

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 = 54



DESIGN DESIGNATION 5786-00-04

A.A.D.T. 2026	=	20
A.A.D.T. 2046	=	25
D.H.V.	=	4
D.D.	=	62 / 38
T.	=	7.7 %
DESIGN SPEED	=	30 mph
ESALS	=	10,000

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	
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	
ELECTRIC	
FIBER OPTIC	
GAS	
SANITARY SEWER	
STORM SEWER	
TELEPHONE	
WATER	
UTILITY PEDESTAL	
POWER POLE	
TELEPHONE POLE	

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

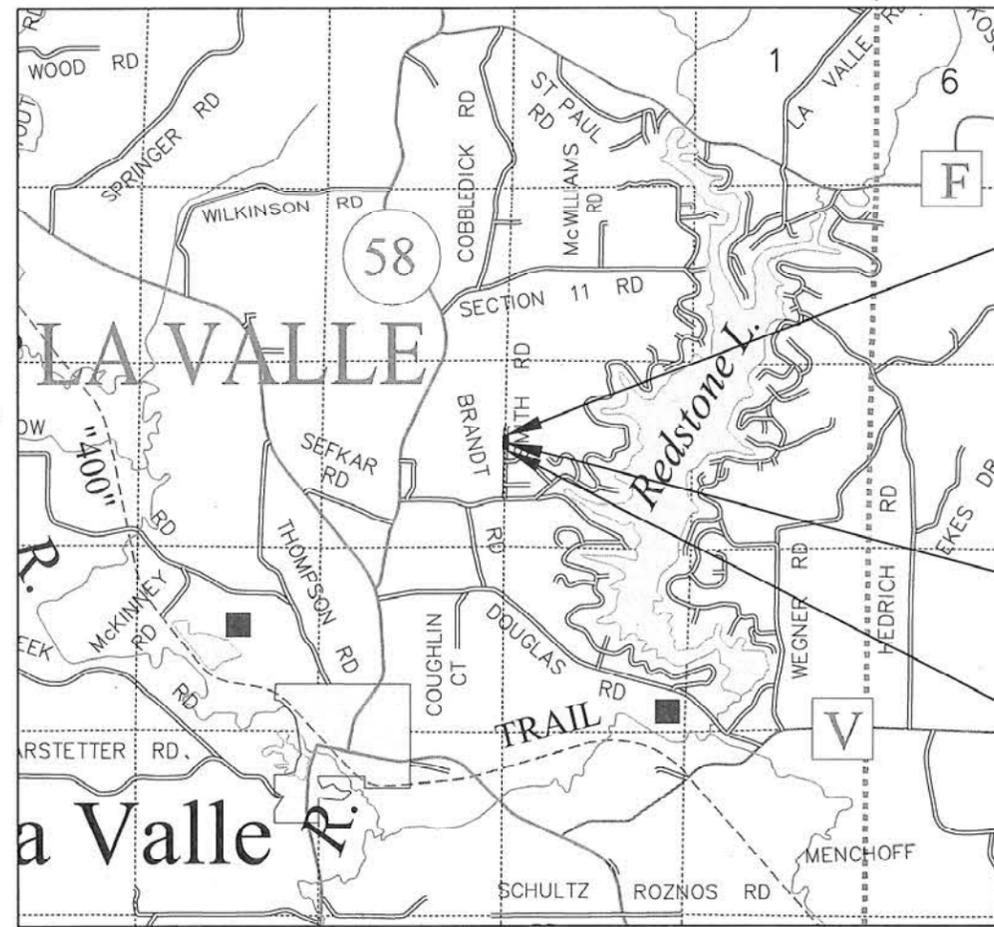
PLAN OF PROPOSED IMPROVEMENT

T LAVALLE, SMITH ROAD

LAKE REDSTONE TRIB BRIDGE B-56-0254

LOC STR
SAUK COUNTY

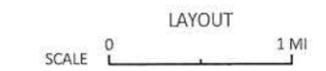
STATE PROJECT NUMBER
5786-00-74



END PROJECT
STA 12+85.84

STRUCTURE B-56-0254
STA 12+24.84

BEGIN PROJECT
STA 11+63.84
Y = 287 004.171
X = 552 616.927



TOTAL NET LENGTH OF CENTERLINE = 0.023 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), SAUK 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
5786-00-74	WISC 2026275	1

ACCEPTED FOR
TOWN OF LAVALLE
Alan Johnson
10/06/2025
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

WISCONSIN
AARON B. PALMER
E-35695
RICHLAND CENTER, WI
PROFESSIONAL ENGINEER
DATE: 10/06/25 *Harrold*
(Professional Engineer Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
PREPARED BY
Surveyor WESTBROOK ASSOCIATED ENGINEERS, INC.
Designer WESTBROOK ASSOCIATED ENGINEERS, INC.
Project Manager DELLA KOENIG, P.E.
Regional Examiner SW REGION
Regional Supervisor KYLE HEMP, P.E.

APPROVED FOR THE DEPARTMENT
DATE: _____
Digitally signed by Della Koenig P.E.
Date: 2025.10.06 15:27:42-0500
(Signature)

E

STANDARD ABBREVIATIONS

Table with 4 columns: Abbreviation, Description, Abbreviation, Description. Includes terms like ABUT, AC, AGG, AH, etc.

WISCONSIN DNR LIAISON

ANDY BARTA
DNR SOUTH CENTRAL REGION HEADQUARTERS
3911 FISH HATCHERY ROAD
FITCHBURG, WI 53711
PHONE: (608) 235-2955
EMAIL: andrew.barta@wisconsin.gov

DESIGN PROJECT MANAGER

DELLA KOENIG, P.E.
LOCAL PROGRAM PROJECT MANAGER
2101 WRIGHT STREET
MADISON, WI 53704
PHONE: (608) 246-7963
EMAIL: Della.Koenig@dot.wi.gov

GENERAL NOTES

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.

CONTRACTOR WILL BE RESPONSIBLE FOR RESHAPING AND SEEDING ANY PREVIOUSLY GRASSED AREAS WHICH ARE DISTURBED BY OPERATIONS, OUTSIDE OF THE NORMAL CONSTRUCTION LIMITS.

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.

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

RIGHT OF WAY INFORMATION SHOWN ON THE PLANS IS APPROXIMATE.

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.

WHEN THE QUANTITY OF THE ITEMS OF BASE AGGREGATE OR HMA PAVEMENT IS MEASURED FOR PAYMENT BY THE TON, 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.

EROSION CONTROL FEATURES AS SHOWN IN THE PLANS ARE AT APPROXIMATE LOCATIONS. EXACT LOCATIONS WILL BE DETERMINED BY THE CONTRACTOR'S EROSION CONTROL IMPLEMENTATION PLAN (ECIP) AND APPROVED BY THE ENGINEER. MAINTAIN EROSION CONTROL MEASURES UNTIL SUCH A TIME AS THE ENGINEER DETERMINES THE MEASURE IS NO LONGER NECESSARY.

APPLY SEED, MULCH OR EROSION MAT, AND FERTILIZER TO ALL DISTURBED AREAS WITHIN 7 WORKING DAYS AFTER GRADING WORK IS COMPLETE.

SLOPES STEEPER THAN 3.0:1 REQUIRE EROSION MAT.

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.

PAVEMENT REMOVAL WILL BE TO THE NEAREST JOINT OR A SAWED EDGE WILL BE REQUIRED AS DIRECTED BY THE ENGINEER.

THE CONTRACTOR'S PAVING OPERATION SHALL BE CONSISTENT WITH THE TYPICAL SECTIONS AND CONSTRUCTED TO PREVENT LONGITUDINAL JOINTS FROM BEING LOCATED WITHIN A DRIVING, TURNING, PASSING, OR PARKING LANE.

SAWCUTS, AS SHOWN ON THE PLANS, ARE SUGGESTED LOCATIONS AND MAY BE ADJUSTED AT THE DISCRETION OF THE ENGINEER TO BETTER SUIT FIELD CONDITIONS.

TRAFFIC CONTROL DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

DO NOT DRIVE OR STORE EQUIPMENT, OR STORE CONSTRUCTION MATERIALS IN ENVIRONMENTALLY SENSITIVE AREAS, WETLANDS OR WATERWAYS.

UTILITIES CONTACTS

OAKDALE ELECTRIC COOPERATIVE
ELECTRIC
TRAVIS CHAMPLIN
P.O. BOX 40
OAKDALE, WI 54649
PHONE: (608) 343-3400
EMAIL: tchamplin@oakdalerec.coop

LAVALLE TELEPHONE COOPERATIVE
COMMUNICATION
JOSH LIEN
P.O. BOX 28
LAVALLE, WI 53914
PHONE: (608) 985-7201
EMAIL: joshl@rgtc.coop

ORDER OF SECTION 2 DETAIL SHEETS

- GENERAL NOTES
TYPICAL SECTIONS
CONTOUR MAP
ALIGNMENT DETAILS

RUNOFF COEFFICIENT TABLE

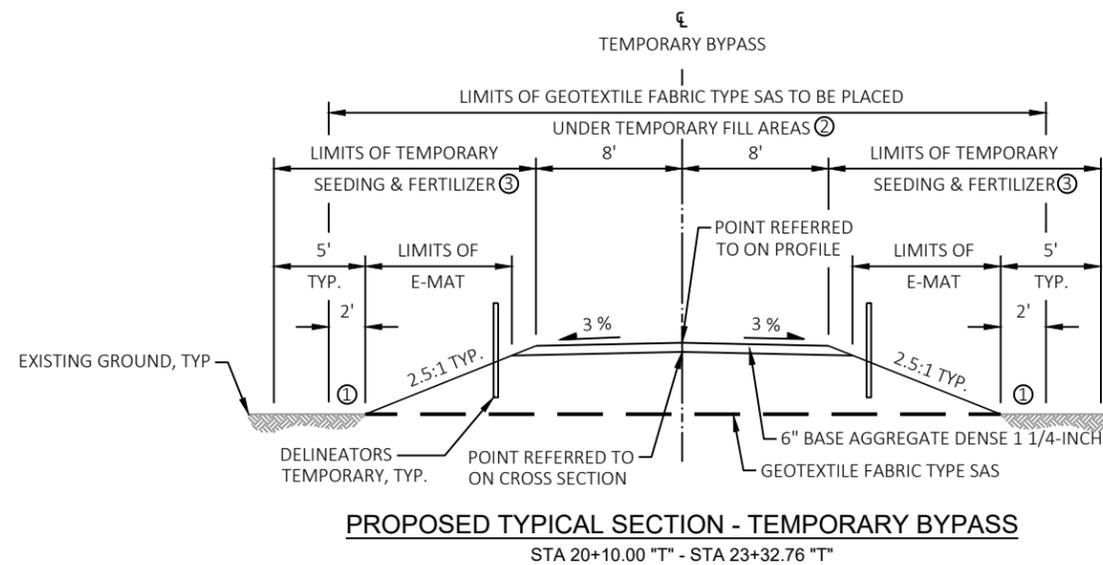
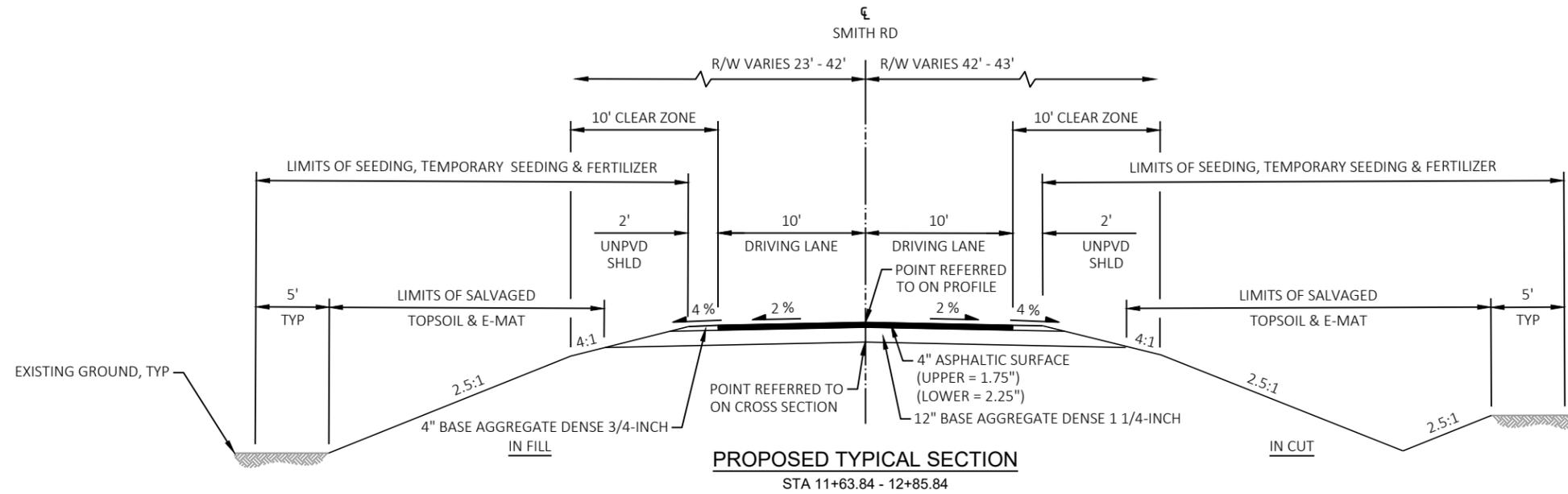
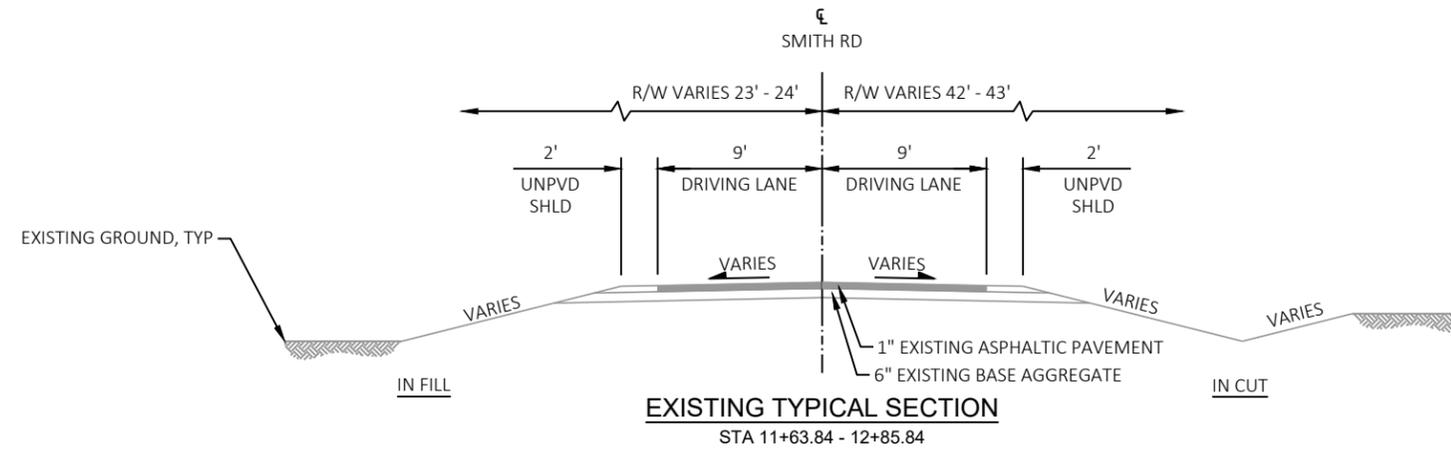
Table with columns: LAND USE, HYDROLOGIC SOIL GROUP (A, B, C, D), and SLOPE RANGE (PERCENT). Includes rows for ROW CROPS, MEDIAN STRIPTURF, SIDE SLOPETURF, PAVEMENT, ASPHALT, CONCRETE, BRICK, DRIVES, WALKS, ROOFS, GRAVEL ROADS, SHOULDERS.

TOTAL PROJECT AREA = 0.442 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.408 ACRES



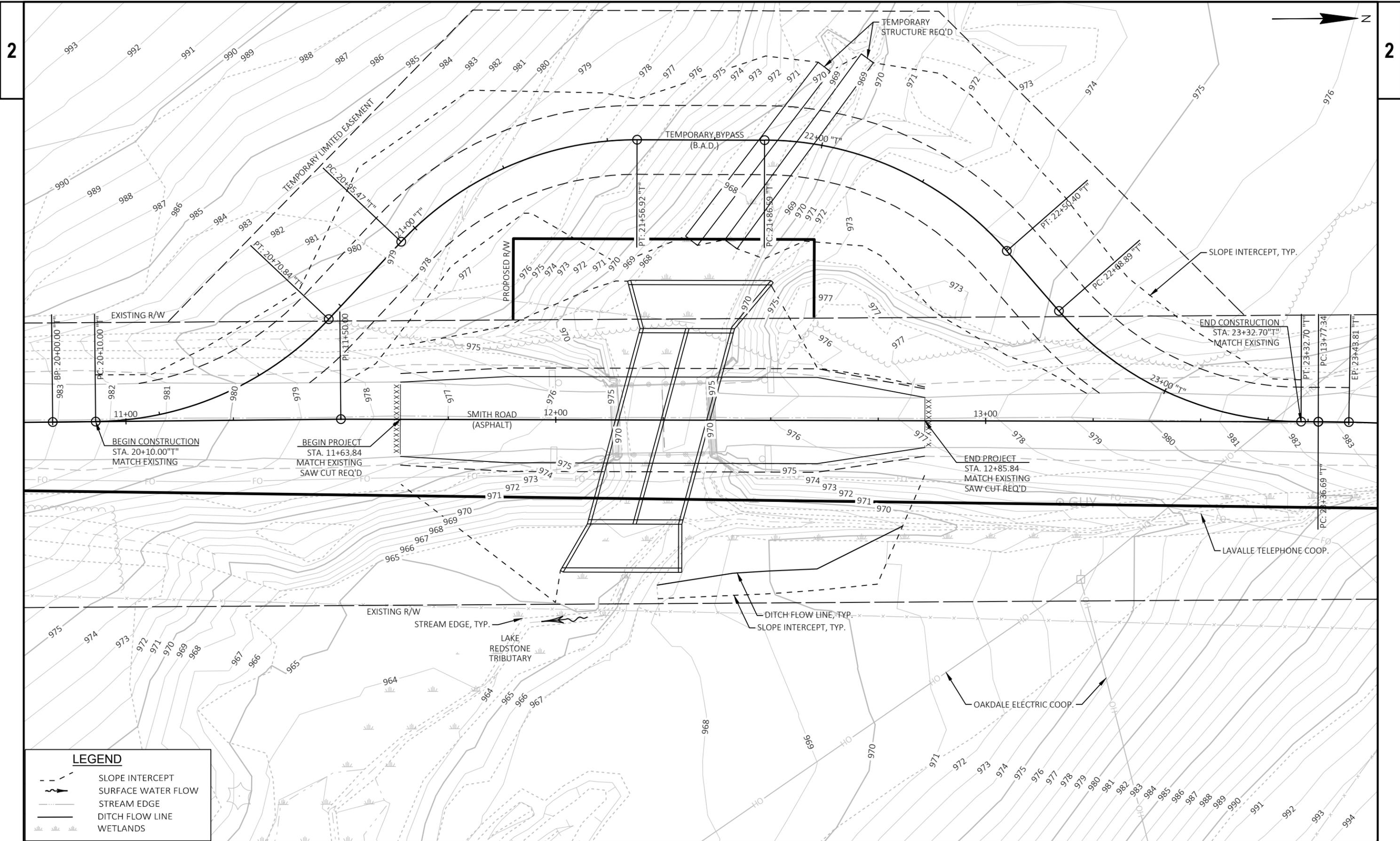
Dial 811 or (800)242-8511

www.DiggersHotline.com



NOTES:

- ① EXTEND GEOTEXTILE FABRIC A MINIMUM OF 2' BEYOND THE TOE OF SLOPE.
- ② AFTER TEMPORARY BYPASS AND GEOTEXTILE TYPE SAS HAS BEEN REMOVED RESTORE STREAM BANKS AND THE AREA UNDER PREVIOUSLY PLACED GEOTEXTILE TYPE SAS TO ORIGINAL CONDITION AND CONTOUR ELEVATIONS, SEED AND FERTILIZE.
- ③ DO NOT APPLY FERTILIZER WITHIN 20' OF A WATER BODY.



PROJECT NO: 5786-00-74

HWY: SMITH RD

COUNTY: SAUK

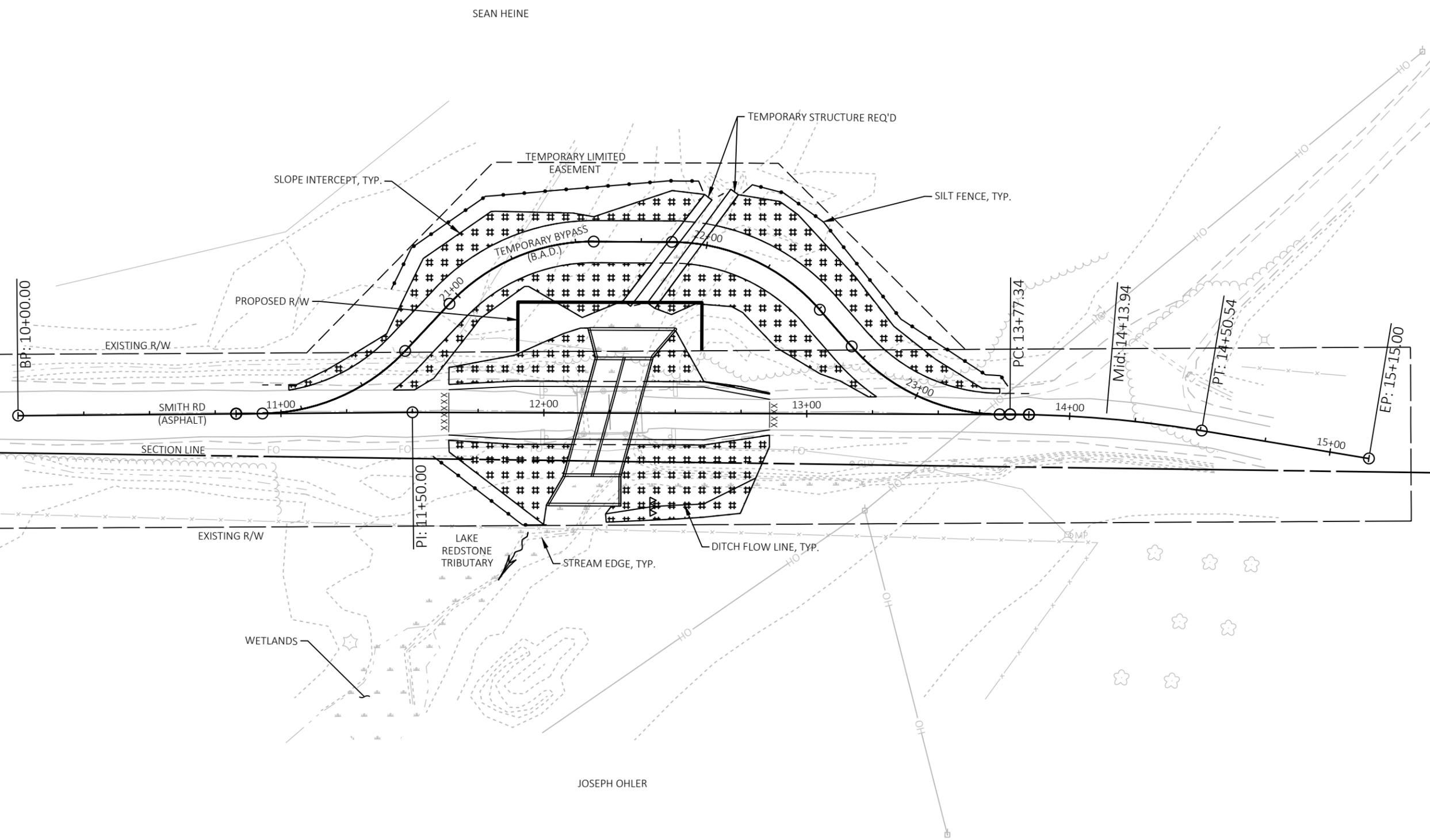
CONTOUR MAP

SHEET

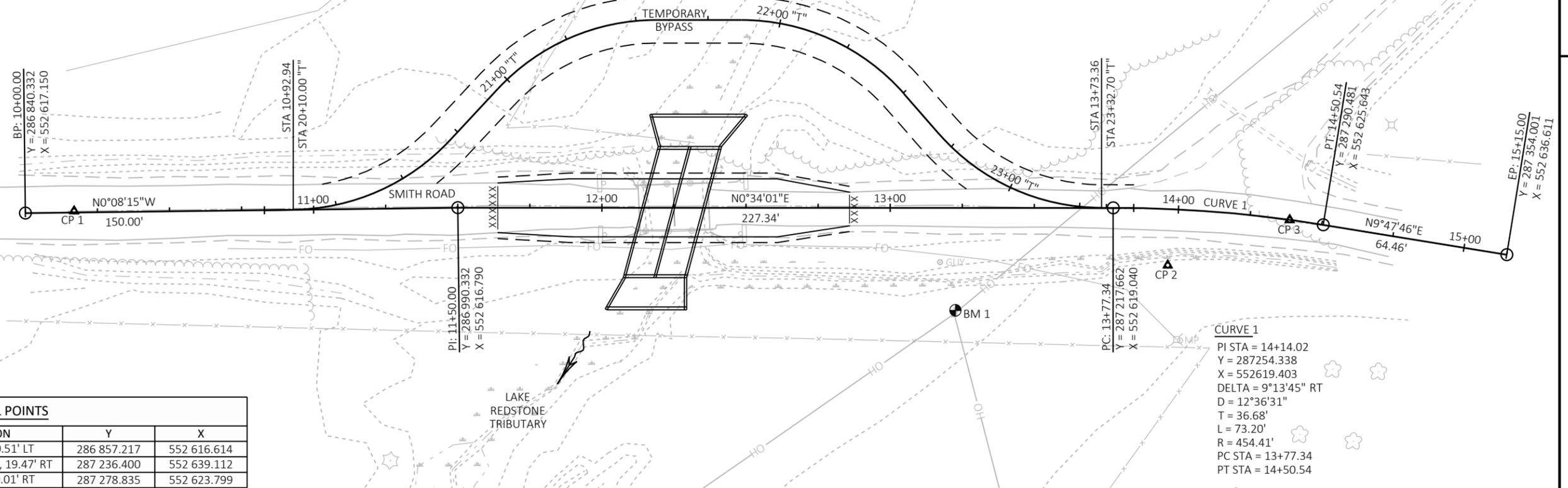
E

LEGEND

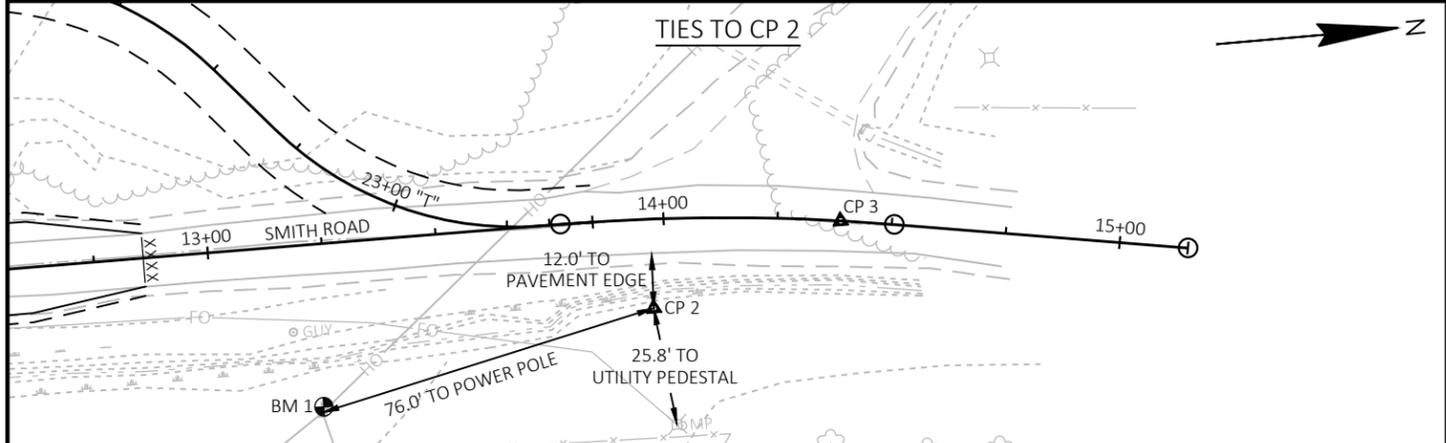
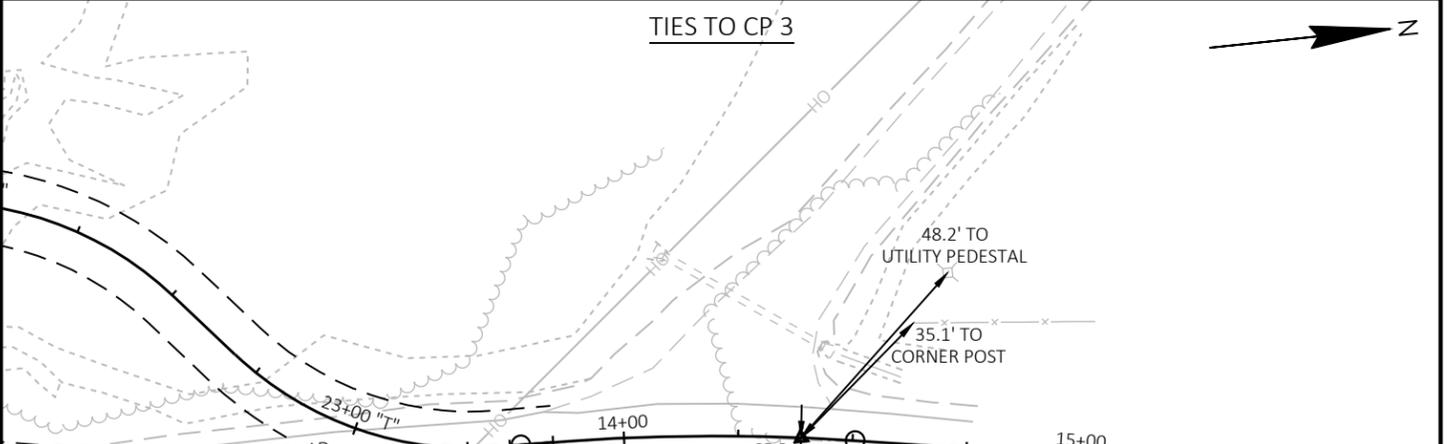
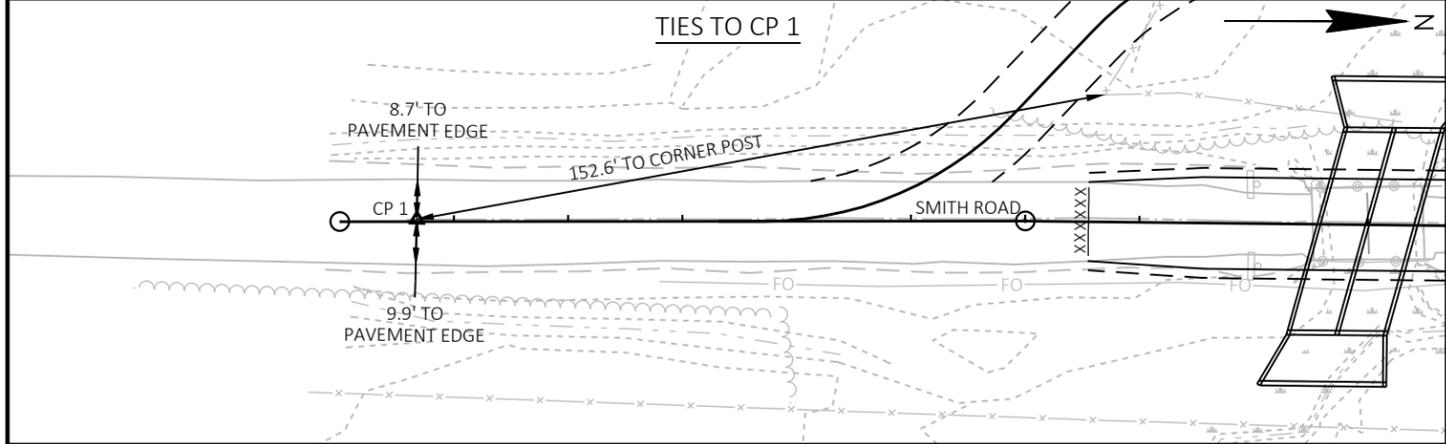
-  SLOPE INTERCEPT
-  SURFACE WATER FLOW
-  STREAM EDGE
-  SILT FENCE
-  TEMPORARY DITCH CHECK
-  EROSION MAT URBAN CLASS I, TYPE B
-  DITCH FLOW LINE
-  WETLANDS



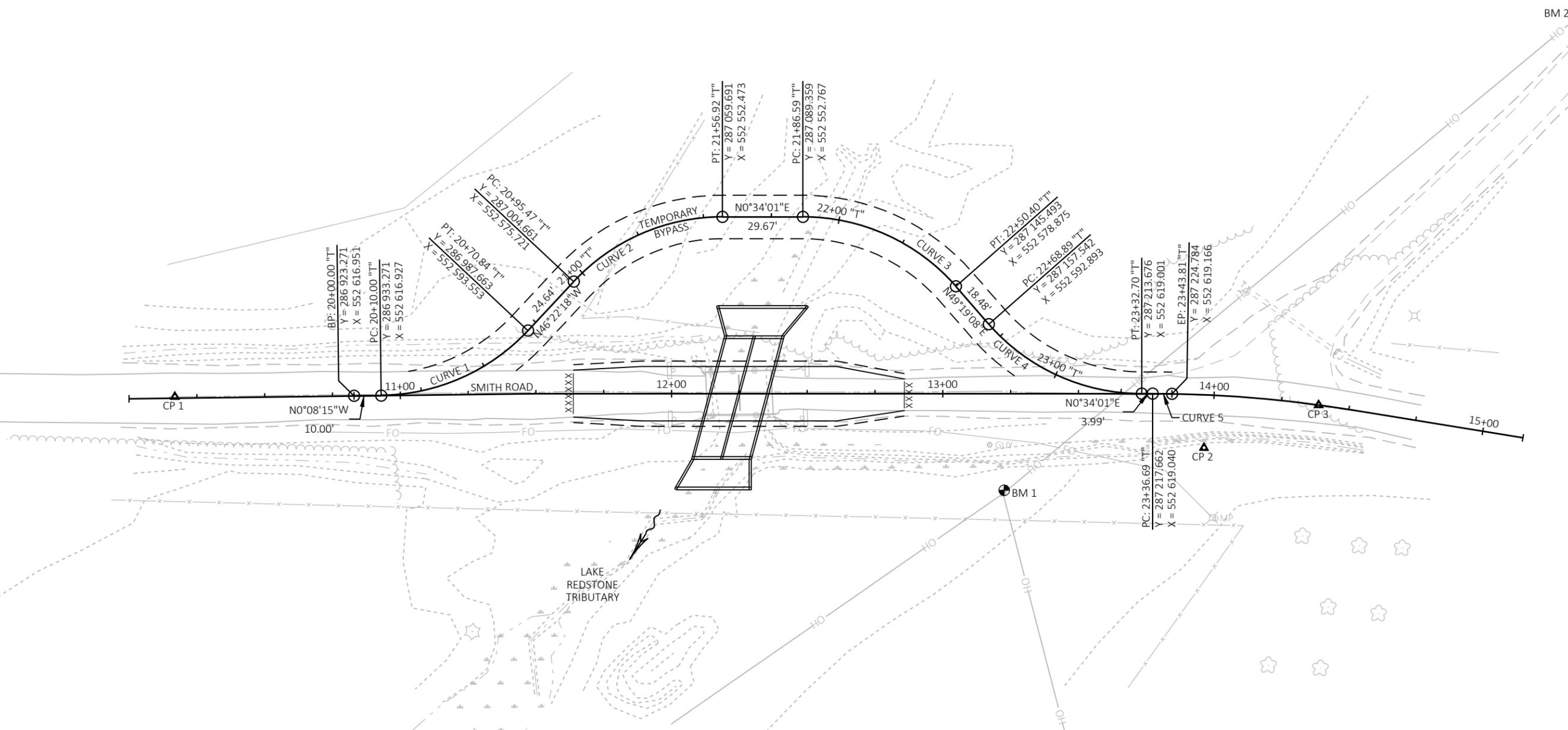
PROJECT NO: 5786-00-74	HWY: SMITH RD	COUNTY: SAUK	EROSION CONTROL	SHEET E
------------------------	---------------	--------------	-----------------	---------



CONTROL POINTS				
NO.	STATION	DESCRIPTION	Y	X
CP 1	10+16.89	GIN SPIKE SET, 0.51' LT	286 857.217	552 616.614
CP 2	13+97.13	3/4" REBAR FOUND, 19.47' RT	287 236.400	552 639.112
CP 3	14+38.75	GIN SPIKE SET, 0.01' RT	287 278.835	552 623.799



PROJECT NO: 5786-00-74	HWY: SMITH RD	COUNTY: SAUK	ALIGNMENT DETAILS: MAINLINE	SHEET	E
------------------------	---------------	--------------	-----------------------------	-------	---



CURVE 1	CURVE 2	CURVE 3	CURVE 4	CURVE 5
PI STA = 20+42.18 "T"	PI STA = 21+28.04 "T"	PI STA = 22+20.57 "T"	PI STA = 23+02.87 "T"	PI STA = 23+40.25 "T"
Y = 286965.456	Y = 287027.129	Y = 287123.341	Y = 287179.694	Y = 287221.223
X = 552616.850	X = 552552.151	X = 552553.103	X = 552618.664	X = 552619.075
DELTA = 46°14'03" LT	DELTA = 46°56'20" RT	DELTA = 48°45'07" RT	DELTA = 48°45'07" LT	DELTA = 0°53'53" RT
D = 75°59'43"	D = 76°23'40"	D = 76°23'40"	D = 76°23'40"	D = 12°36'31"
T = 32.18'	T = 32.56'	T = 33.98'	T = 33.98'	T = 3.56'
L = 60.84'	L = 61.44'	L = 63.82'	L = 63.82'	L = 7.12'
R = 75.39'	R = 75.00'	R = 75.00'	R = 75.00'	R = 454.41'
PC STA = 20+10.00 "T"	PC STA = 20+95.47 "T"	PC STA = 21+86.59 "T"	PC STA = 22+68.89 "T"	PC STA = 23+36.69 "T"
PT STA = 20+70.84 "T"	PT STA = 21+56.92 "T"	PT STA = 22+50.40 "T"	PT STA = 23+32.70 "T"	PT STA = 23+43.81 "T"

Estimate Of Quantities

5786-00-74

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-56-0115	EACH	1.000	1.000
0006	204.0170	Removing Fence	LF	146.000	146.000
0008	205.0100	Excavation Common	CY	1,120.000	1,120.000
0010	206.2001	Excavation for Structures Culverts (structure) 01. B-56-0254	EACH	1.000	1.000
0012	208.0100	Borrow	CY	1,649.000	1,649.000
0014	210.2500	Backfill Structure Type B	TON	710.000	710.000
0016	213.0100	Finishing Roadway (project) 01. 5786-00-74	EACH	1.000	1.000
0018	305.0110	Base Aggregate Dense 3/4-Inch	TON	17.000	17.000
0020	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	445.000	445.000
0022	311.0110	Breaker Run	TON	170.000	170.000
0024	455.0605	Tack Coat	GAL	13.000	13.000
0026	465.0105	Asphaltic Surface	TON	58.000	58.000
0028	504.0100	Concrete Masonry Culverts	CY	123.000	123.000
0030	505.0400	Bar Steel Reinforcement HS Structures	LB	16,920.000	16,920.000
0032	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	1,380.000	1,380.000
0034	516.0500	Rubberized Membrane Waterproofing	SY	21.000	21.000
0036	526.0101	Temporary Structure (station) 01. 21+90.00 "T"	EACH	1.000	1.000
0038	618.0100	Maintenance and Repair of Haul Roads (project) 01. 5786-00-74	EACH	1.000	1.000
0040	619.1000	Mobilization	EACH	1.000	1.000
0042	624.0100	Water	MGAL	4.700	4.700
0044	625.0500	Salvaged Topsoil	SY	350.000	350.000
0046	628.1504	Silt Fence	LF	415.000	415.000
0048	628.1520	Silt Fence Maintenance	LF	660.000	660.000
0050	628.1905	Mobilizations Erosion Control	EACH	4.000	4.000
0052	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0054	628.2008	Erosion Mat Urban Class I Type B	SY	910.000	910.000
0056	628.7504	Temporary Ditch Checks	LF	9.000	9.000
0058	629.0210	Fertilizer Type B	CWT	1.900	1.900
0060	630.0130	Seeding Mixture No. 30	LB	100.000	100.000
0062	630.0200	Seeding Temporary	LB	85.000	85.000
0064	630.0500	Seed Water	MGAL	67.000	67.000
0066	633.1100	Delineators Temporary	EACH	56.000	56.000
0068	633.5100	Markers ROW	EACH	4.000	4.000
0070	633.5200	Markers Culvert End	EACH	2.000	2.000
0072	638.2602	Removing Signs Type II	EACH	4.000	4.000
0074	638.3000	Removing Small Sign Supports	EACH	4.000	4.000
0076	642.5001	Field Office Type B	EACH	1.000	1.000
0078	643.0300	Traffic Control Drums	DAY	3,400.000	3,400.000
0080	643.0420	Traffic Control Barricades Type III	DAY	2,125.000	2,125.000
0082	643.0705	Traffic Control Warning Lights Type A	DAY	4,250.000	4,250.000
0084	643.0715	Traffic Control Warning Lights Type C	DAY	1,700.000	1,700.000
0086	643.0900	Traffic Control Signs	DAY	2,295.000	2,295.000
0088	643.5000	Traffic Control	EACH	1.000	1.000
0090	645.0105	Geotextile Type C	SY	278.000	278.000
0092	645.0140	Geotextile Type SAS	SY	1,380.000	1,380.000
0094	650.4500	Construction Staking Subgrade	LF	445.000	445.000
0096	650.5000	Construction Staking Base	LF	445.000	445.000
0098	650.6501	Construction Staking Structure Layout (structure) 01. B-56-0254	EACH	1.000	1.000

Estimate Of Quantities

5786-00-74

Line	Item	Item Description	Unit	Total	Qty
0100	650.9911	Construction Staking Supplemental Control (project) 01. 5786-00-74	EACH	1.000	1.000
0102	650.9920	Construction Staking Slope Stakes	LF	445.000	445.000
0104	690.0150	Sawing Asphalt	LF	30.000	30.000
0106	715.0502	Incentive Strength Concrete Structures	DOL	738.000	738.000
0108	999.2000.S	Installing and Maintaining Bird Deterrent System (station) 12+25	EACH	1.000	1.000

3

3

GRUBBING

STATION	TO	STATION	LOCATION	201.0205 STA
11+10	-	13+60	TEMPORARY BYPASS	3
TOTAL				3

REMOVING FENCE

STATION	TO	STATION	LOCATION	204.0170 LF
11+67	-	12+32	MAINLINE, LT	146
TOTAL				146

DIVISION	FROM/TO STATION	205.0100 EXCAVATION COMMON (CY) (1)	SALVAGED/UNUSABLE PAVEMENT MATERIAL (3)	AVAILABLE MATERIAL (CY) (4)	UNEXPANDED FILL (CY) (5)	EXPANDED FILL (CY) (5)	MASS ORDINATE +/- (CY) (6)	WASTE (CY) (7)	208.0100 BORROW (CY)
		CUT (2)				FACTOR 1.25			
DIVISION 1									
SMITH ROAD	11+63.84/12+85.84	105	6	99	466	583	-484	0	484
DIVISION 1 SUBTOTAL		105	6	99	466	583	-484	0	484
DIVISION 2									
TEMPBYPASS	20+10.00/23+32.69	46	0	46	969	1,211	-1,165	0	1,165
DIVISION 2 SUBTOTAL		46	0	46	969	1,211	-1,165	0	1,165
DIVISION 3									
REMOVING TEMPBYPASS	20+10.00/23+32.69	969	0	969	46	58	912	912	0
DIVISION 3 SUBTOTAL		969	0	969	46	58	912	912	0
GRAND TOTAL		1,120	6	1,114	1,481	1,852	-738	912	1,649

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	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH	624.0100 WATER MGAL
				TON	TON	
11+63.84	-	12+85.84	MAINLINE	17	275	3.0
20+46.26 "T"	-	23+01.17 "T"	TEMPORARY BYPASS	---	170	1.7
TOTAL				17	445	4.7

ASPHALTIC SURFACE

STATION	TO	STATION	LOCATION	455.0605 TACK COAT GAL	465.0105 ASPHALTIC SURFACE TON
11+63.84	-	12+85.84	MAINLINE	13	58
TOTAL				13	58

FINISHING ITEMS

STATION	TO	STATION	LOCATION	625.0500 SALVAGED TOPSOIL TYPE B	628.2008 EROSION MAT URBAN CLASS I TYPE B	629.0210 FERTILIZER TYPE B	630.0130 SEEDING MIXTURE NO. 30	630.0200 SEEDING TEMPORARY	630.0500 SEED WATER	REMARKS
				SY	SY	CWT	LB	LB	MGAL	
11+63.84	-	12+85.84	MAINLINE, LT	70	70	0.1	9	5	4.1	FINAL RESTORATION
11+63.84	-	12+85.84	MAINLINE, RT	210	210	0.2	15	9	7.5	FINAL RESTORATION
20+46.26 "T"	-	23+01.17 "T"	TEMPORARY BYPASS, LT	---	240	0.3	---	13	10.0	TEMPORARY RESTORATION
20+46.26 "T"	-	23+01.17 "T"	TEMPORARY BYPASS, RT	---	210	0.2	---	10	7.6	TEMPORARY RESTORATION
20+46.26 "T"	-	23+01.17 "T"	TEMPORARY BYPASS	---	---	0.7	50	30	24.9	FINAL RESTORATION
UNDISTRIBUTED				70	180	0.4	26	18	12.9	
TOTAL				350	910	1.9	100	85	67.0	

SILT FENCE

STATION	TO	STATION	LOCATION	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF
11+42	-	12+60	MAINLINE, LT	140	280
11+58	-	12+01	MAINLINE, RT	55	110
12+75	-	13+77	MAINLINE, LT	135	270
UNDISTRIBUTED				85	---
TOTAL				415	660

MOBILIZATIONS EROSION CONTROL

LOCATION	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH
PROJECT	4	2
TOTAL	4	2

TEMPORARY DITCH CHECKS

STATION	LOCATION	628.7504 LF
12+41	MAINLINE, RT	9
TOTAL		9

ALL ITEMS CATEGORY 0010 UNLESS NOTED OTHERWISE.

