

 <b>FORCUM LANNOM</b> CONTRACTORS, LLC	Project:	2114TN
	Initial Issue Date:	<b>11/08/2021</b>
	Revision Date:	
	Page:	1 of 3
<b>AITX – ADDENDUM 1</b>		

**ATTACHMENTS:**

Flow Test

DRAWING NO.	DESCRIPTION OF CHANGES
-------------	------------------------

**CIVIL**

- |       |                                                                                   |
|-------|-----------------------------------------------------------------------------------|
| C1.4  | Revised Note - Ex. water line to be abandoned                                     |
| C2.0  | Added scale bar                                                                   |
| C2.3  | Scale note changed to 1"=60'; Added scale bar                                     |
| C3.0  | Added scale bar                                                                   |
| C3.4  | Scale note changed to 1"=100'; Added scale bar                                    |
| C3.5  | Changed scale bar to 20 scale                                                     |
| C3.6  | Changed scale bar to 20 scale                                                     |
| C3.7  | Changed scale bar to 20 scale                                                     |
| C3.8  | Changed scale bar to 20 scale                                                     |
| C3.9  | Changed scale bar to 20 scale                                                     |
| C3.10 | Changed scale bar to 20 scale                                                     |
| C3.11 | Changed scale bar to 20 scale                                                     |
| C5.0  | Added scale bar                                                                   |
| C5.1  | Added scale bar                                                                   |
| C5.2  | Added scale bar                                                                   |
| C5.3  | Added scale bar                                                                   |
| C5.4  | Added scale bar                                                                   |
| UG1.0 | Added hydrant flow test information; Re-configure domestic and fire water piping. |
| UG2.0 | Water meter vault removed in its entirety                                         |

**STRUCTURAL**

- |       |                                                                                                       |
|-------|-------------------------------------------------------------------------------------------------------|
| S0.1B | Revised note 3100.02 to include 3,000 PSI mix.                                                        |
| S0.1R | Revised note 3100.02 to include 3,000 PSI mix; Added section 12                                       |
| S1.1R | Added section 12/S0.1R to interior rail foundation; Added section 9/S0.1R to exterior rail foundation |
| S3.1B | Changed note on section 7 to read "1/2 plate"                                                         |

**050000 – METALS**

- Are the 1.5" pipe operable lock gates at platforms to be provided within this scope? **Yes**
- Section 8/S1.4B shows 1" grating at trench. All other trenches have plate covers. Is this supposed to be 1" plate or grating as drawn? **All cover plates or grating will be provided by equipment vendor for interior blast area**

**083323 – OVERHEAD DOORS**

- All overhead doors to have motor operators.**

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	Page:	2 of 3
<b>AITX – ADDENDUM 1</b>		

### **210000 – FIRE PROTECTION**

- Has a preliminary water flow test been done to determine supply? **See attachment for test locations and flow rates. Static: 55 psi; Residual: 48 psi.**
- Will a fire pump be required? **Only if required based on the demands given and water information provided above.**
- FP1.1 indicates hazards for specific areas, but most of the building is not assigned, please advise. **Refer to general code information drawings GC1.1B, GC1.1R**
- Who is the insurance carrier? **Unknown currently.**
- Will schedule 10 piping be allowed? **Yes**
- Will the paint booths come with pre-piped systems? **No, the paint booths will require piping and heads.**
- Will the paint booths require a deluge system? **Not required.**
- Will protection be required for any exterior projections? **No**
- The FP drawing show 2 lead ins but the civil on show 1, please advise. **Quantity of lead-ins to be determined by design requirements and most economical solution.**
- Do you have any contact info with the water department? Before I called about the meter, flow test and connection fees I wanted to make sure I talked to someone familiar with this project, if there was anybody. **The city is aware of the project and may be contacted for more information.**
- Are we supposed to sprinkle any of the dust collectors? **No**

### **230000 – MECHANICAL**

- Who installs the equipment provided by the dust collector vendor and the paint booth vendor? **Equipment shown but not listed in the mechanical drawings will be furnished and installed by the equipment vendor.**
- Regarding the drops listed in the table on M3.1B, are we to make all final connections to owner equipment, or do we need to figure the drops with valves, and for owner equipment, the owner will make final connections (LPZ Lift, Dust Collectors, paint pumps, blast equipment, etc.)? **Mechanical contractor to make final connections at all locations except for the paint pumps (Item 10). These will stop with a valve and final connections will be made by the owner.**

### **260000 – ELECTRICAL**

- Electrical contractor to provide three (3) empty 4" conduits from transformer location shown to a new riser pole on the west side of North Park Road.

### **310000 – EARTHWORK**

- CAD files are available upon request for grading.
- Base materials clarification:
  - Gravel paving – clay gravel is acceptable.
  - Building pad – clay gravel is acceptable.
  - Rail sub ballast – clay gravel is acceptable.
  - Gravel base under concrete paving – 610 limestone or equivalent crushed concrete is required.

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	Page:	3 of 3
<b>AITX – ADDENDUM 1</b>		

### **329500 – RAIL**

1. Count of steel rail bumpers should be 7 not 4.
2. Timber crossings are required for tracks 35 and 36 at gravel drive on west side of Blast/Paint building.
3. Part 2 Scope, I. indicates – Rails inside Blast/Paint Facility to have steel wheel stops at each position.
  - a. How many positions are there? **20 positions requiring wheel stops**
  - b. Does each rail need a wheel stop, or just one? **Each rail per position**
  - c. What type of stop is to be used? The standard temporary hinged stops will not work with embedded rail. **See example on sheet B6.1B.**

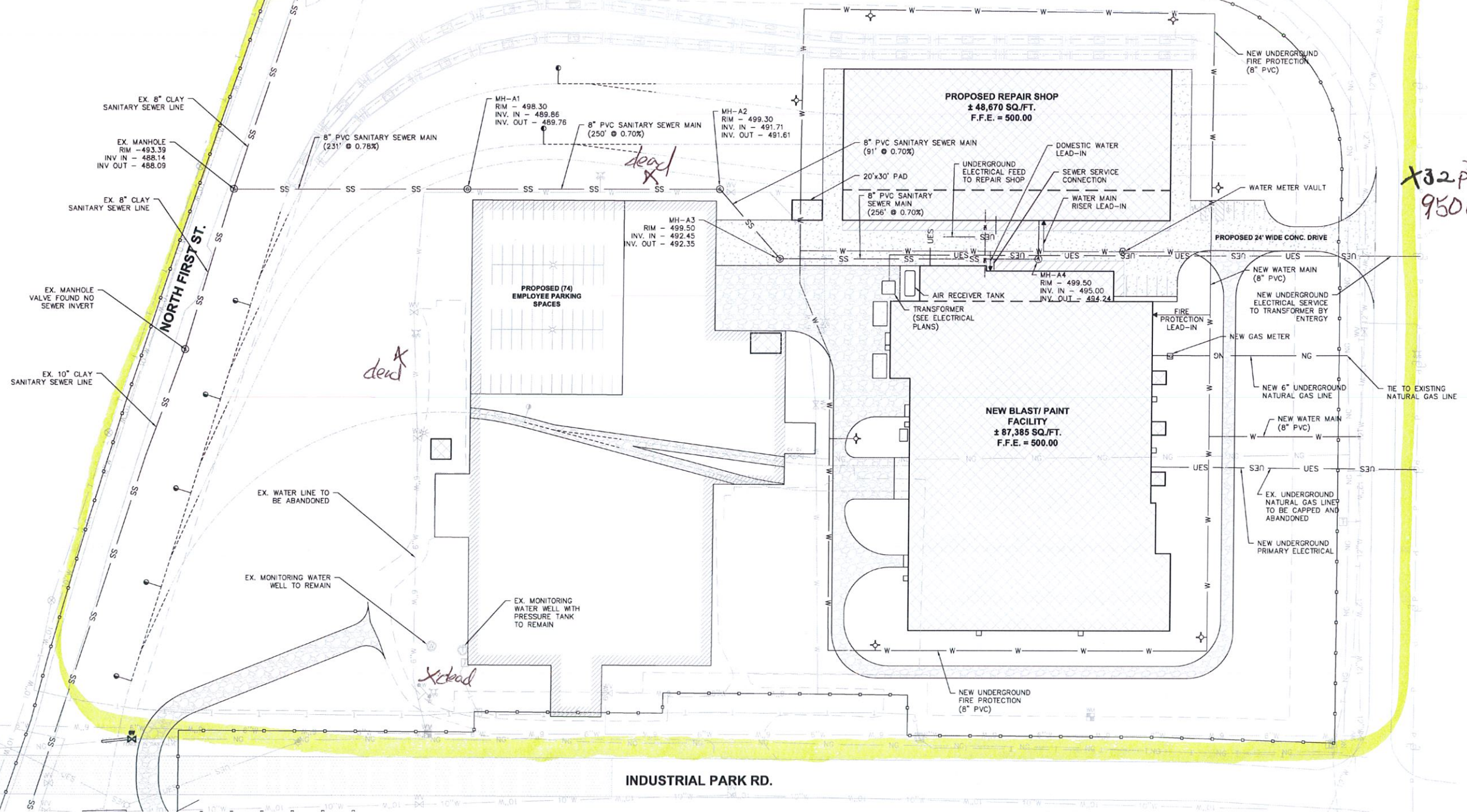


Flow Test  
11/03/2024

30 Pilot  
X 9206 PM  
M.01 10" W

30 pht > 9206 PM

## NORTH PARK



INDUSTRIAL PARK RD.



## SITE UTILITY PLAN

SCALE: 1"=50'-0"

A horizontal graphic scale bar with alternating black and white segments. Above the bar, the following values are marked from left to right: 50', 0, 50', 100', and 150'.

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**NOT FOR CONSTRUCTION**

**DESIGN / BUILD PROPOSAL DRAWING**  
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**NEW REPAIR SHOP & BLAST/PAINT FACILITY  
AITX RAIL CAR SERVICES, LLC  
BROOKHAVEN, MISSISSIPPI**

**FORUM LANNOM**  
**CONTRACTORS, LLC**  
P.O. Box 38024  
Memphis, Tennessee 38024  
Phone: 901.591.1111  
Fax: 901.591.1112  
www.forumlannom.com

Figure 1. A schematic diagram of the experimental setup. The subject is seated in a chair, viewing a screen displaying a target (a red dot) and a starting point (a green dot). The subject's hand is positioned at the starting point, and the target is located at a distance of 10 cm from the starting point. The subject is instructed to move their hand from the starting point to the target. The screen is divided into two regions: a starting region (green) and a target region (red). The subject's hand is positioned at the starting point, and the target is located at a distance of 10 cm from the starting point. The subject is instructed to move their hand from the starting point to the target. The screen is divided into two regions: a starting region (green) and a target region (red). The subject's hand is positioned at the starting point, and the target is located at a distance of 10 cm from the starting point. The subject is instructed to move their hand from the starting point to the target. The screen is divided into two regions: a starting region (green) and a target region (red).

Sheet Name

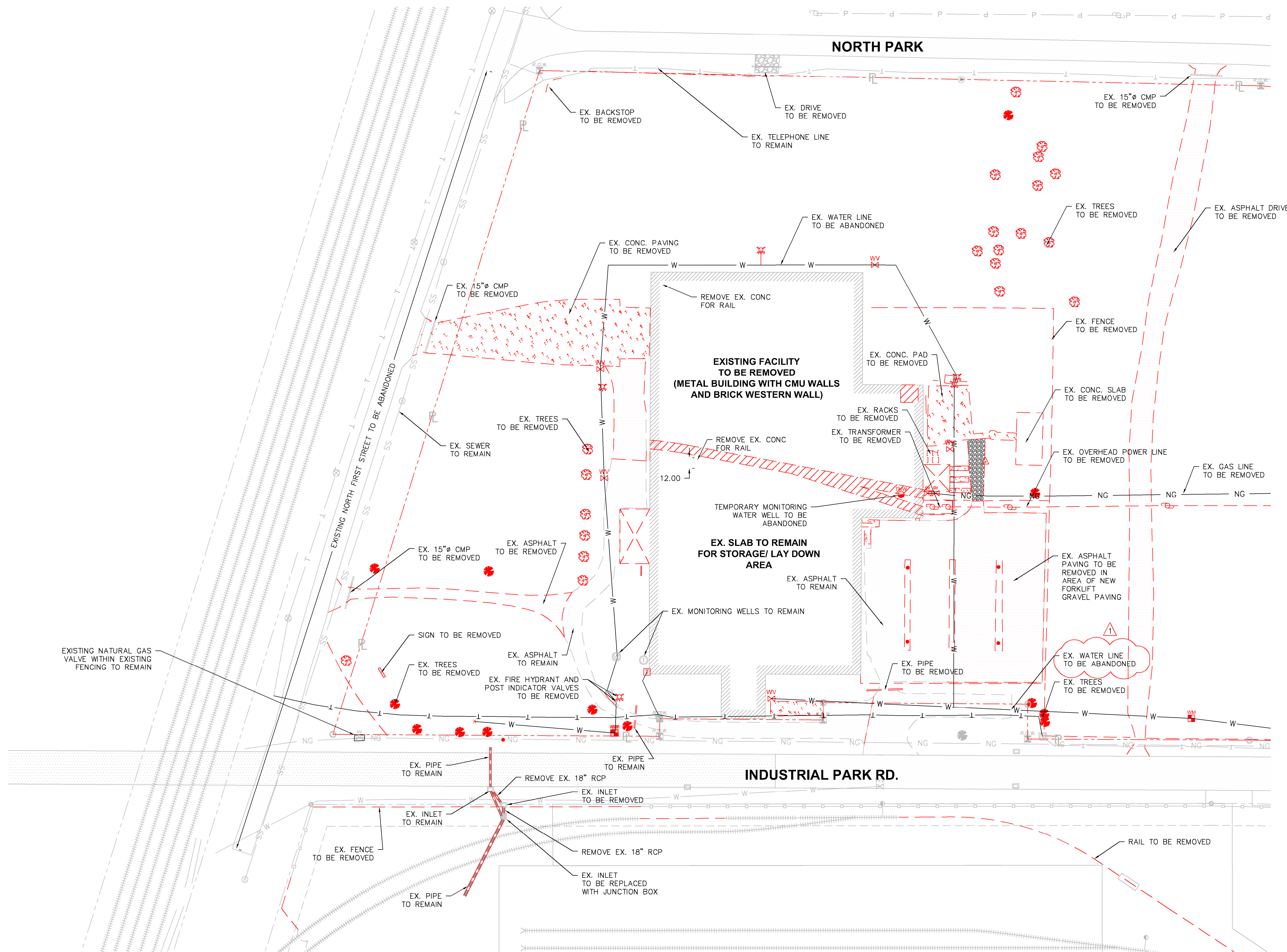
## SITE UTILITY PLAN

Date 10-01-2021

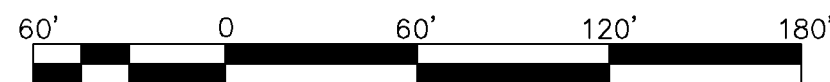
Sheet **UG1.0**



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**ENLARGED SITE DEMOLITION PLAN (WEST)**



SCALE: 1"=60'-0"

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Sheet Name  
**SITE DEMOLITION  
PLAN (WEST)**

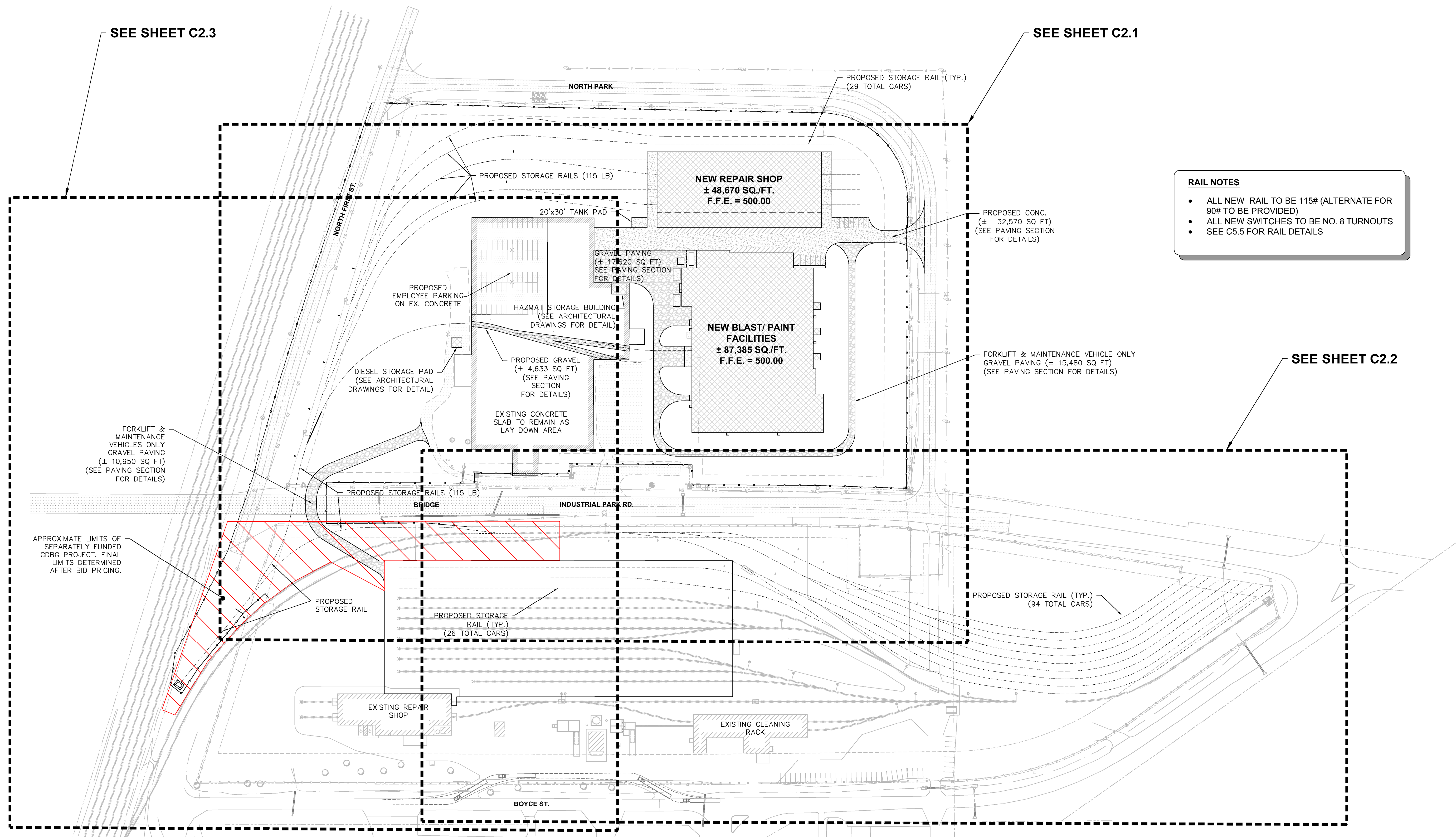
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Sheet **C1.4**

NO.	DATE	DESCRIPTION
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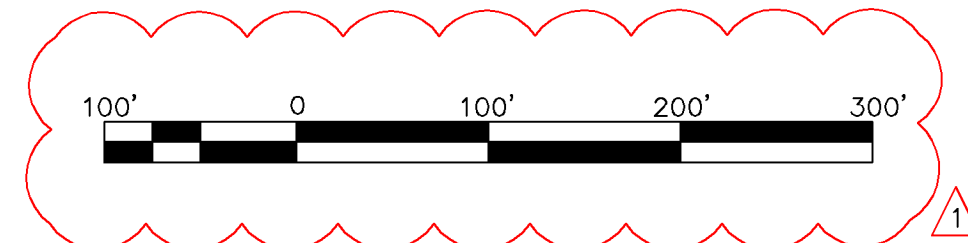


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## OVERALL SITE LAYOUT PLAN

SCALE: 1"=100'-0"



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NO	DATE	DESCRIPTION
1	11-05-2021	ADDED GRAPHIC SCALE

