

LAX

PROJECT ID: 5478-00-72

WITH: N/A

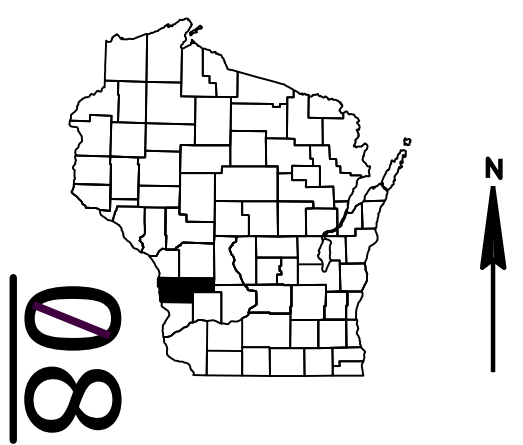
COUNTY: VERNON

JANUARY 2021

ORDER OF SHEETS

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

TOTAL SHEETS = 50



DESIGN DESIGNATION	BRIDGE REPLACEMENT
A.A.D.T. (2021)	= 194
A.A.D.T. (2041)	= 237
D.H.V.	= N/A
D.D.	= 50/50
T.	= 9.7%
DESIGN SPEED	= 40 MPH
ESALS	= 29,200

CONVENTIONAL SYMBOLS

PLAN

CORPORATE LIMITS

PROPERTY LINE

LOT LINE

LIMITED HIGHWAY EASEMENT

EXISTING RIGHT OF WAY

PROPOSED OR NEW R/W LINE

SLOPE INTERCEPT

REFERENCE LINE

EXISTING CULVERT

PROPOSED CULVERT (Box or Pipe)

COMBUSTIBLE FLUIDS

MARSH AREA

WOODED OR SHRUB AREA

PROFILE

GRADE LINE

ORIGINAL GROUND

MARSH OR ROCK PROFILE (To be noted as such)

SPECIAL DITCH

GRADE ELEVATION

CULVERT (Profile View)

UTILITIES

ELECTRIC

FIBER OPTIC

GAS

SANITARY SEWER

STORM SEWER

TELEPHONE

WATER

UTILITY PEDESTAL

POWER POLE

TELEPHONE POLE

ROCK

LABEL

95.36

E

FO

G

SAN

SS

T

W

CAUTION

STATE OF WISCONSIN

DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

CTH X - STH 27

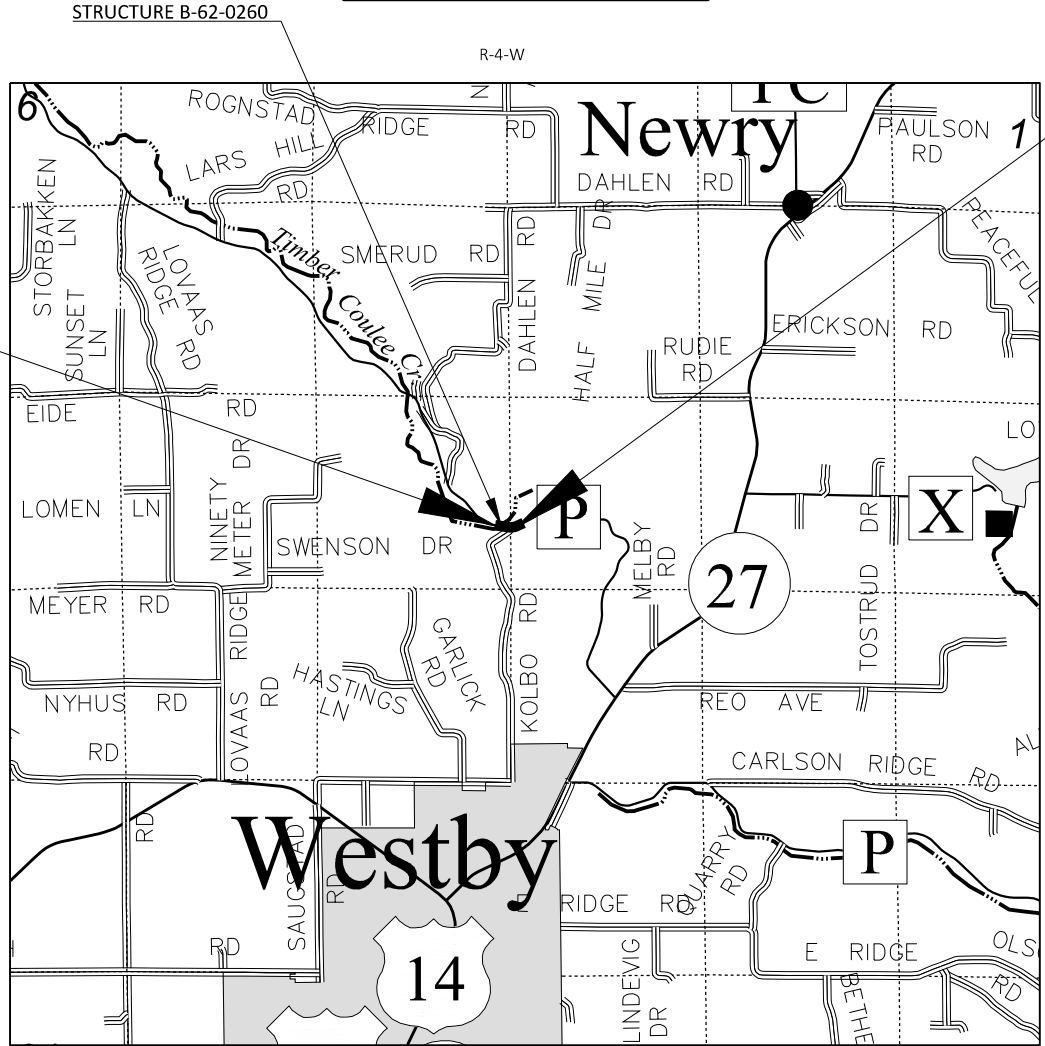
(TIMBER COULEE CREEK BR, B-62-0260)

CTH P

VERNON COUNTY

STATE PROJECT NUMBER

5478-00-72



LAYOUT

SCALE 0 1.0 MI

TOTAL NET LENGTH OF CENTERLINE = 0.024 MILES

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), VERNON COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. POSITIONS SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES ARE THE SAME AS GROUND DISTANCES. ELEVATIONS ARE REFERENCED TO NAVD 88 (2012). GPS DERIVED ELEVATIONS ARE BASED ON GEOID 12A.

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
5478-00-72	WISC 2021079	1

ACCEPTED FOR:
COUNTY OF VERNON

DATE: 7-6-20 Phil Hewitt
(Accepting Authority Signature)

ORIGINAL PLANS PREPARED BY

KL Engineering
(A) Better Experience

WISCONSIN PROFESSIONAL ENGINEER

CHAD D. HALVERSON
E-34364
MADISON, WI

DATE: 7/10/2020
(Professional Engineer Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor KL ENGINEERING

Designer KL ENGINEERING

Regional Examiner ALEIGHA BURG

Regional Supervisor OSCAR I. WINGER

APPROVED FOR THE DEPARTMENT

DATE 7/17/2020 Aleigha Burg, P.E.
(Signature)

E

STANDARD ABBREVIATIONS

ASPH	ASPHALT
AVG	AVERAGE
BAD	BASE AGGREGATE DENSE
BG	BEAMGUARD
BLDG	BUILDING
BM	BENCH MARK
CMCP	CULVERT METAL CULVERT PIPE
CONC	CONCRETE
CP	CONTROL PIPE
CPCS	CULVERT PIPE CORRUGATED STEEL
D	DEGREE OF CURVE
DISCH	DISCHARGE
EP	EDGE OF PAVEMENT
EXIST	EXISTING
ELEC	ELECTRIC
FO	FIBER OPTIC
HMA	HOT MIX ASPHALT
IV	INVERT
L	LENGTH OF CURVE
LHF	LEFT HAND FORWARD
LT	LEFT
MAX	MAXIMUM
MIN	MINIMUM
NC	NORMAL CROWN
NOR	NORMAL
PAVT	PAVEMENT
PC	POINT OF CURVE
PI	POINT OF INTERSECTION
PLE	PERMANENT LIMITED EASEMENT
PNT	POINT
PT	POINT OF TANGENT
R	RADIUS OF CURVE
R/L	REFERENCE LINE
R/W	RIGHT OF WAY
RC	REVERSE CROWN
REQ'D	REQUIRED
RHF	RIGHT HAND FORWARD
RO	RUN OFF LENGTH
RT	RIGHT
SALV	SALVAGED
SDD	STANDARD DETAIL DRAWINGS
SE	SUPER ELEVATION
SHLD	SHOULDER
STA	STATION
T	TANGENT LENGTH
TEL	TELEPHONE
TLE	TEMPORARY LIMITED EASEMENT
TYP	TYPICAL
VCL	VERTICAL CURVE LENGTH
VCP	POINT OF VERTICAL CURVE
VPI	POINT OF VERTICAL INTERSECTION
VPT	POINT OF VERTICAL TANGENT
WB	WESTBOUND



Dial  or (800)242-8511

www.DiggersHotline.com

UTILITY CONTACTS

Vernon Electric Cooperative -
Electrical Distribution
Craig Buros
110 Saugstad Rd.
Westby, WI 54667
(608) 634-3121
cburos@vernonelectric.org

Vernon Communications Cooperative -
Communications
Scott Frederick
PO Box 20
Westby, WI 54667
(608) 634-7434
sfrederick@vernoncom.coop

GENERAL NOTES

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

ASPHALTIC SURFACE WEIGHT CALCULATIONS ARE BASED ON 112 LB/SY/IN.

4-INCH ASPHALTIC SURFACE SHALL BE CONSTRUCTED WITH 1.75-INCH UPPER LAYER AND 2.25-INCH LOWER LAYER

PRIOR TO ORDERING DRAINAGE PIPES AND STRUCTURES, THE CONTRACTOR SHALL VERIFY RELATED DRAINAGE INFORMATION IN THE PLAN AND PROVIDE DOCUMENTATION TO THE ENGINEER IN ACCORDANCE WITH THE SPECIFICATIONS. THIS ALSO INCLUDES VERIFICATIONS OF INVERT ELEVATIONS AT ALL PROPOSED CONNECTION POINTS TO EXISTING SYSTEMS.