3

3

MARKERS ROW

STATION	LOCATION	633.5100 EACH
11+90	23.13' LT	1
11+90	42.00' LT	1
12+60	42.00' LT	1
12+60	23.74' LT	1
	TOTAL	4

MARKERS CULVERT END

STATION	LOCATION	633.5200 EACH
12+06	MAINLINE, RT	1
12+43	MAINLINE, LT	1
	TOTAL	2

REMOVING SIGNS

STATION	LOCATION	SIGN NUMBER	SIGN CODE	638.2602	638.3000	SIGN DESCRIPTION
				REMOVING SIGNS TYPE II EACH	REMOVING SMALL SIGN SUPPORTS EACH	
12+01	MAINLINE, LT	1R	W5-52L	1	1	BRIDGE HASH MARKS
12+01	MAINLINE, RT	2R	W5-52R	1	1	BRIDGE HASH MARKS
12+48	MAINLINE, RT	3R	W5-52L	1	1	BRIDGE HASH MARKS
12+49	MAINLINE, LT	4R	W5-52R	1	1	BRIDGE HASH MARKS
	TOTAL			4	4	

TRAFFIC CONTROL

LOCATION	DURATION	633.1100	643.0300	643.0420	643.0705	643.0715	643.0900	643.5000
		DELINEATORS TEMPORARY EACH	TRAFFIC CONTROL DRUMS NO. DAY	TRAFFIC CONTROL BARRICADES TYPE III NO. DAY	TRAFFIC CONTROL WARNING LIGHTS TYPE A NO. DAY	TRAFFIC CONTROL WARNING LIGHTS TYPE C NO. DAY	TRAFFIC CONTROL SIGNS NO. DAY	TRAFFIC CONTROL EACH
PROJECT	85.00	46	32 2,720	20 1,700	40 3,400	16 1,360	22 1,870	1
UNDISTRIBUTED	85.00	10	8 680	5 425	10 850	4 340	5 425	---
TOTAL		56	40 3,400	25 2,125	50 4,250	20 1,700	27 2,295	1

GEOTEXTILE TYPE SAS

STATION	TO	STATION	LOCATION	645.0140 SY
20+46.26 "T"	-	23+01.17 "T"	TEMPORARY BYPASS UNDISTRIBUTED	1,100 280
			TOTAL	1,380

CONSTRUCTION STAKING

STATION	TO	STATION	LOCATION	650.4500	650.5000	*	650.9911.01	650.9920
				CONSTRUCTION STAKING SUBGRADE LF	CONSTRUCTION STAKING BASE LF	CONSTRUCTION STAKING STRUCTURE LAYOUT 01. B-56-0254 EACH	CONSTRUCTION STAKING SUPPLEMENTAL CONTROL 01. 5786-00-74 EACH	CONSTRUCTION STAKING SLOPE STAKES LF
11+63.84	-	12+85.84	MAINLINE	122	122	---	---	122
20+10 "T"	-	23+32.70 "T"	TEMPORARY BYPASS PROJECT	323	323	---	---	323
			TOTAL	445	445	1	1	445

* CATEGORY 0020

SAWING ASPHALT

STATION	LOCATION	690.0150 LF
11+63.84	MAINLINE	18
12+85.84	MAINLINE	12
	TOTAL	30

ALL ITEMS CATEGORY 0010 UNLESS NOTED OTHERWISE.

CONVENTIONAL SYMBOLS

SECTION LINE		SECTION CORNER SYMBOL		R/W MONUMENT (TO BE SET)	
QUARTER LINE		NON-MONUMENTED R/W POINT		FOUND SURVEY MONUMENT (SEE FOUND MONUMENT TABLE)	
SIXTEENTH LINE		GEODETIC SURVEY MONUMENT		NON-PERMITTED SIGN	
NEW REFERENCE LINE		PERMITTED SIGN		ACCESS RESTRICTED BY ACQUISITION	
NEW R/W LINE		NO ACCESS (BY STATUTORY AUTHORITY)		ACCESS RESTRICTED (BY PREVIOUS PROJECT OR CONTROL)	
EXISTING R/W OR HE LINE		NO ACCESS (NEW HIGHWAY)		PARCEL NUMBER	
PROPERTY LINE		PARALLEL OFFSETS			
LOT, TIE & OTHER MINOR LINES					
EXISTING CENTERLINE					
CORPORATE LIMITS					
NEW R/W (FEE OR HE) (HATCHING VARIES BY OWNER)					
TEMPORARY LIMITED EASEMENT AREA					
EASEMENT AREA (PERMANENT LIMITED OR RESTRICTED DEVELOPMENT)					
BUILDING TO BE REMOVED					
BRIDGE					
CULVERT					

CONVENTIONAL UTILITY SYMBOLS

UTILITY NUMBER	
WATER	
GAS	
TELEPHONE	
OVERHEAD TRANSMISSION LINES	
ELECTRIC	
CABLE TELEVISION	
FIBER OPTIC	
SANITARY SEWER	
STORM SEWER	
COMBINED SEWER	
ELECTRIC TOWER	
TRANSMISSION STRUCTURES	
COMPENSABLE	
ELECTRIC POLE	
TELEPHONE POLE	
PEDESTAL (LABEL TYPE) (TV, TEL, ELEC, ETC.)	
NON-COMPENSABLE	
ELECTRIC POLE	
TELEPHONE POLE	
PEDESTAL (LABEL TYPE) (TV, TEL, ELEC, ETC.)	

CONVENTIONAL ABBREVIATIONS

ACCESS RIGHTS	AR	PROPERTY LINE	PL
ACRES	AC	RECORDED AS (100')	(100')
ALUMINUM	ALUM	REEL / IMAGE	R/I
AND OTHERS	ET AL	REFERENCE LINE	R/L
BLOCK	BLK	REMAINING	REM
CENTERLINE	C/L	RESTRICTIVE DEVELOPMENT	RDE
CERTIFIED SURVEY MAP	CSM	EASEMENT	EASE
CONCRETE	CONC	RIGHT	RT
COUNTY TRUNK HIGHWAY	CTH	RIGHT OF WAY	R/W
CORNER	COR	SECTION	SEC
DOCUMENT NUMBER	DOC	SEPTIC VENT	SEPV
EASEMENT	EASE	SQUARE FEET	SF
EXISTING	EX	STATE TRUNK HIGHWAY	STH
GAS VALVE	GV	STATION	STA
GRID NORTH	GN	TELEPHONE PEDESTAL	TP
IDENTIFICATION	ID	TRANSPORTATION PROJECT PLAT	TPP
INTERSTATE HIGHWAY	IH	UNITED STATES HIGHWAY	USH
LEFT	LT	VOLUME	V
MONUMENT	MON		
NATIONAL GEODETIC SURVEY NUMBER	NGS		
OUTLOT	OL		
PAGE	P		
POINT OF TANGENCY	PT		
POINT OF BEGINNING	POB		
POINT OF CURVATURE	PC		
POINT OF COMPOUND CURVE	PCC		
POINT OF INTERSECTION	PI		

CURVE DATA ABBREVIATIONS

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

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), SAUK 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.

ALL NEW RIGHT-OF-WAY AND PERMANENT EASEMENT MONUMENTS WILL BE TYPE 2 (TYPICALLY 3/4" X 24" IRON REBARS), UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

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

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.

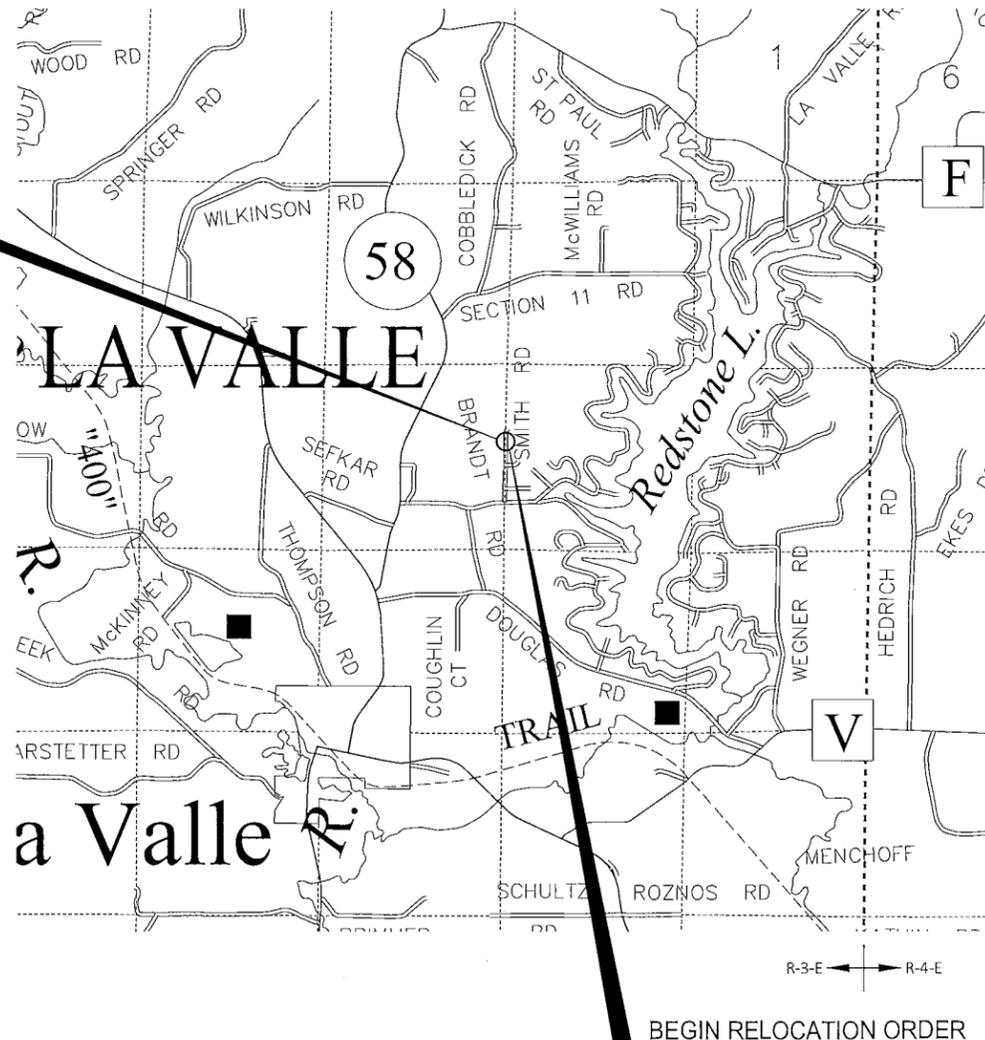
FOR THE CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE TOWN OF LAVALLE.

INFORMATION FOR THE BASIS OF EXISTING HIGHWAY RIGHT-OF-WAY POINTS OF REFERENCE AND ACCESS CONTROL ARE LISTED ON THE DETAIL PAGES.

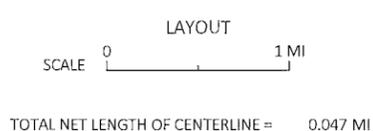
A TEMPORARY LIMITED EASEMENT (TLE) IS A RIGHT FOR CONSTRUCTION PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON, THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, AND REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM DESIRABLE. ALL (TLEs) ON THIS PLAT EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.

R/W PROJECT NUMBER 5786-00-04	SHEET NUMBER 4.01	TOTAL SHEETS 2
FEDERAL PROJECT NUMBER		
PLAT OF RIGHT OF WAY REQUIRED FOR T LAVALLE, SMITH ROAD LAKE REDSTONE TRIB BRIDGE B-56-0254		
LOC STR	SAUK COUNTY	
CONSTRUCTION PROJECT NUMBER 5786-00-74		

END RELOCATION ORDER
STA 13+60.00
Y = 287 200.321
X = 552 618.868



BEGIN RELOCATION ORDER
STA 11+10.00
Y = 286 950.331
X = 552 616.886



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

ACCEPTED FOR TOWN OF LAVALLE

DATE: 6-10-2025
(SIGNATURE AND TITLE OF OFFICIAL)

ORIGINAL PLANS PREPARED BY

WESTBROOK
Associated Engineers, Inc.

419 East Hoxie St. | P.O. Box 429 | Spring Green, WI 53588
P: (608) 588-7866 | F: (608) 588-7954 | www.westbrookeng.com

WISCONSIN
NICHOLAS J. BREY
S-3145
LA VALLE
WI
LAND SURVEYOR

REVISION DATE

DATE: 06-10-2025
(Professional Land Surveyor Signature)

R/W POINT TABLE				
POINT	STATION	OFFSET	Y	X
1	11+90.00	0.00' RT	287 030.330	552 617.186
2	11+90.00	23.13' LT	287 030.559	552 594.057
3	11+90.00	42.00' LT	287 030.746	552 575.188
4	12+60.00	42.00' LT	287 100.742	552 575.881
5	12+60.00	23.74' LT	287 100.562	552 594.138
6	12+60.00	0.00' RT	287 100.327	552 617.879

TLE TABLE		
TLE POINT	STATION	OFFSET
T1	11+10.00	22.92' LT
T2	11+80.40	95.00' LT
T3	12+88.83	95.00' LT
T4	13+60.00	24.61' LT

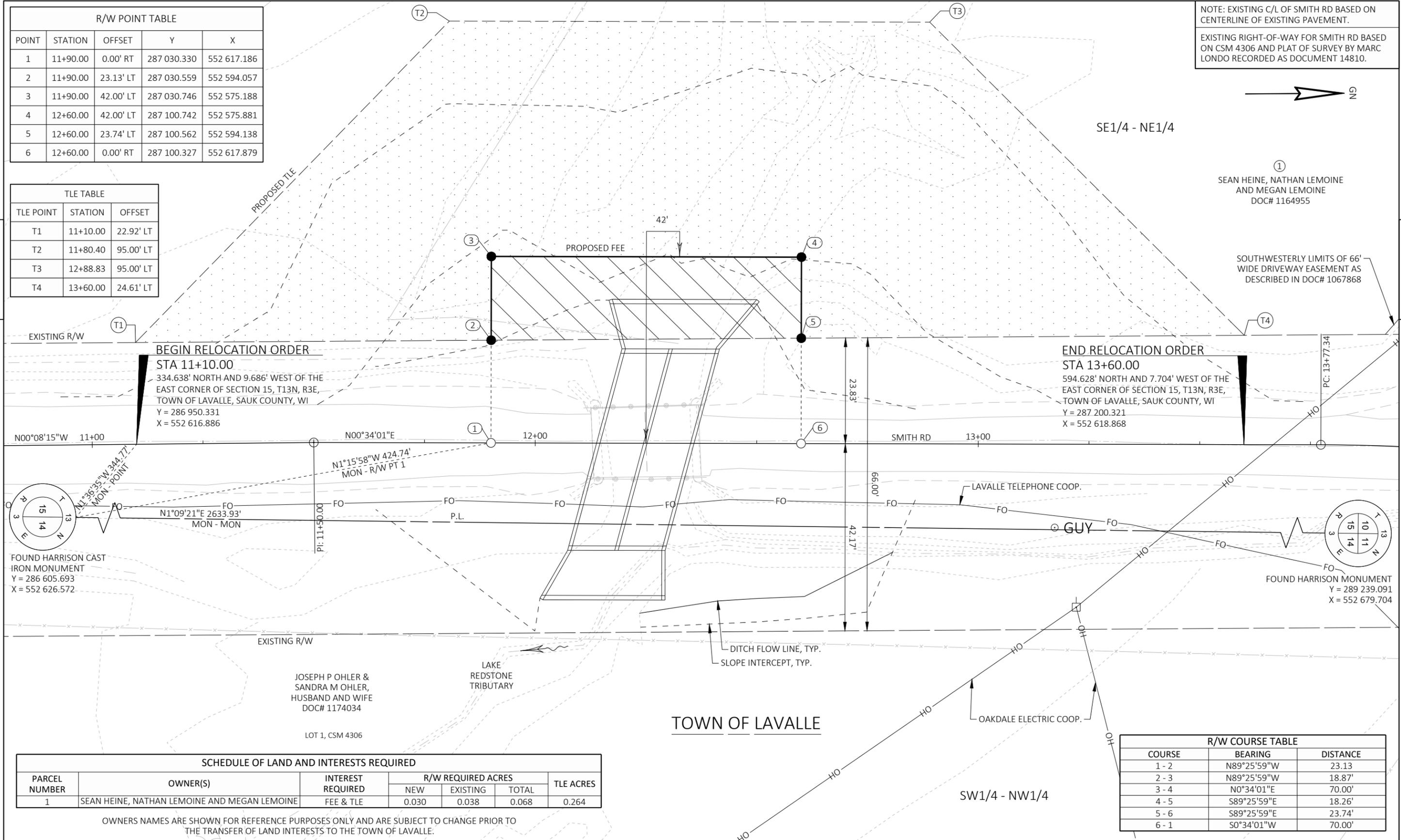
NOTE: EXISTING C/L OF SMITH RD BASED ON CENTERLINE OF EXISTING PAVEMENT.
EXISTING RIGHT-OF-WAY FOR SMITH RD BASED ON CSM 4306 AND PLAT OF SURVEY BY MARC LONDO RECORDED AS DOCUMENT 14810.



SE1/4 - NE1/4

① SEAN HEINE, NATHAN LEMOINE AND MEGAN LEMOINE DOC# 1164955

SOUTHWESTERLY LIMITS OF 66' WIDE DRIVEWAY EASEMENT AS DESCRIBED IN DOC# 1067868

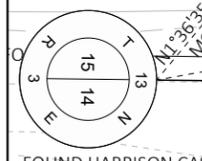


BEGIN RELOCATION ORDER

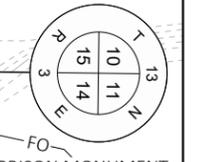
STA 11+10.00
334.638' NORTH AND 9.686' WEST OF THE EAST CORNER OF SECTION 15, T13N, R3E, TOWN OF LAVALLE, SAUK COUNTY, WI
Y = 286 950.331
X = 552 616.886

END RELOCATION ORDER

STA 13+60.00
594.628' NORTH AND 7.704' WEST OF THE EAST CORNER OF SECTION 15, T13N, R3E, TOWN OF LAVALLE, SAUK COUNTY, WI
Y = 287 200.321
X = 552 618.868



FOUND HARRISON CAST IRON MONUMENT
Y = 286 605.693
X = 552 626.572



FOUND HARRISON MONUMENT
Y = 289 239.091
X = 552 679.704

SCHEDULE OF LAND AND INTERESTS REQUIRED

PARCEL NUMBER	OWNER(S)	INTEREST REQUIRED	R/W REQUIRED ACRES			TLE ACRES
			NEW	EXISTING	TOTAL	
1	SEAN HEINE, NATHAN LEMOINE AND MEGAN LEMOINE	FEE & TLE	0.030	0.038	0.068	0.264

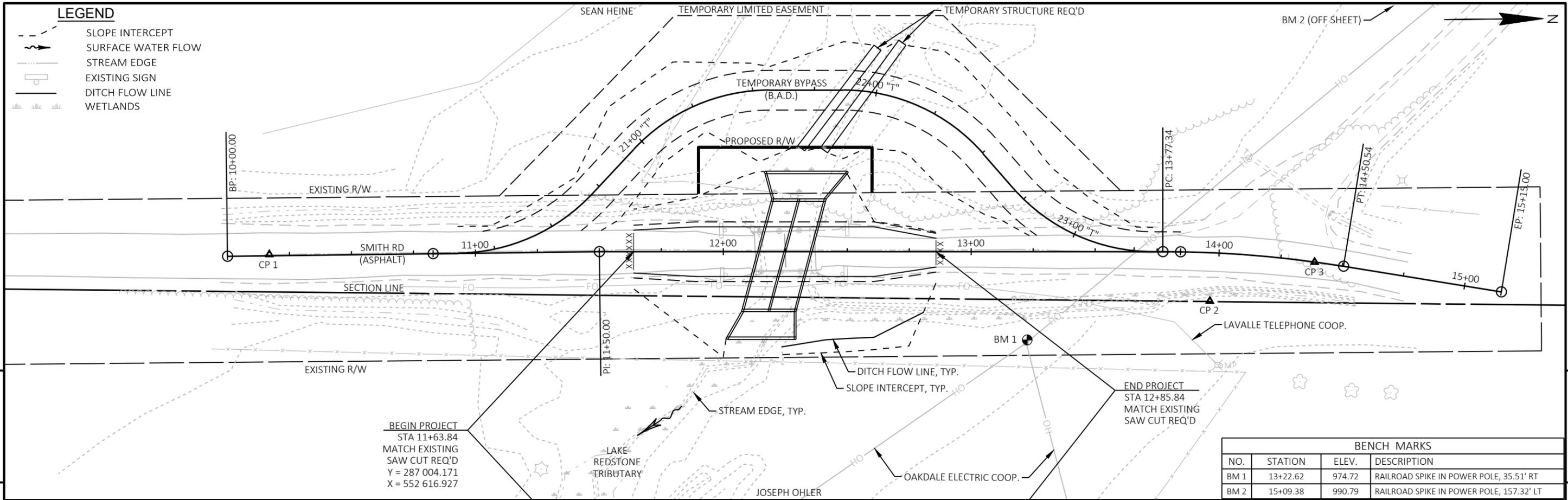
OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE TOWN OF LAVALLE.

R/W COURSE TABLE		
COURSE	BEARING	DISTANCE
1 - 2	N89°25'59"W	23.13
2 - 3	N89°25'59"W	18.87'
3 - 4	N0°34'01"E	70.00'
4 - 5	S89°25'59"E	18.26'
5 - 6	S89°25'59"E	23.74'
6 - 1	S0°34'01"W	70.00'

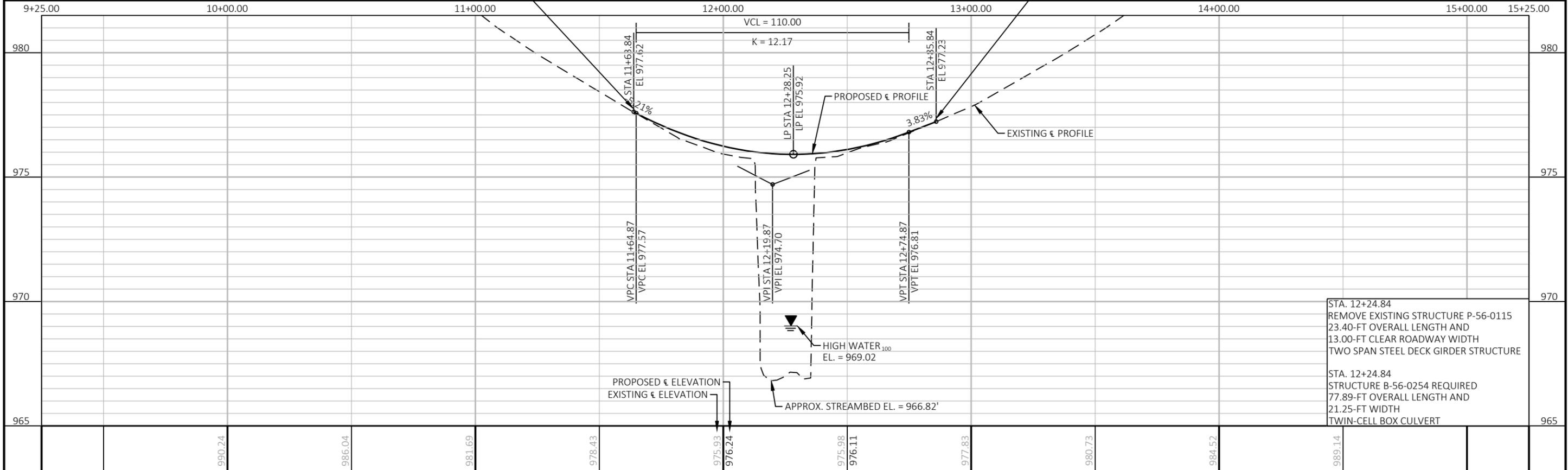
REVISION DATE	DATE 06/10/2025	SCALE, FEET	HWY: SMITH RD	STATE R/W PROJECT NUMBER 5786-00-04	PLAT SHEET 4.02
	GRID FACTOR N/A		COUNTY: SAUK	CONSTRUCTION PROJECT NUMBER 5786-00-74	PS&E SHEET

LEGEND

- - - SLOPE INTERCEPT
- ~ ~ ~ SURFACE WATER FLOW
- — — STREAM EDGE
- ⊕ EXISTING SIGN
- — — DITCH FLOW LINE
- WETLANDS



BENCH MARKS			
NO.	STATION	ELEV.	DESCRIPTION
BM 1	13+22.62	974.72	RAILROAD SPIKE IN POWER POLE, 35.51' RT
BM 2	15+09.38	990.79	RAILROAD SPIKE IN POWER POLE, 157.32' LT



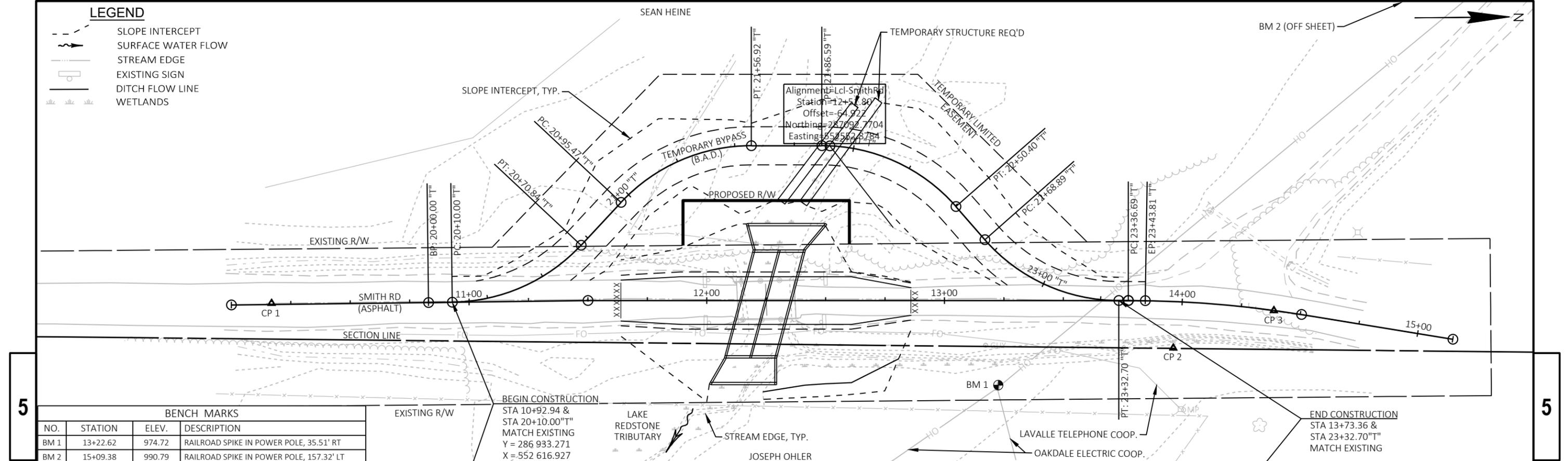
STA. 12+24.84
REMOVE EXISTING STRUCTURE P-56-0115
23.40-FT OVERALL LENGTH AND
13.00-FT CLEAR ROADWAY WIDTH
TWO SPAN STEEL DECK GIRDER STRUCTURE

STA. 12+24.84
STRUCTURE B-56-0254 REQUIRED
77.89-FT OVERALL LENGTH AND
21.25-FT WIDTH
TWIN-CELL BOX CULVERT

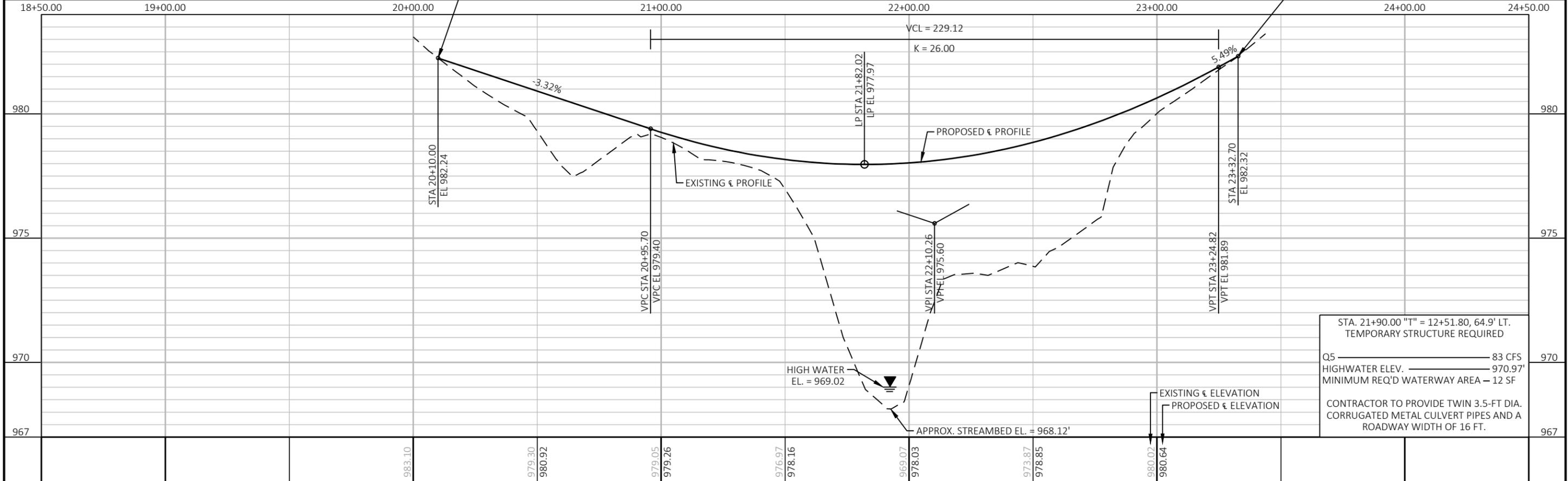
PROJECT NO: 5786-00-74	HWY: SMITH RD	COUNTY: SAUK	PLAN AND PROFILE: MAINLINE	SHEET	E
------------------------	---------------	--------------	----------------------------	-------	----------

LEGEND

-  SLOPE INTERCEPT
-  SURFACE WATER FLOW
-  STREAM EDGE
-  EXISTING SIGN
-  DITCH FLOW LINE
-  WETLANDS



BENCH MARKS			
NO.	STATION	ELEV.	DESCRIPTION
BM 1	13+22.62	974.72	RAILROAD SPIKE IN POWER POLE, 35.51' RT
BM 2	15+09.38	990.79	RAILROAD SPIKE IN POWER POLE, 157.32' LT



STA. 21+90.00 "T" = 12+51.80, 64.9' LT.
 TEMPORARY STRUCTURE REQUIRED

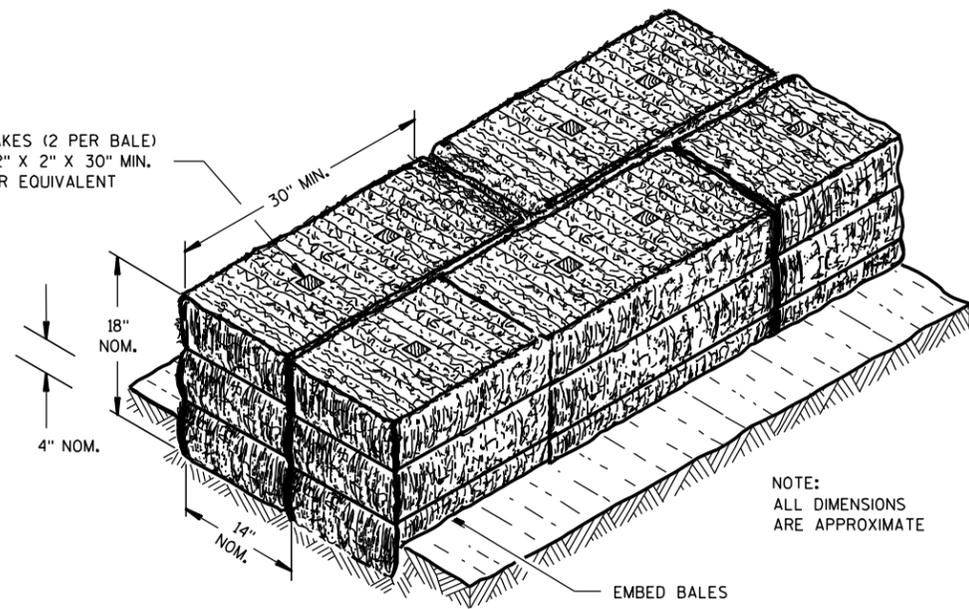
Q5 _____ 83 CFS
 HIGHWATER ELEV. _____ 970.97'
 MINIMUM REQ'D WATERWAY AREA - 12 SF

CONTRACTOR TO PROVIDE TWIN 3.5-FT DIA.
 CORRUGATED METAL CULVERT PIPES AND A
 ROADWAY WIDTH OF 16 FT.

