

PARK BOARD

City of Brainerd, Minnesota
City Hall, 501 Laurel Street, Council Chambers
Tuesday, March 8, 2022, @ 4:00pm

The public is invited to attend this meeting in person
Attend by phone: 1-844-992-4726 Meeting Access Code: 2483 735 3041
Meeting is also streamed live on YouTube: www.youtube.com/CityOfBrainerdMN

1. **Call To Order - 4:00 PM**

2. **Roll Call**

___T. Boeder ___K. Schaefer ___A. Shipe ___K. Yeager ___T.
Rushmeyer

3. **Pledge Of Allegiance**

4. **Approval Of Agenda**

5. **Unfinished Business**

6. **New Business**

A. **Approve Plans And Specification And Authorize Bidding -
Mississippi Landing Trailhead Park**

Documents:

Approve Plans and Specs - MLT Park.pdf

7. **Public Forum**

Time allocated for citizens to bring matters not on the agenda to the attention of the Board. Time limits may be imposed.

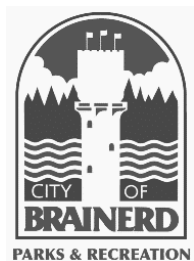
8. **Adjourn**

Adjourn to Park Board Work Session for Parks Master Planning - Jaycees Park

Visit the Parks and Recreation Website at www.ci.brainerd.mn.us/parks

MISSION

"To serve Brainerd residents and visitors by offering high-quality, affordable recreational opportunities and by providing a clean, well-maintained park system"



Brainerd Park Board Agenda Request

Requested Meeting Date:

Title of Item:

☐ INFORMATION ONLY

☐ ACTION REQUESTED

Action Requested:

☐ Direction Requested

☐ Discussion Item

Submitted by:

Department:

Presenter (Name & Title):

Estimated Time Needed:

Summary of Issue:

Alternatives, Options, Effects on Others/Comments:

Recommended Action/Motion:

Financial Impact:

Is there a cost associated with this request:

☐ Yes

☐ No

What is the total cost, with tax and shipping

\$ _____

Is this budgeted?

☐ Yes

☐ No

Please Explain:

Mississippi Landing Trailhead Design Development Cost Estimate

BASE SCHEDULE

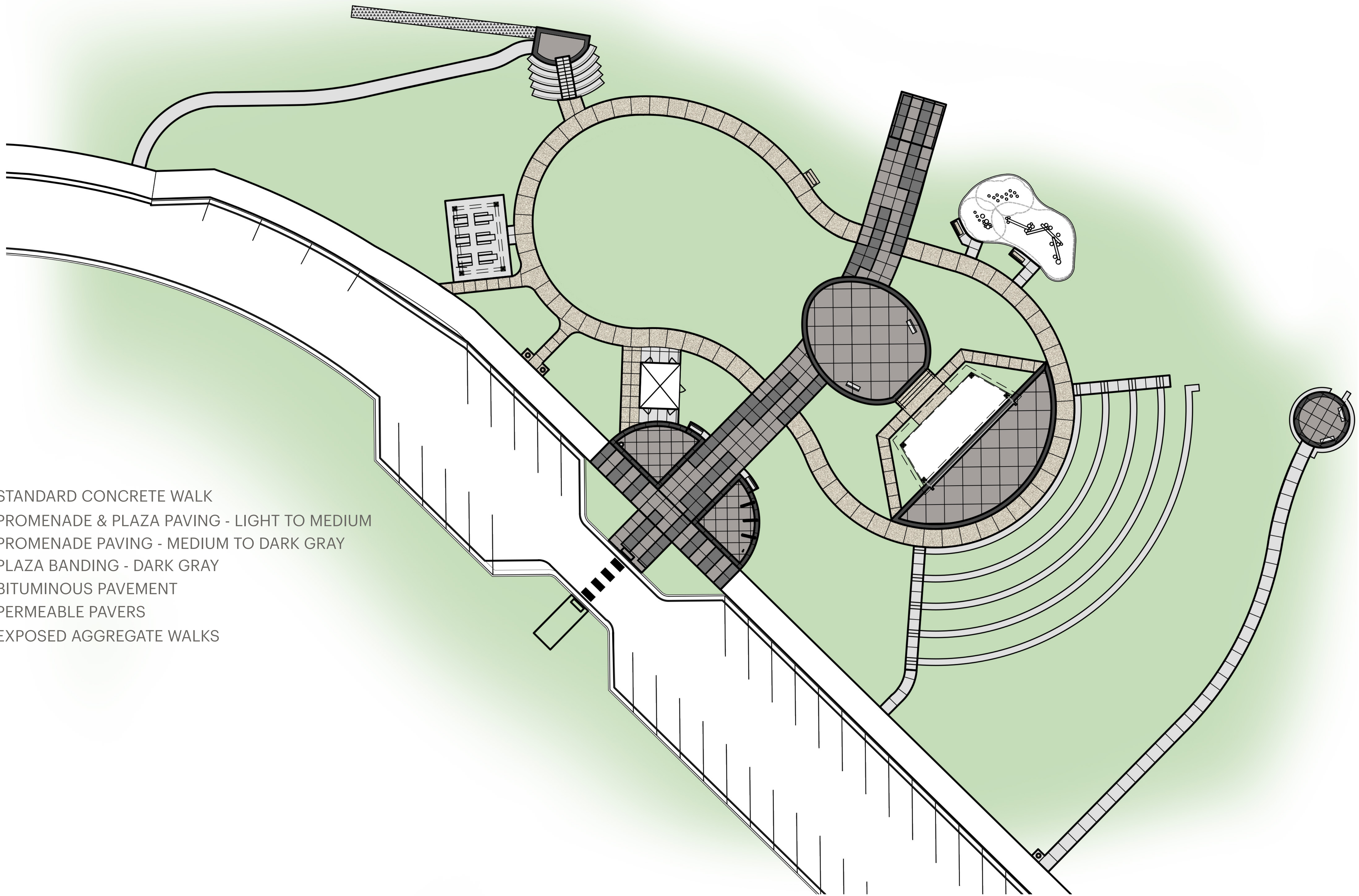
Item	Description	Qty.	Units	Unit Cost	Subtotal
1	General Conditions, Removals, Earthwork				
	1 Mobilization / General Conditions	1	LS	100,000	\$ 100,000
	2 Removals	1	LS	25,000	\$ 25,000
	3 Sanitary and Water Improvements	1	LS	15,000	\$ 15,000
	4 Erosion control	1200	LF	4	\$ 4,800
	5 Earthwork	1	LS	150,000	\$ 150,000
2	Trailhead				
	1 6" thick reinforced decorative concrete pavement	2400	SF	16	\$ 38,400
3	Restroom				
	1 6" thick reinforced decorative concrete pavement	950	SF	16	\$ 15,200
	2 Restroom building including foundation	1	LS	190,000	\$ 190,000
4	Amphitheater Area (retaining walls and flatwork)				
	1 Retaining wall	2860	SFF	100	\$ 286,000
	2 6" thick reinforced decorative concrete pavement	3800	SF	16	\$ 60,800
5	Promenade				
	1 6" thick reinforced decorative concrete pavement	3920	SF	16	\$ 62,720
6	River overlook				
	1 Structural platform	1200	SF	320	\$ 384,000
	2 6" thick reinforced decorative concrete pavement	5650	SF	16	\$ 90,400
	3 Ornamental safety railing	60	LF	350	\$ 21,000
7	Canoe/kayak Launch & ADA access				
	1 6" thick concrete pavement	1530	SF	10	\$ 15,300
8	Hill overlook & ADA access				
	1 6" thick concrete pavement	1750	SF	10	\$ 17,500
	2 6" thick reinforced decorative concrete pavement	315	SF	16	\$ 5,040
	3 Retaining walls	195	SFF	100	\$ 19,500
9	Landscaping and Irrigation				
	1 Tree	100	EA	550	\$ 55,000
	2 Shrubs	150	EA	60	\$ 9,000
	3 Perennials	400	EA	30	\$ 12,000
	4 Seeding and erosion control blanket	2	AC	7,500	\$ 15,000
	5 Irrigation	1	LS	30,000	\$ 30,000
10	Bioinfiltration stormwater treatment				
	1 Storm Sewer Improvements	1	LS	20,000	\$ 20,000
11	Electrical & site lighting				
	1 Electrical	1	LS	30,000	\$ 30,000
	2 Decorative lighting at Promenade	1	LS	50,000	\$ 50,000
	3 City Standard Light Fixtures	1	LS	40,000	\$ 40,000
12	Signage and wayfinding				

	1	Kiosk	1	EA	8,000	\$ 8,000
	2	Interpretative signage	3	EA	2,000	\$ 6,000
13	Site furnishing					
	1	Picnic tables	8	EA	2,500	\$ 20,000
	2	Bench	12	EA	2,500	\$ 30,000
	3	Bike rack	1	EA	2,500	\$ 2,500
	4	Bike repair station	1	EA	5,000	\$ 5,000
	5	Trash receptacles	10	EA	2,500	\$ 25,000
14	Playspace					\$ 30,000
15	Iconic Teaching Center					\$ 204,850
Base Schedule Subtotal						\$ 2,093,010
Contingency (15%)						\$ 313,952
Base Schedule Total						\$ 2,406,962

ALTERNATE SCHEDULE

A1	River steps & ADA Access					\$	147,095
	1	6" thick concrete pavement	130	SF	10	\$	1,300
	2	6" thick stamped concrete pavement with integral color	245	SF	16	\$	3,920
	3	Reinforced concrete staircase with handrails	1	LS	50000	\$	50,000
	4	Retaining wall	735	SFF	125	\$	91,875
A2	Amphitheater structure, stage and concrete stairs with handrailing					\$	300,000
A3	Canoe Launch					\$	23,400
	1	Earthwork	200	CY	15	\$	3,000
	2	Permeable Pavers	430	SF	30	\$	12,900
	3	Restoration	1500	SF	5	\$	7,500
	4					\$	-
Alternate Schedule Subtotal						\$	447,095
Contingency (15%)						\$	67,064
Alternate Schedule Total						\$	514,159
Base + Alternate Total						\$	2,921,121
Construction Budget						\$	2,620,500
WSB Fee						\$	229,500
Total Project Budget						\$	2,850,000

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- STANDARD CONCRETE WALK
- PROMENADE & PLAZA PAVING - LIGHT TO MEDIUM
- PROMENADE PAVING - MEDIUM TO DARK GRAY
- PLAZA BANDING - DARK GRAY
- BITUMINOUS PAVEMENT
- PERMEABLE PAVERS
- EXPOSED AGGREGATE WALKS

Mississippi Landing Trailhead | Paving Colors

Brainard, Minnesota
March 03, 2022 | WSB Project number: 018999-000

Decorative Concrete Finishes



EXPOSED AGGREGATE CONCRETE TRAIL



PERMEABLE PAVERS



PROMENADE PAVING



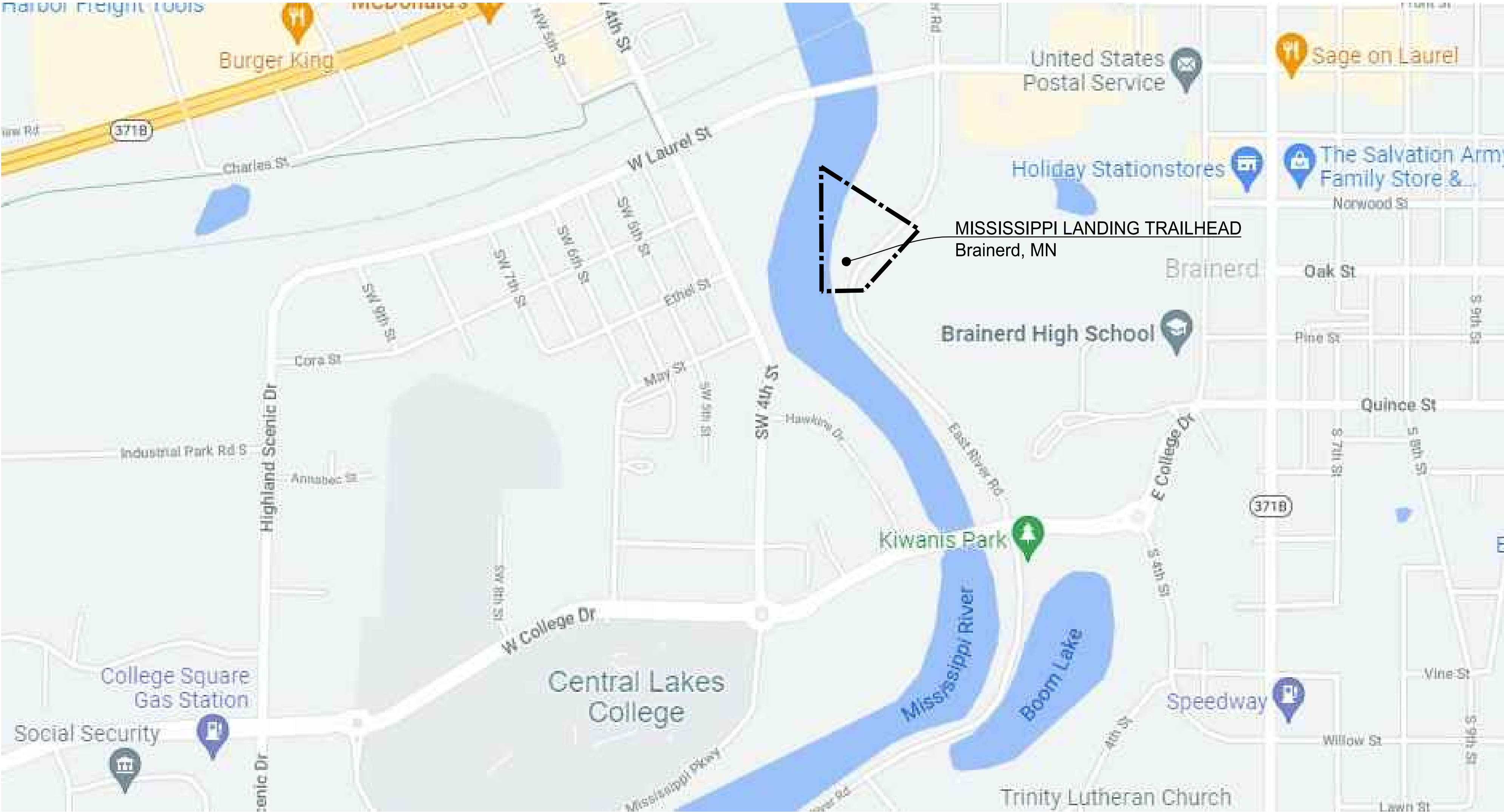
PLAZA PAVING

Mississippi Landing Trailhead | Paving Patterns

MISSISSIPPI LANDING TRAILHEAD PROJECT

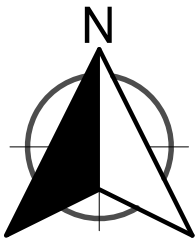
Brainerd, Minnesota

City Project No.
WSB & Associates, Inc. Project No. 018999-000
Issue Date..... MARCH 1, 2022



1 PROJECT LOCATION MAP
L1.0 SCALE:

THIS PLAN SET HAS BEEN PREPARED FOR:
CITY OF BRAINERD
501 LAUREL ROAD
BRAINERD, MN 56401



Sheet List Table	
Sheet Number	Sheet Title
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L1.2	SWPPP
L1.3	SWPPP
L2.0	OVERALL REMOVALS PLAN
L3.0	OVERALL LAYOUT PLAN
L3.1	DRIVE AND PARKING ENLARGEMENT PLAN
L3.2	SITE ENLARGEMENT PLAN
L4.0	OVERALL GRADING PLAN
L4.1	DRIVE AND PARKING GRADING ENLARGEMENT PLAN
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L5.0	OVERALL LANDSCAPE & RESTORATION PLAN
L5.1	LANDSCAPE ENLARGEMENT PLANS
L5.2	LANDSCAPE ENLARGEMENT PLANS
L6.0	MISCELLANEOUS DETAILS
L6.1	MISCELLANEOUS DETAILS
L6.2	MISCELLANEOUS DETAILS
--	QUANTITIES AND NOTES
--	PLAN ELEVATIONS AND SECTION
--	SUPERSTRUCTURE DETAILS
--	CONCRETE CURB DETAILS
--	ORNAMENTAL RAILING DETAILS
C3.1	SANITARY SEWER & WATERMAIN PLANS
C4.1	STREET PLANS
C4.2	STREET PLANS
C5.1	CROSS SECTIONS
C5.2	CROSS SECTIONS
C5.3	CROSS SECTIONS
C5.4	CROSS SECTIONS
C5.5	CROSS SECTIONS
C5.6	CROSS SECTIONS
C5.7	CROSS SECTIONS
C5.8	CROSS SECTIONS
C5.9	CROSS SECTIONS
C5.10	CROSS SECTIONS
C5.11	CROSS SECTIONS
E1	ELECTRICAL SITE PLAN
E2	ELECTRICAL PLANS
E3	ELECTRICAL DETAILS
A1	AMPITHEATER PLAN
A2	AMPITHEATER ELEVATIONS
A3	LEARNING CENTER PLAN

THE SUBSURFACE UTILITY INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF PRIVATE UTILITIES HAS BEEN DESIGNATED UTILITY QUALITY LEVEL D. THESE QUALITY LEVELS WERE DETERMINED ACCORDING TO THE GUIDELINES OF C/ASCE 38-02, ENTITLED "STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE DATA". THE CONTRACTOR IS TO DETERMINE THE TYPE AND LOCATION OF PRIVATE UTILITIES AS MAY BE DEEMED NECESSARY TO AVOID DAMAGE THERETO.



SCALE: DESIGN BY:
AS SHOWN RAS
PLAN BY: CHECK BY:
SDF RAS

REVISIONS

NO.	DESCRIPTION	DATE

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MINNESOTA.

ROBERT A. SUIPKA III
DATE: 44337
LIC. NO.

COVER SHEET

MISSISSIPPI LANDING TRAILHEAD PROJECT
CITY OF BRAINERD

CLIENT PROJECT NO.

WSB PROJECT NO.
018999-000

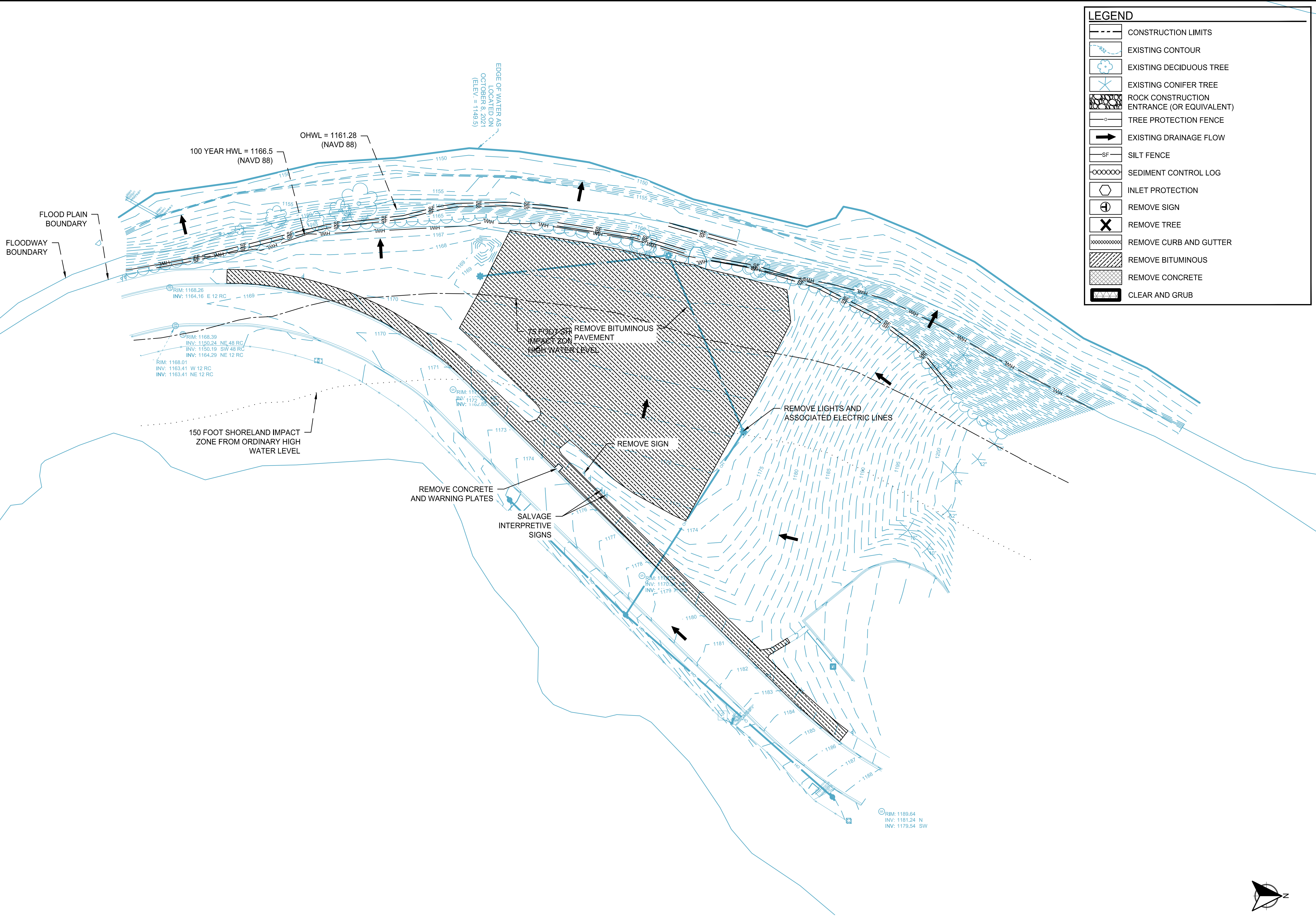
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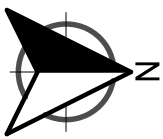
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L2.0

OVERALL REMOVALS PLAN



0 40 80
SCALE IN FEET



LEGEND	
	CONSTRUCTION LIMITS
	EXISTING CONTOUR
	EXISTING DECIDUOUS TREE
	EXISTING CONIFER TREE
	ROCK CONSTRUCTION ENTRANCE (OR EQUIVALENT)
	TREE PROTECTION FENCE
	EXISTING DRAINAGE FLOW
	SILT FENCE
	SEDIMENT CONTROL LOG
	INLET PROTECTION
	REMOVE SIGN
	REMOVE TREE
	REMOVE CURB AND GUTTER
	REMOVE BITUMINOUS
	REMOVE CONCRETE
	CLEAR AND GRUB

SCALE: AS SHOWN
PLAN BY: SDF
DESIGN BY: RAS
CHECK BY: RAS

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ROBERT A. SUIPKA III

DATE: LIC. NO. 44337

OVERALL
REMOVALS PLAN

MISSISSIPPI LANDING TRAILHEAD PROJECT
CITY OF BRAINERD

CLIENT PROJECT NO.

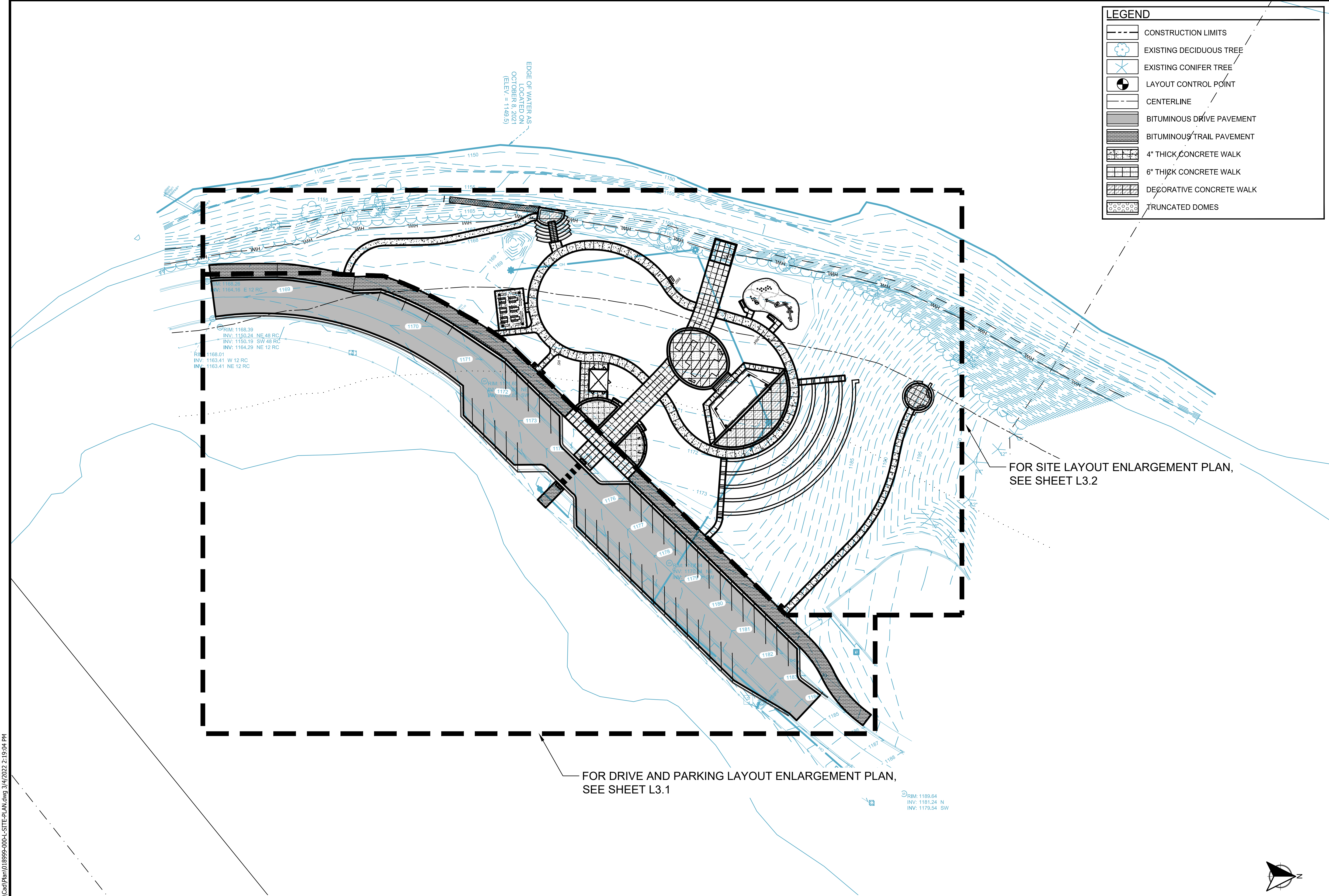
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L3.0

OVERALL LAYOUT PLAN



LEGEND	
	CONSTRUCTION LIMITS
	EXISTING DECIDUOUS TREE
	EXISTING CONIFER TREE
	LAYOUT CONTROL POINT
	CENTERLINE
	BITUMINOUS DRIVE PAVEMENT
	BITUMINOUS TRAIL PAVEMENT
	4" THICK CONCRETE WALK
	6" THICK CONCRETE WALK
	DECORATIVE CONCRETE WALK
	TRUNCATED DOMES

SCALE: AS SHOWN
PLAN BY: SDF

DESIGN BY: RAS
CHECK BY: RAS

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ROBERT A. SUIPKA III

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OVERALL LAYOUT PLAN

MISSISSIPPI LANDING TRAILHEAD PROJECT
CITY OF BRAINERD

CLIENT PROJECT NO.

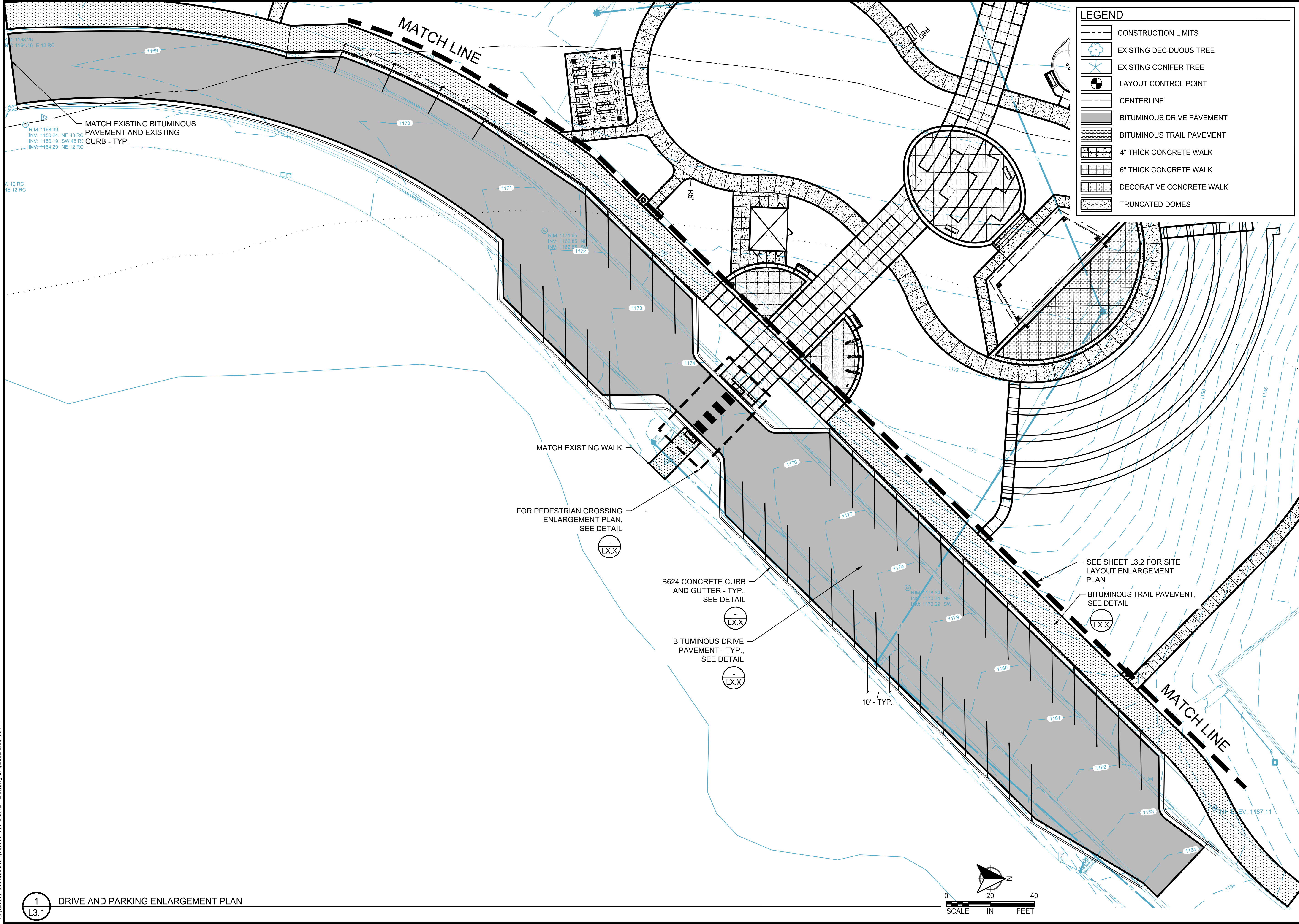
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L3.1

DRIVE AND PARKING ENLARGEMENT PLAN



LEGEND

- CONSTRUCTION LIMITS
- EXISTING DECIDUOUS TREE
- EXISTING CONIFER TREE
- LAYOUT CONTROL POINT
- CENTERLINE
- BITUMINOUS DRIVE PAVEMENT
- BITUMINOUS TRAIL PAVEMENT
- 4" THICK CONCRETE WALK
- 6" THICK CONCRETE WALK
- DECORATIVE CONCRETE WALK
- TRUNCATED DOMES



SCALE: AS SHOWN
PLAN BY: SDF

DESIGN BY: RAS
CHECK BY: RAS

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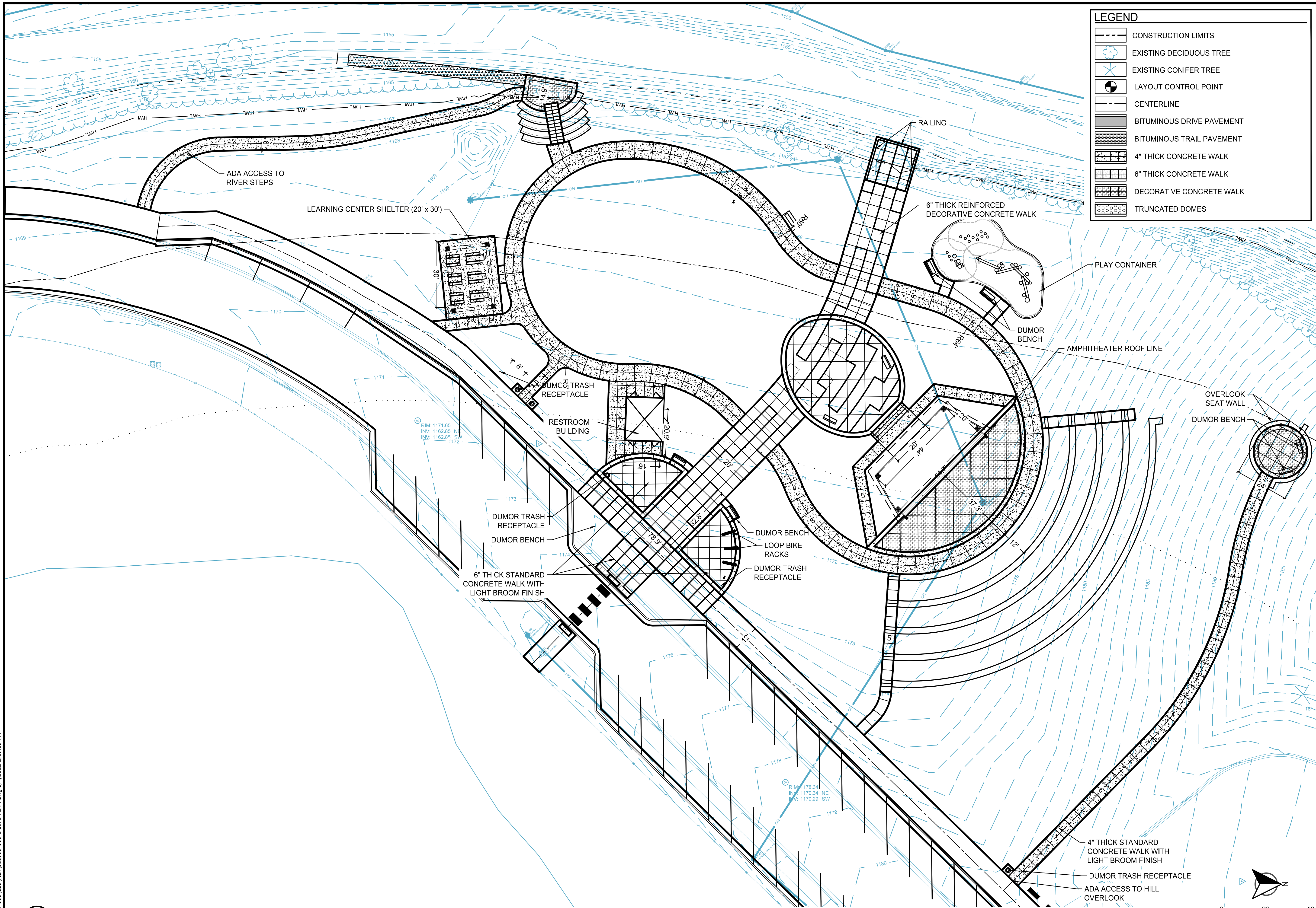
DRIVE AND PARKING ENLARGEMENT PLAN

MISSISSIPPI LANDING TRAILHEAD PROJECT
CITY OF BRAINERD

CLIENT PROJECT NO. WSB PROJECT NO. 018999-000

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LEGEND	
	CONSTRUCTION LIMITS
	EXISTING DECIDUOUS TREE
	EXISTING CONIFER TREE
	LAYOUT CONTROL POINT
	CENTERLINE
	BITUMINOUS DRIVE PAVEMENT
	BITUMINOUS TRAIL PAVEMENT
	4" THICK CONCRETE WALK
	6" THICK CONCRETE WALK
	DECORATIVE CONCRETE WALK
	TRUNCATED DOMES

SCALE: AS SHOWN
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MISSISSIPPI LANDING TRAILHEAD PROJECT
CITY OF BRAINERD

CLIENT PROJECT NO.

WSB PROJECT NO.
018999-000

SHEET
L3.2

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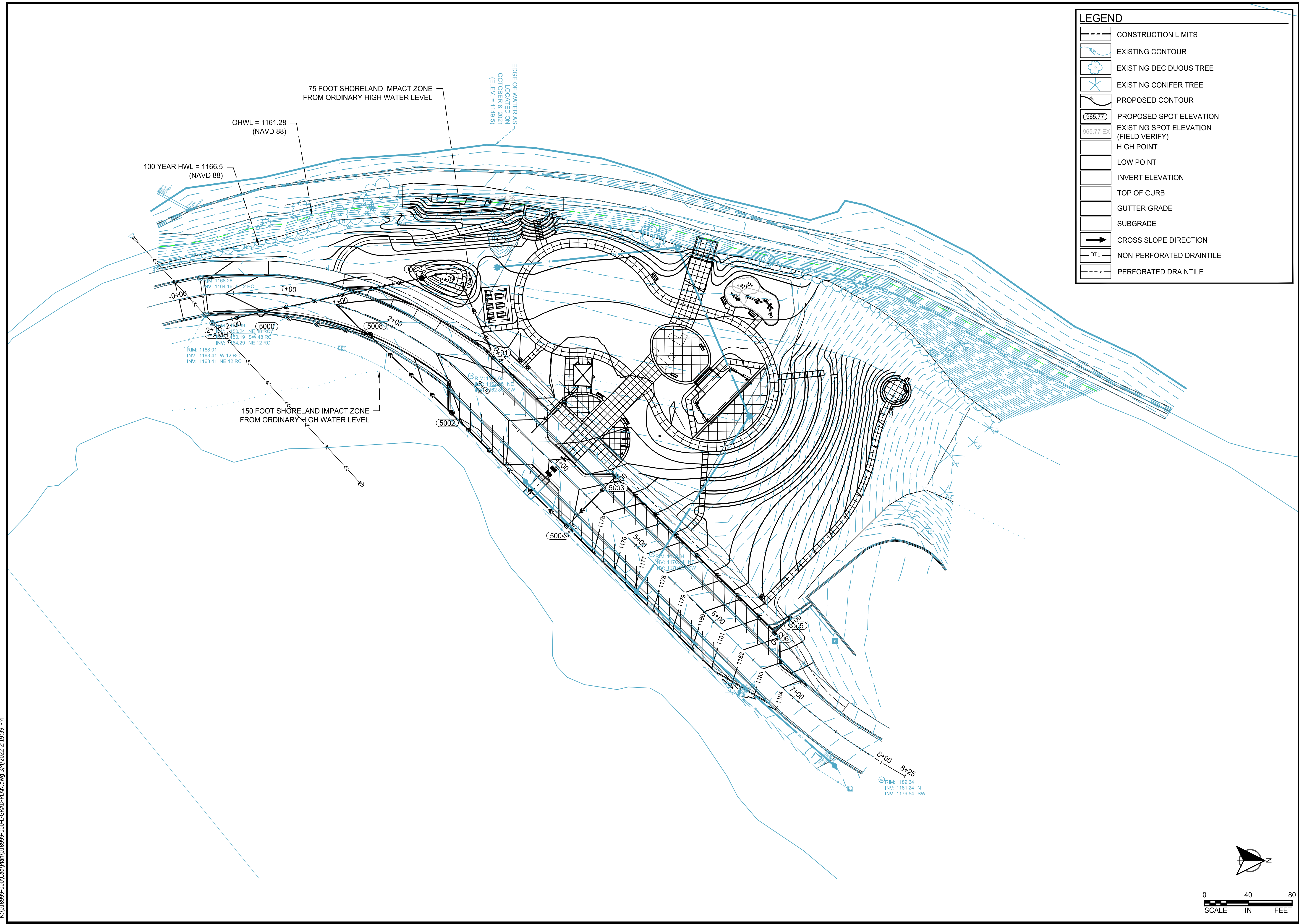
OVERALL GRADING PLAN

MISSISSIPPI LANDING TRAILHEAD PROJECT
CITY OF BRAINERD

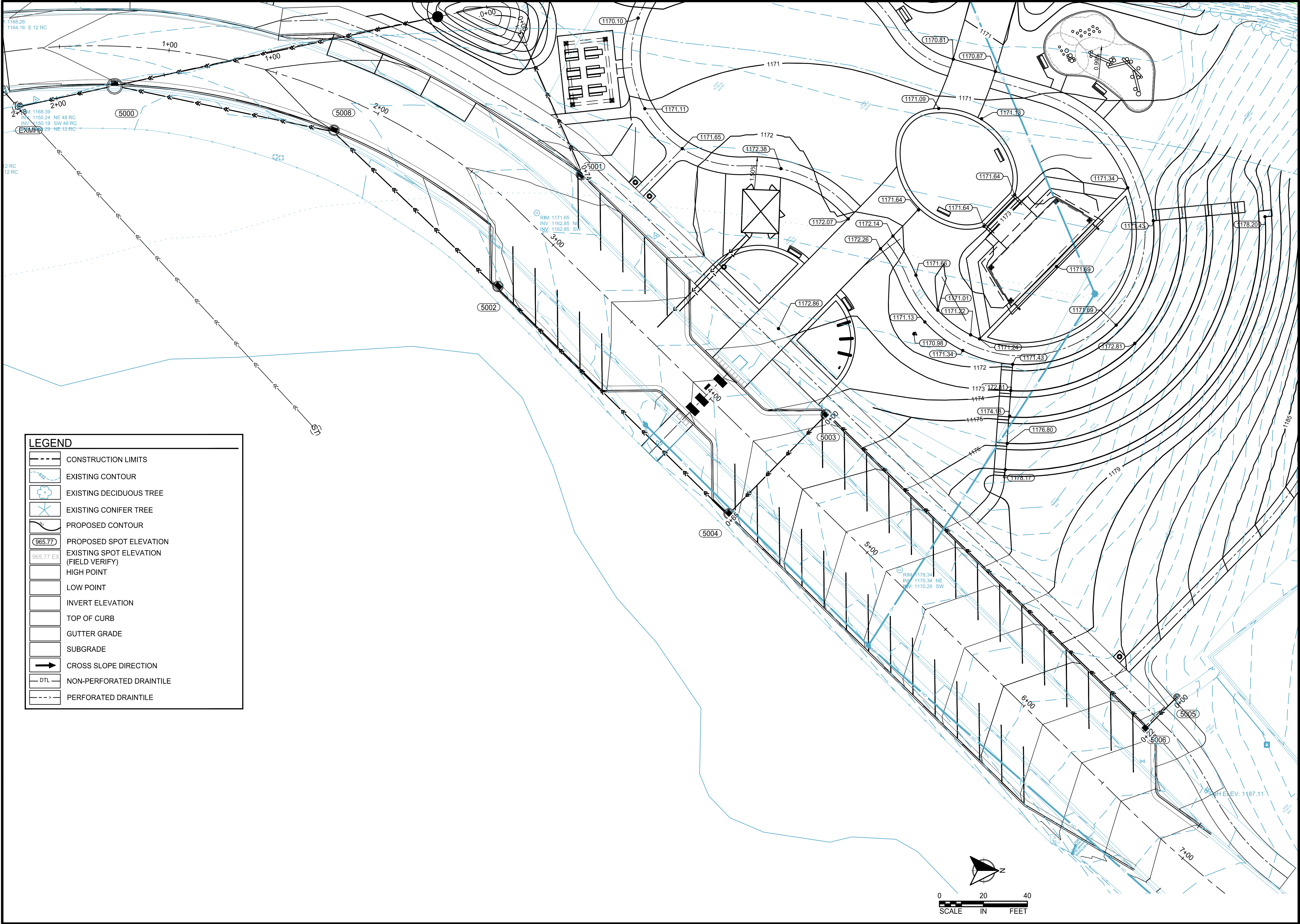
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WSB PROJECT NO.
018999-000

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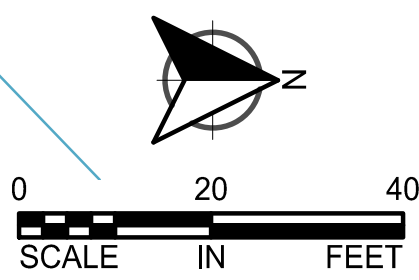


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LEGEND

CONSTRUCTION LIMITS

EXISTING CONTOUR

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REVISIONS	
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ROBERT A. SUIPKA III

DATE: 44337

LIC. NO. 44337

DRIVE AND
PARKING GRADING
ENLARGEMENT
PLAN

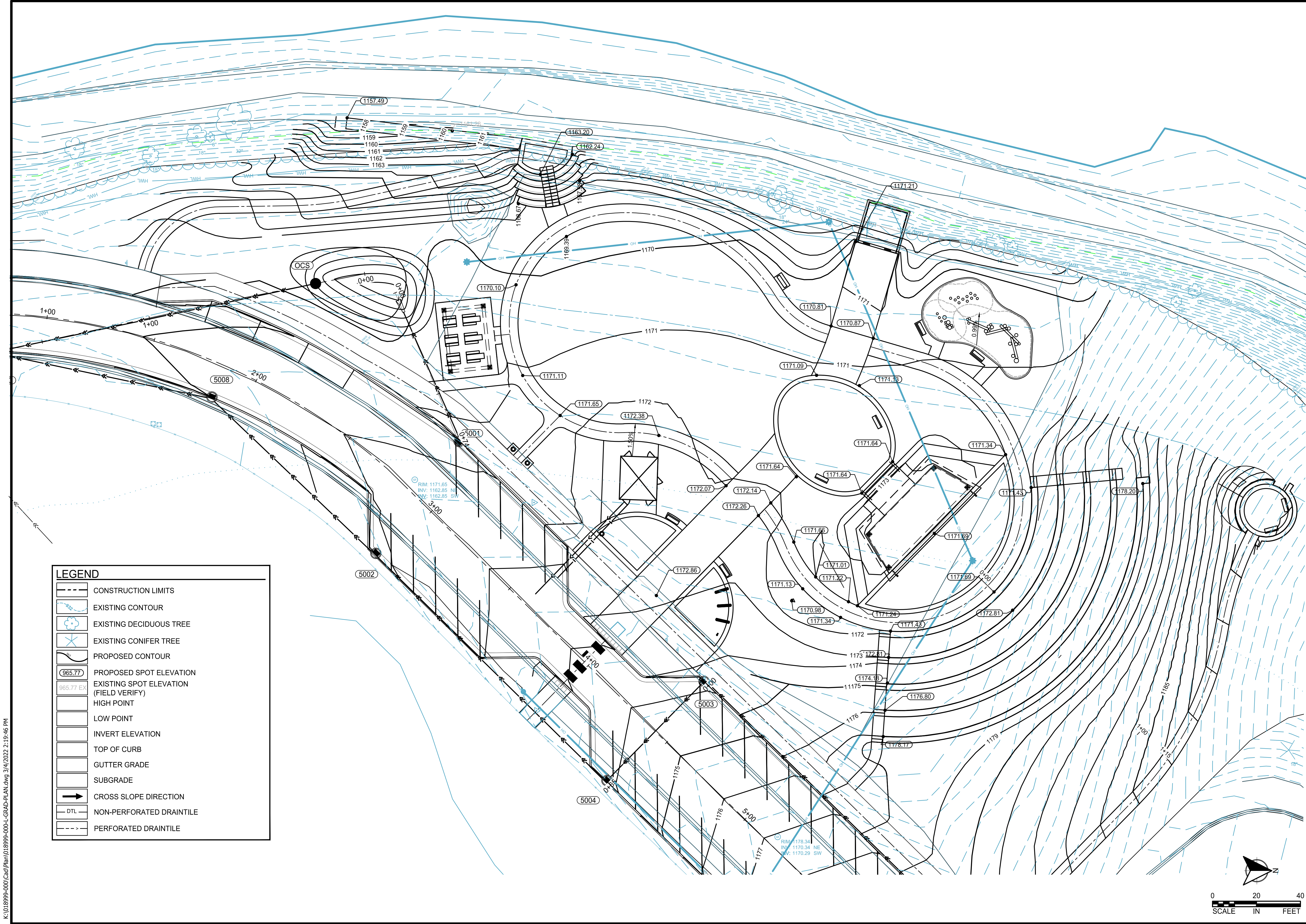
MISSISSIPPI LANDING TRAILHEAD PROJECT
CITY OF BRAINER

CLIENT PROJECT NO.

