

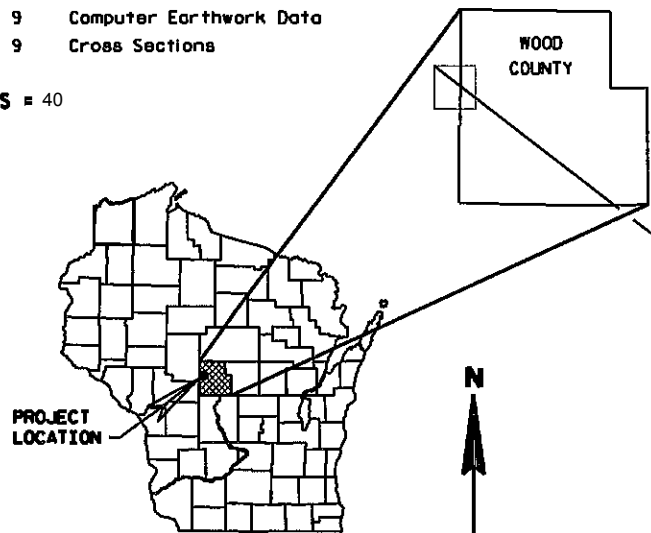
PROJECT ID: 7397-01-70  
WITH: N/A

COUNTY: WOOD

**ORDER OF SHEETS**

- Section No. 1 Title
- Section No. 2 Typical Sections and Details (includes Erosion Control Plans)
- Section No. 3 Estimate of Quantities
- Section No. 3 Miscellaneous Quantities
- Section No. 4 Right of Way Plat
- Section No. 5 Plan and Profile
- Section No. 6 Standard Detail Drawings
- Section No. 7 Sign Plates
- Section No. 8 Structure Plans
- Section No. 9 Computer Earthwork Data
- Section No. 9 Cross Sections

TOTAL SHEETS = 40



**DESIGN DESIGNATION**

- A.A.D.T. (2023) = <100
- A.A.D.T. (2043) = <100
- D.H.V. = 10
- D. = 50/50
- T. = 5%
- DESIGN SPEED = 20 MPH
- ESALS = N/A

**CONVENTIONAL SYMBOLS**

**PLAN**

- CORPORATE LIMITS
- PROPERTY LINE
- LOT LINE
- LIMITED HIGHWAY EASEMENT
- EXISTING RIGHT OF WAY
- PROPOSED OR NEW R/W LINE
- SLOPE INTERCEPT
- REFERENCE LINE
- EXISTING CULVERT
- PROPOSED CULVERT (Box or Pipe)
- COMBUSTIBLE FLUIDS
- HIGH VOLTAGE
- MARSH AREA
- WOODED OR SHRUB AREA

**PROFILE**

- GRADE LINE
- ORIGINAL GROUND
- MARSH OR ROCK PROFILE (To be noted as such)
- SPECIAL DITCH
- GRADE ELEVATION
- CULVERT (Profile View)
- UTILITIES
- OVERHEAD
- ELECTRIC
- FIBER OPTIC
- GAS
- SANITARY SEWER
- STORM SEWER
- TELEPHONE
- WATER
- UTILITY PEDESTAL
- POWER POLE
- TELEPHONE POLE

# STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

## PLAN OF PROPOSED IMPROVEMENT

# T ROCK, LYNN LINE ROAD

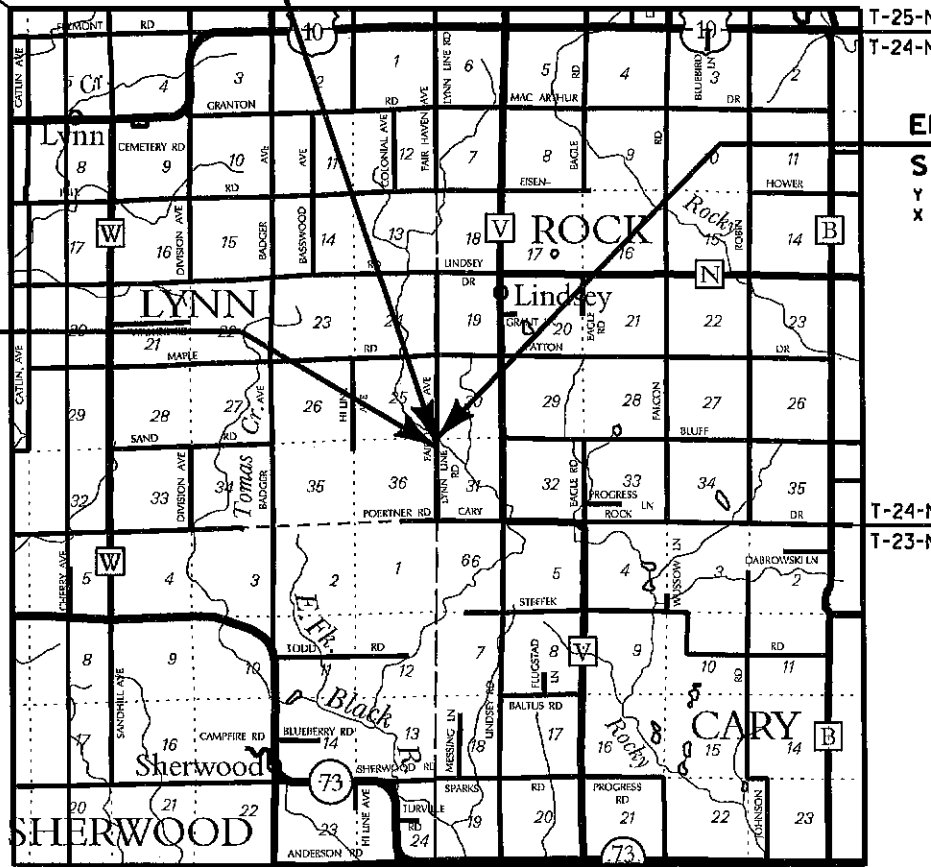
EAST FORK BLACK RIVER BRIDGE

LOC STR

WOOD COUNTY

STATE PROJECT NUMBER  
**7397-01-70**

STRUCTURE B-71-0204



**BEGIN PROJECT**

**STA. 38+15**

Y = 501532.62  
X = 601651.24

**END PROJECT**

**STA. 41+15**

Y = 501807.87  
X = 601726.15

CLARK COUNTY WOOD COUNTY  
R-1-E R-2-E

LAYOUT

SCALE 0 1 MI.

TOTAL NET LENGTH OF CENTERLINE = 0.057 MI.

SURVEY PERFORMED IN 2021.  
COORDINATES ON THIS PLAN ARE REFERENCED TO  
THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS),  
WOOD COUNTY.

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
7397-01-70	WISC 2023293	1

ACCEPTED FOR

County of Wood  
Date 10-24-22  
Highway Commissioner

ORIGINAL PLANS PREPARED BY  
**AYRES** 3433 Oakwood Hills Parkway  
Eau Claire, WI 54701  
www.AyresAssociates.com

**WISCONSIN**  
KAREN L. WALDERA  
E-39158  
TAYLOR  
WI  
PROFESSIONAL ENGINEER  
DATE 10/24/2022

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION  
PREPARED BY  
Surveyor AYRES ASSOCIATES INC  
Designer AYRES ASSOCIATES INC  
PROJECT MANAGER JASON SCHAEFFER, PE  
Regional Examiner N/A  
Regional Supervisor DANIEL ERYA, PE

APPROVED FOR THE DEPARTMENT  
DATE: 10/24/2022  
(Signature)

E

GENERAL NOTES

EROSION CONTROL ITEMS TO BE PLACED AS SHOWN ON THE PLAN OR AS DIRECTED BY THE ENGINEER.

NO TREES AND/OR SHRUBS ARE TO BE REMOVED WITHOUT THE APPROVAL OF THE ENGINEER.

THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.

DISTURBED AREAS WITHIN THE RIGHT-OF-WAY, EXCLUSIVE OF THE ROADBED, SHALL BE FERTILIZED, SEEDED, AND MULCHED AS DIRECTED BY THE ENGINEER.

WHEN THE QUANTITY OF THE ITEM OF BASE AGGREGATE DENSE IS MEASURED FOR PAYMENT BY THE TON, THE DEPTH OR THICKNESS OF THE LAYER SHOWN ON THE PLANS IS APPROXIMATE AND THE ACTUAL THICKNESS WILL DEPEND ON THE DISTRIBUTION OF THE MATERIAL AS DIRECTED BY THE ENGINEER.

TOPSOIL SHALL BE PLACED ON THE SLOPES, TO THE POINT OF INTERCEPT WITH THE ORIGINAL GROUND SHOWN ON THE CROSS SECTIONS.

THE DEPARTMENT OF TRANSPORTATION WILL FURNISH THE CONTRACTOR WITH A MONUMENT TO BE INSTALLED BY THE CONTRACTOR AS DIRECTED BY THE ENGINEER.

ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM (NAVD 88).

WETLANDS EXIST IN THE PROJECT AREA. NO DISTURBANCE IS ALLOWED OUTSIDE THE SLOPE INTERCEPTS.

UTILITIES

CLARK ELECTRIC COOPERATIVE  
124 NORTH MAIN STREET  
PO BOX 190  
GREENWOOD, WI 54437  
ATTN: JOSH BURNS  
715-268-6188  
jburns@cecoop.com

\* \* DENOTES UTILITIES THAT ARE NOT DIGGERS HOTLINE MEMBERS

**DIGGERS HOTLINE**

Dial **811** or (800) 242-8511  
www.DiggersHotline.com

WISCONSIN DEPARTMENT OF  
NATURAL RESOURCES CONTACT:

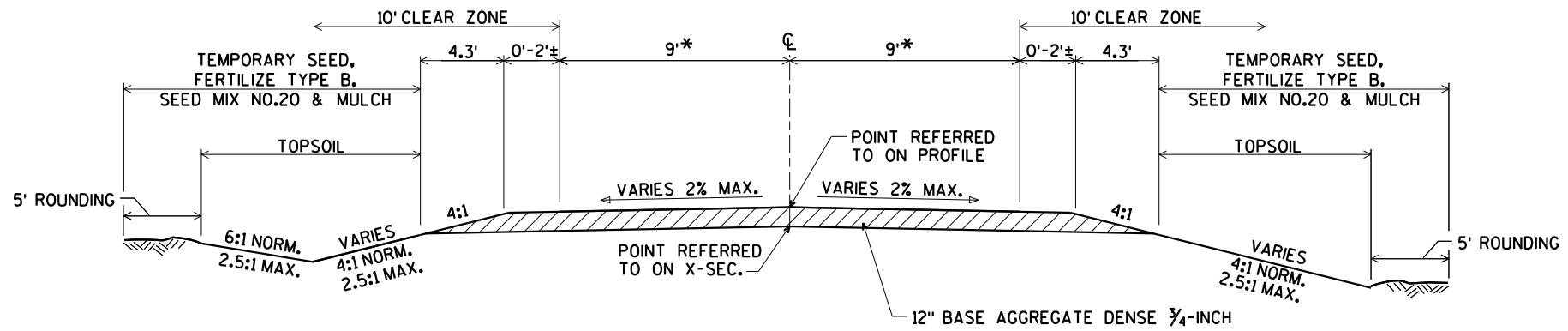
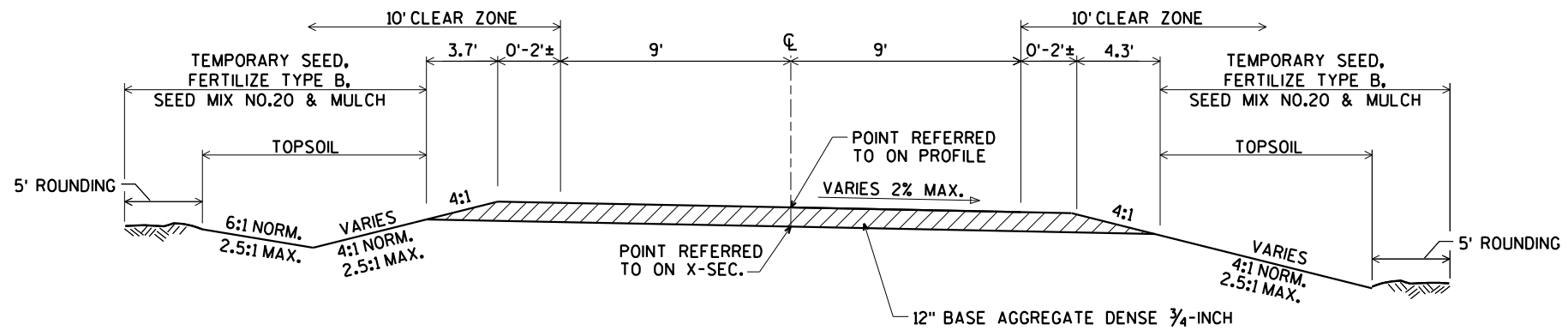
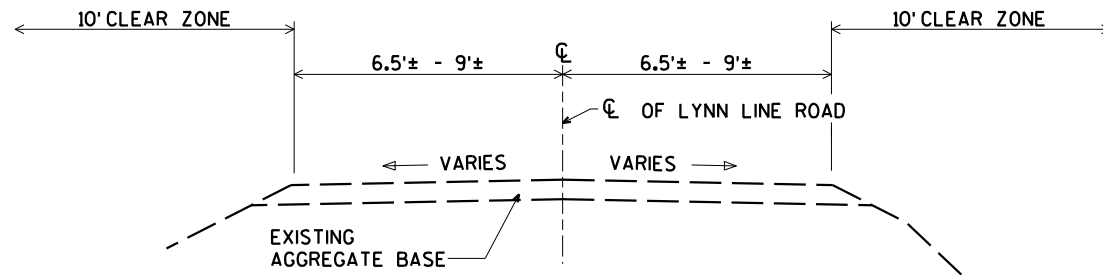
BRADLEY BETTHAUSER  
910 HWY 54 E  
BLACK RIVER FALLS, WI 54615  
715-213-9064  
bradley.betthouser@wisconsin.gov

DESIGNER

AYRES ASSOCIATES  
3433 OAKWOOD HILLS PARKWAY  
EAU CLAIRE, WI 54701  
ATTN: KAREN WALDERA  
715-834-3161  
walderak@AyresAssociates.com

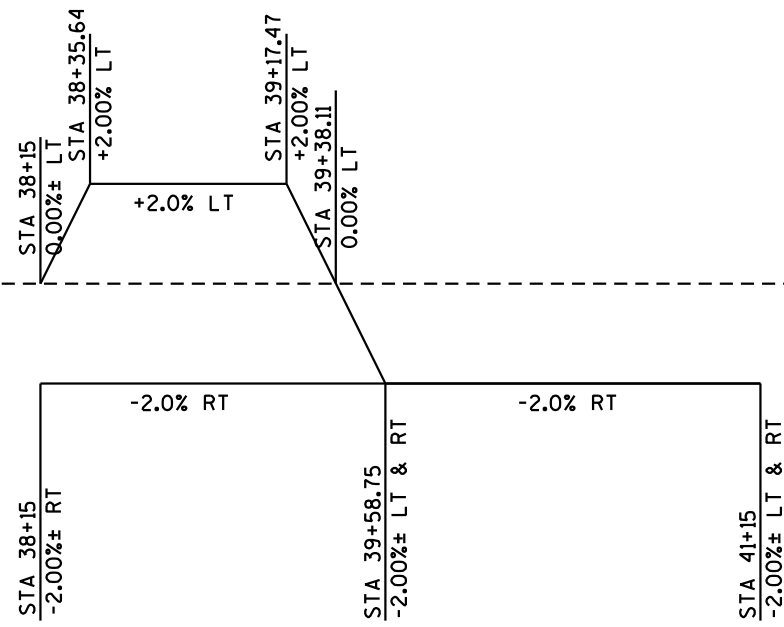
COUNTY CONTACT:

WOOD COUNTY, HIGHWAY COMMISSIONER  
555 17TH AVENUE NORTH  
WISCONSIN RAPIDS, WI 54495-1966  
ATTN: ROLAND HAWK  
715-421-8875  
rhawk@co.wood.wi.us

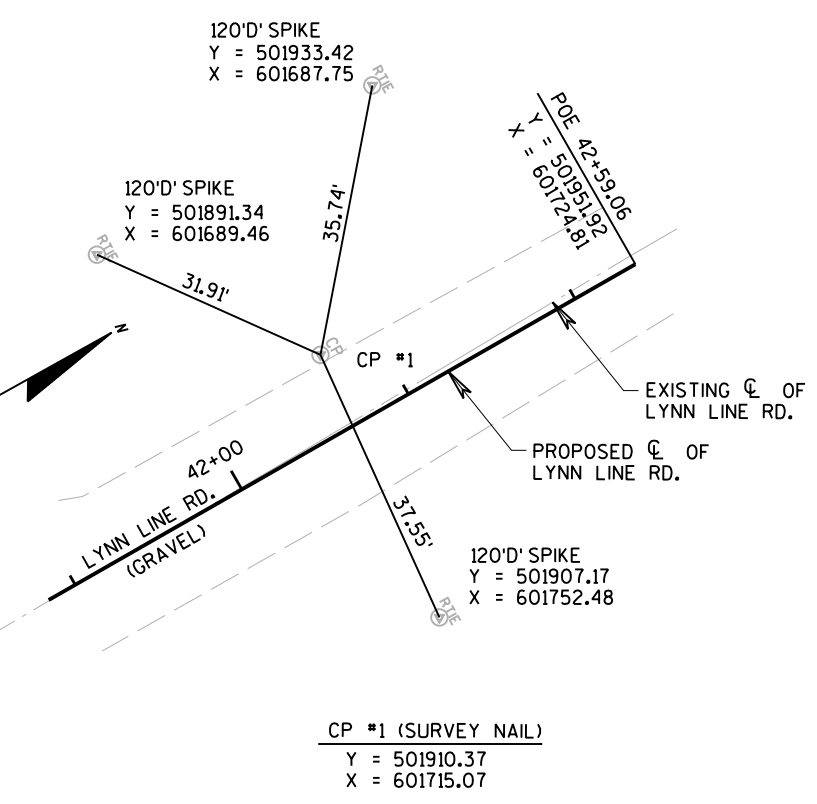
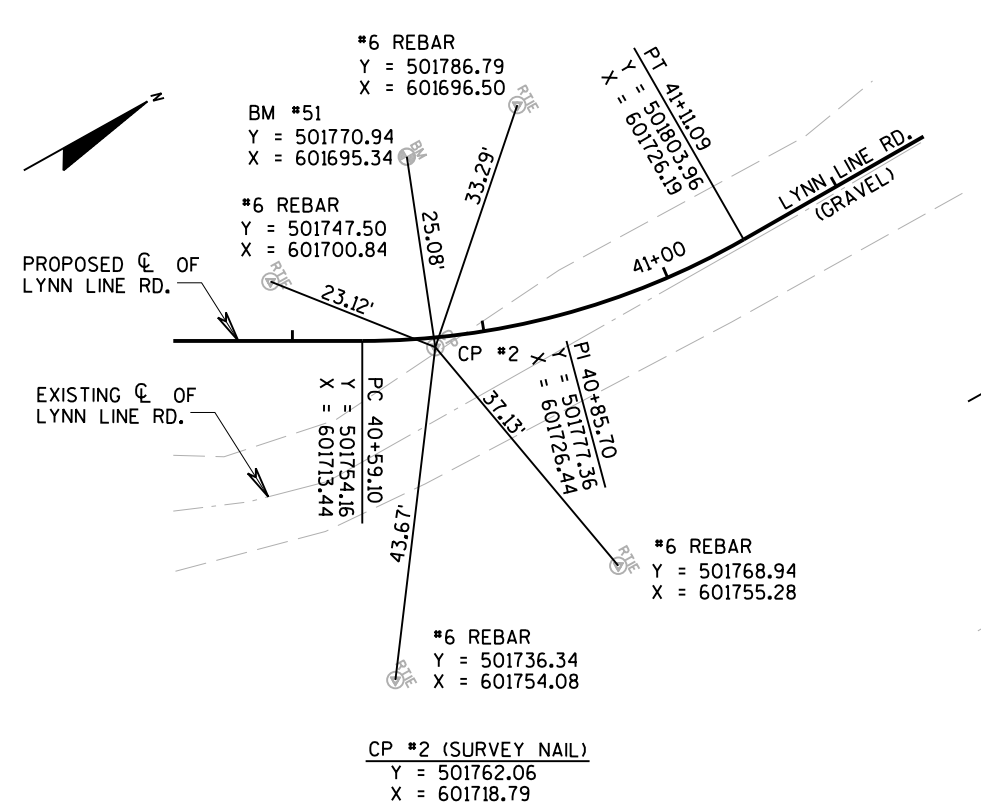
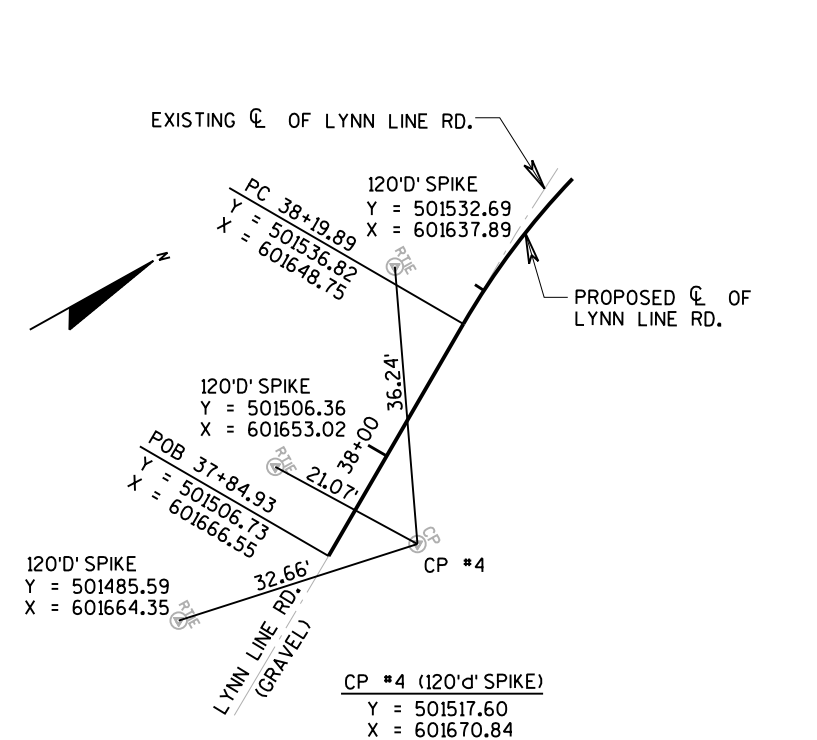
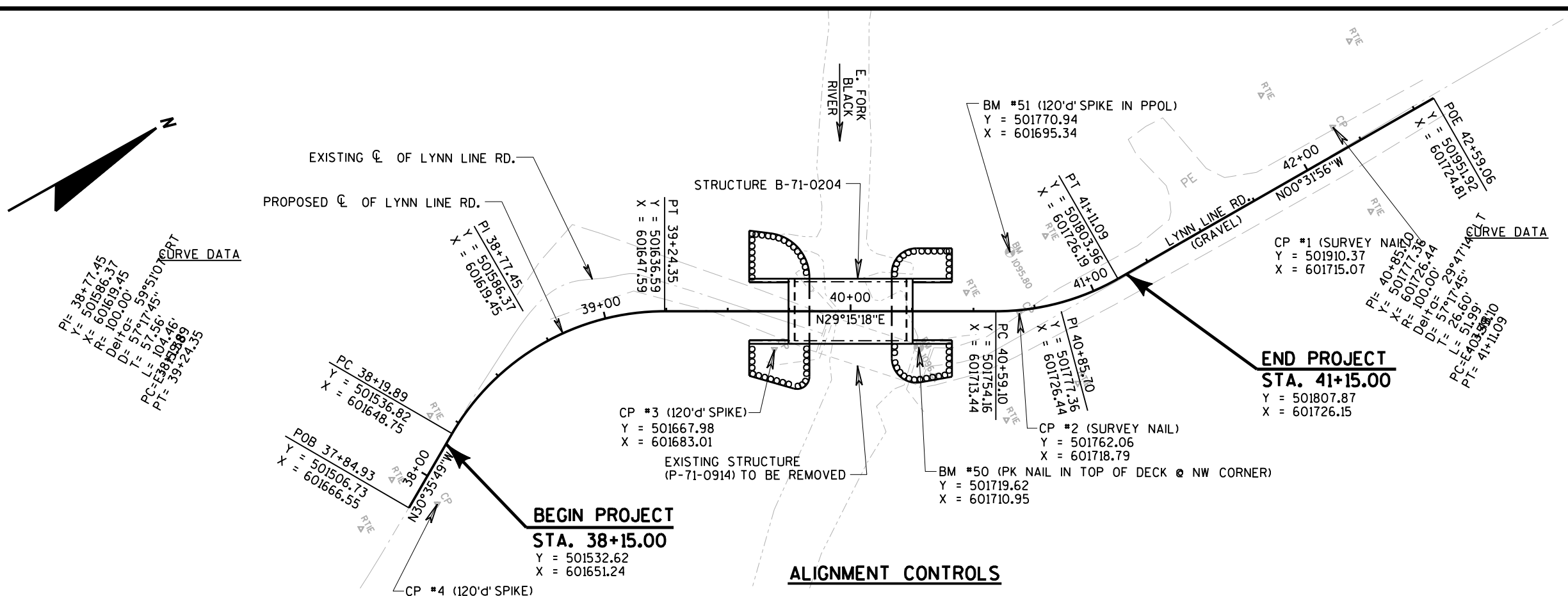


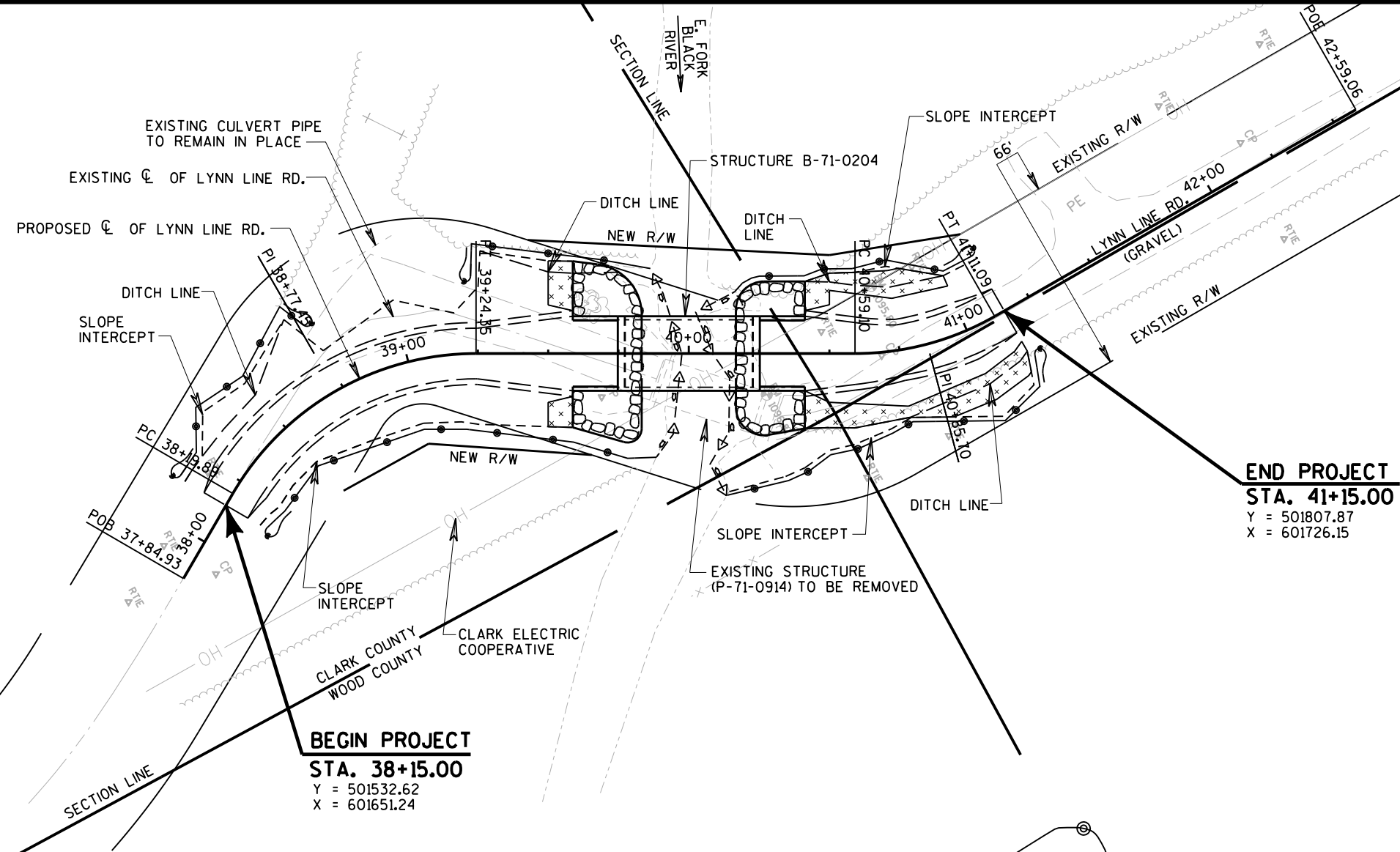
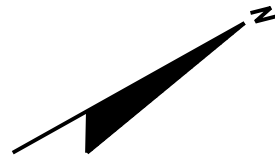
\* THE BASE AGGREGATE LANE WIDTH WILL TAPER FROM 13.25' AT THE END OF THE STRUCTURE TO 9'± AT 50' FROM END OF DECK OF BRIDGE

SUPERELEVATION:



SUPERELEVATION DIAGRAM

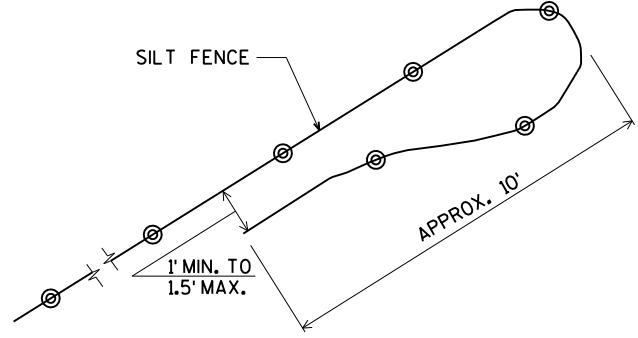




**END PROJECT**  
**STA. 41+15.00**  
 Y = 501807.87  
 X = 601726.15

**BEGIN PROJECT**  
**STA. 38+15.00**  
 Y = 501532.62  
 X = 601651.24

	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	.08 .22	.16 .30	.22 .38	.12 .26	.20 .34	.27 .44	.15 .30	.24 .37	.33 .50	.19 .34	.28 .41	.38 .56
MEDIAN STRIP-TURF	.19 .24	.20 .26	.24 .30	.19 .25	.22 .28	.26 .33	.20 .26	.23 .30	.30 .37	.20 .27	.25 .32	.30 .40
SIDE SLOPE-TURF			.25 .32			.27 .34			.28 .36			.30 .38
PAVEMENT:												
ASPHALT	.70 - .95											
CONCRETE	.80 - .95											
BRICK	.70 - .80											
DRIVES, WALKS	.75 - .85											
ROOFS	.75 - .95											
GRAVEL ROADS, SHOULDERS	.40 - .60											



**SILT FENCE END DETAIL**  
 (TURNAROUNDS - TO REDIRECT AMPHIBIANS AND REPTILES AWAY FROM CONSTRUCTION ZONE)

NOTE: NO DISTURBANCE OR TOPSOIL STOCKPILING IS ALLOWED OUTSIDE OF THE SLOPE INTERCEPTS. WETLANDS EXIST IN THE PROJECT AREA.

