

## **ADDENDUM NO. 2**

### **LAKENGREN WATER AUTHORITY Wastewater Treatment Plant Improvements October 5, 2018**

To: Planholders

From: Mote & Associates, Inc.  
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Re: Lakengren Water Authority  
Wastewater Treatment Plant Improvements

This Addendum forms a part of the Contract Documents and modifies the original Contract Documents dated September 2018 and Addendum No. 1 dated September 27 2018. Acknowledge receipt of this Addendum in the space provided on the Bid Proposal form. Failure to do so may subject the Bidder to disqualification.

#### **CHANGES/CLARIFICATIONS TO THE BIDDING REQUIREMENTS:**

##### **1. Section 00 75 46, DAVIS BACON WAGE DETERMINATION SCHEDULE**

The “Heavy/Highway” General Wage Decision has been modified. The revised Heavy/Highway Wage Decision dated 09/21/18 with 22 modifications is attached hereto and are the wage rates that will be in effect for this project.

#### **CHANGES/CLARIFICATIONS TO THE TECHNICAL SPECIFICATIONS**

##### **2. Section 46 21 16, FLEXIBLE RAKE BAR SCREEN**

The items listed below are being revised from the original document that was contained in the Technical Specifications Manual.

Part 2.02, Performance, F., revise the Maximum Peak Flow from 2.4 MGD to 2.04 MGD.

Part 2.02, Performance, G., shall be revised to only state the following: “The screen shall be capable of presenting a clean filtration surface to the influent stream at all times during continuous operation.” All other requirements shall be removed from this item.

Part 2.03, Frame Assembly, B., remove the following requirement: “...to pivot the screen out of the channel without dewatering or be able...”

Part 2.04, Screen Drive Assembly, D., shall be removed from the specification.

Part 2.05, Rotating Brush Assembly, add the following change to the requirement: “If a brush is required to achieve proper cleaning of the screening device, this is acceptable.”

Part 2.06, Discharge Chute, F., 1, remove the following requirement: “...using DuPont Starblast...”

3. Section 46 53 61.10, OXIDATION DITCH EQUIPMENT

The following additional information shall be added to the technical specification:

Part 1.01, Requirements Included, B, 1, f. shall be changed to the following: “Manufacturer shall provide nominal 3” x 2” FRP angles to embed in the concrete walkway structure to provide a surface on the concrete for the flat weatherhood panels to rest on. The concrete walkway structure (by others) shall provide the support for the flat weatherhood panels to be supplied by manufacturer.”

Part 2.02, Equipment, L., shall be changed to include: The average anaerobic recycle flow is based on 200% of the design average flow of 0.6 MGD. The supplied 0.8 HP recycle pump is designed to pump 833 gpm instead of 2083 gpm as shown in the specification.

A 10” pipe is noted for the anaerobic recycle transfer pipe. This pipe shall be changed to an 8” pipe to match up with the supplied nominal 8” diameter 316 SS pump flange which must be welded onto a steel or SS which is pipe.

CHANGES/CLARIFICATIONS TO THE DETAIL CONSTRUCTION PLANS

4. Electrical Set - Sheet E10 of 23

The 4-20 mA influent flow signal is not shown landed in the SmartBNR panel on drawing E10. The influent flow meter reading shall be sent to the Smart BNR Panel.

5. Electrical Set – Sheet 22 of 23

The Yard lighting shown herein on Sheet #22 provides specific information regarding area lights that are also referenced in Notes 99 and 101 on Sheet 6.

6. Structural Set – Sheet S103

The Orbal ditch drawing shows that the transfer port between the outer and middle channels is 20” x 20.” This shall be changed to 24” x 24.”

7. Civil Set – Sheet 11 of 42

The drawing shows that the mixer is not positioned far enough from the back wall. The mixer shall be seven feet (7’) from the rear wall. Also, the pump baffle shall be located upstream of the anaerobic recycle pump to minimize the impact of velocity currents in the Orbal channel.

8. Civil Set – Sheet 13 of 42

There are insulation jackets around certain pipes in the project as shown on the 6” EQ basin return pipe and 8” RAS return pipe on this sheet. This outside cover pipe acts as an insulator, yet it is more durable than standard pipe insulation. This note is not specific only to this sheet, but applies to certain pipes as specifically noted within the plans that show insulation jackets as further detailed on Exhibit D-1 and D-2 attached hereto.

9. Civil Set – Sheet 33 of 42

The Sludge Digester Building shown herein is sitting on apparent rock. Please note the following regarding the bottom slab placement:

- a. Part or all of the Sludge Building will be sitting directly on bedrock.
- b. The Contractor shall excavate to bedrock for all footers.

- c. Backfill with self-leveling CDF, mud-mat or footer concrete.
- d. Any depth 12' and over can/may be backfilled and compacted with compacted granular stone.
- e. Footer shall not have any organic earth between the footer and the bedrock.

9. Civil Set – Sheet 39 of 42

The 8" butterfly valves designated in the Valve Schedule as V9, V11, V13, and V16 shall be revised to 6" valves.

10. The Structural plans have been reissued and are attached. All revisions are shown in clouds for ease of clarification.

GENERAL CLARIFICATIONS

11. Electric Transformer:

- a. No pad mount transformer or concrete pad is required for the new 480V service. The existing transformers are pole mounted and Dayton Power & Light will be adding one more leg from the power source as well as adding another transformer to the existing pole. Please refer to the Dayton Power & Light "Electric Service Handbook."
- b. Primary conduits will need to be installed from the pole to the transformer. Please refer to Electrical Set Sheet E1 of 23 for quantity and wire size.

12. Vault types A, E, and F shall be completely encased in concrete. Vault type D is by default open bottomed. Vault types B and C may be open bottomed providing they are not located in a rock excavated hole where water will consistently stand and that it is not within five feet (5') from a paved roadway.

13. All duct banks shall be fully encased in concrete. Concrete strength required for the project is 2,000 psi in non-roadway areas and 3,000 psi in, under, and within five feet (5') of a roadway or pavement.

14. One (1) SensorNet 2020 unit at the effluent shall be omitted. The units will be combined to share the effluent and polyphosphate in a single SensorNet2020 station.

15. All ventilation fans within the Sludge Press Building shall be variable speed. Three-Phase fans shall use VFDs for speed control and each fan is to be controlled by a wall-mounted thermostat.

16. Exhibit A – Snapshot of Modified RAS/Clarifier Control Panel Ladder Logic has been added and attached to this Addendum. This detail shows an added VFD control device to the flocculator drive motor.

17. Exhibit B – Hanging Unit Heater Detail has been added and attached to this Addendum. This is a change to the hanging heater in the Sludge Press Building.

18. Exhibit C – Sludge Press Building Structural Design Data has been added and attached to this Addendum. This Exhibit shall be added to Sheet 5 of 7 of the Sludge Press and Storage Building construction plans.

End of Addendum

Attachments: Section 00 75 46, Wage Determination Schedule (09/21/18)  
Structural Plan Sheets S000, S001, S100-108, S200-211  
Exhibit A – Snapshot of Modified RAS/Clarifier Control Panel Ladder Logic  
Exhibit B – Hanging Unit Heater Detail  
Exhibit C – Sludge Press Building Structural Design Data  
Exhibit D-1 & D-2 – Typical Pipe Cladding Details

**DAVIS BACON WAGE DECISION SCHEDULE**

**00 75 46**

General Decision Number: OH180002 09/21/2018 OH2

Superseded General Decision Number: OH20170002

State: Ohio

Construction Types: Heavy and Highway

Counties: Ohio Statewide.

Heavy and Highway Construction Projects

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.35 for calendar year 2018 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.35 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2018. The EO minimum wage rate will be adjusted annually. Please note that this EO applies to the above-mentioned types of contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but it does not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60). Additional information on contractor requirements and worker protections under the EO is available at [www.dol.gov/whd/govcontracts](http://www.dol.gov/whd/govcontracts).

Modification Number	Publication Date
0	01/05/2018
1	01/12/2018
2	01/19/2018
3	02/09/2018
4	02/16/2018
5	03/09/2018
6	04/06/2018
7	05/04/2018
8	05/11/2018
9	05/18/2018
10	05/25/2018
11	06/01/2018
12	06/08/2018
13	06/15/2018
14	06/29/2018
15	07/06/2018
16	07/13/2018
17	07/20/2018
18	07/27/2018

19	08/10/2018
20	08/17/2018
21	08/24/2018
22	09/21/2018

BROH0001-001 06/01/2017

DEFIANCE, FULTON (Excluding Fulton, Amboy & Swan Creek Townships), HENRY (Excluding Monroe, Bartlow, Liberty, Washington, Richfield, Marion, Damascus & Townships & that part of Harrison Township outside corporate limits of city of Napoleon), PAULDING, PUTNAM and WILLIAMS COUNTIES

	Rates	Fringes
Bricklayer, Stonemason.....	\$ 28.65	14.55

BROH0001-004 06/01/2017

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER...	\$ 28.65	14.55

BROH0003-002 06/01/2017

FULTON (Townships of Amboy, Swan Creek & Fulton), HENRY (Townships of Washington, Damascus, Richfield, Bartlow, Liberty, Harrison, Monroe, & Marion), LUCAS and WOOD (Townships of Perrysburg, Ross, Lake, Troy, Freedom, Montgomery, Webster, Center, Portage, Middleton, Plain, Liberty, Henry, Washington, Weston, Milton, Jackson & Grand Rapids) COUNTIES

	Rates	Fringes
Bricklayer, Stonemason.....	\$ 28.65	14.55

BROH0005-003 06/01/2017

CUYAHOGA, LORAIN & MEDINA (Hinckley, Granger, Brunswick, Liverpool, Montville, York, Homer, Harrisville, Chatham, Litchfield & Spencer Townships and the city of Medina)

	Rates	Fringes
BRICKLAYER		
BRICKLAYERS; CAULKERS;		
CLEANERS; POINTERS; &		
STONEMASONS.....	\$ 28.65	14.55
SANDBLASTERS.....	\$ 34.45	14.18
SEWER BRICKLAYERS & STACK		
BUILDERS.....	\$ 34.70	14.18
SWING SCAFFOLDS.....	\$ 34.95	14.18

BROH0006-005 06/01/2017

CARROLL, COLUMBIANA (Knox, Butler, West & Hanover Townships), STARK & TUSCARAWAS

	Rates	Fringes
Bricklayer, Stonemason.....	\$ 28.65	14.55

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BROH0007-002 06/01/2017

LAWRENCE

	Rates	Fringes
Bricklayer, Stonemason.....	\$ 28.65	14.55

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BROH0007-005 06/01/2017

PORTAGE & SUMMIT

	Rates	Fringes
BRICKLAYER.....	\$ 28.65	14.55

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BROH0007-010 06/01/2017

PORTAGE & SUMMIT

	Rates	Fringes
MASON - STONE.....	\$ 28.65	14.55

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BROH0008-001 06/01/2017

COLUMBIANA (Salem, Perry, Fairfield, Center, Elk Run,  
Middleton, & Unity Townships and the city of New Waterford),  
MAHONING & TRUMBULL

	Rates	Fringes
BRICKLAYER.....	\$ 28.65	14.55

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BROH0009-002 06/01/2017

BELMONT & MONROE COUNTIES and the Townships of Warren & Mt.  
Pleasant and the Village of Dillonvale in JEFFERSON COUNTY

	Rates	Fringes
Bricklayer, Stonemason.....	\$ 28.65	14.55
Refractory.....	\$ 31.45	19.01

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BROH0010-002 06/01/2017

COLUMBIANA (St. Clair, Madison, Wayne, Franklin, Washington,  
Yellow Creek & Liverpool Townships) & JEFFERSON (Brush Creek &  
Saline Townships)

	Rates	Fringes
Bricklayer, Stonemason.....	\$ 28.65	14.55

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BROH0014-002 06/01/2017

HARRISON & JEFFERSON (Except Mt. Pleasant, Warren, Brush Creek,  
Saline & Salineville Townships & the Village of Dillonvale)

	Rates	Fringes
Bricklayer, Stonemason.....	\$ 28.65	14.55

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BROH0016-002 06/01/2017

ASHTABULA, GEAUGA, and LAKE COUNTIES

	Rates	Fringes
Bricklayer, Stonemason.....	\$ 28.65	14.55

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BROH0018-002 06/01/2017

BROWN, BUTLER, CLERMONT, HAMILTON, PREBLE (Gasper, Dixon, Israel, Lanier, Somers & Gratis Townships) & WARREN COUNTIES:

	Rates	Fringes
Bricklayer, Stonemason.....	\$ 28.65	14.55

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BROH0022-004 06/01/2017

CHAMPAIGN, CLARK, CLINTON, DARKE, GREENE, HIGHLAND, LOGAN, MIAMI, MONTGOMERY, PREBLE (Jackson, Monroe, Harrison, Twin, Jefferson & Washington Townships) and SHELBY COUNTIES

	Rates	Fringes
Bricklayer, Stonemason.....	\$ 28.65	14.55

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BROH0032-001 06/01/2017

GALLIA & MEIGS

	Rates	Fringes
Bricklayer, Stonemason.....	\$ 28.65	14.55

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BROH0035-002 06/01/2017

ALLEN, AUGLAIZE, MERCER and VAN WERT COUNTIES

	Rates	Fringes
Bricklayer, Stonemason.....	\$ 28.65	14.55

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BROH0039-002 06/01/2017

ADAMS & SCIOTO

	Rates	Fringes
Bricklayer, Stonemason.....	\$ 28.65	14.55

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BROH0040-003 06/01/2017

ASHLAND, CRAWFORD, HARDIN, HOLMES, MARION, MORROW, RICHLAND, WAYNE and WYANDOT (Except Crawford, Ridge, Richland & Tymochtee Townships) COUNTIES

	Rates	Fringes
Bricklayer, Stonemason.....	\$ 28.65	14.55

FOOTNOTE: Layout Man and Sawman rate: \$1.00 per hour above journeyman rate.

Free standing stack work ground level to top of stack;  
Sandblasting and laying of carbon masonry material in swing stage and/or scaffold; Ramming and spading of plastics and gunniting: \$1.50 per hour above journeyman rate.

"Hot" work: \$2.50 above journeyman rate.

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BROH0044-002 06/01/2017

	Rates	Fringes
Bricklayer, Stonemason COSHOCTON, FAIRFIELD, GUERNSEY, HOCKING, KNOX, KICKING, MORGAN, MUSKINGUM, NOBLE (Beaver, Buffalo, Seneca & Wayne Townships) & PERRY COUNTIES:.....	\$ 28.65	14.55

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BROH0045-002 06/01/2017

FAYETTE, JACKSON, PIKE, ROSS and VINTON COUNTIES

	Rates	Fringes
Bricklayer, Stonemason.....	\$ 28.65	14.55

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BROH0046-002 06/01/2017

ERIE, HANCOCK, HURON, OTTAWA, SANDUSKY, SENECA, WOOD (Perry & Bloom Townships) and WYANDOT (Tymochtee, Crawford, Ridge & Richland Townships) COUNTIES & the Islands of Lake Erie north of Sandusky

	Rates	Fringes
Bricklayer, Stonemason.....	\$ 28.65	14.55

FOOTNOTE: Layout Man and Sawman rate: \$1.00 per hour above journeyman rate.

Free standing stack work ground level to top of stack;  
Sandblasting and laying of carbon masonry material in swing stage and/or scaffold; Ramming and spading of plastics and gunniting: \$1.50 per hour above journeyman rate.

"Hot" work: \$2.50 above journeyman rate.

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BROH0052-001 06/01/2017

ATHENS COUNTY

	Rates	Fringes
Bricklayer, Stonemason.....	\$ 28.65	14.55

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BROH0052-003 06/01/2017

NOBLE (Brookfield, Noble, Center, Sharon, Olive, Enoch, Stock, Jackson, Jefferson & Elk Townships) and WASHINGTON COUNTIES

	Rates	Fringes
Bricklayer, Stonemason.....	\$ 28.65	14.55

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BROH0055-003 06/01/2017

DELAWARE, FRANKLIN, MADISON, PICKAWAY and UNION COUNTIES

	Rates	Fringes
Bricklayer, Stonemason.....	\$ 28.65	14.55

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CARP0003-004 05/01/2017

MAHONING & TRUMBULL

	Rates	Fringes
CARPENTER.....	\$ 26.20	17.42

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CARP0069-003 05/01/2017

CARROLL, STARK, TUSCARAWAS & WAYNE

	Rates	Fringes
CARPENTER.....	\$ 25.98	15.98

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CARP0069-006 05/01/2017

COSHOCTON, HOLMES, KNOX & MORROW

	Rates	Fringes
CARPENTER.....	\$ 24.04	15.29

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CARP0171-002 05/01/2017

BELMONT, COLUMBIANA, HARRISON, JEFFERSON & MONROE

	Rates	Fringes
CARPENTER.....	\$ 26.58	17.73

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CARP0200-002 05/01/2017

ADAMS, ATHENS, DELAWARE, FAIRFIELD, FAYETTE, FRANKLIN, GALLIA, GUERNSEY, HIGHLAND, HOCKING, JACKSON, LAWRENCE, LICKING, MADISON, MARION, MEIGS, MORGAN, MUSKINGUM, NOBLE, PERRY, PICKAWAY, PIKE, ROSS, SCIOTO, UNION, VINTON and WASHINGTON COUNTIES

	Rates	Fringes
CARPENTER.....	\$ 29.07	16.22
Diver.....	\$ 39.41	10.40
PILEDRIVERMAN.....	\$ 29.07	16.22

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CARP0248-005 07/01/2008

LUCAS & WOOD

	Rates	Fringes
CARPENTER.....	\$ 27.27	14.58

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CARP0248-008 07/01/2008

	Rates	Fringes
CARPENTER		
DEFIANCE, FULTON, HANCOCK,		
HENRY, PAULDING & WILLIAMS		
COUNTIES.....	\$ 23.71	13.28

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CARP0254-002 05/01/2017

ASHTABULA, CUYAHOGA, GEAUGA & LAKE

	Rates	Fringes
CARPENTER.....	\$ 32.40	16.97

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CARP0372-002 05/01/2016

ALLEN, AUGLAIZE, HARDIN, MERCER, PUTNAM & VAN WERT

	Rates	Fringes
CARPENTER.....	\$ 24.54	18.21

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CARP0639-003 05/01/2017

MEDINA, PORTAGE & SUMMIT

	Rates	Fringes
CARPENTER.....	\$ 30.42	16.99

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CARP0735-002 05/01/2017

ASHLAND, ERIE, HURON, LORAIN & RICHLAND

	Rates	Fringes
CARPENTER.....	\$ 25.27	15.53

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CARP1311-001 05/01/2017

BROWN, BUTLER, CHAMPAIGN, CLARK, CLERMONT, CLINTON, DARKE,  
GREENE, HAMILTON, LOGAN, MIAMI, MONTGOMERY, PREBLE, SHELBY &  
WARREN

	Rates	Fringes
Carpenter & Piledrivermen.....	\$ 29.34	15.95
Diver.....	\$ 40.58	9.69

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CARP1393-002 07/01/2008

CRAWFORD, DEFIANCE, FULTON, HANCOCK, HENRY, LUCAS, OTTAWA,  
PAULDING, SANDUSKY, SENECA, WILLIAMS & WOOD

	Rates	Fringes
Piledrivermen & Diver's Tender...	\$ 27.30	16.05

DIVERS - \$250.00 per day

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CARP1393-003 07/01/2008

ALLEN, AUGLAIZE, HARDIN, MERCER, PUTNAM, VAN WERT & WYANDOT

	Rates	Fringes
Piledrivermen & Diver's Tender...	\$ 25.15	15.92

DIVERS - \$250.00 per day

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CARP1871-006 05/01/2017

BELMONT, HARRISON, & MONROE

	Rates	Fringes
Diver, Wet.....	\$ 48.11	17.33
Piledrivermen; Diver, Dry.....	\$ 32.07	17.33

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CARP1871-008 05/01/2017

ASHLAND, ASHTABULA, CUYAHOGA, ERIE, GEAUGA, HURON, LAKE,  
LORAIN, MEDINA, PORTAGE, RICHLAND & SUMMIT

	Rates	Fringes
Diver, Wet.....	\$ 45.80	18.84
Piledrivermen; Diver, Dry.....	\$ 30.53	18.84

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CARP1871-014 05/01/2017

CARROLL, STARK, TUSCARAWAS & WAYNE

	Rates	Fringes
Diver, Wet.....	\$ 38.34	16.95
Piledrivermen; Diver, Dry.....	\$ 25.56	16.95

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CARP1871-015 05/01/2017

COSHOCTON, HOLMES, KNOX & MORROW

	Rates	Fringes
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Diver, Wet.....	\$ 37.34	16.07
Piledrivermen; Diver, Dry.....	\$ 24.89	16.07

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CARP1871-017 05/01/2017

MAHONING & TRUMBULL

	Rates	Fringes
Diver, Wet.....	\$ 40.65	17.62
Piledrivermen; Diver, Dry.....	\$ 27.10	17.62

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CARP2235-012 01/01/2014

COLUMBIANA & JEFFERSON

	Rates	Fringes
PILEDRIVERMAN.....	\$ 31.74	16.41

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CARP2239-001 07/01/2008

CRAWFORD, OTTAWA, SANDUSKY, SENECA & WYANDOT

	Rates	Fringes
CARPENTER.....	\$ 23.71	13.28

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ELEC0008-002 05/29/2017

DEFIANCE, FULTON, HANCOCK, HENRY, LUCAS, OTTAWA, PAULDING,  
PUTNAM, SANDUSKY, SENECA, WILLIAMS & WOOD

	Rates	Fringes
CABLE SPLICER.....	\$ 38.98	18.96
ELECTRICIAN.....	\$ 37.49	4.5%+19.63

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ELEC0032-003 06/01/2017

ALLEN, AUGLAIZE, HARDIN, LOGAN, MERCER, SHELBY, VAN WERT &  
WYANDOT (Crawford, Jackson, Marseilles, Mifflin, Ridgeland,  
Ridge & Salem Townships)

	Rates	Fringes
ELECTRICIAN.....	\$ 29.07	17.23

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ELEC0038-002 04/30/2018

CUYAHOGA, GEAUGA (Bainbridge, Chester & Russell Townships) &  
LORAIN (Columbia Township)

	Rates	Fringes
ELECTRICIAN		
Excluding Sound & Communications Work.....	\$ 38.13	20.66+a+b

FOOTNOTES;

a. 6 Paid Holidays: New Year's Day; Memorial Day; July 4th;  
Labor Day; Thanksgiving Day; & Christmas Day

b. 1 week's paid vacation for 1 year's service; 2 weeks' paid vacation for 2 or more years' service

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ELEC0038-008 04/27/2017

CUYAHOGA, GEAUGA (Bainbridge, Chester & Russell Townships) &  
LORAIN (Columbia Township)

	Rates	Fringes
Sound & Communication Technician		
Communications Technician....	\$ 26.55	10.92+a+b
Installer Technician.....	\$ 25.30	10.88+a+b

FOOTNOTES;

a. 6 Paid Holidays: New Year's Day; Memorial Day; July 4th; Labor Day; Thanksgiving Day; & Christmas Day

b. 1 week's paid vacation for 1 year's service; 2 weeks' paid vacation for 2 or more years' service

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ELEC0064-003 11/27/2017

COLUMBIANA (Butler, Fairfield, Perry, Salem & Unity Townships)  
MAHONING (Austintown, Beaver, Berlin, Boardman, Canfield, Ellsworth, Coitsville, Goshen, Green, Jackson, Poland, Springfield & Youngstown Townships), & TRUMBULL (Hubbard & Liberty Townships)

	Rates	Fringes
ELECTRICIAN.....	\$ 32.92	14.57

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ELEC0071-001 01/02/2017

ASHLAND, CHAMPAIGN, CLARK, COSHOCTON, CRAWFORD, DELAWARE, FAIRFIELD, FAYETTE, FRANKLIN, GUERNSEY, HIGHLAND, HOCKING, JACKSON (Coal, Jackson, Liberty, Milton, Washington & Wellston Townships), KNOX, LICKING, MADISON, MARION, MONROE, MORGAN, MORROW, MUSKINGUM, NOBLE, PERRY, PICKAWAY, PIKE (Beaver, Benton, Jackson, Mifflin, Pebble, Peepee, Perry & Seal Townships), RICHLAND, ROSS, TUSCARAWAS (Auburn, Bucks, Clay, Jefferson, Oxford, Perry, Salem, Rush, Washington & York Townships), UNION, VINTON (Clinton, Eagle, Elk, Harrison, Jackson, Richland & Swan Townships), and WASHINGTON COUNTIES

	Rates	Fringes
Line Construction		
Equipment Operators.....	\$ 32.24	12.65
Groundmen.....	\$ 23.28	10.68
Linemen & Cable Splicers....	\$ 36.64	13.63

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ELEC0071-004 01/02/2017

AUGLAIZE, CLINTON, DARKE, GREENE, LOGAN, MERCER, MIAMI,  
MONTGOMERY, PREBLE, and SHELBY COUNTIES

	Rates	Fringes
Line Construction		
Equipment Operator.....	\$ 32.24	12.65
Groundman.....	\$ 23.28	10.68
Lineman & Cable Splicers....	\$ 36.64	13.63

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ELEC0071-005 12/26/2016

ASHTABULA, CUYAHOGA, GEAUGA, LAKE & LORAIN

	Rates	Fringes
LINE CONSTRUCTION: Equipment Operator		
DOT/Traffic Signal & Highway Lighting Projects...	\$ 31.99	13.50
Municipal Power/Transit Projects.....	\$ 38.21	12.05
LINE CONSTRUCTION: Groundman		
DOT/Traffic Signal & Highway Lighting Projects...	\$ 24.82	11.70
Municipal Power/Transit Projects.....	\$ 29.67	12.92
LINE CONSTRUCTION: Linemen/Cable Splicer		
DOT/Traffic Signal & Highway Lighting Projects...	\$ 35.57	14.40
Municipal Power/Transit Projects.....	\$ 42.48	16.11

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ELEC0071-008 01/02/2017

COLUMBIANA, MAHONING, and TRUMBULL COUNTIES

	Rates	Fringes
Line Construction		
Equipment Operator.....	\$ 32.24	12.65
Groundman.....	\$ 23.28	10.68
Lineman & Cable Splicers....	\$ 36.64	13.63

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ELEC0071-010 01/02/2017

BELMONT, CARROLL, HARRISON, HOLMES, JEFFERSON, MEDINA, PORTAGE,  
STARK, SUMMIT, and WAYNE COUNTIES

	Rates	Fringes
Line Construction		
Equipment Operator.....	\$ 32.24	12.65
Groundman.....	\$ 23.28	10.68
Lineman & Cable Splicers....	\$ 36.64	13.63

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ELEC0071-013 01/02/2017

BROWN, BUTLER, CLERMONT, HAMILTON, and WARREN COUNTIES

	Rates	Fringes
Line Construction		
Equipment Operator.....	\$ 32.24	12.65
Groundman.....	\$ 23.28	10.68
Lineman & Cable Splicers....	\$ 36.64	13.63

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ELEC0071-014 01/02/2017

ADAMS, ATHENS, GALLIA, JACKSON (Bloomfield, Franklin, Hamilton, Lick, Jefferson, Scioto & Madison Townships), LAWRENCE, MEIGS, PIKE (Camp Creek, Marion, Newton, Scioto, Sunfish & Union Townships), SCIOTO & VINTON (Brown, Knox, Madison, Vinton & Wilkesville Townships)

	Rates	Fringes
Line Construction		
Equipment Operator.....	\$ 32.24	12.65
Groundman.....	\$ 23.28	10.68
Lineman & Cable Splicers....	\$ 36.64	13.63

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ELEC0082-002 12/04/2017

CLINTON, DARKE, GREENE, MIAMI, MONTGOMERY, PREBLE & WARREN (Wayne, Clear Creek & Franklin Townships)

	Rates	Fringes
ELECTRICIAN.....	\$ 29.60	18.74

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ELEC0082-006 11/27/2017

CLINTON, DARKE, GREENE, MIAMI, MONTGOMERY, PREBLE & WARREN (Wayne, Clear Creek & Franklin Townships)

	Rates	Fringes
Sound & Communication Technician		
Cable Puller.....	\$ 11.78	3.82
Installer/Technician.....	\$ 23.55	11.26

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ELEC0129-003 02/26/2018

LORAIN (Except Columbia Township) & MEDINA (Litchfield & Liverpool Townships)

	Rates	Fringes
ELECTRICIAN.....	\$ 33.35	17.27

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ELEC0129-004 02/26/2018

ERIE & HURON (Lyme, Ridgefield, Norwalk, Townsend, Wakeman,  
Sherman, Peru, Bronson, Hartland, Clarksfield, Norwich,  
Greenfield, Fairfield, Fitchville & New London Townships)

	Rates	Fringes
ELECTRICIAN.....	\$ 33.35	17.27

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\* ELEC0141-003 09/01/2018

BELMONT COUNTY

	Rates	Fringes
CABLE SPLICER.....	\$ 33.60	25.61
ELECTRICIAN.....	\$ 30.01	25.61

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ELEC0212-003 11/27/2017

BROWN, CLERMONT & HAMILTON

	Rates	Fringes
Sound & Communication Technician.....	\$ 23.55	11.26

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ELEC0212-005 06/04/2018

BROWN, CLERMONT, and HAMILTON COUNTIES

	Rates	Fringes
ELECTRICIAN.....	\$ 28.39	18.98

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\* ELEC0245-001 08/27/2018

ALLEN, HARDIN, VAN WERT & WYANDOT (Crawford, Jackson,  
Marseilles, Mifflin, Richland, Ridge & Salem Townships)

	Rates	Fringes
Line Construction		
Equipment Operator.....	\$ 31.59	25.2%+5.75
Groundman Truck Driver.....	\$ 17.28	25.2%+5.75
Lineman.....	\$ 39.49	25.2%+5.75

FOOTNOTE: a. Half day's Paid Holiday: The last 4 hours of  
the workday prior to Christmas or New Year's Day

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\* ELEC0245-003 08/27/2018

DEFIANCE, FULTON, HANCOCK, HENRY, HURON, LUCAS, OTTAWA,  
PAULDING, PUTNAM, SANDUSKY, SENECA, WILLIAMS, and WOOD COUNTIES

	Rates	Fringes
Line Construction		
Cable Splicer.....	\$ 45.41	25.2%+5.75
Groundman/Truck Driver.....	\$ 17.28	25.2%+5.75

Heli-arc Welding.....	\$ 39.79	25.2%+5.75
Lineman.....	\$ 39.49	25.2%+5.75
Operator - Class 1.....	\$ 31.59	25.2%+5.75
Operator - Class 2.....	\$ 39.79	25.2%+5.75
Traffic Signal & Lighting Technician.....	\$ 35.54	25.2%+5.75

FOOTNOTE: a. 6 Observed Holidays: New Year's Day; Memorial Day; Independence Day; Labor Day; Thanksgiving Day; & Christmas Day. Employees who work on a holiday shall be paid at a rate of double their applicable classified straight-time rates for the work performed on such holiday.

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\* ELEC0245-004 08/27/2018

ERIE COUNTY

	Rates	Fringes
Line Construction		
Cable Splicer.....	\$ 45.41	25.2%+5.75
Groundman/Truck Driver.....	\$ 17.28	25.2%+5.75
Lineman.....	\$ 39.49	25.2%+5.75
Operator - Class 1.....	\$ 31.59	25.2%+5.75
Operator - Class 2.....	\$ 27.64	25.2%+5.75

FOOTNOTE: a. 6 Observed Holidays: New Year's Day; Memorial Day; Independence Day; Labor Day; Thanksgiving Day; & Christmas Day. Employees who work on a holiday shall be paid at a rate of double their applicable classified straight-time rates for the work performed on such holiday.

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ELEC0246-001 11/27/2017

	Rates	Fringes
ELECTRICIAN.....	\$ 37.00	31.08+a

FOOTNOTE: a. 1 1/2 Paid Holidays: The last scheduled workday prior to Christmas & 4 hours on Good Friday.

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ELEC0306-005 05/28/2018

MEDINA (Brunswick, Chatham, Granger, Guilford, Harrisville, Hinckley, Homer, Lafayette, Medina, Montville, Sharon, Spencer, Wadsworth, Westfield & York Townships), PORTAGE (Atwater, Aurora, Brimfield, Deerfield, Franklin, Mantua, Randolph, Ravenna, Rootstown, Shalersville, Streetsboro & Suffield Townships), SUMMIT & WAYNE (Baughman, Canaan, Chester, Chippewa, Congress, Green, Milton, & Wayne Townships)

	Rates	Fringes
CABLE SPLICER.....	\$ 36.87	16.56
ELECTRICIAN.....	\$ 34.54	5%+18.06

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ELEC0317-002 06/01/2018

GALLIA & LAWRENCE

	Rates	Fringes
CABLE SPLICER.....	\$ 32.68	18.13
ELECTRICIAN.....	\$ 33.75	25.03

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ELEC0540-005 01/01/2018

CARROLL (Northern half, including Fox, Harrison, Rose & Washington Townships), COLUMBIANA (Knox Township), HOLMES, MAHONING (Smith Township), STARK, TUSCARAWAS (North of Auburn, Clay, Rush & York Townships), and WAYNE (South of Baughman, Chester, Green & Wayne Townships) COUNTIES

	Rates	Fringes
ELECTRICIAN.....	\$ 31.49	22.87

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ELEC0573-003 06/04/2018

ASHTABULA (Colebrook, Wayne, Williamsfield, Orwell & Windsor Townships), GEAUGA (Auburn, Middlefield, Parkman & Troy Townships), MAHONING (Milton Township), PORTAGE (Charlestown, Edinburg, Freedom, Hiram, Nelson, Palmyra, Paris & Windham Townships), and TRUMBULL (Except Liberty & Hubbard Townships)

	Rates	Fringes
ELECTRICIAN.....	\$ 32.40	18.42

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ELEC0575-001 05/28/2018

ADAMS, FAYETTE, HIGHLAND, HOCKING, JACKSON (Bloomfield, Franklin, Hamilton, Jefferson, Lick, Madison, Scioto, Coal, Jackson, Liberty, Milton & Washington Townships), PICKAWAY (Deer Creek, Perry, Pickaway, Salt Creek & Wayne Townships), PIKE (Beaver, Benton, Jackson, Mifflin, Pebble, PeePee, Perry, Seal, Camp Creek, Newton, Scioto, Sunfish, Union & Marion Townships), ROSS, SCIOTO & VINTON (Clinton, Eagle, Elk, Harrison, Jackson, Richland & Swan Townships)

	Rates	Fringes
ELECTRICIAN.....	\$ 32.45	16.43

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ELEC0648-001 03/05/2018

BUTLER and WARREN COUNTIES (Deerfield, Hamilton, Harlan, Massie, Salem, Turtle Creek, Union & Washington Townships)

	Rates	Fringes
CABLE SPLICER.....	\$ 30.50	18.23
ELECTRICIAN.....	\$ 30.00	18.20

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ELEC0673-004 05/29/2017

ASHTABULA (Excluding Orwell, Colebrook, Williamsfield, Wayne & Windsor Townships), GEAUGA (Burton, Chardon, Claridon, Hambden, Huntsburg, Montville, Munson, Newbury & Thompson Townships) and LAKE COUNTIES

	Rates	Fringes
CABLE SPLICER.....	\$ 33.10	19.66
ELECTRICIAN.....	\$ 32.85	19.66

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ELEC0683-002 05/28/2018

CHAMPAIGN, CLARK, DELAWARE, FAIRFIELD, FRANKLIN, MADISON, PICKAWAY (Circleville, Darby, Harrison, Jackson, Madison, Monroe, Muhlenberg, Scioto, Walnut & Washington Townships), and UNION COUNTIES

	Rates	Fringes
CABLE SPLICER.....	\$ 33.85	19.44
ELECTRICIAN.....	\$ 32.85	19.41

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ELEC0688-003 05/28/2017

ASHLAND, CRAWFORD, HURON (Richmond, New Haven, Ripley & Greenwich Townships), KNOX (Liberty, Clinton, Union, Howard, Monroe, Middleberry, Morris, Wayne, Berlin, Pike, Brown & Jefferson Townships), MARION, MORROW, RICHLAND and WYANDOT (Sycamore, Crane, Eden, Pitt, Antrim & Tymochtee Townships) COUNTIES

	Rates	Fringes
ELECTRICIAN.....	\$ 28.46	17.35

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ELEC0972-002 06/01/2017

ATHENS, MEIGS, MONROE, MORGAN, NOBLE, VINTON (Brown, Knox, Madison, Vinton & Wilkesville Townships), and WASHINGTON COUNITIES

	Rates	Fringes
CABLE SPLICER.....	\$ 33.06	24.55
ELECTRICIAN.....	\$ 32.81	24.54

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ELEC1105-001 01/01/2018

COSHOCTON, GUERNSEY, KNOX (Jackson, Clay, Morgan, Miller, Milford, Hilliar, Butler, Harrison, Pleasant & College Townships), LICKING, MUSKINGUM, PERRY, and TUSCARAWAS (Auburn, York, Clay, Jefferson, Rush, Oxford, Washington, Salem, Perry & Bucks Townships) COUNTIES

	Rates	Fringes
ELECTRICIAN.....	\$ 30.40	17.24

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ASHTABULA, CUYAHOGA, ERIE, GEAUGA, LAKE, LORAIN, MEDINA,  
PORTAGE, and SUMMIT COUNTIES

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
GROUP 1.....	\$ 37.63	14.81
GROUP 2.....	\$ 37.53	14.81
GROUP 3.....	\$ 36.49	14.81
GROUP 4.....	\$ 35.27	14.81
GROUP 5.....	\$ 29.98	14.81
GROUP 6.....	\$ 37.88	14.81
GROUP 7.....	\$ 37.88	14.81

OPERATING ENGINEER CLASSIFICATIONS

GROUP 1 - Air Compressor on Steel Erection; Barrier Moving Machine; Boiler Operator on Compressor or Generator when mounted on a Rig; Cableway; Combination Concrete Mixer & Tower; Concrete Plant (over 4 yd. Capacity); Concrete Pump; Crane (All Types, Including Boom Truck, Cherry Picker); Crane-Compact, Track or Rubber over 4,000 lbs. capacity; Cranes-Self Erecting, Stationary, Track or Truck (All Configurations); Derrick; Dragline; Dredge (Dipper, Clam or Suction); Elevating Grader or Euclid Loader; Floating Equipment (All Types); Gradall; Helicopter Crew (Operator-Hoist or Winch); Hoe (all types); Hoisting Engine on Shaft or Tunnel Work; Hydraulic Gantry (Lifting System); Industrial-Type Tractor; Jet Engine Dryer (D8 or D9) Diesel Tractor; Locomotive (Standard Gauge); Maintenance Operator Class A; Mixer, Paving (Single or Double Drum); Mucking Machine; Multiple Scraper; Piledriving Machine (All Types); Power Shovel; Prentice Loader; Quad 9 (Double Pusher); Rail Tamper (with auto lifting & aligning device); Refrigerating Machine (Freezer Operation); Rotary Drill, on Caisson work; Rough Terrain Fork Lift with Winch/Hoist; Side-Boom; Slip-Form Paver; Tower Derrick; Tree Shredder; Trench Machine (Over 24" wide); Truck Mounted Concrete Pump; Tug Boat; Tunnel Machine and/or Mining Machine; Wheel Excavator; and Asphalt Plant Engineer (Cleveland District Only).

GROUP 2 - Asphalt Paver; Automatic Subgrader Machine, Self-Propelled (CMI Type); Bobcat Type and/or Skid Steer Loader with Hoe Attachment Greater than 7,000 lbs.; Boring Machine More than 48"; Bulldozer; Endloader; Horizontal Directional Drill (Over 50,000 ft lbs thrust); Hydro Milling Machine; Kolman-type Loader (production type-Dirt); Lead Greaseman; Lighting & Traffic Signal Installation Equipment (includes all groups or classifications); Material Transfer Equipment (Shuttle Buggy) Asphalt; Pettibone-Rail Equipment; Power Grader; Power Scraper; Push

Cat; Rotomill (all), Grinders & Planers of All types; Trench Machine (24" wide & under); Vermeer type Concrete Saw; and Maintenance Operators (Portage and Summit Counties Only).

GROUP 3 - A-Frame; Air Compressor on Tunnel Work (low pressure); Asphalt Plant Engineer (Portage and Summit Counties Only); Bobcat-type and/or Skid Steer Loader with or without Attachments; Highway Drills (all types); Locomotive (narrow gauge); Material Hoist/Elevator; Mixer, Concrete (more than one bag capacity); Mixer, one bag capacity (Side Loader); Power Boiler (Over 15 lbs. Pressure) Pump Operator installing & operating Well Points; Pump (4" & over discharge); Roller, Asphalt; Rotovator (lime soil stabilizer); Switch & Tie Tampers (without lifting & aligning device); Utility Operator (Small equipment); Welding Machines; and Railroad Tie Inserter/Remover; Articulating/straight bed end dumps if assigned (minus \$4.00 per hour).

GROUP 4 - Backfiller; Ballast Re-locator; Bars, Joint & Mesh Installing Machine; Batch Plant; Boring Machine Operator (48" or less); Bull Floats; Burlap & Curing Machine; Concrete Plant (capacity 4 yd. & under); Concrete Saw (Multiple); Conveyor (Highway); Crusher; Deckhand; Farm-type Tractor with attachments (highway); Finishing Machine; Fireperson, Floating Equipment (all types); Forklift; Form Trencher; Hydro Hammer expect masonry; Hydro Seeder; Pavement Breaker; Plant Mixer; Post Driver; Post Hole Digger (Power Auger); Power Brush Burner; Power Form Handling Equipment; Road Widening Trencher; Roller (Brick, Grade & Macadam); Self-Propelled Power Spreader; Self-Propelled Power Subgrader; Steam Fireperson; Tractor (Pulling Sheepfoot, Roller or Grader); and Vibratory Compactor with Integral Power.

GROUP 5 - Compressor (Portable, Sewer, Heavy & Highway); Drum Fireperson (Asphalt Plant); Generator; Masonry Fork Lift; Inboard-Outboard Motor Boat Launch; Oil Heater (asphalt plant); Oiler/Helper; Power Driven Heater; Power Sweeper & Scrubber; Pump (under 4" discharge); Signalperson; Tire Repairperson; VAC/ALLS; Cranes - Compact, track or rubber under 4,000 pound capacity; fueling and greasing; and Chainmen.

GROUP 6 - Master Mechanic & Boom from 150 to 180.

GROUP 7 - Boom from 180 and over.

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ENGI0018-004 05/01/2018

ADAMS, ALLEN, ASHLAND, ATHENS, AUGLAIZE, BELMONT, BROWN,  
 BUTLER, CARROLL, CHAMPAIGN, CLARK, CLERMONT, CLINTON,  
 COSHOCTON, CRAWFORD, DARKE, DEFIANCE, DELAWARE, FAIRFIELD,  
 FAYETTE, FRANKLIN, FULTON, GALLIA, GREENE, GUERNSEY, HAMILTON,  
 HANCOCK, HARDIN, HARRISON, HENRY, HIGHLAND, HOCKING, HOLMES,  
 HURON, JACKSON, JEFFERSON, KNOX, LAWRENCE, LICKING, LOGAN,  
 LUCAS, MADISON, MARION, MEIGS, MERCER, MIAMI, MONROE,  
 MONTGOMERY, MORGAN, MORROW, MUSKINGUM, NOBLE, OTTAWA, PAULDING,  
 PERRY, PICKAWAY, PIKE, PREBLE, PUTNAM, RICHLAND, ROSS,  
 SANDUSKY, SCIOTO, SENECA, SHELBY, STARK, TUSCARAWAS, UNION, VAN  
 WERT, VINTON, WARREN, WASHINGTON, WAYNE, WILLIAMS, WOOD, and  
 YANDOT COUNTIES

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
GROUP 1.....	\$ 36.14	14.81
GROUP 2.....	\$ 36.02	14.81
GROUP 3.....	\$ 34.98	14.81
GROUP 4.....	\$ 33.80	14.81
GROUP 5.....	\$ 28.34	14.81
GROUP 6.....	\$ 36.39	14.81
GROUP 7.....	\$ 36.39	14.81

#### OPERATING ENGINEER CLASSIFICATIONS

GROUP 1 - Air Compressor on Steel Erection; Barrier Moving Machine; Boiler Operator on Compressor or Generator when mounted on a Rig; Cableway; Combination Concrete Mixer & Tower; Concrete Plant (over 4 yd. Capacity); Concrete Pump; Crane (All Types, Including Boom Truck, Cherry Picker); Crane-Compact, Track or Rubber over 4,000 lbs. capacity; Cranes-Self Erecting, Stationary, Track or Truck (All Configurations); Derrick; Dragline; Dredge (Dipper, Clam or Suction); Elevating Grader or Euclid Loader; Floating Equipment (All Types); Gradall; Helicopter Crew (Operator-Hoist or Winch); Hoe (all types); Hoisting Engine on Shaft or Tunnel Work; Hydraulic Gantry (Lifting System); Industrial-Type Tractor; Jet Engine Dryer (D8 or D9) Diesel Tractor; Locomotive (Standard Gauge); Maintenance Operator Class A; Mixer, Paving (Single or Double Drum); Mucking Machine; Multiple Scraper; Piledriving Machine (All Types); Power Shovel; Prentice Loader; Quad 9 (Double Pusher); Rail Tamper (with auto lifting & aligning device); Refrigerating Machine (Freezer Operation); Rotary Drill, on Caisson work; Rough Terrain Fork Lift with Winch/Hoist; Side-Boom; Slip-Form Paver; Tower Derrick; Tree Shredder; Trench Machine (Over 24" wide); Truck Mounted Concrete Pump; Tug Boat; Tunnel Machine and/or Mining Machine; and Wheel Excavator.

GROUP 2 - Asphalt Paver; Automatic Subgrader Machine, Self-Propelled (CMI Type); Bobcat Type and/or Skid Steer Loader with Hoe Attachment Greater than 7,000 lbs.; Boring

Machine More than 48"; Bulldozer; Endloader; Hydro Milling Machine; Horizontal Directional Drill (over 50,000 ft. lbs. thrust); Kolman-type Loader (production type-Dirt); Lead Greaseman; Lighting & Traffic Signal Installation Equipment (includes all groups or classifications); Material Transfer Equipment (Shuttle Buggy) Asphalt; Pettibone-Rail Equipment; Power Grader; Power Scraper; Push Cat; Rotomill (all), Grinders & Planers of All types; Trench Machine (24" wide & under); and Vermeer type Concrete Saw.

GROUP 3 - A-Frame; Air Compressor on Tunnel Work (low pressure); Asphalt Plant Engineer; Bobcat-type and/or Skid Steer Loader with or without Attachments; Highway Drills (all types); Locomotive (narrow gauge); Material Hoist/Elevator; Mixer, Concrete (more than one bag capacity); Mixer, one bag capacity (Side Loader); Power Boiler (Over 15 lbs. Pressure) Pump Operator installing & operating Well Points; Pump (4" & over discharge); Railroad Tie Insert/Remover; Roller, Asphalt; Rotovator (lime soil stabilizer); Switch & Tie Tampers (without lifting & aligning device); Utility Operator (Small equipment); and Welding Machines; Articulating/straight bed end dumps if assigned (minus \$4.00 per hour).

GROUP 4 - Backfiller; Ballast Re-locator; Bars, Joint & Mesh Installing Machine; Batch Plant; Boring Machine Operator (48" or less); Bull Floats; Burlap & Curing Machine; Concrete Plant (capacity 4 yd. & under); Concrete Saw (Multiple); Conveyor (Highway); Crusher; Deckhand; Farm-type Tractor with attachments (highway); Finishing Machine; Fireperson, Floating Equipment (all types); Fork Lift; Form Trencher; Hydro Hammer except masonry; Hydro Seeder; Pavement Breaker; Plant Mixer; Post Driver; Post Hole Digger (Power Auger); Power Brush Burner; Power Form Handling Equipment; Road Widening Trencher; Roller (Brick, Grade & Macadam); Self-Propelled Power Spreader; Self-Propelled Power Subgrader; Steam Fireperson; Tractor (Pulling Sheepfoot, Roller or Grader); and Vibratory Compactor with Integral Power.

GROUP 5 - Compressor (Portable, Sewer, Heavy & Highway); Drum Fireperson (Asphalt Plant); Generator; Masonary Forklift; Inboard-Outboard Motor Boat Launch; Oil Heater (asphalt plant); Oiler/Helper; Power Driven Heater; Power Sweeper & Scrubber; Pump (under 4" discharge); Signaller; Tire Repairperson; VAC/ALLS; Cranes - Compact, track or rubber under 4,000 pound capacity; fueling and greasing; and Chainmen.

GROUP 6 - Master Mechanic & Boom from 150 to 180.

GROUP 7 - Boom from 180 and over.

