

RHI

WITH: N/A  
PROJECT ID:

8724-04-71

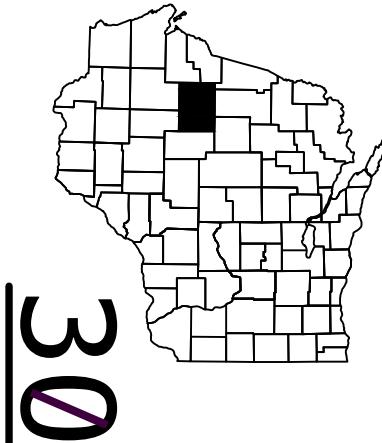
COUNTY: PRICE

MARCH 2026

ORDER OF SHEETS

Section No. 1 Title  
 Section No. 2 Typical Sections and Details  
 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 = 46



DESIGN DESIGNATION 8724-04-01

A.A.D.T. 2026 = 58  
 A.A.D.T. 2046 = 65  
 D.H.V. = 10  
 D.D. = 62 / 38  
 T. = 7.7%  
 DESIGN SPEED = 60 MPH  
 ESALS = 11,300

## CONVENTIONAL SYMBOLS

PLAN	PROFILE
CORPORATE LIMITS	GRADE LINE
PROPERTY LINE	ORIGINAL GROUND
LOT LINE	MARSH OR ROCK PROFILE (To be noted as such)
LIMITED HIGHWAY EASEMENT	SPECIAL DITCH
EXISTING RIGHT OF WAY	GRADE ELEVATION
PROPOSED OR NEW R/W LINE	CULVERT (Profile View)
SLOPE INTERCEPT	UTILITIES
REFERENCE LINE	ELECTRIC
EXISTING CULVERT	FIBER OPTIC
PROPOSED CULVERT (Box or Pipe)	GAS
COMBUSTIBLE FLUIDS	SANITARY SEWER
MARSH AREA	STORM SEWER
WOODED OR SHRUB AREA	TELEPHONE
	WATER
	UTILITY PEDESTAL
	POWER POLE
	TELEPHONE POLE

STATE OF WISCONSIN  
 DEPARTMENT OF TRANSPORTATION

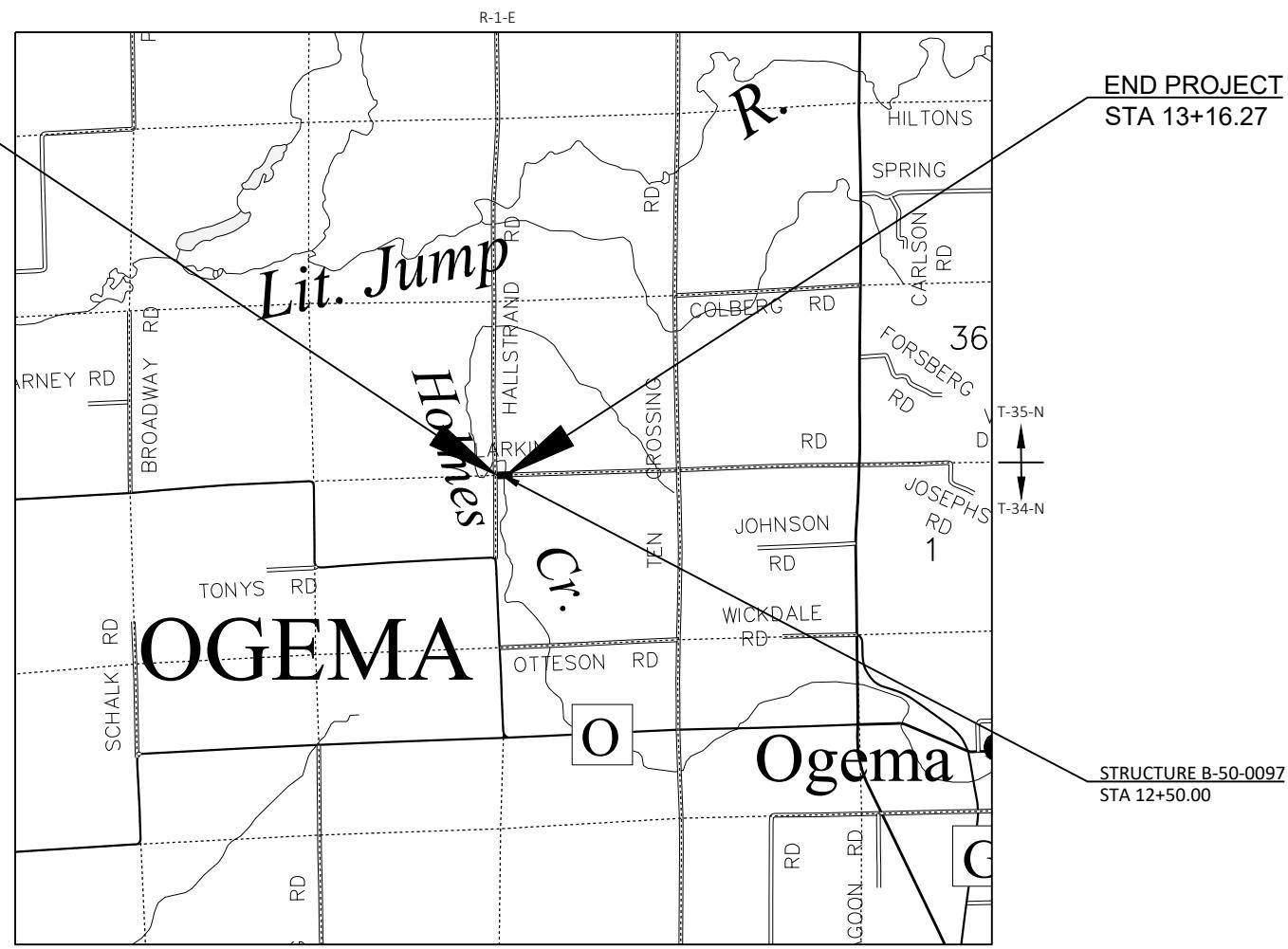
## PLAN OF PROPOSED IMPROVEMENT

## T OGEMA, LARKIN ROAD

HOLMES CREEK BRIDGE, B-50-0097

LOC STR  
PRICE COUNTY

STATE PROJECT NUMBER  
**8724-04-71**



TOTAL NET LENGTH OF CENTERLINE = 0.025 MILES

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), PRICE COUNTY NAD83 (2011), IN U.S. SURVEY FEET. POSITIONS SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES ARE THE SAME AS GROUND DISTANCES.

ELEVATIONS ARE REFERENCED TO NAVD 88 (2012). GPS DERIVED ELEVATIONS ARE BASED ON GEOID 18

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
8724-04-71		

ACCEPTED FOR  
 TOWN OF OGEMA  
 10/13/2025 Highway Commission  
 Date Signature and Title of Official

ORIGINAL PLANS PREPARED BY

**WESTBROOK**  
 Associated Engineers, Inc.

619 EAST HOXIE STREET  
 P.O. BOX 429  
 SPRING GREEN, WISCONSIN 53588  
 PHONE (608) 588-7866  
 FAX (608) 588-7954



STATE OF WISCONSIN  
 DEPARTMENT OF TRANSPORTATION

PREPARED BY  
 Surveyor WESTBROOK ASSOCIATED ENGINEERS, INC.  
 Designer WESTBROOK ASSOCIATED ENGINEERS, INC.  
 Project Manager MICHAEL GRAJE, P.E.  
 Regional Examiner NORTH CENTRAL REGION  
 Regional Supervisor DAN ERVA, P.E.

APPROVED FOR THE DEPARTMENT  
 DATE: 10/15/2025  
 Signature

2		STANDARD ABBREVIATIONS				WISCONSIN DNR LIAISON		DESIGN PROJECT MANAGER		GENERAL NOTES		2	
		ABUT	ABUTMENT	MGAL	ONE THOUSAND GALLONS	WENDY HENNIGES	MICHAEL GRAJE, P.E.	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.		THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESHAPING AND SEEDING ANY PREVIOUSLY GRASSED AREAS WHICH ARE DISTURBED BY OPERATIONS, OUTSIDE OF THE NORMAL CONSTRUCTION LIMITS.			
AC	ACRE	ML OR M/L	MATCH LINE	NOM	NOMINAL	NORTH CENTRAL REGION	NORTH CENTRAL REGION	510 HANSON LAKE RD	RHINELANDER, WI 54501	HMA PAVEMENT WEIGHT CALCULATIONS ARE BASED ON 112 LBS/SY/IN.	APPLY TACK COAT BETWEEN LAYERS OF HMA PAVEMENT AT A RATE OF 0.05 GAL/SY.		
AGG	AGGREGATE			NB	NORTHBOUND	107 SUTLIFF AVE	510 HANSON LAKE RD	RHINELANDER, WI 54501	PHONE: (715) 365-8916	NO TREES OR SHRUBS ARE TO BE REMOVED WITHOUT THE APPROVAL OF THE ENGINEER.	RIGHT OF WAY INFORMATION SHOWN ON THE PLANS IS APPROXIMATE.		
AH	AHEAD			NO	NUMBER	RHINELANDER, WI 54501	PHONE: (715) 365-5705	RHINELANDER, WI 54501	EMAIL: Wendy.Henniges@wisconsin.gov	THE CONTRACTOR IS TO WORK WITH UTMOST CARE AND PROTECT ALL SURVEY MARKERS. REMOVAL OF ANY SURVEY MARKER IS TO BE WITH THE APPROVAL OF THE ENGINEER.	THE CONTRACTOR SHALL PREPARE AN EROSION CONTROL IMPLEMENTATION PLAN (ECIP) AND SUBMIT THE PLAN TO WISDOT AND WDNR FOR REVIEW AT LEAST 14 DAYS PRIOR TO THE PRECONSTRUCTION CONFERENCE.		
AADT	ANNUAL AVERAGE DAILY TRAFFIC			OD	OUTSIDE DIAMETER					WHEN THE QUANTITY OF THE ITEMS OF BASE AGGREGATE, SUBBASE OR HMA PAVEMENT IS MEASURED FOR PAYMENT BY THE TON OR CUBIC YARD, THE DEPTH OR THICKNESS OF THE LAYERS SHOWN ON THE PLAN IS APPROXIMATE AND THE ACTUAL THICKNESS WILL DEPEND ON THE DISTRIBUTION OF THE MATERIAL AS DIRECTED BY THE ENGINEER.			
ASPH	ASPHALTIC			PAVT	PAVEMENT					EROSION CONTROL FEATURES AS SHOWN IN THE PLANS ARE AT APPROXIMATE LOCATIONS. EXACT LOCATIONS WILL BE DETERMINED BY THE CONTRACTOR'S ECIP AND APPROVED BY THE ENGINEER. MAINTAIN EROSION CONTROL MEASURES UNTIL SUCH A TIME AS THE ENGINEER DETERMINES THE MEASURE IS NO LONGER NECESSARY.			
BK	BACK			PC	POINT OF CURVATURE					Biodegradable non-netted matting shall be used along stream corridors.			
BAD	BASE AGGREGATE DENSE			PI	POINT OF INTERSECTION					APPLY SEED, EROSION MAT, AND FERTILIZER TO ALL DISTRIBUTED AREAS WITHIN 7 WORKING DAYS AFTER GRADING WORK IS COMPLETE.			
BL OR B/L	BASE LINE			PT	POINT OF TANGENCY					THE PROPOSED SHOULDER WIDTH SHOWN IN THE TYPICAL SECTIONS ARE MINIMUM WIDTH. PERPETUATE EXISTING SHOULDERS THAT ARE WIDER THAN WHAT IS SHOWN IN THE TYPICAL SECTIONS.			
BM	BENCH MARK			PCC	PORTLAND CEMENT CONCRETE					THE 4-INCH ASPHALTIC SURFACE SHALL BE CONSTRUCTED USING ONE (1) 1.75-INCH LAYER AND ONE (1) 2.25-INCH LAYER. THE LOWER LAYER SHALL BE 2.25-INCHES OF 3 LT 58-28 S. THE UPPER LAYER SHALL BE 1.75-INCHES OF 4 LT 58-28 S.			
CL OR C/L	CENTER LINE			LB	POUND					THE CONTRACTOR'S PAVING OPERATION SHALL BE CONSISTENT WITH THE TYPICAL SECTIONS AND CONSTRUCTED TO PREVENT LONGITUDINAL JOINTS FROM BEING LOCATED WITHIN A DRIVING LANE.			
Δ	CENTRAL ANGLE OR DELTA			PSI	POUNDS PER SQUARE INCH					SAWCUTS, AS SHOWN ON THE PLANS, ARE SUGGESTED LOCATIONS AND MAY BE ADJUSTED AT THE DISCRETION OF THE ENGINEER TO BETTER SUIT FIELD CONDITIONS.			
CONC	CONCRETE			PE	PRIVATE ENTRANCE					THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL DRIVEWAYS AT ALL TIMES EXCEPT WHEN PAVING OR PIPE LAYING OPERATIONS REQUIRE THE DRIVEWAY TO BE CLOSED. ACCESS TO DRIVEWAYS SHALL BE RE-ESTABLISHED IMMEDIATELY AFTER OPERATIONS ARE COMPLETED. ACCESS SHALL BE PROVIDED DURING ALL NON-WORKING HOURS.			
CONST	CONSTRUCTION			PROJ	PROJECT					TRAFFIC CONTROL DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.			
CP	CONTROL POINT			PL	PROPERTY LINE					BEARINGS SHOWN ON THE PLAN ARE TRUE BEARINGS.			
CO	COUNTY			R	RADIUS					DO NOT DRIVE OR STORE EQUIPMENT, OR STORE CONSTRUCTION MATERIALS IN ENVIRONMENTALLY SENSITIVE AREAS, WETLANDS OR WATERWAYS.			
CTH	COUNTY TRUCK HIGHWAY			RL OR R/L	REFERENCE LINE								
CY	CUBIC YARD			REQD	REQUIRED								
D	DEGREE OF CURVE			RT	RIGHT								
DHV	DESIGN HOUR VOLUME			RHF	RIGHT HAND FORWARD								
DIA	DIAMETER			R/W	RIGHT OF WAY								
DD	DIRECTIONAL DISTRIBUTION			RD	ROAD								
DWY	DRIVEWAY			RDWY	ROADWAY								
EA	EACH			SHLDR	SHOULDER								
EB	EASTBOUND			SW	SIDEWALK								
EL OR ELEV	ELEVATION			SB	SOUTHBOUND								
EMB	EMBANKMENT			SPECS	SPECIFICATIONS								
ESALS	EQUIVALENT SINGLE AXLE LOADS			SF	SQUARE FEET								
EXC	EXCAVATION			SY	SQUARE YARD								
EXIST	EXISTING			SDD	STANDARD DETAIL DRAWINGS								
FERT	FERTILIZER			STH	STATE TRUNK HIGHWAY								
FL OR F/L	FLOW LINE			STA	STATION								
FT	FOOT			SE	SUPERELEVATION								
HES	HIGH EARLY STRENGTH			SL OR S/L	SURVEY LINE								
CWT	HUNDRED WEIGHT			TEMP	TEMPORARY								
IN DIA	INCH DIAMETER			T	TRUCKS (PERCENT OF)								
ID	INSIDE DIAMETER			TYP	TYPICAL								
IH	INTERSTATE HIGHWAY			USH	UNITED STATES HIGHWAY								
INV	INVERT			VAR	VARIABLE								
JT	JOINT			VC	VERTICAL CURVE								
LT	LEFT			VPC	VERTICAL POINT OF CURVATURE								
LHF	LEFT HAND FORWARD			VPI	VERTICAL POINT OF INTERSECTION								
L	LENGTH OF CURVE			VPT	VERTICAL POINT OF TANGENCY								
LF	LINEAR FOOT			W	WEST								
LC	LONG CHORD OF CURVE			WB	WESTBOUND								
LS	LUMP SUM												

#### RUNOFF COEFFICIENT TABLE

LAND USE:	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)		SLOPE RANGE (PERCENT)		SLOPE RANGE (PERCENT)		SLOPE RANGE (PERCENT)		SLOPE RANGE (PERCENT)		SLOPE RANGE (PERCENT)	
ROW CROPS:	0.2	2-6	6 & OVER	0.2	2-6	6 & OVER	0.2	2-6	6 & OVER	0.2	2-6	6 & OVER
MEDIAN STRIPTURF:	.19	.20	.24	.19	.22	.26	.26	.28	.33	.20	.25	.30
SIDE SLOPETURF:			.25			.27			.28			.30
PAVEMENT:												
ASPHALT:												
CONCRETE:												
BRICK:												
DRIVES, WALKS:												
ROOFS:												
GRAVEL ROADS, SHOULDERS:												

TOTAL PROJECT AREA = 0.201 ACRES

TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.186 ACRES

PROJECT NO: 8724-04-71

HWY: LARKIN ROAD

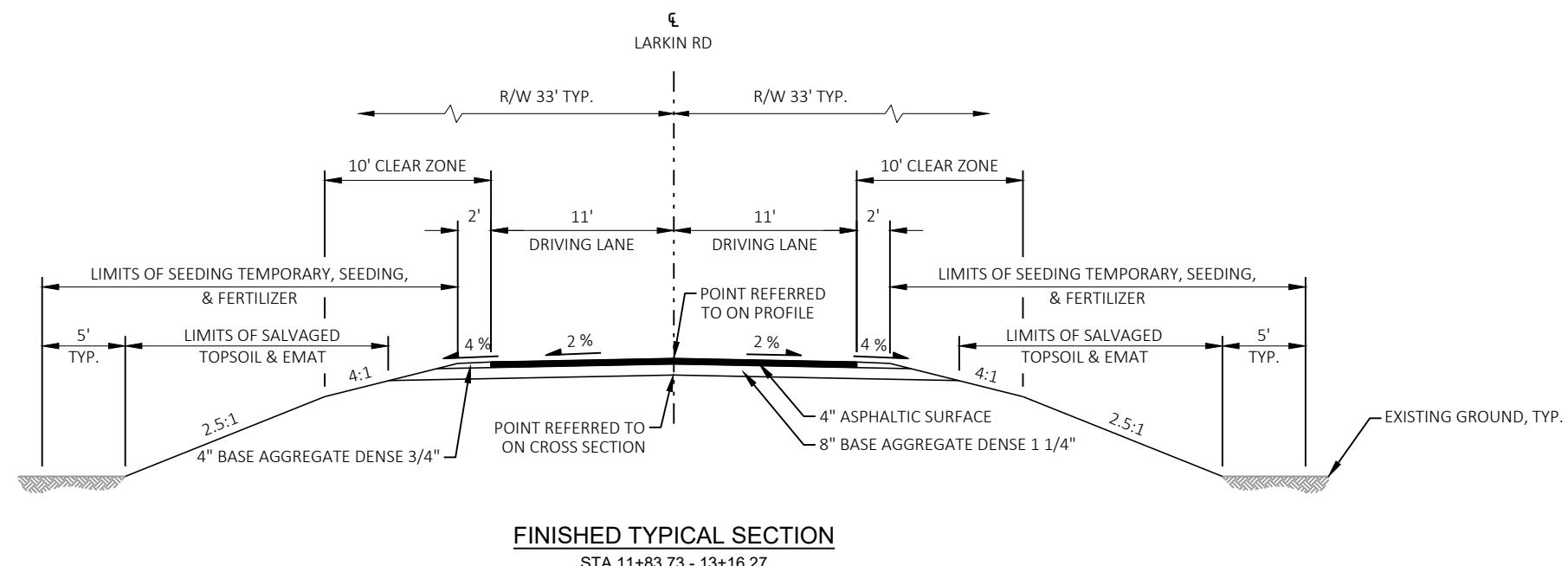
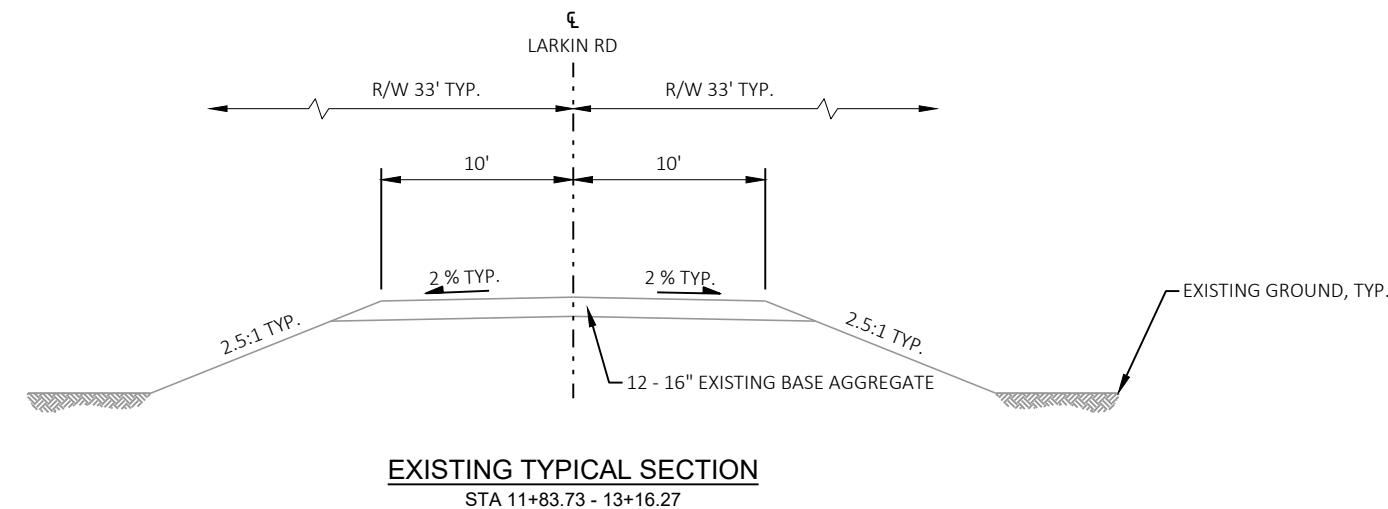
COUNTY: PRICE

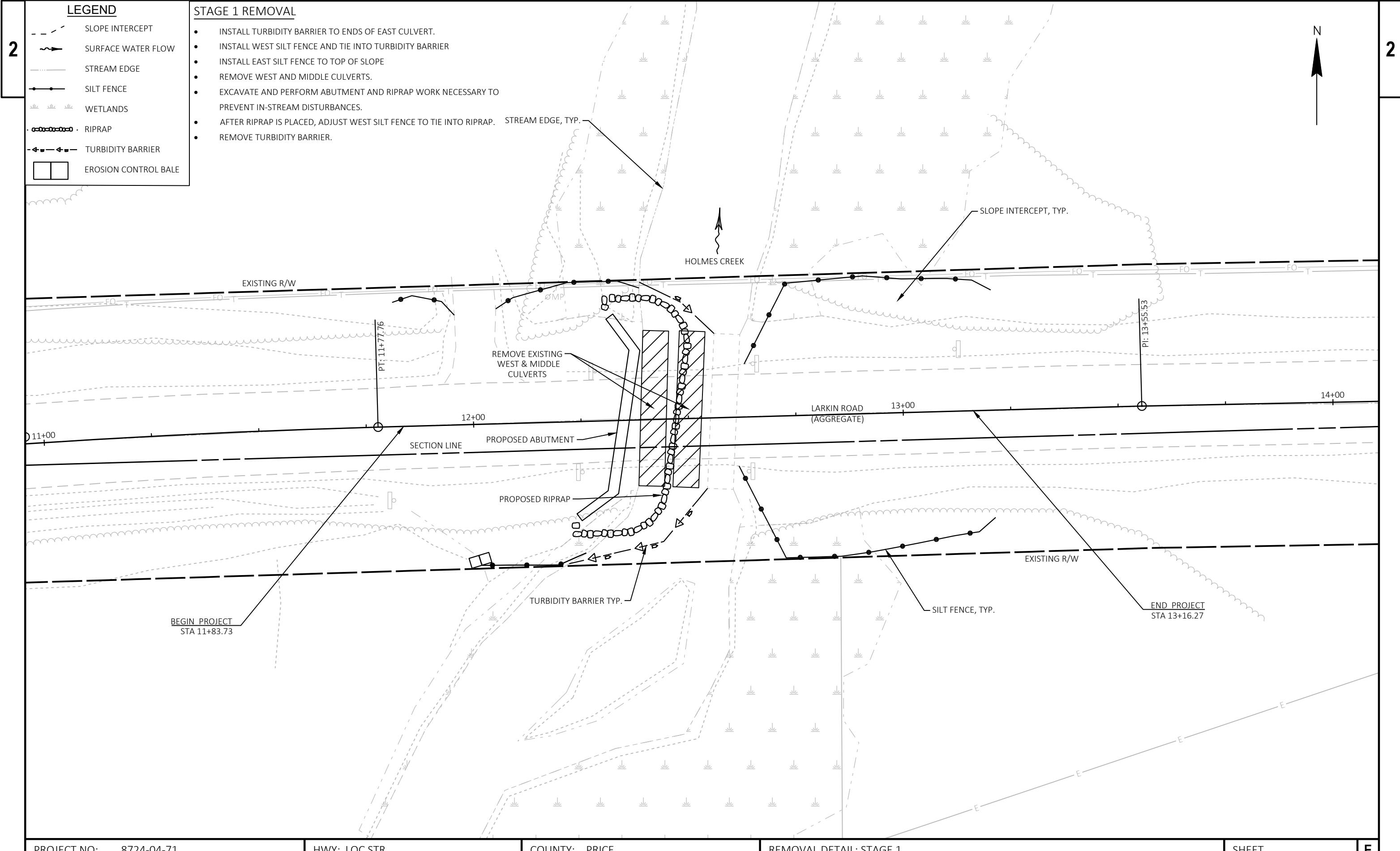
GENERAL NOTES

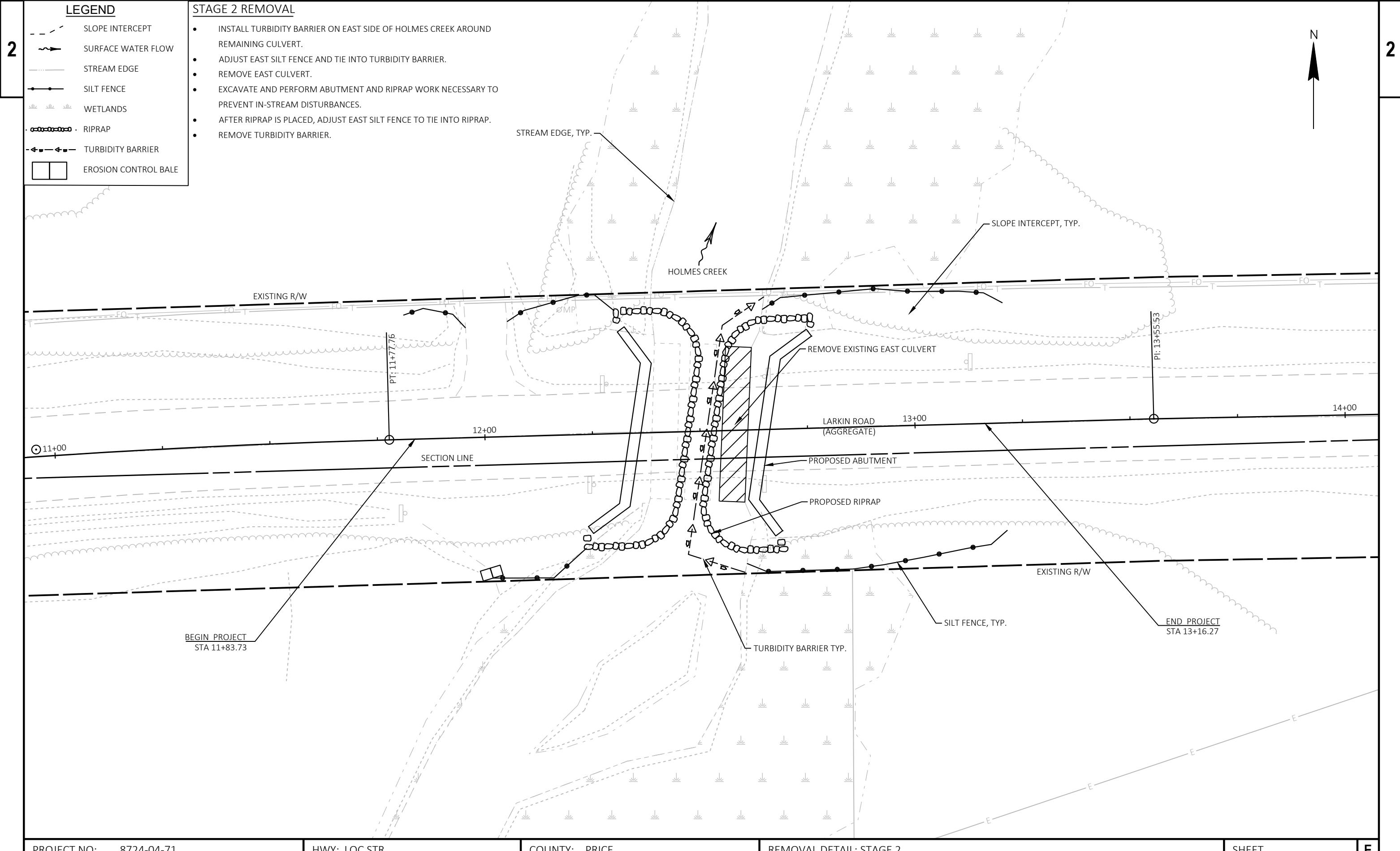
SHEET

E

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



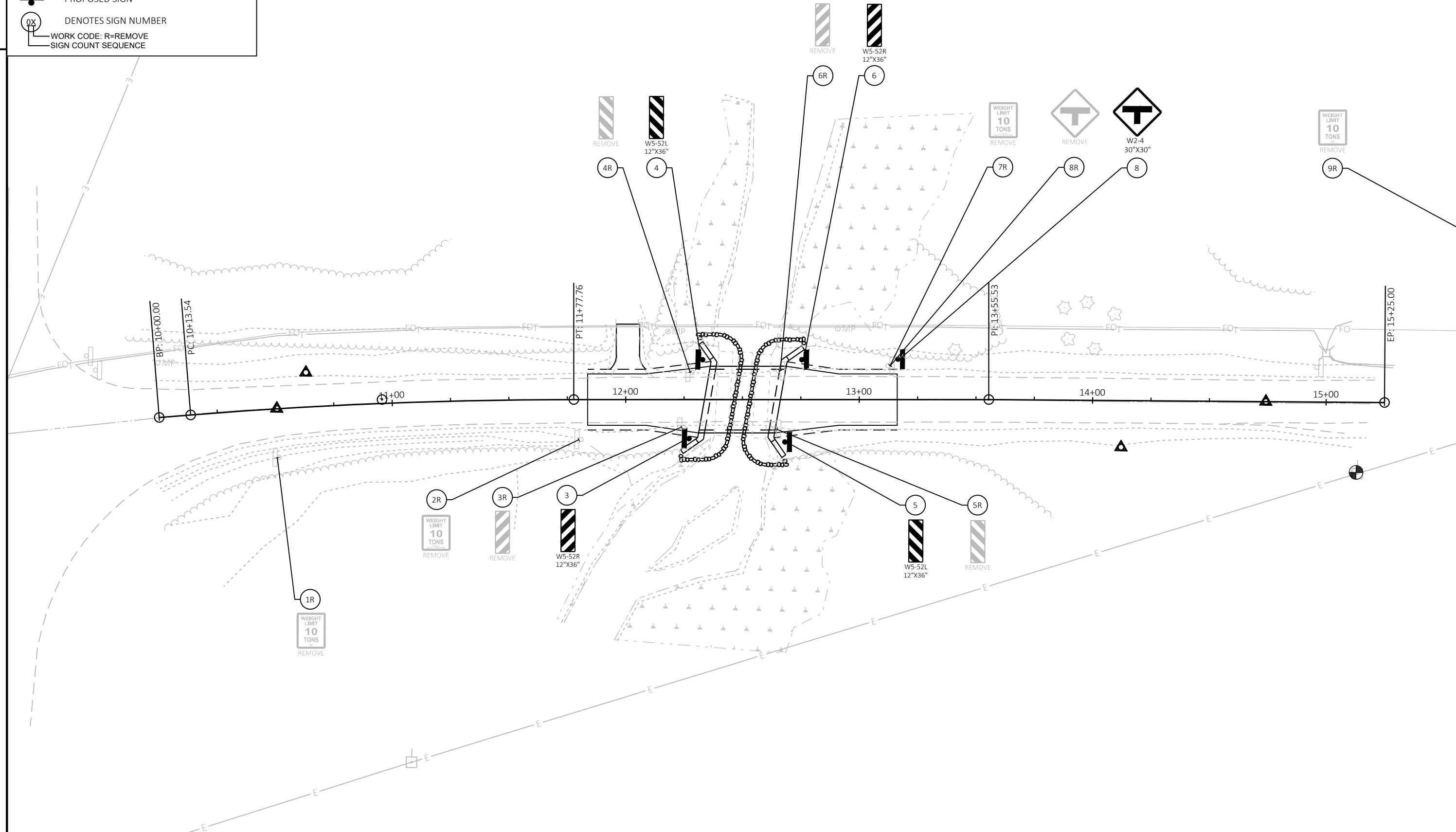




LEGEND: PERMANENT SIGNING	
EXISTING SIGN	
PROPOSED SIGN	
DENOTES SIGN NUMBER	
WORK CODE: R=REMOVE	
SIGN COUNT SEQUENCE	

2

2



PROJECT NO: 8724-04-71

HWY: LARKIN RD

COUNTY: PRICE

PERMANENT SIGNING

SHEET

E

FILE NAME : G:\00-PROJECT FILES\2024\24195 ID 8724-04-01, T OGEMA, LARKIN RD, PRICE CO\0-CAD\Sheets\023201\_PS.DWG  
LAYOUT NAME - 023201\_ps