- LEGEND**
- x x x EROSION MAT CLASS II TYPE C
  - SILT FENCE
  - TURBIDITY BARRIER
  - o o o o RIPRAP HEAVY

TOTAL PROJECT AREA = 0.556 ACRES  
 TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.318 ACRES

Estimate Of Quantities

7397-01-70

Line	Item	Item Description	Unit	Total	Qty
0002	201.0205	Grubbing	STA	3.000	3.000
0004	203.0250	Removing Structure Over Waterway Remove Debris (structure) 01. P-71-0914	EACH	1.000	1.000
0006	205.0100	Excavation Common	CY	243.000	243.000
0008	206.1001	Excavation for Structures Bridges (structure) 01. B-71-0204	EACH	1.000	1.000
0010	210.1500	Backfill Structure Type A	TON	390.000	390.000
0012	213.0100	Finishing Roadway (project) 01. 7397-01-70	EACH	1.000	1.000
0014	305.0110	Base Aggregate Dense 3/4-Inch	TON	465.000	465.000
0016	502.0100	Concrete Masonry Bridges	CY	195.000	195.000
0018	502.3200	Protective Surface Treatment	SY	225.000	225.000
0020	505.0400	Bar Steel Reinforcement HS Structures	LB	3,660.000	3,660.000
0022	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	25,880.000	25,880.000
0024	506.0105	Structural Steel Carbon	LB	462.000	462.000
0026	513.4061	Railing Tubular Type M	LF	169.400	169.400
0028	516.0500	Rubberized Membrane Waterproofing	SY	16.000	16.000
0030	550.0020	Pre-Boring Rock or Consolidated Materials	LF	48.000	48.000
0032	550.0500	Pile Points	EACH	6.000	6.000
0034	550.1100	Piling Steel HP 10-Inch X 42 Lb	LF	150.000	150.000
0036	606.0300	Riprap Heavy	CY	155.000	155.000
0038	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	140.000	140.000
0040	618.0100	Maintenance And Repair of Haul Roads (project) 01. 7397-01-70	EACH	1.000	1.000
0042	619.1000	Mobilization	EACH	1.000	1.000
0044	623.0200	Dust Control Surface Treatment	SY	650.000	650.000
0046	624.0100	Water	MGAL	5.000	5.000
0048	625.0100	Topsoil	SY	720.000	720.000
0050	627.0200	Mulching	SY	1,090.000	1,090.000
0052	628.1504	Silt Fence	LF	755.000	755.000
0054	628.1520	Silt Fence Maintenance	LF	1,510.000	1,510.000
0056	628.1905	Mobilizations Erosion Control	EACH	4.000	4.000
0058	628.1910	Mobilizations Emergency Erosion Control	EACH	4.000	4.000
0060	628.2027	Erosion Mat Class II Type C	SY	205.000	205.000
0062	628.6005	Turbidity Barriers	SY	170.000	170.000
0064	629.0210	Fertilizer Type B	CWT	1.000	1.000
0066	630.0120	Seeding Mixture No. 20	LB	37.000	37.000
0068	630.0200	Seeding Temporary	LB	37.000	37.000
0070	630.0500	Seed Water	MGAL	29.000	29.000
0072	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	4.000	4.000
0074	637.2230	Signs Type II Reflective F	SF	12.000	12.000
0076	638.2602	Removing Signs Type II	EACH	3.000	3.000
0078	638.3000	Removing Small Sign Supports	EACH	3.000	3.000
0080	642.5001	Field Office Type B	EACH	1.000	1.000
0082	643.0420	Traffic Control Barricades Type III	DAY	1,260.000	1,260.000
0084	643.0705	Traffic Control Warning Lights Type A	DAY	1,960.000	1,960.000
0086	643.0900	Traffic Control Signs	DAY	980.000	980.000
0088	643.5000	Traffic Control	EACH	1.000	1.000
0090	645.0111	Geotextile Type DF Schedule A	SY	90.000	90.000
0092	645.0120	Geotextile Type HR	SY	295.000	295.000
0094	650.4500	Construction Staking Subgrade	LF	250.000	250.000
0096	650.6501	Construction Staking Structure Layout (structure) 01. B-71-0204	EACH	1.000	1.000
0098	650.9911	Construction Staking Supplemental Control (project) 01. 7397-01-70	EACH	1.000	1.000

Estimate Of Quantities

7397-01-70

Line	Item	Item Description	Unit	Total	Qty
0100	650.9920	Construction Staking Slope Stakes	LF	250.000	250.000
0102	715.0502	Incentive Strength Concrete Structures	DOL	1,170.000	1,170.000
0104	999.2005.S	Maintaining Bird Deterrent System (station) 01. 40+00	EACH	1.000	1.000
0106	ASP.1T0A	On-the-Job Training Apprentice at \$5.00/HR	HRS	300.000	300.000
0108	ASP.1T0G	On-the-Job Training Graduate at \$5.00/HR	HRS	600.000	600.000
0110	SPV.0195	Special 01. Select Crushed Material for Riprap Voids	TON	45.000	45.000



**GRUBBING**

CATEGORY	STATION	TO	STATION	LOCATION	201.0205 GRUBBING STA	REMARKS
0010	38+15	-	41+15	LT	3	
TOTAL 0010					3	

NOTE: CLEARING TO BE DONE PRIOR TO CONSTRUCTION BY OTHERS.

**BASE AGGREGATE**

CATEGORY	STATION	TO	STATION	LOCATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	624.0100 WATER MGAL	REMARKS
0010	38+15	-	39+74.75	LT/RT	295	3	SOUTH APPROACH
0010	40+25.25	-	41+15	LT/RT	170	2	NORTH APPROACH
TOTAL 0010					465	5	

**MAINTENANCE AND REPAIR OF HAUL ROADS**

CATEGORY	LOCATION	618.0100.01 MAINTENANCE AND REPAIR OF HAUL ROADS (PROJECT) (01. 7397-01-70) EACH
0030	LYNN LINE ROAD	1
TOTAL 0030		1

**LYNN LINE ROAD EARTHWORK SUMMARY**

From/To Station	Location	Common Excavation (1) (Item 205.0100)	Unexpanded Fill	Expanded Fill (2)	Mass Ordinate +/- (3)	Waste	Borrow (Item 208.0100)	Comment:
		Cut		Factor 1.30				
38+15 to 41+15	LYNN LINE ROAD	243	163	212	31	31	0	
TOTAL		243					0	

- 1) Common Excavation is the Cut. Item number 205.0100.
- 2) Expanded Fill. Factor = 1.30; Expanded Fill = Unexpanded Fill \* Fill Factor
- 3) The Mass Ordinate + or - Qty calculated for the Division. Plus quantity indicates an excess of material on the project.
- 4) All quantities shown in CY.

**EXTRA ITEMS**

CATEGORY	STATION	TO	STATION	LOCATION	213.0100.01 FINISHING ROADWAY (PROJECT) (01. 7397-01-70) EACH	619.1000 MOBILIZATION EACH	623.0200 DUST CONTROL SURFACE TREATMENT SY	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 EROSION CONTROL EACH	642.5001 FIELD OFFICE TYPE B EACH
0010	38+15.00	-	41+15.00	PROJECT-WIDE	1	1	650	4	4	1
TOTAL 0010					1	1	650	4	4	1

**EROSION CONTROL**

CATEGORY	STATION	TO	STATION	LOCATION	625.0100 TOPSOIL SY	627.0200 MULCHING SY	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.2027 EROSION MAT CLASS II TYPE C SY	628.6005 TURBIDITY BARRIERS SY	629.0210 FERTILIZER TYPE B CWT	630.0120 SEEDING MIXTURE NO. 20 LB	630.0200 SEEDING TEMPORARY LB	630.0500 SEED WATER MGAL
0010	38+15	-	40+00	LT	230	330	195	390	20	80	0.3	10	10	8
0010	38+15	-	40+00	RT	150	210	165	330	10		0.2	6	6	5
0010	40+00	-	41+15	LT	110	100	100	200	50	55	0.1	4	4	3
0010	40+00	-	41+15	RT	230	230	145	290	85		0.2	9	9	7
0010	UNDISTRIBUTED				-	220	150	300	40	35	0.2	8	8	6
TOTAL 0010					720	1,090	755	1,510	205	170	1.0	37	37	29

**SIGNS**

CATEGORY	STATION	LOCATION	634.0614	637.2230	638.2602	638.3000	REMARKS
			POSTS WOOD 4X6-INCH X 14-FT EACH	SIGNS TYPE II REFLECTIVE F SF	REMOVING SIGNS TYPE II EACH	REMOVING SMALL SIGN SUPPORTS EACH	
0010	39+57	LT	1	3	-	-	W5-52L: BRIDGE HASH MARKS
0010	39+57	RT	1	3	-	-	W5-52R: BRIDGE HASH MARKS
0010	39+89	RT	-	-	2	2	W5-56: END OF ROADWAY MARKER
0010	40+30	RT	-	-	1	1	R11-2: ROAD CLOSED
0010	40+42	LT	1	3	-	-	W5-52R: BRIDGE HASH MARKS
0010	40+42	RT	1	3	-	-	W5-52L: BRIDGE HASH MARKS
TOTAL 0010			4	12	3	3	

**TRAFFIC CONTROL**

CATEGORY	LOCATION	DURATION		643.0420	643.0705	643.0900	643.5000
		DAYS	NO.	TRAFFIC CONTROL BARRICADES TYPE III DAY	TRAFFIC CONTROL WARNING LIGHTS TYPE A DAY	TRAFFIC CONTROL SIGNS DAY	TRAFFIC CONTROL EACH
0010	PER SDD 15C2	70	18	1,260	28	1,960	14
0010	LYNN LINE ROAD	-	-	-	-	-	-
TOTAL 0010				1,260	28	1,960	14

**STAKING**

CATEGORY	STATION	TO	STATION	LOCATION	650.4500	650.6501.01	650.9911.01	650.9920
					CONSTRUCTION STAKING SUBGRADE LF	CONSTRUCTION STAKING STRUCTURE LAYOUT (STRUCTURE) (01. B-71-0204) EACH	CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) (01. 7397-01-70) EACH	CONSTRUCTION STAKING SLOPE STAKES LF
0010	38+15	-	41+15	MAINLINE	250	-	-	250
0010	38+15	-	41+15	PROJECT 7397-01-70	-	-	1	-
TOTAL 0010					250	0	1	250
0020	39+74.75	-	40+25.25	B-71-0204	-	1	-	-
TOTAL 0020					0	1	0	0
PROJECT TOTAL					250	1	1	250

**MAINTAINING BIRD DETERRENT SYSTEM**

CATEGORY	LOCATION	999.2005.S
		MAINTAINING BIRD DETERRENT SYSTEM EACH
0010	40+00	1
TOTAL 0010		1

**CONVENTIONAL SYMBOLS**

SECTION LINE	PARCEL NUMBER	UTILITY NUMBER
QUARTER LINE	FRW POINT NUMBER	TIE POINT NUMBER
SIXTEENTH LINE	SECTION CORNER	NOTATION FOR COMBUSTIBLE FLUIDS
NEW REFERENCE LINE	NOTATION FOR HIGH VOLTAGE TRANSMISSION LINES	ACCESS CONTROLLED BY ACQUISITION
NEW RW LINE	NOTATION FOR TRANSMISSION LINES	NO ACCESS (BY STATUTORY AUTHORITY)
EXISTING RW LINE	NOTATION FOR HIGH VOLTAGE TRANSMISSION LINES	ACCESS RESTRICTED (BY PREVIOUS PROJECT OR CONTROL)
PROPERTY LINE	NOTATION FOR HIGH VOLTAGE TRANSMISSION LINES	NO ACCESS (NEW HIGHWAY)
LOT, TIE, AND OTHER MINOR LINES	NOTATION FOR HIGH VOLTAGE TRANSMISSION LINES	NATIONAL GEODETIC SURVEY MONUMENT
SLOPE INTERCEPT	NOTATION FOR HIGH VOLTAGE TRANSMISSION LINES	SIXTEENTH CORNER MONUMENT
CORPORATE LIMITS	NOTATION FOR HIGH VOLTAGE TRANSMISSION LINES	PARALLEL OFFSETS
UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC.)	NOTATION FOR HIGH VOLTAGE TRANSMISSION LINES	
FEE ACQUISITION AREA (PATCHING VARIES BY OWNER)	NOTATION FOR HIGH VOLTAGE TRANSMISSION LINES	
TEMP. LIMITED EASEMENT AREA	NOTATION FOR HIGH VOLTAGE TRANSMISSION LINES	
EASEMENT AREA (HIGHWAY, PERMANENT LIMITED, OR RESTRICTED DEVELOPMENT)	NOTATION FOR HIGH VOLTAGE TRANSMISSION LINES	
TRANSMISSION STRUCTURES	NOTATION FOR HIGH VOLTAGE TRANSMISSION LINES	
BUILDING	NOTATION FOR HIGH VOLTAGE TRANSMISSION LINES	
BUILDING (TO BE REMOVED)	NOTATION FOR HIGH VOLTAGE TRANSMISSION LINES	
BRIDGE	NOTATION FOR HIGH VOLTAGE TRANSMISSION LINES	

**CONVENTIONAL UTILITY SYMBOLS**

WATER	TELEPHONE	OVERHEAD TRANSMISSION LINES	ELECTRIC	CABLE TELEVISION	FIBER OPTIC	SANITARY SEWER	STORM SEWER	ELECTRIC TOWER
NON-COMPENSABLE	COMPENSABLE							

**CURVE DATA ABBREVIATIONS**

LONG CHORD BEARING	LCH
LONG CHORD BEARING	LCB
RADIUS	R
DEGREE OF CURVE	D
CENTRAL ANGLE	A / DELTA
LENGTH OF CURVE	L
TANGENT	T
DIRECTION AHEAD	DA
DIRECTION BACK	DB

**CONVENTIONAL ABBREVIATIONS**

ACCESS RIGHTS	AR	OUTLOT	OL
ACRES AHEAD	AC	PAGE	P
ALUMINUM AND OTHERS	ALUM	POINT OF TANGENCY	PT
BLOCK	BLK	PROPERTY LINE	PL
CENTERLINE	CL	RECORDED AS	RA (100')
CERTIFIED SURVEY MAP	CSM	REFERENCE LINE	RL
CONCRETE	CONC	PERMANENT LIMITED EASEMENT	FILE
COUNTY	CO	POINT OF BEGINNING	POB
COUNTY TRUNK HIGHWAY	CTH	POINT OF CURVATURE	PC
DISTANCE	DIST	POINT OF COMPOUND CURVE	PCC
CORNER	COR	POINT OF INTERSECTION	PI
DOCUMENT NUMBER	DOC	RESTRICTING DEVELOPMENT EASEMENT	REDE
EASEMENT	EASE	RIGHT	RT
EXISTING	EX	RIGHT OF WAY	R/W
GAS VALVE	GV	SECTION	SEC
GRID NORTH	GN	SEPTIC VENT	SEPV
HIGHWAY EASEMENT	HE	SQUARE FEET	SF
IDENTIFICATION	ID	STATE TRUNK HIGHWAY	STH
LAND CONTRACT	LC	STATION	STA
LEFT	LT	TELEPHONE PERESTAL	TP
MCHURNISH	MCH	TEMPORARY LIMITED EASEMENT	TLE
NATIONAL GEODETIC SURVEY	NGS	TRANSPORTATION PROJECT PLAT	THP
NUMBER	NO	UNITED STATES HIGHWAY	USH
		VOLUME	V

**50 CLARK ELECTRIC COOPERATIVE**  
V. 181, P. 291, DOC. NO. 264909 - PARCEL 2

**NOTES:**

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), WOOD COUNTY, NAD83 (2011) IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

THIS PLAT IS A GRAPHIC REPRESENTATION AND IS FOR REFERENCE PURPOSE ONLY. DEEDS MUST BE CHECKED TO DETERMINE PROPERTY BOUNDARIES AND ACCESS RIGHTS.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (3/4"x24" CAPPED IRON REBAR WEIGHING 1.50 LBS/LIN. FT.) AND ARE PLACED PRIOR TO OR AT THE TIME OF LAND TITLE TRANSFER.

RIGHT-OF-WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER "SURVEYS" OF PUBLIC RECORD.

DIMENSIONING FOR THE NEW RIGHT-OF-WAY IS MEASURED ALONG AND PERPENDICULAR TO THE NEW REFERENCE LINES.

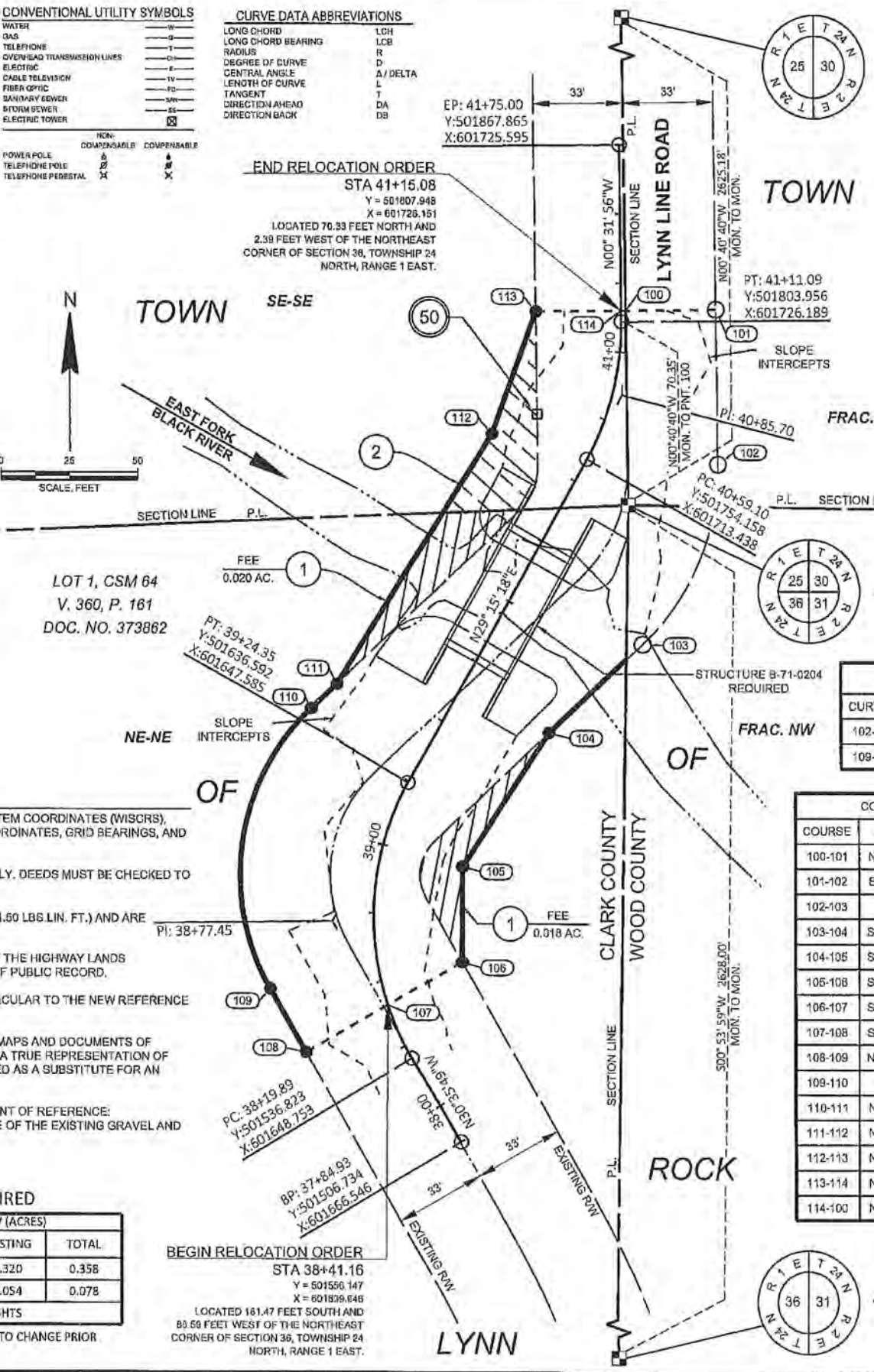
PROPERTY LINES SHOWN ON THIS PLAT ARE DRAWN FROM DATA DERIVED FROM MAPS AND DOCUMENTS OF PUBLIC RECORD AND/OR EXISTING OCCUPATIONAL LINES. THIS PLAT MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES, EXCLUDING RIGHT-OF-WAY, AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

EXISTING ROAD RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINT OF REFERENCE: LYNN LINE ROAD WAS ESTABLISHED FROM STATUTE 82.31 USING THE CENTERLINE OF THE EXISTING GRAVEL AND A PRESUMED 66' WIDTH.

**SCHEDULE OF LANDS AND INTERESTS REQUIRED**

PARCEL NO.	OWNER(S)	INTEREST REQUIRED	R/W (ACRES)		
			NEW	EXISTING	TOTAL
1	JOHN T SOUTHWORTH ET. AL.	FEE	0.038	0.320	0.358
2	DARLENE BARROCAS LOVING TRUST	FEE	0.024	0.054	0.078
50	CLARK ELECTRIC COOPERATIVE	RELEASE OF RIGHTS			

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE COUNTY.



EAST 1/4 CORNER SECTION 25  
COMPUTED FROM TIES  
Y = 504362.612  
X = 601697.465

NORTHEAST CORNER SECTION 36 1" IRON PIPE  
Y = 501737.620  
X = 601728.540

**CURVE TABLE**

CURVE #	ARC LENGTH	RADIUS	CHORD BEARING	CHORD LENGTH
102-103	72.96'	88.00'	S23°04'23"W	70.88'
109-110	110.88'	83.00'	N08°33'08"E	102.82'

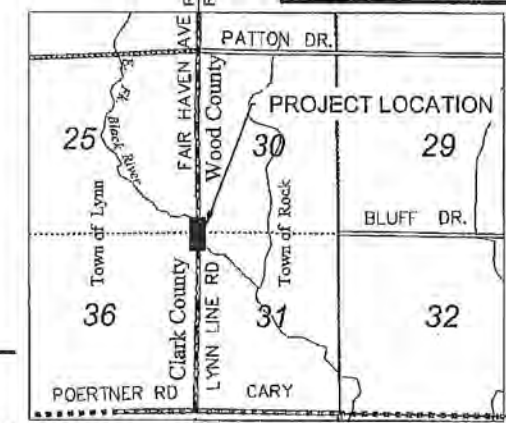
**COURSE TABLE**

COURSE	BEARING	DISTANCE
100-101	N89°18'20"E	33.00'
101-102	S00°40'40"E	55.98'
102-103	SEE CURVE TABLE	
103-104	S48°49'27"W	47.19'
104-105	S33°12'13"W	58.18'
105-106	S00°17'59"W	34.53'
106-107	S60°16'49"W	31.30'
107-108	S80°16'49"W	34.70'
108-109	N29°43'11"W	26.44'
109-110	SEE CURVE TABLE	
110-111	N46°49'27"E	12.86'
111-112	N32°07'03"E	107.37'
112-113	N20°10'08"E	47.14'
113-114	N69°19'20"E	31.44'
114-100	N89°18'20"E	1.56'

**R/W STATION & OFFSET TABLE**

POINT	STATION	OFFSET
100	41+15.08	1.56' RT
101	41+15.17	34.56' RT
102	40+74.31	44.35' RT
103	40+10.50	50.32' RT
104	39+65.51	36.07' RT
105	39+00.00	30.00' RT
106	38+50.00	30.42' RT
107	38+41.16	0.00'
108	38+36.09	34.19' LT
109	38+54.81	40.52' LT
110	39+30.51	44.24' LT
111	39+42.76	40.36' LT
112	40+50.00	35.00' LT
113	41+15.00	31.44' LT
114	41+15.08	0.00'

R/W PROJECT NUMBER 7397-01-00	SHEET NUMBER 4.01	TOTAL SHEETS 1
CONSTRUCTION PROJECT NUMBER 7397-01-70		
PLAT OF RIGHT OF WAY REQUIRED FOR TOWN OF ROCK, LYNN LINE ROAD EAST FORK BLACK RIVER BRIDGE B-71-0204		
LOCAL STREET	WOOD COUNTY	



**ALIGNMENT CURVES**

PI STA = 38+77.45 Y = 501586.372 X = 601619.454 D = 57°17'45" T = 57.56' L = 104.46' R = 100.00' PC STA = 38+19.89	PI STA = 40+85.70 Y = 501777.361 X = 601726.436 D = 57°17'45" T = 26.60' L = 51.99' R = 100.00' PC STA = 40+59.10 PT STA = 41+11.09
---	---

LOCATION SKETCH  
SCALE 0 1 MI  
TOTAL NET LENGTH OF CENTERLINE = 0.05 MI.

APPROVED FOR TOWN OF ROCK  
DATE 10-17-22  
TOWN CHAIRMAN

APPROVED FOR TOWN OF LYNN  
DATE 10-13-2022  
TOWN CHAIRMAN

PLAT PREPARED BY  
**AYRES**

THE SURVEY IS PREPARED AT THE REQUEST OF WOOD COUNTY.  
THE FIELD SURVEY WAS PERFORMED IN FEBRUARY 2021.  
THIS SURVEY IS ACCURATE TO THE BEST OF MY KNOWLEDGE AND BELIEF.

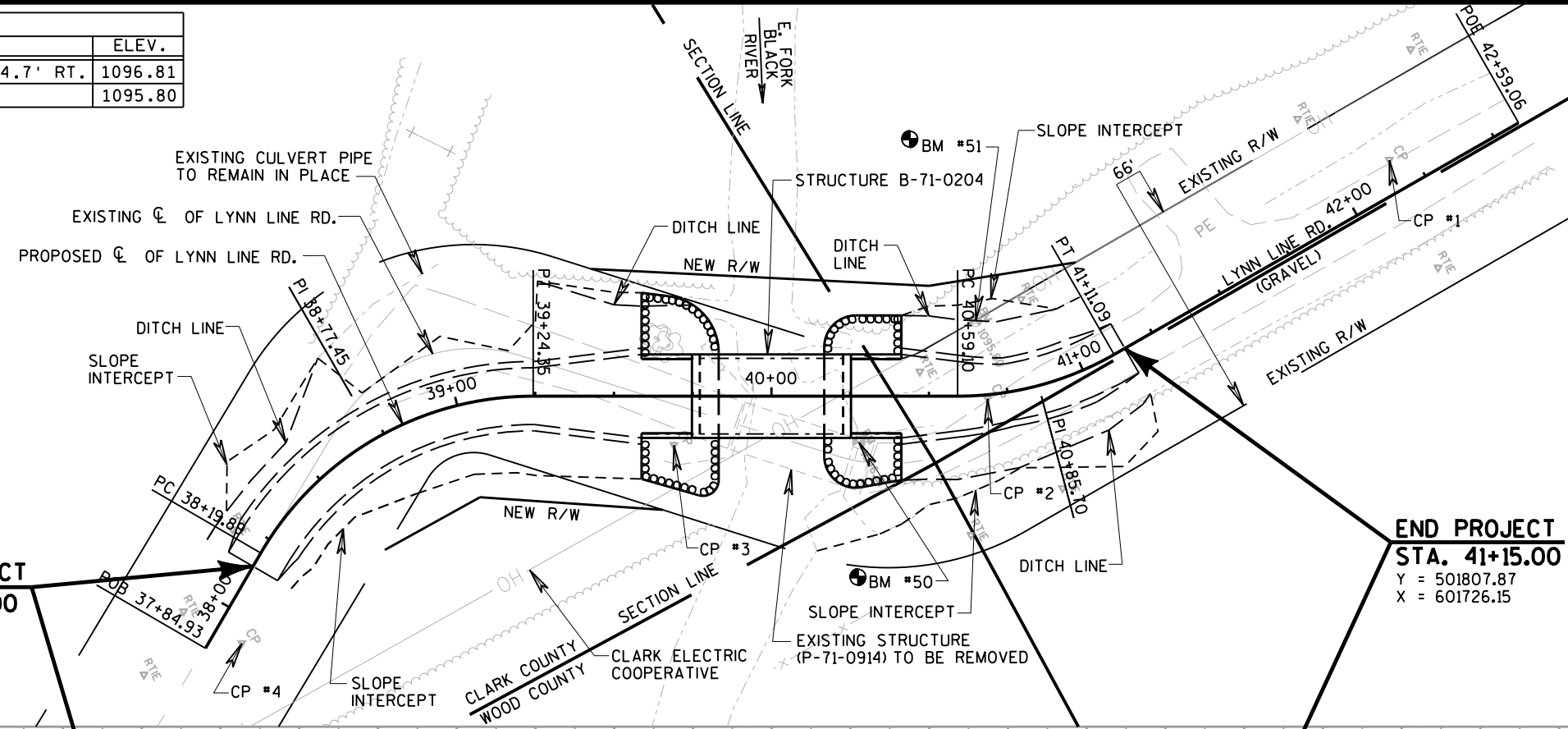
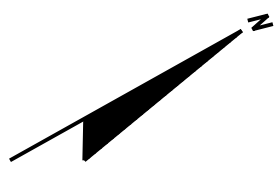


REVISION DATE 08/04/2022

CHRISTOPHER R. BADTKE, P.L.S. DATE 04/26/2022  
S-3150

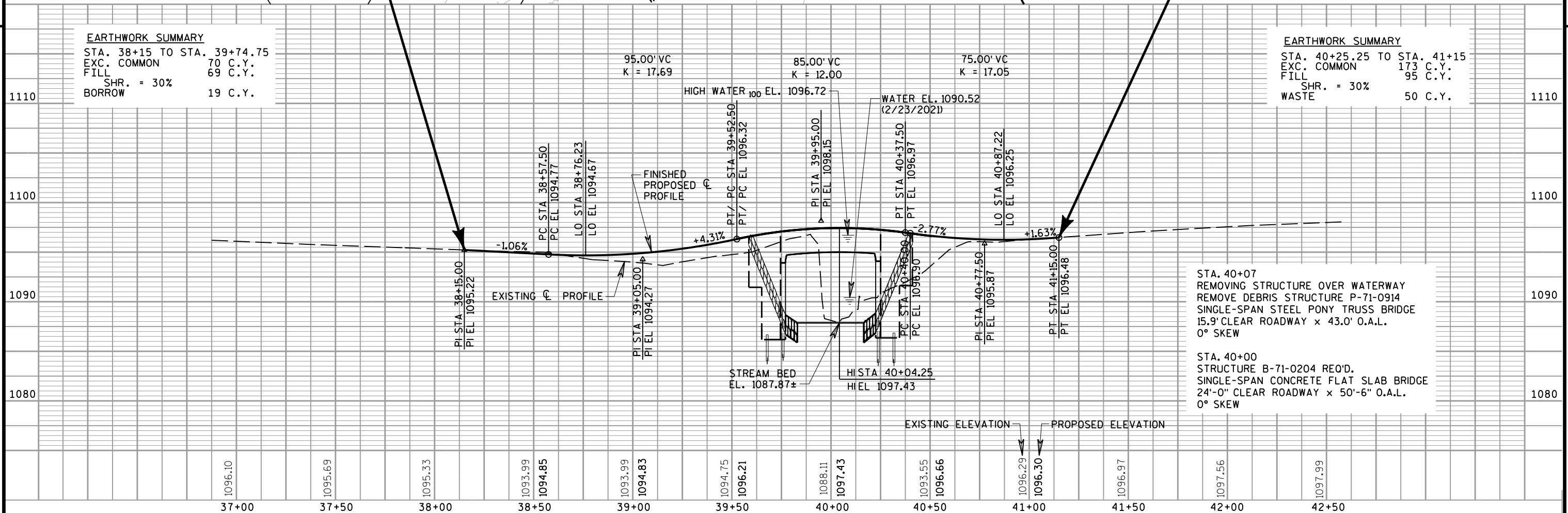
BENCH MARKS			
NO.	STA.	DESCRIPTION	ELEV.
50	40+27.8	PK NAIL IN TOP OF DECK @ NW CORNER, 14.7' RT.	1096.81
51	40+66.7	120'D SPK IN PPOL, 23.8' LT	1095.80

NOTES:  
 FOR SUPERELEVATION DIAGRAM SEE "CONSTRUCTION DETAILS" SHEET.  
 FOR ALIGNMENT CONTROLS, POINTS, TIES, BEARINGS, CURVE DATA, SEE "ALIGNMENT CONTROLS" SHEET.



**EARTHWORK SUMMARY**  
 STA. 38+15 TO STA. 39+74.75  
 EXC. COMMON 70 C.Y.  
 FILL 69 C.Y.  
 SHR. = 30%  
 BORROW 19 C.Y.

**EARTHWORK SUMMARY**  
 STA. 40+25.25 TO STA. 41+15  
 EXC. COMMON 173 C.Y.  
 FILL 95 C.Y.  
 SHR. = 30%  
 WASTE 50 C.Y.

