LAX

JULY 2018

PROJECT ID: 5378-00-71

WITH: N/A

COUNTY: VERNON

05

ORDER OF SHEETS

TOTAL SHEETS = 48

N

DESIGN DESIGNATION 5378-00-71

A.A.D.T.	2018	=	80
A.A.D.T.	2038	=	103
D.H.V.		=	8
D.D.		=	50/50
T.		=	5%
DESIGN SPEED		=	25 MPH
ESALS		=	2500

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 (300'EB')
- EXISTING CULVERT
- PROPOSED CULVERT (Box or Pipe)
- COMBUSTIBLE FLUIDS (CAUTION)
- MARSH AREA
- WOODED OR SHRUB AREA

PROFILE

- GRADE LINE
- ORIGINAL GROUND
- MARSH OR ROCK PROFILE (To be noted as such) (ROCK)
- SPECIAL DITCH (LABEL)
- GRADE ELEVATION (95.36)
- CULVERT (Profile View)

UTILITIES

- ELECTRIC (E)
- FIBER OPTIC (FO)
- GAS (G)
- SANITARY SEWER (SAN)
- STORM SEWER (SS)
- TELEPHONE (T)
- WATER (W)
- UTILITY PEDESTAL
- POWER POLE
- TELEPHONE POLE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

TOWN OF COON, OLD LINE ROAD

(BRANCH NORTH FORK BAD AXE RIVER BRIDGE B-62-0252)

TOWN ROAD
VERNON COUNTY

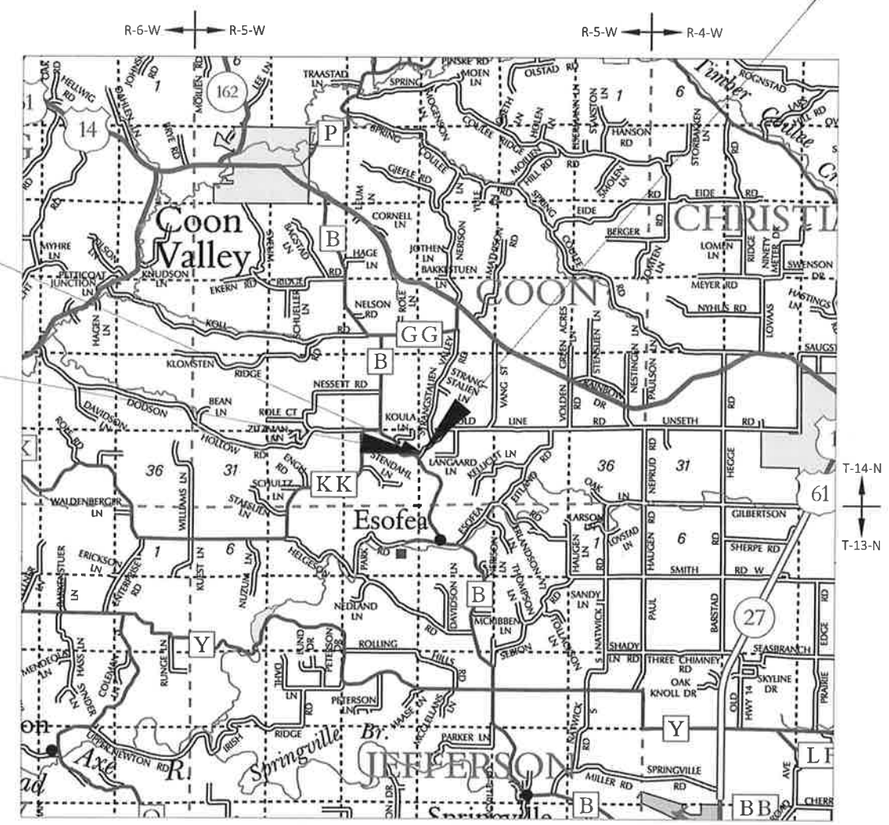
STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
5378-00-71	—	—

STATE PROJECT NUMBER: 5378-00-71

END PROJECT
STA 3+09.04

STRUCTURE B-62-0252
STA 2+02.00

BEGIN PROJECT
STA 0+92.48
X = 680781.1294
Y = 182581.2535



LAYOUT

SCALE 0 1 MI

TOTAL NET LENGTH OF CENTERLINE = 0.041 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, VERNON COUNTY, NAD88 (2011), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ACCEPTED FOR
TOWN OF COON
Date 1/30/18 Arlan D. Baskerville
Town Chairman

ACCEPTED FOR
VERNON COUNTY
Date 1-30-18 Phil Hewitt
Highway Commissioner

ORIGINAL PLANS PREPARED BY
SRF CONSULTING GROUP, INC.
RACHEL A. BURNHAM E-43588 MADISON WIS. PROFESSIONAL ENGINEER
DATE: 1/29/18 (Professional Engineer Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	SRF Consulting
Designer	SRF Consulting
Management Consultant	KL Engineering

APPROVED FOR THE DEPARTMENT
DATE: 1/31/18 John Meloy
(Management Consultant Signature)

E

FILE NAME : P:\WISDOT\9238\SHEETPLAN\010101-TI.DWG PLOT DATE : 1/28/2018 11:22 PM PLOT BY : RACHEL BURNHAM PLOT NAME :

GENERAL NOTES

ELEVATIONS SHOWN ON THE PLAN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1983.

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

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

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

DISTURBED AREAS WITHIN THE RIGHT-OF-WAY SHALL BE FINISHED WITH 6" SALVAGED TOPSOIL, SEED, FERTILIZER, MULCH, AND RESTORED AS DIRECTED BY THE ENGINEER.

DNR CONTACT

DEPARTMENT OF NATURAL RESOURCES
KAREN KALVELAGE
3550 MORMON COULEE ROAD
LA CROSSE, WISCONSIN 54601
PHONE: (608) 785-9115
EMAIL: KAREN.KALVELAGE@WISCONSIN.GOV

**DENOTES UTILITIES THAT ARE NOT DIGGERS HOTLINE MEMBERS

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

UTILITY CONTACTS

VERNON COMMUNICATIONS COOPERATIVE (VTC01)
TODD TUNKS
214 NORTH MAIN STREET
VIROQUA, WISCONSIN 54665
PHONE: (608) 632-0615
EMAIL: TTUNKS@VERNONCOM.COOP

VERNON ELECTRIC COOPERATIVE (VEC01)
CRAIG BUROS
110 SAUGSTAD ROAD
WESTBY, WISCONSIN 54667
PHONE: (608) 634-3121
EMAIL: CBUROS@VERNONELECTRIC.ORG

PROJECT SPONSOR

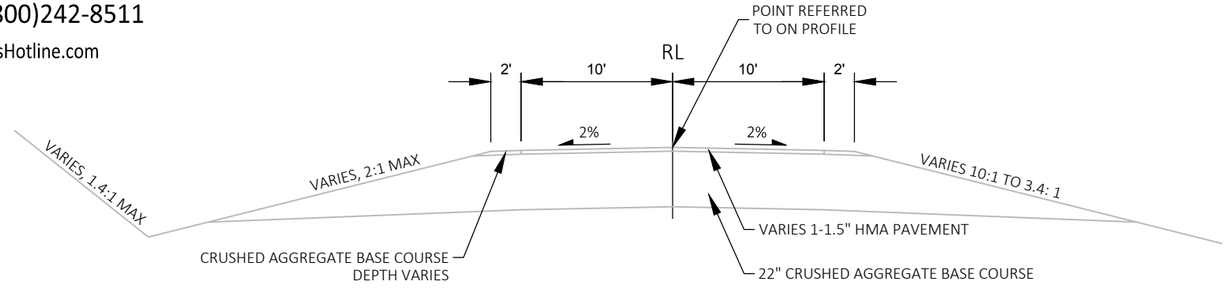
VERNON COUNTY
PHIL HEWITT - HIGHWAY COMMISSIONER
602 NORTH MAIN STREET
VIROQUA, WISCONSIN 54669
PHONE: (608) 637-5452
EMAIL: VCHD@VERNONCOUNTY.ORG

DESIGN CONTACT

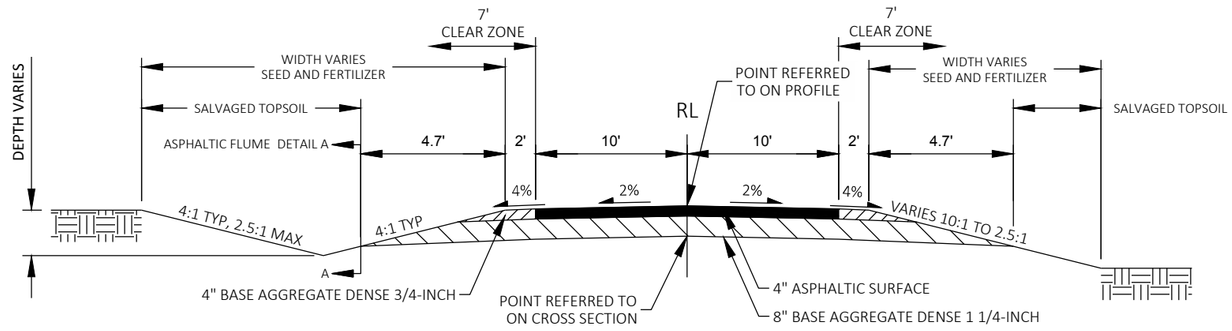
SRF CONSULTING GROUP, INC.
CASEY BLACK
901 DEMING WAY SUITE 101
MADISON, WISCONSIN 53711
PHONE: (608) 298-5400
EMAIL: CBLACK@SRFCONSULTING.COM

ABBREVIATIONS

ABUT	Abutment
AC	Acre
AGG	Aggregate
∠	Angle
AADT	Annual Average Daily Traffic
ASPH	Asphaltic
AVG	Average
BL	Base Line
BM	Bench Mark
BR	Bridge
CL	Center Line
Δ	Central Angle or Delta
CH	Chord
CONC	Concrete
CO	County
CTH	County Trunk Highway
CR	Creek
CR	Crushed
CY	Cubic Yard
D	Degree of Curve
DHV	Design Hour Volume
DD	Directional
DWY	Driveway
E	East
X	East Grid Coordinate
EB	Eastbound
ELEC	Electric (al)
EL or ELEV	Elevation
ESALS	Equivalent Single Axle Loads
EXC	Excavation
EBS	Excavation Below Subgrade
EXIST	Existing
EXP	Expansion
FERT	Fertilize
F	Fill
FG	Finished Grade
FL or F/L	Flow Line
FT	Foot
FTG	Footing
HT	Height
CWT	Hundredweight
HYD	Hydrant
IN DIA	Inch Diameter
INL	Inlet
I	Intersection Angle
INV	Invert
IP	Iron Pipe or Pin
LT	Left
LHF	Left-Hand Forward
L	Length of Curve
LF	Linear Foot
LC	Long Chord of Curve
LS	Lump Sum
MAINT	Maintenance
ML or M/L	Match Line
MATL	Material
NOM	Nominal
NC	Normal Crown
NW or N/W	Normal Water
N	North
Y	North Grid Coordinate
NB	Northbound
NO	Number
OBLIT	Obliterate
OL	Out Lot
OD	Outside Diameter
PSD	Passing Sight Distance
PAVT	Pavement
PERM	Permanent
PLE	Permanent Limited Easement
PT	Point
PC	Point of Curvature
PI	Point of Intersection
PT	Point of Tangency
LB	Pound
PROJ	Project
PL	Property Line
R	Radius
RP	Radius Point
R	Range
RL	Reference Line
RP	Reference Point
REBAR	Reinforcement Bar
REINF	Reinforcing or Reinforcement
REL	Relocate
REM	Remaining
REQD	Required
RT	Right
RHF	Right-Hand Forward
R/W	Right-of-Way
R	River
RD	Road
RDWY	Roadway
SALV	Salvaged
SEC	Section
SHLDR	Shoulder
SHR	Shrinkage
S	South
SB	Southbound
SP	Special
SPECS	Specifications
SF or SQ FT	Square Feet
SY or SQ YD	Square Yard
STD	Standard
SDD	Standard Detail Drawings
STH	State Trunk Highways
STA	Station
SSD	Stopping Sight Distance
STR	Structure or Structural
SE	Superelevation
SURF	Surface
SL or S/L	Survey Line
T	Tangent
TEL	Telephone
TEMP	Temporary
TLE	Temporary Limited Easement
T	Ton
T or TN	Town
T	Trucks (percent of)
TYP	Typical
UG	Underground
USH	United States Highway
VAR	Variable
V	Velocity or Design Speed
VERT	Vertical
VC	Vertical Curve
VPC	Vertical Point of Curve
VPI	Vertical Point of Intersection
VPT	Vertical Point of Tangency
VOL	Volume
W	Water
W	Well
W	West
WB	Westbound
YD	Yard

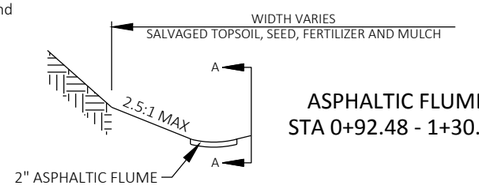


TYPICAL EXISTING SECTION
STA 0+92.48 TO 3+09.04



TYPICAL FINISHED SECTION
STA 0+92.48 - 1+62.55
STA 2+41.45 - 3+09.04

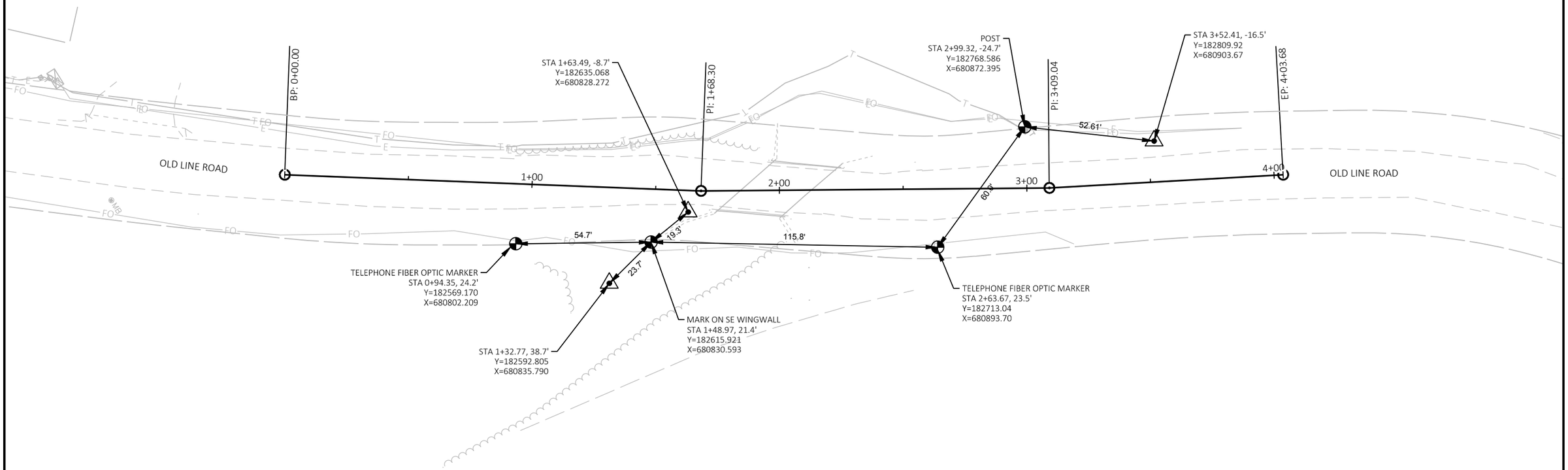
BRIDGE APPROACH SLAB
STA 1+62.55 - STA 1+84.00
STA 2+20.00 - STA 2+41.45



ASPHALTIC FLUME
STA 0+92.48 - 1+30.00

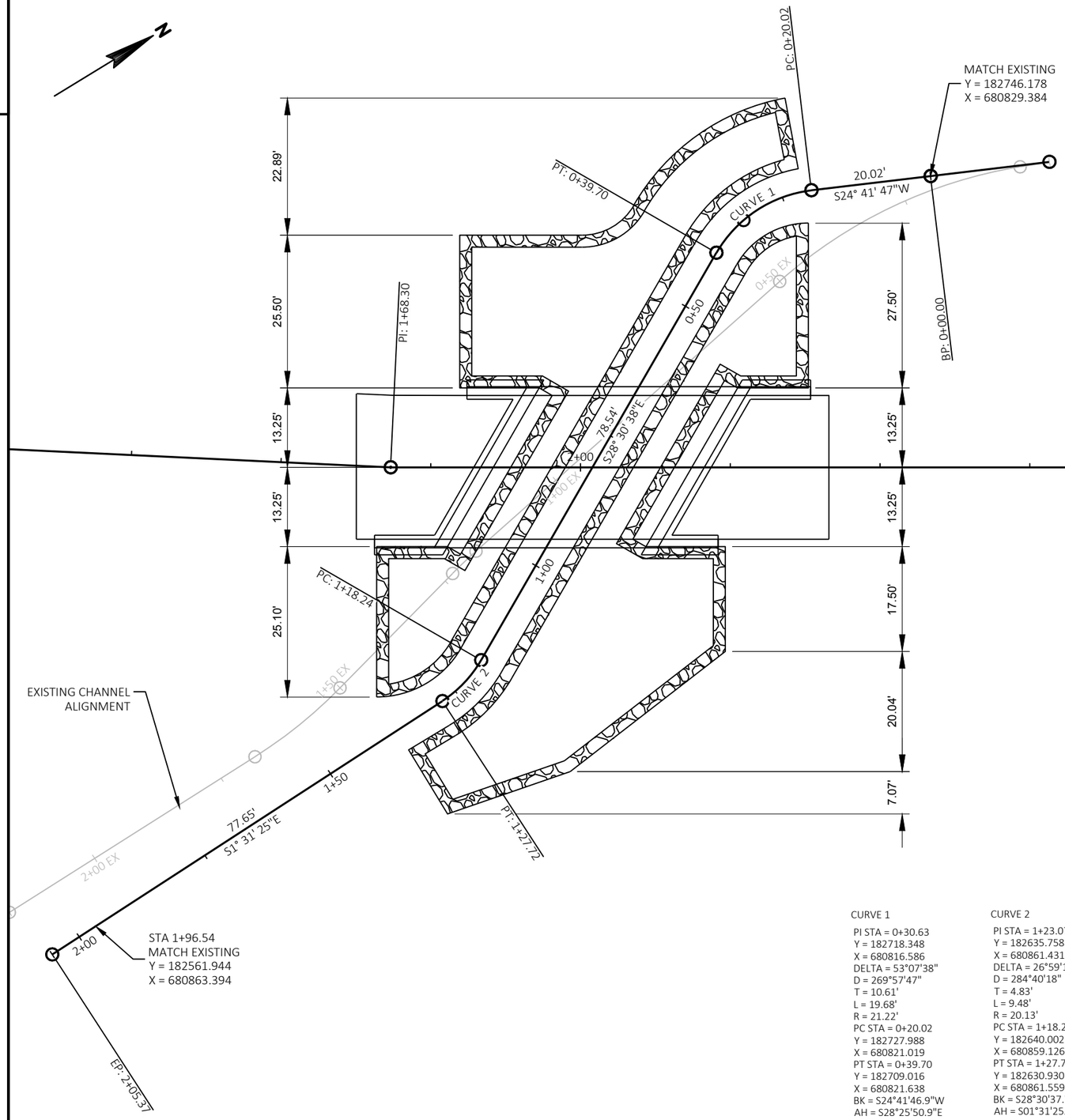
TYPICAL SECTIONS FOR CHANNEL CHANGE SHOWN ON CHANNEL REALIGNMENT DETAIL

NOTE:
ALL CONTROL POINTS ARE 1/2-INCH ID IRON PIPES WITH ORANGE CAP STAMPED "SRF TRAV PT".



PROJECT NO: 5378-00-71	HWY: OLD LINE ROAD	COUNTY: VERNON	PROJECT CONTROL POINTS, TIES, AND COORDINATES	SHEET 3	E

FILE NAME : P:\WISDOT\9238\SHEETPLAN\020101-CP.DWG
LAYOUT NAME - PP1
PLOT DATE : 1/30/2018 8:31 AM
PLOT BY : RACHEL BURNHAM
PLOT NAME :
PLOT SCALE : 1 IN:40 FT

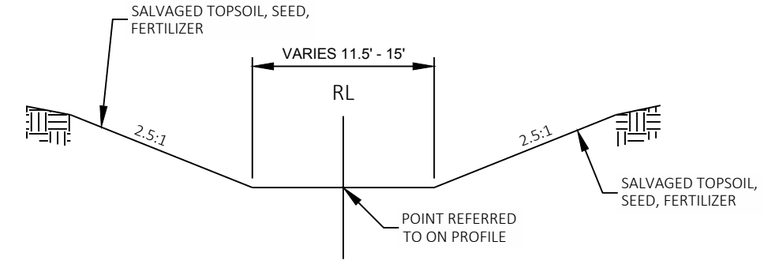


CURVE 1

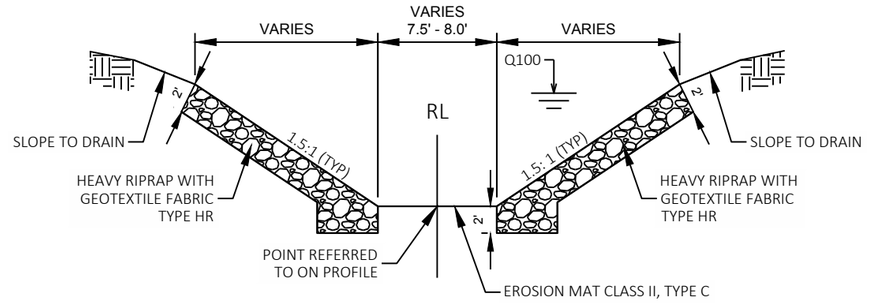
PI STA = 0+30.63
Y = 182718.348
X = 680816.586
DELTA = 53°07'38"
D = 269°57'47"
T = 10.61'
L = 19.68'
R = 21.22'
PC STA = 0+20.02
Y = 182727.988
X = 680821.019
PT STA = 0+39.70
Y = 182709.016
X = 680821.638
BK = S24°41'46.9"W
AH = S28°25'50.9"E

CURVE 2

PI STA = 1+23.07
Y = 182635.758
X = 680861.431
DELTA = 26°59'13"
D = 284°40'18"
T = 4.83'
L = 9.48'
R = 20.13'
PC STA = 1+18.24
Y = 182640.002
X = 680859.126
PT STA = 1+27.72
Y = 182630.930
X = 680861.559
BK = S28°30'37.7"E
AH = S01°31'25.1"E

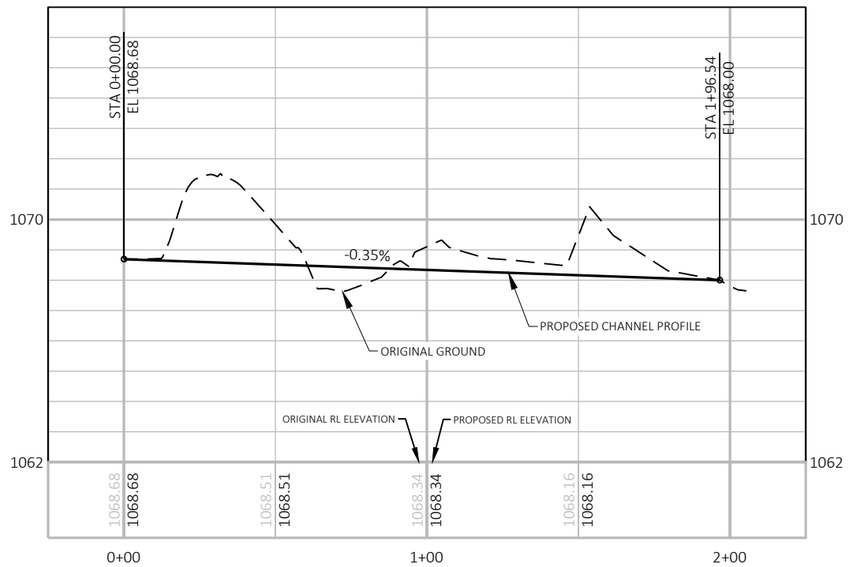


TYPICAL CHANNEL SECTION
STA 0+92.48 - 1+62.55



TYPICAL CHANNEL SECTION
STA 0+92.48 - 1+62.55

CHANNEL PROFILE



PROJECT NO: 5378-00-71	HWY: OLD LINE ROAD	COUNTY: VERNON	CHANNEL REALIGNMENT DETAILS	SHEET 4	E

5378-00-71

Line	Item	Item Description	Unit	Total	Qty
0002	201.0105	Clearing	STA	2.000	2.000
0004	201.0205	Grubbing	STA	2.000	2.000
0006	203.0500.S	Removing Old Structure Over Waterway (station) 01. 2+02.00	LS	1.000	1.000
0008	205.0100	Excavation Common	CY	398.000	398.000
0010	206.1000	Excavation for Structures Bridges (structure) 01. B-62-0252	LS	1.000	1.000
0012	210.1500	Backfill Structure Type A	TON	328.000	328.000
0014	213.0100	Finishing Roadway (project) 01. 5378-00-71	EACH	1.000	1.000
0016	305.0110	Base Aggregate Dense 3/4-Inch	TON	18.000	18.000
0018	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	207.000	207.000
0020	415.0080	Concrete Pavement 8-Inch	SY	24.000	24.000
0022	415.0410	Concrete Pavement Approach Slab	SY	112.000	112.000
0024	450.4000	HMA Cold Weather Paving	TON	76.000	76.000
0026	455.0605	Tack Coat	GAL	21.000	21.000
0028	465.0105	Asphaltic Surface	TON	67.000	67.000
0030	465.0315	Asphaltic Flumes	SY	9.000	9.000
0032	502.0100	Concrete Masonry Bridges	CY	143.000	143.000
0034	502.3200	Protective Surface Treatment	SY	100.000	100.000
0036	502.3210	Pigmented Surface Sealer	SY	48.000	48.000
0038	505.0400	Bar Steel Reinforcement HS Structures	LB	3,860.000	3,860.000
0040	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	19,390.000	19,390.000
0042	516.0500	Rubberized Membrane Waterproofing	SY	16.000	16.000
0044	550.0020	Pre-Boring Rock or Consolidated Materials	LF	170.000	170.000
0046	550.1100	Piling Steel HP 10-Inch X 42 Lb	LF	190.000	190.000
0048	606.0300	Riprap Heavy	CY	519.000	519.000
0050	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	162.000	162.000
0052	614.0150	Anchor Assemblies for Steel Plate Beam Guard	EACH	4.000	4.000
0054	618.0100	Maintenance And Repair of Haul Roads (project) 01. 5378-00-71	EACH	1.000	1.000
0056	619.1000	Mobilization	EACH	1.000	1.000
0058	624.0100	Water	MGAL	3.000	3.000
0060	625.0500	Salvaged Topsoil	SY	845.000	845.000
0062	627.0200	Mulching	SY	379.000	379.000
0064	628.1504	Silt Fence	LF	301.000	301.000
0066	628.1520	Silt Fence Maintenance	LF	601.000	601.000
0068	628.1905	Mobilizations Erosion Control	EACH	3.000	3.000
0070	628.1910	Mobilizations Emergency Erosion Control	EACH	3.000	3.000
0072	628.2027	Erosion Mat Class II Type C	SY	467.000	467.000
0074	628.7504	Temporary Ditch Checks	LF	8.000	8.000

5378-00-71

Line	Item	Item Description	Unit	Total	Qty
0076	629.0210	Fertilizer Type B	CWT	53.000	53.000
0078	630.0110	Seeding Mixture No. 10	LB	9.000	9.000
0080	630.0160	Seeding Mixture No. 60	LB	2.000	2.000
0082	630.0200	Seeding Temporary	LB	23.000	23.000
0084	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	4.000	4.000
0086	637.2230	Signs Type II Reflective F	SF	12.000	12.000
0088	638.2102	Moving Signs Type II	EACH	2.000	2.000
0090	638.2602	Removing Signs Type II	EACH	4.000	4.000
0092	638.3000	Removing Small Sign Supports	EACH	4.000	4.000
0094	638.4000	Moving Small Sign Supports	EACH	2.000	2.000
0096	642.5001	Field Office Type B	EACH	1.000	1.000
0098	643.0420	Traffic Control Barricades Type III	DAY	360.000	360.000
0100	643.0705	Traffic Control Warning Lights Type A	DAY	720.000	720.000
0102	643.0900	Traffic Control Signs	DAY	540.000	540.000
0104	643.5000	Traffic Control	EACH	1.000	1.000
0106	645.0111	Geotextile Type DF Schedule A	SY	80.000	80.000
0108	645.0120	Geotextile Type HR	SY	931.000	931.000
0110	650.4500	Construction Staking Subgrade	LF	138.000	138.000
0112	650.5000	Construction Staking Base	LF	138.000	138.000
0114	650.6500	Construction Staking Structure Layout (structure) 01. B-62-0252	LS	1.000	1.000
0116	650.9910	Construction Staking Supplemental Control (project) 01. 5378-00-71	LS	1.000	1.000
0118	650.9920	Construction Staking Slope Stakes	LF	138.000	138.000
0120	690.0150	Sawing Asphalt	LF	40.000	40.000
0122	715.0415	Incentive Strength Concrete Pavement	DOL	500.000	500.000
0124	715.0502	Incentive Strength Concrete Structures	DOL	858.000	858.000

3

CLEARING AND GRUBBING

CATEGORY	STATION	- STATION	201.0105 CLEARING STA	201.0205 GRUBBING STA
0010	0+93	- 3+09	2	2
		TOTAL	2	2

SAWING

CATEGORY	STATION	690.0150 SAWING ASPHALT LF
0010	0+93	20
	3+09	20
	TOTAL	40

PERMANENT SIGNING TYPE II

CATEGORY	SIGN NO.	STATION	LOCATION	SIGN CODE	SIGN SIZE IN X IN	637.2230 SIGNS TYPE II REFLECTIVE F SF	634.0614 POSTS WOOD 4X6-INCH 14-FT EACH
0010	01-1	1+65	LT	W5-52L	12 X 36	3.00	1
	01-2	2+39	LT	W5-52L	12 X 36	3.00	1
	01-3	1+65	RT	W5-52R	12 X 36	3.00	1
	01-4	2+24	RT	W5-52R	12 X 36	3.00	1
					TOTAL	12	4

APPROACH SLAB

CATEGORY	DESCRIPTION	415.0410 CONCRETE PAVEMENT APPROACH SLAB SY	415.0080 CONCRETE PAVEMENT 8-INCH SY
0010	SOUTH APPROACH	56	12
0010	NORTH APPROACH	56	12
	TOTAL	112	24

BASE AGGREGATE

CATEGORY	STATION	- STATION	LOCATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	624.0100 WATER MGAL
0010	0+93	- 1+63	LT	5		0.1
	0+93	- 1+63	RT	5		0.1
	0+93	- 1+63			106	1.6
	2+42	- 3+09	LT	4		0.1
	2+42	- 3+09	RT	4		0.1
	2+42	- 3+09			101	1.5
			TOTAL	18	207	3

MOVING AND REMOVING SIGNS

CATEGORY	SIGN NO.	STATION	LOCATION	638.2102 MOVING SIGNS TYPE II EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	638.4000 MOVING SMALL SIGN SUPPORTS EACH	COMMENTS
0010	01-5	1+96	LT		1	1		
	01-6	2+26	LT		1	1		
	01-7	2+55	LT	1			1	
	01-8	1+61	RT	1			1	
	01-9	1+72	RT		1	1		
	01-10	2+05	RT		1	1		
			TOTAL	2	4	4	2	

HAUL ROADS

CATEGORY	DESCRIPTION	618.0100 MAINTENANCE AND REPAIR OF HAUL ROADS EACH
0030	PROJECT: 5378-00-71	1
	TOTAL	1

ASPHALTIC ITEMS

CATEGORY	STATION	- STATION	LOCATION	450.4000 HMA COLD WEATHER PAVING TON	455.0605 TACK COAT GAL	465.0105 ASPHALTIC SURFACE TON	465.0315 ASPHALTIC FLUMES SY
0010	0+93	- 1+63	RT	34	11	34	
	0+95		LT	9			9
	2+42	- 3+09	LT	33	10	33	
			TOTAL	76	21	67	9

TRAFFIC CONTROL

CATEGORY	LOCATION	DAYS	TRAFFIC CONTROL BARRICADES TYPE III EACH	643.0420 TRAFFIC CONTROL BARRICADES TYPE III DAY	TRAFFIC CONTROL WARNING LIGHTS TYPE A EACH	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A DAY	TRAFFIC CONTROL SIGNS EACH	643.0900 TRAFFIC CONTROL SIGNS DAY
0010	PROJECT TRAFFIC CONTROL	60	6	360	12	720	9	540
		TOTAL		360		720		540

MOBILIZATION

CATEGORY	DESCRIPTION	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH
0010	PROJECT 5378-00-71	3	3
	TOTAL	3	3

STAKING

LOCATION	650.4500 CONSTRUCTION STAKING SUBGRADE LF	650.5000 CONSTRUCTION STAKING BASE LF	650.9910 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL LS	650.9920 CONSTRUCTION STAKING SLOPE STAKES LF
PROJECT 7067-00-00	138	138	1	138
TOTAL	138	138	1	138

EARTHWORK

CATEGORY	DESCRIPTION	205.0100 COMMON EXCAVATION **P** CY
0010	OLD LINE ROAD SOUTH	62
0010	CHANNEL REALIGNMENT	279
0010	OLD LINE ROAD NORTH	57
	TOTAL	398

EROSION CONTROL AND RESTORATION

CATEGORY	STATION	- STATION	LOCATION	625.0500 SALVAGED TOPSOIL **P** SY	627.0200 MULCHING SY	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.2027 EROSION MAT URBAN CLASS II TYPE C SY	628.7504 TEMPORARY DITCH CHECKS LF	629.0210 FERTILIZER TYPE B **P** CWT	630.0110 SEEDING MIXTURE NO. 10 **P** LB	630.0140 SEEDING MIXTURE NO. 60 **P** LB	630.0200 SEEDING TEMPORARY **P** LB
0010	0+93	- 3+09	LT	310	207			103		19	4		8
	0+93	- 3+09	RT	353	172			181		22	5		10
	0+93	- 3+09	CHANNEL BOTTOM SOUTH	90				90		6		1	2
	0+93	- 3+09	CHANNEL BOTTOM NORTH	93				93		6		1	3
	0+92	- 1+66	RT			87	174						
	1+28	- 1+72	RT			63	126						
	1+61		LT						8				
	2+52	- 3+09	RT			60	120						
	2+38	- 3+12	LT			91	182						
			TOTAL	845	379	301	601	467	8	53	9	2	23

NOTE: ALL ITEMS AND QUANTITIES ON THIS SHEET ARE FOR ENGINEER ESTIMATE CATEGORY 0010 UNLESS OTHERWISE NOTED.