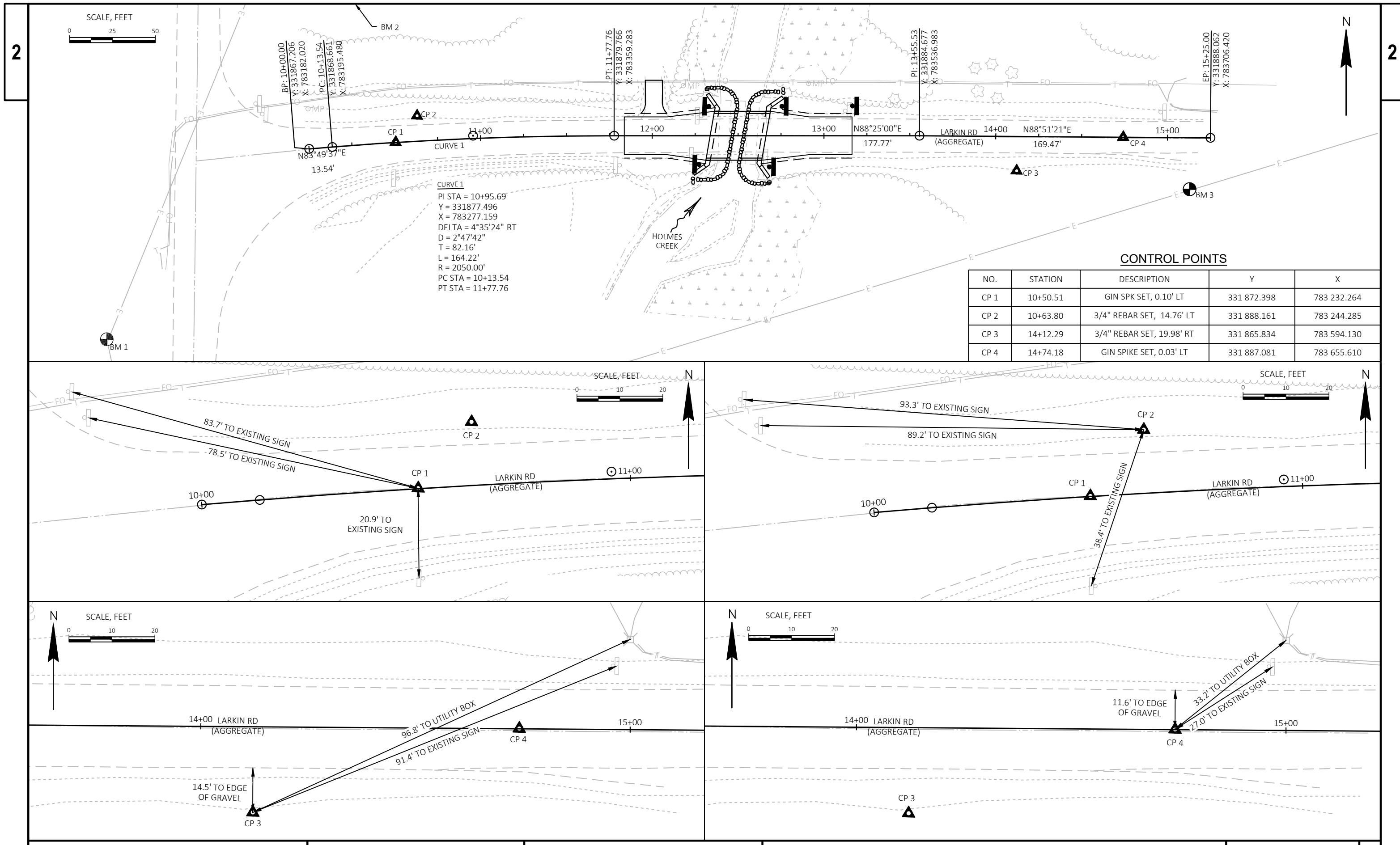
PLOT DATE : 10/9/2025 4:07 PM

PLOT BY : KYLE MAYBERRY

PLOT NAME :

PLOT SCALE : 1 IN:40 FT

WISDOT/CADD'S SHEET 42



PROJECT NO: 8724-04-71

HWY: LOC ST

COUNTY: PRICE

## ALIGNMENT DETAILS

SHEET

FILE NAME : G:\00-PROJECT FILES\2024\24195 ID 8724-04-01, T OGEMA, LARKIN RD, PRICE CO\0-CAD\Sheets\027201\_Ad.DWG  
LAYOUT NAME - 027201\_Ad

PLOT DATE : 10/8/2025 2:00 PM

PLOT BY : KYLE MAYBER

PLOT NAME

PLOT SCALE : VARIES

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WISDOT/CADDS SHEET 43

## Estimate Of Quantities

8724-04-71

Line	Item	Item Description	Unit	Total	Qty
0002	201.0205	Grubbing	STA	3.000	3.000
0004	203.0220	Removing Structure (structure) 01. P-50-0914	EACH	1.000	1.000
0006	205.0100	Excavation Common	CY	85.000	85.000
0008	206.1001	Excavation for Structures Bridges (structure) 01. B-50-0097	EACH	1.000	1.000
0010	208.0100	Borrow	CY	44.000	44.000
0012	210.1500	Backfill Structure Type A	TON	300.000	300.000
0014	213.0100	Finishing Roadway (project) 01. 8724-04-71	EACH	1.000	1.000
0016	305.0110	Base Aggregate Dense 3/4-Inch	TON	14.000	14.000
0018	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	170.000	170.000
0020	455.0605	Tack Coat	GAL	20.000	20.000
0022	465.0105	Asphaltic Surface	TON	60.000	60.000
0024	502.0100	Concrete Masonry Bridges	CY	108.000	108.000
0026	502.3200	Protective Surface Treatment	SY	149.000	149.000
0028	505.0400	Bar Steel Reinforcement HS Structures	LB	4,250.000	4,250.000
0030	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	13,020.000	13,020.000
0032	513.4061	Railing Tubular Type M	LF	70.000	70.000
0034	516.0500	Rubberized Membrane Waterproofing	SY	12.000	12.000
0036	550.0500	Pile Points	EACH	14.000	14.000
0038	550.2106	Piling CIP Concrete 10 3/4 X 0.365-Inch	LF	560.000	560.000
0040	606.0300	Riprap Heavy	CY	130.000	130.000
0042	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	160.000	160.000
0044	618.0100	Maintenance and Repair of Haul Roads (project) 01. 8724-04-71	EACH	1.000	1.000
0046	619.1000	Mobilization	EACH	1.000	1.000
0048	624.0100	Water	MGAL	2.000	2.000
0050	625.0500	Salvaged Topsoil	SY	215.000	215.000
0052	628.1104	Erosion Bales	EACH	2.000	2.000
0054	628.1504	Silt Fence	LF	250.000	250.000
0056	628.1520	Silt Fence Maintenance	LF	396.000	396.000
0058	628.1905	Mobilizations Erosion Control	EACH	8.000	8.000
0060	628.1910	Mobilizations Emergency Erosion Control	EACH	4.000	4.000
0062	628.2008	Erosion Mat Urban Class I Type B	SY	215.000	215.000
0064	628.6005	Turbidity Barriers	SY	180.000	180.000
0066	629.0210	Fertilizer Type B	CWT	0.500	0.500
0068	630.0130	Seeding Mixture No. 30	LB	20.000	20.000
0070	630.0200	Seeding Temporary	LB	13.000	13.000
0072	630.0500	Seed Water	MGAL	10.000	10.000
0074	634.0612	Posts Wood 4x6-Inch X 12-FT	EACH	5.000	5.000
0076	637.2230	Signs Type II Reflective F	SF	18.250	18.250
0078	638.2602	Removing Signs Type II	EACH	9.000	9.000
0080	638.3000	Removing Small Sign Supports	EACH	8.000	8.000
0082	642.5001	Field Office Type B	EACH	1.000	1.000
0084	643.0420	Traffic Control Barricades Type III	DAY	944.000	944.000
0086	643.0705	Traffic Control Warning Lights Type A	DAY	1,888.000	1,888.000
0088	643.0900	Traffic Control Signs	DAY	885.000	885.000
0090	643.1050	Traffic Control Signs PCMS	DAY	14.000	14.000
0092	643.5000	Traffic Control	EACH	1.000	1.000
0094	645.0111	Geotextile Type DF Schedule A	SY	64.000	64.000
0096	645.0120	Geotextile Type HR	SY	210.000	210.000
0098	650.4500	Construction Staking Subgrade	LF	100.000	100.000

## Estimate Of Quantities

8724-04-71

Line	Item	Item Description	Unit	Total	Qty
0100	650.5000	Construction Staking Base	LF	100.000	100.000
0102	650.6501	Construction Staking Structure Layout (structure) 01. B-50-0097	EACH	1.000	1.000
0104	650.9911	Construction Staking Supplemental Control (project) 01. 8724-04-71	EACH	1.000	1.000
0106	650.9920	Construction Staking Slope Stakes	LF	100.000	100.000
0108	715.0502	Incentive Strength Concrete Structures	DOL	648.000	648.000
0110	SPV.0090	Special 01. Flashing Stainless Steel	LF	55.000	55.000
0112	SPV.0195	Special 01. Infill Riprap B-50-097	TON	100.000	100.000

### EXCAVATION SUMMARY

DIVISION	FROM/TO STATION	205.0100 EXCAVATION COMMON (1)	CUT (2)	SALVAGED/UNUSABLE PAVEMENT MATERIAL (3)	AVAILABLE MATERIAL (4)	UNEXPANDED FILL	EXPANDED FILL (5)	MASS ORDINATE +/- (6)	WASTE (7)	208.0100 BORROW
		FACTOR 1.25					FACTOR 1.25			
WEST APPROACH	11+83.73/12+33.73	42	0	42	48	60	-18	0	18	
EAST APPROACH	12+66.27/13+16.27	43	0	43	55	69	-26	0	26	
GRAND TOTAL		85	0	85	103	129	-44	0	44	

NOTES:  
(1) EXCAVATION COMMON IS THE SUM OF THE CUT COLUMN. ITEM NUMBER 205.0100  
(2) SALVAGED/UNUSABLE PAVEMENT MATERIAL IS INCLUDED IN CUT.  
(3) SALVAGED/UNUSABLE PAVEMENT MATERIAL INCLUDES EXISTING ASPHALT.  
(4) AVAILABLE MATERIAL = CUT - SALVAGED/UNUSABLE PAVEMENT MATERIAL  
(5) EXPANDED FILL FACTOR = 1.25  
EXPANDED FILL = (UNEXPANDED FILL) \* FILL FACTOR  
(6) THE MASS ORDINATE + OR - QTY CALCULATED FOR THE DIVISION. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE DIVISION. MINUS INDICATES A SHORTAGE OF MATERIAL WITHIN THE DIVISION.  
(7) FACTORS USED TO COMPUTE ANTICIPATED WASTE AND THE COMPUTED WASTE VOLUME IDENTIFIED ARE FOR GENERAL INFORMATION ONLY.

### BASE AGGREGATE DENSE

STATION	TO	STATION	LOCATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	624.0100 WATER MGAL
11+84	-	12+34	WEST APPROACH	7	85	1.0
12+66	-	13+16	EAST APPROACH	7	85	1.0
			TOTAL	14	170	2.0

### ASPHALTIC SURFACE

STATION	TO	STATION	LOCATION	455.0605 TACK COAT GAL	465.0105 ASPHALTIC SURFACE TON
11+84	-	12+34	WEST APPROACH	10	30
12+66	-	13+16	EAST APPROACH	10	30
			TOTAL	20	60

GRUBBING

201.0205

### MOBILIZATIONS EROSION CONTROL

STATION	TO	STATION	LOCATION	625.0500 SALVAGED TOPSOIL SY	628.2008 EROSION MAT URBAN CLASS I TYPE B SY	629.0210 FERTILIZER CWT	630.0130 SEEDING MIXTURE NO. 30 LB	630.0200 SEEDING TEMPORARY LB	630.0500 SEED WATER MGAL
11+84	-	12+34	WEST APPROACH, LT	34	34	0.1	4	2	1.70
11+84	-	12+26	WEST APPROACH, RT	49	49	0.1	5	3	2.20
12+74	-	13+16	EAST APPROACH, LT	40	40	0.1	4	3	1.90
12+66	-	13+16	EAST APPROACH, RT	49	49	0.1	5	3	2.30
			UNDISTRIBUTED	43	43	0.1	2	2	1.90
			TOTAL	215	215	0.5	20	13	10

### SILT FENCE

STATION	TO	STATION	LOCATION	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF
11+82	-	12+39	WEST APPROACH, LT	52	104
12+01	-	12+25	WEST APPROACH, RT	25	50
12+60	-	13+21	EAST APPROACH, LT	58	116
12+65	-	13+21	EAST APPROACH, RT	63	126
			UNDISTRIBUTED	52	---
			TOTAL	250	396

LOCATION	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH
PROJECT	8	4
TOTAL	8	4

### EROSION BALES

STATION	LOCATION	628.1104 EACH
12+00	WEST APPROACH, LT	1
	UNDISTRIBUTED	1
	TOTAL	2

### PERMANENT SIGNING

STATION	LOCATION	SIGN NUMBER	SIGN CODE	SIGN DESCRIPTION	634.0612 POSTS WOOD 4X6-INCH X 12-FT EACH	637.2230 SIGNS TYPE II REFLECTIVE F SF	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	REMARKS
10+50	RT	1R	R12-1	WEIGHT LIMIT 10 TON 100 FEET AHEAD	---	---	1	1	
11+80	RT	2R	R12-1	WEIGHT LIMIT 10 TON	---	---	1	1	
12+24	RT	3	W5-52R	BRIDGE HASH MARK	1	3	---	---	
12+26	RT	3R	W5-52R	BRIDGE HASH MARK	---	---	1	1	
12+28	LT	4	W5-52L	BRIDGE HASH MARK	1	3	---	---	
12+32	LT	4R	W5-52L	BRIDGE HASH MARK	---	---	1	1	
12+69	RT	5	W5-52R	BRIDGE HASH MARK	1	3	---	---	
12+65	RT	5R	W5-52R	BRIDGE HASH MARK	---	---	1	1	
12+76	LT	6	W5-52L	BRIDGE HASH MARK	1	3	---	---	
12+66	LT	6R	W5-52L	BRIDGE HASH MARK	---	---	1	1	
13+13	LT	7R	R-12-1	WEIGHT LIMIT 10 TONS	---	---	1	1	
13+13	LT	8R	W2-4	"T" INTERSECTION AHEAD	---	---	1	---	SAME POST AS "WEIGHT LIMIT 10 TONS" SIGN
13+17	LT	8	W2-4	"T" INTERSECTION AHEAD	1	6.25	---	---	
		9R	R12-1	WEIGHT LIMIT 10 TON AHEAD	---	---	1	1	
				TOTAL	5	18.25	9	8	

ALL ITEMS CATEGORY 0010 UNLESS NOTED OTHERWISE.

PROJECT NO: 8724-04-71

HWY: LARKIN RD

COUNTY: PRICE

MISCELLANEOUS QUANTITIES

SHEET

E

3

3

TRAFFIC CONTROL

LOCATION	DURATION	643.0420		643.0705		643.0900		643.1050		643.5000	
		TRAFFIC CONTROL	BARRICADES	TRAFFIC CONTROL	WARNING LIGHTS	TRAFFIC CONTROL	SIGNS	TRAFFIC CONTROL	SIGNS	TRAFFIC CONTROL	PCMS
WEST APPROACH	59	7	413	14	826	4	236	---	---	---	---
EAST APPROACH	59	7	413	14	826	9	531	---	---	---	---
UNDISTRIBUTED	59	2	118	4	236	2	118	---	---	---	---
PROJECT	---	---	---	---	---	---	2	14	1	1	
TOTAL		16	944	32	1,888	15	885	2	14	1	

CONSTRUCTION STAKING

STATION	TO	STATION	LOCATION	650.4500	650.5000	650.6501.01	650.9911.01	650.9920
				CONSTRUCTION STAKING SUBGRADE	CONSTRUCTION STAKING BASE	CONSTRUCTION STAKING STRUCTURE LAYOUT	CONSTRUCTION STAKING SUPPLEMENTAL CONTROL	CONSTRUCTION STAKING SLOPE STAKES
11+84	-	12+34	WEST APPROACH	50	50	---	---	50
12+66	-	13+16	EAST APPROACH	50	50	---	---	50
			PROJECT	---	---	1	1	---
			TOTAL	100	100	1*	1	100

\* CATEGORY 0020

INFILL RIPRAP B-50-097

LOCATION	SPV.0195.01
	TON
WEST ABUTMENT	50
EAST ABUTMENT	50
TOTAL	100

ALL ITEMS CATEGORY 0010 UNLESS NOTED OTHERWISE.

PROJECT NO: 8724-04-71

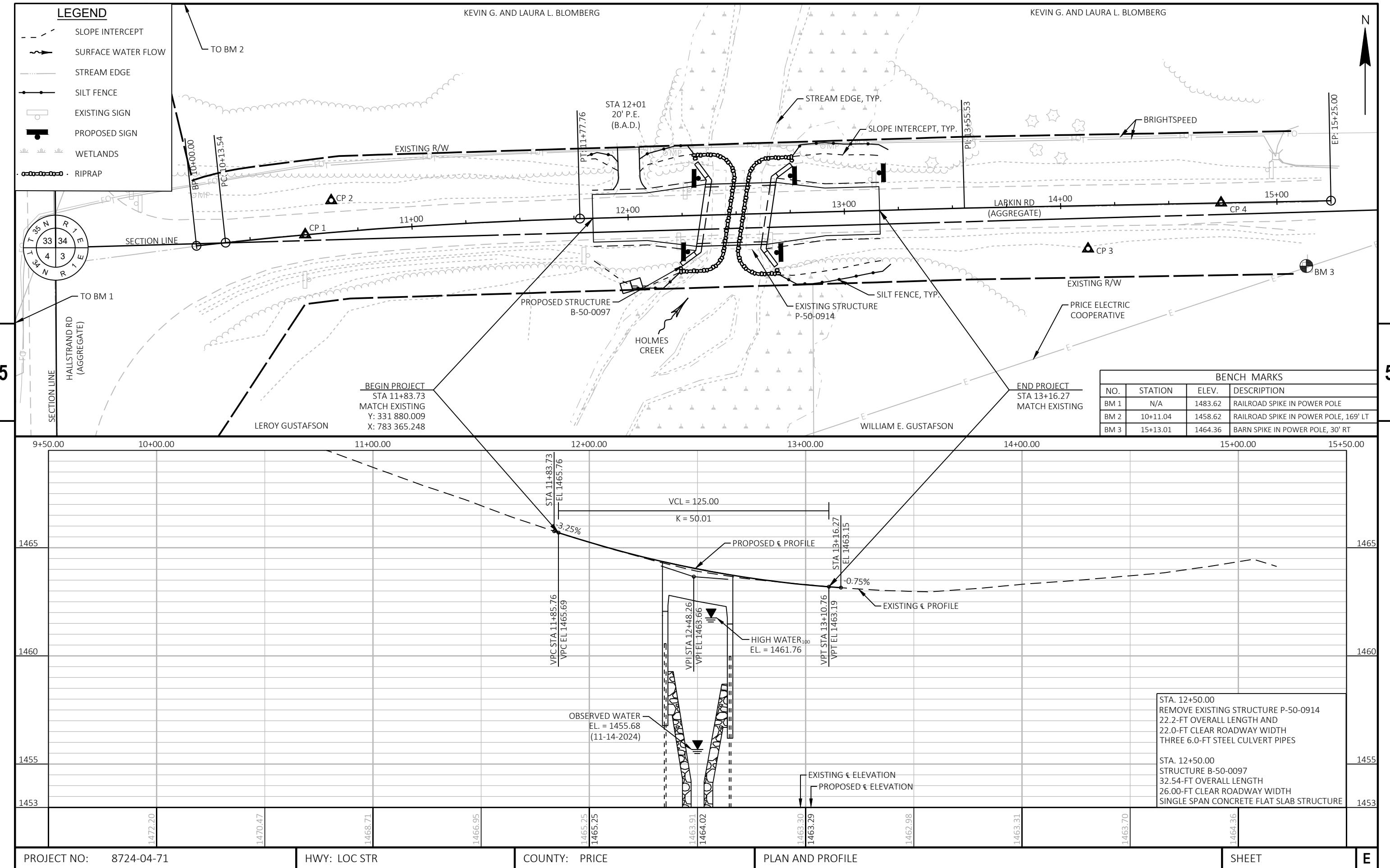
HWY: LARKIN RD

COUNTY: PRICE

MISCELLANEOUS QUANTITIES

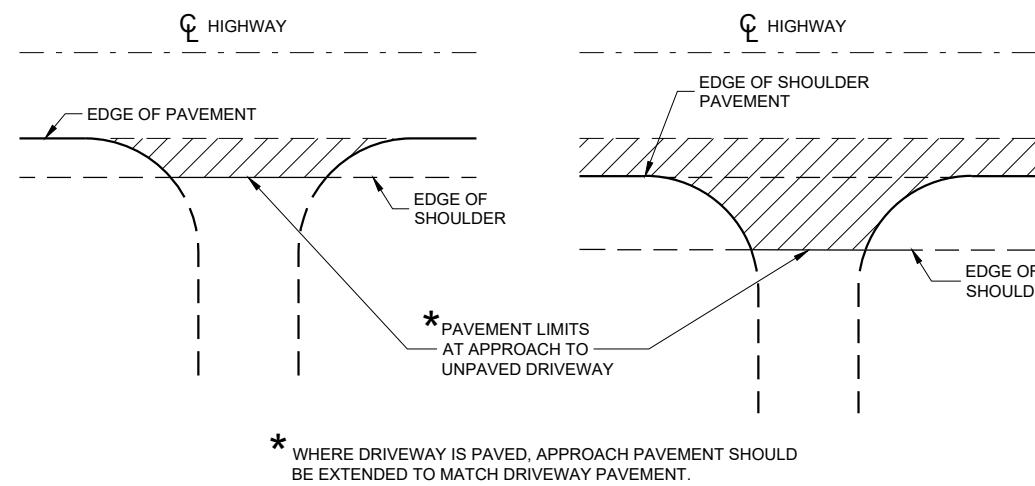
SHEET

E



## Standard Detail Drawing List

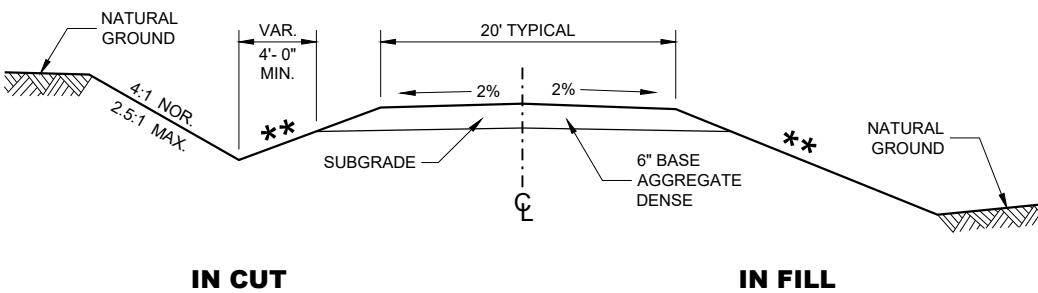
08D21-01	DRI VEWAYS WI THOUT CURB & GUTTER
08E08-03	TYPI CAL I NSTALLATI ONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SI LT FENCE
08E11-02	TURBI DI TY BARRI ER
12A03-10	NAME PLATE (STRUCTURES)
13C19-03	HMA LONGI TUDI NAL JOINTS
15C02-09A	BARRI CADES AND SIGNS FOR MAI NLINE CLOSURES
15C02-09B	BARRI CADES AND SIGNS FOR VARIOUS CLOSURES
15C06-12	SIGNING & MARKING FOR TWO LANE BRIDGES
15C11-10B	CHANNELIZING DEVICES DRUMS, CONES, BARRI CADES AND VERTI CAL PANELS



**PLAN VIEW**  
(UNPAVED SHOULDER ON HIGHWAY)

**PLAN VIEW**  
(PAVED SHOULDER ON HIGHWAY)

**RURAL DRIVEWAY INTERSECTION DETAIL**  
**(NO CURB AND GUTTER OR SIDEWALK)**



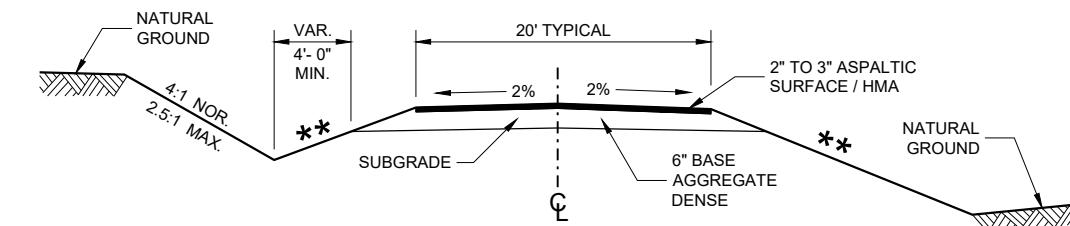
**IN CUT**

**IN FILL**

**TYPICAL CROSS SECTION FOR**  
**PRIVATE DRIVE OR FIELD ENTRANCE**  
**AGGREGATE SURFACE**

\*\* SLOPE CAN VARY WITH  
SPEED. SEE 11-45-30.6.2

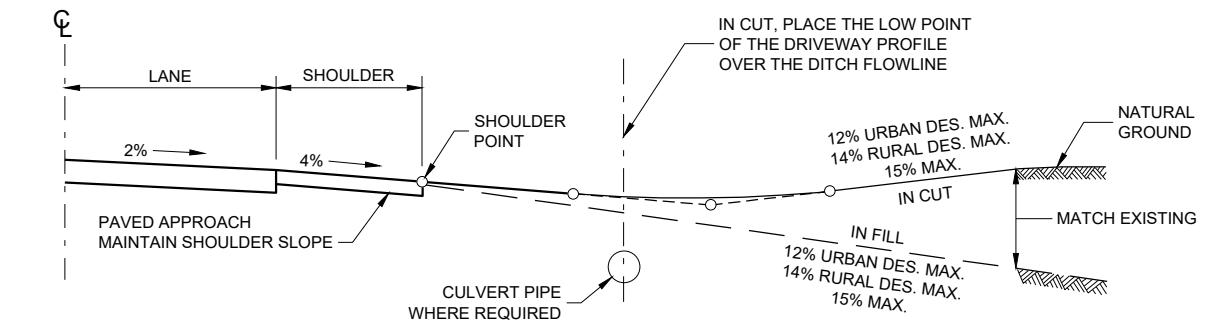
POSTED SPEED MPH	MAX. SLOPE
<35	4:1
≥ 35 TO < 60	6:1
≥ 60	10:1



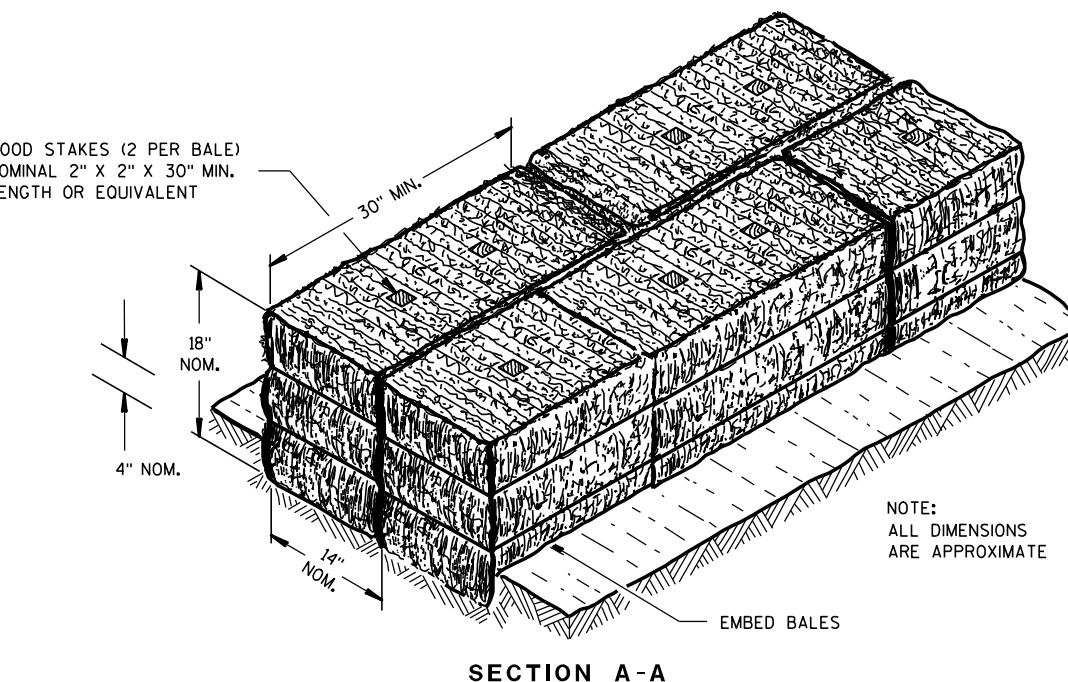
**IN CUT**

**IN FILL**

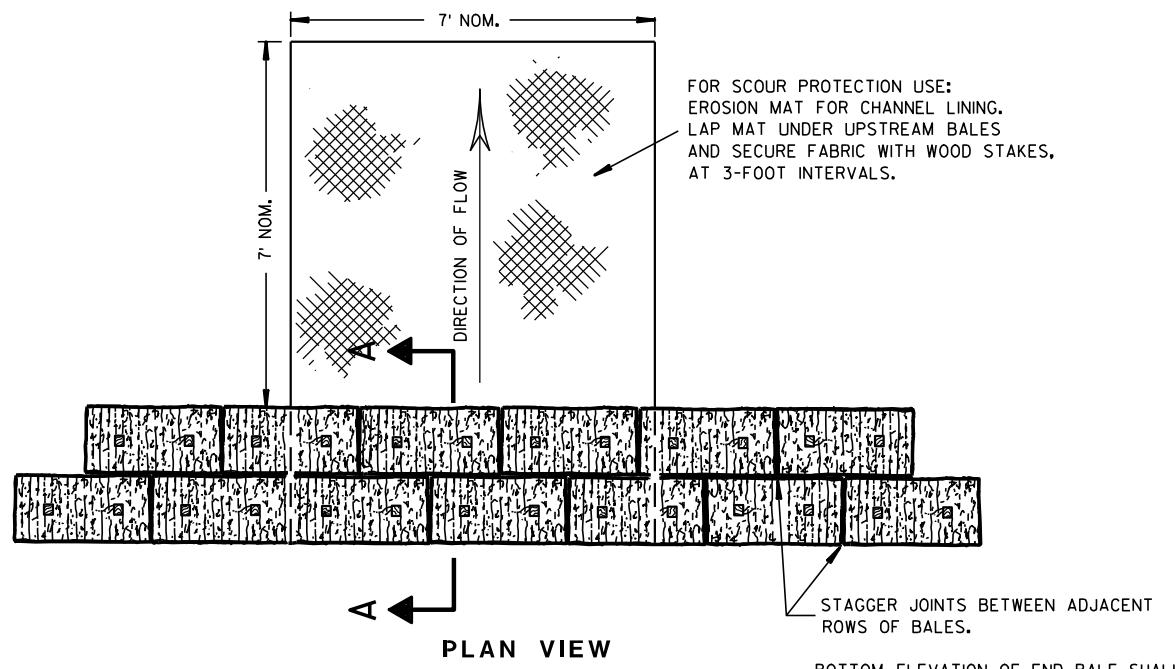
**TYPICAL CROSS SECTION FOR**  
**PRIVATE DRIVE OR FIELD ENTRANCE**  
**ASPHALTIC SURFACE**