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PLAN BY: SDF
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ROBERT A. SUIPKA III

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MISSISSIPPI LANDING TRAILHEAD PROJECT
CITY OF BRAINER

CLIENT PROJECT NO.

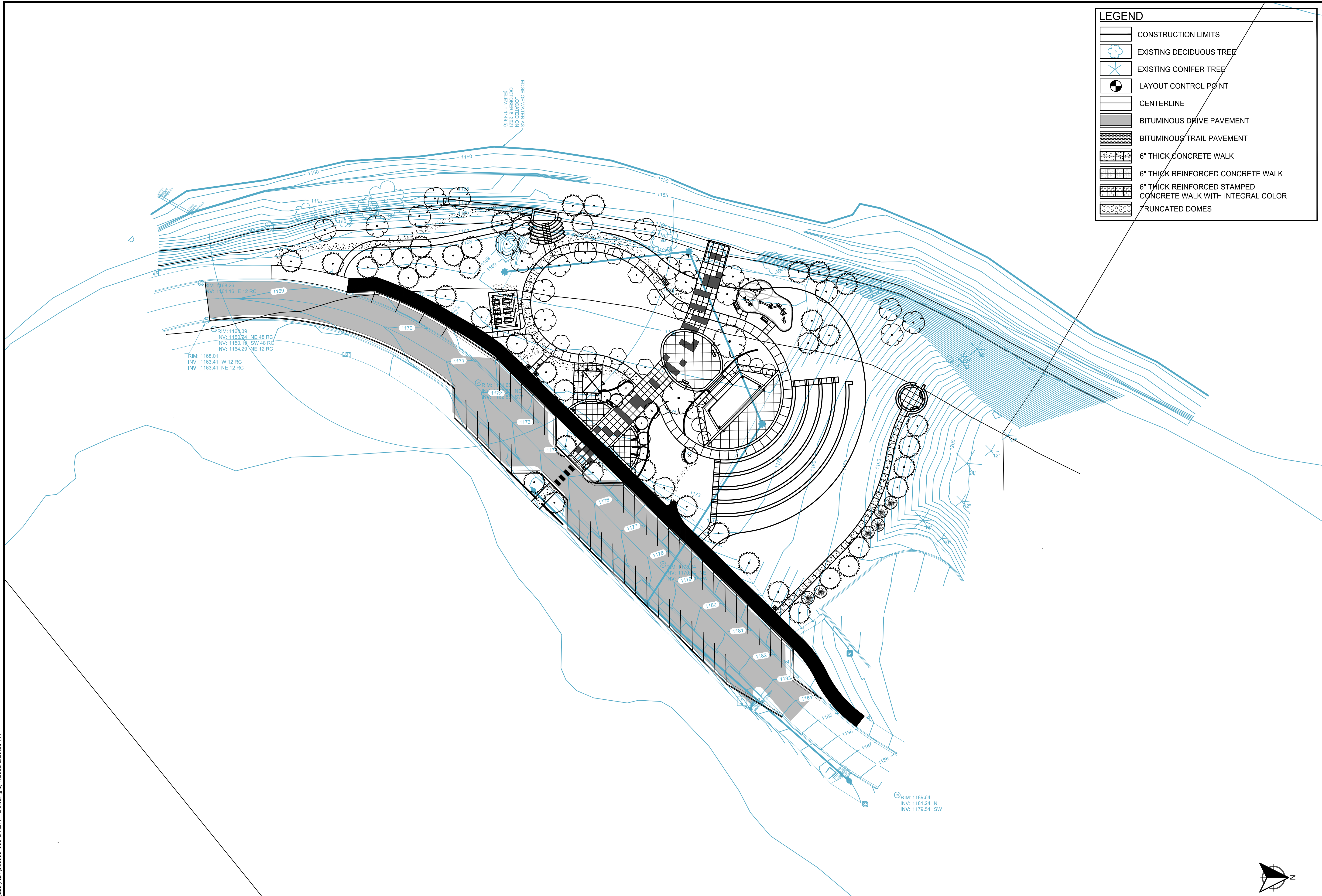
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L3.0

OVERALL LANDSCAPE & RESTORATION PLAN



LEGEND	
	CONSTRUCTION LIMITS
	EXISTING DECIDUOUS TREE
	EXISTING CONIFER TREE
	LAYOUT CONTROL POINT
	CENTERLINE
	BITUMINOUS DRIVE PAVEMENT
	BITUMINOUS TRAIL PAVEMENT
	6" THICK CONCRETE WALK
	6" THICK REINFORCED CONCRETE WALK
	6" THICK REINFORCED STAMPED CONCRETE WALK WITH INTEGRAL COLOR
	TRUNCATED DOMES

SCALE:
AS SHOWN
PLAN BY:
SDF

DESIGN BY:
RAS
CHECK BY:
RAS

REVISIONS	
NO.	DESCRIPTION

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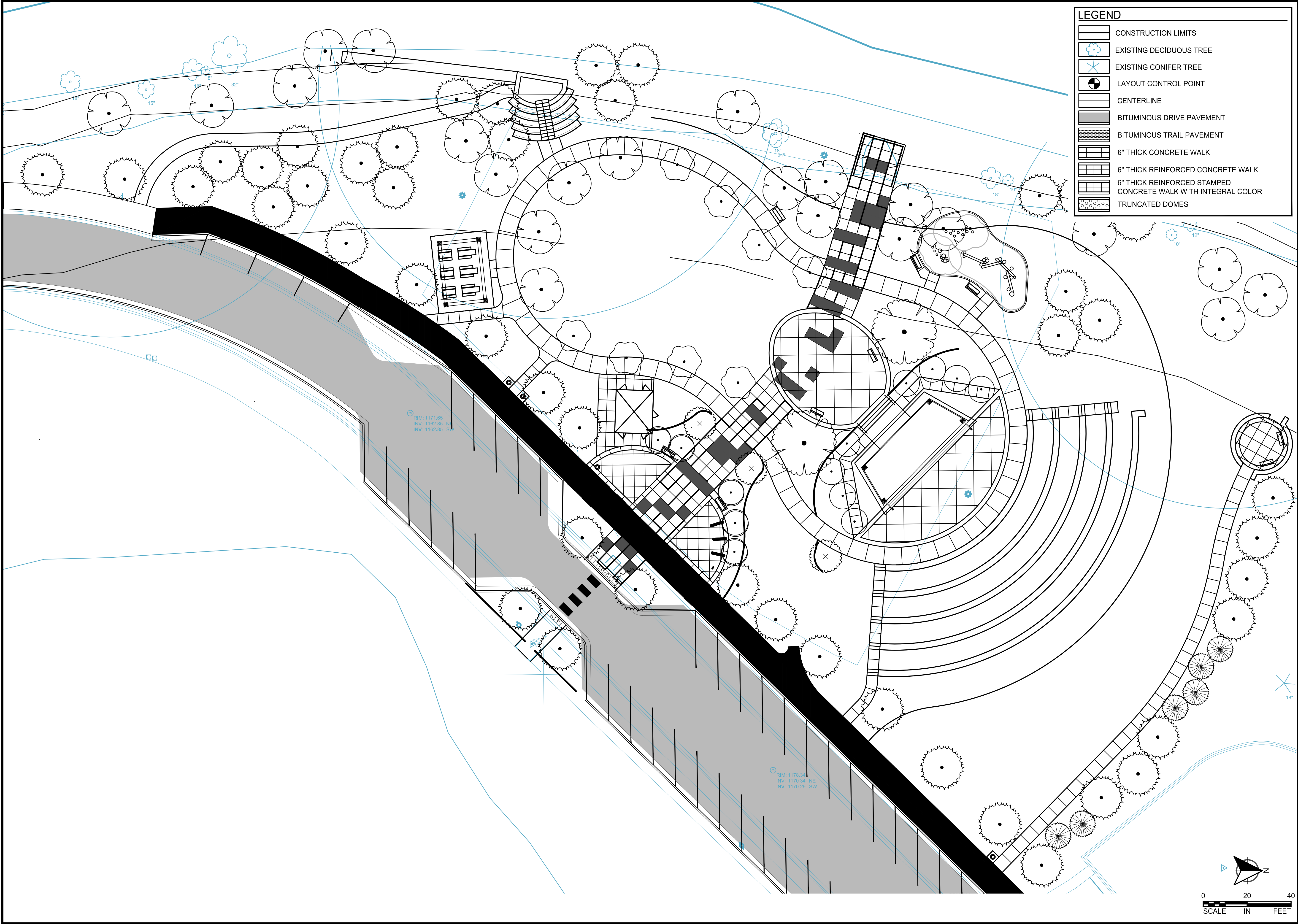
ROBERT A. SUIPKA III
DATE: LIC. NO. 44337

OVERALL
LANDSCAPE &
RESTORATION
PLAN

MISSISSIPPI LANDING TRAILHEAD PROJECT
CITY OF BRAINERD

CLIENT PROJECT NO.
WSB PROJECT NO. 018999-000
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LEGEND

- CONSTRUCTION LIMITS
- EXISTING DECIDUOUS TREE
- EXISTING CONIFER TREE
- LAYOUT CONTROL POINT
- CENTERLINE
- BITUMINOUS DRIVE PAVEMENT
- BITUMINOUS TRAIL PAVEMENT
- 6" THICK CONCRETE WALK
- 6" THICK REINFORCED CONCRETE WALK
- 6" THICK REINFORCED STAMPED CONCRETE WALK WITH INTEGRAL COLOR
- TRUNCATED DOMES

SCALE:
AS SHOWN
PLAN BY:
SDF

DESIGN BY:
RAS
CHECK BY:
RAS

REVISIONS	
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ROBERT A. SLIPKA III
DATE: _____ LIC. NO.: 44337

LANDSCAPE
ENLARGEMENT
PLANS

MISSISSIPPI LANDING TRAILHEAD PROJECT
CITY OF BRAINERD

CLIENT PROJECT NO. _____

WSB PROJECT NO.
018999-000

SHEET
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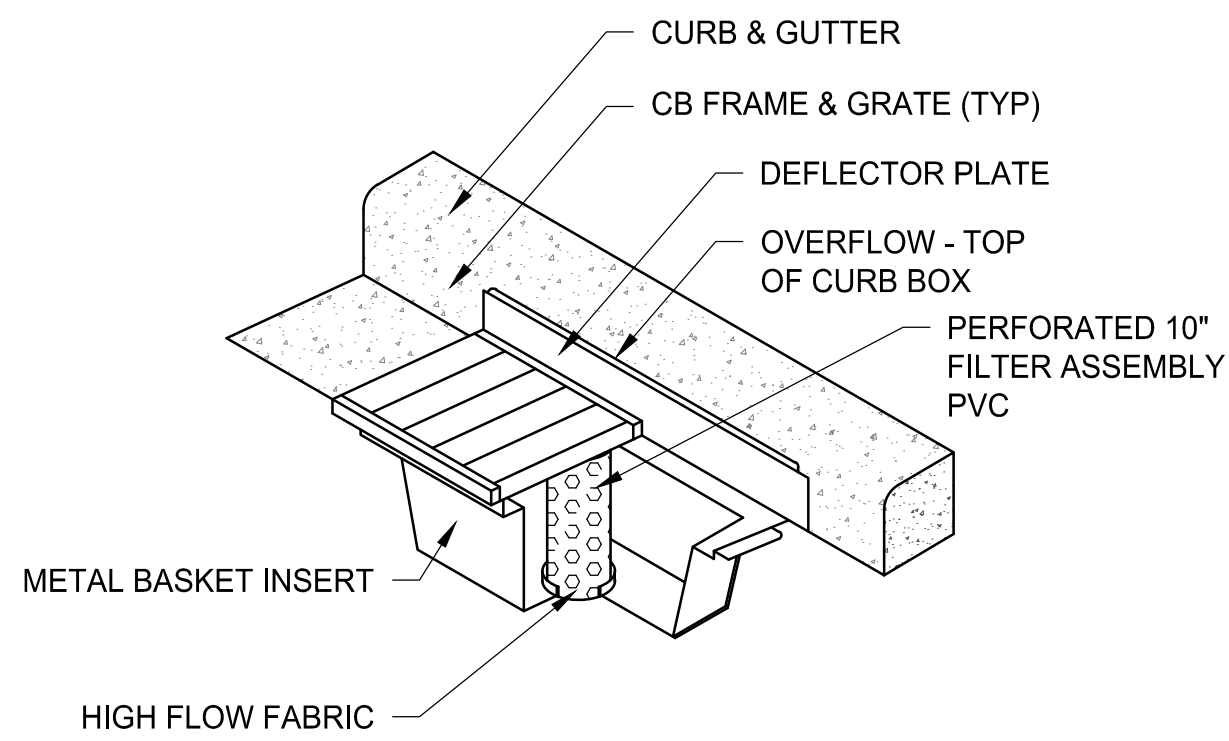
MISSISSIPPI LANDING TRAILHEAD PROJECT
CITY OF BRAINERD

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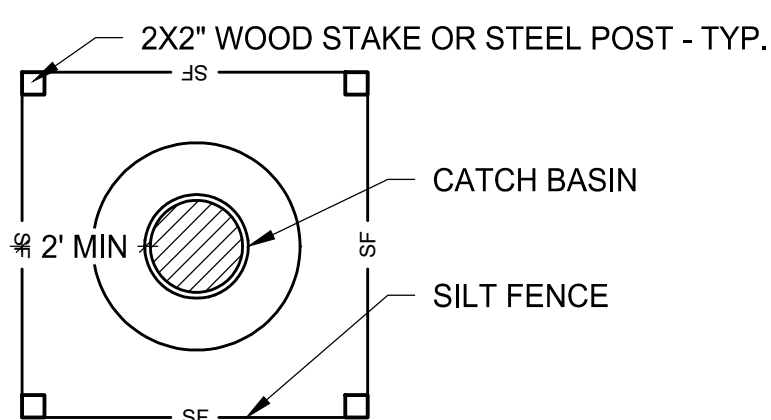
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-
- 2" x 2" WOOD STAKE (4' O.C. MAX. SPACING) TO BE DRIVEN NO LESS THAN 2' INTO THE GROUND - TYP.
- GEOTEXTILE SILT FENCE (GTF 100 OR EQUAL) SECURELY ATTACHED TO POSTS. COLOR: ORANGE
- ATTACH FABRIC WITH STAPLES OR FABRIC MANUFACTURER SUPPLIED INTEGRAL FASTENERS
- 30"
- FABRIC ANCHORAGE TRENCH, BACKFILL AND COMPACT WITH NATURAL SOIL
- FLOW DIRECTION
- 6" MIN.
- 6" MIN.
- MIN. DEPTH

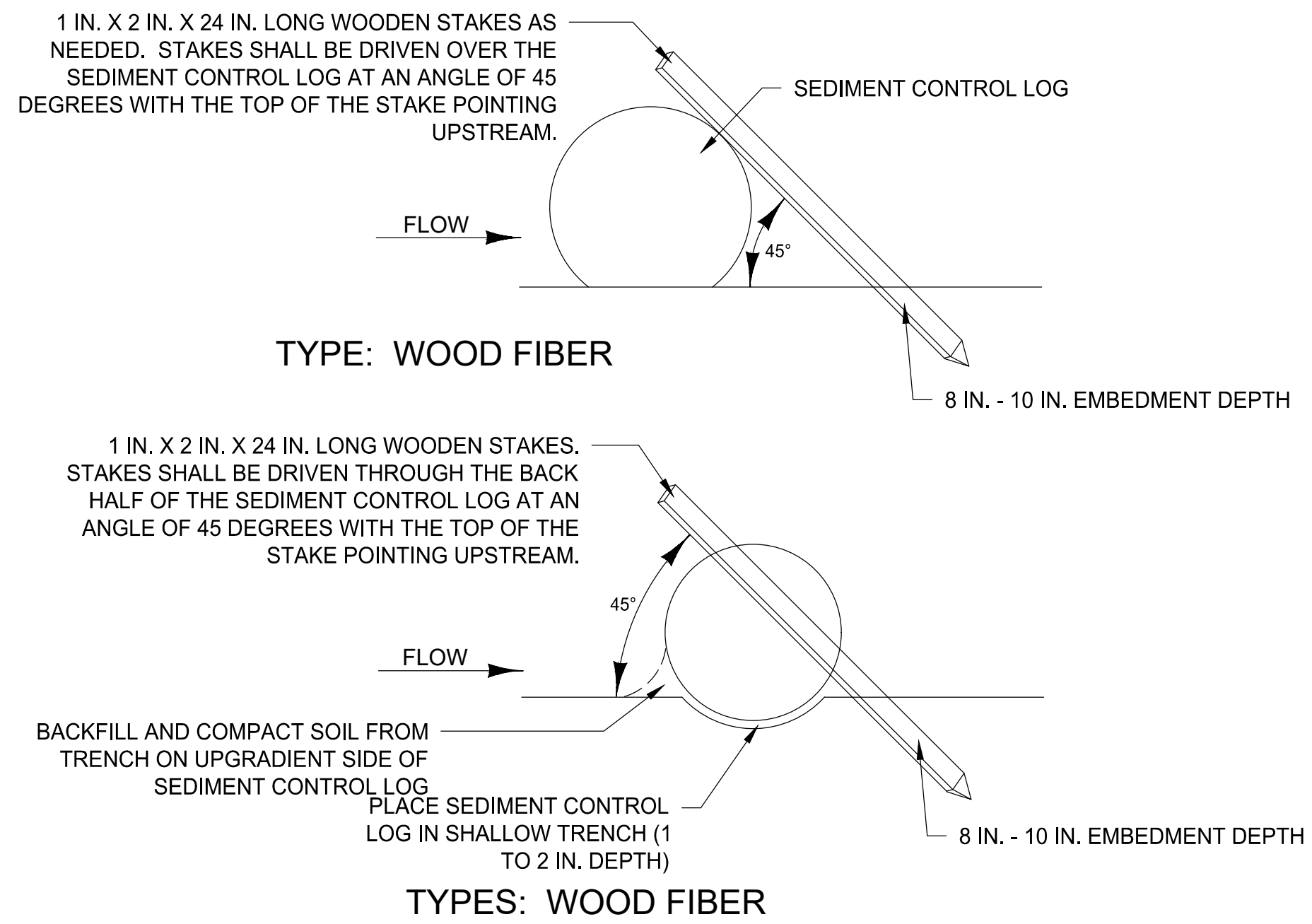
WIMCO CURB & GUTTER INLET PROTECTION SHALL BE USED ON NEW AND EXISTING CATCH BASINS WITHIN CONSTRUCTION LIMITS (REFER TO PLANS FOR LOCATIONS) FOR THE DURATION OF THE PROJECT AND SHALL BE CLEANED AND MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD WITH REMOVAL UPON TURF ESTABLISHMENT (TYP)



TYPE I - CURB INLET APPLICATION:



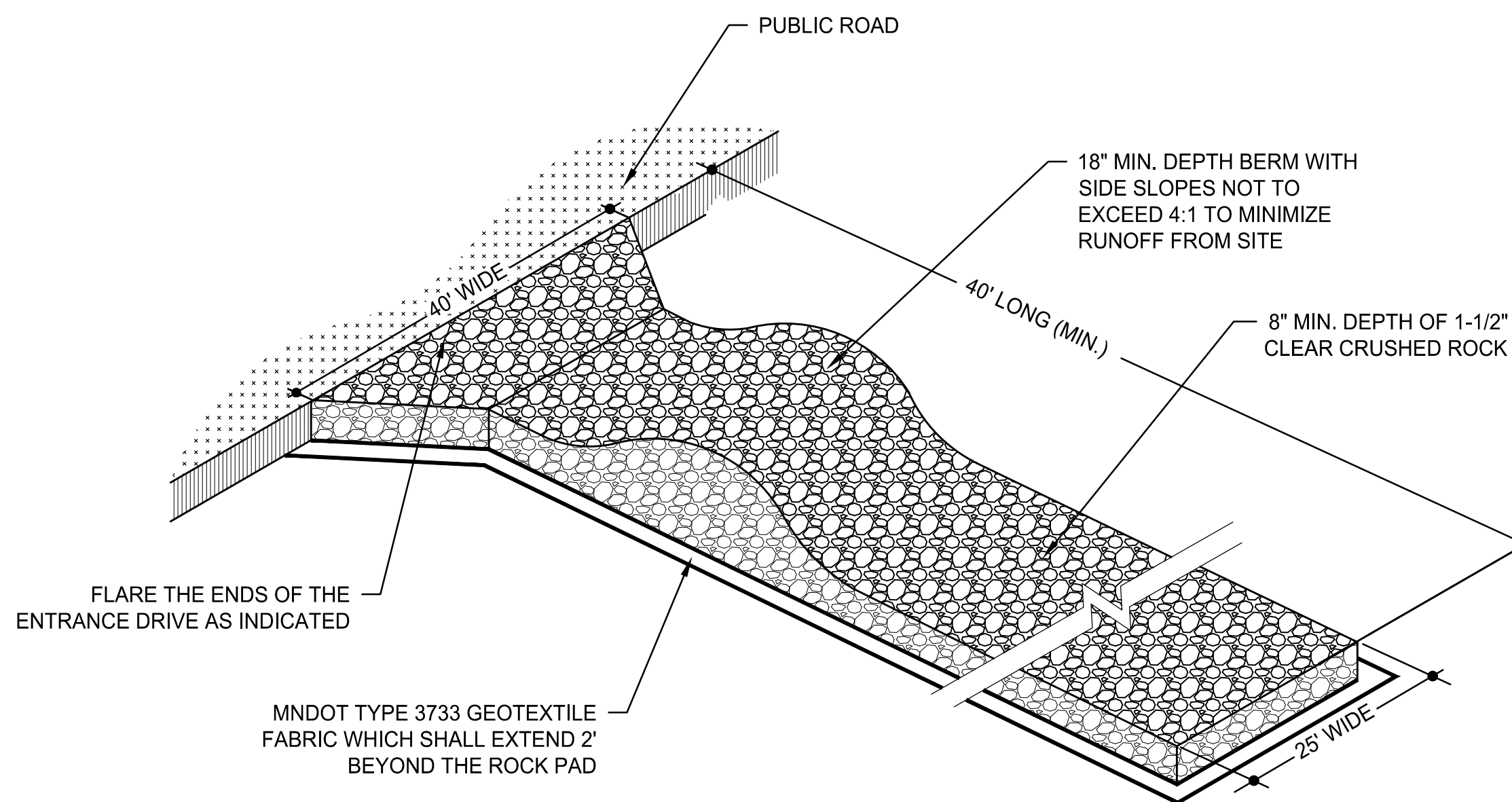
TYPE II - TRENCHED / SLOPE APPLICATION:



1 SILT FENCE DETAIL
L6.0

2 INET PROTECTION DETAIL
L6.0

3 L6.0 SEDIMENT CONTROL LOG DETAIL



NOTE: CONTRACTOR IS RESPONSIBLE FOR ONGOING MAINTENANCE OF THE BERM AND ROCK PAD DURING CONSTRUCTION AND SHALL REMOVE AND RESTORE THE ROCK PAD UPON PROJECT COMPLETION

4 ROCK CONSTRUCTION ENTRY/EXIT DETAIL
L6.0

[illegible]

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ROBERT A. SLIPKA III

DATE: _____ LIC. NO: 44337

MISCELLANEOUS DETAILS

MISSISSIPPI LANDING TRAILHEAD PROJECT
CITY OF BRAINERD

CLIENT PROJECT NO.

WSB PROJECT NO.
018999-000

SHEET
L6.2



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CONSTRUCTION NOTES:

THE 2018 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" SHALL GOVERN.

SEE SPECIAL PROVISIONS FOR ALL XXX.6XX SERIES PAY ITEMS FOR ADDITIONAL REQUIREMENTS.

BAR SIZES SHOWN IN THIS PLAN ARE IN U.S. CUSTOMARY DESIGNATION.

BAR MARKED WITH THE SUFFIX "E" SHALL BE EPOXY COATED IN ACCORDANCE WITH SPEC. 3301.

THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS UTILITY QUALITY LEVEL D. THIS UTILITY QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF C/ASCE 38-02, ENTITLED "STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA".

UTILITY LOCATIONS ARE APPROXIMATE AND ARE FOR GENERAL INFORMATION ONLY. THE CONTRACTOR SHALL VERIFY LOCATIONS PRIOR TO CONSTRUCTION.

PRIOR TO EXCAVATION VERIFY THE LOCATION OF EXISTING FACILITIES AND EXERCISE CARE IN ADJACENT CONSTRUCTION.

THE PILE LOADS SHOWN IN THE PLANS AND WERE COMPUTED USING LRFD METHODOLOGY. PILE BEARING RESISTANCE DETERMINED IN THE FIELD SHALL INCORPORATE THE METHODS AND/OR FORMULAS DESCRIBED IN THE SPECIAL PROVISIONS. TWO HELICAL VERTICAL PILING WERE USED TO DEVELOP DESIGN LOADS. CONTRACTOR MAY ALTER SPACING AND NUMBER OF PILES FOR THEIR DESIGN.

FASTENERS AND HARDWARE SHALL CONFORM TO MNDOT SPEC. 3391 AND BE GALVANIZED PER MNDOT SPEC. 3392 AND 3394.

FOR SOILS INFORMATION SEE THE GEOTECHNICAL BORINGS BY NTI DATED 4/11/2010.

SUBGRADE MODULUS OF 20 PCI USED IN DESIGN. ENGINEER TO FIELD VERIFY SUBRADE PROPERTIES PRIOR TO INSTALLING PRECAST PLANK OR SLAB.

PILES SHALL BE HELICAL PILING, SEE SPECIAL PROVISIONS.

HELICAL PILING, SUPPORT BRACKET AND BRACING, AND ALL ASSOCIATED HARDWARE IS TO BE GALVANIZED PER MNDOT SPEC. 3391, 3392, AND 3394.

ALL HDPE SUPPORT VERTICAL HELICAL PILES SHALL HAVE A MINIMUM WALL THICKNESS = 0.40 in. AND A MINIMUM MOMENT OF INERTIA = 36.0 in. . ALL PILE SHALL BE ROUND-SHAFT.

ALL DIAGONAL AND SANITARY/WATER SUPPORT HELICAL PILES SHALL HAVE A MINIMUM WALL THICKNESS = 0.31 in. AND A MINIMUM MOMENT OF INERTIA = 9.0 in. UNLESS APPROVED BY ENGINEER. ALL PILE SHALL BE ROUND-SHAFT.

SEE SPECIAL PROVISIONS FOR ALL XXXX.6XX SERIES PAY ITEMS FOR ADDITIONAL REQUIREMENTS.

THE FIRST DIGIT OR THE FIRST TWO DIGITS OF EACH BAR MARK INDICATE THE BAR SIZE. THE BAR SIZES SHOWN IN THIS PLAN ARE IN U.S. CUSTOMARY DESIGNATIONS.

CONSTRUCT IN ACCORDANCE WITH MNDOT SPEC. 2411, EXCEPT AS NOTED.

STRUCTURE EXCAVATION PER MNDOT SPEC. 2451; ALL EXCAVATION AND EMBANKMENT WORK SHALL CONFORM TO SPEC. 2451.

STRUCTURAL CONCRETE AND GROUT SHALL BE FORM CURED FOR EIGHT DAYS. CONCRETE AND GROUT SHALL OBTAIN 100% OF DESIGN STRENGTH PRIOR TO EXPOSURE TO ANY EQUIPMENT AND BACKFILLING. USE CONCRETE TEST CYLINDERS TO VERIFY CONCRETE STRENGTH. TEST CYLINDERS AT x, x AND 56 DAY INTERVALS.

PLACEMENT OF FORM WORK AND CONCRETE SHALL NOT COMMENCE UNTIL ALL POST-INSTALLED ANCHORAGES HAVE REACHED FULL DESIGN STRENGTH. SEE MANUFACTURER'S SPECIFICATIONS.

PROTECT NEW CONCRETE AGAINST VIBRATIONS, SEE SPECIAL PROVISIONS.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONDUCT A PRE-REMOVAL CONDITION SURVEY, MONITOR VIBRATIONS DURING REMOVAL OPERATIONS, AND EVALUATE POTENTIAL IMPACTS ON ADJACENT STRUCTURES DUE TO CONSTRUCTION. THIS WORK SHALL BE INCIDENTAL.

PROVIDE DRAINAGE CONTROL AROUND THE PIER LOCATIONS. THE ENGINEER AND THESE PLANS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION SAFETY.

ALTERNATE DESIGN TO REPLACE PRECAST PLANK AND STRUCTURAL STEEL WITH REINFORCED CONCRETE IS INCLUDED ON SHEETS 9 AND 10.

CONTRACTOR IS RESPONSIBLE FOR PROVIDING TEMPORARY FALL PROTECTION.

PIER CONSTRUCTION SEQUENCE:

THE PIER HAS BEEN DESIGNED AND THE PLANS HAVE BEEN DEVELOPED ASSUMING THE FOLLOWING CONSTRUCTION SEQUENCE.

CONTRACTOR SHALL PREPARE SITE FOR CONSTRUCTION. CONTRACTOR IS RESPONSIBLE TO MAINTAIN THE GEOTECHNICAL STABILITY OF THE SITE DURING THE ENTIRE PERIOD OF CONSTRUCTION.

INSTALL HELICAL PILING USING A TEMPLATE TO MAINTAIN PILES WITHIN SPECIFIED TOLERANCES. (SEE TOLERANCE TABLE IN THIS SHEET.

CONTRACTOR SHALL VERIFY LOCATION AND ELEVATION OF TOP OF PILE TIP WITH RESPECT TO TOLERANCES. ENGINEER APPROVAL IS NEEDED TO PROCEED AFTER THIS STEP.

INSTALL NECESSARY TEMPORARY SUPPORTING ELEMENTS ON PILES OR OTHER TYPES OF SUPPORTS.

CONTRACTOR SHALL VERIFY LOCATION OF PILES AND ELEVATIONS OF STEEL CAPS AND ANY CAST-IN-PLACE ELEMENTS. ENGINEER APPROVAL IS NEEDED TO PROCEED AFTER THIS STEP.

WAIT UNTIL CONCRETE HAS ACHIEVED THE REQUIRED STRENGTH BEFORE REMOVAL OF FORMWORK AND PLACING SUPERSTRUCTURE ELEMENTS.

REMOVE TEMPORARY SUPPORTING DEVICES OR SUPPORTS.

COMPUTED VERTICAL HELICAL PILE LOAD - KIPS/PILE	
FACTORED DEAD LOAD	65.21 K
FACTORED SNOW LIVE LOAD	3.94 K
FACTORED LIVE LOAD	36.00 K
* FACTORED DESIGN LOAD	105.15 K
* BASED ON STRENGTH 1 LOAD COMBINATION W/ DEAD LOAD FACTOR OF 1.20, & LIVE LOAD FACTOR OF 1.65.	
SEE SPECIAL PROVISIONS FOR HELICAL PILES.	
SEE SHEETS xx AND xx FOR PIER & HELICAL PILE LOCATIONS.	

DESIGN DATA

DESIGNED IN ACCORDANCE WITH 2020 AND CURRENT INTERM AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS
DESIGNED IN ACCORDANCE WITH 2015 AND CURRENT INTERM AASHTO LRFD GUIDE SPECIFICATIONS FOR THE DESIGN OF PEDESTRIAN BRIDGES
PEDESTRIAN LIVE LOAD = 0.090 KSF
H10 TRUCK VEHICULAR LIVE LOAD
UTILITY DEAD LOAD = 25 PSF
MATERIAL DESIGN PROPERTIES:
REINFORCED CONCRETE:
f'c = 6.5 KSI (BRIDGE DECK)
f'c = 4.0 KSI (ABUTMENTS AND PIERS)
fy = 60 KSI PLAIN AND EPOXY COATED BARS
n = 8 FOR REINFORCEMENT
STRUCTURAL STEEL:
fy = 50,000 P.S.I. (3309)
(WEATHERING STEEL)
STRUCTURAL STEEL TUBING:
fy = 50,000 P.S.I. (3361)
TYPE C (WEATHERING)
TRAIL DESIGN SPEED = NA
APPROXIMATE DECK AREA: = 1200 S.F.

LIST OF SHEETS

NO.	DESCRIPTION
S1	STATEMENT OF ESTIMATED QUANTITIES AND CONSTRUCTION NOTES
S2	GENERAL PLAN, ELEVATION AND SECTION
S3	ABUTMENT DETAILS
S4	PIER DETAILS
S5--S6	SUPERSTRUCTURE DETAILS
S7	ORNAMENTAL METAL RAILING DETAILS

NOTES:

E = EXPANSION BEARINGS
F = FIXED BEARINGS

USE BEVELED PLATE AT DECK TO COVER ALL EXPANSION JOINTS.

