

SHAHER | ZAHNER | ZAHNER
OFFICE OF ARCHITECTURE

January 19, 2022

GS# 362-066 West Lot Improvements (Paving and Renovations (Phase 1))

Woolfolk Building (Office of Capitol Facilities) (Department of Finance and Administration)

Jackson, MS

Addendum No. 2

This Addendum forms part of the Contract Documents for the above referenced project. All other requirements of the original Contract Documents shall remain in effect except as specifically modified in this Addendum. Bidder is to acknowledge receipt of this Addendum with their bid proposal. Failure to do so may subject the Bidder to disqualification. This Addendum is issued to all known Plan Holders.

1. A Pre-Bid Meeting was held on January 10, 2022. See this addendum and meeting minutes for resolution of questions asked and other information discussed at this meeting. See the Pre-Bid Conference Meeting Minutes attached.
2. Clarifications:
 - a. The existing site fencing can be used to secure the site. The Contractor shall provide a lock for the existing gate if utilized.
 - b. Precast concrete storm drain boxes are acceptable to use if the top matches an SS-2 type inlet.
 - c. ADD The structural analysis of the existing building is attached for reference.
 - d. The Geotechnical Report is attached for reference (Use in lieu of previously issued Geotechnical Report).
 - e. The electrical installation for the elevator is to be included in the Base Bid.
 - f. See attached Electrical RFI's submitted with responses.
 - g. All special inspections are to be provided by the Contractor and included in the Bid amount.
3. Specifications:
 - a. Section 08 71 00 Door Hardware: revise hardware sets to add the following components/hardware with all associated components for complete installation. Coordinate hardware with opening schedule and plans for door and frame types, and hardware functionality/intent.
 - i. Door 101A – provide electrified hardware with card reader access control
 - ii. Door 102A – provide electrified hardware with card reader access control
 - iii. Door 103A – provide electrified hardware with card reader access control
 - iv. Door 201A – provide pedestal ADA opener
 - v. Door 202B – provide electrified hardware with card reader access control
 - vi. Door 203C – provide ADA opener
 - vii. Door 205A – provide electrified hardware with card reader access control
 - viii. Door 210B – provide electrified hardware with card reader access control
 - ix. Door 211A – provide electrified hardware with card reader access control
 - x. Door 215A – provide hardware set with occupancy indicator and deadbolt lock
 - xi. Door 301A – provide electrified hardware with card reader access control
 - xii. Door 301B – provide electrified hardware with card reader access control
 - xiii. Door 310A – provide electrified hardware with card reader access control

SHAHER | ZAHNER | ZAHNER
OFFICE OF ARCHITECTURE

- b. Section 09 91 00 Painting, 3.04 Schedule – Exterior Surfaces, ADD note to paragraph D. Concrete and Unit Masonry: PROVIDE LOXON XP TEXTURED FOR ALL EXTERIOR EXPOSED CONCRETE SURFACES.
- c. Section 10 42 60 Interior Building Signage: Note that some spaces will not receive signage in this bid package – they will receive signage as they are built out in future phases of work. The ‘message background artwork’ will be developed with vector artwork provided by the Architect. REVISE Paragraph F, Quantities:
 - i. Evacuation Maps: provide (3) Configuration 63, Extended Lens with 15” rails
 - ii. Provide Room IDs with Pictos (Lucid Stair and Restroom ID types 40-47 as applicable) for all Stairs and Restrooms
 - iii. Provide Room ID – configuration 49 or 50, 5” channel with extended tile for the following rooms:
 - 1. Ground floor: Rooms 101, 102, 103
 - 2. Second floor: Rooms 207, 212, 213, 214
 - 3. Third Floor: Rooms 306, 307, 311
- d. ADD Section 10 73 16 Flat Soffit Aluminum Canopies, see attached.
- e. ADD Section 32 31 20 Ornamental Steel Fences and Gates, see attached.
- f. Section 26 24 16 – Panelboards: Remove Paragraph 3.7A
- g. Section 26 32 13 – Packaged Engine Generator: Section 1.5 A1, REVISE as follows: Maintenance Proximity: Not more than two hours normal travel time for manufacturer’s approved technicians.
- h. Section 28 15 00 – Site Access Controls
 - ADD SECTION 281500 2.6 AS FOLLOWS:
 - 2.6 PUSH TO EXIT BUTTON
 - A. The push to exit button shall be Essex PEBSS2 or equal.
 - B. Illuminated, stainless steel, timed electronic switches designed to operate in various high use, harsh and vandal prone environments.
 - C. Configurable switches feature solid-state Piezoelectric Switch technology and field selectable options including adjustable timed output and illumination feedback status.
 - ADD SECTION 281500 3.3D AS FOLLOWS:
 - D. Mount Push to Exit Buttons in strict compliance with manufacturer’s instructions.
 - ADD SECTION 281500 3.4E AS FOLLOWS:
 - E. It is anticipated that the main data room will be Data 212. All cabling must be routed to this room. Coordinate installation requirements to and in this room with MS ITS.

4. Drawings:

SHAHER | ZAHNER | ZAHNER
OFFICE OF ARCHITECTURE

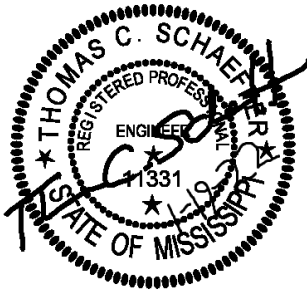
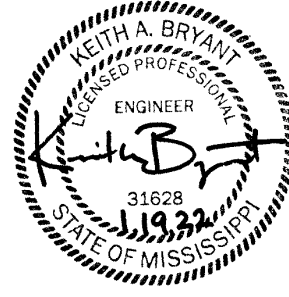
- a. D100 – REVISED 1/D100 to include demolition of portion of slab for new sub-grade conduit routing. See revised D100, attached.
- b. C1.1 – REVISE Construction Truck Routing Plan, see attached revised sheet
- c. C2.0 – REVISE Demolition of site items, see attached revised sheet
- d. C5.0 – REVISE construction entrance, see attached revised sheet
- e. Structural Drawings – See attached revised and/or added sheets:
 - i. S001
 - ii. S002
 - iii. S003
 - iv. S004
 - v. S005
 - vi. S110
 - vii. S111
 - viii. S111A
 - ix. S112
 - x. S113
 - xi. S114
 - xii. S300
 - xiii. S301
 - xiv. S302
 - xv. S303
 - xvi. S304
 - xvii. S305
 - xviii. S306
 - xix. S400
 - xx. S401
 - xxi. S402
- f. A130 – ADD the following note to 3/A130: The existing columns and underside of canopy have a plaster/stucco finish. Patch & repair damaged finish with new stucco. Provide new finish on all exposed surfaces.
- g. A610 Finish Schedule:
 - i. Revise floor finish in Room 201 Lobby to LVT
 - ii. Revise floor finish in Room 202 Elevator Lobby to LVT
- h. E001 – Revised, see attached.
 - i. ADDED SITE ACCESS CONTROLS TO SYSTEMS COORDINATION SCHEDULE
 - ii. REVISED LIGHT FIXTURE SCHEDULE
- i. ES101 – Revised, see attached.
 - i. REVISED SECONDARY ROUTING
- j. ES102– Revised, see attached.
 - i. REVISED KEYNOTES 2,3,4, AND 6
 - ii. REVISED SITE ACCESS CONTROLS LOCATIONS AND INDICATIONS
- k. E501– Revised, see attached.
 - i. ADDED KEYNOTES 17 AND 18
 - ii. ADDED DRAWING NOTE
 - iii. ADDED SLEEVES TO RISER

SHAFFER | ZAHNER | ZAHNER

OFFICE OF ARCHITECTURE

Contents: This addendum consists of **73** (8 ½" x 11") sheets and **29** (24" x 36") sheets.

End of Addendum No. 2 for: GS# 362-066 West Lot Improvements (Paving and Renovations (Phase 1))



Structural
Engineering
Report

prepared for

**Sun-n-Sand Motor Hotel
Jackson, Mississippi**

August 14, 2020



220 Great Circle Road
Suite 106
Nashville, Tennessee 37228

p. 615.255.5537

f. 615.255.1486

August 14, 2020

SUN-N-SAND MOTOR HOTEL
JACKSON, MISSISSIPPI

Prepared by: Structural Design Group

STRUCTURAL REPORT

On August 11, 2020 Joe Connor, P.E., of Structural Design Group performed a limited scope walk-through observation of the Sun-n-Sand Motor Hotel (Photo 1) located at the intersection of North Lamar Street and Henry Street in Jackson, Mississippi. Accompanying



him at the site were Scott Comish with Shafer-Zahner-Zahner Architects and Paula DeYoung, Glenn Kornbrek, and Roe Grubbs from the CCID for The State of Mississippi. The purpose of the walk-through was to observe the general condition of the structure and provide an assessment of the portion of the existing structure proposed to remain after the proposed partial demolition, with the intended purpose being to determine the structural feasibility of renovating the existing building. The physical observation of the structure was performed without removing or damaging elements of existing

construction; hence, without examination of concealed conditions and, as such, this office cannot speculate as to the adequacy of concealed and uninspected conditions of the structure since the conditions of construction may vary. In addition, information in our report may not be used to extend our conclusions to concealed portions of the building which were not observed at this time.

The hotel was opened in 1960 and has been vacant for approximately 20 years. The roof has leaked for some time and the plaster ceilings over the kitchen areas have collapsed (Photo 2). Many of the interior surfaces are covered in mold, particularly on the north wall of the structure (Photos 2 and 3).

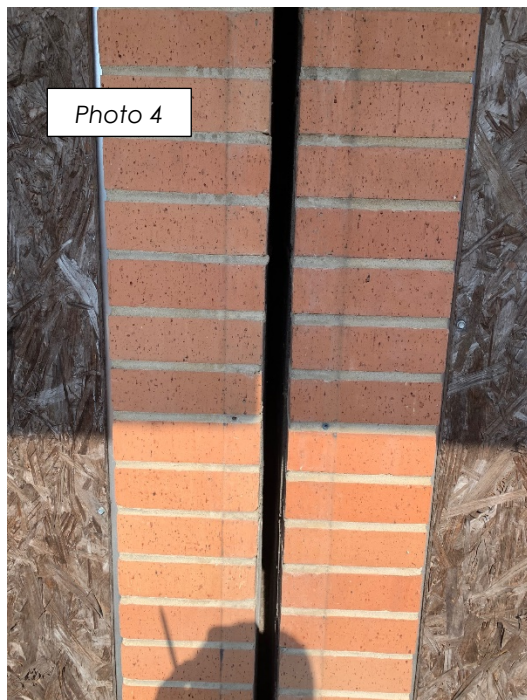




It is our understanding that the original drawings are not available and may not even now exist. The building is a two-story, cast-in-place concrete structure with a half basement. The second floor and roof is a 6-inch flat slab. On the east side of the building, the first floor appears to be a concrete slab-on-grade and on the west side, the first floor is a one-way, cast-in-place concrete slab with beams over the basement below. Although the ground floor appears to be a soil-supported slab-on-grade it could not be verified during the visit. The presence of expansive clays

varies in the downtown area and no signs of excessive heaving of the ground floor or sidewalks were observed.

The lobby area has a higher floor-to-floor space than the adjacent motel room structure. The motel guest room wings appear to be a cast-in-place,



conventionally-reinforced, one-way concrete slab supported on 6-inch loadbearing concrete masonry (CMU) walls that also serve as demising walls between rooms. Based on the observed location of what appears to be a 2-inch structural expansion joint (Photo 4), the first four bays of the guest room structure and the lobby are one structure (Photo 5). The bay immediately adjacent to the lobby area contains a stair and elevator and the other three bays are guest rooms.



In general, the primary structure appears to be in good condition. One significant spall was noted in a spandrel concrete beam on the east side of the lobby at the second floor and the spall exposes some of the reinforcement in the bottom of the beam. This beam is exterior and exposed to the elements and should be properly repaired (Photo 6). Smaller concrete spalls were observed to have fallen from the



bottom of the roof slab at the front of the office area. It appears that rainwater has migrated into electrical conduit running to light fixtures over time and corroded to create the spalls (Photo 7). Several hairline cracks were also noted in the balcony slab (Photo 8). An allowance should be made to make these repairs, which will include the concrete and the reinforcement.

Due to the age of the elevator, it is unlikely that it will comply with the current Building Code and a replacement will likely be required. We recommend locating the elevator away from existing footings to avoid interference, and a soil boring should be made to identify the soil characteristics at that location. Alternatively, the elevator could be relocated to the exterior of the portion of the structure that remains after partial demolition.



Photo 8

We understand that the stair rail is an important historic architectural feature; however, if salvaged, it will likely require modification to meet the handrail and guardrail provisions of the Code (Photo 9).

The International Existing Building Code allows for renovation of existing structure without improvement to current IBC Code provisions, but with limitations. Depending on the occupancy of the renovated space, the building would likely need to be brought up to current Code and shear walls will need to be added or reinforced accordingly.

There are several options for partial demolition that are being considered. The most convenient location for the limit of demolition is at the existing 2-inch expansion joint located between the third and fourth guest rooms from

the lobby. It is also structurally acceptable to cut the slab and demolish the remainder of the structure to the south of any of the demising walls. It is not recommended to cut the structure at the exterior of the lobby area because that first bay includes the decorative stair and part of the lobby space. Structurally, leaving the first bay of the guest room area would allow the guest room 2nd floor slab and roof slabs to span simply between the lobby structure and the



Photo 9

first loadbearing wall. The slab should be cut approximately 2-ft. past the south face of the demising walls to ensure that the slab reinforcement is fully developed at the wall. This will result in a slab overhang, which might be a good location for one of the added shear walls

to conceal the overhang and help reinforce the structure in accordance with the current Code.

It is our opinion that a structural renovation of the building is viable and practical and there are several options for the limits of demolition (Photos 10 and 11).

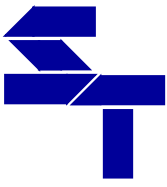




Photo 11

snh

S:\Sdg\Projects\2020\2020-199\Field\Sand 'N Sun Observation.docx



SOILTECH CONSULTANTS
Geotechnical Engineering

**Geotechnical Investigation
The Old Sun-N-Sand Hotel Parking Lot
Jackson, Mississippi**

Prepared For

**Shafer Zahner Zahner
510 University Drive
Starkville, Mississippi 39759**

May 22, 2020

May 22, 2020

Scott Comish
Shafer Zahner Zahner
510 University Drive
Starkville, Mississippi 39759

Project No.: ST.02787.000.001

Re: Geotechnical Investigation
The Old Sun-N-Sand Hotel Parking Lot
Jackson, Mississippi

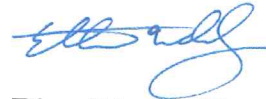
Dear Mr. Comish:

Submitted herein are the results of our geotechnical investigation for the above referenced project. This work was performed in accordance with our proposal dated May 14, 2020, as authorized by yourself on same day.

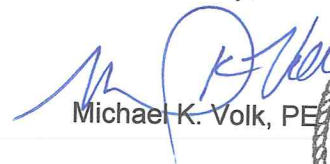
This report presents our findings and recommendations related to pavement design and construction. Based on the results of this investigation, the pavement could consist of either asphalt cement or Portland cement concrete. Details of our findings are presented in the body of this report.

We appreciate the opportunity of providing services to you. If we can answer any questions or provide additional information, please call.

Very truly yours,
SoilTech Consultants, Inc.



Ethan Whaley, EI



Michael K. Volk, PE



Copies Submitted: (Digital)

TABLE OF CONTENTS

	<u>Page</u>
1.0 INTRODUCTION.....	1
1.1 Purpose and Scope.....	1
2.0 PROJECT INFORMATION.....	1
<i>Proposed Construction</i>	1
<i>Site Conditions/Development</i>	1
3.0 FIELD INVESTIGATION.....	1
<i>Soil Sampling</i>	2
<i>Dynamic Cone Penetrometer Tests</i>	2
4.0 LABORATORY TESTING.....	3
5.0 SUBSURFACE CONDITIONS.....	3
5.1 Geology	4
5.2 Generalized Soil Profiles	4
5.3 Groundwater.....	6
6.0 GEOTECHNICAL CONSIDERATIONS	6
7.0 SITE PREPARATION.....	6
7.1 Objectionable Materials.....	7
<i>Existing Pavement Areas</i>	7
<i>Existing Building Area</i>	7
7.2 Mitigation of Expansive Clay (CH)	7
7.3 Proof Rolling and Unstable Soils.....	7
7.4 Mitigation of Unstable Soils.....	8
<i>Moisture Conditioning the In-Situ Soils</i>	8
<i>Removal and Replacement</i>	8
<i>Chemical Stabilization of In-situ Soils</i>	8
<i>Bridging with Woven Geotextile</i>	9
7.5 Structural Fill Materials.....	10
7.6 Excavations	10
7.7 Drainage.....	10
8.0 PAVEMENT DESIGN	10
8.1 Subgrade Preparation	11
8.2 Design Assumptions	11
8.3 Pavement Design Thicknesses.....	11
9.0 CONSTRUCTION OBSERVATION AND DOCUMENTATION.....	12
10.0 REPORT LIMITATIONS	12

Figure 1 – Site Location Map

Figure 2 – Boring Location Map

Appendix A

Graphical Soil Boring Logs

Soil Classification Chart

Table 1 – Summary of Laboratory Data

Atterberg Limits Results

DCP Test Results

**Geotechnical Investigation
The Old Sun-N-Sand Hotel Parking Lot
Jackson, Mississippi**

1.0 INTRODUCTION

Shafer Zahner Zahner, PLLC is developing plans to construct a new parking lot at the site of the Old Sun-N-Sand Hotel in Jackson, Mississippi. The site is located on the west side of North Lamar Street. A general location of the site is presented on Figure 1.

1.1 Purpose and Scope

The purposes of the investigation reported herein were as follows:

- To determine soil and groundwater conditions in the proposed construction area.
- To evaluate pertinent geotechnical engineering properties of the soils encountered.
- After analyses of available field and laboratory data, to develop guideline recommendations related to site development, and pavement design and construction.

2.0 PROJECT INFORMATION

Proposed Construction: The site currently has the existing hotel and parking areas on all four sides surrounding the hotel. The parking area includes an entrance and exit driveway on the east side of the site. The abandoned pool has been filled in and the courtyard area and has a concrete surface. The proposed construction will include demolition of the existing hotel, relocation of the old Sun-N-Sand Hotel sign, and construction of the new parking lot.

Based on information received from Shafer Zahner Zahner, the preliminary parking lot design should accommodate approximately 225 passenger cars for the daily employees of the Woolfolk office building adjacent to the site. A driveway will be added in the northwest corner accessing Henry Street. Another driveway will be added in the southwest corner accessing East Hamilton Street. The existing drive on the northeast corner of the lot will be removed while the other existing drive on the east side will remain.

Site Conditions/Development: Site grades are currently relatively level with little elevation change across the proposed construction area. Due to the location of site being in downtown Jackson, proposed grades will most likely match existing grades. As such we anticipated minimal grading will be required to establish the finished subgrade elevation.

3.0 FIELD INVESTIGATION

The field investigation for this study was performed on May 18-19, 2020. Subsurface conditions at the project site were investigated by 12 soil borings made at the locations shown on Figure 2. Borings B-1 to B-8 and B-10 were drilled to a depth of 10 feet in the proposed pavement area. Borings B-9, B-11, and B-12 were proposed to be drilled to a depth of 10 feet, but due to auger refusal, actual depths were 4 to 5 feet. A coring rig was used to core through the asphalt in borings B-1 through B-10. The borings were advanced by a manual short-flight earth auger. Graphical soil boring logs showing the types of soils encountered are presented in Appendix A. Symbols and soil classifications used in the graphical boring logs are presented in the Soil Classification Chart in Appendix A.

The existing pavement had a thickness ranging from 3 inches in Boring B-1 to 7 inches in Boring B-6. The pavement thickness in boring B-8 consisted of 4.5 inches of asphalt pavement and 5.5 inches of concrete. Borings B-11 and B-12 were drilled in the lawn areas of the courtyard. The pavement thicknesses are presented in the boring logs.

The borings were located in the field by measurement from existing features and GPS. Elevations of the borings were estimated from Google Earth Pro imagery. The locations and elevations of the borings should be considered accurate only to the degree implied by the methods used in their determination.

Soil Sampling: Representative disturbed samples of the soils encountered were taken directly from the cuttings off of the short-flight earth auger used to complete all borings. The disturbed samples were taken at intervals of depth as indicated by two horizontal lines connected by a vertical line in the "Samples" column of the boring logs. These samples were sealed in plastic jars to prevent loss of moisture. All jars were placed in protective boxes for transportation to the laboratory for possible testing.

Dynamic Cone Penetrometer Tests: Subgrade strength conditions at all boring locations were evaluated by means of Dynamic Cone Penetrometer (DCP) tests. The DCP is used to measure soil strength by correlating the DCP index with a California Bearing Ratio (CBR) value to determine a shear strength. The DCP consists of a 5/8-inch diameter steel rod and has a steel cone attached to one end. The cone is driven into the subgrade soil by dropping one of two interchangeable hammers weighing either 10.1 pounds or 17.6 pounds from a height of 22.6 inches. The DCP is designed to penetrate soils to depths of 36 inches. The depth of cone penetration is measured at selected penetration or hammer drop intervals and the soil strength is reported in terms of DCP index. Individual DCP index values are reported for each test depth resulting in a soil-strength-with-depth profile for each test location. For this investigation, the 17.6-pound hammer was used to determine the DCP test data. DCP test data is used to determine the bearing ratio that can serve as a basis to verify in-situ subgrade strength. The DCP soundings performed during this investigation are presented in Appendix A. A summary of the findings is presented in Table 3.0.1 below.

Table 3.0.1 DCP Test Results			
DCP No.	Location	Average CBR Value	Material (CH or CL)
1	B-1	13	CL
2	B-2	18	CL
3	B-3	25	CL
4	B-4	6	CL
5	B-5	19	CL
6	B-6	11	CL
7	B-7	16	CL
8	B-8	17	CL
9	B-9	10	CL
10	B-10	13	CL
11	B-11	5	CL
12	B-12	9	CL & CH

Based on the DCP test results, the soils in the following locations were unstable, less than a CBR of 5, at various depths and should be mitigated prior to pavement construction. The depths at these locations are seen in Table 3.0.2 below:

Table 3.0.2 Recommended Mitigation Depths		
DCP No.	Location	Mitigated Depth, inches
2	B-2	Surface to 14
3	B-3	10 to 12
4	B-4	8 to 22
7	B-7	7 to 10
8	B-8	10 to 13
9	B-9	10 to 24
10	B-10	10 to 14 and 24 to 28
11	B-11	12 to 29
12	B-12	Surface to 14

4.0 LABORATORY TESTING

The engineering properties of the soils encountered at this site were determined by means of tests completed in our laboratory. These tests were performed in accordance with recognized ASTM standards and procedures that are summarized in Table 4.0.1 below.

Table 4.0.1 Laboratory Testing	
Test Designation	Procedure
Moisture Content	ASTM D2216
Atterberg Limit	ASTM D4318
200 Wash (percent fines)	ASTM D1140

5.0 SUBSURFACE CONDITIONS

Specific types and depths of the subsurface strata encountered at the boring locations are shown in detail on the boring logs presented in Appendix A. Symbols and soil classifications used in the graphical boring logs are also presented in Appendix A. The depths on the boring logs refer to the depth from the existing (May 2020) ground at the time of our field investigation. The generalized subsurface conditions encountered in the borings are discussed in the following sections.

5.1 Geology

The project area is underlain by the Jackson Dome which is the major structural feature in Hinds County and is located in northeastern Hinds County and Adjoining Rankin and Madison Counties. The crest of the Dome is within the Belhaven Area of the City of Jackson. This dome is the result of molten igneous material pushing upward from deep within the earth. This intrusion uplifted the formations that were already in place, leaving them structurally high over the crest of the mass. Younger beds, such as the Moody's Branch, were deposited after a period of erosion leveled this feature to a relatively flat surface. Subsequently, additional uplift occurred, causing these younger formations to be arched over the structure.

The outcrop of the Yazoo Formation covers the northeastern corner of Hinds County. The rolling terrain of the Jackson prairie belt is developed on the Yazoo clay. The Yazoo clay is a fairly homogeneous unit consisting of blue-green to blue-gray, calcareous, fossiliferous clay with some pyrite. The upper few feet of the Yazoo is non-calcareous and slightly silty. The Yazoo is very limy and glauconitic just above the contact with the subjacent Moodys Branch formation. Beds of soft, white, argillaceous limestone are present in some localities. The limestone beds lie about 100 feet from the top of the Yazoo. The Yazoo clay weathers to a yellowish or greenish yellow color. The weathered clay frequently is stained by limonite and manganese along joints. When badly weathered the Yazoo clay may be non-calcareous but weathered Yazoo frequently is quite calcareous. Calcareous nodules are quite commonly found in outcrops of weathered Yazoo.

The Cockfield Formation consists of gray, silty, carbonaceous, micaceous clays; gray, very fine to fine grained, silty sands and thin beds of lignite. These sands are nearly white when fresh, but they weather to a buff-orange and orange red. Lignite beds are abundant within the formation with bed thicknesses of as much as 5 feet found in the finer grained sediments. The lignite is typically black and impure. The Cockfield is about 225 feet thick on the Jackson Dome and thickens to over 500 feet in the southwestern portion of Hinds County. The Cockfield is underlain by soils of the Cook Mountain Formation. Further, the Cockfield is disconformably overlain by the Moody's Branch Formation.

5.2 Generalized Soil Profiles

Soil conditions at the site can generally be characterized as gravel with sand (GP) as uncontrolled fill, clayey sand (SC), low plasticity clay (CL), and high plasticity clay (CH). The following gives details of the classification of the respective materials, along with general locations, if applicable.

Gravel with Sand (GP): Gravel with sand is defined by USCS as a coarse-grained soil with more than 50% of the soil particles retained on the No. 200 sieve, more than 50% of the coarse fraction retained on the No. 4 sieve, and less than 5% passing the No. 200 sieve.

Gravel with sand materials were encountered in Borings B-2 to B-7 and B-10 and considered to be uncontrolled fill. The depth was approximately 6 inches in each boring where the gravel with sand was encountered.

Clayey Sand (SC): Clayey sand is defined by USCS as a coarse-grained soil with more than 50% of the soil particles retained on the No. 200 sieve, more than 50% of the coarse fraction passing the No. 4 sieve, greater than 12% passing the No. 200 sieve, and fines that classify as CL or CH.

Clayey sand material was encountered in Boring B-4. Atterberg limit tests give a LL result of 23 and a PI result of 12.

Low Plasticity Clay (CL): Low plasticity clay is defined by the Unified Soil Classification System (USCS) as a fine-grained soil with more than 50% of the soil particles passing the No. 200 sieve, a Liquid Limit (LL) less than 50, Plasticity Index (PI) greater than 7, and plots on or above the “A” line. The “A” line is defined by the following:

$$PI = 0.73(LL - 20)$$

These materials exhibit low to medium plasticity and generally have a low to moderate shrink/swell potential. Low plasticity clays found during the investigation were classified as silty and sandy clays. They were encountered at various depths throughout the investigation in each boring. Atterberg limit tests give LL results ranging from 46 to 26 and PI results ranging from 30 to 10.

High Plasticity/Expansive Clay (CH): High plasticity clay is defined by the Unified Soil Classification System (USCS) as clay soil with greater than 50% of soil particles passing the No. 200 sieve, a Liquid Limit (LL) of 50 or higher, and a Plasticity Index (PI) that plots above the “A” line which is the bottom diagonal line shown on the Atterberg Limits Results Figure presented in the Appendix A.. High plasticity clay is denoted by the USCS with a two-letter symbol, C (Clay) and H (High Plasticity). Thus, high plasticity clay for this investigation and presented on the boring logs is identified as (CH) at the end of the soil description. In addition, expansive clay has a Plasticity Index (PI) of 30 or higher. The expansive clay is subject to volumetric movement with changes in soil moisture content. As the clay transitions from a dry condition to a moist condition with increases in soil moisture it will experience expansion. This expansion will be realized in new grade-supported improvements as heave. As the clay transitions from a moist condition to a dry condition with decrease in soil moisture it will experience shrinkage. This shrinkage will be realized by new grade-supported improvements as settlement. These changes in soil moisture can be caused by but are not limited to; prevailing weather (rain/heat), irrigation, utilities, and root systems of near-by trees.

The expansive clay is also subject to vertical rise due to relief of stress by the removal of overburden soils overlying the clay, i.e. lowering existing grades. This is generally termed as “rebound” movement. Rebound related movement can also be realized in ground-supported improvements as heave.

Expansive clay materials were encountered at various depth throughout the investigation in the form of normal expansive clay and Weathered Yazoo clay. Weathered Yazoo clay was only encountered in Boring B-5 at a depth of approximately 7 feet, therefore it should not affect the proposed pavement. Atterberg limit test for the normal expansive clay gives a LL result of 50 and a **PI result of 37. Thus, the expansive clay’s volume change potential is medium to high.**

The soil boring logs in Appendix A provide details of the specific conditions encountered at each boring location and the field and laboratory test data collected. A statistical summary of the laboratory test results for each stratum is presented in Table 1.

The boring logs contain our field representative's interpretation of conditions that are believed to exist in those depth intervals between the actual samples taken. Therefore, these boring logs contain both factual and interpretative information.

5.3 Groundwater

At the time of our investigation, free water was not observed in the borings within the depths explored (within the upper ten feet) of the ground surface. This does not necessarily mean groundwater is not present within the depths explored. The low permeability clay soils present in most of the borings may result in very slow infiltration rate and stabilization of groundwater may require an extended period. Accurate groundwater observations may require the use of piezometers monitored over a long period of time.

Notes pertaining to groundwater are presented on each graphical boring log in Appendix A. The presence and depth to groundwater may fluctuate with seasonal rainfall, site topography, site drainage conditions, and other environmental factors. As a result, groundwater conditions at the time of construction may be different from those conditions recorded during our field investigation. Groundwater conditions should be verified near the time of construction.

6.0 GEOTECHNICAL CONSIDERATIONS

As previously mentioned, the soils encountered were gravel with sand (GP) as uncontrolled fill, clayey sands (SC), low plasticity clays (CL), and high plasticity clays (CH). Based on the investigation and laboratory testing, the following is a general summary of geotechnical considerations:

- The high plasticity clay present throughout the site is currently at a depth that will not affect the proposed pavement except in Boring B-12. The CH material starts at 1 foot below the surface. This is in the existing courtyard area just east of the old pool. This area will most likely be removed as part of the demolition of the existing building and foundation elements. If it does not, then a “buffer” of structural fill should be constructed in this area as outlined in Section 7.2.
- For the remaining areas in the existing pavement, Table 3.0.2 outlines the depths at where the CBR values were below 5. These areas should be mitigated by removal and replacement or moisture conditioning as outlined in Section 7.3.
- The existing hotel building will be removed along with its foundation elements. Borings were not performed inside the building footprint so the type of foundations and soils underneath the existing hotel are unknown. The recommendation for removal of shallow and/or deep foundations is below in Section 7.1.

The recommendations provided herein assume the finished subgrade elevation will closely mirror current grades. Should site development require the need for significant raising or lowering of surface grades, this office should be notified to review the grading package and evaluate the effect, if any, on the recommendations provided herein. Discussion of our findings and recommendations related to design and construction are discussed in the following sections.

7.0 SITE PREPARATION

Proper site preparation is a key aspect of the performance of new construction. Factors that can affect both the short and the long-term success of construction can include but may not be limited to removal of objectionable materials present at the site, proper clearing and stripping of vegetation, discovery and mitigation of unstable or unsuitable soil materials, proper placement of structural fill materials, and long-term drainage conditions. Details related to proper site development are presented in the sections below.

7.1 Objectionable Materials

Existing Pavement Areas: Site preparation should include complete removal of all objectionable materials including old pavement elements. Objectionable materials can include but are not limited to organic matter, wet/unstable materials, debris, and trees/stumps/roots. Where trees have been removed, the tree root bulb should be over-excavated to a depth where all of the root system has been removed.

Existing Building Area: Site preparation should include complete removal all objectionable materials including old foundation elements. Borings were not performed inside the building footprint so the type of foundations and soils underneath the existing hotel are unknown. If the existing hotel is on shallow foundations, we recommend removal of all the shallow concrete foundation elements.

If the existing hotel is supported on deep foundations, we recommend that all foundation elements within the upper 10 feet of proposed finished grade be removed. We anticipate that the material directly beneath and around the foundation elements will be wet and most likely unstable. If stability is not present, then mitigation of the unstable soils can be achieved with the bridging with woven geotextile option in Section 7.4.

7.2 Mitigation of Expansive Clay (CH)

To help limit to about one inch the potential for post construction movement associated with moisture induced volumetric change of the expansive clay, a layer of low permeability/low-volume change soil is recommended between the bottom of the new grade-supported improvement and the surface of the expansive clay. This layer of low permeability/low-volume change soil is commonly referred to as a “buffer”. The buffer can be naturally occurring or constructed. The buffer will:

- 1) Serve to remove the expansive clay from the immediate proximity of the foundation and reduce the thickness of expansive clay present within the zone of active moisture variation,
- 2) Create a zone of soil that will not be subject to significant movement with variation in soil moisture,
- 3) Minimize soil desiccation, and
- 4) Help to limit variation in the moisture content within the expansive clay underlying the buffer.

The buffer should extend to a minimum of 3 feet below the top of finished subgrade in pavement areas.

As previously mentioned, a buffer for the expansive clay is present in each boring except Boring B-12. We recommend the area in and around Boring B-12 is mitigated to remove the expansive clay.

7.3 Proof Rolling and Unstable Soils

After removal of objectionable materials and mitigation of unstable soils has been performed as outlined above and prior to placement of structural fill and pavements, the exposed subgrade should be evaluated to verify stability. This can be accomplished by proof rolling. Proof rolling should be performed with a minimum of two passes by a fully-loaded dump truck weighing between 15 to 20 tons or another suitable vehicle approved by the geotechnical engineer of record. After proof rolling, areas that are unstable (soft or “pump”) may require mitigation. Options for mitigation are provided below.

Proof rolling should be performed within two days of commencement of placement of structural fill and construction of pavement. If a significant amount of time occurs between the completion of the proof roll and the described operations, the subgrade could be subject to softening and/or degradation from construction traffic and/or weather. If a period of more than two days occurs between the proof roll and construction, an additional proof roll should be performed to confirm stable subgrade conditions.

The near-surface soils at this site are sensitive to increases in moisture content and have a tendency to lose strength and become unstable as the moisture content increases or as a result of construction traffic. As a result, we suggest construction at this site take place during the generally dryer months of the year (i.e. between May and October). Construction occurring during the wetter months of the year could result in unanticipated rainfall events that could degrade the subgrade and reduce the strength and stability which might require unanticipated mitigation.

7.4 Mitigation of Unstable Soils

Should the subgrade soils become subject to softening, mitigation may become necessary. Some options for mitigation of unstable soils proven through site evaluation are presented below.

Moisture Conditioning the In-Situ Soils: This consists of processing the unstable soil in-place to reduce the moisture content and provide stability. Generally, if the unstable soil is about 12 inches or less in depth, the materials could likely be scarified with a disc or similar and aerated in-place to reduce the moisture content. The aeration process would require frequent disking and turning of the soil.

If the unstable soils extend to greater than about 12 inches in depth, the materials may need to be excavated and spread in relatively thin layers across the site and turned and aerated to process the material and reduce the moisture content.

The materials should be moisture conditioned to within (+/-) 3% of optimum moisture content as determined by the Standard Proctor (ASTM D698) test. Once the proper moisture range has been achieved, the conditioned soils can then be re-compacted in maximum nine-inch loose lifts to a minimum of 98% of the Standard Proctor (ASTM D698) density.

Removal and Replacement: If the unstable soils extend deeper than about 12 inches, this consists of excavating the unstable soils to a stable surface and replacing the excavated materials with approved structural fill. This consists of excavation of the unstable soils to a stable surface that is capable of the placement of structural fill with compaction and stability. Once the stable surface has been exposed and verified, placement of the structural fill should consist of placing in maximum nine-inch loose lifts to a minimum of 98% of the Standard Proctor (ASTM D698) density at (+/-) 3% of optimum moisture content as determined by ASTM D698.

Chemical Stabilization of In-situ Soils: Chemical stabilization of the subgrade soils could be accomplished by mixing hydrated lime or Portland cement with the in-place soils. We recommend hydrated lime for more clayey soils (Plasticity Index (PI) of 10 or greater) or Portland Cement into more granular soils with a PI less than 10. The stabilization effort should apply to the top 12 inches of exposed subgrade soils. The chemically treated soils should be compacted to a minimum of 98% of the Standard Proctor (ASTM D698) density. Application rates are provided in Table 7.4.1 below.

Table 7.4.1 Chemical Stabilization Application Rates (% by weight)				
General Classification	Plasticity Index	USCS Classification	Lime	Cement
Sands and Gravels	< 10	GW-SW	--	5
		GP, SW-SM, SW-SC, SW-GM, SW-SC	--	6
		GM, SM, GC, SC, SP-SM, SP-SC, GP-GM, GP-GC, SM-SC, GM-GC	--	7
Silts and Clays ¹	10 to 20	CL, ML, ML-CL, CH	3	---
	21 to 25		4	
	26 to 30		5	
	31 to 35		6	
	36 to 40		7	
	40+		8	

¹ Includes materials with a minimum of 50% of the soil particles passing the No. 200 sieve.

Bridging with Woven Geotextile: In the areas of the site where unstable soils extend to depths greater than about three feet, the unstable soils could likely be bridged using a woven geotextile and sand bridge lift. The geotextile should be placed prior to the placement of the structural fill material. The unstable soils should be excavated to a minimum depth of 3½ feet pavement areas below finished subgrade. These anticipated depths should be verified at the time of mitigation. At completion of excavation, a woven geotextile should be placed. The geotextile should consist of a woven geotextile meeting the minimum requirements outlined in Table 7.4.2 below:

Table 7.4.2 Woven Geotextile Properties *				
Mechanical Properties	Test Method	Unit	Minimum Average Roll Value	
			MD	DC
Grab Tensile Strength	ASTM D4632	lbs	315	315
Grab Tensile Elongation	ASTM D4632	%	15	
Trapezoid Tear Strength	ASTM D4533	lbs	120	120
Mullen Burst Strength	ASTM D3786	psi	600	
Puncture Strength	ASTM D4833	lbs	145	
Percent Open Area	COE-02215-86	%	1	
Apparent Opening Size	ASTM D4751	Mm (U.S. sieve)	40	
Permittivity	ASTM D4491	sec ⁻¹	0.05	
Flow Rate	ASTM D4491	gal/min/ft ²	4.0	
UV Resistance	ASTM D4355	% strength retained	70	

* The properties listed generally conform to Mirafi 600x, Terra Tex HD, Geotex 315ST, and Skaps W315.

The fabric should be placed with a minimum overlap of 24 inches at all joints. The overlap should be placed in the intended direction of structural fill placement. A minimum of 12 inches of sand should be spread over the geotextile. The sand should be a clean, non-plastic sand with less than 10% of the soil particles passing the Number 200 sieve. The sand should be back dumped onto the geotextile and spread with a small dozer or equivalent size of equipment such as a mini track hoe or bobcat with a grading blade with little compaction.

The initial lift of structural fill on top of the sand should be placed with a loose thickness of not greater than 12 inches and compacted to achieve at least 92% of the Standard Proctor (ASTM D698) density. Some slight pumping may be observed in this initial lift. Subsequent lifts of structural fill be placed with a minimum compaction of 98% of the Standard Proctor (ASTM D698) density.

7.5 Structural Fill Materials

Table 7.5.1 Structural Fill					
Material (USCS)	Engineering Properties	Minimum Compaction (%) (ASTM D698)	Moisture Content (%) (ASTM D698)	Allowed Placement Locations	Maximum Loose Lift Placement Thickness, in.
Silty Clay (CL) Sandy Clay (CL)	LL ≤ 45 10 ≤ PI ≤ 25	98 (with stability)	(±) 3	All locations	9 (heavy equipment)
Site-Excavated Soils	LL ≤ 45 10 ≤ PI ≤ 25	98 (with stability)			6 (hand equipment)
Field density tests should be completed in each lift of structural fill. We recommend a minimum of one test per every 2,500 square feet per lift in the pavement area with a minimum of four tests per lift. We also recommend a minimum of one test per every 50 linear feet per lift within trench work.					

Construction should be performed in a manner that results in a single lift of structural fill placed over the building area and compacted prior to placement of the subsequent lift. In steeper areas, the structural fill material should be benched into the existing slopes to improve the stability of the structural fill. We recommend that each bench be at least six feet wide and have a height of no greater than five feet.

7.6 Excavations

The excavations necessary for construction should be made in compliance with OSHA regulations. The federal regulations require that excavations be performed in a manner and method that would not place employees at risk in case of an excavation cave-in. Further, these regulations require that all excavations five feet or greater in depth be sloped, sheeted, braced or shored to prevent the risk of a cave-in.

7.7 Drainage

Finish grades around pavement should be established to promote quick run-off of surface water away from the structure in all directions. Drainage should be established and maintained both during construction and after completion of construction operations.

8.0 PAVEMENT DESIGN

The pavement sections at the site could consist of either an asphalt or concrete pavement system. Our recommendations related to design of the pavement are provided in the following sections.

8.1 Subgrade Preparation

Rough grading and preparation of subgrades in pavement area is typically completed relatively early in the construction process to allow access project sites. This could result in unpaved subgrade areas being exposed to utility trenching or excavations, construction traffic, and prevailing weather conditions for prolonged periods during construction operations at other locations of the site. These factors individually or in combination could result disturbance of the pavement subgrade areas that may result in unstable conditions. Given this potential for disturbance, the pavement area subgrade should be carefully evaluated as outlined in Section 7.3 at the time of pavement construction.

8.2 Design Assumptions

Anticipated traffic volumes and loading conditions were not provided at the time of this report. However, experience with similar facilities indicates the traffic utilizing these pavements should primarily consist of passenger vehicles parking.

The pavement thicknesses provided in Table 8.3.1 below are based on a stable subgrade providing a minimum CBR value of 5. The design life of the pavement is assumed to be 20 years with an assumed traffic growth rate of 0%. The pavement sections provided below should sufficiently support up to 1,500 automobiles per day.

If actual traffic quantities differ significantly from those assumed, our office should be notified to re-evaluate the recommended design thicknesses provided.

8.3 Pavement Design Thicknesses

Table 8.3.1 Pavement Design Thickness (in)					
Option	Asphalt ¹				Concrete ⁴
	Bituminous Courses		Subbase Material		
	9.5-mm Surface Course	19-mm Base Course	Limestone Base Course ²	Chemically Stabilized Subgrade ³	
1	1½	2½	6	--	---
2	1½	2½	---	12	---
3	---	---	---	--	4
¹ The asphalt materials should meet the requirements of the latest version of the <i>Mississippi Department of Transportation Standard Specifications for Road and Bridge Construction</i> .					
² Granular Base Course should consist of MDOT Size No. 610 Crushed Limestone compacted to a minimum of 98% of the Standard (ASTM D698) density.					
³ Chemical stabilization should consist of mixing a minimum of 5% hydrated lime compacted to a minimum of 98% Standard Proctor, ASTM D698.					
⁴ Joint construction in rigid pavements should be performed in accordance with <i>ACI330R-01 – Guide for Design and Construction of Concrete Parking Lots</i>					

9.0 CONSTRUCTION OBSERVATION AND DOCUMENTATION

Successful project performance depends in part on the quality of construction. Observation and documentation of construction activities is a key component to ensure construction is completed in accordance with project documents. It is common for unforeseen/unanticipated site conditions to be encountered or develop during construction that were not discovered during site investigations. Site conditions encountered during construction should be compared to those observed during the site investigation to note any changed condition.

We recommend that a construction-monitoring program be performed by a qualified testing laboratory employed by the owner. The testing laboratory should be under the direct supervision of a registered professional engineer employed full time by the testing laboratory.

The construction monitoring program should include at a minimum; the observation of conditions subsequent to stripping and grubbing, the observation of proof rolling and any necessary mitigation, the observation and testing of placement of structural fill, verification of suitability of foundation bearing surfaces, verification that reinforcing steel is placed in accordance with project documents, and the observation and testing of structural concrete if applicable.

10.0 REPORT LIMITATIONS

The boring logs shown in this report contain information related to the types of soil encountered at specific locations and times and show lines delineating the interface between these materials, as well as results of tests performed in the laboratory on representative samples. The logs also contain our field representative's interpretation of conditions that are believed to exist in those depth intervals between the actual samples taken. Therefore, these boring logs contain both factual and interpretative information. It is not warranted that these logs are representative of subsurface conditions at other locations and times.

Regarding groundwater conditions, this report presents data on groundwater levels as they were observed during the fieldwork. Water level readings have been made in the borings at the times and under conditions stated in the text of the report and on the boring logs. It should be noted that fluctuations in the level of the groundwater table can occur with passage of time due to variations in rainfall, temperature and other environmental factors.

The near-surface soils encountered at this site are of a type that will soften significantly if the soil water content should be increased for any reason. Such increases in soil water content normally cause difficulties in proper soil compaction. Sources of increased water content in the surface soils could include, but are not limited to, rainwater, improper surface drainage during earthwork or site grading, and broken or leaking utility lines. It should be realized that the water content of the near-surface soils at the site could change between the time our report is submitted and construction is initiated at the site.

Unanticipated soil conditions at a construction site are commonly encountered and cannot be fully predicted by mere soil samples and test borings. Such unexpected conditions frequently require that additional expenditures be made by the owner to attain a properly designed and constructed project. Therefore, provisions for some construction contingency funds are recommended to accommodate such potential extra cost.

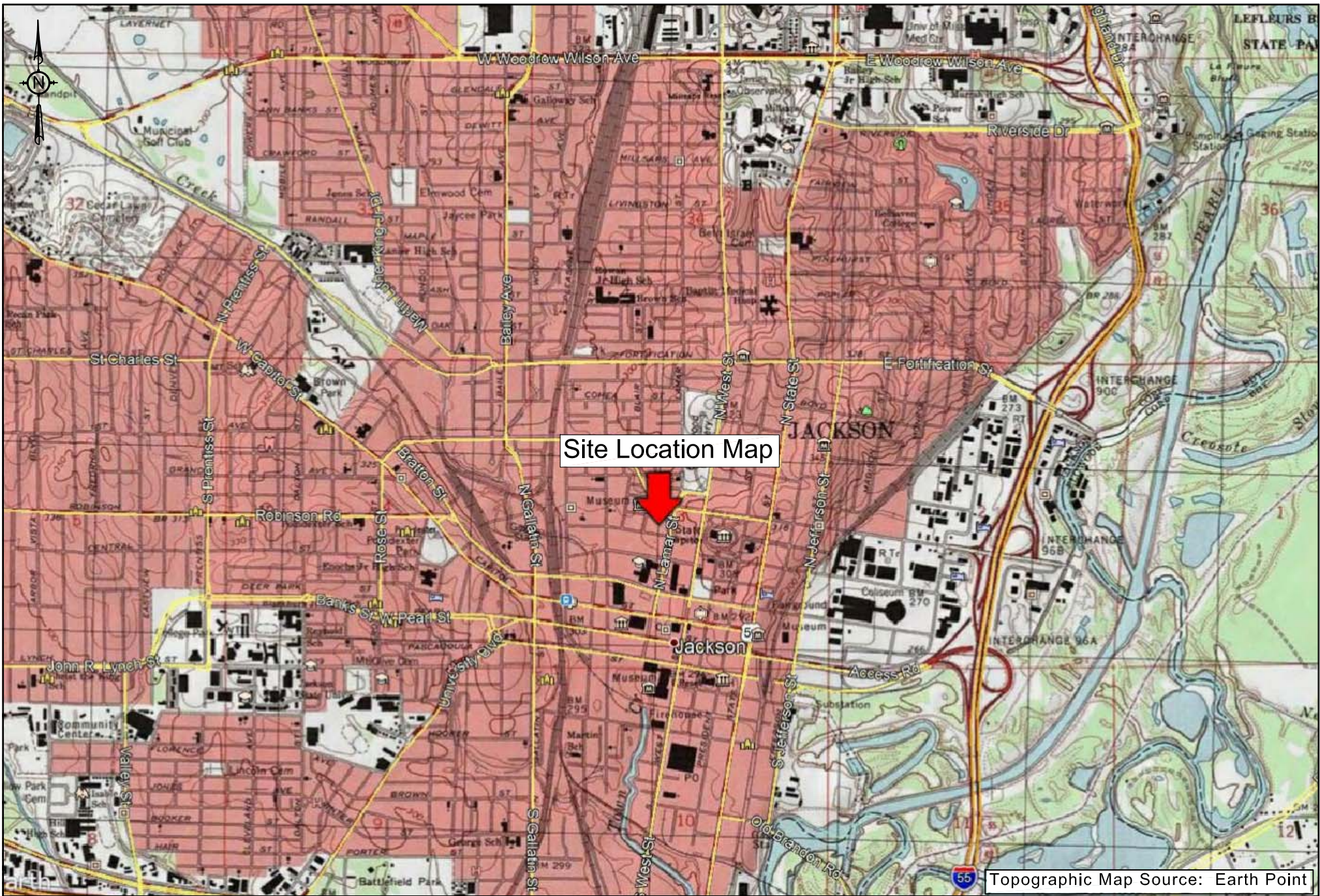
The analyses, conclusions, and recommendations included in this report are based on conditions as they existed at the time of our field investigation and further on the assumption that the subsurface soil and groundwater conditions encountered at the location of our exploratory borings

are representative of the subsurface conditions throughout the area investigated. It should be noted that actual subsurface conditions beyond the borings might differ from those encountered at the boring locations. If subsurface conditions are encountered during construction that vary from those discussed in this report, SoilTech Consultants, Inc. should be notified immediately in order to evaluate the effects, if any, on design and construction. If there is a lapse of time of more than one year between submission of this report and start of the work at the site, if conditions have changed due either to natural causes or to construction operations at or adjacent to the site, or if the structure location, loads or finish grades are changed, we urge that we be promptly informed, and retained to review our report to determine the applicability of the conclusions and recommendations, considering the changed conditions and/or time lapse.

SoilTech Consultants, Inc. should be retained for a general review of the project plans and specifications. If changes are made to the nature or design of the project as described in this report, then the conclusions and recommendations presented in this report should be considered invalid. It is advised that SoilTech Consultants, Inc. be retained to review all project changes and prepare written responses with regards to their impacts on our conclusions and recommendations.

It is also advised that SoilTech Consultants, Inc. be retained to observe earthwork and pavement construction for the project in order to help confirm that our conclusions and recommendations are valid or to modify them as necessary. SoilTech Consultants, Inc. cannot assume responsibility or liability for the adequacy of conclusions and recommendations if we are not retained to observe the earthwork and pavement conditions.

This report has been prepared for the exclusive use of Shafer Zahner Zahner for specific application to geotechnical-related aspects of design and construction of the Old Sun-N-Sand Hotel Parking Lot located in Jackson, Mississippi. The only representation made by us in connection with the services provided is that SoilTech Consultants, Inc. has used that standard of care and skill ordinarily exercised under similar conditions by reputable members of our profession practicing in the same or similar locality. No warranty, express or implied, is made or intended.