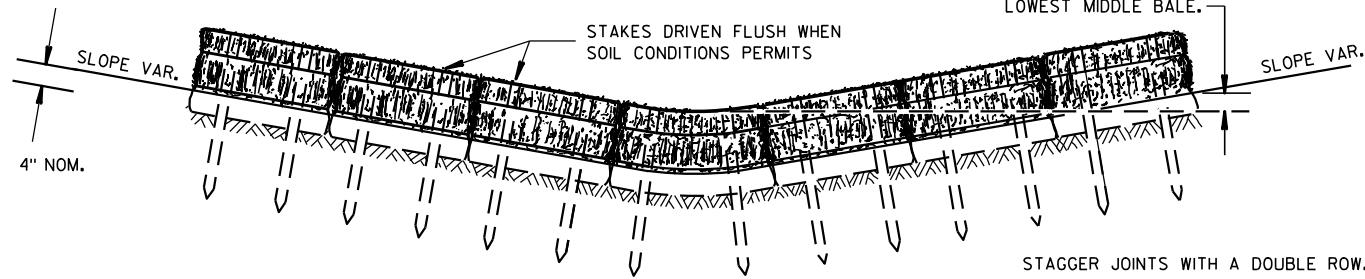
**TYPICAL DRIVEWAY PROFILES**



SECTION A-A



PLAN VIEW



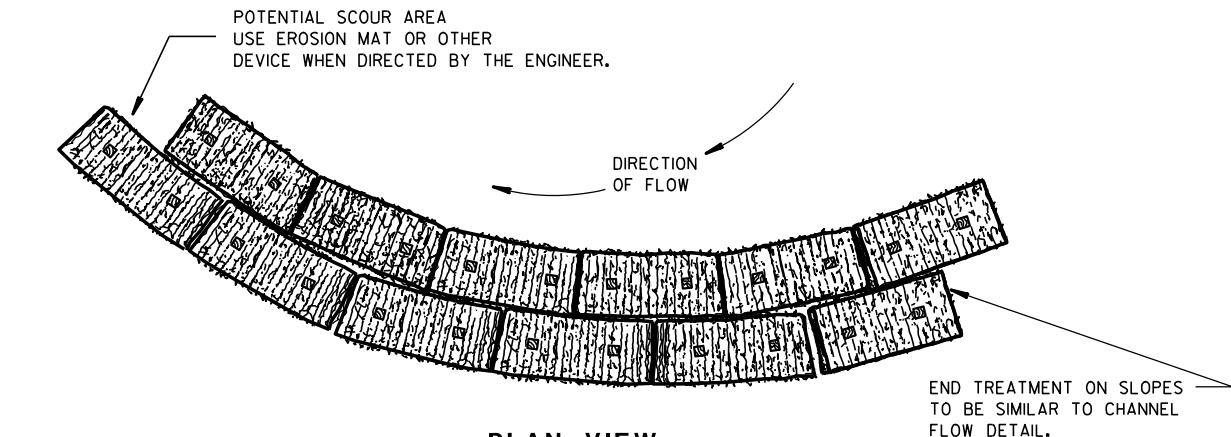
FRONT ELEVATION

### TEMPORARY DITCH CHECK USING EROSION BALES ①

### GENERAL NOTES

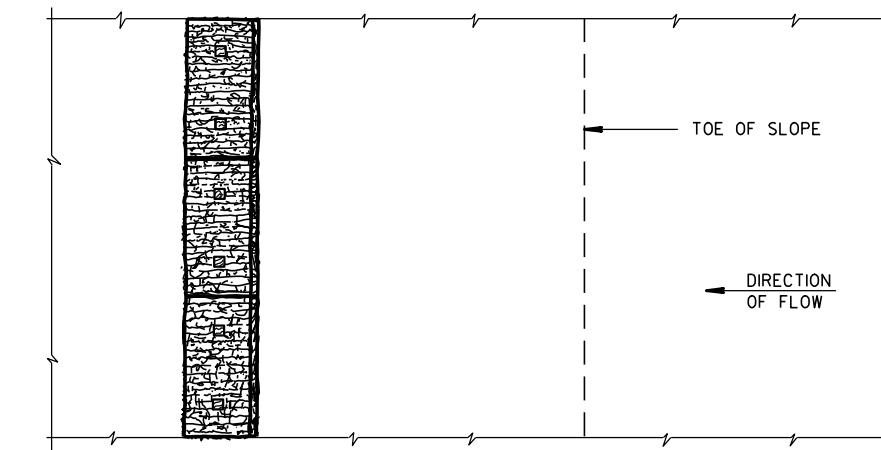
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

① TEMPORARY DITCH CHECKS EITHER EROSION BALES OR MANUFACTURED SHALL BE PAID FOR UNDER THE BID ITEM OF TEMPORARY DITCH CHECK. THE DEPARTMENT WILL NOT PAY FOR TEMPORARY DITCH CHECKS CONSTRUCTED OF A SINGLE ROW OF EROSION BALES.

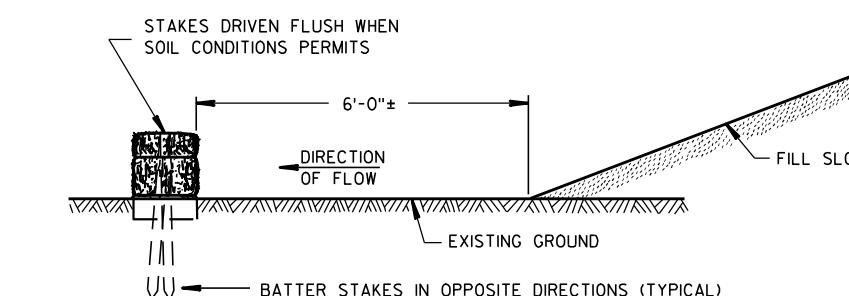


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

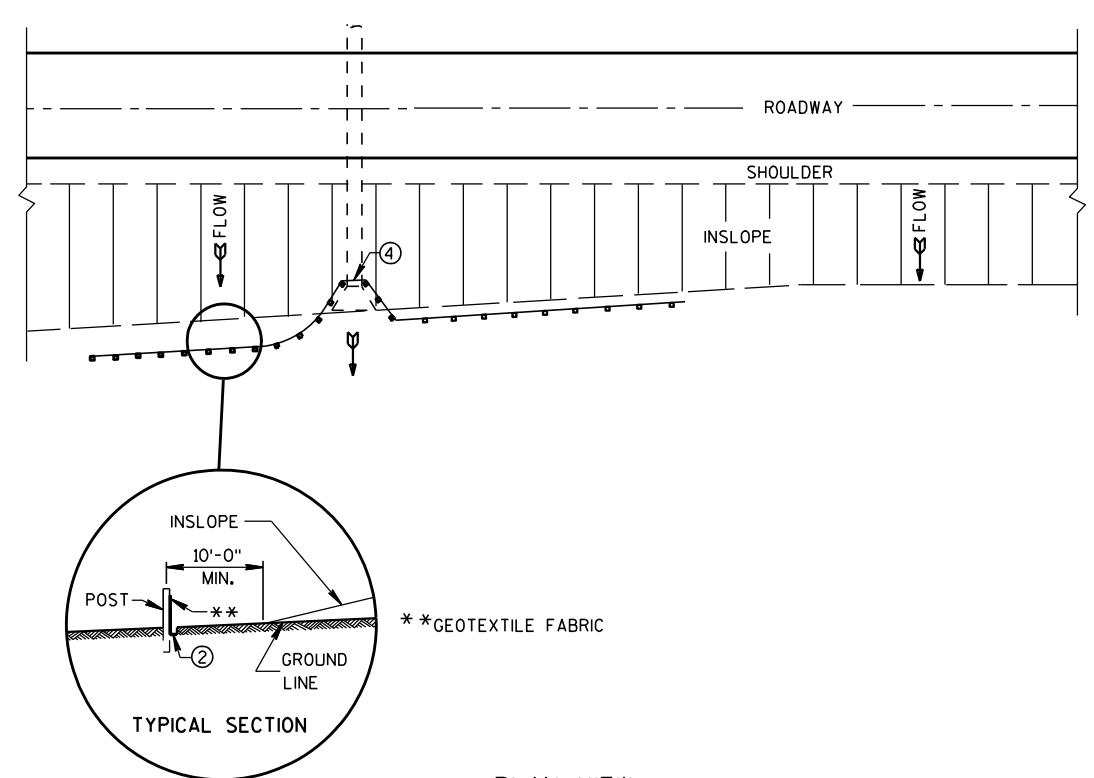
WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

### EROSION BALES FOR SHEET FLOW

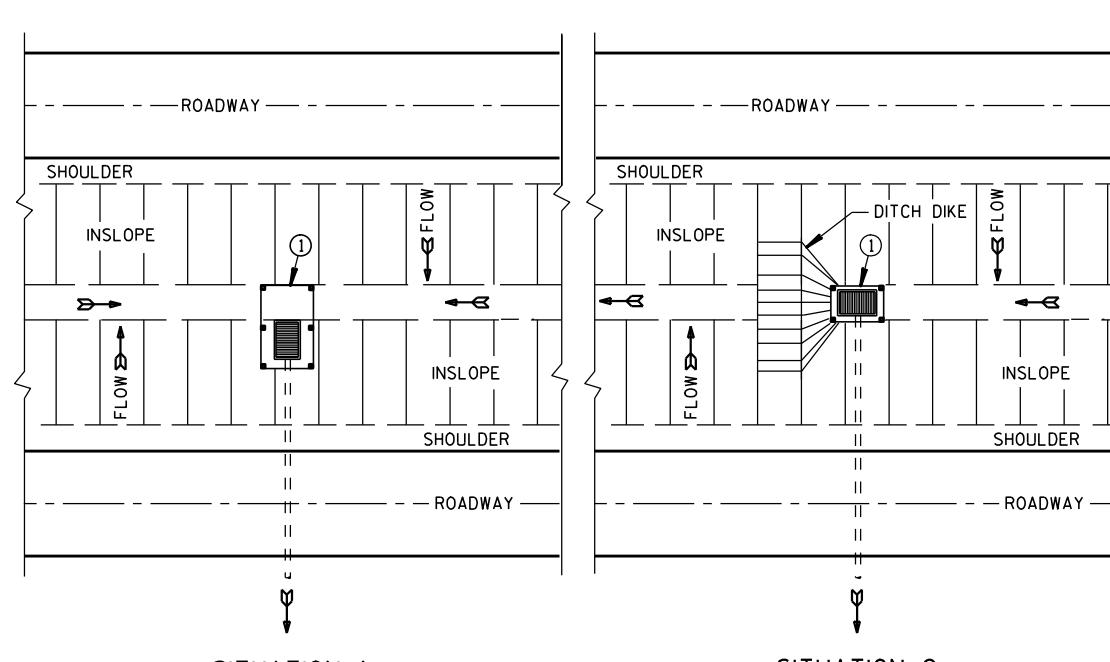
### TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
6/04/02 /S/ Beth Cannestra  
DATE CHIEF ROADWAY DEVELOPMENT ENGINEER  
FHWA



PLAN VIEW  
TYPICAL APPLICATION OF SILT FENCE

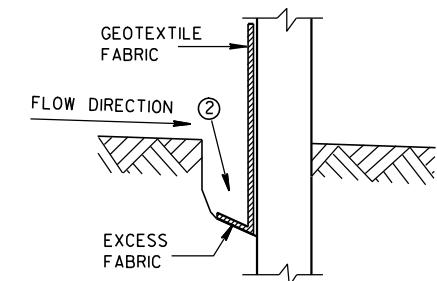


### SILT FENCE AT MEDIAN SURFACE DRAINS

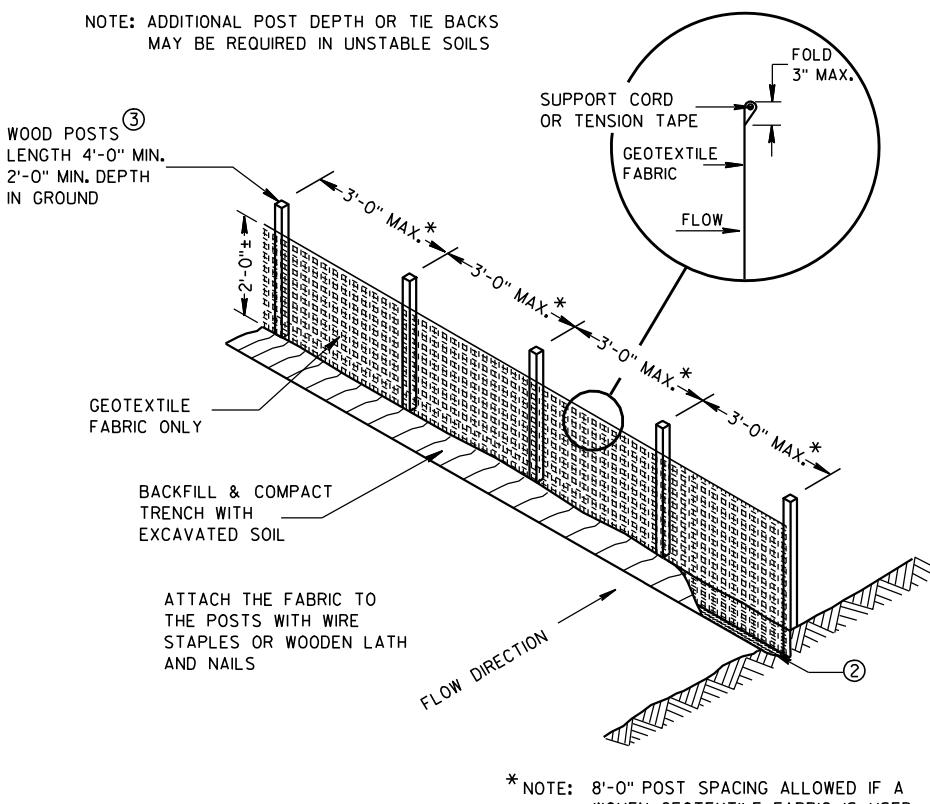
### GENERAL NOTES

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

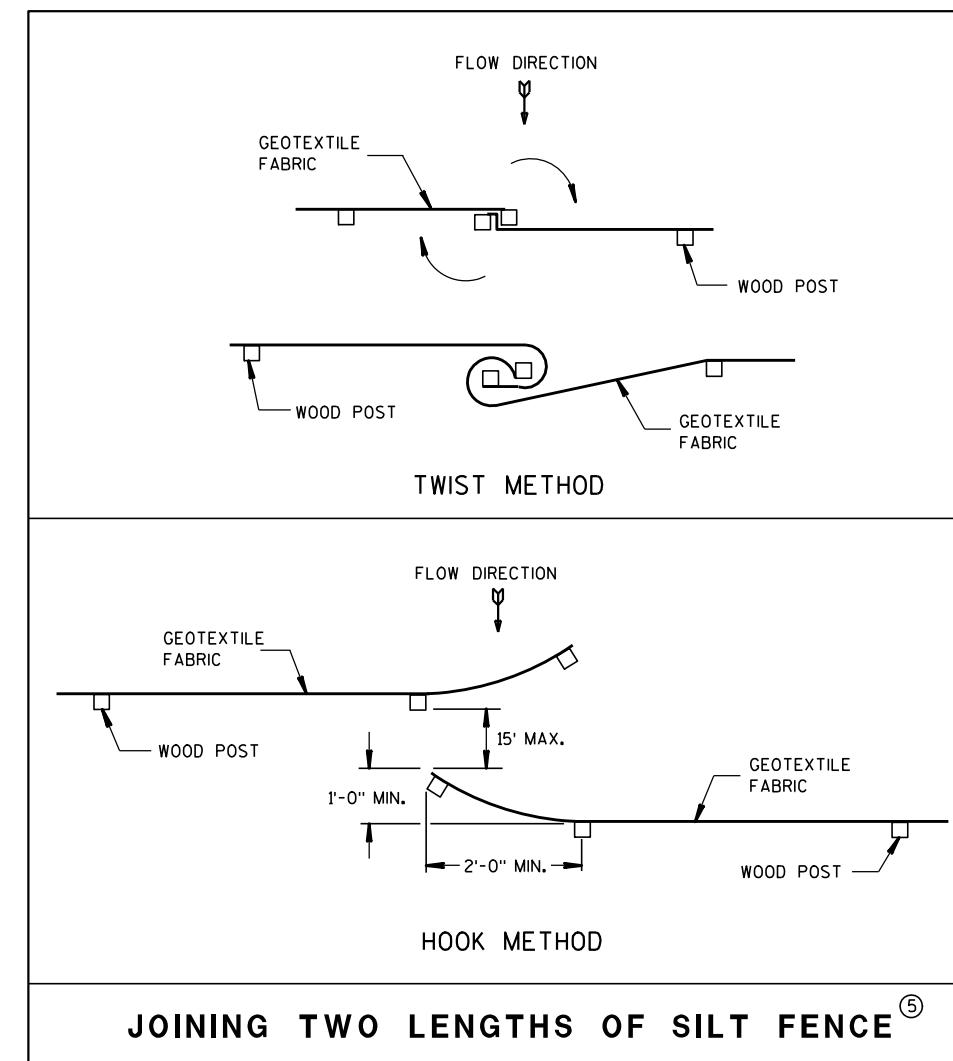
- ① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
- ② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
- ③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1/8" X 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.



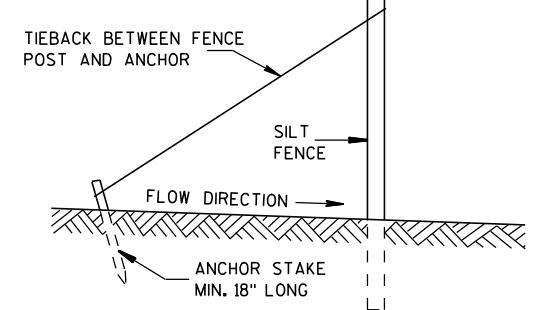
TRENCH DETAIL



SILT FENCE

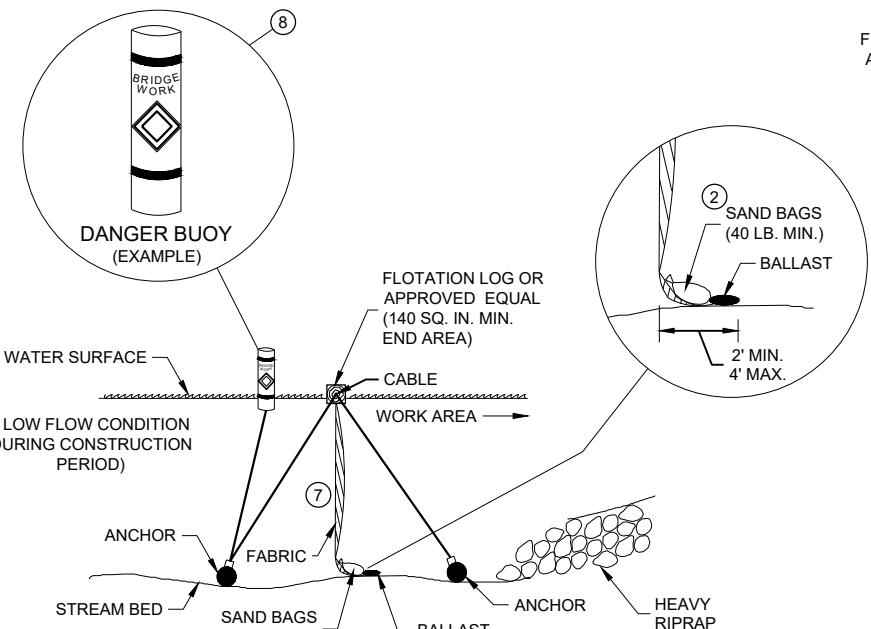


JOINING TWO LENGTHS OF SILT FENCE<sup>⑤</sup>

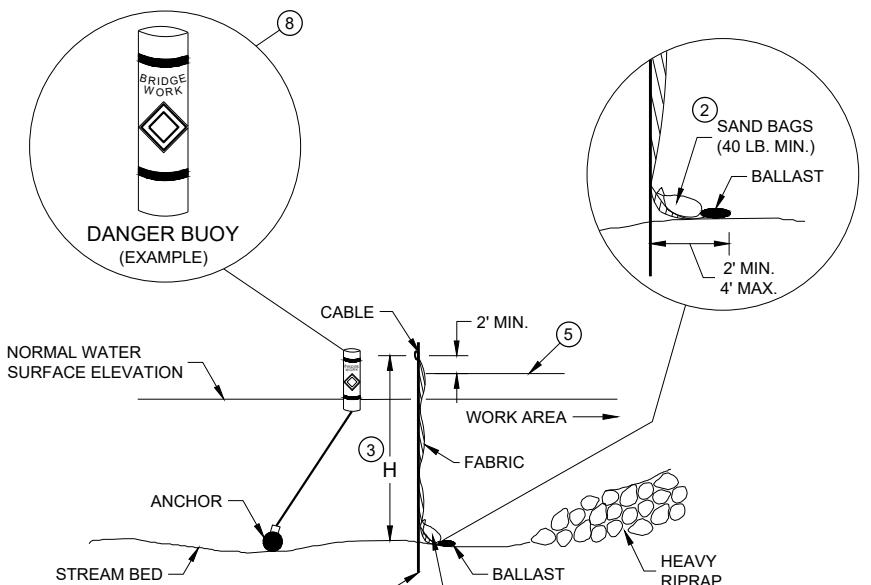


SILT FENCE TIE BACK  
(WHEN REQUIRED BY THE ENGINEER)

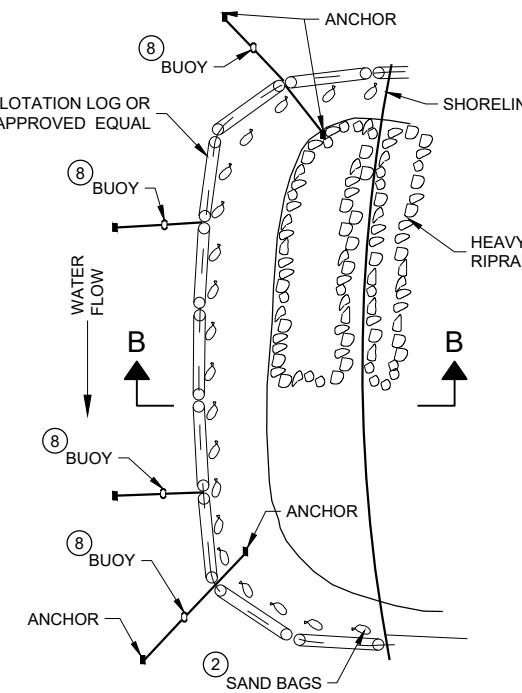
SILT FENCE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 4-29-05 DATE	/S/ Beth Cannestra CHIEF ROADWAY DEVELOPMENT ENGINEER FHWA



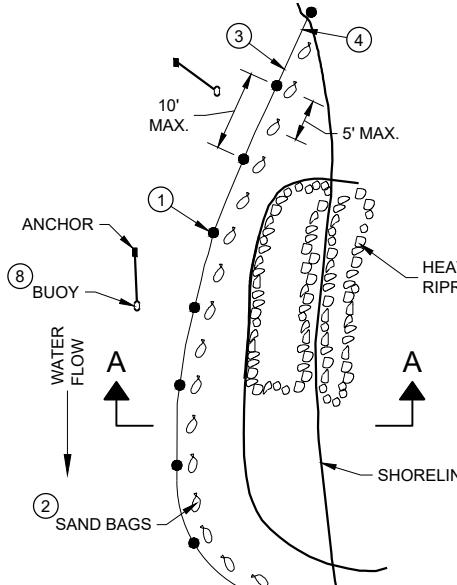
SECTION B - B

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


SECTION A - A

**TURBIDITY BARRIER - STANDARD POST INSTALLATION**
**TURBIDITY BARRIER PLACEMENT DETAILS**


PLAN VIEW



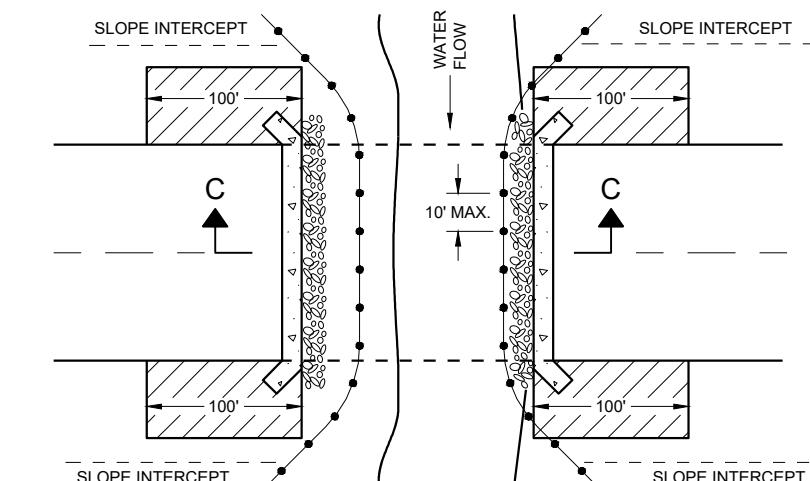
PLAN VIEW

**GENERAL NOTES**

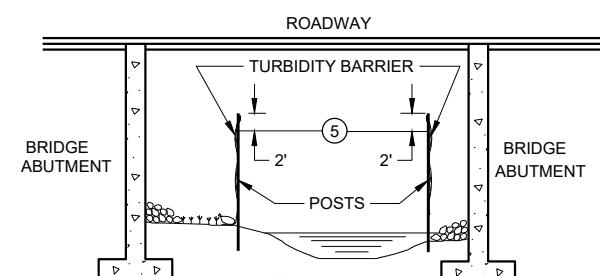
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

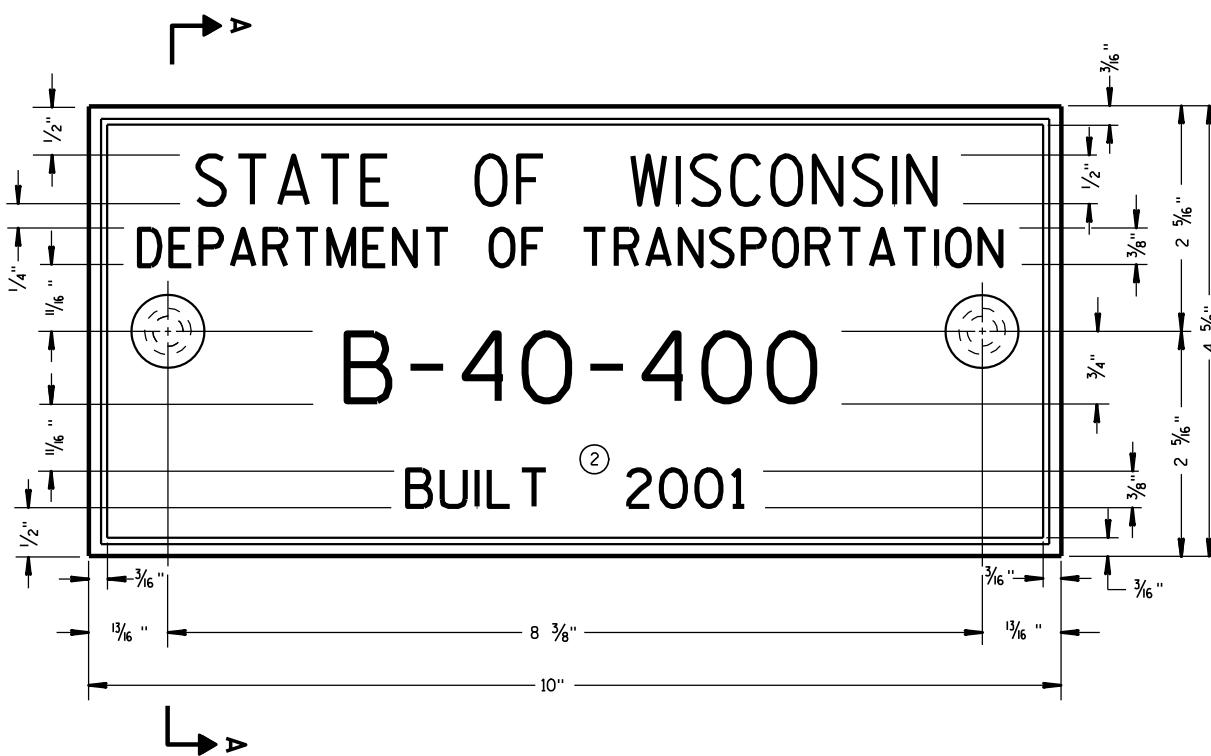
APPROVED  
6/4/02 /S/ Beth Cannestra  
DATE CHIEF ROADWAY DEVELOPMENT  
FHWA ENGINEER

## GENERAL NOTES

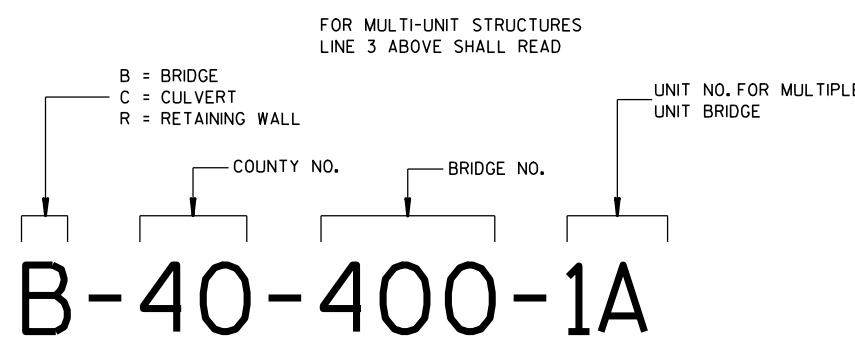
NAME PLATES TO BE INSTALLED ON BRIDGES, CULVERTS, AND RETAINING WALLS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS.