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

PLACE TOPSOIL IN ALL GRADED AREAS AS DESIGNATED BY THE ENGINEER. SEED, FERTILIZE, AND PLACE EROSION MAT ALL AREAS WITHIN 5 DAYS OF PLACEMENT OF TOPSOIL.

TEMPORARY STORAGE OF ANY EXCAVATED MATERIAL OR EQUIPMENT WILL NOT BE PERMITTED IN WETLANDS, FLOODWAY, OR FLOODPLAIN OF ANY WATERWAY.

THE EROSION CONTROL FEATURES AS SHOWN ON THE PLANS ARE AT SUGGESTED LOCATIONS. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER.

EROSION CONTROL DEVICES SHALL BE PLACED IN SEQUENCE WITH CONSTRUCTION OPERATIONS OR AS DETERMINED BY THE ENGINEER.

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

RUNOFF COEFFICIENT TABLE

	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0 - 2	2 - 6	6 & OVER	0 - 2	2 - 6	6 & OVER	0 - 2	2 - 6	6 & OVER	0 - 2	2 - 6	6 & OVER
ROW CROPS	.08	.16	.22	.12	.20	.27	.15	.24	.33	.19	.28	.38
	.22	.30	.38	.26	.34	.44	.30	.37	.50	.34	.41	.56
MEDIAN STRIP-TURF	.19	.20	.24	.19	.22	.26	.20	.23	.30	.20	.25	.30
	.24	.26	.30	.25	.28	.33	.26	.30	.37	.27	.32	.40
SIDE SLOPE-TURF			.25			.27			.28			.30
			.32			.34			.36			.38
PAVEMENT:												
ASPHALT	0.70 - 0.95											
CONCRETE	0.80 - 0.95											
BRICK	0.70 - 0.80											
DRIVES, WALKS	0.75 - 0.85											
ROOFS	0.75 - 0.95											
GRAVEL ROADS, SHOULDERS	0.40 - 0.60											

TOTAL PROJECT AREA = 0.20 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.20 ACRES

WISDOT

WISDOT SOUTHWEST REGION (LA CROSSE)
ALEIGHA BURG
3550 MORMON COULEE ROAD
LA CROSSE, WI 54601
(608) 317-9083
ALEIGHA.BURG@DOT.WI.GOV

CONSULTANT

KL ENGINEERING, INC.
CHAD HALVERSON, P.E.
5400 KING JAMES WAY, SUITE 200
MADISON, WI 53719
(608) 663-1218
CHALVERSON@KLENGINEERING.COM

HIGHWAY COMMISSIONER

VERNON COUNTY
PHIL HEWITT
PO BOX 232
VIROQUA, WI 54665
(608) 637-5452
PHIL.HEWITT@VERNONCOUNTY.ORG

WISC. DEPT OF NATURAL RESOURCES

CENTRAL REGION
KAREN KALVELAGE
3550 MORMON COULEE ROAD
LA CROSSE, WI 54601
(608) 406-7880
karen.kalvelage@wisconsin.gov

PROJECT NO: 5478-00-72

HWY: CTH P

COUNTY: VERNON

GENERAL NOTES

SHEET

E

66' EXISTING ROADWAY EASEMENT

SEEDING MIX NO. 20 & FERTILIZER TYPE B

VARIES 7'-9.5'

10' CLEAR ZONE

2' 3' 11' 11' 3' 2'

VAR. 4% TO 6.5%

VAR. 3.5% TO 6.5%

VAR. 0.5% TO 3.2%

VAR. 0.5% TO 3.2%

POINT REFERRED TO ON PROFILE

POINT REFERRED TO ON CROSS SECTION

4:1 TYP.

4:1 TYP.

2.5:1

1.1:1 MAX W/ RIPRAP HEAVY

4-INCH BASE AGGREGATE DENSE 3/4-INCH (TYP.)

4-INCH ASPHALTIC SURFACE

12-INCH BASE AGGREGATE DENSE 1 1/4-INCH

SAME POINT

RIGHT SHOULDER STA 102+75 - STA 103+45

3' VARIABLE

+3.2% TYP. -4.0% TO +3.2%

3.2% -4.0% TO +3.2%

12"

4-INCH ASPHALTIC SURFACE

12-INCH BASE AGGREGATE DENSE 1 1/4-INCH

SUBGRADE BREAK AT 14' RT

MATCH KOLBO RD PAVEMENT SAWING ASPHALT REQ'D

FINISHED TYPICAL SECTION STA 102+20.00 - 103+45.50

RIPRAP HEAVY

*1.1:1

2.2'

2'

GEOTEXTILE TYPE HR

*MATCH EXISTING SLOPE

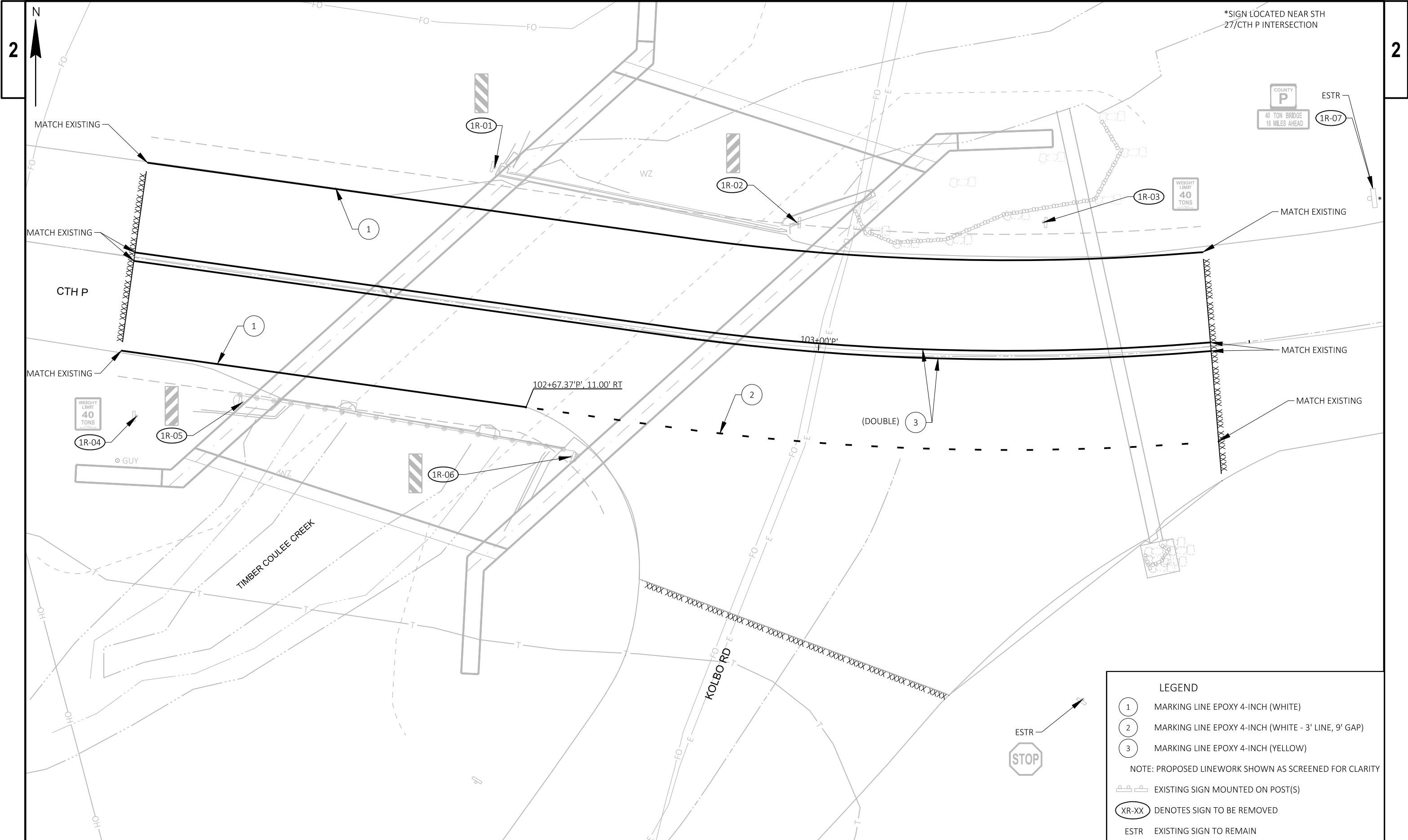
RIPRAP STA 103+21.00 - STA 103+37.00

& EROSION MAT CLASS HEAVY WITH R

/TOPSOIL & EROSION

PROJECT NO: 5478-00-72	HWY: CTH P	COUNTY: VERNON	TYPICAL SECTIONS	SHEET	E
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WISDOT/CADDS SHEET 42



GENERAL NOTES FOR TRAFFIC CONTROL

- 1) THE EXACT NUMBER, LOCATION AND SPACING OF SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.
- 2) ALL SIGNS ARE 48" X 48" UNLESS NOTED.
- 3) "WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.
- 4) FOR NIGHTTIME OPERATION, ALL DRUMS IN TAPERS SHALL HAVE A TYPE C STEADY BURN WARNING LIGHT.
- 5) ALL TYPE III BARRICADES SHALL BE 8' WIDE, UNLESS OTHERWISE NOTED, AND EQUIPPED WITH TWO TYPE "A" (LOW INTENSITY FLASHING) LIGHTS.
- 6) MAINTAIN LOCAL ACCESS TO KOLBO ROAD AT ALL TIMES UNLESS OTHERWISE NOTED IN THE TRAFFIC CONTROL PLANS.