SOILTECH CONSULTANTS, INC
 GEOTECHNICAL ENGINEERING
 101 Business Park Drive, Suite A
 Ridgeland, MS 39157

GEOTECHNICAL INVESTIGATION
 THE OLD SUN-N-SAND HOTEL PARKING LOT
 JACKSON, MISSISSIPPI

FIGURE 1
SITE LOCATION
MAP

Project No.:
 ST.02787.000.001

CAD FILE No.:
 Figures.dwg

Drawn By: APW
 Checked By: MKV
 Date: 05/22/2020
 Scale: 1" = 2200'

Rev. No.:
 0



APPROXIMATE SOIL BORING LOCATION COORDINATES

BORING	LATITUDE	LONGITUDE	BORING	LATITUDE	LONGITUDE	BORING	LATITUDE	LONGITUDE
B-1	N 32° 18' 16.70"	W -90° 11' 10.20"	B-6	N 32° 18' 14.31"	W -90° 11' 06.67"	B-11	N 32° 18' 16.02"	W -90° 11' 08.98"
B-2	N 32° 18' 15.83"	W -90° 11' 10.32"	B-7	N 32° 18' 15.18"	W -90° 11' 06.49"	B-12	N 32° 18' 15.97"	W -90° 11' 07.88"
B-3	N 32° 18' 14.90"	W -90° 11' 10.49"	B-8	N 32° 18' 16.06"	W -90° 11' 06.20"			
B-4	N 32° 18' 14.70"	W -90° 11' 09.30"	B-9	N 32° 18' 16.54"	W -90° 11' 07.10"			
B-5	N 32° 18' 14.47"	W -90° 11' 07.91"	B-10	N 32° 18' 16.71"	W -90° 11' 08.75"			

LEGEND



Soil Boring with DCP Location

Aerial Map Source: Google Earth Pro

A P P E N D I X A

Graphical Soil Boring Logs

Soil Classification Chart

Table 1 – Summary of Laboratory Data

Atterberg Limits Results

DCP Test Results

SOIL BORING LOG

PROJECT: Geotechnical Investigation
The Old Sun-N-Sand Hotel Parking Lot
Jackson, Mississippi

No. B-1
SHEET 1 OF 1

PROJECT NO.: ST.02787.000.001
DATE COMPLETED: 5/18/20
DRILLER: J. Mason
LOGGER: G. Jones
ENGINEER: M. Volk

CLIENT: Shafer Zahner Zahner
Starkville, Mississippi

Location: 32°18'16.7" -90°11'10.2"

LABORATORY DATA

Depth (ft)	Symbol	Samples	DESCRIPTION OF MATERIAL	Field Test Results	Undrained Shear Strength (ksf)	Moisture Content (%)	Unit Weight (pcf)		Plasticity Index	○ Cohesion / △ Triaxial (ksf)	
							Moist	Dry		PL	LL
			Surface Elevation: 287 ft. MSL+/-								
			Asphalt (3")								
			Brown and tan silty clay (CL) - with ferrous stains - slightly sandy to 1.5' - tan and light gray below 1.5'			20			18		
2						20					
4						20					
6						22					
8											
10											
			Terminal Depth at 10.3 ft								
12											
14											
16											
18											
20											
22											
24											

Groundwater Observations
No groundwater encountered

Advancement Method

0 - 10 ft: Hand Auger

Abandonment Method

Boring backfilled with soil cuttings

Notes

Elevation estimated from Boundary and Topographic Survey prepared by Maptech, Inc. on 3/26/2020

SoilTech Consultants

PROJECT NO.: ST.02787.000.001
DATE COMPLETED: 5/19/20
DRILLER: J. Mason
LOGGER: G. Jones
ENGINEER: M. Volk

CLIENT: Shafer Zahner Zahner
Starkville, Mississippi

Location: 32°18'15.83" -90°11'10.32"

LABORATORY DATA

[illegible]

Groundwater Observations	Advancement Method	Notes Elevation estimated from Boundary and Topographic Survey prepared by Maptech, Inc. on 3/26/2020 SoilTech Consultants
No groundwater encountered	0 - 10 ft: Hand Auger	
	Abandonment Method	
	Boring backfilled with soil cuttings	

SOIL BORING LOG 2787.000.001.GPJ GEOTECHNICAL TEMPLATE.GDT 5/22/20

SOIL BORING LOG

PROJECT: Geotechnical Investigation
The Old Sun-N-Sand Hotel Parking Lot
Jackson, Mississippi

No. B-3
SHEET 1 OF 1

PROJECT NO.: ST.02787.000.001
DATE COMPLETED: 5/19/20
DRILLER: J. Mason
LOGGER: G. Jones
ENGINEER: M. Volk

CLIENT: Shafer Zahner Zahner
Starkville, Mississippi

Location: 32°18'14.9" -90°11'10.49"

LABORATORY DATA

Depth (ft)	Symbol	Samples	DESCRIPTION OF MATERIAL	Field Test Results	Undrained Shear Strength (ksf)	Moisture Content (%)	Unit Weight (pcf)		Plasticity Index	○ Cohesion / △ Triaxial (ksf)			
										PL 1 2 3 4 LL			
							Moist	Dry		MC%			
			Surface Elevation: 286 ft. MSL+/-						PI	-----			
			Asphalt (4")							20 40 60 80			
			Tan gravel with sand (GP) (FILL)										
			Tan and light gray silty clay (CL) - with ferrous stains			20				●			
-2						20				●			
			- light gray, gray, and tan from 3' to 4.5' - with trace of gravel and brick and wood fragments from 3.5' to 4.5' - brown and tan below 4.5'			17			12	● ---			
-4						23				●			
						24			19	---●---			
-6						25				●			
-8													
-10													
			Terminal Depth at 10.3 ft										
-12													
-14													
-16													
-18													
-20													
-22													
-24													

Groundwater Observations
No groundwater encountered

Advancement Method

0 - 10 ft: Hand Auger

Abandonment Method

Boring backfilled with soil cuttings

Notes

Elevation estimated from Boundary and Topographic Survey prepared by Maptech, Inc. on 3/26/2020

SoilTech Consultants

SOIL BORING LOG

PROJECT: Geotechnical Investigation
The Old Sun-N-Sand Hotel Parking Lot
Jackson, Mississippi

No. B-4
SHEET 1 OF 1

PROJECT NO.: ST.02787.000.001
DATE COMPLETED: 5/19/20
DRILLER: J. Mason
LOGGER: G. Jones
ENGINEER: M. Volk

CLIENT: Shafer Zahner Zahner
Starkville, Mississippi

Location: 32°18'14.7" -90°11'9.3"

LABORATORY DATA

Depth (ft)	Symbol	Samples	DESCRIPTION OF MATERIAL	Field Test Results	Undrained Shear Strength (ksf)	Moisture Content (%)	Unit Weight (pcf)		Plasticity Index	○ Cohesion / △ Triaxial (ksf)			% Passing No.
										PL 1 2 3 4 LL			
							Moist	Dry		PI		MC%	
			Surface Elevation: 287 ft. MSL+/-										
			Asphalt (3.5")										
			Tan gravel with sand (GP) (FILL) - possibly lime stabilized			25							
2			Tan and light gray silty clay (CL) - with ferrous stains - with trace of gravel to 2'			21			20				
						16							
4			Tan and light gray sandy clay (CL) - with ferrous stains			17							
						16			17				
6			- light gray below 6'			16							
			Light gray clayey sand (SC) - with ferrous stains			14			12				
8						16							
			Tan and light gray sandy clay (CL)			16							
10													

Terminal Depth at 10.3 ft

12														
14														
16														
18														
20														
22														
24														

Groundwater Observations	Advancement Method	Notes Elevation estimated from Boundary and Topographic Survey prepared by Maptech, Inc. on 3/26/2020
No groundwater encountered	0 - 10 ft: Hand Auger	
	Abandonment Method	
	Boring backfilled with soil cuttings	SoilTech Consultants

SOIL BORING LOG

PROJECT: Geotechnical Investigation
The Old Sun-N-Sand Hotel Parking Lot
Jackson, Mississippi

No. B-5
SHEET 1 OF 1

PROJECT NO.: ST.02787.000.001
DATE COMPLETED: 5/19/20
DRILLER: J. Mason
LOGGER: G. Jones
ENGINEER: M. Volk

CLIENT: Shafer Zahner Zahner
Starkville, Mississippi

Location: 32°18'14.47" -90°11'7.91"

LABORATORY DATA

Depth (ft)	Symbol	Samples	DESCRIPTION OF MATERIAL	Field Test Results	Undrained Shear Strength (ksf)	Moisture Content (%)	Unit Weight (pcf)		Plasticity Index	○ Cohesion / Δ Triaxial (ksf)					
										PL	1	2	3	4	LL
							Moist	Dry							
			Surface Elevation: 287 ft. MSL+/-												
			Asphalt (4.5")												
			Tan gravel with sand (GP) (FILL)												
2			Tan and light gray silty clay (CL) - with ferrous stains			21			12						
			- with trace of sand and gravel below 3'			20									
4						16									
						18									
						13									
6			Tan and light gray clay (CH) - with trace of sand and gravel			19			37						
8			Yellowish-brown and light greenish-gray clay (CH) - calcareous (Weathered Yazoo)												
10															
			Terminal Depth at 10.4 ft												
12															
14															
16															
18															
20															
22															
24															

Groundwater Observations
No groundwater encountered

Advancement Method

0 - 10 ft: Hand Auger

Abandonment Method

Boring backfilled with soil cuttings

Notes

Elevation estimated from Boundary and Topographic Survey prepared by Maptech, Inc. on 3/26/2020

SoilTech Consultants

SOIL BORING LOG

PROJECT: Geotechnical Investigation
The Old Sun-N-Sand Hotel Parking Lot
Jackson, Mississippi

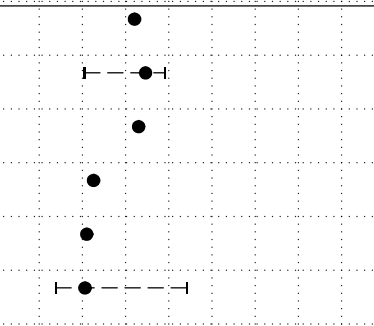
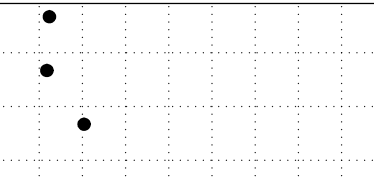
No. B-6
SHEET 1 OF 1

PROJECT NO.: ST.02787.000.001
DATE COMPLETED: 5/19/20
DRILLER: J. Mason
LOGGER: G. Jones
ENGINEER: M. Volk

CLIENT: Shafer Zahner Zahner
Starkville, Mississippi

Location: 32°18'14.31" -90°11'6.67"

LABORATORY DATA

Depth (ft)	Symbol	Samples	DESCRIPTION OF MATERIAL	Field Test Results	Undrained Shear Strength (ksf)	Moisture Content (%)	Unit Weight (pcf)		Plasticity Index	○ Cohesion / △ Triaxial (ksf)				
							Moist	Dry		PI	1 2 3 4			
											PL	MC%	LL	
			Surface Elevation: 290 ft. MSL+/-											
			Asphalt (7")											
			Tan gravel with sand (GP) (FILL)											
-2		Brown silty clay (CL) - with ferrous stains and nodules - brown, tan, and light gray from 2' to 6'				32			18					
						35								
						33								
						23								
						21								
						21								
-6		Light gray and tan clay (CH) - intermixed with sand and gravel				12								
						12								
						20								

Terminal Depth at 10.6 ft

12
14
16
18
20
22
24

Groundwater Observations	Advancement Method	Notes Elevation estimated from Boundary and Topographic Survey prepared by Maptech, Inc. on 3/26/2020 SoilTech Consultants
No groundwater encountered	0 - 11 ft: Hand Auger	
	Abandonment Method	
	Boring backfilled with soil cuttings	

SOIL BORING LOG

PROJECT: Geotechnical Investigation
The Old Sun-N-Sand Hotel Parking Lot
Jackson, Mississippi

No. B-7
SHEET 1 OF 1

PROJECT NO.: ST.02787.000.001
DATE COMPLETED: 5/19/20
DRILLER: J. Mason
LOGGER: G. Jones
ENGINEER: M. Volk

CLIENT: Shafer Zahner Zahner
Starkville, Mississippi

Location: 32°18'15.18" -90°11'6.49"

LABORATORY DATA

Depth (ft)	Symbol	Samples	DESCRIPTION OF MATERIAL	Field Test Results	Undrained Shear Strength (ksf)	Moisture Content (%)	Unit Weight (pcf)		Plasticity Index	○ Cohesion / △ Triaxial (ksf)	
							Moist	Dry		PL	LL
			Surface Elevation: 294 ft. MSL+/-								
			Asphalt (4")								
			Tan gravel with sand (GP) (FILL)								
2			Tan and light gray silty clay (CL) - with trace of gravel and ferrous stains			19			16		
						16					
						18					
4			Light gray and tan clay (CH) - intermixed with sand and gravel			17					
						20					
6						18					
						11					
8						16					
						13					
10						7					

Terminal Depth at 10.3 ft

Groundwater Observations

No groundwater encountered

Advancement Method

0 - 10 ft: Hand Auger

Abandonment Method

Boring backfilled with soil cuttings

Notes

Elevation estimated from Boundary and Topographic Survey prepared by Maptech, Inc. on 3/26/2020

SoilTech Consultants

SOIL BORING LOG

PROJECT: Geotechnical Investigation
The Old Sun-N-Sand Hotel Parking Lot
Jackson, Mississippi

No. B-8
SHEET 1 OF 1

PROJECT NO.: ST.02787.000.001
DATE COMPLETED: 5/18/20
DRILLER: J. Mason
LOGGER: G. Jones
ENGINEER: M. Volk

CLIENT: Shafer Zahner Zahner
Starkville, Mississippi

Location: 32°18'16.06" -90°11'6.2"

LABORATORY DATA

Depth (ft)	Symbol	Samples	DESCRIPTION OF MATERIAL	Field Test Results	Undrained Shear Strength (ksf)	Moisture Content (%)	Unit Weight (pcf)		Plasticity Index	○ Cohesion / △ Triaxial (ksf)			
										1	2	3	4
							Moist	Dry		PI	PL	MC%	LL
			Surface Elevation: 295 ft. MSL+/-										
			Asphalt (4.5")										
			Concrete (5.5")										
2			Brown and tan silty clay (CL) - with ferrous stains - tan, and light gray below 2'			27			10				
						24							
4						19							
						19			22				
						19							
6			Tan and light gray clay (CH) - with ferrous stains - slightly silty to 8'			20							
						24							
8			- light gray and red with with trace of sand and gravel below 8'			22							
						23							
10						19							

Terminal Depth at 10.8 ft

12
14
16
18
20
22
24

Groundwater Observations	Advancement Method	Notes Elevation estimated from Boundary and Topographic Survey prepared by Maptech, Inc. on 3/26/2020 SoilTech Consultants
No groundwater encountered	0 - 11 ft: Hand Auger	
	Abandonment Method	
	Boring backfilled with soil cuttings	

SOIL BORING LOG

PROJECT: Geotechnical Investigation
The Old Sun-N-Sand Hotel Parking Lot
Jackson, Mississippi

No. B-9
SHEET 1 OF 1

PROJECT NO.: ST.02787.000.001
DATE COMPLETED: 5/18/20
DRILLER: J. Mason
LOGGER: G. Jones
ENGINEER: M. Volk

CLIENT: Shafer Zahner Zahner
Starkville, Mississippi

Location: 32°18'16.54" -90°11'7.1"

LABORATORY DATA

Depth (ft)	Symbol	Samples	DESCRIPTION OF MATERIAL	Field Test Results	Undrained Shear Strength (ksf)	Moisture Content (%)	Unit Weight (pcf)		Plasticity Index	○ Cohesion / △ Triaxial (ksf)									
							Moist	Dry		PI	PL	1	2	3	4	LL			
			Surface Elevation: 290 ft. MSL+/-																
			Asphalt (5.5")																
			Light gray, red, and tan sandy clay (CL) - with ferrous stains			17													
-2			- light gray with trace of gravel below 2'			21			28										
						16													
-4			Light gray clay (CH) - intermixed with sand and gravel			12													
						8													
-6			Terminal Depth at 5.5 ft																
-8																			
-10																			
-12																			
-14																			
-16																			
-18																			
-20																			
-22																			
-24																			

Groundwater Observations	Advancement Method	Notes Elevation estimated from Boundary and Topographic Survey prepared by Maptech, Inc. on 3/26/2020 SoilTech Consultants
No groundwater encountered	0 - 5 ft: Hand Auger	
	Abandonment Method	
	Boring backfilled with soil cuttings	

SOIL BORING LOG

PROJECT: Geotechnical Investigation
The Old Sun-N-Sand Hotel Parking Lot
Jackson, Mississippi

No. B-10
SHEET 1 OF 1

PROJECT NO.: ST.02787.000.001
DATE COMPLETED: 5/18/20
DRILLER: J. Mason
LOGGER: G. Jones
ENGINEER: M. Volk

CLIENT: Shafer Zahner Zahner
Starkville, Mississippi

Location: 32°18'16.71" -90°11'8.75"

LABORATORY DATA

Depth (ft)	Symbol	Samples	DESCRIPTION OF MATERIAL	Field Test Results	Undrained Shear Strength (ksf)	Moisture Content (%)	Unit Weight (pcf)		Plasticity Index	○ Cohesion / △ Triaxial (ksf)	
							Moist	Dry		PL	LL
			Surface Elevation: 287 ft. MSL+/-								
			Asphalt (6.5")								
			Tan gravel with sand (GP) (FILL)								
2			Brown, tan, and light gray silty clay (CL) - with ferrous stains			19			26		
						26					
						27					
4						25					
						22					
6			Tan and light gray clay (CH) - with ferrous stains - intermixed with sand and gravel below 6.5'			20					
						14					
8						18					
						10					
10						11					

Terminal Depth at 10.5 ft

12
14
16
18
20
22
24

Groundwater Observations	Advancement Method	Notes Elevation estimated from Boundary and Topographic Survey prepared by Maptech, Inc. on 3/26/2020 SoilTech Consultants
No groundwater encountered	0 - 11 ft: Hand Auger	
	Abandonment Method	
	Boring backfilled with soil cuttings	

SOIL BORING LOG

PROJECT: Geotechnical Investigation
The Old Sun-N-Sand Hotel Parking Lot
Jackson, Mississippi

No. B-11
SHEET 1 OF 1

PROJECT NO.: ST.02787.000.001
DATE COMPLETED: 5/18/20
DRILLER: J. Mason
LOGGER: G. Jones
ENGINEER: M. Volk

CLIENT: Shafer Zahner Zahner
Starkville, Mississippi

Location: 32°18'16.02" -90°11'8.98"

LABORATORY DATA

Depth (ft)	Symbol	Samples	DESCRIPTION OF MATERIAL	Field Test Results	Undrained Shear Strength (ksf)	Moisture Content (%)	Unit Weight (pcf)		Plasticity Index	○ Cohesion / △ Triaxial (ksf)	
							Moist	Dry		PL	LL
			Surface Elevation: 287 ft. MSL+/-								
			Tan and light gray silty clay (CL) - with ferrous stains			15					
2						16			12		
						14					
4			- with trace of gravel below 3.5'			14					
						11					

Terminal Depth at 5.0 ft

6
8
10
12
14
16
18
20
22
24

Groundwater Observations	Advancement Method	Notes
No groundwater encountered	0 - 5 ft: Hand Auger	
	Abandonment Method	
	Boring backfilled with soil cuttings	
		SoilTech Consultants

Elevation estimated from Boundary and Topographic Survey prepared by Maptech, Inc. on 3/26/2020

SOIL BORING LOG

PROJECT: Geotechnical Investigation
The Old Sun-N-Sand Hotel Parking Lot
Jackson, Mississippi

No. B-12
SHEET 1 OF 1

PROJECT NO.: ST.02787.000.001
DATE COMPLETED: 5/18/20
DRILLER: J. Mason
LOGGER: G. Jones
ENGINEER: M. Volk

CLIENT: Shafer Zahner Zahner
Starkville, Mississippi

Location: 32°18'15.97" -90°11'7.88"

LABORATORY DATA

Depth (ft)	Symbol	Samples	DESCRIPTION OF MATERIAL	Field Test Results	Undrained Shear Strength (ksf)	Moisture Content (%)	Unit Weight (pcf)		Plasticity Index	○ Cohesion / △ Triaxial (ksf)	
							Moist	Dry		PL	LL
			Surface Elevation: 287 ft. MSL+/-								
			Tan and light gray silty clay (CL) - with trace of sand and gravel			14					
2			Light gray clay (CH) - with sand and gravel			17					
						18					
4						11					

Terminal Depth at 4.0 ft

6
8
10
12
14
16
18
20
22
24

Groundwater Observations	Advancement Method	Notes
No groundwater encountered	0 - 4 ft: Hand Auger	
	Abandonment Method	
	Boring backfilled with soil cuttings	
		Elevation estimated from Boundary and Topographic Survey prepared by Maptech, Inc. on 3/26/2020
		SoilTech Consultants

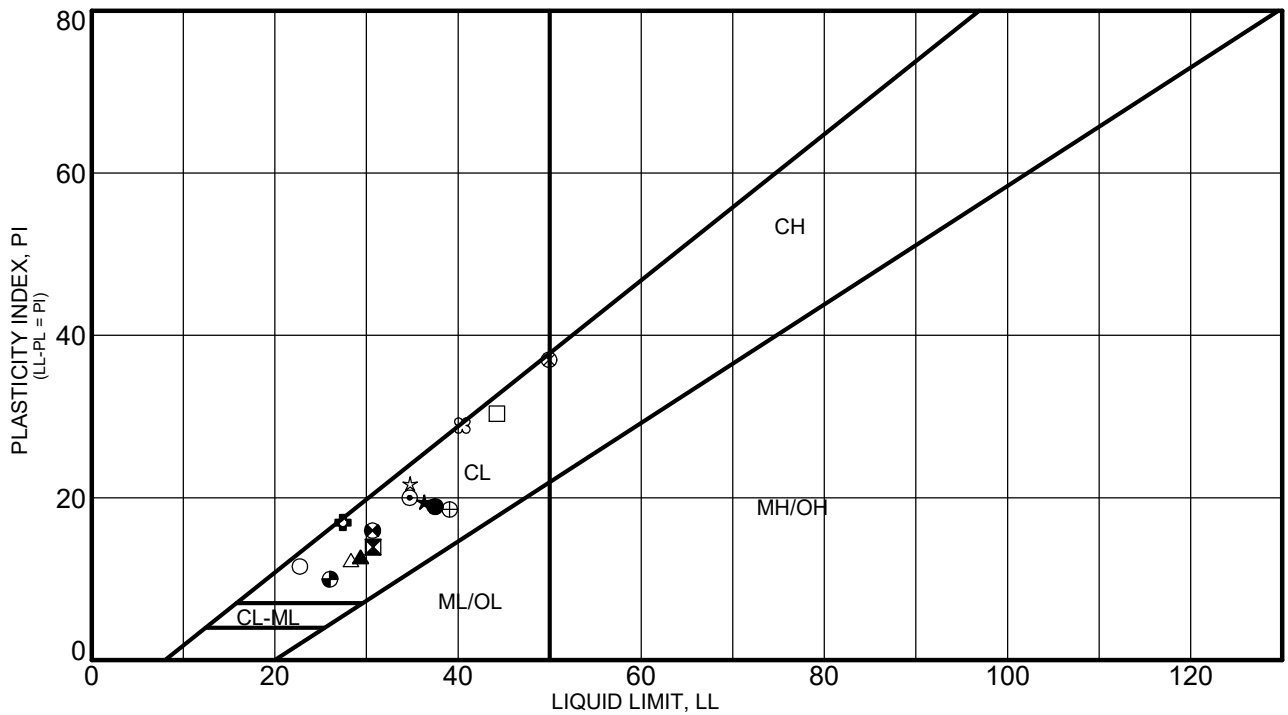
SOIL CLASSIFICATION CHART

MAJOR DIVISIONS			SYMBOLS		TYPICAL DESCRIPTIONS
			GRAPH	LETTER	
COARSE GRAINED SOILS MORE THAN 50% OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE	GRAVEL AND GRAVELLY SOILS MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	CLEAN GRAVELS (LITTLE OR NO FINES)		GW	WELL-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES
				GP	POORLY-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES
		GRAVELS WITH FINES (APPRECIABLE AMOUNT OF FINES)		GM	SILTY GRAVELS, GRAVEL - SAND - SILT MIXTURES
				GC	CLAYEY GRAVELS, GRAVEL - SAND - CLAY MIXTURES
	SAND AND SANDY SOILS MORE THAN 50% OF COARSE FRACTION PASSING ON NO. 4 SIEVE	CLEAN SANDS (LITTLE OR NO FINES)		SW	WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
				SP	POORLY-GRADED SANDS, GRAVELLY SAND, LITTLE OR NO FINES
		SANDS WITH FINES (APPRECIABLE AMOUNT OF FINES)		SM	SILTY SANDS, SAND - SILT MIXTURES
				SC	CLAYEY SANDS, SAND - CLAY MIXTURES
FINE GRAINED SOILS MORE THAN 50% OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE	SILTS AND CLAYS LIQUID LIMIT LESS THAN 50			ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY
				CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
				OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
	SILTS AND CLAYS LIQUID LIMIT GREATER THAN 50			MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SAND OR SILTY SOILS
				CH	INORGANIC CLAYS OF HIGH PLASTICITY
				OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS
HIGHLY ORGANIC SOILS			PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS	

NOTE: DUAL SYMBOLS ARE USED TO INDICATE BORDERLINE SOIL CLASSIFICATIONS

Table 1
Summary of Laboratory Data

Stratum Number	I	II	III	IV	V
Classification	Gravel with Sand (GP)	Silty Clay (CL)	Sandy Clay (CL)	Clayey Sand (SC)	Clay (CH)
Moisture Content (%)					
Number of Tests	0	50	7	2	26
Maximum	NA	34.63	20.74	16.42	24.18
Minimum	NA	11.14	15.81	13.51	6.76
Average	NA	20.81	17.00	14.97	15.74
Standard Deviation	NA	4.88	1.70	2.06	4.72
Liquid Limit, LL					
Number of Tests	0	13	2	1	1
Maximum	NA	46.00	40.00	23.00	50.00
Minimum	NA	26.00	27.00	23.00	50.00
Average	NA	34.15	33.50	23.00	50.00
Standard Deviation	NA	6.30	9.19	NA	NA
Plastic Limit, PL					
Number of Tests	0	13	2	1	1
Maximum	NA	21.00	12.00	11.00	13.00
Minimum	NA	13.00	10.00	11.00	13.00
Average	NA	16.54	11.00	11.00	13.00
Standard Deviation	NA	2.33	1.41	NA	NA
Plasticity Index, PI					
Number of Tests	0	13	2	1	1
Maximum	NA	30.00	28.00	12.00	37.00
Minimum	NA	10.00	17.00	12.00	37.00
Average	NA	17.62	22.50	12.00	37.00
Standard Deviation	NA	5.91	7.78	NA	NA
% Passing No. 200					
Number of Tests	0	0	0	1	0
Maximum	NA	NA	NA	25.20	NA
Minimum	NA	NA	NA	25.20	NA
Average	NA	NA	NA	25.20	NA
Standard Deviation	NA	NA	NA	NA	NA



	BORING NUMBER	SAMPLE DEPTH	LL	PL	PI	Classification
●	1	1.8	37	19	18	Tan and light gray silty clay
⊗	2	1.9	31	17	14	Gray and tan silty clay
▲	3	2.8	29	17	12	Light gray, gray, and tan silty clay
★	3	4.8	36	17	19	Brown and tan silty clay
⊙	4	1.8	35	15	20	Tan and light gray silty clay
⊕	4	4.8	27	10	17	Tan and light gray sandy clay
○	4	6.8	23	11	12	Light gray clayey sand
△	5	1.9	28	16	12	Tan and light gray silty clay
⊗	5	5.9	50	13	37	Tan and light gray clay
⊕	6	2.1	39	21	18	Brown, tan, and light gray silty clay
□	6	6.1	44	14	30	Light gray and tan silty clay
⊕	7	1.8	31	15	16	Tan and light gray silty clay
⊕	8	2.3	26	16	10	Tan and light gray silty clay
★	8	4.3	35	13	22	Tan and light gray silty clay
⊗	9	2.0	40	12	28	Light gray sandy clay

See Soil Boring Logs for detailed material descriptions.

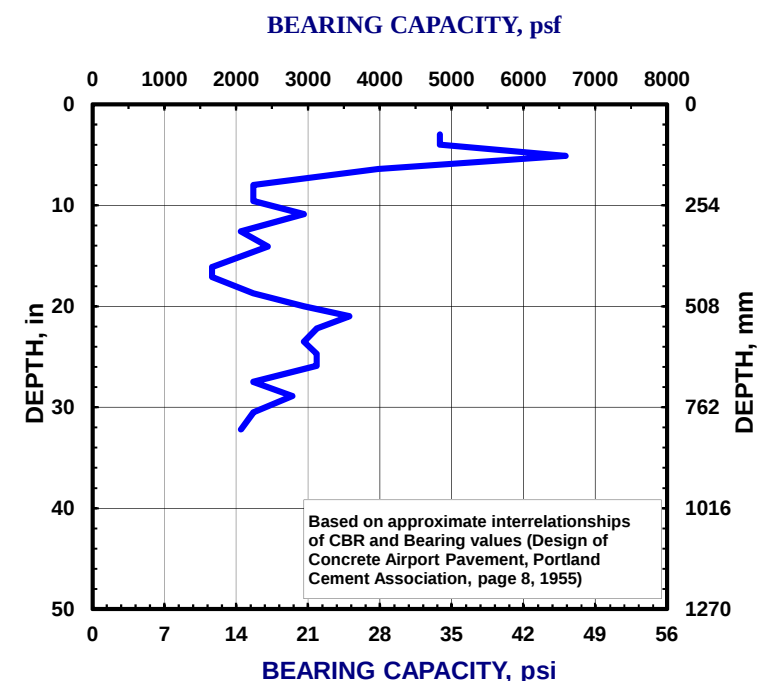
SoilTech Consultants, Inc.

101 Business Park Drive, Suite A
Ridgeland, Mississippi 39157
(601)952-2995/(601)952-2944 fax

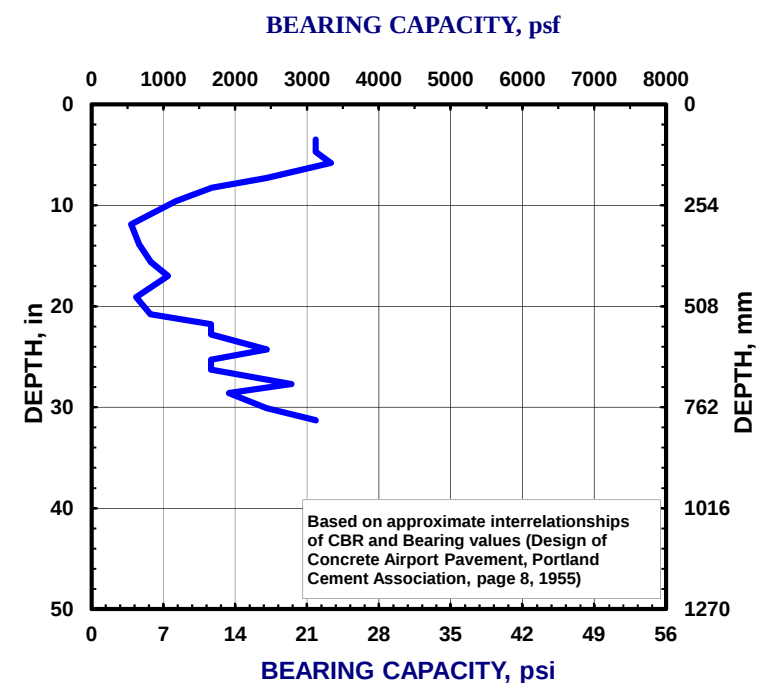
ATTERBERG LIMITS RESULTS

Project Name: The Old Sun-N-Sand Hotel Parking Lot
Location: Jackson, Mississippi
Number: ST.02787.000.001

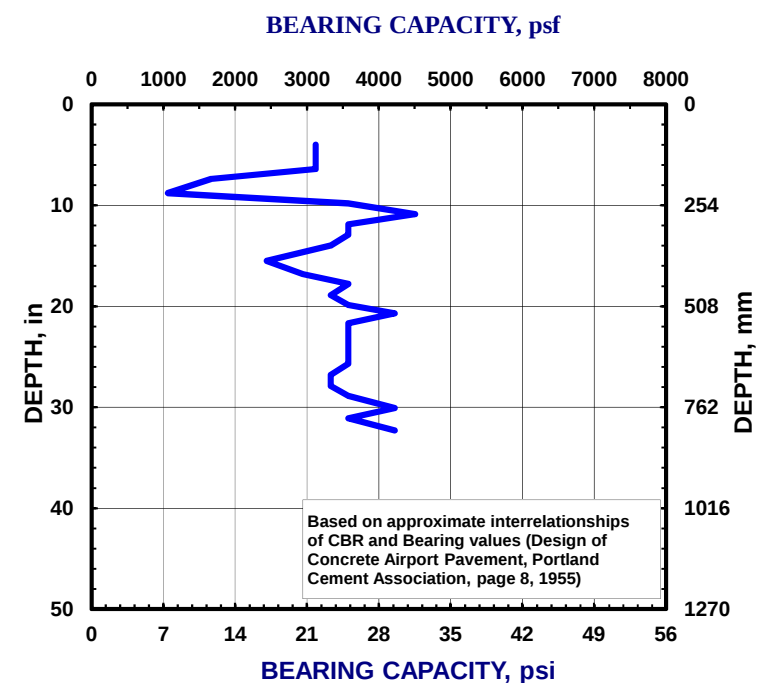
Water Table Depth: ---



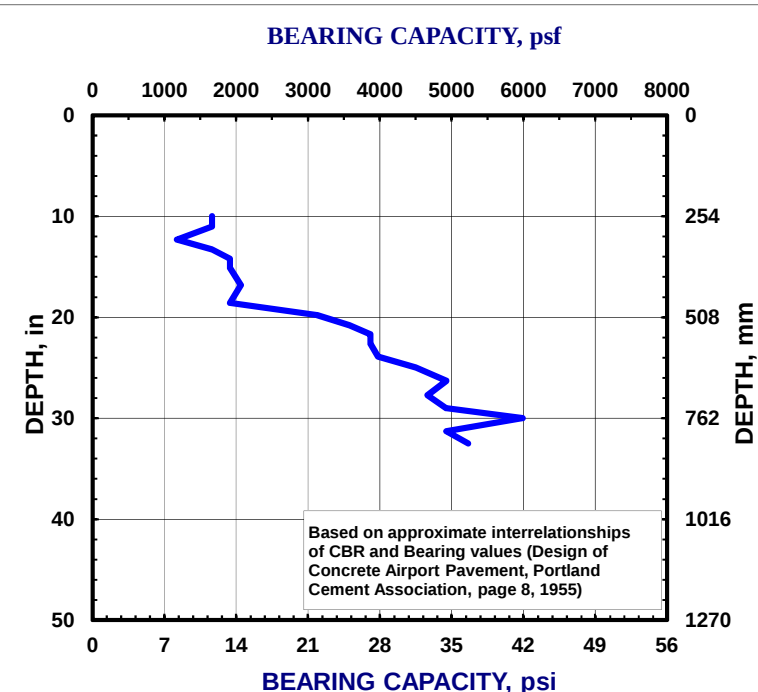
Water Table Depth: ---



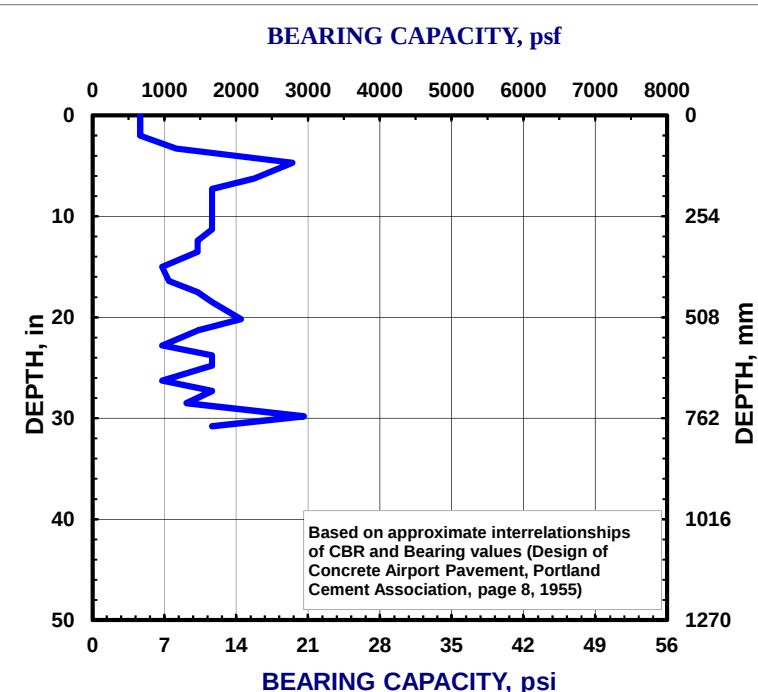
Water Table Depth: ---



Water Table Depth: ---



Water Table Depth: ---



**McInnis Electric Company**

5475 I-55 South

Byram, MS 39272

Phone: 1-372-2014

Fax: 1-373-6302

Request for InformationDate: **1/12/2022**

Job #

GS# 362-066

RFI #1

**West Lot
Improvements -
Woolfolk****Architect****Name:** Shafer Zahner Zahner**Address:** 510 University Drive

Starkville, MS 39759

Contact:

Sally Zahner, AIA

E-mail:szahner@szzarch.com**Cell:**

662-364-1456

Phone:

662-323-1628

Engineer**Name:** Corbett Legge & Associates**Address:** 431 W. Main Street Suite 101

Tupelo, MS 38804

Project:**GS # 362-066 West Lot Improvements****Contact:** Keith Bryant, PE**Phone:****Fax:**

Plan/ Sheet/Spec	Item #	Requested Information	Response
E-501 Electrical Riser Diagram	1	Typically Entergy requires an exterior Main Power Disconnect and a CT Cabinet for metering within 10' of the exterior Main. Please confirm that the indoor Main Breaker and CT Cabinet as shown on E101 and the Riser Diagram will be acceptable to the Utility Company. (See attached Drawings from Entergy's Customer Installation Standards for Electrical Services)	The Knox Box with Emergency Shutdown Switch is to shunt-trip the main breaker in MDP. This was coordinated with Entergy in lieu of an exterior disconnect.
26 32 13 1.2, A., 4 Generator	2	Does this generator include an integral load bank?	The generator does not have an integral load bank. The load bank reference in this section is just related to the load bank testing required in Section 3.5 C2.
26 05 01, 1.5, C., 1. Electrical Service Charge	3	Will it be possible to specify an allowance for charges by Entergy to furnish primary service and transformers? This will be an unknown amount until such time that Entergy's engineering team provides pricing.	The BoB does not permit this but we have reached out to Entergy and they have a price that they are able to share.
26 24 16, 3.7, A. Thermal Scans of Electrical Panels	4	This specification calls for a 3rd party contractor to perform a thermographic survey on the project. Other specification sections call for an initial scan (splices, panels and generator) within 60 days after substantial completion and another scan 11 months after substantial completion. Is the third party scan in addition to the 60 day and 11 month scans that are referenced? Is a third party required to perform all IR Scans?	Third party scanning is not necessary for this section (Panelboards). The infrared scanning at 60 days and 11 months is applicable for this section as well.

Engineer Comment**Requested By:****McInnis Electric Company**

(Signature)

Larry Hamel

(Print)

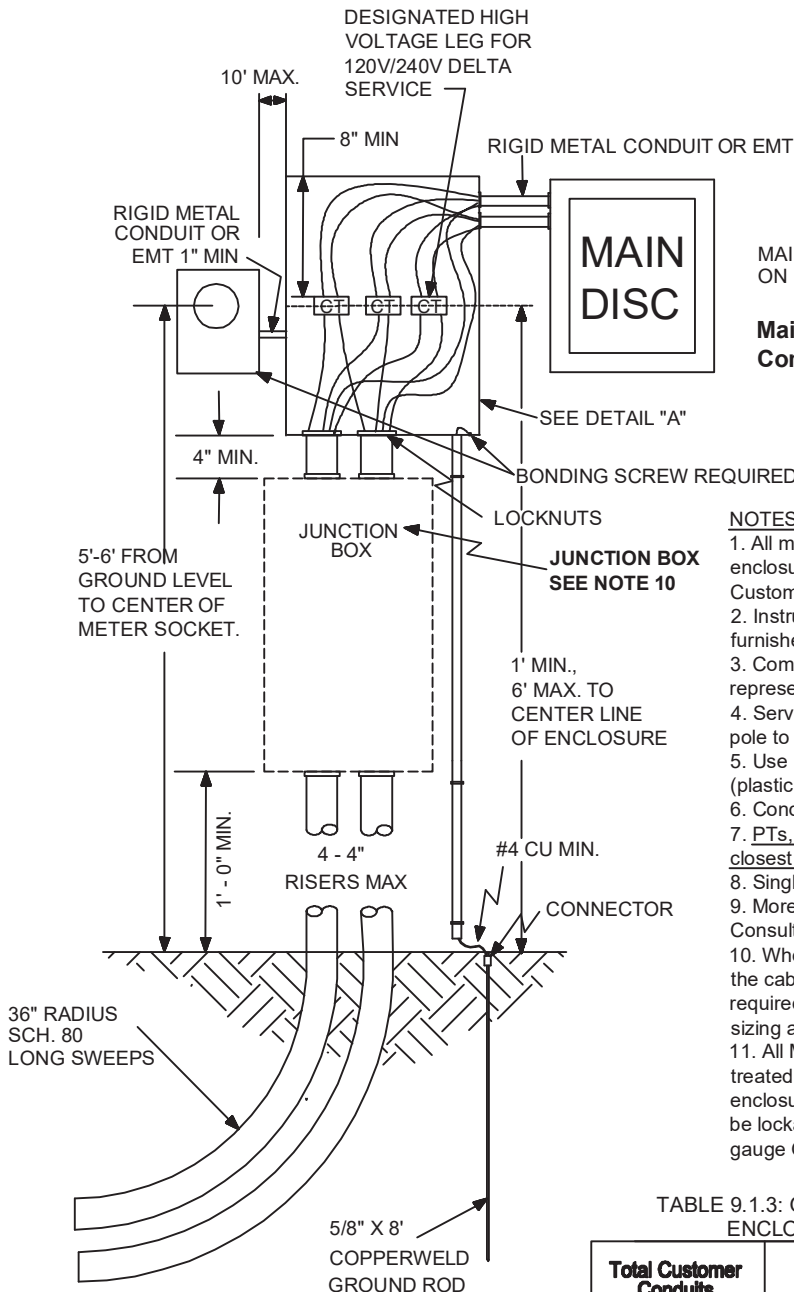
01/12/22

Date

911 address shall be a minimum 3" lettering marked on meter enclosure, pole, or durable material attached to pole and should be visible from street. (See section 3.4)

CALL 811 TWO BUSINESS DAYS BEFORE YOU DIG

In locations with underground facilities, the Customer shall notify One Call and shall have One Call locate all underground facilities before digging. It shall be the responsibility of the Customer to stay clear of all underground facilities.



MAIN MAY BE DIRECTLY ABOVE OR ON EITHER SIDE OF CT ENCLOSURE

Main Disconnect: Readily accessible to Company at all hours with no notice

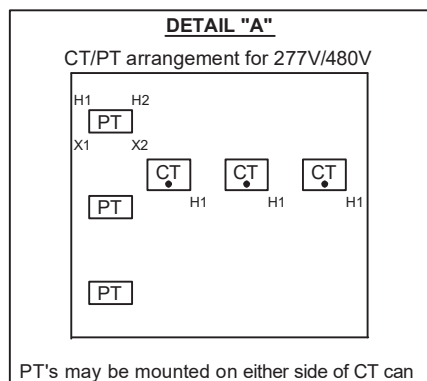
NOTES

1. All material, except instrument transformers, meter, and meter enclosure are to be furnished, installed, and maintained by the Customer in a location approved by the Company.
2. Instrument transformers and meter enclosure are to be furnished by Company and installed by the Customer.
3. Company reserves the right not to connect service if Company representative considers the installation not safe or not adequate.
4. Service structure shall be as close as possible to the Company pole to which the service is to be connected, not to exceed 150 ft.
5. Use masonry anchors to secure the meter arrangement (plastic anchors are not allowed).
6. Conductor shall be installed in conduit where exposed.
7. PTs, when required, are mounted on the side of CT enclosure closest to meter.
8. Single phase 120v/240v 3 wire service requires only 2 CTs.
9. More than two conductors may require larger size enclosures. Consult the Company.
10. When the Customer provides, owns, installs, and maintains the cable to the Company's transformer, a junction box is not required. Consult the Company. See section 8.5 for junction box sizing and Customer supplied connectors.
11. All Meter Transformer enclosures shall: Have a metal or 3/4" treated plywood back-plate in addition to the back wall of the enclosure, be UL listed, be weather proof/rain-tight (NEMA 3 r), be lockable, be side hinged and be minimum Aluminum or 14 gauge G90 steel enclosure.

TABLE 9.1.3: GUIDELINE FOR METER TRANSFORMER ENCLOSURE WITH MULTIPLE CIRCUITS

Total Customer Conduits (4" min)	Maximum Conductor Size	Minimum Dimensions		
		Depth	Width	Height
Up to 4	600 kcmil	14"	32"	40"
5-6	500 kcmil	14"	32"	54"

CTs will be placed at center. Customer Conduit spaced evenly.
Service connections shall not be made in an instrument transformer enclosure.
For larger sizes, consult the Company.



ENTERGY SERVICES, INC.

CURRENT INSTRUMENT TRANSFORMER FOR UNDERGROUND SERVICE

APPROVED BY: JRH DATE: 02/26/2013

CHECKED BY: JED SCALE: NONE

DRAWN BY: krich95 CEA NO.



No. D9-7

PLOT 1=1 SH. 1 OF 1

1	02/13	REVISION OF DRAWING SS11.8-4	JED	
NO.	DATE:	REVISION	BY:	APPR:

Label: When permanently attached tags or labels are required, they shall be red background with white letters and UV resistant. The lettering on each label/tag shall be 3/16 inch or larger and be either raised or incised on each tag. Each tag shall be riveted or glued to the meter loop or switch.

- For Net Metering, interconnection customer shall label meter.
- For Multiple Service drops to the same building more than 10 feet apart, Customer shall label each service drop's meter-socket with an arrow pointing to other service drop meter(s) and a description of the location (Examples: Service #1 Suite 10 located at northeast corner of building, Service #2 Suite 20 located at southwest corner of building)
- For multiple meters, the meter enclosures and disconnects shall be labeled with suite or apartment identification.
- For 480 volt services the disconnect ahead of the meter shall be labeled utility disconnect
- In areas where cable can be owned by Company or Customer, for Customer owned cable, Customer supplied label shall say "Customer owned cable" (two required). One label shall be installed by Customer on meter socket; one label shall be given to Company for installation on the transformer.

Consult the Company.

Disconnect or Disconnect switch shall

- Be lockable (by the Company)
- Be available to Company personnel at all hours without notice
- Be within sight of service entrance meter preferably adjacent to meter, but within 10 feet of meter,
- Have an open and visible break verifiable by Company personnel
- Be load break and one piece
- Have a label (see definition of label)
- In underground service normally is on the customer side of a junction box

The Company may operate and lock down this switch for safety, non-payment or any other valid reason. Review the applicable drawings for proper installation. Disconnect switch box design and location must be approved by the Company in advance of installation.

8.5 Junction Box Requirements

A junction box is equipment designated/approved by the Company where the Customer's service terminals are joined to the Company's cables.

Junction boxes are not normally required or accepted for 120/208/240volt self-contained single meter installations or residential services unless a main disconnect is required ahead of the meter.

When the Customer provides, owns, installs & maintains the secondary wire to the Company's transformer, a Junction box is not required. Consult the Company for the requirements in your area.

A Customer Supplied Company approved Junction box is required when Company owned Underground conductors feed the Underground Service and:

- A main disconnect is required (e.g. 480 volt service, etc.);
- multiple services are joined together; or
- transformer rated services exist;

Consult the Company.

The Customer supplied junction box shall:

- Have a rain-tight (NEMA 3R) weather proof front cover that is hinged to the side(s)
- Have a locking mechanism to secure it suitable for a Company padlock
- Be UL listed or a UL listed Company approved alternative

Junction boxes used for various situations are shown in **Drawings D9-7, D9-9, and D9-10.**

The customer shall supply UL listed connectors inside, which will be the point of common coupling between Company and Customer. These connectors shall be sized no less than 125% of continuous load, plus 100% of the non-continuous load. Connectors shall be suitable for both copper and aluminum. Insulated multi connector block or buss bar type shall be used. Buss bar or bare multi connector block(s) type shall be fastened properly to the back of junction box. Insulated multi connector block(s) shall not be fastened.

A durable marking for color or word coding shall be installed. The neutral conductor shall have a white marking or a suitable identifying mark. The next section of the terminals shall have color suitable for applicable voltage. Plastic anchors are not allowed.

The customer supplied connector should be located in the center of the junction box four feet from grade or lower (normally should be low enough that the lineman can work on without a ladder).

Without prior Company approval, a junction box may only serve one meter, one main, or one weatherproof wire way.

Table 8.5: Guideline for Junction Box Use with Multiple Circuits

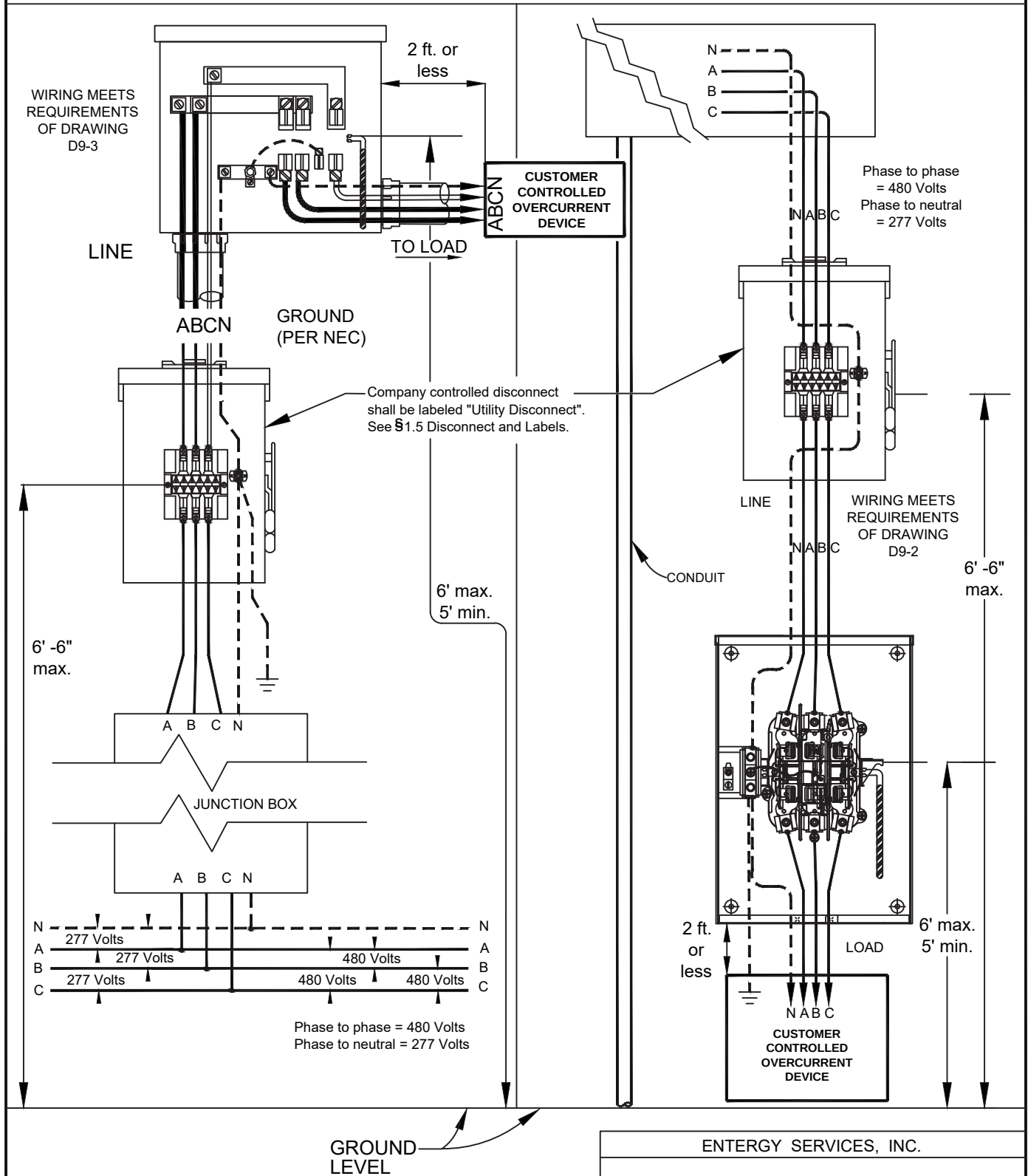
Total Customer Conduits (4" min)	Maximum Customer Conductor Size	Minimum Dimensions		
		Depth	Width	Height
1	600 kcmil	12"	24"	24"
2-4	600 kcmil	12"	36"	36"
5-6	500 kcmil	12"	48"	48"

Company conductors shall enter from the bottom

.

For larger sizes consult the Company.

UNDERGROUND



NOTES:

1. See section 8.5 for junction box sizing and Customer supplied connectors.
2. All 480 volt applications required to be available for Company personnel 24 hours a day without notice.
3. Consult the Company.

ENTERGY SERVICES, INC.			
TYPICAL UNDERGROUND 3Ø 4 WIRE 277/480 INSTALLATIONS			
APPROVED BY:	JRH	DATE:	01/15/2013
CHECKED BY:	JED	SCALE:	NONE
DRAWN BY:	krich95	CEA NO.	
No. D9-5		PLOT 1=1 SH. 1 OF 1	

1	01/13	REVISION OF DRAWING SS11.8-5	JED	
NO.	DATE:	REVISION	BY:	APPR:

**McInnis Electric Company**

5475 I-55 South

Byram, MS 39272

Phone: 1-372-2014

Fax: 1-373-6302

Request for InformationDate: **1/17/2022**

Job #

GS# 362-066

RFI #2

**West Lot
Improvements -
Woolfolk****Architect****Name:** Shafer Zahner Zahner
Address: 510 University Drive
Starkville, MS 39759**Contact:** Sally Zahner, AIA
E-mail: szahner@szzarch.com
Cell: 662-364-1456
Phone: 662-323-1628**Engineer****Name:** Corbett Legge & Associates
Address: 431 W. Main Street Suite 101
Tupelo, MS 38804**Project:****GS # 362-066 West Lot Improvements****Contact:** Keith Bryant, PE
Phone:
Fax:**Plan/ Sheet/Spec****Item #****Requested Information****Response**E003 -Electrical
Details

1

Who is responsible for furnishing and installing
the detail #2 Personnel Pedestal and the
detail #9 Vehicle Pedestal?These will be provided by under the GC. They are
shown on this drawing for reference in order to
indicate raceway and controls installation.ES102 Systems Site
Plan

2

Please confirm that the four card readers
shown at the Personell Pedestals and the two
Proximity Sensors shown at the Vehicle
Pedestals are furnished under division
281500.

Correct.

ES102 Systems Site
Plan

3

Who is responsible for furnishing and installing
four - (PX) push to exit button and three (CIS)
call in switch?The Electrical Contractor will be responsible for
providing the PX button. The CIS will be removed.
This will be revised in a forthcoming addendum.**Engineer Comment****Requested By:****McInnis Electric Company**
(Signature)Larry Hamel
(Print)01/17/22
Date



COMMERCIAL ■ RESIDENTIAL ■ INDUSTRIAL

710 Adcock St. Suite B.
Ridgeland, MS 39157
frank@rselectricms.com
Office: 601.957.1405
Cell: 601.624.2696

Bid RS-RFI-001

West Lot Improvement (paving and Renovations)

1. Drawing ES101, notes 4, 8, and 15 there are a total of (8) 4" conduits that have to get to the new electrical 103 and data room 102. There are also roughly (20) 3/4" site power conduits that have to get the panels EA and LA in electrical room 103. These two rooms are new but are inside the existing ground-level section of the building. Demolition plan D100 does not reference any concrete being removed to install these conduits. Please advise on how to estimate running this conduit and who will be removing the concrete. (Note: conduits coming diagonally from transformer to electrical room 103, cross a set of existing stairs that are to remain and on E002 underground duct bank details, show from finish grade to bottom of duct bank is 5'.)
2. From data ground level room 102 to data rooms 212 and 306 above, there are no conduits shown being run between these three rooms for data. Please advise if this is correct.
3. Drawing E001, system coordination schedule for door access controls, note 7 states the electrical contractor shall coordinate with the door hardware vendor and provide rough-ins only and as directed. ES102 has two gates on the north and south of the parking lot, is the EC just providing conduit rough-in only as well. Please advise.
4. Drawing ES102, per general note, all system conduits on site shall be extended to the CPBI pull box. Note 2 has (6) 3/4" conduits each with (6) #14 XHHW wires. Do these conduits also need to be ran to the CPBI pull box and if so, will the wires also stop at the pull box? Please advise.
5. ES101 note 8 calls for (3) 4" conduits. E002, detail 2 for underground communications only shows (2) 4" conduits. Please advise which is correct.

RESPONSES:

1. It is the intent for the secondary service entrance conduits (UGS) to be routed similarly to what is shown on the Electrical Riser Diagram on E501 - down and over.
The existing concrete to these rooms will be indicated to be sawcut on the Architectural/Structural drawings. Exact routings of conduits to these two rooms must be coordinated with the sawcutting indicated.
2. Sleeves will be indicated in a forthcoming addendum.
3. System Type "Site Access Controls" will be added to the Systems Coordination Schedule in a forthcoming addendum. Site Access Controls, as indicated by Section 281500, are to be installed by the Electrical Contractor. The building access controls (Door Access Controls) are by the Door Hardware Vendor as currently indicated.
4. This Keynote will be revised to indicate that this cabling is to extend to Data 212.
5. UGC1 is what is detailed on E002. UGC2 is not detailed and should instead just be (3) 4" conduits installed to the pull box as indicated by Keynote #8 on ES101; concrete encasement is not required.

Keith Bryant, PE 1/17/22

SECTION 10 73 16
Flat Soffit Hanger Rod Canopy

Part 1: General

1.1 Description of Work

- A. Work in this section includes furnishing and installation of pre-engineered extruded aluminum overhead hanger rod style canopies.
- B. Related Items and Considerations
 - 1. Flashing of various designs may be required. Supplied by the installer.
 - 2. Determine wall construction, make-up and thickness.
 - 3. Ensure adequate wall condition to carry canopy loads where required.
 - 4. Consider water drainage away from canopy where necessary.
 - 5. Any necessary removal or relocation of existing structures, obstructions or materials.

1.2 Quality Assurance

- A. Provide 10 year warranty for finish

1.3 Field Measurement

- A. Confirm dimensions prior to preparation of shop drawings when possible.
- B. If requested, supply manufacturer's standard literature and specifications for canopies.
- C. Submit shop drawings showing structural component locations/positions, material dimensions and details of construction and assembly.

1.4 Performance Requirements

- A. Canopy must conform to local building codes.
- B. Determine if specific load requirements have been established for canopies and if stamped calculations are required for location in which canopy is installed.

1.5 Deliver, Storage, Handling

- A. Deliver and store all canopy components in protected areas.

Part 2: Products

2.1 Manufacturer

- A. Basis of Design:
Mapes Canopies
Lincoln, Nebraska
Phone: 1-888-273-
1132.

B. Peachtree

Protective Covers

C. Ballews Aluminum

Products

2.2 Materials – Super Lumideck Flat Soffit Canopy

- A. Decking to be 3" extruded flat soffit .078 decking
- B. Fascia shall be standard 8" extruded "J" style (minimum .125 aluminum)
- C. Hanger rods and attachment hardware shall be powder coated to match canopy.
- D. Decking and fascia shall be extruded aluminum, alloy 6063-T6, in profile and thickness shown in current Mapes brochures.

2.3 Finishes

- A. As selected from manufacturer's Full Range – 2-coat Kynar finish
- B. 70% Fluoropolymer, meets AAMA 2605

2.4 Fabrication

- A. All connections shall be mechanically assembled utilizing 3/16" fasteners with a minimum shear stress of 350 lb. Pre-welded or factory-welded connections are not acceptable.
- B. Decking shall be designed with interlocking extruded aluminum members with mechanical fasteners field applied to provide structural integrity for the completed assembly.
- C. Concealed drainage. Water shall drain from covered surfaces into integral fascia gutter and directed to either the front for front drainage or to the rear for ground level discharge via one or more designated downspouts.

Part 3: Execution

3.1 Inspection

- A. Confirm that surrounding area is ready for the canopy installation.
- B. Installer shall confirm dimensions and elevations to be as shown on drawings provided by Mapes Industries.
- C. Erection shall be performed by an approved installer and scheduled after all concrete, masonry and roofing in the area is completed

3.2 Installation

- A. Installation shall be in strict accordance with manufacturer's shop drawings. Particular attention should be given to protecting the finish during handling and erection.

3.3 After installation, entire system shall be left in a clean condition.

SECTION 32 31 20 - ORNAMENTAL STEEL FENCES AND GATES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes: Ornamental welded steel fencing panels fabricated with galvanized flat bars and round rods welded into modular, open grille fencing panels, including steel fence posts and gates.
- B. Related sections:
 - 1. Cast-in-Place Concrete: Concrete footings for support of fence posts.
 - 2. Gate Operators: Electric operator for ornamental steel gates.

1.2 REFERENCES

- A. ASTM International(ASTM):
 - 1. ASTM A36 – Carbon Structural Steel.
 - 2. ASTM A121 – Metallic-Coated Carbon Steel Barbed Wire.
 - 3. ASTM A123 - Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products.
 - 4. ASTM A500 - Cold-Formed Welded and Seamless Carbon Steel Structural Tubing in Rounds and Shapes.
 - 5. ASTM B117 - Operating Salt Spray (Fog) Apparatus.
 - 6. ASTM D822 - Filtered Open-Flame Carbon-Arc Exposures of Paint and Related Coatings.
 - 7. ASTM D2794 - Resistance of Organic Coatings to the Effects of Rapid Deformation (Impact).
 - 8. ASTM D3363 - Test Method for Film Hardness by Pencil Test.

1.3 SUBMITTALS

- A. Provide in accordance with Section 01 33 00 - Submittal Procedures:
 - 1. Product data for components and accessories.
 - 2. Shop drawings showing layout, dimensions, spacing of components, [interface with electric gate operator,] and anchorage and installation details.
 - 3. Sample: [8 by 10 inches] [203 by 254 mm] minimum size sample of fence

panel illustrating design, fabrication workmanship, and selected color coating.

4. Copy of warranty specified in Paragraph 1.4 for review by Architect.

1.4 WARRANTY

A. Provide in accordance with Closeout Procedures:

1. Factory finish: 20-year warranty against cracking, peeling, and blistering under normal use.

PART 2 - PRODUCTS

2.1 BASIS OF DESIGN MANUFACTURER

- A. Ametco Manufacturing Corporation, 4326 Hamann Parkway, P.O. Box 1210, Willoughby, Ohio 44096; 800-362-1360.
- B. Equal as approved per Division 01

2.2 MATERIALS

- A. Steel bar stock: ASTM A36.
- B. Steel tubing: ASTM A500, Grade B.
- C. Grout: Non-shrink type, pre-mixed compound consisting of non-metallic aggregate, cement, and water-reducing and plasticizing additives.

2.3 FENCE SYSTEM

- A. Type: Ornamental steel fencing system consisting of modular open grille fencing panels fabricated by welding flat steel bars and rods, supported by steel posts and gates and gate hardware; Ametco Fence System as manufactured by Ametco Manufacturing Corporation.
- B. Fence panels: Fabricated from galvanized steel rods, flat bars, [round tube and louvers] welded to form an open grille pattern; Metro as manufactured by Ametco Manufacturing Corporation and as shown in the Drawings.
 1. Vertical main bars: [1 by 1/8 inch] [25 by 3 mm] flat bars spaced at [2-7/16 inches] [62 mm].
 2. Horizontal cross rods: [3/16 inch] [5 mm] diameter rods spaced at [5-3/16 inches] [132 mm.]
 3. Top and bottom perimeter bars: [1 by 1/8 inch] [25 by 3 mm] flat bars.
 4. Panel height: as shown on Drawings
 5. Panel width: as shown on Drawings

2.4 GATES

- A. Provide gates of type and size indicated on Drawings. Equip gates with manufacturer's standard hardware as required for complete functional operation. Some gates shall receive access control hardware
- B. Type: Hinged swinging [single] [double] gate.
 - 1. Construction: Welded frame fabricated from steel tubing with open grille steel panels to match fencing material.
 - 2. Nominal size: as shown on the Drawings
 - 3. Hardware:
 - a. Hinges: Size and type as determined by manufacturer. Provide 2 hinges for each leaf up to [6 feet] [1829 mm] high and 1 additional hinge for each additional [24 inches] [610 mm] in height or fraction thereof.
 - b. Latch: [3/4 inch] [19 mm] diameter slide bolt to accommodate padlock.
 - c. For double gates provide padlockable, [5/8 inch] [16 mm] diameter center cane bolt assembly and strike.
 - d. Some gates are to receive access control and egress hardware by others. Provide accommodation for hardware. The Contractor is responsible for coordination between the gate and hardware suppliers.
- C. Type: V-wheeled rolling gates.
 - 1. Construction: Welded frame fabricated from [_____] by [_____] [inches] [mm] steel tubing with open grille steel panels to match fencing material. Frame configuration shall be as indicated on Drawings and approved shop drawings.
 - 2. Nominal size:
 - a. Gate opening: as shown on Drawings
 - b. Gate: as shown on Drawings
 - c. Gate travel distance: as shown on Drawings
 - 3. Support posts: Pair of [_____] diameter tubular steel posts with solid cap.
 - 4. Rolling mechanism: Steel wheels with V-shaped edge groove and [[4] [6] inches] [[102] [152] mm] diameter, mounted to gate frame and riding on ground set V-track. Assembly braced at top by adjustable guide wheels mounted with brackets to support posts.
- E. Coordinate provision of gate with electric operator specified in Section 32 31 11 -

Gate Operators to ensure size, weight, and design of gate is compatible with operator.

2.5 ACCESSORIES

- A. For exposed locations, provide anti-intruder bolts consisting of cup-head bolt and nut with clamping hexagon, such that tightening shears hexagon and render bolt impossible to release.