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

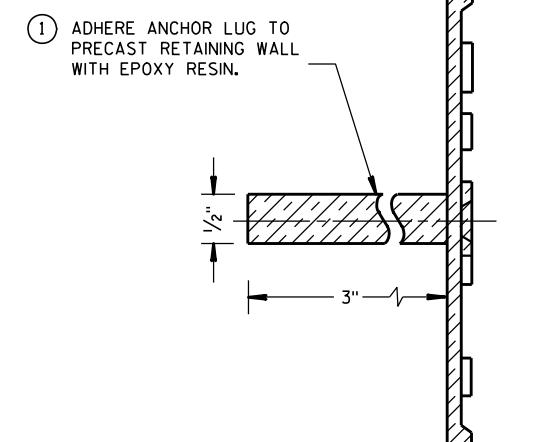
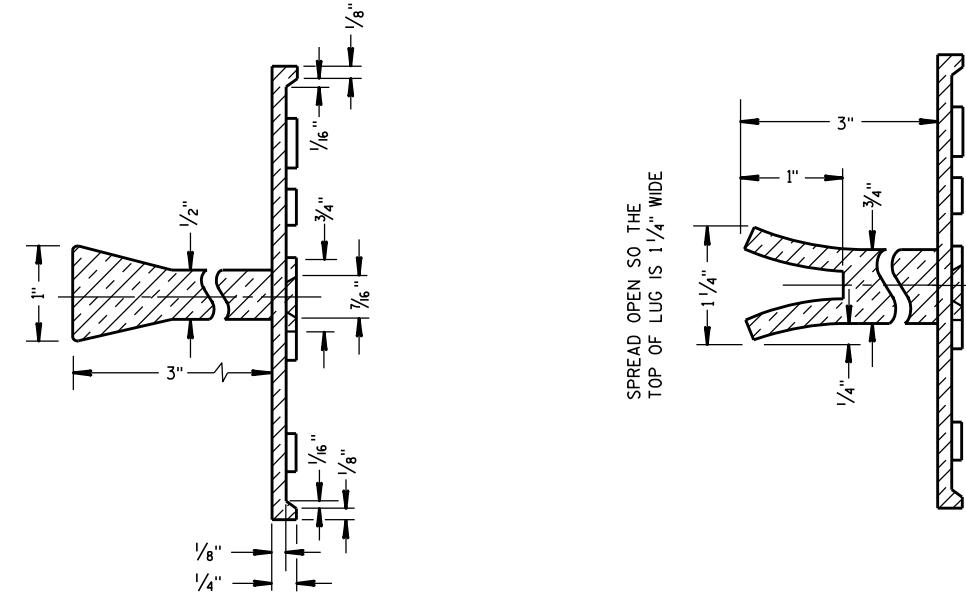
- ① EPOXY RESIN SHALL BE FROM AN APPROVED MANUFACTURER AND USED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- ② REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



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

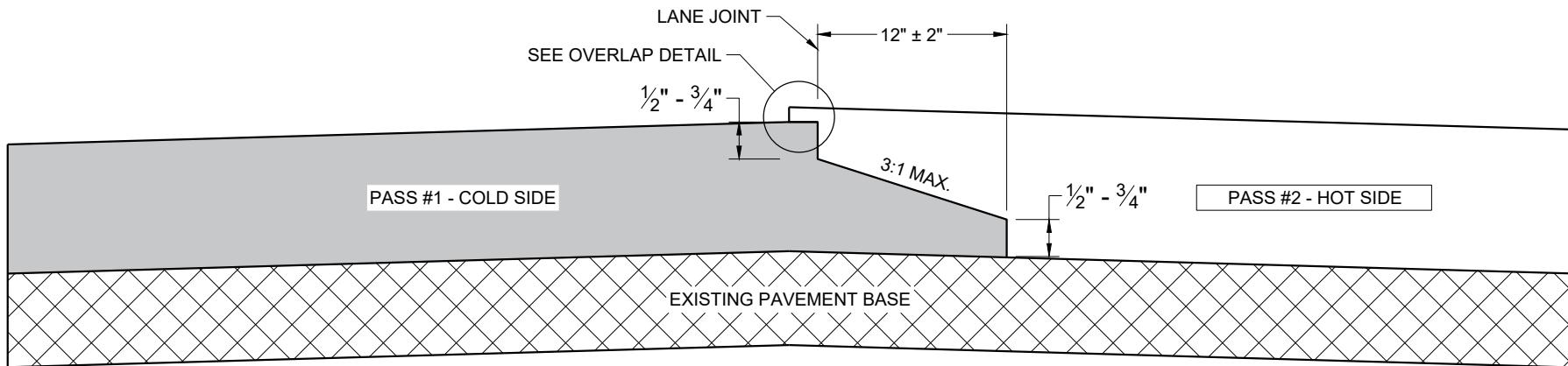


**NUMBERING DESIGNATION**  
**MULTI-UNIT STRUCTURES**



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

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



**TYPICAL PAVEMENT CROSS SECTION  
NOTCHED WEDGE JOINT**

**GENERAL NOTES**

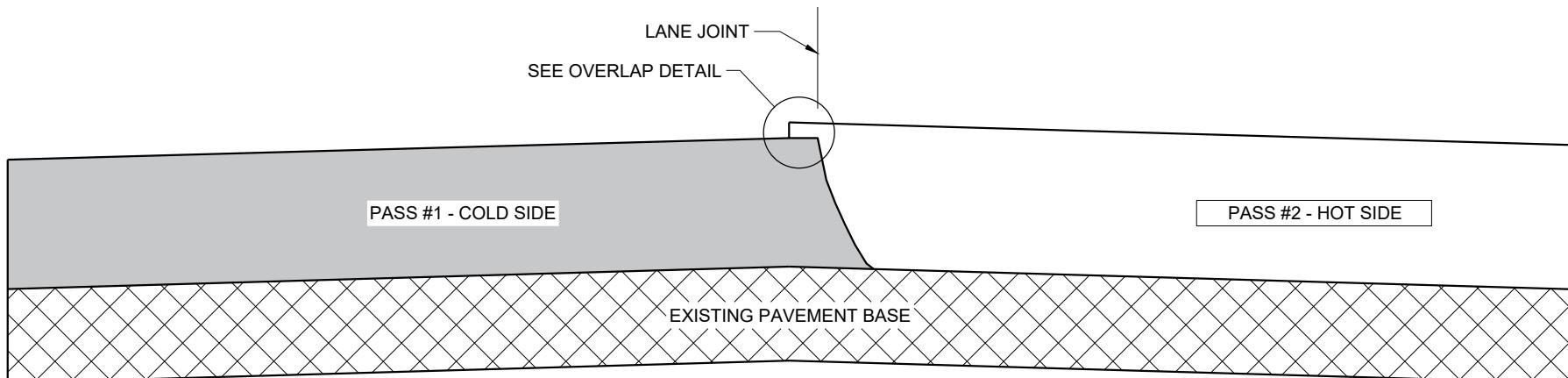
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

FOR ALL LONGITUDINAL JOINTS, ENSURE THE PAVER SCREED OVERLAPS THE PREVIOUSLY PLACED PAVEMENT BY  $1'' \pm 0.5''$  AND THE HOT SIDE OF THE JOINT REMAINS HIGHER THAN THE COLD SIDE BY APPROXIMATELY  $0.1''$  AFTER FINAL COMPACTION. (IT WILL BE FLUSH WHEN PAVING IN ECHELON.)

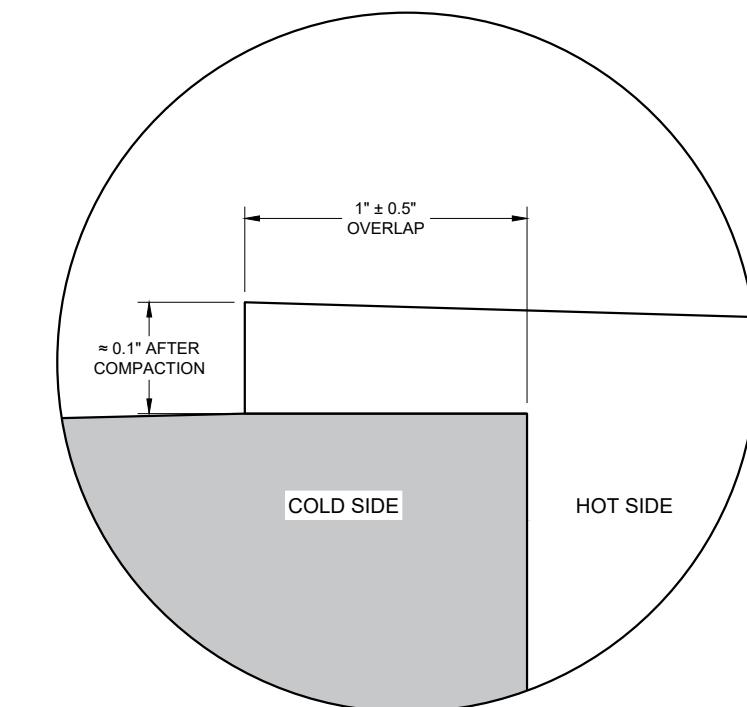
ONLY REMOVE THE LONGITUDINAL NOTCHED WEDGE JOINT FOR SMA PAVEMENT OR AS DIRECTED BY THE ENGINEER TO ADDRESS SPECIFIC LENGTHS OF JOINT DAMAGED BY TRAFFIC.

WHEN MILLING BACK OR REMOVING ANY LONGITUDINAL JOINT, LIMIT THE MATERIAL REMOVED TO  $2''$  FROM THE TOP NOTCH OR FROM THE VERTICAL JOINT EDGE ON THE COLD SIDE OF THE JOINT.

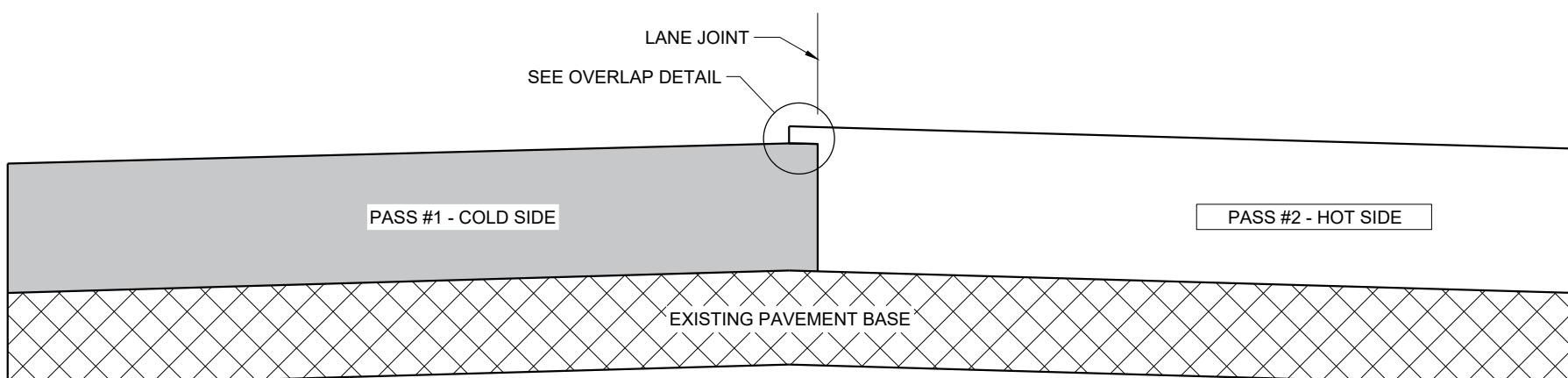
USE LONGITUDINAL MILLED JOINT AS PLANS SHOW OR AS THE ENGINEER DIRECTS.



**TYPICAL PAVEMENT CROSS SECTION  
VERTICAL JOINT**



**OVERLAP DETAIL (TYPICAL)**

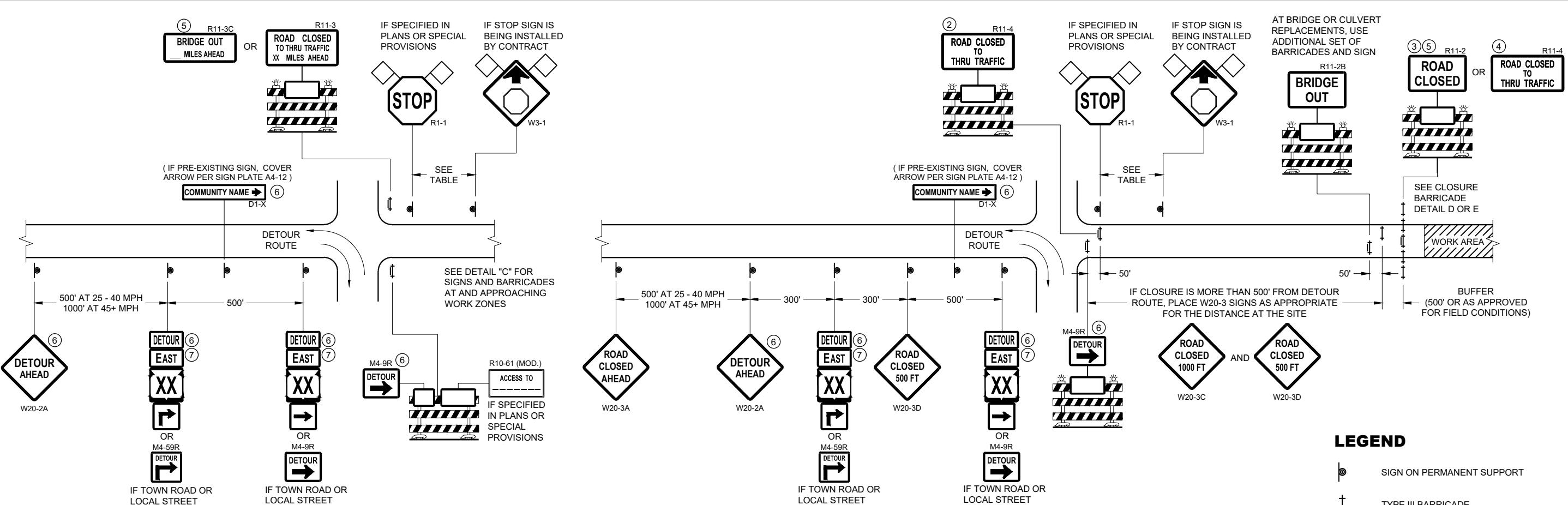


**TYPICAL PAVEMENT CROSS SECTION  
VERTICAL JOINT (MILLED)**

**HMA LONGITUDINAL JOINTS**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED	November 2020	/S/ Steven Hefel
DATE		
FHWA		
HMA PAVEMENT ENGINEER		



**DETAIL B**  
**MAINLINE CLOSURE WITH POSTED DETOUR**

WORK ZONE LESS THAN  $\frac{1}{2}$  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)



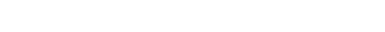
M4 - 8



M3 - X



M1 - 4



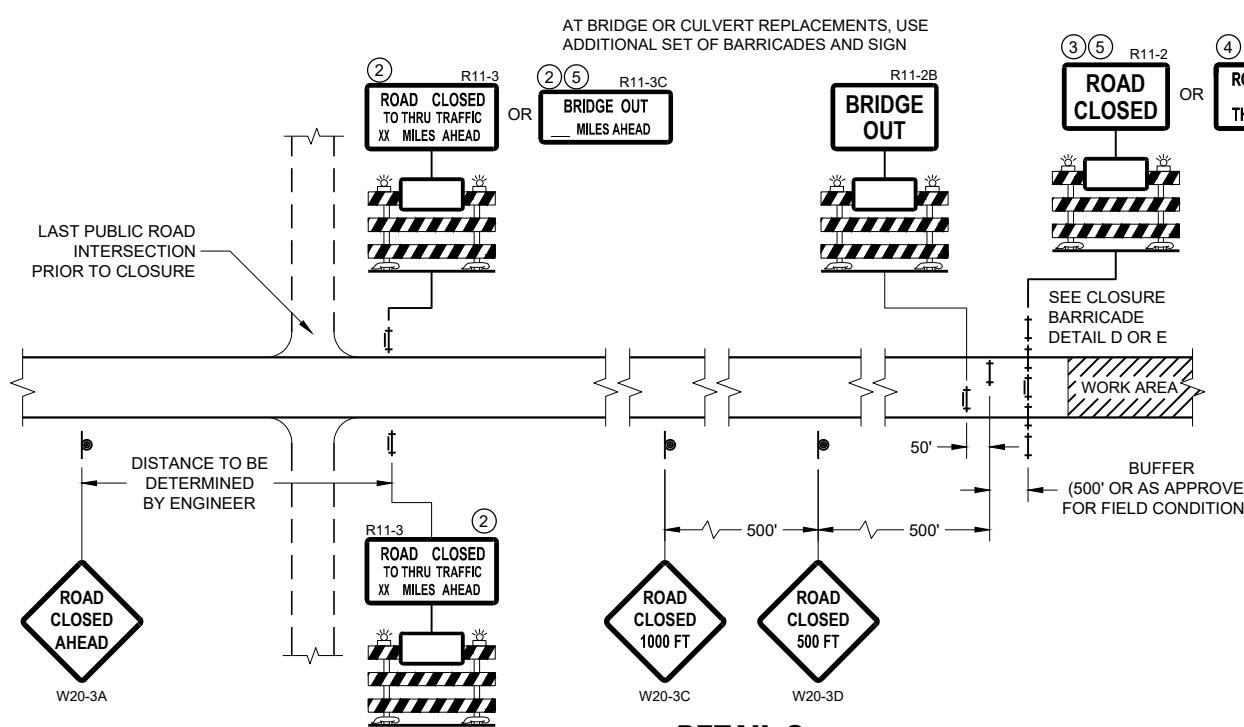
M1 - 6



M06 - 1

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

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



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

**BARRICADES AND SIGNS FOR MAINLINE CLOSURES**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
May 2023 /S/ Andrew Heidke  
DATE  
FHWA  
WORK ZONE ENGINEER

## 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)

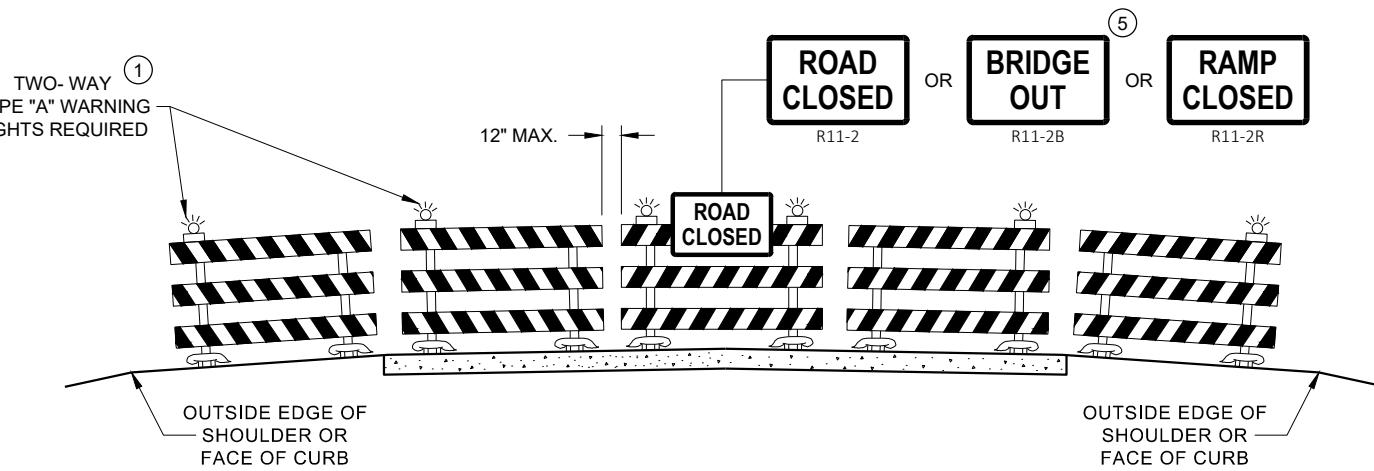
M4 - 8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)

M1 - 4, M1 - 5A AND M1 - 6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)

M05 - 1 AND M06 - 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.

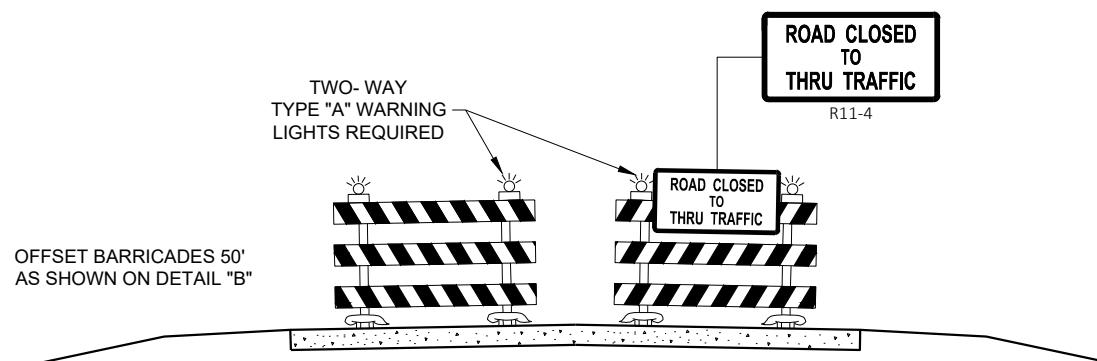
R1 - 1 SHALL BE 36" X 36"



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

6

6



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

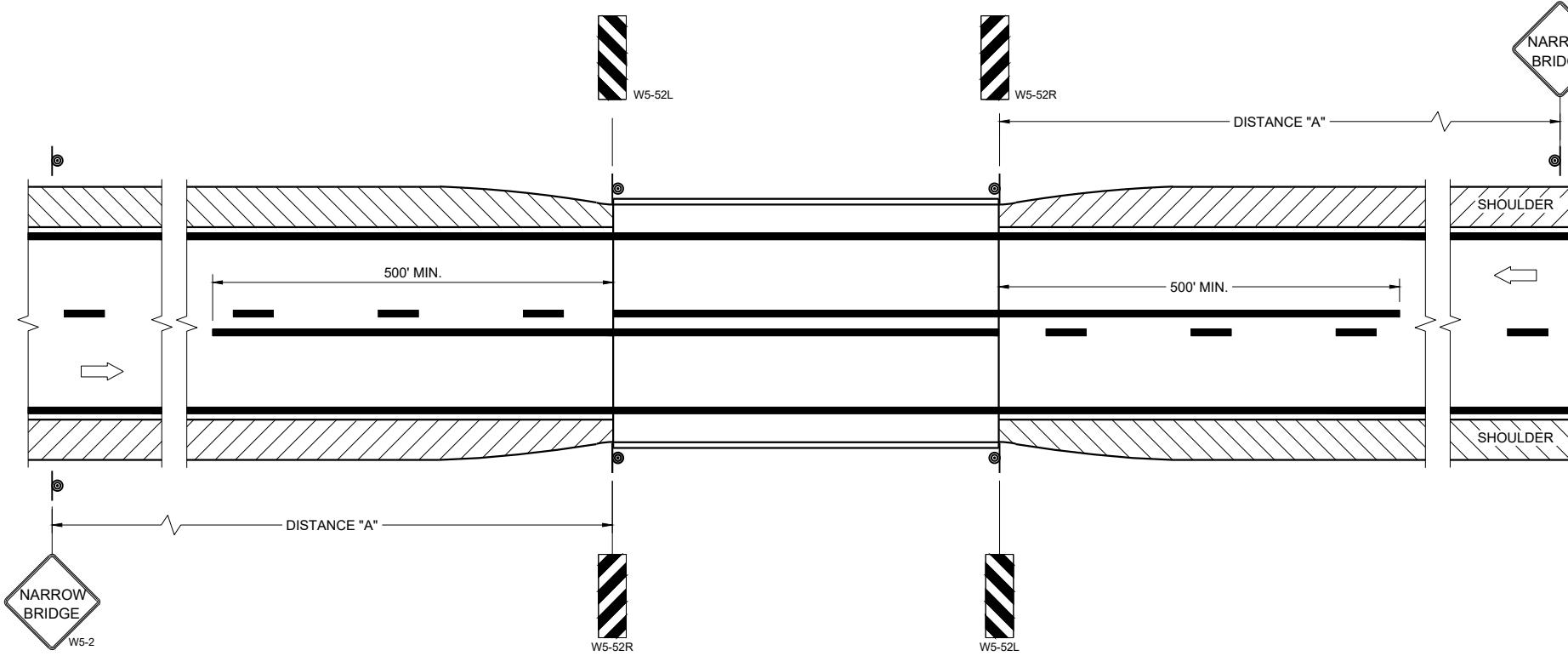
SEE SDD 15C2 - SHEET "a" FOR LEGEND

- 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

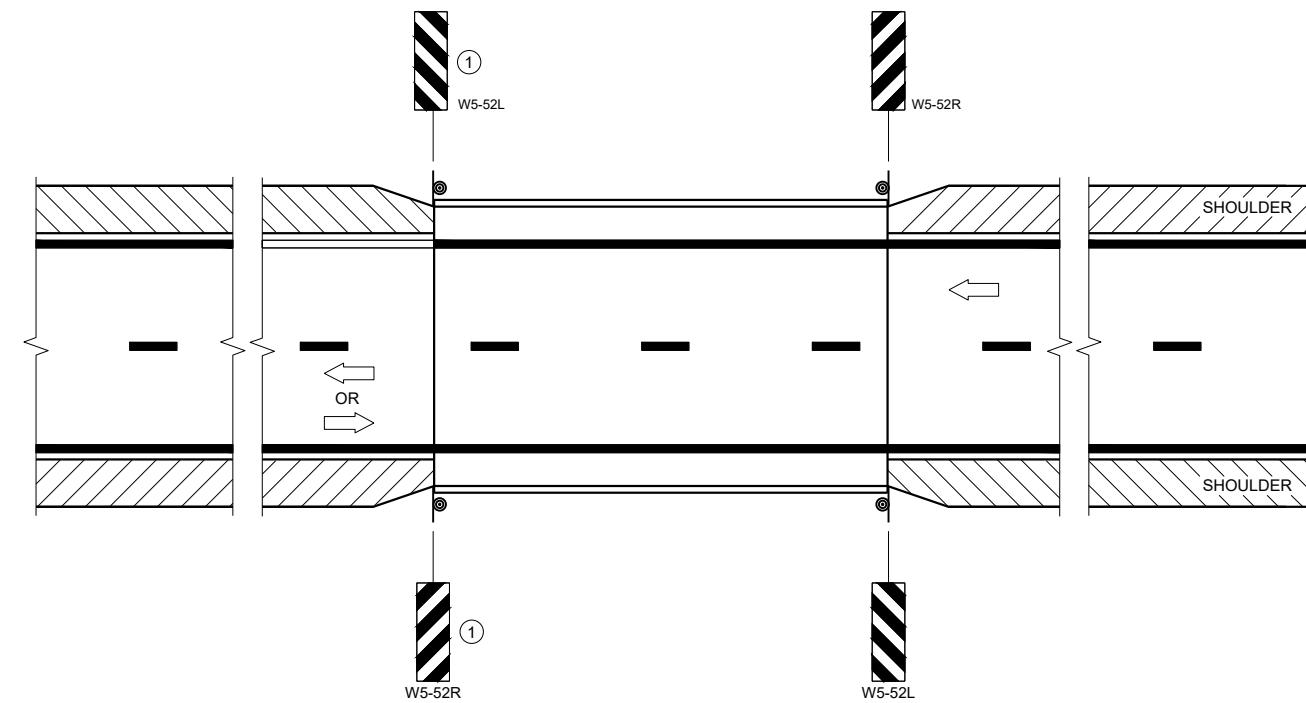
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
May 2023  
DATE  
/S/ Andrew Heidtke  
FHWA  
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 W-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

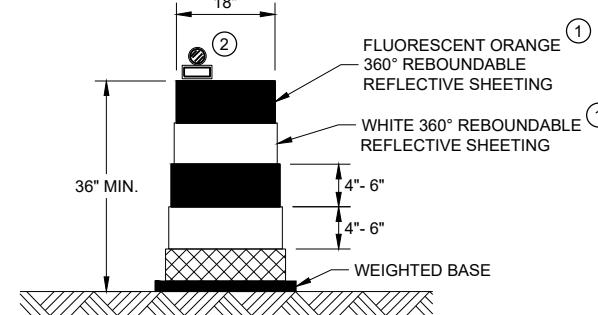
## DISTANCE TABLE

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

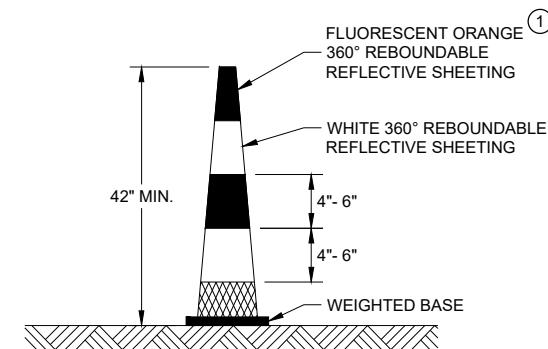
## SIGNING AND MARKING FOR TWO LANE BRIDGES

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

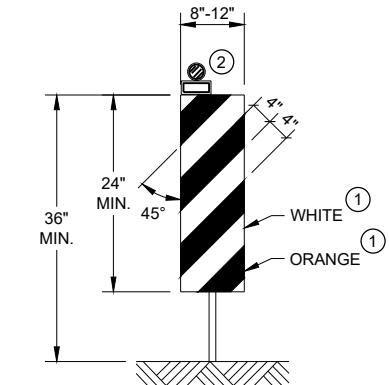
APPROVED  
May 2023 /S/ Jeannie Silver  
DATE  
Statewide Pavement Marking Engineer  
FHWA

**DRUM**

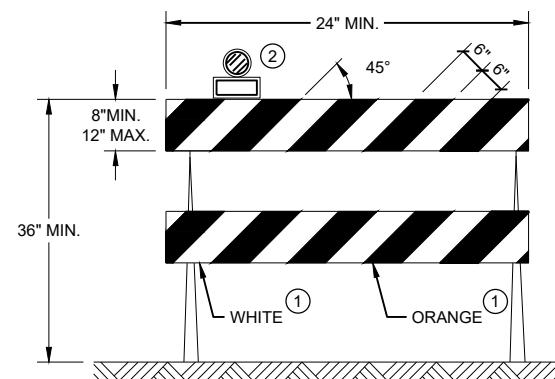
BALLAST WIDTHS  
RANGE FROM 24"-36"

**42" CONE**

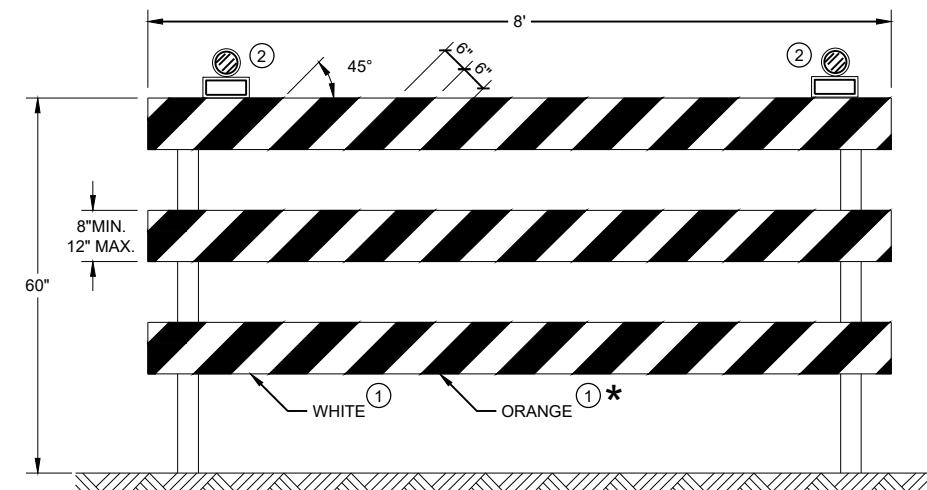
DO NOT USE IN TAPERS  
 $\frac{1}{2}$  SPACING OF DRUMS  
 BALLAST WIDTHS  
RANGE FROM 14"-20"

**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**

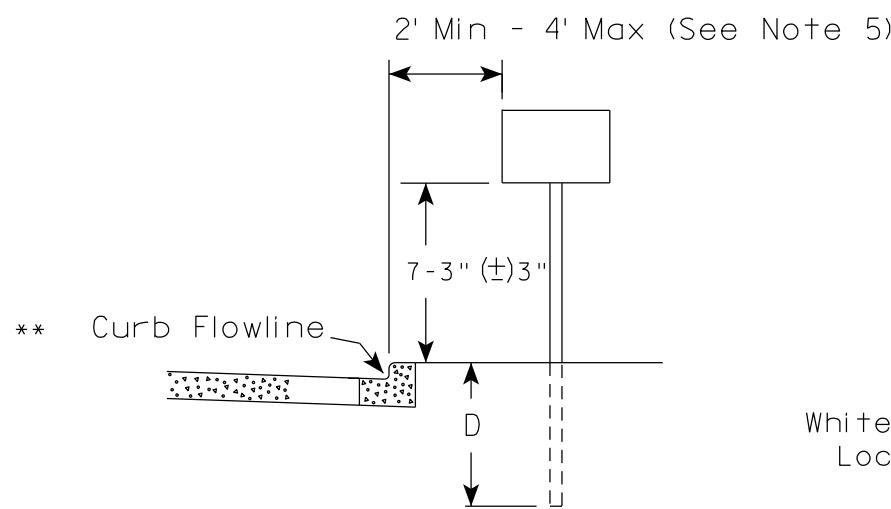
- ① REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
- ② LOCATION OF WARNING LIGHTS WHEN SHOWN ON THE PLAN.