TEMPORARY PAVEMENT MARKING LEGEND


T18W


TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH (WHITE)


TRAFFIC CONTROL LEGEND

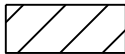
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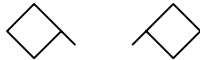
TRAFFIC CONTROL BARRICADE TYPE III
- 

TRAFFIC CONTROL BARRICADE TYPE III (WITH ATTACHED SIGN)
- 

TRAFFIC CONTROL SIGNS (ON PERMANENT SUPPORT)
- 

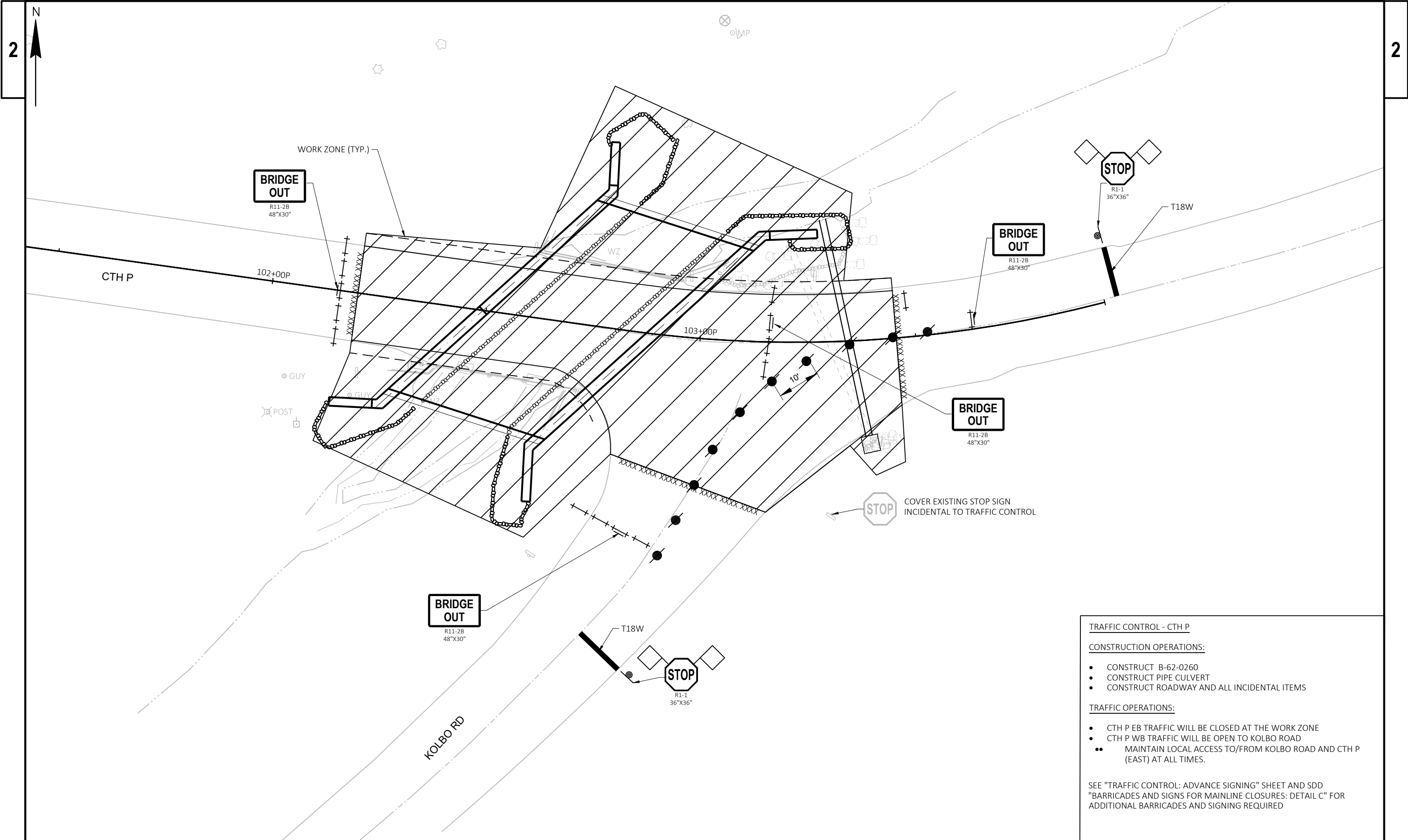
TRAFFIC CONTROL SIGNS (ON TEMPORARY SUPPORT)
- 

TRAFFIC CONTROL DRUMS (WITH WARNING LIGHTS TYPE C)
- 

WORK AREA
- 

FLAGS, 16"X16" MIN. (ORANGE)





TRAFFIC CONTROL - CTH P

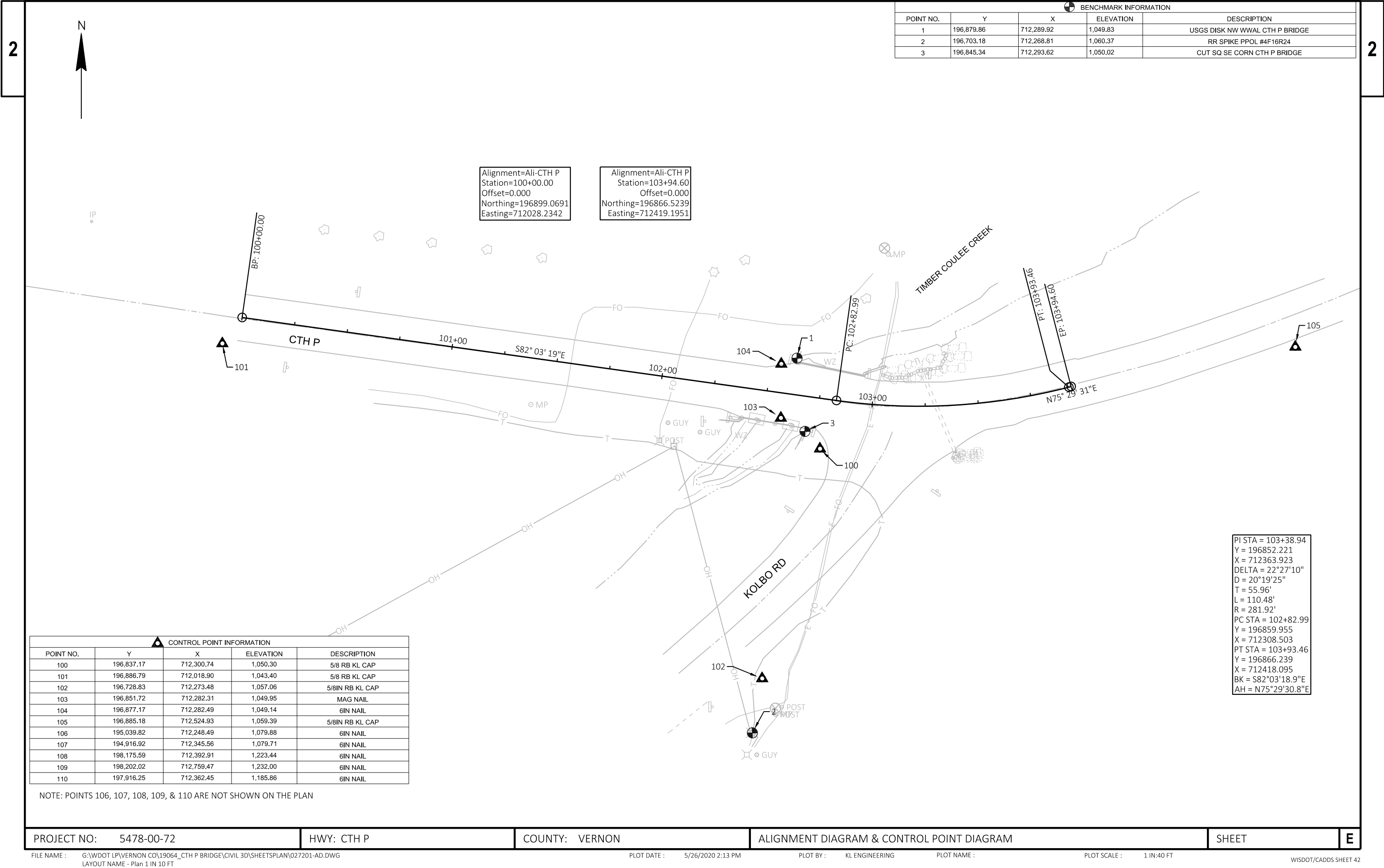
CONSTRUCTION OPERATIONS:

- CONSTRUCT B-62-0260
- CONSTRUCT PIPE CULVERT
- CONSTRUCT ROADWAY AND ALL INCIDENTAL ITEMS

TRAFFIC OPERATIONS:

- CTH P EB TRAFFIC WILL BE CLOSED AT THE WORK ZONE
- CTH P WB TRAFFIC WILL BE OPEN TO KOLBO ROAD
 - MAINTAIN LOCAL ACCESS TO/FROM KOLBO ROAD AND CTH P (EAST) AT ALL TIMES.