SUMMARY OF QUANTITIES FOR OVERLOOK

ITEM NO.	ITEM	QUANTITY	UNIT
2021.601	MOBILIZATION BRIDGE	1	LUMP SUM
2401.507	STRUCTURAL CONCRETE (3B52)	-	CU. YD.
2401.508	REINFORCEMENT BARS	-	POUND
2401.508	REINFORCEMENT BARS (EPOXY COATED)	-	POUND
2401.518	BRIDGE SLAB CONCRETE (3YHPC-M)	-	SQ. FT.
2401.601	STRUCTURE EXCAVATION	1	LUMP SUM
2402.503	ORNAMENTAL METAL RAILING	60	LIN. FT.
2402.601	PEDESTRIAN BRIDGE (SUPERSTRUCTURE)	1	LUMP SUM
2445.501	CONDUIT SYSTEM	1	LUMP SUM



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PLAN BY: CHECK BY:

REVISONS	
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ROBERT A. SIJPKA III
LIC. NO: 44337
DATE:

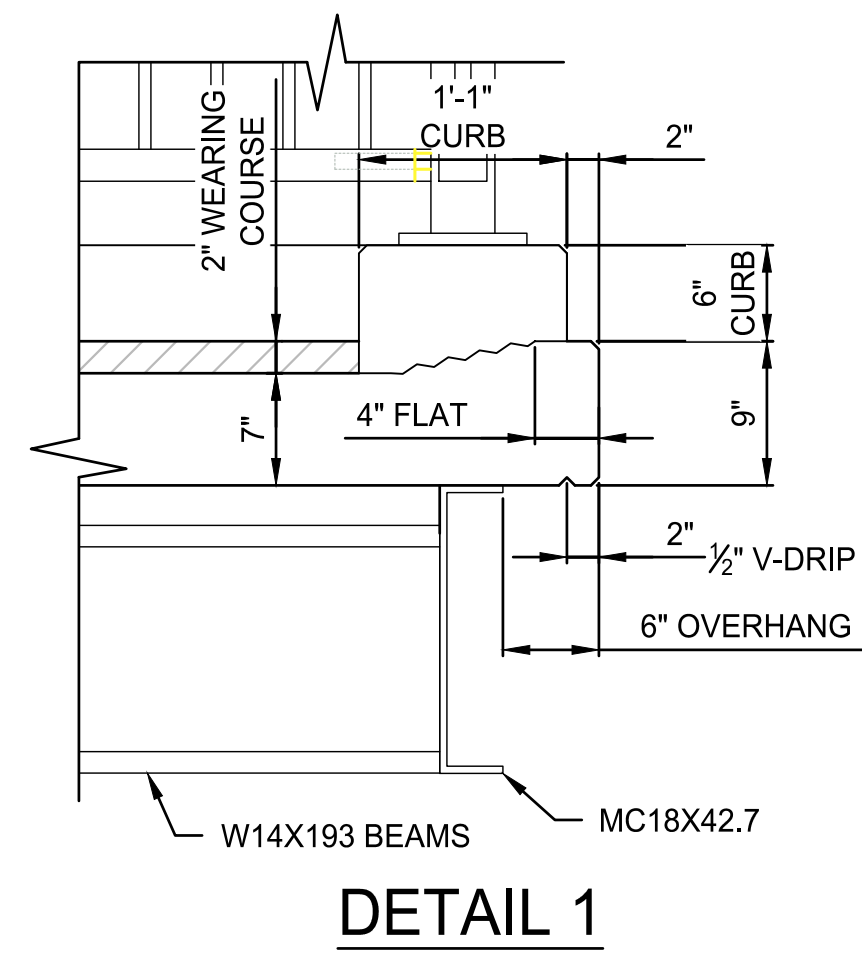
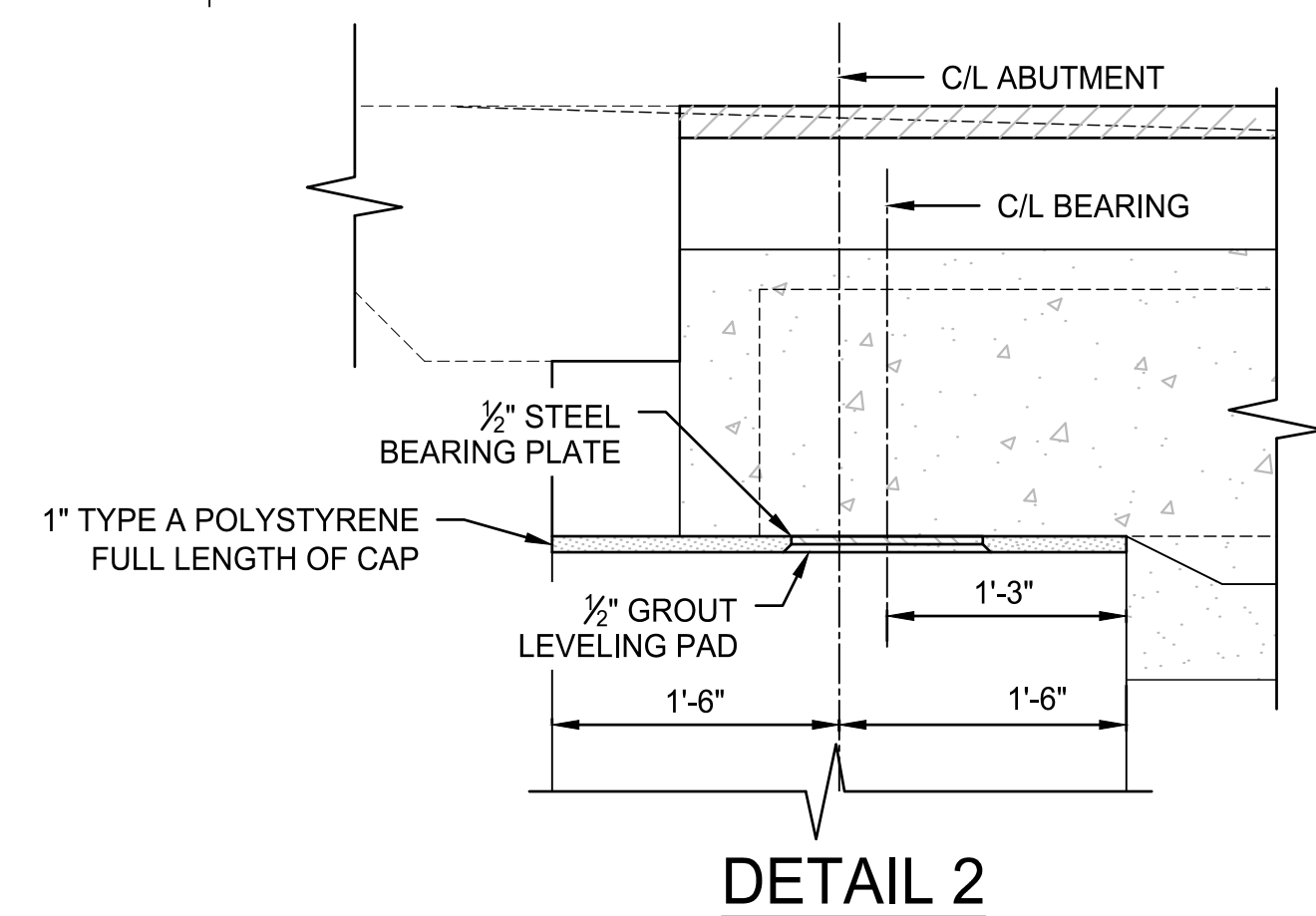
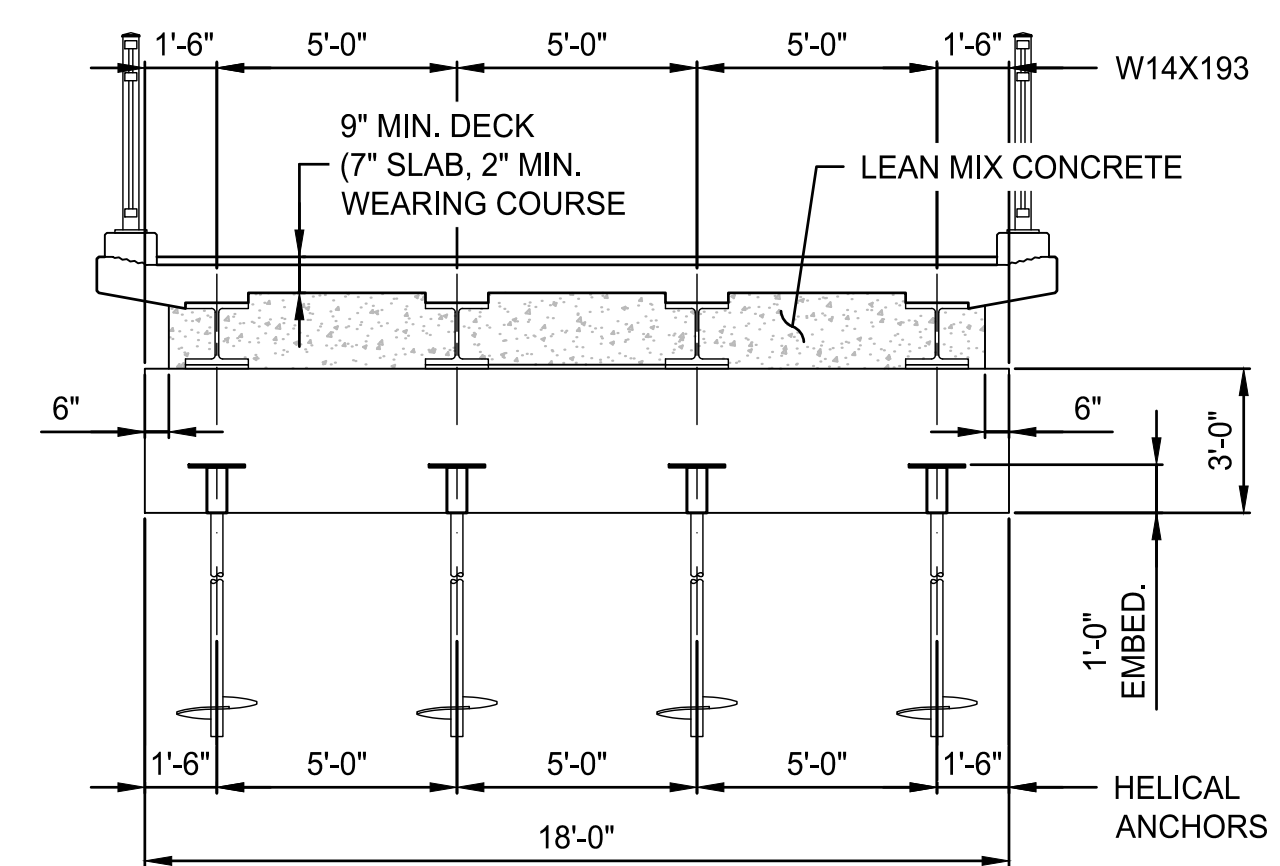
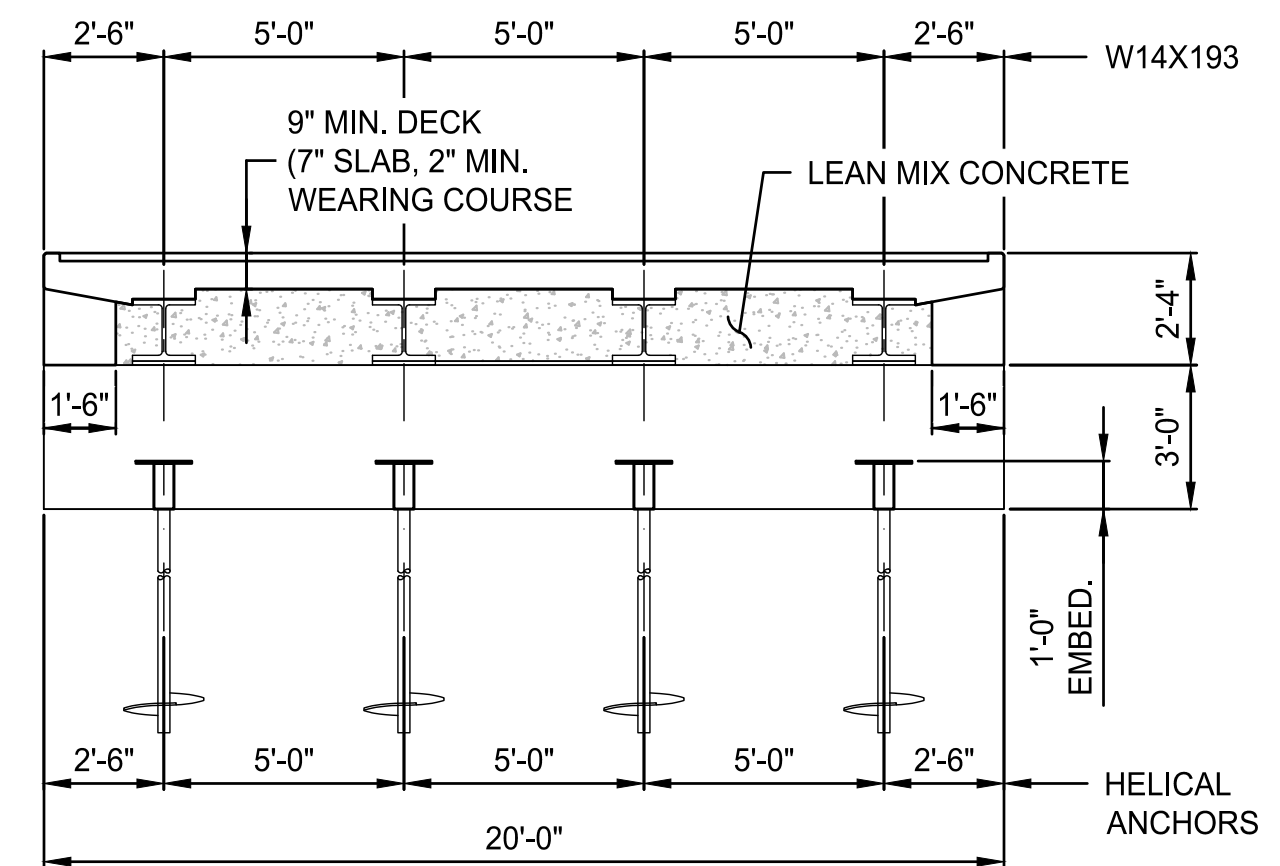
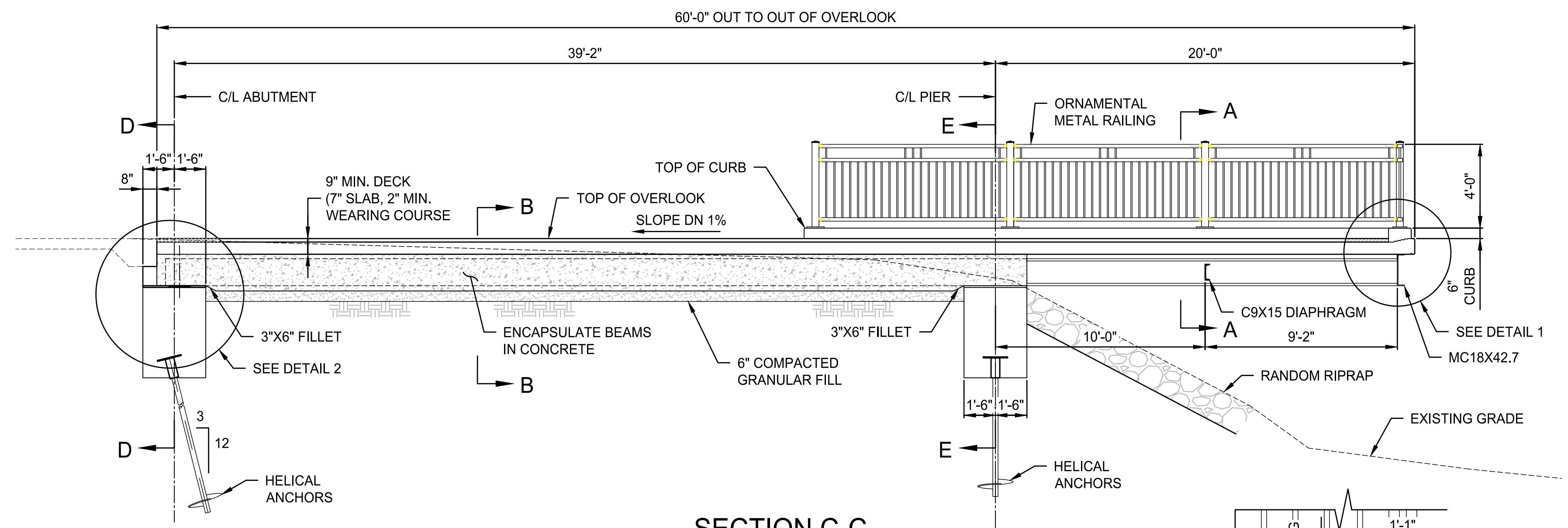
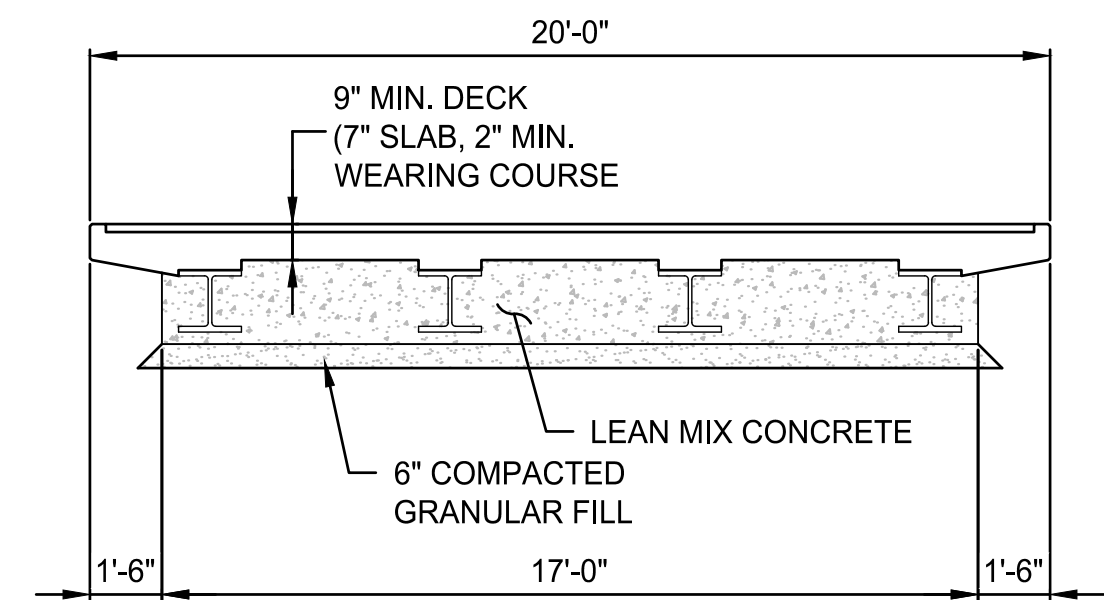
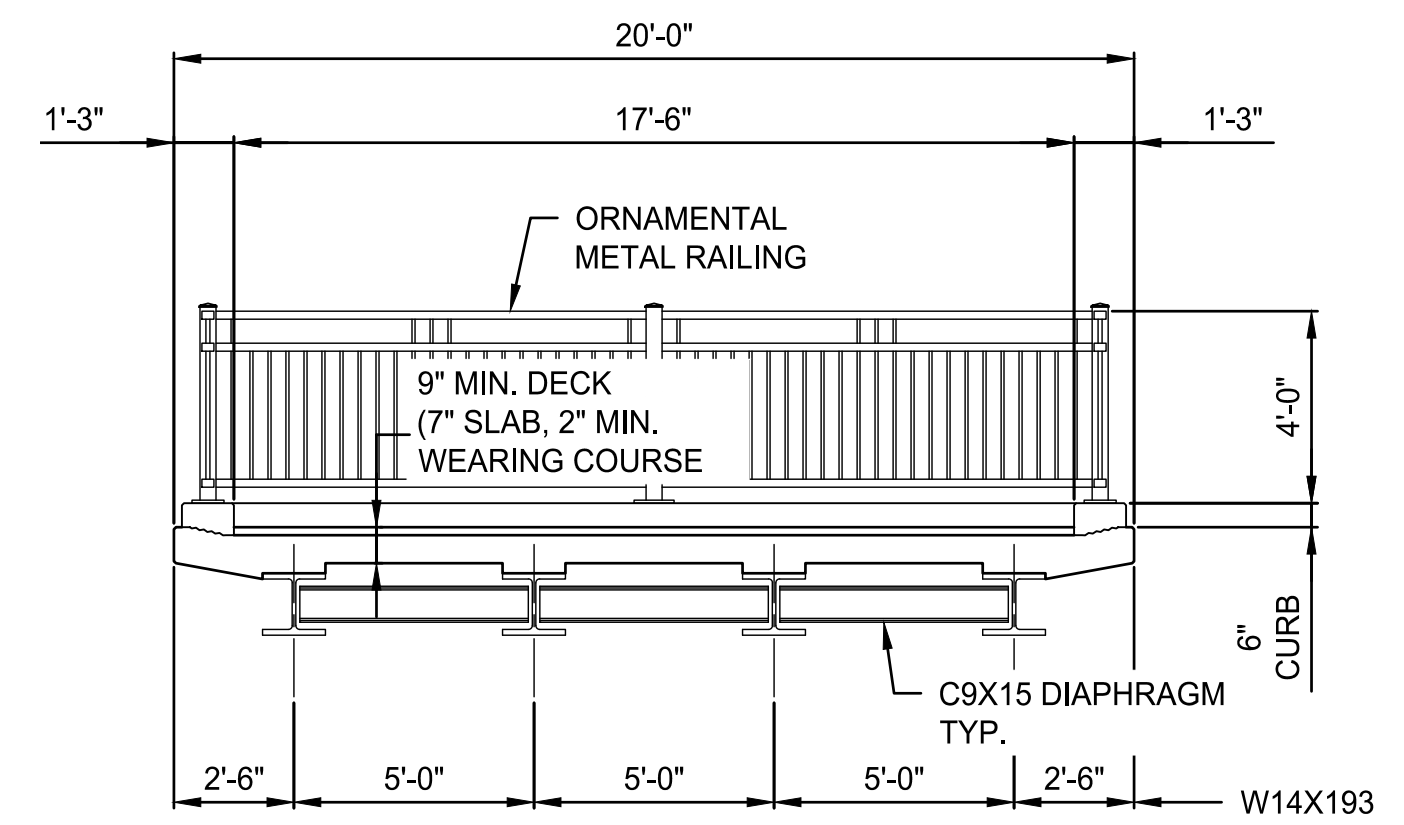
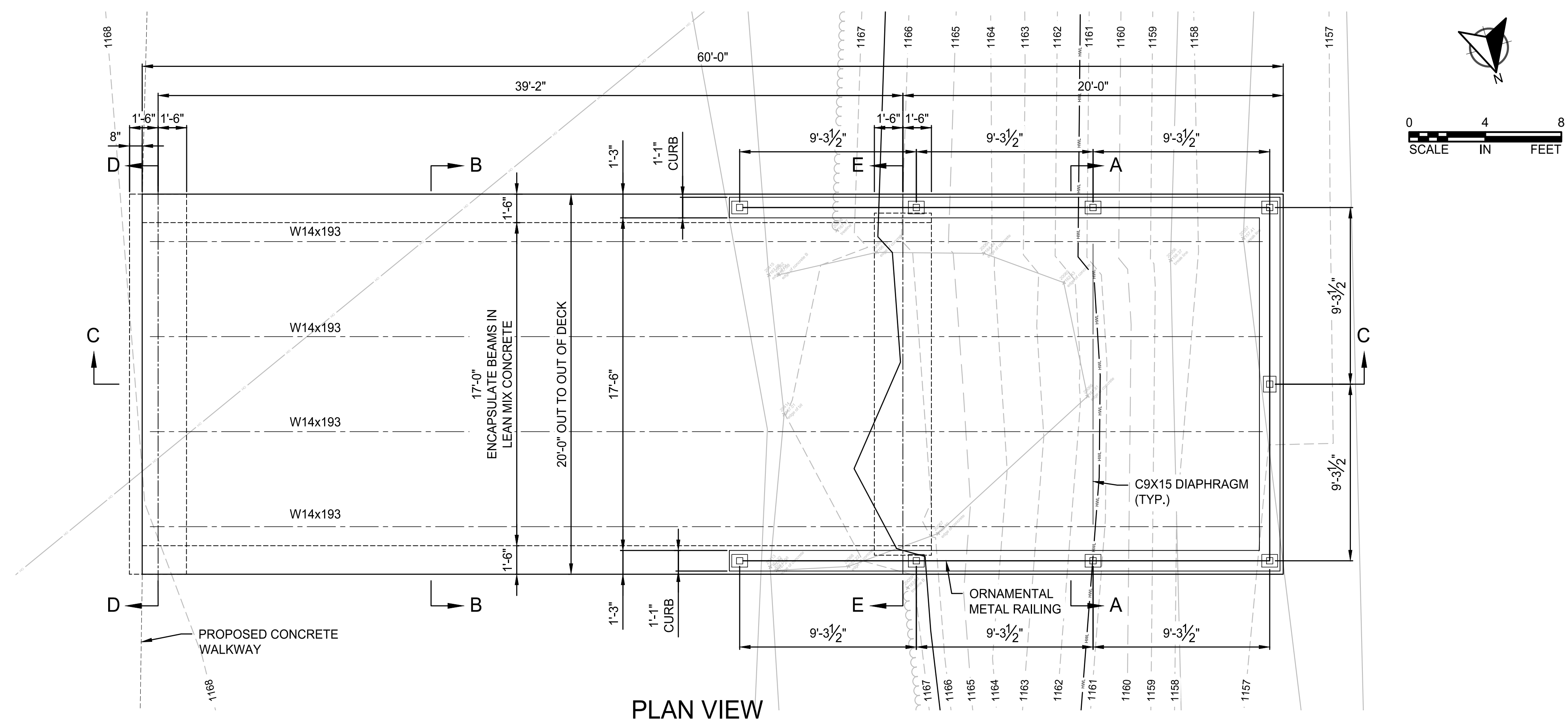
QUANTITIES AND NOTES

MISSISSIPPI LANDING TRAILHEAD PROJECT
CITY OF BRAINERD

CLIENT PROJECT NO.

WSB PROJECT NO.
018999-000

SHEET



REVISIONS	
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ROBERT A. SLIPKA III

DATE: _____ LIC. NO: _____

PLAN ELEVATION AND SECTION

MISSISSIPPI LANDING TRAILHEAD PROJECT
CITY OF BRAINERD

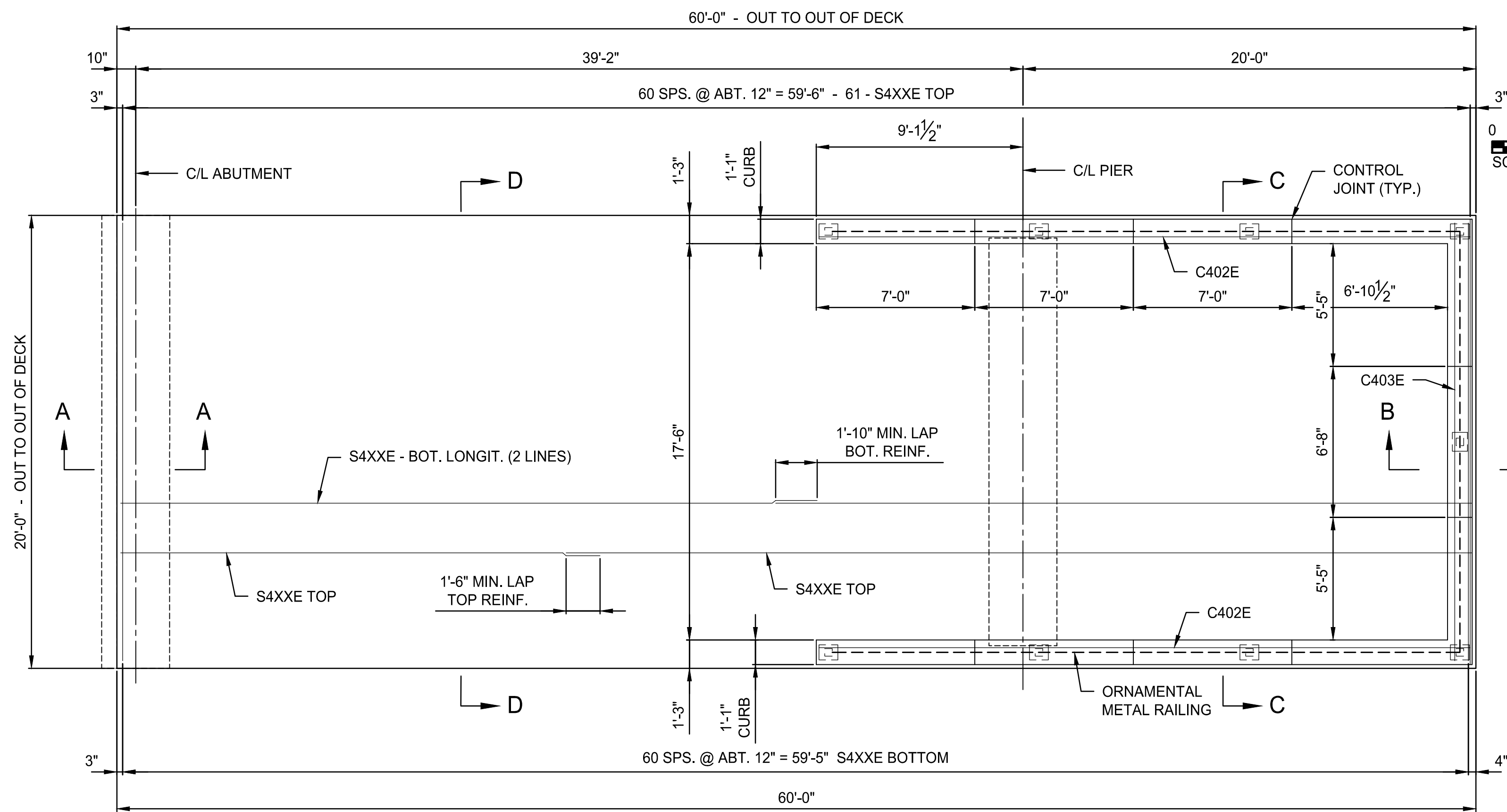
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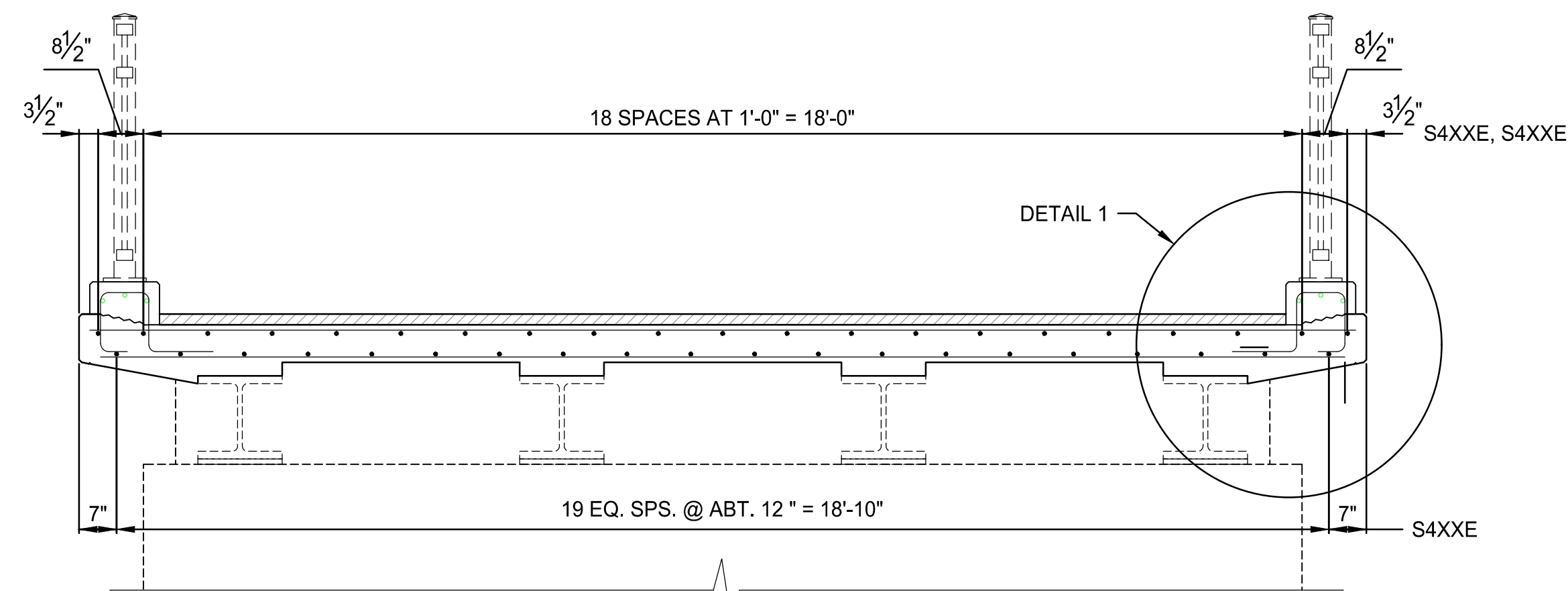
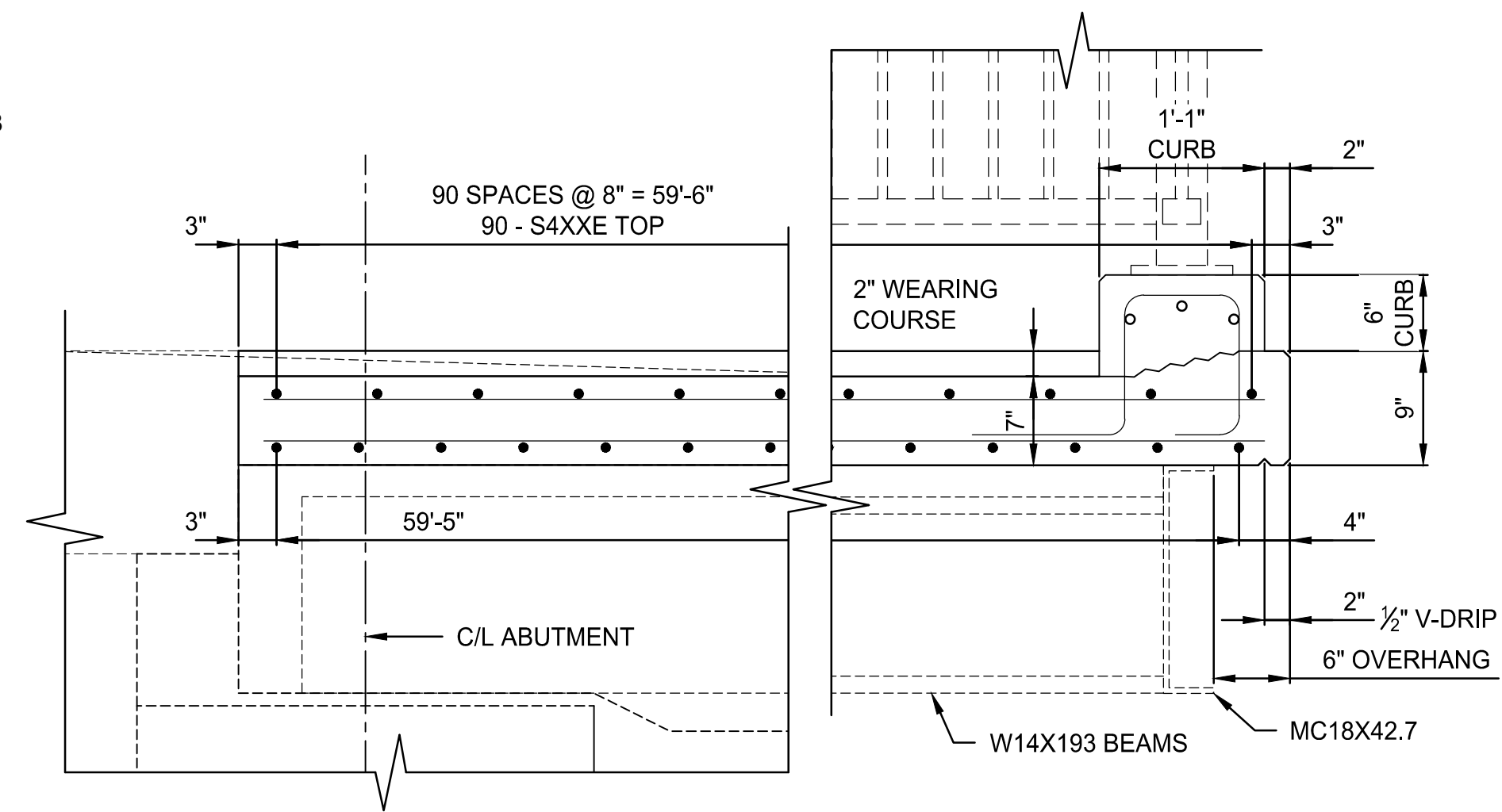
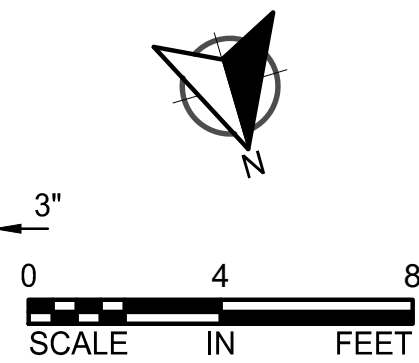
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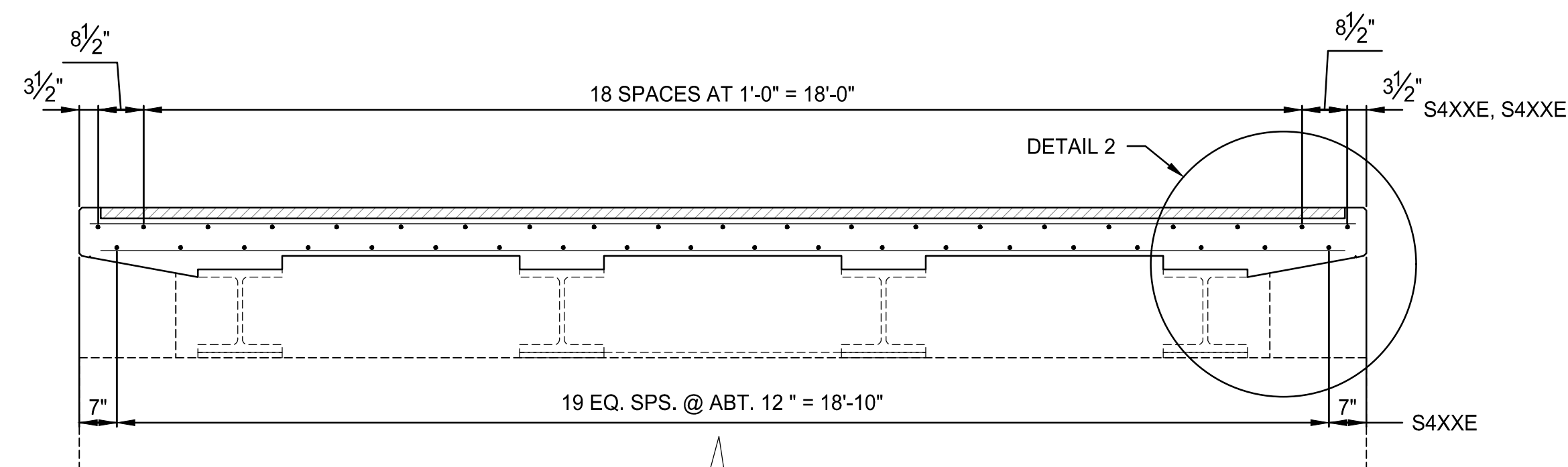
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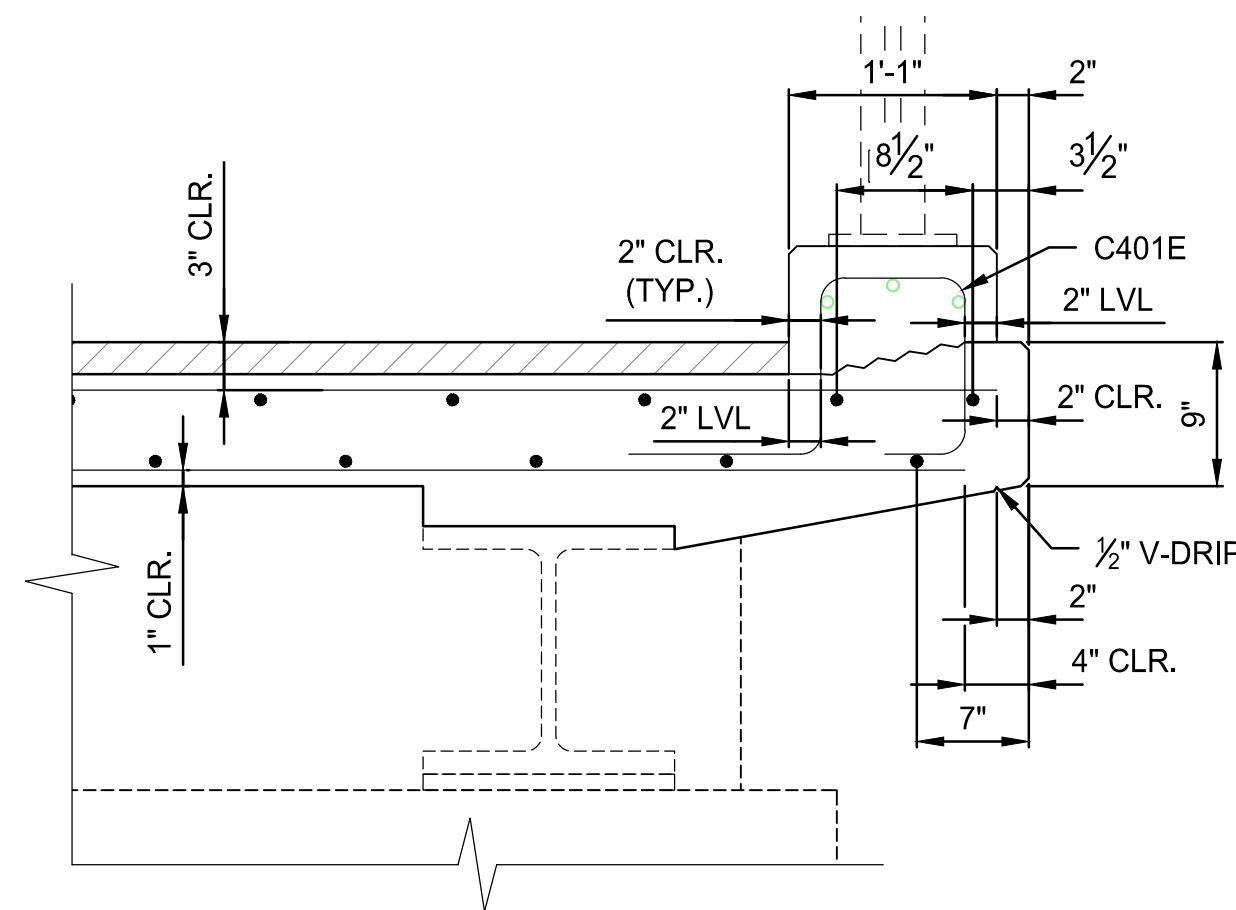
PLAN VIEW



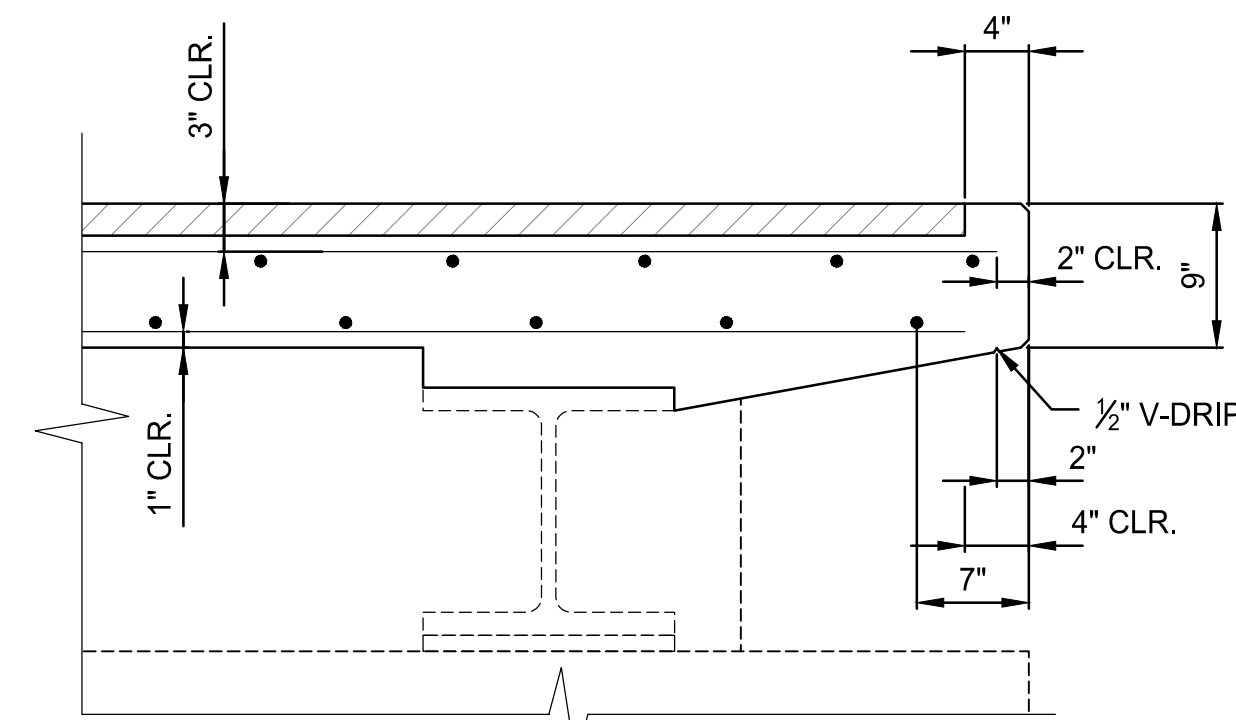
SECTION C-C



SECTION D-D



DETAIL 1



DETAIL 2

REVISIONS

NO.	DATE	DESCRIPTION

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ROBERT A. SLIPKA III

DATE: LIC. NO. 44337

SUPERSTRUCTURE DETAILS

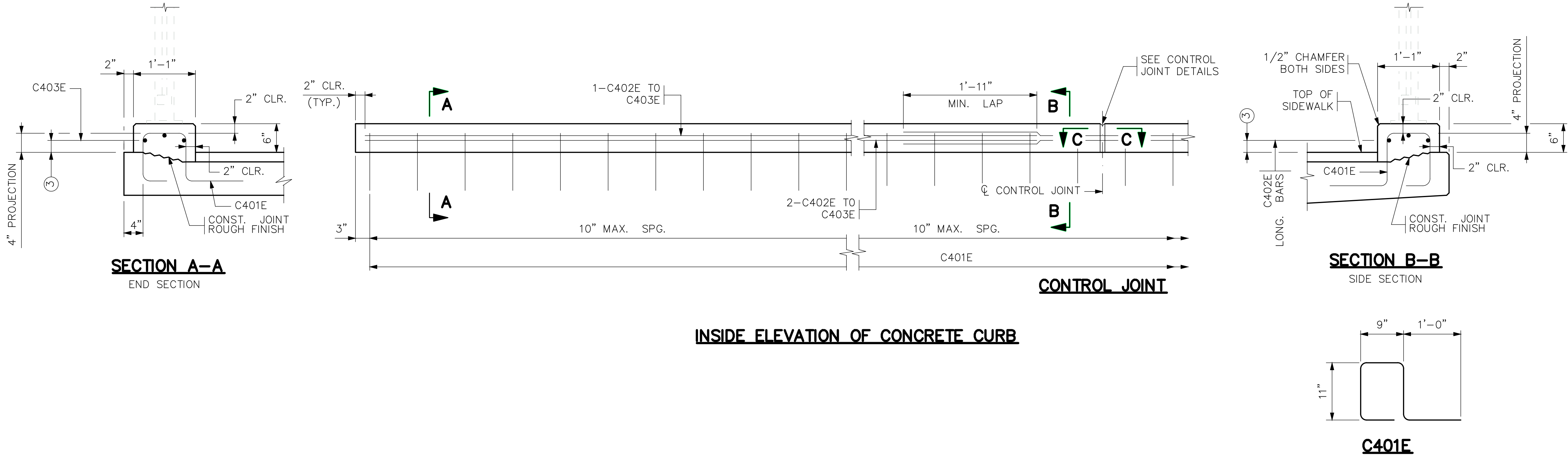
MISSISSIPPI LANDING TRAILHEAD PROJECT
CITY OF BRAINERD

CLIENT PROJECT NO.