2.6 FACTORY FINISH

- A. Steel fence panels and posts shall be hot-dip galvanized to 1.25 ounces per square foot minimum zinc coating in accordance with ASTM A123. Standard size components shall receive polyester powder coating. Large gate panels shall be coated with 2-part polyurethane coating.
- B. Polyester powder coating: Electrostatically applied colored polyester powder coating heat cured to chemically bond finish to metal substrate.
 - 1. Minimum hardness measured in accordance with ASTM D3363: 2H.
 - 2. Direct impact resistance tested in accordance with ASTM D2794: Withstand 160 inch-pounds.
 - 3. Salt spray resistance tested in accordance with ASTM B117: No undercutting, rusting, or blistering after 500 hours in 5 percent salt spray at 95 degrees F and 95 percent relative humidity and after 1000 hours less than [3/16 inch] [5 mm] undercutting.
 - 4. Weatherability tested in accordance with ASTM D822: No film failure and 88 percent gloss retention after 1 year exposure in South Florida with test panels tilted at 45 degrees.
- C. Color: Silver with weather-resistant clear coating as manufactured by Ametco Manufacturing Company. [Selected by Architect from manufacturer's standard range.]

PART 3 - EXECUTION

3.1 PREPARATION

- A. Prior to fabrication, field verify required dimensions.
- B. Coordinate fence and gate installation with provision of gate operator specified in Gate Operators to ensure proper power supply and that conduit and wiring are concealed.
- C. Cast concrete footings in accordance with Section 03 30 00 - Cast-in-Place Concrete as detailed on Drawings and approved shop drawings.

1. Minimum footing diameter:
 - a. Terminal and gate posts: [12 inches.] [305 mm.]
 - b. Intermediate line posts: [10 inches.] [254 mm.]
2. Allow [8 inches] [203 mm] [_____] minimum embedment of posts.
3. Allow [6 inches] [152 mm] [_____] minimum concrete beneath post bottom.
- D. Provide setting holes for embedment of fence posts. Hole shall be [2 inches] [51 mm] minimum greater than post width.

3.2 INSTALLATION

- A. Install fencing in accordance with manufacturer's installation instructions and approved shop drawings.
- B. Install fence posts plumb and level [by setting post in hole [cast] [drilled] in concrete and grouting solid.] [by embedding post directly in concrete footing.] Temporarily brace fence posts with 2 by 4 wood supports until [concrete] [grout] is set.
- C. Do not install bent, bowed, or otherwise damaged panels. Remove damaged components from site and replace.
- D. Secure fence panels with [stainless steel anti-intruder bolts] to fence posts [prior to setting posts in footings.]
- E. Gates:
 1. Install gates and adjust hardware for smooth operation.
 2. [Provide concrete center foundation depth and drop rod retainers at center of double swinging gate openings.]
 3. [Provide concrete surface for length of operation of V-wheeled rolling gate. Anchor track to concrete with countersunk fasteners.]
 4. After installation, test gate [and operator]. Open and close a minimum of five times. Correct deficiencies and adjust.
- E. Touch-up damaged finish with paint supplied by manufacturer and matching original coating.

END OF SECTION

GENERAL DEMOLITION NOTES

IN GENERAL, ALL ITEMS, REMAINING SURFACES, MATERIALS, ETC. THAT ARE REMAINING AFTER DEMOLITION ARE TO BE PROTECTED AND PREPARED AS NECESSARY TO RECEIVE THE NEW WORK. REFER TO THE NEW DETAILS, SPECIFICATIONS, AND MANUFACTURER'S RECOMMENDATIONS FOR REQUIREMENTS. IN SEVERAL CASES ITEMS ARE SHOWN AS BEING 'ASSUMED' OR 'UNKNOWN'. THESE ARE LISTED THIS WAY BECAUSE THEY APPEAR ON EXISTING DRAWINGS OR BECAUSE A PORTION OF THE DETAIL IS VISIBLE AND THE REMAINDER HAD TO BE ASSUMED. IN ALL OF THESE CASES THE CONTRACTOR SHALL ALLOW FOR VARIATIONS IN CONSTRUCTION AND ADJUST THE DETAILS OF NEW WORK ACCORDINGLY. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING DIMENSIONS TO THE EXTENT THAT THEY AFFECT THE WORK AND MAKE ANY NECESSARY ADJUSTMENTS TO THE WORK.

1. AN ATTEMPT WAS MADE TO IDENTIFY ALL MAJOR EXISTING CONDITIONS. HOWEVER, THE CONTRACTOR IS EXPECTED TO BE FAMILIAR WITH EXISTING CONSTRUCTION AND IDENTIFY CONDITIONS. FOR ANY CONDITIONS NOT SPECIFICALLY DETAILED, NEW CONSTRUCTION SHALL BE IN STRICT COMPLIANCE WITH THE MANUFACTURER'S RECOMMENDATIONS FOR THAT PARTICULAR CONDITION, AND WITH ALL APPLICABLE CODES.

2. THESE DRAWINGS WERE PREPARED USING THE ARCHITECT'S FIELD MEASUREMENTS AND EXISTING DRAWINGS NOT PRODUCED IN THIS OFFICE. THEREFORE, THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ANY EXISTING CONDITIONS, STRUCTURAL CONDITIONS, AND DIMENSIONS IN QUESTION.

3. PROTECT ALL EXISTING UTILITIES NOTED TO REMAIN. MAKE ANY PLUMBING, MECHANICAL, EXHAUST VENT, ACCESS DOOR, ETC. ALTERATIONS PER LOCAL CODES.

4. FOR ALL EXISTING WALLS NOTED TO REMAIN: REMOVE ANY EXISTING FURRING, FINISH SYSTEMS, INSULATION, HARDWARE, ETC. DOWN TO SUBSTRATE AND PREPARE TO RECEIVE NEW MATERIALS AS NOTED.

ASBESTOS MATERIAL

SOME MATERIALS HAVE BEEN FOUND TO CONTAIN ASBESTOS. THE ASBESTOS SURVEY IS CONTAINED IN THE SPECIFICATIONS AND IS ALSO AVAILABLE FROM THE PROFESSIONAL'S OFFICE. THE CONTRACTOR IS RESPONSIBLE FOR BEING FAMILIAR WITH THIS INFORMATION. ANY AND ALL WORK RELATED TO ASBESTOS CONTAINING MATERIAL MUST BE PERFORMED IN STRICT COMPLIANCE WITH THE ENCLOSED SPECIFICATIONS.

SPECIFIC REGULATIONS APPLICABLE TO THIS WORK INCLUDE OSHA 29 CFR 1926.1101 AND 40 CFR PARTS 61.145 AND 61.150 (EPA).

FEDERAL EPA ASBESTOS REGULATIONS ARE ADMINISTERED AND ENFORCED LOCALLY BY THE MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY (MDEQ). CONTRACTORS AND WORKERS WHO PERFORM ASBESTOS REMOVAL WORK MUST BE IN COMPLIANCE WITH CERTIFICATION REQUIREMENTS OF MDEQ.

KEYED DEMOLITION NOTES

D-1 REMOVE EXISTING WALL TO EXTENTS SHOWN. PROPERLY TERMINATE AND REMOVE ANY UNUSED UTILITY LINES AND OTHER SERVICES. PROTECT ADJACENT WALLS, FLOORS, AND FINISHES THAT ARE TO REMAIN AND PREPARE SURFACES AND AREA FOR NEW WORK. COORDINATE EXTENTS OF DEMOLITION WITH NEW WORK DRAWINGS.

D-2 REMOVE EXISTING DOOR, FRAME, AND ASSOCIATED HARDWARE & ACCESSORIES IN THEIR ENTIRETY. PROTECT ADJACENT WALL AND FLOOR SURFACES AND MATERIALS TO REMAIN. PREPARE AREA FOR NEW WALL INFILL AND/OR NEW DOOR AND FRAME AS SHOWN ON NEW DRAWINGS. PROTECT ALL SURROUNDING MATERIALS TO REMAIN. COORDINATE WITH NEW WORK DRAWINGS.

D-3 REMOVE EXISTING STOREFRONT SYSTEM AND ASSOCIATED HARDWARE & ACCESSORIES IN ITS ENTIRETY. PROTECT ROUGH OPENING, ADJACENT SURFACES AND MATERIALS TO REMAIN. PREPARE ROUGH OPENING FOR NEW STOREFRONT SYSTEM AS SHOWN ON NEW WORK DRAWINGS.

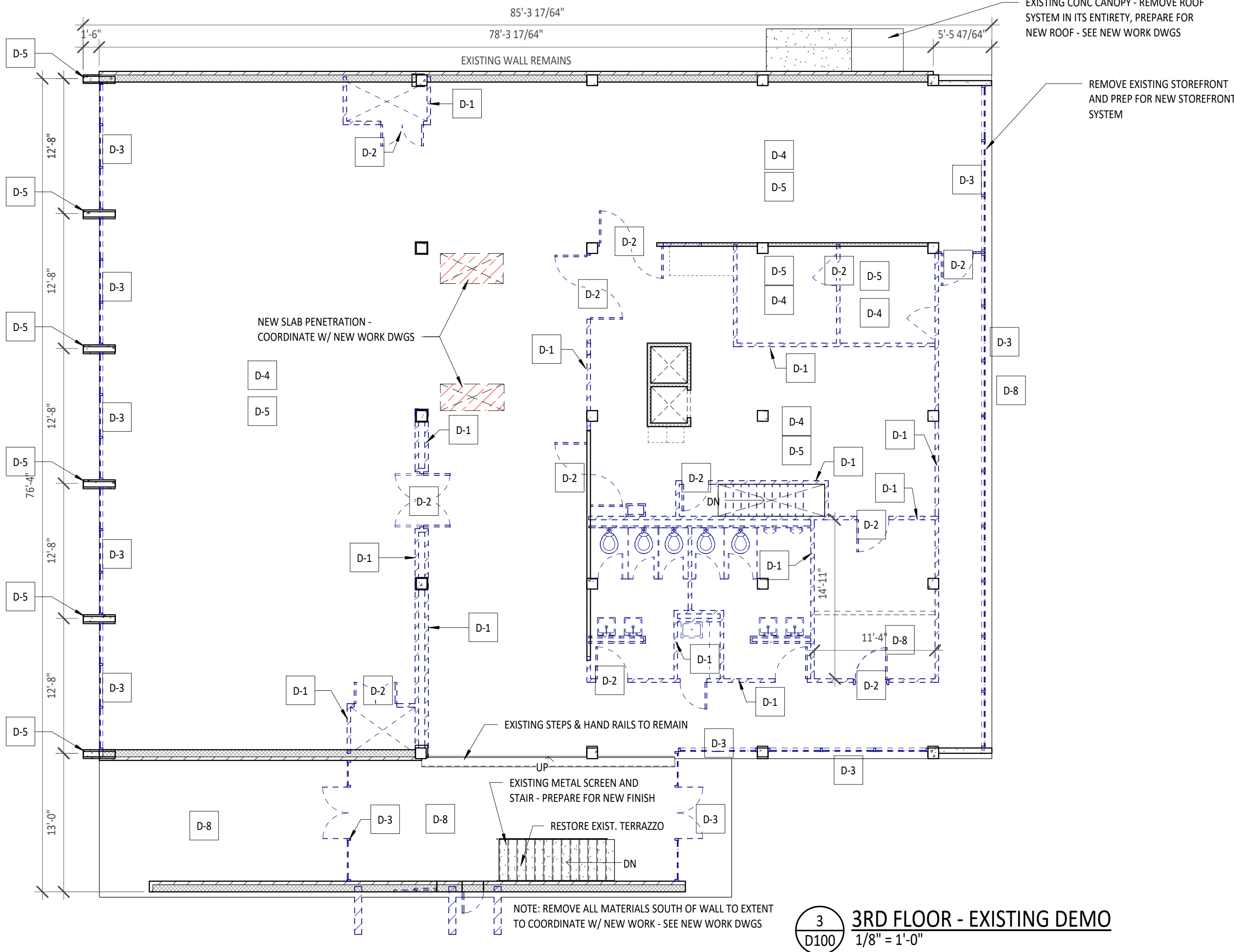
D-4 REMOVE EXISTING FLOOR FINISHES, WALL FINISH, COATING, AND BASE. PREPARE WALL AND FLOOR SURFACES FOR NEW FINISHES. COORDINATE WITH NEW WORK DRAWINGS.

D-5 PROTECT EXISTING CONCRETE STRUCTURAL ELEMENTS. ORIGINAL DRAWINGS NOT PRODUCED IN THIS OFFICE INDICATE STRUCTURAL CONCRETE HAS A RUBBED FINISH. FIELD OBSERVATIONS INDICATE A PAINTED COATING. PATCH AND REPAIR EXISTING CONCRETE FOR SMOOTH SURFACE HOMOGENOUS WITH EXISTING SHAPE. PREP, PRIME & PAINT - SEE NEW WORK DRAWINGS.

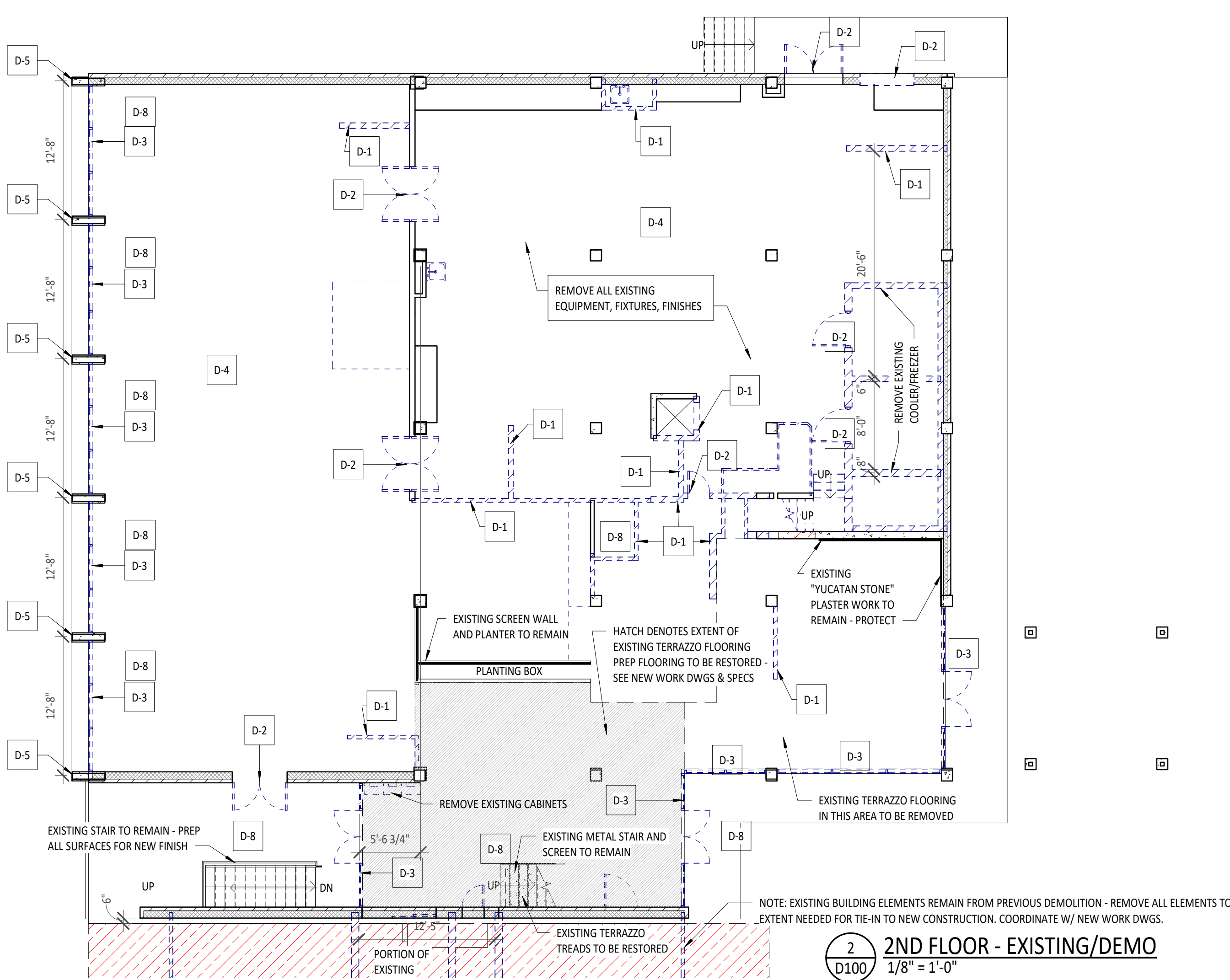
D-6 REMOVE EXISTING CEILING SYSTEM IN ITS ENTIRETY, INCLUDING ANY ASSOCIATED HANGERS AND ACCESSORIES. PREPARE AREA TO RECEIVE NEW CEILING SYSTEM AND/OR FINISH - COORDINATE WITH NEW WORK DRAWINGS. PROPERLY TERMINATE AND REMOVE ANY UNUSED UTILITIES AND PROTECT THOSE TO REMAIN. PROTECT EXISTING STRUCTURE AND WALLS NOTED TO REMAIN. COORDINATE EXTENTS OF DEMOLITION WITH NEW WORK DRAWINGS.

D-7 REMOVE EXISTING SINKS, TOILETS, URINALS, ACCOMPANYING VALVES, AND TOILET ACCESSORIES, I.E. PARTITIONS, TOILET PAPER HOLDERS, GRAB BARS, ETC. PROPERLY TERMINATE UNUSED PLUMBING SUPPLY AND DRAIN LINES AND PROTECT THOSE TO REMAIN. PROTECT EXISTING WALLS AND FLOORS NOTED TO REMAIN. PREP SURFACES FOR NEW MATERIAL INSTALL. COORDINATE EXTENTS OF DEMOLITION WITH NEW WORK DRAWINGS.

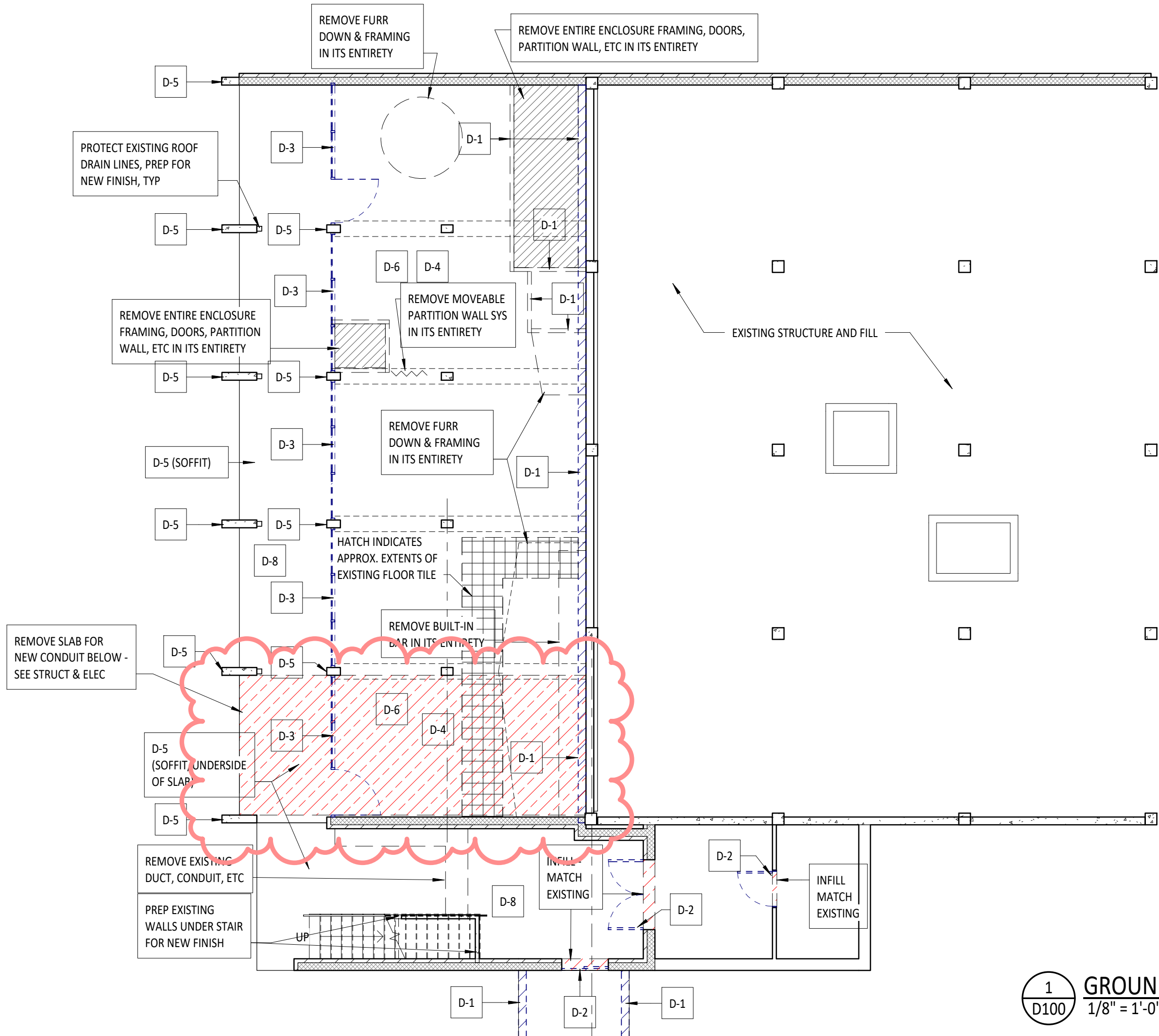
D-8 ASBESTOS CONTAINING MATERIAL FOUND. SEE ASBESTOS REPORT FOR MORE INFORMATION. REMOVE ACM AND PROTECT ALL EXISTING MATERIALS AND SURFACES TO REMAIN. PREPARE EXISTING MATERIALS TO RECEIVE NEW FINISHES/MATERIALS - COORDINATE W/ NEW WORK DRAWINGS.



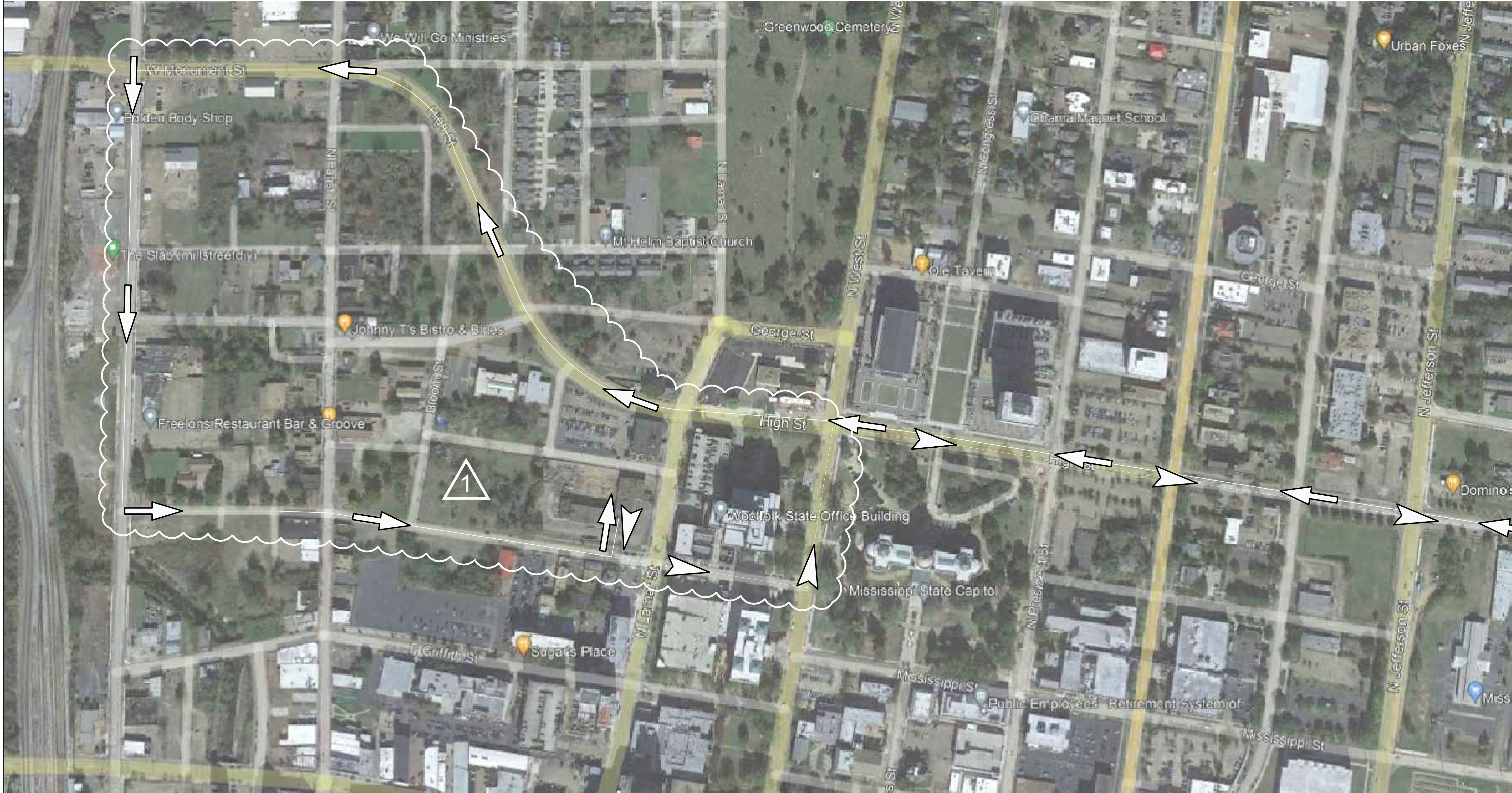
3 D100 3RD FLOOR - EXISTING DEMO
1/8" = 1'-0"



2 D100 2ND FLOOR - EXISTING/DEMO
1/8" = 1'-0"



1 D100 GROUND FLOOR - EXISTING/DEMO
1/8" = 1'-0"



LEGEND



TRUCK ROUTE IN



TRUCK ROUTE OUT



CONSTRUCTION SITE ENTRANCE

GS# 362-066 West Lot Improvements (Paving and Renovations Ph 1)

DFA (Capiol Facilities) - Jackson, Mississippi

SHAHER
ZAHNER
ZAHNER

OFFICE OF ARCHITECTURE
510 UNIVERSITY DRIVE
STARKVILLE, MISSISSIPPI 39759
szarch.com 1(662) 323-1628

SHEET **C1.1**

CONSTRUCTION
TRUCK ROUTE
PLAN

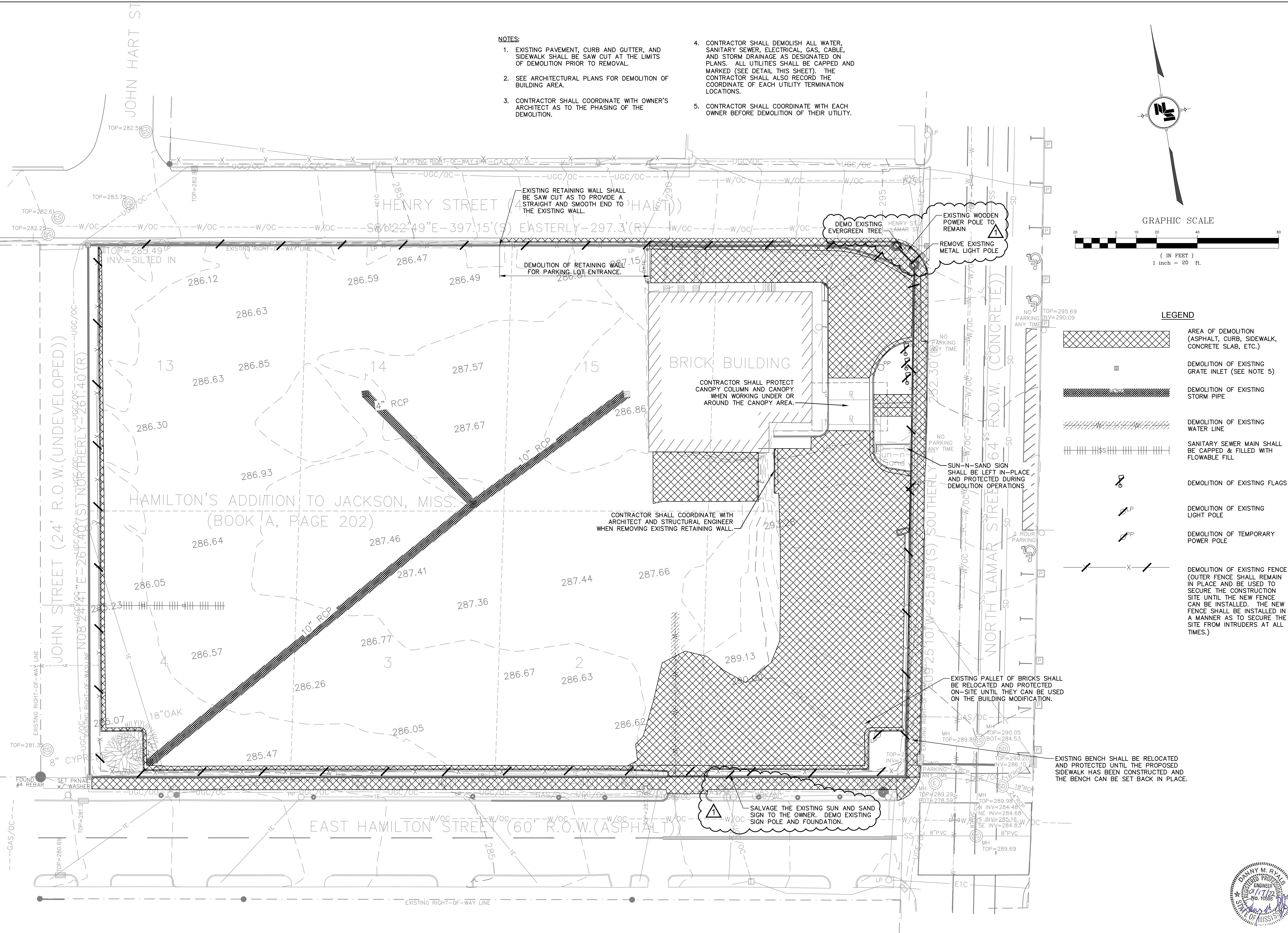
DATE: 10.15.2021
SZARCH#: 2141
DRAWN BY: -
CHECKED BY: -

REVISIONS:
1/17/22 REVISED ROUTE

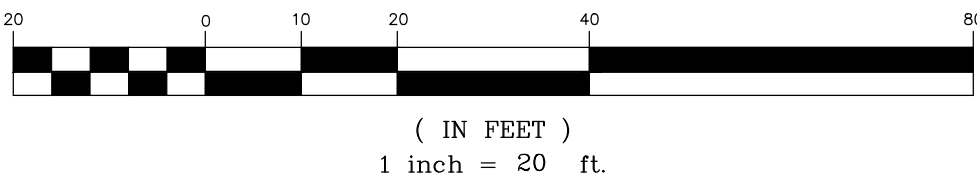


NOTES:

1. EXISTING PAVEMENT, CURB AND GUTTER, AND SIDEWALK SHALL BE SAW CUT AT THE LIMITS OF DEMOLITION PRIOR TO REMOVAL.
2. SEE ARCHITECTURAL PLANS FOR DEMOLITION OF BUILDING AREA.
3. CONTRACTOR SHALL COORDINATE WITH OWNER'S ARCHITECT AS TO THE PHASING OF THE DEMOLITION.
4. CONTRACTOR SHALL DEMOLISH ALL WATER, SANITARY SEWER, ELECTRICAL, GAS, CABLE, AND STORM DRAINAGE AS DESIGNATED ON PLANS. ALL UTILITIES SHALL BE CAPPED AND MARKED (SEE DETAIL THIS SHEET). THE CONTRACTOR SHALL ALSO RECORD THE COORDINATE OF EACH UTILITY TERMINATION LOCATIONS.
5. CONTRACTOR SHALL COORDINATE WITH EACH OWNER BEFORE DEMOLITION OF THEIR UTILITY.



GRAPHIC SCALE



LEGEND

- AREA OF DEMOLITION (ASPHALT, CURB, SIDEWALK, CONCRETE SLAB, ETC.)
- DEMOLITION OF EXISTING GRATE INLET (SEE NOTE 5)
- DEMOLITION OF EXISTING STORM PIPE
- DEMOLITION OF EXISTING WATER LINE
- SANITARY SEWER MAIN SHALL BE CAPPED & FILLED WITH FLOWABLE FILL
- DEMOLITION OF EXISTING FLAGS
- DEMOLITION OF EXISTING LIGHT POLE
- DEMOLITION OF TEMPORARY POWER POLE
- DEMOLITION OF EXISTING FENCE (OUTER FENCE SHALL REMAIN IN PLACE AND BE USED TO SECURE THE CONSTRUCTION SITE UNTIL THE NEW FENCE CAN BE INSTALLED. THE NEW FENCE SHALL BE INSTALLED IN A MANNER AS TO SECURE THE SITE FROM INTRUDERS AT ALL TIMES.)

GS# 362-066 West Lot Improvements (Paving and Renovations Ph 1)

DFA (Capiol Facilities) - Jackson, Mississippi

SHAHER
ZAHNER
ZAHNER

OFFICE OF ARCHITECTURE

510 UNIVERSITY DRIVE
STARKVILLE, MISSISSIPPI 39759
szarch.com T(662) 323-1628

SHEET C2.0

SITE
DEMOLITION
PLAN

DATE: 10.15.2021
SZARCH#: 2141
DRAWN BY: -
CHECKED BY: -

REVISIONS:
1/12/22 ADDED DEMO NOTES



STRUCTURAL NOTES

THE STRUCTURAL NOTES DEFINE GENERAL DESIGN AND MATERIAL REQUIREMENTS AND ARE INTENDED TO SUPPLEMENT, BUT NOT REPLACE, THE PROJECT SPECIFICATIONS

DESIGN CRITERIA — NEW CONSTRUCTION

1. Building Code: 2018 International Building Code and ASCE 7-16
(except Chapter 14)
- 1.1. Building Risk Category: II
2. Design Loads
- 2.1. Uniform Floor Live Loads (reduced per Building Code, UNO)
- Balcony100 psf
- Stairs100 psf
- 2.2. Roof Loads
- 2.2.1. Uniform Roof Live Load (reduced per Building Code) 20 psf
- 2.2.2. Rain Loads: Rain Intensity, i (in/hr) 1.91 for duration of 1-hour
- 2.3. Wind Loads:
- Basic Wind Speed V(ult) = 110 mph; V(asd) = 85 mph
- Wind Exposure B
- 2.4. Earthquake Loads:
- Seismic Importance Factor, I = 1.00
- Mapped Spectral Response Accelerations, S_s and S₁ = 0.139 and 0.083
- Site Class: D
- Spectral Response Coefficients, S_{DS} and S_{D1} = 0.148 and 0.133
- Seismic Design Category: B
- Concrete Stair Basic Seismic-Force-Resisting System: Cantilevered Column Systems detailed as Ordinary Reinforced Concrete Moment Frames
- Concrete Stair Design Base Shear: 14 kips
- Concrete Stair Seismic Response Coefficient, C_s = 0.148
- Concrete Stair Response Modification Factor, R = 1.0
- Analysis Procedure: Equivalent Lateral Force Procedure
- Slab-on-ground is not designed as a structural diaphragm.
3. Structural Engineer is not responsible for the design of steel stairs, handrails, curtain wall/window wall systems, cold-formed steel framing, or other systems not shown in the Structural Documents. Such systems shall be designed, furnished, and installed as required by other portions of the Construction Documents.

GENERAL

1. Reference to standards or specifications of technical societies, organizations, or associations means the standard or specification referenced by the governing Building Code shown on the Drawings, unless specifically noted otherwise.
2. Material, workmanship, and design shall conform to the referenced Building Code.
3. For dimensions not shown in the Structural Drawings, see the Architectural Drawings.
4. Contractor responsibilities include, but are not limited to, the following:
- 4.1 Coordinate the Structural Documents with the Architectural, Mechanical, Electrical, Plumbing, and Civil Documents. Architect/Structural Engineer shall be notified of any discrepancy or omission prior to installation of associated work.
- 4.2 Coordinate Structural Documents with Architectural and MPE Documents for location and quantity of miscellaneous framing for items such as roof drains, suspended or supported mechanical units, window washing roof anchors, etc. Refer to Architectural and MPE Documents for additional miscellaneous structural elements that may not appear in the Structural Documents.
- 4.3 Equipment/Framing Verification
- 4.3.1 Mechanical Equipment: Submit actual weights of equipment to be used for review at least 3 weeks prior to fabrication and construction. Coordinate opening sizes and locations with Mechanical Contractor.
- 4.3.2 Elevator Loads: Submit elevator shop drawings and loads (machine beam/slab, and guide rails) for review prior to detailing, fabrication and installation of elevator system.
- 4.3.3 Miscellaneous Framing: Verify framing shown on the Structural Drawings for mechanical equipment. Owner-furnished items, partitions, etc. is consistent with the requirements of such items.
- 4.4 The structure is stable only in its completed form. Temporary supports required for stability during all intermediate stages of construction shall be designed, furnished, and installed by the Contractor.
- 4.5 Contractor has sole responsibility for jobsite safety and complying with all health and safety precautions as required by any regulatory agency. In performing construction observation visits to the jobsite, the Structural Engineer will have no control over, nor responsibility for, the Contractor's means, methods, sequences, techniques, or Procedures in performing the work.
- 4.6 Contractor is responsible for locating concrete reinforcement prior to installation of post-installed anchors, through bolts, or other post-installed items in concrete. Existing reinforcement including post-tensioning tendons shall not be cut or otherwise damaged while installing post-installed anchors.
5. Existing and Unforeseen Conditions
- 5.1 Contractor shall field verify all existing conditions, elevations, and site conditions prior to construction and fabrication. Contractor shall immediately notify Structural Engineer of any existing conditions that are in conflict with the Structural Documents.
- 5.2 Shop drawing submittals shall be based on field verified dimensions and conditions only. Contractor shall clearly show actual field dimensions on shop drawings.
- 5.3 Existing dimensions, elevations, and other information shown in the Structural Drawings are based on the following Documents:

Proposed Motel For Milner Enterprises, Inc., October 1959, John L. Turner & Associates Architects & Engineers

SUBMITTALS

1. Shop Drawings and Submittals
- 1.1 Reproduction of Structural Drawings for shop drawings is not permitted.
- 1.2 Electronic drawing files will not be provided to the Contractor.
- 1.3 Review of shop drawings will be for conformance with the Construction Documents regarding arrangement and sizes of members and the Contractor's interpretation of the design loads, if applicable, and Construction Document details. Such review shall not relieve the Contractor of the full responsibility to comply with the Construction Documents.
2. Submittals
- 2.1 The Structural Quality Assurance Plan and Specifications identify the required submittals. Prior to (or with) the first submittal, Contractor shall submit a list of all required submittals for Engineer's review.
3. Deferred Submittals
- 3.1 Deferred Submittals include those portions of the project that are furnished by the Contractor and designed by someone other than the Engineer of Record and are submitted at the time of the application. Deferred Submittals shall be submitted to the Building Official prior to fabrication and installation.
- 3.2 Submittal documents for Deferred Submittals:
- 3.2.1 Shall be included in the Contractor's scope of services and shall be sealed by an Engineer licensed in the project state. Design of Deferred Submittals shall be in accordance with the governing Building Code indicated above.
- 3.2.2 Shall be submitted to the registered design professional in responsible charge who shall review them and forward to the Building Official with a notation indicating the deferred submittal documents have been reviewed and that they have been found in general conformance with the design of the building. Deferred submittal items shall not be installed until the design and submittal documents have been approved by the Building Official.
- 3.3 The following shall be considered Deferred Submittals:
- Steel Connections - See "Structural Steel" Section
- Roof Top Unit Anchorage
- Steel Stairs and Handrails
- Curtainwall/Window Wall Systems
- Pre-engineered Canopies
- Elevators
- Seismic Anchorage and Bracing of MPE Components

DRAWING INDEX

S001	STRUCTURAL NOTES
S002	STRUCTURAL NOTES (cont.)
S003	STRUCTURAL NOTES (cont.)
S004	STRUCTURAL QUALITY ASSURANCE PLAN
S005	STRUCTURAL QUALITY ASSURANCE PLAN (cont.)
S110	GROUND FLOOR FOUNDATION PLAN
S111	EXISTING SECOND FLOOR FRAMING PLAN
S112	EXISTING THIRD FLOOR FRAMING PLAN
S113	EXISTING ROOF FRAMING PLAN
S114	ROOF TOP RTU PLATFORM FRAMING PLAN
S300	FOUNDATION SECTIONS AND DETAILS
S301	STAIR SECTIONS AND DETAILS
S302	FOUNDATION SECTIONS AND DETAILS
S303	FOUNDATION SECTIONS AND DETAILS
S304	FOUNDATION SECTIONS AND DETAILS
S305	FOUNDATION SECTIONS AND DETAILS
S306	FOUNDATION SECTIONS AND DETAILS
S400	FRAMING SECTIONS AND DETAILS
S401	FRAMING SECTIONS AND DETAILS

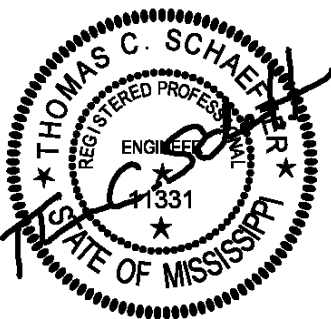
Structural Design Group

Consulting Structural Engineers

220 Great Circle Road, Suite 104
Nashville, Tennessee 37228
P. 615.255.5537
www.sdg-structure.com
SDG Project No. 2021-292.00

GS# 362-066 West Lot Improvements (Paving and Renovations Ph 1)

DFA (Capitol Facilities) - Jackson, Mississippi



SHAHER
ZAHNER
ZAHNER

OFFICE OF ARCHITECTURE
510 UNIVERSITY DRIVE
STARKVILLE, MISSISSIPPI 39759
szzarch.com T(662) 323-1628

SHEET S001

STRUCTURAL
NOTES

DATE: 11.10.2021
SZZARCH#: 2141
DRAWN BY: C.F.
CHECKED BY: W.G./T.S.

REVISIONS:

STRUCTURAL NOTES

THE STRUCTURAL NOTES DEFINE GENERAL DESIGN AND MATERIAL REQUIREMENTS AND ARE INTENDED TO SUPPLEMENT, BUT NOT REPLACE, THE PROJECT SPECIFICATIONS

FOUNDATION

- Geotechnical Report: Geotechnical Exploration Proposed Additions Project: GS# 362-066 West Lot Improvements Sun-N-Sand Motor Building Jackson, Mississippi
Prepared by Burns Cooley Dennis, Inc.
Report No. 210720, Dated: November 8, 2021
 - It is recommended that the Contractor become familiar with the subsurface conditions that will be encountered and obtain a copy of the geotechnical report and any supplemental reports. The report may be included as a reference document within the construction documents. Otherwise, the Contractor should contact the Owner to obtain a copy of the report.
- Building Pad Preparation
 - Strip vegetation and topsoil.
- Drilled Piers: Allowable Soil Bearing Capacity 10 ksf
 Allowable Skin Friction Capacity 0.2 ksf
- Helical Piers
 - Helical Pile Allowable Compression Capacity 38 kips
 - Helical Pile Allowable Tension Capacity 10 kips
 - Minimum 30-feet pile penetration.
- Foundation Walls
 - Lateral Pressures:
Walls free to displace at top (active): 40 pcf Equivalent Fluid Density
 - Walls shall be backfilled with granular materials (See Specifications)
 - Provide continuous shear keys and waterstops at the base of concrete stems of foundation walls within the building footprint. See Specifications for additional information.
 - Foundation drains shall be provided behind all retaining walls and basement walls. Coordinate with plumbing drawings.
- Carton void forms shall be provided under grade beams, pile caps, and every foundation element and shall be a minimum of 24 inches thick. See Specifications for additional information.

REINFORCEMENT

- Reinforcing Bars: ASTM A615, Grade 60
 - Reinforcing bars are not to be welded.
- Reinforcement Placement (UNO)
 - Concrete Reinforcement Cover

Below Grade:	Unformed	3" clear
	Formed	2" clear
Columns (Ties)		1 1/2" clear
Balcony Slab		1 1/2" clear
 - Masonry reinforcing steel: Place in the center of CMU cells, unless otherwise noted in drawings.
- Reinforcement Splices
 - Reinforcement marked "Continuous" can be spliced at locations determined by Contractor. All other reinforcement shall be spliced only at locations shown or noted, unless approved in writing by Structural Engineer.
 - Splice Lengths (UNO)

Concrete Reinforcement: Class B Tension Lap
Masonry Reinforcement: #4 - 24"

CAST-IN-PLACE CONCRETE

- Concrete Properties
 - Normal Weight Structural Concrete

	28-Day, f'c (min.)	w/cm Ratio	Entrained Air (max.)
Drilled Piers	3,500 psi	----	None Required
Pier/Pile Caps	4,000 psi	----	None Required
Mat Foundation	4,000 psi	----	None Required
Grade Beams	3,500 psi	----	None Required
Retaining Walls	4,000 psi	----	None Required
Columns	5,000 psi	0.50	6.0 +/- 1.5%
Elevator Pit Walls	4,000 psi	0.50	6.0 +/- 1.5%
Beams and Framed Slabs	5,000 psi	0.48	6.0 +/- 1.5%
All Other Concrete	5,000 psi	0.40	5.0 +/- 1.5%

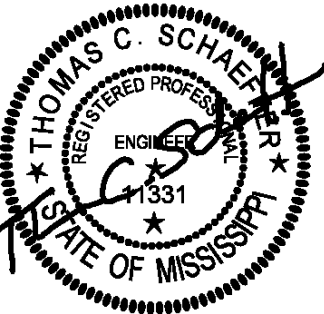
Note: All concrete shall be assigned the exposure classes FO, SO, WO, and CO (see ACI 318).
 - Construction Joint Locations: No horizontal construction joints are permitted except as shown on the Structural Drawings. Obtain written consent for additional joints.
 - Pipes or ducts shall not exceed one-third the slab or wall thickness unless specifically detailed. See mechanical and electrical drawings for location of sleeves, accessories, etc.
 - Do not install conduits, pipes, ducts, or sleeves in cast-in-place concrete columns unless approved in writing by licensed design professional.
 - Special Finishes: Refer to Architectural Drawings for molds, grooves, ornaments, clips or grounds required to be encased in concrete and for location of floor finishes and slab depressions.
 - Defect Repair: Honey-combing, spalls, cracks, etc. shall be repaired. Extent of defective area to be determined by the Structural Engineer.
 - Curing
 - Begin curing procedures immediately following commencement of the finishing operation.
 - All concrete slabs shall be wet cured a minimum of 7 days in strict accordance with ACI 301. The acceptable methods of wet curing are ponding, continuous fogging, continuous sprinkling; or application of mats or fabric kept continuously wet.

NON-SHRINK GROUTING

- Non-shrink grout under steel base plates shall be non-metallic with minimum compressive strength of 5000 psi at 28 days.
- Non-shrink grout used for patching, repair, and other specific applications shall be submitted for review and approval by engineer.

CONCRETE MASONRY

- Specified Compressive Strength, f'm = 2,000 psi
Minimum Net Area Compressive Strength of Masonry Unit: 2,000 psi
(ASTM C90 w/ Type M or S Mortar)
- Mortar: Walls below grade Type M
 Bearing walls Type M or S
 Partition walls Type N
- Coarse Grout: 2,500 psi min. compressive strength conforming to ASTM C476.
 - Grout solid bond beams, reinforced CMU cores, and CMU cores and wall cavities below grade.
 - Masonry webs on each side of grouted cells shall be fully mortared. Exterior single wythe CMU walls shall have head joints fully mortared.
- Horizontal Joint Reinforcement, UNO:
Two (2) No. 9 gage longitudinal wires at 16" vertically. Lap wire 6" minimum. Provide accessories for corners, intersections, etc. Use ladder type for walls with vertical reinforcing.
- Horizontal Bond Beam Reinforcement, UNO:
8" CMU: Two (2) #4 Continuous at the top of walls. Provide corner bars at intersections.
- Provide open bottom beam block units with 3" deep minimum web openings at horizontal reinforcement locations not located over an opening. A minimum clear space of one bar diameter shall be provided between the reinforcing bars and the face of masonry units.
- CMU has been designed assuming "running bond" placement. Do not use "stack bond" unless approved by Structural Engineer.
- Contraction Joints: Unless noted otherwise on the Plans, maximum spacing of 1½ times of wall height or 24 feet (whichever is less) in all concrete masonry walls (including partitions) above grade.
- Submit written construction procedures prior to the start of masonry construction.
- Grout fill beam pockets in masonry walls after welds are inspected.
- Contractor shall submit drawings coordinated with masonry and MPE contractors indicating the MPE penetrations through the roof, floors, and load bearing and non-load bearing walls. These drawings shall indicate the size and location of all penetrations and shall be submitted to the Architect/Structural engineer prior to installation.



SHAHER
ZAHNER
ZAHNER

OFFICE OF ARCHITECTURE
510 UNIVERSITY DRIVE
STARKVILLE, MISSISSIPPI 39759
szzarch.com T(662) 323-1628

SHEET **S002**

STRUCTURAL
NOTES (cont.)

DATE: 11.10.2021
SZZARCH# 2141
DRAWN BY: C.F.
CHECKED BY: W.G./T.S.

REVISIONS:

STRUCTURAL NOTES

THE STRUCTURAL NOTES DEFINE GENERAL DESIGN AND MATERIAL REQUIREMENTS AND ARE INTENDED TO SUPPLEMENT, BUT NOT REPLACE, THE PROJECT SPECIFICATIONS

STRUCTURAL STEEL

- Steel Shapes
 - W-Shapes: ASTM A992 (Grade 50)
 - Angles, Channels, Plates, UNO: ASTM A36
 - Square/Rectangular/Round Hollow Structural Sections (HSS): ASTM A500, Grade B
 - Pipe Structural Sections: ASTM A53, Grade B
- Anchor Rods, Bolts, and Studs
 - Anchor Rods: ASTM F1554, Grade 36. Headed Rods or threaded rods with plate washer and heavy hex nut.
 - Bolts: 3/4" Diameter A325 minimum. All connections may be bearing type, UNO. Design bearing type connections for load values with threads included in the shear plane. Submit proposed bolt tightening procedure for review.
- Structural steel shall be fabricated and erected according to the "Specification for Structural Steel Buildings" referenced in the referenced Building Code.
- Connections shall be detailed based on the design information provided in the Structural Documents.
 - Standard Shear Connections: Detail as bolted or welded double-angle, single-plate, single-angle, or tee connections in accordance with the connection tables in the "Manual of Steel Construction" referenced in the referenced Building Code.
 - Shear connections not defined in the AISC Manual shall be designed by an Engineer licensed in the project state. This design service shall be included in the Contractor's scope of services. Shop drawings of such connections shall be sealed by the Engineer.
 - Welded Connections: Prequalified welded joints in accordance with AISC and the Structural Welding Code of the American Welding Society; "Non-prequalified joints" shall be qualified prior to fabrication.
 - Factored Design Forces/Reactions: As shown on the Structural Drawings or, if not shown, the factored design reaction shall be half of the "Maximum Total Uniform Load (LRFD)" tabulated in the "Manual of Steel Construction" referenced in the referenced Building Code.
 - Steel connections not specifically detailed in the Structural Drawings shall be designed by the Contractor. This design service shall be included in the Contractor's scope of services. Shop drawings of such connections shall be sealed by an Engineer licensed in the project state.
- Shop Drawings: Submittal shall adequately depict structural members and connections.
- Welders shall be qualified for the work performed in accordance with AWS D1.1. Welder qualifications shall be certified by the local building authority and verified by the Contractor and the Special Inspector.
- Steel Bar Grating: Rectangular type with welded cross bars
 - Steel: ASTM A569
 - Bearing Bars: 1-1/4" deep x 3/16" thick spaced at 1-3/16" Cross Bars: Spaced at 4"
 - Grating Surface: Serrated
 - Grating Finish: Galvanized, ASTM A123 or A385
 - Fasten grating to steel supports with saddle clip and self-drilling fastener at every sixth bearing bar along support (min. of 2 clips per panel).
- Galvanizing
 - Galvanize environmentally exposed steel, for example mechanical equipment supports and screenwalls.
 - Galvanized members shall have proper treatment performed to accept paint.
 - Touch-up welds and abrasions in galvanized members in accordance with ASTM A780

POST-INSTALLED ANCHORS

- Post-installed anchors shall only be installed where indicated on the structural drawings, unless approved by engineer of record.
 - The below products are the design basis for this project. Product diameter and embedment shall be as shown in the details. Install products IN ACCORDANCE WITH MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS (MPII). Refer to the project building code and/or evaluation report for special inspections and proof load requirements. Substitution requests for products other than those listed below may be submitted by the contractor to the Engineer-of-Record (EOR) for review. Substitutions will only be considered for products having a research report recognizing the product for the appropriate application under the project building code. Substitution requests shall include calculations that demonstrate the substituted product is capable of achieving the equivalent performance values of the design basis product.
 - For Anchoring into Concrete
 - Expansion Anchors: Hilti Kwik Bolt TZ (ICC-ES ESR-1917), Simpson Strong-Bolt 2 (ICC-ES ESR-3037), DeWalt/Powers Power-Stud+ SD1 (ICC_ES ESR-2818), or DeWalt/Powers Power-Stud+ SD2 (ICC-ES ESR-2502). Minimum embedment = 6 times anchor diameter, UNO.
 - Screw Anchors: Simpson Titen-HD (ICC-ES ESR-2713), DeWalt Screw-Bolt+ (ICC-ES ESR-3889) or Hilti Kwik HUS-EZ (ICC-ES ESR-3027). Minimum Embedment=6 times anchor diameter, UNO.
 - Adhesive Dowels
 - Adhesive dowels shall be installed in concrete having a minimum age of 21 days at time of anchor installation.
 - Adhesive dowels identified in the drawings as installed in a horizontal or upwardly inclined orientation to resist sustained tensile loads shall be installed by certified installers.
 - Reinforcing bars conforming to ASTM A615, Grade 60.
 - Adhesive for rebar shall have been tested in accordance with ACI 355.4 and ICC-ES AC308 for cracked concrete and seismic applications. Design bond strength has been based on CRACKED CONCRETE, ACI 355.4 temperature category B, and installations into dry holes drilled using a hammer drill into concrete that has cured for at least 21 days. Adhesive dowels shall be installed by a certified adhesive dowel installer per ACI 318-11 D.9.2.2 where INDICATED on the contract documents. Installations requiring certified installers shall be inspected per ACI 318.
 - Adhesive conforming to Simpson AT-XP (IAPMO-UES ER-263), Simpson SET-XP (ICC-ES ESR-2508), DeWalt/Powers Pure110+ (ICC-ES ESR-3298), DeWalt AC200+ Adhesive (ICC-ES ESR-4027), Hilti HIT-HY 200 SAFE Set Fast Cure Adhesive (ICC-ES ESR-3187), Hilti HIT-RE 500 V3 Safe Set Adhesive (ICC-ES ESR-3814) . Minimum Embedment = 12 times dowel diameter, UNO.
- For Anchorage into Solid Grouted Concrete Masonry
 - Expansion Anchors: Hilti Kwik Bolt 3 (ICC-ES ESR-1385), Simpson Strong-Bolt 2 (IAPMO-UES ER-240), Simpson Wedge-All (ICC-ES ESR-1396) or DeWalt/Powers Power-Stud+ SD1 (ICC-ES ESR-2966). Minimum embedment = 6 times anchor diameter, UNO.
 - Screw Anchors: Simpson Titen-HD (ICC-ES ESR-1056) or Powers Wedge-Bolt+ (ICC-ES ESR-1678), Hilti Kwik HUS-EZ (ICC-ES ESR-3056).Minimum Embedment=6 times anchor diameter, UNO.
- Contractor shall arrange for an anchor manufacturer's representative to provide onsite installation training for all of their anchoring products specified. The structural Engineer of record must receive documented confirmation that all of the contractor's personnel who install anchors are trained prior to the commencement of anchor installation.

STEEL DECK

- Steel Roof Deck: 22 gage, galvanized
- Submit shop drawings with the manufacturer's catalog demonstrating compliance with the Contract Documents and the Steel Deck Institute.

ELEVATORS

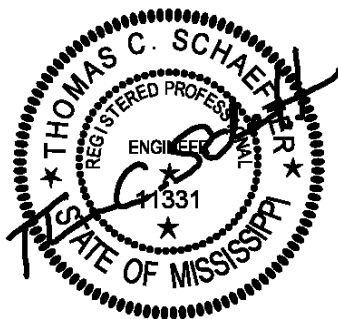
- Elevator hoistway dimensions, pit depths, sheave beam layout, machine room slabs, hoist beams, and elevator reactions are based on preliminary elevator information only. Final elevator shop drawings were not available during preparation of the Construction Documents.
- Contractor shall submit final elevator shop drawings to the engineer and architect for review. Elevator shop drawings shall indicate the loads for the machines, counterweights, car buffers, counterweight buffers, and guide rails. Their connections to the structure shall be clearly depicted for verification of the load carrying capacity of the structure.
- Contractor shall not begin construction or fabrication of any structural elements related to the elevators until final elevator shop drawings have been submitted, reviewed by the Engineer and Architect for coordination purposes, and approved by the Engineer and Architect. These items include elevator pit walls and foundations, separator beams, guide rail support tubes, hoist beams, machine room framing, and sheave beams.
- Where required, Contractor shall coordinate the number and location of elevator guide rail support tubes for elevator guide rails and counterweight rails with the final elevator shop drawings. Miscellaneous steel required to connect elevator guide and counterweight rails to guide rail support tubes shall be furnished by the elevator vendor or contractor.
- Miscellaneous steel required to support elevator door frames shall be furnished by the elevator vendor or contractor.

ANCHORAGE AND BRACING OF NON-STRUCTURAL COMPONENTS

- Roof Top Structures and Equipment
 - Rooftop structures and equipment shall be properly anchored and braced to resist wind and seismic forces. Refer to MPE documents for specific details and additional information.
 - Design of anchorage for rooftop structures, curbs and equipment shall be the sole responsibility of the Contractor. Submit shop drawings sealed by an Engineer licensed in the project state. Shop drawings shall show plan layout, typical elevations, details, and anchorage to the structure.
 - Anchorage of rooftop structures and equipment shall comply with the requirements of Factory Mutual.
- MP&E Suspended Components
 - Pipe and Conduit loads supported by "C" clamps at the edge of structural steel beam flanges cannot exceed 500 pounds. All "C" clamps shall have a retainer strap or similar restraint to prevent the clamp from working free during a seismic event.
 - Total load of mechanical components applied to any one structural steel beam is not to exceed 4000 pounds unless specifically approved by the Structural Engineer.

GS# 362-066 West Lot Improvements (Paving and Renovations Ph 1)

DFA (Capitol Facilities) - Jackson, Mississippi



SHAHER
ZAHNER
ZAHNER

OFFICE OF ARCHITECTURE
510 UNIVERSITY DRIVE
STARKVILLE, MISSISSIPPI 39759
szzarch.com T(662) 323-1628

SHEET **S003**

STRUCTURAL
NOTES (cont.)