SEE "TRAFFIC CONTROL: ADVANCE SIGNING" SHEET AND SDD
"BARRICADES AND SIGNS FOR MAINLINE CLOSURES: DETAIL C" FOR
ADDITIONAL BARRICADES AND SIGNING REQUIRED



BENCHMARK INFORMATION				
POINT NO.	Y	X	ELEVATION	DESCRIPTION
1	196,879.86	712,289.92	1,049.83	USGS DISK NW WWAL CTH P BRIDGE
2	196,703.18	712,268.81	1,060.37	RR SPIKE PPOL #4F16R24
3	196,845.34	712,293.62	1,050.02	CUT SQ SE CORN CTH P BRIDGE

CONTROL POINT INFORMATION				
POINT NO.	Y	X	ELEVATION	DESCRIPTION
100	196,837.17	712,300.74	1,050.30	5/8 RB KL CAP
101	196,886.79	712,018.90	1,043.40	5/8 RB KL CAP
102	196,728.83	712,273.48	1,057.06	5/8IN RB KL CAP
103	196,851.72	712,282.31	1,049.95	MAG NAIL
104	196,877.17	712,282.49	1,049.14	6IN NAIL
105	196,885.18	712,524.93	1,059.39	5/8IN RB KL CAP
106	195,039.82	712,248.49	1,079.88	6IN NAIL
107	194,916.92	712,345.56	1,079.71	6IN NAIL
108	198,175.59	712,392.91	1,223.44	6IN NAIL
109	198,202.02	712,759.47	1,232.00	6IN NAIL
110	197,916.25	712,362.45	1,185.86	6IN NAIL

PI STA = 103+38.94
Y = 196852.221
X = 712363.923
DELTA = 22°27'10"
D = 20°19'25"
T = 55.96'
L = 110.48'
R = 281.92'
PC STA = 102+82.99
Y = 196859.955
X = 712308.503
PT STA = 103+93.46
Y = 196866.239
X = 712418.095
BK = S82°03'18.9"E
AH = N75°29'30.8"E

Estimate Of Quantities

5478-00-72

Line	Item	Item Description	Unit	Total	Qty
0002	203.0100	Removing Small Pipe Culverts	EACH	1.000	1.000
0004	203.0600.S	Removing Old Structure Over Waterway With Minimal Debris (station) 01. 102+75	LS	1.000	1.000
0006	205.0100	Excavation Common	CY	210.000	210.000
0008	206.1000	Excavation for Structures Bridges (structure) 01. B-62-260	LS	1.000	1.000
0010	206.5000	Cofferdams (structure) 01. B-62-260	LS	1.000	1.000
0012	208.0100	Borrow	CY	50.000	50.000
0014	210.1500	Backfill Structure Type A	TON	1,380.000	1,380.000
0016	213.0100	Finishing Roadway (project) 01. 5478-00-72	EACH	1.000	1.000
0018	305.0110	Base Aggregate Dense 3/4-Inch	TON	16.000	16.000
0020	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	360.000	360.000
0022	455.0605	Tack Coat	GAL	32.000	32.000
0024	465.0105	Asphaltic Surface	TON	105.000	105.000
0026	502.0100	Concrete Masonry Bridges	CY	298.000	298.000
0028	502.3200	Protective Surface Treatment	SY	76.000	76.000
0030	505.0400	Bar Steel Reinforcement HS Structures	LB	9,760.000	9,760.000
0032	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	42,750.000	42,750.000
0034	511.1200	Temporary Shoring (structure) 01. B-62-260	SF	184.000	184.000
0036	516.0500	Rubberized Membrane Waterproofing	SY	29.000	29.000
0038	516.0610.S	Sheet Membrane Waterproofing for Top Slab (structure) 01. B-62-260	SY	254.000	254.000
0040	521.3118	Culvert Pipe Corrugated Steel 18-Inch	LF	51.000	51.000
0042	550.0500	Pile Points	EACH	28.000	28.000
0044	550.1100	Piling Steel HP 10-Inch X 42 Lb	LF	700.000	700.000
0046	606.0300	Riprap Heavy	CY	141.000	141.000
0048	611.0642	Inlet Covers Type MS	EACH	1.000	1.000
0050	611.3901	Inlets Median 1 Grate	EACH	1.000	1.000
0052	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	225.000	225.000
0054	618.0100	Maintenance And Repair of Haul Roads (project) 01. 5478-00-72	EACH	1.000	1.000
0056	619.1000	Mobilization	EACH	1.000	1.000
0058	624.0100	Water	MGAL	14.000	14.000
0060	625.0100	Topsoil	SY	45.000	45.000
0062	625.0500	Salvaged Topsoil	SY	125.000	125.000
0064	628.1504	Silt Fence	LF	230.000	230.000
0066	628.1520	Silt Fence Maintenance	LF	700.000	700.000
0068	628.1905	Mobilizations Erosion Control	EACH	3.000	3.000
0070	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0072	628.2027	Erosion Mat Class II Type C	SY	225.000	225.000
0074	628.7020	Inlet Protection Type D	EACH	1.000	1.000

Estimate Of Quantities

5478-00-72

Line	Item	Item Description	Unit	Total	Qty
0076	629.0210	Fertilizer Type B	CWT	1.250	1.250
0078	630.0120	Seeding Mixture No. 20	LB	5.000	5.000
0080	630.0200	Seeding Temporary	LB	6.000	6.000
0082	630.0500	Seed Water	MGAL	5.000	5.000
0084	633.5200	Markers Culvert End	EACH	1.000	1.000
0086	638.2602	Removing Signs Type II	EACH	7.000	7.000
0088	638.3000	Removing Small Sign Supports	EACH	6.000	6.000
0090	642.5001	Field Office Type B	EACH	1.000	1.000
0092	643.0300	Traffic Control Drums	DAY	770.000	770.000
0094	643.0420	Traffic Control Barricades Type III	DAY	1,827.000	1,827.000
0096	643.0705	Traffic Control Warning Lights Type A	DAY	2,807.000	2,807.000
0098	643.0715	Traffic Control Warning Lights Type C	DAY	770.000	770.000
0100	643.0900	Traffic Control Signs	DAY	2,562.000	2,562.000
0102	643.5000	Traffic Control	EACH	1.000	1.000
0104	645.0111	Geotextile Type DF Schedule A	SY	170.000	170.000
0106	645.0120	Geotextile Type HR	SY	206.000	206.000
0108	646.1020	Marking Line Epoxy 4-Inch	LF	500.000	500.000
0110	649.0850	Temporary Marking Stop Line Removable Tape 18-Inch	LF	24.000	24.000
0112	650.4000	Construction Staking Storm Sewer	EACH	1.000	1.000
0114	650.4500	Construction Staking Subgrade	LF	126.000	126.000
0116	650.5000	Construction Staking Base	LF	126.000	126.000
0118	650.6000	Construction Staking Pipe Culverts	EACH	1.000	1.000
0120	650.6500	Construction Staking Structure Layout (structure) 01. B-62-260	LS	1.000	1.000
0122	650.9910	Construction Staking Supplemental Control (project) 01. 5478-00-72	LS	1.000	1.000
0124	650.9920	Construction Staking Slope Stakes	LF	186.000	186.000
0126	690.0150	Sawing Asphalt	LF	87.000	87.000
0128	715.0502	Incentive Strength Concrete Structures	DOL	1,818.000	1,818.000
0130	ASP.1T0A	On-the-Job Training Apprentice at \$5.00/HR	HRS	1,200.000	1,200.000
0132	ASP.1T0G	On-the-Job Training Graduate at \$5.00/HR	HRS	600.000	600.000

3

3

CULVERT PIPE										
521.3118633.5200650.6000										
CULVERT PIPEMARKERSCONSTRUCTION										
CORRUGATED STEELCULVERTSTAKING										
CATEGORY	LOCATION	STATION	INLET	DISCHARGE	SLOPE	18-INCH	END	PIPE CULVERTS	THICKNESS INCHES	
			ELEVATION	ELEVATION	TT	L	EACH	EACH	STEEL	ALUMINUM
0010	CTH P									
		10334	104.08	1041.3	0.1403	51	1	1	0.064	0.060
	PROJECT 5478-00-72 TOTAL					51	1	1	0	0

CATEGORY	LOCATION	STATION	OSET	CULVERT STRUCTURE						COMMENTS
				RIM ELEVATION	INVERT ELEVATION	DEPTH T	611.0642	611.301	650.4000	
							INLET COVERS TYPE MS EACH	INLETS MEDIAN 1 GRATE EACH	CONSTRUCTION STAKING STORM SEWER EACH	
0010	CTH P									
		10338	22.0 RT	1052.08	104.08	3.00	1	1	1	61 SINGLE SLOPE
	PROJECT 5478-00-72 TOTAL						1	1	1	

OR STRUCTURES WITH SUMPS THE INVERT ELEVATION IS THE ELEVATION O THE SUMP. OR STRUCTURES WITHOUT SUMPS THE INVERT ELEVATION IS THE ELEVATION O THE LOWEST PIPE LOW LINE

PROJECT NO	5478-00-72	HWY CTH P	COUNTY VERNON	MISCELLANEOUS UANTITIES	SHEET	E
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3

				LANDSCAPING						
				625.0100	625.0500	628.2027	629.0210	630.0120	630.0200	630.0500
				EROSION MAT						
					SALVAGED	CLASS II	FERTILIZER	SEEDING	SEEDING	SEED
				TOPSOIL	TOPSOIL	TYPE C	TYPE B	MIXTURE NO. 20	TEMPORARY	WATER
CATEGORY	LOCATION	STATION TO STATION	OFFSET	(SY)	(SY)	(SY)	(CWT)	(LB)	(LB)	(MGAL)
0010	CTH P									
		102+20.00 - 103+45.50	LT	19	61	102	0.58	1.84	0	2
		102+20.00 - 103+45.50	RT	22	58	80	0.45	1.44	0	2
		UNDISTRIBUTED		4	7	43	0.22	1.72	6.00	1
	PROJECT 5478-00-72 TOTAL			45	125	225	1.25	5	6	5

LANDSCAPING

EROSION MAT

WATER

624.0100

CATEGORY	LOCATION	TASK	(MGAL)
0010	CTH P	DUST CONTROL	7
		COMPACTION	7
PROJECT 5478-00-72 TOTAL			14

EROSION CONTROL

EROSION CONTROL MOBILIZATION

				628.1504	628.1520	628.7020
					SILT FENCE	INLET
					MAINTENANCE	PROTECTION
CATEGORY	LOCATION	STATION TO STATION	OFFSET	(LF)	(LF)	TYPE D (EACH)
0010	CTH P					
		102+20 - 103+45.50	LT	130	390	---
		102+20 - 103+45.50	RT	55	165	1
		UNDISTRIBUTED		45	145	---
	PROJECT 5478-00-72 TOTAL			230	700	1

		628.1905	628.1910
		MOBILIZATION EROSION CONTROL	MOBILIZATION EMERGENCY EROSION CONTROL
CATEGORY	LOCATION	(EACH)	(EACH)
0010	CTH P	3	2
PROJECT 5478-00-72 TOTAL		3	2