Division Division 1	From/To Station	205.0100 Common Excavation **P** (1) Cut (2)	EBS Excavation (3)	Salvaged/Unusable Pavement Material (4)	Available Material (5)	205.0500 Marsh Excavation (6)	205.0200 Rock Excavation (7)	Reduced Marsh in Fill (8) Factor 1.00	Reduced EBS in Fill (9) Factor 1.00	Expanded Marsh Backfill (10) Factor 1.00	Expanded EBS Backfill (11) Factor 1.00	Expanded Rock (12) Factor 1.00	Unexpanded Fill	Expanded Fill (13) Factor 1.25	Mass Ordinate +/- (14)	Waste	Borrow	Comment:
Old Line Road - South	02+41.45/01+68.3	62	0	0	62	0	0	0	0	0	0	0	28	35	27	27	0	
Channel Realignment	00+92.48/01+96.54	279	0	0	279	0	0	0	0	0	0	0	160	200	79	79	0	
Old Line Road - North	00+25/03+09.03	57	0	0	57	0	0	0	0	0	0	0	59	74	-17	0	17	USE WASTE FROM CHANNEL REALIGNMENT FOR 17 CY OF BORROW
Division 1 Subtotal		398	0	0	397	0	0	0	0	0	0	0	247	308	89	106	0	
Grand Total		398	0	0	397	0	0	0	0	0	0	0	247	308	89	106	0	
	Total Common Exc	398																

Notes:

(1) Common Excavation is the sum of the Cut and EBS Excavation columns. Item number 205.0100

(2) Salvaged/Unsuable Pavement Material is included in Cut.

(3) EBS Excavation to be backfilled with Select Borrow material. Note: this is designers choice, can be backfilled with Borrow, or Cut as well.

(4) Salvaged/Unusable Pavement Material

5) Available Material = Cut - Salvaged/Unusuable Pavement Material

(6) Marsh Excavation - to be backfilled with Select Borrow Material. Note: this is designers choice, can be backfilled with Borrow, or Cut as well. Item number 205.0500

(7) Rock Excavation item number 205.0200

(8) Reduced Marsh in Fill - Excavated Marsh material is usuable in Fills outside the 1:1 slope. Marsh in Fill Reduction factor = 1

(9) Reduced EBS in Fill - Excavated EBS material is usuable in Fills outside the 1:1 slope. EBS in Fill Reduction factor = 1

(10) Expanded Marsh Backfill - This is to be filled with Select Borrow material. Marsh Backfill Factor = 1. Item number 208.1100

(11) Expanded EBS Backfill - This is to be filled with Select Borrow material. EBS Backfill Factor = 1. Item number 208.1100

(12) Expanded Rock Factor = 1

(13) Expanded Fill Factor = 1.25

Depending on selections:
Expanded Fill = (Unexpanded Fill - Rock* Rock Factor - Reduced Marsh - Reduced EBS) * Fill Factor
or Expanded Fill = (Unexpanded Fill - Rock * Rock Factor - Reduced EBS) * Fill Factor
or Expanded Fill = (Unexpanded Fill - Rock * Rock Factor - Reduced Marsh) * Fill Factor
or Expanded Fill = (Unexpanded Fill - Rock * Rock Factor) * Fill Factor

(14) 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.

NOTE: ALL ITEMS AND QUANTITIES ON THIS SHEET ARE FOR ENGINEER ESTIMATE CATEGORY 0010 UNLESS OTHERWISE NOTED.

CONVENTIONAL SYMBOLS

SECTION LINE
QUARTER LINE
SIXTEENTH LINE
NEW REFERENCE LINE
NEW R/W LINE
EXISTING R/W OR HE LINE
PROPERTY LINE
LOT, TIE & OTHER MINOR LINES
SLOPE INTERCEPT
CORPORATE LIMITS
UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC)
NEW R/W (FEE OR HE) (HATCHING VARIES BY OWNER)
TEMPORARY LIMITED EASEMENT AREA
EASEMENT AREA (PERMANENT LIMITED OR RESTRICTED DEVELOPMENT)
TRANSMISSION STRUCTURES
BUILDING — TO BE REMOVED
BRIDGE

SECTION CORNER SYMBOL
SECTION CORNER MONUMENT
R/W MONUMENT (TO BE SET)
NON-MONUMENTED R/W POINT
FOUND IRON PIN (1-INCH UNLESS NOTED) IP
GEODETIC SURVEY MONUMENT
SIXTEENTH CORNER MONUMENT
SIGN
OFF-PREMISE SIGN

	COMPENSABLE	NON-COMPENSABLE
ELECTRIC POLE		
TELEPHONE POLE		
PEDESTAL (LABEL TYPE) (TV, TEL, ELEC, ETC.)		

ACCESS RESTRICTED BY ACQUISITION
NO ACCESS (BY STATUTORY AUTHORITY)
ACCESS RESTRICTED (BY PREVIOUS PROJECT OR CONTROL)
NO ACCESS (NEW HIGHWAY)
PARCEL NUMBER 25 — UTILITY NUMBER 40
PARALLEL OFFSETS

CONVENTIONAL ABBREVIATIONS

ACCESS POINT/ DRIVEWAY CONNECTION	AP	RELEASE OF RIGHTS	ROR
ACCESS RIGHTS	AR	REMAINING	REM.
ACRES	AC.	RIGHT-OF-WAY	R/W
AND OTHERS	ET.AL.	SECTION	SEC.
CENTERLINE	C/L	STATION	STA.
CERTIFIED SURVEY MAP	CSM	TEMPORARY LIMITED EASEMENT	TLE
CORNER	COR.	VOLUME	V.
DOCUMENT	DOC.		
EASEMENT	EASE.		
HIGHWAY EASEMENT	H.E.		
LAND CONTRACT	LC		
MONUMENT	MON.		
PAGE	P.		
PERMANENT LIMITED EASEMENT	PLE		
PROPERTY LINE	PL		
RECORDED AS	(100')		
REFERENCE LINE	R/L		

CURVE DATA

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

CONVENTIONAL UTILITY SYMBOLS

WATER	W
GAS	G
TELEPHONE	T
OVERHEAD TRANSMISSION LINES	OH
ELECTRIC	E
CABLE TELEVISION	TV
FIBER OPTIC	FO
SANITARY SEWER	SAN
STORM SEWER	SS
COMMUNICATION	C

CAUTION
THIS PLAT IS FOR ILLUSTRATIVE PURPOSES ONLY. DEEDS MUST BE CHECKED TO DETERMINE PROPERTY BOUNDARIES.

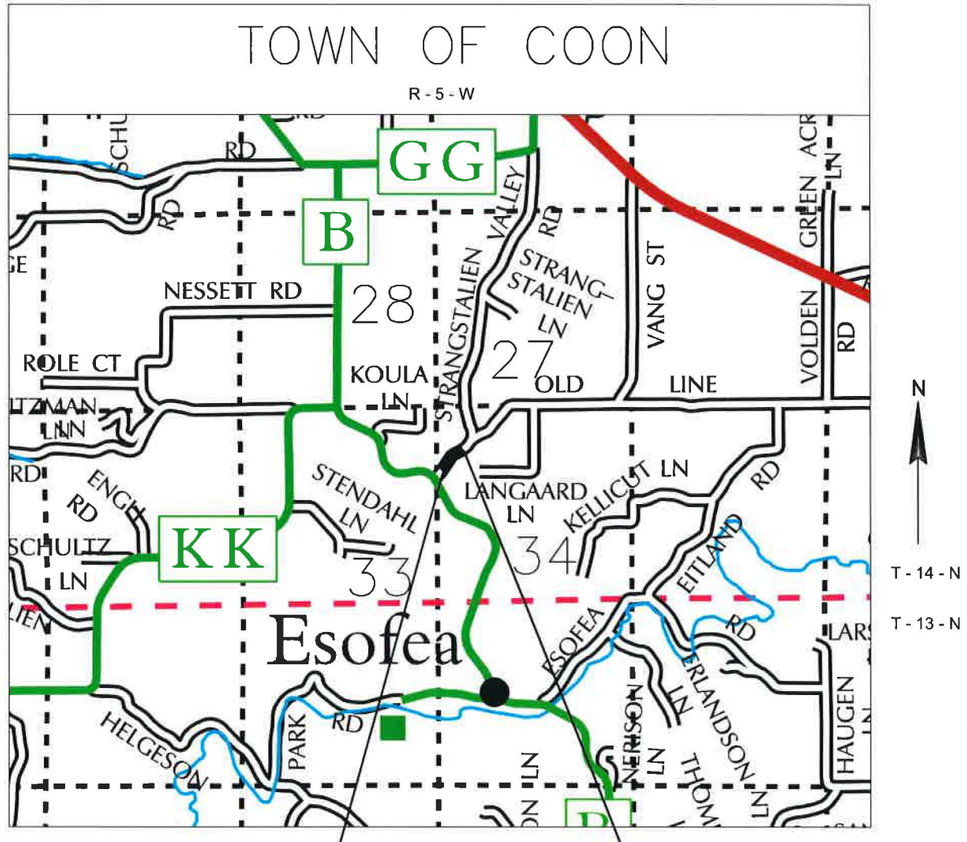
SCHEDULE OF LANDS & INTEREST REQUIRED

PARCEL NUMBER	SHEET NUMBER	OWNER (S)	INTEREST REQUIRED	TOTAL ACRES	R/W ACRES REQUIRED			TOTAL ACRES REM.	CONSTRUCTION TLE ACRES
					NEW	EXISTING	TOTAL		
1	4.02	DENNIS R. JEFFERS	FEE, TLE	2.66	0.04	-	0.04	2.62	0.05
2	4.02	JOHN L. LANGAARD, LARS LANGAARD and DIANE LANGAARD	FEE, TLE	32.33	0.05	-	0.05	32.28	0.09

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

UTLITY INTEREST REQUIRED

UTILITY NUMBER	UTILITY OWNER(S)	INTEREST REQUIRED
400	VERNON ELECTRIC COOP	RELEASE OF RIGHTS
401	VERNON COMMUNICATIONS COOP	RELEASE OF RIGHTS



N
T - 14 - N
T - 13 - N

LAYOUT
SCALE 0 — 1 MILE
TOTAL NET LENGTH OF CENTERLINE = 0.04 MILES

R/W PROJECT NUMBER 5378-00-01	SHEET NUMBER	TOTAL SHEETS
R/W PROJECT NUMBER 5378-00-01	4.01	2

PLAT OF RIGHT OF WAY REQUIRED FOR

TOWN OF COON, OLD LINE ROAD (BRANCH NORTH FORK BAD AXE RIVER BRIDGE B-62-0252)

TOWN ROAD — VERNON COUNTY

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), VERNON COUNTY, NAD 83 (1991) 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 MONUMENTS WILL BE TYPE 2 (TYPICALLY ¾" X 24" IRON REBARS), UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

ALL RIGHT-OF-WAY LINES DEPICTED IN THE NON-ACQUISITION AREAS ARE INTENDED TO RE-ESTABLISH EXISTING RIGHT-OF-WAY LINES AS DETERMINED FROM PREVIOUS PROJECTS, OTHER RECORDED DOCUMENTS, OR FROM CENTERLINE OF EXISTING PAVEMENTS. DOCUMENT NO. 243424, DEDICATES A ROAD WIDTH OF THREE RODS (49.5 FT)

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

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

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, 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.

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

PARCEL IDENTIFICATION NUMBERS MAY NOT POINT TO ALL AREAS OF ACQUISITION, AS NOTED ON THE SCHEDULE OF LANDS & INTERESTS REQUIRED.

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE:
EXISTING CENTERLINE OF OLD LINE ROAD, 3 RODS (49.5 FEET) CONVEYED JUNE 11, 1969, PER DOCUMENT #243424, UNDER SECTION 82.18, WISCONSIN STATUTE

SRF Consulting Group, Inc. — ENGINEERS PLANNERS DESIGNERS

TOWN OF COON

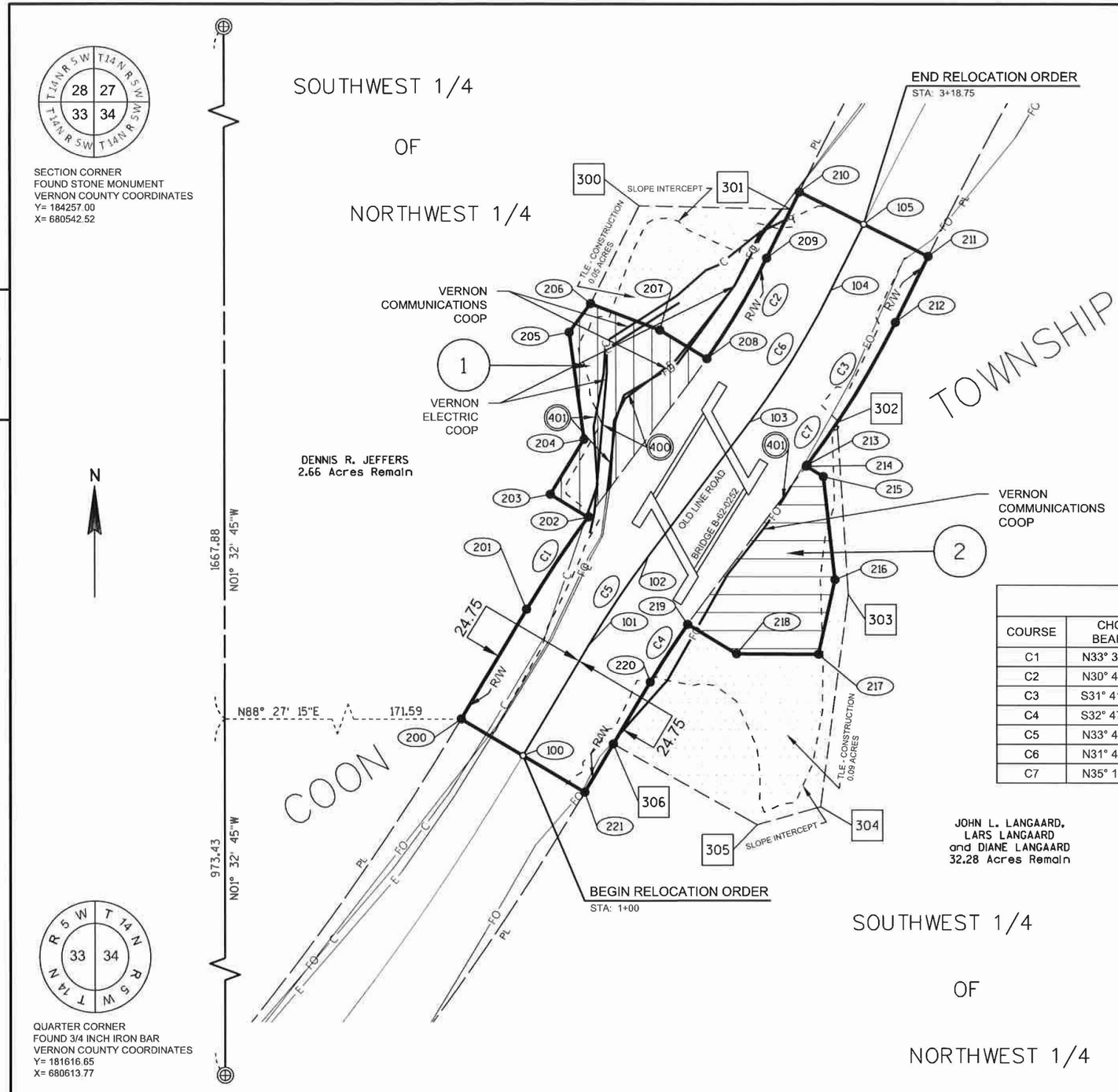
I HEREBY CERTIFY THAT THIS PLAT MEETS ALL REQUIREMENTS OF WISCONSIN STATUTES. THIS PLAT WAS PREPARED BY OR UNDER THE DIRECTION OF

DATE: 11/6/2017
DEAN DUSHECK
REGISTRATION NUMBER: S-2843

APPROVED FOR THE TOWN OF COON

DATE: 12-30-17
(Signature)

WISCONSIN — DEAN DUSHECK S-2843 PLYMOUTH, MN — LAND SURVEYOR



COURSE TABLE		
COURSE	BEARING	DISTANCE
200-201	N30° 41' 14"E	44.27'
201-202	"C1"	
202-203	N58° 30' 33"W	15.27'
203-204	N31° 29' 22"E	22.37'
204-205	N07° 48' 14"W	37.35'
205-206	N36° 49' 16"E	12.29'
206-207	S69° 06' 52"E	25.48'
207-208	S58° 32' 12"E	18.95'
208-209	"C2"	
209-210	N26° 34' 31"E	25.41'
210-105	S63° 25' 29"E	24.75'
105-211	S63° 25' 29"E	24.75'
211-212	S26° 34' 31"W	25.41'
212-213	"C3"	
213-214	S36° 49' 16"W	0.47'
214-215	S58° 30' 38"E	6.91'
215-216	S06° 14' 19"E	36.02'
216-217	S12° 27' 33"W	26.53'
217-218	N89° 43' 22"W	28.23
218-219	N58° 32' 22"W	19.63
219-220	"C4"	
220-221	S30° 41' 14"W	44.27'
221-100	N59° 18' 46"W	24.75'
100-200	N59° 18' 46"W	24.75'

FEE STATION OFFSET & COORDINATE TABLE				
POINT	STATION	OFFSET	Y	X
200	1+00	24.75 LT	182594.36	680759.04
201	1+47.27	24.75 LT	182632.43	680781.63
202	1+80.14	24.75 LT	182664.34	680802.89
203	1+78.93	39.96 LT	182672.37	680789.87
204	2+00.88	42.02 LT	182691.44	680801.55
205	2+27.46	68.26 LT	182728.45	680796.48
206	2+39.77	68.26 LT	182738.29	680803.85
207	2+47.95	43.66 LT	182729.20	680827.66
208	2+49.31	24.75 LT	182719.31	680843.82
209	2+93.94	24.75 LT	182753.99	680864.48
210	3+18.75	24.75 LT	182776.71	680875.84
105	3+18.75	0.00	182765.64	680780.32
211	3+18.75	24.75 RT	182754.57	680920.11
212	2+93.34	24.75 RT	182731.84	680908.75
213	2+39.69	24.75 RT	182682.50	680878.27
214	2+39.22	24.75 RT	182682.12	680877.99
215	2+39.85	31.63 RT	182678.51	680883.88
216	2+13.55	56.22 RT	182642.71	680887.79
217	1+89.38	67.16 RT	182616.80	680882.07
218	1+71.24	44.34 RT	182616.94	680853.84
219	1+69.90	24.75 RT	182627.18	680837.09
220	1+44.27	24.75 RT	182607.16	680824.20
221	1+00	24.75 RT	182569.10	680801.61
100	1+00	0.00	182581.73	680897.98

CURVE TABLE					
COURSE	CHORD BEARING	CHORD LENGTH	RADIUS	DELTA	CURVE LENGTH
C1	N33° 37' 24"E	38.39'	374.75'	5° 52' 20"	38.41'
C2	N30° 46' 48"E	40.36'	275.25'	8° 24' 33"	40.40'
C3	S31° 41' 54"W	58.00'	324.75'	10° 14' 45"	58.07'
C4	S32° 47' 06"W	23.81'	325.25'	4° 11' 44"	23.82'
C5	N33° 45' 15"E	37.45'	350.00'	6° 08' 02"	37.47'
C6	N31° 41' 54"E	53.58'	300.00'	10° 14' 45"	53.65'
C7	N35° 13' 56"E	18.01'	324.75	3° 10' 29"	18.01'

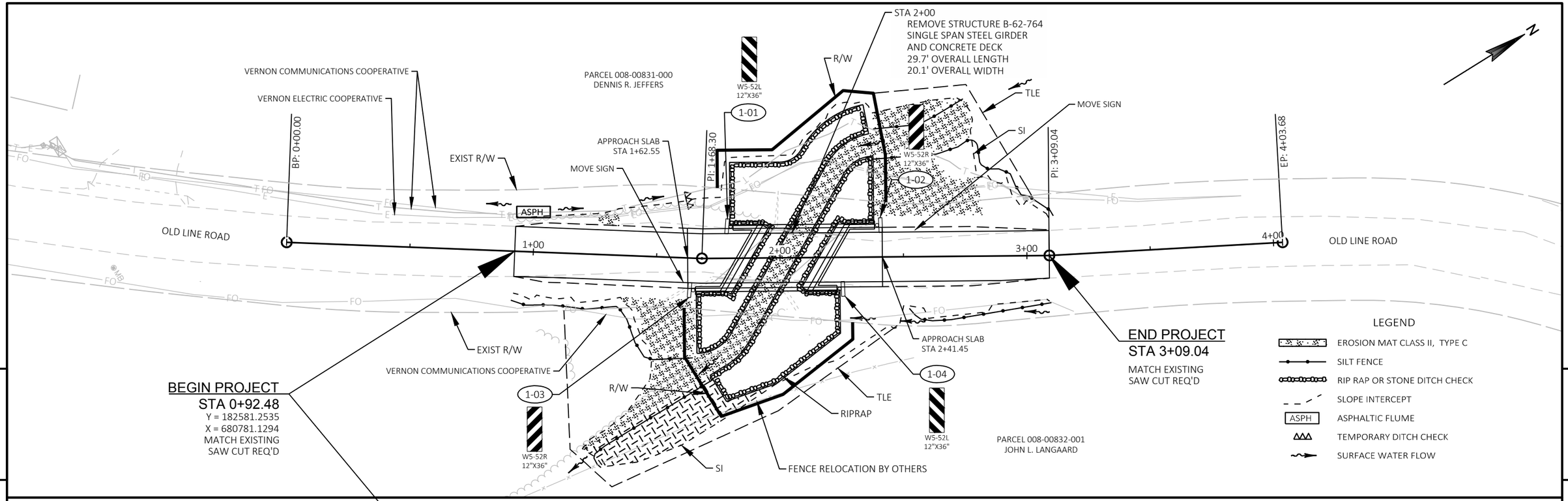
OLD LINE ROAD CENTERLINE COURSE TABLE		
COURSE	BEARING	DISTANCE
100-101	N30° 41' 14"E	44.27'
101-102	"C5"	
102-103	N36° 49' 16"E	57.96'
103-104	"C6"	
104-105	N26° 34' 31"E	25.41'

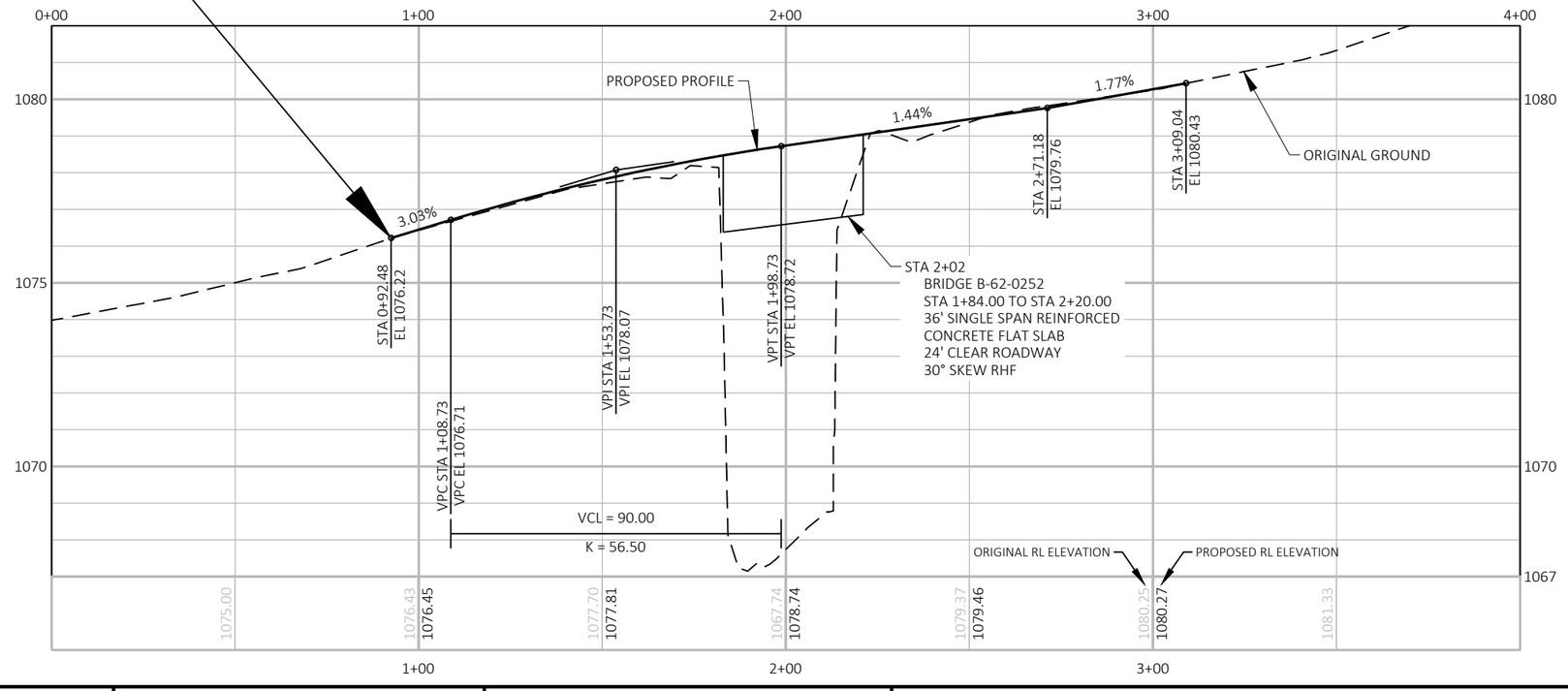
TLE COURSE TABLE		
COURSE	BEARING	DISTANCE
209-301	N26° 34' 31"E	18.78'
301-300	N88° 43' 12"W	52.14'
300-206	S26° 39' 39"W	37.66'
221-306	N30° 41' 14"E	19.37'
306-220	N30° 41' 14"E	24.90'
213-302	"C7"	
302-303	S03° 35' 07"E	59.67'
303-304	S07° 27' 34"W	74.18'
304-305	S74° 00' 17"W	22.71'
305-306	N60° 33' 15"W	56.77'

TLE STATION OFFSET TABLE		
POINT	STATION	OFFSET
206	2+39.77	68.26 LT
300	2+88.74	71.87 LT
301	3+12.12	24.75 LT
302	2+56.33	24.75 RT
303	2+12.26	62.93 RT
304	1+37.12	97.09 RT
305	1+20.60	81.51 RT
306	1+19.37	24.75 RT

REVISION DATE	DATE 11/6/2017	SCALE, FEET 0 20 40	HWY: OLD LINE ROAD	R/W PROJECT NUMBER 5378-00-01	PLAT SHEET 4.02
	GRID FACTOR		COUNTY: VERNON	CONSTRUCTION PROJECT NUMBER 5378-00-71	PS&E SHEET E

FILE NAME : 9238_PLAT.DWG PLOT DATE : 11/6/2017 1:44 PM PLOT BY : MICHAEL FISCHER PLOT NAME :



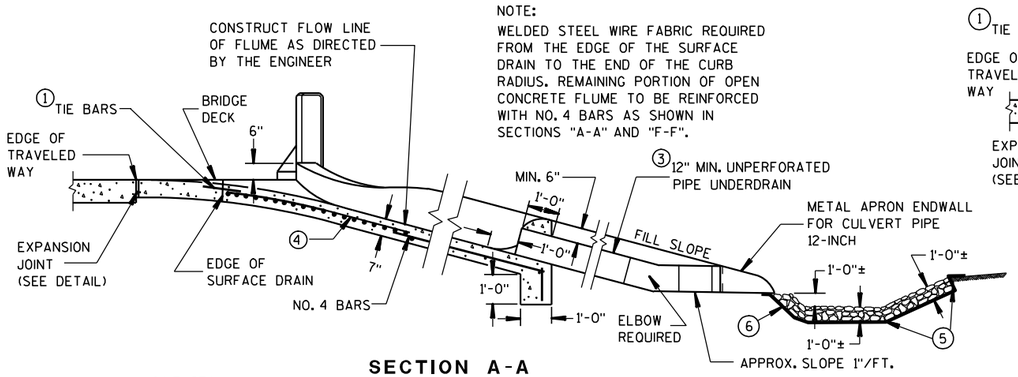


PROJECT NO: 5378-00-71	HWY: OLD LINE ROAD	COUNTY: VERNON	PLAN AND PROFILE: OLD LINE ROAD	SHEET 11	E

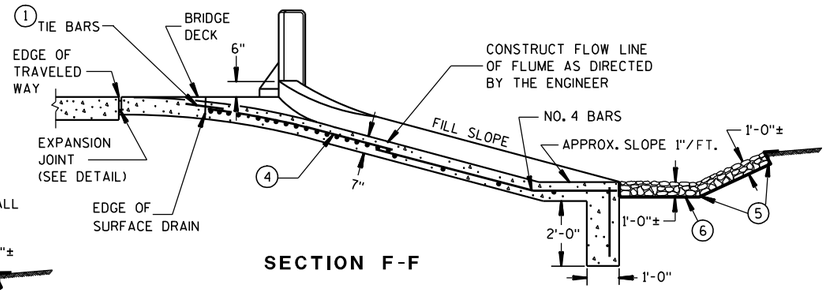
Standard Detail Drawing List

08D02-06	CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
12A03-10	NAME PLATE (STRUCTURES)
13B02-08A	CONCRETE PAVEMENT APPROACH SLAB
13B02-08B	STRUCTURAL APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB
15C02-06A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-06B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C06-09	SIGNING & MARKING FOR TWO LANE BRIDGES
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
15D38-02B	ATTACHMENT OF SIGNS TO POSTS

6



SECTION A-A



SECTION F-F

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.