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ENGI0066-023 06/01/2017

COLUMBIANA, MAHONING & TRUMBULL COUNTIES

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
ASBESTOS; HAZARDOUS/TOXIC WASTE PROJECTS		
GROUP 1 - A & B.....	\$ 39.23	19.66
ASBESTOS; HAZARDOUS/TOXIC WASTE PROJECTS		
GROUP 2 - A & B.....	\$ 38.90	19.66
ASBESTOS; HAZARDOUS/TOXIC WASTE PROJECTS		
GROUP 3 - A & B.....	\$ 34.64	19.66
ASBESTOS; HAZARDOUS/TOXIC WASTE PROJECTS		
GROUP 4 - A & B.....	\$ 30.70	19.66
ASBESTOS; HAZARDOUS/TOXIC WASTE PROJECTS		
GROUP 5 - A & B.....	\$ 27.30	19.66
HAZARDOUS/TOXIC WASTE PROJECTS		
GROUP 1 - C & D.....	\$ 35.96	19.66
HAZARDOUS/TOXIC WASTE PROJECTS		
GROUP 2 - C & D.....	\$ 35.66	19.66
HAZARDOUS/TOXIC WASTE PROJECTS		
GROUP 3 - C & D.....	\$ 31.76	19.66
HAZARDOUS/TOXIC WASTE PROJECTS		
GROUP 4 - C & D.....	\$ 28.14	19.66
HAZARDOUS/TOXIC WASTE PROJECTS		
GROUP 5 - C & D.....	\$ 25.03	19.66
ALL OTHER WORK		
GROUP 1.....	\$ 32.69	19.66
ALL OTHER WORK		
GROUP 2.....	\$ 32.42	19.66

ALL OTHER WORK

GROUP 3.....\$ 28.87 19.66  
ALL OTHER WORK

GROUP 4.....\$ 25.58 19.66  
ALL OTHER WORK

GROUP 5.....\$ 22.75 19.66

GROUP 1 - Rig, Pile Driver or Caisson Type; & Rig, Pile Hydraulic Unit Attached

GROUP 2 - Asphalt Heater Planer; Backfiller with Drag Attachment; Backhoe; Backhoe with Shear attached; Backhoe-Rear Pivotal Swing; Batch Plant-Central Mix Concrete; Batch Plant, Portable concrete; Berm Builder-Automatic; Boat Derrick; Boat-Tug; Boring Machine Attached to Tractor; Bullclam; Bulldozer; C.M.I. Road Builder & Similar Type; Cable Placer & Layer; Carrier-Straddle; Carryall-Scraper or Scoop; Chicago Boom; Compactor with Blade Attached; Concrete Saw (Vermeer or similar type); Concrete Spreader Finisher; Combination, Bidwell Machine; Crane; Crane-Electric Overhead; Crane-Rough Terrain; Crane-Side Boom; Crane-Truck; Crane-Tower; Derrick-Boom; Derrick-Car; Digger-Wheel (Not trencher or road widener); Double Nine; Drag Line; Dredge; Drill-Kenny or Similar Type; Easy Pour Median Barrier Machine (or similar type); Electromatic; Frankie Pile; Gradall; Grader; Gurry; Self-Propelled; Heavy Equipment Robotics Operator/Mechanic; Hoist-Monorail; Hoist-Stationary & Mobile Tractor; Hoist, 2 or 3 drum; Horizontal Directional Drill Operator; Jackall; Jumbo Machine; Kocal & Kuhlman; Land-Seagoing Vehicle; Loader, Elevating; Loader, Front End; Loader, Skid Steer; Locomotive; Mechanic/Welder; Metro Chip Harvester with Boom; Mucking Machine; Paver-Asphalt Finishing Machine; Paver-Road Concrete; Paver-Slip Form (C.M.I. or similar); Place Crete Machine with Boom; Post Driver (Carrier mounted); Power Driven Hydraulic Pump & Jack (When used in Slip Form or Lift Slab Construction); Pump Crete Machine; Regulator-Ballast; Hydraulic Power Unit not attached to Rig for Pile Drillings; Rigs-Drilling; Roto Mill or similar Full Lane (8' Wide & Over); Roto Mill or similar type (Under 8'); Shovel; Slip Form Curb Machine; Speedwing; Spikemaster; Stonecrusher; Tie Puller & Loader; Tie Tamper; Tractor-Double Boom; Tractor with Attachments; Truck-Boom; Truck-Tire; Trench Machine; Tunnel Machine (Mark 21 Java or similar); & Whirley (or similar type)

GROUP 3 - Asphalt Plant; Bending Machine (Pipeline or similar type); Boring machine, Motor Driven; Chip Harvester

without Boom; Cleaning Machine, Pipeline Type; Coating Machine, Pipeline Type; Compactor; Concrete Belt Placer; Concrete Finisher; Concrete Planer or Asphalt; Concrete Spreader; Elevator; Fork Lift (Home building only); Fork lift & Lulls; Fork Lift Walk Behind (Hoisting over 1 buck high); Form Line Machine; Grease Truck operator; Grout Pump; Gunnite Machine; Horizontal Directional Drill Locator; Single Drum Hoist with or without Tower; Huck Bolting Machine; Hydraulic Scaffold (Hoisting building materials); Paving Breaker (Self-propelled or Ridden); Pipe Dream; Pot Fireperson (Power Agitated); Refrigeration Plant; Road Widener; Roller; Sasgen Derrick; Seeding Machine; Soil Stabilizer (Pump type); Spray Cure Machine, Self-Propelled; Straw Blower Machine; Sub-Grader; Tube Finisher or Broom C.M.I. or similar type; & Tugger Hoist

GROUP 4 - Air Curtain Destructor & Similar Type; Batch Plant-Job Related; Boiler Operator; Compressor; Conveyor; Curb Builder, self-propelled; Drill Wagon; Generator Set; Generator-Steam; Heater-Portable Power; Hydraulic Manipulator Crane; Jack-Hydraulic Power driven; Jack-Hydraulic (Railroad); Ladavator; Minor Machine Operator; Mixer-Concrete; Mulching Machine; Pin Puller; Power Broom; Pulverizer; Pump; Road Finishing Machine (Pull Type); Saw-Concrete-Self-Propelled (Highway Work); Signal Person; Spray Cure Machine-Motor Powered; Stump Cutter; Tractor; Trencher Form; Water Blaster; Steam Jenny; Syphon; Vibrator-Gasoline; & Welding Machine

GROUP 5 - Brakeperson; Fireperson; & Oiler

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IRON0017-002 05/01/2017

ASHTABULA (North of Route 6, starting at the Geauga County Line, proceeding east to State Route 45), CUYAHOGA, ERIE (Eastern 2/3), GEAUGA, HURON (East of a line drawn from the north border through Monroeville & Willard), LAKE, LORAIN, MEDINA (North of Old Rte. #224), PORTAGE (West of a line from Middlefield to Shalersville to Deerfield), and SUMMIT (North of Old Rte. #224, including city limits of Barberton) COUNTIES

	Rates	Fringes
IRONWORKER		
Ornamental, Reinforcing, & Structural.....	\$ 33.33	21.50

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IRON0017-010 05/01/2017

ASHTABULA (Eastern part from Lake Erie on the north to route #322 on the south to include Conneaut, Kingsville, Sheffield, Denmark, Dorset, Cherry Valley, Wayne, Monroe, Pierpont,

Richmond, Andover & Williamsfield Townships)

	Rates	Fringes
IRONWORKER		
Structural, including metal building erection & Reinforcing.....	\$ 33.33	21.50
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IRON0044-001 06/01/2017		

ADAMS (Western Part), BROWN, BUTLER (Southern Part), CLERMONT,  
CLINTON (South of a line drawn from Blanchester to Lynchburg),  
HAMILTON, HIGHLAND (Excluding eastern one-fifth & portion of  
county inside lines drawn from Marshall to Lynchburg from the  
northern county line through E. Monroe to Marshall) and WARREN  
(South of a line drawn from Blanchester through Morrow to the  
west county line) COUNTIES

	Rates	Fringes
IRONWORKER, REINFORCING		
Beyond 30-mile radius of Hamilton County Courthouse..	\$ 27.85	20.70
Up to & including 30-mile radius of Hamilton County Courthouse.....	\$ 27.60	20.70
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IRON0044-002 06/01/2018		

CLINTON (South of a line drawn from Blanchester to Lynchburg),  
HAMILTON, HIGHLAND (Excluding eastern one-fifth & portion of  
county inside lines drawn from Marshall to Lynchburg from the  
northern county line through E. Monroe to Marshall) & WARREN  
(South of a line drawn from Blanchester through Morrow to the  
west county line)

	Rates	Fringes
IRONWORKER		
Fence Erector.....	\$ 26.76	21.20
Ornamental; Structural.....	\$ 28.17	21.20
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IRON0055-003 07/01/2017		

CRAWFORD (Area Between lines drawn from where Hwy #598 & #30  
meet through N. Liberty to the northern border & from said Hwy  
junction point due west to the border), DEFIANCE (S. of a line  
drawn from where Rte. #66 meets the northern line through  
Independence to the eastern county border), ERIE (Western 1/3),  
FULTON, HANCOCK, HARDIN (North of a line drawn from Maysville  
to a point 4 miles south of the northern line on the eastern  
line), HENRY, HURON (West of a line drawn from the northern  
border through Monroeville & Willard), LUCAS, OTTAWA, PUTNAM  
(East of a line drawn from the northern border down through  
Miller City to where #696 meets the southern border), SANDUSKY,  
SENECA, WILLIAMS (East of a line drawn from Pioneer through

Stryker to the southern border), WOOD & WYANDOT (North of Rte. #30)

	Rates	Fringes
IRONWORKER		
Fence Erector.....	\$ 20.53	20.12
Flat Road Mesh.....	\$ 29.77	21.30
Tunnels & Caissons Under		
Pressure.....	\$ 29.77	21.30
All Other Work.....	\$ 29.77	21.30

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IRON0147-002 06/01/2015

ALLEN (Northern half), DEFIANCE (Northern part, excluding south of a line drawn from where Rte. #66 meets the northern line through Independence to the eastern county border), MERCER (Northern half), PAULDING, PUTNAM (Western part, excluding east of a line drawn from the northern border down through Miller City to where #696 meets the southern border), VAN WERT, and WILLIAMS (Western part, excluding east of a line drawn from Pioneer through Stryker to the southern border) COUNTIES

	Rates	Fringes
IRONWORKER.....	\$ 25.39	20.64

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IRON0172-002 06/01/2018

CHAMPAIGN (Eastern one-third), CLARK (Eastern one-fourth), COSHOCTON (West of a line beginning at the northwestern county line going through Walhonding & Tunnel Hill to the southern county line), CRAWFORD (South of Rte. #30), DELAWARE, FAIRFIELD, FAYETTE, FRANKLIN, HARDIN (Excluding a line drawn from Roundhead to Maysville), HIGHLAND (Eastern one-fifth), HOCKING, JACKSON (Northern half), KNOX, LICKING, LOGAN (Eastern one-third), MADISON, MARION, MORROW, MUSKINGUM (West of a line starting at Adams Mill going to Adamsville & going from Adamsville through Blue Rock to the southern border), PERRY, PICKAWAY, PIKE (Northern half), ROSS, UNION, VINTON and WYANDOT (South of Rte. #30) COUNTIES

	Rates	Fringes
IRONWORKER.....	\$ 29.00	20.93

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IRON0207-004 06/01/2017

ASHTABULA (Southern part starting at the Geauga County line), COLUMBIANA (E. of a line from Damascus to Highlandtown), MAHONING (N. of Old Route #224), PORTAGE (E. of a line from Middlefield to Shalersville to Deerfield) & TRUMBULL

	Rates	Fringes
IRONWORKER		
Layout; Sheeter.....	\$ 29.06	24.70
Ornamental; Reinforcing;		
Structural.....	\$ 28.06	24.70

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IRON0290-002 06/01/2018

ALLEN (Southern half), AUGLAIZE, BUTLER (North of a line drawn from east to the west county line going through Oxford, Darrrtown & Woodsdale), CHAMPAIGN (Excluding east of a line drawn from Catawla to the point where #68 intersects the northern county line), CLARK (Western two-thirds), CLINTON (Excluding south of a line drawn from Blanchester to Lynchburg), DARKE, GREENE, HIGHLAND (Inside lines drawn from Marshall to Lynchburg & from the northern county line through East Monroe to Marshall), LOGAN (West of a line drawn from West Liberty to where the northern county line meets the western county line of Hardin), MERCER (Southern half), MIAMI, MONTGOMERY, PREBLE, SHELBY & WARREN (Excluding south of a line drawn from Blanchester through Morrow to the western county line) COUNTIES

	Rates	Fringes
IRONWORKER.....	\$ 28.25	22.13

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IRON0549-003 12/01/2017

BELMONT, GUERNSEY, HARRISON, JEFFERSON, MONROE & MUSKINGUM (Excluding portion west of a line starting at Adams Mill going to Adamsville and going from Adamsville through Blue Rock to the south border)

	Rates	Fringes
IRONWORKER.....	\$ 33.34	19.64

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IRON0550-004 05/01/2017

ASHLAND, CARROLL, COLUMBIANA (W. of a line from Damascus to Highlandtown), COSHOCTON (E. of a line beginning at NW Co. line going through Walhonding & Tunnel Hill to the South Co. line), HOLMES, HURON (S. of Old Rte. #224), MAHONING (S. of Old Rte. #224), MEDINA (S. of Old Rte. #224), PORTAGE (S. of Old Rte. #224), RICHLAND, STARK, SUMMIT (S. of Old Rte. #224, Excluding city limits of Barberton), TUSCARAWAS, & WAYNE

	Rates	Fringes
Ironworkers:Structural, Ornamental and Reinforcing.....	\$ 27.20	19.13

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IRON0769-004 06/01/2018

ADAMS (Eastern Half), GALLIA, JACKSON (Southern Half), LAWRENCE & SCIOTO

	Rates	Fringes
IRONWORKER.....	\$ 31.67	25.27

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IRON0787-003 12/01/2017

ATHENS, MEIGS, MORGAN, NOBLE, and WASHINGTON COUNTIES

	Rates	Fringes
IRONWORKER.....	\$ 29.68	21.55

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LABO0265-008 05/01/2018

	Rates	Fringes		
LABORER				
ASHTABULA, ERIE, HURON, LORAIN, LUCAS, MAHONING, MEDINA, OTTAWA, PORTAGE, SANDUSKY, STARK, SUMMIT, TRUMBULL & WOOD COUNTIES				
GROUP 1.....	\$ 31.05	10.95		
GROUP 2.....	\$ 31.22	10.95		
GROUP 3.....	\$ 31.55	10.95		
GROUP 4.....	\$ 32.00	10.95		
CUYAHOGA AND GEAUGA COUNTIES ONLY: SEWAGE PLANTS, WASTE PLANTS, WATER TREATMENT FACILITIES, PUMPING STATIONS, & ETHANOL PLANTS CONSTRUCTION.....			\$ 33.66	10.95
CUYAHOGA, GEAUGA & LAKE COUNTIES				
GROUP 1.....	\$ 32.28	10.95		
GROUP 2.....	\$ 32.45	10.95		
GROUP 3.....	\$ 32.78	10.95		
GROUP 4.....	\$ 33.23	10.95		
REMAINING COUNTIES OF OHIO				
GROUP 1.....	\$ 30.62	10.95		
GROUP 2.....	\$ 30.79	10.95		
GROUP 3.....	\$ 31.12	10.95		
GROUP 4.....	\$ 31.57	10.95		

LABORER CLASSIFICATIONS

GROUP 1 - Asphalt Laborer; Carpenter Tender; Concrete Curing  
Applicator; Dump Man (Batch Truck); Guardrail and Fence  
Installer; Joint Setter; Laborer (Construction); Landscape  
Laborer; Mesh Handlers & Placer; Right-of-way Laborer;  
Riprap Laborer & Grouter; Scaffold Erector; Seal Coating;  
Surface Treatment or Road Mix Laborer; Sign Installer;  
Slurry Seal; Utility Man; Bridge Man; Handyman;  
Waterproofing Laborer; Flagperson; Hazardous Waste (level  
D); Diver Tender; Zone Person & Traffic Control

GROUP 2 - Asphalt Raker; Concrete Puddler; Kettle Man  
Pipeline); Machine Driven Tools (Gas, Electric, Air); Mason

Tender; Brick Paver; Mortar Mixer; Power Buggy or Power Wheelbarrow; Paint Striper; Sheeting & Shoring Man; Surface Grinder Man; Plastic Fusing Machine Operator; Pug Mill Operator; & Vacuum Devices (wet or dry); Rodding Machine Operator; Diver; Screwman or Paver; Screed Person; Water Blast, Hand Held Wand; Pumps 4" & Under (Gas, Air or Electric) & Hazardous Waste (level C); Air Track and Wagon Drill; Bottom Person; Cofferdam (below 25 ft. deep); Concrete Saw Person; Cutting with Burning Torch; Form Setter; Hand Spiker (Railroad); Pipelayer; Tunnel Laborer (without air) & Caisson; Underground Person (working in Sewer and Waterline, Cleaning, Repairing & Reconditioning); Sandblaster Nozzle Person; & Hazardous Waste (level B)

GROUP 3 - Blaster; Mucker; Powder Person; Top Lander; Wrencher (Mechanical Joints & Utility Pipeline); Yarner; Hazardous Waste (level A); Concrete Specialist; Concrete Crew in Tunnels (With Air-pressurized - \$1.00 premium); Curb Setter & Cutter; Grade Checker; Utility Pipeline Tapper; Waterline; and Caulker

GROUP 4 - Miner (With Air-pressurized - \$1.00 premium); & Gunite Nozzle Person

TUNNEL LABORER WITH AIR-PRESSURIZED ADD \$1.00 TO BASE RATE

SIGNAL PERSON WILL RECEIVE THE RATE EQUAL TO THE RATE PAID THE LABORER CLASSIFICATION FOR WHICH HE OR SHE IS SIGNALING.

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PAIN0006-002 05/01/2018

ASHTABULA, CUYAHOGA, GEAUGA, LAKE, LORAIN, PORTAGE (N. of the East-West Turnpike) & SUMMIT (N. of the East-West Turnpike)

	Rates	Fringes
PAINTER		
COMMERCIAL NEW WORK; REMODELING; & RENOVATIONS		
GROUP 1.....	\$ 27.90	16.16
GROUP 2.....	\$ 28.30	16.16
GROUP 3.....	\$ 28.60	16.16
GROUP 4.....	\$ 34.16	16.16
COMMERCIAL REPAINT		
GROUP 1.....	\$ 26.40	16.16
GROUP 2.....	\$ 26.80	16.16
GROUP 3.....	\$ 27.10	16.16

PAINTER CLASSIFICATIONS - COMMERCIAL NEW WORK; REMODELING; & RENOVATIONS

GROUP 1 - Brush; & Roller

GROUP 2 - Sandblasting & Buffing

GROUP 3 - Spray Painting; Closed Steel Above 55 feet; Bridges  
& Open Structural Steel; Tanks - Water Towers; Bridge  
Painters; Bridge Riggers; Containment Builders

GROUP 4 - Bridge Blaster

PAINTER CLASSIFICATIONS - COMMERCIAL REPAINT

GROUP 1 - Brush; & Roller

GROUP 2 - Sandblasting & Buffing

GROUP 3 - Spray Painting

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PAIN0007-002 07/01/2018

FULTON, HENRY, LUCAS, OTTAWA (Excluding Allen, Bay, Bono,  
Catawba Island, Clay Center, Curtice, Danbury, Eagle Beach,  
Elliston, Elmore, Erie, Fishback, Gem Beach & Genova) & WOOD

	Rates	Fringes
PAINTER		
NEW COMMERCIAL WORK		
GROUP 1.....	\$ 25.89	17.09
GROUP 2.....	\$ 26.89	17.09
GROUP 3.....	\$ 26.89	17.09
GROUP 4.....	\$ 26.89	17.09
GROUP 5.....	\$ 26.89	17.09
GROUP 6.....	\$ 26.89	17.09
GROUP 7.....	\$ 26.89	17.09
GROUP 8.....	\$ 26.89	17.09
GROUP 9.....	\$ 26.89	17.09

REPAINT IS 90% OF JR

PAINTER CLASSIFICATIONS

GROUP 1 - Brush; Spray & Sandblasting Pot Tender

GROUP 2 - Refineries & Refinery Tanks; Surfaces 30 ft. or  
over where material is applied to or labor performed on  
above ground level (exterior), floor level (interior)

GROUP 3 - Swing Stage & Chair

GROUP 4 - Lead Abatement

GROUP 5 - All Methods of Spray

GROUP 6 - Solvent-Based Catalized Epoxy Materials of 2 or More Component Materials, to include Solvent-Based Conversion Varnish (excluding water based)

GROUP 7 - Spray Solvent Based Material; Sand & Abrasive Blasting

GROUP 8 - Towers; Tanks; Bridges; Stacks Over 30 Feet

GROUP 9 - Epoxy Spray (excluding water based)

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PAIN0012-008 05/01/2018

BUTLER COUNTY

	Rates	Fringes
PAINTER		
GROUP 1.....	\$ 21.95	9.74
GROUP 2.....	\$ 24.61	9.74
GROUP 3.....	\$ 25.11	9.74
GROUP 4.....	\$ 25.36	9.74
GROUP 5.....	\$ 25.61	9.74

PAINTER CLASSIFICATIONS

GROUP 1: Bridge Equipment Tender; Bridge/Containment Builder

GROUP 2: Brush & Roller

GROUP 3: Spray

GROUP 4: Sandblasting; & Waterblasting

GROUP 5: Elevated Tanks; Steeplejack Work; Bridge; & Lead Abatement

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PAIN0012-010 05/01/2018

BROWN, CLERMONT, CLINTON, HAMILTON & WARREN

	Rates	Fringes
PAINTER		
HEAVY & HIGHWAY BRIDGES- GUARDRAILS-LIGHTPOLES- STRIPING		
Bridge Equipment Tender and Containment Builder....	\$ 21.95	9.74
Bridges when highest point of clearance is 60		

feet or more; & Lead		
Abatement Projects.....	\$ 25.61	9.74
Brush & Roller.....	\$ 24.61	9.74
Sandblasting & Hopper		
Tender; Water Blasting.....	\$ 25.36	9.74
Spray.....	\$ 25.11	9.74

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PAIN0093-001 12/01/2017

ATHENS, GUERNSEY, HOCKING, MONROE, MORGAN, NOBLE and  
WASHINGTON COUNTIES

	Rates	Fringes
PAINTER		
Bridges; Locks; Dams;		
Tension Towers; &		
Energized Substations.....	\$ 33.59	17.25
Power Generating Facilities.	\$ 30.44	17.25

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PAIN0249-002 05/01/2018

CLARK, DARKE, GREENE, MIAMI, MONTGOMERY & PREBLE

	Rates	Fringes
PAINTER		
GROUP 1 - Brush & Roller....	\$ 23.29	11.38
GROUP 2 - Swing, Scaffold		
Bridges; Structural Steel;		
Open Acid Tank; High		
Tension Electrical		
Equipment; & Hot Pipes.....	\$ 23.29	11.38
GROUP 3 - Spray;		
Sandblast; Steamclean;		
Lead Abatement.....	\$ 24.04	11.38
GROUP 4 - Steeplejack Work..	\$ 24.24	11.38
GROUP 5 - Coal Tar.....	\$ 24.79	11.38
GROUP 6 - Bridge Equipment		
Tender & or Containment		
Builder.....	\$ 26.53	11.38
GROUP 7 - Tanks, Stacks &		
Towers.....	\$ 26.93	11.38
GROUP 8 - Bridge Blaster,		
Rigger.....	\$ 35.00	11.38

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PAIN0356-002 09/01/2009

KNOX, LICKING, MUSKINGUM, and PERRY

	Rates	Fringes
PAINTER		
Bridge Equipment Tenders		
and Containment Builders....	\$ 27.93	7.25
Bridges; Blasters;		

And Riggers.....	\$ 34.60	7.25
Brush and Roller.....	\$ 20.93	7.25
Sandblasting; Steam Cleaning; Waterblasting; and Hazardous Work.....	\$ 25.82	7.25
Spray.....	\$ 21.40	7.25
Structural Steel and Swing Stage.....	\$ 25.42	7.25
Tanks; Stacks; and Towers...	\$ 28.63	7.25

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PAIN0438-002 12/01/2017

BELMONT, HARRISON and JEFFERSON COUNTIES

	Rates	Fringes
PAINTER		
Bridges, Locks, Dams, Tension Towers & Energized Substations.....	\$ 32.35	16.43
Power Generating Facilities.	\$ 29.20	16.43

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PAIN0476-001 06/01/2018

COLUMBIANA, MAHONING, and TRUMBULL COUNTIES

	Rates	Fringes
PAINTER		
GROUP 1.....	\$ 25.37	13.83
GROUP 2.....	\$ 32.00	13.83
GROUP 3.....	\$ 25.58	13.83
GROUP 4.....	\$ 25.87	13.83
GROUP 5.....	\$ 26.02	13.83
GROUP 6.....	\$ 26.27	13.83
GROUP 7.....	\$ 27.37	13.83

PAINTER CLASSIFICATIONS:

GROUP 1: Painters, Brush & Roller

GROUP 2: Bridges

GROUP 3: Structural Steel

GROUP 4: Spray, Except Bar Joist/Deck

GROUP 5: Epoxy/Mastic; Spray- Bar Joist/Deck; Working Above  
50 Feet; and Swingstages

GROUP 6: Tanks; Sandblasting

GROUP 7: Towers; Stacks

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PAIN0555-002 06/01/2018

ADAMS, HIGHLAND, JACKSON, PIKE & SCIOTO

	Rates	Fringes
PAINTER		
GROUP 1.....	\$ 30.61	15.81
GROUP 2.....	\$ 32.04	15.81
GROUP 3.....	\$ 33.47	15.81
GROUP 4.....	\$ 36.27	15.81

PAINTER CLASSIFICATIONS

GROUP 1 - Containment Builder

GROUP 2 - Brush; Roller; Power Tools, Under 40 feet

GROUP 3 - Sand Blasting; Spray; Steam Cleaning; Pressure  
Washing; Epoxy & Two Component Materials; Lead Abatement;  
Hazardous Waste; Toxic Materials; Bulk & Storage Tanks of  
25,000 Gallon Capacity or More; Elevated Tanks

GROUP 4 - Stacks; Bridges

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PAIN0639-001 05/01/2011

	Rates	Fringes
Sign Painter & Erector.....	\$ 20.61	3.50+a+b+c

FOOTNOTES: a. 7 Paid Holidays: New Year's Day; Memorial Day;  
July 4th; Labor Day; Thanksgiving Day; Christmas Day & 1  
Floating Day  
b. Vacation Pay: After 1 year's service - 5 days' paid  
vacation; After 2, but less than 10 years' service - 10  
days' paid vacation; After 10, but less than 20 years'  
service - 15 days' paid vacation; After 20 years' service -  
20 days' paid vacation  
c. Funeral leave up to 3 days maximum paid leave for death of  
mother, father, brother, sister, spouse, child, mother-in-law,  
father-in-law, grandparent and inlaw provided employee attends  
funeral

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PAIN0788-002 06/01/2018

ASHLAND, CRAWFORD, ERIE, HANCOCK, HURON, MARION, MORROW, OTTAWA  
(Allen, Bay, Bono, Catawba Island, Clay Center, Curtice,  
Danbury, Eagle Beach, Elliston, Elmore, Erie, Fishback, Gem  
Beach & Genoa), RICHLAND, SANDUSKY, SENECA & WYANDOT

	Rates	Fringes
PAINTER		
Brush & Roller.....	\$ 23.87	13.80
Structural Steel.....	\$ 25.47	13.80

WINTER REPAINT: Between December 1 to March 31 - 90%JR

\$.50 PER HOUR SHALL BE ADDED TO THE RATE OF PAY FOR THE CLASSIFICATION OF WORK:

While working swingstage, boatswain chair, needle beam and horizontal cable. While operating sprayguns, sandblasting, cobblasting and high pressure waterblasting (4000psi).

\$1.00 PER HOUR SHALL BE ADDED TO THE RATE OF PAY FOR THE CLASSIFICATION OF WORK:

For the application of catalized epoxy, including latex epoxy that is deemed hazardous, lead abatement, or for work or material where special precautions beyond normal work duties must be taken. For working on stacks, tanks, and towers over 40 feet in height.

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PAIN0813-005 12/01/2008

GALLIA, LAWRENCE, MEIGS & VINTON

	Rates	Fringes
PAINTER		
Base Rate.....	\$ 24.83	10.00
Bridges, Locks, Dams & Tension Towers.....	\$ 27.83	10.00

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PAIN0841-001 06/01/2018

MEDINA, PORTAGE (South of and including Ohio Turnpike), and SUMMIT (South of and including Ohio Turnpike) COUNTIES

	Rates	Fringes
Painters:		
GROUP 1.....	\$ 25.75	14.35
GROUP 2.....	\$ 26.40	14.35
GROUP 3.....	\$ 26.50	14.35
GROUP 4.....	\$ 26.60	14.35
GROUP 5.....	\$ 27.00	14.35
GROUP 6.....	\$ 39.20	11.75
GROUP 7.....	\$ 27.00	14.35

PAINTER CLASSIFICATIONS:

GROUP 1 - Brush, Roller & Paperhanger

GROUP 2 - Epoxy Application

GROUP 3 - Swing Scaffold, Bosum Chair, & Window Jack

GROUP 4 - Spray Gun Operator of Any & All Coatings

GROUP 5 - Sandblast, Painting of Standpipes, etc. from  
Scaffolds, Bridge Work and/or Open Structural Steel,  
Standpipes and/or Water Towers

GROUP 6 - Public & Commerce Transportation, Steel or  
Galvanized, Bridges, Tunnels & Related Support Items  
(concrete)

GROUP 7 - Synthetic Exterior, Drywall Finisher and/or Taper,  
Drywall Finisher and Follow-up Man Using Automatic Tools

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PAIN0841-002 06/01/2018

CARROLL, COSHOCTON, HOLMES, STARK, TUSCARAWAS & WAYNE

	Rates	Fringes
PAINTER		
Bridges; Towers, Poles & Stacks; Sandblasting Steel; Structural Steel & Metalizing.....	\$ 22.78	13.63
Brush & Roller.....	\$ 21.77	13.63
Spray; Tank Interior & Exterior.....	\$ 22.60	13.63

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PAIN1020-002 07/01/2018

ALLEN, AUGLAIZE, CHAMPAIGN, DEFIANCE, HARDIN, LOGAN, MERCER,  
PAULDING, PUTNAM, SHELBY, VAN WERT, and WILLIAMS COUNTIES

	Rates	Fringes
PAINTER		
Brush & Roller.....	\$ 24.15	14.40
Drywall Finishing & Taping..	\$ 22.85	14.40
Lead Abatement.....	\$ 25.90	14.40
Spray, Sandblasting Pressure Cleaning, & Refinery.....	\$ 24.90	14.40
Swing Stage, Chair, Spiders, & Cherry Pickers...	\$ 24.40	14.40
Wallcoverings.....	\$ 21.75	14.40

All surfaces 40 ft. or over where material is applied to or  
labor performed on, above ground level (exterior), floor

level (interior) - \$.50 premium

Applying Coal Tar Products - \$1.00 premium

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PAIN1275-002 05/01/2018

DELAWARE, FAIRFIELD, FAYETTE, FRANKLIN, MADISON, PICKAWAY, ROSS  
& UNION

	Rates	Fringes
PAINTER		
Bridges.....	\$ 33.71	14.13
Brush; Roller.....	\$ 24.23	14.13
Sandblasting; Steamcleaning; Waterblasting (3500 PSI or Over)& Hazardous Work.....	\$ 25.63	14.13
Spray.....	\$ 25.43	14.13
Stacks; Tanks; & Towers.....	\$ 27.74	14.13
Structural Steel & Swing Stage.....	\$ 24.53	14.13

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PLAS0109-001 05/01/2018

MEDINA, PORTAGE, STARK, and SUMMIT COUNTIES

	Rates	Fringes
PLASTERER.....	\$ 28.86	17.11

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PLAS0109-003 05/01/2018

CARROLL, HOLMES, TUSCARAWAS, and WAYNE COUNTIES

	Rates	Fringes
PLASTERER.....	\$ 28.21	17.11

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PLAS0132-002 05/01/2018

BROWN, BUTLER, CLERMONT, HAMILTON, HIGHLAND, WARREN COUNTIES

	Rates	Fringes
PLASTERER.....	\$ 28.86	17.11

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PLAS0404-002 05/01/2018

ASHTABULA, CUYAHOGA, GEAUGA, AND LAKE COUNTIES

	Rates	Fringes
PLASTERER.....	\$ 29.63	17.11

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PLAS0404-003 05/01/2018

LORAIN COUNTY

	Rates	Fringes
PLASTERER.....	\$ 28.86	17.11

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PLAS0526-022 05/01/2018

COLUMBIANA, MAHONING, and TRUMBULL COUNTIES

	Rates	Fringes
PLASTERER.....	\$ 28.86	17.11

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PLAS0526-023 05/01/2018

BELMONT, HARRISON, and JEFFERSON COUNTIES

	Rates	Fringes
PLASTERER.....	\$ 28.21	17.11

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PLAS0886-001 05/01/2018

FULTON, HANCOCK, HENRY, LUCAS, PUTNAM, and WOOD COUNTIES

	Rates	Fringes
PLASTERER.....	\$ 29.63	17.11

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PLAS0886-003 05/01/2018

DEFIANCE, ERIE, HURON, OTTAWA, PAULDING, SANDUSKY, and SENECA COUNTIES

	Rates	Fringes
PLASTERER.....	\$ 28.86	17.11

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PLAS0886-004 05/01/2018

ALLEN, AUGLAIZE, HARDIN, LOGAN, MERCER, and VAN WERT COUNTIES

	Rates	Fringes
PLASTERER.....	\$ 28.21	17.11

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PLUM0042-002 07/01/2018

ASHLAND, CRAWFORD, ERIE, HURON, KNOX, LORAIN, MORROW, RICHLAND & WYANDOT

	Rates	Fringes
Plumber, Pipefitter, Steamfitter.....	\$ 34.20	22.07

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PLUM0050-002 07/02/2018

DEFIANCE, FULTON, HANCOCK, HENRY, LUCAS, OTTAWA, PAULDING,

PUTNAM, SANDUSKY, SENECA, WILLIAMS & WOOD

	Rates	Fringes
Plumber, Pipefitter, Steamfitter.....	\$ 41.41	25.82

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PLUM0055-003 04/30/2018

ASHTABULA, CUYAHOGA, GEAUGA, LAKE, MEDINA (N. of Rte. #18 &  
Smith Road) & SUMMIT (N. of Rte. #303, including the corporate  
limits of the city of Hudson)

	Rates	Fringes
PLUMBER.....	\$ 35.78	25.58

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PLUM0083-001 07/01/2017

BELMONT & MONROE (North of Rte. #78)

	Rates	Fringes
Plumber and Steamfitter.....	\$ 32.16	31.51

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PLUM0094-002 05/01/2018

CARROLL (Northen Half), STARK, and WAYNE COUNTIES

	Rates	Fringes
PLUMBER/PIPEFITTER.....	\$ 35.28	19.34

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PLUM0120-002 04/30/2018

ASHTABULA, CUYAHOGA, GEAUGA, LAKE, LORAIN (the C.E.I. Power  
House in Avon Lake), MEDINA (N. of Rte. #18) & SUMMIT (N. of  
#303)

	Rates	Fringes
PIPEFITTER.....	\$ 37.67	22.42

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PLUM0162-002 06/01/2018

CHAMPAIGN, CLARK, CLINTON, DARKE, FAYETTE, GREENE, MIAMI,  
MONTGOMERY & PREBLE

	Rates	Fringes
Plumber, Pipefitter, Steamfitter.....	\$ 29.75	21.52

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PLUM0168-002 06/01/2018

MEIGS, MONROE (South of Rte. #78), MORGAN (South of Rte. #78)  
& WASHINGTON

	Rates	Fringes
PLUMBER/PIPEFITTER.....	\$ 34.17	31.08

PLUM0189-002 06/01/2017

DELAWARE, FAIRFIELD, FRANKLIN, HOCKING, LICKING, MADISON,  
MARION, PERRY, PICKAWAY, ROSS & UNION

	Rates	Fringes
Plumber, Pipefitter, Steamfitter.....	\$ 35.45	23.24

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PLUM0219-002 06/01/2018

MEDINA (Rte. #18 from eastern edge of Medina Co., west to eastern corporate limits of the city of Medina, & on the county road from the west corporate limits of Medina running due west to and through community of Risley to the western edge of Medina County - All territory south of this line), PORTAGE, and SUMMIT (S. of Rte. #303) COUNTIES

	Rates	Fringes
Plumber and Steamfitter.....	\$ 37.57	24.54

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PLUM0392-002 06/01/2018

BROWN, BUTLER, CLERMONT, HAMILTON & WARREN

	Rates	Fringes
PLUMBER/PIPEFITTER.....	\$ 32.01	19.67

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PLUM0396-001 06/01/2018

COLUMBIANA (Excluding Washington & Yellow Creek Townships & Liverpool Twp. - Secs. 35 & 36 - West of County Road #427), MAHONING and TRUMBULL COUNTIES

	Rates	Fringes
PLUMBER/PIPEFITTER.....	\$ 33.50	24.66

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PLUM0495-002 06/01/2018

CARROLL (Rose, Monroe, Union, Lee, Orange, Perry & Loudon Townships), COLUMBIANA (Washington & Yellow Creek Townships & Liverpool Township, Secs. 35 & 36, West of County Rd. #427), COSHOCTON, GUERNSEY, HARRISON, HOLMES, JEFFERSON, MORGAN (South to State Rte. #78 & from McConnelssville west on State Rte. #37 to the Perry County line), MUSKINGUM, NOBLE, and TUSCARAWAS COUNTIES

	Rates	Fringes
Plumber, Pipefitter, Steamfitter.....	\$ 38.24	23.09

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PLUM0577-002 06/01/2018

ADAMS, ATHENS, GALLIA, HIGHLAND, JACKSON, LAWRENCE, PIKE,

SCIOTO & VINTON

	Rates	Fringes
Plumber, Pipefitter, Steamfitter.....	\$ 34.00	23.85

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PLUM0776-002 07/01/2017

ALLEN, AUGLAIZE, HARDIN, LOGAN, MERCER, SHELBY and VAN WERT  
COUNTIES

	Rates	Fringes
Plumber, Pipefitter, Steamfitter.....	\$ 35.00	23.03

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TEAM0377-003 05/01/2017

STATEWIDE, EXCEPT CUYAHOGA, GEAUGA & LAKE

	Rates	Fringes
TRUCK DRIVER		
GROUP 1.....	\$ 26.68	14.31
GROUP 2.....	\$ 27.10	14.31

TRUCK DRIVER CLASSIFICATIONS

GROUP 1 - Asphalt Distributor; Batch; 4- Wheel Service;  
4-Wheel Dump; Oil Distributor & Tandem

GROUP 2 - Tractor-Trailer Combination: Fuel; Pole Trailer;  
Ready Mix; Semi-Tractor; & Asphalt Oil Spraybar Man When  
Operated From Cab; 5 Axles & Over; Belly Dump; End Dump;  
Articulated Dump; Heavy Duty Equipment; Low Boy; & Truck  
Mechanic

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TEAM0436-002 05/01/2017

CUYAHOGA, GEAUGA & LAKE

	Rates	Fringes
TRUCK DRIVER		
GROUP 1.....	\$ 27.40	16.05
GROUP 2.....	\$ 27.90	16.05

GROUP 1: Straight & Dump, Straight Fuel

GROUP 2: Semi Fuel, Semi Tractor, Euclids, Darts, Tank,  
Asphalt Spreaders, Low Boys, Carry-All, Tourna-Rockers,  
Hi-Lifts, Extra Long Trailers, Semi-Pole Trailers, Double  
Hook-Up Tractor Trailers including Team Track & Railroad  
Siding, Semi-Tractor & Tri-Axle Trailer, Tandem Tractor &  
Tandem Trailer, Tag Along Trailer, Expandable Trailer or  
Towing Requiring Road Permits, Ready-Mix (Agitator or  
Non-Agitator), Bulk Concrete Driver, Dry Batch Truck,

Articulated End Dump

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WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at [www.dol.gov/whd/govcontracts](http://www.dol.gov/whd/govcontracts).

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

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The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

#### Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than "SU" or "UAVG" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing

the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

#### Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

#### Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

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#### WAGE DETERMINATION APPEALS PROCESS

- 1.) Has there been an initial decision in the matter? This can be:
  - \* an existing published wage determination
  - \* a survey underlying a wage determination
  - \* a Wage and Hour Division letter setting forth a position on a wage determination matter
  - \* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations  
Wage and Hour Division  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION

GOVERNING CODE

- OHIO BUILDING CODE – 2017 (REFERENCES IBC 2015 & ASCE-7 2010)  
– ACI 350 USED FOR ALL CONCRETE TANK DESIGN  
– ACI 318 USED FOR ALL OTHER CONCRETE DESIGN

DESIGN LOADS

1. ROOF LOAD:
- |  |    |         |
|--|----|---------|
| A. MINIMUM COMBINATION OF WIND LOAD, LIVE LOAD, RAIN LOAD, OR SNOW LOAD (Pf) | 20 | PSF*    |
| B. ASPHALT/FIBERGLASS SHINGLES (2 LAYERS)                                    | 6  | PSF     |
| C. ROOF SHEATHING  | 3  | PSF     |
| D. TRUSS FRAMING LOAD  | 3  | PSF     |
| E. CEILING, INSULATION   | 3  | PSF     |
| F. SPRINKLERS  | 3  | PSF     |
| G. DUCTS, LIGHTS, MISC. MECHANICAL   | 2  | PSF     |
| TOTAL LOAD ON TRUSSES  | 40 | PSF MIN |

(\*GROUND SNOW Pg = 20 PSF MODIFIED BY APPLICABLE SLOPE COEFFICIENT Cs)

2. WIND LOAD (PER ASCE 7):
- |   |   |              |                       |
|---|---|--------------|-----------------------|
| A. BASIC WIND SPEED (BASED ON 3-SECOND GUST)  | = | 115          | MPH                   |
| B. OCCUPANCY CATEGORY   | = | III          |                       |
| C. WIND IMPORTANCE FACTOR, I  | = | 1.15         |                       |
| D. WIND EXPOSURE  | = | B            | (ALL WIND DIRECTIONS) |
| E. INTERNAL PRESSURE COEFFICIENT, Gcpi  | = | +0.18, -0.18 |                       |
| F. DESIGN PRESSURES FOR EXTERIOR COMPONENT AND CLADDING ITEMS NOT DESIGNED BY THE ENGINEER OF RECORD: SPECIALTY ENGINEER SHALL DETERMINE WIND LOADS UNDER GOVERNING BUILDING CODE, AND BASED ON WIND LOAD PARAMETERS DEFINED ABOVE. |   |              |                       |
3. SEISMIC LOADS
- |                                    |   |                              |
|------------------------------------|---|------------------------------|
| A. SEISMIC USE GROUP               | = | II                           |
| B. RESPONSE MODIFICATION FACTOR Rm | = | 2-3                          |
| C. SITE CLASS                      | = | B                            |
| D. SEISMIC-FORCE-RESISTING SYSTEM  | = | CANTILEVERED RETAINING WALLS |
| E. SEISMIC DESIGN CATEGORY         | = | B                            |
| F. ANALYSIS PROCEDURE              | = | ELFP                         |

CONSTRUCTION AND SAFETY

1. CONTRACTOR SHALL BRACE ENTIRE STRUCTURE AS REQUIRED TO MAINTAIN STABILITY UNTIL COMPLETE AND FUNCTIONING AS THE DESIGNED UNIT.
2. ENGINEER SHALL NOT BE RESPONSIBLE FOR THE MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES OF CONSTRUCTION SELECTED BY CONTRACTOR.
3. THE CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND IS NOT LIMITED TO NORMAL WORKING HOURS. WHEN ON SITE, THE ENGINEER IS RESPONSIBLE FOR HIS/HER OWN SAFETY BUT HAS NO RESPONSIBILITY FOR THE SAFETY OF OTHER PERSONNEL OR SAFETY CONDITIONS AT THE SITE.

FOUNDATIONS

1. FOUNDATION DESIGN IS BASED ON RECOMMENDATIONS DESCRIBED IN THE GEOTECHNICAL ENGINEER'S REPORT THE GEOTECHNICAL ENGINEER'S REPORT IS AVAILABLE UPON REQUEST.
- A. ALL FOOTINGS SHALL BEAR ON LEVEL (WITHIN 1 IN 12) UNDISTURBED SOIL OR APPROVED ENGINEERED FILL. FOUNDATIONS HAVE BEEN DESIGNED FOR A MINIMUM BEDROCK BEARING PRESSURE OF 16 KSF.
2. ELEVATION AND BEARING STRATA SHALL BE APPROVED BY A GEOTECHNICAL ENGINEER PRIOR TO PLACING CONCRETE. PROVIDE ENGINEERED FILL OR LOW STRENGTH CONCRETE (500 PSI) UNDER FOUNDATIONS AT SOFT SPOTS AND FOR EXTENDING EXCAVATION TO ADEQUATE BEARING MATERIAL. INSTALL FOUNDATIONS AT DESIGNED ELEVATIONS.
3. LATERAL SOIL PRESSURE USED FOR DESIGN OF:
- A. RETAINING WALLS: 100 PCF EQUIVALENT FLUID PRESSURE, TRIANGULAR DISTRIBUTION.
4. CONTRACTOR SHALL CONTACT UTILITY COMPANIES FOR LOCATING UNDERGROUND SERVICES AND IS RESPONSIBLE FOR THEIR PROTECTION AND SUPPORT.
5. FILL AND BACK FILL:
- A. ALL FILL MATERIALS SHALL BE APPROVED BY A GEOTECHNICAL CONSULTANT.
- B. ENGINEERED FILL BENEATH FOOTINGS: MINIMUM COMPACTION 98% STANDARD PROCTOR DENSITY AT THE OPTIMUM MOISTURE CONTENT.
- C. BACKFILL AGAINST WALLS:
1. BACKFILL ALONG EXTERIOR FACE OF WALLS SHALL BE A WELL GRADED GRANULAR MATERIAL COMPACTED TO 95% STANDARD PROCTOR. AT THE BOTTOM OF THE GRANULAR MATERIAL, PLACE A 4" DIAMETER PERFORATED FOUNDATION DRAINPIPE WITH POSITIVE DRAINAGE TO SUMP OR TO DAYLIGHT.
- D. FILL AT UTILITY TRENCHES:
1. BACKFILL TRENCHES EXCAVATED UNDER FOOTINGS AND WITHIN 18 INCHES OF BOTTOM OF FOOTINGS WITH LEAN CONCRETE TO THE BOTTOM OF FOOTING ELEVATION.
2. FOR TRENCHES INSTALLED AFTER FOUNDATIONS AND MORE THAN 18 INCHES BELOW BOTTOM OF FOOTINGS, FILL MATERIAL MUST BE APPROVED BY GEOTECHNICAL ENGINEER.
6. ALL AREAS WITHIN THE FOOTPRINT OF THE TANKS, INCLUDING UTILITY TRENCHES, MUST BE FREE OF ANY WET AND/OR SOFT AREAS PRIOR TO PLACEMENT OF FILL MATERIAL OR SLAB.
7. FINISHED GRADE SHALL SLOPE AWAY FROM THE PERIMETER FOUNDATION.
8. UTILITY TRENCHES PARALLEL TO FOOTINGS AND WITH PIPES BELOW THE BOTTOM OF FOOTING ELEVATION MUST BE LOCATED SO THAT THE SLOPE BETWEEN THE PIPE INVERT ELEVATION AND THE BOTTOM CORNER OF THE FOOTING IS A MINIMUM OF 2 HORIZONTAL TO 1 VERTICAL.

CONCRETE

1. CONCRETE WORK AND TESTING, AS PERFORMED BY "QUALIFIED FIELD TESTING TECHNICIANS" AND "QUALIFIED LABORATORY TECHNICIANS", SHALL CONFORM TO ALL REQUIREMENTS OF ACI 301-99, "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS", EXCEPT AS MODIFIED BY THE SUPPLEMENTAL REQUIREMENTS BELOW. REPORTS FROM TESTS REQUIRED BY SECTION 1.6 OF ACI 301-99 SHALL BE SUBMITTED TO STRUCTURAL ENGINEER, ARCHITECT, OWNER, CONTRACTOR, CONCRETE SUPPLIER, AND BUILDING OFFICIAL.
2. CONCRETE WORK IN COLD WEATHER SHALL CONFORM TO ALL REQUIREMENTS OF ACI 306.1-90 "STANDARD SPECIFICATION FOR COLD WEATHER CONCRETING" AND ACI 306R-88 "COLD WEATHER CONCRETING".
3. CONCRETE WORK IN HOT WEATHER SHALL CONFORM TO ALL REQUIREMENTS OF ACI 305R-99 "HOT WEATHER CONCRETING". THE AIR TEMPERATURE, RELATIVE HUMIDITY, CONCRETE TEMPERATURE, AND WIND VELOCITY SHALL BE ENTERED INTO NOMOGRAPH FIGURE 2.1.5 TO DETERMINE IF PRECAUTIONS AGAINST PLASTIC SHRINKAGE ARE REQUIRED.
4. CONCRETE MIX DESIGNS SHALL BE SUBMITTED FOR EACH TYPE OF CONCRETE TO THE STRUCTURAL ENGINEER FOR APPROVAL IN ACCORDANCE WITH ACI 301-99 SECTION 4.2.3.4 FIELD TEST DATA OR TRIAL MIXTURES. SUBMITTAL DATA MUST INCLUDE FIELD TEST DATA FROM AT LEAST 10 TESTS OR A THREE POINT CURVE GENERATED USING TRIAL MIXTURES.
5. SUBMIT SHOP DRAWINGS FOR REINFORCING STEEL IN ACCORDANCE WITH THE SUBMITTALS SECTION.
6. FIELD FABRICATION OF REINFORCING STEEL, EXCEPT WHEN SPECIFICALLY INDICATED ON CONTRACT DOCUMENTS, IS NOT PERMITTED UNLESS REQUESTED IN WRITING AND APPROVED IN WRITING BY THE STRUCTURAL ENGINEER.
7. MATERIALS: (f'c BASED ON 28 DAY UNLESS NOTED)
- A. CONCRETE UNLESS NOTED: f'c = 4500 PSI, (4.5% TO 7.5% ENTRAINED AIR), MAXIMUM WATER/CEMENTITIOUS RATIO = 0.42.
- B. REINFORCING STEEL: ASTM A615 60 KSI YIELD DEFORMED BARS.
- C. FLY ASH: ASTM C618, TYPE F OR C. WHEN USED, FLY ASH-TO- TOTAL CEMENTITIOUS RATIO SHALL BE 15% MINIMUM.
- D. GROUND GRANULATED BLAST FURNACE SLAG: ASTM C989. TOTAL GROUND GRANULATED BLAST FURNACE SLAG -TO- TOTAL CEMENTITIOUS RATIO SHALL NOT EXCEED 50% MAXIMUM.
- E. FLY ASH, NATURAL POZZOLANS, SILICA FUME, OR GROUND GRANULATED BLAST FURNACE SLAG: WHEN EXPOSED TO DEICING CHEMICALS, LIMIT THE MAXIMUM WEIGHT TO THE PERCENTAGES OF THE TOTAL WEIGHT OF CEMENTITIOUS MATERIALS GIVEN IN TABLE 4.2.2.8 OF ACI 301-99.
- F. PLASTICIZING ADMIXTURE: ASTM C1017.
- G. WATER REDUCING ADMIXTURE: ASTM C494.
- H. CHLORIDE CONTENT OF CONCRETE: LIMIT TOTAL CHLORIDE ION CONTENT TO AMOUNT INDICATED IN TABLE 4.2.2.6 OF ACI 301-99. ADMIXTURES CONTAINING CHLORIDE ARE NOT PERMITTED IN REINFORCED CONCRETE OR CONCRETE CONTAINING METALS.
8. IF CONCRETE ARRIVES AT THE POINT OF DELIVERY WITH A SLUMP BELOW THAT WHICH WILL RESULT IN THE SPECIFIED SLUMP AT THE POINT OF PLACEMENT AND IS UNSUITABLE FOR PLACING AT THAT SLUMP, THE SLUMP MAY BE ADJUSTED ONCE ONLY TO THE REQUIRED VALUE BY ADDING WATER UP TO THE AMOUNT ALLOWED IN THE ACCEPTED MIXTURE PROPORTIONS. ADDITION OF WATER SHALL BE IN ACCORDANCE WITH ASTM C94. DO NOT EXCEED THE SPECIFIED WATER-CEMENTITIOUS MATERIAL RATIO OR SLUMP IN THE APPROVED MIX DESIGN. DO NOT ADD WATER TO CONCRETE DELIVERED IN EQUIPMENT NOT ACCEPTABLE FOR MIXING. AFTER PLASTICIZING OR WATER REDUCING ADMIXTURES ARE ADDED TO THE CONCRETE AT THE SITE TO ACHIEVE FLOWABLE CONCRETE, DO NOT ADD WATER TO THE CONCRETE. MEASURE SLUMP (AND AIR CONTENT OF AIR ENTRAINED CONCRETE), AFTER SLUMP ADJUSTMENT, TO VERIFY COMPLIANCE WITH SPECIFIED REQUIREMENTS.
9. SLUMP SHALL BE MEASURED PRIOR TO THE ADDITION OF ADMIXTURES AND AFTER THE ADDITION OF ADMIXTURES.
10. LAP SPlice REINFORCING BARS AS FOLLOWS UNLESS NOTED OTHERWISE:
- A. HORIZONTAL BARS WITH MORE THAN 12" OF CONCRETE BELOW - 62 BAR DIAMETERS
- B. HORIZONTAL BARS WITH LESS THAN 12" OF CONCRETE BELOW, AND ALL OTHER BARS - 50 BAR DIAMETERS
11. REINFORCING BARS SHALL BE FREE OF FORM RELEASE AGENTS.
12. MACHINE TROWEL FINISH SLAB AND CURE USING "CURE AND SEAL" TYPE CURING COMPOUND MEETING ASTM C1315, VOC COMPLIANT, 25% MINIMUM SOLIDS CONTENT. FOR APPLICATIONS EXPOSED TO SUNLIGHT USE LIGHT BROOM FINISH AND ACRYLIC BASED CURING COMPOUND.
13. SLAB-ON-GRADE SHALL CONFORM TO THE FOLLOWING SURFACE PROFILE TOLERANCES PER ASTM E-1155 AND ACI 117:
- |  | f'(FLATNESS) | F(LEVELNESS) |
|--|--------------|--------------|
| SPECIFIED OVERALL VALUE                                  | 25           | 20           |
| MINIMUM LOCAL VALUE                                      | 18           | 13           |
| MAXIMUM GAP UNDER 10 FT. UNLEVELED STRAIGHT EDGE = 1/4". |              |              |
14. AT SLAB AND WALL OPENING CORNERS AND REENTRANT CORNERS, PROVIDE STEEL AS INDICATED IN THE DETAILS.
15. DO NOT BACKFILL AGAINST WALLS UNTIL CONCRETE STRENGTH HAS REACHED 0.75 f'c AND A MINIMUM OF 7 DAYS.
16. PROVIDE 3/4" CHAMFER AT CORNERS OF EXPOSED CONCRETE.
17. AT CONSTRUCTION JOINTS ALL HORIZONTAL STEEL SHALL BE DISCONTINUOUS AND DOWEL BARS OF SIZE AND SPACING TO MATCH THE HORIZONTAL REINFORCING SHALL BE EMBEDDED A MINIMUM OF 62 BAR DIAMETERS EACH SIDE OF THE CONSTRUCTION JOINT. CENTER BULB WIRESTOP WATERSTOP SHALL BE INSTALLED

FULL HEIGHT OF ALL CONSTRUCTION JOINTS.