PROJECT NO:	5478-00-72	HWY:	CTH P	COUNTY:	VERNON	MISCELLANEOUS QUANTITIES	SEET	E
-------------	------------	------	-------	---------	--------	--------------------------	------	----------

REMOVING SIGNS						
			638.2602	638.3000		
			REMOVING	SMALL SIGN	SIGN	
			SIGNS TYPE II	SUPPORTS	MOUNTED	
			(EACH)	(EACH)	ON SAME	
CATEGORY	SIGN #	SIGN CODE			POST AS	COMMENTS
0010	1R-01	W5-52-L	.	1	---	AAR PANEL LEFT
	R-02	5-52-R	1	1	---	AAR PANEL RIGT
	R-0	R2-	1	1	---	EIGT LIMIT 40 TONS
	R-04	R2-	1	1	---	EIGT LIMIT 40 TONS
	R-05	5-52-R	1	1	---	AAR PANEL RIGT
	R-06	5-52-L	1	1	---	AAR PANEL LEFT
	R-07	R2-55	1	---	CT P SIGN	40 TON RIGE 6 MILES AEA
PROJECT 5478-00-72 TOTAL			7	6		

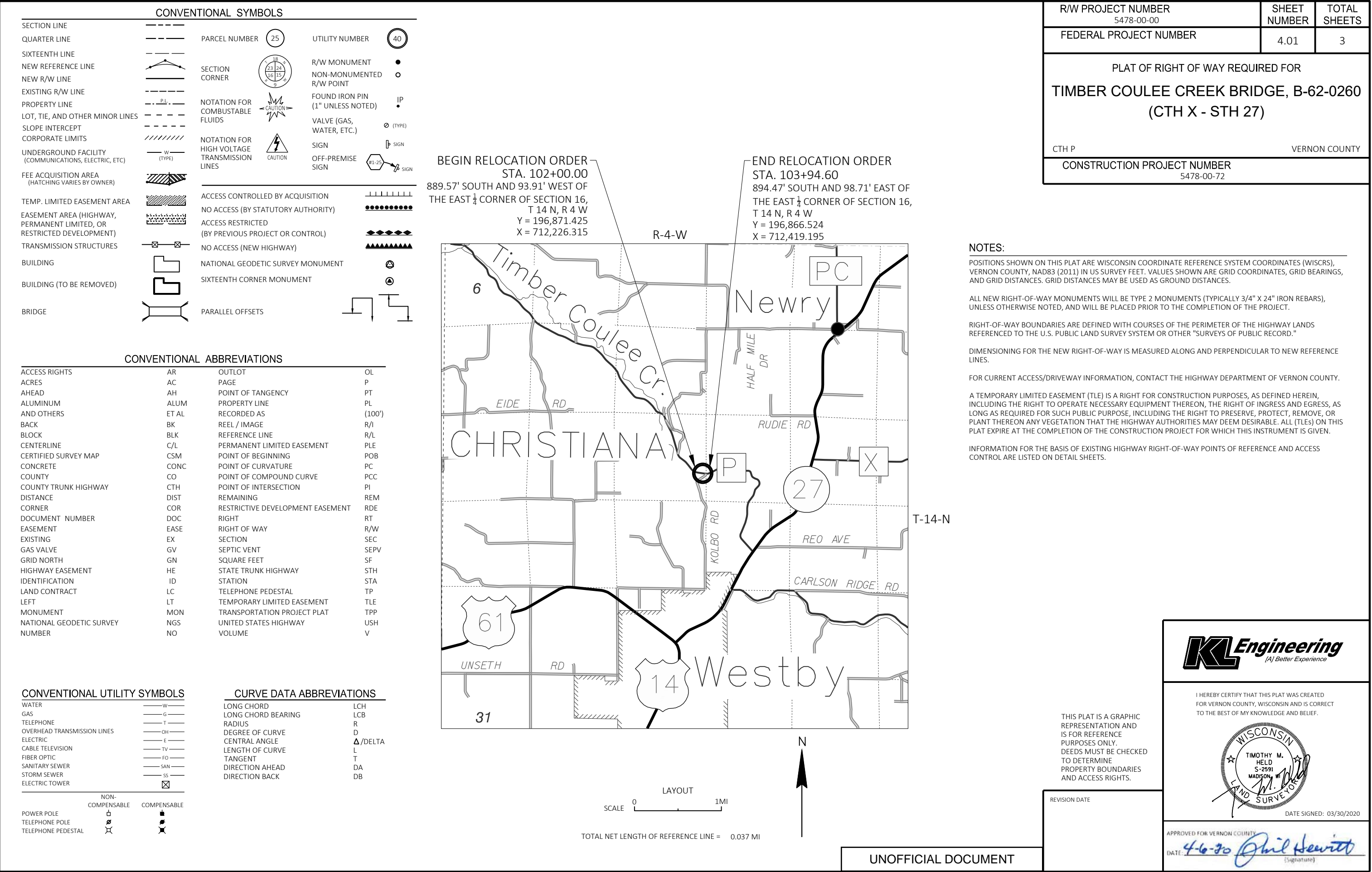
PAVEMENT MARKING				
646.1020				
MARKING LINE				
EPOXY 4-INCH				
		WHITE	YELLOW	
		SOLID	(3' LINE 9' GAP)	SOLID
		(LF)	(LF)	(LF)
CATEGORY	LOCATION			
0010	CTH P	170	80	250
PROJECT 5478-00-72 TOTAL		170	80	250
500				

TRAFFIC CONTROL											
		64000		64075		640420		640705		64000	
		RMS		ARNING				ARNING			
		NO OF	TPE C		LIGTS	ARRICAES	ARRICAES	LIGTS	LIGTS		
		AS	LIGT	RMS	TPE C	TPE III	TPE III	TPE A	TPE A	SIGNS	SIGNS
CATEGOR	STAGE	A	EAC	A	A	EAC	A	EAC	A	EAC	A
000	AVANCE ARNING	84	--	--	--	8	672	6	44	25	200
	STAGE	77	0	770	770	5	55	19	46	6	462
PROJECT TOTAL		84		770	770		827		2807		2562

TEMPORARY PAVEMENT MARKING		
649.0850		
TEMPORARY MARKING		
STOP LINE		
REMOVABLE TAPE		
18-INCH		
CATEGORY	LOCATION	(LF)
0010	CTH P	
	CTH P	12
	KOLBO ROAD	12
PROJECT 5478-00-72 TOTAL		24

CONSTRUCTION STAKING						
650.4500 650.5000 650.6500 650.9920						
CONSTRUCTION STAKING						
STRUCTURE LAYOUT						
(B-62-0260)						
CATEGORY	LOCATION	STATION - STATION	SUBGRADE (LF)	BASE (LF)	SLOPE STAKES (LS)	SLOPE STAKES (LF)
0010	CTH P	102+20.00 - 103+45.50	126	126	1	186
PROJECT 5478-00-72 TOTAL			126	126	1	186

SAWING ASPHALT			
690.0150			
CATEGORY	LOCATION	STATION	(LF)
0010	CTH P		
		102+20.00	22
		KOBLO ROAD	38
		103+45.50	27
PROJECT 5478-00-72 TOTAL			87



SCHEDULE OF LANDS & INTERESTS REQUIRED

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

PARCEL NUMBER	SHEET NUMBER	OWNER(S)	INTEREST REQUIRED	R/W REQUIRED (S.F.)			TLE S.F.
				NEW	EXISTING	TOTAL	
1	4.03	DANIEL H. SEVERSON AND SUSAN R. SEVERSON	FEE	126	3299	3425	----
2	4.03	STATE OF WISCONSIN DEPARTMENT OF NATURAL RESOURCES	TLE	----	----	----	180
3	4.03	JAMES R. ONSHUS	FEE/TLE	228	2322	2550	347
4	4.03	VERNON COUNTY	FEE	322	----	322	----
5	4.03	DAVID EGGEN AND MARY EGGEN	FEE	----	6738	6738	----
200	4.03	VERNON COMMUNICATIONS COOPERATIVE	RELEASE OF RIGHTS	----	----	----	----

NOTE: AREAS SHOWN IN THE TOTAL ACRES COLUMN MAY BE APPROXIMATE AND ARE DERIVED FROM THE TAX ROLES OR OTHER AVAILABLE SOURCES AND MAY NOT INCLUDE LANDS OF THE OWNER WHICH ARE NOT CONTIGUOUS TO THE AREA TO BE ACQUIRED.

UNOFFICIAL DOCUMENT

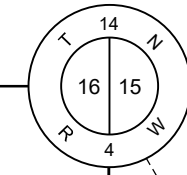
REVISION DATE _____ _____ _____	DATE: 03/30/2020	NOT TO SCALE	HWY: CTH P	R/W PROJECT NUMBER 5478-00-00	PLAT SHEET 4.02	E
			COUNTY: VERNON	CONSTRUCTION PROJECT NUMBER 5478-00-72	PS&E SHEET	

TLE COURSE TABLE			
FROM POINT	TO POINT	BEARING	DISTANCE
300	301	S08° 14' 42"W	7.63'
301	302	S81° 45' 16"E	20.06'
302	109	S49° 15' 59"E	28.80'
109	110	N08° 14' 43"E	23.10'
110	300	N81° 45' 17"W	44.35'