Standard Detail Drawing List

08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
12A03-10	NAME PLATE (STRUCTURES)
13C19-03	HMA LONGITUDINAL JOINTS
15A01-13A	MARKER POST FOR RIGHT-OF-WAY
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15A04-08A	FLEXIBLE DELINEATOR POST
15C02-09A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-09B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C11-10B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15D31-05	TRAFFIC CONTROL, TEMPORARY BYPASS ROADWAY

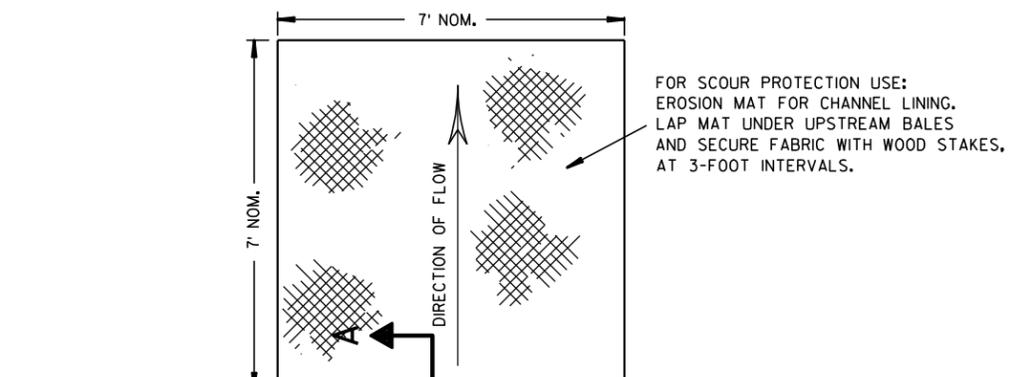
WOOD STAKES (2 PER BALE)
NOMINAL 2" X 2" X 30" MIN.
LENGTH OR EQUIVALENT



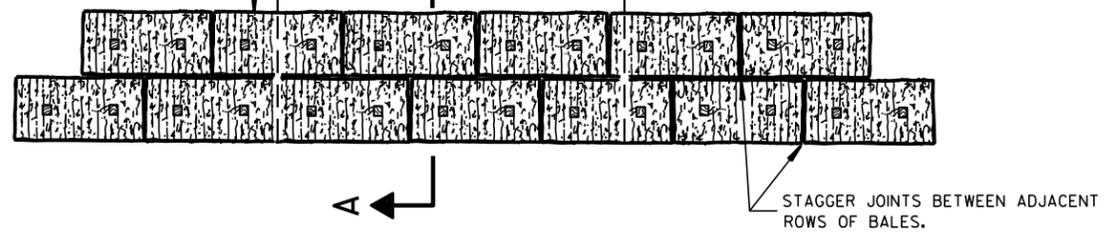
NOTE:
ALL DIMENSIONS
ARE APPROXIMATE

EMBED BALES

SECTION A-A



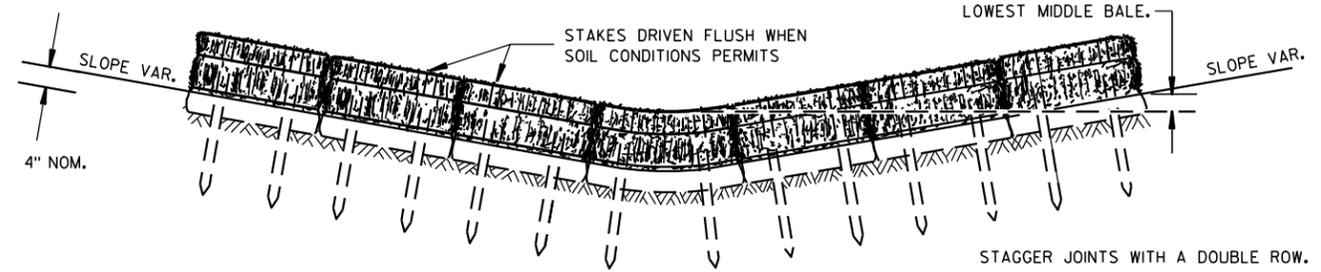
FOR SCOUR PROTECTION USE:
EROSION MAT FOR CHANNEL LINING.
LAP MAT UNDER UPSTREAM BALES
AND SECURE FABRIC WITH WOOD STAKES,
AT 3-FOOT INTERVALS.



STAGGER JOINTS BETWEEN ADJACENT
ROWS OF BALES.

PLAN VIEW

BOTTOM ELEVATION OF END BALE SHALL
BE EQUAL TO OR GREATER THAN TOP OF
LOWEST MIDDLE BALE.



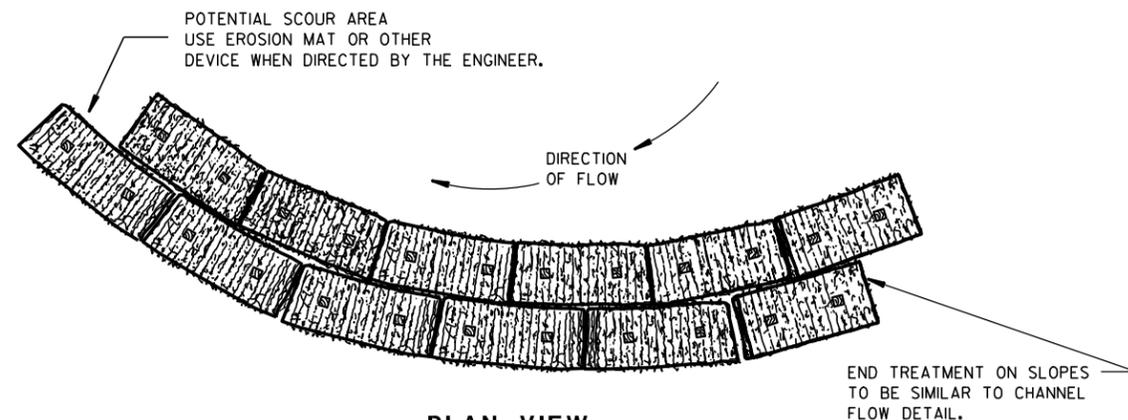
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

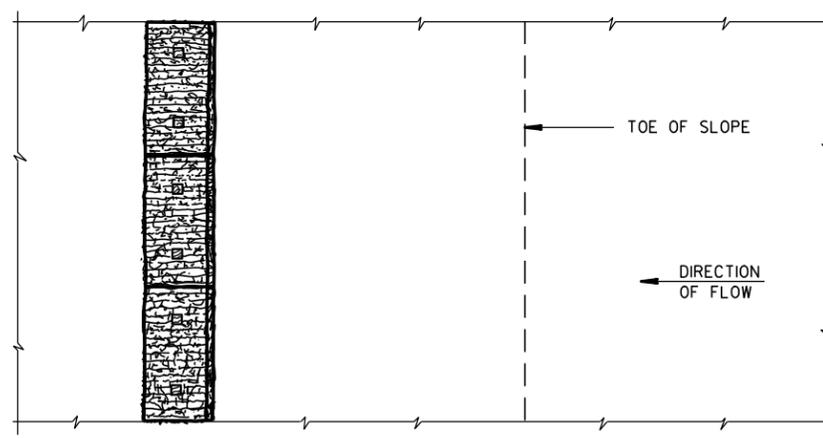
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

- 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.

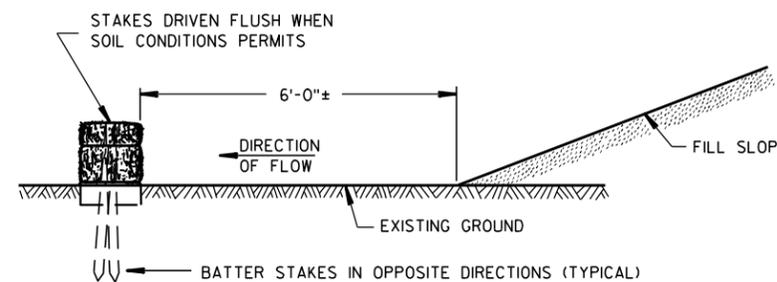


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

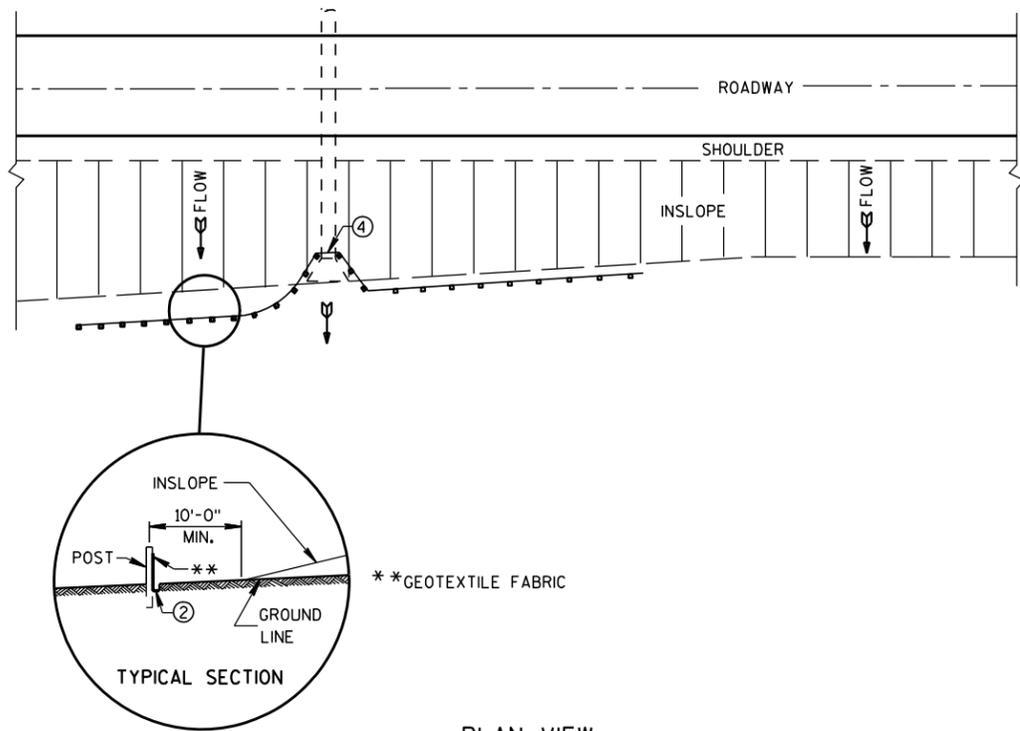
WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

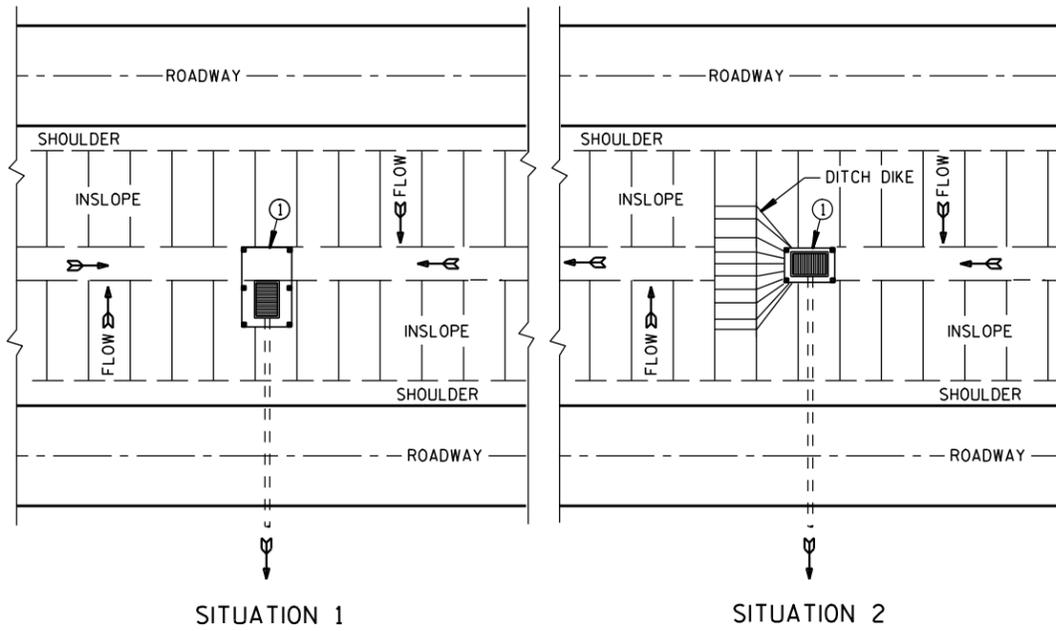
TYPICAL INSTALLATIONS OF
EROSION BALES / TEMPORARY
DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



PLAN VIEW
TYPICAL APPLICATION OF SILT FENCE

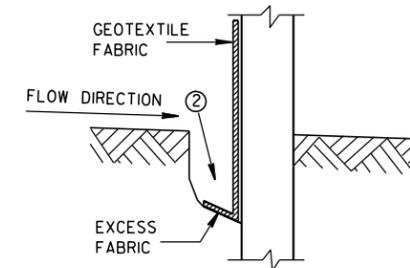


SITUATION 1 SITUATION 2
PLAN VIEW
SILT FENCE AT MEDIAN SURFACE DRAINS

GENERAL NOTES

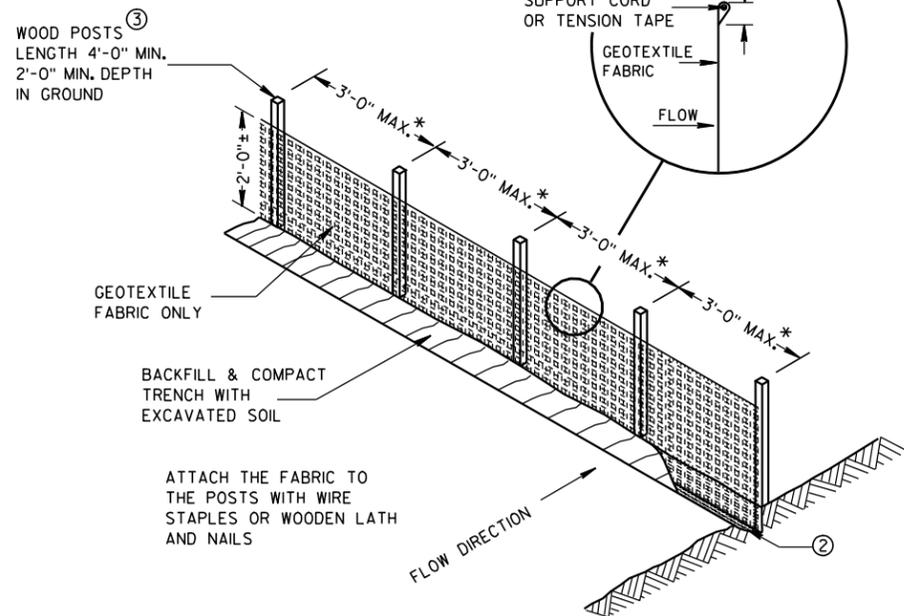
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

- 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.

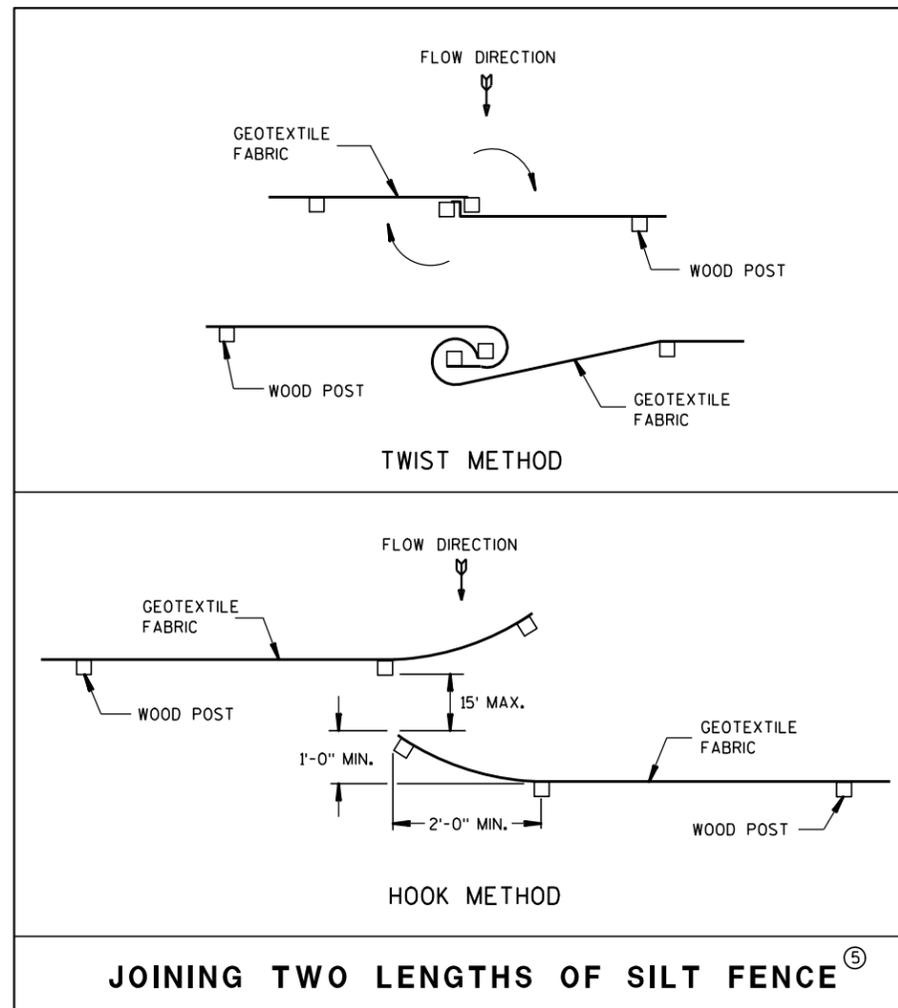


TRENCH DETAIL

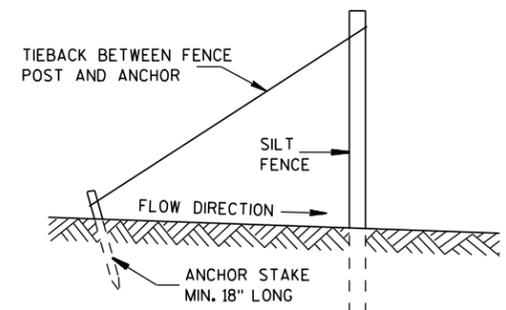
NOTE: ADDITIONAL POST DEPTH OR TIE BACKS MAY BE REQUIRED IN UNSTABLE SOILS



SILT FENCE



JOINING TWO LENGTHS OF SILT FENCE ⑤

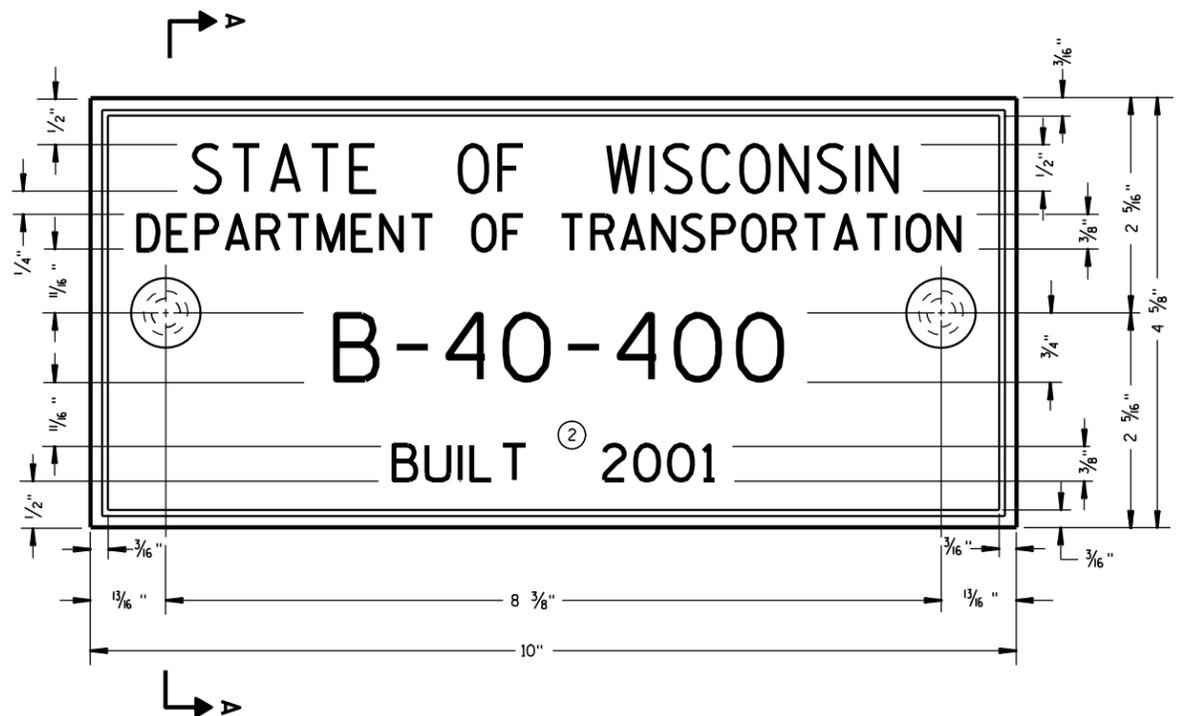


SILT FENCE TIE BACK
(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



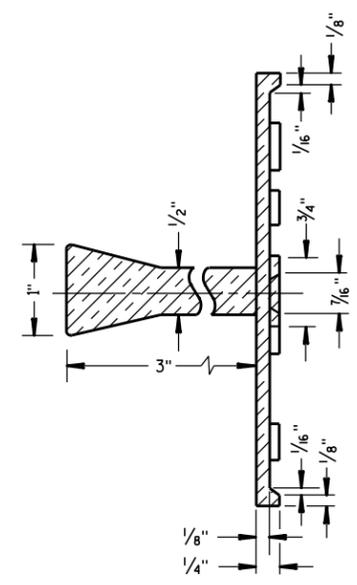
TYPICAL NAME PLATE
(BRIDGES, CULVERTS, AND RETAINING WALLS)

GENERAL NOTES

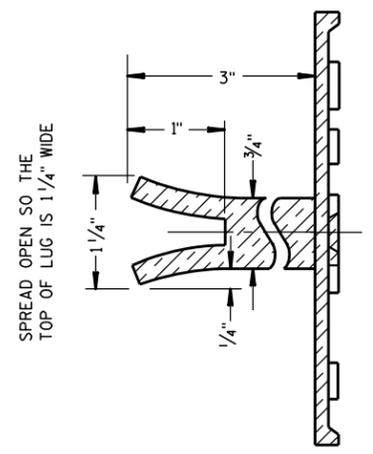
NAME PLATES TO BE INSTALLED ON BRIDGES, CULVERTS, AND RETAINING WALLS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS.

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

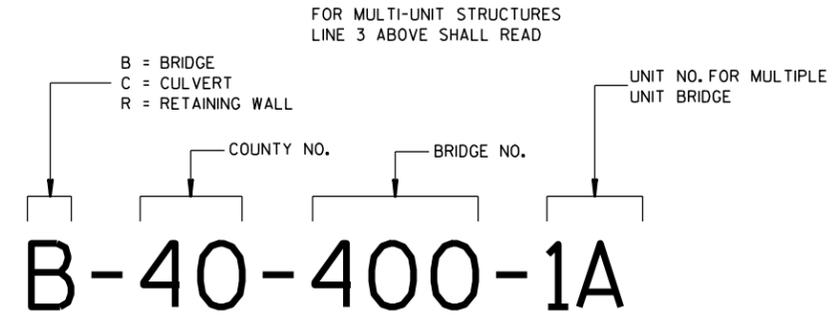
- ① EPOXY RESIN SHALL BE FROM AN APPROVED MANUFACTURER AND USED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- ② REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



SECTION A-A

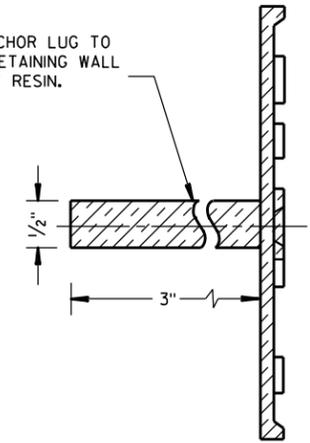


ALTERNATE LUG



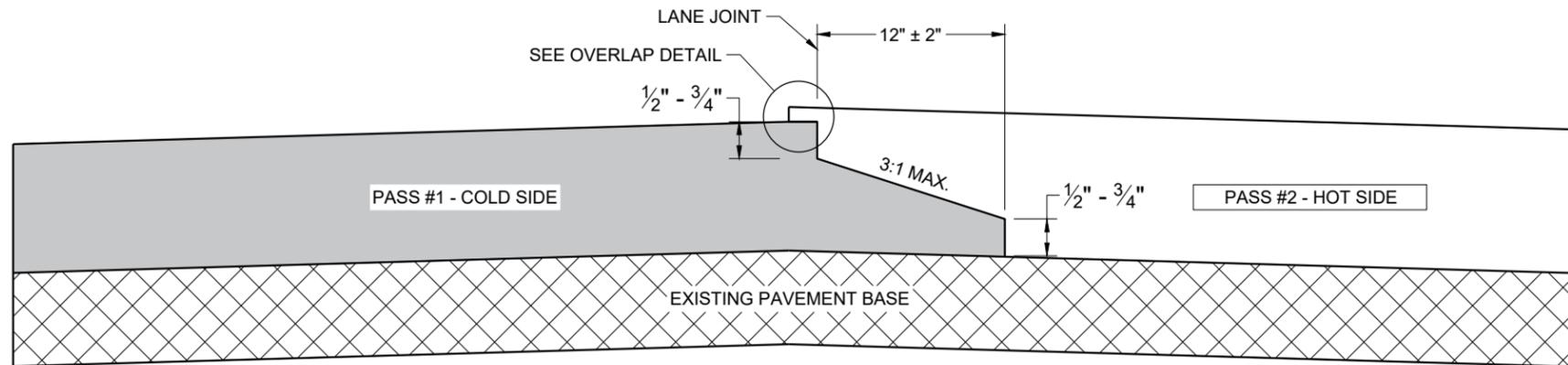
**NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES**

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

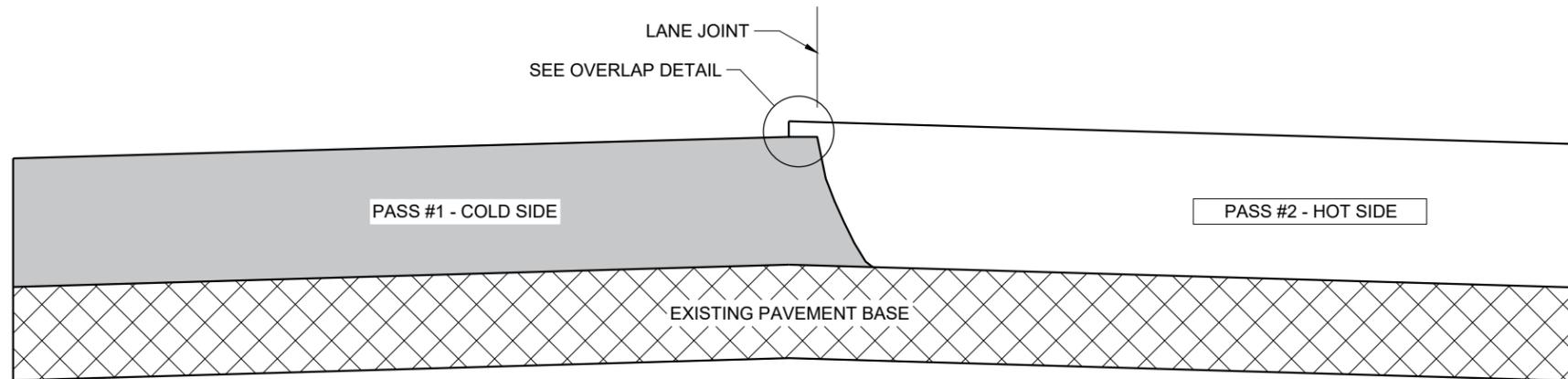


ALTERNATE LUG
(FOR ATTACHMENT TO PRECAST STRUCTURES)

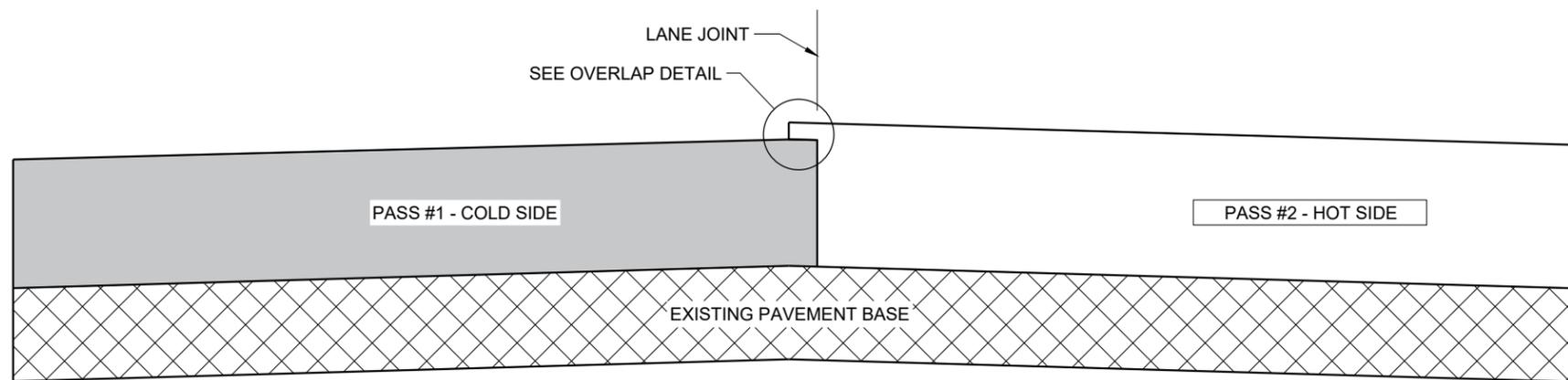
NAME PLATE (STRUCTURES)	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED DATE 3/26/10	/S/ Scot Becker CHIEF STRUCTURAL DEVELOPMENT ENGINEER
FHWA	



TYPICAL PAVEMENT CROSS SECTION NOTCHED WEDGE JOINT



TYPICAL PAVEMENT CROSS SECTION VERTICAL JOINT



TYPICAL PAVEMENT CROSS SECTION VERTICAL JOINT (MILLED)

GENERAL NOTES

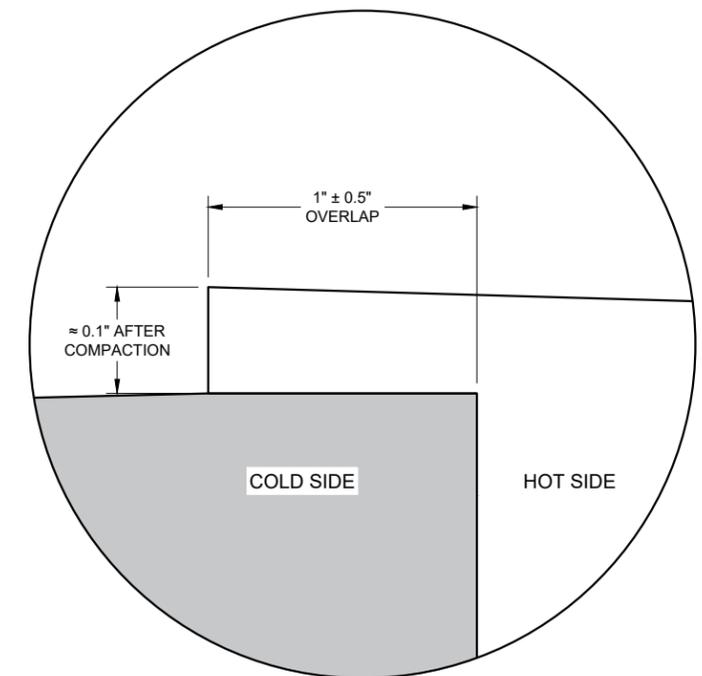
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

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 THE AS THE ENGINEER DIRECTS.



OVERLAP DETAIL (TYPICAL)

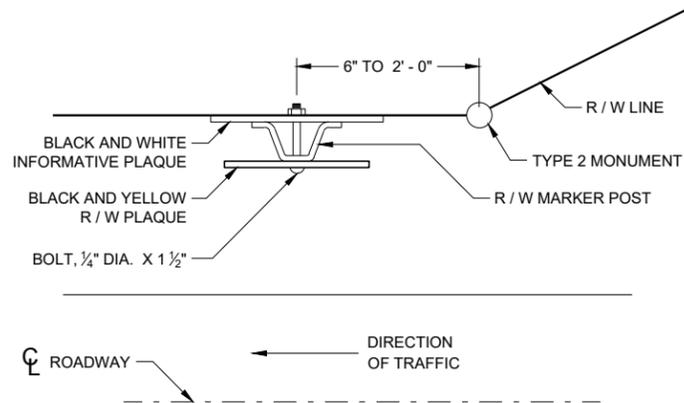
6

6

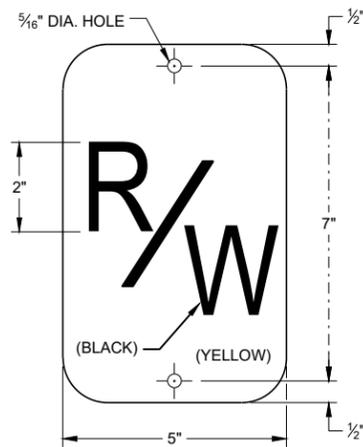
SDD 13C19 - 03

SDD 13C19 - 03

HMA LONGITUDINAL JOINTS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED November 2020 DATE	/S/ Steven Hefel HMA PAVEMENT ENGINEER
FHWA	

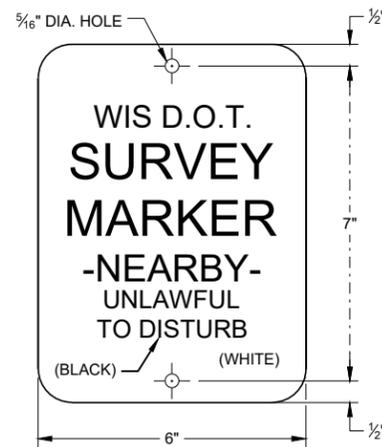


**PLAN VIEW
STEEL MARKER POST**



R / W PLAQUE

THE RIGHT-OF-WAY PLAQUE AND INFORMATIVE PLAQUE WILL BE FURNISHED BY THE WISCONSIN DEPARTMENT OF TRANSPORTATION.



INFORMATIVE PLAQUE

GENERAL NOTES

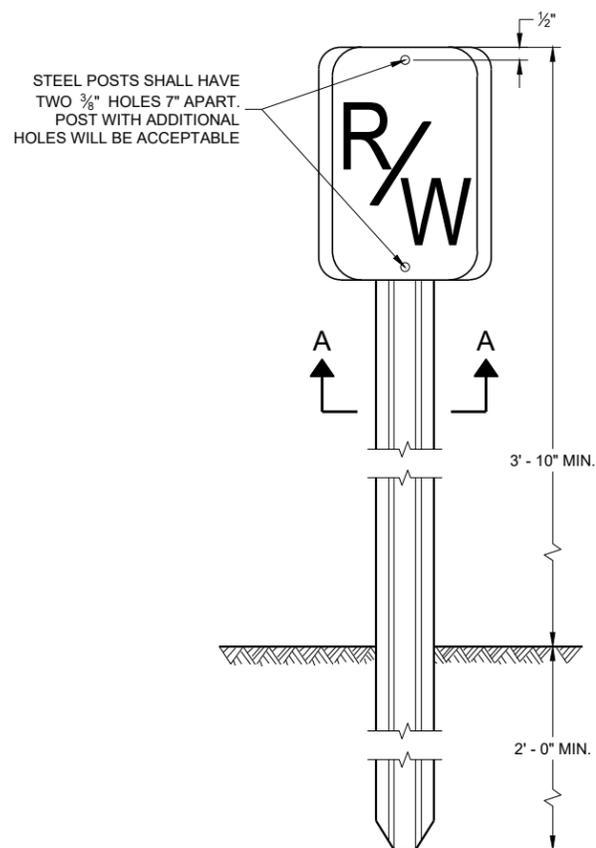
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

A STEEL MARKER POST FOR RIGHT -OF-WAY SHALL BE PLACED IN THE RIGHT-OF-WAY WITH THE BACK OF THE POST ON THE LONGER RIGHT-OF-WAY TANGENT, 6 INCHES TO 24 INCHES FROM EACH TYPE 2 MONUMENT TO SERVE AS A GUARD POST, AND AT OTHER LOCATIONS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

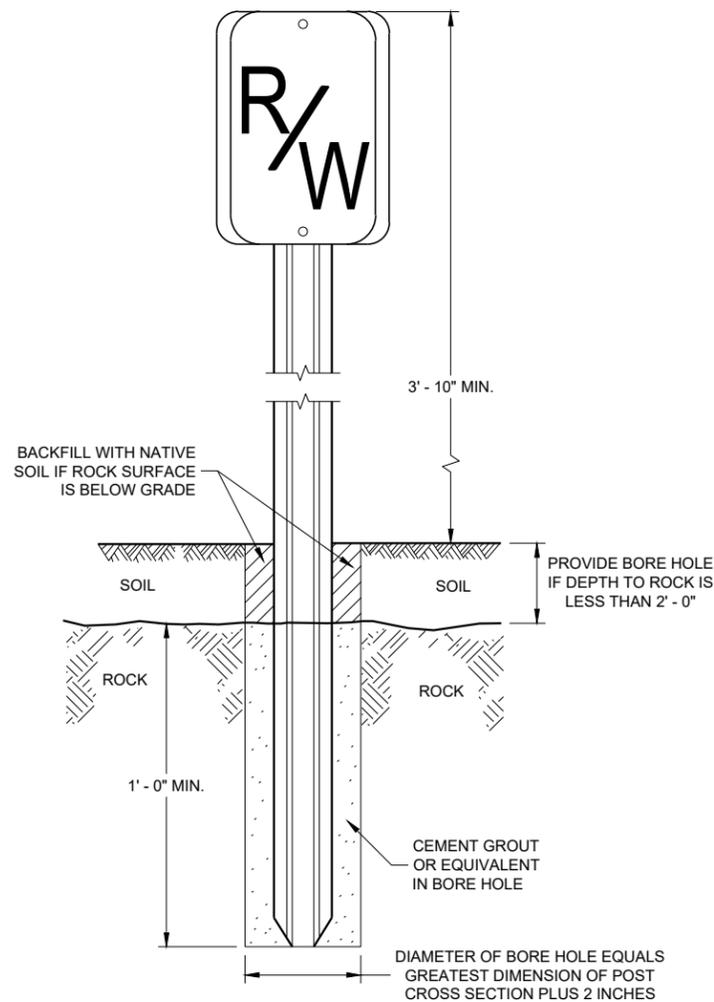
THE "R/W" PLAQUE SHALL FACE THE ROADWAY AND THE INFORMATIVE PLAQUE SHALL FACE AWAY FROM THE ROADWAY. "R/W" AND INFORMATIVE PLAQUES WILL BE FURNISHED BY THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

STEEL MARKER POSTS SHALL MEET THE MINIMUM MATERIAL REQUIREMENTS FOR STEEL DELINEATOR POSTS; EXCEPT POSTS PAINTED WITH FEDERAL YELLOW ENAMEL NEED NOT BE ZINC COATED.

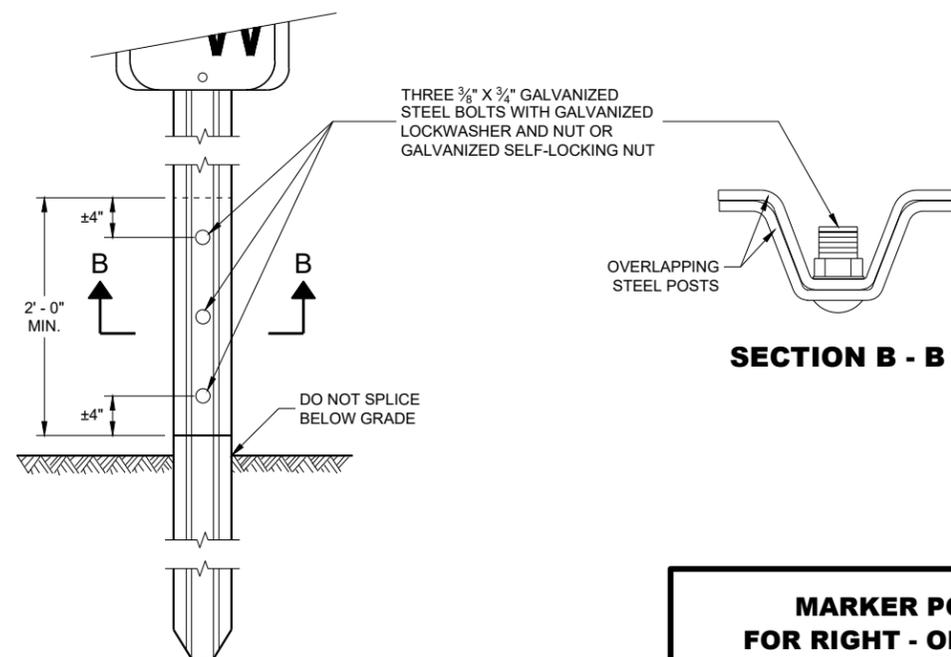
- ① IN AREAS OF SOLID ROCK, DRILL A BORE HOLE 2" GREATER THAN THE WIDEST DIMENSION OF THE POST CROSS SECTION INTO THE ROCK A MINIMUM DEPTH OF 12 INCHES. CUT OR SPLICE THE POST SO THAT A MINIMUM LENGTH OF 3' - 10" PROTRUDES ABOVE THE GROUND. BLOW OUT THE BORE HOLE IN THE ROCK USING COMPRESSED AIR. FILL THE BORE HOLE WITH CEMENT GROUT OR EQUIVALENT, DEPENDING ON THE STABILITY OF THE ROCK.