DATE: 11.10.2021
SZZARCH#: 2141
DRAWN BY: C.F.
CHECKED BY: W.G./T.S.

REVISIONS:

Structural Design Group
Consulting Structural Engineers
220 Great Circle Road, Suite 104
Nashville, Tennessee 37228
P. 615.255.5537
www.sdg-structure.com
SDG Project No. 2021-292.00

STRUCTURAL QUALITY ASSURANCE PLAN

GENERAL

This Structural Quality Assurance Plan includes:

- The Statement of Special Inspections which defines the scope of testing and inspection that is required for this project.
- The responsibilities of the Contractor.

Refer to other portions of the Construction Documents for Special Inspections required of architectural, mechanical, electrical, or other building components.

Special Inspector will be hired by the Owner.

Special Inspector shall maintain records of inspections in accordance with Chapter 17 of the Building Code and shall distribute these records to the Building Official, Architect, and Structural Engineer on a weekly basis, unless noted otherwise below. Reports shall indicate that work inspected/tested was done in conformance to the Construction Documents. Discrepancies shall be brought to the immediate attention of the Contractor for correction. If the discrepancies are not corrected, they shall be brought to the attention of the Building Official, Architect, and Structural Engineer prior to completion of that phase of the work.

At the conclusion of the project, the Special Inspector shall submit a final report documenting required special inspections and correction of any discrepancies noted in the inspections.

STATEMENT OF SPECIAL INSPECTIONS

Special Inspector shall perform the following tests and inspections of all structural elements included within this Statement of Special Inspections.

- The following tables contain material, components and work that require special inspection or testing:
 - Inspection Frequency, C – Continuous special inspection. Special inspection by the special inspector who is present when and where the work to be inspected is being performed.
 - Inspection Frequency, P – Periodic special inspection. Special inspection by the special inspector who is intermittently present where the work to be inspected has been or is being performed. For structural steel, observe the items on a random basis.
 - See Steel section for additional information for inspection tasks.

SOILS	INSPECTION FREQUENCY	REFERENCED STANDARD
1. Verify materials below shallow foundations are adequate to achieve the design bearing capacity.	P	
2. Verify excavations are extended to proper depth and have reached proper material.	P	Inspection is required after excavation is complete and prior to placement of structural fills.
3. Perform classification and testing of compacted fill materials.	P	Perform laboratory tests of field samples provided by contractor for verification of in place densities.
4. Verify use of proper materials, densities, and lift thickness during placement and compaction of compacted fill. a. As a minimum, perform one test per lift for every 2500 square feet of fill placed.	C	Refer to specification for lift thicknesses and compaction.
5. Prior to placement of compacted fill, inspect subgrade and verify that the site has been prepared properly (e.g. proofrolling, etc.).	P	

DRILLED PIERS	INSPECTION FREQUENCY	REFERENCED STANDARD
1. Concrete inspections in accordance with Concrete construction section.		
2. Monitor the load test(s)	C	
3. Observe drilling operations and maintain complete and accurate records of each drilled pier including: a. Drilled pier placement locations. b. Plumbness. c. Diameter (including bell if applicable). d. Elevation of initial contact with rock. e. Embedment into bearing strata. f. Elevation and adequacy of end-bearing strata capacity. g. Concrete placement. h. Record concrete volumes.	C	
4. Verify grade, quantity, location, and placement of reinforcing steel prior to concrete placement.	P	
5. Use of specified mix designs.	P	

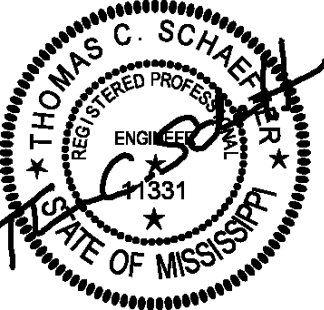
HELICAL PILES	INSPECTION FREQUENCY	REFERENCED STANDARD
1. Steel inspections of welded components (driving tips, splices, closure plates, etc.) in accordance with Steel construction section.		
2. Verify pile material, sizes and lengths comply with the requirements.	C	
3. Observe drilling operations and maintain complete and accurate records of each pile including: a. Verify type and size of torque motor to be used for pile installation b. Pile placement location. c. Plumbness. d. Record final installation torque. e. Record installation depths and number of lead and extension sections. f. Record unusual conditions encountered during pile installation. g. Record tip and butt elevations. h. Record any damage to pile.	C	

CONCRETE CONSTRUCTION	INSPECTION FREQUENCY	REFERENCED STANDARD
1. Inspection of reinforcing steel placement and installation. Grade, size, quantity, quality, location, spacing, clearances.	P	ACI 318 Ch. 20, 25.2, 25.3, 26.6.1-26.6.3 / IBC 1908.4
2. Inspection of anchors cast in concrete. Verify compliance of the following: diameter, grade, type, length, number, placement, and embedment depth.	C	ACI 318 17.8.2 / AISC 360 N5.7
3. Inspection of post-installed mechanical anchors installed in hardened concrete members: verify anchor type, anchor dimensions, hole diameter and cleaning procedures, anchor spacing, edge distances, concrete minimum thickness, anchor embedment and tightening torque.	C	ACI 318 17.8.2 Use of post installed anchors must be approved by Structural Engineer
4. Inspection of post-installed adhesive anchors and reinforcing steel installed in hardened concrete members: Verify adhesive type, anchor rod dimensions, hole diameter and cleaning procedures, anchor spacing, edge distances, concrete minimum thickness, anchor embedment and tightening torque.	C	ACI 318 17.8.2.4 Use of post installed anchors must be approved by Structural Engineer
5. Verify use of required design mix.	P	ACI 318 Ch. 19, 26.4.3 26.4.4 / IBC 1904.1, 1904.2, 1908.2, 1908.3
6. Sampling fresh concrete from concrete discharge. Mold one set of specimens for compressive strength testing for each 75 cubic yards or each 5,000 square feet of slab or wall surface area for each mix design placed in any one day. No fewer than five tests for a given class of concrete for the entire project. a. Mold (5) 4x8-inch compressive strength cylinders, break and report (1) at 7-days, (3) at 28-days, or mold (4) 6x12-inch compressive strength cylinders, break and report (1) at 7-days, (2) at 28-days. b. Remaining specimens(s) shall be broken as directed by the Structural Engineer if compressive strengths do not appear adequate. c. For each set molded, record: i. Slump ii. Air Content iii. Unit Weight iv. Temperature, ambient and concrete v. Batch and discharge times vi. Location and placement vii. Any pertinent information, such as addition of water, addition of admixtures, etc. d. Report in writing on the same day as tests are performed. Reports of compressive strength tests shall contain the project identification name and number, date of concrete placement, name of concrete testing agency, concrete design compressive strength, location of concrete placement in structure, concrete mix proportions and materials, compressive breaking strength and type of break. e. Verify compliance with construction documents.	C	ACI 318 26.5, 26.12 / IBC 1908.10 ASTM C172, ASTM C31
7. Inspection of concrete conveying and placement for proper application techniques.	C	ACI 318 26.5 / IBC 1908.6-1908.8
8. Inspection for maintenance of specified curing temperature and techniques.	P	ACI 318 26.5.3-26.5.5 / IBC 1908.9
9. Inspection of formwork for shape, location, and dimensions of the concrete member being formed.	P	ACI 318 26.11.1.2(b)
10. Perform testing of Floor Flatness and Levelness of concrete slab placements in accordance with ASTM E1155. See specifications.	P	ACI 117-10

NON-SHRINK GROUTING	INSPECTION FREQUENCY	REFERENCED STANDARD
1. Compressive strength tests per ASTM C109. a. Number of Tests: One test for each ten bags of grout used or minimum of one test of each day of grouting. b. Cube Size: 2-inch x 2-inch c. Test Schedule: (1) cube at 30days, (2) cubes at 7-days, (3) cubes at 28-days.	C	
2. Perform one performance evaluation test prior placing grout under baseplates. Test shall be performed as outlined in ACI 351.1R-99	P	One test shall be performed at the beginning of the job prior to placement of grout under base plates.

CONCRETE MASONRY	INSPECTION FREQUENCY	REFERENCED STANDARD
1. Prior to construction, verification of compliance of submittals.	Required	TMS 602 - Art. 1.4 B
2. Prior to construction, verification of f'm	Required	TMS 602 - Art. 1.4 B
3. As masonry construction begins, verify that the following are in compliance: a. Proportions of site-prepared mortar b. Grade, type and size of reinforcement, connectors, and anchor bolts c. Sample panel construction	P P P	TMS 602 - Art. 2.1, 2.6 A, & 2.6 C TMS 602 - Art. 3.4 TMS 602 - Art. 1.6 D
4. Prior to grouting, verify that the following are in compliance: a. Grout space b. Placement of reinforcement, connectors, and anchor bolts c. Proportions of site-prepared grout	P P P	TMS 602 - Art. 3.2 D & 3.2 F TMS 602 - Art. 3.2 E & 3.4 TMS 402 Sec. 6.1, 6.3.1, 6.3.6, & 6.3.7 TMS 602 - Art. 2.6 B
5. Verify compliance of the following during construction: a. Materials and procedures with the approved submittals b. Placement of masonry units and mortar joint construction c. Size and location of structural members d. Type, size, and location of anchors, including other details of anchorage of masonry to structural members, frames, or other construction	P P P P	TMS 602 - Art. 1.5 TMS 602 - Art. 3.3 B TMS 602 - Art. 3.3 F TMS 402 - Sec. 1.2.1(e), 6.2.1, & 6.3.1
e. Preparation, construction, and protection of masonry during cold weather (temperature below 40 deg. F) or hot weather (temperature above 90 deg. F)	P	TMS 602 - Art. 1.8 C & 1.8 D
f. Placement of grout is in compliance	C	TMS 602 - Art. 3.5
6. Observe preparation of grout specimens, mortar specimens, and/or prisms	P	TMS 602 - Art. 1.4 B.2.a.3, 1.4 B.2.b.3, 1.4B.2.c.3, 1.4 B.3, & 1.4 B.4

STRUCTURAL STEEL	INSPECTION FREQUENCY	REFERENCED STANDARD
Where the following tasks have been performed by the fabricator's or erector's quality control program in accordance to Chapter N of AISC 360-10, it is permitted that these tasks be coordinated with the Special Inspector so that the inspection functions are performed by only one party. The Special Inspector shall review records of tasks performed by the erector's and fabricator's quality control program to verify completeness.	Obs.	Obs. - Observe these items on a random basis. Operations need not be delayed pending these inspections. Perf. - Perform these tasks for each welded joint, bolted joint, or member.
1. Inspection of steel framing to verify compliance with details shown on the approved construction documents including member locations, bracing, stiffening application of joint details at each connection, proper fasteners, etc.	Obs.	AISC 360-16 N5.8
2. Review the material test reports and certifications as listed below for compliance with the construction documents. a. Main structural steel material test reports b. Anchor rods and threaded rods test reports c. Headed stud anchors - manufacturer's certifications	Perf.	AISC 360-16 N5.2 & N3.2
3. Visual Inspection Tasks Prior to Welding a. Welder qualification records and continuity records b. Welding procedure specifications (WPS) available c. Manufacturer certifications for welding consumables available d. Material identification (type/grade) e. Welder identification system. The fabricator or erector, as applicable, shall maintain a system by which a welder who has welded a joint or member can be identified. Stamps, if used, shall be the low-stress type.	Obs. Perf. Perf. Obs. Obs.	AISC 360-16 Table N5.4-1 AWS D1.1/D1.1M 6.3 AWS D1.1/D1.1M 6.2 AWS D1.1/D1.1M 6.2 AWS D1.1/D1.1M 6.4 (welder qualification) (identification system not required by AWS D1.1/D1.1M)
f. Fit-up of groove welds (including joint geometry) i. Joint preparation ii. Dimensions (alignment, root opening, root face, bevel) iii. Cleanliness (condition of steel surfaces) iv. Tacking (tack weld quality and location) v. Backing type and fit (if applicable)	Obs.	AWS D1.1/D1.1M 6.5.2, 5.16 AWS D1.1/D1.1M 6.5.2 AWS D1.1/D1.1M 5.22 AWS D1.1/D1.1M 5.14 AWS D1.1/D1.1M 5.17
g. Configuration and finish of access holes	Obs.	AWS D1.1/D1.1M 5.9.5, 5.21.1.1
h. Fit-up of CJP groove welds of HSS T-, Y-, and K-joints without backing i. Joint preparation ii. Dimensions (alignment, root opening, root face, bevel) iii. Cleanliness (condition of steel surfaces) iv. Tacking (tack weld quality and location)	Obs.	AWS D1.1/D1.1M 6.5.2 AWS D1.1/D1.1M 5.22 AWS D1.1/D1.1M 5.15 AWS D1.1/D1.1M 5.18
i. Fit-up of fillet welds i. Dimensions (alignment, gaps at root) ii. Cleanliness (condition of steel surfaces) iii. Tacking (tack weld quality and location) j. Check welding equipment	Obs.	AWS D1.1/D1.1M 5.21.1 AWS D1.1/D1.1M 5.14 AWS D1.1/D1.1M 5.17 Only required for shop Fabrication.
4. Visual Inspection Tasks During Welding a. Control and handling of welding consumables i. Packaging ii. Exposure control b. No welding over cracked tack welds c. Environmental conditions i. Wind speed within limits ii. Precipitation and temperature d. WPS followed i. Setting on welding equipment ii. Travel speed iii. Selected welding materials iv. Shielding gas type/flow rate v. Preheat applied vi. Interpass temperature maintained (min./max.) vii. Proper position (F, V, H, OH)	Obs. Obs. Obs. Obs.	AISC 360-16 Table N5.4-2 AWS D1.1/D1.1M 5.3.1 AWS D1.1/D1.1M 5.3.2 (for SMAW), AWS D1.1/D1.1M 5.3.3 (for SAW) D1.1/D1.1M 5.17 (for SAW) AWS D1.1/D1.1M 5.11.1 AWS D1.1/D1.1M 5.11.2 AWS D1.1/D1.1M 6.3.3, 6.5.2, 5.5, 5.20 AWS D1.1/D1.1M 5.6, 5.7 AWS D1.1/D1.1M 6.5.2, 6.5.3, 5.23
e. Welding techniques i. Interpass and final cleaning ii. Each pass within profile limitations iii. Each pass meets quality requirements	Obs.	AWS D1.1/D1.1M 5.29.1
5. Visual Inspection Tasks After Welding a. Welds Cleaned b. Size, length and location of welds c. Welds meet visual acceptance criteria i. Crack prohibition ii. Weld/base-metal fusion iii. Crater cross section iv. Weld profile v. Weld size vi. Undercut vii. Porosity d. Arc strikes e. k-area: When welding doubler plates, continuity plates or stiffeners has been performed in the k-area, visually inspect the web k-area for cracks within 3 in. (75mm) of the weld.	Obs. Perf. Perf. Perf.	AISC 360-16 Table N5.4-3 AWS D1.1/D1.1M 5.29.1 AWS D1.1/D1.1M 6.5.1 AWS D1.1/D1.1M 6.5.3 AWS D1.1/D1.1M Table 6.1(1) AWS D1.1/D1.1M Table 6.1(2) AWS D1.1/D1.1M Table 6.1(3) AWS D1.1/D1.1M Table 6.1(4), 5.24 AWS D1.1/D1.1M Table 6.1(6) AWS D1.1/D1.1M Table 6.1(7) AWS D1.1/D1.1M Table 6.1(8) AWS D1.1/D1.1M 5.28 AISC 360-16 Table N5.4-3
f. Backing removed and weld tabs removed (if required)	Perf.	AWS D1.1/D1.1M 5.9, 5.30
g. Repair activities	Perf.	AWS D1.1/D1.1M 6.5.3, 5.25
h. Document acceptance or rejection of welded joint or member	Perf.	AWS D1.1/D1.1M 6.5.4, 6.5.5
i. No prohibited welds have been added without the approval of the EOR.	Obs.	



**SHAHER
ZAHNER
ZAHNER**

OFFICE OF ARCHITECTURE
510 UNIVERSITY DRIVE
STARKVILLE, MISSISSIPPI 39759
szzahner.com T(662) 323-1628

SHEET **S004**

**STRUCTURAL
QUALITY
ASSURANCE
PLAN**

DATE: 11.10.2021
SZZARCH#: 2141
DRAWN BY: C.F.
CHECKED BY: W.G./T.S.

REVISIONS:

STRUCTURAL QUALITY ASSURANCE PLAN

STRUCTURAL STEEL (CONT.)	INSPECTION FREQUENCY	REFERENCED STANDARD
6. Nondestructive Testing (NDT) of Welded Joints	Ultrasonic testing (UT), magnetic particle testing (MT), penetrant testing (PT) and radiographic testing (RT), where required, shall be performed by Special Inspector in accordance with AWS D1.1/D1.1M. NDT of welds completed in a fabricator's shop may be performed by that fabricator when fabricator is AISC Certified or approved by the Building Official where applicable. When the fabricator performs the NDT, the Special inspection agency shall review the fabricator's NDT reports. All NDT of welds completed in the field shall be performed by the Special Inspector. Acceptance criteria shall be in accordance with AWS D1.1/D1.1M for statically loaded structures, unless otherwise designated in the design drawings or project specifications.	
a. UT all complete penetration groove welds subject to transversely applied tension loading in a butt, T- and corner joints in material 5/16" thick or greater.	Perf.	AISC 360-16 N5.5b & AISC 341-10 J6.2a
b. Document all NDT performed, identifying tested weld by location in the structure, piece mark and location. Concurrent to submitting NDT reports to EOR or owner submit to contractor.	Perf.	AISC 360-16 N5.5g
c. Review NDT test reports performed by fabricator	Perf.	AISC 360-10 N6
7. Inspection Tasks Prior to Bolting	Perform for 10% of all Snug tight joints if task is applicable and all pretension and slip critical joints. AISC 360-16 Table N5.6-1	
a. Manufacturer's certifications available for fastener materials	Perf.	RCSC 2.1 & 9.1
b. Fasteners marked in accordance with ASTM requirements	Perf.	RCSC Figure C-2.1 & 9.1 (Also See ASTM Standards)
c. Correct fasteners selected for the joint detail (grade, type, bolt length if threads are to be excluded from shear plane)	Obs.	RCSC 2.3.2, 2.7.2 & 9.1
d. Correct bolting procedure selected for joint detail	Obs.	RCSC 4, & 8
e. Connecting elements, including the appropriate faying surface condition and hole preparation, if specified, meet applicable requirements	Obs.	RCSC 3, 9.4 & 9.3
f. Pre-installation verification testing by installation personnel observed and documented for fastener assemblies and methods used, not required for Snug tight bolts	Obs.	RCSC 7 & 9.2
g. Proper storage provided for bolts, nuts, washers and other fastener components	Obs.	RCSC 2.2.8 & 9.1
8. Inspection Tasks During Bolting	Perform for 10% of all Snug tight joints if task is applicable and all pretension and slip critical joints. Special Inspector need not be present during bolt pretensioning procedures. AISC 360-16 Table N5.6-2	
a. Fastener assemblies, of suitable condition, placed in all holes and washers (if required) are positioned as required	Obs.	RCSC 7.1(1), 8.1, 9.1
b. Joint brought to the snug-tight condition prior to the pretensioning operation	Obs.	RCSC 8.1 & 9.1
c. Fastener component not turned by the wrench prevented from rotating	Obs.	RCSC 8.2 & 9.2
d. Fasteners are pretensioned in accordance with the RCSC Specification, progressing systematically from the most rigid point toward the free edges	Obs.	RCSC 8.2 & 9.2
9. Inspection Tasks After Bolting	AISC 360-16 Table N5.6-3	
a. Document acceptance or rejection of bolted connections	Perf.	
10. Inspection of Steel Elements of Composite Construction Prior to Concrete Placement	AISC 360-16 Table N5.4-2	
a. Placement and installation of steel headed stud anchors	Obs.	Visually inspect and Hammer bend test (1 per 500).
b. Document acceptance or rejection of steel elements	Obs.	
11. Inspection of Galvanized Structural Steel Main Members	AISC 360-16 N5.7	
a. Exposed cut surfaces of galvanized structural steel main members and exposed corners of rectangular HSS shall be visually inspected for cracks subsequent to galvanizing.	Perf.	
b. Cracks shall be repaired or the member shall be rejected.	Perf.	

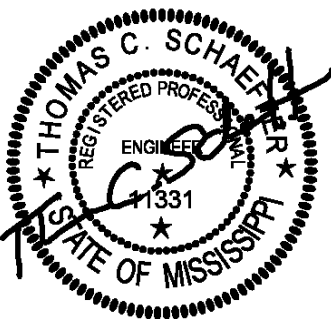
STEEL DECK	INSPECTION FREQUENCY	REFERENCED STANDARD
	Obs. - Observe these items on a random basis. Operations need not be delayed pending these inspections. Perf. - Perform these tasks for each item or element.	
1. Material verification of steel deck and deck accessories	Perf.	
a. Identification markings to conform to ASTM standards specified in the approved construction documents		SDI QA/QC Table 1.1A
b. Verify profile, material properties, and base metal thickness		SDI QA/QC Table 1.1A
c. Manufacturer's certified test reports		SDI QA/QC Table 1.2B
d. Document acceptance or rejection of deck and deck accessories		SDI QA/QC Table 1.1B
2. Verify general alignment and deck lap	Perf.	SDI QA/QC Table 1.2A
a. Document acceptance or rejection of installation of deck and deck accessories		SDI QA/QC Table 1.2C
3. Visual Inspection Tasks Prior to Welding	Obs.	
a. Welding procedure specifications (WPSs) available		SDI QA/QC Table 1.3A
b. Manufacturer certifications for welding consumables available.		SDI QA/QC Table 1.3B
c. Material Identification (type/grade)		SDI QA/QC Table 1.3C
d. Check welding equipment		SDI QA/QC Table 1.3D
4. Visual Inspection Tasks During Welding	Obs.	
a. Use of qualified welders		SDI QA/QC Table 1.4A
b. Control and handling of welding consumables		SDI QA/QC Table 1.4B
c. Environmental conditions		SDI QA/QC Table 1.4C
i. Wind speed within limits		
ii. Precipitation and temperature		
d. WPS followed		SDI QA/QC Table 1.4D
5. Visual Inspection Tasks After Welding	Perf.	
a. Size and location of welds, including support, sidelap, and perimeter welds		SDI QA/QC Table 1.5A
b. Welds meet visual acceptance criteria		SDI QA/QC Table 1.5B
c. Repair activities		SDI QA/QC Table 1.5C
d. Document acceptance or rejection of welds		SDI QA/QC Table 1.5D
6. Inspection Tasks Prior to Mechanical Fastening	Obs.	
a. Manufacturer installation instructions available for mechanical fasteners		SDI QA/QC Table 1.6A
b. Proper tools available for fastener installation		SDI QA/QC Table 1.6B
c. Proper storage provided for mechanical fasteners		SDI QA/QC Table 1.6C
7. Inspection Tasks During Mechanical Fastening	Obs.	
a. Fasteners are positioned as required		SDI QA/QC Table 1.7A
b. Fasteners are installed in accordance with manufacturer's instructions		SDI QA/QC Table 1.7B
8. Inspection Tasks After Mechanical Fastening	Perf.	
a. Spacing, type, and installation of support fasteners		SDI QA/QC Table 1.8A
b. Spacing, type, and installation of sidelap fasteners		SDI QA/QC Table 1.8B
c. Spacing, type, and installation of perimeter fasteners		SDI QA/QC Table 1.8C
d. Repair activities		SDI QA/QC Table 1.8D
e. Document acceptance or rejection of mechanical fasteners		SDI QA/QC Table 1.8E
9. Verify installation of deck closures.	Perf.	

CONTRACTOR RESPONSIBILITIES

- Contractor shall submit to the Building Official, Owner, and the Architect a written statement of responsibility that contains the following:
 - Acknowledgment of awareness of the special requirements contained in the Statement of Special Inspections for the main wind force-resisting system or a wind-resisting component listed in the Statement of Special Inspections.
- Contractor shall pay for any additional structural testing/inspection required for work or materials not complying with the Construction Documents due to negligence or nonconformance and shall pay for any additional structural testing/inspection required for his convenience.
- Contractor is responsible to ensure that the Special Inspector is on site as required to perform all tasks required by Statement of Special Inspection. Any work that requires special inspection and is performed without the Special Inspector being present is subject to being demolished and reconstructed.
- Contractor has the following responsibilities to the Special Inspector:
 - Provide copy of Construction Documents to Special Inspector and latest addenda (include change orders and field orders prior to inspection of work contained therein).
 - Notify Special Inspector sufficiently in advance of operations to allow assignment of personnel and scheduling of tests.
 - Cooperate with Special Inspector and provide access to work.
 - Provide samples of materials to be tested in required quantities.
 - Provide storage space for Special Inspector's exclusive use, such as for storing and curing concrete testing samples.
 - Provide labor to assist Special Inspector in performing tests/inspections.
- Contractor shall perform the following:
 - SOILS
 - Identify soils to be used as structural fill.
 - HELICAL PILES
 - Submit manufacturer's certification that the following comply with the Construction Documents:
 - Structural Steel (certified mill test reports).
 - Weld filler materials.
 - DRILLED PIERS
 - Submit reinforcing and concrete material verifications in accordance with Cast-in-Place Concrete requirements below.
 - CAST-IN-PLACE CONCRETE
 - Submit manufacturer's certification that reinforcing materials comply with Construction Documents.
 - Establish concrete mix design proportions in accordance with the specifications and ACI 318, Chapter 5.
 - Submit manufacturer's certification that concrete materials meet the requirements of the Construction Documents.
 - Submit manufacturer's data for tension and compression splicers.
 - NON-SHRINK GROUTING
 - Submit product data sheets for non-shrink grout that shows compliance with the Construction Documents and with ASTM C1107 for fluid or flowable grouts, prior to placement of grout.
 - CONCRETE MASONRY
 - Submit a certification from each manufacturer or supplier stating that the following materials comply with the Construction Documents:
 - Concrete masonry units.
 - Mortar materials: Portland cement, hydrated lime, and aggregates.
 - Grout materials: Portland cement and aggregates.
 - Joint reinforcement steel.
 - Reinforcing steel.
 - STRUCTURAL STEEL
 - If fabricator or erector is not AISC certified, the fabricator and/or erector shall establish and maintain quality control procedures and perform inspections to ensure that their work is performed in accordance with the Section N of the Specification for Structural Steel Building, AISC 360-10 and the construction documents. Payment of these Quality control tests and inspections, except for all NDT of welds completed in the field by the Special Inspector, shall be by the fabricator and Erector.
 - Make available the documents listed in AISC 360-10 N3.2 in electronic or printed form for review by the EOR of the EOR's Designee prior to fabrication or erection unless otherwise required by the contract documents to be submitted.
 - If fabricator and erector are certified by the American Institute of Steel Construction (AISC) Quality Certification Program for Structural Steel Buildings submit certification.
 - At completion of fabrication, the approved fabricator shall submit a certificate of compliance to the Building Official stating that the materials supplied and work performed by the fabricator are in accordance with the construction documents.
 - At completion of erection, the approved erector shall submit a certificate of compliance to the Building Official stating that the materials supplied and work performed by the erector are in accordance with the construction documents.
 - Provide non-destructive test (NDT) reports performed in shop by fabricator. Fabricator is responsible for cost of NDT performed in shop. Reports shall identify the tested weld by piece mark and location in the piece.
 - POST-INSTALLED ANCHORS
 - Contractor shall contact manufacturer's representative for product installation training. Submit a letter indicating that training has taken place.
 - STEEL DECK
 - Submit manufacturer's certificate of compliance that the supplied steel deck complies with the Construction Documents.

GS# 362-066 West Lot Improvements (Paving and Renovations Ph 1)

DFA (Capitol Facilities) - Jackson, Mississippi



SHAHER
ZAHNER
ZAHNER

OFFICE OF ARCHITECTURE
510 UNIVERSITY DRIVE
STARKVILLE, MISSISSIPPI 39759
szarch.com T(662) 323-1628

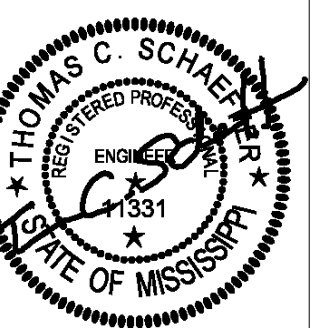
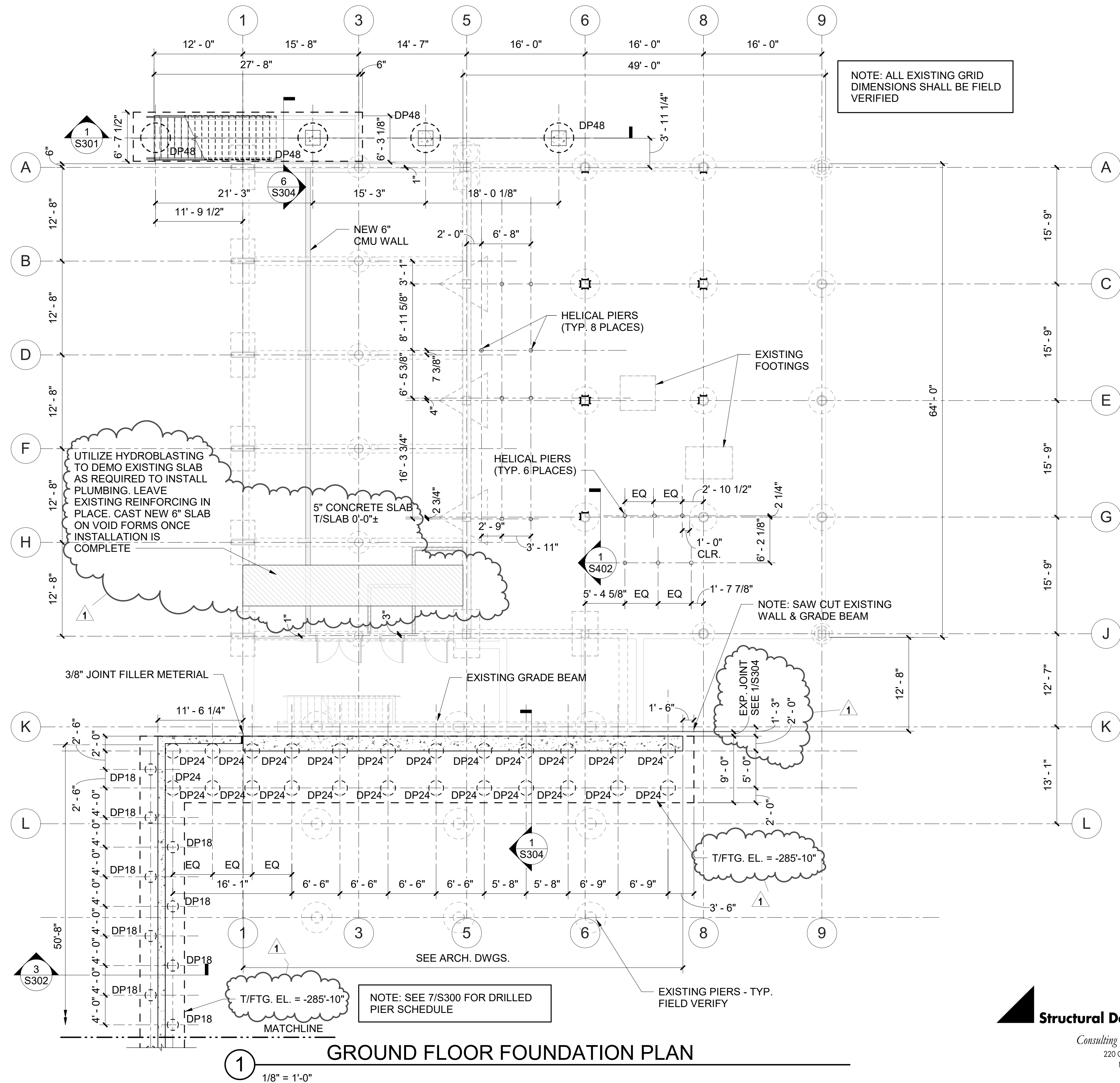
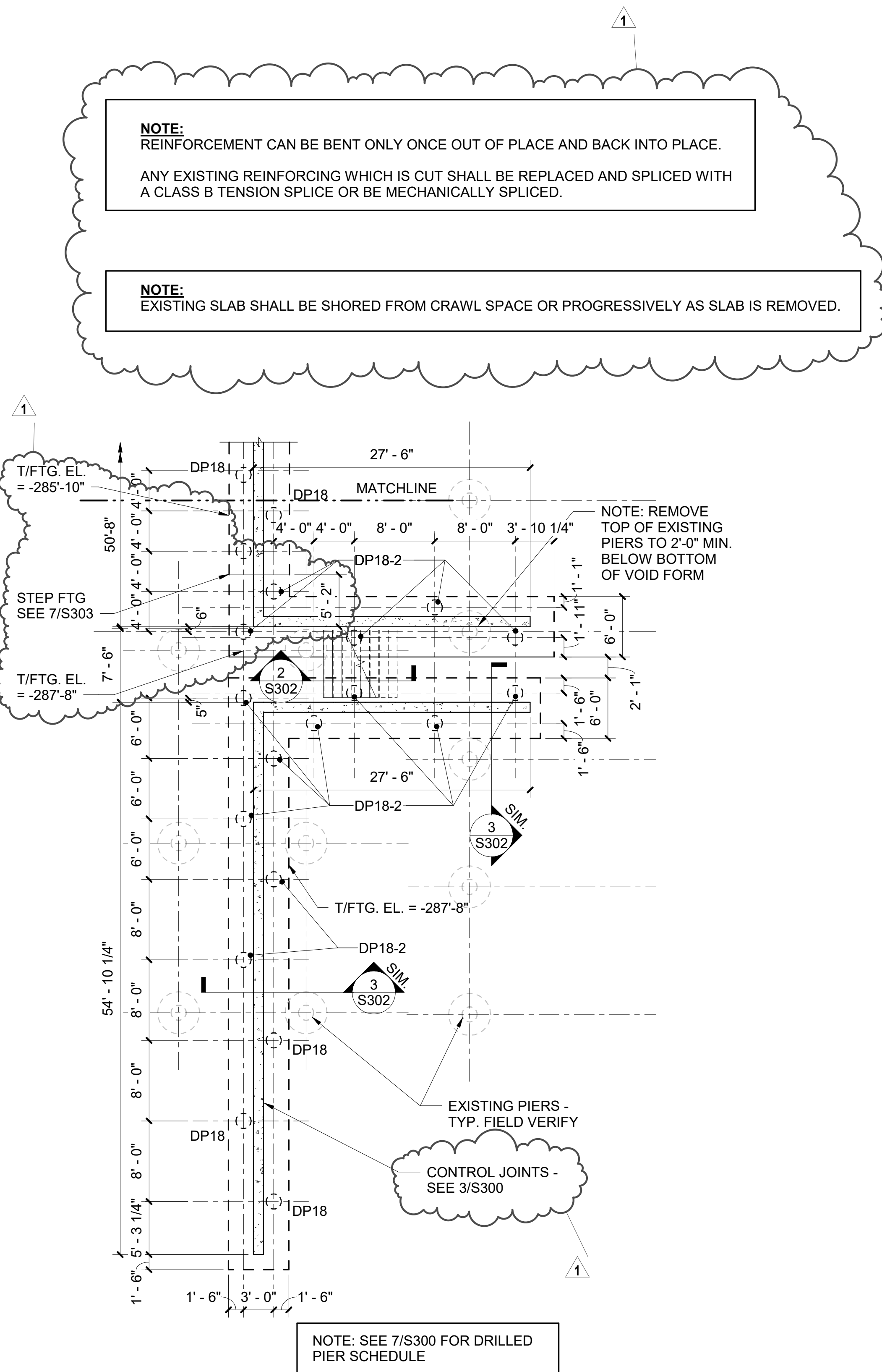
SHEET **S005**

STRUCTURAL
QUALITY
ASSURANCE
PLAN (cont.)

DATE: 11.10.2021
SZARCH#: 2141
DRAWN BY: C.F.
CHECKED BY: W.G./T.S.

REVISIONS:

Structural Design Group
Consulting Structural Engineers
220 Great Circle Road, Suite 104
Nashville, Tennessee 37228
P. 615.255.5537
www.sdg-structure.com
SDG Project No. 2021-292.00



**SHAHER
ZAHNER
ZAHNER**

OFFICE OF ARCHITECTURE
510 UNIVERSITY DRIVE
STARKVILLE, MISSISSIPPI 39759
szzarch.com T: (662) 323-1628

SHEET **S110**

**GROUND
FLOOR
FOUNDATION
PLAN**

DATE: 11.10.2021
SZZARCH#: 2141
DRAWN BY: C.F.
CHECKED BY: W.G./T.S.

REVISIONS:
1/20/2022 REV. 1

Structural Design Group
Consulting Structural Engineers
220 Great Circle Road, Suite 104
Nashville, Tennessee 37228
P. 615.255.5537
www.sdg-structure.com
SDG Project No. 2021-292.00

DFA (Capitol Facilities) - Jackson, Mississippi



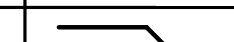
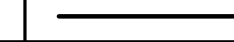
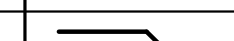
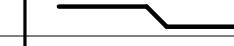
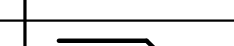
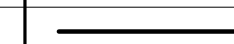
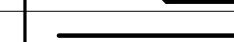
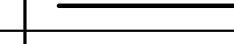
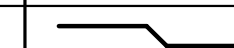
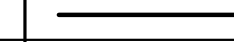
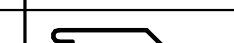
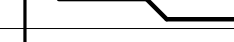
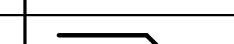
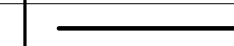
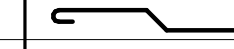
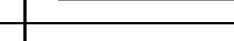
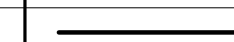
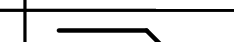
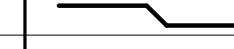
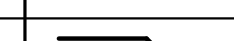
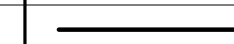
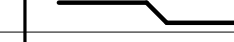
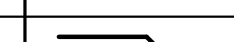
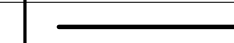
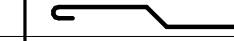
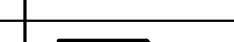
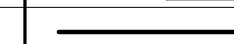
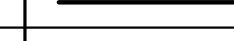
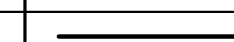
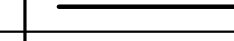
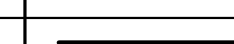
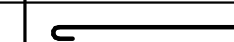
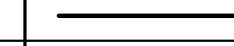
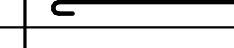
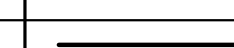
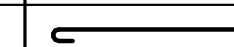
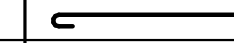
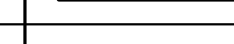
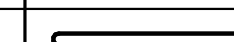
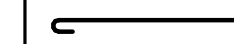
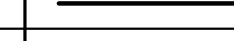
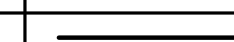
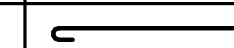
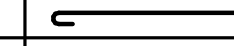
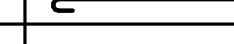
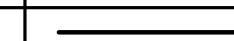
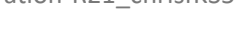
SHEET **S111**

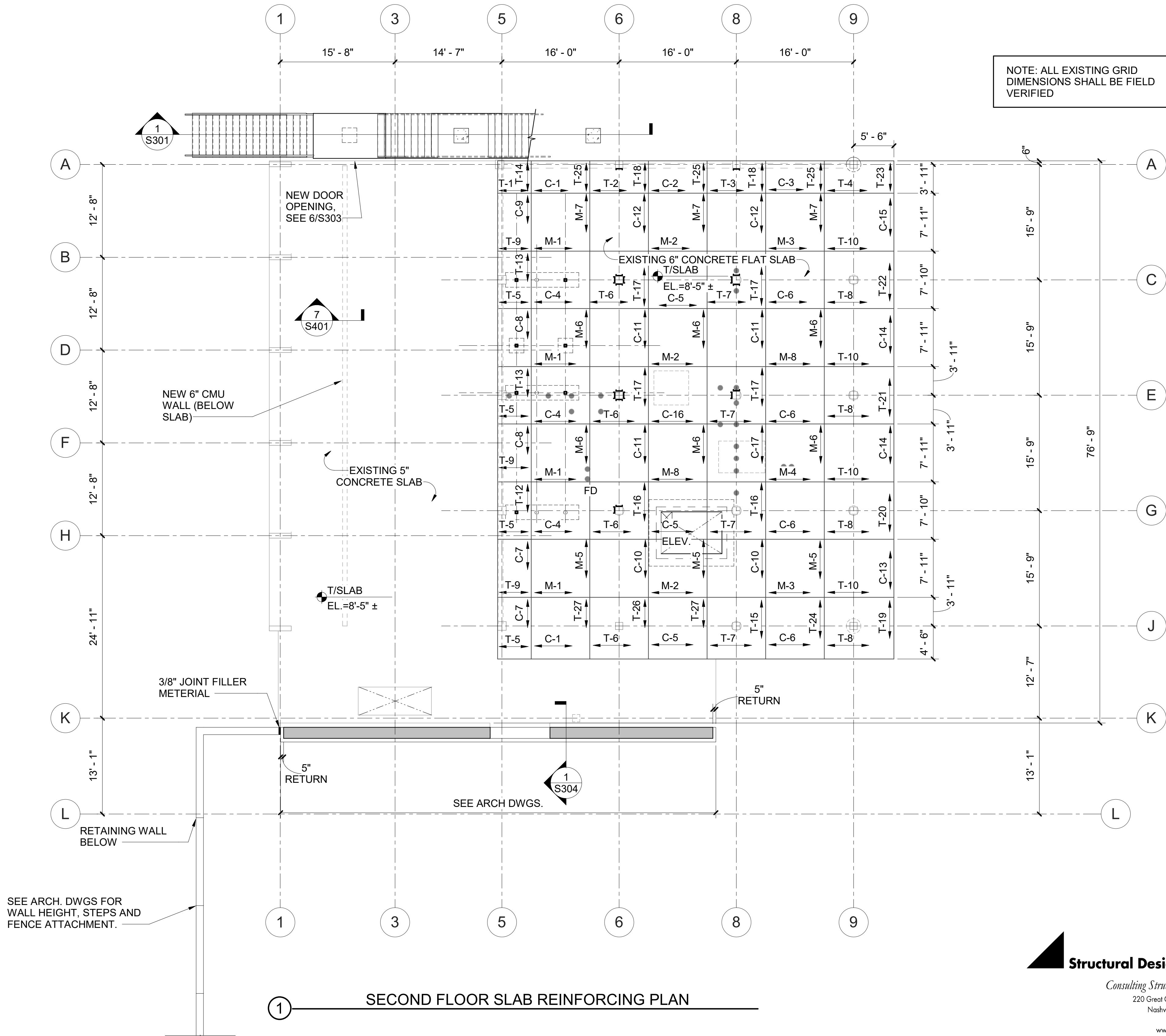
DATE: 11.10.2021
SZZARCH# 2141
DRAWN BY: C.F.
CHECKED BY: W.G./T.S.



www.sdg-structure.com
SDG Project No. 2021-292.00

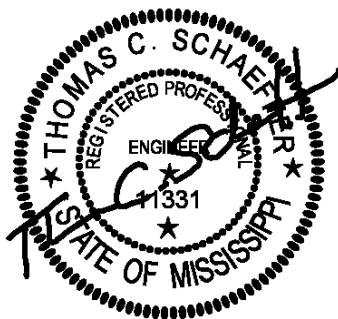
① $\frac{1}{8}" = 1'-0"$

2ND FLOOR PLATE SCHEDULE			
MARK	COLUMN STRIP		
	REINF.	TYPE	REMARKS
C1	4 - #5		EXTEND 2'-6" PAST COLUMN CL.
	3 - #5		
C2	3 - #5		
	3 - #5		
C3	4 - #5		EXTEND END OF SLAB
	3 - #5		
C4	8 - #5		SEE C1
	6 - #5		
C5	6 - #5		
	4 - #5		
C6	8 - #5		SEE C3
	6 - #5		
C7	4 - #5		EXTEND 4'-0" PAST COLUMN CL.
	3 - #5		
C8	3 - #5		
	3 - #5		
C9	4 - #5		SEE C3
	3 - #5		
C10	8 - #5		SEE C3
	5 - #5		
C11	6 - #5		
	4 - #5		
C12	9 - #5		SEE C3
	7 - #5		
C13	8 - #5		SEE C3
	5 - #5		
C14	6 - #5		
	4 - #5		
C15	9 - #5		SEE C3
	7 - #5		
C16	11 - #5		TOP
	11 - #5		BOTTOM
C17	10 - #5		TOP
	10 - #5		BOTTOM
MARK	MIDDLE STRIP		
	REINF.	TYPE	REMARKS
M1	8 - #4		SEE C1
	8 - #4		
M2	5 - #4		
	5 - #4		
M3	7 - #4		SEE C3
	7 - #4		
M4	9 - #4		SEE C3
	9 - #4		
M5	7 - #4		SEE C3
	7 - #4		
M6	6 - #4		
	6 - #4		
M7	8 - #4		SEE C3
	8 - #4		
M8	9 - #4		
	9 - #4		
MARK	TOP BARS		
	REINF.	TYPE	REMARKS
T1	3 - #5		SEE C1
T2	4 - #5		
T3	3 - #5		
T4	4 - #5		
T5	6 - #5		SEE C1
T6	7 - #5		
T7	6 - #5		
T8	9 - #5		
T9	5 - #5		SEE C1
T10	7 - #5		
T11	4 - #5		SEE C7
T12	4 - #5		
T13	4 - #5		
T14	4 - #5		
T15	8 - #5		SEE C3
T16	7 - #5		
T17	6 - #5		
T18	7 - #5		
T19	7 - #5		SEE C3
T20	6 - #5		
T21	5 - #5		
T22	5 - #5		
T23	6 - #5		SEE C3
T24	6 - #4		
T25	5 - #4		SEE C3
T26	8 - #5		
T27	5 - #4		SEE C7



GS# 362-066 West Lot Improvements (Paving and Renovations Ph 1)

DFA (Capitol Facilities) - Jackson, Mississippi



SHAHER
ZAHNER
ZAHNER

OFFICE OF ARCHITECTURE
510 UNIVERSITY DRIVE
STARKVILLE, MISSISSIPPI 39759
228-321-1234 (FAX) 228-323-1628

SHEET S111A

SECOND FLOOR
SLAB
REINFORCING
PLAN

DATE: 11.10.2021
SZARCH# 2141
DRAWN BY: C.F.
CHECKED BY: W.G./T.S.

REVISIONS:
1/20/2022 REV. 1

Structural Design Group
Consulting Structural Engineers
220 Great Circle Road, Suite 104
Nashville, Tennessee 37228
P. 615.255.5537
www.sdg-structure.com
SDG Project No. 2021-292.00

DFA (Capitol Facilities) - Jackson, Mississippi



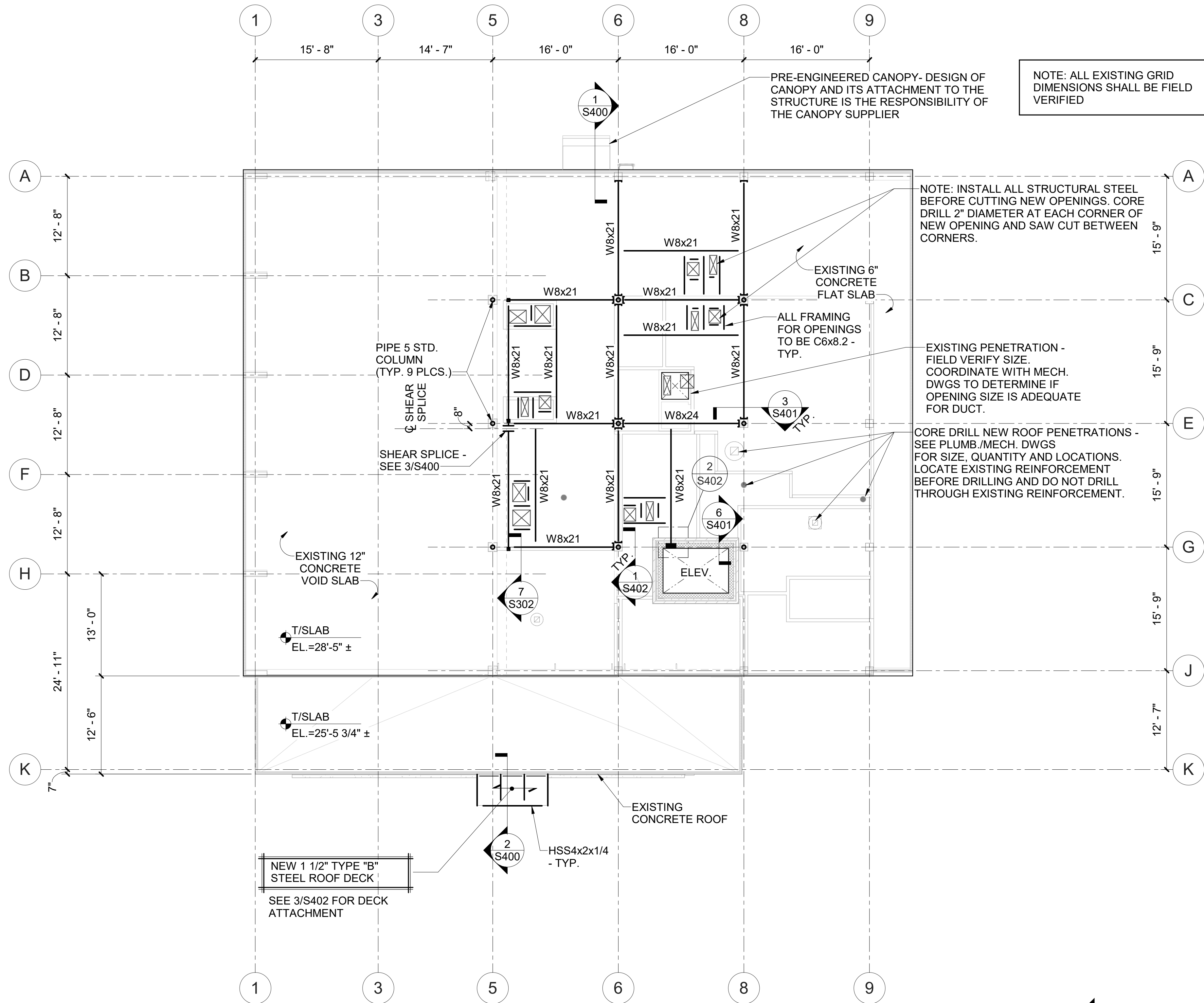
SHEET S112

DATE: 11.10.2021
SZZARCH# 2141
DRAWN BY: C.F.
CHECKED BY: W.G./T.S.

REVISIONS:

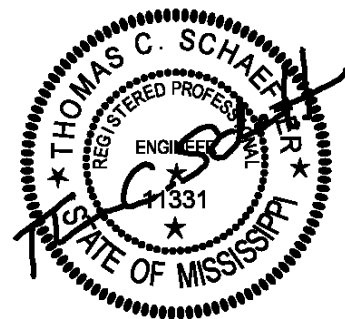


Consulting Structural Engineers
220 Great Circle Road, Suite 106
Nashville, Tennessee 37228
p. 615.255.5537
www.sdg-structure.com
SDG Project No. 2021-292.00



1 ROOF FRAMING PLAN
1/8" = 1'-0"

Structural Design Group
Consulting Structural Engineers
220 Great Circle Road, Suite 104
Nashville, Tennessee 37228
P. 615.255.5537
www.sdg-structure.com
SDG Project No. 2021-292.00



**SHAHER
ZAHNER
ZAHNER**

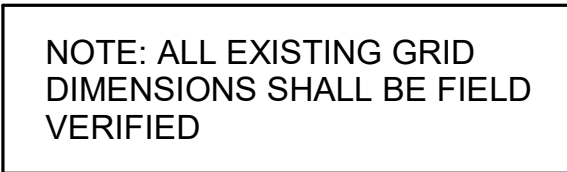
OFFICE OF ARCHITECTURE
510 UNIVERSITY DRIVE
STARKVILLE, MISSISSIPPI 39759
szarch.com T(662) 323-1628

SHEET **S113**

**EXISTING ROOF
FRAMING
PLAN**

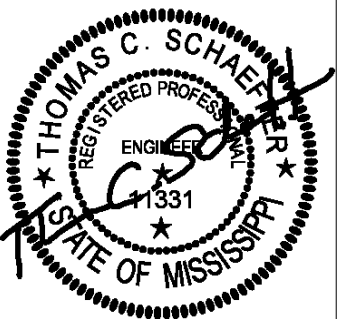
DATE: 11.10.2021
SZARCH#: 2141
DRAWN BY: C.F.
CHECKED BY: W.G./T.S.

REVISIONS:



NOTE: ALL EXTERIOR
STEEL, CONNECTIONS,
AND BOLTS SHALL BE
GALVANIZED - SEE
STRUCTURAL NOTES.

DFA (Capitol Facilities) - Jackson, Mississippi



SHAFFER
ZAHNER
ZAHNER

OFFICE OF ARCHITECTURE
510 UNIVERSITY DRIVE
STARKVILLE, MISSISSIPPI 39759
szzarch.com T(662) 323-1628

SHEET **S114**

**ROOF TOP RTU
PLATFORM
FRAMING
PLAN**

DATE: 11.10.2021
SZZARCH# 2141
DRAWN BY: C.F.
CHECKED BY: W.G./T.S.