WSB PROJECT NO.
018999-000

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CURB DOES NOT MEET CRASH TEST REQUIREMENTS OF NCHRP REPORT 350 OR MASH

BILL OF REINFORCEMENT FOR CURB				
BAR	NO.	LENGTH	SHAPE	LOCATION
C401E		4'-2"		CURB BASE VERTICAL
C402E				CURB BASE LONGIT.
C403E				CURB BASE LONGIT.

GENERAL NOTES

- CONTINUOUSLY GROUND ALL METAL RAILINGS; SEE THE SPECIAL PROVISIONS. REFER TO THE ELECTRICAL PLANS AND ELECTRICAL SPECIAL PROVISIONS FOR DETAILS REGARDING BONDING MULTIPLE ELECTRICAL GROUNDING SYSTEMS.
- MEASURE PAYMENT LENGTH BETWEEN THE OUTSIDE ENDS OF THE CONCRETE CURB.
- CONCRETE CURB = 81 LBS./FT. (0.020 CU. YDS./FT.)
- FINISH ALL EDGES OF CURB WITH 1/2" CHAMFER, EXCEPT WHERE OTHERWISE NOTED.
- MAXIMUM SPACING OF CONTROL JOINTS ON SUPERSTRUCTURE, APPROACH AND WINGWALL IS 10 FT. SEE SUPERSTRUCTURE SHEET FOR CONTROL JOINT SPACING.
- CONCRETE CURB QUANTITIES ARE LISTED IN SUMMARY OF QUANTITIES FOR SUPERSTRUCTURE.
- ① JOINT SEALANT PER MnDOT APPROVED/QUALIFIED PRODUCTS LIST – CRACK AND JOINT MATERIALS – SILICONE JOINT SEALERS.
- ② REFER TO STANDARD FIGURE 5-397.632 FOR COVER PLATE DETAILS.
- ③ TO MAXIMIZE CLEARANCES FOR ANCHORAGES, PLACE TOP OF OUTSIDE LONGITUDINAL BARS 2" FROM DECK SURFACE (TYP.).

SCALE: DESIGN BY:
PLAN BY: CHECK BY:

REVISIONS	
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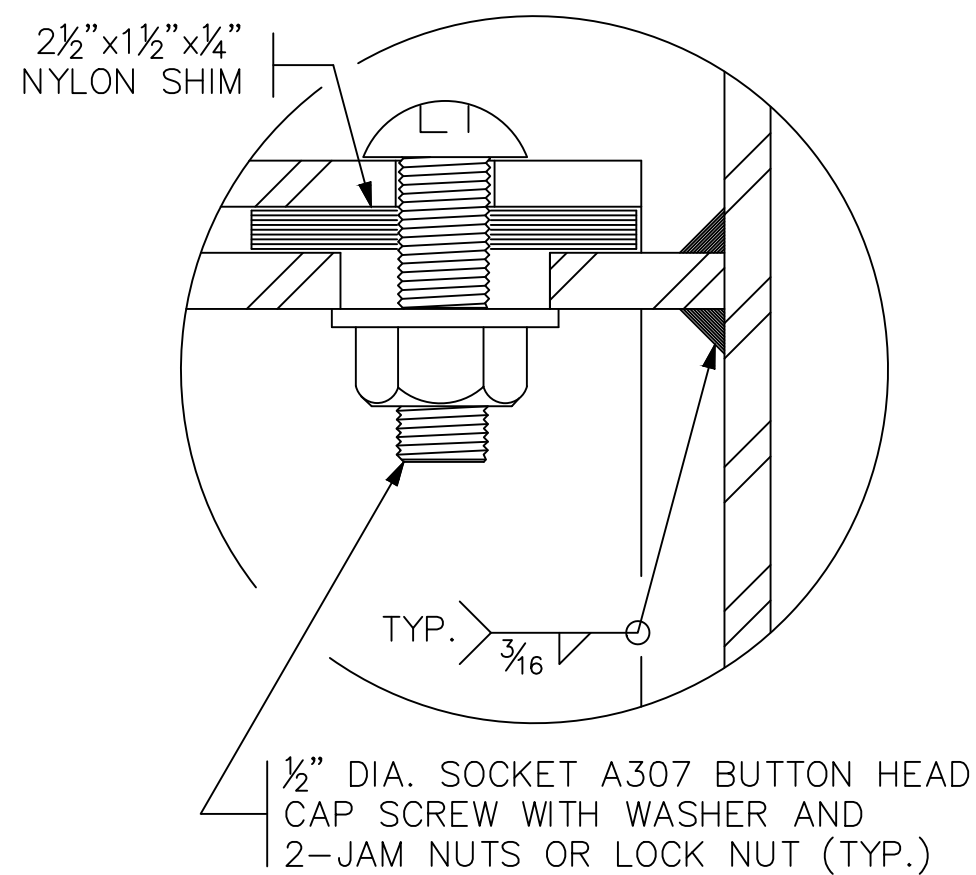
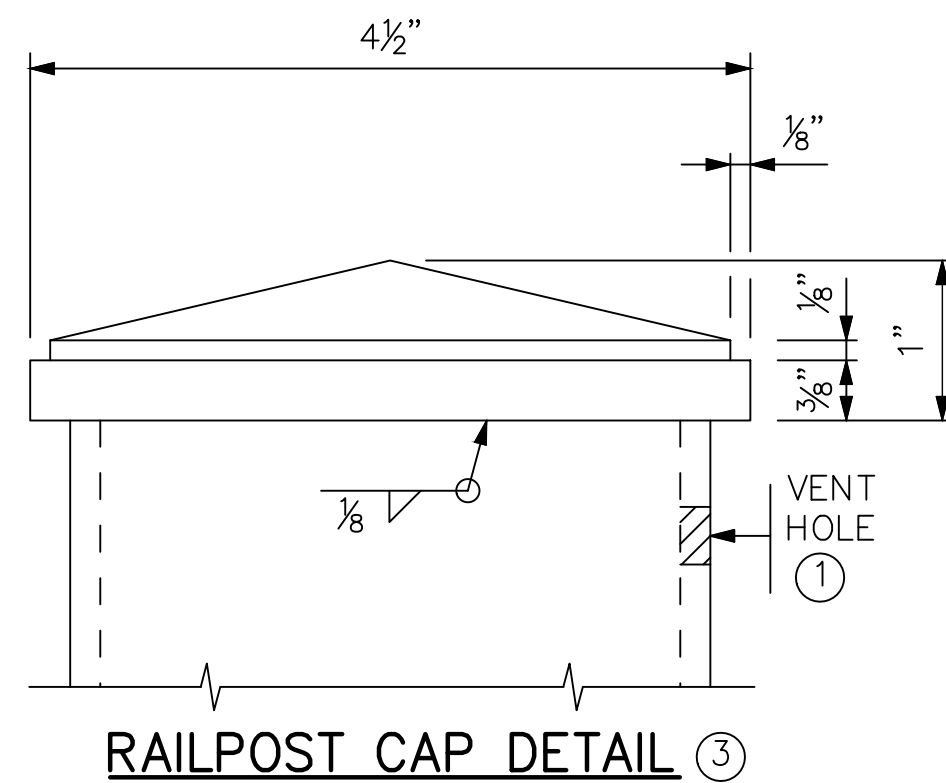
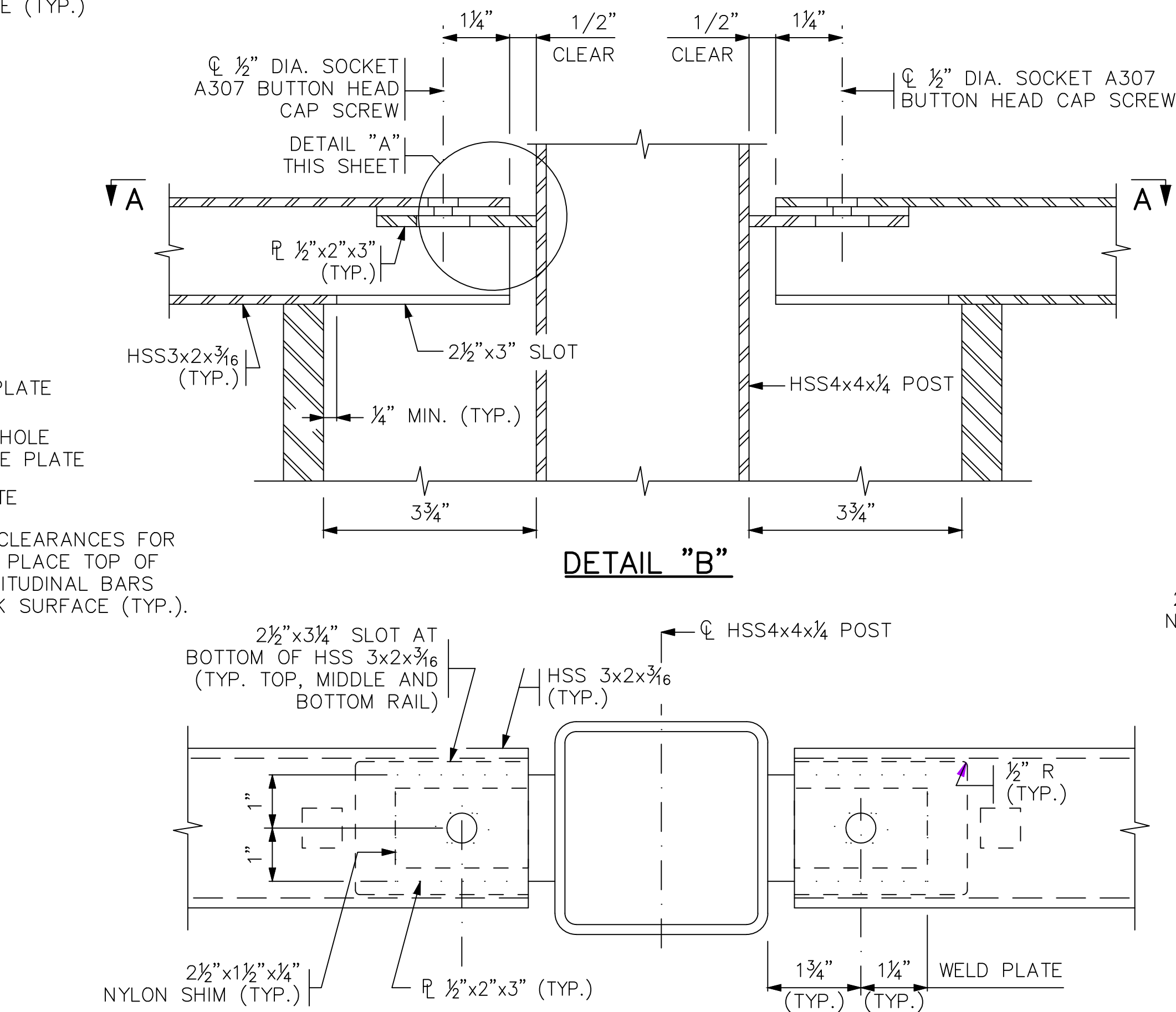
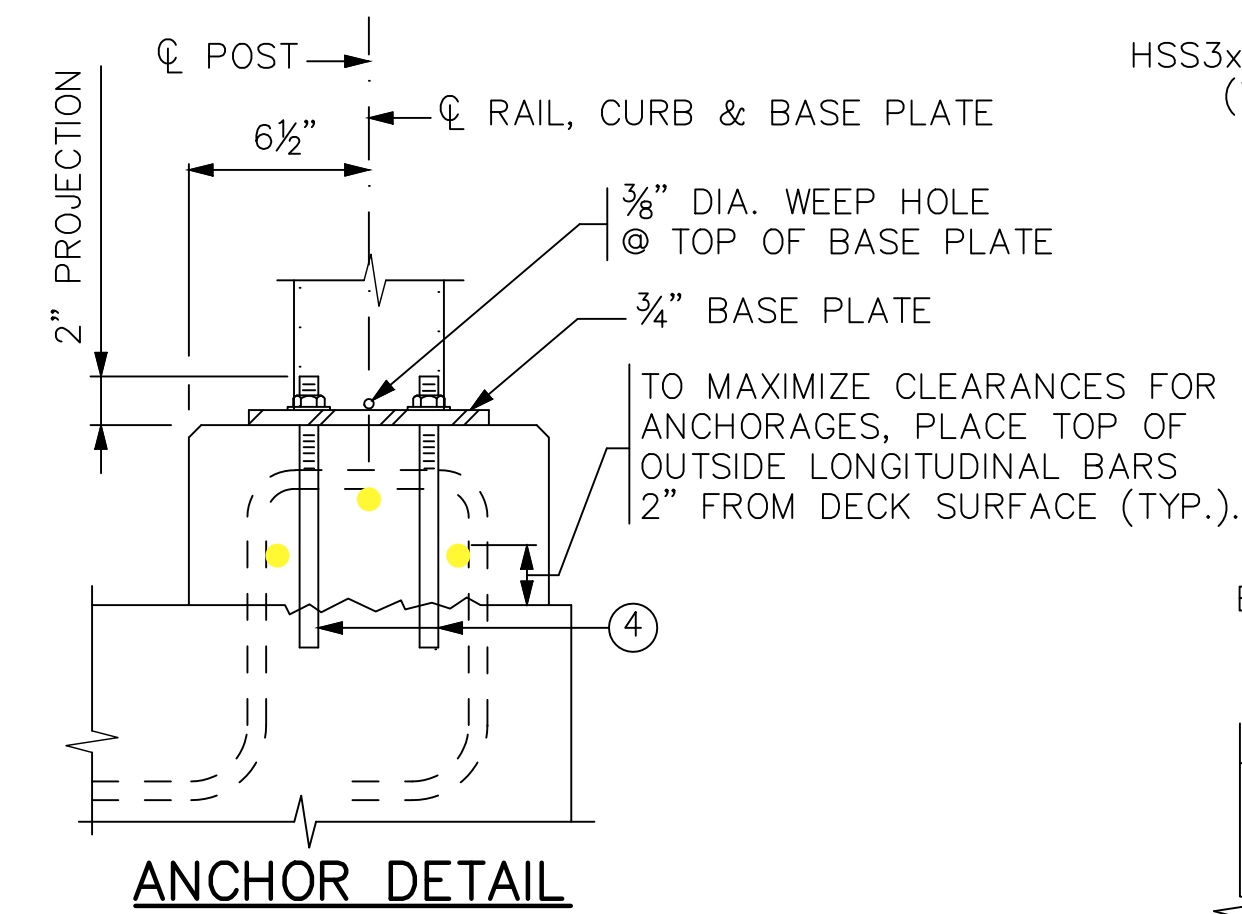
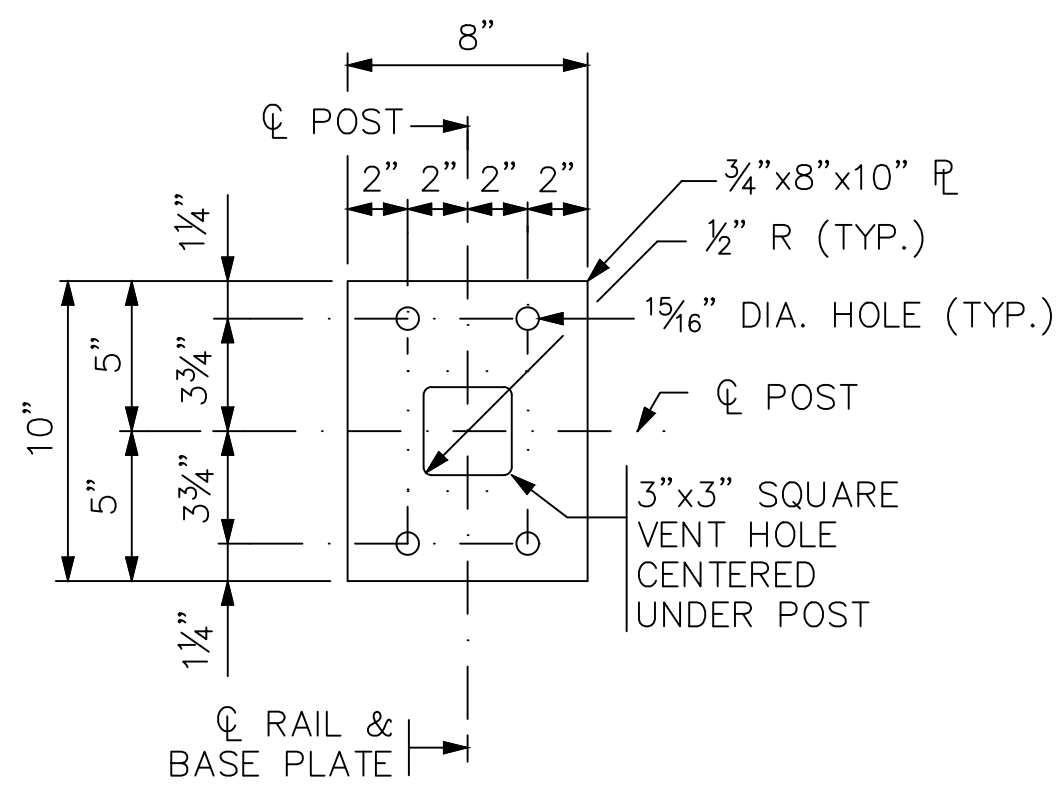
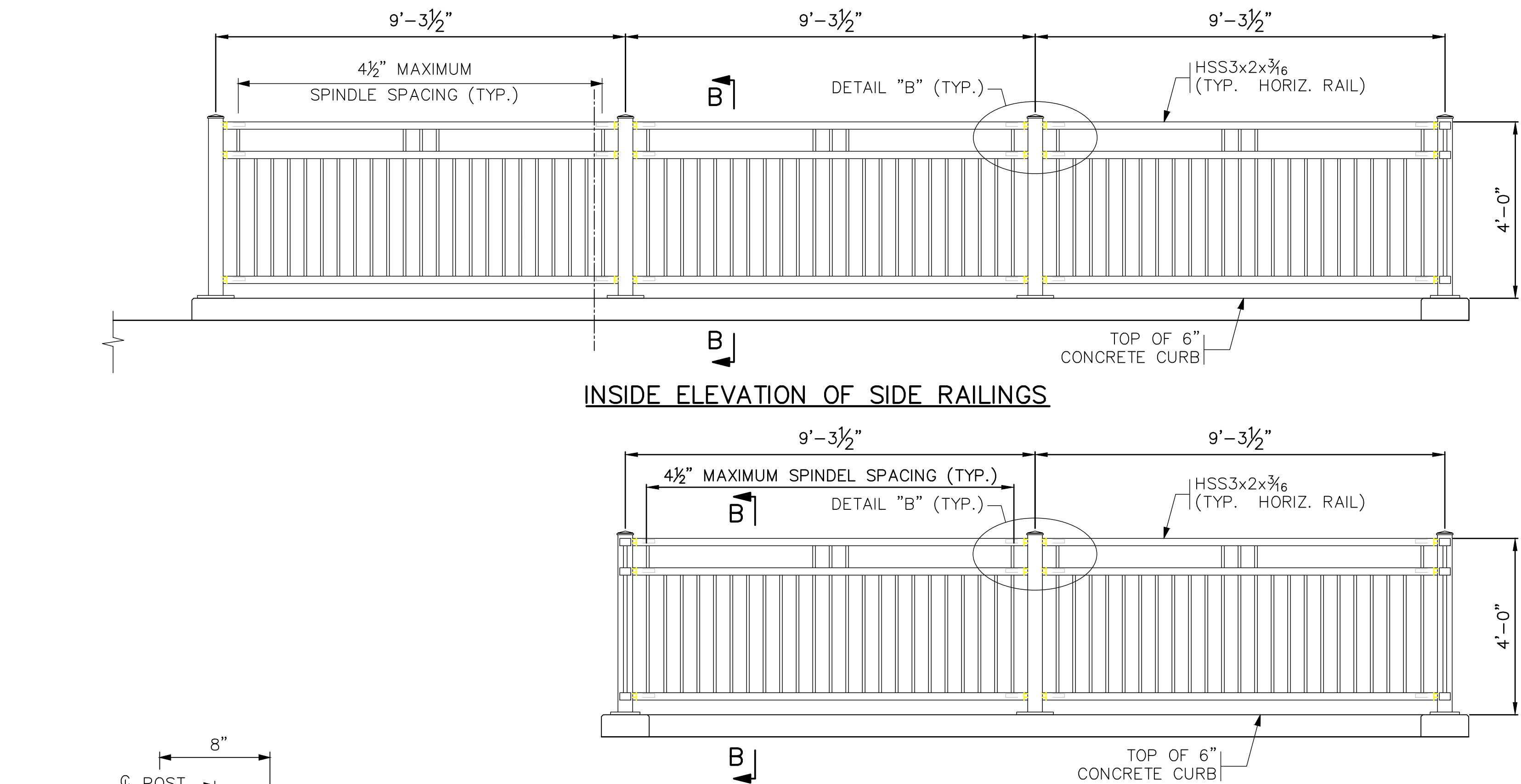
ROBERT A. SUIPKA III
DATE: LIC. NO. 44337

CONCRETE CURB DETAILS

MISSISSIPPI LANDING TRAILHEAD PROJECT
CITY OF BRAINERD

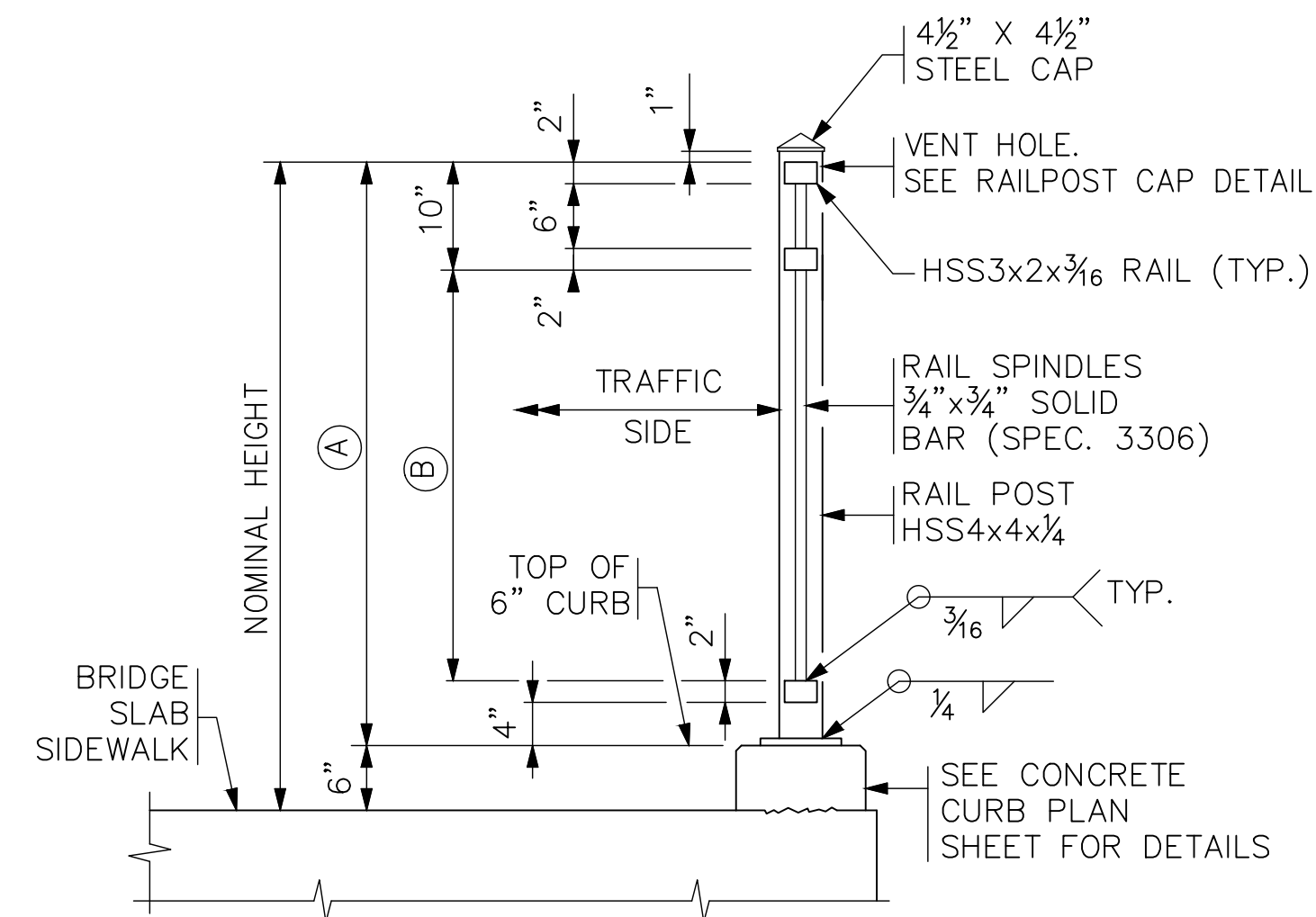
CLIENT PROJECT NO.
WSB PROJECT NO.
018999-000
SHEET

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RAILING HEIGHT TABLE

NOMINAL HEIGHT	(A)	(B)
4'-6"	4'-0"	2'-8"



GENERAL NOTES

CONTINUOUSLY GROUND ALL METAL RAILINGS; SEE THE SPECIAL PROVISIONS. REFER TO THE ELECTRICAL PLANS AND ELECTRICAL SPECIAL PROVISIONS FOR DETAILS REGARDING BONDING MULTIPLE ELECTRICAL GROUNDING SYSTEMS.

PAYMENT LENGTH SHALL BE MEASURED AS THE OUT TO OUT LENGTH ALONG THE CENTERLINE OF THE RAILING BETWEEN THE OUTSIDE ENDS, WITH DEDUCTIONS FOR THE LENGTH OF CONCRETE POSTS, IF PRESENT.

PROVIDE A500, GRADE B STRUCTURAL STEEL TUBING (HSS) IN THE RAIL CONFORMING TO SPEC. 3361. PROVIDE ALL OTHER STEEL IN ACCORDANCE WITH SPEC. 3306.

GALVANIZE BOLTS, NUTS, WASHERS AND ANCHORS IN ACCORDANCE WITH SPEC. 3392. GALVANIZE ALL OTHER STRUCTURAL STEEL IN ACCORDANCE WITH SPEC. 3394, AFTER FABRICATION.

SEE SPECIAL PROVISIONS FOR COATING TO BE APPLIED TO METAL RAILING.

INSTALL RAIL POSTS AND SPINDLES PLUMB.

CURVE HORIZONTAL RAILS WHERE APPLICABLE AND PLACE RAILS PARALLEL TO THE EDGE OF SIDEWALK PROFILE.

SEE SPECIAL PROVISIONS FOR REQUIREMENTS NOT INCLUDED ON THIS SHEET.

DRILL 1/2" DIA. MAX. VENT HOLES ON THE UNDERSIDE OF RAIL TUBES AS NECESSARY TO FACILITATE GALVANIZING.

- ① DRILL VENT HOLE IN THE RAIL POST WITHIN 2" OF THE UNDERSIDE OF THE CAP, ON THE NON-TRAFFIC SIDE OF THE POST AS NECESSARY TO FACILITATE GALVANIZING. MAXIMUM HOLE SIZE IS 1/2" DIA.
- ② SEE CONCRETE CURB PLAN SHEET FOR CONTROL JOINT SPACING AND DETAILS.
- ③ PROVIDE A PYRAMID TOP STYLE STEEL CAP WELDED TO TOP OF POST WITH A SURFACE FINISH OF 1000 MICRO-INCH, OR SMOOTHER, PRIOR TO GALVANIZING.
- ④ ADHESIVE ANCHORAGE WITH 5/8" DIA. ANCHOR ROD IN ACCORDANCE WITH SPEC. 3385, TYPE A WITH HEX NUT AND WASHER. PROVIDE AN ADHESIVE WITH A MINIMUM CHARACTERISTIC BOND STRENGTH IN UNCRACKED CONCRETE OF 1.5 KSI. EMBED THE ANCHORAGE NO LESS THAN 8" REGARDLESS OF CHARACTERISTIC BOND STRENGTH. DRILL THROUGH REINFORCEMENT (IF ENCOUNTERED) TO ACHIEVE MINIMUM EMBEDMENT. ENSURE HEX NUT IS IN CONTACT WITH THE ADJACENT SURFACE AND TORQUE TO 60 FT-LBS UNLESS A HIGHER TORQUE IS RECOMMENDED BY THE MANUFACTURER. PROOF LOAD TO 8.8 KIPS. REFER TO THE APPROVED/QUALIFIED PRODUCTS LIST AND THE SPECIAL PROVISIONS FOR ADDITIONAL REQUIREMENTS.

REVISIONS

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ROBERT A. SUIPKA III
LIC. NO. 44337
DATE:

ORNAMENTAL RAILING DETAILS

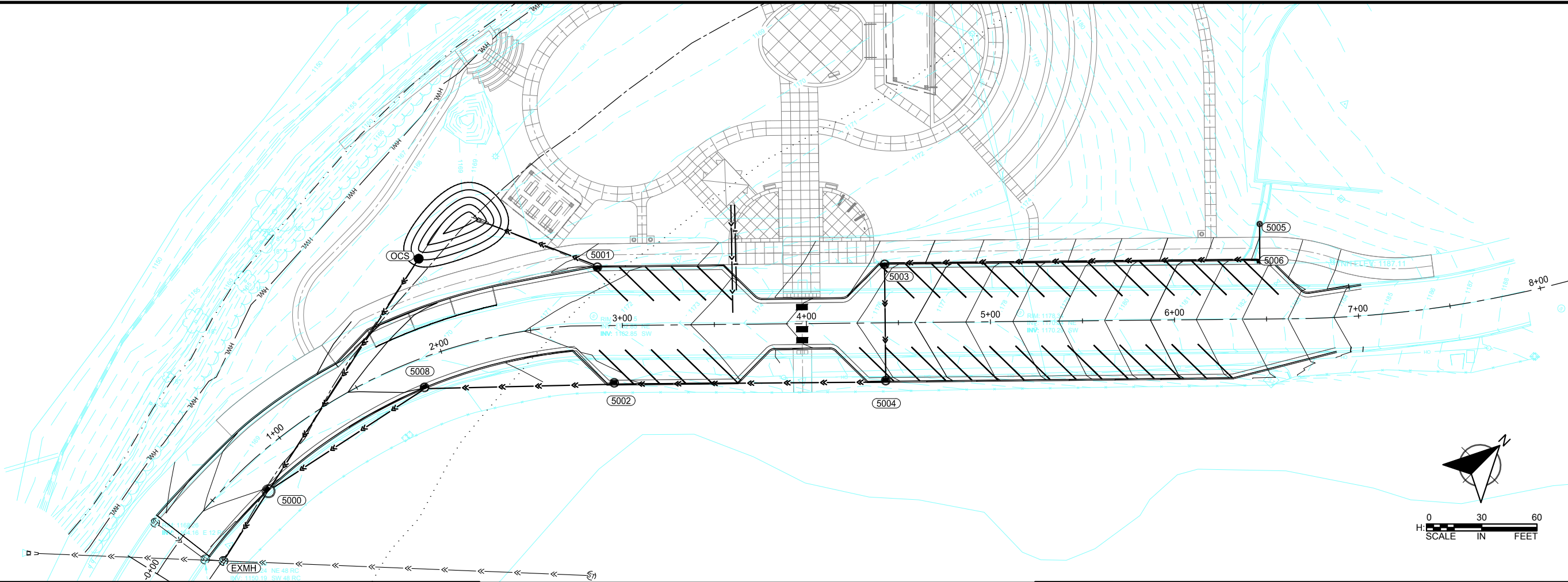
MISSISSIPPI LANDING TRAILHEAD PROJECT CITY OF BRAINERD

CLIENT PROJECT NO.

WSB PROJECT NO.
018999-000

SHEET

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CITY DETAILS ADDED HERE



WSB PROJECT NO.:
018999-000

SCALE: AS SHOWN
DESIGN BY: CLS
PLAN BY: SAG
CHECK BY: CLS

REVISIONS

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CHRISTOPHER L SONNOR

DATE: / / LIC. NO. XXXX

MISSISSIPPI LANDING
TRAILHEAD PROJECT

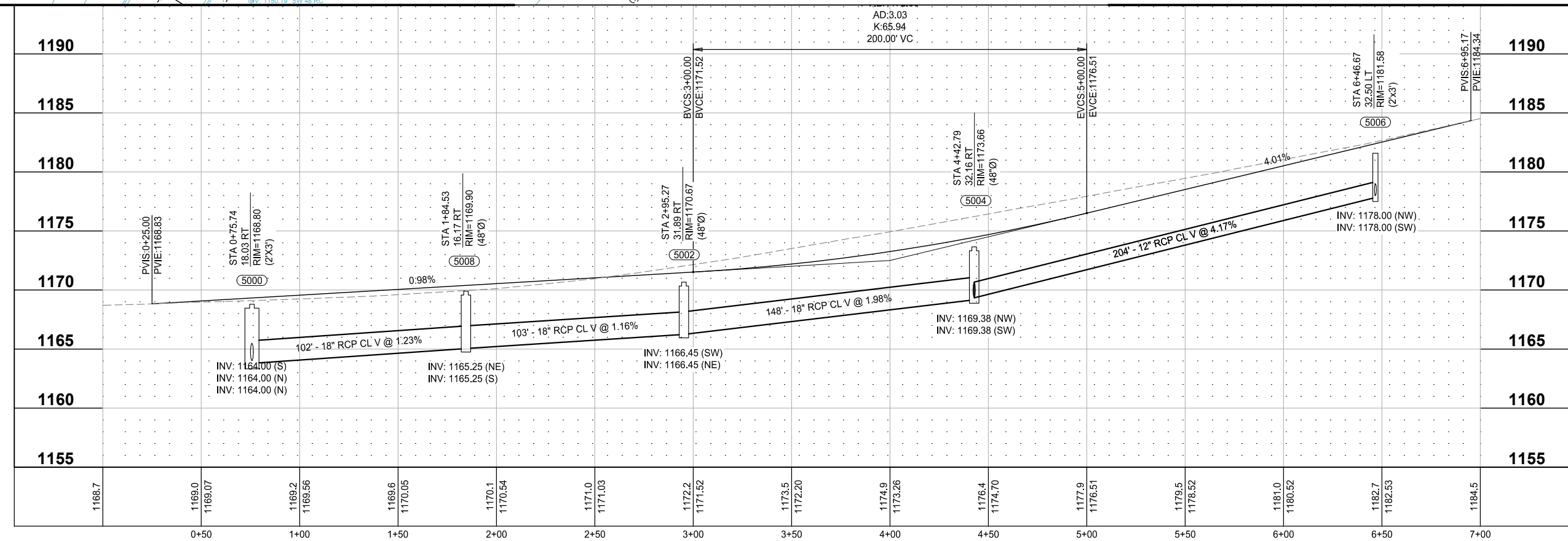
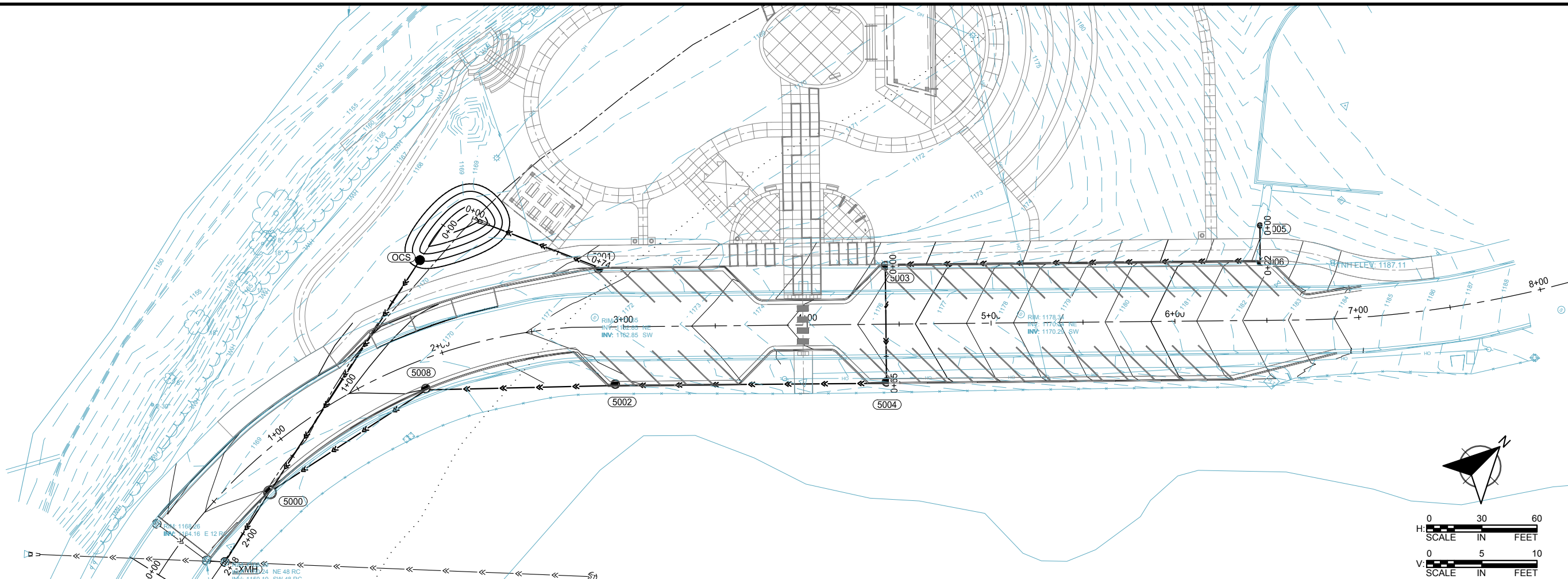
CITY OF BRAINERD