18. LEAK TESTING SHALL BE PERFORMED IN ACCORDANCE WITH ACI 350.1 CHAPTER 2. TEST CRITERION SHALL BE HST-050. A REPRESENTATIVE OF THE OWNER, INDEPENDENT OF THE CONTRACTOR, SHALL BE RESPONSIBLE FOR DETERMINING THE LEVEL OF COMPLIANCE OF THE TEST METHOD AND WHETHER OR NOT THE TEST PASSES OR FAILS. INDIVIDUAL CELLS OF MULTI-CELL TANKS SHALL NOT BE TESTED INDIVIDUALLY. IF THE TEST FAILS, THE LEAK SHALL BE REPAIRED IN A MANNER SPECIFIED BY THE STRUCTURAL ENGINEER AT THE COST OF THE CONTRACTOR. THE TANK SHALL BE LEAK TESTED AGAIN AFTER THE REPAIR. THE TANK SHALL NOT BE RELEASED FOR SERVICE UNTIL THE TANK PASSES. SHOULD ANY FINES OR PENALTIES BE INCURRED TO THE OWNER RESULTING FROM A FAILED LEAK TEST THE CONTRACTOR SHALL BE RESPONSIBLE FOR THESE FEES.

WATERSTOP ARCHITECT/ENGINEER SPECIFICATION

1. ALL WATERSTOPS DETAILED IN THESE SPECIFICATIONS (AND/OR AS SHOWN ON THE ENGINEERING DRAWINGS) FOR ALL CONCRETE EXPANSION AND CONSTRUCTION JOINTS SHALL BE WATERSTOPS AS MANUFACTURED BY PAUL MURPHY PLASTICS COMPANY, ROSEVILLE, MICHIGAN. THE WATERSTOPS SHALL BE MANUFACTURED FROM VIRGIN POLYVINYL CHLORIDE PLASTIC COMPOUND THAT HAS A TENSILE STRENGTH GREATER THAN 2,000 PSI AND SHALL NOT CONTAIN ANY SCRAP OR RECLAIMED MATERIAL OR PIGMENT WHATSOEVER.
2. TO ENSURE PROPER PLACEMENT, ALL WATERSTOPS SHALL BE FASTENED EVERY 12" (BOTH SIDES) PRIOR TO CONCRETE PLACING. ALL FIELD SPLICES SHALL BE HEAT FUSED AND THE SPLICES SHALL BE TESTED FOR A COMPLETE SEAL BY USE OF A CORONA DISCHARGE UNIT. CORONA DISCHARGE TESTING SHALL BE PERFORMED BY AN INDEPENDENT TESTING AGENCY EMPLOYED BY THE OWNER. TEST REPORTS SHALL BE PROVIDED TO THE STRUCTURAL ENGINEER OF RECORD PRIOR TO CONCRETE PLACING. THE METHOD OF CORONA DISCHARGE TESTING SHALL BE APPROVED BY THE WATERSTOP MANUFACTURER IN WRITING AND THE APPROVAL SHALL BE FORWARDED TO THE STRUCTURAL ENGINEER OF RECORD. SATISFACTORY TEST RESULTS DO NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF ENSURING A WATERTIGHT STRUCTURE. ZERO WATER LEAKAGE SHALL BE PROVEN THROUGH USE OF THE AMERICAN CONCRETE INSTITUTE (ACI) STANDARD TEST METHOD FOR WATERSTOPS AND THE RESULTS FORWARDED TO THE STRUCTURAL ENGINEER.
3. THE PROPERTIES OF THE POLYVINYL CHLORIDE COMPOUND USED, AS WELL AS THE PHYSICAL PROPERTIES OF THE WATERSTOPS SHALL EXCEED THE REQUIREMENTS SET FORTH IN THE U.S. ARMY CORPS OF ENGINEERS WATERSTOP SPECIFICATION (CRD-C572-74).
4. QUALIFIED SUBSTITUTIONS WILL BE PERMITTED IF THE SUBSTITUTE PRODUCT MEETS THE FOLLOWING PERFORMANCE REQUIREMENTS OF PAUL MURPHY PLASTICS COMPANY WATERSTOPS:
- A. USE OF WATERSTOP WHICH HAS ITS OWN SELF-CONTAINED FASTENING SYSTEM TO CREATE AN INTEGRAL MECHANICAL BOND WITH THE CONCRETE.
- B. PROPER DISPLACEMENT BY FASTENING EVERY 12", BOTH SIDES.
- C. HEAT-FUSED FIELD SPLICES THAT HAVE BEEN TESTED FOR A COMPLETE SEAL BY USE OF A CORONA DISCHARGE UNIT.
- D. PROOF OF ZERO WATER LEAKAGE AS TESTED TO THE ACI TEST METHOD.
5. NO SUBSTITUTION WILL BE CONSIDERED UNLESS PROPER WRITTEN DOCUMENTATION IS SUBMITTED TO THE STRUCTURAL ENGINEER. NO SUBSTITUTION WILL BE PERMITTED WITHOUT WRITTEN APPROVAL FROM OUR SET FOR FILING THE BIDS.
6. 4" WATERSTOP SHALL BE USED FOR ALL HORIZONTAL JOINTS.
7. 6" CENTERBULB WATERSTOP OR 6" SPLIT RIBBED CENTERBULB WATERSTOP SHALL BE USED FOR ALL VERTICAL JOINTS.

WOOD

1. MATERIALS:
- A. FRAMING LUMBER:
1. 2x8 AND LARGER: NO. 2 GRADE OR BETTER SOUTHERN PINE KILN DRIED.
2. 2x4 AND 2x6: STUD GRADE OR BETTER SPRUCE PINE FIR KILN DRIED.
3. PRESSURE TREATED LUMBER: NO. 2 GRADE OR BETTER SOUTHERN PINE WITH ACQ (ALKALINE COPPER QUAT), CBA-A, OR CA-B (COPPER AZOLE), OR NON-DOT BORATE PRESSTURE TREATED LUMBER: PRESSURE TREAT PIECES IN CONTACT WITH FOUNDATION OR EXPOSED TO WEATHER.
2. BOLTS:
1. ANCHOR BOLTS FOR PRESSURE TREATED LUMBER SILLS:
- a. STAINLESS STEEL TYPE 304 OR 316.
- OR-
- b. HOT DIP GALVANIZED ANCHOR BOLTS PER ASTM A123: ASTM A36, ASTM A307, OR ASTM F1554 GRADE 36.

2. OTHER BOLTS: ASTM A307.

3. UNLESS NOTED OTHERWISE, CONNECTIONS SHALL BE MADE PER TABLE 2304.9.1 "FASTENING SCHEDULE", IN REFERENCED BUILDING CODE.
4. ALL CONNECTION HARDWARE SPECIFIED ON THE STRUCTURAL DRAWINGS SHALL BE MANUFACTURED BY THE SIMPSON STRONG-TIE COMPANY AND SHALL BE FASTENED AS SPECIFIED IN THE SIMPSON PRODUCT AND INSTRUCTION MANUAL.
5. SIMPSON CONNECTORS USED IN ALL APPLICATIONS WITH ACQ-C, ACQ-D, CBA-A, CA-B, OR NON-DOT BORATE TREATED LUMBER SHALL BE ZMAX (G185) OR HOT DIPPED GALVANIZED. G60 AND G90 COATED PRODUCTS ARE NOT ALLOWED FOR APPLICATIONS WITH TREATED LUMBER. ONLY USE GALVANIZED FASTENERS WITH ZMAX AND HOT DIP GALVANIZED CONNECTORS. AT OWNER'S OPTION, STAINLESS STEEL TYPE 304 OR TYPE 316L WITH STAINLESS STEEL FASTENERS CAN BE USED TO INCREASE LIFE EXPECTANCY OF THE CONNECTOR. STAINLESS STEEL CONNECTORS SHOULD BE USED FOR LUMBER WITH CHEMICAL RETENTION LEVELS GREATER THAN 0.40 PCF FOR ACQ, 0.41 PCF FOR CBA-A, OR 0.21 PCF FOR CA-B.

WOOD TRUSSES

1. METAL PLATE CONNECTED WOOD TRUSSES SHALL BE FABRICATED BY A MANUFACTURER CERTIFIED UNDER THE TRUSS PLATE INSTITUTE NER-QA 430 QUALITY ASSURANCE PROGRAM.
2. ALL WORK TO CONFORM TO THE "NATIONAL DESIGN STANDARD FOR METAL PLATE CONNECTED WOOD TRUSS CONSTRUCTION" (ANSI/TPI 1-2002) BY THE TRUSS PLATE INSTITUTE, INC.
3. UNLESS NOTED OTHERWISE, ALL TRUSSES SHALL BE DESIGNED FOR THE LOADS AS SHOWN IN THE DESIGN LOAD SECTION OF THESE NOTES. IN ADDITION TO THE LOADS SHOWN IN THE DESIGN SECTION, DESIGN ROOF TRUSSES FOR NET UPLIFT DUE TO WIND LOAD. SNOW LOADS SHALL BE CONSIDERED UNBALANCED PER ASCE 7 SECTION 7.6.1. TRUSS DESIGN LOAD COMBINATIONS SHALL BE PER OBC SECTION 1605.
4. SHOP DRAWINGS ARE REQUIRED AND SHALL BEAR THE DESIGNER'S ENGINEERING SEAL FROM THE STATE THE PROJECT OCCURS, AND SHALL SHOW ALL DESIGN AND FABRICATION DATA, TEMPORARY BRACING REQUIREMENTS, PERMANENT BRACING DESIGN ASSUMPTIONS, HANDLING AND ERECTION INSTRUCTIONS, AND ALL FIELD-CONNECTION REQUIREMENTS. SHOP DRAWINGS SHALL CLEARLY SHOW PERMANENT BRACING REQUIREMENTS FOR WEB COMPRESSION MEMBERS. AN ERECTION PLAN LOCATING ALL TRUSSES SHALL BE PROVIDED.
5. ALL TRUSSES SHALL BE BRACED DURING ERECTION PER "COMMENTARY AND RECOMMENDATIONS FOR HANDLING, INSTALLING AND BRACING METAL PLATE CONNECTED WOOD TRUSSES", BCSI-B1 SUMMARY SHEET BY THE TRUSS PLATE INSTITUTE, UNLESS MORE STRICT BRACING IS REQUIRED BY THE TRUSS MANUFACTURER. BRACING IN THE PLANE OF THE TOP CHORD MAY BE REMOVED WHEN THE TOP CHORD IS Laterally BRACED BY PLYWOOD SHEATHING.
6. BOTTOM CHORD OF WOOD TRUSSES SHALL BE DESIGNED AS UNBRACED FOR A LENGTH EQUAL TO THE SPACING BETWEEN BOTTOM CHORD BRACES. BOTTOM CHORD BRACES SHALL BE SUPPLIED BY TRUSS MANUFACTURER.
7. LAP SPlice TRUSS BRACING A MINIMUM OF ONE TRUSS SPACE.
8. FABRICATOR SHALL DESIGN ALL TRUSS TO TRUSS AND/OR TRUSS TO BEAM CONNECTIONS AND SHALL SPECIFY THE PROPER SIZED HANGER ON THE SHOP DRAWINGS.
9. TO ACCOMMODATE TRUSS UPLIFT CONDITIONS, INSTALL SIMPSON DTC ROOF TRUSS CLIPS TO BOTTOM CHORD OF ALL ROOF TRUSSES AND NAILED TO THE TOP PLATE OF ALL PERPENDICULAR NON-LOADBEARING STUD WALLS BELOW. DO NOT PLACE CEILING DRYWALL FASTENERS INTO TRUSSES WITHIN 16 INCHES OF STUD WALLS ORIENTED EITHER PARALLEL OR PERPENDICULAR TO TRUSSES.
10. ALL NAILS AND FASTENERS WITH EXTERIOR EXPOSURE OR FOR USE IN PRESSURE TREATED LUMBER SHALL BE HOT DIPPED GALVANIZED OR STAINLESS STEEL.

2

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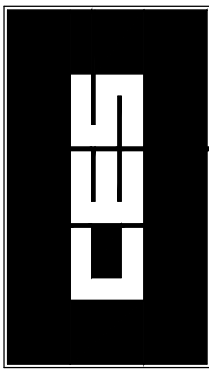
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Issue Sheet No. 5000

MASONRY

- MASONRY CONSTRUCTION AND MATERIALS SHALL CONFORM TO ALL REQUIREMENTS OF "SPECIFICATIONS FOR MASONRY STRUCTURES" (ACI 530.1-05/ASCE 6-05/TMS 602-05), EXCEPT AS MODIFIED BY THE REQUIREMENTS OF THESE CONTRACT DOCUMENTS.
- COMPRESSIVE STRENGTH SHALL BE DETERMINED FOR EACH TYPE OF MASONRY BY THE UNIT STRENGTH METHOD.
  - CONCRETE MASONRY: F'M = 1500 PSI AT 28 DAYS.
- SUBMITTALS SHALL BE MADE FOR THE FOLLOWING:
  - SHOP DRAWINGS SHOWING:
    - DETAILS OF STEEL REINFORCING.
    - LINTELS.
  - MANUFACTURERS CERTIFICATE OF COMPLIANCE FOR SPECIFIED:
    - MASONRY UNIT.
    - REINFORCING STEEL.
  - PROPORTIONS OF MATERIAL IN ACCORDANCE WITH REFERENCED SPECIFICATIONS OF:
    - MORTAR.
    - GROUT.
- MATERIALS
  - CONCRETE MASONRY UNITS: ASTM C90 TYPE I.
    - BELOW GRADE: NORMAL WEIGHT AGGREGATE PER ASTM C33.
    - ABOVE GRADE: LIGHTWEIGHT AGGREGATE PER ASTM C331 OR NORMAL WEIGHT.
  - MORTAR: ASTM C270
  - MORTAR TYPES
    - ALL MASONRY UNLESS NOTED OTHERWISE: TYPE S
    - NON-LOAD BEARING INTERIOR PARTITION WALLS: TYPE N
    - ABOVE GRADE VENEER: TYPE N
  - PORTLAND CEMENT-LIME MORTAR:
    - PORTLAND CEMENT: TYPE I.
    - HYDRATED LIME: TYPE S.
  - GROUT: ASTM C476. SLUMP 8" TO 11". MINIMUM COMPRESSIVE STRENGTH = 2000 PSI AT 28 DAYS.
  - REINFORCING STEEL: ASTM A615, 60 KSI YIELD.
  - HORIZONTAL JOINT REINFORCING FOR SINGLE WYTHE CONCRETE MASONRY: ASTM A951 9 GAGE LADDER TYPE. HOT DIPPED GALVANIZED PER ASTM A153 CLASS B. PLACE HORIZONTAL JOINT REINFORCING AT 16" CENTERS VERTICALLY FOR CONCRETE MASONRY. LAP HORIZONTAL JOINT REINFORCING 6" MINIMUM. HORIZONTAL JOINT REINFORCING SHALL BE DISCONTINUOUS ACROSS MOVEMENT JOINTS.
- QUALITY ASSURANCE
  - SITE STRUCTURAL OBSERVATION (NOT CONSIDERED PART OF SPECIAL INSPECTIONS) OF MASONRY WORK IS REQUIRED PER ACI 530.1-05/ASCE 6-05/TMS 602-05. SITE OBSERVATIONS WILL BE MADE BY THE STRUCTURAL ENGINEER, ARCHITECT, OR AN ALTERNATE APPROVED BY THE STRUCTURAL ENGINEER. COST OF THIS SERVICE WILL BE PAID FOR BY OWNER. REQUEST FOR OBSERVATION IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. THE SITE OBSERVER SHALL VERIFY COMPLIANCE WITH THE DESIGN DRAWINGS AND SPECIFICATIONS AND KEEP A RECORD WHICH WILL COVER:
    - QUALITY OF MASONRY UNITS AND MATERIALS FOR MORTAR AND GROUT.
    - PROPORTIONING, MIXING AND CONSISTENCY OF MORTAR AND GROUT.
    - LAYING, MORTARING AND GROUTING OF MASONRY UNITS AND MASONRY STRUCTURAL ELEMENTS.
    - CONDITIONS, GRADE, SIZE, SPACING AND PLACING OF REINFORCING.
    - TYPE, SPACING, AND PLACING OF TIES AND ACCESSORIES.
    - ANY SIGNIFICANT OR UNUSUAL CONSTRUCTION LOADS ON COMPLETED MASONRY STRUCTURAL ELEMENTS.
    - TEMPERATURE, MOISTURE CONDITIONS, AND PROVISIONS THAT WERE MADE FOR HOT OR COLD WEATHER CONSTRUCTION.
    - GENERAL PROGRESS OF WORK.
  - OBSERVATION RECORDS, IF DONE OTHER THAN BY STRUCTURAL ENGINEER, SHALL BE IMMEDIATELY FORWARDED TO STRUCTURAL ENGINEER AFTER EACH SITE VISIT.
- MORTAR PROPORTIONS MUST BE ACCURATELY MEASURED PRIOR TO MIXING. ADD CEMENT TO MIX IN FULL BAG QUANTITIES. MEASURE SAND IN BOX WITH VOLUME OF ONE CUBIC FOOT AS OFTEN AS NECESSARY TO MAINTAIN CONSISTENT PROPORTIONS AND AT LEAST ONCE DAILY AND EVERY 4 HOURS OF MIXING.
- PROVIDE PREFABRICATED "L" AND "T" SHAPED HORIZONTAL JOINT REINFORCING AT WALL INTERSECTIONS.
- UNLESS NOTED OTHERWISE ON PLANS, UNDER LINTELS, BEARING PLATES, BEAMS, ETC.; FILL CELLS WITH GROUT, 3 COURSES MINIMUM BELOW BEARING.
- UNLESS NOTED OTHERWISE ON PLANS, LINTELS SHALL HAVE 8" MINIMUM END BEARING.
- ALL REINFORCING STEEL SHALL BE SUPPORTED AND FASTENED TO APPROVED POSITIONERS LOCATED AT 192 BAR DIAMETERS MAXIMUM SPACING AND WITH A MINIMUM OF TWO POSITIONERS PER GROUT POUR (ONE NEAR THE BOTTOM AND ONE NEAR THE TOP) TO PREVENT DISPLACEMENT DURING THE PLACEMENT OF GROUT.

METAL DECKING

- THE DESIGN, FABRICATION, AND ERECTION OF ALL STEEL DECK SHALL CONFORM TO THE REQUIREMENTS OF THE LATEST EDITION OF THE SPECIFICATIONS OF THE STEEL DECK INSTITUTE.
- MATERIALS:
  - DECK FOR ROOF: 1-1/2" X 22 GAGE WIDE RIB STYLE, PAINTED WITH STANDARD SHOP COAT.  
NOTE TO SPECIFIER: SPECIFY ASTM A653 G60 OR G90 GALVANIZED FINISH WHEN ROOF DECK IS IN HIGH MOISTURE OR CORROSIVE ATMOSPHERE, OR SUPPORTING A FLOWABLE INSULATING CONCRETE.>

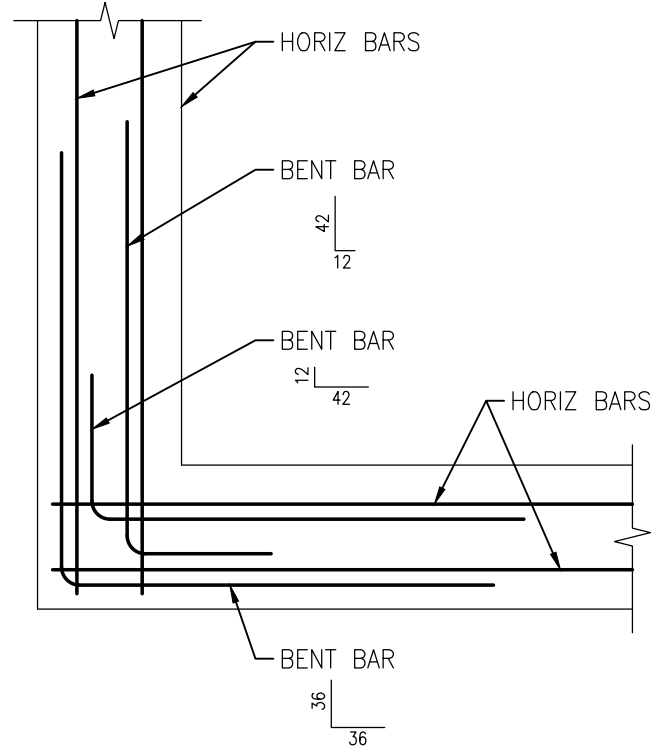
- CONNECT ROOF DECK TO SUPPORTS WITH 5/8" ROUND PUDDLE WELDS OR ITW BUILDEX BX14 POWDER ACTUATED FASTENERS OR #12-24 X 7/8" ICH TRAXX 4 CLIMASEAL (FOR TOTAL STEEL FLANGE THICKNESS OF .250" OR LESS) OR #12-24 X 1 1/4" ICH TRAXX 5 CLIMASEAL (FOR TOTAL STEEL FLANGE THICKNESS OF .500" OR LESS) AT 12" ON CENTER AT INTERIOR RIBS, 6" ON CENTER AT ENDS OF SHEETS AND PERIMETER. MINIMUM DISTANCE BETWEEN WELD OR FASTENER AND END OF METAL DECK IS 1". SCREW SIDE LAPS AT MIDSPAN OR 3'-0" MAXIMUM SPACING WITH #10 SELF-DRILLING SCREWS.
  - METAL DECK SHALL BE PROVIDED TO RUN CONTINUOUS OVER AT LEAST 3 SPANS EXCEPT AS NOTED OTHERWISE.
  - CONNECT METAL DECK TO STRUCTURAL MEMBERS, INCLUDING PERIMETER ANGLES.
  - MINIMUM METAL DECK END BEARING ON SUPPORTS = 1 1/2".
  - LAP ENDS OF ROOF DECK AND CONCRETE FORM DECK 4" MINIMUM. BUTT ENDS OF COMPOSITE FLOOR DECK.
  - WELDING OF METAL DECK SHALL BE IN ACCORDANCE WITH AWS D1.3-98.
- STRUCTURAL STEEL**
- FIELD CONNECTIONS SHALL BE BOLTED EXCEPT WHERE WELDED CONNECTIONS ARE INDICATED ON THE STRUCTURAL DRAWINGS.
  - WELDING SHALL BE IN ACCORDANCE WITH THE AMERICAN WELDING SOCIETY (AWS D1.1:2004).
  - MATERIALS:
    - PLATES AND ROLLED SHAPES OTHER THAN W-SHAPES, UNLESS NOTED: ASTM A36.
    - BOLTS: ASTM A325-N, 3/4" DIAMETER UNLESS NOTED.
    - FIELD WELDS: AWS E70XX, LOW HYDROGEN ELECTRODES.
    - NON-SHRINK NON-METALLIC GROUT: CRD-C-621 AND ASTM C1107 FOR INTERIOR AND EXTERIOR APPLICATIONS, FLUID TYPE.
  - PAINT AND PROTECTION:
    - STRUCTURAL STEEL UNLESS NOTED: PREPARE STEEL SURFACES PER SSPC-SP3 \*POWER TOOL CLEANING\* AND PAINT WITH FABRICATOR'S STANDARD PRIME COAT, SUCH AS TNEMC 10-1009. TOUCH UP AFTER ERECTION.

ADHESIVE ANCHORS

- ANCHORAGE TO SOLID GROUTED CONCRETE MASONRY UNITS: HILTI \*HIT HY 2700 MAX\*. SUBSTITUTES MAY BE CONSIDERED; SUBMIT MANUFACTURER'S DATA PRIOR TO INSTALLATION.
  - DRILL HOLES WITH A CARBIDE TIPPED DRILL BIT AND CONVENTIONAL HAMMER DRILL. CORE DRILLING IS NOT ACCEPTABLE. HOLES TO BE BRUSHED AND BLOWN FREE OF ALL DELETERIOUS MATERIAL IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS BEFORE INSTALLATION OF ADHESIVE.
  - STEEL THREADED ROD ANCHORS SHALL BE HILTI \*HAS-E" RODS. SIZE AND EMBEDMENT SHALL BE AS INDICATED ON DRAWINGS.
- CONTRACTOR SHALL VERIFY THAT THE SHELF LIFE OF THE ADHESIVE HAS NOT BEEN EXCEEDED ON THE DATE OF INSTALLATION.
- TWENTY PERCENT OF INSTALLED ANCHORS SHALL BE TESTED BY A TESTING AGENCY USING THE TESTING METHODOLOGY OUTLINED IN ASTM E488. THE TESTING AGENCY SHALL ALSO VERIFY COMPLIANCE OF DRILL BIT TYPE, HOLE DEPTH AND CLEANLINESS, PRODUCT DESCRIPTION AND BRAND NAME, ANCHOR DIAMETER, LENGTH, AND TYPE, ADHESIVE EXPIRATION DATE, AND VERIFICATION OF ANCHOR INSTALLATION WITH THE MANUFACTURER'S PUBLISHED INSTRUCTIONS.

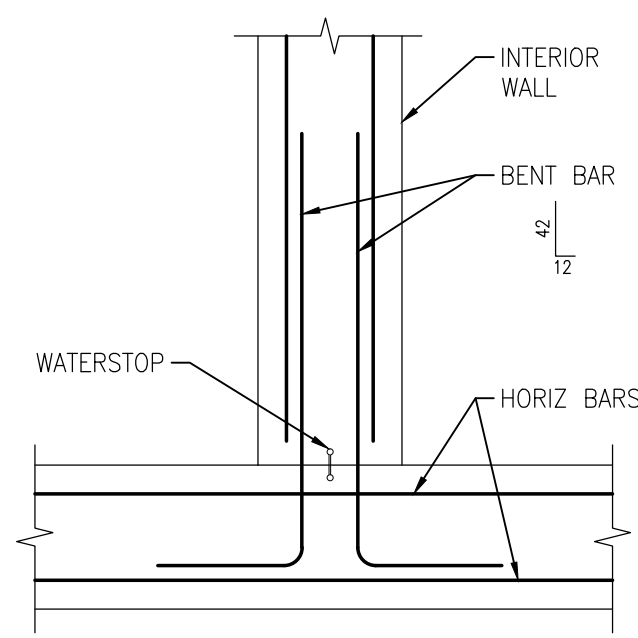
FOR CONNECTIONS TO EXISTING REINFORCED CONCRETE OR MASONRY, VERIFY THE LOCATIONS OF THE EXISTING REINFORCING BARS USING A REBAR DETECTOR, PRIOR TO DRILLING. NOTIFY THE ENGINEER PRIOR TO INSTALLATION IF ANCHOR LOCATIONS CONFLICT WITH EXISTING REINFORCING BARS. DO NOT DRILL THROUGH EXISTING REINFORCING BARS

2



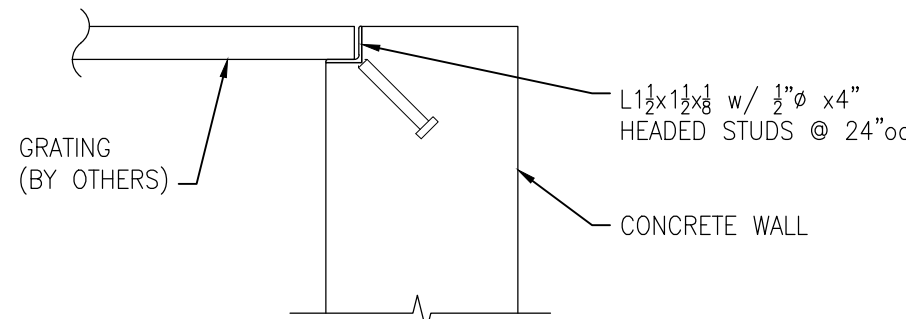
TYPICAL EXTERIOR CORNER

3/4"=1'-0"



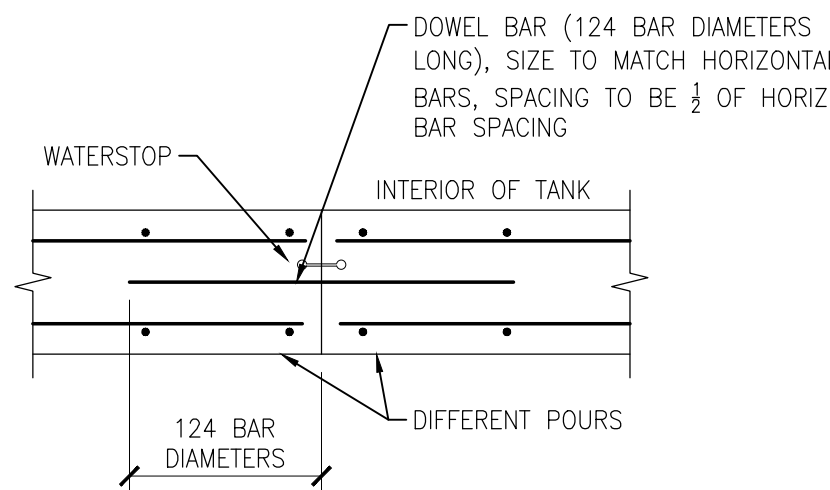
TYPICAL INTERIOR CORNER

3/4"=1'-0"



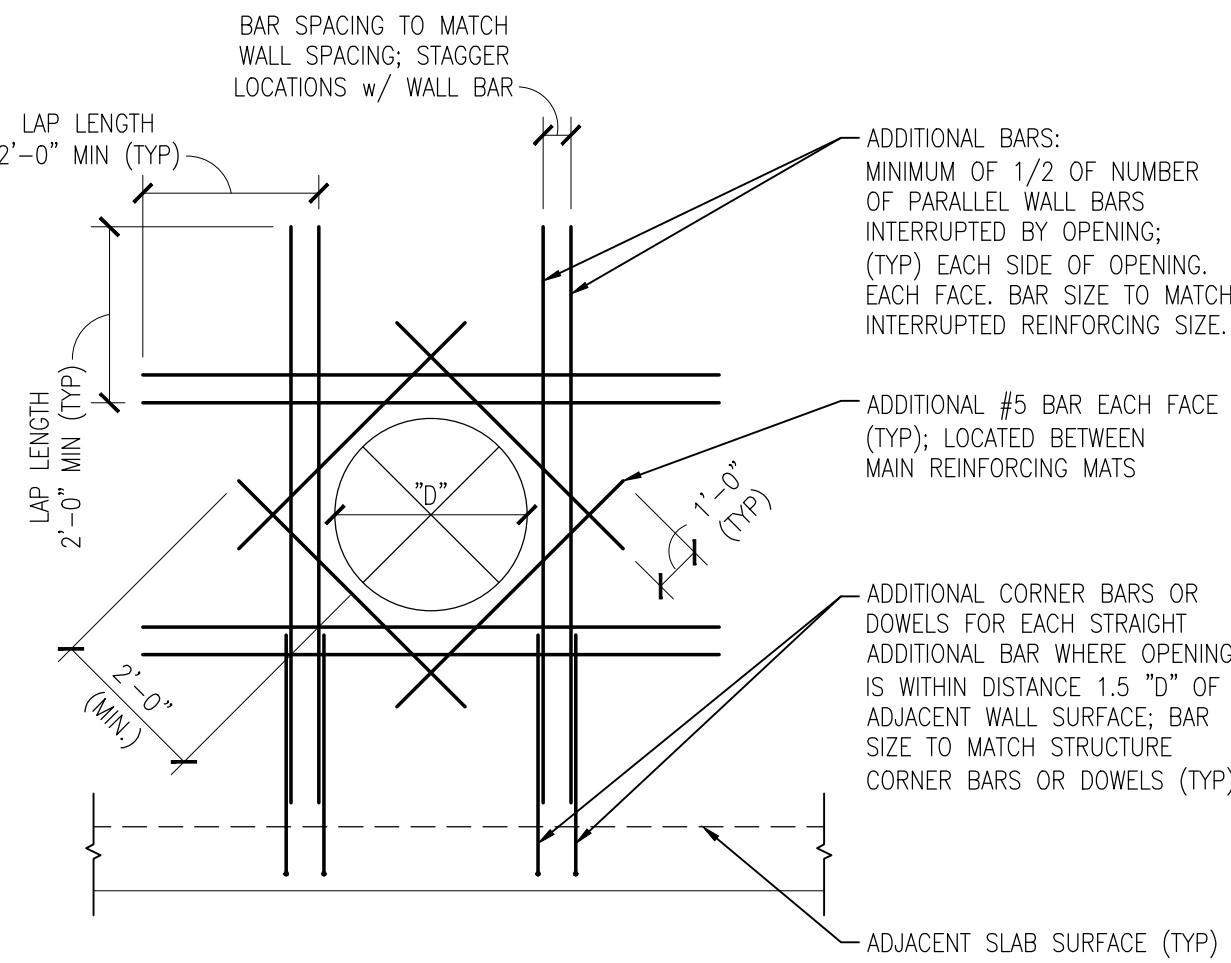
TYPICAL ANGLE AT GRATING DETAIL

1 1/2"=1'-0"



TYPICAL VERTICAL CONSTRUCTION JOINT

3/4"=1'-0"



ADDITIONAL REINFORCING AT WALL ROUND OPENINGS

1/4"=1'-0"

BID SET

ABBREVIATIONS

B/	=	BOTTOM OF
BLDG	=	BUILDING
BRG	=	BEARING
CJ	=	CONTROL JOINT
CL	=	CENTER LINE
CLR	=	CLEAR
CMU	=	CONCRETE MASONRY UNIT
COL	=	COLUMN
CONC	=	CONCRETE
CONSTR	=	CONSTRUCTION
CONT	=	CONTINUOUS
DEG OR °	=	DEGREE
DIA OR Ø	=	DIAMETER
DIF	=	DETERMINE IN FIELD
EA	=	EACH
EF	=	EACH FACE
EL	=	ELEVATION
EMB	=	EMBEDMENT
EQ	=	EQUAL
ES	=	EACH SIDE
EW	=	EACH WAY
EXIST	=	EXISTING
EX	=	EXISTING
EXP	=	EXPANSION
FDN	=	FOUNDATION
FLR	=	FLOOR
FS	=	FAR SIDE
FTG	=	FOOTING
GA	=	GAUGE/GAGE
GT	=	GIRDER TRUSS
HORIZ	=	HORIZONTAL
HP	=	HIGH POINT
JB	=	JOIST BEARING
LLH	=	LONG LEG HORIZONTAL
LLV	=	LONG LEG VERTICAL
LP	=	LOW POINT
LSH	=	LONG SIDE HORIZONTAL
LSV	=	LONG SIDE VERTICAL
LVL	=	LAMINATED VENEER LUMBER
MAX	=	MAXIMUM
MCJ	=	MASONRY CONTROL JOINT
MFR	=	MANUFACTURER
NS	=	NEAR SIDE
OC	=	ON CENTER
OPNG	=	OPENING
PL	=	PLATE
PLCS	=	PARALLEL STRAND LUMBER
PT	=	PRESSURE TREATED
RD	=	ROOF DRAIN
REINF	=	REINFORCING
RTU	=	ROOF TOP UNIT
SCH	=	SCHEDULE
SF	=	STEP FOOTING
SIM	=	SIMILAR
SL	=	STEP LEDGE
SPA	=	SPACE OR SPACES
STIFF	=	STIFFENER
STL	=	STEEL
STW	=	STEP TOP OF WALL
T/	=	TOP OF
UNO	=	UNLESS NOTED OTHERWISE
VB	=	VERTICAL BRACING
VERT	=	VERTICAL
VIF	=	VERIFY IN FIELD
W/	=	WITH

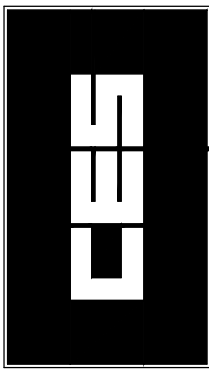
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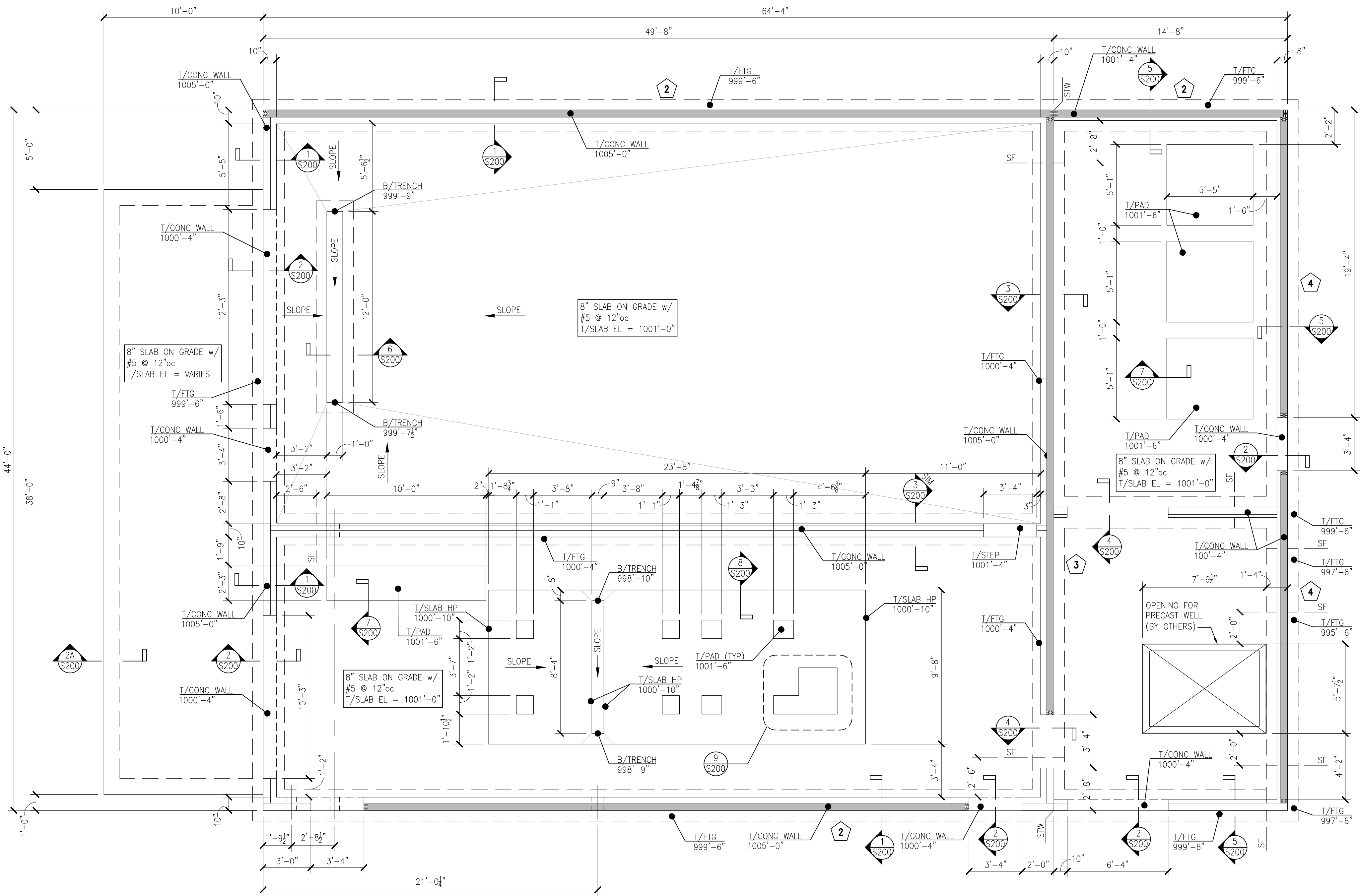
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S001



SLUDGE PRESS BUILDING  
FOUNDATION PLAN  
1/4"=1'-0"

WOOD SHEAR WALL SCHEDULE										
MARK	SHEATHING	MINIMUM NUMBER OF 2x STUDS EACH END OF SHEAR WALL	FASTENER TYPE AND SPACING AT PANEL EDGES	FASTENER TYPE AND SPACING WITHIN PANEL FIELD	HILTI HOLDOWN ANCHORS	SIMPSON HOLDOWN EACH END	TOP CONNECTION	SILL PLATE CONNECTION	SILL PLATE ANCHORS	SPECIAL COMMENT
2	7/16" PLYWOOD ONE SIDE	(2)	8d NAILS @ 3"oc	8d NAILS @ 12"oc	5/8" w/ 6" EMB	HTT4	10/S200	6d NAILS @ 6"oc	3/8" HAS-E @ 36"oc w/ HIT-RE500V3 + 4" EMB	-
3	7/16" PLYWOOD TWO SIDE	(2)	8d NAILS @ 3"oc	8d NAILS @ 12"oc	1" w/ 12" EMB	HD12	13/S200	6d NAILS @ 6"oc	3/8" HAS-E @ 36"oc w/ HIT-RE500V3 + 4" EMB	-
4	7/16" PLYWOOD TWO SIDE	(2)	8d NAILS @ 3"oc	8d NAILS @ 12"oc	3/8" w/ 8" EMB	HD7B	11/S200	6d NAILS @ 6"oc	3/8" HAS-E @ 36"oc w/ HIT-RE500V3 + 4" EMB	-

- LEGEND
- xx = COLUMN LINE DESIGNATION
  - = ELEVATION INDICATION
  - Hn = HEADER DESIGNATION, SEE HEADER SCHEDULE
  - Sn = SHEAR WALL DESIGNATION
  - = INDICATES SHEAR WALL

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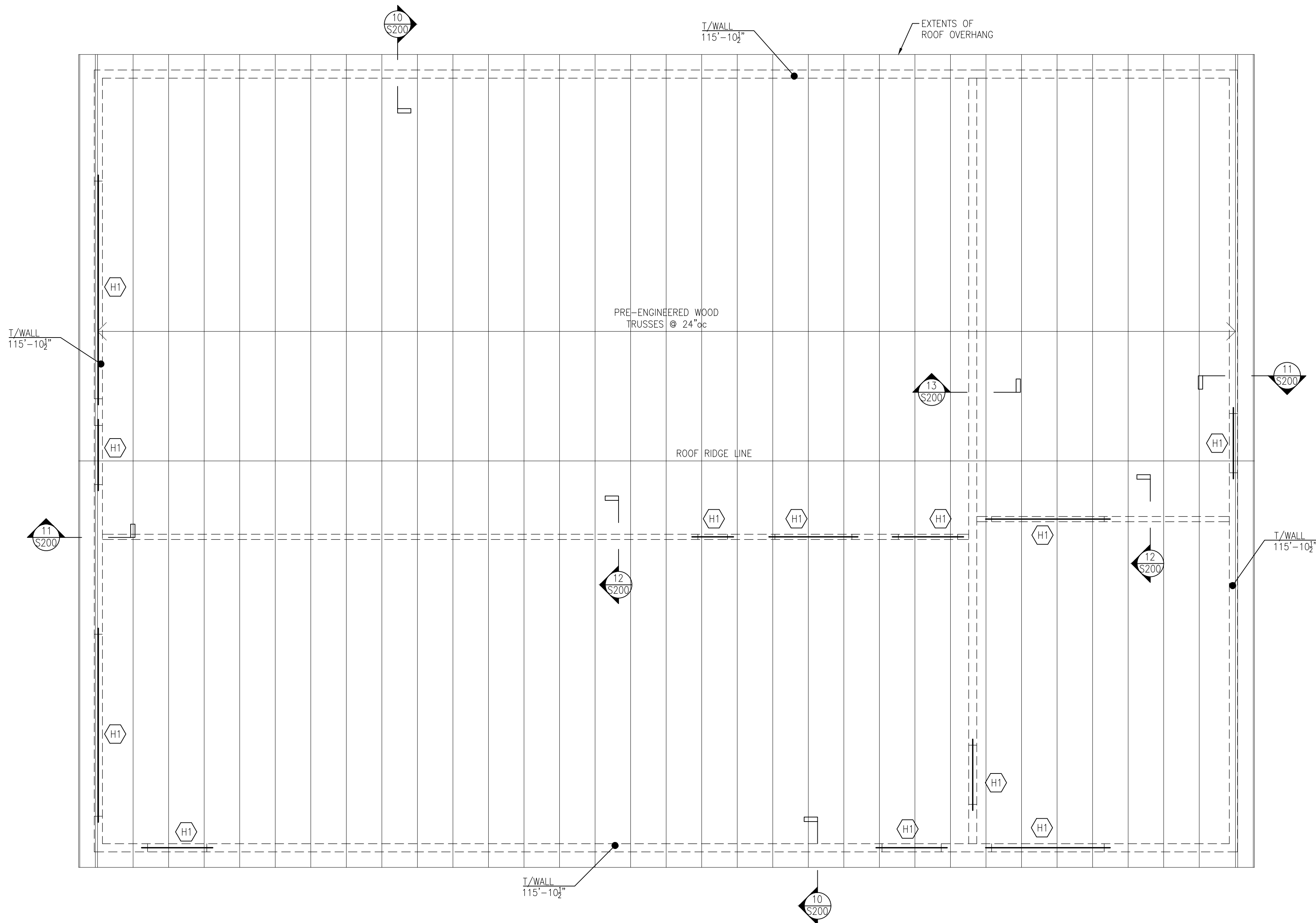
STRUCTURAL  
SLUDGE BLDG FOUNDATION PLAN

MOTE & ASSOCIATES  
LAKENGREN WWTP  
LAKENGREN, OH

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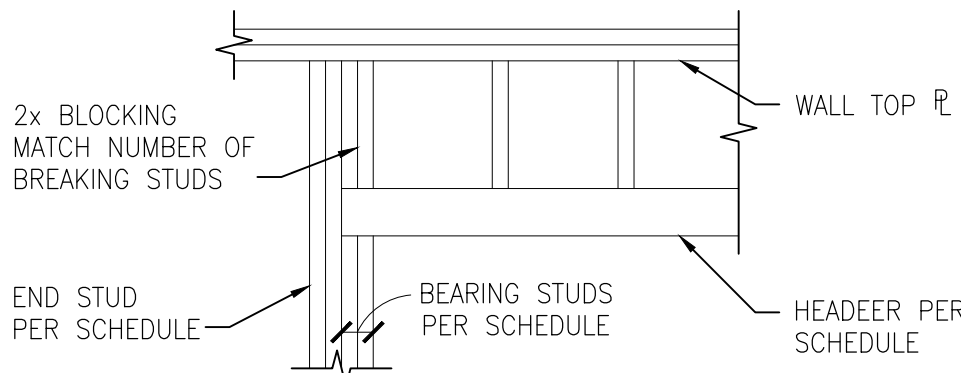
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S100



SLUDGE PRESS BUILDING  
ROOF PLAN  
1/4"=1'-0"

WOOD HEADER SCHEDULE				
MARK	HEADER SIZE	NO. BEARING STUDS BOTH ENDS	NO. END STUDS BOTH ENDS	NOTES
H1	(2) 2x6	(2) 2x6	(1)	



DROPPED HEADER

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SLUDGE BLDG ROOF PLAN

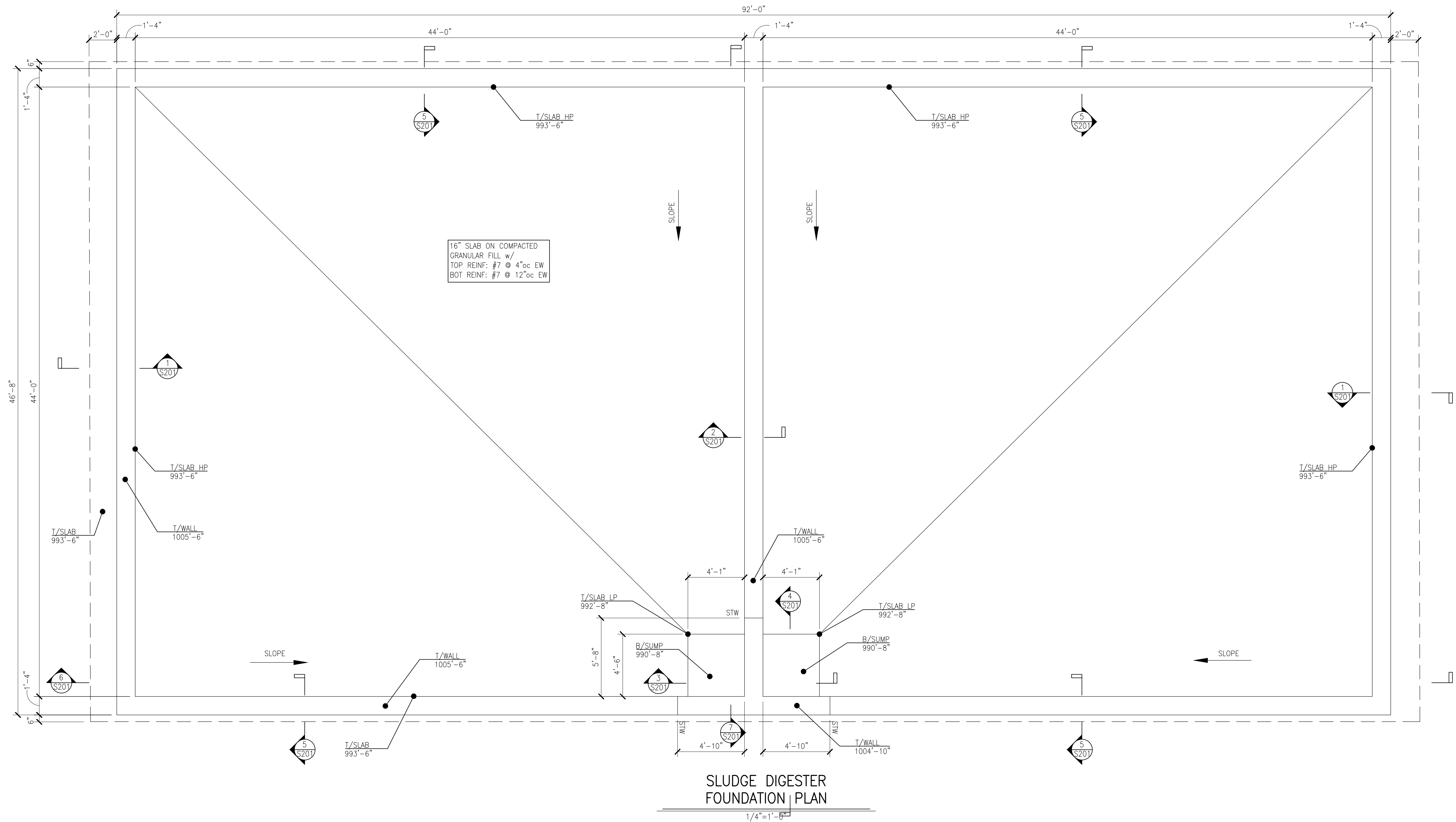
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Sheet No.