<b>CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS</b>
--

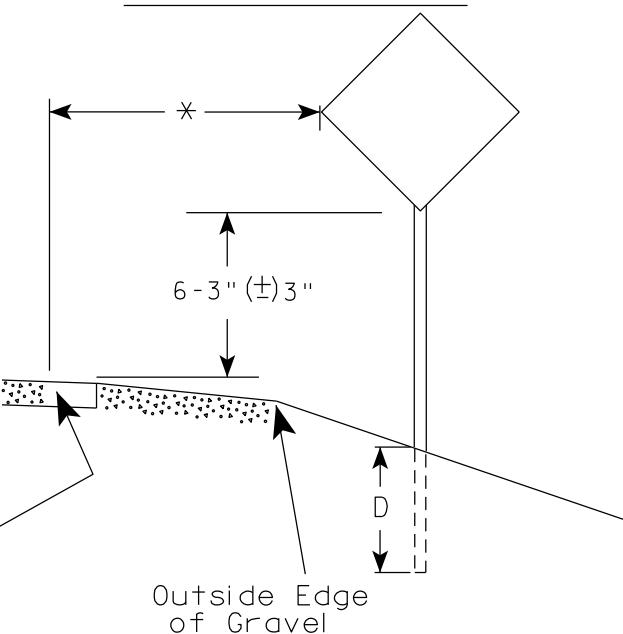
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
November 2022 /S/ Andrew Heidke  
DATE  
FHWA  
WORK ZONE ENGINEER

## URBAN AREA



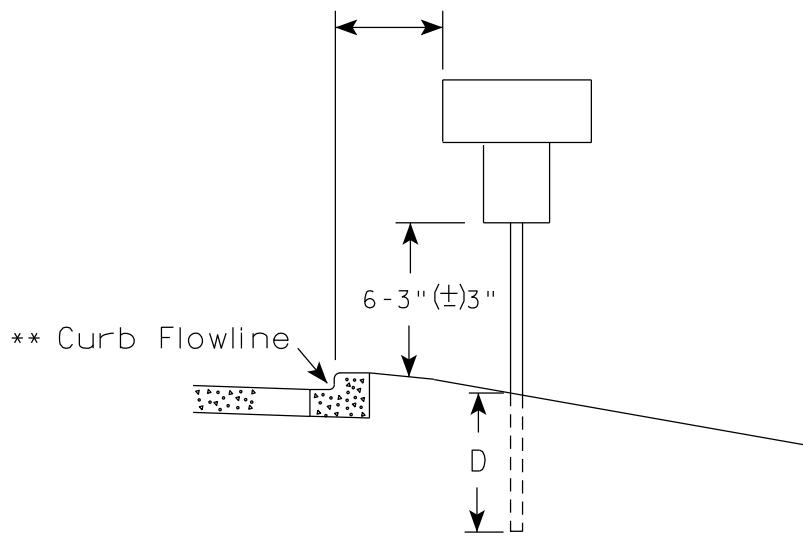
## RURAL AREA (See Note 2)



### 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.
3. The Double Arrow sign (W12-1D) shall be mounted at a height of 2'-3" (±) 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".
4. For expressways and freeways, mounting height is 7'-3" (±) 3" or 6'-3" (±) 3" depending upon existence of a sub-sign.
5. Minimum mounting height for signs mounted on traffic signal poles is 5'-3" (±) 3".
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. Folding signs shall be mounted at a height of 5'-3" (±) 3" or as directed by the Engineer.

2' Min - 4' Max (See Note 5)



White Edgeline Location



\*\* 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.

### POST EMBEDMENT DEPTH

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

\* 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 P. Rauch*  
for State Traffic Engineer

DATE 12/6/23 PLATE NO. A4-3.23

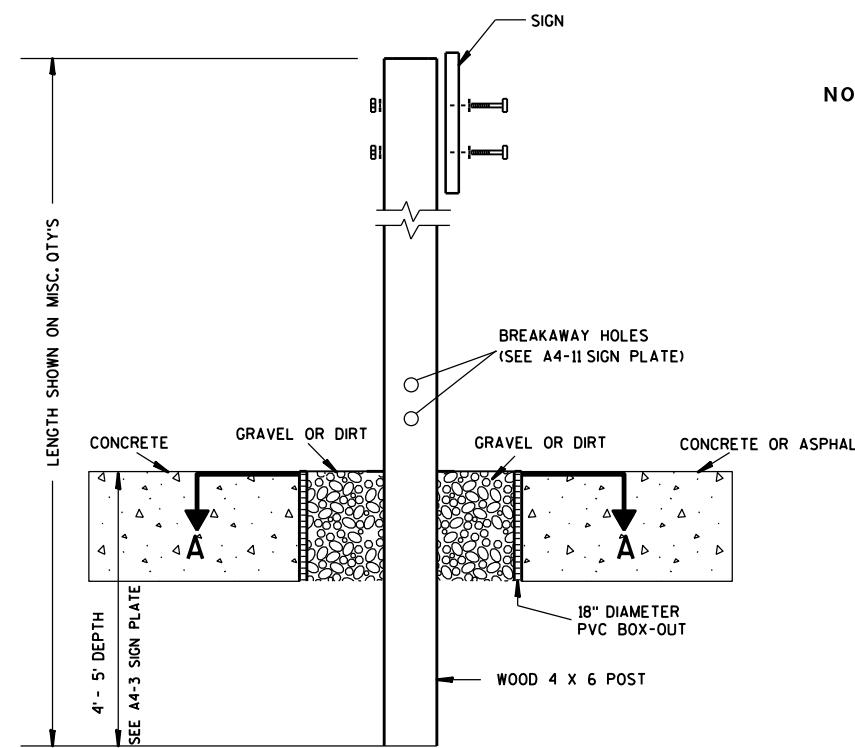
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E

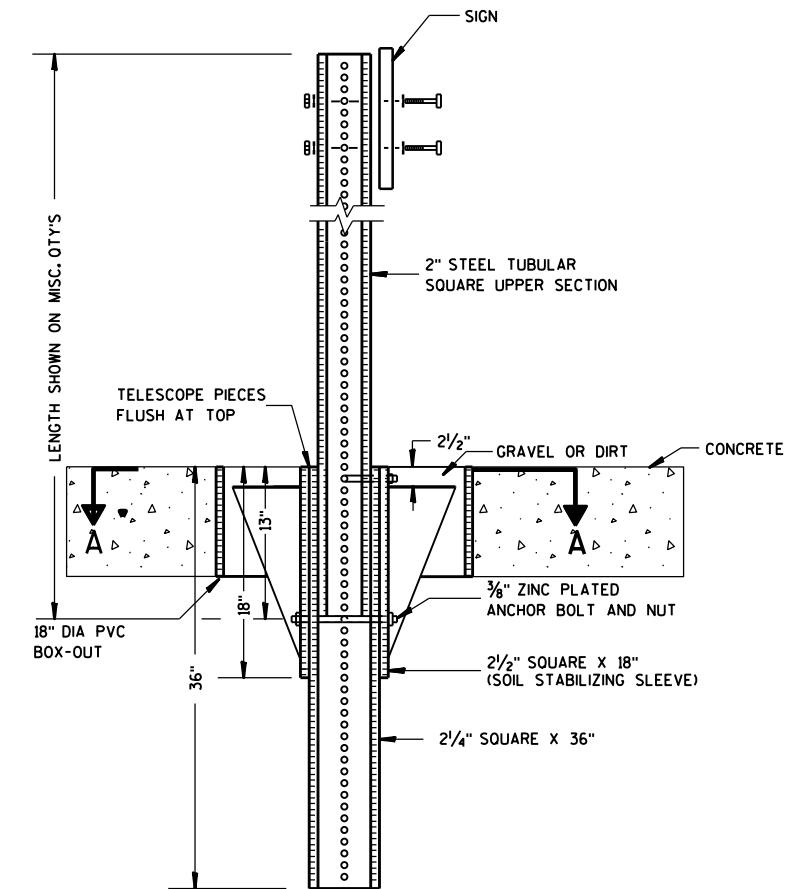


**ELEVATION VIEW**

**DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT**

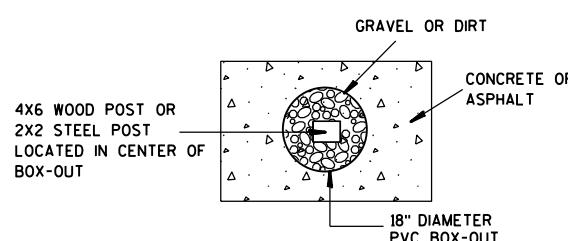
NOTES:

1. ALL MATERIAL TO BE APPROVED BY ENGINEER PRIOR TO INSTALLATION
2. SEE SIGN PLATE A4-8 FOR SIGN HARDWARE REQUIREMENTS
3. 18 INCH X 18 INCH SQUARE BOX-OUTS MAY BE USED FOR INSTALLATIONS IN EXISTING CONCRETE OR ASPHALT LOCATIONS.



**ELEVATION VIEW**

**DETAIL OF STEEL 2 X 2 SIGN POST IN BOX-OUT**



**PLAN VIEW**

**FOR NEW CONCRETE/ASPHALT INSTALLATIONS**

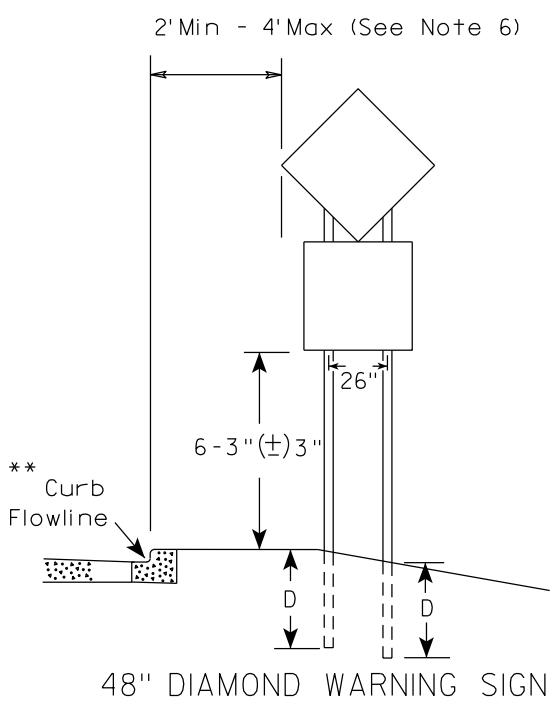
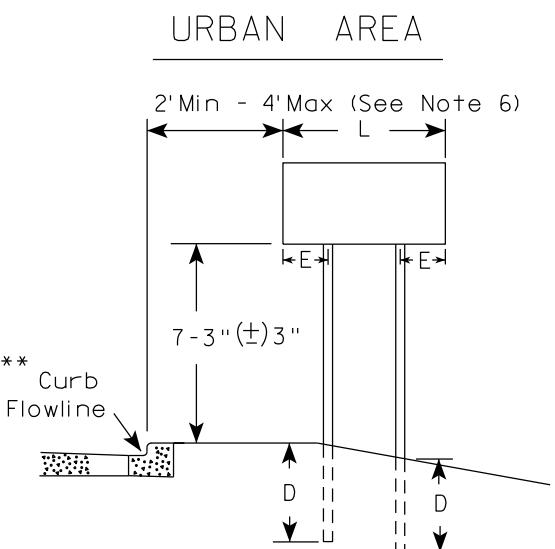
**SIGN POST  
BOX-OUTS  
A4-3B**

WISCONSIN DEPT OF TRANSPORTATION

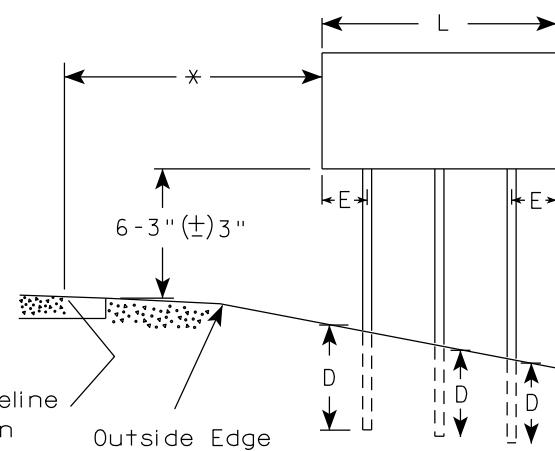
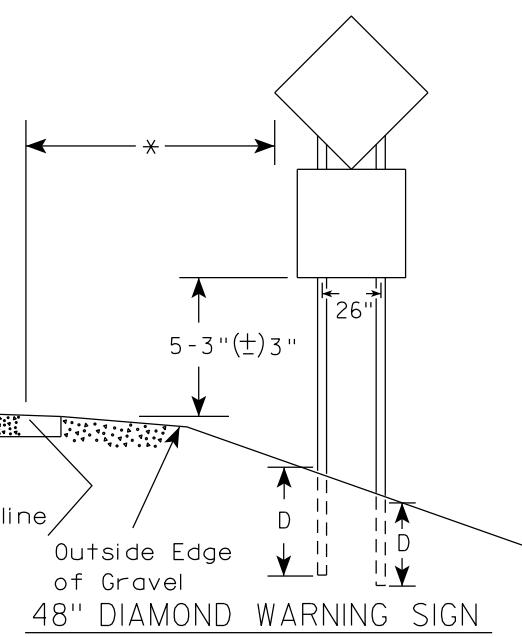
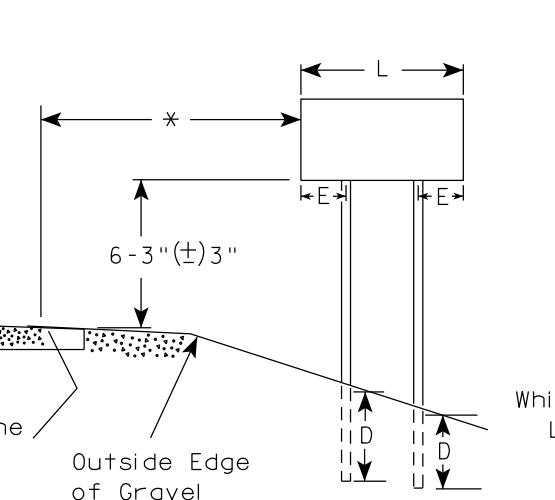
APPROVED  
*Matthew P Rauch*  
for State Traffic Engineer  
DATE 1/27/14 PLATE NO. A4-3B.1

GENERAL NOTES

- For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
- See tables below for required number of posts.
- For expressways and freeways, mounting height is 7'-3" ( $\pm$  3") or 6'-3" ( $\pm$  3") depending upon existence of sub-sign.
- The ( $\pm$ ) tolerance for mounting height is 3 inches.
- J-Assemblies are considered to be one sign for mounting height.
- Offset distance shall be consistent with existing signs or consistent throughout length of project.
- Folding signs shall be mounted at a height of 5'-3" ( $\pm$  3") or as directed by the engineer.
- The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" ( $\pm$  3"). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), 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" ( $\pm$  3").



**RURAL AREA (See Note 3)**



\* 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.

\*\* 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.

\*\*\* See A4-3 sign plate for signs 4' or less in width and less than 20 S.F. in area.

**SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)**

L	E
Greater than 48"	12"
Less than 60"	
60" to 108"	L/5

**SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)**

L	E
Greater than 108" to 144"	12"

**POST EMBEDMENT DEPTH**

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

**TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS**

**WISCONSIN DEPT OF TRANSPORTATION**

**APPROVED**

*Matthew R. Rauch*  
for State Traffic Engineer

DATE 12/6/23 PLATE NO. A4-4.16

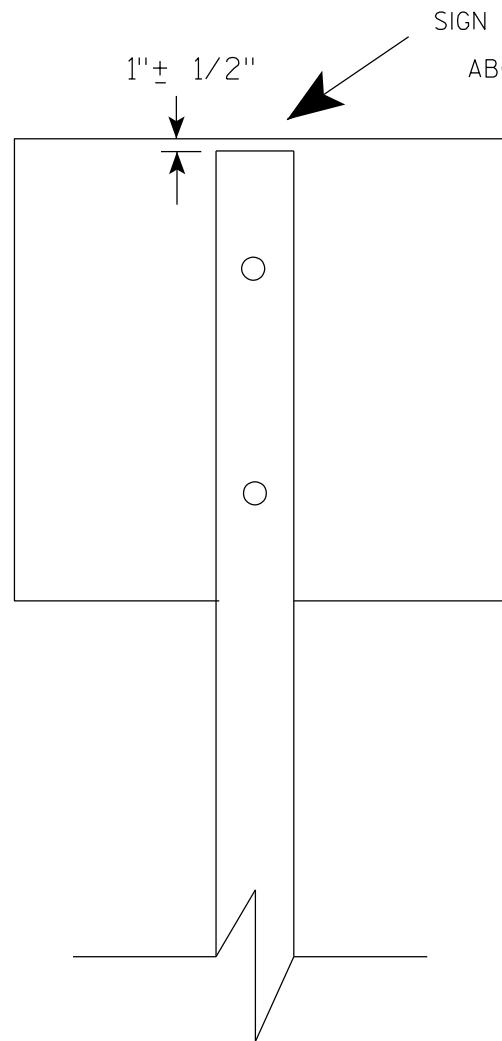
PROJECT NO:

HWY:

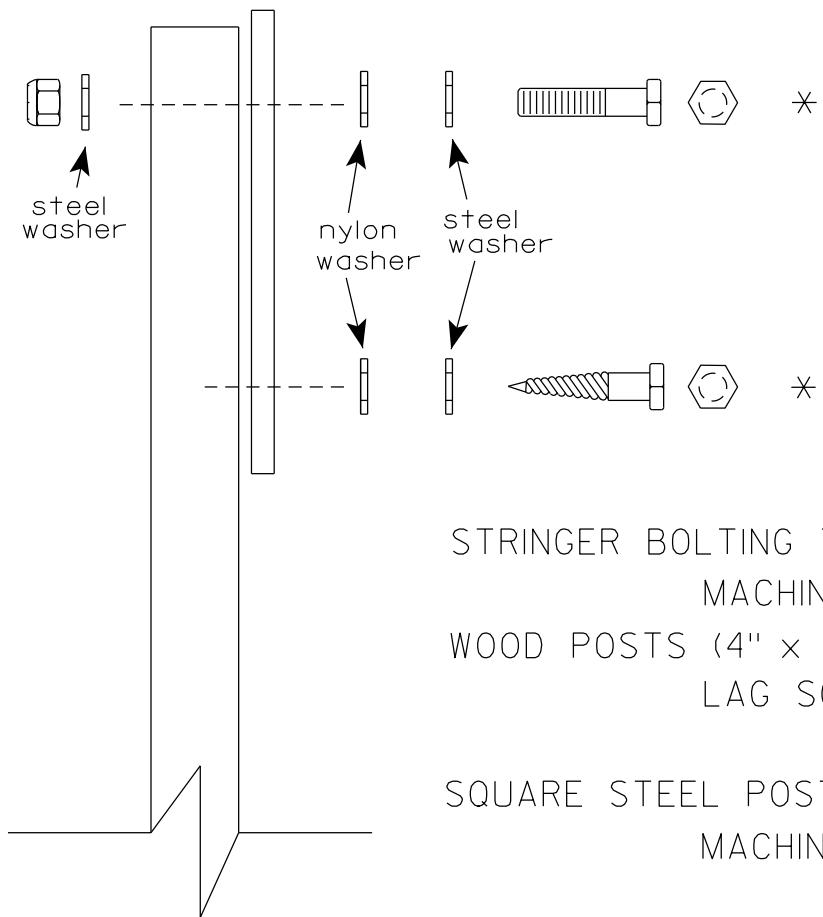
COUNTY:

SHEET NO:

**E**



SIGN SHALL BE MOUNTED TO PROJECT  
ABOVE THE TOP OF THE POST



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

- a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3
- b. 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.

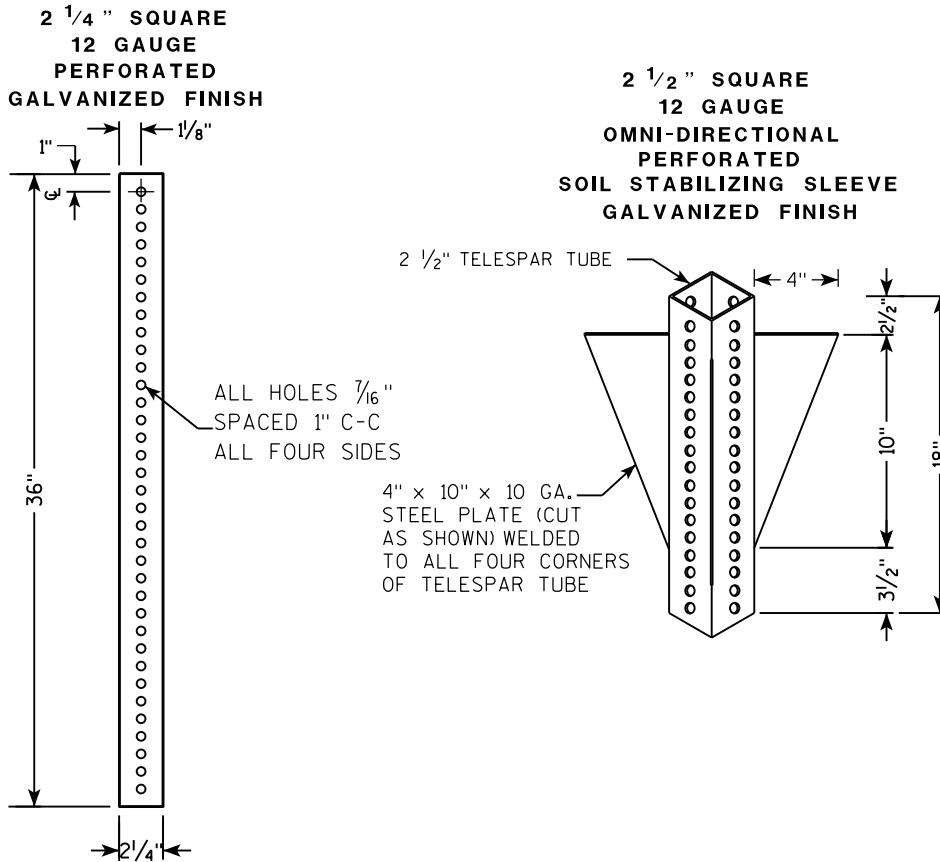
#### ATTACHMENT OF SIGNS TO POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R Rauch*  
for State Traffic Engineer

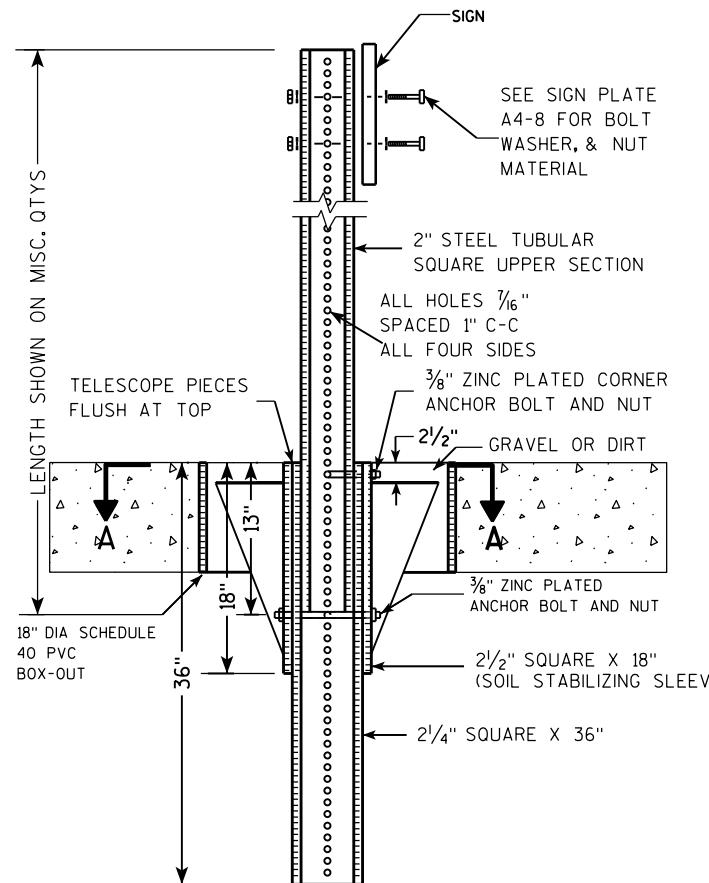
DATE 4/1/2020 PLATE NO. A4-8.9

**TELESCOPIC TUBING ANCHORS  
TWO PIECE SYSTEM**



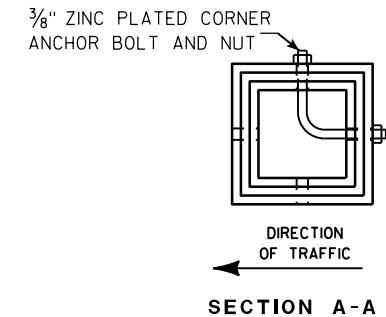
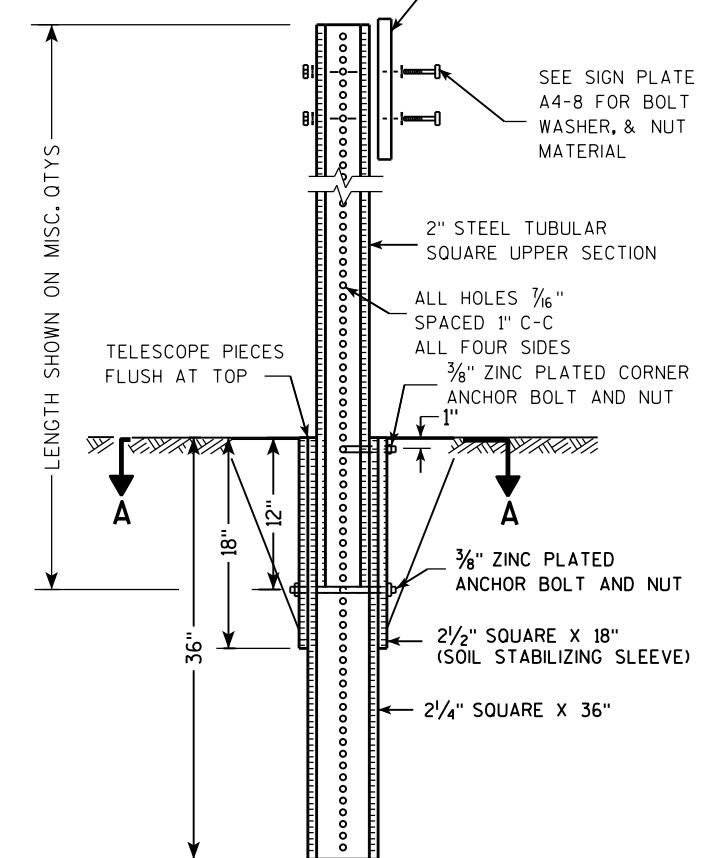
**DETAIL OF TUBULAR STEEL SIGN POST**

(IN Poured CONCRETE OR ASPHALT)



**DETAIL OF TUBULAR STEEL SIGN POST**

(IN LOCATIONS OTHER THAN Poured CONCRETE OR ASPHALT)



Area of Sign Installation (Sq. Ft.)	Number of Required Posts
9 or less	1
Greater than 9 less than or equal to 18	2
Greater than 18 less than or equal to 27	3

Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).