SANITARY SEWER &
WATERMAIN PLANS

SHEET

OF
XXX

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WSB PROJECT NO.:
018999-000

SCALE: AS SHOWN
DESIGN BY: CLS
PLAN BY: SAG
CHECK BY: CLS

REVISIONS

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CHRISTOPHER L SONNOR

DATE: XX/XX/XX LIC. NO: XXXXX

MISSISSIPPI LANDING
TRAILHEAD PROJECT

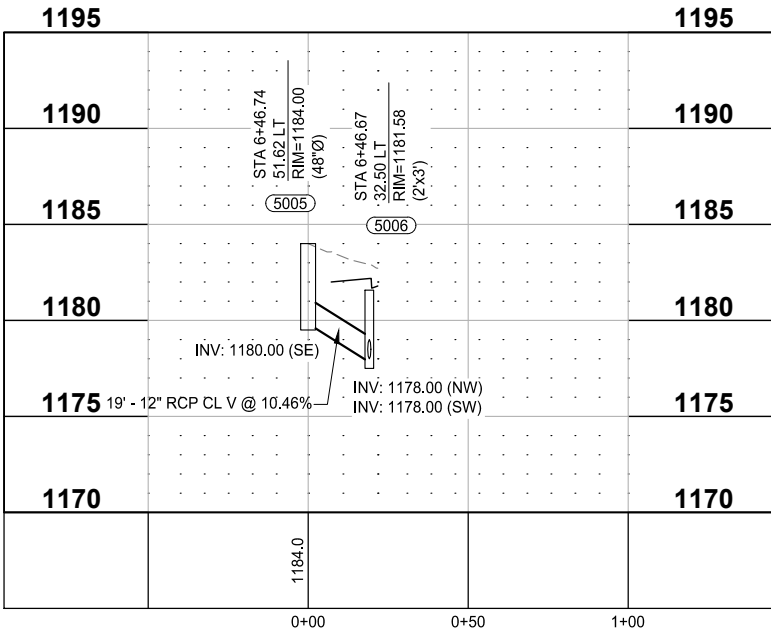
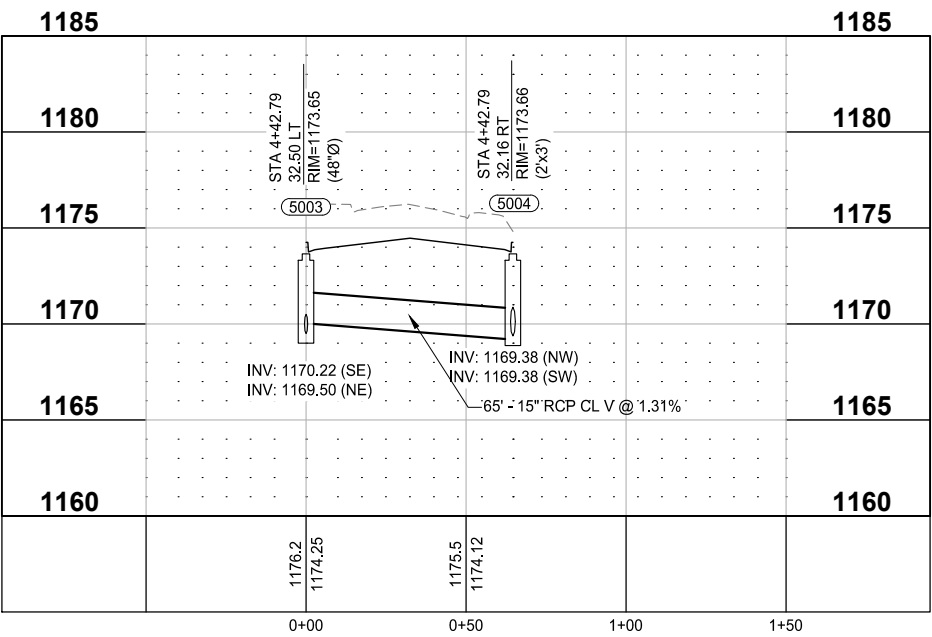
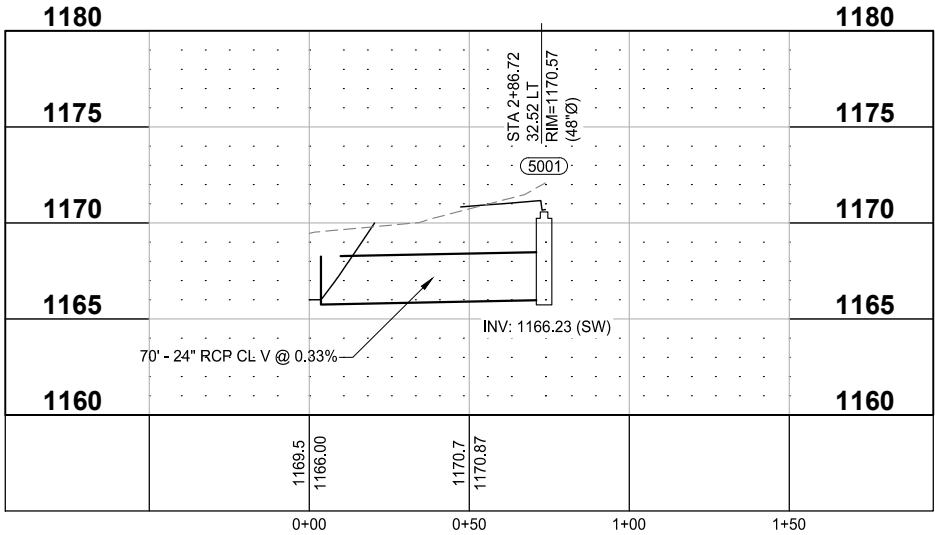
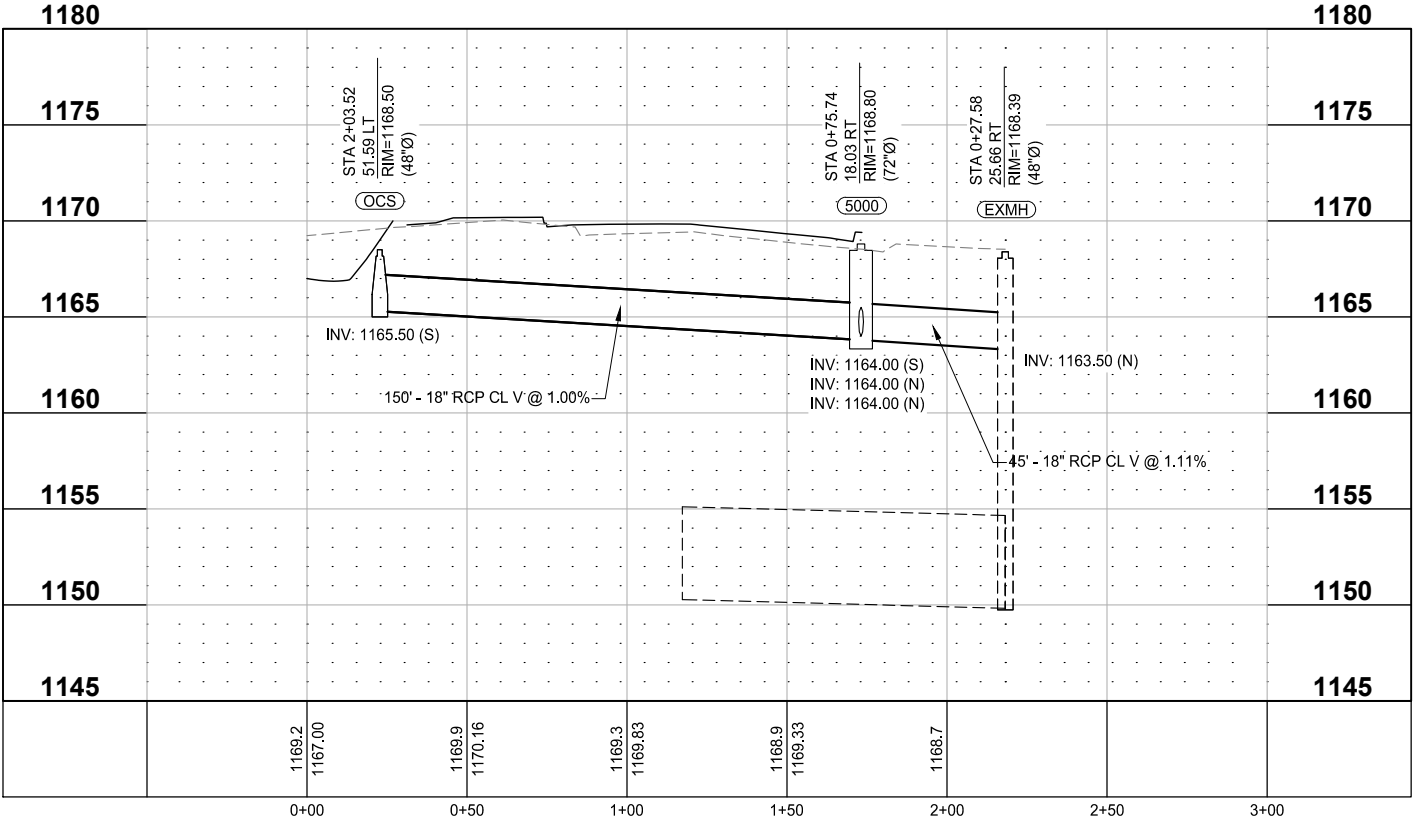
CITY OF BRAINERD

STREET PLANS

SHEET

OF
XXX

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WSB PROJECT NO.:
018999-000

SCALE: AS SHOWN
DESIGN BY: CLS
PLAN BY: SAG
CHECK BY: CLS

REVISIONS

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CHRISTOPHER L SONMOR

DATE: XX/XX/XX LIC. NO. XXXXX

MISSISSIPPI LANDING
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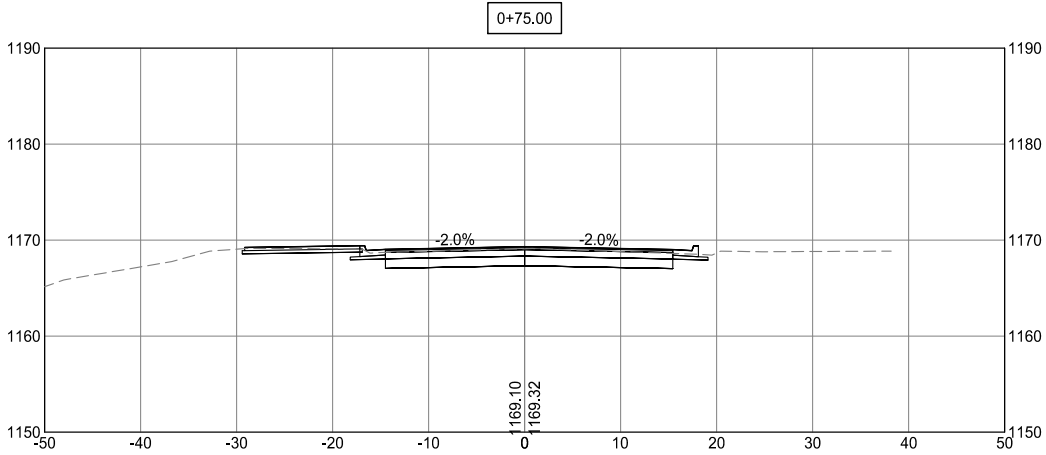
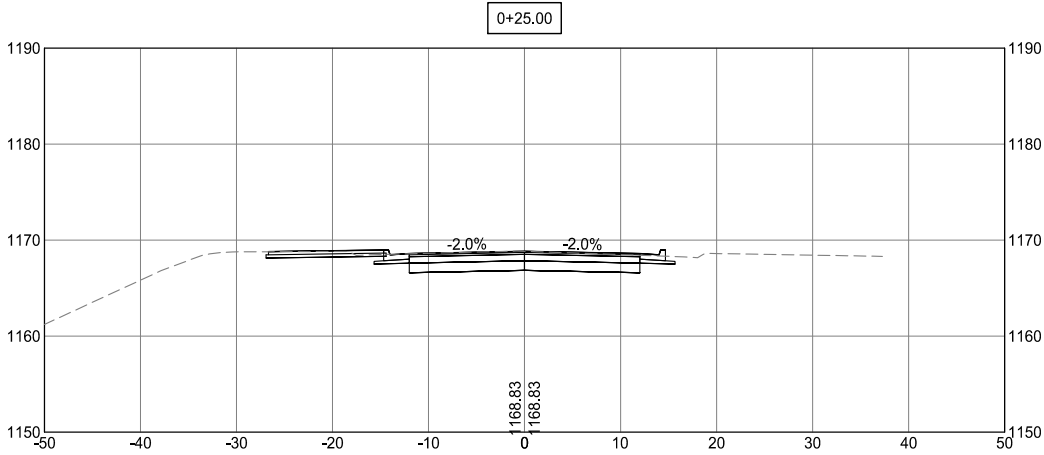
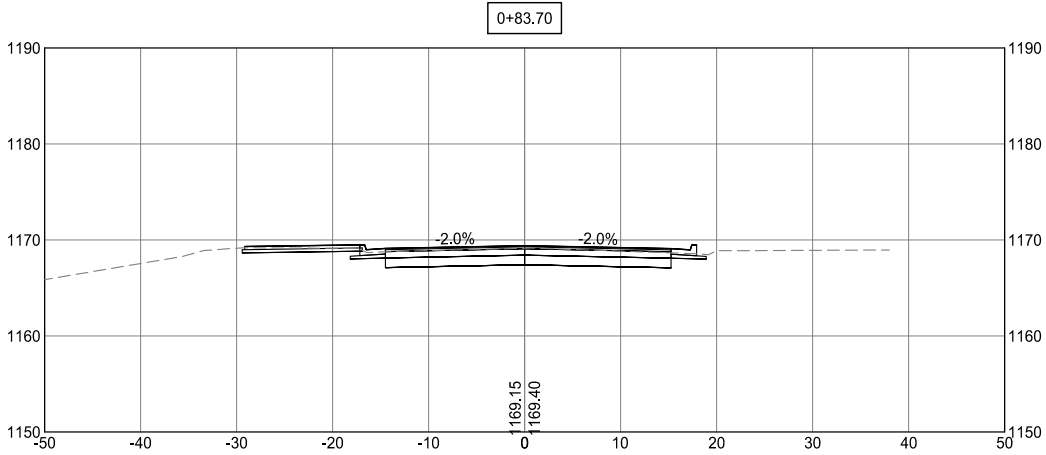
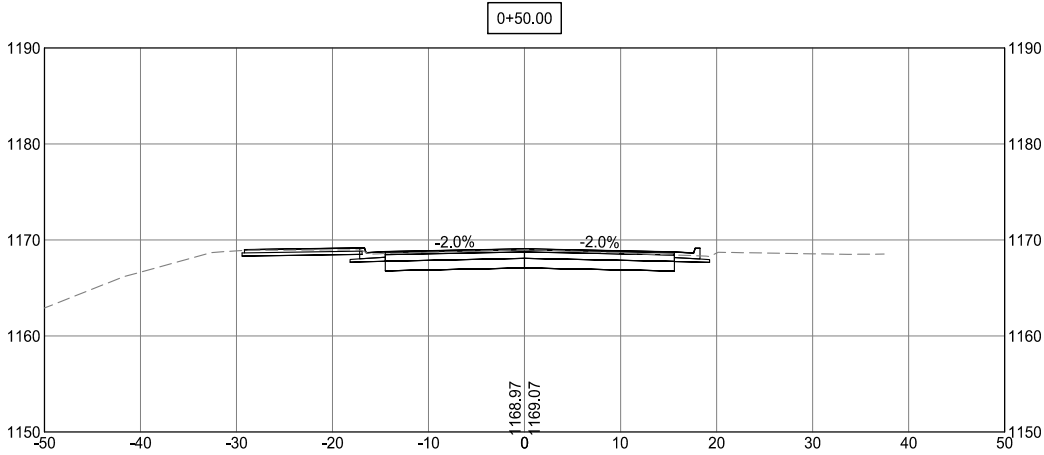
CITY OF BRAINERD

STREET PLANS

SHEET

OF
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DATE: XX/XX/XX
LIC. NO.: XXXX
CHRISTOPHER L. SONNOR

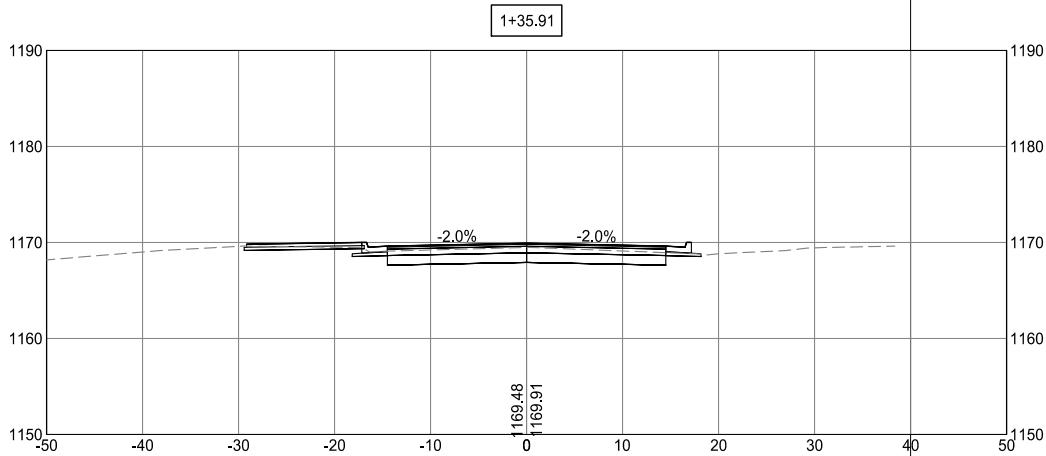
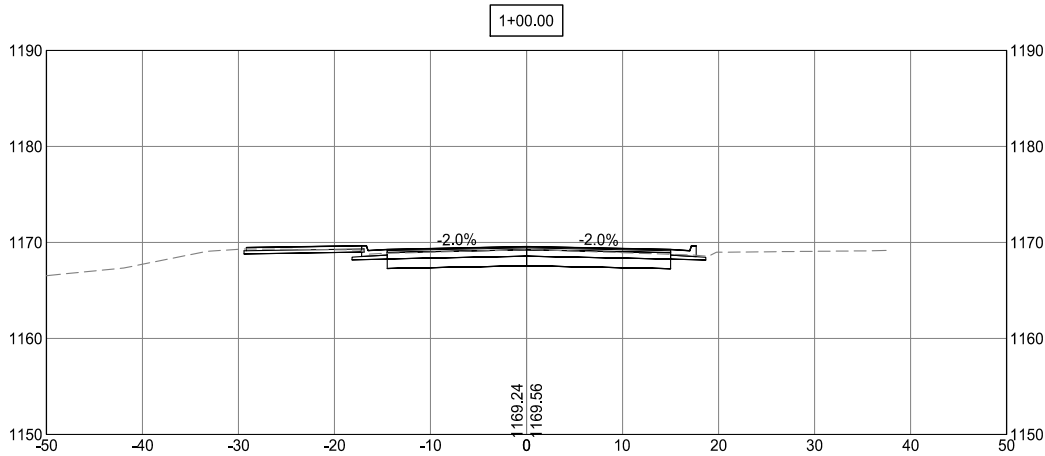
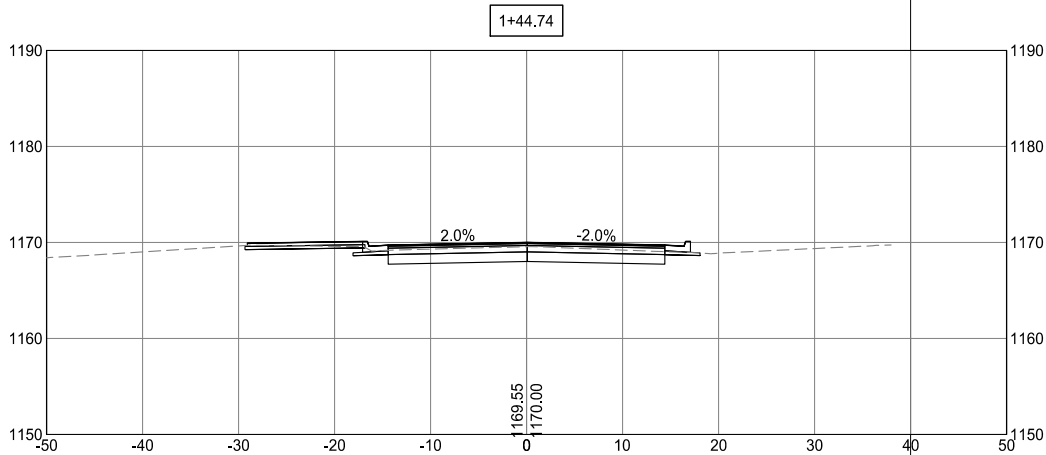
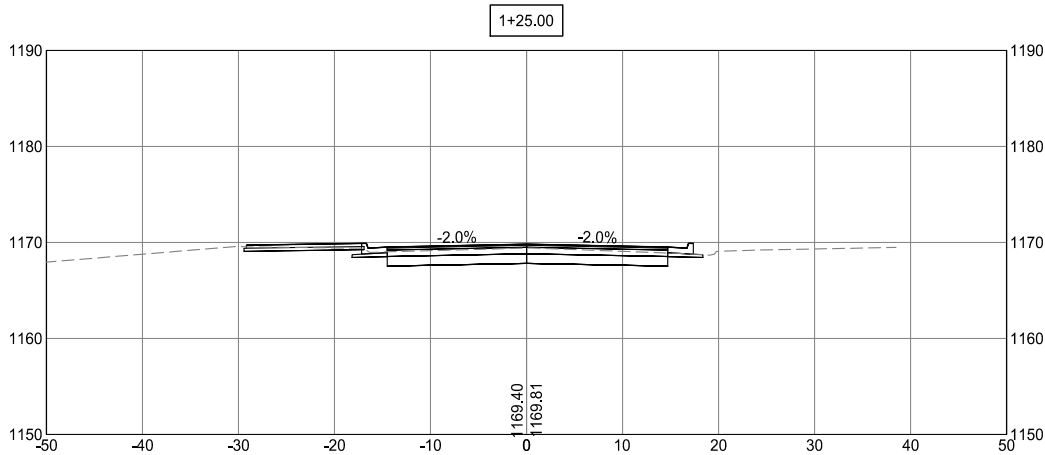
MISSISSIPPI LANDING
TRAILHEAD PROJECT
CITY OF BRAINERD

CROSS SECTIONS

SHEET

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CHRISTOPHER L. SONMOR

DATE: XX/XX/XX LIC. NO: XXXX

MISSISSIPPI LANDING
TRAILHEAD PROJECT

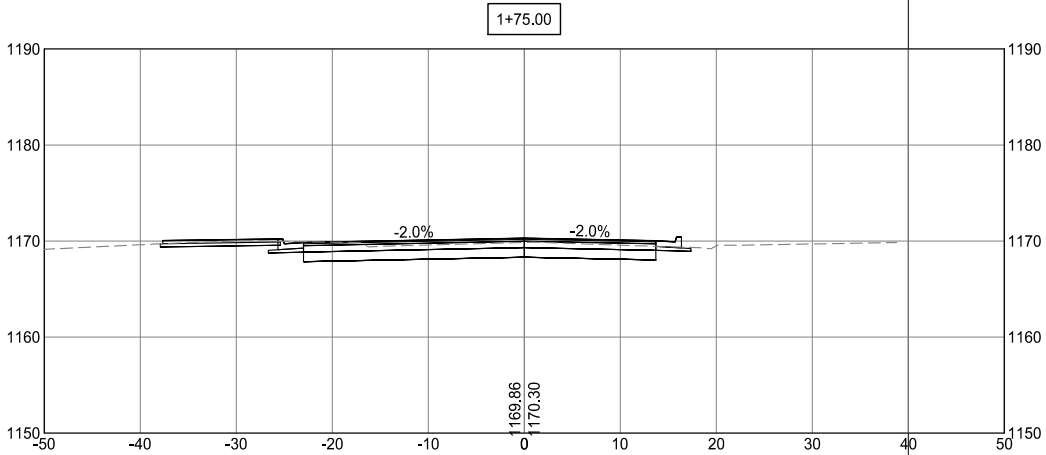
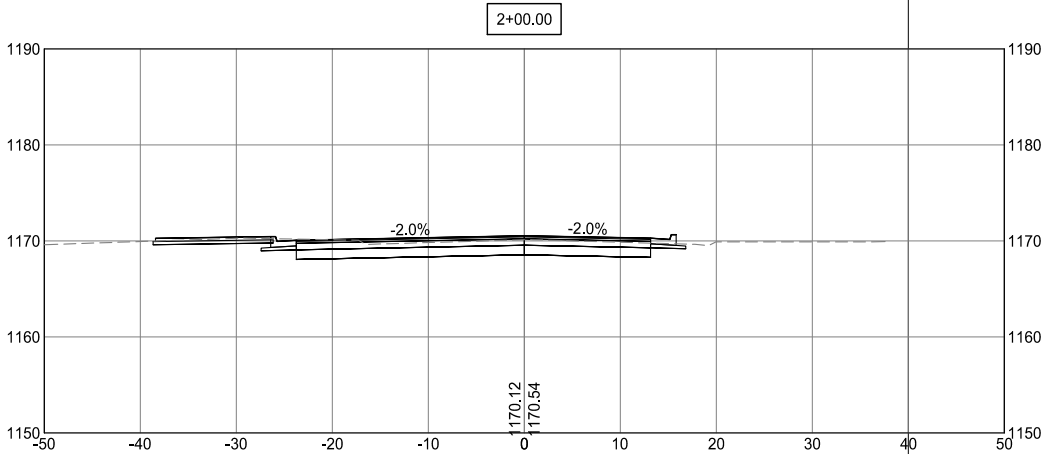
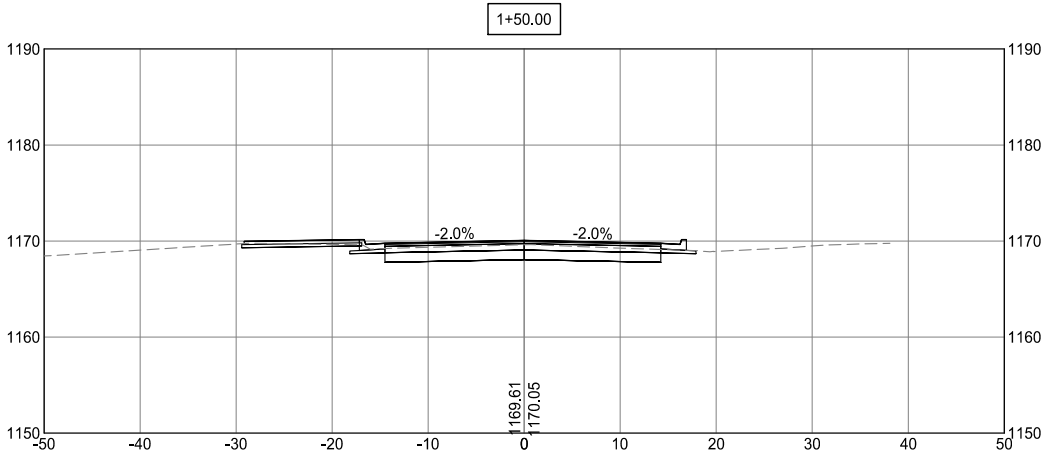
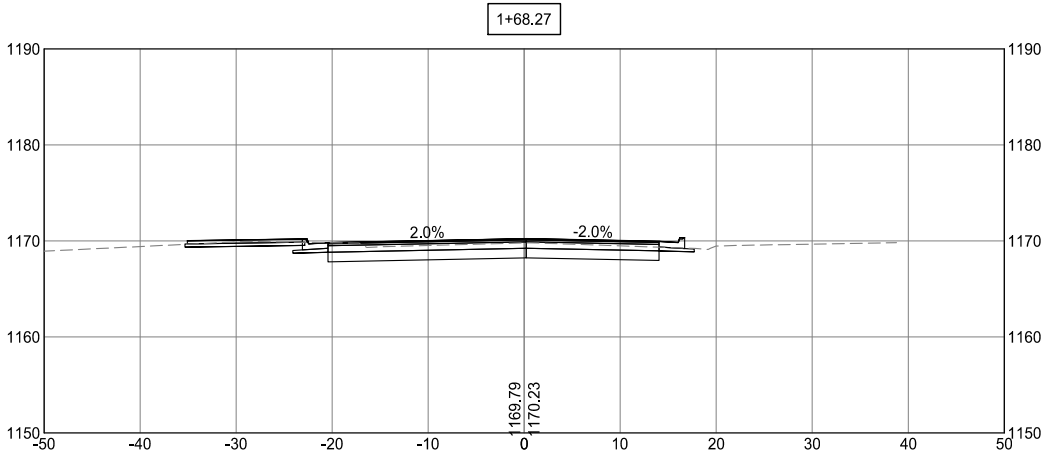
CITY OF BRAINERD

CROSS SECTIONS

SHEET

OF
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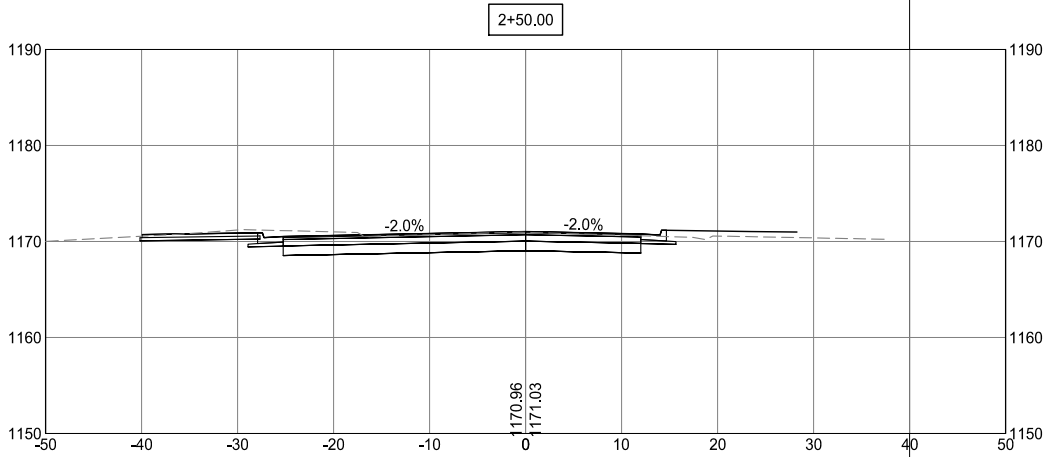
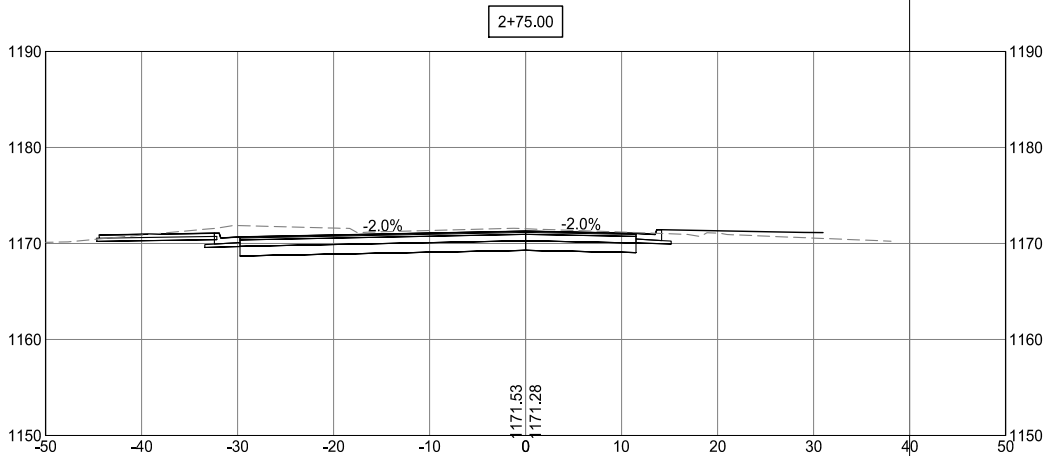
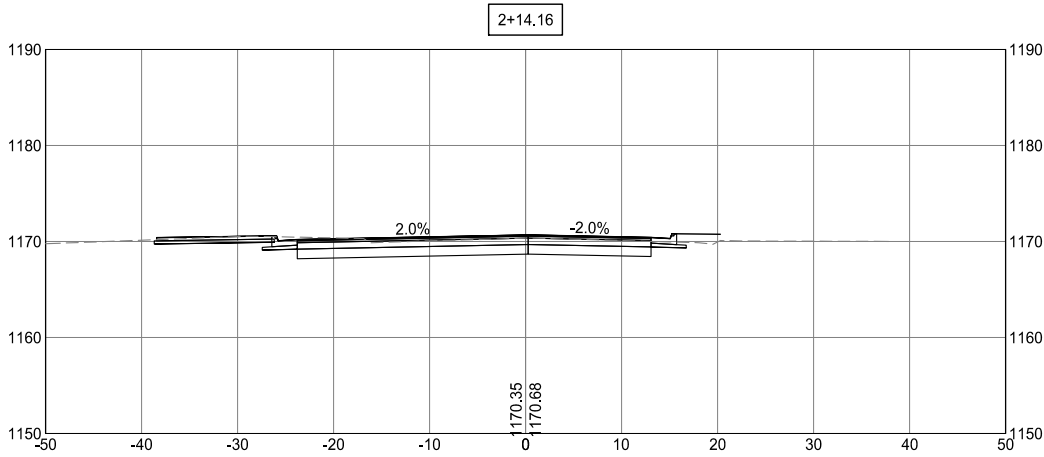
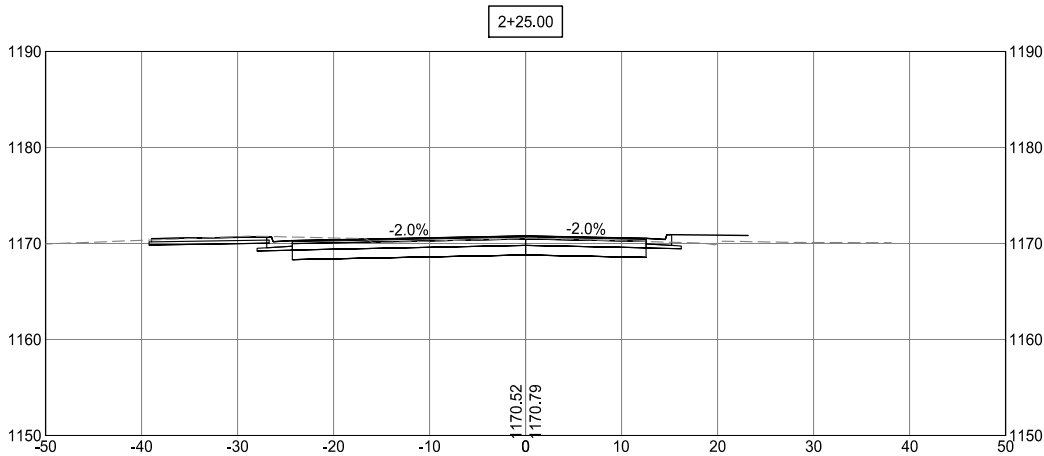
MISSISSIPPI LANDING
TRAILHEAD PROJECT
CITY OF BRAINERD

CROSS SECTIONS

SHEET

OF
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DATE: XX/XX/XX
LIC. NO.: XXXXX
CHRISTOPHER L. SONNOR

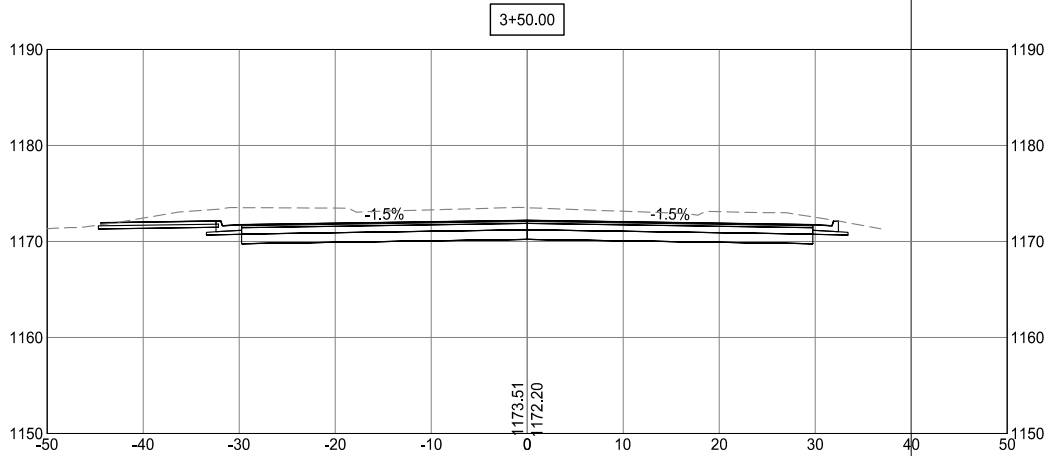
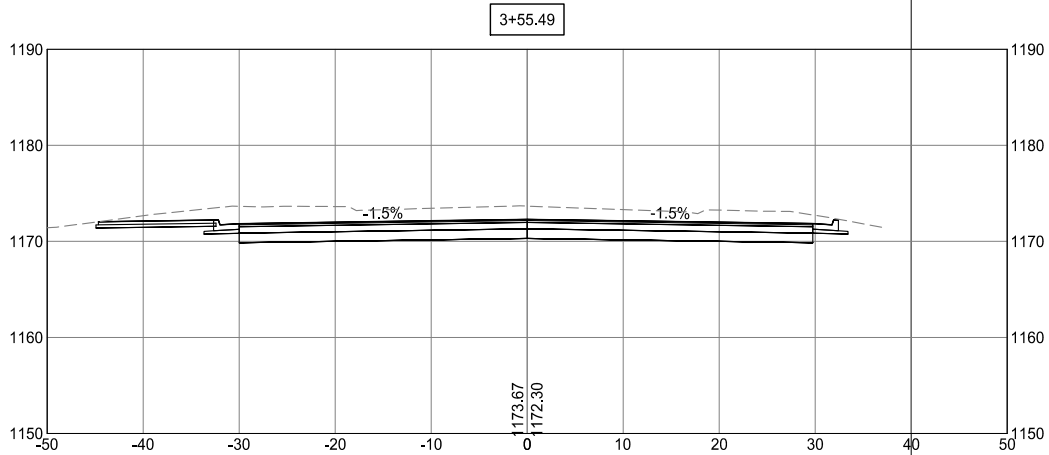
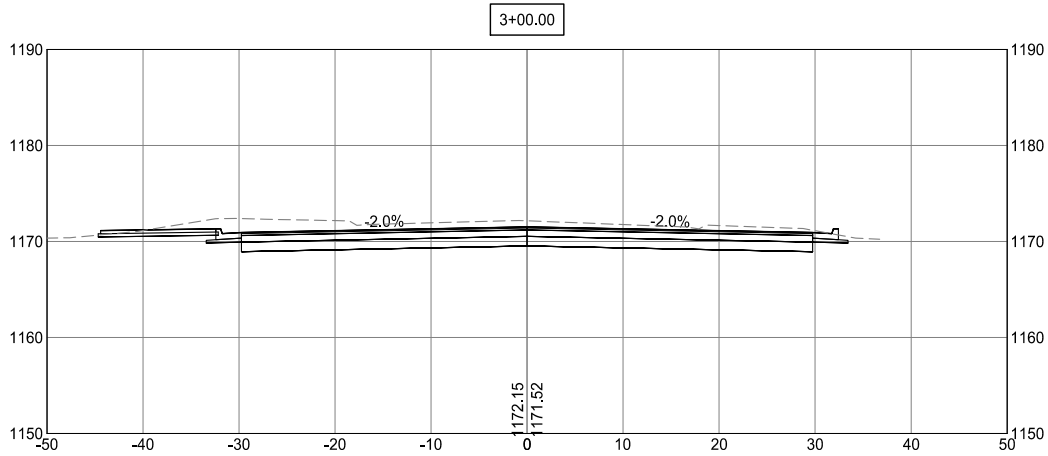
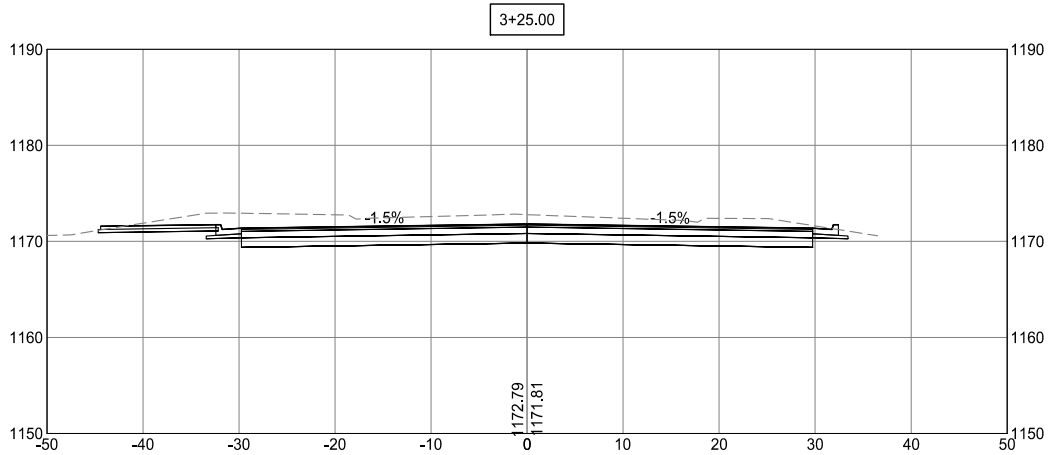
MISSISSIPPI LANDING
TRAILHEAD PROJECT
CITY OF BRAINERD

CROSS SECTIONS

SHEET

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MISSISSIPPI LANDING
TRAILHEAD PROJECT

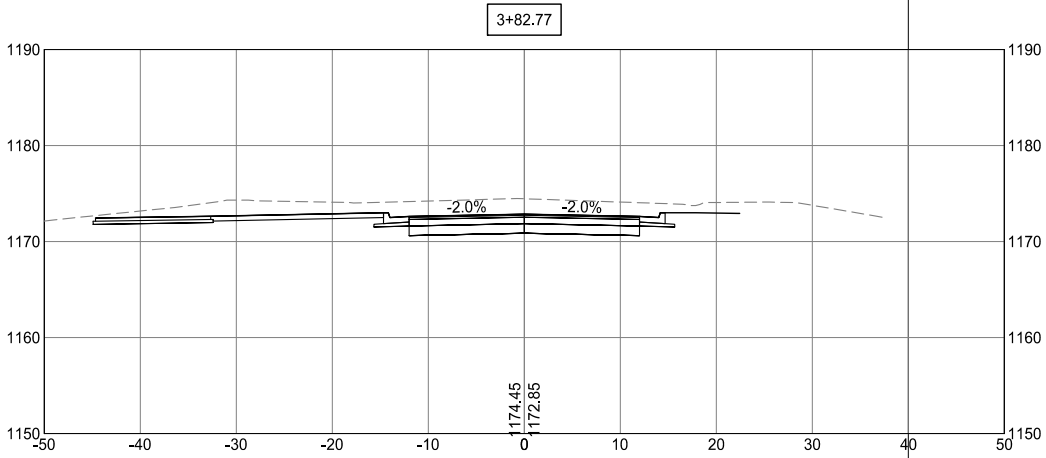
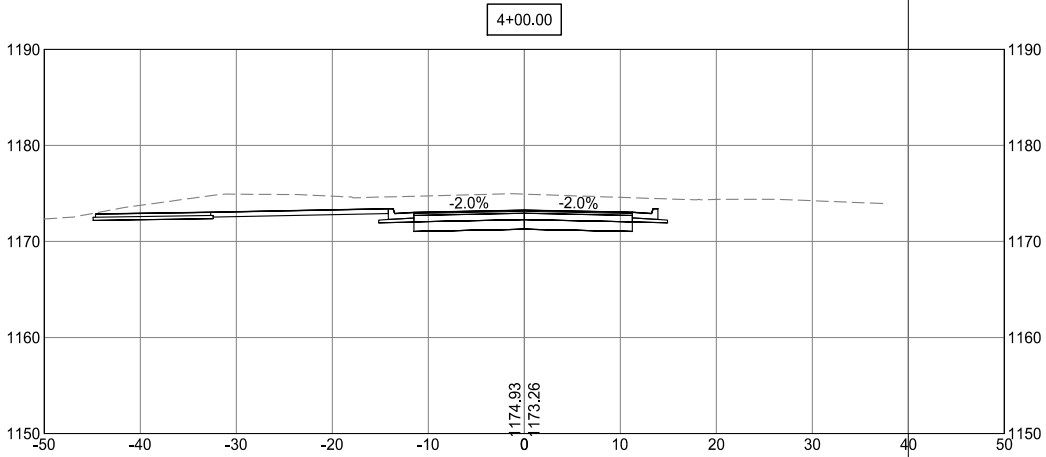
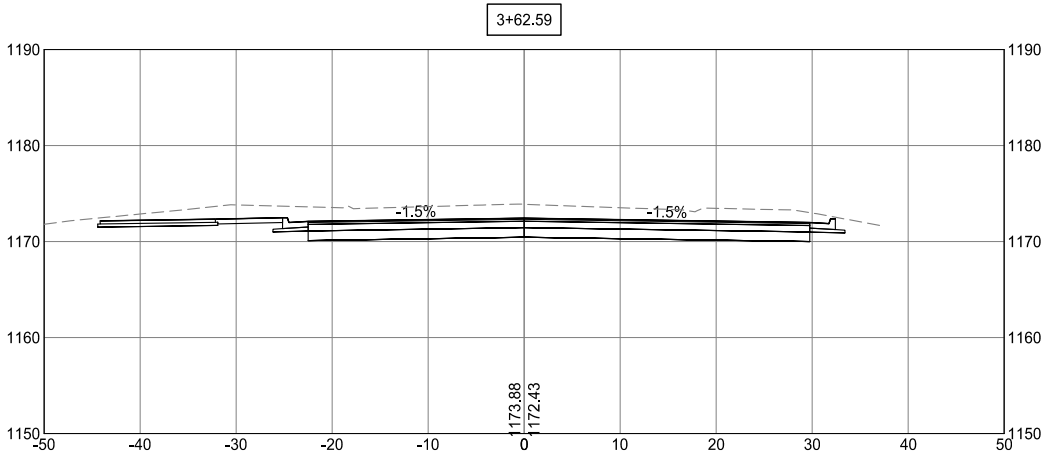
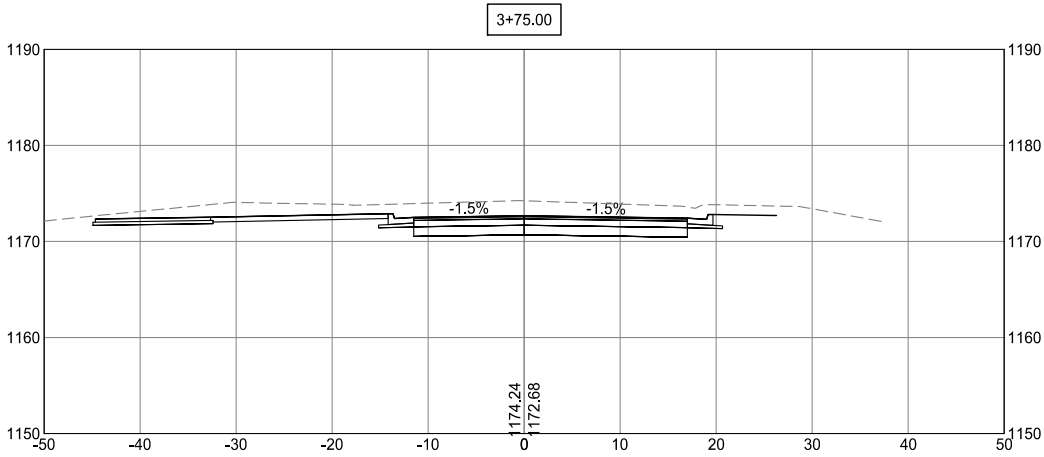
CITY OF BRAINERD