S101



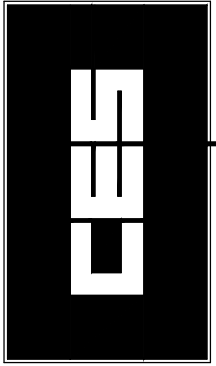
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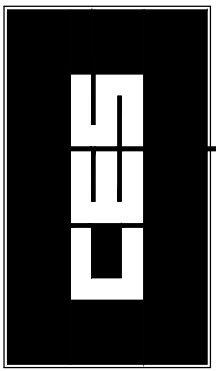
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SLUDGE DIGESTER FOUNDATION PLAN  
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Sheet Title: Issue: Sheet No.: 102



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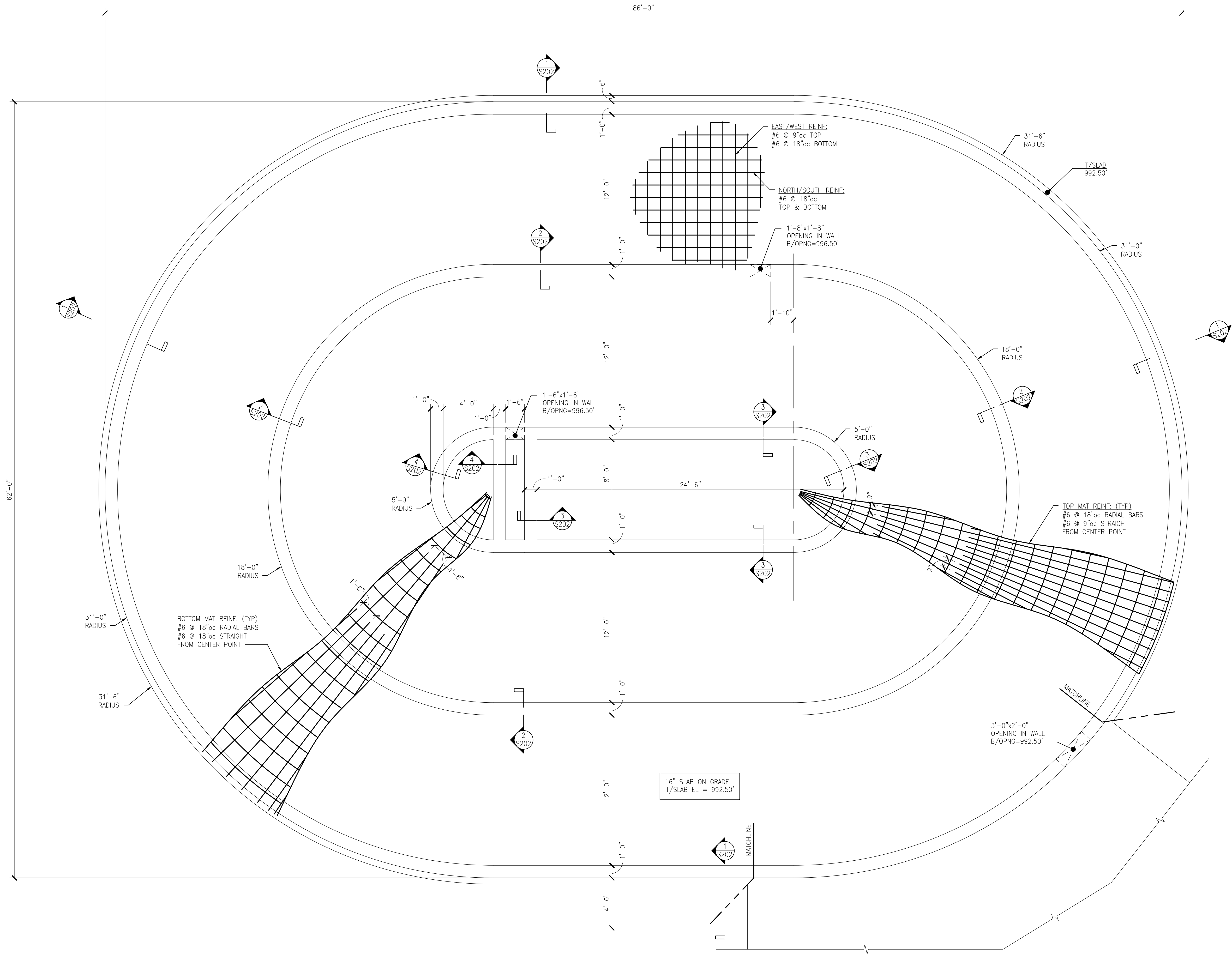
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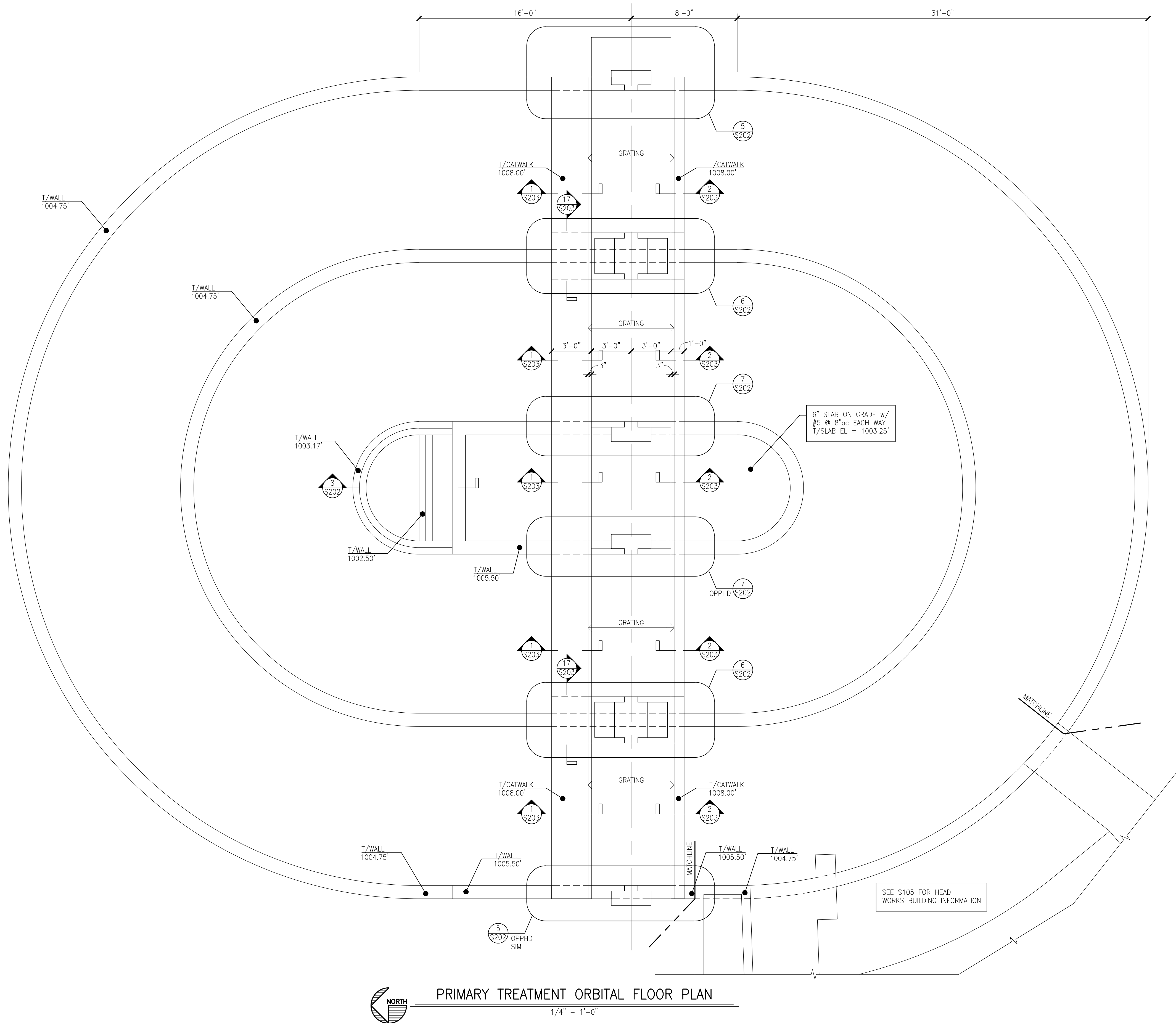
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PRIMARY TREATMENT ORBITAL FOUNDATION PLAN

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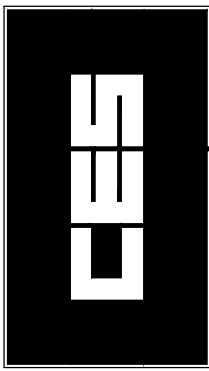
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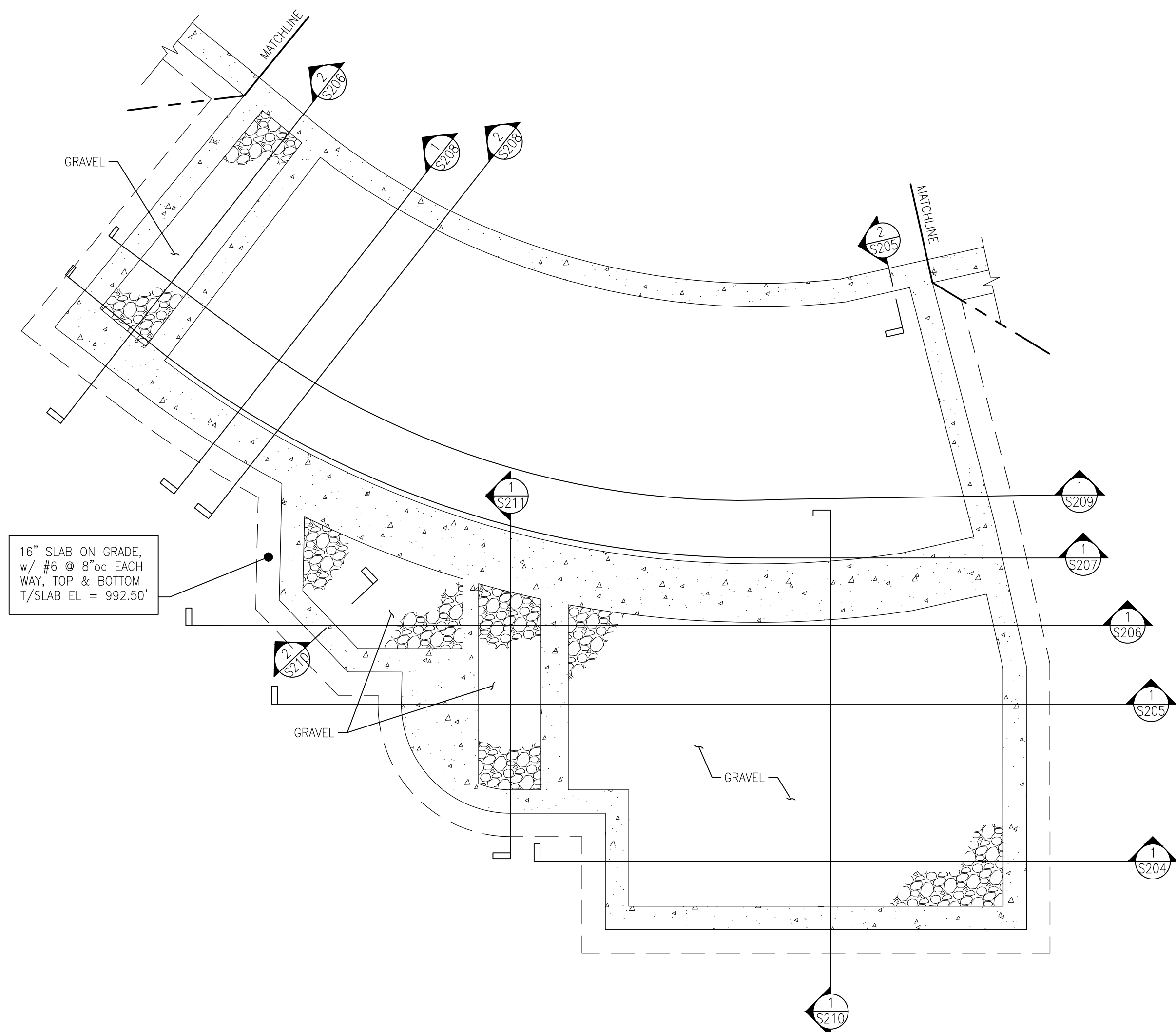
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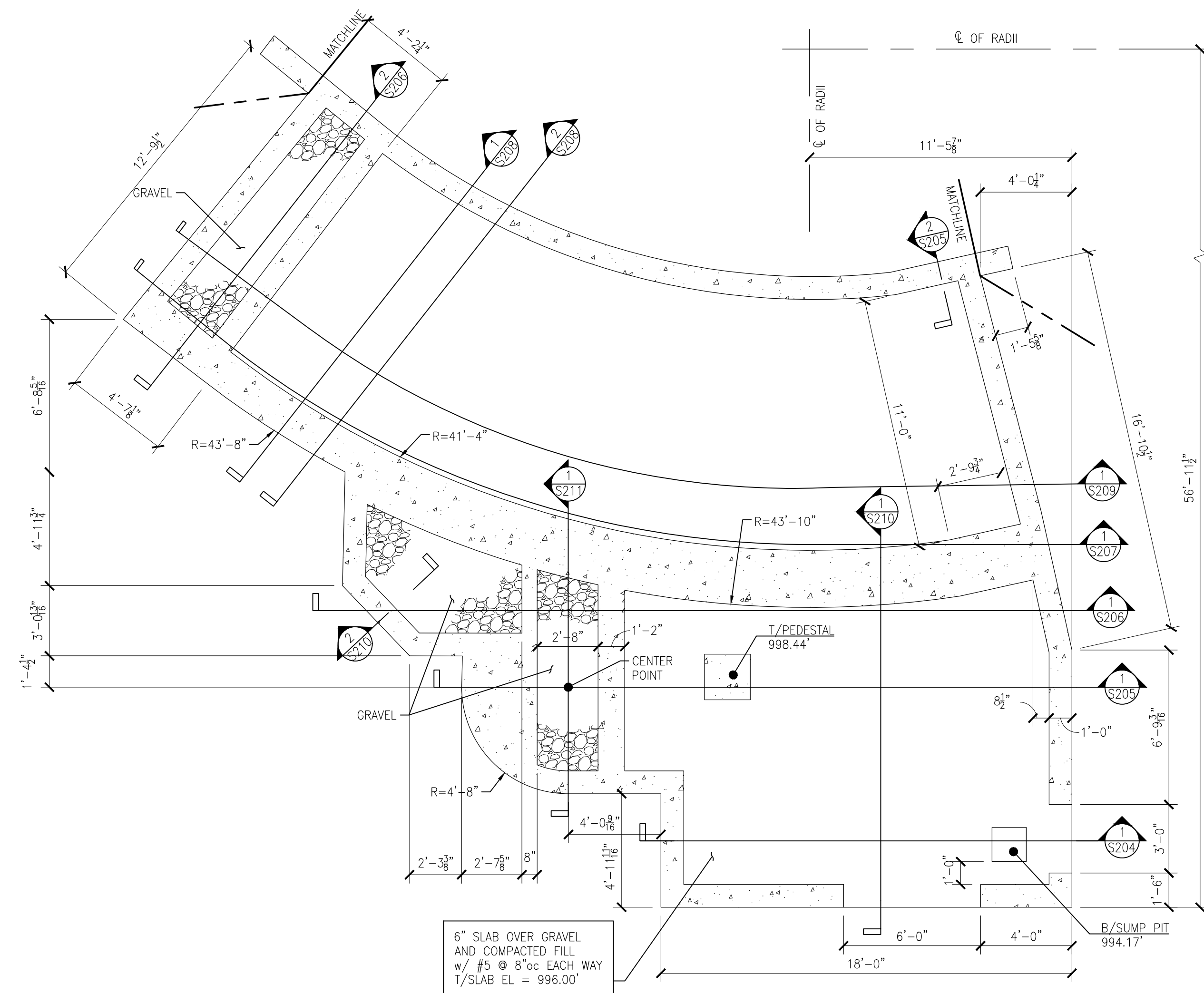
STRUCTURAL  
ORBITER FOUNDATION PLANS  
NOTE & ASSOCIATES  
LAKENGREN WWTP  
LAKENGREN, OH

S104



HEAD WORKS PLAN  
AT ELEVATION 992.50'

1/4"=1'-0"



HEAD WORKS PLAN  
AT ELEVATION 996.00'

1/4"=1'-0"

BID SET

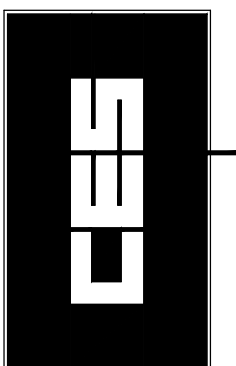
ALL EXIST DIMENSIONS  
TO BE VERIFIED IN FIELD  
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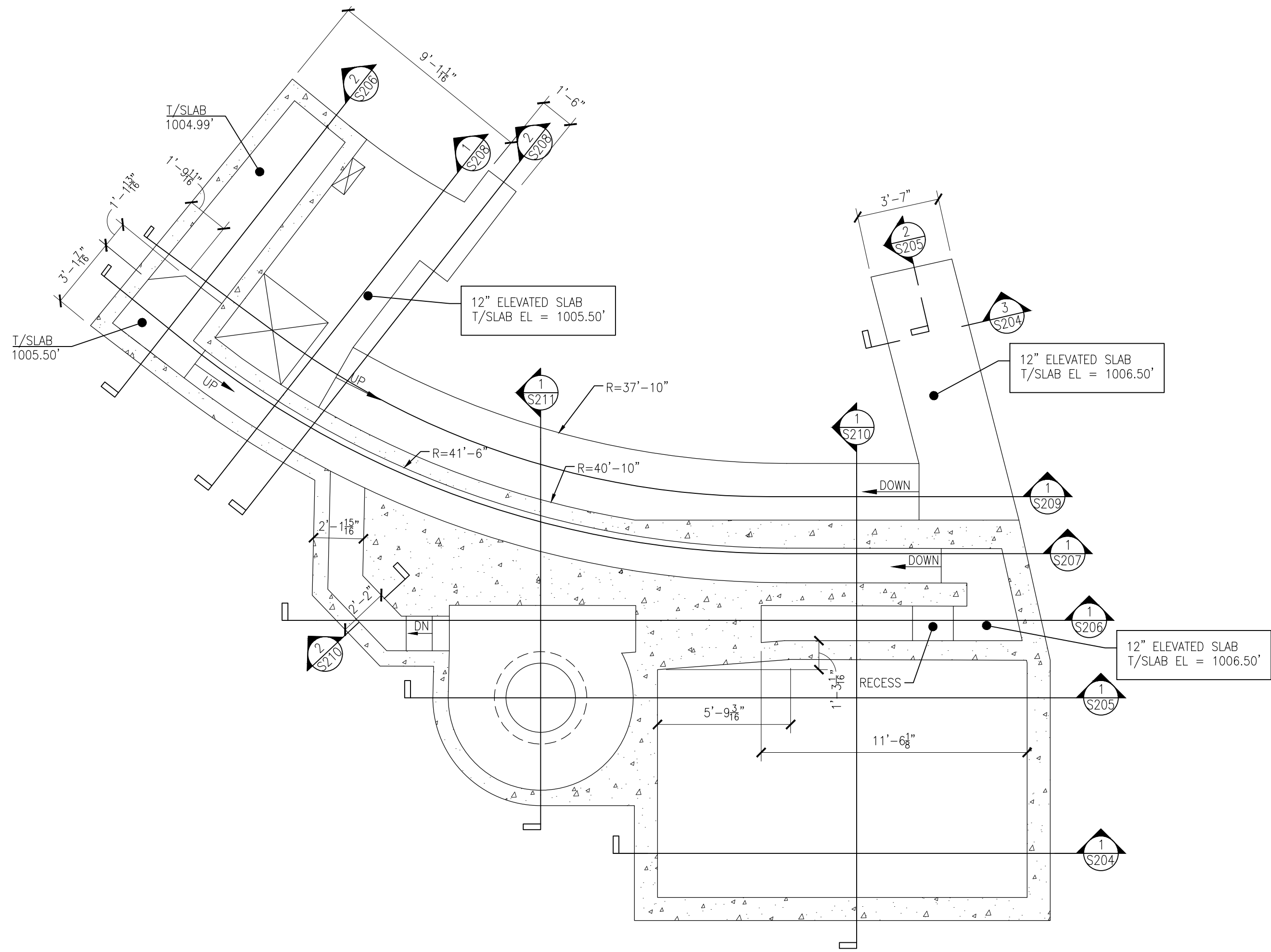
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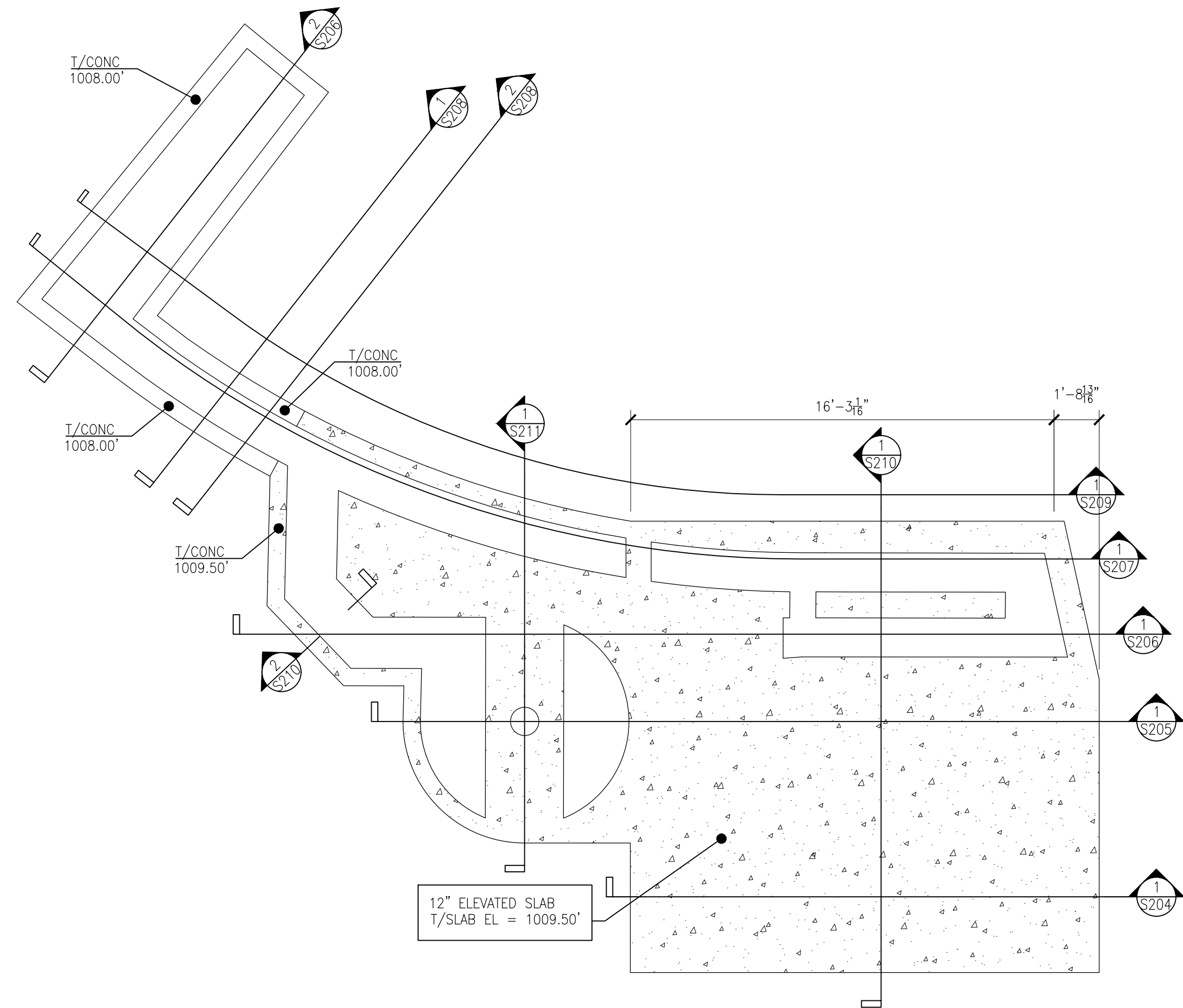
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HEAD WORKS PLANS  
NOTE & ASSOCIATES  
LAKENGREN WWTP  
LAKENGREN, OH

S105



HEAD WORKS PLAN  
AT ELEVATION 1006.50'

1/4"=1'-0"



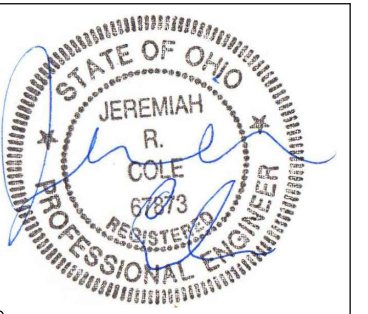
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AT ELEVATION 1009.50'

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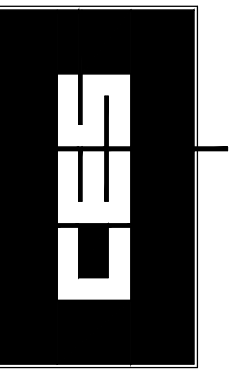
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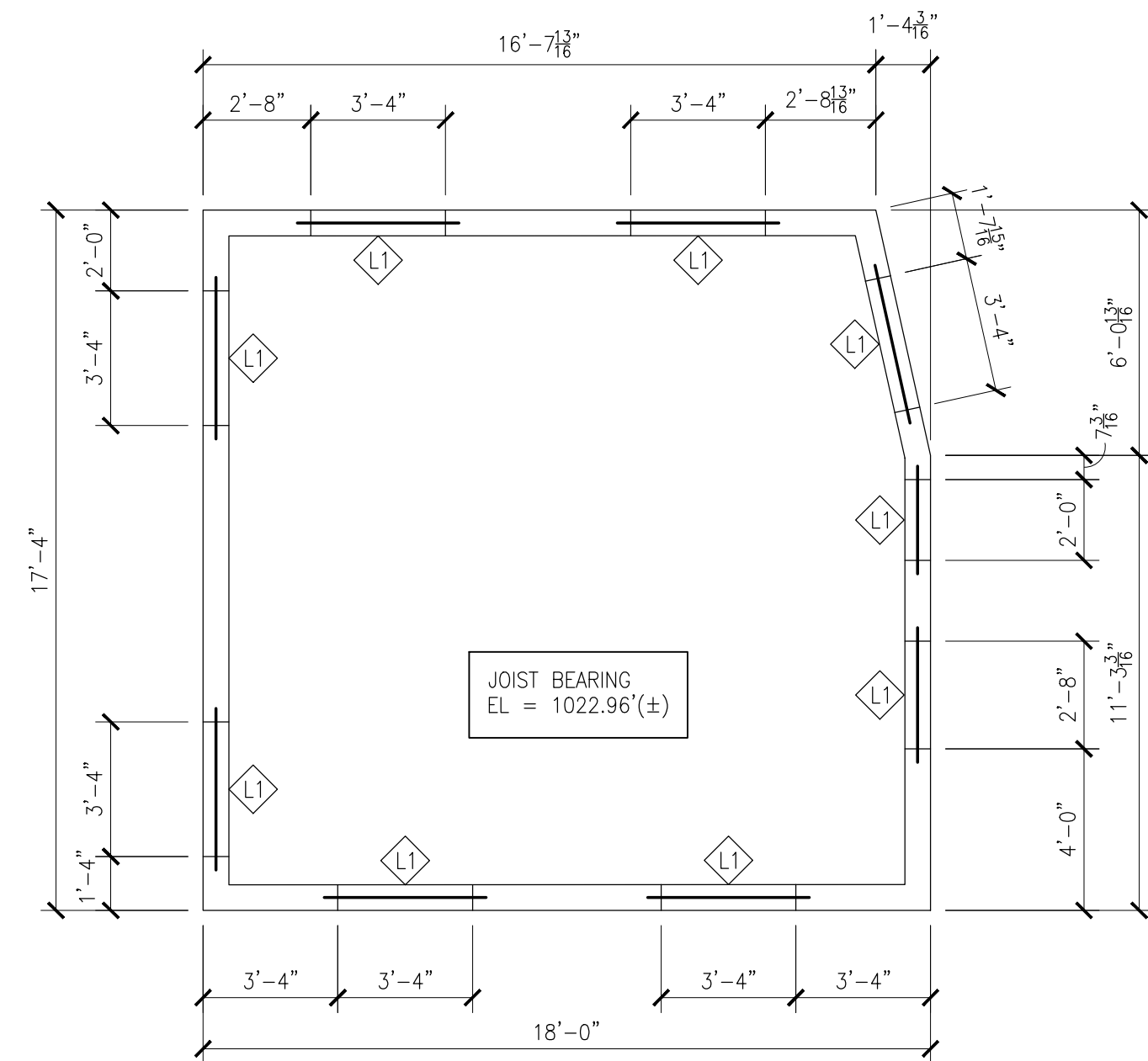
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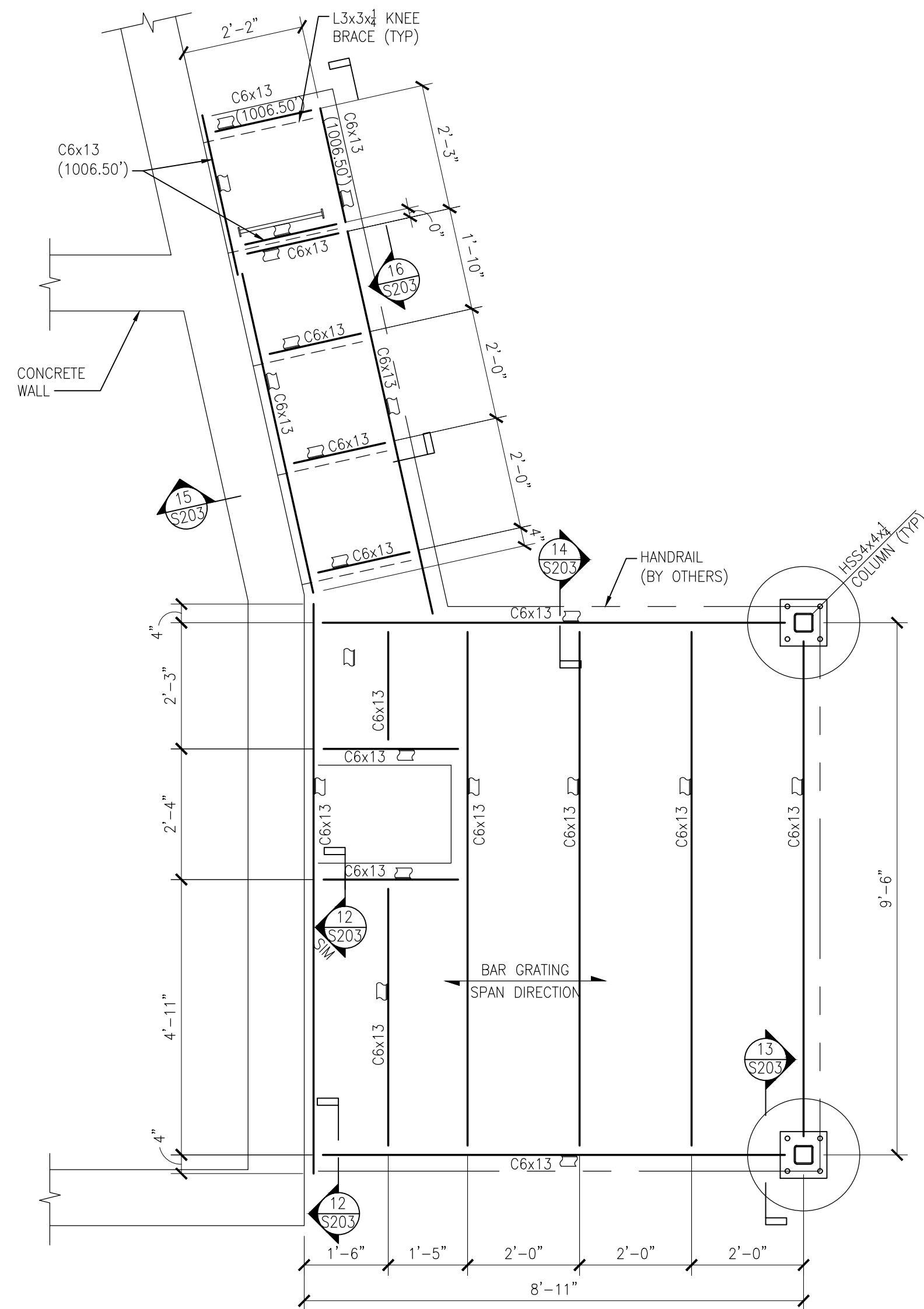
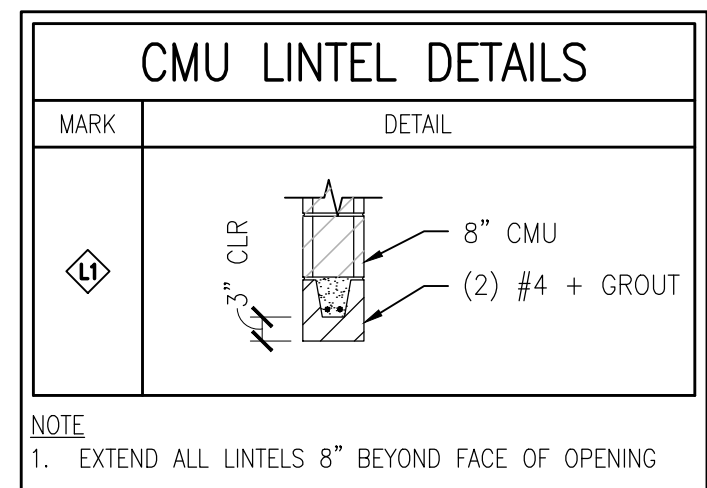
STRUCTURAL  
HEAD WORKS PLANS  
NOTE & ASSOCIATES  
LAKENGREN WWTP  
LAKENGREN, OH

S106



HEAD WORK BUILDING  
BLOCK WALL PLAN

1/4"=1'-0"



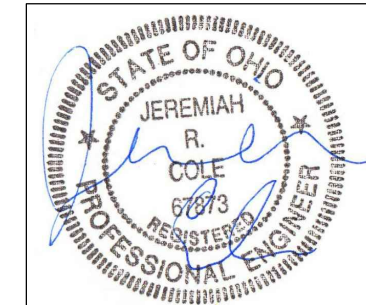
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MEZZANINE FRAMING PLAN

1/2"=1'-0"

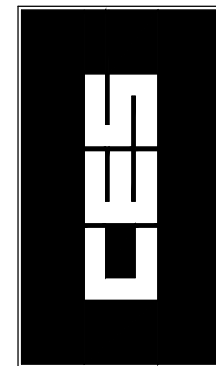
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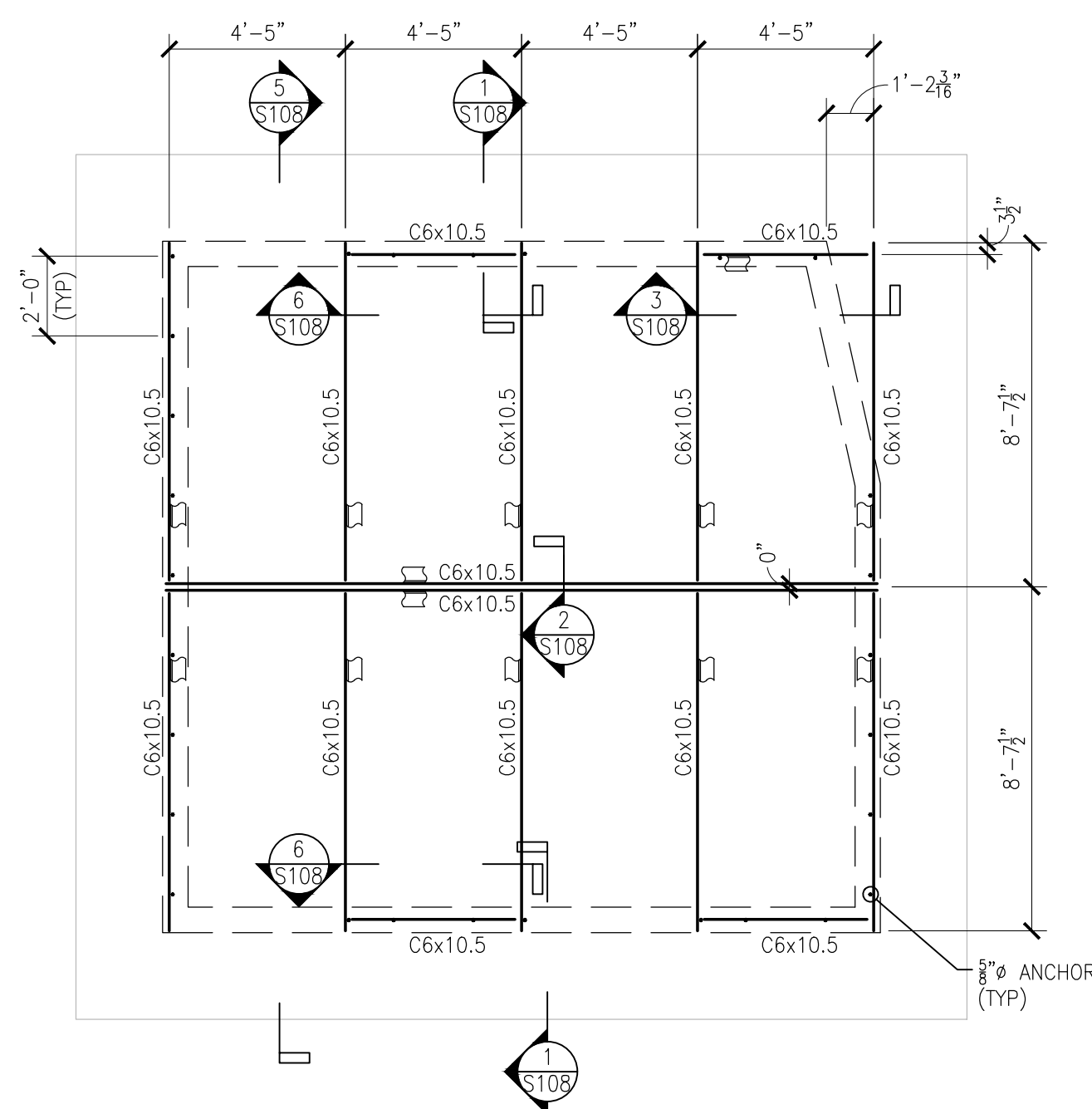
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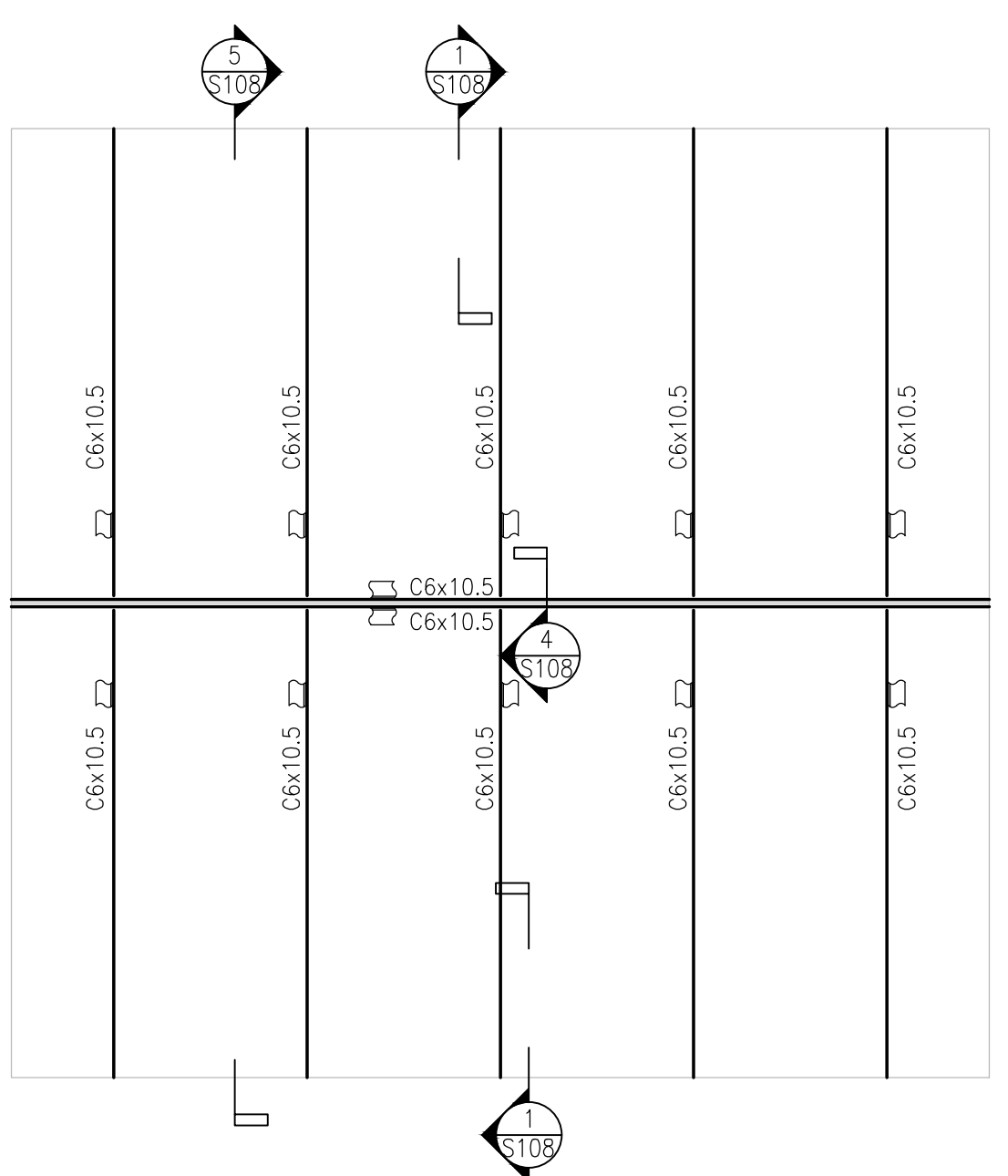
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HEAD WORKS PLANS  
NOTE & ASSOCIATES  
LAKENGREN WWTP  
LAKENGREN, OH

Issue Sheet No.

