87°36'18"W (M) N89°22'09"E (D) | 150.00' |
| L2 | N2°25'34"E (M) N00°40'00"E (D) | 150.00' |
| L3 | S89°22'09"E (D) S87°36'18"E (M) | 150.00' |
| L4 | N00°40'00"E (D) N2°25'34"E (M) | 150.00' |
| L5 | N2°33'48"E (D) N2°25'34"E (M) | 328.79' |
| L6 | N2°33'48"E (D) N2°25'34"E (M) | 478.79' |
| L7 | S88°27'48"E (D) S89°38'03"E (M) | 152.53' |
| L8 | S16°24'21"W (M) S16°32'38"W (D) | 73.03' |
| L9 | N11°15'42"W (M) S11°23'57"W (D) | 200.00' |
| L10 | S11°11'44"W (D) S1°03'29"W (D) | 101.61' |
| L11 | S11°15'42"W (M) S11°23'57"W (D) | 50.00' |
| L12 | S64°13'25"W (M) S64°21'40"W (D) | 66.40' |
| L13 | S11°15'42"W (M) S11°23'57"W (D) | 31.03' |
| L14 | N87°34'58"W (M) N87°26'43"W (D) | 35.61' |



UTILITY WARNING

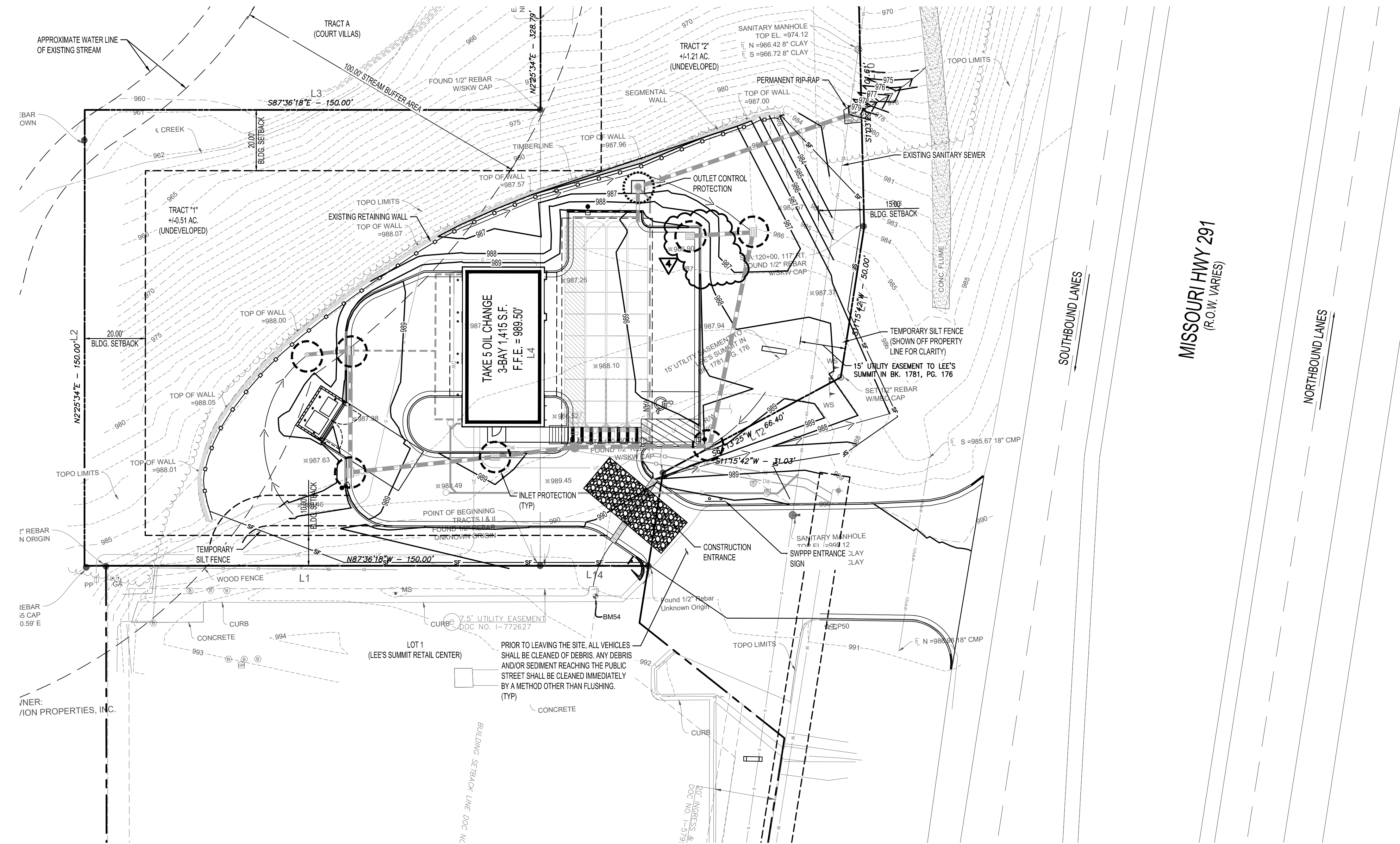
THE UTILITIES DEPICTED ON THIS DOCUMENT HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND/OR RECORDS OBTAINED. THE SURVEYOR MAKES NO GUARANTEE THAT THE UTILITIES OR SUBSURFACE FEATURES SHOWN COMPRISE ALL SUCH ITEMS IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UTILITIES OR SUBSURFACE FEATURES SHOWN ARE IN THE EXACT LOCATION INDICATED EXCEPT WHERE NOTED AS QUALITY LEVEL A.

TOPOGRAPHIC SURVEY

ENGINEER: J. BURNETTE
SURVEYOR: S. WHITAKER
DRAWN BY: J. BURNETTE
CREW CHIEF:
REVISIONS:
LEE'S SUMMIT, JACKSON CO. MISSOURI
SEC. 5-47-R31
20230124B-000
9/13/2023
SHEET NO. 01/01



ACCORDING TO THE MISSOURI DEPARTMENT OF NATURAL RESOURCES GIS MAP, NO EXISTING OIL AND GAS WELLS ARE LOCATED ON SITE.



EROSION CONTROL NOTES:

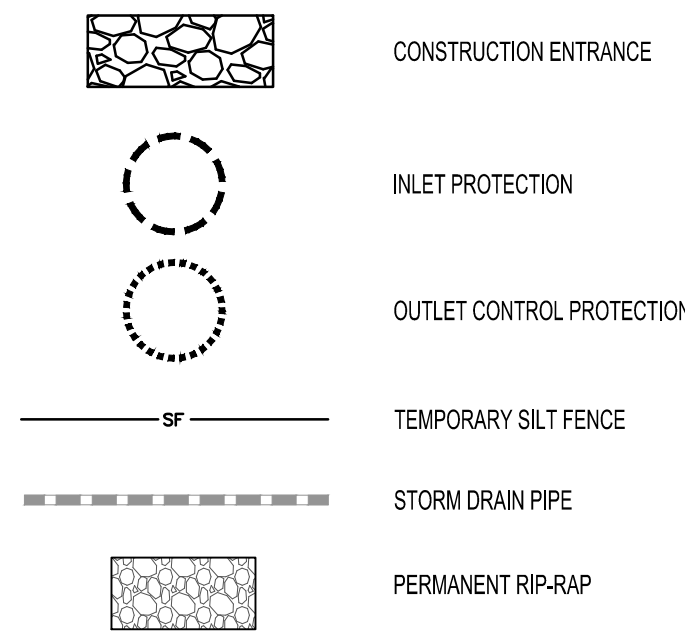
- SEDIMENT AND EROSION CONTROL FACILITIES AND STORM DRAINAGE FACILITIES SHALL BE INSTALLED PRIOR TO ANY OTHER CONSTRUCTION.
- CONTRACTOR SHALL MAINTAIN EROSION CONTROL FACILITIES DURING THE ENTIRE CONSTRUCTION PERIOD. FACILITIES ARE NOT TO BE REMOVED UNTIL COMPLETION OF THE PROJECT.
- ADDITIONAL EROSION CONTROL BMP'S MAY BE REQUIRED AS DEEMED NECESSARY BY GOVERNING AUTHORITIES.
- SILT FENCES SHALL BE CLEANED OR REPLACED WHEN SILT BUILDS UP TO $\frac{1}{2}$ THE HEIGHT OF THE FENCE.
- EROSION CONTROL MEASURES ARE TO BE INSPECTED WEEKLY AND AFTER EACH RAINFALL AND REPAIRED AS NECESSARY.
- ALL GRADED AREAS SHALL BE STABILIZED WITH A PERMANENT FAST GROWING COVER AND/OR MULCH UPON COMPLETION OF GRADING OPERATIONS. COMPLETION OF GRADING OPERATIONS DOES NOT MEAN AT THE END OF THE PROJECT, AS SOON AS FINAL GRADES ARE ESTABLISHED IN AN UNPAVED AREA, THE CONTRACTOR SHALL STABILIZE WITH A TEMPORARY GRASS OR PERMANENT SOD. IF A TEMPORARY GRASS IS APPLIED, IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO APPLY A PERMANENT SEED OR SOD AT THE PROPER TIME OF YEAR.
- FILL SLOPES SHOULD BE PLANTED AS SOON AS AN AREA OF THE SITE IS BROUGHT TO FINAL GRADE. SURFACE RUNOFF SHALL BE INTERCEPTED AT THE TOP OF TEMPORARY AND PERMANENT SLOPES DURING CONSTRUCTION SO THAT WATER IS NOT ALLOWED TO FLOW OVER THE SLOPE FACE.
- THE GENERAL CONTRACTOR AND THE GRADING CONTRACTOR SHALL REVIEW THEIR GRADING SEQUENCE TO INSURE THAT THE LEAST AMOUNT OF LAND POSSIBLE AT ANY ONE TIME IS DISTURBED WITHOUT PERMANENT STABILIZATION.
- CONTRACTOR SHALL INSTALL TEMPORARY CONSTRUCTION ENTRANCES PRIOR TO ANY EARTHWORK OPERATIONS.
- CONTRACTOR SHALL MAINTAIN SILT FENCE FOR THE DURATION OF THE PROJECT UNTIL ACCEPTED BY THE OWNER AT NO EXPENSE TO OWNER.
- CONTRACTOR SHALL INSPECT ON A DAILY BASIS FOR NEEDED REMOVAL OF ANY ACCUMULATED SILTS, DEBRIS, OR REPAIR OF DAMAGED SILT FENCE AT NO ADDITIONAL EXPENSE TO OWNER.
- PRIOR TO CONSTRUCTION, THE EROSION AND SEDIMENT CONTROL MEASURES SHOWN HEREON SHALL BE IN PLACE. CLEARING AND GRUBBING OPERATIONS WILL BE ENGAGED IN ONLY AS NECESSARY TO ALLOW THE PLACEMENT OF EROSION AND SEDIMENT CONTROL MEASURES AS SHOWN HEREON UNTIL ALL SUCH MEASURES ARE IN PLACE.
- THE CONTRACTOR SHALL OBTAIN AND COMPLY WITH ALL MISSOURI DEPT. OF NATURAL RESOURCES NPDES STORM WATER GENERAL PERMIT REQUIREMENTS THROUGHOUT THE DURATION OF CONSTRUCTION.
- CONTRACTOR SHALL UPDATE MAP AS NEEDED DURING CONSTRUCTION TO INDICATE LOCATIONS OF PORTABLE TOILETS, MATERIAL STORAGE AREAS, CONCRETE WASHOUTS, ETC. AND TO DOCUMENT BMP INSTALLATION AND CHANGES.

BMP MAINTENANCE EROSION NOTES:

ALL MEASURES STATED ON THIS SITE MAP SHALL BE MAINTAINED IN FULLY FUNCTIONAL CONDITION UNTIL NO LONGER REQUIRED FOR A COMPLETED PHASE OF WORK OR FINAL STABILIZATION OF THE SITE. ALL EROSION & SEDIMENTATION CONTROL MEASURES SHALL BE CHECKED BY A QUALIFIED PERSON IN ACCORDANCE WITH THE CONTRACT DOCUMENTS OR THE APPLICABLE PERMIT, WHICHEVER IS MORE STRINGENT, & REPAIRED IN ACCORDANCE WITH THE FOLLOWING:

- INLET PROTECTION DEVICES & BARRIERS SHALL BE REPAIRED OR REPLACED IF THEY SHOW SIGNS OF UNDERMINING OR DETERIORATION.
- ALL SEEDED AREAS SHALL BE CHECKED REGULARLY TO SEE THAT A GOOD STAND IS MAINTAINED. AREAS SHOULD BE FERTILIZED, WATERED, & RESEED AS NEEDED.
- SILT FENCES SHALL BE REPAIRED TO THEIR ORIGINAL CONDITIONS IF DAMAGED. SEDIMENT SHALL BE REMOVED FROM THE SILT FENCES WHEN IT REACHES ONE-HALF THE HEIGHT OF THE SILT FENCE.
- THE CONSTRUCTION ENTRANCE / EXIT SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE CONSTRUCTION EXITS AS CONDITIONS DEMAND.
- THE TEMPORARY PARKING & STORAGE AREA PROVIDED BY CONTRACTOR SHALL BE KEPT IN GOOD CONDITION (SUITABLE FOR PARKING & STORAGE). THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE TEMPORARY PARKING AREA AS CONDITIONS DEMAND.
- PRIOR TO LEAVING THE SITE, ALL VEHICLES SHALL BE CLEANED OF DEBRIS. ANY DEBRIS &/OR SEDIMENT REACHING THE PUBLIC STREET SHALL BE CLEANED IMMEDIATELY BY A METHOD OTHER THAN FLUSHING.

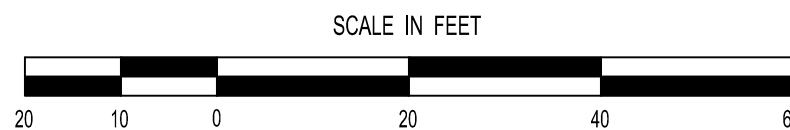
EROSION CONTROL LEGEND



REFER TO SURVEY SHEETS FOR LEGEND OF EXISTING FEATURES

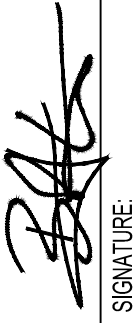


EROSION CONTROL PLAN



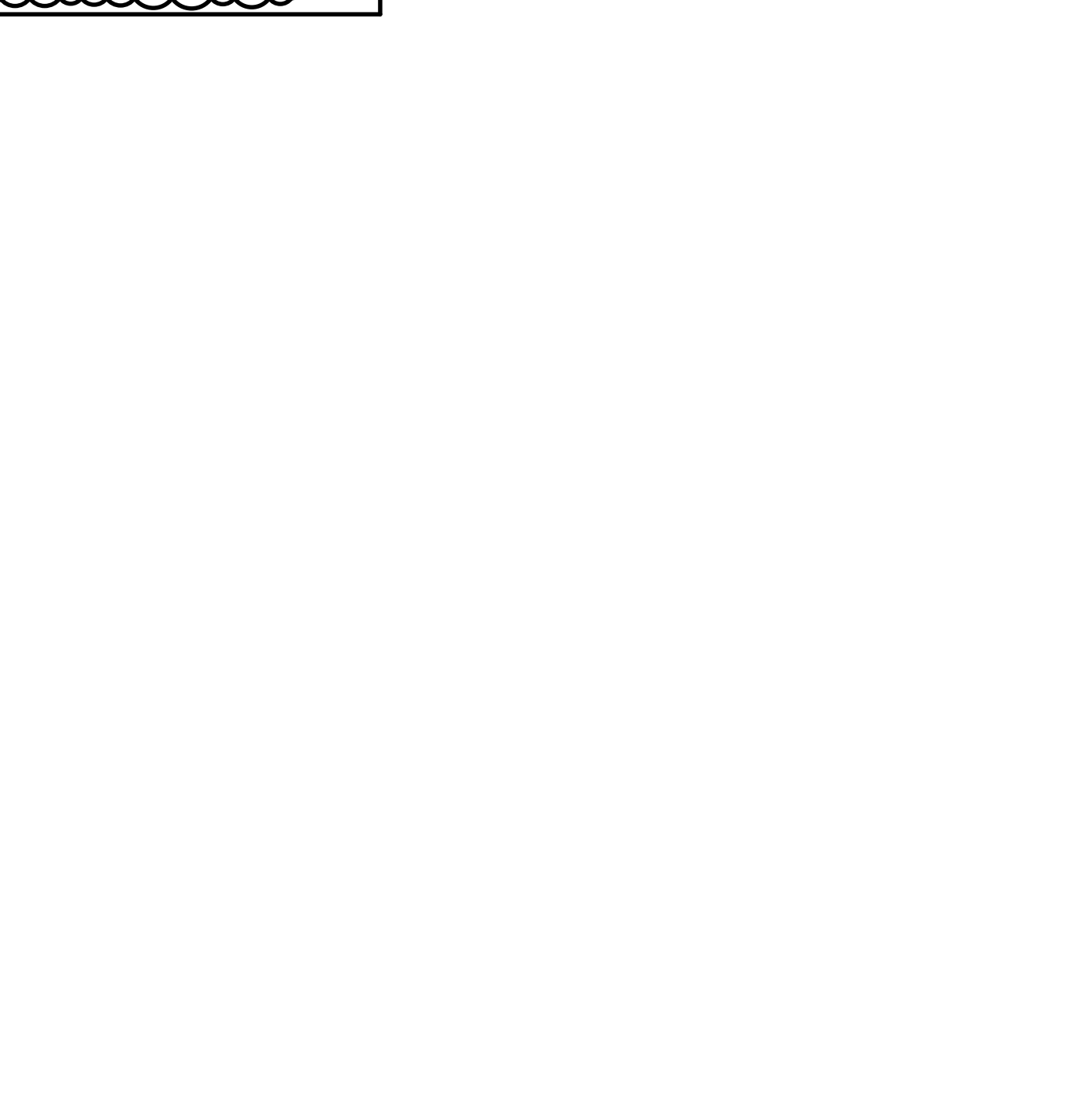
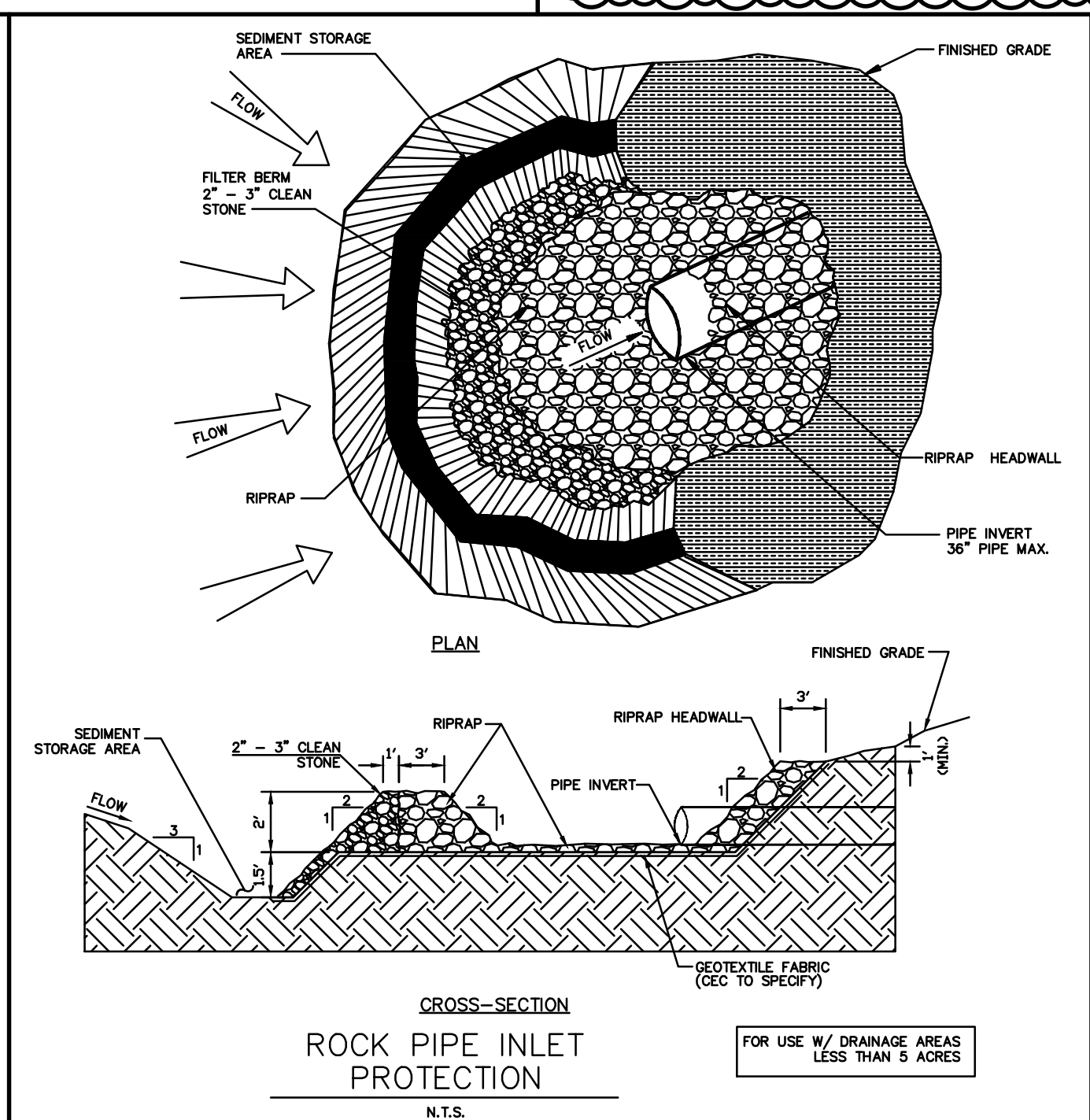
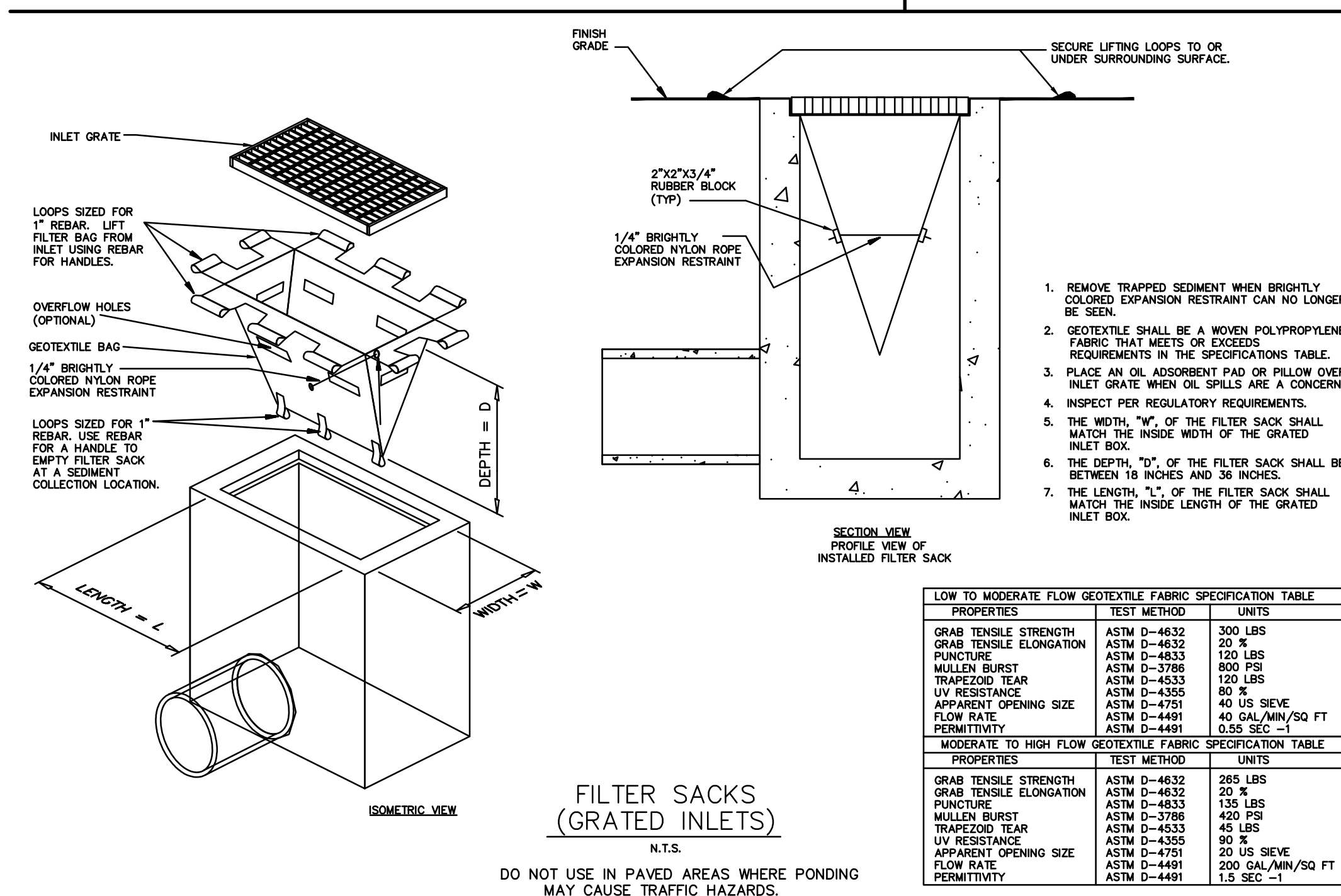
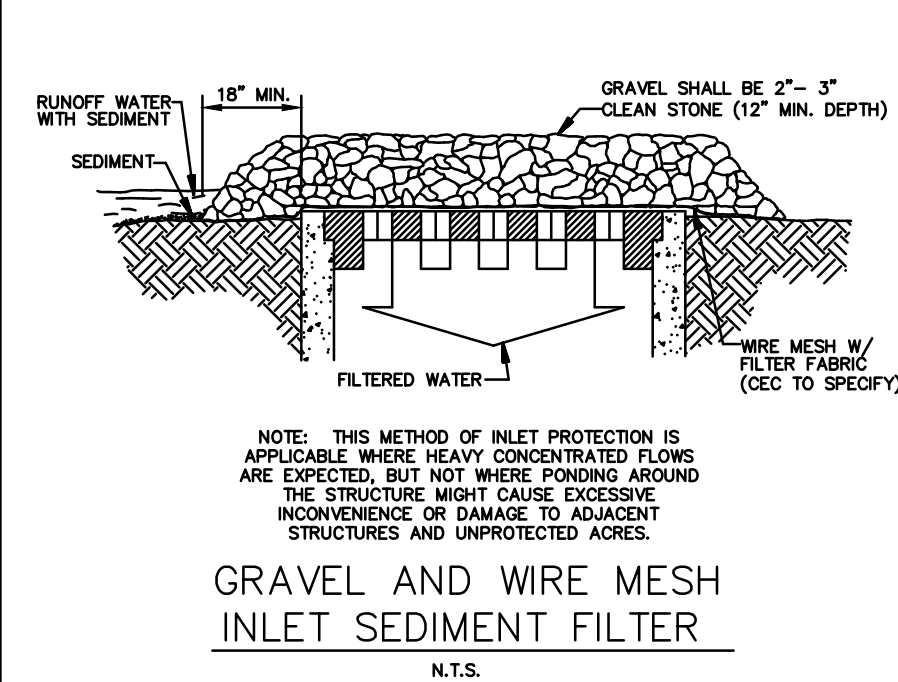
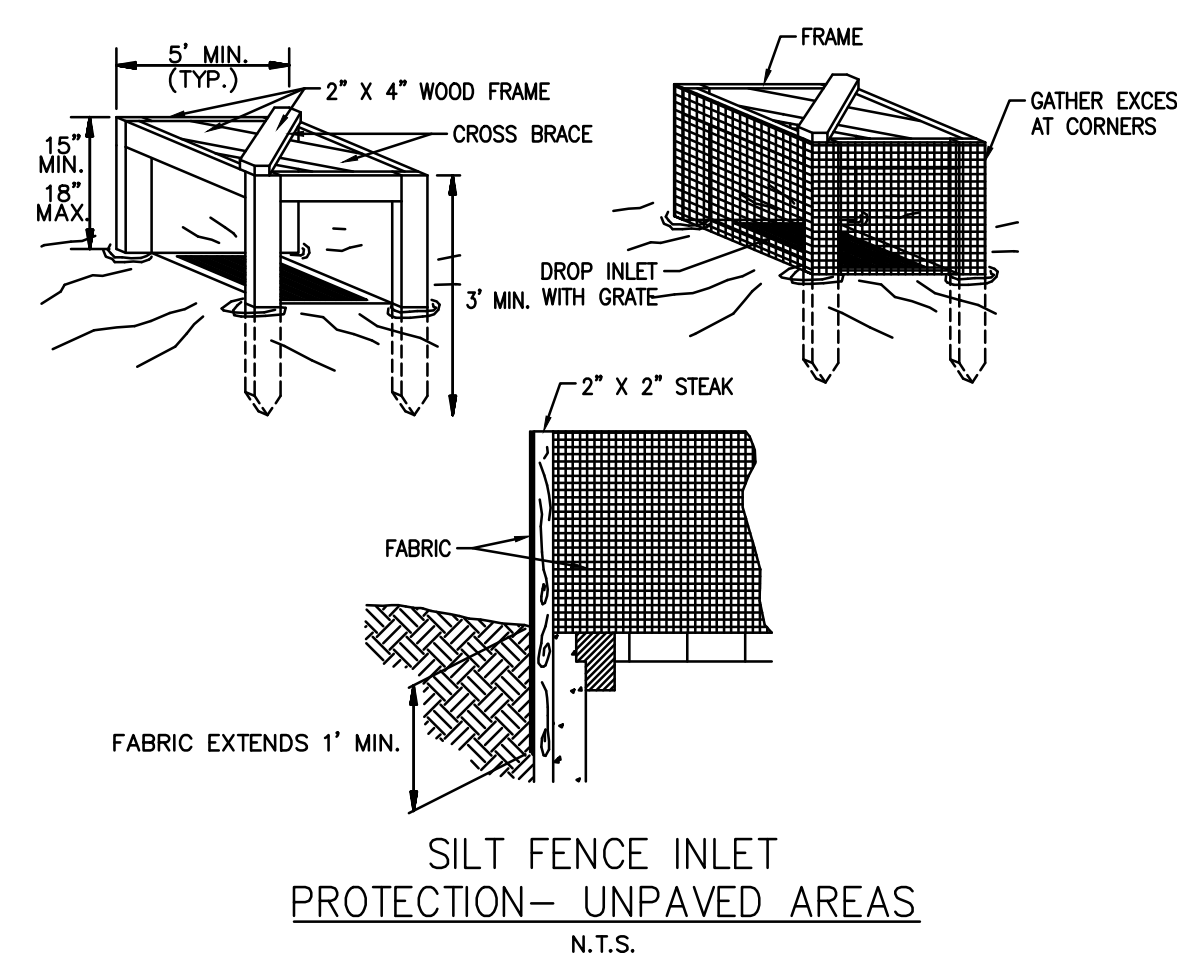
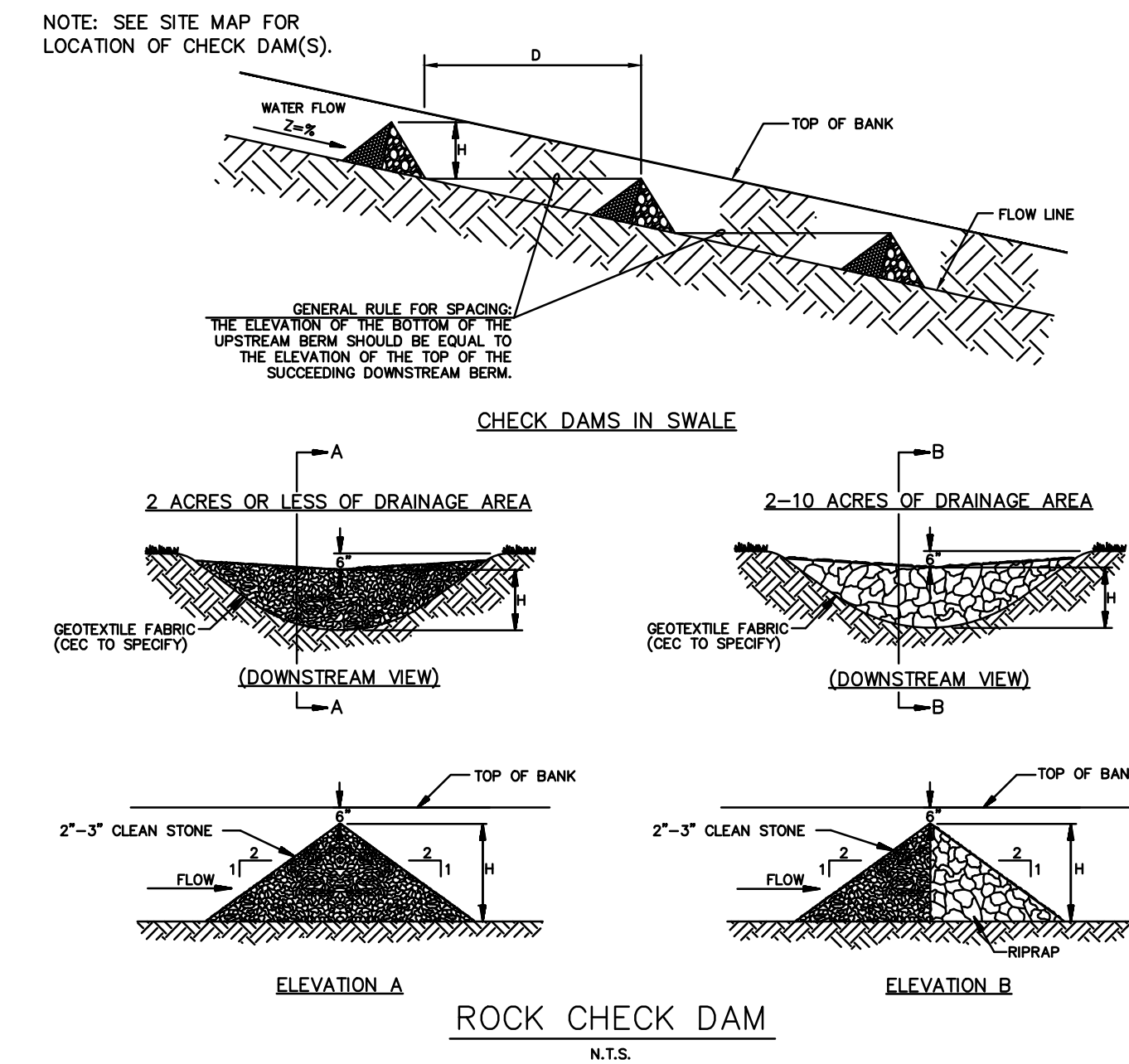
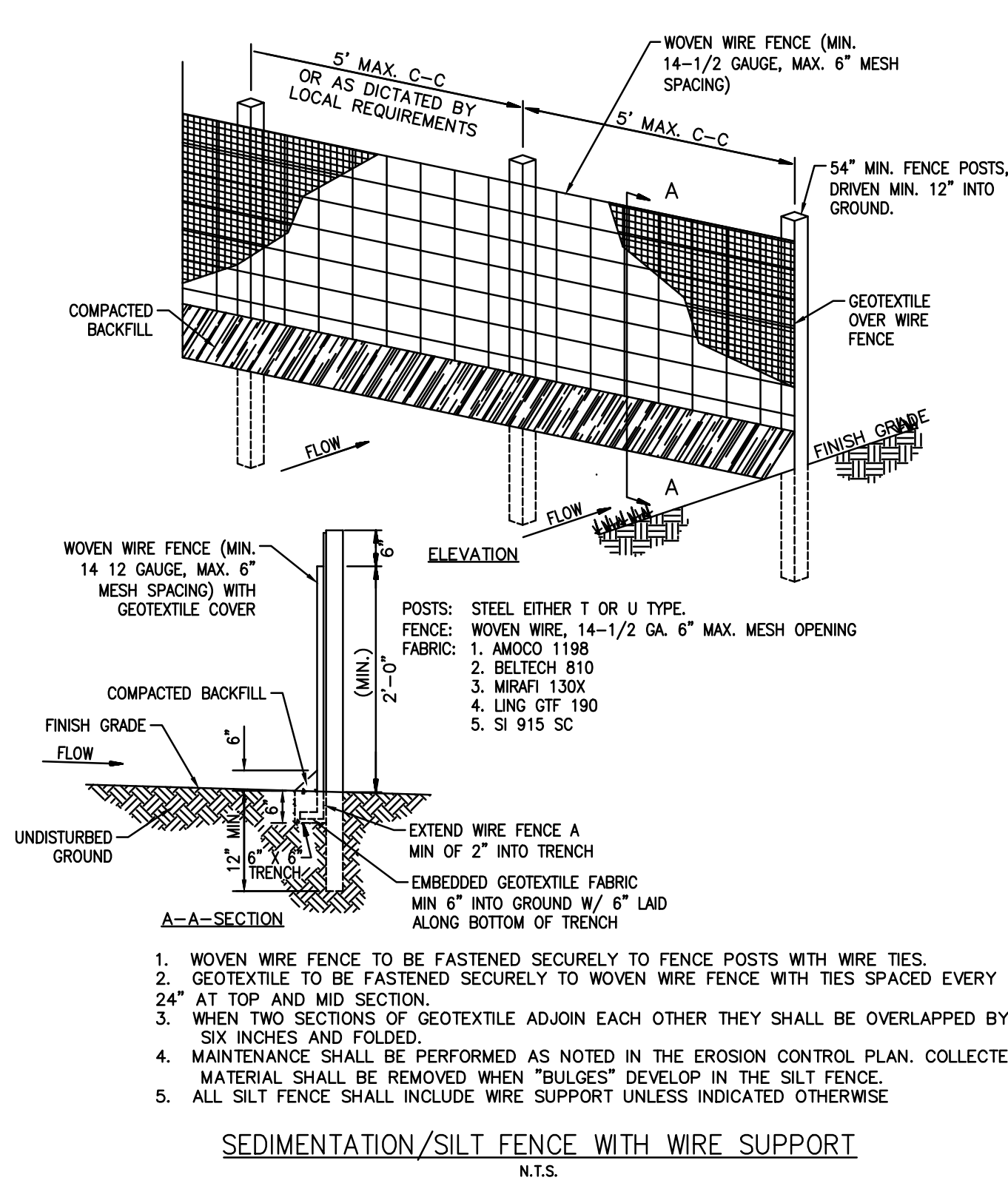
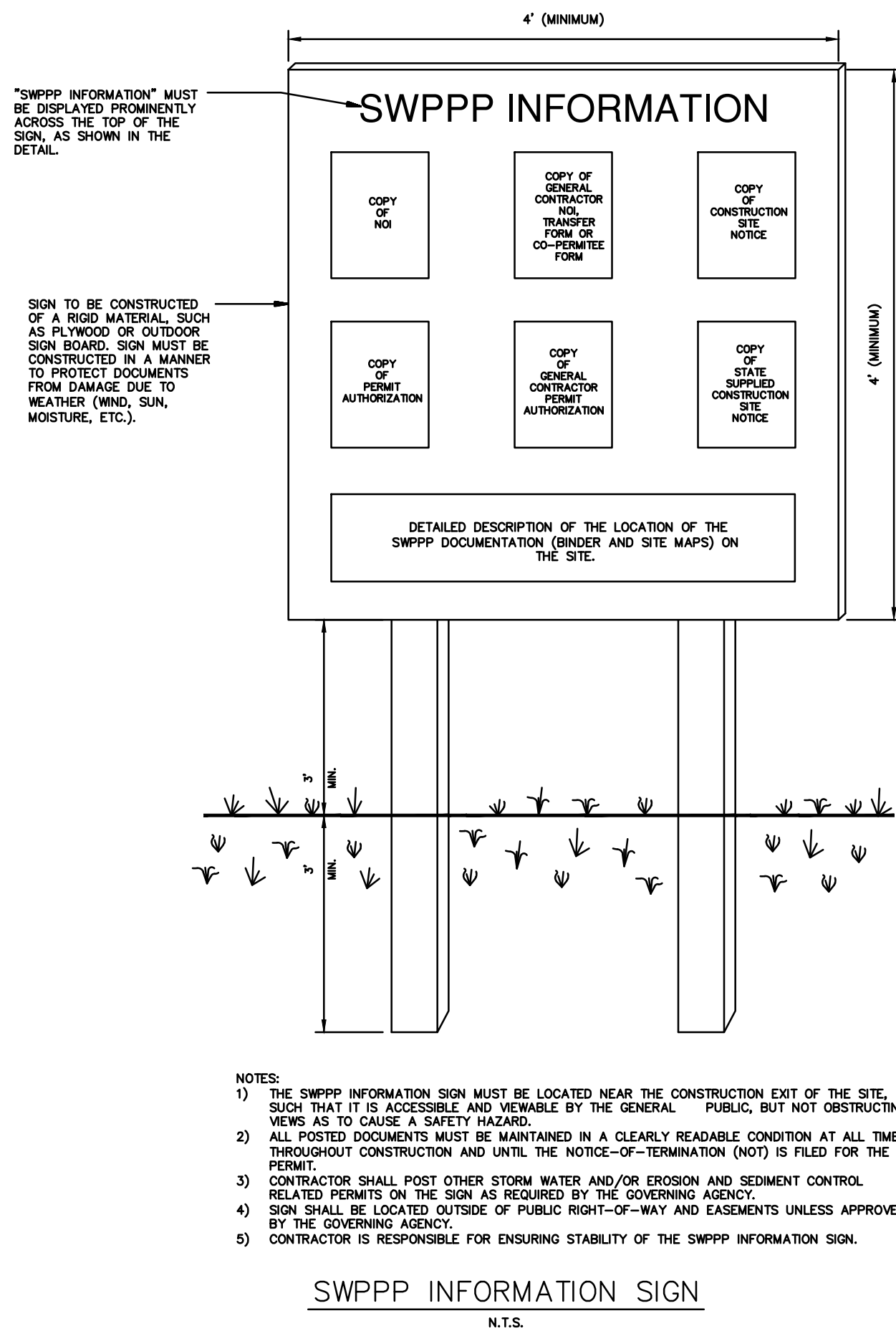
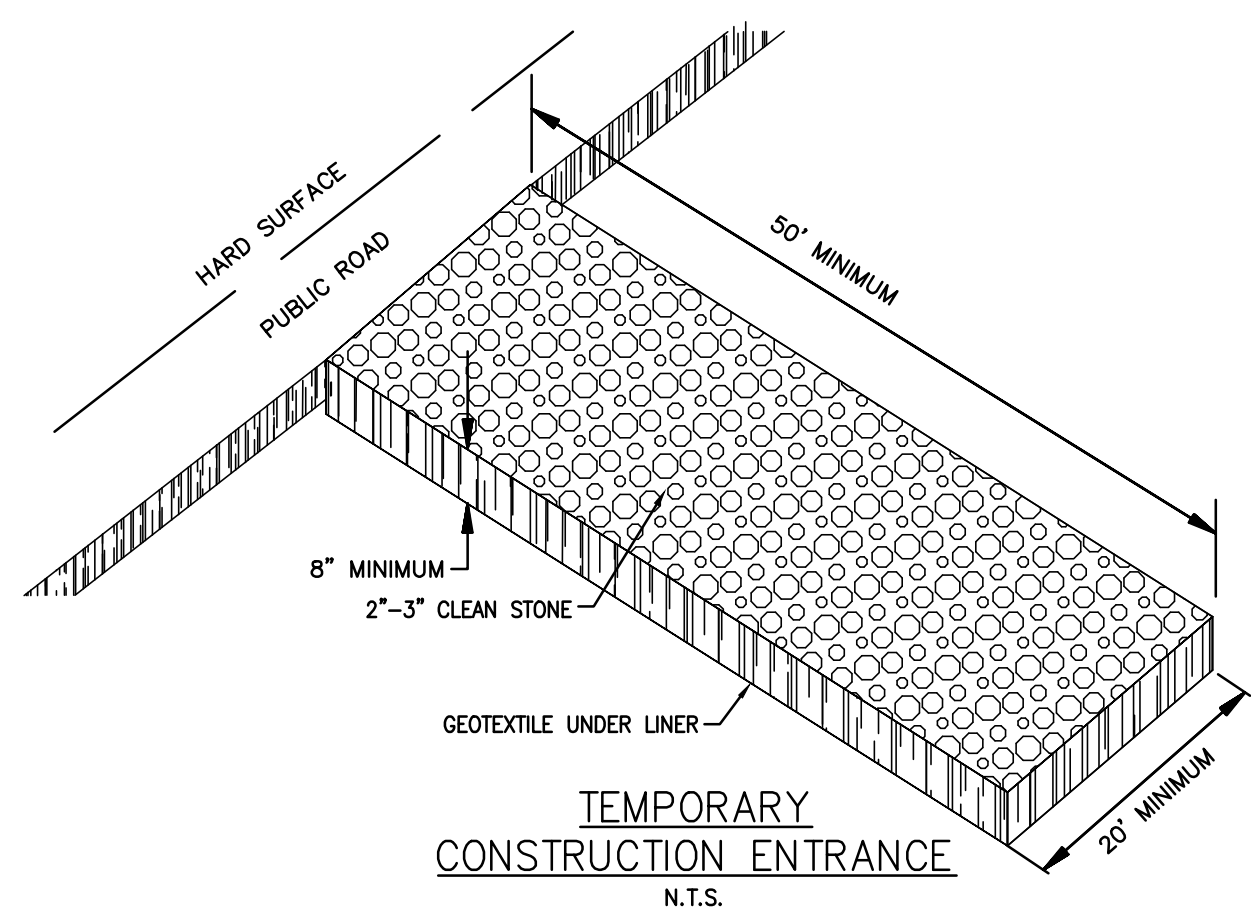
| REVISION | | BY |
|----------|--------------------------------|-----|
| 1 | 10/24/2024 REVISED PER CITY | KRG |
| 2 | 12/16/2024 REVISED PER CITY | KRG |
| 3 | 1/17/2025 REVISED PER CITY | KRG |
| 4 | 1/31/2025 REVISED PER CITY | KRG |

HIGH TIDE
CONSULTANTS LLC
434 N. COLUMBIA ST, SUITE 200A
COVINGTON, LA 70433
www.hightidela.com


SIGNATURE
JANUARY 31, 2025
DATE
B. SHANE
ENGINEER
NUMBER
202100076
STATE OF MISSOURI
PROFESSIONAL ENGINEER

PROPOSED TAKE 5
LEE'S SUMMIT, MISSOURI
FOR DRIVEN ASSETS, LLC
2101 PEARL STREET
BOULDER, CO 80302

DRAWN
KRG
CHECKED
RCG
ISSUED DATE
07/30/2024
ISSUED FOR
PERMITTING
PROJECT NO.
22-218
FILE
22-218 ES-1 Erosion Control Plan
SHEET
ES-1



EROSION CONTROL DETAILS

| REVISION | BY |
|--------------------------------|-----|
| 10/24/2024 REVISED PER CITY | KRG |
| | |
| | |
| | |
| | |

HIGH TIDE CONSULTANTS LLC
434 N. COLUMBIA ST, SUITE 200A
COVINGTON, LA 70433
www.hightidela.com

STATE OF MISSOURI
B. SHANE GUIN
ENGINEER
NO. 202100076
OCTOBER 24, 2024
DATE

PROPOSED TAKE 5
LEE'S SUMMIT, MISSOURI
FOR DRIVEN ASSETS, LLC
2101 PEARL STREET
BOULDER CO 80302

DRAWN
KRG
CHECKED
RCG
ISSUED DATE
07/30/2024
ISSUED FOR
PERMITTING
PROJECT NO.
22-218
FILE
22-218 C-4 Details
SHEET
ES-2

ACCORDING TO THE MISSOURI DEPARTMENT OF NATURAL RESOURCES GIS MAP, NO EXISTING OIL AND GAS WELLS ARE LOCATED ON SITE.

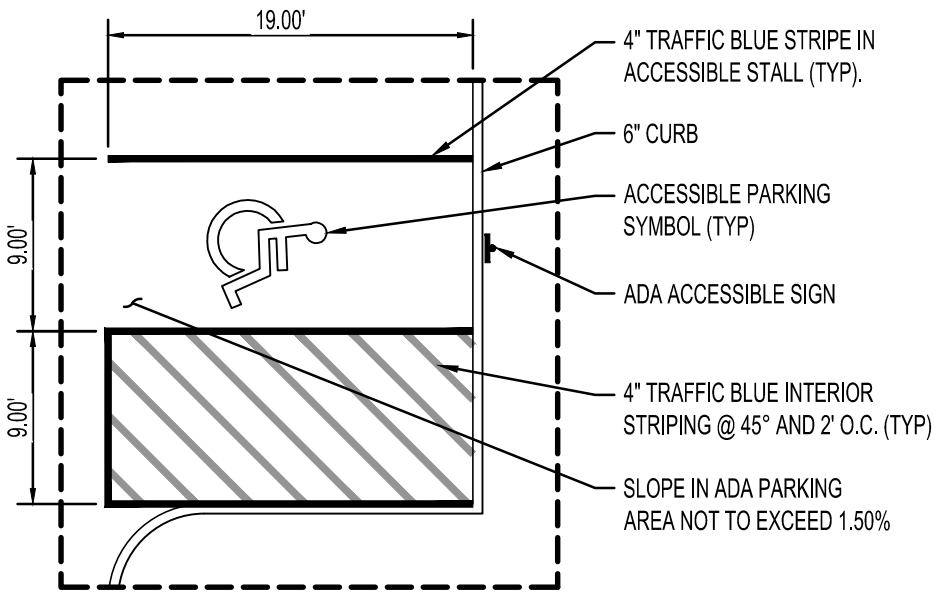
FLOOD NOTE:
THIS PROPERTY LIES WITHIN FLOOD ZONE X, DEFINED AS AREAS DETERMINED TO BE OUTSIDE THE LIMITS OF THE 0.2% ANNUAL CHANCE FLOOD PLANE, AND OTHER FLOOD AREAS AS SHOWN ON THE FLOOD INSURANCE RATE MAP PREPARED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY FOR THE CITY OF LEE'S SUMMIT, JACKSON COUNTY, MISSOURI, COMMUNITY NO. 29 174 0436G AND DATED JANUARY 20, 2017

SITE DATA SUMMARY

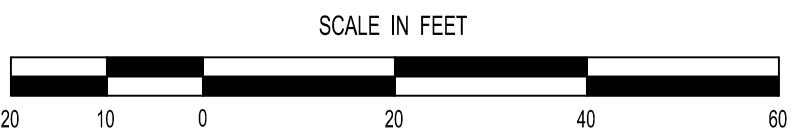
| | |
|--------------------------------------|--------------------------------|
| ZONING | CP-2 |
| PROPOSED USE | AUTOMOBILE SERVICE |
| BUILDING AREA (GROSS SQUARE FOOTAGE) | 1,415 S.F. |
| LAND AREA | 21,501.56 S.F. |
| IMPERVIOUS SURFACE | 10,042.20 S.F. |
| FLOOR AREA RATIO (FAR) | 1,415/20,501 = 0.07 < 0.55 MAX |

ADA DETAIL

N.T.S.



SITE PLAN



PARKING ANALYSIS

| | |
|------------------|------------------------------|
| TAKE 5 OIL | +/- 1,415 S.F. |
| PARKING REQUIRED | 10 SPACES |
| PARKING PROVIDED | 10 SPACES (INCLUDING 3 BAYS) |

*CITY PARKING REQUIREMENT
3 SPACES PER BAY, BAYS MAY BE COUNTED AS A PARKING SPACE

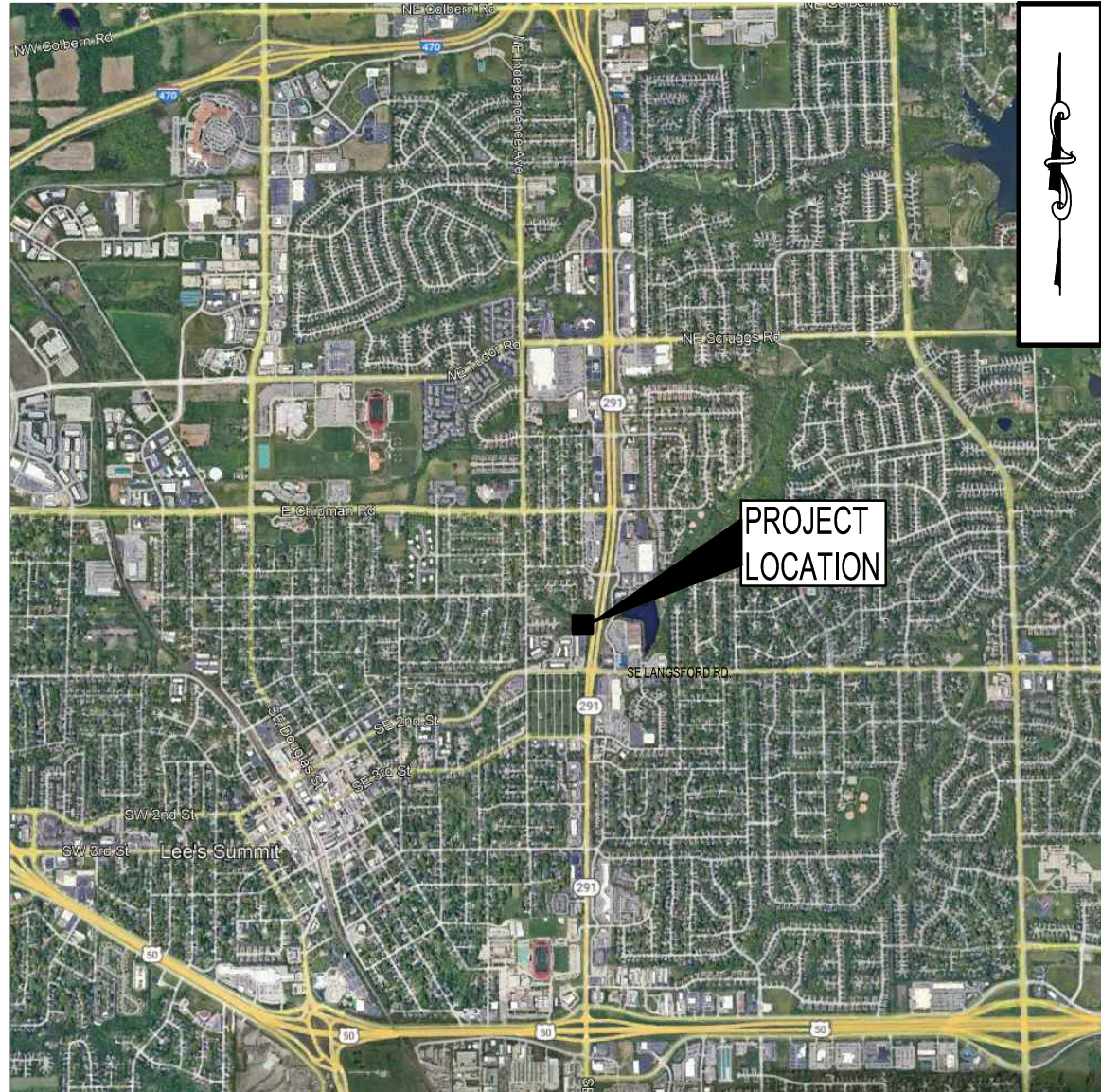
LEGEND

| | | | |
|--|--|--|---|
| | PROPERTY LINE | | STANDARD DUTY CONCRETE PAVEMENT |
| | PROPOSED BUILDING | | HEAVY DUTY CONCRETE PAVEMENT |
| | CG-1 CONCRETE CURB | | HEAVY DUTY REINFORCED CONCRETE DUMPSTER PAD |
| | CG-1 CONCRETE CURB w/ PAVEMENT TURN DOWN | | STAINED CONCRETE |
| | PARKING COUNT | | SIDEWALK |
| | SITE LIGHTING FIXTURE | | |

REFER TO SURVEY SHEETS FOR LEGEND OF EXISTING FEATURES.

VICINITY MAP

NTS



OWNER
VIVION PROPERTIES, LLC
5350 W. 94th TERRACE,
SUITE 104
PRAIRIE VILLAGE, KS 66207

PLAN PREPARED/CIVIL ENGINEER
HIGH TIDE CONSULTANTS, LLC
434 N. COLUMBIA ST., SUITE 200A
COVINGTON, LA 70435
ATTN: RICHARD C. GALLOWAY, PE
EMAIL: ricky@hightidelc.com

ARCHITECT
FUSION ARCHITECTS
3488 BRENTWOOD DRIVE
BATON ROUGE, LA 70806
ATTN: MATT DAIGREPOINT, AIA
PHONE: 225-766-4848

LANDSCAPE ARCHITECT
MCKNIGHT LANDSCAPE ARCHITECTS
668 S. FOSTER DRIVE, STE 101
BOULDER, CO 80302
ATTN: WES WILKERSON
EMAIL: wes@mcknightla.com

DEVELOPER
DAP LANSING, LLC
2101 PEARL STREET
BOULDER, CO 80302
ATTN: TODD MINNIS
EMAIL: todd@drivenassets.com
PHONE: 214-587-5088

| REVISION | BY |
|-------------------------------|-----|
| 1 10/24/2024 REVISED PER CITY | KRG |
| 2 12/17/2024 REVISED PER CITY | KRG |
| 3 2/10/2025 REVISED PER CITY | KRG |

HIGH TIDE
CONSULTANTS LLC
434 N. COLUMBIA ST., SUITE 200A
COVINGTON, LA 70433
www.hightidelc.com

SIGNATURE: DATE: FEBRUARY 10, 2025

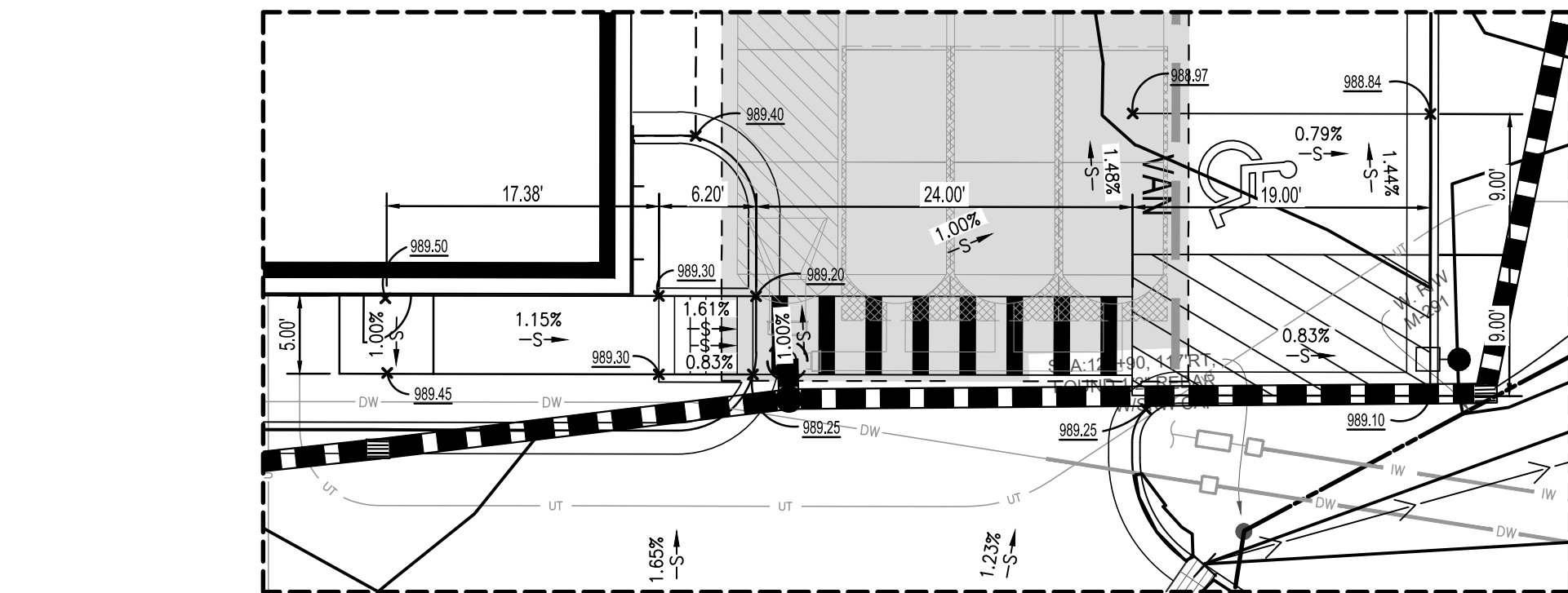
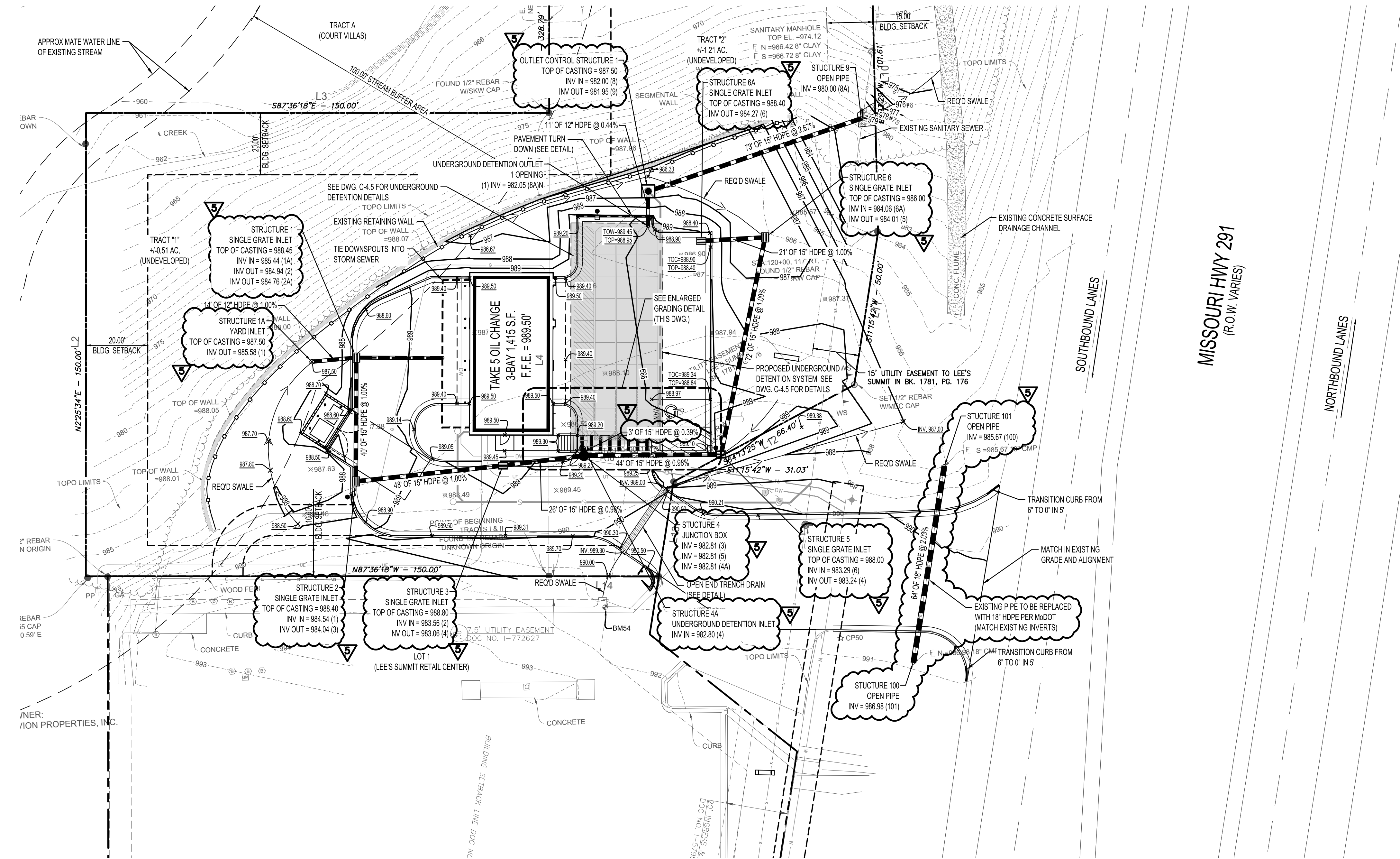
PROPOSED TAKE 5
LEE'S SUMMIT, MISSOURI

FOR DRIVEN ASSETS, LLC
2101 PEARL STREET
BOULDER, CO 80302

DRAWN: KRG
CHECKED: RCG
ISSUED DATE: 07/30/2024
ISSUED FOR PERMITTING
PROJECT NO.: 22-218
FILE: 22-218 C-1 Site Plan
SHEET: C-1

SHEET

C-1.1



ENLARGED GRADING DETAIL
N.T.S.

ACCORDING TO THE MISSOURI DEPARTMENT OF NATURAL RESOURCES GIS MAP, NO EXISTING OIL AND GAS WELLS ARE LOCATED ON SITE.

GRADING NOTES

- CONTRACTOR IS RESPONSIBLE FOR DEMOLITION OF EXISTING FEATURES, INCLUDING REMOVAL OF ANY EXISTING UTILITIES UNLESS OTHERWISE NOTED ON THE PLANS. UTILITIES ARE TO BE REMOVED TO THE RIGHT-OF-WAY LIMITS.
- THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
- ALL CUT OR FILL SLOPES SHALL BE 3:1 OR FLATTER UNLESS OTHERWISE NOTED.
- PRECAST STRUCTURES MAY BE USED AT CONTRACTORS OPTION.
- EXISTING PIPES TO BE CLEANED OUT TO REMOVE ALL SILT AND DEBRIS.
- IF ANY EXISTING STRUCTURES SHOWN TO REMAIN ARE DAMAGED DURING CONSTRUCTION, IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO REPAIR AND/OR REPLACE THE EXISTING STRUCTURE AS NECESSARY TO RETURN IT TO EXISTING CONDITIONS OR BETTER.
- ALL STORM PIPE ENTERING STRUCTURES SHALL BE GROUTED TO ASSURE CONNECTION AT STRUCTURE IS WATERTIGHT.
- ALL STORM SEWER MANHOLES IN PAVED AREAS SHALL BE FLUSH WITH PAVEMENT AND SHALL HAVE TRAFFIC BEARING RING & COVERS. MANHOLES IN UNPAVED AREAS SHALL BE 6" ABOVE FINISH GRADE. LIDS SHALL BE LABELED "STORM SEWER".
- CONTRACTOR SHALL ADJUST AND/OR CUT EXISTING PAVEMENT AS NECESSARY TO ASSURE A SMOOTH FIT AND CONTINUOUS GRADE.
- CONTRACTOR SHALL ASSURE POSITIVE DRAINAGE AWAY FROM BUILDINGS FOR ALL NATURAL AND PAVED AREAS.
- TOPOGRAPHIC INFORMATION IS TAKEN FROM A TOPOGRAPHIC SURVEY BY MCCLURE. IF THE CONTRACTOR DOES NOT ACCEPT EXISTING TOPOGRAPHY AS SHOWN ON THE PLANS, WITHOUT EXCEPTION, THEN THE CONTRACTOR SHALL SUPPLY, AT THEIR EXPENSE, A TOPOGRAPHIC SURVEY BY A REGISTERED LAND SURVEYOR TO THE OWNER FOR REVIEW.
- ALL UNSURFACED AREAS DISTURBED BY GRADING OPERATION SHALL RECEIVE 4 INCHES OF TOPSOIL. CONTRACTOR SHALL APPLY STABILIZATION FABRIC TO ALL SLOPES 3H:1V OR STEEPER. CONTRACTOR SHALL STABILIZE DISTURBED AREAS IN ACCORDANCE WITH GOVERNING SPECIFICATIONS UNTIL A HEALTHY STAND OF VEGETATION IS ESTABLISHED.
- CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE GOVERNING CODES AND BE CONSTRUCTED TO SAME.
- CONTRACTOR SHALL COMPLY TO THE FULLEST EXTENT WITH THE LATEST STANDARD OF OSHA DIRECTIVES OR ANY OTHER AGENCY HAVING JURISDICTION FOR EXCAVATION AND TRENCHING PROCEDURES.
- ALL STORM STRUCTURES SHALL HAVE A SMOOTH UNIFORM POURED MORTAR INVERT FROM INVERT IN TO INVERT OUT.
- ALL PIPES AND STRUCTURES WITHIN THE STREET RIGHT-OF-WAY SHALL BE PER MISSOURI DEPARTMENT OF TRANSPORTATION STANDARDS & SPECIFICATIONS, LATEST EDITION AND MODOT STANDARD DETAILS.
- DRAINAGE STRUCTURES SHALL BE PRECAST OR CAST-IN-PLACE CONCRETE IN ACCORDANCE WITH SPECIFICATIONS PROVIDED. REFER TO DETAIL SHEETS FOR DETAILS OF AREA INLETS AND MANHOLES. ALL INLET FRAMES AND GRATES SHALL BE VULCAN FOUNDRY CORP. CATALOG # V-4863 OR EQUAL.

SITE AND PAD PREPARATION NOTES

- ALL EARTHWORK, PAD AND SITE PREPARATION SHALL BE DONE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEERING SERVICES REPORT PREPARED BY TERRACON CONSULTANTS, INC., DATED NOVEMBER 2, 2023, TERRACON PROJECT NO. 0222528.
- THE CONTRACTOR SHALL OBTAIN A COPY OF THE GEOTECHNICAL REPORT FROM THE OWNER, BECOME FAMILIAR WITH THE REPORT AND RECOMMENDATIONS AND SHALL FOLLOW THE RECOMMENDATIONS AND REQUIREMENTS OF THE REPORT.
- SITE PREPARATION SHALL INCLUDE THE STRIPPING OF EXISTING PAVEMENT SECTIONS, VEGETATION, ORGANICS, SILTY SOILS, AND LOOSE, SOFT OR OTHERWISE UNSUITABLE MATERIAL. COMPLETE STRIPPING OF THE ROOT MAT SHALL BE PERFORMED IN THE PROPOSED BUILDING AND PAVEMENT AREAS. STRIPPED MATERIALS CONSISTING OF VEGETATION AND ORGANIC MATERIALS SHALL BE WASTED OFF SITE. THE ACTUAL STRIPPING AND UNDERCUTTING DEPTHS SHALL BE DETERMINED BY A REPRESENTATIVE OF THE GEOTECHNICAL ENGINEER AT THE TIME OF CONSTRUCTION.
- THE SOILS WITHIN THE PLANNED BUILDING AREA SHALL BE FURTHER UNDERCUT AS NECESSARY TO ACCOMMODATE PLACEMENT OF THE RECOMMENDED 24-INCH THICK LVC LAYER BELOW FLOOR SLABS. THE UNDERCUT AREAS SHALL EXTEND A MINIMUM OF 5 FEET LATERALLY OUTSIDE THE BUILDING WALL LINES.
- FOLLOWING INITIAL STRIPPING AND ANY NECESSARY UNDERCUTTING, THE EXPOSED SOILS SHALL BE PROOFROLLED. A TERRACON REPRESENTATIVE SHOULD OBSERVE THE PROOFROLLING. PROOFROLLING CAN BE ACCOMPLISHED USING A LOADED TANDEM-AXLE DUMP TRUCK WITH A GROSS WEIGHT OF AT LEAST 20 TONS, OR SIMILARLY LOADED EQUIPMENT. AREAS THAT DISPLAY EXCESSIVE DEFLECTION (PUMPING) OR RUTTING DURING PROOFROLL OPERATIONS SHOULD BE IMPROVED BY SCARIFICATION/COMPACTION OR BY REMOVAL AND REPLACEMENT WITH ENGINEERED FILL.
- SEE GEOTECHNICAL REPORT FOR FILL MATERIAL TYPES, ACCEPTABLE LOCATION FOR PLACEMENT, AND FILL COMPACTION REQUIREMENTS.
- ALL GRADES MUST PROVIDE EFFECTIVE DRAINAGE AWAY FROM THE BUILDING DURING AND AFTER CONSTRUCTION AND SHOULD BE MAINTAINED THROUGHOUT THE LIFE OF THE STRUCTURE.
- THE CONSTRUCTION PHASE DRAINAGE SHOULD BE CONSIDERED IN THE DEVELOPMENT OF THE PROJECT OVERALL GRADING AND DRAINAGE PLAN. THE POSSIBLE POOR DRAINAGE CONDITIONS CAN LEAD TO INSTABILITY IN THE AREAS AROUND THE BUILDING AND HAMPER CONSTRUCTION PROGRESS. THE SITE GRADING AND GENERAL CONTRACTOR SHOULD CONSIDER THEIR MEANS AND METHODS TO MAINTAIN DRAINAGE DURING THE CONSTRUCTION PHASE.
- EXPOSED SUBGRADES MUST BE SLOPED TO PROVIDE POSITIVE DRAINAGE SO THAT SATURATION OF THE SUBGRADES IS AVOIDED. SURFACE WATER SHALL NOT BE PERMITTED TO ACCUMULATE ON THE SITE.
- UPON COMPLETION OF FILLING AND GRADING, CARE SHOULD BE TAKEN TO MAINTAIN THE SUBGRADE WATER CONTENT PRIOR TO CONSTRUCTION OF FLOOR SLABS.
- CONSTRUCTION TRAFFIC OVER THE COMPLETED SUBGRADES SHOULD BE AVOIDED TO THE EXTENT PRACTICAL.
- THE SITE SHOULD ALSO BE GRADED TO PREVENT PONDING OF SURFACE WATER ON THE PREPARED SUBGRADES OR IN EXCAVATIONS. WATER COLLECTING OVER, OR ADJACENT TO, CONSTRUCTION AREAS SHOULD BE REMOVED. IF THE SUBGRADE DESICCATES, SATURATES, OR IS DISTURBED, THE AFFECTED MATERIAL SHOULD BE REMOVED, OR THE MATERIALS SHOULD BE SCARIFIED, MOISTURE CONDITIONED, AND RECOMPACTED, PRIOR TO FLOOR SLAB CONSTRUCTION.
- AS A MINIMUM, EXCAVATIONS SHOULD BE PERFORMED IN ACCORDANCE WITH OSHA 29 CFR, PART 1926, SUBPART P, "EXCAVATIONS" AND ITS APPENDICES, AND IN ACCORDANCE WITH ANY APPLICABLE LOCAL, AND/OR STATE REGULATIONS.

SEE TERRACON GEOTECHNICAL REPORT
DATED 11/2/2023 FOR ALL SITE AND PAD
PREPARATION REQUIREMENTS.

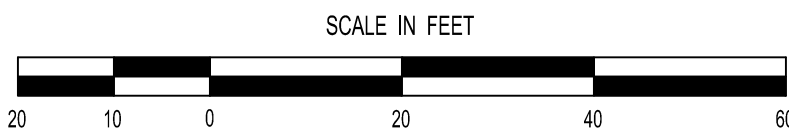
LEGEND - PROPOSED IMPROVEMENTS

| | | |
|---|---|--------------------------------|
| PROPERTY LINE | 975 | CONTOUR |
| PROPOSED BUILDING | X 900.00' | SPOT ELEVATION |
| CG-1 CONCRETE CURB | TOP = TOP OF PAVEMENT TOW = TOP OF WALL TOC = TOP OF CURB | SLOPE ARROW |
| CG-1 CONCRETE CURB w/ PAVEMENT TURN DOWN | DW | DOMESTIC WATER LINE |
| STORM DRAIN PIPE | S | SANITARY SEWER LINE |
| DOWNSPOUT COLLECTOR N-12 PIPE (12" TRUNK W/ 8" LATERAL CONNECTIONS) | G | GAS LINE |
| SINGLE GRATE INLET | UT | UNDERGROUND TELEPHONE LINE |
| HP / GB | UE | UNDERGROUND ELECTRICAL LINE |

REFER TO SURVEY SHEETS FOR
LEGEND OF EXISTING FEATURES



GRADING PLAN



NOTE:
THIS SITE IS LOCATED WITHIN THE WEST PRAIRIE LEE WATERSHED

FLOOD NOTE:
THIS PROPERTY LIES WITHIN FLOOD ZONE X, DEFINED AS AREAS DETERMINED TO BE OUTSIDE THE LIMITS OF THE 0.2% ANNUAL CHANCE FLOOD PLANE, AND OTHER FLOOD AREAS AS SHOWN ON THE FLOOD INSURANCE RATE MAP PREPARED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY FOR THE CITY OF LEE'S SUMMIT, JACKSON COUNTY, MISSOURI, COMMUNITY NO. 29 174 0436G AND DATED JANUARY 20, 2017

| REVISION | BY |
|----------|--------------------------------|
| 1 | 10/24/2024 REVISED PER CITY |
| 2 | 12/16/2024 REVISED PER CITY |
| 3 | 1/17/2025 REVISED PER CITY |
| 4 | 1/31/2025 REVISED PER CITY |
| 5 | 2/14/2025 REVISED PER CITY |

HIGH TIDE
CONSULTANTS LLC
434 N. COLUMBIA ST, SUITE 200A
COVINGTON, LA 70433
www.hightidela.com

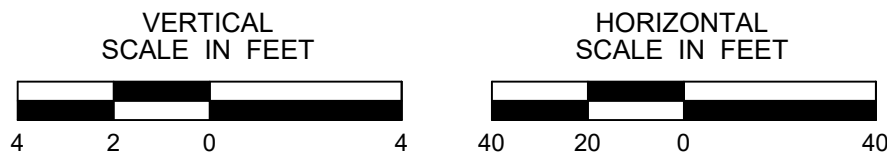
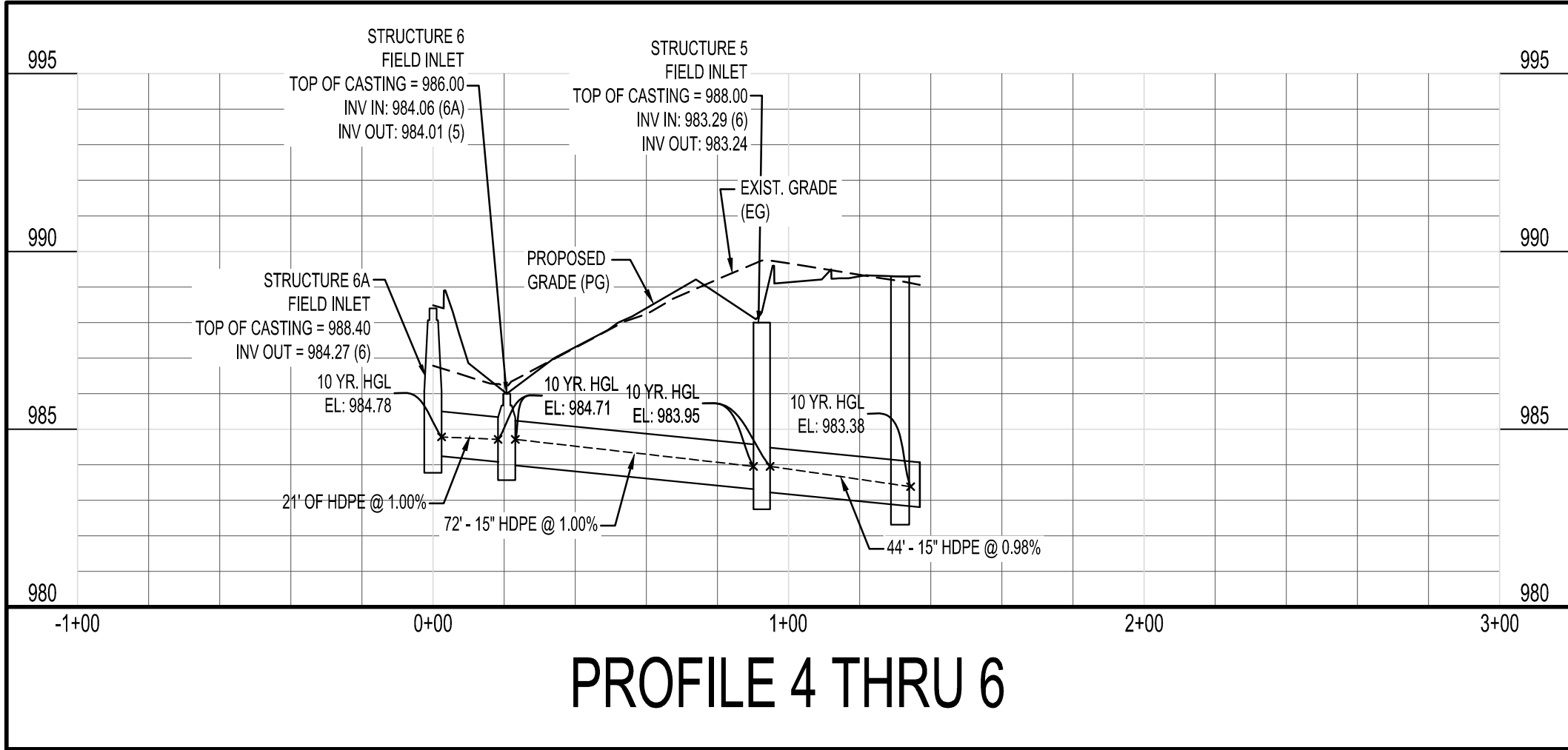
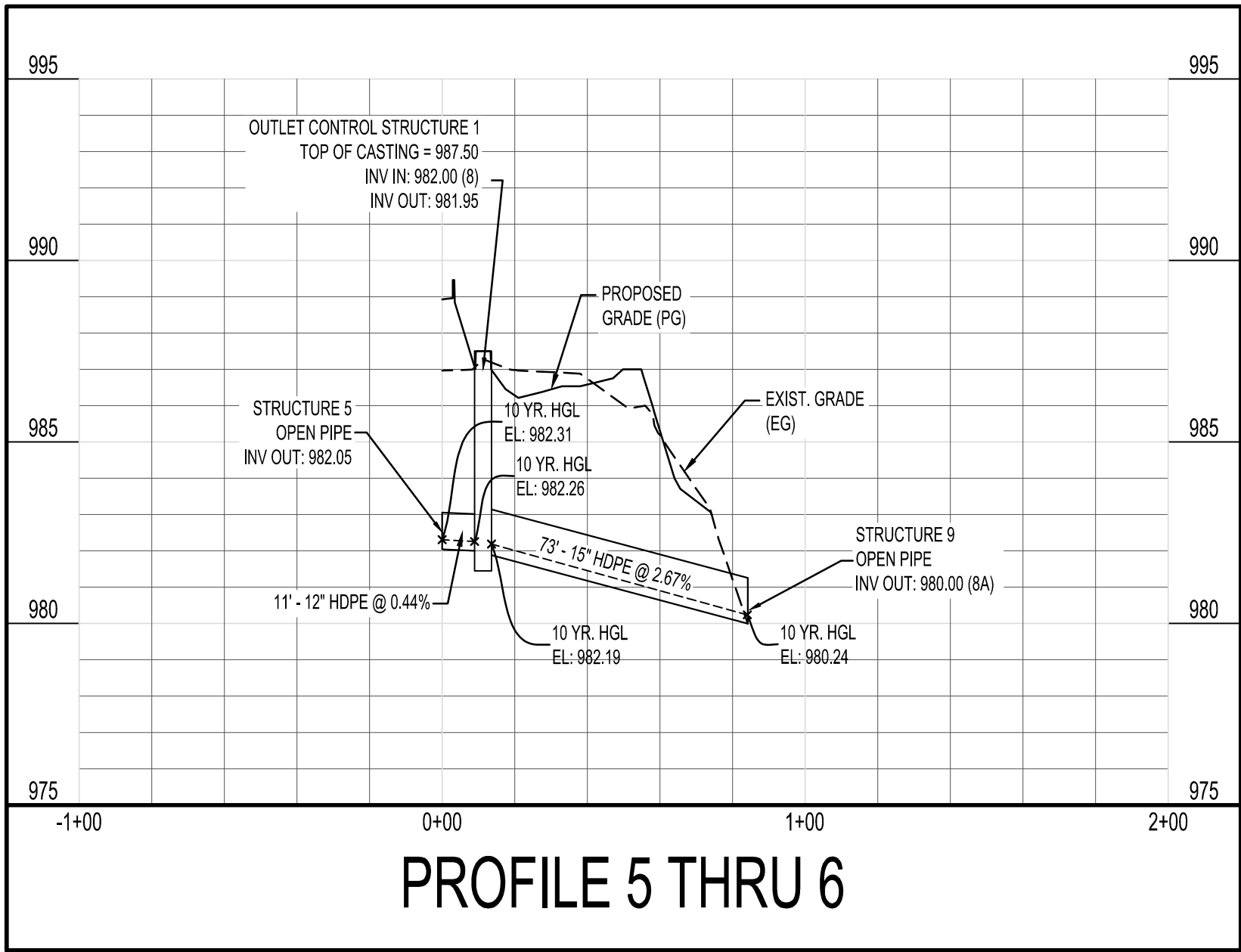
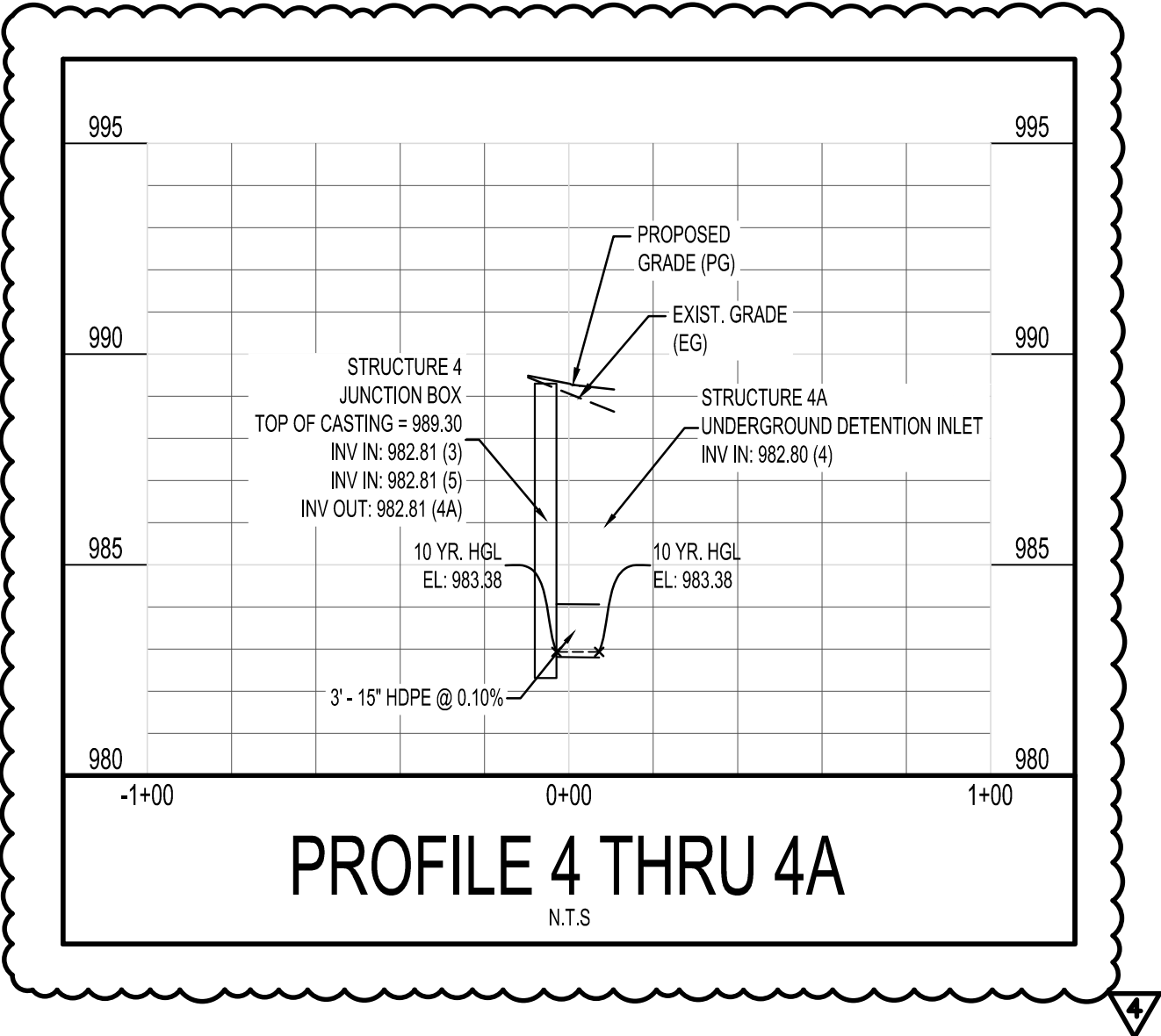
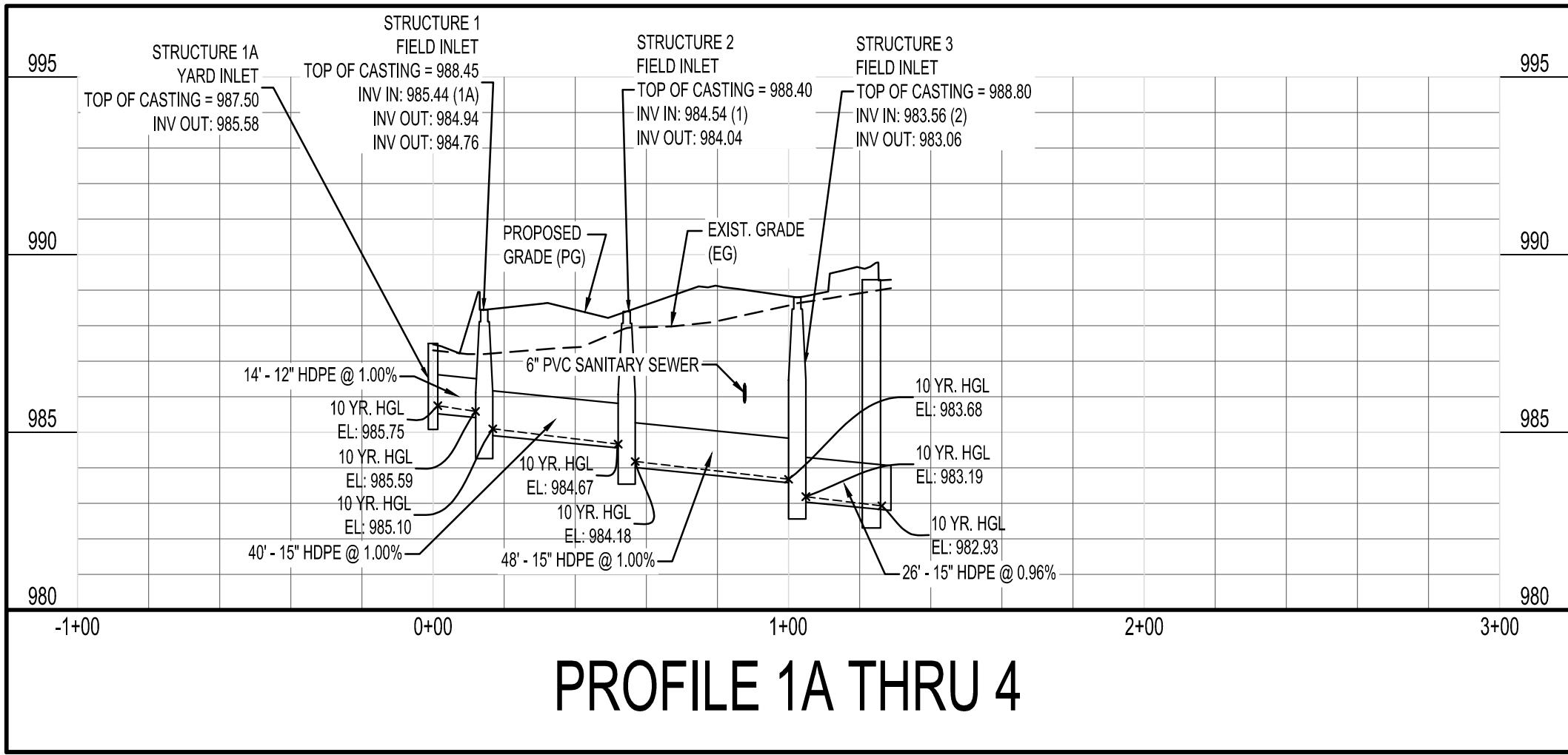


B. SHANE
SIGNATURE
FEBRUARY 14, 2025
DATE
B. SHANE
ENGINEER
NO. 202100076
MISSOURI
PROFESSIONAL

PROPOSED TAKE 5
LEE'S SUMMIT, MISSOURI
FOR DRIVEN ASSETS, LLC
2101 PEARL STREET
BOULDER, CO 80302

DRAWN
KRG
CHECKED
RCG
ISSUED DATE
07/30/2024
ISSUED FOR
PERMITTING
PROJECT NO.
22-218
FILE
22-218 C-2 Grading Plan

SHEET
C-2



| REVISION | | BY |
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| 1 | 12/16/2024 REVISED PER CITY | KRG |
| 2 | 1/17/2025 REVISED PER CITY | KRG |
| 3 | 1/31/2025 REVISED PER CITY | KRG |
| 4 | 2/14/2025 REVISED PER CITY | KRG |

HIGH TIDE

CONSULTANTS LLC

434 N. COLUMBIA ST, SUITE 200A

COVINGTON, LA 70433

www.hightidela.com

SIGNATURE

FEBRUARY 14, 2025

DATE

STATE OF MISSOURI

B. SHANE GUIN

NUMBER 202100076

ENGINEER

PROFESSIONAL

STAMP

PROPOSED TAKE 5

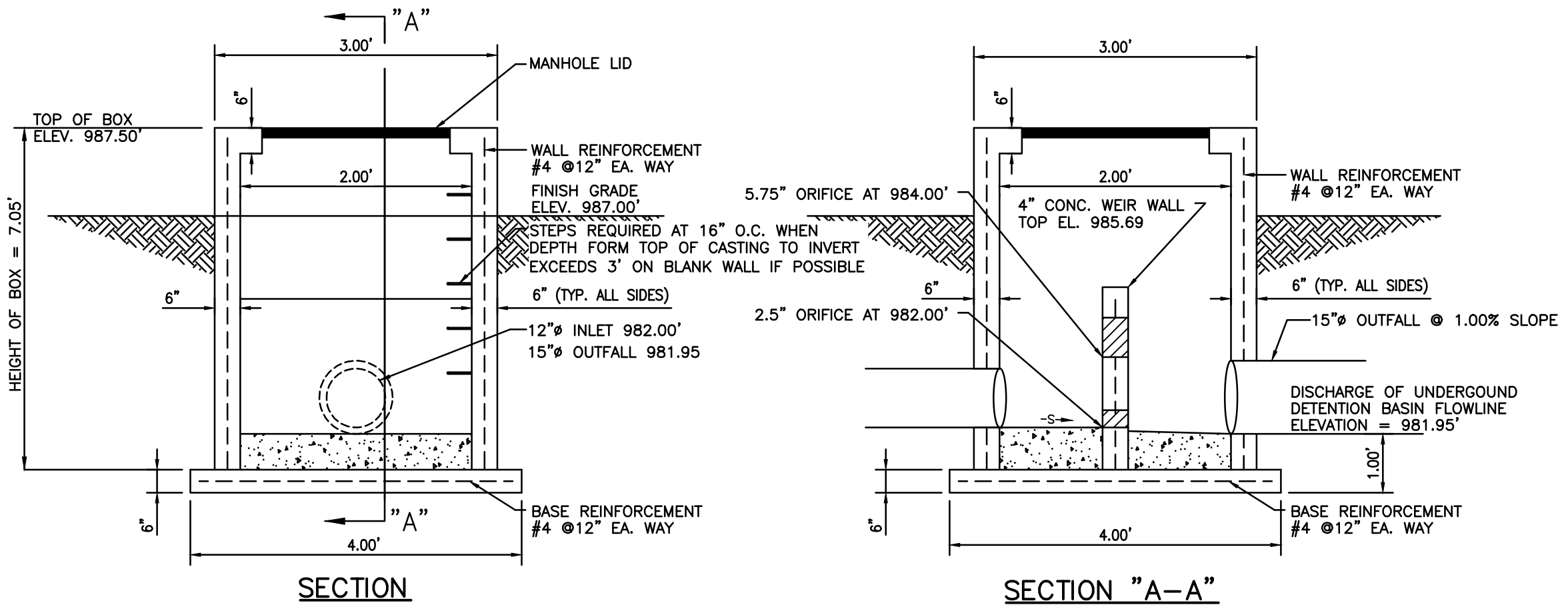
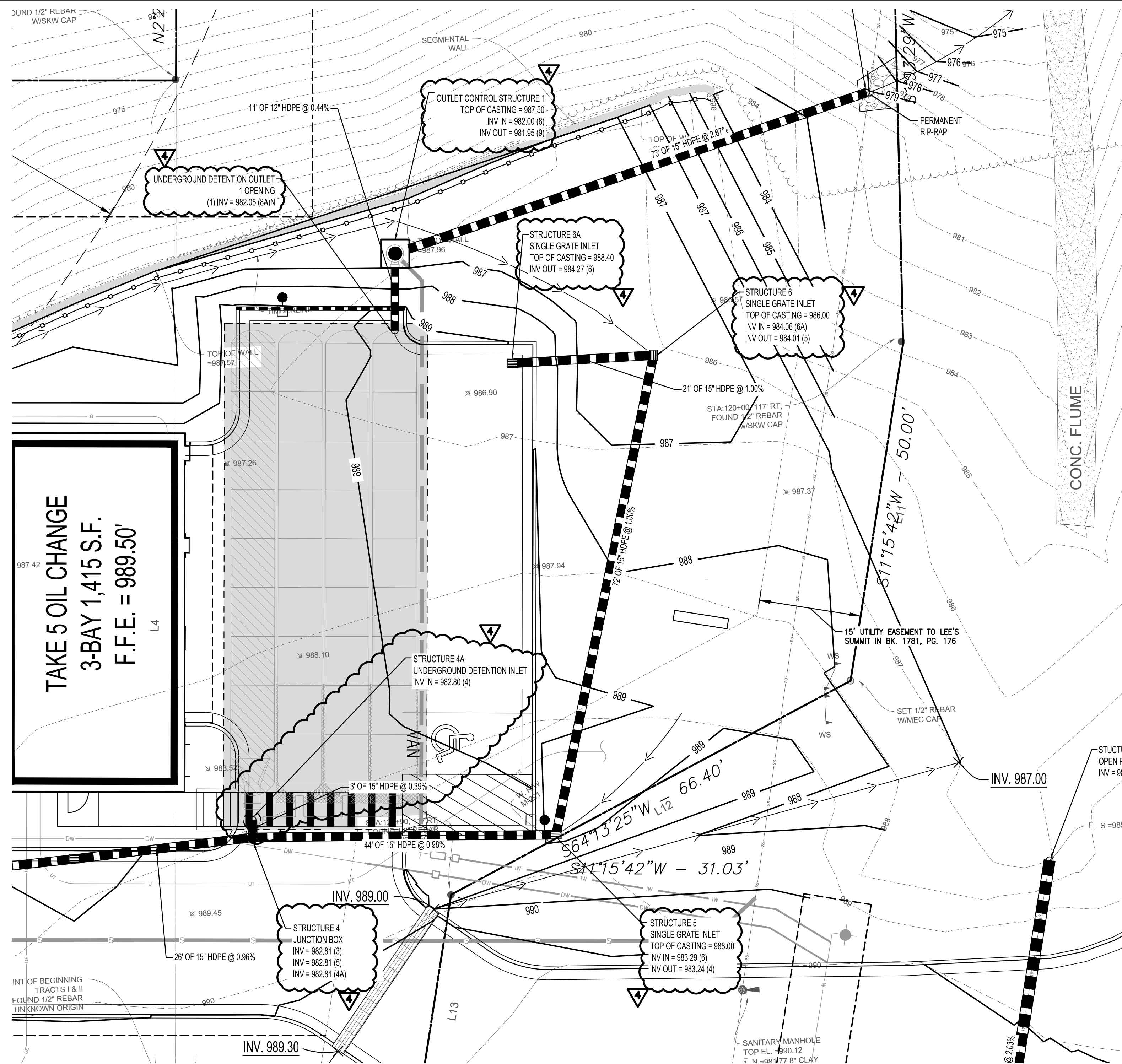
LEE'S SUMMIT, MISSOURI

FOR DRIVEN ASSETS, LLC

2101 PEARL STREET

BOULDER, CO 80302

| |
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| DRAWN KRG |
| CHECKED RCG |
| ISSUED DATE 10/24/2024 |
| ISSUED FOR PERMITTING |
| PROJECT NO. 22-218 |
| FILE 22-218 X-Layout |
| SHEET C-2.1 |



OUTLET CONTROL STRUCTURE 1
N.T.S.