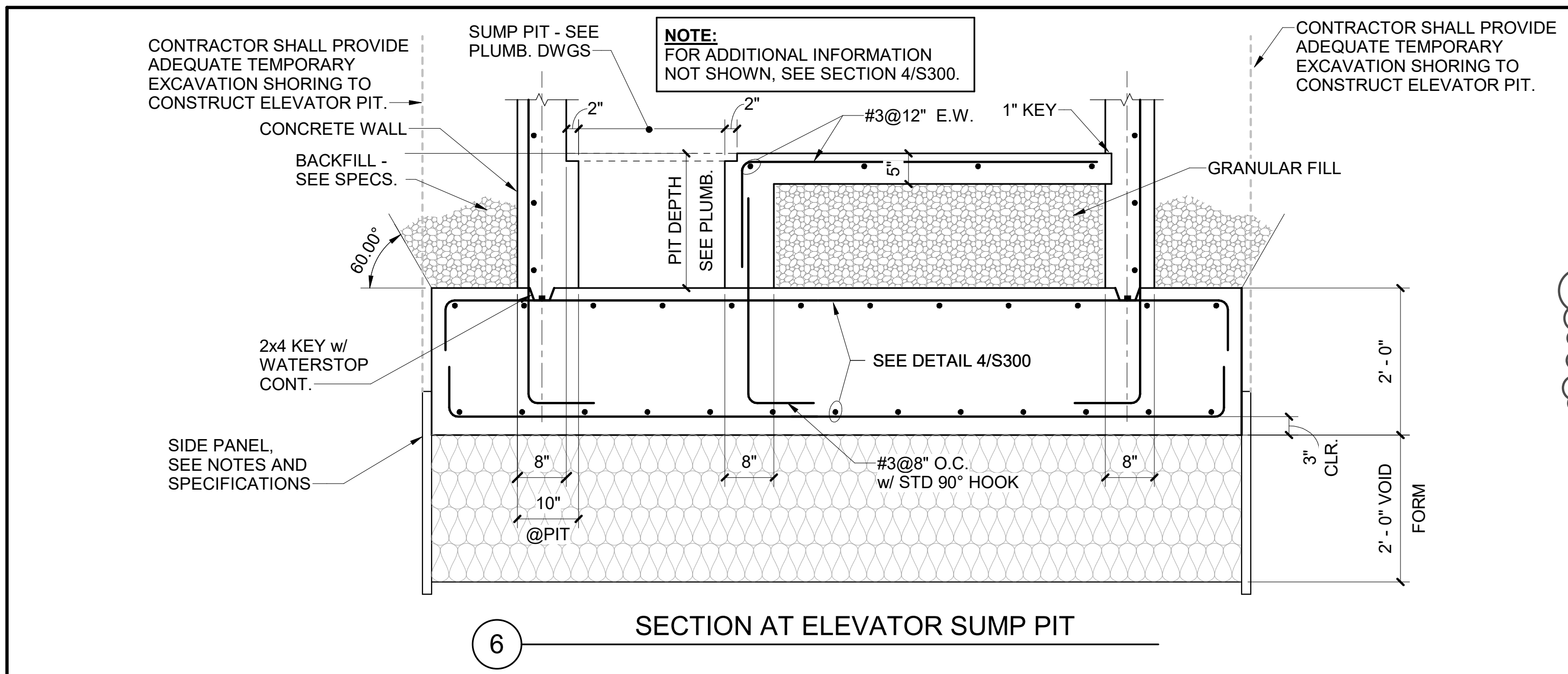
REVISIONS:



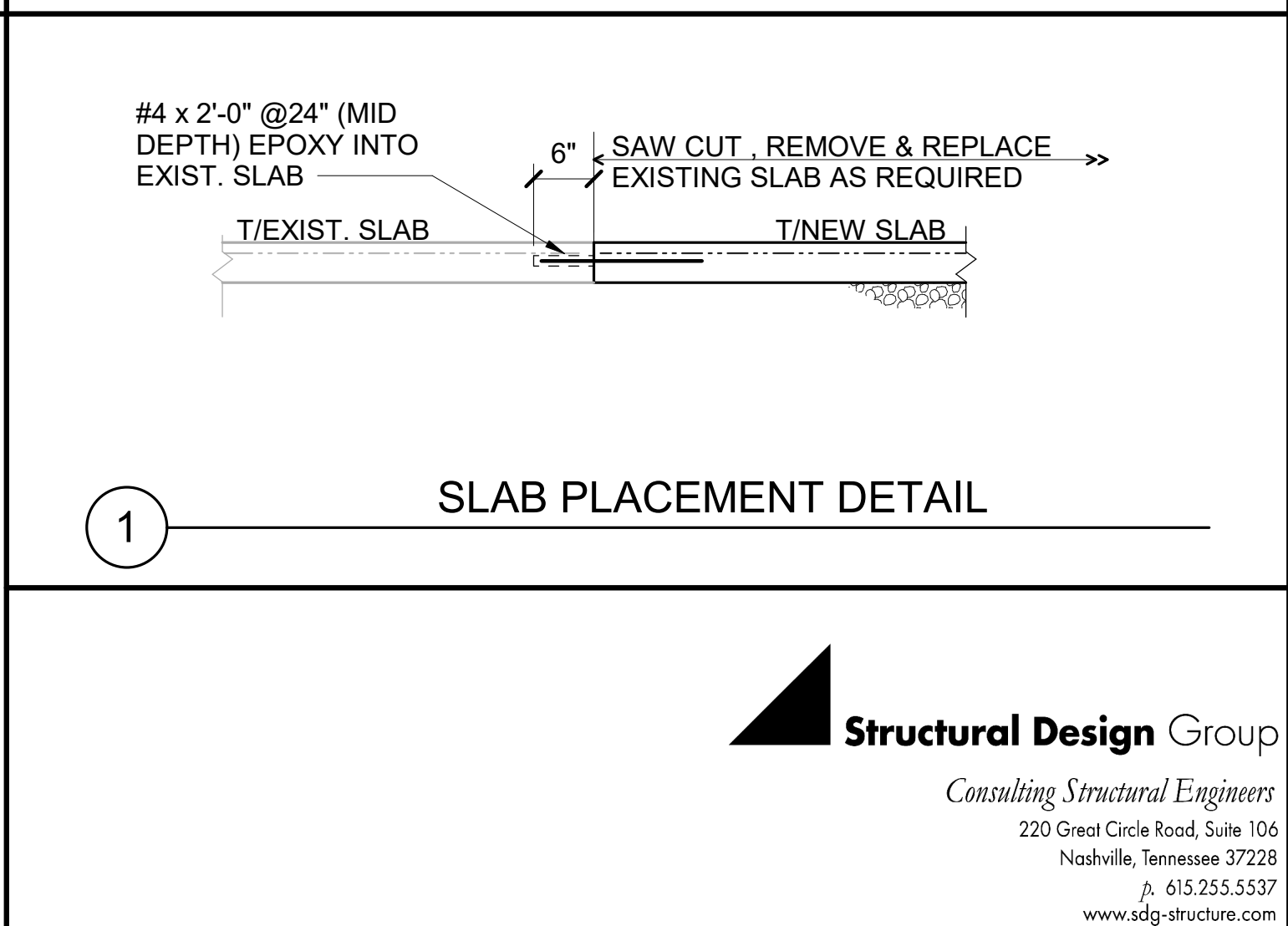
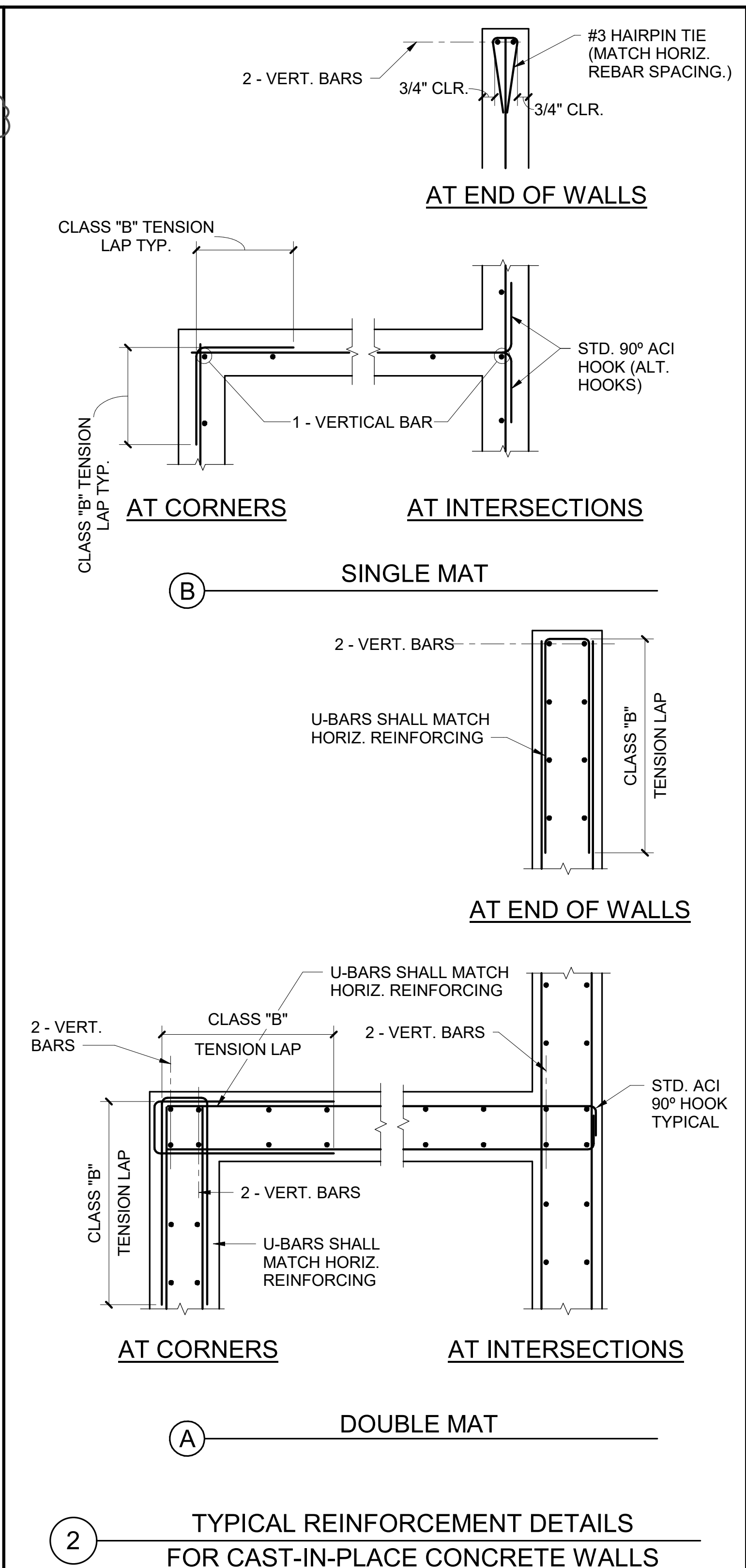
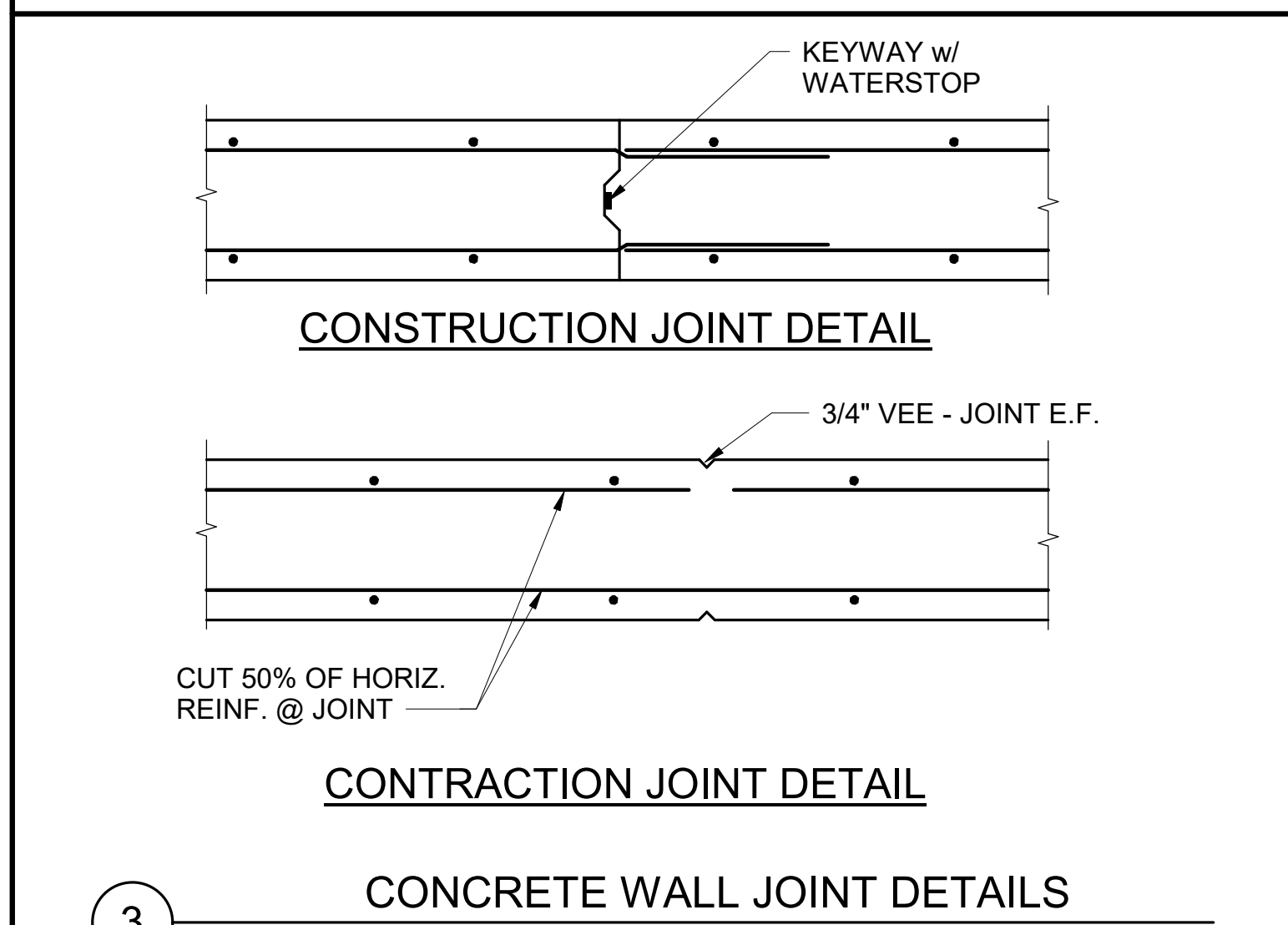
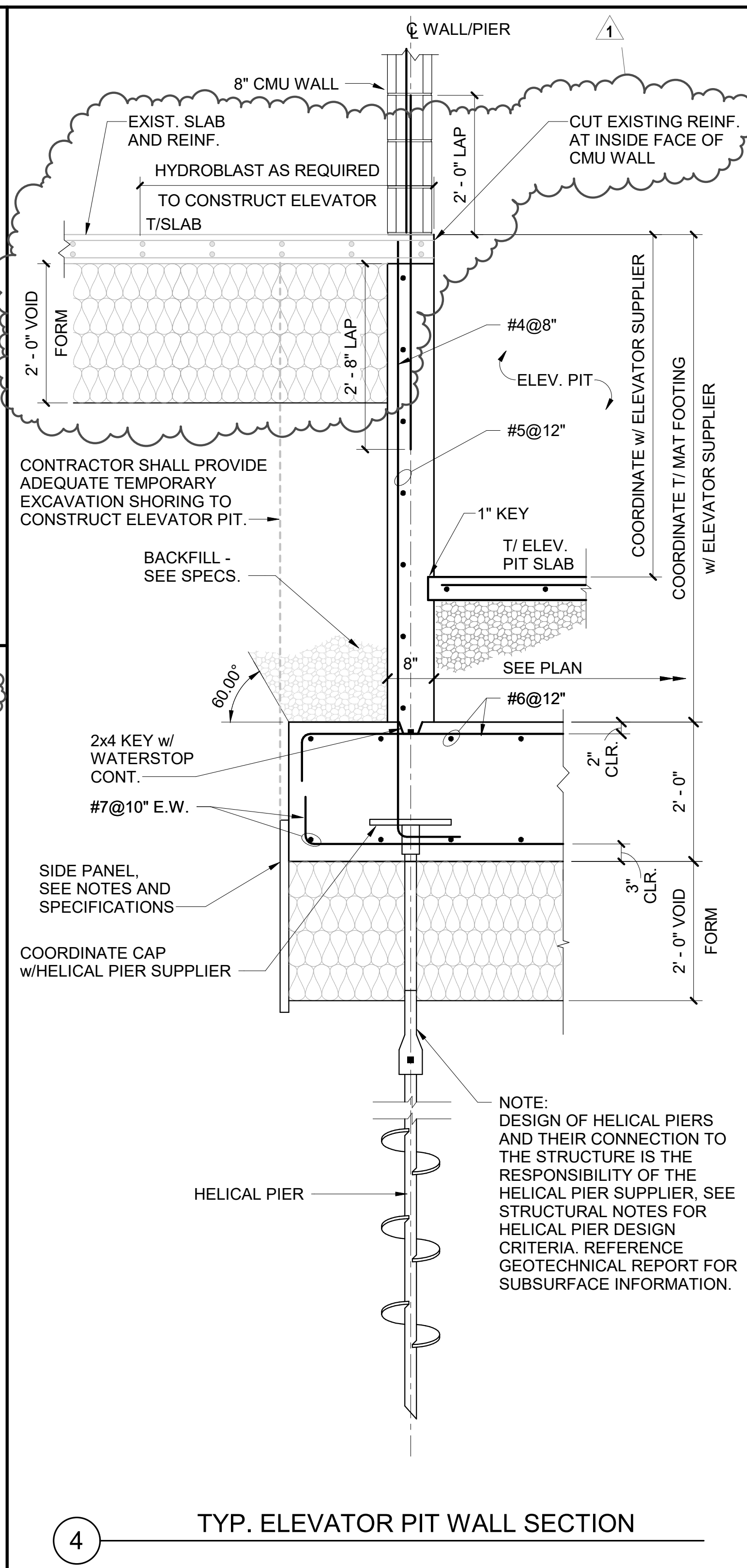
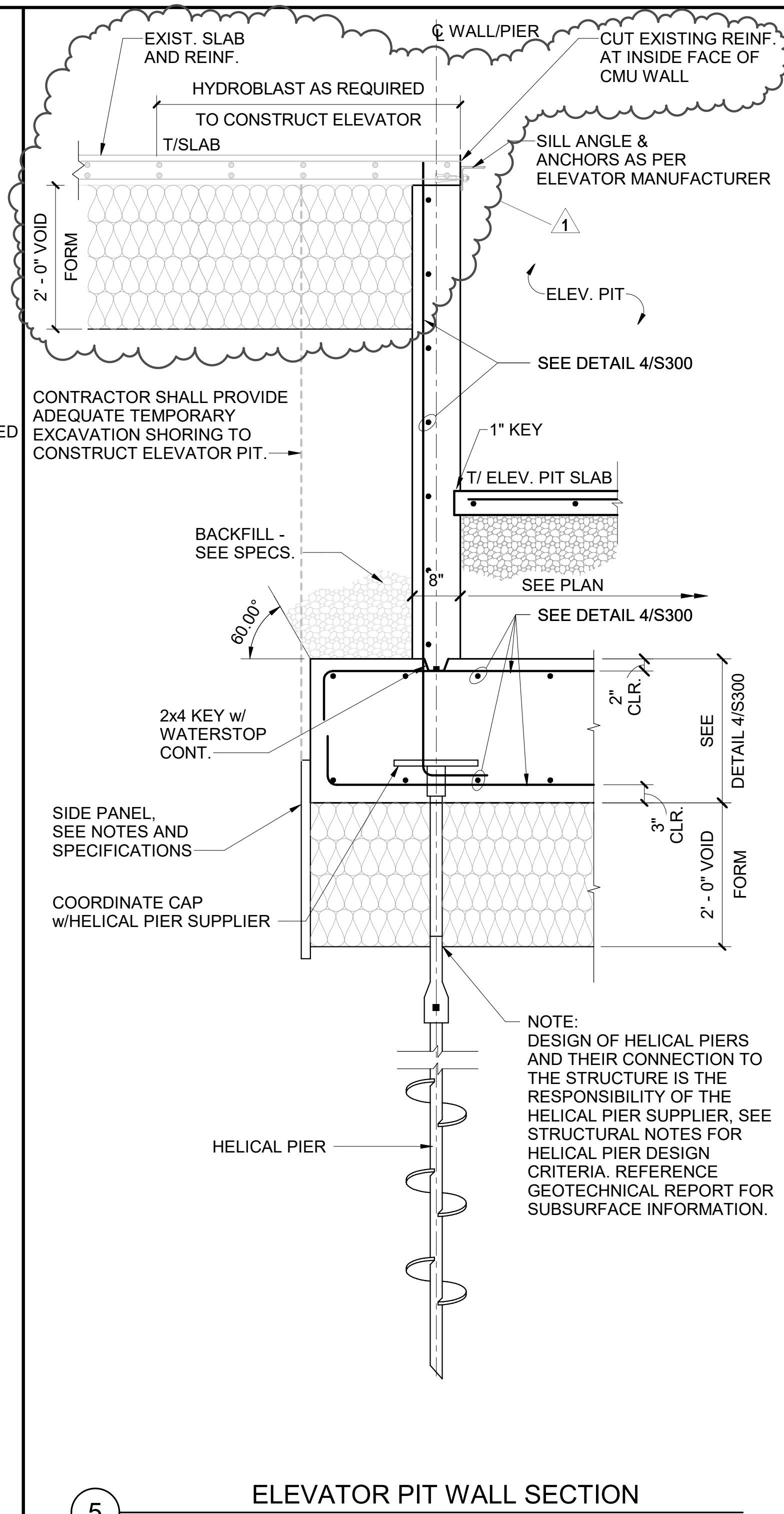
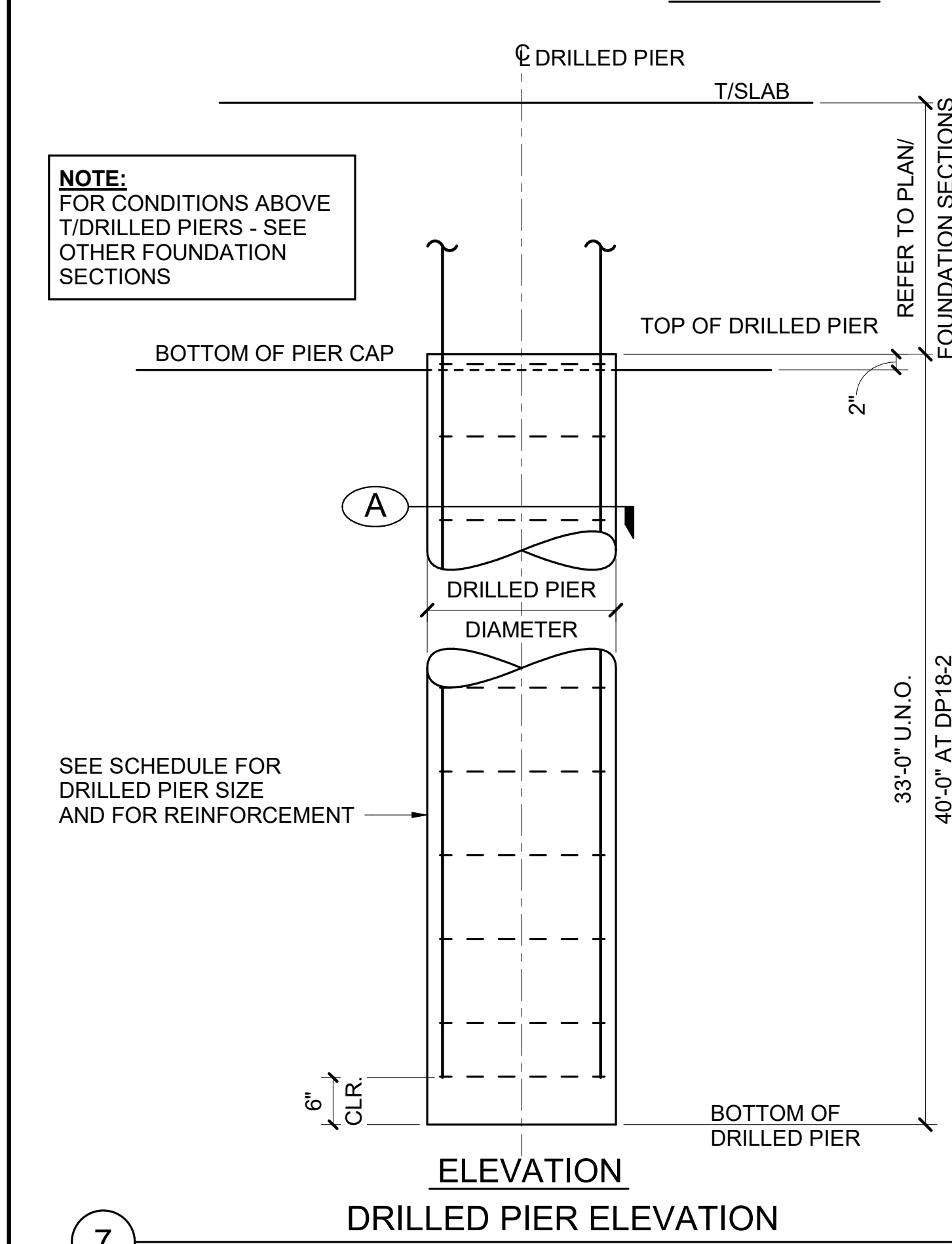
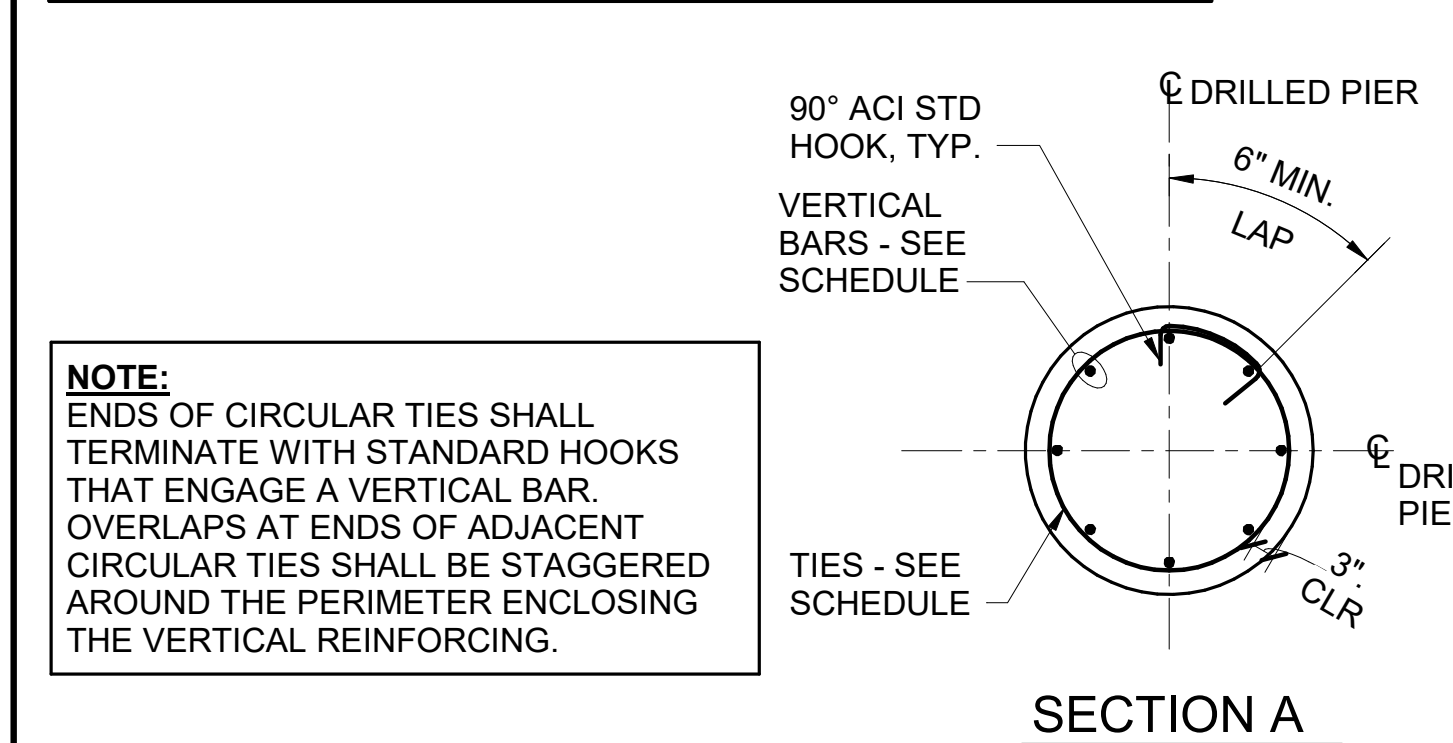
Structural Design Group

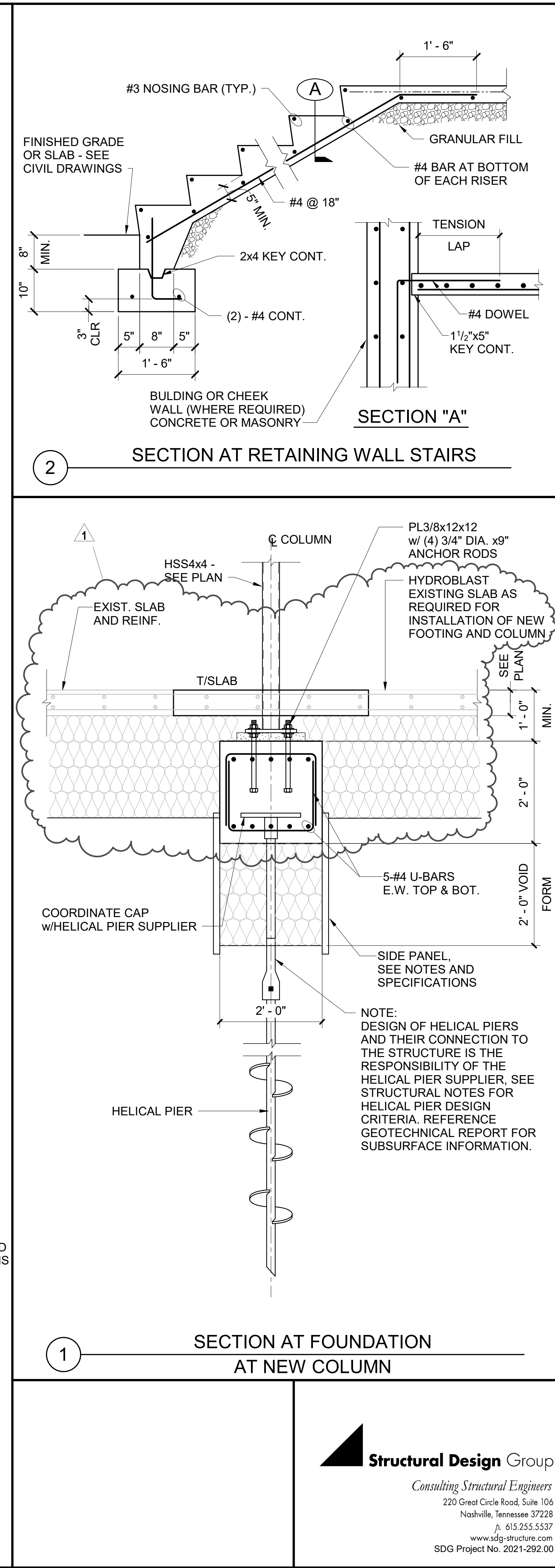
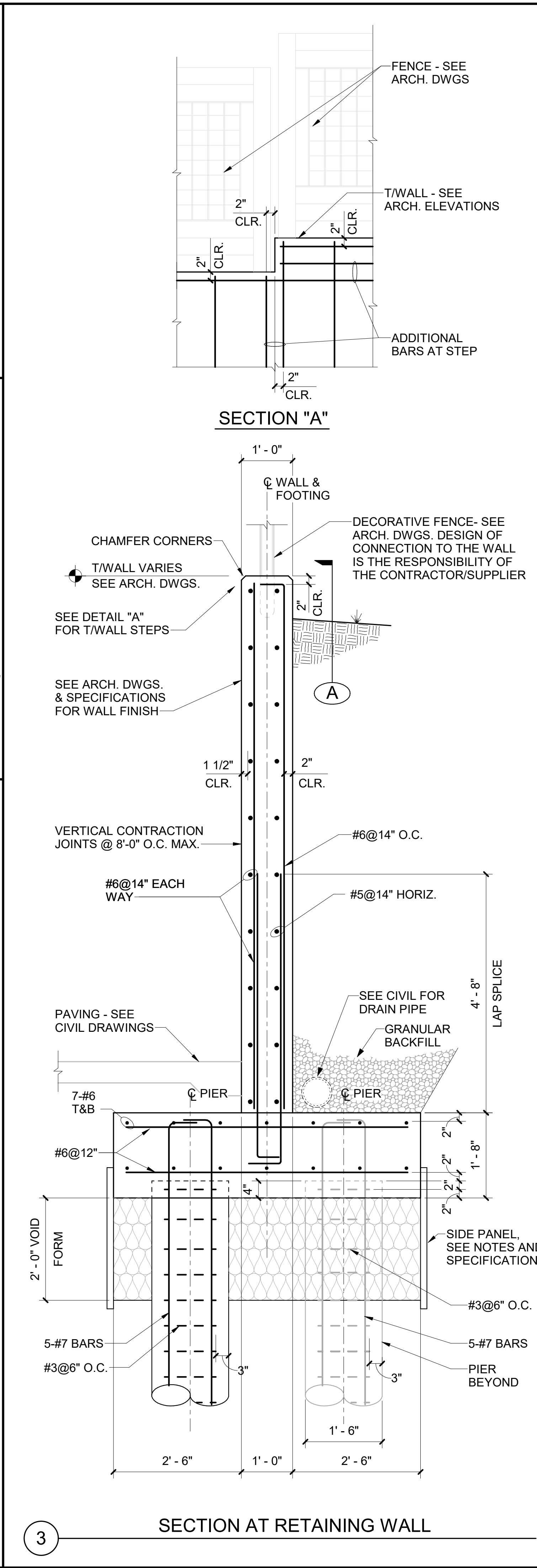
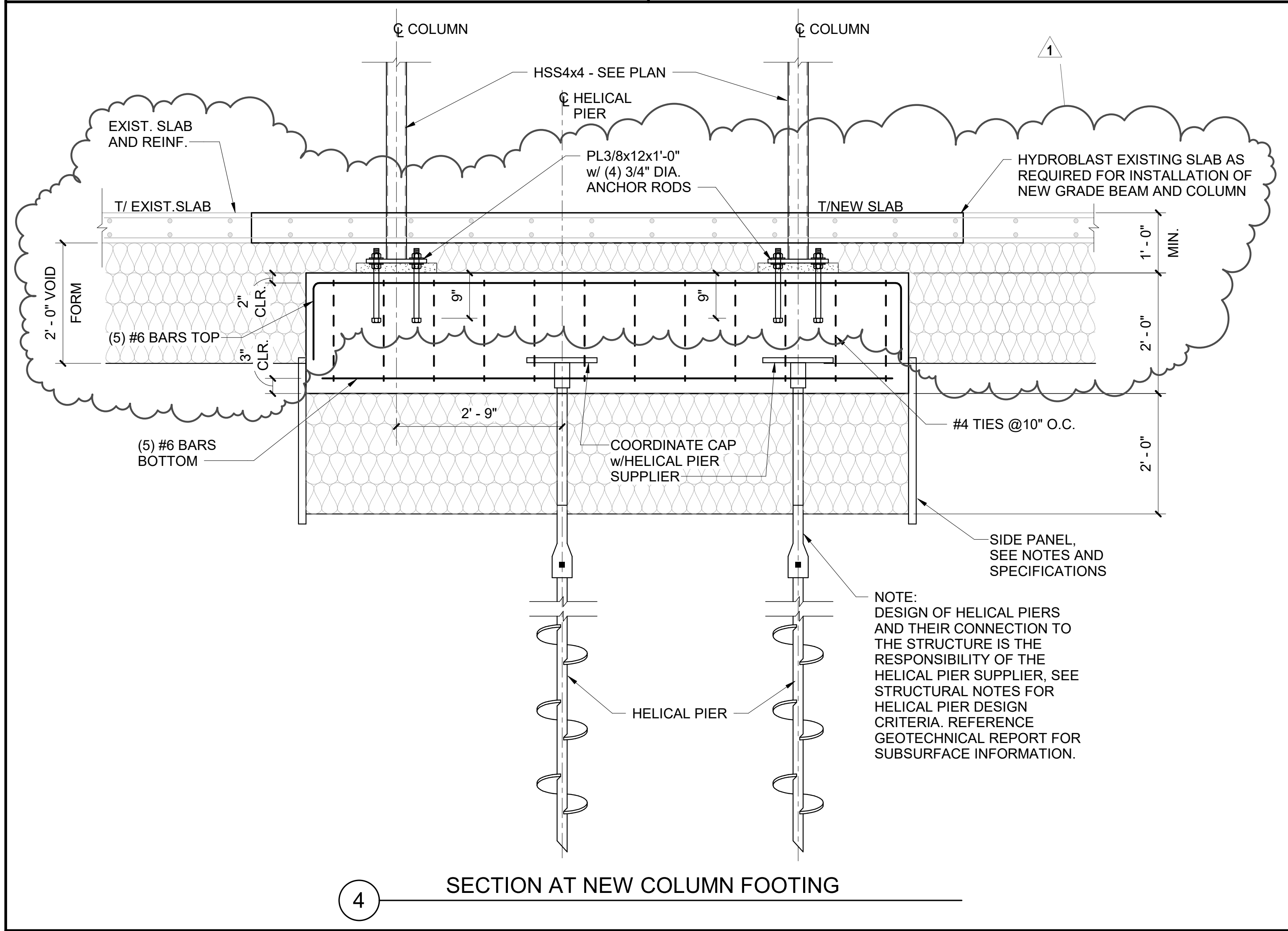
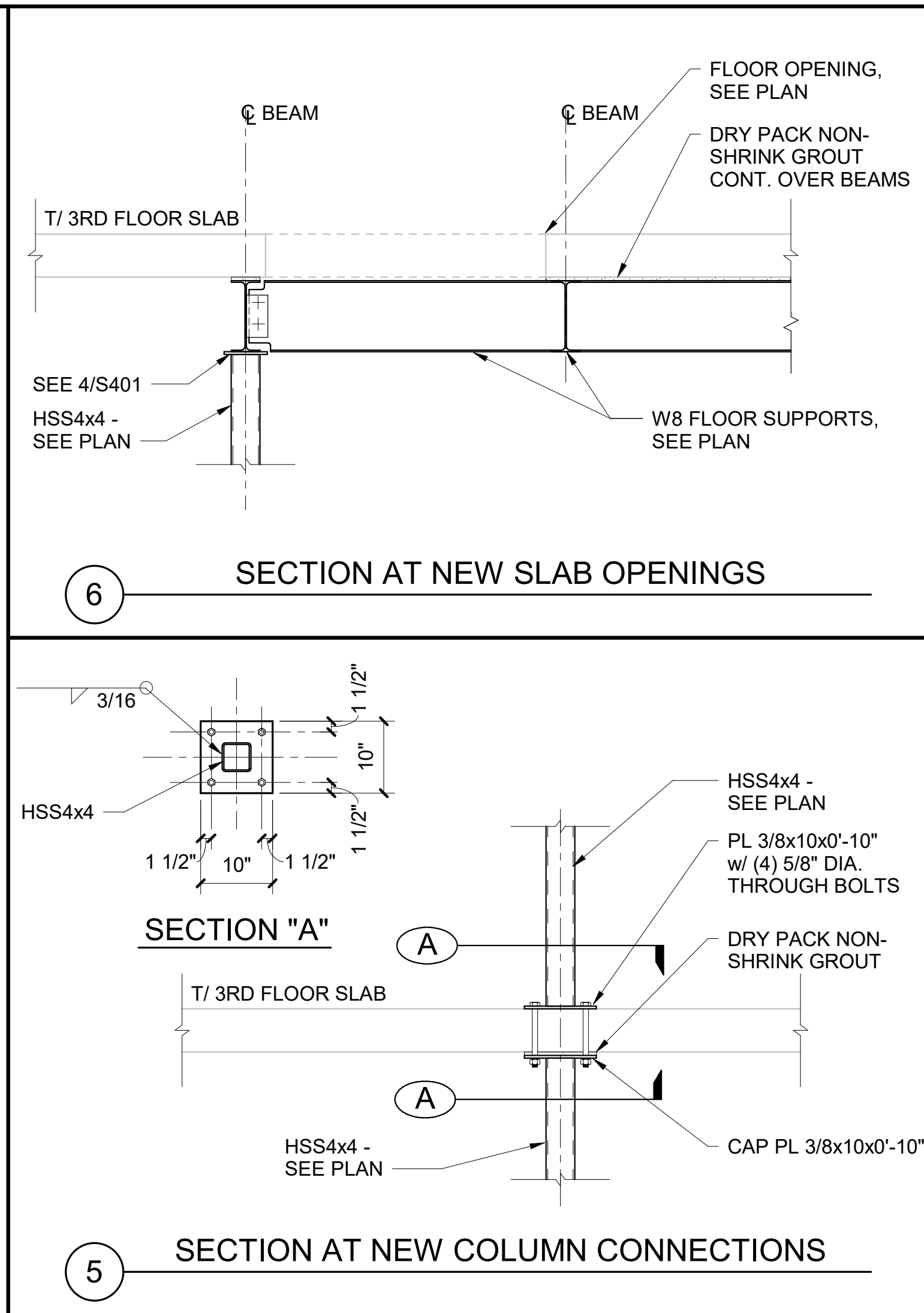
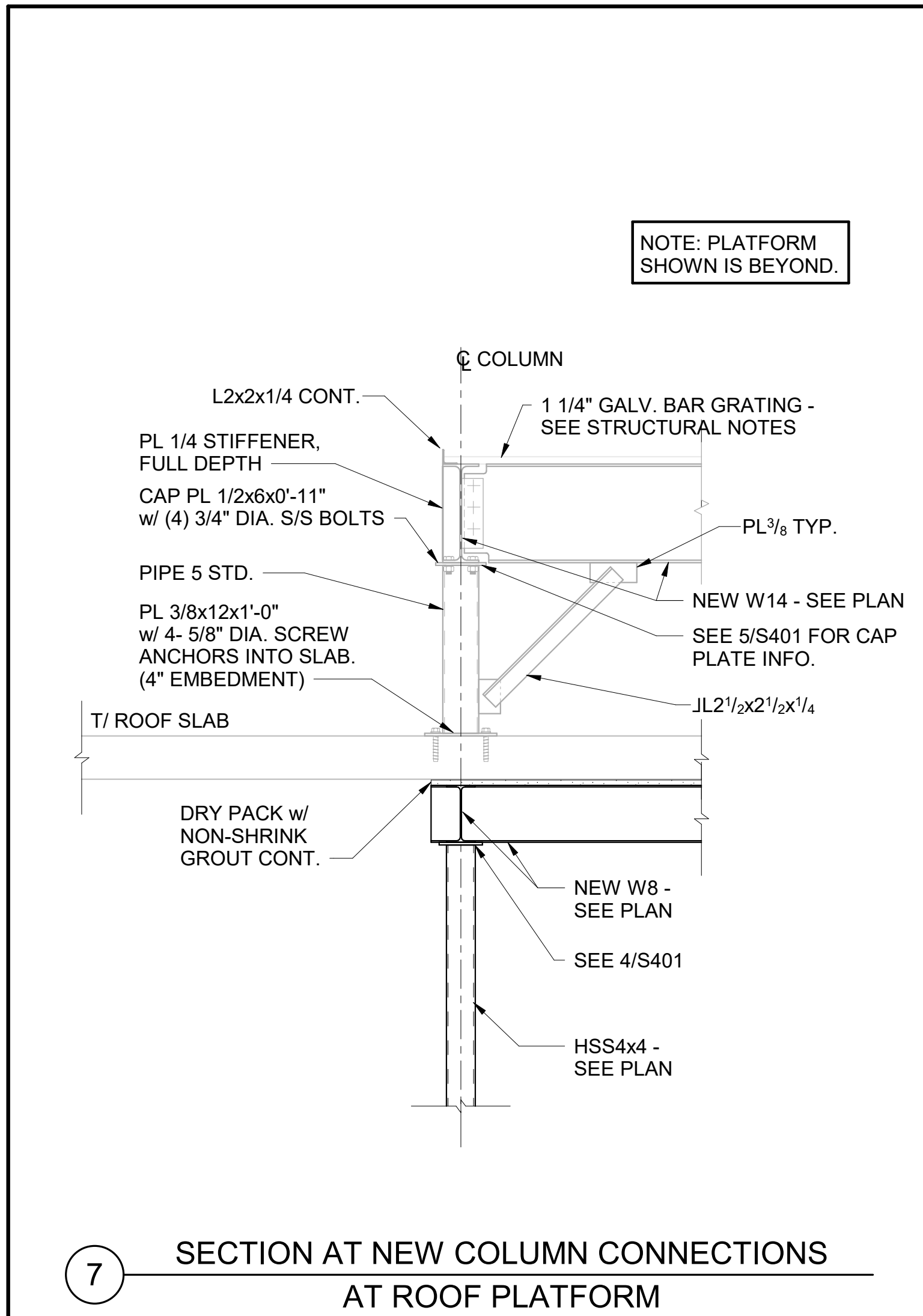
Consulting Structural Engineers
220 Great Circle Road, Suite 106
Nashville, Tennessee 37228
p. 615.255.5537
www.sdg-structure.com
SDG Project No. 2021-292.00

1 RTU PLATFORM FRAMING PLAN
1/8" = 1'-0"

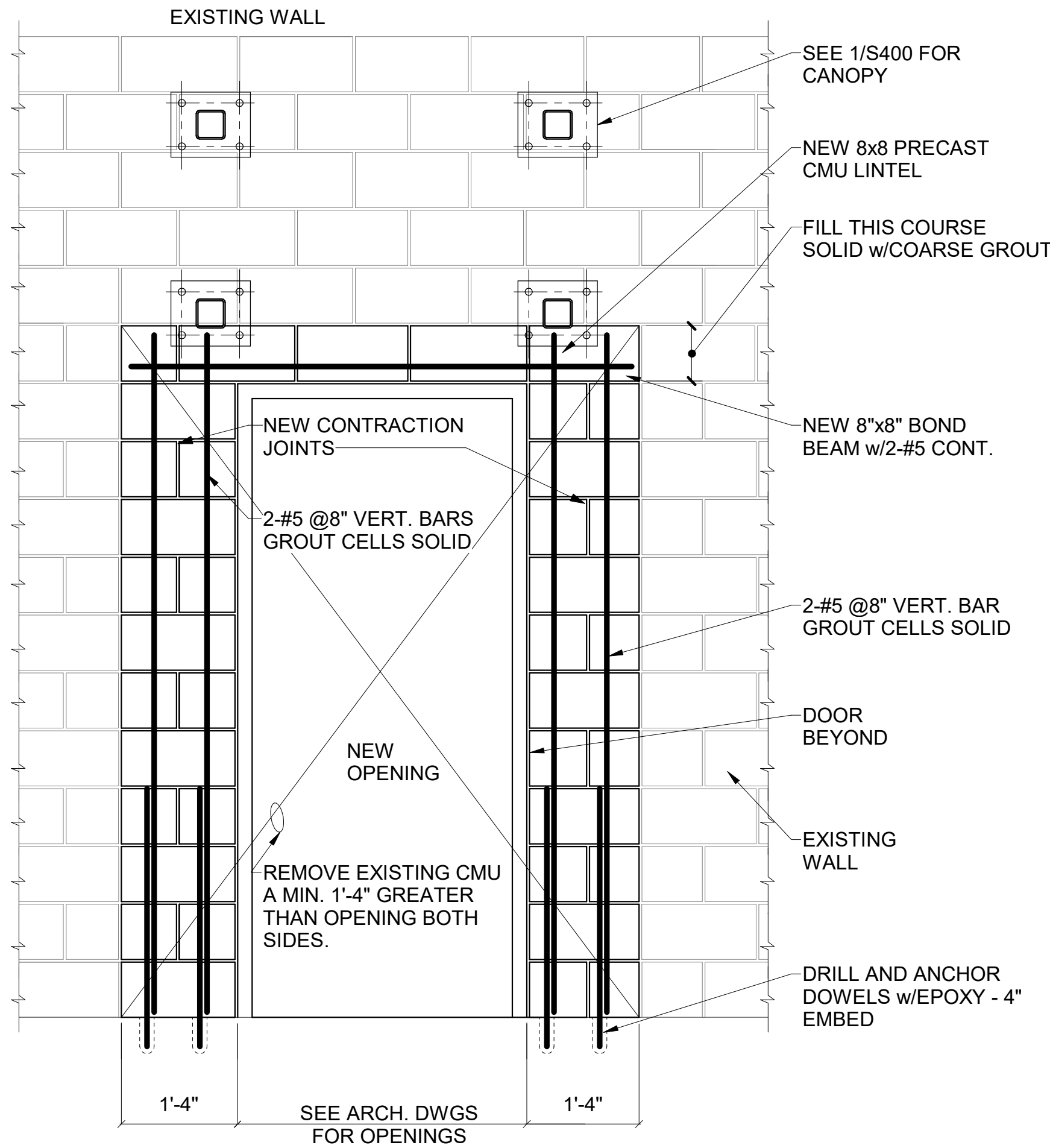


DP MARK	DRILLED PIER				REMARKS
	DIA. INCHES	VERT. REINF.	TIES	TIE SPACING	
DP18	18	5-#7	#3	6"	-
DP24	24	6-#8	#3	16"	-
DP48	48	14-#9	#4	12"	-
DP18-2	18	5-#7	#3	6"	-

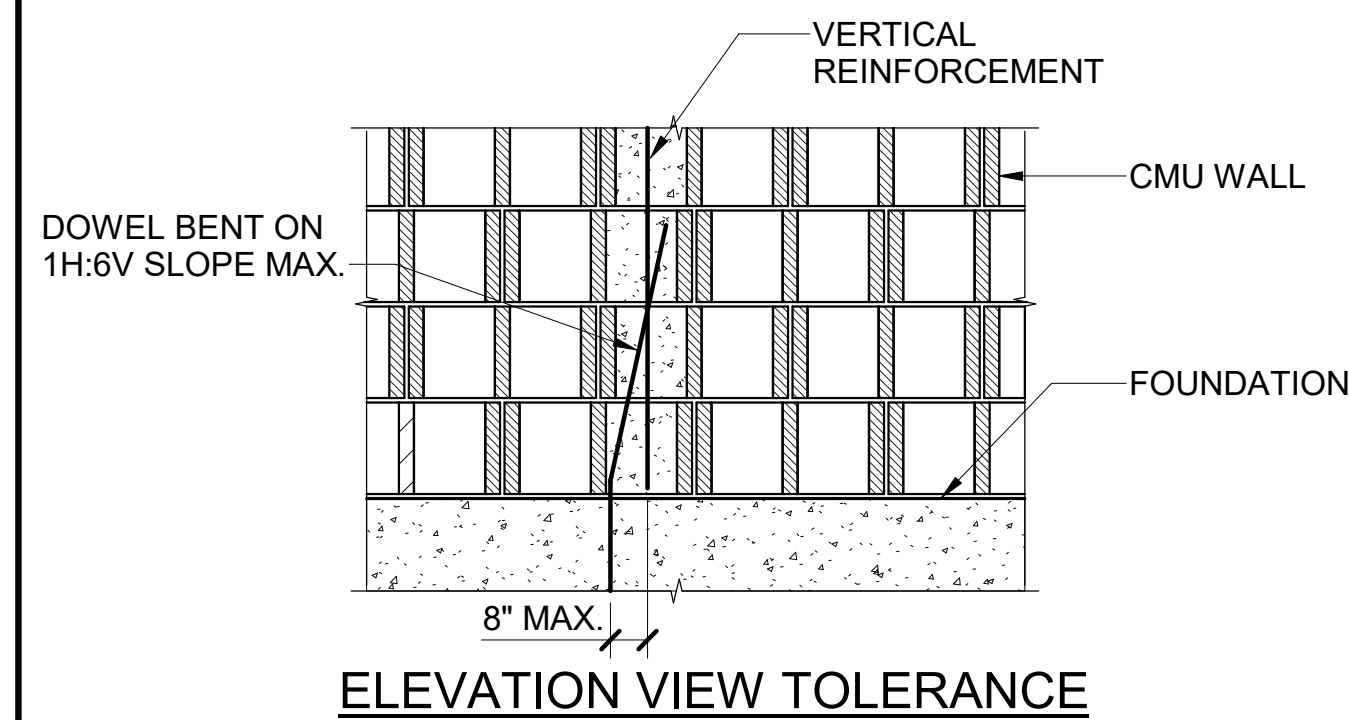




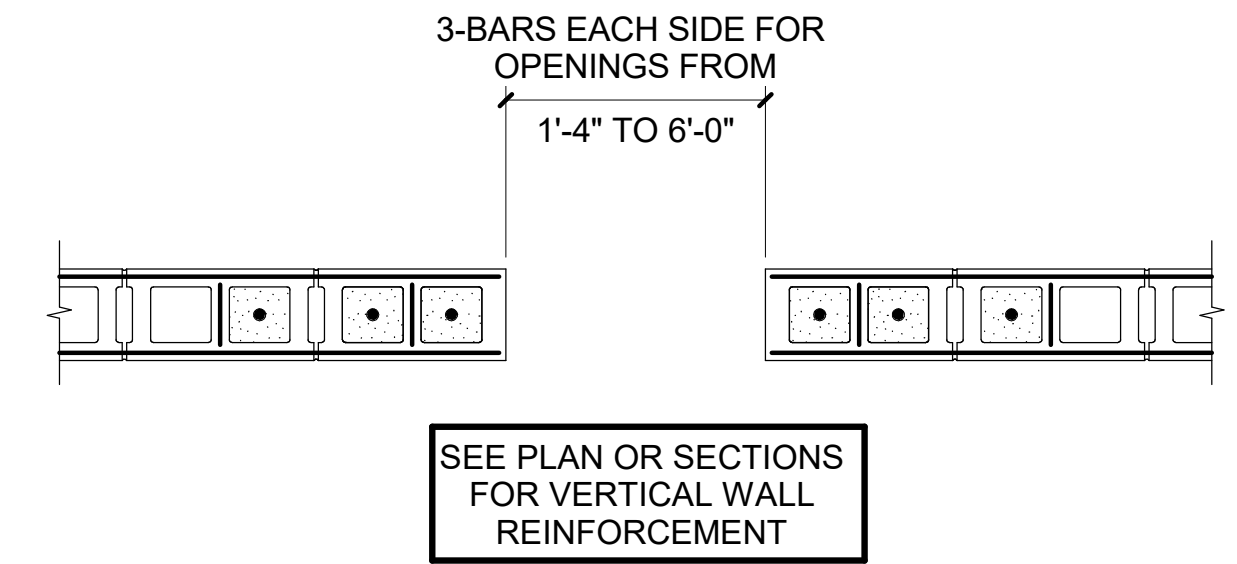
NOTE:
ADEQUATELY SHORE EXISTING WALL AND ROOF
JOISTS UNTIL NEW CMU LINTEL IS IN PLACE.



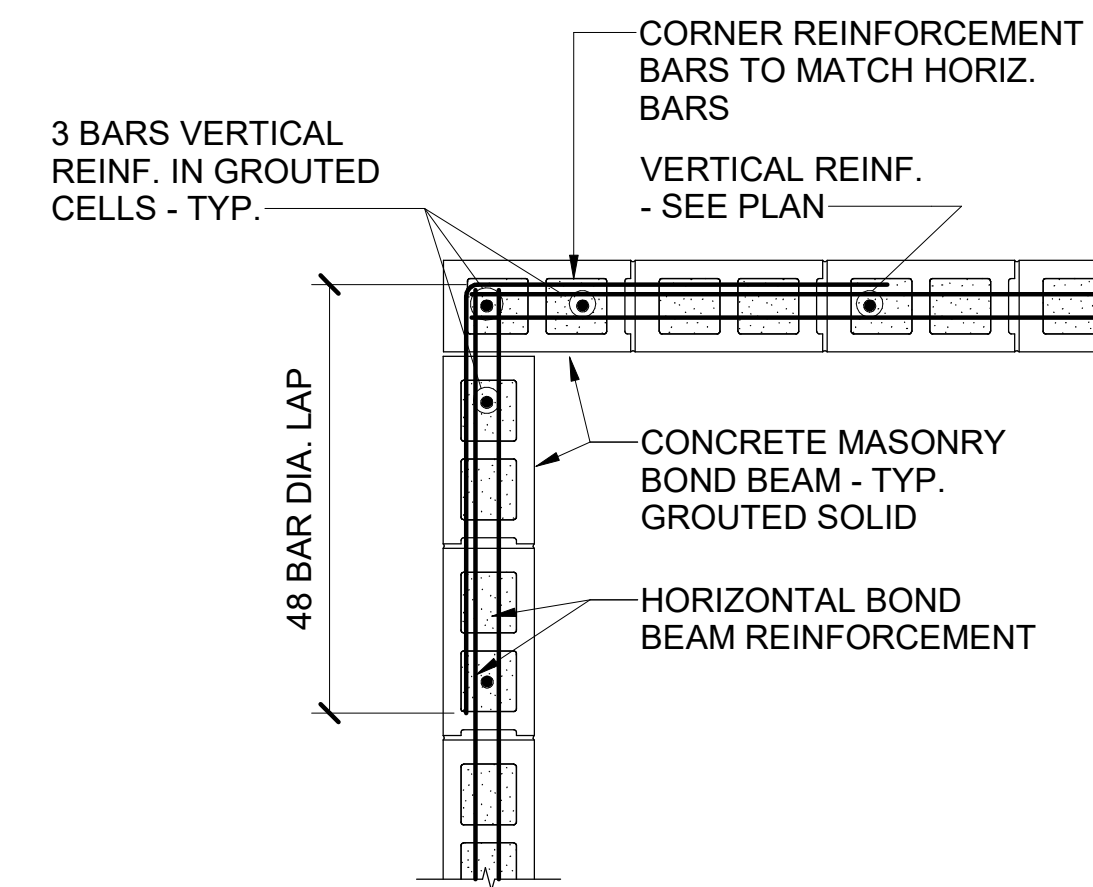
6 NEW LINTEL AT EXISTING EXTERIOR WALL



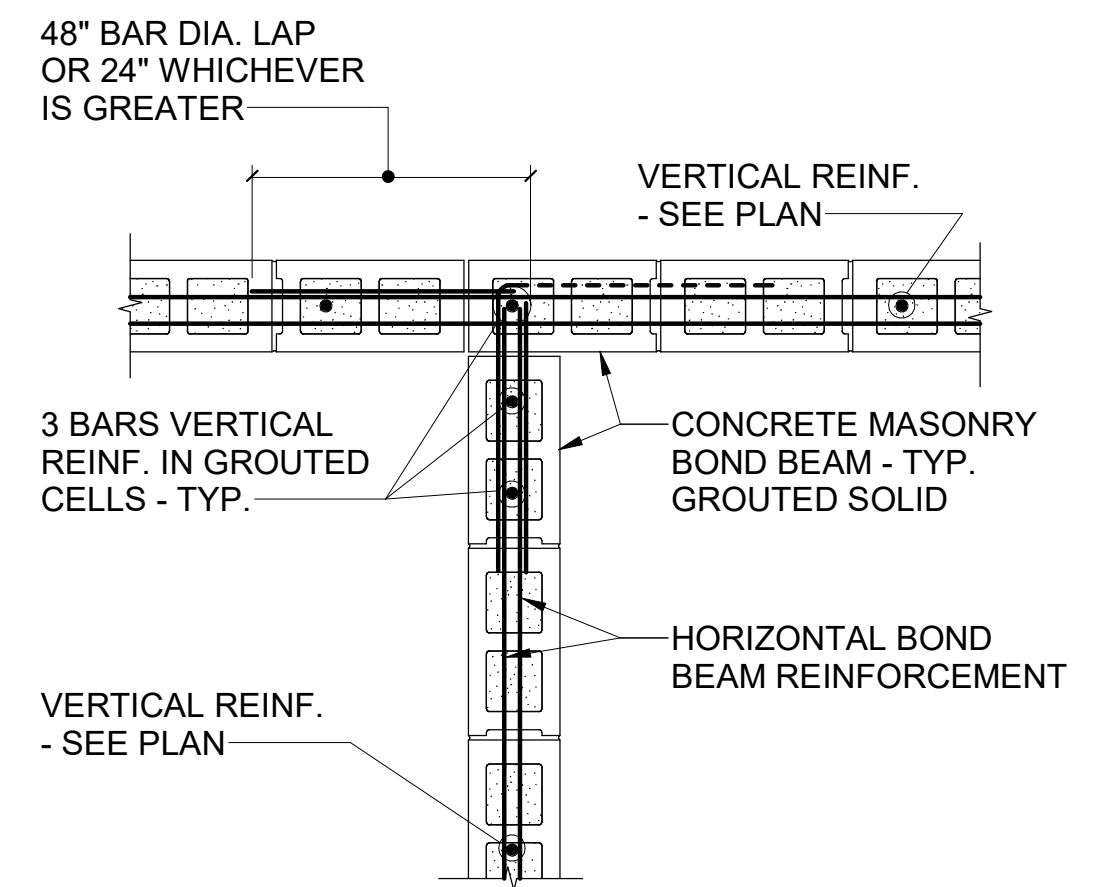
4 DOWEL-PERMITTED BENDING



3 CMU WALL OPENING DETAIL

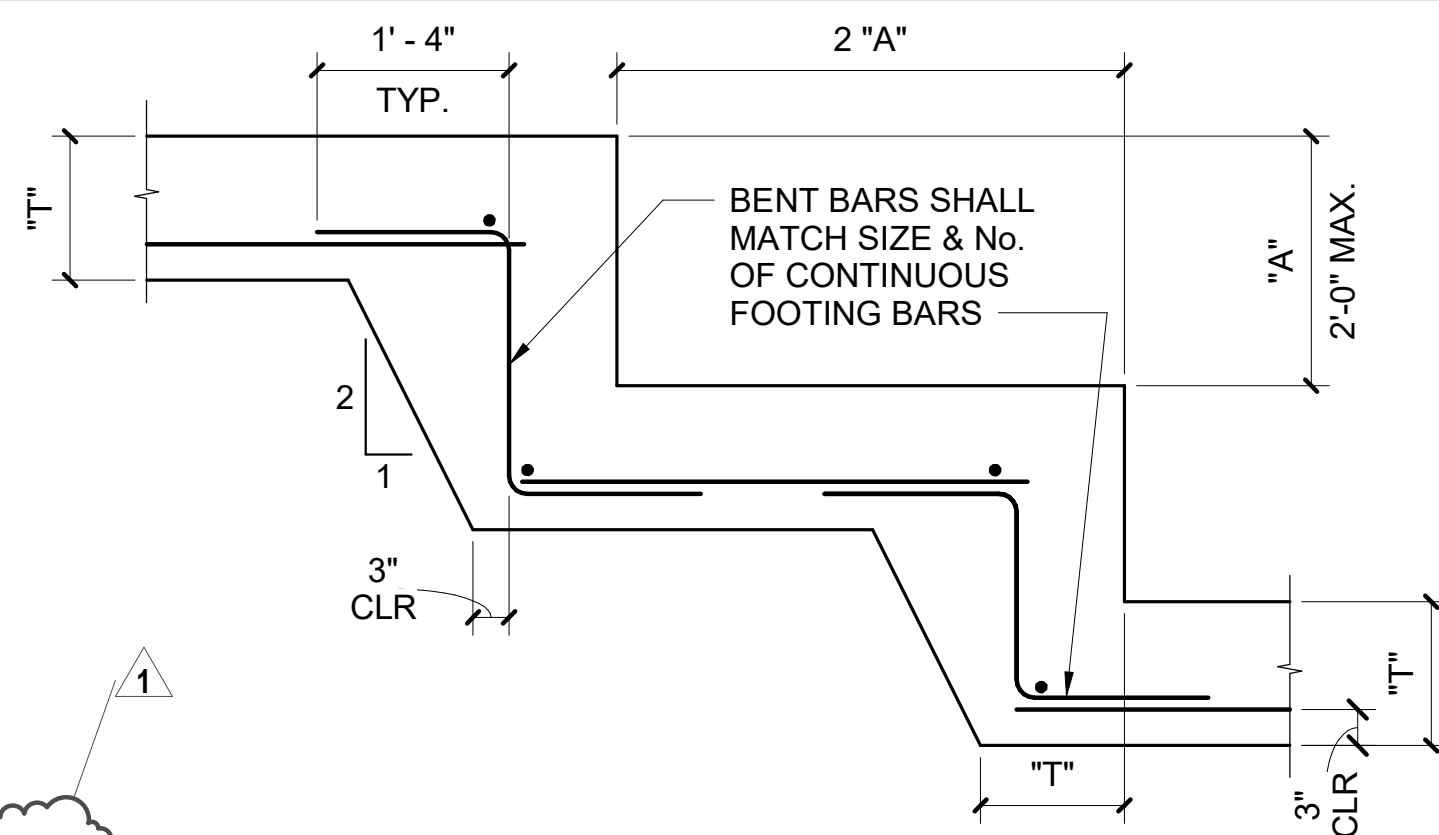


AT CORNERS



AT INTERSECTIONS

2 CMU BOND BEAM DETAILS

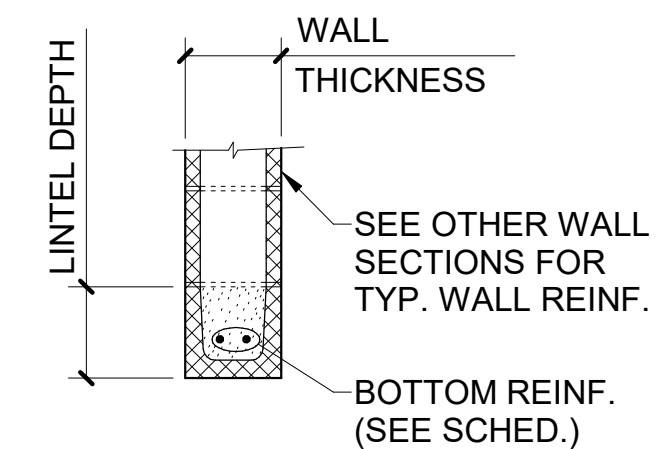


7 STEPPED FOOTING DETAIL

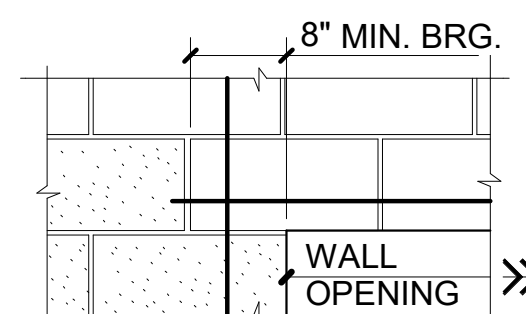
NOTE:

1. REINF. CMU CORE AT LINTEL BEARING w/1-#5 (MIN.) VERT. (TYP. U.N.O.) SEE 1/S303

UN-MARKED CMU LINTEL SCHEDULE		
WALL OPENING WIDTH	LINTEL DEPTH	REINFORCING
UP TO 4'-0"	16"	2-#5 BOTTOM
4'-1" TO 6'-0"	24"	2-#6 BOTTOM



SECTION



ELEVATION

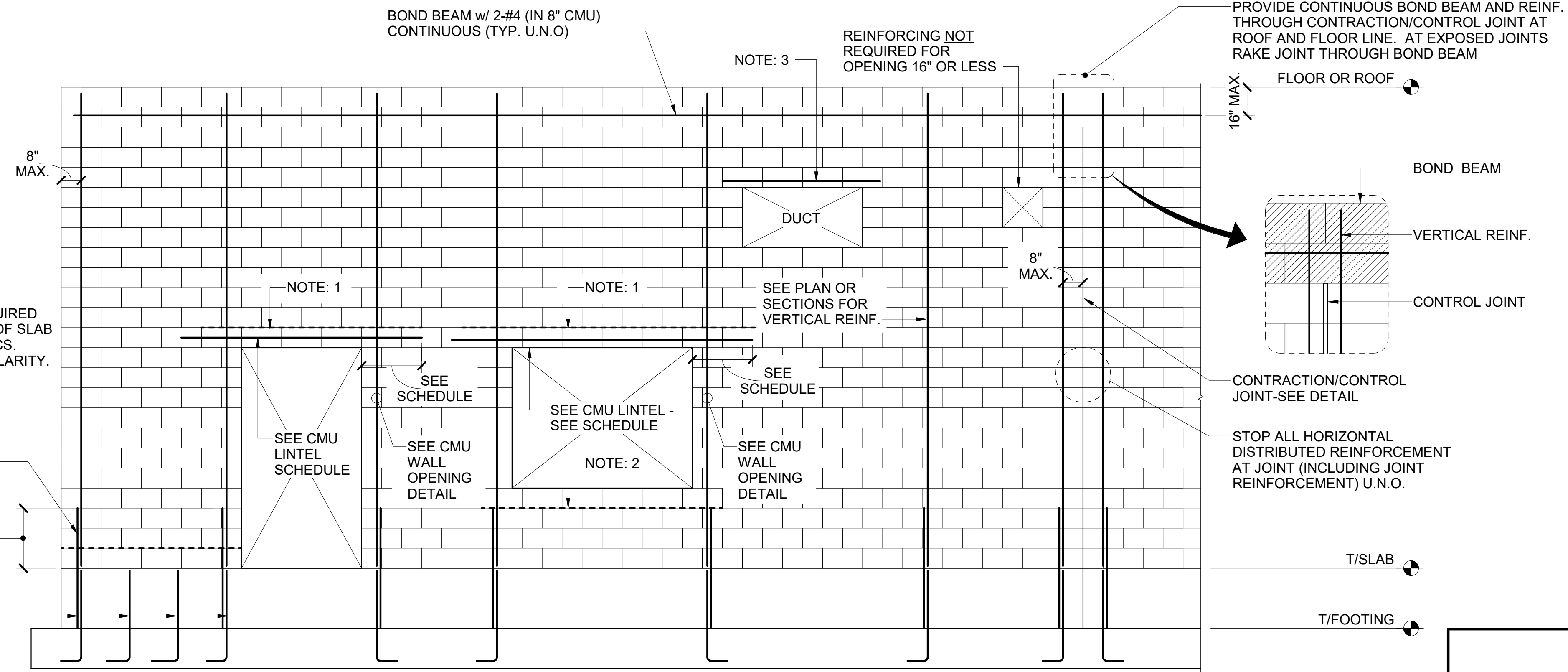
5 LOOSE LINTEL DETAIL

HORIZONTAL JOINT REINFORCING REQUIRED AT 16" ABOVE TOP OF SLAB TYPICAL - SEE SPECS. NOT SHOWN FOR CLARITY.