CROSS SECTIONS

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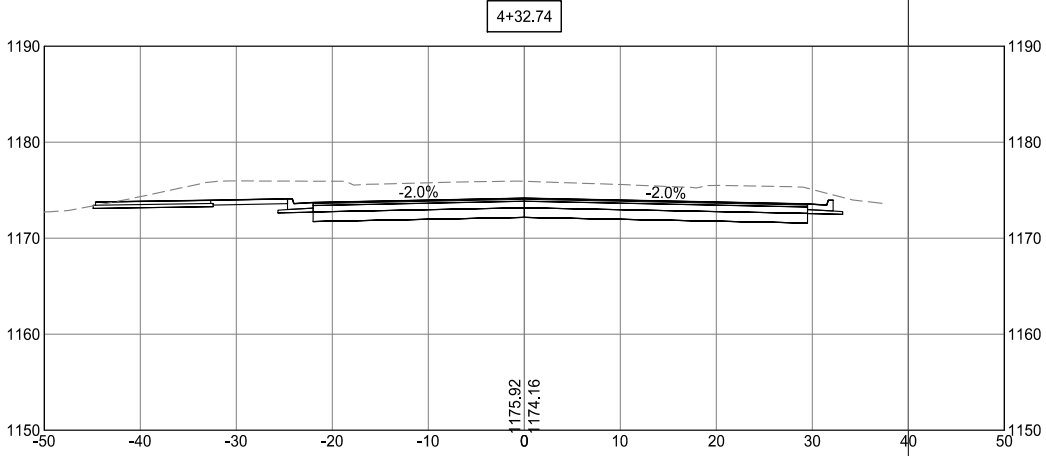
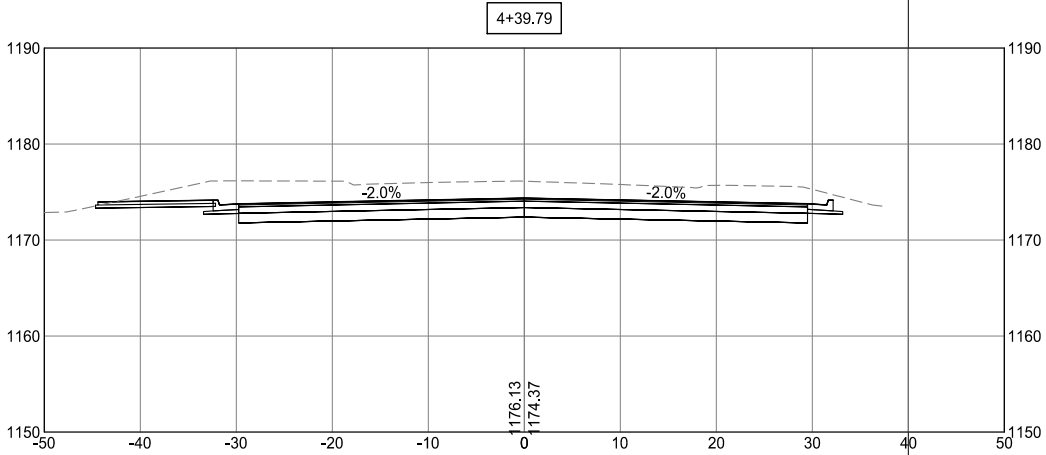
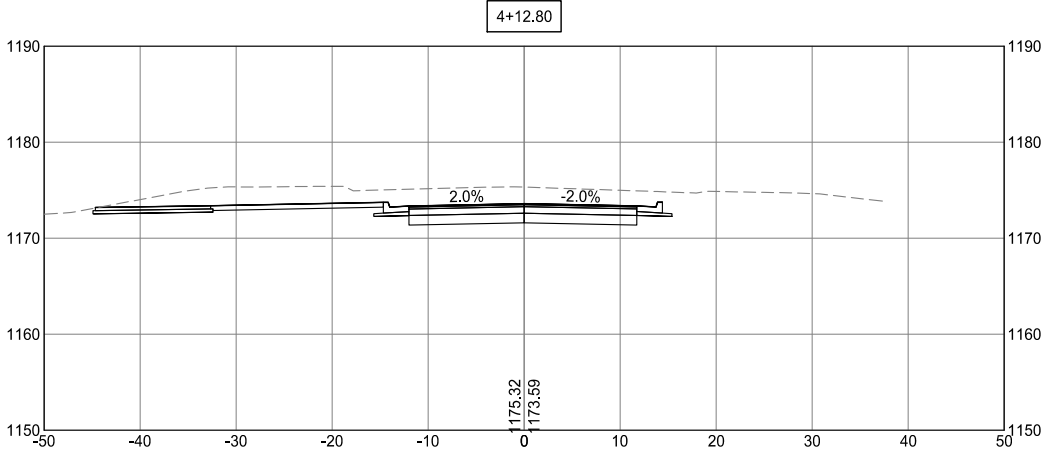
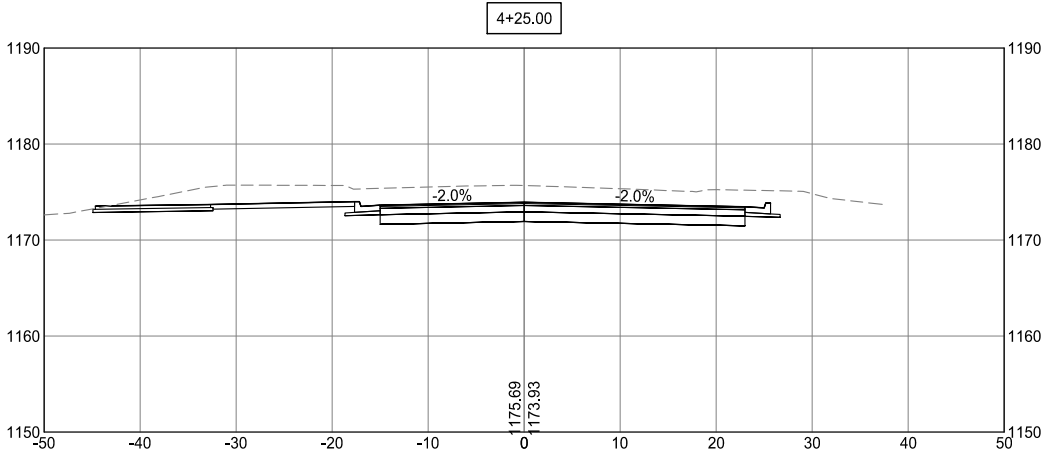
MISSISSIPPI LANDING
TRAILHEAD PROJECT
CITY OF BRAINERD

CROSS SECTIONS

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MISSISSIPPI LANDING
TRAILHEAD PROJECT

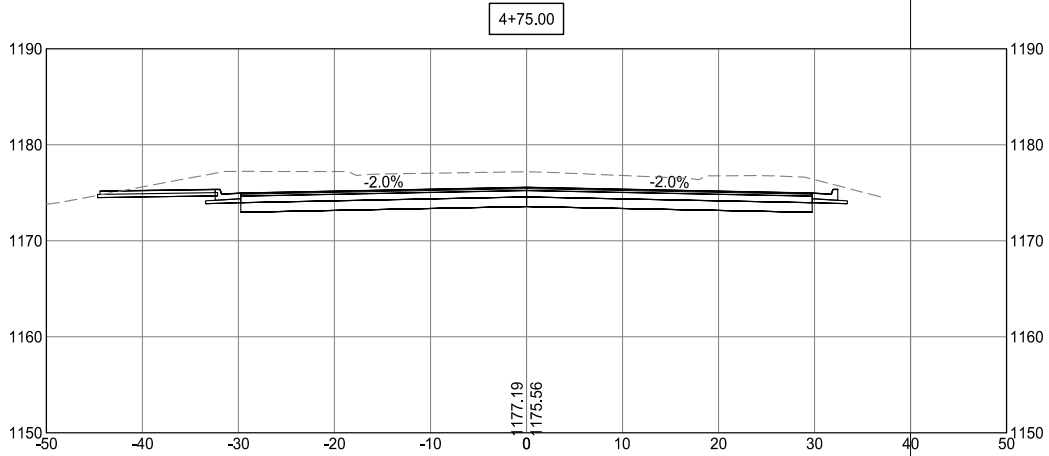
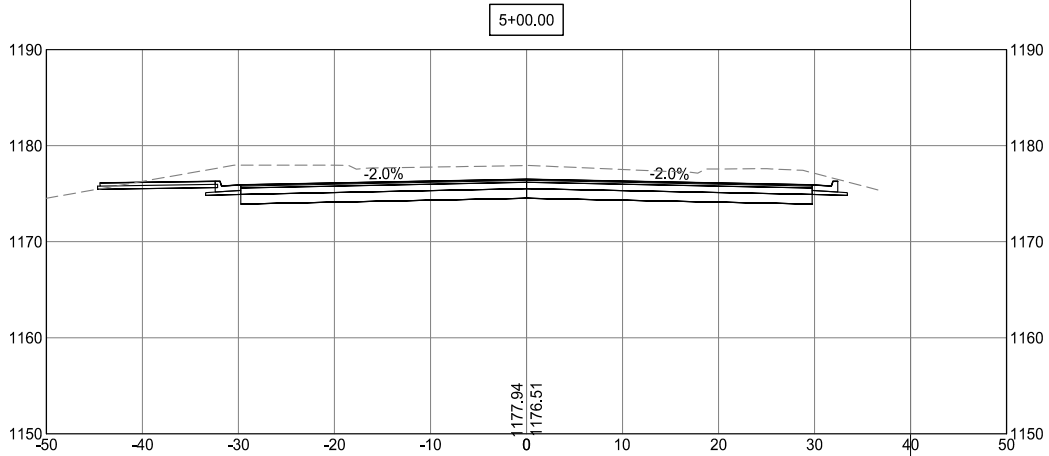
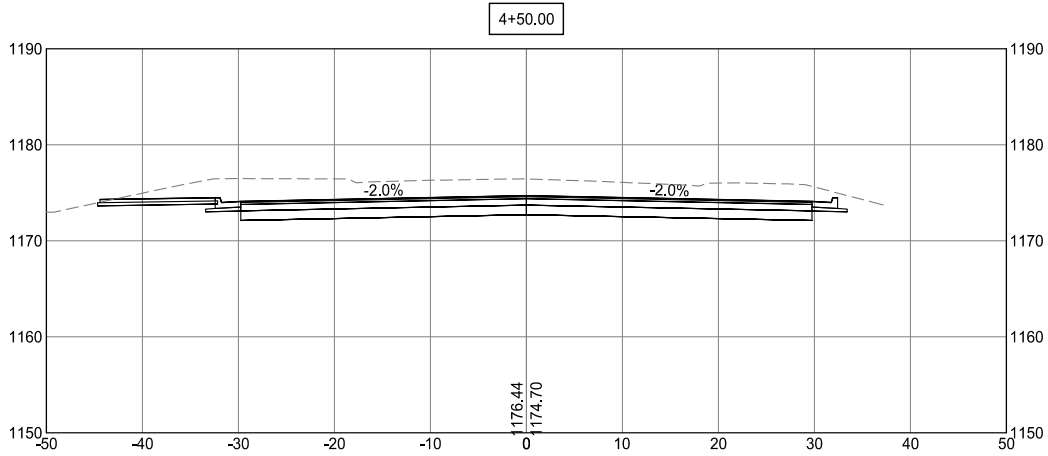
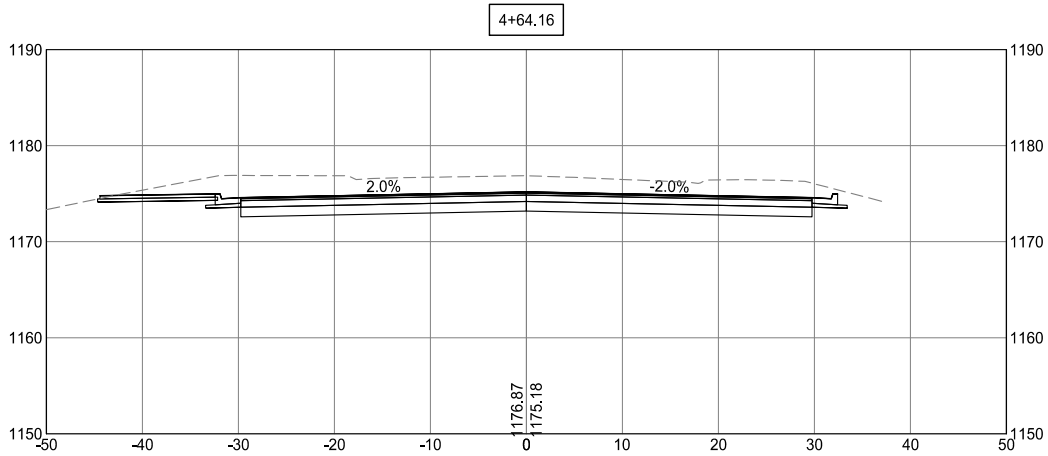
CITY OF BRAINERD

CROSS SECTIONS

SHEET

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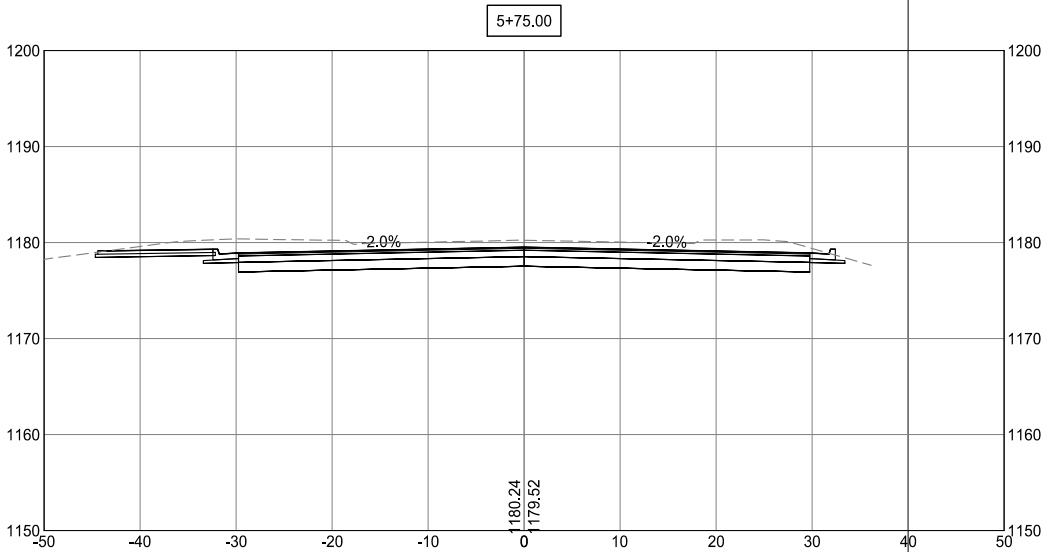
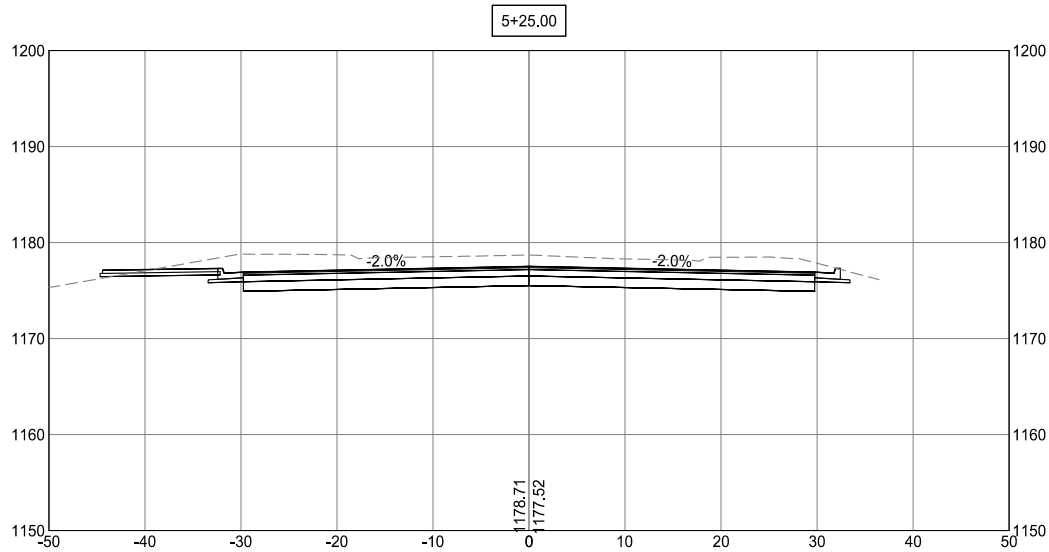
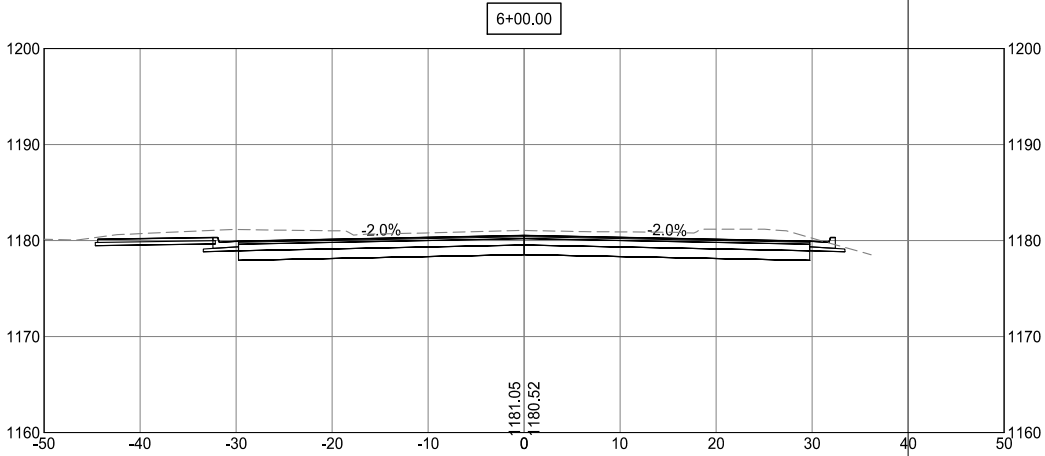
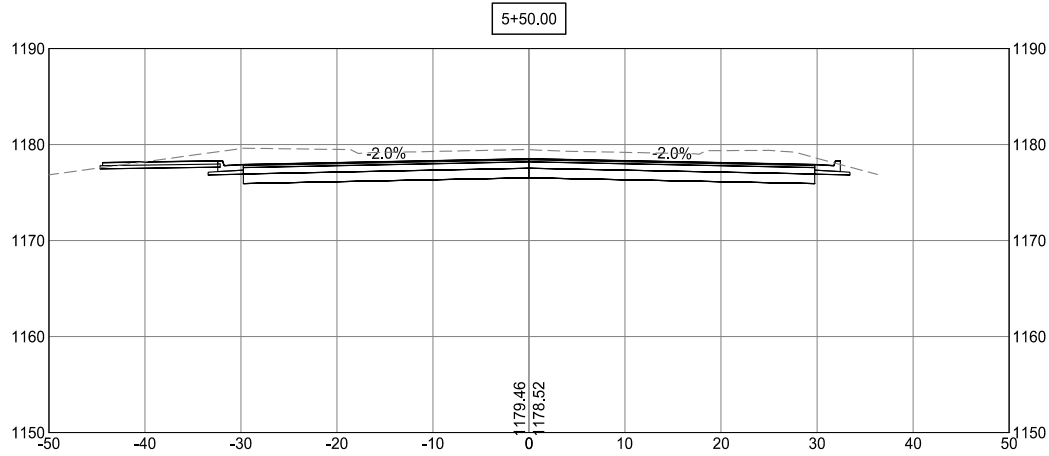
CITY OF BRAINERD

CROSS SECTIONS

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MISSISSIPPI LANDING
TRAILHEAD PROJECT

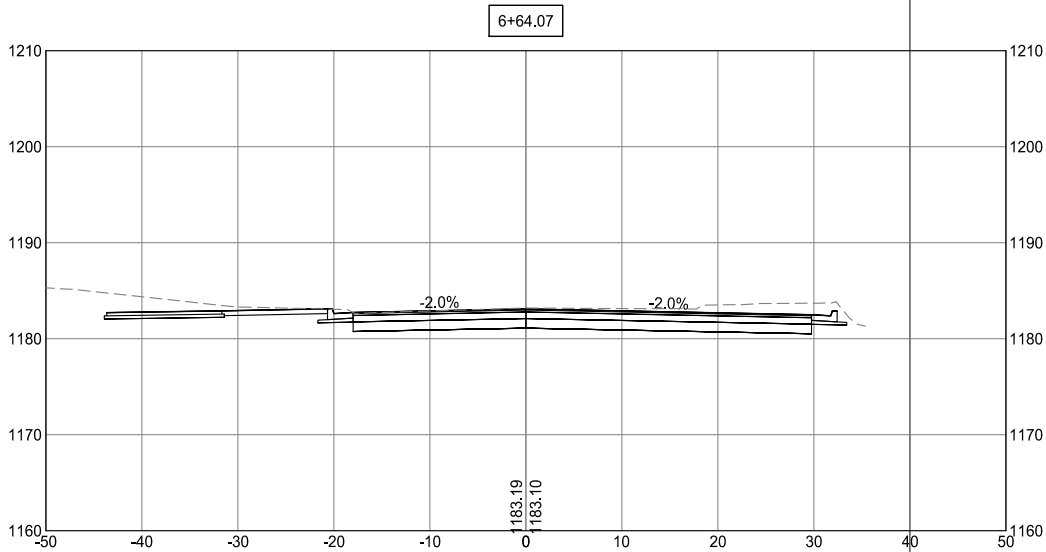
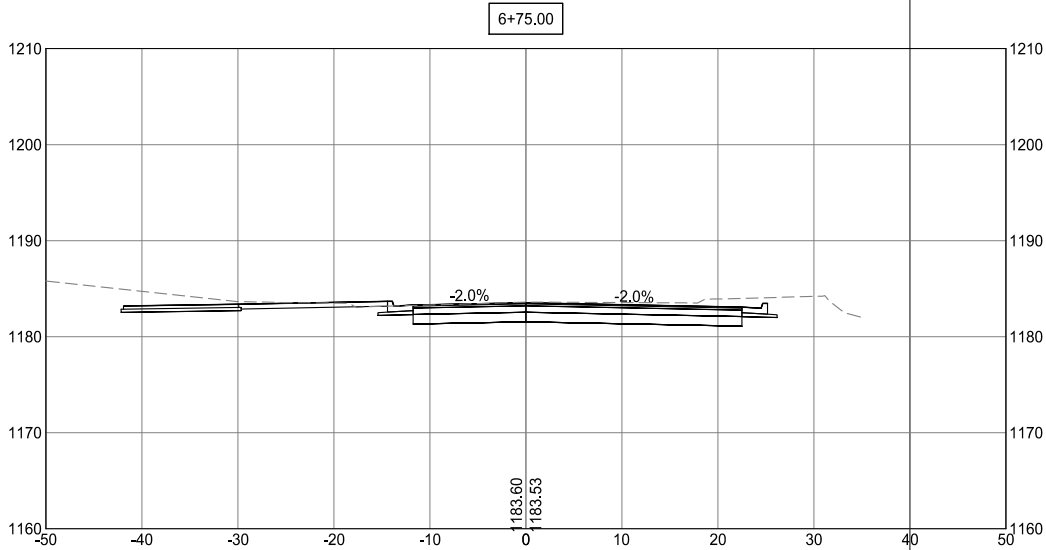
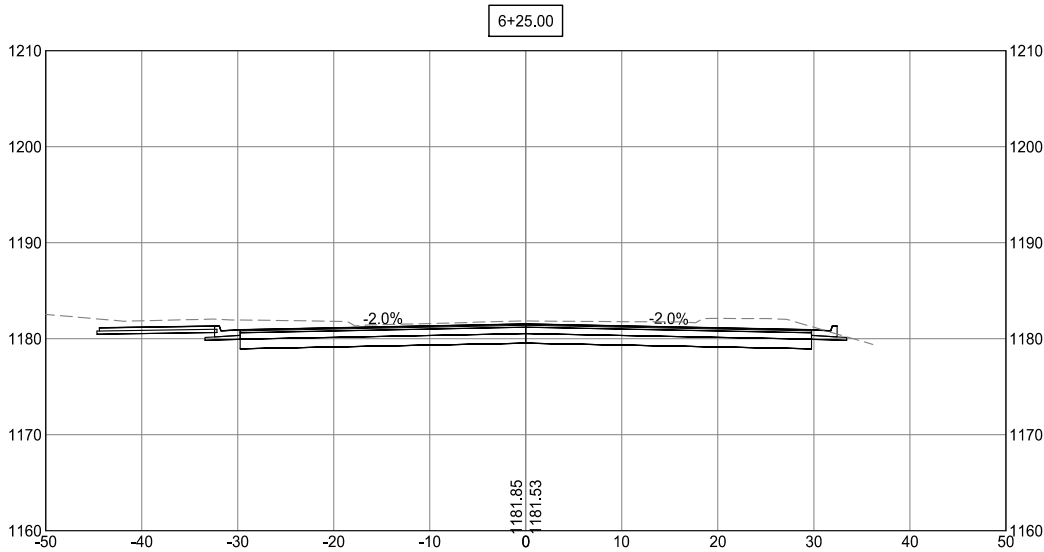
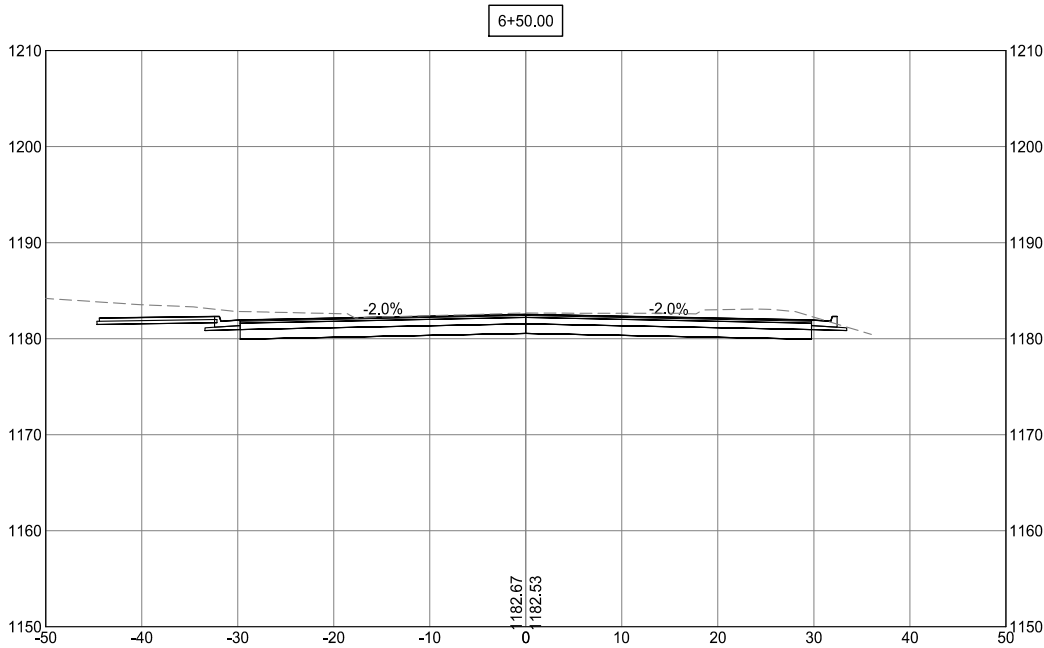
CITY OF BRAINERD

CROSS SECTIONS

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CHRISTOPHER L SONNOR

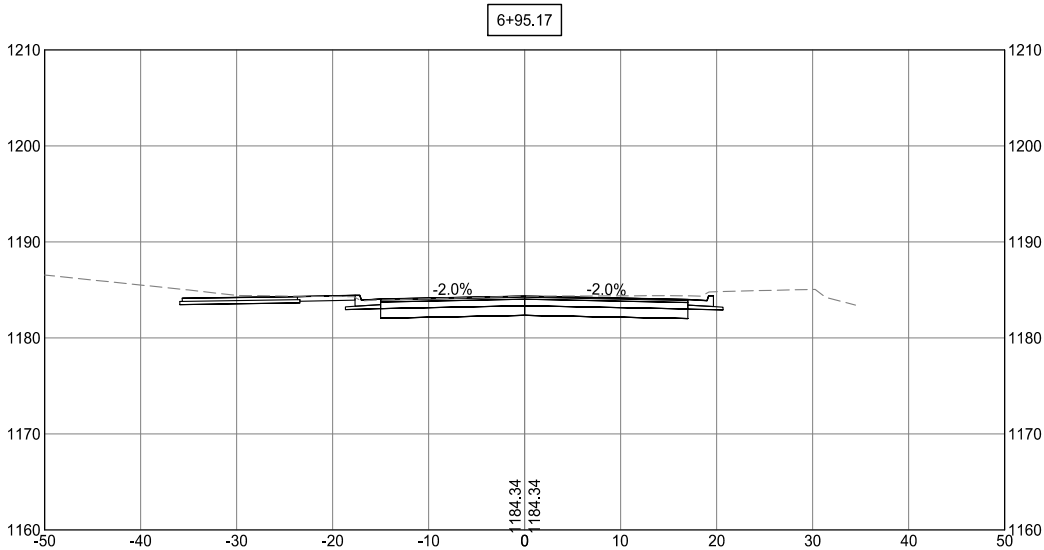
MISSISSIPPI LANDING
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CITY OF BRAINERD

CROSS SECTIONS

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OF
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PLAN BY:	CHECK BY:
SAG	CLS

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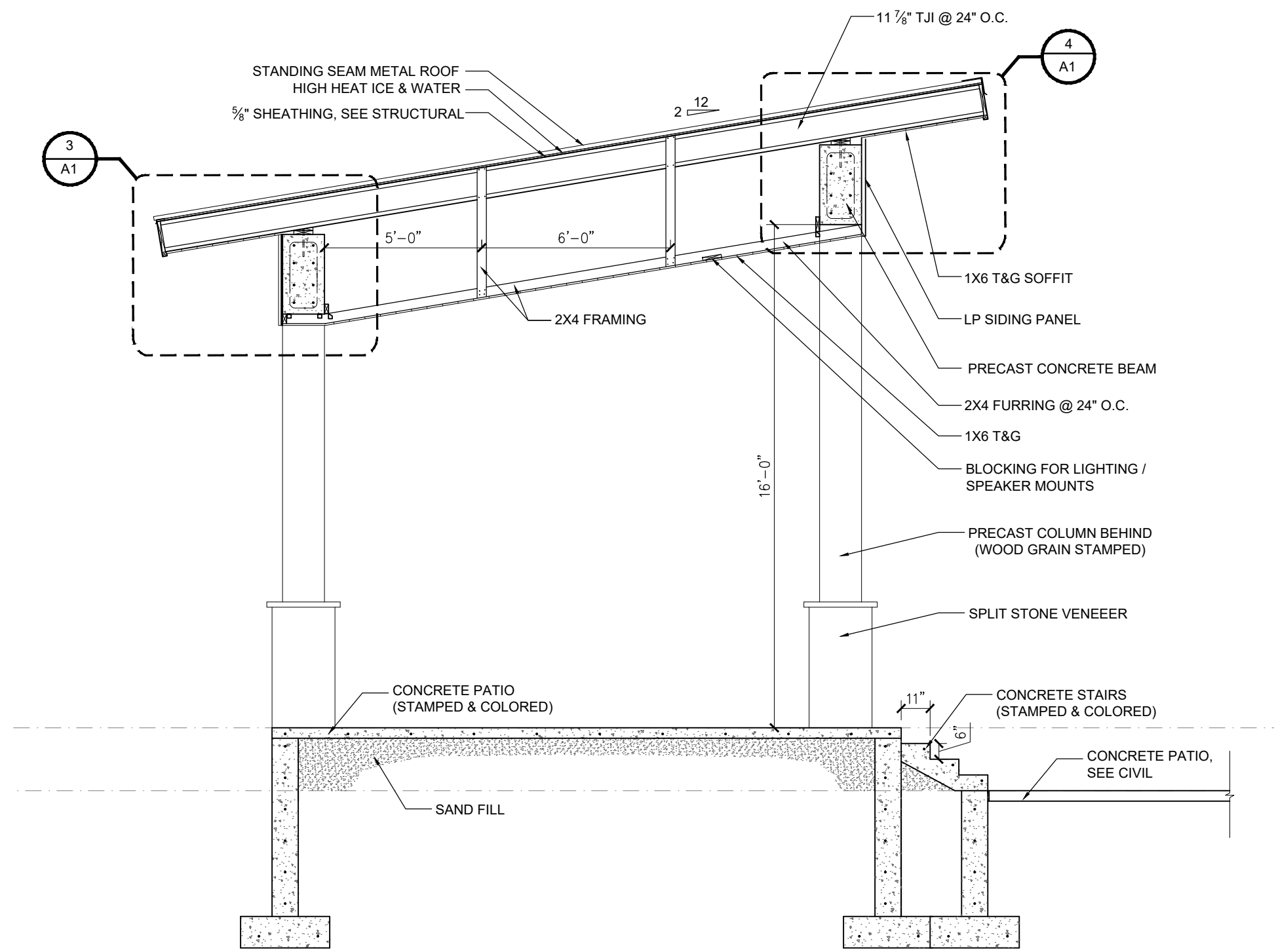
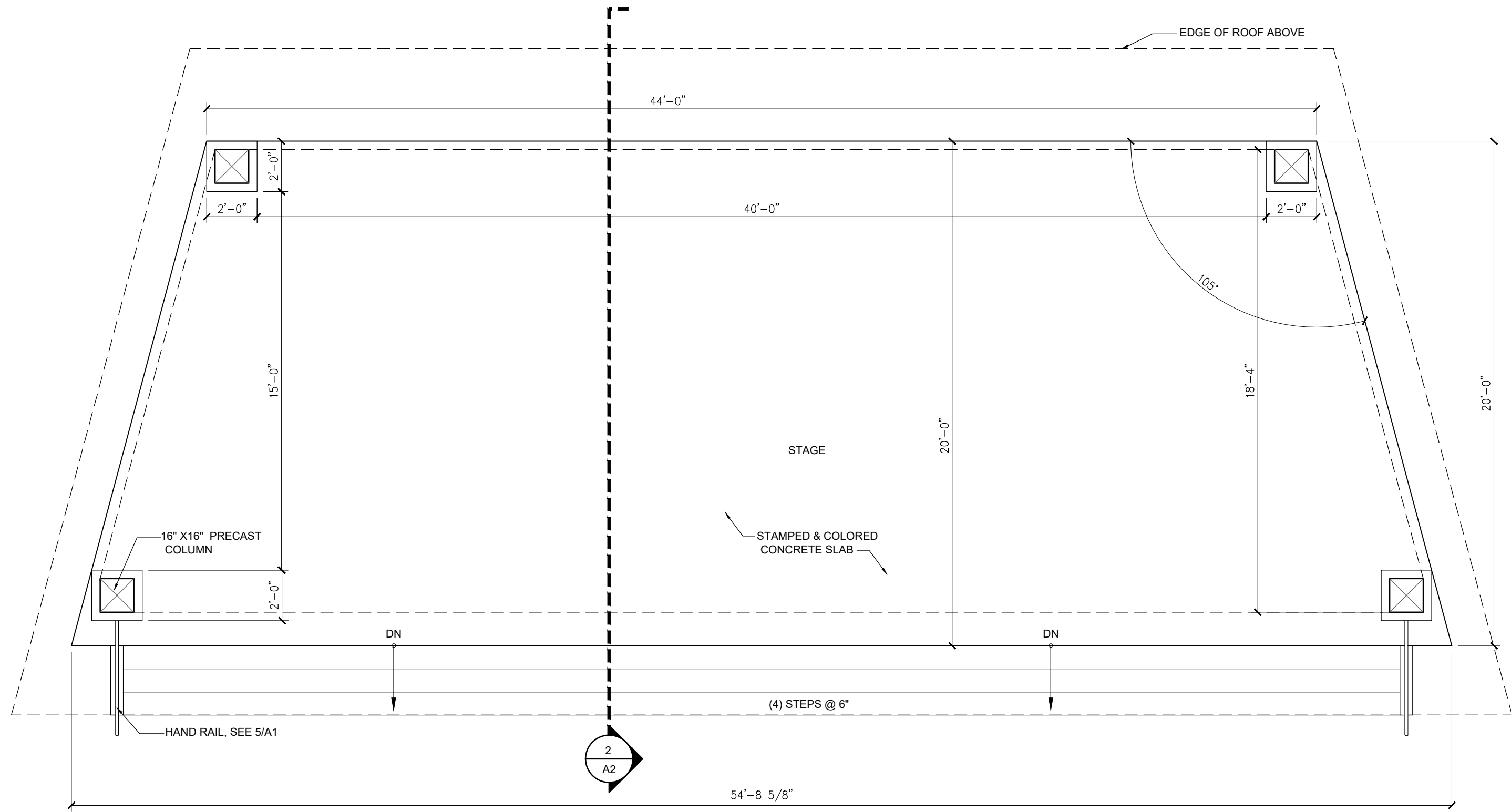
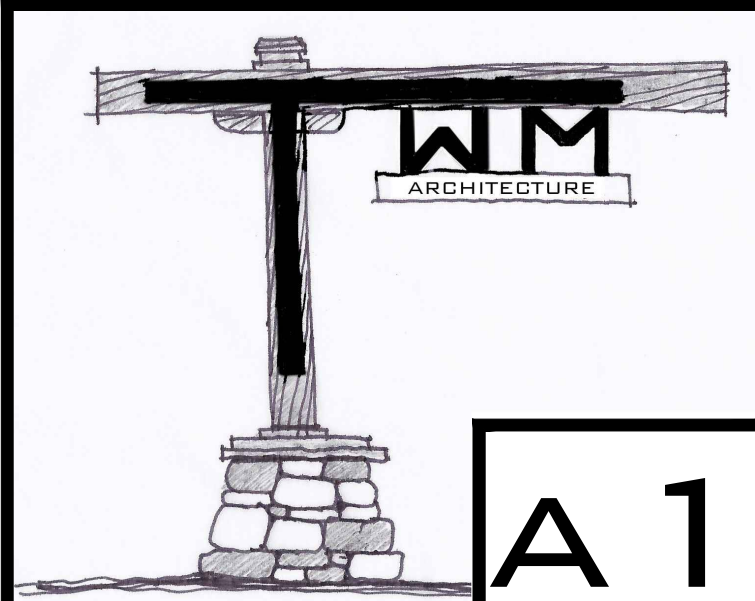
MISSISSIPPI LANDING
TRAILHEAD PROJECT