ALL STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

(1) NO. 4 X 2'-0" TIE BARS SPACED AT 3'-0" CENTERS TO BE USED ONLY WHEN ADJACENT TO P.C. CONCRETE.

(2) NO. 4 X 2'-0" TIE BARS SPACED AT 12" CENTERS TO BE PLACED BY BRIDGE CONTRACTOR, OR DRILLED TIE BARS PLACED AS DIRECTED BY THE ENGINEER.

(3) PIPE UNDERDRAIN MAY BE ANY OF THE MATERIALS LISTED IN SECTION 612.2 OF THE STANDARD SPECIFICATIONS EXCEPT DRAIN TILE.

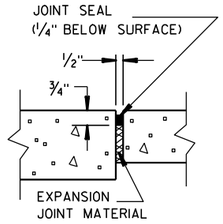
(4) MINIMUM REINFORCEMENT SHALL BE 6" X 6" - W4.0 X W4.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE SPACING 12" C-C.

(5) LIMITS OF ADDITIONAL RIPRAP WHEN SPECIAL DITCH IS REQUIRED.

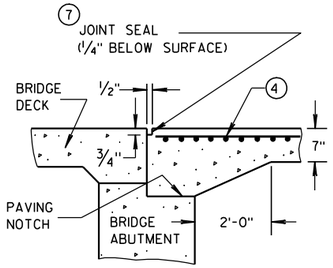
(6) GEOTEXTILE FABRIC, TYPE 'R"

(7) HOT POURED SEALANT UNLESS OTHERWISE SPECIFIED.

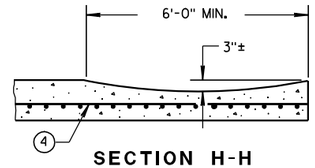
(8) THIS DIMENSION MAY VARY DEPENDING ON THE SPACING OF POSTS FOR THE STEEL PLATE BEAM GUARD. THE TYPICAL LOCATION FOR THE SURFACE DRAIN IS WHERE THE POST SPACING WIDENS TO 3'-1½".



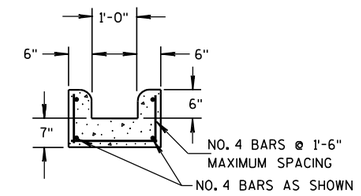
EXPANSION JOINT DETAIL



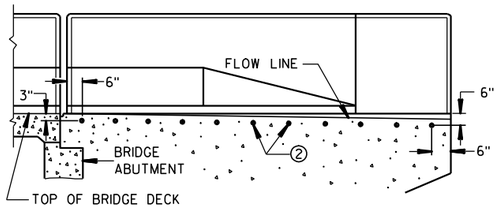
SECTION D-D



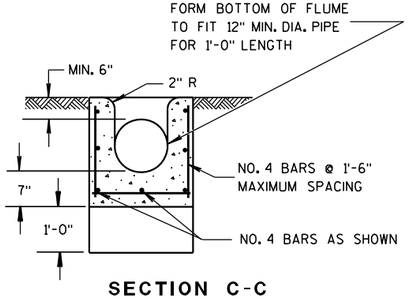
SECTION H-H



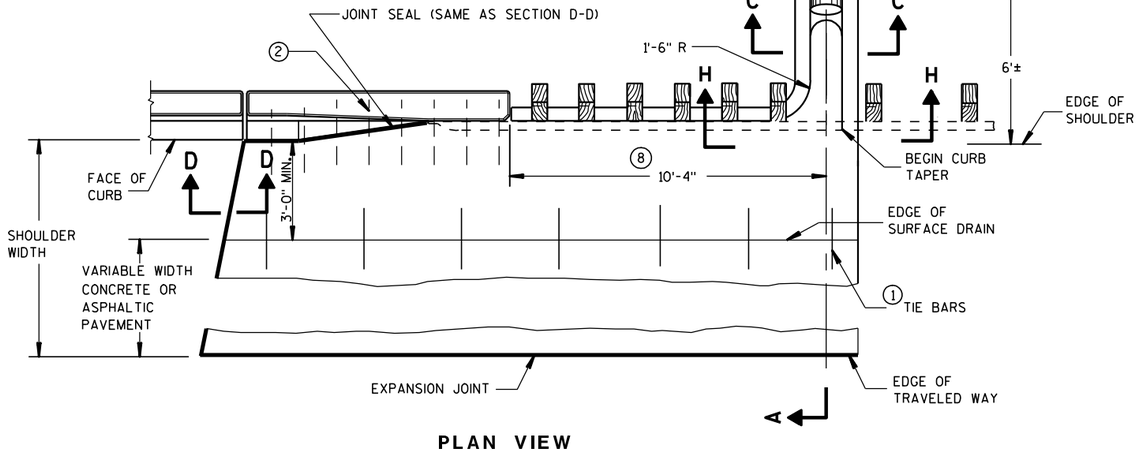
SECTION E-E



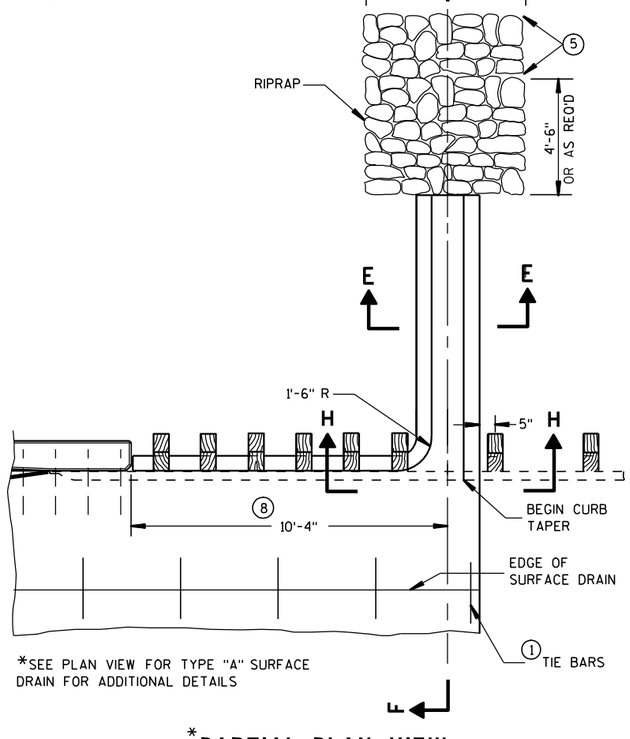
LOCATION OF TIE BARS IN WINGWALL



SECTION C-C



PLAN VIEW
SURFACE DRAIN WITH PIPE
TYPE "A"



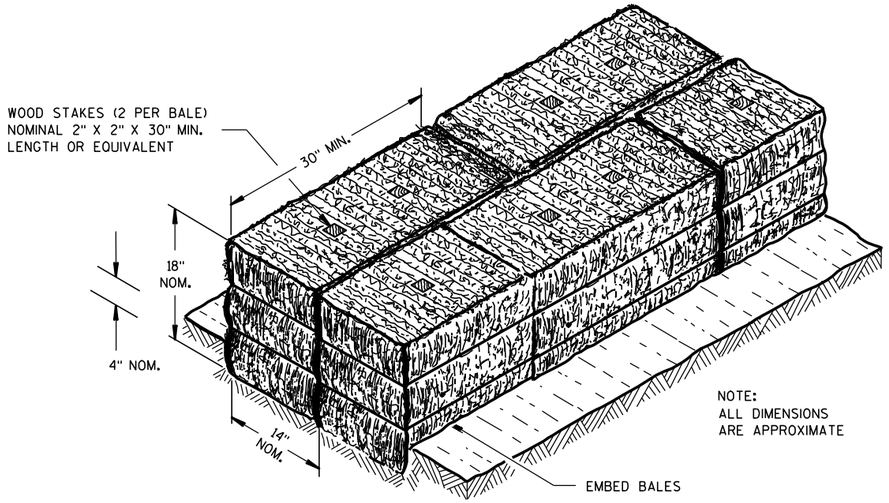
*SEE PLAN VIEW FOR TYPE "A" SURFACE DRAIN FOR ADDITIONAL DETAILS

*PARTIAL PLAN VIEW
SURFACE DRAIN WITHOUT PIPE
TYPE "B"

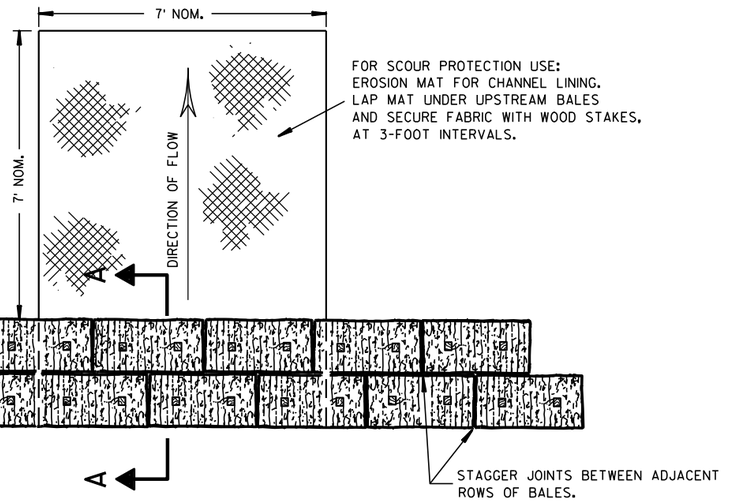
CONCRETE SURFACE DRAINS
FLUME TYPE
AT STRUCTURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

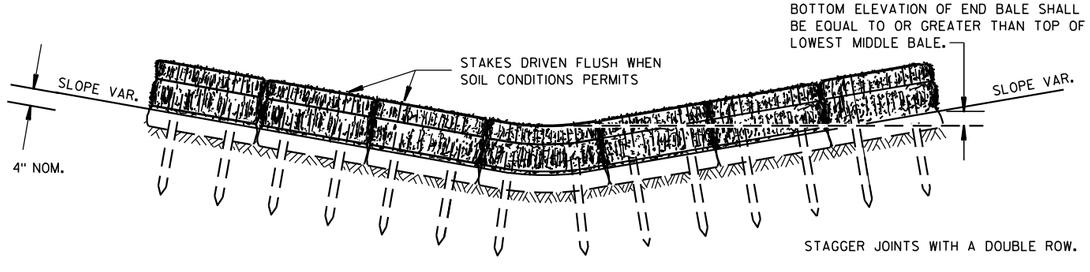
APPROVED
9/4/08
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
FHWA



SECTION A-A



PLAN VIEW



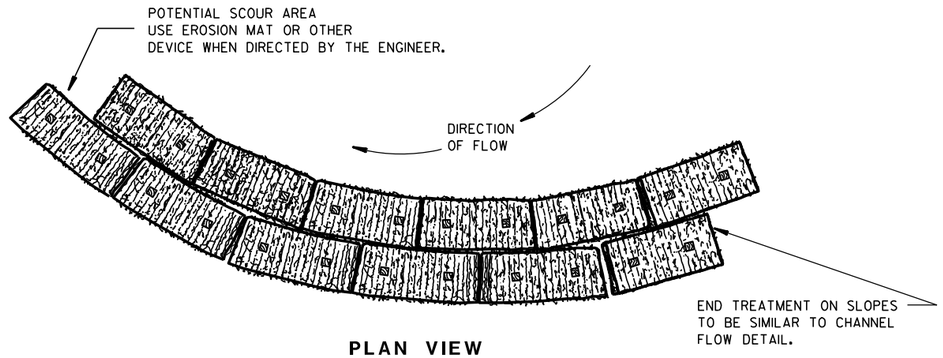
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

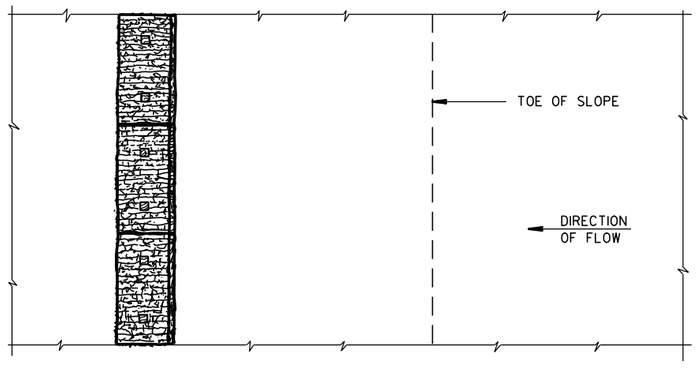
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

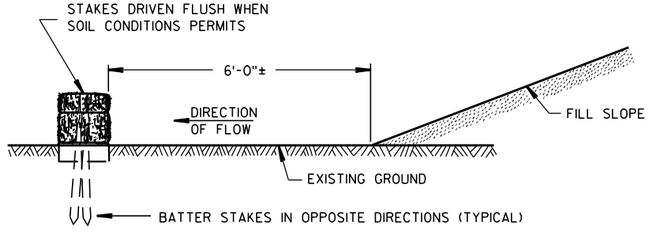


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

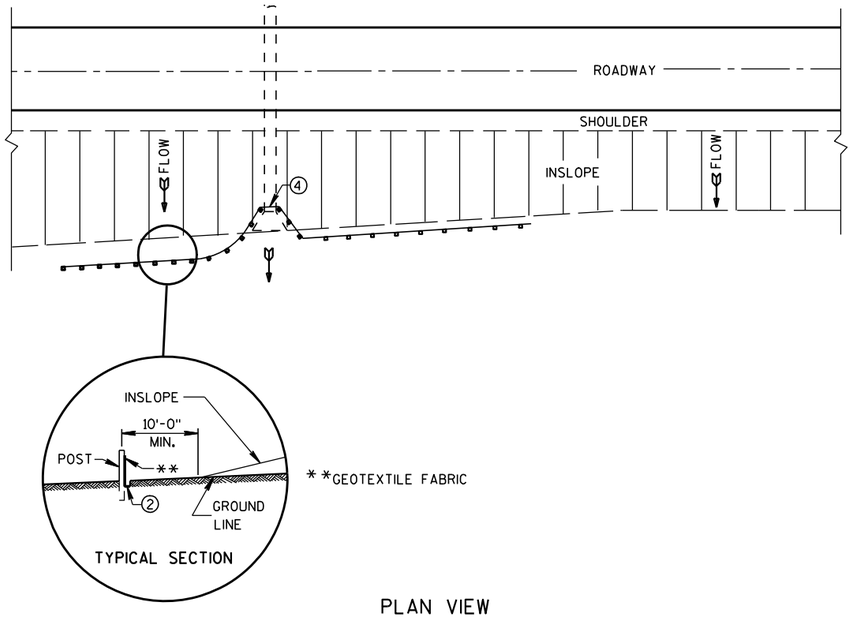
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

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

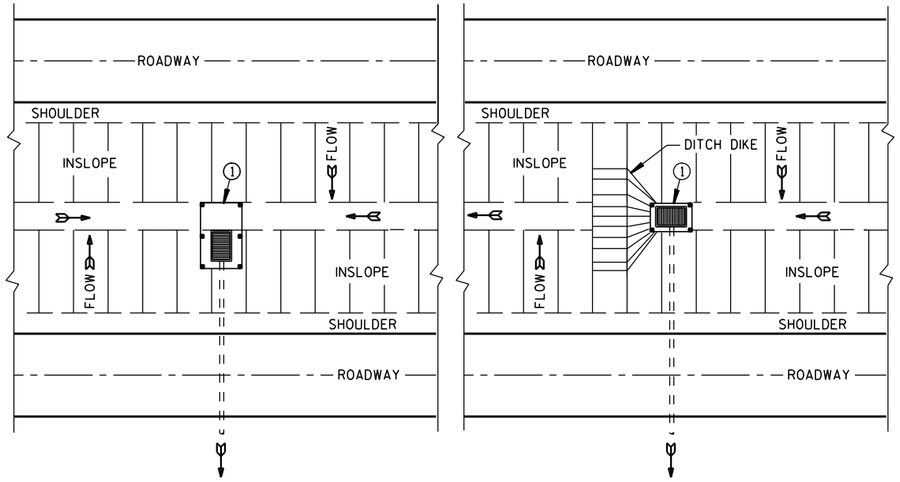
FHWA

6
S.D.D. 8 E 8-3



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



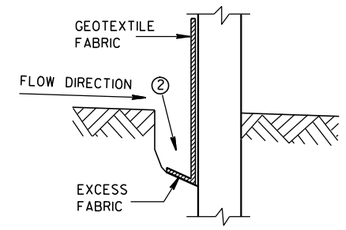
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

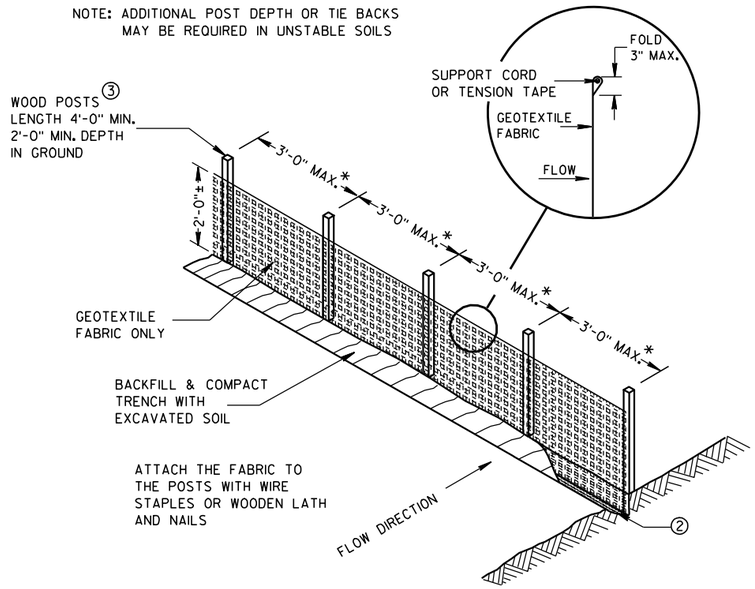
GENERAL NOTES

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

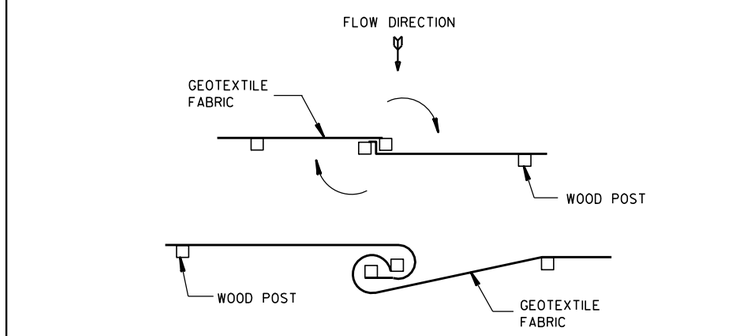
1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.
4. SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
5. CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



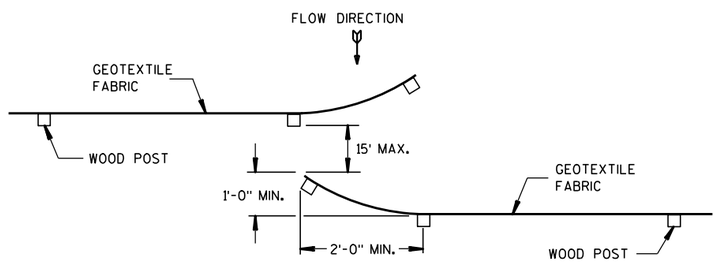
TRENCH DETAIL



SILT FENCE

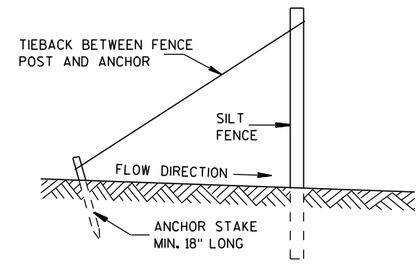


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE 5



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

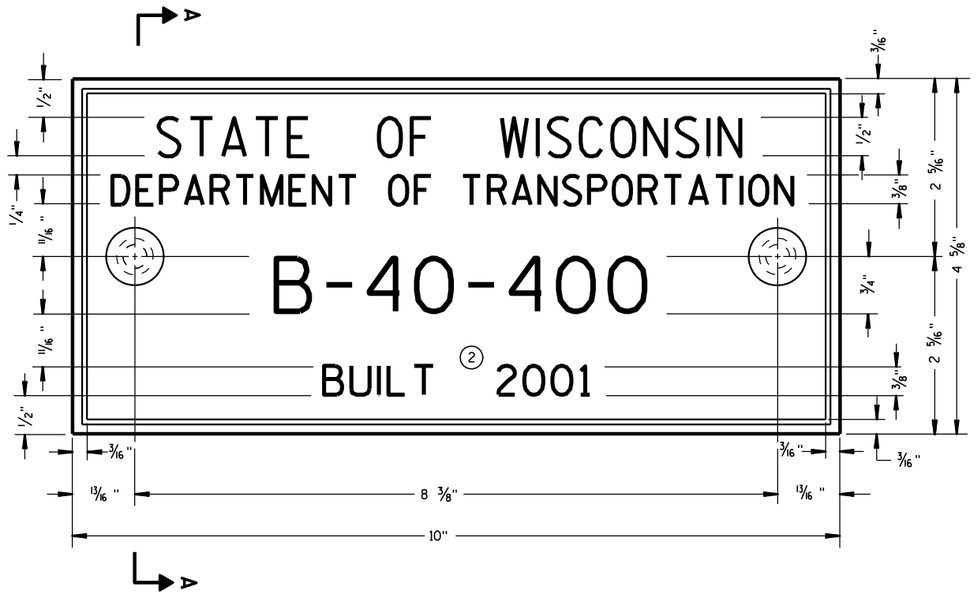
SILT FENCE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
4-29-05 DATE	/S/ Beth Cannestra CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA	

6

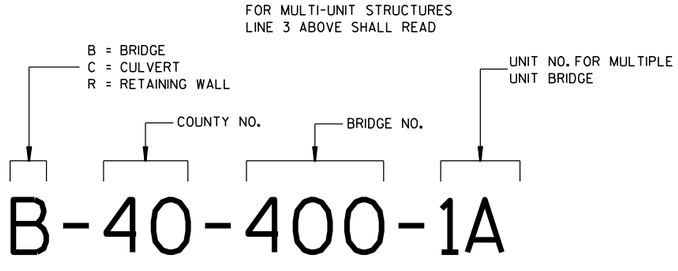
S.D.D. 8 E 9-6

6

S.D.D. 8 E 9-6



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



NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES

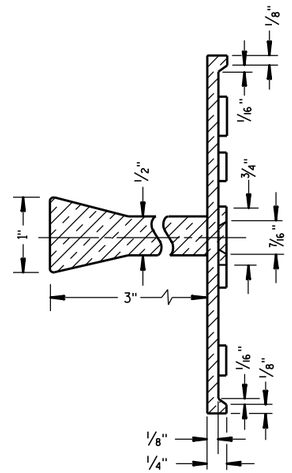
GENERAL NOTES

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.

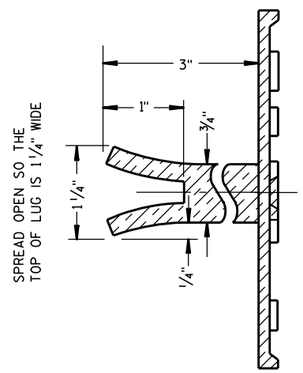
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

(1) EPOXY RESIN SHALL BE FROM AN APPROVED MANUFACTURER AND USED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

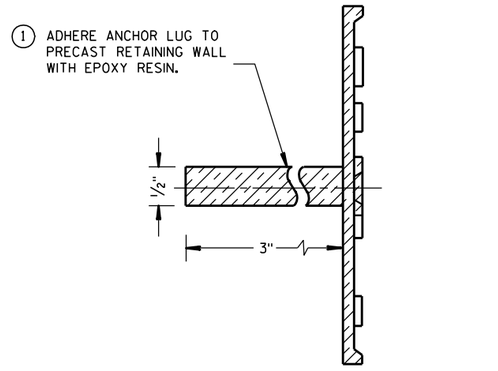
(2) REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



SECTION A-A



ALTERNATE LUG



ALTERNATE LUG
(FOR ATTACHMENT TO PRECAST STRUCTURES)

NAME PLATE (STRUCTURES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/26/10 DATE

/S/ Scot Beck -- CHIEF STRUCTURAL DEVELOP ENGINEER

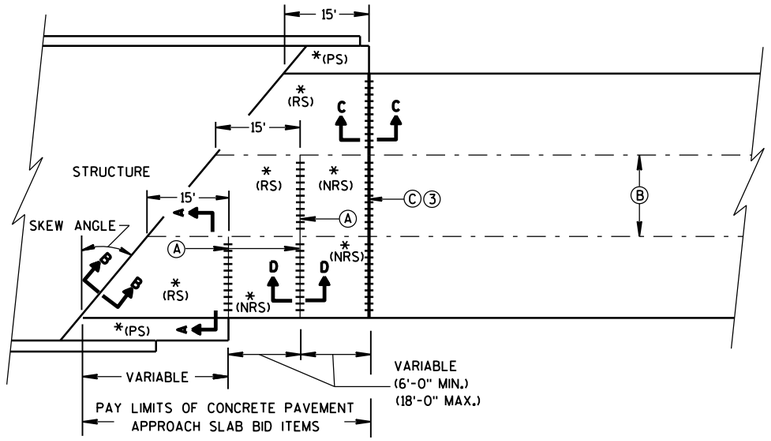
FHWA

6

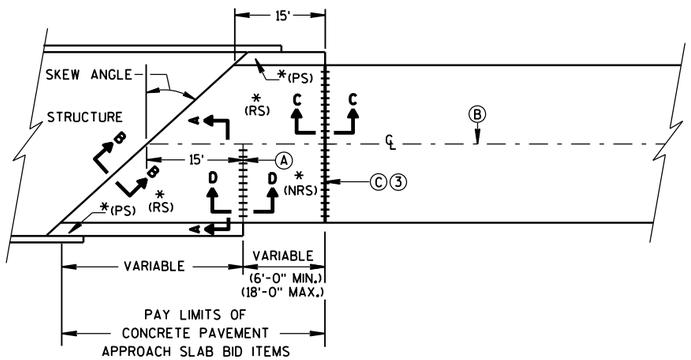
S.D.D. 12 A 3-10

6

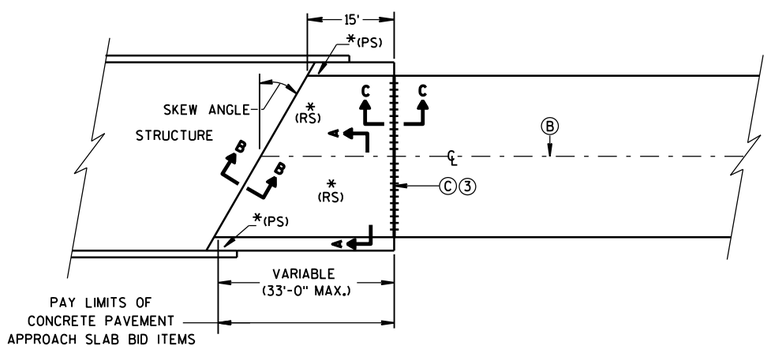
S.D.D. 12 A 3-10



SKEWED APPROACH
(PAVEMENT MORE THAN 2 LANES)



SKEWS >20°
(PAVEMENT WIDTH ≤30')



SKEWS ≤20°
(PAVEMENT WIDTH ≤30')

APPROACH SLAB AND ADJACENT PAVEMENT

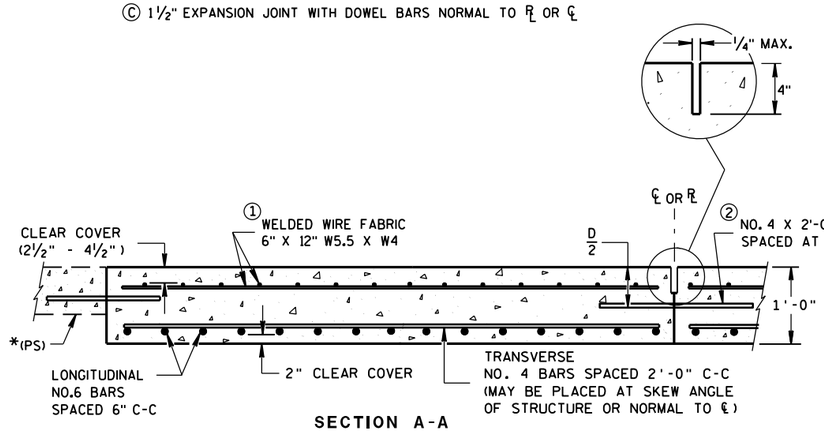
*(RS) = REINFORCED CONCRETE SLAB
*(PS) = PAVED CONCRETE SHOULDER OR CONCRETE DRAINAGE SLAB
(SEE DETAILS ELSEWHERE IN THE PLAN)
*(NRS) = NON-REINFORCED CONCRETE SLAB

***STANDARD DOWEL BAR DIAMETER
(SEE SDD 13C11, & SDD 13C13)

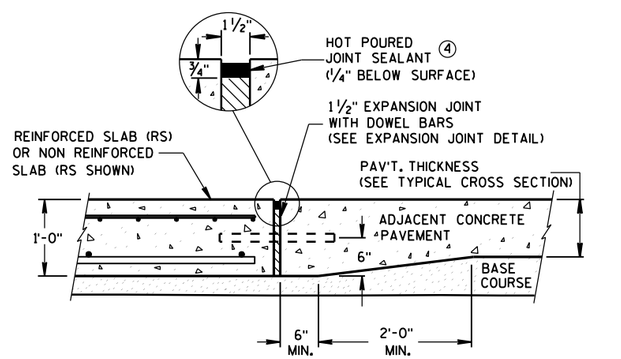
Ⓐ STANDARD CONTRACTION JOINT NORMAL TO ℄ OR ℄

Ⓑ STANDARD LONGITUDINAL JOINT WITH TIE BARS.

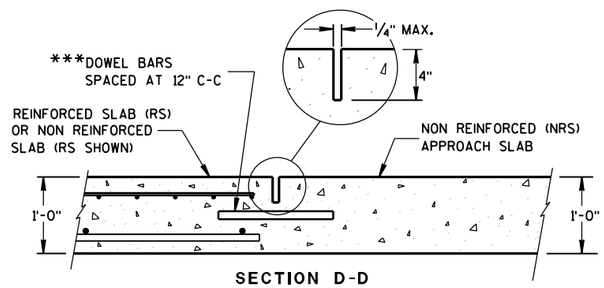
Ⓒ 1½" EXPANSION JOINT WITH DOWEL BARS NORMAL TO ℄ OR ℄



SECTION A-A
REINFORCEMENT POSITIONING DETAIL



SECTION C-C
TRANSITION DETAIL
APPROACH SLAB TO ADJACENT PAVEMENT



SECTION D-D
CONTRACTION JOINT

GENERAL NOTES

THE CONTRACTOR MAY SPLICE NO. 6 BARS IN THE APPROACH SLAB FOR SKEWED STRUCTURES ONLY. STAGGER SPLICES WITH A MAXIMUM OF ONE SPLICE PER BAR. THE LENGTH OF LAP IS 20 INCHES.