ACCORDING TO THE MISSOURI DEPARTMENT OF NATURAL RESOURCES GIS MAP, NO EXISTING OIL AND GAS WELLS ARE LOCATED ON SITE.

NOTE:
THIS SITE IS LOCATED WITHIN THE WEST PRAIRIE LEE WATERSHED

FLOOD NOTE:
THIS PROPERTY LIES WITHIN FLOOD ZONE X, DEFINED AS AREAS DETERMINED TO BE OUTSIDE THE LIMITS OF THE 0.2% ANNUAL CHANCE FLOOD PLANE, AND OTHER FLOOD AREAS AS SHOWN ON THE FLOOD INSURANCE RATE MAP PREPARED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY FOR THE CITY OF LEE'S SUMMIT, JACKSON COUNTY, MISSOURI, COMMUNITY NO. 29 174 0436G AND DATED JANUARY 20, 2017

100 YEAR DESIGN STORAGE
VOLUME = 5,488 CF

REFER TO ADS STORM TECH DETAILS ON
SHEET C-4.5 FOR UNDERGROUND
DETENTION SECTIONS AND DETAILS

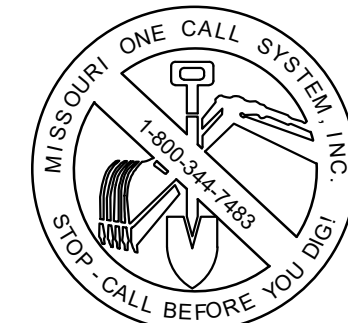
NOTE:
DETENTION BASIN SHALL BE CONSTRUCTED
PRIOR TO ALL OTHER WORK EXCEPT FOR
EROSION AND SEDIMENT CONTROL

NOTE:
AN AS-GRADED AND AS BUILT RECORD
DRAWINGS SHALL BE SUBMITTED AND
ACCEPTED BY THE CITY PRIOR TO ANY
CERTIFICATE OF OCCUPANCY BY THE CITY

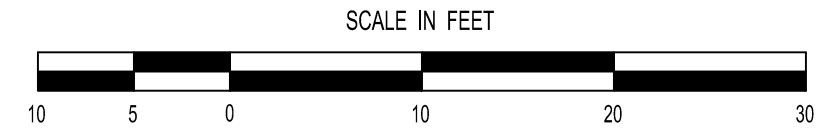
LEGEND - PROPOSED IMPROVEMENTS

- PROPERTY LINE
- PROPOSED BUILDING
- CG-1 CONCRETE CURB
- CG-1 CONCRETE CURB
w/ PAVEMENT TURN DOWN
- STORM DRAIN PIPE
- DOWNSPOUT COLLECTOR
N-12 PIPE (12" TRUNK W/ 8"
LATERAL CONNECTIONS)
SINGLE
GRATE
INLET
- 975 CONTOUR
- SLOPE ARROW

REFER TO SURVEY SHEETS FOR
LEGEND OF EXISTING FEATURES



DETENTION
BASIN PLAN



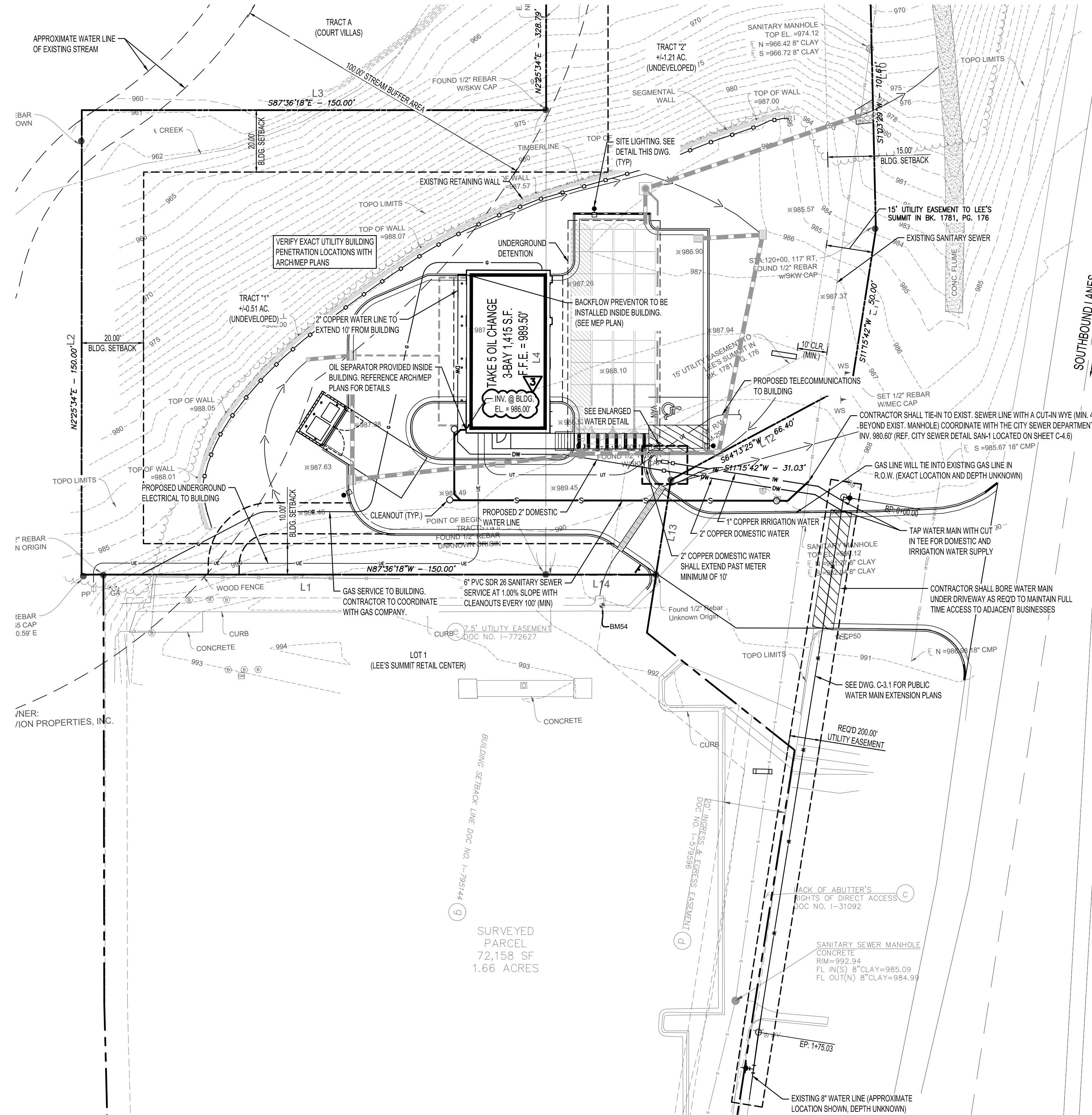
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| 4 | 2/14/2025 REVISED PER CITY | KRG |

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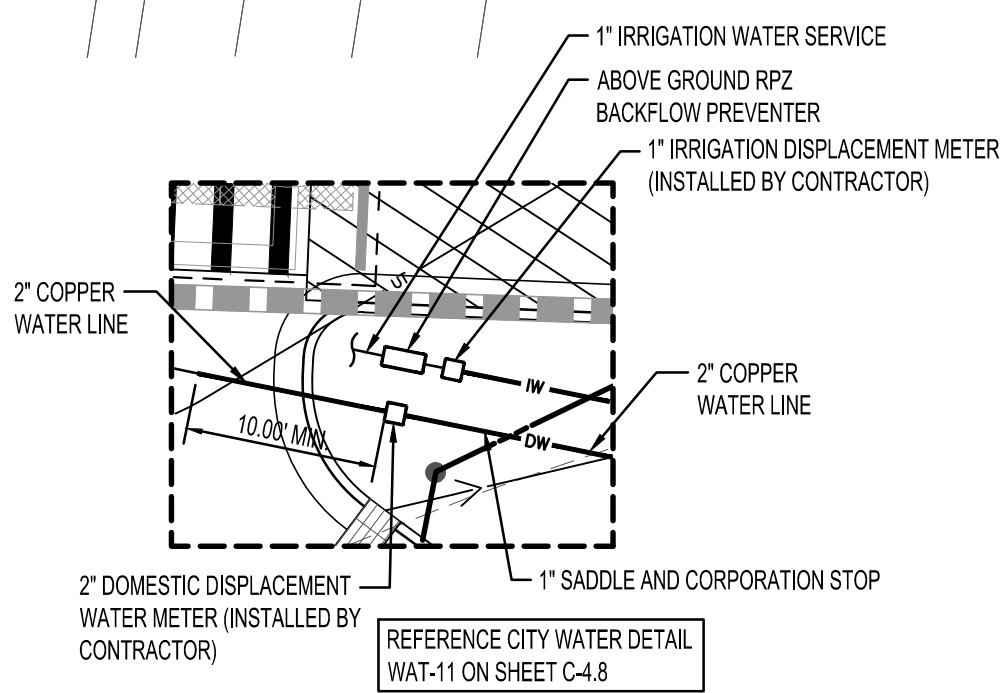
SIGNATURE: *[Signature]*
DATE: FEBRUARY 14, 2025
STAMP: B. SHANE GUN NUMBER 202100076 PROFESSIONAL ENGINEER STATE OF MISSOURI

PROPOSED TAKE 5
LEE'S SUMMIT, MISSOURI
FOR DRIVEN ASSETS, LLC
2101 PEARL STREET
BOULDER, CO 80302

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| DRAWN KRG |
| CHECKED RCG |
| ISSUED DATE 10/24/2024 |
| ISSUED FOR PERMITTING |
| PROJECT NO. 22-218 |
| FILE 22-218 C-2 Grading Plan |



ACCORDING TO THE MISSOURI DEPARTMENT OF NATURAL RESOURCES GIS MAP, NO EXISTING OIL AND GAS WELLS ARE LOCATED ON SITE.



ENLARGED WATER DETAIL
N.T.S.

UTILITY NOTES

- ALL FILL MATERIAL IS TO BE IN PLACE AND COMPACTED BEFORE INSTALLATION OF PROPOSED UTILITIES.
- ALL SEWER UTILITY WORK SHALL BE DONE TO THE CITY OF LEE'S SUMMIT STANDARDS AND SPECIFICATIONS. ALL WATER UTILITY WORK SHALL BE DONE TO LEE'S SUMMIT WATER UTILITIES STANDARDS AND SPECIFICATIONS. ALL ELECTRICAL UTILITY WORK SHALL BE DONE IN ACCORDANCE WITH LOCAL STANDARDS AND SPECIFICATIONS. ALL GAS UTILITY WORK SHALL BE DONE TO LOCAL GAS STANDARDS AND SPECIFICATIONS.
- CONTRACTOR SHALL NOTIFY THE UTILITY AUTHORITIES INSPECTORS 72 HOURS BEFORE CONNECTING TO ANY EXISTING LINE. CONTRACTOR SHALL VERIFY HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.
- SANITARY SEWER PIPE SHALL BE AS FOLLOWS:
 - 6" PVC SCHEDULE 40
- WATER LINES SHALL BE AS FOLLOWS:
 - WATER SERVICE LINES GREATER THAN 1", BUT LESS THAN 4"
 - FROM THE CITY'S MAIN TO THE CURB VALVE SHALL BE FLEXIBLE OR RIGID TYPE "K" COPPER.
 - FROM THE CURB VALVE TO 10' BEYOND THE METER WELL SHALL BE FLEXIBLE OR RIGID TYPE "K" OR "L" COPPER. ALSO, COPPER MUST BE USED OUTSIDE THE BUILDING WALL OF THE PREMISES SERVED, A MINIMUM OF 10'
- MINIMUM TRENCH WIDTH SHALL BE 2 FEET.
- ON COPPER WATER SERVICE LINE, JOINTS (EXCLUDING JOINTS ON PRE-PURCHASED "METER SETTER") SHALL BE FLARED, COMPRESSION, OR BRAZED. USE OF ANY OTHER TYPE OF JOINT IS PROHIBITED, UNLESS SPECIFICALLY AUTHORIZED BY THE CITY.
- ALL WATER AND SANITARY SEWER UTILITIES SHOULD MAINTAIN A MINIMUM TEN (10') OF HORIZONTAL SEPARATION OR, WHEN CROSSING, 18" OF VERTICAL SEPARATION (OUTSIDE EDGE OF PIPE TO OUTSIDE EDGE OF PIPE).
- CONTRACTOR SHALL MAINTAIN A MINIMUM OF 4'-0" COVER ON ALL WATER LINES.
- IN THE EVENT OF A VERTICAL CONFLICT BETWEEN WATER LINES, SANITARY LINES, STORM LINES AND GAS LINES (EXISTING AND PROPOSED), THE SANITARY LINE SHALL BE DUCTILE IRON PIPE WITH MECHANICAL JOINTS AT LEAST 10 FEET ON BOTH SIDES OF CROSSING. THE WATER LINE SHALL HAVE MECHANICAL JOINTS WITH APPROPRIATE THRUST BLOCKING AS REQUIRED TO PROVIDE A MINIMUM OF 18" CLEARANCE. MEETING REQUIREMENTS OF ANSI A21.10 OR ANSI 21.11 (AWWA C-151) (CLASS 50).
- LINES UNDERGROUND SHALL BE INSTALLED, INSPECTED AND APPROVED BEFORE BACKFILLING.
- TOPS OF EXISTING MANHOLES SHALL BE ADJUSTED AS NECESSARY TO BE FLUSH WITH PROPOSED PAVEMENT ELEVATIONS. IN UNPAVED AREAS, EXISTING MANHOLE TOPS SHALL BE 6" ABOVE FINISHED GROUND ELEVATIONS AND CONTAIN WATER TIGHT LIDS.
- ALL CONCRETE FOR ENCASEMENTS SHALL HAVE A MINIMUM 28 DAY COMPRESSION STRENGTH AT 3000 P.S.I. REFER TO ARCHITECTURAL AND MEP DRAWINGS FOR EXACT BUILDING TIE-IN LOCATIONS OF ALL UTILITIES.
- CONTRACTOR IS RESPONSIBLE FOR COMPLYING TO THE SPECIFICATIONS OF THE LOCAL AUTHORITIES WITH REGARDS TO MATERIALS AND INSTALLATION OF THE WATER AND SEWER LINES.
- THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
- CONTRACTOR IS RESPONSIBLE FOR ALL NECESSARY INSPECTIONS AND/OR CERTIFICATIONS REQUIRED BY CODES AND/OR UTILITY SERVICE COMPANIES. THIS AND THE FINAL CONNECTIONS OF THE SERVICE SHALL BE COMPLETED 30 DAYS PRIOR TO BUILDING OCCUPANCY.
- CONTRACTOR SHALL COORDINATE WITH ALL UTILITY COMPANIES FOR INSTALLATION REQUIREMENTS AND SPECIFICATIONS.
- REFER TO BUILDING PLANS FOR SITE LIGHTING ELECTRICAL PLAN.
- CONTRACTOR SHALL COORDINATE WITH THE CITY OF LEE'S SUMMIT PUBLIC WORKS FOR TIE-IN LOCATIONS TO PUBLIC UTILITIES PRIOR TO COMMENCEMENT OF WORK.
- EXISTING PUBLIC WATER LINE SHOWN IS BASED ON APPROXIMATE LOCATION PER MAP PROVIDED BY LEE'S SUMMIT WATER UTILITIES. EXACT SIZE AND LOCATION SHALL BE VERIFIED PRIOR TO START OF CONSTRUCTION. ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES.
- TOPOGRAPHIC INFORMATION IS TAKEN FROM A TOPOGRAPHIC SURVEY BY McCURE DATED 13 SEPTEMBER 2023. IF THE CONTRACTOR DOES NOT ACCEPT EXISTING TOPOGRAPHY AS SHOWN ON THE PLANS, WITHOUT EXCEPTION, THEN THE CONTRACTOR SHALL SUPPLY, AT THEIR EXPENSE, A TOPOGRAPHIC SURVEY BY A REGISTERED LAND SURVEYOR TO THE OWNER FOR REVIEW.

LEGEND

- PROPERTY LINE
- PROPOSED BUILDING
- CG-1 CONCRETE CURB
- STORM DRAIN PIPE
- DOMESTIC WATER LINE
- SANITARY SEWER LINE
- GAS LINE
- UNDERGROUND TELEPHONE LINE (4" CONDUIT)
- UNDERGROUND ELECTRICAL LINE
- CLEANOUT
- SITE LIGHTING FIXTURE



UTILITY PLAN

SCALE IN FEET

20 10 0 20 40 60

| REVISION | | BY |
|----------|--------------------------------|-----|
| 1 | 10/24/2024 REVISED PER CITY | KRG |
| 2 | 12/16/2024 REVISED PER CITY | KRG |
| 3 | 1/16/2025 REVISED PER CITY | KRG |
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HIGH TIDE
CONSULTANTS LLC
434 N. COLUMBIA ST, SUITE 200A
COVINGTON, LA 70433
www.hightidela.com

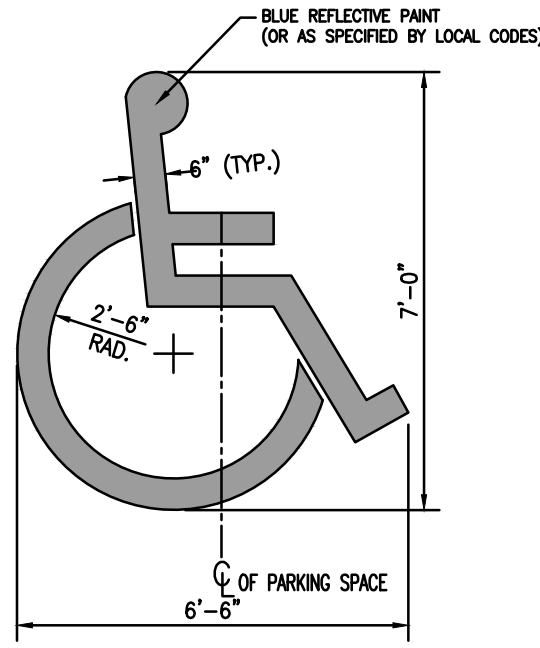
PROPOSED TAKE 5
LEE'S SUMMIT, MISSOURI

FOR DRIVEN ASSETS, LLC
2101 PEARL STREET
BOULDER, CO 80302

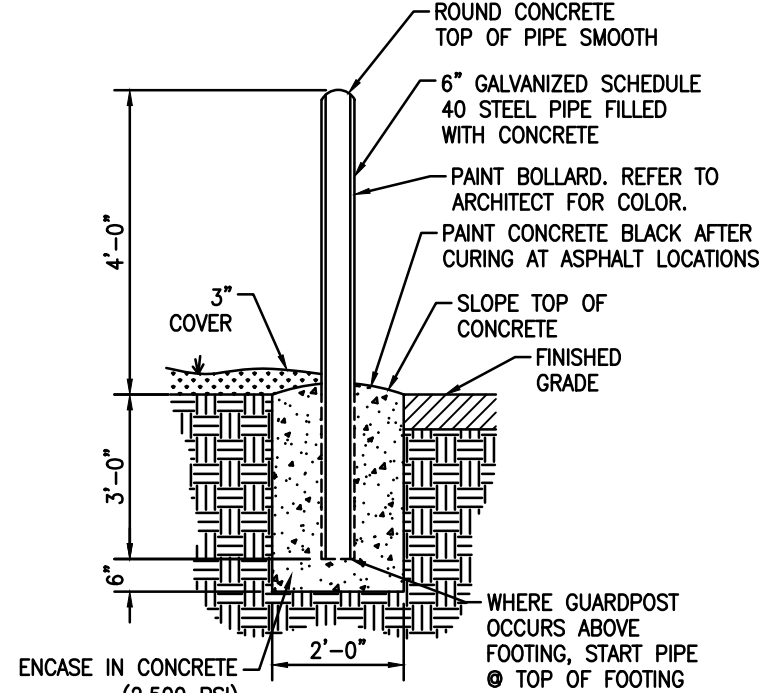
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DATE: JANUARY 31, 2025

STAMP: STATE OF MISSOURI
B. SHANE
G.U.N.
NUMBER
202100076
PROFESSIONAL ENGINEER

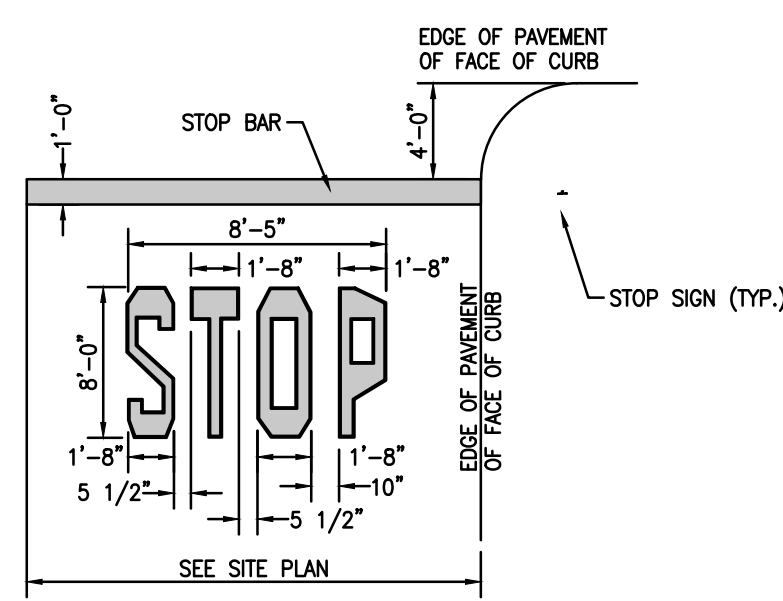
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ISSUED DATE: 07/30/2024
ISSUED FOR PERMITTING
PROJECT NO.: 22-218
FILE: 22-218 C-3 Utility Plan
SHEET: C-3



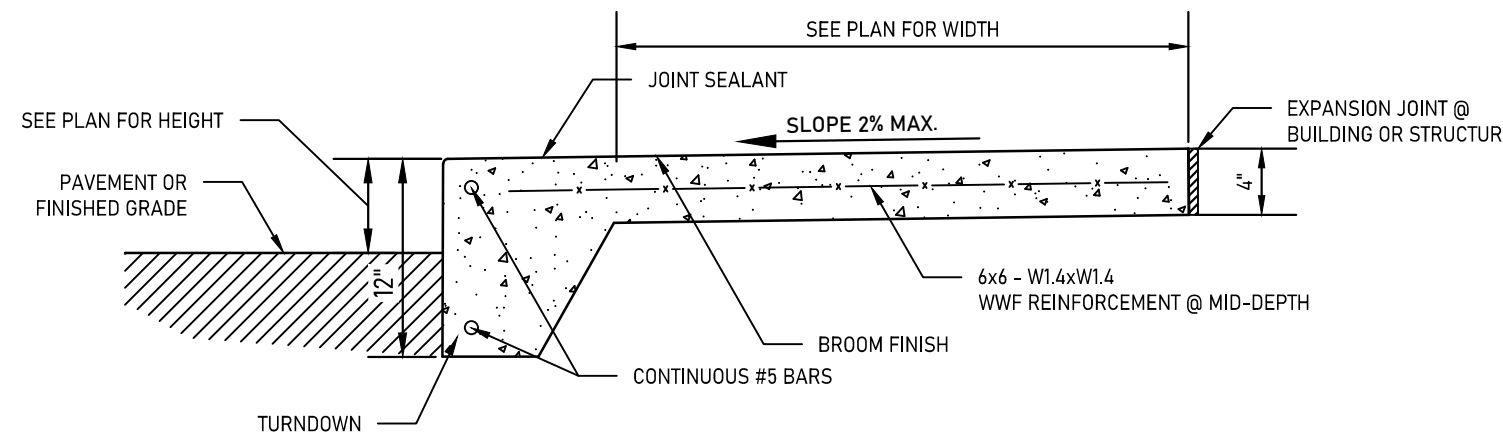
ACCESSIBLE PARKING SYMBOL DETAIL
N.T.S.



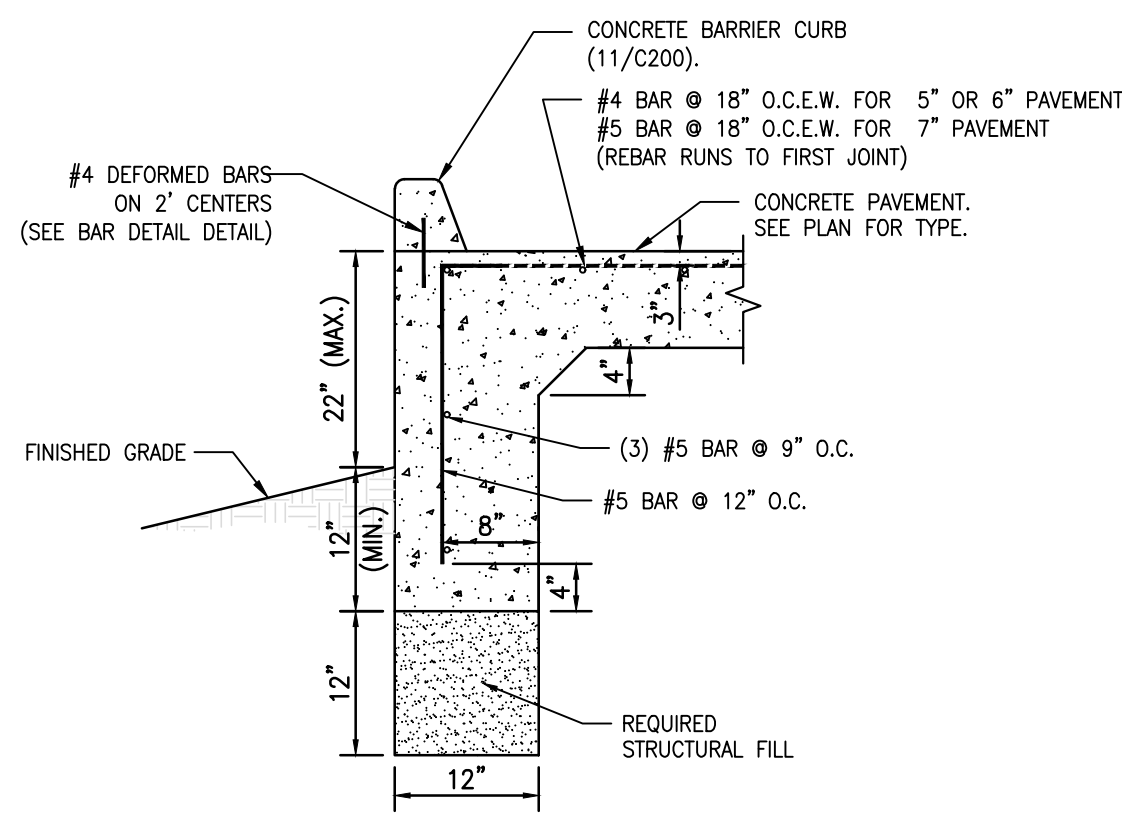
BOLLARD DETAIL
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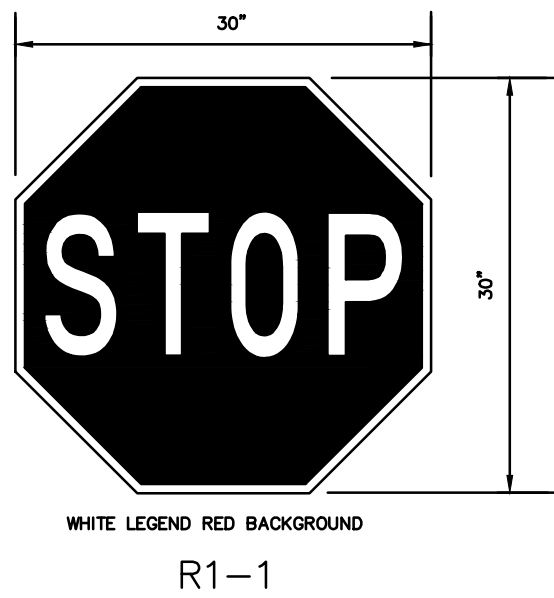
STOP BAR DETAIL
N.T.S.



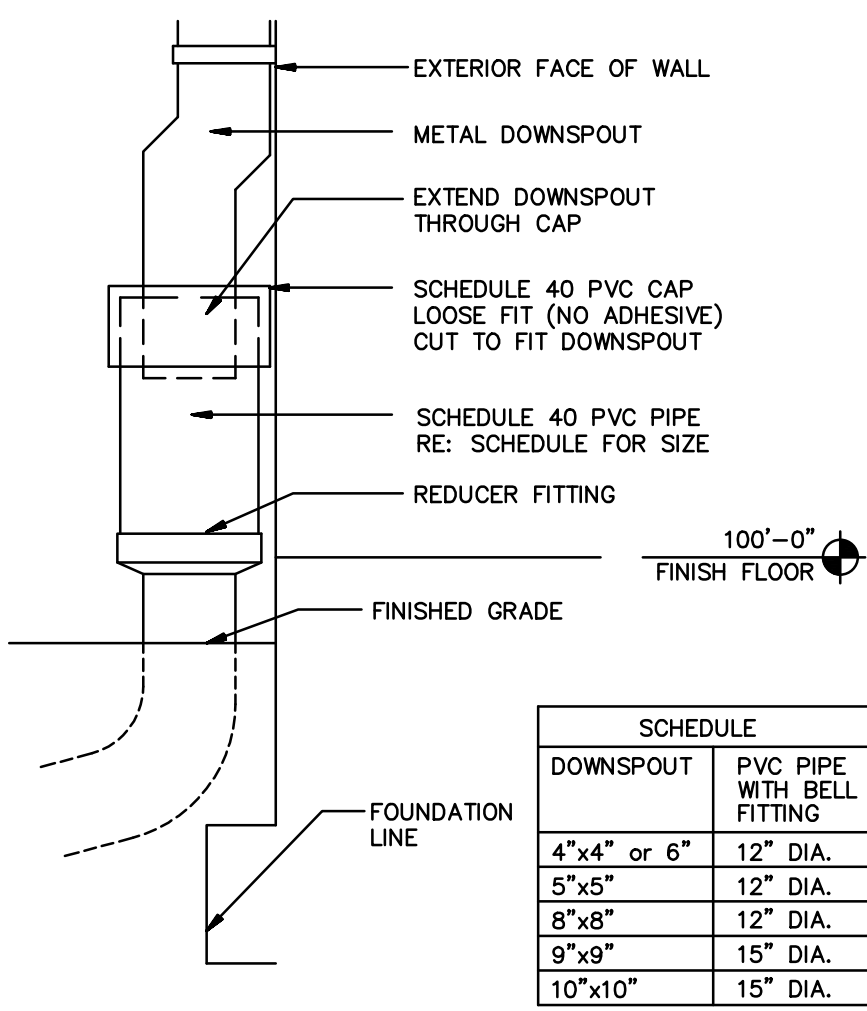
CONCRETE SIDEALK DETAIL
N.T.S.



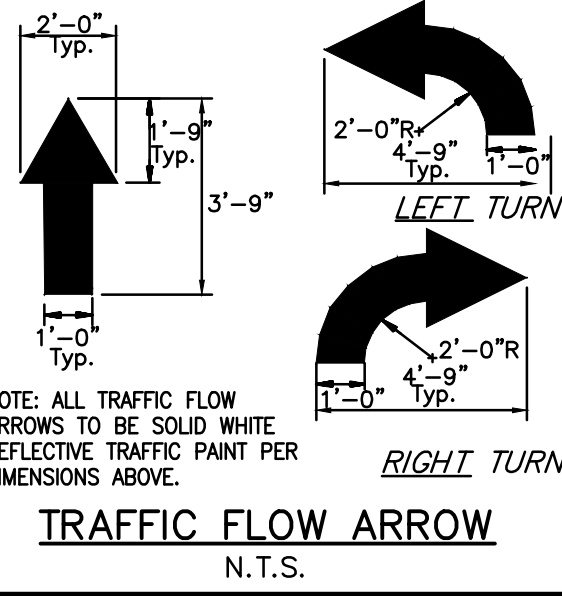
CONCRETE PAVEMENT TURN DOWN
N.T.S.



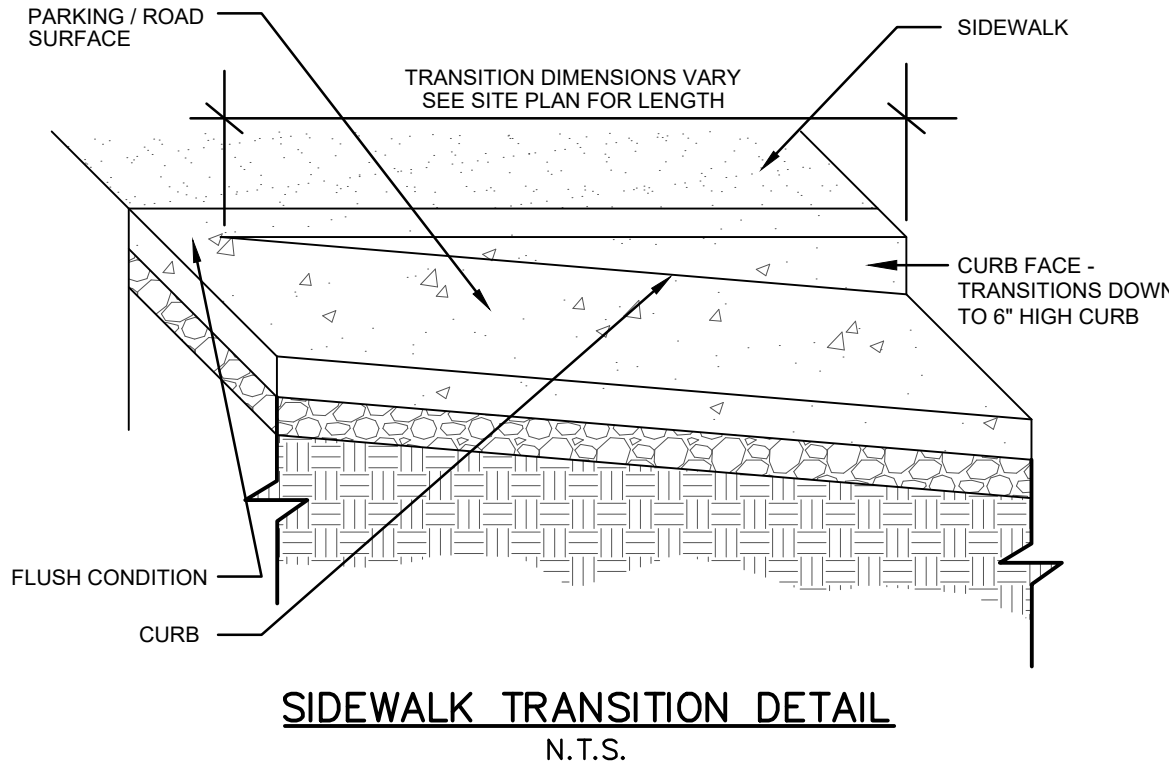
"STOP" SIGN
N.T.S.



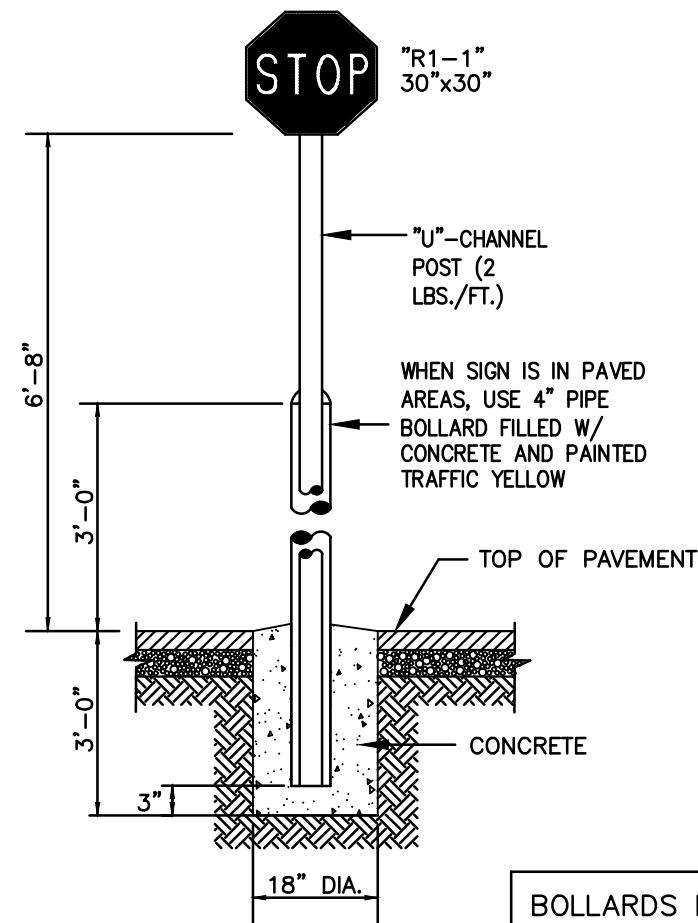
EXTERIOR DOWNSPOUT COLLECTOR
N.T.S.



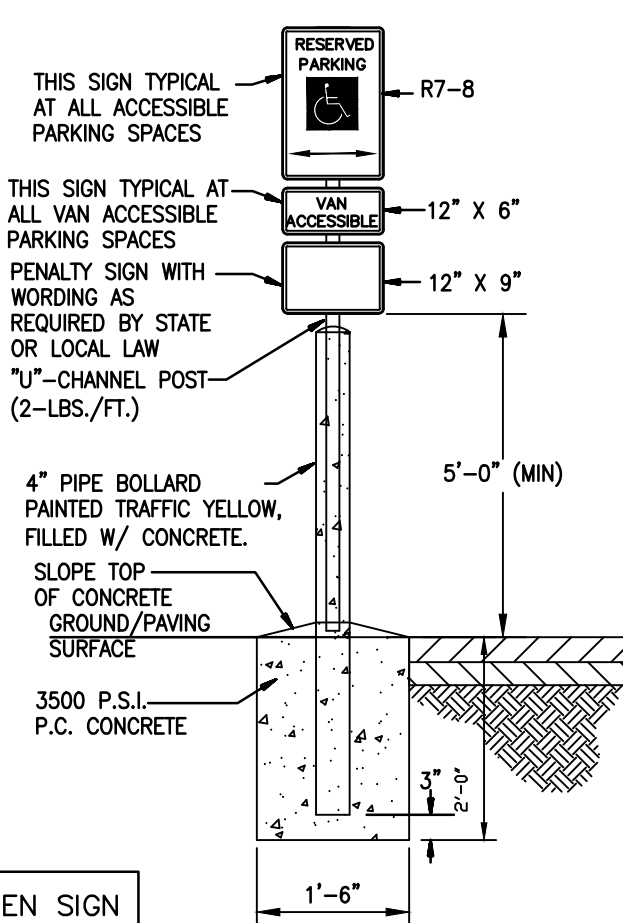
TRAFFIC FLOW ARROW
N.T.S.



SIDEWALK TRANSITION DETAIL
N.T.S.

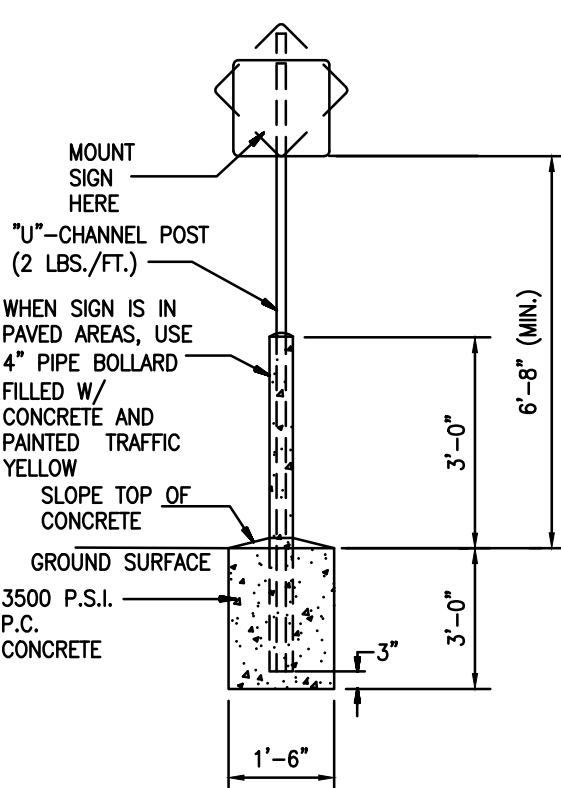


STOP SIGN W/ PIPE BOLLARD
N.T.S.



ACCESSIBLE PARKING SIGN
N.T.S.

ALL SIGNS SHALL COMPLY WITH U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION'S "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES", LOCAL CODES AND AS SPECIFIED. MOUNT SIGNS TO POST IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.



STANDARD SIGN BASE
N.T.S.

| REVISION | | BY |
|----------|--------------------------------|-----|
| 1 | 12/16/2024 REVISED PER CITY | KRG |
| 2 | 1/17/2025 REVISED PER CITY | KRG |

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www.hightidela.com

Signature: [Signature]
Date: JANUARY 31, 2025
Professional Engineer Seal: [Seal]

PROPOSED TAKE 5
LEE'S SUMMIT, MISSOURI
FOR DRIVEN ASSETS, LLC
2101 PEARL STREET
BOULDER, CO 80302

| |
|----------------------------|
| DRAWN KRG |
| CHECKED RCG |
| ISSUED DATE 07/30/2024 |
| ISSUED FOR PERMITTING |
| PROJECT NO. 22-218 |
| FILE 22-218 C-4 Details |
| SHEET C-4.1 |

SITE DETAILS

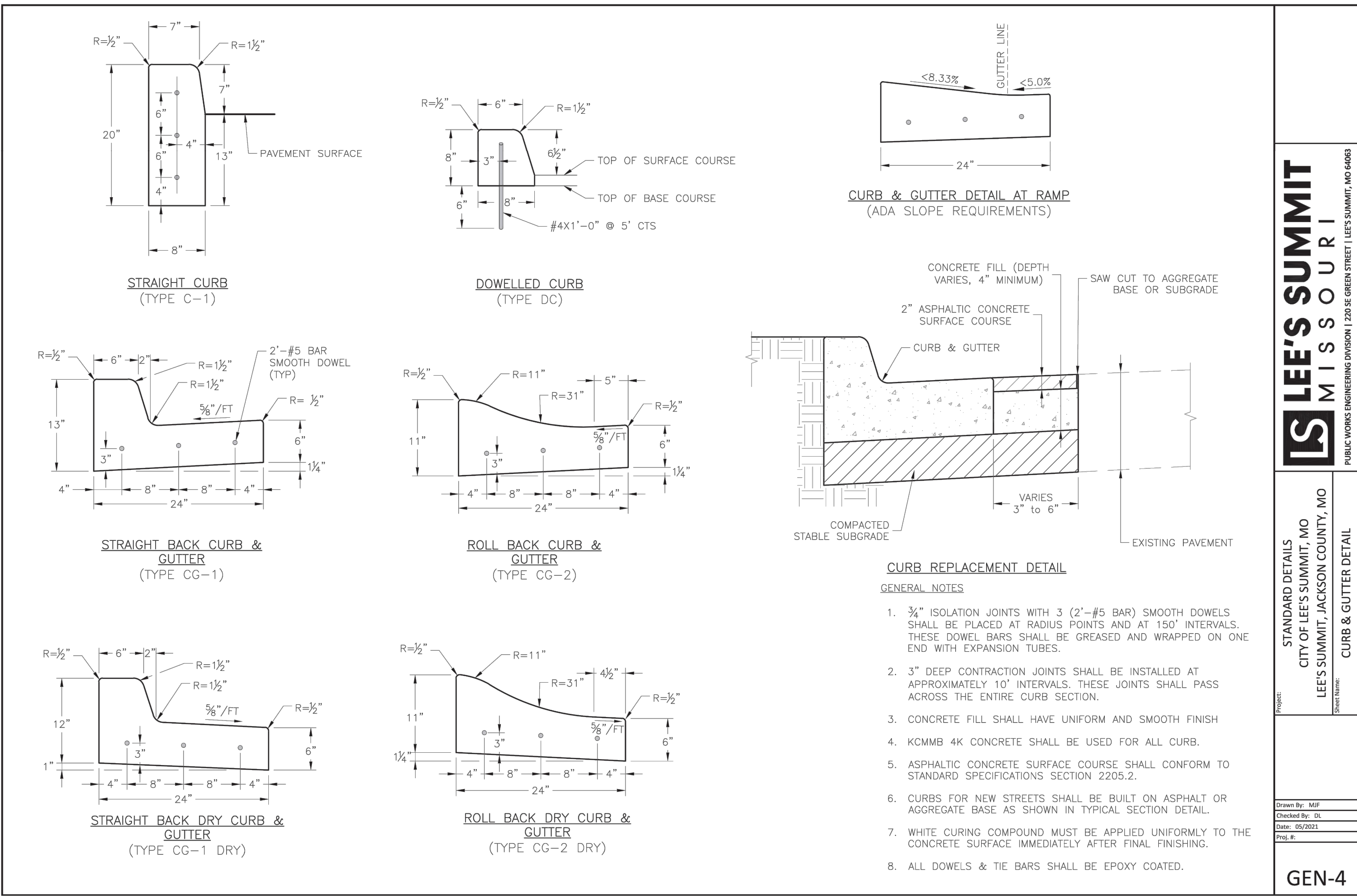
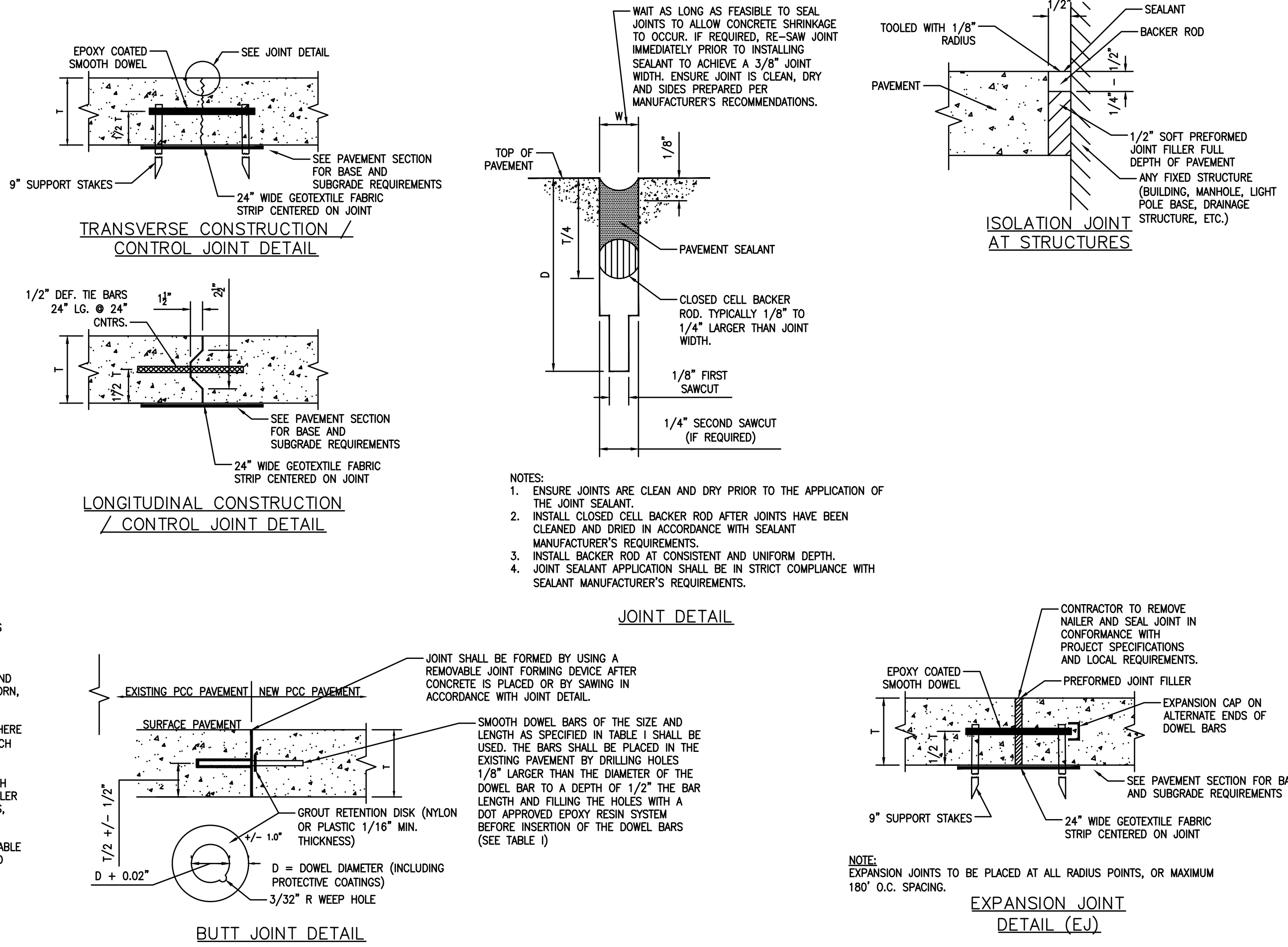


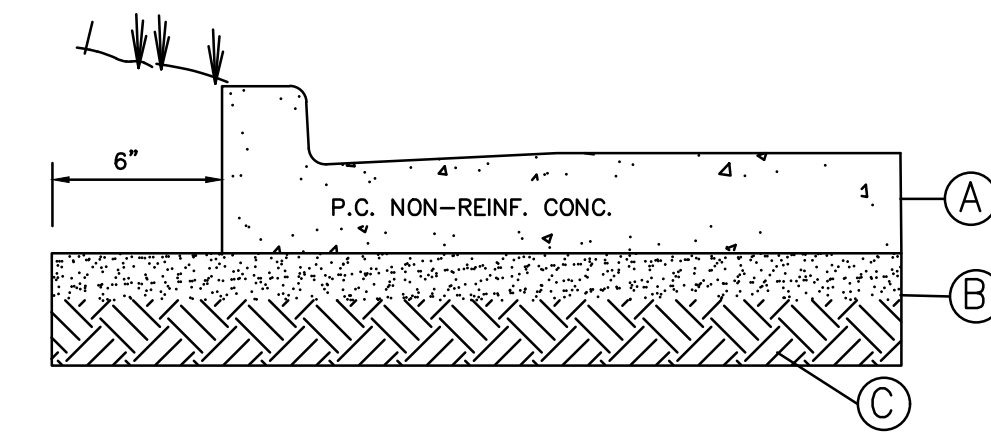
TABLE 1

| PAVEMENT THICKNESS | SMOOTH DOWEL BARS | | | | MINIMUM JOINT DEPTH |
|--------------------|-------------------|--------|---------|--------|---------------------|
| " T " | SIZE Ø | LENGTH | SPACING | " D " | " (IN) |
| 5" | 1/2" | 12" | 18" | 1 1/2" | |
| 6" | 3/4" | 14" | 12" | 1 3/4" | |
| 7" | 1" | 16" | 12" | 2" | |
| 8" | 1 1/4" | 18" | 12" | 3" | |
| 9" | 1 1/4" | 18" | 12" | 3" | |
| 10" | 1 1/4" | 18" | 12" | 3 1/4" | |

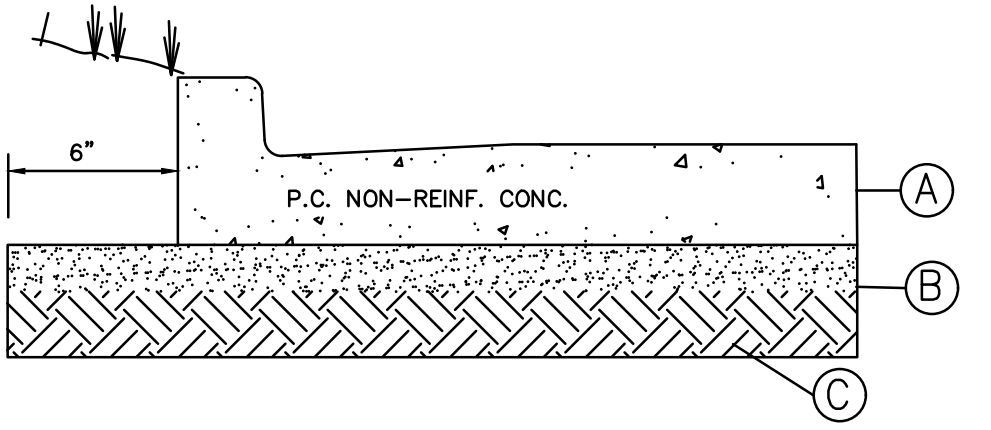
- NOTES:
- JOINTS SHALL BE SAWCUT AS SOON AS THE CONCRETE HAS REACHED SUFFICIENT STRENGTH TO SUPPORT THE SAWING EQUIPMENT AND TEARING OF CONCRETE DOES NOT OCCUR.
 - GEOTEXTILE FABRIC SHALL BE CONSTRUCTED OF NON-WOVEN POLYPROPYLENE FIBERS RESISTANT TO CHEMICAL ATTACK, MILDEW, AND ROT. THE CONTRACTOR SHALL PROVIDE THE ENGINEER WITH A GEOTEXTILE MATERIAL SUBMITTAL FOR APPROVAL.
 - CONSTRUCT EXPANSION, WEAKENED PLANE CONTROL (CONTRACTION), AND CONSTRUCTION JOINTS STRAIGHT WITH FACE PERPENDICULAR TO CONCRETE SURFACE.
 - CONSTRUCT CONTROL JOINTS FOR DEPTH EQUAL TO AT LEAST 1/4 OF THE CONCRETE THICKNESS AS FOLLOWS:
 - FORM TOOLED JOINTS IN FRESH CONCRETE BY GROOVING TOP WITH RECOMMENDED TOOL AND FINISHING EDGE WITH JOINTER.
 - FORM SAWED JOINTS USING POWERED SAWS EQUIPPED WITH SHATTERPROOF ABRASIVE OR DIAMOND RIMMED BLADES. CUT JOINTS INTO HARDENED CONCRETE AS SOON AS SURFACE WILL NOT BE TORN, ABRADED, OR OTHERWISE DAMAGED BY CUTTING ACTION.
 - CONSTRUCTION JOINTS: PLACE CONSTRUCTION JOINTS AT END OF PLACEMENTS AND AT LOCATIONS WHERE PLACEMENTS OPERATIONS ARE STOPPED FOR PERIOD OF MORE THAN 1/2 HOUR, EXCEPT WHERE SUCH PLACEMENTS TERMINATE AT EXPANSION JOINTS. CONSTRUCT JOINTS IN ACCORDANCE WITH DETAILS.
 - EXPANSION JOINTS: LOCATE EXPANSION JOINTS AT MAXIMUM OF 180'-0" ON CENTERS, MAXIMUM EACH WAY UNLESS OTHERWISE SHOWN ON THE CONSTRUCTION DRAWINGS. PROVIDE PRE-MOLDED JOINT FILLER FOR EXPANSION JOINTS ABUTTING CONCRETE CURBS, CATCH BASINS, MANHOLES, INLETS, STRUCTURES, SIDEWALKS, AND OTHER FIXED OBJECTS.
 - BUTT JOINTS: FOR JOINTS AGAINST EXISTING PAVEMENT, PLACE DOWELS OF THE SIZE INDICATED IN TABLE 1 INTO HOLES DRILLED INTO CENTER OF EXISTING SLAB. EPOXY DOWELS INTO HOLES WITH APPROVED EPOXY COMPOUND. PLACE DOWELS PRIOR TO CONCRETE PLACEMENT FOR NEW CONCRETE. DOWEL SPACING TO BE AS INDICATED IN TABLE 1. SAW JOINTS AND FILL WITH JOINT SEALER.
 - JOINT FILLERS: EXTEND JOINT FILLERS FULL WIDTH AND DEPTH OF JOINT, AND NOT LESS THAN 1/2-INCH OR MORE THAN 1-INCH BELOW FINISHED SURFACE WHERE JOINT SEALER IS INDICATED. FURNISH JOINT FILLERS IN 1 PIECE LENGTHS FOR FULL WIDTH BEING PLACED, WHEREVER POSSIBLE. WHERE MORE THAN 1 LENGTH IS REQUIRED LACE OR CLIP JOINT FILLER SECTIONS TOGETHER.
 - JOINT SEALANTS: JOINTS SHALL BE SEALED WITH APPROVED EXTERIOR PAVEMENT JOINT SEALANTS AND SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
 - DOWELS SHALL NOT BE PLACED CLOSER THAN 12" TO A JOINT INTERSECTION.



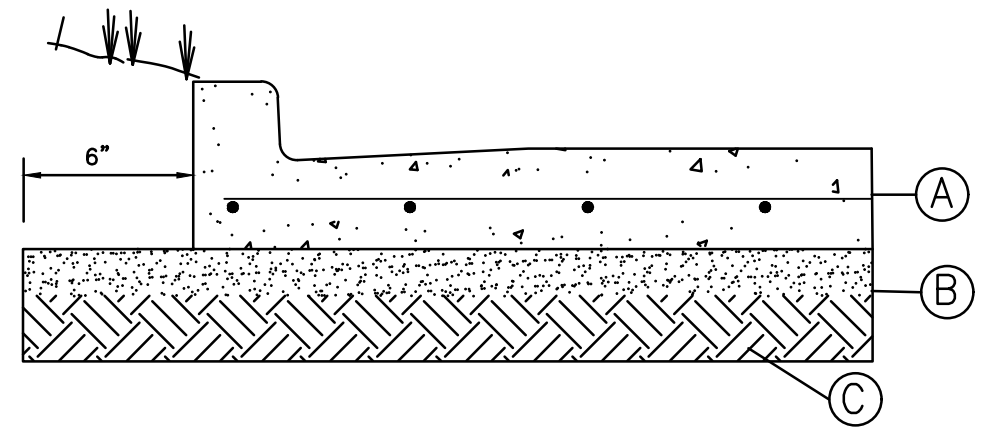
CONCRETE JOINT DETAILS
N.T.S.



- 6" MIN. OF PORTLAND CEMENT CONCRETE PAVEMENT (PCCP). (MAXIMUM CONTROL JOINT SPACING 12.5') PORTLAND CEMENT CONCRETE PAVEMENT SHALL BE KCMBB 4K MIX.
- 4" COMPACTED GRANULAR AGGREGATE BASE WITH GEOGRID
- PROPERLY PREPARED SUBGRADE

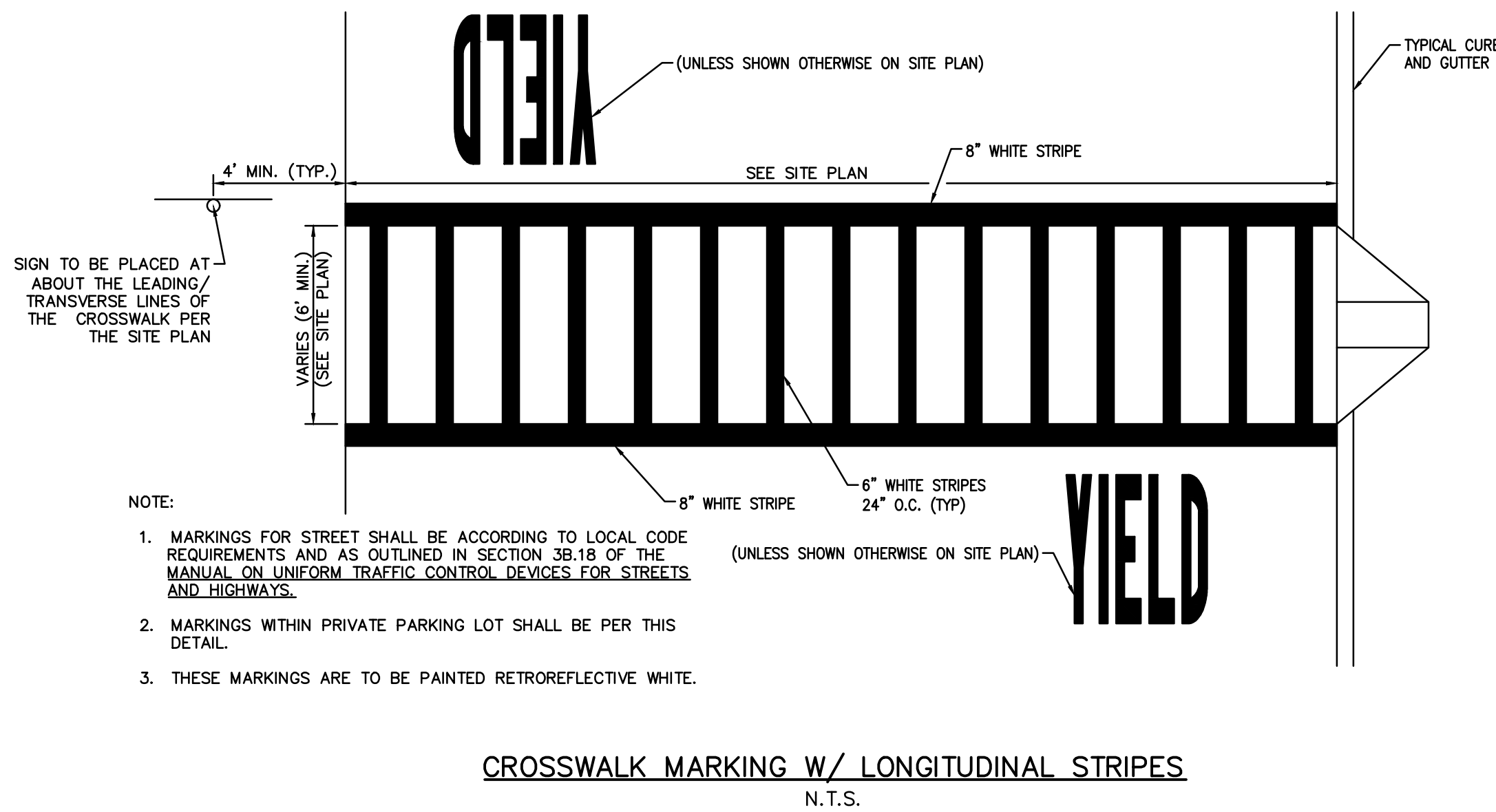


- 8" MIN. OF PORTLAND CEMENT CONCRETE PAVEMENT (PCCP). (MAXIMUM CONTROL JOINT SPACING 15.0') PORTLAND CEMENT CONCRETE PAVEMENT SHALL BE KCMBB 4K MIX.
- 4" COMPACTED GRANULAR AGGREGATE BASE WITH GEOGRID
- PROPERLY PREPARED SUBGRADE



- 7" MIN. OF REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT (PCCP). (REINFORCING SHALL BE #4 BARS AT 18" O.C. EACH WAY.) PORTLAND CEMENT CONCRETE PAVEMENT SHALL BE KCMBB 4K MIX.
- 4" COMPACTED GRANULAR AGGREGATE BASE WITH GEOGRID
- PROPERLY PREPARED SUBGRADE

- PAVEMENT NOTES (ALL SECTIONS):
- PORTLAND CEMENT CONCRETE PAVEMENT SHALL BE KCMBB 4K MIX.
 - ALL PAVEMENT, BASE, FILL MATERIAL, AND SITE AND BUILDING PAD PREPARATION SHALL BE IN ACCORDANCE WITH THE GEOTECHNICAL REPORT RECOMMENDATIONS. REPORT PREPARED BY TERRACON ENGINEERING, LLC DATED 11/2/2023. TERRACON PROJECT NO. 0225253.
 - THE EXPOSED SUBGRADE SHOULD BE PROOFROLLED WITH A RUBBER TIERED VEHICLE WEIGHING 20 TONS. SOILS WHICH ARE OBSERVED TO RUT OR DEFLECT EXCESSIVELY UNDER THE MOVING LOAD SHALL BE UNDERCUT AND REPLACED WITH COMPACTED STRUCTURAL FILL.
 - AGGREGATE SHALL BE MODOT TYPE 5.
 - GRANULAR FILL SHALL BE PLACED IN MAXIMUM 8" LOOSE LIFTS AND COMPACTED TO 95% MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D 698 (STANDARD PROCTOR) WITHIN 3% OF OPTIMUM MOISTURE CONTENT.



SITE DETAILS

| REVISION | BY |
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HIGH TIDE CONSULTANTS LLC
434 N. COLUMBIA ST, SUITE 200A
COVINGTON, LA 70433
www.hightidelc.com

PROFESSIONAL ENGINEER
B. SHANE GUN
NUMBER 202100076
STATE OF MISSOURI

SIGNATURE: [Signature]
DATE: FEBRUARY 10, 2025

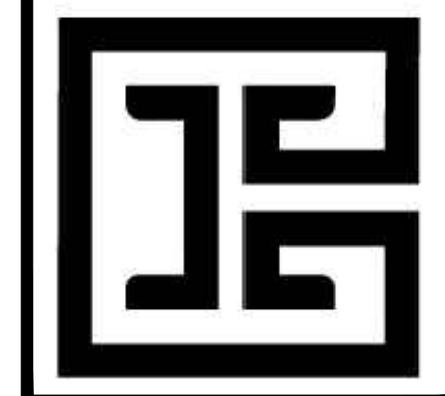
PROPOSED TAKE 5
LEE'S SUMMIT, MISSOURI


FOR DRIVEN ASSETS, LLC
2101 PEARL STREET
BOULDER, CO 80302

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| DRAWN KRG |
| CHECKED RCG |
| ISSUED DATE 07/30/2024 |
| ISSUED FOR PERMITTING |
| PROJECT NO. 22-218 |
| FILE 22-218 C-4 Details |
| SHEET C-4.2 |

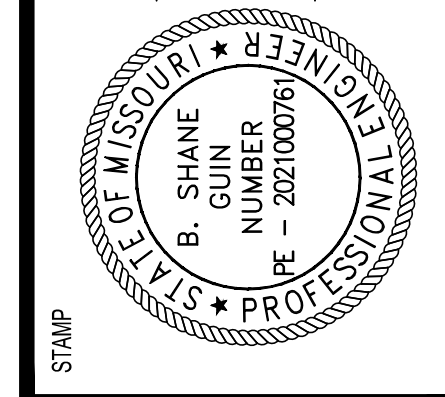
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**HIGHTIDE
CONSULTANTS LLC**
434 N. COLUMBIA ST, SUITE 200A
COVINGTON, LA 70433
www.hightideLA.com



SIGNATURE: 

DATE: FEBRUARY 10, 2025



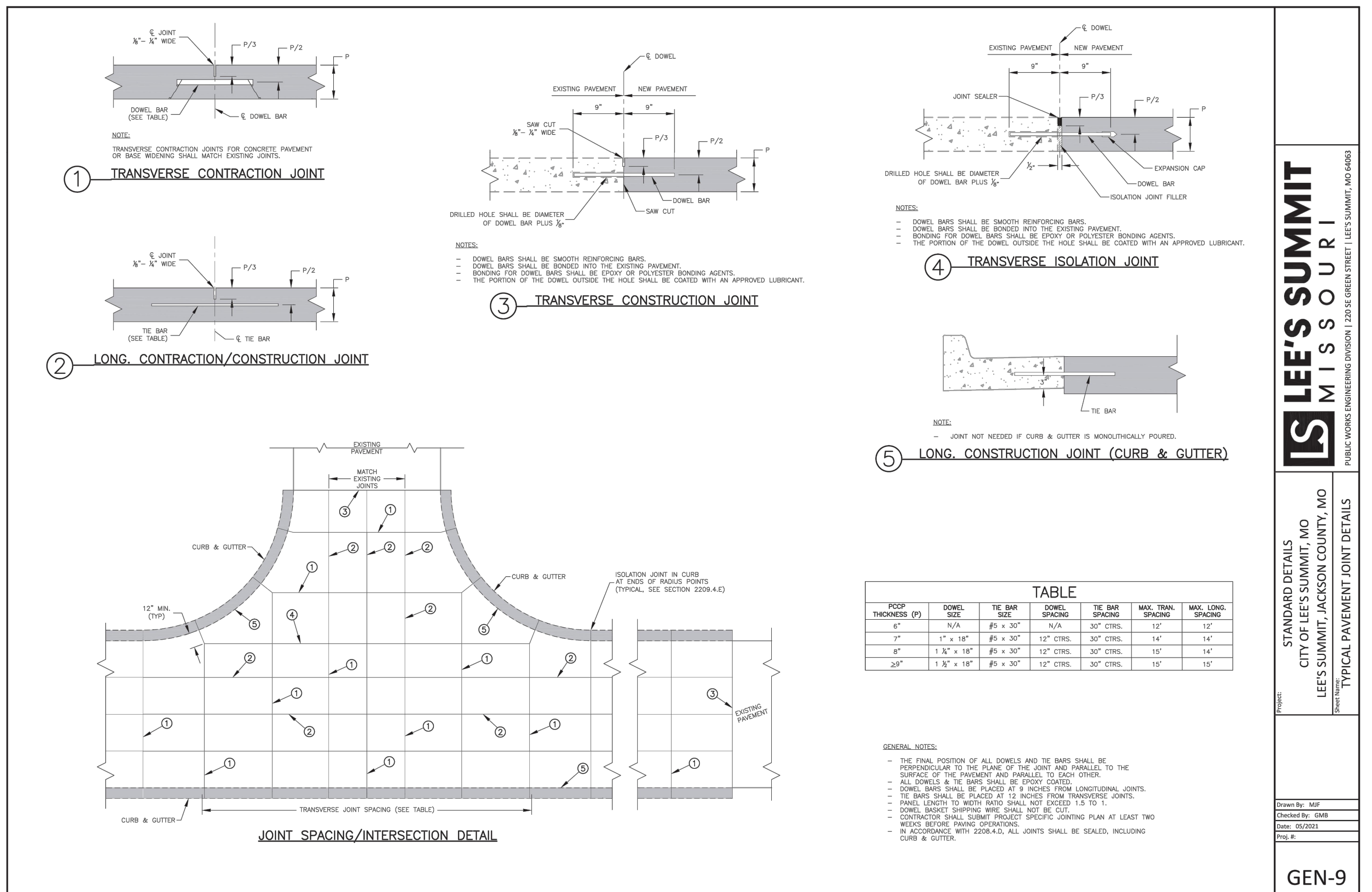
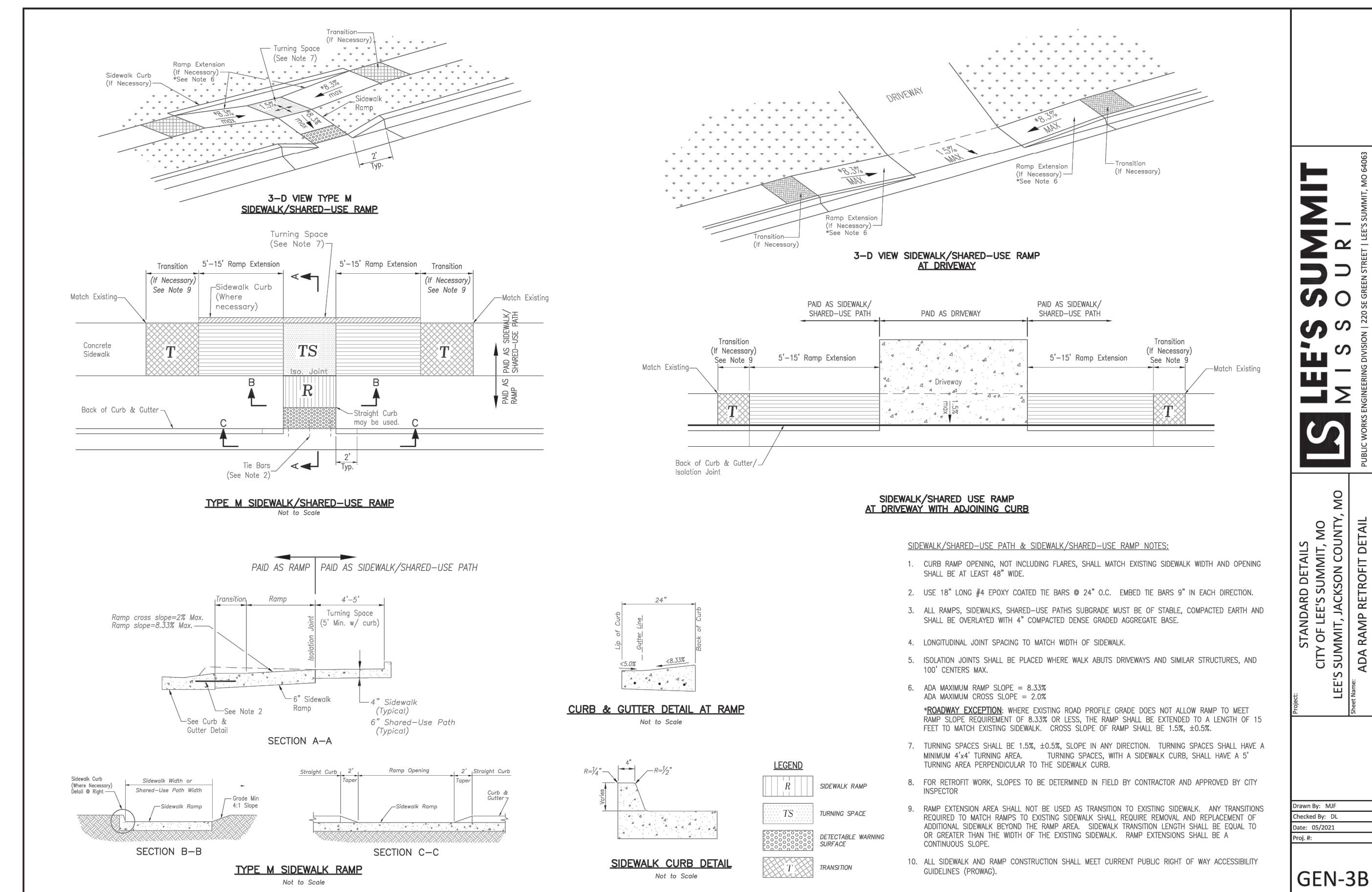
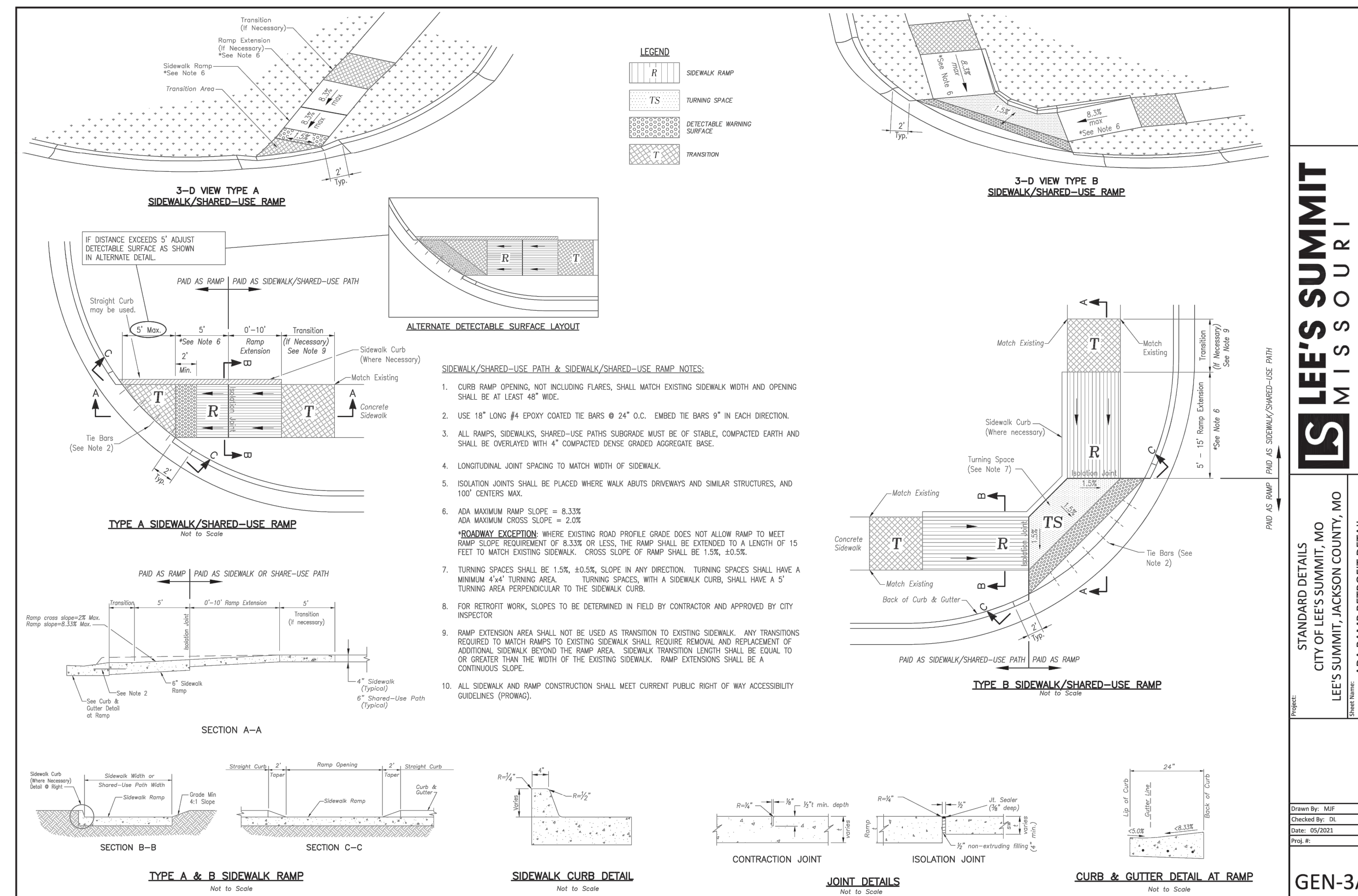
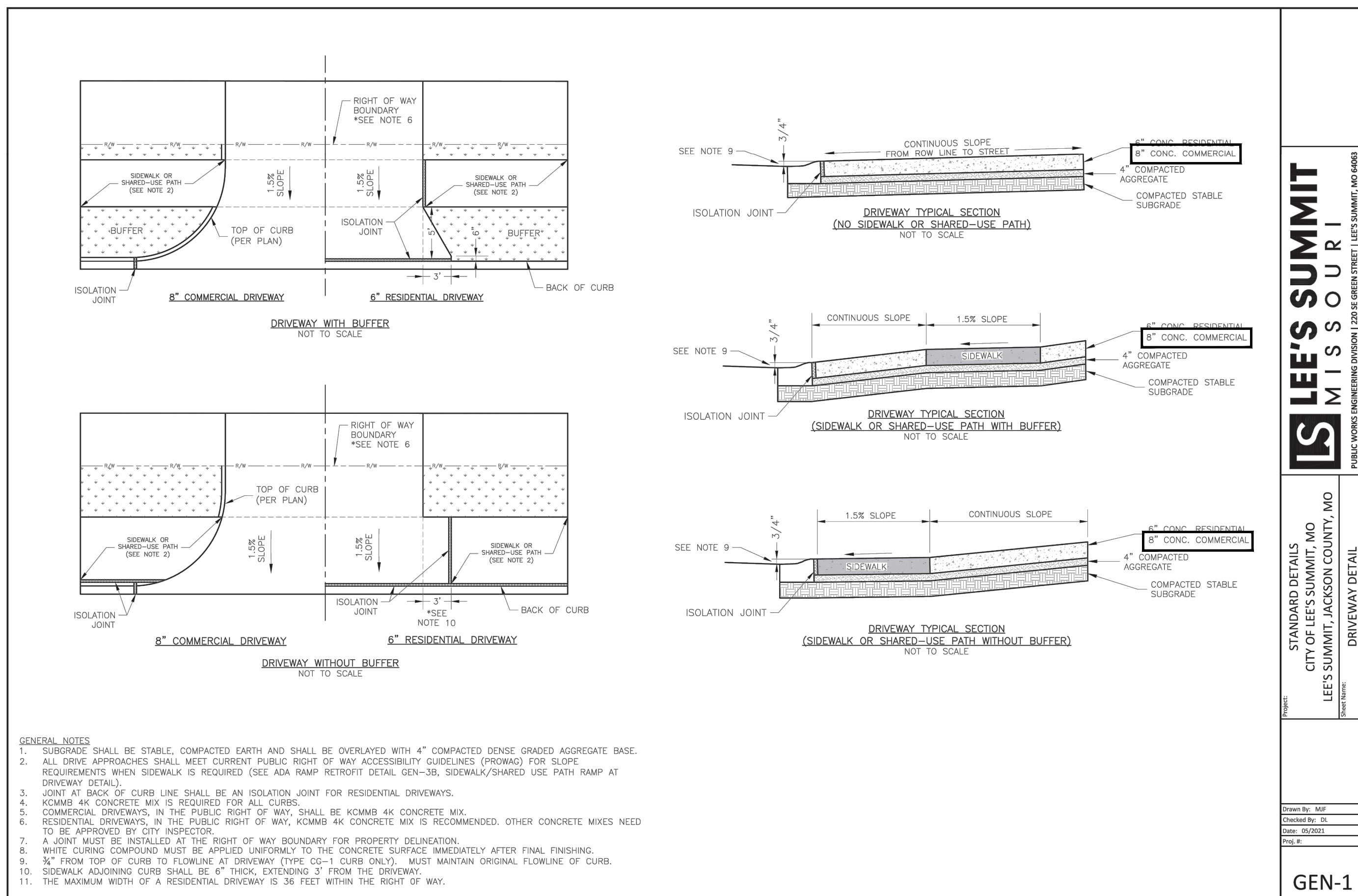
PROPOSED TAKE 5
LEE'S SUMMIT, MISSOURI

FOR DRIVEN ASSETS, LLC
2101 PEARL STREET
BOULDER, CO 80302

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| DRAWN |
| KRG |
| CHECKED |
| RCG |
| ISSUED DATE |
| 07/30/2024 |
| ISSUED FOR |
| PERMITTING |
| PROJECT NO. |
| 22-218 |
| FILE |
| 22-218 C-4 Details |

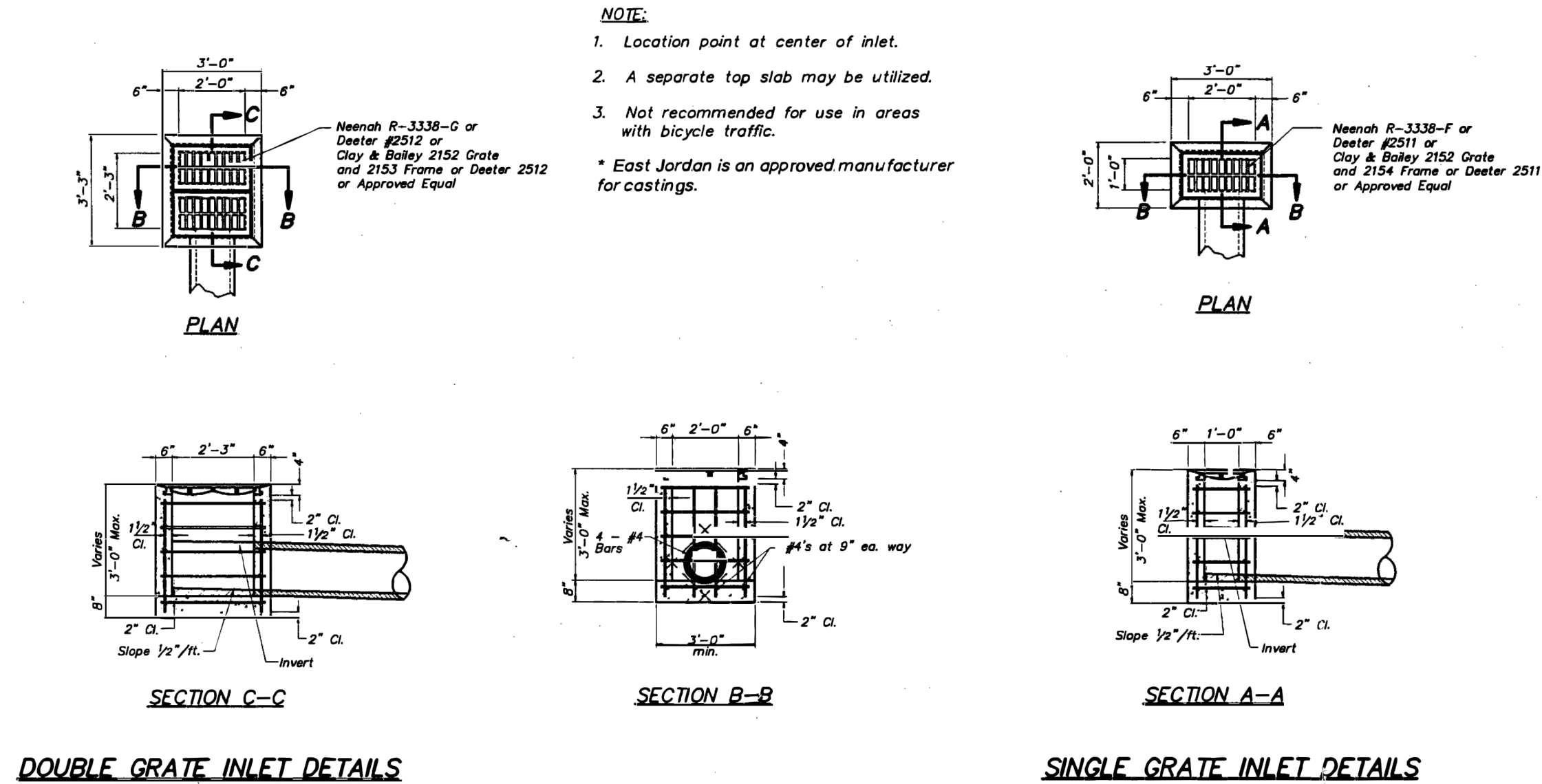
SHEET

C-4.3

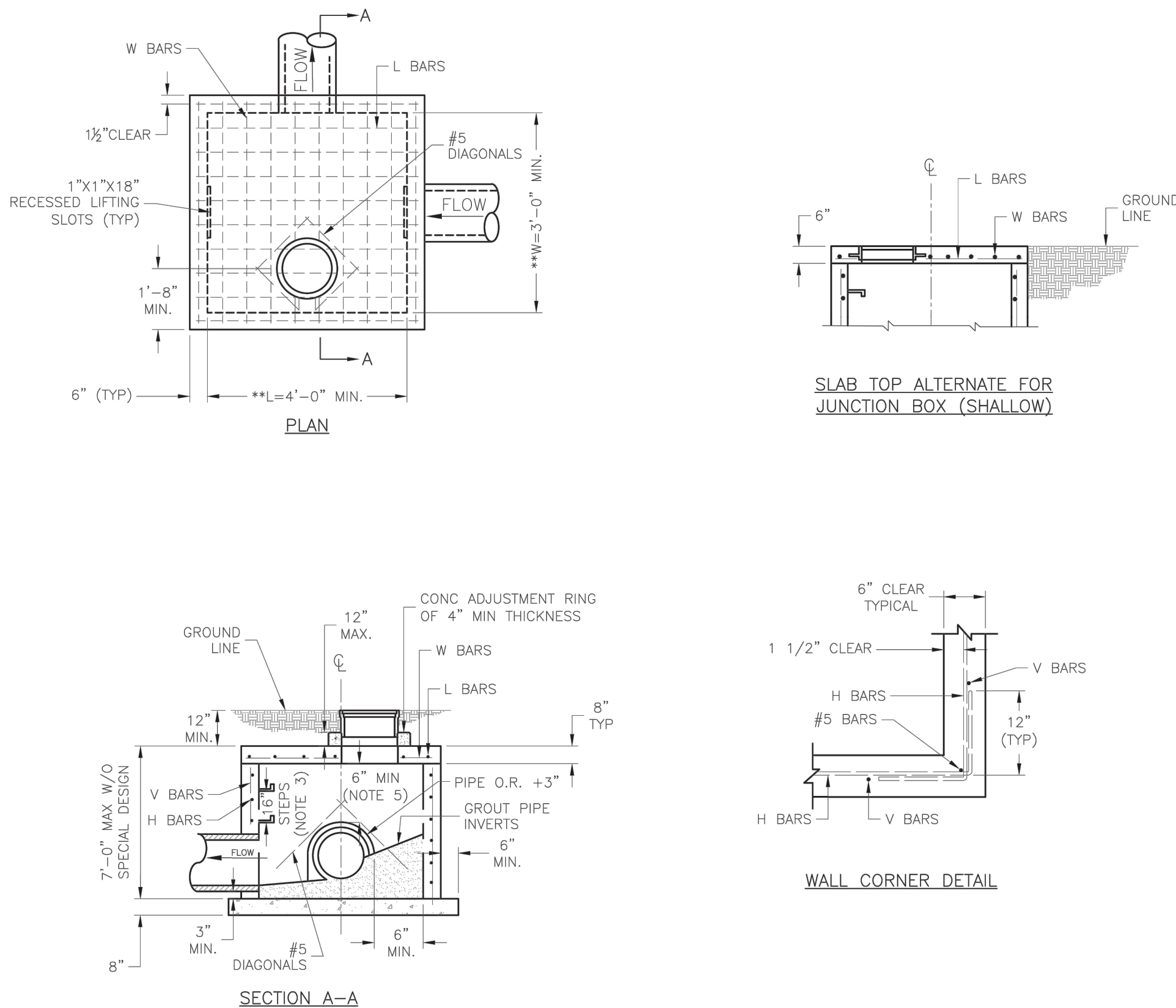


SITE DETAILS

C-4.3



AMERICAN PUBLIC WORKS ASSOCIATION
KANSAS CITY
METROPOLITAN CHAPTER
GRATE INLET DETAILS
STANDARD DRAWING NUMBER G-1
ADOPTED APRIL 17, 1996



**INCREASE IN MULTIPLES OF 6" (7'-0") MAX WITHOUT SPECIAL DESIGN. (SEE PROJECT PLANS FOR DETAILS)

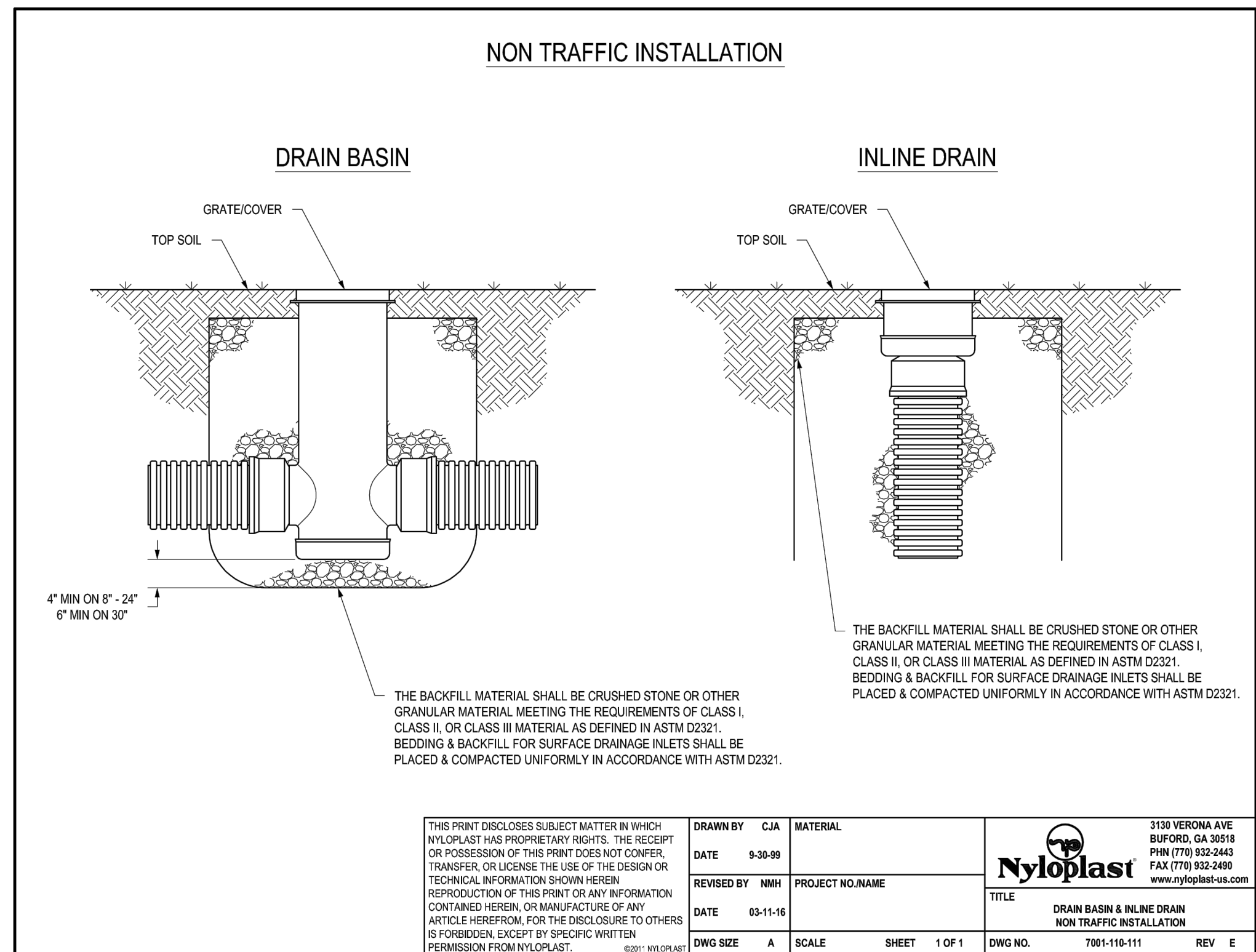
| REINFORCING | | |
|-------------|----------|---------------|
| BAR | BAR SIZE | SPACING (IN.) |
| H | 4 | 12 |
| V | 4 | 12 |
| L | 5 | 6 |
| W | 5 | 6 |

- GENERAL NOTES:**
1. LOCATE RING AND COVER ON BLANK WALL.
 2. USE $\frac{3}{8}$ " CHAMFER STRIP OR $\frac{1}{2}$ " R EDGER TOOL ON ALL EXPOSED CONCRETE CORNERS.
 3. STEPS REQUIRED AT 16" O.C. WHEN DEPTH FROM TOP OF CASTING TO INVERT EXCEEDS 4' ON BLANK WALL IF POSSIBLE.
 4. BOXOUTS WILL NOT BE ALLOWED TO PROJECT THROUGH THE CORNERS OF THE STRUCTURE AND THE MINIMUM DISTANCE BETWEEN BOXOUTS IS 6".
 5. THE MINIMUM REINFORCING SHALL BE 1 H-BAR OVER A CAST-IN-PLACE PIPE AND 2 H-BARS OVER A PRECAST BOXOUT.
 6. PRECAST LIDS SHALL BE PINNED, SEALED WITH NON-SHRINKABLE GROUT AND REMOVABLE FOR FUTURE MAINTENANCE.
 7. REINFORCING OF COVERS IN STREETS REQUIRE SPECIAL DESIGN.
 8. FOR RING AND COVER SEE THE STORMWATER APPROVED PRODUCT LIST.