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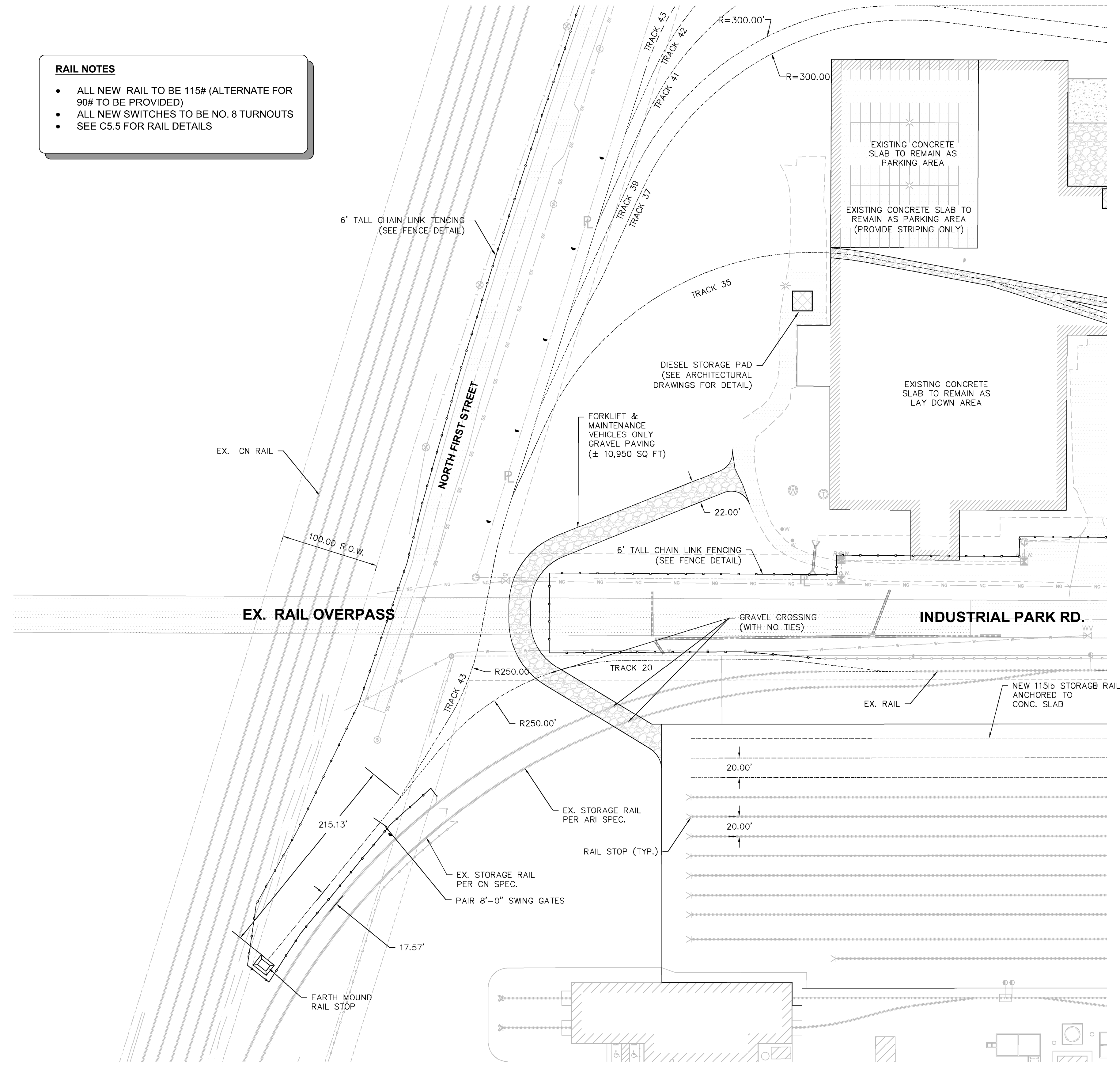
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Sheet Name	OVERALL SITE LAYOUT PLAN
Date	10-01-2021
Sheet	C2.0

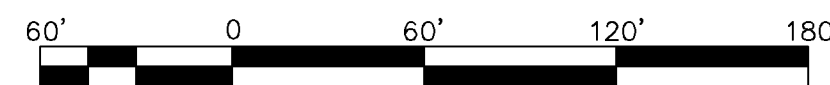


- ALL NEW RAIL TO BE 115# (ALTERNATE FOR 90# TO BE PROVIDED)
- ALL NEW SWITCHES TO BE NO. 8 TURNOUTS
- SEE C5.5 FOR RAIL DETAILS



### **PARTIAL SITE PLAN (WEST)**

SCALE: 1"=60'-0"



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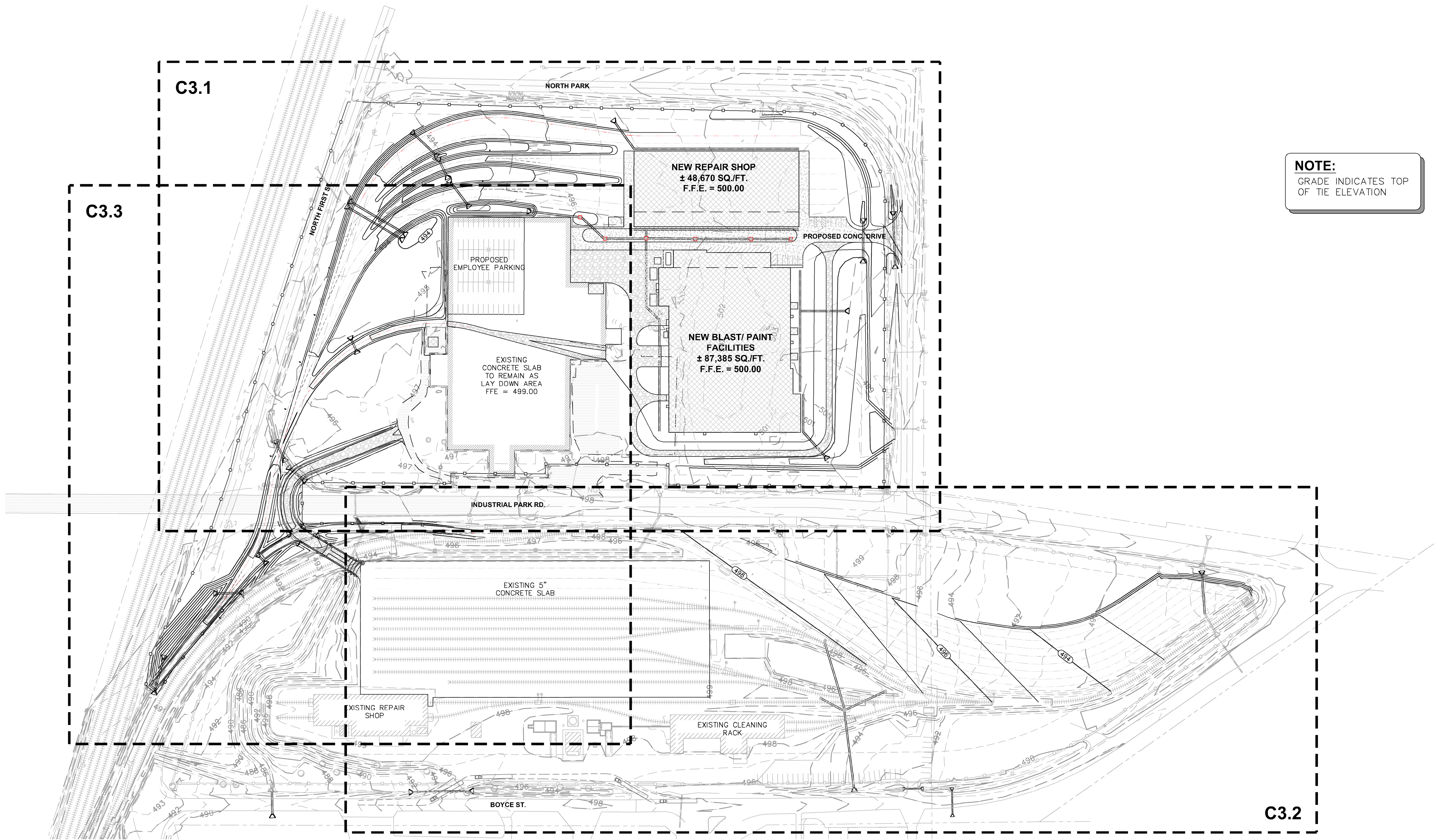
Sheet Name  
**PARTIAL SITE  
LAYOUT PLAN (WEST)**

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Sheet **C2.3**

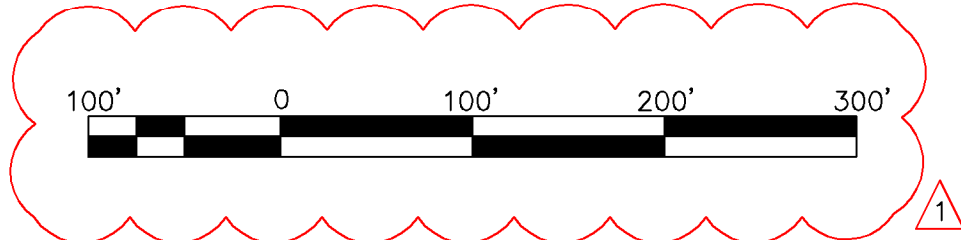


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**NOTE:**  
GRADE INDICATES TOP  
OF TIE ELEVATION

**OVERALL SITE GRADING PLAN**  
SCALE: 1"=100'-0"



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NO.	DATE	DESCRIPTION
1	11-05-2021	ADDED GRAPHIC SCALE

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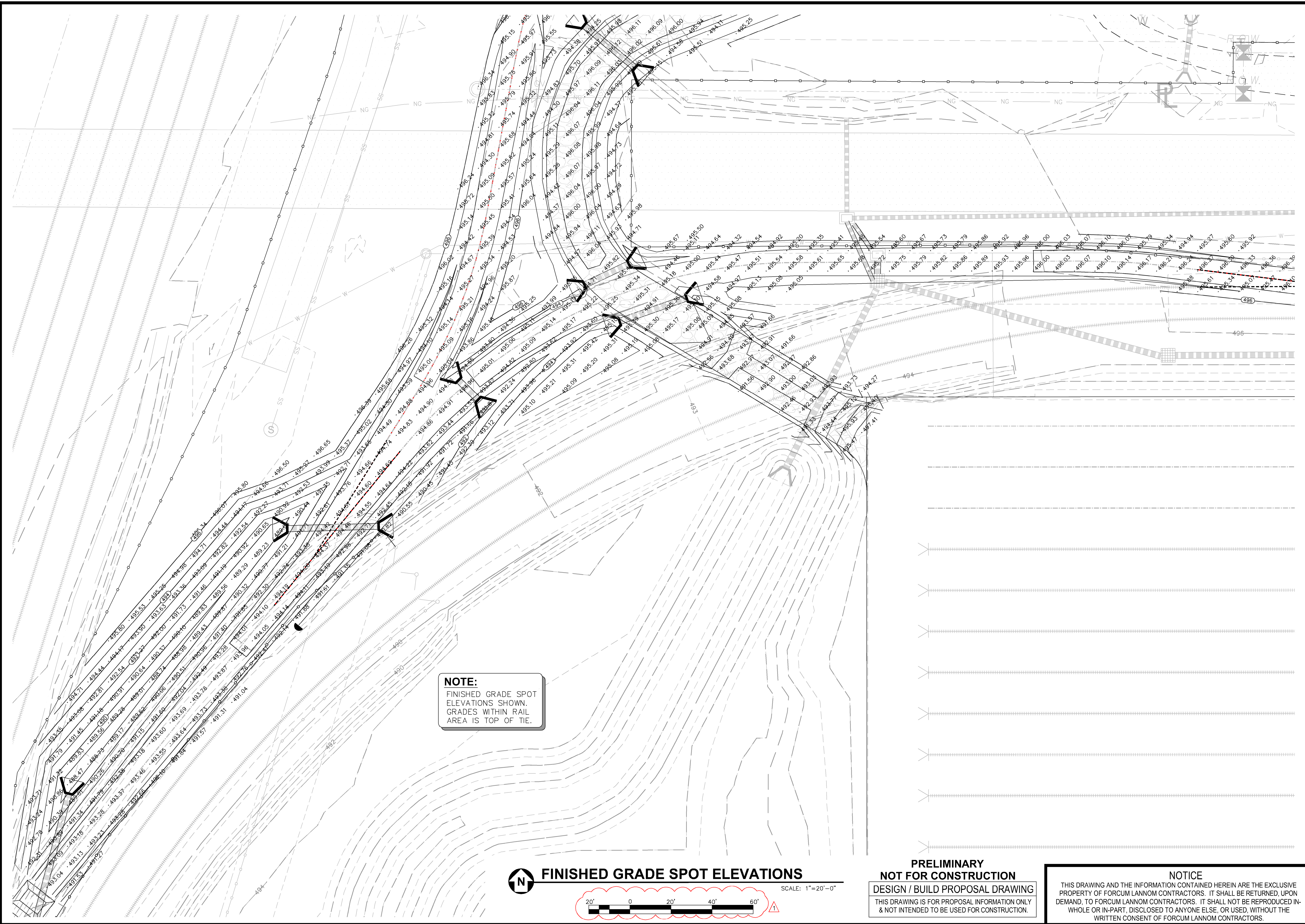
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Sheet Name  
**OVERALL SITE  
GRADING PLAN**  
Date **10-01-2021**  
Sheet **C3.0**









**NOTE:**  
FINISHED GRADE SPOT  
ELEVATIONS SHOWN.  
GRADES WITHIN RAIL  
AREA IS TOP OF TIE.

## FINISHED GRADE SPOT ELEVATIONS

SCALE: 1"=20'-0"

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Sheet Name  
**PARTIAL SITE GRADING  
PLAN (WEST)**

Date **10-01-2021**

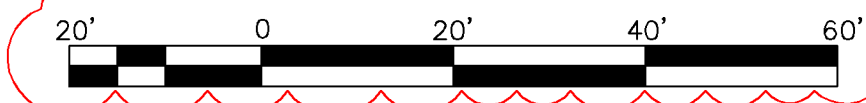
Sheet **C3.5**[illegible]



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### FINISHED GRADE SPOT ELEVATIONS



SCALE: 1"=20'-0"

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Sheet Name  
PARTIAL SITE GRADING  
PLAN (WEST)

Date **10-01-2021**

Sheet **C3.6**

REVISED/LABELLED SCALE

11-05-2021

NO

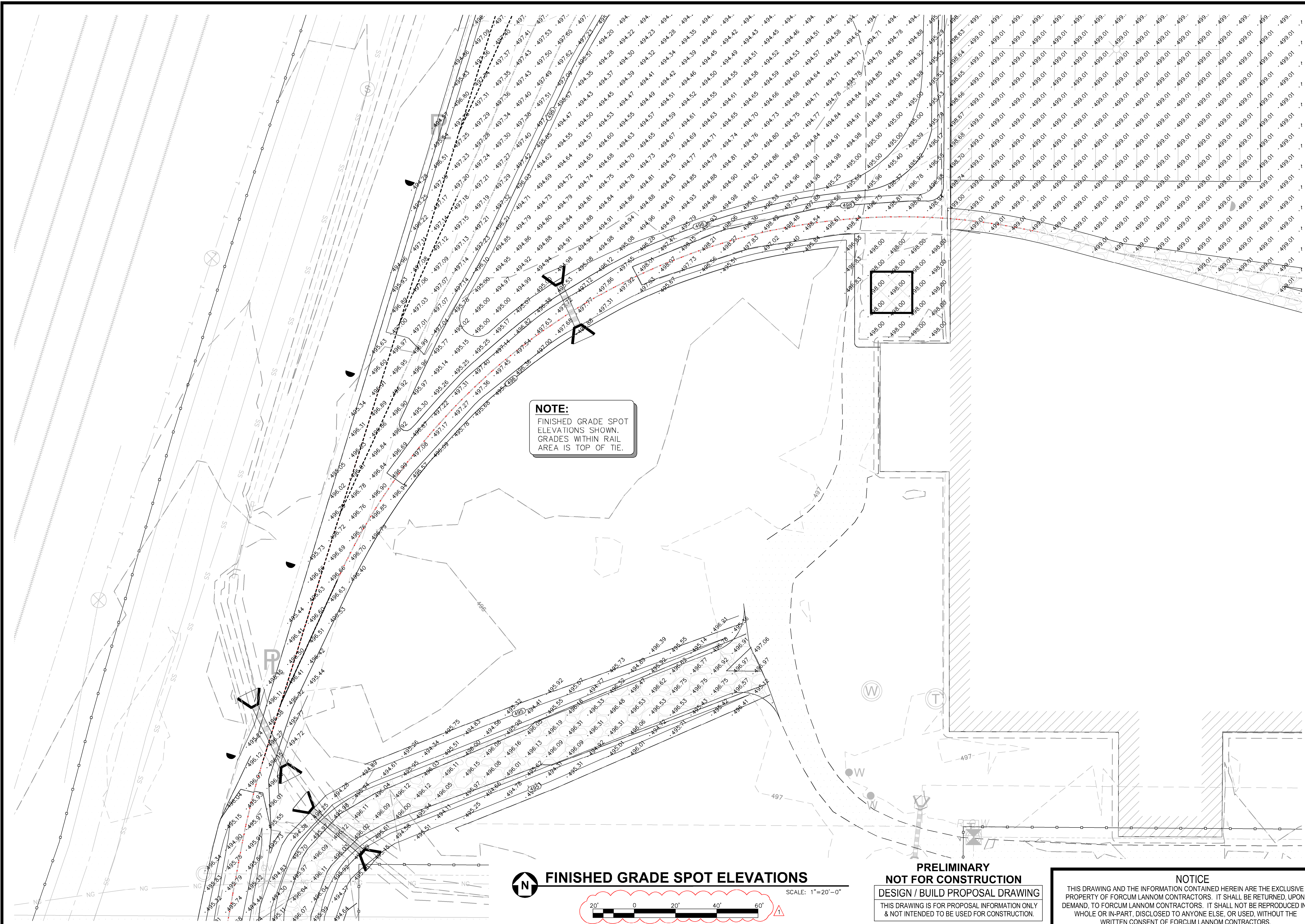
DATE

DESCRIPTION







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Sheet Name  
**PARTIAL SITE GRADING  
PLAN (WEST)**

Date **10-01-2021**Sheet **C3.9**

## REVISED LABELED SCALE DESCRIPTION

DATE 11-05-2021

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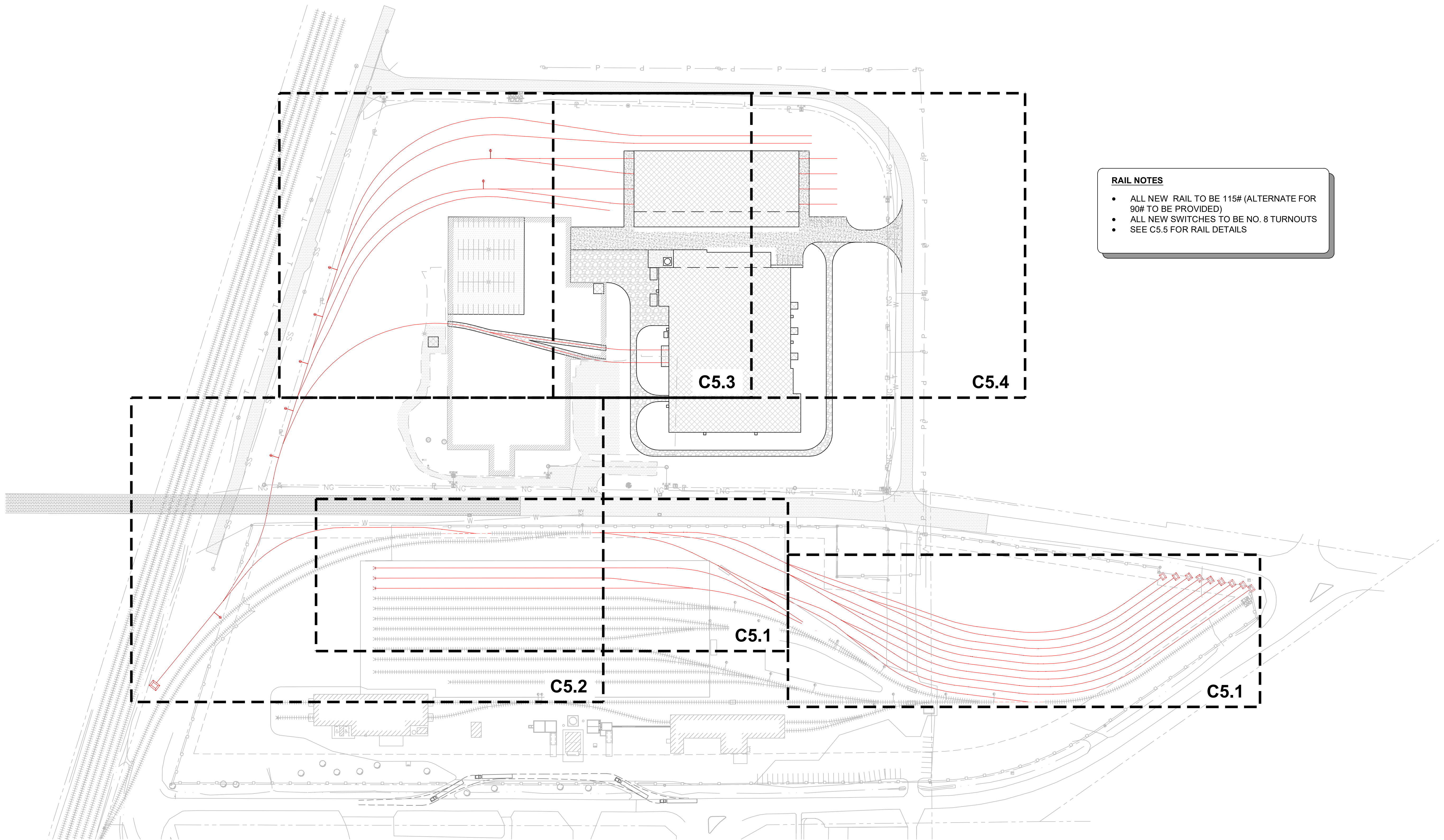
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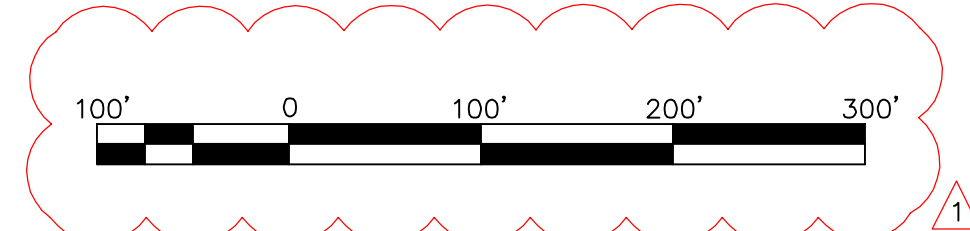
Sheet **C3.11**