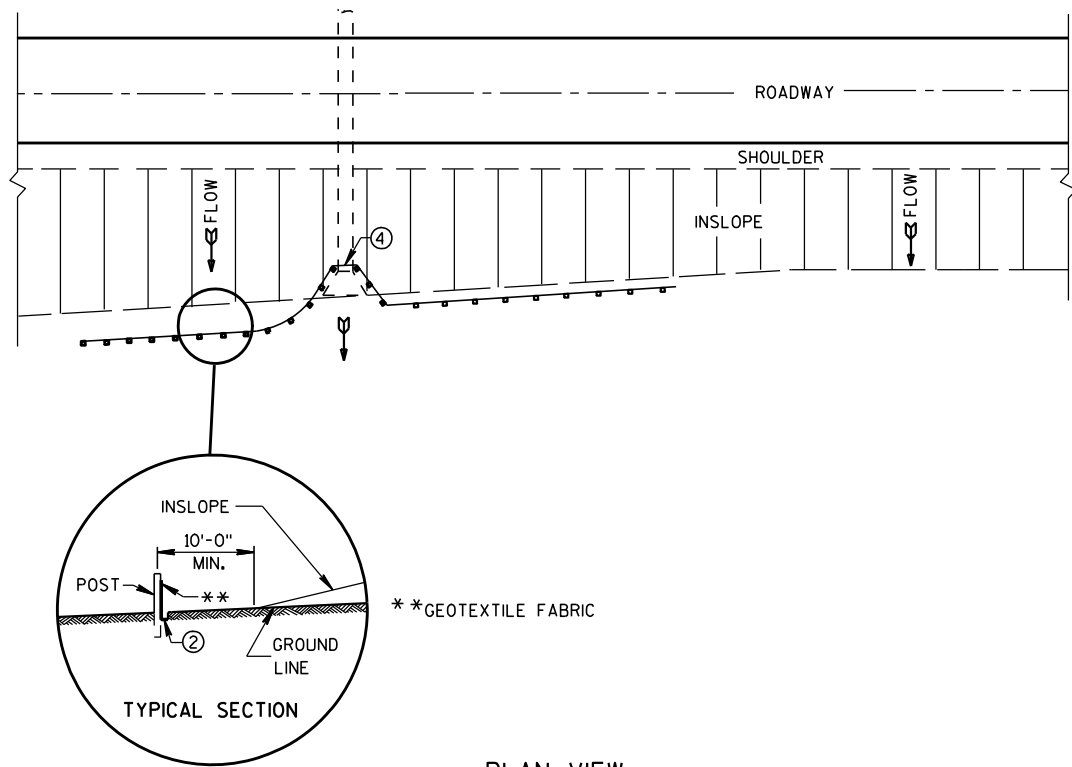


STA. 40+07  
 REMOVING STRUCTURE OVER WATERWAY  
 REMOVE DEBRIS STRUCTURE P-71-0914  
 SINGLE-SPAN STEEL PONY TRUSS BRIDGE  
 15.9' CLEAR ROADWAY x 43.0' O.A.L.  
 0° SKEW

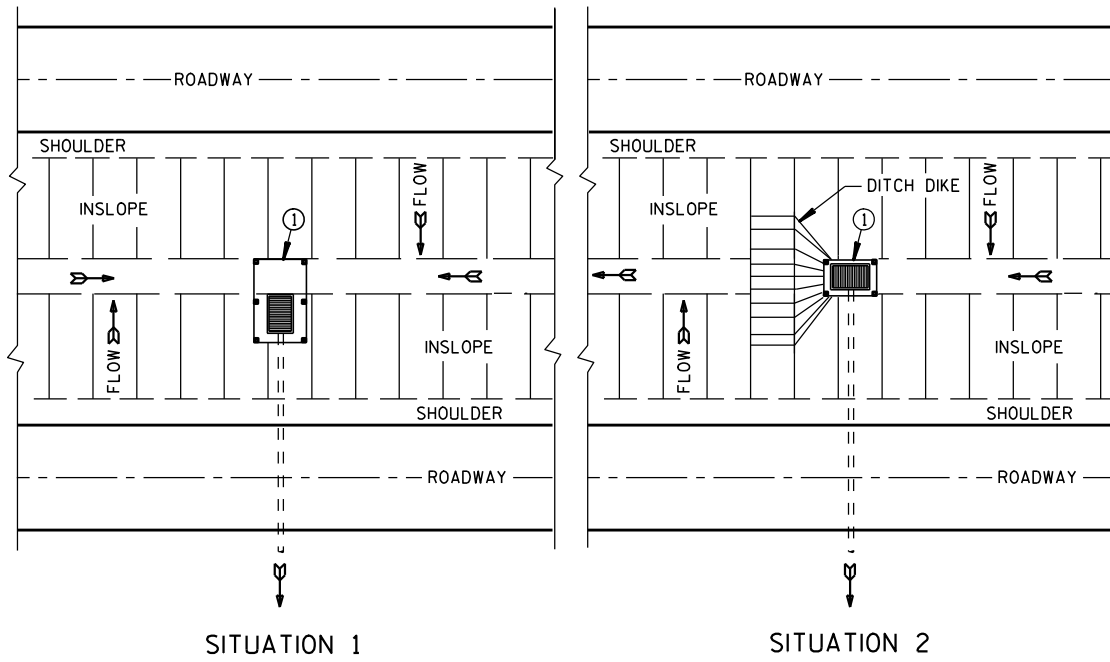
STA. 40+00  
 STRUCTURE B-71-0204 REQ'D.  
 SINGLE-SPAN CONCRETE FLAT SLAB BRIDGE  
 24'-0" CLEAR ROADWAY x 50'-6" O.A.L.  
 0° SKEW

## Standard Detail Drawing List

08E09-06	SILT FENCE
08E11-02	TURBIDITY BARRIER
12A03-10	NAME PLATE (STRUCTURES)
15C02-08A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-08B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C06-10	SIGNING & MARKING FOR TWO LANE BRIDGES
15C11-09B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS



PLAN VIEW  
TYPICAL APPLICATION OF SILT FENCE

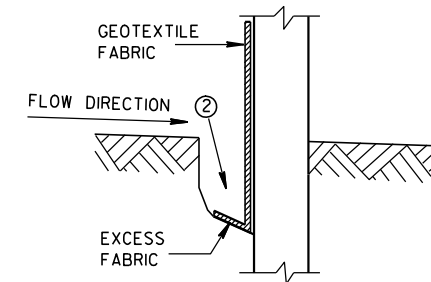


SITUATION 1 SITUATION 2  
PLAN VIEW  
SILT FENCE AT MEDIAN SURFACE DRAINS

**GENERAL NOTES**

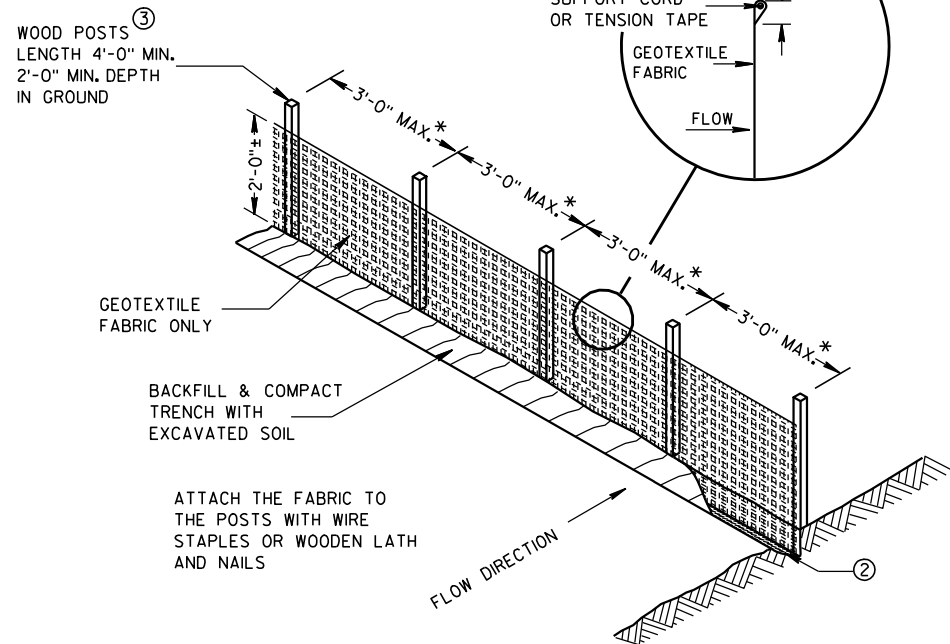
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

- ① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
- ② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
- ③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1 1/8" X 1 1/8" OF OAK OR HICKORY.
- ④ SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
- ⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



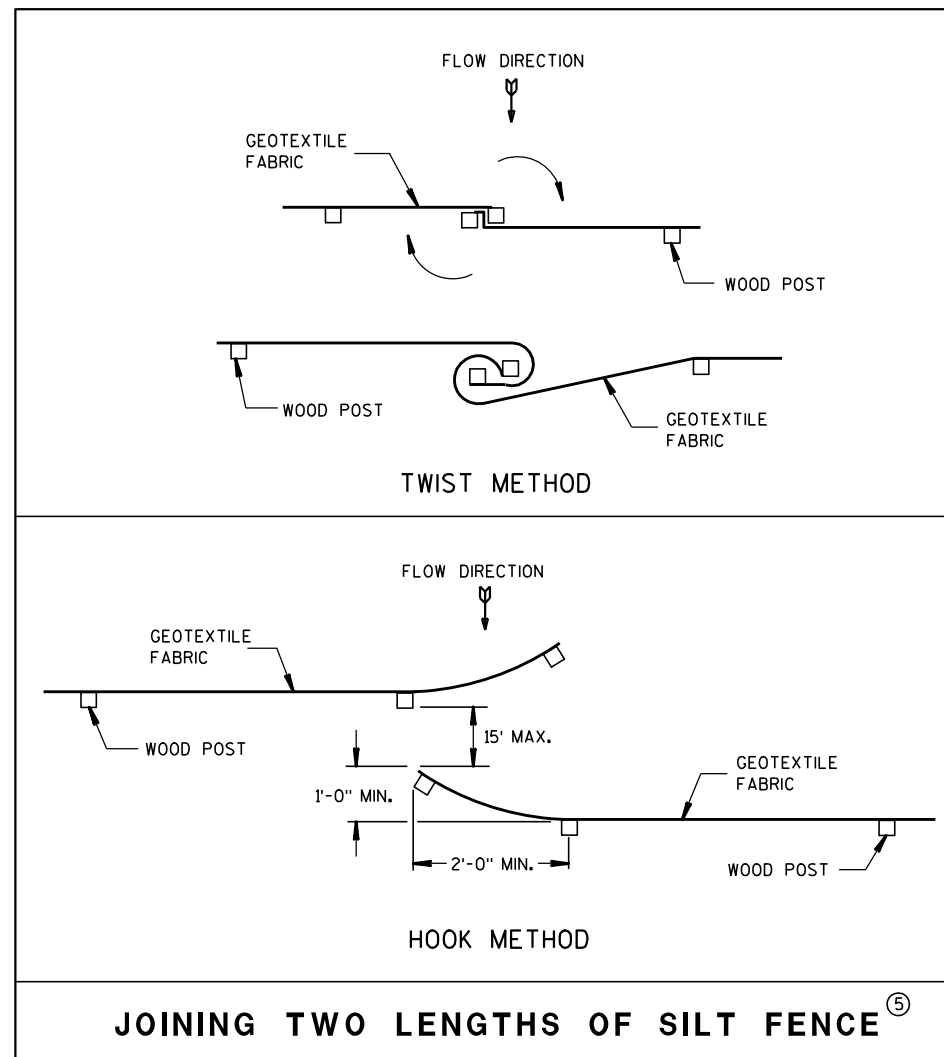
TRENCH DETAIL

NOTE: ADDITIONAL POST DEPTH OR TIE BACKS MAY BE REQUIRED IN UNSTABLE SOILS

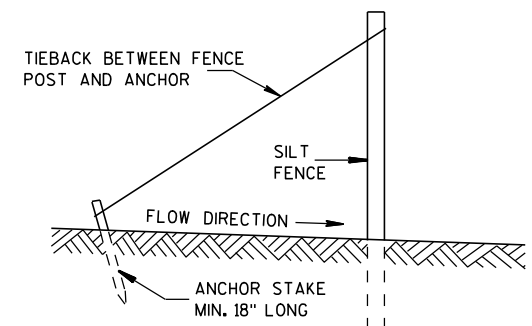


SILT FENCE

\* NOTE: 8'-0" POST SPACING ALLOWED IF A WOVEN GEOTEXTILE FABRIC IS USED.



JOINING TWO LENGTHS OF SILT FENCE ⑤

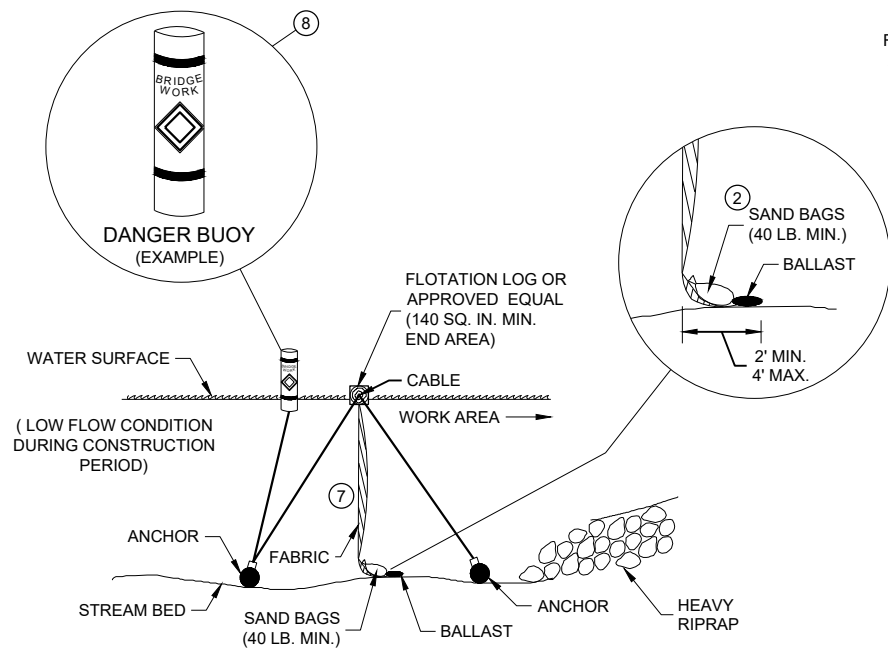


SILT FENCE TIE BACK  
(WHEN REQUIRED BY THE ENGINEER)

**SILT FENCE**

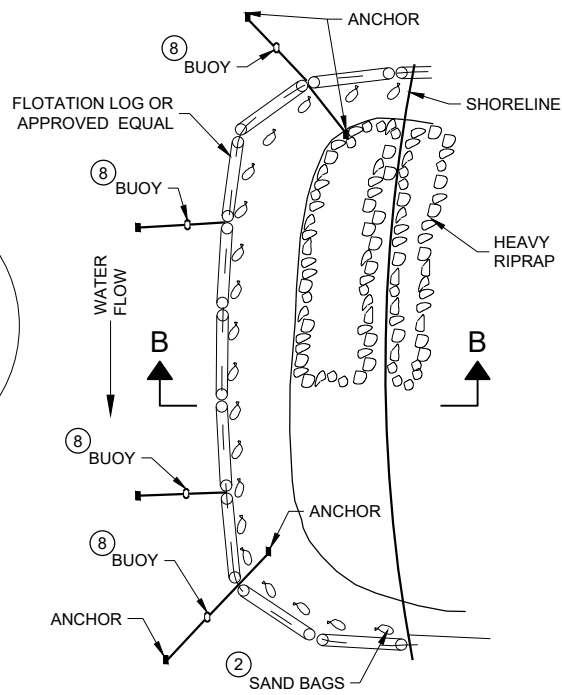
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
4-29-05 /S/ Beth Canestra  
DATE CHIEF ROADWAY DEVELOPMENT ENGINEER  
FHWA

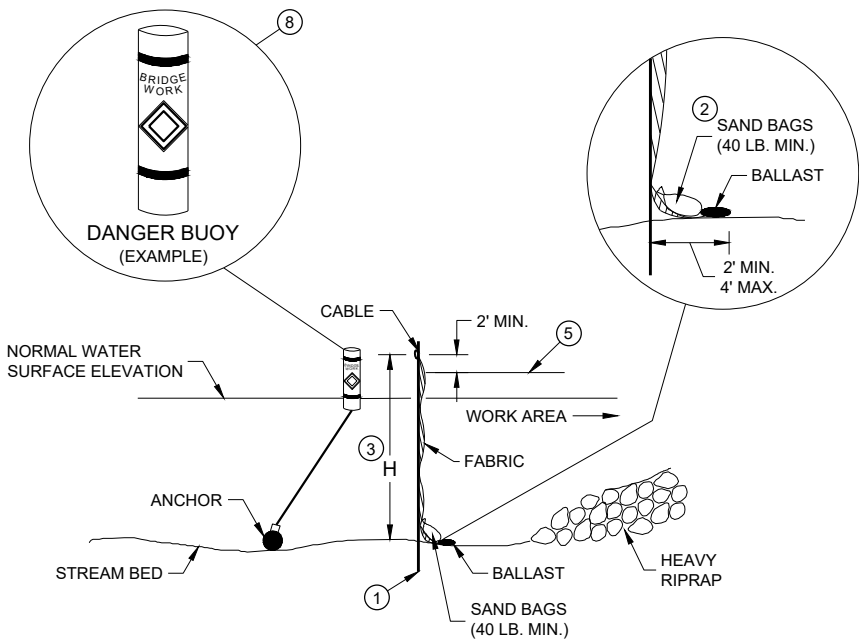


**SECTION B - B**

**TURBIDITY BARRIER - FLOAT ALTERNATIVE  
CAUTION - SEE NOTE 6**

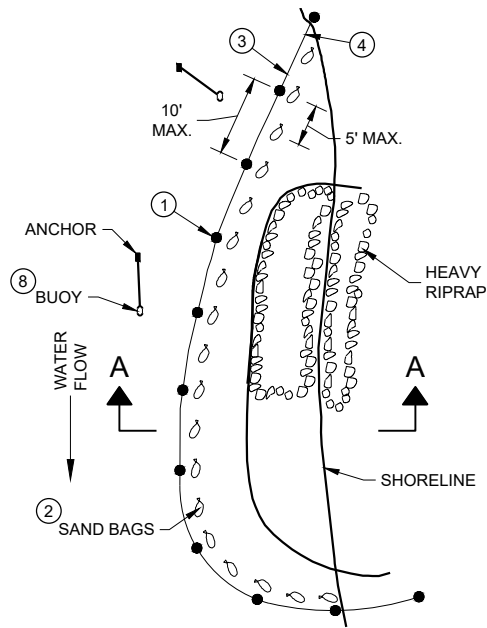


**PLAN VIEW**



**SECTION A - A**

**TURBIDITY BARRIER - STANDARD POST INSTALLATION**



**PLAN VIEW**

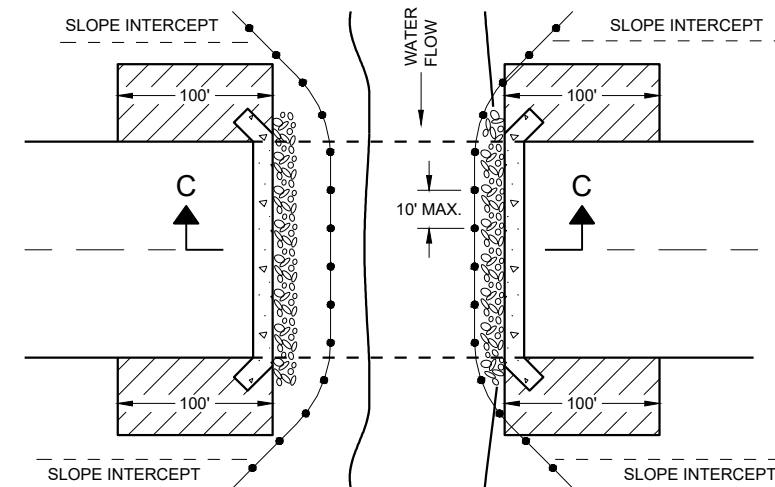
**TURBIDITY BARRIER PLACEMENT DETAILS**

**GENERAL NOTES**

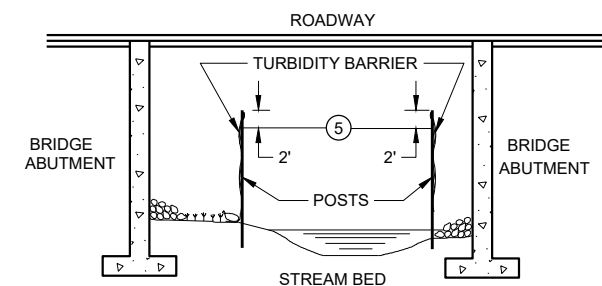
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

TURBIDITY BARRIER MAY BE REMOVED AT THE ENGINEERS DISCRETION, WHEN PERMANENT EROSION CONTROL MEASURES HAVE BEEN ESTABLISHED.

- ① DRIVEN STEEL POSTS, PIPES, OR CHANNELS. LENGTH SHALL BE SUFFICIENT TO SECURELY SUPPORT BARRIER AT HIGH WATER ELEVATIONS.
- ② SAND BAGS TO BE USED AS ADDITIONAL BALLAST WHEN ORDERED BY THE ENGINEER TO MEET ADVERSE FIELD CONDITIONS. SPACE AS APPROPRIATE FOR SITE CONDITIONS.
- ③ WHEN BARRIER HEIGHT "H" EXCEEDS 8 FEET, POST SPACING MAY NEED TO BE DECREASED.
- ④ IN WATERWAYS SUBJECT TO FLUCTUATING WATER ELEVATIONS, PROVISIONS SHOULD BE MADE TO ALLOW THE WATER TO EQUALIZE ON EACH SIDE OF THE BARRIER. THIS MAY BE ACCOMPLISHED BY LEAVING A PORTION OF THE BARRIER OPEN ON THE UPSTREAM END.
- ⑤ ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION PERIOD. MINIMUM BARRIER HEIGHT SHALL BE 2' GREATER THAN EITHER THE Q2 ELEVATION OR THE ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION, WHICHEVER IS GREATER.
- ⑥ FLOAT ALTERNATIVE WILL ONLY BE ALLOWED WITH WRITTEN APPROVAL OF THE ENGINEER, AND IS MEANT FOR LOCATIONS WHERE BEDROCK PREVENTS THE INSTALLATION OF POSTS.
- ⑦ ALLOW SUFFICIENT SLACK VERTICALLY AND HORIZONTALLY SO THAT SEDIMENT BUILD UP WILL NOT SEPARATE OR LOWER THE TURBIDITY BARRIER.
- ⑧ USE AS DIRECTED BY COAST GUARD OR DNR PERMIT WHEN WORKING IN NAVIGABLE WATERWAYS.



**PLAN VIEW**



**SECTION C - C**

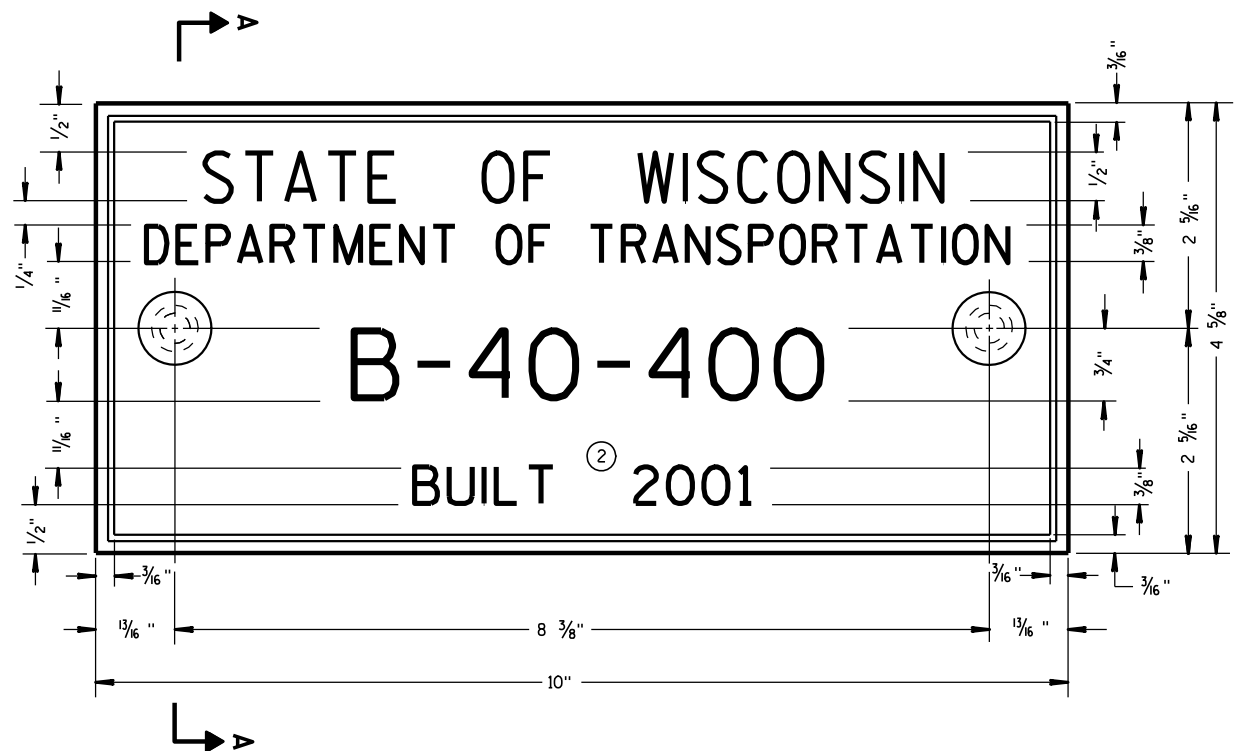
**TURBIDITY BARRIER DETAIL SHOWING  
TYPICAL PLACEMENT AT STRUCTURES**

**TURBIDITY BARRIER**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
6/4/02 DATE /S/ Beth Cannestra  
DATE CHIEF ROADWAY DEVELOPMENT  
ENGINEER

FHWA



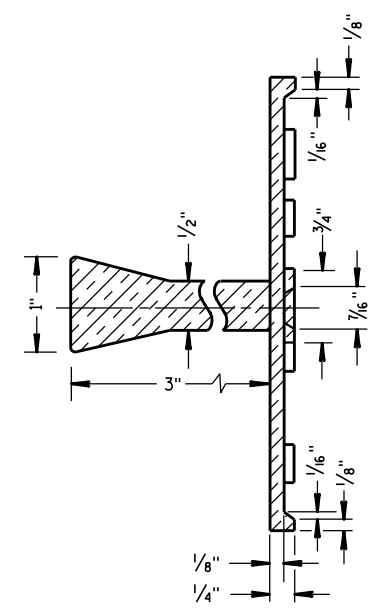
**TYPICAL NAME PLATE**  
(BRIDGES, CULVERTS, AND RETAINING WALLS)

**GENERAL NOTES**

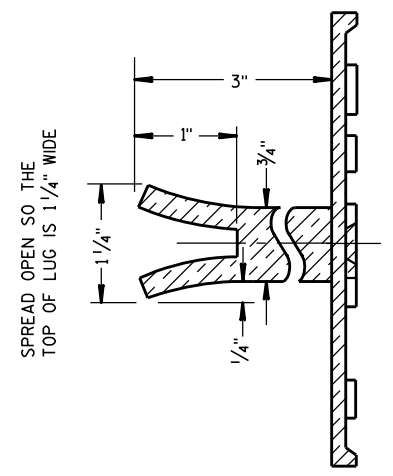
NAME PLATES TO BE INSTALLED ON BRIDGES, CULVERTS, AND RETAINING WALLS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS.

THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

- ① EPOXY RESIN SHALL BE FROM AN APPROVED MANUFACTURER AND USED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- ② REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



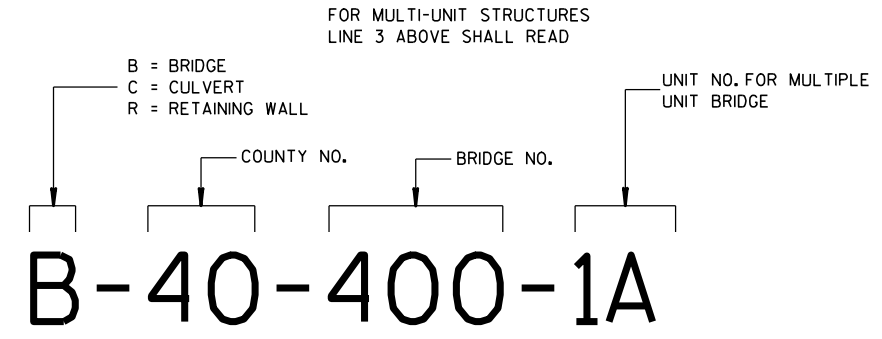
**SECTION A-A**



**ALTERNATE LUG**

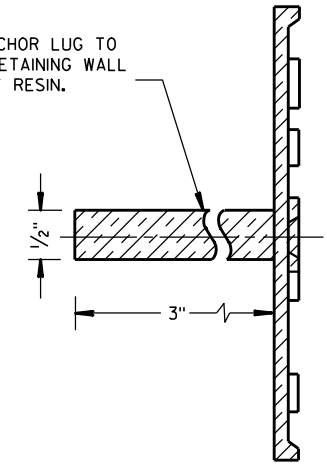
6

6



**NUMBERING DESIGNATION  
MULTI-UNIT STRUCTURES**

- ① ADHERE ANCHOR LUG TO PRECAST RETAINING WALL WITH EPOXY RESIN.



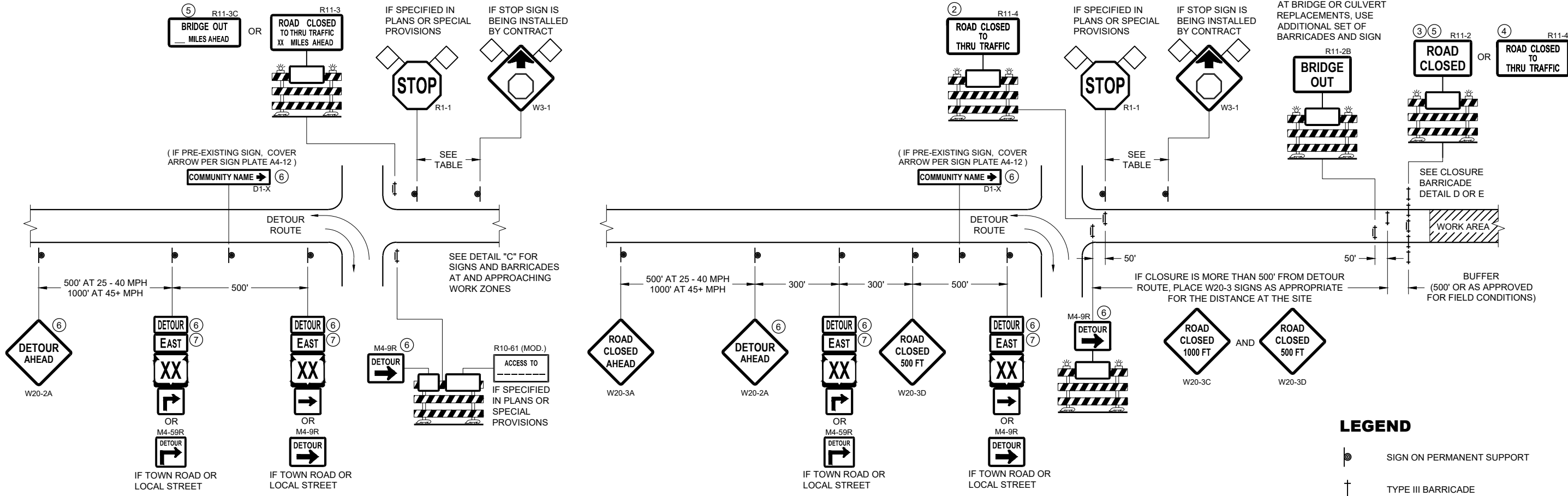
**ALTERNATE LUG**  
(FOR ATTACHMENT TO PRECAST STRUCTURES)

<b>NAME PLATE (STRUCTURES)</b>	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED DATE 3/26/10	/S/ Scot Becker CHIEF STRUCTURAL DEVELOPMENT ENGINEER
FHWA	

S.D.D. 12 A 3-10

S.D.D. 12 A 3-10





**DETAIL A  
MAINLINE CLOSURE WITH POSTED DETOUR**

WORK ZONE GREATER THAN OR EQUAL TO 1/2 MILE FROM  
DETOUR ROUTE ( 1000 FEET IF URBAN )

**DETAIL B  
MAINLINE CLOSURE WITH POSTED DETOUR**

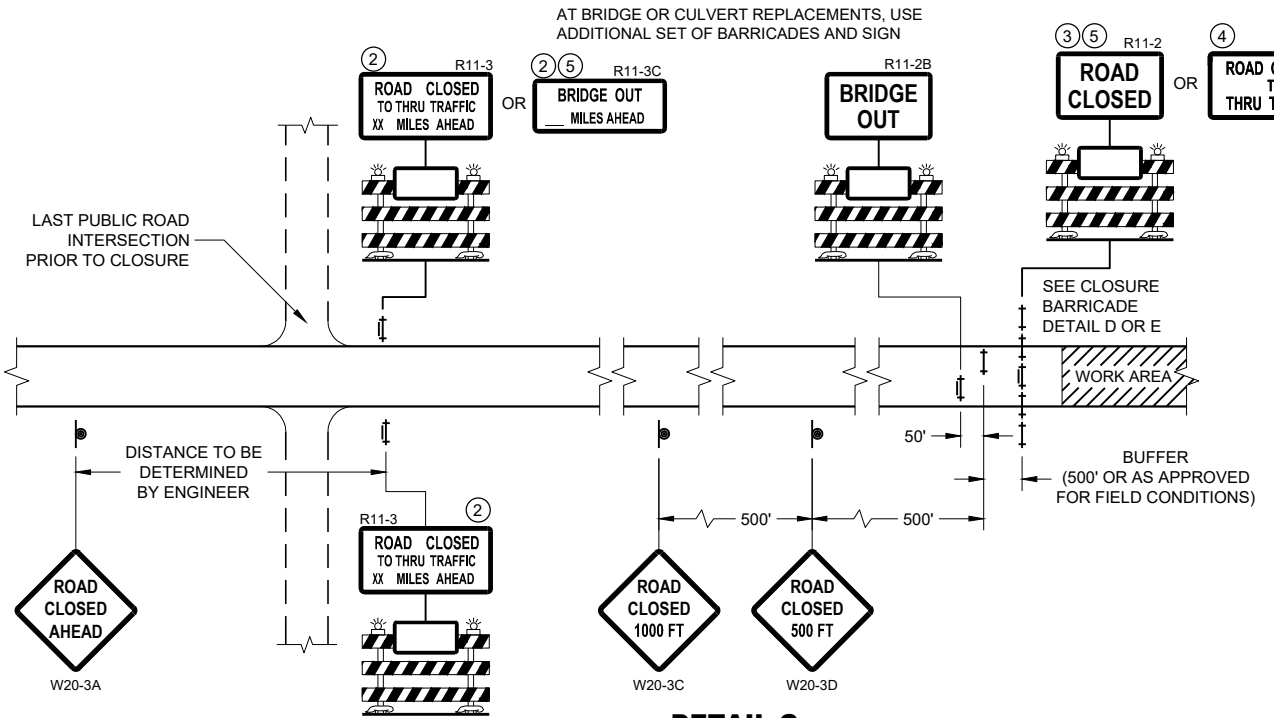
WORK ZONE LESS THAN 1/2 MILE FROM  
DETOUR ROUTE ( 1000 FEET IF URBAN )