TACK WELD DOWEL BARS TO THE BASKETS ON ALTERNATE ENDS.

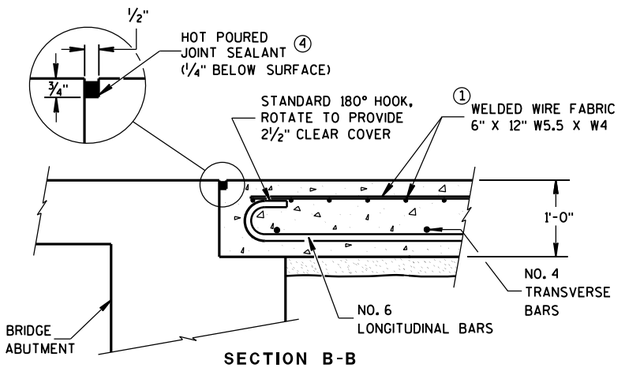
① THE CONTRACTOR MAY USE NO. 4 BARS SPACED AT 2'-0" C-C IN BOTH THE LONGITUDINAL AND TRANSVERSE DIRECTIONS FOR TOP REINFORCEMENT AS AN ALTERNATIVE TO THE WELDED WIRE FABRIC.

② THE CONTRACTOR MAY OMIT TIE BARS BETWEEN REINFORCED SLABS WHERE SLAB REINFORCEMENT BARS EXTEND ACROSS THE CENTERLINE OR REFERENCE LINE.

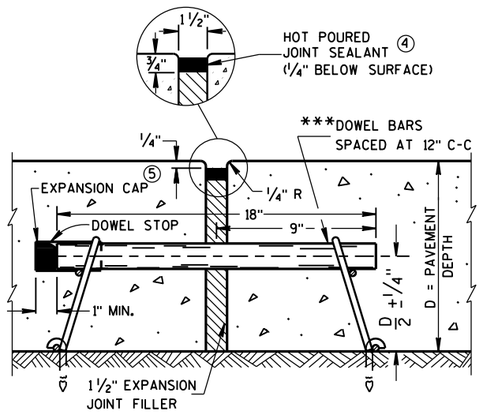
③ DO NOT CONSTRUCT AN EXPANSION JOINT OR INSTALL DOWEL BARS WHEN ABUTTING AN HMA PAVEMENT.

④ USE A JOINT SEALANT MEETING THE REQUIREMENTS OF ASTM D6690.

⑤ PLACE EXPANSION CAP ON THE END OF THE DOWEL THAT IS NOT TACK WELDED TO THE BASKET. DO NOT FORCE DOWEL BAR PAST THE DOWEL STOP.



SECTION B-B
BEND DETAIL
BOTTOM REINFORCEMENT



EXPANSION JOINT DETAIL

CONCRETE PAVEMENT APPROACH SLAB

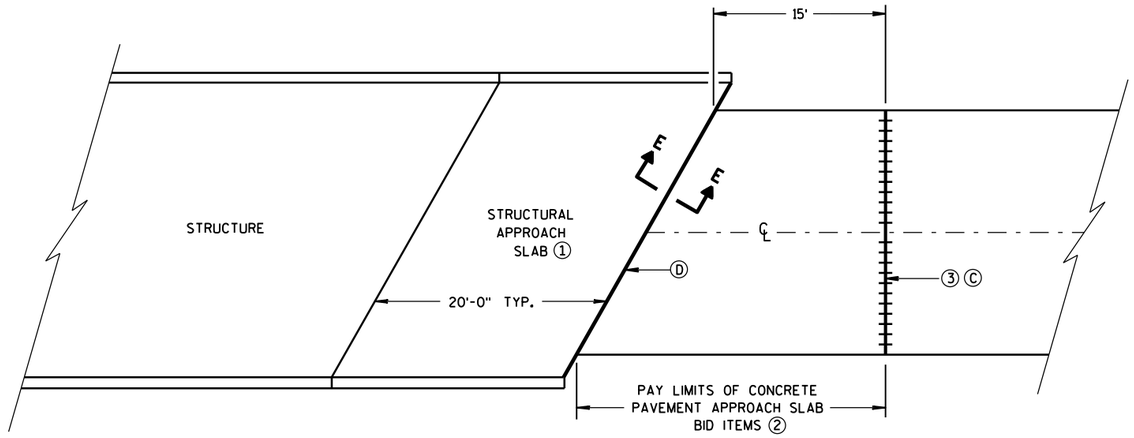
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015
DATE
/S/ Peter Kemp, P.E.
PAVEMENT SUPE
FHWA

6

S.D.D. 13 B 2-8a

BRIDGE APPROACHES



GENERAL NOTES

ALL PROJECTS THAT INVOLVE A STRUCTURAL APPROACH SLAB WILL ALSO HAVE A CONCRETE PAVEMENT APPROACH SLAB.

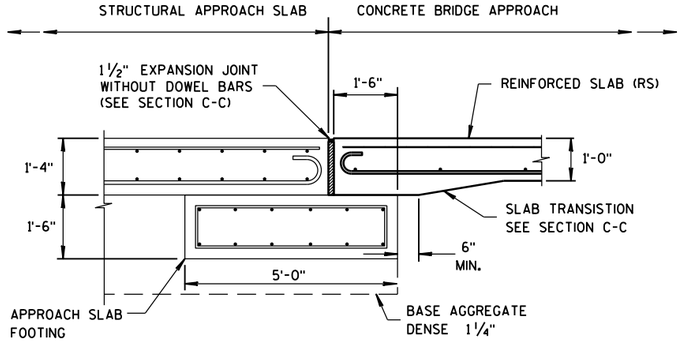
① SEE BRIDGE PLAN.

② CONFORM TO SHEET 13 B 2(A) FOR CONCRETE PAVEMENT APPROACH SLAB DETAILS.

③ DO NOT CONSTRUCT AN EXPANSION JOINT OR INSTALL DOWEL BARS WHEN ABUTTING AN HMA PAVEMENT.

Ⓒ 1½" EXPANSION JOINT WITH DOWEL BARS NORMAL TO ℄ OR ℄

Ⓓ 1½" EXPANSION JOINT (NO DOWELS)



SECTION E-E

FOOTING DETAIL

STRUCTURAL APPROACH SLAB TO CONCRETE BRIDGE APPROACH

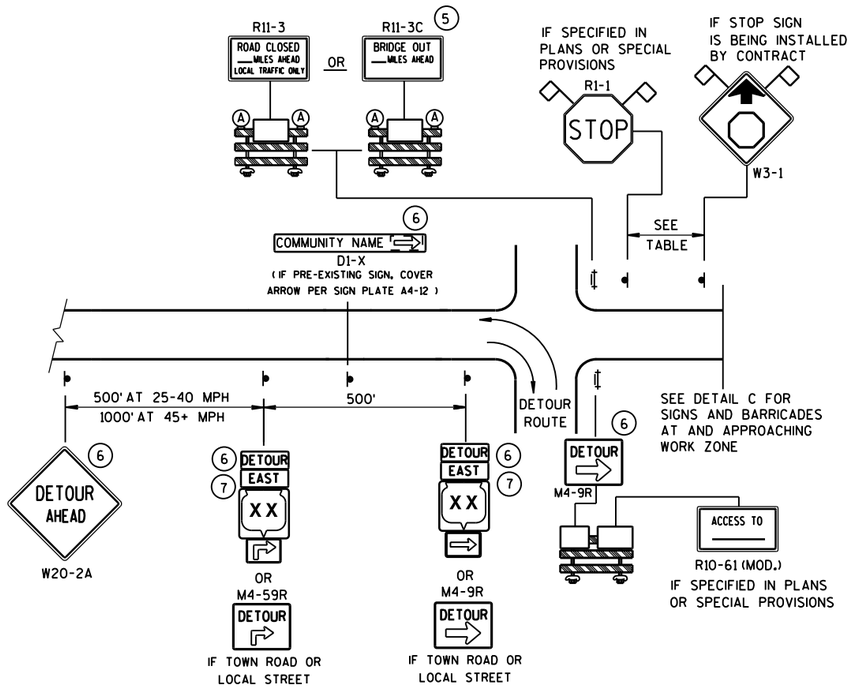
STRUCTURAL APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Peter Kemp, P.E. — PAVEMENT SUPEF
FHWA

6

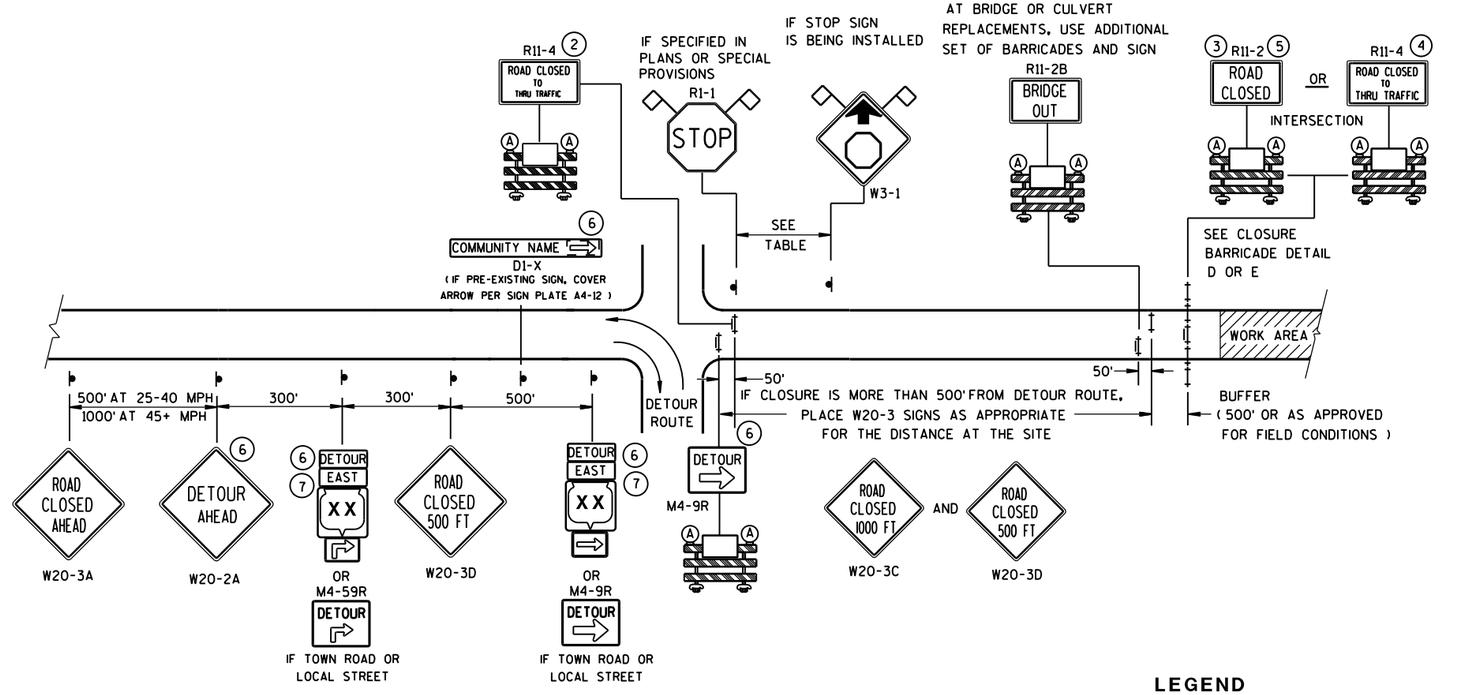
S.D.D. 13 B 2-8b



DETAIL A

MAINLINE CLOSURE WITH POSTED DETOUR

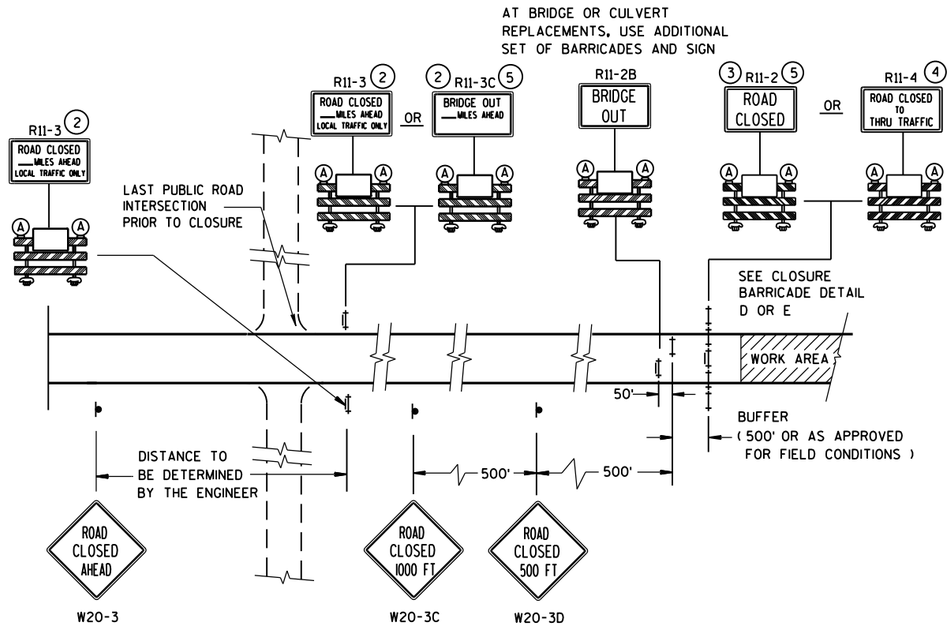
WORK ZONE GREATER THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL B

MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE LESS THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL C

MAINLINE CLOSURE, NO POSTED DETOUR

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

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

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- DETOUR / EAST — M4-8 / M3-X
- XX — M1-4; COUNTY XX — M1-5A; XX — M1-6
- M05-1 OR M06-1
- FLAGS, 16" X 16" MIN., (ORANGE)

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

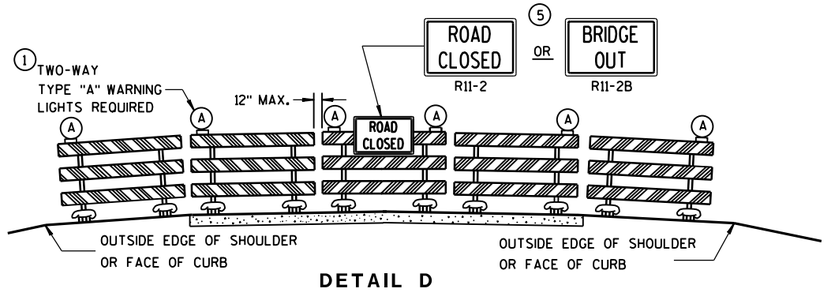
Sept. 2015 — DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER
FHWA

6

S.D.D. 15 C 2-6a

6

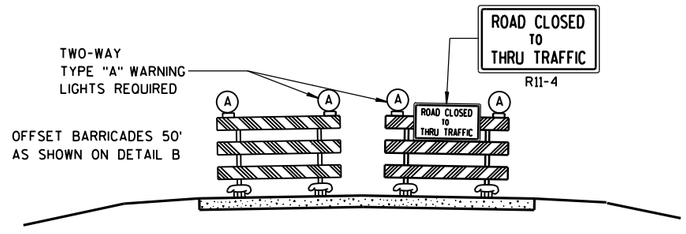
S.D.D. 15 C 2-6a



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 BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE 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, 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". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)
- M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)
- M05-1 AND M06-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1-1 SHALL BE 36" X 36".

(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 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 LANE 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 MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

Sept. 2015 — DATE

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZO SAFETY ENGI

FHWA

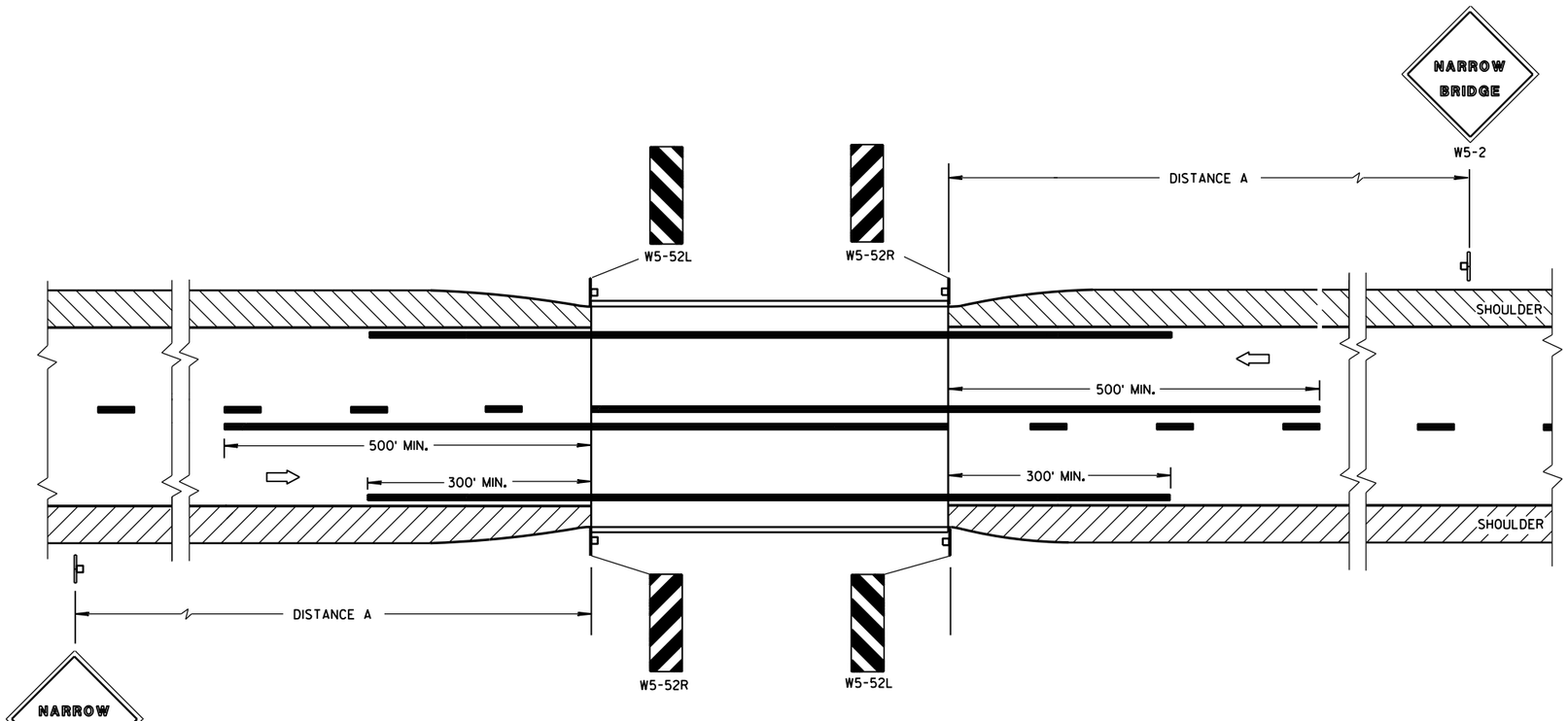
FIC

6

S.D.D. 15 C 2-6b

6

S.D.D. 15 C 2-6b



NARROW BRIDGE
W5-2

SITUATION 1

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

DISTANCE TABLE

POSTED OR 85th PERCENTILE SPEED	DISTANCE "A"
25	150'
30	200'
35	250'
40	300'
45	400'
50	550'
55	750'

GENERAL NOTES

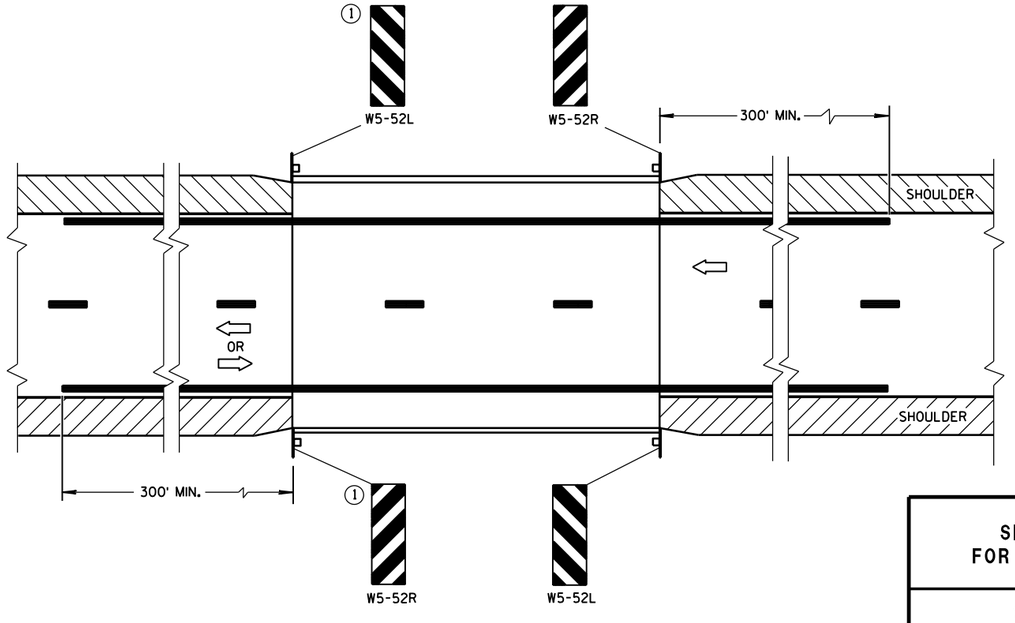
DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

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

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

(1) OMIT ON ONE-WAY TRAVELLED WAYS.

⇨ DIRECTION OF TRAFFIC



SITUATION 2

WARRANTING CRITERIA:

1. BRIDGE WIDTH IS AT LEAST 24 FEET AND
2. BRIDGE SHOULDER WIDTH IS LESS THAN 6 FEET.

SIGNING & MARKING FOR TWO LANE BRIDGES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

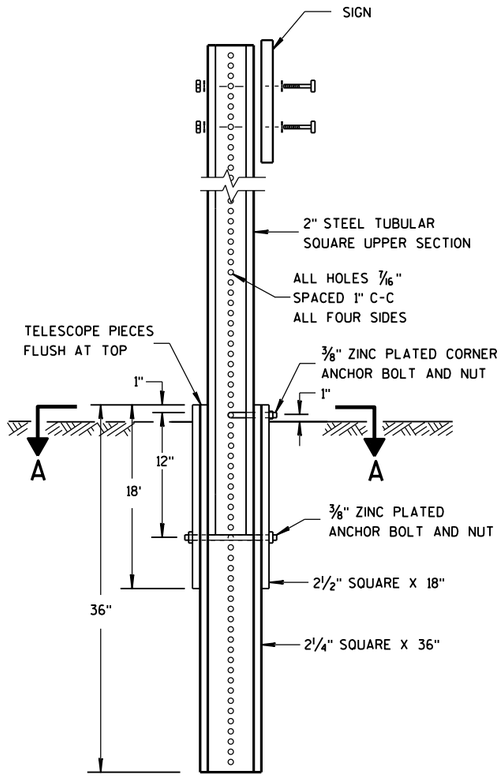
APPROVED
June 2017 — DATE
/S/ Matthew R. Rauch — STATE SIGNING AND MAR[illegible]EER
FHWA

6

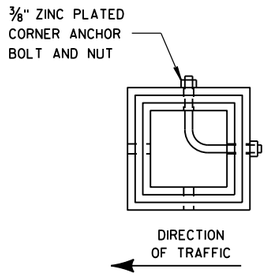
S.D.D. 15 C 6-9

6

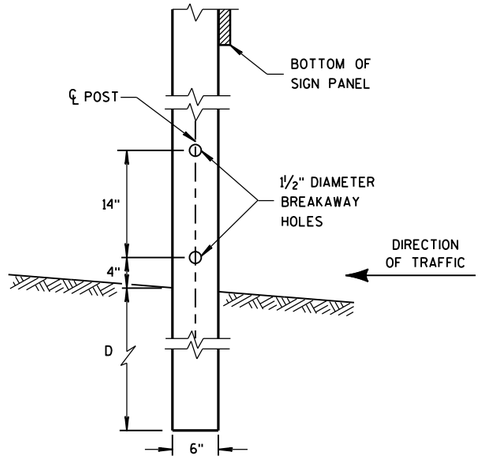
S.D.D. 15 C 6-9



DETAIL OF TUBULAR STEEL SIGN POST



SECTION A-A



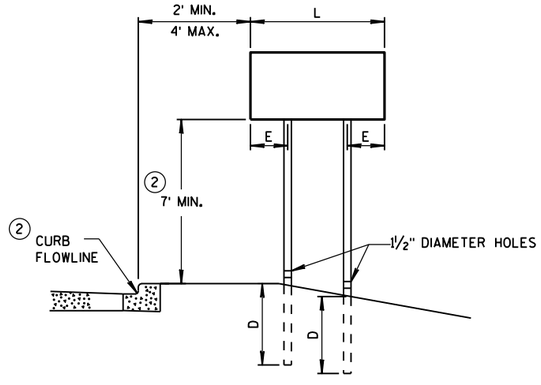
4"x6" WOOD POST MODIFICATION

GENERAL NOTES

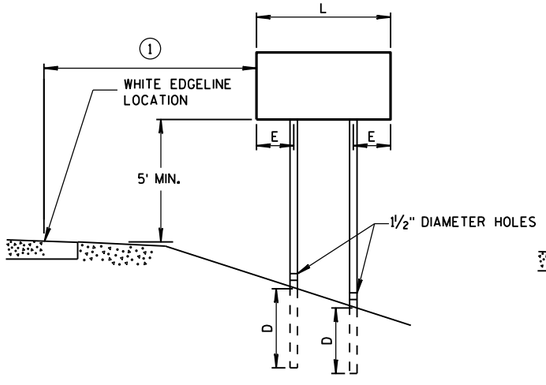
(1) 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.

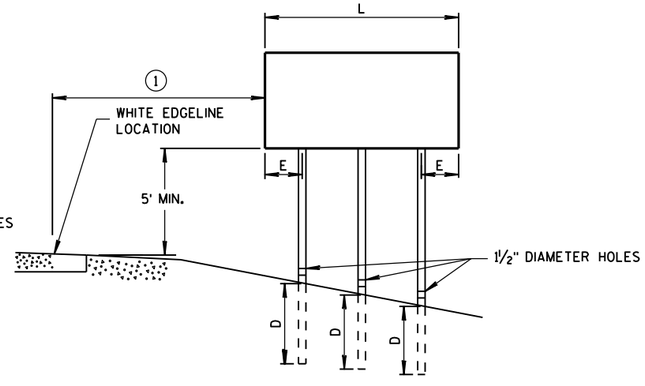
(2) THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK AND NO PARKING, VERTICAL CLEARANCE MAY BE REDUCED TO 5 FOOT MINIMUM. OFFSET OF SIGNS IS MEASURED FROM THE CURB FLOWLINE.

(3) FOR SIGNS REQUIRING 4 POSTS, SPACE INTERMEDIATE POSTS EVENLY.



URBAN AREA





RURAL AREA

POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

TUBULAR STEEL POSTS

AREA OF SIGN INSTALLATION (SQ. FT.)	NUMBER OF REQUIRED TUBULAR STEEL 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).

SIGNS LARGER THAN 27 SQ. FT. SHALL NOT BE MOUNTED ON TUBULAR STEEL POSTS.

WOOD POST EMBEDMENT DEPTH

AREA OF SIGN INSTALLATION (SQ. FT.)	D (MIN)
20 OR LESS	4'
GREATER THAN 20	5'

4" X 6" WOOD POST

POST SPACING REQUIREMENTS		NUMBER OF WOOD POSTS REQUIRED
L	E	
48" OR LESS AND LESS THAN 20 SQ. FT.	-	1
LESS THAN 60"	12"	2
60" TO 120"	L/5	2
GREATER THAN 120" LESS THAN 168"	12"	3
168" AND GREATER	12"	4

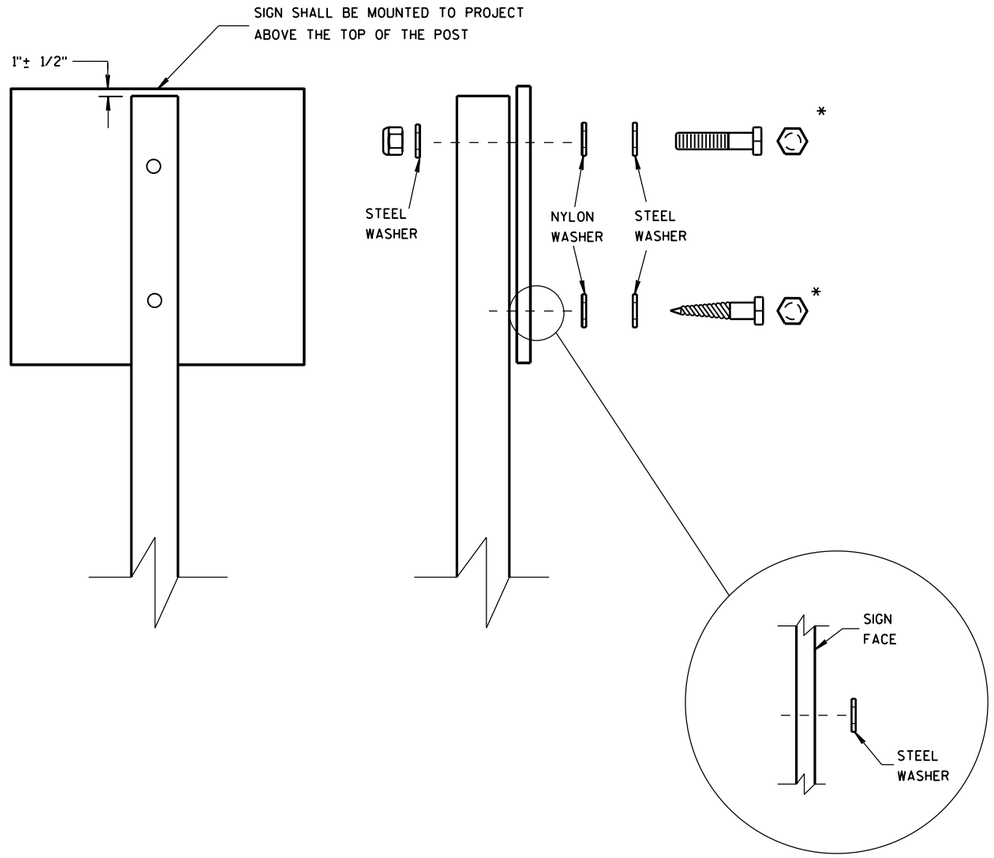
SEE NOTE (3)

TEMPORARY TRAFFIC CONTROL SIGN MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 15 D 38-2a



WASHER PLACEMENT WHEN SIGN HAS OTHER THAN TYPE H OR TYPE F FACE

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.

WOOD POSTS (4" x 4" or 4" x 6")

LAG SCREWS - 3/8" X 3"

MACHINE BOLTS - 5/16" X 6-1/2" OR 7" LENGTH W/ NUTS

SQUARE STEEL POSTS (2" x 2")

MACHINE BOLTS - 3/8" X 3-1/4" LENGTH W/ NUTS

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 FOR ALL TYPE H SIGNS

* 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. FOR A SINGLE POST INSTALLATION, ALL SIGNS GREATER THAN 9 SQ. FT. REQUIRE THE USE OF 3 FASTENERS.