LEE'S SUMMIT MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 225 DE GREEN STREET | LEE'S SUMMIT, MO 64663

STANDARD DETAILS
CITY OF LEE'S SUMMIT, MO
LEE'S SUMMIT, JACKSON COUNTY, MO
JUNCTION BOX DETAIL

Drawn By: MEF
Checked By: DS
Date: 05/2021
Proj. #: STM-3



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|--|------------------|--------------------------------|---------------------|
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| REVISED BY: HNH DATE: 03-11-16 | PROJECT NO. NAME | DWG SIZE: A | SCALE: SHEET 1 OF 1 |
| TITL DRAIN BASIN & INLINE DRAIN NON TRAFFIC INSTALLATION | | DWG NO.: 7001-110-111 | REV E |

YARD INLET
N. T. S.

DRAINAGE DETAILS

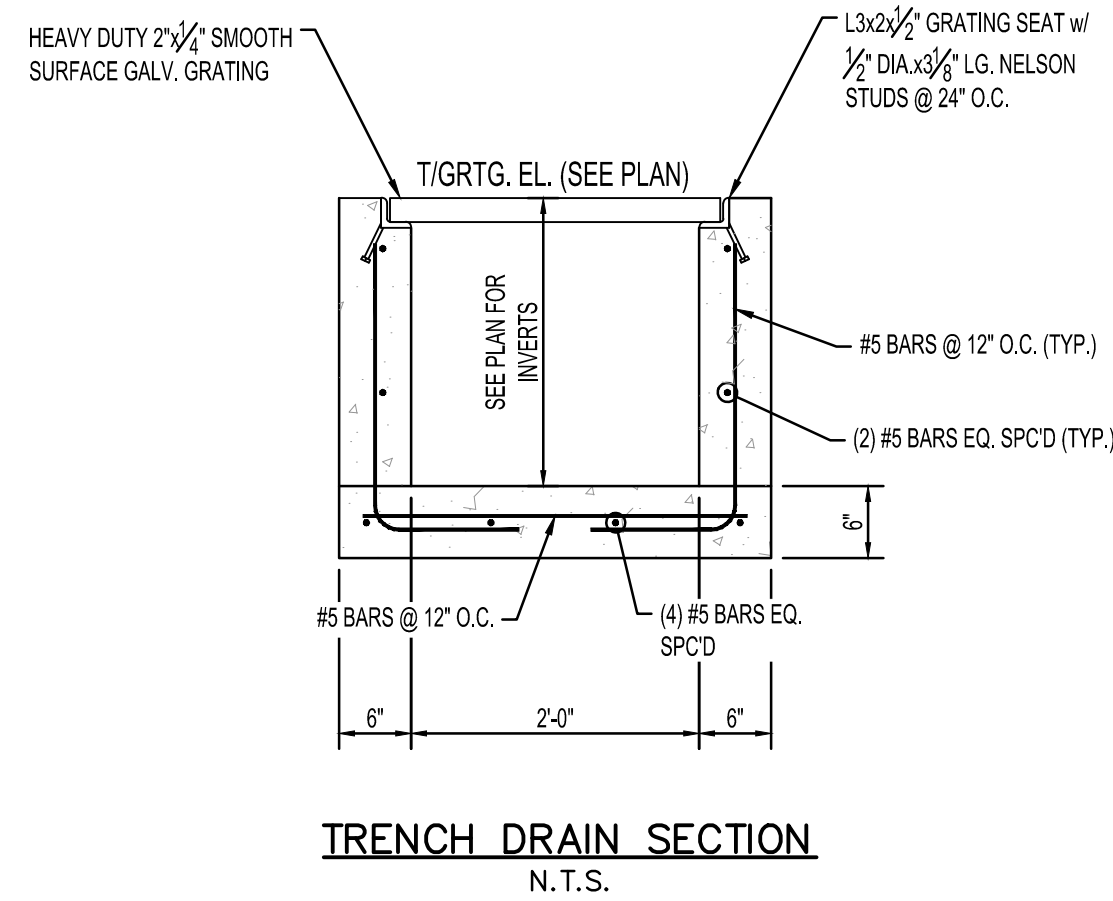
| REVISION | | BY |
|----------|-------------------------------|-----|
| 1 | 1/31/2025 REVISED PER CITY | KRG |
| 2 | 2/14/2025 REVISED PER CITY | KRG |

HIGH TIDE CONSULTANTS LLC
434 N. COLUMBIA ST., SUITE 200A
COVINGTON, LA 70433
www.hightidelc.com

PROFESSIONAL ENGINEER
B. SHANE GUN
NUMBER 202100076
DATE FEBRUARY 14, 2025

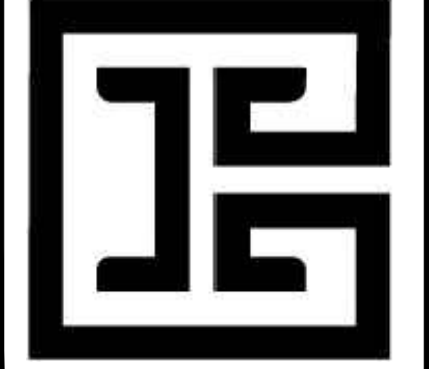
PROPOSED TAKE 5
LEE'S SUMMIT, MISSOURI
FOR DRIVEN ASSETS, LLC
2101 PEARL STREET
BOULDER, CO 80302

DRAWN: KRG
CHECKED: RCG
ISSUED DATE: 07/30/2024
ISSUED FOR PERMITTING
PROJECT NO.: 22-218
FILE: 22-218 C-4 Details
SHEET: C-4.4



| REVISION | | BY |
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| 1 | 10/24/2024 REVISED PER CITY | KRG |
| 2 | 12/17/2024 REVISED PER CITY | KRG |
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**HIGHTIDE
CONSULTANTS LLC**
434 N. COLUMBIA ST, SUITE 200A
COVINGTON, LA 70433
www.hightidela.com



STAMP

MISSOURI PROFESSIONAL ENGINEER

B. SHANE
GUIN
NUMBER
PE - 222100076

SIGNATURE

JANUARY 17, 2025

DATE

PROPOSED TAKE 5
LEE'S SUMMIT, MISSOURI

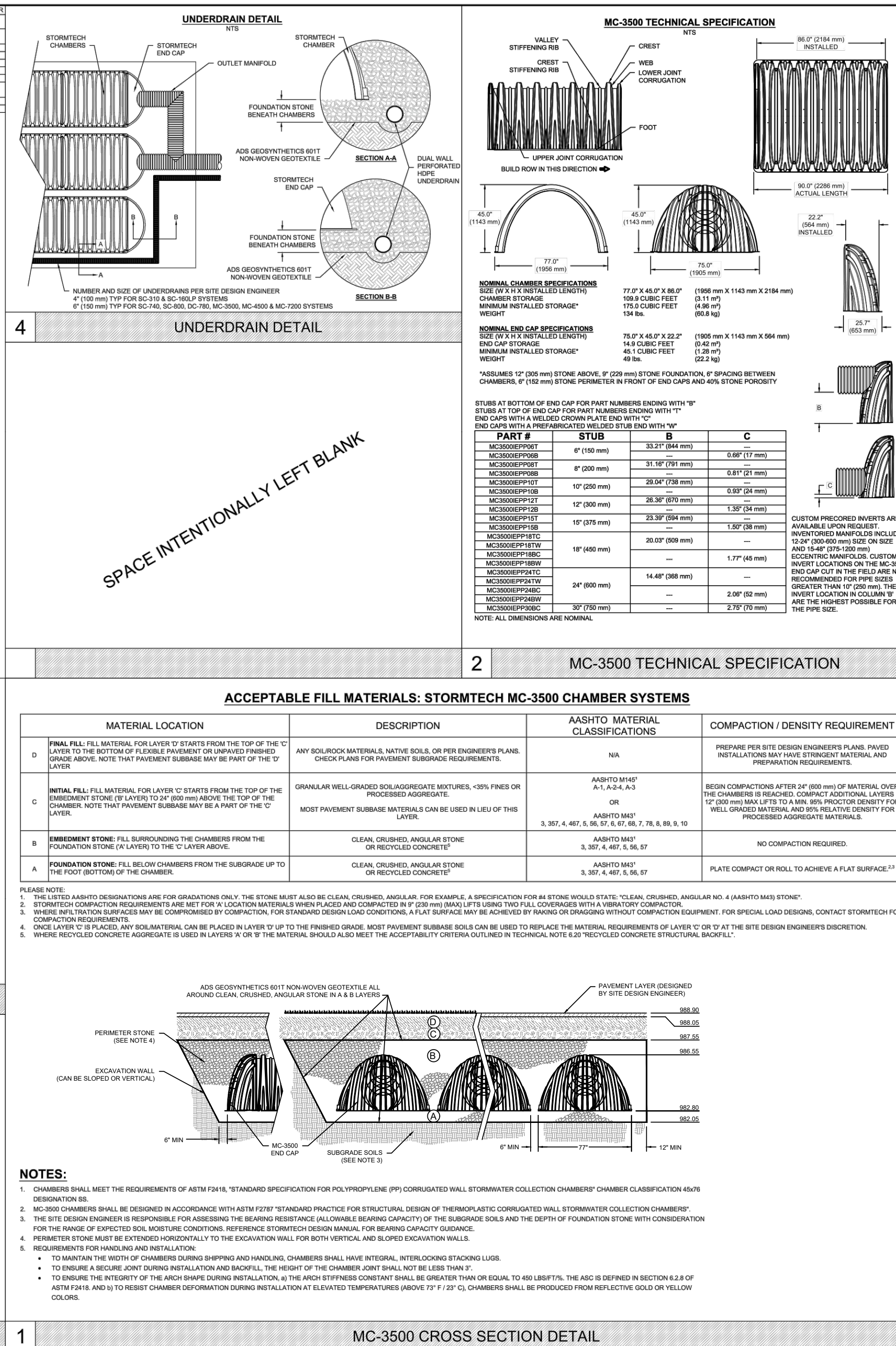
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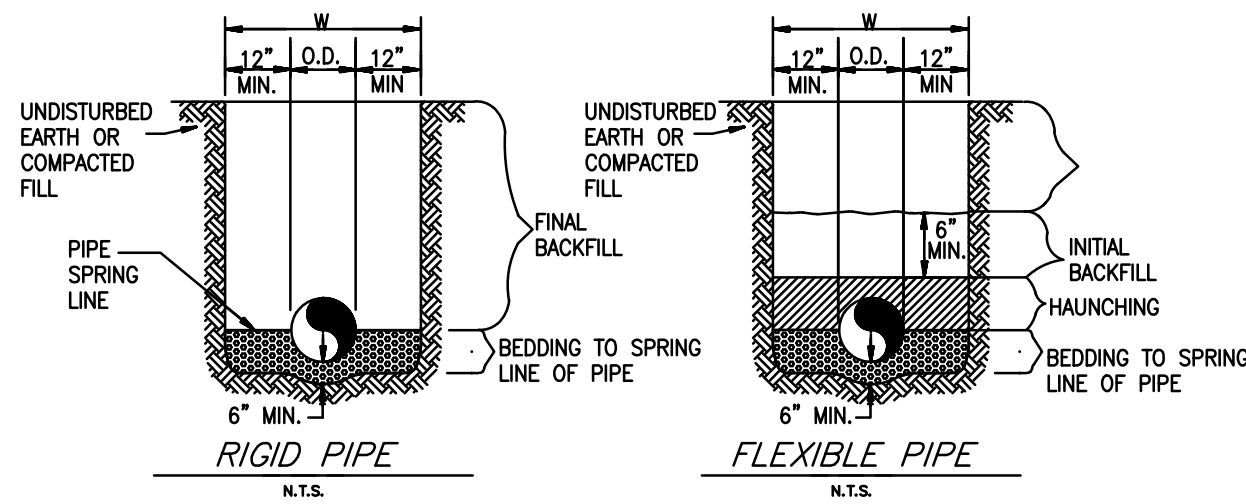
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C-4.5

| PROPOSED LAYOUT | | PROPOSED ELEVATIONS: | | PART TYPE | | ITEM OR LAYOUT | | DESCRIPTION | | INVERT | | MAX FLOW | |
|-----------------|----------------------------|---|--------|------------------|----|---|--|-------------|--|--------|-------|----------|--|
| 36 | STORMTECH MC-3500 CHAMBERS | MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT UNPAVED) | 554.55 | PREPARED END CAP | A | 34" BOTTOM CORED END CAP (PART# MC3500SERIESPART1) 1" OF ALL 34" BOTTOM | | | | | | | |
| 37 | STORMTECH MC-3500 END CAPS | MINIMUM ALLOWABLE GRADE (PAVED WITH TRAFFIC) | 555.00 | PREPARED END CAP | B | 12" TOP CORED END CAP (PART# MC3500SERIESPART2) 1" OF ALL 12" TOP | | | | | 2.00' | | |
| 38 | STONE (BROWERS) | MINIMUM ALLOWABLE GRADE (TOP OF PAVEMENT UNPAVED) | 555.00 | ISOLATOR END CAP | C | CONNECTIONS AND ISOLATOR ROW ROWS | | | | | | | |
| 39 | STONE (BROWERS) | MINIMUM ALLOWABLE GRADE (TOP OF PAVEMENT UNPAVED) | 555.00 | ISOLATOR END CAP | D | 12" TOP CORED END CAP (PART# MC3500SERIESPART2) 1" OF ALL 12" TOP | | | | | 2.00' | | |
| 40 | STONE (BROWERS) | MINIMUM ALLOWABLE GRADE (TOP OF PAVEMENT UNPAVED) | 555.00 | ISOLATOR END CAP | E | CONNECTIONS AND ISOLATOR ROW ROWS | | | | | | | |
| 41 | STONE (BROWERS) | MINIMUM ALLOWABLE GRADE (TOP OF PAVEMENT UNPAVED) | 555.00 | ISOLATOR END CAP | F | 12" TOP CORED END CAP (PART# MC3500SERIESPART2) 1" OF ALL 12" TOP | | | | | 2.00' | | |
| 42 | STONE (BROWERS) | MINIMUM ALLOWABLE GRADE (TOP OF PAVEMENT UNPAVED) | 555.00 | ISOLATOR END CAP | G | CONNECTIONS AND ISOLATOR ROW ROWS | | | | | | | |
| 43 | STONE (BROWERS) | MINIMUM ALLOWABLE GRADE (TOP OF PAVEMENT UNPAVED) | 555.00 | ISOLATOR END CAP | H | 12" TOP CORED END CAP (PART# MC3500SERIESPART2) 1" OF ALL 12" TOP | | | | | 2.00' | | |
| 44 | STONE (BROWERS) | MINIMUM ALLOWABLE GRADE (TOP OF PAVEMENT UNPAVED) | 555.00 | ISOLATOR END CAP | I | CONNECTIONS AND ISOLATOR ROW ROWS | | | | | | | |
| 45 | STONE (BROWERS) | MINIMUM ALLOWABLE GRADE (TOP OF PAVEMENT UNPAVED) | 555.00 | ISOLATOR END CAP | J | 12" TOP CORED END CAP (PART# MC3500SERIESPART2) 1" OF ALL 12" TOP | | | | | 2.00' | | |
| 46 | STONE (BROWERS) | MINIMUM ALLOWABLE GRADE (TOP OF PAVEMENT UNPAVED) | 555.00 | ISOLATOR END CAP | K | CONNECTIONS AND ISOLATOR ROW ROWS | | | | | | | |
| 47 | STONE (BROWERS) | MINIMUM ALLOWABLE GRADE (TOP OF PAVEMENT UNPAVED) | 555.00 | ISOLATOR END CAP | L | 12" TOP CORED END CAP (PART# MC3500SERIESPART2) 1" OF ALL 12" TOP | | | | | 2.00' | | |
| 48 | STONE (BROWERS) | MINIMUM ALLOWABLE GRADE (TOP OF PAVEMENT UNPAVED) | 555.00 | ISOLATOR END CAP | M | CONNECTIONS AND ISOLATOR ROW ROWS | | | | | | | |
| 49 | STONE (BROWERS) | MINIMUM ALLOWABLE GRADE (TOP OF PAVEMENT UNPAVED) | 555.00 | ISOLATOR END CAP | N | 12" TOP CORED END CAP (PART# MC3500SERIESPART2) 1" OF ALL 12" TOP | | | | | 2.00' | | |
| 50 | STONE (BROWERS) | MINIMUM ALLOWABLE GRADE (TOP OF PAVEMENT UNPAVED) | 555.00 | ISOLATOR END CAP | O | CONNECTIONS AND ISOLATOR ROW ROWS | | | | | | | |
| 51 | STONE (BROWERS) | MINIMUM ALLOWABLE GRADE (TOP OF PAVEMENT UNPAVED) | 555.00 | ISOLATOR END CAP | P | 12" TOP CORED END CAP (PART# MC3500SERIESPART2) 1" OF ALL 12" TOP | | | | | 2.00' | | |
| 52 | STONE (BROWERS) | MINIMUM ALLOWABLE GRADE (TOP OF PAVEMENT UNPAVED) | 555.00 | ISOLATOR END CAP | Q | CONNECTIONS AND ISOLATOR ROW ROWS | | | | | | | |
| 53 | STONE (BROWERS) | MINIMUM ALLOWABLE GRADE (TOP OF PAVEMENT UNPAVED) | 555.00 | ISOLATOR END CAP | R | 12" TOP CORED END CAP (PART# MC3500SERIESPART2) 1" OF ALL 12" TOP | | | | | 2.00' | | |
| 54 | STONE (BROWERS) | MINIMUM ALLOWABLE GRADE (TOP OF PAVEMENT UNPAVED) | 555.00 | ISOLATOR END CAP | S | CONNECTIONS AND ISOLATOR ROW ROWS | | | | | | | |
| 55 | STONE (BROWERS) | MINIMUM ALLOWABLE GRADE (TOP OF PAVEMENT UNPAVED) | 555.00 | ISOLATOR END CAP | T | 12" TOP CORED END CAP (PART# MC3500SERIESPART2) 1" OF ALL 12" TOP | | | | | 2.00' | | |
| 56 | STONE (BROWERS) | MINIMUM ALLOWABLE GRADE (TOP OF PAVEMENT UNPAVED) | 555.00 | ISOLATOR END CAP | U | CONNECTIONS AND ISOLATOR ROW ROWS | | | | | | | |
| 57 | STONE (BROWERS) | MINIMUM ALLOWABLE GRADE (TOP OF PAVEMENT UNPAVED) | 555.00 | ISOLATOR END CAP | V | 12" TOP CORED END CAP (PART# MC3500SERIESPART2) 1" OF ALL 12" TOP | | | | | 2.00' | | |
| 58 | STONE (BROWERS) | MINIMUM ALLOWABLE GRADE (TOP OF PAVEMENT UNPAVED) | 555.00 | ISOLATOR END CAP | W | CONNECTIONS AND ISOLATOR ROW ROWS | | | | | | | |
| 59 | STONE (BROWERS) | MINIMUM ALLOWABLE GRADE (TOP OF PAVEMENT UNPAVED) | 555.00 | ISOLATOR END CAP | X | 12" TOP CORED END CAP (PART# MC3500SERIESPART2) 1" OF ALL 12" TOP | | | | | 2.00' | | |
| 60 | STONE (BROWERS) | MINIMUM ALLOWABLE GRADE (TOP OF PAVEMENT UNPAVED) | 555.00 | ISOLATOR END CAP | Y | CONNECTIONS AND ISOLATOR ROW ROWS | | | | | | | |
| 61 | STONE (BROWERS) | MINIMUM ALLOWABLE GRADE (TOP OF PAVEMENT UNPAVED) | 555.00 | ISOLATOR END CAP | Z | 12" TOP CORED END CAP (PART# MC3500SERIESPART2) 1" OF ALL 12" TOP | | | | | 2.00' | | |
| 62 | STONE (BROWERS) | MINIMUM ALLOWABLE GRADE (TOP OF PAVEMENT UNPAVED) | 555.00 | ISOLATOR END CAP | AA | CONNECTIONS AND ISOLATOR ROW ROWS | | | | | | | |
| 63 | STONE (BROWERS) | MINIMUM ALLOWABLE GRADE (TOP OF PAVEMENT UNPAVED) | 555.00 | ISOLATOR END CAP | AB | 12" TOP CORED END CAP (PART# MC3500SERIESPART2) 1" OF ALL 12" TOP | | | | | 2.00' | | |

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DRAINAGE DETAILS



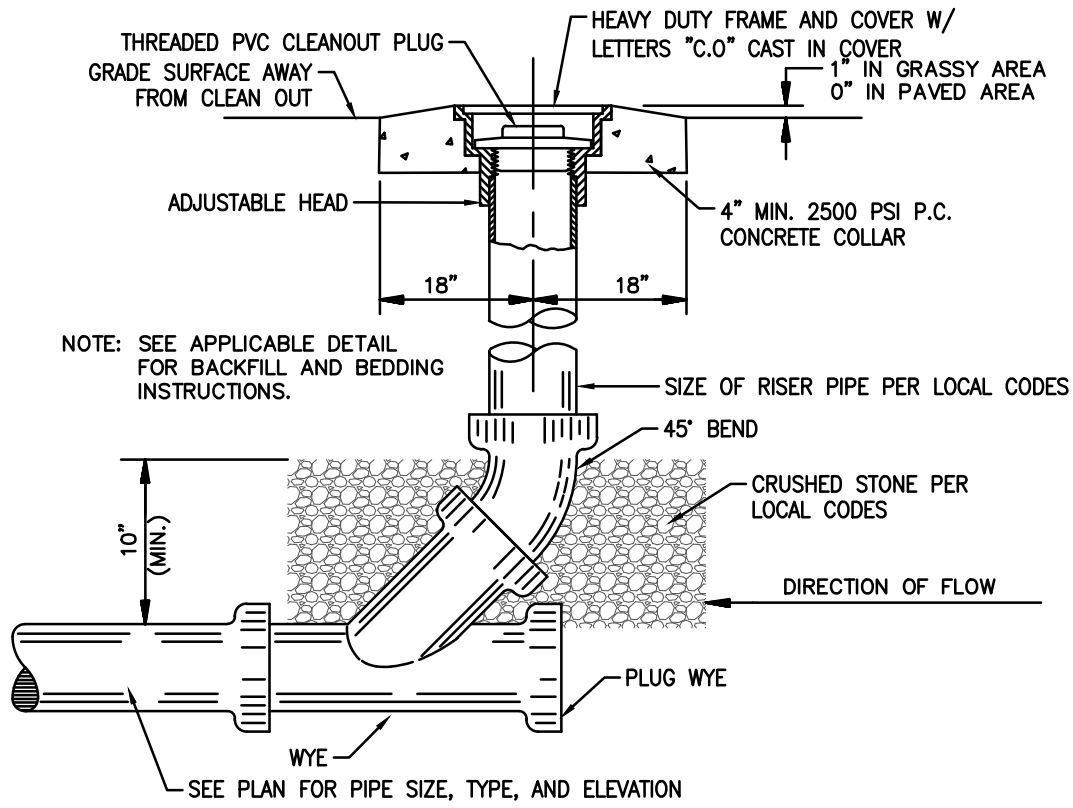
- GENERAL NOTES
- BEDDING SHALL BE CLASS I-A WORKED BY HAND. IF GROUNDWATER IS ANTICIPATED, THEN BEDDING SHALL BE CLASS I-B COMPACTED TO 95% STANDARD PROCTOR.
 - HAUNCHING SHALL BE WORKED AROUND THE PIPE BY HAND TO ELIMINATE VOIDS AND SHALL BE CLASS I-A OR CLASS I-B OR CLASS II COMPACTED TO 95% PROCTOR.
 - INITIAL BACKFILL UNDER PAVED AREAS SHALL BE CLASS I-A WORKED BY HAND, OR CLASS I-B OR CLASS II COMPACTED TO 95% STANDARD PROCTOR.
 - INITIAL BACKFILL NOT UNDER PAVED AREAS CAN BE CLASS II COMPACTED TO 90% STANDARD PROCTOR.
 - FINAL BACKFILL UNDER PAVED AREAS SHALL BE CLASS I, II, OR III COMPACTED AS NOTED IN NOTES 3. AND 4.
 - FINAL BACKFILL NOT UNDER PAVED AREAS CAN BE CLASS IV-A COMPACTED TO 95% STANDARD PROCTOR.
 - ALL MATERIALS ARE CLASSIFIED IN ACCORDANCE WITH ASTM D 2321-LATEST EDITION.
 - ALL MATERIALS SHALL BE INSTALLED IN MAXIMUM 8" LOOSE LIFTS IN ACCORDANCE WITH ASTM D 698. CLASS III AND IV-A MATERIALS SHALL BE COMPACTED NEAR OPTIMUM MOISTURE CONTENT.
 - FILL SALVAGED FROM EXCAVATION SHALL BE FREE OF DEBRIS, ORGANICS AND ROCKS LARGER THAN 3".
 - ALL TRENCH EXCAVATIONS SHALL BE SLOPED, SHORED, SHEETED, BRACED, OR OTHERWISE SUPPORTED IN COMPLIANCE WITH OSHA REGULATIONS AND LOCAL ORDINANCES.
 - GEOTEX FABRIC TO BE USED UNDER BEDDING MATERIAL WHEN UNSUITABLE SOILS ARE ENCOUNTERED OR A STABLE NON-YIELDING FOUNDATION CANNOT BE OBTAINED.
 - HAUNCHING FOR FLEXIBLE PIPE SHALL BE WORKED A MINIMUM OF 6" ABOVE THE TOP OF PIPE OR PER THE MANUFACTURER'S RECOMMENDATION, WHICHEVER IS MORE STRINGENT.

*SEE CHART ON D-3 FILL TYPES

| CLASS | TYPE | SOIL GROUP SYMBOL | DESCRIPTION |
|-------|--|-------------------|--|
| 1A | MANUFACTURED AGGREGATES; OPEN-GRADED, CLEAN | NONE | ANGULAR, CRUSHED STONE OR ROCK, CRUSHED GRAVEL, BROKEN CORAL, CRUSHED SLAG, CINDERS OR SHELLS, LARGE VOID CONTENT, CONTAIN LITTLE OR NO FINES |
| 1B | MANUFACTURED, PROCESSED AGGREGATES; DENSE-GRADED, CLEAN. | NONE | ANGULAR, CRUSHED STONE (OR OTHER CLASS 1A MATERIALS) AND STONE/SAND MIXTURES WITH GRADATIONS SELECTED TO MINIMIZE MIGRATION OF ADJACENT SOILS; CONTAIN LITTLE OR NO FINES (SEE X1.8) |
| II | COARSE-GRAINED SOILS CLEAN | GW | WELL-GRADED GRAVELS AND GRAVEL-SAND MIXTURES; LITTLE OR NO FINES |
| | | GP | POORLY-GRADED GRAVELS AND GRAVEL-SAND MIXTURES; LITTLE OR NO FINES |
| | | SW | WELL-GRADED SANDS AND GRAVELY SANDS; LITTLE OR NO FINES (NO. 200 SIEVE) |
| | | SP | POORLY-GRADED SANDS AND GRAVELY SANDS; LITTLE OR NO FINES (NO. 200 SIEVE) |
| | COARSE-GRAINED SOILS BORDERLINE CLEAN TO W/ FINES | e.g. GW-GC, SP-SM | SANDS AND GRAVELS WHICH ARE BORDERLINE BETWEEN CLEAN AND WITH FINES |
| III | COARSE-GRAINED SOILS WITH FINES | GM | SILTY GRAVELS, GRAVEL-SAND-SILT MIXTURES |
| | | GC | CLAYEY GRAVELS, GRAVEL-SAND-CLAY MIXTURES |
| | | SM | SILTY SANDS, SAND-SILT MIXTURES |
| | | SC | CLAYEY SANDS, SAND-CLAY MIXTURES |
| IV-A | FINE-GRAINED SOILS (INORGANIC) | ML | INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS, SILTS WITH SLIGHT PLASTICITY |
| | | CL | INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS |
| IV-B | FINE-GRAINED SOILS (INORGANIC) | MH | INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SANDY OR SILTY SOILS, ELASTIC SILTS |
| | | CH | INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS |
| V | ORGANIC SOILS | OL | ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY |
| | | OH | ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS |
| | | PT | PEAT AND OTHER HIGH ORGANIC SOILS. |
| | HIGHLY ORGANIC | | |

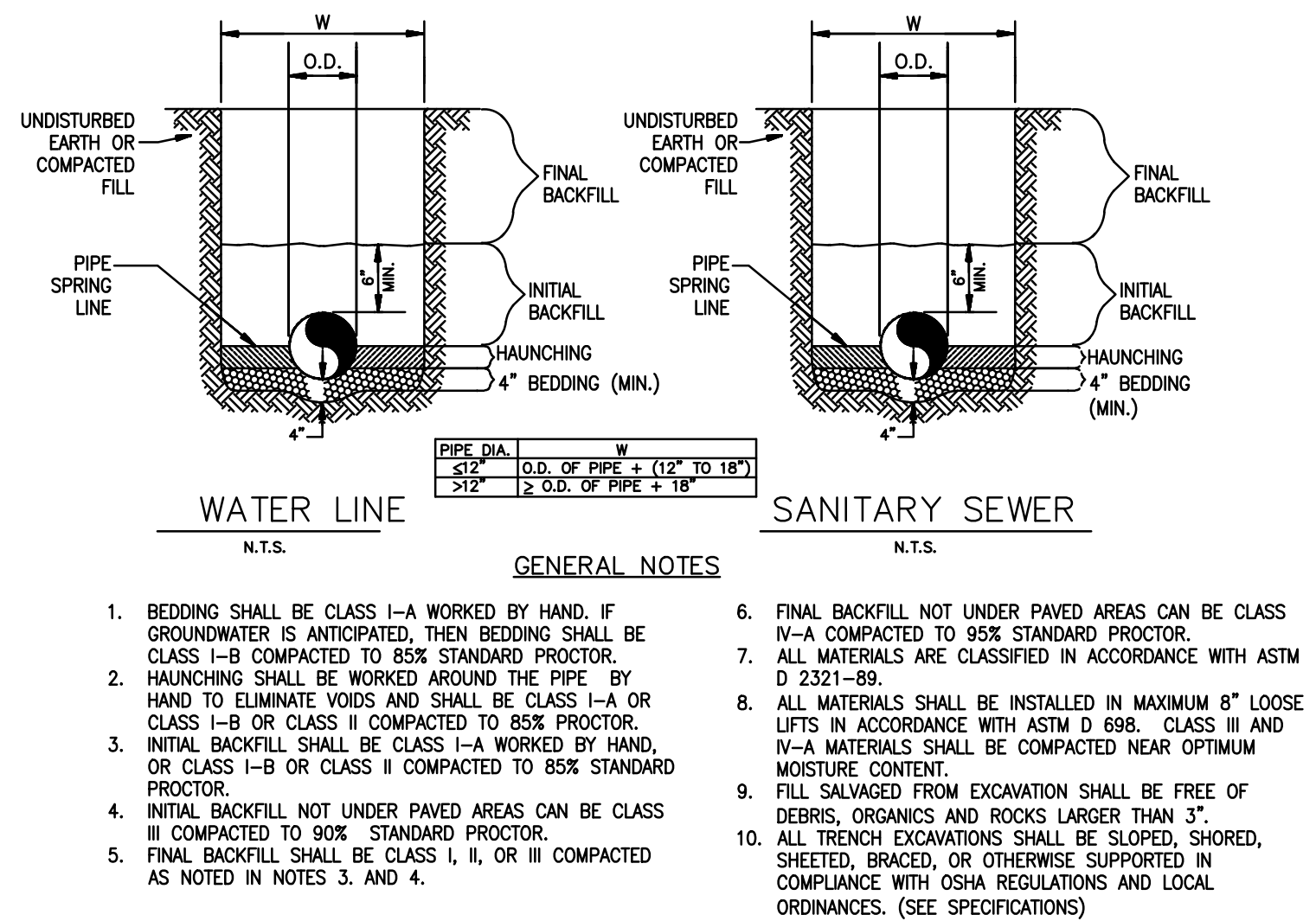
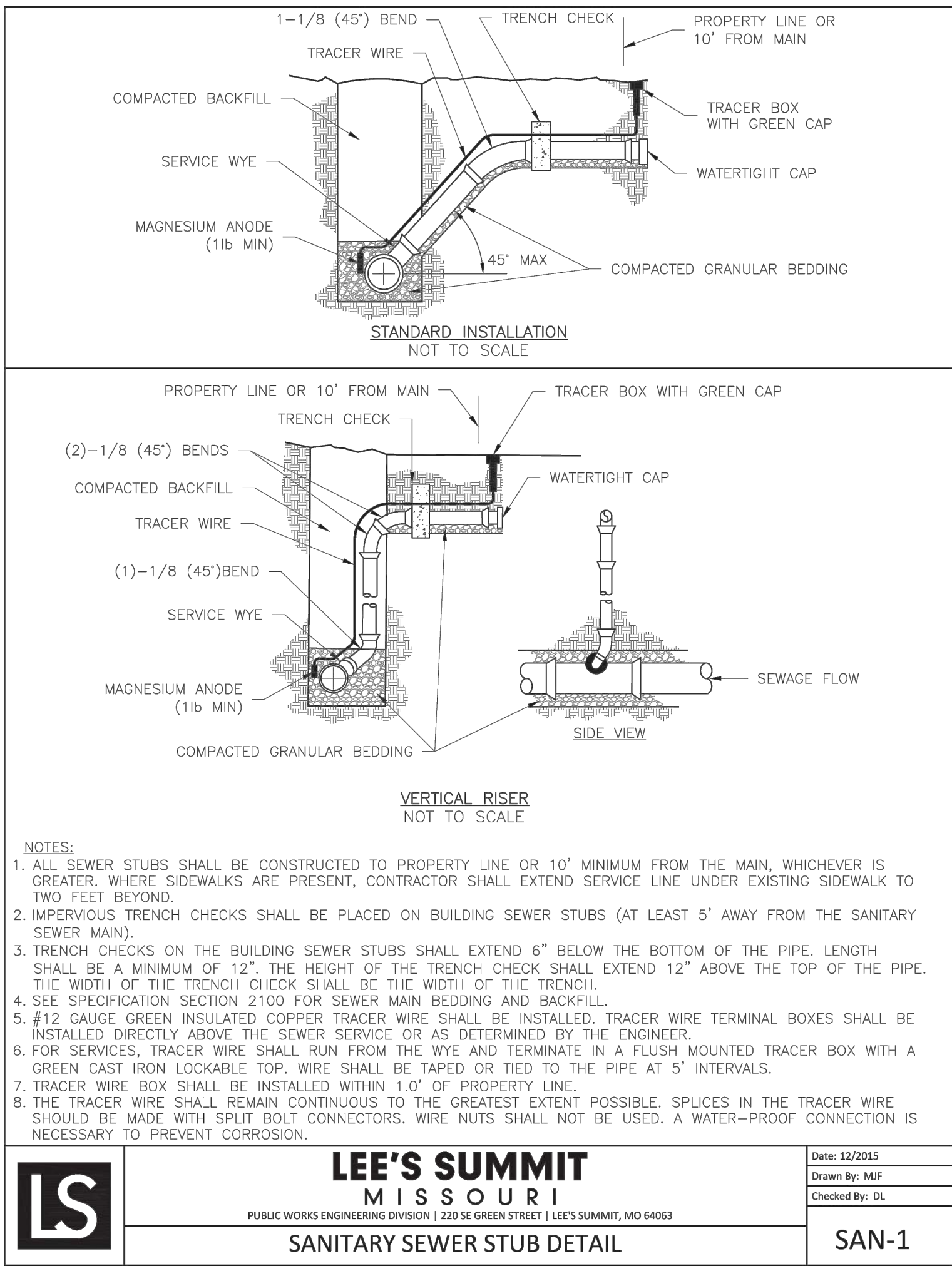
STORM SEWER TRENCH AND BEDDING

N.T.S.



SANITARY SEWER CLEAN-OUT

N.T.S.



UTILITY TRENCH AND BEDDING

N.T.S.

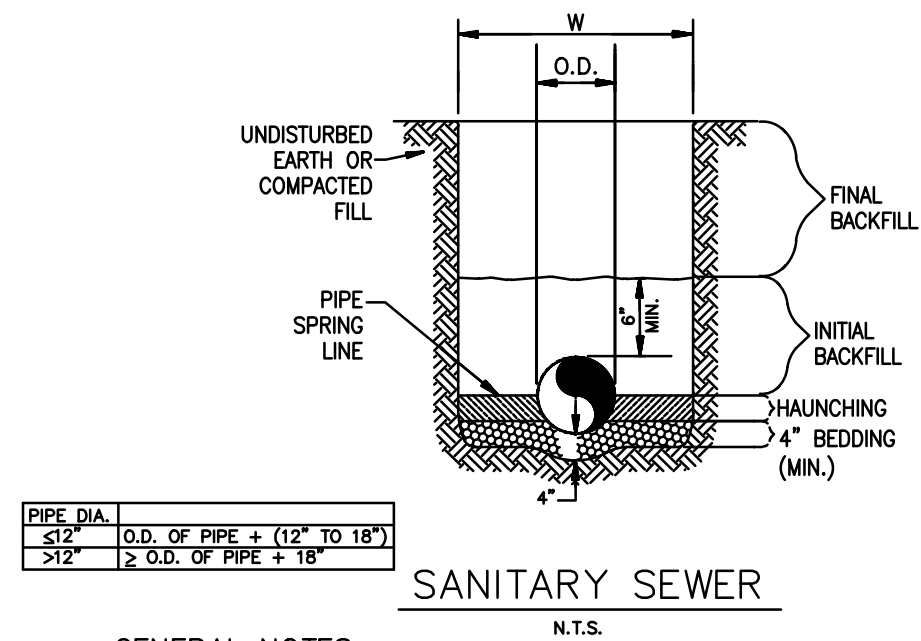
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HIGH TIDE
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COVINGTON, LA 70433
www.hightidela.com

Signature: [Signature]
DATE: JULY 30, 2024
Professional Engineer Seal: B. SHANE, MISSOURI, PE - 202100076

PROPOSED TAKE 5
LEE'S SUMMIT, MISSOURI
FOR DRIVEN ASSETS, LLC
2101 PEARL STREET
BOULDER, CO 80302

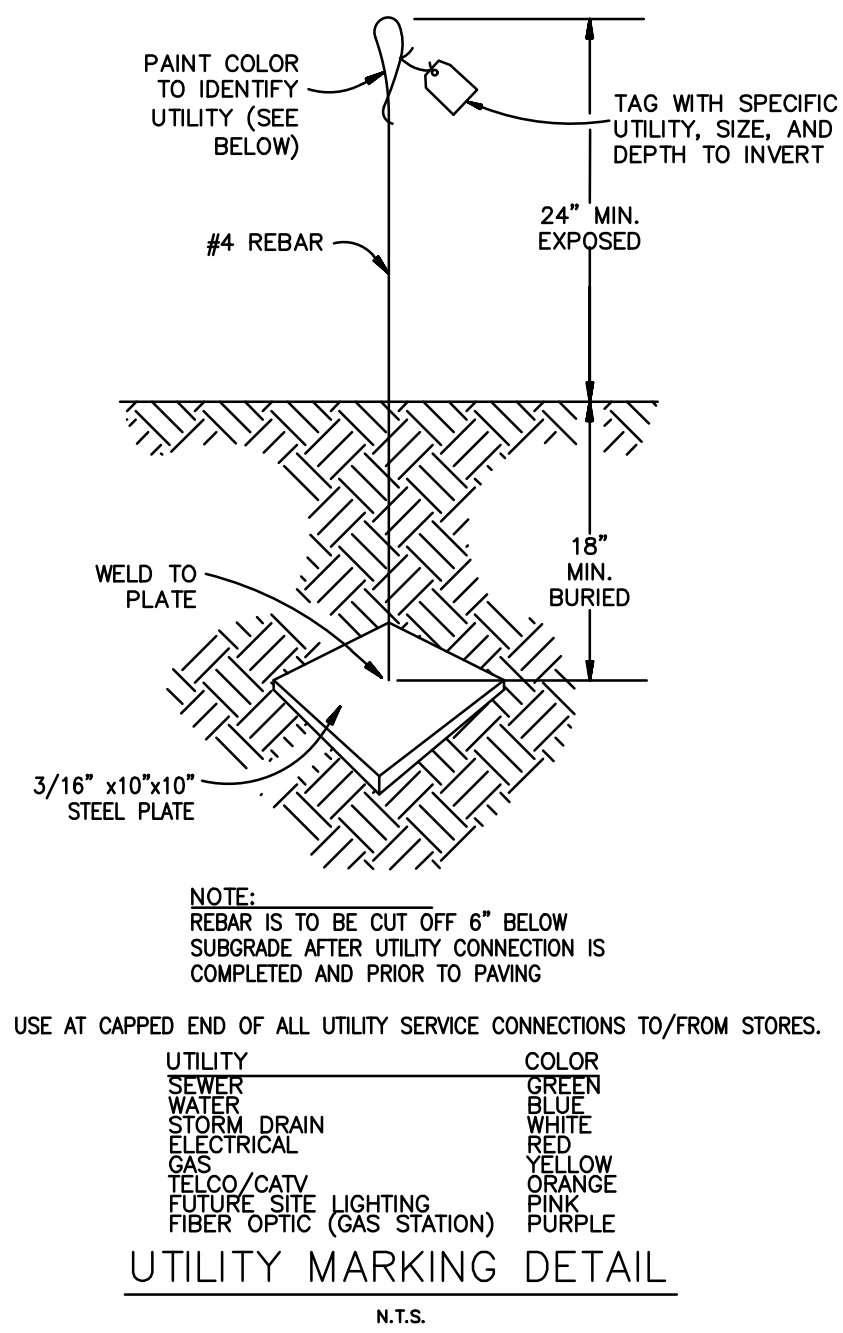
DRAWN: KRG
CHECKED: RCG
ISSUED DATE: 07/30/2024
ISSUED FOR: PERMITTING
PROJECT NO.: 22-218
FILE: 22-218 C-4 Details
SHEET: C-4.6



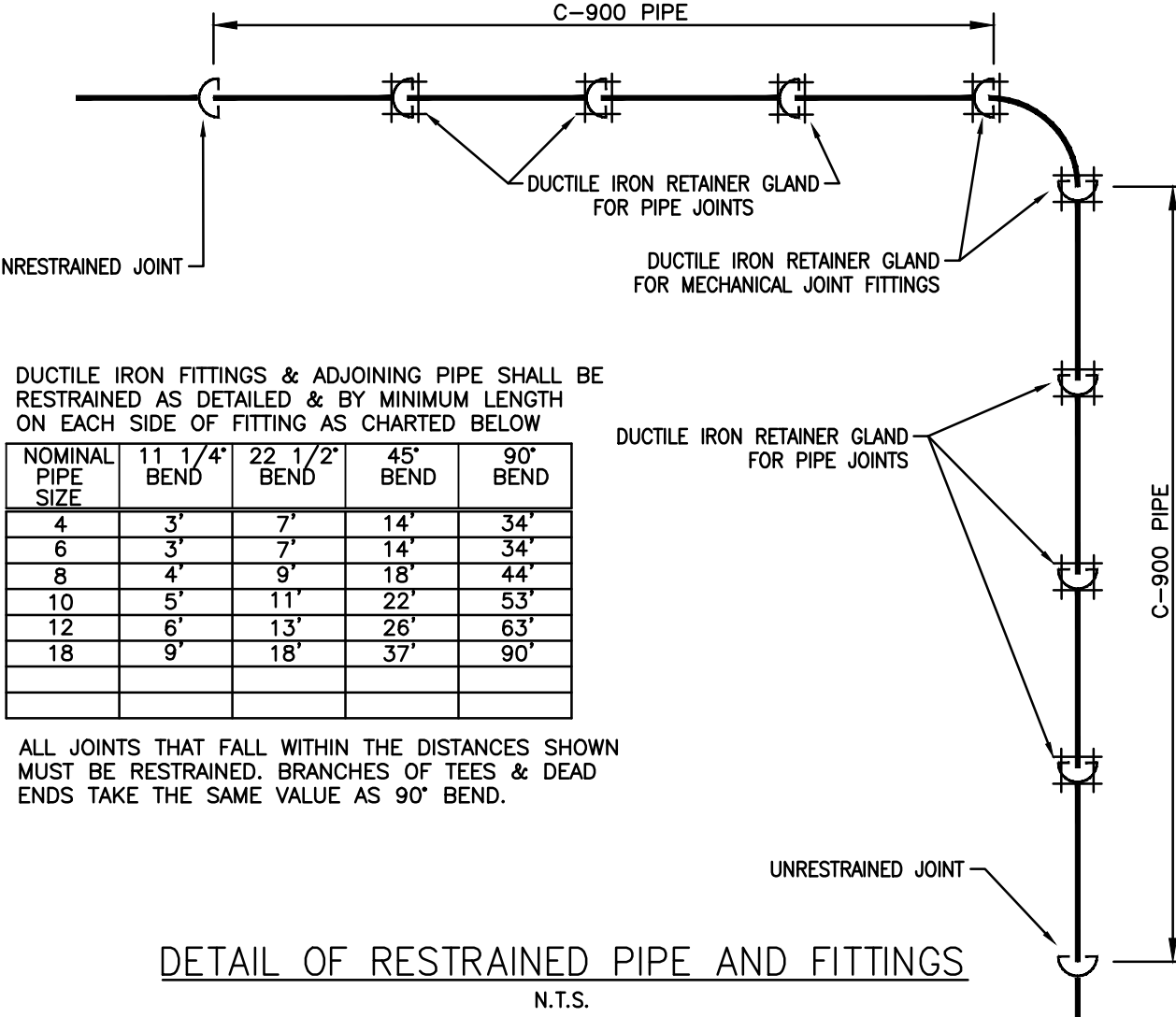
- GENERAL NOTES**
- BEDDING SHALL BE CLASS I-A WORKED BY HAND, IF GROUNDWATER IS ANTICIPATED, THEN BEDDING SHALL BE CLASS I-B COMPACTED TO 85% STANDARD PROCTOR.
 - HAUNCHING SHALL BE WORKED AROUND THE PIPE BY HAND TO ELIMINATE VOIDS AND SHALL BE CLASS I-A OR CLASS I-B OR CLASS II COMPACTED TO 85% PROCTOR.
 - INITIAL BACKFILL SHALL BE CLASS I-A WORKED BY HAND, OR CLASS I-B OR CLASS II COMPACTED TO 85% STANDARD PROCTOR.
 - INITIAL BACKFILL NOT UNDER PAVED AREAS CAN BE CLASS III COMPACTED TO 90% STANDARD PROCTOR.
 - FINAL BACKFILL SHALL BE CLASS I, II, OR III COMPACTED AS NOTED IN NOTES 3, AND 4.
 - FINAL BACKFILL NOT UNDER PAVED AREAS CAN BE CLASS IV-A COMPACTED TO 95% STANDARD PROCTOR.
 - ALL MATERIALS ARE CLASSIFIED IN ACCORDANCE WITH ASTM D 2321-89.
 - ALL MATERIALS SHALL BE INSTALLED IN MAXIMUM 8" LOOSE LIFTS IN ACCORDANCE WITH ASTM D 658. CLASS III AND IV-A MATERIALS SHALL BE COMPACTED NEAR OPTIMUM MOISTURE CONTENT.
 - FILL SALVAGED FROM EXCAVATION SHALL BE FREE OF DEBRIS, ORGANICS AND ROCKS LARGER THAN 3".
 - ALL TRENCH EXCAVATIONS SHALL BE SLOPED, SHORED, SHEETED, BRACED, OR OTHERWISE SUPPORTED IN COMPLIANCE WITH OSHA REGULATIONS AND LOCAL ORDINANCES. (SEE SPECIFICATIONS)

UTILITY TRENCH AND BEDDING

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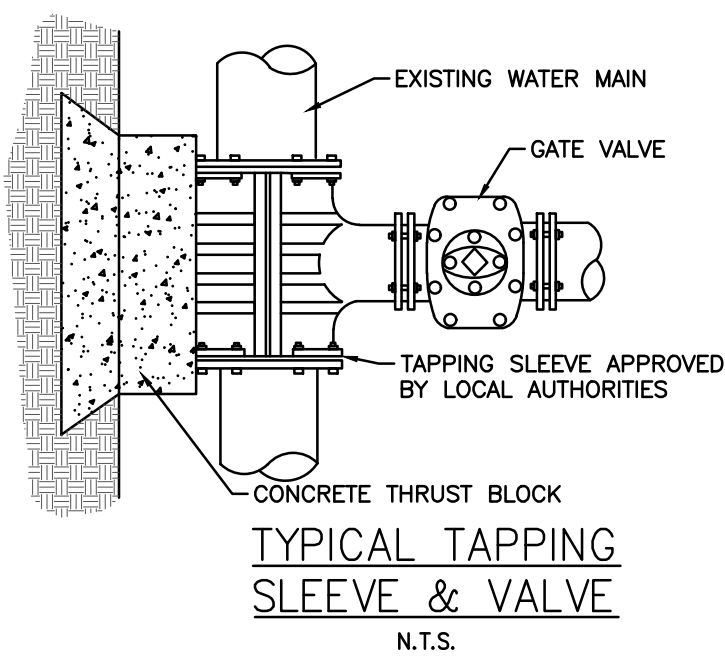


- NOTES:**
- DISTANCES OF RESTRAINTS SHALL BE REQUIRED ON EVERY JOINT(S) ON EACH SIDE OF FITTING, IN ADDITION TO CONCRETE OR TIMBER BLOCKING.
 - RESTRAINTS NOT REQUIRED INSIDE OF CASING WHEN FITTING OR PIPE IS RODDED TO CASING ENDS.
 - RESTRAIN TEE WHEN USED AS A 90° BEND, DEAD END, OR AS NOTED ON PLANS.
 - AT ALL ROAD CROSSINGS AND WHERE NOTED ON PLANS, FITTINGS NOTED ON PLANS.
 - TIE-INS SHALL BE RESTRAINED AS IF A 90° BEND.
 - RESTRAINT SYSTEM:
EITHER: (A) RODS FOR USE WITH MECHANICAL JOINT FITTINGS - 2 REQUIRED - 5/8" DIA STAINLESS STEEL FOR 8" PIPE & BELOW
(B) RETAINER GLAND: USE EBBA IRON, UNI-FLANGE OR EQUAL IN COMPLIANCE WITH PIPE MATERIAL USED.



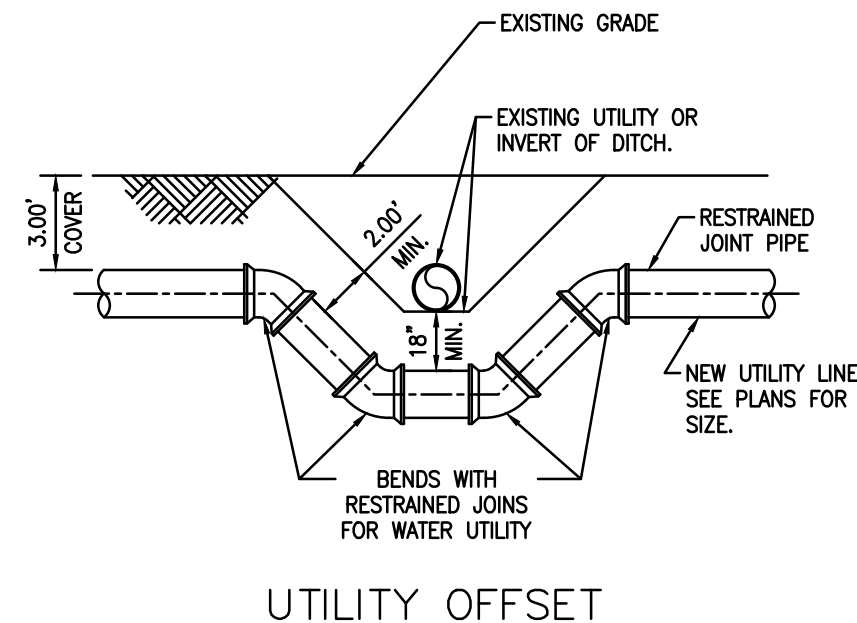
DETAIL OF RESTRAINED PIPE AND FITTINGS

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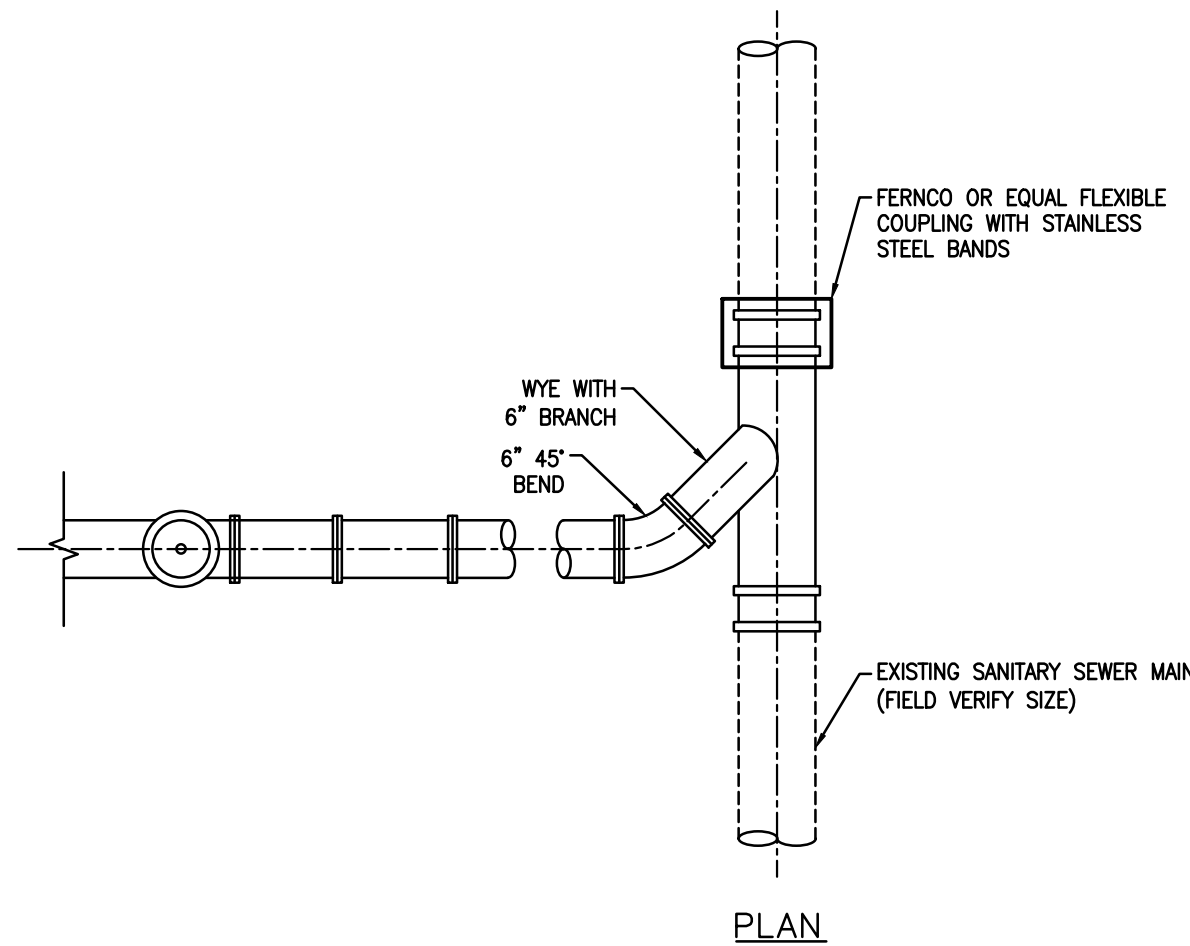


TYPICAL TAPPING SLEEVE & VALVE

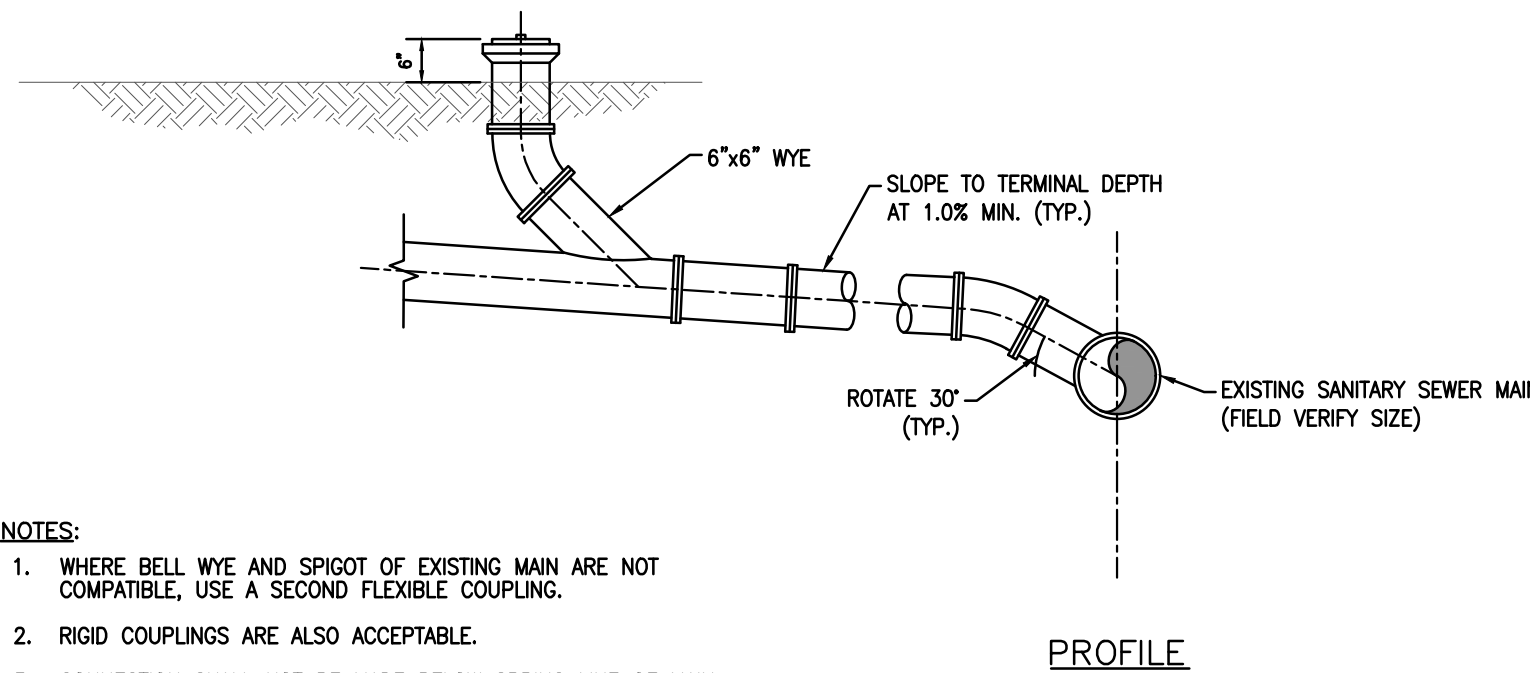
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UTILITY OFFSET



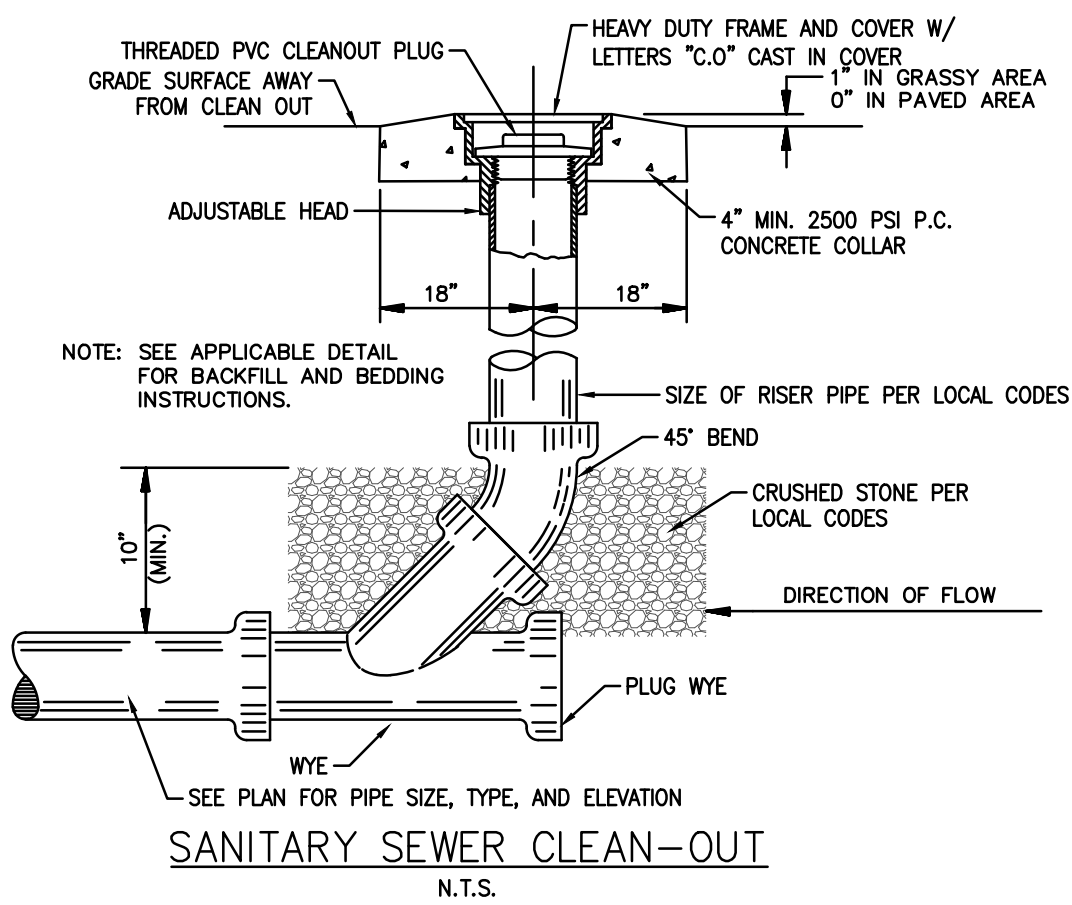
PLAN



PROFILE

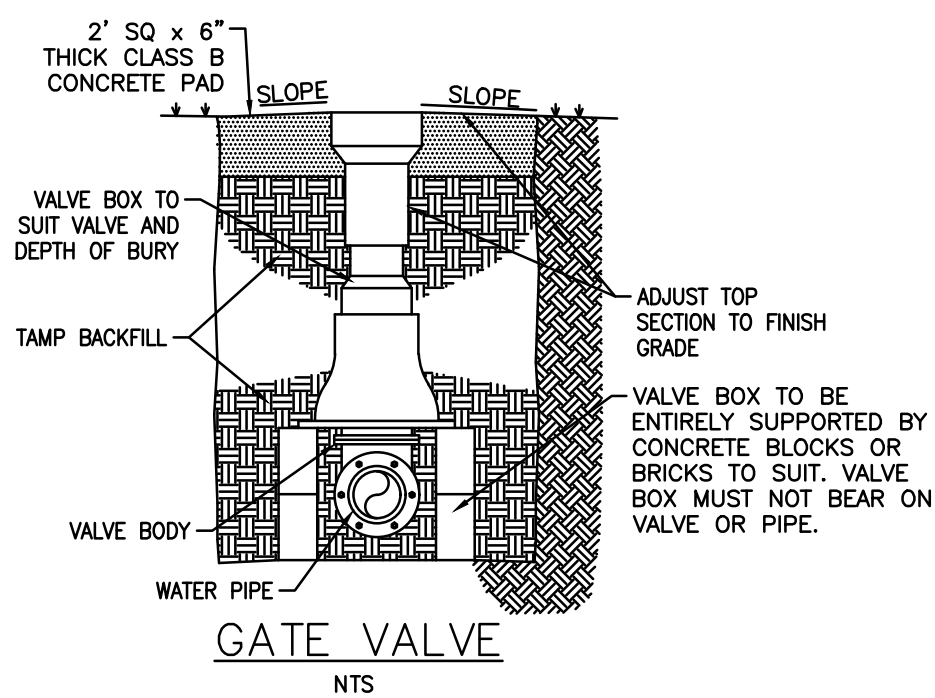
SANITARY SEWER WYE CONNECTION DETAIL

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SANITARY SEWER CLEAN-OUT

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GATE VALVE

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PROFESSIONAL ENGINEER
B. SHANE GUIN
PE - 202100076
JULY 30, 2024
DATE

FOR DRIVEN ASSETS, LLC
2101 PEARL STREET
BOULDER, CO 80302

UTILITY DETAILS
C-4.7



1. WHEN RETAINER GLANDS ARE USED IN LIEU OF MECHANICAL JOINT (MJ) RESTRAINT FITTINGS, HORIZONTAL THRUST BLOCKS ARE REQUIRED.
2. GATE VALVE MAY BE BOLTED DIRECTLY TO MJ RESTRAINT TEE.
3. SEE APPROVED PRODUCTS LIST FOR WATER UTILITIES FOR FIRE HYDRANT, VALVES, VALVE BOX LID, AND COVER.
4. BOTTOM HYDRANT FLANGE SHALL BE 2" TO 6" ABOVE FINISHED GRADE.
5. FOR STREETS WITHOUT CURBS FIRE HYDRANT SHALL BE PLACED WITHIN 1 FOOT OF THE R/W LINE BUT NOT MORE THAN 10' FROM EDGE OF PAVEMENT. FIRE HYDRANT SHALL NOT BE PLACED IN BOTTOM OF DITCH.
6. HYDRANT SHALL BE ROTATED AS DIRECTED BY INSPECTOR.



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| Date: 01/2016 |
| Drawn By: JN |
| Checked By: D |
| WA |



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| Date: 01/2016 |
| Drawn By: JN |
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| Date: 01/2016 |
| Drawn By: JN |
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WAT-1

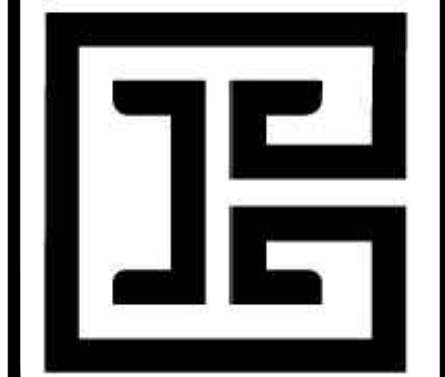


1. METER INSTALLATION SHALL NOT BE LOCATED IN AREAS SUBJECT TO VEHICULAR TRAFFIC OR IN CONCRETE PAVEMENT WITHOUT CITY APPROVAL.
2. IF METER IS TO BE LOCATED OTHER THAN IN FRONT OF PROPERTY LINE, CITY APPROVAL SHALL BE OBTAINED.
3. CITY TO FURNISH ITEMS A-K.
4. NO OTHER EQUIPMENT SHALL BE INSTALLED IN THIS PIT.
5. 42" MINIMUM BURIED DEPTH FOR ALL SERVICE LINES.
6. EXCAVATION FOR TAP TO EXPOSE 4 LINEAR FEET OF MAIN.
7. NO SPLICING ALLOWED BETWEEN METER AND MAIN.
8. SERVICE CONNECTION TAP AT APPROXIMATELY 45 DEGREES.
9. MAIN AND RISER RIGID SHALL BE SET SO THAT GROUND WATER WILL DRAIN AWAY FROM THE WELL.
10. CONTACT WATER UTILITIES, 816-890-1900, FOR REQUIREMENTS OF A METER LARGER THAN 2"



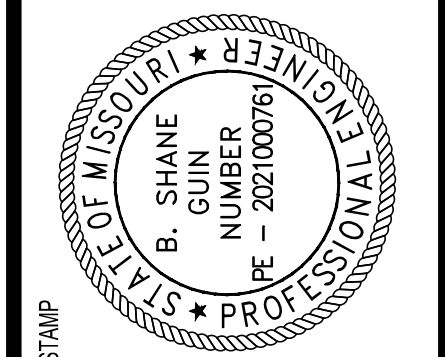
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| Date: 06/2015 |
| Drawn By: JN |
| Checked By: DL |
| WAT |

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SIGNATURE: 

DATE: JULY 30, 2024



PROPOSED TAKE 5
LEE'S SUMMIT, MISSOURI

FOR DRIVEN ASSETS, LLC
2101 PEARL STREET
BOULDER, CO 80302

DRAWN

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ISSUED DATE

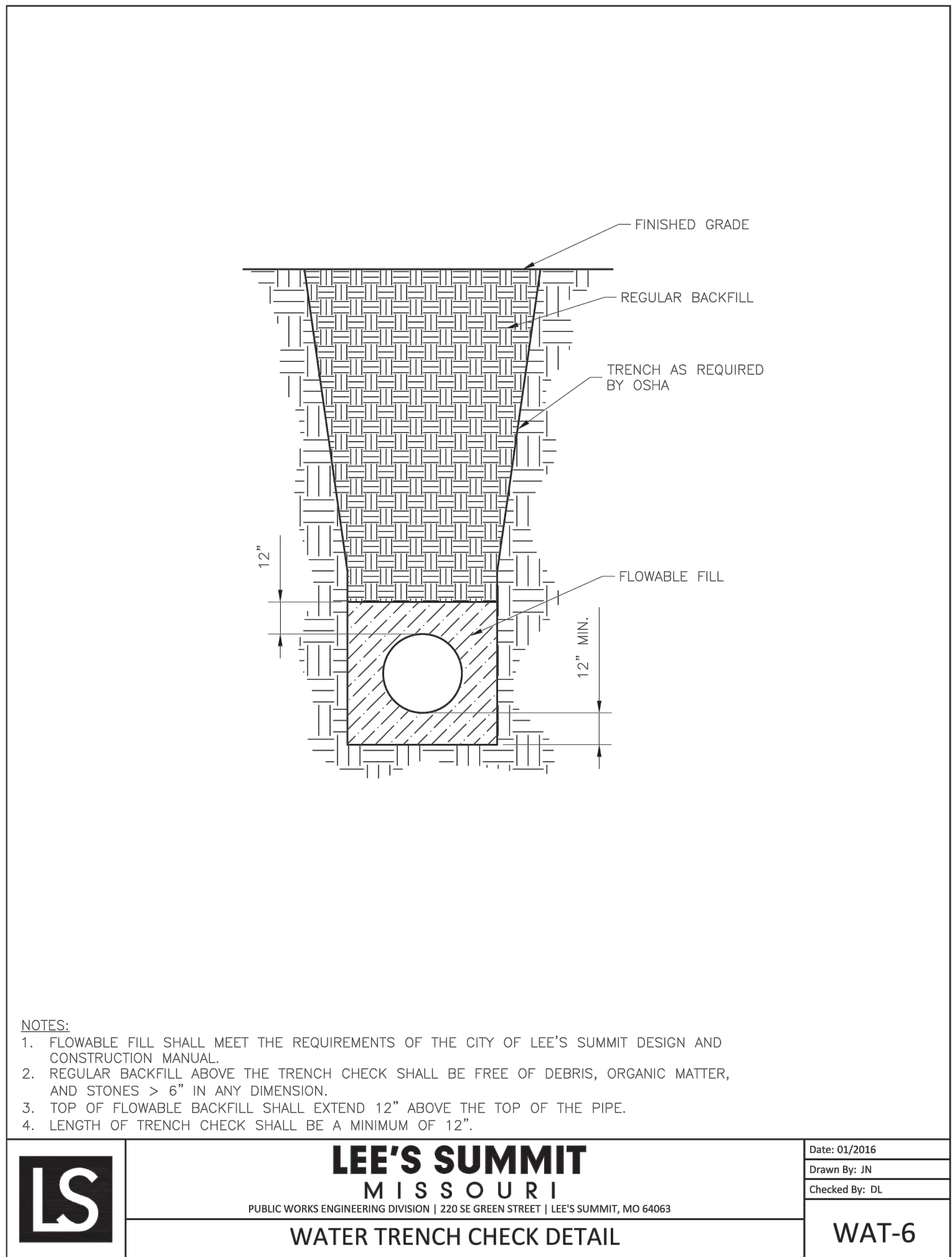
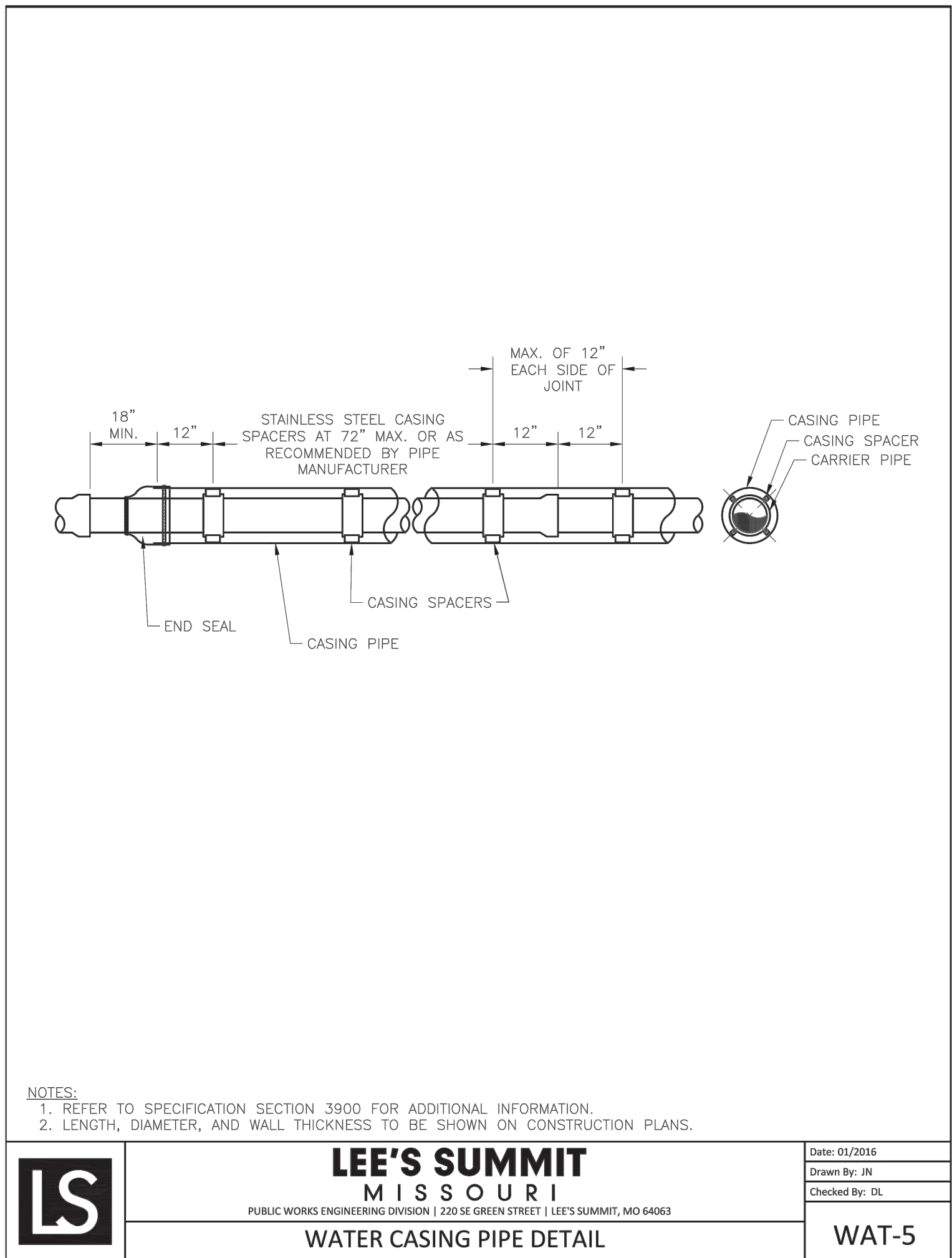
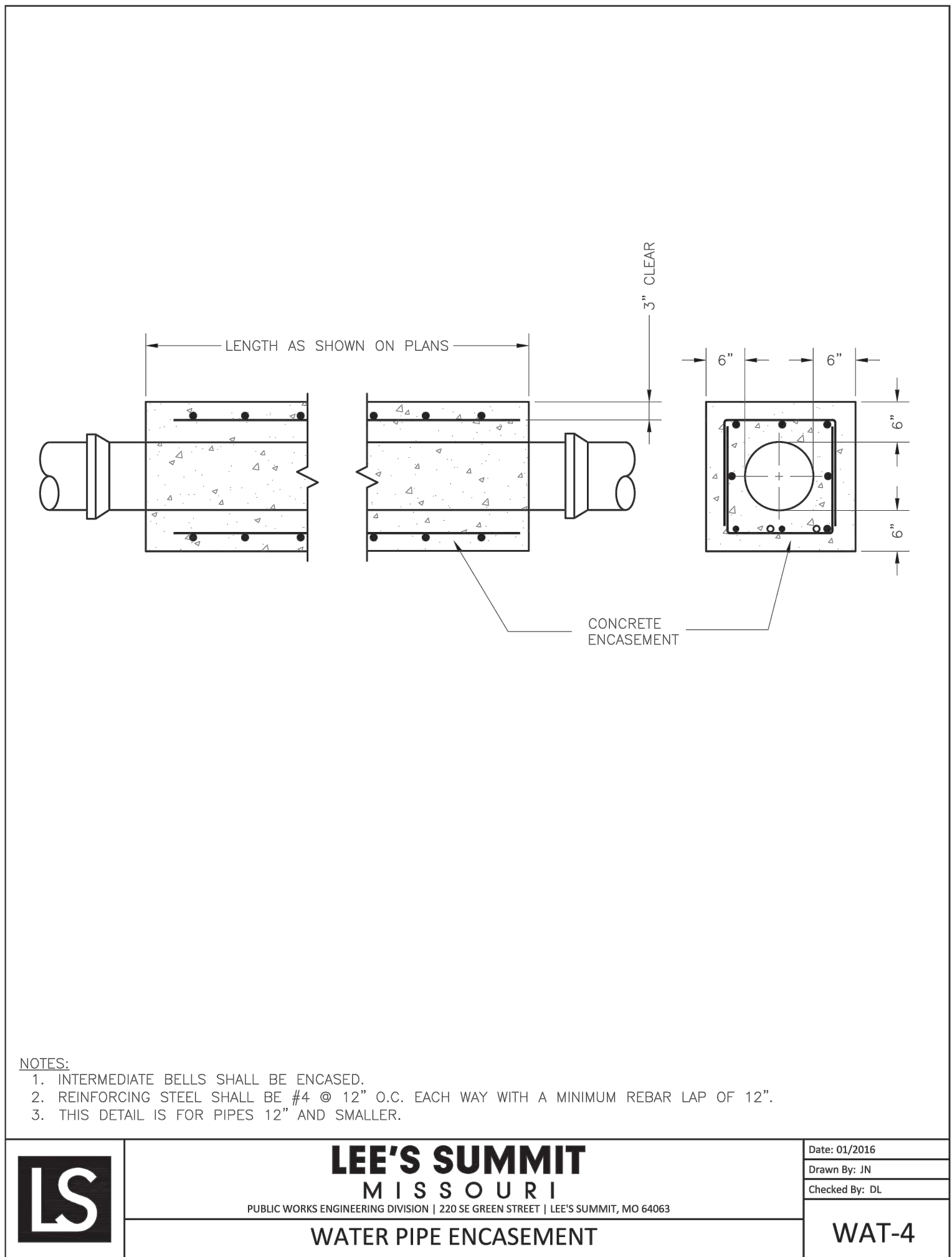
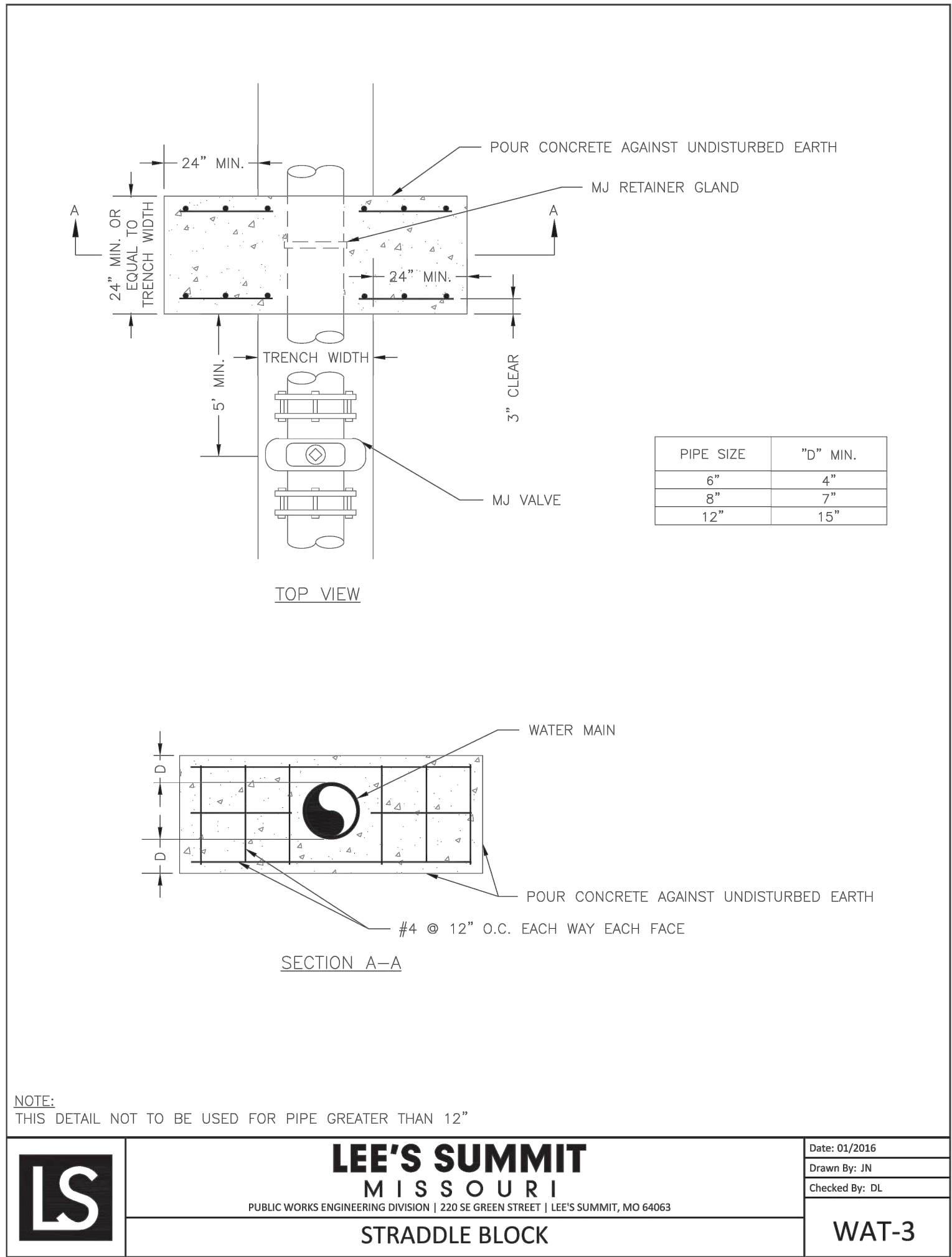
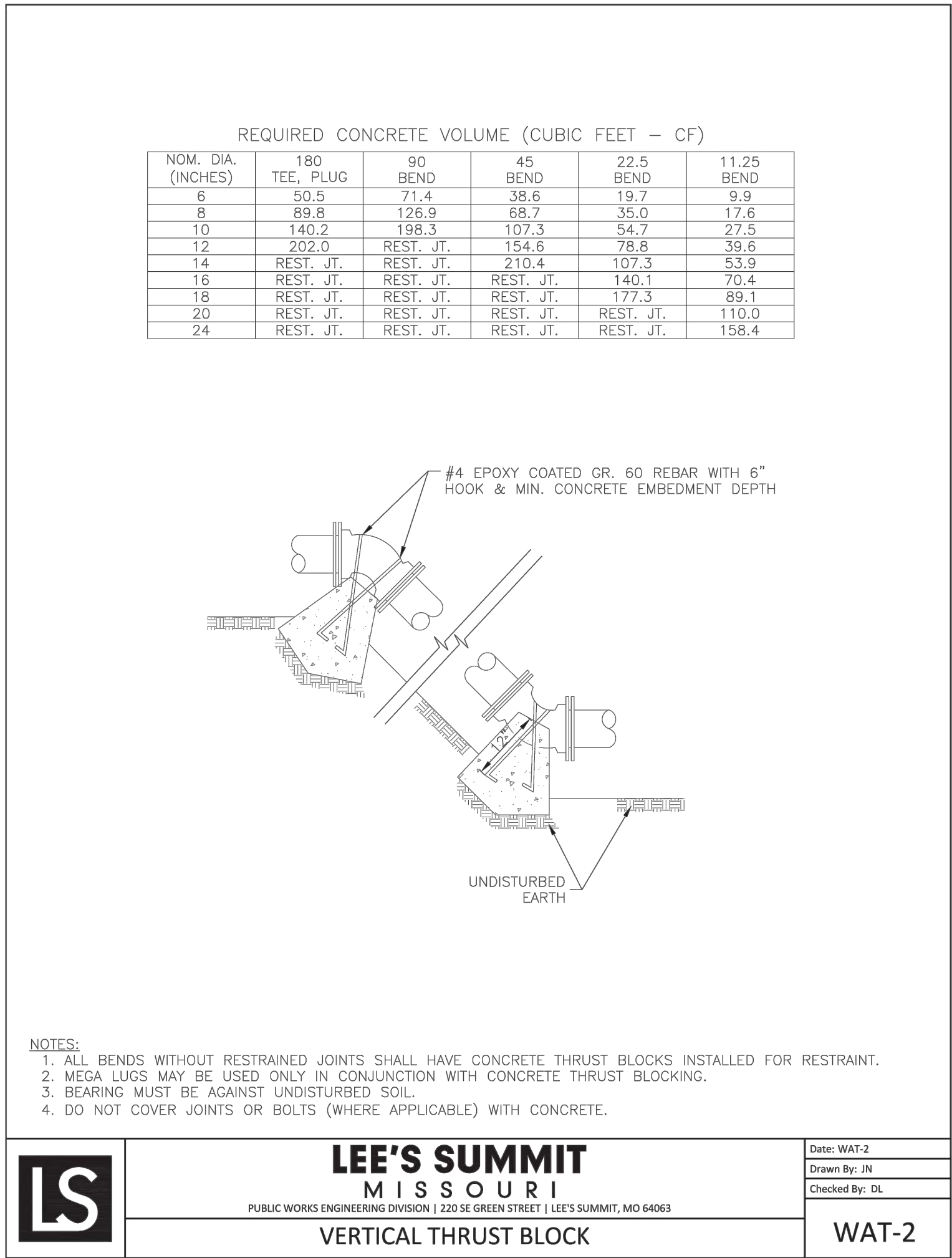
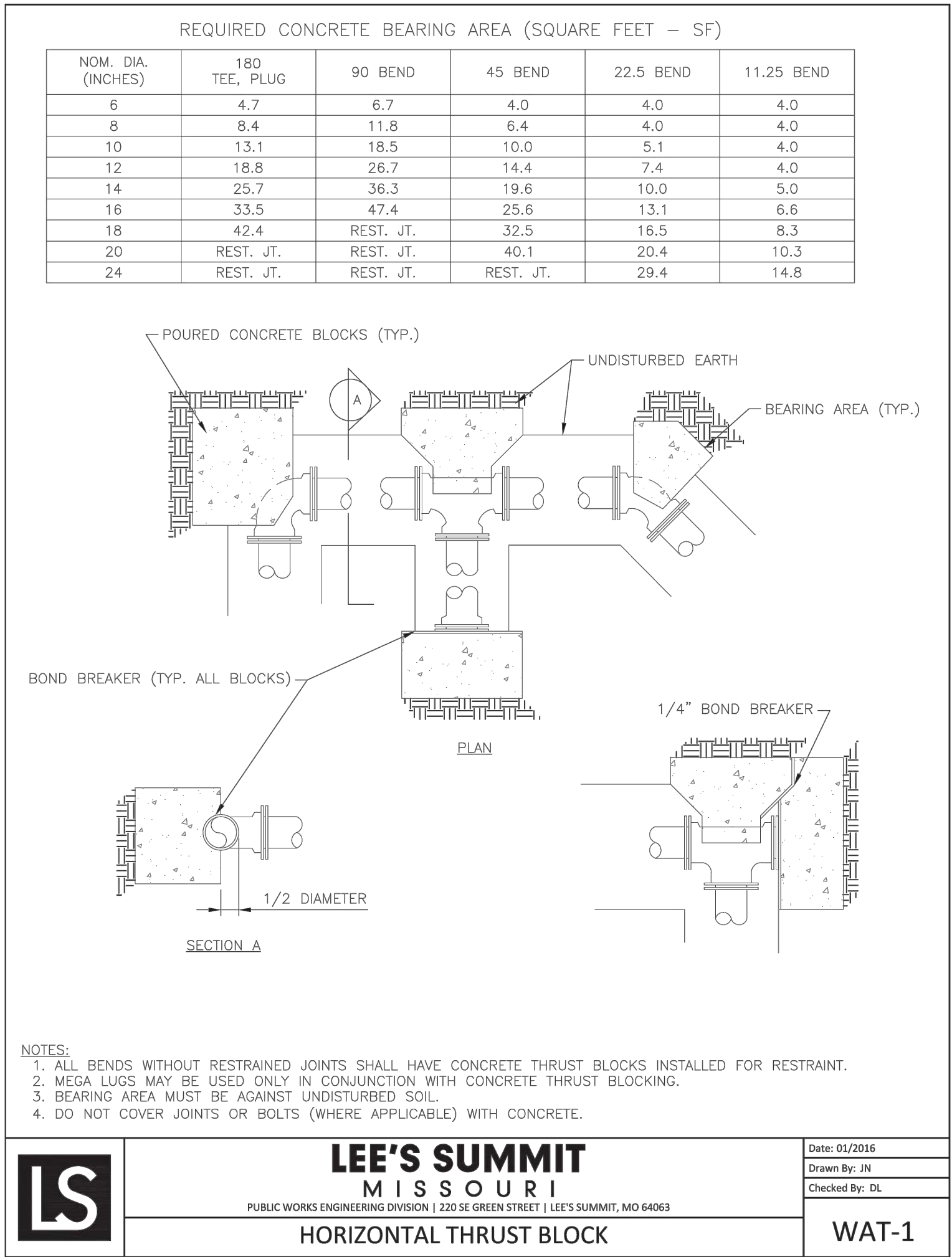
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C-4.8

UTILITY DETAILS



UTILITY DETAILS

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HIGH TIDE

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COVINGTON, LA 70433

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Signature

DATE

JULY 30, 2024

DATE

STAMP

OF MISSOURI

B. SHANE

GIN

NUMBER

PE - 202100076

PROFESSIONAL ENGINEER

PROPOSED TAKE 5

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FOR DRIVEN ASSETS, LLC

2101 PEARL STREET

BOULDER, CO 80302

DRAWN

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ISSUED DATE

07/30/2024

ISSUED FOR

PERMITTING

PROJECT NO.