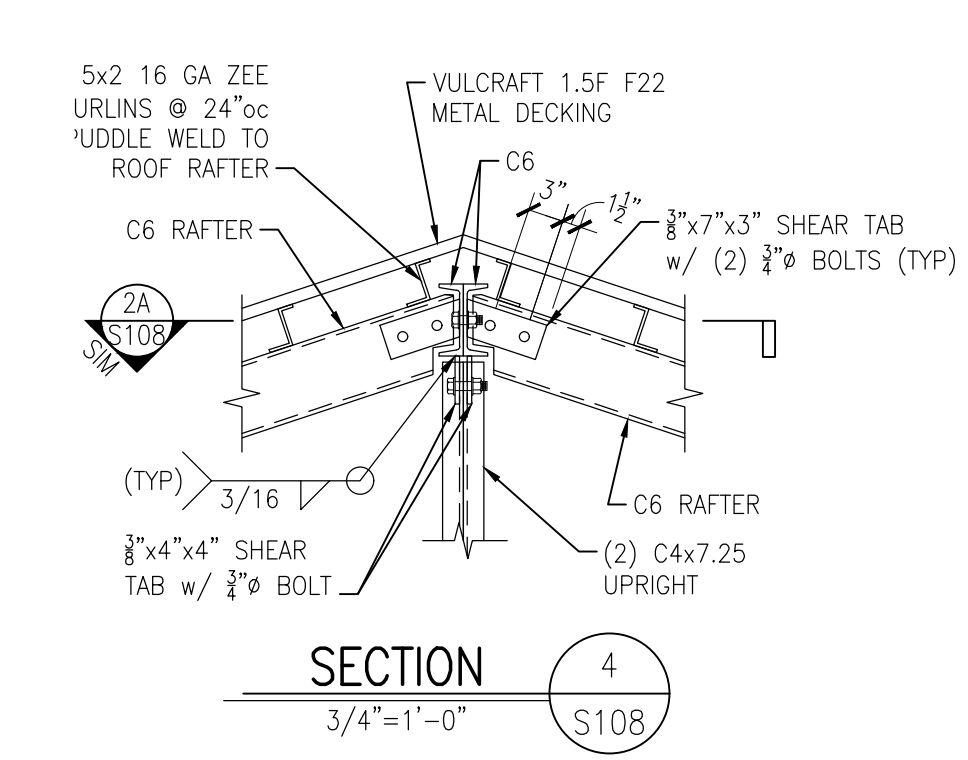
S107



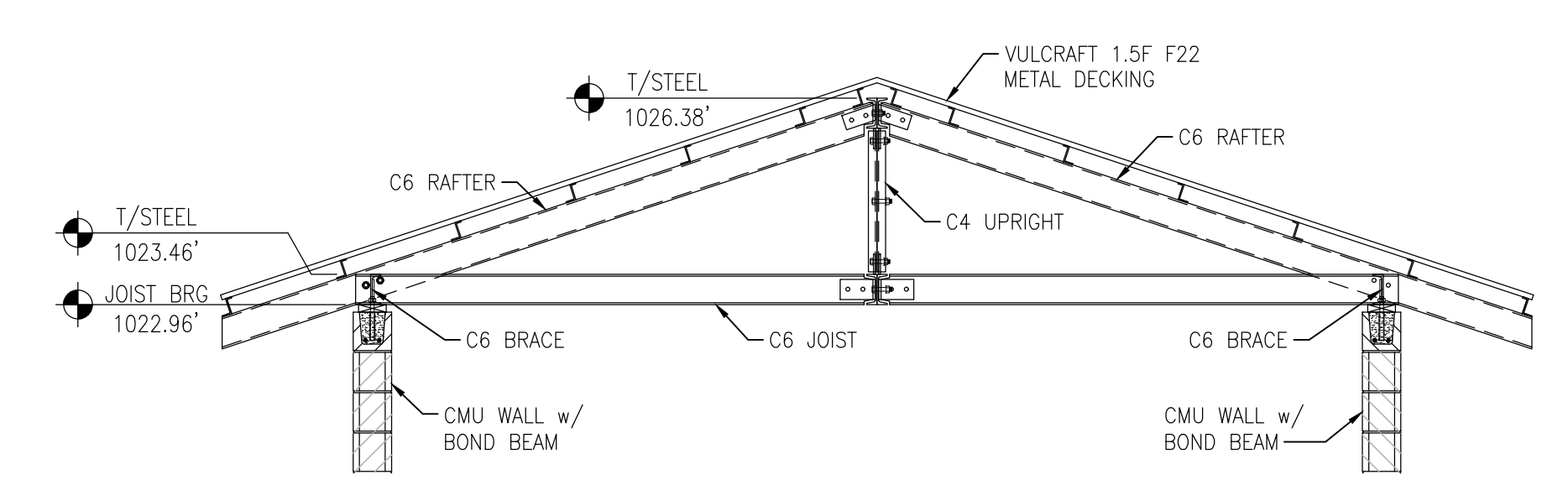
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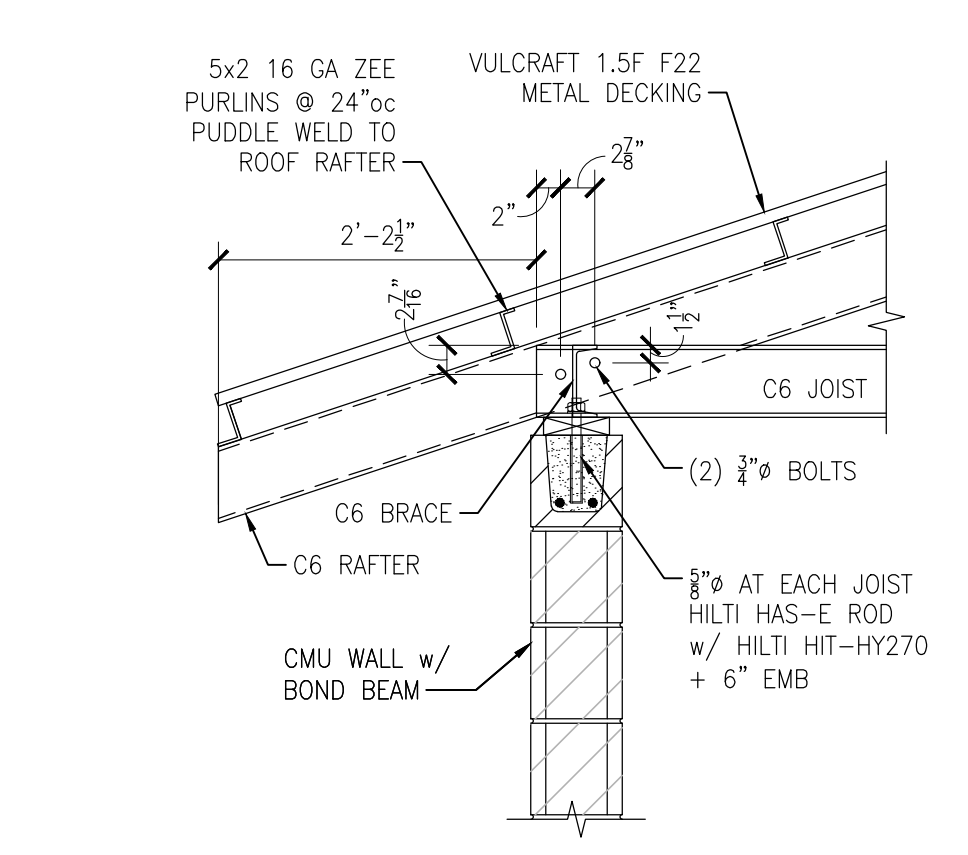
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UPPER ROOF PLAN  
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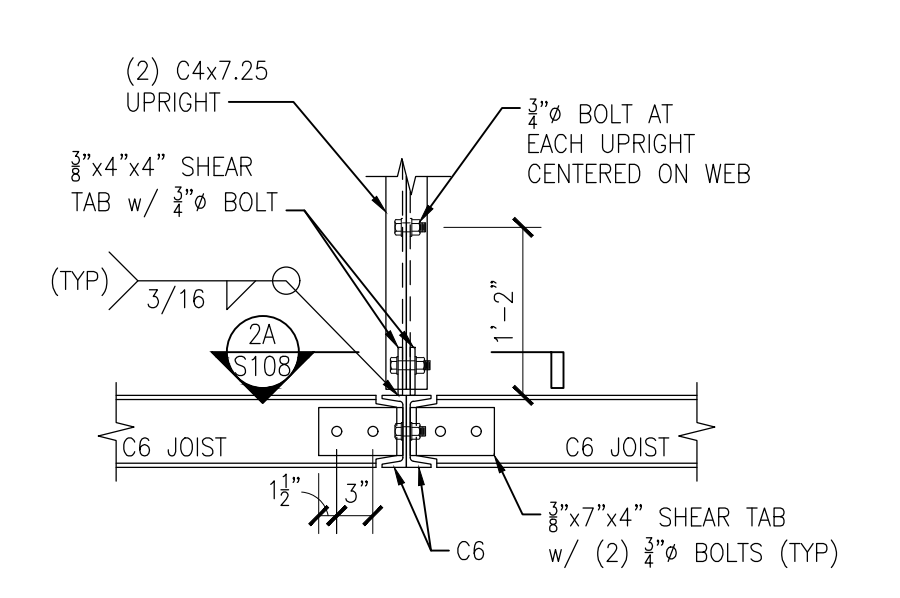
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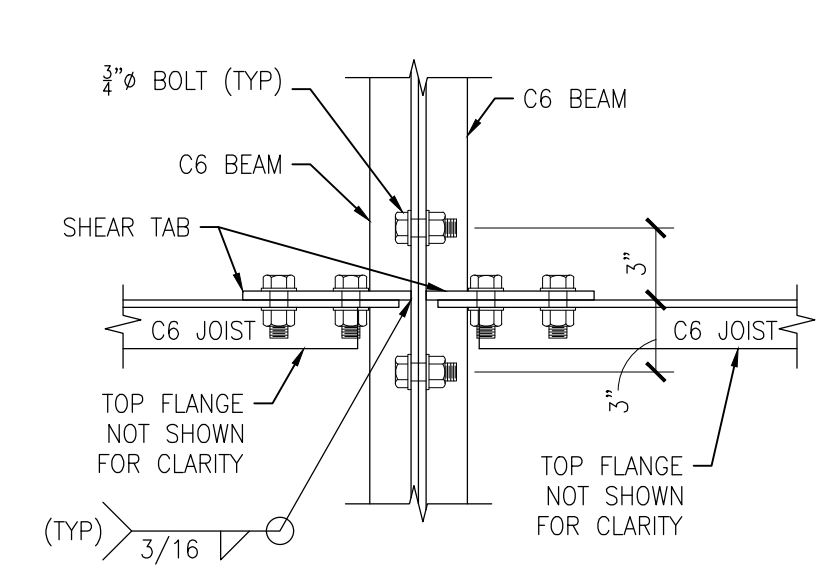
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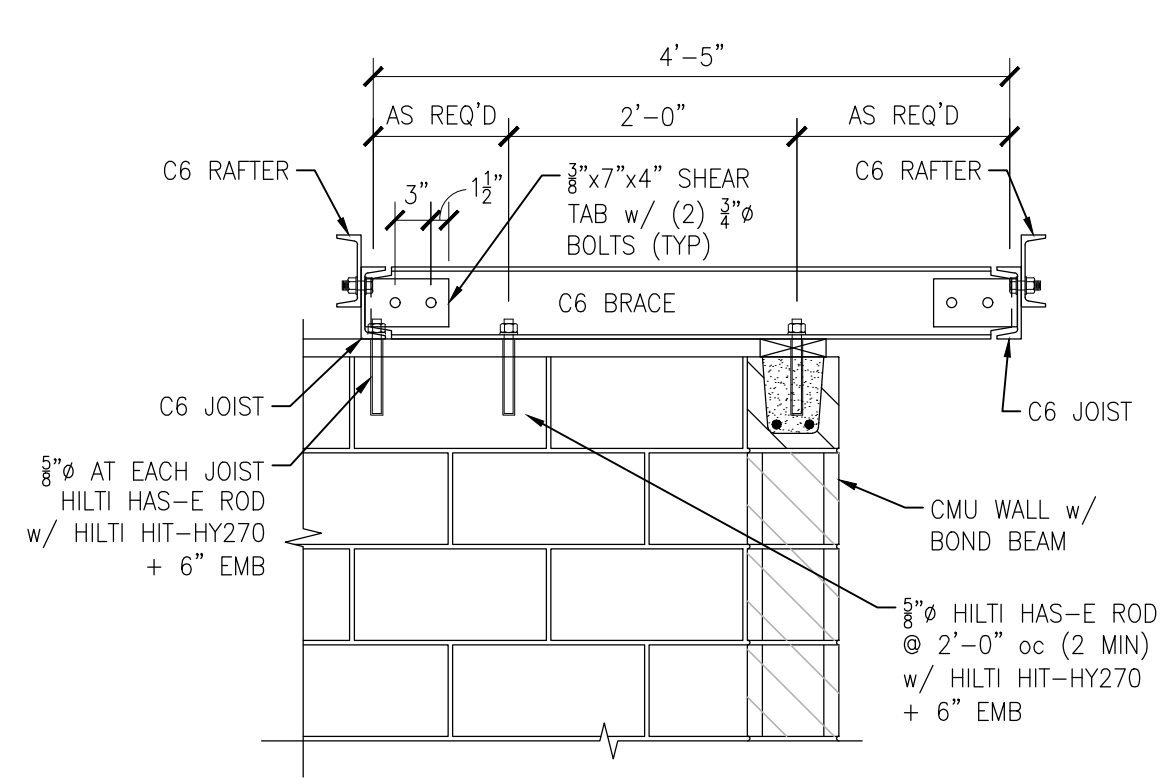
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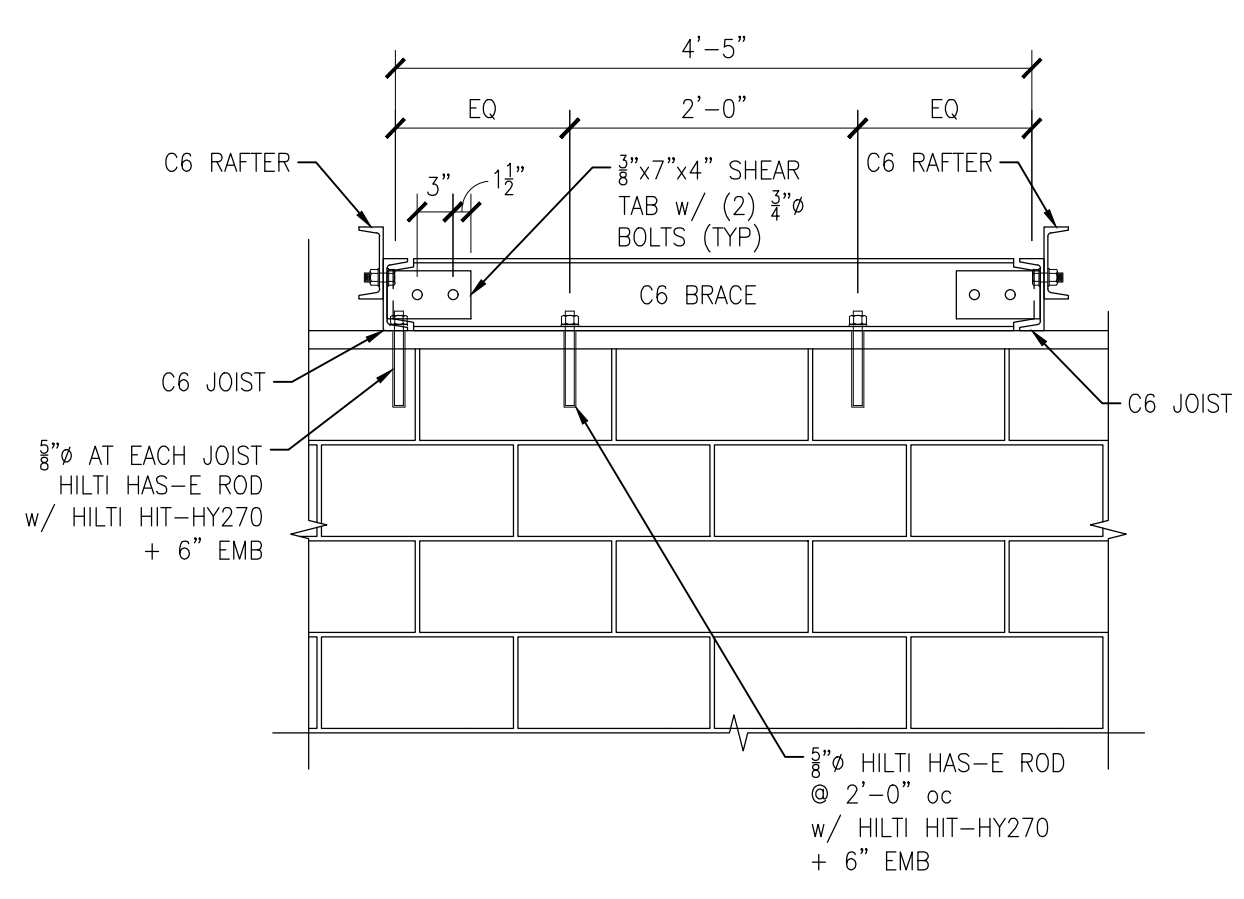
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SECTION 2A  
1 1/2"=1'-0"



SECTION 3  
3/4"=1'-0"



SECTION 6  
3/4"=1'-0"

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REVISIONS

2 10/04/18 BID PACKAGE ADDENDUM

STRUCTURAL  
HEAD WORKS ROOF  
NOTE & ASSOCIATES  
LAKENGREN WWTP  
LAKENGREN, OH

2

Sheet Title

Issue

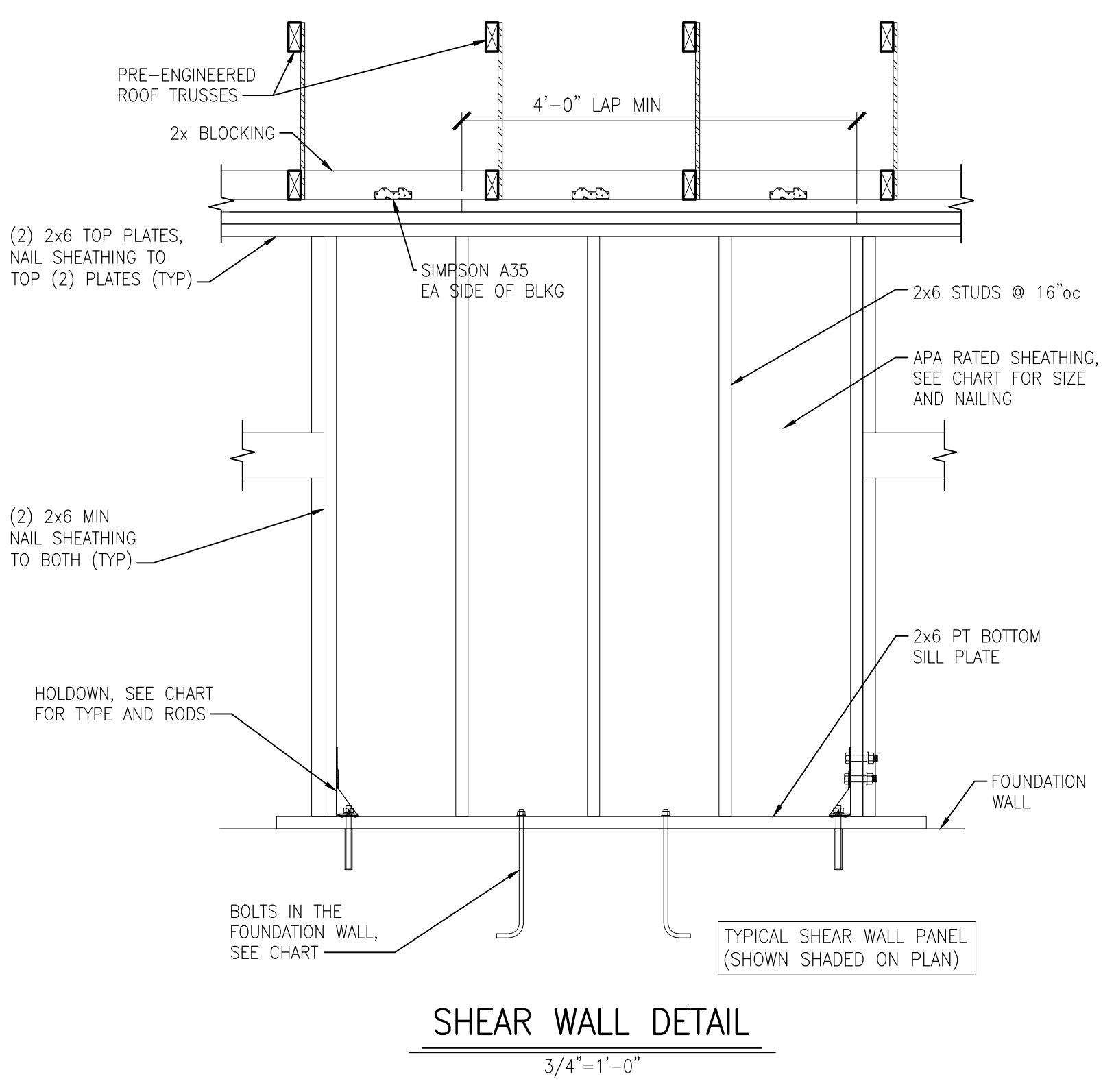
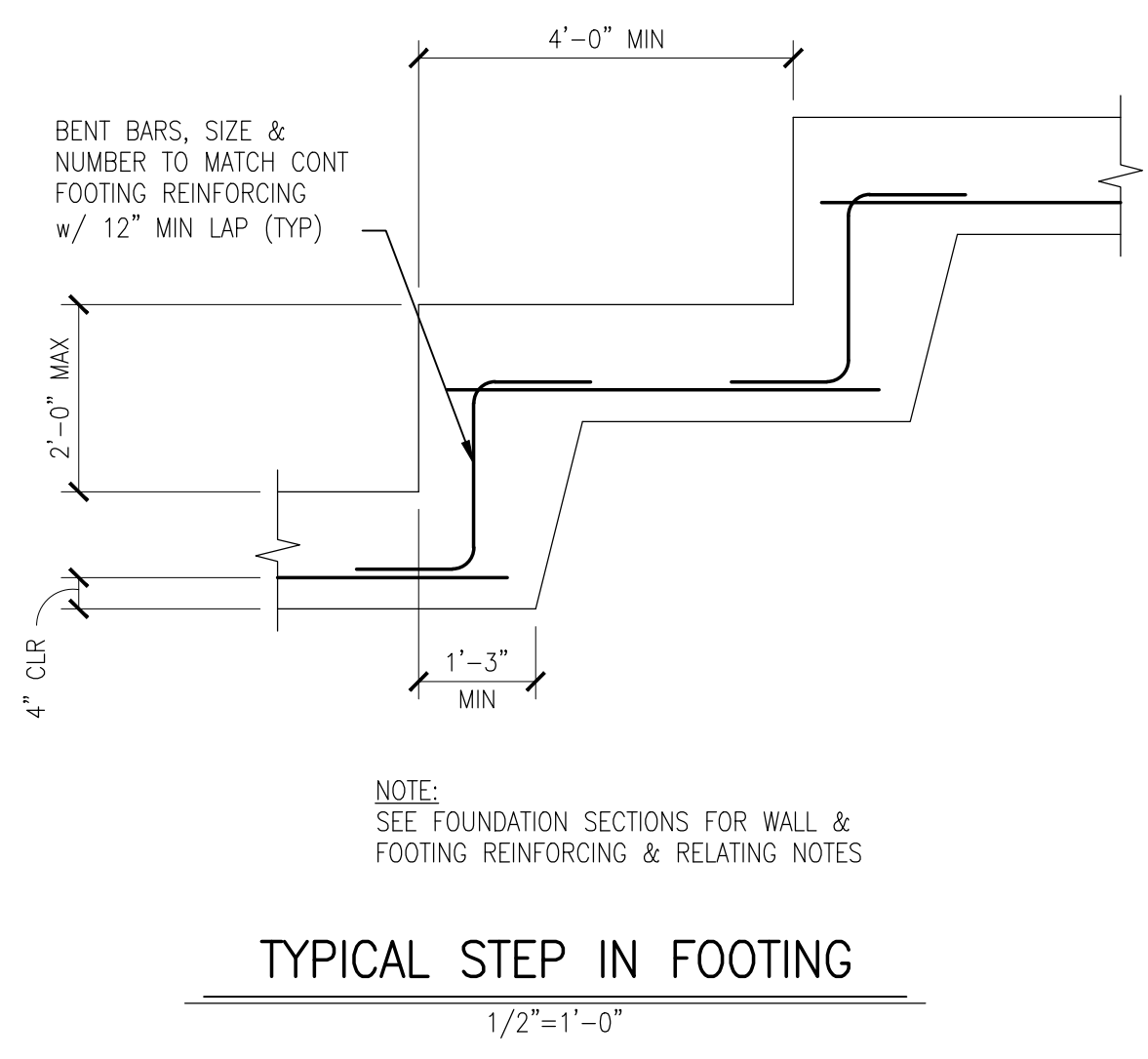
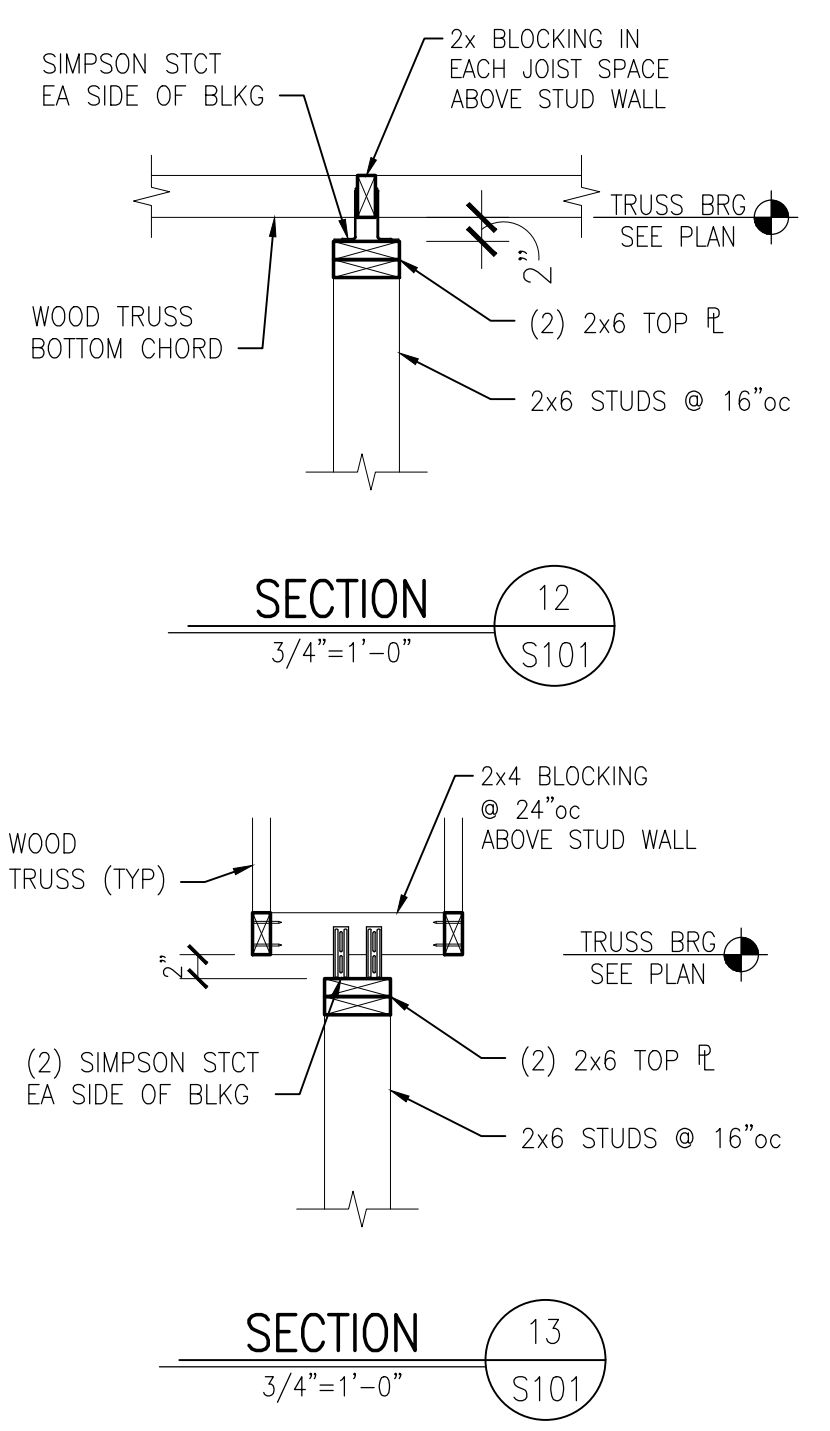
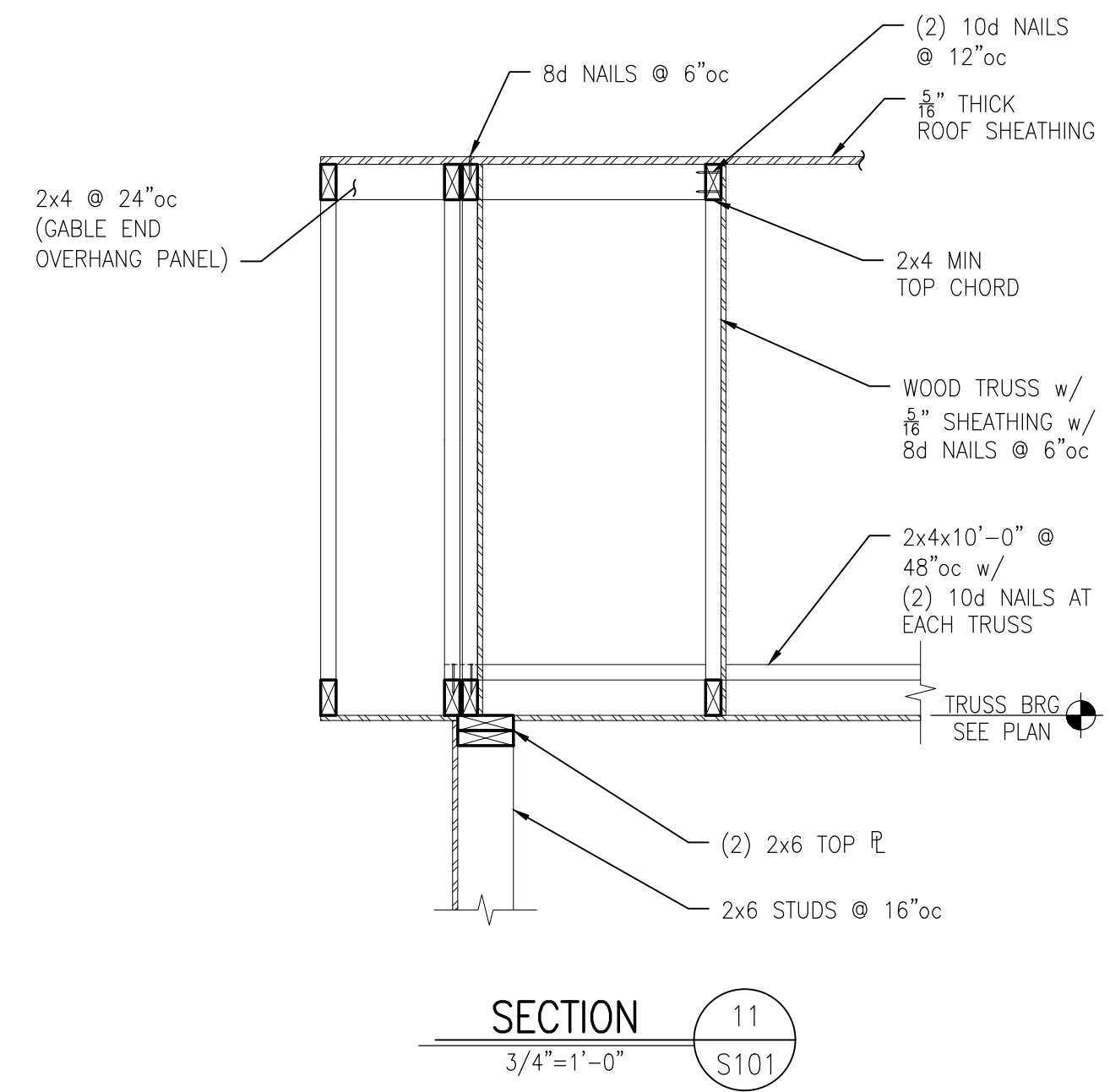
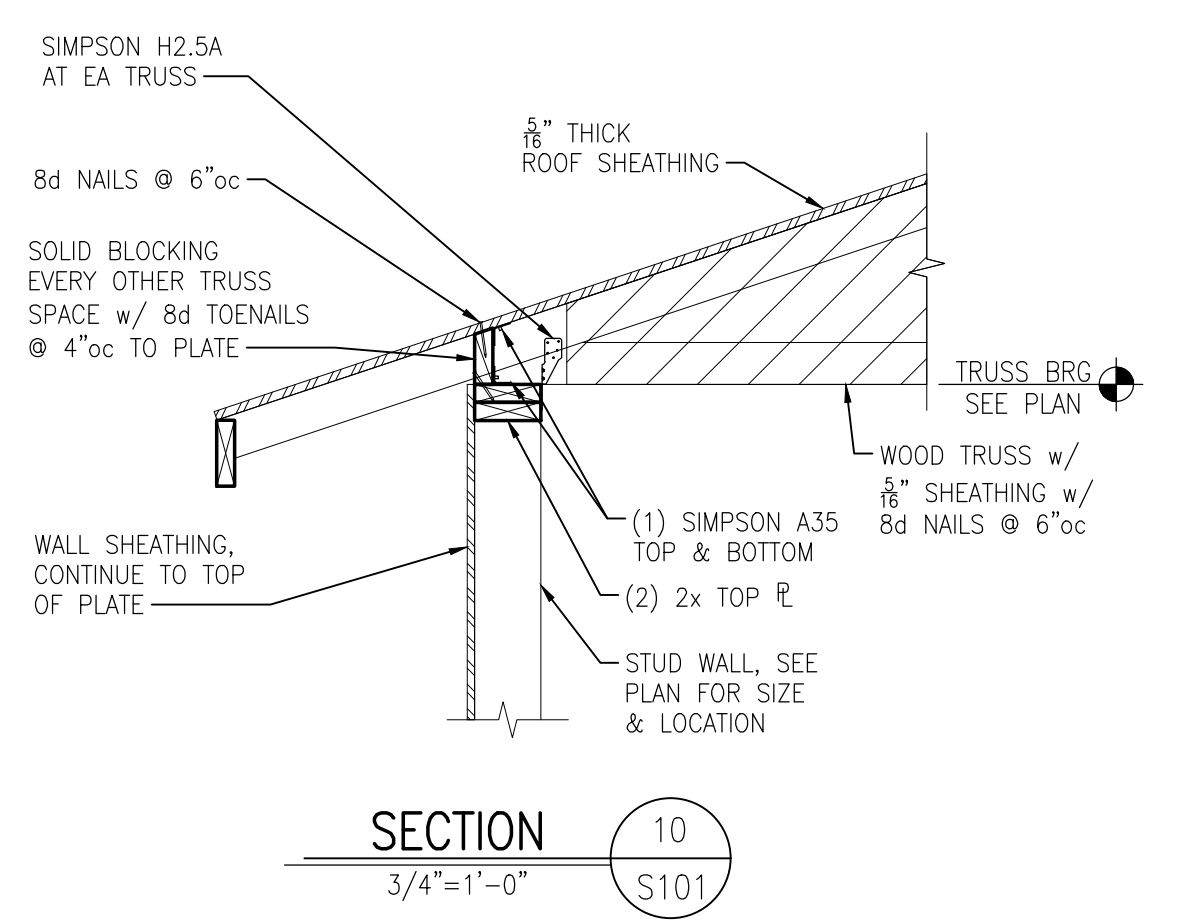
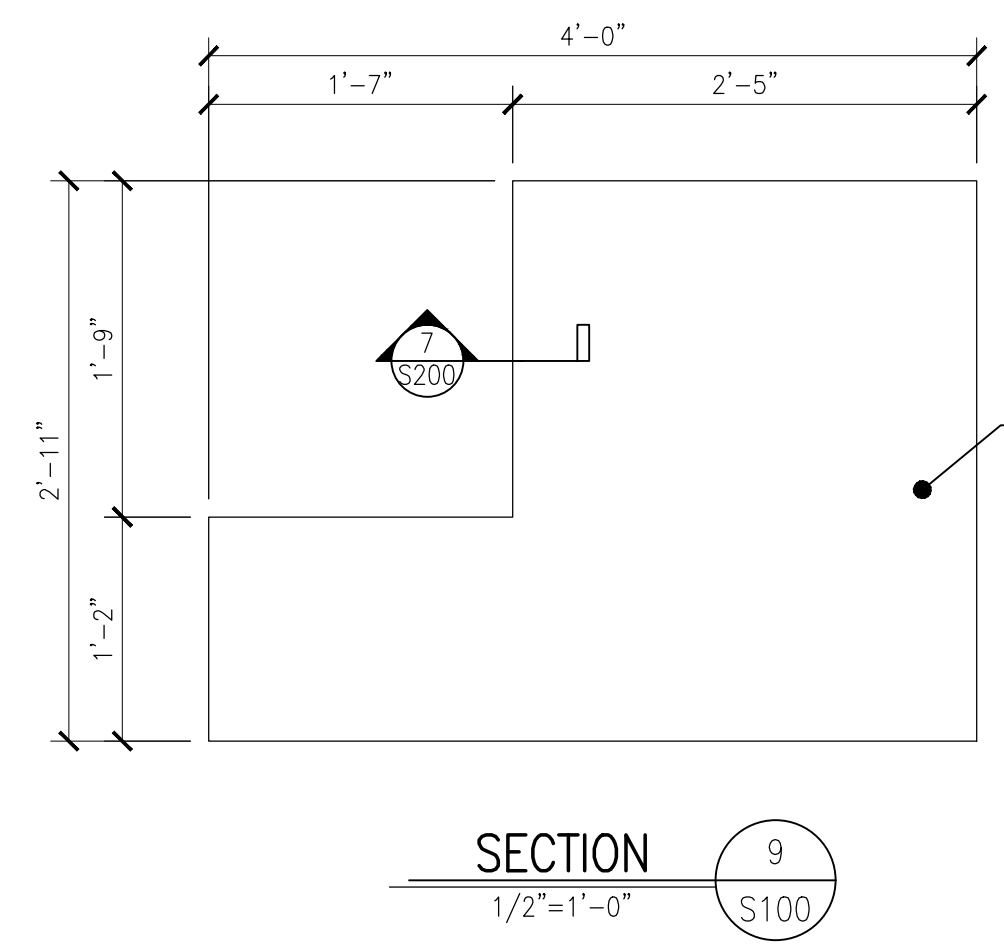
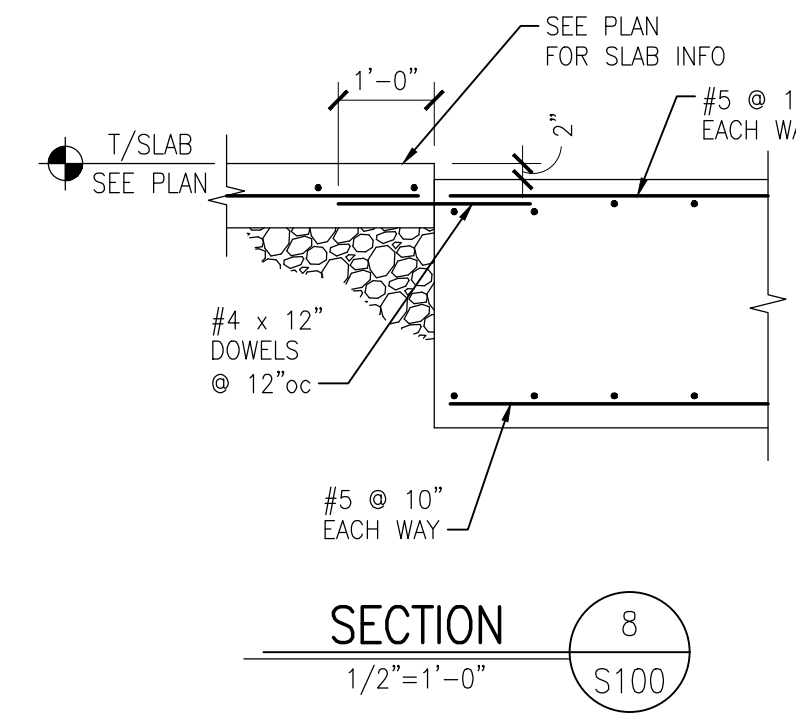
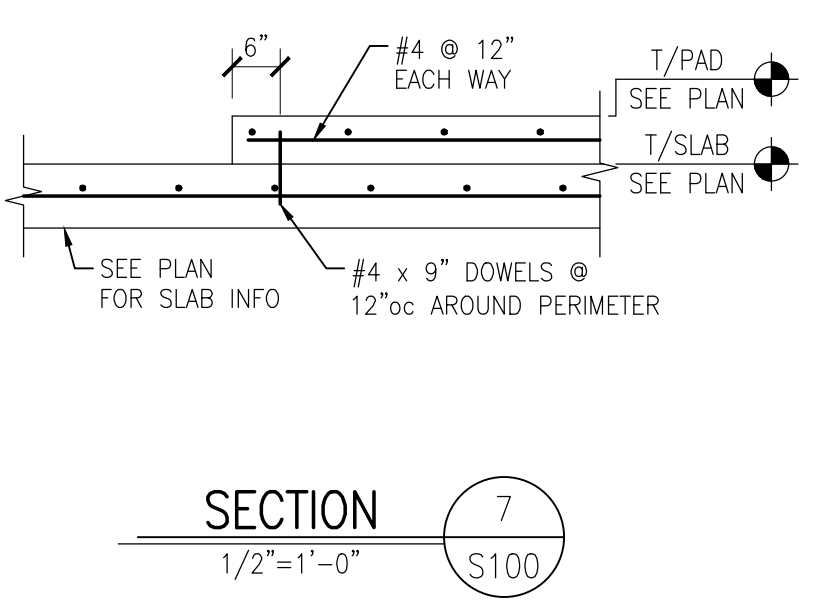
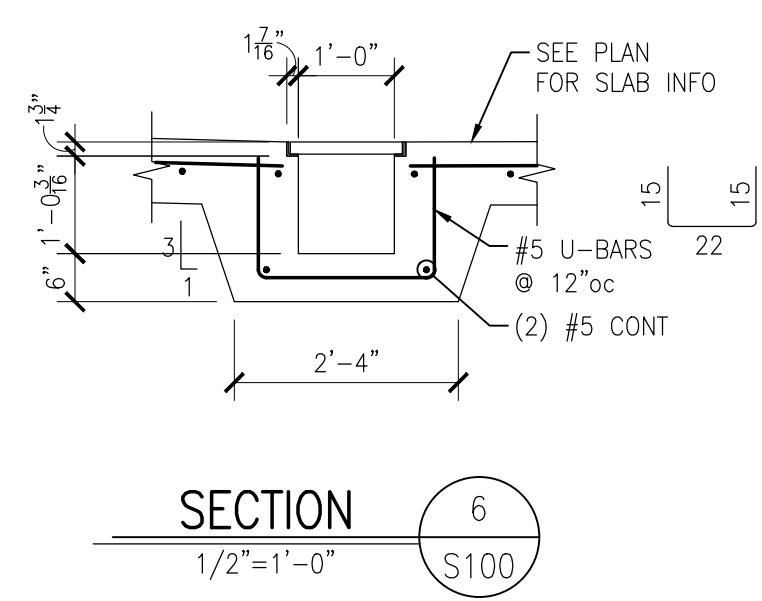
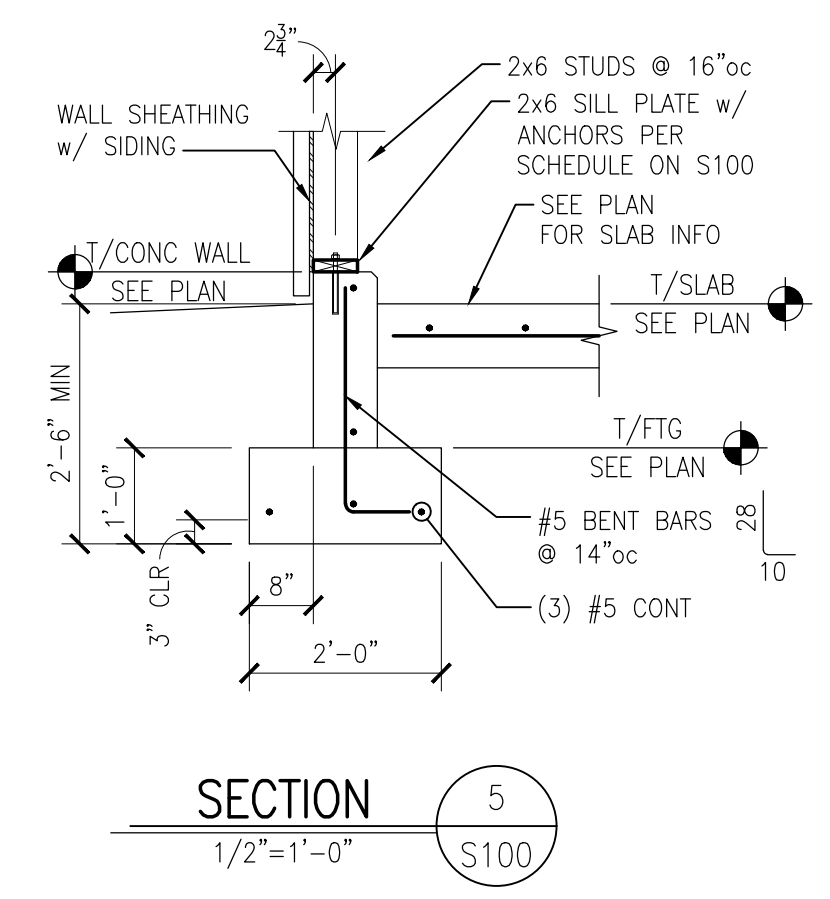
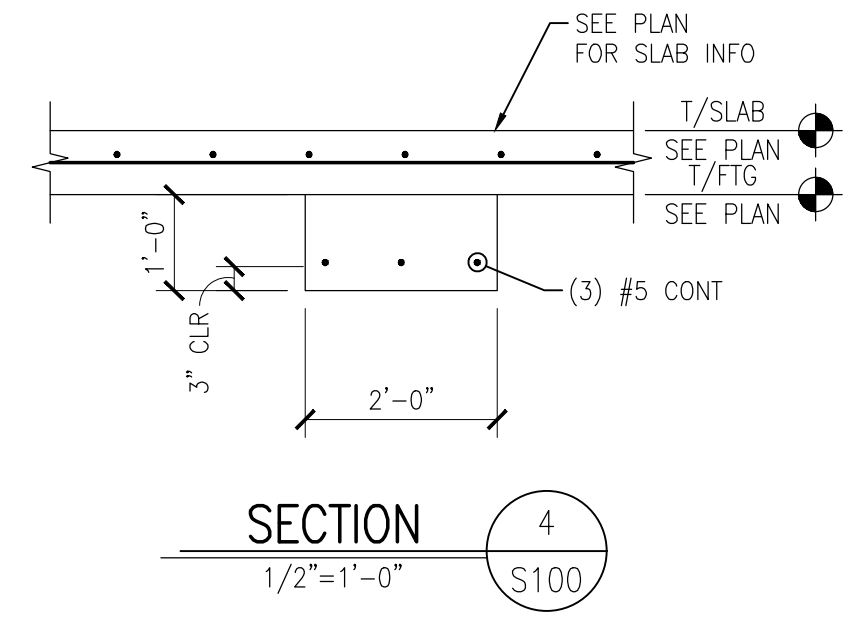
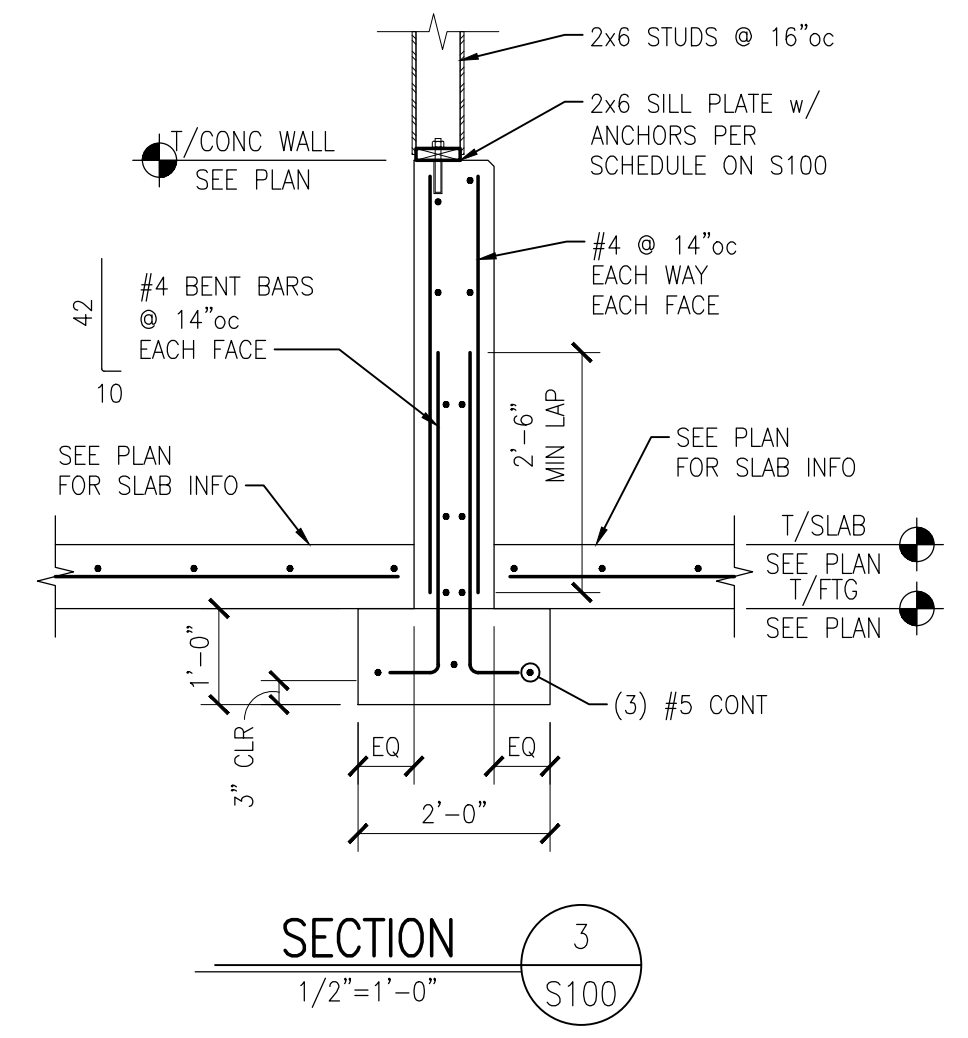
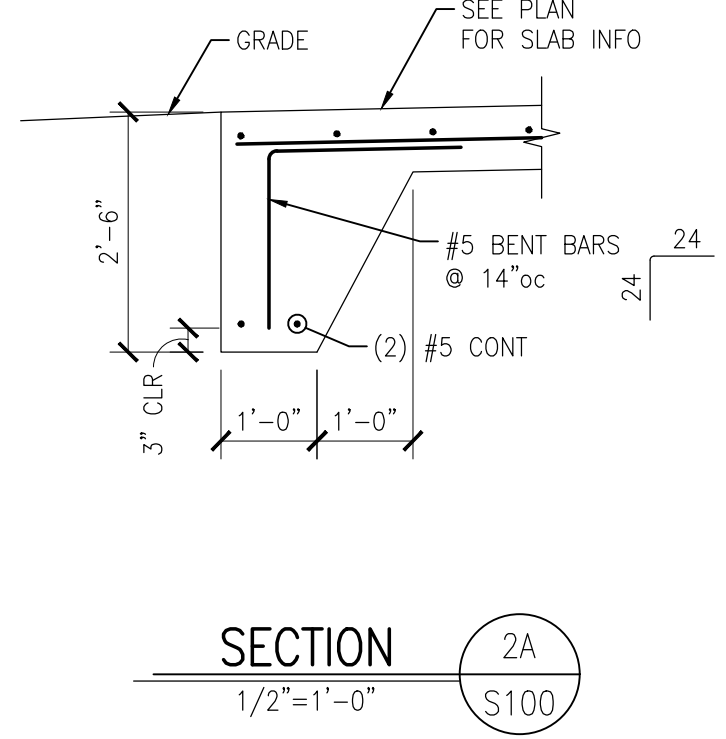
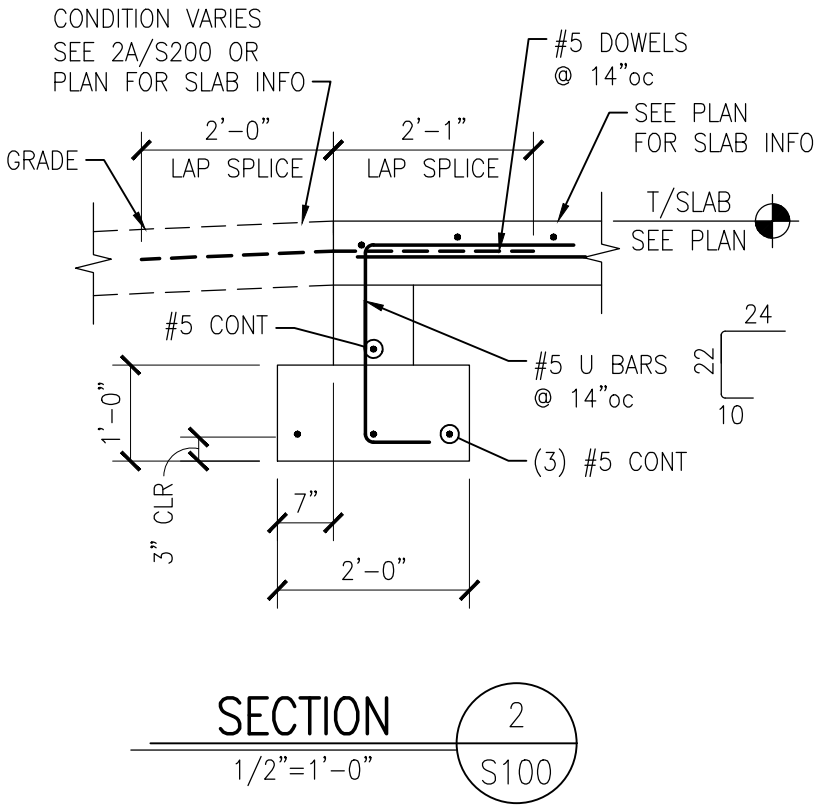
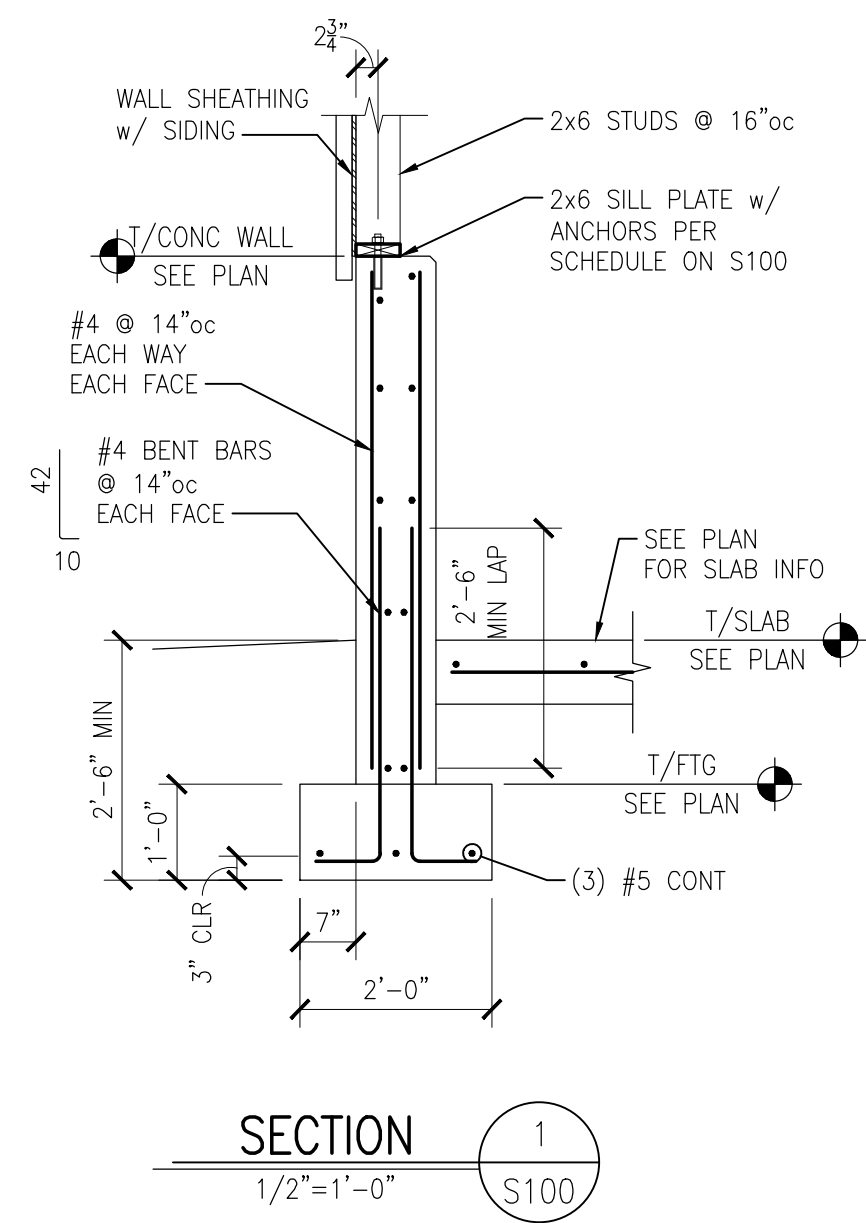
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09/05/18