6

6

S.D.D. 15 D 38-2b

S.D.D. 15 D 38-2b

ATTACHMENT OF SIGNS TO POSTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

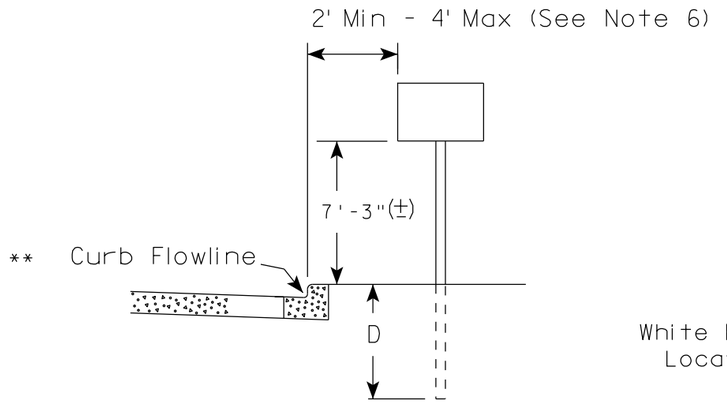
APPROVED

June 2017
DATE

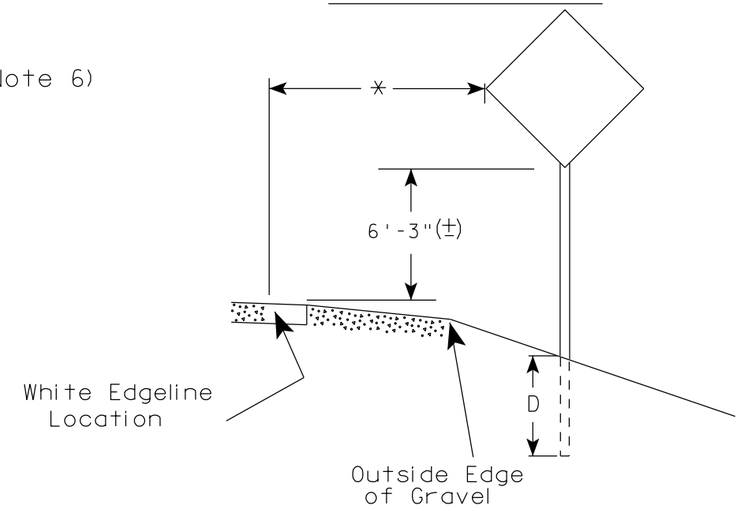
/S/ Andrew Heldtke
WORK ZONE ENG

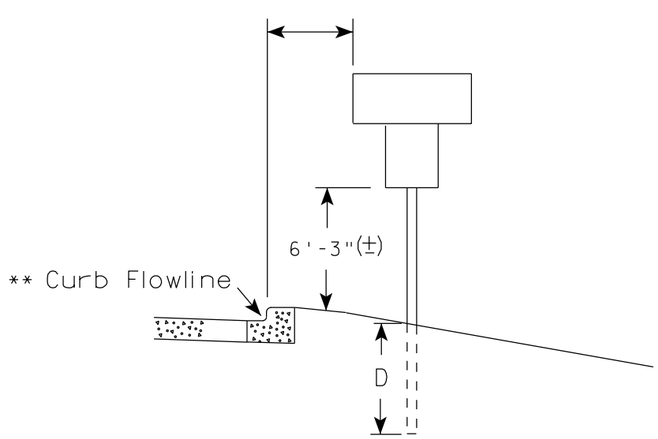
FHWA

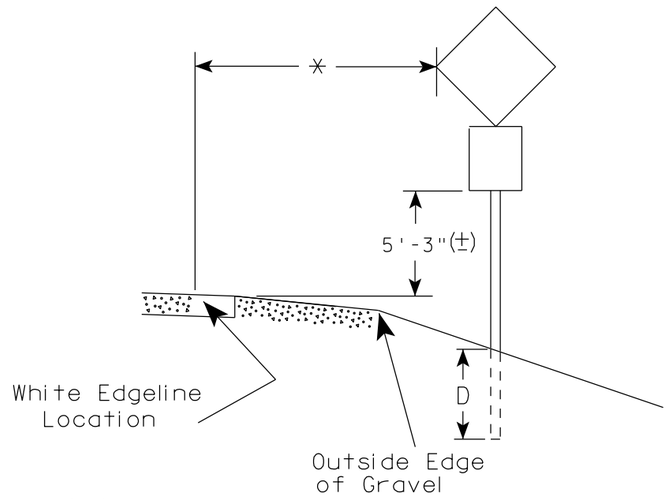
URBAN AREA



RURAL AREA (See Note 2)







** 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.

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 barrier wall, see A4-10 sign plate.
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. Minimum mounting height for J assemblies (A2-1S) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
5. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. The (±) tolerance for mounting height is 3 inches.
8. Folding signs shall be mounted at a height of 5'-3" (±) or as directd by the Engineer.
9. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).

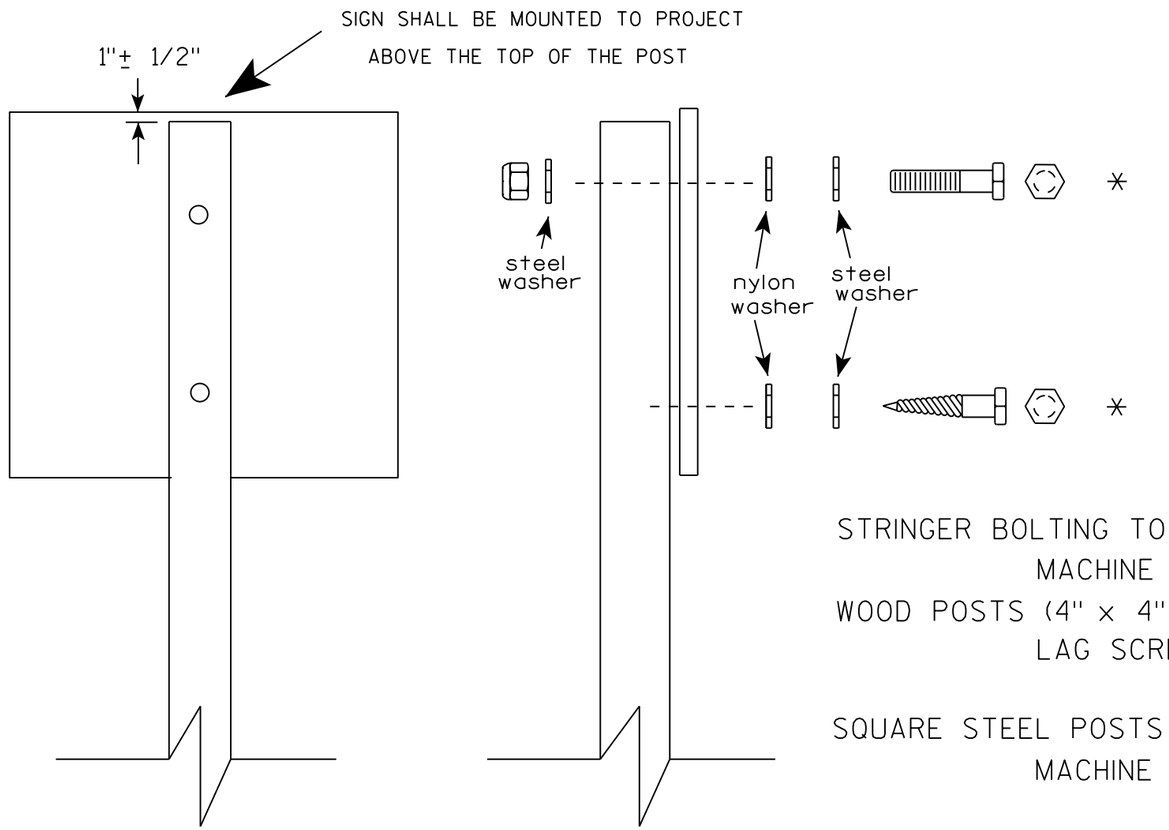
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/23/15 PLATE NO. A4-3.20

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 4" or 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.

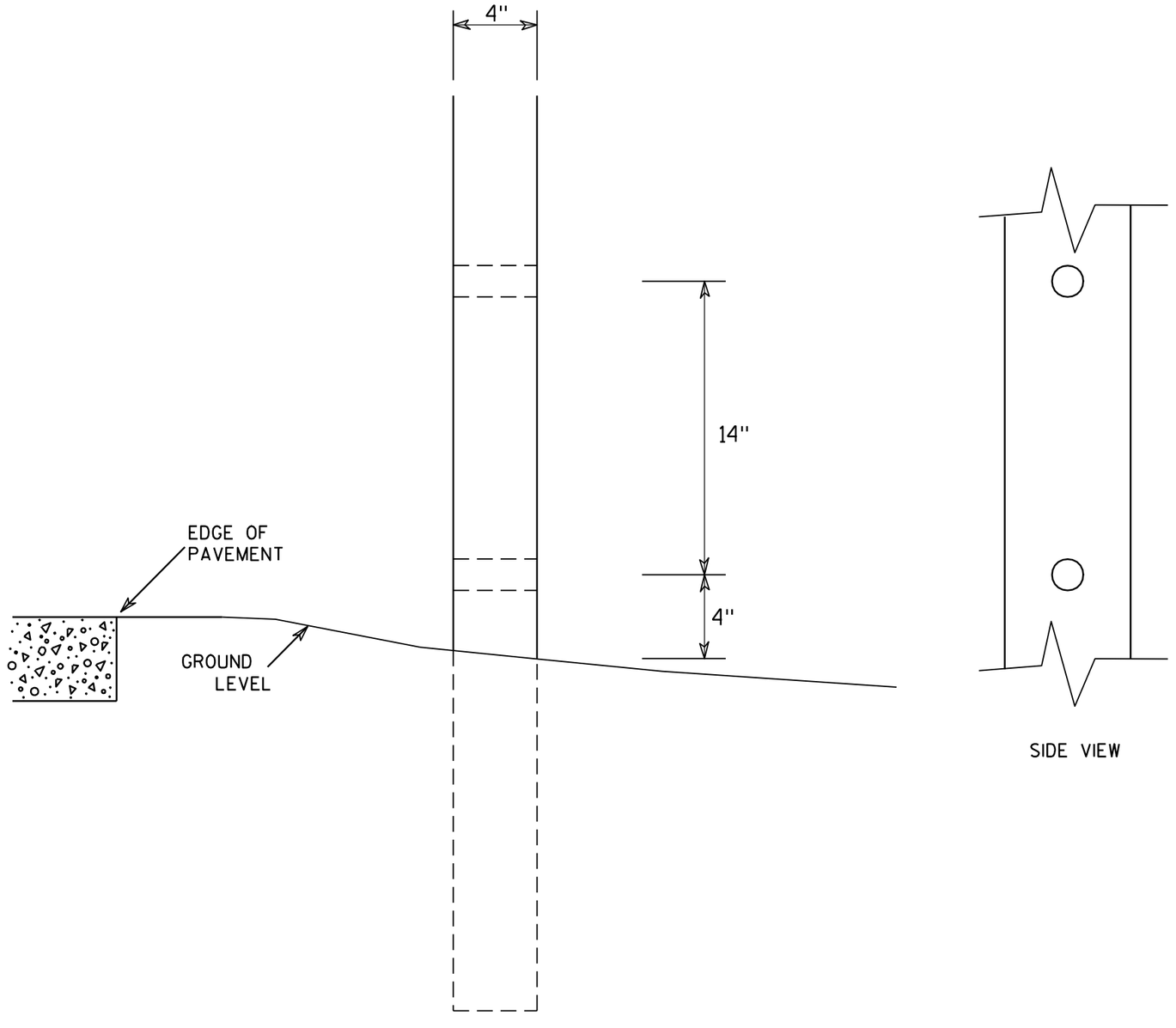
ATTACHMENT OF SIGNS TO POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 8/11/16 PLATE NO. A4-8.8

PROJECT NO: SHEET NO: E



SIDE VIEW

GENERAL NOTES

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

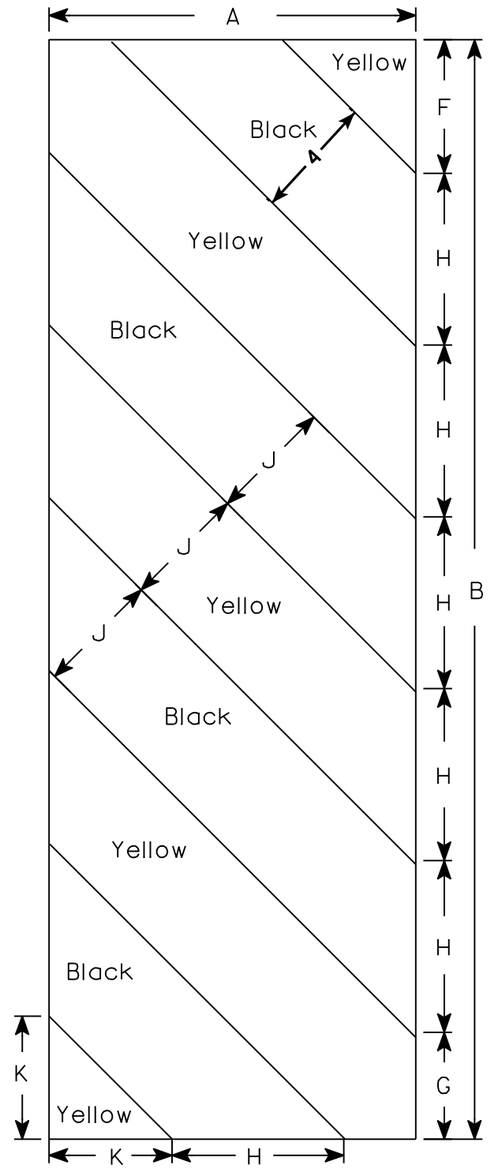
4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

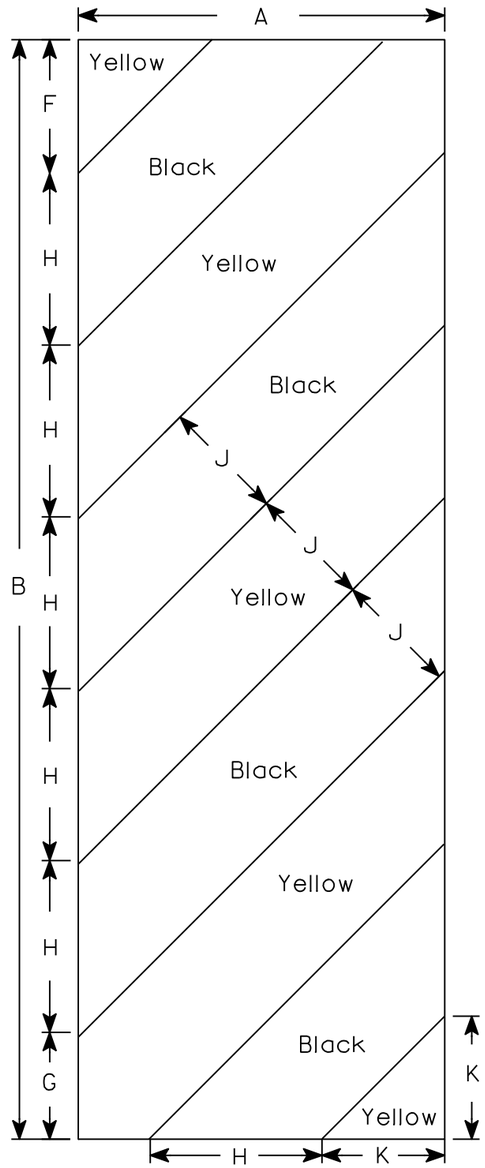
APPROVED Chester J Spang for State Traffic Engineer

DATE 3/27/97 PLATE NO. A4-11.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 26	E



W5-52L



W5-52R

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	12	36				4 3/8	3 1/2	5 5/8	45°	4	4																3.0
2M	12	36				4 3/8	3 1/2	5 5/8	45°	4	4																3.0
3	18	54				6	5 1/2	8 1/2	45°	6	6 9/16																6.75
4																											
5																											

STANDARD SIGN

W5-52L & W5-52R

WISCONSIN DEPT OF TRANSPORTATION

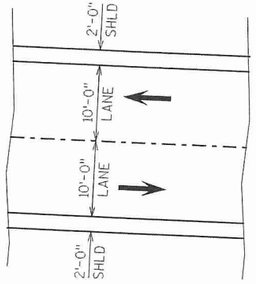
APPROVED Matthew R Rauch
for State Traffic Engineer

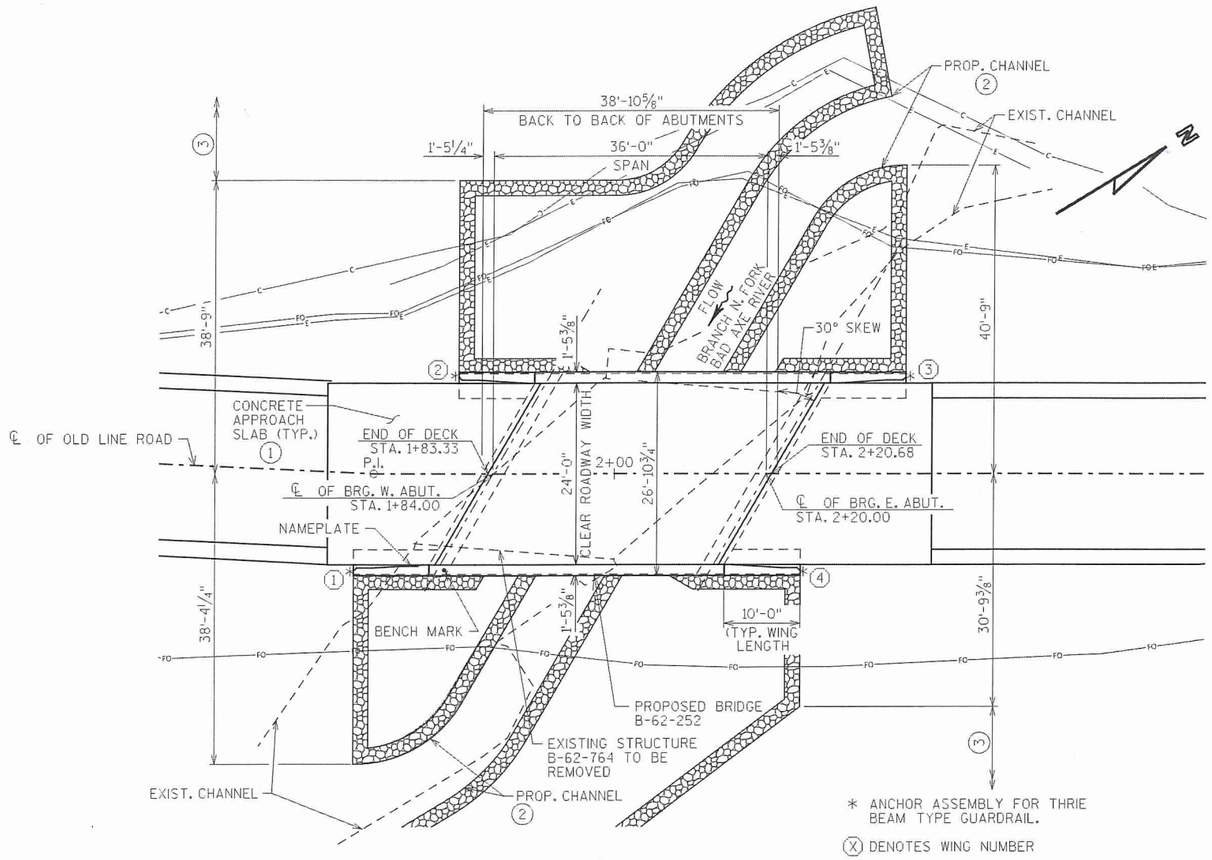
DATE 5/29/12 PLATE NO. W5-52.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 27	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W552.DGN PLOT DATE : 29-MAY-2012 13:03 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 4.961899:1.000000

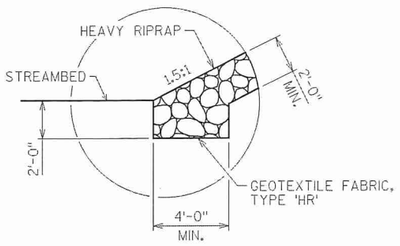
7





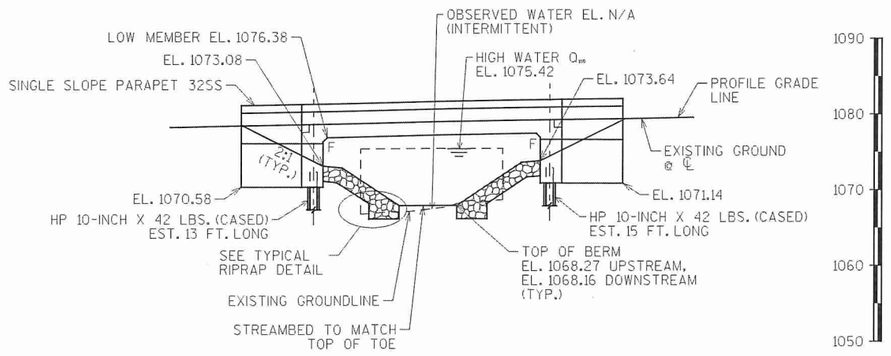
PLAN

(SINGLE SPAN REINFORCED CONCRETE FLAT SLAB)



TYPICAL RIPRAP DETAIL

(ADJACENT TO ABUTMENTS)



ELEVATION

(NORMAL TO PROPOSED ℄ CHANNEL)

BENCHMARK

STA. 3+52.41
OFFSET: 16.5 FT. LT.
EL. 1080.256
DESCRIPTION: BENCHMARK LIMIT1, ½" SET FROM PIN IN GRADE NE OF BRIDGE.

BRIDGE OFFICE CONTACT:
BILL DREHER
(608)266-8489

SRF CONTACT:
CASEY BLACK
(763)452-4751

STATE PROJECT NUMBER

5378-00-71

DESIGN DATA

LIVE LOAD:
DESIGN LOADING: HL-93
INVENTORY RATING FACTOR: RF = 1.13
OPERATING RATING FACTOR: RF = 1.69
WISCONSIN STANDARD PERMIT VEHICLE (Wis-SPV) = 250 KIPS

STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20 PSF

MATERIAL PROPERTIES:

CONCRETE SUPERSTRUCTURE	f'c = 4000 P.S.I.
CONCRETE SUBSTRUCTURE	f'c = 3500 P.S.I.
BAR STEEL REINFORCEMENT	fy = 60000 P.S.I.

FOUNDATION DATA

ABUTMENTS TO BE SUPPORTED ON HP 10-INCH x 42 LB. PILING. ESTIMATED 13 FEET LONG AT THE WEST ABUTMENT AND 15 FEET LONG AT THE EAST ABUTMENT. PREBORE AT LEAST 3-FEET INTO SOLID ROCK. CASING SHALL BE REQUIRED. PILING SHALL BE FIRMLY SEATED ON ROCK. FILL SPACE BETWEEN THE CORED HOLE AND PILE WITH CONCRETE OR CEMENT GROUT. CLEAN SAND MAY BE USED TO BACKFILL ABOVE THE TOP OF ROCK ELEVATION.

*THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS 90 TONS.

HYDRAULIC DATA

100 YEAR FREQUENCY

Q_{100} =	1020 C.F.S.
VEL. =	10.6 F.P.S.
HW_{100} =	1075.42 FT
WATERWAY AREA =	97 S.O.
DRAINAGE AREA =	1.8 S.O. MILES
ROADWAY OVERTOPPING =	N/A
SCOUR CRITICAL CODE =	8

2 YEAR FREQUENCY

Q_2 =	172 C.F.S.
VEL. =	5.6 F.P.S.
HW_2 =	1071.69 FT

TRAFFIC DATA

A.D.T. (2018) =	95
A.D.T. (2038) =	105
DESIGN SPEED =	30 M.P.H.

LIST OF DRAWINGS

NOTES

(1) SEE ROADWAY STANDARD PLAN.

(2) SEE GRADING PLAN FOR TRANSITION TO EXISTING CHANNEL.

(3) SEE CHANNEL REALIGNMENT DETAILS IN THE ROADWAY PLANS AND SHEET 10 FOR FULL EXTENT OF RIPRAP.

NO.	DATE	REVISION	BY

WISCONSIN PROFESSIONAL ENGINEER
CASEY E. BLACK
E-43114
MINNEAPOLIS, MN
12/17/17

SRF Consulting Group, Inc. — Engineers Planners Designers

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher SDR 02/06/18
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-62-252

OLD LINE RD OVER BRANCH N. FORK BAD AXE RIVER

COUNTY: VERNON — TOWN: ~~CITY/VILLAGE~~: COON

DESIGN SPEC.: AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
CEB	KLS	ERJ	CEB

GENERAL PLAN & ELEVATION

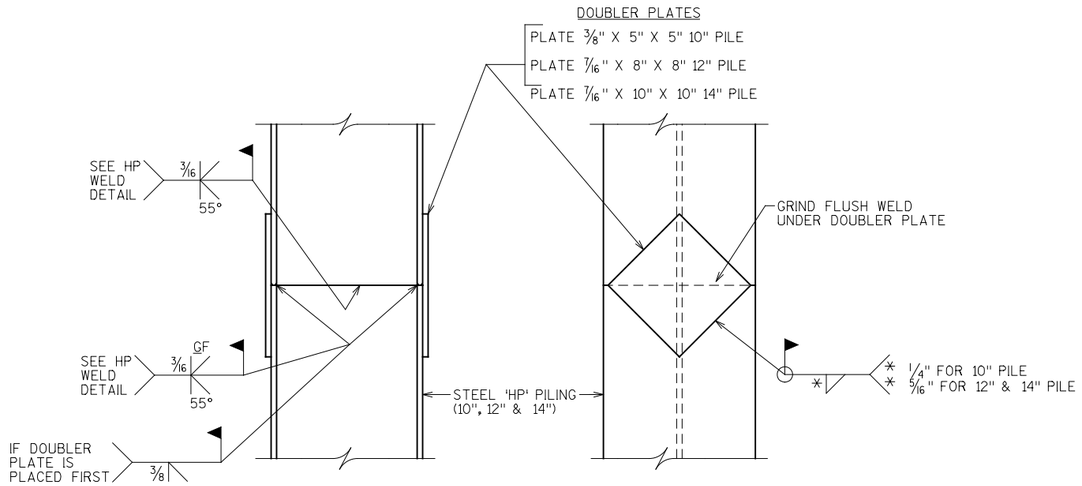
SHEET 1 OF 11
28

8

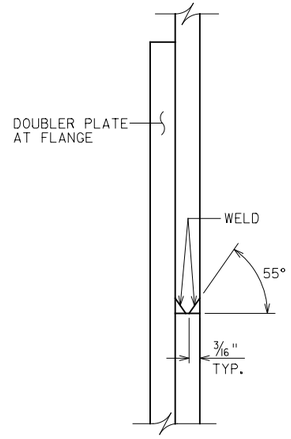
8

STATE PROJECT NUMBER

5378-00-71



STEEL 'HP' SHAPES



HP WELD DETAIL

FLANGE SHOWN, WEB SIMILAR

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED. BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

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

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

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

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

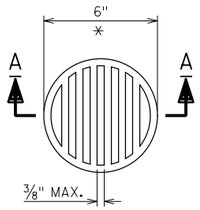
SEE ROADWAY PLANS FOR EXISTING UTILITY LOCATIONS.

THE EXISTING STRUCTURE TO BE REMOVED IS A 29.7' LONG BY 20.1' CLEAR ROADWAY WIDTH, ONE-SPAN STEEL GIRDER AND CONCRETE DECK (B-62-764) WITH BITUMINOUS OVERLAY, SET ON FULL RETAINING VERTICAL MASONRY ABUTMENTS.

THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES BRIDGES B-62-252" SHALL BE THE EXISTING GROUNDLINE.

PROTECTIVE SURFACE TREATMENT SHALL BE APPLIED TO THE TOP OF SLAB AND EXPOSED TOPS OF WINGS.

PIGMENTED SURFACE SEALER SHALL BE APPLIED TO THE TOP AND ROADWAY FACES OF THE PARAPET, INCLUDING PARAPETS ON ABUTMENT WINGS.

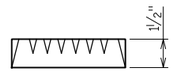


RODENT SHEILD DETAIL

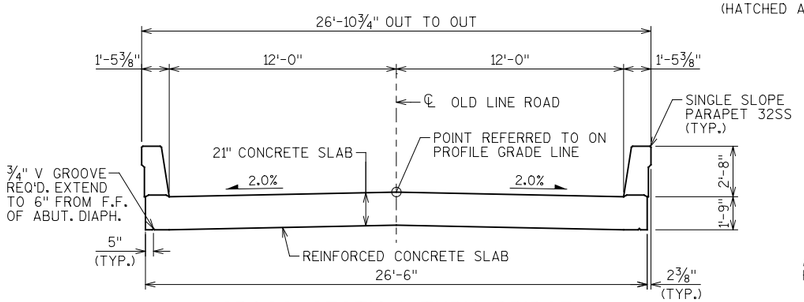
* DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SO SLOTS ARE VERTICAL.

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

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

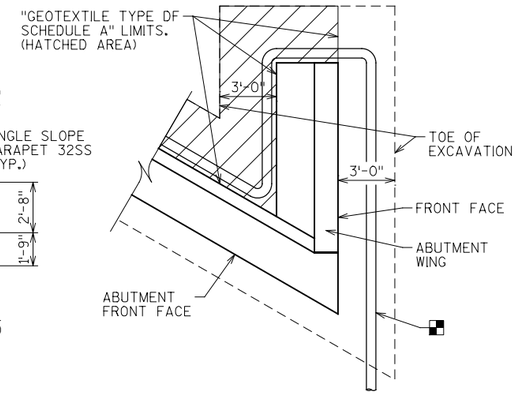


SECTION A-A



CROSS SECTION THRU BRIDGE

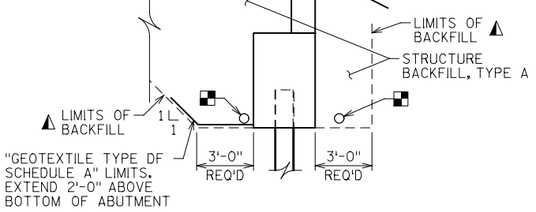
(LOOKING EAST)



ABUTMENT PLAN WITH WING

(A1 ABUTMENT WITHOUT STRUCTURAL APPROACH)

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



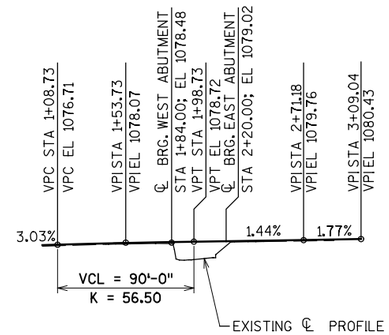
TYPICAL SECTION THRU WING

(A1 ABUTMENT WITHOUT STRUCTURAL APPROACH)

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

B-62-252 TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEM	UNIT	WEST ABUTMENT	EAST ABUTMENT	SUPER-STRUCTURE	TOTAL	
203.0500.S	REMOVING OLD STRUCTURE OVER WATERWAY STA 2+02.00	LS	-	-	-	1	
206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-62-252	LS	-	-	-	1	
210.1500	BACKFILL STRUCTURE TYPE A	TON	164	164	-	328	
502.0100	CONCRETE MASONRY BRIDGES	CY	32	32	79	143	(1)(2)
502.3200	PROTECTIVE SURFACE TREATMENT	SY	-	-	100	100	
502.3210	PIGMENTED SURFACE SEALER	SY	-	-	48	48	
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	1930	1930	-	3860	
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	2005	2015	15370	19390	(1)(2)
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	8	8	-	16	
550.0020	PRE-BORING ROCK OR CONSOLIDATED MATERIALS	LF	80	90	-	170	
550.1100	PILING STEEL HP 10-INCH X 42 LB	LF	90	100	-	190	
606.0300	RIPRAP HEAVY	CY	254	265	-	519	
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	81	81	-	162	
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH			4	4	
645.0111	GEOTEXTILE TYPE DF SCHEDULE A	SY	40	40	-	80	
645.0120	GEOTEXTILE TYPE HR	SY	459	472	-	931	
	NON-BID ITEMS						
	FILLER	SIZE	-	-	-	1/2" & 3/4"	
	NAME PLATE	EACH	1	-	-	1	



PROFILE GRADE LINE

NOTES:

(1) ABUTMENT QUANTITIES INCLUDE MATERIALS FOR ABUTMENTS AND PARAPET SECTIONS ON ABUTMENTS.