22-218

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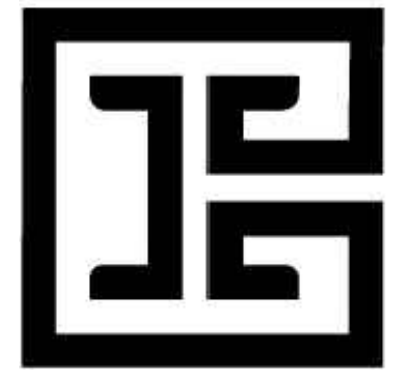
22-218 C-4 Details

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SIGNATURE
DATE
STAMP
STATE OF MISSOURI
RYAN
McKNIGHT
NUMBER
PLA-2021009815
PROFESSIONAL LANDSCAPE ARCHITECT

PROPOSED TAKE 5
LEE'S SUMMIT, MISSOURI
FOR DRIVEN ASSETS, LLC
2101 PEARL STREET
BOULDER, CO 80302

DRAWN
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CHECKED
BG/EM
ISSUED DATE
9/08/2023
ISSUED FOR
PRELIMINARY DEVELOPMENT
PROJECT NO.

FILE
L1.0 LANDSCAPE ORDINANCE PLAN

SHEET
L1.0

| LANDSCAPE MATERIALS AND PLANTS LIST | |
|-------------------------------------|---|
| QUANTITY | PLANT / MATERIAL NAME AND DESCRIPTION |
| 832 | Bed Preparation (square feet) 6" planting soil over 8" loosened topsoil. Mix top 4" of topsoil with first 3" of imported planting soil. |
| AS NEEDED | Hardwood Mulch, shredded (square feet) 3" thick layer in all planting areas and 2x root ball diameter ring around all trees |
| 272 | Metal Edging (linear feet) 1/2" x 4" aluminum edging color black; install between planting and gravel border |
| 63 | Gravel Border (square feet) 1/2" - 1" river rock. 3" deep layer over non-woven filter fabric |
| 880 | Lawn - Turf Type Fescue (square yards) certified weed and pest free |
| 14 | Drift Rose 'Popcorn' (Rosa 'Navarospop') 3 gallon container, 15"-18" spread, dense and compact growth habit |
| 660 | Liriope (Liriope muscari) 4" Container, 4"-6" height and spread, full container 4 per square foot |
| 6 | New Horizon Elm (Ulmus davidiana var. japonicus x Ulmus pumila) 45 gallon container, 12'-14' height, 5'-7' spread, 2 1/2"-3" caliper, straight trunk, heavily branched, heavy canopy |
| 4 | Sweetbay Magnolia 'Green Shadow'; (Magnolia virginiana 'Green Shadow') 7'-8' height, 4'-5' spread, standard, 1" caliper, heavily branched |
| 6 | Viburnum (Viburnum rhytidophyloides 'Allegheny') 5 gallon container, 3' height, dense foliage, full container |
| 46 | Japanese Yew (Podocarpus macrophyllus) 5 gallon container, 18" height, 18" spread, dense and compact growth habit, strong central leader |
| 64 | 'Hayden's Sedge' Carex haydenii 3 gallon container, 7"- 8" height, 12" - 18" spread at base, full container, heavy and active foliage, planted 24" o.c. |

NOTE:
OWNER'S REPRESENTATIVE SHALL REVIEW LANDSCAPING FOLLOWING INSTALLATION TO CERTIFY COMPLIANCE WITH APPROVED PLAN.

LANDSCAPE ORDINANCE STANDARDS

- THE CONTRACTOR SHALL VERIFY AND COORDINATE ALL FINAL GRADE WITH THE LANDSCAPE ARCHITECT AND OR DESIGN TEAM PRIOR TO COMPLETION.
- LOCATION AND PLACEMENT OF ALL PLANT MATERIAL SHALL BE COORDINATED WITH THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
- THE LOCATION OF ALL UTILITIES ARE APPROXIMATE, THE CONTRACTOR SHALL FIELD VERIFY LOCATIONS PRIOR TO COMMENCEMENT OF CONSTRUCTION OPERATIONS.
- REFER TO CIVIL DRAWINGS FOR ALL GRADING AND BERMING, EROSION CONTROL, STORM DRAINAGE, UTILITIES AND SITE LAYOUT.
- PLANT QUANTITIES ARE FOR INFORMATION ONLY DRAWING SHALL PREVAIL IF CONFLICT OCCURS. CONTRACTOR IS RESPONSIBLE FOR CALCULATING OWN QUANTITIES AND BID ACCORDINGLY.
- THE CONTRACTOR IS TO NOTIFY LANDSCAPE ARCHITECT AFTER STAKING IS COMPLETE AND BEFORE PLANT PITS ARE EXCAVATED. PROVIDE PHOTOGRAPHS.
- TREE LOCATIONS IN AREAS ADJACENT TO DRIVES, WALKS, WALLS AND LIGHT FIXTURES MAY BE FIELD ADJUSTED AS APPROVED BY LANDSCAPE ARCHITECT.
- THE CONTRACTOR SHALL REPORT SUBSURFACE SOIL OR DRAINAGE PROBLEMS TO THE LANDSCAPE ARCHITECT.
- THE PLAN IS SUBJECT TO CHANGES BASED ON PLANT SIZE AND MATERIAL AVAILABILITY. ALL CHANGES OR SUBSTITUTIONS MUST BE APPROVED BY THE CITY OF LEE'S SUMMIT, MISSOURI AND THE LANDSCAPE ARCHITECT.
- ALUMINUM LANDSCAPE EDGING TO BE USED ON ALL LANDSCAPE BEDS ABUTTING TURF AREAS AS NOTED ON LANDSCAPE PLANS/LEGEND.
- LANDSCAPE CONTRACTOR IS TO BE RESPONSIBLE FOR WATERING ALL PLANT MATERIAL UNTIL THE TIME THAT A PERMANENT WATER SOURCE IS READY.
- THE CONTRACTOR SHALL SHOW PROOF OF PROCUREMENT, SOURCES, QUANTITIES AND VARIETIES FOR ALL SHRUBS, PERENNIALS ORNAMENTAL GRASSES AND ANNUALS WITHIN 21 DAYS FOLLOWING THE AWARD OF THE CONTRACT.
- CONTRACTOR SHALL PROVIDE FULL MAINTENANCE FOR NEWLY LANDSCAPED AREAS FOR A PERIOD OF 30 DAYS AFTER THE DATE OF FINAL ACCEPTANCE. AT THE END OF THE MAINTENANCE PERIOD, A HEALTHY, WELL-ROOTED, EVEN-COLORED, VIABLE TURF AND LANDSCAPED AREA MUST BE ESTABLISHED. THE LANDSCAPED AREAS SHALL BE FREE OF WEEDS, OPEN JOINTS, BARE AREAS AND SURFACE IRREGULARITIES.
- LANDSCAPE CONTRACTOR SHALL PROVIDE HARDWOOD MULCH SAMPLE TO OWNER FOR APPROVAL.

LANDSCAPE ORDINANCE CALCULATIONS

LEE'S SUMMIT MO DEVELOPMENT CODE, DIVISION III, SECTION 8.710-900,
ZONED: CP2

STREET FRONTAGE (NON RESIDENTIAL ZONE)

- A. 1 TREE PER 30 L.F. OF STREET FRONTAGE
REQUIRED: 5 TREES
PROVIDED: 5 TREES
- B. 20' WIDE LANDSCAPE STRIP TO SEPARATE PARKING AREA FROM THE STREET.
PROVIDED: 20' LANDSCAPE STRIP
- C. 1 SHRUB FOR EACH 20' OF STREET FRONTAGE
REQUIRED: 7 SHRUBS
PROVIDED: 14 SHRUBS (NEAR SIGNAGE)

OPEN YARD AREA

LOT CONTAINS A LARGE CONSERVATION AREA THAT WILL REMAIN. CALCULATIONS BELOW ARE BASED ON CLEARED PORTION OF THE LOT; 23,670 SQUARE FEET.

- A. 2 SHRUBS PER 5,000 SQUARE FEET
REQUIRED: 10 SHRUBS
PROVIDED: 20 SHRUBS (PROVIDED TO HIDE TRASH ENCLOSURE AND DRIVEWAY)
- B. 1 TREE PER 5,000 SQUARE FEET
REQUIRED: 5 TREES
PROVIDED: 5 TREES

PARKING LOT SCREENING

- A. 2 1/2' HEIGHT OF SCREENING REQUIRED ALONG THE EDGE OF PARKING LOT CLOSEST TO THE STREET
- B. A HEDGE CONSISTING OF AT LEAST 12 SHRUBS PER 40'. HEDGE MUST BE AT LEAST 18" TALL AT TIME OF PLANTING.
REQUIRED: 36 SHRUBS (CONTINUOUS HEDGE)
PROVIDED: 44 SHRUBS (PROVIDED TO HAVE CONTINUOUS HEDGE AROUND PARKING LOT PER CODE)

SOUTH & EAST BUFFER (CP2 ADJACENT TO CP2)

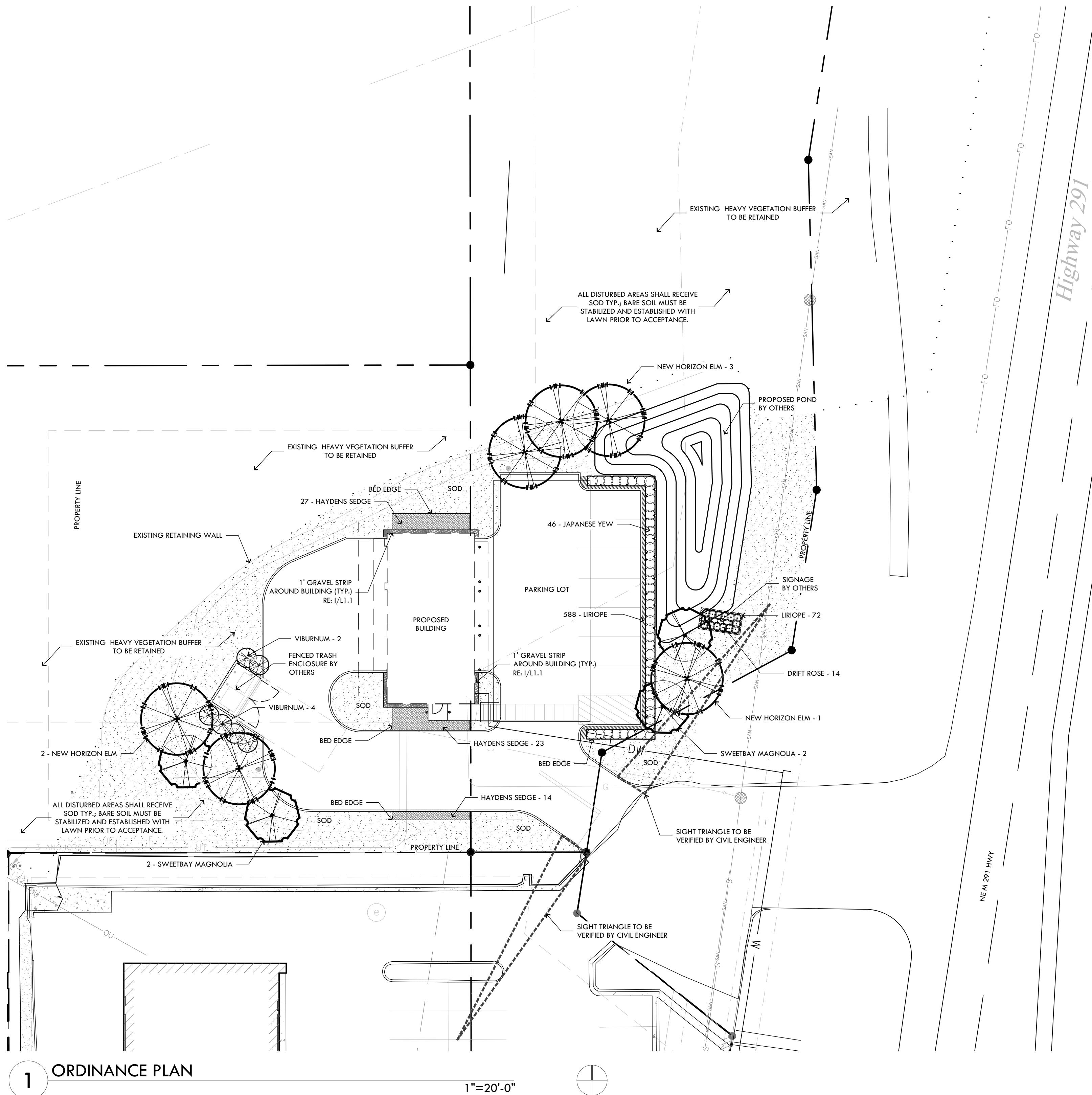
NO REQUIRED BUFFER

NORTH & WEST BUFFER (CP2 ADJACENT TO RP-2 & RP-4)

REQUIRED: 20' BUFFER YARD (HEAVY)
PROVIDED: EXISTING 30'-100' VEGETATED BUFFER & EXISTING RETAINING WALL

GENERAL PLANTING NOTES

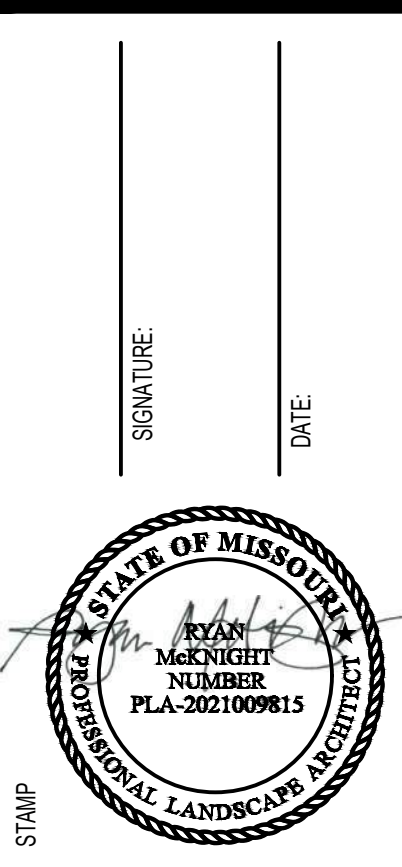
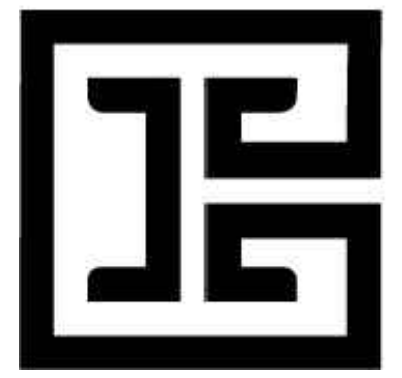
- LOCATE ALL UTILITIES ON SITE PRIOR TO COMMENCING WORK. ANY DAMAGE DONE TO EXISTING OR NEW UTILITIES SHALL BE REPAIRED OR REPLACED AT NO ADDITIONAL COST TO OWNER.
- PLANTS SHALL BE WELL FORMED, NO. 1 GRADE OR BETTER NURSERY STOCK AND SHALL MEET THE APPLICABLE STANDARDS NOTED HEREIN AND SHALL BE SUBJECT TO REJECTION BY THE LANDSCAPE ARCHITECT.
- STAKE OUT ALL TREE LOCATIONS FOR APPROVAL BY THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION. LOCATE ALL TREES AS SHOWN ON PLAN.
- COORDINATE WORK WITH THE WORK OF OTHER TRADES ON THE SITE.
- ENTIRE SITE SHALL BE GRADED TO FINISH GRADE PRIOR TO SCHEDULING PLANTING INSTALLATION.
- PLANTS SHALL BE SPECIMEN QUALITY, FULL POT AND HEAD, SYMMETRICAL FOLIAGE AND BRANCHING STRUCTURE. SHRUBS SHALL BE FULL TO GROUND.
- PLANT MATERIAL OF THE SAME SPECIES SHALL BE MATCHING IN CHARACTER AND SIZE, OBTAINED FROM THE SAME SOURCE.
- ANY CHANGES IN PLANT MATERIAL SIZE, QUANTITY, SPECIES OR VARIETY MUST BE APPROVED BY THE OWNER AND/OR LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
- INSTALLATION MUST BE COMPLIANT WITH LANDSCAPE ORDINANCE STANDARDS.
- SOD ALL AREAS DISTURBED BY CONSTRUCTION.



1 ORDINANCE PLAN

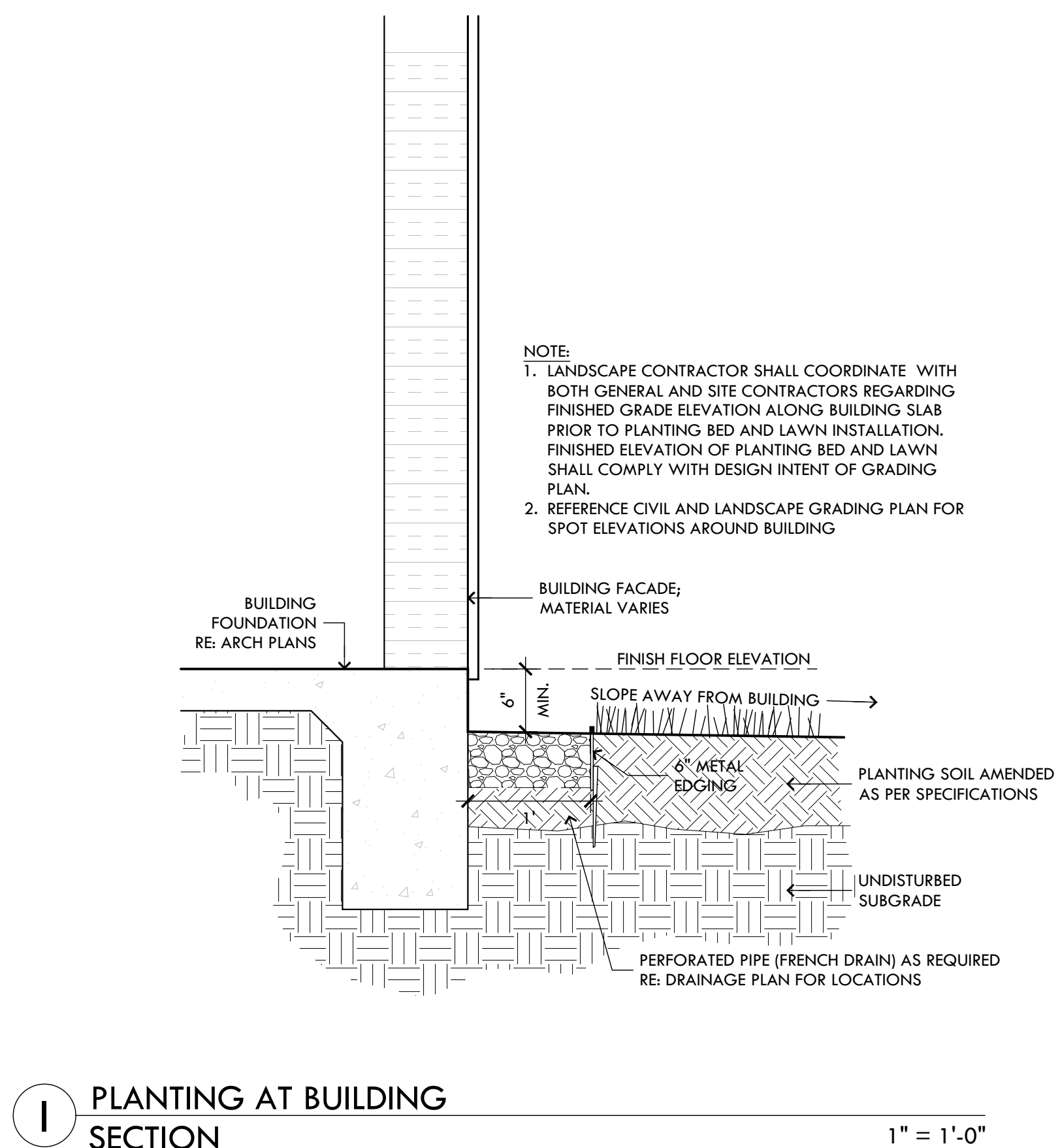
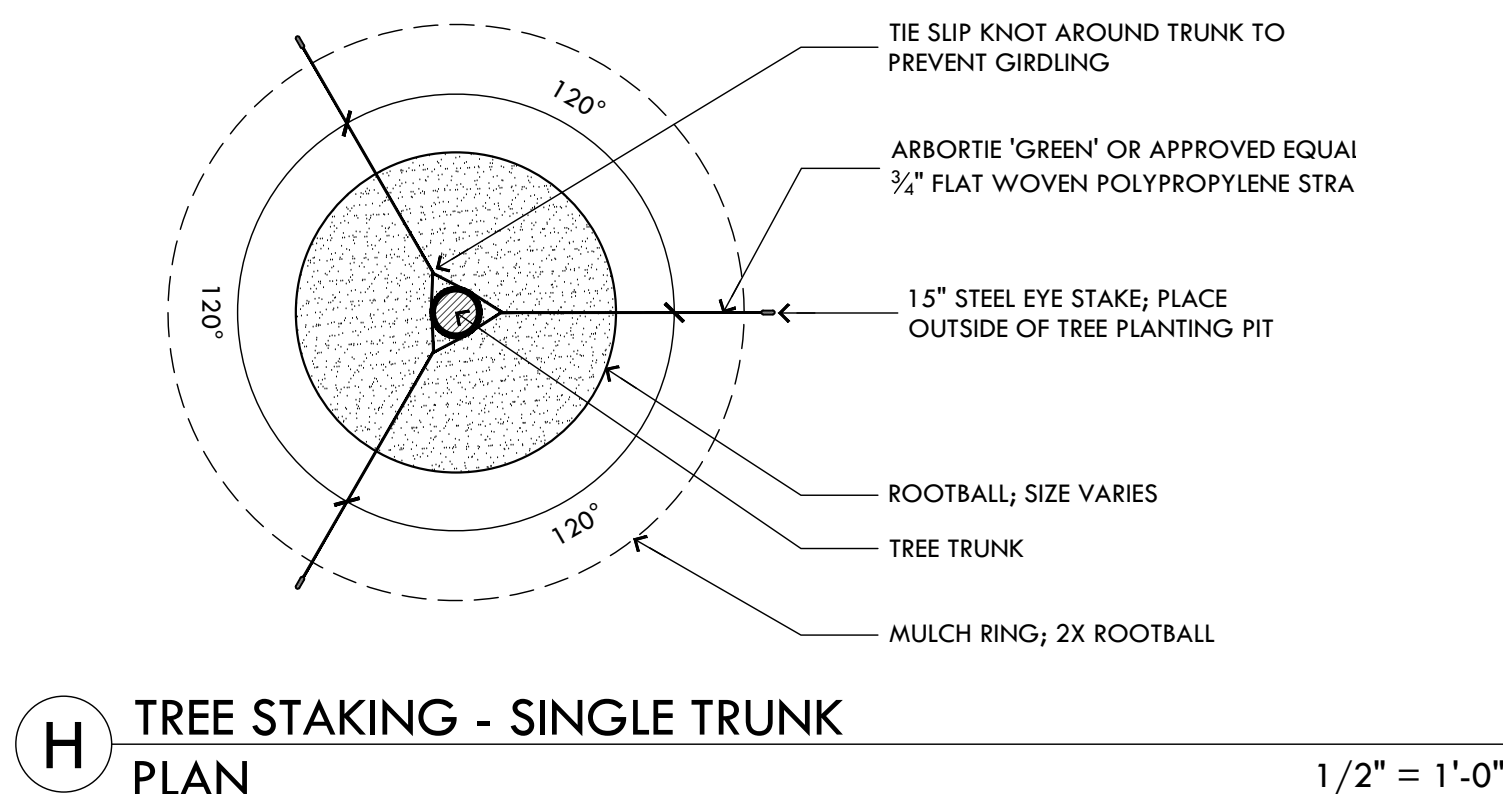
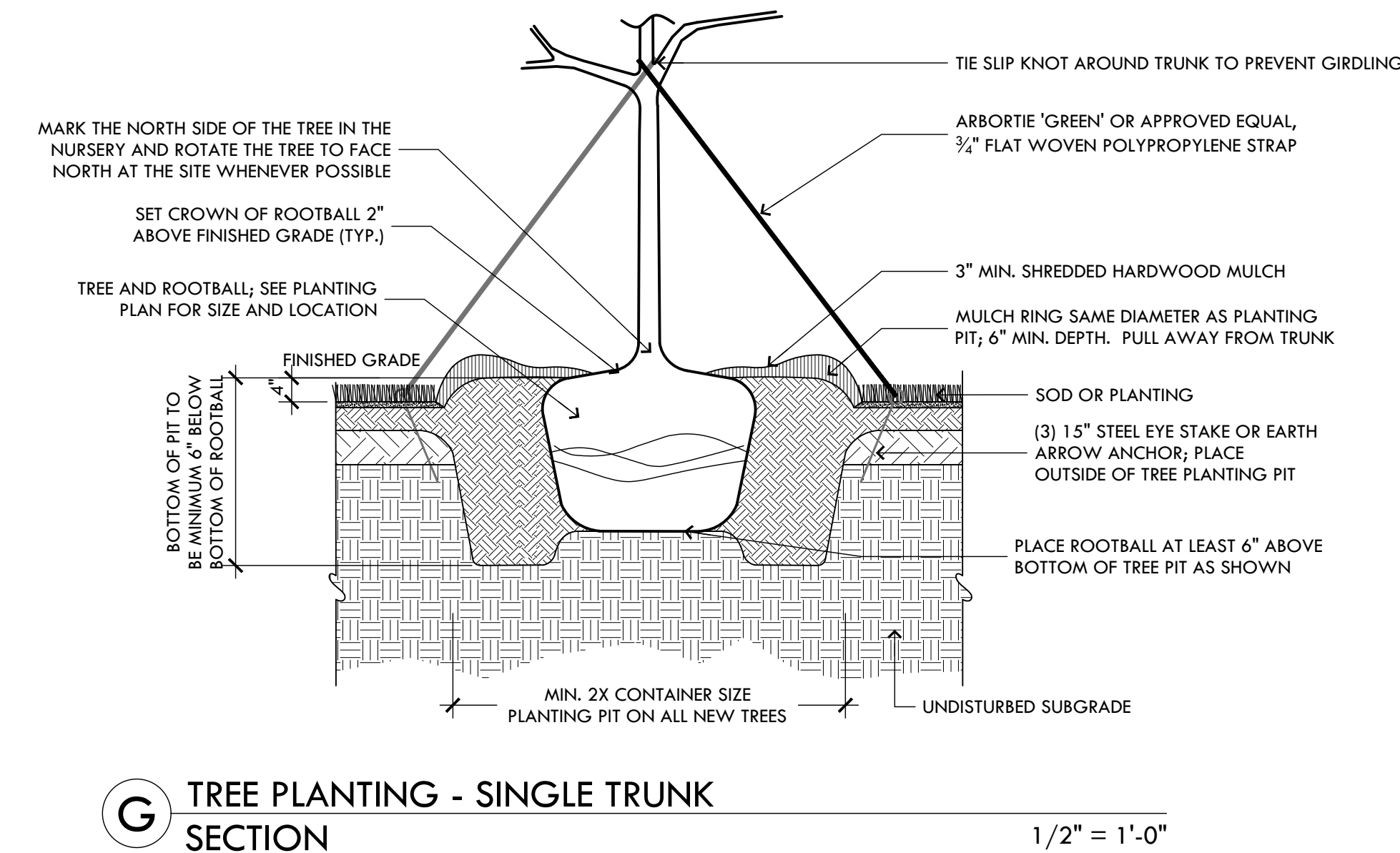
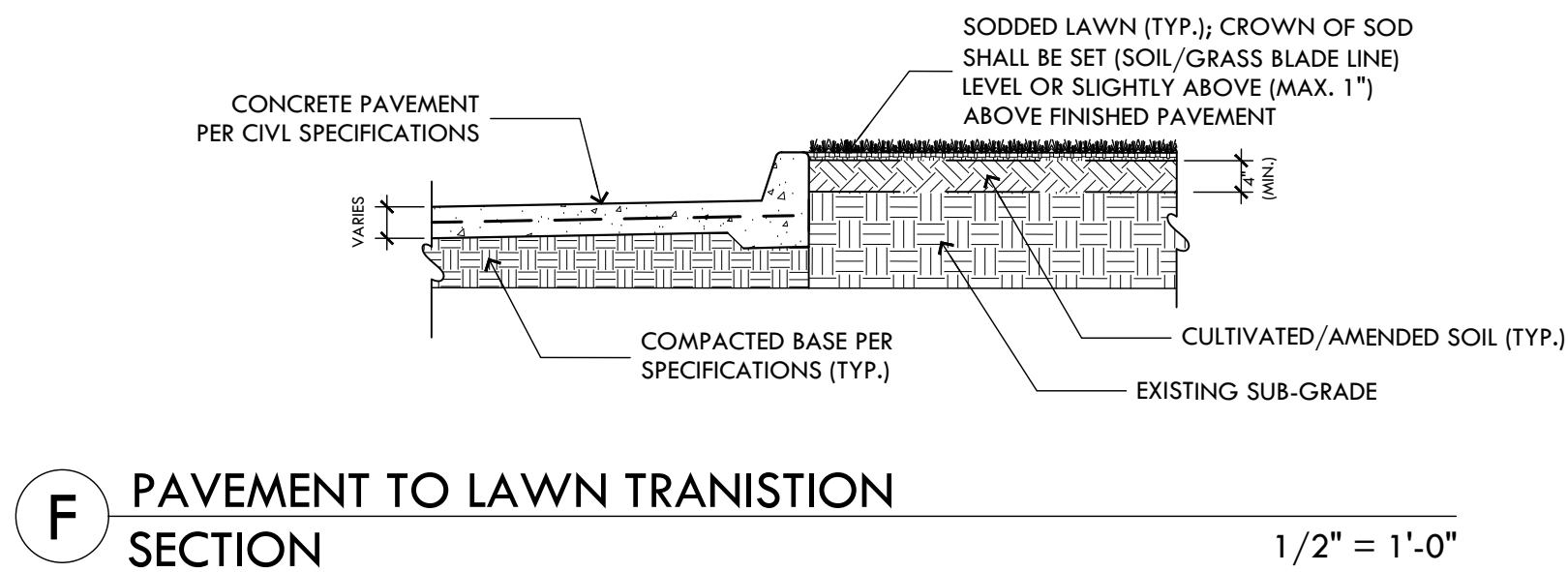
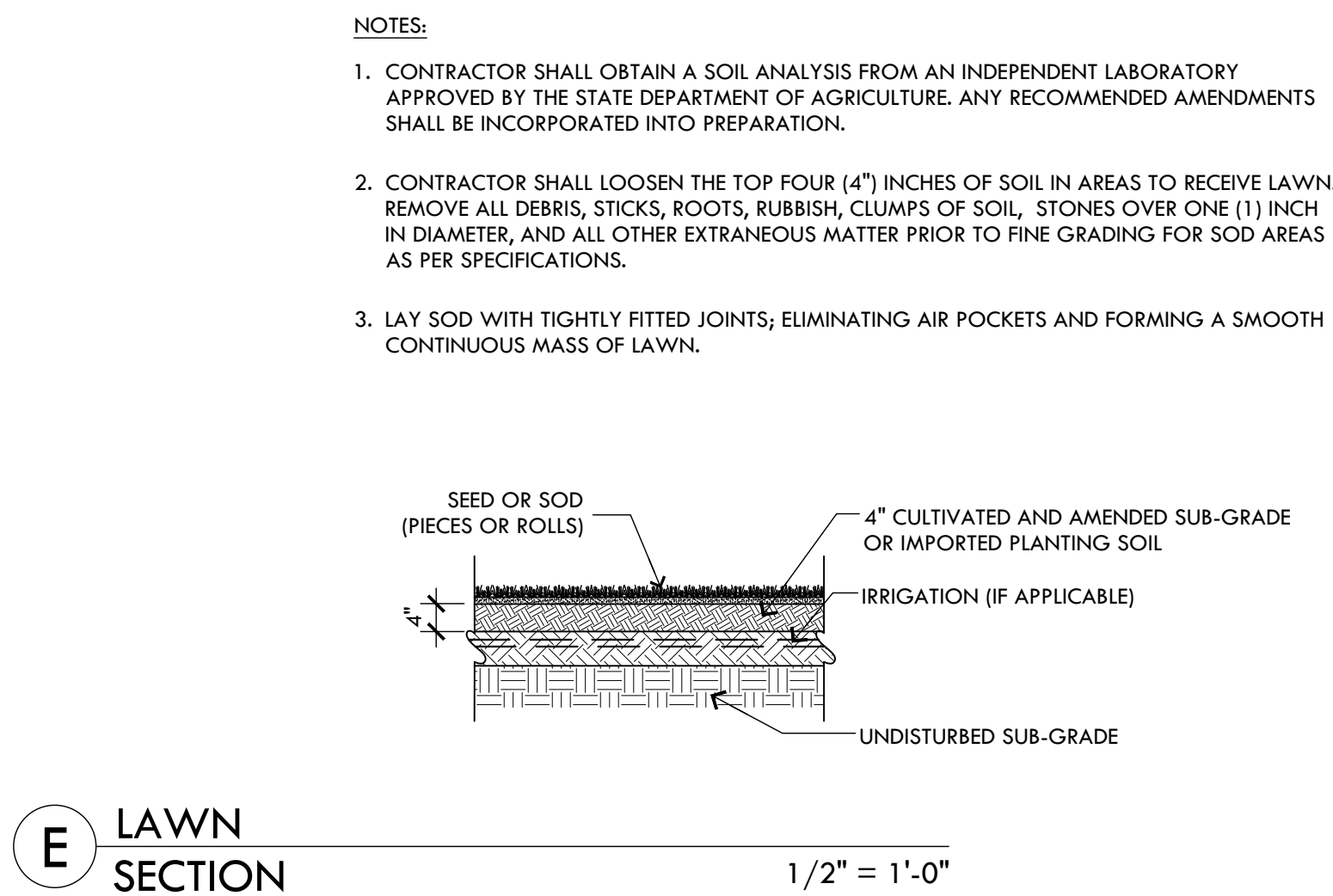
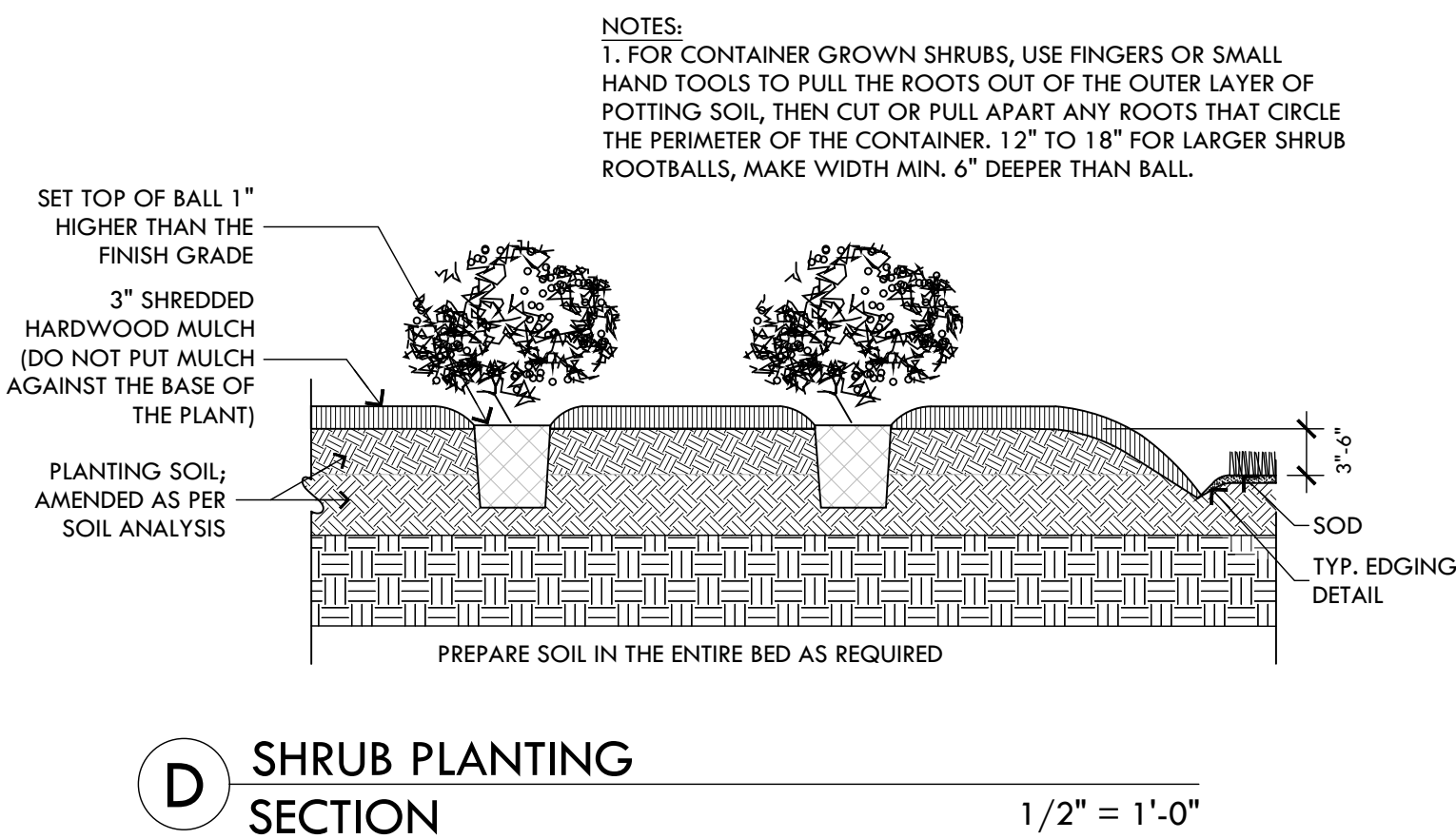
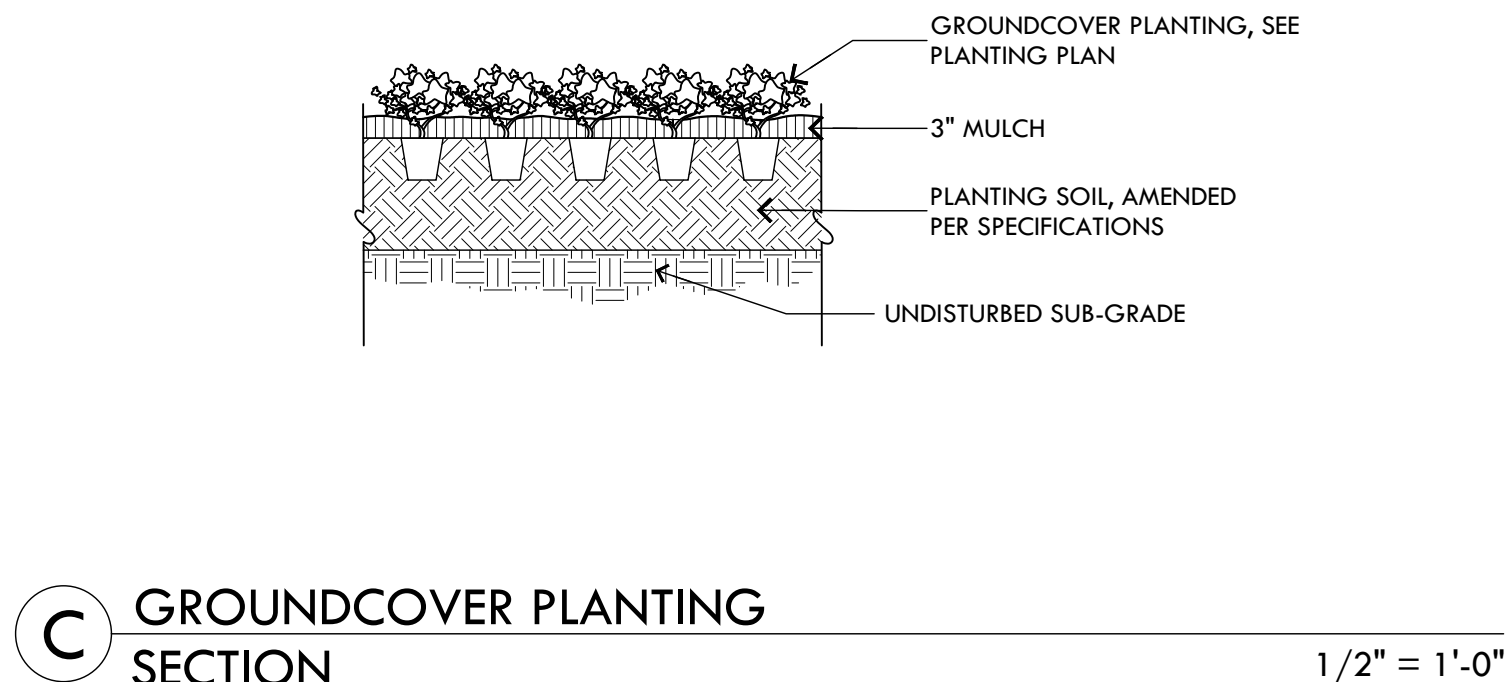
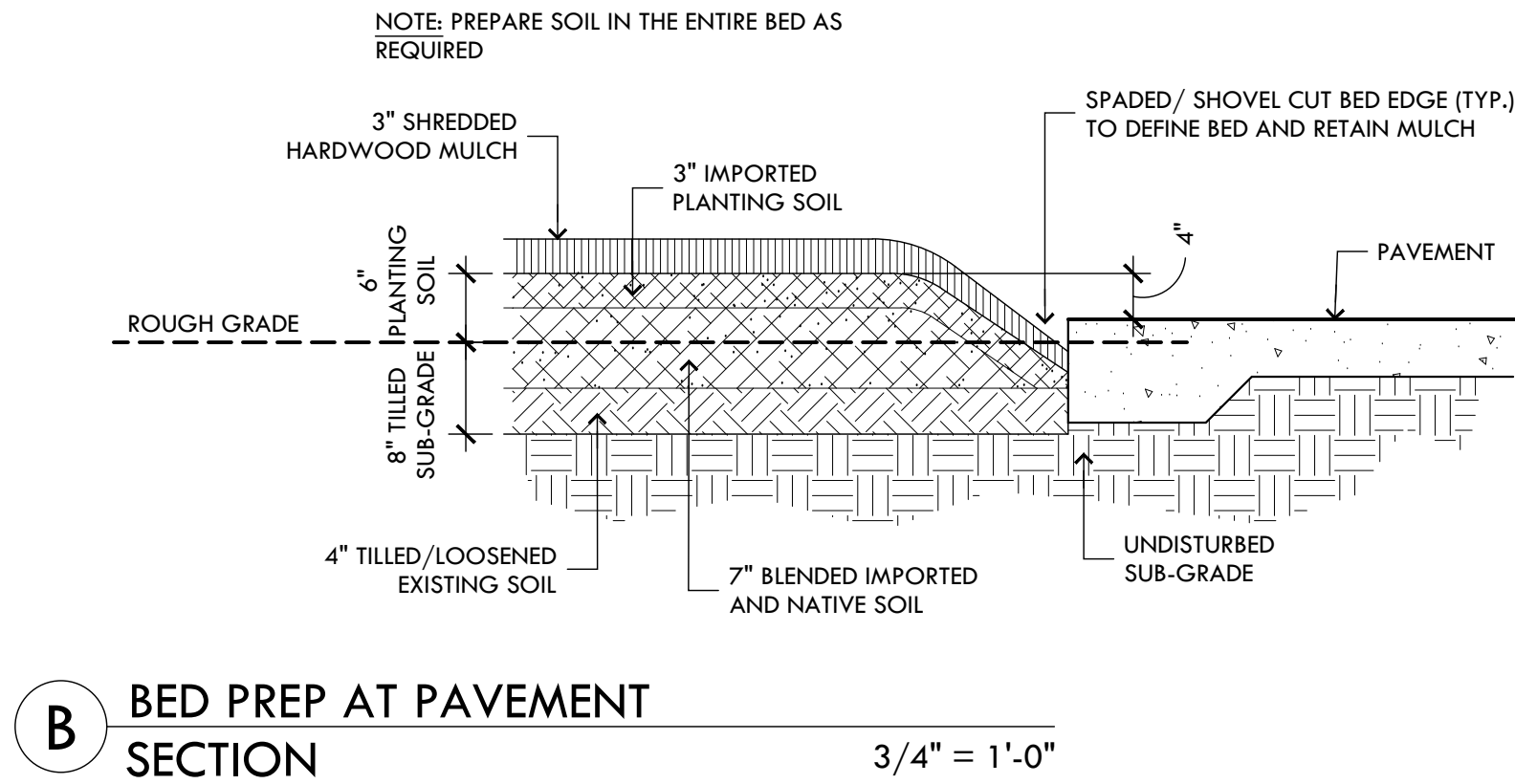
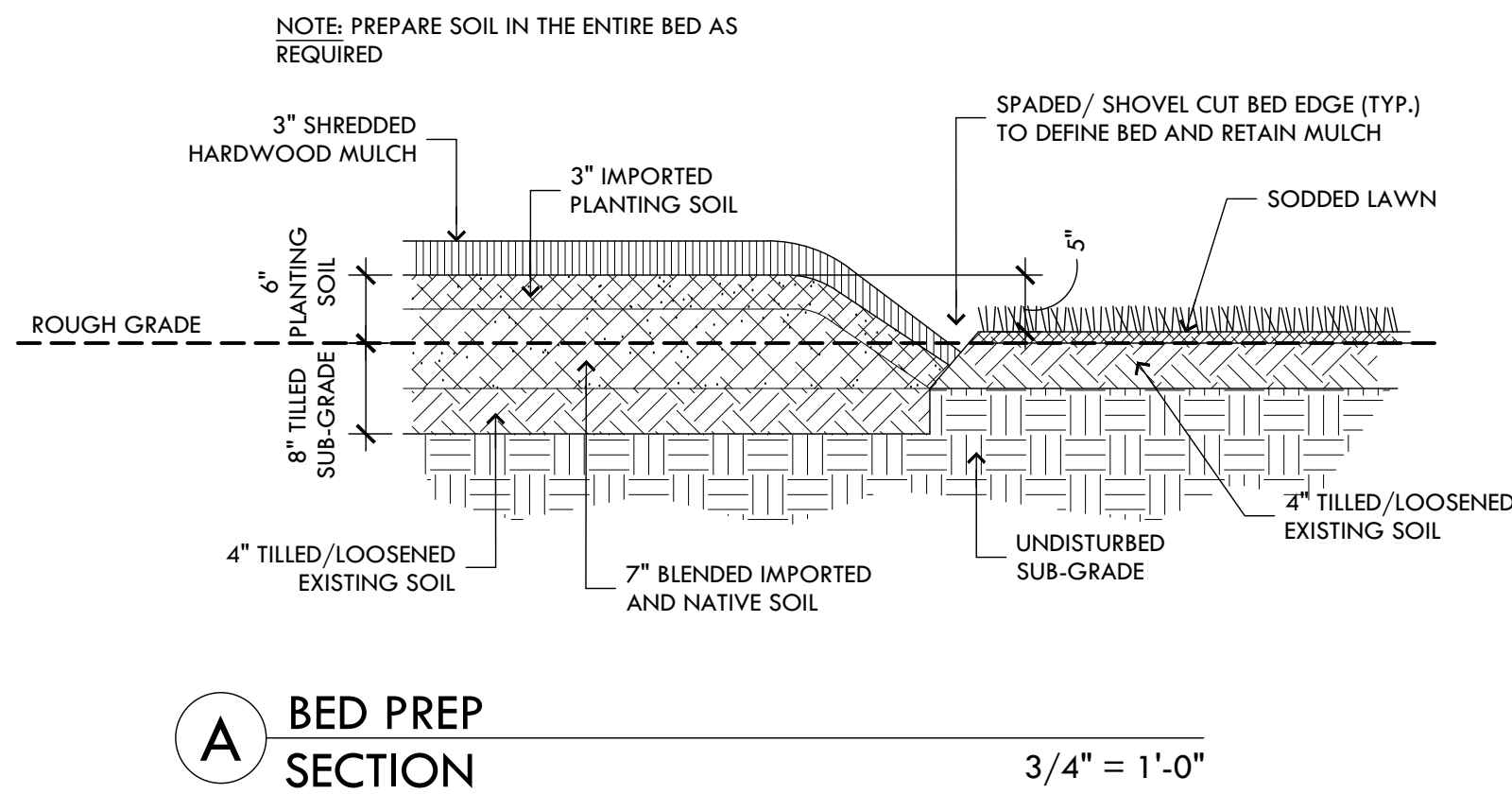
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BOULDER, CO 80302

| |
|---------------------------------------|
| DRAWN ML |
| CHECKED BG/AM |
| ISSUED DATE 9/08/2023 |
| ISSUED FOR PRELIMINARY DEVELOPMENT |
| PROJECT NO. |
| FILE L1.2 PLANTING DETAILS |
| SHEET L1.1 |



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| SCHEDULE - ROOM FINISH (NEW STYLE) | | | | | | | | | | | | | | | | | |
|------------------------------------|------------------|-------------------|-------|-------------|-------------|-------------|-------------|--------|-------|-------|-------|----------|---------------|-------------------|------------------------|-----------------------------------|-----|
| No. | ROOM NAME | FLR MATL. | BASE | WALL | | | | FINISH | | | | CEILING | | | REMARKS | Number | |
| | | CONCRETE / SEALED | VINYL | NORTH | EAST | SOUTH | WEST | NORTH | EAST | SOUTH | WEST | PLY WOOD | FINISH | CEILING HEIGHT | | | |
| | | | | 1/2" PLY WD | 1/2" PLY WD | 1/2" PLY WD | 1/2" PLY WD | PAINT | PAINT | PAINT | PAINT | | | | | | |
| 101 | MANAGER OFFICE | • | • | • | • | • | • | • | • | • | • | • | PRIME & PAINT | 8'- 0" | SMOOTH FINISH. STAINED | B-C PLYWD. NOTE 1,2,3,4,8,9,10 | 101 |
| 102 | WASTE OIL | • | • | • | • | • | • | • | • | • | • | • | PRIME & PAINT | 8'- 0" | SMOOTH FINISH. STAINED | B-C PLYWD. NOTE 1,2,3,4,8,9,10 | 102 |
| 103 | TOILET ROOM | • | • | • | • | • | • | • | • | • | • | • | PRIME & PAINT | 8'- 0" | SMOOTH FINISH. STAINED | B-C PLYWD. NOTE 1,2,3,4,8,9,10,11 | 103 |
| 104 | SERVICE BAY | • | • | • | • | • | • | • | • | • | • | • | PRIME & PAINT | EXPOSED STRUCTURE | SMOOTH FINISH. STAINED | B-C PLYWD. NOTE 1,2,3,4,8,9,10 | 104 |
| 105 | STORAGE PLATFORM | • | • | • | • | • | • | • | • | • | • | • | PRIME & PAINT | EXPOSED STRUCTURE | SMOOTH FINISH. STAINED | B-C PLYWD. NOTE 1,2,3,4,8,9,10 | 105 |

| SCHEDULE - DOOR & FRAME | | | | | | | | | | | | | | | | |
|-------------------------|---------------|----------|----------|-------------|-----------|---------------|----------|----------------------------------|---------------------|----------|----------|---------|----------|-------------|--|------------|
| NO. | SINGLE / PAIR | SIZE | | | Type Mark | DOOR | | FRAME MATERIAL | DOOR & FRAME FINISH | DETAILS | | | HARDWARE | Fire Rating | Comments | |
| | | Width | Height | THICKNESS | | MATERIAL | MATERIAL | | | HEAD | JAMB | SILL | | | | |
| 001 | OVERHEAD | 10' - 1" | 11' - 6" | 0' - 2" | B | METAL / GLASS | METAL | | | 11:A3.01 | 10:A3.01 | -- | -- | | 3 CENTER SECTIONS GLASS | |
| 002 | OVERHEAD | 10' - 1" | 11' - 6" | 0' - 2" | B | METAL / GLASS | METAL | | | 11:A3.01 | 10:A3.01 | -- | -- | | 3 CENTER SECTIONS GLASS | |
| 003 | OVERHEAD | 10' - 1" | 11' - 6" | 0' - 2" | B | METAL / GLASS | METAL | | | 11:A3.01 | 10:A3.01 | -- | -- | | 3 CENTER SECTIONS GLASS | |
| 004 | OVERHEAD | 10' - 1" | 11' - 6" | 0' - 2" | B | METAL / GLASS | METAL | | | 9:A3.01 | 10:A3.01 | -- | -- | | 3 CENTER SECTIONS GLASS | |
| 005 | OVERHEAD | 10' - 1" | 11' - 6" | 0' - 2" | B | METAL / GLASS | METAL | | | 11:A3.01 | 10:A3.01 | -- | -- | | 3 CENTER SECTIONS GLASS | |
| 006 | OVERHEAD | 10' - 1" | 11' - 6" | 0' - 2" | B | METAL / GLASS | METAL | | | 11:A3.01 | 10:A3.01 | -- | -- | | 3 CENTER SECTIONS GLASS | |
| 007 | SINGLE | 3' - 0" | 7' - 0" | 0' - 1 3/4" | C | FLUSH H.M. | H.M | PAINT / DK BRONZE EXT & GRAY INT | | 4:A3.01 | 5:A3.01 | 6:A3.01 | SET 1 | | CLOSER, LOCKSET, THRESHOLD. NOTE 1,2,5 | |
| 101 | SINGLE | 3' - 0" | 7' - 0" | 0' - 1 3/4" | A | FLUSH H.M. | H.M | PAINT / DK BRONZE EXT & GRAY INT | | 7:A3.01 | 8:A3.01 | -- | SET 2 | | LOCKSET, CLOSER | NOTE 1,2,6 |
| 102 | SINGLE | 3' - 0" | 7' - 0" | 0' - 1 3/4" | B | FLUSH H.M. | H.M | PAINT / DK BRONZE EXT & GRAY INT | | 7:A3.01 | 8:A3.01 | -- | SET 4 | | LOCKSET, CLOSER | NOTE 1,2 |
| 103 | SINGLE | 3' - 0" | 7' - 0" | 0' - 1 3/4" | B | FLUSH H.M. | H.M | PAINT / DK BRONZE EXT & GRAY INT | | 7:A3.01 | 8:A3.01 | -- | SET 3 | | LOCKSET, HALF GLASS (TINTED), CLOSER | NOTE 1,2,4 |

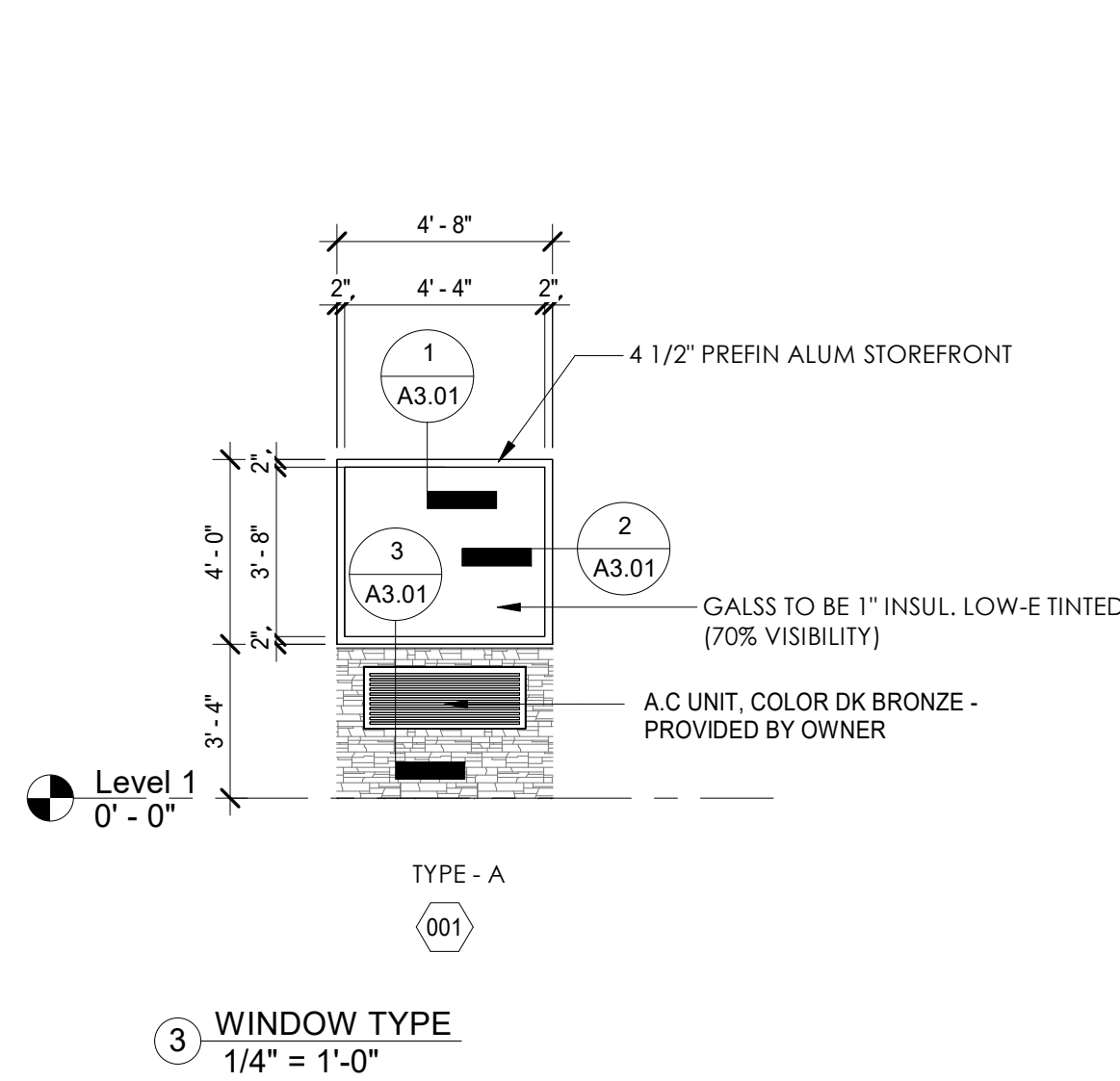
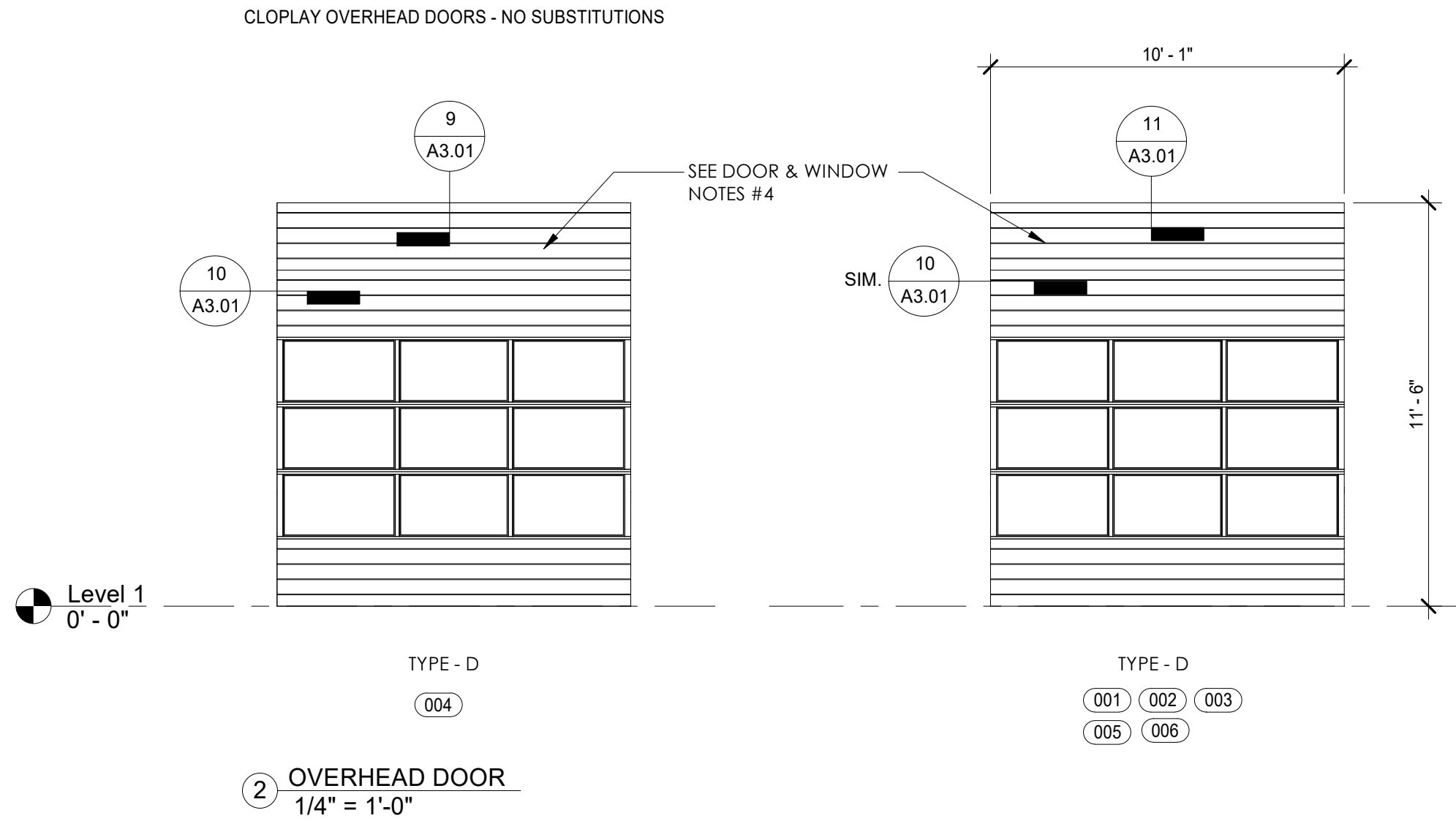
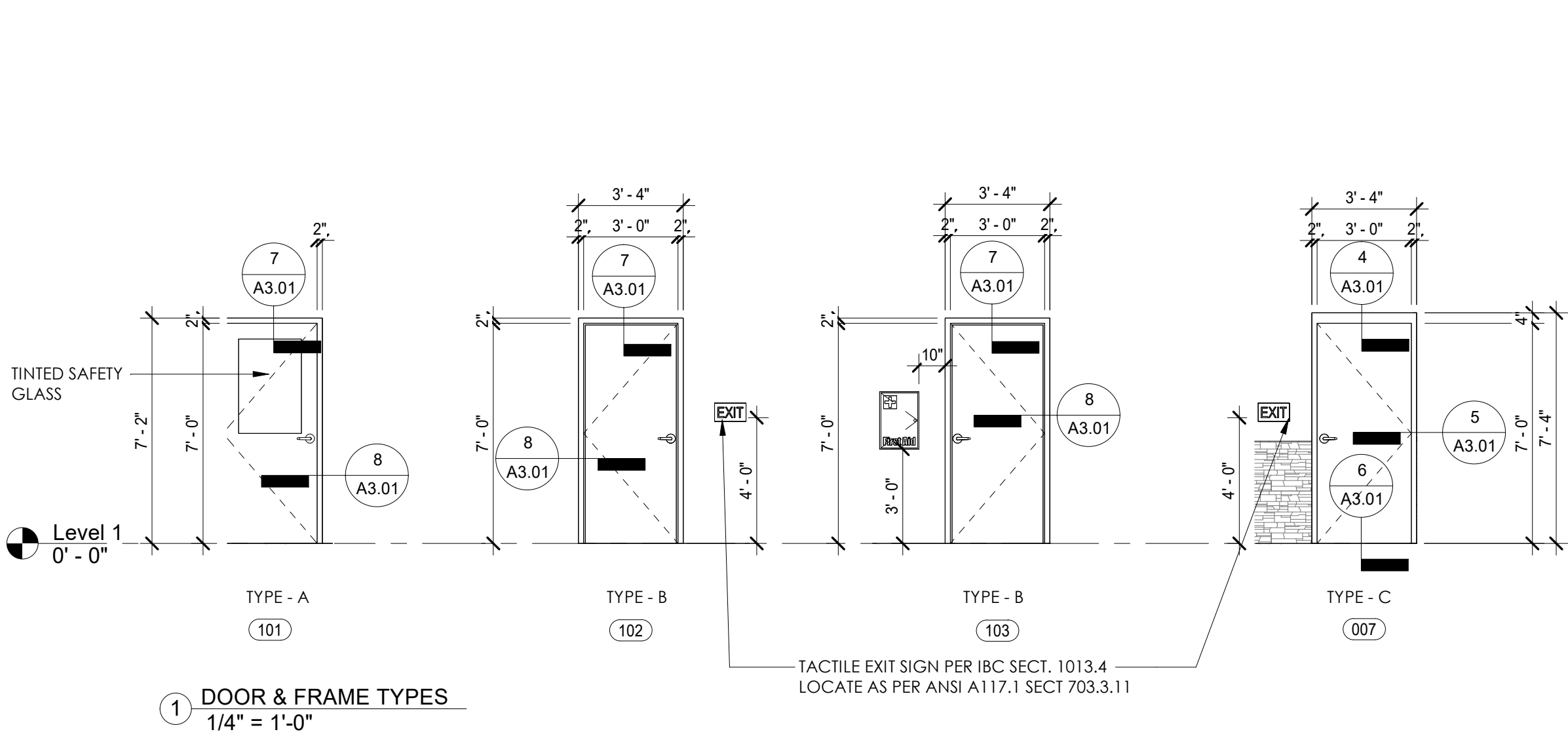
* ALL METAL DOOR FRAMES TO BE G90

DOOR & WINDOW NOTES:

- NOTE 1. HARDWARE TO BE LEVER ACTION AND MEET ALL ADA REQUIREMENTS.
- NOTE 2. HARDWARE TO BE COMMERCIAL GRADE.
- NOTE 3. HARDWARE PER MANUF. REQUIREMENTS.
- NOTE 4. SAFETY GLAZING TO MEET ANSI Z97.1 CLASS A.
- NOTE 5. DARK BRONZE PAINT COLOR TO BE (SW 6076 "TURKISH COFFEE").
- NOTE 6. EXTERIOR DOOR WHEN INDICATED ON PLAN 1/A-100

| SCHEDULE - WINDOW & FRAME | | | | | | | | | |
|---------------------------|---------|---------|--|--------|----------|---------|---------|---------|---|
| NO. | SIZE | | GLAZING | FRAME | | DETAILS | | | REMARKS |
| | WIDTH | HEIGHT | | Type A | MATERIAL | HEAD | JAMB | SILL | |
| 001 | 4' - 8" | 4' - 0" | FIXED GLASS / DOUBLE PANE, LOW-E GLASS, TINTED | | ALUMINUM | 1:A3.01 | 2:A3.01 | 3:A3.01 | ANODIZED / DARK BRONZE EXT - PAINT GRAY INT NOTE 4 |

KAWNEER TRIFAB 450 SERIES ALUMINUM STOREFRONT WINDOWS OR OLDCASTLE EQUAL.
GLASS TO BE SOLARBronZE 60.



FINISH SCHEDULE NOTES:

- NOTE 1. PAINT EXPOSED WALL SURFACE (GWB OR PWD).
- NOTE 2. PAINT EXPOSED CEILING.
- NOTE 3. ALL INTERIOR FINISHES ARE TO MEET TABLE 803.5 OF THE NCBC.
- NOTE 4. INTERIOR PAINT COLOR TO BE SEMI GLOSS ENAMEL WHITE (SW 7006 "EXTRA WHITE") EXCEPT WHERE NOTED.
- NOTE 7. SEE STRUCTURAL DWGS FOR DEPRESSED SLAB DETAILS.
- NOTE 8. STAIN - H&C INFUSION REACTIVE CONC. STAIN (SIENNA RED 40.002084).
- NOTE 9. SEALER - H&C PRO SERIES SOLVENT BASED DECORATIVE CONC. SEALER (CLEAR).
- NOTE 10. ALL INTERIOR TRIM TO BE "INDUSTRIAL GRAY" (SW 7017 "DORIAN GRAY").
- NOTE 11. ALL INTERIOR WALL PAINT AT TOILET ROOM TO BE ACRYLIC WASHABLE SEMI-GLOSS ENAMEL PAINT.

DOOR HARDWARE SET NOTES (ALL FIN. HARDWARE TO BE ADA COMPLIANT):

- SET 1 1 1/2 PAIR HINGES NRP MORTISED DEADBOLT AND LOCKSET COMBINED WITH THUMB TURN INSIDE AND KEYED OUTSIDE. ONE ACTION OPERATED BOTH BOLT AND LOCKSET.

CLOSER
FULL WEATHERSTRIP
SWEEP
RAIN DRIP ON FRAME OVERHEAD
THRESHOLD
SILENCERS
FLOOR STOP

- SET 2 1 1/2 PAIR HINGES.

LOCKSET - KEYED OUTSIDE, PUSH BUTTON INSIDE
CLOSER
FLOOR STOP - COOR. LOCATION W/ AC UNIT
SILENCERS

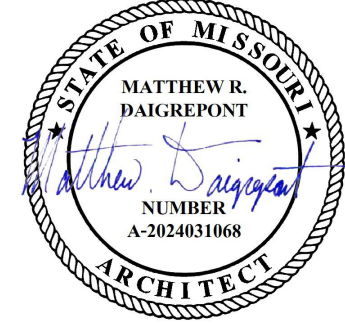
- SET 3 1 1/2 PAIR HINGES.

LOCKSET - KEYED OUTSIDE, PUSH BUTTON INSIDE
CLOSER
WALL STOP
SILENCERS
TACTILE SIGN W/ INTERNATIONAL SYMBOL: MEN/WOMEN

- SET 4 1 1/2 PAIR HINGES.

LOCKSET - PASSAGE
1 STOP - FLOOR MTD.
CLOSER
SILENCERS

NOTE: ALL FIN. HARDWARE TO BE ADA COMPIOANT.



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Scales as stated hereon are valid on the original drawing only.

These plans were prepared in this office under our personal supervision, and to the best of our knowledge comply with state and local codes. Will generally administer construction.