**LEGEND**

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- FLAGS, 16" X 16" MIN. (ORANGE)

SPEED LIMIT (MPH)	"STOP AHEAD" ADVANCE WARNING DISTANCE (FT)
25	200
30	200
35	350
40	350
45	500
50	550
55	750

- M4 - 8
- M3 - X
- M1 - 4 OR M1 - 6 OR M1 - 5A
- M05 - 1 OR M06 - 1



**DETAIL C  
MAINLINE CLOSURE, NO POSTED DETOUR**

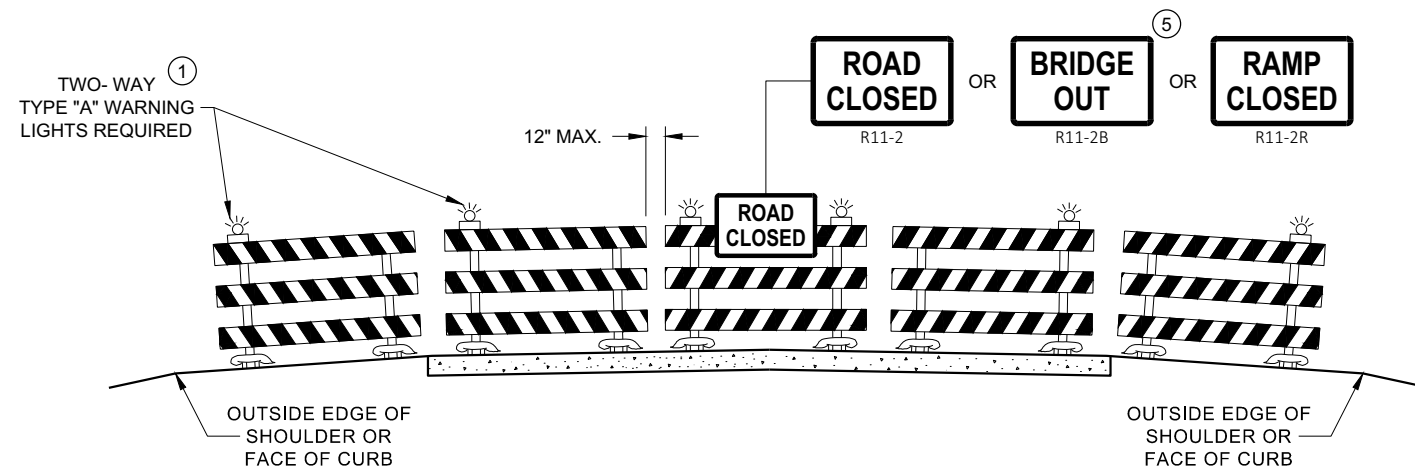
SEE SDD 15C2-SHEET "b"  
FOR GENERAL NOTES  
AND FOOTNOTES ① THROUGH ⑦

**BARRICADES AND SIGNS  
FOR MAINLINE CLOSURES**

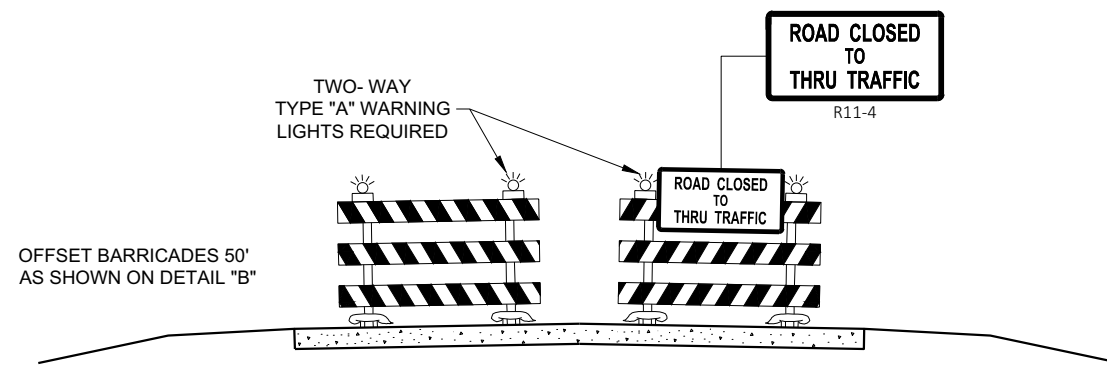
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
February 2020 /S/ Andrew Heidtke  
DATE DATE WORK ZONE ENGINEER

FHWA



**DETAIL D  
ROAD CLOSURE BARRICADE DETAIL  
APPROACH VIEW**



**DETAIL E  
LANE CLOSURE BARRICADE DETAIL  
APPROACH VIEW**

SEE SDD 15C2 - SHEET "a" FOR LEGEND

**GENERAL NOTES**

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND BARRICADES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE", SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

BARRICADES THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL "D" FOR FULL ROAD CLOSURES.

TYPE "A" LOW - INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11 - 2, R11 - 3, M4 - 9, R11 - 4, AND R10 - 61 SIGNS PLACED ON THE BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE RAIL OR BOTTOM RAILS.

"WO" AND "MO" SIGNS ARE THE SAME AS "W" AND "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:

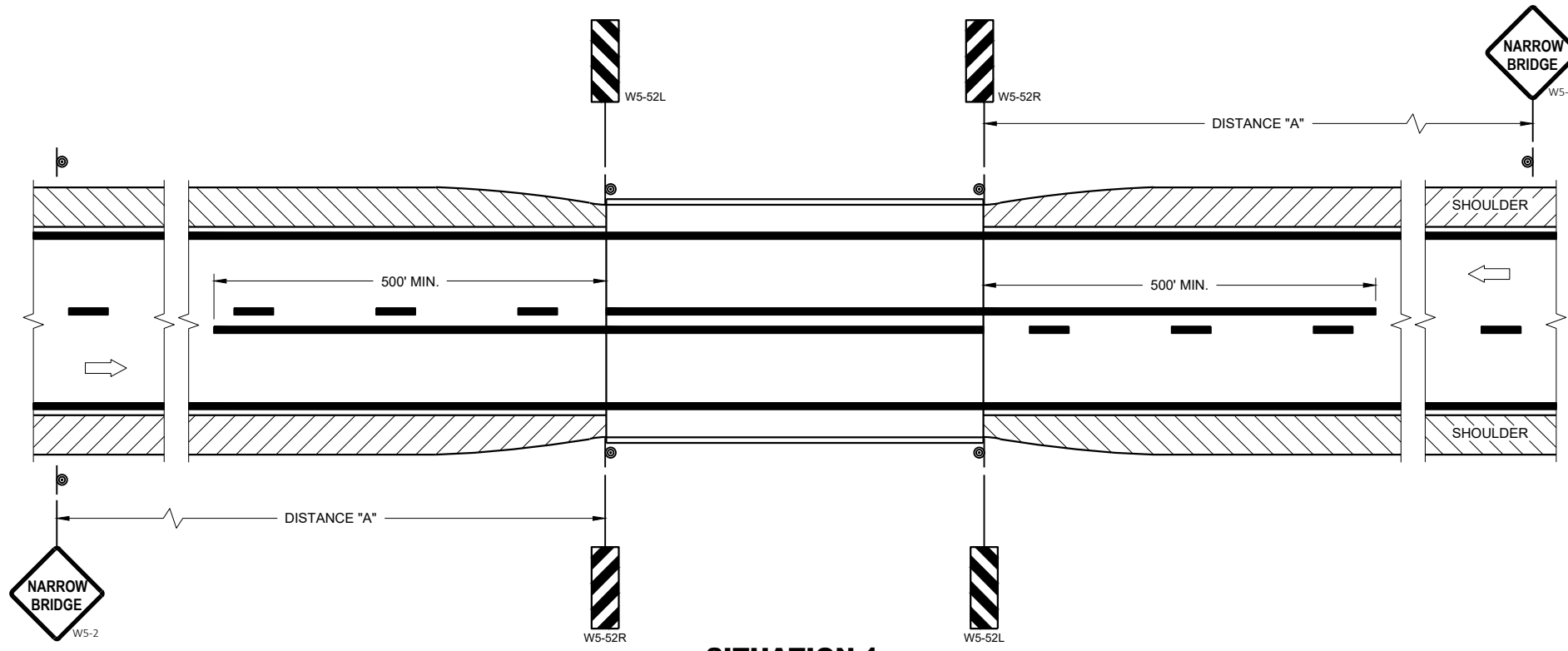
- R11 - 2 SHALL BE 48" X 30"
- R11 - 3 SHALL, R11 - 4 AND R10 - 61 SHALL BE 60" X 30"
- M4 - 9 SHALL BE 30" X 24"
- M3 - X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4 - 8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1 - 4, M1 - 5A AND M1 - 6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
- MO5 - 1 AND MO6 - 1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
- D1 - X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1 - 1 SHALL BE 36" X 36"

- ① TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8 FOOT LIGHT SPACING).
- ② THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT AN INTERSECTION.
- ③ FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "D".
- ④ FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "E".
- ⑤ FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11 - 2 AND R11 - 3 SIGNS.
- ⑥ INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.
- ⑦ "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

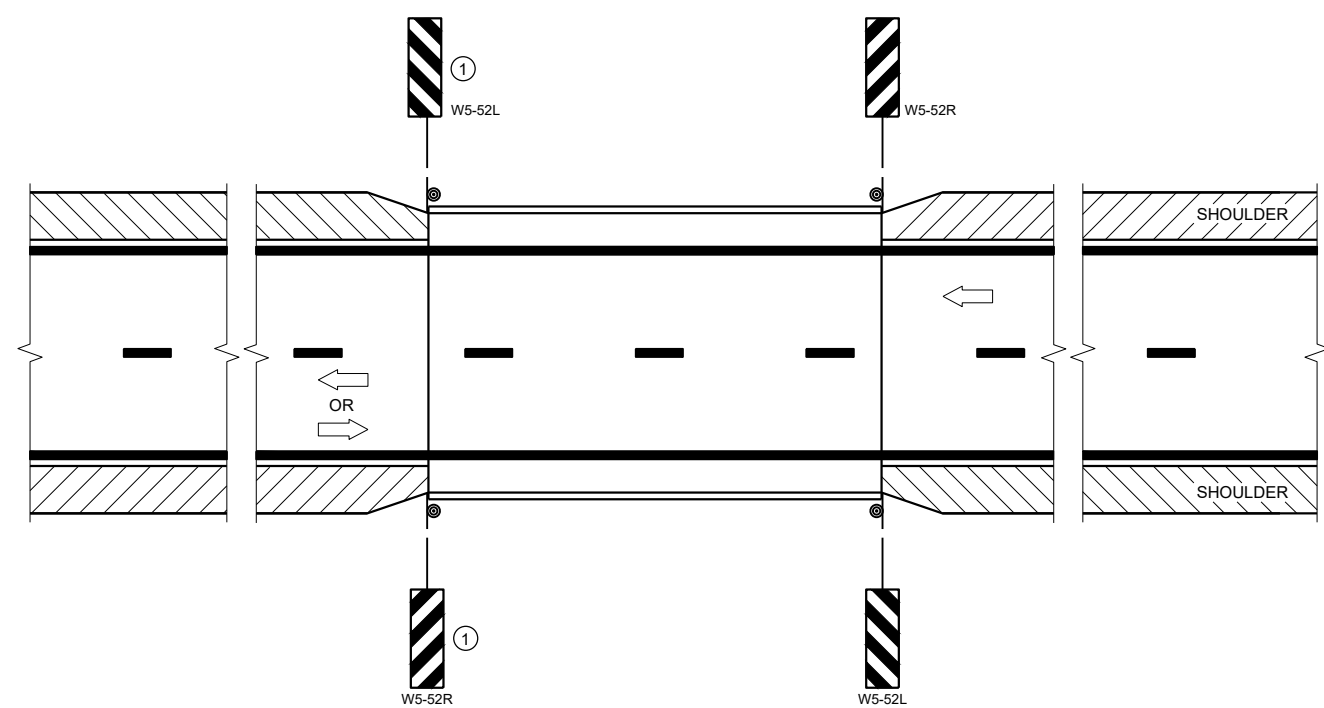
**BARRICADES AND SIGNS  
FOR  
VARIOUS CLOSURES**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
February 2020 /S/ Andrew Heidtke  
DATE WORK ZONE ENGINEER



**SITUATION 1**  
 WARRANTING CRITERIA:  
 BRIDGE WIDTH IS AT LEAST 16 FEET BUT LESS THAN 24 FEET.



**SITUATION 2**  
 WARRANTING CRITERIA:  
 1. BRIDGE WIDTH IS AT LEAST 24 FEET AND  
 2. BRIDGE SHOULDER WIDTH IS LESS THAN 6 FEET

**GENERAL NOTES**

DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THE DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

LOCATE W5-52 SIGN POST(S) BEHIND GUARDRAIL WHEN PRESENT.

PLACE THE EDGE OF THE W5-52 SIGN IN LINE WITH FACE OF CURB OR PARAPET.

ON BRIDGE ONLY PROJECTS, PLACE 300 FEET OF EDGELINE.

OMIT EDGELINES ON ROADWAYS WITHOUT EXISTING EDGELINES.

① OMIT ON ONE-WAY TRAVELED WAYS.

**LEGEND**

- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC

**DISTANCE TABLE**

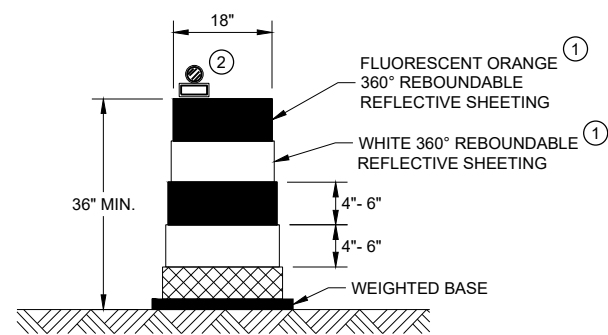
POSTED OR 85TH PERCENTILE SPEED	DISTANCE "A"
25	150'
30	200'
35	250'
40	300'
45	400'
50	550'
55	700'

**SIGNING AND MARKING FOR TWO LANE BRIDGES**

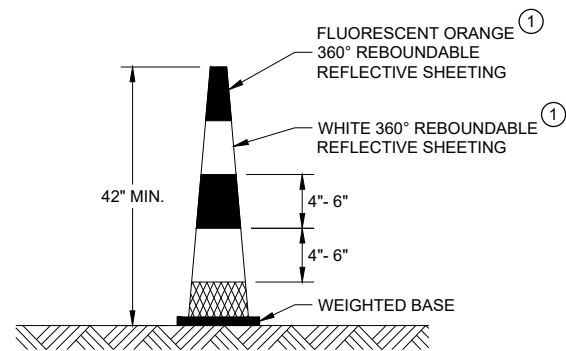
STATE OF WISCONSIN  
 DEPARTMENT OF TRANSPORTATION

APPROVED  
 May 2022 /S/ Jeannie Silver  
 DATE STATE SIGNING AND MARKING ENGINEER

FHWA

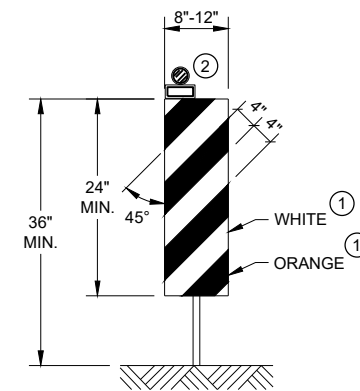


**DRUM**



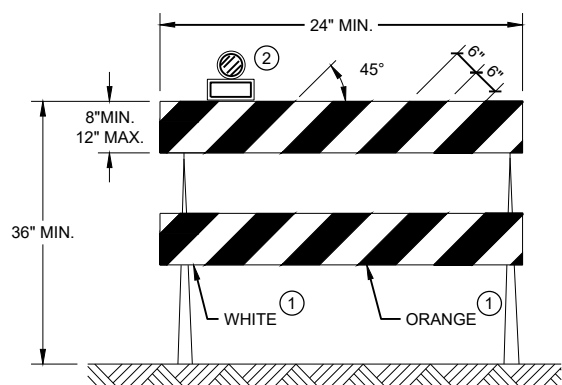
**42" CONE**

DO NOT USE IN TAPERS  
½ SPACING OF DRUMS



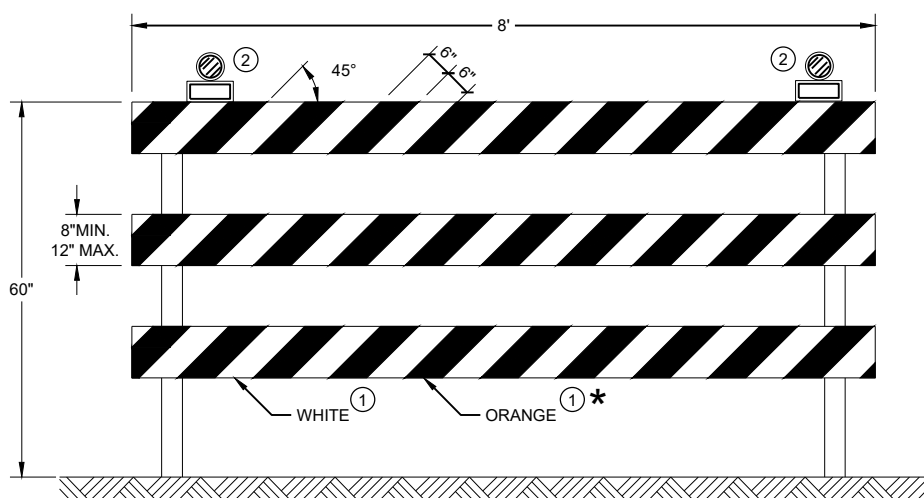
**VERTICAL PANEL**

THE STRIPES SHALL SLOPE DOWNWARD TO THE TRAFFIC SIDE FOR CHANNELIZATION.



**TYPE II BARRICADE**

FOR RAILS LESS THAN 36" LONG, 4" WIDE STRIPES MAY BE USED. ALL STRIPES SHALL SLOPE DOWNWARD TO THE TRAFFIC SIDE FOR CHANNELIZATION.



**TYPE III BARRICADE**

IF SIGN MOUNTED, DO NOT COVER MORE THAN 50% OF THE TOP TWO RAILS OR 33% OF THE TOTAL AREA OF THE THREE RAILS.

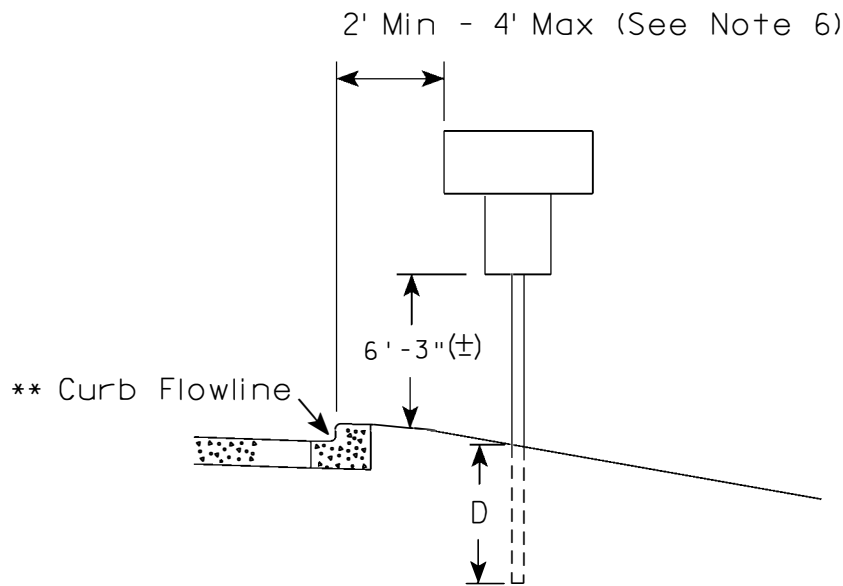
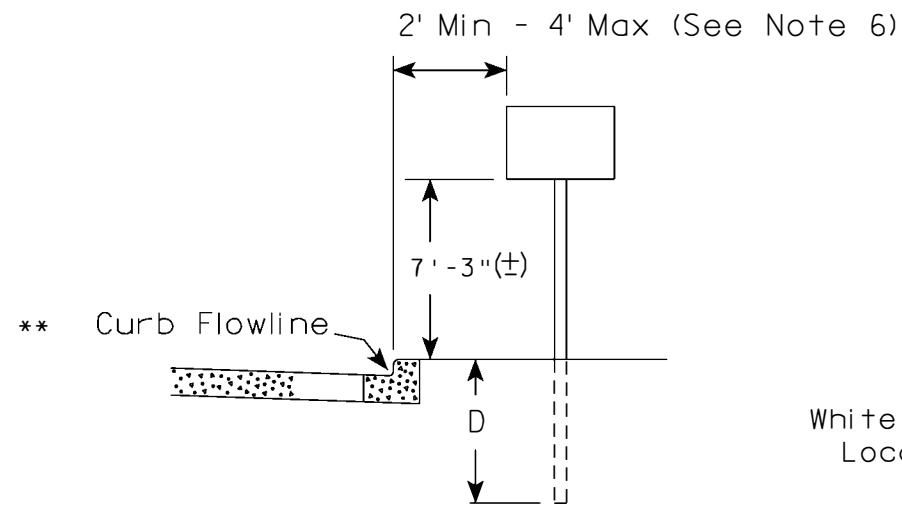
\* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

**GENERAL NOTES**

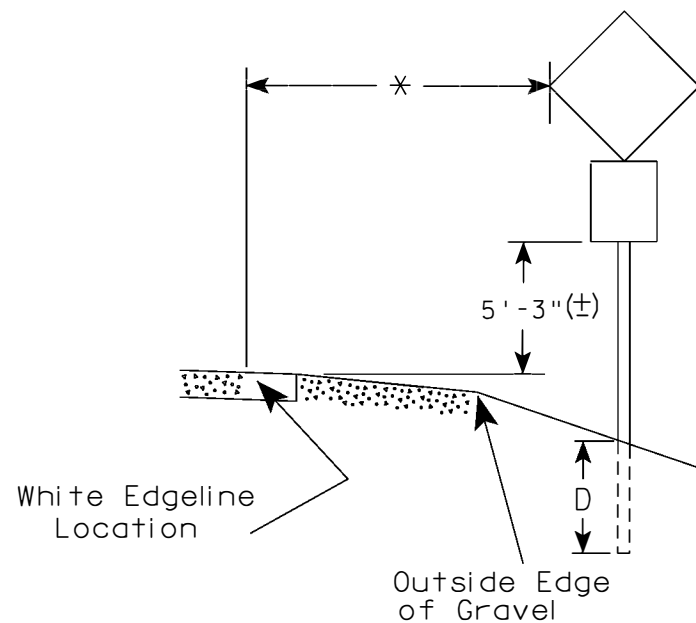
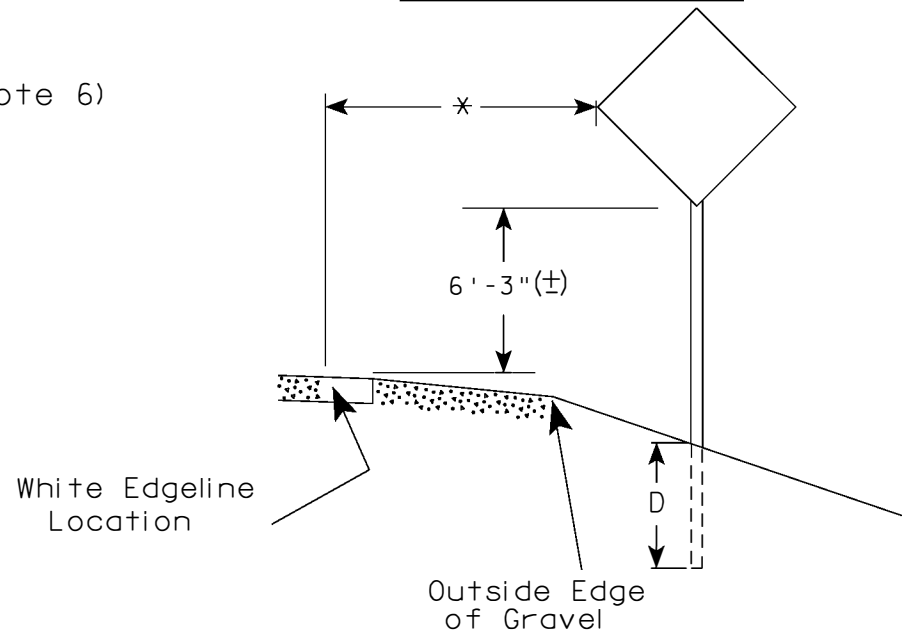
- ① REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
- ② LOCATION OF WARNING LIGHTS WHEN SHOWN ON THE PLAN.

<b>CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS</b>	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2021 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
<small>FHWA</small>	

URBAN AREA



RURAL AREA (See Note 2)



GENERAL NOTES

1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on or behind barrier wall, see A4-10 sign plate.  
The Double Arrow sign (W12-1D) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
5. Offset distance shall be consistent with existing signs or consistent throughout length of project.
6. The (±) tolerance for mounting height is 3 inches.
7. Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the Engineer.

POST EMBEDMENT DEPTH

Area of Sign Installation ( Sq. Ft. )	D ( Min )
20 or Less	4'
Greater than 20	5'

\* \* The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

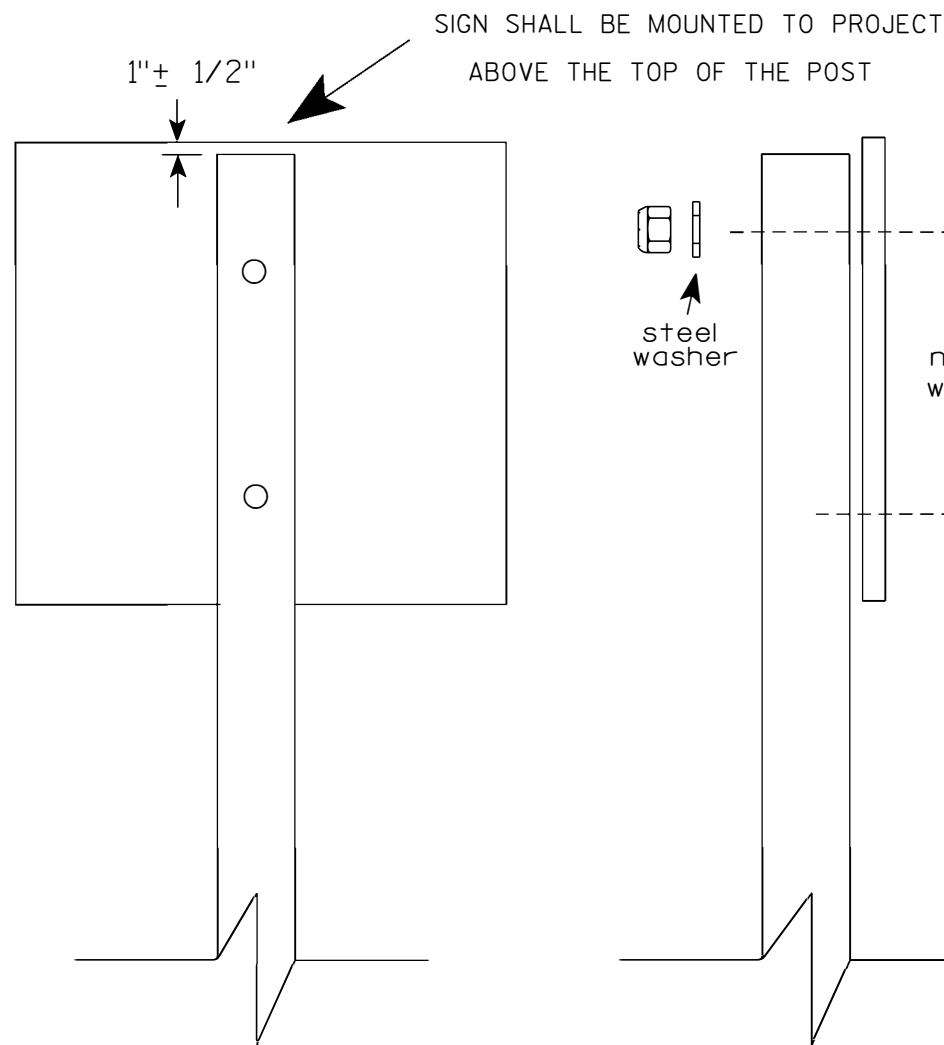
\* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Raush*  
for State Traffic Engineer

DATE 5/13/2020 PLATE NO. A4-3.22



Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

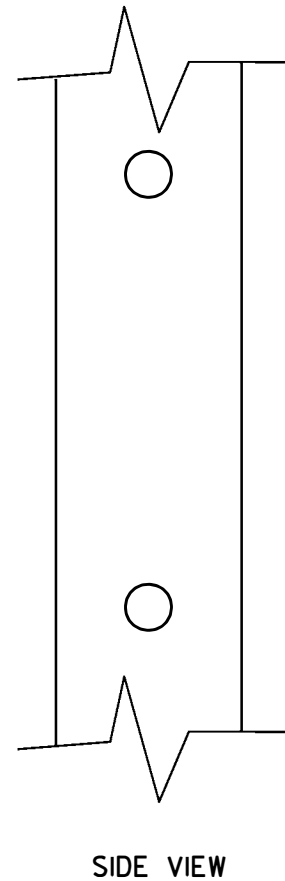
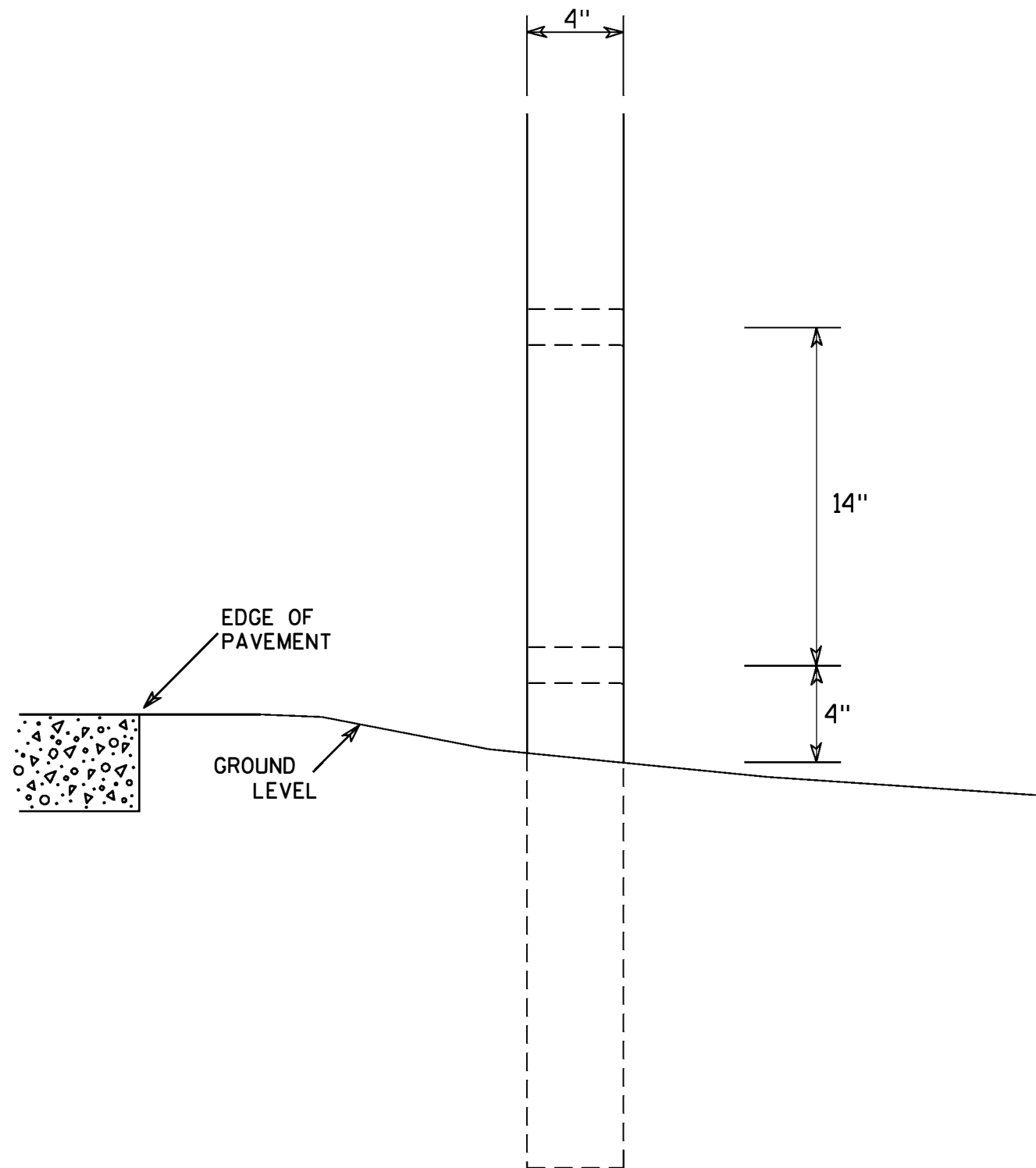
- Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3
- Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

- STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)
- MACHINE BOLTS -  $\frac{5}{16}$ " X 1-3/4" Length w/ lock nuts
- WOOD POSTS (4" x 6")
- LAG SCREWS -  $\frac{3}{8}$ " X 3" (NO STRINGERS ON BACK OF SIGN)
  - $\frac{3}{8}$ " X 4" (STRINGERS ON BACK OF SIGN)
- SQUARE STEEL POSTS (2" x 2")
- MACHINE BOLTS -  $\frac{3}{8}$ " X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
  - $\frac{3}{8}$ " X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)
- RIVETS -  $\frac{9}{32}$ " (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
- O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH
- WASHERS (ALL POSTS) -
- 1-1/4" O.D. X  $\frac{3}{8}$ " I.D. X  $\frac{1}{16}$ " STEEL
  - 1-1/4" O.D. X  $\frac{3}{8}$ " I.D. X .080 NYLON

\* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require the use of 3 fasteners.