Drawn by CES

Project No. 201806.18

Dwg. File Name 201806.18.dwg

REVISIONS

STRUCTURAL SECTIONS

**MOTE & ASSOCIATES**

**LAKENGREN WWP**

LAKENGREN, OH

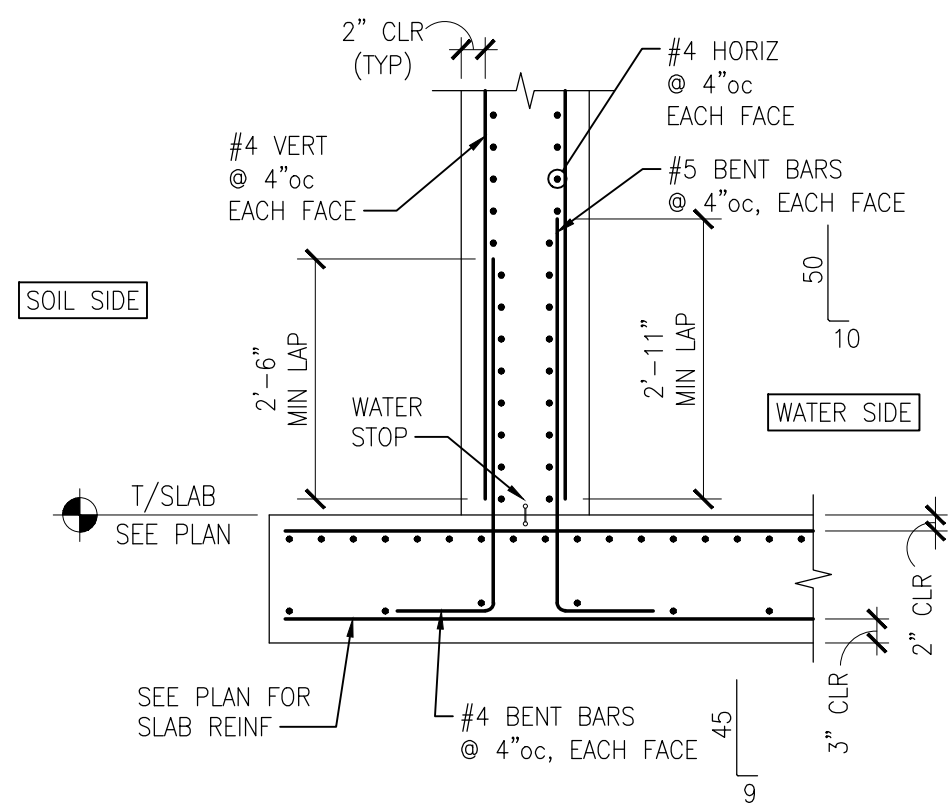
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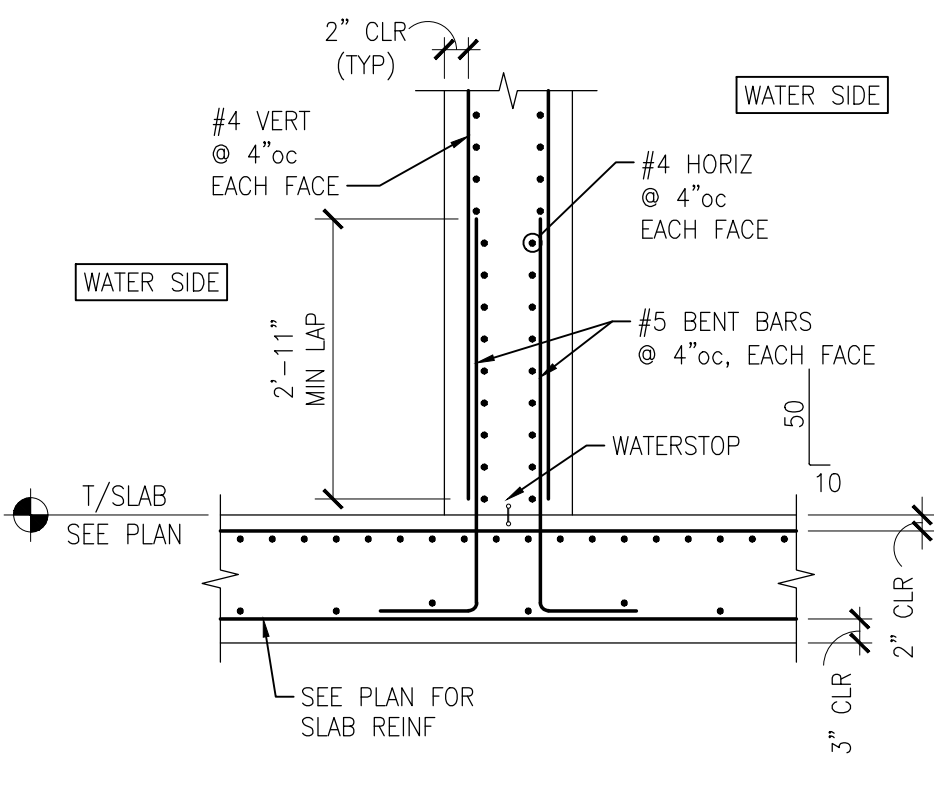
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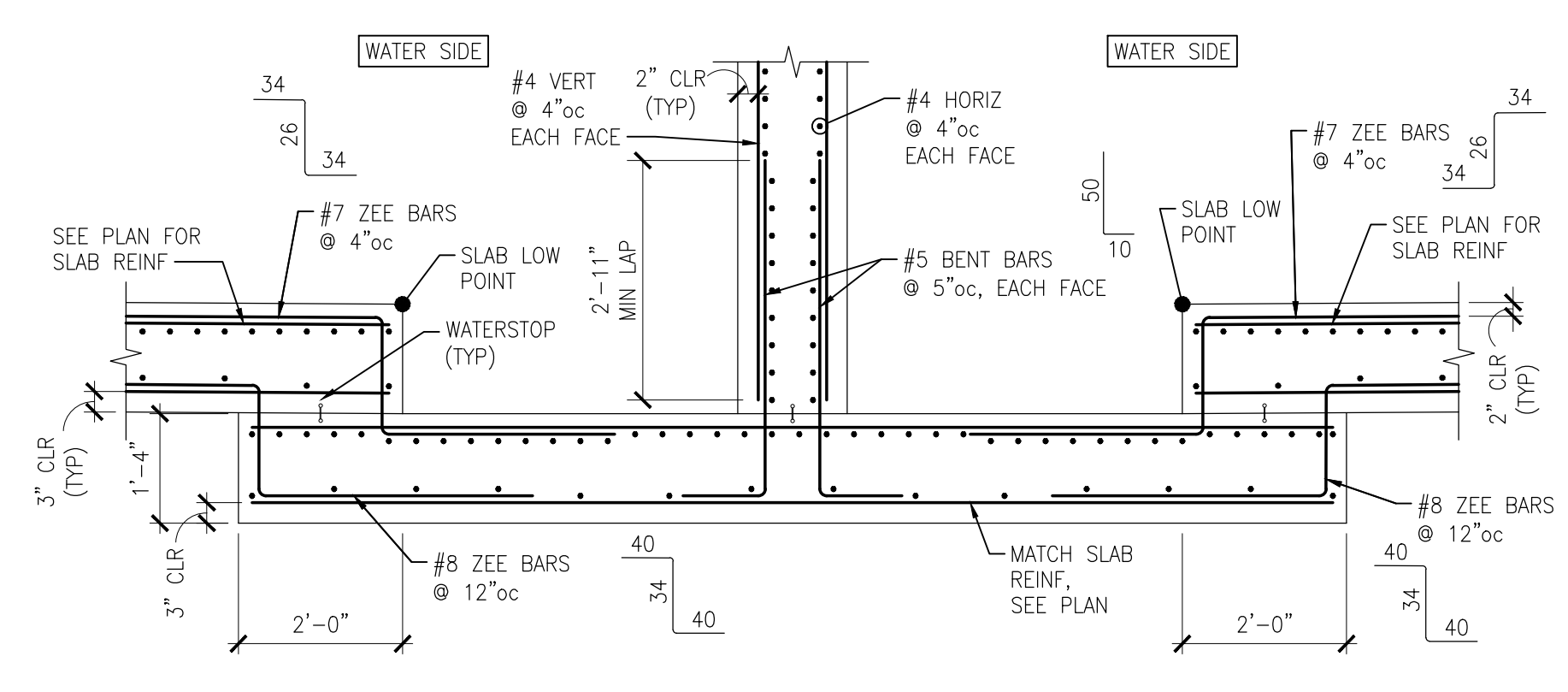
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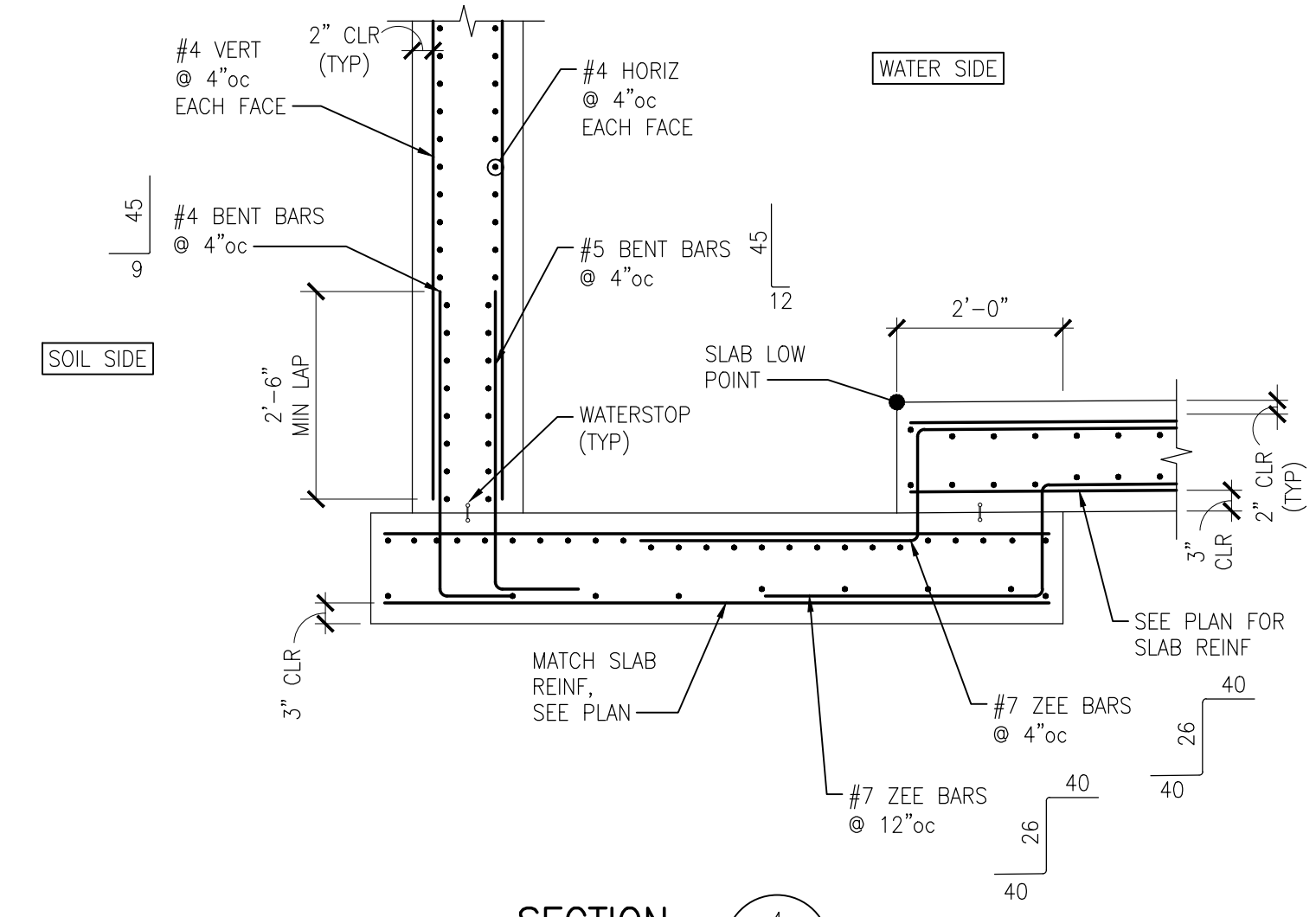
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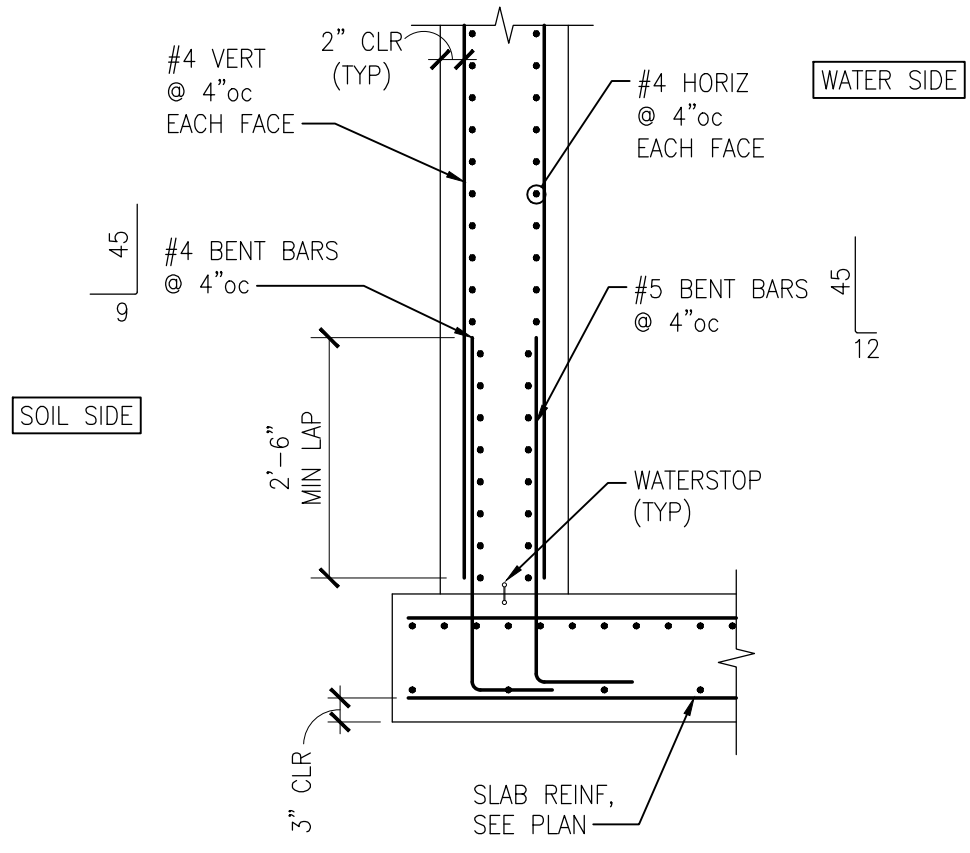
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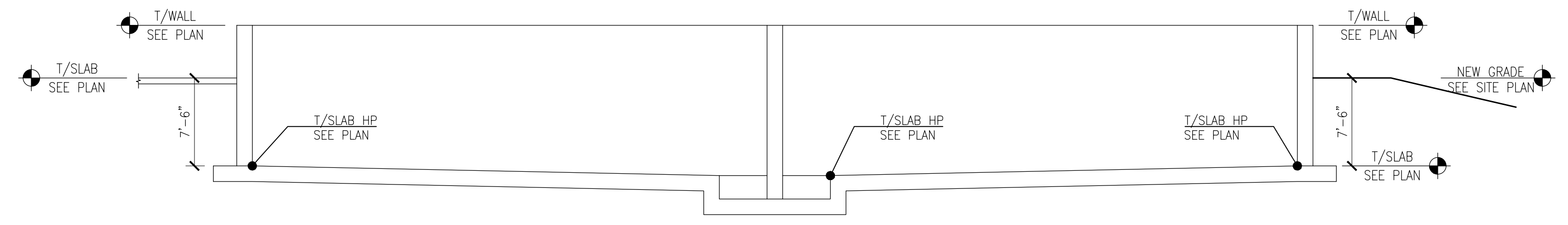
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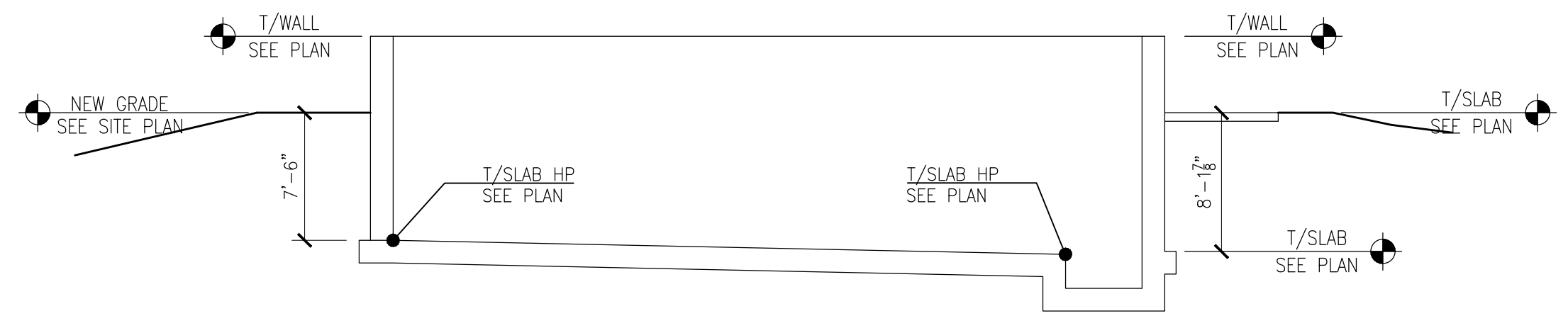
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1/2"=1'-0"



SECTION 5  
1/2"=1'-0"



SECTION 6  
1/8"=1'-0"



SECTION 7  
1/2"=1'-0"