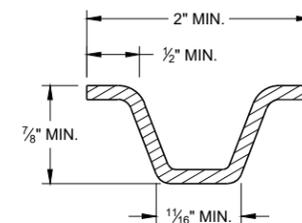
**FRONT VIEW
STEEL MARKER POST**



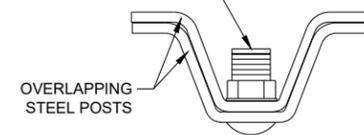
**FRONT VIEW
ROCK INSTALLATION** ①



**FRONT VIEW
SPLICE DETAIL**



MIN. WEIGHT 1.12 LB./FT.
SECTION A - A



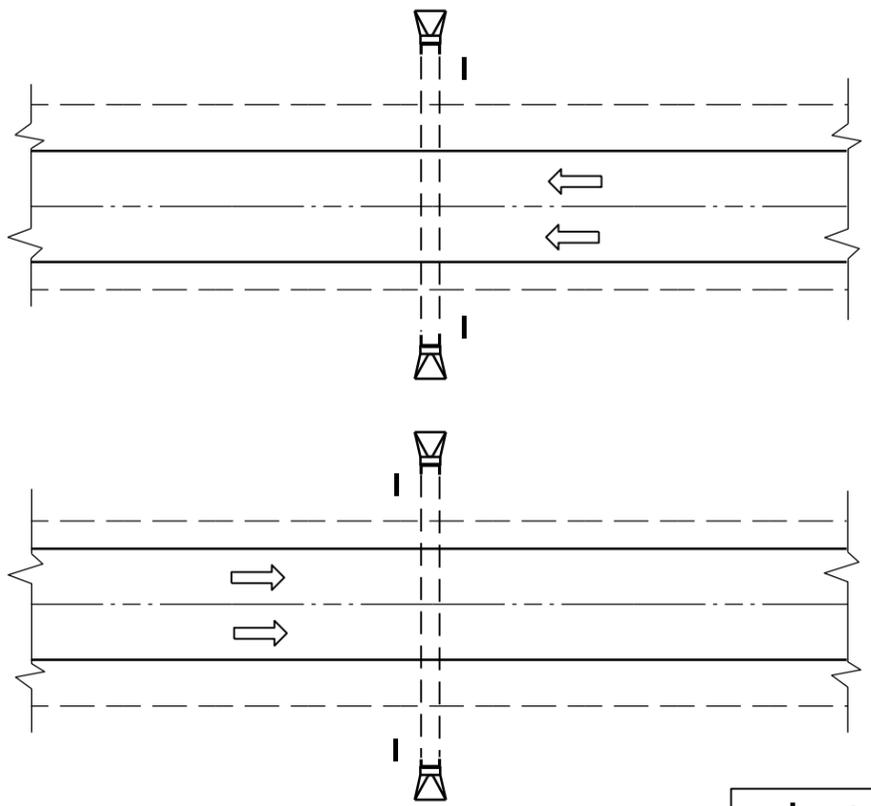
SECTION B - B

**MARKER POST
FOR RIGHT - OF - WAY**

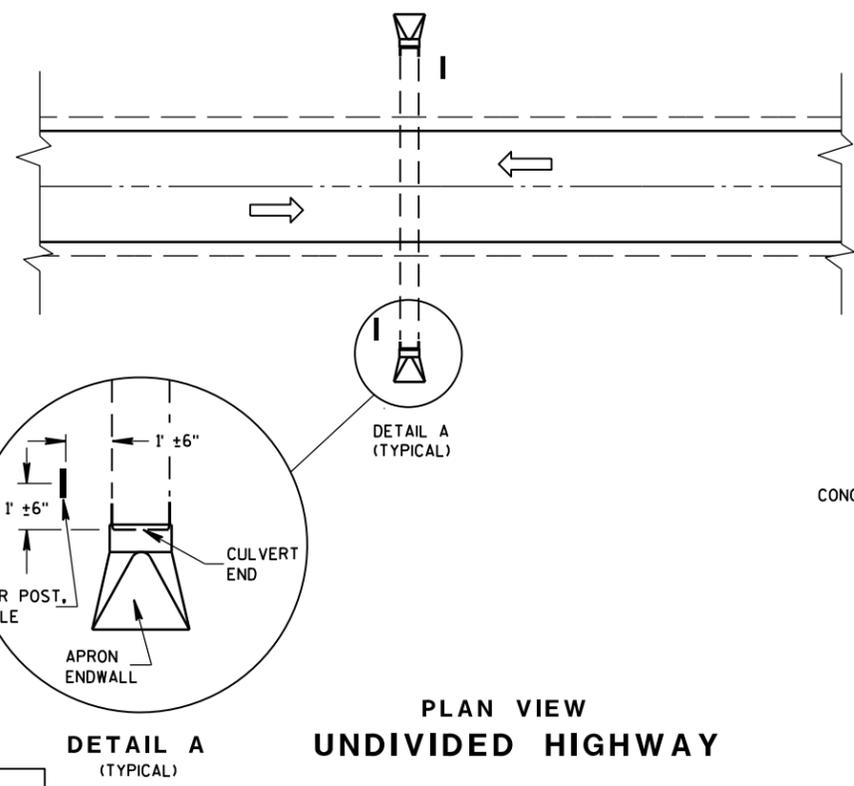
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
2/18/2016 DATE /S/ Ray Kumapayi
DATE CHIEF SURVEYING AND MAPPING ENGINEER

FHWA



PLAN VIEW
DIVIDED HIGHWAY

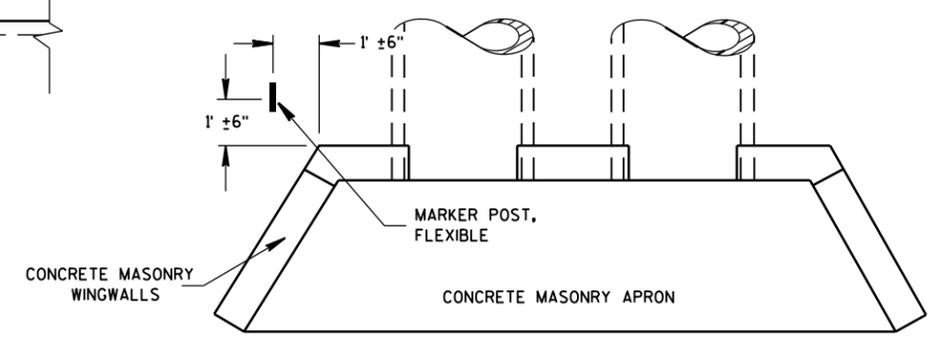


PLAN VIEW
UNDIVIDED HIGHWAY

MARKER POST, FLEXIBLE
 DIRECTION OF TRAFFIC FLOW

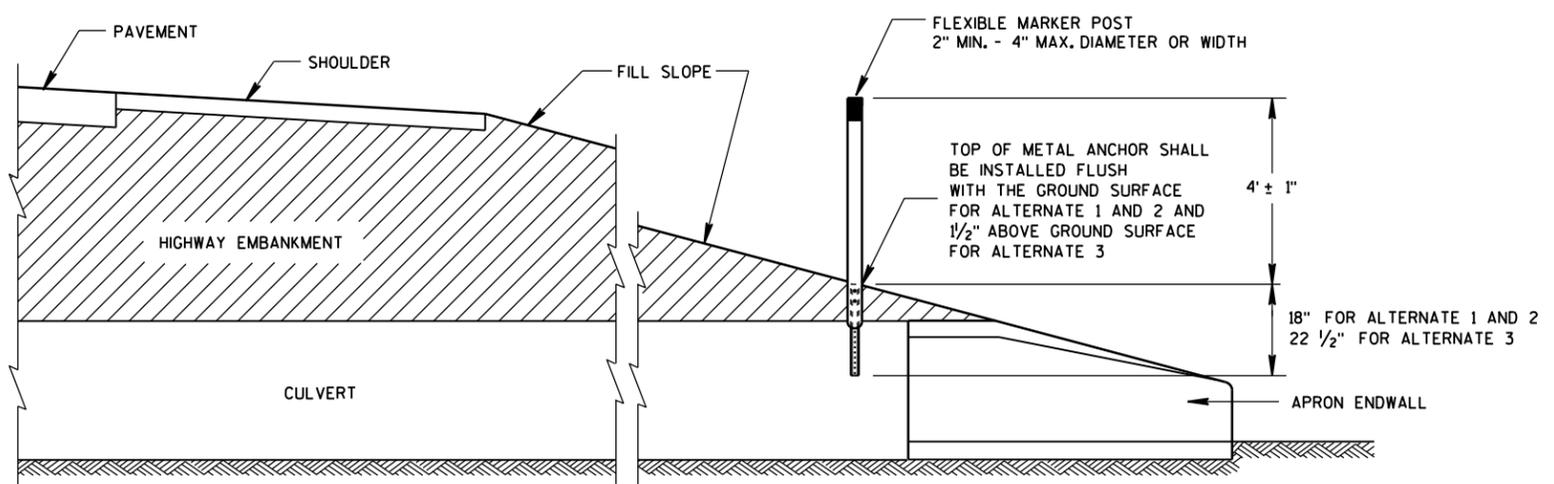
GENERAL NOTES

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.



PLAN VIEW
CONCRETE MASONRY ENDWALLS FOR
CULVERT PIPE AND PIPE ARCH

FLEXIBLE MARKER POST LOCATION



CROSS SECTION
FLEXIBLE MARKER POST

**FLEXIBLE MARKER POST
FOR CULVERT END**

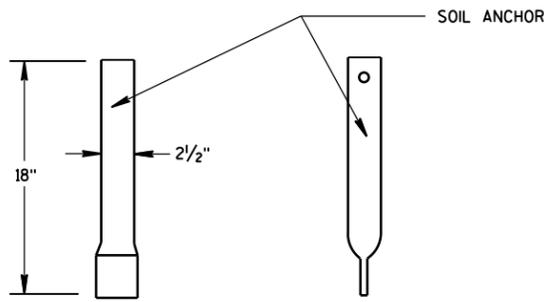
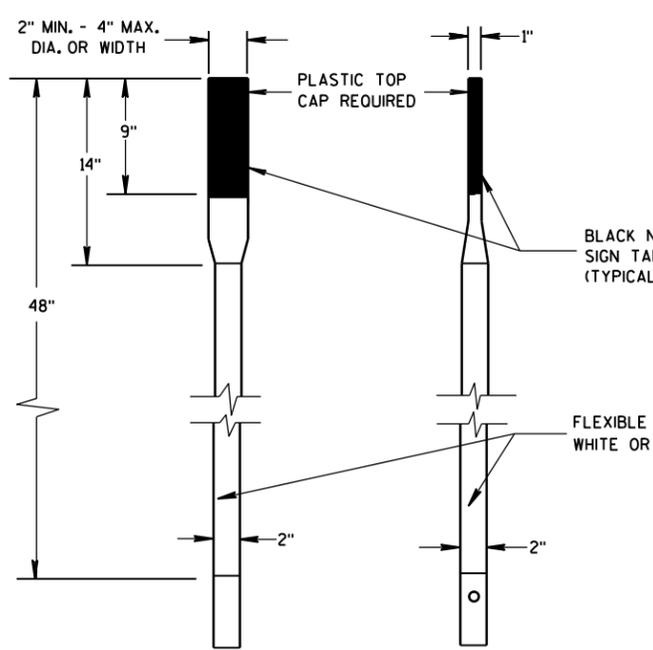
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

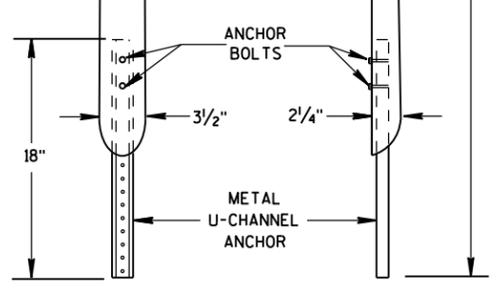
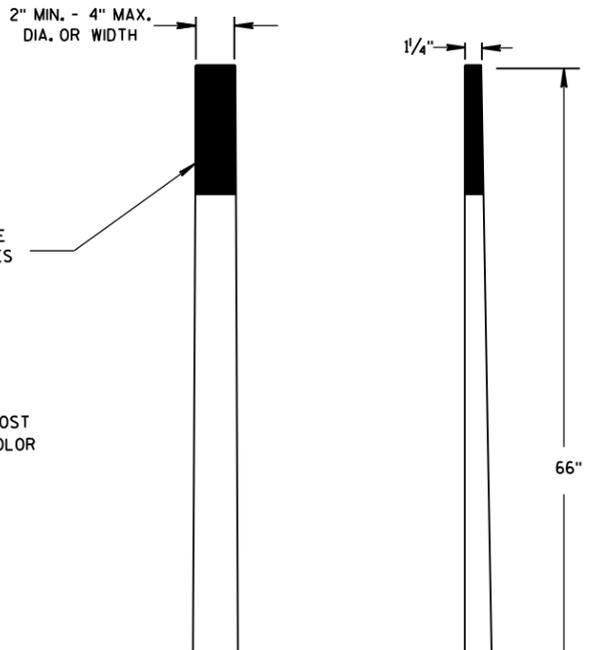
6

S.D.D. 15 A 3-2a

S.D.D. 15 A 3-2a

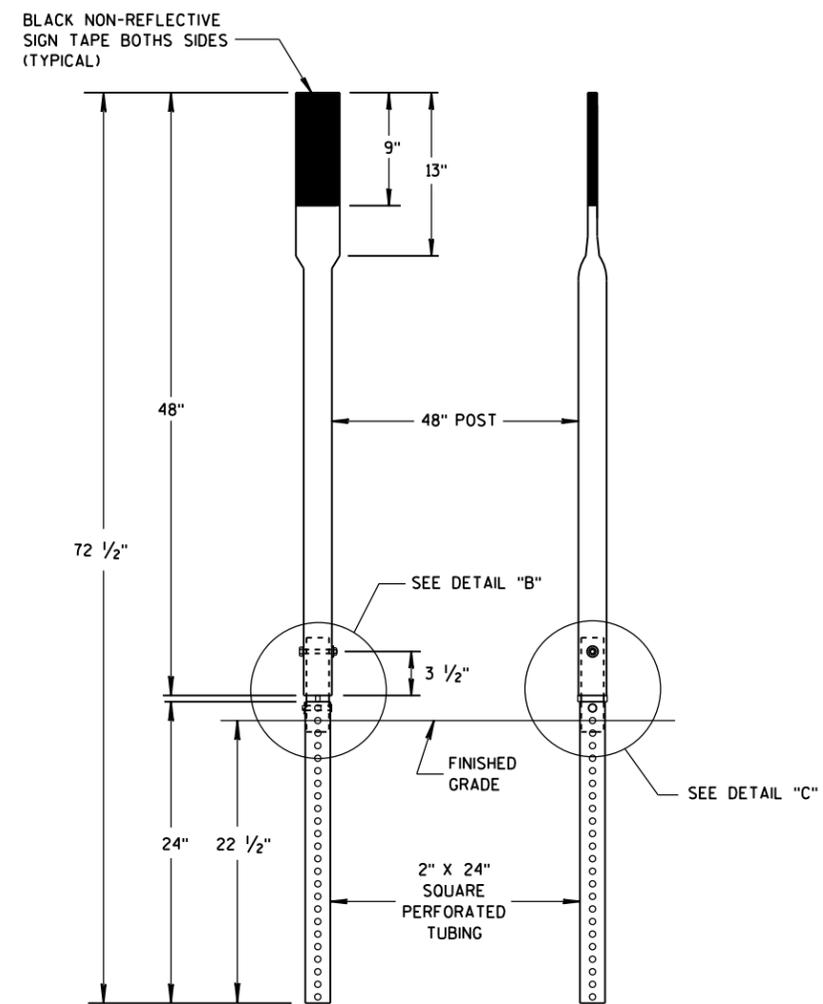


FRONT VIEW SIDE VIEW
ALTERNATE 1

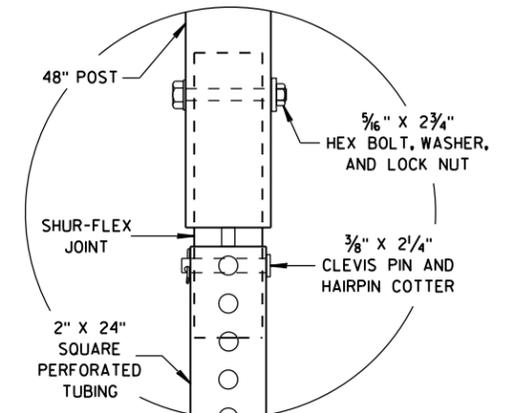


FRONT VIEW SIDE VIEW
ALTERNATE 2

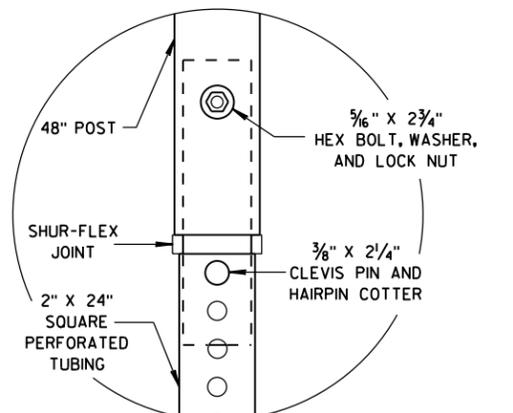
FLEXIBLE MARKER POSTS



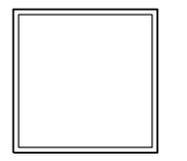
FRONT VIEW SIDE VIEW
ALTERNATE 3



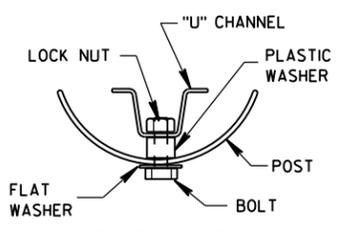
DETAIL B



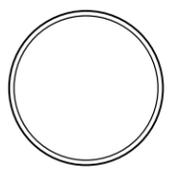
DETAIL C



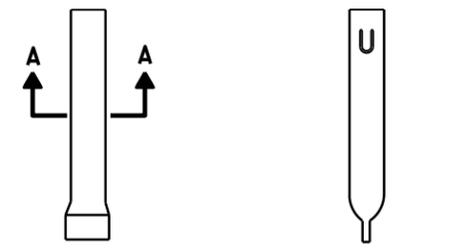
SECTION C-C



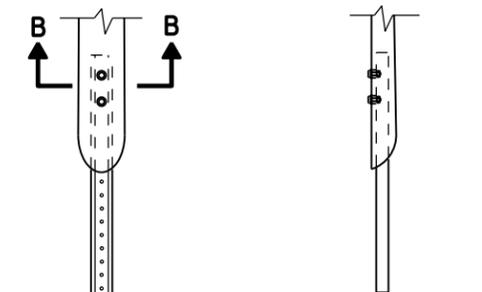
SECTION B-B



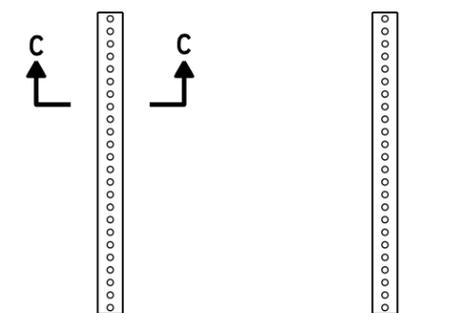
SECTION A-A



FRONT VIEW SIDE VIEW
ALTERNATE 1



FRONT VIEW SIDE VIEW
ALTERNATE 2



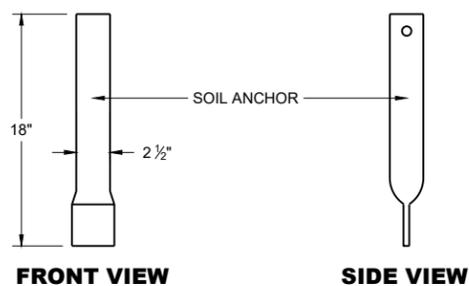
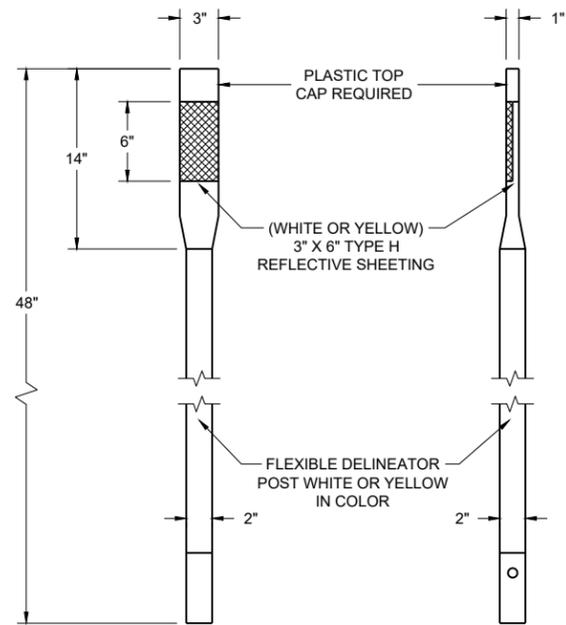
FRONT VIEW SIDE VIEW
ALTERNATE 3

FLEXIBLE MARKER POST ANCHORS

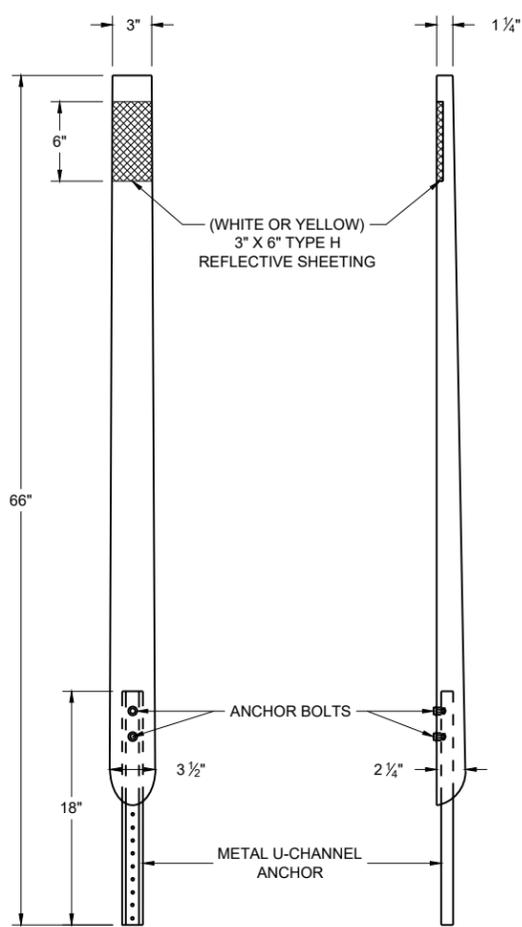
FLEXIBLE MARKER POST FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/1/2012 DATE /S/ Travis Feltes
STATE TRAFFIC ENGINEER OF DESIGN
FHWA

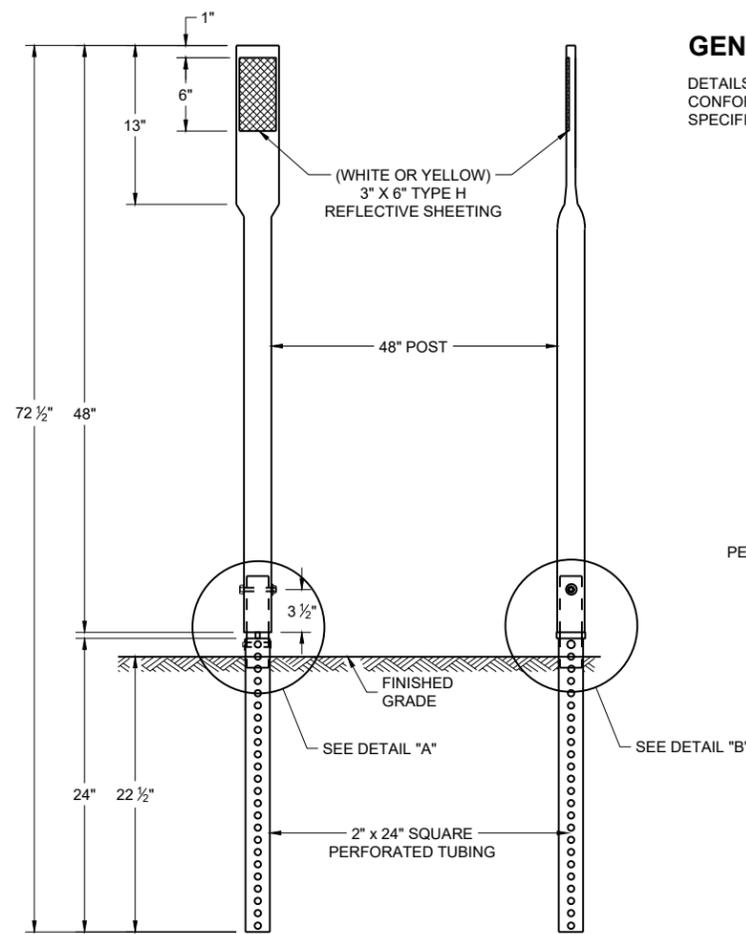


FRONT VIEW **SIDE VIEW**
ALTERNATE 1



FRONT VIEW **SIDE VIEW**
ALTERNATE 2

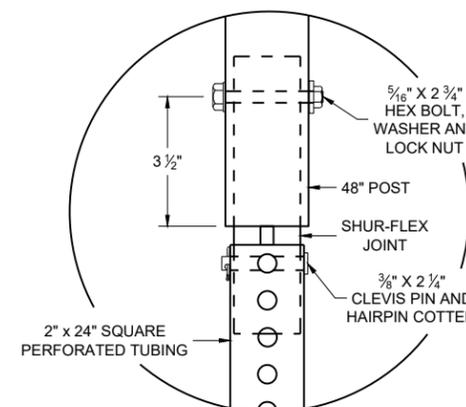
FLEXIBLE DELINEATOR POSTS



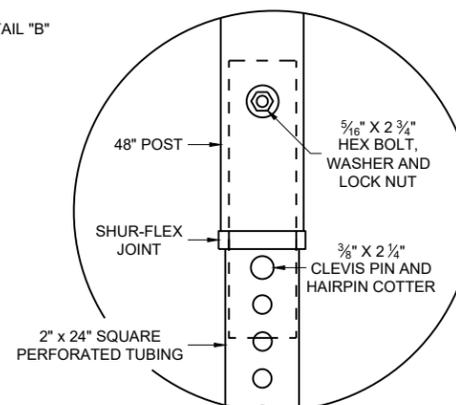
FRONT VIEW **SIDE VIEW**
ALTERNATE 3

GENERAL NOTES

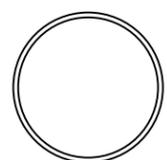
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



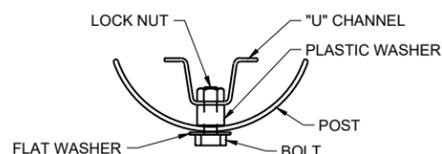
DETAIL A



DETAIL B



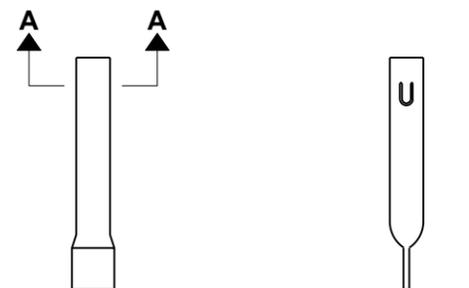
SECTION A - A



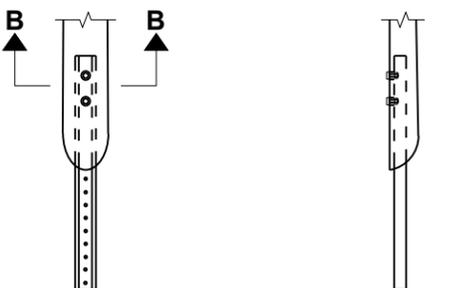
SECTION B - B



SECTION C - C

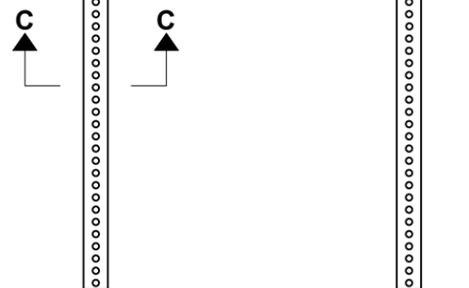


FRONT VIEW **SIDE VIEW**
ALTERNATE 1



FRONT VIEW **SIDE VIEW**
ALTERNATE 2

FLEXIBLE MARKER POST ANCHORS



FRONT VIEW **SIDE VIEW**
ALTERNATE 3

REFLECTOR SPACING TABLE

REFLECTOR SPACING	LOCATION
* 100' C-C	RAMPS
400' C-C	MAINLINE

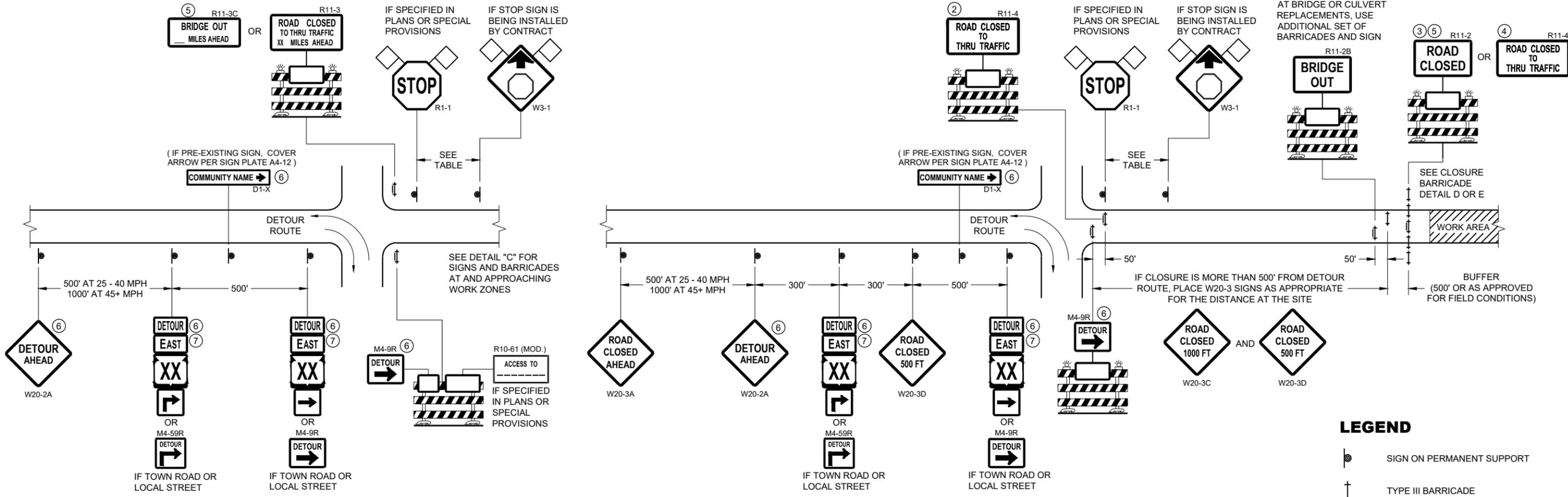
* START AT BEGINNING OF RAMP TAPER AND END AT END OF RAMP TAPER

FLEXIBLE DELINEATOR POST

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2024 /S/ Jeannie Silver
DATE Statewide Pavement Marking Engineer

FHWA



**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**

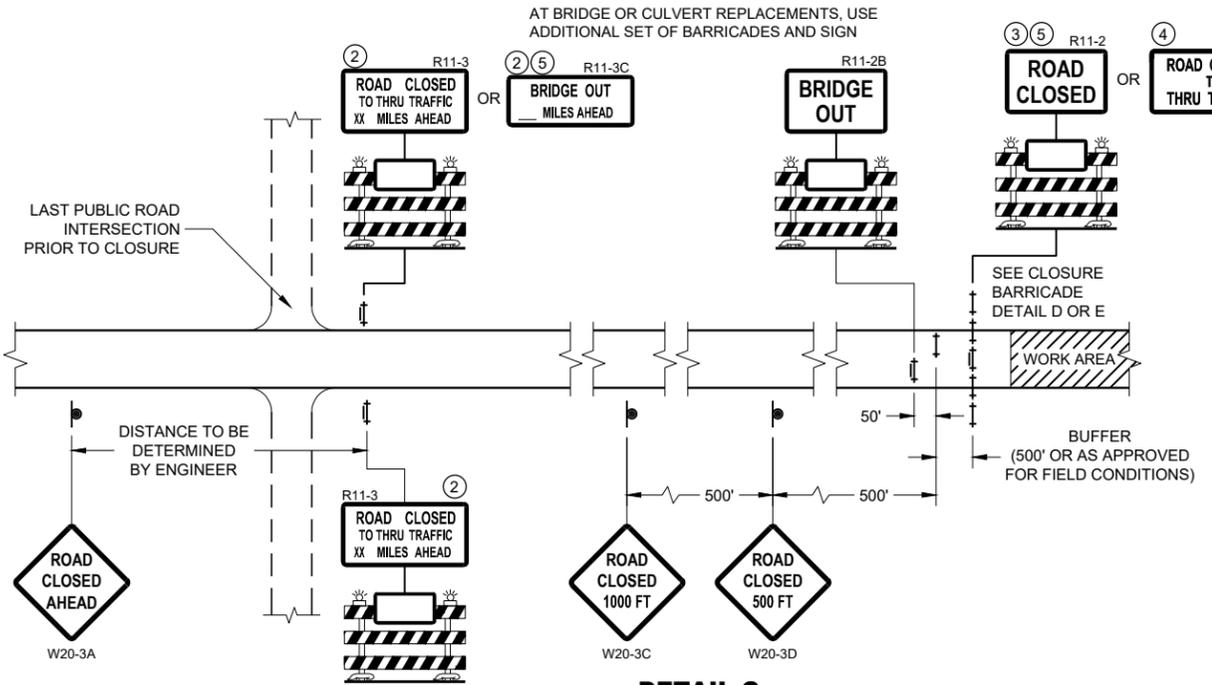
WORK ZONE LESS THAN 1/2 MILE FROM
DETOUR ROUTE (1000 FEET IF URBAN)

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
- M1 - 6
- M1 - 5A
- M05 - 1
- M06 - 1



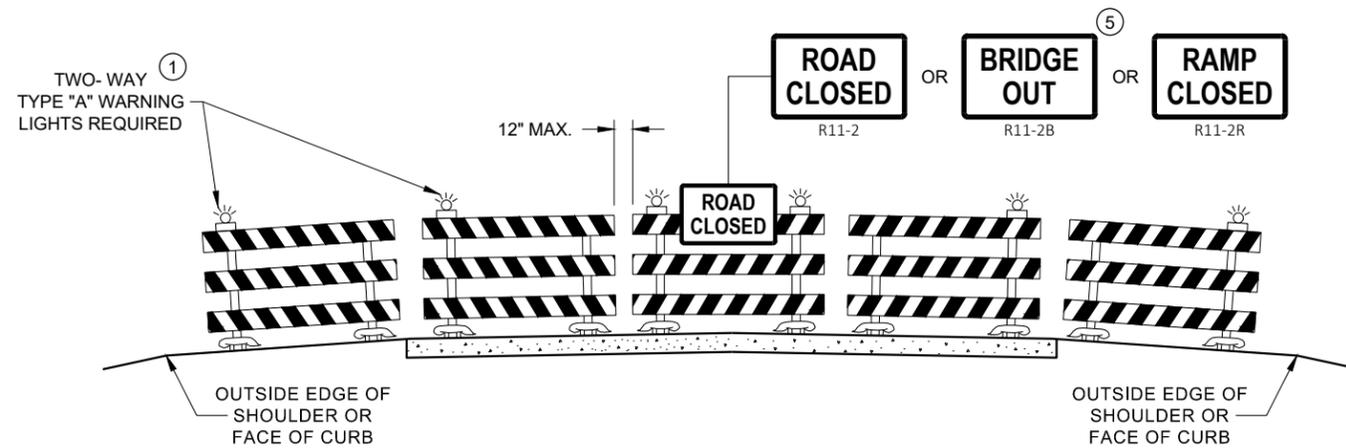
**DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR**

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

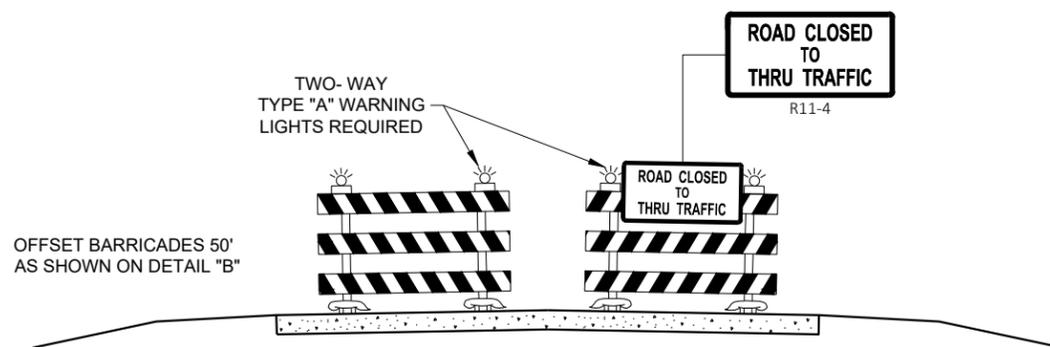
**BARRICADES AND SIGNS
FOR MAINLINE CLOSURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 /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"

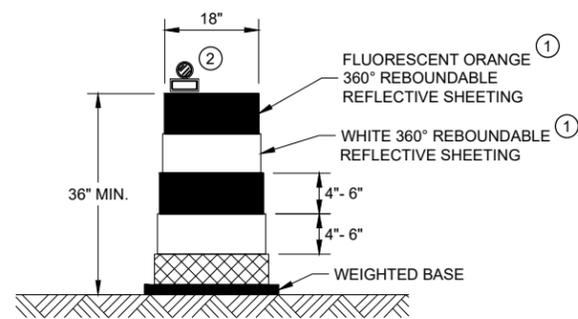
- ① TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8 FOOT LIGHT SPACING).
- ② THESE SIGNS 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

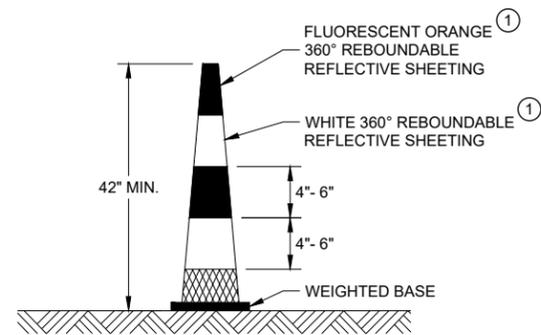
APPROVED
May 2023 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

FHWA



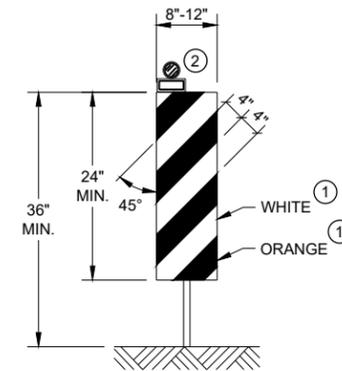
DRUM

BALLAST WIDTHS
RANGE FROM 24"-36"



42" CONE

DO NOT USE IN TAPERS
½ SPACING OF DRUMS
BALLAST WIDTHS
RANGE FROM 14"-20"

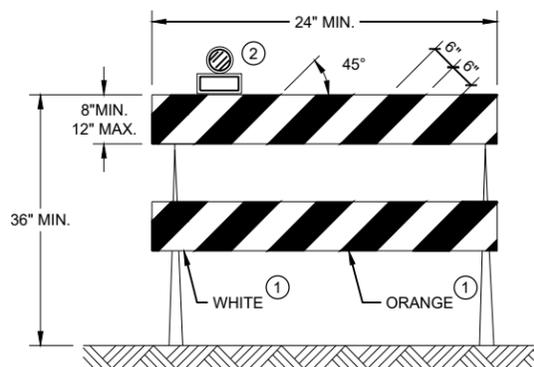


VERTICAL PANEL

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

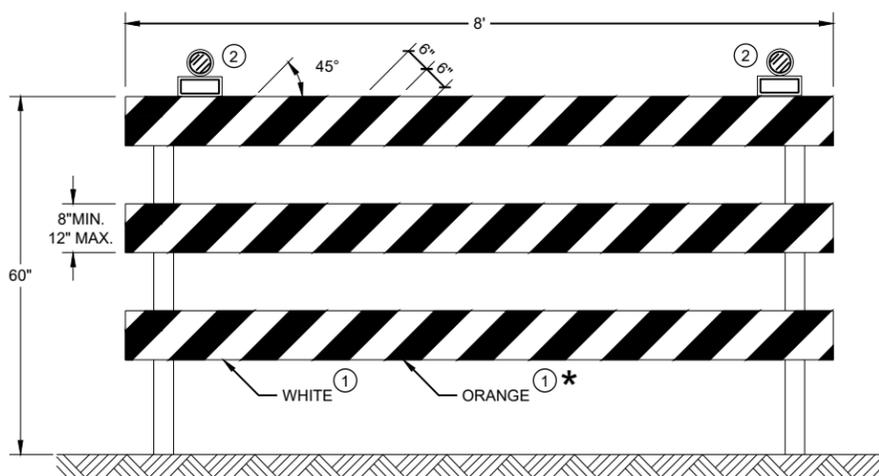
GENERAL NOTES

- 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.