By: Matthew Baigrepost

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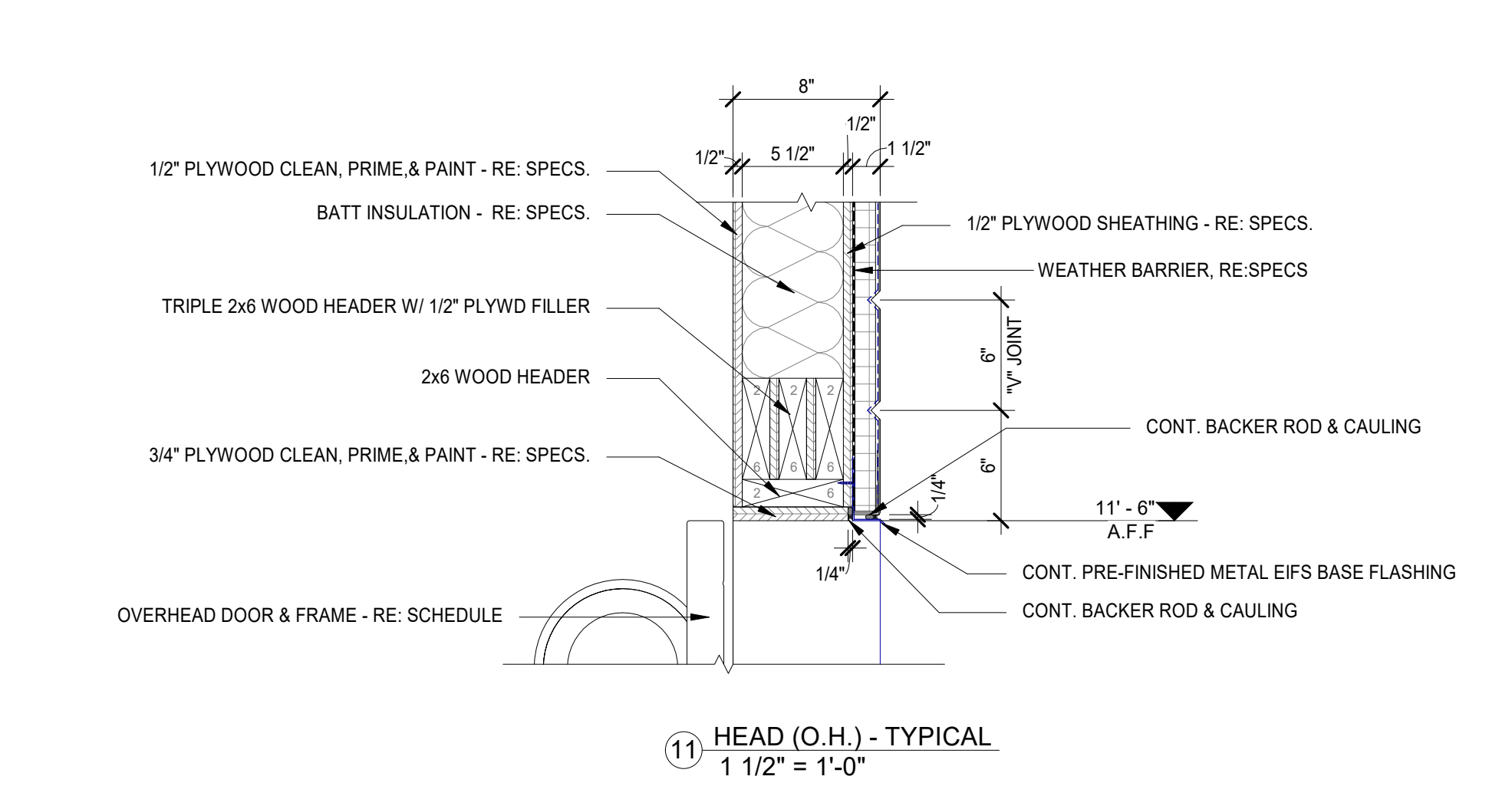
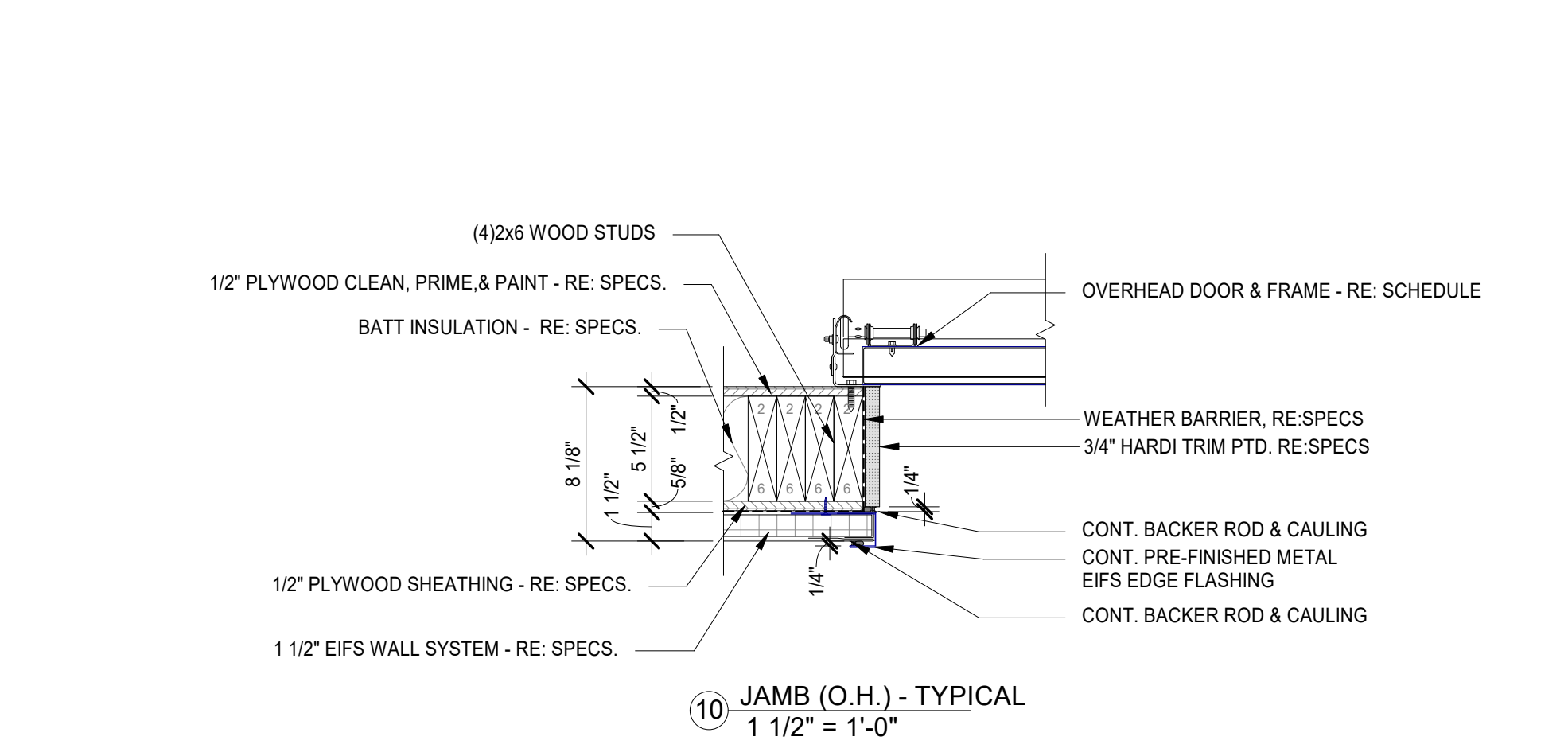
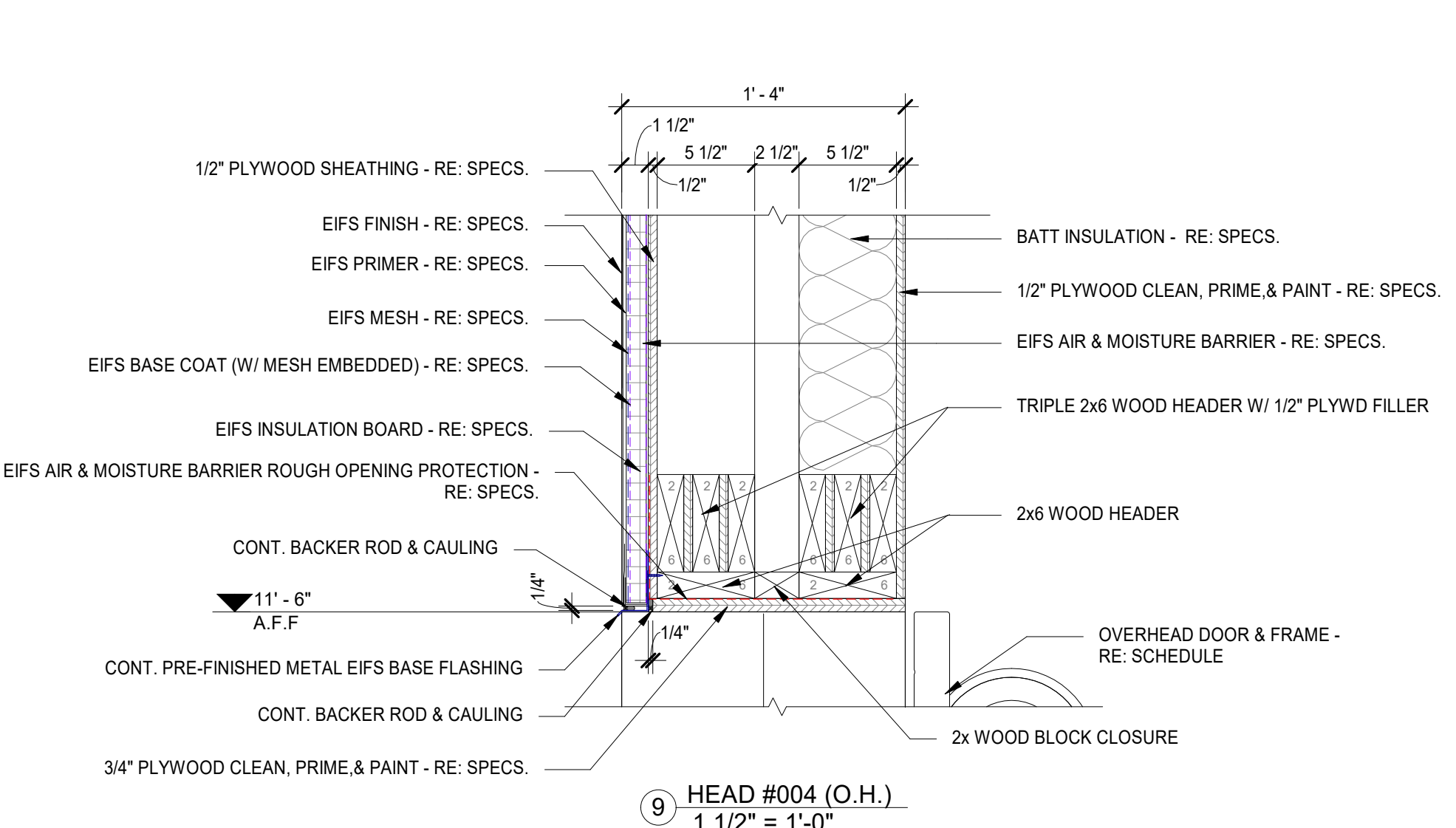
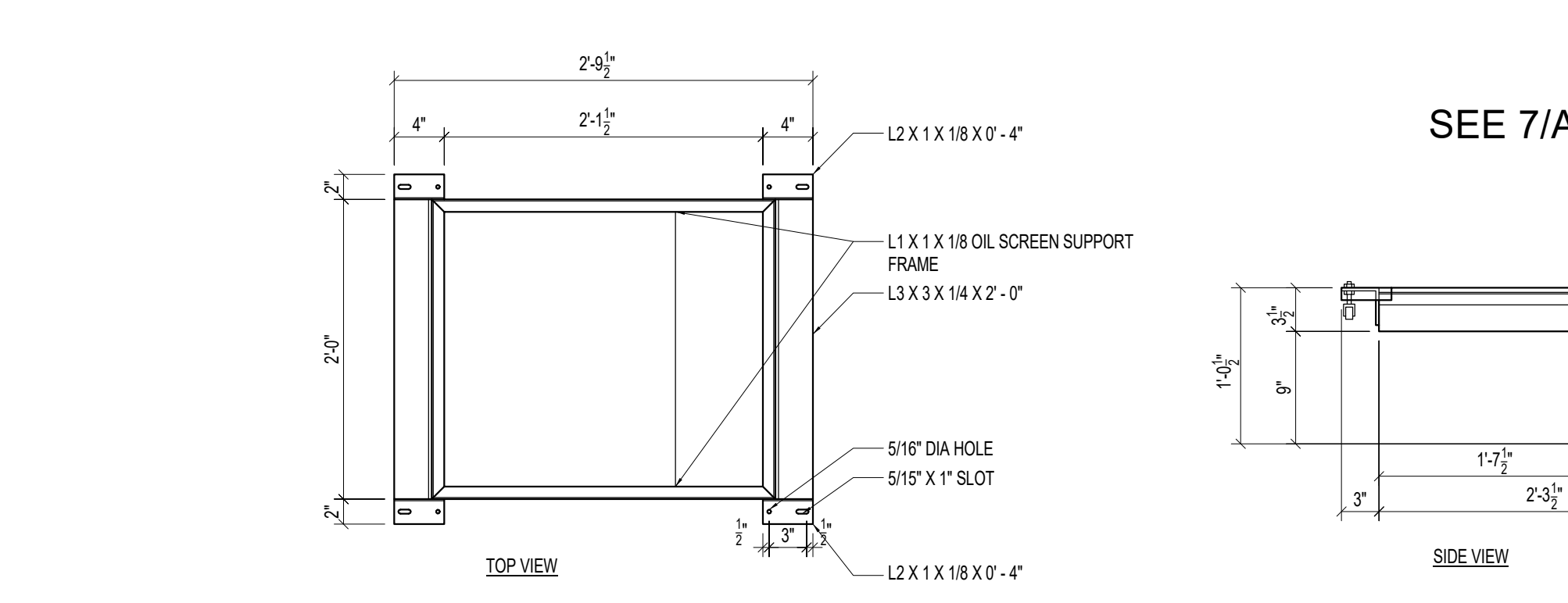
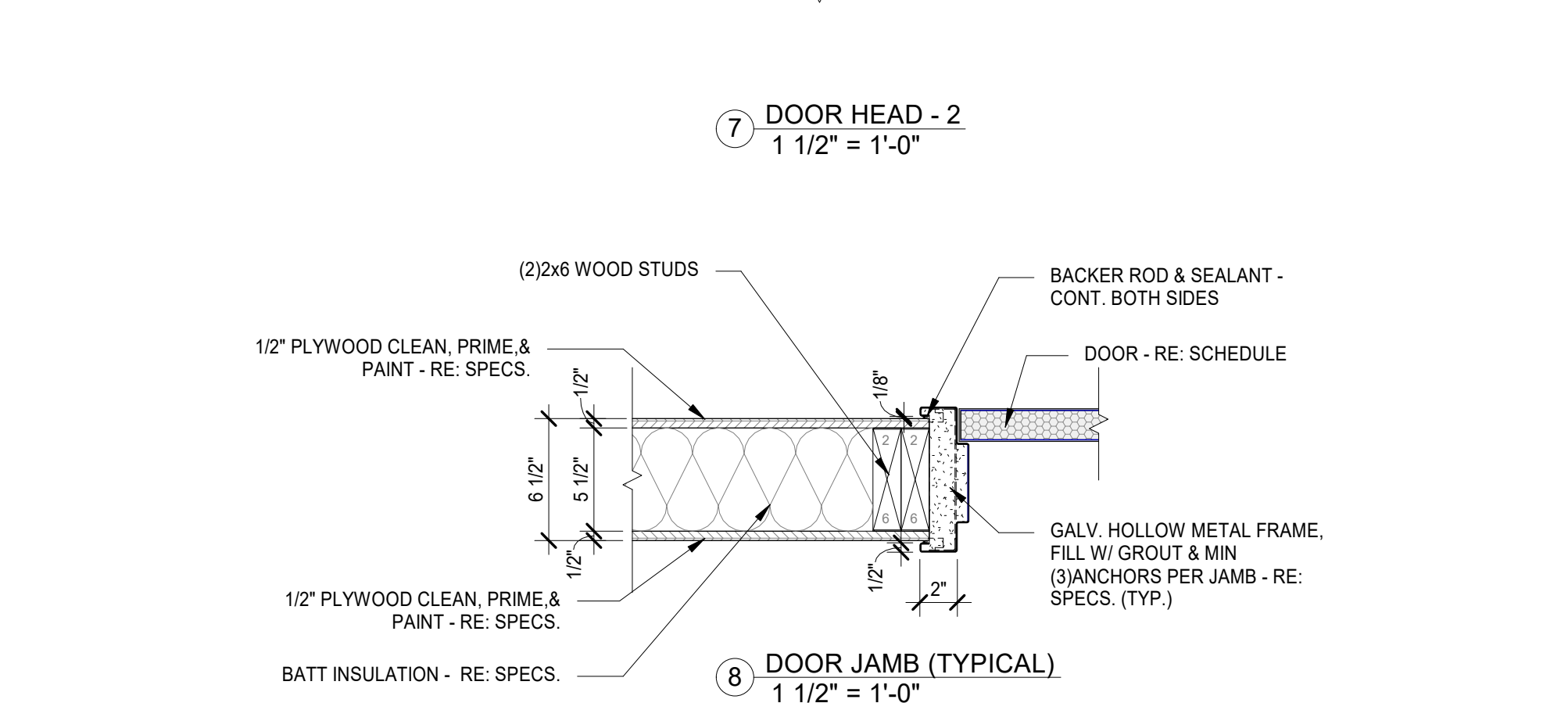
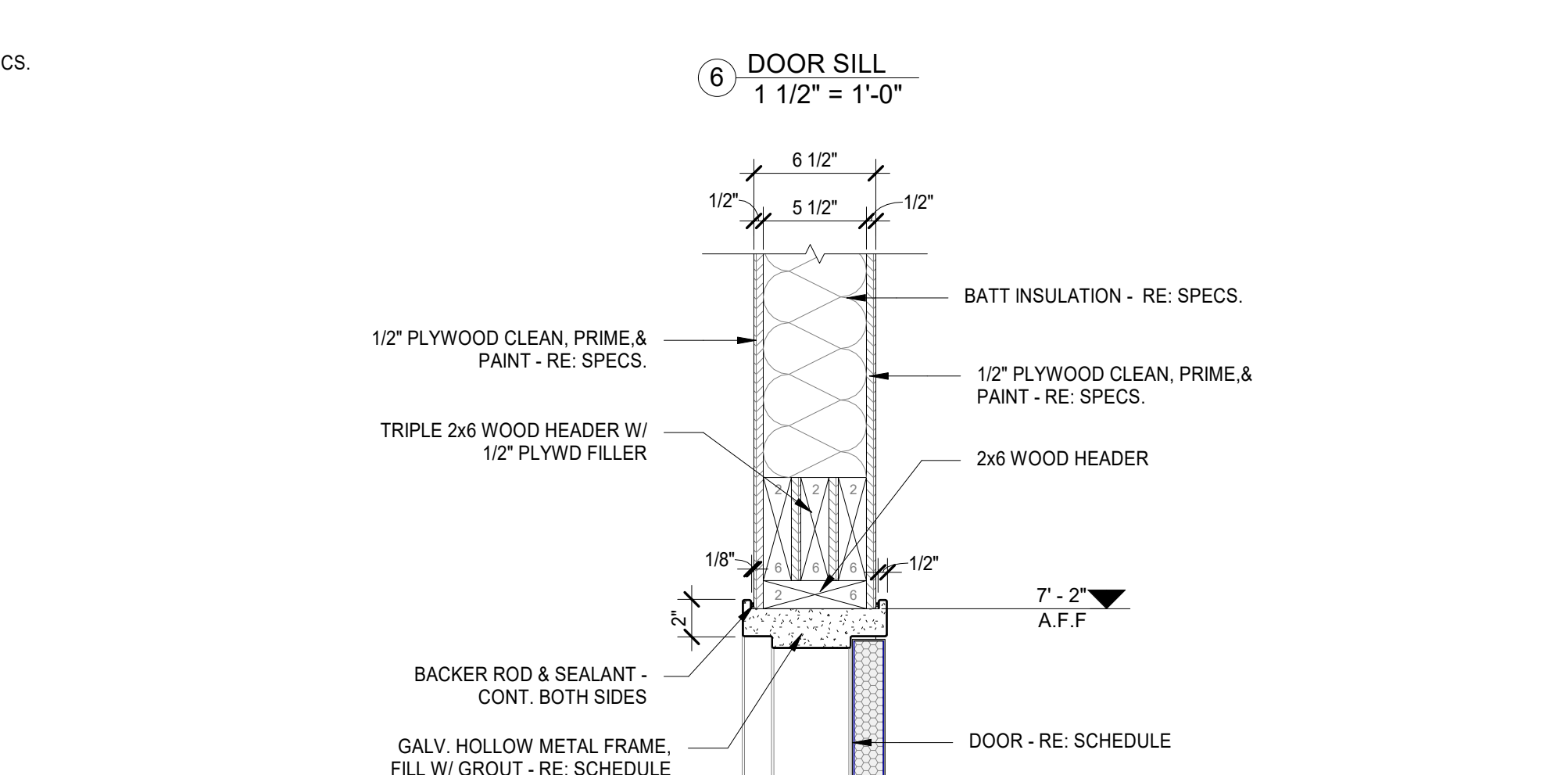
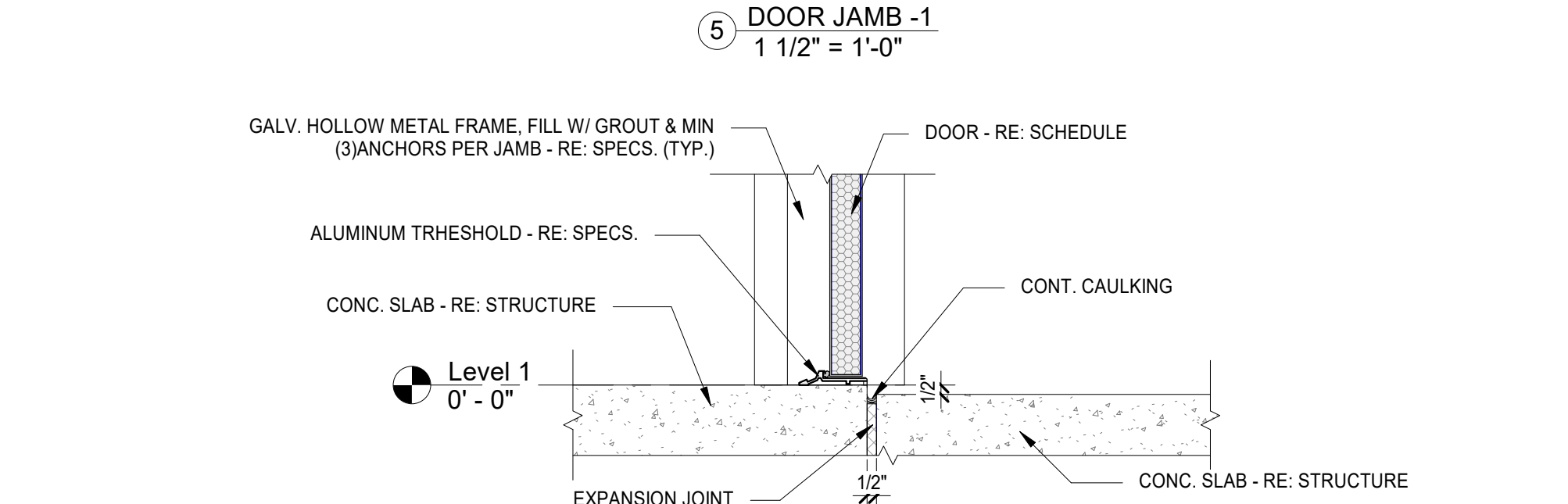
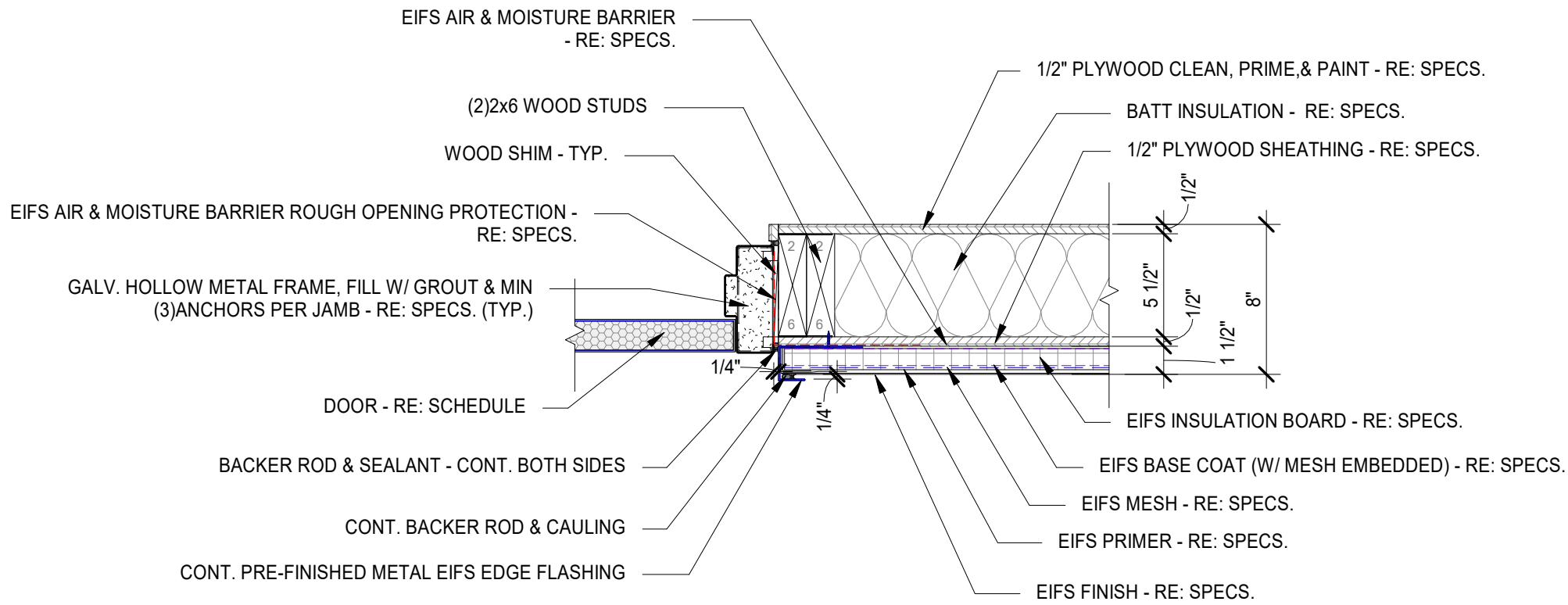
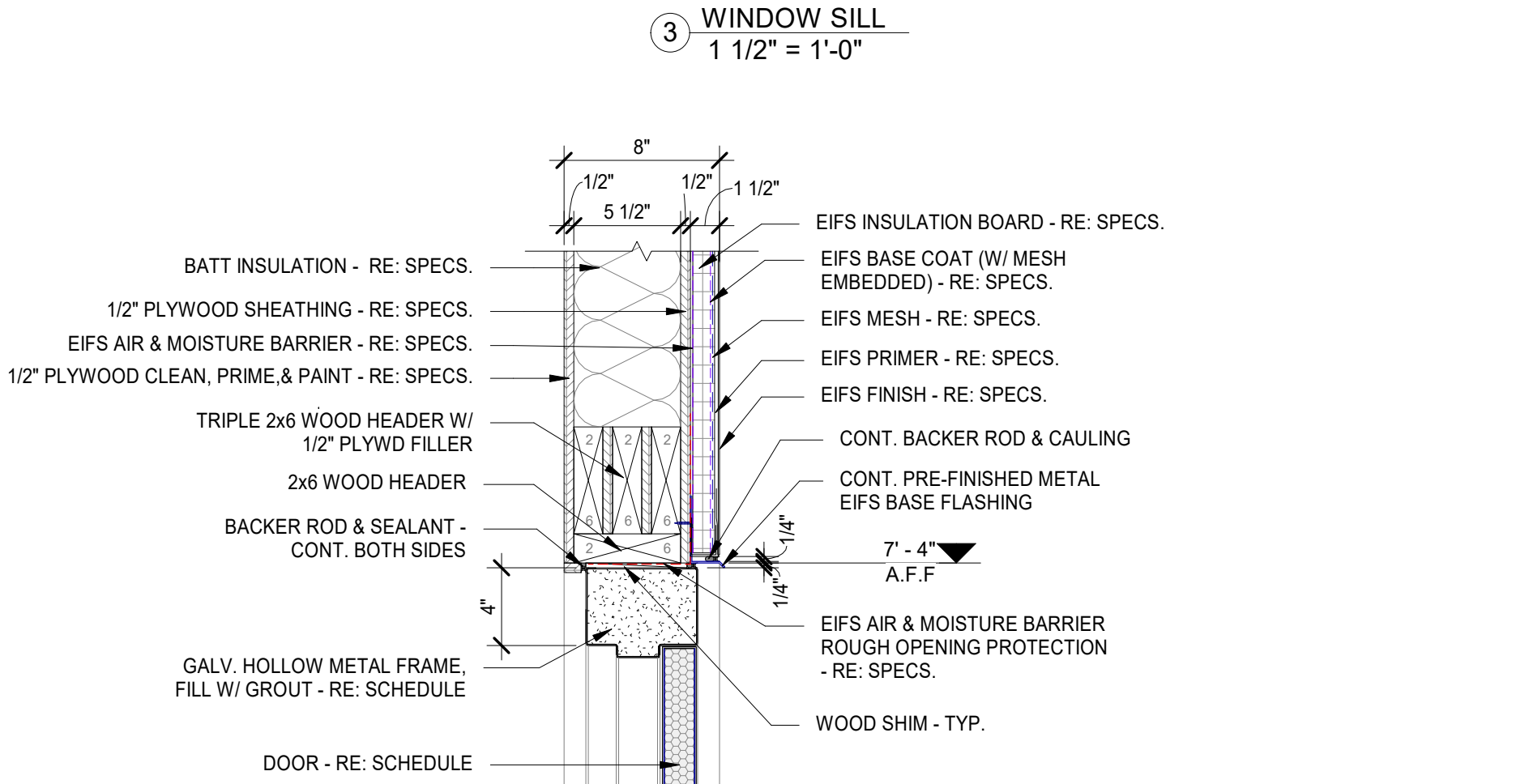
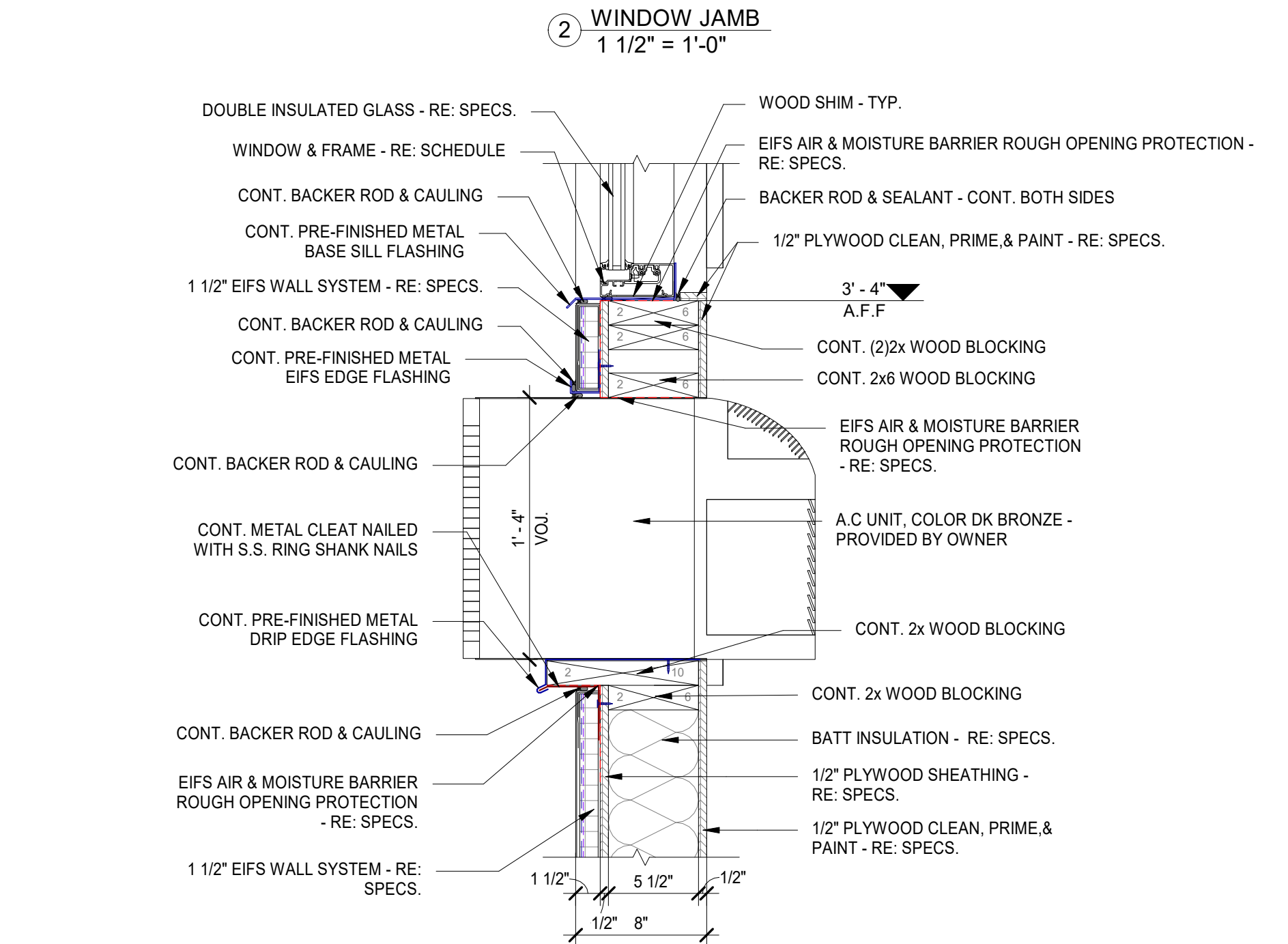
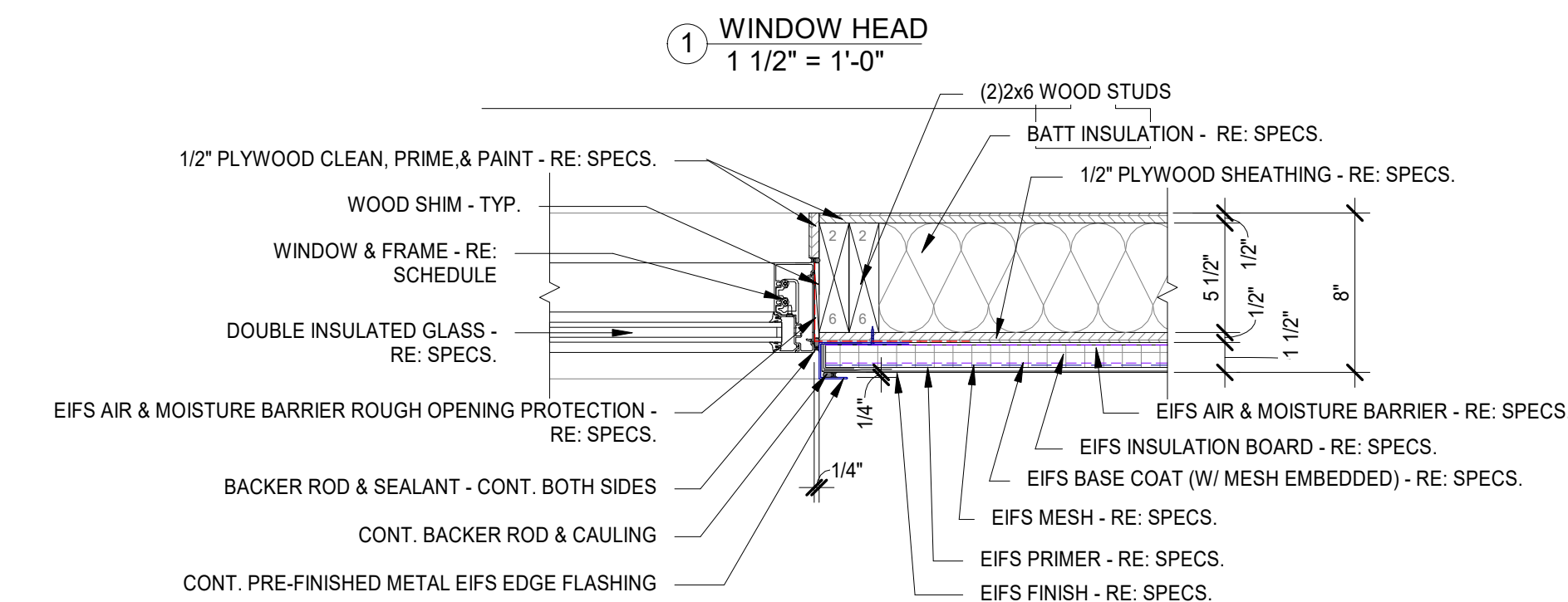
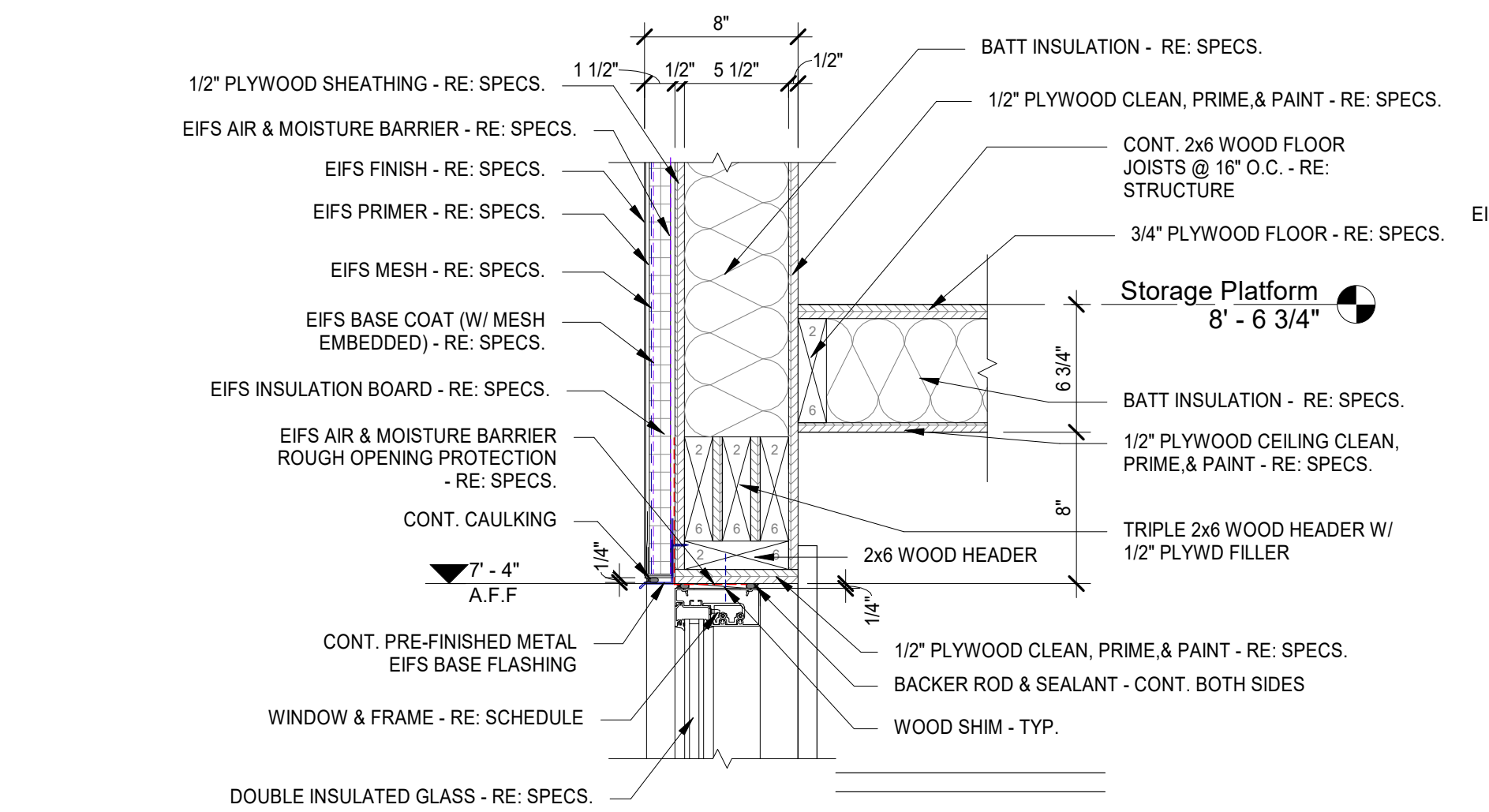
New Construction For
Take 5 Oil Change
400 NE M State Route 291
Lee's Summit, Missouri 64086



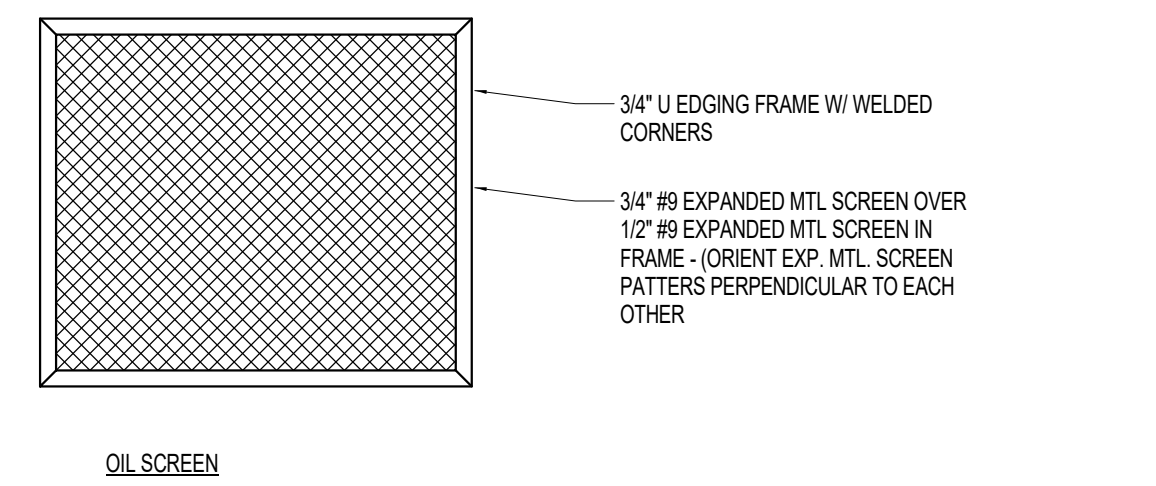
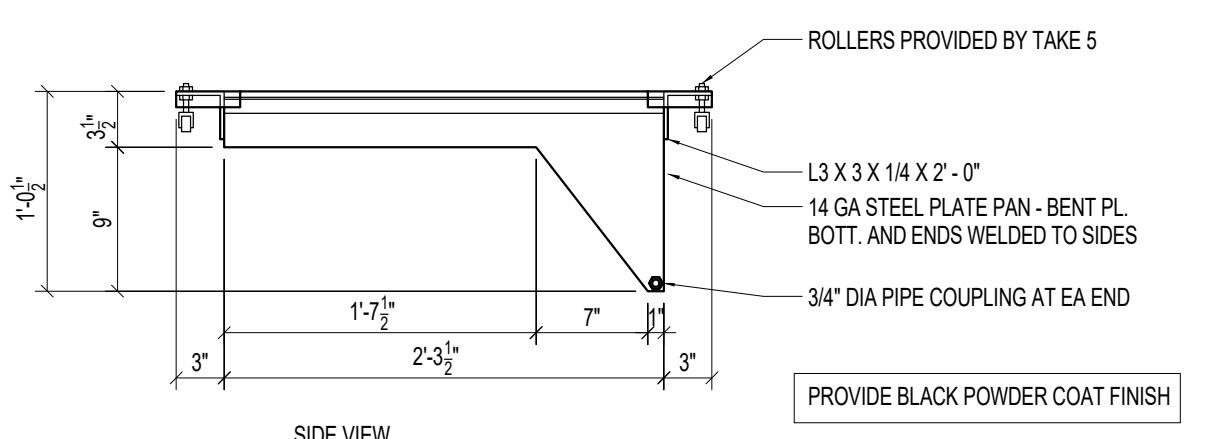
PROJECT NO: 33-006-22
PHASE: Final Dev. Submittal
DATE: 8 July, 2024
PROJ. ARCHITECT: MRD

Schedules - Room,
Door,& Window

SHEET NO.
A3.00
OF



SEE 7/A5.11 FOR PIT FRAME DETAILS



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By: *Matthew Baigrepost*

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**New Construction For
Take 5 Oil Change**
400 NE M State Route 291
Lee's Summit, Missouri 64086



PROJECT NO: 33-006-22
PHASE: Final Dev. Submittal
DATE: 8 July, 2024
PROJ. ARCHITECT: MRD
**Door & Window
Details**
SHEET NO.
A3.01
OF

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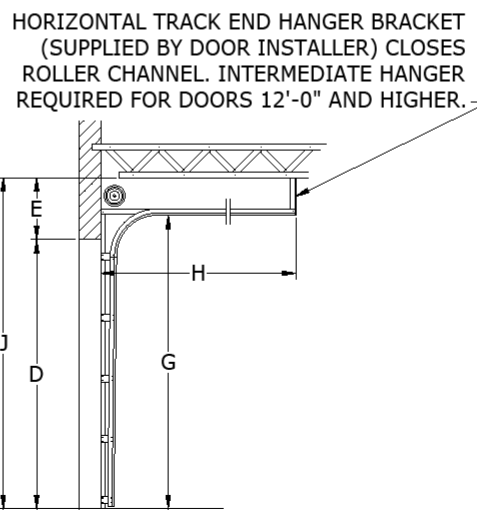
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| DOOR CONFIGURATION | | | | | WEIGHT (LBS) | SPECIAL NOTE: THE DESIGN OF THE SUPPORTING STRUCTURAL ELEMENTS SHALL BE THE RESPONSIBILITY OF THE PROFESSIONAL OF RECORD FOR THE BUILDING OR STRUCTURE IN ACCORDANCE WITH CURRENT BUILDING CODES. |
|--------------------|--------|---------|-------|--------|-----------------|---|
| MODEL | DESIGN | GLAZING | INSUL | FINISH | | |
| 3728 | W1 | TEMP18 | PUR | CHOCLT | 303 | |

MODEL 3728W1

SECTIONS ARE 2" THICK FOAMED IN PLACED (FIP) SLABS WITH A POLYURETHANE INSULATION INNER CORE WITH TWO STEEL SKINS ENCAPSULATING THE FOAM.

ACTUAL DOOR HEIGHT IS APPROX. 1" OVER BECAUSE OF JOINTS BETWEEN SECTIONS PLUS BOTTOM ASTRAGAL.



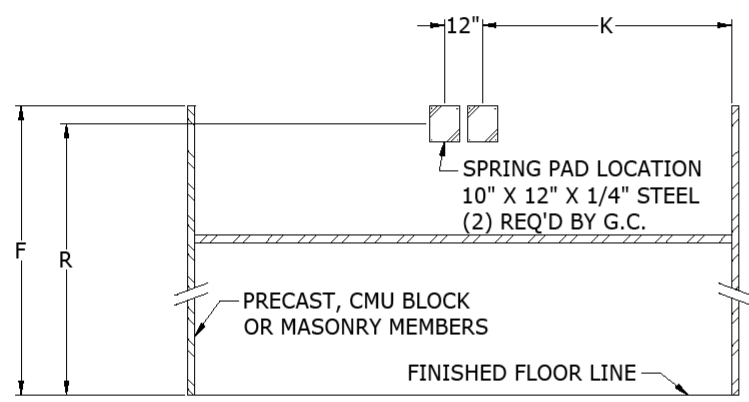
SIDE ELEVATION
STANDARD LIFT
TRACK DETAIL

NOTE: REFER TO THE APPROVED WINDLOAD INSTALLATION DRAWING FOR JAMB CONNECTION DETAILS OR REFER TO DASHA TECHNICAL DATA SHEET #161 FOR DETAILS ON JAMB CONNECTION FASTENERS AND MOUNTING SCHEDULES.

| DIM. | DESCRIPTION | DIMENSIONS |
|------|---------------------------|------------|
| A | DOOR WIDTH | 10'-2" |
| B | OPENING WIDTH | 10'-0" |
| C | DOOR HEIGHT | 11'-6" |
| D | OPENING HEIGHT | 11'-6" |
| E | HEADROOM (MIN.) | 1'-5" |
| F | JAMB HEIGHT (MIN.) | 12'-11" |
| G | OVERHEAD CLEARANCE | 12'-1" |
| H | BACKROOM (MIN.) | 13'-5" |
| J | FLOOR TO CEILING (MIN.) | 12'-11" |
| K | SPRING PAD OFFSET 1 | 4'-6" |
| L | SPRING PAD OFFSET 2 | 0'-5" |
| M | TRACK SIDEROOM | 0'-5" |
| N | COUNTERBALANCE SIDEROOM | 0'-5" |
| R | SHAFT CENTER LINE | 12'-8" |
| S | TRACK BACKROOM (AT FLOOR) | 0'-5.5" |

JAMB DETAILS

INSIDE WALL ELEVATION OPENING PREPARATION



IMPORTANT! This document must be signed and returned prior to any fabrication. Please reference this drawing number on all correspondence. Thank you!

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| | | | |
|------------------------------------|----------------|------------------------------|----------------|
| ESTIMATE: | DOOR TAG: | APPROVAL SIGNATURE: | APPROVAL DATE: |
| DRAWN BY: ASD | DATE: 02-18-25 | | |
| CUSTOMER: CORNELL STOREFRONT SYSTE | | DRAWING NUMBER: 17121762-1-1 | |
| JOB: New Take 5 Spec | | | |
| CSR/DC: DKRIEGER | | | SHEET: 1 OF 2 |

NOTES:

- (ONE) DOOR 10'-2" x 11'-6"
- DOOR TO BE SUPPLIED WITH 50,000 CYCLE TORSION SPRINGS.
- DOOR TO BE SUPPLIED WITH CONTINUOUS ANGLE MOUNTED, 2" GALVANIZED STEEL TRACK WITH 15" RADIUS STANDARD LIFT.
- DOOR TO HAVE (2) PLAIN LONG 42 X 16 LITES (PER GLAZED SECTION) OF 1/8 TEMPERED GLASS LOCATED AS SHOWN.
- DOOR TO MEET OR EXCEED +/- 13.5 PSF DESIGN WINDLOAD AND A +/- 20 PSF TEST WINDLOAD REQUIREMENT.
- DOOR TO HAVE ONE INTERIOR MOUNTED #2 END STILE SLIDE BOLT DOOR LOCK.
- DOOR TO HAVE VINYL TOP WEATHER SEAL.

4 3 2 1

CLOPAY 3717W1, 3718W1 (1.75"); 3720W1, 3722W1, 3724W1 (2"); 3730W1 (3"); 3728W1, 3729W1 (CONTEMPORARY)
CORNELL EX3717LW1, EX3718LW1 (1.75"); EX3720LW1, EX3722LW1, EX3724LW1 (2"); EX3728LW1, EX3729LW1 (CONTEMPORARY)
COOKSON EX3717NW1, EX3718NW1 (1.75"); EX3720NW1, EX3722NW1, EX3724NW1 (2"); EX3728NW1, EX3729NW1 (CONTEMPORARY)
HOLMES 240UW1, 244UW1 (2")
IDEAL C7X17W1, C7X18W1 (1.75"); C7X20W1, C7X22W1, C7X24W1 (2")

MAX DOOR SIZE
12'-2" WIDE X 18'-0" HIGH

OPTIONAL FULL VIEW SECTIONS AVAILABLE. REF. TABLE BELOW FOR FV SECTION REINFORCEMENT REQUIREMENTS.

| MODEL | WIDTH | GLAZING TYPE | REINFORCEMENT |
|-----------------------------|--------------|--------------|--------------------------------|
| 'CLASSIC' 1-3/4" SECTIONS | UP TO 11'-2" | ALL LT/HZY. | NONE |
| 'CONTEMPORARY' FV200/FV200U | UP TO 12'-2" | ALL HVY. | (1) 1-1/4" ALUM. ANGLE/SECTION |

STANDARD WINDOW LITES AVAILABLE FOR ALL MODELS NOT TO EXCEED 42X16. CONTEMPORARY MODELS HAVE LITES UP TO 42X16 AVAILABLE IN ALL PANELS ALL SECTIONS. GLAZING SHALL BE 10B OR BETTER.

ONE POINT (MIN) LOCKING

END STILE

SLIDE BOLT LOCK ENGAGES INTO VERTICAL TRACK. ONE LOCK ON EITHER SIDE OF DOOR.

ATTACHMENT ILLUSTRATIONS

SEE "JAMB" FOR JAMB CONNECTION DETAILS.

STOP MOUNTING BY DOOR INSTALLER (TO SUIT)

MIN. 18 GA. GALV. STEEL END STILE (END STILES HELD BY HINGE SCREWS). EX MODELS REQUIRE DOUBLE END STILES AND DOUBLE END HINGES. SEE DETAIL A.

2" GALV. STEEL TRACK FASTENED TO 12 GA. GALV. STEEL TRACK BRACKET FASTENED TO JAMB BRACKET WITH (4) 1/4" BOLTS AND ONE 1/4" BOLT & NUT.

14 GA. GALV. STEEL INTER. HINGE FASTENED TO JAMB WITH (4) 1/4" BOLTS AND ONE 1/4" BOLT & NUT.

14 GA. GALV. STEEL ROLLER HINGE FASTENED TO END STILES WITH (4) EACH #14x5/8" SHEET METAL SCREWS. EX MODELS REQUIRE DOUBLE END STILES AND DOUBLE END HINGES. SEE DETAIL A.

2" STEEL ROLLER. EX MODELS REQUIRE TANDEM ROLLERS. SEE DETAIL A.

14 GA. HINGE

HINGE DETAIL

USED ON BOTH STANDARD AND EX MODELS

#14 X 5/8" SHEET METAL SCREWS QTY (4) ALONG CENTER OF EACH HINGE

MANUFACTURING PRODUCT CODE C-DSU-1D477

Third Angle Projection

Unless Stated Otherwise TOLERANCES are:
.0 = ±.031
.00 = ±.015
.000 = ±.005
.0000 = ±.001
Degrees = ±1/2°
Unless Stated Otherwise DIMENSIONS ARE IN INCHES.

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Tel. No. 513-770-4800
Fax No. 513-770-4853

DESCRIPTION: INTELLICORE W1 DOORS 12" WIDE
DRAWN BY: BFA
CHECKED BY: SH
DATE: 2/12/08
SCALE: N/A
DWG. NO.: 104091

CLOPAY WINDLOAD RATING W1

SECTION 1 - 1

PART NO.: -

CLOPAY WINDLOAD RATING W1

TEST LOADS +20 & -20 PSF

DESIGN LOADS: +13.5 & -13.5 PSF

REVISIONS

| REV. NO. | ZONE: | DATE: | ECN NO. | APPVD: | DESCRIPTION |
|----------|-------|---------|---------|--------|---------------------------------|
| 02 | - | 11/2017 | - | - | ADDED CONTEMPORARY MODELS. |
| 03 | - | 02/2021 | EN2836 | - | ADDED 3" DOOR MODEL 3730. |
| 04 | - | 09/2021 | ER1405 | - | ADDED EX MODELS. |
| 05 | - | 6/6/22 | ER1409 | TES | UPDATED FULL VIEW SECTION INFO. |

SECTIONS ARE 1-3/4" (MIN) THICK PANELS.
EXTERIOR 27 GA. MIN. GALV. STEEL INTERIOR 27 GA. MIN. GALV. STEEL. THE STUCCO EMBOSSED STEEL TEXTURE IS PREPARED WITH A BAKED POLYESTER PAINT. OPTIONAL MINOR RISBS ARE PLACED EVERY 4 INCHES ALONG THE WIDTH OF THE EXTERIOR AND INTERIOR PANELS.

12 GA. GALV. STEEL TOP ROLLER BRACKET. EACH BRACKET ATTACHED WITH (4) 1/4" X 5/8" SHEET METAL SCREWS. ADJUSTABLE SLIDE ATTACHED TO TOP BRACKET WITH (1) 1/4" X 1/2" BOLT AND NUT PER BRACKET.

LHR TOP BRACKET DOUBLE TRACK LOW HEADROOM OPTION

NOTE: DOUBLE TRACK LOW HEADROOM, HI-LIFT TRACK, FOLLOW-THE-ROOF TRACK, AND VERTICAL LIFT TRACK ARE AVAILABLE OPTIONS.

INTERMEDIATE ROLLER HINGES. SEE HINGE DETAIL FOR SPECIFICATIONS.

URETHANE CORE DENSITY 2.4 P.C.F.

DESIGN ENGINEER: MARK WESTERFIELD, P.E.
FLORIDA P.E. #48495
NC P.E. #23832
TEXAS P.E. #91513

DESIGN LOADS: +13.5 & -13.5 PSF
TEST LOADS +20 & -20 PSF

TOP SEAL

2" ROLLERS FEATURE (10) 1/4" STEEL BALL BEARINGS FULL-FLOATING IN CASE HARDENED STEEL RACES

ADJUSTABLE TOP ROLLER BRACKET OF 12 GA. GALV. STEEL FASTENED WITH (4) #14 X 5/8" DRIVE SCREWS

2" THICK EXPANDED POLYSTYRENE FOAM CORE HAS CALCULATED SOLID (NO GLAZING) DOOR SECTIONS R-VALUE OF 18.40, IN ACCORDANCE WITH DASHA TDS-163.

WINDOW LITE OF 1/8" TEMPERED GLASS WITH SCREW TOGETHER CELLULAR PVC FRAME.

ROLLER HINGE OF MIN. 14 GA. GALVANIZED STEEL FASTENED WITH 20 X 5/8" DRIVE SCREWS. REFER TO HINGE DETAIL ON APPROVED WINDLOAD INSTALLATION DRAWING FOR ADDITIONAL SCREWS REQUIRED FOR W1 APPLICATIONS.

DOOR SKINS FORM A WEATHER TIGHT TONGUE AND GROOVE JOINT

WEATHER SEAL

STEEL SKINS (STD. & W1) ARE ROLL FORMED OF MIN. 0.016" (INTERIOR) & MIN. 0.016" (EXTERIOR) COMMERCIAL QUALITY STEEL, STUCCO EMBOSSED, HOT DIP GALVANIZED STEEL PER ASTM A653, PHOSPHATIZED AND FINISHED INSIDE AND OUT WITH BAKED ON EPOXY PRIMER (0.2 MIL) AND A PRE-PAINTED POLYESTER TOP COAT (.8 MIL) ON THE EXTERIOR SIDE

13 GA. GALV. STEEL STEP PLATE/LIFT HANDLE - MOUNTED TO BOTTOM BRACKET

BOTTOM BRACKET OF 12 GA. GALV. STEEL FASTENED WITH (5) #14 X 5/8" DRIVE SCREWS

GALVANIZED AIRCRAFT CABLE & NICO PRESS SLEEVE - SIZED FOR 7X LOAD MIN

BOTTOM ASTRAGAL RETAINER OF EXTRUDED ALUMINUM WITH VINYL ASTRAGAL

BACK-UP PLATE OF 19 GA. GALV. STEEL

END STILE OF 18 GA. GALVANIZED STEEL

EXPANDED POLYETHYLENE FOAM DAM

BACK-UP PLATE

SINGLE END HINGE DETAIL

GAP SEAL

CENTER HINGE OF MIN. 14 GA. GALV. STEEL FASTENED WITH (4) 1/4" - 20 X 5/8" DRIVE SCREWS

GAP SEAL

SECTION JOINT DETAIL

IMPORTANT: PLEASE REFERENCE THE DRAWING NUMBER ON ALL CORRESPONDENCE

| | | | |
|------------------------------------|----------------|------------------------------|----------------|
| DRAWN BY: ASD | DATE: 02-18-25 | APPROVAL SIGNATURE: | APPROVAL DATE: |
| CUSTOMER: CORNELL STOREFRONT SYSTE | | DRAWING NUMBER: 17121762-1-1 | |
| JOB: New Take 5 Spec | | | |
| CSR/DC: DKRIEGER | | | SHEET: 2 OF 2 |

DOOR SPECIFIED BY CLOPAY TAKE 5 OIL CHANGE NATIONAL ACCOUNT MANUFACTURER REPRESENTATIVE.

MEETS WIND SPEED REQUIREMENTS FOR THIS AREA.

CONTACT INFORMATION:

CHRIS REMICK
PHONE: 614-306-9968
EMAIL: CRemick@clopay.com

NOTE 1:

COST OF DOORS SET BY VENDOR AND TAKE 5

New Construction For
Take 5 Oil Change

400 NE M State Route 291
Lee's Summit, Missouri 64086



PROJECT NO: 33-006-22
PHASE: Final Dev. Submittal
DATE: 8 July, 2024
PROJ. ARCHITECT: MRD

Overhead Door
Details

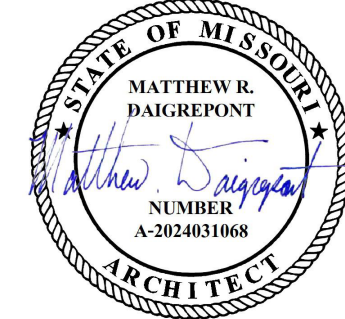
SHEET NO.

A3.02

OF

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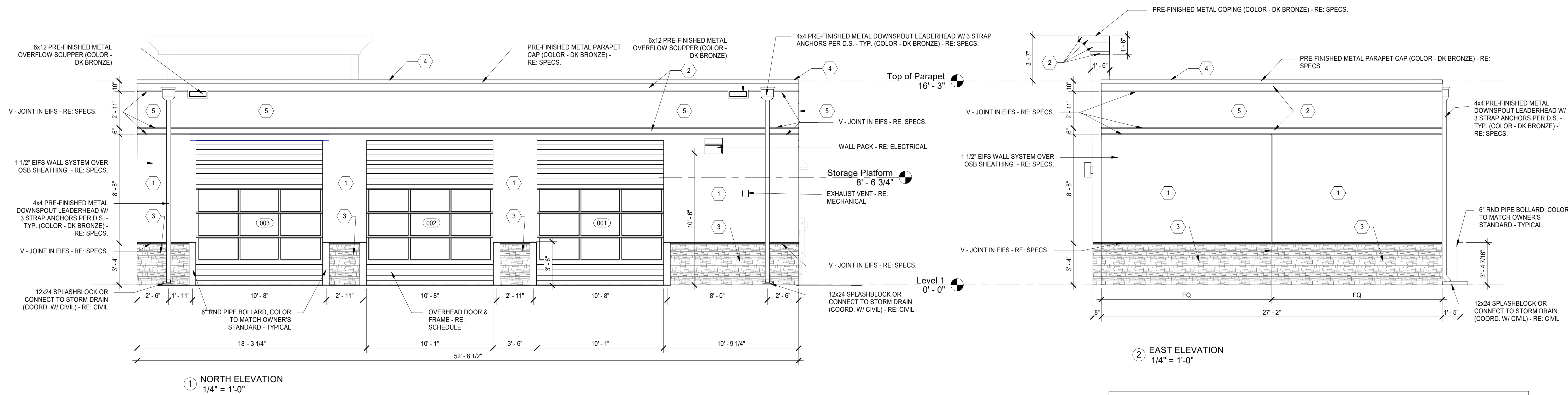
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Scales as stated herein are valid on the original drawing only.

These plans were prepared in the office of our personal supervision, and to the best of our knowledge comply with state and local codes. Will generally administer construction.

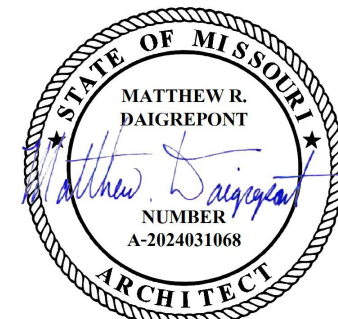
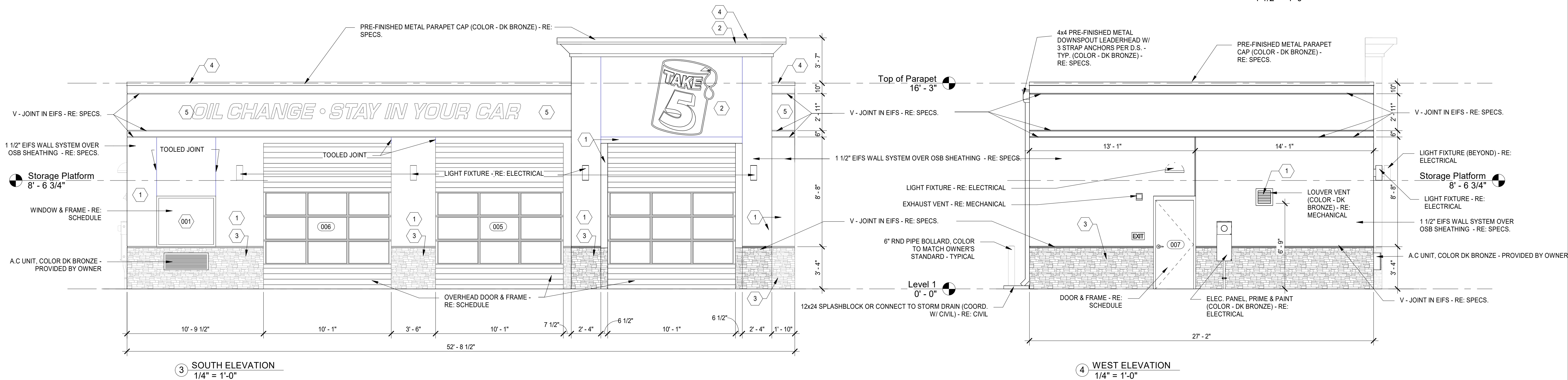
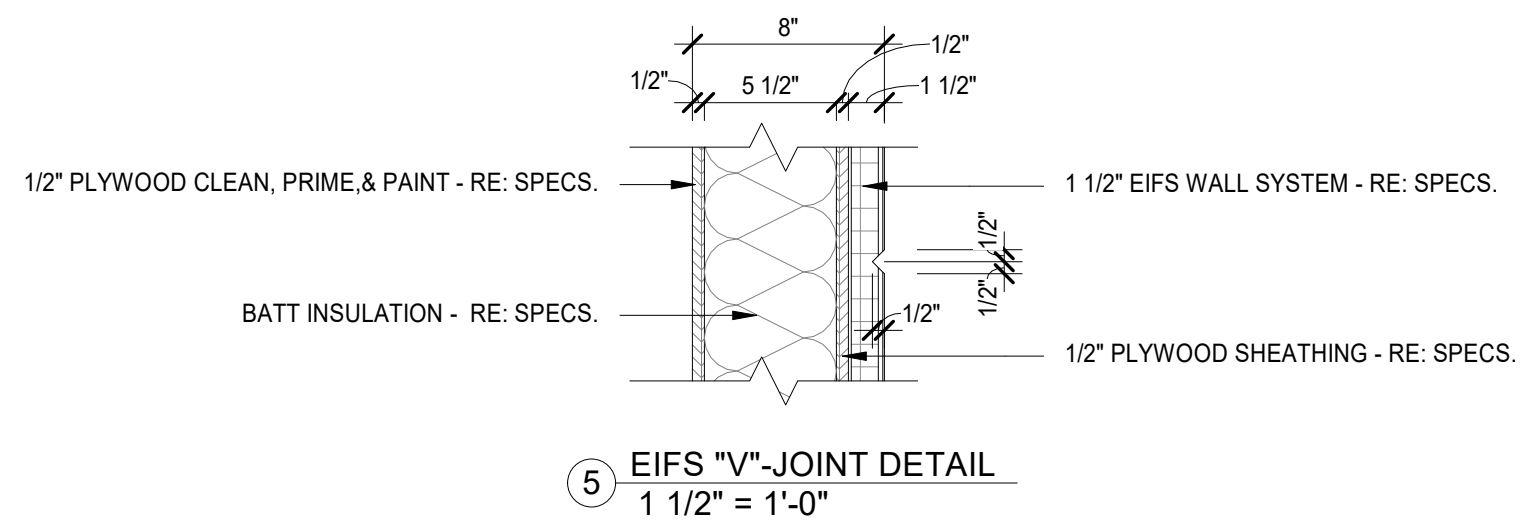
By: Matthew Baugrepost

02/24/25
DATE
1
Revised P City Comment
REVISION
No.



| EXTERIOR FINISH SCHEDULE | | | | |
|--------------------------|---|--|-------------------------------------|---|
| NO. | AREA | COATS | COLOR | FINISH |
| 1 | EIFS OR STUCCO MAIN COLOR | SEE SPECIFICATION & MANUFACTURER'S REQ'MENTS | MATCH SW COLOR #7693, STONEBRIAR | FINISH TO MATCH STO "MEDIUM SAND" OR DRYVIT "SANDPEBBLE FINE" |
| 2 | EIFS OR STUCCO ACCENT BAND AND FACE EIFS OR STUCCO CORNICE | SEE SPECIFICATION & MANUFACTURER'S REQ'MENTS | MATCH SW COLOR #7678, COTTAGE CREAM | FINISH TO MATCH STO "FINE SAND" OR DRYVIT "SANDBLAST" |
| 3 | CULTURED STONE WAINSCOT | SEE SPECIFICATION & MANUFACTURER'S REQ'MENTS | VERIFY COLOR WITH OWNER | VERIFY COLOR WITH OWNER |
| 4 | COPING | SEE SPECIFICATION & MANUFACTURER'S REQ'MENTS | MATCH SW COLOR #6871, POSITIVE RED | FINISH TO BE KYNAR 500 PREFINISHED |
| 5 | EIFS OR STUCCO SECONDARY COLOR | SEE SPECIFICATION & MANUFACTURER'S REQ'MENTS | MATCH SW COLOR #6871, POSITIVE RED | FINISH TO MATCH STO "MEDIUM SAND" OR DRYVIT "SANDPEBBLE FINE" |
| 6 | | | | |
| 7 | BOLLARDS | SEE SPECIFICATION & MANUFACTURER'S REQ'MENTS | MATCH SW COLOR #6871, POSITIVE RED | ----- |

- EXTERIOR FINISH NOTES:
- EIFS TO BE STO THERM CI CLASSIC, DRYVIT OUTSULATION PLUS MD OR APPROVED EQUAL.
 - EIFS TO HAVE ULTRA-HIGH IMPACT MESH TO 4'-0" AFF.
 - VENEER STONE - BORAL PRO FIT, SOUTHERN LEDGESTONE, COLOR - "BUCKS COUNTY" CONTRACTOR TO PROVIDE SAMPLES AND OBTAIN APPROVAL FROM OWNER PRIOR TO ORDERING
 - EIFS TO HAVE STANDRADRD IMPACT MESH ABOVE 8'-0" AFF.
 - METAL ROOF TO BE ATAS DUTCH SEAM OR BERRIDGE MANUF. WITH DEEP VEE PANELS AND 2" BATTEN CAPS.
 - METAL ROOF PANELS TO BE 24 GA. GALVALUME WITH KYNAR 500, 2.0 MILS THICK FLOUROCARBON FINISH.
 - METAL COPING TO BE PREFINISHED, 24 GA. GALVALUME WITH KYNAR 500, 2.0 MILS THICK FLOUROCARBON FINISH.



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By: Matthew D. Wright

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**New Construction For
Take 5 Oil Change**



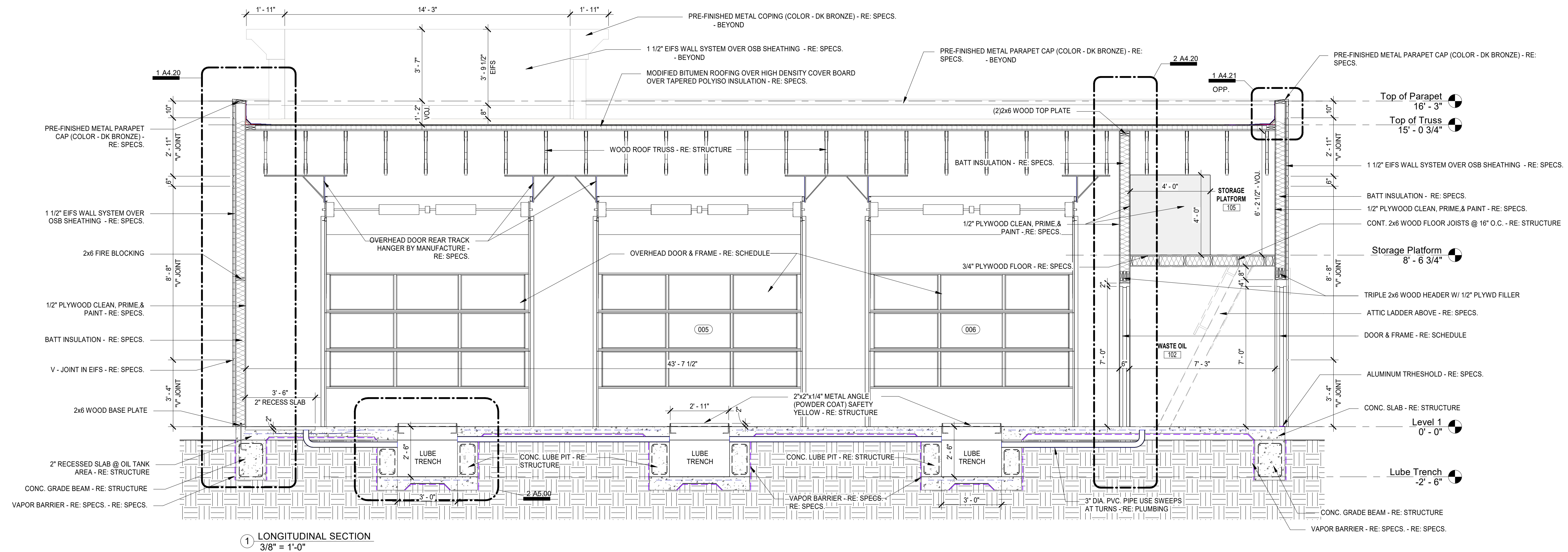
| | |
|------------------|----------------------|
| PROJECT NO: | 33-006-22 |
| PHASE: | Final Dev. Submittal |
| DATE: | 8 July, 2024 |
| PROJ. ARCHITECT: | MRD |

Bldg Elevations

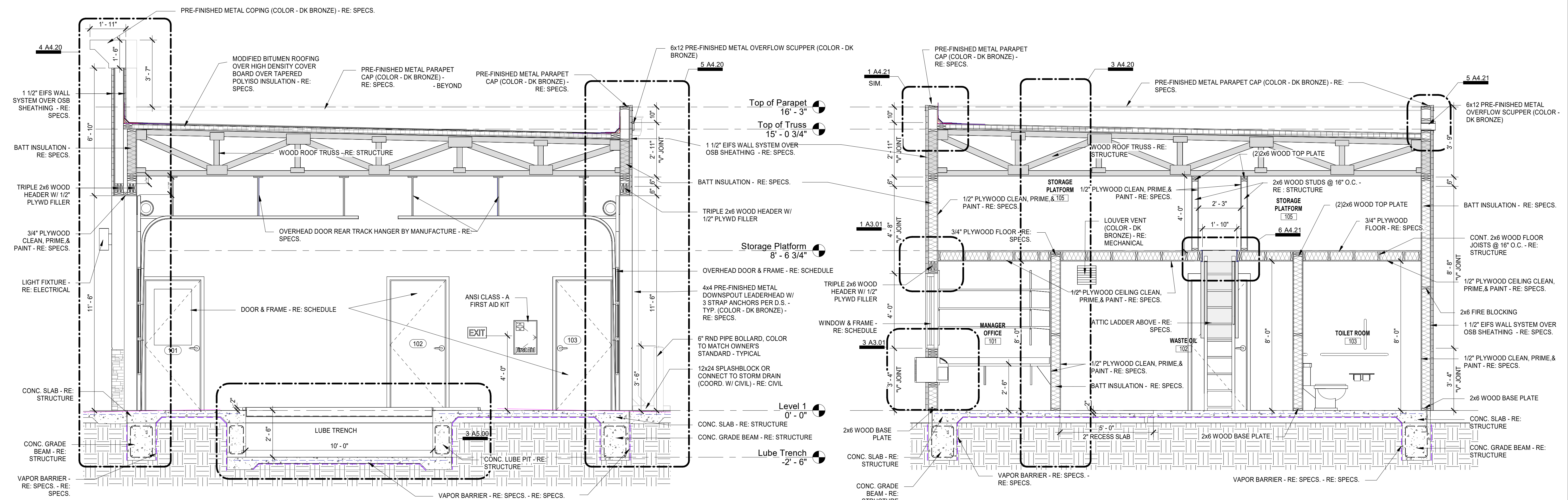
SHEET NO.

A4.00

OF



② TRANSVERSE SECTION - SERVICE BAY
3/8" = 1'-0"



③ TRANSVERSE SECTION - OFFICE
3/8" = 1'-0"



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plans were prepared in this office under personal supervision, and to the best of our knowledge comply with state and local codes. I hereby administer construction.

Matthew Driscoll

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Take 5 Oil Change
400 NE M State Route 291
Lee's Summit, Missouri 64086



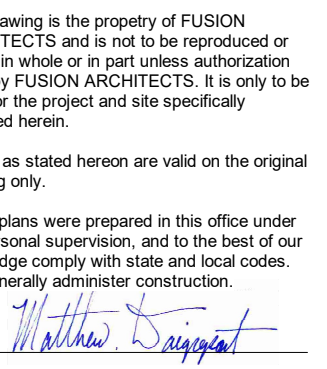
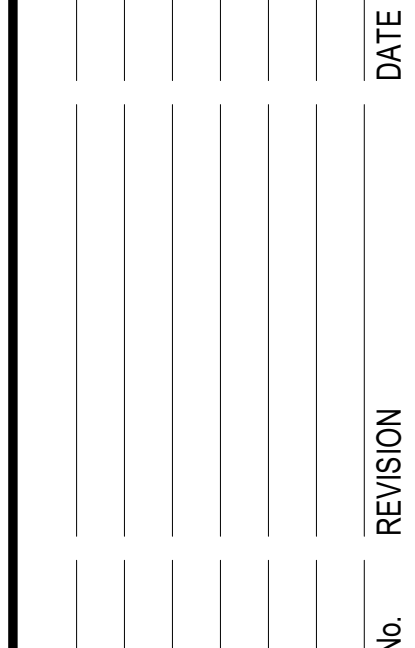
| | |
|--------------|----------------------|
| PROJECT NO: | 33-006-22 |
| USE: | Final Dev. Submittal |
| DATE: | 8 July, 2024 |
| DESIGNED BY: | J. ARCHITECT: MRD |

Bldg Sections

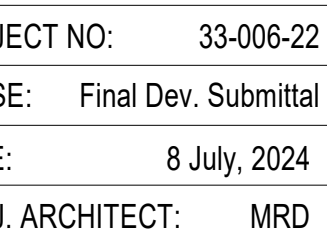
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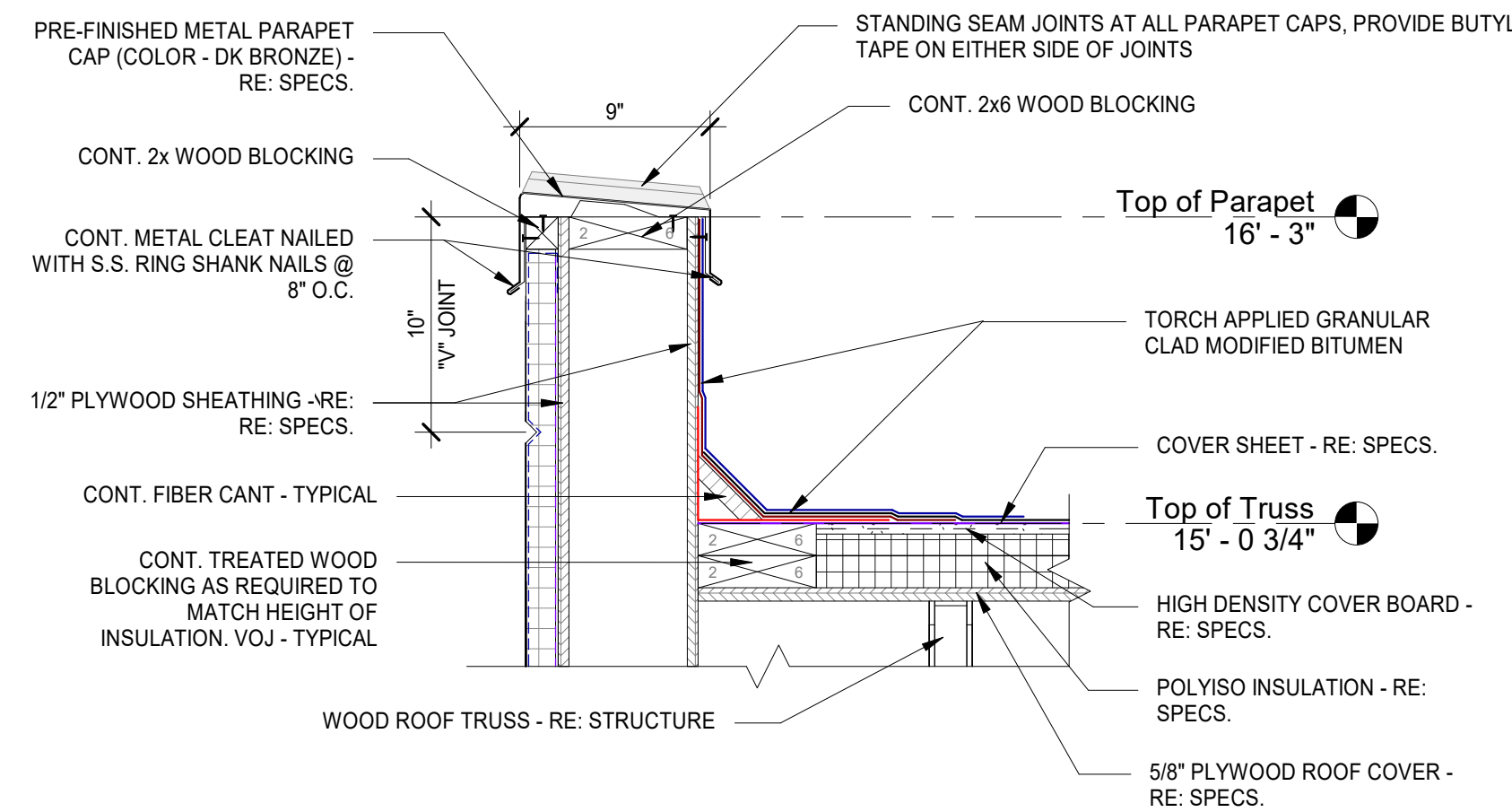
2 A4.21



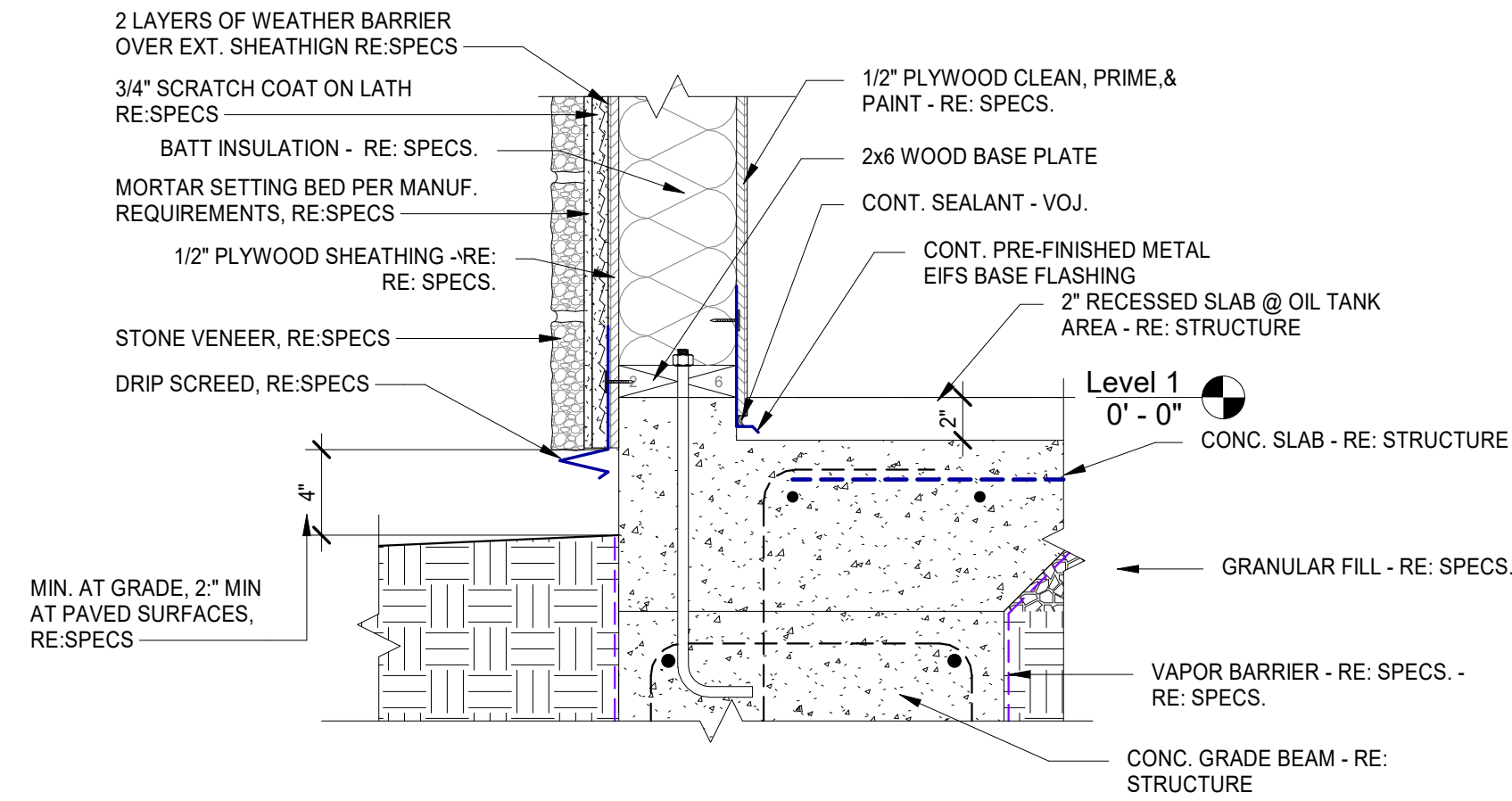
Take 5 Oil Change
400 NE M State Route 291
Lee's Summit, Missouri 64086



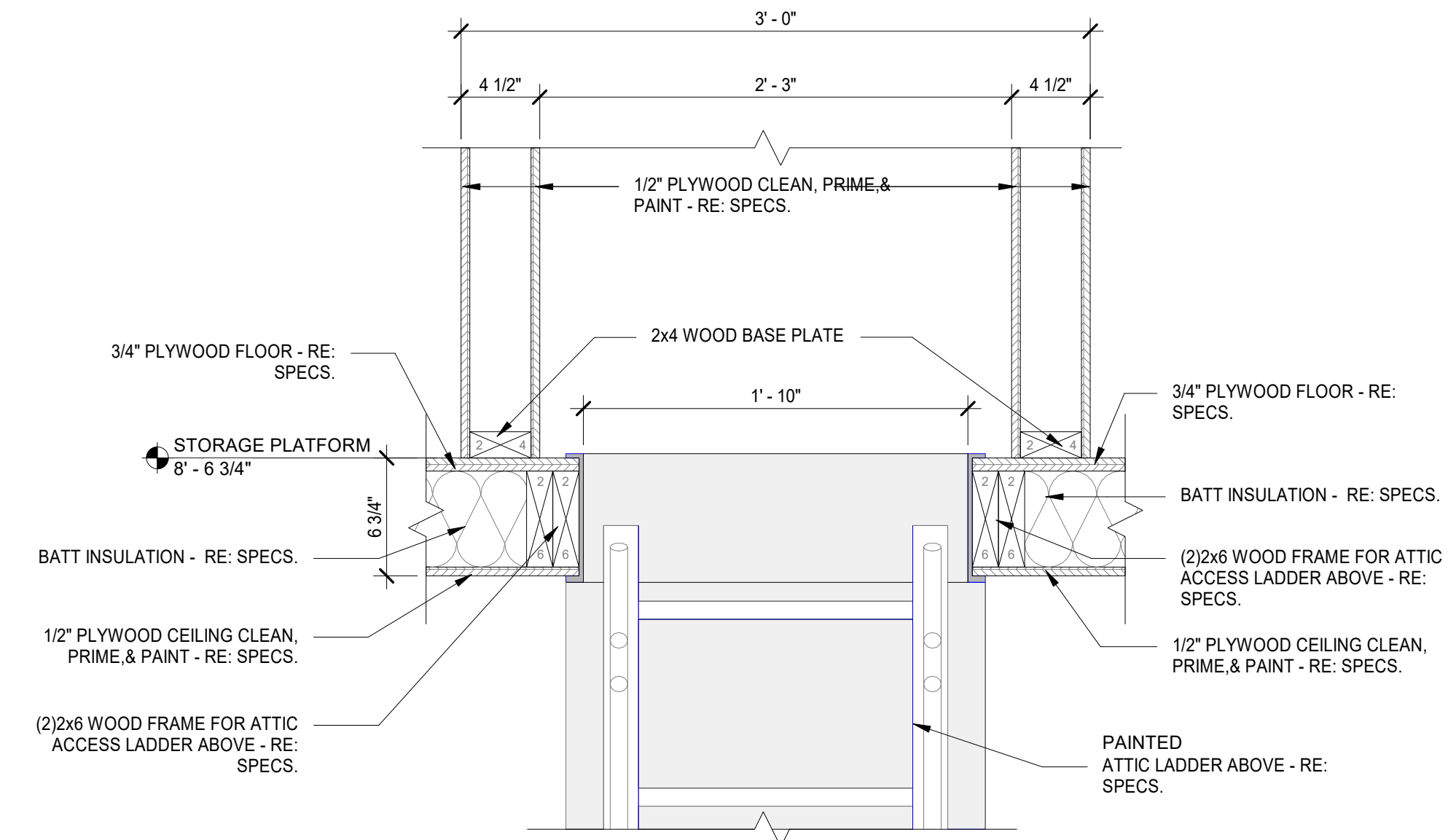
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A4.20
OF



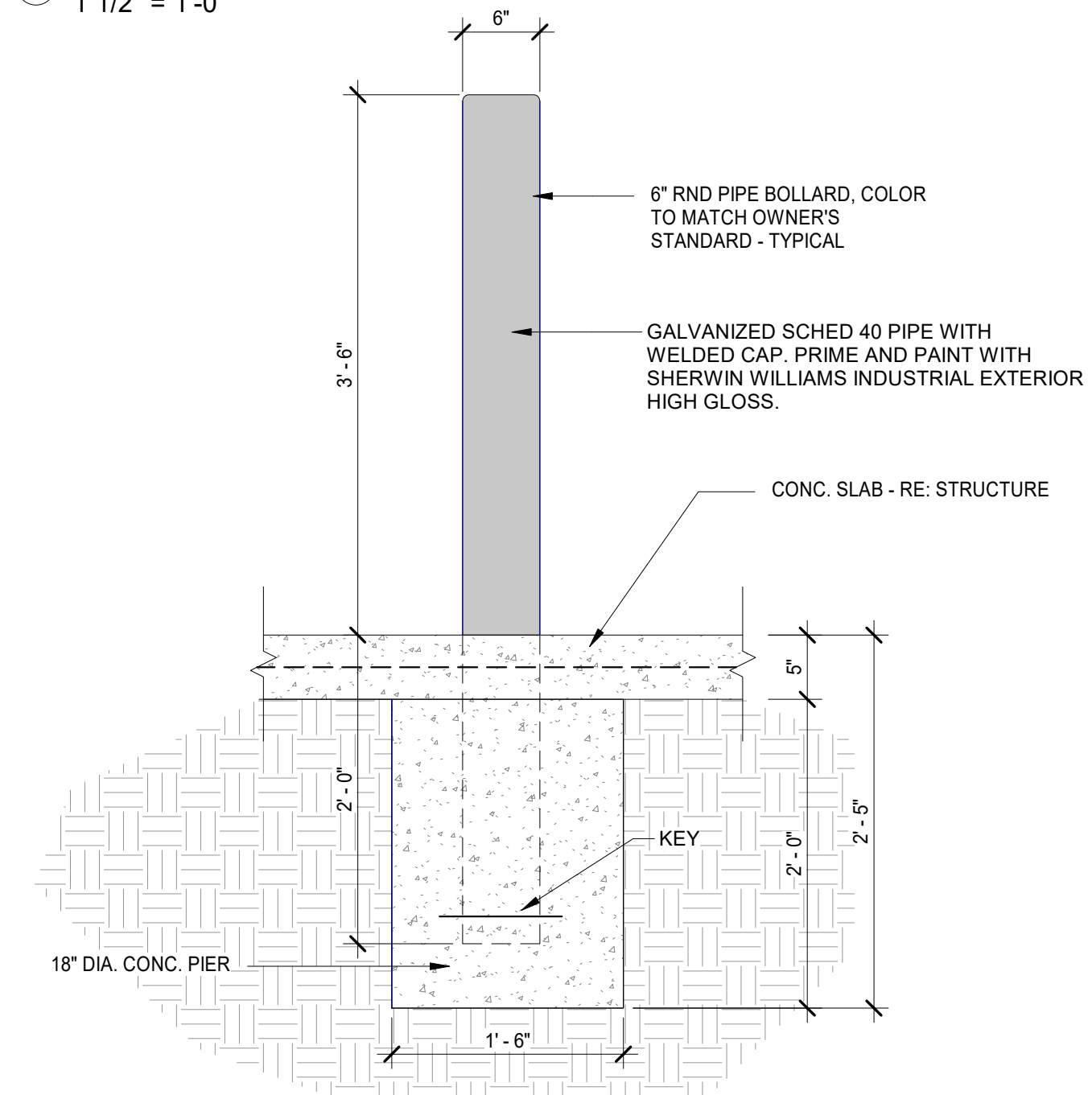
① PARAPET CAP DETAIL
1 1/2" = 1'-0"



3 CONC. SLAB EDGE DETAIL - STONE
VENEER
1 1/2" = 1'-0"

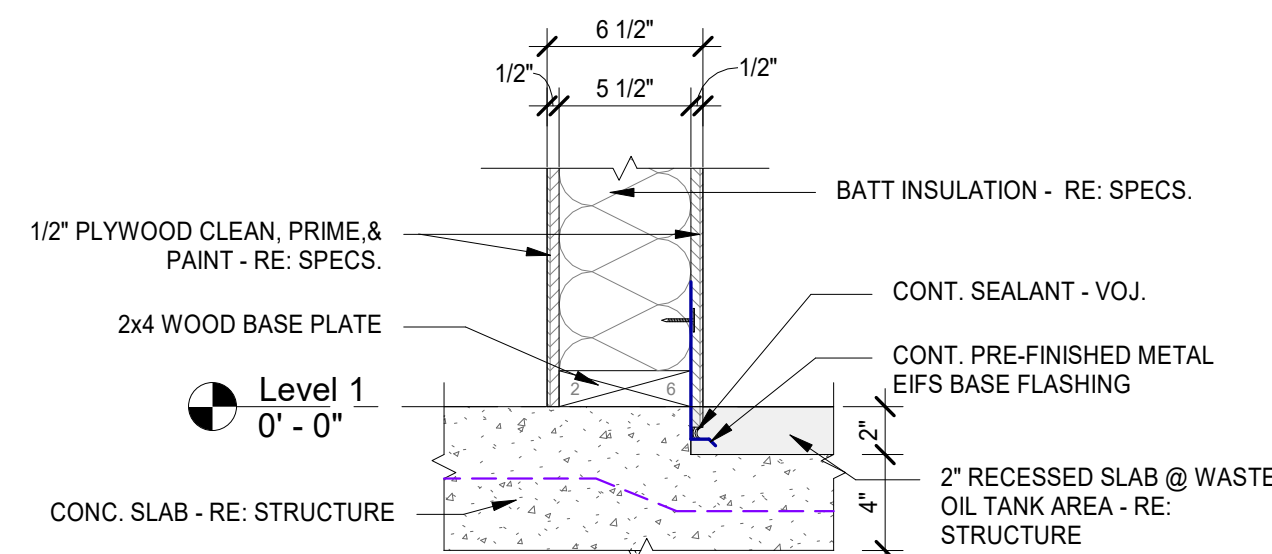


6 PLATFORM ACCESS LADDER DETAIL
1 1/2" = 1'-0"

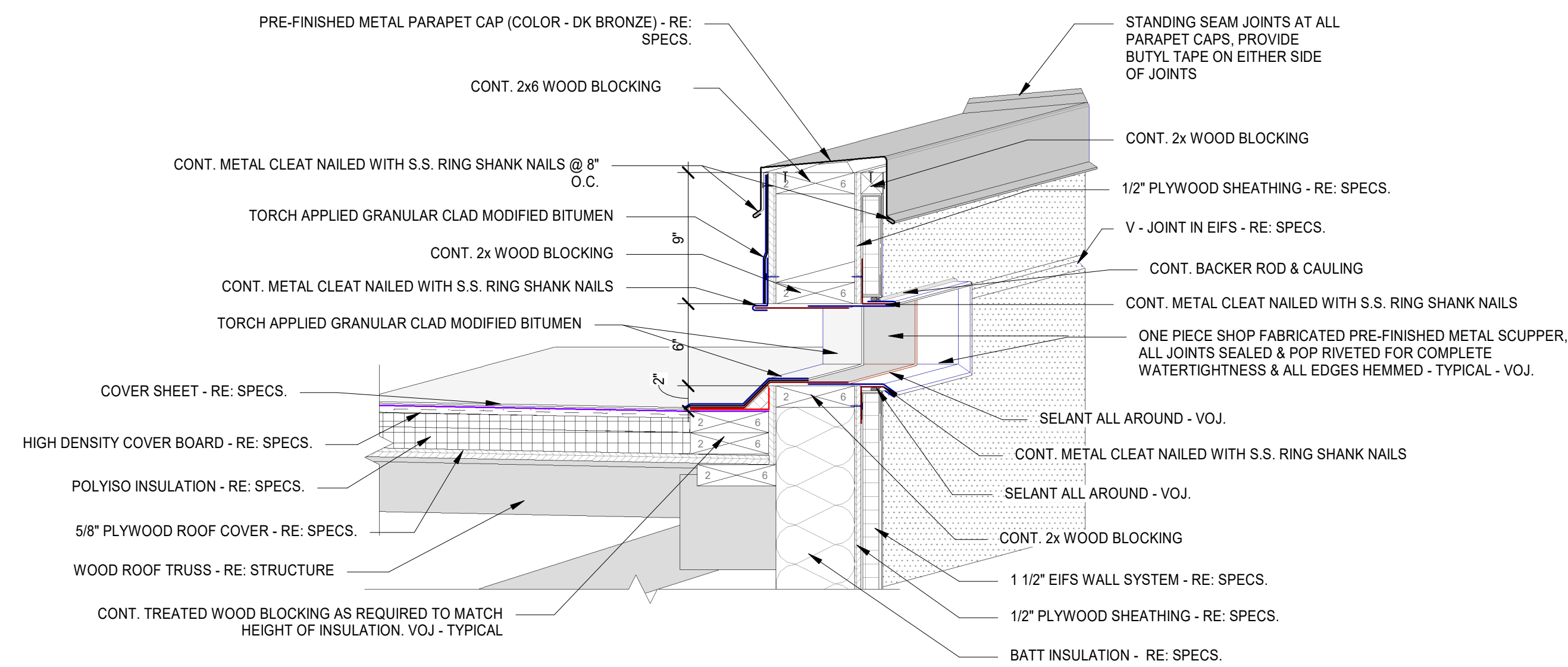


7 BALLARDS DETAIL
1" = 1'-0"

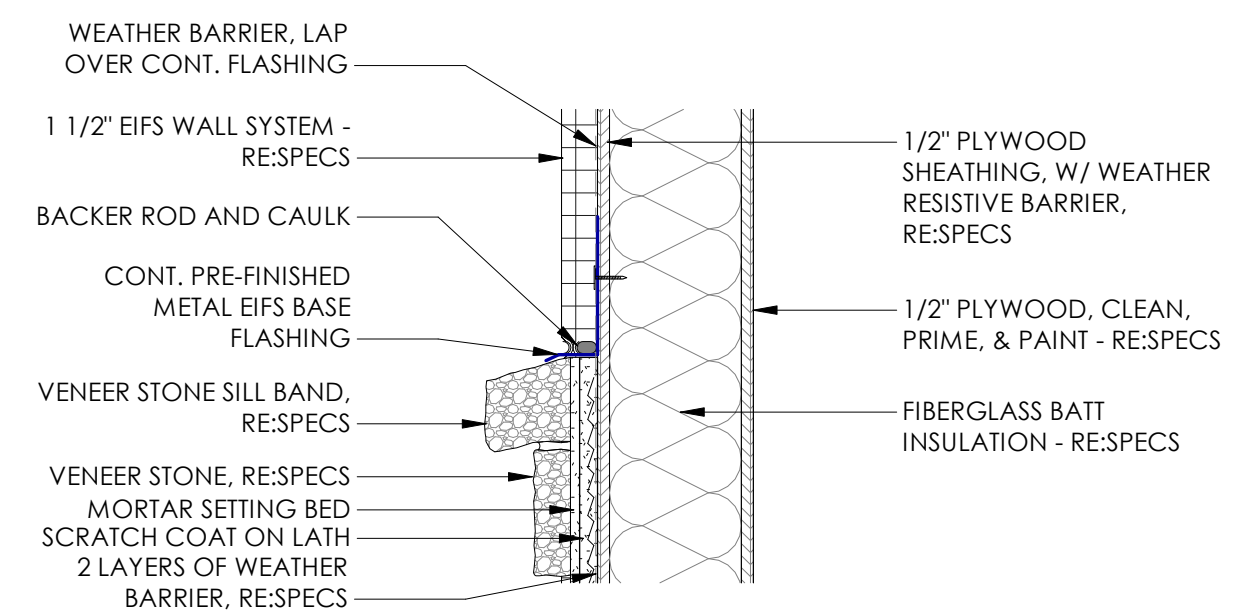
ONE PIECE OF HIGH PARAPET WITH STRUCTURE OF TRUSS - RE - STRUCTURE ENG.