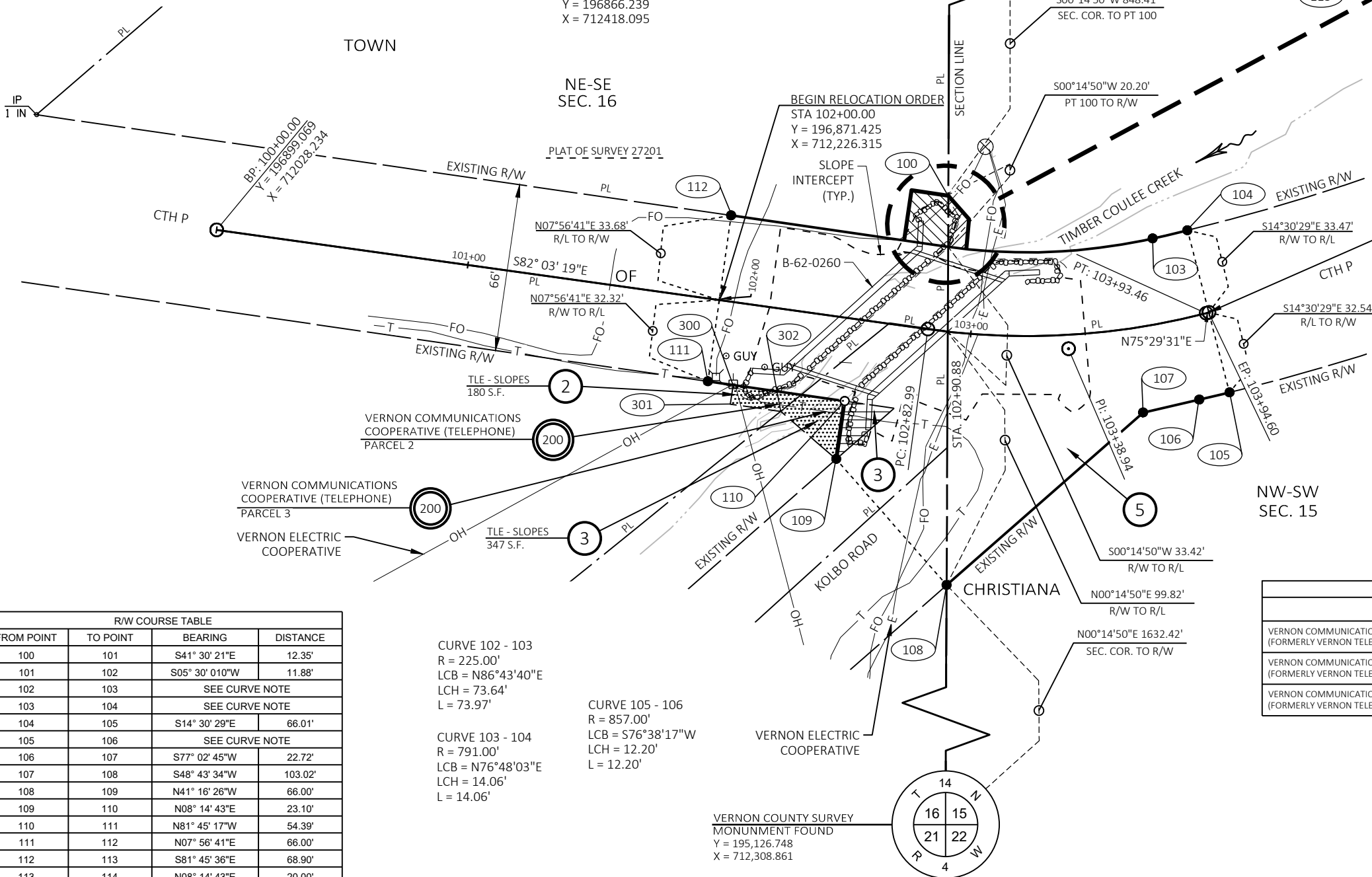
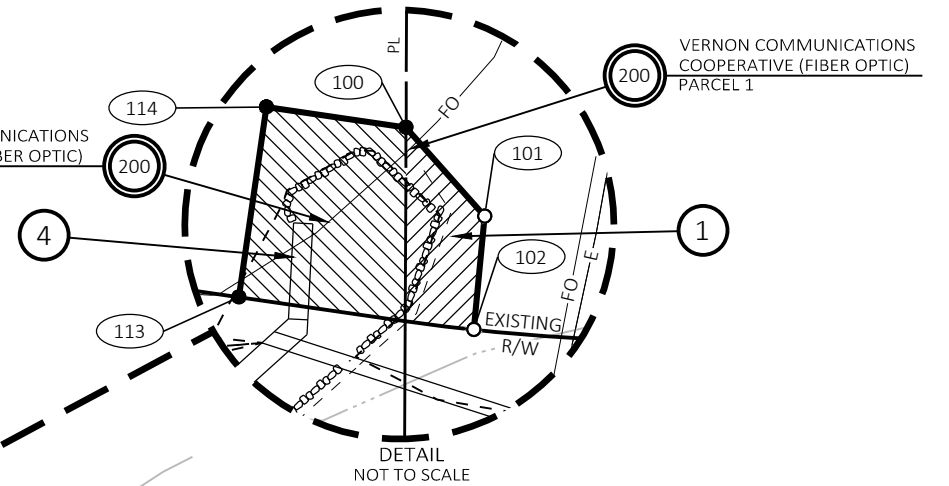
TLE Station & Offset Table		
Point No.	Station	Offset
300	102+10.04	32.37'
301	102+10.00	40.00'
302	102+30.06	40.10'

PI STA = 103+38.94
Y = 196852.221
X = 712363.923
DELTA = 22°27'10" LT
D = 20°19'25"
T = 55.96'
L = 110.48'
R = 281.92'
PC STA = 102+82.99
Y = 196859.955
X = 712308.503
PT STA = 103+93.46
Y = 196866.239
X = 712418.095

VERNON COUNTY SURVEY
MONUMENT FOUND
Y = 197,760.993
X = 712,320.224



VERNON COMMUNICATIONS
COOPERATIVE (FIBER OPTIC)
PARCEL 4



END RELOCATION ORDER
STA 103+94.60
Y = 196,866.524
X = 712,419.195

R/W Station, Offset Table & Coordinate					
Point No.	Station	Offset	Y	X	
100	102+83.86	53.24'	196912.592	712316.564	
101	102+95.00	45.00'	196903.341	712324.750	
102	102+95.00	33.12'	196891.514	712323.610	
103	103+78.80	33.46'	196895.717	712397.125	
104	103+94.60	33.47'	196898.927	712410.810	
105	103+94.60	32.53'	196835.026	712427.346	
106	103+83.54	32.48'	196832.206	712415.473	
107	103+63.21	33.49'	196827.112	712393.328	
108	102+98.71	99.40'	196759.154	712315.902	
109	102+54.27	55.70'	196808.757	712272.365	
110	102+54.39	32.60'	196831.618	712275.678	
111	102+00.00	32.32'	196839.418	712221.848	
112	102+00.00	33.68'	196904.786	712230.970	
113	102+68.89	33.33'	196894.912	712299.154	
114	102+69.00	53.33'	196914.705	712302.022	

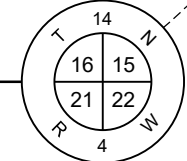
R/W COURSE TABLE			
FROM POINT	TO POINT	BEARING	DISTANCE
100	101	S41° 30' 21"E	12.35'
101	102	S05° 30' 01"W	11.88'
102	103	SEE CURVE NOTE	
103	104	SEE CURVE NOTE	
104	105	S14° 30' 29"E	66.01'
105	106	SEE CURVE NOTE	
106	107	S77° 02' 45"W	22.72'
107	108	S48° 43' 34"W	103.02'
108	109	N41° 16' 26"W	66.00'
109	110	N08° 14' 43"E	23.10'
110	111	N81° 45' 17"W	54.39'
111	112	N07° 56' 41"E	66.00'
112	113	S81° 45' 36"E	68.90'
113	114	N08° 14' 43"E	20.00'
114	100	S81° 43' 48"E	14.69'

CURVE 102 - 103
R = 225.00'
LCB = N86°43'40"E
LCH = 73.64'
L = 73.97'

CURVE 103 - 104
R = 791.00'
LCB = N76°48'03"E
LCH = 14.06'
L = 14.06'

CURVE 105 - 106
R = 857.00'
LCB = S76°38'17"W
LCH = 12.20'
L = 12.20'

VERNON COUNTY SURVEY
MONUMENT FOUND
Y = 195,126.748
X = 712,308.861



EASEMENT TABLE		
OWNER	RECORDING INFORMATION	LOCATED IN R/W PARCEL NO.
VERNON COMMUNICATIONS COOPERATIVE (FORMERLY VERNON TELEPHONE COOPERATIVE)	BLANKET EASEMENT DOC. NO. 253731	1, 5
VERNON COMMUNICATIONS COOPERATIVE (FORMERLY VERNON TELEPHONE COOPERATIVE)	BLANKET EASEMENT DOC. NO. 253737	2, 3
VERNON COMMUNICATIONS COOPERATIVE (FORMERLY VERNON TELEPHONE COOPERATIVE)	NO EASEMENT OF RECORD	4

NOTES:
POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM
COORDINATES (WISCRS), VERNON COUNTY, NAD 83(2011) IN U.S. 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 ARE TYPE 2 (TYPICALLY 3/4" X 24" IRON REBARS)
UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE
PROJECT.

FOR CURRENT ACCESS DRIVEWAY INFORMATION, CONTACT THE HIGHWAY DEPARTMENT OF
VERNON COUNTY.

CTH P EXISTING R/W LINE WAS ESTABLISHED BY PLAT OF SURVEY 27201 BY CURTIS CROOK
S-1292 AND SIGNED ON 04/04/1979, STATE STATUTE 82.31 (66' WIDE).

KOLBO RD. EXISTING R/W LINE WAS ESTABLISHED BY STATE STATUTE 82.18 (66' WIDE).