ATTACHMENT OF SIGNS TO POSTS	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R Rauch</i> For State Traffic Engineer
DATE <u>4/1/2020</u>	PLATE NO. <u>A4-8.9</u>



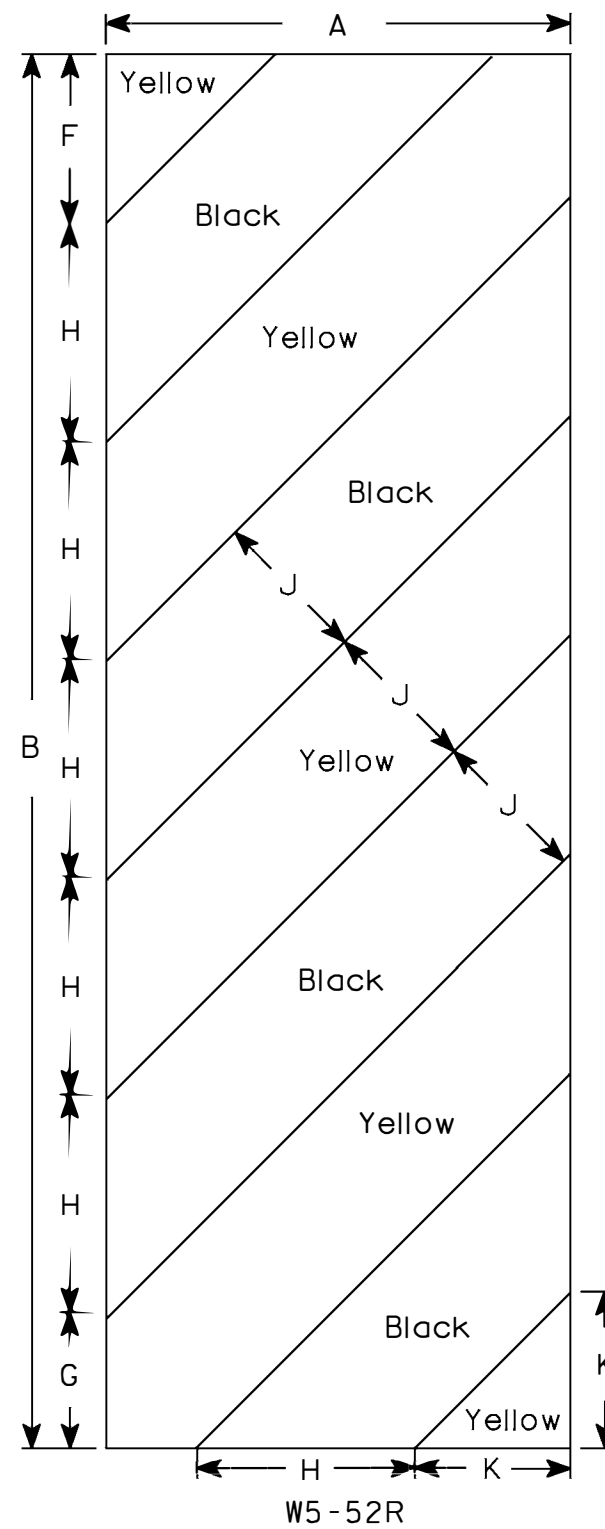
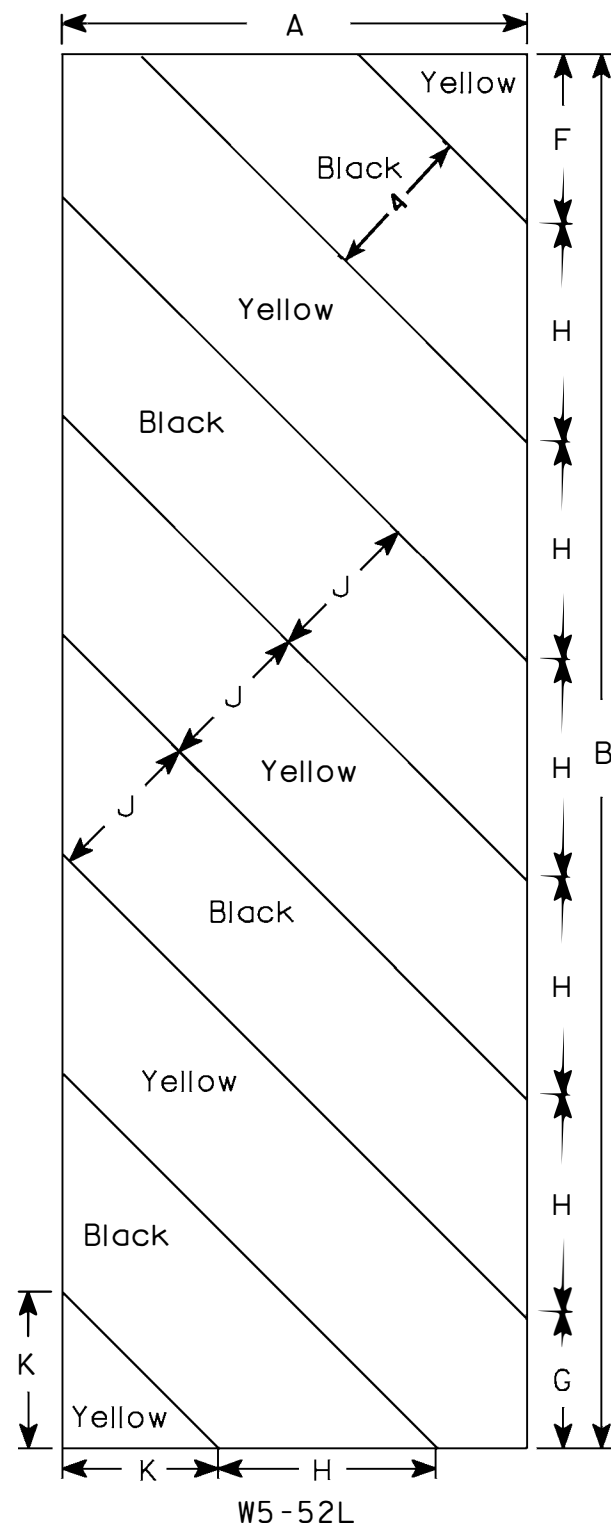
GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1½" diameter holes drilled perpendicular to the roadway centerline.

7

7

<b>4 X 6 WOOD POST MODIFICATIONS</b>	
<i>WISCONSIN DEPT OF TRANSPORTATION</i>	
APPROVED	<i>Chester J Spang</i> for State Traffic Engineer
DATE <u>3/27/97</u>	PLATE NO. <u>A4-11.2</u>



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:  
Background - Yellow  
Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Alternate colors of stripes as shown.

7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	12	36				4 3/8	3 1/2	5 5/8	45°	4	4																3.0
2M	12	36				4 3/8	3 1/2	5 5/8	45°	4	4																3.0
3	18	54				6	5 1/2	8 1/2	45°	6	6 5/16																6.75
4																											
5																											

STANDARD SIGN  
W5-52L & W5-52R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 5/29/12 PLATE NO. W5-52.9



**DESIGN DATA**

**LIVE LOAD:**

DESIGN LOADING: HL-93  
 INVENTORY RATING FACTOR: RF = 1.11  
 OPERATING RATING FACTOR: RF = 1.44  
 WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV): 250 (KIPS)

STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20 POUNDS PER SQUARE FOOT.

**MATERIAL PROPERTIES:**

CONCRETE MASONRY: \_\_\_\_\_ f<sub>c</sub> = 4,000 P.S.I.  
 SUPERSTRUCTURE \_\_\_\_\_ f<sub>c</sub> = 3,500 P.S.I.  
 ALL OTHER \_\_\_\_\_  
 BAR STEEL REINFORCEMENT: \_\_\_\_\_ fy = 60,000 P.S.I.  
 GRADE 60 \_\_\_\_\_

**FOUNDATION DATA**

SOUTH ABUTMENT TO BE SUPPORTED ON HP 10 x 42 PILING (WITH PILE POINTS) DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 180 TONS ++ PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED 15'-0" LONG.

++ THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A RESISTANCE FACTOR OF 0.5 USING MODIFIED GATES TO DETERMINE DRIVEN PILE CAPACITY.

NORTH ABUTMENT TO BE SUPPORTED ON HP10x42 PILING SEATED IN PRE-BORED HOLES CORED 3 FEET MINIMUM INTO ROCK. PILE DRIVING IS NOT REQUIRED. THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS 180 TONS MULTIPLIED BY A RESISTANCE FACTOR OF 0.5. ESTIMATED 10'-0" LONG.

**TRAFFIC VOLUME**

**Lynn Line Road**  
 ADT = <100 (2043)  
 R.D.S. = 20 M.P.H.

**HYDRAULIC DATA**

**100 YEAR FREQUENCY**  
 Q<sub>100</sub> = 2,500 C.F.S. {STRUCTURE 1,438 C.F.S.  
 (OVERFLOW 1,062 C.F.S.)

VEL<sub>100</sub> = 5.2 F.P.S.  
 HW<sub>100</sub> = EL. 1096.72  
 WATERWAY AREA = 285 SQ. FT.  
 DRAINAGE AREA = 8.2 SQ. MI.  
 SCOUR CRITICAL CODE = 5

**2 YEAR FREQUENCY**

Q<sub>2</sub> = 523 C.F.S.  
 VEL<sub>2</sub> = 2.3 F.P.S.  
 HW<sub>2</sub> = EL. 1093.72

**LIST OF DRAWINGS**

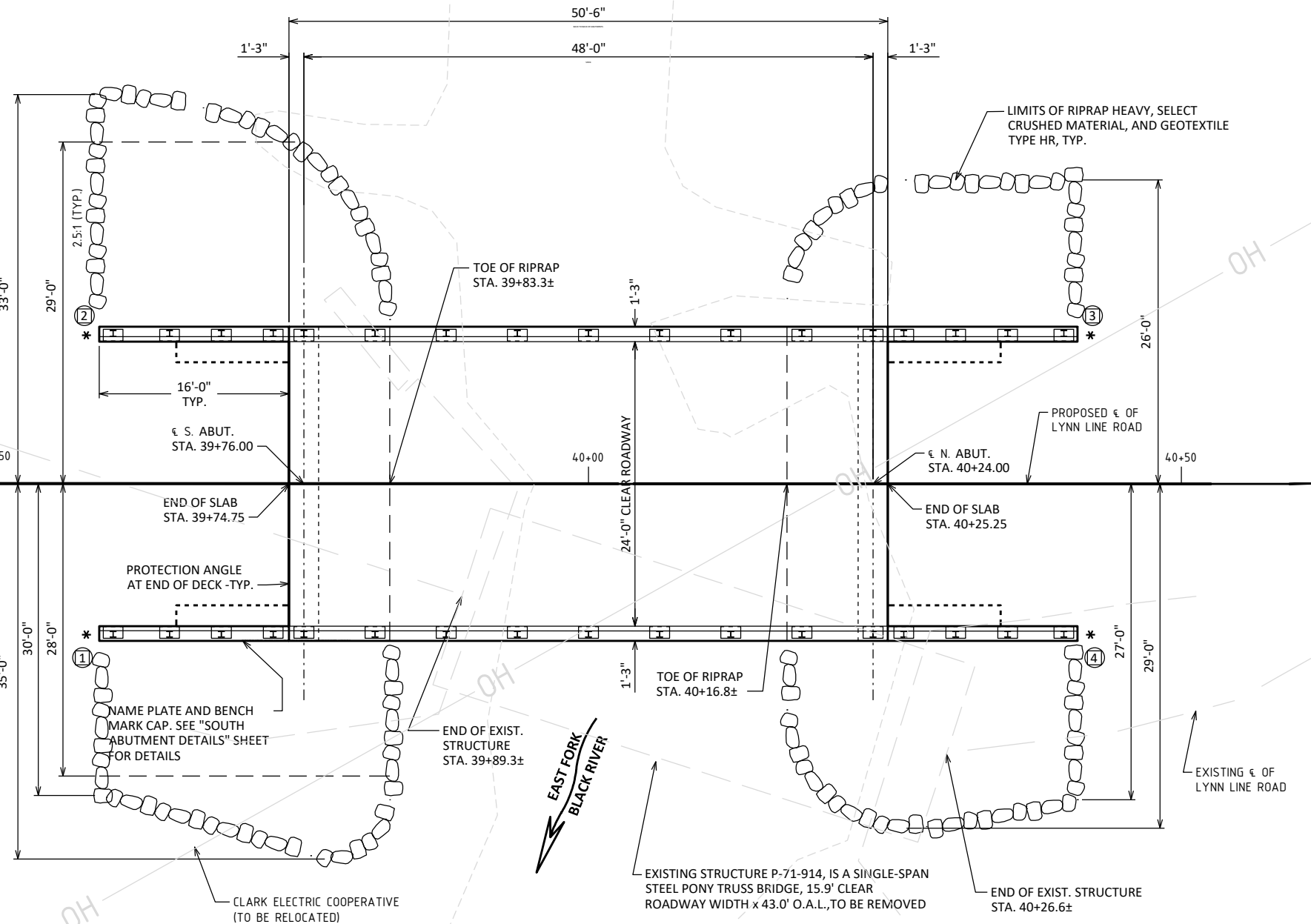
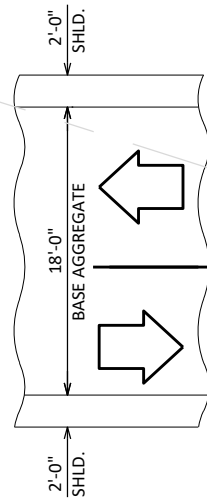
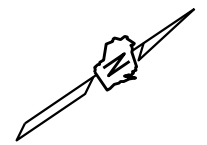
1. GENERAL PLAN
2. CROSS SECTION & QUANTITIES
3. SUBSURFACE EXPLORATION
4. SOUTH ABUTMENT
5. SOUTH ABUTMENT DETAILS
6. NORTH ABUTMENT
7. NORTH ABUTMENT DETAILS
8. SUPERSTRUCTURE
9. SUPERSTRUCTURE DETAILS
10. TUBULAR STEEL RAILING TYPE 'M'

**STRUCTURE DESIGN CONTACTS:**

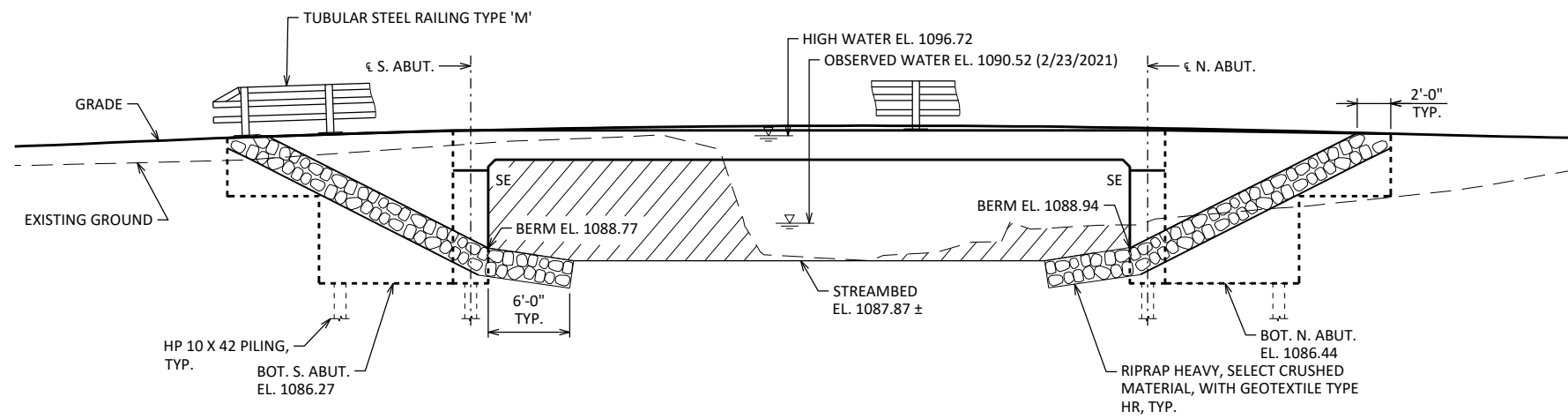
DAN SYDOW 715-834-3161  
 AARON BONK 608-261-0261

\* PROVIDE FOR THRIE BEAM GUARD RAIL ATTACHMENT.

Ⓛ INDICATES WING NUMBER



**PLAN**  
 SINGLE SPAN FLAT SLAB

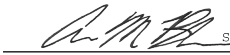


**ELEVATION**  
 NORMAL TO WATERWAY

▨ COST OF EXCAVATION OR FILL IN THE HATCHED AREAS SHALL BE INCLUDED IN THE CONTRACT PRICE FOR "EXCAVATION FOR STRUCTURES BRIDGES B-71-204".

THESE PLANS ARE BASED UPON STANDARD BRIDGE PLANS DEVELOPED AND MAINTAINED BY THE WISCONSIN DEPARTMENT OF TRANSPORTATION THROUGH THE USE OF THE WISDOT STANDARD BRIDGE DESIGN TOOL. THE UNDERSIGNED DESIGNER CERTIFIES THE ACCURACY OF THE BRIDGE TYPE, SIZE AND LOCATION, HYDRAULICS AND FOUNDATION SUPPORT, AND INFORMATION IN THE PLANS THAT IS NOT PART OF THE STANDARD PLANS SUPPLIED BY THE DEPARTMENT. THE DESIGNER FURTHER CERTIFIES THAT USE OF THE STANDARD BRIDGE DESIGN TOOL FOR DEVELOPMENT OF THIS PLAN IS CONSISTENT WITH THE GUIDANCE PROVIDED IN THE WISDOT BRIDGE MANUAL.



NO.	DATE	REVISION	BY
ORIGINAL PLANS PREPARED BY			
<b>AYRES</b> 3433 Oakwood Hills Parkway Eau Claire, WI 54701 www.AyresAssociates.com			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
ACCEPTED	 SDR 11/07/22 CHIEF STRUCTURES DESIGN ENGINEER DATE		
<b>STRUCTURE B-71-204</b>			
LYNN LINE ROAD OVER EAST FORK BLACK RIVER			
COUNTY	WOOD	TOWN/CITY/VILLAGE	ROCK
DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATION			
DESIGNED BY	JLB	DESIGNED CK'D	ZSS
DRAWN BY	ZSS	PLANS CK'D	DNS
<b>GENERAL PLAN</b>			SHEET 1 OF 10

**GENERAL NOTES**

DRAWINGS SHALL NOT BE SCALED.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BEVEL EXPOSED EDGES OF CONCRETE 3/4" UNLESS OTHERWISE NOTED.

THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES B-71-204" SHALL BE THE EXISTING GROUNDLINE.

AT THE BACK FACE OF ABUTMENT ALL VOLUME WHICH CANNOT BE PLACED BEFORE ABUTMENT CONSTRUCTION AND IS NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL TYPE A.

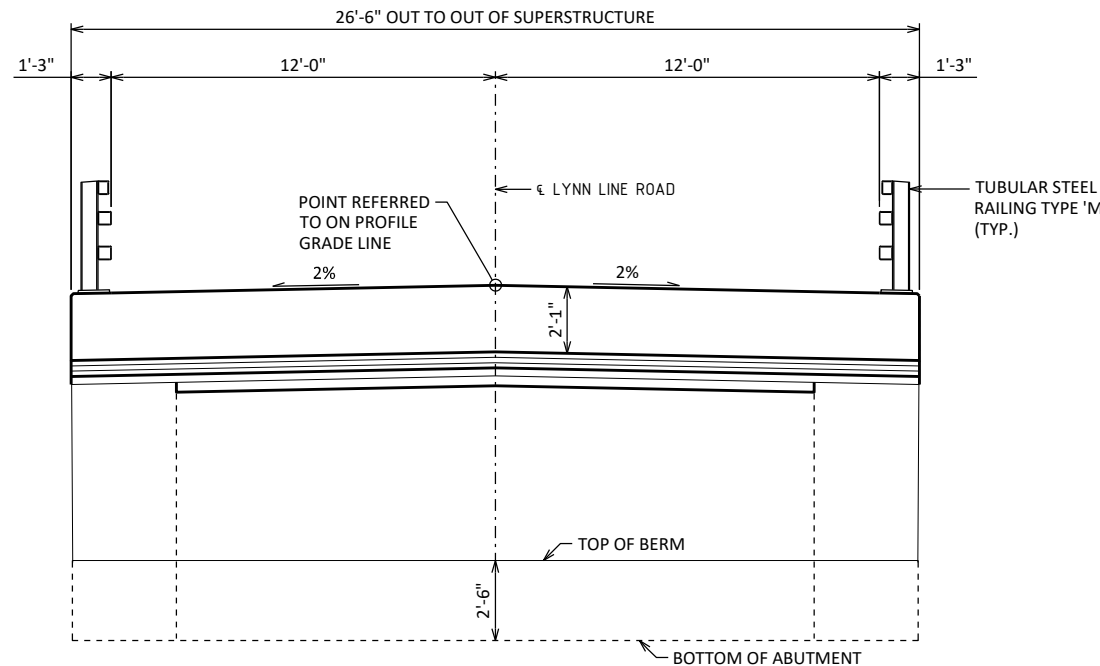
EXCAVATION BELOW THE ABUTMENT AND ABUTMENT BEDDING MATERIALS REQUIRES ENGINEER APPROVAL. GEOTEXTILE SHALL BE SET AT THE BOTTOM OF EXCAVATION AND EXTEND 2'-0" ABOVE BOTTOM OF ABUTMENT.

THE QUANTITY FOR BACKFILL STRUCTURE IS CALCULATED BASED ON THE DETAIL SHOWN IN THE PLANS.

THE SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH RIPRAP HEAVY, SELECT CRUSHED MATERIAL, AND GEOTEXTILE TYPE HR TO THE EXTENT SHOWN ON SHEET 1 AND THE ABUTMENT DETAILS.

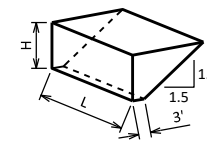
AT ABUTMENTS, CONCRETE POURED UNDER WATER WILL BE ALLOWED AND SHALL BE DONE IN ACCORDANCE WITH SECTION 502.3.5.3 OF THE STANDARD SPECIFICATIONS.

PROTECTIVE SURFACE TREATMENT TO BE APPLIED TO ENTIRE EXPOSED TOP OF SLAB, INCLUDING THE SLAB EDGE AND 1'-0" UNDER THE SLAB, THE TOP AND EXTERIOR EXPOSED FACE OF WINGS AND FRONT FACE OF ABUTMENT TO 1'-0" PAST THE EDGE OF SLAB.



**CROSS SECTION THRU ROADWAY**

LOOKING UPSTATION  
(PILING NOT SHOWN FOR CLARITY)

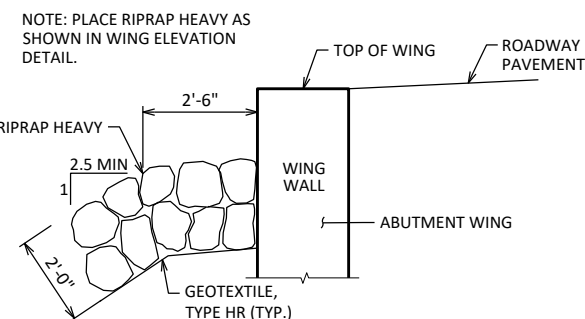


**ABUTMENT BACKFILL DIAGRAM**

L = OUT TO OUT OF ABUTMENT BODY INCLUDING WINGS (FT)  
H = AVERAGE ABUTMENT FILL HEIGHT (FT)  
EF = EXPANSION FACTOR (1.20 FOR CY BID ITEMS AND 1.00 FOR TON BID ITEMS)  
 $V_{CF} = (L)(3.0')(H) + (L)(0.5)(1.5H)(H)$   
 $V_{CY} = V_{CF}(EF)/27$   
 $V_{TON} = V_{CY}(2.0)$

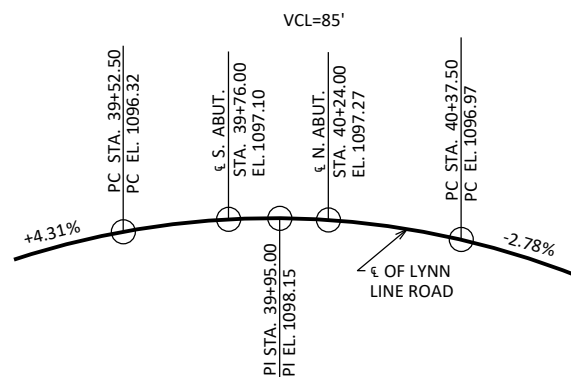
**BENCH MARK**

NO.	STATION	DESCRIPTION	ELEV.
50	40+27.8	PK NAIL IN TOP OF DECK, NW QUAD, 14.7' RT	1096.81

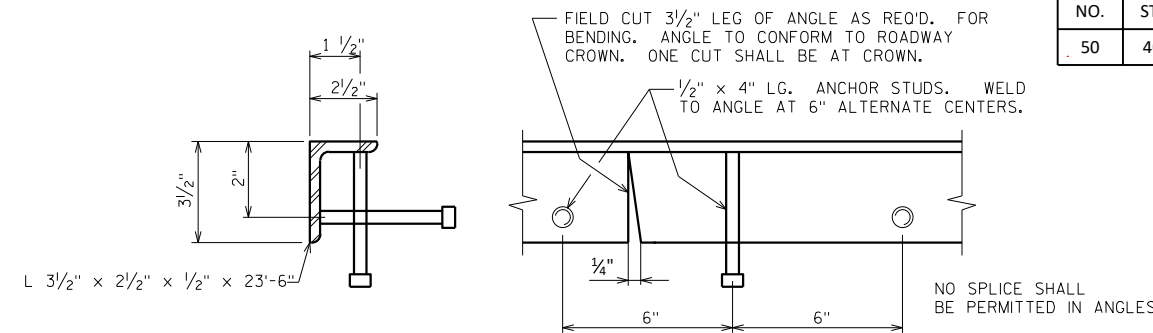


**TYPICAL FILL SECTION AT WING**

(FILL VOIDS WITH SELECT CRUSHED MATERIAL)

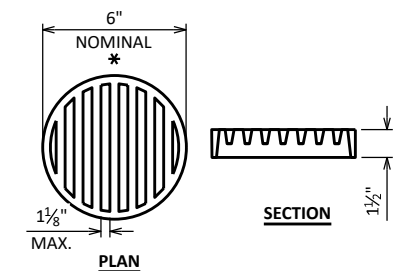


**PROFILE GRADE LINE**



**PROTECTION ANGLE DETAIL**

(ANGLE AND STUDS TO BE PAID FOR AT THE UNIT PRICE BID FOR "STRUCTURAL STEEL CARBON". (NO PAINT REQ'D.)  
SANDBLAST PROTECTION ANGLE AFTER FABRICATION IN ACCORDANCE WITH SSPC SP. #6 "COMMERCIAL BLAST CLEANING". AFTER BLAST CLEANING, THE PROTECTION ANGLE SHALL BE HOT DIPPED GALVANIZED.



**RODENT SHIELD DETAIL**

\* DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SO SLOTS ARE VERTICAL.

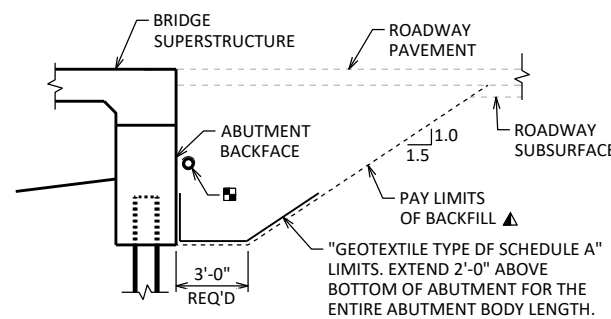
THE RODENT SHIELD, PIPE COUPLING AND SCREWS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
<b>STRUCTURE B-71-204</b>			
DRAWN BY		ZSS	PLANS CK'D DNS
<b>CROSS SECTION &amp; QUANTITIES</b>			SHEET 2 OF 10

**TOTAL ESTIMATED QUANTITIES**

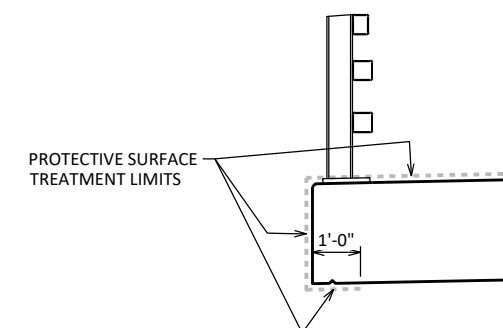
BID ITEM NUMBER	BID ITEM DESCRIPTION	UNIT	SUPER	S. ABUT.	N. ABUT.	TOTALS
203.0250	REMOVING STRUCTURE OVER WATERWAY REMOVE DEBRIS P-71-914	EACH	---	---	---	1
206.1001	EXCAVATION FOR STRUCTURES BRIDGES B-71-204	EACH	---	---	---	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	---	195	195	390
502.0100	CONCRETE MASONRY BRIDGES	CY	107.5	43.6	43.6	195
502.3200	PROTECTIVE SURFACE TREATMENT	SY	185	20	20	225
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	---	1,830	1,830	3,660
505.0600	BAR STEEL REINFORCEMENT COATED STRUCTURES	LB	21,680	2,100	2,100	25,880
506.0105	STRUCTURAL STEEL CARBON	LB	462	---	---	462
513.4061	RAILING TUBULAR TYPE M	LF	101	34.2	34.2	169.4
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	---	8	8	16
550.0020	PRE-BORING ROCK OR CONSOLIDATED MATERIALS	LF	---	---	48	48
550.0500	PILE POINTS	EACH	---	6	---	6
550.1100	PILING STEEL HP 10-INCH X 42 LB	LF	---	90	60	150
606.0300	RIPRAP HEAVY	CY	---	90	65	155
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	---	70	70	140
645.0111	GEOTEXTILE TYPE DF SCHEDULE A	SY	---	45	45	90
645.0120	GEOTEXTILE TYPE HR	SY	---	165	130	295
SPV.0195.01	SELECT CRUSHED MATERIAL FOR RIPRAP VOIDS	TON	---	25	20	45
	NON-BID ITEMS					
	FILLER	SIZE	---	---	---	1/2", 3/4"



**TYPICAL SECTION THRU ABUTMENT**

▲ BACKFILL PAY LIMITS. BACKFILL BEYOND PAY LIMITS SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.

■ PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN.