④ CONC. SLAB @ WASTE OIL TANK AREA
1 1/2" = 1'-0"

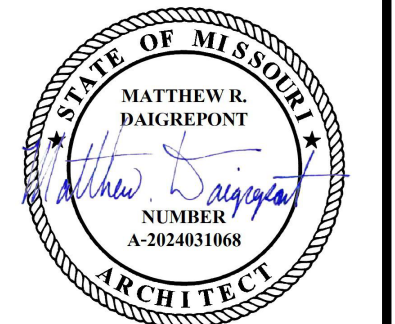


5 SCUPPER DETAIL
1 1/2" = 1'-0"



⑧ STONE SILL TRANSITION
1 1/2" = 1'-0"

② PARAPET COPING DETAIL
1 1/2" = 1'-0"



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By: Matthew Driscoll

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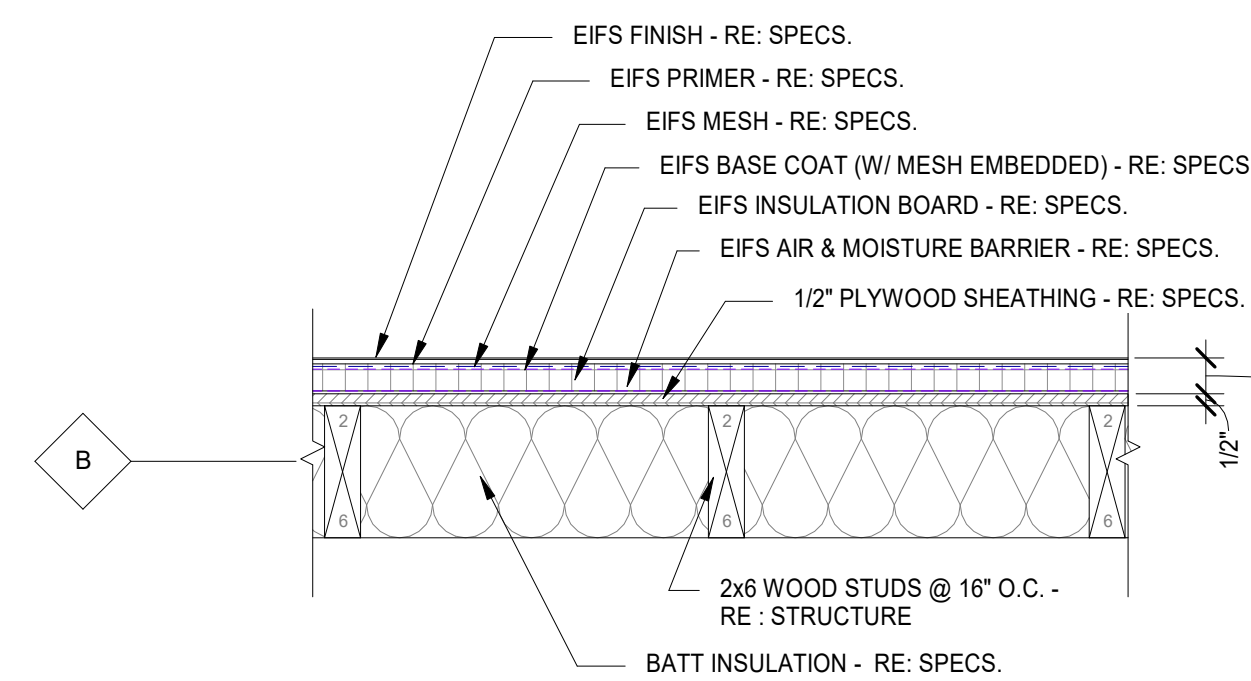
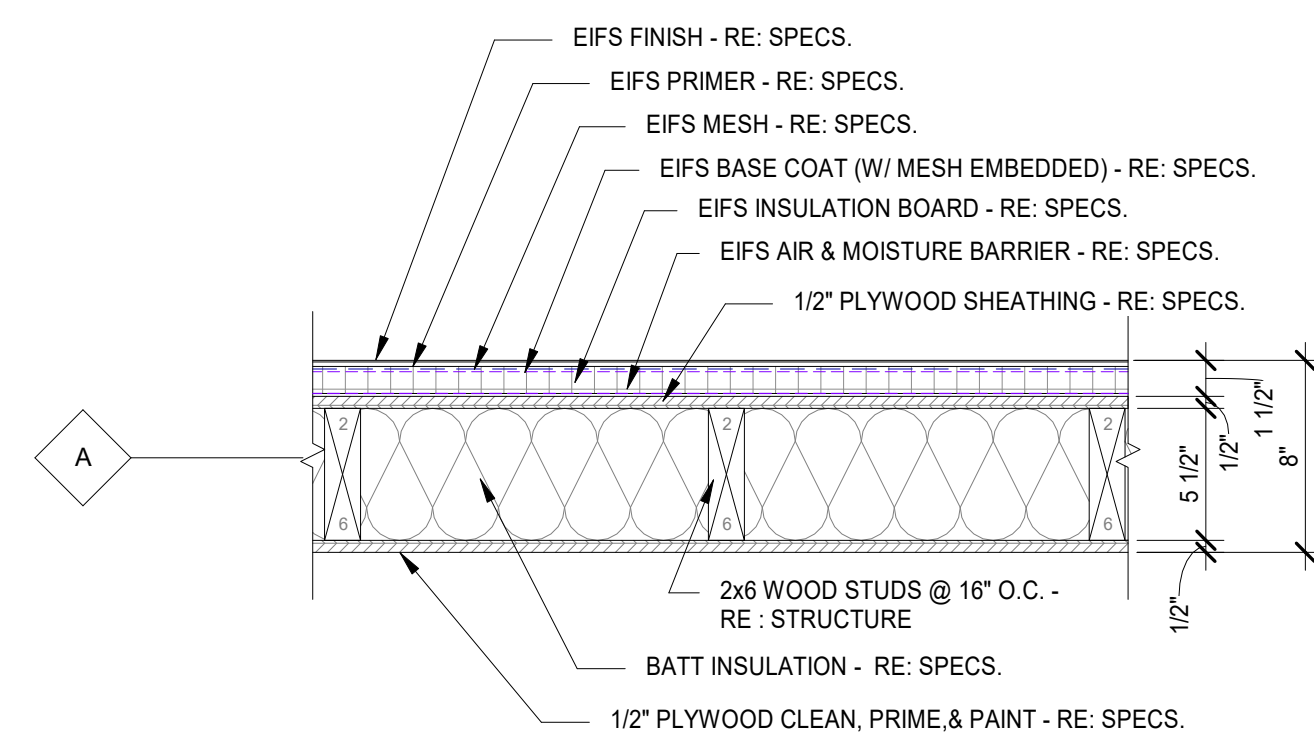
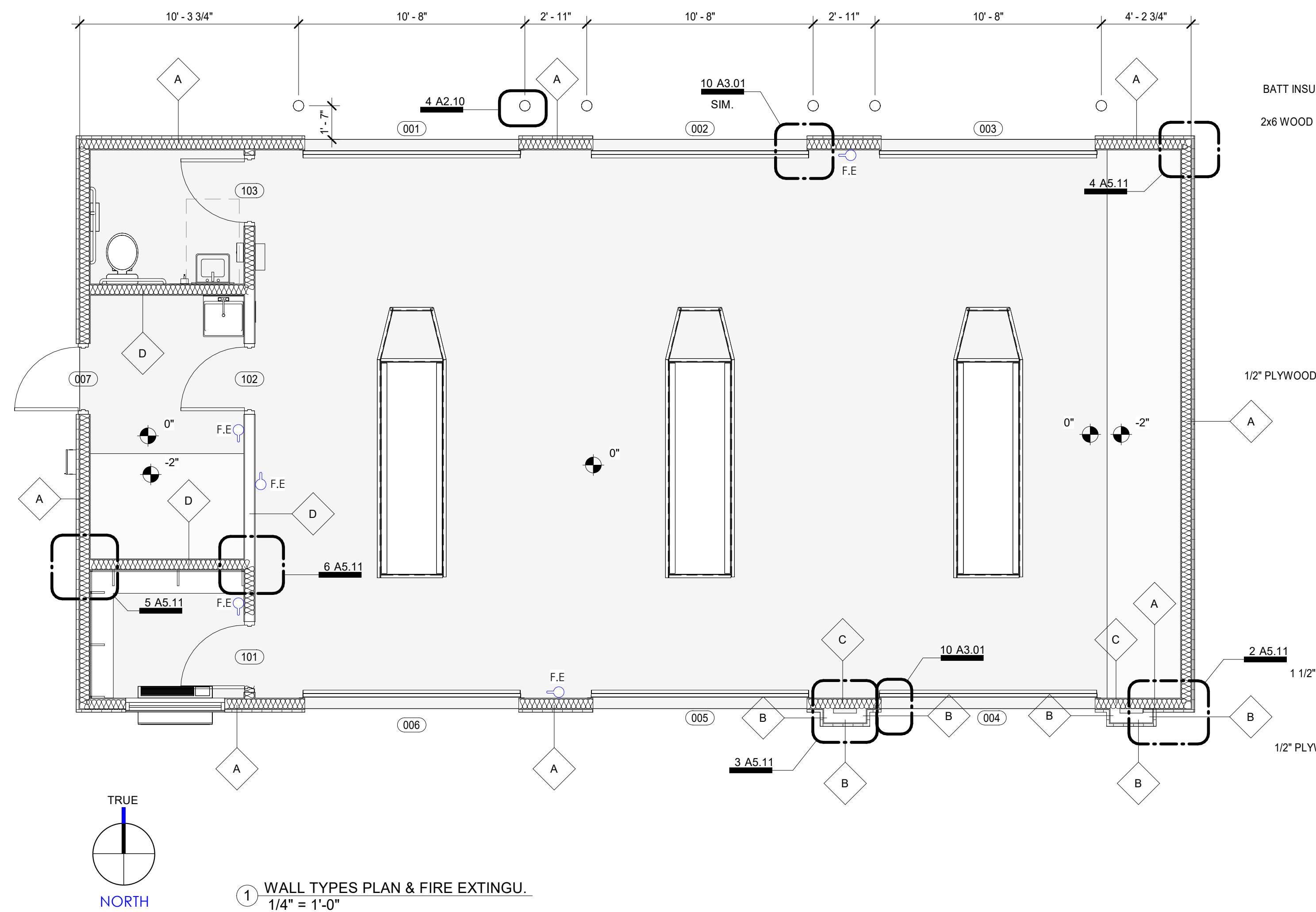
**New Construction For
Take 5 Oil Change**



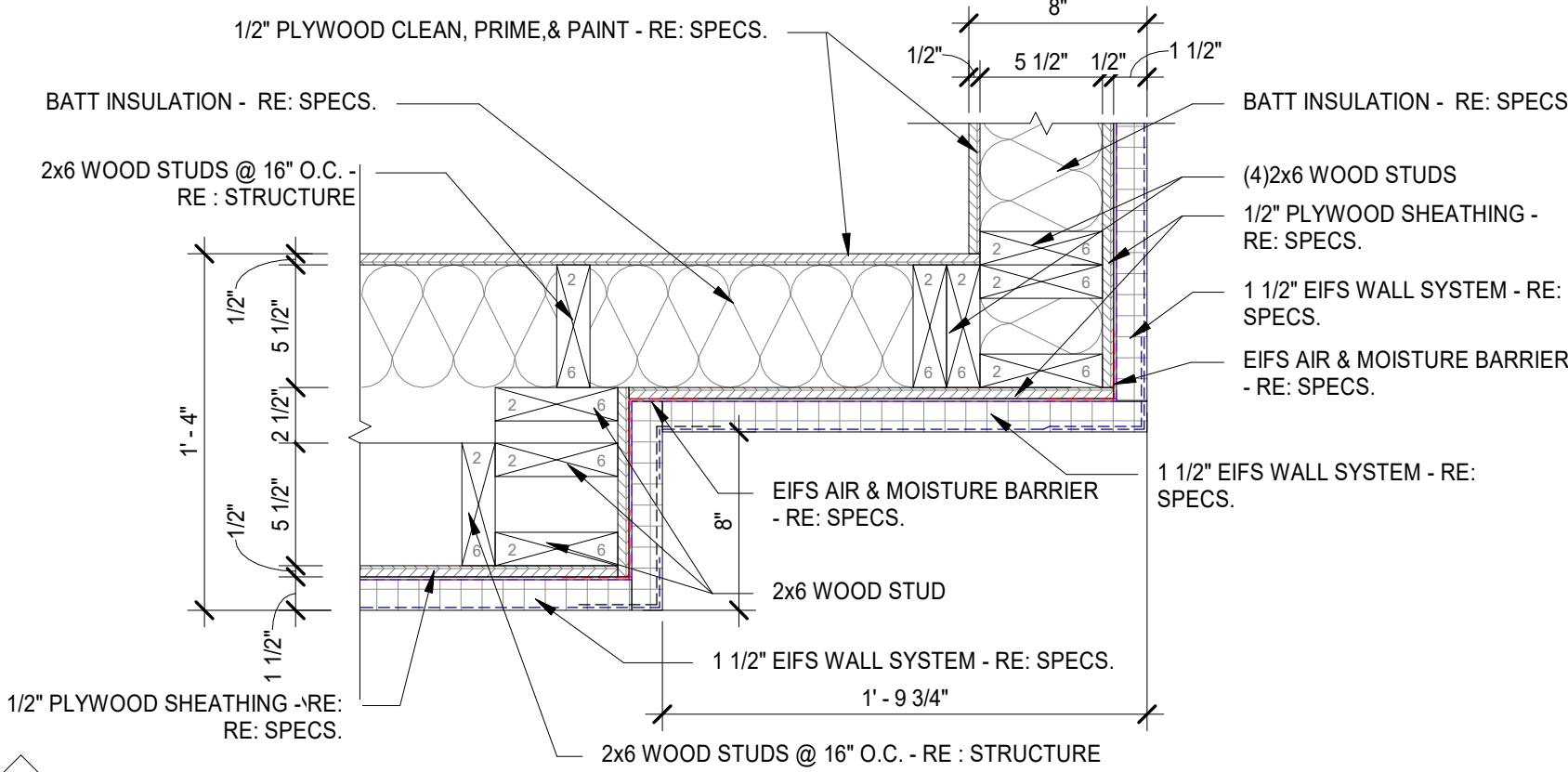
| | |
|------------------|----------------------|
| PROJECT NO: | 33-006-22 |
| PHASE: | Final Dev. Submittal |
| DATE: | 8 July, 2024 |
| PROJ. ARCHITECT: | MRD |

Enlarged Details

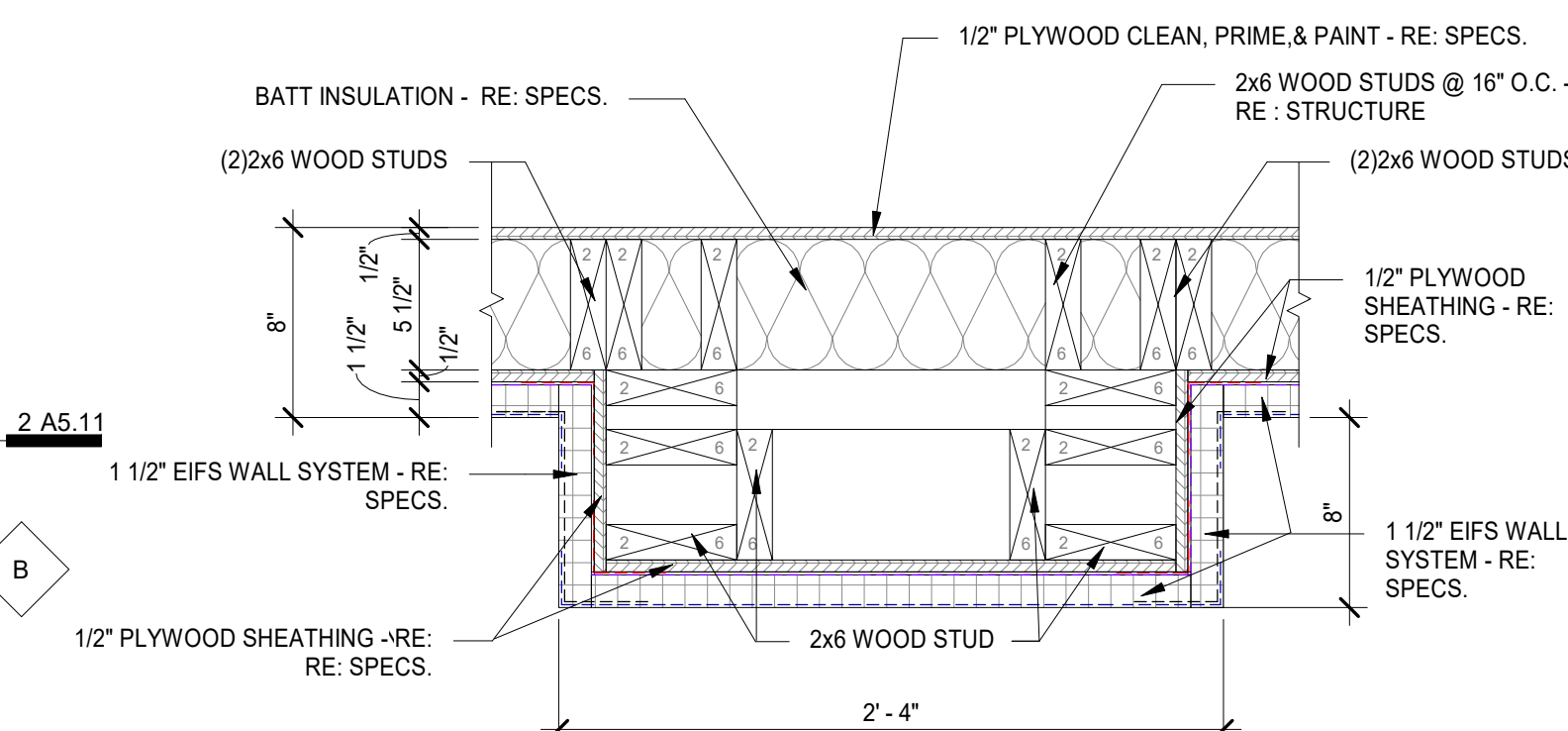
SHEET NO.
A4.21
OF



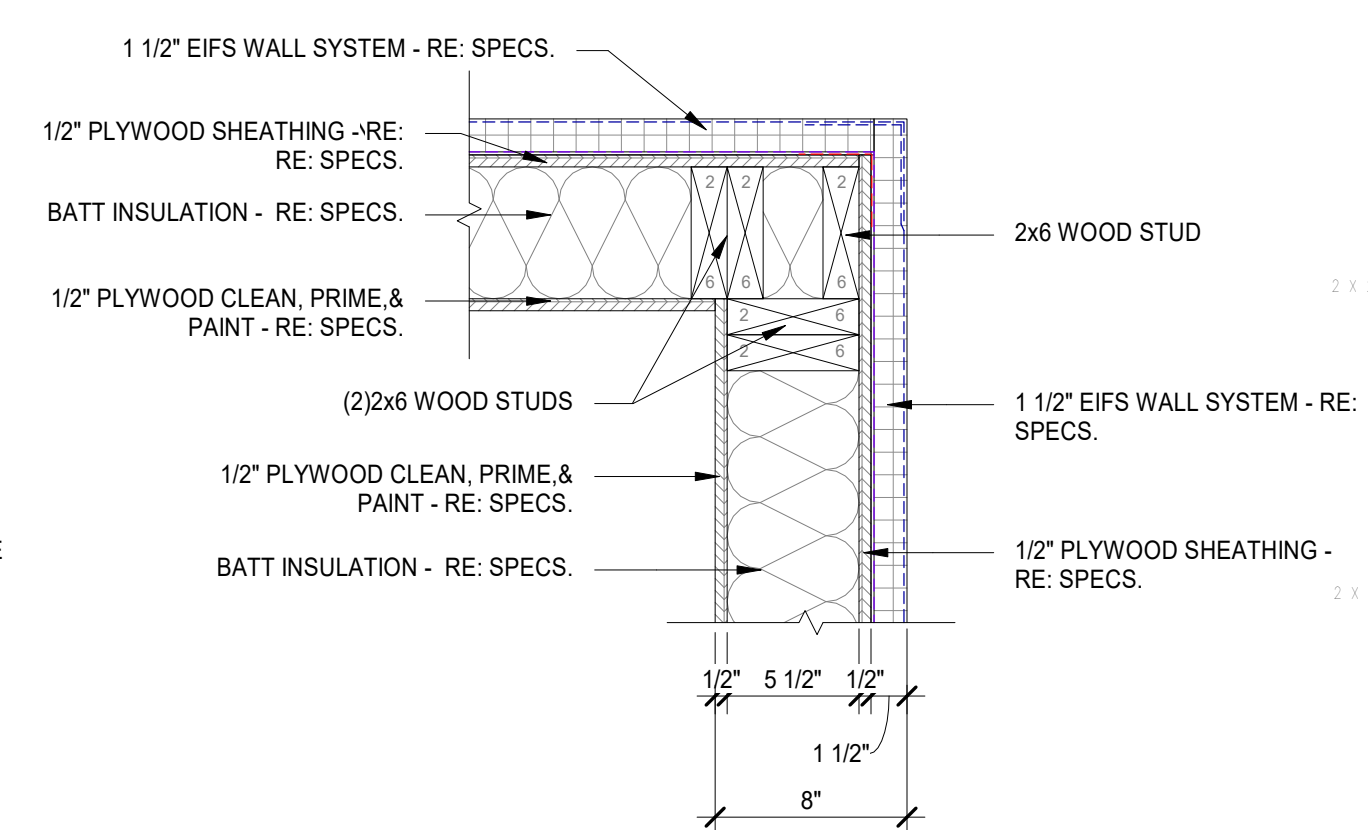
○ WALL TYPES PLAN
1 1/2" = 1'-0"



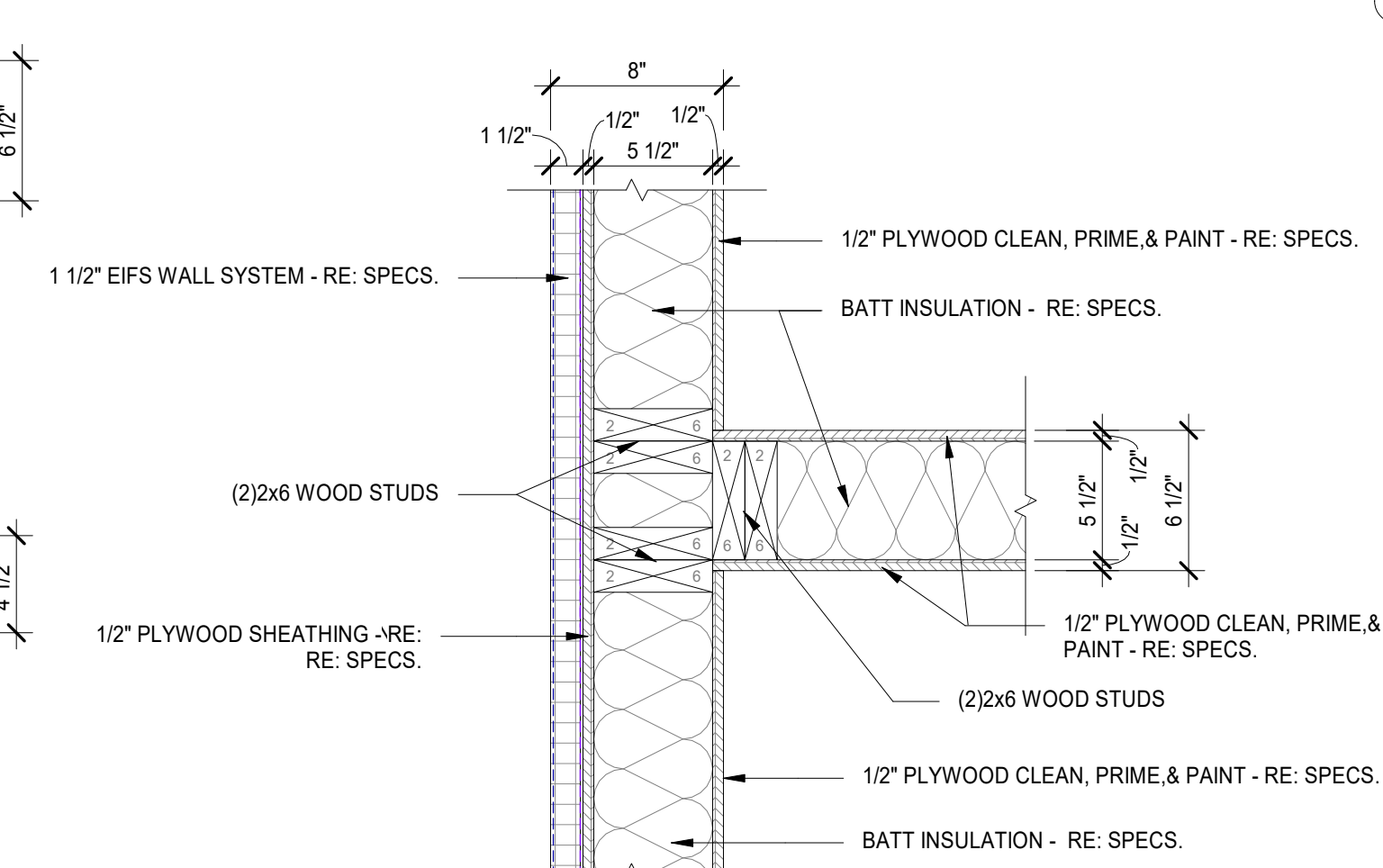
② PLAN DETAIL - 1
1 1/2" = 1'-0"



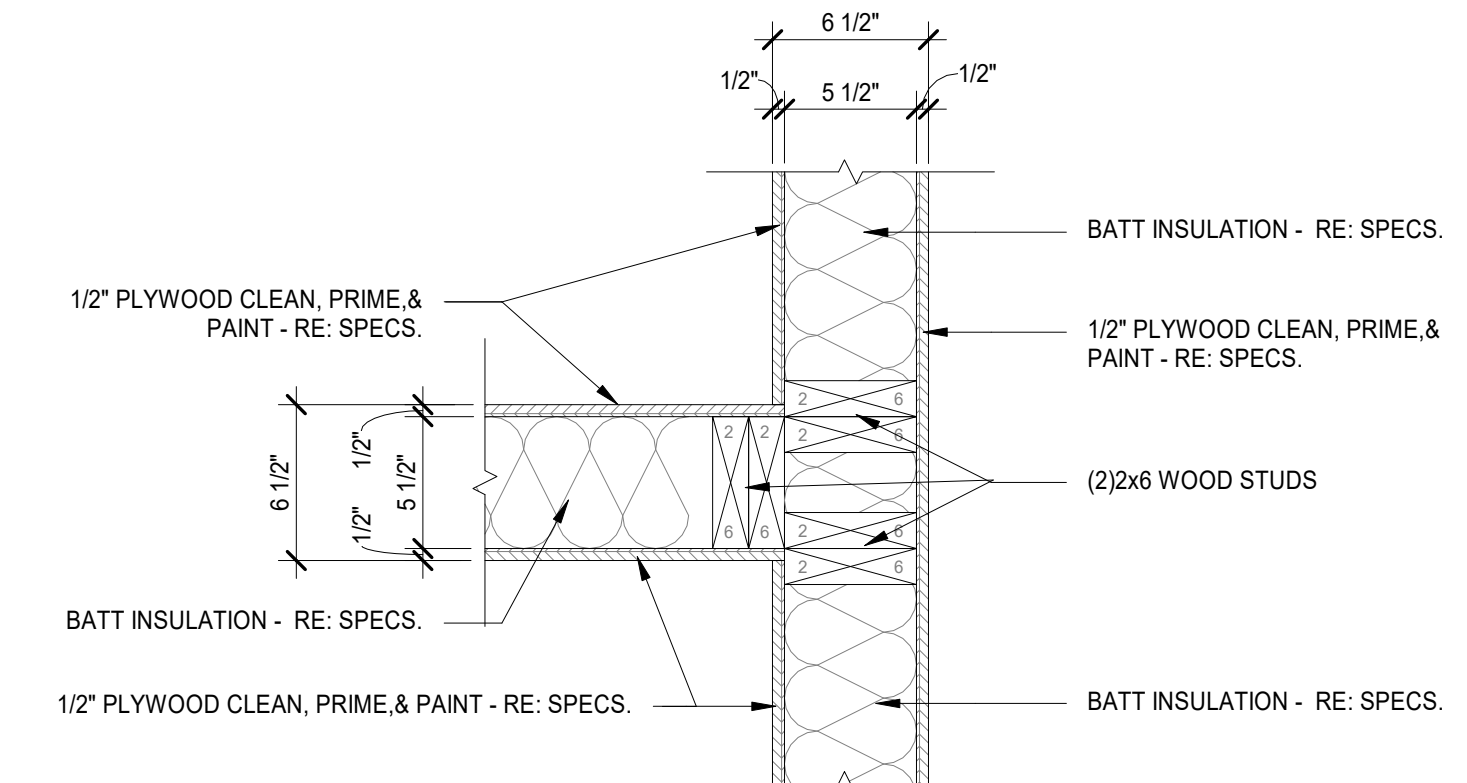
③ PLAN DETAIL - 2
1 1/2" = 1'-0"



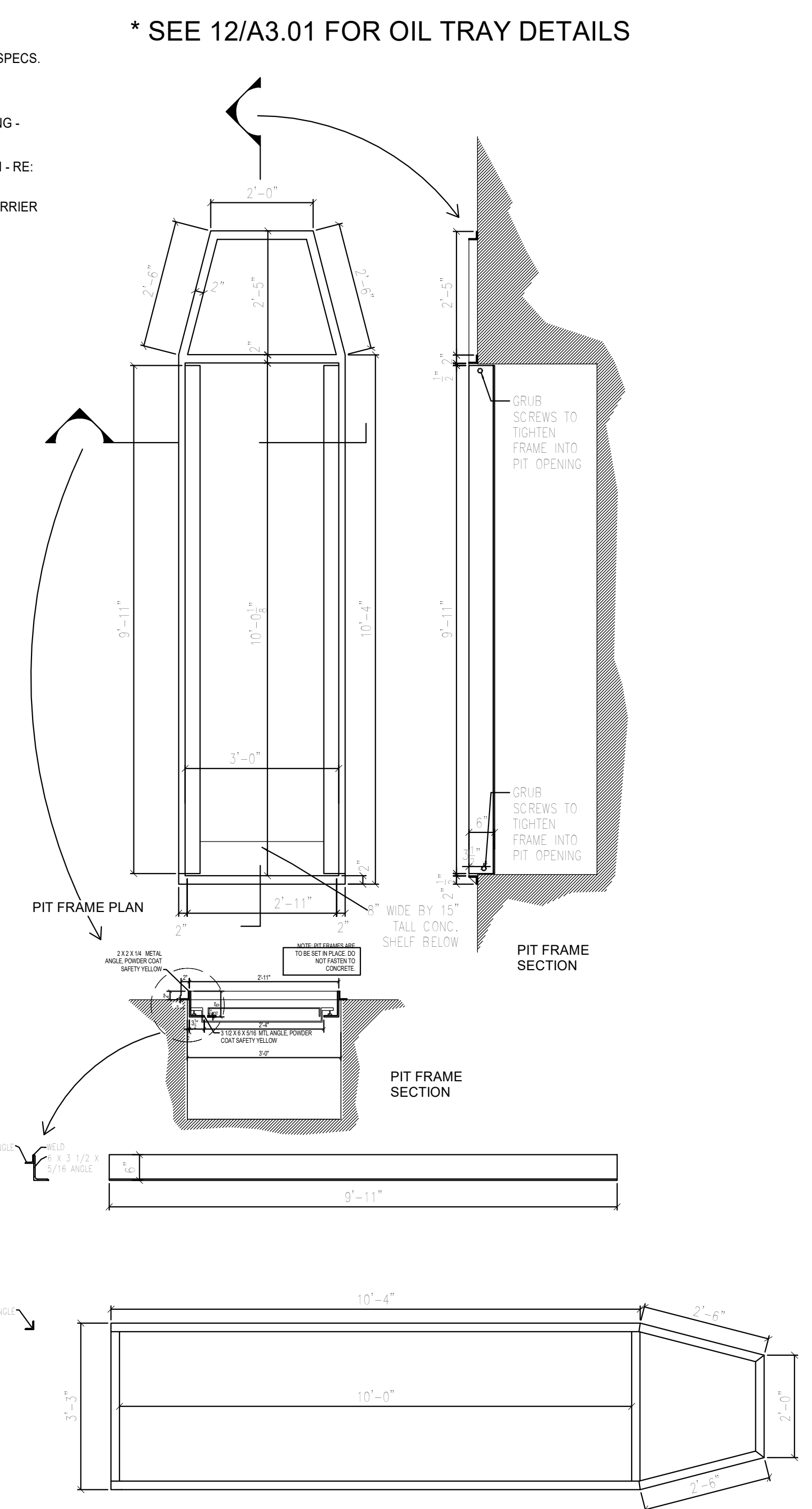
④ PLAN DETAIL - 3
1 1/2" = 1'-0"



5 PLAN DETAIL - 4
1 1/2" = 1'-0"



6 PLAN DETAIL - 5
1 1/2" = 1'-0"



7 PIT FRAME DETAILS
1/2" = 1'-0"

* SEE 12/A3.01 FOR OIL TRAY DETAILS

[illegible]

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New Construction For Take 5 Oil Change

400 NE M State Route 291
Lee's Summit, Missouri 64086

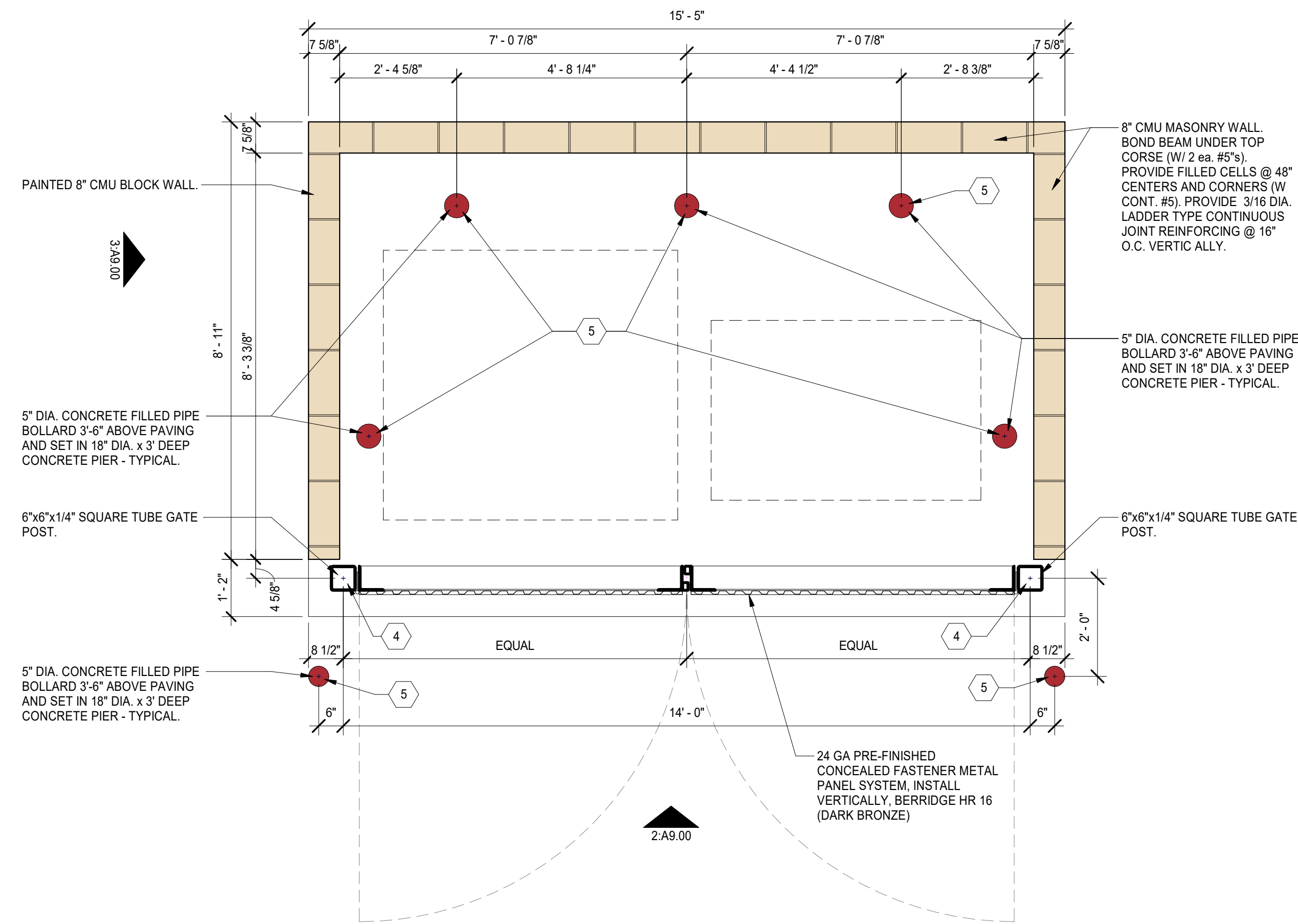


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|--------------------|----------------------|
| PROJECT NO: | 33-006-22 |
| DATE: | Final Dev. Submittal |
| DATE: | 8 July, 2024 |
| PROJECT ARCHITECT: | MRD |

Plan Detail & Fire Extinguishers

SHEET NO.

A5.11



5 CMU Dumpster Plan
1/2" = 1'-0"

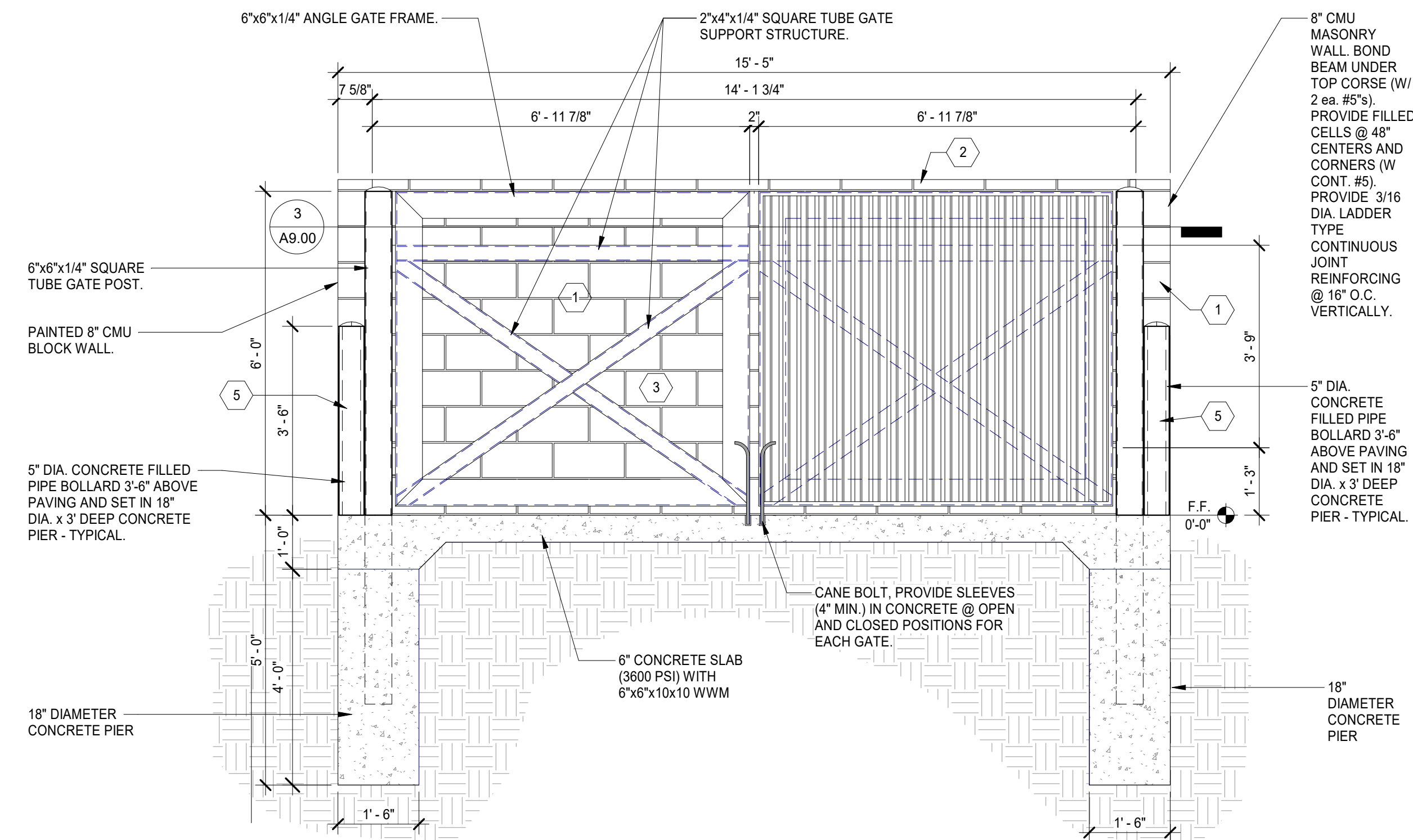
NOTE:

ALL HARDWARE TO BE GALVANIZED UNLESS OTHERWISE NOTED.

ALL STEEL POSTS AND GATE FRAME TO BE PRIMED AND PAINTED WITH 2 COATS EACH. COLOR TO BE DARK BRONZE SW6076.

ALL STEEL MEMBERS TO BE SHOP WELDED. PROVIDE SHOP DRAWINGS FOR APPROVAL PRIOR TO FABRICATION. ALL STEEL TO BE PAINTED DARK BRONZE SW6076.

ALL METAL FRAMING, POST AND HARDWARE TO BE PRIMED AND PAINTED W/ MIN. 1 COAT PRIMER, AND 2 COATS FINISH. PAINT TO BE OIL BASED AND COLOR TO BE DARK BRONZE SW6076.



CMU Dumpster Enclosure - Front
Elevation
1/2" = 1'-0"

SYSTEMS ARE DIVIDED INTO 2 SEPARATE PROCESSES.

1. **USED OIL** - AFTER A TAKE 5 TECHNICIAN DIRECTS AND GUIDES THE CUSTOMER OVER A SHALLOW TRENCH THE USED OIL IS DRAINED INTO A ROLLING DRAIN PAN THAT IS POSITIONED UNDER THE VEHICLE. THE OIL FILTER IS ALSO CHANGED ABOVE THE DRAIN PAN. WHEN NECESSARY, THE DRAIN PANS ARE EMPTIED TO DESIGNATED OIL TANKS VIA ¾" GASOLINE-RATED HOSE, ROUTED THROUGH CHASES TO THE STORAGE ROOM. THE HOSES ARE CONNECTED VIA A VACUUM DIAPHRAGM PUMP, SO THE SYSTEM IS TOTALLY NON-PRESSURIZED. 100% OF TAKE 5'S USED OIL AND OIL FILTERS ARE RECLAIMED AND RECYCLED BY OSHA CERTIFIED USED OIL RECYCLING COMPANIES.
2. **NEW OIL** - WE STORE NEW BULK OILS IN RHINO GRAVITY FEED SYSTEMS INSIDE THE BAY AREAS, THESE SYSTEMS HAVE NO PUMPS OR PRESSURE, ARE APPROVED BY OSHA AND DOT, AND ARE LOCATED WITHIN A RECESSED AREA WITHIN THE SHOP. TAKE 5 ALSO CARRIES A MINIMUM AMOUNT OF RETAIL BOTTLED OILS FOR SPECIALTY VEHICLES AS NECESSARY.

NOTES -

1. TYPE OF LIQUIDS BEING STORED ARE CLASS IIIB LUBRICANTS ONLY.
2. ALL TANKS ARE ABOVE GROUND, SINGLE WALL. 3 ARE STEEL AND 12 ARE HIGH-DENSITY POLYETHYLENE.
3. VOLUME OF TANKS:
 - (3) WASTE OIL TANKS OF APPROXIMATELY 330 GALLONS EACH
 - (9) NEW OIL RHINO TANKS OF 120 GALLONS EACH
 - (4) NEW OIL RHINO TANKS OF 220 GALLONS EACH
- FOR CONTAINMENT - BULK TANKS ARE PLACED WITHIN RECESSED AREAS. THE RECESSED AREAS ARE CONNECTED VIA 3" CHASES TO THE SHALLOW TRENCHES, F 10' X 3' X 30", YIELDING A TOTAL EXTRA VOLUME OF 1,683 GALLONS, IN ADDITION TO THE RECESSED AREAS WHERE THE TANKS ARE LOCATED.
4. TAKE 5 DOES NOT INCORPORATE DRAINS IN THEIR SHOP, SHALLOW TRENCH, OR STORAGE AREAS. THE ONLY DRAIN IN TAKE 5 IS LOCATED IN THE RESTROOM.
5. WE MOP OUR FLOORS, RINSING THE MOP IN A MOP SINK THAT IS CONNECTED DIRECTLY TO AN OIL SEPARATOR.
6. THE OIL SEPARATOR IS CLEANED/EMPTIED/MAINTAINED BY THE OSHA CERTIFIED RECYCLING COMPANY THAT COLLECTS AND RECYCLES THE USED OIL.
7. SOME TANKS ARE PLACED ON SHOP FLOOR BETWEEN BAYS.

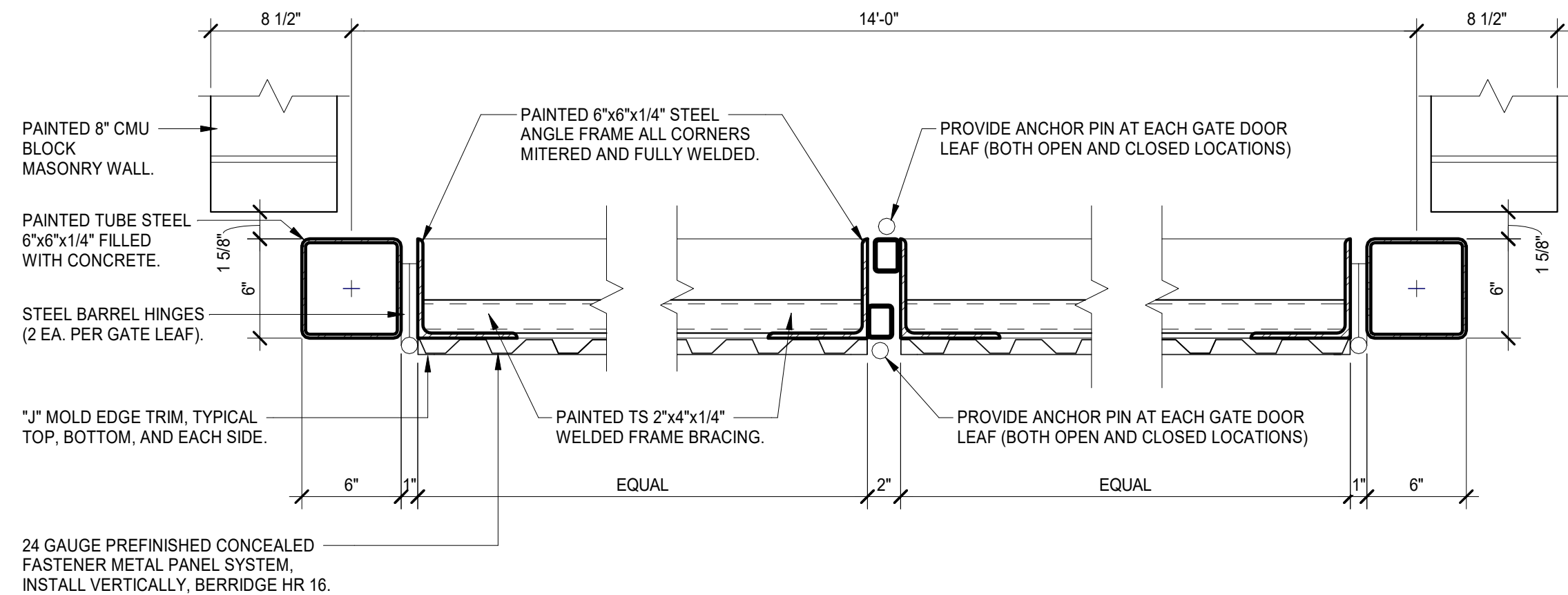
FOR CONTAINMENT - BULK TANKS ARE PLACED WITHIN RECESSED AREAS. THE RECESSED AREAS ARE CONNECTED VIA 3" CHASES TO THE SHALLOW TRENCHES, PROVIDING SECONDARY CONTAMINATION. EACH TRENCH MEASURES 10' X 3' X 30", YIELDING A TOTAL EXTRA VOLUME OF 1,683 GALLONS, IN ADDITION TO THE RECESSED AREAS WHERE THE TANKS ARE LOCATED.

4. TAKE 5 DOES NOT INCORPORATE DRAINS IN THEIR SHOP, SHALLOW TRENCH, OR STORAGE AREAS. THE ONLY DRAIN IN A TAKE 5 IS LOCATED IN THE RESTROOM.

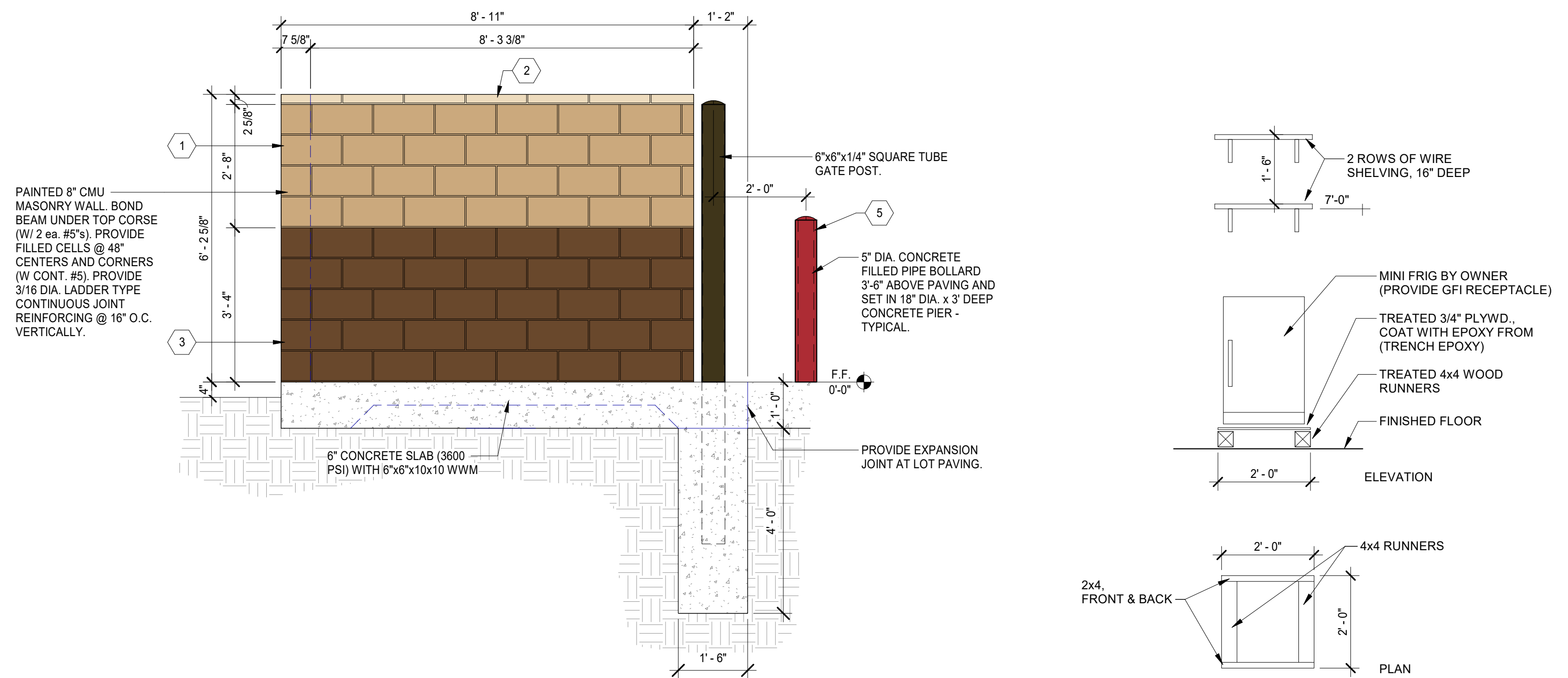
5. WE MOP OUR FLOORS, RINSING THE MOP IN A MOP SINK THAT IS CONNECTED DIRECTLY TO AN OIL SEPARATOR

6. THE OIL SEPARATOR IS CLEANED/EMPTIED/MAINTAINED BY THE OSHA CERTIFIED RECYCLING COMPANY THAT COLLECTS AND RECYCLES THE USED OIL.

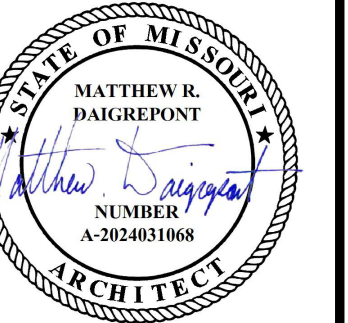
7. SOME TANKS ARE PLACED ON SHOP FLOOR BETWEEN BAYS.



③ CMU Dumpster Gate Detail
1 1/2" = 1'-0"



④ REFRIGERATOR STAND
1/2" = 1'-0"

[illegible]

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for the project and site specifically
ed herein.

as stated hereon are valid on the original
only.

plans were prepared in this office under personal supervision, and to the best of our knowledge comply with state and local codes. We generally administer construction.

Matthew Daigle



Take 5 Oil Change

400 NE W State Route 291
Lee's Summit, Missouri 64086



| | |
|--------------|----------------------|
| PROJECT NO: | 33-006-22 |
| REVISION: | Final Dev. Submittal |
| DATE: | 8 July, 2024 |
| DESIGNED BY: | MRD |

Dumpster Plan & Elevations

SHEET NO.

9.00

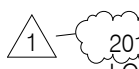
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Autodesk Docs/Take 5 - Lee's Summit MO - R22/Take 5 - Lee's Summit, MO - R22.rvt

| ABBREVIATIONS | | | |
|--|--|--|--|
| A.B. ADL. ADJ. ADH. AFF. ALT. ARCH. | ANCHOR BOLT ADDITIONAL ADJACENT ADHESIVE ABOVE FINISH FLOOR ALTERNATE ARCHITECT | LBS LDG LLH LLV LSH LSV LT LVL LW | POUNDS LANDING LONG LEG HORIZONTAL LONG LEG VERTICAL LONG SIDE HORIZONTAL LONG SIDE VERTICAL LIGHT LEVEL LIGHT WEIGHT |
| B.L. BLDG BM B.O.D. BOT. BRG BTWN | BRICK LEDGE BUILDING BEAM BOTTOM OF DECK BOTTOM BEARING BETWEEN | MAT. MAX. MECH. MEZZ. MFR MID. MIN. MISS. M.L. MTL | MATERIAL MAXIMUM MECHANICAL MEZZANINE MANUFACTURER MIDDLE MINIMUM MISCELLANEOUS MATCH LINE METAL |
| CANT. CIP C.J. C.L. CLR CMU C.O. COL.(S) COMP. CONC. CONNX CONST. CONT. CONTR. CTR | CANTILEVER CAST IN PLACE CONSTRUCTION JOINT CENTERLINE CLEAR CONCRETE MASONRY UNIT CUT OFF COLUMN(S) COMPOSITE CONCRETE CONNECTION CONSTRUCTION CONTINUOUS CONTRACTOR CENTER | (N) NIC NO. N.S. NSG NTS NW O.C. O.D. O.H. OPNG | NEW NOT IN CONTRACT NUMBER NEAR SIDE NON-SHRINK GROUT NOT TO SCALE NORMAL WEIGHT ON CENTER OUTSIDE DIAMETER OUTSIDE FACE OPPOSITE HAND OPENING |
| D.B. D.B.A DBL DET./DTL. DEMO. OR (D) DPL DIA. DIAG. DIM. DIR. DISC. DWGS DWL(S) | DROPPED BEAM DEFORMED BAR ANCHOR DOUBLE DETAIL DEMOLISH DOUGLAS FIR-LARCH DIAMETER DIAGONAL DIMENSIONAL DIRECTION DISCONTINUOUS DRAWINGS DOWEL(S) | P.A.F. PARA. PC PCF PEMB PERIM. PERP. PJ PL PLY. PREFAB. | POWDER ACTUATED FASTENERS PARALLEL PRECAST POUNDS PER CUBIC FOOT PRE-ENGINEERED METAL BUILDING PERIMETER PERPENDICULAR PANEL JOINT PLATE PLYWOOD PRE-FABRICATED |
| EA. E.F. E.J. EL. ELEV. EMBED. ENGR EQ. E.W. EXIST. OR (E) EXP. EXT. | EACH EACH FACE EXPANSION JOINT ELEVATION ELEVATOR EMBEDMENT ENGINEER EQUAL EACH WAY EXISTING EXPANSION EXTERIOR | PSF PSI PT PTRN R REF. REINF. REQD RTU S.A. S.B. SCHED. SECT. SHT SHR. SIM. S.O.G. SPA SPEC. SS STD STIFF. STL. SW SYM. SYP | POUNDS PER SQUARE FOOT POUNDS PER SQUARE INCH POST-TENSIONED PENETRATION REMAINDER OR RADIUS REFER TO OR REFERENCE REINFORCEMENT/REINFORCE REQUIRED ROOF TOP UNIT STUD ANCHOR STRAP BEAM SCHEDULE SECTION SHEET SHRINKAGE SIMILAR SLAB-ON-GROUND SPACING SPECIFICATION STAINLESS STEEL STANDARD STIFFENER STEEL SHEAR WALL SYMMETRICAL SOUTHERN YELLOW PINE |
| HAS HDR HI HK HORIZ. HR HSS HT | HEADED ANCHOR STUD HEADER HIGH HOOK HORIZONTAL HARD ROCK HOLLOW STEEL SECTION HEIGHT | T&B TEMP. TEN. TERM. THK T.O. T.O.C. T.O.F. T.O.P. T.O.S. TS TYP. U.N.O. VAR. VERT. W/ W/O WP WT WWF | TOP AND BOTTOM TEMPERATURE TENSION TERMINATE THICKNESS TOP OF TOP OF CONCRETE TOP OF FOOTING TOP OF PIER TOP OF STEEL / TOP OF SLAB TUBE STEEL TYPICAL UNLESS NOTED OTHERWISE VARIES VERTICAL WITH WITHOUT WORK POINT WEIGHT WELDED WIRE FABRIC |

STRUCTURAL DESIGN

1.

STRUCTURAL DESIGN STANDARDS:
 2018 INTERNATIONAL BUILDING CODE
LOCAL AMENDMENTS TO BUILDING CODE
ASCE 7-16

2.

STRUCTURAL DESIGN LOADS:

RISK CATEGORY II

LIVE LOADS:

| | |
|----------------------|---------|
| PUBLIC AREAS | 100 psf |
| MEZZANINES/PLATFORMS | 100 psf |
| ROOF | 20 psf |

DEAD LOADS:

| | |
|--------------------|-----------|
| PLYWOOD DECKING | 3 psf/in. |
| CEILING/MECHANICAL | 5 psf |
| TRUSSES | 3 psf |
| MISCELLANEOUS | 2 psf |
| PARTITIONS | 5 psf |

(NOTE: ALL DEAD LOADS ARE APPROXIMATE. CONTRACTOR TO COORDINATE FINAL DEAD LOADS W/ EOR FOR FABRICATED ITEMS).

SNOW LOAD:

| | |
|--------------------------|--------|
| GROUND SNOW LOAD, P_g | 20 psf |
| IMPORTANCE FACTOR, I_s | 1.0 |
| EXPOSURE FACTOR, C_e | 1.0 |
| THERMAL FACTOR, C_t | 1.0 |

(NOTE: ROOF PARAPET DRIFT LOADS & UNBALANCED SNOW LOADS TO BE CALCULATED FOR EACH BUILDING SECTION W/ ABOVE PARAMETERS & EACH SECTION'S PROPERTIES PER ASCE 7 FOR DESIGN OF PRE-FABRICATED TRUSSES AFFECTED BY SNOW LOADS). REFER TO ROOF FRAMING PLAN FOR SNOW DRIFT LOADING DIAGRAM.

WIND LOAD:

| | |
|-------------------------------------|-----------------|
| BASIC WIND SPEED, V_{50} | 115 MPH |
| IMPORTANCE FACTOR, I_w | 1.0 |
| EXPOSURE CATEGORY | B |
| GUST & INTERNAL PRESSURE, GC_{pi} | 0.18 (ENCLOSED) |
| DIRECTIONALITY FACTOR, K_d | 0.85 |
| TOPOGRAPHIC FACTOR, K_{zt} | 1.0 |
| ELEVATION FACTOR, K_e | 1.0 |

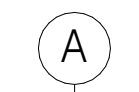

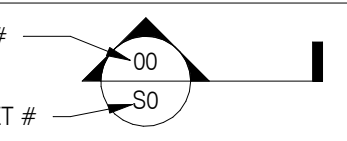
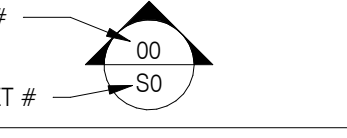
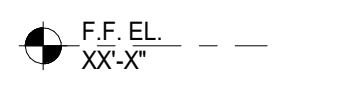
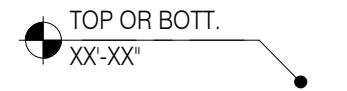

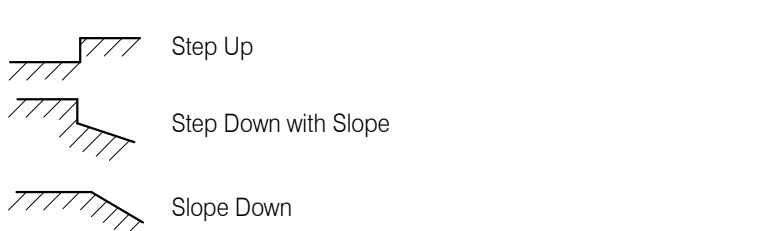
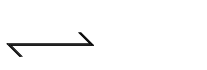
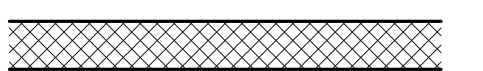
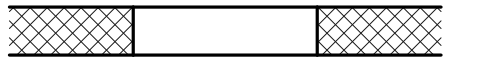
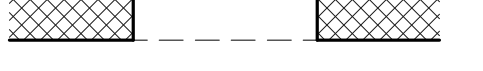
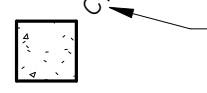
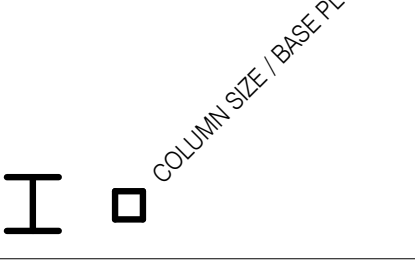
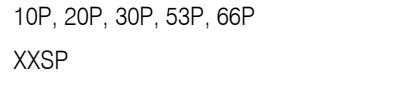
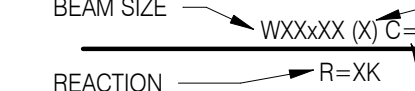
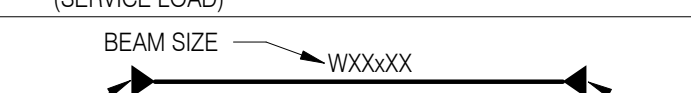

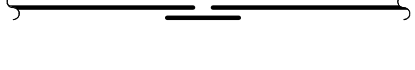
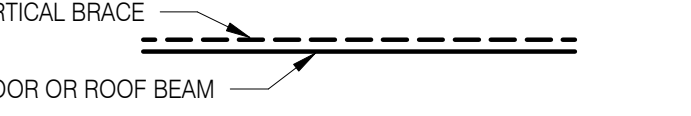
(REFER TO ROOF FRAMING PLAN FOR COMPONENTS & CLADDING PRESSURES CHART)

SEISMIC LOAD:

| | |
|--------------------------|-------|
| SITE CLASS | C |
| SEISMIC DESIGN CATEGORY | B |
| IMPORTANCE FACTOR, I_e | 1.0 |
| S_s | 0.100 |
| S_1 | 0.068 |
| $S_{0.5}$ | 0.067 |
| $S_{0.1}$ | 0.068 |

SEISMIC FORCE-RESISTING SYSTEM LIGHT-FRAMED WOOD WALL SHEATHED W/ WOOD STRUCTURAL PANELS (R=6.5)

| SUBMITTALS | |
|------------|--|
| 1. | SHOP DRAWINGS SHALL BE PREPARED FOR ALL STRUCTURAL COMPONENTS. IT SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO MAKE CERTAIN THAT ALL CONSTRUCTION IS IN FULL AGREEMENT WITH THE LATEST CONSTRUCTION DOCUMENTS. |
| 2. | CONTRACTOR SHALL ALLOW TWO WEEKS FOR THE ENGINEER'S REVIEW OF EACH SUBMITTAL. SUBMITTALS WHICH DO NOT REFLECT THE CONTRACTOR'S APPROVAL, SIGNATURE AND DATE, OR DO NOT APPEAR TO HAVE BEEN REVIEWED BY THE CONTRACTOR WILL BE RETURNED WITHOUT REVIEW. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DELAYS CAUSED BY REJECTION OF INADEQUATE OR INCORRECT SHOP DRAWINGS. |
| 3. | OMISSION FROM THE SHOP DRAWINGS OF ANY REQUIREMENTS AND/OR CORRECTIONS/COMMENTS ON THE SHOP DRAWINGS DURING REVIEW SHALL NOT RELIEVE THE CONTRACTOR FROM COMPLIANCE WITH THE REQUIREMENTS OF THE CONSTRUCTION DOCUMENTS EVEN IF THE SHOP DRAWINGS HAVE BEEN REVIEWED AND RETURNED. APPROVAL IS FOR GENERAL COMPLIANCE WITH THE STRUCTURAL CONTRACT DOCUMENTS ONLY. APPROVAL ASSUMES NO RESPONSIBILITY FOR DIMENSIONS, QUANTITIES AND CONDITIONS THAT PERTAIN TO FABRICATION AND INSTALLATION OR FOR PROCESSES AND TECHNIQUES OF CONSTRUCTION. APPROVAL OF A SPECIFIC ITEM SHALL NOT INCLUDE APPROVAL OF AN ASSEMBLY OF WHICH THE ITEM IS A COMPONENT. CALCULATION REVIEW AND COMMENTS DO NOT INFER A DETAILED CHECK OF THE CALCULATIONS. |
| 4. | ALL ITEMS DEVIATING FROM THE STRUCTURAL DRAWINGS OR FROM PREVIOUSLY SUBMITTED SHOP DRAWINGS SHALL BE CLOUDED. |
| 5. | THE USE OF REPRODUCTIONS OR ELECTRONIC FILES OF THE STRUCTURAL DRAWINGS FOR THE PREPARATION OF SHOP DRAWINGS IS NOT ACCEPTABLE WITHOUT PRIOR WRITTEN AUTHORIZATION OF THE ENGINEER OF RECORD. IF SUCH AUTHORIZATION IS OBTAINED, DO NOT SUBMIT SHOP DRAWINGS WITH THE CONTRACT DOCUMENTS TITLE BLOCK AND/OR THE SEAL OF THE REGISTERED ENGINEER OF RECORD AFFIXED. ALTERATION OF A SEALED DOCUMENT WITHOUT PROPER NOTIFICATION OF THE RESPONSIBLE ENGINEER IS AN OFFENSE OF THE ENGINEERING PRACTICING ACT. |
| 6. | THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DETAILED DESIGN OF CERTAIN ITEMS, REFERRED TO AS DEFERRED. DOCUMENTS FOR DEFERRED SHOP DRAWINGS, INCLUDING CALCULATIONS, SHALL BE SUBMITTED TO THE ENGINEER OF RECORD FOR REVIEW FOR GENERAL CONFORMANCE TO THE CONTRACT DOCUMENTS. |
| 7. | DELEGATED STRUCTURAL DESIGN AND DEFERRED SUBMITTALS INCLUDE: 1. PREFABRICATED WOOD TRUSSES |
| 8. | THE DEFERRED SUBMITTAL ITEMS SHALL NOT BE INSTALLED UNTIL THE DEFERRED SUBMITTAL DOCUMENTS HAVE BEEN APPROVED BY THE ENGINEER OF RECORD AND THE BUILDING OFFICIAL. |

| SYMBOL | DESCRIPTION |
|---|---------------------------------------|
|  | GRIDLINE IDENTIFIER |
|  | EXISTING GRIDLINE IDENTIFIER |
|  | DETAIL MARKER |
|  | ELEVATION MARKER |
|  | FINISH FLOOR ELEVATION MARKER |
|  | SPOT ELEVATION MARKER |
|  | WORK POINT MARKER |
|  | ELEVATION CHANGE IN SLAB OR DECK |
|  | DECK OR SLAB SPAN DIRECTION |
|  | MASONRY WALL |
|  | WINDOW IN MASONRY WALL |
|  | DOOR IN MASONRY WALL |
|  | CONCRETE COLUMN |
|  | STEEL COLUMN |
|  | STANDARD PAN WIDTH |
|  | SKIP PAN WIDTH |
|  | STEEL BEAM |
|  | STEEL BEAM MOMENT CONNX |
|  | STEEL BEAM SPLICE |
|  | VERTICAL STEEL BRACE - REF. ELEVATION |

| GENERAL NOTES | |
|---------------------|---|
| 1. | THE DRAWINGS AND SPECIFICATIONS DO NOT INDICATE THE MEANS AND METHODS OF CONSTRUCTION UNLESS NOTED OTHERWISE. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING ALL MEANS AND METHODS MEET THE REQUIREMENTS OF THE LATEST OSHA REGULATIONS. |
| 2. | ALL DETAILS AND SECTIONS ARE INTENDED TO BE TYPICAL AND SHALL BE CONSTRUED TO APPLY TO ANY SIMILAR SITUATION ELSEWHERE, EXCEPT WHERE A DIFFERENT DETAIL OR SECTION IS SHOWN. |
| 3. | RESPONSES TO QUESTIONS AND RFIs, COMMENTS MADE DURING THE REVIEW OF SUBMITTALS, AND DIRECTIVES PROVIDED IN ANY FORM BY THE ENGINEER TO THE CONTRACTOR DURING THE CONSTRUCTION PROCESS ARE INTENDED TO BE CLARIFICATIONS OF THE CONTRACT DOCUMENTS AND ARE NOT INTENDED TO REPRESENT A CHANGE IN COST OF THE PROJECT TO THE OWNER UNLESS A CHANGE ORDER REQUEST IS PROVIDED WITH DETAILED PRICING INFORMATION TO THE ARCHITECT BEFORE PURCHASING, DETAILING, FABRICATING, OR INSTALLING ANY COMPONENT RELATED TO SUCH CLARIFICATIONS AND CORRECTIONS. |
| 4. | THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL EXCAVATION PROCEDURES IF APPLICABLE, INCLUDING LAGGING, SHORING, AND PROTECTION OF ADJACENT PROPERTY, STRUCTURES, STREETS AND UTILITIES IN ACCORDANCE WITH THE LOCAL BUILDING DEPARTMENT. |
| 5. | IT IS THE CONTRACTOR'S RESPONSIBILITY TO ASSEMBLE AND COORDINATE THE REQUIREMENTS OF ALL COMPONENTS OF THE CONTRACT DOCUMENTS AND VERIFY EXISTING CONDITIONS OF THE SITE. REF. ARCHITECTURAL AND ALL OTHER TRADES DOCUMENTS FOR SIZE AND LOCATION OF PIPES, VENTS, CHASES, DUCTS, OPENINGS, DEPRESSIONS, RECESSES, SLOPES, BLOCKOUTS, CURBS, EMBEDMENTS, AND DETAILS NOT SHOWN ON THESE STRUCTURAL DRAWINGS. ALL DIMENSIONS ARE TO BE CHECKED AND VERIFIED WITH THE ARCHITECTURAL DRAWINGS. THE GENERAL CONTRACTOR SHALL REPORT ANY DISCREPANCY BETWEEN THESE DOCUMENTS AND THOSE OF THE ARCHITECT AND ALL PROJECT CONSULTANTS OR ANY ERROR, OMISSION OR DIFFICULTY AFFECTING HIS WORK TO THE ARCHITECT AND STRUCTURAL ENGINEER FOR REVIEW. |
| 6. | THE DESIGN LOADS LISTED IN THE STRUCTURAL DESIGN CRITERIA SHALL NOT BE EXCEEDED DURING CONSTRUCTION. THE GENERAL CONTRACTOR SHALL MAKE ADEQUATE PROVISIONS FOR CONSTRUCTION LOADS, MATERIAL STORAGE, TEMPORARY BRACING, SHORING AND FORMWORK AS REQUIRED TO KEEP ALL ELEMENTS OF THE STRUCTURE PLUMB AND IN TRUE ALIGNMENT DURING ALL PHASES OF CONSTRUCTION. DESIGN OF TEMPORARY BRACING AND SHORING SHOULD BE PROPERLY DESIGNED UNDER THE SUPERVISION OF A LICENSED STRUCTURAL ENGINEER. PERMANENT BRACING MEMBERS SHOWN ON STRUCTURAL DRAWINGS ARE REQUIRED FOR THE COMPLETED STRUCTURE AND MAY NOT BE ADEQUATE DURING CONSTRUCTION. |
| 7. | SPECIAL INSPECTIONS SHALL BE DONE BY A QUALIFIED, INDEPENDENT INSPECTION COMPANY. JOB SITE VISITS BY THE ENGINEER SHOULD BE CONSIDERED A PERIODIC CHECK TO INFORM THE OWNER OF DEFECTS IN THE WORK OF THE CONTRACTOR AND DO NOT CONSTITUTE, OR SUBSTITUTE, INSPECTIONS UNLESS SPECIFICALLY CONTRACTED FOR. |
| 8. | STRUCTURAL MEMBERS AND FOUNDATIONS SUPPORTING MECHANICAL EQUIPMENT HAVE BEEN DESIGNED FOR THE WEIGHT OF THE UNITS SHOWN IN THE STRUCTURAL DRAWINGS. ANY CHANGES IN SIZE, WEIGHT, OR QUANTITY OF UNITS SHALL BE REPORTED TO THE ARCHITECT PRIOR TO FABRICATION OR INSTALLATION OF STRUCTURAL MEMBERS OR RELATED MATERIALS. |
| 9. | NOTICE IN WRITING OF ANY PROPOSED SUBSTITUTIONS OR ANY PROPOSED DEVIATIONS TO THE STRUCTURE AS REQUIRED BY THESE DOCUMENTS SHALL BE SUBMITTED WITH A CURRENT ICC REPORT. |
| 10. | DIMENSIONS SHOWN IN STRUCTURAL PLANS, SECTIONS, AND DETAILS TAKE PRECEDENT OVER SCALE. REFER TO ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS NOT INDICATED IN THE STRUCTURAL DRAWINGS. |
| 11. | THESE PLANS MUST BE SUBMITTED TO THE GEOTECHNICAL ENGINEER FOR REVIEW PRIOR TO CONSTRUCTION. |
| 12. | IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN ALL CONTRACT DOCUMENTS AND LATEST ADDENDA AND TO SUBMIT SUCH DOCUMENTS TO ALL SUBCONTRACTORS AND MATERIAL SUPPLIERS PRIOR TO THE SUBMITTAL OF SHOP DRAWINGS, FABRICATION OF ANY STRUCTURAL MEMBERS, AND ERECTION IN THE FIELD. |
| 13. | THE CONTRACTOR IS RESPONSIBLE FOR ARRANGING PRECONSTRUCTION MEETINGS FOR THE FOUNDATION AND SUPERSTRUCTURE ELEMENTS WITH A MINIMUM OF TWO WEEKS OF NOTICE PRIOR TO START OF THE RELEVANT WORK. ATTENDEES SHALL INCLUDE THE CONTRACTORS, APPROPRIATE SUBCONTRACTORS, FABRICATORS, INSPECTORS, ARCHITECT/ENGINEERS. ON THE MEETING AGENDA SHALL BE REVIEW OF WORK SCOPE, PROJECT SCHEDULE OF THE ELEMENT IN QUESTION, CONTACT INFORMATION OF RESPONSIBLE PARTIES, INSPECTION POINTS, REVIEW OF MATERIALS AND ANY SPECIAL DESIGN ISSUES, CLARIFICATIONS TESTING AND ACCEPTANCE, AND ANY OTHER TOPICS DEEMED APPROPRIATE BY THE CONTRACTOR OR THE ARCHITECT. |
| 14. | THE ROOF STRUCTURE AND ITS SUPPORTING ELEMENTS HAVE BEEN DESIGNED WITH THE ASSUMPTION THAT SUFFICIENT DRAINAGE HAS BEEN PROVIDED TO PREVENT ANY PONDING OF WATER. IT IS THE RESPONSIBILITY OF THE BUILDING OWNER TO MAINTAIN THE ROOF DRAINAGE SYSTEM SUCH THAT IT FUNCTIONS AS INTENDED. |
| GEOTECHNICAL REPORT | |
| 1. | FOUNDATION DESIGN AND SUBSURFACE INFORMATION IS BASED ON THE RECOMMENDATIONS GIVEN IN THE FOLLOWING GEOTECHNICAL INVESTIGATION REPORT: GEOTECHNICAL CONSULTANT: TERRACON REPORT NUMBER: 02225258 REPORT DATE: 11/02/2023 SYSTEM TYPE: CONVENTIONAL SHALLOW FOUNDATION VOID FORM DEPTH: N/A MOISTURE RETARDER: 15 MIL VAPOR BARRIER |
| 2. | THE CONTRACTOR MUST READ THE GEOTECHNICAL INVESTIGATION REPORT AND BE THOROUGHLY FAMILIAR WITH SITE AND SUBGRADE INFORMATION GIVEN THEREIN. ALL SUBGRADE PREPARATION AND FOUNDATION CONSTRUCTION SHALL BE PERFORMED IN STRICT COMPLIANCE WITH THE STRUCTURAL DOCUMENTS AND THE GEOTECHNICAL REPORT, AND SHALL BE OBSERVED, TESTED, AND APPROVED BY A QUALIFIED GEOTECHNICAL ENGINEER PRIOR TO PROCEEDING WITH FOUNDATION CONSTRUCTION. |



salasobrien.com
New Orleans
541 Julia St., Suite 200
New Orleans, LA 70130

Registration: F-4111
Project No: 2497-66352-00

CITY COMMENTS

1

DATE

02-24-2025

REVISION

No.



26 JULY, 2024

FUSION
ARCHITECTS

3488 BRENTWOOD DRIVE
BATON ROUGE, LA 70809
P: 225.760.3486 F: 225.766.4724
fusionapc.com

New Construction For
Take 5 Oil Change

Lee's Summit, Missouri 64063

PROJECT NO: 2497-66352-00

PHASE: Final Dev. Submittal

DATE: 26 JULY, 2024

PROJ. ENGINEER: BC

STRUCTURAL
INFORMATION

SHEET NO.
\$0.10
OF



 **Salas O'Brien**TM

salasobrien.com
New Orleans
541 Julia St., Suite 200
New Orleans, LA 70130

Registration: F-4111
Project No: 2497-66352-00

[illegible]

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3488 BRENTWOOD DRIVE
BATON ROUGE, LA 70809
P. 225.766.4848 F. 225.766.4724
fusionapc.com

New Construction For Take 5 Oil Change



| | |
|-----------------|----------------------|
| PROJECT NO: | 2497-66352-00 |
| PHASE: | Final Dev. Submittal |
| DATE: | 26 JULY, 2024 |
| PROJ. ENGINEER: | BC |

SHEET NO.
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OF

WOOD FRAMING NOTES

1. ALL WOOD FRAMING SHALL BE USED AT 19% MAXIMUM MOISTURE CONTENT AND SHALL MEET THE FOLLOWING MINIMUM REQUIREMENTS (ALLOWABLE STRESSES ARE UNFACTORED AND ARE BASED ON THE 2015 NATIONAL DESIGN SPECIFICATION (NDS) PUBLISHED BY THE NATIONAL FOREST PRODUCTS ASSOCIATION):

| | | | | |
|---|----------------|---|--------|------|
| 2x BEAMS, HEADERS, JOISTS, SILL PLATES | #2 SYP | Fv=175 psi E=1,400,000 psi | #2 SYP | Fb |
| | | | 2x4 | 1100 |
| | | | 2x6 | 1000 |
| | | | 2x8 | 925 |
| | | | 2x10 | 800 |
| 2x12 | 750 | | | |
| ENGINEERED LUMBER BEAMS LAMINATED VENEER LUMBER (LVL) | LVL 2.0E | Fb=2,600 psi Fv=285 psi E=2,000,000 psi | | |
| GLUED LAMINATED TIMBER (GLULAM) | 24F-V1 (SP/SP) | Fb(+)=2,600 psi Fb(-)=1,450 psi Fv=210 psi Ft=775 psi F _{C⊥} =500 psi E=1,700,000 psi | | |
| BEARING PLATES, LEDGERS | #3 SPY | Fb=650 psi Fv=175 psi Ft=400 psi F _{C⊥} =565 psi E=1,300,000 psi | | |
| STUDS AND STUD PACKS | STUD | Fb=650 psi Fc=850 psi E=1,200,000 psi | | |
| POST COLUMNS 5"x5" AND GREATER | #2 SYP | Fb=850 psi Fc=525 psi E=1,200,000 psi | | |
| ENGINEERED LUMBER COLUMNS PARALLEL STRAND LUMBER (PSL) | PSL 1.8 E | Fb=2,400 psi Fc=2,500 psi E=1,800,000 psi | | |

2. SILL PLATES AND OTHER WOOD MEMBERS IN CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESSURE TREATED FOR MOISTURE RESISTANCE. ALL WOOD MEMBERS EXPOSED TO WEATHER SHALL BE PRESSURE TREATED FOR MOISTURE RESISTANCE.
3. PREFABRICATED WOOD TRUSSES SHALL BE "GANG-NAIL, RAY BAR, OR APPROVED EQUAL AND SHALL BE DESIGNED, DETAILED, AND FABRICATED IN ACCORDANCE WITH THE LATEST EDITION OF THE "NATIONAL DESIGN STANDARD FOR METAL PLATE CONNECTED WOOD TRUSS CONSTRUCTION" BY THE TRUSS PLATE INSTITUTE AND APPROVED BY THE CITY. WOOD TRUSS SHOP DRAWINGS SHALL INCLUDE FRAMING PLANS SHOWING ALL PREFABRICATED MEMBERS WITH MARK NUMBERS FOR EACH MEMBER TYPE. WOOD TRUSS SHOP DRAWINGS AND CALCULATIONS SHALL BEAR THE SEAL OF A REGISTERED PROFESSIONAL ENGINEER FROM THE STATE OF WHERE THIS PROJECT IS LOCATED AND SHALL BE SUBMITTED TO THE ARCHITECT FOR APPROVAL.
4. COMPOSITE WOOD 1-BEAMS' SHALL BE T1J BY WEYERHAEUSER OR EQUIVALENT AND SHALL MEET THE STRENGTH AND STIFFNESS REQUIREMENTS OF THE SPECIES INDICATED ON PLANS.
5. ALL BEAMS AND TRUSSES SHALL BE GRADE STAMPED PER W.C.L.B. RULES.
6. IF A RIGID CEILING MATERIAL SUCH AS GYPSUM BOARD IS NOT APPLIED DIRECTLY TO THE BOTTOM OF FLOOR OR ROOF FRAMING, PROVIDE THE FOLLOWING BRIDGING: LUMBER FRAMING - PROVIDE FULL-DEPTH BLOCKING AT 1/3 POINTS OF SPAN. PRE-ENGINEERED TRUSS FRAMING - PROVIDE BOTTOM CHORD BRIDGING PER TRUSS SUPPLIER.
7. RIGID CEILING MATERIALS NOT ATTACHED DIRECTLY TO THE BOTTOM OF FLOOR OR ROOF FRAMING
8. MEMBERS ARE TO BE SUPPORTED BY CEILING JOISTS AS FOLLOWS: SPANS LESS THAN 10 FT. - 2x4 @ 16" O.C. SPANS BETWEEN 10 FT & 16 FT - 2x6 @ 16" O.C. SPANS EXCEEDING 16 FT. - 2x8 @ 16" O.C.

FLOOR AND ROOF FRAMING

1. "HANDLING, INSTALLING & BRACING METAL PLATE CONNECTED WOOD TRUSSES" (HIB-91) BY THE TRUSS PLATE INSTITUTE SHALL BE COMPLIED WITH DURING STORAGE AND INSTALLATION OF FLOOR AND ROOF TRUSSES.
2. NOTCHES ON THE ENDS OF JOISTS SHALL NOT EXCEED ONE FOURTH OF THE JOIST DEPTH. HOLES BORED IN JOISTS SHALL NOT BE WITHIN 2 INCHES OF THE TOP OR BOTTOM OF THE JOIST, AND THE DIAMETER OF ANY HOLE SHALL NOT EXCEED ONE THIRD OF THE DEPTH OF THE JOIST. NOTCHES IN THE TOP OR BOTTOM OF JOISTS SHALL NOT EXCEED ONE SIXTH OF THE DEPTH AND SHALL NOT BE LOCATED IN THE MIDDLE THIRD OF THE SPAN. THE GENERAL CONTRACTOR SHALL COORDINATE THESE GUIDELINES WITH ALL TRADES.
3. HOLES AND NOTCHES IN BEAMS AND HEADERS ARE NOT PERMITTED UNLESS VERIFIED IN WRITING BY THE ENGINEER OF RECORD.
4. BEAMS COMPRISED OF TWO OR MORE MEMBERS SHALL BE GLUED AND NAILED TOGETHER WITH A MINIMUM OF TWO (2) ROWS OF 16d NAILS AT 12" O.C. BEAMS COMPRISED OF THREE OR MORE MEMBERS SUPPORTING LOAD THROUGH SIDE HANGERS SHALL BE NAILED PER ABOVE WITH ADDITIONAL 1/2" DIAMETER THRU BOLTS AT 18" O.C. STAGGERED TOP AND BOTTOM.
5. SPLICING OF MEMBERS SHALL NOT BE PERMITTED UNLESS SHOWN ON THE PLANS OR VERIFIED IN WRITING BY THE ENGINEER.
6. INSTALL MEMBERS TRUE, PLUMB AND LEVEL AND PROVIDE ADEQUATE TEMPORARY BRACING AND SHORING UNTIL FINAL CONNECTIONS ARE MADE.

WALL FRAMING

1. BUILT-UP STUD COLUMNS SHALL BE NAILED TOGETHER WITH 16d NAILS @ 20" O.C. FOR THE FULL STUD HEIGHT. REFER TO PLAN FOR BUILT - UP STUD REQUIREMENTS. LOCATIONS OF BUILT - UP STUDS MUST BE COORDINATED WITH THE TRUSS LAYOUT PROVIDED BY THE TRUSS SUPPLIER.
2. DOUBLE TOP PLATES SHALL LAP A MINIMUM OF FOUR (4) FEET. SPLICES SHALL OCCUR AT CENTER OF SUPPORTING STUD.
3. REFERENCE SHEATHING NOTES BELOW AND ARCHITECTURAL DRAWINGS FOR SHEATHING TYPE AND NAILING REQUIREMENTS.
4. INSTALL CORNER BRACING IN ACCORDANCE WITH BUILDING CODE REQUIREMENTS AT OR ADJACENT TO EVERY EXTERIOR CORNER.
5. BORED HOLES IN 2x4 STUDS SHALL NOT EXCEED 1 3/8" FOR LOAD-BEARING WALLS AND 2 1/8" FOR NON-LOAD-BEARING WALLS. BORED HOLES IN 2x6 STUDS SHALL NOT EXCEED 2 1/8" FOR LOAD-BEARING WALLS AND 3 1/4" FOR NON-LOAD-BEARING WALLS. IN NO CASE SHALL THE BORED HOLE BE NEARER THAN 5/8" OF THE EDGE OF THE STUD.
6. THE GENERAL CONTRACTOR SHALL VERIFY AND COORDINATE ALL CONDITIONS, DIMENSIONS, AND ELEVATIONS PRIOR TO ANY CONSTRUCTION OR FABRICATION OF MATERIALS.

CONNECTORS

1. TRUSS TO TRUSS AND TRUSS HANGER CONNECTIONS ARE THE RESPONSIBILITY OF THE TRUSS MANUFACTURER.
2. NAILS, SPIKES, STAPLES, BOLTS, NUTS, WASHERS, ETC. SHALL BE GALVANIZED FOR EXTERIOR OR TREATED WOOD LOCATIONS; PLAIN FINISH FOR INTERIOR LOCATIONS.
3. FRAMING CONNECTORS SHALL BE SIMPSON 'STRONG-TIE' OR APPROVED EQUAL AND SHALL BE APPROVED BY THE GOVERNING BUILDING CODE FOR THE APPLICATION INDICATED.

SILL PLATES AT THE BUILDING EXTERIOR SHALL BE FASTENED TO THE FOUNDATION WITH 1/2" DIAMETER F1554-36 ANCHOR BOLTS WITH 7" MIN. EMBED. AND 1" HOOK @ 32" O.C. (MIN. TWO BOLTS PER SILL). INTERIOR SILL PLATES (EXCLUDING SHEAR WALLS) SHALL BE ANCHORED WITH 1/2" DIAMETER F1554-36 ANCHOR BOLTS @ 48" O.C. OR POWDER ACTUATED FASTENERS: HILTI X-C P68/SIMPSON STRONG-TIE PDPWAL-287 @ 16" O.C. MAX. REFER TO SHEAR WALL SCHEDULE FOR ANCHORS AT SHEAR WALLS.

SHEATHING AND DECKING

1. FLOOR DECKING TO BE NOMINAL 3/4" APA RATED EXPOSURE 1 SHEATHING WITH PANEL INDEX 48/24, NAILED WITH 8d NAILS @ 6" O.C. AT ALL EDGE SUPPORTS AND 8d NAILS @ 12" O.C. AT ALL INTERMEDIATE SUPPORTS. PROVIDE STANDARD EDGE CLIPS AT MID-SPAN BETWEEN ALL SUPPORTS.
2. ROOF DECKING TO BE NOMINAL 5/8" APA RATED EXPOSURE 1 OSB SHEATHING WITH PANEL INDEX 24/0, NAILED WITH 10d NAILS @ 6" O.C. AT ALL EDGE SUPPORTS AND 10d NAILS @ 12" O.C. AT ALL INTERMEDIATE SUPPORTS. PROVIDE STANDARD EDGE CLIPS AT MID-SPAN BETWEEN ALL SUPPORTS.
3. EXTERIOR WALL SHEATHING TO BE 1/2" OSB SHEATHING, INSTALLED W/ LONG DIMENSION HORIZONTAL OR VERTICAL, ATTACHED W/ 10d NAILS @ 6" O.C. AT ALL PANEL EDGES AND @ 6" O.C. AT INTERMEDIATE SUPPORTS.
4. INTERIOR WALL SHEATHING SHALL BE GYPSUM WALLBOARD AS SPECIFIED BY THE ARCHITECT.

STANDARD FASTENING SCHEDULE

| CONNECTION, LOCATION | FASTENING |
|--|---|
| 1. JOIST TO SILL OR GIRDER, TOENAIL | 3-8d |
| 2. BRIDGING TO JOIST, TOENAIL EACH END | 2-8d |
| 3. 1" x 6" SUBFLOOR OR LESS TO EACH JOIST; FACE NAIL | 2-8d |
| 4. WIDER THAN 1" x 6" SUBFLOOR TO EACH JOIST; FACE NAIL | 3-8d |
| 5. 2" SUBFLOOR TO JOIST OR GIRDER, BLIND AND FACE NAIL | 2-16d |
| 6. SOLE PLATE TO JOIST OR BLOCKING; TYPICAL FACE NAIL | 16d @ 16" O.C. |
| SOLE PLATE TO JOIST OR BLOCKING AT BRACED WALL PANEL; BRACED WALL PANELS | 3-16d PER 16" |
| 7. TOP PLATE TO STUD; END NAIL | 2-16d |
| 8. STUD TO SOLE PLATE | 4-8d TOENAIL OR 2-16d END NAIL |
| 9. DOUBLE STUDS; FACE NAIL | 16d @ 24" O.C. |
| 10. DOUBLE TOP PLATES; TYPICAL FACE NAIL | 16d @ 16" O.C. |
| DOUBLE TOP PLATES; LAP SPLICE | 8-16d |
| 11. BLOCKING BETWEEN JOISTS OR RAFTERS TO TOP PLATE; TOENAIL | 3-8d |
| 12. RIM JOIST TO TOP PLATE; TOENAIL | 8d @ 6" O.C. |
| 13. TOP PLATES, LAPS AND INTERSECTIONS; FACE NAIL | 2-16d |
| 14. CONTINUOUS HEADER, TWO PIECES; ALONG EDGE | 16" O.C. |
| 15. CEILING JOISTS TO PLATE; TOENAIL | 3-8d |
| 16. CONTINUOUS HEADER TO STUD; TOENAIL | 4-8d |
| 17. CEILING JOISTS, LAPS OVER PARTITIONS; FACE NAIL | 3-16d |
| 18. CEILING JOISTS TO PARALLEL RAFTERS; FACE NAIL | 3-16d |
| 19. RAFTER TO JOIST; TOENAIL | 3-8d |
| 20. 1" DIAGONAL BRACE TO EACH STUD AND PLATE; FACE NAIL | 2-8d |
| 21. 1" x 8" SHEATHING TO EACH BEARING WALL; FACE NAIL | 2-8d |
| 22. WIDER THAN 1" x 8" SHEATHINGS TO EACH BEARING; FACE NAIL | 3-8d |
| 23. BUILT-UP CORNER STUDS | 24" O.C. |
| 24. BUILT-UP GIRDER AND BEAMS; FACE NAIL | 20d @ 32" O.C. TOP AND BOTTOM STAGGERED ON OPPOSITE SIDES 2-20d AT ENDS AND AT EACH SPICE |
| 25. 2" PLANKS; AT EACH BEARING | 16d |
| 26. COLLAR TIE TO RAFTER; FACE NAIL | 3-10d |
| 27. JACK RAFTER TO HIP | 3-10d TOENAIL OR 2-16d FACE NAIL |
| 28. ROOF RAFTER TO 2x RIDGE BEAM | 2-16d TOENAIL OR 2-16d FACE NAIL |
| 29. JOIST TO BAND JOIST; FACE NAIL | 3-16d |
| 30. LEDGER STRIP; FACE NAIL | 3-16d |
| 31. WOOD STRUCTURAL PANELS AND PARTICLE BOARD: ¹⁾ SUBFLOOR, ROOF AND WALL SHEATHING (TO FRAMING); 1/2" AND LESS 19/32" TO 3/4" 7/8" TO 1" 1-1/8" TO 1-1/4" | 6d ²⁾ 8d ²⁾ OR 6d ³⁾ 8d ²⁾ 10d ⁴⁾ OR 8d ⁴⁾ |
| SINGLE FLOOR (COMBINATION SUBFLOOR-UNDERLAYMENT TO FRAMING); 3/4" AND LESS 7/8" TO 1" 1-1/8" TO 1-1/4" | 6d ²⁾ 8d ²⁾ 10d ⁴⁾ OR 8d ⁴⁾ |
| 32. PANEL SIDING (TO FRAMING) 1/2" 5/8" | 6d ²⁾ 8d ²⁾ |
| 33. FIBERBOARD SHEATHING: ²⁾ 1/2" | NO. 11 GA. ROOFING NAIL ³⁾ OR 6d |
| | NO. 11 GA. ROOFING NAIL ³⁾ OR 8d |
| 34. INTERIOR PANELING 1/4" 3/8" | 4d ²⁾ 6d |

- a. COMMON OR BOX NAILS ARE PERMITTED TO BE USED EXCEPT WHERE OTHERWISE STATED. REFER TO GOVERNING BUILDING CODE FOR ALLOWABLE STAPLE FASTENING ALTERNATIVES.
- b. NAILS SPACED AT 6" O.C. AT EDGES, 12" O.C. AT INTERMEDIATE SUPPORTS EXCEPT 6" AT SUPPORTS WHERE SPANS ARE 48" OR MORE. FOR NAILING OF WOOD STRUCTURAL PANEL AND PARTICLE BOARD DIAPHRAGM AND SHEAR WALLS, REFER TO SHEARWALL NOTES. NAILS FOR WALL SHEATHING ARE PERMITTED TO BE COMMON, BOX OR CASING.
- c. COMMON OR DEFORMED SHANK
- d. COMMON.
- e. DEFORMED SHANK.
- f. CORROSION-RESISTANT SIDING OR CASING NAIL.
- g. FASTENERS SPACED 3" O.C. AT EXTERIOR EDGES AND 6" O.C. AT INTERMEDIATE SUPPORTS.
- h. CORROSION-RESISTANT ROOFING NAILS WITH 7/16" DIAMETER HEAD AND 1-1/2" LENGTH FOR 1/2" SHEATHING AND 1-3/4" LENGTH FOR 25/32" SHEATHING.
- i. CASING OR FINISH NAILS SPACED 6" ON PANEL EDGES, 12" AT INTERMEDIATE SUPPORTS.
- j. PANEL SUPPORTS AT 24". CASING OR FINISH NAILS SPACED 6" ON PANEL EDGES, 12" AT INTERMEDIATE SUPPORTS.
- k. FOR ROOF SHEATHING APPLICATIONS, 8d NAILS ARE THE MINIMUM REQUIRED FOR STRUCTURAL PANELS.

WOOD SHRINKAGE CONSIDERATIONS

1. WOOD PLATE SHRINKAGE IS TO BE 1/8" PER STORY, TYPICAL.
2. ACCOUNT FOR ADDITIONAL 1/8" SETTLEMENT PER STORY ON FRAMING GAPS DUE TO CREEP AND GRAVITY LOADING.
3. 4-STORY BUILDINGS ARE ESTIMATED TO SETTLE UP TO 3/4" AT THE UPPERMOST LEVEL.
4. ROUGH OPENING HEIGHTS SHALL BE OVERSIZED TO ACCOUNT FOR THE ESTIMATED SETTLEMENT STATED ABOVE.

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Registration: F-4111
Project No: 2497-66352-00

| TRUSS LOADING SCHEDULE | | | | | |
|------------------------|------------|-----------------------------------|------------|------------|------------|
| DESIGNATION | DEPTH | TOPPING | TOLL (PSF) | BCLL (PSF) | TCDL (PSF) |
| RT | REF. ARCH. | ROOF ASSEMBLY OVER ROOF SHEATHING | 20 | 0 | 12 |
| | | | | | BCDL (PSF) |
| | | | | | 10 |
| | | | | | NOTES |

- NOTES
- SELF WT OF TRUSS IS NOT INCLUDED.
 - TOP CHORD SLOPING TO PROVIDE POSITIVE DRAINAGE, REF. ARCH.
 - REFER TO STRUCTURAL NOTES FOR SUBFLOOR & ROOF SHEATHING INFORMATION.

5 TRUSS SCHEDULE

NTS

| SHEARWALL SCHEDULE | | |
|--------------------|---------------|---------------|
| LEVEL | EXTERIOR WALL | INTERIOR WALL |
| | SHEATHING | SHEATHING |
| 1 | SW5 | SW4 |

- NOTES
- ALL SHEARWALL DESIGNATION APPLY TO EACH LOCATION UNLESS NOTED OTHERWISE ON PLAN.
 - REFER TO WOOD SHEARWALL SHEATHING AND ATTACHMENT SCHEDULE BELOW FOR MORE INFORMATION ON EACH SHEARWALL TYPE.
 - ** DENOTES SHEATHING REQUIRED ON BOTH SIDES OF SHEARWALL.
 - EXTERIOR WALL SHALL RECEIVE SHEATHING ON EXTERIOR SIDE OF THE WALL U.N.O.
 - DEMISING WALL SHALL RECEIVE SHEATHING ON UNIT SIDE OF THE WALL U.N.O.
 - CORRIDOR WALL SHALL RECEIVE SHEATHING ON CORRIDOR SIDE OF THE WALL U.N.O.

| WOOD SHEARWALL SHEATHING AND ATTACHMENT SCHEDULE | | | | |
|--|---|------------------|---------------------------|---------------------------------------|
| SW # | DESCRIPTION | SILL NAILING | SILL ANCHORS | TRUSS BLOCK SPACING |
| SW1 | 5/8" GYPSUM WALLBOARD UNBLOCKED AND FASTENED WITH WALLBOARD 6d NAILS @ 7" O.C. AT ALL PANEL EDGES. | 16d @ 16" O.C. | X-CP 72 P8 S23 @ 24" O.C. | EVERY 4TH TRUSS SPACE OR 8'-0" O.C. |
| SW2 | 5/8" GYPSUM WALLBOARD UNBLOCKED AND FASTENED WITH WALLBOARD 6d NAILS @ 4" O.C. AT ALL PANEL EDGES | 16d @ 12" O.C. | X-CP 72 P8 S23 @ 16" O.C. | EVERY 3RD TRUSS SPACE OR 6'-0" O.C. |
| SW3 | 5/8" GYPSUM WALLBOARD BLOCKED AND FASTENED WITH WALLBOARD 6d NAILS @ 4" O.C. AT ALL PANEL EDGES. | 16d @ 10" O.C. | X-CP 72 P8 S23 @ 16" O.C. | EVERY 3RD TRUSS SPACE OR 6'-0" O.C. |
| SW4 | 5/8" GYPSUM SHEATHING BLOCKED AND FASTENED WITH WALLBOARD 6d NAILS @ 4" O.C. AT EDGES AND @ 7" O.C. AT INTERMEDIATE SUPPORTS. | 2-16d @ 18" O.C. | X-CP 72 P8 S23 @ 12" O.C. | EVERY OTHER TRUSS SPACE OR 4'-0" O.C. |
| SW5 | 15/32" WOOD STRUCTURAL PANEL SHEATHING BLOCKED AND FASTENED WITH 8d NAILS @ 6" O.C AT ALL PANEL EDGES. | 2-16d @ 10" O.C. | 1/2" F1554-36 @ 48" O.C. | EVERY TRUSS SPACE |
| SW6 | 15/32" WOOD STRUCTURAL PANEL SHEATHING BLOCKED AND FASTENED WITH 10d NAILS @ 6" O.C AT ALL PANEL EDGES. | 2-16d @ 8" O.C. | 1/2" F1554-36 @ 36" O.C. | EVERY TRUSS SPACE |
| SW7 | 15/32" WOOD STRUCTURAL PANEL SHEATHING BLOCKED AND FASTENED WITH 10d NAILS @ 4" O.C AT ALL PANEL EDGES. | 2-16d @ 4" O.C. | 1/2" F1554-36 @ 24" O.C. | EVERY TRUSS SPACE(6) |

- NOTES
- ALL THE SHEARWALL TYPES ARE NOT USED, IF THEY ARE NOT MARKED ON SHEARWALL SCHEDULE OR ON PLANS.
 - "BLOCKED" SHEAR WALLS SHALL INCLUDE 2x BLOCKING AT ALL PANEL EDGES.
 - INTERMEDIATE SUPPORTS TO BE FASTENED @ 12" O.C. U.N.O.
 - STRUCTURAL PANELS ARE TO BE GRADE STRUCTRUAL 1.
 - THE X-CP 72 P8 S23 ARE HILTl POWDER ACTUATED FASTENERS WITH INTEGRAL WASHERS.
 - TRUSS BLOCK CAPACITY SHALL BE 1500 LBS

4 SHEARWALL SCHEDULE

NTS

| LOAD BEARING STUD SCHEDULE | | |
|----------------------------|------------------|------------------|
| LEVEL | EXTERIOR WALL | INTERIOR WALL |
| 1 | **2x6 @ 16" O.C. | **2x6 @ 16" O.C. |

- NOTES
- ALL EXTERIOR AND CORRIDOR WALLS ARE CONSIDERED TO BE LOAD BEARING WALLS.
 - REFER TO SHEET S0.12 FOR STUD SPECIES.
 - BALLOON FRAMED WALLS SHALL BE 2x6 @ 12" O.C.
 - NON LOAD BEARING WALLS SHALL BE 2xs @ 16" O.C. MINIMUM.
 - EXITWAYS ENCLOSES CORRIDORS WIDER THAN 8 FT INCLUDING BOTH ELEVATOR LOBBY & CORRIDORS LEADING TO STAIRS.