CMU DOWEL TO MATCH VERTICAL WALL REINF. - TYP.

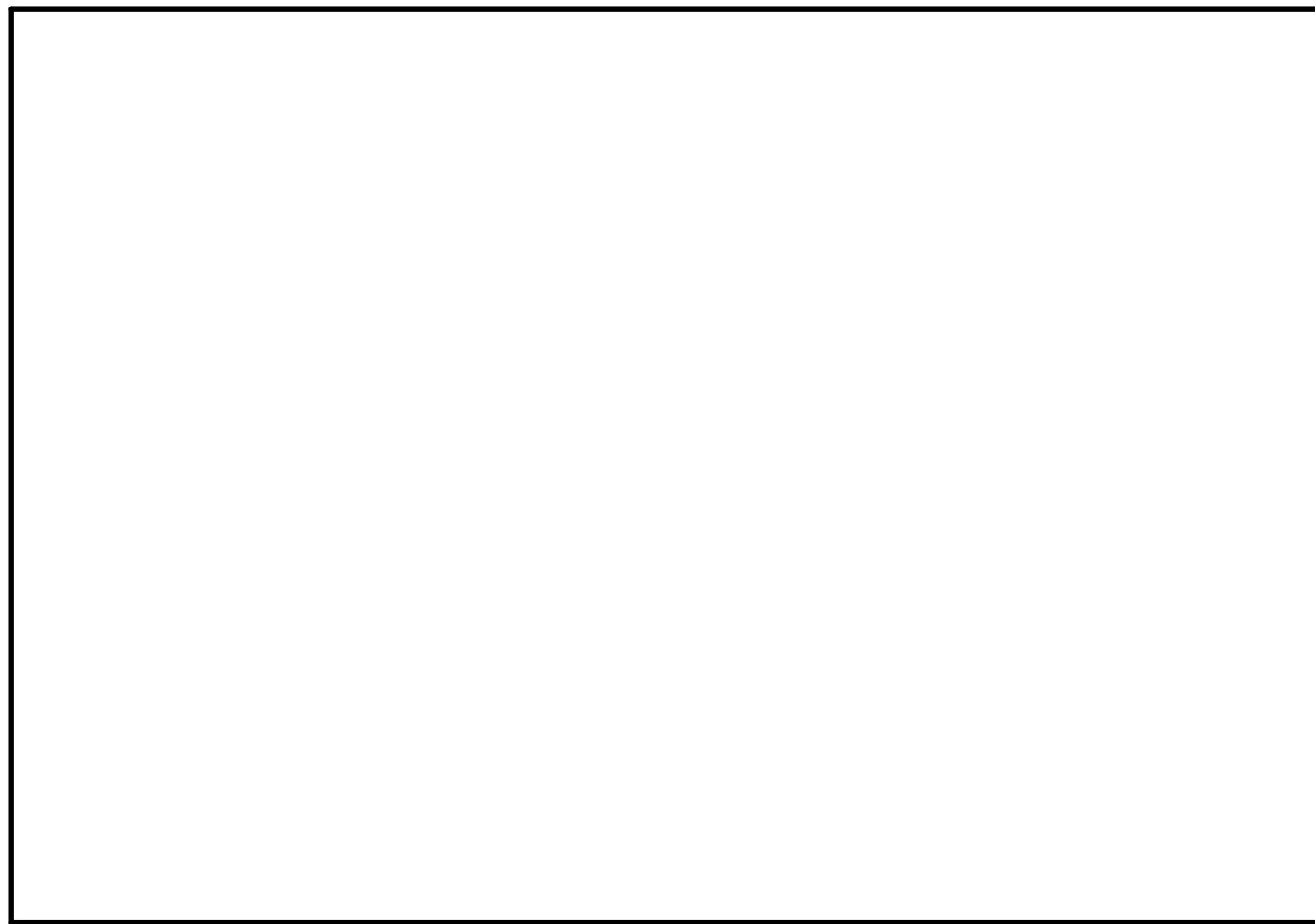
FOR LAP SPLICE - SEE SCHEDULE

STEM WALL / FOUNDATION DOWELS

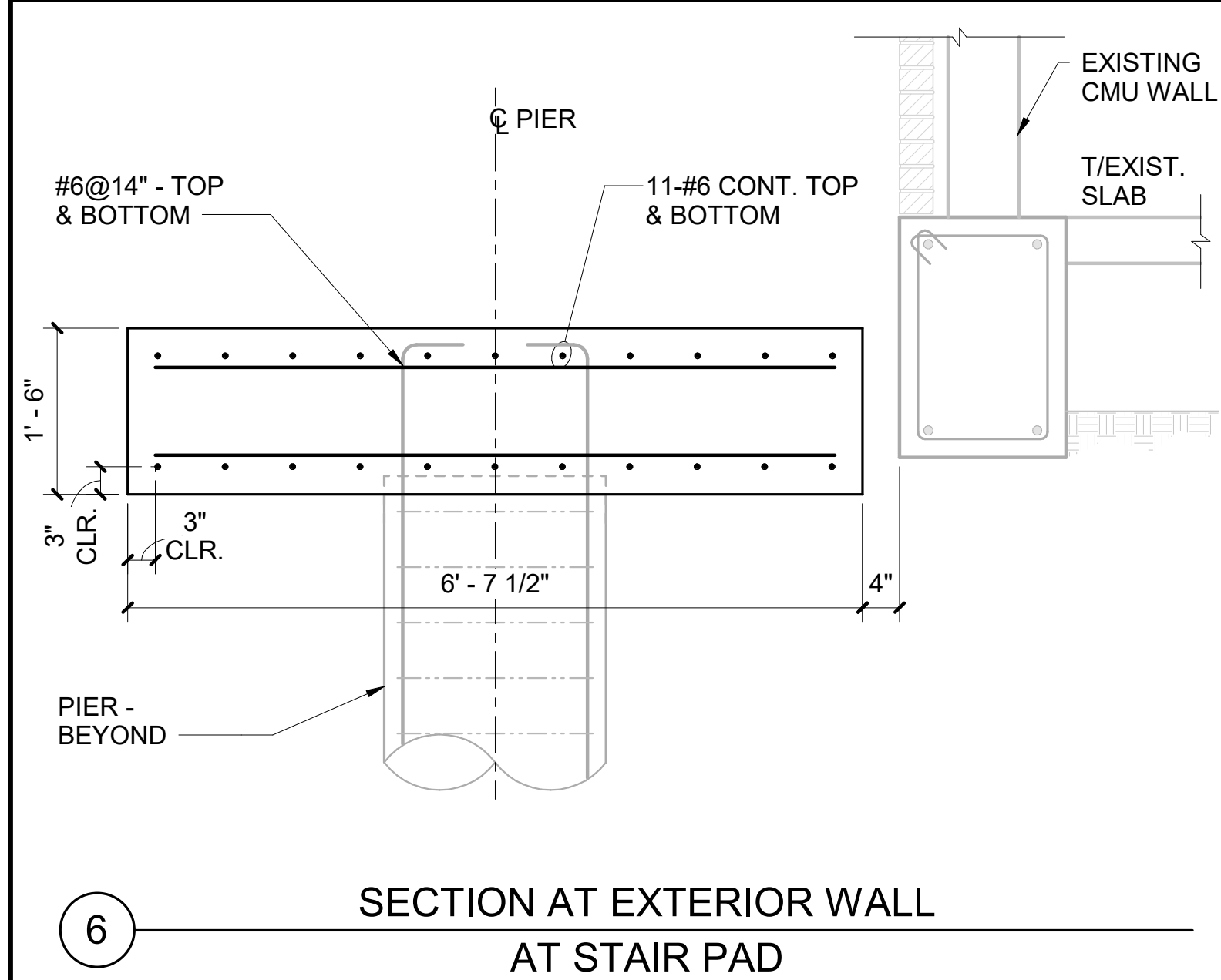


- NOTE:
1. ADD HORIZONTAL JOINT REINFORCEMENT ABOVE LINTEL. EXTEND 4'-0" EACH SIDE OF OPENING.
 2. ADD HORIZONTAL JOINT REINFORCEMENT BELOW CMU SILL. EXTEND 4'-0" EACH SIDE OF OPENING.
 3. FOR MECHANICAL/PLUMBING PENETRATIONS, PROVIDE LINTEL OVER CMU OPENING PER UNMARKED CMU LINTEL SCHEDULE.

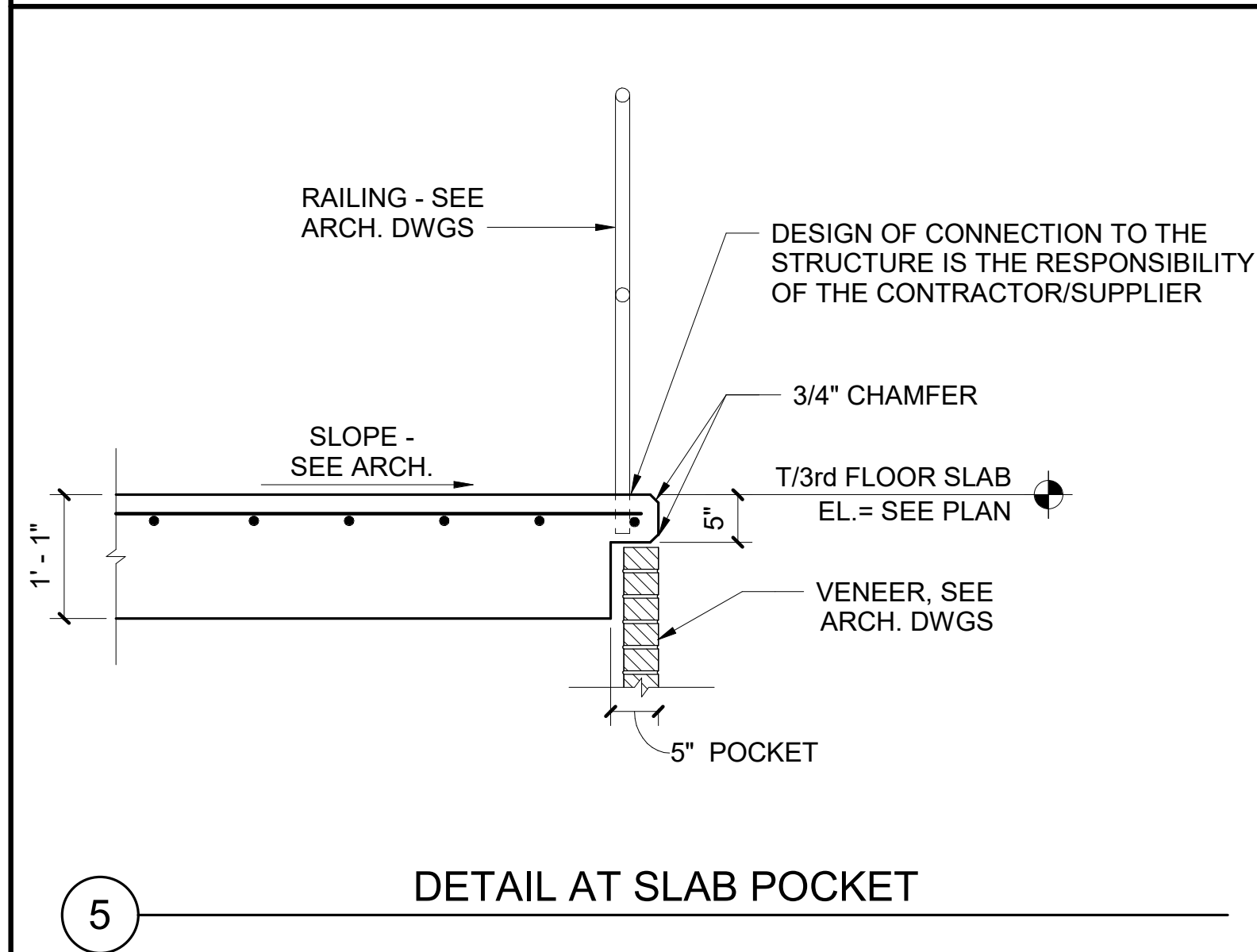
1 TYPICAL CMU WALL REINFORCING
LOAD-BEARING & NONLOAD-BEARING CMU WALLS



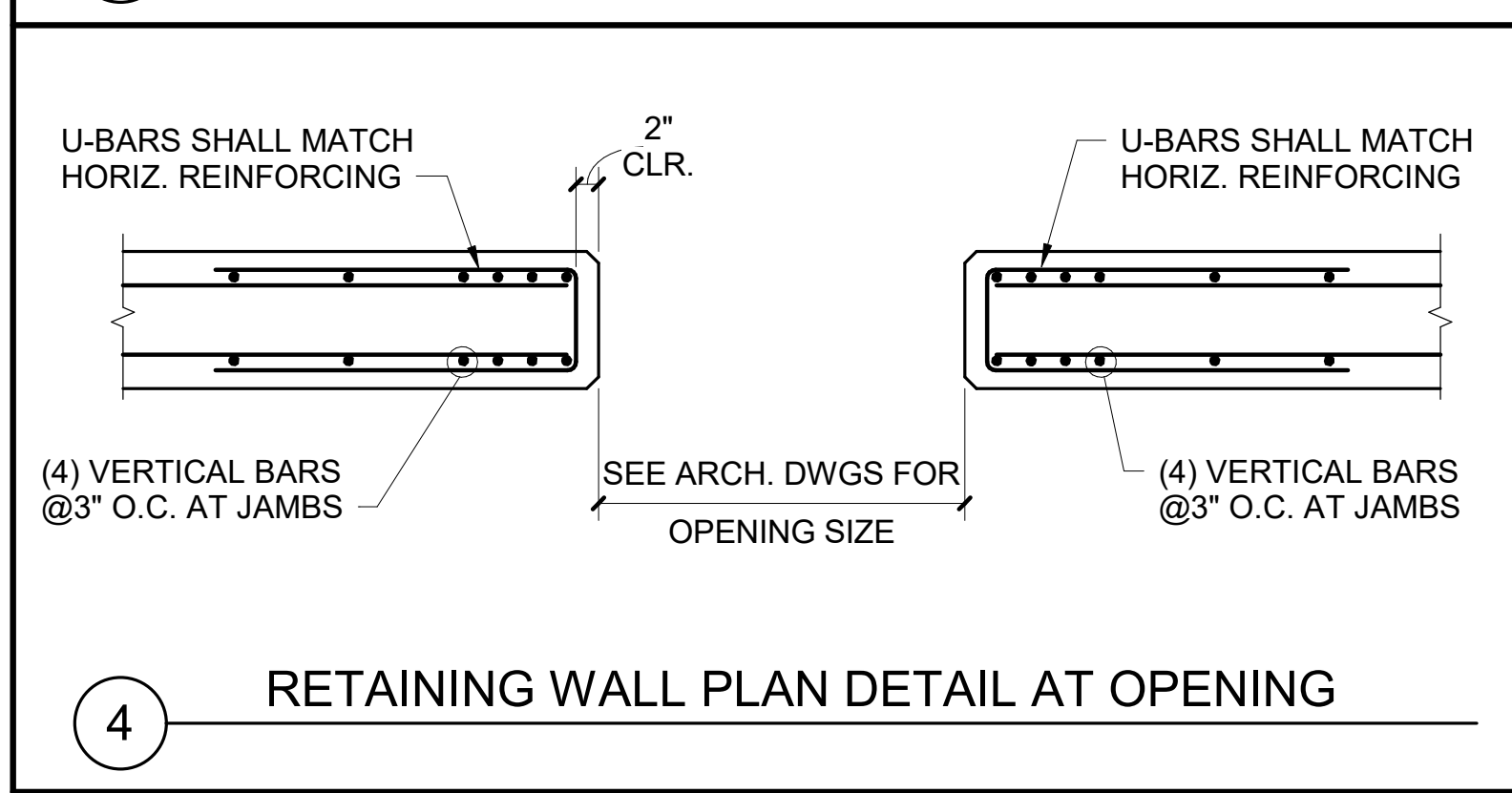
3 SECTION AT END OF RETAINING WALL
AT BRICK POCKET



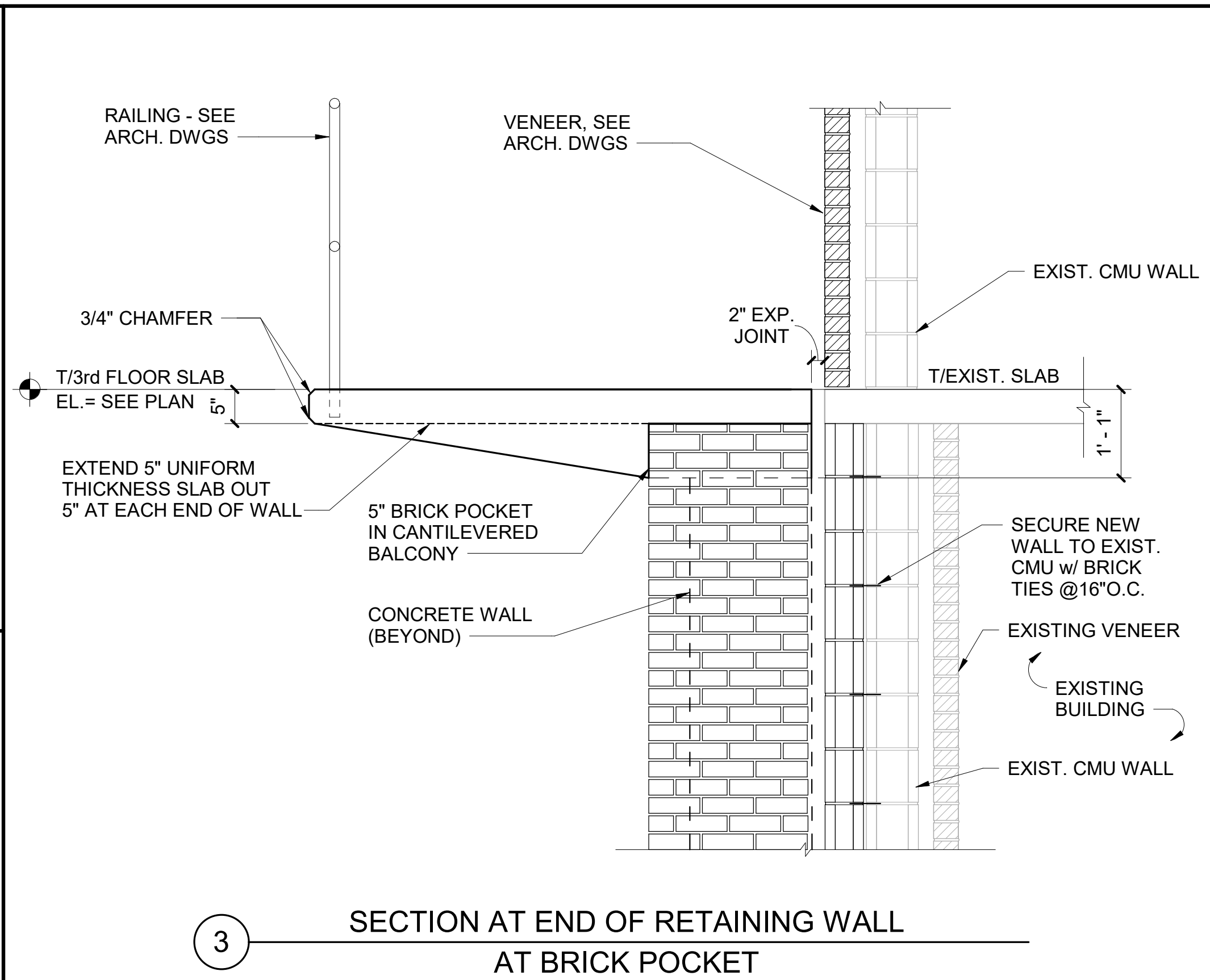
6 SECTION AT EXTERIOR WALL
AT STAIR PAD



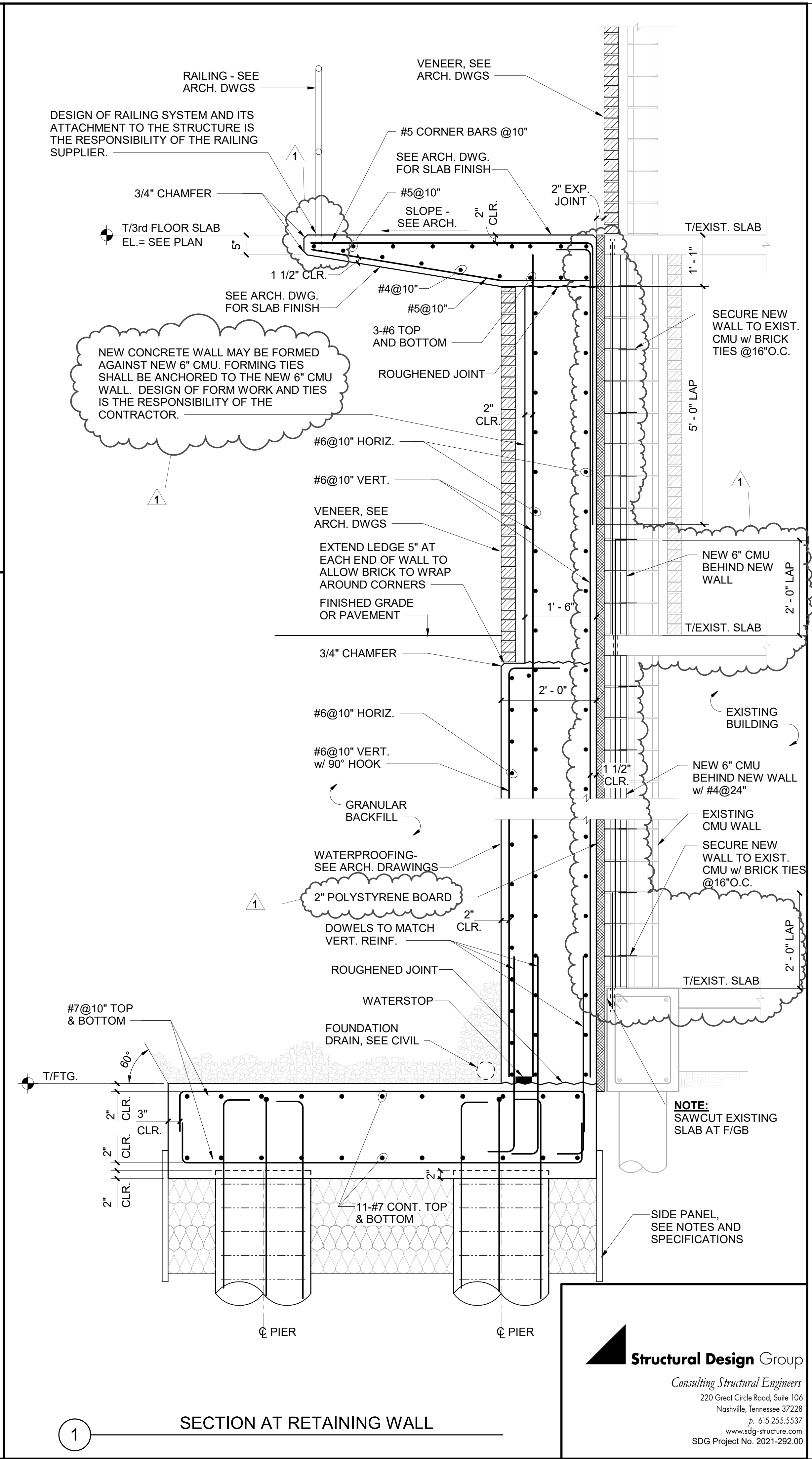
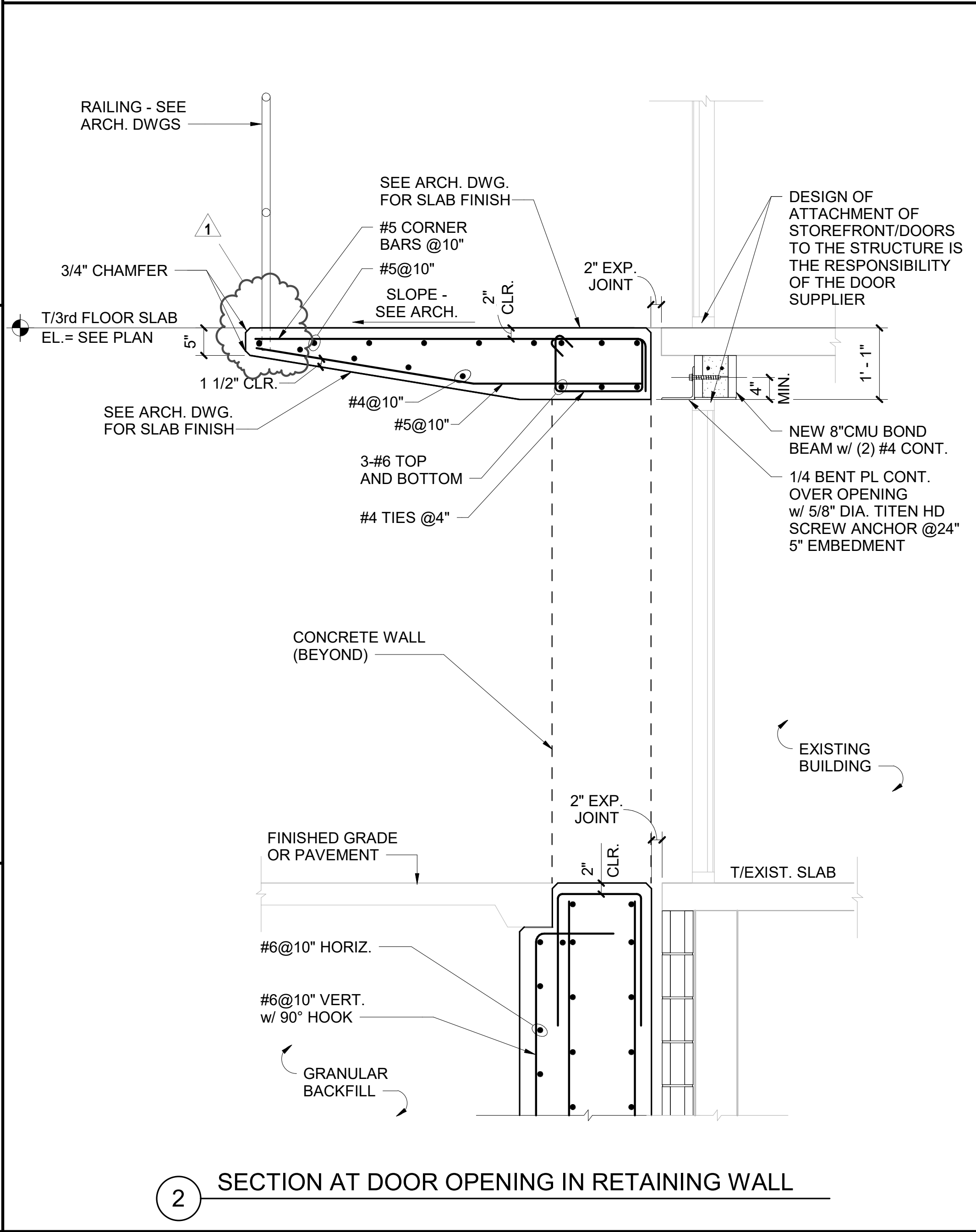
5 DETAIL AT SLAB POCKET



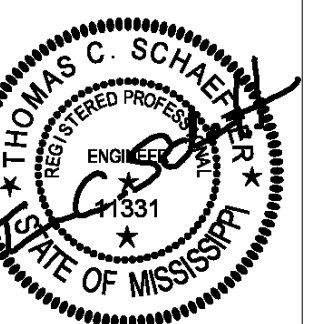
4 RETAINING WALL PLAN DETAIL AT OPENING



2 SECTION AT DOOR OPENING IN RETAINING WALL



1 SECTION AT RETAINING WALL



**SHAHER
ZAHNER
ZAHNER**

OFFICE OF ARCHITECTURE
510 UNIVERSITY DRIVE
STARKVILLE, MISSISSIPPI 39759
szarch.com 1(662) 323-1628

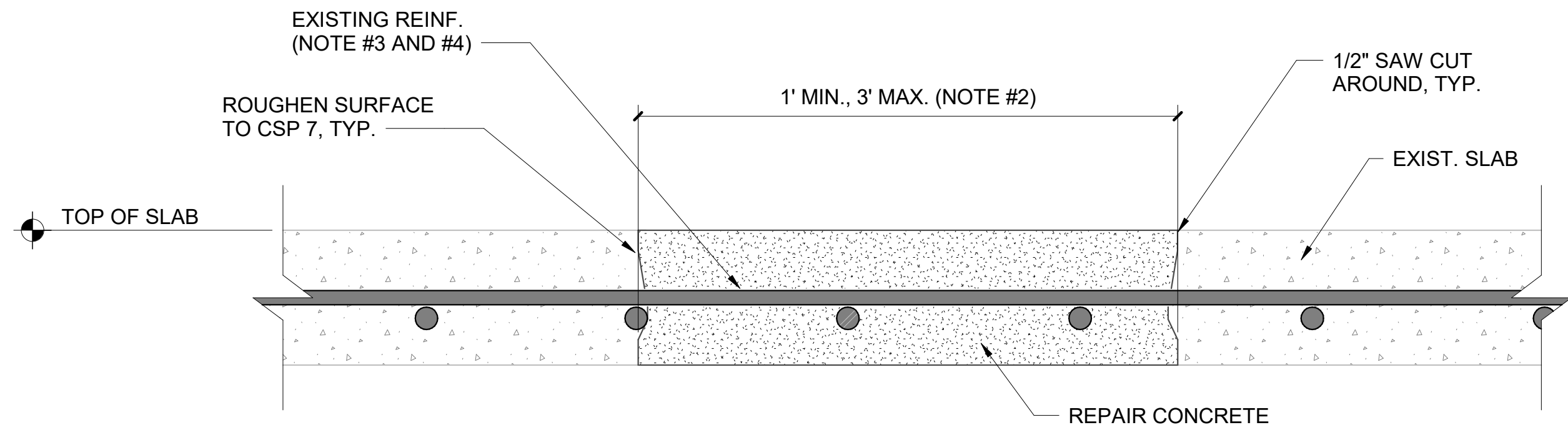
SHEET **S304**

FOUNDATION
SECTIONS AND
DETAILS

DATE: 11.10.2021
SZARCH#: 2141
DRAWN BY: C.F.
CHECKED BY: W.G./T.S.

REVISIONS:
1/20/2022 REV. 1

Structural Design Group
Consulting Structural Engineers
220 Great Circle Road, Suite 104
Nashville, Tennessee 37228
P. 615.255.5537
www.sdg-structure.com
SDG Project No. 2021-292.00



NOTES:

1. LOCALIZED FULL THICKNESS SLAB REPAIR TO BE PERFORMED IN AREAS WHERE REMOVAL OF DETERIORATED CONCRETE CAUSES A PUNCH THROUGH IN EXISTING SLAB. NOTIFY ENGINEER OF ALL AREAS WHERE REPAIR IS IMPLEMENTED.
2. CONCRETE REMOVAL SHALL BE PERFORMED USING A 15-LB CHIPPING HAMMER MAX. NOTIFY ENGINEER IF EXTENTS OF DETERIORATED CONCRETE IS GREATER THAN 3 FEET.
3. NOTIFY ENGINEER IF EXISTING REINFORCEMENT EXHIBIT CORROSION-RELATED CROSS-SECTIONAL LOSSES GREATER THAN 10 PERCENT.
4. SHORE BOTTOM OF CONCRETE BELOW PER GENERAL NOTES BEFORE REMOVING CONCRETE.
5. REPAIR SURFACE TO MATCH EXISTING CONCRETE SURFACE ALONG THE PERIMETER. IF MATCHING THE ORIGINAL CONCRETE SURFACE RESULTS IN LESS THAN 1/2" OF COVER, PROVIDE AT LEAST 1/2" OF COVER AND SLOPE CONCRETE TO PERIMETER - NO STEP BTW EXISTING AND REPAIR CONCRETE.

1C

FULL DEPTH SLAB REPAIR

NOTES:

1. LOCATE MILD REINFORCEMENT WITH RADAR. NOTIFY REPAIR ENGINEER OF RECORD OF ANY CONFLICTS WITH REINFORCEMENT OR COMPONENTS PRIOR TO BEGINNING REPAIR.
2. LOCATE & REMOVE DAMAGED, SPALLED OR OTHERWISE UNSOUND CONCRETE.
3. PATCH PINS:
 - A. PLACE IN GRID w/12" MAX. SPACING IN EACH DIRECTION.
 - B. MIN. 2x2 GRID (4 PATCH PINS) IN ISOLATED REPAIR AREA.

INSTALL PATCH PINS MIN. EMBED 1.0 INCH. MAINTAIN 0.50 INCH MINIMUM COVER. BEND PATCH PIN TO ACHIEVE REQUIRED COVER (NOTE 3)

EXISTING REINF. LOCATE PRIOR TO DEMOLITION (NOTE #1)

OVERHEAD REPAIR MATERIAL INSTALLED PER MANUFACTURER INSTRUCTIONS

0.75" MIN.
1.25" MAX.

PREPARE CONCRETE SURFACE TO CSP7, STOP 1" FROM ANY FREE EDGE

1/2" SAWCUT, TYP.

1" MIN. DEPTH OF CONCRETE REMOVAL (TYP)

1B

OVERHEAD SPALL REPAIR- SECTION

NOTES:

1. LOCATE MILD REINFORCEMENT WITH RADAR. NOTIFY REPAIR ENGINEER OF RECORD OF ANY CONFLICTS WITH REINFORCEMENT OR COMPONENTS PRIOR TO BEGINNING REPAIR.
2. LOCATE & REMOVE DAMAGED, SPALLED OR OTHERWISE UNSOUND CONCRETE.
3. CHIPPING HAMMER SHALL NOT EXCEED 20 LB.
4. SHORE BOTTOM OF CONCRETE BELOW PER GENERAL NOTES BEFORE REMOVING CONCRETE.
5. REPAIR SURFACE TO MATCH EXISTING CONCRETE SURFACE ALONG THE PERIMETER. IF MATCHING THE ORIGINAL CONCRETE SURFACE RESULTS IN LESS THAN 1/2" OF COVER, PROVIDE AT LEAST 1/2" OF COVER AND SLOPE CONCRETE TO PERIMETER - NO STEP BTW EXISTING AND REPAIR CONCRETE.

EXISTING REINF. LOCATE PRIOR TO DEMOLITION (NOTE #1)

2" MIN. TYP.

CLEAN & PRIME EXISTING REINF., WITHIN REPAIR

PATCH PIN AT OVERHEAD REPAIRS ONLY (REF. 1B/S305)

PROVIDE 1/2" SAWCUT AROUND REPAIR PERMETER UP TO SLAB SOFFIT

TOP OR BOTTOM OF SLAB

EXTENT OF EXISTING UNSOUND CONCRETE

1A

CONCRETE REPAIR AT ELEVATED SLAB

NOTES:

LOCALIZED SPALL AND DELAMINATION REPAIRS

1. PROVIDE SHORING BELOW SPALL AND DELAMINATION REPAIRS THAT ARE LARGER THAN 4 SQUARE FEET OR ARE MORE THAN 3 FEET LONG IN ANY DIRECTION.
2. SHORING SHALL BE INSTALLED PRIOR TO CONCRETE REMOVAL AND REMAIN IN PLACE UNTIL REPAIR CONCRETE HAS CURED.
3. PERFORM 1/2 INCH STRAIGHT SAW CUT ALONG EDGES OF THE LOCALIZED SPALL AND DELAMINATED CONCRETE AREAS BEFORE CHIPPING CONCRETE.
4. CONCRETE REMOVAL SHALL BE PERFORMED USING EQUIPMENT LIGHTER THAN 20-LB CHIPPING HAMMERS.
5. IF THE SLAB IS PUNCHED THROUGH DURING REMOVAL, PERFORM FULL-DEPTH SLAB REPAIR FOR THE ENTIRE SPALL/DELAMINATION AREA (REF 1C/S305)
6. ROUGHEN EXISTING CONCRETE SURFACE TO RECEIVE CONCRETE REPAIR TO SURFACE PROFILE CSP 7 (ICRI 310.2R-2013).
7. IF EXISTING REINFORCEMENT IS DAMAGED, NECKED, OR CORRODED AND EXHIBIT A CROSS SECTION LOSS GREATER THAN 10% OF ORIGINAL CROSS SECTION, NOTIFY THE REPAIR ENGINEER IMMEDIATELY. DO NOT PROCEED WITH CONCRETE REPAIR PLACEMENT WITHOUT WRITTEN AUTHORIZATION FROM REPAIR ENGINEER.
7. PRIOR TO PLACEMENT OF REPAIR CONCRETE, PRESSURE WASH PREPARED CONCRETE SURFACES TO REMOVE BRUISED CONCRETE AND NEAR-SURFACE MICROCRACKS. PROTECT ANY CONDUIT OR OTHER OBJECTS FROM WATER INFILTRATION DURING PRESSURE WASHING.
9. MIX, TRANSPORT, PLACE, AND CURE CONCRETE REPAIR MATERIAL IN ACCORDANCE WITH MANUFACTURES' REQUIREMENTS.
10. REPAIR CONTRACTOR SHALL MOIST CURE REPAIR CONCRETE FOR AT LEAST SEVEN DAYS.
11. VERTICAL OR OVERHEAD REPAIR CONCRETE MATERIAL OPTIONS
 - A. SIKAGUICK VOH BY SIKA CORPORATION, LYNDHURST, NJ.
 - B. OR APPROVED ALTERNATIVE.
12. HORIZONTAL OR THRU-THICKNESS CONCRETE MATERIAL OPTIONS
 - A. SIKACRETE 211 BY SIKA CORPORATION, LYNDHURST, NJ.
 - B. OR APPROVED A ALTERNATIVE.

1

CONCRETE REPAIR DETAILS

Structural Design Group

Consulting Structural Engineers

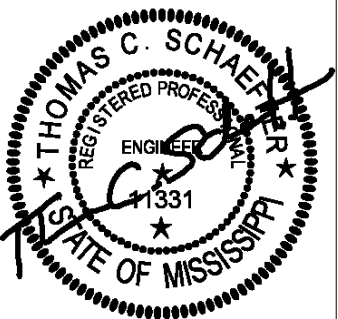
220 Great Circle Road, Suite 104

Nashville, Tennessee 37228

P. 615.255.5537

www.sdg-structure.com

SDG Project No. 2021-292.00



**SHAHER
ZAHNER
ZAHNER**

OFFICE OF ARCHITECTURE

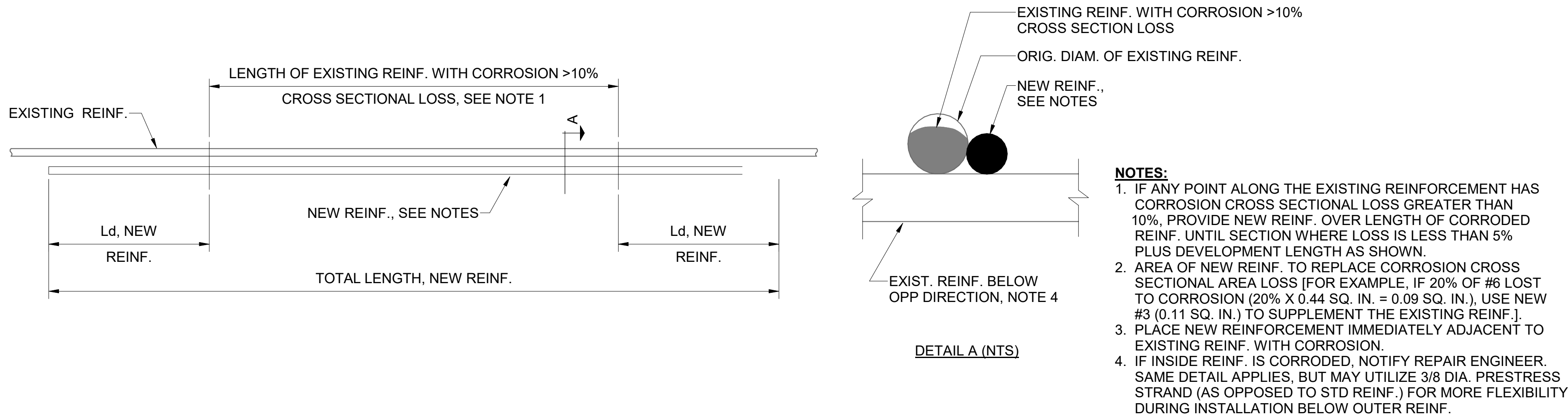
510 UNIVERSITY DRIVE
STARKVILLE, MISSISSIPPI 39759
szzarch.com T:662-323-1629

SHEET **S305**

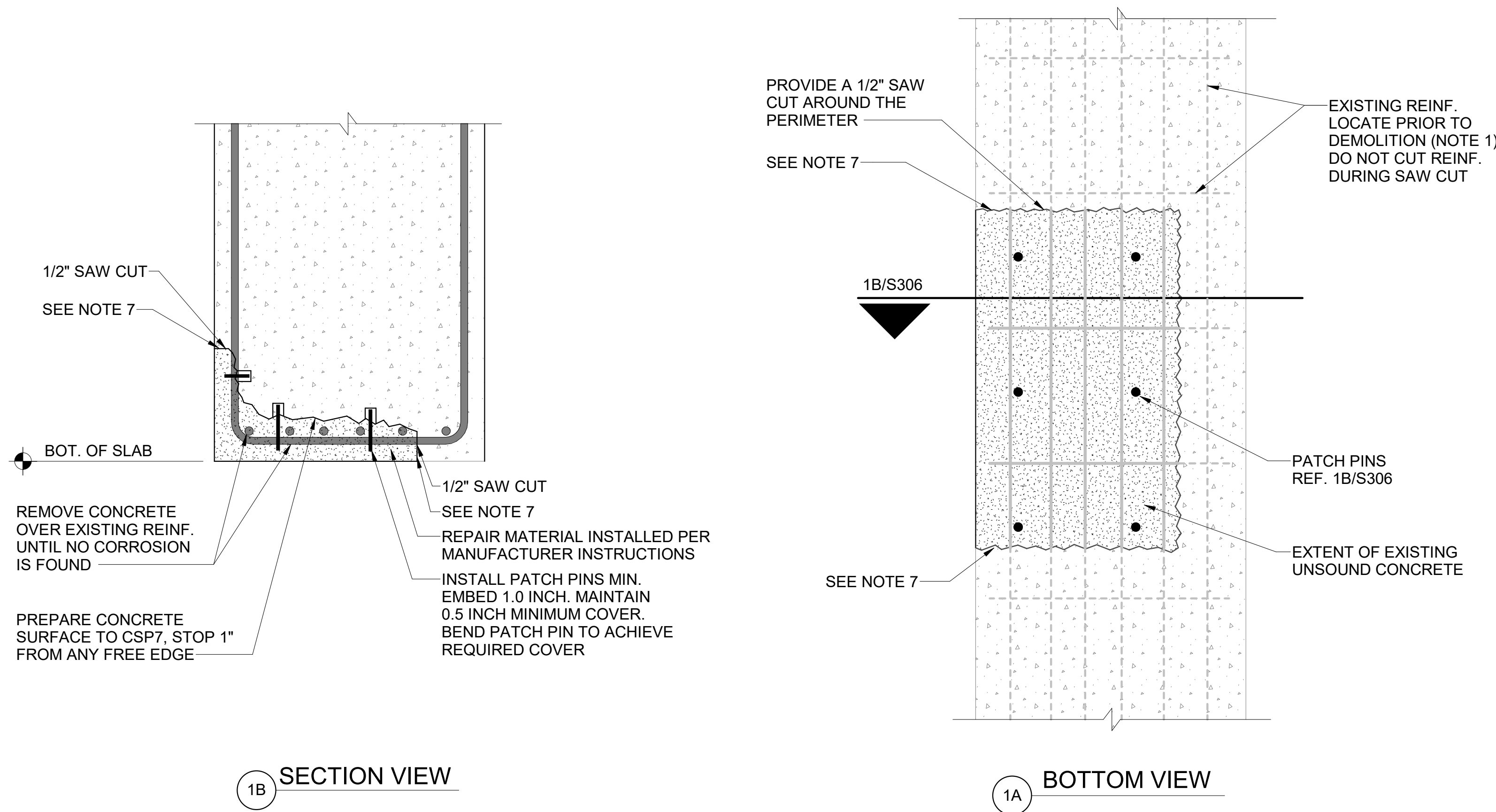
**FOUNDATION
SECTIONS AND
DETAILS**

DATE: 11.10.2021
SZZARCH# 2141
DRAWN BY: C.F.
CHECKED BY: W.G./T.S.

REVISIONS:
1/20/2022 REV. 1



2 SUPPLEMENTAL REINFORCEMENT DETAIL



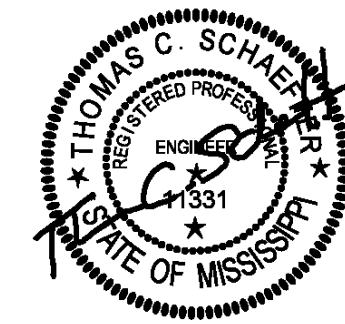
- NOTES:**
1. LOCATE AND REMOVE DAMAGED, SPALLED OR OTHERWISE UNSOUND CONCRETE.
 2. CHIPPING HAMMER SHALL NOT EXCEED 15 LB.
 3. IF THERE IS MORE THAN 10% CROSS SECTIONAL AREA LOSS OF ANY EXISTING REINF. DUE TO CORROSION OR OTHER DAMAGE, ADD SUPPLEMENTAL REINF. (REF 2C/S305)
 4. SHORE BEAM/GIRDER BEING REPAIRED IF ANY BARS, LONGITUDINAL OR STIRRUPS, NEED TO BE EXPOSED AROUND THEIR FULL CIRCUMFERENCE.
 5. IF UNSOUND CONCRETE EXTENDS MORE THAN 1-1/4" CLR BELOW EXISTING REINF., NOTIFY THE REPAIR ENGINEER.
 6. REPAIR SURFACES TO MATCH EXISTING CONCRETE SURFACE ALONG THE PERIMETER, IF MATCHING THE ORIGINAL CONCRETE SURFACE RESULTS IN LESS THAN 1/2" OF COVER, PROVIDE AT LEAST 1/2" OF COVER AND SLOPE CONCRETE TO PERIMETER- NO STEP BTW EXISTING AND REPAIRED CONCRETE.
 7. PATCH PINS:
 - A. PLACE IN GRID W/12" MAX. SPACING IN EACH DIRECTION
 - B. MIN. 2X2 GRID (4 PATCH PINS) IN ISOLATED REPAIR AREA.

1 REPAIR DETAIL AT BEAMS AND GIRDERS

Structural Design Group
Consulting Structural Engineers
220 Great Circle Road, Suite 104
Nashville, Tennessee 37228
P. 615.255.5537
www.sdg-structure.com
SDG Project No. 2021-292.00

GS# 362-066 West Lot Improvements (Paving and Renovations Ph 1)

DFA (Capitol Facilities) - Jackson, Mississippi



SHAHER ZAHNER ZAHNER

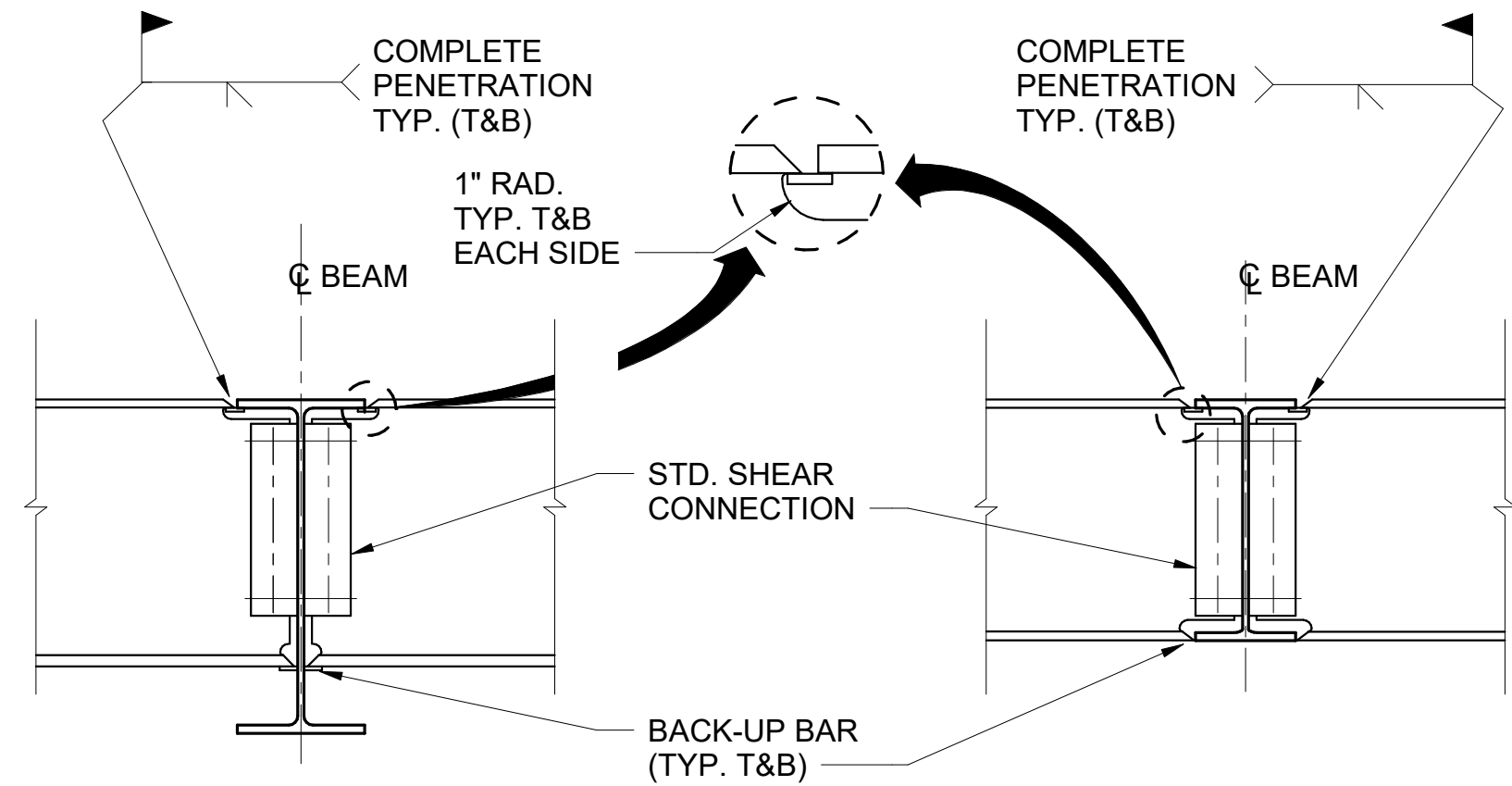
OFFICE OF ARCHITECTURE
510 UNIVERSITY DRIVE
STARKVILLE, MISSISSIPPI 39759
shaherzahn.com (662) 323-1628

SHEET **S306**

FOUNDATION SECTIONS AND DETAILS

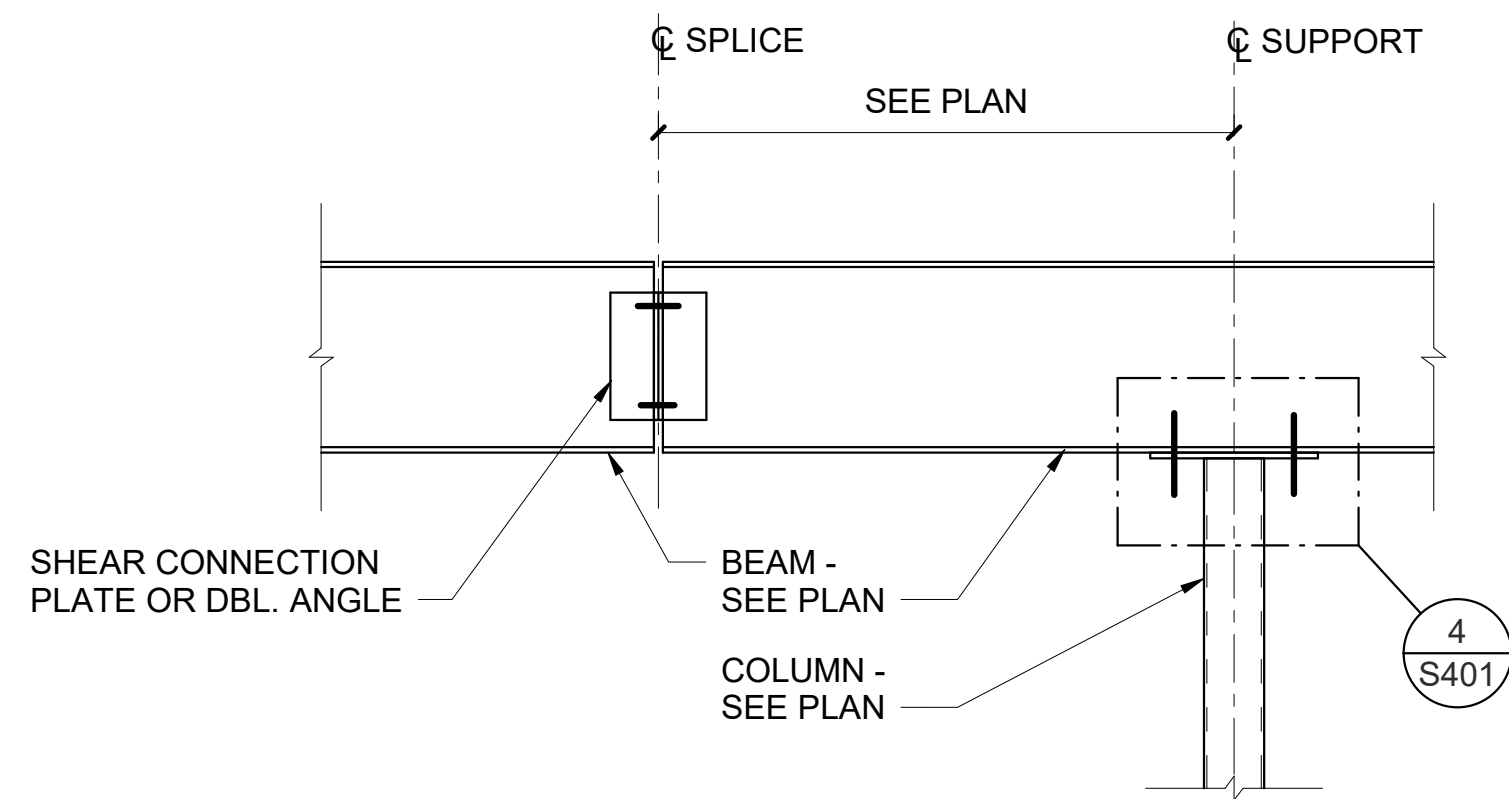
DATE: 11.10.2021
SZZARCH# 2141
DRAWN BY: C.F.
CHECKED BY: W.G./T.S.