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Project No. 201806.18

Dwg. File Name 201806.18.dwg

REVISIONS

STRUCTURAL SECTIONS

MOTE & ASSOCIATES  
LAKENGREN WWTP  
LAKENGREN, OH

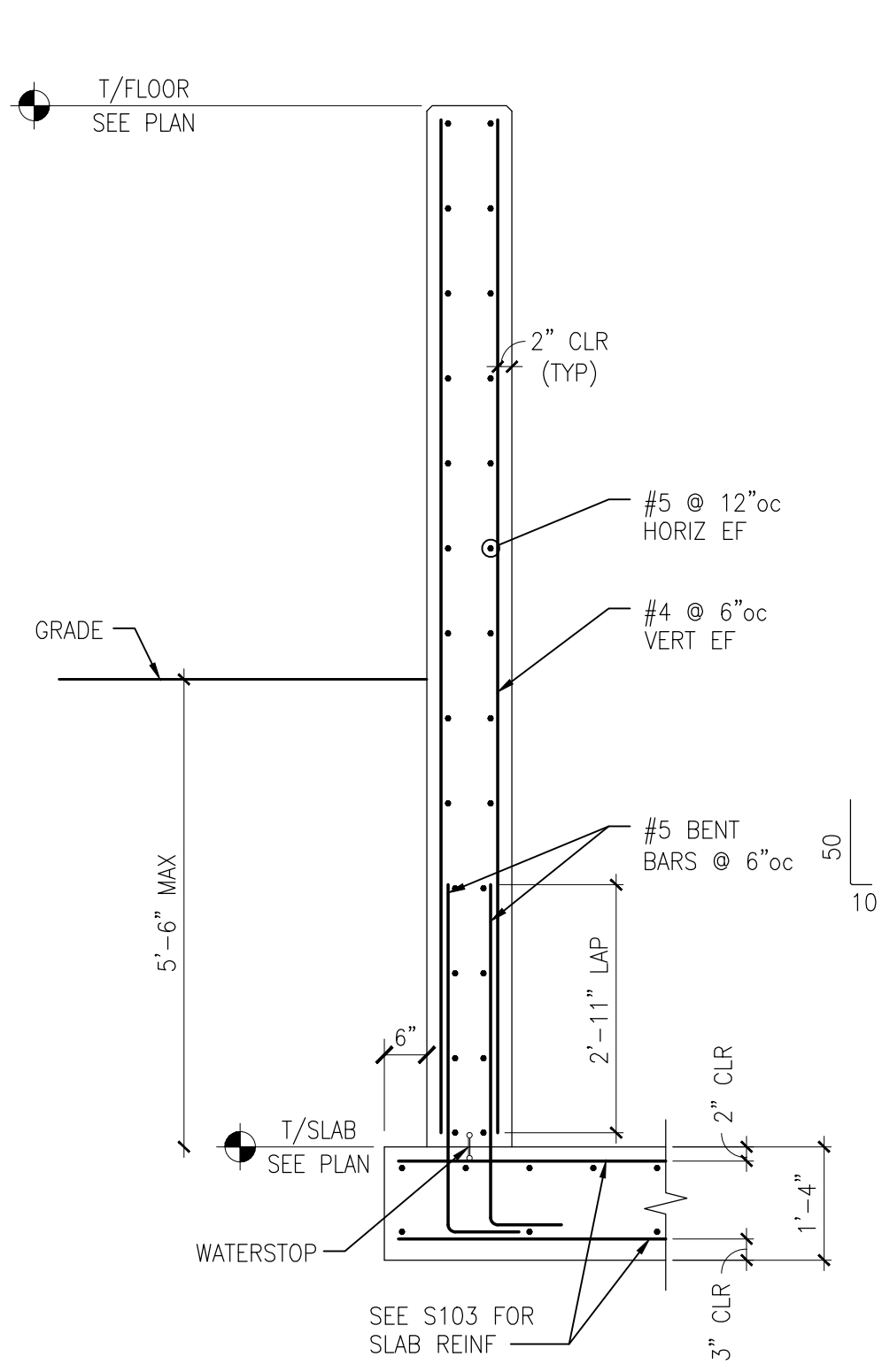
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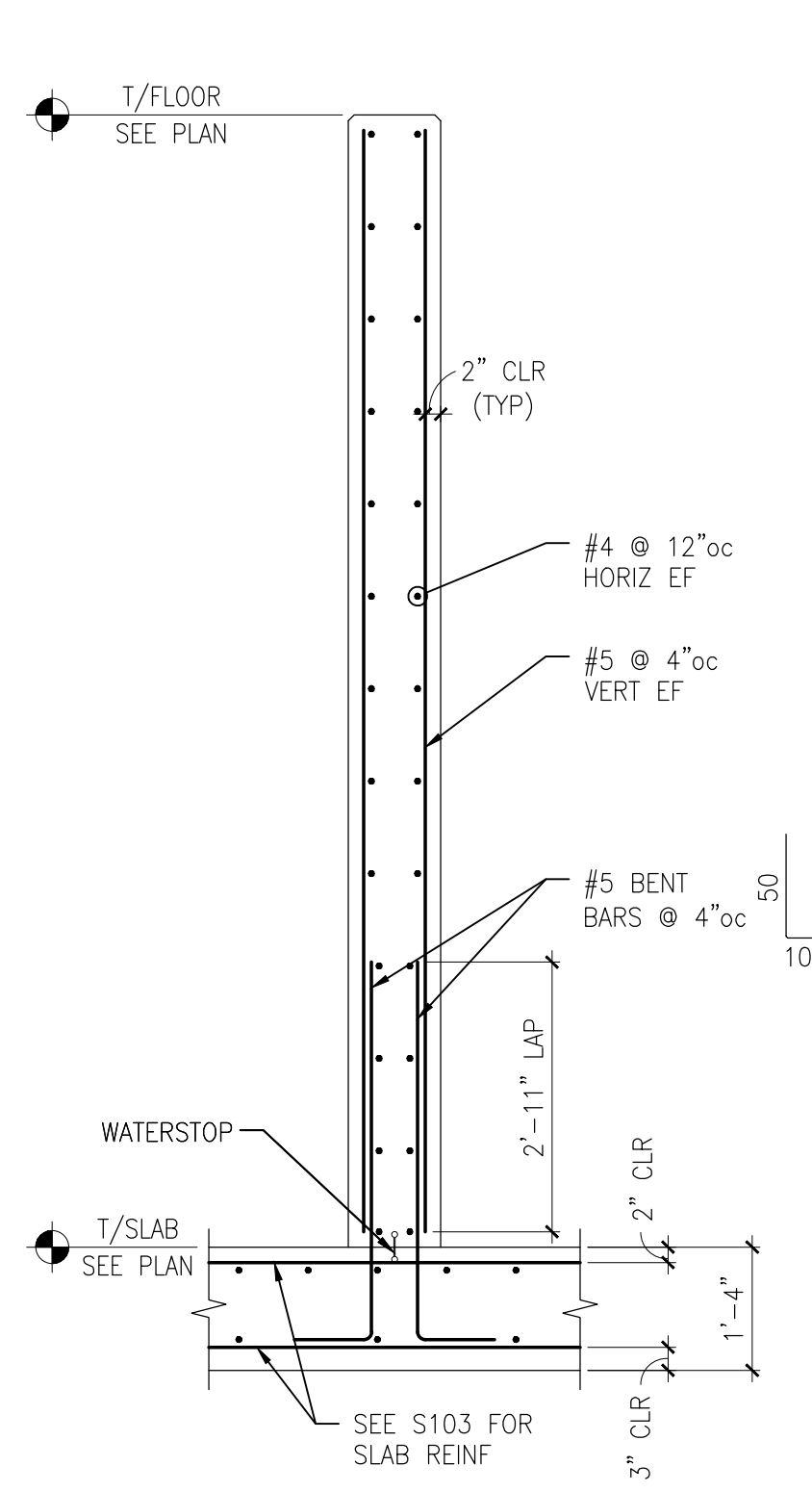
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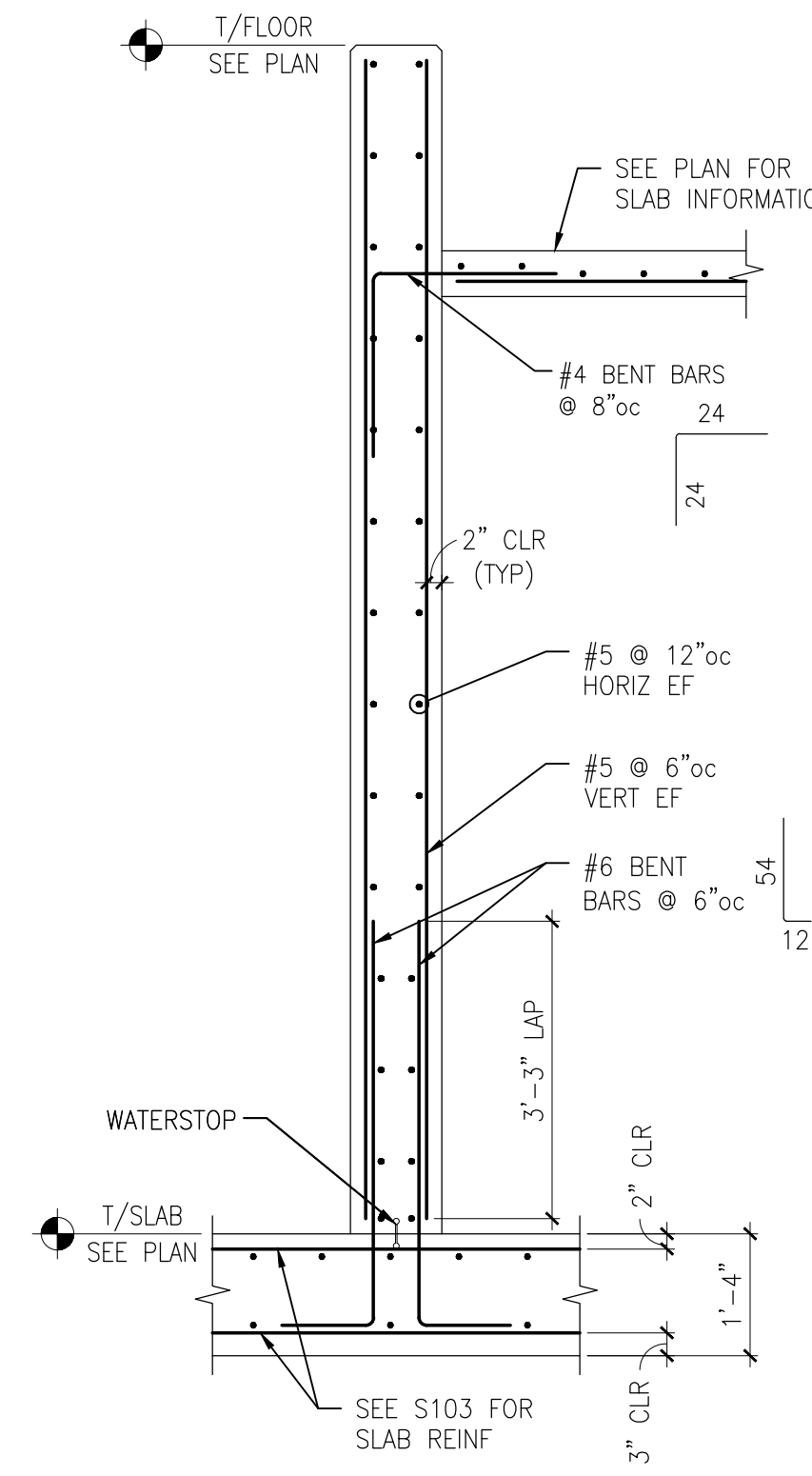
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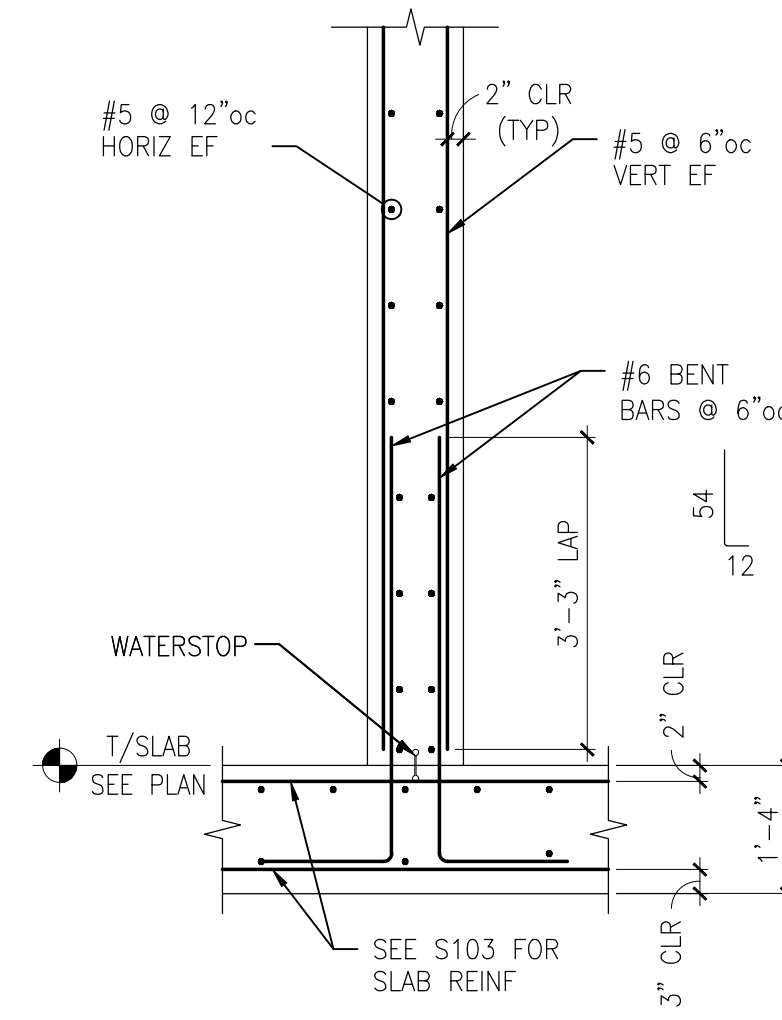
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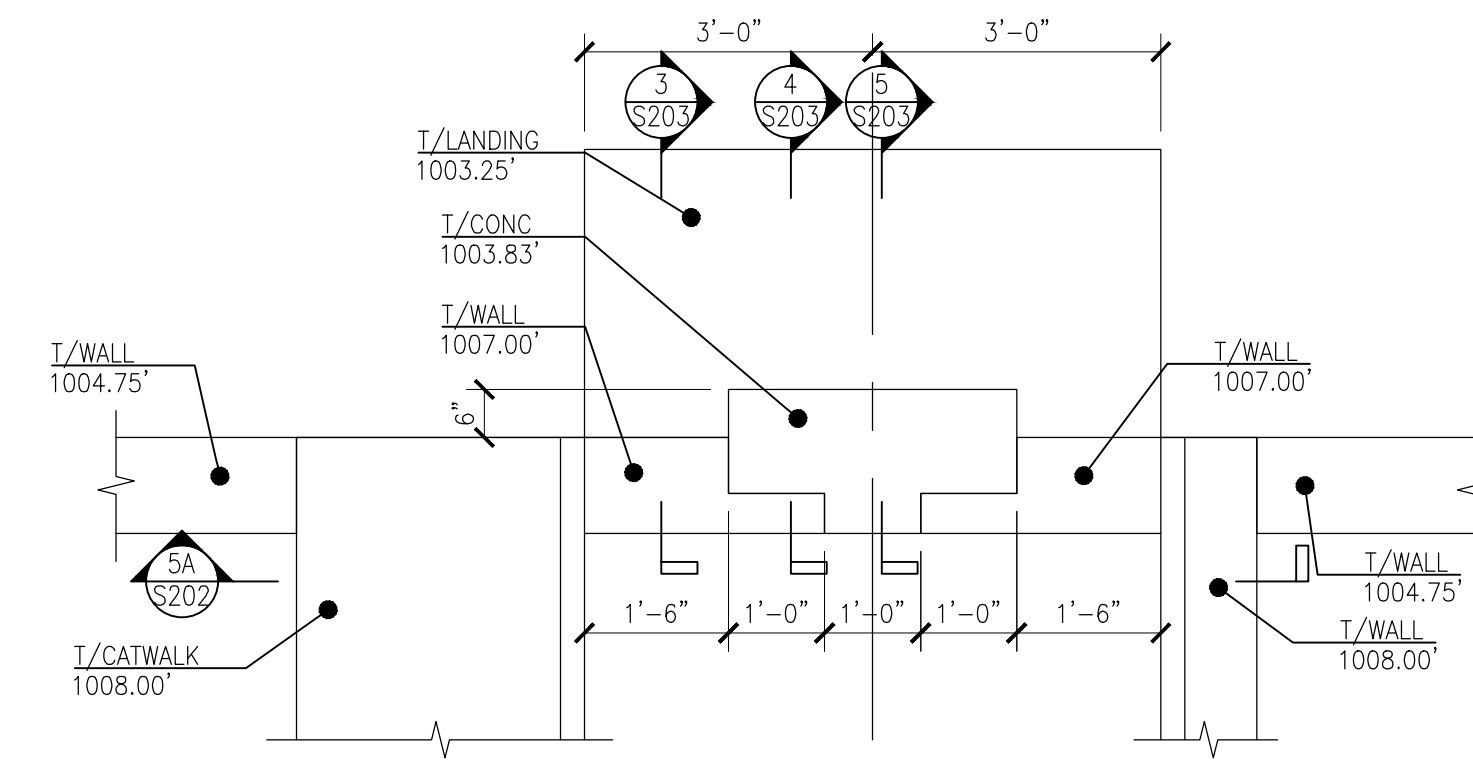
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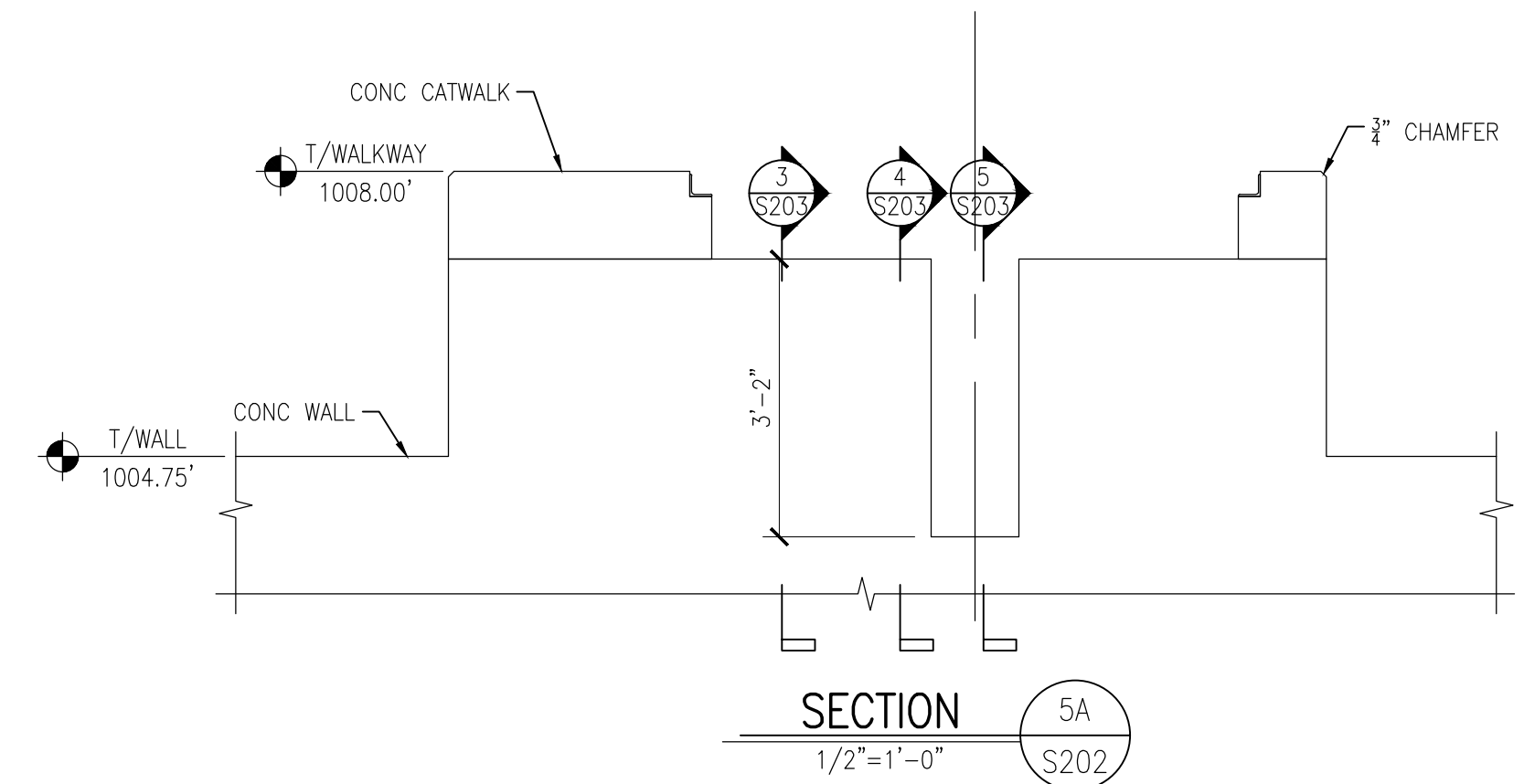
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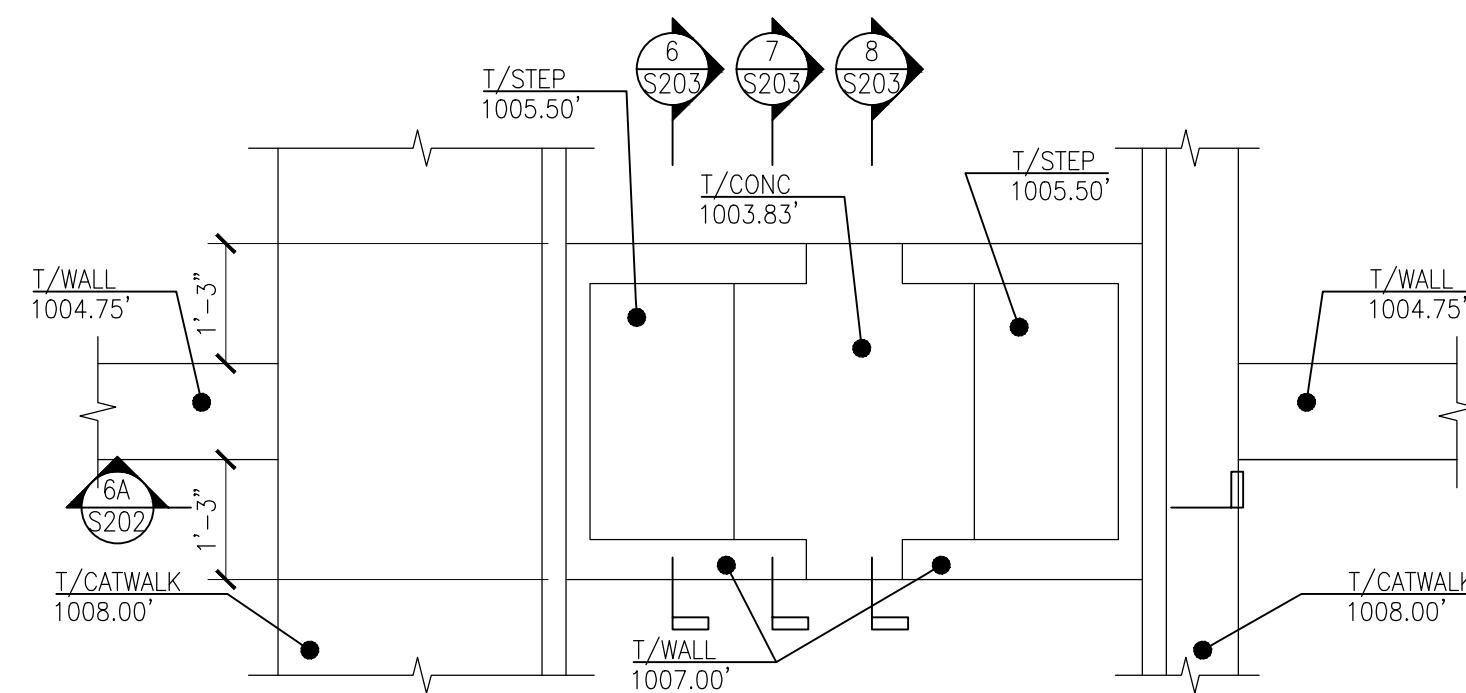
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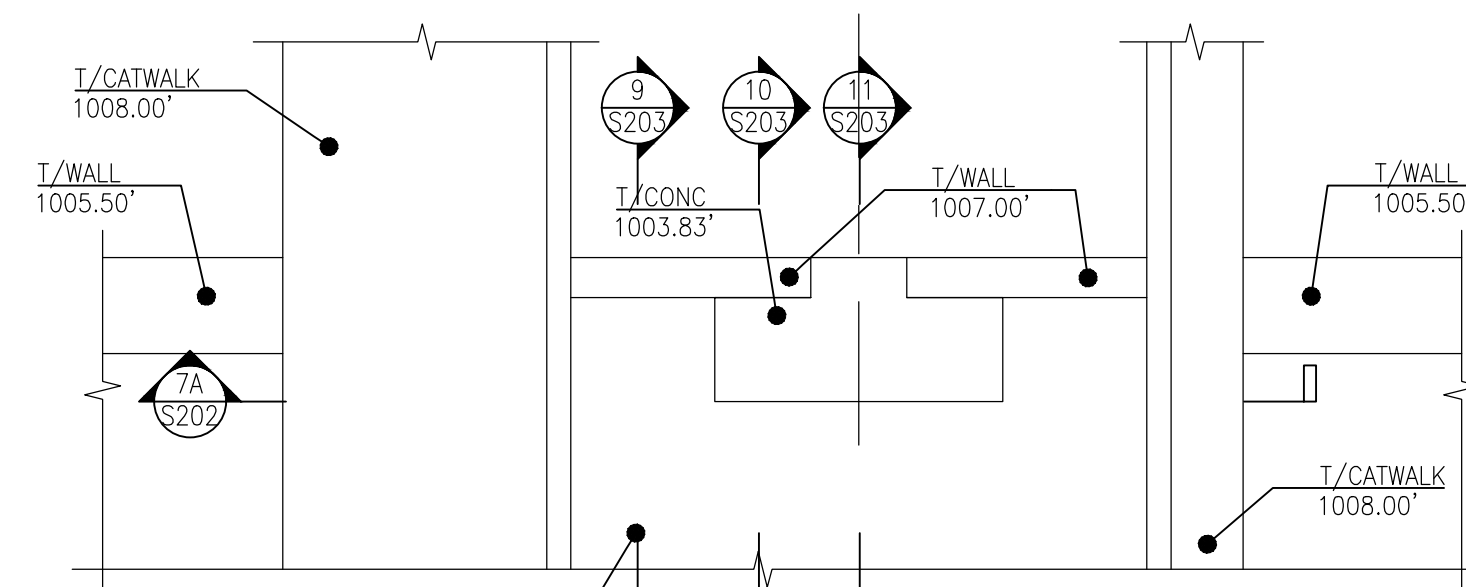
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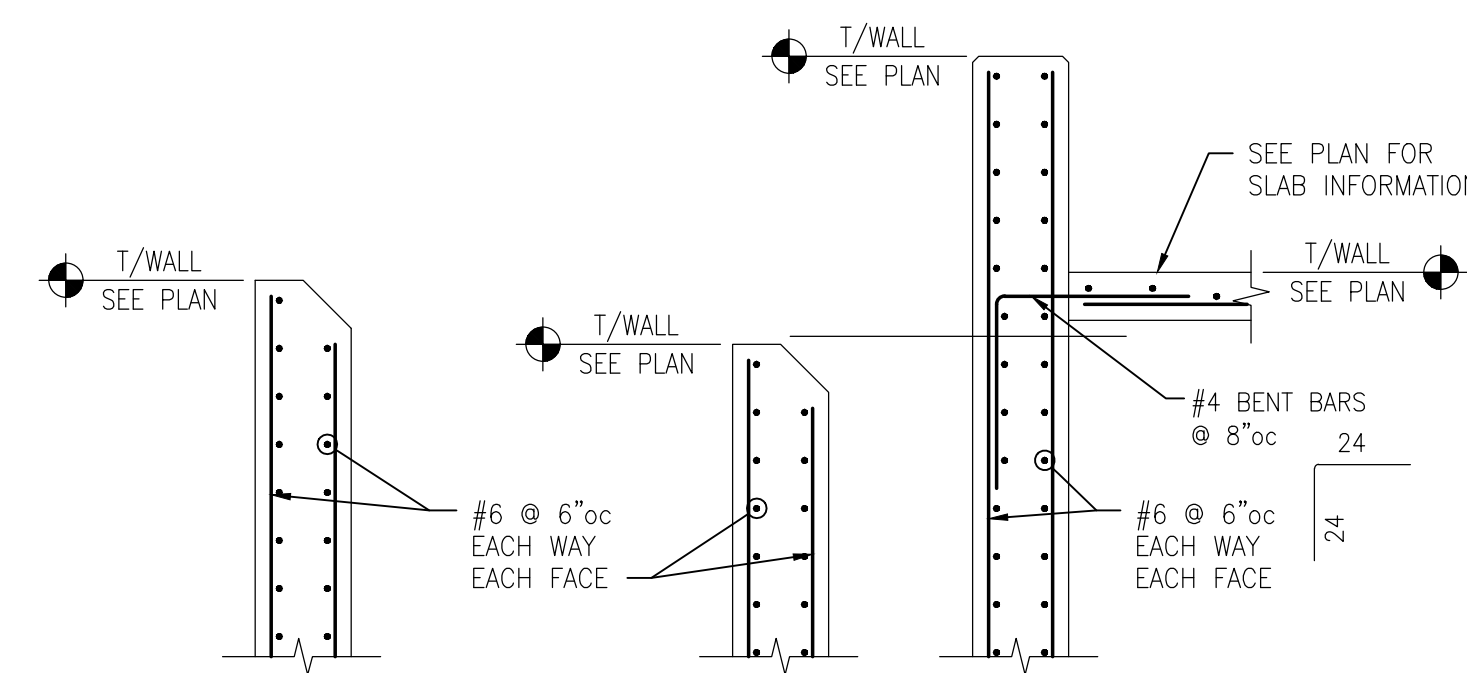
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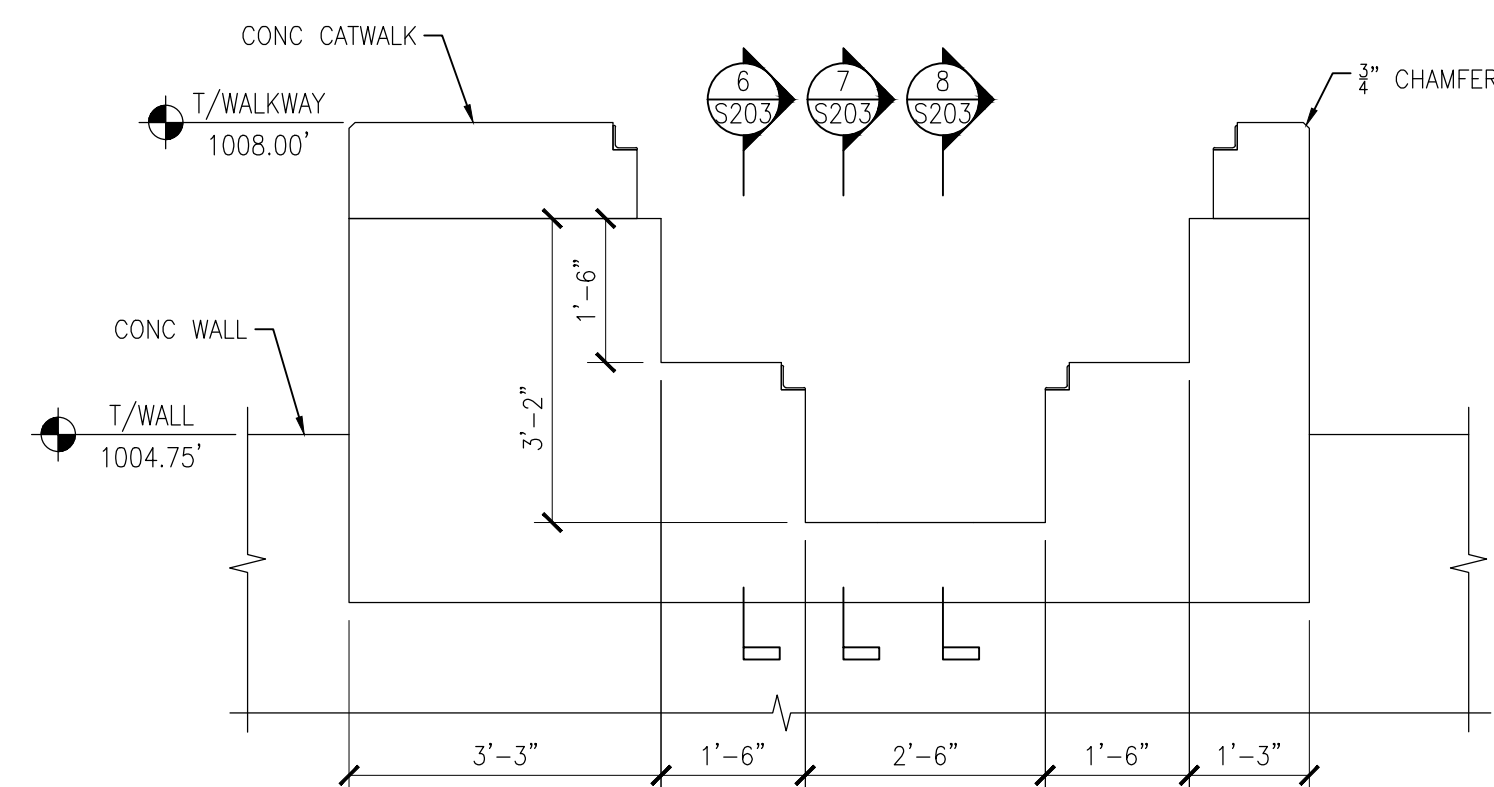
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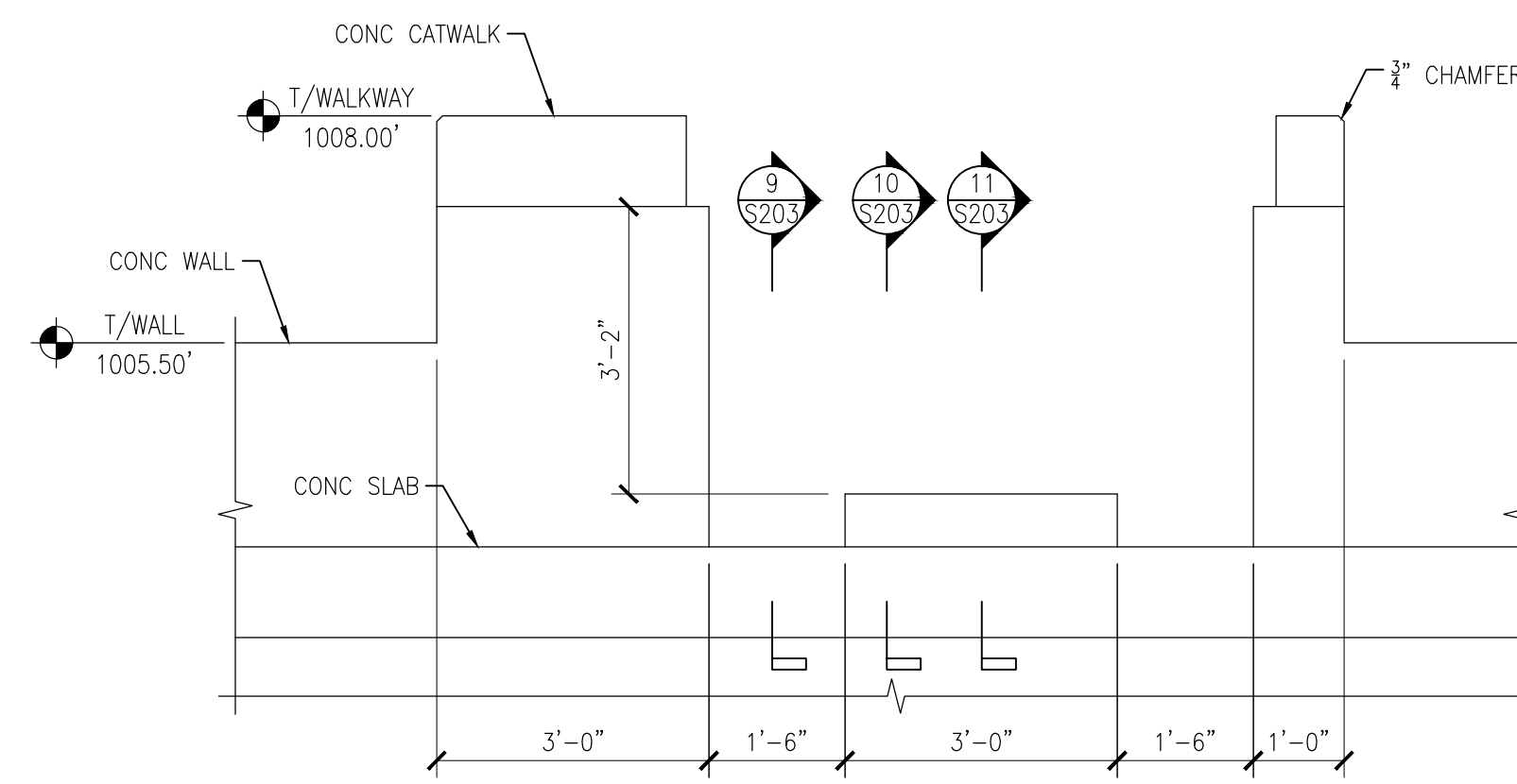
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SECTION 8  
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SECTION 6A  
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SECTION 7A  
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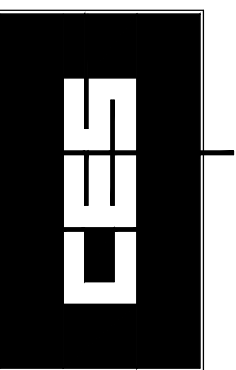
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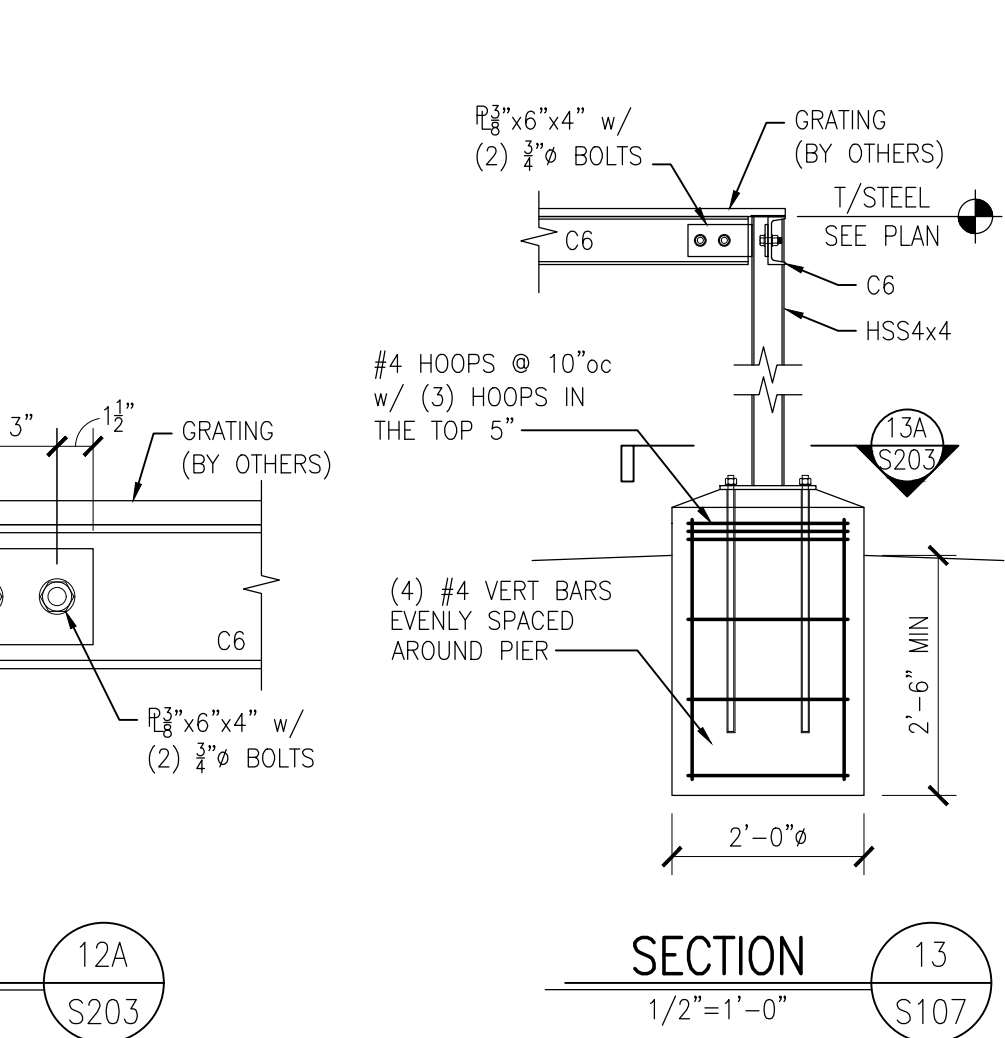
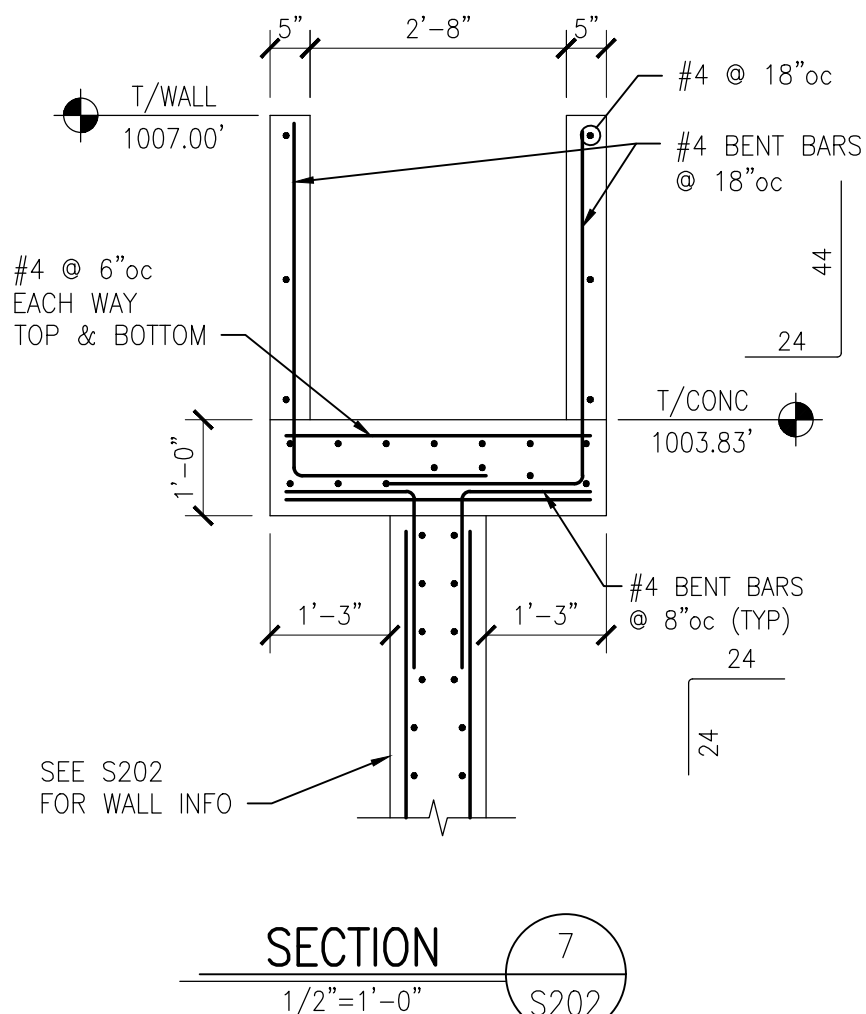
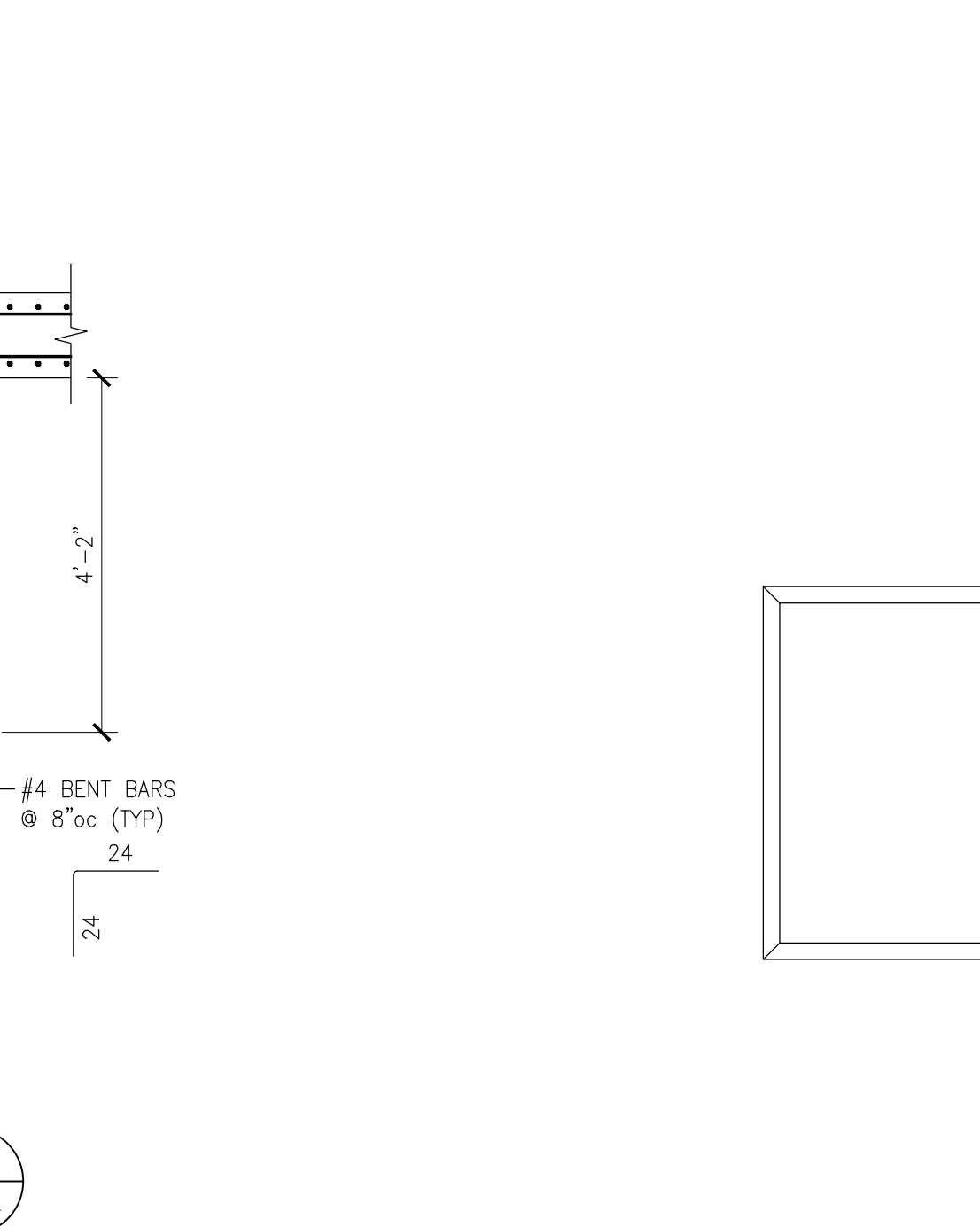
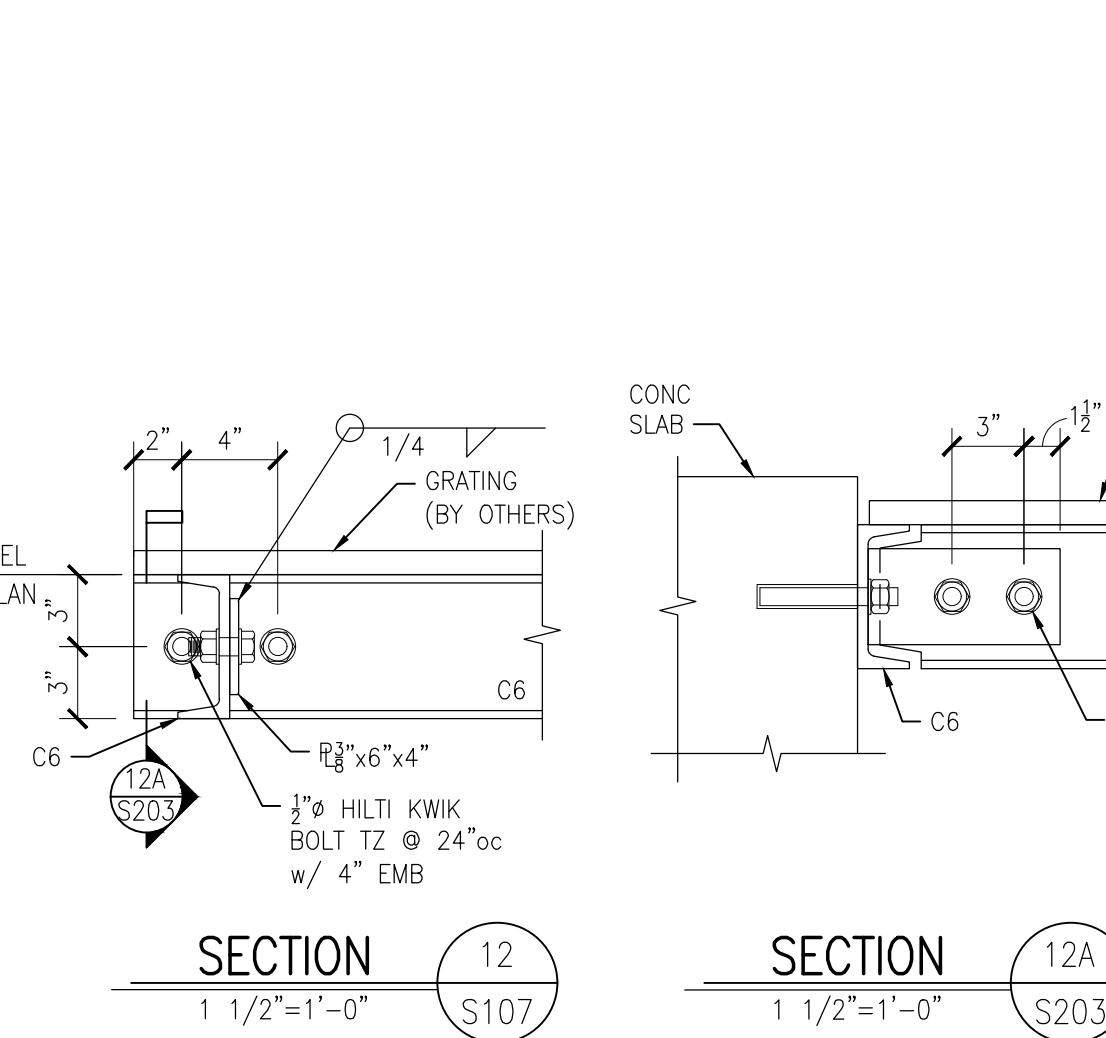
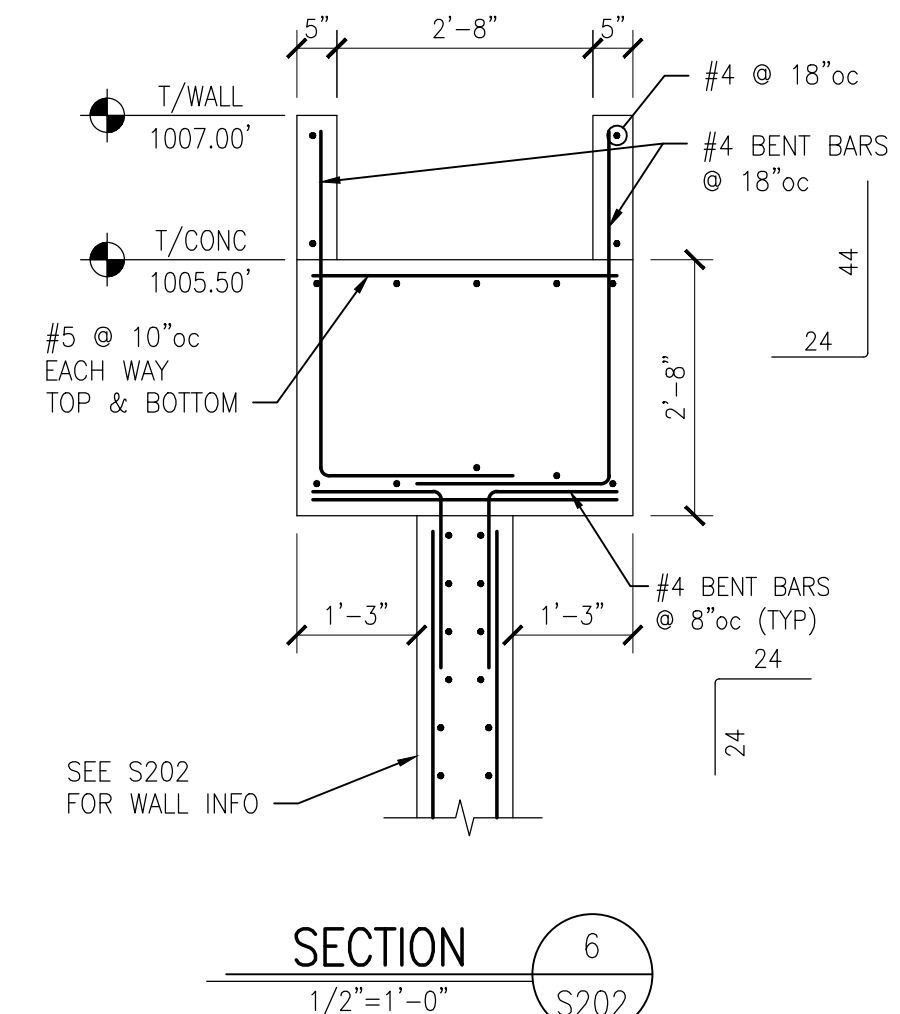
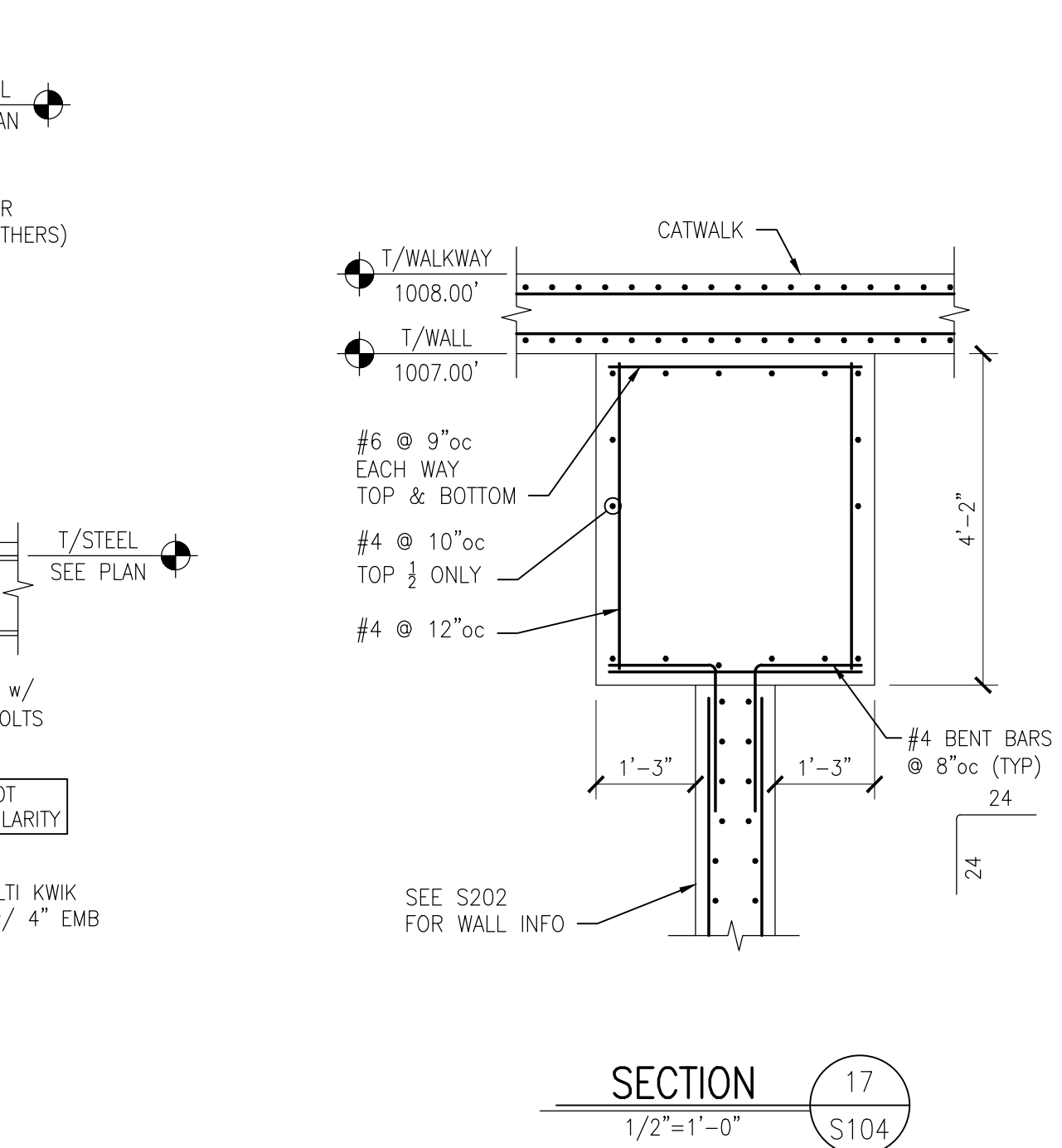
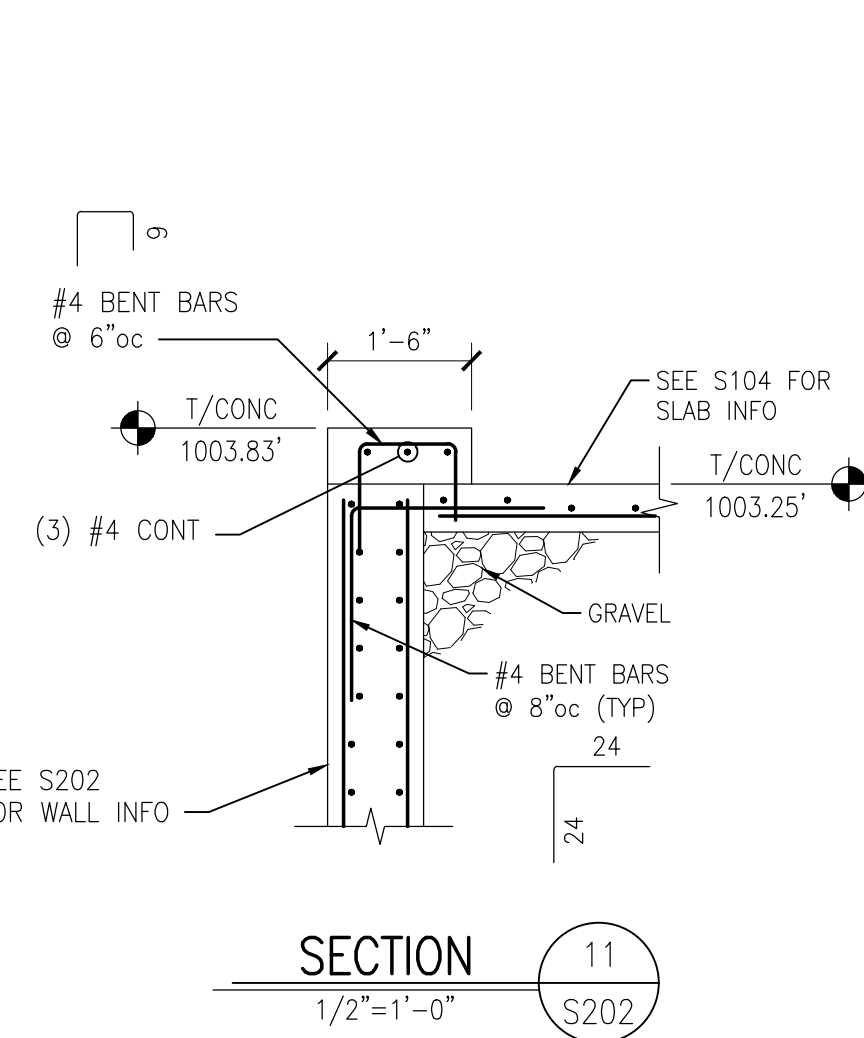
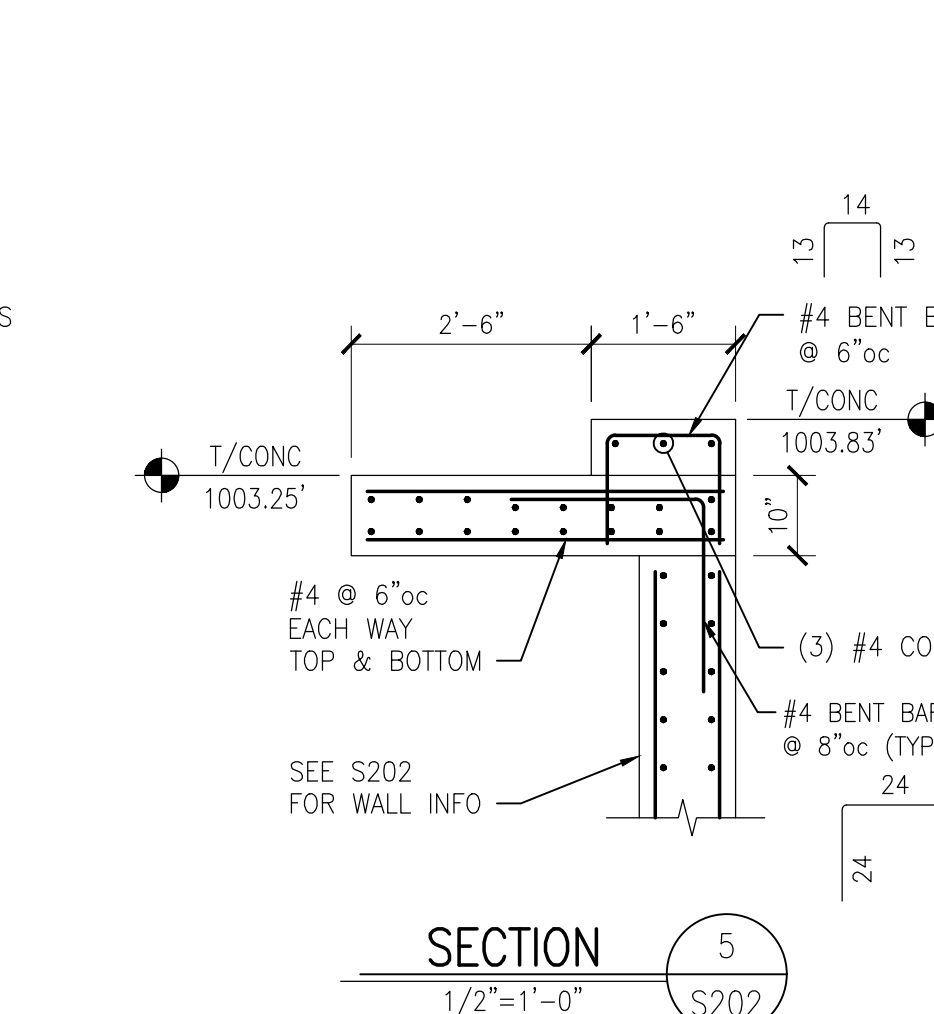
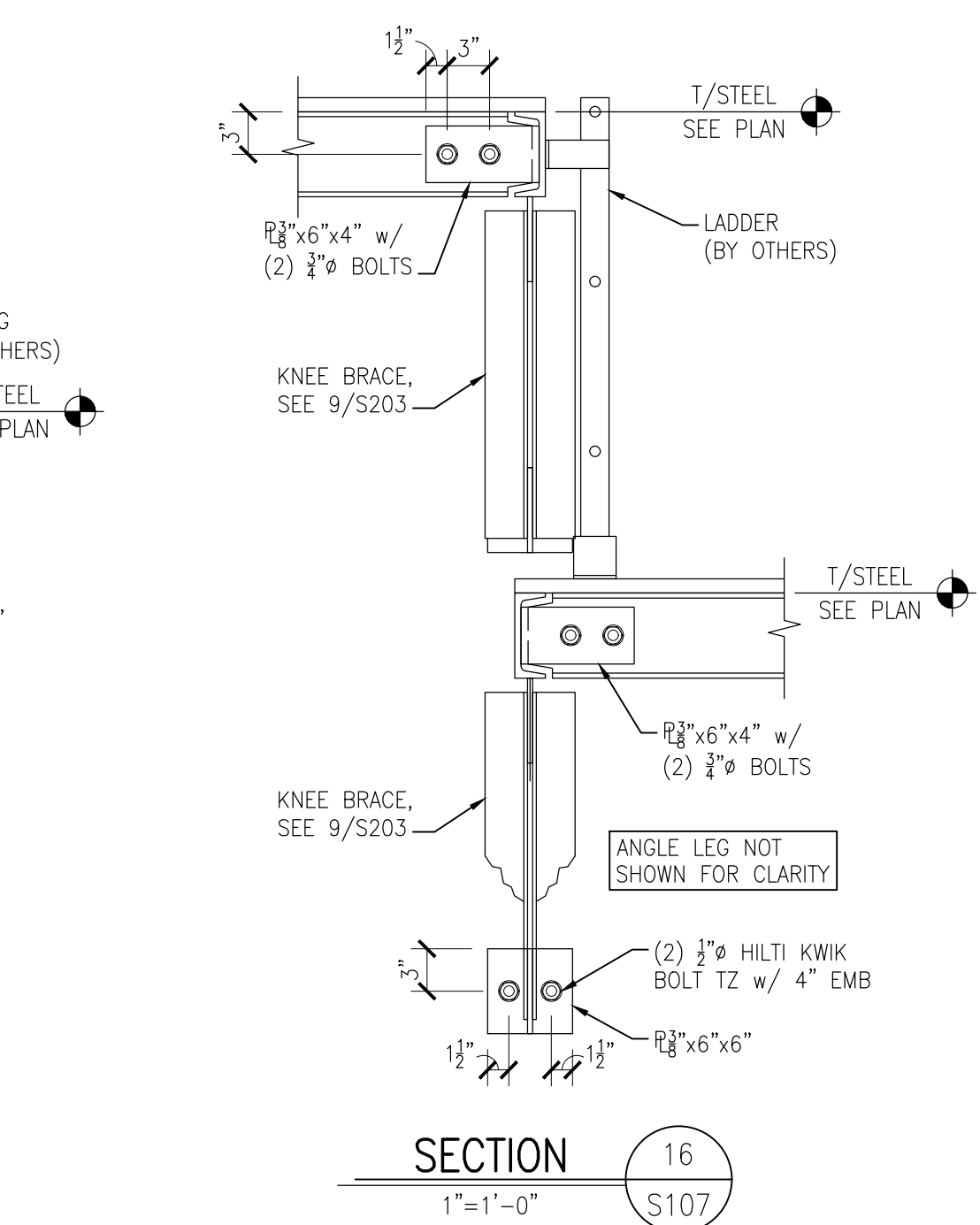
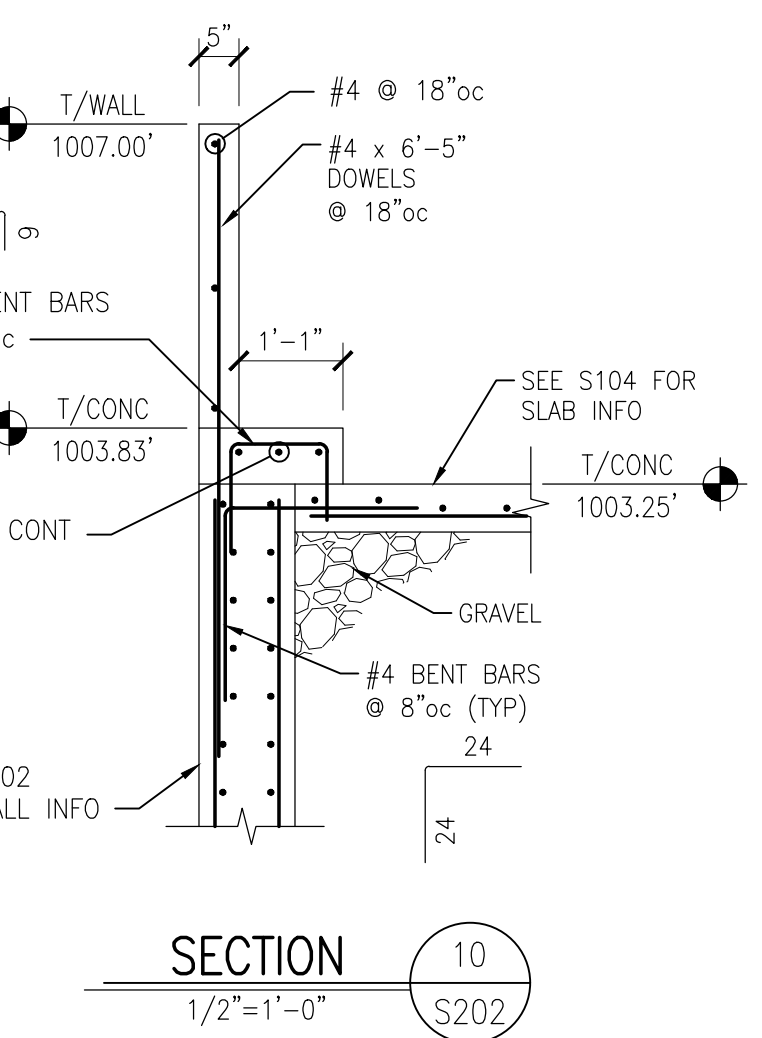
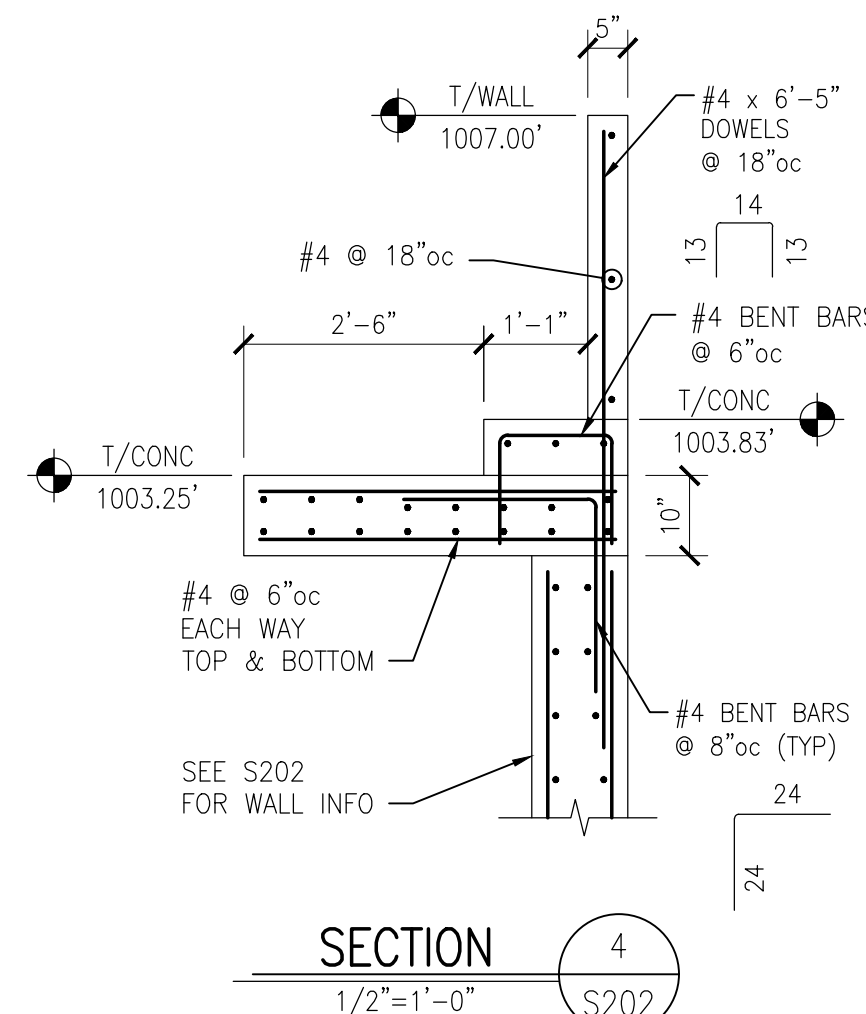
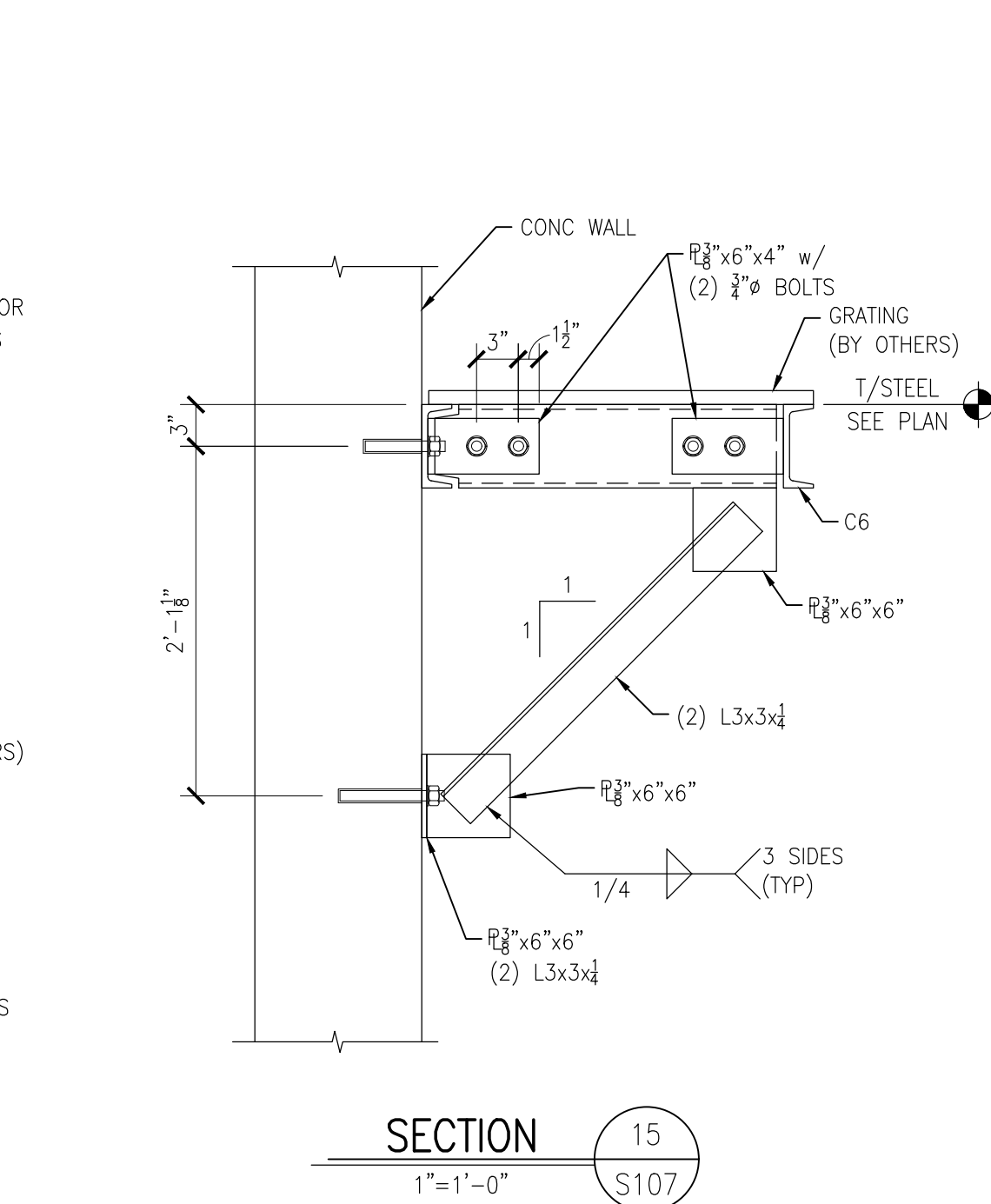
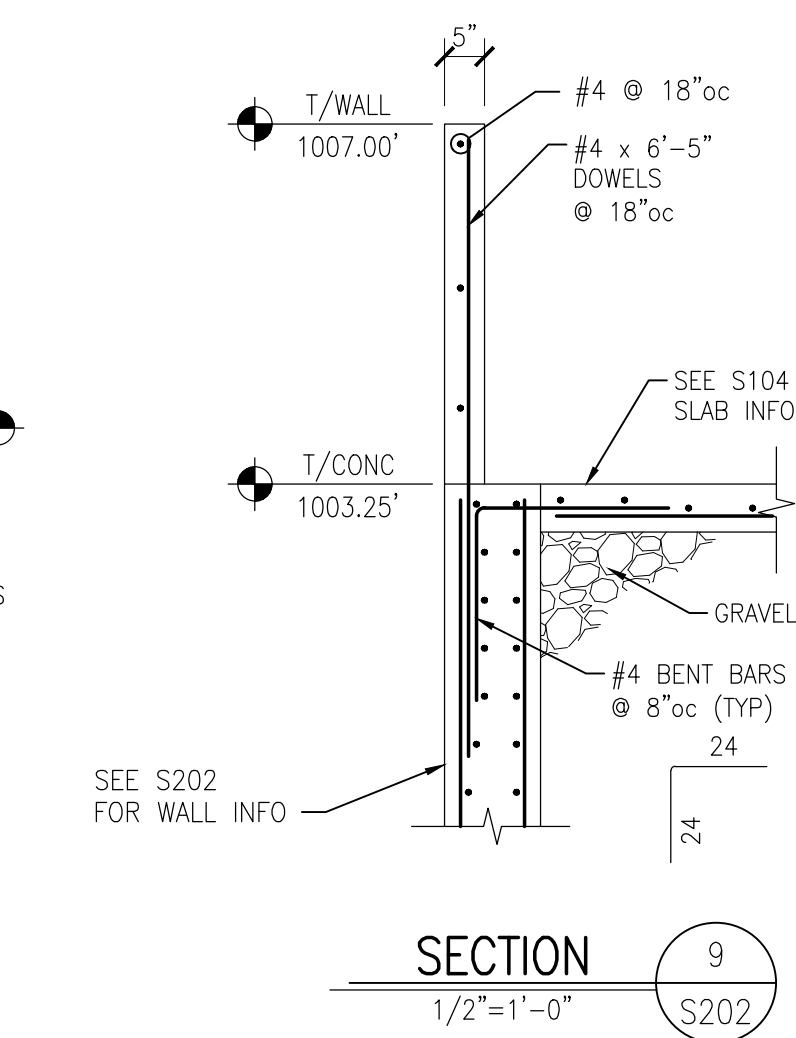
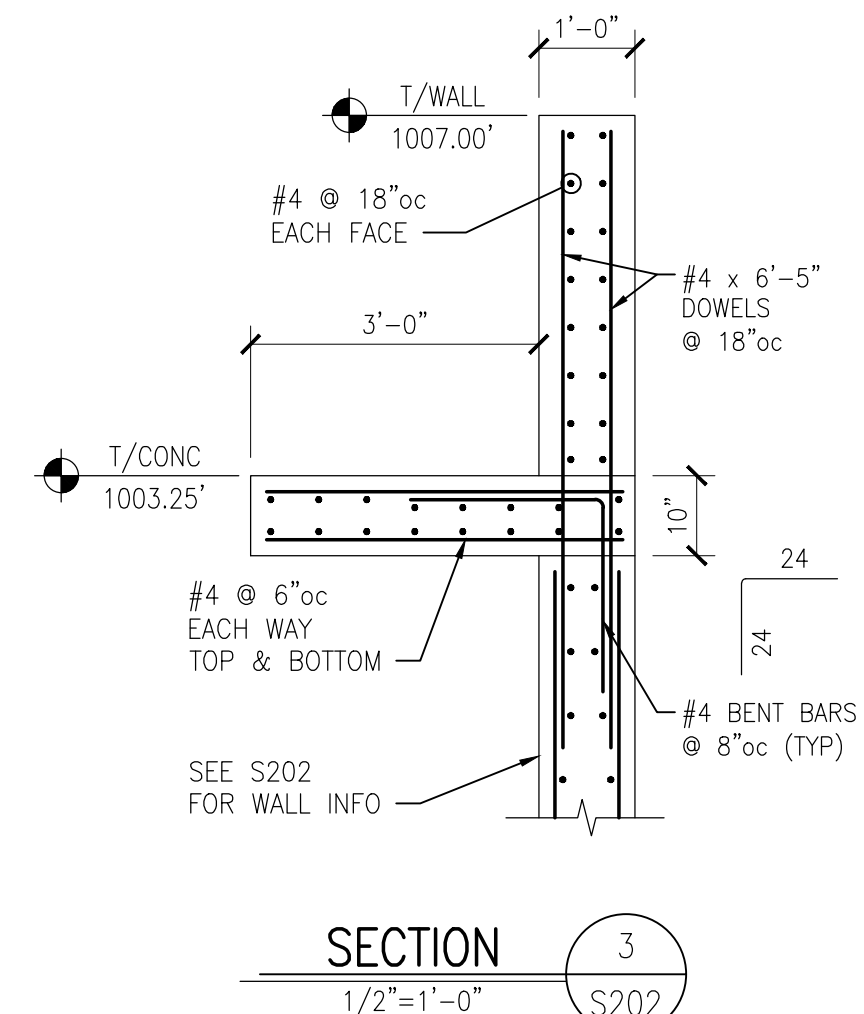
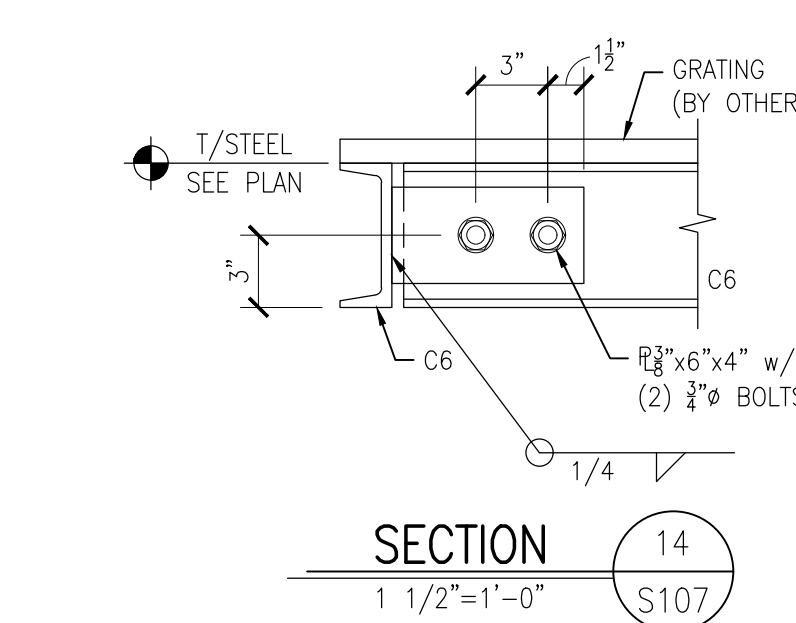
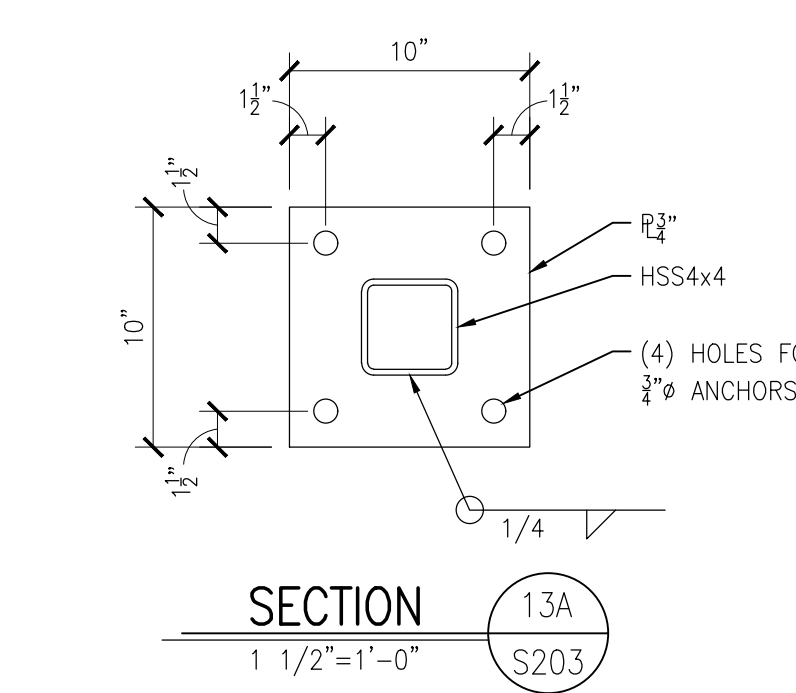
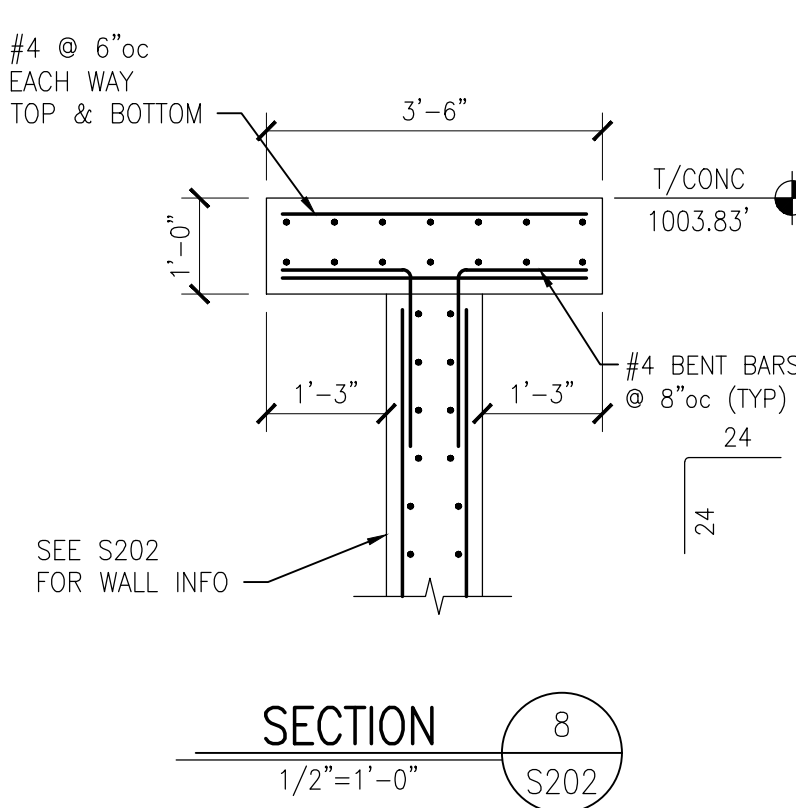
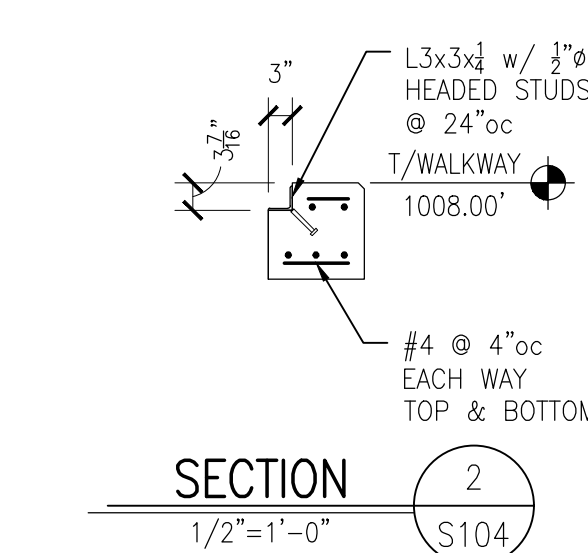
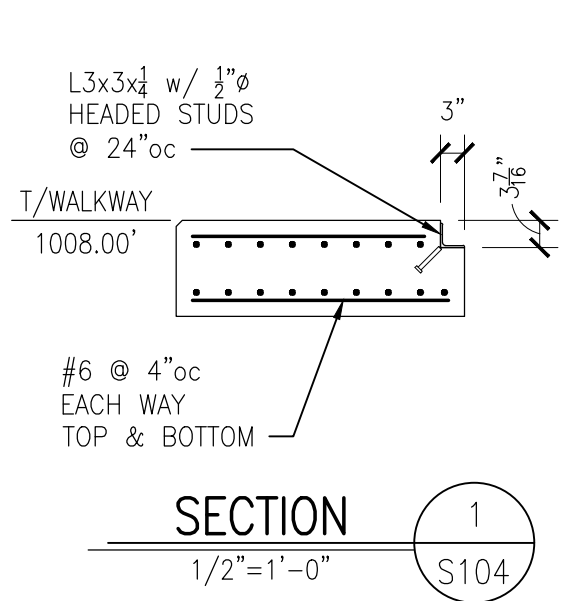
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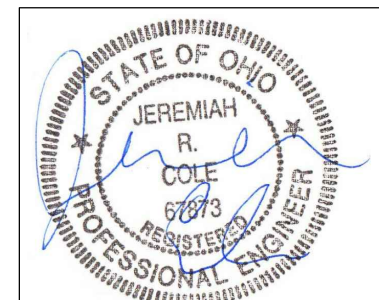
STRUCTURAL SECTIONS  
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LAKENGREN, OH