**TUBULAR STEEL  
SIGN POST**

**A4 - 9**

WISCONSIN DEPT OF TRANSPORTATION

APPROVED  
Matthew P Rauch

for State Traffic Engineer

DATE 2/05/15 PLATE NO. A4-9.9

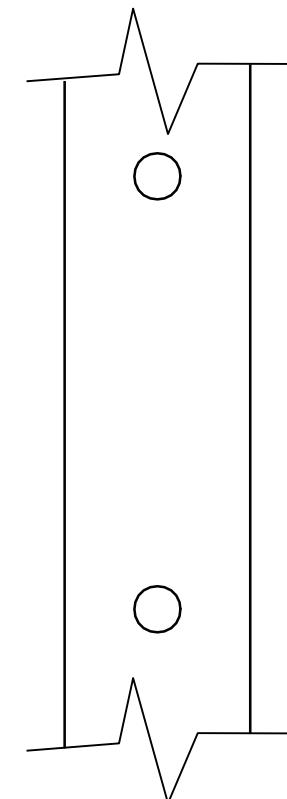
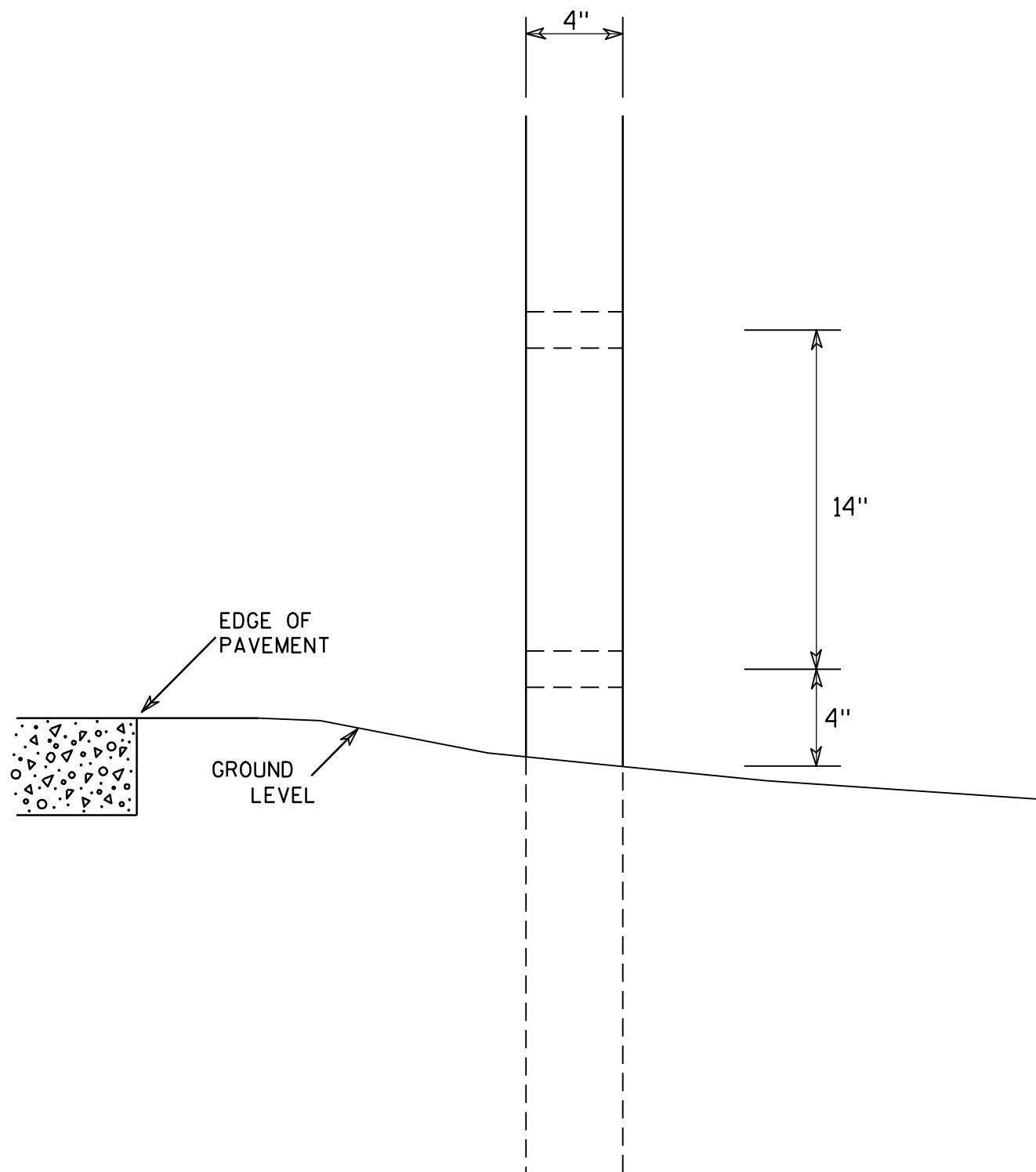
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



SIDE VIEW

GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two  $1\frac{1}{2}$ " diameter holes drilled perpendicular to the roadway centerline.

4 X 6 WOOD POST  
MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

*Cheska J. Sprey*  
for State Traffic Engineer

DATE 3/27/97

PLATE NO. A4-11.2

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

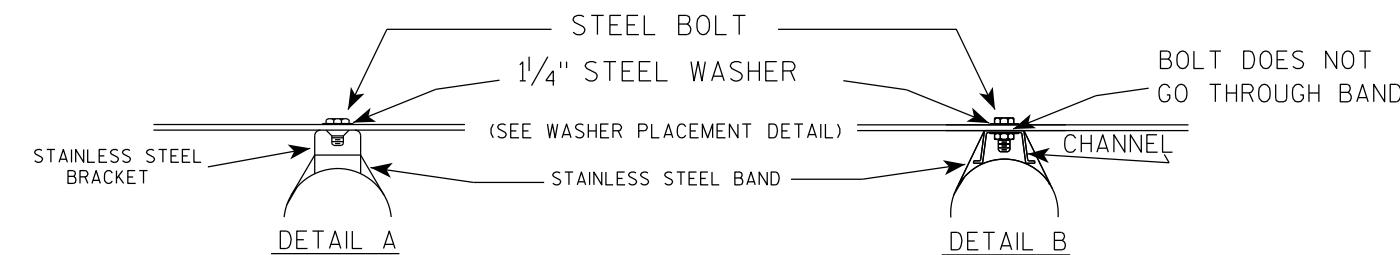
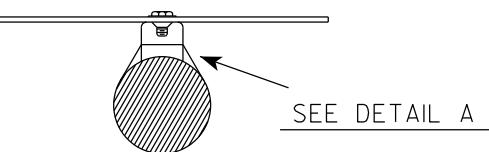
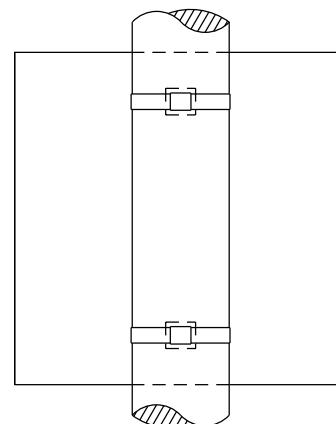
E

## GENERAL NOTES

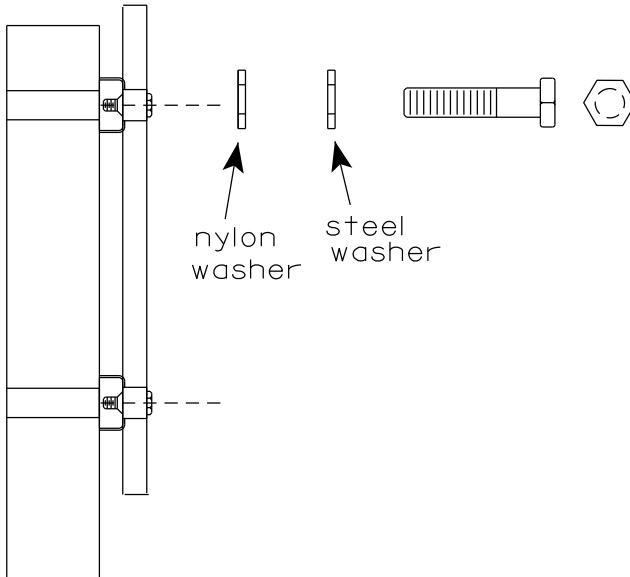
1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be  $\frac{3}{4}$ " in width and 0.025" thickness.
4. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
  - a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
  - b. Electro-galvanized in accordance with ASTM designation: B 633, Type III, SC 3

## BANDING

### SINGLE SIGN

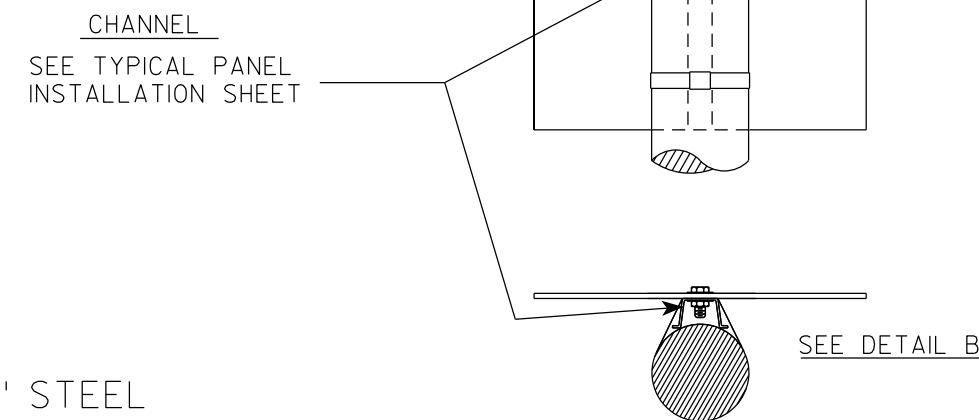


### WASHER PLACEMENT



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  
 FOR ALL TYPE H SIGNS

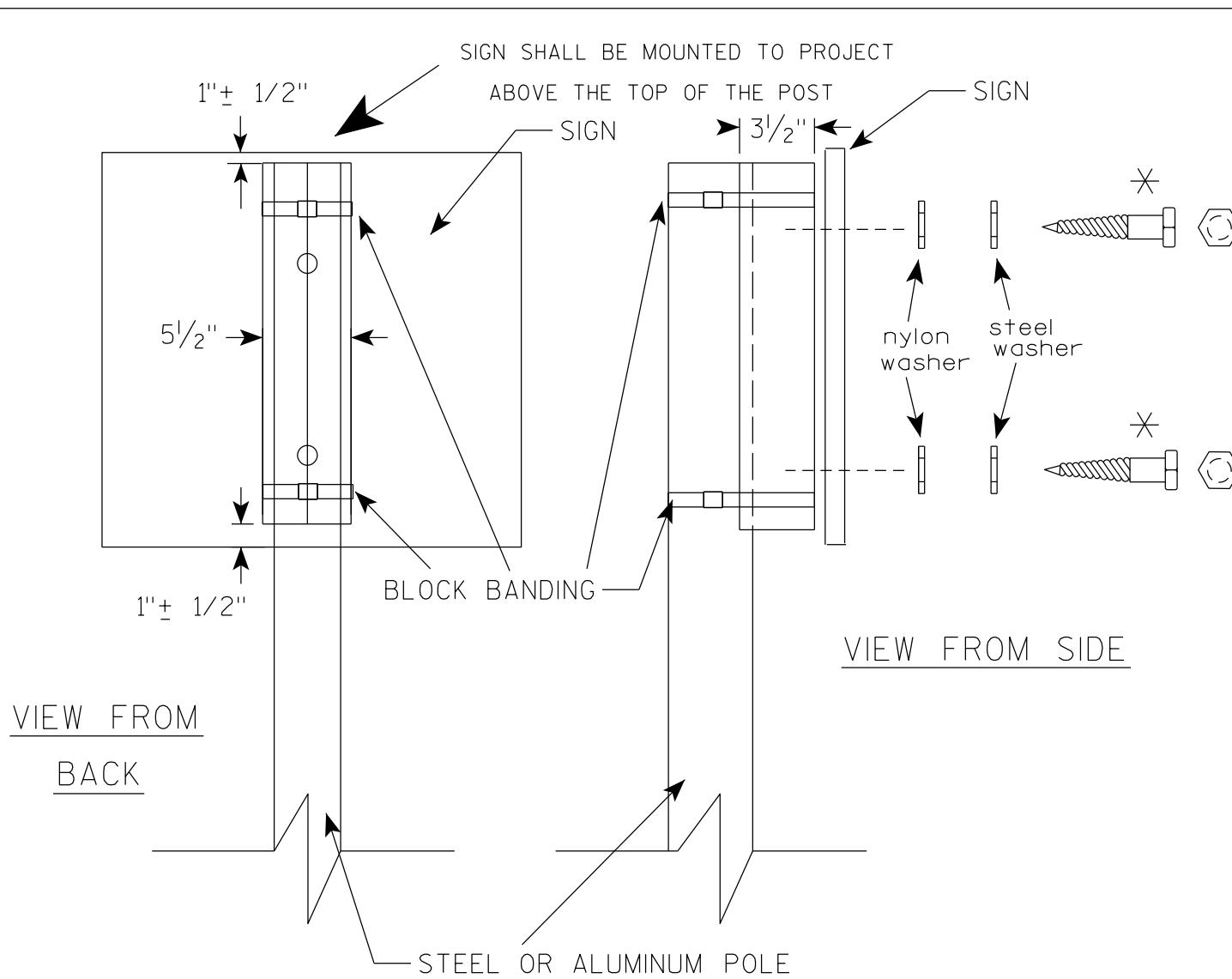
### "J" ASSEMBLY



### STANDARD SIGN SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

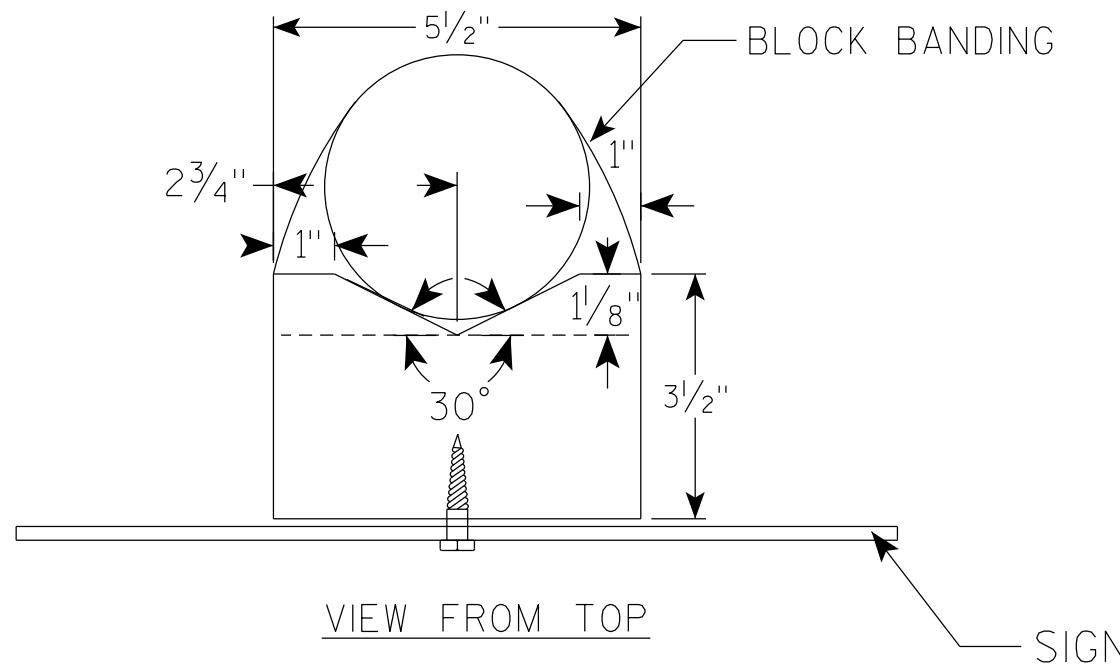
APPROVED  
  
 for State Traffic Engineer  
 DATE 6/10/19 PLATE NO. A5-9.4



### GENERAL NOTES

1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WisDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL,  $\frac{3}{4}$ " WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORMALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
  - a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
  - b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE  $1\frac{1}{4}$ " O.D. X  $\frac{3}{8}$ " I.D. X  $\frac{1}{16}$ "
8. NYLON WASHERS SHALL BE  $1\frac{1}{4}$ " O.D. X  $\frac{3}{8}$ " I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

※ LAG BOLTS SHALL BE  $\frac{3}{8}$ " X  $2\frac{1}{2}$ "

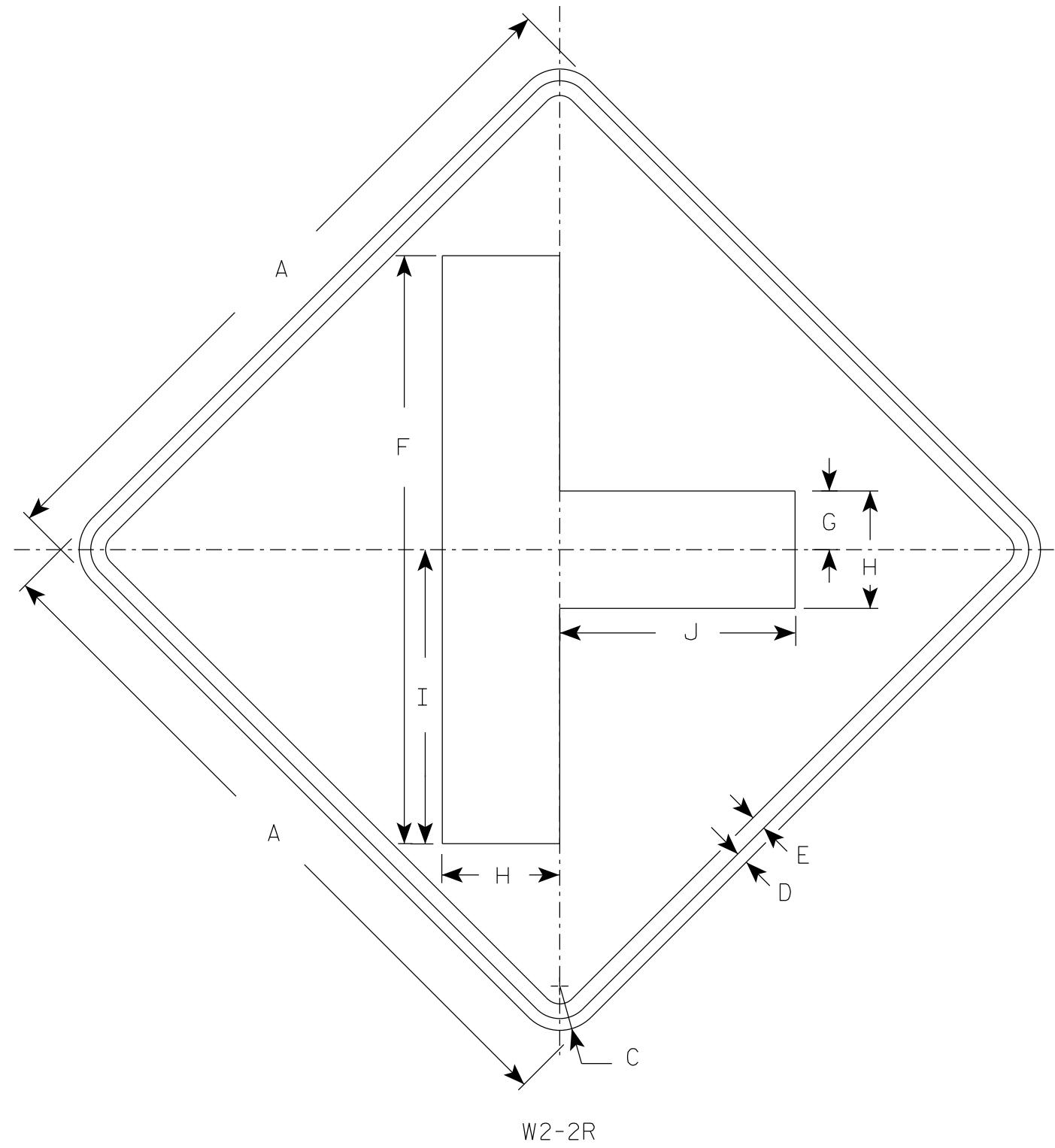


BLOCK BANDING DETAIL  
( V-BLOCK OPTION )

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R Rauch*  
for State Traffic Engineer

DATE 4/19/2022 PLATE NO. A5-10.3



NOTES

1. Sign is Type II - Type F Reflective
2. Color:  
Background - Yellow  
Message - Black
3. W2-2L same as W2-2R but is rotated 180° when mounted.

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	24		1 1/2	3/8	1/2	20	2	4	10	8																4.0	
2S	30		1 7/8	1/2	5/8	25	2 1/2	5	12 1/2	10																6.25	
2M	30		1 7/8	1/2	5/8	25	2 1/2	5	12 1/2	10																6.25	
3	36		2 1/4	5/8	3/4	30	3	6	15	12																9.0	
4	48		3	3/4	1	40	4	8	20	16																16.0	
5																											

PROJECT NO:

HWY:

COUNTY:

STANDARD SIGN

W2-2 L&R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R Rauch*

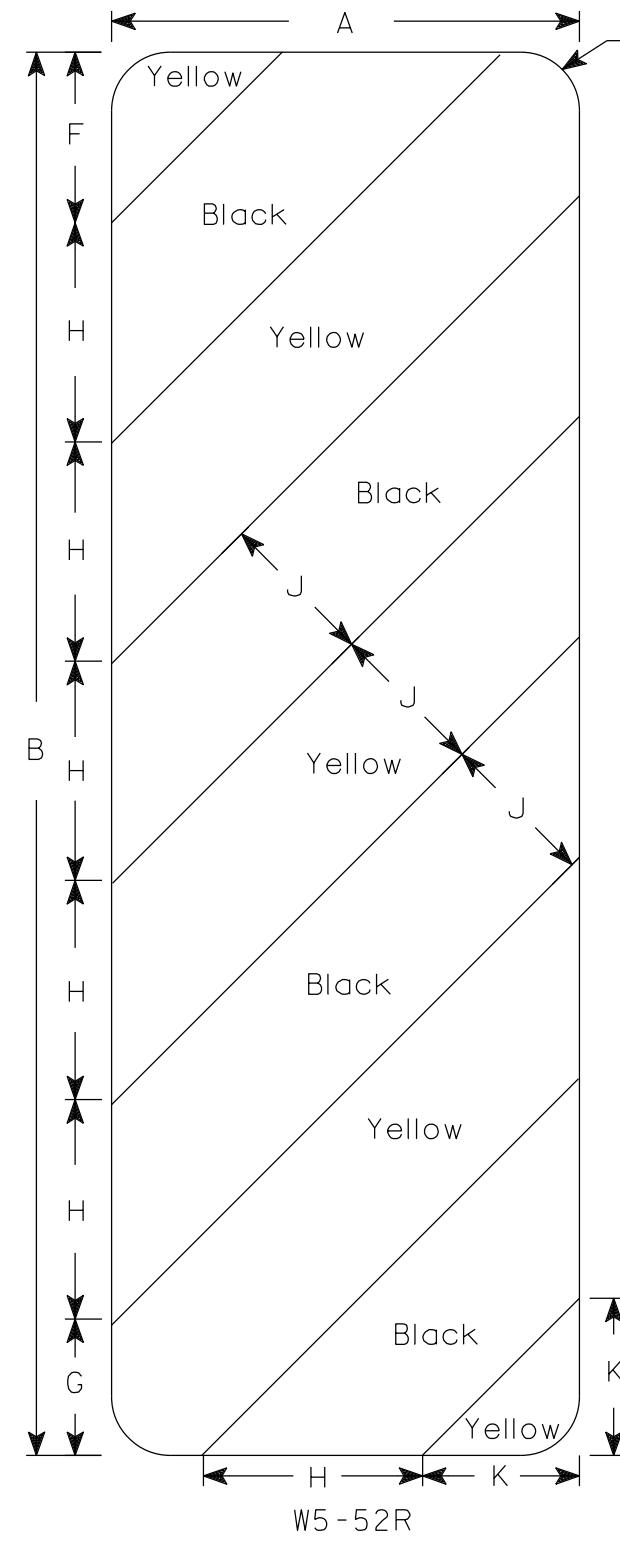
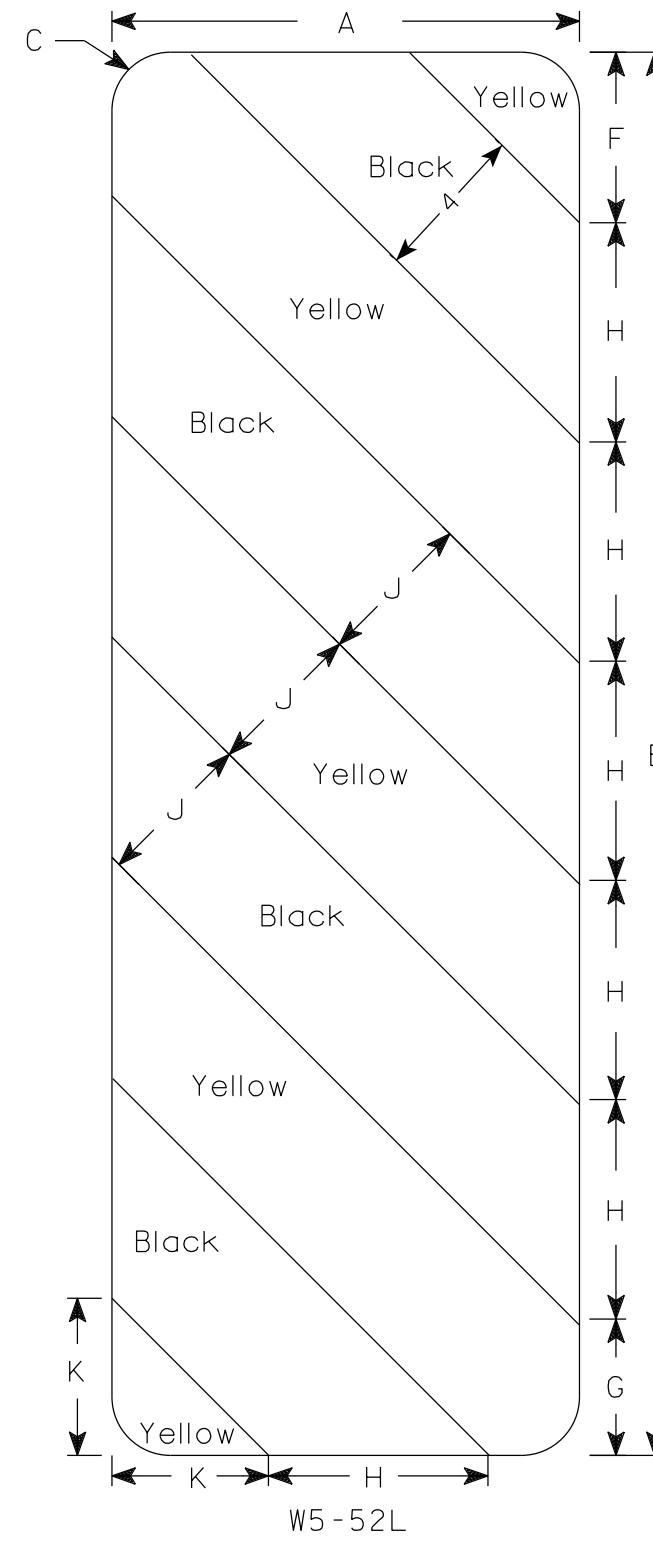
for State Traffic Engineer

DATE 8/16/2023 PLATE NO. W2-2.8

SHEET NO:

E

7



### NOTES

1. Sign is Type II - Type F Reflective
2. Color:  
Background - Yellow  
Message - Black
3. Alternate colors of stripes as shown.

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	1 1/2			4 3/8	3 1/2	5 5/8	45°	4	4															3.0	
2M	12	36	1 1/2			4 3/8	3 1/2	5 5/8	45°	4	4															3.0	
3	18	54	1 1/2			6	5 1/2	8 1/2	45°	6	6 9/16															6.75	
4																											
5																											

PROJECT NO:

HWY:

COUNTY:

### STANDARD SIGN

W5-52L &amp; W5-52R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R Rauch*

for State Traffic Engineer

DATE 3/4/2024 PLATE NO. W5-52.10

SHEET NO:

E

## DESIGN DATA

## LIVE LOAD:

DESIGN LOADING — HL-93  
 INVENTORY RATING FACTOR — RF=1.17  
 OPERATING RATING FACTOR — RF=1.51  
 WISCONSIN STANDARD PERMIT  
 VEHICLE RATING (WIS.-SPV): — 250 KIPS

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

## MATERIAL PROPERTIES:

CONCRETE MASONRY, SLAB —  $f_c' = 4,000$  P.S.I.  
 ALL OTHER —  $f_c' = 3,500$  P.S.I.  
 HIGH-STRENGTH BAR STEEL  
 REINFORCEMENT —  $f_y = 60,000$  P.S.I.

## FOUNDATION DATA:

ABUTMENTS TO BE SUPPORTED ON 10 3/4 X 0.365-INCH C.I.P. PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 120 TONS PER PILE\*\* AT W. ABUT. AND 120 TONS PER PILE\*\* AT E. ABUT. AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED 40 FT PILE LENGTHS AT W. ABUT. AND 40 FT PILE LENGTHS AT E. ABUT.

\*\*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 DYNAMIC FORMULA TO DETERMINE DRIVEN PILE CAPACITY.

## HYDRAULIC DATA:

100 YEAR DESIGN FREQUENCY:  
 Q<sub>100</sub> — 840 C.F.S.  
 Q<sub>100</sub> (THRU BRIDGE) — 840 C.F.S.  
 DRAINAGE AREA — 15.4 SQ. MI.  
 BRIDGE WATER AREA — 84 SQ. FT.  
 BRIDGE VELOCITY — 9.98 F.P.S.  
 HIGH WATER<sub>100</sub> EL. — 1461.77 FT.  
 SCOUR CRITICAL CODE — 5  
 Q<sub>2</sub> — 209 C.F.S.  
 Q<sub>2</sub> ELEVATION — 1458.10 FT.  
 Q<sub>2</sub> VELOCITY — 5.71 F.P.S.

## NOTES

 EXCAVATION AS INDICATED IN THE HATCH AREAS, TO BE INCLUDED IN THE BID ITEM "EXCAVATION FOR STRUCTURES BRIDGES B-50-97".

(G01) BACKFILL PAY LIMITS. BACKFILL BEYOND BACKFILL PAY LIMITS SHALL BE INCLUDED WITH BID ITEM "EXCAVATION FOR STRUCTURES BRIDGES B-50-97". LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.

(G02) "GEOTEXTILE TYPE OF SCHEDULE A" LIMITS. EXTEND 2'-0" ABOVE BOTTOM OF ABUTMENT FOR THE ENTIRE ABUTMENT BODY LENGTH.

(G03) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN AS DETAILED IN "ABUTMENT DETAILS" SHEET.