CITY OF BRAINERD

CROSS SECTIONS

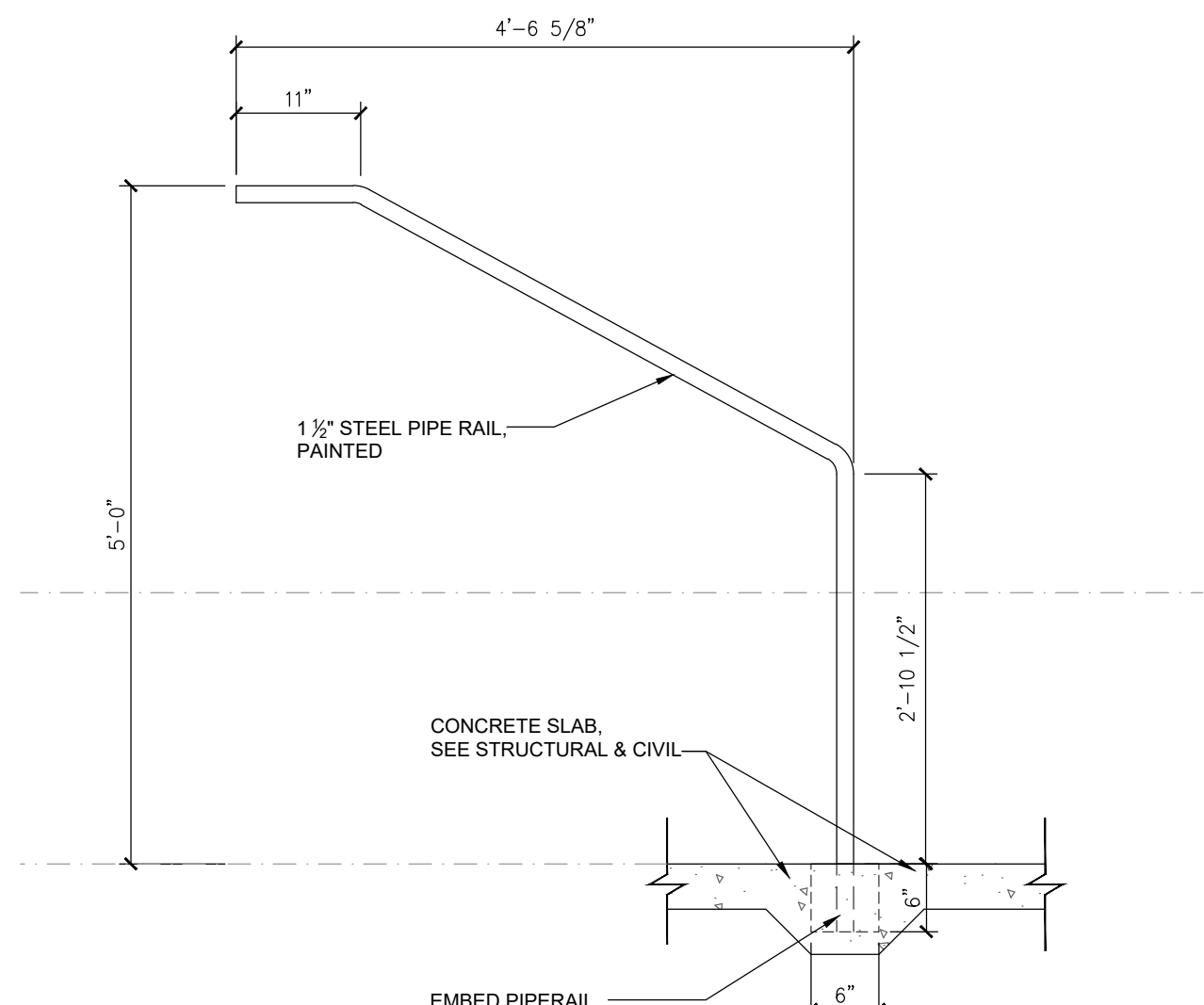
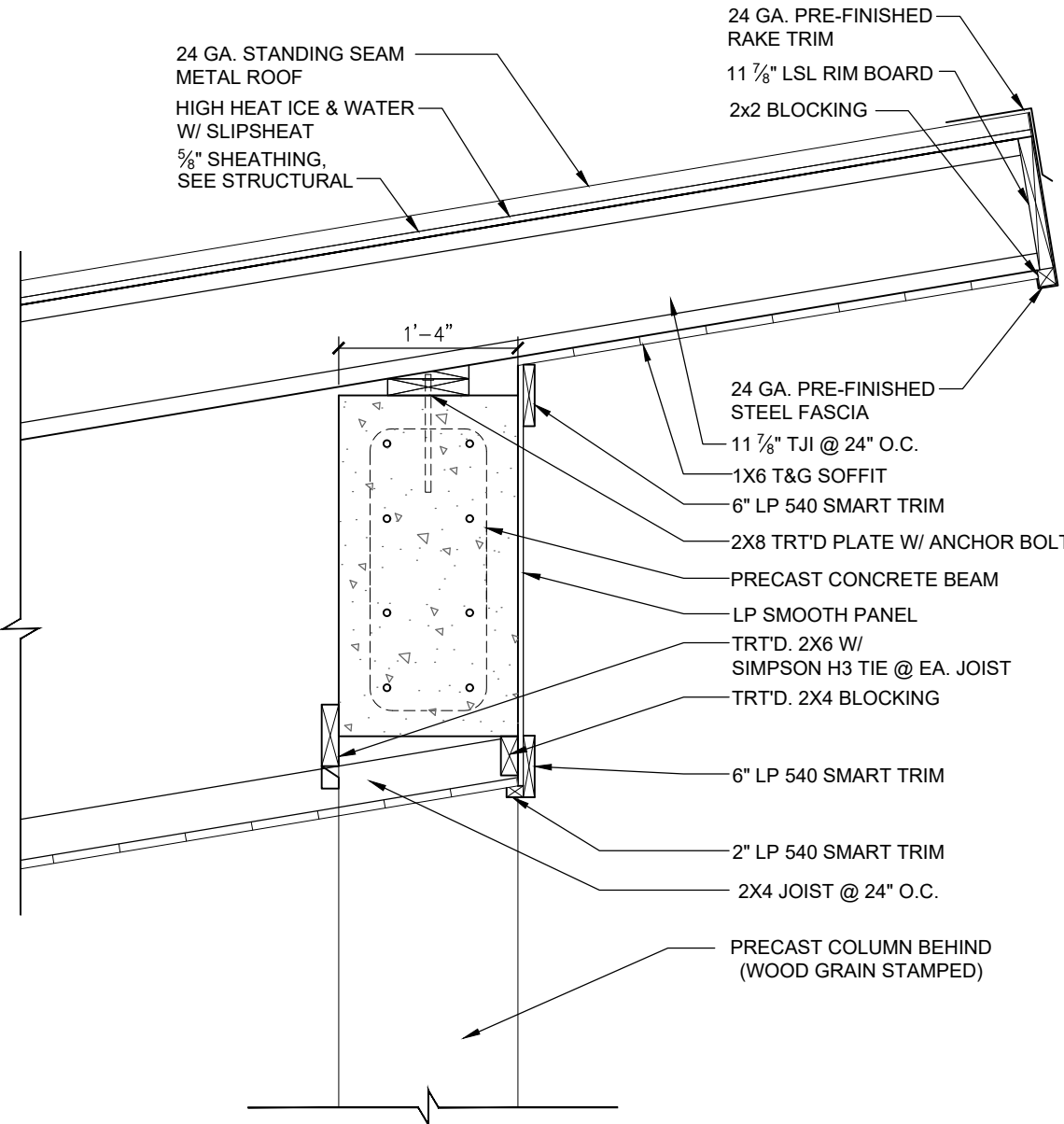
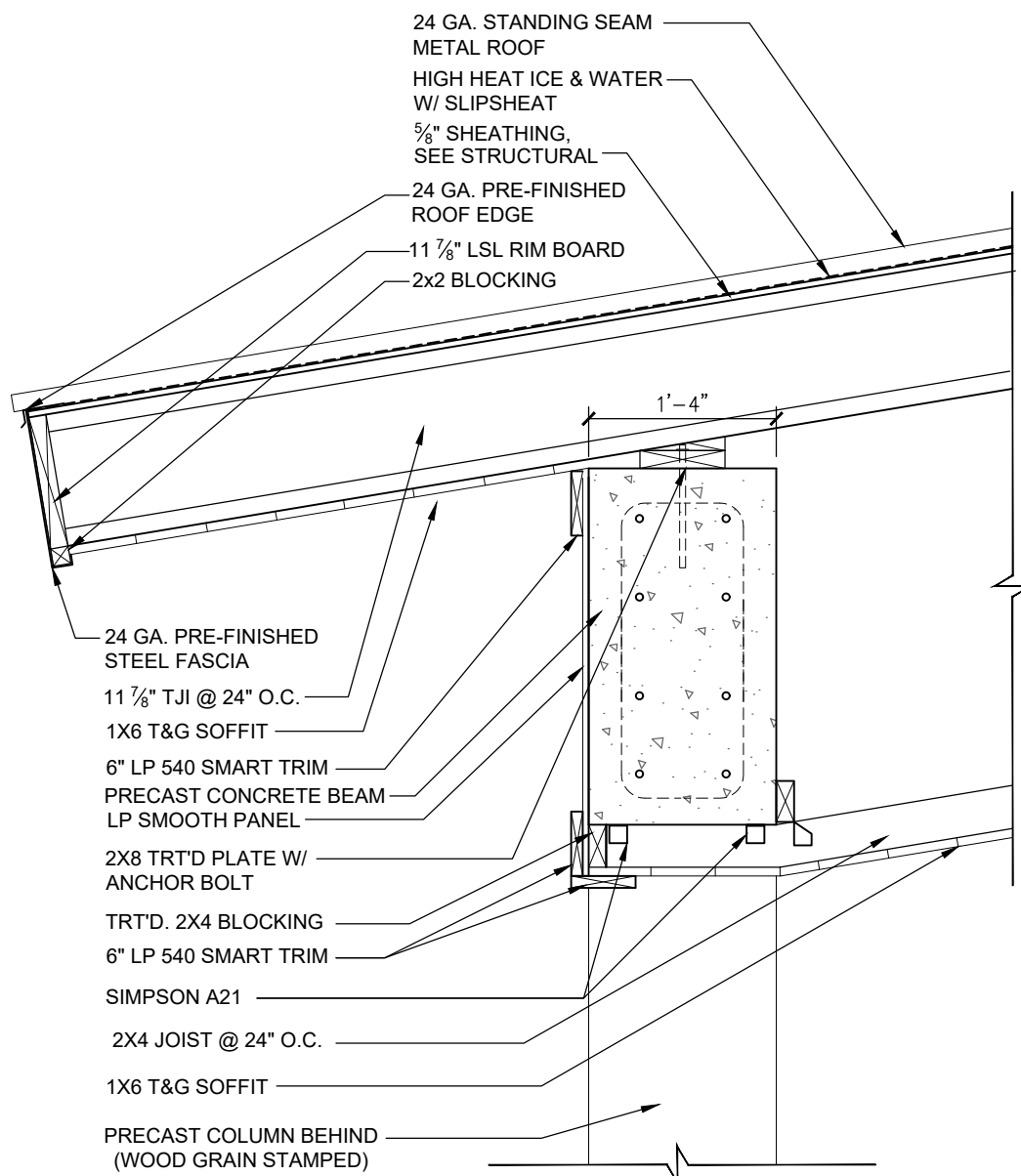
SHEET

OF
XXX



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2 SECTION
1/4" = 1'-0" ON 24 X 36 PAPER

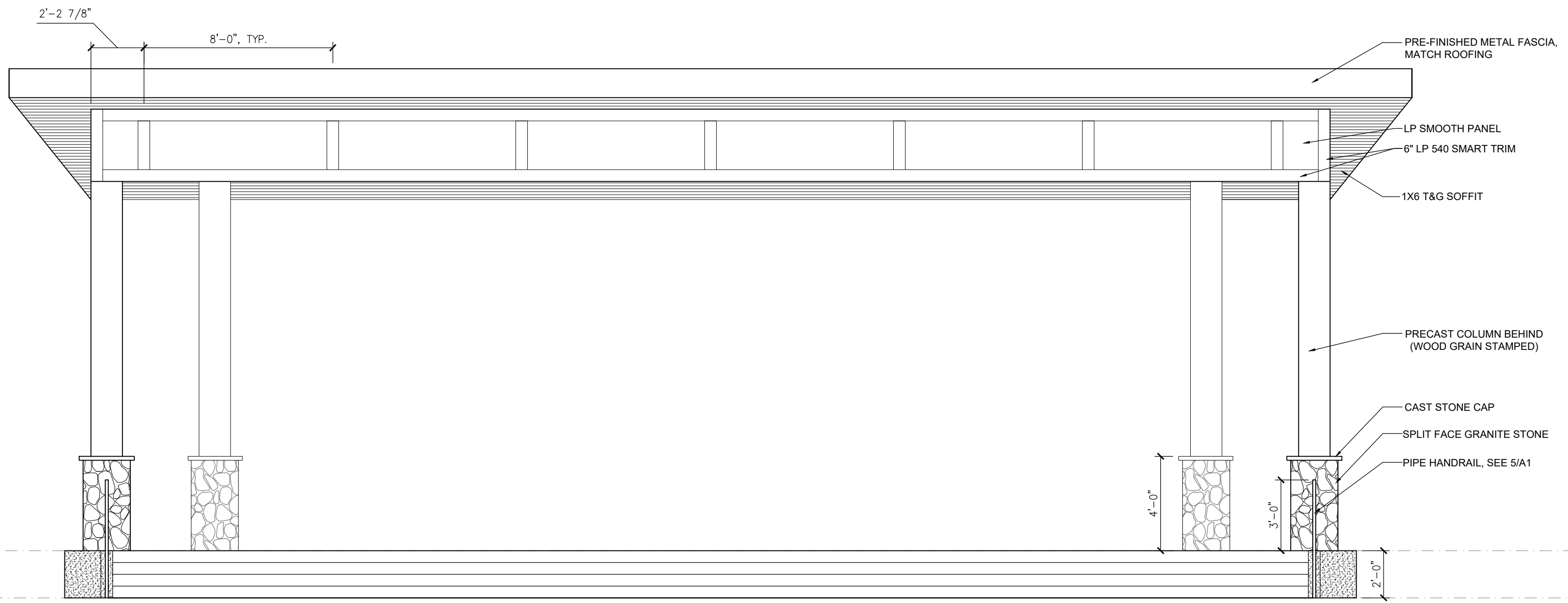


3 ROOF DETAIL
3/4" = 1'-0" ON 24 X 36 PAPER

4 ROOF DETAIL
3/4" = 1'-0" ON 24 X 36 PAPER

5 HANDRAIL DETAIL
3/4" = 1'-0" ON 24 X 36 PAPER

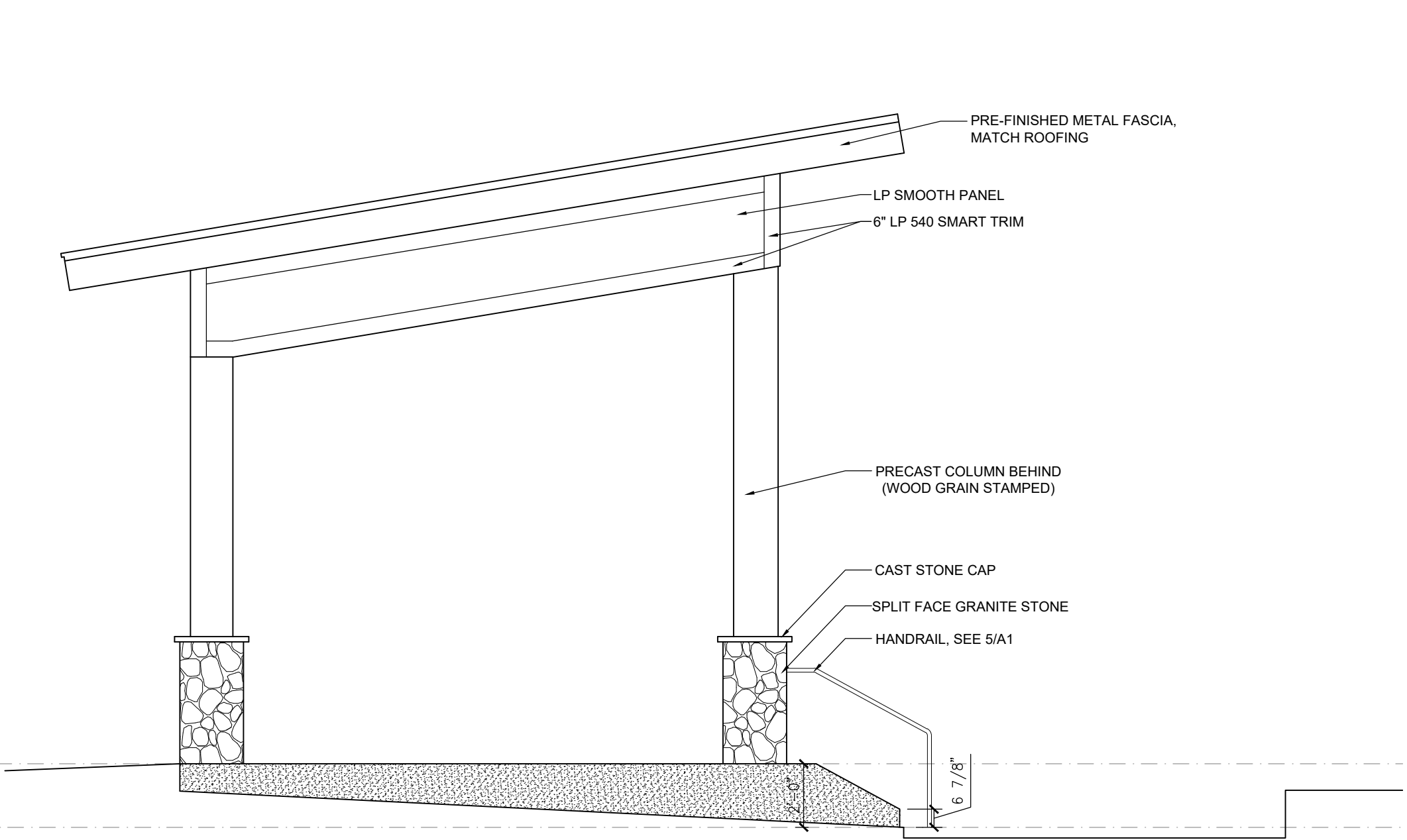
PRELIMINARY ONLY
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1

NORTHEAST ELEVATION

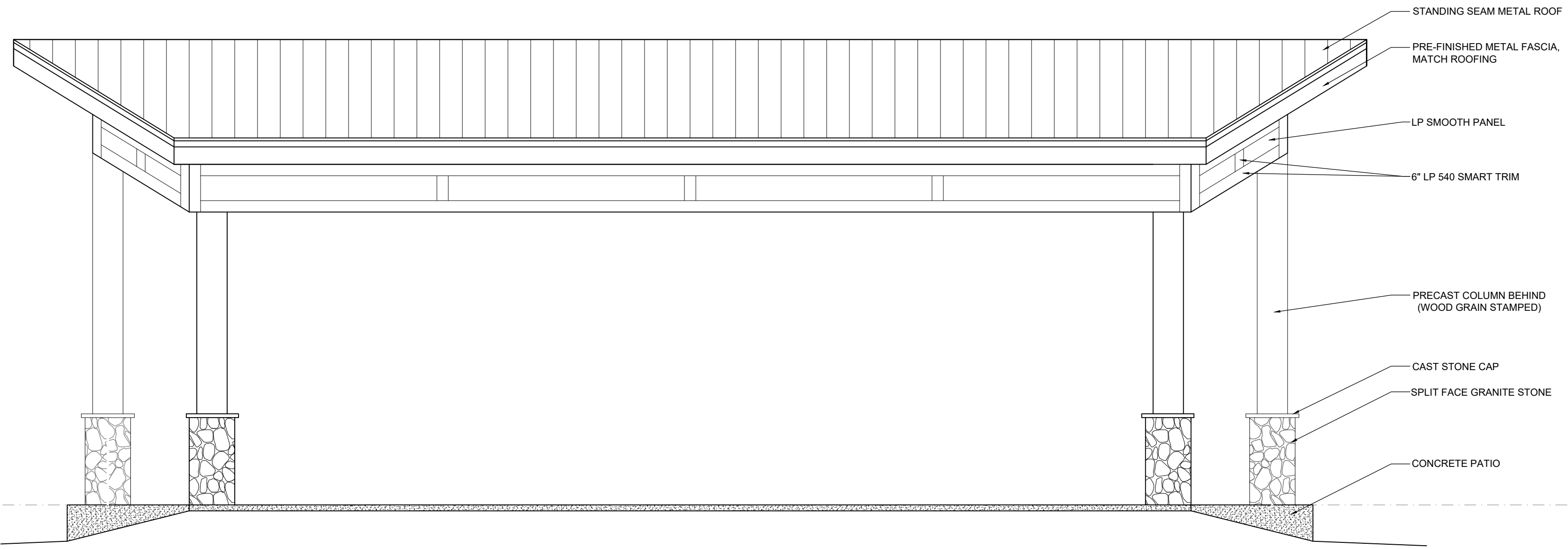
1/4" = 1'-0" ON 24 X 36 PAPER



2

SOUTHEAST ELEVATION

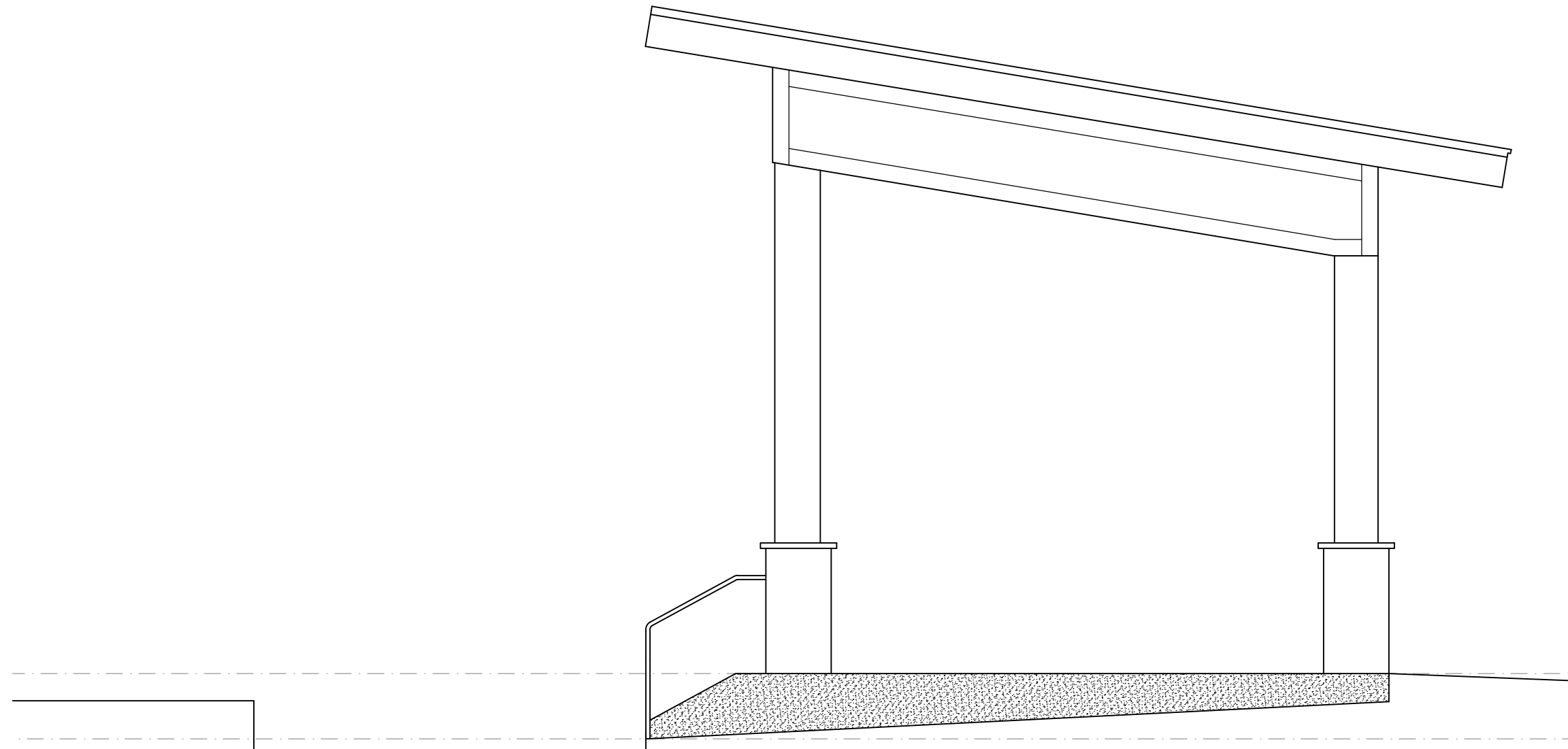
1/4" = 1'-0" ON 24 X 36 PAPER



3

SOUTHWEST ELEVATION

1/4" = 1'-0" ON 24 X 36 PAPER

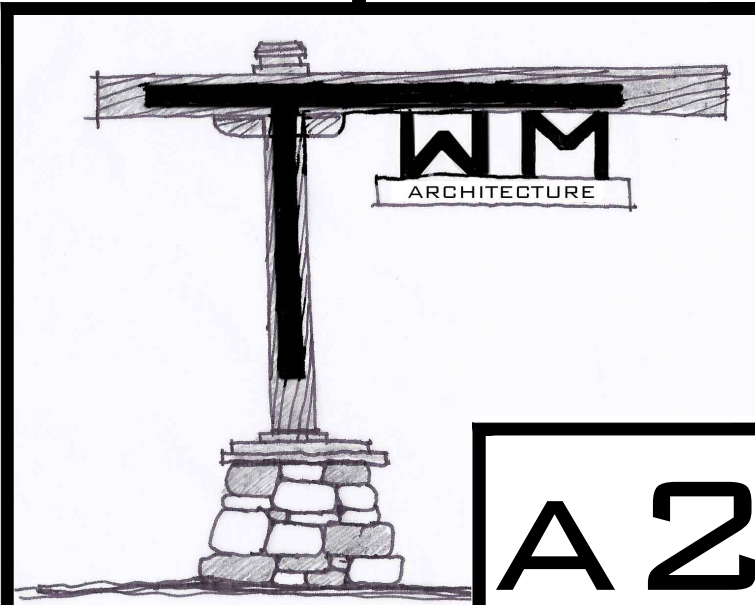


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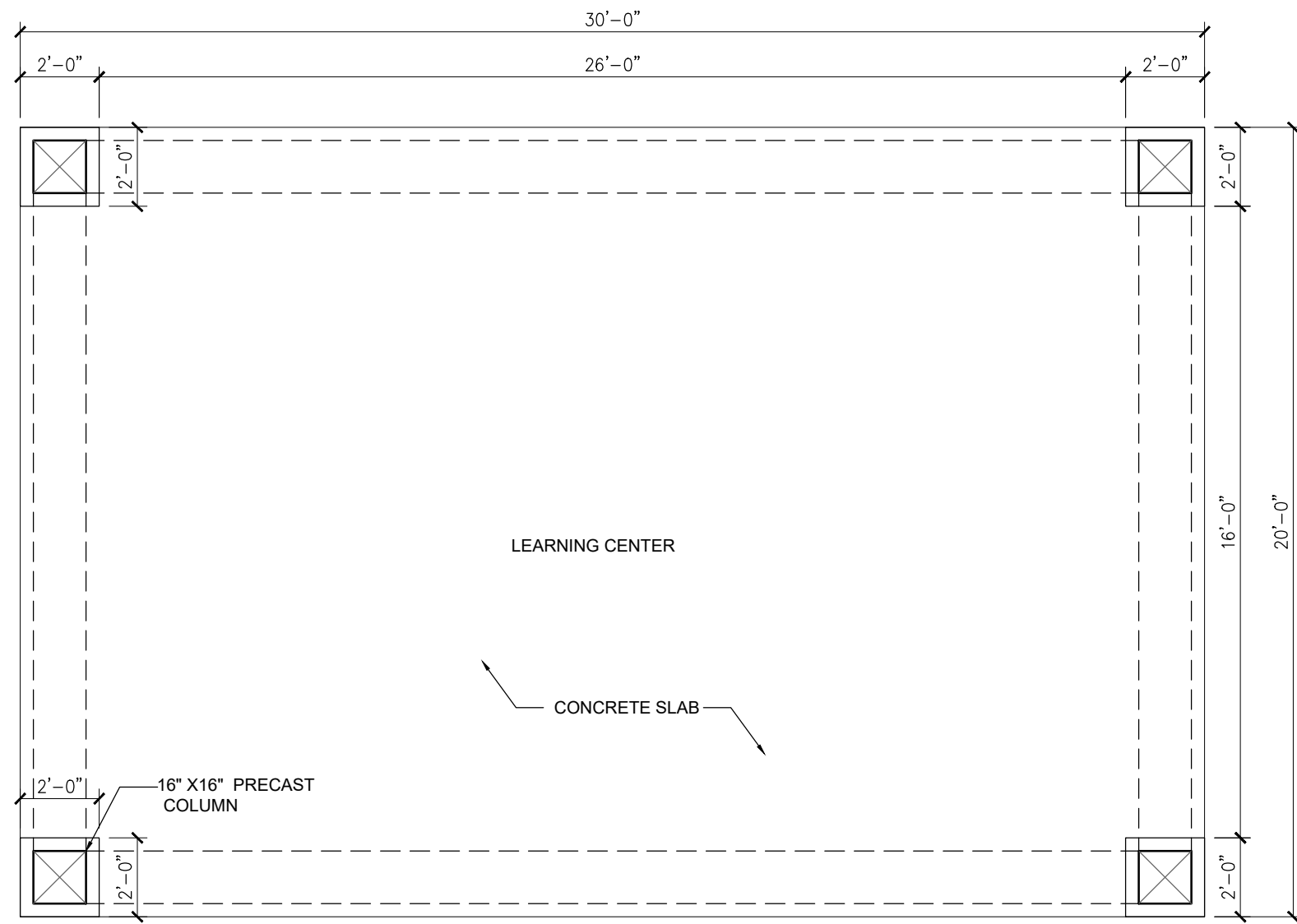
NORTHWEST ELEVATION

1/4" = 1'-0" ON 24 X 36 PAPER

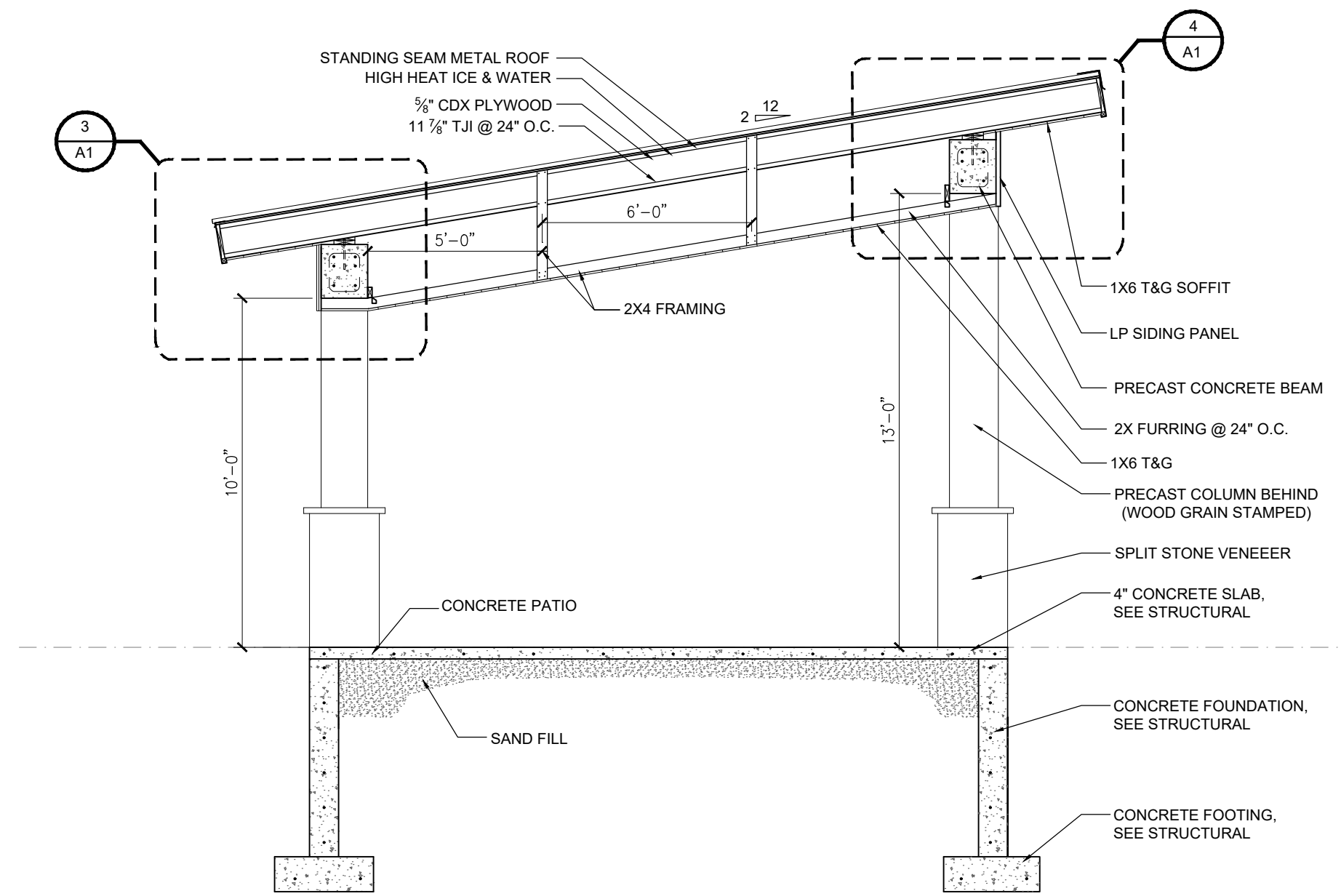
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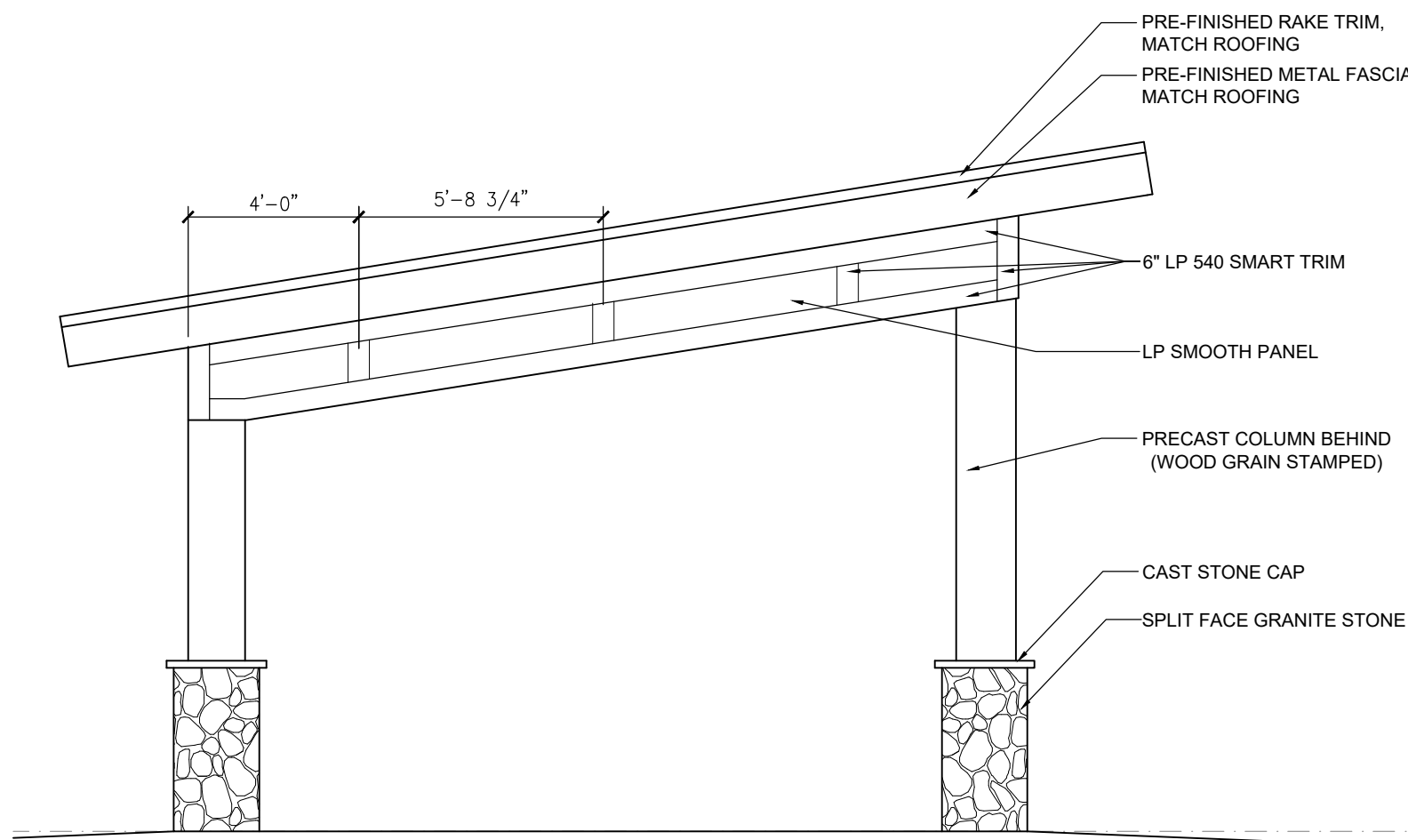
A2



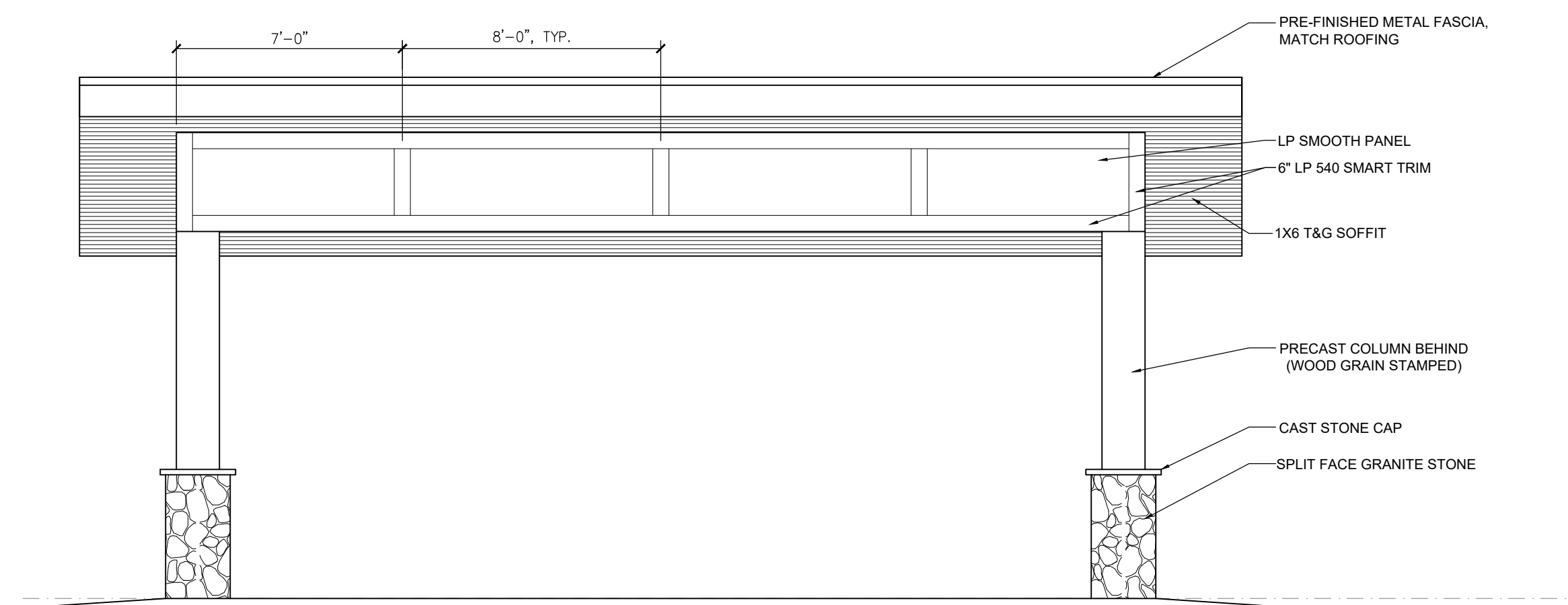
1 LEARNING CENTER FLOOR PLAN
1/4" = 1'-0" ON 24 X 36 PAPER



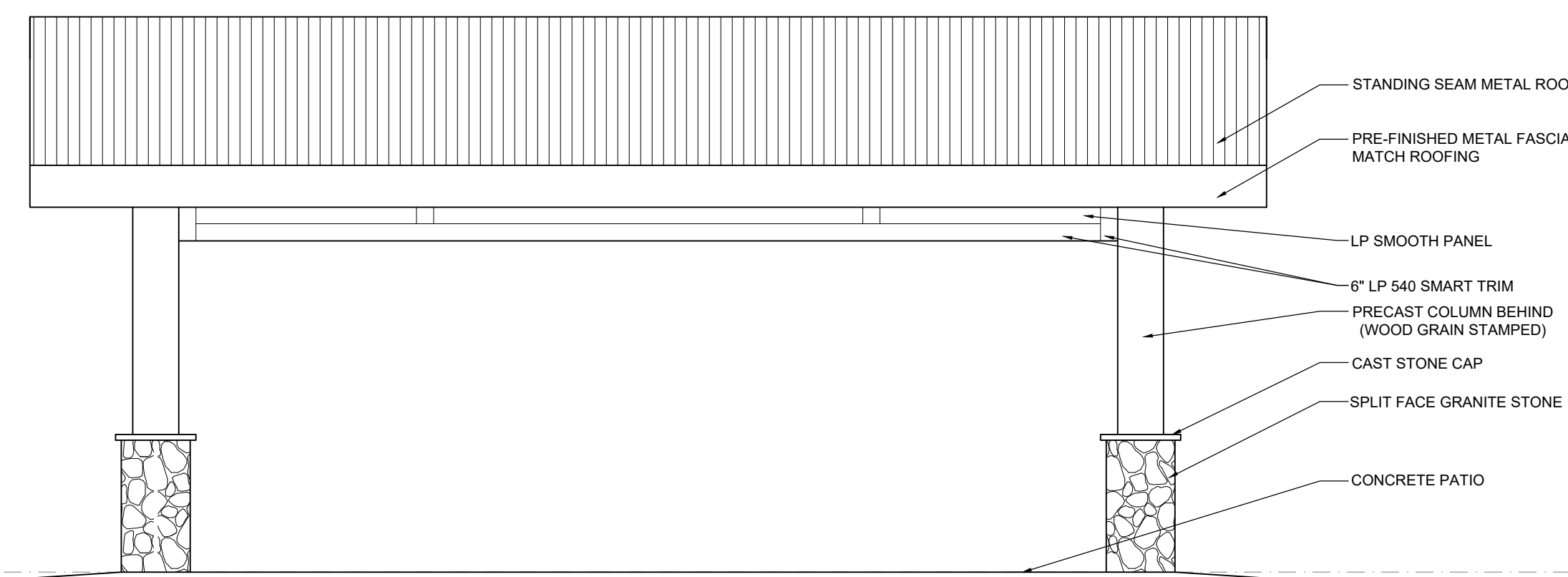
2 SECTION
1/4" = 1'-0" ON 24 X 36 PAPER



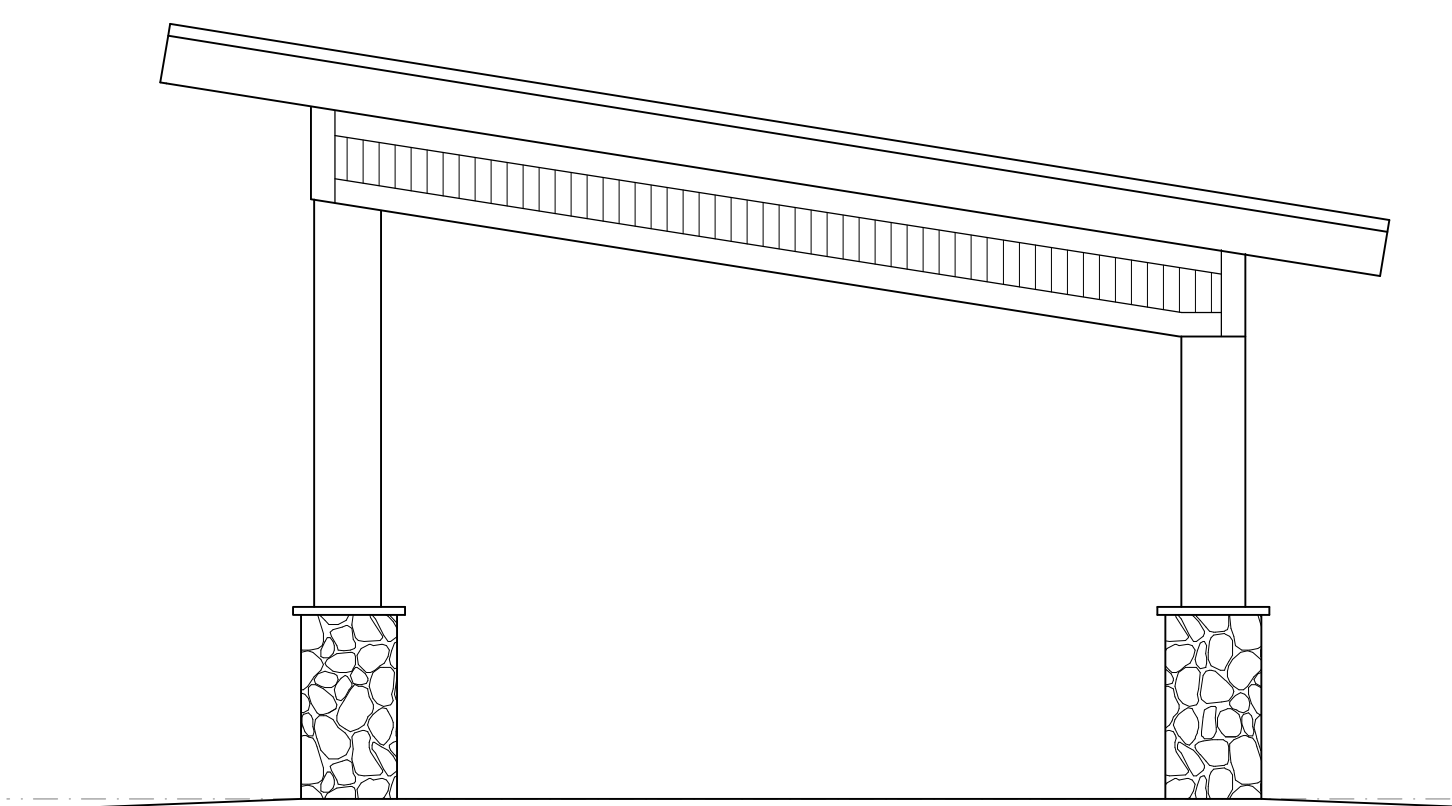
4 SIDE ELEVATION
1/4" = 1'-0" ON 24 X 36 PAPER