**PROTECTIVE SURFACE TREATMENT DETAILS**

8

8

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
1	MAY 25, 2021	501719.76	601730.85
2	MAY 25, 2021	501727.01	601717.71
3	MAY 25, 2021	501684.97	601663.22
4	MAY 25, 2021	501667.85	601683.30
HA*1	MAY 25, 2021	501626.07	601642.11
HA*2	MAY 25, 2021	501604.85	601636.31

BORINGS COMPLETED BY: GEOTECHNICAL DRILLING CONTRACTORS, LLC  
 REPORT COMPLETED BY: ECS MIDWEST, LLC  
 ALL COORDINATES REFERENCED TO WCCS NAD 83(91) WOOD COUNTY

STATE PROJECT NUMBER

7397-01-70

MATERIAL SYMBOLS

	ASPHALT		TOPSOIL		PEAT
	CONCRETE		FILL		GRAVEL
	SAND		CLAY		SILT
	BOULDERS OR COBBLES		LIMESTONE		BEDROCK (UNKNOWN)
	SHALE		SANDSTONE		IGNEOUS/META

LEGEND OF BORING

(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

(2) UNLESS OTHERWISE SPECIFIED THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION

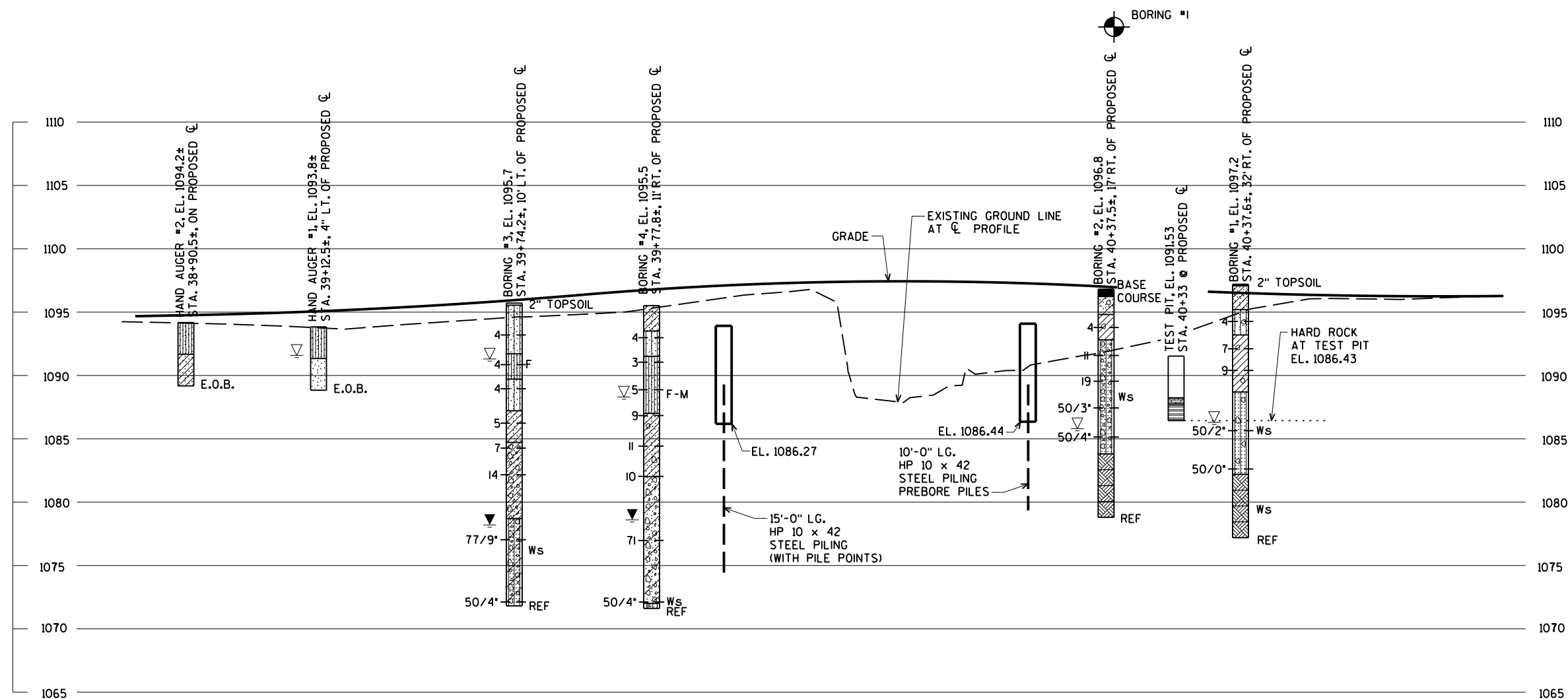
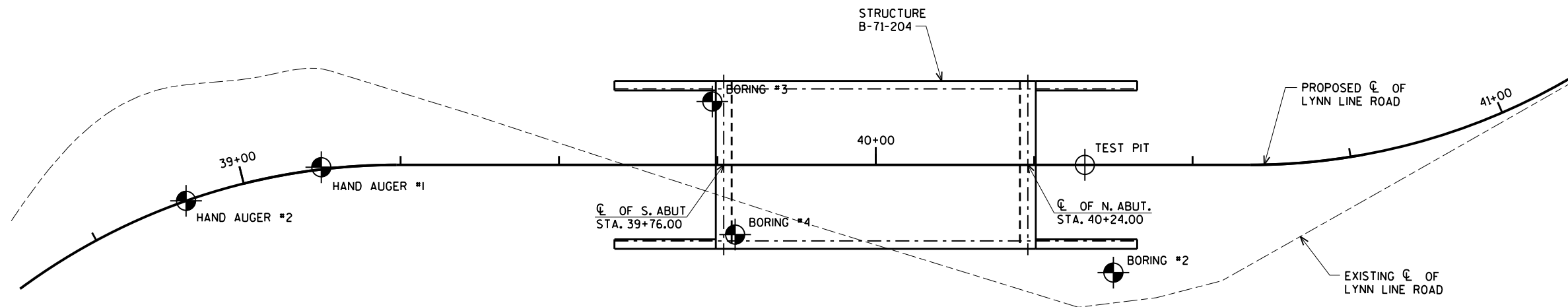
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ABBREVIATIONS

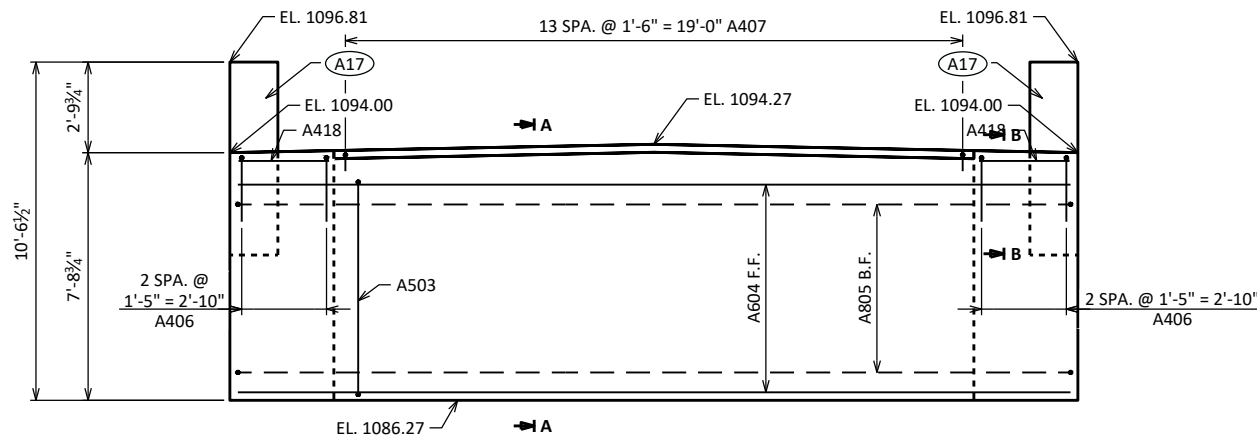
F-FINE M-MEDIUM C-COARSE ST-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

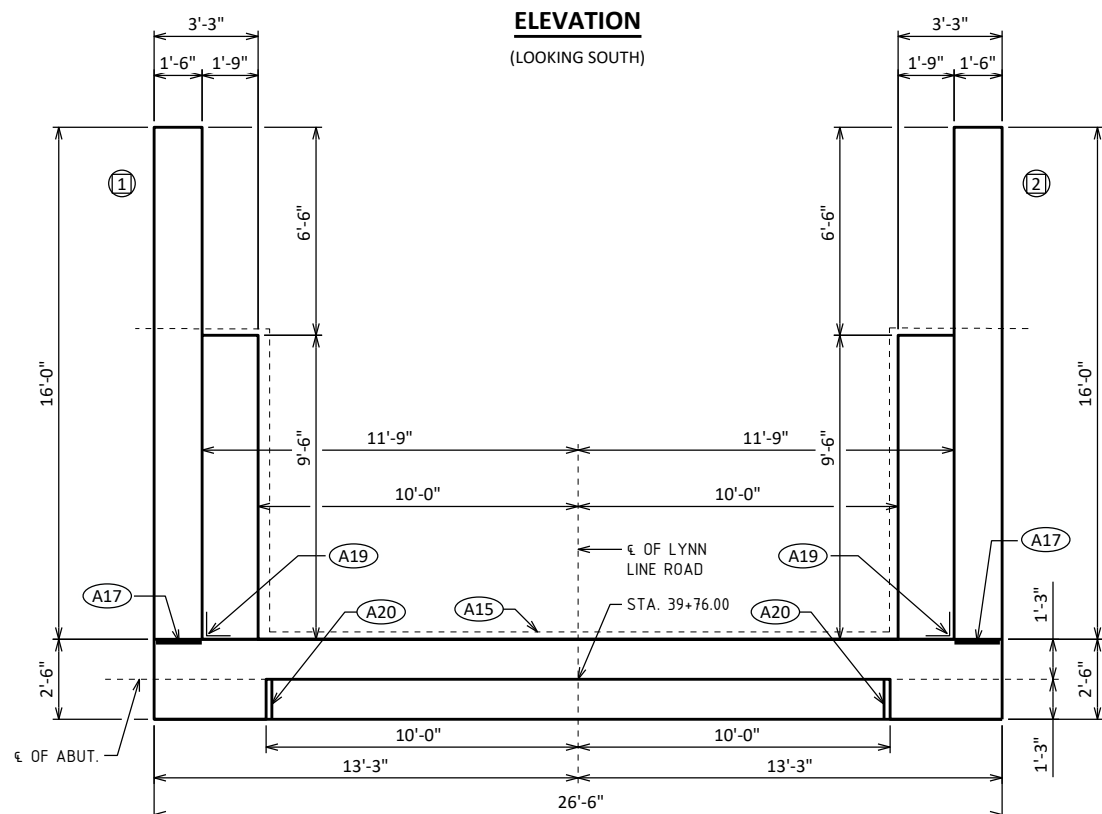
BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.



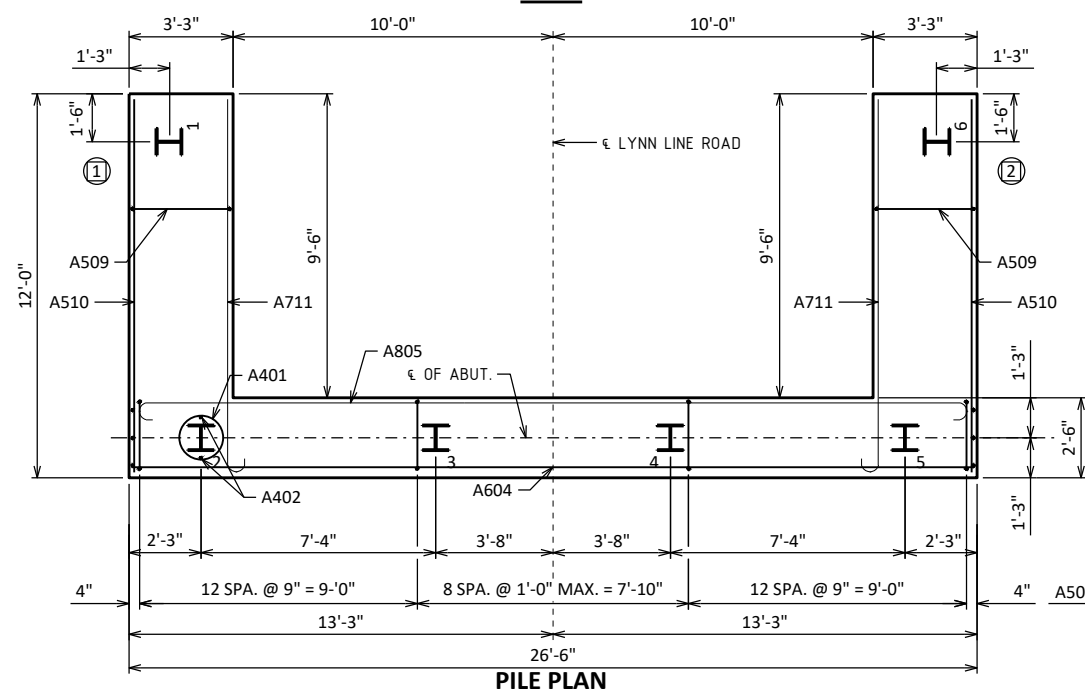
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
<b>STRUCTURE B-71-204</b>			
DRAWN BY		CLP	PLANS CKD. DNS
<b>SUBSURFACE EXPLORATION</b>			SHEET 3 OF 10



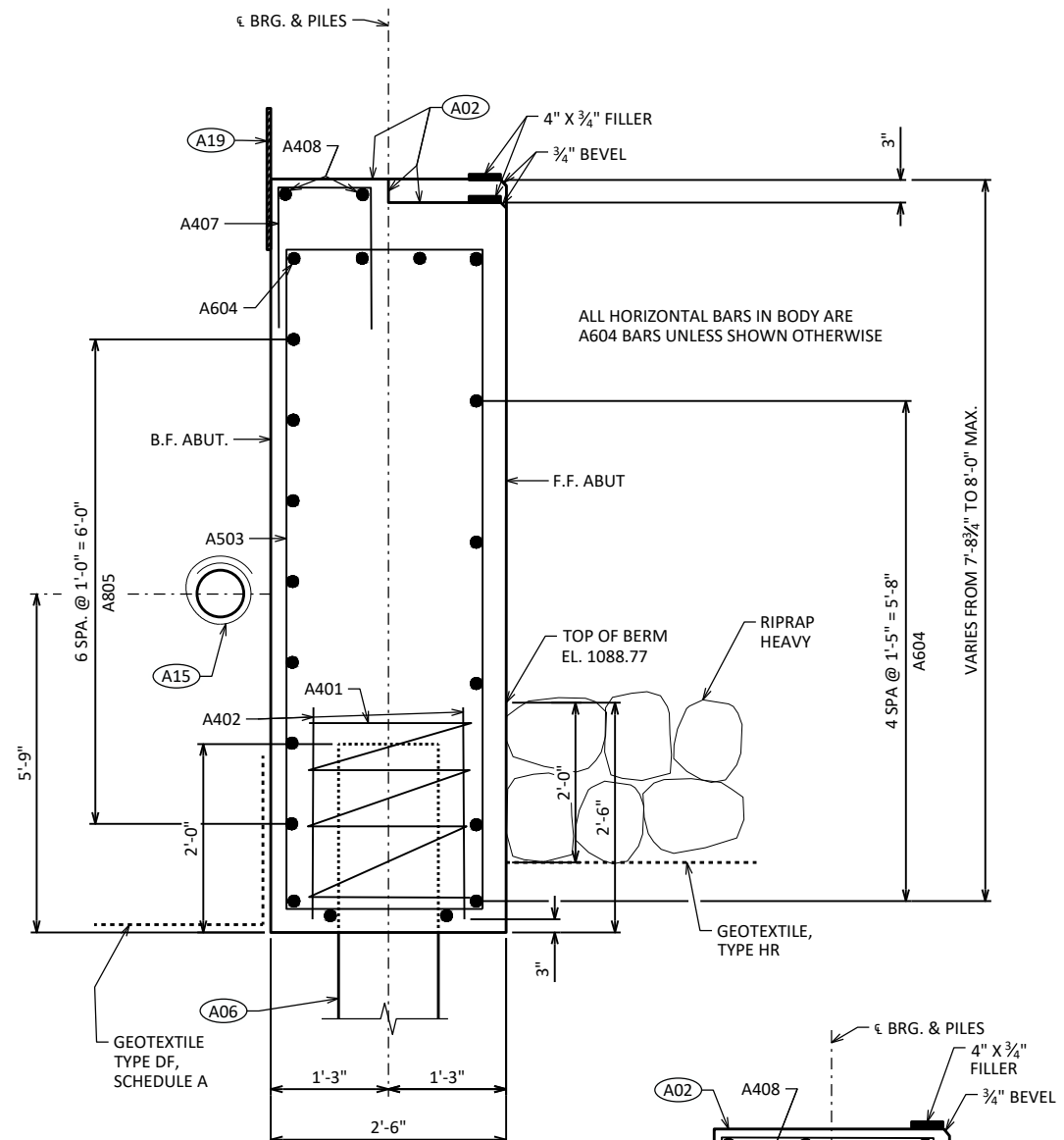
**ELEVATION**  
(LOOKING SOUTH)



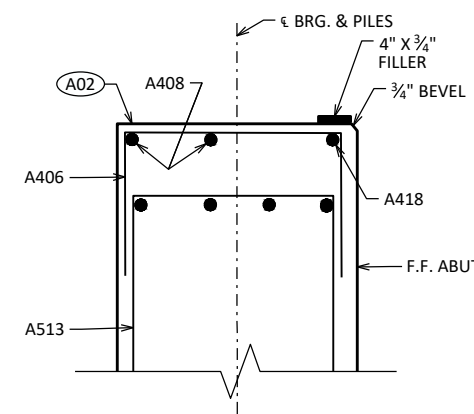
**PLAN**



**PILE PLAN**



**SECTION A-A**



**SECTION B-B**

- (A02) STEEL TROWEL TOP SURFACE OF ABUTMENT. PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER ENTIRE ABUTMENT TOP BEFORE PLACING SUPERSTRUCTURE. TOTAL THICKNESS OF ALL SHEETS SHALL BE AT LEAST 0.03"
- (A06) SUPPORT ABUTMENT ON HP 10 x 42 PILING, ESTIMATED 15'-0" LONG WITH A REQUIRED DRIVING RESISTANCE OF 180 TONS PER PILE.
- (A15) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SHIELD REQUIRED.
- (A17) 1/2" FILLER: SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 3/8" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.
- (A19) 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.
- (A20) 3/4" CORK FILLER ON VERTICAL FACE
- (I) INDICATES WING NUMBER

8

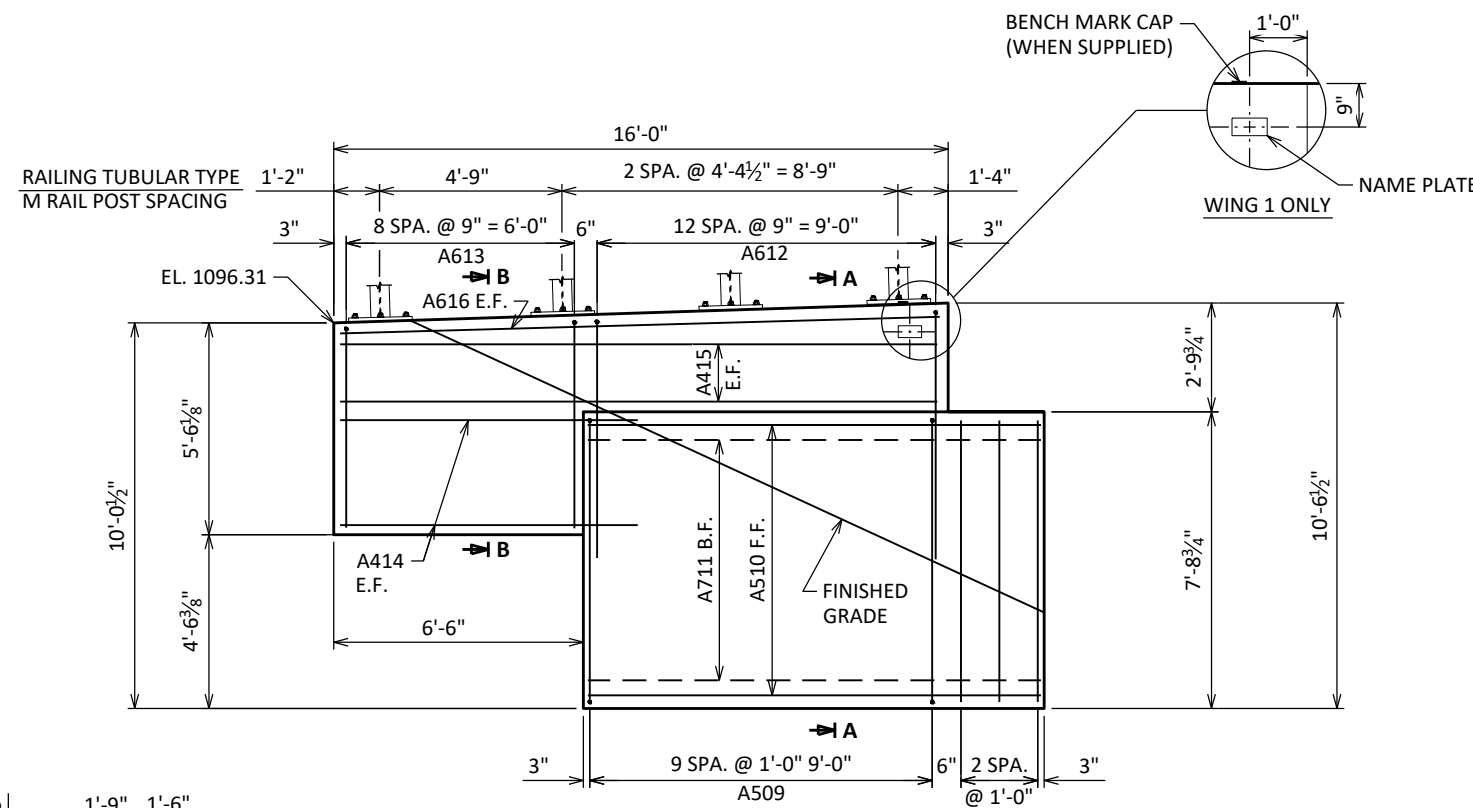
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NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
<b>STRUCTURE B-71-204</b>			
DRAWN BY		ZSS	PLANS CK'D DNS
<b>SOUTH ABUTMENT</b>			SHEET 4 OF 10

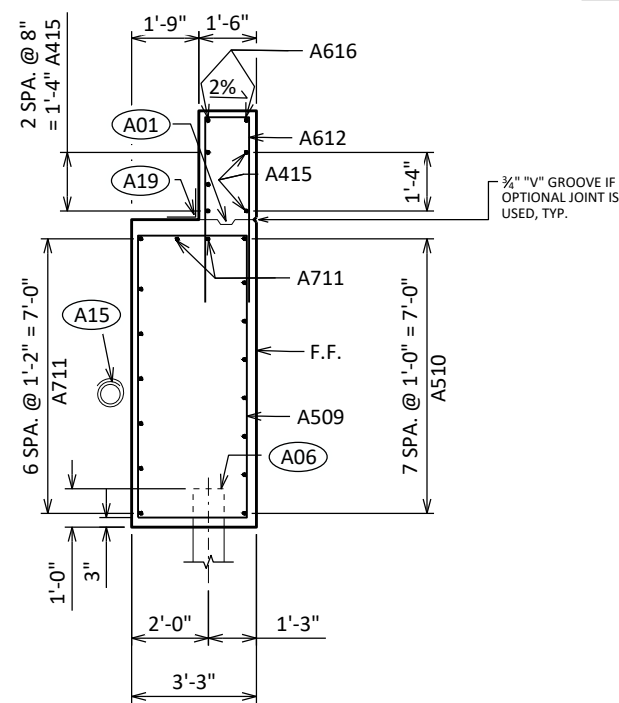
**BILL OF BARS**

NOTE: THE FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE

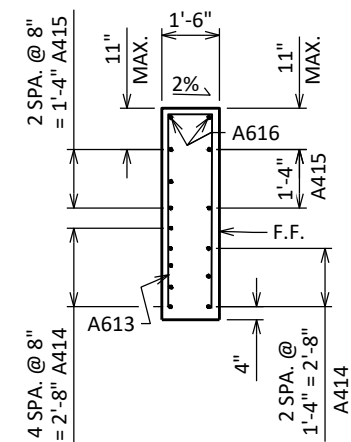
BAR MARK	COYT	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
A401		4	28-0	X		BODY @ PILES
A402		8	2-3			BODY @ PILES
A503		33	18-10	X		BODY VERT.
A604		12	26-2			BODY HORIZ.
A805		7	28-0	X		BODY HORIZ. @ WING B.F.
A406		6	5-4	X		BODY VERT. TOP ENDS
A407		14	4-1	X		BODY VERT. TOP
A408		2	26-2			BODY HORIZ. TOP
A509	X	20	20-10	X		WING VERT.
A510	X	16	11-8			WING HORIZ. F.F.
A711	X	18	12-4	X		WING HORIZ. B.F. & TOP
A612	X	26	10-6	X		WING VERT.
A613	X	18	11-0	X		WING VERT.
A414	X	16	7-9			WING HORIZ. E.F.
A415	X	10	15-7			WING HORIZ. E.F.
A616	X	4	15-7			WING HORIZ. E.F. TOP
A417	X	6	7-3			BODY VERT. END @ WINGS
A418		2	2-11			BODY HORIZ. TOP F.F. ENDS



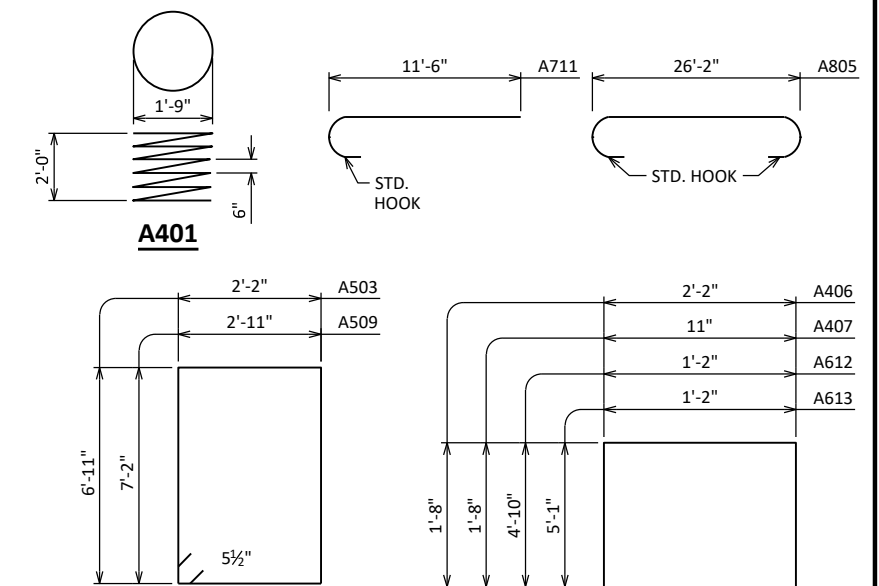
**WING ELEVATION**  
SHOWING F.F. WING 1  
(WING 2 SIMILAR)



**SECTION A-A**



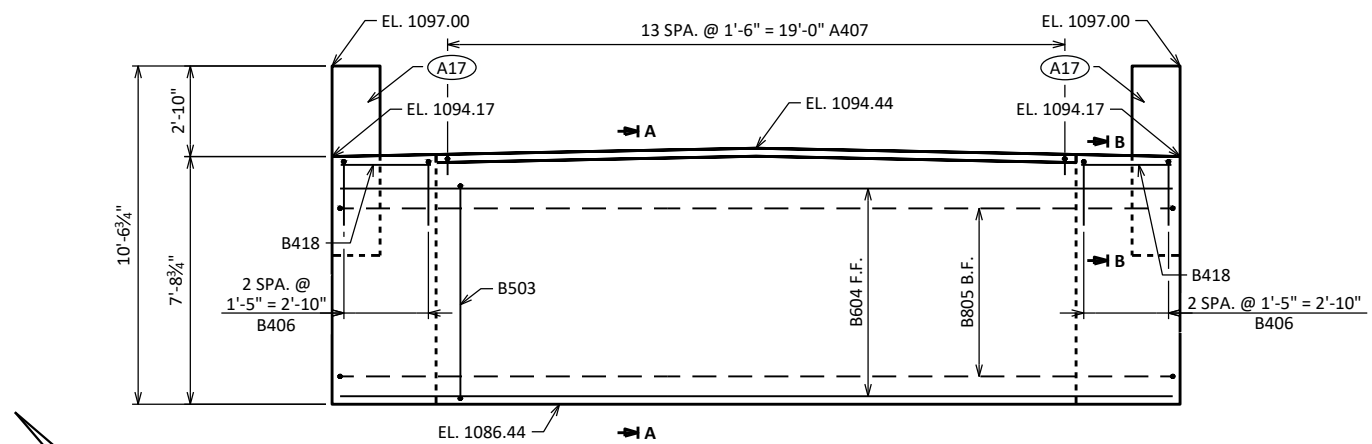
**SECTION B-B**



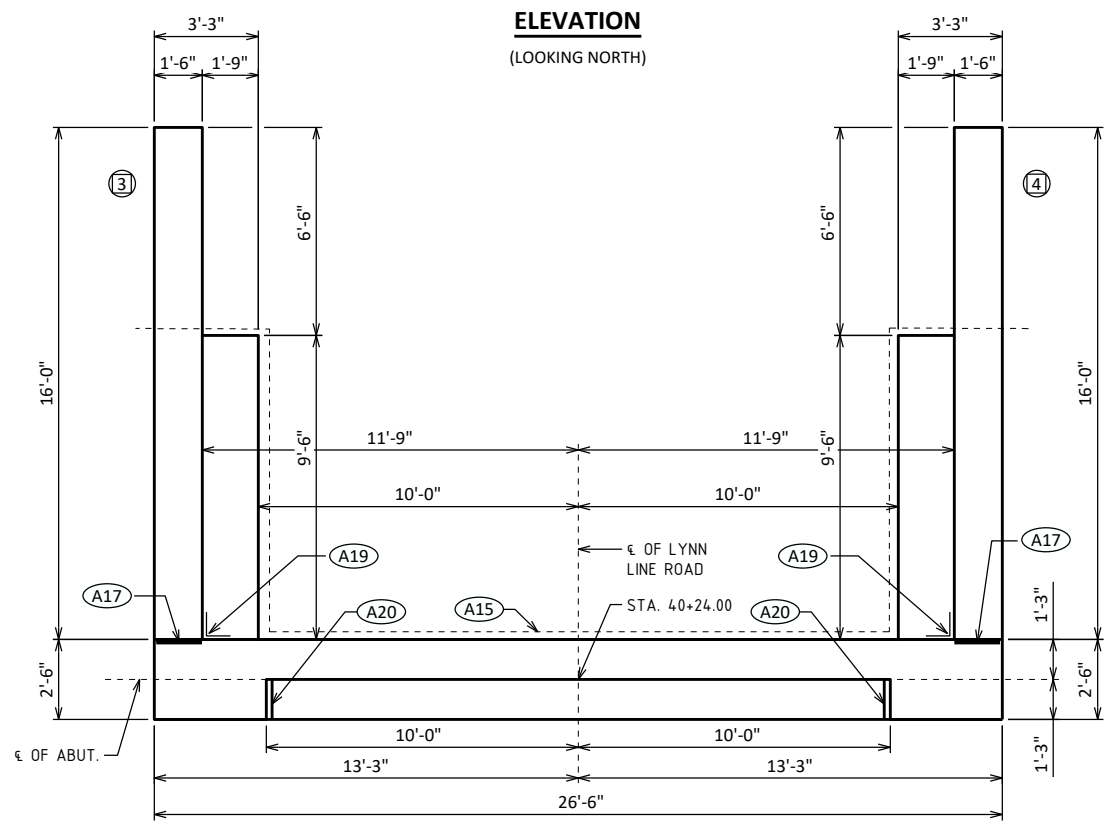
- (A01) OPTIONAL CONST. JOINT: KEYWAY FORMED BY A BEVELED 2X6. PROVIDE 3/4" "V" GROOVE ON F.F. OF WINGWALL IF JOINT IS USED.
- (A06) SUPPORT ABUTMENT ON HP 10 x 42 PILING, ESTIMATED 15'-0" LONG WITH A REQUIRED DRIVING RESISTANCE OF 180TONS PER PILE.
- (A15) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SHIELD REQUIRED.
- (A19) 18" RUBBERIZED MEMBRANE WATERPROOFING, ONLY IF OPTIONAL CONSTRUCTION JOINT IS USED.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
<b>STRUCTURE B-71-204</b>			
DRAWN BY ZSS		PLANS CK'D DNS	
<b>SOUTH ABUTMENT DETAILS</b>			SHEET 5 OF 10