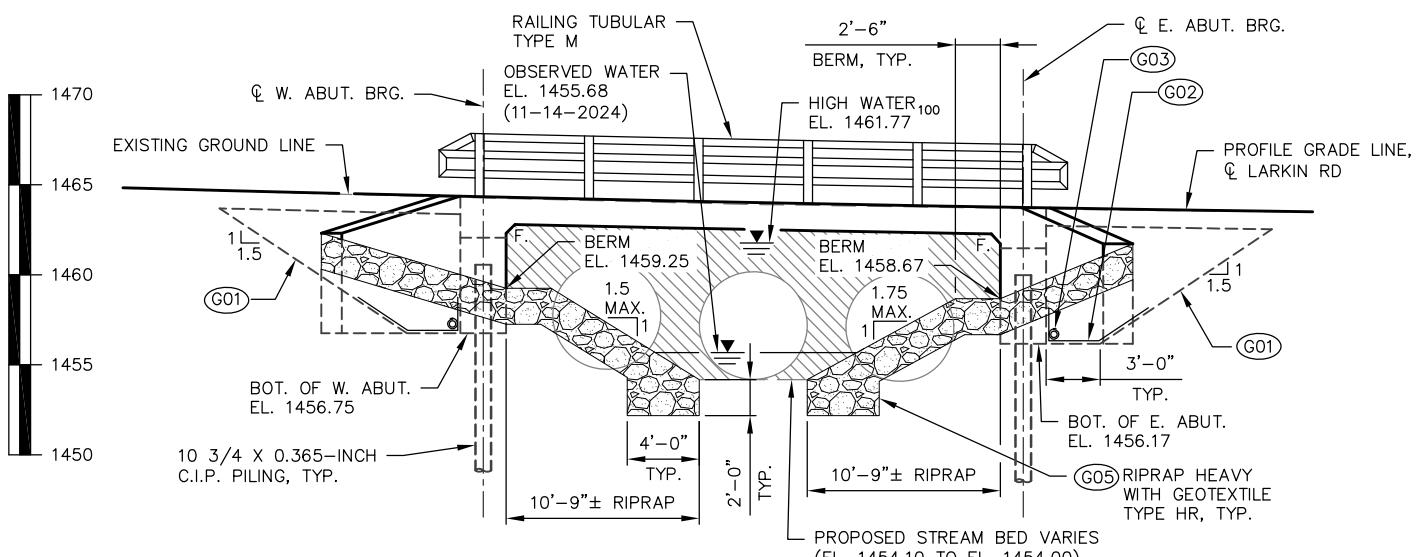
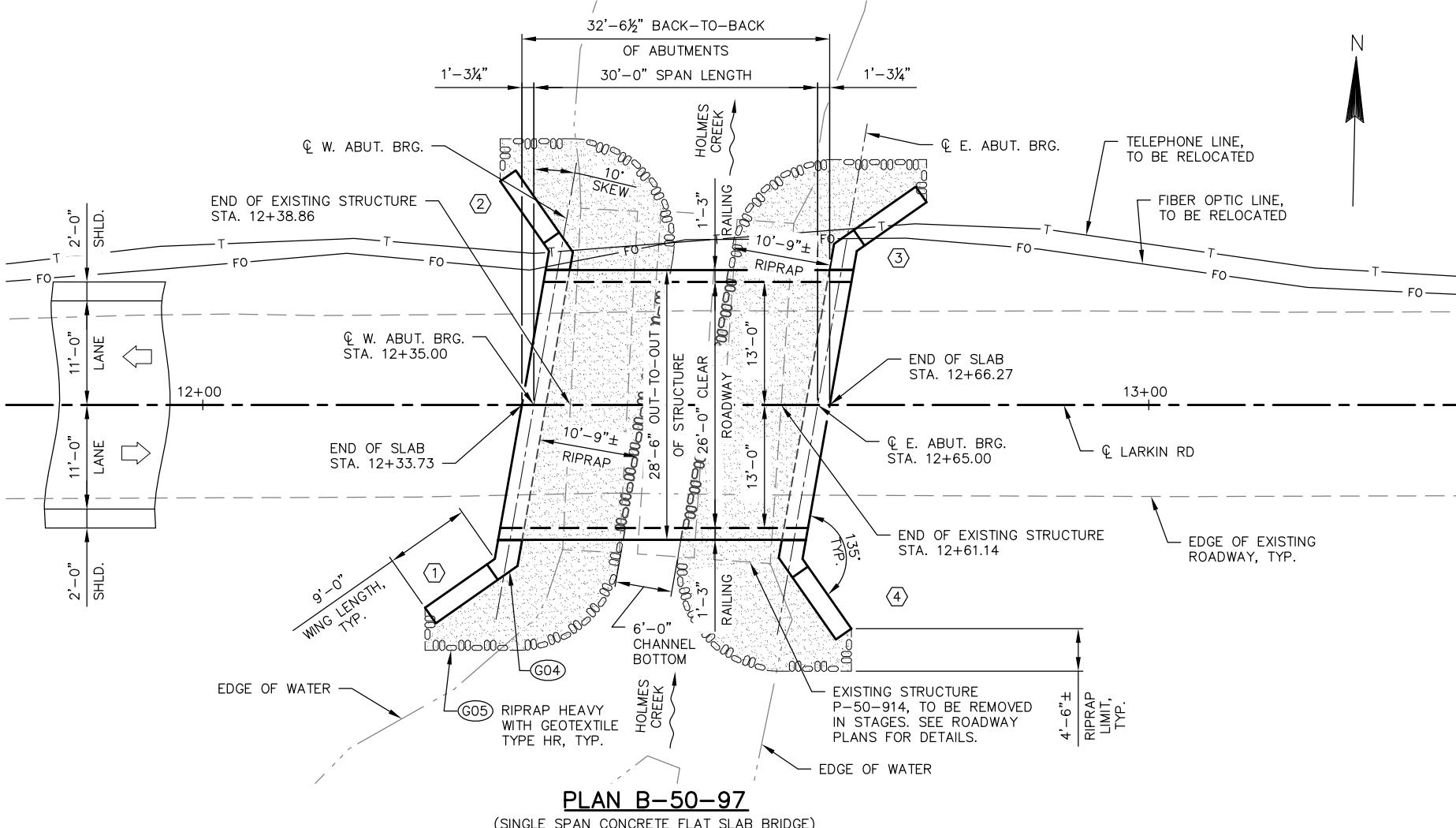
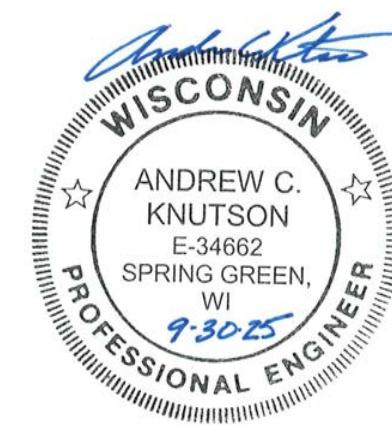
(G04) NAME PLATE REQUIRED AND BENCH MARK CAP (WHEN SUPPLIED). FOR LOCATION SEE "ABUTMENTS" SHEET.

(G05) FILL VOIDS IN RIPRAP HEAVY WITH INFILL RIPRAP. SEE ROADWAY PLANS FOR DETAILS, QUANTITIES AND BID ITEM.

 INDICATES WING NUMBER

## LIST OF DRAWINGS

1. GENERAL PLAN
2. CROSS SECTION, GENERAL NOTES & QUANTITIES
3. SUBSURFACE EXPLORATION
4. ABUTMENTS
5. ABUTMENT DETAILS
6. SUPERSTRUCTURE
7. SUPERSTRUCTURE DETAILS
8. RAILING TUBULAR TYPE M



## BENCH MARKS

NO.	STATION/OFFSET	DESCRIPTION	ELEVATION
BM #1	N/A	RAILROAD SPIKE IN POWER POLE	1483.62
BM #2	10+11.04, 169' LT.	RAILROAD SPIKE IN POWER POLE	1458.62
BM #3	15+13.01, 30' RT.	BARN SPIKE IN POWER POLE	1464.36

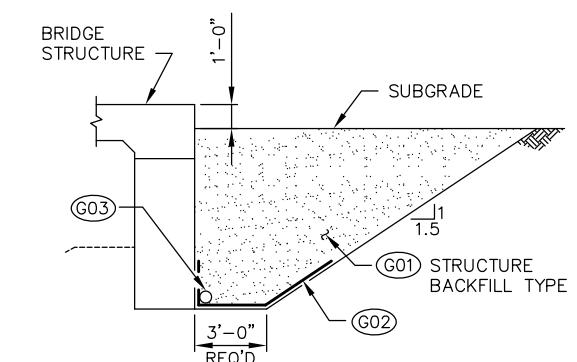
HORIZONTAL DATUM AND ADJUSTMENT: NAD 83 (2011)  
 VERTICAL DATUM AND ADJUSTMENT: NAVD 88 (2012)  
 COORDINATE REFERENCE SYSTEM: WISCRS PRICE CO.

## TRAFFIC DATA:

LARKIN RD  
 A.A.D.T. (2026) — 58  
 A.A.D.T. (2046) — 65  
 DESIGN SPEED — 60 M.P.H.

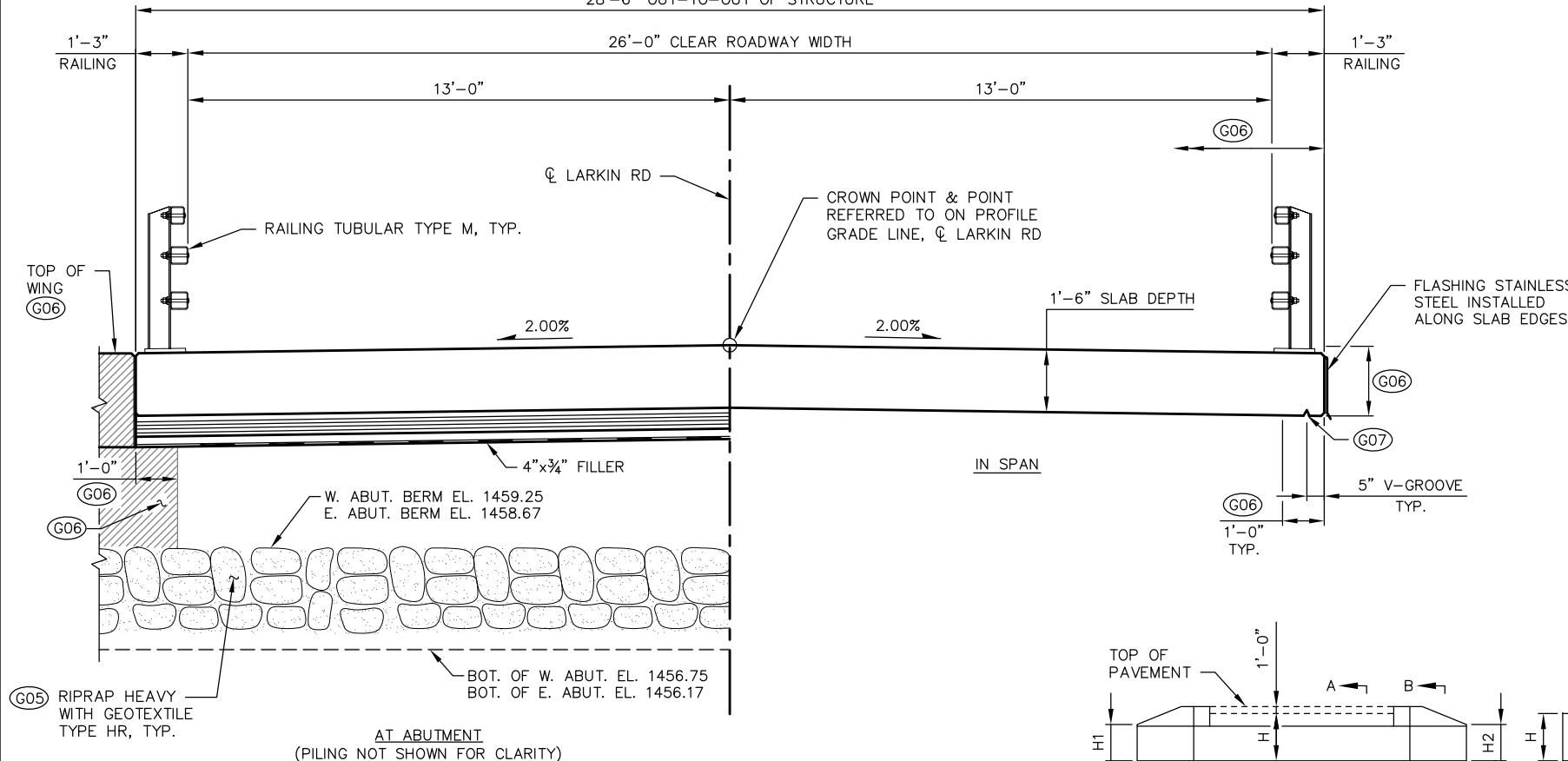
BRIDGE OFFICE CONTACT  
 AARON BONK, P.E.  
 (608) 261-0261

CONSULTANT CONTACT  
 ANDY KNUTSON, P.E., S.E.  
 (608) 588-7866



## ABUTMENT BACKFILL DETAIL

NO.	DATE	REVISION	BY
WESTBROOK Associated Engineers, Inc.			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
ACCEPTED	JLR	12/02/25	DATE
CHIEF STRUCTURES DESIGN ENGINEER			
STRUCTURE B-50-97			
LARKIN RD OVER HOLMES CREEK			
COUNTY	PRICE	TOWN/CITY/VILLAGE OGEMA	
DESIGN SPEC. AASHTO LRFD DESIGN SPEC.			
DESIGNED BY JDO	DESIGN C'D. CDS	DRAWN BY JDO	PLANS C'D. ACK
SHEET 1 OF 8			
GENERAL PLAN			

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  $\frac{3}{4}$ " UNLESS OTHERWISE NOTED.

THE SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH HEAVY RIPRAP AND GEOTEXTILE TYPE HR TO THE EXTENT SHOWN ON THE "GENERAL PLAN" SHEET AND THE ABUTMENT SHEETS.

THE BACKFILL QUANTITIES ARE BASED ON THE PAY LIMITS SHOWN ON THE PLANS AND MAY NOT REFLECT ACTUAL PLACED QUANTITIES. "BACKFILL STRUCTURE TYPE A" REQUIRED DIRECTLY BEHIND ABUTMENTS AND ABUTMENT WING FOR 3 FEET. BACKFILL PLACED BEYOND PAY LIMITS OR EXCEEDING PLAN QUANTITIES SHALL BE INCLUDED WITH "EXCAVATION FOR STRUCTURES BRIDGES B-50-97".

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 UPPER LIMITS OF "EXCAVATION FOR STRUCTURES BRIDGES B-50-97" SHALL BE THE EXISTING GROUND LINE.

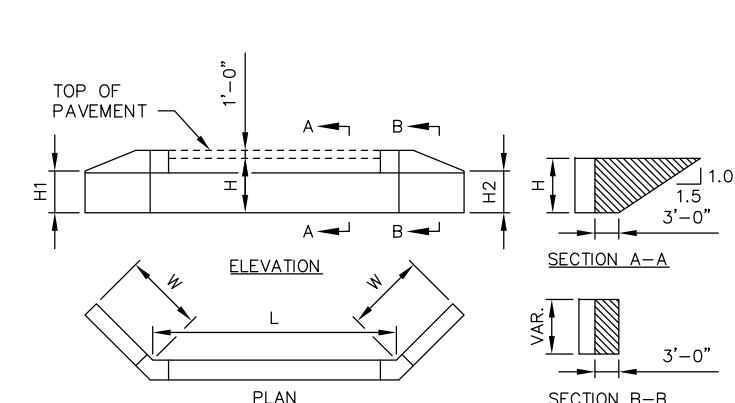
AT ABUTMENTS, CONCRETE POURED UNDER WATER WILL BE ALLOWED AND SHALL BE DONE IN ACCORDANCE WITH SECTION 502.3.5.3 OF THE STANDARD SPECIFICATIONS.

SLAB FALSEWORK SHALL BE SUPPORTED ON PILES OR THE SUBSTRUCTURE, UNLESS AN ALTERNATE METHOD IS APPROVED BY THE ENGINEER.

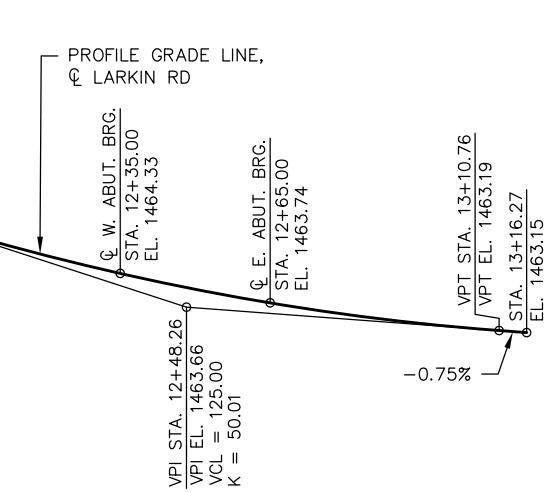
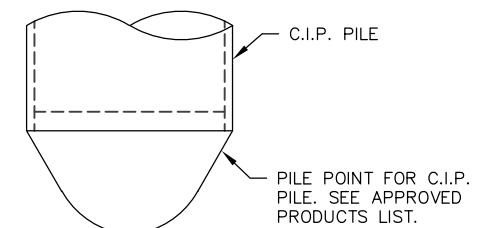
AT THE BACKFACE OF ABUTMENT ALL VOLUME WHICH CANNOT BE PLACED BEFORE ABUTMENT CONSTRUCTION AND IS NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL TYPE A.

DO NOT PLACE FILL ABOVE 3'-0" FROM BOTTOM OF ABUTMENT UNTIL SUPERSTRUCTURE IS IN PLACE.

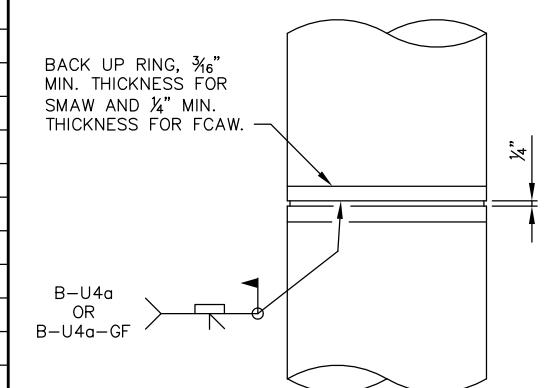
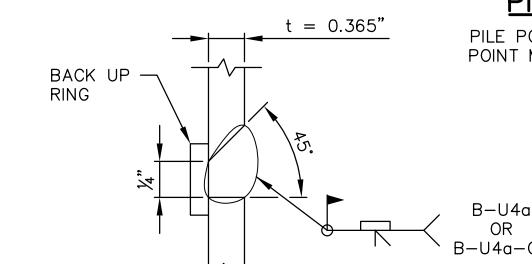
THE EXISTING STRUCTURE (P-50-914) CONSISTS OF THREE 6-FT DIAMETER CORRUGATED STEEL PIPES WITH OVERALL PIPE LENGTHS OF 36-FT AND TOTAL LENGTH ALONG THE ROADWAY OF 22-FT AND IS TO BE REMOVED PER BID ITEM "REMOVING STRUCTURE P-50-914". EXISTING STRUCTURE IS TO BE REMOVED IN STAGES, SEE ROADWAY PLANS FOR DETAILS.

ABUTMENT BACKFILL DIAGRAM

$L$  = ABUTMENT BODY LENGTH AT BACKFACE (FT)  
 $H$  = AVERAGE ABUTMENT FILL HEIGHT (FT)  
 $H1$  = WING 1 HEIGHT AT TIP (FT)  
 $H2$  = WING 2 HEIGHT AT TIP (FT)  
 $W$  = WING LENGTH (FT)  
 $EF$  = EXPANSION FACTOR (1.20 FOR CY BID ITEMS AND 1.00 FOR TON BID ITEMS)  
 $V_{CF}$  =  $(L)(3.0')(H) + (L)(0.5)(1.5H)(H) + (3')(0.5)(H1+H2+H+H)(W)$   
 $V_{CY}$  =  $V_{CF}(EF)/27$   
 $V_{TON}$  =  $V_{CY}(2.0)$

PROFILE GRADE LINE,  
Q LARKIN RD

PILE POINT SHALL BE INSTALLED ACCORDING TO THE PILE POINT MANUFACTURE'S INSTRUCTIONS. ENSURE PILE POINT WELDS ARE WATERTIGHT.

CAST-IN-PLACE 'PIPE PILE'C.I.P. PILE WELD DETAIL

NOTE: CAST-IN-PLACE PILE SHELL MATERIAL SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATION.

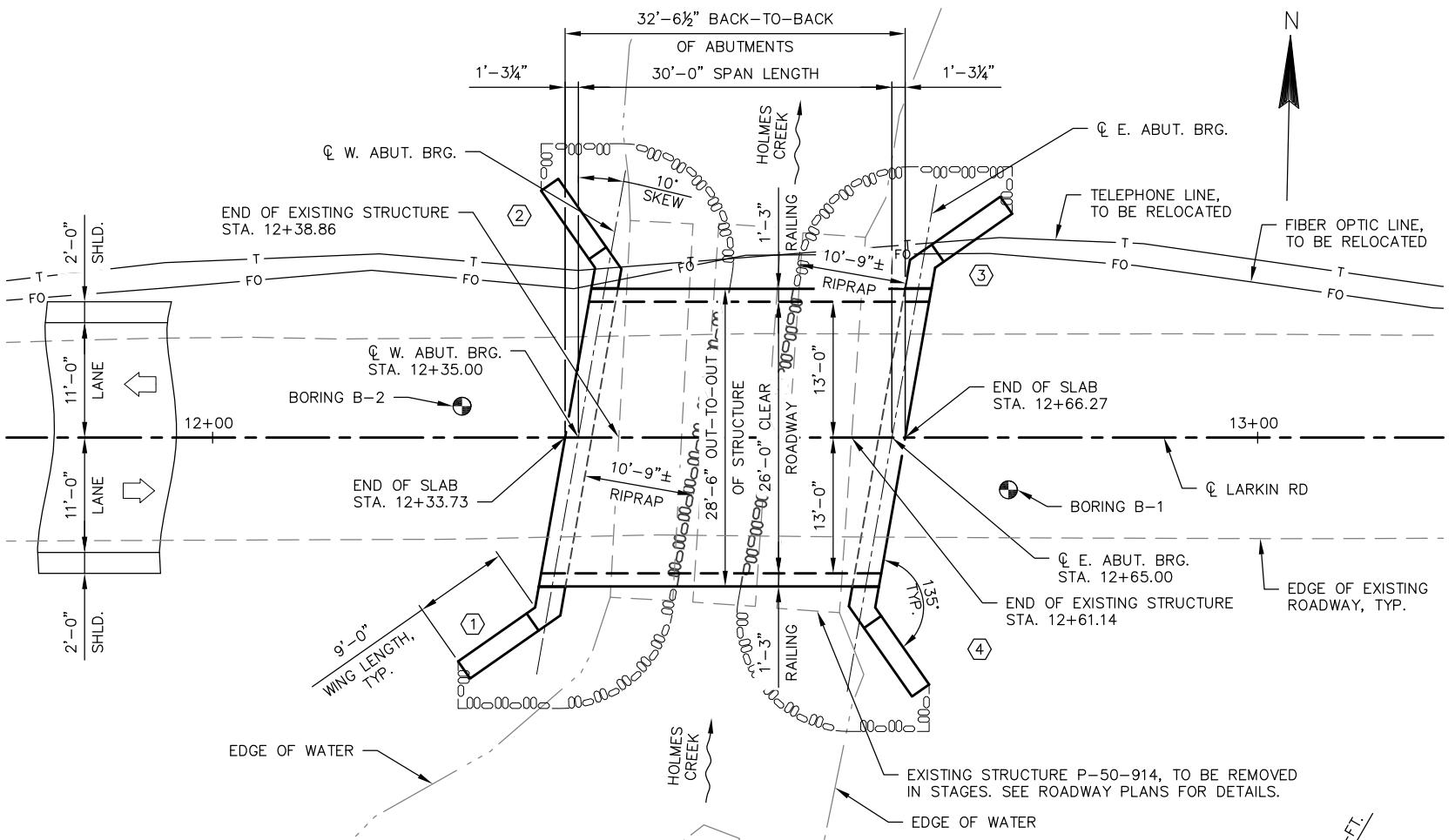
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-50-97			
DRAWN BY	JDO	PLANS CK'D	ACK
CROSS SECTION, GENERAL NOTES & QUANTITIES			
SHEET 2 OF 8			

B-50-97 BORINGS

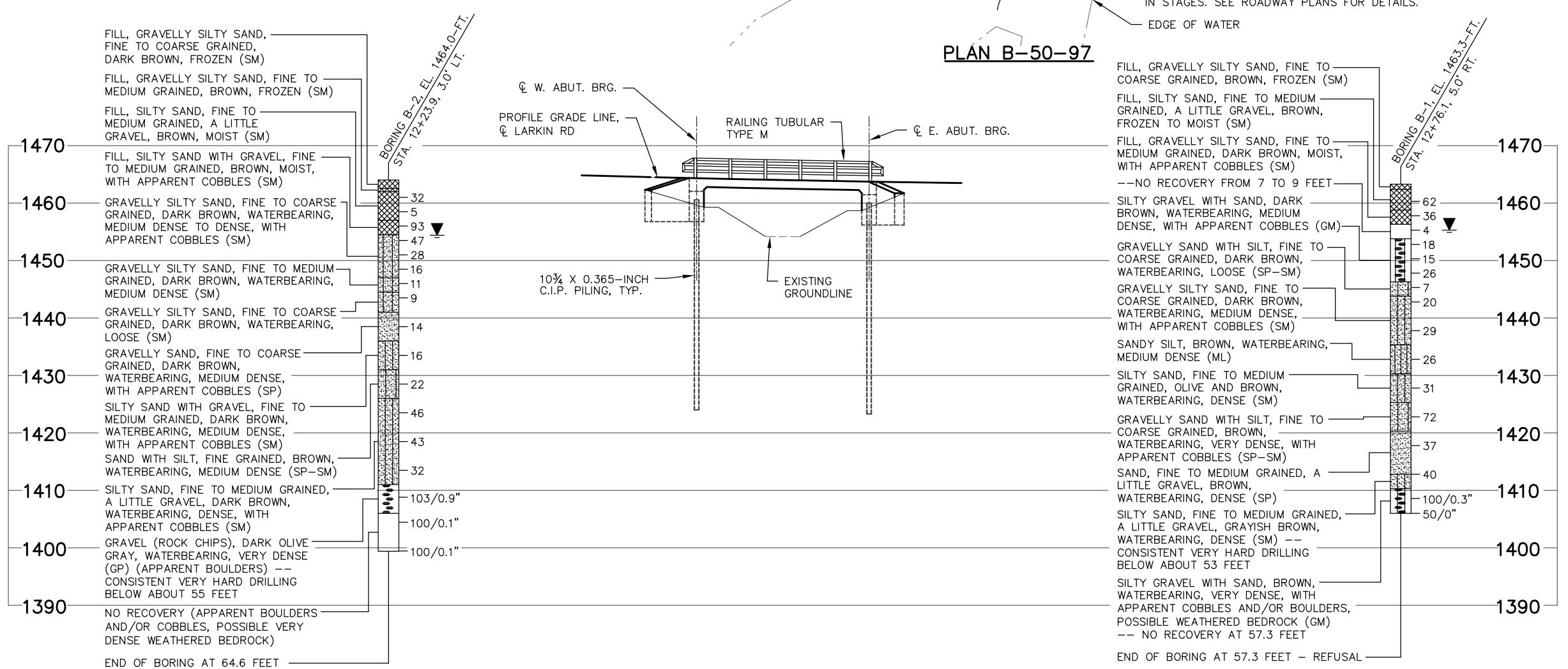
BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
BORING B-1	1/8/2025	331877.5	783457.8
BORING B-2	1/9/2025	331884.0	783405.3
BORINGS COMPLETED BY: AMERICAN ENGINEERING TESTING			
SUBSURFACE INVESTIGATION REPORT: AMERICAN ENGINEERING TESTING			
ALL COORDINATES REFERENCED TO WISCRS, PRICE COUNTY			

### NOTE

 INDICATES WING NUMBER



PLÁN B-50-97



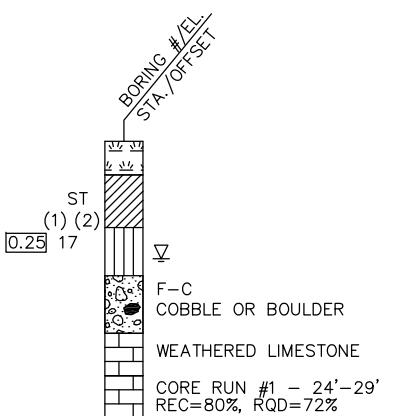
STATE PROJECT NUMBER

8724-04-71

## MATERIAL SYMBOLS

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

### LEGEND OF BORING



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

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

▽ AT TIME OF DRILLING

▼ END OF DRILLING

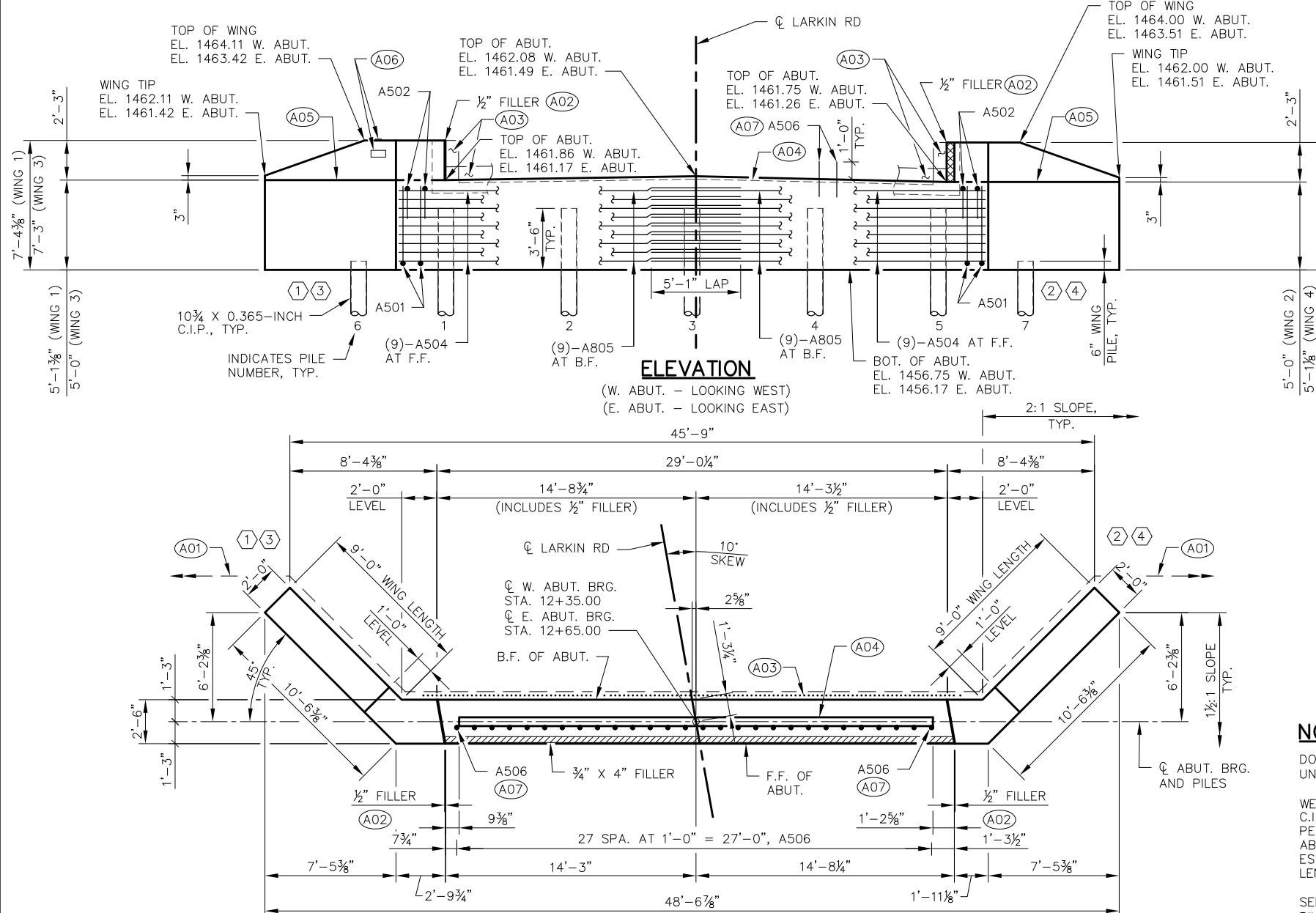
#### ▼ AFTER DRILLING

## ABBREVIATIONS

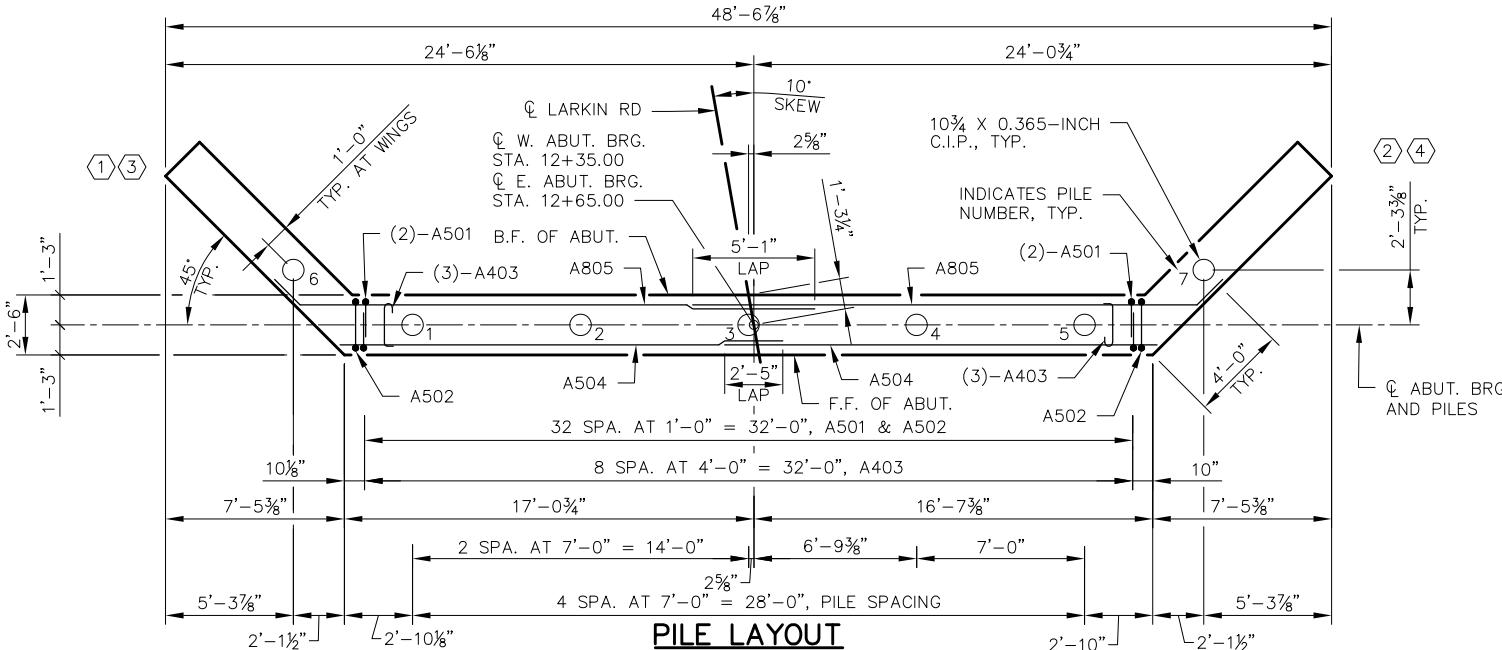
## SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS' INFORMATION

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.