- RAIL NOTES**
- ALL NEW RAIL TO BE 115# (ALTERNATE FOR 90# TO BE PROVIDED)
  - ALL NEW SWITCHES TO BE NO. 8 TURNOUTS
  - SEE C5.5 FOR RAIL DETAILS

**RAIL ALIGNMENT LAYOUT INDEX**  
SCALE: 1"=100'-0"



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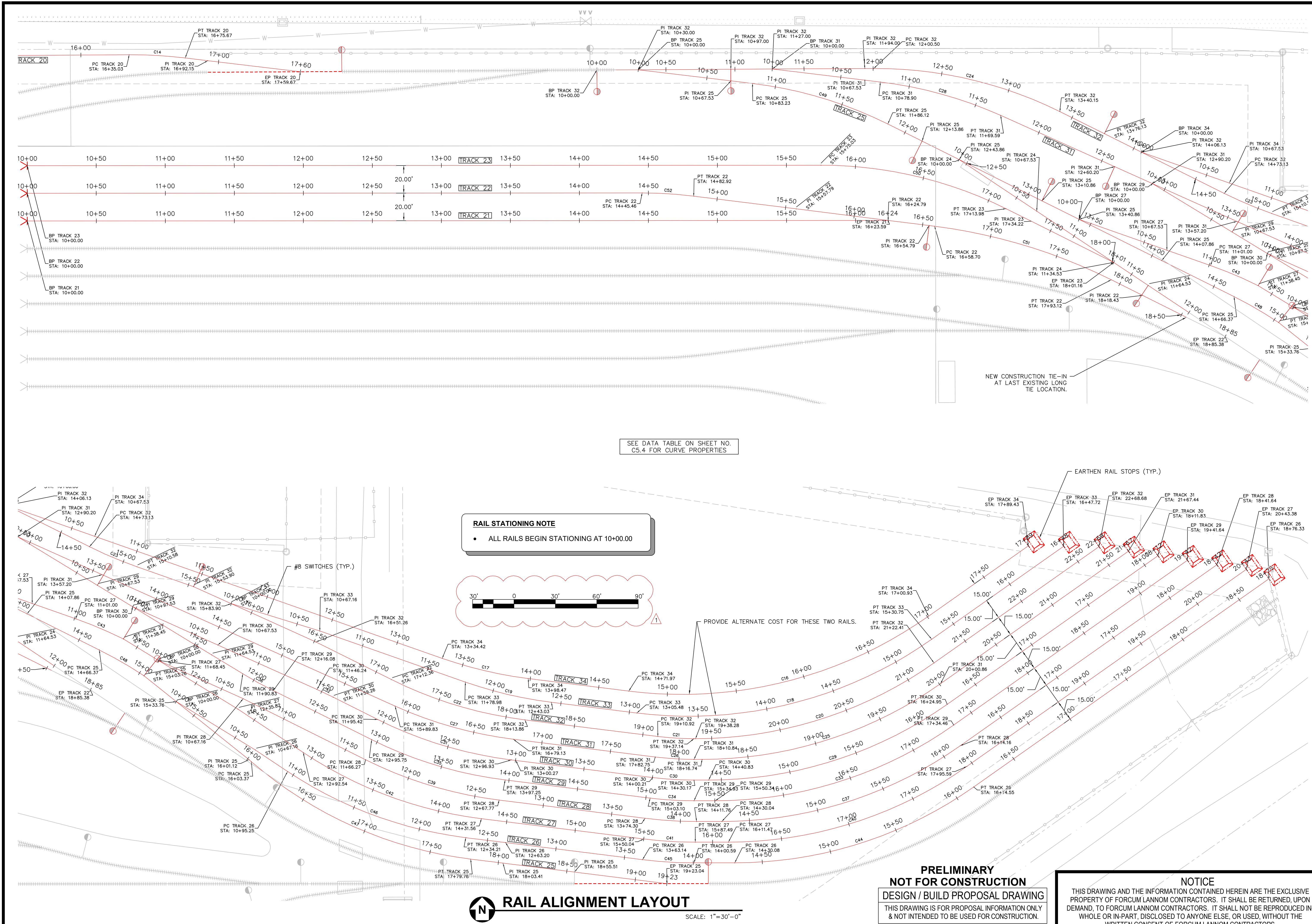
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Sheet Name  
**RAIL ALIGNMENT  
LAYOUT INDEX**  
Date **10-01-2021**  
Sheet **C5.0**

NO	DATE	DESCRIPTION
1	11-05-2021	ADDED GRAPHIC SCALE





ADDED GRAPHIC SCALE		DESCRIPTION
NO	DATE	
1	11-05-2021	

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Sheet Name  
**RAIL ALIGNMENT  
LAYOUT**

Date  
**10-01-2021**

Sheet  
**C5.1**

**PRELIMINARY  
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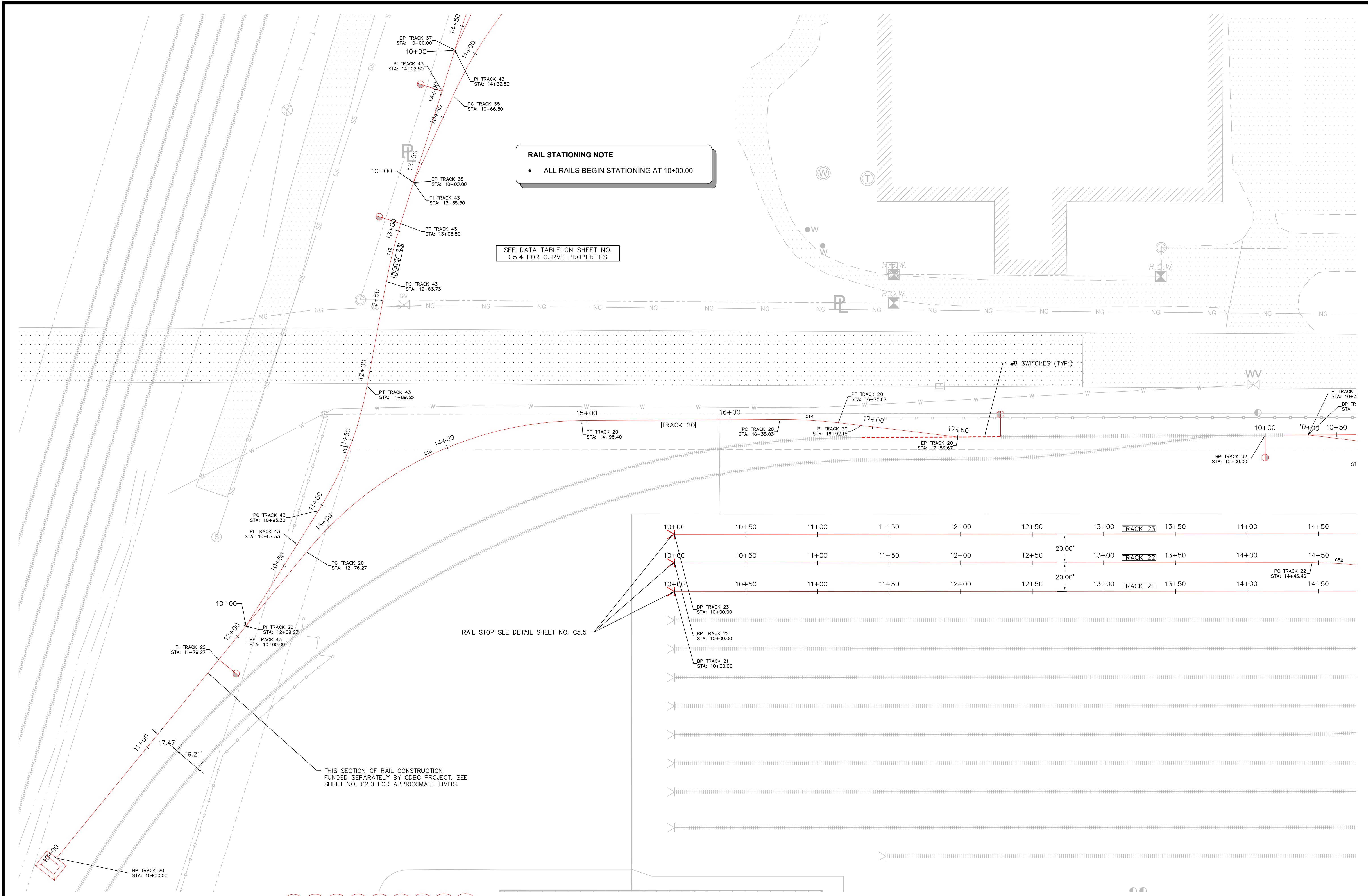
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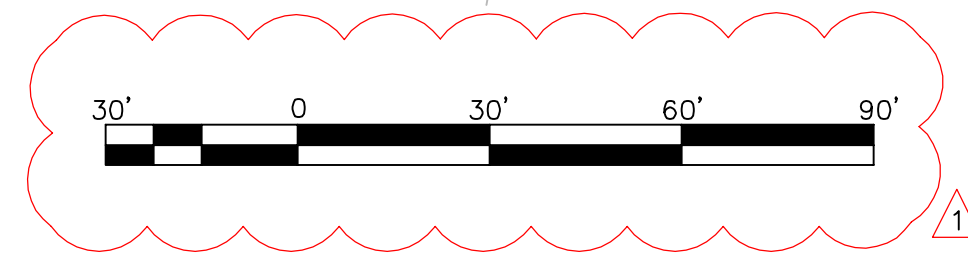
**RAIL STATIONING NOTE**

- ALL RAILS BEGIN STATIONING AT 10+00.00

SEE DATA TABLE ON SHEET NO. C5.4 FOR CURVE PROPERTIES

RAIL STOP SEE DETAIL SHEET NO. C5.5

THIS SECTION OF RAIL CONSTRUCTION FUNDED SEPARATELY BY CDBG PROJECT. SEE SHEET NO. C2.0 FOR APPROXIMATE LIMITS.



**RAIL ALIGNMENT LAYOUT**

SCALE: 1"=30'-0"

**PRELIMINARY  
NOT FOR CONSTRUCTION**

DESIGN / BUILD PROPOSAL DRAWING

THIS DRAWING IS FOR PROPOSAL INFORMATION ONLY & NOT INTENDED TO BE USED FOR CONSTRUCTION.

**NOTICE**

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NO	DATE	DESCRIPTION
1	11-05-2021	ADDED GRAPHIC SCALE

**PRELIMINARY  
NOT FOR  
CONSTRUCTION**

PROJECT NO. \_\_\_\_\_

DRAWN BY \_\_\_\_\_

DESIGN LEADER \_\_\_\_\_

CHECKED BY \_\_\_\_\_

REVIEWED BY \_\_\_\_\_  
(PROJECT MANAGER)

**NEW REPAIR SHOP & BLAST/PAINT FACILITY**

**AITX RAIL CAR SERVICES, LLC**

**BROOKHAVEN, MISSISSIPPI**

**FORCUM LANNOM**  
CONTRACTORS, LLC

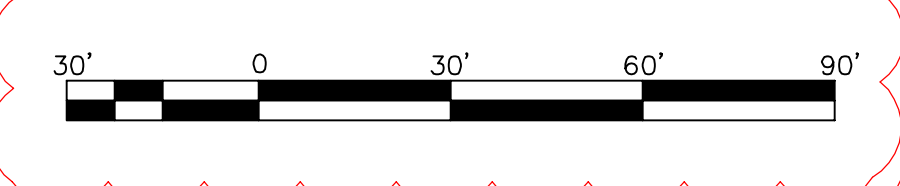
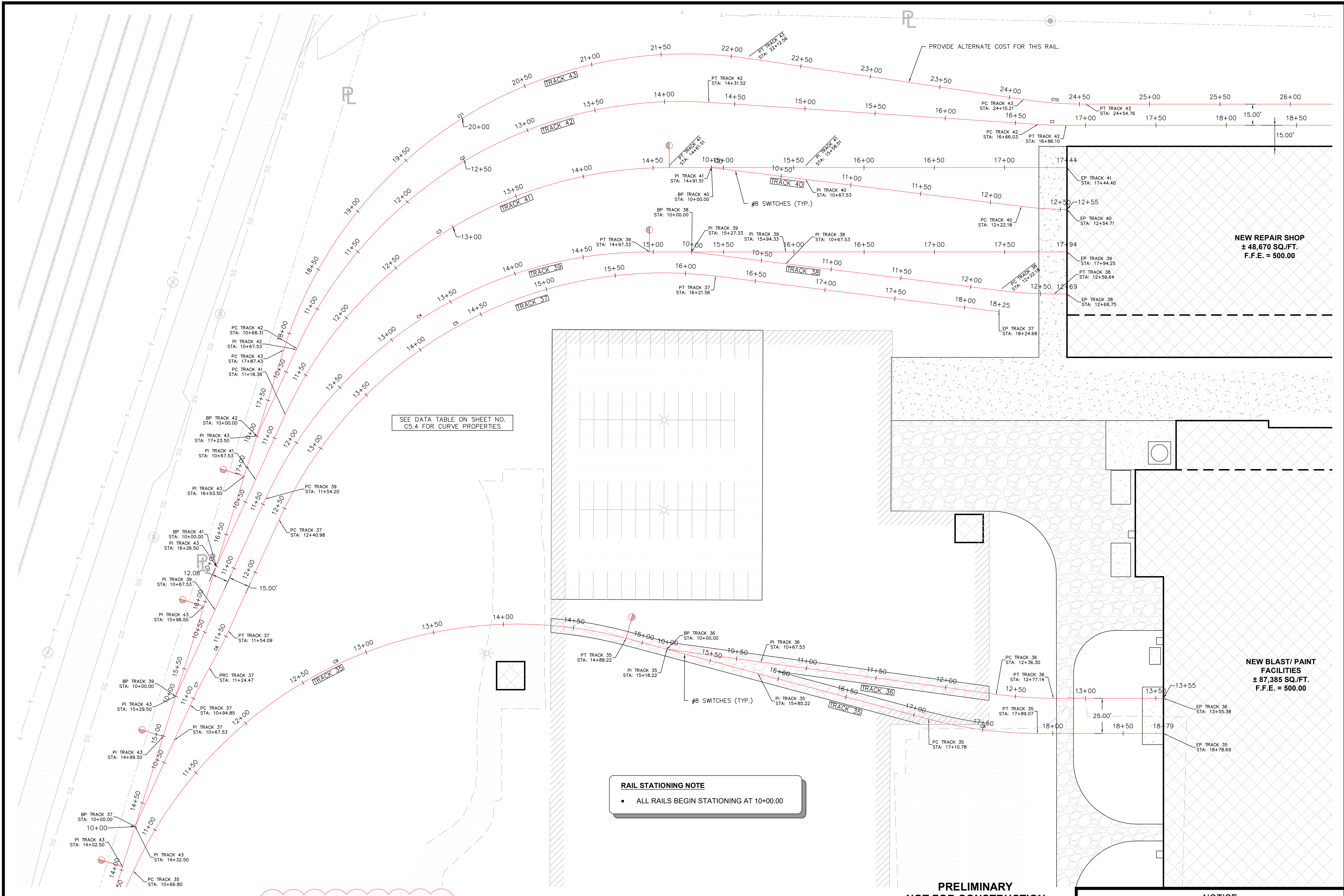
350 US Hwy. 51 Bypass S. Dyersburg, Tennessee 38024 PH: (731) 287-4700

Sheet Name  
**RAIL ALIGNMENT  
LAYOUT**

Date  
**10-01-2021**

Sheet  
**C5.2**





RAIL ALIGNMENT LAYOUT

SCALE: 1"=30'-0"

PRELIMINARY NOT FOR CONSTRUCTION  
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PROJECT NO. _____	
DRAWN BY _____	
DESIGN LEADER _____	
CHECKED BY _____	
REVIEWED BY _____ (PROJECT MANAGER)	

NEW REPAIR SHOP & BLAST/PAINT FACILITY	
AITX RAIL CAR SERVICES, LLC	
BROOKHAVEN, MISSISSIPPI	
FORCUM LANNOM CONTRACTORS, LLC	
350 US Hwy. 51 Bypass S. Dyersburg, Tennessee 38024 PH: (731) 287-4700	