UNOFFICIAL DOCUMENT

REVISION DATE			

DATE: 03/30/2020

GRID FACTOR



HWY: CTH P

COUNTY: VERNON

R/W PROJECT NUMBER 5478-00-00

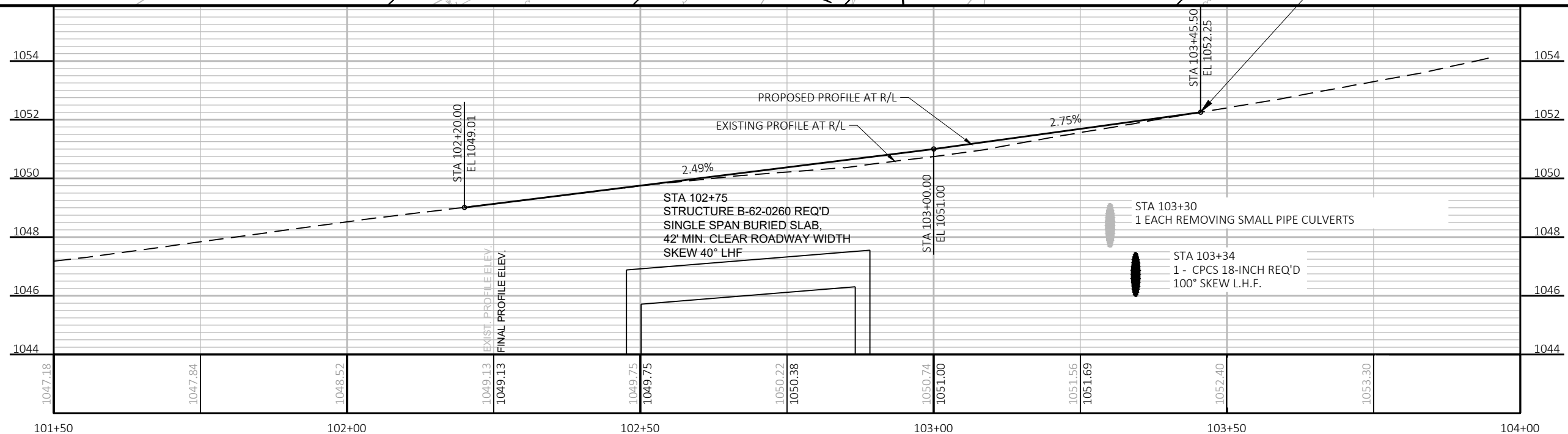
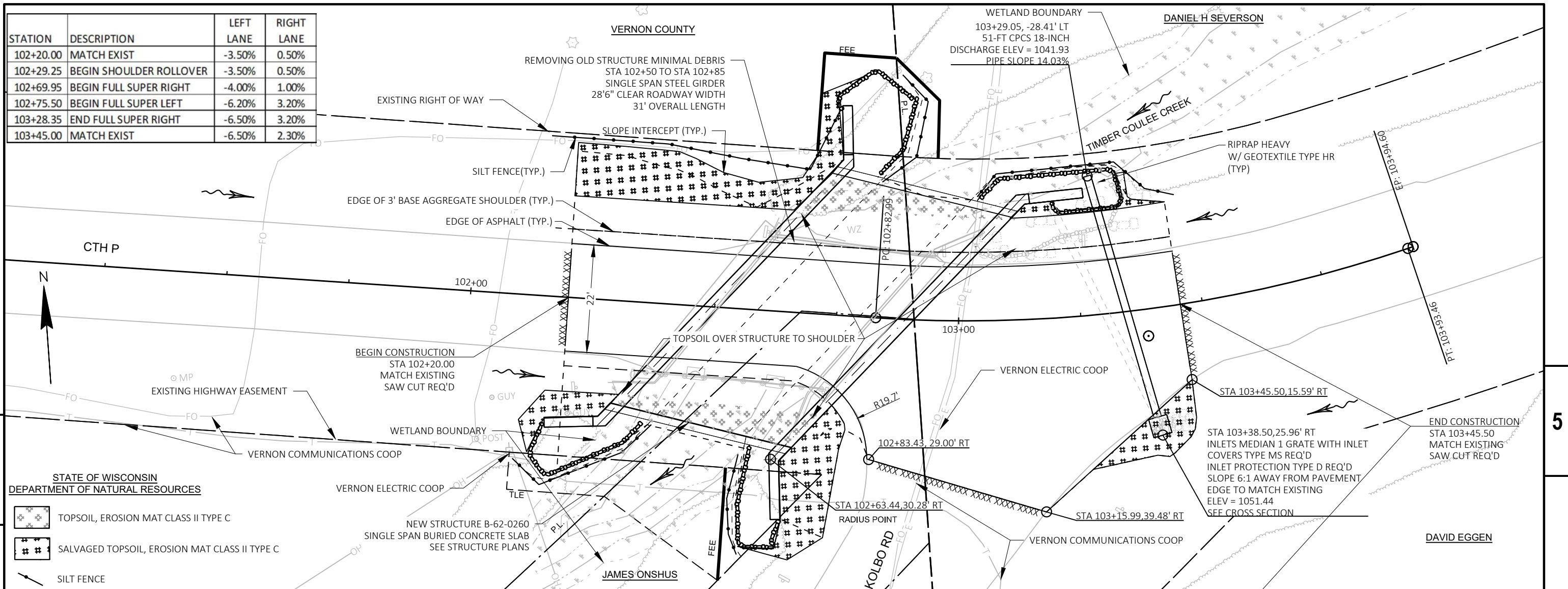
CONSTRUCTION PROJECT NUMBER 5478-00-72

PLAT SHEET 4.03

PS&E SHEET

E

STATION	DESCRIPTION	LEFT LANE	RIGHT LANE
102+20.00	MATCH EXIST	-3.50%	0.50%
102+29.25	BEGIN SHOULDER ROLLOVER	-3.50%	0.50%
102+69.95	BEGIN FULL SUPER RIGHT	-4.00%	1.00%
102+75.50	BEGIN FULL SUPER LEFT	-6.20%	3.20%
103+28.35	END FULL SUPER RIGHT	-6.50%	3.20%
103+45.00	MATCH EXIST	-6.50%	2.30%



PROJECT NO:	5478-00-72
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HWY: CTH P

COUNTY: VERNON

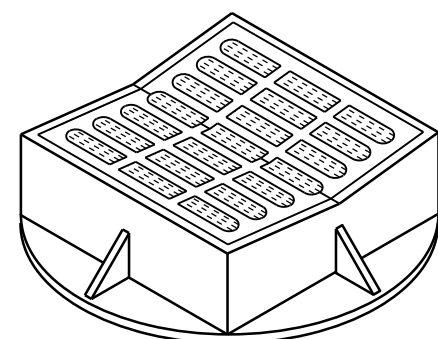
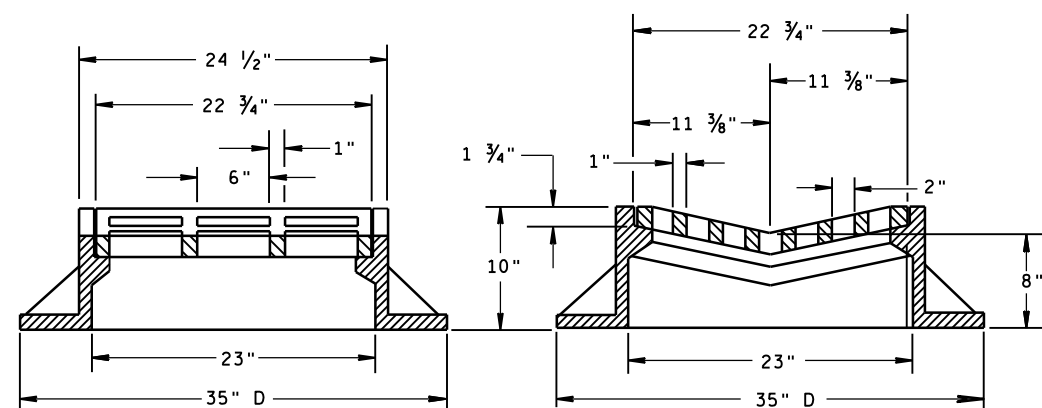
PLAN AND PROFILE:	CTH P
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SHEET

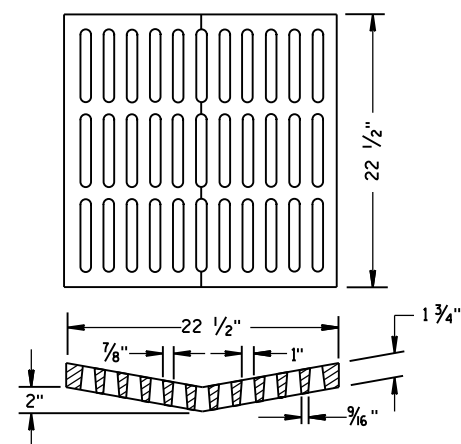
1

Standard Detail Drawing List

08A05-19B	INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM
08C08-02	INLETS MEDIAN 1 AND 2 GRATE
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
12A03-10	NAME PLATE (STRUCTURES)
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15C02-08A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-08B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C08-20A	LONGITUDINAL MARKING (MAINLINE)
15C35-04A	PAVEMENT MARKING (INTERSECTIONS)
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
15D38-02B	ATTACHMENT OF SIGNS TO POSTS

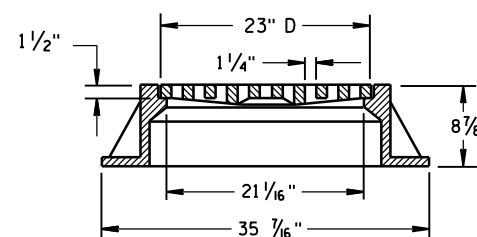
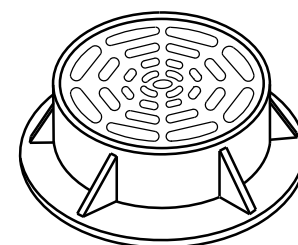
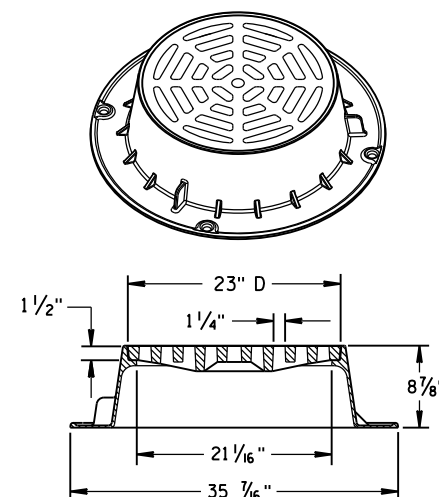


TYPE "B"