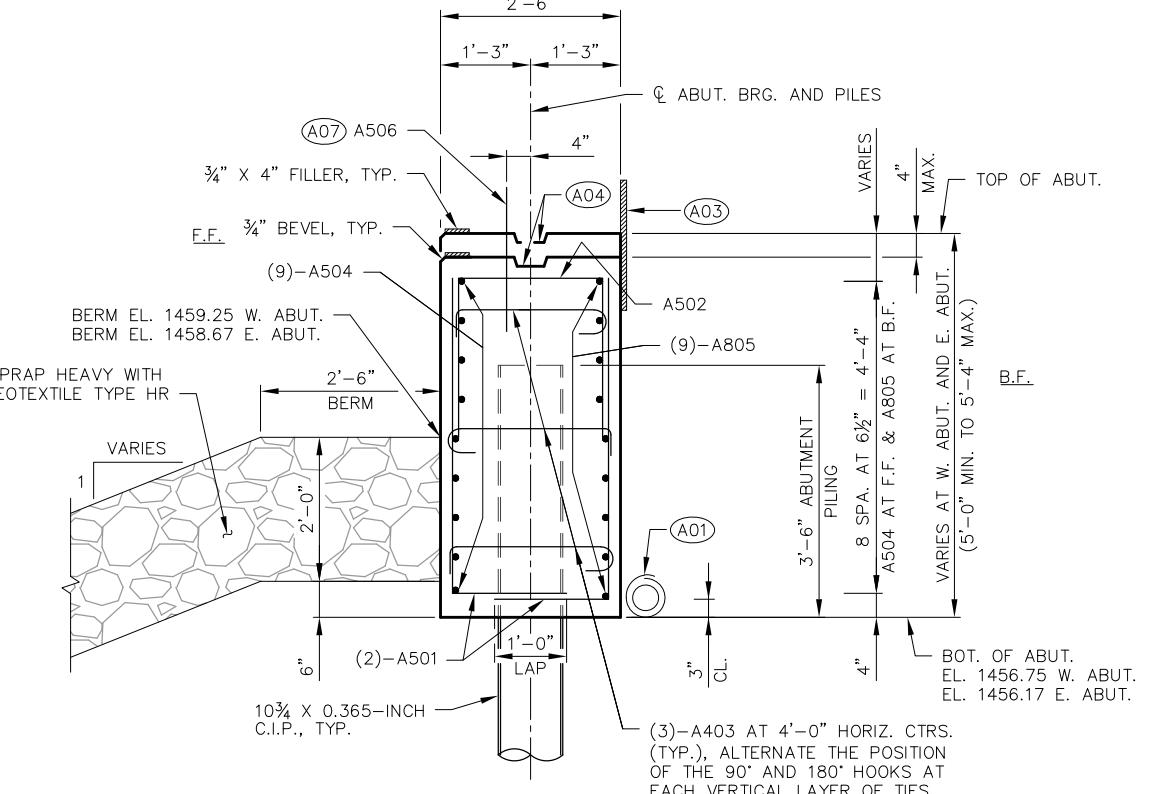
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
<b>STRUCTURE B-50-97</b>			
	DRAWN BY	JDO	PLANS CK'D
<b>SUBSURFACE EXPLORATION</b>			SHEET 3 OF 8



PLA



## PILE LAYOUT



TYPICAL SECTION  
THRU ABUTMENT

## NOTES

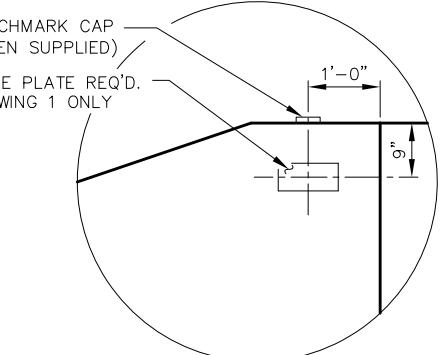
DO NOT PLACE FILL ABOVE 3'-0" FROM THE BOTTOM OF THE ABUTMENT UNTIL SUPERSTRUCTURE IS IN PLACE.

WEST AND EAST ABUTMENT TO BE SUPPORTED ON 10 $\frac{3}{4}$  X 0.365-INCH C.I.P. PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 120 TONS PER PILE AT THE WEST ABUTMENT AND 120 TONS PER PILE AT THE EAST ABUTMENT AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED 40 FT PILE LENGTHS AT THE WEST ABUTMENT AND 40 FT PILE LENGTHS AT THE EAST ABUTMENT.

SEE "CROSS SECTION, GENERAL NOTES & QUANTITIES" SHEET FOR C.I.P.  
PILE SPLICE DETAILS.

- (A01) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN AS DETAILED ON "ABUTMENT DETAILS" SHEET. RODENT SHIELD SHALL BE INCLUDED WITH THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".
- (A02) SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF  $\frac{1}{2}$ " FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD  $\frac{1}{8}$ " BELOW SURFACE OF CONCRETE).  $\frac{1}{2}$ " FILLER TO EXTEND FROM BRIDGE SEAT TO TOP OF WING.
- (A03) 18" RUBBERIZED MEMBRANE WATERPROOFING (R.M.W.), SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACK FACE.
- (A04) KEYED CONST. JT. FORMED BY BEVELED 2 X 6
- (A05) OPTIONAL KEYED CONST. JT. FORMED BY BEVELED 2 X 6, TYP.
- (A06) NAME PLATE & BENCHMARK CAP (WHEN SUPPLIED) AT WING 1 ONLY. SEE "NAME PLATE DETAIL", THIS SHEET.
- (A07) A506 BARS MAY BE PLACED AFTER CONCRETE HAS BEEN Poured BUT BEFORE INITIAL SET HAS TAKEN PLACE. EMBED 1'-0" INTO ABUTMENT BODY.

 INDICATES WING NUMBER

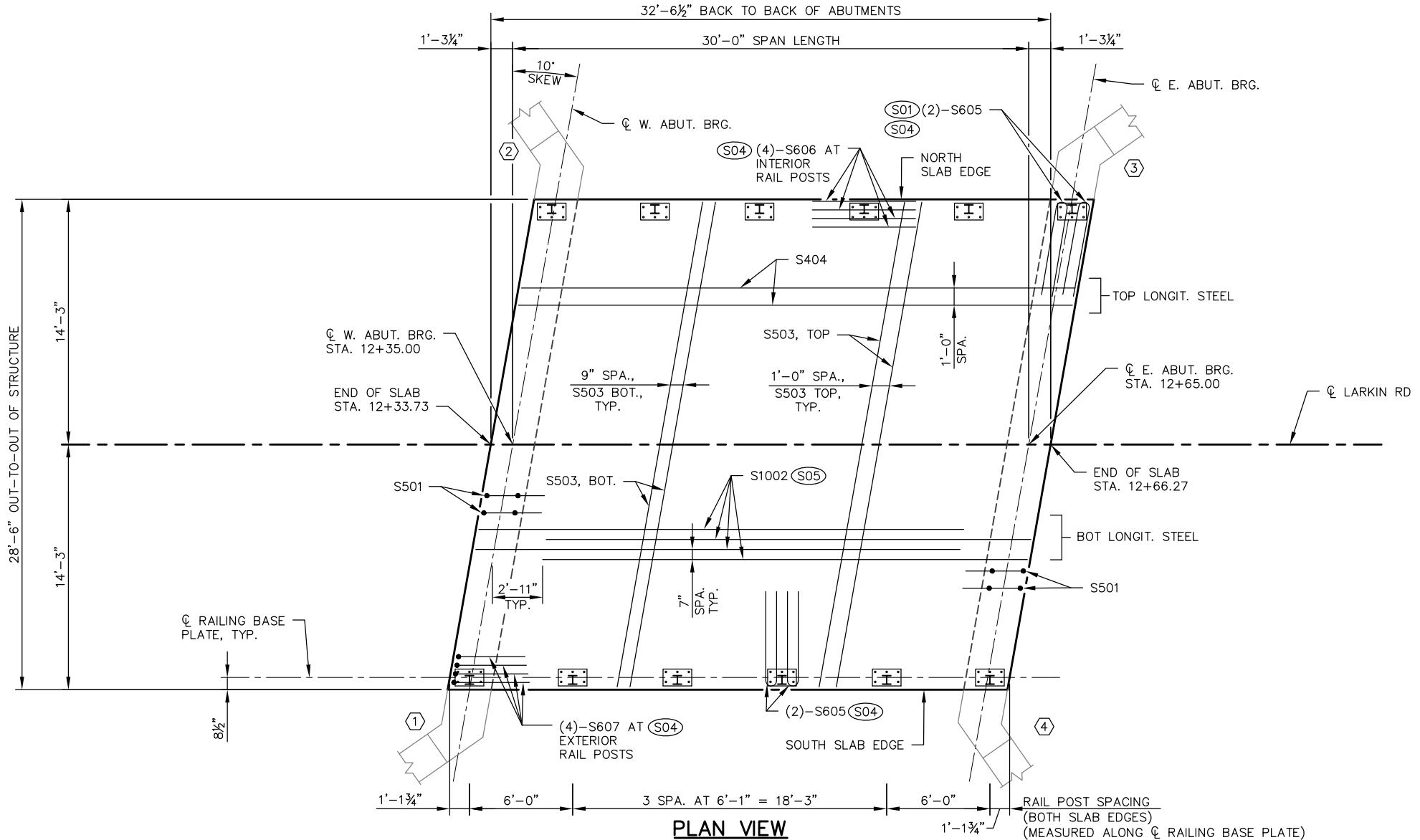


NAME PLATE  
DETAIL

F.F. - FRONT FACE  
B.F. - BACK FACE

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
<b>STRUCTURE B-50-97</b>			
DRAWN BY		JDO	PLANS CK'D
<b>ABUTMENTS</b>		SHEET 4 OF 8	
E: B500097_04-05_abut.dwg DT SCALE:			





## LONGITUDINAL SECTION (LOOKING NORTH)

F.F. — FRONT FACE  
B.F. — BACK FACE

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 (+).

RAILING TO BE INSTALLED ON THE SLAB AFTER FALSEWORK HAS BEEN RELEASED.

S01) ADJUST ORIENTATION OF S605 BAR AT END POST NEAR WINGS 1 & 3 TO ENSURE CLEAR COVER AT END OF SLAB.

602 SEE "ABUTMENTS" SHEET FOR PLACEMENT OF A506 BARS

603) DIMENSION IS TAKEN PARALLEL TO & LARKIN RD  
604) SEE "RAILING TUBULAR TYPE M" SHEET FOR PLACEMENT

RAIL POST REINFORCEMENT.

505 EXTEND ONE END OF THE S1002 BAR TO 2" CLEAR OF ON BACK FACE OF ABUTMENT. ALTERNATE BETWEEN WEST AND EAST ABUTMENTS ACROSS ENTIRE SLAB.

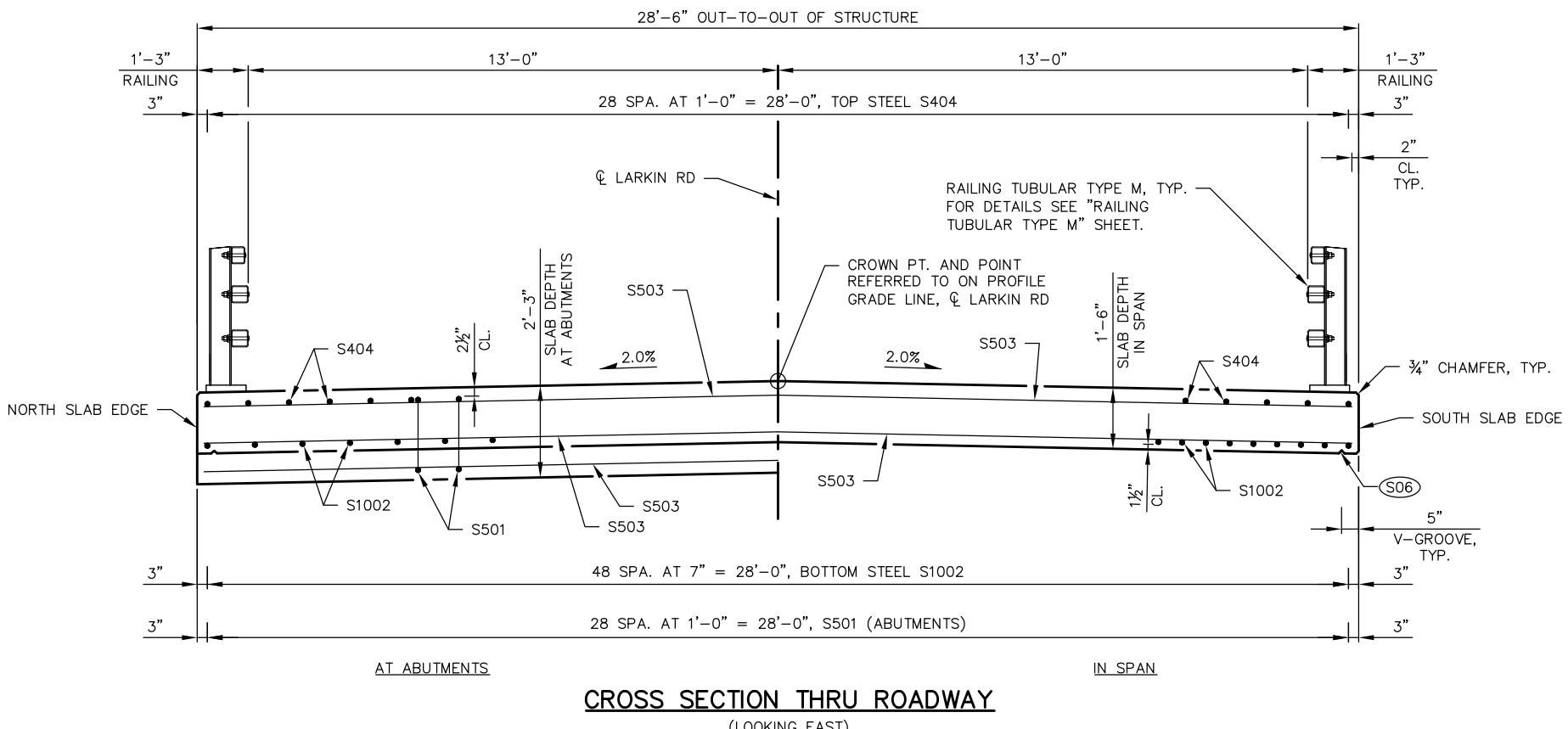
 INDICATES WING NUMBER

NO	DATE	REVISION
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STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-50-97

DRAWN  
BY JDO PLANS  
CK'D



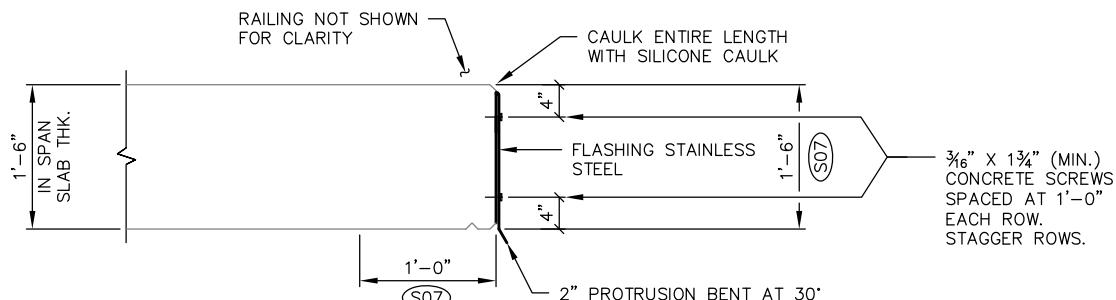
## CROSS SECTION THRU ROADWAY

(LOOKING EAST)

## SURVEY TOP OF SLAB ELEVATIONS

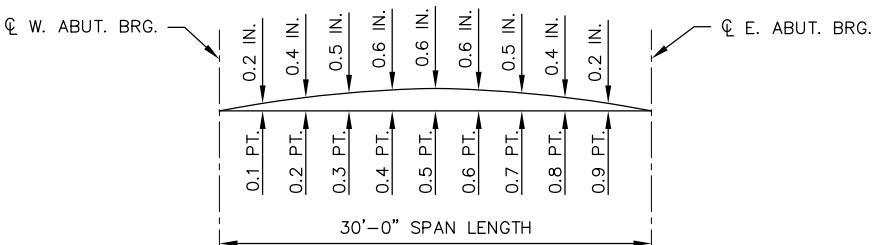
	Q W. ABUT. BRG.	5/10 PT.	Q E. ABUT. BRG.
NORTH SLAB EDGE			
Q LARKIN RD			
SOUTH SLAB EDGE			

PRIOR TO RELEASING SLAB FALSEWORK, TAKE TOP OF SLAB ELEVATIONS AT THE Q OF ABUTMENTS AND AT 5/10 POINTS TO VERIFY CAMBER. TAKE ELEVATIONS ALONG EDGE OF SLAB AND REFERENCE LINE. RECORD THE ELEVATIONS IN THE ABOVE TABLE FOR THE "AS BUILT" PLANS.



## FLASHING DETAIL

(INSTALL FLASHING ON BOTH THE NORTH & SOUTH SLAB EDGES)



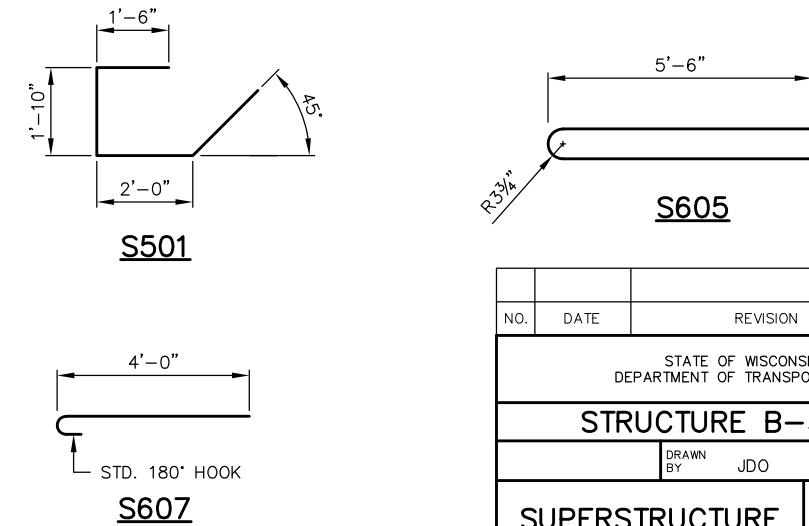
## SLAB CAMBER DIAGRAM

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

SPAN PT	NORTH SLAB EDGE	Q LARKIN RD	SOUTH SLAB EDGE
Q W. ABUT.	1464.00	1464.33	1464.11
0.1	1463.93	1464.27	1464.04
0.2	1463.87	1464.20	1463.97
0.3	1463.81	1464.14	1463.91
0.4	1463.75	1464.08	1463.85
0.5	1463.69	1464.02	1463.79
0.6	1463.63	1463.96	1463.73
0.7	1463.58	1463.90	1463.67
0.8	1463.52	1463.85	1463.61
0.9	1463.47	1463.79	1463.56
Q E. ABUT.	1463.42	1463.74	1463.51



STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-50-97

DRAWN BY JDO PLANS CK'D A

## SUPERSTRUCTURE DETAILS



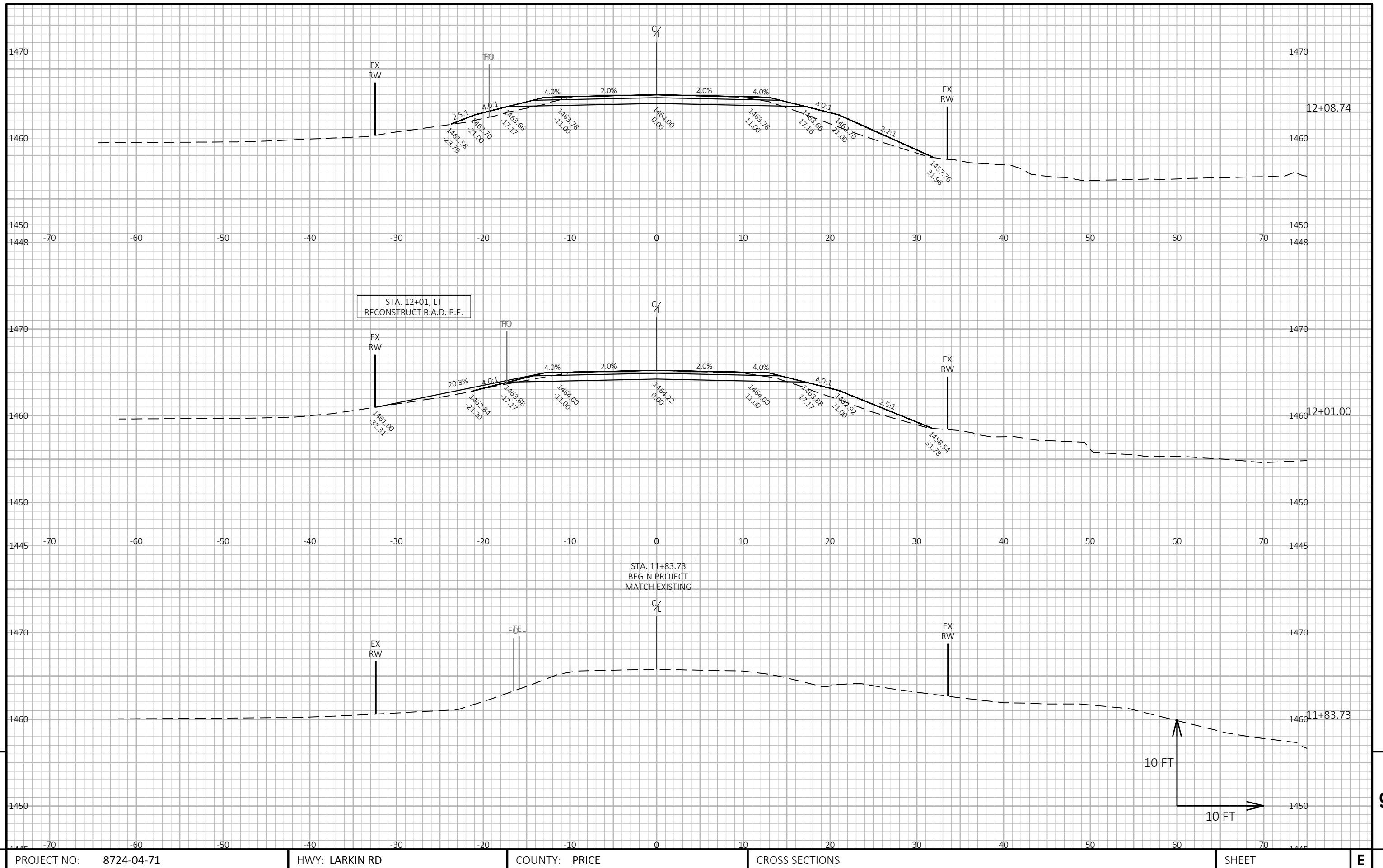
EST APPROAC

STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
		CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	EXPANDED FILL	MASS ORDINATE
								NOTE 1	1.00	1.25
113.3	0.00	25.2	0.00	1.1	0	0	0	0	0	0
1201.00	1.2	25.05	0.00	11.4	1	0	9	1	11	5
120.3	.3	23.	0.00	1.3	7	0	4	23	1	7
1223.4	14.	22.02	0.00	52.0	12	0	20	35	41	-6
1231.44	.5	21.1	0.00	3.34	6	0	13	41	5	1
1233.3	2.2	11.55	0.00	14.4	1	0	2	42	0	1
STRUCTURE B5000										
				EST APPROAC TOTALS		42	0	4		

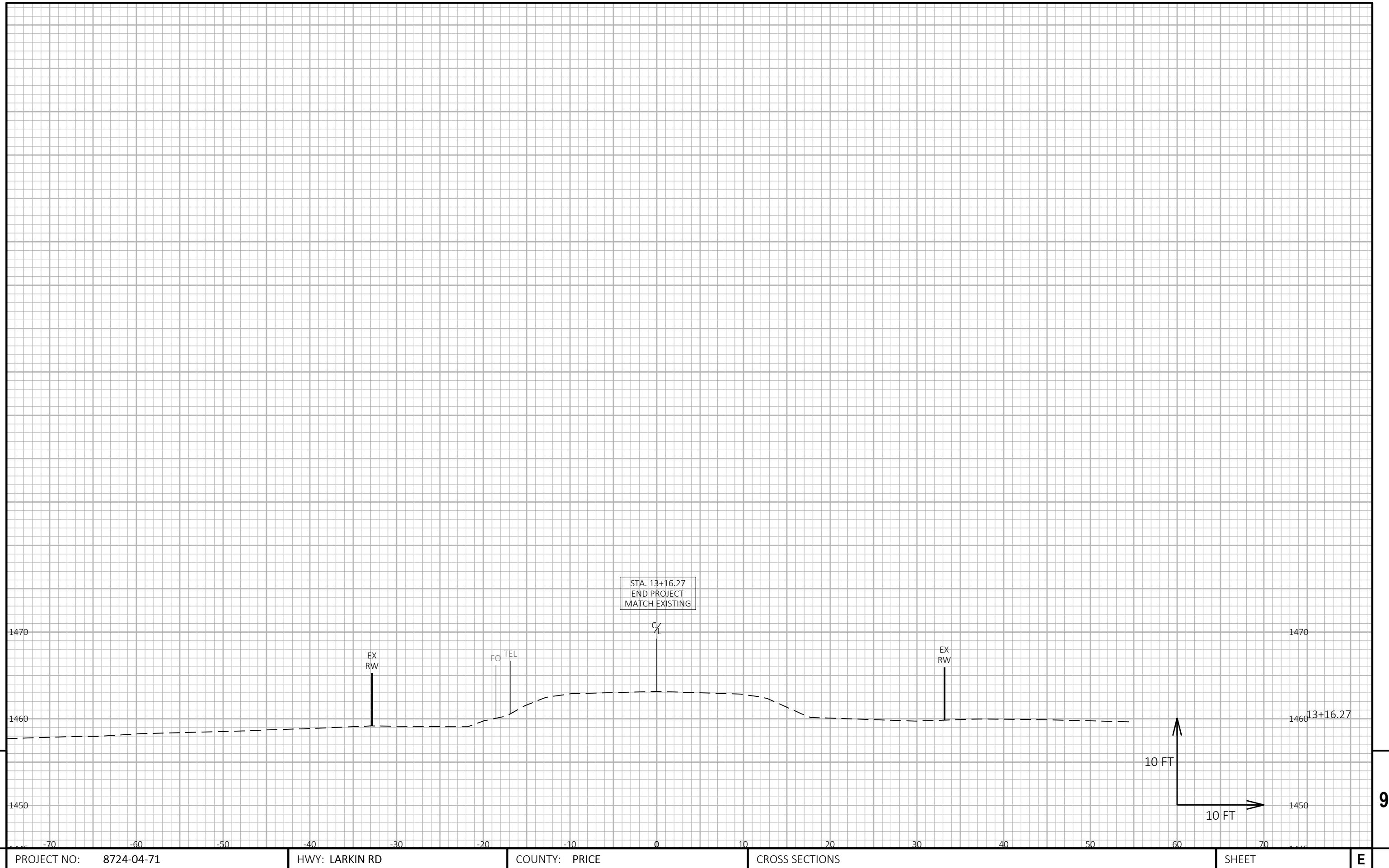
EAST APPROACH

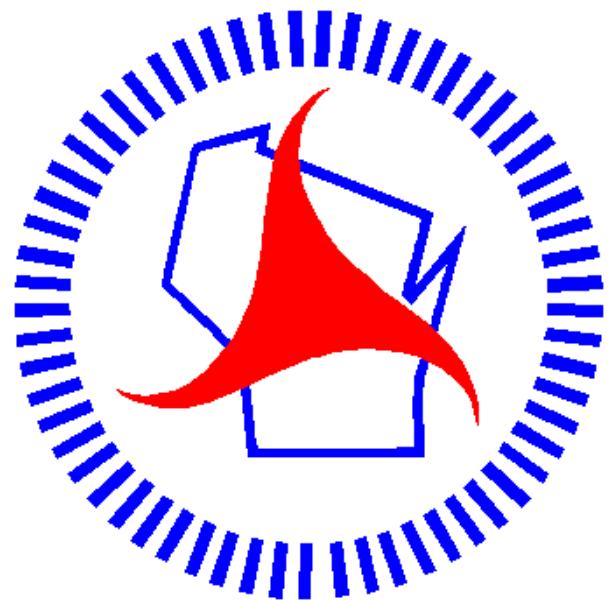
STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
		CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	EXPANDED FILL	MASS ORDINATE
								NOTE 1	1.00	1.25
12+66.27	0.00	10.03	0.00	17.47	0	0	0	0	0	0
12+68.56	2.29	21.58	0.00	32.86	1	0	2	1	3	-2
12+76.51	7.95	22.66	0.00	39.27	.	0	11	8	1	-8
121.2	14.	23.5	0.00	31.55	13	0	1	21	40	1
131.2	25.00	23.	0.00	1.00	22	0	23	43	69	2
				EAST APPROAC TOTALS		43	0	55		
				PROJECT TOTALS		5	0	103		

NOTES	
1 CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 SALVAGED/UNUSABLE PAVEMENT MATERIAL	TIS DOES NOT SO UP IN CROSS SECTIONS.
3 FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME
4 MASS ORDINATE	(CUT)(FILL)(FILL FACTOR)(SALVAGED/UNUSABLE PAVEMENT MATERIAL)









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

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