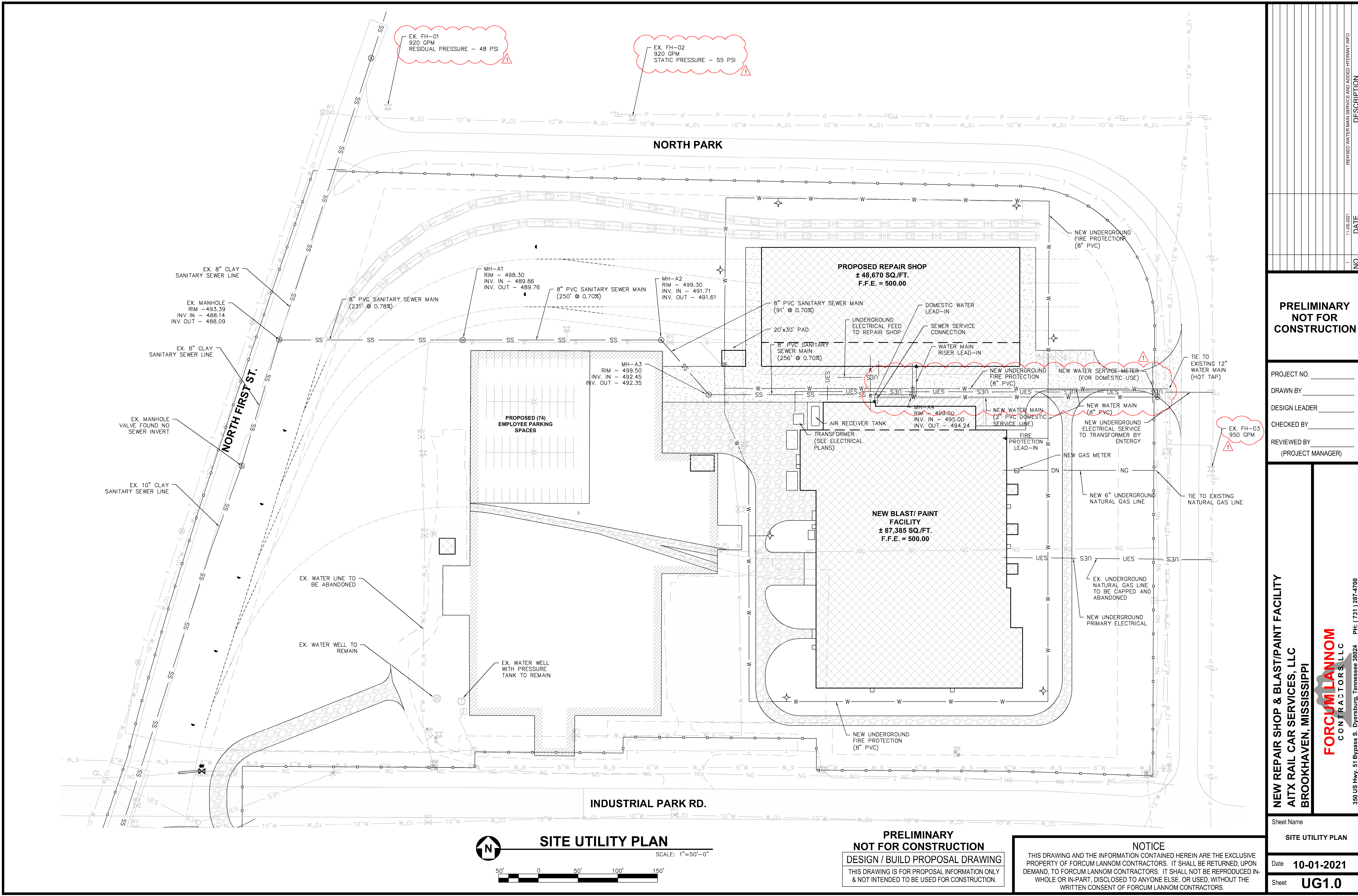
  

Sheet Name	RAIL ALIGNMENT LAYOUT
Date	10-01-2021
Sheet	C5.3









REVISIONS		NO.	DATE	DESCRIPTION
		1	11-05-2021	REVISED WATER MAIN SERVICE AND ADDED HYDRANT INFO

**PRELIMINARY  
NOT FOR  
CONSTRUCTION**

PROJECT NO. \_\_\_\_\_  
DRAWN BY \_\_\_\_\_  
DESIGN LEADER \_\_\_\_\_  
CHECKED BY \_\_\_\_\_  
REVIEWED BY \_\_\_\_\_  
(PROJECT MANAGER)

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350 US Hwy. 51 Bypass S. Dyersburg, Tennessee 38024  
PH: (731) 287-4700

Sheet Name  
**SITE UTILITY PLAN**

Date  
**10-01-2021**

Sheet  
**UG1.0**

**PRELIMINARY  
NOT FOR CONSTRUCTION**

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TYPICAL 8" FIRE HYDRANT DETAIL  
(NO SCALE)



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**FORCUM LANNOM**  
CONTRACTORS, LLC

350 US Hwy. 51 Bypass S. Dyersburg, Tennessee 38024 PH: (731) 287-4700

Sheet Name	<b>SITE UTILITY DETAILS</b>
Date	<b>10-01-2021</b>
Sheet	<b>UG2.0</b>



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MAXIMUM ALLOWABLE NET BEARING PRESSURE FOR SPREAD FOOTINGS= 2,000 PSF. & FOR CONTINUOUS FOOTINGS = 1,500 PSF. SEE SOILS REPORT #130189 DATED MAY 28, 2013 AND REVISED JUNE 13, 2013  
BY BURNS COOLEY DENNIS, INC.

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THE GENERAL CONTRACTOR SHALL OBTAIN A COPY OF THE GEOTECHNICAL EVALUATION AND OBSERVE ALL RECOMMENDATIONS IN THE REPORT.

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FOOTING EXCAVATIONS SHALL BE OBSERVED BY AN EXPERIENCED GEOTECHNICAL ENGINEER PRIOR TO STEEL OR CONCRETE PLACEMENT IN ORDER TO ASSESS THAT THE FOUNDATION MATERIALS ARE CONSISTENT WITH THE FINDINGS IN THE GEOTECHNICAL EVALUATION.

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FOR REQUIREMENTS OF EARTHWORK, SUBGRADE PREPARATION, ENGINEERED BACKFILL AND COMPACTION, OVER EXCAVATION, WATERPROOFING, AND OTHER PERTINENT REQUIREMENTS AND INFORMATION REFER TO GEOTECHNICAL EVALUATION AND SPECIFICATIONS.

2200.07  
ALL WATER SHALL BE REMOVED FROM FOUNDATION EXCAVATIONS PRIOR TO PLACING OF CONCRETE. IF BOTTOMS OF TRENCHES BECOME SOFTENED DUE TO WATER BEFORE FOOTINGS ARE CAST, THE CONTRACTOR, AT HIS OWN EXPENSE, SHALL EXCAVATE THE SOFTENED MATERIAL AND REPLACE WITH CONCRETE.

2200.08  
ALL PIPES (WATER LINES, SEWER LINES, ETC.) AND CONDUITS RUNNING THROUGH WALLS / SLABS SHALL BE PROTECTED WITH 1/2" EXPANSION MATERIAL.

2200.09  
CONTINUOUS FOOTING PERPENDICULAR TO PIPE RUNS SHALL BE EITHER LOWERED TO ALLOW PIPES TO PASS THROUGH ABOVE SUCH FOOTINGS OR HAVE CONCRETE JACKET IF PIPES ARE LOW ENOUGH TO BE PLACED BELOW SUCH FOOTINGS. FOOTINGS PARALLEL TO PIPE RUNS SHALL BE LOWERED TO AVOID SURCHARGE ONTO THE TRENCH EXCAVATIONS.

2200.10  
REFER TO CIVIL/ARCHITECTURAL PLANS FOR LIMITS OF EXCAVATION.

#### CONCRETE GENERAL NOTES

3100.01  
ALL DETAILING, FABRICATION AND PLACING OF REINFORCING STEEL SHALL CONFORM TO THE ACI STANDARD "DETAILS AND DETAILING OF CONCRETE REINFORCEMENT" (ACI 315).

3100.02  
INTERIOR CONCRETE SHALL DEVELOP A 28 DAY MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI AND MAY NOT CONTAIN FLY-ASH. EXTERIOR CONCRETE SHALL BE ENTRAINED WITH 4-7% AIR. SHALL DEVELOP 28 DAY MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI AND MAY CONTAIN FLY-ASH. ALL OTHER CONCRETE SHALL DEVELOP A 28 DAY MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI AND MAY CONTAIN FLY-ASH.

3100.03  
CHAMFER ALL EXPOSED EXTERNAL CORNERS OF CONCRETE WITH 3/4" X 45° CHAMFER, UNLESS NOTED OTHERWISE.

3100.04  
ALL REINFORCING STEEL SHALL BE DEFORMED BARS CONFORMING TO ASTM A615, GRADE 60.

3100.05  
ALL REINFORCING BAR SPLICES SHALL BE 44 BAR DIAMETERS.

3100.06  
ALL REINFORCING BAR HOOKS SHALL BE ACI STANDARD 135° HOOK, UNLESS NOTED OTHERWISE.

3100.07  
PROVIDE TWO #5 X 5'-0" LONG DIAGONAL BARS IN TOP FACE AT ALL RE-ENTRANT CORNERS IN SLAB.

3100.08  
PROVIDE CORNER BARS IN FOOTINGS & TURN-DOWN SLABS SAME SIZE & SPACING AS LONGITUDINAL REINFORCING.

3100.09  
BAR SUPPORTS AT FOOTINGS & SLAB-ON-GRADE SHALL BE FACTORY MADE WIRE BAR SUPPORTS.

3100.10  
ALL SLOTS, SLEEVES AND OTHER EMBEDDED ITEMS SHALL BE SET BEFORE CONCRETE IS PLACED. SEE ARCHITECTURAL, ELECTRICAL, MECHANICAL, AND VENDOR DRAWINGS FOR SIZE & LOCATIONS.

#### CONCRETE MASONRY GENERAL NOTES

4100.01  
ALL CONCRETE MASONRY UNITS SHALL BE LIGHTWEIGHT ABOVE FINISHED FLOOR & NORMAL WEIGHT BELOW GRADE.

4100.02  
ALL CONCRETE MASONRY UNITS SHALL CONFORM TO ASTM C90 GRADE N, TYPE 1 WITH A MINIMUM ULTIMATE COMPRESSIVE PRISM STRENGTH (F<sub>cu</sub>) OF 0.10 PSI FOR THE MASONRY ASSEMBLAGE.

4100.03  
ALL MORTAR SHALL BE TYPE S CONFORMING TO ASTM C270.

4100.04  
ALL GROUT SHALL CONFORM TO A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3,000 PSI.

4100.05  
ALL 8" BOND BEAM UNITS SHALL BE REINFORCED WITH (1) #5 AND ALL 12" BOND BEAM UNITS SHALL BE REINFORCED WITH (2) #5. PROVIDE CORNER BARP BOND BEAM REINFORCING 48 BAR DIAMETERS.

4100.06  
ALL REINFORCING STEEL SHALL BE DEFORMED BARS CONFORMING TO ASTM A615 GRADE 60.

4100.07  
ALL BOLTS, ANCHORS, REINFORCEMENT AND EMBEDDED ITEMS SHALL BE GROUTED IN PLACE.

4100.08  
MAXIMUM HEIGHT OF GROUT POUR SHALL BE 4'-0".

4100.09  
ALL VERTICAL REINFORCING STEEL SHALL BE POSITIONED AND HELD IN PLACE BY MEANS OF WIDE SPACERS.

4100.10  
PROVIDE CONTROL JOINTS IN MASONRY WALL AS NOTED IN ARCHITECTURAL DRAWINGS, BUT CONTRUCTION/ CONTROL JOINTS SHALL NOT EXCEED 24'-0" O/C.

#### METAL BUILDING DESIGN LOADS

1. ROOF DEAD LOAD:..... PER MBM
2. ROOF LIVE LOAD:..... 20 PSF
3. COLLATERAL LOAD:..... 5 PSF
4. SNOW LOAD:  
GROUND SNOW LOAD: 6 PSF  
FLAT-ROOF SNOW LOAD (P<sub>f</sub>) = 6 PSF  
SNOW EXPOSURE FACTOR (C<sub>e</sub>) = 1.0  
SNOW LOAD IMPORTANCE FACTOR (I) = 1.0  
THERMAL FACTOR (I) = 1.0

5. WIND LOAD:  
WIND SPEED (3-SECOND GUST): 120 mph  
WIND IMPORTANCE FACTOR (I<sub>w</sub>) = 1.0  
BUILDING CATEGORY II  
WIND EXPOSURE CATEGORY C
6. SEISMIC:  
OCCUPANCY CATEGORY II  
IMPORTANCE FACTOR = 1.0  
SDS = 0.1210  
SD1 = 0.0713  
SEISMIC SITE CLASS D  
SEISMIC DESIGN CATEGORY B  
BASIC STRUCTURAL SYSTEM - PER MBM  
SEISMIC RESISTING SYSTEM - PER MBM  
RESPONSE MODIFICATION COEFFICIENT (R) = PER MBM  
DEFLECTION AMPLIFICATION FACTOR (C<sub>d</sub>) = PER MBM  
ANALYSIS PROCEDURE - EQUIVALENT LATERAL FORCE PROCEDURE

7. BUILDING CODE:  
2015 INTERNATIONAL BUILDING CODE  
2015 INTERNATIONAL FIRE CODE  
2015 INTERNATIONAL PLUMBING CODE  
2015 INTERNATIONAL MECHANICAL CODE  
2014 NATIONAL ELECTRICAL CODE  
2015 INTERNATIONAL ENERGY CODE

#### PLATFORM DESIGN LOADS

1. PLATFORM DEAD LOAD:..... 15 PSF
2. PLATFORM LIVE LOAD:..... 125 PSF
3. SEISMIC:  
OCCUPANCY CATEGORY II  
IMPORTANCE FACTOR  
SDS = 0.1210  
SD1 = 0.0713  
SEISMIC SITE CLASS D  
SEISMIC DESIGN CATEGORY B  
BASIC STRUCTURAL SYSTEM - MOMENT RESISTING FRAME  
SEISMIC RESISTING SYSTEM - ORDINARY STEEL MOMENT FRAME  
RESPONSE MODIFICATION COEFFICIENT (R) = 3.50  
SYSTEM OVERSTRENGTH FACTOR (W<sub>o</sub>) = 3.00  
DEFLECTION AMPLIFICATION FACTOR (C<sub>d</sub>) = 3.00  
ANALYSIS PROCEDURE - EQUIVALENT LATERAL FORCE PROCEDURE

#### TYPICAL STRUCTURAL ABBREVIATIONS

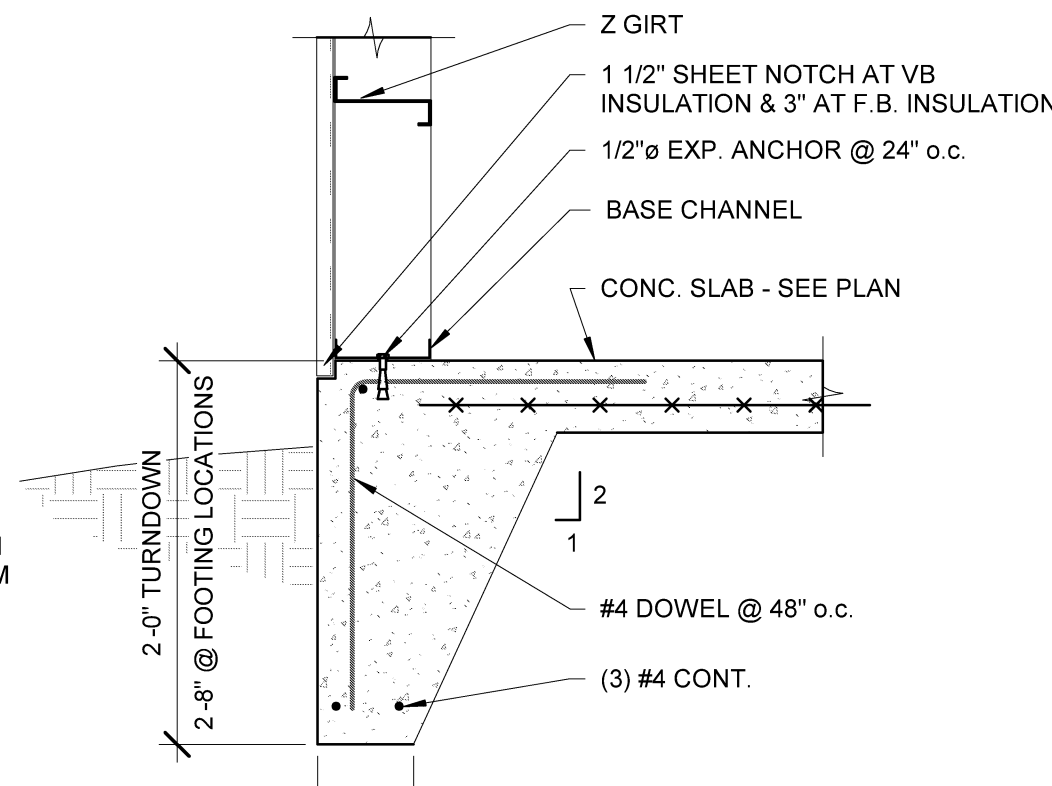
ACI	AMERICAN CONCRETE INSTITUTE	EXP	EXPANSION	PEMB	PRE-ENGINEERED METAL BUILDING PLATE
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION	FIN	FINISH FLOOR	PL or R	POUNDS PER FOOT
ASTM	AMERICAN SOCIETY OF TESTING MATERIALS	FLR	FOUNDATION	PLF	POUNDS PER SQUARE FOOT
AB	ANCHOR BOLT	FDN	FOUNDATION	PSF	POUNDS PER SQUARE INCH
L	ANGLE	FTG	FAR SIDE	PSI	RADIUS
ARCH	ARCHITECT	GA	GAUGE	R	REINFORCEMENT
BLDG	BUILDING	GALV	GALVANIZED	REQ	REQUIRED
BM	BEAM	HK	HOOK	RTU	SCHEDULE
BOT	BOTTOM	HORIZ	HORIZONTAL	SECT	SECTION
BRG	BEARING	H.S.A.	HEADED STUD ANCHOR	SIM	SIMILAR
C	CENTER LINE	J.B.E.	JOIST BEARING ELEVATION	SJI	STEEL JOIST INSTITUTE
CLR	CLEAR	JST	JOIST	SPA	SLAB ON GRADE
COL	COLUMN	JT	JOINT	SPTS	SPECIFICATIONS
CONC	CONCRETE	LLH	LONG LEG HORIZONTAL	STD	STANDARD
CONN	CONNECTION	LLV	LONG LEG VERTICAL	STL	STEEL
CONT	CONTINUOUS	LONG	LONGITUDINAL	TCC	TOP OF CONCRETE
DIA, or Ø	DIAMETER	LG	LONG	TOS	TOP OF FOOTING
DIM	DIMENSION	MAX	MAXIMUM	TOW	TOP OF STEEL
DTL	DETAIL	MECH	MECHANICAL	TRANS	TRANSVERSE
DN	DOWN	MBM	METAL BUILDING MANUFACTURER	TYP	TYPICAL
do	DITTO	MIN	MINIMUM	UNO	UNLESS NOTED OTHERWISE
DWG	DRAWING	MISC	MISCELLANEOUS	VERT	VERTICAL
DWL	DOWEL	MFR	MANUFACTURER	WP	WORK POINT
EA	EACH	MTL	METAL	WWF	WELDED WIRE FABRIC
EL	ELEVATION	N.S.	NEAR SIDE		
EQ	EQUAL	O.C.	OUTSIDE FACE		
EW	EACH WAY	OPNG	OPENING		
EXIST.	EXISTING	OVHD	OVERHEAD		

LINTEL SCHEDULE				
WALL LOCATION	SPAN	SIZE (w x h) NOMINAL	REINFORCING	REMARKS
8" CMU	GREATER THAN 3 LESS THAN 12	4" x 8" x 16"	(1) #5 TOP & BOT.	PROVIDE #3 STURRIPS @ 8" o.c.

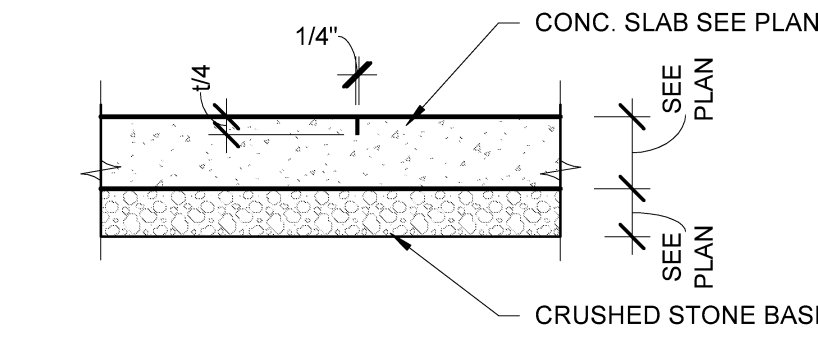
NOTES:  
A) ALL LINTELS SHOWN IN NOMINAL SIZES.  
B) LINTELS MUST BE PROVIDED FOR MECHANICAL AS WELL AS ARCHITECTURAL OPENINGS.