S202

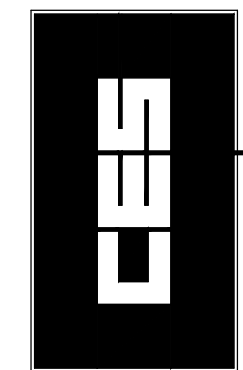


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S203



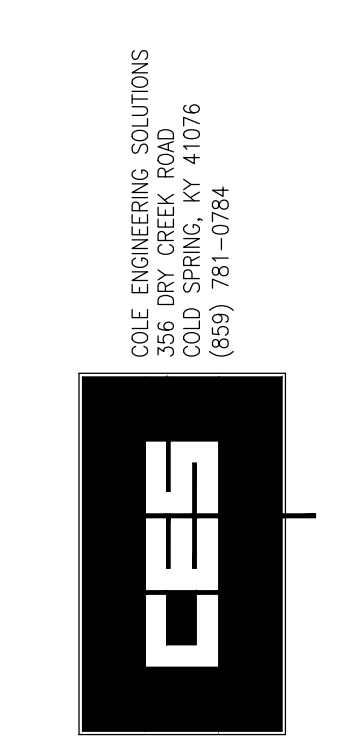
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Sheet No.	Project Title

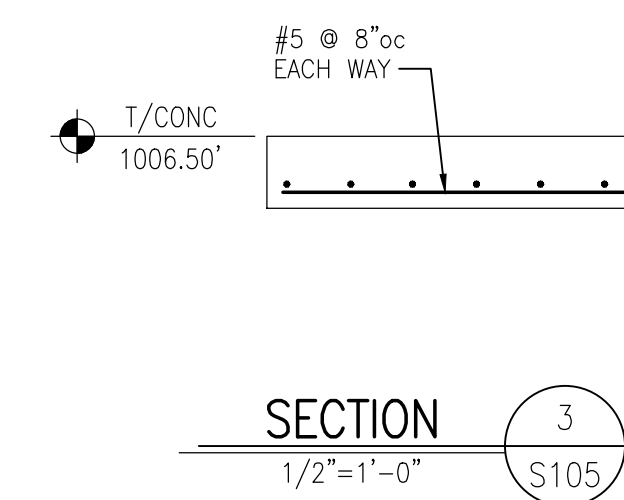
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S204

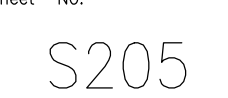
Date	09/05/18
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Dwg. File Name	201806.18.dwg

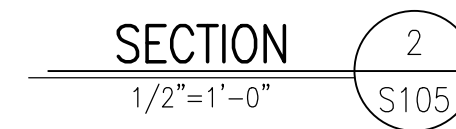
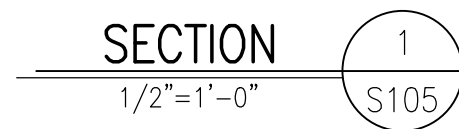




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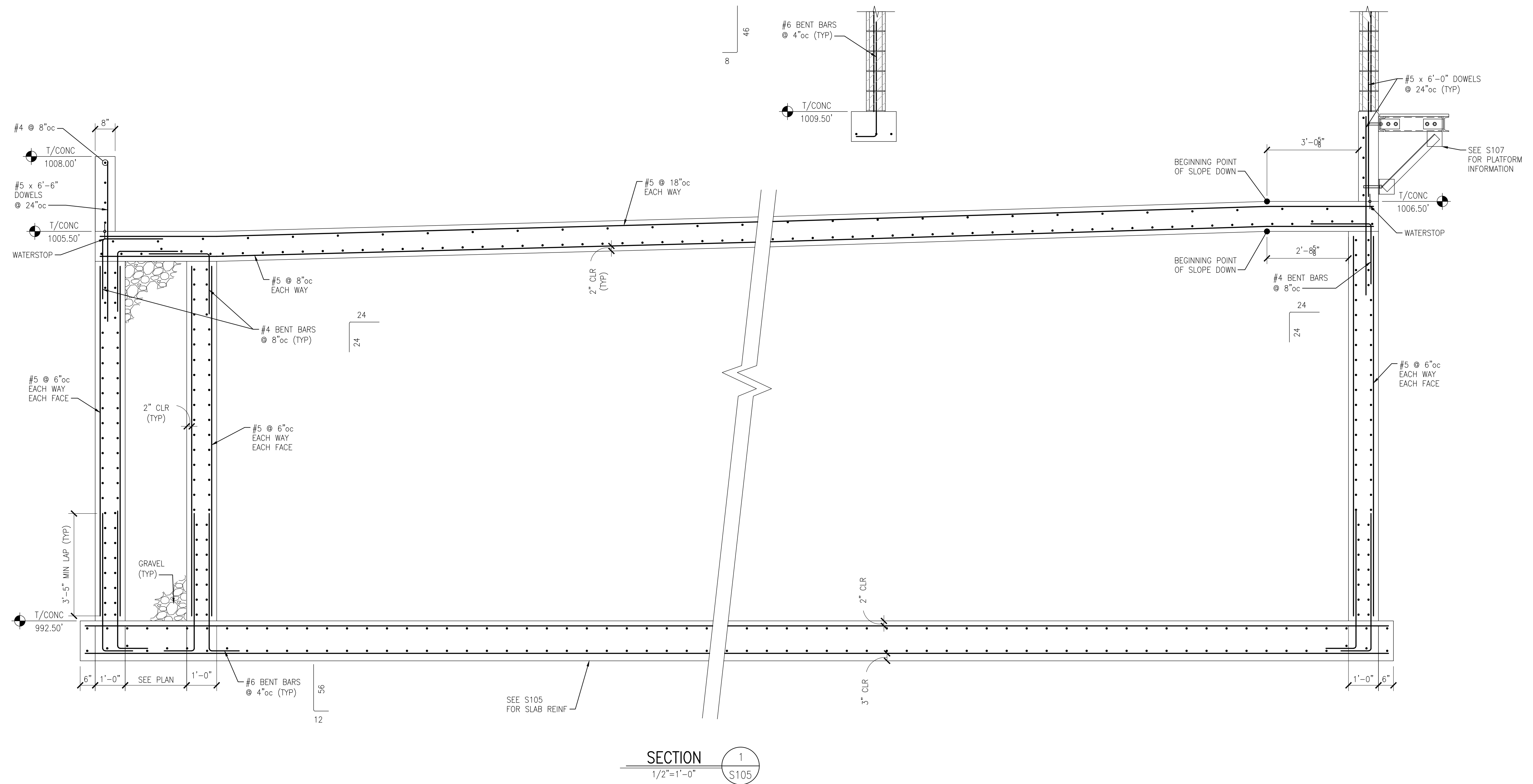


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206

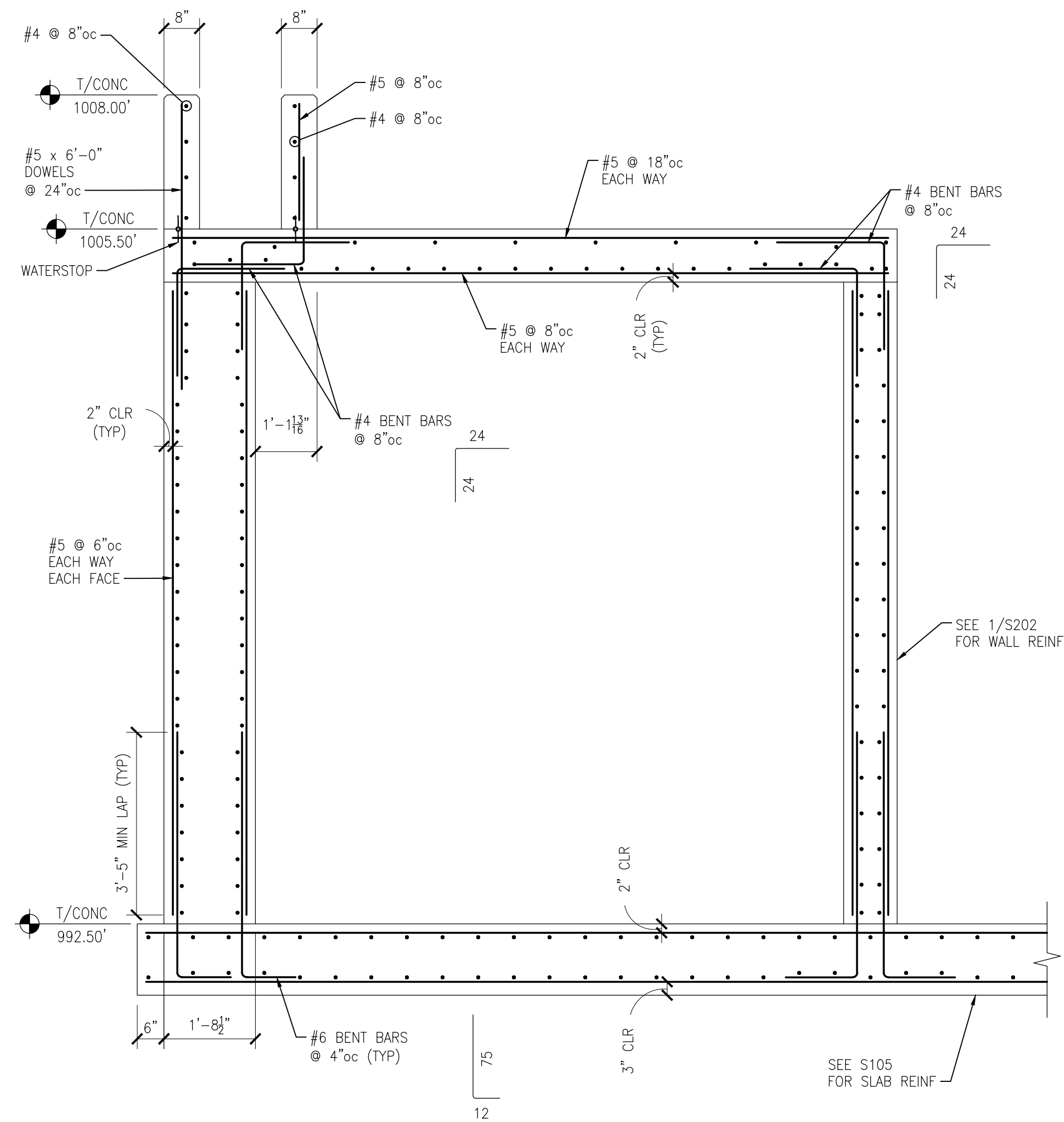


SECTION 1  
1/2"=1'-0" S105

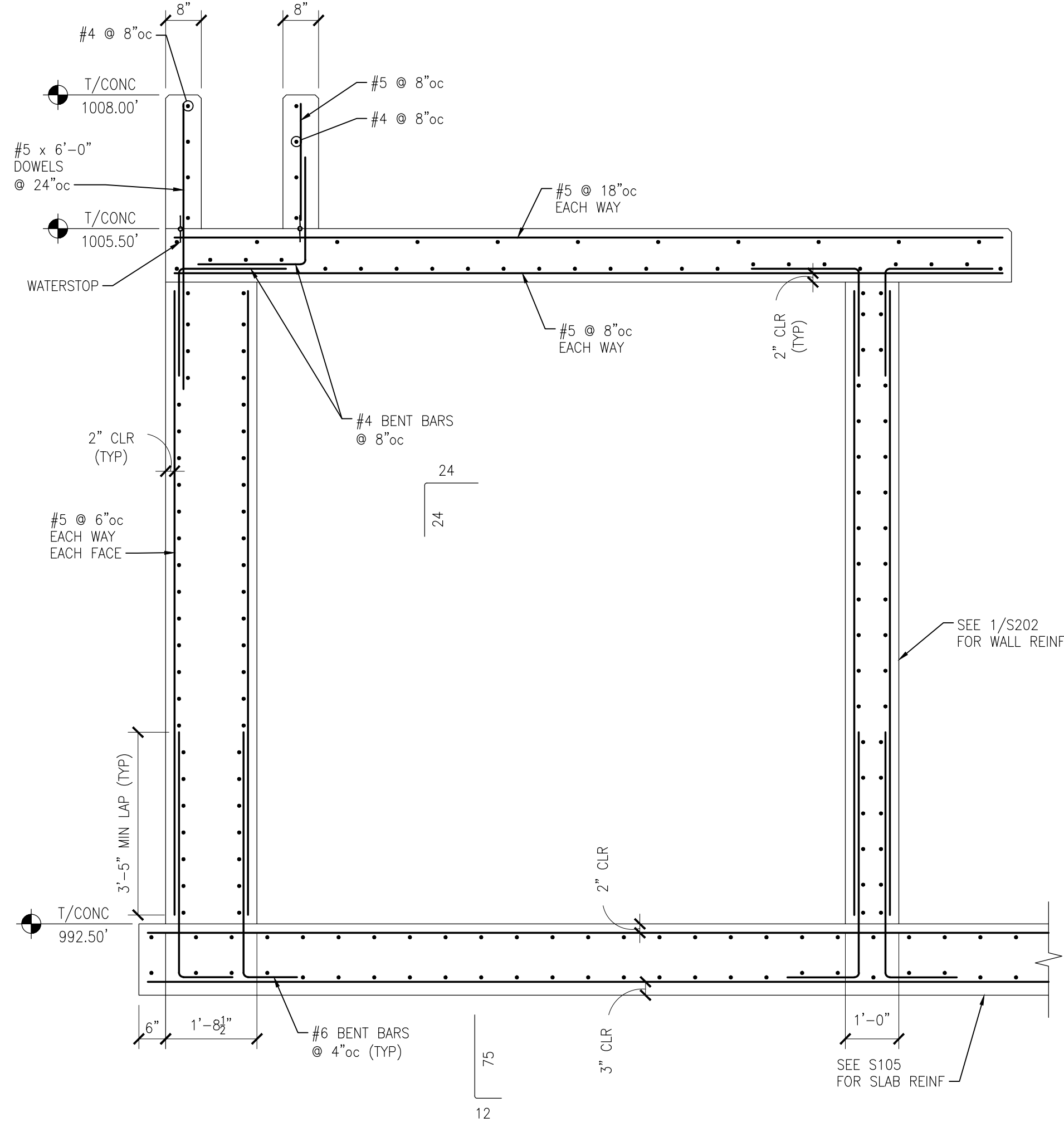
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Issue	Sheet No.
	S207



SECTION 1  
1/2"=1'-0"



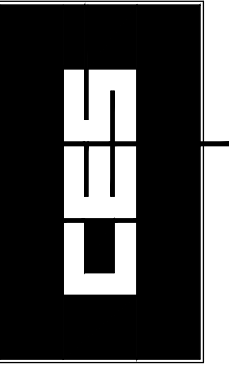
SECTION 2  
1/2"=1'-0"

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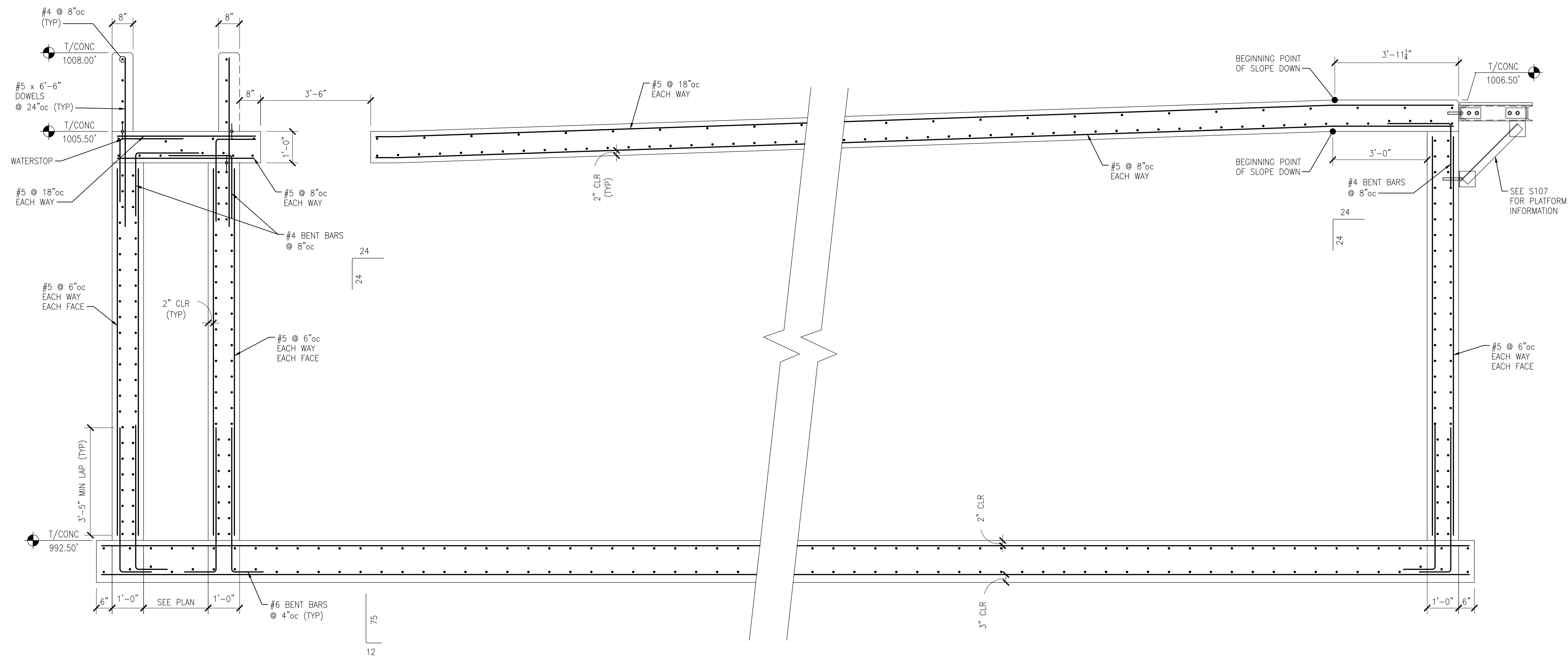
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S208

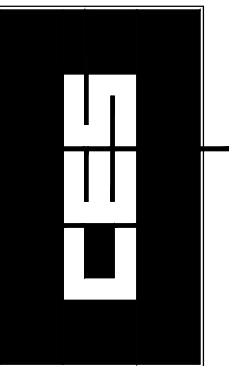


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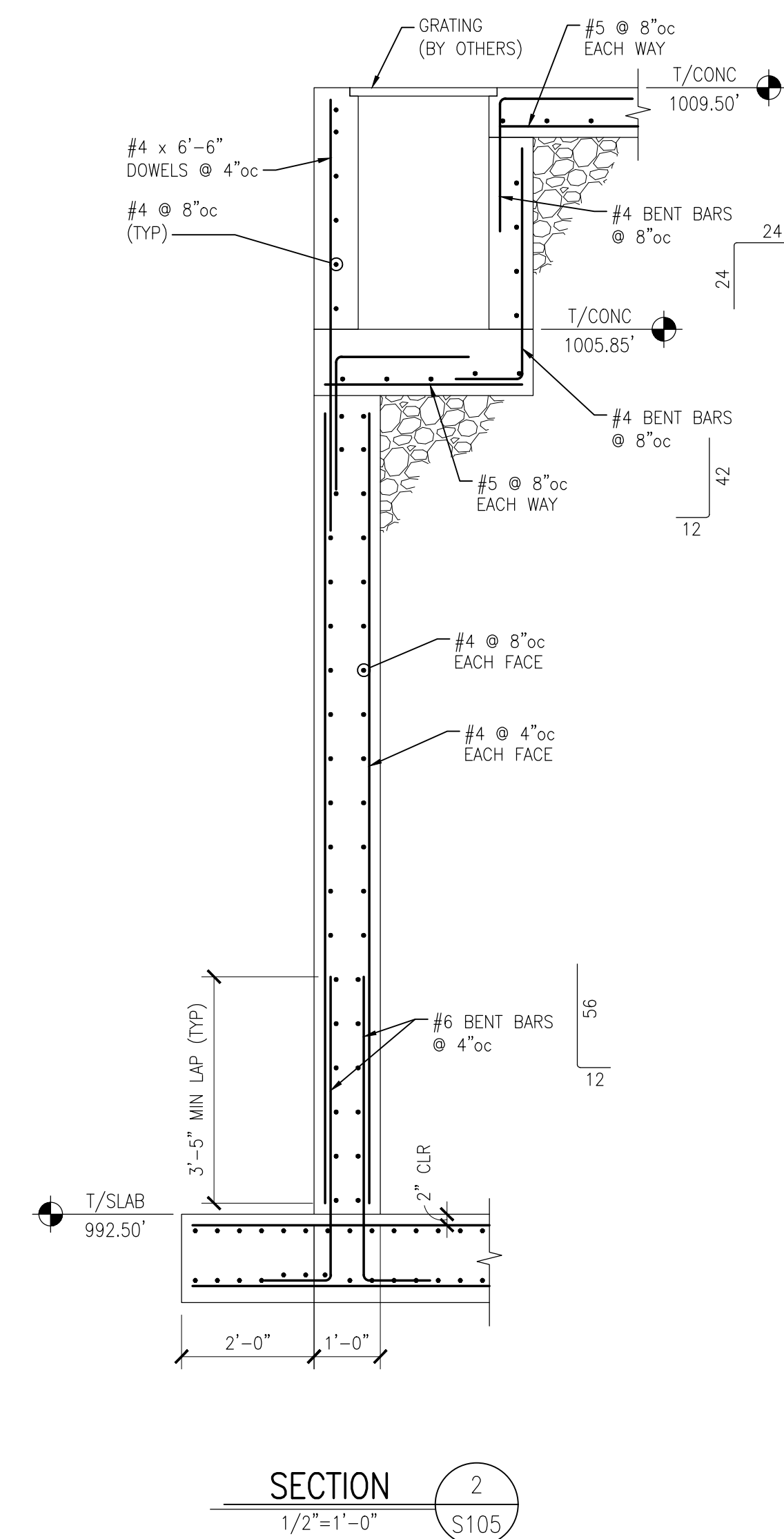
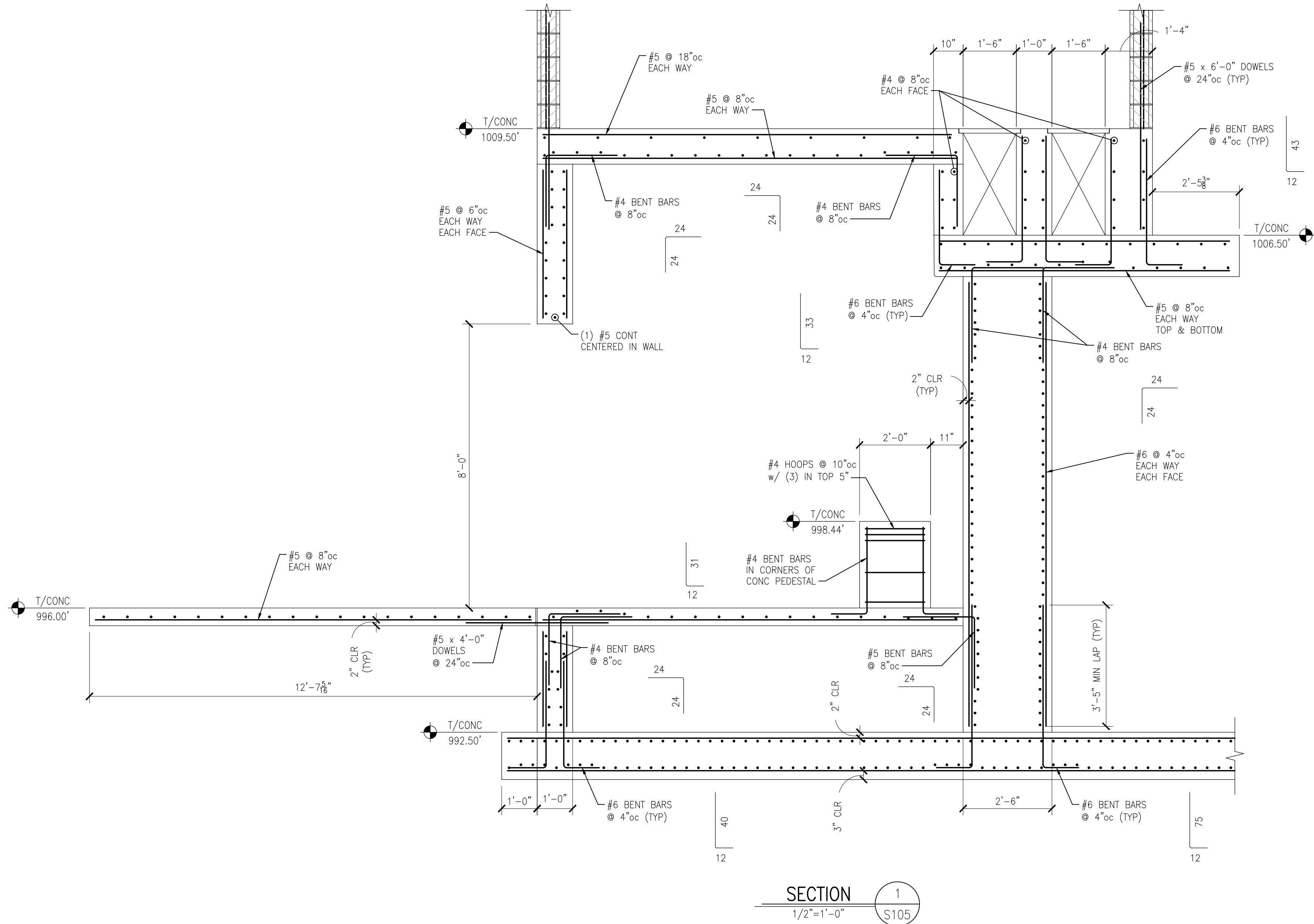
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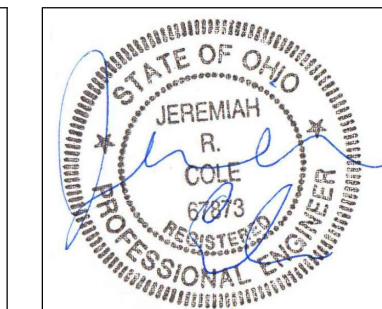
STRUCTURAL  
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LAKENGREN, OH

S209

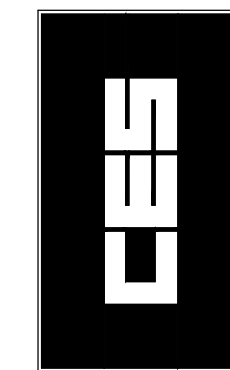


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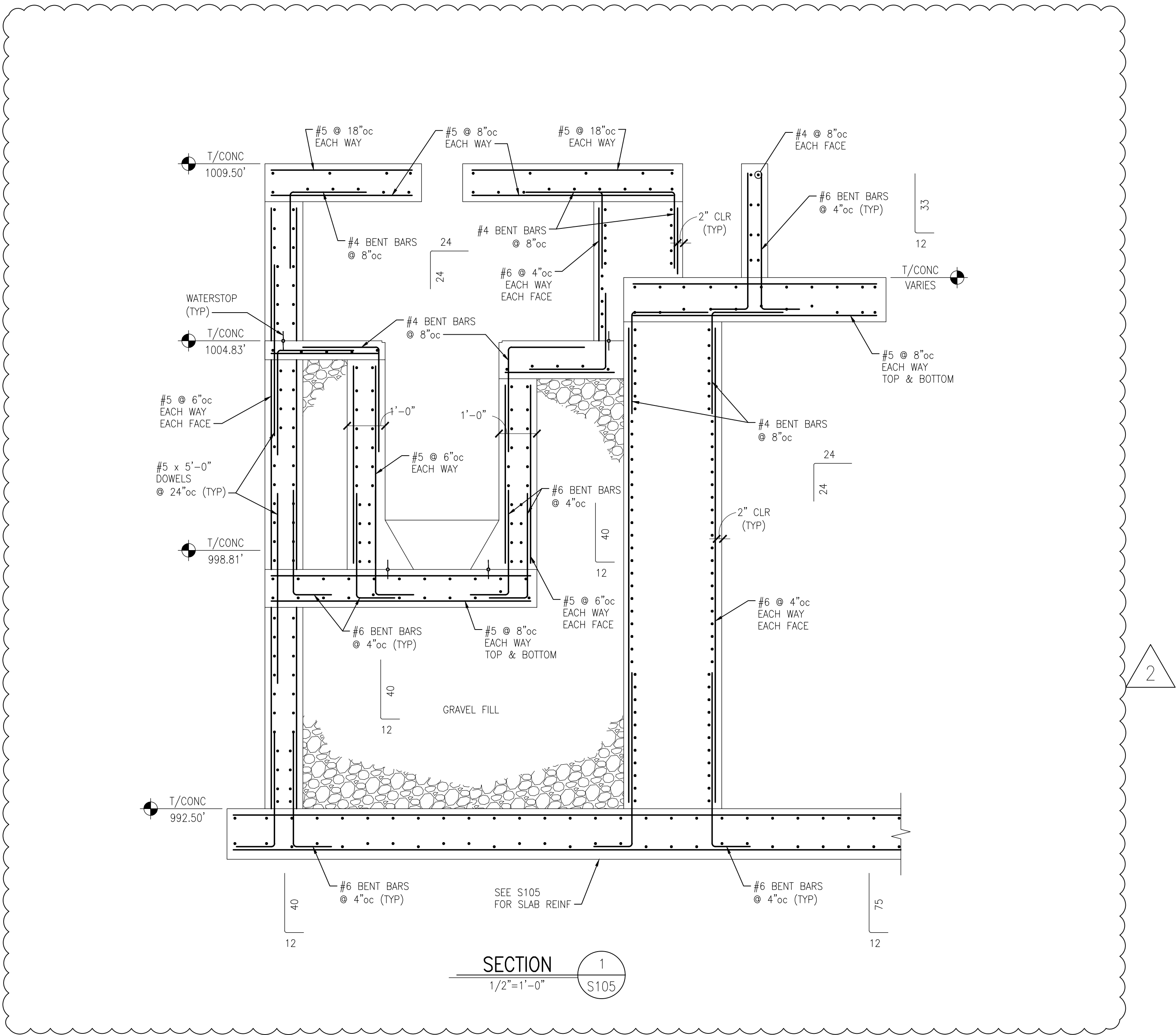
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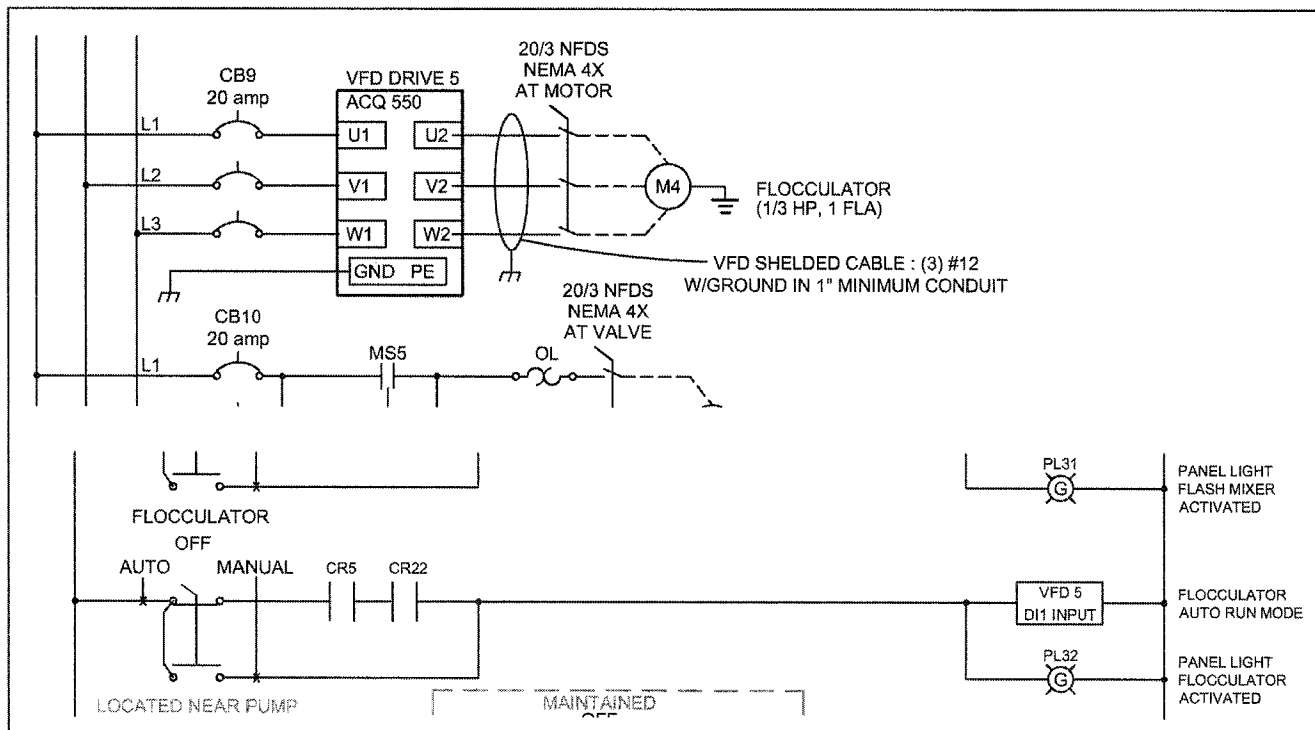
S210



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Sheet Title	Issue
Project Title	Sheet No.
S211	



## SNAPSHOT OF MODIFIED RAS / CLARIFIER CONTROL PANEL LADDER LOGIC NOT TO SCALE

### NOTES:

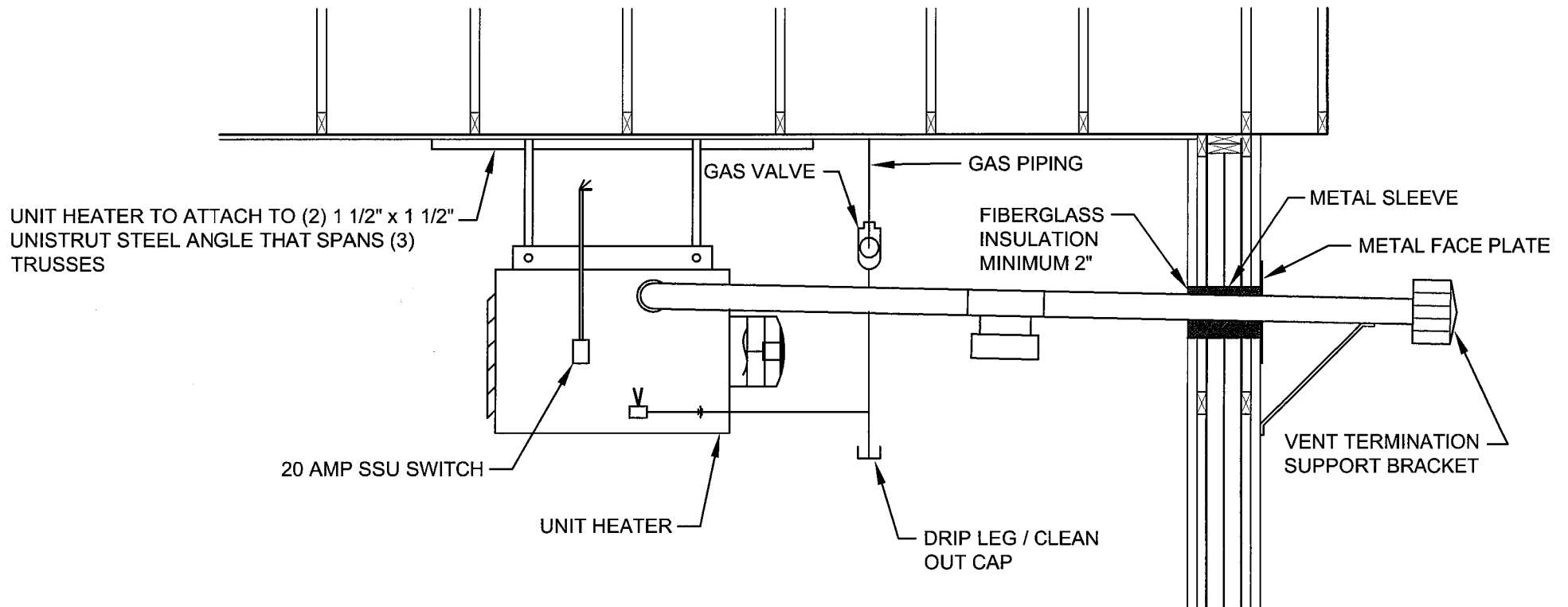
1. THE LADDER LOGIC IS GENERAL IN NATURE.
2. PANEL BUILDER SHALL SUBMIT PROPOSED PANEL LAYOUTS TO THE ENGINEER FOR REVIEW.
3. PANEL BUILDER TO REFER TO SPECIFICATIONS FOR PANELS, SOME OF THE MAJOR COMPONENTS FOR THIS PROJECT ARE STANDARDIZED.
4. ALL PANEL ARE TO MEET NEC, LOCAL, STATE AND FEDERAL ELECTRICAL CODES.
5. NOT ALL PANEL SUB-COMPONENTS ARE SHOWN ON DRAWINGS BUT ARE LISTED IN THE SPECIFICATIONS.
6. ALL UNDERGROUND CONDUIT TO BE PVC SIZED AS SHOWN. ALL ABOVE GROUND EXTERIOR CONDUIT TO BE ALUMINUM SIZED AS SHOWN AND NOT TO CONTACT CONCRETE TANKS. ALL EXTERIOR UNISTRUT AND CONNECTORS TO BE 316 STAINLESS STEEL.
7. THE PROPOSED FLOCCULATOR VFD MAY BE WALL MOUNTED TO SAVE ROOM IN THE RAS/WAS CONTROL PANEL. LOCATE NEAR CHEMICAL FEED PUMP.

**Mote & Associates**  
Engineering, Land Surveying

214 W. Fourth St., Greenville, OH 45331 937.548.7511 www.moteassociates.com

ADDENDUM 2  
EXHIBIT - "A"

# Exhibit B

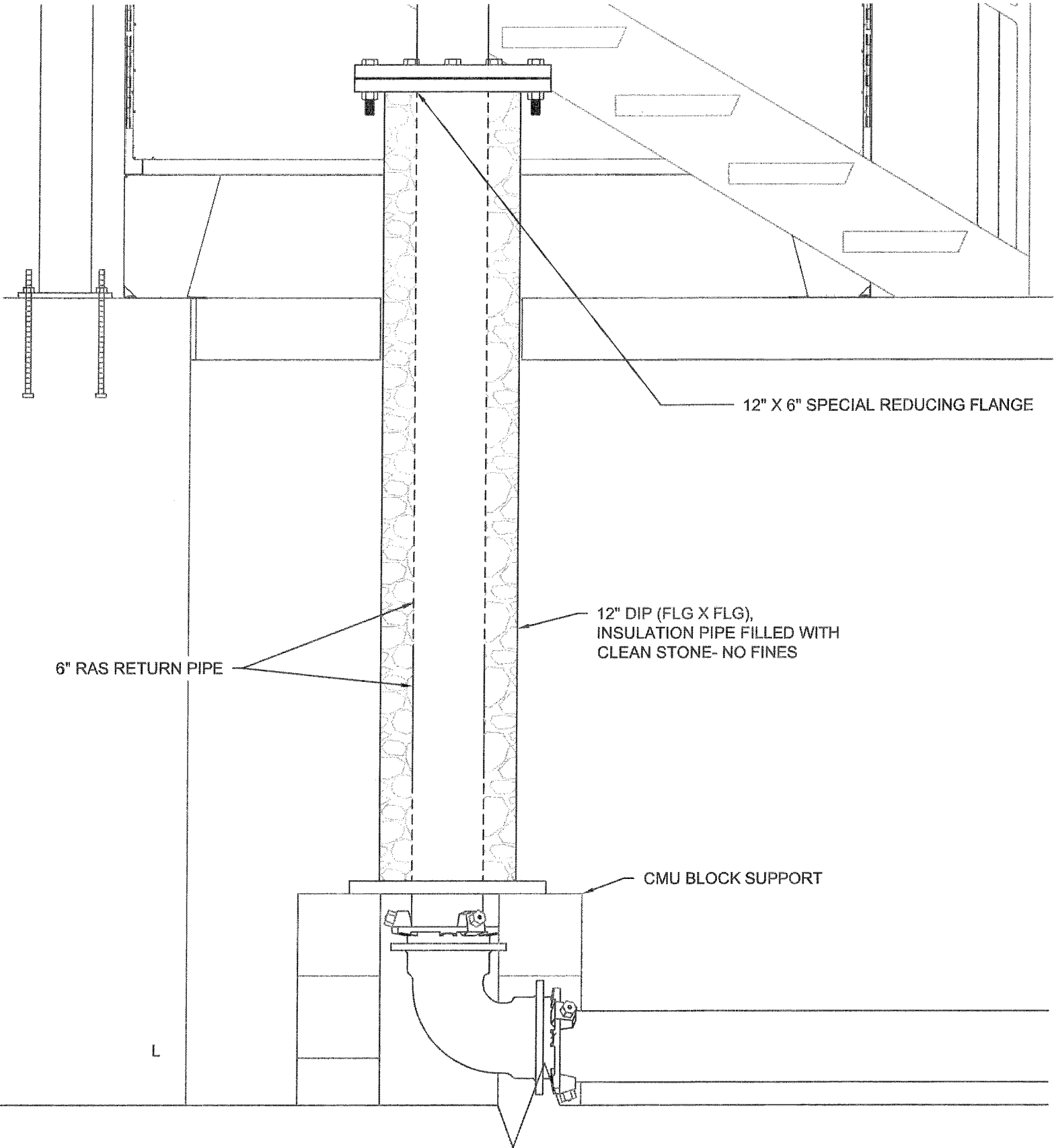


## HANGING UNIT HEATER DETAIL

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

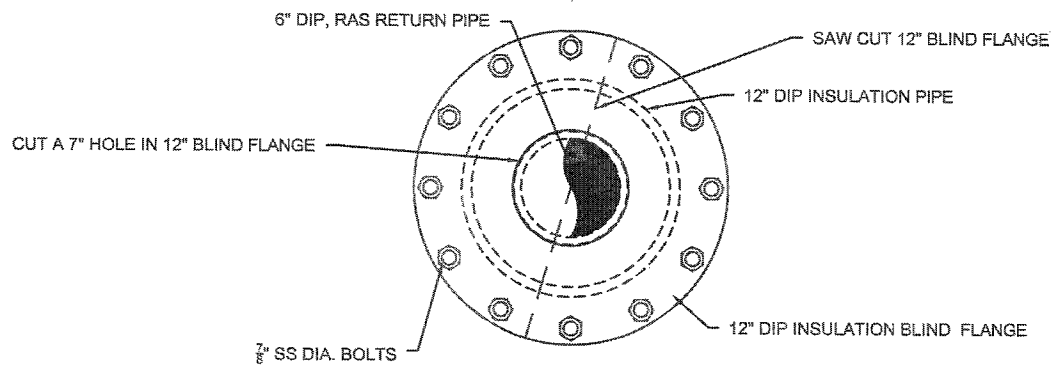
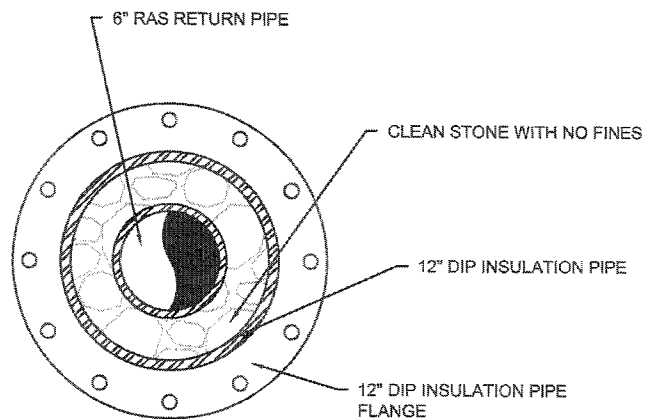
## SLUDGE PRESS BUILDING STRUCTURAL DESIGN DATA

TRUSS LOAD DATA:	
TOP CHORD LIVE LOAD:	25.0 PSF
TOP CHORD DEAD LOAD:	10.0 PSF
BOTTOM CHORD DEAD LOAD:	10.0 PSF
TOTAL UNIFORM LOAD:	45.0 PSF
DEAD LOAD DATA:	
ROOF DEAD LOAD:	10.0 PSF
LIVE LOAD DATA:	
FLOOR LIVE LOAD:	250.0 PSF
ROOF LIVE LOAD:	20.0 PSF
ROOF SNOW LOAD DATA:	
GROUND SNOW LOAD ( $P_g$ ):	25 PSF
FLAT ROOF SNOW LOAD:	17.5 PFS
EXPOSURE FACTOR ( $C_e$ ):	0.7
IMPORTANCE FACTOR ( $I$ ):	1.0
WIND LOAD DATA:	
ULTIMATE WIND SPEED (3 SECOND GUST):	115 MPH
WIND IMPORTANCE FACTOR ( $I$ ):	1.00
WIND EXPOSURE CATEGORY:	B
SEISMIC LOAD DATA:	
EXPOSURE GROUP:	GROUP 1
0.2 SECOND SPECTRAL RESPONSE ACCELERATION ( $S_s$ ):	15
1 SECOND SPECTRAL RESPONSE ACCELERATION ( $S_1$ ):	8



TYPICAL PIPING CLADDING DETAIL

## Exhibit D-2



SPECIAL REDUCING FLANGE DETAIL

### NOTES ON SPECIAL REDUCING FLANGE:

- 1- SAW CUT THE 12" BLIND FLANGE CREATING 2 PIECE FLANGE TO ALLOW 6" RAS RETURN PIPE TO FIT THROUGH.
- 2- FABRICATION WORK SHALL BE PERFORMED IN A MACHINE SHOP.
- 3- INSULATION STONE SHALL CONTAIN NO FINES.
- 4- 12" INSULATION PIPE SHALL BE AT LEAST 42" BELOW THE GROUND SURFACE (FROST DEPTH).
- 5- 7" HOLE IN BLIND FLANGE PROVIDES 0.1" CLEARANCE FOR 6" (6.90" OD) RAS PIPE TO FIT THROUGH