(2) SUPERSTRUCTURE QUANTITY INCLUDES MATERIALS FOR SLAB AND PARAPETS ON SLAB.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-62-252

DRAWN BY ERJ | PLANS CK'D. CEB

CROSS SECTION, QUANTITIES & NOTES

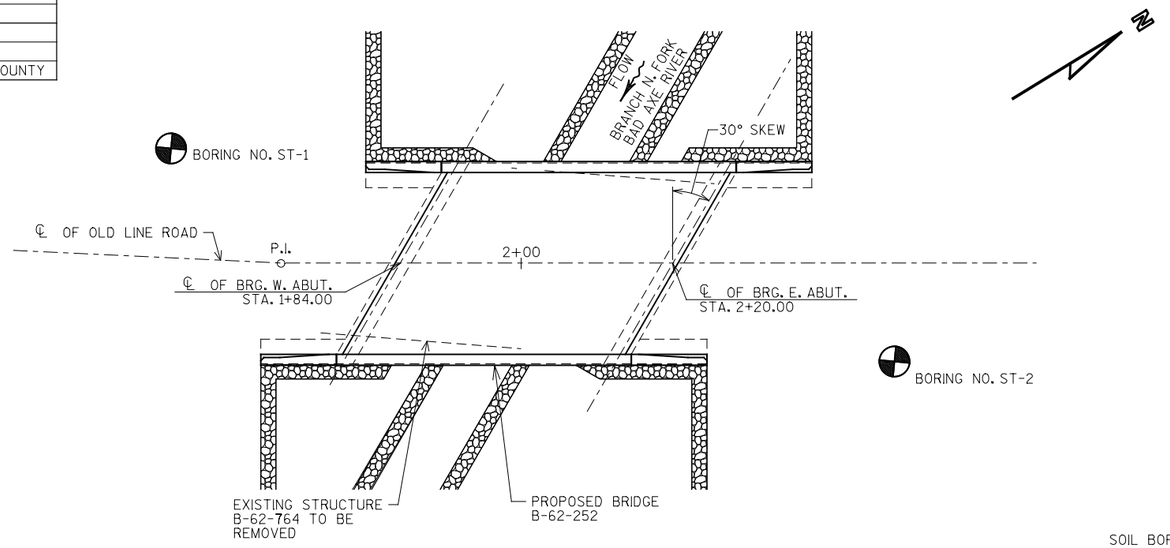
SHEET 2 OF 11

29

8

8

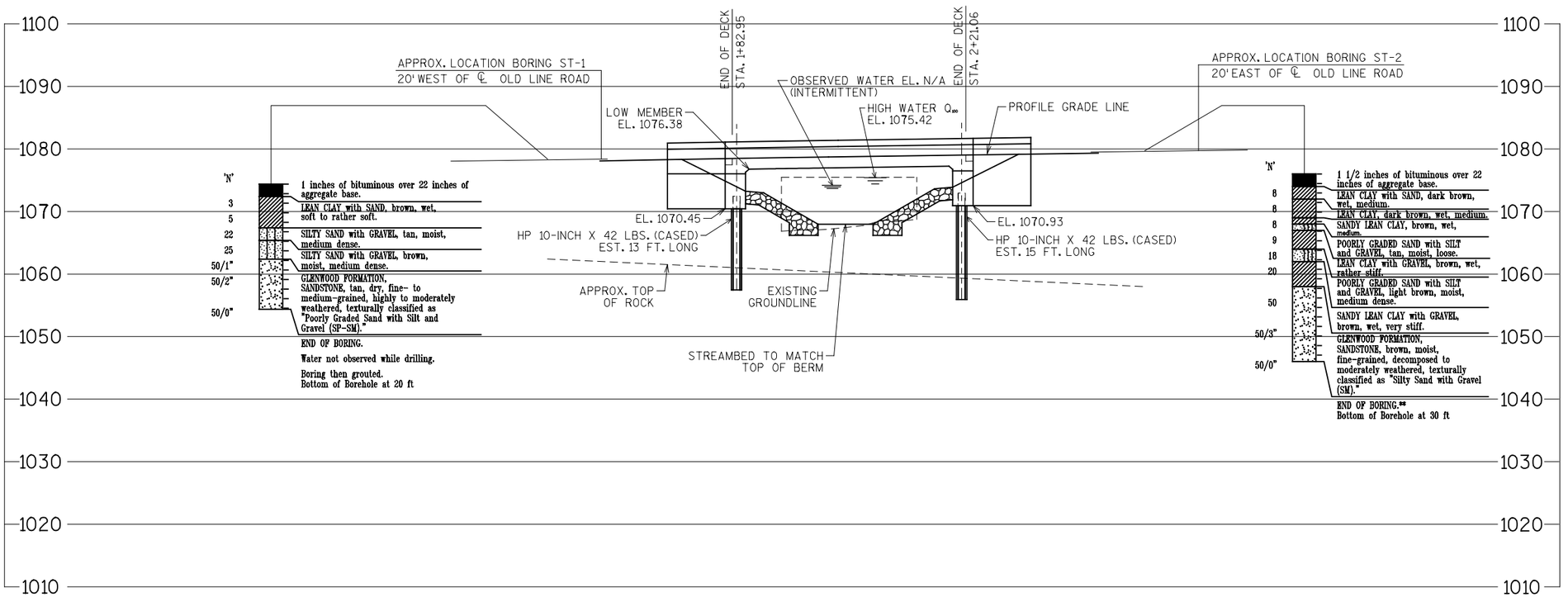
BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
ST-1	6/2/2016		
ST-2	6/2/2016		
BORINGS COMPLETED BY: BRAUN INTERTEC			
REPORT COMPLETED BY: BRAUN INTERTEC			
ALL COORDINATES REFERENCED TO WCCS NAD 83(91)			COUNTY



SOIL BORINGS PROFORMED BY:

BRAUN INTERTEC CORPORATION
2309 PALACE STREET
LA CROSSE, WI 54603
PH:608.781.7277 FAX:608.781.7279

REPORT BY:
BRANDON K. WRIGHT, P.E.
PROJECT ENGINEER



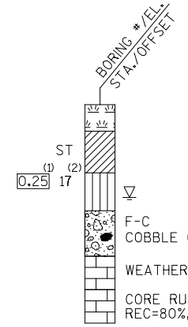
STATE PROJECT NUMBER

5378-00-71

MATERIAL SYMBOLS

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

LEGEND OF BORING



(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
STRUCTURES DESIGN SECTION

STRUCTURE B-62-252

DRAWN BY	ERJ	PLANS CK'D.	CEB

SUBSURFACE EXPLORATION

SHEET 3 OF 11
30

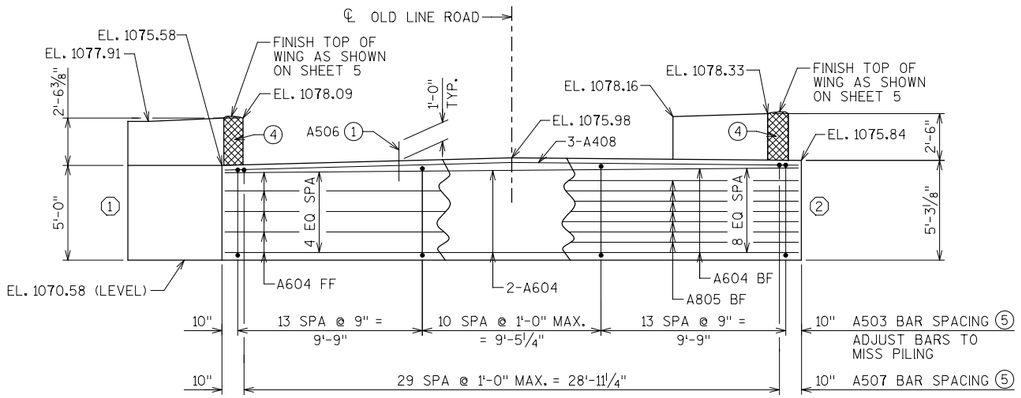
8

8

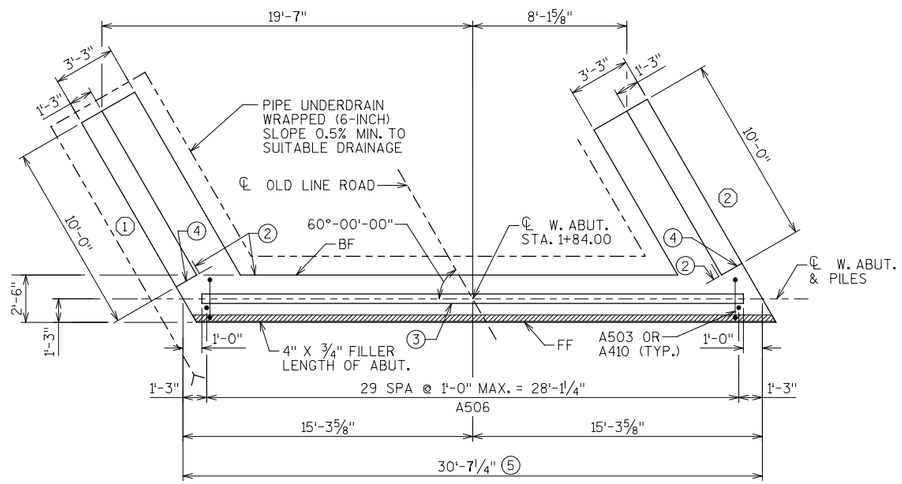
FILE NAME : H:\Projects\09000\9238\BR\Plans\Final\B-62-252-sse.dgn

PLOT DATE : 12/18/2017

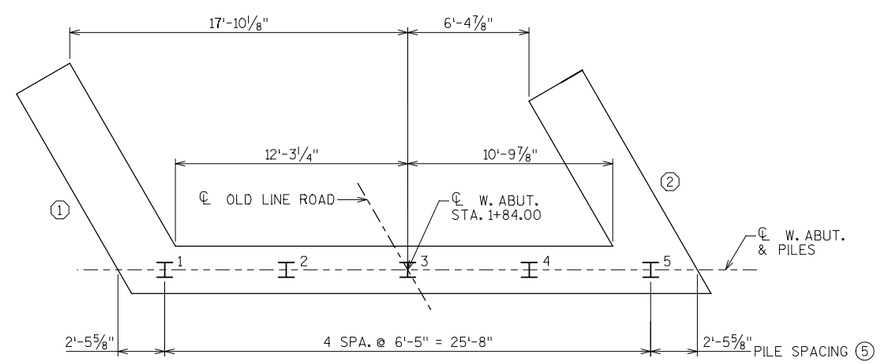
STATE PROJECT NUMBER
5378-00-71



ELEVATION
(WEST ABUTMENT LOOKING WEST)



PLAN



PILE PLAN

NOTES

FOR PILE SPLICE SEE SHEET 2.

FILL/EXCAVATE TO BOTTOM OF ABUTMENT EL. 1070.58 BEFORE DRIVING PILING.

SEE SHEET 2 FOR STRUCTURE BACKFILL AND PIPE UNDERDRAIN DETAIL.

SEE FOUNDATION DATA ON SHEET 1 FOR PILING INFORMATION.

(1) A506 BARS MAY BE PLACED AFTER CONCRETE IS POURED, BUT BEFORE INITIAL SET HAS TAKEN PLACE.

(2) 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACK FACE. EXTEND FROM BRIDGE SEAT TO TOP OF WING.

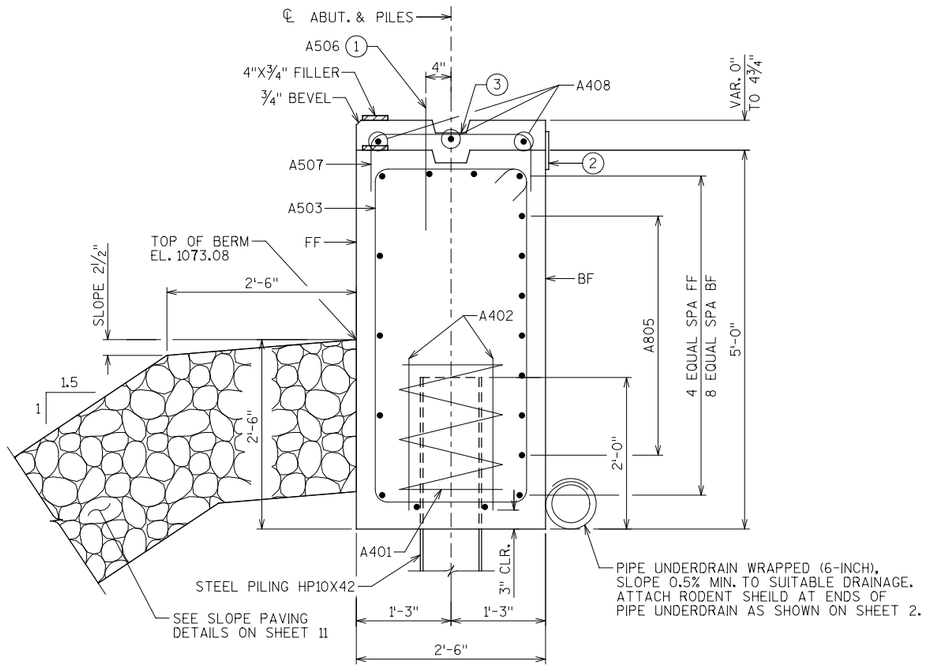
(3) KEYED CONSTRUCTION JOINT FORMED BY BEVELED 2" X 6" KEYWAY. TERMINATE 1'-0" FROM ABUTMENT END.

(4) 1/2" FILLER - TO EXTEND FROM BRIDGE SEAT TO TOP OF PARAPET. FILLER INCLUDED IN WING LENGTH. SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

(5) MEASURED ALONG ℄ OF ABUTMENT.

FF - FRONT FACE
BF - BACK FACE

(X) DENOTES WING NUMBER.



SECTION THRU ABUTMENT BODY
ALL HORIZONTAL BARS NOT LABELED ARE A604 BARS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-62-252

DRAWN BY ERJ | PLANS CK'D. CEB

WEST ABUTMENT DETAILS

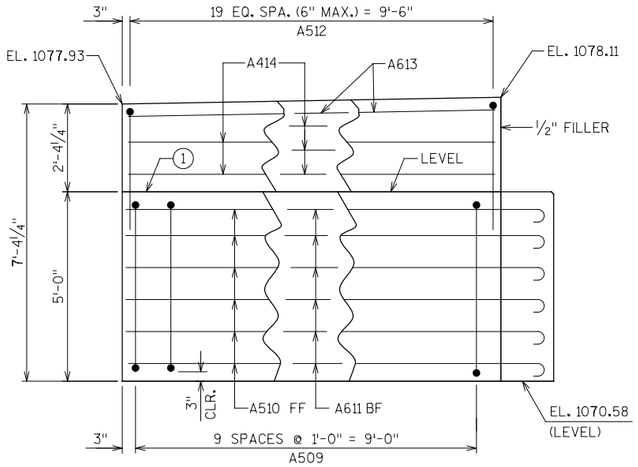
SHEET 4 OF 11
31

8

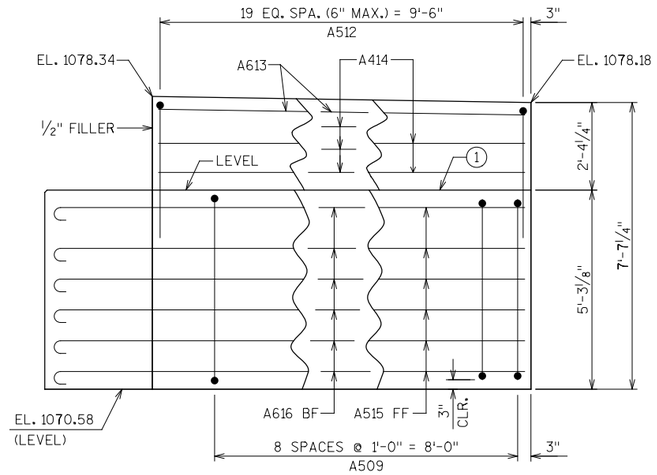
8

STATE PROJECT NUMBER

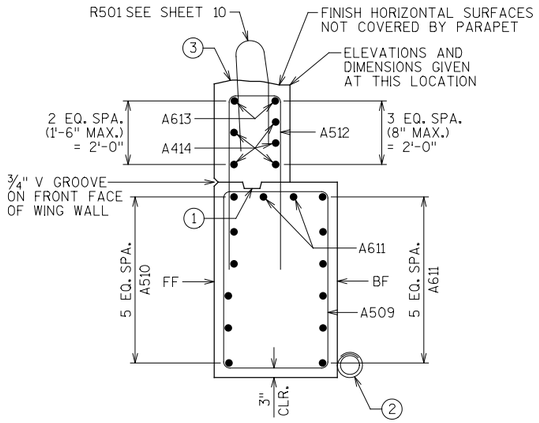
5378-00-71



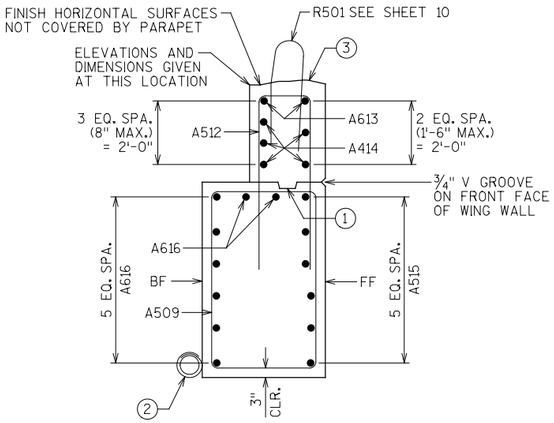
WING 1 ELEVATION



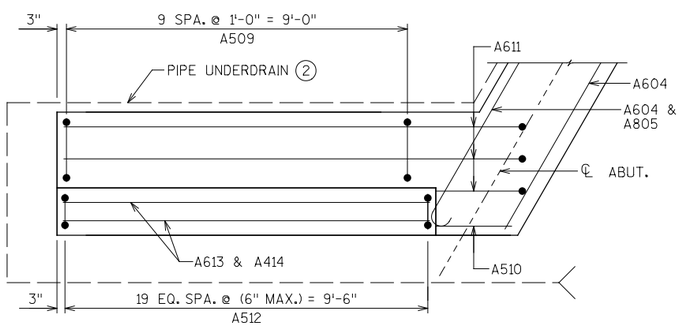
WING 2 ELEVATION



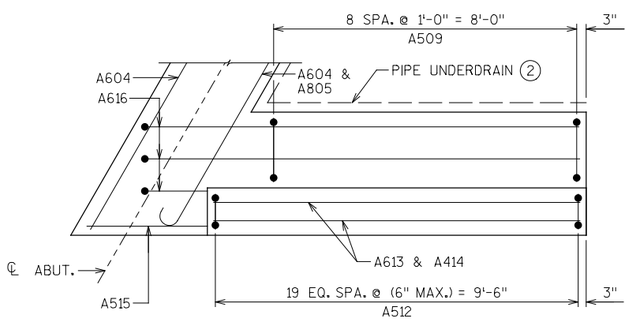
WING 1 SECTION



WING 2 SECTION



WING 1 PLAN



WING 2 PLAN

BILL OF REINFORCEMENT: WEST ABUTMENT

BAR NO.	COATED	UNCOATED	NO. REQ'D.	LENGTH	BENT	BUNDLED	SERIES	1930 LB. PLAIN / 1370 LB. COATED / LOCATION
A401		X	5	28 - 0	X			PILE TIE
A402		X	10	2 - 3				PILE VERT
A503		X	37	13 - 11	X			STEM TIE
A604		X	11	30 - 2				STEM HORIZ
A805		X	7	32 - 0	X			STEM HORIZ
A506	X		30	2 - 0				STEM DOWEL
A507		X	30	3 - 10	X			SEAT VERT
A408		X	3	30 - 2				SEAT HORIZ
A509	X		19	15 - 9	X			WW VERT
A510	X		6	11 - 10				WW HORIZ
A611	X		8	13 - 0	X			WW HORIZ
A512	X		40	9 - 11	X			WW VERT
A613	X		4	9 - 6				WW HORIZ
A414	X		10	9 - 6				WW HORIZ
A515	X		6	12 - 10				WW HORIZ
A616	X		8	12 - 1	X			WW HORIZ

ALL REINFORCING BARS ARE ENGLISH.

BAR DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BARS.

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

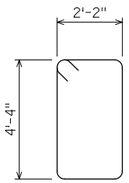
FF - FRONT FACE
BF - BACK FACE
EF - EACH FACE

(1) OPTIONAL KEYED CONSTRUCTION JOINT FORMED BY BEVELED 2" X 6" KEYWAY, WITH MEMBRANE ON BACK FACE.

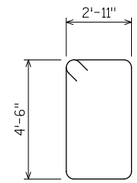
(2) PIPE UNDERDRAIN WRAPPED (6-INCH), SLOPE 0.5% MIN. TO SUITABLE DRAINAGE.

(3) STRIKE-OFF AS SHOWN AND LEAVE ROUGH.

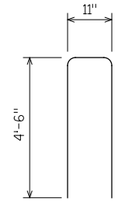
A401



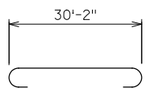
A503



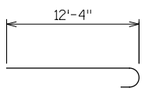
A509



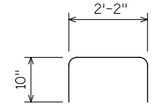
A512



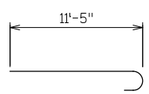
A805



A611



A507



A616

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-62-252

DRAWN BY ERJ | PLANS CK'D. CEB

WEST ABUTMENT DETAILS

SHEET 5 OF 11
32

8

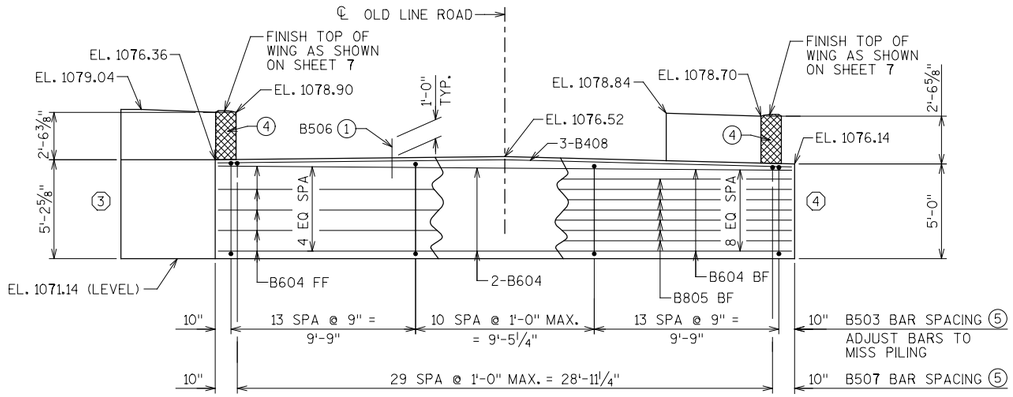
8

FILE NAME : H:\Projects\09000\9238\BR\Plans\Final\B-62-252-abt11.dgn

PLOT DATE : 12/18/2017

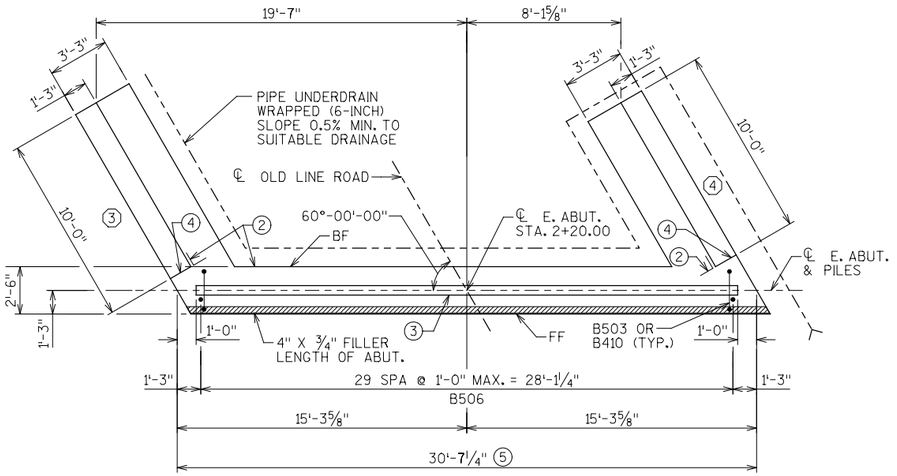
STATE PROJECT NUMBER

5378-00-71

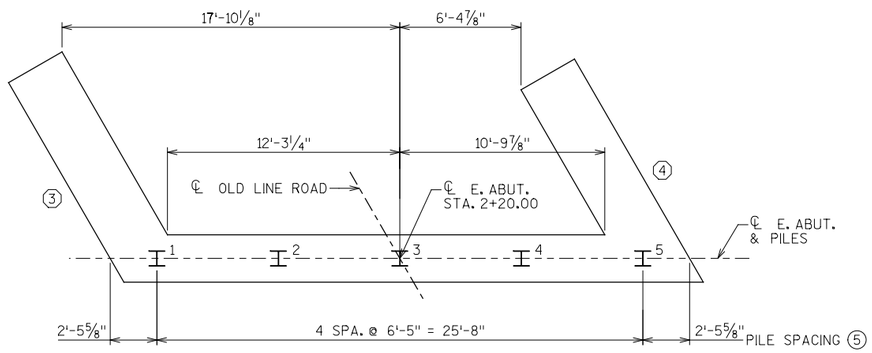


ELEVATION

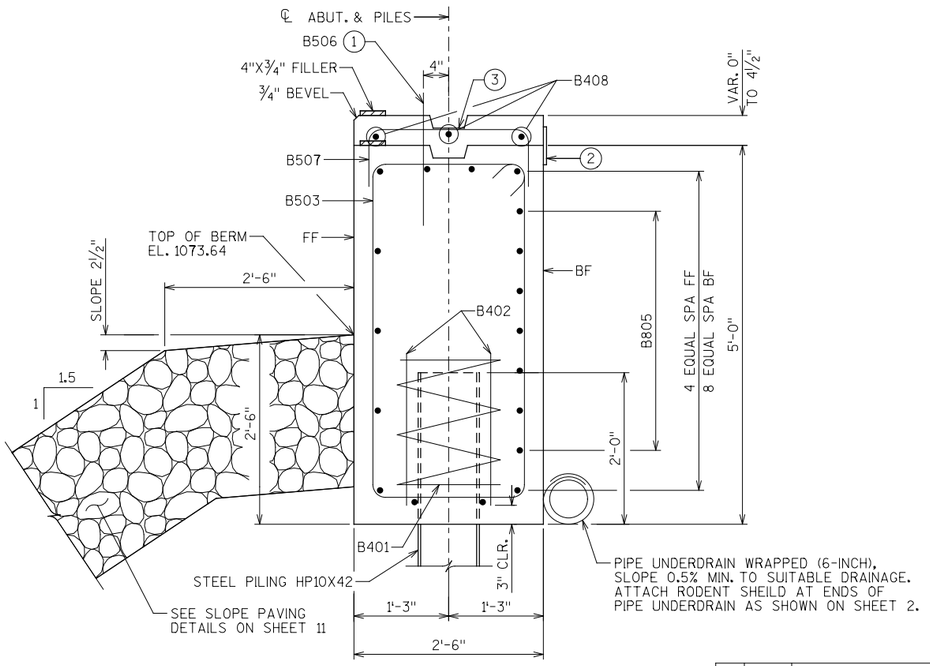
(EAST ABUTMENT LOOKING EAST)



PLAN



PILE PLAN



SECTION THRU ABUTMENT BODY

ALL HORIZONTAL BARS NOT LABELED ARE B604 BARS

NOTES

FOR PILE SPLICE SEE SHEET 2.

FILL/EXCAVATE TO BOTTOM OF ABUTMENT EL. 1071.14 BEFORE DRIVING PILING.

SEE SHEET 2 FOR STRUCTURE BACKFILL AND PIPE UNDERDRAIN DETAIL.

SEE FOUNDATION DATA ON SHEET 1 FOR PILING INFORMATION.

① A506 BARS MAY BE PLACED AFTER CONCRETE IS POURED, BUT BEFORE INITIAL SET HAS TAKEN PLACE.

② 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACK FACE. EXTEND FROM BRIDGE SEAT TO TOP OF WING.

③ KEYED CONSTRUCTION JOINT FORMED BY BEVELED 2" X 6" KEYWAY. TERMINATE 1'-0" FROM ABUTMENT END.

④ ½" FILLER - TO EXTEND FROM BRIDGE SEAT TO TOP OF PARAPET. FILLER INCLUDED IN WING LENGTH. SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

⑤ MEASURED ALONG ℄ OF ABUTMENT.