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.

**CHANNELIZING DEVICES
DRUMS, CONES, BARRICADES
AND VERTICAL PANELS**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED	/S/ Andrew Heidtke
November 2022	DATE
	WORK ZONE ENGINEER

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TEMPORARY DELINEATOR (WHITE, SINGLE DELINEATOR)
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- TEMPORARY RAISED PAVEMENT MARKERS (TWO WAY YELLOW)
- TEMPORARY STEEL PLATE BEAM GUARD AND END TREATMENT
- DIRECTION OF TRAFFIC
- REMOVE PAVEMENT MARKINGS
- WORK AREA

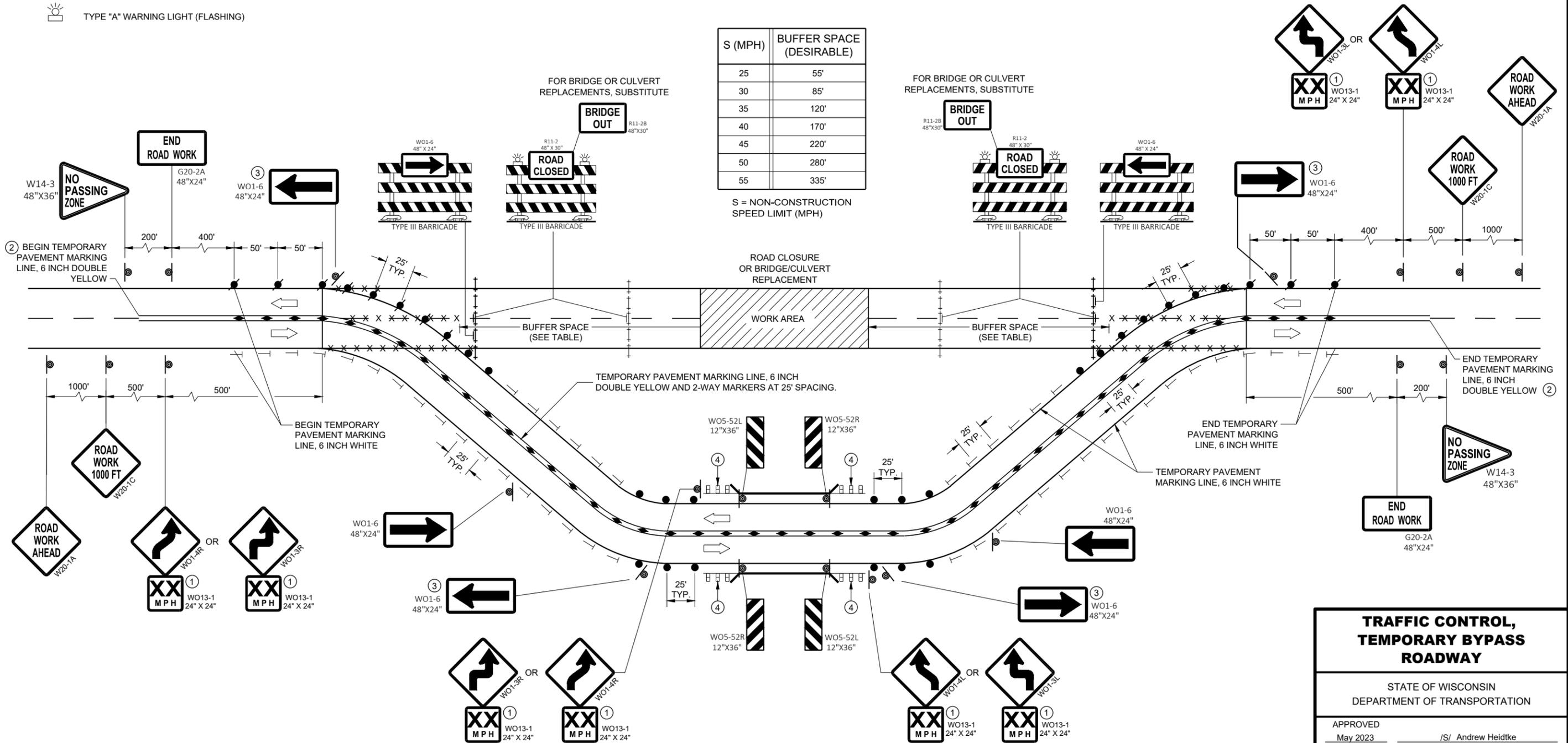
GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.
 "WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.
 ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.
 THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.
 THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500' DESIRABLE) DISTANCE TO EXISTING SIGNS.
 SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL ON STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.
 EQUIPMENT, VEHICLES, OR MATERIAL SHOULD NOT BE STORED IN BUFFER SPACE.

- ① IF ADVISORY SPEED IS GREATER THAN 30 MPH, USE THE WO1-4 SIGN. IF ADVISORY SPEED IS 30 MPH OR LESS, USE THE WO1-3 SIGN.
- ② WHEN THE DISTANCE TO / FROM THE NEXT CLOSEST NO-PASSING ZONE IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES AS INDICATED IN THE SPECIFICATIONS, THE TWO ZONES SHALL BE CONNECTED.
- ③ OMIT THESE WO1-6 SIGNS IF THE ADVISORY SPEED OF THE CURVE IS GREATER THAN 30 MPH.
- ④ TEMPORARY STEEL PLATE BEAM GUARD AND END TREATMENT WHEN INCLUDED IN THE CONTRACT. FOR LAYOUT, SEE DETAILS ELSEWHERE IN THE PLAN.

S (MPH)	BUFFER SPACE (DESIRABLE)
25	55'
30	85'
35	120'
40	170'
45	220'
50	280'
55	335'

S = NON-CONSTRUCTION SPEED LIMIT (MPH)



**TRAFFIC CONTROL,
TEMPORARY BYPASS
ROADWAY**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED _____
 May 2023 _____ /S/ Andrew Heidtke
 DATE _____ WORK ZONE ENGINEER

FHWA

6

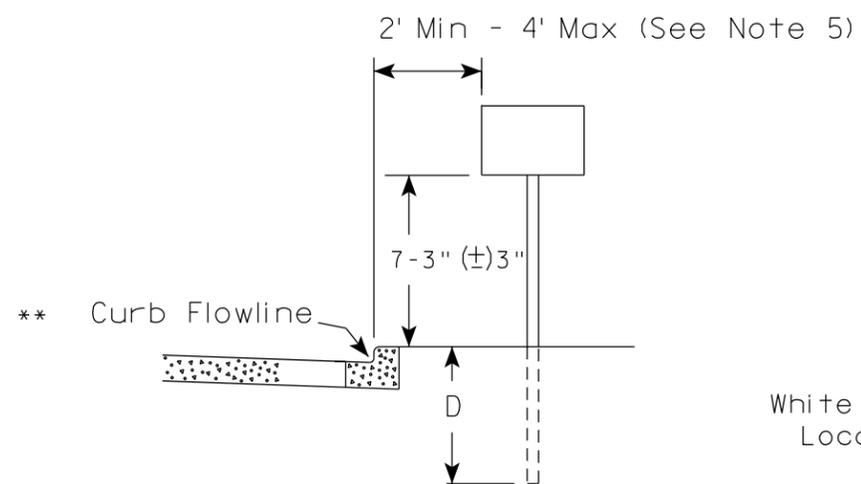
6

SDD 15D31-05

SDD 15D31-05

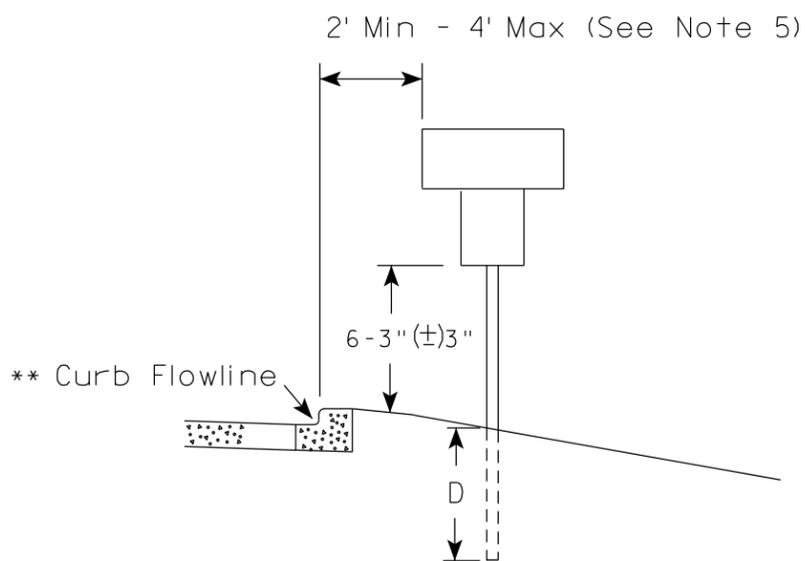
URBAN AREA

RURAL AREA (See Note 2)



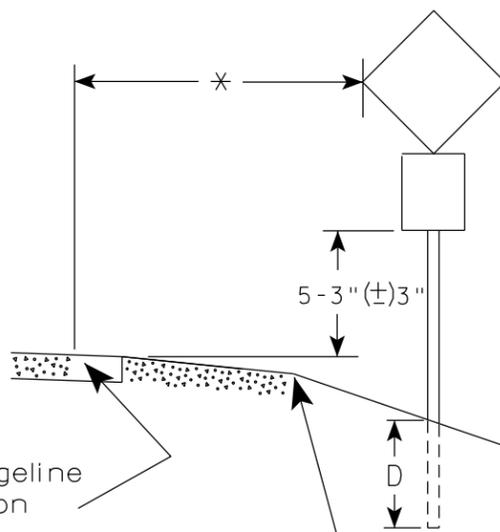
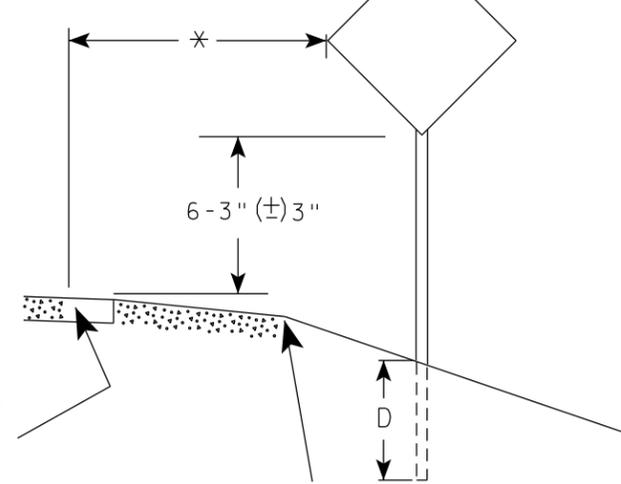
White Edgeline Location

Outside Edge of Gravel



White Edgeline Location

Outside Edge of Gravel



POST EMBEDMENT DEPTH

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

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

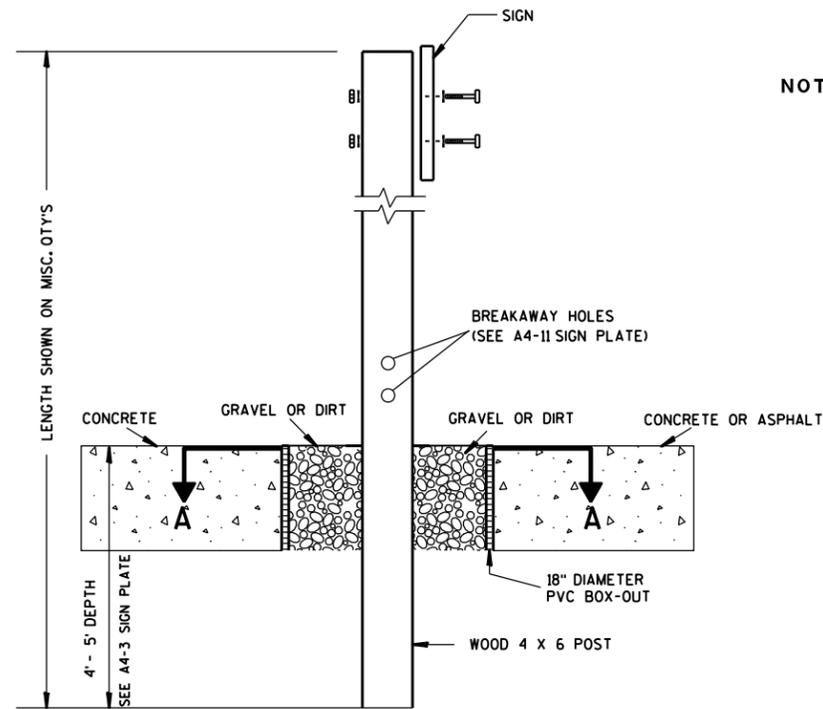
* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R Raub*
for State Traffic Engineer

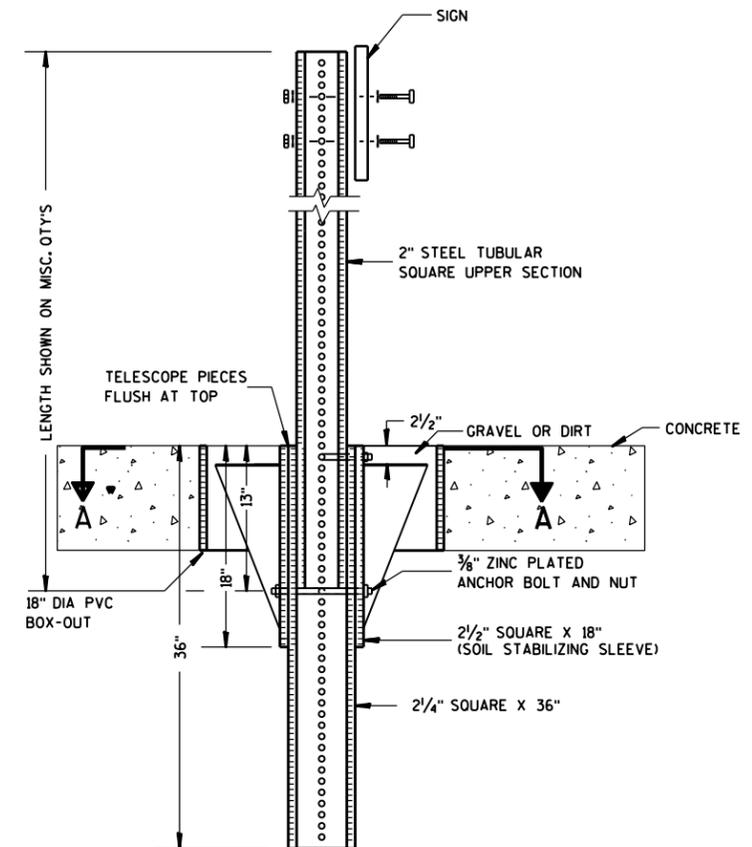
DATE 12/6/23 PLATE NO. A4-3.23



ELEVATION VIEW

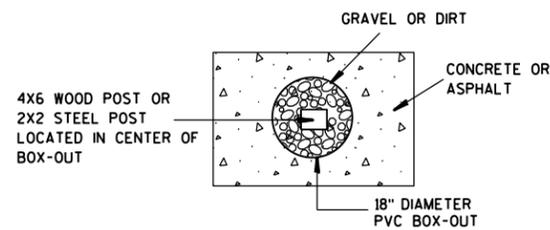
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

- 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 R. Rauch*
for State Traffic Engineer

DATE 1/27/14 PLATE NO. A4-3B.1

GENERAL NOTES

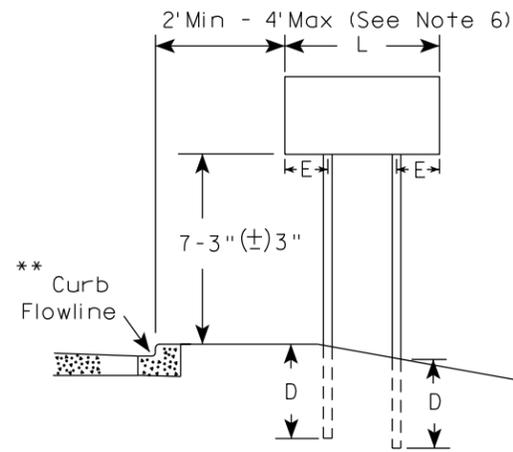
1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
2. See tables below for required number of posts.
3. For expressways and freeways, mounting height is 7'-3" (±) 3" or 6'-3" (±) 3" depending upon existence of sub-sign.
4. The (±) tolerance for mounting height is 3 inches.
5. J-Assemblies are considered to be one sign for mounting height.
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.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±) 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" (±) 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.

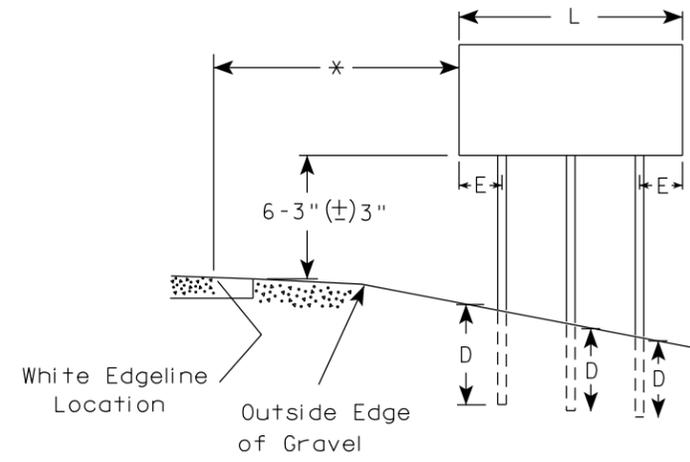
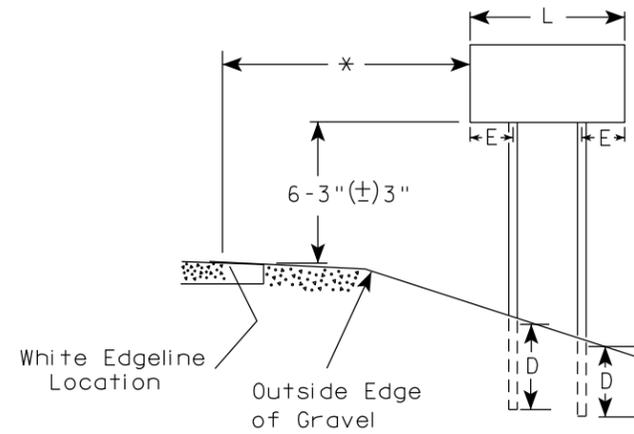
** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs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

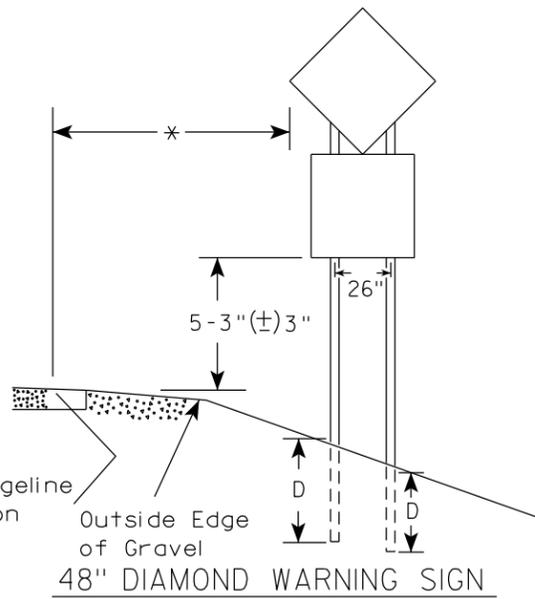
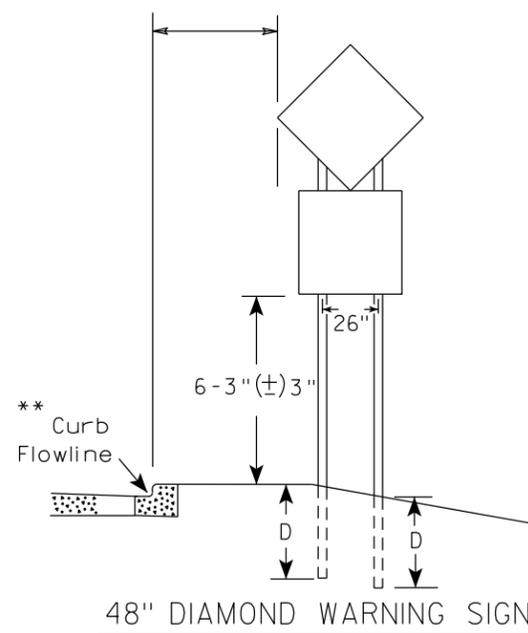
URBAN AREA



RURAL AREA (See Note 3)



URBAN AREA



SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)	
L	E
Greater than 48" Less than 60"	12"
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

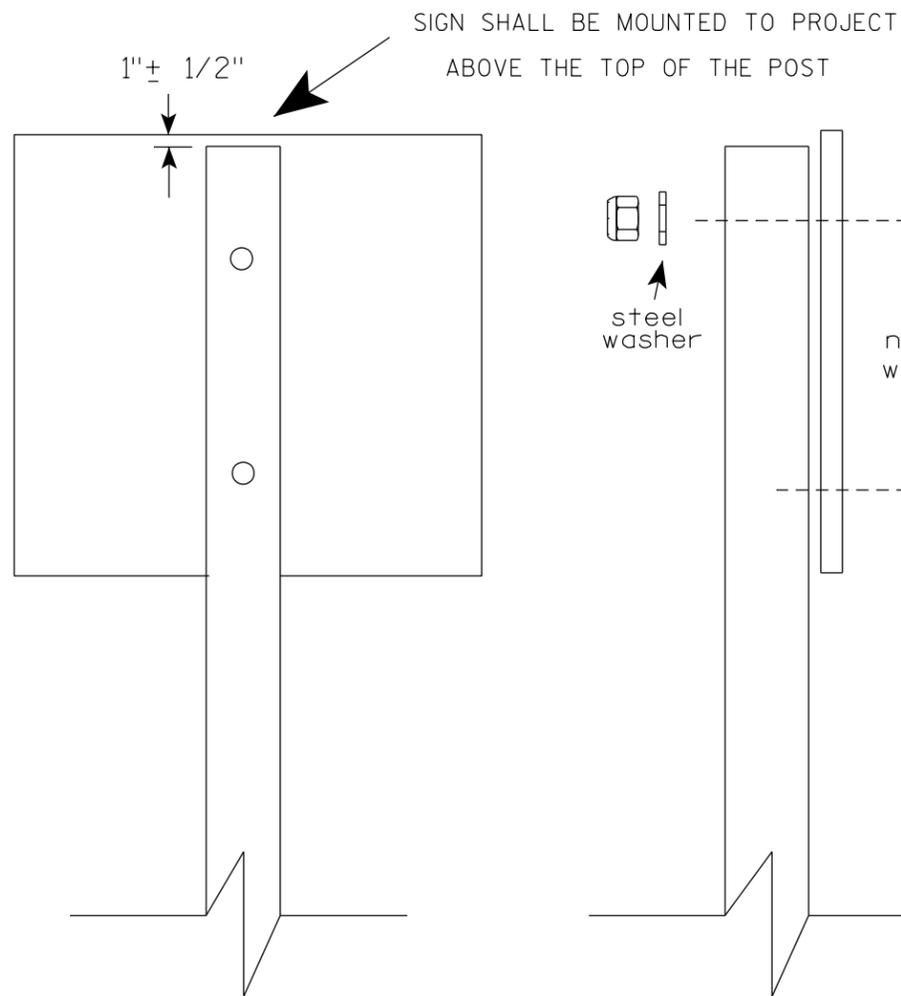
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



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 - 5/16" X 1-3/4" Length w/ lock nuts

WOOD POSTS (4" x 6")

LAG SCREWS - 3/8" X 3" (NO STRINGERS ON BACK OF SIGN)
3/8" X 4" (STRINGERS ON BACK OF SIGN)

SQUARE STEEL POSTS (2" x 2")

MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
3/8" X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)

RIVETS - 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 3/8" I.D. X 1/16" STEEL

1-1/4" O.D. X 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

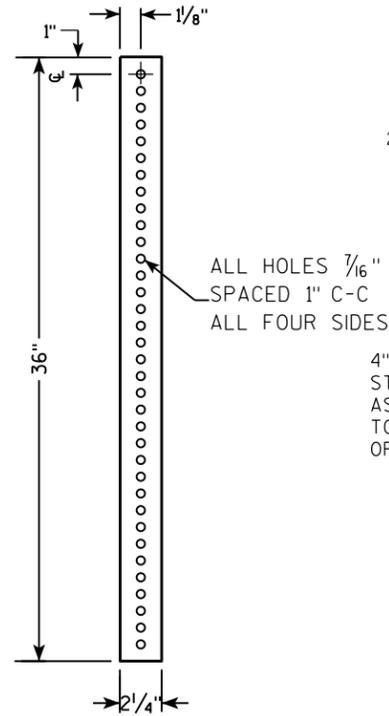
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R Rauch*
For State Traffic Engineer

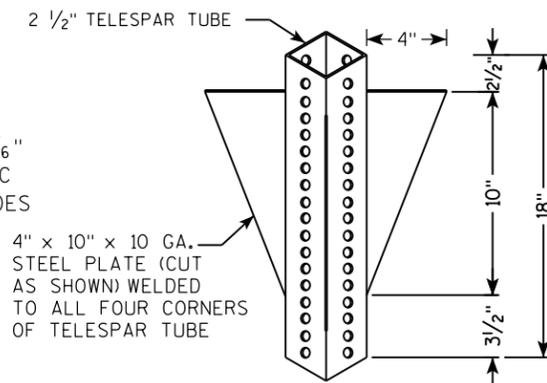
DATE 4/1/2020 PLATE NO. A4-8.9

**TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM**

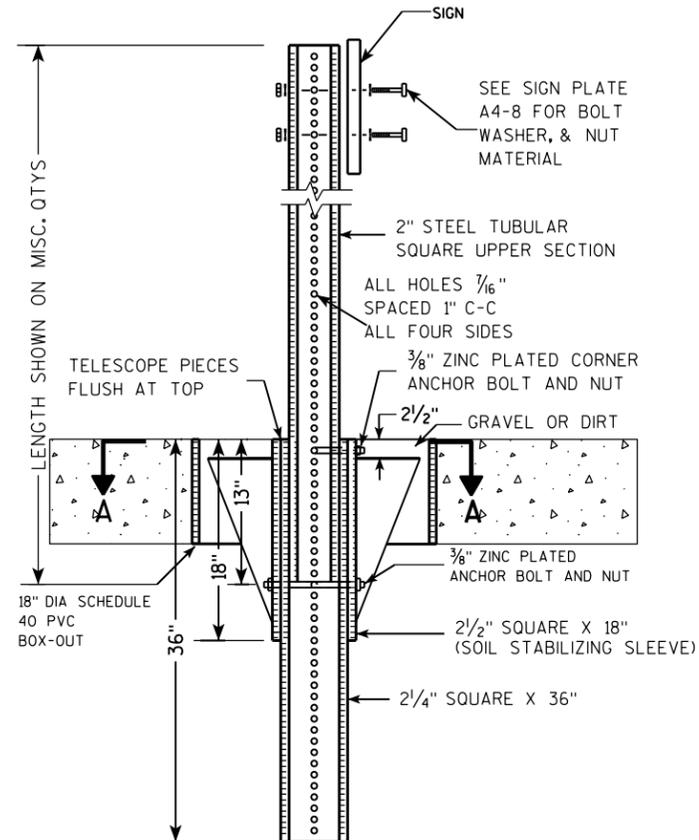
2 1/4" SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



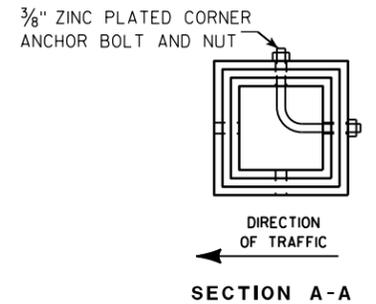
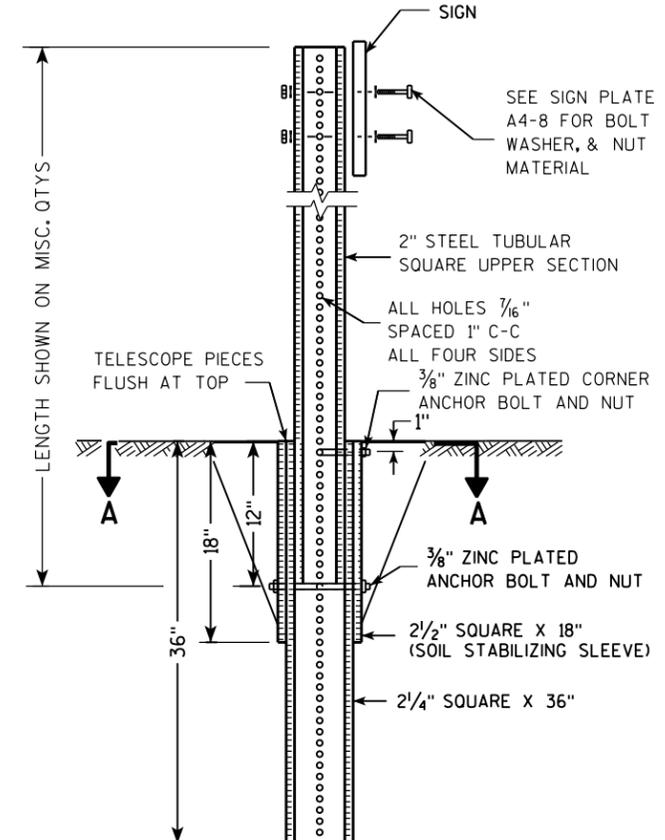
2 1/2" SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH



**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 R. Rauch*
for State Traffic Engineer

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

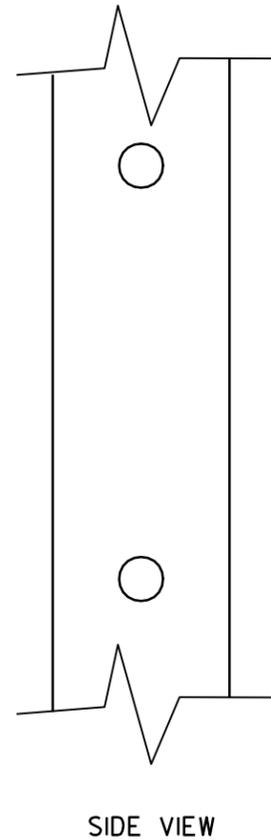
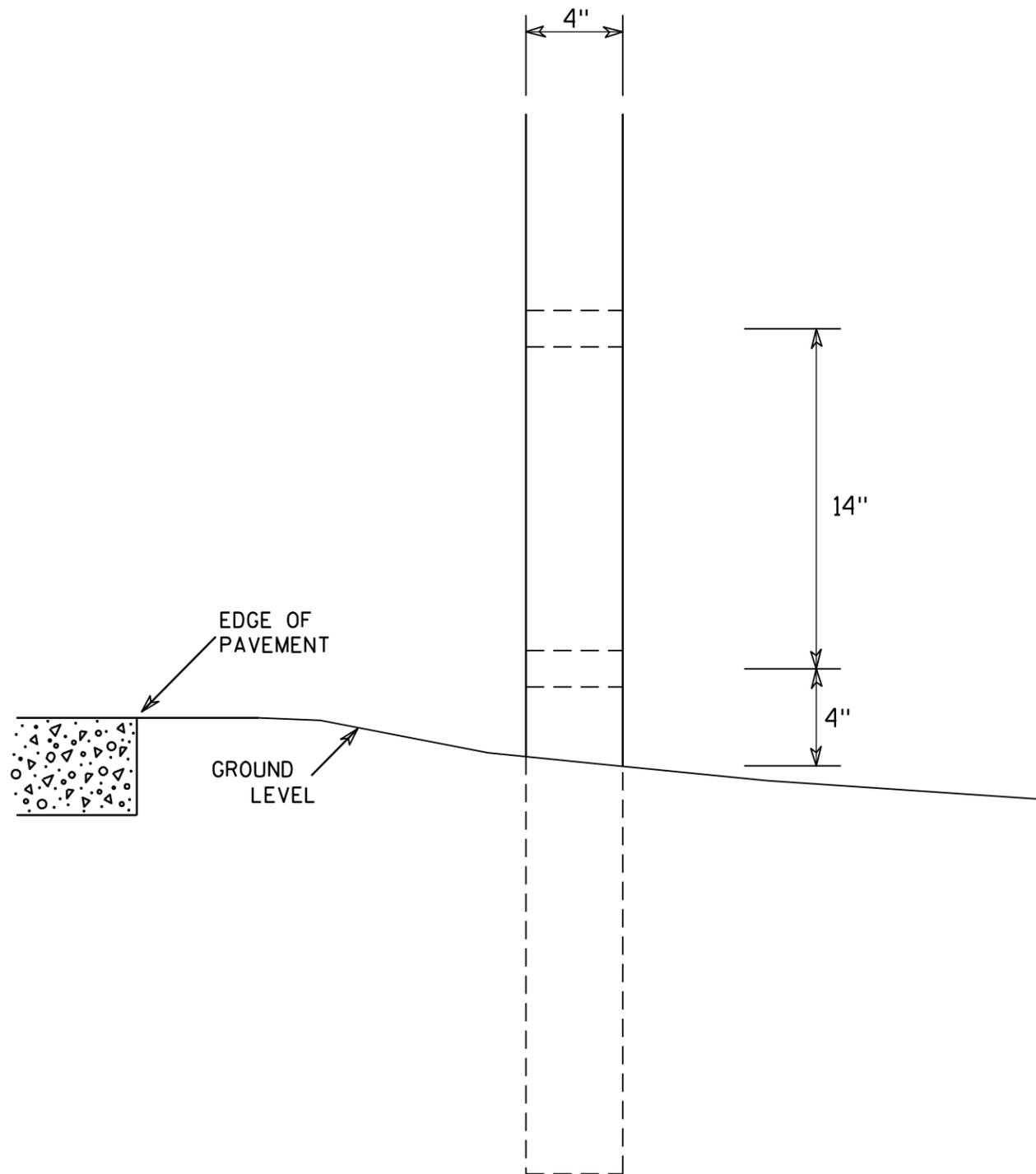
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



GENERAL NOTES

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

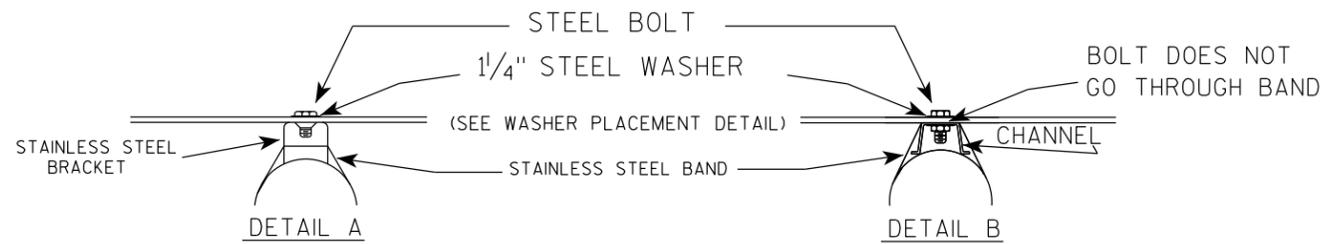
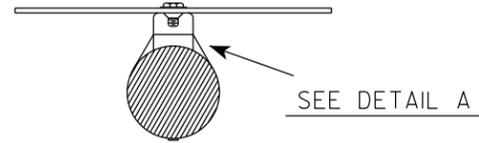
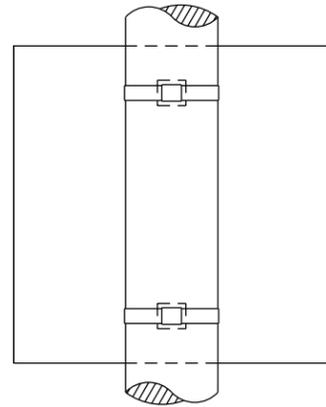
7

7

4 X 6 WOOD POST MODIFICATIONS	
<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>

BANDING

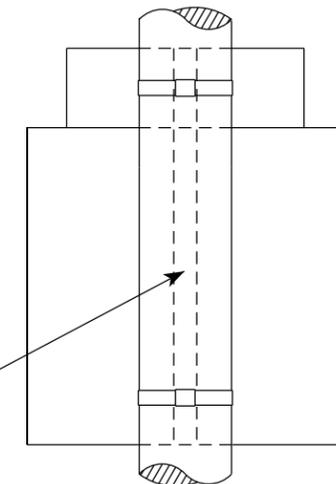
SINGLE SIGN



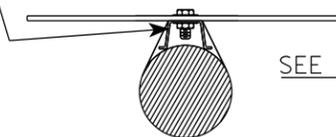
GENERAL NOTES

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

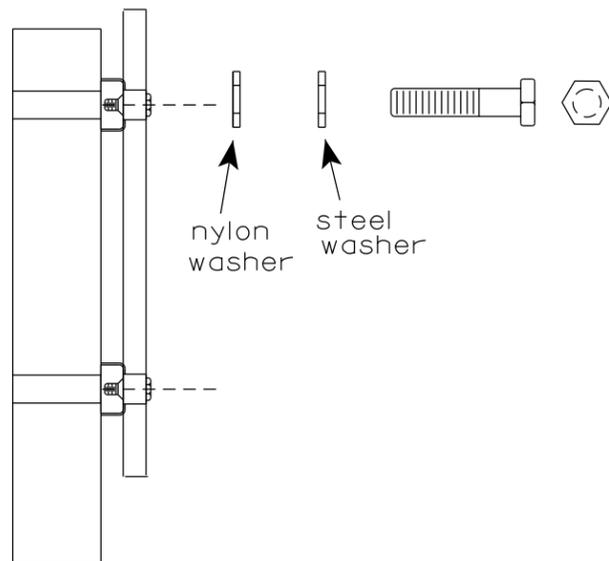
"J" ASSEMBLY



CHANNEL
SEE TYPICAL PANEL
INSTALLATION SHEET

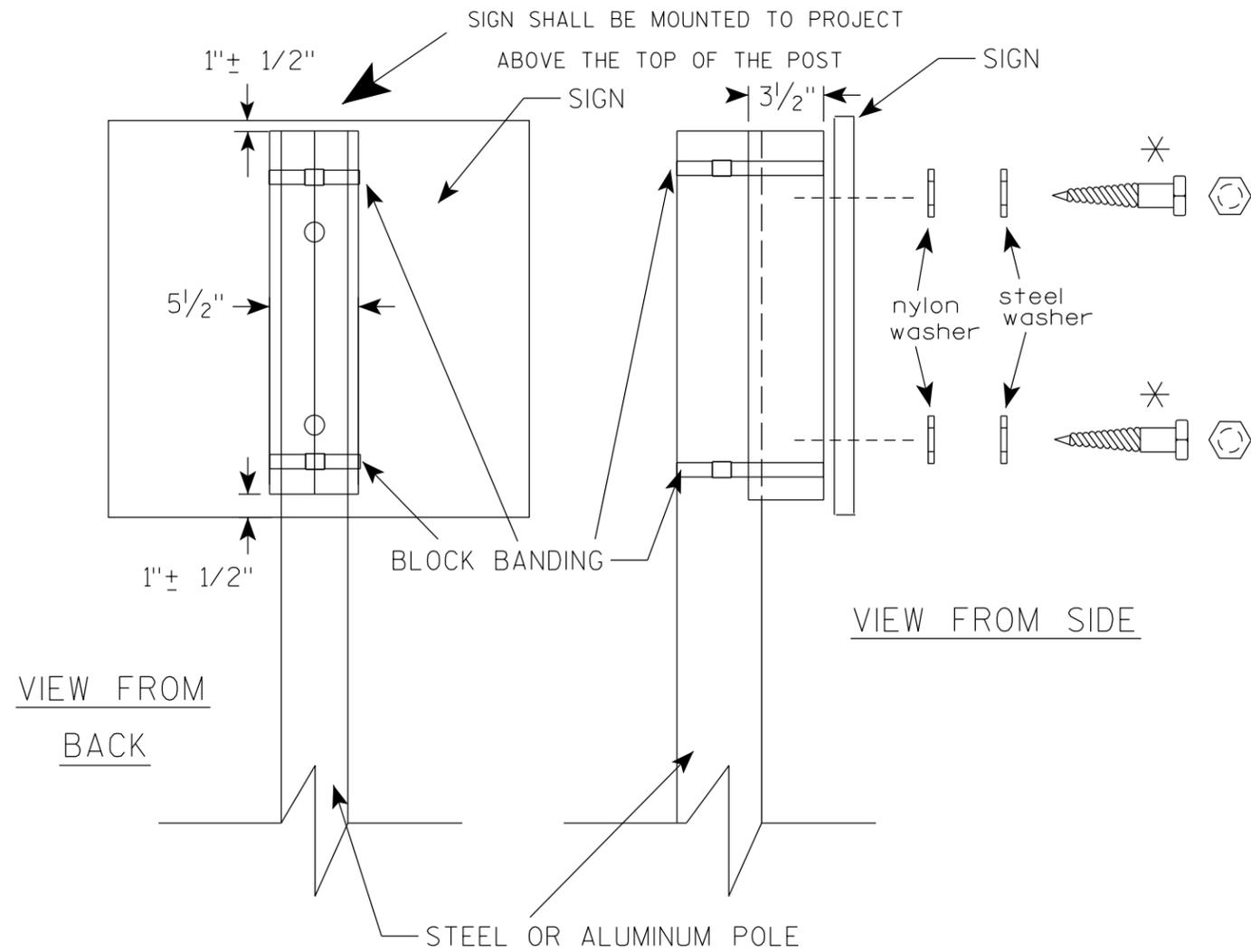


WASHER PLACEMENT



WASHERS (ALL POSTS) -
 1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
 1-1/4" O.D. X 3/8" I.D. X .080 NYLON
 FOR ALL TYPE H SIGNS