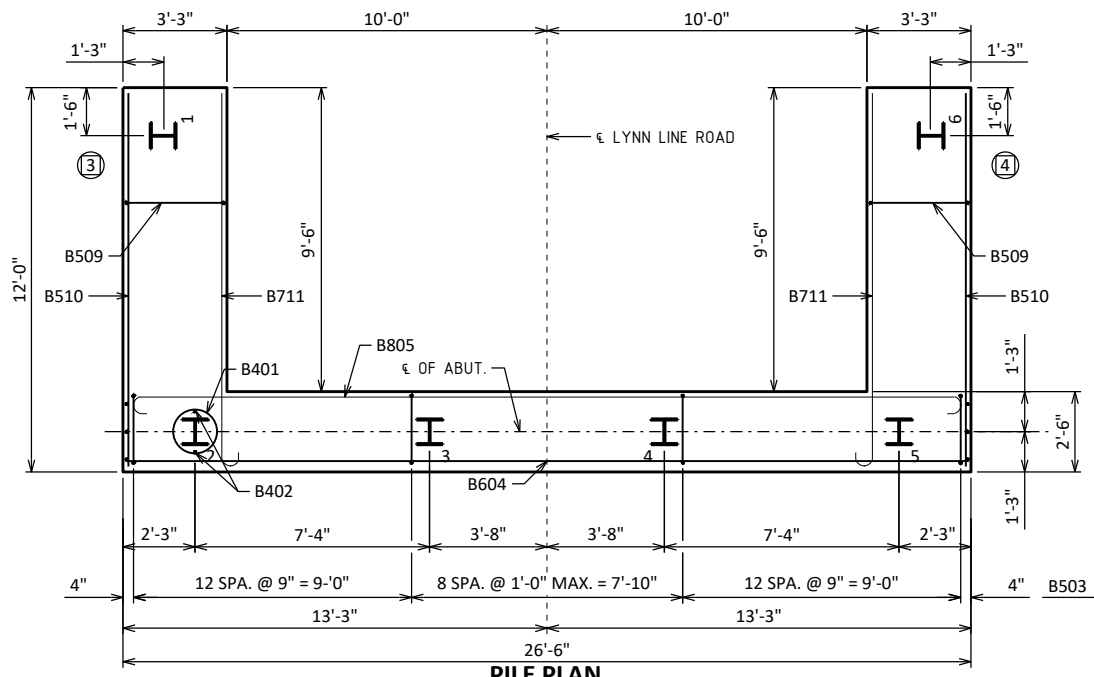




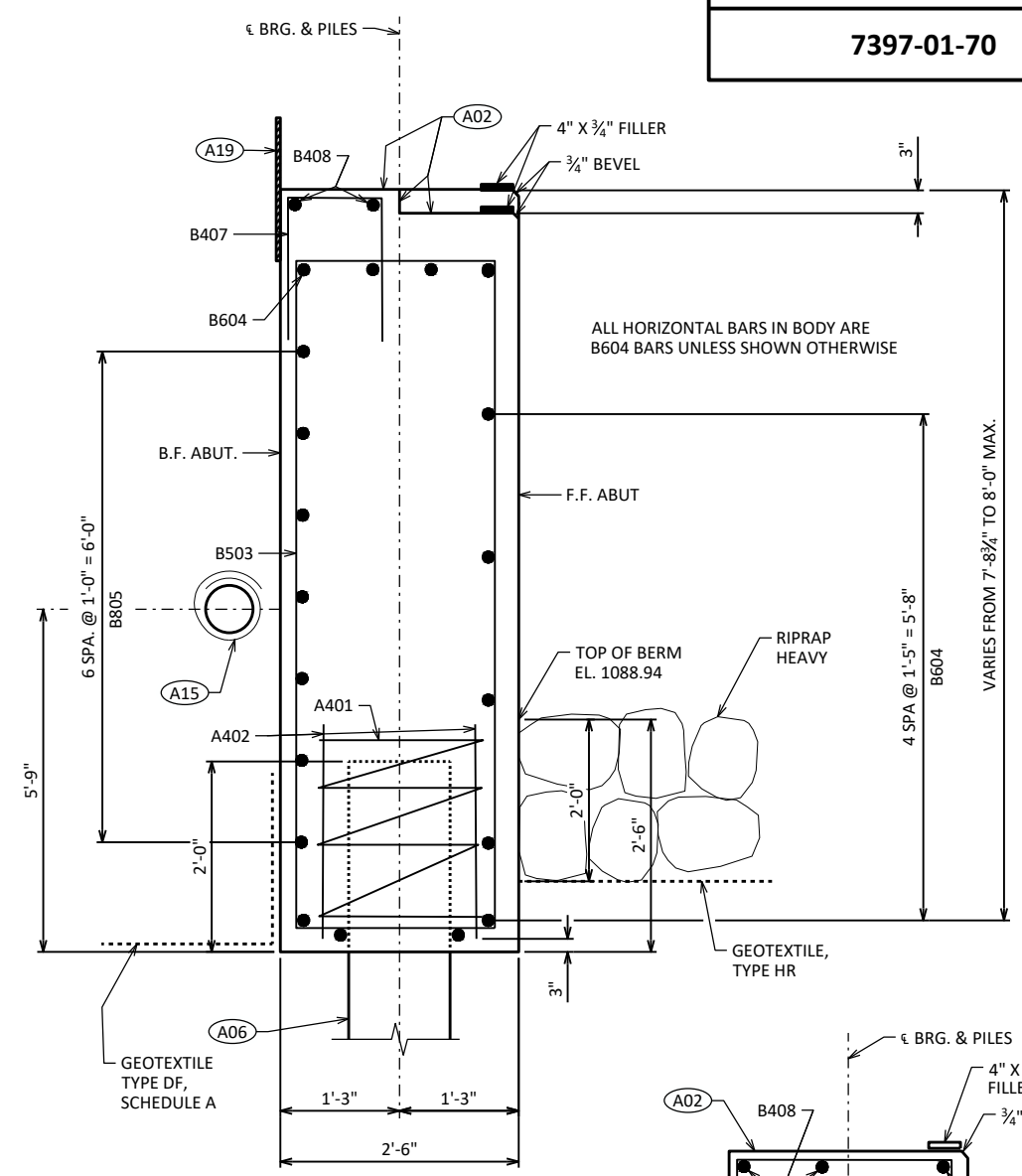
**ELEVATION**  
(LOOKING NORTH)



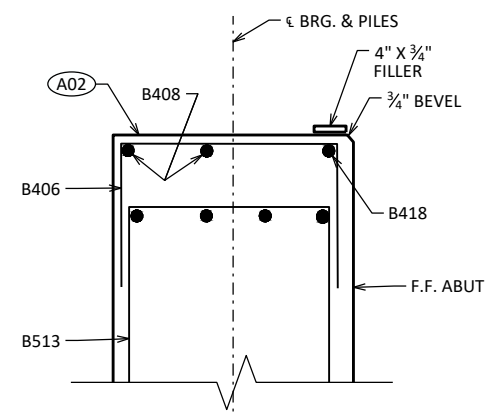
**PLAN**



**PILE PLAN**



**SECTION A-A**



**SECTION B-B**

- (A02) STEEL TROWEL TOP SURFACE OF ABUTMENT. PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER ENTIRE ABUTMENT TOP BEFORE PLACING SUPERSTRUCTURE. TOTAL THICKNESS OF ALL SHEETS SHALL BE AT LEAST 0.03"
- (A06) SUPPORT ABUTMENT ON HP 10 x 42 PILING, ESTIMATED 10'-0" LONG WITH A FACTORED AXIAL RESISTANCE OF 180 TONS PER PILE. PRE-BORE A MINIMUM OF 3- FEET INTO ROCK.
- (A15) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SHIELD REQUIRED.
- (A17) 1/2" FILLER: SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.
- (A19) 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.
- (A20) 3/4" CORK FILLER ON VERTICAL FACE
- INDICATES WING NUMBER

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
<b>STRUCTURE B-71-204</b>			
DRAWN BY		ZSS	PLANS CK'D DNS
<b>NORTH ABUTMENT</b>			SHEET 6 OF 10

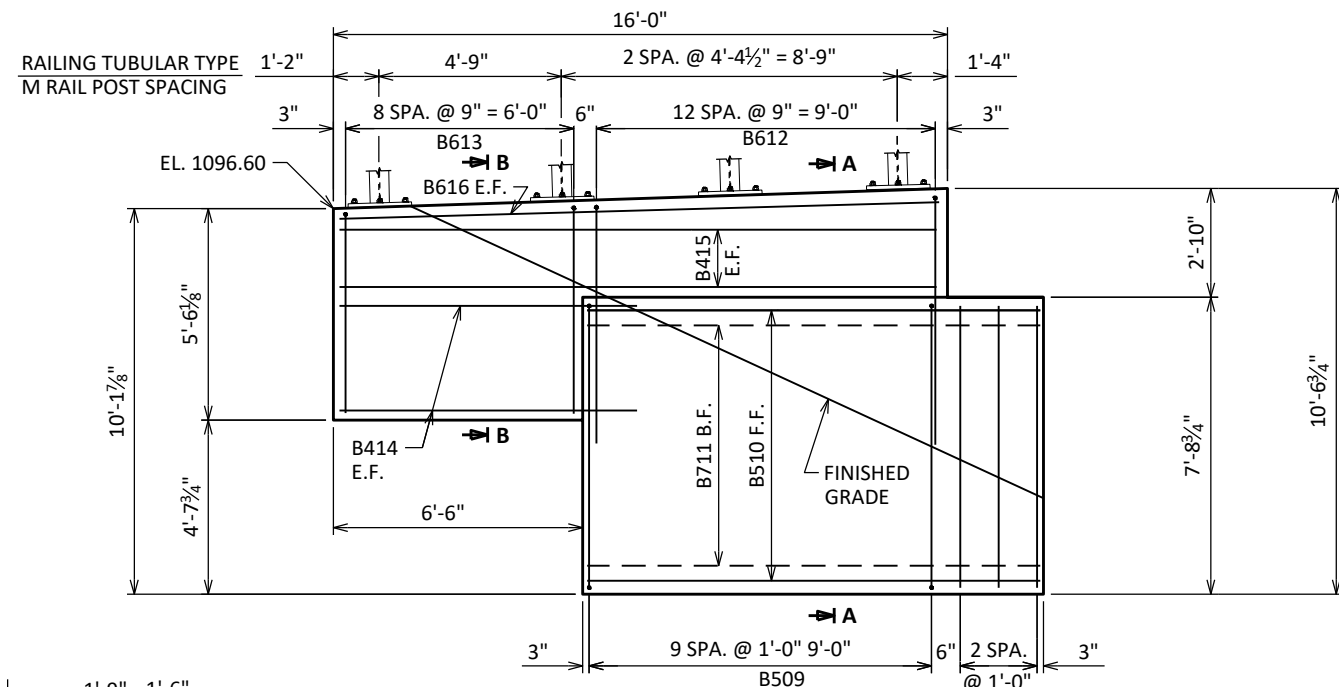
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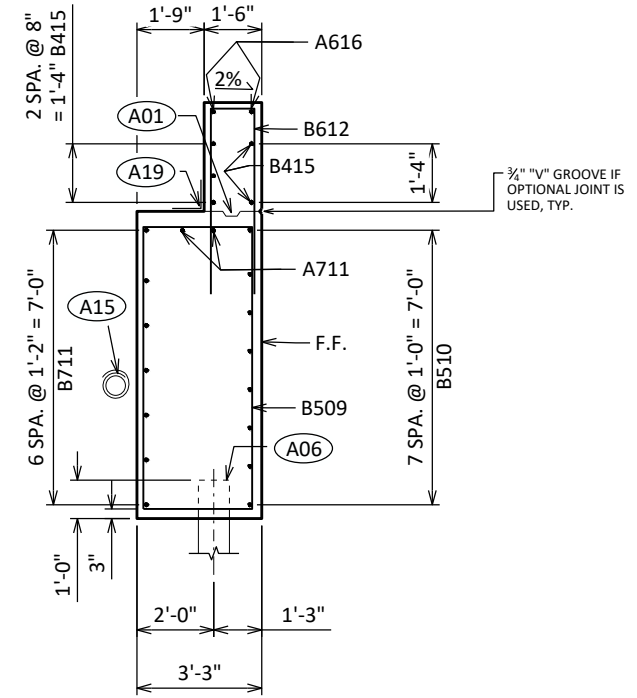
**BILL OF BARS**

NOTE: THE FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE

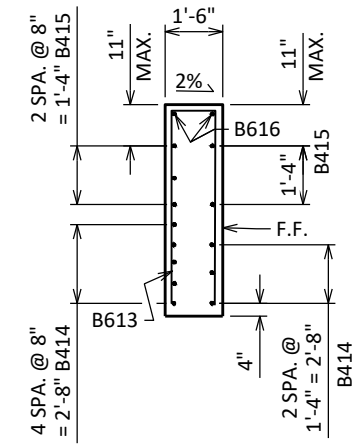
BAR MARK	COAT	NO. REQ'D	LENGTH	BEND	BAR SERIES	LOCATION
B401		4	28-0	X		BODY @ PILES
B402		8	2-3			BODY @ PILES
B503		33	18-10	X		BODY VERT.
B604		12	26-2			BODY HORIZ.
B805		7	28-0	X		BODY HORIZ. @ WING B.F.
B406		6	5-4	X		BODY VERT. TOP ENDS
B407		14	4-1	X		BODY VERT. TOP
B408		2	26-2			BODY HORIZ. TOP
B509	X	20	20-10	X		WING VERT.
B510	X	16	11-8			WING HORIZ. F.F.
B711	X	18	12-4	X		WING HORIZ. B. F. & TOP
B612	X	26	10-6	X		WING VERT.
B613	X	18	11-0	X		WING VERT.
B414	X	16	7-9			WING HORIZ. E.F.
B415	X	10	15-7			WING HORIZ. E.F.
B616	X	4	15-7			WING HORIZ. E.F. TOP
B417	X	6	7-3			BODY VERT. END @ WINGS
B418		2	2-11			BODY HORIZ. TOP F.F. ENDS



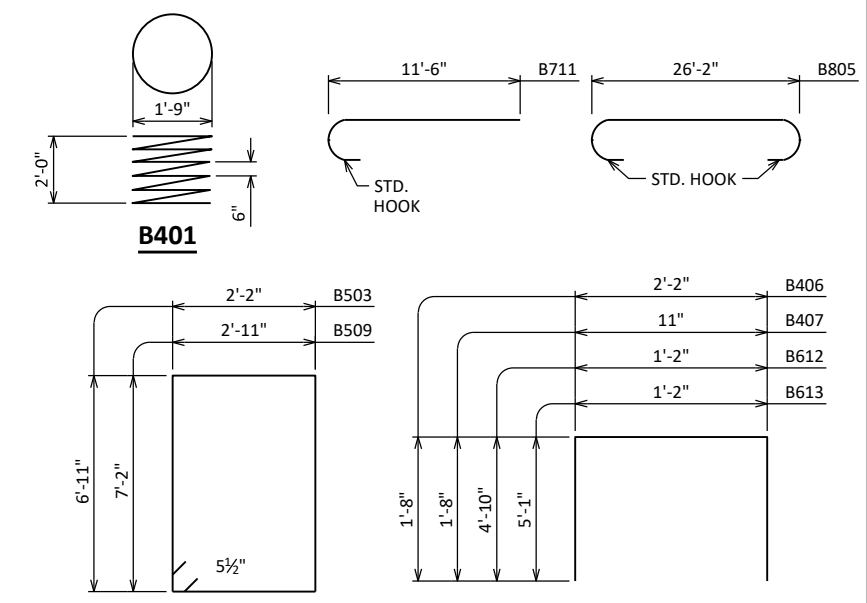
**WING ELEVATION**  
SHOWING F.F. WING 3  
(WING 4 SIMILAR)



**SECTION A-A**



**SECTION B-B**



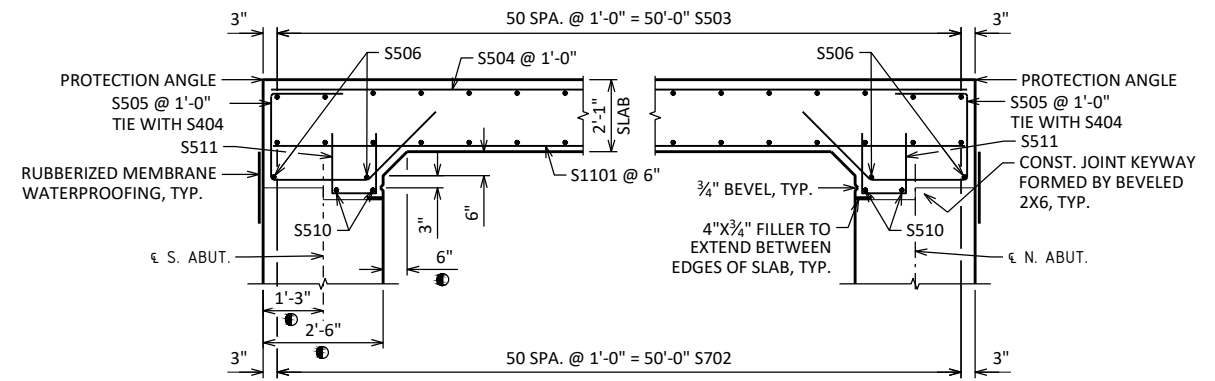
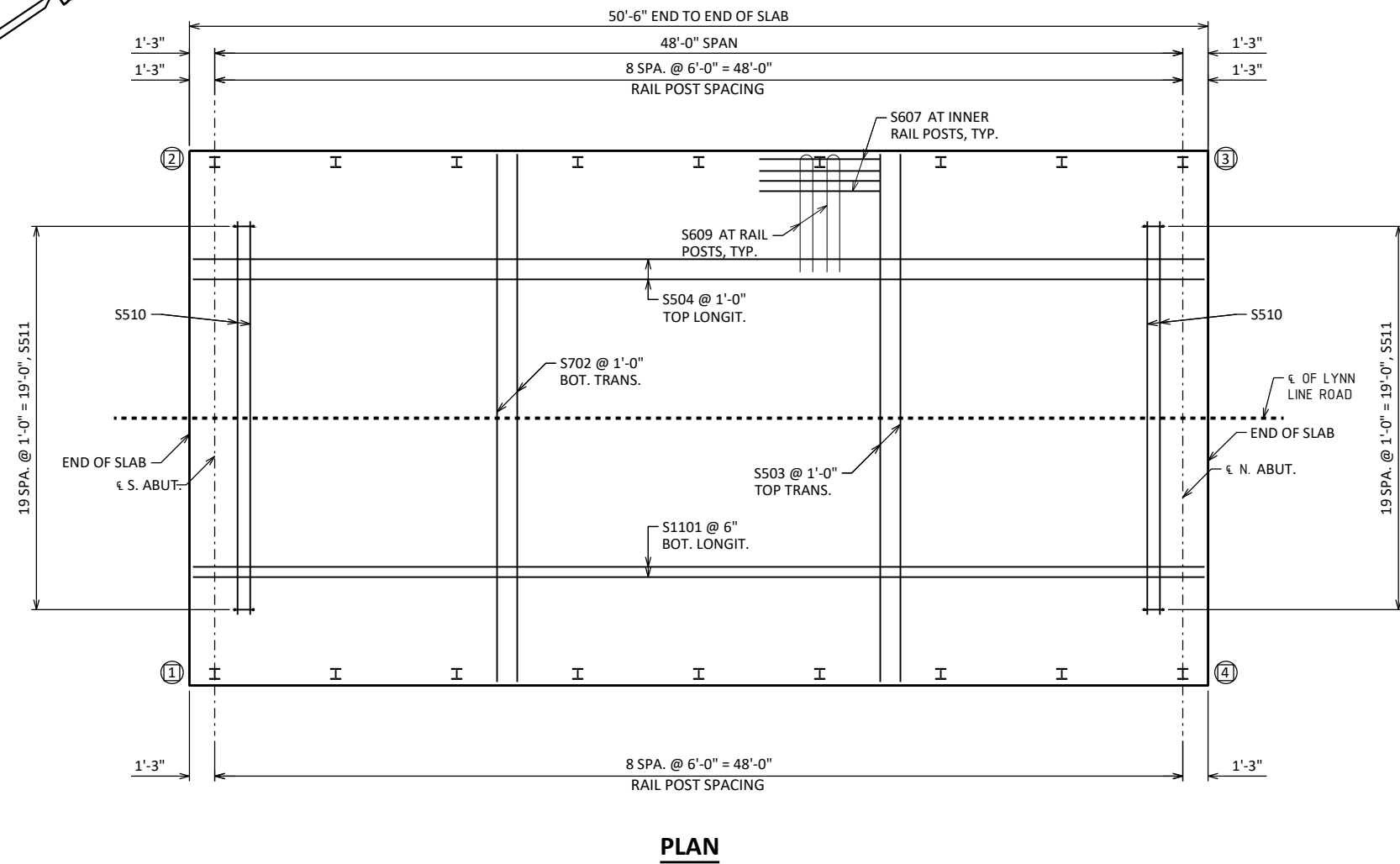
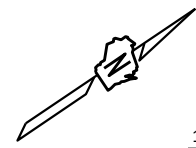
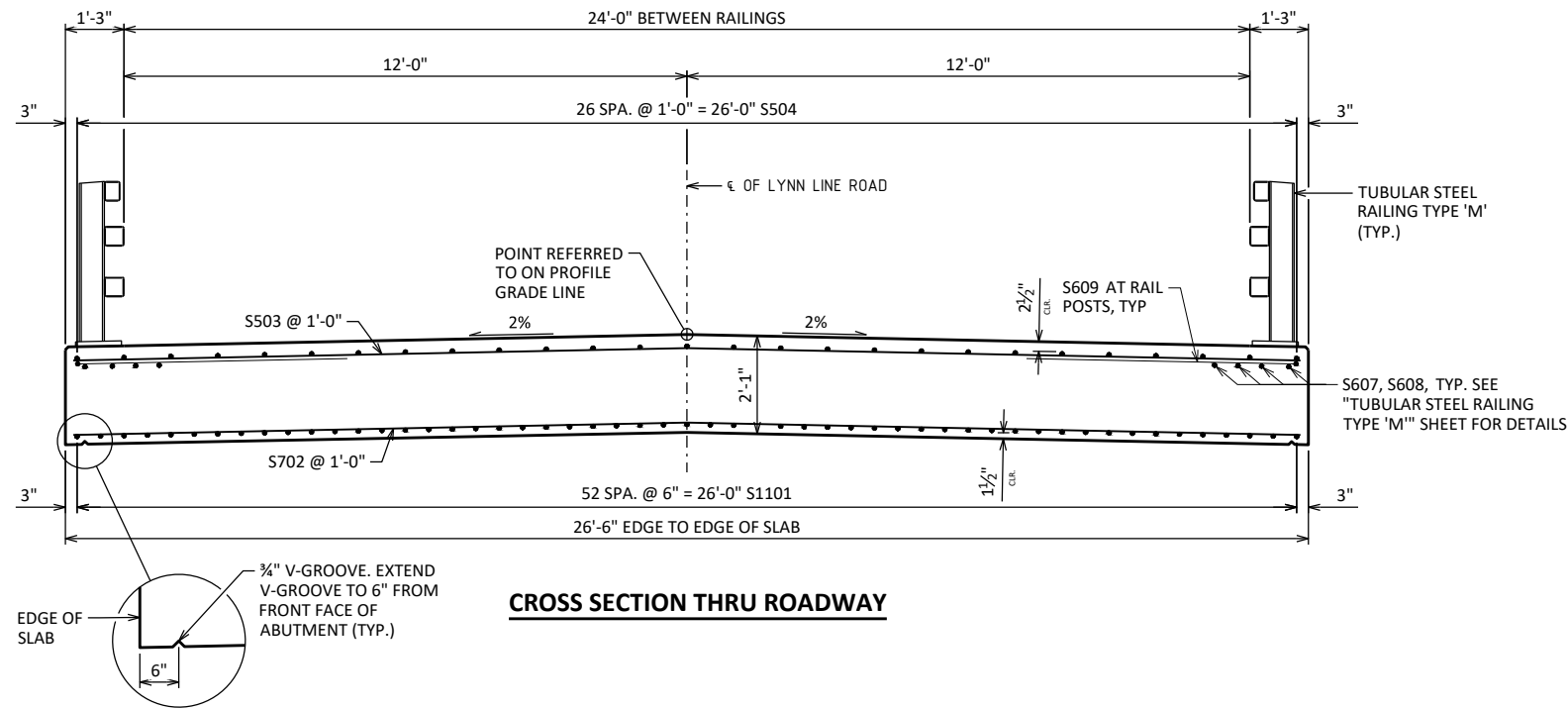
- (A01) OPTIONAL CONST. JOINT: KEYWAY FORMED BY A BEVELED 2X6. PROVIDE 3/4" "V" GROOVE ON F.F. OF WINGWALL IF JOINT IS USED.
- (A06) SUPPORT ABUTMENT ON HP 10 x 42 PILING, ESTIMATED 10'-0" LONG WITH A FACTORED AXIAL RESISTANCE OF 180 TONS PER PILE.
- (A15) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SHIELD REQUIRED.
- (A19) 18" RUBBERIZED MEMBRANE WATERPROOFING, ONLY IF OPTIONAL CONSTRUCTION JOINT IS USED.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
<b>STRUCTURE B-71-204</b>			
DRAWN BY		PLANS CK'D DNS	
ZSS		DNS	
<b>NORTH ABUTMENT DETAILS</b>			SHEET 7 OF 10

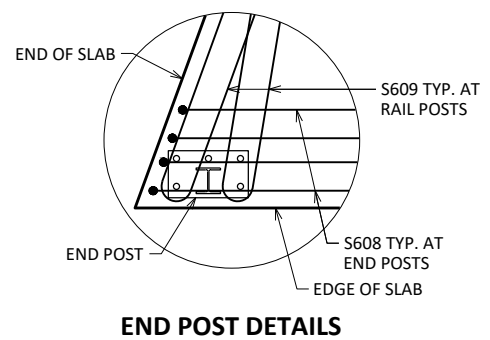
**NOTES**

TOP TRANSVERSE BARS IN SLAB SHALL BE SUPPORTED BY INDIVIDUAL BAR CHAIRS AT APPROXIMATELY 3'-0" CENTERS EACH WAY. BOTTOM LONGITUDINAL BARS SHALL BE SUPPORTED BY CONTINUOUS BAR CHAIRS AT APPROXIMATELY 4'-0" CENTERS.

ALL SLAB THICKNESS DIMENSIONS ARE MINIMUM. ANY TOLERANCES NECESSARY TO CORRECT CONSTRUCTION DISCREPANCIES ARE TO BE PLUS (+).



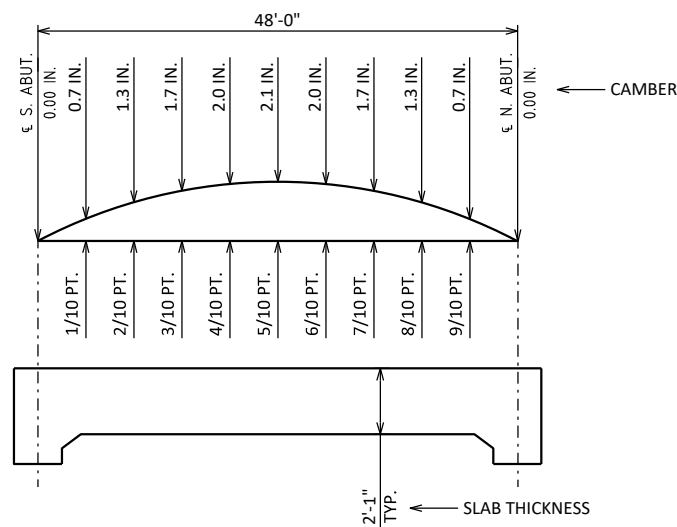
**LONGITUDINAL SECTION**  
 DIMENSIONS ARE GIVEN PARALLEL TO ε ROADWAY UNLESS OTHERWISE NOTED.  
 ● MEASURED NORMAL TO THE ε OF ABUTMENT. DIMENSIONS ARE TYPICAL FOR BOTH ABUTMENTS.



① INDICATES WING NUMBER  
 THIS SHEET WAS CREATED BY THE WISDOT BUREAU OF STRUCTURES STANDARD BRIDGE DESIGN TOOL VERSION 0.9

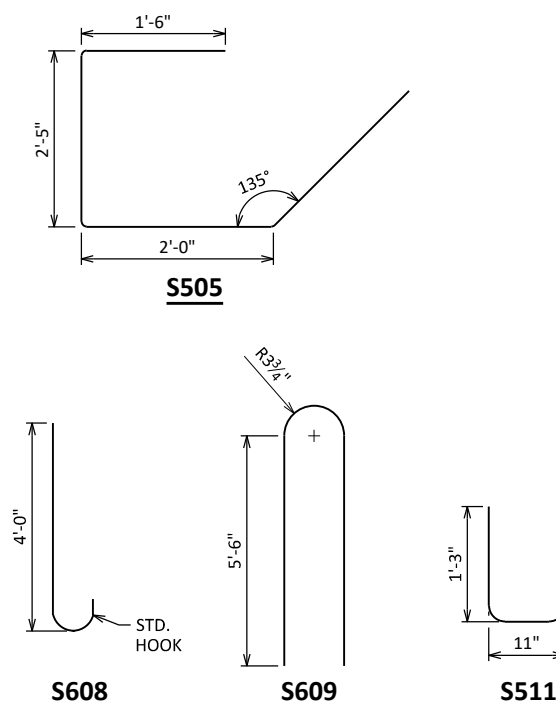
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
<b>STRUCTURE B-71-204</b>			
DRAWN BY	ZSS	PLANS CK'D	DNS
<b>SUPERSTRUCTURE</b>			SHEET 8 OF 10





**CAMBER AND SLAB THICKNESS DIAGRAM**

CAMBER SHOWN IS BASED ON 3 TIMES DEAD LOAD DEFLECTIONS. CAMBER SPANS AS SHOWN TO PROVIDE FOR DEAD LOAD DEFLECTION AND FUTURE CREEP. CAMBER DOES NOT INCLUDE ALLOWANCE FOR FORM SETTLEMENT.



**BILL OF BARS**

BAR MARK	QTY	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
S1101	X	53	50'-2"			SLAB BOTTOM LONGITUDINAL
S702	X	51	26'-2"			SLAB BOTTOM TRANSVERSE
S503	X	51	26'-2"			SLAB TOP TRANSVERSE
S504	X	27	50'-2"			SLAB TOP LONGITUDINAL
S505	X	54	7'-8"	X		ABUTMENT DIAPHRAGM STIRRUPS
S506	X	4	26'-2"			ABUTMENT DIAPHRAGM LONGITUDINAL
S607	X	56	6'-0"			SLAB TOP LONGIT. UNDER RAIL POSTS
S608	X	16	4'-8"	X		SLAB TOP LONGIT. UNDER RAIL END POSTS
S609	X	36	12'-0"	X		SLAB TOP HOOKS UNDER RAIL POSTS
S510	X	4	19'-6"			SLAB BOTTOM TRANS. AT ABUTS.
S511	X	40	3'-2"	X		SLAB VERT. AT ABUTS.

BENDING DIMENSIONS ARE OUT TO OUT OF BARS.