FF - FRONT FACE
BF - BACK FACE

Ⓧ DENOTES WING NUMBER.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-62-252

DRAWN BY ERJ | PLANS CK'D. CEB

EAST ABUTMENT DETAILS

SHEET 6 OF 11
33

8

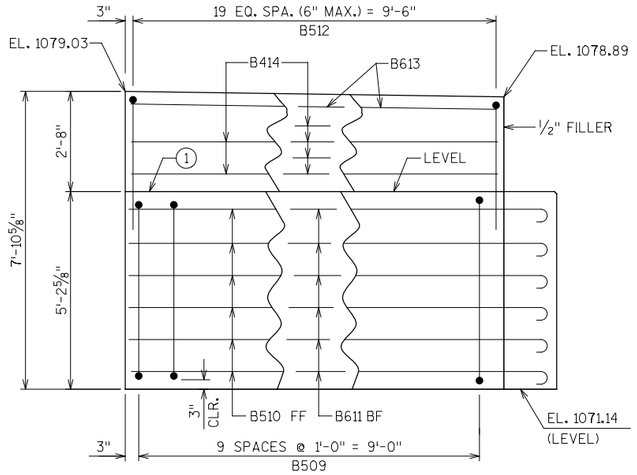
8

FILE NAME : H:\Projects\09000\9238\BR\Plans\Final\B-62-252-abt20.dgn

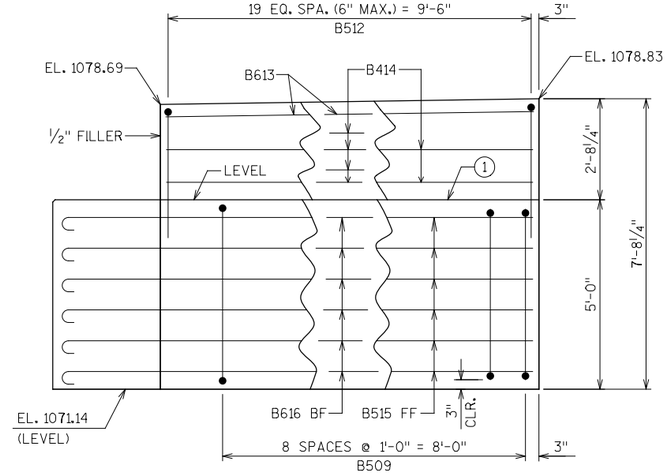
PLOT DATE : 12/18/2017

STATE PROJECT NUMBER

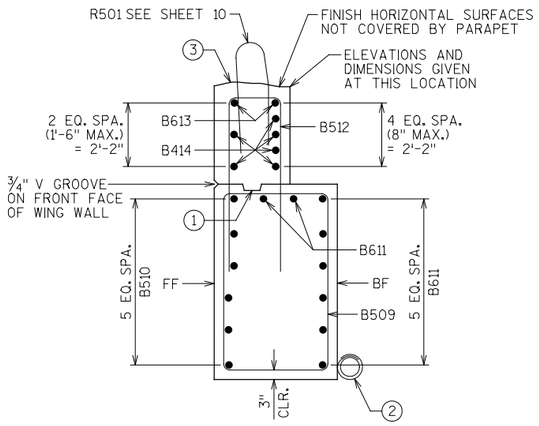
5378-00-71



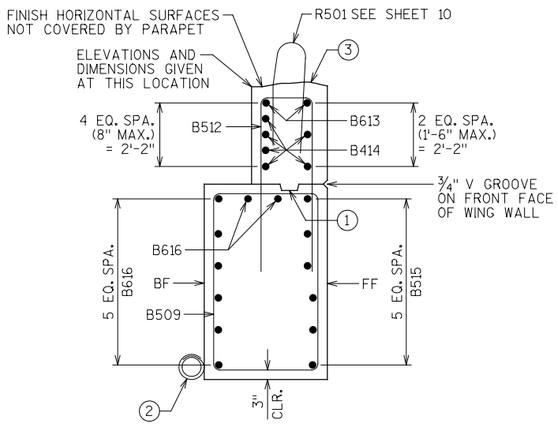
WING 3 ELEVATION



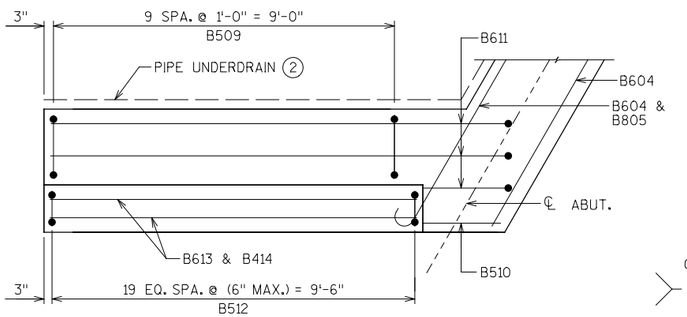
WING 4 ELEVATION



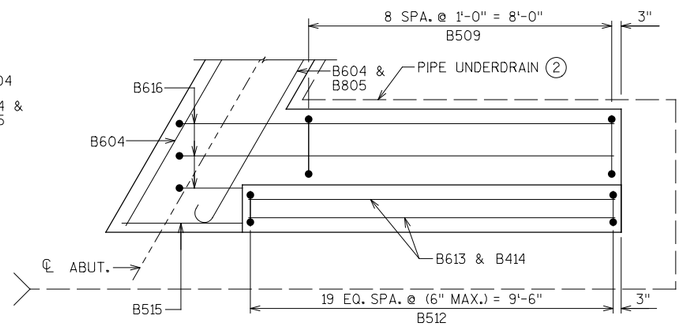
WING 3 SECTION



WING 4 SECTION



WING 3 PLAN



WING 4 PLAN

BILL OF REINFORCEMENT: EAST ABUTMENT

BAR NO.	COATED	UNCOATED	NO. REQ'D.	LENGTH	BENT	BUNDLED	SERIES	1930 LB. PLAIN / 1380 LB. COATED / LOCATION
B401		X	5	28 - 0	X			PILE TIE
B402		X	10	2 - 3				PILE VERT
B503		X	37	13 - 11	X			STEM TIE
B604		X	11	30 - 2				STEM HORIZ
B805		X	7	32 - 0	X			STEM HORIZ
B506	X		30	2 - 0				STEM DOWEL
B507		X	30	3 - 10	X			SEAT VERT
B408		X	3	30 - 2				SEAT HORIZ
B509	X		19	15 - 9	X			WW VERT
B510	X		6	11 - 10				WW HORIZ
B611	X		8	13 - 0	X			WW HORIZ
B512	X		40	9 - 11	X			WW VERT
B613	X		4	9 - 6				WW HORIZ
B414	X		12	9 - 6				WW HORIZ
B515	X		6	12 - 10				WW HORIZ
B616	X		8	12 - 1	X			WW HORIZ

ALL REINFORCING BARS ARE ENGLISH.

BAR DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BARS.

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

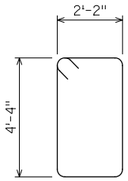
FF - FRONT FACE
BF - BACK FACE
EF - EACH FACE

① OPTIONAL KEYED CONSTRUCTION JOINT FORMED BY BEVELED 2" X 6" KEYWAY, WITH MEMBRANE ON BACK FACE.

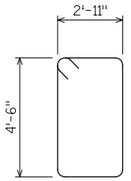
② PIPE UNDERDRAIN WRAPPED (6-INCH), SLOPE 0.5% MIN. TO SUITABLE DRAINAGE.

③ STRIKE-OFF AS SHOWN AND LEAVE ROUGH.

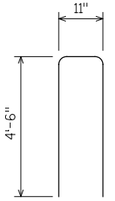
B401



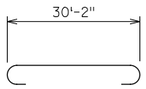
B503



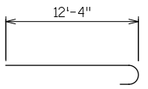
B509



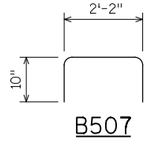
B512



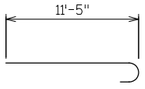
B805



B611



B507



B616

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-62-252

DRAWN BY ERJ | PLANS CK'D. CEB

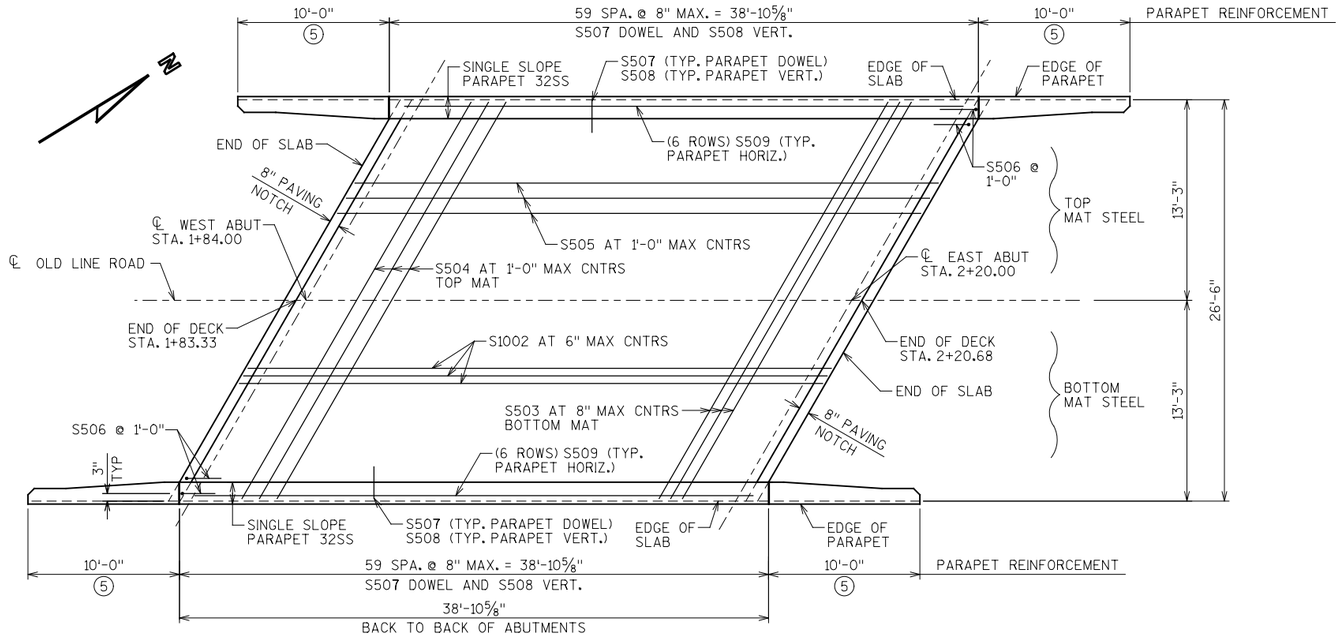
EAST ABUTMENT DETAILS

SHEET 7 OF 11
34

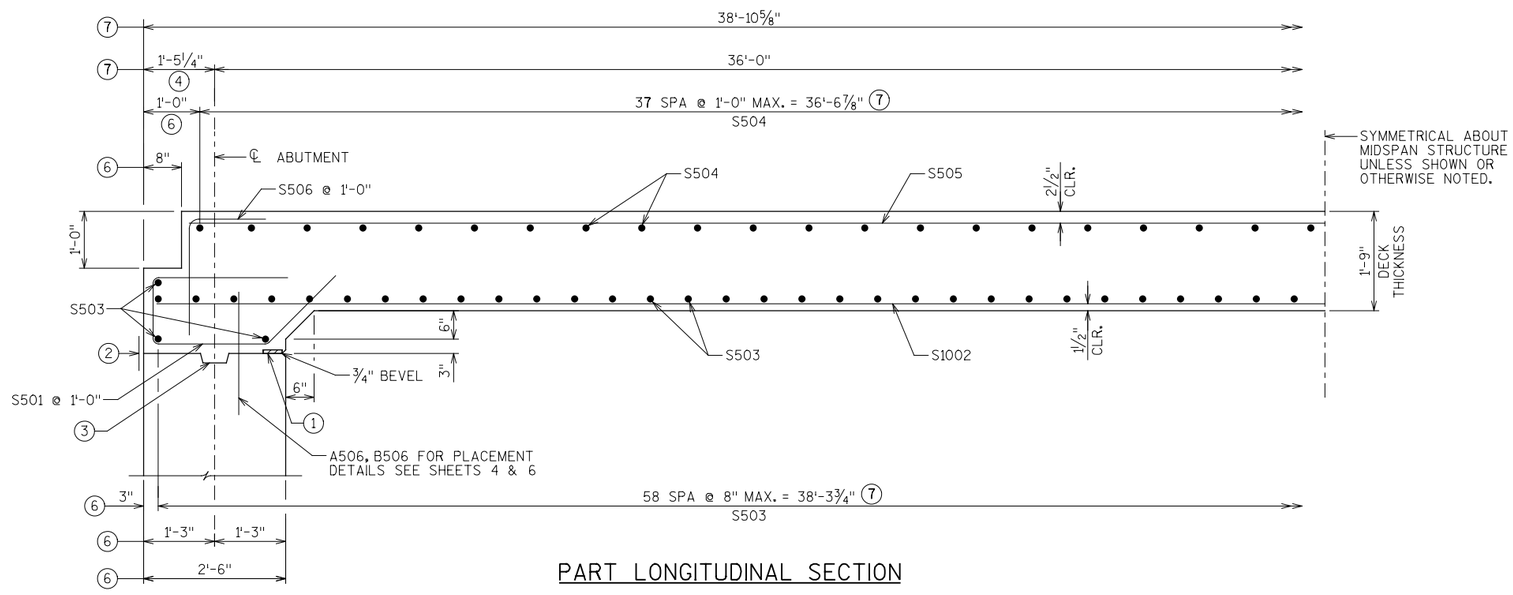
8

8

STATE PROJECT NUMBER
5378-00-71



REINFORCEMENT PLAN



PART LONGITUDINAL SECTION

NOTES:

1. 4" X ¾" FILLER.
2. 18" RUBBERIZED MEMBRANE WATERPROOFING (RMW) TO EXTEND FROM BRIDGE SEAT TO TOP OF WING AND BETWEEN INSIDE FACES OF WINGS. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACK FACE.
3. CONSTRUCTION JOINT KEYWAY FORMED BY BEVELED 2" X 6".
4. DIMENSIONS FOR WEST ABUTMENT. 1'-5⅜" FOR EAST ABUTMENT.
5. SEE PARAPET DETAILS ON SHEET 10 FOR BARS TO BE PLACED ON WINGWALLS.
6. MEASURED PERPENDICULAR TO CENTERLINE OF ABUTMENT.
7. MEASURED PARALLEL TO ROADWAY CENTERLINE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-62-252

DRAWN BY ERJ | PLANS CK'D. CEB

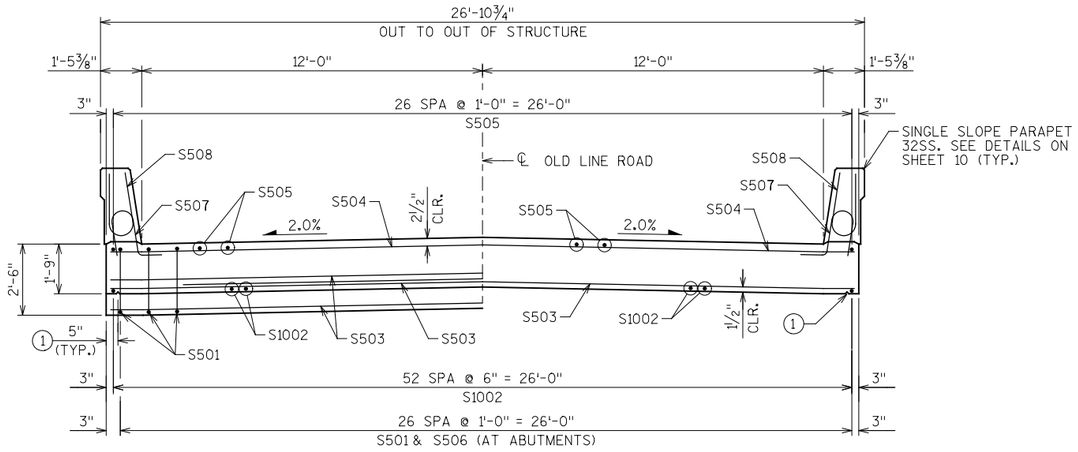
DECK DETAILS

SHEET 8 OF 11
35

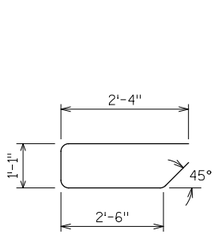
8

8

STATE PROJECT NUMBER
5378-00-71

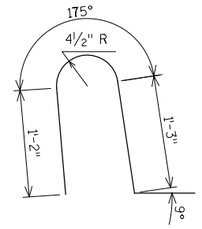


CROSS SECTION THRU BRIDGE
(LOOKING EAST)

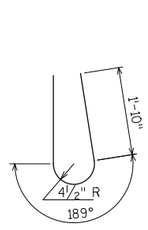


S501

S506

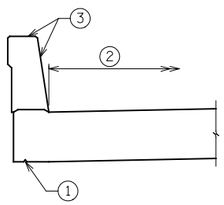


S507

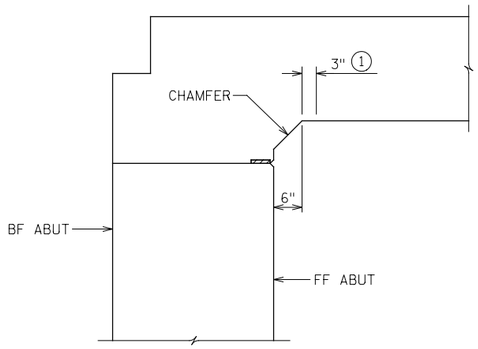


S508

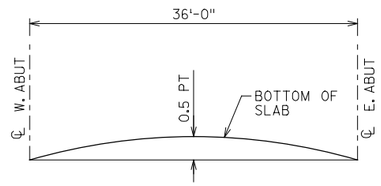
SPAN (PT)	CAMBER (IN)
℄ W ABUT	0
0.1	⅜
0.2	⅝
0.3	⅞
0.4	1
0.5	1⅛
0.6	1
0.7	⅞
0.8	⅝
0.9	⅜
℄ E ABUT	0



PROTECTIVE SURFACE TREATMENT DETAIL



DRIP GROOVE DETAIL AT ABUTMENT



CAMBER DIAGRAM

CAMBER SPAN AS SHOWN (USING VALUES IN TABLE) TO PROVIDE FOR DEAD LOAD DEFLECTION AND FUTURE CREEP. CAMBER DOES NOT INCLUDE ALLOWANCE FOR FORM SETTLEMENT.

BILL OF REINFORCEMENT: SUPERSTRUCTURE

BAR NO.	COATED	UNCOATED	NO. REQ'D.	LENGTH	BENT	BUNDLED	SERIES	0 LB. PLAIN / 15370 LB. COATED / LOCATION
S501	X		54	7 - 11	X			END VERT
S1002	X		53	38 - 5				LONG BOT
S503	X		65	30 - 3				TRANS BOT
S504	X		38	30 - 3				TRANS TOP
S505	X		27	37 - 0				LONG TOP
S506	X		54	3 - 7	X			END VERT
S507	X		120	4 - 5	X			PARAPET VERT
S508	X		120	5 - 0	X			PARAPET VERT
S509	X		12	38 - 6				PARAPET HORIZ

ALL REINFORCING BARS ARE ENGLISH.

BAR DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BARS.

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

EDGE OF DECK ELEVATIONS

	NORTH EDGE		CENTERLINE/CROWN		SOUTH EDGE	
SPAN PT.	STATION	ELEVATION	STATION	ELEVATION	STATION	ELEVATION
W. ABUT.	1+76.36	1077.99	1+84.00	1078.48	1+91.65	1078.25
0.1	1+79.96	1078.05	1+87.60	1078.54	1+95.25	1078.30
0.2	1+83.56	1078.11	1+91.20	1078.60	1+98.85	1078.35
0.3	1+87.16	1078.17	1+94.80	1078.66	2+02.45	1078.41
0.4	1+90.76	1078.23	1+98.40	1078.71	2+06.05	1078.46
0.5	1+94.36	1078.29	2+02.00	1078.76	2+09.65	1078.51
0.6	1+97.96	1078.34	2+05.60	1078.81	2+13.25	1078.56
0.7	2+01.56	1078.39	2+09.20	1078.86	2+16.85	1078.61
0.8	2+05.16	1078.45	2+12.80	1078.92	2+20.45	1078.67
0.9	2+08.76	1078.50	2+16.40	1078.97	2+24.05	1078.72
E. ABUT.	2+12.36	1078.55	2+20.00	1079.02	2+27.65	1078.77

NOTES:

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

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

PRIOR TO RELEASING SLAB FALSEWORK, TAKE TOP OF SLAB ELEVATIONS AT THE ℄ OF ABUTMENTS AND AT 0.5 SLAB PT. TO VERIFY CAMBER. TAKE ELEVATIONS ALONG EDGE OF DECK AND AT ℄.

(1) ¾" V-GROOVE. TERMINATE 3" FROM CHAMFER AT ABUTMENTS. SEE DETAIL ON THIS SHEET.

(2) COAT WITH "PROTECTIVE SURFACE TREATMENT" AS PER THE STANDARD SPECIFICATIONS.

(3) COAT WITH "PIGMENTED SURFACE SEALER" AS PER THE STANDARD SPECIFICATIONS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-62-252

DRAWN BY ERJ | PLANS CK'D. CEB

SUPERSTRUCTURE DETAILS

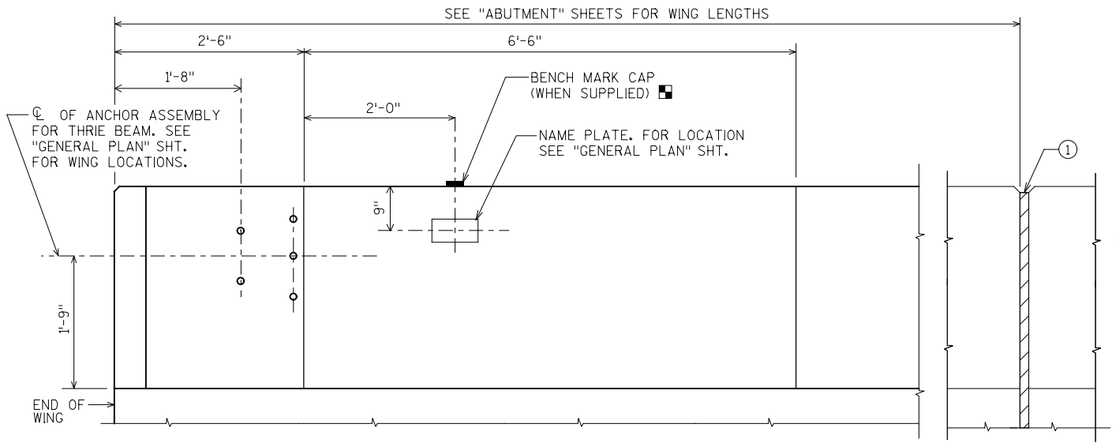
SHEET 9 OF 11
36

8

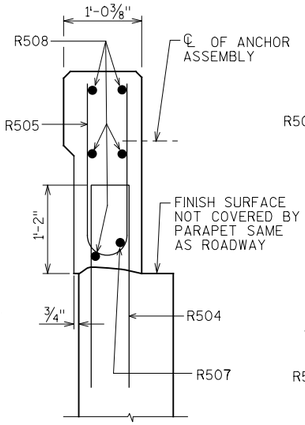
8

STATE PROJECT NUMBER

5378-00-71

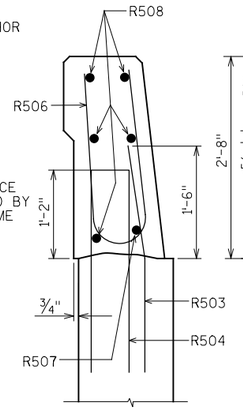


INSIDE ELEVATION

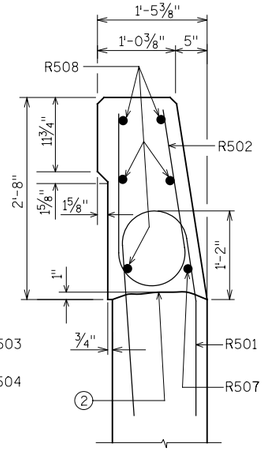


SECTION A

NOTE: FOR SECTIONS A, B & C ONLY THE PARAPET TERMINATING ON A WING IS SHOWN.

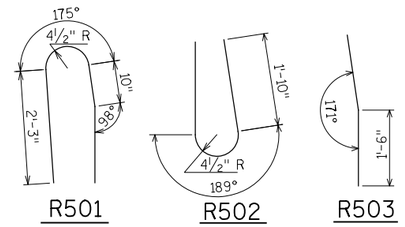


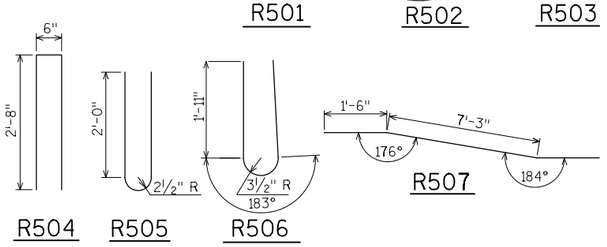
SECTION B

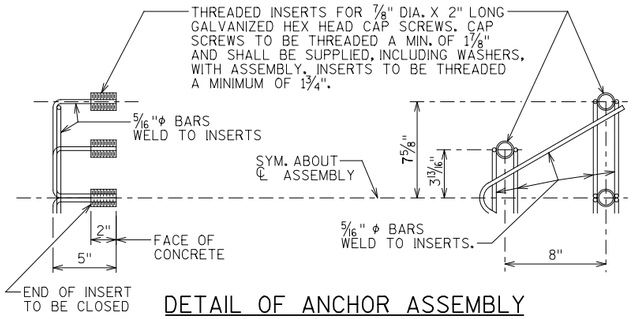


SECTION C

BILL OF REINFORCEMENT: ABUT PARAPETS							
BAR NO.	COATED	W. ABUT	E ABUT	LENGTH	BENT	SERIES	0 LB. PLAIN / 1270 LB. COATED LOCATION
R501	X	6	6	5 - 10	X		PARAPET VERT
R502	X	6	6	5 - 0	X		PARAPET VERT
R503	X	24	24	3 - 0	X		PARAPET VERT
R504	X	34	34	5 - 7	X		PARAPET VERT
R505	X	22	22	4 - 9	X		PARAPET VERT
R506	X	12	12	4 - 10	X		PARAPET VERT
R507	X	2	2	9 - 7	X		PARAPET HORIZ
R508	X	10	10	9 - 7			PARAPET HORIZ



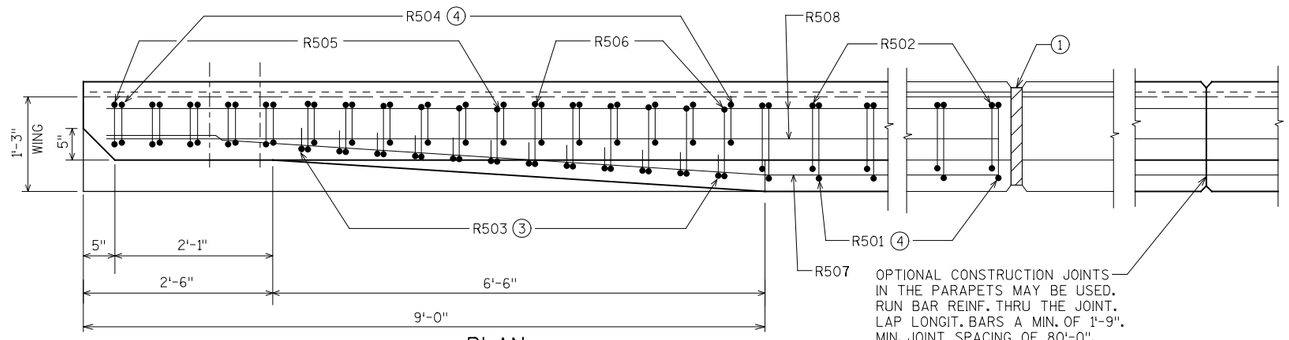




DETAIL OF ANCHOR ASSEMBLY

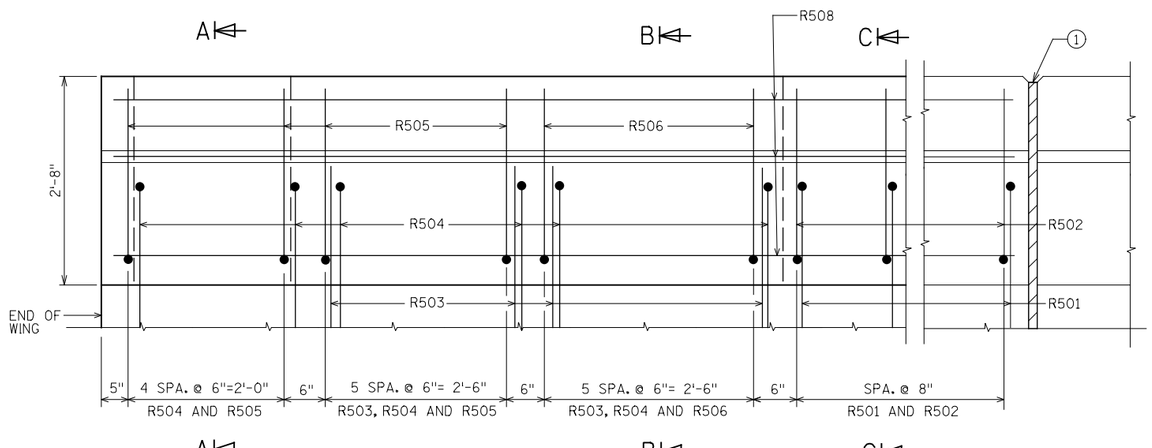
NOTE: HEX HEAD CAP SCREWS & WASHERS TO BE GALVANIZED IN ACCORDANCE WITH AASHTO M232 CLASS C.

ASSEMBLY SHALL BE BID ITEM "ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD", EACH.

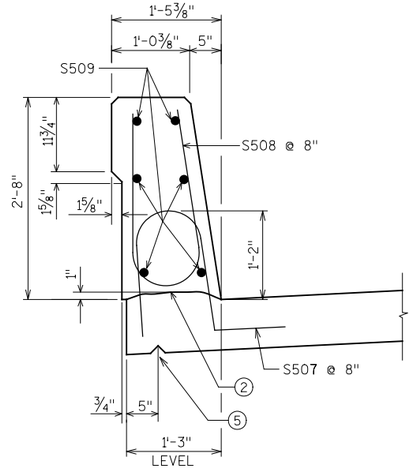


PLAN

OPTIONAL CONSTRUCTION JOINTS IN THE PARAPETS MAY BE USED. RUN BAR REINF. THRU THE JOINT. LAP LONGIT. BARS A MIN. OF 1'-9". MIN. JOINT SPACING OF 80'-0". DEFINE CONST. JOINT WITH A ¾" - 'V' GROOVE.



OUTSIDE ELEVATION



SECTION THRU PARAPET ON BRIDGE

AREA = 3.09 SF
WEIGHT = 464 LB/FT

1. ½" OPENING WITH FILLER.
2. CONST. JOINT - STRIKE OFF AS SHOWN.
3. R503 BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS BEEN TAKEN PLACE. USE CARE TO PLACE R503 BARS CORRECTLY ALONG TRANSITION OF PARAPET.
4. R501 AND R504 BARS TO BE TIED TO WING STEEL BEFORE WING IS POURED.
5. ¾" V-GROOVE. SEE DETAIL ON SHEET 9.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-62-252

DRAWN BY ERJ | PLANS CK'D. CEB

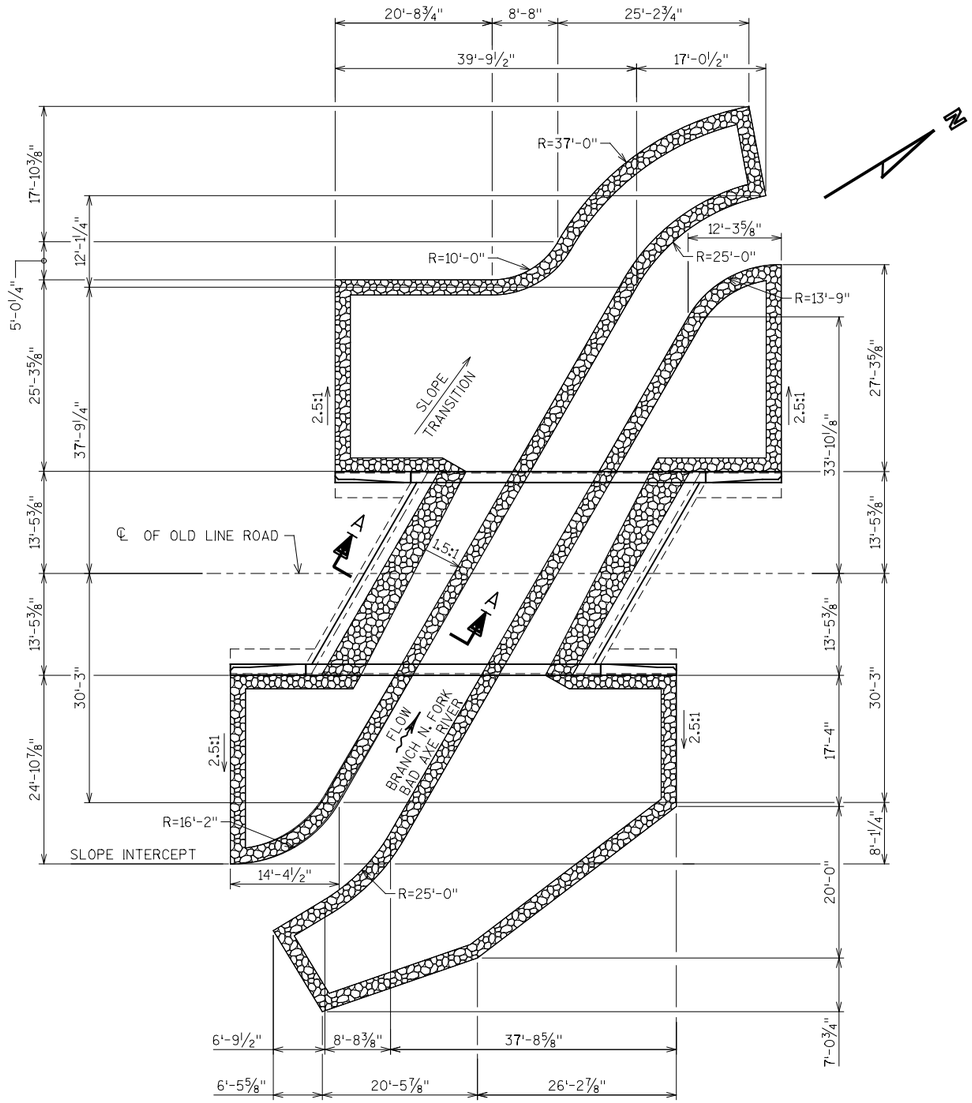
SINGLE SLOPE PARAPET 32SS

SHEET 10 OF 11
37

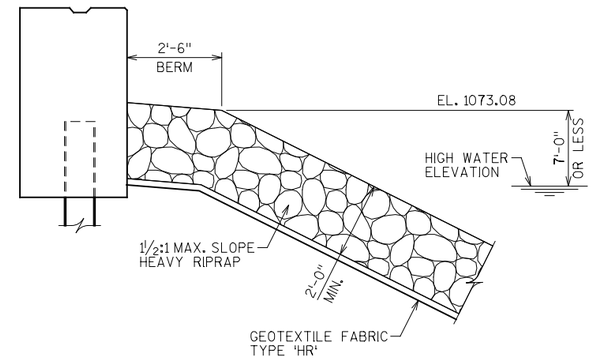
8

8

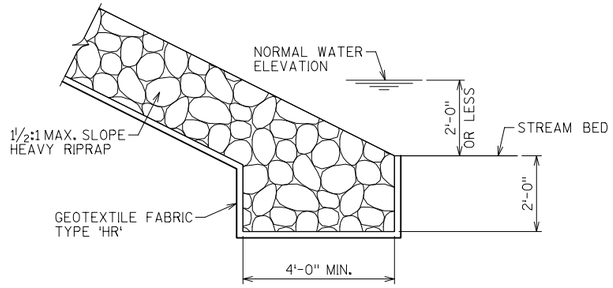
STATE PROJECT NUMBER
5378-00-71



PLAN



SECTION A-A



TOE DETAIL

NORMAL WATER ELEVATION </=2'-0" ABOVE STREAM BED

NOTES

HEAVY RIPRAP. PLACE GEOTEXTILE FABRIC TYPE "HR" BELOW IT.