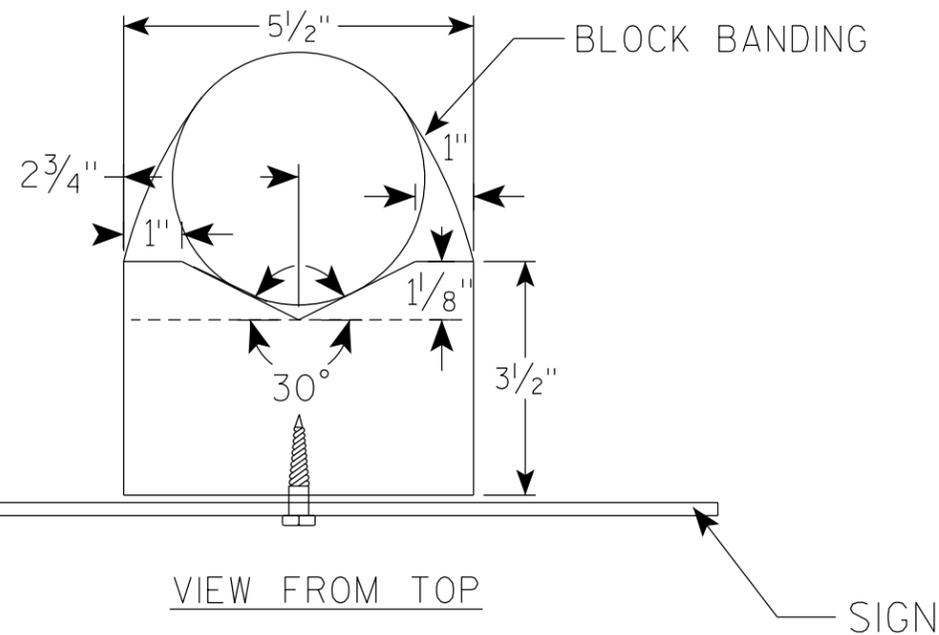
STANDARD SIGN SIGN BANDING DETAILS	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> for State Traffic Engineer
DATE 6/10/19	PLATE NO. A5-9.4



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, 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 1/4" O.D. X 3/8" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1/4" O.D. X 3/8" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✱ LAG BOLTS SHALL BE 3/8" X 2 1/2"

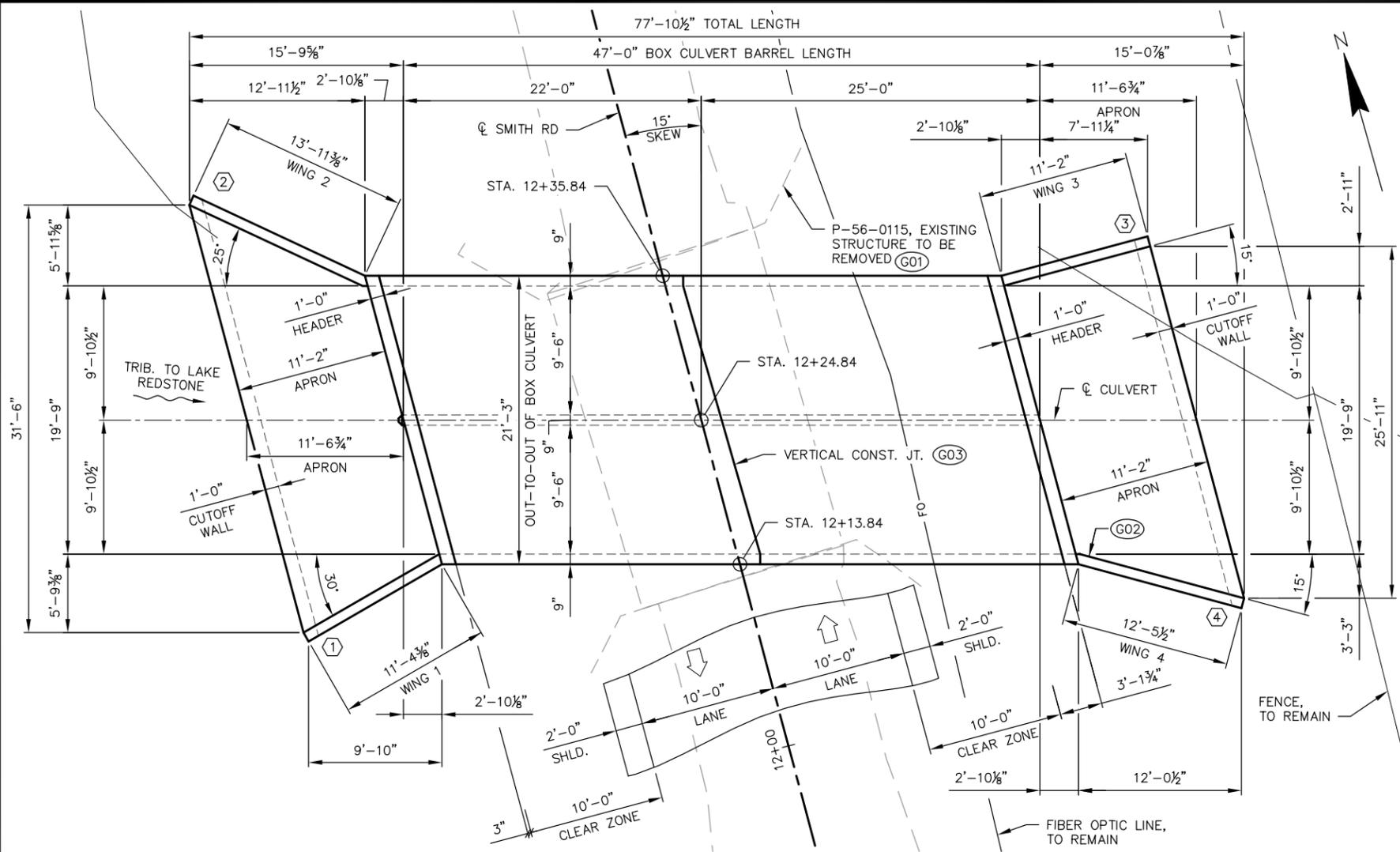


BLOCK BANDING DETAIL
(V-BLOCK OPTION)

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R Rauch*
for State Traffic Engineer

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



PLAN B-56-254
(TWIN CELL BOX CULVERT)

NOTES

- ⊕ INDICATES WING NUMBER
- * BUILD APRON AND END OF BOX LEVEL
- (G01) REMOVE EXISTING STRUCTURE P-56-115, TWO SPAN CONCRETE SLAB STRUCTURE 24'-0" TOTAL LENGTH, 15'-0" WIDTH.
- (G02) NAME PLATE REQUIRED, SEE "BOX CULVERT DETAILS" SHEET.
- (G03) 18" MIN. WIDTH RUBBERIZED MEMBRANE WATERPROOFING UP WALL & ACROSS TOP SLAB AT VERTICAL CONSTRUCTION JOINT.
- (G04) CULVERT INVERTS ARE SET APPROXIMATELY 1'-0" BELOW EXISTING STREAMBED ELEVATION.

LIST OF DRAWINGS

1. GENERAL PLAN
2. CROSS SECTION, GENERAL NOTES & QUANTITIES
3. SUBSURFACE EXPLORATION
4. TYPICAL SECTION THRU BOX CULVERT
5. BOX CULVERT PLAN VIEW
6. WING 1 & 2 DETAILS
7. WING 3 & 4 DETAILS
8. APRON PLANS
9. BOX CULVERT DETAILS
10. REINFORCEMENT

DESIGN DATA

LIVE LOAD:

DESIGN LOADING ————— HL-93
 INVENTORY RATING FACTOR ——— RF=1.18
 OPERATING RATING FACTOR ——— RF=1.52
 WISCONSIN STANDARD PERMIT
 VEHICLE RATING (WIS.-SPV): — 250 KIPS

MATERIAL PROPERTIES:

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

EARTH LOAD:

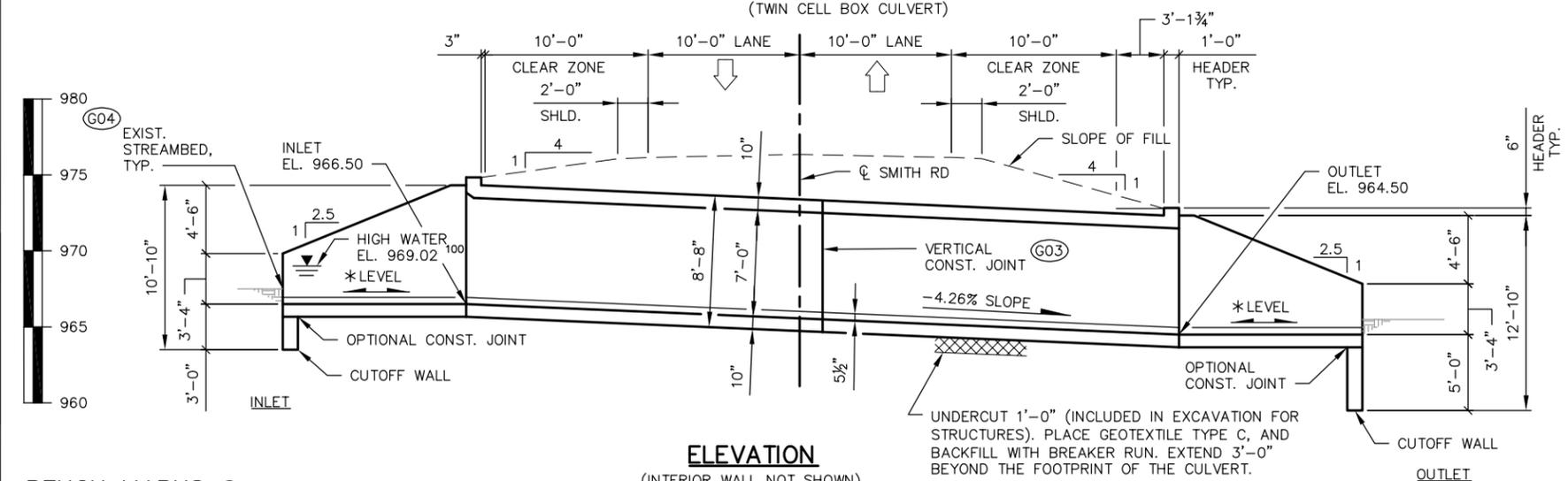
STRUCTURE IS DESIGNED FOR FILL HEIGHT RANGE OF 2'-0" TO 3'-6".

HYDRAULIC DATA:

100 YEAR DESIGN FREQUENCY:
 Q_{100} ————— 144 C.F.S.
 DRAINAGE AREA ————— 0.08 SQ. MI.
 CULVERT WATER AREA ——— 36 SQ. FT.
 CULVERT VELOCITY ——— 4.0 F.P.S.
 HIGH WATER₁₀₀ EL. ——— 969.02 FT.
 ROADWAY OVERTOPPING — N/A
 SCOUR CRITICAL CODE — 8
 Q_2 ————— 67 C.F.S.
 Q_2 ELEVATION ————— 968.64 FT.
 Q_2 VELOCITY ————— 2.8 F.P.S.

TEMPORARY STRUCTURE REQUIREMENTS:

HIGH WATER₅ EL. ——— 970.97 FT.
 Q_5 ————— 83 C.F.S.
 MINIMUM CLEAR OPENING
 AREA OF TEMP. STR. — 12 SQ. FT.



ELEVATION
(INTERIOR WALL NOT SHOWN)



BENCH MARKS

NO.	STATION/OFFSET	DESCRIPTION	ELEVATION
BM #1	13+22.62, 35.51' RT.	RAILROAD SPIKE IN POWER POLE	974.72

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

TRAFFIC DATA:

SMITH RD
 A.A.D.T. (2026) ——— 20
 A.A.D.T. (2046) ——— 25
 DESIGN SPEED ——— 30 M.P.H.

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

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

NO.	DATE	REVISION	BY
 619 EAST HOXIE STREET P.O. BOX 429 SPRING GREEN, WI 53588 PHONE (608) 588-7866 FAX (608) 588-7954			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
ACCEPTED		DATE	
 J.L.R. CHIEF STRUCTURES DESIGN ENGINEER		12/02/25 DATE	
STRUCTURE B-56-254			
SMITH RD OVER TRIBUTARY TO LAKE REDSTONE			
COUNTY		TOWN/CITY/MILEAGE	
SAUK		LA VALLE	
DESIGN SPEC. AASHTO LRFD DESIGN SPEC.			
DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
JDO	CDS	JDO	ACK
GENERAL PLAN			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.

THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES CULVERTS B-56-254" SHALL BE THE EXISTING GROUND LINE.

THE BACKFILL QUANTITIES ARE BASED ON THE PAY LIMITS SHOWN ON THE PLANS AND MAY NOT REFLECT ACTUAL PLACED QUANTITIES. "BACKFILL STRUCTURE TYPE B" REQUIRED ON THE BOX CULVERT SIDES AND BEHIND APRON WINGS FOR 3 FEET. BACKFILL PLACED BEYOND PAY LIMITS OR EXCEEDING PLAN QUANTITIES SHALL BE INCLUDED IN EXCAVATION FOR STRUCTURES.

UNDER CUT 1'-0". EXCAVATION FOR UNDER CUT TO BE INCLUDED IN EXCAVATION FOR STRUCTURES. PLACE "GEOTEXTILE TYPE C" AND BACKFILL WITH "BREAKER RUN".

IN LIEU OF USING BREAKER RUN FOR THE BOX CONSTRUCTION PLATFORM, THE CONTRACTOR MAY ELECT TO SUBSTITUTE COARSE AGGREGATE AASHTO NO. 67 OR AASHTO NO. 4 IN ACCORDANCE WITH STANDARD SPEC 310 AND 604, RESPECTIVELY, SELECT CRUSHED MATERIAL OR OTHER GRANULAR MATERIAL AS APPROVED BY THE ENGINEER. THE CONTRACTOR IS RESPONSIBLE FOR BASE STABILITY WITH ANY SUBSTITUTED MATERIAL. THE REGION GEOTECHNICAL ENGINEER MAY BE CONTACTED TO DETERMINE IF "OTHER GRANULAR MATERIAL" IS ACCEPTABLE.

THE CONCRETE IN THE CUTOFF WALL MAY BE PLACED UNERWATER IF THE EXCAVATION CANNOT BE DEWATERED.

THE ALTERNATE CUTOFF WALL MAY BE USED IN LIEU OF THE CAST-IN-PLACE CONCRETE CUTOFF WALLS. PAYMENT SHALL BE BASED ON CONCRETE CUTOFF WALLS.

THE CONTRACTOR MAY FURNISH PRECAST BOX CULVERT BARREL SECTIONS, WINGWALLS, HEADERS, AND CUTOFF WALLS IN LIEU OF THE CAST-IN-PLACE BOX CULVERT WITH THE ACCEPTANCE OF THE SHOP DRAWINGS BY THE STRUCTURES DESIGN SECTION. THE PRECAST CONCRETE BOX CULVERT SHALL CONFORM TO PRECAST DETAILS IN CHAPTER 36 STANDARDS OF THE CURRENT WISCONSIN DOT BRIDGE MANUAL AND SPECIAL PROVISIONS. PAYMENT FOR THE PRECAST CULVERT SYSTEM SHALL BE BASED ON THE QUANTITIES AND PRICES BID FOR THE ITEMS LISTED IN THE "TOTAL ESTIMATED QUANTITIES" FOR THE CAST-IN-PLACE CULVERT SYSTEM. ADDITIONAL ITEMS REQUIRED FOR THE PRECAST SYSTEM SHALL BE INCIDENTAL TO "CONCRETE MASONRY CULVERTS."

THE CONTRACTOR SHALL FOLLOW THESE NOTES WHEN PRECAST ELEMENTS ARE USED IN LIEU OF THE CAST-IN-PLACE ELEMENTS:

THE FOLLOWING SPECIAL PREVISIONS SHALL BE USED:

- PRECAST CONCRETE WINGWALLS B-56-254 (SPV.0060)
- PRECAST CONCRETE BOX CULVERT, 9½ FT X 7 FT (SPV.0090)

THE FOLLOWING STANDARDS SHALL BE USED:

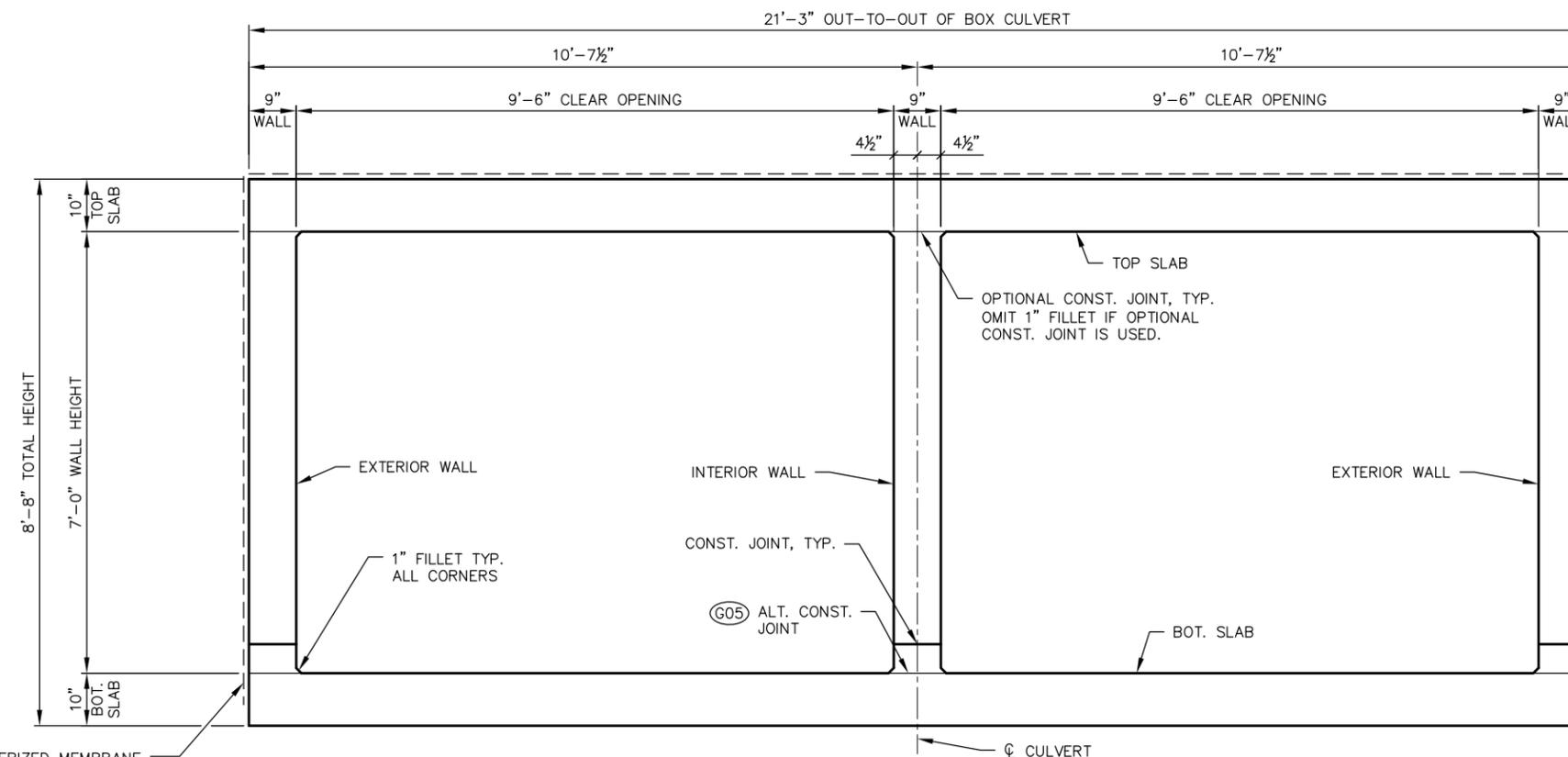
- PRECAST CONCRETE CULVERT DETAILS (STANDARD 36.05)
- PRECAST WINGS, HEADERS, AND CUTOFF WALLS FOR PRECAST CONCRETE BOX CULVERT (STANDARD 36.06)

THE MOST CURRENT STANDARDS AND SPECIAL PROVISIONS CAN BE OBTAINED ON THE BUREAU OF STRUCTURES' WEBSITE:

<https://wisconsin.gov/Pages/doing-bus/eng-consultants/enslt-rsrcs/strct/design-policy-memos.aspx>

JOINT TIES ARE REQUIRED BETWEEN THE LAST TWO BARREL SECTIONS.

PRECAST ELEMENTS SHALL BE PLACED ON A BEDDING OF "BACKFILL STRUCTURE TYPE B" OF 6" MINIMUM DEPTH AND AS APPROVED BY THE ENGINEER.

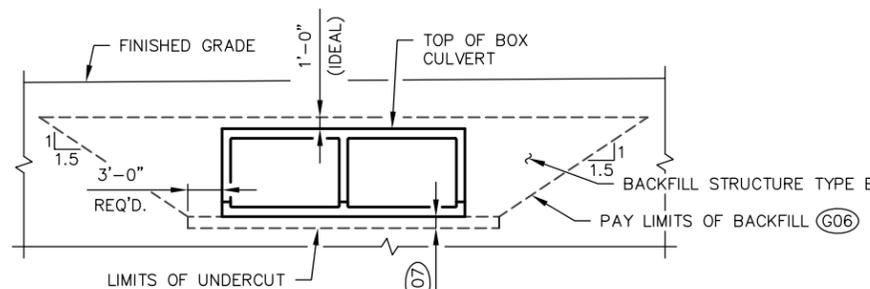


TYPICAL SECTION THRU BOX
(NORMAL TO TRIBUTARY TO LAKE REDSTONE, LOOKING EAST)

18" MIN. RUBBERIZED MEMBRANE WATERPROOFING UP WALLS & ACROSS TOP OF SLAB AT VERTICAL CONST. JOINTS. EXTEND 6" MIN. BELOW TOP OF BOTTOM SLABS.

NOTES

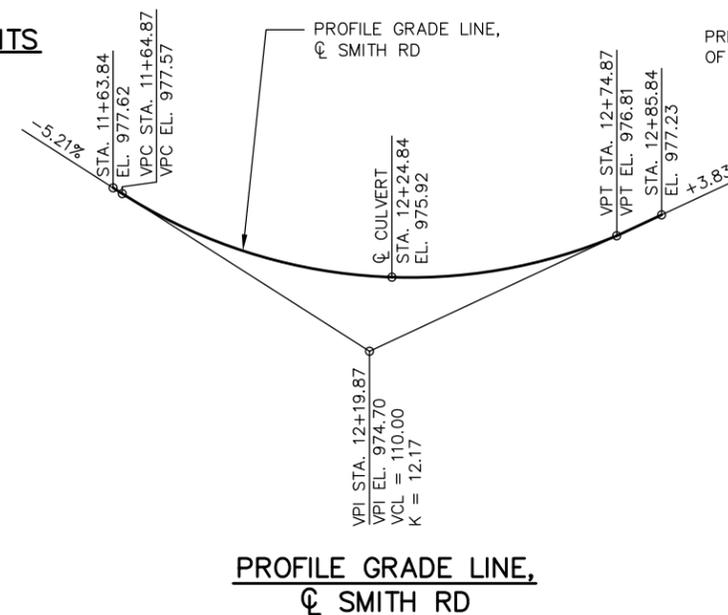
- (G05) OMIT 1" FILLET IF ALTERNATE CONSTRUCTION JOINT IS USED.
- (G06) BACKFILL PAY LIMITS. BACKFILL BEYOND BACKFILL PAY LIMITS SHALL BE INCLUDED WITH EXCAVATION FOR STRUCTURES. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.
- (G07) UNDERCUT 1'-0" (INCLUDED IN EXCAVATION FOR STRUCTURES). PLACE GEOTEXTILE TYPE C, AND BACKFILL WITH BREAKER RUN. EXTEND 3'-0" BEYOND THE FOOTPRINT OF THE CULVERT.



BOX CULVERT BACKFILL LIMITS

TOTAL ESTIMATED QUANTITIES

ITEM NO.	BID ITEMS	UNIT	TOTALS
203.0250	REMOVING STRUCTURE OVER WATERWAY REMOVE DEBRIS P-56-115	EACH	1
206.2001	EXCAVATION FOR STRUCTURES CULVERTS B-56-254	EACH	1
210.2500	BACKFILL STRUCTURE TYPE B	TON	710
311.0110	BREAKER RUN	TON	170
504.0100	CONCRETE MASONRY CULVERTS	CY	123
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	16,920
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	1,380
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	21
526.0101	TEMPORARY STRUCTURE STA. 21+90 "T"	EACH	1
645.0105	GEOTEXTILE TYPE C	SY	278
(NON-BID ITEM)	FILLER	SIZE	¾"



PROFILE GRADE LINE,
☉ SMITH RD

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-56-254			
DRAWN BY: CDS		PLANS OK'D: ACK	
CROSS SECTION, GENERAL NOTES & QUANTITIES			SHEET 2 OF 10

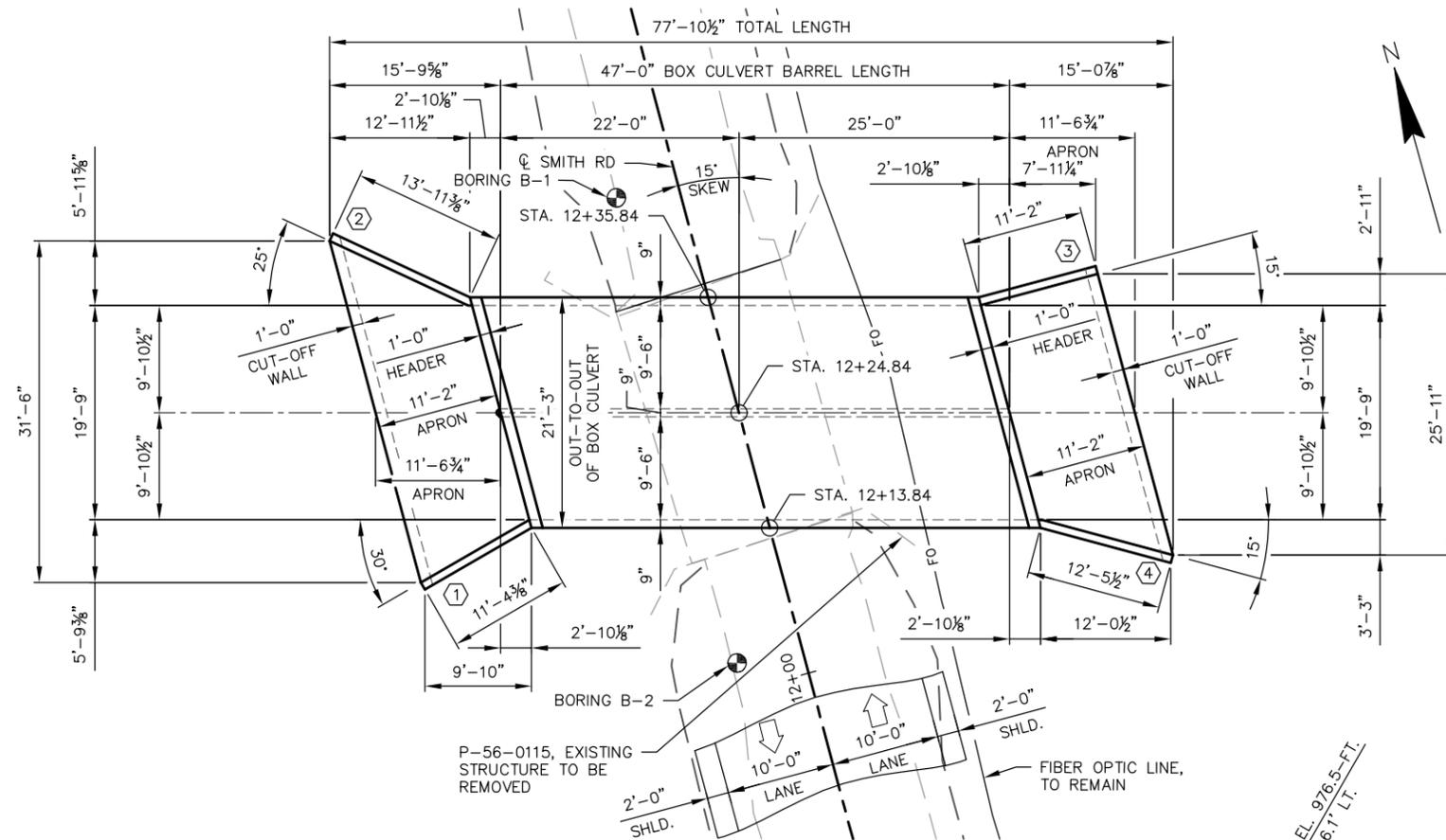
B-56-254 BORINGS

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
BORING B-1	5/1/2024	287087.3	552611.9
BORING B-2	5/1/2024	287043.0	552611.2

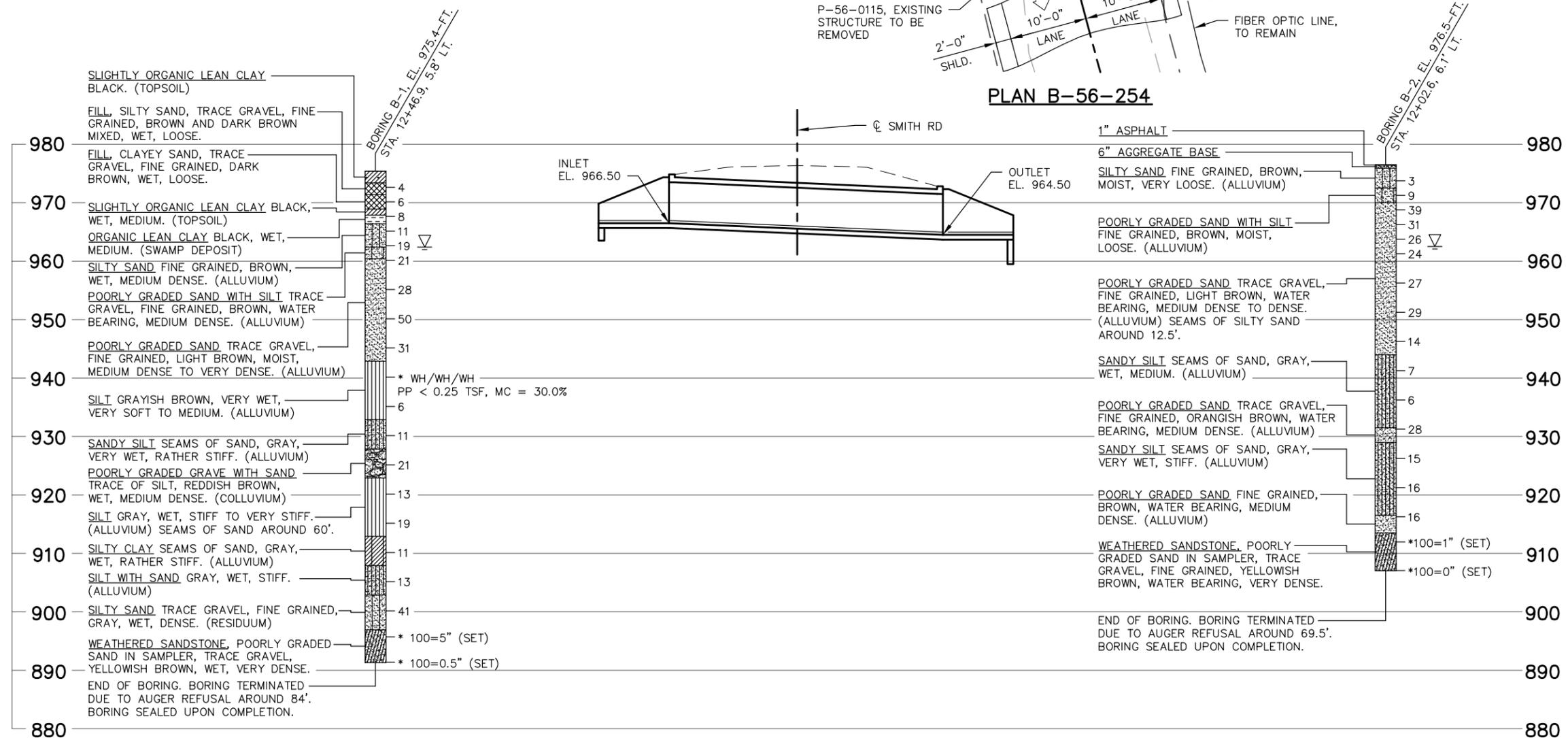
BORINGS COMPLETED BY: CHOSEN VALLEY TESTING
 SUBSURFACE INVESTIGATION REPORT: CHOSEN VALLEY TESTING
 ALL COORDINATES REFERENCED TO MISCRS, SAUK COUNTY

NOTE

⊙ INDICATES WING NUMBER



PLAN B-56-254



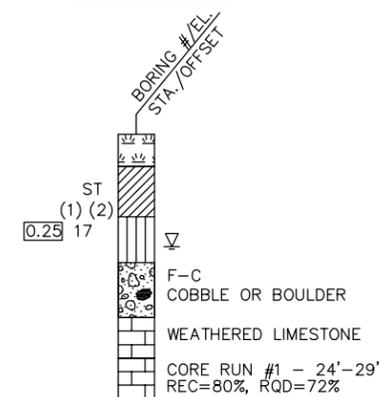
STATE PROJECT NUMBER

5786-00-74

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

- ▽ AT TIME OF DRILLING
- ▼ END OF DRILLING
- ▼ AFTER DRILLING

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

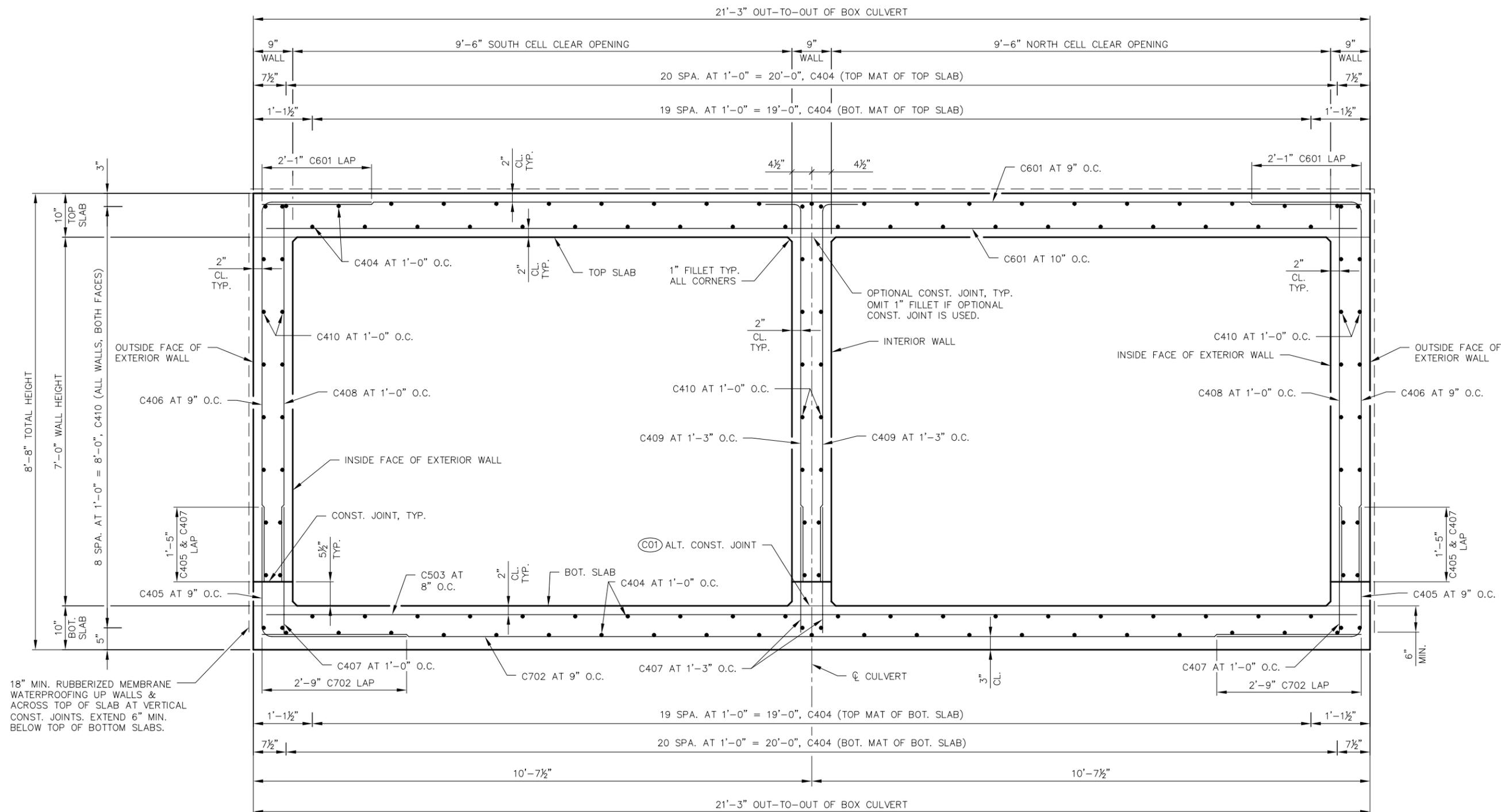
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-56-254

DRAWN BY: JDO PLANS OK'D: ACK

SUBSURFACE EXPLORATION

SHEET 3 OF 10



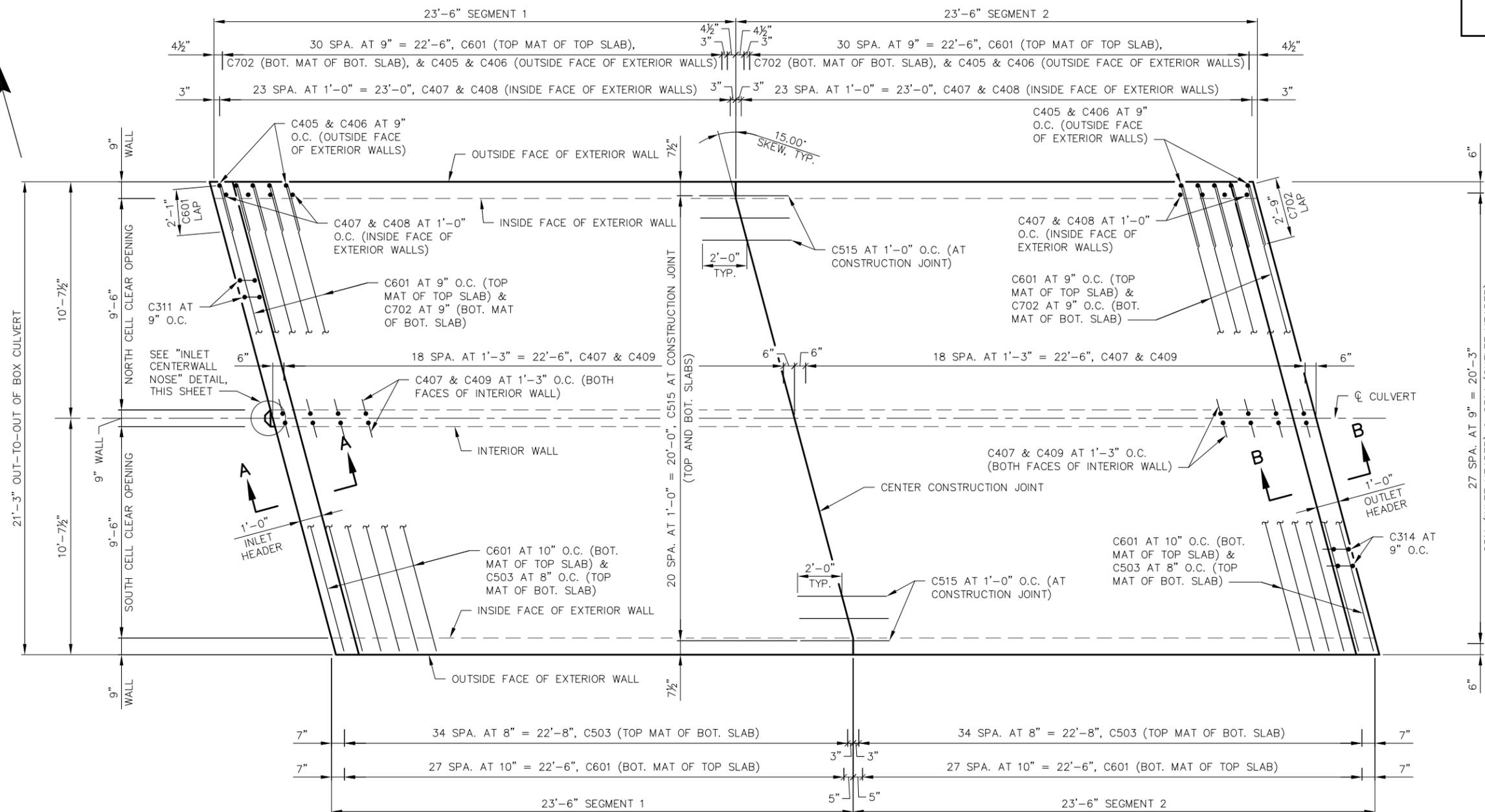
18" MIN. RUBBERIZED MEMBRANE WATERPROOFING UP WALLS & ACROSS TOP OF SLAB AT VERTICAL CONST. JOINTS. EXTEND 6" MIN. BELOW TOP OF BOTTOM SLABS.