METAL BLDG. ANCHOR BOLT SCHEDULE			
BOLT DIAMETER	EMBEDMENT LENGTH "E"	THREAD PROJ. "B"	REMARKS
1"	1'-8"	5"	-----
7/8"	1'-8"	5"	-----
3/4"	1'-8"	5"	-----
5/8"	1'-4"	4"	-----
1/2"	8"	4"	-----

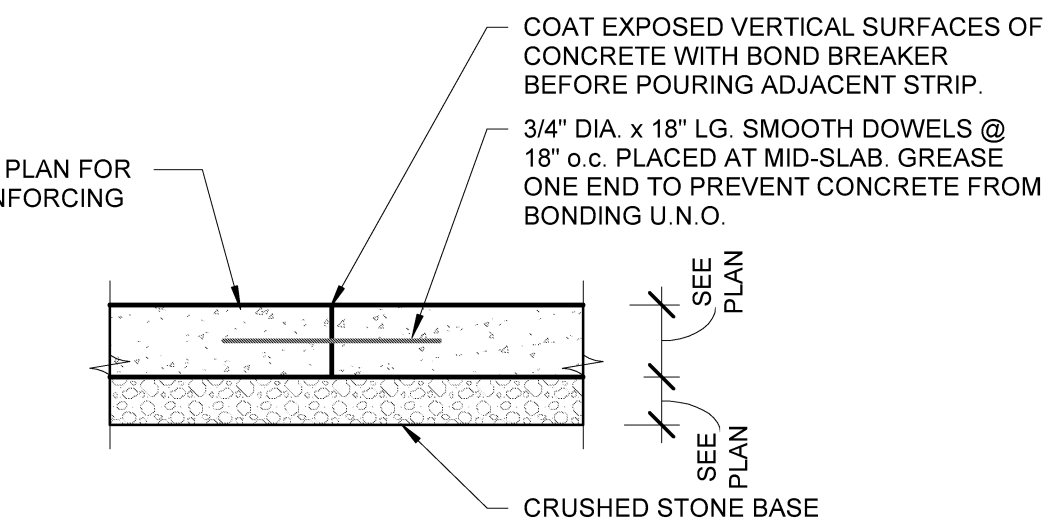
METAL BLDG. ANCHOR BOLT SCHEDULE NOTES:  
1. SEE METAL BUILDING ANCHOR BOLT SETTING PLAN FOR SIZE & LOCATION OF ANCHOR BOLTS.  
2. COORDINATE REQUIRED PROJECTION WITH METAL BUILDING MANUFACTURER.



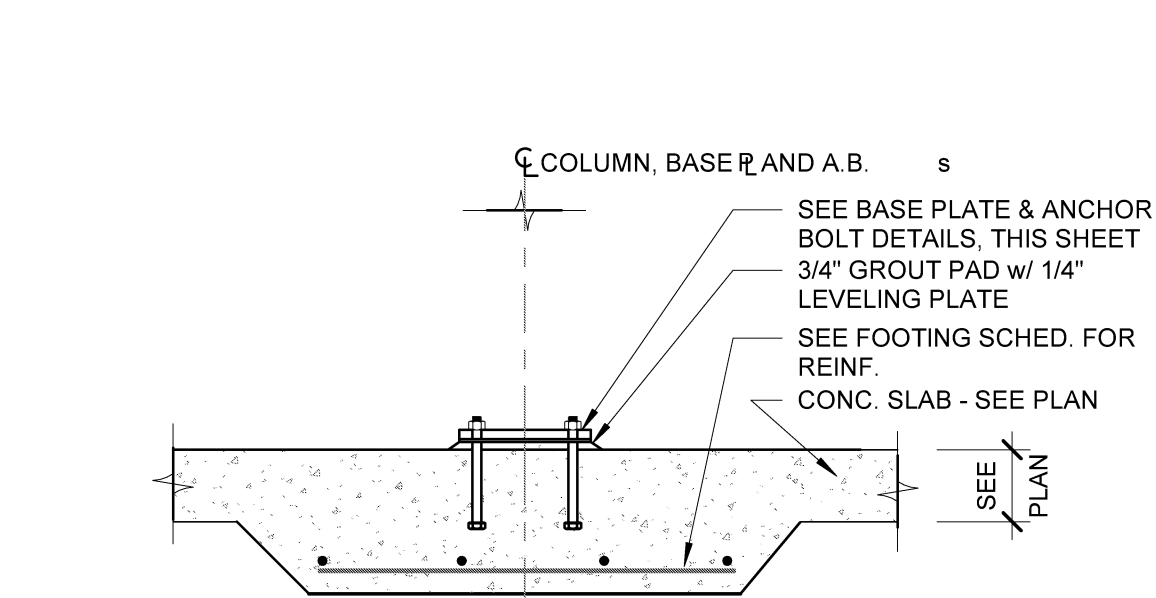
1 SECTION @ TURNDOWN  
Scale: 3/4" = 1'-0"



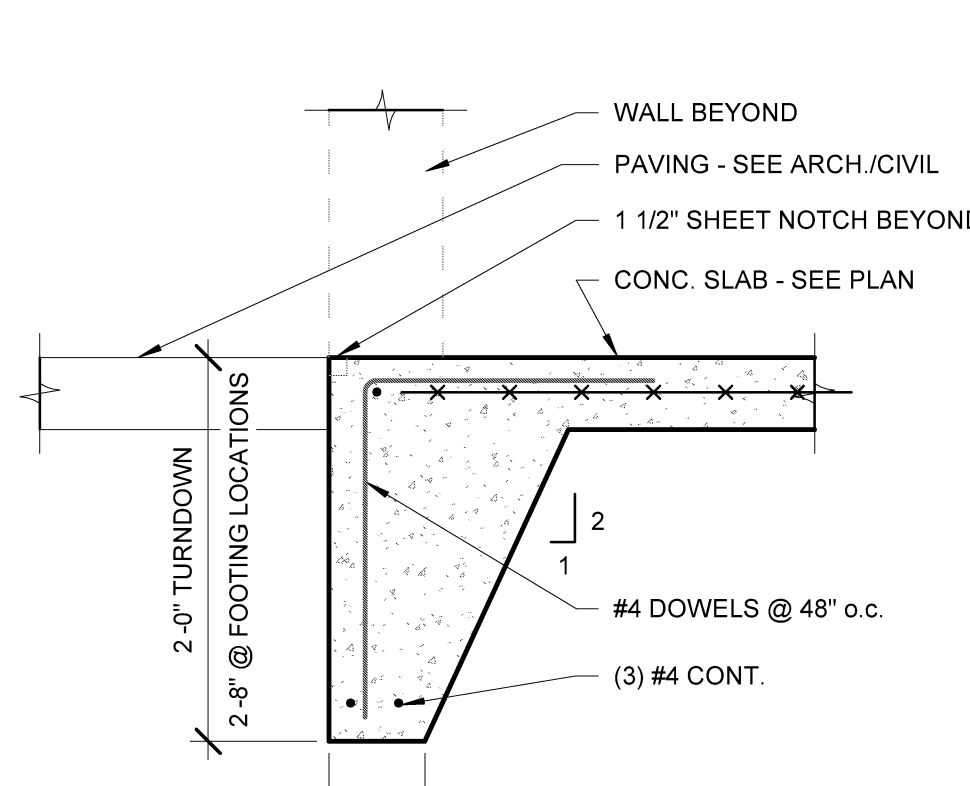
4 CONC. CONTROL JOINT  
Scale: 3/4" = 1'-0"



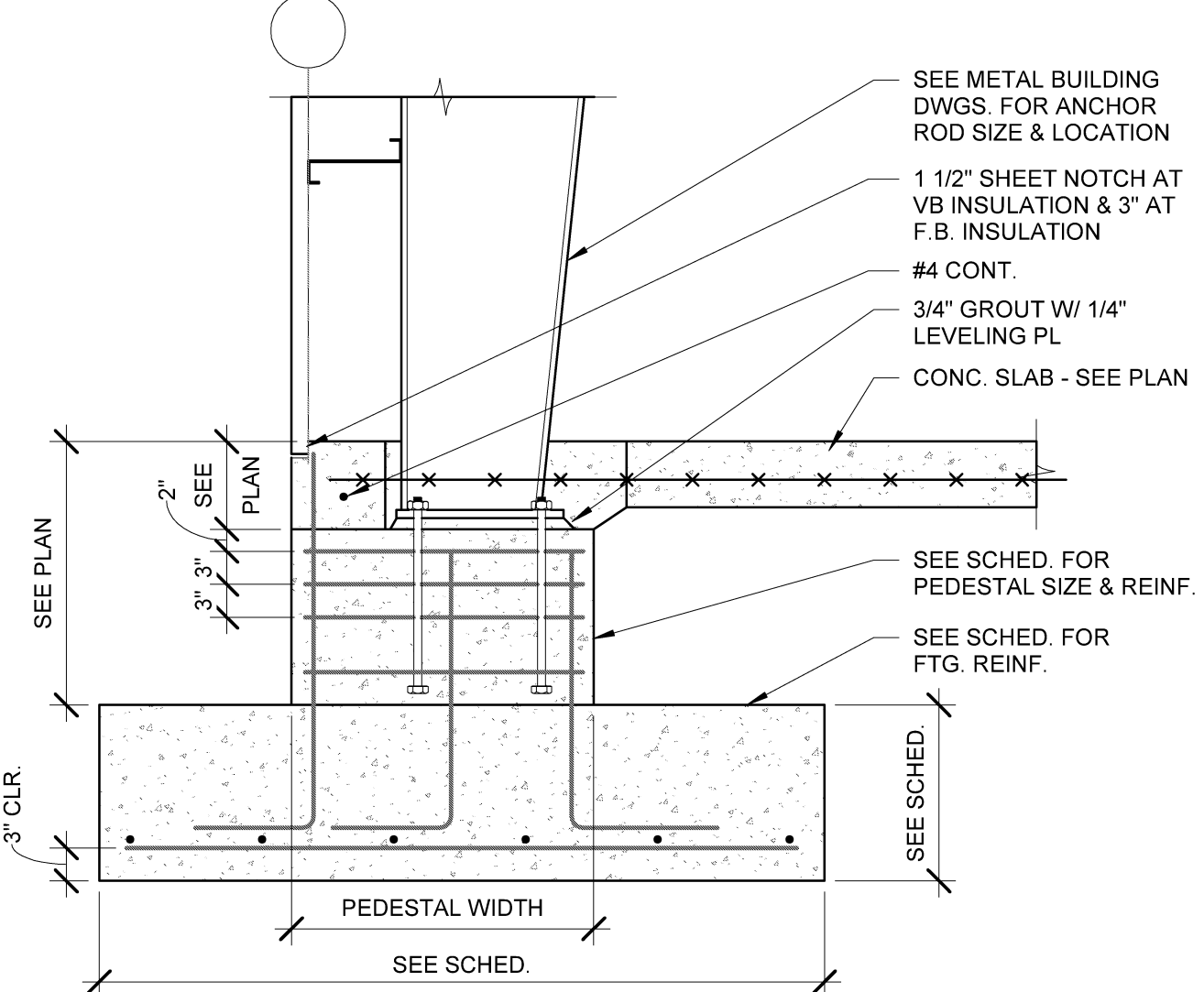
5 TYP. CONC. CONST. JOINT  
Scale: 3/4" = 1'-0"



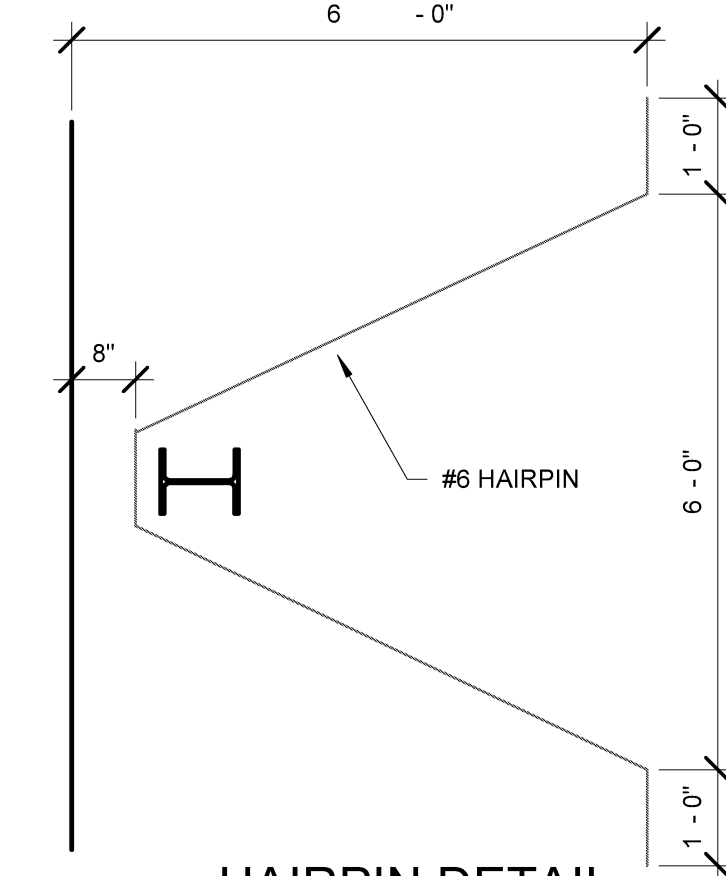
8 SECTION @ PLATFORM COLUMN  
Scale: 3/4" = 1'-0"



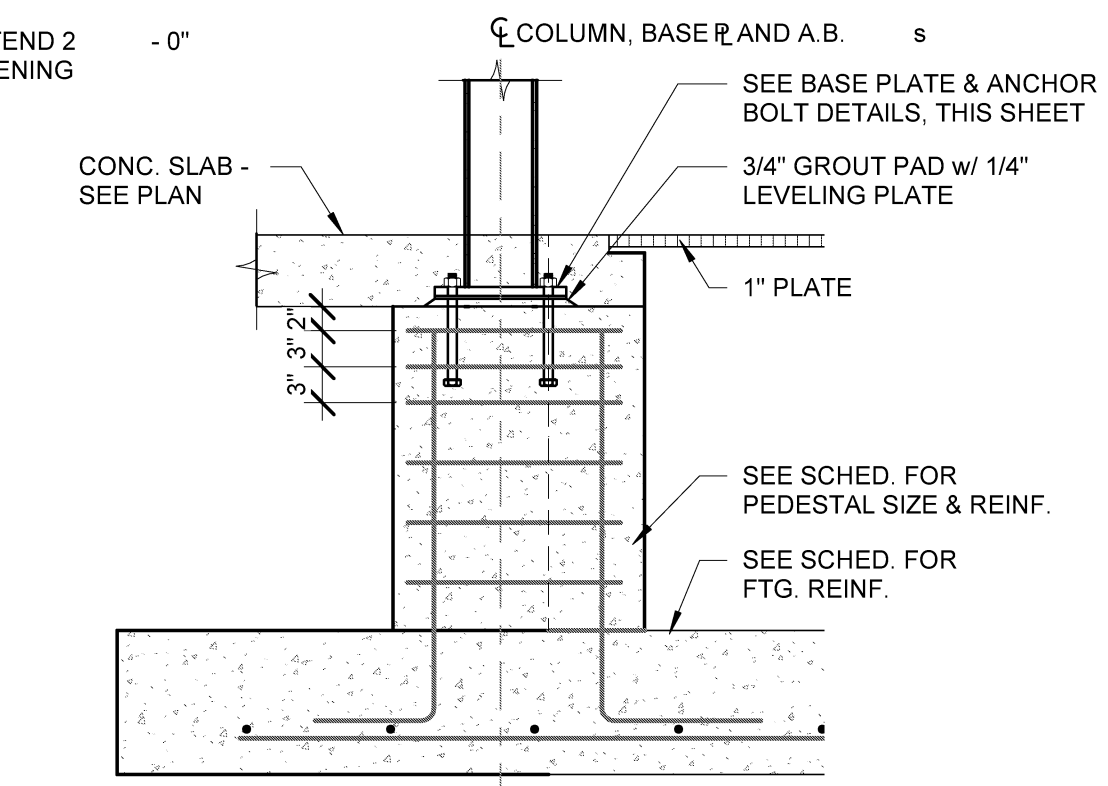
2 SECTION @ WALKDOOR  
Scale: 3/4" = 1'-0"



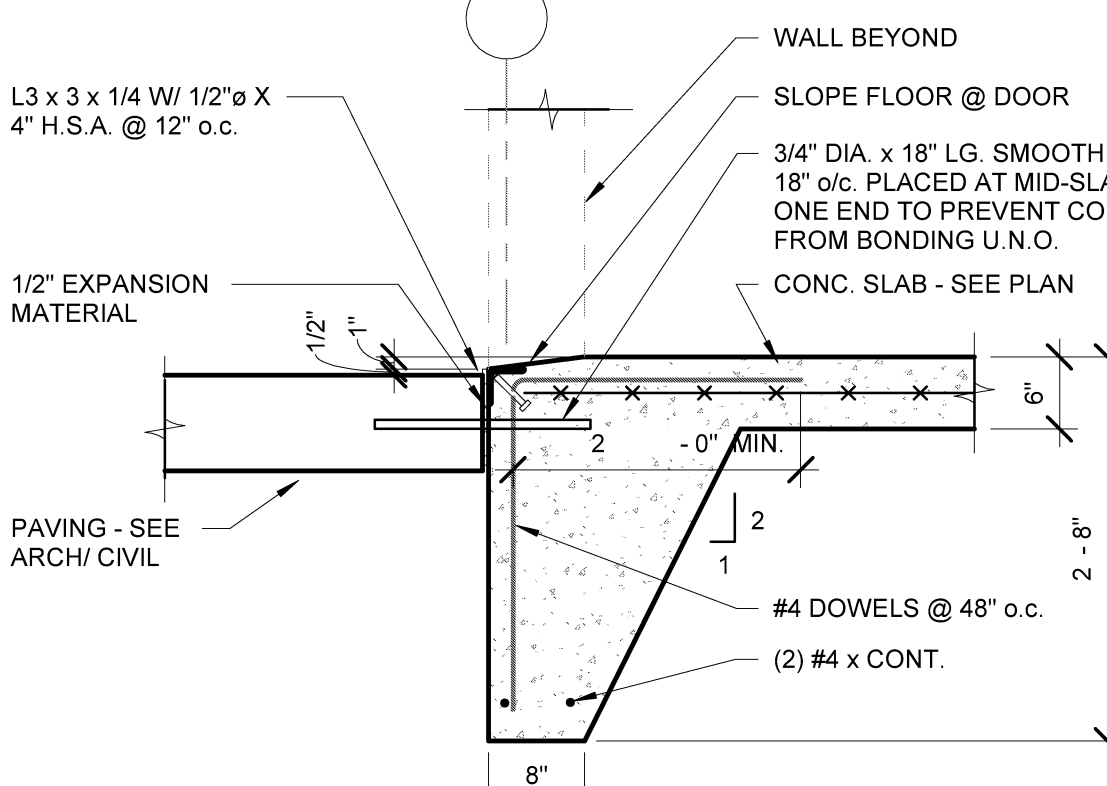
6 SECTION @ EXT. FOUNDATION  
Scale: 3/4" = 1'-0"



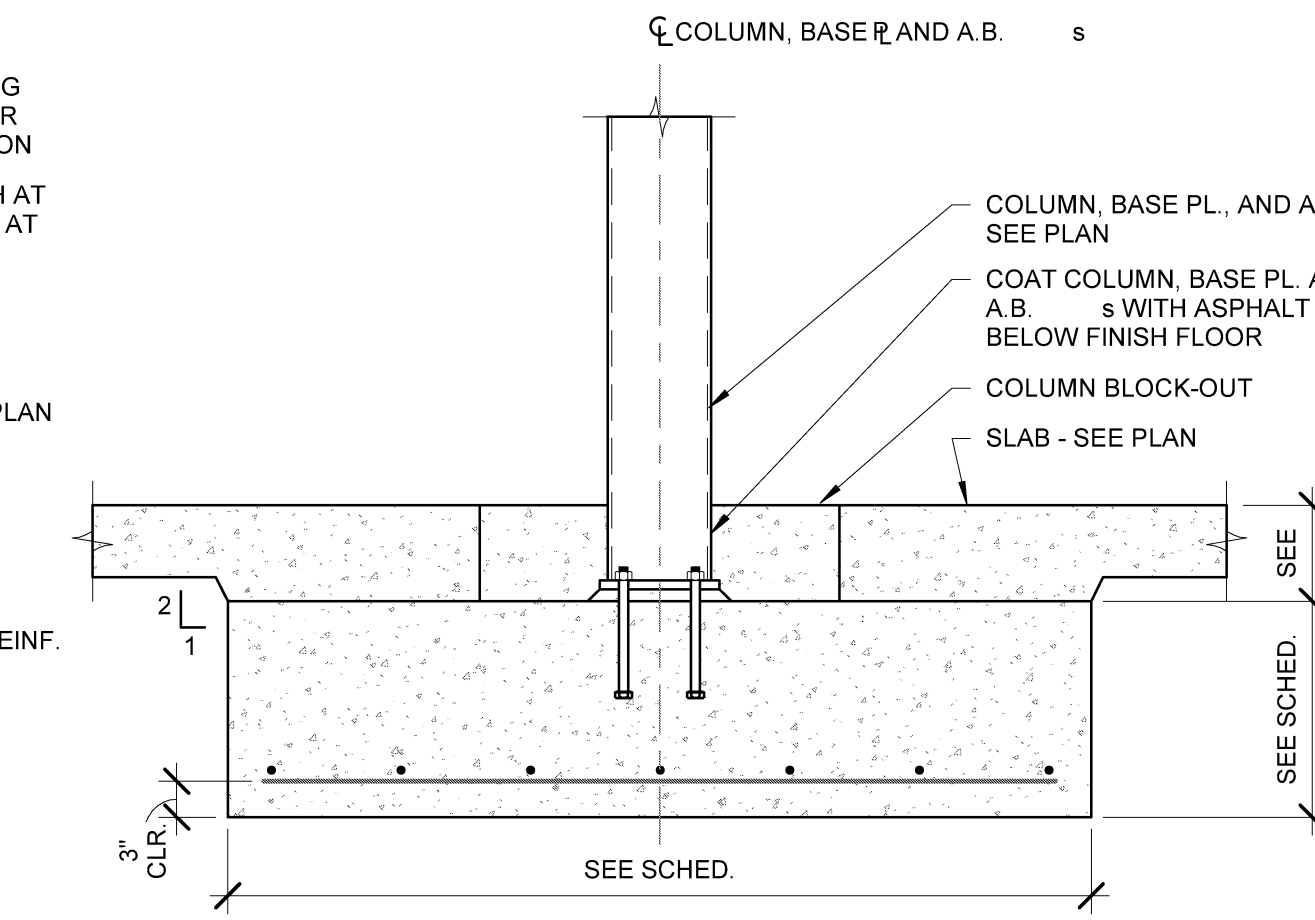
9 HAIRPIN DETAIL  
Scale: 1/2" = 1'-0"