3 STUD SCHEDULE

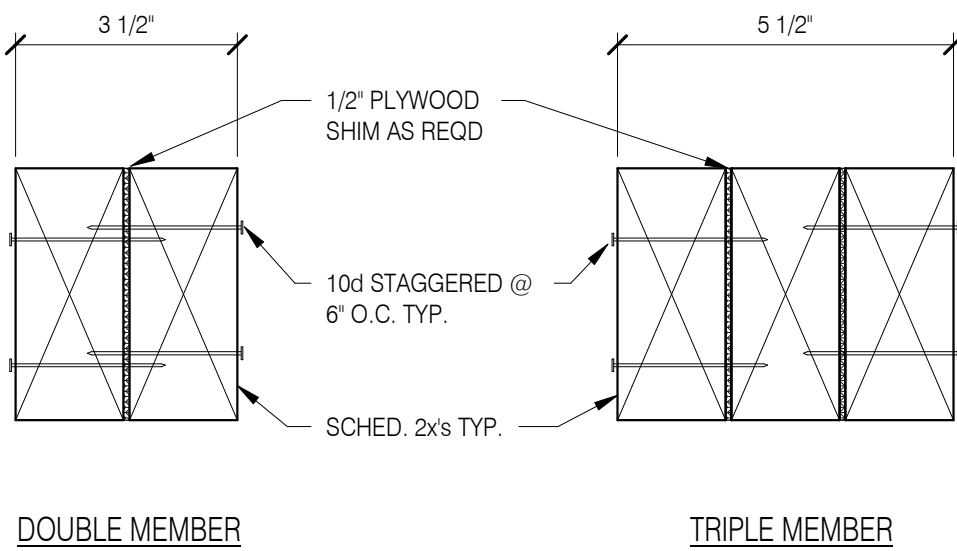
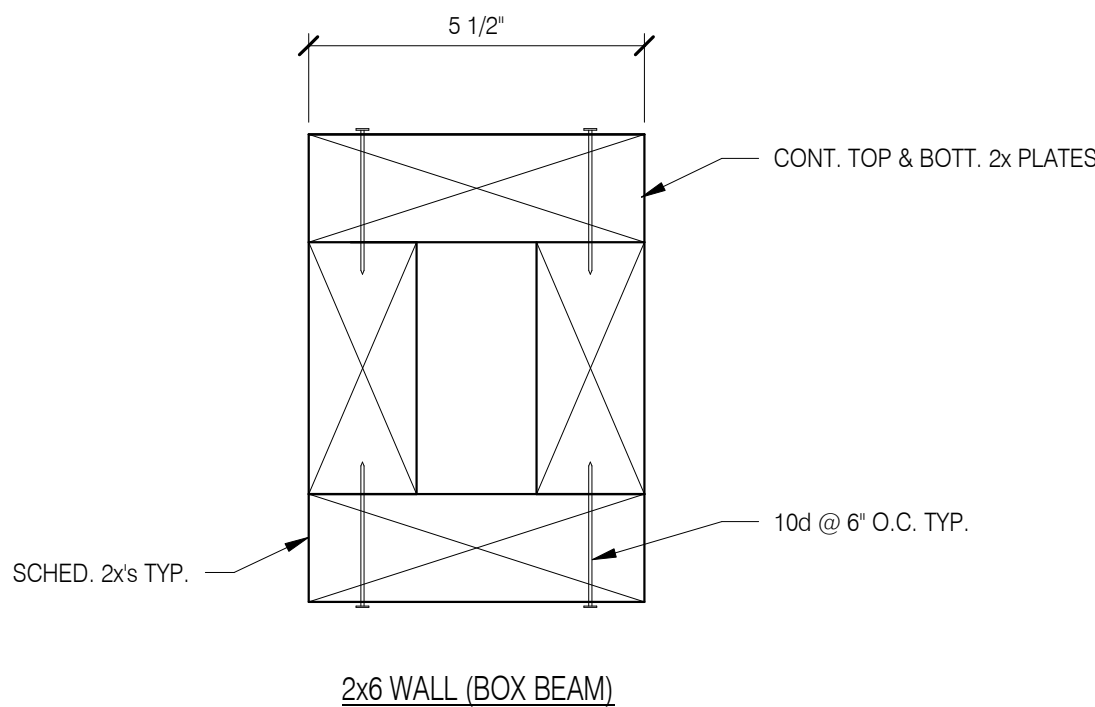
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| HOLDDOWN AND TENSION TIE SCHEDULE | | | | | |
|-----------------------------------|---------|------------------------|--------|--------------------------|---------------------|
| MARK | PRODUCT | FASTENERS | ANCHOR | STUD/PACK MIN. THICKNESS | ALLOWABLE CAPACITY1 |
| 1 | CS20 | (14) 0.148x2 1/2 NAILS | N/A | (1) - 2x4 | 1030 |
| 2 | CS16 | (22) 0.148x2 1/2 NAILS | N/A | (1) - 2x4 | 1705 |
| 3 | CS14 | (30) 0.148x2 1/2 NAILS | N/A | (1) - 2x4 | 2490 |
| 4 | CMST14 | (36) 0.148x2 1/2 NAILS | N/A | (2) - 2x4 | 3531 |
| 5 | CMST14 | (56) 0.148x2 1/2 NAILS | N/A | (2) - 2x4 | 5494 |
| 6 | CMST14 | (66) 0.148x2 1/2 NAILS | N/A | (2) - 2x4 | 6475 |
| 7 | LTTP2 | (12) 0.148x2 1/2 NAILS | 1/2" | (2) - 2x4 | 2230 |
| 8 | HTT4 | (18) 0.148x2 1/2 NAILS | 5/8" | (2) - 2x4 | 3610 |
| 9 | HTT5 | (26) 0.162x3 NAILS | 5/8" | (2) - 2x4 | 4670 |
| 10 | HDU8 | (20) 1/4x2 1/2 SDS | 7/8" | (3) - 2x4 | 6970 |
| 11 | HDU11 | (30) 1/4x2 1/2 SDS | 1" | (3) - 2x6 | 9535 |
| 12 | HDU14 | (36) 1/4x2 1/2 SDS | 1" | (3) - 2x6 | 10770 |

- NOTES
- ALLOWABLE CAPACITIES ARE BASED ON DF/SYP SPECIES.
 - REF. MFR. INSTALLATION GUIDELINES AND NOTES TO ENSURE REQ'D CAPACITIES ARE PROVIDED.

2 HOLDDOWN SCHEDULE

NTS



| BEAM/HEADER SCHEDULE | | | | |
|----------------------|----------------------|------------|------------|----------------|
| MARK | HEADER | JACK STUDS | KING STUDS | SIMPSON HANGER |
| WB1 | (2) 2x8 | (1) - 2x | (2) - 2x | HU48 |
| WB2 | (2) 2x10 | (1) - 2x | (2) - 2x | HU410 |
| WB3 | (2) 2x12 | (1) - 2x | (3) - 2x | HU412 |
| WB4 | (3) 2x8 | (2) - 2x | (3) - 2x | HU68 |
| WB5 | (3) 2x10 | (2) - 2x | (3) - 2x | HU610 |
| WB6 | (3) 2x12 | (2) - 2x | (3) - 2x | HU612 |
| LVL1 | 3 1/2" x 9 1/2" LVL | (1) - 2x | (3) - 2x | HGLTV 3.59X |
| LVL2 | 3 1/2" x 11 7/8" LVL | (1) - 2x | (3) - 2x | HGLTV 3.512 |
| LVL3 | 3 1/2" x 14" LVL | (2) - 2x | (4) - 2x | HGLTV 3.514 |
| LVL4 | 3 1/2" x 16" LVL | (2) - 2x | (4) - 2x | HGLTV 3.516 |
| LVL5 | 3 1/2" x 18" LVL | (2) - 2x | (4) - 2x | HGLTV 3.518 |
| LVL6 | 5 1/4" x 9 1/2" LVL | (2) - 2x | (4) - 2x | HGLTV 5.59X |
| LVL7 | 5 1/4" x 11 7/8" LVL | (2) - 2x | (4) - 2x | HGLTV 5.512 |
| LVL8 | 5 1/4" x 14" LVL | (2) - 2x | (4) - 2x | HGLTV 5.514 |
| LVL9 | 5 1/4" x 16" LVL | (2) - 2x | (4) - 2x | HGLTV 5.516 |
| LVL10 | 5 1/4" x 18" LVL | (2) - 2x | (4) - 2x | HGLTV 5.518 |

- NOTES
- REFER TO STRUCTURAL NOTES FOR HEADER SPECIES.
 - USE 1/2" PLYWOOD SPACER(S) BETWEEN 2x AND 3x MEMBERS. TYPICAL HEADER FRAMING.
 - 2x HEADERS ON 6" WALLS (OR WIDER) SHALL INCLUDE BOX BEAM FRAMING AS SHOWN.
 - REFER TO S0.11 FOR JACK & KING STUD FRAMING REQUIREMENTS.
 - HANGERS OCCUR IF BEAM OR HEADER IS SUPPORTED BY ANOTHER BEAM IN LIEU OF STUD COLUMN SUPPORT.
 - PROVIDE SIMPSON HU48 (OR EQ.) FOR CONX TO CMU.
 - ALL THE BEAM/HEADER TYPES ARE NOT USED, IF THEY ARE NOT MARKED ON PLANS.

1 BEAM/HEADER SCHEDULE

NTS



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New Construction For
Take 5 Oil Change

Lee's Summit, Missouri 64063



PROJECT NO: 2497-66352-00

PHASE: Final Dev. Submittal

DATE: 26 JULY, 2024

PROJ. ENGINEER: BC

STRUCTURAL
INFORMATION

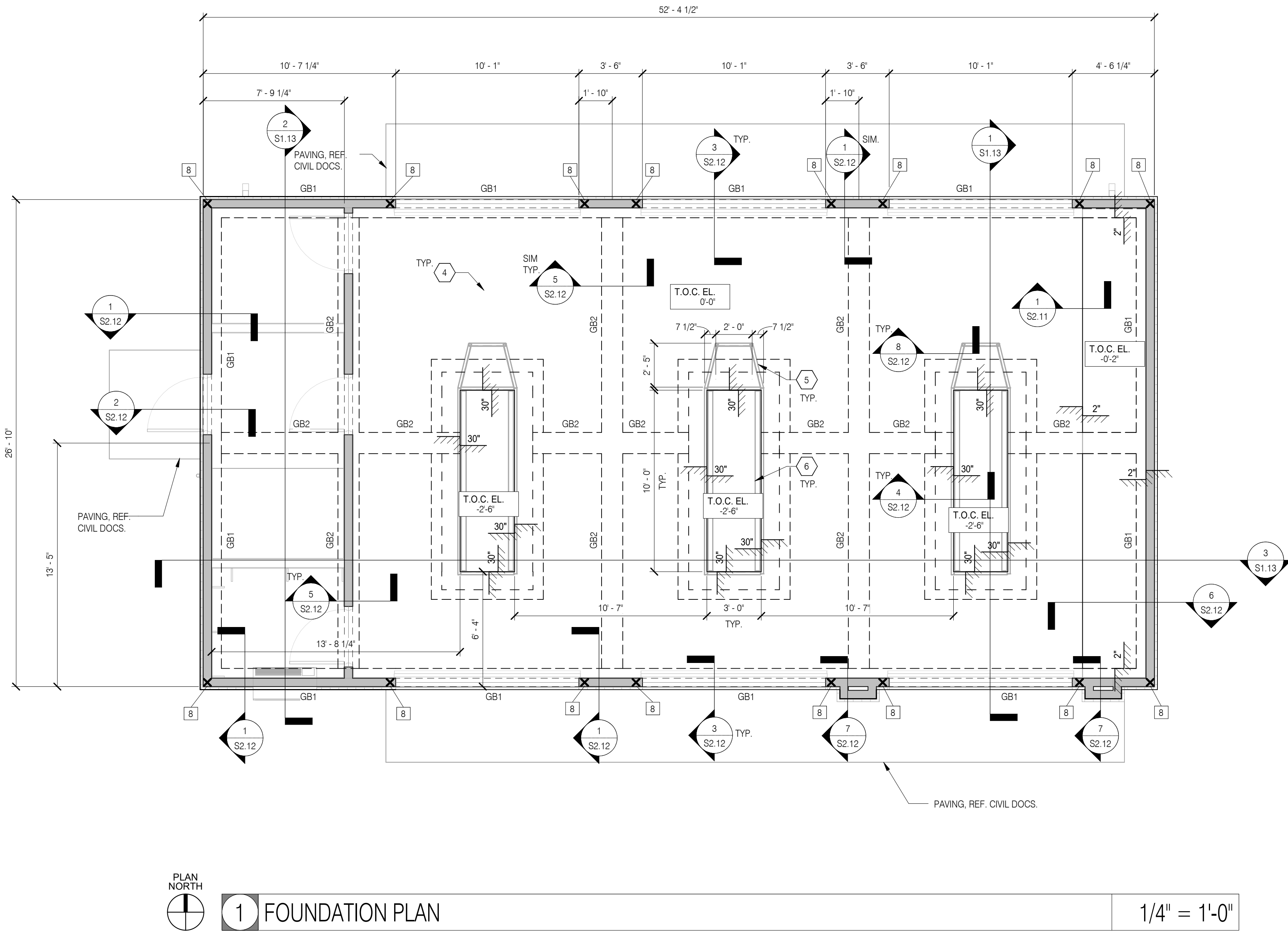
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Registration: F-4111
Project No: 2497-66352-00

PLAN NOTES

1. FINISHED FLOOR ELEVATION = T.O. CONCRETE SLAB = EL. 0'-0" UNLESS NOTED OTHERWISE. REFER TO ARCHITECTURAL OR CIVIL DRAWINGS FOR DATUM ELEVATION.
2. COORDINATE ALL WORK THIS SHEET WITH THE STRUCTURAL NOTES ON SHEET S1 SERIES AND WITH THE PROJECT SPECIFICATIONS.
3. REFER TO SHEET S3 SERIES FOR FOUNDATION DETAILS.
4. CONCRETE FLOOR SLAB OVER MOISTURE RETARDER PER GENERAL NOTES OVER IMPORTED AND IMPROVED SUBGRADE PER THE GEOTECHNICAL REPORT.

SLAB THICKNESS: 5 inches
CONCRETE SPECIFICATION: REFER TO 4/S0.11 AND SPECIFICATIONS
SLAB REINFORCEMENT: #4 @ 12" O.C. EACH WAY MIDSLAB, LAPPED AT SPLICES REF. DETAIL 1/S2.11

5. L 2X2X1/4" (GALV.) MOUNTED TO THE TOP OF CONCRETE
6. L 6X3 1/2X5/16" LLV (GALV.) MOUNTED TO THE INSIDE FACE OF THE TRENCH PER 4/S2.11

| SYMBOL LEGEND | |
|---------------|--|
| | LOAD-BEARING WALL BELOW (REF. 5/S0.13 FOR LOAD-BEARING WALL SCHEDULE) |
| | SHEAR WALL BELOW (REF. 4/S0.13 FOR SHEAR WALL SCHEDULE) |
| | HOLDDOWN / FLOOR TIE APPROX. LOCATION PER SHEAR WALL SCHEDULE (REF. 2/S0.13 FOR HOLDDOWN/FLOOR TIE SCHEDULE) |
| | SHEAR WALL PLAN VIEW |

| GRADE BEAM SCHEDULE | | | | | | |
|---------------------|-------|-------|--------------|---------------|---------------|-------|
| MARK | WIDTH | DEPTH | TOP & BOTTOM | REINFORCEMENT | STIRRUPS | NOTES |
| GB1 | 14" | 42" | 4-#6 | 2-#5 | #3 @ 30" O.C. | |
| GB2 | 14" | 36" | 4-#6 | 2-#5 | #3 @ 30" O.C. | |

| CITY COMMENTS | NO. | REVISION | DATE |
|---------------|-----|----------|------|
| 1 | | | |



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New Construction For
Take 5 Oil Change
Lee's Summit, Missouri 64063



PROJECT NO: 2497-66352-00
PHASE: Final Dev. Submittal
DATE: 26 JULY, 2024
PROJ. ENGINEER: BC

FOUNDATION PLAN

SHEET NO.
S1.10
OF

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Autodesk Docs/Take 5 - Lee's Summit MO - R24/Take 5 - Lee's Summit MO - R22.rvt



Salas O'Brien

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New Orleans

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Registration:

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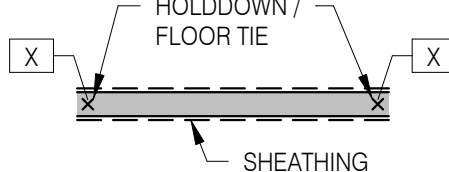


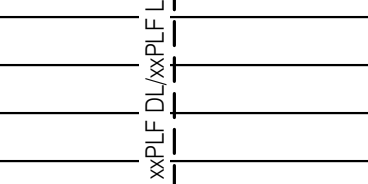
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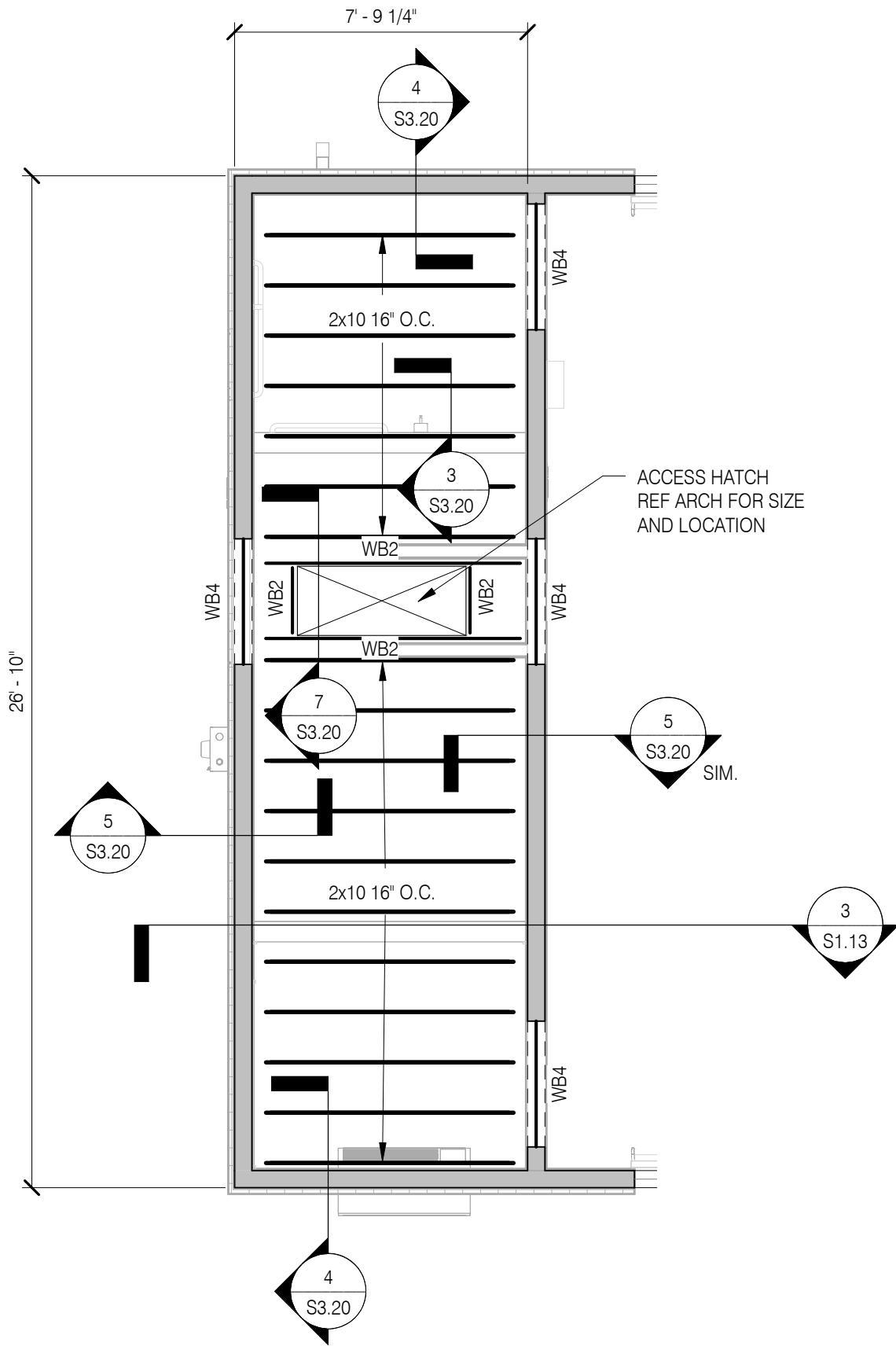
2497-66352-00

PLAN NOTES AND KEY

- REFER TO SHEET **S1** SERIES FOR STRUCTURAL INFORMATION, WOOD FRAMING NOTES AND WOOD SCHEDULES AND TYPICAL DETAILS.
- THE BACKGROUND SHOWN ON THE PLAN IS FOR THE FLOOR BELOW.

1/S0.12
- ALL EXTERIOR WALLS ARE CONSIDERED LOAD-BEARING WALLS REGARDLESS OF HATCHING.
- PROVIDE 3/4" FLOOR DECK PER WOOD FRAMING NOTES ON SHEET SX.XX ON TOP OF WOOD JOISTS AS NOTED ON THE PLAN.
- REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONAL CONTROL.
- BOTTOM OF DECK ELEVATION =8'-0"

| SYMBOL LEGEND | |
|---|---|
|  | LOAD-BEARING WALL BELOW (REF. 3/S0.13)FOR LOAD-BEARING WALL SCHEDULE) |
|  | SHEARWALL BELOW (REF. 4/S0.13 FOR SHEARWALL SCHEDULE) |
|  | HOLDDOWN / FLOOR TIE APPROX. LOCATION PER SHEARWALL SCHEDULE (REF. 2/S0.13 FOR HOLDDOWN/FLOOR TIE SCHEDULE) |
|  | SHEARWALL PLAN VIEW |
|  | BEAM (REF.1/S0.13 FOR BEAM SCHEDULE) |
|  | POINT LOAD FROM ABOVE, SUPPORTED BY THE TRUSS. TRUSS MFR TO INCLUDE THIS LOADING IN TRUSS DESIGN. |
|  | LINE LOAD FROM ABOVE,SUPPORTED BY THE TRUSS. PROVIDE TRUSS BLOCKING DIRECTLY BENEATH LOAD-BEARING WALL. TRUSS MANUFACTURER TO INCLUDE THIS LOADING IN TRUSS DESIGN. |



1 MEZZANINE FRAMING PLAN

1/4" = 1'-0"



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MEZZANINE
FRAMING PLAN

SHEET NO.
S1.11
OF

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PLAN NOTES AND KEY

- 1

ROOF DECK PER WOOD NOTES ON **1/S0.12** OVER PRE-ENGINEERED WOOD TRUSSES @ 2'-0" O.C. TYP. U.N.O. REFER ARCH. FOR ROOF PROFILES.
- 2

REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONAL CONTROL.
- 3

TRUSS BEARING ELEVATION = 12'-6 1/2"
- 4

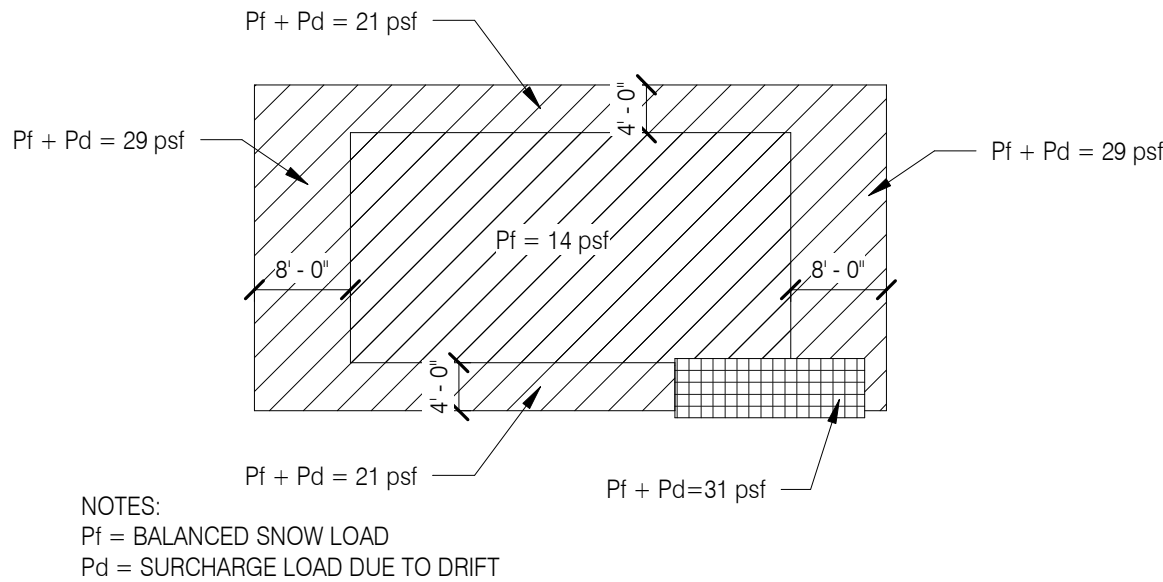
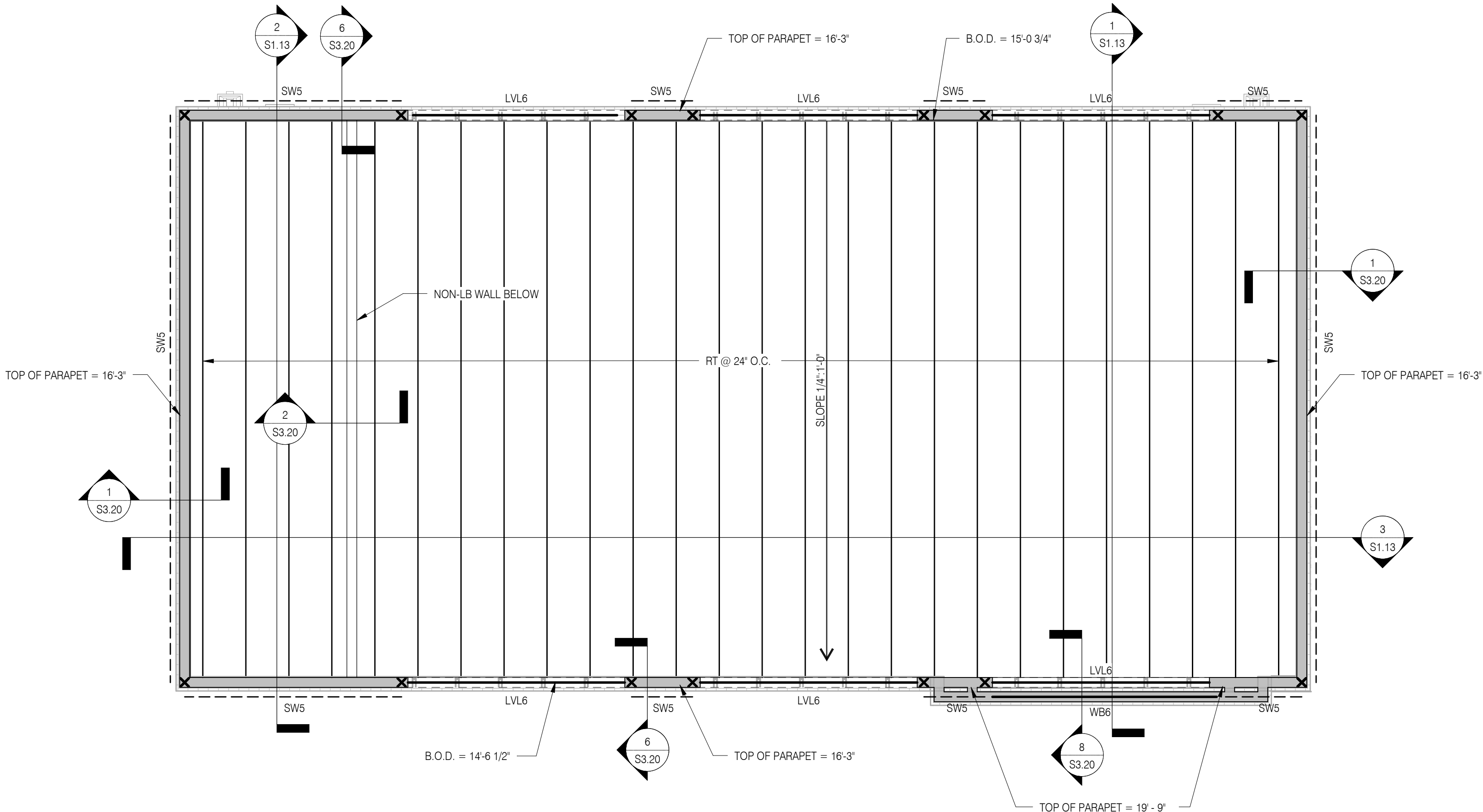
ROOF TRUSS TOP CHORDS SHALL BE SLOPED TO MATCH PROFILE OF ROOF
- 5

EACH END OF ALL ROOF TRUSSES SHALL BE ANCHORED TO WALL FRAMING WITH HURRICANE TIES PER DETAILS ON **S3.20**
- 6

PROVIDE TRUSS ABOVE SHEAR WALLS. PROVIDE BLOCKING BETWEEN TRUSSES WHERE SHEAR WALL RUNS PERPENDICULAR TO THE TRUSSES. REFER **3/S3.11**
- 7

ALL EXTERIOR WALL AND CORRIDOR WALL HEADERS TO BE WB4 U.N.O. INTERIOR WALL HEADERS AND BEAMS NOT NOTED ON PLAN ARE TYPE WB2. REFER **1/S0.13**
- 8

G.T. DESIGNATES PRE-FABRICATED GIRDER TRUSS.






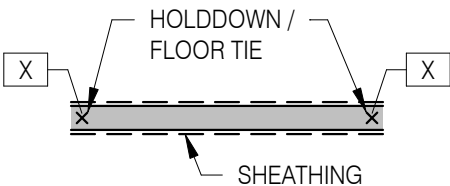


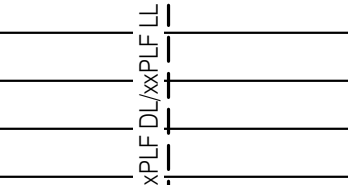
2 SNOW LOADING DIAGRAM

1/16" = 1'-0"



1 ROOF FRAMING PLAN

1/4" = 1'-0"

| SYMBOL LEGEND | |
|---|--|
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| No. | REVISION | DATE |
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STATE OF MISSOURI
SCOTT R. ARMSTRONG
NUMBER
PE-2007052756
PROFESSIONAL ENGINEER

26 JULY, 2024

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ROOF FRAMING
PLAN

SHEET NO.
S1.12
OF

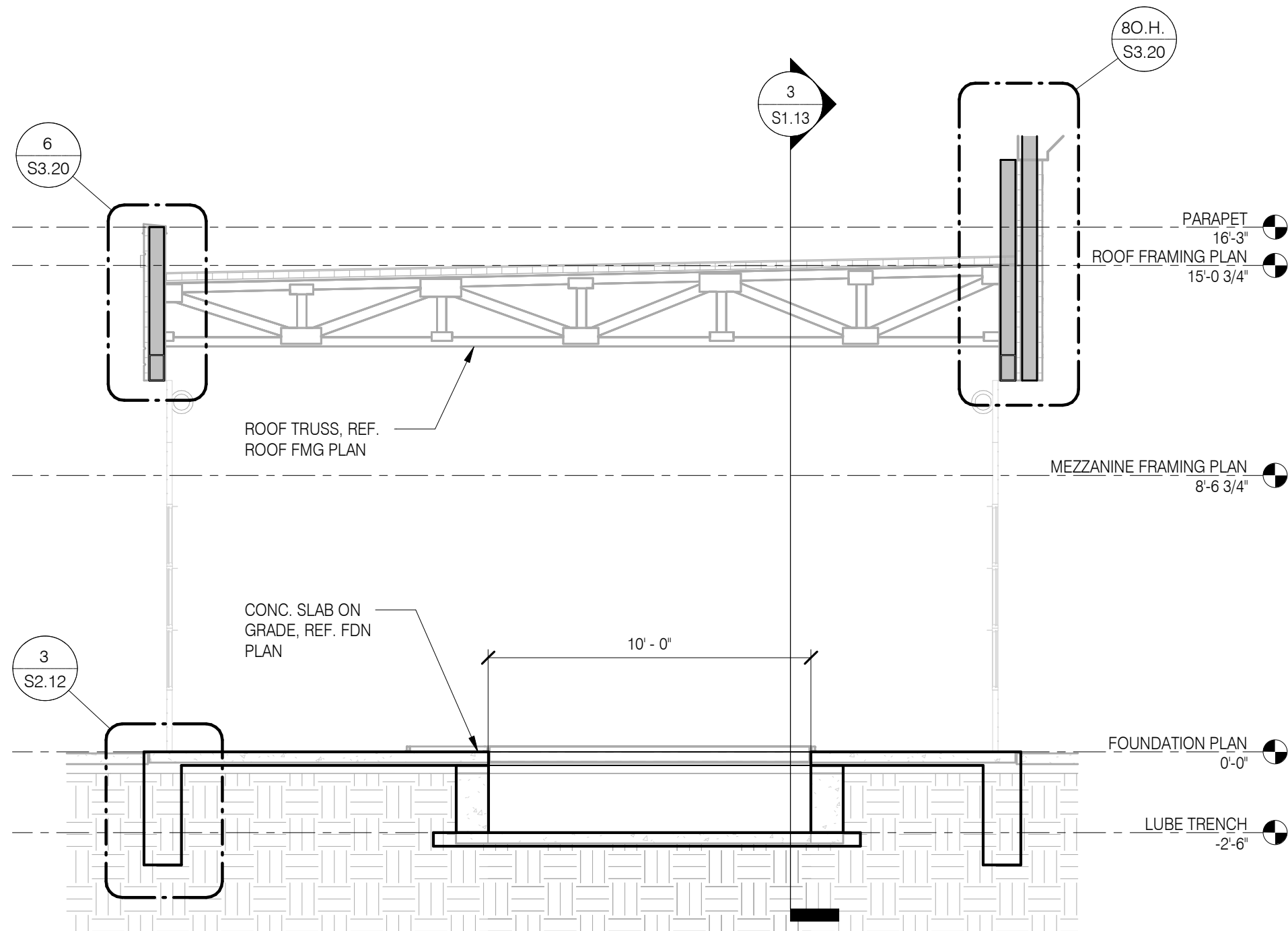
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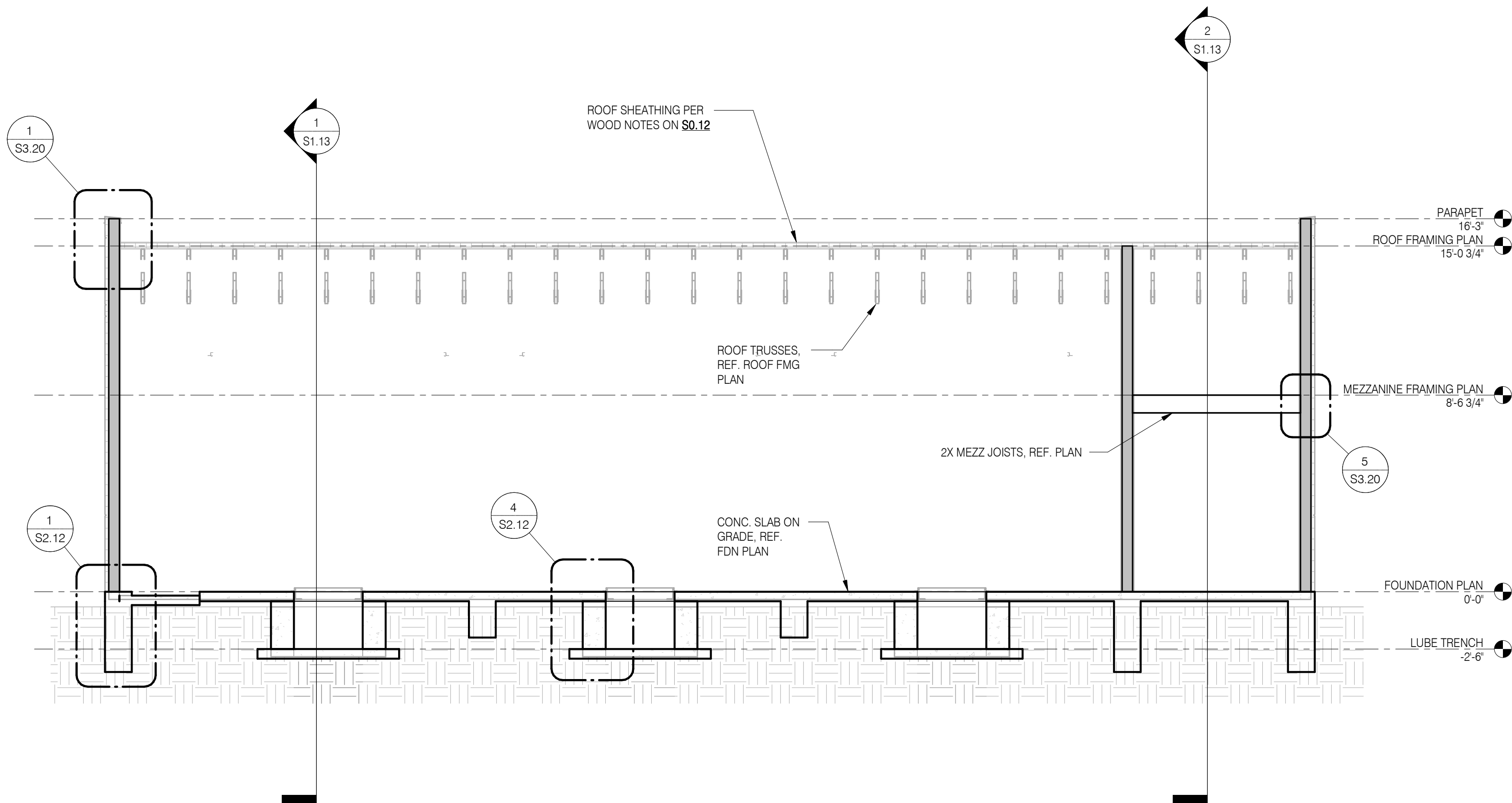
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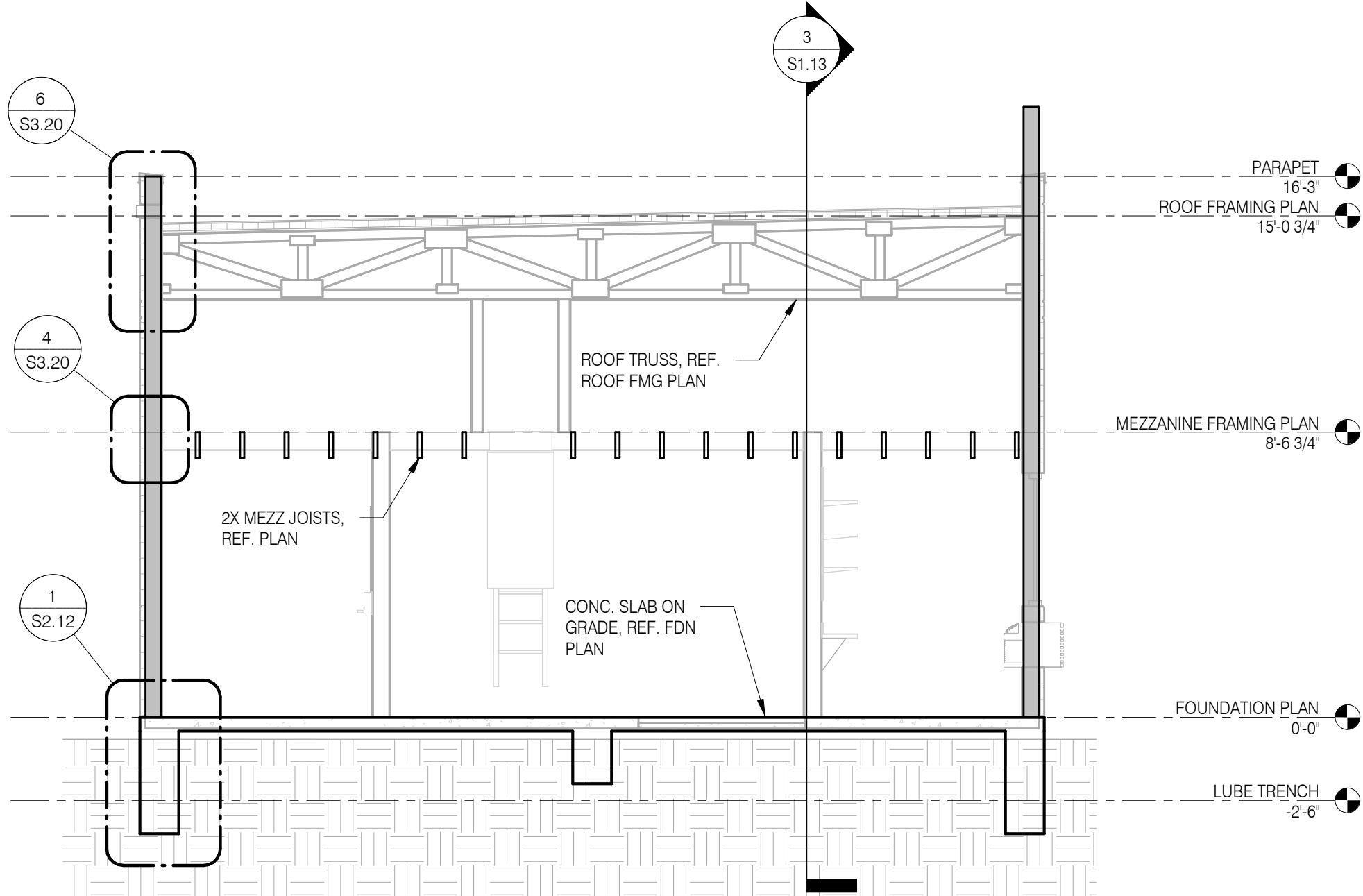
1 BUILDING SECTION

1/4" = 1'-0"



3 BUILDING SECTION

1/4" = 1'-0"



2 BUILDING SECTION

1/4" = 1'-0"



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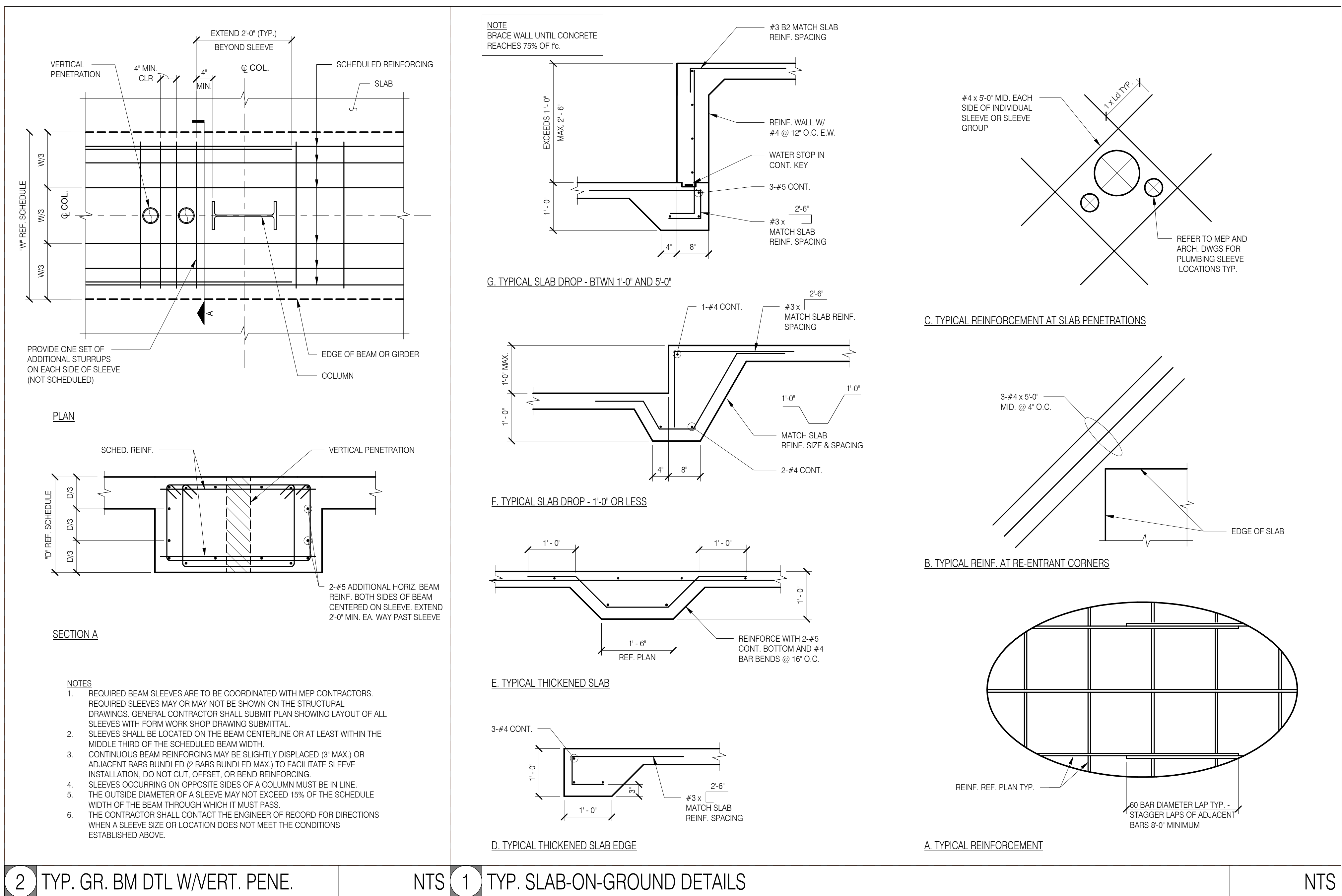
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BUILDING SECTIONS

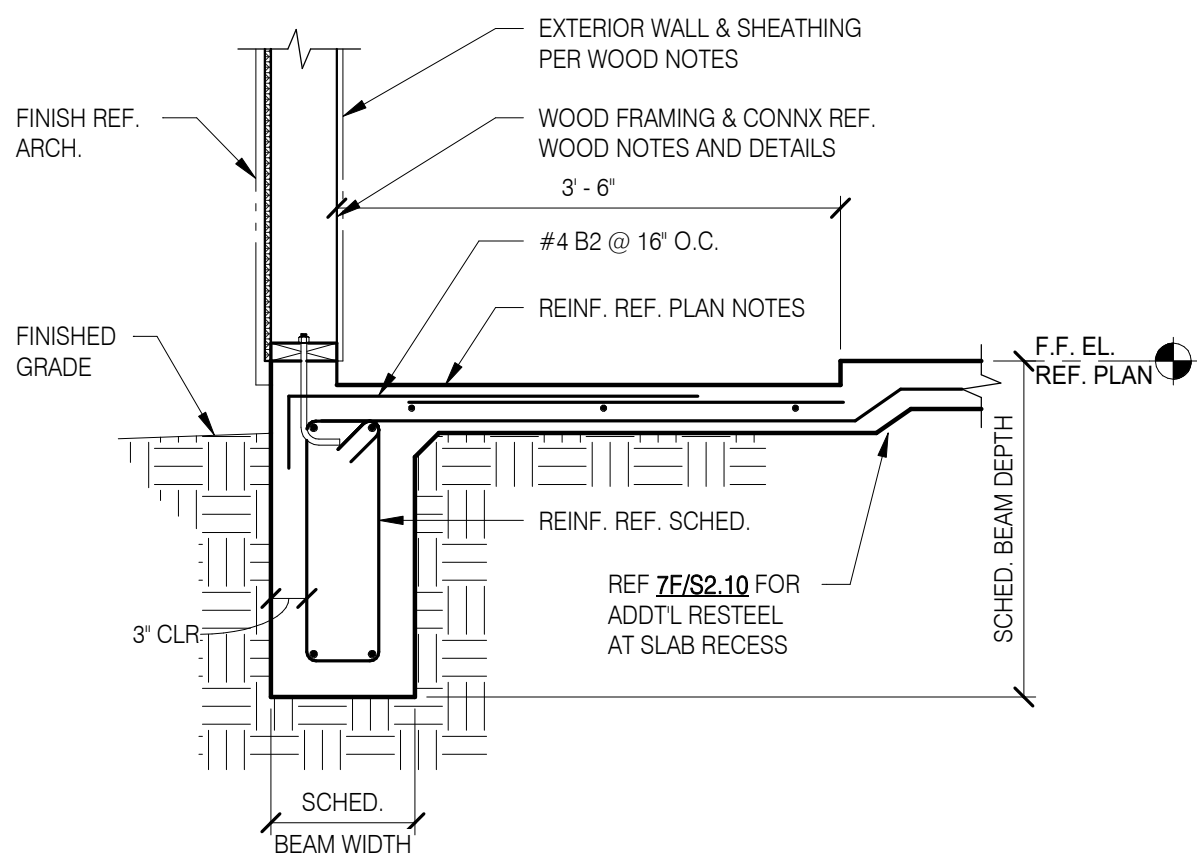
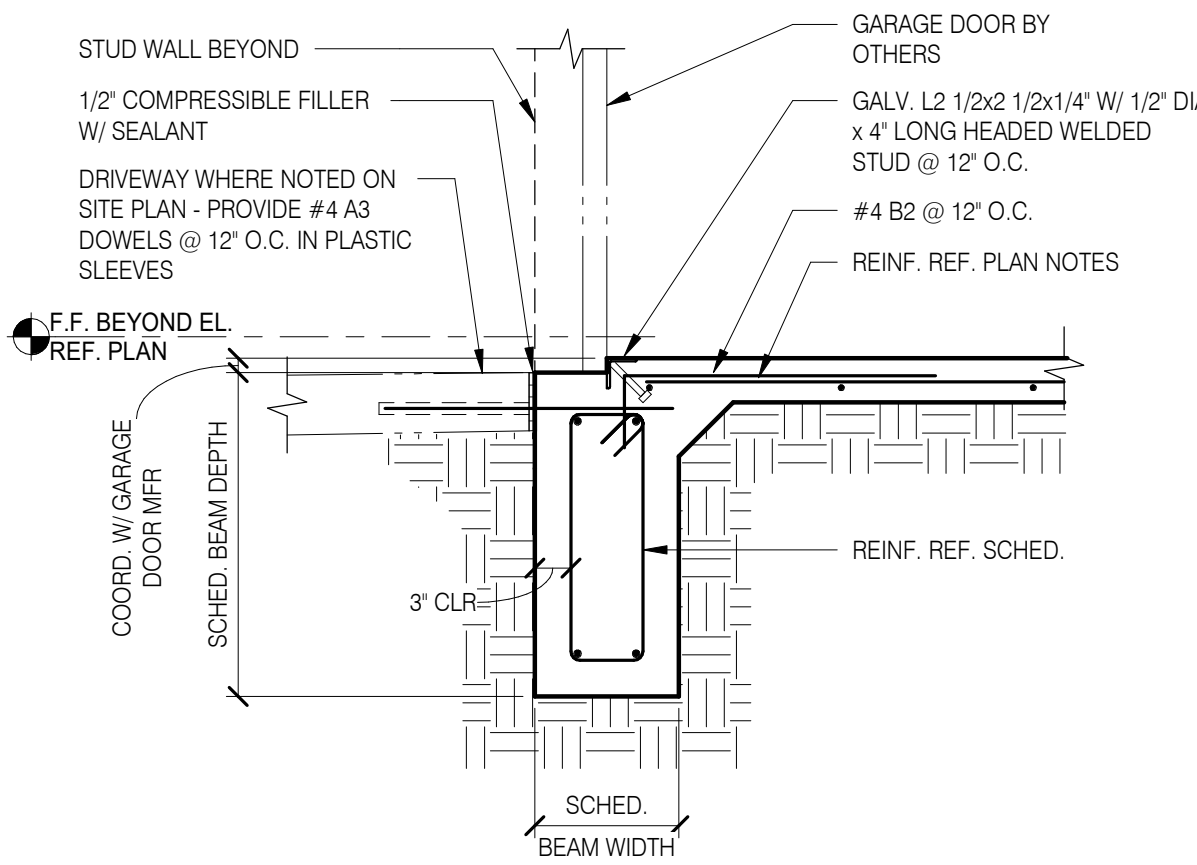
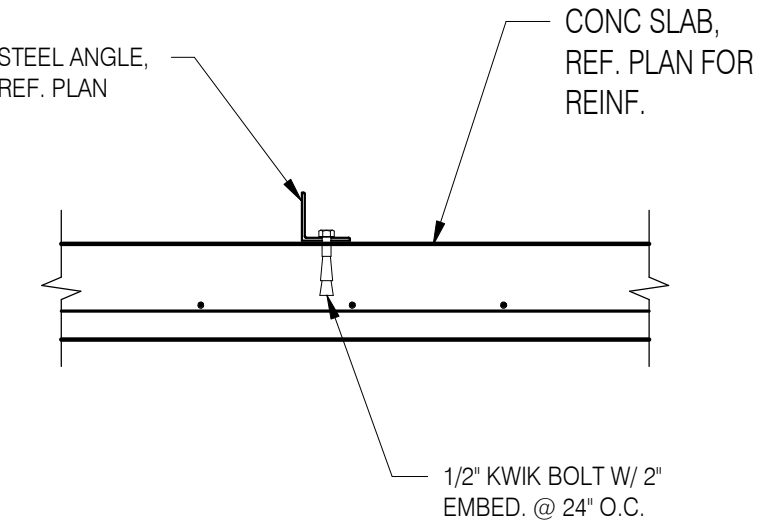
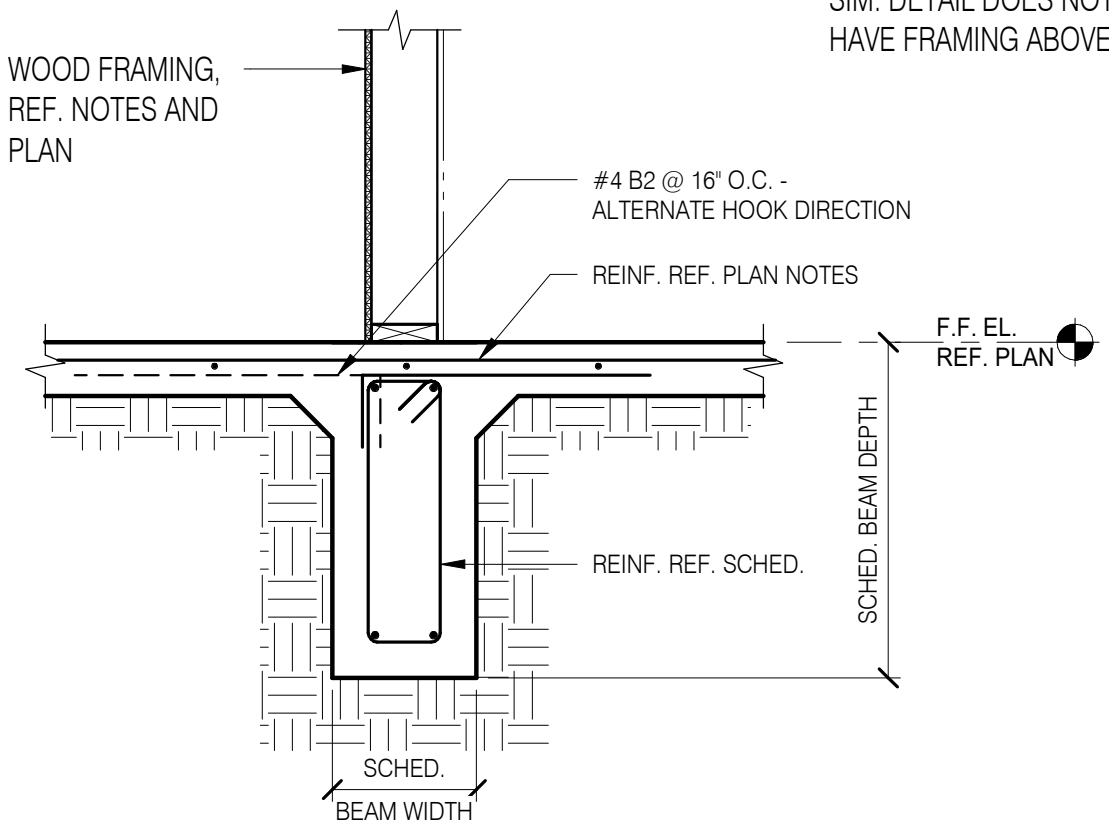
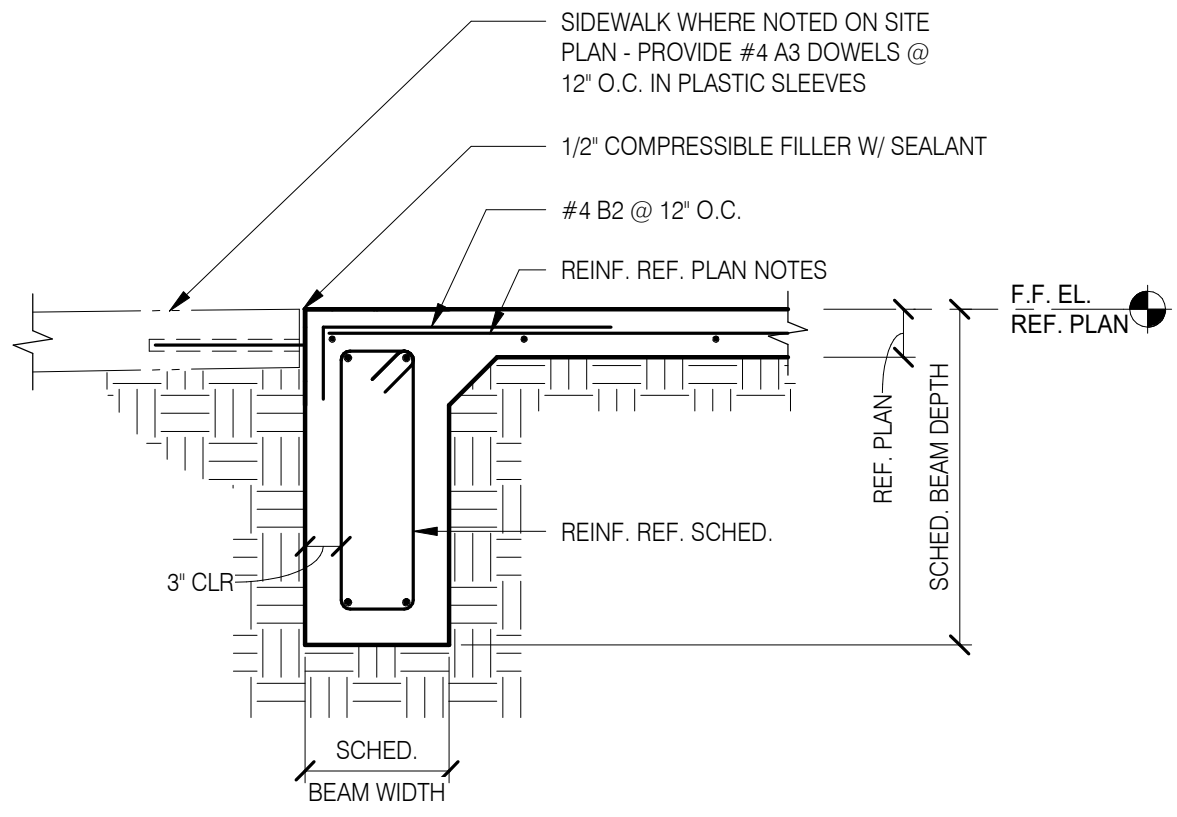
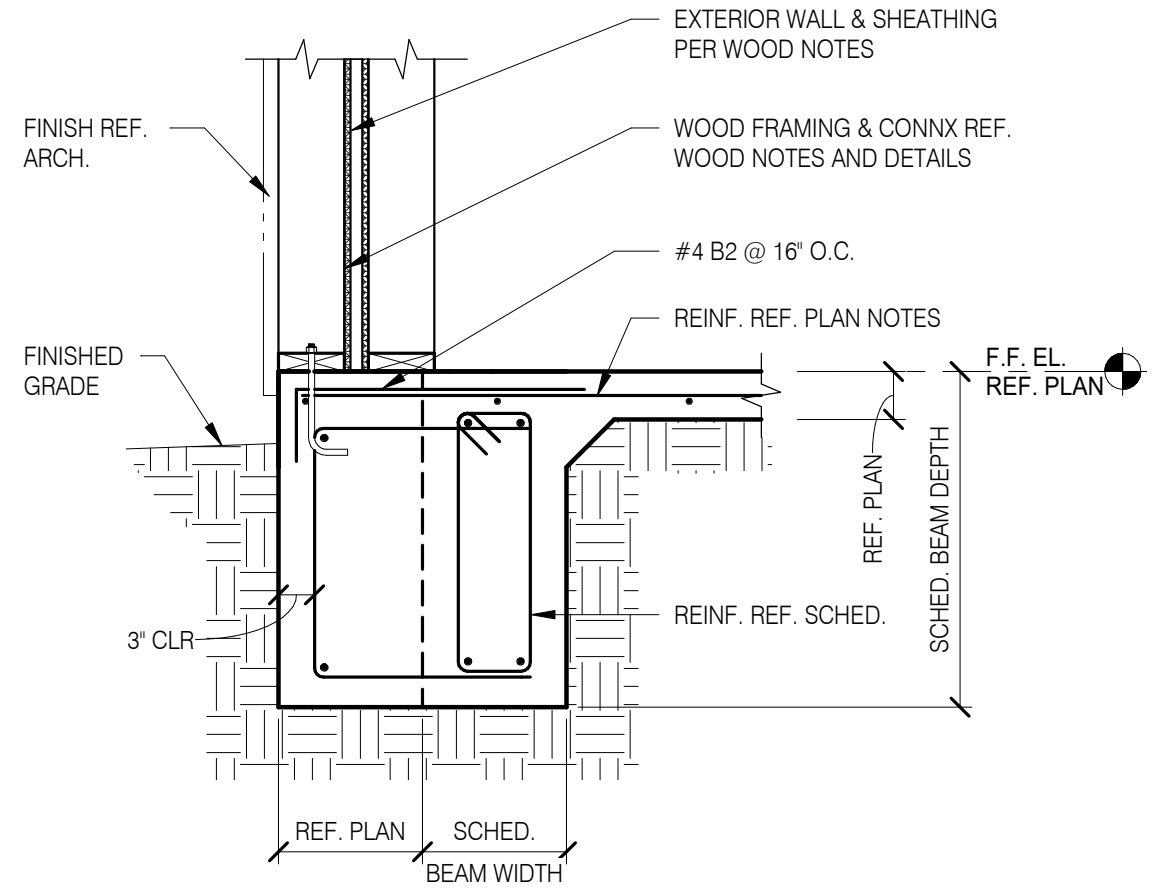
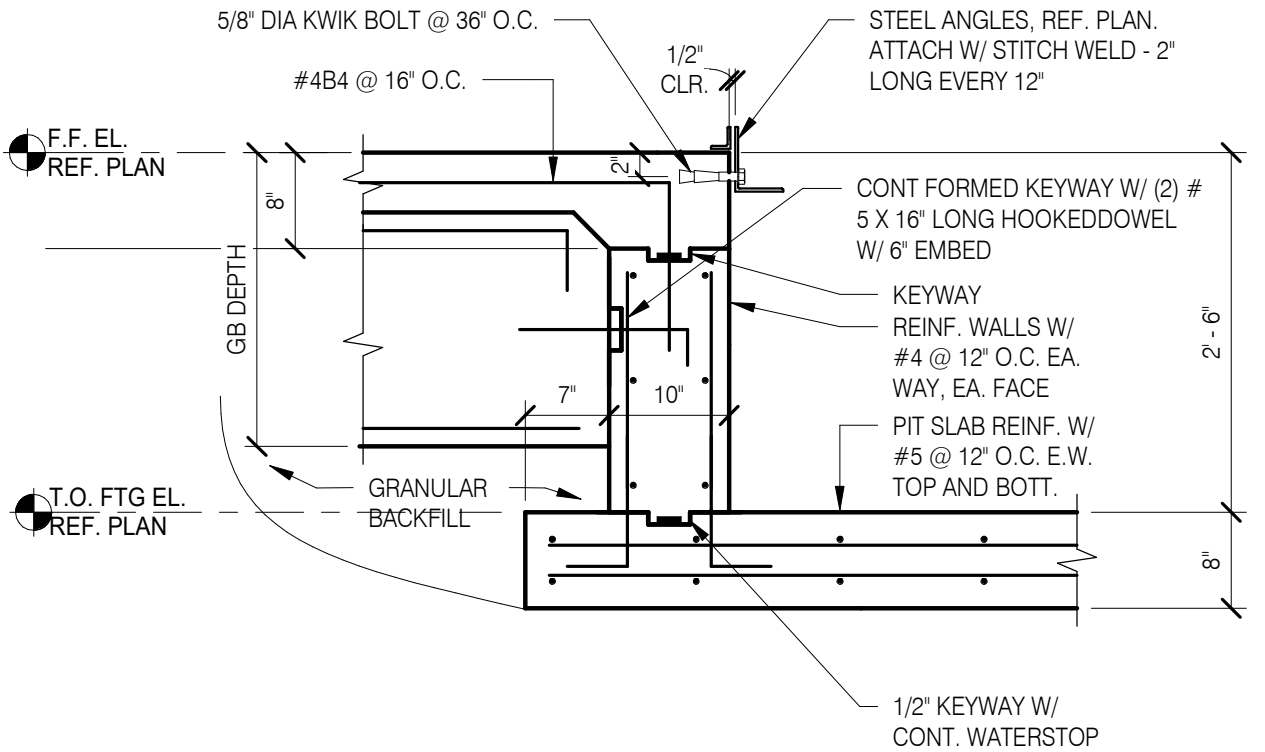
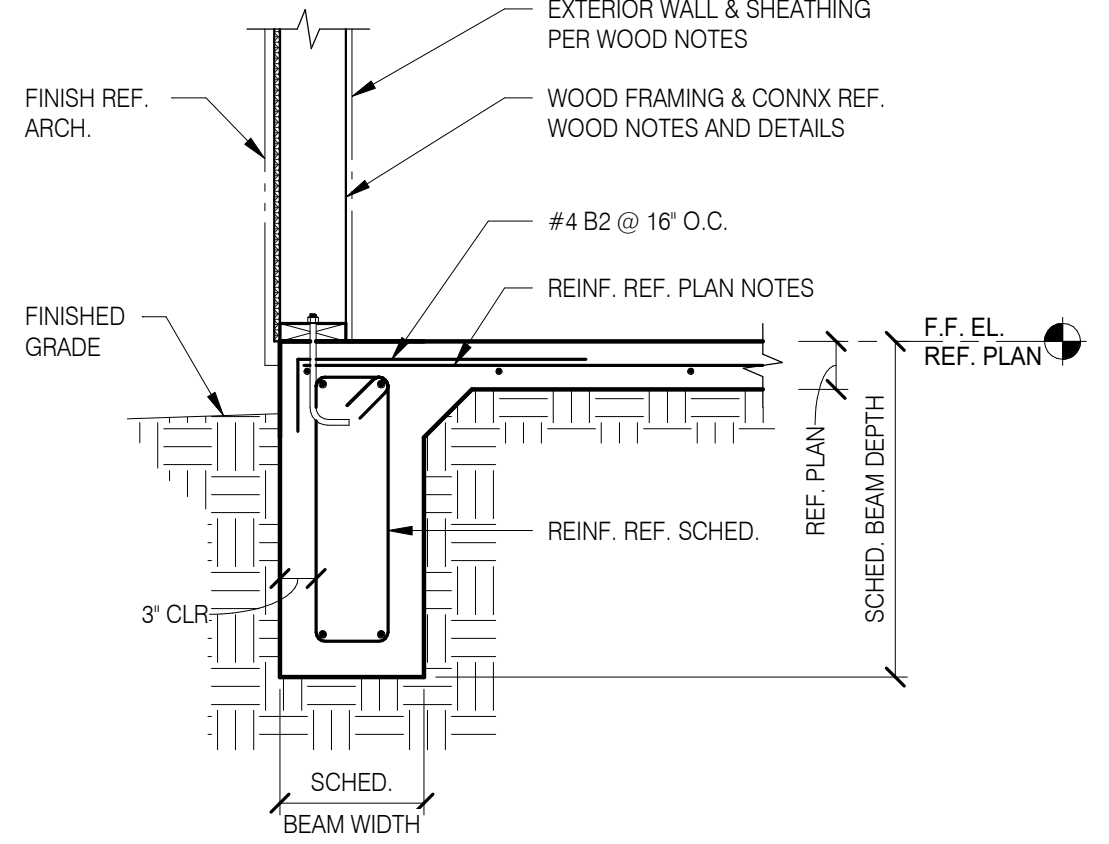
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| | | | | | |
|--|-----------------------------|-----|---|-----------------------------|-----|
|  | 6 PERIM. GB @ RECESS | NTS |  | 3 ENTRANCE @ GARAGE | NTS |
|  | 8 DETAIL AT ANGLE ATOP SLAB | NTS |  | 5 TYP. INTERIOR GRADE BEAM | NTS |
| | | |  | 2 TYP. GRADE BEAM @ ENTRY | NTS |
|  | 7 SECTION AT WIDENED GB | NTS |  | 4 LUBE TRENCH DETAILS | NTS |
| | | |  | 1 TYP. PERIMETER GRADE BEAM | NTS |



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Lee's Summit, Missouri 64063



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FOUNDATION
DETAILS

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STATE OF MISSOURI
SCOTT R. ARMSTRONG
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PE-2007052756
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26 JULY, 2024

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ARCHITECTS

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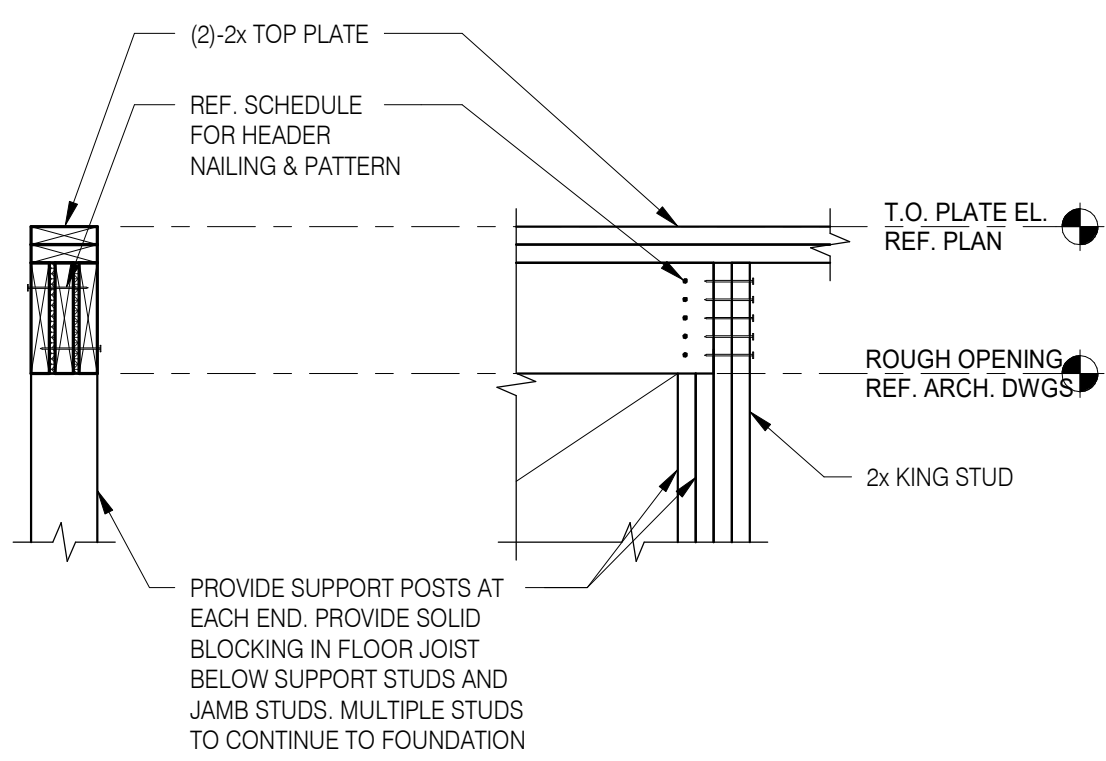
Lee's Summit, Missouri 64063

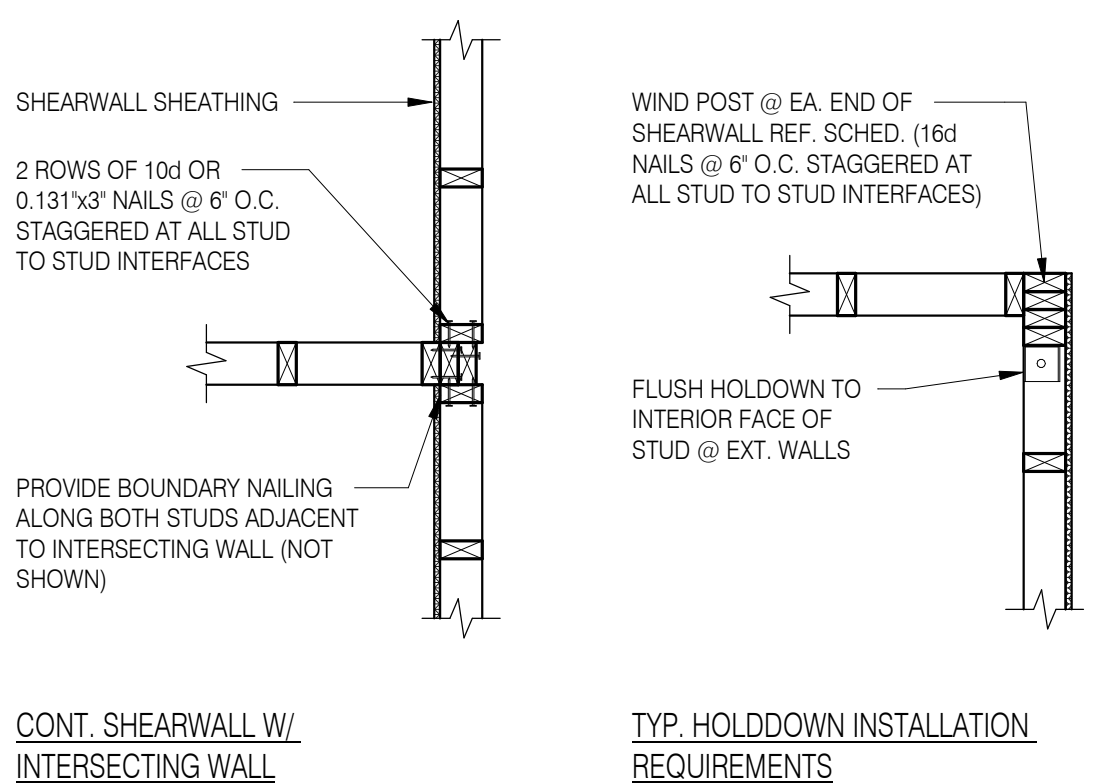


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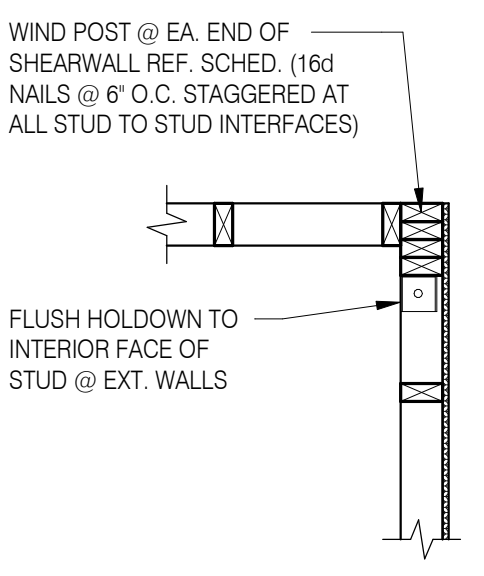
FRAMING SECTIONS
& DETAILS

SHEET NO.
S3.10
OF



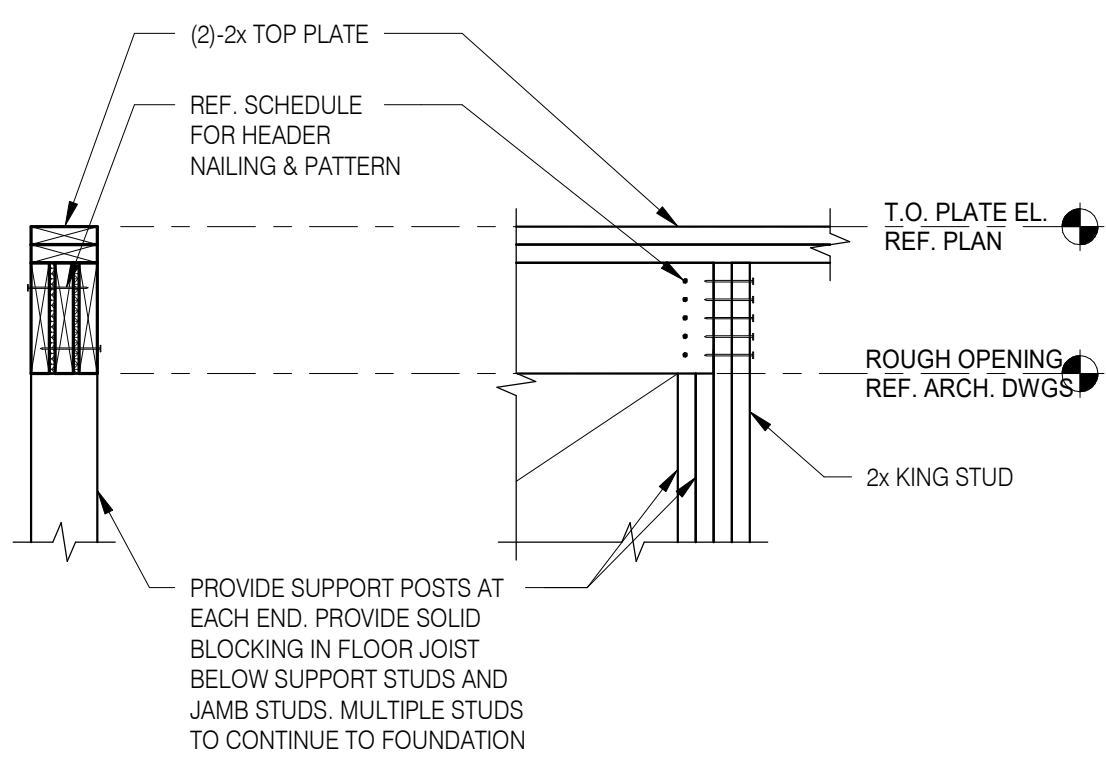


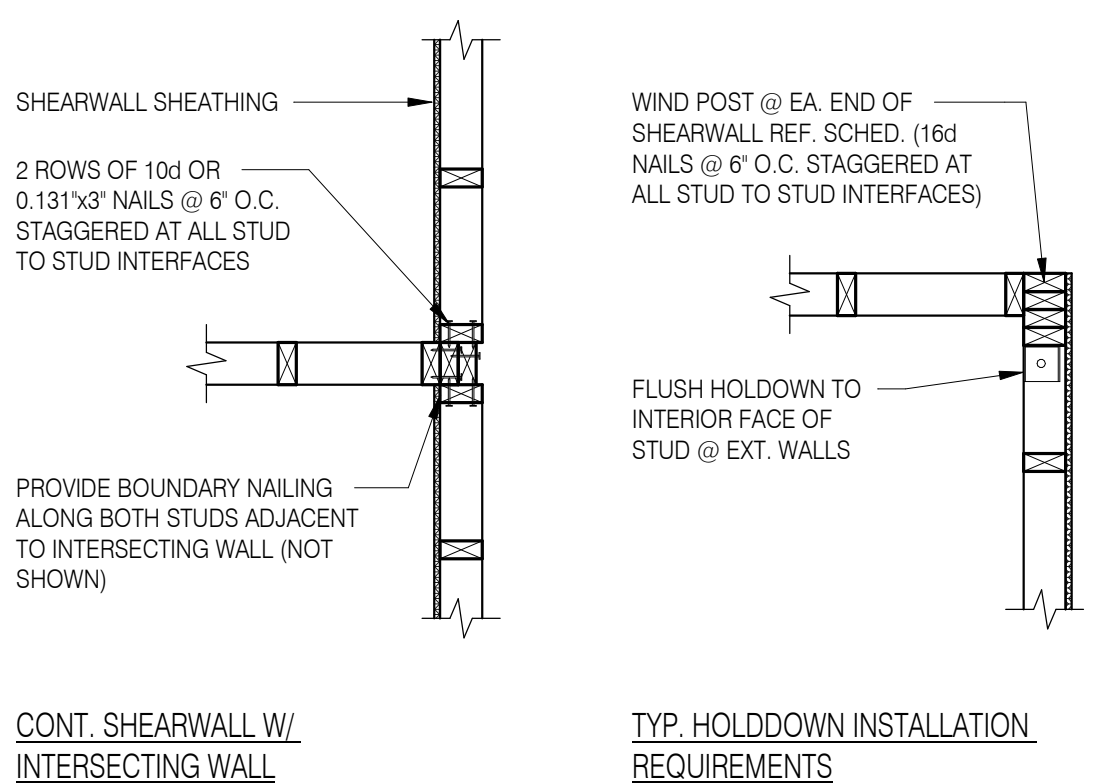
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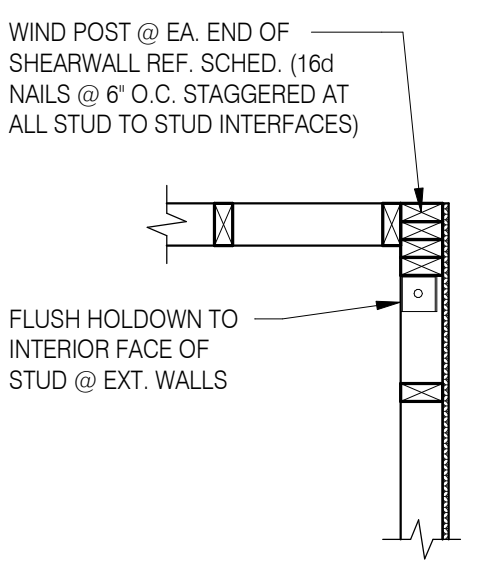
CONT. SHEARWALL W/ INTERSECTING WALL

TYP. HOLDDOWN INSTALLATION REQUIREMENTS



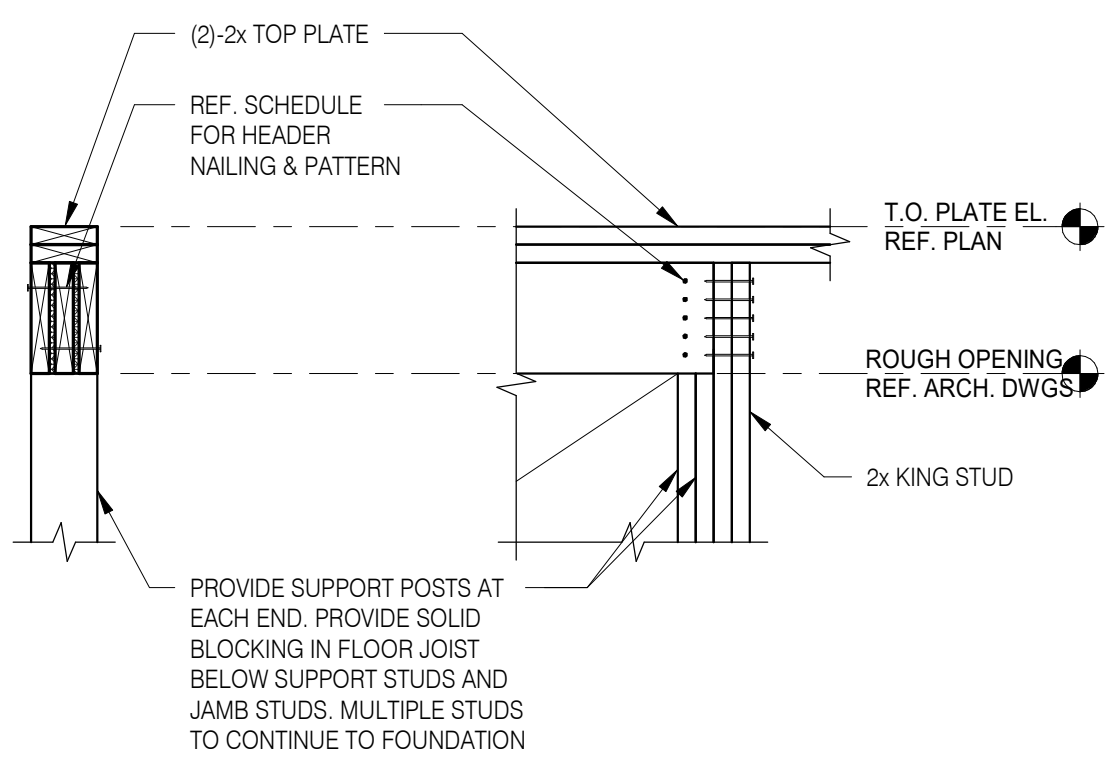


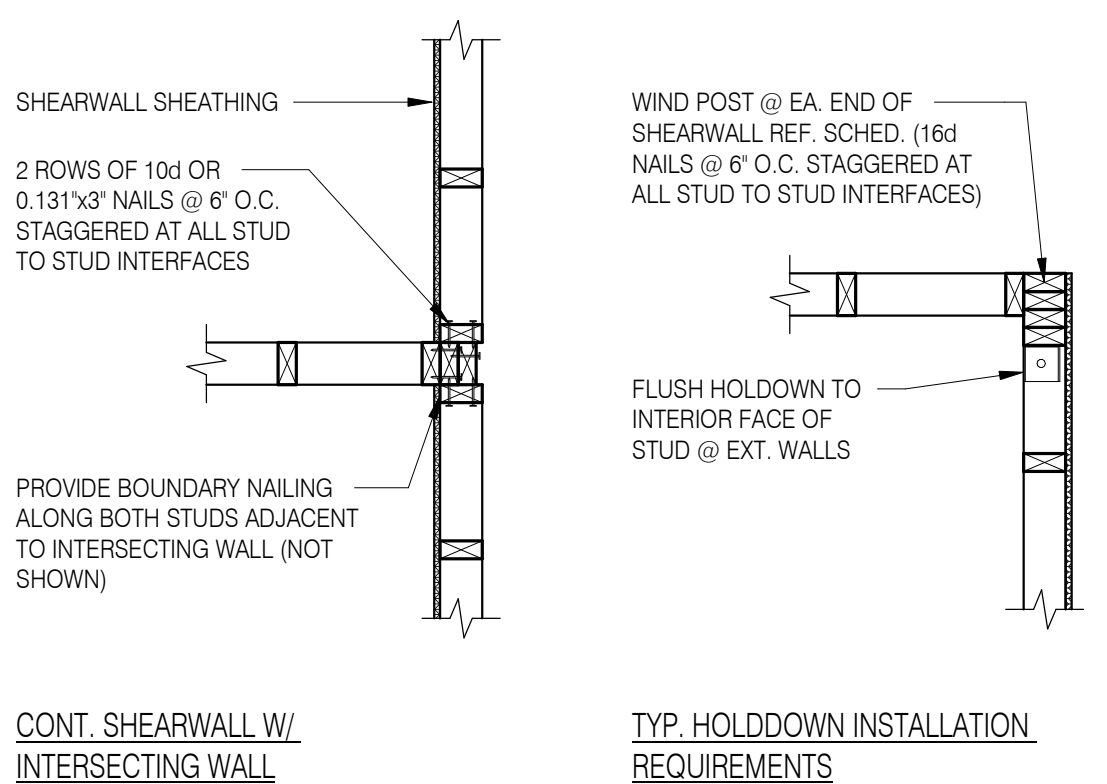
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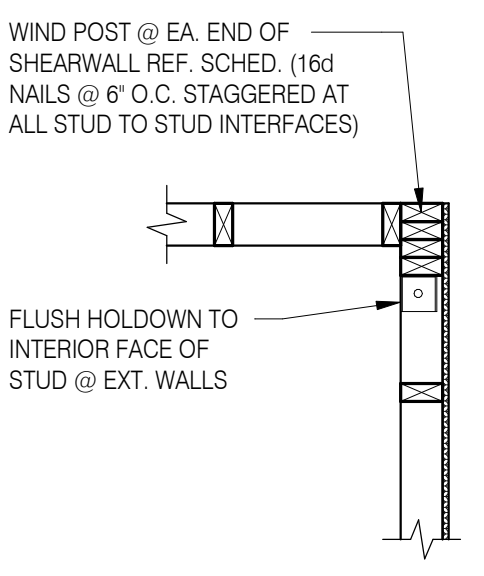
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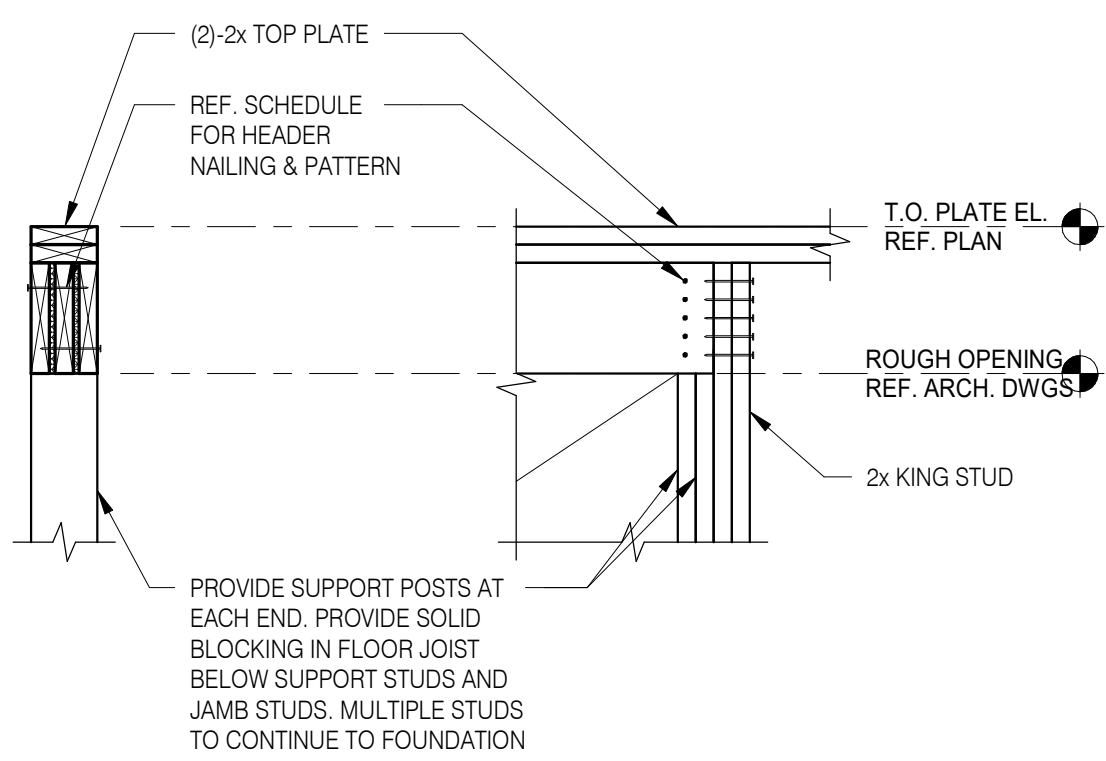