REVISIONS:
1/20/2022 REV. 1

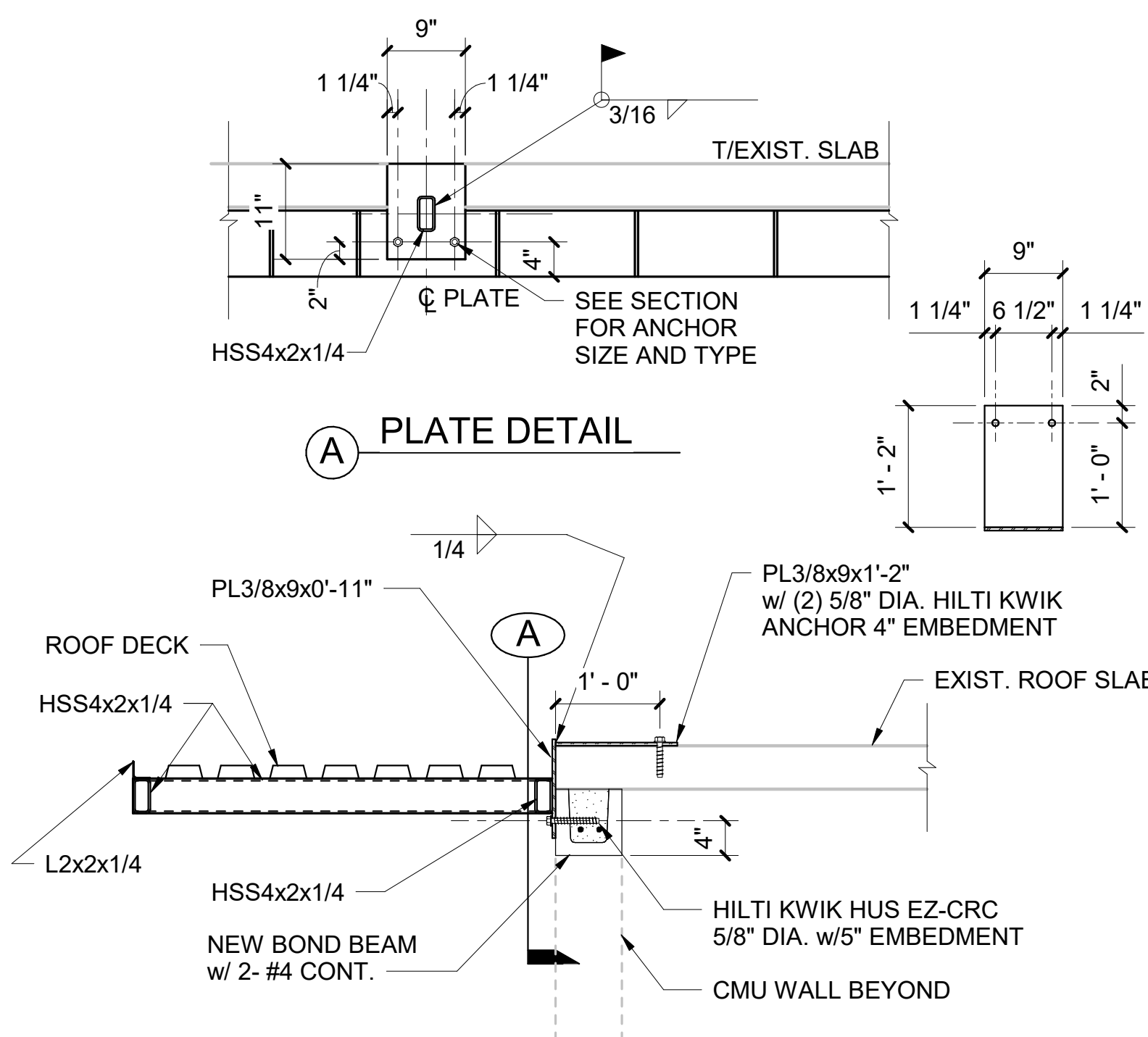


AT UNEQUAL DEPTH BEAMS **AT EQUAL DEPTH BEAMS**

4 TYPICAL WELD THROUGH DETAIL

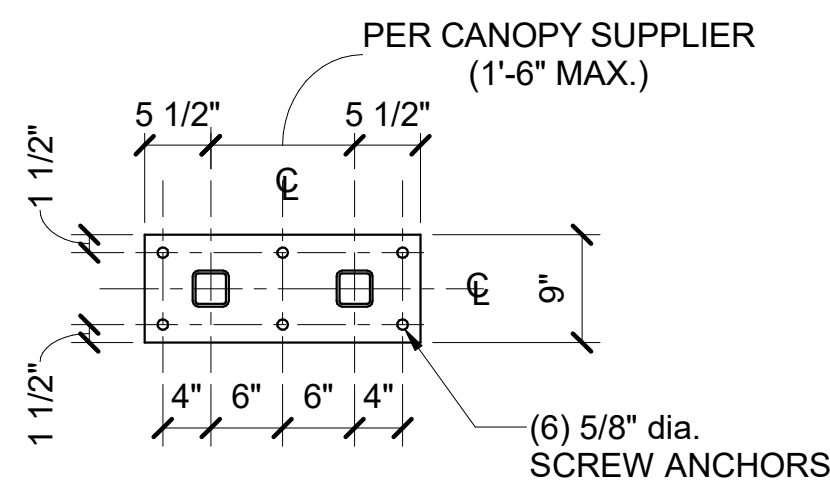


3 STANDARD SHEAR SPLICE DETAIL

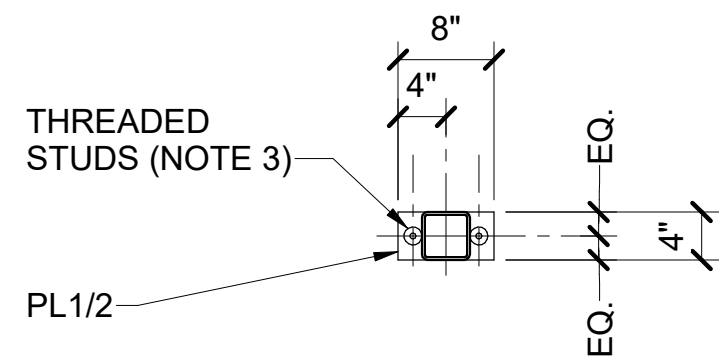


2 SECTION AT CANTILEVERED CANOPY CONNECTION DETAILS TO EXISTING SLAB

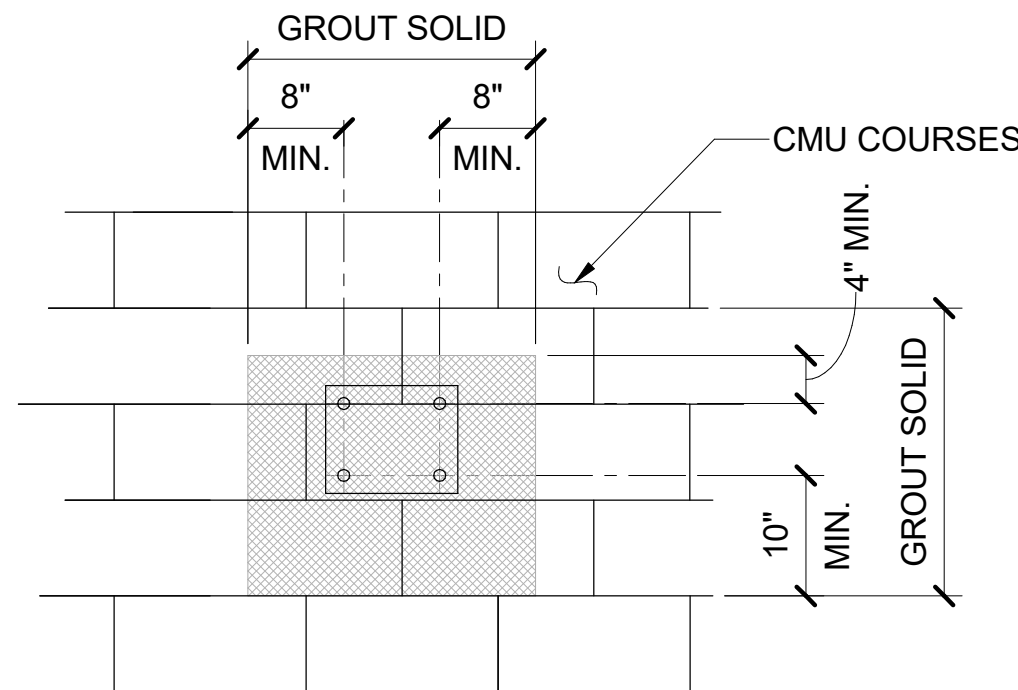
- NOTES:
1. ALL STEEL FOR CANOPY ANCHORAGE SHALL BE HOT DIPPED GALVANIZED AFTER FABRICATION.
 2. COORDINATE NUMBER AND TYPE OF BRACKETS WITH SHOP DRAWINGS.
 3. COORDINATE QUANTITY, SIZE, AND SPACING OF THREADED STUDS WITH CANOPY SHOP DRAWINGS. PROVIDE EYE BOLTS INSTEAD OF THREADED STUDS IF REQUIRED BY CANOPY SUPPLIER.
 4. USE THE COMBINED REAR PLATE DETAIL WHERE "NOTE 4" IS INDICATED FOR CANOPY BOTTOM CONNECTIONS WHERE THREADED STUD CONNECTIONS ON CANOPY ARE TOO CLOSE TOGETHER TO ALLOW THE USE OF INDIVIDUAL REAR PLATES.
 5. ROUND HSS OR STD PIPE MAY BE USED IN LIEU OF SQUARE HSS TUBES. COORDINATE WITH ARCHITECTURAL AND CANOPY SUPPLIER DRAWINGS FOR INTENT OF DESIGN.



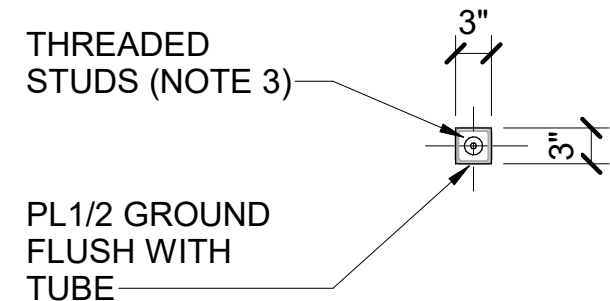
COMBINED REAR PLATE
(NOTE 4)



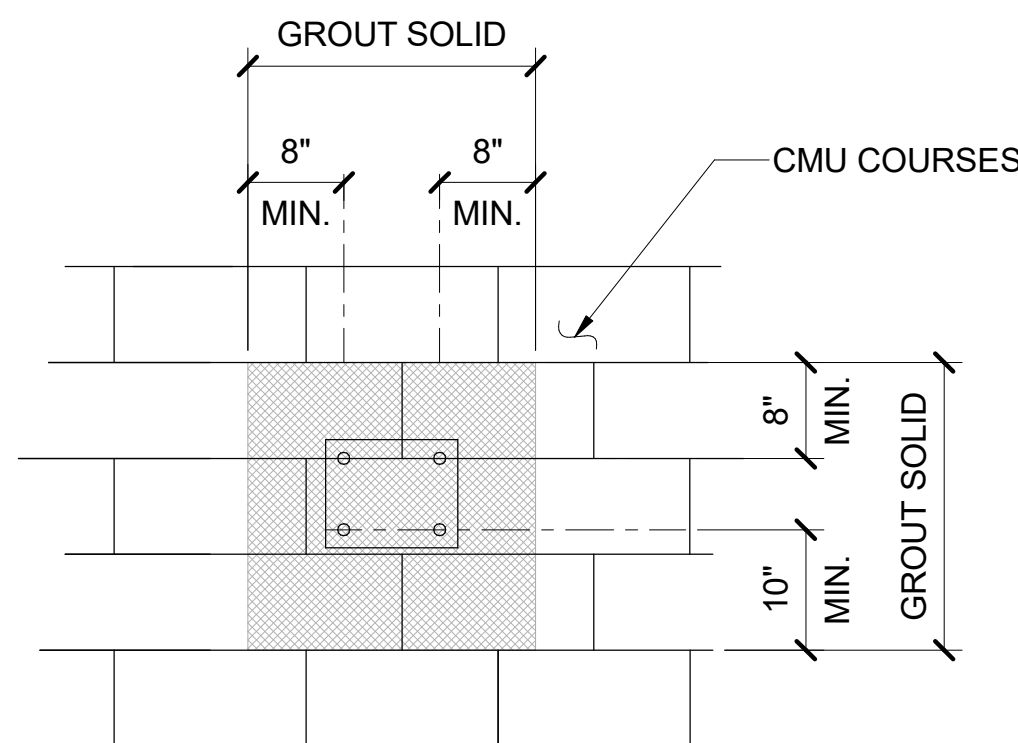
FRONT PLATE AT DOUBLE THREADED STUDS



REAR PLATE GROUTED CELLS DETAIL

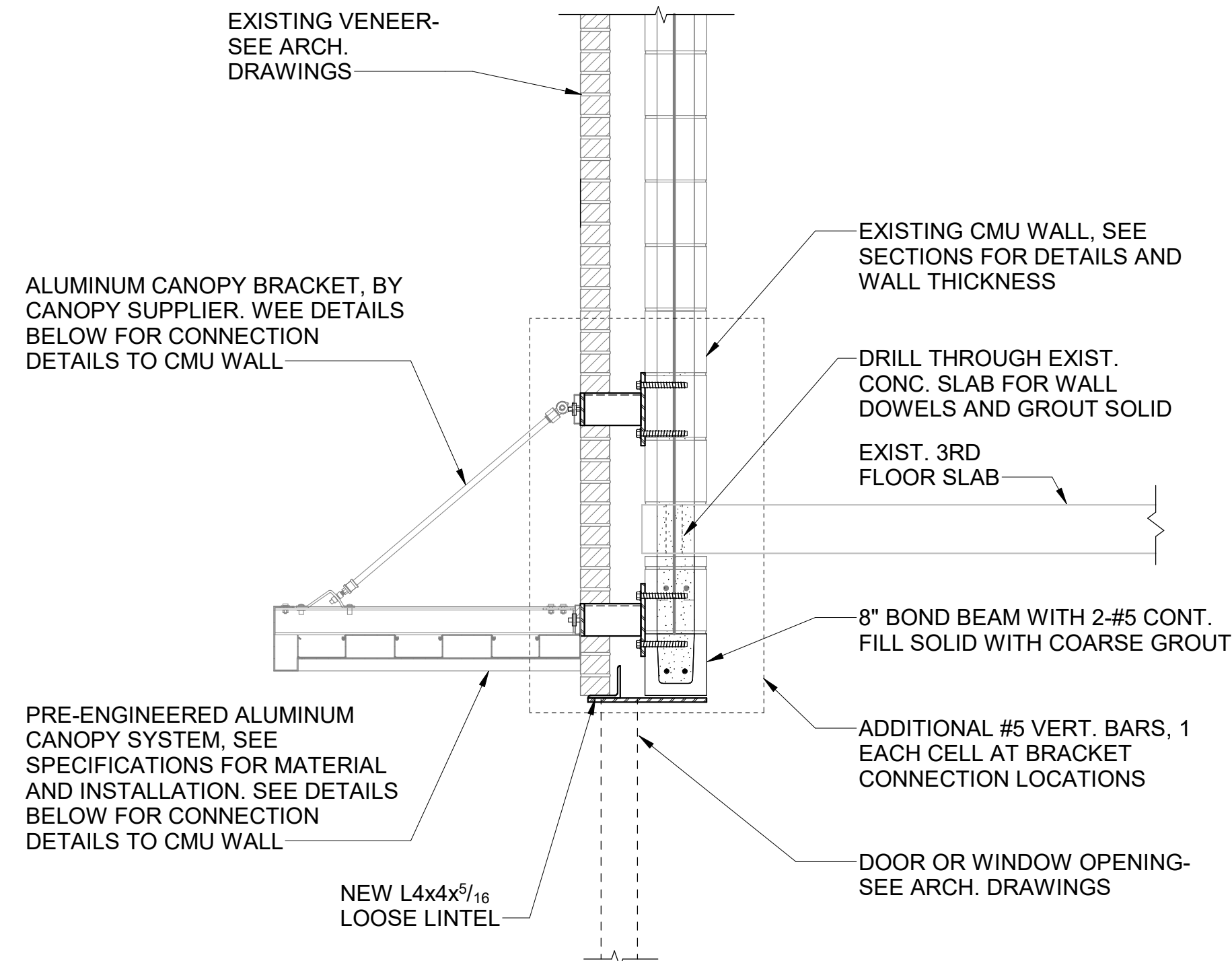


FRONT PLATE AT SINGLE THREADED STUD

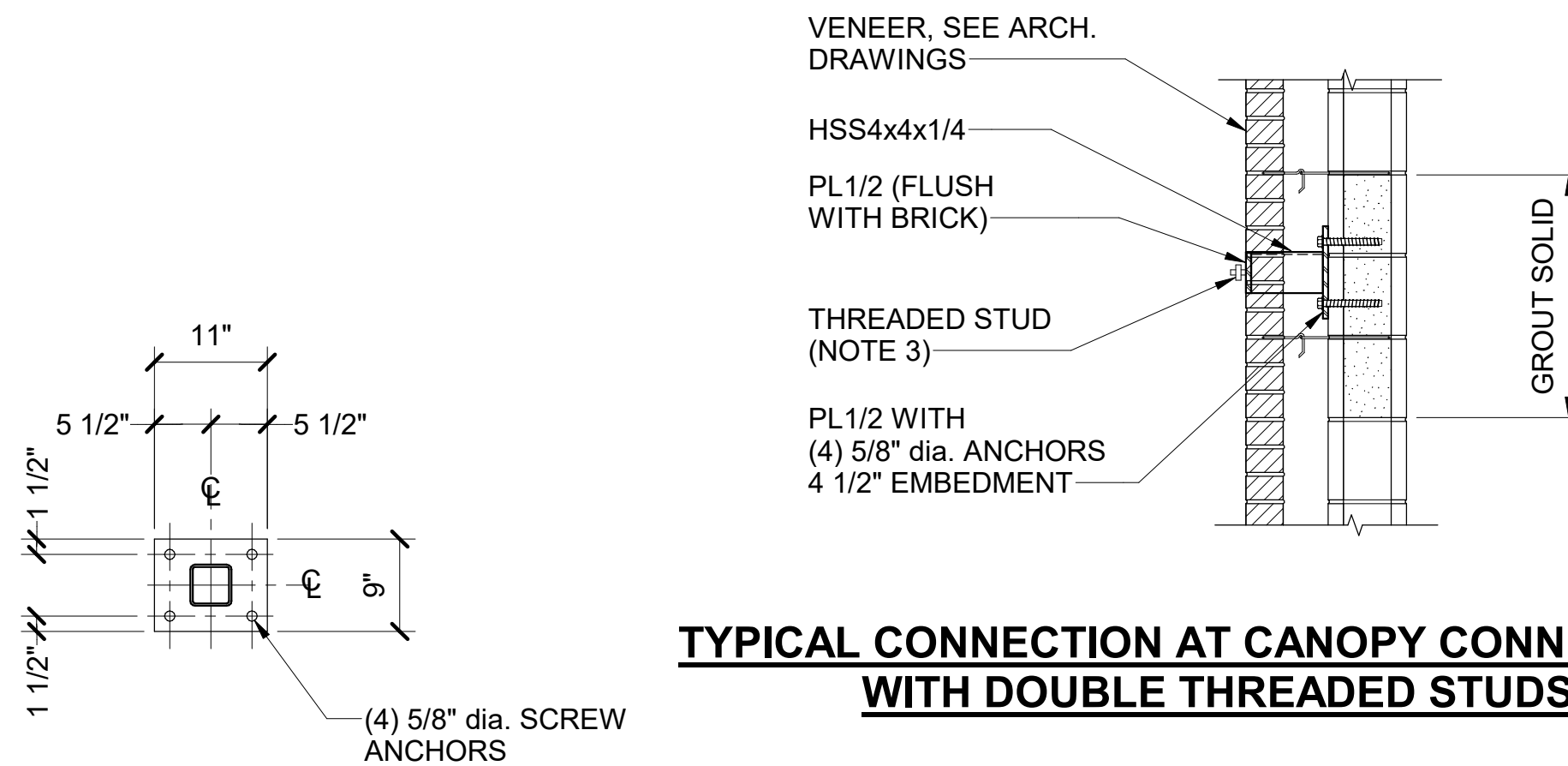


REAR PLATE GROUTED CELLS DETAIL

NOTE:
CMU WALL FRAMING SECTIONS FOR INFO. NOT SHOWN. SEE PLAN AND/OR SECTIONS FOR CMU WALL REINFORCING

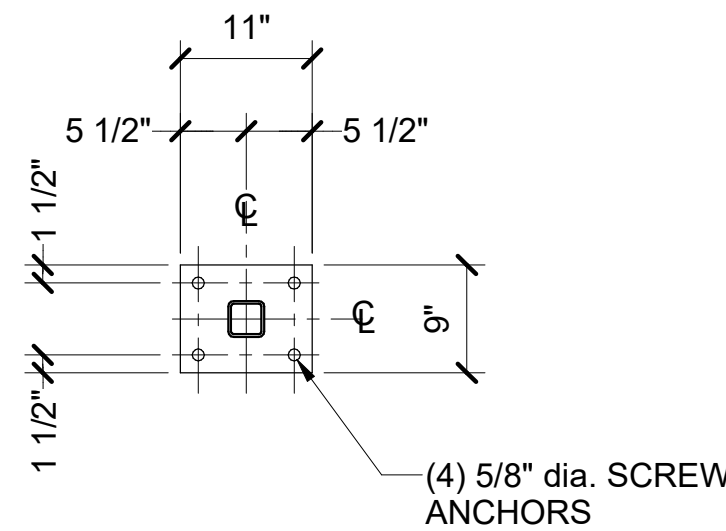


SECTION AT PRE-ENGINEERED CANOPY

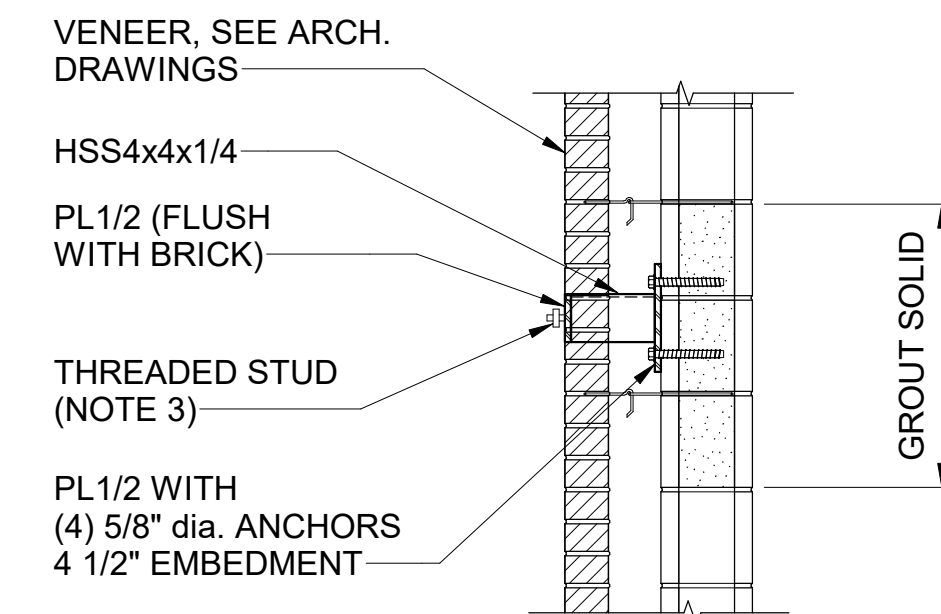


TYPICAL CONNECTION AT CANOPY CONNECTIONS WITH DOUBLE THREADED STUDS

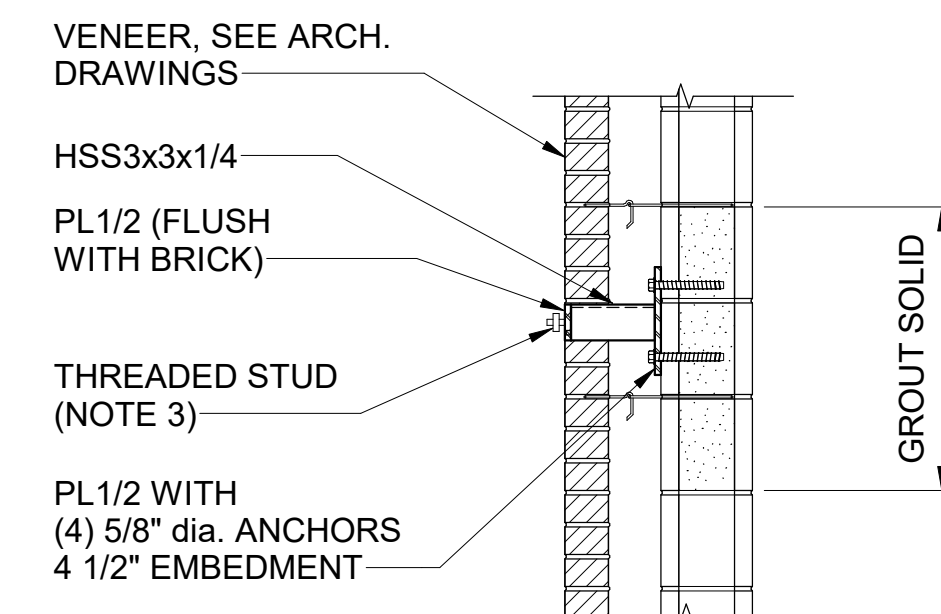
REAR PLATE AT DOUBLE THREADED STUDS



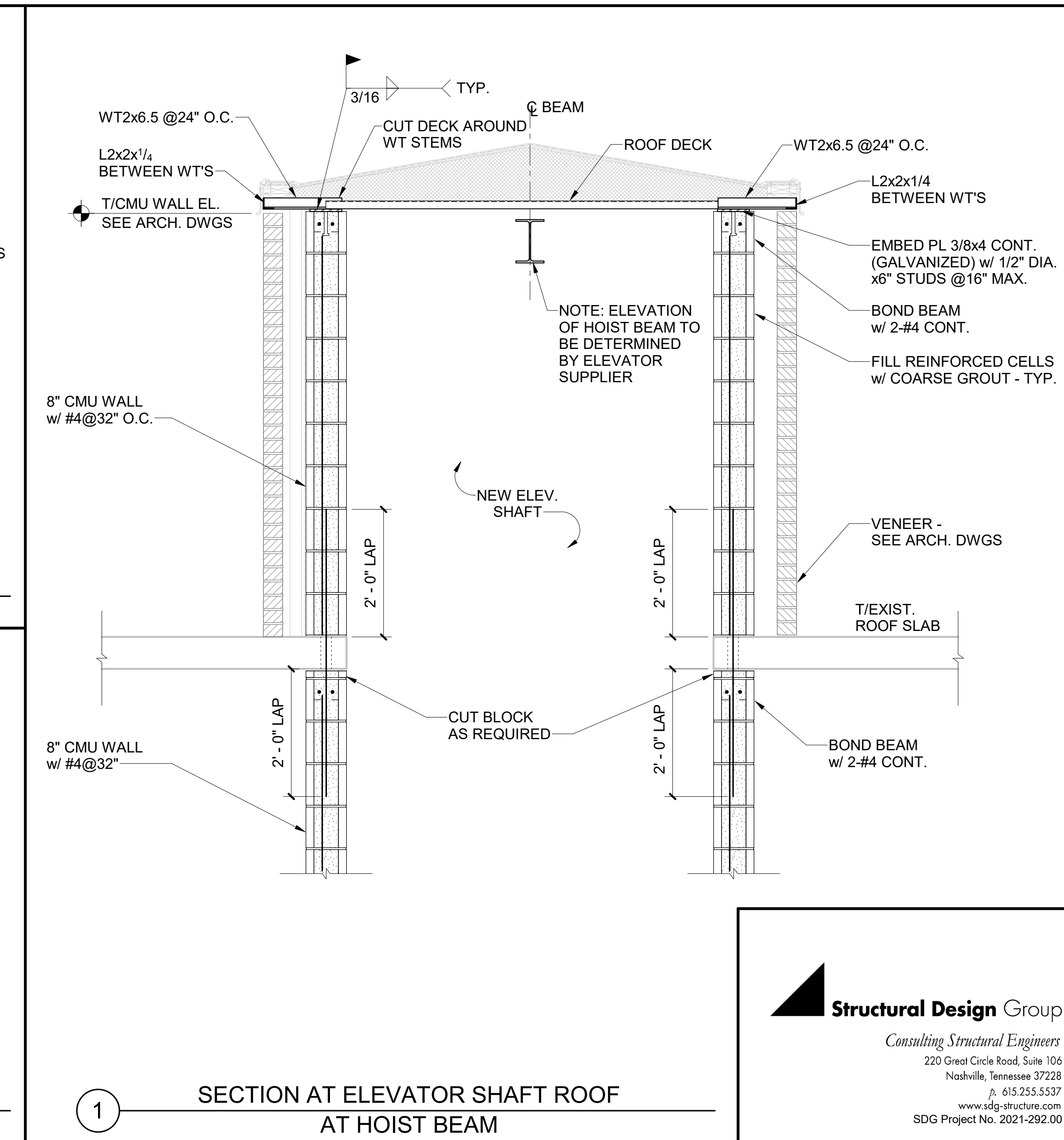
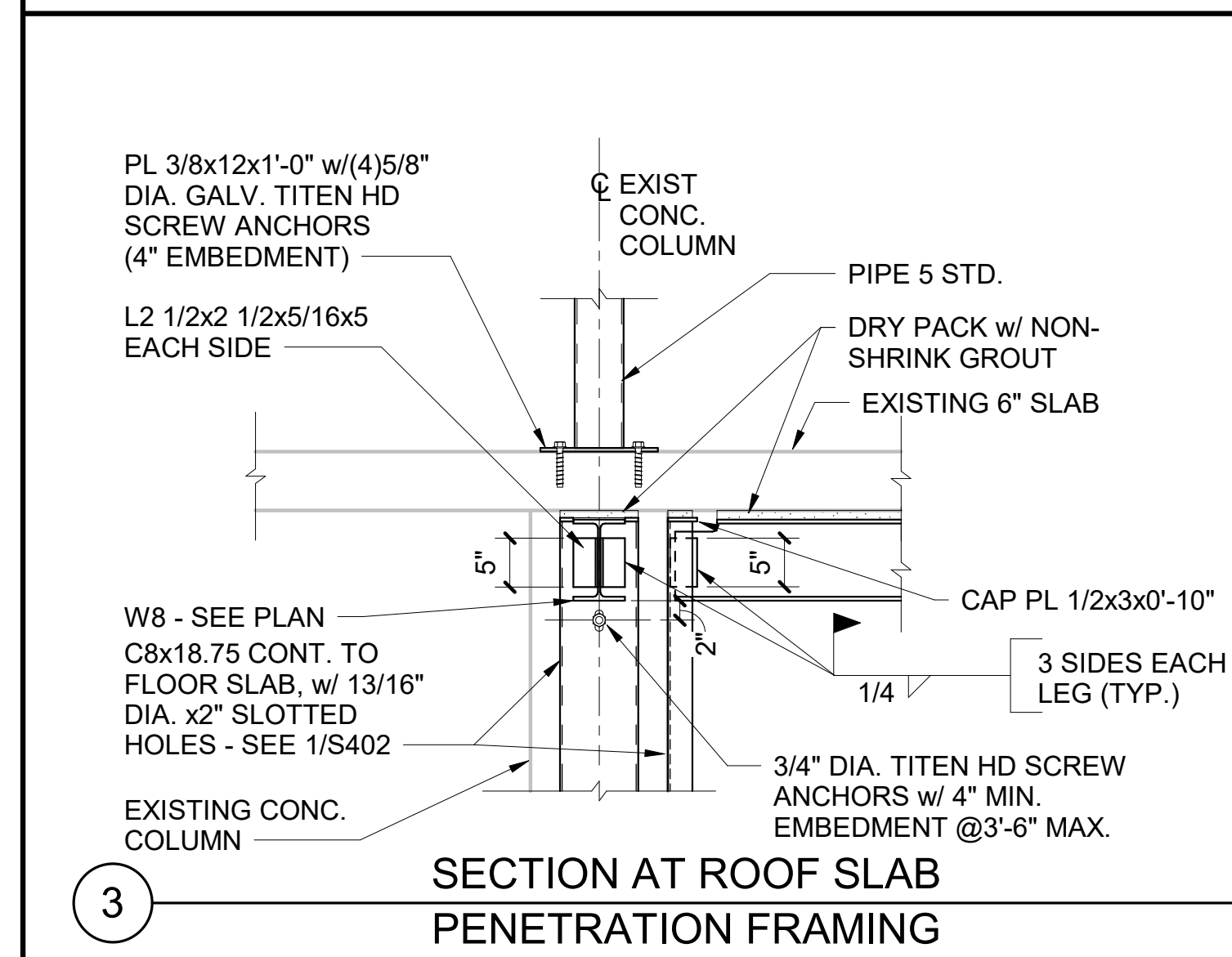
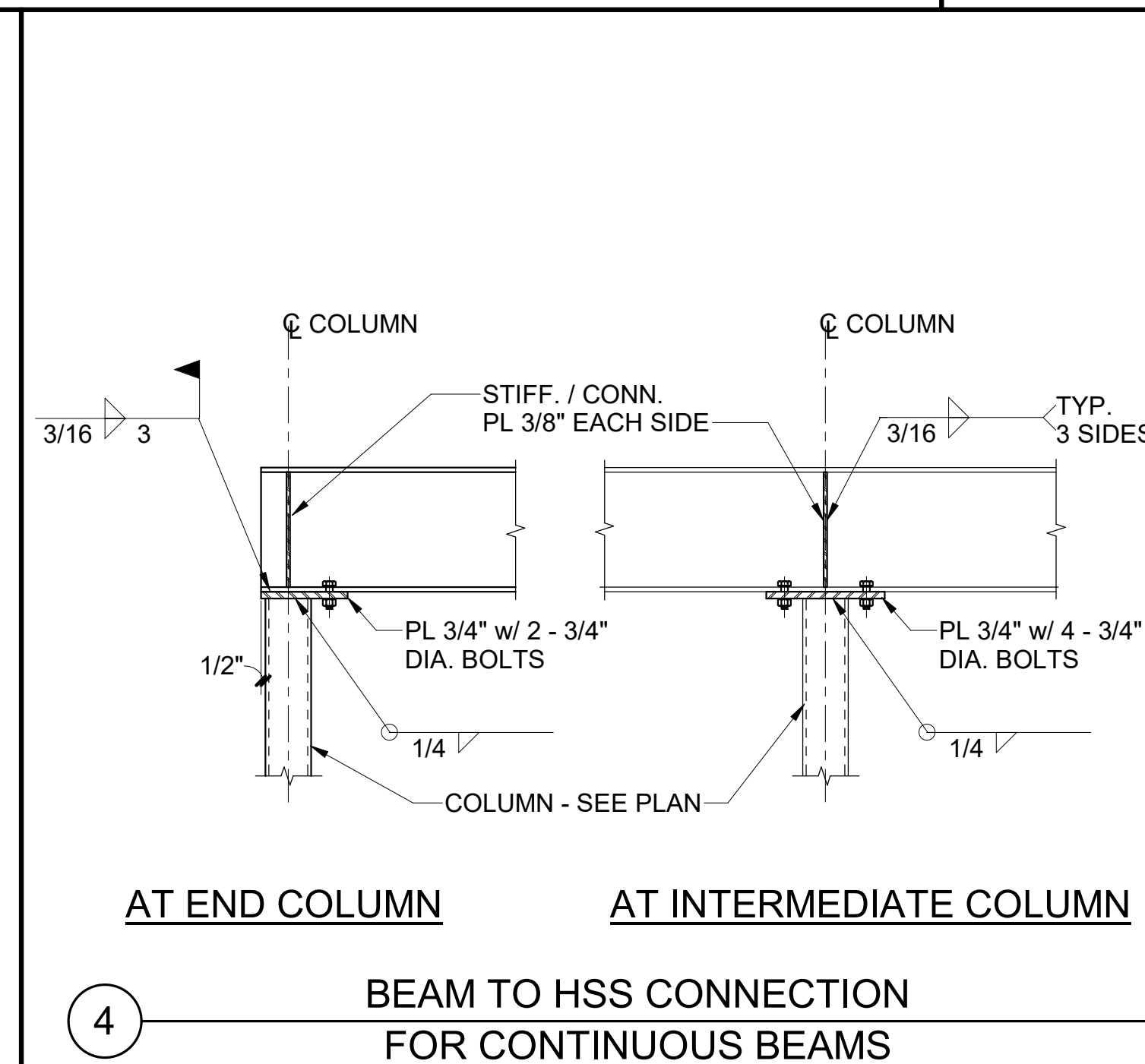
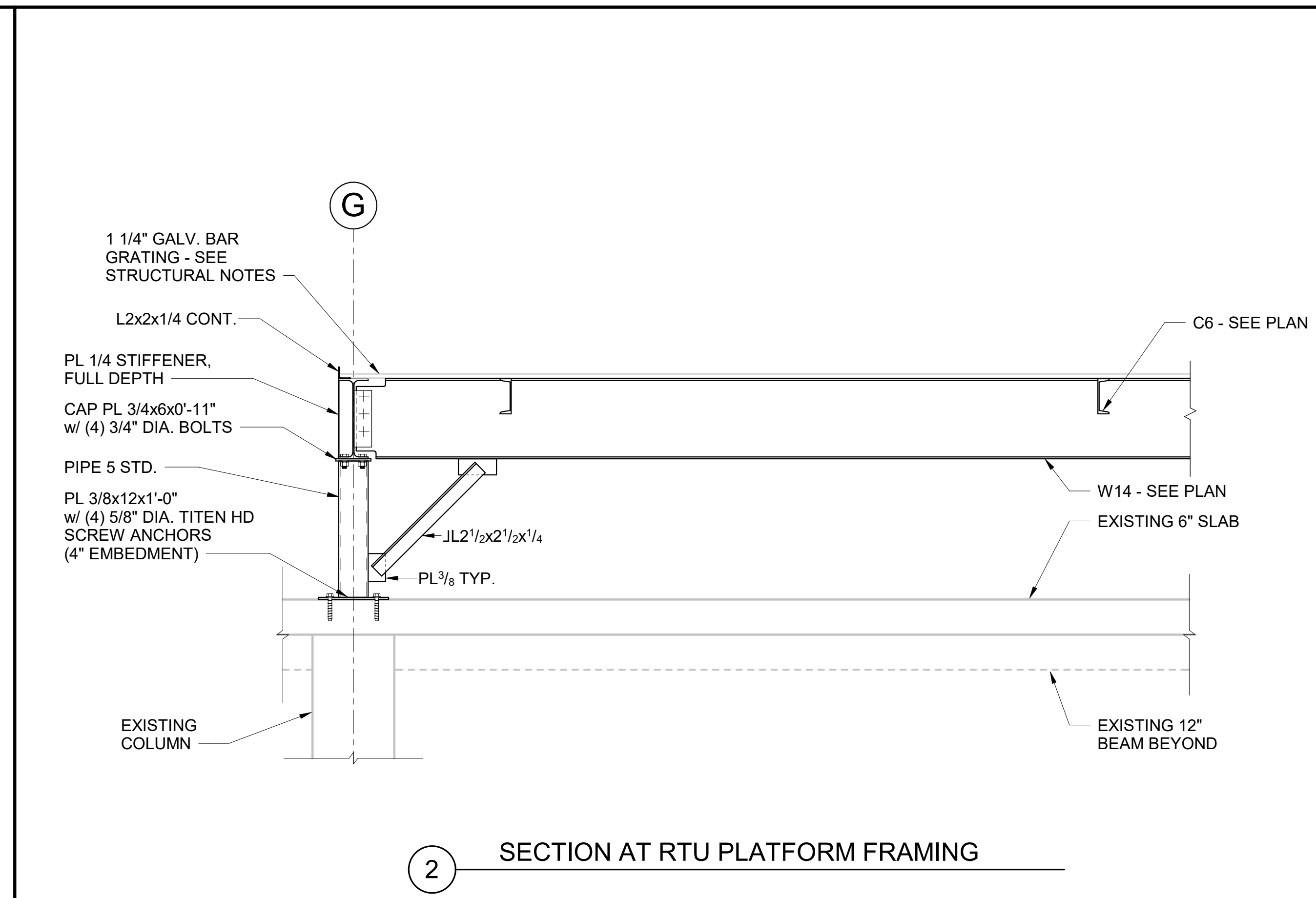
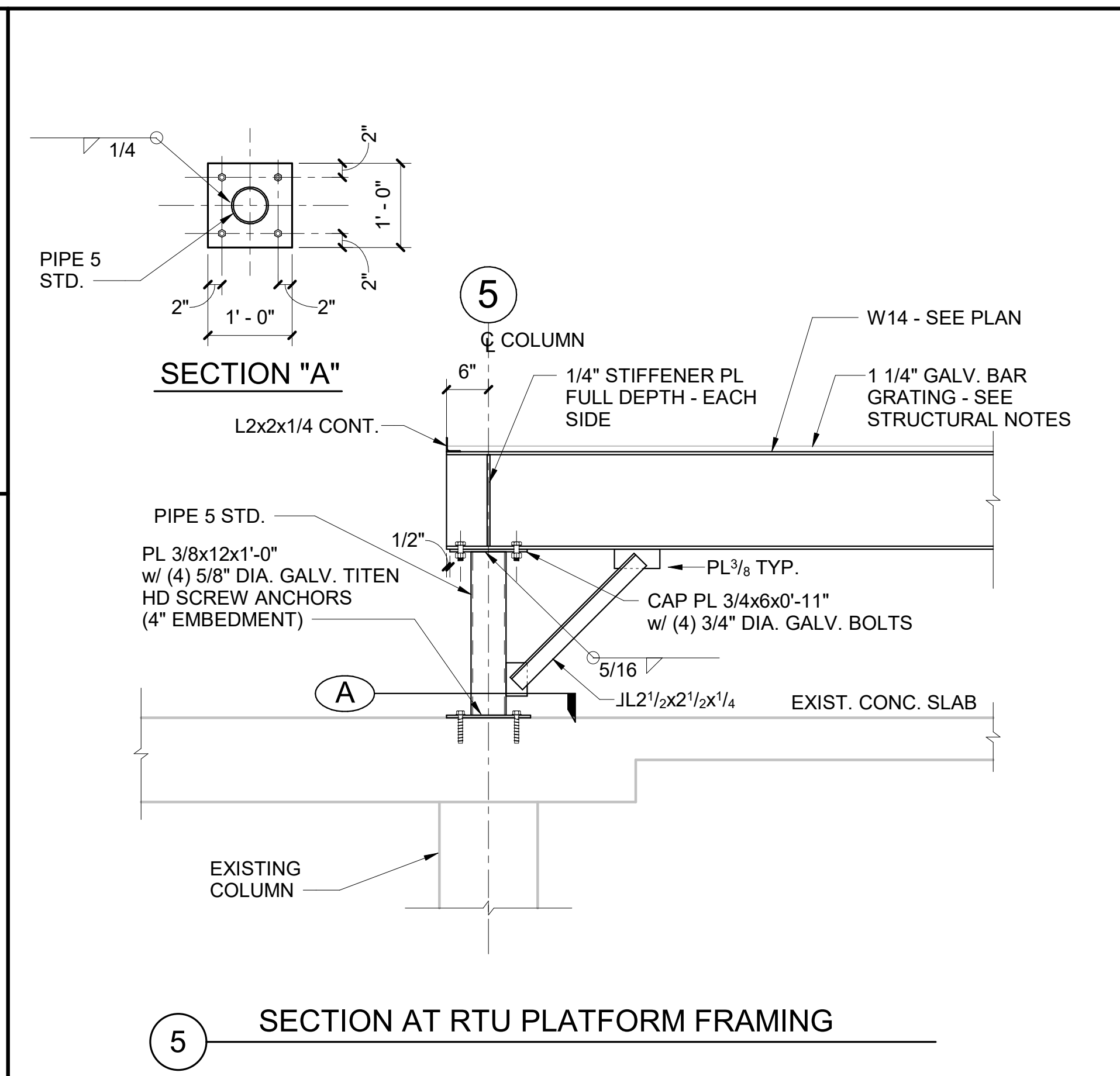
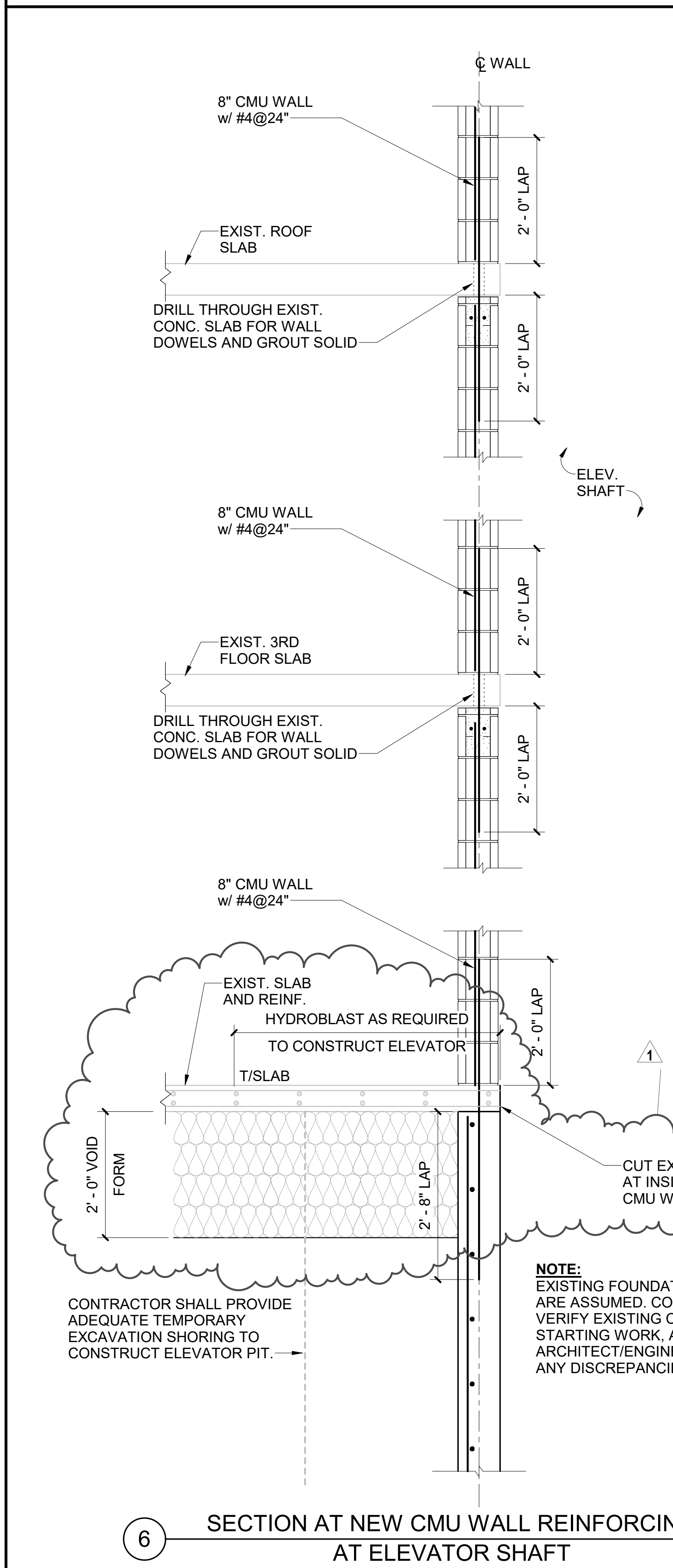
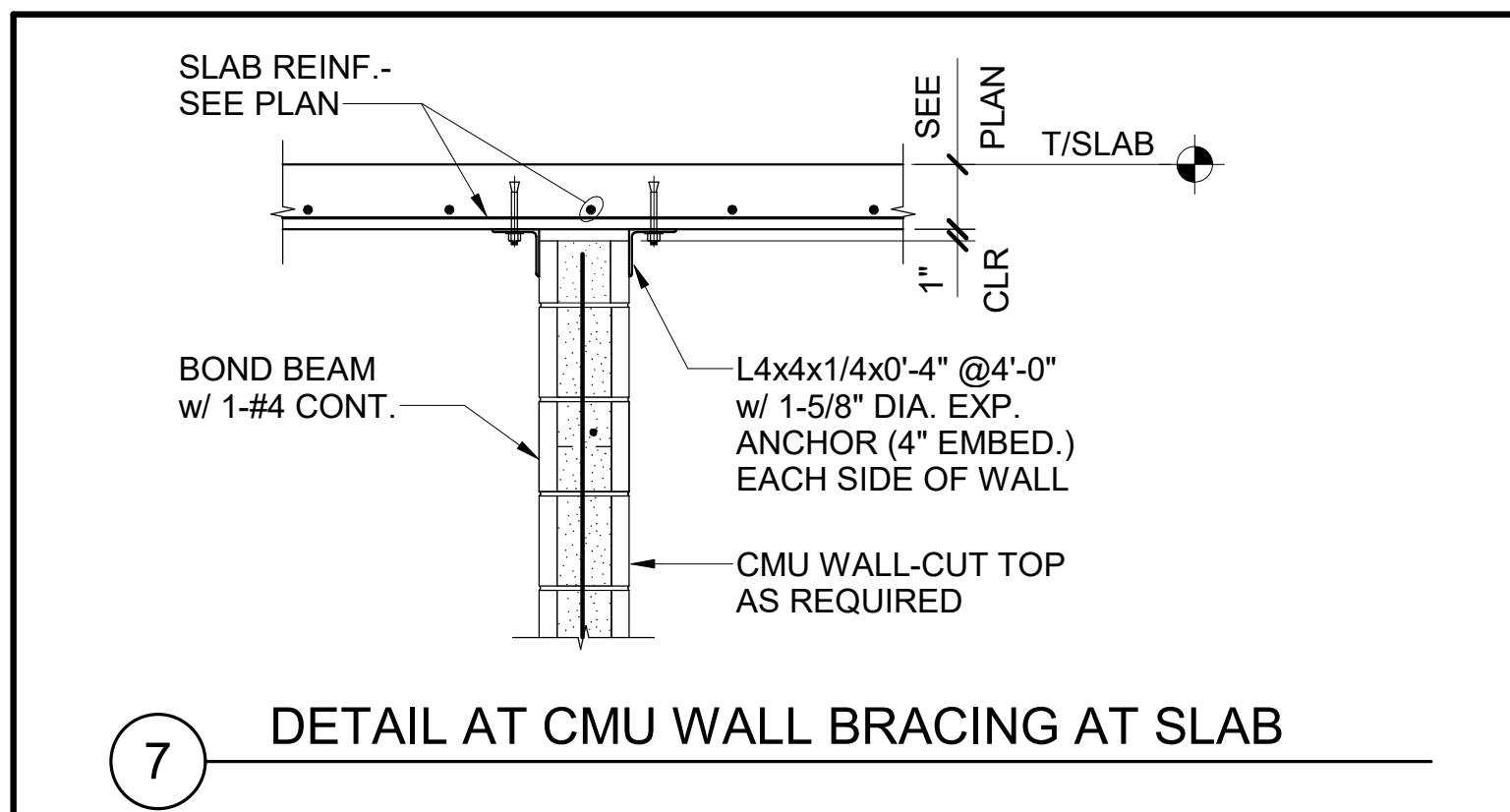
REAR PLATE AT SINGLE THREADED STUD