NOTE

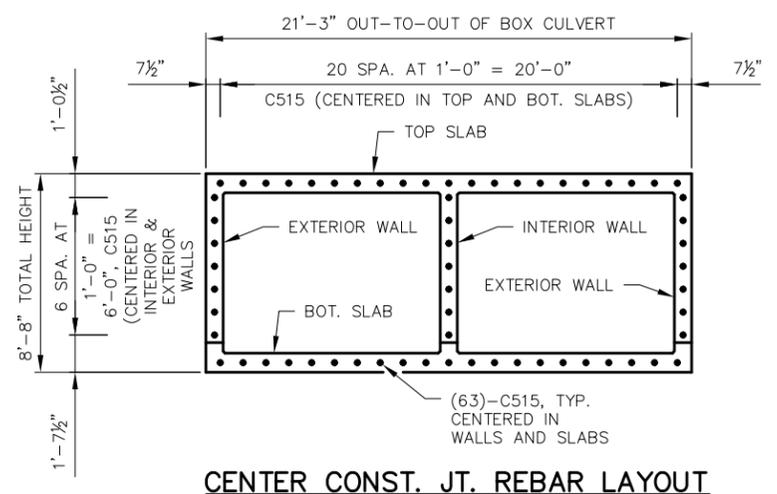
(C01) OMIT 1" FILLET IF ALTERNATE CONSTRUCTION JOINT IS USED.

TYPICAL SECTION THRU BOX
(NORMAL TO TRIBUTARY TO LAKE REDSTONE, LOOKING WEST)

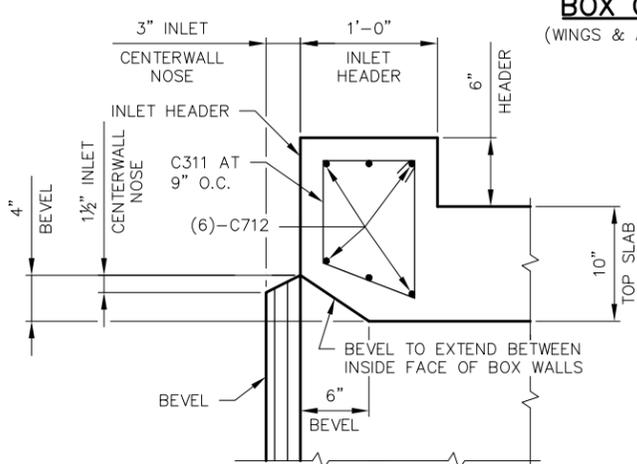
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-56-254			
DRAWN BY JDO		PLANS OK'D ACK	
TYPICAL SECTION THRU BOX CULVERT			SHEET 4 OF 10



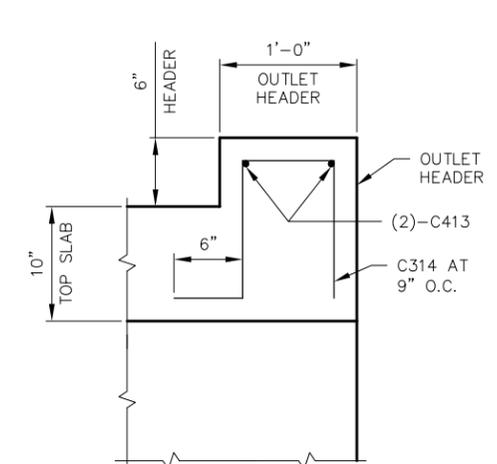
BOX CULVERT PLAN VIEW
(WINGS & APRONS NOT SHOWN FOR CLARITY)



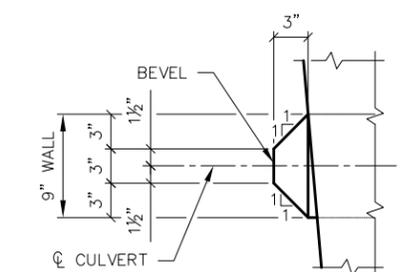
CENTER CONST. JT. REBAR LAYOUT



SECTION A-A
(INLET HEADER)

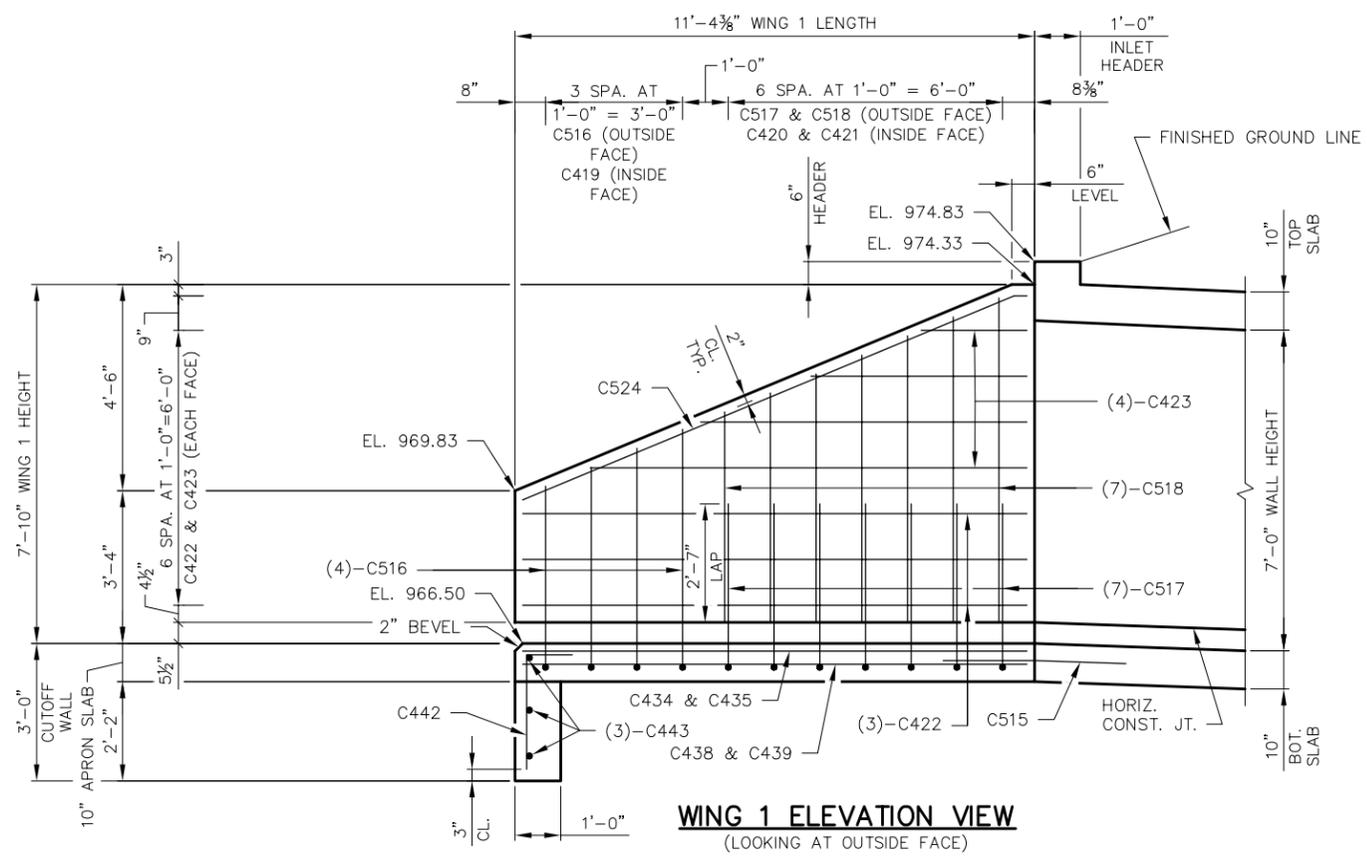


SECTION B-B
(OUTLET HEADER)

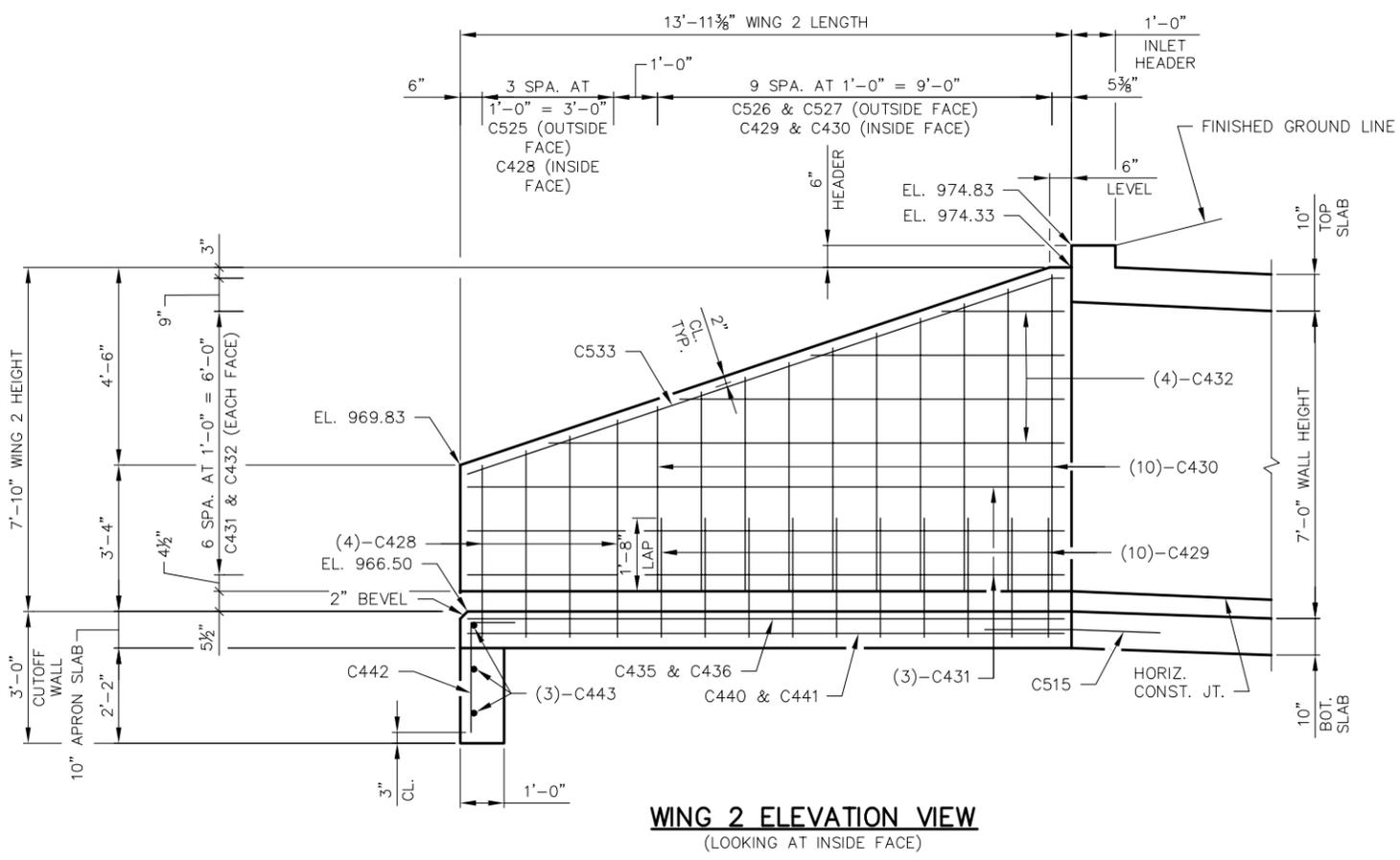


INLET INTERIOR WALL NOSE

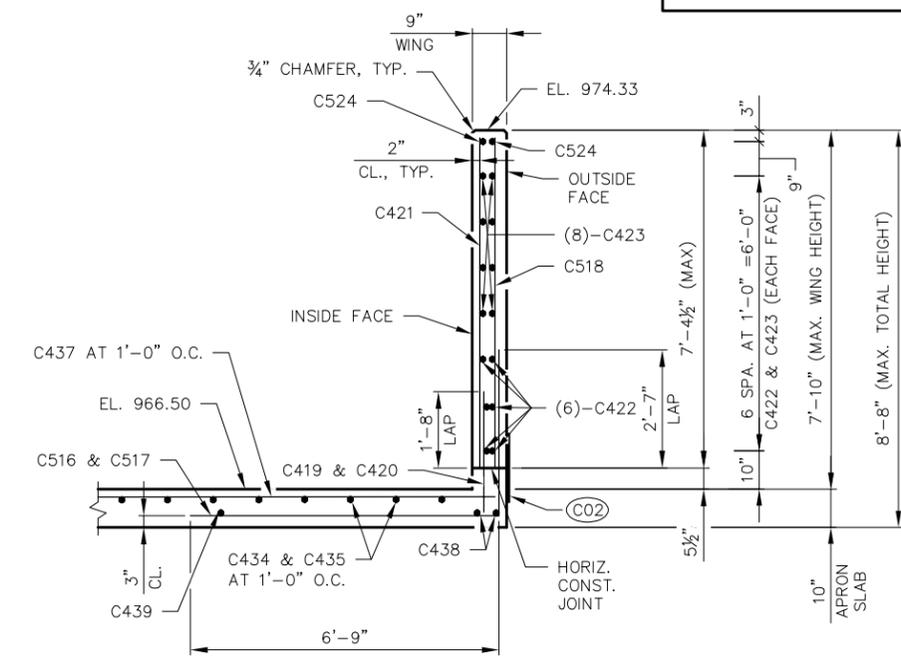
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-56-254			
DRAWN BY: JDO		PLANS OK'D: ACK	
BOX CULVERT PLAN VIEW			SHEET 5 OF 10



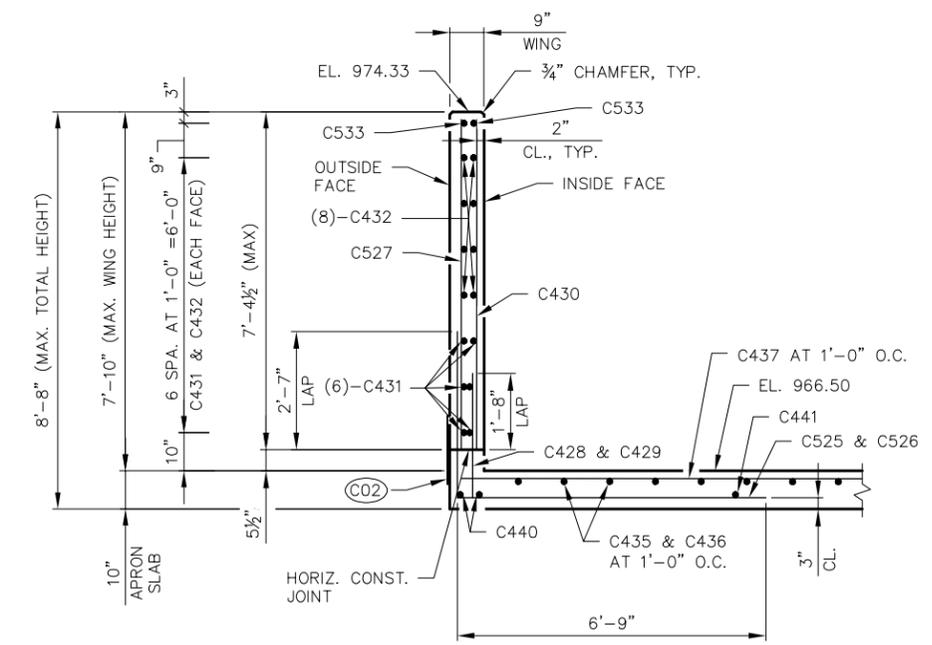
WING 1 ELEVATION VIEW
(LOOKING AT OUTSIDE FACE)



WING 2 ELEVATION VIEW
(LOOKING AT INSIDE FACE)



TYPICAL SECTION THRU WING 1
(LOOKING EAST)



TYPICAL SECTION THRU WING 2
(LOOKING EAST)

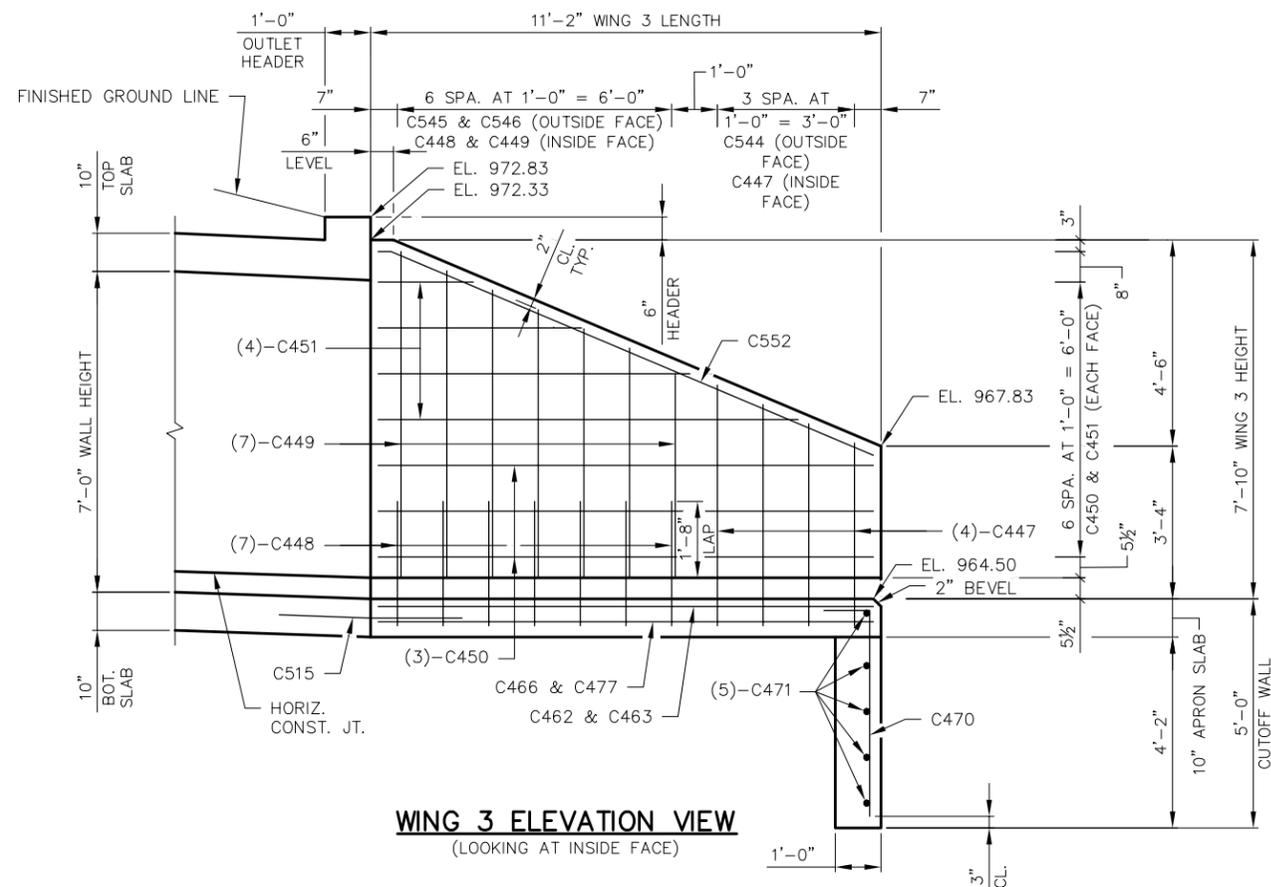
NOTE
(C02) 18" MIN. WIDTH RUBBERIZED MEMBRANE WATERPROOFING ALONG HORIZ. CONST. JT. IN WING.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-56-254			
DRAWN BY JDO		PLANS OK'D ACK	
WING 1 & WING 2 DETAILS			SHEET 6 OF 10

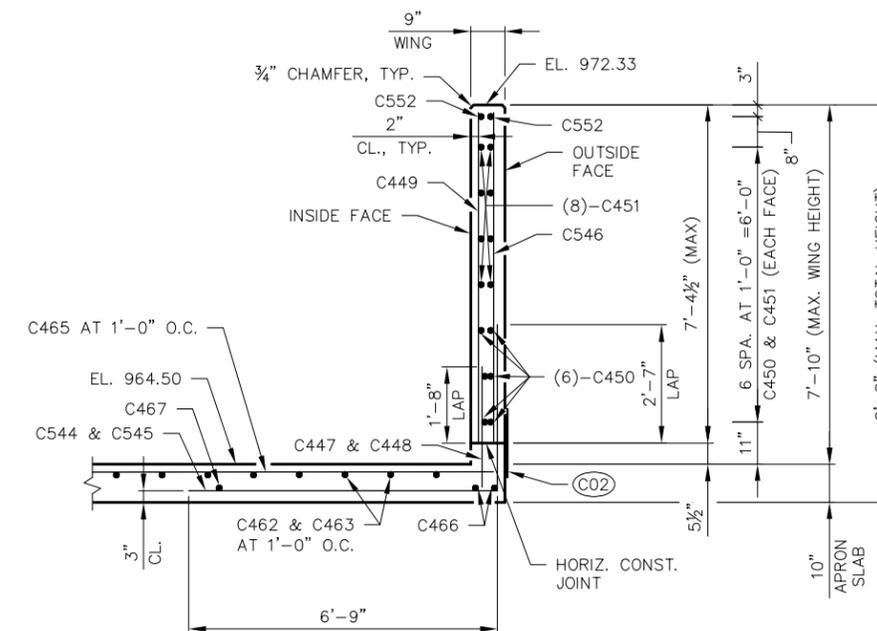
8

8

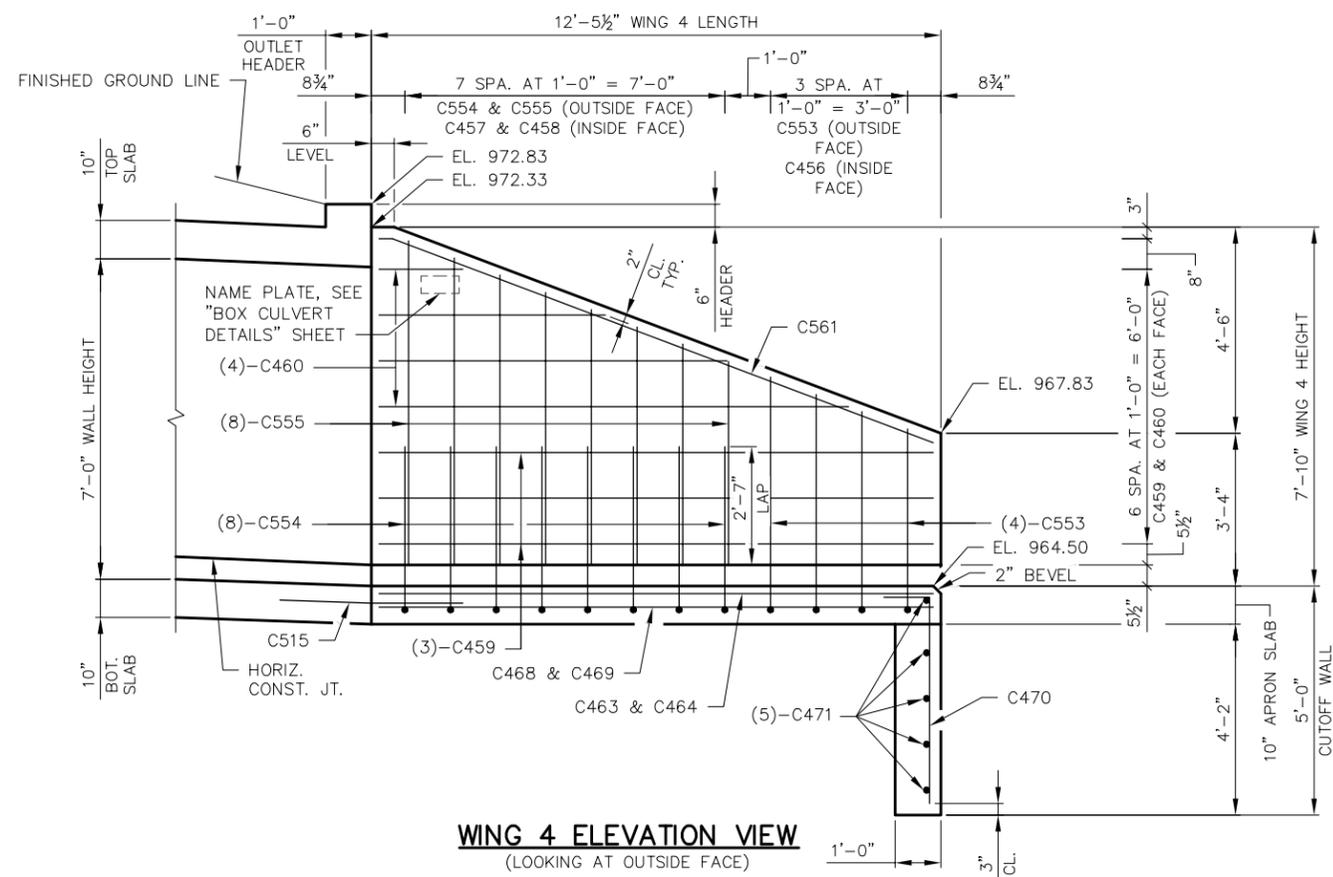
FILE: B560254_06_07_wings.dwg
PLOT SCALE:



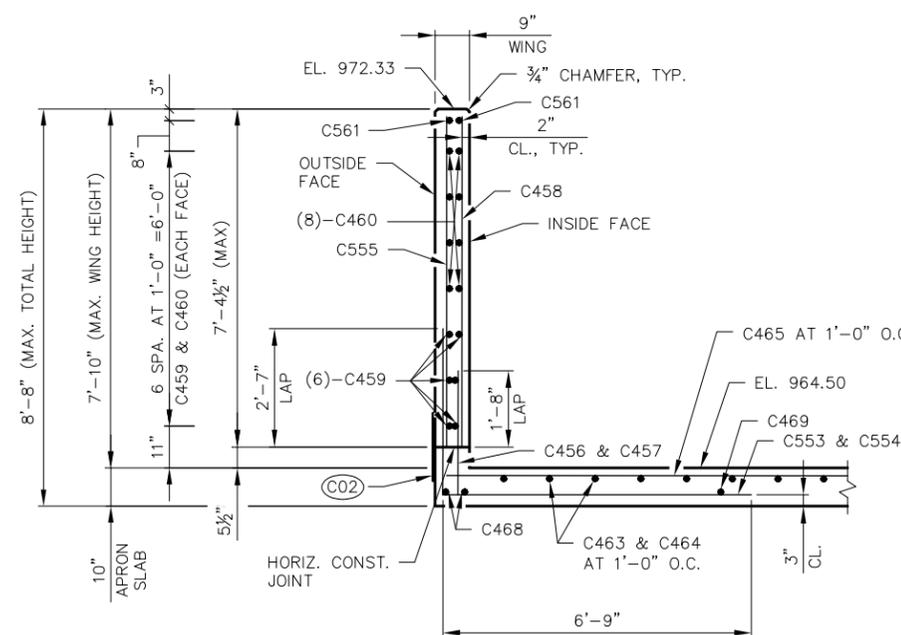
WING 3 ELEVATION VIEW
(LOOKING AT INSIDE FACE)



TYPICAL SECTION THRU WING 3
(LOOKING WEST)



WING 4 ELEVATION VIEW
(LOOKING AT OUTSIDE FACE)



TYPICAL SECTION THRU WING 4
(LOOKING WEST)

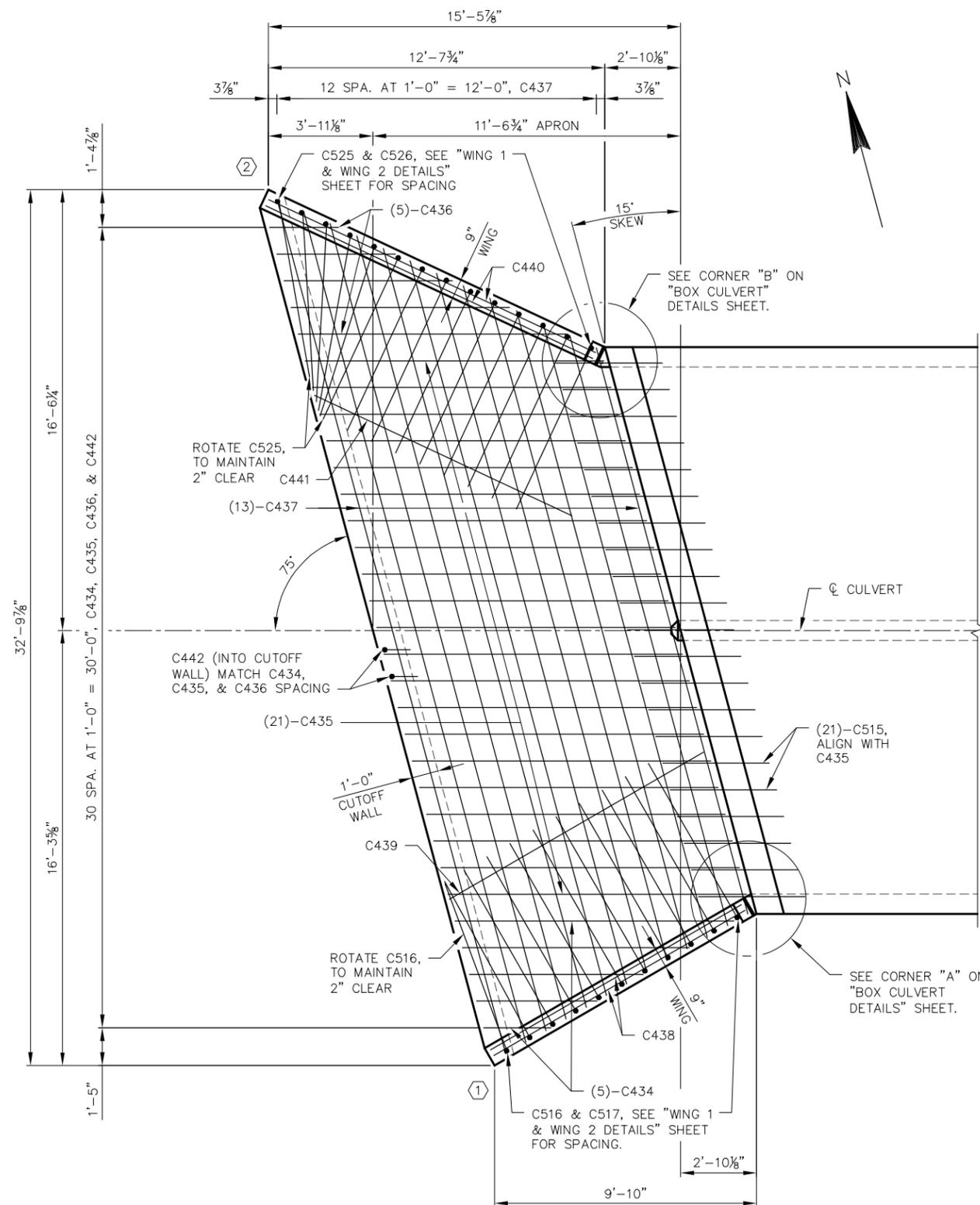
NOTE

(C02) 18" MIN. WIDTH RUBBERIZED MEMBRANE WATERPROOFING ALONG HORIZ. CONST. JT. IN WING.

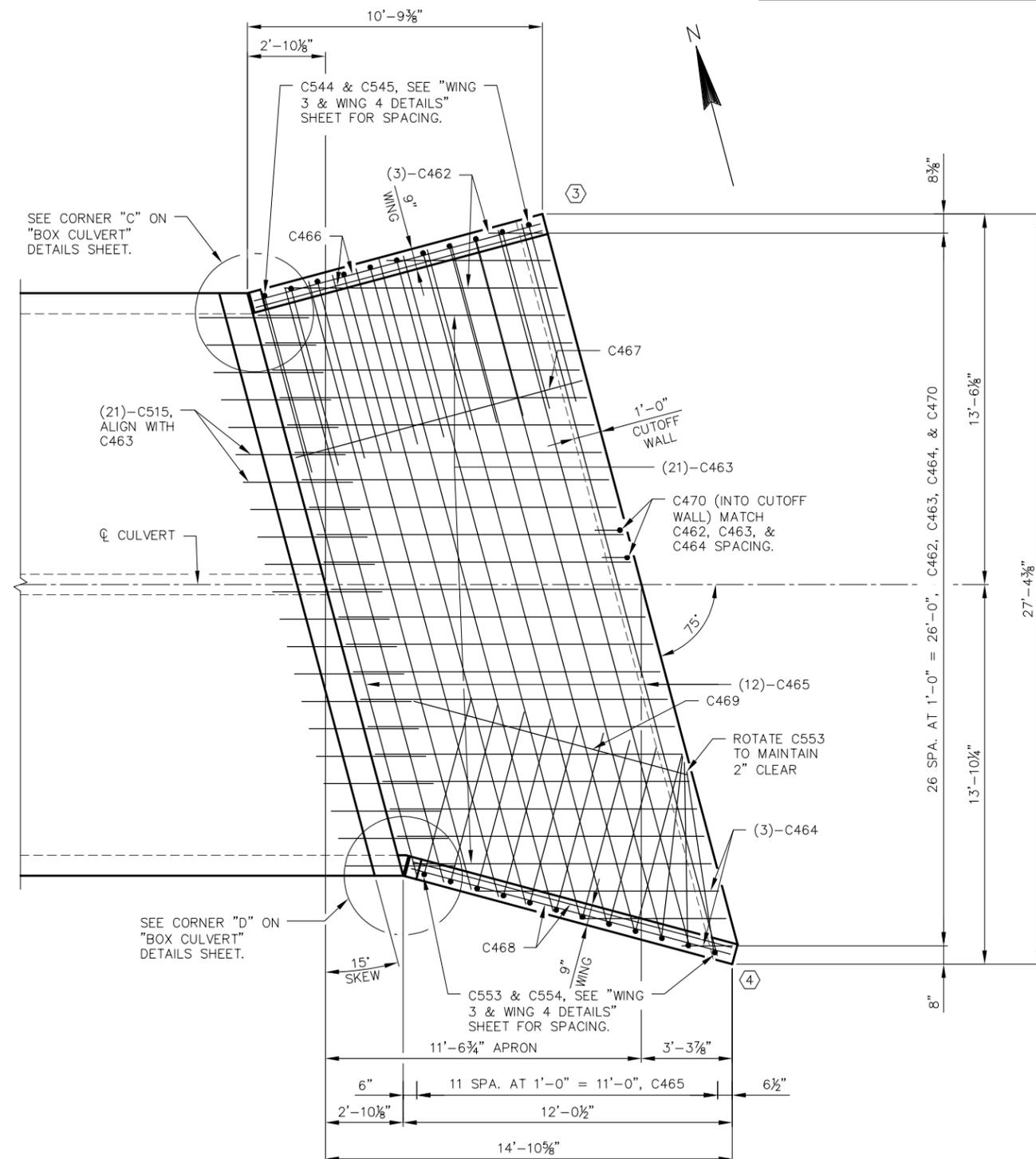
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-56-254			
DRAWN BY JDO		PLANS OK'D ACK	
WING 3 & WING 4 DETAILS			SHEET 7 OF 10

8

8



WEST APRON
(INLET)



EAST APRON
(OUTLET)

NOTE

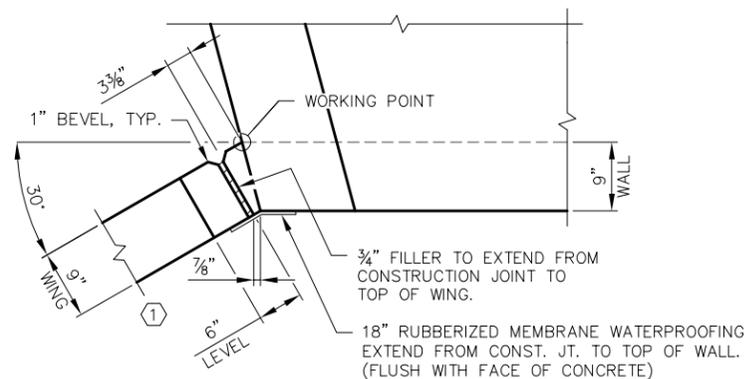
⬡ INDICATES WING NUMBER

APRON PLAN VIEWS

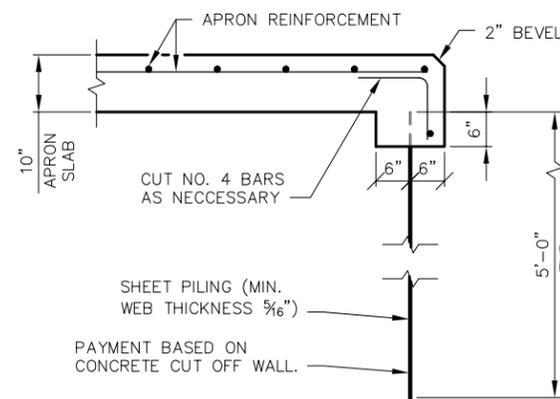
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-56-254			
DRAWN BY JDO		PLANS OK'D ACK	
APRON PLANS			SHEET 8 OF 10

8

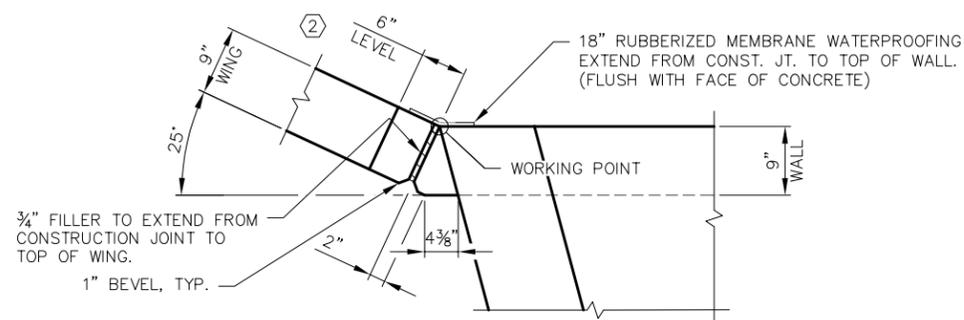
8



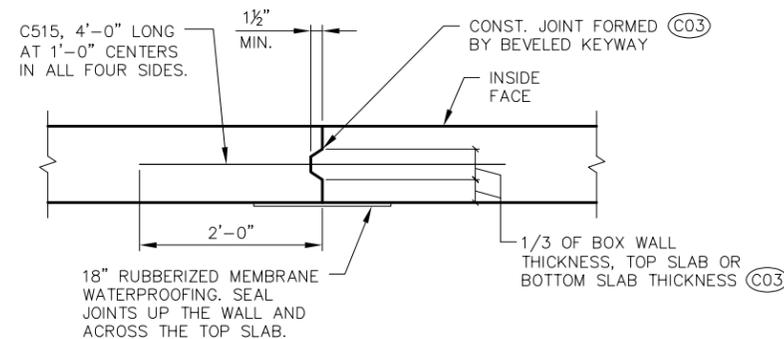
CORNER "A"
(WING 1)



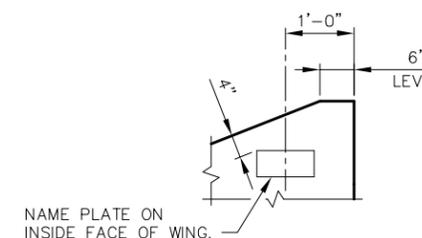
ALTERNATE CUTOFF WALL



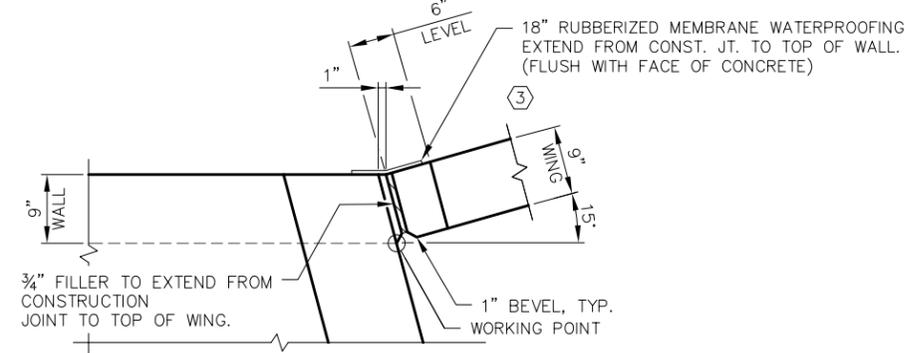
CORNER "B"
(WING 2)



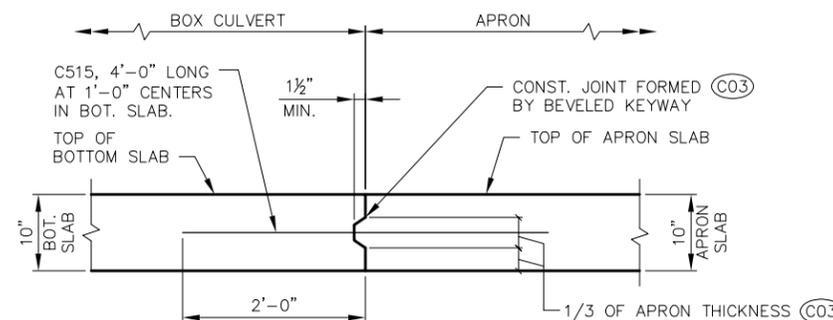
VERTICAL CONSTRUCTION JOINT



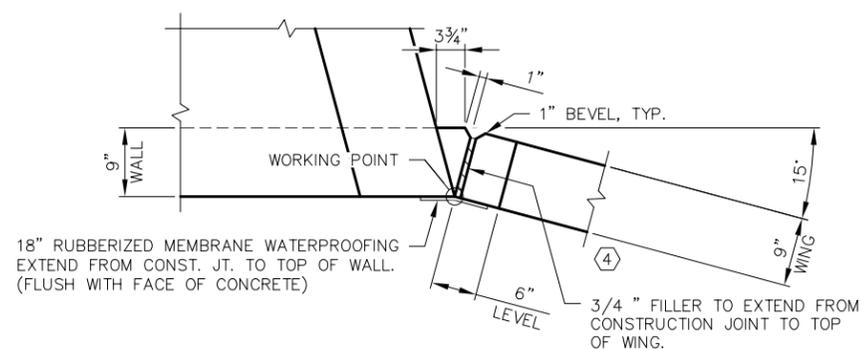
NAME PLATE LAYOUT
(LOCATED ON INSIDE FACE OF WING 4 ONLY)



CORNER "C"
(WING 3)



APRON CONNECTION DETAIL



CORNER "D"
(WING 4)

NOTE

(C03) IN LIEU OF CONSTRUCTION JOINTS IN THE BOTTOM SLAB, THE CONTRACTOR MAY USE 2" DEEP SAW CUTS WITHIN 12 HOURS AFTER POURING. #5 BARS (4'-0" LONG) AT 1'-0" CENTERS REQUIRED (C515).