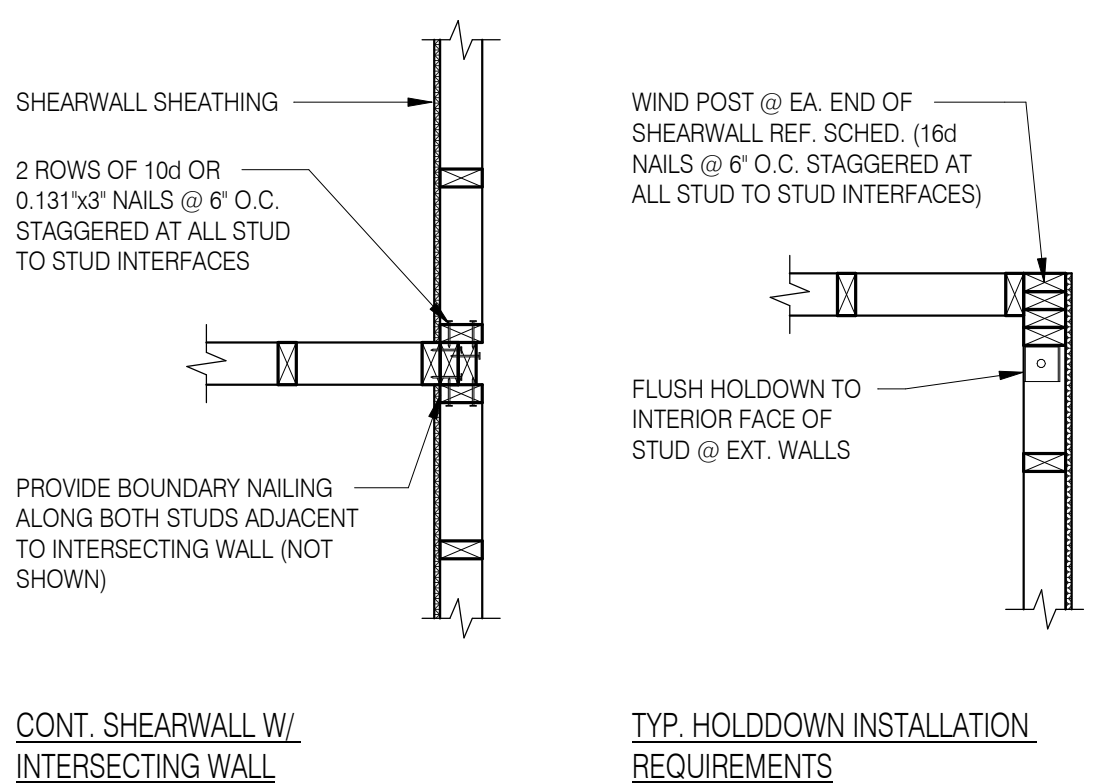
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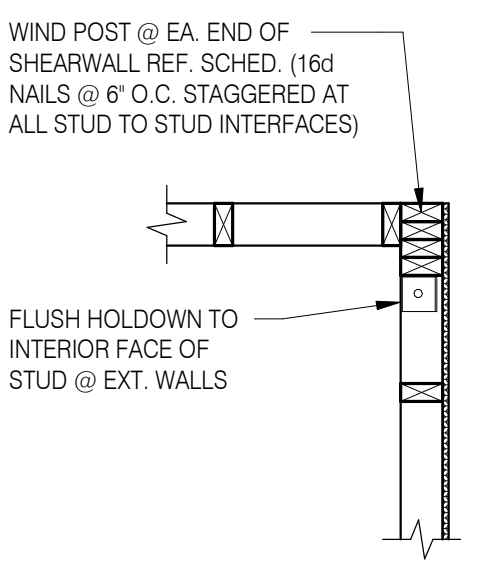
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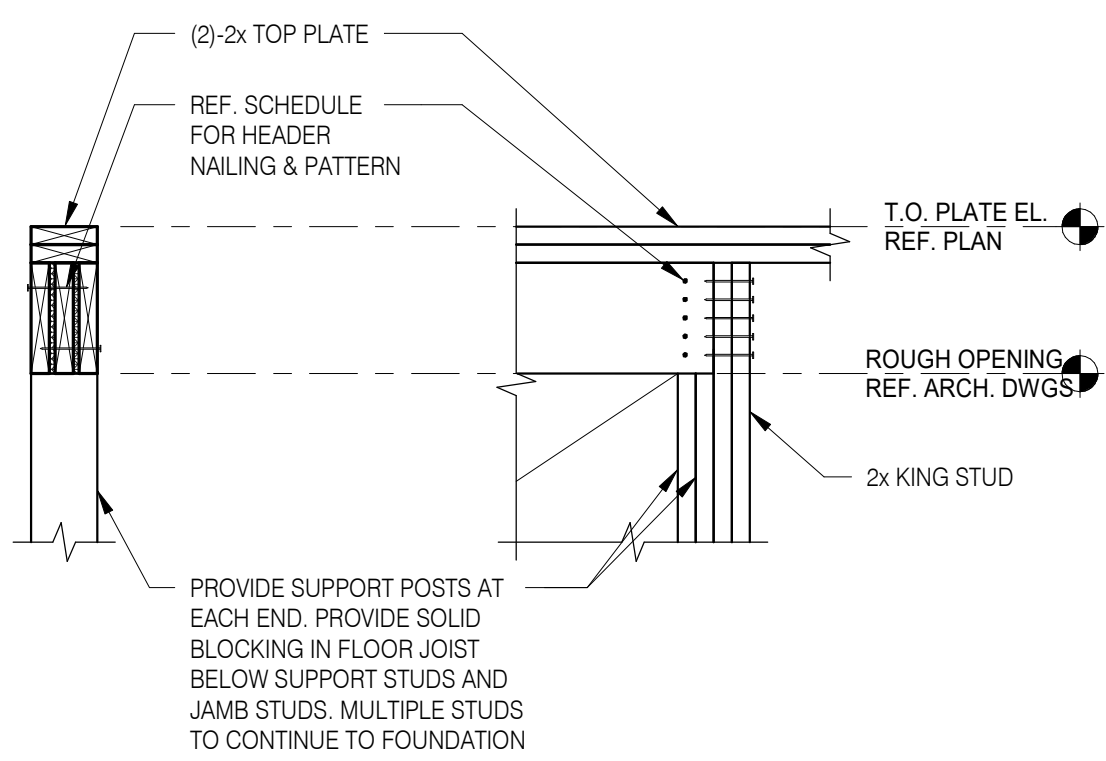


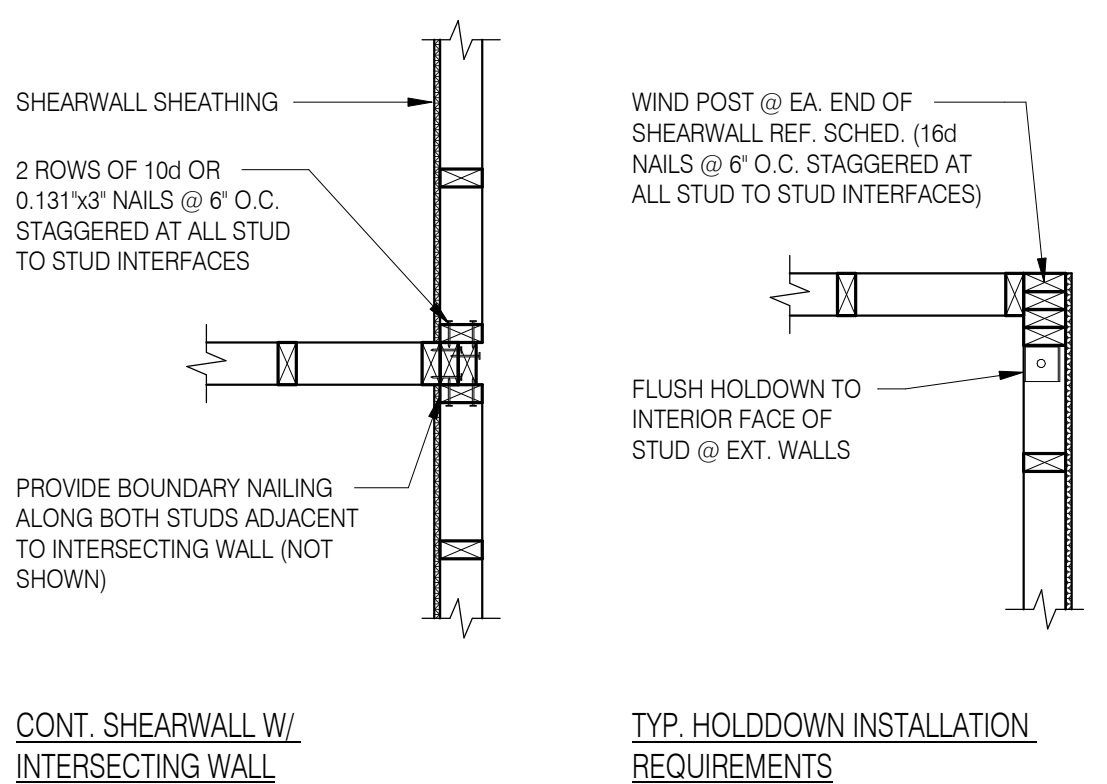
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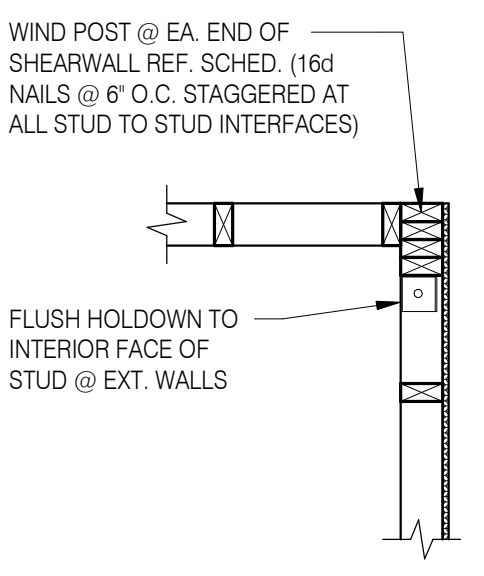
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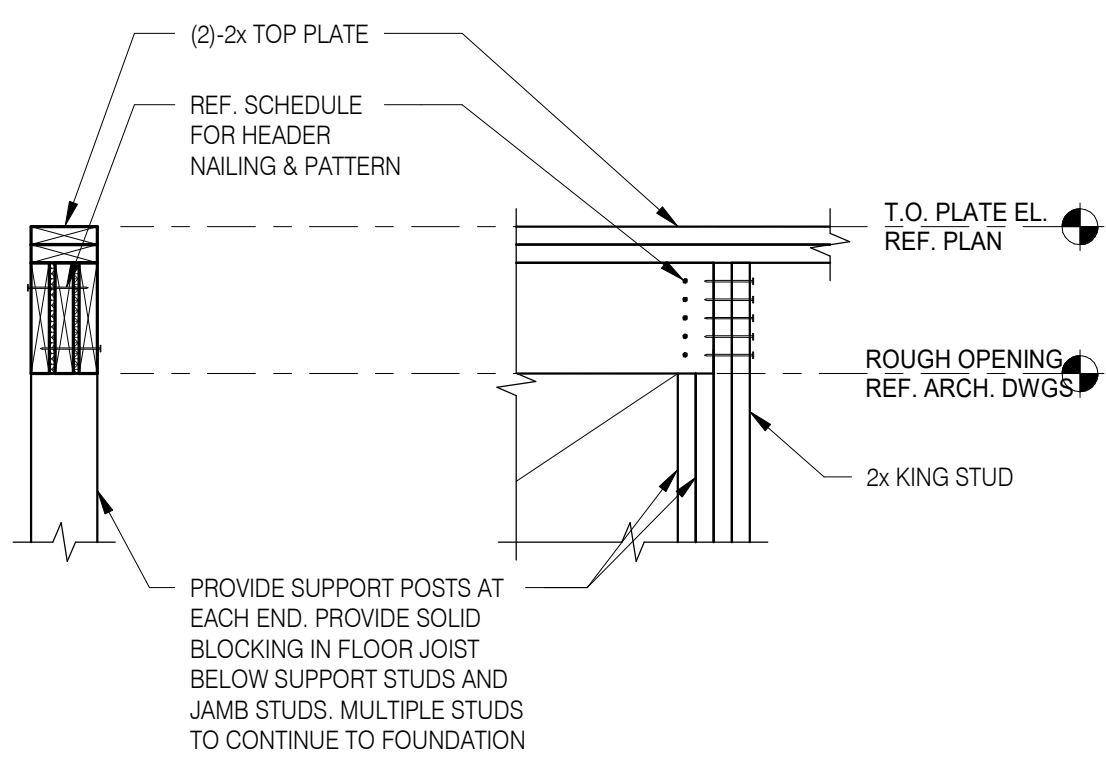


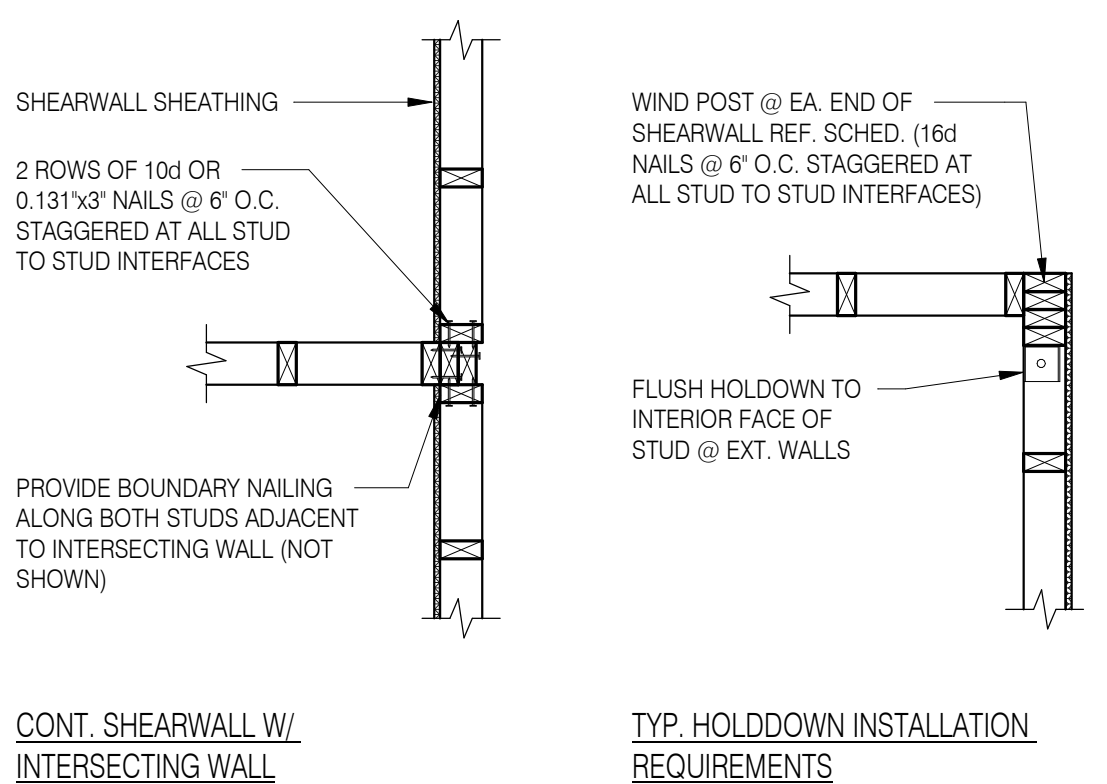
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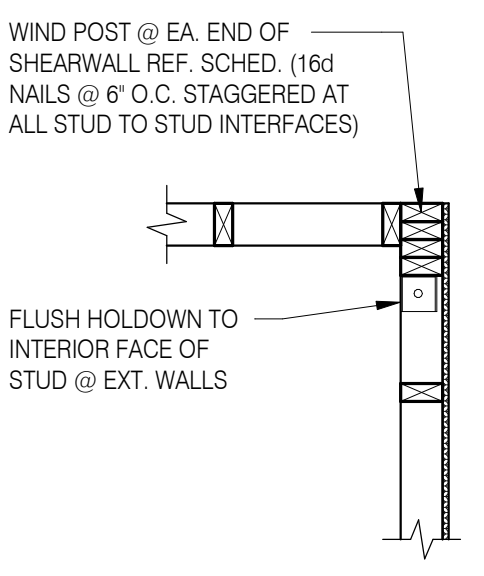
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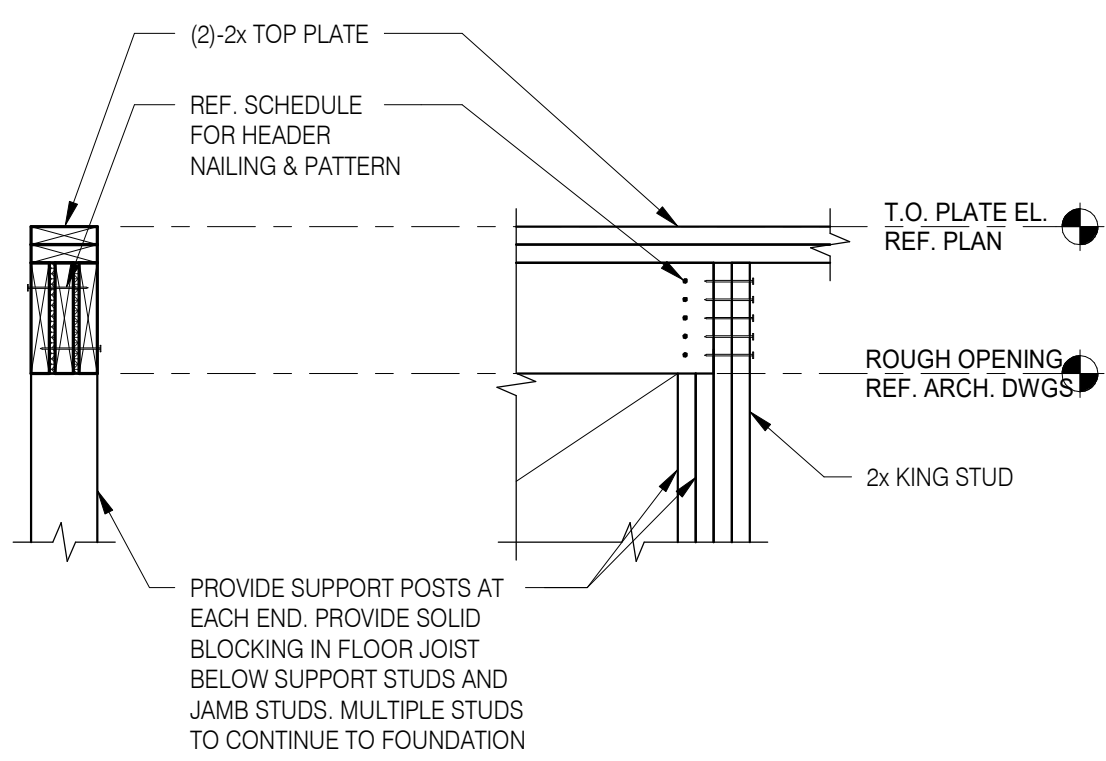


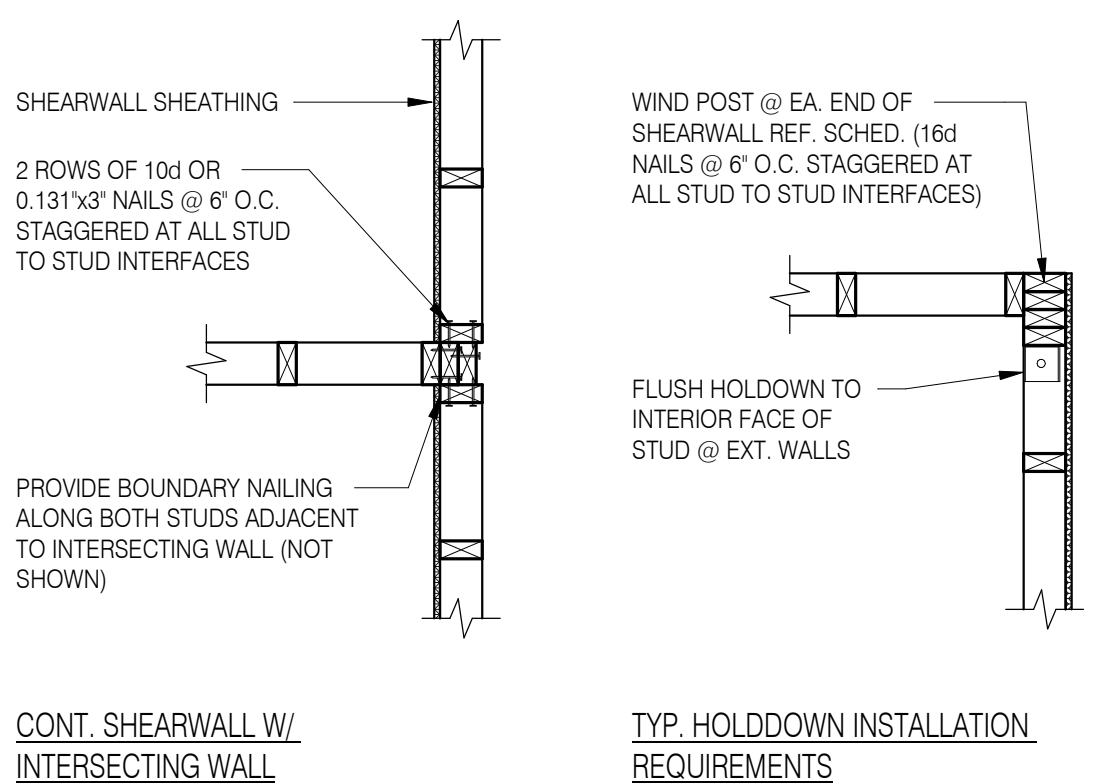
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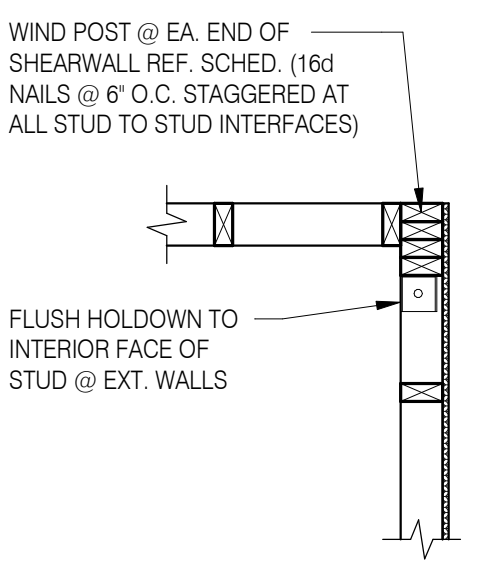
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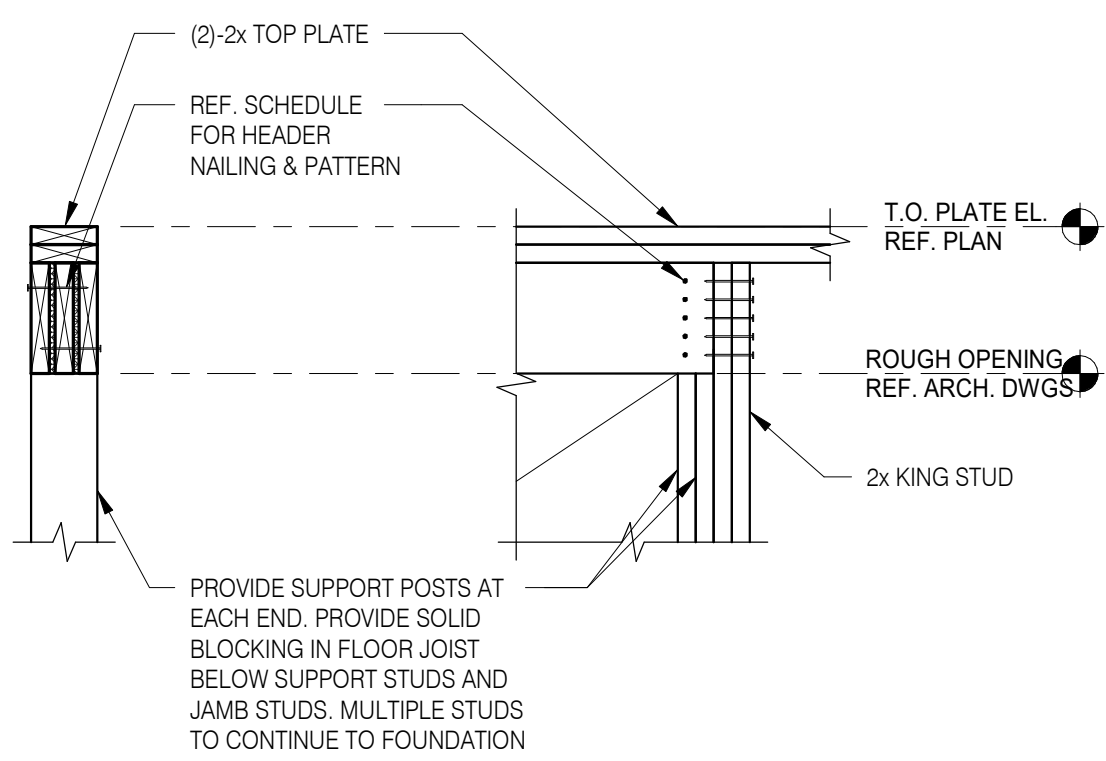


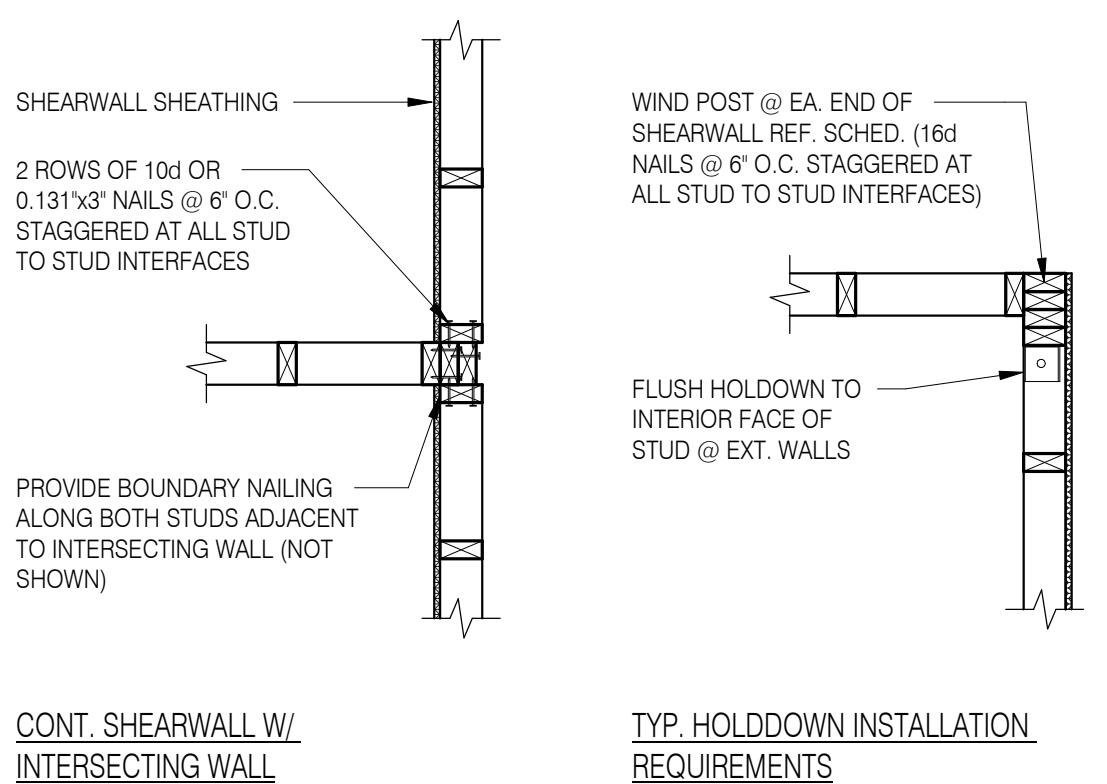
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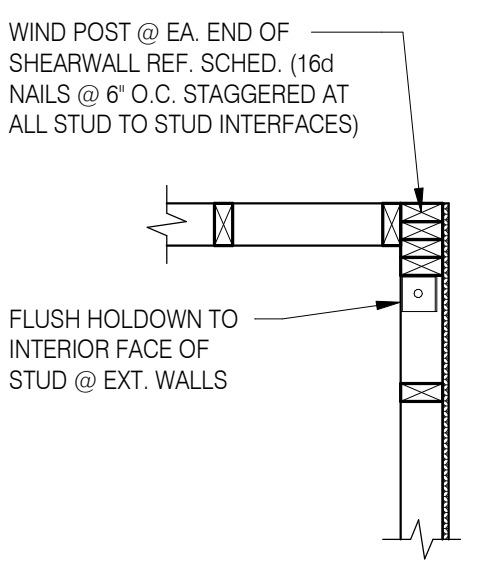
CONT. SHEARWALL W/ INTERSECTING WALL

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CONT. SHEARWALL W/ INTERSECTING WALL

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CONT. SHEARWALL W/ INTERSECTING WALL

TYP. HOLDDOWN INSTALLATION REQUIREMENTS





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CONT. SHEARWALL W/ INTERSECTING WALL

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CONT. SHEARWALL W/ INTERSECTING WALL

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CONT. SHEARWALL W/ INTERSECTING WALL

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TYP. HOLDDOWN INSTALLATION REQUIREMENTS





HD ANCHOR LOCATION MAY VARY UP TO 5% OF WALL LENGTH FROM MIN. REQD TO FIT SCHEDULE POST & HOLDDOWN AS SHOWN



CONT. SHEARWALL W/ INTERSECTING WALL

TYP. HOLDDOWN INSTALLATION REQUIREMENTS





HD ANCHOR LOCATION MAY VARY UP TO 5% OF WALL LENGTH FROM MIN. REQD TO FIT SCHEDULE POST & HOLDDOWN AS SHOWN



CONT. SHEARWALL W/ INTERSECTING WALL

TYP. HOLDDOWN INSTALLATION REQUIREMENTS





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CONT. SHEARWALL W/ INTERSECTING WALL

TYP. HOLDDOWN INSTALLATION REQUIREMENTS



26 JULY, 2024

FUSION
ARCHITECTS

3488 BRENTWOOD DRIVE
BATON ROUGE, LA 70809
P. 225.766.4848 F. 225.766.4724
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New Construction For Take 5 Oil Change

Lee's Summit, Missouri 64063



PROJECT NO: 2497-66352-00

PHASE: Final Dev. Submittal

DATE: 26 JULY, 2024

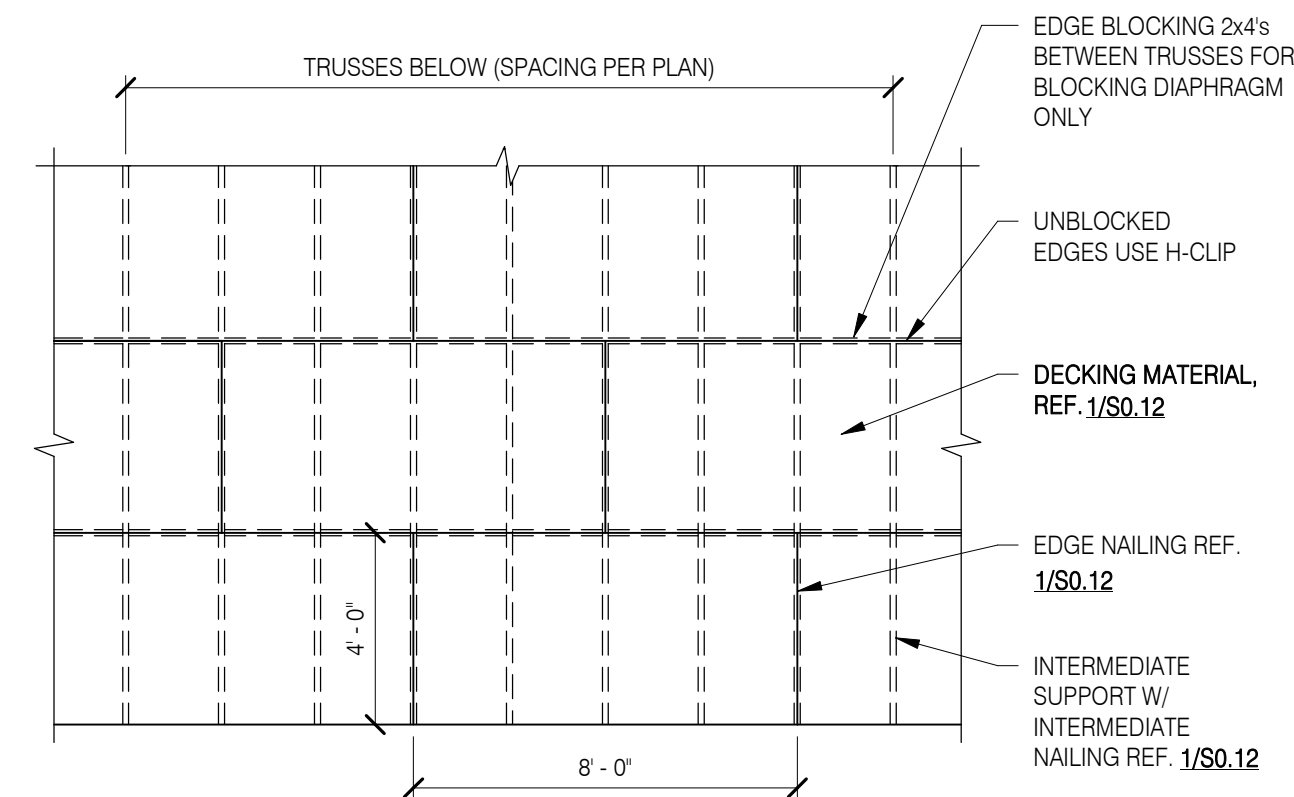
| | |
|-----------------|----|
| PROJ. ENGINEER: | BC |
|-----------------|----|

FRAMING SECTIONS

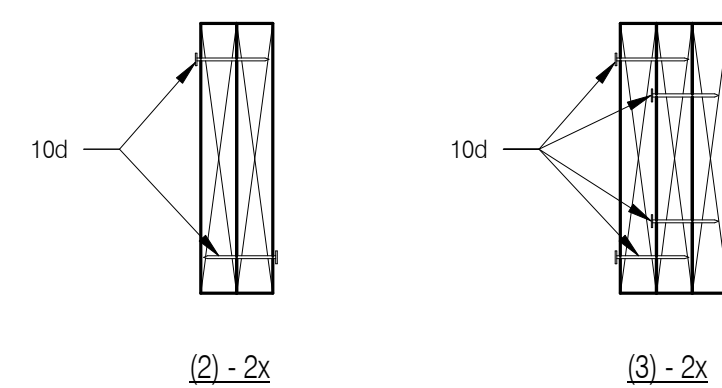
SHEET NO.

S3.11

OF

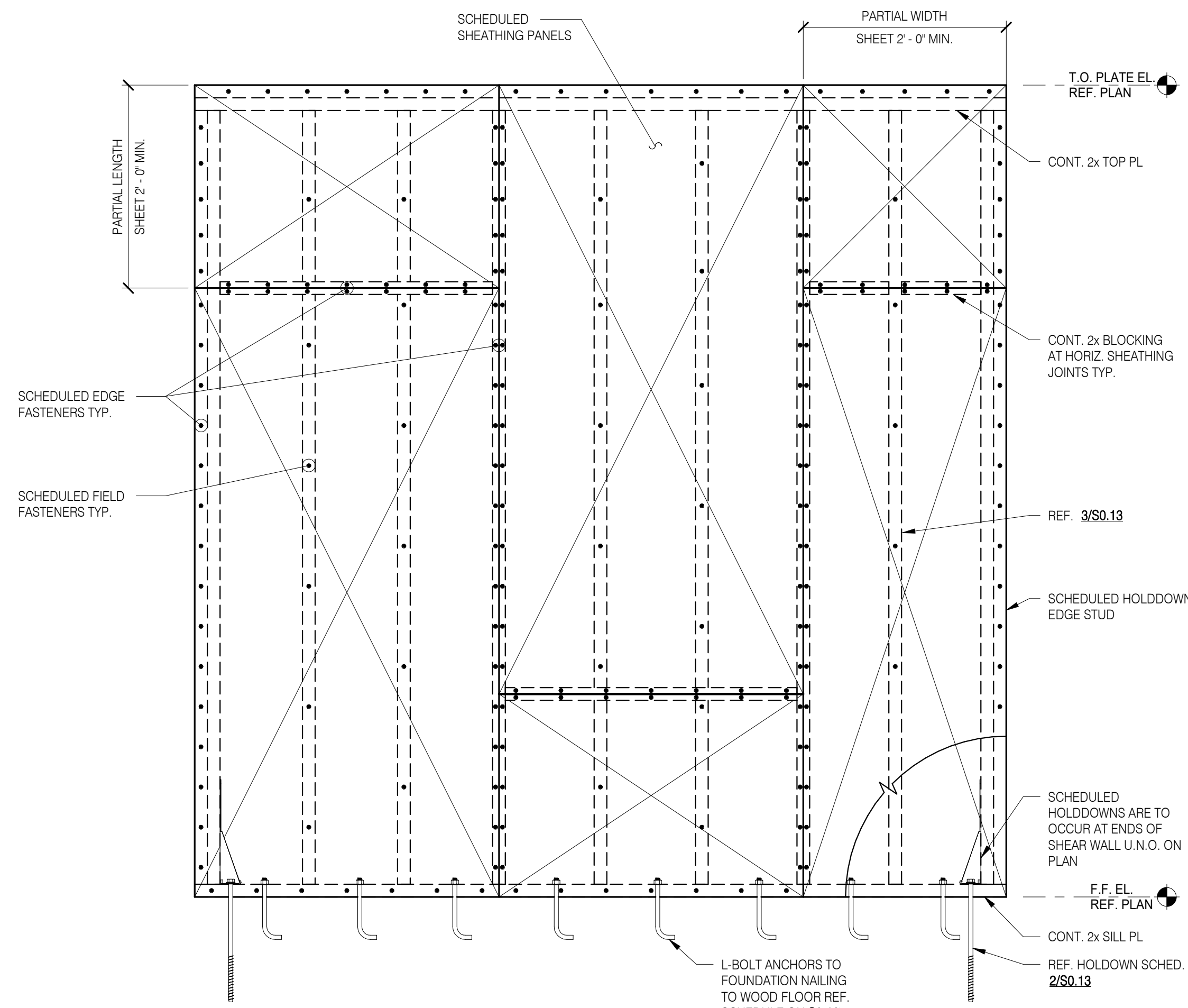


5 TYP. FLOOR & ROOF DIAPHRAGM

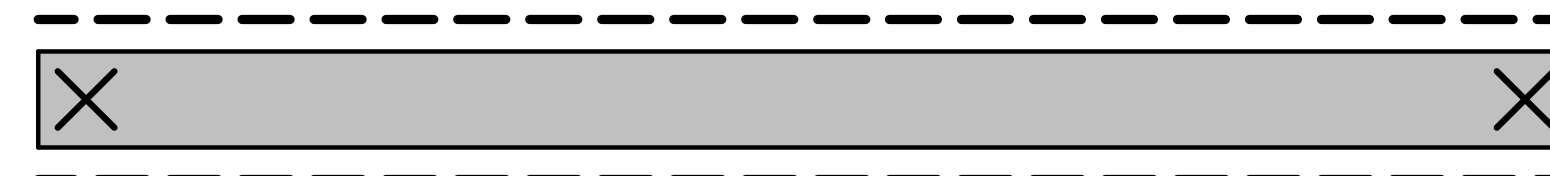
$$1/4'' = 1'-0''$$


NOTES

1. GLUE TOGETHER INDIVIDUAL MEMBERS PRIOR TO NAILING.
2. ALL NAILS TO BE 10d (UNLESS NOTED OTHERWISE) @ 16" TOP & BOTTOM STAGGERED. PROVIDE AND INSTALL (2)-10d @ ENDS (TYP. EA. SIDE OF BEAM).

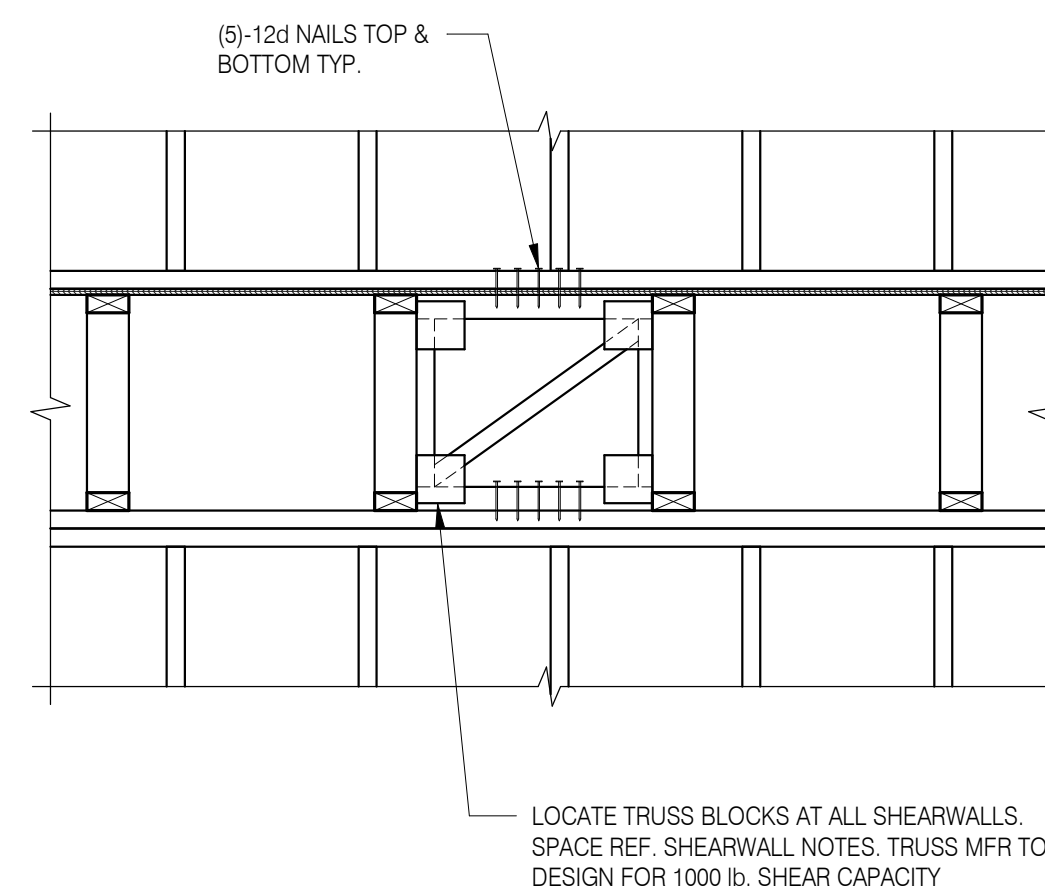


B. SHEAR WALL ELEVATION VIEW



A. SHEAR WALL PLAN VIEW

4 TYP. BUILT-UP WOOD BEAM

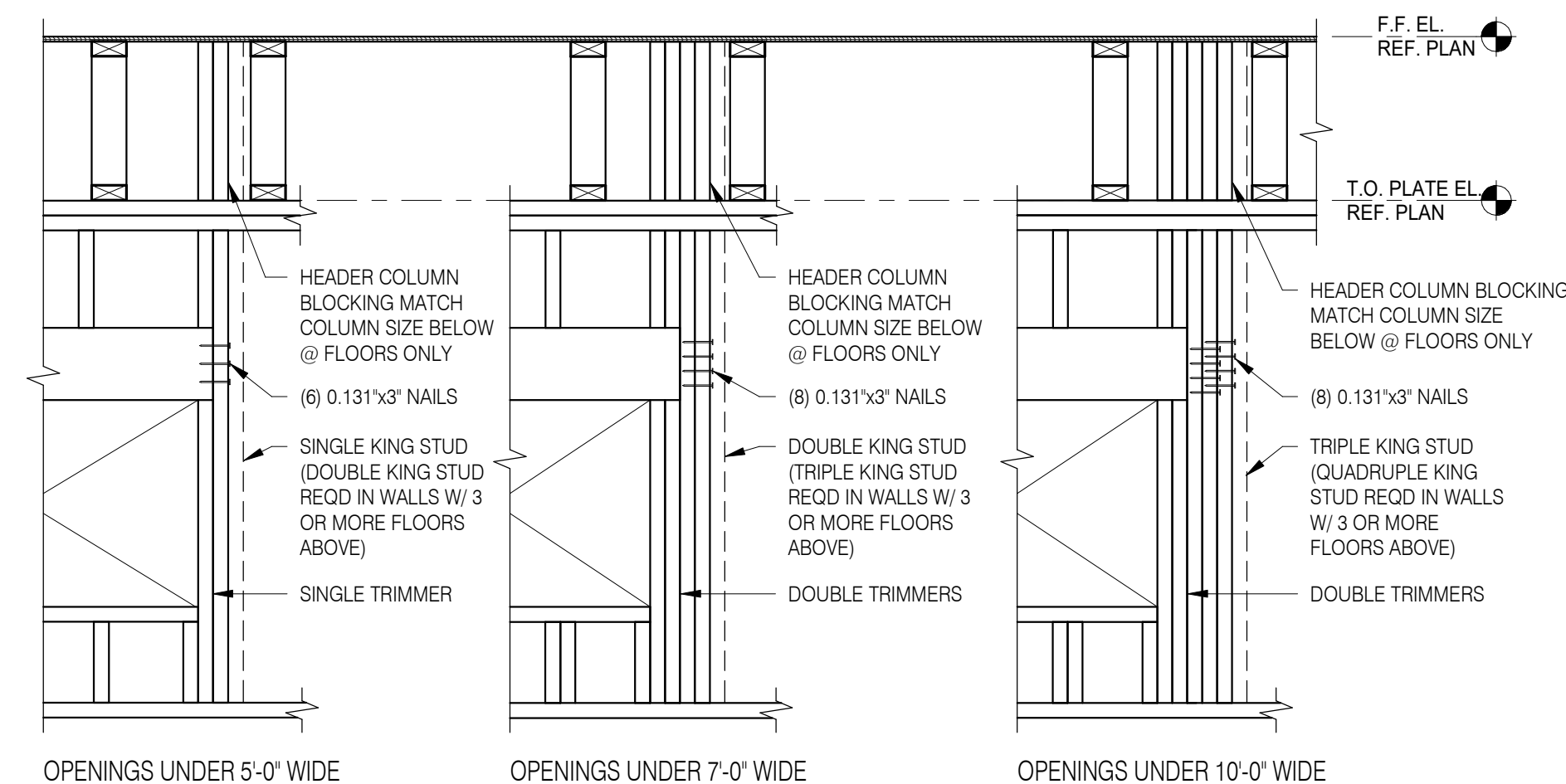
$$1\ 1/2'' = 1'-0''$$


3 TYP. TRUSS BLOCK DETAIL

$$3/4'' = 1'-0''$$

2 TYPICAL SHEAR WALL ELEVATION DETAIL

NTS

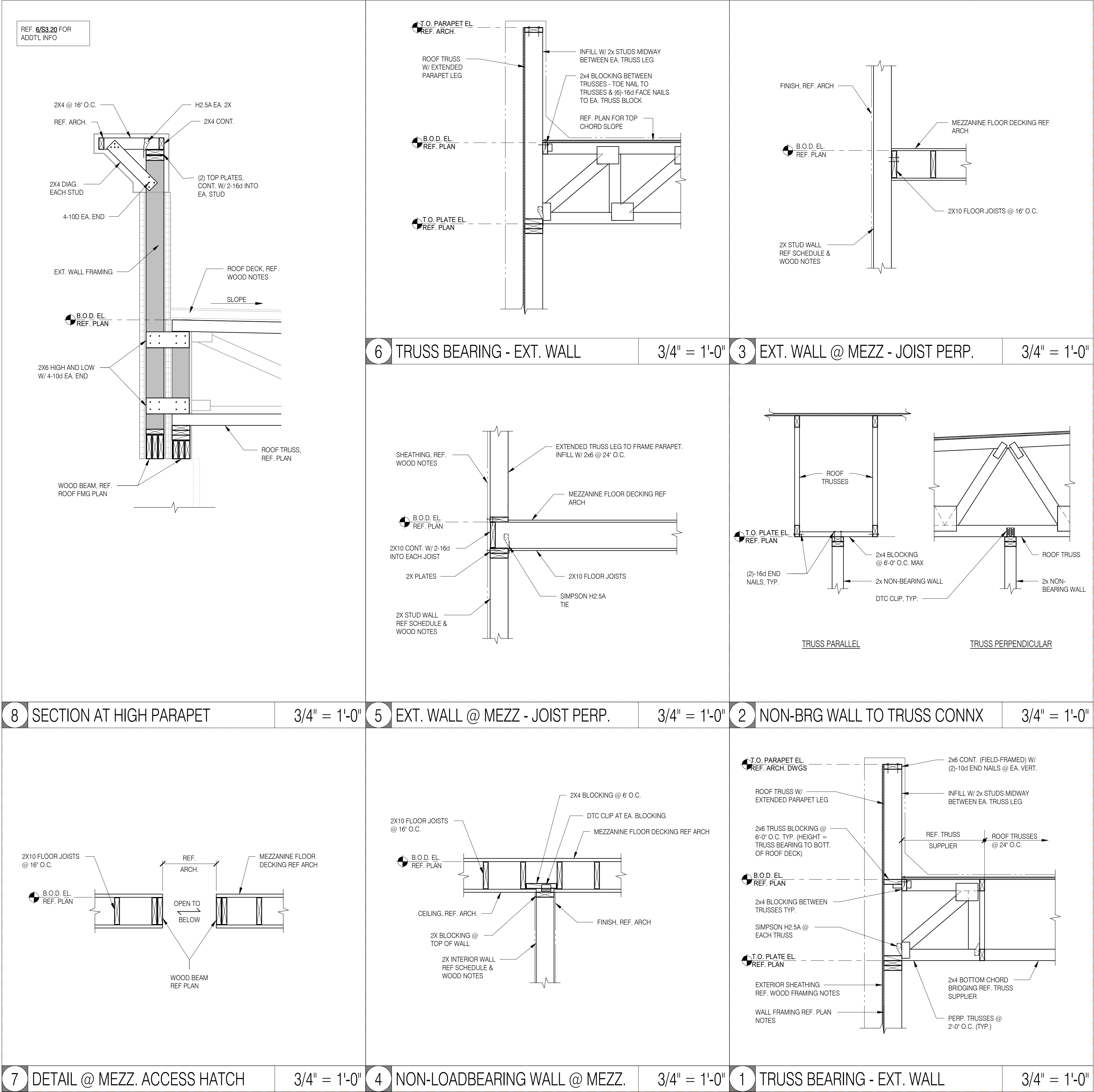


NOTES

1. STUD PACKS SHOWN ARE THE MINIMUMS AND MAY BE LARGER REF. PLAN.
2. AT FLUSH BEAMS ALL STUDS TO BE FULL HEIGHT UNDER BEAM FULLY.
3. SHEARWALL ENDS MAY REQUIRE ADDITIONAL STUDS. REF. HOLDOWN SCHEDULE FOR MIN. FOR EACH HOLDOWN MODEL.
4. REF. STANDARD NAILING SCHEDULE, FOR STUD PACK PLY NAILING.
5. CONTACT EOR FOR OPENINGS 10' OR GREATER.

1 TYP. LOAD-BEARING WALL HEADER SUPPORT

$$3/4'' = 1'-0''$$





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New Orleans
541 Julia St., Suite 200
New Orleans, LA 70130
Registration: F-4111
Project No: 2497-66352-00

PROJECT NO: 2497-66352-00
PHASE: Final Dev. Submittal
DATE: 26 JULY, 2024
PROJ. ENGINEER: BC

FRAMING SECTIONS

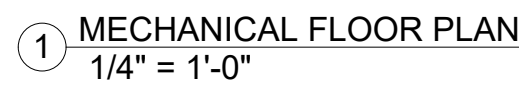
SHEET NO.
S3.20
OF

STATE OF MISSOURI
SCOTT R. ARMSTRONG
NUMBER
PE-2007052756
PROFESSIONAL ENGINEER
26 JULY, 2024

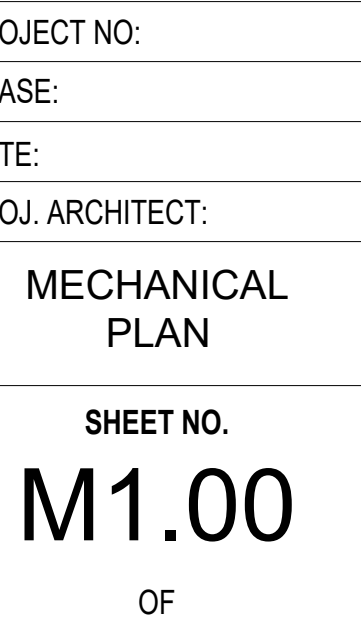
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fusionapc.com

Lee's Summit, Missouri 64063





- ① CEILING MOUNTED UNIT HEATER, INSTALL IN STRICT ACCORDANCE TO MANUFACTURER'S SPECIFICATIONS. RE: SCHEDULE.
- ② INFRARED GAS HEATER SUSPENDED FROM CEILING, PROVIDE GAS PIPING AS REQ'D. COORDINATE WITH PLUMBING PLAN FOR GAS PIPING LOCATION. ROUTE NEW DOUBLE WALL 4" FLUE UP THRU ROOF TO TYPE B ROOF CAP. ROOF PENETRATION SHALL BE SEALED WEATHER TIGHT. INSTALL IN STRICT ACCORDANCE TO MANUFACTURER'S SPECIFICATIONS. RE: SCHEDULE.
- ③ CIRCULATING FAN, INSTALL IN STRICT ACCORDANCE TO MANUFACTURER'S SPECIFICATIONS. COORDINATE WITH ARCHITECT FOR EXACT MOUNTING HEIGHT. RE: SCHEDULE.
- ④ CABINET TYPE EXHAUST FAN, CMFS AS SCHEDULED. CONTRACTOR SHALL ROUTE EXHAUST DUCT, SIZED AS SHOWN, TO EXTERIOR WALL LOUVER, GREENHECK ESD-403 OR APPROVED EQUAL.
- ⑤ 5 TON PACKAGE TERMINAL AIR CONDITIONER, REFER TO MECHANICAL SCHEDULE. PTAC UNIT SHALL HAVE INTEGRAL CONTROLS AND THERMOSTAT MOUNTED ON INTERIOR FACE OF UNIT. COORDINATE EXACT MOUNTING HEIGHT OF UNIT WITH ARCHITECT PRIOR TO INSTALLATION.



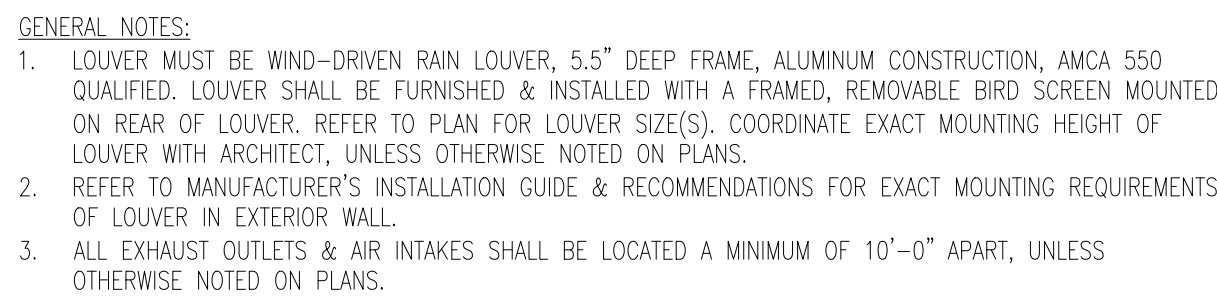
| NOTES: | | | | | | | | | | | | |
|--|--------------|--------------------|---------------|---------|------------------|----|-------|------|------|--------|---------------------------------|-------|
| 1. CAPACITIES SHALL BE IN ACCORDANCE WITH ARI STANDARD 210/240: (A) COOLING: 80°F DB / 67°F WB ENTERING INDOOR COIL; 95°F ENTERING OUTDOOR COIL AT PUBLISHED NOMINAL CFM (B) HEATING: 47°F DB... | | | | | | | | | | | | |
| GENERAL | | EVAPORATOR COIL | ELECTRIC HEAT | | ELECTRIC SERVICE | | | | | WEIGHT | ACCEPTABLE MANUFACTURERS | NOTES |
| MARK | NOMINAL TONS | COOLING TOT CAP | MIN STAGES | MIN CAP | VOLTS | PH | FREQ | MCA | MCCP | | | |
| PTAC-1 | 0.5 | 7200 BTU/H | 1 | 3.0KW | 240 V | 1 | 60 Hz | 17 A | 20 A | - | TRANE PTAC070 OR APPROVED EQUAL | 1 |

| PLAN MARK | SERVICE AREA | TYPE | TOTAL CFM | S.P. LOSS IN W.C. | HP/W | FAN RPM | MOTOR RPM | DRIVE TYPE | INLET SONES | FLA | ELECTRIC SERVICE | MANUFACTURERS | NOTES |
|-----------|--------------|-------------|-----------|-------------------|--------|---------|-----------|------------|-------------|-----|------------------|-------------------------------------|-------|
| EF-1 | SEE PLAN | CABINET | 75 | .25 | 19 W | 950 | -- | DIRECT | 0.8 | -- | 120/1ø/60 | GREENHECK SP-A110 OR APPROVED EQUAL | 1,2 |
| EF-2 | SEE PLAN | CABINET | 150 | .25 | 51 W | 1400 | -- | DIRECT | 2.0 | -- | 120/1ø/60 | GREENHECK SP-A190 OR APPROVED EQUAL | 1,2 |
| CF-1,2 | SEE PLAN | CIRCULATING | 3700 | -- | 1/8 HP | 1200 | -- | DIRECT | -- | -- | 120/1ø/60 | DAYTON 2LY99 OR APPROVED EQUAL | 3 |

1. INTERLOCK EXHAUST FAN WITH LIGHT SWITCH WHERE FAN IS ON WHEN LIGHT SWITCH IS TURNED ON.
 2. FAN SHALL COME WITH GRAVITY TYPE BACKDRAFT DAMPER.
 3. COORDINATE MOUNTING HEIGHT WITH ARCHITECT.

| NO. | BTUH OUTPUT | CFM | KW | MCA | MFS | STAGES | ELECTRIC SERVICE | REMARKS |
|--------|-------------|-----|-----|-----|-----|--------|------------------|--|
| EH-1 | 2,560 | 65 | 7.5 | 6.3 | — | 1 | 120V/1ø/60Hz | QMARK QCH1151F OR APPROVED EQUAL |
| EH-2 | 5,120 | 68 | 1.5 | 3.3 | — | 1 | 240V/1ø/60Hz | QMARK QCH1202F OR APPROVED EQUAL |
| IH-1,2 | 40,000 | — | — | 1.8 | — | 1 | 120V/1ø/60Hz | SPACE RAY PTS-40-10-N7 OR APPROVED EQUAL |

1. FURNISH AND INSTALL A THERMOSTAT, LOW VOLTAGE CONTROL WIRE AND CONDUIT, ETC.
2. LOCATE THE THERMOSTAT AS DIRECTED BY ENGINEER. ONE T°STAT/UNIT HEATER.
3. THE THERMOSTAT SHALL BE SET FOR 40°F
4. BTUH, CFM, AIR TEMP RISE, KW AND HP LISTED ABOVE ARE MIN VALUES.



2 | DETAIL—CABINET TYPE EXHAUST FAN
SCALE: N.T.S.















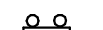







New Construction For Take 5 Oil Change

| |
|-------------------------------------|
| PROJECT NO: |
| PHASE: |
| DATE: |
| PROJ. ARCHITECT: |
| MECHANICAL SCHEDULE & DETAILS |
| SHEET NO. M2.00 OF |

2 LIGHTING GENERAL NOTES

- 1 ALL ELECTRICAL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE.
- 2 VERIFY THE EXACT LOCATION OF ALL LIGHTING SWITCHES WITH THE ARCHITECT PRIOR TO ROUGH-IN.
- 3 VERIFY THE EXACT LOCATION OF ALL LIGHTING FIXTURES WITH THE ARCHITECTURAL REFLECTED CEILING PLAN PRIOR TO ROUGH-IN.
- 4 ROUTE NEW CONDUIT AND WIRING CONCEALED IN WALLS AND ABOVE CEILING WHERE POSSIBLE - COORDINATE INSTALLATION OF EXPOSED CONDUIT AND WIRING WITH THE ARCHITECT.
- 5 VERIFY THE EXACT LOCATION OF CEILING MOUNTED OCCUPANCY SENSORS WITH THE MANUFACTURER PRIOR TO INSTALLATION FOR MAXIMUM PERFORMANCE.
- 6 EMERGENCY FIXTURES AND EXIT FIXTURES SHALL BE CONNECTED TO NEAREST CIRCUIT AHEAD OF SWITCH.
- 7 WALL MOUNT TYPE "Z" FIXTURES ABOVE DOOR AS SHOWN ON DRAWINGS. COORDINATE WITH ARCHITECT.
- 8 MOUNT TYPE "EM" FIXTURES 8'-0" AFF UNLESS OTHERWISE NOTED.
- 9 MOUNT TYPE "C" FIXTURES WITH 3'-0" AFF LIGHT FIXTURES TO BE FLUSH MOUNTED OR SUSPENDED AND ADJUST TO CORRESPONDING TYPES IN ACCORDANCE WITH THE CEILING TYPE, AS REQUIRED.
- 10 ALL VANITY FIXTURES SHALL BE MOUNTED WITH 0'-3" OF SPACE BETWEEN THE BOTTOM OF THE FIXTURE AND THE TOP OF THE MIRROR.
- 11 VERIFY THE EXACT MOUNTING LOCATION FOR ANY PHOTOELECTRIC CELLS WITH THE ARCHITECT PRIOR TO ROUGH-IN. ALL PHOTOELECTRIC CELLS MUST FACE NORTH.
- 12 CONTRACTOR SHALL CONFIRM COMPATIBILITY OF ALL LIGHTING CONTROL DEVICES/SWITCHES/DIMMERS WITH LIGHTING FIXTURES AND BALLASTS/DRIVERS PRIOR TO SUBMITTAL.
- 13 COORDINATE LOCATION OF LIGHT FIXTURES IN MECHANICAL ROOMS WITH DIVISION 15/23 PLANNED EQUIPMENT LOCATION AND DUCT INSTALLATION. WALL MOUNT LIGHTS OR PROVIDE PENDANT MOUNTING AS REQUIRED TO ILLUMINATE THE SPACE.

4 | LIGHTING & SWITCHING SYMBOL LEGEND

| | | | |
|---|---|---|---|
|  | 2X4 LED FIXTURE; "A" DENOTES TYPE |  | PHOTOELECTRIC CELL |
|  | 2X2 LED FIXTURE; "A" DENOTES TYPE |  | S SINGLE POLE TOGGLE SWITCH |
|  | LINEAR LED FIXTURE; "A" DENOTES TYPE |  | S ³ 3-WAY TOGGLE SWITCH |
|  | DOWNLIGHT LED FIXTURE; "A" DENOTES TYPE |  | S ^D LINEAR SLIDE DIMMER SWITCH |
|  | TRACK LED FIXTURE; "A" DENOTES TYPE |  | S ^{3D} 3-WAY LINEAR SLIDE DIMMER SWITCH |
|  | EMERGENCY LIGHTING UNIT |  | S ^M MOTOR RATED TOGGLE SWITCH |
|  | EXIT/EMERGENCY LIGHTING UNIT |  | S ^O WALL MOUNT OCCUPANCY SENSOR |
|  | SINGLE-SIDED EXIT LIGHT |  | (OS) CEILING MOUNT OCCUPANCY SENSOR |
|  | DOUBLE-SIDED EXIT LIGHT |  | (VS) CEILING MOUNT VACANCY SENSOR |
|  | SINGLE-SIDED DIRECTIONAL EXIT LIGHT | | |
|  | DOUBLE-SIDED DIRECTIONAL EXIT LIGHT | | |

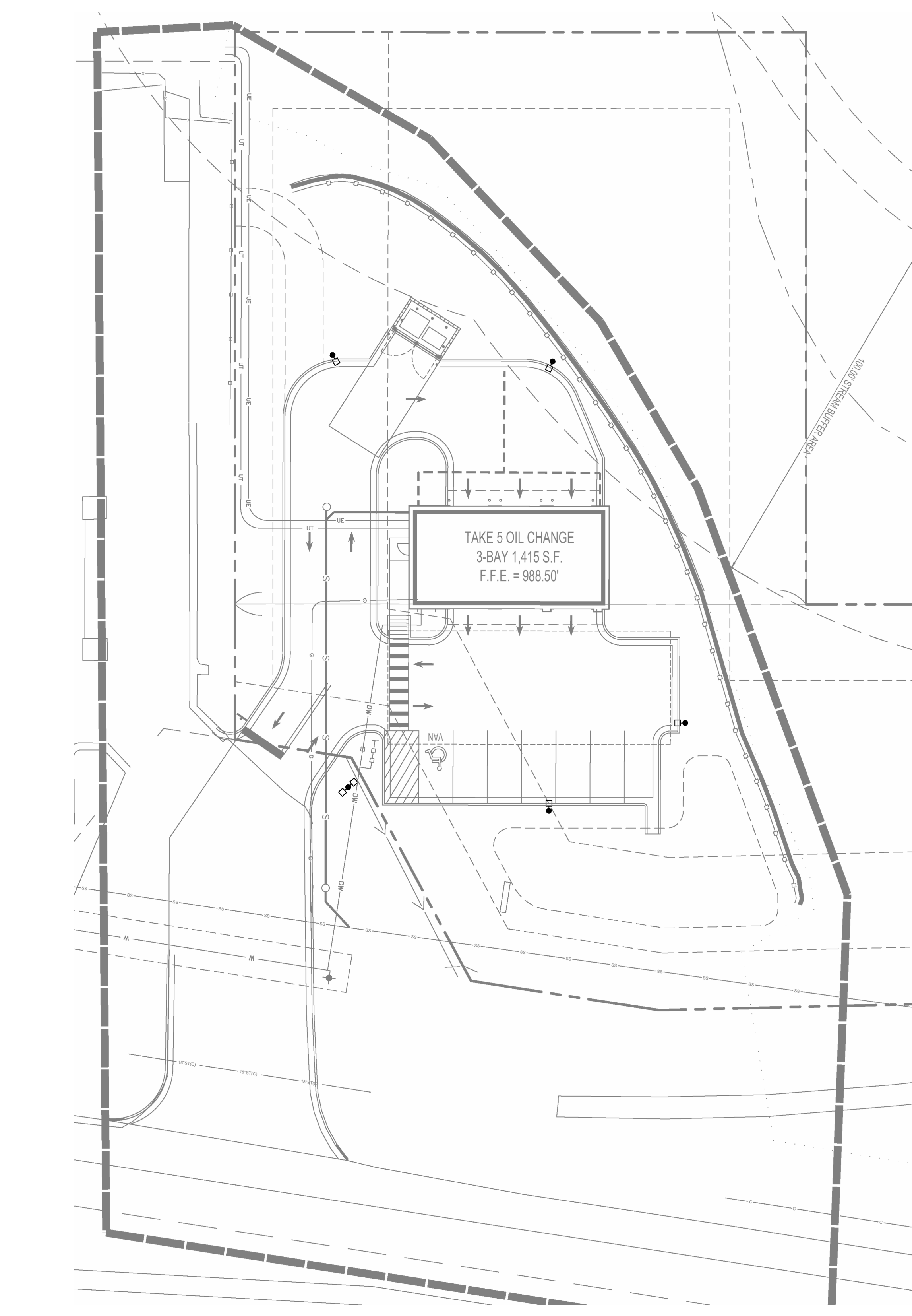
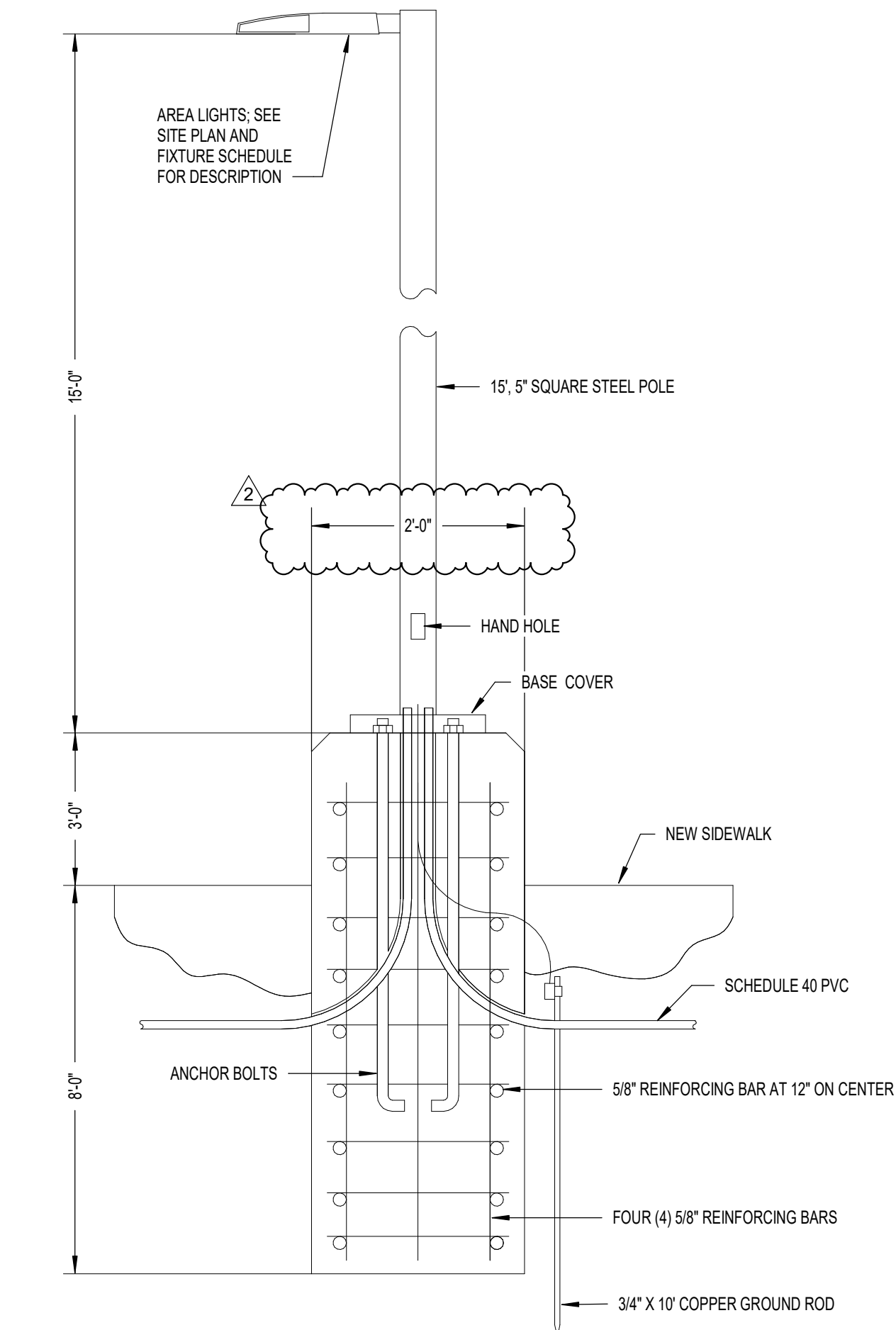
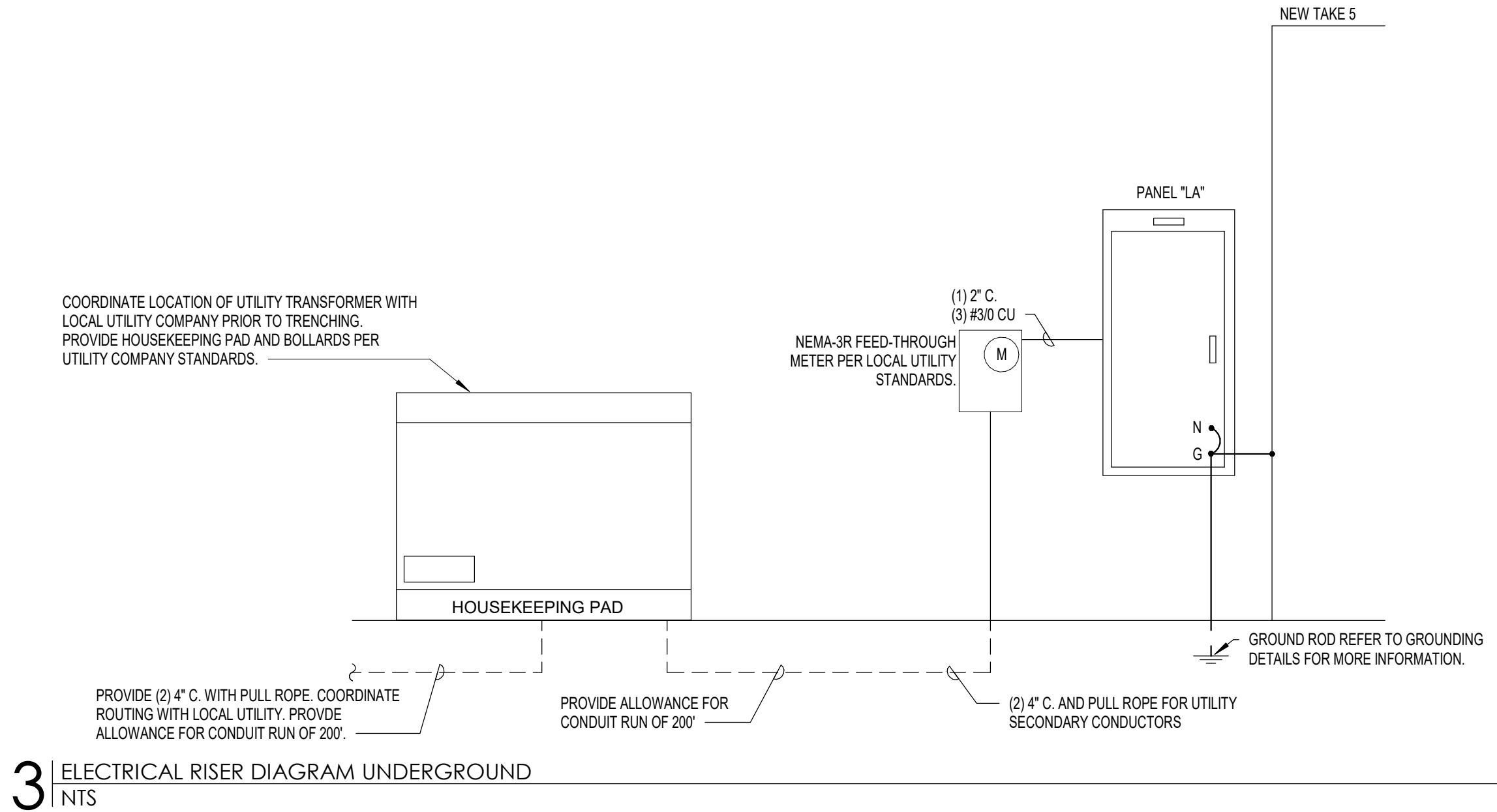
5 | ABBREVIATION LEGEND

| | | | | | |
|------|---|-----|--------------------------|----|--|
| 1 | KEYNOTE | AFF | ABOVE FINISHED FLOOR | E | EXISTING TO REMAIN |
| WP | WEATHERPROOF | GFI | GROUND-FAULT INTERRUPTER | D | EXISTING TO BE DEMOLISHED |
| SIGN | PROVIDE J-BOX AND CONNECTION FOR EXTERIOR SIGNS. COORDINATE EXACT ROUGH-IN LOCATION WITH SIGN VENDOR PRIOR TO ROUGH-IN. | | | NL | FIXTURE TO BE ALWAYS ON, SWITCHED VIA BREAKER. |

ALL SYMBOLS, ABBREVIATIONS, AND NOTES ABOVE ARE TYPICAL AND ARE NOT NECESSARILY USED IN THESE CONSTRUCTION DOCUMENTS

1 PROVIDE 1' CONDUIT AND TWO (2) CAT 6 CABLES AT EACH DATA OUTLET. SHOW ROUTE TO ABOVE CEILING
2 AND ROUTE TO TELEPHONE BACKBOARD IN IT ROOM. CUL UP 10' OF SLACK FOR TERMINATIONS BY OWNER.
3 OWNER SHALL PROVIDE THE WALL MOUNT DATA RACK, ALL ITEMS INSURED IN THE DATA RACK, AND ANY
4 NECESSARY TELEPHONE EQUIPMENT.
5 PLYWOOD FOR BACKBOARDS SHALL BE 0-1" AC INDOOR GRADE, FIRE RETARDANT, AND PAINTED AS SPECIFIED
6 COMMON BOND BOARDS, PATCH PANELS, CABLE SHIELDS, PROTECTORS, AND THE BUILDING MAIN ELECTRICAL
7 ROUTING CONDUCTORS SHALL BE, AT MINIMUM, #6 AWG INSULATED AND STRANDED COPPER. FASTENERS
8 SHALL BE RECESSED AND ANCHORED.
9 SUBMIT DIGITAL PHOTOGRAPHS OF ALL TERMINATIONS TO MAIN ELECTRICAL. SERVICE GROUNDING MEANS
10 ALL BACKBOARDS SHALL BE EQUIPPED WITH D-RINGS SPACED AT 1'-0" APART AROUND ALL EDGES OF THE
11 PLYWOOD TO SUPPORT CABLE AND WIRE.
12 CAT 6 CABLES FOR DATA OUTLETS SHALL HAVE BLUE JACKETS AND CAT 6 CABLES FOR VOICE OUTLETS SHALL
13 HAVE WHITE JACKETS.

| LIGHTING FIXTURE SCHEDULE | | | | | | | | | | | |
|---------------------------------------|--|-------|-------|--------|-------|--------------|-------------------|-------------------|--|-------|--|
| NOTES: | | | | | | | | | | | |
| ** FINISH TO BE SELECTED BY ARCHITECT | | | | | | | | | | | |
| MARK | DESCRIPTION | LAMPS | VOLTS | LOAD | TEMP. | LUMENS | MOUNTING | MANUFACTURER | CATALOG NO. | COUNT | |
| A | 8" LED STRIP LIGHT WITH SEMI-FROSTED LENS. PROVIDE SUSPENSION HARDWARE AS REQUIRED. | LED | UNV | 125 VA | 4,000 | 14,000 | CEILING/SUSPENDED | LITHONIA LIGHTING | ZL1D-L96-14000LM-FST-MVOLT-35K-80CRI | 5 | |
| AE | 8" LED STRIP LIGHT WITH SEMI-FROSTED LENS. PROVIDE SUSPENSION HARDWARE AS REQUIRED. | LED | UNV | 125 VA | 4,000 | 14,000 | CEILING/SUSPENDED | LITHONIA LIGHTING | ZL1D-L96-14000LM-FST-MVOLT-35K-80CRI-E7W | 3 | |
| B | 4" LED STRIP LIGHT WITH SEMI-FROSTED LENS. PROVIDE SUSPENSION HARDWARE AS REQUIRED. | LED | UNV | 60 VA | 4,000 | 7,000 | CEILING/SUSPENDED | LITHONIA LIGHTING | ZL1D-L48-7000LM-FST-MVOLT-35K-80CRI | 4 | |
| BE | 4" LED STRIP LIGHT WITH SEMI-FROSTED LENS. PROVIDE SUSPENSION HARDWARE AS REQUIRED. | LED | UNV | 60 VA | 4,000 | 7,000 | CEILING/SUSPENDED | LITHONIA LIGHTING | ZL1D-L48-7000LM-FST-MVOLT-35K-80CRI-E7W | 1 | |
| C | UP/DOWN WET LOCATION LISTED WALL SCONCE | LED | UNV | 30 VA | 4,000 | 1080 UP/DOWN | WALL/SURFACE | METEOR | LANCE4-30-408-UNV-NOD-30-15-*** | 4 | |
| EM | EMERGENCY LIGHTING UNIT EQUIPMENT WITH TWO ADJUSTABLE LED HEADS. INTEGRAL BATTERY WITH SELF-DIAGNOSTICS. | LED | UNV | 2 VA | N/A | N/A | CEILING/WALL | LITHONIA LIGHTING | ELM6L | 5 | |
| F | EXTERIOR WET LOCATION LISTED WALL PACK | LED | UNV | 25 VA | 4,000 | 2,200 | WALL/SURFACE | LITHONIA LIGHTING | WSQLED-P1-40K-S2-MVOLT-BBW-** | 1 | |
| FE | EXTERIOR WET LOCATION LISTED WALL PACK WITH EMERGENCY BATTERY BACKUP | LED | UNV | 25 VA | 4,000 | 2,200 | WALL/SURFACE | LITHONIA LIGHTING | WSQLED-P1-40K-S2-MVOLT-BBW-**E10WH | 1 | |
| G | PARKING LOT FIXTURE ON 25' SSS POLE. PROVIDE ALL MOUNTING HARDWARE AS REQUIRED. PROVIDE HOUSESIDE SHIELD | LED | UNV | 60 VA | 4,000 | 6,500 | 25' SSS POLE | LITHONIA LIGHTING | DSX1 LED 12 40K T3M MVOLT HS | 3 | |
| G1 | (2) HEAD PARKING LOT FIXTURE ON 25' SSS POLE. PROVIDE ALL MOUNTING HARDWARE AS REQUIRED. PROVIDE HOUSESIDE SHIELD. LOAD AND LUMENS ARE THE TOTAL FOR BOTH HEADS. | LED | UNV | 120 VA | 4,000 | 13,000 | 25' SSS POLE | LITHONIA LIGHTING | DSX1 LED 12 40K T3M MVOLT HS | 1 | |
| H | 6" LED DOWNLIGHT | LED | UNV | 20 VA | 3,500 | 1,500 | RECESSED | LITHONIA LIGHTING | LDN6-35K-15-L06L-SS-MVOLT | 1 | |
| X | COMBO UNIT EXIT SIGN WITH RED LETTERS AND TWO ADJUSTABLE LED HEADS. PROVIDE WITH NUMBER OF FACES AND DIRECTIONAL ARROWS AS INDICATED. | LED | UNV | 1 VA | N/A | N/A | WALL/CEILING | LITHONIA LIGHTING | ECR LED | 2 | |



| REVISION | DATE |
|----------|----------|
| 2 | 01/17/25 |
| 1 | 11/22/24 |
| No. | |



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Scales as stated hereon are valid on the original drawing only.

These plans were prepared in this office under our personal supervision, and to the best of our knowledge comply with state and local codes. We will generally administer construction.

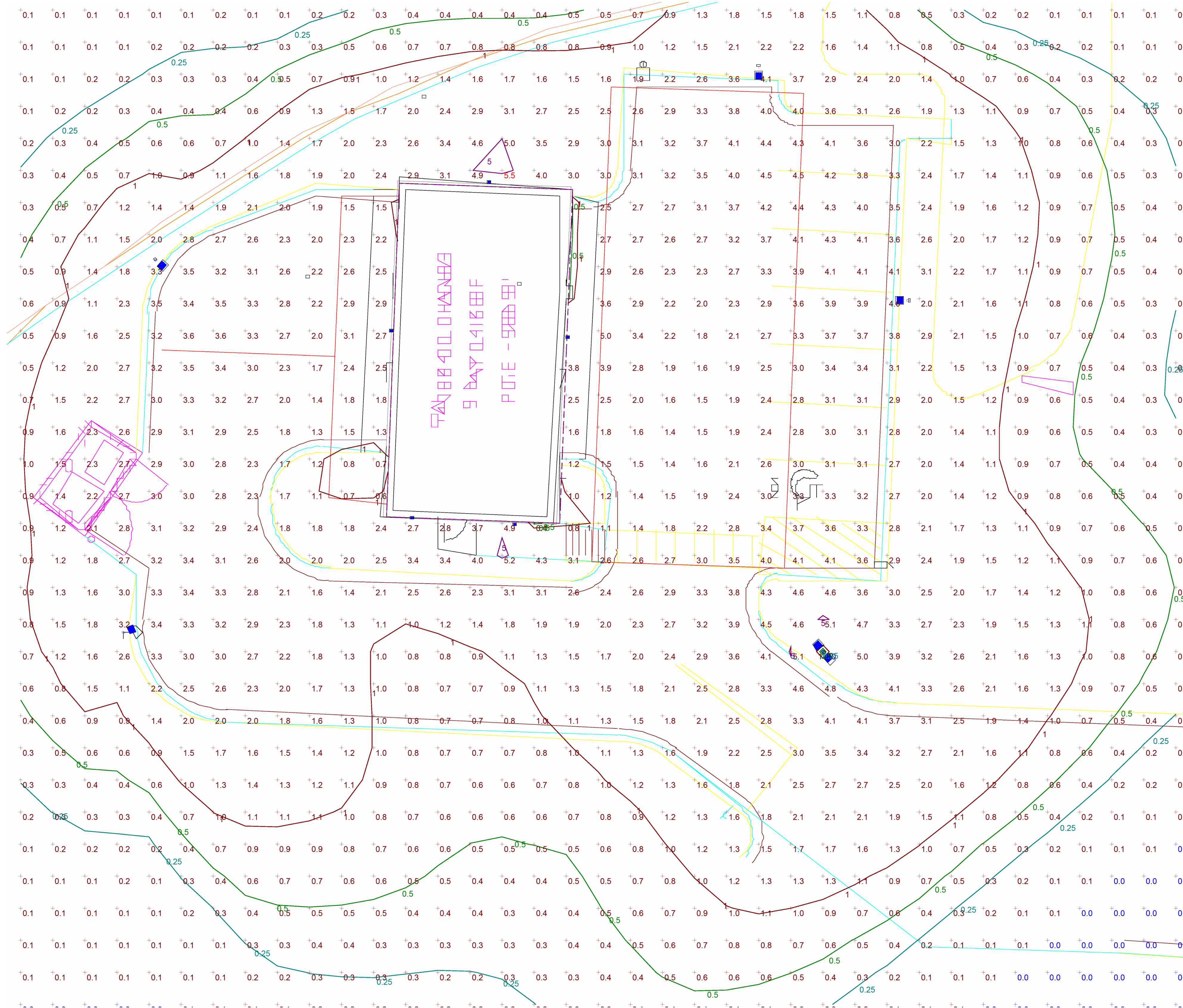
By: *Matthew Sargent*

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**New Construction For
Take 5 Oil Change**
400 NE M State Route 291
Lee's Summit, Missouri 64086



| | |
|---------------------------------|----------------------|
| PROJECT NO: | 33-006-22 |
| PHASE: | Final Dev. Submittal |
| DATE: | 26 July, 2024 |
| PROJ. ARCHITECT: | MRD |
| ELECTRIAL SITE PLAN | |
| SHEET NO. E1.01 OF | |

1 | SITE PHOTOMETRIC PLANNING
NTS

1. ALL CALCULATION POINTS WITHIN THE RED CONTOUR LINE ARE GREATER THAN OR EQUAL TO 1 FC.
2. ALL CALCULATION POINTS WITHIN THE GREEN & RED CONTOUR LINE ARE GREATER THAN 0.5 FC AND LOWER THAN 1 FC.



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New Construction For Take 5 Oil Change

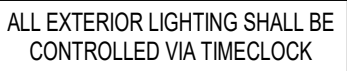
400 NE M State Route 291
Lee's Summit, Missouri 64086



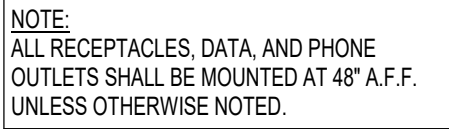
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| PROJECT NO: | 33-006-22 |
| PHASE: | Final Dev. Submitta |
| DATE: | 26 July, 2024 |
| PROJ. ARCHITECT: | MRD |

PHOTOMETRIC
PLAN

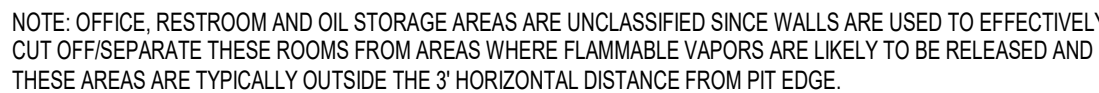
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OF



1 | ELECTRICAL LIGHTING PLAN
1/4" = 1'-0"



2 ELECTRICAL FLOOR PLAN



6 MAKE CONNECTION TO GAS HEATERS FURNISHED AND INSTALLED BY DIVISION 23.

OF

2.5 WIRING DEVICES

A. Unless otherwise specified, all outlets including voice/data outlets shall be fitted with cover plates. Cover plates shall be standard size, uniform in design and finish for switches and receptacles and all outlets requiring cover plates.

B. Wiring devices shall be as listed. The color of the device shall match color of outlet cover plate. It shall be the responsibility of the Contractor to provide plugs, receptacles, and fittings required for any equipment furnished or installed or connected under the contract. Color as selected by the Architect.

| | Leviton | P&S | Hubbell |
|--|---------|---------|-----------|
| Toggle Switches: 20A 120/277V | | | |
| Single pole | 1221-I | 20AC1-I | 1221-I |
| Three-way | 1223-I | 20AC3-I | 1223-I |
| Duplex Receptacles: 20A, 125V, NEMA 5-20R | 5362-I | 5362-I | 5363-I |
| Ground Fault Circuit Interrupter: 20A, 125V, Feed Through, NEMA 5-20R | 6899-I | 2091-S | GF-5362-I |

C. Quad receptacles shall be 20 amp, 125 volt rated, NEMA 5-20R, with two (2) duplex receptacles or single four-pole device.

2.6 VOICE & DATA STATION CABLES

A. Voice and data station wiring shall be Category 6 enhanced (Cat 6e) communications wire and cable. Station Cable shall be four-pair, unshielded, twisted pair, inside-station cable, and shall be constructed of solid 24 gauge annealed copper. Each conductor shall be insulated with a continuous layer of fluorinated ethylene propylene (FEP). The sheath shall be all weather, flame resistant, polyvinyl chloride. Station wire shall be constructed of 4 twisted pair sharing one sheath. Cable shall have Category 6e transmission characteristics as specified by ANSI/EIA/TIA-568-B2.1. Cables routed in or in plenum shall have a sheath and conductor insulation constructed of material so as to be classified as type CMP as defined by the NEC 800.3(b)(3). Voice cable shall be GRAY. Data station cables shall be BLUE.

2.7 LED LIGHTING

A. Lighting fixtures with LED light sources shall meet the following fixture and light source requirements:

1. LED Color Temperature - Cool White (CWL) 5000K (nom. CRI > 90)
2. Line Voltage - Universal Voltage 120-277 volts
3. General Specification - LM79 and LM80 Compliant
4. Expected Lamp Life - LED Life Rating (L70 B10) to be 60,000 hours to 100,000 hours; Defined as time of operation (in hours) to 30% lumen depreciation (i.e. 70% lumen maintained), derived from Luminaire ϕ -80 temperature measurement testing (i.e. LED chip package temperature (TS) measurement obtained with the LED chip package operating in given luminaire and in a given stabilized ambient environment) under UL 1608 environments and directly correlated to LED package manufacturers EISA NA LM-80-04 data. Predicted (L70 B10) Limits (@ 25°C luminaire ambient operating environment): Greater than 60,000 hours @ 350mA Drive Current
5. Driver - Components must be fully encased in potting material for moisture resistance, and must comply with IEC and FCC standards
6. Surge Protection - Surge protection must be provided including separate surge protection built into electronic driver
7. Mechanical - Luminaire LED system components to be low copper aluminum, with high performance heat sink(s) designed specifically for LED luminaires. No active cooling features (Fans, etc.). Luminaire configuration must allow for modular upgrade and/or field repair of all electrical components (i.e. LED modules, Drivers, etc.). Drivers and vertical light bars must be all mounted to a twist-lock foot-less assembly for ease of installation and trouble-shooting.
8. Drivers shall be provided with a minimum warranty of 5 years.

| | |
|------------|---|
| 3.1 | EXECUTION |
| A. | WIRING - GENERAL |
| | Unless otherwise specified, all wiring shall be installed in conduit. No wire shall be smaller than No. 12 unless noted otherwise. Wire for each branch circuit shall be of single size and type from the branch circuit protective device the last outlet of the circuit. BX wiring shall not be allowed. |
| 3.2 | CONDUIT - MATERIALS AND METHODS |
| | Conduit shall be installed as per NEC and NEMA regulations and the manufacturer's recommendations. Electrical Metallic Tubing shall be used for feeders, branch circuit and communications and control wiring. In places where EMT is permitted, 1/2" through 2" sizes shall be the only sizes permitted. Fittings for EMT shall be the compression ring type fittings. Communications wiring may be installed without conduits above accessible ceilings. |
| 3.3 | MOUNTING HEIGHTS |
| | Unless otherwise noted on the drawings or required by the Architect, the following mounting heights shall apply: Toggle Switches - 4'-0"; Receptacles - 1'-6"; Communication Outlets - 1'-6" (48" for wall phone). |
| 3.4 | COMMUNICATIONS WIRING INSTALLATION |
| A. | Unless otherwise specified, all communications systems shall be permanently installed and connected to the wiring system. The systems must be installed according to manufacturer standards and recommendations. Wiring installation shall be tested after completion of installation. Test results and as-built documents will be provided to architect in both hard copy and electronic copy, furnished on a CD. |
| B. | Wiring maps/built documents showing voice and data outlets, device numbers, room locations, and termination locations will be displayed in each wiring closet. |
| C. | Wireless drop wiring shall be punched down on a separate punch down block at the end of the data punch down blocks. The wireless punch down block shall be a different color. |
| D. | Voice and data wiring routed above accessible ceilings shall be supported on J-hooks, and shall be loose banded using Velcro wraps. Voice and data wire bundles shall not include power wiring or wiring for other low voltage systems (life alarm, intercom, security, CCTV, etc.). |
| E. | COMMUNICATIONS SYSTEM CABLES ROUTED EXPOSED ABOVE CEILINGS SHALL BE PLENUM RATED. |
| 3.5 | LIGHTING INSTALLATION |
| | Unless otherwise specified, lighting fixtures shall be permanently installed and connected to the wiring system. The Contractor shall support each fixture independently from the building structure. Ceiling framing members shall not be used to support fixtures except in situations where ceiling supports for this purpose have been specified elsewhere in these specifications. Each fixture shall have at least two fixture supports. Flexible conduit used for fixture whip/s shall be at least twelve (12) inches, but not more than 48 inches long. |

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**ELECTRICAL
 SPECIFICATIONS**

SHEET NO.

E4.01

OF