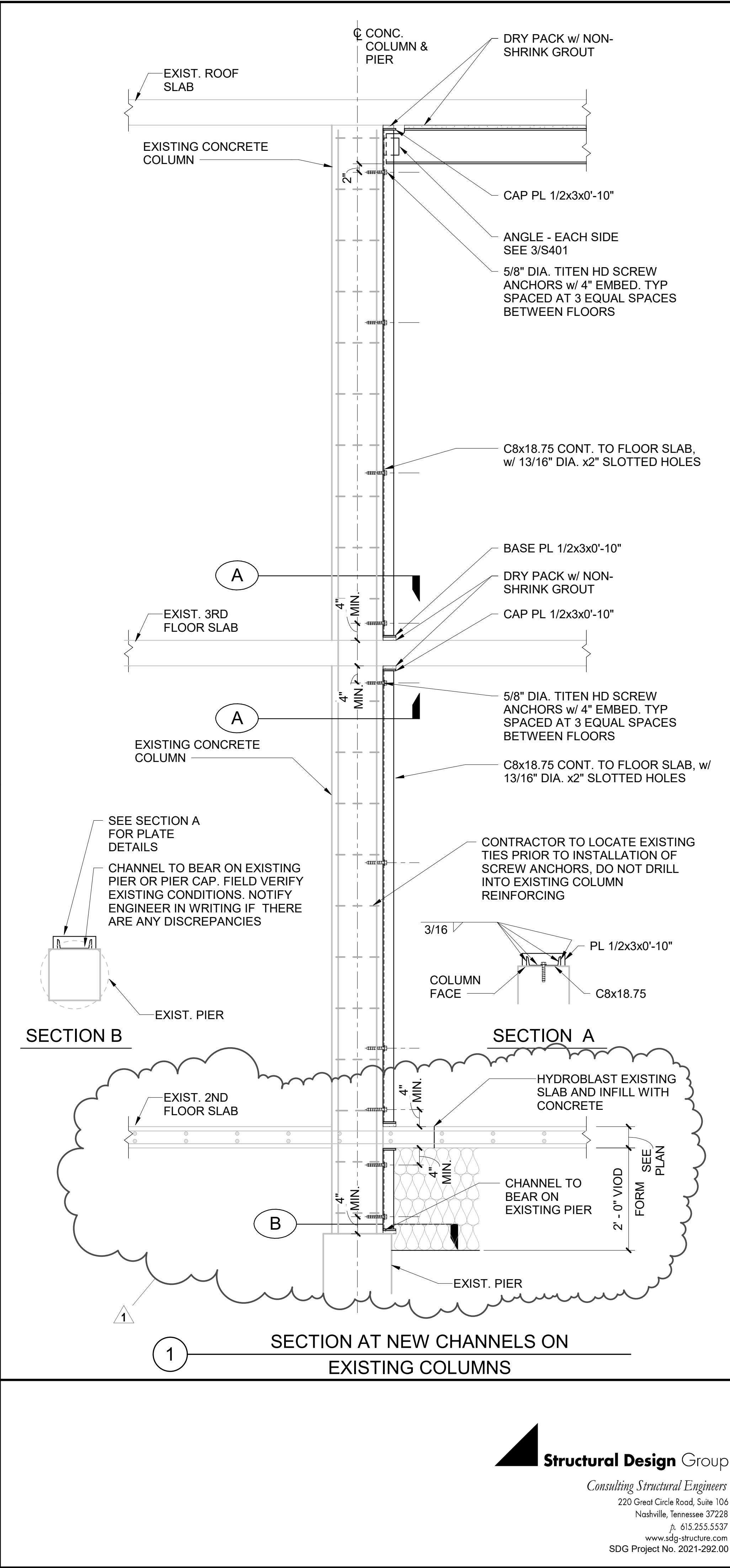
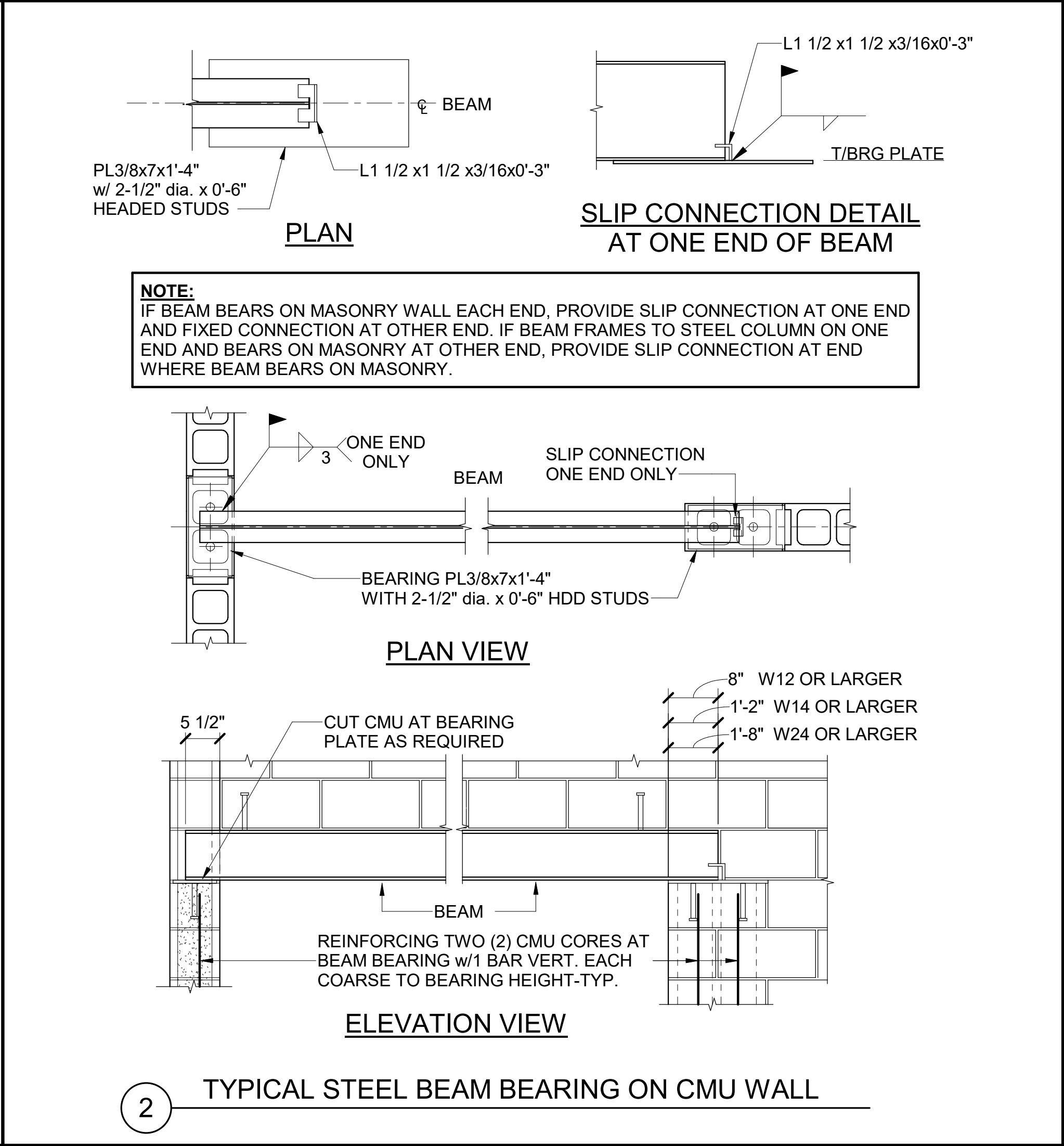
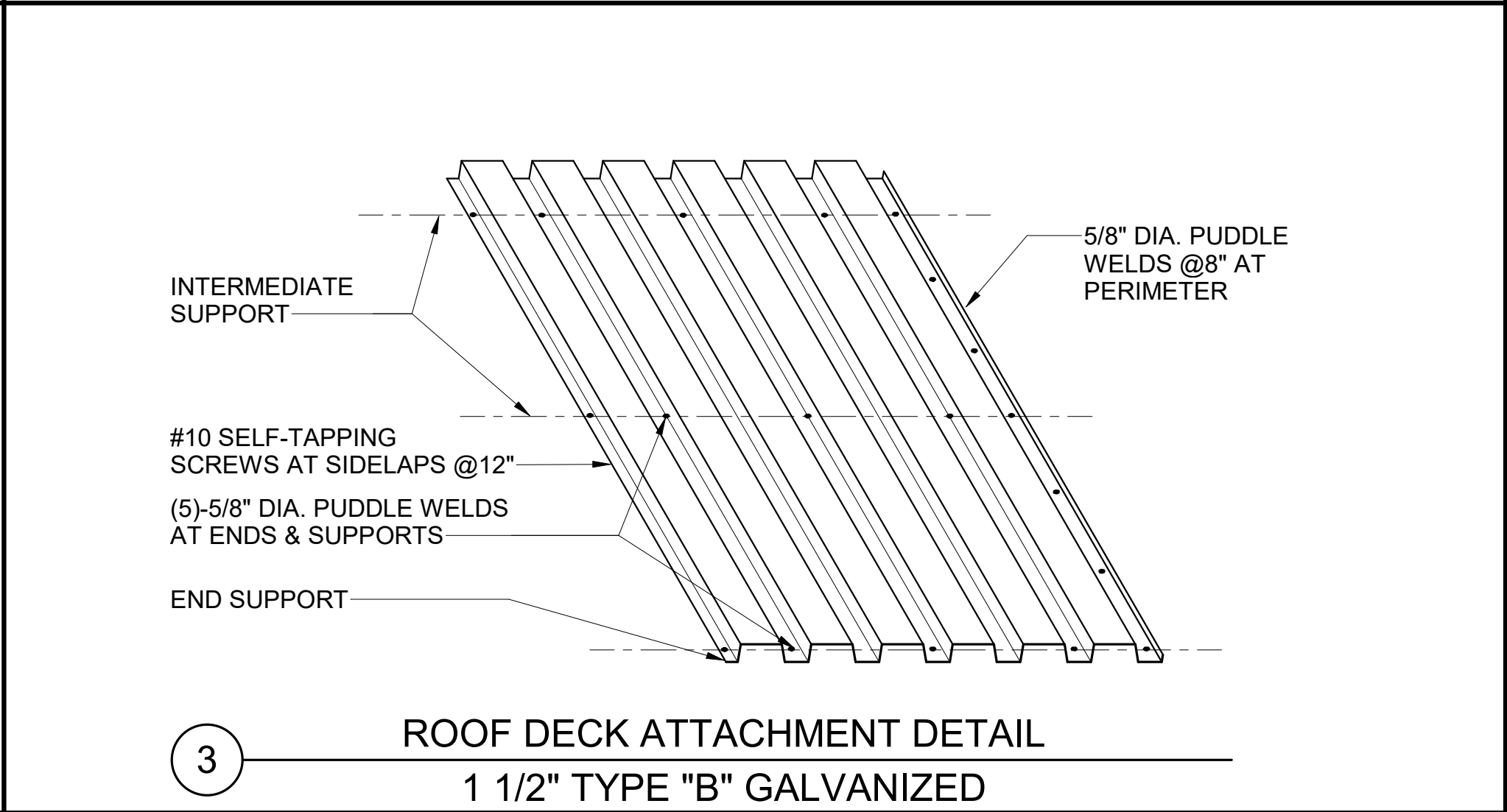
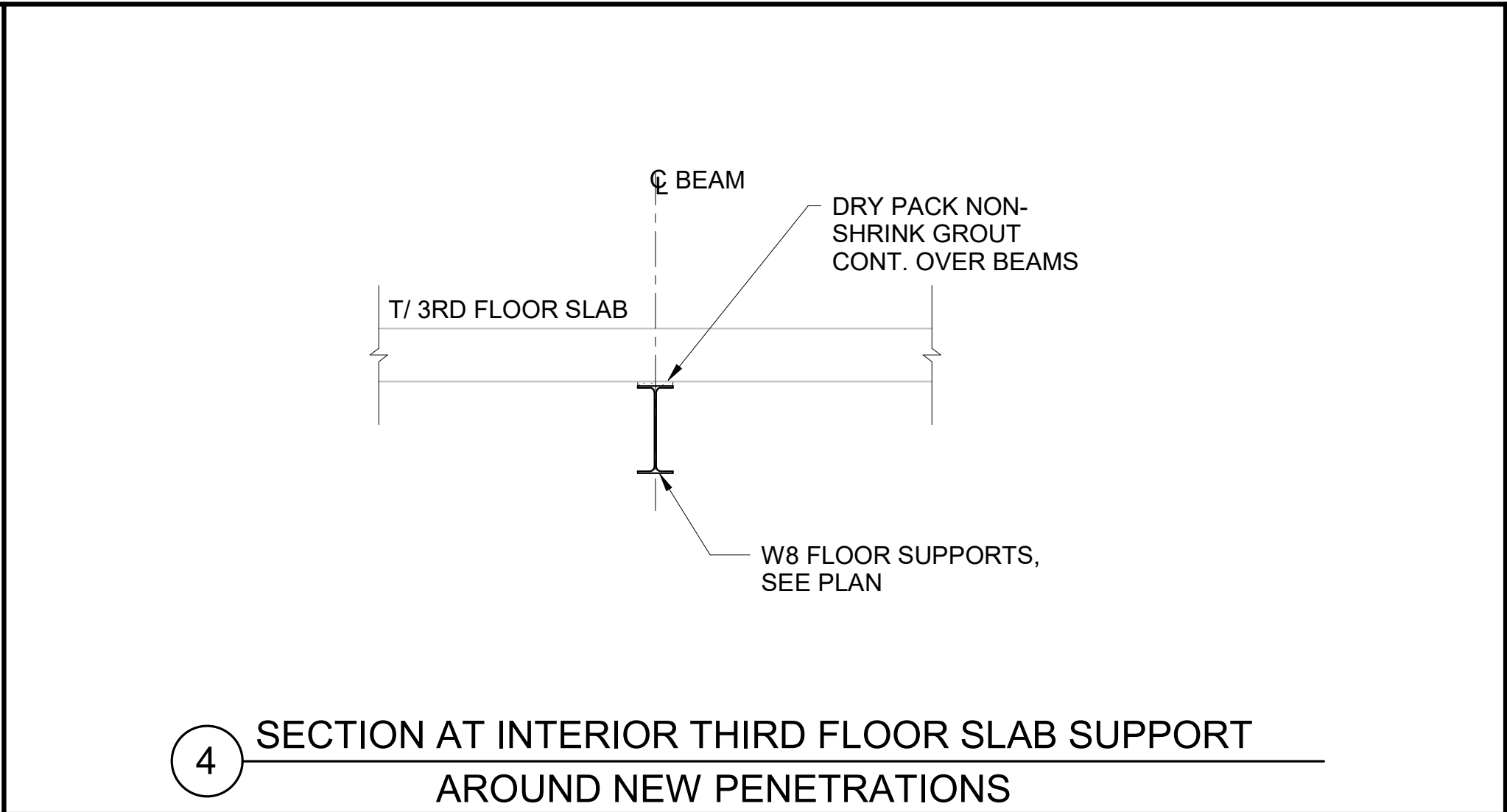
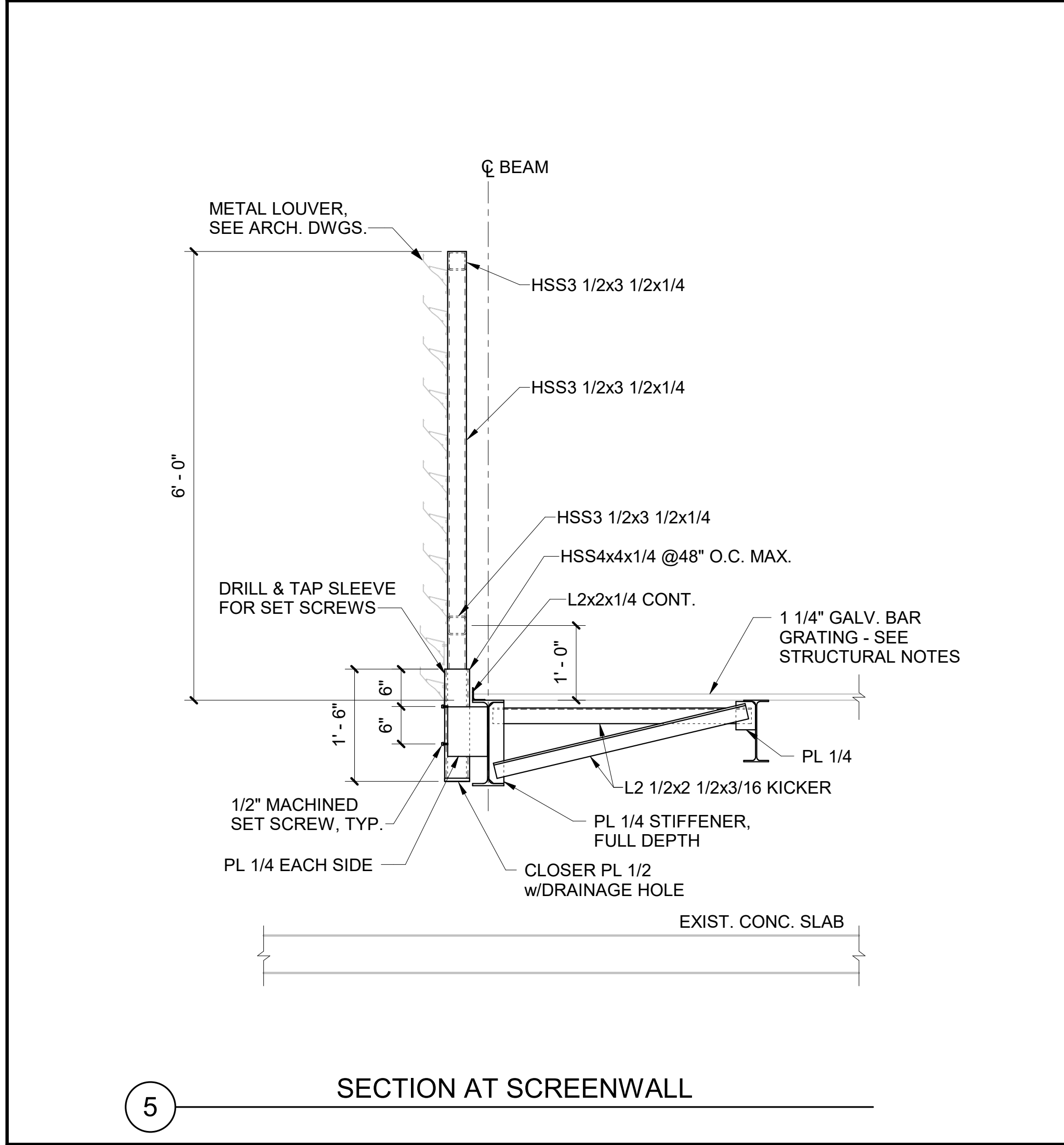
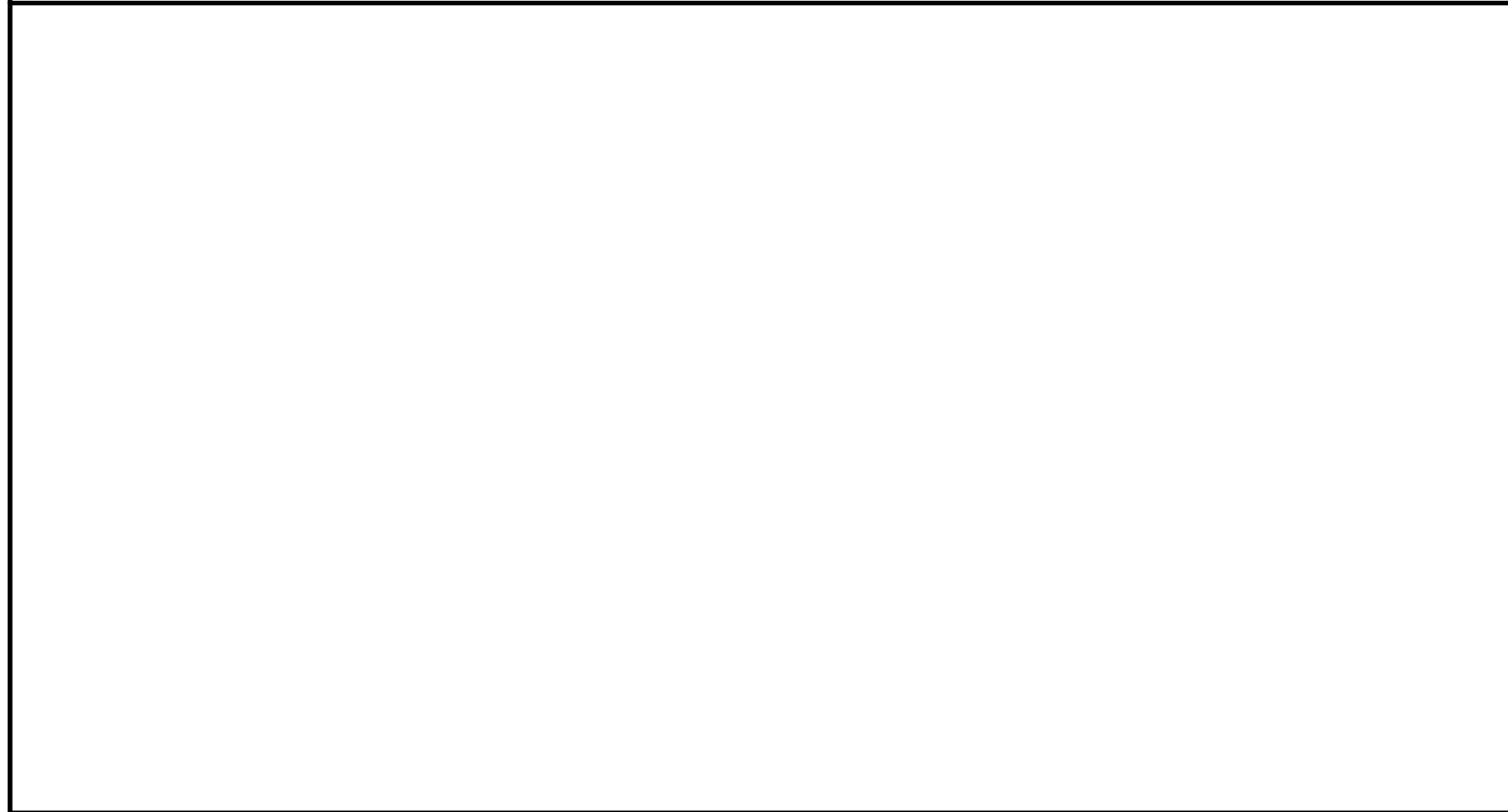
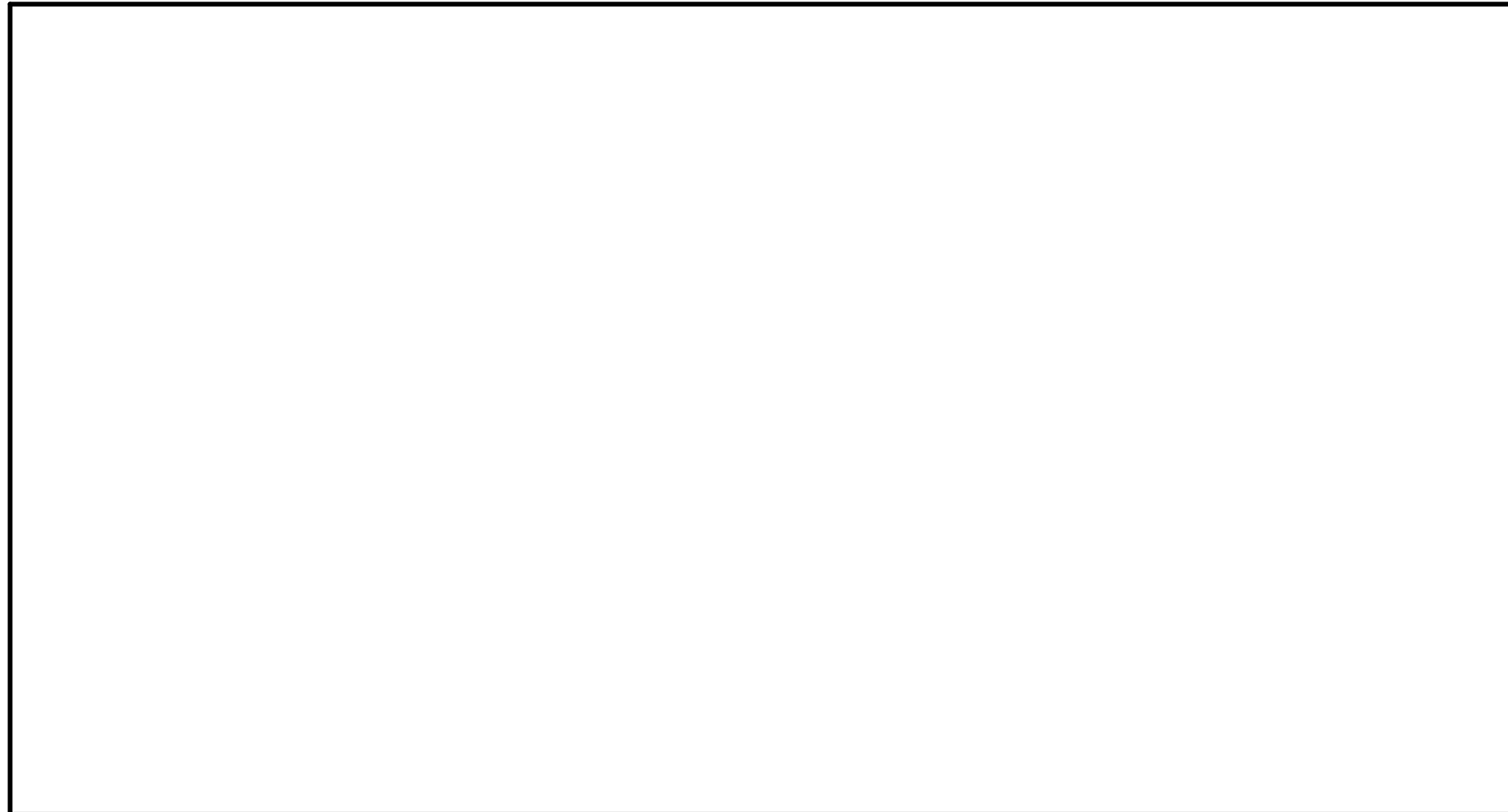


TYPICAL CONNECTION AT CANOPY CONNECTIONS WITH SINGLE THREADED STUD



Structural Design Group
Consulting Structural Engineers
220 Great Circle Road, Suite 104
Nashville, Tennessee 37228
P. 615.255.5537
www.sdg-structure.com
SDG Project No. 2021-292.00





GS# 362-066 West Lot Improvements (Paving and Renovations Ph 1)

DFA (Capitol Facilities) - Jackson, Mississippi

SHAFAER ZAHNER ZAHNER

OFFICE OF ARCHITECTURE

510 UNIVERSITY DRIVE
STARKVILLE, MISSISSIPPI 39759
szarch.com 1(662) 323-1628

SHEET **S402**

FRAMING SECTIONS AND DETAILS

DATE: 11.10.2021
SZARCH#: 2141
DRAWN BY: C.F.
CHECKED BY: W.G./T.S.

REVISIONS:
1/20/2022 REV. 1

Structural Design Group
Consulting Structural Engineers
220 Great Circle Road, Suite 104
Nashville, Tennessee 37228
P. 615.255.5537
www.sdg-structure.com
SDG Project No. 2021-292.00

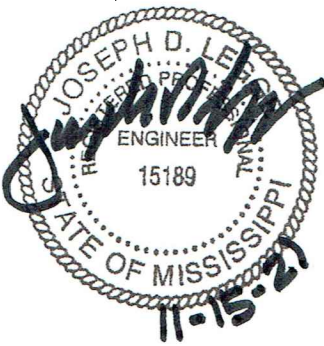
SYSTEMS COORDINATION SCHEDULE										
SYSTEM	DEVICE TYPE	SYSTEM FURNISHED BY	SYSTEM INSTALLED BY	ROUGH-IN PROVIDED BY	BOX SIZE	BOX DEPTH	WIRING BETWEEN DEVICES BY	FULL CONDUIT	CONDUIT STUB	REMARKS
DOOR ACCESS CONTROL	ELECTRIFIED LOCK	DOOR HARDWARE VENDOR	DOOR HARDWARE VENDOR	ELECTRICAL CONT	NOTE #5	NOTE #5	NOTE #4	X		ELECT CONTR PROVIDES ROUGH-IN ONLY - SEE NOTE #7
DOOR ACCESS CONTROL	DOOR POSITION SWITCH	DOOR HARDWARE VENDOR	DOOR HARDWARE VENDOR	ELECTRICAL CONT	NOTE #5	NOTE #5	NOTE #4	X		ELECT CONTR PROVIDES ROUGH-IN ONLY - SEE NOTE #7
DOOR ACCESS CONTROL	CARD READER	DOOR HARDWARE VENDOR	DOOR HARDWARE VENDOR	ELECTRICAL CONT	NOTE #5	NOTE #5	NOTE #4	X		ELECT CONTR PROVIDES ROUGH-IN ONLY - SEE NOTE #7
DOOR ACCESS CONTROL	DOOR RELEASE	DOOR HARDWARE VENDOR	DOOR HARDWARE VENDOR	ELECTRICAL CONT	NOTE #5	NOTE #5	NOTE #4	X		ELECT CONTR PROVIDES ROUGH-IN ONLY - SEE NOTE #7
DOOR ACCESS CONTROL	PUSH BUTTON DOOR ACTIVATOR	DOOR HARDWARE VENDOR	DOOR HARDWARE VENDOR	ELECTRICAL CONT	NOTE #5	NOTE #5	NOTE #4	X		ELECT CONTR PROVIDES ROUGH-IN ONLY - SEE NOTE #7
DOOR ACCESS CONTROL	DOOR ACCESS CONTROL PANEL	DOOR HARDWARE VENDOR	DOOR HARDWARE VENDOR	ELECTRICAL CONT	NOTE #5	NOTE #5	NOTE #4	X		ELECT CONTR PROVIDES ROUGH-IN ONLY - SEE NOTE #7
DOOR ACCESS CONTROL	DOOR POWER SUPPLY	DOOR HARDWARE VENDOR	DOOR HARDWARE VENDOR	ELECTRICAL CONT	NOTE #5	NOTE #5	NOTE #4	X		ELECT CONTR PROVIDES ROUGH-IN ONLY - SEE NOTE #7
DOOR ACCESS CONTROL	POWER DOOR OPERATOR	DOOR HARDWARE VENDOR	DOOR HARDWARE VENDOR	ELECTRICAL CONT	NOTE #5	NOTE #5	NOTE #4	X		ELECT CONTR PROVIDES ROUGH-IN ONLY - SEE NOTE #7
DOOR ACCESS CONTROL	LOCK RELEASE & REQUEST TO EXIT	DOOR HARDWARE VENDOR	DOOR HARDWARE VENDOR	ELECTRICAL CONT	NOTE #5	NOTE #5	NOTE #4	X		ELECT CONTR PROVIDES ROUGH-IN ONLY - SEE NOTE #7
DOOR ACCESS CONTROL	ELECTRIFIED HINGE	DOOR HARDWARE VENDOR	DOOR HARDWARE VENDOR	ELECTRICAL CONT	NOTE #5	NOTE #5	NOTE #4	X		ELECT CONTR PROVIDES ROUGH-IN ONLY - SEE NOTE #7
DOOR ACCESS CONTROL	PANIC BUTTON	DOOR HARDWARE VENDOR	DOOR HARDWARE VENDOR	ELECTRICAL CONT	NOTE #5	NOTE #5	NOTE #4	X		ELECT CONTR PROVIDES ROUGH-IN ONLY - SEE NOTE #7
DOOR ACCESS CONTROL	MAGNETIC LOCK	DOOR HARDWARE VENDOR	DOOR HARDWARE VENDOR	ELECTRICAL CONT	NOTE #5	NOTE #5	NOTE #4	X		ELECT CONTR PROVIDES ROUGH-IN ONLY - SEE NOTE #7
SITE ACCESS CONTROL	CARD READER	ELECTRICAL CONT	ELECTRICAL CONT	ELECTRICAL CONT	SEE PLANS	SEE PLANS	ELECTRICAL CONT	X		ELECT CONTR PROVIDES COMPLETE SYSTEM
SITE ACCESS CONTROL	LONG RANGE TARGET READER	ELECTRICAL CONT	ELECTRICAL CONT	ELECTRICAL CONT	SEE PLANS	SEE PLANS	ELECTRICAL CONT	X		ELECT CONTR PROVIDES COMPLETE SYSTEM
SITE ACCESS CONTROL	PUSH TO EXIT BUTTON	ELECTRICAL CONT	ELECTRICAL CONT	ELECTRICAL CONT	SEE PLANS	SEE PLANS	ELECTRICAL CONT	X		ELECT CONTR PROVIDES COMPLETE SYSTEM
CCTV	CAMERAS (ALL TYPES)	ELECTRICAL CONT	ELECTRICAL CONT	ELECTRICAL CONT	NOTE #1	NOTE #2	MS ITS		X	ELECT CONTR PROVIDES CAMERAS & MOUNTS
CCTV	HEAD-END EQUIPMENT	MS DFA/ITS	MS DFA/ITS	N/A	N/A	N/A	MS ITS	N/A	N/A	MS DFA/ITS PROVIDES COMPLETE SYSTEM
FIRE ALARM	PULL STATION	ELECTRICAL CONT	ELECTRICAL CONT	ELECTRICAL CONT	NOTE #3	NOTE #3	ELECTRICAL CONT	X		ELECT CONTR PROVIDES COMPLETE SYSTEM
FIRE ALARM	A/V DEVICE (HORN - LIGHT)	ELECTRICAL CONT	ELECTRICAL CONT	ELECTRICAL CONT	NOTE #3	NOTE #3	ELECTRICAL CONT	X		ELECT CONTR PROVIDES COMPLETE SYSTEM
FIRE ALARM	FLASHING LIGHT ONLY	ELECTRICAL CONT	ELECTRICAL CONT	ELECTRICAL CONT	NOTE #3	NOTE #3	ELECTRICAL CONT	X		ELECT CONTR PROVIDES COMPLETE SYSTEM
FIRE ALARM	HEAT DETECTOR	ELECTRICAL CONT	ELECTRICAL CONT	ELECTRICAL CONT	NOTE #3	NOTE #3	ELECTRICAL CONT	X		ELECT CONTR PROVIDES COMPLETE SYSTEM
FIRE ALARM	SMOKE DETECTOR - CEILING	ELECTRICAL CONT	ELECTRICAL CONT	ELECTRICAL CONT	NOTE #3	NOTE #3	ELECTRICAL CONT	X		ELECT CONTR PROVIDES COMPLETE SYSTEM
FIRE ALARM	SMOKE DETECTOR - DUCT	ELECTRICAL CONT	ELECTRICAL CONT	ELECTRICAL CONT	NOTE #3	NOTE #3	ELECTRICAL CONT	X		ELECT CONTR PROVIDES COMPLETE SYSTEM
FIRE ALARM	HEAD-END EQUIPMENT	ELECTRICAL CONT	ELECTRICAL CONT	ELECTRICAL CONT	NOTE #3	NOTE #3	ELECTRICAL CONT	X		ELECT CONTR PROVIDES COMPLETE SYSTEM
FIRE ALARM	AUDIO/VISUAL INTERFACES	ELECTRICAL CONT	ELECTRICAL CONT	ELECTRICAL CONT	NOTE #3	NOTE #3	ELECTRICAL CONT	X		COORD TERMINATION AT AV INTERFACE WITH AV CONTRACTOR
VOICE DATA	WORKSTATION OUTLETS	MS ITS	MS ITS	ELECTRICAL CONT	NOTE #1	NOTE #2	MS ITS		X	ELECT CONTR PROVIDES ROUGH-IN ONLY
VOICE DATA	FIBER DISTRIBUTION	MS ITS	MS ITS	ELECTRICAL CONT	N/A	N/A	MS ITS	X		ELECT CONTR PROVIDES ROUGH-IN ONLY
VOICE DATA	RACKS & WIRE MGMT	MS ITS	MS ITS	N/A	N/A	N/A	MS ITS	N/A	N/A	MS ITS PROVIDES COMPLETE SYSTEM
VOICE DATA	WIRELESS	MS ITS	MS ITS	ELECTRICAL CONT	NOTE #1	NOTE #2	MS ITS		X	ELECT CONTR PROVIDES ROUGH-IN ONLY
VOICE DATA	PATCH PANELS	MS ITS	MS ITS	N/A	N/A	N/A	MS ITS	N/A	N/A	MS ITS PROVIDES COMPLETE SYSTEM
VOICE DATA	PATCH CABLES	MS ITS	MS ITS	N/A	N/A	N/A	MS ITS	N/A	N/A	MS ITS PROVIDES COMPLETE SYSTEM
VOICE DATA	NETWORK SWITCHES	MS ITS	MS ITS	N/A	N/A	N/A	MS ITS	N/A	N/A	MS ITS PROVIDES COMPLETE SYSTEM
SECURITY	EMERGENCY PHONES	ELECTRICAL CONT	ELECTRICAL CONT	ELECTRICAL CONT	N/A	N/A	ELECTRICAL CONT & NOTE #6	X		POWER BY ELECTRICAL CONTRACTOR AND DATA CABLING BY MS ITS
SECURITY	EXTERIOR CODE BLUE STATIONS	ELECTRICAL CONT	ELECTRICAL CONT	ELECTRICAL CONT	N/A	N/A	ELECTRICAL CONT & NOTE #6	X		POWER BY ELECTRICAL CONTRACTOR AND DATA CABLING BY MS ITS (NOTE 9)
NOTES: 1. 5 SQUARE BACKBOX (RANDL IND. T-55017) WITH SINGLE GANG PLASTER RING 2. 2.875" DEEP 3. REFER TO SPEC SECTION 283111 FOR VENDOR REQUIREMENTS FOR EACH DEVICE TYPE. 4. CABLING FURNISHED AND INSTALLED BY DOOR HARDWARE VENDOR. 5. COORDINATE EXACT SIZE WITH DOOR HARDWARE VENDOR. 6. DATA DROP PROVIDED BY MS ITS. 7. THE ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE DOOR HARDWARE VENDOR AND PROVIDE ROUGH-INS AS DIRECTED. 8. GENERAL: ALL CONDUIT STUBS SHALL BE TAKEN BACK TO ABOVE ACCESSIBLE COORIDOR CEILINGS. J-HOOKS TO BE PROVIDED TO ADJACENT DATA ROOM. 9. THE EXACT EXTERIOR CODE BLUE STATION STATION (ANALOG OR DIGITAL) TO BE COORDINATED WITH MS ITS AND PROVIDE ACCORDINGLY.										

CCTV CAMERA SCHEDULE				
TYPE MARK	MANUFACTURER	CATALOG NUMBER	MOUNTING	DESCRIPTION
A	AXIS	M3206-LVE 4MP	TP3201 FOR RECESSED TP3603 FOR SURFACE	DOME CAMERA, WIDE ANGLE LENS WITH IR CAPABILITY
B	AXIS	P3727-PLE 4X2 MP	T91B67 POLE MOUNT AND T94N01D PENDANT KIT	QUAD LENS, MULTI DIRECTIONAL WITH IR CAPABILITY
C	AXIS	P1455-LE 2MP	T94F01M PLATE	BULLET STYLE CAMERA. HEIGHT INDICATED ON PLANS. VERIFY WITH ARCH. PRIOR TO INSTALL.
NOTES: 1. PROVIDE ALL COMPATIBLE MOUNTING HARDWARE AND ACCESSORIES BY SAME MANUFACTURER OR AS SPECIFIED FOR INSTALLATION AT LOCATIONS SHOWN ON PLANS.				

LIGHT FIXTURE SCHEDULE									
TYPE MARK	MANUFACTURER	CATALOG NUMBER	VOLTAGE	VA	LUMENS	CCT	MOUNTING	DESCRIPTION	
A	NOT USED	-	-	-	-	-	-	-	-
B	NOT USED	-	-	-	-	-	-	-	-
C	ALW	MR3 Q96 SS MED ID 80 3000K 0/10V/S MED 80 3000K 0/10V/S LENS	UNV	188	9,450 DN 10,625 UP	3000K	SUSPENDED 7'-3" A.F.F.	ARCHITECTURAL QUARTER CRESCENT WITH DIRECT LAMPING, PROVIDE DRIVERS AND ALL COMPONENTS AS REQUIRED.	
D	LITHONIA	LDN4 30/07 L04AR LD GZ10	UNV	8.6	750	3000K	RECESSED	4" LOW PROFILE DOWNLIGHT	
F	NOT USED	-	-	-	-	-	-	-	-
G	VODE	707-Z2 SL 16 192 C 0 RP25 AE 2 0 Z LO 30 A1 0	UNV	61	3,184	3000K	SURFACE	LOW PROFILE LINEAR, ASYMMETRIC WALL WASH DISTRIBUTION, PROVIDE DRIVERS AND MOUNTING ACCESSORIES AS REQUIRED.	
H	ALW	MR3 Q96 CM HI 80 3000K 0/10V/S LENS	UNV	140	9,000	3000K	SURFACE	ARCHITECTURAL QUARTER CRESCENT WITH DIRECT LAMPING, PROVIDE DRIVERS AND ALL COMPONENTS AS REQUIRED.	
J	ALW	MR3 Q72 SS MED ID 80 3000K 0/10V/S MED 80 3000K 0/10V/S LENS	UNV	140	7,100 DN 7,975 UP	3000K	SUSPENDED 7'-3" A.F.F.	ARCHITECTURAL QUARTER CRESCENT WITH DIRECT/INDIRECT LAMPING, PROVIDE DRIVERS AND ALL COMPONENTS AS REQUIRED.	
K	NOT USED	-	-	-	-	-	-	-	-
L	LITHONIA	SLA L48 700LM SEP. PDL MVOLT GZ10 30K 80CRI	UNV	62.9	7,000	3000K	SUSPENDED 6'-0" (U.O.N.)	SURFACE MOUNT STRIP LIGHT	
M	LITHONIA	CSVT L48 AL03 MVOLT SWW3 80CRI	UNV	42	4,946	3500K	WALL (COORD. W/ ELEVATOR VENDOR)	VAPORTIGHT STRIP	
N	LITHONIA	CDS L96 MVOLT DM 35K 80CRI WH	UNV	77	8,800	3500K	SURFACE	8' STRIP LIGHT	
P	ALW	RPD06-R2P D4 3000 0/10V/S	UNV	114	3,201	3000K	SUSPENDED 7'-3" A.F.F.	ARCHITECTURAL DECORATIVE RING, 48" DIA.	
Q	NOT USED	-	-	-	-	-	-	-	-
R	EUREKA	BAKE 4255-UPL LED 18 30 120 DV AC CFR	UNV	17	1,429	3000K	SUSPENDED 7'-3" A.F.F.	ARCHITECTUAL GLASS ROUND PENDANT	
T	VODE	707-Z2 SL 12 144 C 0 RP25 AE 2 0 Z LO 30 S3 0	UNV	46	2,388	3000K	SURFACE	LOW PROFILE LINEAR, SYMMETRIC DISTRIBUTION, PROVIDE DRIVERS AND MOUNTING ACCESSORIES AS REQUIRED.	
U	VODE	707-Z2 SL 12 144 C 0 RP25 AE 2 0 Z LO 30 A1 0	UNV	46	2,388	3000K	SURFACE	LOW PROFILE LINEAR, ASYMMETRIC WALL WASH DISTRIBUTION, PROVIDE DRIVERS AND MOUNTING ACCESSORIES AS REQUIRED.	
V	VODE	707-Z2 SL 4 48 C 0 RP25 AE 2 0 Z LO 30 S3 0	UNV	16	796	3000K	SURFACE	LOW PROFILE LINEAR, SYMMETRIC DISTRIBUTION, PROVIDE DRIVERS AND MOUNTING ACCESSORIES AS REQUIRED.	
W	VODE	707-Z2 SL 10 120 C 0 RP25 AE 2 0 Z LO 30 S3 0	UNV	36	1,990	3000K	SURFACE	LOW PROFILE LINEAR, SYMMETRIC DISTRIBUTION, PROVIDE DRIVERS AND MOUNTING ACCESSORIES AS REQUIRED.	
EX-A	NOT USED	-	-	-	-	-	-	-	-
XA	ISOLITE	UEL EM R 1C2M MTEBR	UNV	-	-	-	SEE PLANS	BULLET STYLE, FIELD CONFIGURABLE CHEVRONS, FIELD CONFIGURABLE FACINGS	
SA	LITHONIA	DSX2 LED P4 50K T5W MVOLT POLE, SSS 25' 4G	208V	270	34,875	5000K	POLE	POLE MOUNT AREA LIGHT, TYPE 5 WIDE DISTRIBUTION. REFER TO SHEET ES101 FOR POLES REQUIRING DUPLEX OUTLET	
SB	NOT USED	-	-	-	-	-	-	-	-
SB-HSS	LITHONIA	DSX2 LED P4 50K TFM MVOLT HS POLE, SSS 25' 4G	208V	270	33,812	5000K	POLE	POLE MOUNT AREA LIGHT, FORWARD THROW MEDIUM DISTRIBUTION, HOUSE SIDE SHIELD. REFER TO SHEET ES101 FOR POLES REQUIRING DUPLEX OUTLET	
SC	NOT USED	-	-	-	-	-	-	-	-
SF	LITHONIA	LDN4CYL 50/10 L04 AR LSS MVOLT GZ10	UNV	11	1,000	5000K	SURFACE/SCONCE	4" CYLINDER MEDIUM WIDE DISTRIBUTION, VERIFY LOCATION, PROVIDE SURFACE MOUNT CANOPY OR WALL MOUNT ARM AS REQUIRED. SEE PLANS.	
SG	LITHONIA	WSQ LED P2 50K SR2 MVOLT	UNV	30	3,214	5000K	BOTTOM FLUSH WITH ADJACENT CANOPY	ARCHITECTURAL HALF SPHERE WALL PACK	
SH	INTERLUX	81744M15	UNV	13	1,470	5000K	IN-GRADE	INGRADE SPOT, HEXCELL LOUVER, MEDIUM BEAM 15 DEGREE	
SI	INTERLUX	81744W60	UNV	13	1,470	5000K	IN-GRADE	INGRADE SPOT, HEXCELL LOUVER, WIDE BEAM 60 DEGREE	
SJ	LITHONIA	CNY LED P2 50K MVOLT DDB	UNV	52	6,600	5000K	SURFACE	CANOPY SQUARE FIXTURE	
SK	DURAGUARD	AFSC30Q D 1X37 5K	UNV	37	5,687	5000K	SURFACE	CANOPY SQUARE FIXTURE, TYPE 4 DISTRIBUTION	
SL	LITHONIA	DSXF1 LED P1 50K FL MVOLT YK062 UBV	UNV	21	2,965	5000K	YOKE MOUNT ON GRADE	FLAGPOLE FLOODLIGHT, PROVIDE YOKE MOUNT AND VISOR.	

- NOTES:
- FINISHES TO BE SELECTED BY ARCHITECT FOR ALL FIXTURES WITH EXPOSED FINISH. PROVIDE COLOR/FINISH CHARTS FOR ARCHITECT'S REVIEW.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH REFLECTED CEILING PLANS AND PROVIDING ALL THE NECESSARY FRAMES AND RELATED ITEMS AS REQUIRED FOR THE MOUNTING OF THE LIGHT FIXTURES PER THE PLANS. INCLUDE ALL COST ASSOCIATED WITH THIS IN THE COST OF THIS PROJECT. NO CHANGE ORDER WILL BE PROCESSED FOR FIXTURE MODIFICATIONS. THE CONTRACTOR SHALL PAY CLOSE ATTENTION TO THE USE OF "NARROW GRID" CEILINGS AND PROVIDE THE NECESSARY FRAMES FOR THE FIXTURES AS REQUIRED FOR PROPER INSTALLATION.
 - PROVIDE FIXTURE WHIPS WITH ALL NECESSARY CONDUCTORS FOR FIXTURE POWER AND 0-10V DIMMING IF REQUIRED.
 - AIMABLE FIXTURES TO BE AIMED IN THE PRESENCE OF ARCHITECT OR ENGINEER.
 - PROVIDE GROMMETT IN CEILING TILE FOR ALL PENETRATIONS FOR FIXTURE SUPPORT, POWER FEEDS, ETC.
 - VERIFY THAT ALL FIXTURE TYPES ARE PROVIDED WITH THE NECESSARY DRIVER TO MEET SPECIFIED LIGHTING CONTROL PLATFORM.
 - UPON LOSS OF POWER, ALL FIXTURES ON EMERGENCY CIRCUITS SHALL ILLUMINATE TO 100% REGARDLESS OF OCCUPANCY STATUS OF CONTROL SETTINGS.
 - PROVIDE UL924 AUTOMATIC TRANSFER DEVICES WHERE REQUIRED ON LIFE SAFETY CIRCUITS TO ILLUMINATE ALL FIXTURES, UPON TRANSFER OF POWER FROM NORMAL TO GENERATOR, TO 100%.
 - LIGHT FIXTURES INDICATED ON THIS SCHEDULE ARE "BASIS OF DESIGN". THE CONTRACTOR CAN PROVIDE AS SPECIFIED, OR EQUAL.

GS# 362-066 West Lot Improvements (Paving and Renovations Ph 1)



SHAHER ZAHNER ZAHNER

OFFICE OF ARCHITECTURE
510 UNIVERSITY DRIVE
STARKVILLE, MISSISSIPPI 39759
szzarch.com T(662) 323-1628

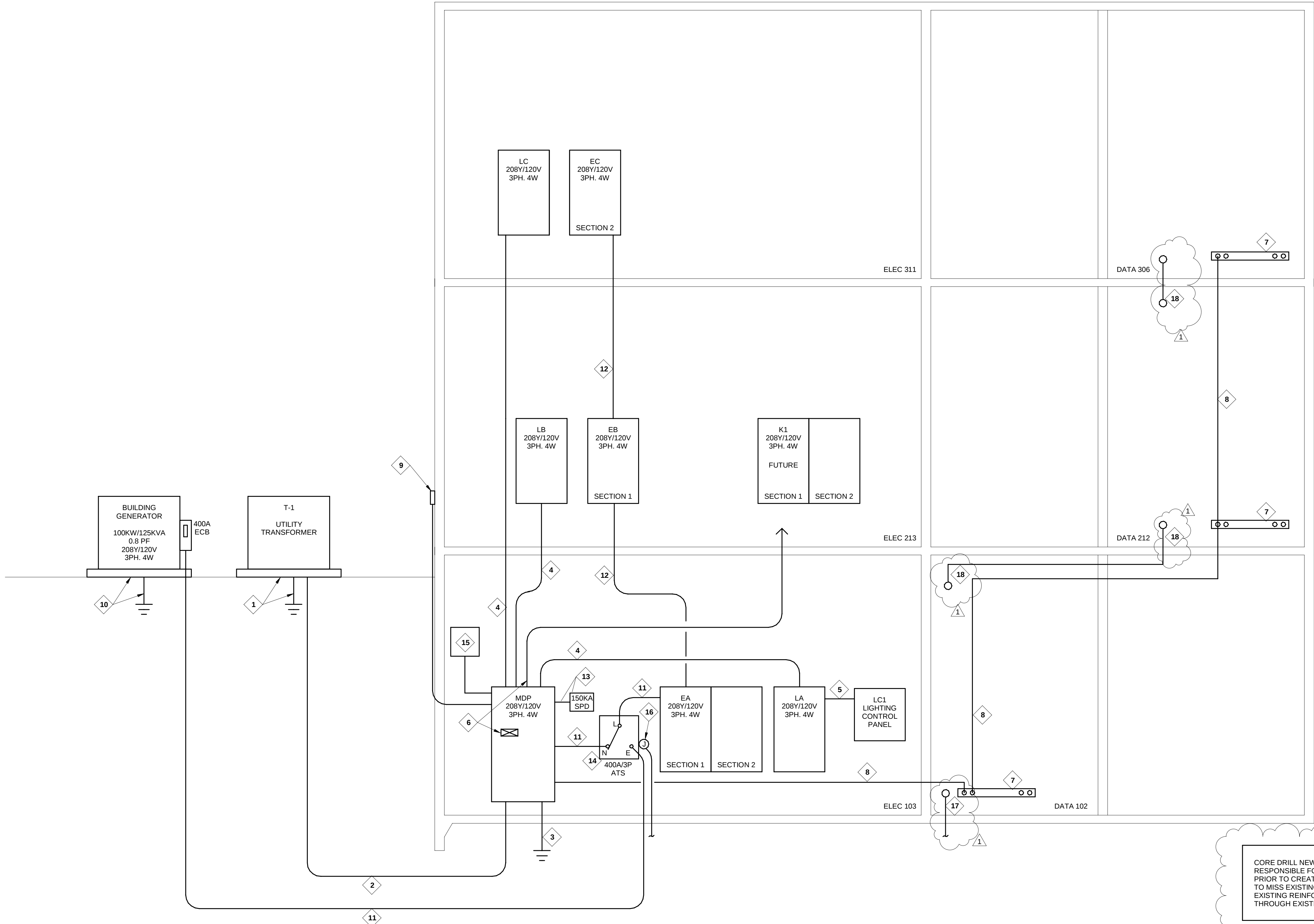
SHEET **E001**

ELECTRICAL SCHEDULES

DATE: 11.15.2021
SZZARCH# 2141
DRAWN BY: JWF
CHECKED BY: KAB

REVISIONS:
01/19/2022

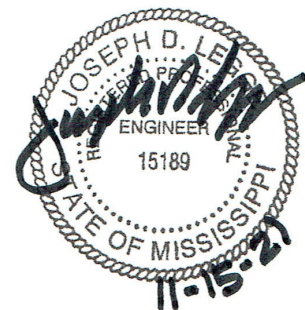




1 ELECTRICAL RISER DIAGRAM
E501 N.T.S.

- KEYNOTES**
- 1 SEE TRANSFORMER PAD GROUNDING DETAIL ON SHEET E002 FOR GROUNDING REQUIREMENTS AT THIS LOCATION.
 - 2 1000A FEEDER: 3 SETS: 4#400KCML. SEE UNDERGROUND SECONDARY DETAIL ON SHEET E002 FOR DUCTBANK REQUIREMENTS.
 - 3 SEE GROUNDING DETAIL ON SHEET E002 FOR GEC SIZING AND REQUIREMENTS.
 - 4 225A FEEDER: 4#4/0, 1#4G IN 2-1/2" CONDUIT.
 - 5 SEE LIGHTING CONTROL PANEL LC1 DETAIL ON SHEET E002 FOR REQUIREMENTS.
 - 6 400A PROVISIONS FOR FUTURE DEDICATED KITCHEN PANEL "K1": PROVIDE 4" CONDUIT STUBBED UP IN ELECTRICAL ROOM. PROVIDE 400A BREAKER IN MDP, LABEL AS "K1".
 - 7 DATA SYSTEMS GROUNDING BAR. SEE GROUNDING DETAIL ON SHEET E002 FOR REQUIREMENTS.
 - 8 DATA SYSTEMS EQUIPMENT GROUND. SEE GROUNDING DETAIL ON SHEET E002 FOR SIZING AND REQUIREMENTS.
 - 9 EMERGENCY SHUTDOWN SWITCH: PROVIDE KNOX REMOTE POWER BOX SHUTDOWN STATION MOUNTED ON WALL WHERE INDICATED ON SHEET E101. PROVIDE CONNECTION TO SHUNT-TRIP SETTING ON MAIN BREAKER. COORDINATE EXACT KNOX PART NUMBER WITH LOCAL FIRE STATION.
 - 10 SEE DETAIL ON SHEET E002 FOR TRANSFORMER PAD AND GROUNDING REQUIREMENTS.
 - 11 400A FEEDER: 4#600, 1#2G. SEE UNDERGROUND ELECTRICAL DETAIL ON SHEET E002 FOR DUCTBANK REQUIREMENTS.
 - 12 100A FEEDER: 4#2, 1#6G IN 1-1/4" CONDUIT.
 - 13 SEE PANEL SCHEDULES ON SHEET E601 FOR REQUIREMENTS.
 - 14 ATS TO HAVE A WITHSTAND RATING OF 30k AIC MIN.
 - 15 LOCATION OF CT CABINET AND METERING. COORDINATE LOCATION AND REQUIREMENTS WITH ENTERGY MS.
 - 16 ATS CONNECTION TO GENERATOR START CONDUCTORS. SEE UNDERGROUND EMERGENCY (UGE) DUCTBANK DETAIL ON SHEET E002.
 - 17 SEE KEYNOTE #8 ON ES101 FOR SERVICE ENTRANCE COMMUNICATION CONDUITS.
 - 18 PROVIDE (2) 4" SELVES BETWEEN FLOORS AS INDICATED.

CORE DRILL NEW SLAB PENETRATIONS. CONTRACTOR IS RESPONSIBLE FOR LOCATING EXISTING REINFORCEMENT PRIOR TO CREATING SLAB PENETRATIONS. LOCATE PENETRATION TO MISS EXISTING REINFORCING. THE CONTRACTOR SHALL LOCATE EXISTING REINFORCEMENT PRIOR TO DRILLING AND DO NOT DRILL THROUGH EXISTING REINFORCEMENT.



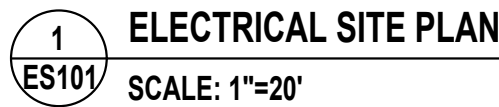
OFFICE OF ARCHITECTURE
510 UNIVERSITY DRIVE
STARKVILLE, MISSISSIPPI 39759
szzarch.com T(662) 323-1628

SHEET **E501**

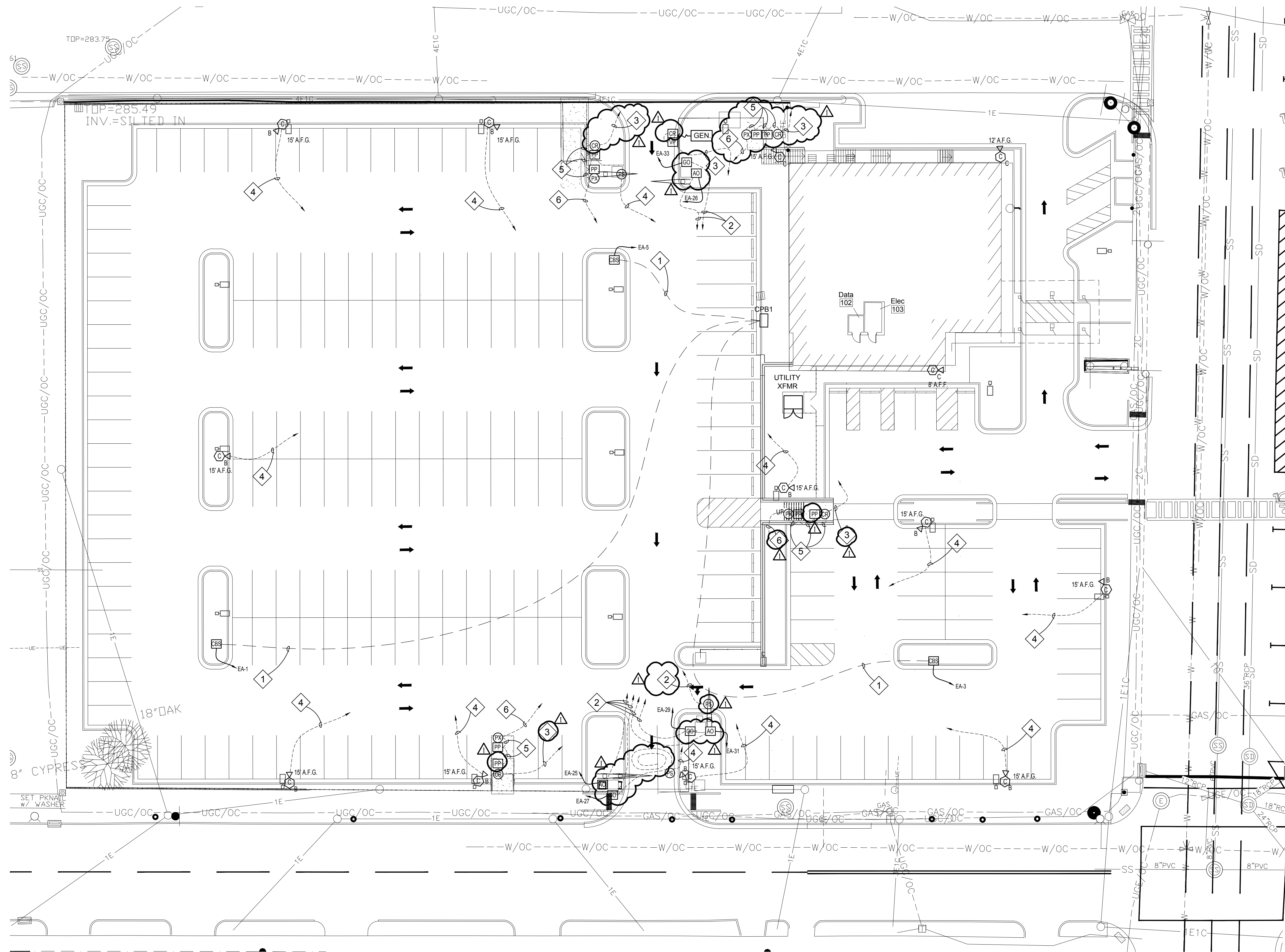
ELECTRICAL
RISER
DIAGRAM

DATE: 11.15.2021
SZZARCH#: 2141
DRAWN BY: JWF
CHECKED BY: KAB

REVISIONS:
1 01/19/2022



REVISIONS:
 01/19/2022



1
ES102
COMMUNICATIONS AND
AUXILIARY POWER SITE PLAN
SCALE: 1"=20'

- KEYNOTES**
- 1 PROVIDE 1-1/4" CONDUIT TO COMMUNICATIONS PULL BOX (CPB1).
 - 2 3/4" CONDUIT CONTAINING 6#14 XHHW FOR CONTROLS. CABLING TO BE EXTENDED TO DATA 212. COORDINATE EXACT REQUIREMENTS WITH EQUIPMENT VENDOR.
 - 3 3/4" CONDUIT CONTAINING CARD READER CIRCUITRY PROVIDED BY CONTRACTOR. SEE SPECIFICATION SECTION 281500 FOR CABLING REQUIREMENTS. CABLING TO BE EXTENDED TO DATA 212. COORDINATE EXACT REQUIREMENTS WITH EQUIPMENT VENDOR.
 - 4 PROVIDE 1" CONDUIT TO CPB1. COORDINATE LOCATION AND REQUIREMENTS WITH MS ITS. SEE SPECIFICATION SECTION 281500 FOR CABLING REQUIREMENTS. CABLING TO BE EXTENDED TO DATA 212. COORDINATE EXACT REQUIREMENTS WITH EQUIPMENT VENDOR.
 - 5 PROVIDE 3/4" CONDUIT FOR ACCESS CONTROL CABLING. COORDINATE EXACT LOCATION AND REQUIREMENTS WITH MS ITS.
 - 6 PROVIDE 3/4" CONDUIT FOR ACCESS CONTROL CABLING TO CPB1. SEE SPECIFICATION SECTION 281500 FOR CABLING REQUIREMENTS. CABLING TO BE EXTENDED TO DATA 212. COORDINATE EXACT REQUIREMENTS WITH EQUIPMENT VENDOR.

ALL SYSTEMS CONDUITS ON SITE SHALL BE EXTENDED TO THE CPB1 PULLBOX.

PROVIDE PULLSTRING IN ALL CONDUITS.

CONTRACTOR TO COORDINATE ALL ACCESS CONTROL, GATES, AND SITE CCTV WITH MS ITS AND RESPECTIVE VENDORS TO PROVIDE ALL CONNECTIONS AND CABLING REQUIRED FOR A FULLY FUNCTIONING SYSTEM.



**SHAHER
ZAHNER
ZAHNER**

OFFICE OF ARCHITECTURE
510 UNIVERSITY DRIVE
STARKVILLE, MISSISSIPPI 39759
szzarch.com T(662) 323-1628

SHEET **ES102**

**SYSTEMS SITE
PLAN**

DATE: 11.15.2021
SZZARCH# 2141
DRAWN BY: JWF
CHECKED BY: KAB

REVISIONS:
01/19/2022