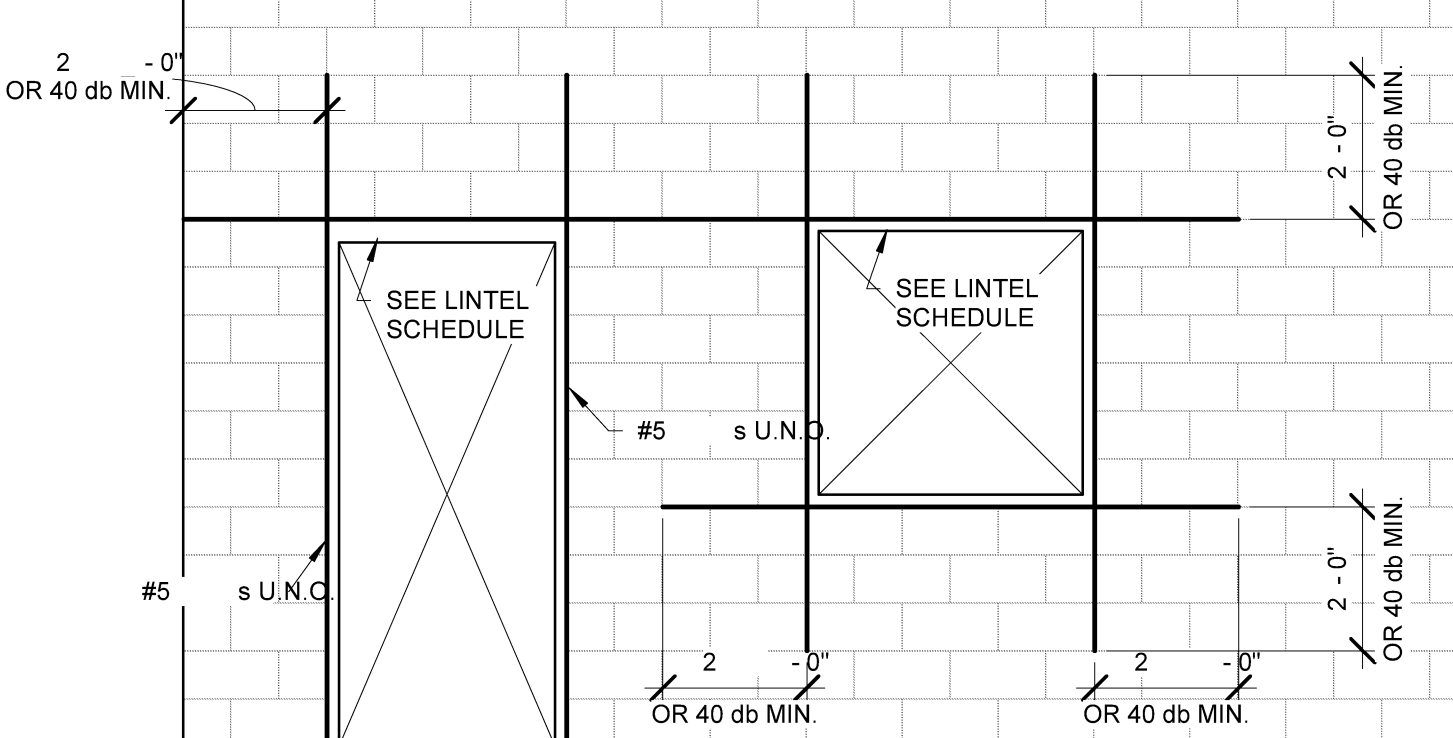
11 SECTION @ PLATFORM COLUMN  
Scale: 3/4" = 1'-0"



3 TYP. SECTION @ OVHD DOOR  
Scale: 3/4" = 1'-0"

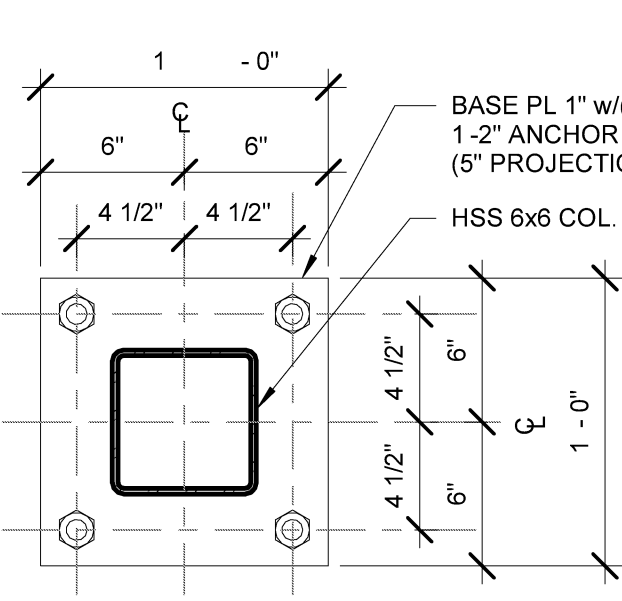


7 SECTION @ INT. FOUNDATION  
Scale: 3/4" = 1'-0"

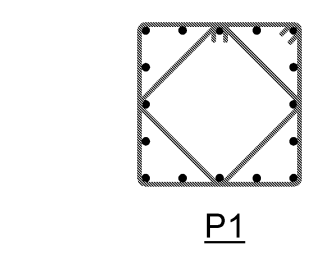


THIS REINFORCEMENT IS IN ADDITION TO OTHER REINFORCEMENT. MINIMUM REINFORCING BAR LOCATIONS. VERTICAL REINFORCING TO BE AT EACH CORNER AT EACH SIDE OF AN OPENING AND AT THE ENDS OF WALLS. HORIZ. REINF. TO BE LOCATED AT THE TOP & BOTTOM OF OPENINGS, CONTINUOUSLY AT TOP AND BOTTOM OF WALL.

10 RIENF. @ CMU OPENING  
Scale: 3/8" = 1'-0"



12 BASE PLATES  
Scale: 1 1/2" = 1'-0"



13 TIE DETAIL  
Scale: 1/2" = 1'-0"

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PRELIMINARY REVISION		DATE	DESCRIPTION
1	NO	10-01-2021	

**PRELIMINARY NOT FOR CONSTRUCTION**

PROJECT NO. 2114TN

DRAWN BY CN

DESIGN LEADER CK

CHECKED BY

REVIEWED BY  
(PROJECT MANAGER)

**NEW REPAIR SHOP & BLAST/PAINT FACILITY**  
**AITX RAILCAR SERVICES, LLC**  
**BROOKHAVEN, MISSISSIPPI**

**FORCUM LANNOM**  
**CONTRACTORS, LLC**

350 US Hwy. 51 Bypass S., Dyersburg, Tennessee 38024 PH: (731) 287-4700

Sheet Name	FDN. GEN. NOTES & TYP. DTLS.
Date	10-01-2021
Sheet	S0.1B



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FOR REQUIREMENTS OF EARTHWORK, SUBGRADE PREPARATION, ENGINEERED BACKFILL AND COMPACTION, OVER EXCAVATION, WATERPROOFING, AND OTHER PERTINENT REQUIREMENTS AND INFORMATION REFER TO GEOTECHNICAL EVALUATION AND SPECIFICATIONS.

2200.07  
ALL WATER SHALL BE REMOVED FROM FOUNDATION EXCAVATIONS PRIOR TO PLACING OF CONCRETE. IF BOTTOMS OF TRENCHES BECOME SOFTENED DUE TO WATER BEFORE FOOTINGS ARE CAST, THE CONTRACTOR, AT HIS OWN EXPENSE, SHALL EXCAVATE THE SOFTENED MATERIAL AND REPLACE WITH CONCRETE.

2200.08  
ALL PIPES (WATER LINES, SEWER LINES, ETC.) AND CONDUITS RUNNING THROUGH WALLS / SLABS SHALL BE PROTECTED WITH 1/2" EXPANSION MATERIAL.

2200.09  
CONTINUOUS FOOTING PERPENDICULAR TO PIPE RUNS SHALL BE EITHER LOWERED TO ALLOW PIPES TO PASS THROUGH ABOVE SUCH FOOTINGS OR HAVE CONCRETE JACKET IF PIPES ARE LOW ENOUGH TO BE PLACED BELOW SUCH FOOTINGS. FOOTINGS PARALLEL TO PIPE RUNS SHALL BE LOWERED TO AVOID SURCHARGE ONTO THE TRENCH EXCAVATIONS.

2200.10  
REFER TO CIVIL/ARCHITECTURAL PLANS FOR LIMITS OF EXCAVATION.

### CONCRETE GENERAL NOTES

3100.01  
ALL DETAILING, FABRICATION AND PLACING OF REINFORCING STEEL SHALL CONFORM TO THE ACI STANDARD "DETAILS AND DETAILING OF CONCRETE REINFORCEMENT" (ACI 315).

3100.02  
INTERIOR CONCRETE SHALL DEVELOP A 28 DAY MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI AND MAY NOT CONTAIN FLY-ASH. EXTERIOR CONCRETE SHALL BE ENTRAINED WITH 4-7% AIR, SHALL DEVELOP 28 DAY MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI, AND MAY CONTAIN FLY-ASH. ALL OTHER CONCRETE SHALL DEVELOP A 28 DAY MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI AND MAY CONTAIN FLY-ASH.

3100.03  
CHAMFER ALL EXPOSED EXTERNAL CORNERS OF CONCRETE WITH 3/4" X 45° CHAMFER, UNLESS NOTED OTHERWISE.

3100.04  
ALL REINFORCING STEEL SHALL BE DEFORMED BARS CONFORMING TO ASTM A615, GRADE 60.

3100.05  
ALL REINFORCING BAR SPLICES SHALL BE 44 BAR DIAMETERS.

3100.06  
ALL REINFORCING BAR HOOKS SHALL BE ACI STANDARD 135° HOOK, UNLESS NOTED OTHERWISE.

3100.07  
PROVIDE TWO #4 X 5 -0" LONG DIAGONAL BARS IN TOP FACE AT ALL RE-ENTRANT CORNERS IN SLAB.

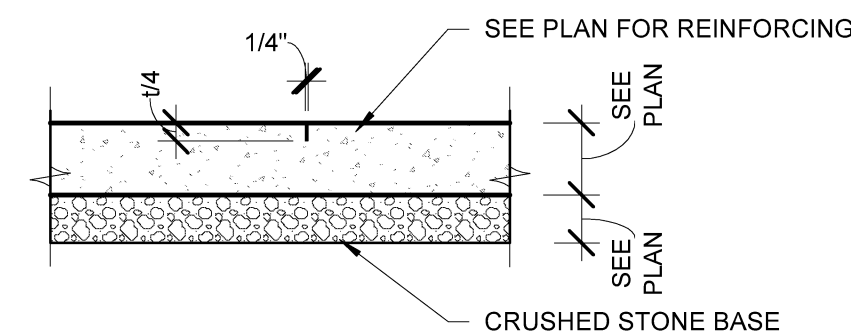
3100.08  
PROVIDE CORNER BARS IN FOOTINGS & TURN-DOWN SLABS SAME SIZE & SPACING AS LONGITUDINAL REINFORCING.

3100.09  
BAR SUPPORTS AT FOOTINGS & SLAB-ON-GRADE SHALL BE FACTORY MADE WIRE BAR SUPPORTS.

3100.10  
ALL SLOTS, SLEEVES AND OTHER EMBEDDED ITEMS SHALL BE SET BEFORE CONCRETE IS PLACED. SEE ARCHITECTURAL, ELECTRICAL, MECHANICAL, AND VENDOR'S DRAWINGS FOR SIZE & LOCATIONS.

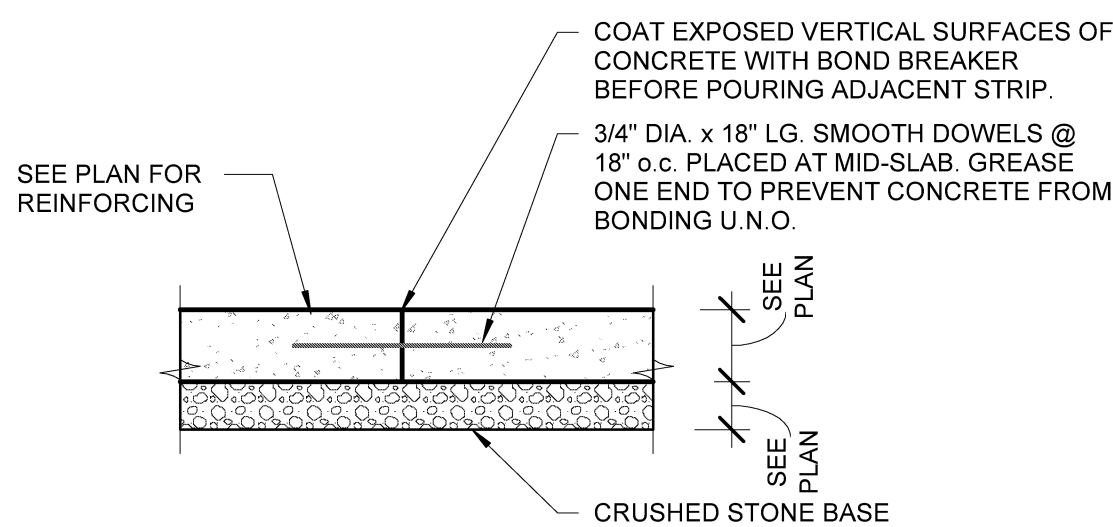
### METAL BUILDING DESIGN LOADS

- ROOF DEAD LOAD:..... PER MBM
- ROOF LIVE LOAD:..... 20 PSF
- MP&E LIVE LOAD:..... 5 PSF
- COLLATERAL LOAD:..... 5 PSF
- SNOW LOAD:
  - GROUND SNOW LOAD: 5 PSF
  - FLAT-ROOF SNOW LOAD (P<sub>f</sub>) = 5 PSF
  - SNOW EXPOSURE FACTOR (C<sub>e</sub>) = 1.0
  - SNOW LOAD IMPORTANCE FACTOR (I) = 1.0
  - THERMAL FACTOR (t) = 1.2
- WIND LOAD:
  - WIND SPEED (3-SECOND GUST): 120 mph
  - WIND IMPORTANCE FACTOR (I<sub>w</sub>) = 1.0
  - BUILDING CATEGORY II
  - WIND EXPOSURE CATEGORY C
- SEISMIC:
  - OCCUPANCY CATEGORY II
  - IMPORTANCE FACTOR = 1.0
  - SDS = 0.1210
  - SD1 = 0.0713
  - SEISMIC SITE CLASS D
  - SEISMIC DESIGN CATEGORY B
  - BASIC STRUCTURAL SYSTEM - PER MBM
  - SEISMIC RESISTING SYSTEM - PER MBM
  - RESPONSE MODIFICATION COEFFICIENT (R) = PER MBM
  - DEFLECTION AMPLIFICATION FACTOR (C<sub>d</sub>) = PER MBM
  - ANALYSIS PROCEDURE - EQUIVALENT LATERAL FORCE PROCEDURE
- BUILDING CODE:
  - 2015 INTERNATIONAL BUILDING CODE



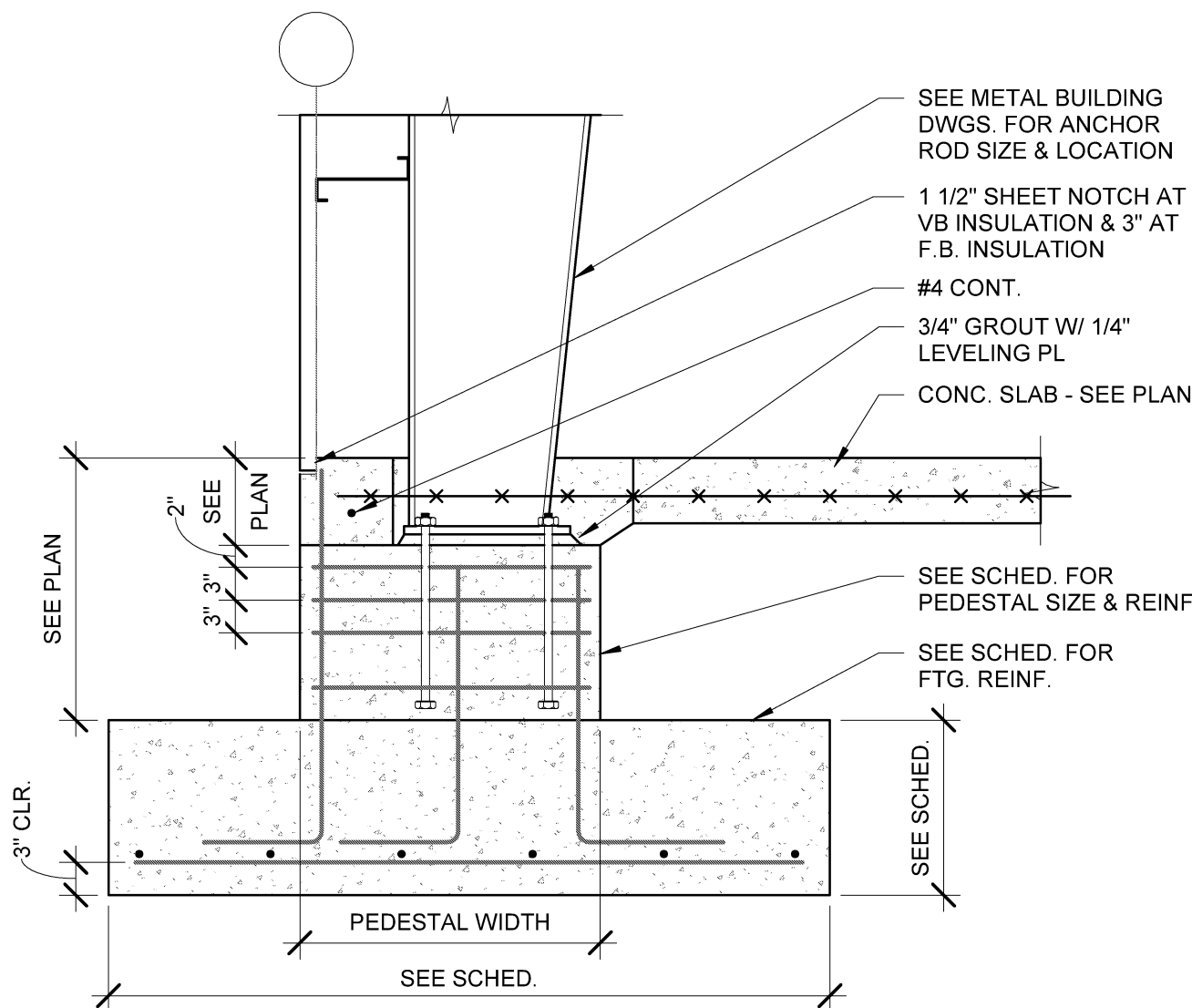
1 CONC. CONTROL JT.