1. SEE CIVIL PLANS FOR STREAM REALIGNMENT FOR ADDITIONAL GEOMETRIC INFORMATION AND RIPRAP LIMITS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-62-252

DRAWN BY ERJ | PLANS CK'D. CEB

SLOPE PAVING DETAILS

SHEET 11 OF 11
38

8

8

CHANNEL REALIGNMENT

STATION	REAL STATION	DISTANCE	AREA (SF)						Incremental Vol (CY) (Unadjusted)						Cumulative Vol (CY)							
			CUT	SALVAGED / UNUSABLE PAVEMENT MATERIAL	FILL	MARSH EXC	ROCK EXC	EBS	CUT	SALVAGED / UNUSABLE PAVEMENT MATERIAL	FILL	MARSH EXC	ROCK EXC	EBS	Cut	EXPANDED FILL	EXPANDED MARSH BACKFILL	EXPANDED ROCK	EXPANDED EBS BACKFILL	REDUCED MARSH IN FILL	REDUCED EBS IN FILL	MASS ORDINATE
															1.00	1.25	1.00	1.00	1.00	1.00	1.00	
									NOTE 1	NOTE 2	NOTE 3				NOTE 1		NOTE 4		NOTE 5	NOTE 6	NOTE 7	NOTE 8
00+25	25.00	0.00	44.44	0.00	11.39	0.00	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00+40	40.00	15.00	46.56	0.00	39.80	0.00	0.00	0.00	25	0	14	0	0	0	25	18	0	0	0	0	0	8
00+55	55.00	15.00	28.44	0.00	56.08	0.00	0.00	0.00	21	0	27	0	0	0	46	51	0	0	0	0	0	-5
00+74.02	74.02	19.02	28.09	0.00	36.86	0.00	0.00	0.00	20	0	33	0	0	0	66	92	0	0	0	0	0	-26
00+88.06	88.06	14.04	67.30	0.00	40.66	0.00	0.00	0.00	25	0	20	0	0	0	91	117	0	0	0	0	0	-26
01+05	105.00	16.94	34.37	0.00	48.87	0.00	0.00	0.00	32	0	28	0	0	0	123	152	0	0	0	0	0	-30
01+20	120.00	15.00	64.06	0.00	40.24	0.00	0.00	0.00	27	0	25	0	0	0	150	183	0	0	0	0	0	-33
01+30	130.00	10.00	68.63	0.00	15.86	0.00	0.00	0.00	25	0	10	0	0	0	175	196	0	0	0	0	0	-22
01+40	140.00	10.00	72.23	0.00	0.02	0.00	0.00	0.00	26	0	3	0	0	0	201	200	0	0	0	0	0	1
01+50	150.00	10.00	76.93	0.00	0.35	0.00	0.00	0.00	28	0	0	0	0	0	228	200	0	0	0	0	0	28
01+60	160.00	10.00	61.84	0.00	0.00	0.00	0.00	0.00	26	0	0	0	0	0	254	200	0	0	0	0	0	54
01+70	170.00	10.00	36.29	0.00	0.00	0.00	0.00	0.00	18	0	0	0	0	0	272	200	0	0	0	0	0	72
01+70	170.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0	0	272	200	0	0	0	0	0	72
01+80	180.00	10.00	14.81	0.00	0.00	0.00	0.00	0.00	3	0	0	0	0	0	275	200	0	0	0	0	0	75
01+90	190.00	10.00	3.61	0.00	0.01	0.00	0.00	0.00	3	0	0	0	0	0	278	200	0	0	0	0	0	78
01+96.54	196.54	6.54	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0	0	279	200	0	0	0	0	0	79
									279	0	160	0	0	0								

9

9

OLD LINE ROAD

STATION	REAL STATION	DISTANCE	AREA (SF)						Incremental Vol (CY) (Unadjusted)						Cumulative Vol (CY)							
			CUT	SALVAGED / UNUSABLE PAVEMENT MATERIAL	FILL	MARSH EXC	ROCK EXC	EBS	CUT	SALVAGED / UNUSABLE PAVEMENT MATERIAL	FILL	MARSH EXC	ROCK EXC	EBS	Cut	EXPANDED FILL	EXPANDED MARSH BACKFILL	EXPANDED ROCK	EXPANDED EBS BACKFILL	REDUCED MARSH IN FILL	REDUCED EBS IN FILL	MASS ORDINATE
															1.00	1.25	1.00	1.00	1.00	1.00	1.00	
									NOTE 1	NOTE 2	NOTE 3				NOTE 1		NOTE 4		NOTE 5	NOTE 6	NOTE 7	NOTE 8
00+92.48	92.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01+00	100.00	7.52	24.06	0.00	0.15	0.00	0.00	0.00	3	0	0	0	0	0	3	0	0	0	0	0	0	3
01+25	125.00	25.00	24.41	0.00	0.00	0.00	0.00	0.00	22	0	0	0	0	0	26	0	0	0	0	0	0	26
01+50	150.00	25.00	22.57	0.00	26.31	0.00	0.00	0.00	22	0	12	0	0	0	48	15	0	0	0	0	0	32
01+68.3	168.30	18.30	20.12	0.00	19.00	0.00	0.00	0.00	14	0	15	0	0	0	62	35	0	0	0	0	0	27
									62	0	28	0	0	0								
02+41.45	241.45	0.00	20.70	0.00	82.75	0.00	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02+50	250.00	8.55	22.20	0.00	44.96	0.00	0.00	0.00	7	0	20	0	0	0	7	25	0	0	0	0	0	-18
02+75	275.00	25.00	23.62	0.00	18.31	0.00	0.00	0.00	21	0	29	0	0	0	28	62	0	0	0	0	0	-34
03+00	300.00	25.00	22.08	0.00	1.39	0.00	0.00	0.00	21	0	9	0	0	0	49	73	0	0	0	0	0	-24
03+09.03	309.03	9.03	22.32	0.00	0.66	0.00	0.00	0.00	7	0	0	0	0	0	57	74	0	0	0	0	0	-17
									57	0	59	0	0	0								

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 - Expanded Marsh Backfill	Will be backfilled with Granular Backfill (or Cut, or Borrow)
5 - Expanded EBS	Will be backfilled with Granular Backfill (or Cut, or Borrow)
6 - Reduced Marsh in Fill	Reduced Marsh Excavation that can be used in Fill
7 - Reduced EBS in Fill	Reduced EBS Excavation that can be used in Fill
8 - Mass Ordinate	If Marsh or EBS to be backfilled with Cut or Borrow: [(Cut + Marsh Exc + EBS) - ((Fill - Reduced Marsh in Fill) - (Reduced EBS in Fill) - Expanded Rock) * Fill Factor)] EBS and Marsh Exc used outside 1:1 in fill slopes
8 - Mass Ordinate	If Marsh and EBS to be backfilled with Granular: [(Cut + EBS + Marsh Exc) - ((Fill - (Reduced Marsh in Fill) - (Reduced EBS in Fill) - (Expanded Rock)) * Fill Factor))] EBS and Marsh Exc used outside 1:1 in fill slopes
8 - Mass Ordinate	If Marsh and EBS to be backfilled with Granular: [(Cut) - ((Fill - Expanded Rock) * Fill Factor))] Marsh and EBS are not usable outside the 1:1 slopes
8 - Mass Ordinate	If Marsh and EBS to be backfilled with Cut or Borrow: [(Cut) - ((Fill - Expanded Rock) * Fill Factor))] Marsh and EBS are not usable outside the 1:1 slopes

9

9

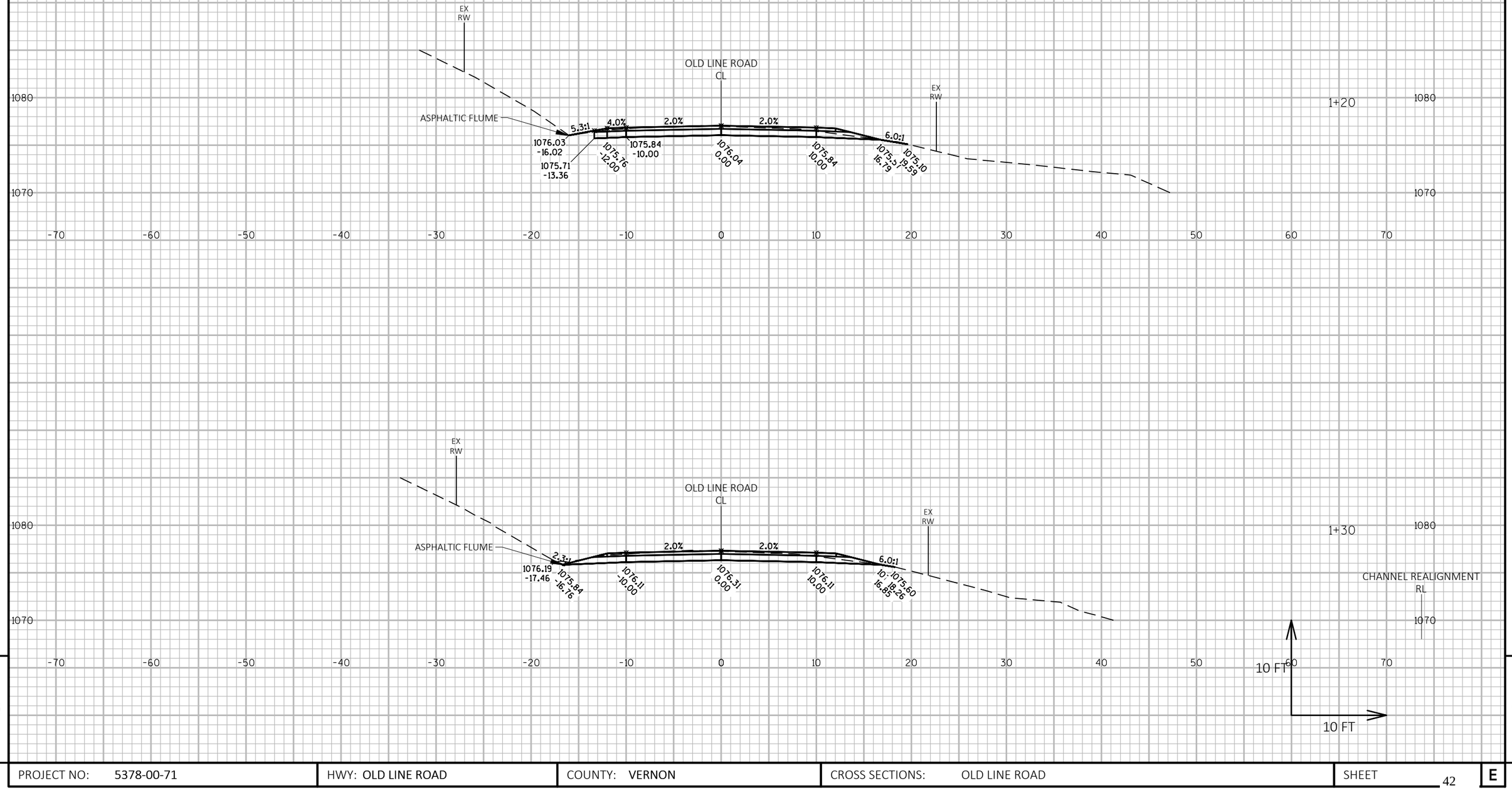
PROJECT NO: 5378-00-71	HWY: OLD LINE ROAD	COUNTY: VERNON	CROSS SECTIONS: OLD LINE ROAD	SHEET 41	E

FILE NAME : P:\WISDOT\9238\DESIGN\CORRIDORS\CRDR-OLD_LINE_RD-TANGENT.DWG
LAYOUT NAME - Section Sheet - (23)

PLOT DATE : 1/28/2018 11:23 PM PLOT BY : RACHEL BURNHAM PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



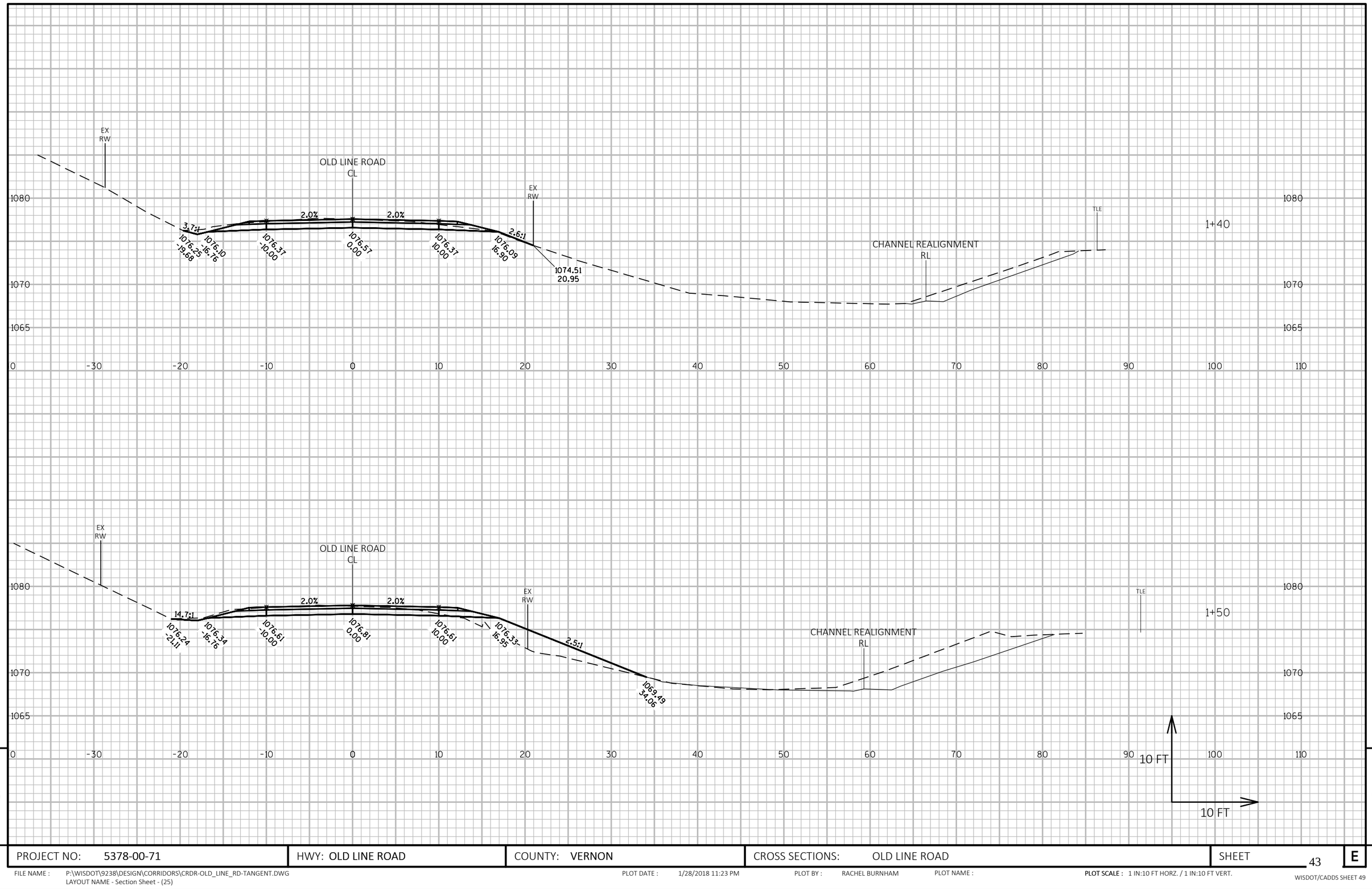
9

9

PROJECT NO: 5378-00-71	HWY: OLD LINE ROAD	COUNTY: VERNON	CROSS SECTIONS: OLD LINE ROAD	SHEET 42	E

FILE NAME : P:\WISDOT\9238\DESIGN\CORRIDORS\CRDR-OLD_LINE_RD-TANGENT.DWG
LAYOUT NAME - Section Sheet - (24)

PLOT DATE : 1/28/2018 11:23 PM PLOT BY : RACHEL BURNHAM PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



9

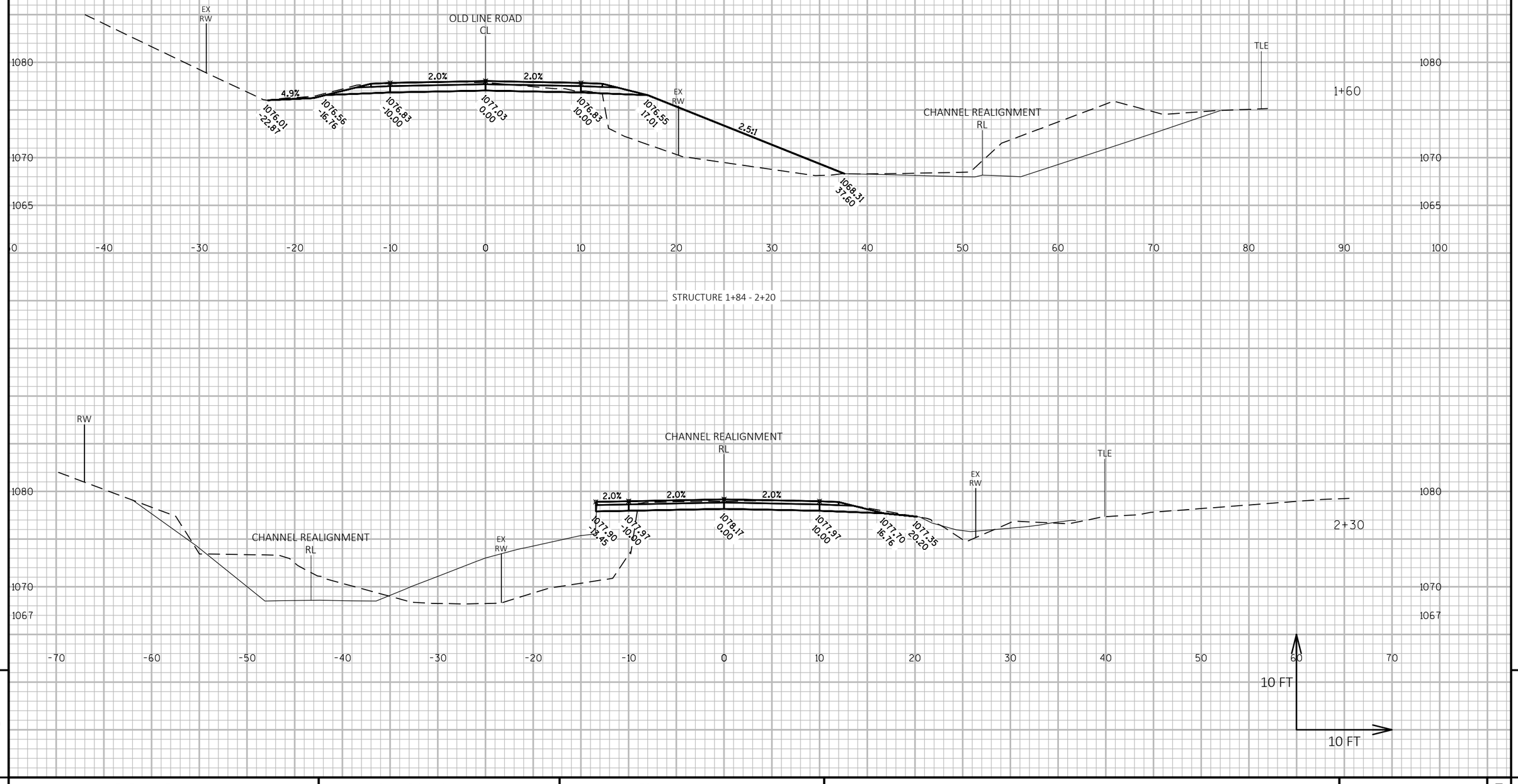
9

PROJECT NO: 5378-00-71	HWY: OLD LINE ROAD	COUNTY: VERNON	CROSS SECTIONS: OLD LINE ROAD	SHEET 43	E

FILE NAME : P:\WISDOT\9238\DESIGN\CORRIDORS\CRDR-OLD_LINE_RD-TANGENT.DWG
LAYOUT NAME - Section Sheet - (25)

PLOT DATE : 1/28/2018 11:23 PM PLOT BY : RACHEL BURNHAM PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



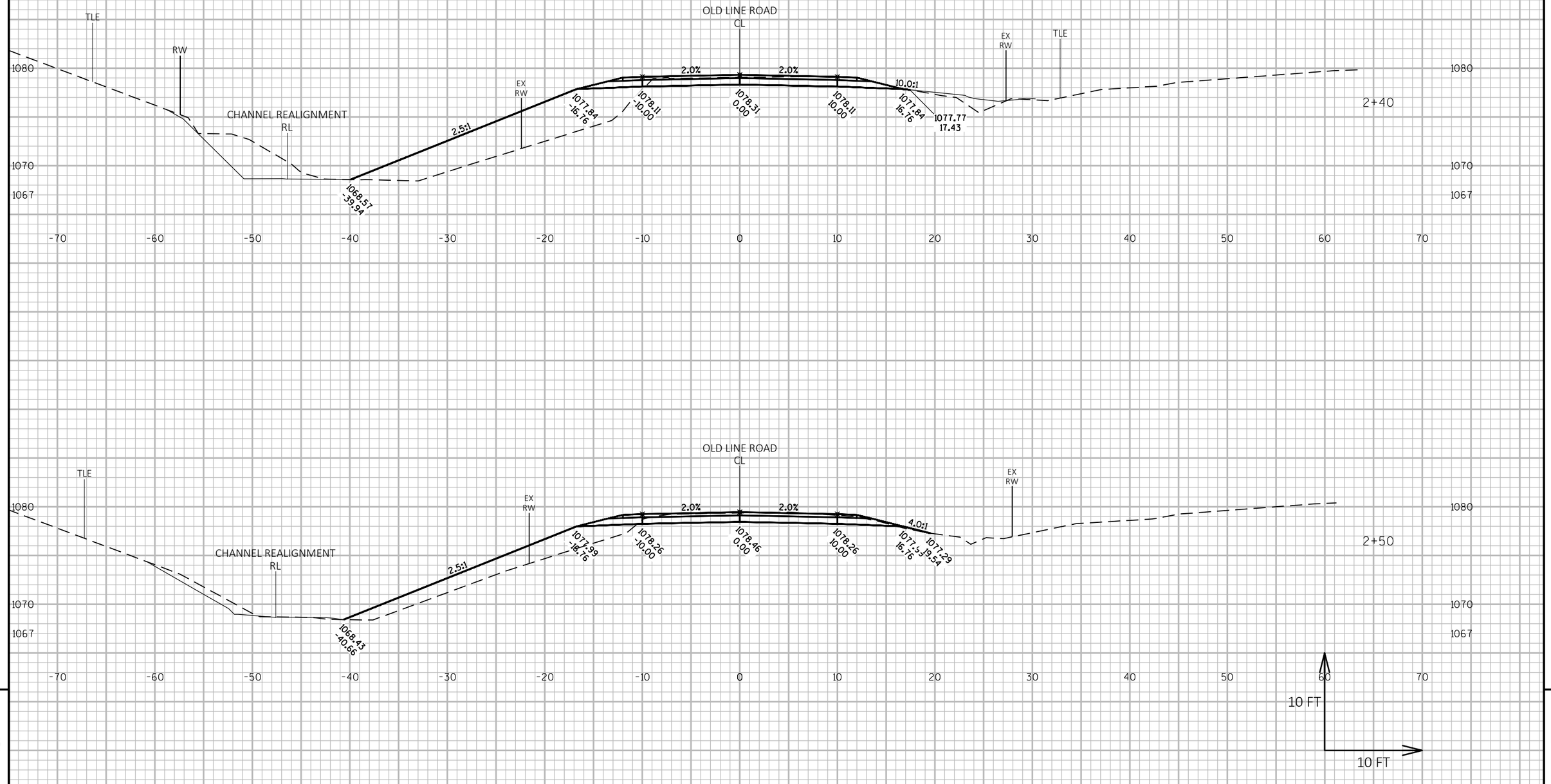
9

9

PROJECT NO: 5378-00-71	HWY: OLD LINE ROAD	COUNTY: VERNON	CROSS SECTIONS: OLD LINE ROAD	SHEET 44	E

FILE NAME : P:\WISDOT\9238\DESIGN\CORRIDORS\CRDR-OLD_LINE_RD-TANGENT.DWG
LAYOUT NAME - Section Sheet - (26)

PLOT DATE : 1/28/2018 11:23 PM PLOT BY : RACHEL BURNHAM PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

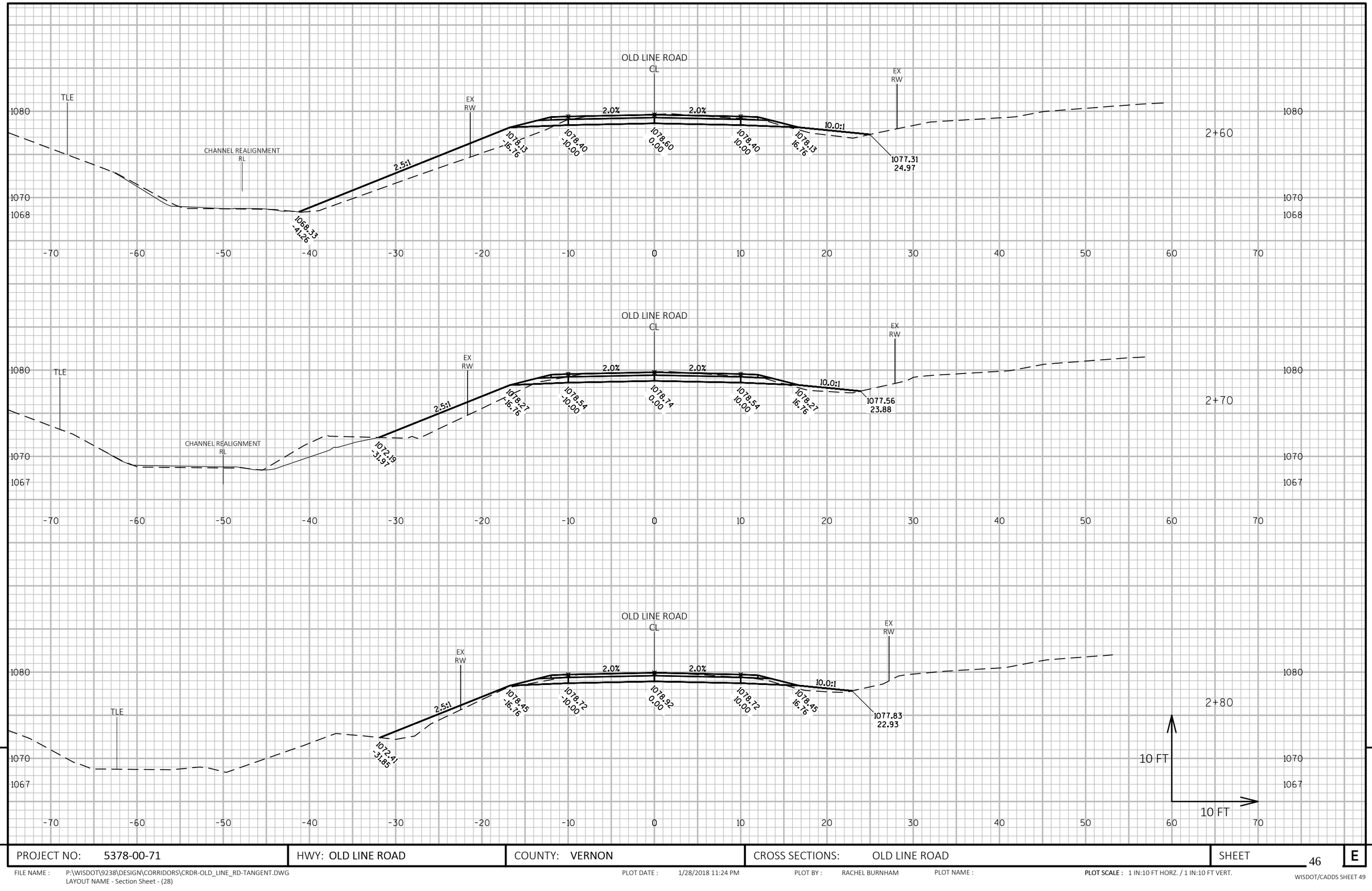


PROJECT NO: 5378-00-71	HWY: OLD LINE ROAD	COUNTY: VERNON	CROSS SECTIONS: OLD LINE ROAD	SHEET 45	E

FILE NAME : P:\WISDOT\9238\DESIGN\CORRIDORS\CRDR-OLD_LINE_RD-TANGENT.DWG
LAYOUT NAME - Section Sheet - (27)

PLOT DATE : 1/28/2018 11:24 PM PLOT BY : RACHEL BURNHAM PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 5378-00-71	HWY: OLD LINE ROAD	COUNTY: VERNON	CROSS SECTIONS: OLD LINE ROAD	SHEET 46	E

FILE NAME : P:\WISDOT\9238\DESIGN\CORRIDORS\CRDR-OLD_LINE_RD-TANGENT.DWG
LAYOUT NAME - Section Sheet - (28)

PLOT DATE : 1/28/2018 11:24 PM PLOT BY : RACHEL BURNHAM PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

Notes

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

http://www.dot.wisconsin.gov