⬡ INDICATES WING NUMBER

8

8

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-56-254			
DRAWN BY JDO		PLANS OK'D ACK	
BOX CULVERT DETAILS			SHEET 9 OF 10

**BILL OF BARS
BOX CULVERT**

COATED = 1,380 LBS.
UNCOATED = 16,920 LBS.

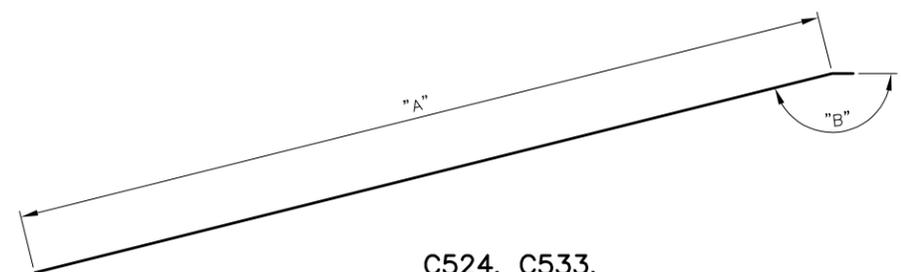
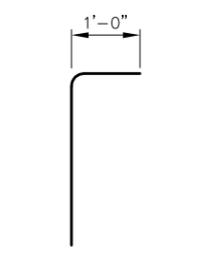
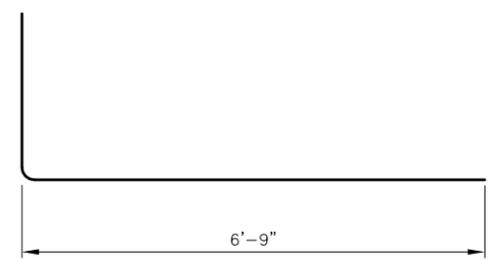
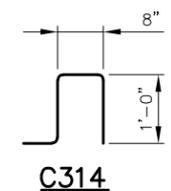
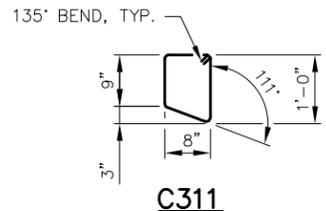
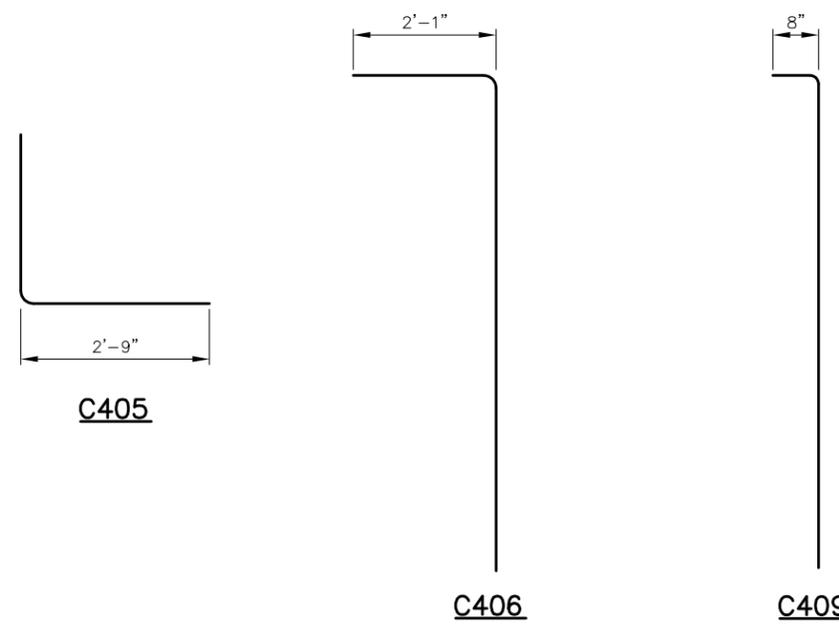
MARK	NUMBER		LENGTH	BENT	BAR SERIES	LOCATION
	COATED	UNCOATED				
C601		120	21'-7"			CULVERT TOP SLAB (TOP & BOT.) TRANS.
C702		64	21'-7"			CULVERT BOT. SLAB (BOT.) TRANS.
C503		70	21'-7"			CULVERT BOT. SLAB (TOP) TRANS.
C404		164	23'-1"			CULVERT TOP & BOT. SLAB - BOTH FACES LONGIT.
C405		128	5'-2"	X		CULVERT BOT. CORNER - OUTSIDE FACES VERT.
C406		128	9'-3"	X		CULVERT TOP CORNER - OUTSIDE FACES VERT.
C407		172	2'-6"			CULVERT WALLS VERT.
C408		96	7'-1"			CULVERT EXT. WALLS - INSIDE FACE VERT.
C409		76	7'-9"	X		CULVERT INT. WALL - BOTH FACES VERT.
C410		108	23'-1"			CULVERT WALLS - BOTH FACES LONGIT.
C311		28	3'-6"	X		CULVERT INLET HEADER STIRRUP VERT.
C712		6	23'-1"			CULVERT INLET HEADER TRANS.
C413		2	23'-1"			CULVERT OUTLET HEADER TRANS.
C314		28	3'-2"	X		CULVERT OUTLET HEADER STIRRUP VERT.
C515		105	4'-0"			CULVERT - CONST. JOINT & APRON JOINT HORIZ.
C516	4		11'-2"	X	▲	WING 1 - OUTSIDE FACE VERT.
C517	7		10'-4"	X		WING 1 - OUTSIDE FACE VERT.
C518	7		5'-9"		▲	WING 1 - OUTSIDE FACE VERT.
C419	4		4'-7"		▲	WING 1 - INSIDE FACE VERT.
C420	7		2'-9"			WING 1 - INSIDE FACE VERT.
C421	7		5'-9"		▲	WING 1 - INSIDE FACE VERT.
C422	6		11'-0"			WING 1 - EACH FACE HORIZ.
C423	8		5'-10"		▲	WING 1 - EACH FACE HORIZ.
C524	2		11'-10"	X		WING 1 - EACH FACE TOP HORIZ.
C525	4		10'-11"	X	▲	WING 2 - OUTSIDE FACE VERT.
C526	10		10'-3"	X		WING 2 - OUTSIDE FACE VERT.
C527	10		5'-8"		▲	WING 2 - OUTSIDE FACE VERT.
C428	4		4'-4"		▲	WING 2 - INSIDE FACE VERT.
C429	10		2'-9"			WING 2 - INSIDE FACE VERT.
C430	10		5'-8"		▲	WING 2 - INSIDE FACE VERT.
C431	6		13'-7"			WING 2 - EACH FACE HORIZ.
C432	8		7'-3"		▲	WING 2 - EACH FACE HORIZ.
C533	2		14'-3"	X		WING 2 - EACH FACE TOP HORIZ.
C434		5	6'-6"		▲	WEST APRON - NEAR WING 1 LONGIT.
C435		21	11'-2"			WEST APRON LONGIT.
C436		5	6'-4"		▲	WEST APRON - NEAR WING 2 LONGIT.
C437		13	27'-6"			WEST APRON TRANS.
C438		2	10'-10"			WEST APRON - WING 1 HORIZ.

C439		1	11'-0"			WEST APRON - WING 1 HORIZ.
C440		2	13'-6"			WEST APRON - WING 2 HORIZ.
C441		1	10'-8"			WEST APRON - WING 2 HORIZ.
C442		31	3'-6"	X		WEST APRON - INTO CUT OFF WALL VERT.
C443		3	33'-2"			WEST APRON - CUT OFF WALL TRANS.
C544	4		11'-2"	X	▲	WING 3 - OUTSIDE FACE VERT.
C545	7		10'-4"	X		WING 3 - OUTSIDE FACE VERT.
C546	7		5'-9"		▲	WING 3 - OUTSIDE FACE VERT.
C447	4		4'-7"		▲	WING 3 - INSIDE FACE VERT.
C448	7		2'-9"			WING 3 - INSIDE FACE VERT.
C449	7		5'-9"		▲	WING 3 - INSIDE FACE VERT.
C450	6		10'-10"			WING 3 - EACH FACE HORIZ.
C451	8		5'-7"		▲	WING 3 - EACH FACE HORIZ.
C552	2		11'-8"	X		WING 3 - EACH FACE TOP HORIZ.
C553	4		11'-1"	X	▲	WING 4 - OUTSIDE FACE VERT.
C554	8		10'-3"	X		WING 4 - OUTSIDE FACE VERT.
C555	8		5'-8"		▲	WING 4 - OUTSIDE FACE VERT.
C456	4		4'-6"		▲	WING 4 - INSIDE FACE VERT.
C457	8		2'-9"			WING 4 - INSIDE FACE VERT.
C458	8		5'-8"		▲	WING 4 - INSIDE FACE VERT.
C459	6		12'-1"			WING 4 - EACH FACE HORIZ.
C460	8		6'-0"		▲	WING 4 - EACH FACE HORIZ.
C561	2		12'-10"	X		WING 4 - EACH FACE TOP HORIZ.
C462		3	5'-11"		▲	EAST APRON - NEAR WING 3 LONGIT.
C463		21	11'-2"			EAST APRON LONGIT.
C464		3	5'-3"		▲	EAST APRON - NEAR WING 4 LONGIT.
C465		12	24'-9"			EAST APRON TRANS.
C466		2	10'-10"			EAST APRON - WING 3 HORIZ.
C467		1	10'-10"			EAST APRON - WING 3 HORIZ.
C468		2	12'-0"			EAST APRON - WING 4 HORIZ.
C469		1	10'-4"			EAST APRON - WING 4 HORIZ.
C470		27	5'-6"	X		EAST APRON - INTO CUT OFF WALL VERT.
C471		5	27'-7"			EAST APRON - CUT OFF WALL TRANS.

THE FIRST DIGIT OF A BAR MARK SIGNIFIES THE BAR SIZE.

ALL BAR BEND DIMENSIONS ARE OUT TO OUT OF BAR.

▲ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE "BAR SERIES TABLE" FOR ACTUAL LENGTHS.



BAR BEND DIMENSIONS

MARK	"A"	"B"
C524	11'-7"	157'
C533	14'-0"	161'
C552	11'-5"	157'
C561	12'-7"	159'

BAR SERIES TABLE

MARK	NO. REQ'D	LENGTH
C516	1 SERIES OF 4	10'-7" TO 11'-10"
C518	1 SERIES OF 7	4'-7" TO 7'-0"
C419	1 SERIES OF 4	4'-0" TO 5'-3"
C421	1 SERIES OF 7	4'-7" TO 7'-0"
C423	2 SERIES OF 4	2'-3" TO 9'-6"
C525	1 SERIES OF 4	10'-5" TO 11'-6"
C527	1 SERIES OF 10	4'-2" TO 7'-2"
C428	1 SERIES OF 4	3'-10" TO 4'-11"
C430	1 SERIES OF 10	4'-2" TO 7'-2"
C432	2 SERIES OF 4	2'-9" TO 11'-9"
C434	1 SERIES OF 5	2'-6" TO 10'-6"
C436	1 SERIES OF 5	2'-7" TO 10'-1"
C437	1 SERIES OF 13	21'-11" TO 33'-2"
C544	1 SERIES OF 4	10'-6" TO 11'-10"
C546	1 SERIES OF 7	4'-5" TO 7'-1"
C447	1 SERIES OF 4	3'-11" TO 5'-3"
C449	1 SERIES OF 7	4'-5" TO 7'-1"
C451	2 SERIES OF 4	2'-0" TO 9'-2"
C553	1 SERIES OF 4	10'-7" TO 11'-8"
C555	1 SERIES OF 8	4'-5" TO 7'-0"
C456	1 SERIES OF 4	4'-0" TO 5'-1"
C458	1 SERIES OF 8	4'-5" TO 7'-0"
C460	2 SERIES OF 4	1'-10" TO 10'-3"
C462	1 SERIES OF 3	1'-11" TO 9'-11"
C464	1 SERIES OF 3	1'-10" TO 8'-9"
C465	1 SERIES OF 12	21'-11" TO 27'-7"

BUNDLE AND TAG EACH SERIES SEPARATELY.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-56-254			
DRAWN BY: JDO		PLANS OK'D: ACK	
REINFORCEMENT			SHEET 10 OF 10

SMITH ROAD

STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
		CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT NOTE 1	SALVAGED/UNUSABLE PAVEMENT MATERIAL NOTE 2	FILL NOTE 3	CUT 1.00 NOTE 1	EXPANDED FILL 1.25	MASS ORDINATE NOTE 4
11+63.84	0.00	18.76	1.50	0.00	0	0	0	0	0	0
11+75.00	11.16	28.43	1.50	41.27	10	1	9	10	11	-2
12+00.00	25.00	22.50	1.50	129.48	24	1	79	34	110	-78
12+25.00	25.00	0.00	0.00	265.29	10	1	183	44	339	-298
12+50.00	25.00	37.57	1.50	49.74	17	1	146	61	521	-464
12+75.00	25.00	36.15	1.50	38.51	34	1	41	95	573	-483
12+85.84	10.84	15.01	1.50	0.00	10	1	8	105	583	-484
SMITH ROAD TOTALS					105	6	466			

TEMPORARY BYPASS

STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
		CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT NOTE 1	SALVAGED/UNUSABLE PAVEMENT MATERIAL NOTE 2	FILL NOTE 3	CUT 1.00 NOTE 1	EXPANDED FILL 1.25	MASS ORDINATE NOTE 4
20+10.00	0.00	0.00	0.00	0.00	0	0	0	0	0	0
20+50.00	40.00	0.00	0.00	23.30	0	0	17	0	21	-21
21+00.00	50.00	20.57	0.00	4.29	19	0	26	19	54	-35
21+50.00	50.00	2.02	0.00	34.03	21	0	35	40	98	-58
21+75.00	25.00	0.19	0.00	242.18	1	0	128	41	258	-217
22+00.00	25.00	0.00	0.00	287.32	0	0	245	41	564	-523
22+50.00	50.00	0.00	0.00	131.87	0	0	388	41	1049	-1008
23+00.00	50.00	0.32	0.00	5.65	0	0	127	41	1208	-1167
23+32.69	32.69	7.90	0.00	0.00	5	0	3	46	1211	-1165
TEMP ROAD TOTAL					46	0	969			

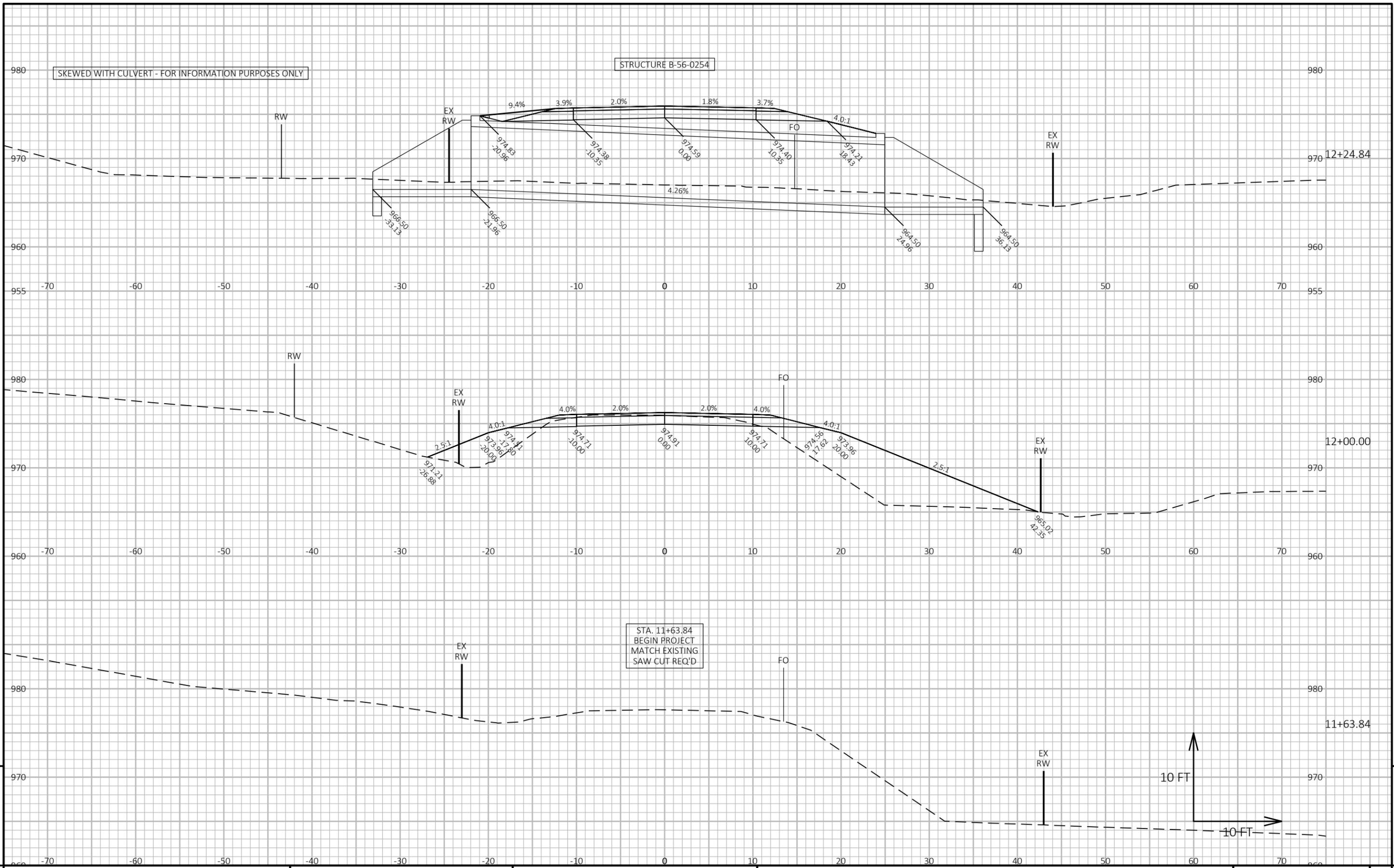
REMOVING TEMPORARY BYPASS

STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
		CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT NOTE 1	SALVAGED/UNUSABLE PAVEMENT MATERIAL NOTE 2	FILL NOTE 3	CUT 1.00 NOTE 1	EXPANDED FILL 1.25	MASS ORDINATE NOTE 4
20+10.00	0.00	---	---	---	---	---	---	---	---	---
23+32.69	322.69	---	---	---	969	0	46	969	58	912
REMOVING TEMP ROAD TOTALS					969	0	46			
PROJECT TOTALS					1,120	6	1,481			

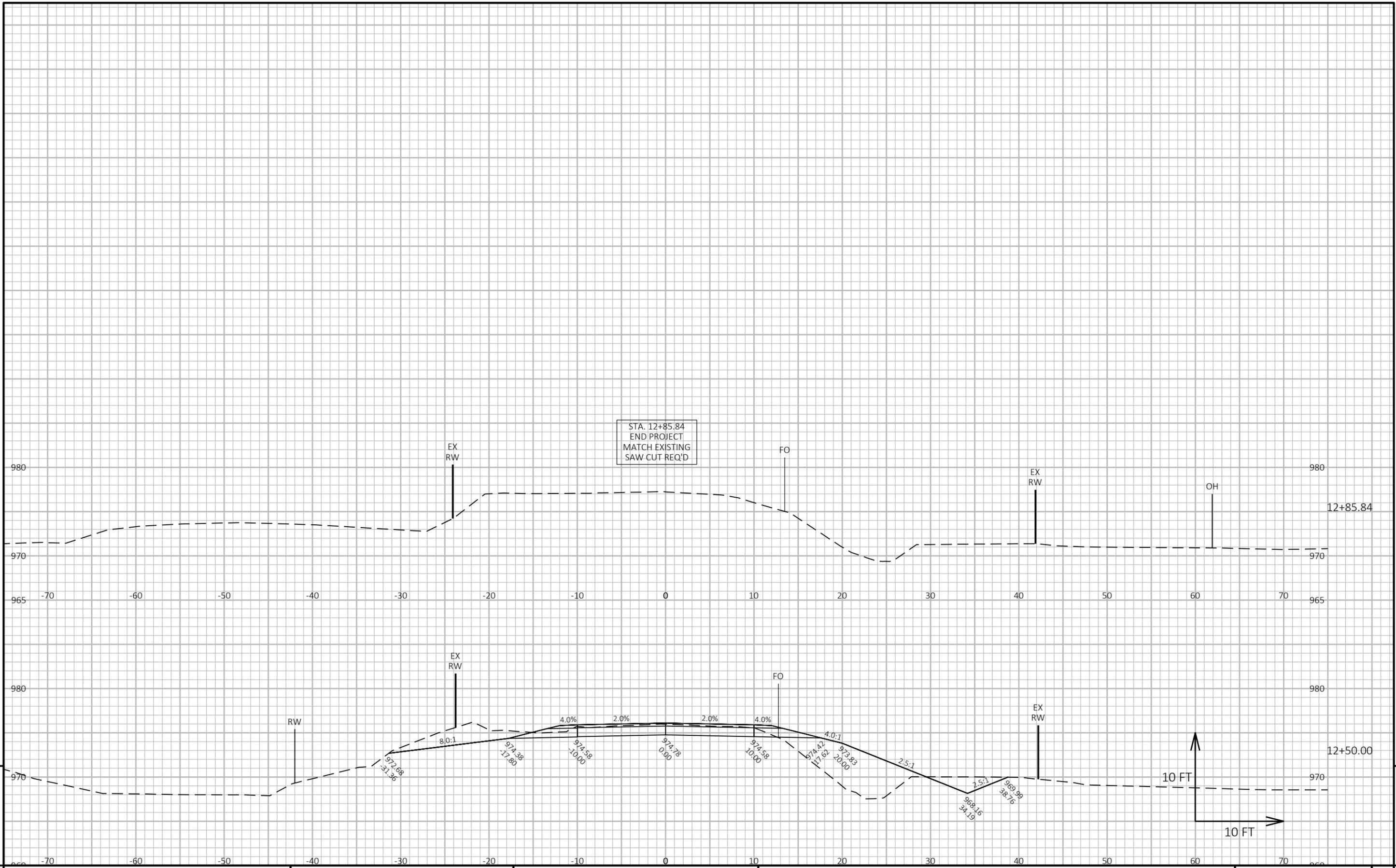
NOTES:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - SALVAGED/UNUSABLE PAVEMENT MATERIAL	THIS DOES NOT SHOW UP IN CROSS SECTIONS.
3 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME
4 - MASS ORDINATE	[(CUT)-(FILL*FILL FACTOR)-(SALVAGED/UNUSABLE PAVEMENT MATERIAL)]

9

9



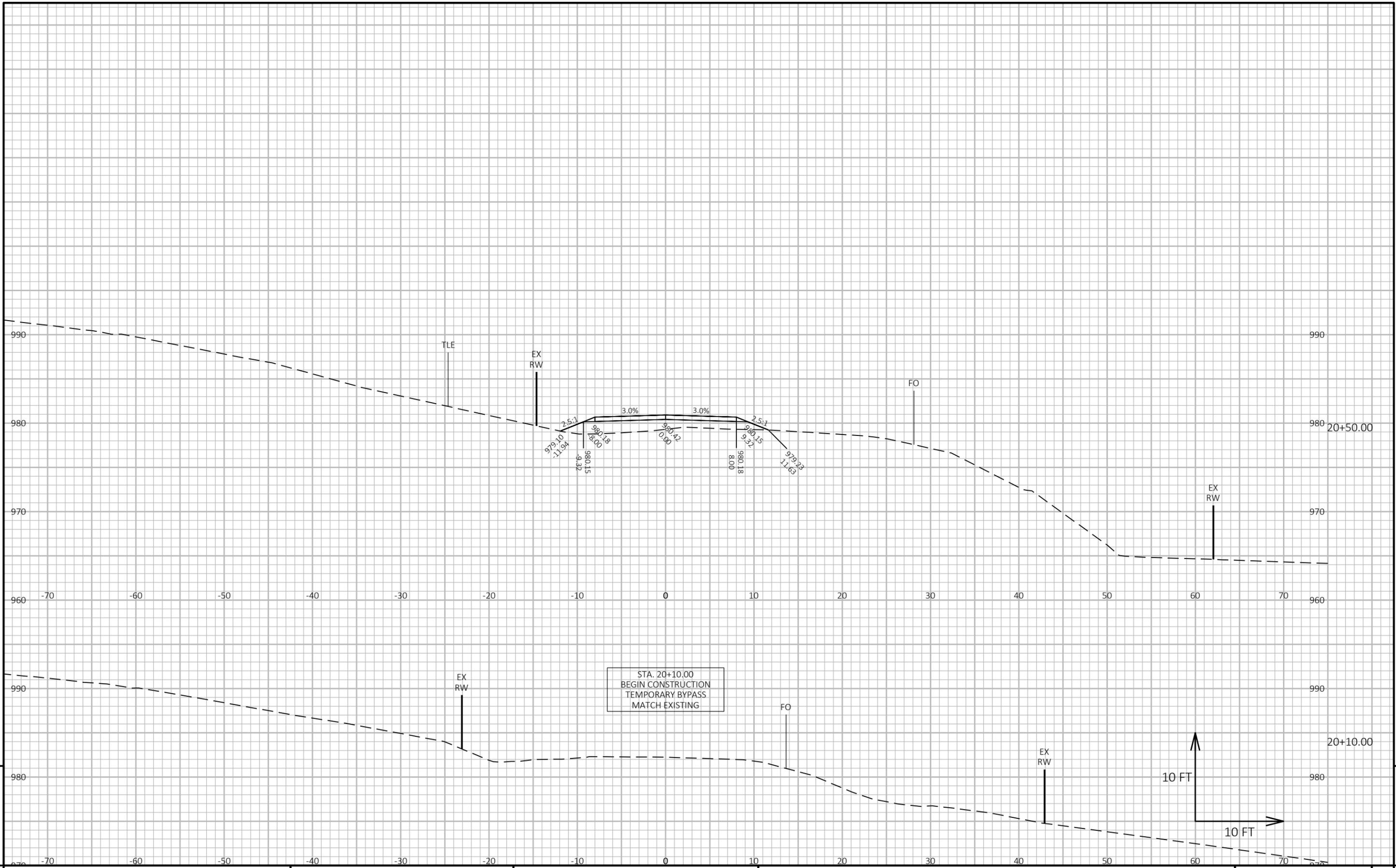
PROJECT NO: 5786-00-74 HWY: SMITH RD COUNTY: SAUK CROSS SECTIONS: SMITH ROAD SHEET 9



STA. 12+85.84
 END PROJECT
 MATCH EXISTING
 SAW CUT REQ'D

4.0% 2.0% 2.0% 4.0%
 8.0:1 4.0:1 2.5:1

PROJECT NO: 5786-00-74 HWY: SMITH RD COUNTY: SAUK CROSS SECTIONS: SMITH ROAD SHEET E



PROJECT NO: 5786-00-74

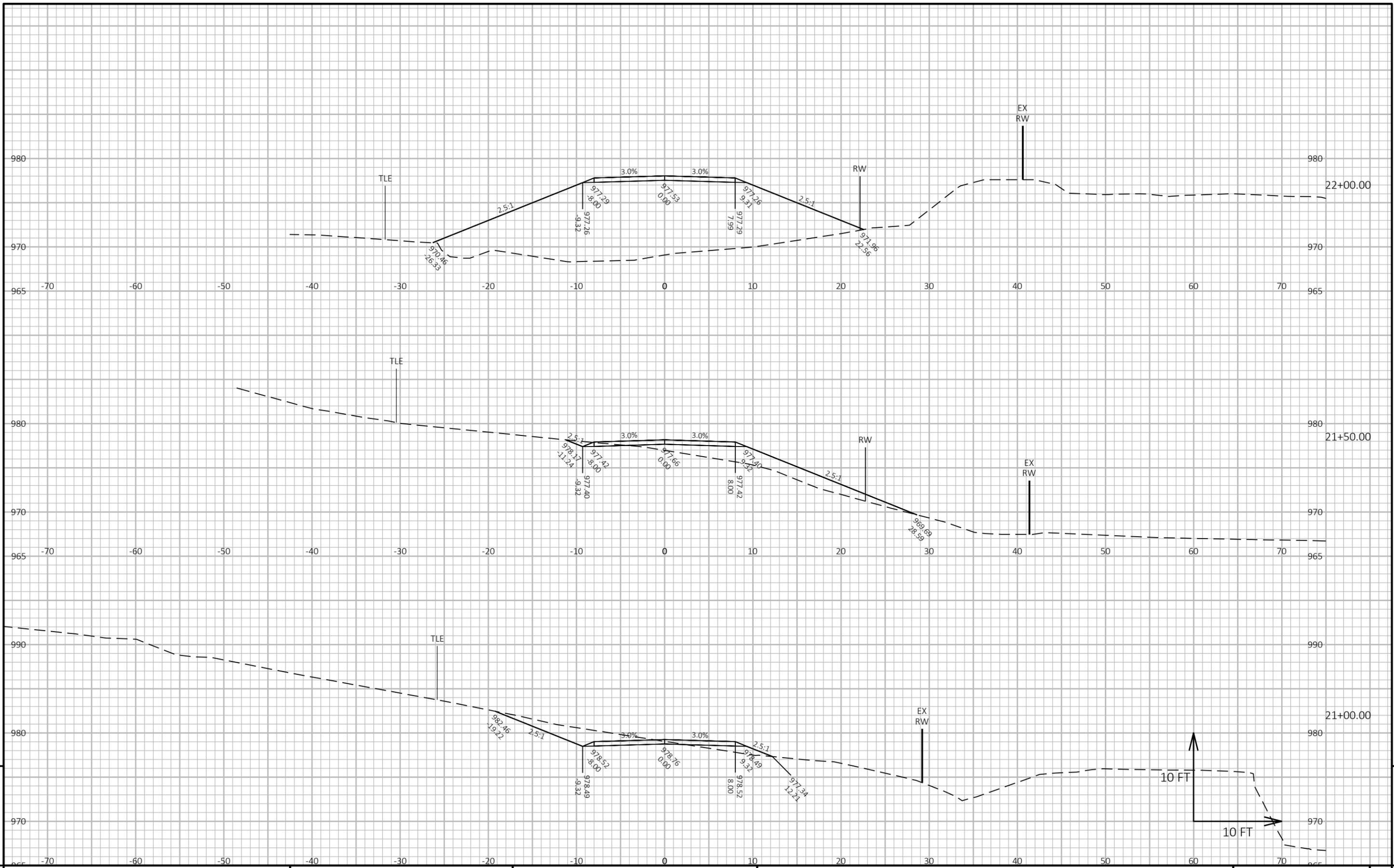
HWY: SMITH RD

COUNTY: SAUK

CROSS SECTIONS: TEMPORARY BYPASS

SHEET

E



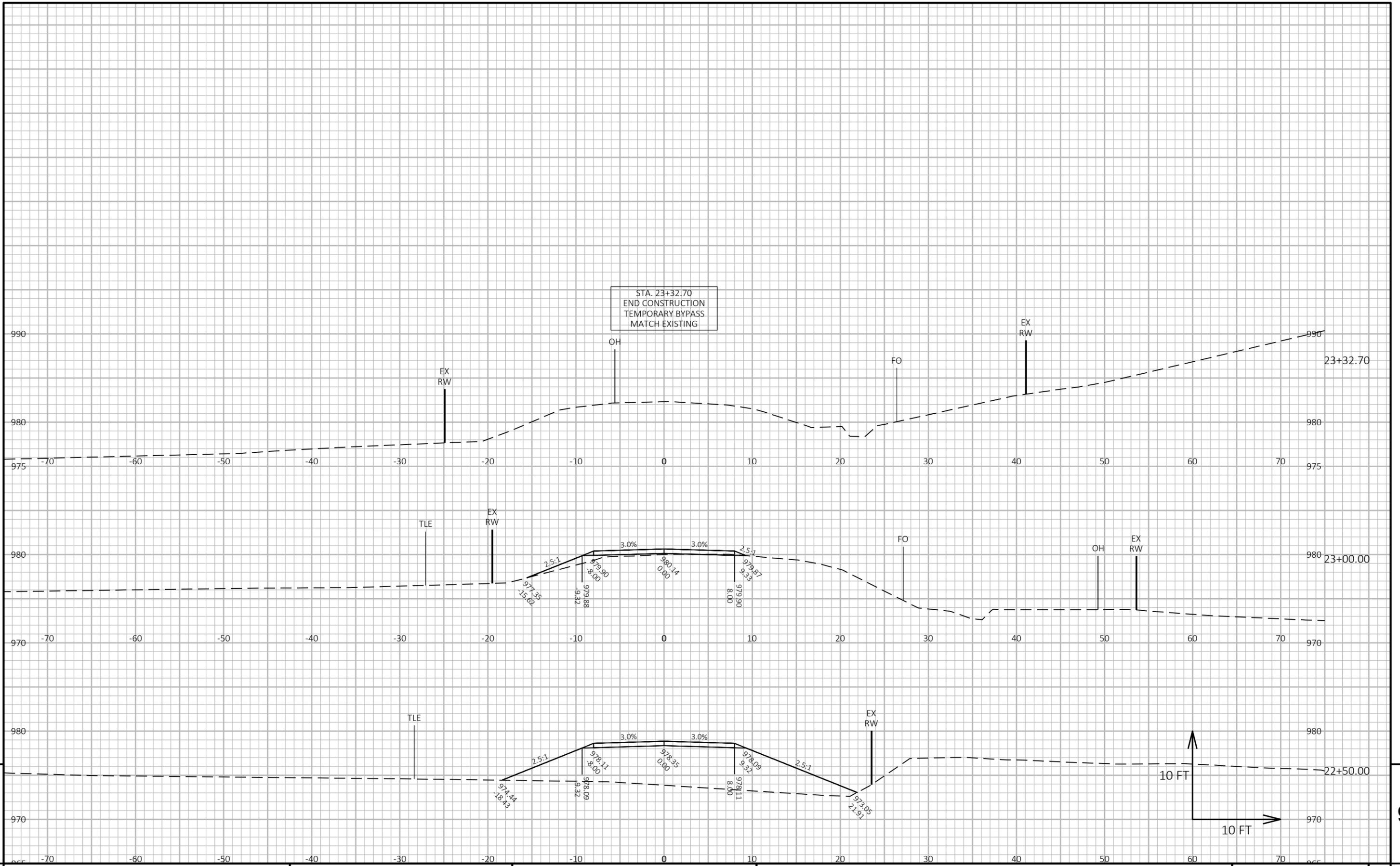
9

9

PROJECT NO: 5786-00-74 HWY: SMITH RD COUNTY: SAUK CROSS SECTIONS: TEMPORARY BYPASS SHEET E

FILE NAME : G:\00-PROJECT FILES\2024\24048 ID 5786-00-04 T OF LAVALLE, SMITH ROAD, LAKE REDSTONE TRIB BRIDGE P-56-0115\0-CAD\SHEETS\090201_XS.DWG PLOT DATE : 9/8/2025 1:24 PM PLOT BY : KYLE MAYBERRY PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT. WISDOT/CADD SHEET 49

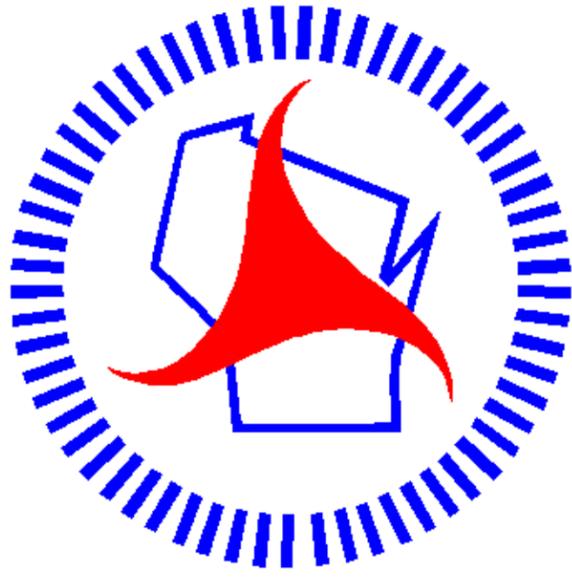
LAYOUT NAME - 090204_xs



STA. 23+32.70
 END CONSTRUCTION
 TEMPORARY BYPASS
 MATCH EXISTING

PROJECT NO: 5786-00-74	HWY: SMITH RD	COUNTY: SAUK	CROSS SECTIONS: TEMPORARY BYPASS	SHEET	E
------------------------	---------------	--------------	----------------------------------	-------	---

Notes



Wisconsin Department of Transportation

Dedicated people creating transportation solutions through innovation and exceptional service.

<http://www.dot.wisconsin.gov>