Scale: 3/4" = 1'-0"



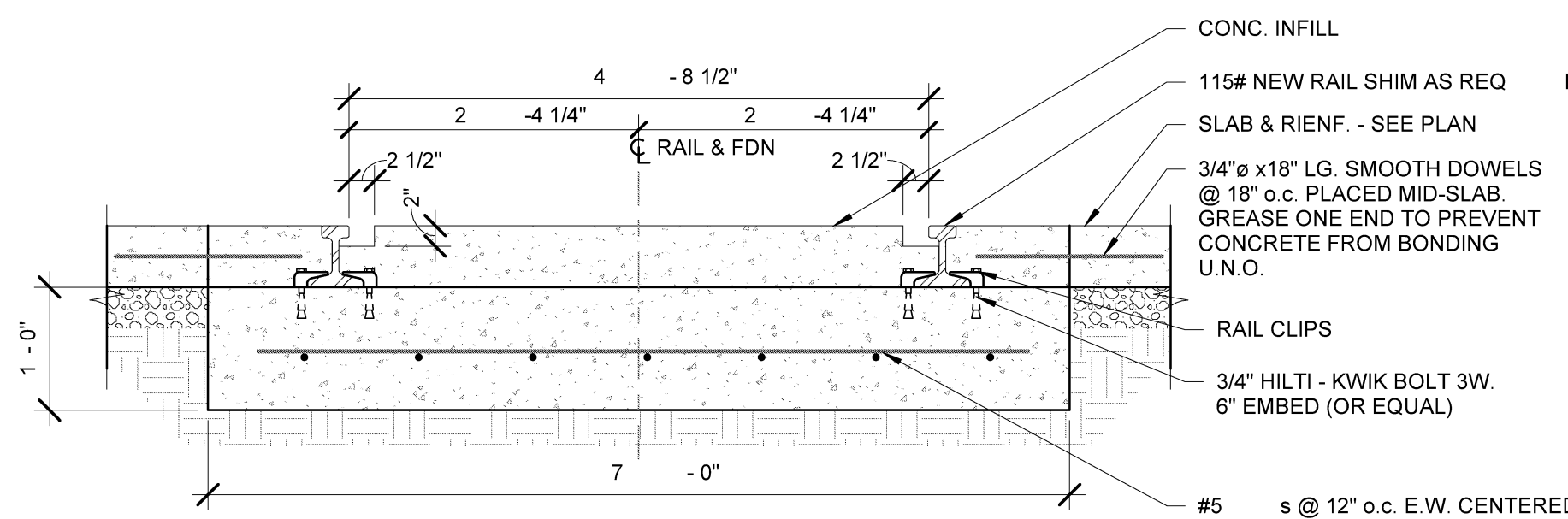
2 TYP. CONC. CONST. JT.

Scale: 3/4" = 1'-0"



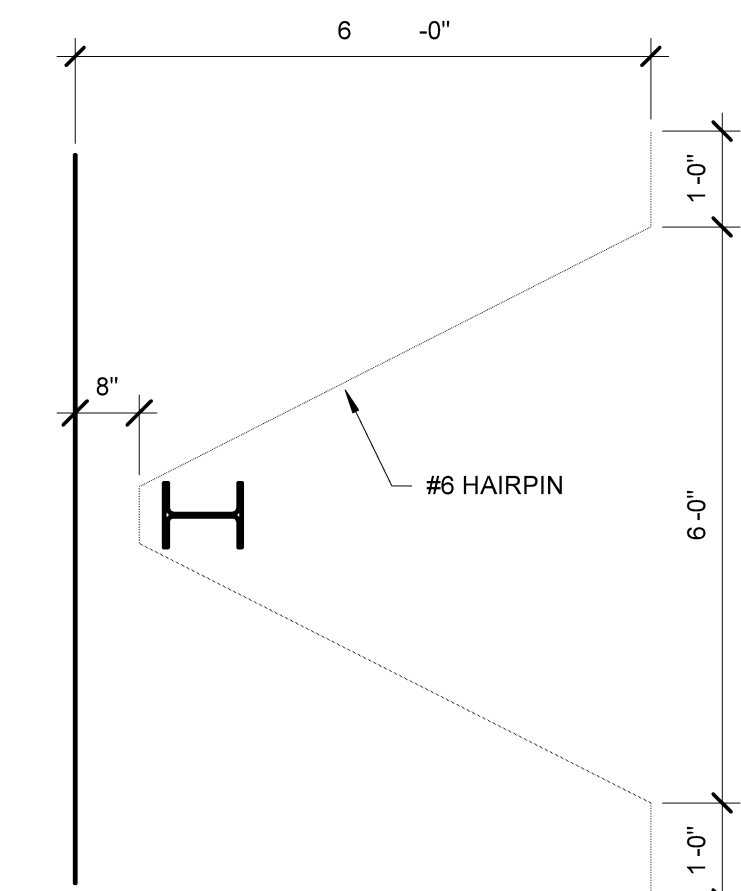
5 SECTION @ TYP. EXT. COLUMN

Scale: 3/4" = 1'-0"



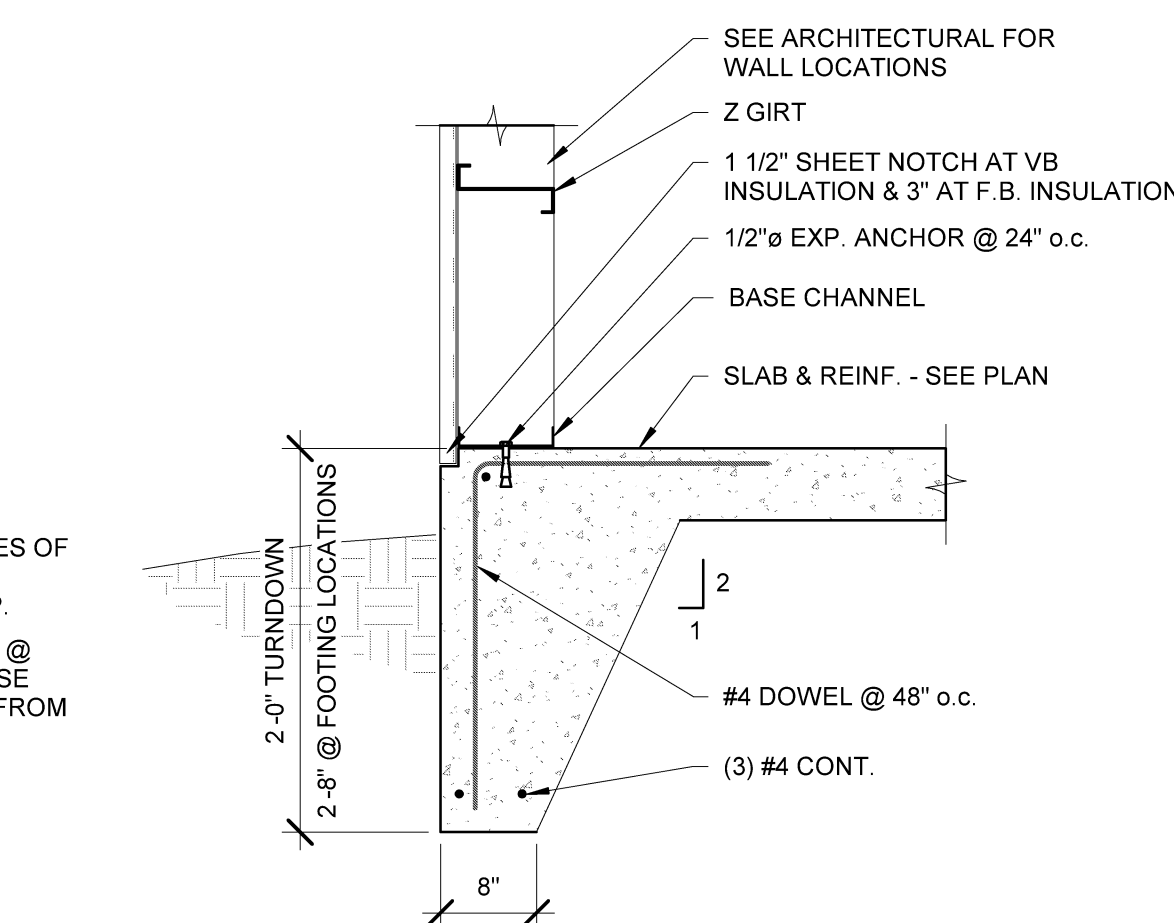
9 SECTION @ RAIL

Scale: 3/4" = 1'-0"



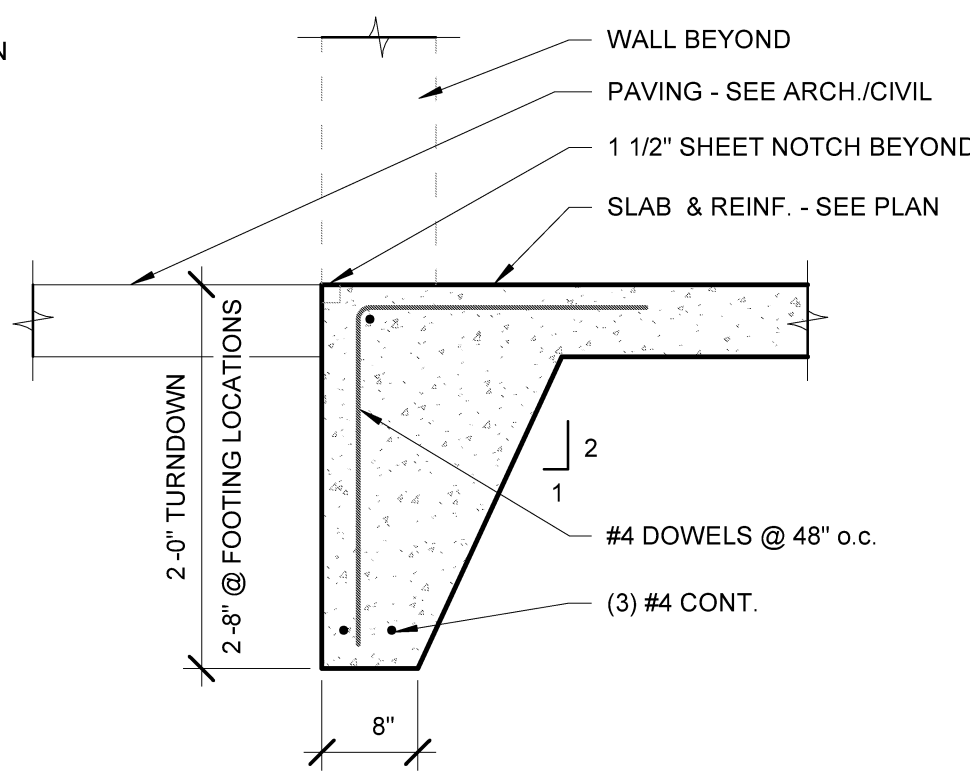
6 HAIRPIN DETAIL

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



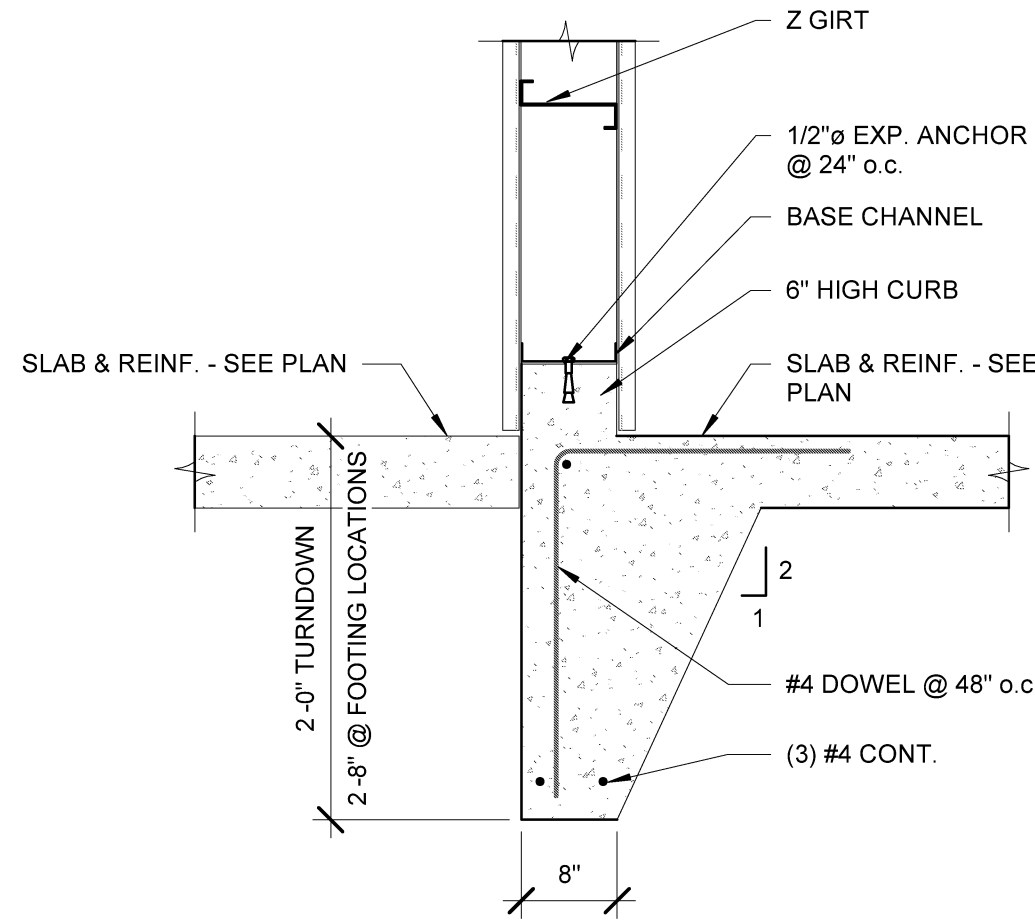
3 SECTION @ TYP. TURNDOWN

Scale: 3/4" = 1'-0"



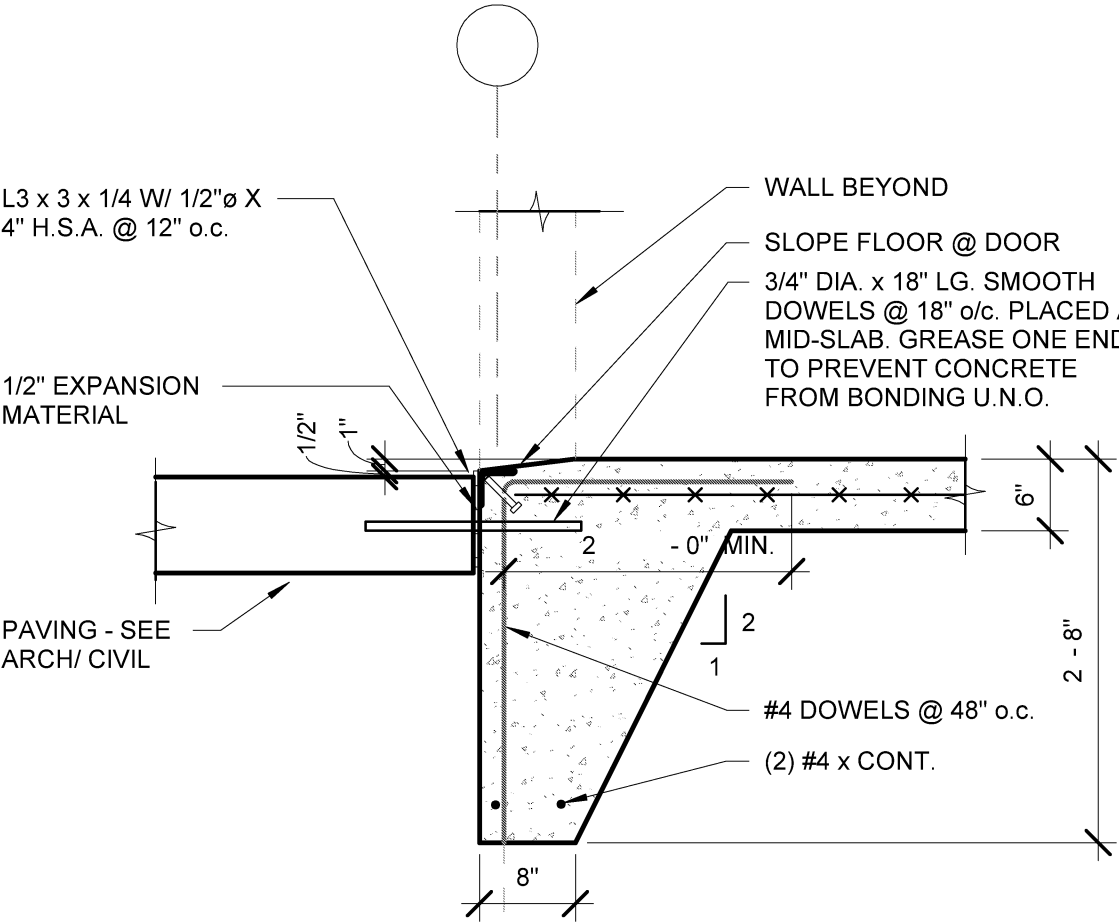
4 SECTION @ WALKDOOR

Scale: 3/4" = 1'-0"



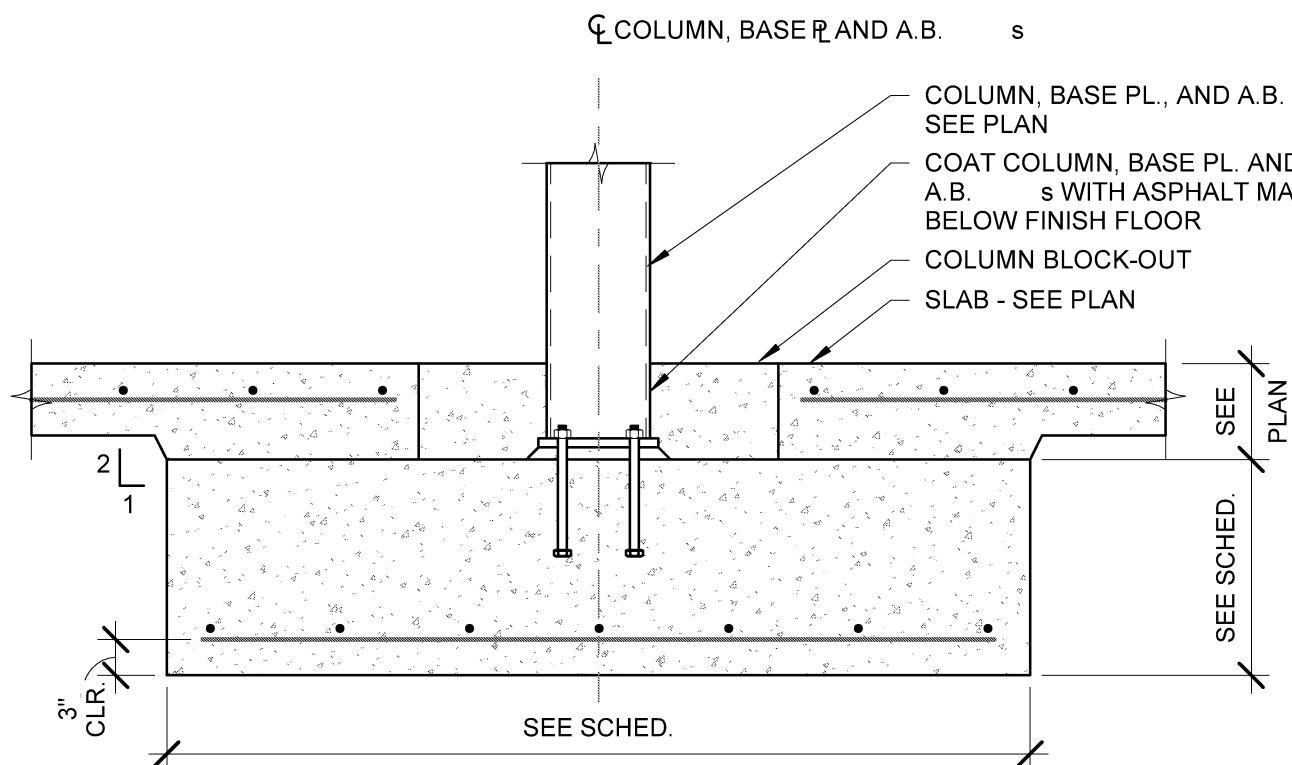
7 SECTION @ CURB

Scale: 3/4" = 1'-0"