3 FRONT ELEVATION
1/4" = 1'-0" ON 24 X 36 PAPER



5 REAR ELEVATION
1/4" = 1'-0" ON 24 X 36 PAPER



6 SIDE ELEVATION
1/4" = 1'-0" ON 24 X 36 PAPER

PRELIMINARY ONLY
NOT FOR CONSTRUCTION

2-28-22

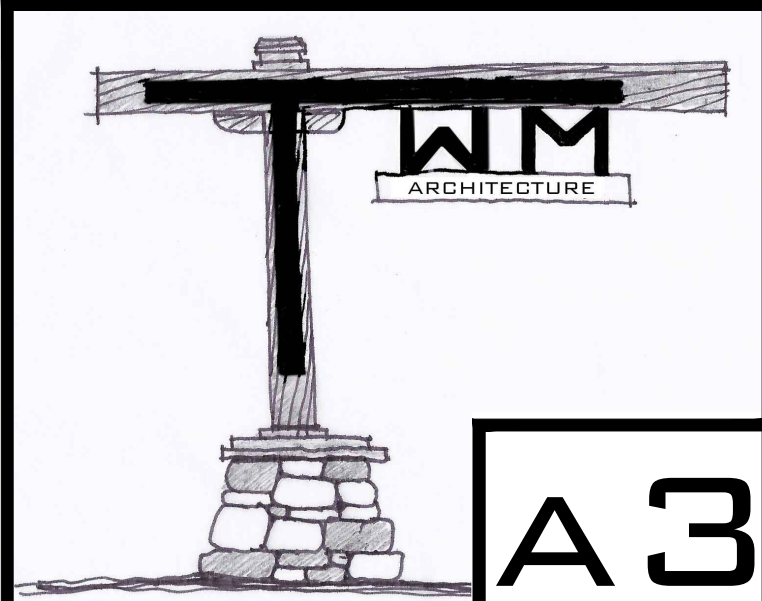
wsb

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED ARCHITECT UNDER THE LAWS OF THE STATE OF MINNESOTA

LIC. # 45743

DATE: TRAVIS MILLER

MISSISSIPPI LARK
TRAILHEAD PARK
AMPHITHEATER STUDY
BRainerd, MN



A3

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MISSISSIPPI LANDING
TRAILHEAD PARK

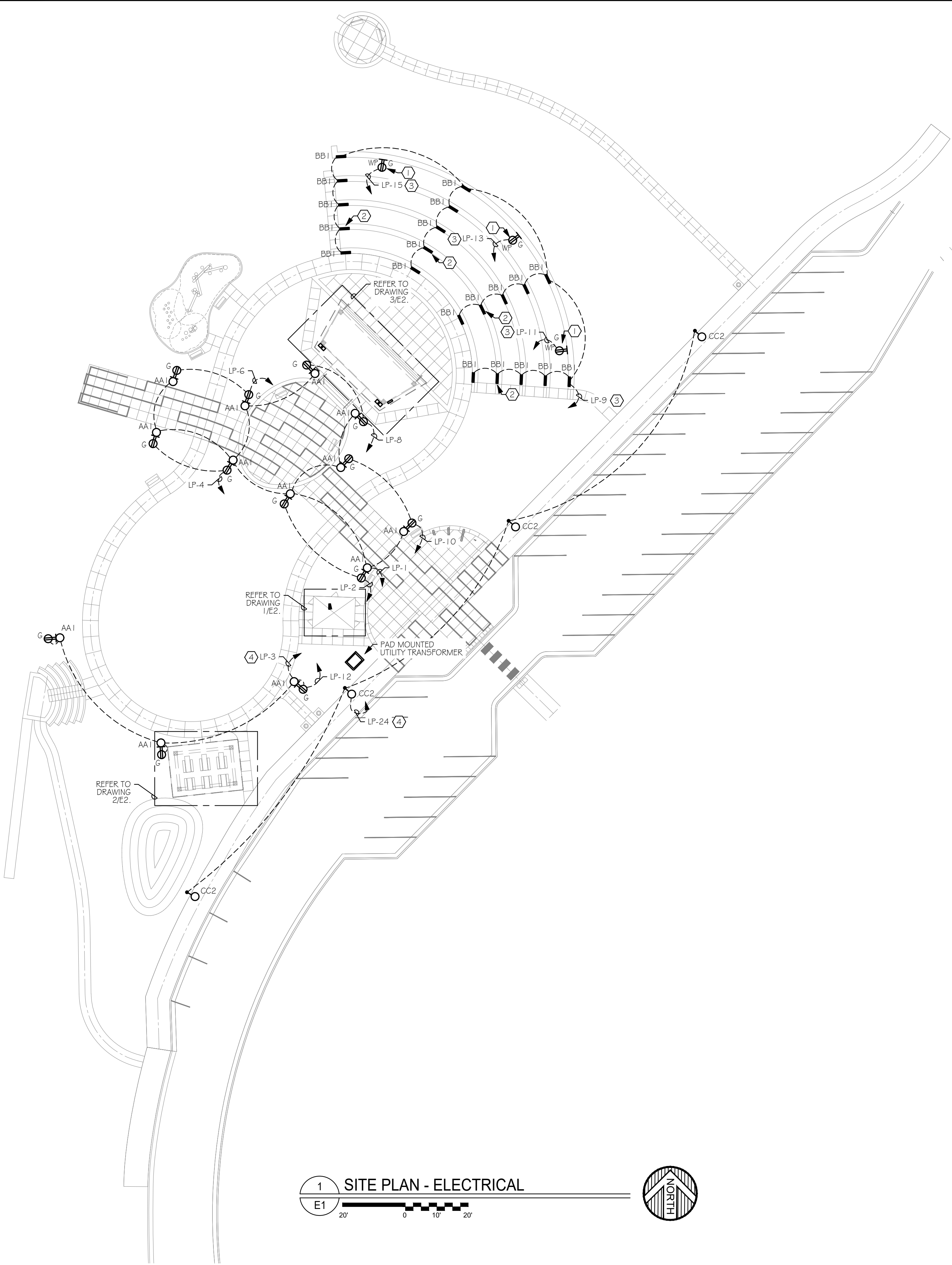
10-19-21



I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA

LIC. # 25261

DATE: TROY D. VAREBERG



GENERAL NOTES

- 1. ALL WIRING SHALL BE SIZED AS REQUIRED TO LIMIT VOLTAGE DROP TO NO MORE THAN 3 PERCENT FROM PANEL TO LAST DEVICE ON CIRCUIT.
- 2. COORDINATE ALL EXTERIOR FIXTURE LOCATIONS AND BASE HEIGHTS WITH CIVIL ENGINEERING CONSTRUCTION DOCUMENTS.
- 3. COORDINATE ALL ELECTRICAL SERVICE RELATED WORK WITH LOCAL UTILITY COMPANY PRIOR TO BID.
- 4. PROVIDE POLE-MOUNTED DUPLEX RECEPTACLE AT ALL TYPE AA1 FIXTURE LOCATIONS.
- 5. USE #10 AWG CONDUCTORS FOR ALL EXTERIOR CIRCUITS.

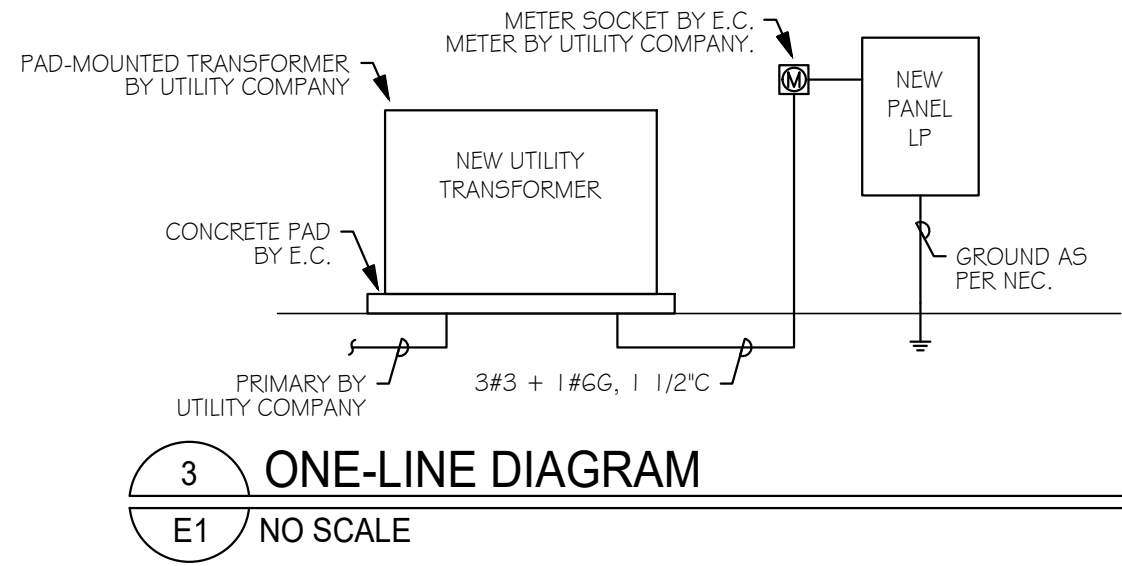
ELECTRICAL NOTES

- ① MOUNT RECEPTACLE IN FRONT FACE OF BLOCK WALL. REFER TO DETAIL 4/E3
- ② MOUNT STEP LIGHTS IN FRONT FACE OF BLOCK WALL. REFER TO DETAIL 3/E3
- ③ ROUTE THROUGH STAGE CONTROL PANEL. REFER TO DETAIL 5/E3
- ④ ROUTE THROUGH EXTERIOR LIGHTING CONTROLS LOCATED NEXT TO PANEL LP.

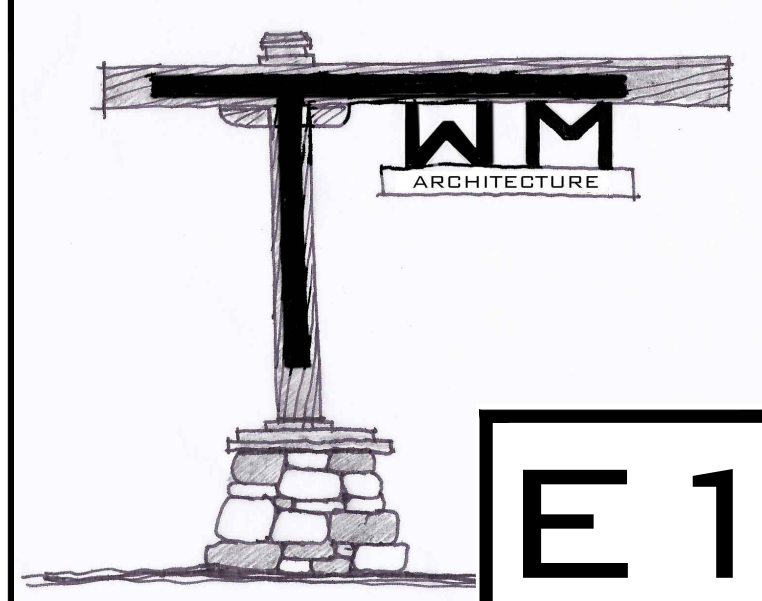
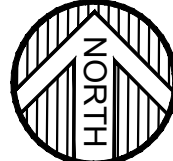
ELECTRICAL SYMBOL LEGEND

SYMBOL	DESCRIPTION	MOUNTING HEIGHT
	HOMERUN TO PANELBOARD, CROSSMARKS INDICATE QUANTITY OF CONDUCTORS (NOT INCLUDING GROUND CONDUCTOR), NO MARKS INDICATE TWO CONDUCTORS. LETTERS AND NUMBERS INDICATE PANEL AND CIRCUITS. PROVIDE CODE SIZED GROUND CONDUCTOR IN EACH CONDUIT.	
	CEILING SURFACE MOUNTED FIXTURE	AS NOTED
	WALL MOUNTED FIXTURE	AS NOTED
	STRIP FIXTURE	
	SINGLE POLE SWITCH	42"
	OCCUPANCY SENSOR SWITCH	42"
	PHOTOCELL	
	DUPLEX RECEPTACLE (WP-WEATHERPROOF, G-GROUND FAULT CIRCUIT INTERRUPTER, AC-ABOVE COUNTER)	18"
	JUNCTION BOX	
	PANELBOARD	72" TO TOP
	METER	
	CCTV	
	UNDERGROUND CONDUIT	
	CONCEALED CONDUIT	

NOTE: ALL MOUNTING HEIGHTS ARE TO CENTER OF DEVICE UNLESS NOTED OTHERWISE



1 SITE PLAN - ELECTRICAL
E1



MISSISSIPPI LANDING
TRAILHEAD PARK

10-19-21

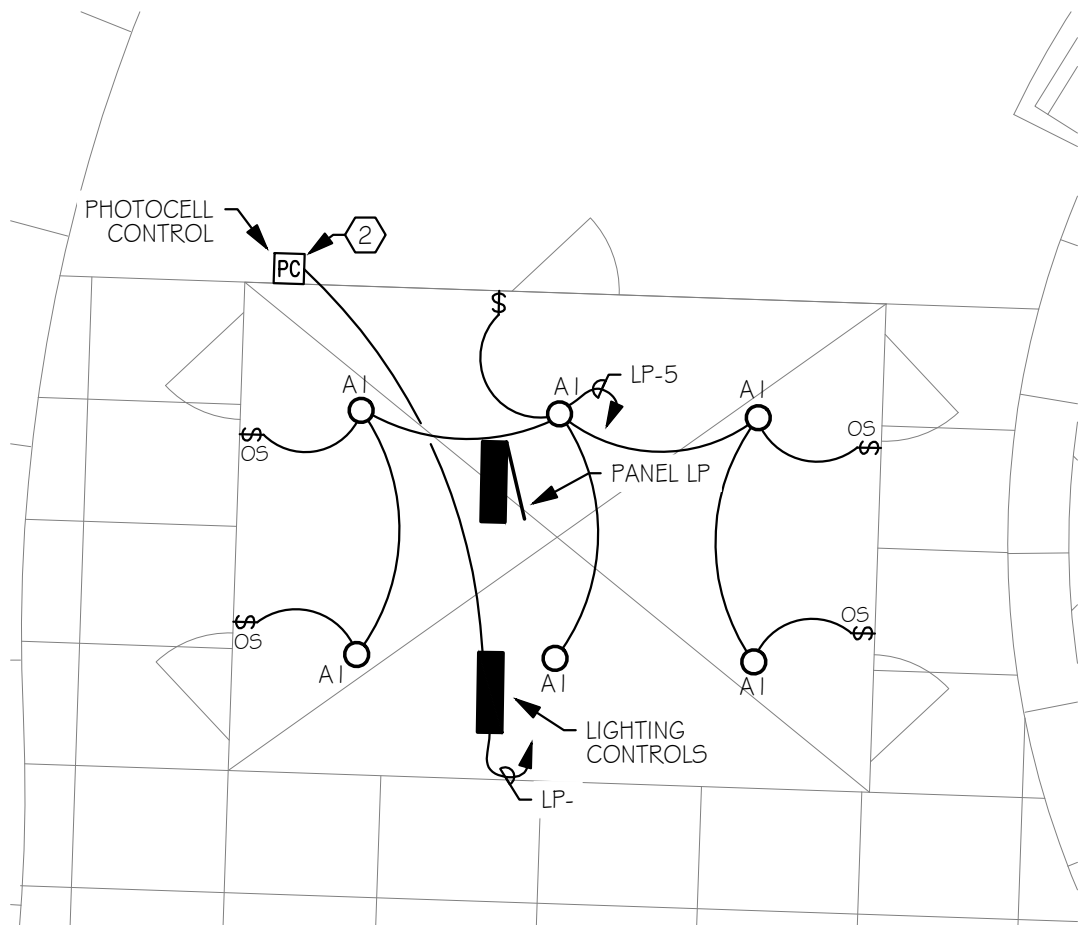


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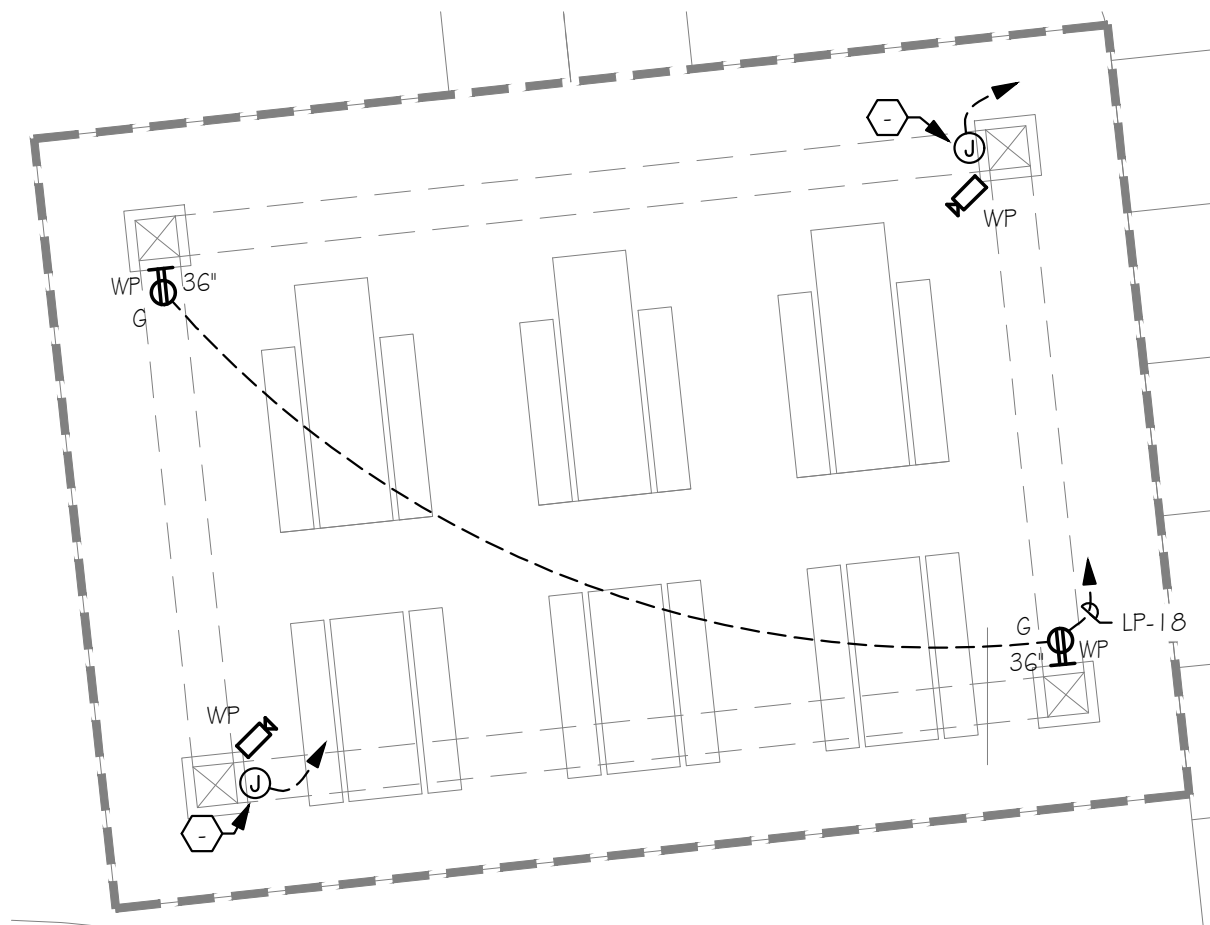
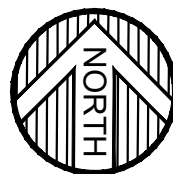
LIC. # 25261

DATE: TROY D. VAREBERG

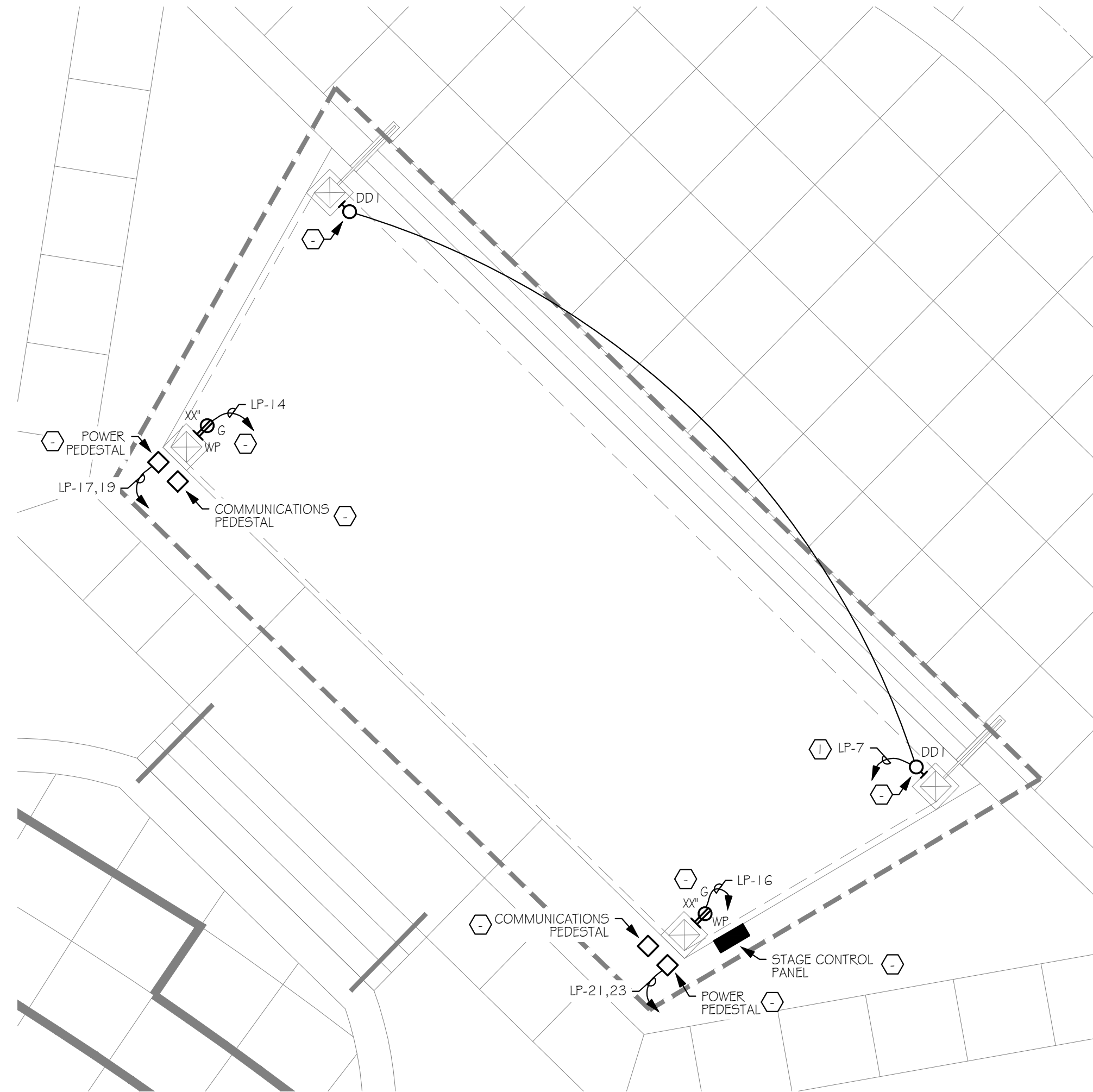
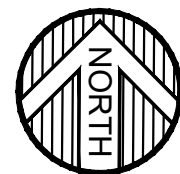
MISSISSIPPI LANDING
TRAILHEAD PARK
AMPHITHEATER STUDY
BRainerd, MN



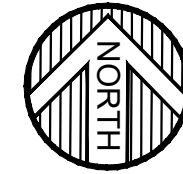
1 BATHROOM PLAN - ELECTRICAL
E2 1/4"=1'-0"



2 SHELTER PLAN - ELECTRICAL
E2 1/4"=1'-0"



3 AMPHITHEATER PLAN - ELECTRICAL
E2 1/4"=1'-0"



LIGHTING FIXTURE SCHEDULE										
FIXT. TYPE LETTER	MANUFACTURER	CATALOG NUMBER	MOUNTING	VOLTS	LAMP DATA			TOTAL FIXTURE WATTAGE	TOTAL FIXTURE LUMENS	REMARKS
					TYPE	#	COLOR TEMP. (K)			
A1	COOPER		SURFACE	120	LED	-	3,000			
AA1	INVUE	ARB-B2-LED-D1-T3-BZ-0030	POLE	120	LED	-	3,000	48	4,534	
AA1 POLE	COOPER	ARP-5L3-10A-BZ-2-E	-	-	-	-	-	-		
BB1			RECESSED	120	LED	-	3,000			
CC1	INVUE	ECM-E04-E1-T2-50-BL-BZ-7030	POLE	120	LED	-	3,000	97	11,294	
DD1			WALL	120	LED	-	3,000			

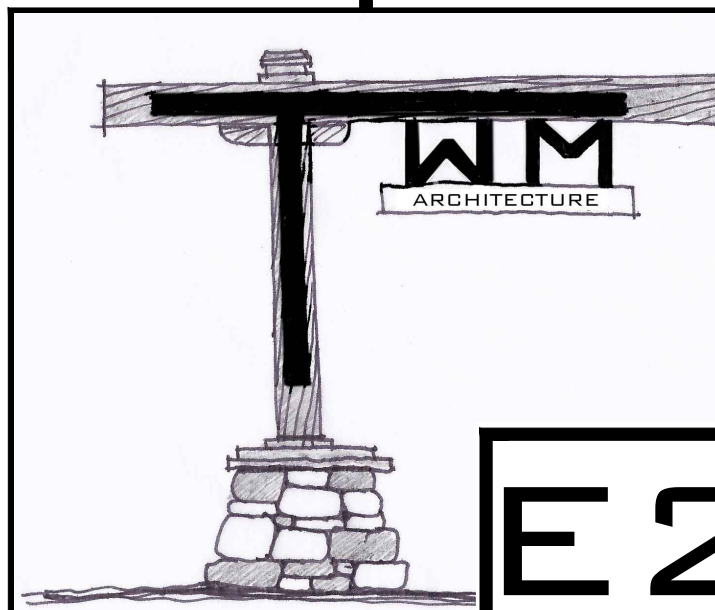
PANELBOARD LP				VOLTAGE: 120/240 PHASE: 1 WIRES: 3 A/C: 10,000				MOUNTING: SURFACE BUSS SIZE: 225A MAIN: 200A CIRCUIT BREAKER LOCATION: MECHANICAL SPACE			
LOAD DESCRIPTION	LOAD VA	NO. POLES	TRIP AMPS	POLE NO.	LINE LOAD		POLE NO.	TRIP AMPS	NO. POLES	LOAD VA	LOAD DESCRIPTION
					A	B					
LIGHTING - PROMENADE	1000	1	20	1	1000		2	20	1		RECEPTACLES - PROMENADE POLE 1
LIGHTING - SOUTH	300	1	20	3		300	4	20	1		RECEPTACLES - PROMENADE POLE 2
LIGHTING - BATHROOM		1	20	5	0		6	20	1		RECEPTACLES - PROMENADE POLE 3
LIGHTING - AMPHITHEATER WORK LIGHT	400	1	20	7		400	8	20	1		RECEPTACLES - PROMENADE POLE 4
LIGHTING - AMPHITHEATER STEP LIGHT	200	1	20	9	200		10	20	1		RECEPTACLES - PROMENADE POLE 5
RECEPTACLE - AMPHITHEATER STEP 1	1000	1	20	11		1000	12	20	1		RECEPTACLES - SOUTH LOOP POLES
RECEPTACLE - AMPHITHEATER STEP 2	1000	1	20	13	1000		14	20	1		RECEPTACLES - STAGE
RECEPTACLE - AMPHITHEATER STEP 3	1000	1	20	15		1000	16	20	1		RECEPTACLES - STAGE
SPARE		1	20	17	0		18	20	1		RECEPTACLES - SHELTER
SPARE		1	20	19		0	20	20	1		SPARE
SPARE		1	20	21	0		22	20	1		SPARE
STAGE POWER PEDESTAL	5000	2	60	23		5400	24	20	1	400	STREET LIGHTING
-	5000	-	-	25	5000		26	20	1		SPARE
STAGE POWER PEDESTAL	5000	2	60	27		5000	28	20	1		SPARE
-	5000	-	-	29	5000		30	20	1		SPARE
TOTALS:					12200	13100	VA				
						25300	VA				
						105.42	AMPS				

GENERAL NOTES

1. ALL WIRING SHALL BE SIZED AS REQUIRED TO LIMIT VOLTAGE DROP TO NO MORE THAN 3 PERCENT FROM PANEL TO LAST DEVICE ON CIRCUIT.
2. COORDINATE ALL EXTERIOR FIXTURE LOCATIONS AND BASE HEIGHTS WITH CIVIL ENGINEERING CONSTRUCTION DOCUMENTS.
3. COORDINATE ALL ELECTRICAL SERVICE RELATED WORK WITH LOCAL UTILITY COMPANY PRIOR TO BID.
4. PROVIDE ALL BACKING MATERIAL AND CAULKING AS REQUIRED TO MAINTAIN FIRE AND SMOKE RATINGS AROUND ALL ELECTRICAL PENETRATIONS, AS PER NEC 300.21.
5. OCCUPANCY SENSOR SWITCHES SHALL ACTIVATE LIGHTS IN AREA OF USE WHEN MOTION IS DETECTED AND DEACTIVATE LIGHTS AFTER 15 MINUTES OF NO MOTION DETECTED. OCCUPANCY SENSOR SWITCHES SHALL ALSO HAVE MANUAL TOGGLE ON/OFF.
6. REFER TO DETAIL 3/E3 FOR STAGE CONTROL PANEL REQUIREMENTS.

ELECTRICAL NOTES

1. ROUTE THROUGH STAGE CONTROL PANEL.
2. INSTALL PHOTOCELL ON NORTH SIDE OF BATHROOM BUILDING. FIELD VERIFY EXACT MOUNTING LOCATION.



E2

MISSISSIPPI LANDING TRAILHEAD PARK

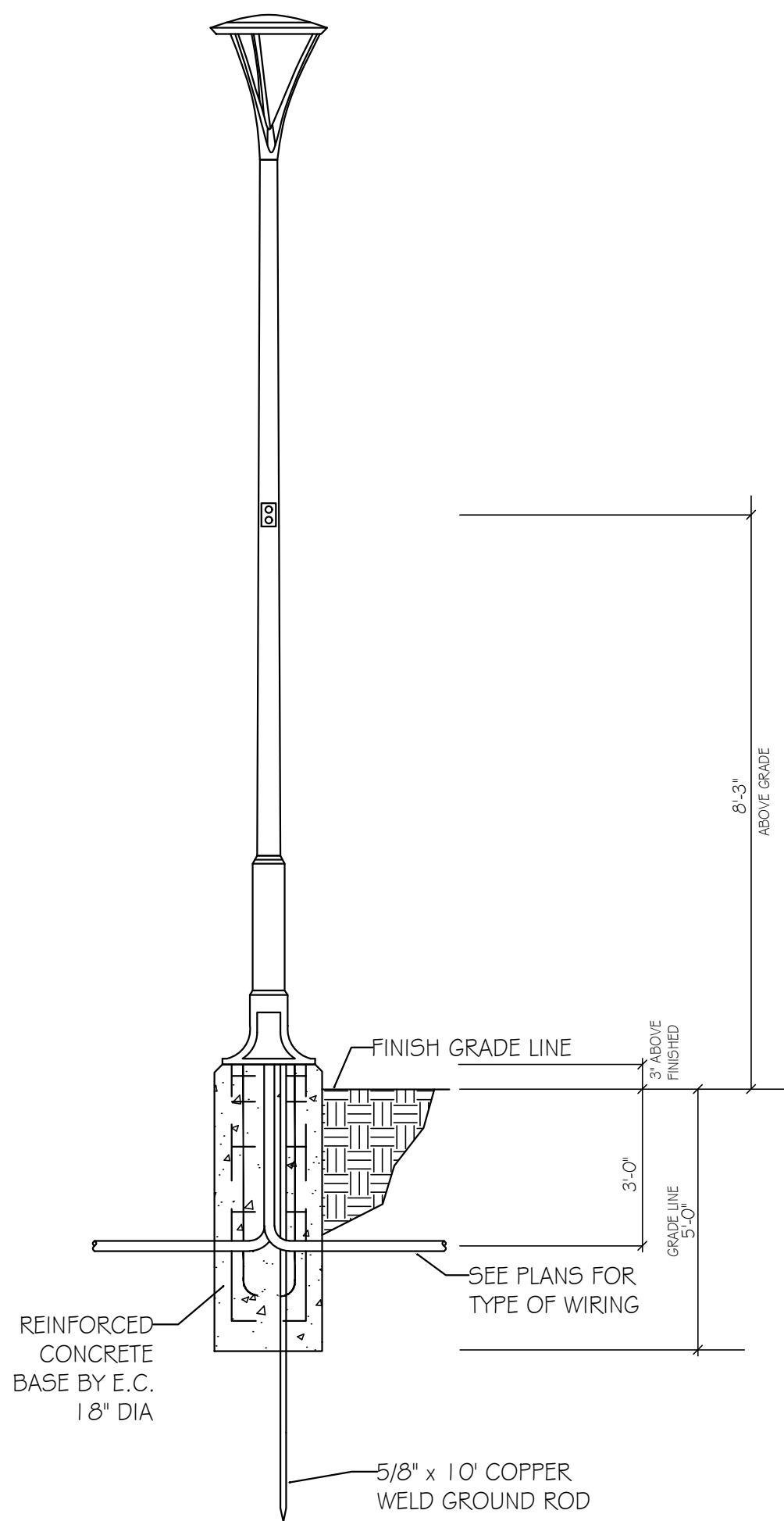
10-19-21



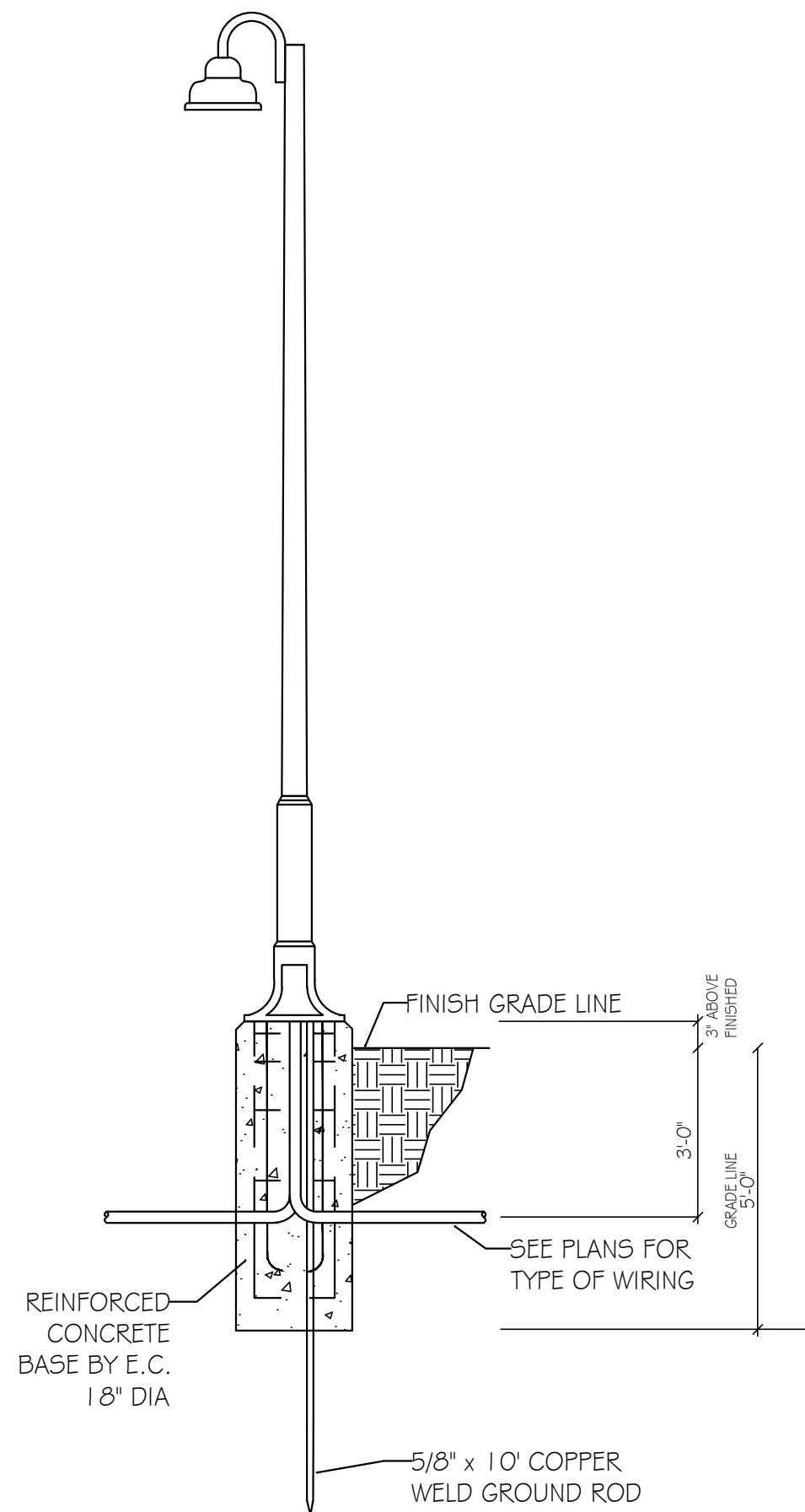
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TROY D. VAREBERG
DATE:
LIC. # 25261

MISSISSIPPI LANDING
TRAILHEAD PARK
AMPHITHEATER STUDY
BRainerd, MN

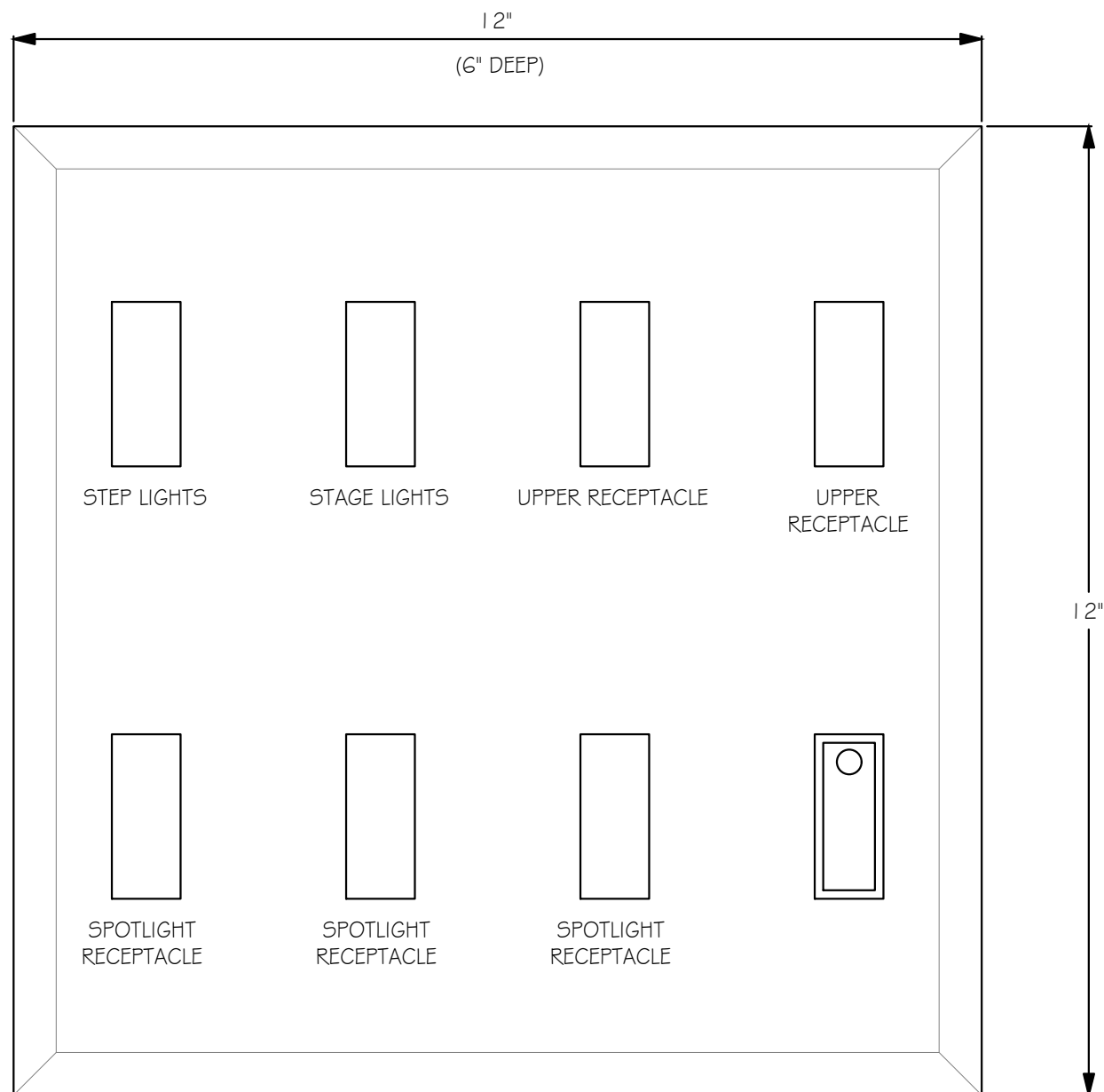


1 LIGHT FIXTURE TYPE 'AA1' DETAIL
E3 NO SCALE



2 LIGHT FIXTURE TYPE 'AA2' DETAIL
E3 NO SCALE

3 LIGHT FIXTURE 'BB1' DETAIL
E3 NO SCALE



5 STAGE CONTROL PANEL
E3 NO SCALE

4 RECEPTACLE MOUNTING DETAIL
E3 NO SCALE