TO DETERMINE FALSEWORK ELEVATION AT EDGE OF SLAB, CROWN OR REFERENCE LINE FOLLOW THIS PROCEDURE:

	TOP OF SLAB ELEVATION AT FINAL GRADE
LESS	SLAB THICKNESS
PLUS	CAMBER
PLUS	FORM SETTLEMENT/DEFLECTION DUE TO PLACEMENT OF SLAB CONCRETE (TO BE COMPUTED BY THE CONTRACTOR)
EQUALS	TOP OF SLAB FALSEWORK ELEVATION

**TOP OF SLAB ELEVATIONS**

	€ BRG. S. ABUT.	1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	€ BRG. N. ABUT.
W. EDGE OF DECK	1096.84	1096.94	1097.02	1097.09	1097.13	1097.16	1097.17	1097.16	1097.12	1097.07	1097.00
€ OF LYNN LINE ROAD	1097.10	1097.20	1097.29	1097.35	1097.40	1097.43	1097.43	1097.42	1097.39	1097.34	1097.27
E. EDGE OF DECK	1096.84	1096.94	1097.02	1097.09	1097.13	1097.16	1097.17	1097.16	1097.12	1097.07	1097.00

**SURVEY TOP OF SLAB ELEVATIONS**

	ABUTMENT	5/10 PT.	ABUTMENT
W. EDGE OF SLAB			
€ OF LYNN LINE ROAD			
E. EDGE OF SLAB			

PRIOR TO RELEASING SLAB FORMWORK, TAKE TOP OF DECK ELEVATIONS AT THE € OF ABUTMENTS, € OF PIERS AND AT 5/10 PTS. TO VERIFY CAMBER. TAKE ELEVATIONS ALONG EDGE OF SLAB AND €. RECORD ELEVATIONS IN THE TABLE ABOVE FOR THE "AS BUILT" PLANS.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
<b>STRUCTURE B-71-204</b>			
DRAWN BY		ZSS	PLANS CK'D DNS
<b>SUPERSTRUCTURE DETAILS</b>			SHEET 9 OF 10

8

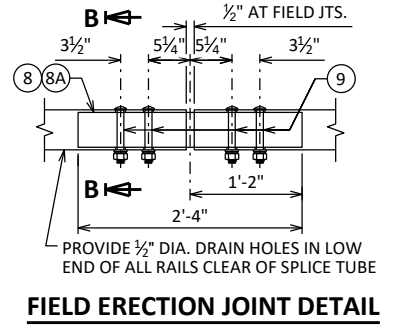
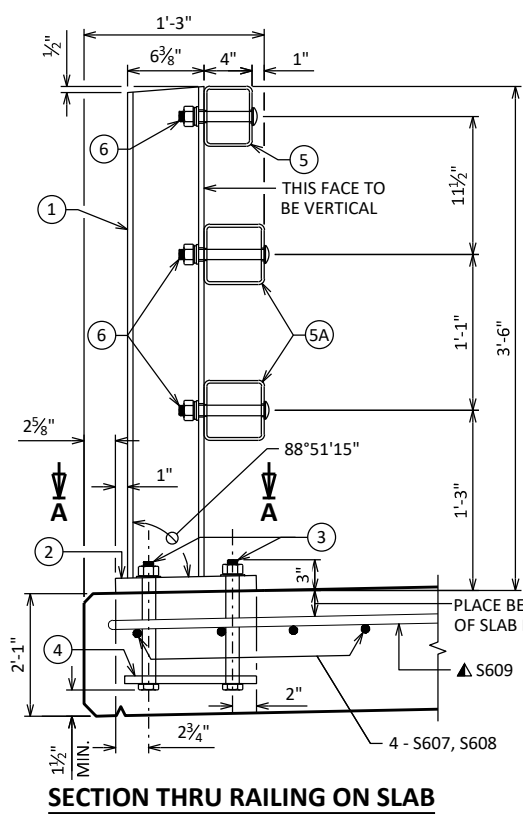
8

**LEGEND**

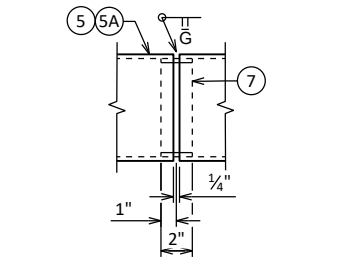
- ① W6 x 25 WITH 1 1/8" x 1 1/2" HORIZ. SLOTS ON EACH SIDE OF POST FOR BOLT NO. 6. CUT BOTTOM OF POST TO MATCH CROSS SLOPE OF ROADWAY. PLACE POST VERTICAL. PLACE POSTS NORMAL TO GRADE LINE.
- ② PLATE 1 3/4" x 11 3/4" x 1'-8" WITH 1 7/16" OVERSIZED HOLES FOR ANCHOR BOLTS NO. 3. WELD TO NO. 1 AS SHOWN.
- ③ ASTM A449 - 1 1/8" DIA. ANCHOR BOLTS WITH NUT AND HARDENED WASHER (ALL GALVANIZED). 5 REQ'D. PER POST. THREAD 3" AND PLACE NORMAL TO PLATE NO. 2. CHAMFER TOP OF BOLTS BEFORE THREADING. USE 1'-9" LONG IN ABUTMENT WINGS. AT POSTS ON CONCRETE SLAB SUPERSTRUCTURES WHERE THE SLAB THICKNESS IS > 16" USE 1'-3" LONG. USE 10 3/4" LONG AT ALL OTHER LOCATIONS. (AN EQUIVALENT THREADED ROD WITH NUTS AND HARDENED WASHERS MAY BE SUBSTITUTED FOR ANCHOR BOLTS IN WINGS IF REQ'D. FOR CONSTRUCTIBILITY.)
- ④ 3/8" x 11" x 1'-8" ANCHOR PLATE (GALVANIZED) WITH 1 3/16" DIA. HOLES FOR ANCHOR BOLTS NO. 3
- ⑤ TS 5 x 4 x 0.25 STRUCTURAL TUBING. ATTACH TO NO. 1 WITH NO. 6.
- ⑤A TS 5 x 5 x 0.25 STRUCTURAL TUBING. ATTACH TO NO. 1 WITH NO. 6.
- ⑥ 7/8" DIA. A325 SLOTTED ROUND HEAD BOLT WITH NUT, 3/16" x 1 5/8" x 1 5/8" MIN. WASHER, AND LOCK WASHER (2 REQ'D. AT EACH RAIL TO POST LOCATION.)
- ⑦ SPLICE SLEEVE FABRICATED FROM 1/4" PLATE. PROVIDE "SLIDING FIT".
- ⑧ 3/8" x 3 3/8" x 2'-4" PLATE. 2 PER RAIL. USED IN NO. 5 & 5A.
- ⑧A 3/8" x 2 5/8" x 2'-4" PLATE USED IN NO. 5, 3/8" x 3 3/8" x 2'-4" PLATE USED IN NO. 5A. 2 PER RAIL.
- ⑨ 7/8" DIA. A325 ROUND HEAD BOLT WITH NUT, WASHER, AND LOCK WASHER. USE 1 5/16" x 1 1/4" LONGIT. SLOTTED HOLES IN PLATE NO. 10A AT FIELD JOINTS AND 1 5/16" x 2 1/4" MIN. LONGIT. SLOTTED HOLES AT EXP. JOINTS IN PLATE NO. 8A. PROVIDE 1 3/16" DIA. ROUND HOLES IN TUBES NO. 5 AND NO. 5A.
- ⑩ 1/2" THK. BACK-UP PLATE WITH 2 - 7/8" x 1 1/2" THREADED SHOP WELDED STUDS (NO. 12). BOLT TO RAIL AS SHOWN IN DETAIL. REQUIRED AT THRIE BEAM GUARD RAIL ATTACHMENTS ONLY. PLACE SYMMETRICALLY ABOUT TUBES NO. 5A.
- ⑪ 1" DIA. HOLES IN PLATE NO. 10 & TUBES NO. 5A FOR 7/8" DIA. A325 BOLTS WITH HEX NUTS AND WASHERS. 6 HOLES IN TUBES AND PLATE NO. 10.
- ⑫ 7/8" DIA. X 1 1/2" LONG THREADED SHOP WELDED STUDS (2 REQ'D).
- ⑬ 3/8" x 8" x 1'-6" PLATE. BOLT TO RAIL AS SHOWN IN DETAIL. REQ'D. AT THRIE BEAM GUARD RAIL ATTACHMENTS ONLY. PLACE SYM. ABOUT TUBES NO. 5A.
- ⑭ 7/8" DIA. X 2" LONG A325 HEX BOLT WITH NUT AND WASHER (5 REQ'D.).
- ⑮ 1" DIA. HOLES IN TUBES NO. 5A FOR 7/8" DIA. A325 ROUND HEAD BOLT WITH NUT, WASHER AND LOCK WASHER (4 REQ'D.). 4 HOLES IN TUBES.

**GENERAL NOTES**

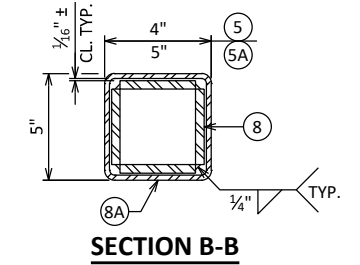
1. BID ITEM SHALL BE "RAILING TUBULAR TYPE M" WHICH INCLUDES ALL ITEMS SHOWN.
2. RAIL POST AND BASE PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A709 GRADE 50. HOLLOW RAILING STRUCTURAL TUBING SHALL CONFORM TO THE REQUIREMENTS OF ASTM A500 GRADE B OR C WITH A CERTIFIED FY = 50 KSI. ANCHOR PLATES, AND SPLICE TUBE PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A709 GRADE 36.
3. THE NUT SECURING THE POST BASE PLATE TO THE CONCRETE SHALL BE TIGHTENED TO A SNUG FIT AND GIVEN AN ADDITIONAL 1/8 TURN.
4. RAILS SHALL BE CONTINUOUS OVER A MINIMUM OF THREE (3) POSTS WITHOUT SPLICES WHERE POSSIBLE. RAILS SHALL BE SPLICED IN A PANEL OVER EXPANSION JOINTS.
5. ENDS OF TUBE SECTIONS SHALL BE SAWED. GRIND SMOOTH EXPOSED EDGES. ALL CUT ENDS SHALL BE TRUE AND SMOOTH.
6. WELD IS THE SAME ON BOTH FLANGES. FLANGE WELD DOES NOT REQUIRE MAGNETIC PARTICLE TESTING.
7. FILL BOLT SLOT OPENINGS IN POST SHIMS AND PLATE NO. 2 AND CAULK AROUND PERIMETER OF PLATE NO. 2 WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. STEEL POST SHIMS MAY BE USED UNDER POSTS WHERE REQ'D. FOR ALIGNMENT.
8. POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.
9. ALL MATERIAL SHALL BE GALVANIZED AFTER FABRICATION. PRIOR TO GALVANIZING, ALL STEEL RAILING POSTS & STEEL TUBING SHALL BE GIVEN A NO. 6 BLAST CLEANING BY SSPC SPECIFICATIONS.



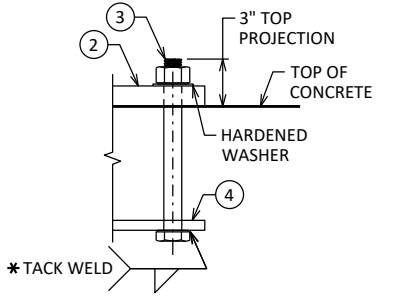
**FIELD ERECTION JOINT DETAIL**



**SHOP RAIL SPLICE DETAIL**

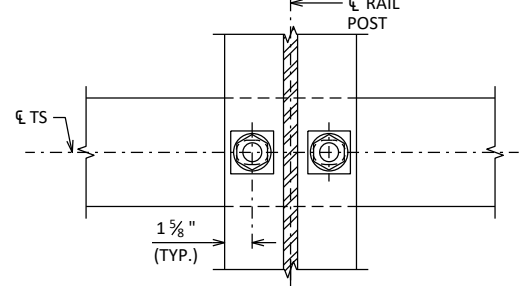


**SECTION B-B**

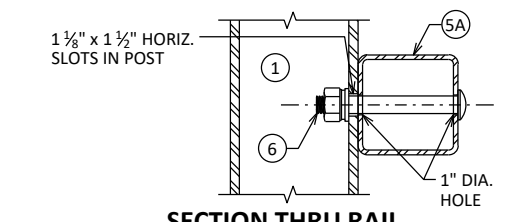


**ANCHOR BOLTS**

\* ANCHOR BOLT ASSEMBLY MAY BE TACK WELDED, EITHER IN THE SHOP, OR IN THE FIELD AFTER THE ANCHOR PLATE IS PLACED.



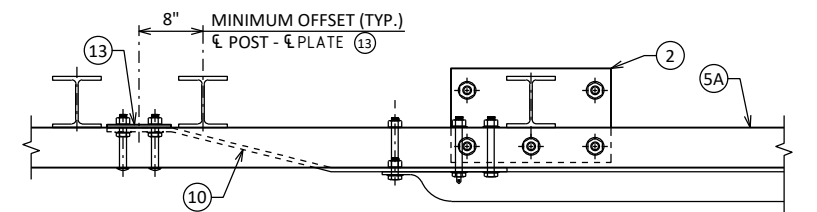
**SECTION THRU POST WEB**



**SECTION THRU RAIL**

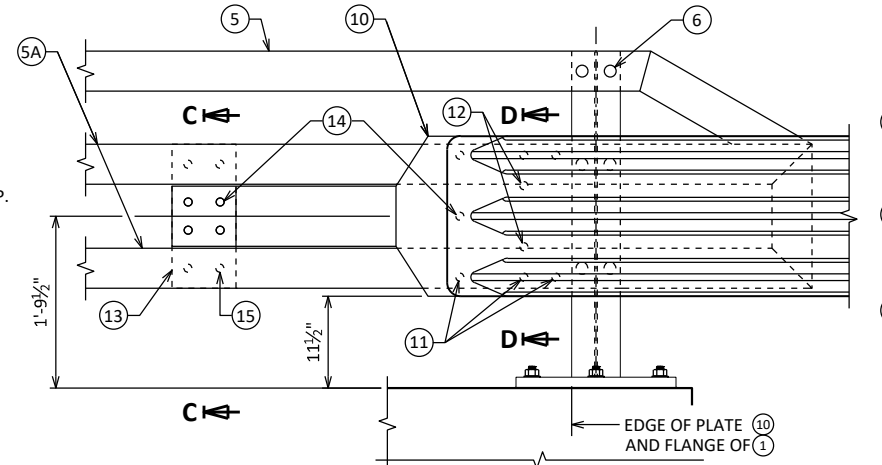
NOTE: CONNECTIONS AT LOWER RAILS SHOWN. CONNECTIONS AT TOP RAIL SIMILAR.

**TYPICAL RAIL TO POST CONNECTIONS**

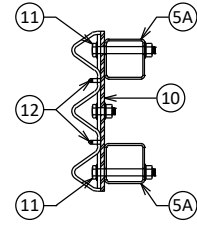


**TOP VIEW AT END POST**

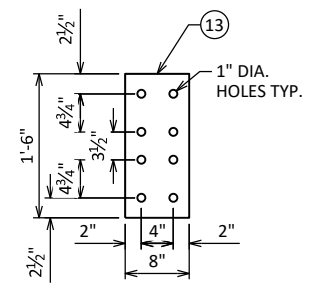
THRIE BEAM RAIL ATTACHMENT



**SECTION C-C**



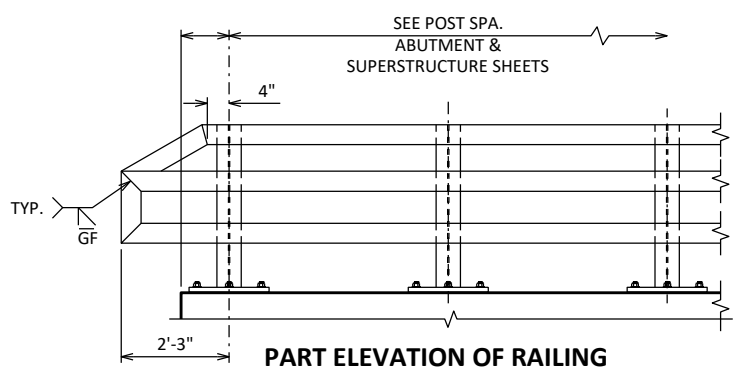
**SECTION D-D**



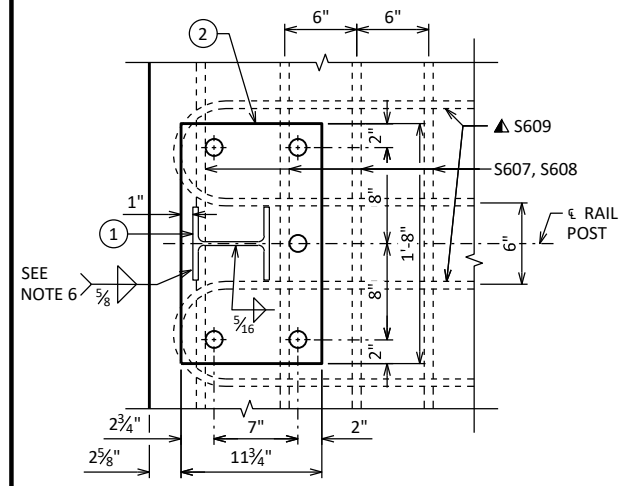
**ANCHOR PLATE AT BEAM GUARD ATTACHMENT**



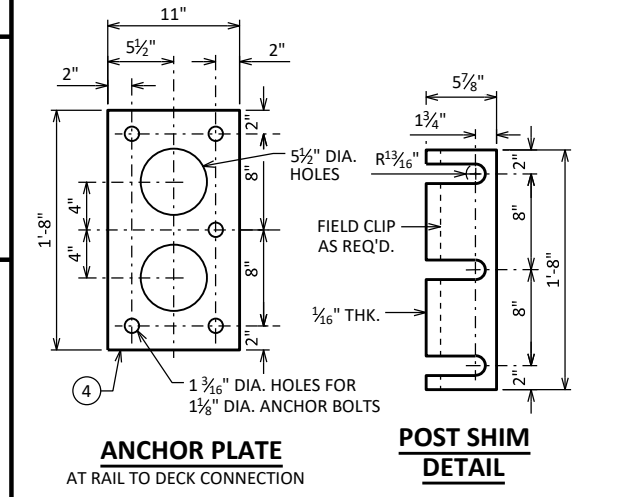
**DETAIL AT END POST THRIE BEAM RAIL ATTACHMENT**



**PART ELEVATION OF RAILING**

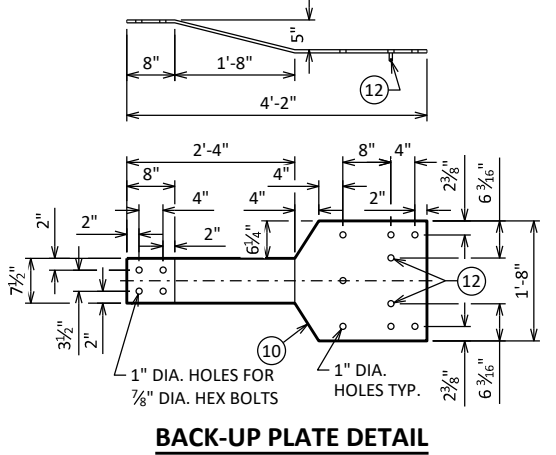


**SECTION A-A**



**ANCHOR PLATE AT RAIL TO DECK CONNECTION**

**POST SHIM DETAIL**

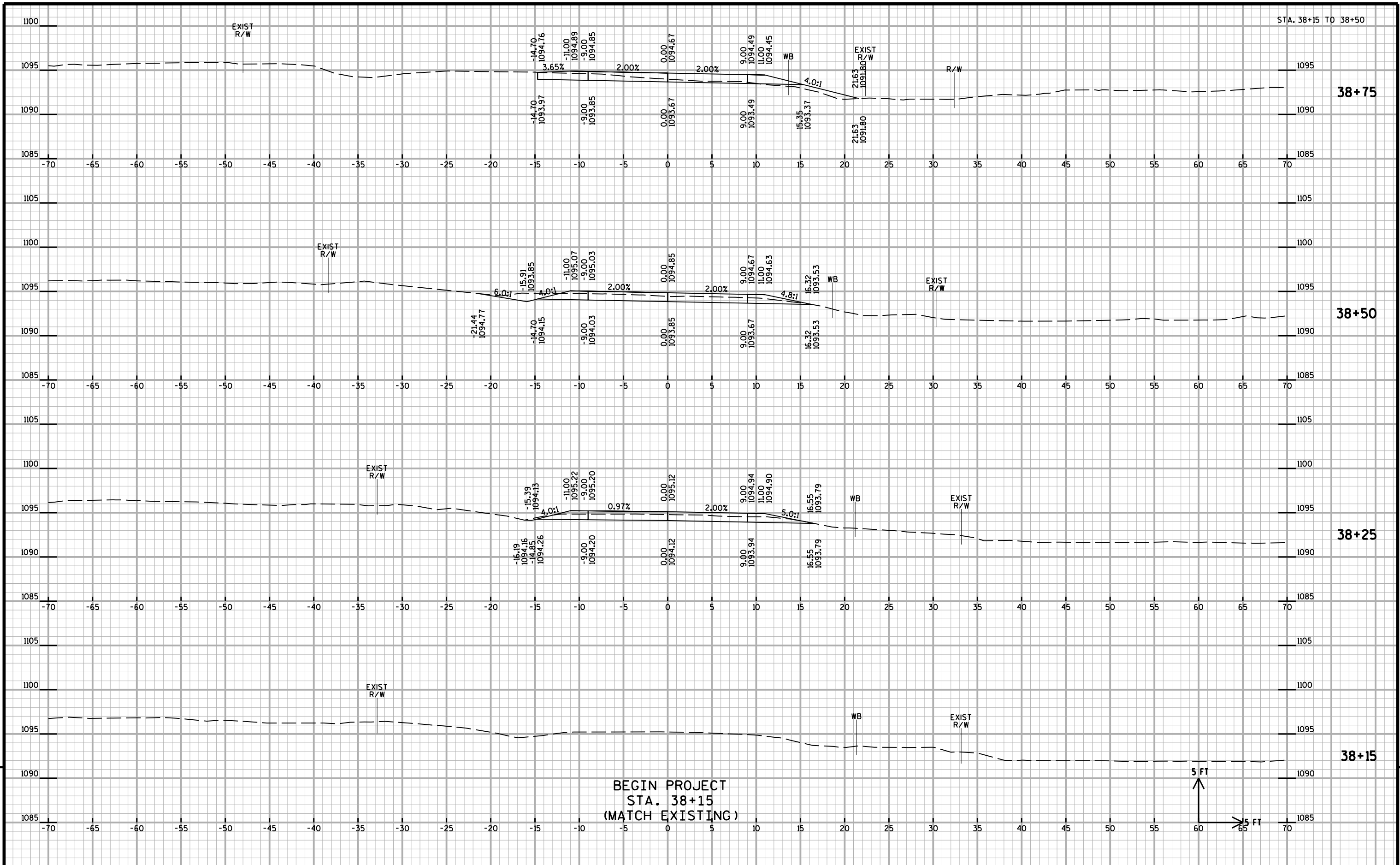


**BACK-UP PLATE DETAIL AT BEAM GUARD ATTACHMENT**

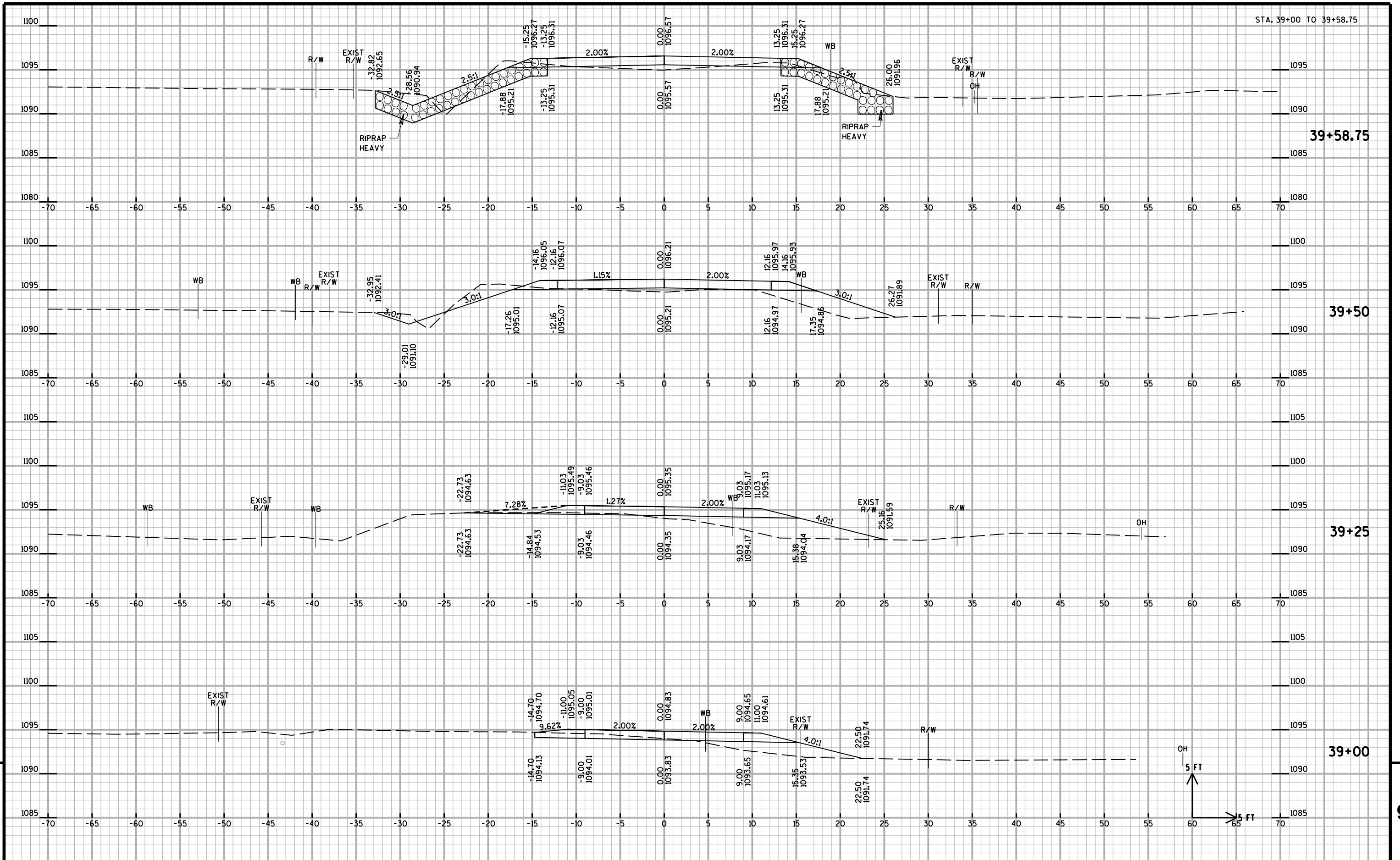
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
<b>STRUCTURE B-71-204</b>			
DRAWN BY		ZSS	PLANS CK'D DNS
<b>TUBULAR STEEL RAILING TYPE 'M'</b>			SHEET 10 OF 10

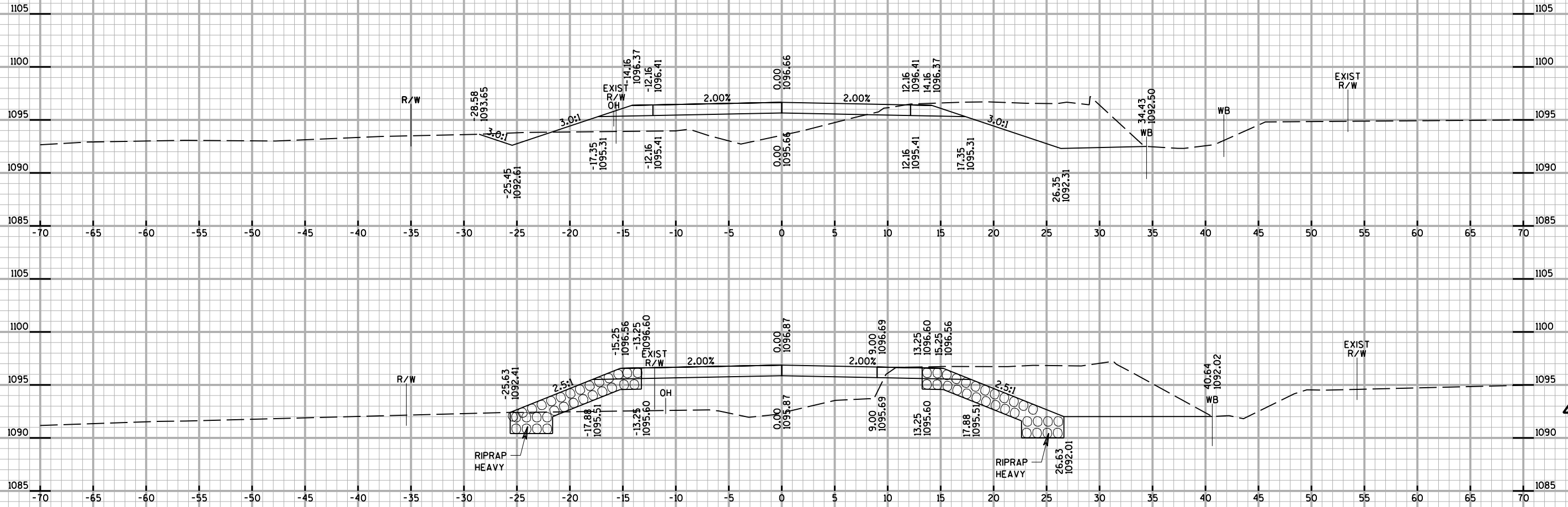
**COMPUTER EARTHWORK**

Station	Distance	Area (SF)		Incremental Vol (CY) (Unadjusted)		Cumulative Vol (CY)		Mass Ordinate
		Cut	Fill	Cut	Fill	Expanded		
						1.00	1.30	
				Note 1	Note 2	Note 1		Note 3
38+15.00		27.8	0.0					
38+25.00	10	18.6	0.0	9	0	9	0	9
38+50.00	25	21.5	0.0	19	0	27	0	27
38+75.00	25	11.1	3.7	15	2	42	2	40
39+00.00	25	6.9	16.9	8	10	51	15	36
39+25.00	25	2.3	31.6	4	22	55	44	11
39+50.00	25	12.1	25.8	7	27	62	78	-17
39+58.75	9	9.1	5.7	3	5	65	85	-20
39+74.75	16	9.1	5.7	5	3	70	89	-19
BRIDGE	--	--	--	--	--	--	--	--
40+25.25	--	78.6	76.6	--	--	--	--	--
40+41.25	16	78.6	76.6	47	45	117	148	-31
40+50.00	9	62.4	44.3	23	20	140	174	-34
40+75.00	25	45.8	8.6	50	24	190	206	-16
41+00.00	25	34.4	1.7	37	5	227	212	15
41+15.00	15	22.6	0.0	16	0	243	212	31
				243	163			

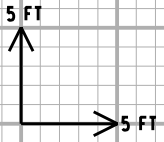


BEGIN PROJECT  
 STA. 38+15  
 (MATCH EXISTING)





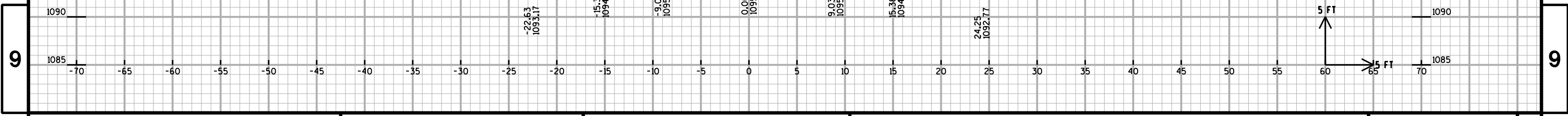
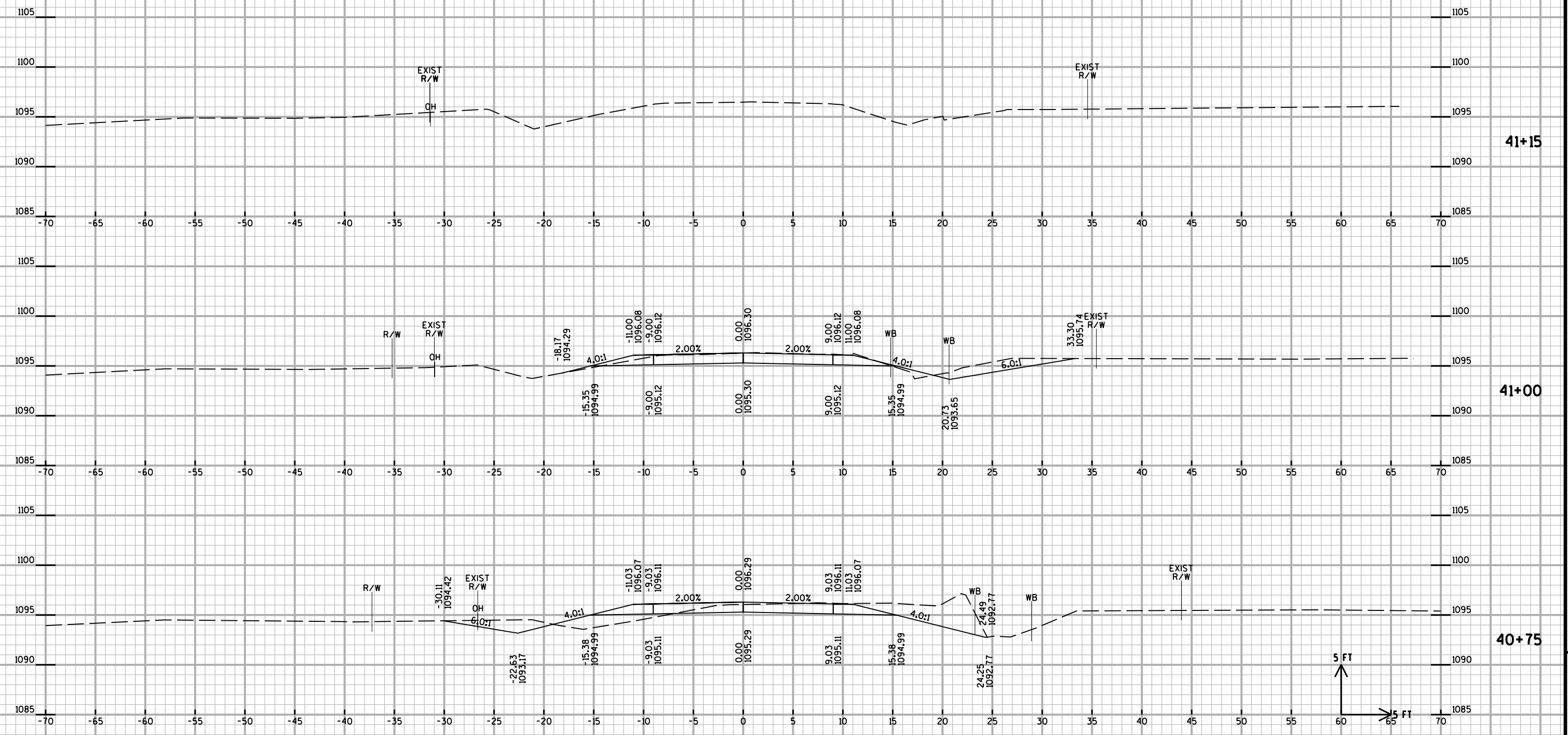
STRUCTURE B-71-0204

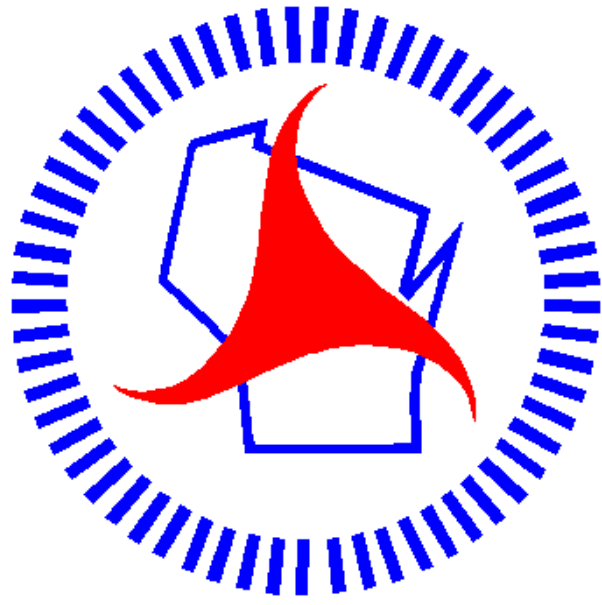


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END PROJECT  
STA. 41+15  
(MATCH EXISTING)





## ***Wisconsin Department of Transportation***

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