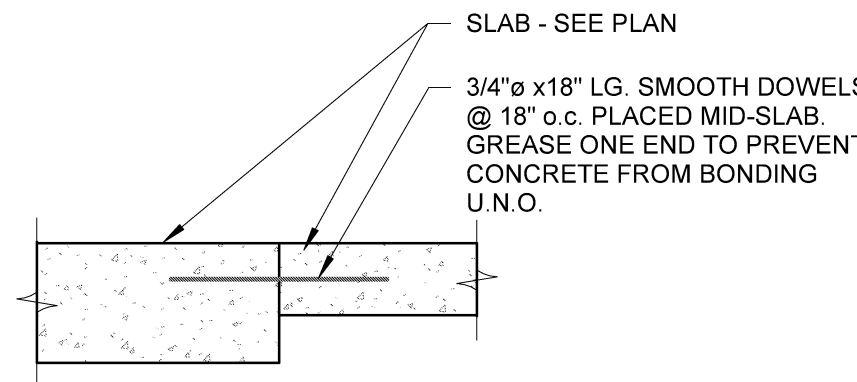
8 TYP. SECTION @ OVHD DOOR

Scale: 3/4" = 1'-0"



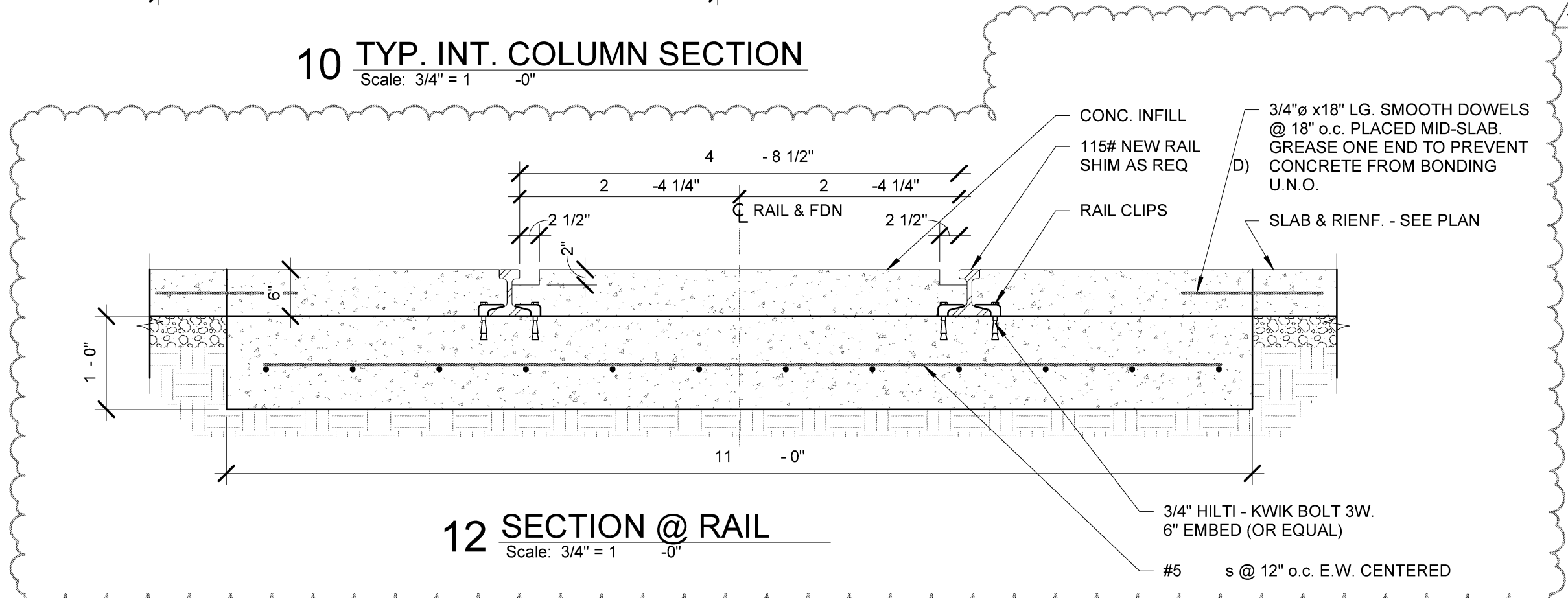
10 TYP. INT. COLUMN SECTION

Scale: 3/4" = 1'-0"



11 SECTION

Scale: 3/4" = 1'-0"



12 SECTION @ RAIL

Scale: 3/4" = 1'-0"

### NOTICE

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### TYPICAL STRUCTURAL ABBREVIATIONS

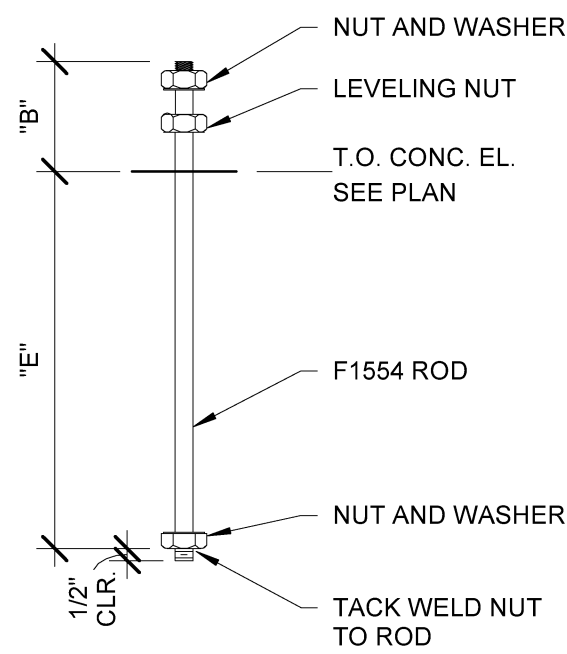
ACI	AMERICAN CONCRETE INSTITUTE	EXP	EXPANSION	PEMB	PRE-ENGINEERED METAL BUILDING																																				
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION	FIN	FINISH	PL or PLF	PLATE																																				
ASTM	AMERICAN SOCIETY OF TESTING MATERIALS	FLR	FLOOR	PSF	POUNDS PER SQUARE FOOT																																				
AB	ANCHOR BOLT	FDN	FOUNDATION	PSI	POUNDS PER SQUARE INCH																																				
L	ANGLE	FTG	FAR SIDE	R	RADIUS																																				
ARCH BLDG	ARCHITECT BUILDING	GA	GAUGE	REIN	REINFORCEMENT																																				
BM	BEAM	GALV	GALVANIZED	REQ	REQUIRED																																				
BOT	BOTTOM	HK	HOOK	RTU	ROOF TOP UNIT																																				
BRG	BEARING	HORIZ	HORIZONTAL	SCHED	SCHEDULE																																				
C	CENTER LINE	H.S.A	HEADED STUD ANCHOR	SECT	SECTION																																				
CLR	CLEAR	J.B.E	JOIST BEARING ELEVATION	SIM	SIMILAR																																				
COL	COLUMN	JST	JOIST	SJI	STEEL JOIST INSTITUTE																																				
CONC	CONCRETE	JT	JOINT	S.O.G	SLAB ON GRADE																																				
CONN	CONNECTION	LLH	LONG LEG HORIZONTAL	SPA	SPACING																																				
CONT	CONTINUOUS	LLV	LONG LEG VERTICAL	SPECS	SPECIFICATIONS																																				
DIA. or Ø	DIAMETER	LONG.	LONGITUDINAL	STD	STANDARD																																				
DIM	DIMENSION	LG	LONG	STL	STEEL																																				
DTL	DETAIL	MAX	MAXIMUM	TOC	TOP OF CONCRETE																																				
DN	DOWN	MECH	MECHANICAL	TOF	TOP OF FOOTING																																				
do	DITTO	MBM	METAL BUILDING MANUFACTURER	TOS	TOP OF STEEL																																				
DWG	DRAWING	MIN	MINIMUM	TOW	TOP OF WALL																																				
DWL	DOWEL	MISC	MISCELLANEOUS	TRANS	TRANSVERSE </tr <tr><td>EI</td><td>ELEVATION</td><td>MFR</td><td>MANUFACTURER</td><td>TYP</td><td>TYPICAL</td></tr> <tr><td>EQ</td><td>EQUAL</td><td>MTL</td><td>METAL</td><td>UNO</td><td>UNLESS NOTED OTHERWISE</td></tr> <tr><td>EW</td><td>EACH WAY</td><td>N.S</td><td>NEAR SIDE</td><td>VERT</td><td>VERTICAL</td></tr> <tr><td>EXIST.</td><td>EXISTING</td><td>O.C</td><td>ON CENTER</td><td>W</td><td>WITH</td></tr> <tr><td></td><td></td><td>OPNG</td><td>OPENING</td><td>WP</td><td>WORK POINT</td></tr> <tr><td></td><td></td><td>OVHD</td><td>OVERHEAD</td><td>WWF</td><td>WELDED WIRE FABRIC</td></tr>	EI	ELEVATION	MFR	MANUFACTURER	TYP	TYPICAL	EQ	EQUAL	MTL	METAL	UNO	UNLESS NOTED OTHERWISE	EW	EACH WAY	N.S	NEAR SIDE	VERT	VERTICAL	EXIST.	EXISTING	O.C	ON CENTER	W	WITH			OPNG	OPENING	WP	WORK POINT			OVHD	OVERHEAD	WWF	WELDED WIRE FABRIC
EI	ELEVATION	MFR	MANUFACTURER	TYP	TYPICAL																																				
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		OPNG	OPENING	WP	WORK POINT																																				
		OVHD	OVERHEAD	WWF	WELDED WIRE FABRIC																																				

### METAL BLDG. ANCHOR BOLT SCHEDULE

BOLT DIAMETER	EMBEDMENT LENGTH "E"	THREAD PROJ. "B"	REMARKS
1"ø	1'-8"	5"	-----
7/8"ø	1'-8"	5"	-----
3/4"ø	1'-8"	5"	-----
5/8"ø	1'-4"	4"	-----
1/2"ø	8"	4"	-----

METAL BLDG. ANCHOR BOLT SCHEDULE NOTES:

- SEE METAL BUILDING ANCHOR BOLT SETTING PLAN FOR SIZE & LOCATION OF ANCHOR BOLTS
- COORDINATE REQUIRED PROJECTION WITH METAL BUILDING MANUFACTURER.



### PRELIMINARY NOT FOR CONSTRUCTION

PROJECT NO. 2114MS

DRAWN BY CN

DESIGN LEADER CK

CHECKED BY

REVIEWED BY  
(PROJECT MANAGER)

NEW REPAIR SHOP & BLAST/PAINT FACILITY  
AITX RAILCAR SERVICES, LLC  
BROOKHAVEN, MISSISSIPPI

Sheet Name

FDN. GEN. NOTES & TYP. DTLS.

Date 10-01-2021

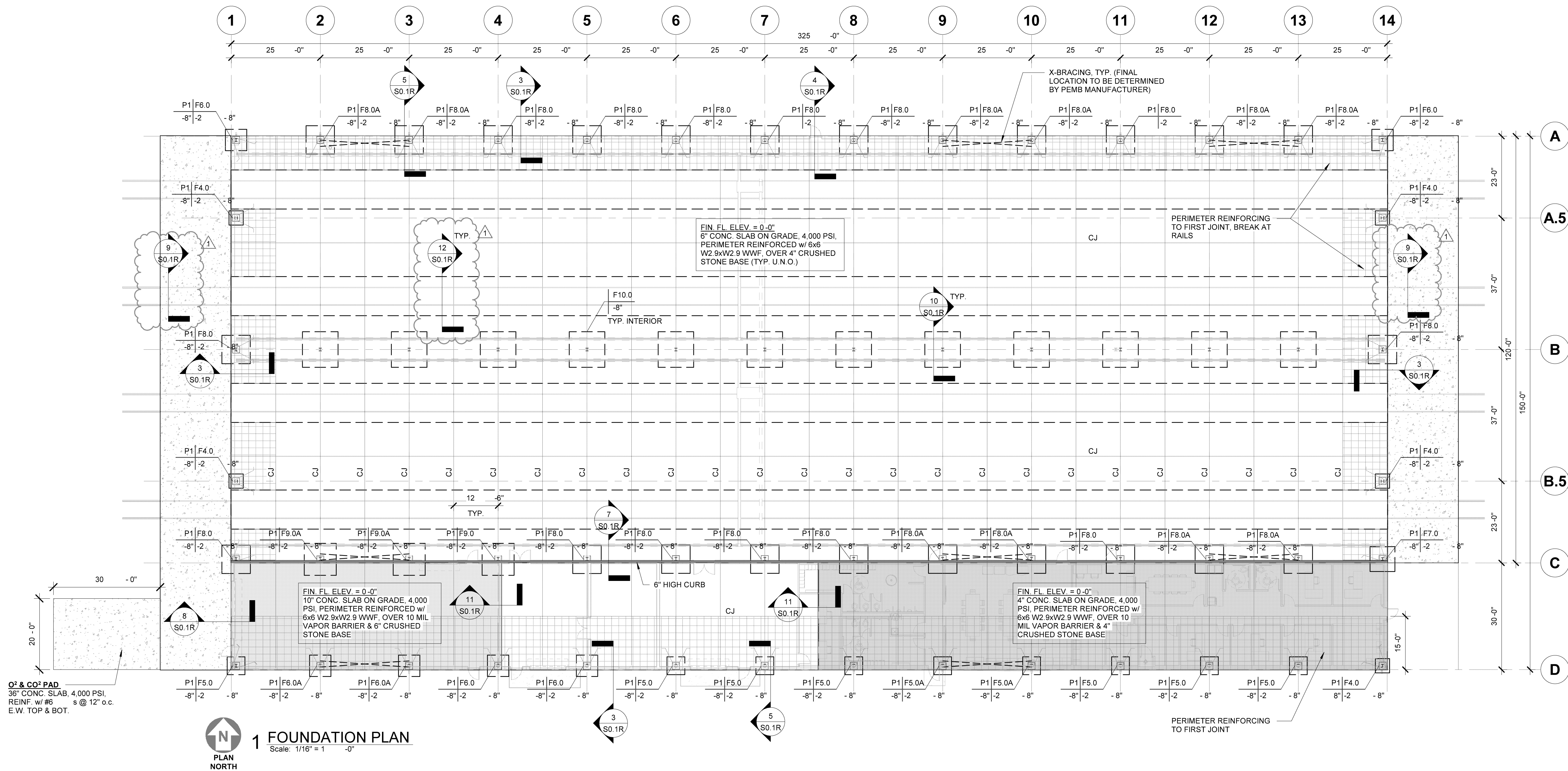
Sheet S0.1R

FORCUM LANNOM  
CONTRACTORS, LLC

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10/26/2021 10:56:12 AM



## 1 FOUNDATION PLAN

Scale: 1/16" = 1'-0"

### FOUNDATION PLAN LEGEND:

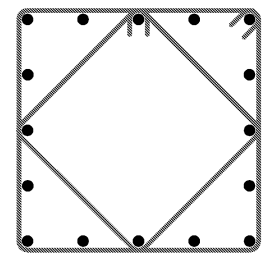
- PEDESTAL MARK (SEE PED. SCHED.)
- FTG. MARK (SEE FTG. SCHED.)
- TOP OF FTG. EL.
- TOP OF PEDESTAL EL.
- FTG. MARK (SEE FTG. SCHED.)
- TOP OF FTG. EL.
- CJ DENOTES CONTROL OR CONST. JT.
- DENOTES #6 HAIRPIN

### FOUNDATION PLAN NOTES:

- ALL ELEVATIONS ARE BASED ON FINISH FLOOR ELEVATION = 0'-0". FIELD VERIFY ACTUAL FINISH FLOOR.
- SEE ARCH. FOR DIMENSIONS NOT SHOWN.
- ALL BASE PLATES TO BE -0'-7" BELOW FIN. FLR., U.N.O.

FOOTING SCHEDULE					
FTG. MARK	LENGTH	WIDTH	THICKNESS	REINFORCING	
F4.0	4'-0"	4'-0"	1'-0"	(5) #5 EA. WAY, BOT.	
F5.0	5'-0"	5'-0"	1'-0"	(6) #5 EA. WAY, BOT.	
F5.0A	5'-0"	5'-0"	1'-0"	(6) #5 EA. WAY, TOP & BOT.	
F6.0	6'-0"	6'-0"	1'-4"	(7) #5 EA. WAY, BOT.	
F6.0A	6'-0"	6'-0"	1'-4"	(7) #5 EA. WAY, TOP & BOT.	
F7.0	7'-0"	7'-0"	1'-4"	(8) #5 EA. WAY, BOT.	
F8.0	8'-0"	8'-0"	1'-6"	(9) #6 EA. WAY, BOT.	
F8.0A	8'-0"	8'-0"	1'-6"	(9) #6 EA. WAY, TOP & BOT.	
F9.0	9'-0"	9'-0"	1'-6"	(10) #6 EA. WAY, BOT.	
F9.0A	9'-0"	9'-0"	1'-6"	(10) #6 EA. WAY, TOP & BOT.	
F10.0	10'-0"	10'-0"	1'-6"	(11) #6 EA. WAY, BOT.	

PEDESTAL SCHEDULE				
MARK	PEDESTAL SIZE LENGTH x WIDTH	VERTICAL DOWELS	TIES	REMARKS
P1	24"x24"	(16) #6	#4@10" o.c.	



P1

## 2 TIE DETAILS

Scale: 3/4" = 1'-0"

PRELIMINARY  
NOT FOR  
CONSTRUCTION

PROJECT NO. 2114MS

DRAWN BY CN

DESIGN LEADER CK

CHECKED BY

REVIEWED BY  
(PROJECT MANAGER)

NEW REPAIR SHOP & BLAST/PAINT FACILITY  
AITX RAILCAR SERVICES, LLC  
BROOKHAVEN, MISSISSIPPI

FORCUM LANNOM  
CONTRACTORS, LLC

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Sheet Name

FOUNDATION PLAN

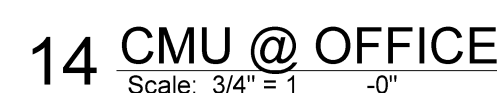
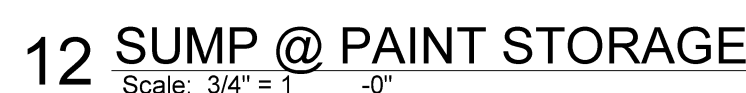
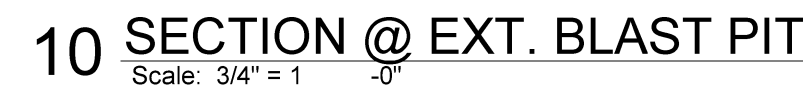
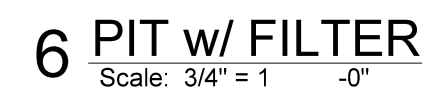
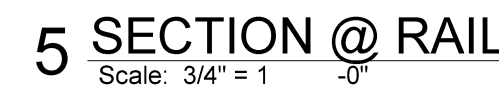
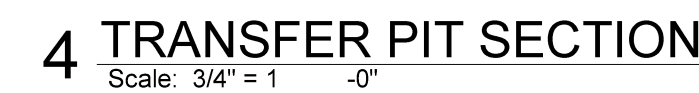
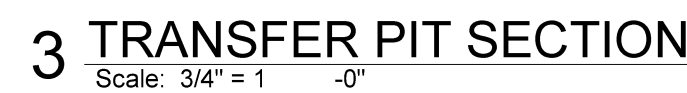
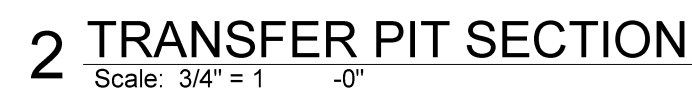
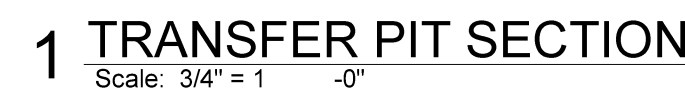
Date 10-01-2021

Sheet S1.1R

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**NEW REPAIR SHOP & BLAST/PAINT FACILITY  
AITX RAILCAR SERVICES, LLC  
BROOKHAVEN, MISSISSIPPI**

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Sheet **S3.1B**