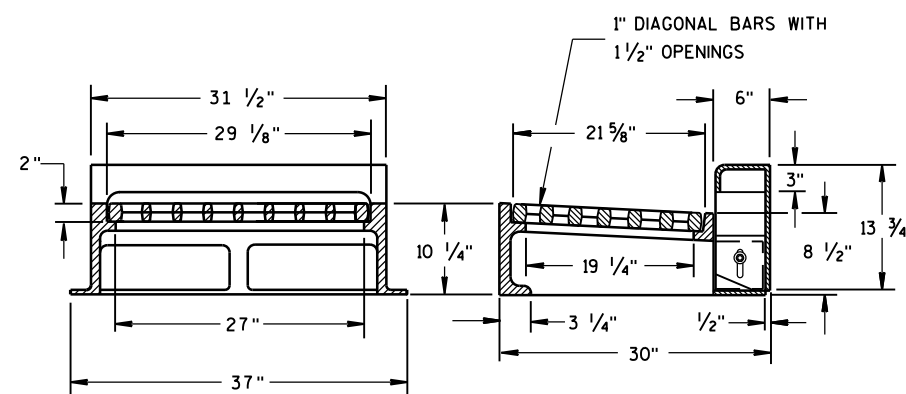
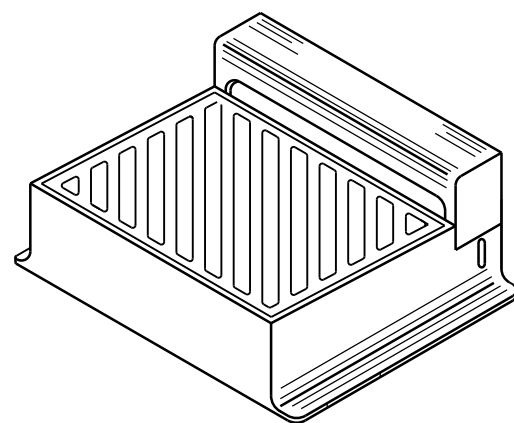
ALTERNATIVE GRATE FOR TYPE "B" COVER

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS POSSIBLE.
NOTED AS TYPE B-A ON THE DRAINAGE TABLE



TYPE "C"

NOTE: EITHER CASTING IS ACCEPTABLE



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

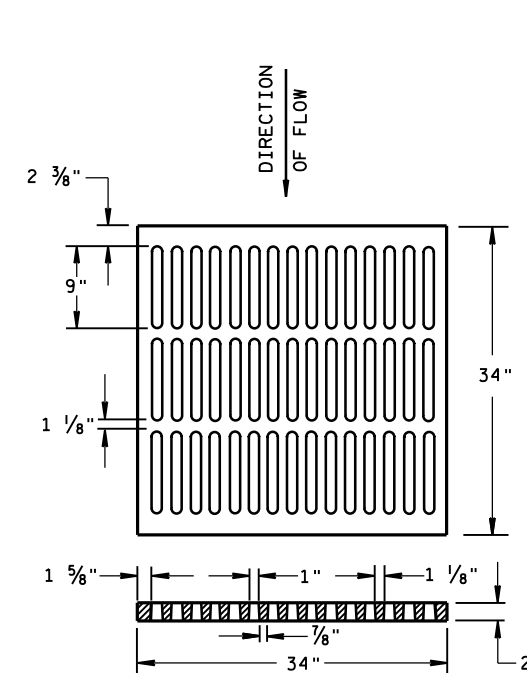
TYPE "WM"

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.

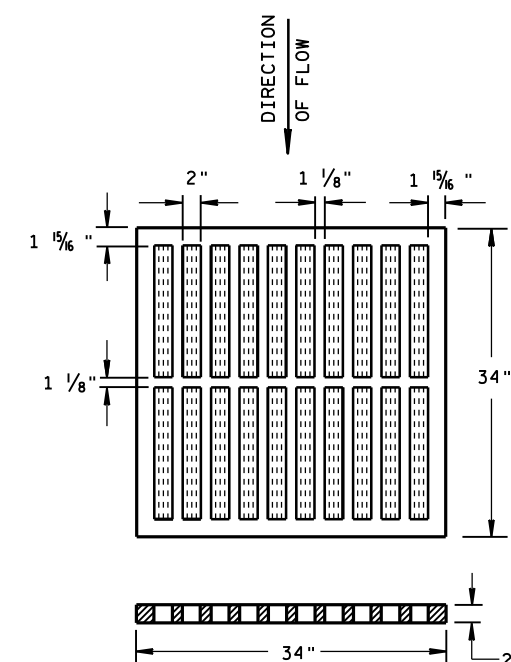
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.



ALTERNATIVE TYPE "MS"

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS PERMITTED
NOTED AS TYPE MS-A ON THE DRAINAGE TABLE



TYPE "MS"

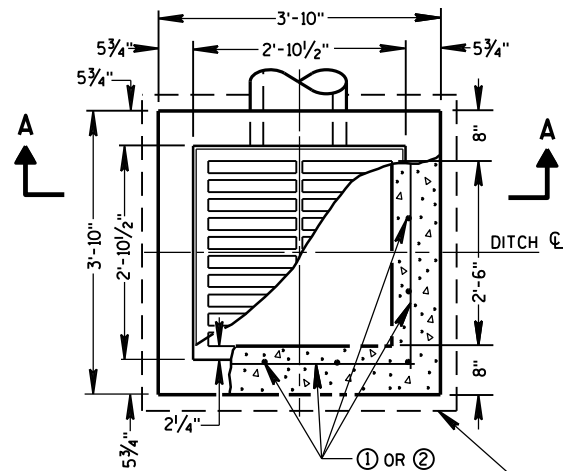
USE ON FREEWAYS AND EXPRESSWAYS
NOTED AS TYPE MS ON DRAINAGE TABLE

**INLET COVERS
TYPE B, B-A, C,
MS, MS-A, & WM**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

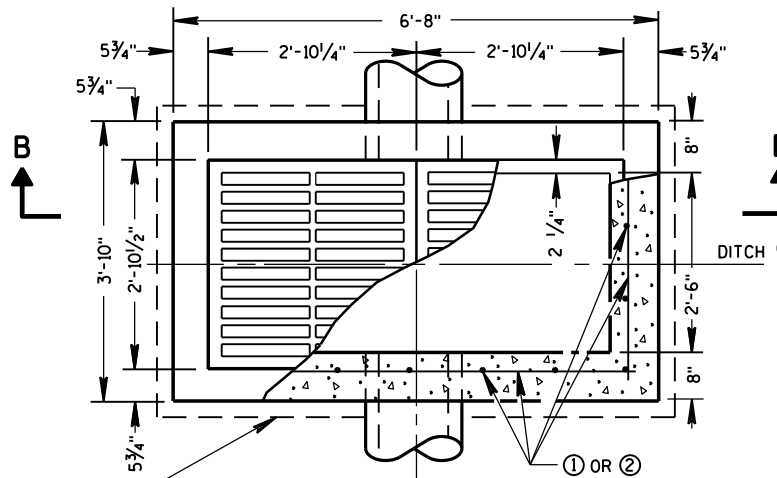
APPROVED
11/27/2013
DATE
FHWA

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER

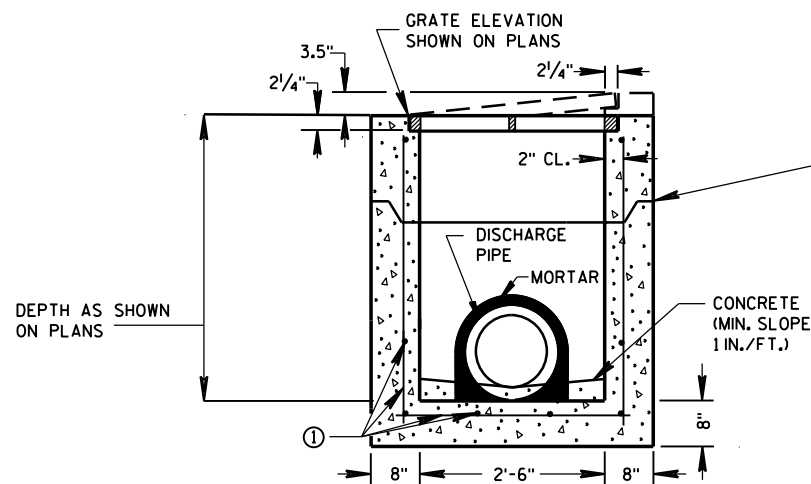


PLAN VIEW

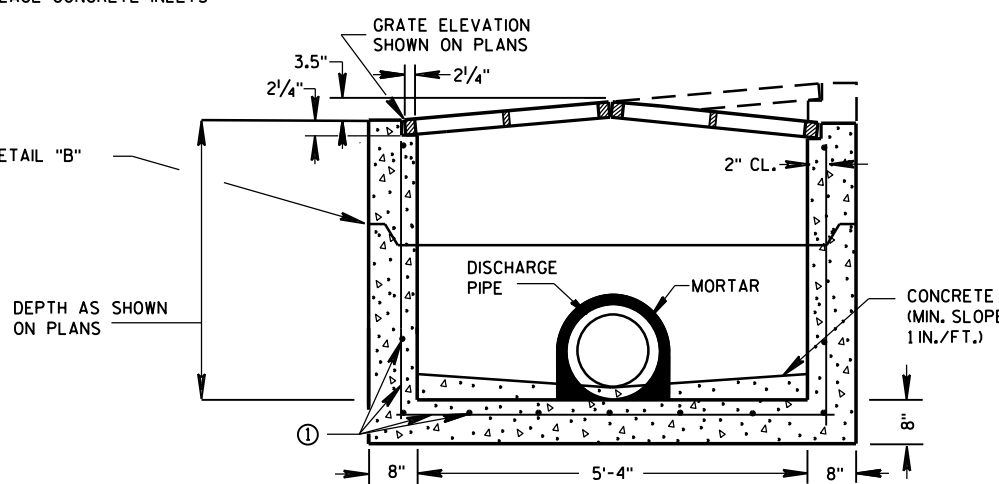
4" OVERHANGING BASE ON REINFORCED
CAST-IN-PLACE CONCRETE INLETS



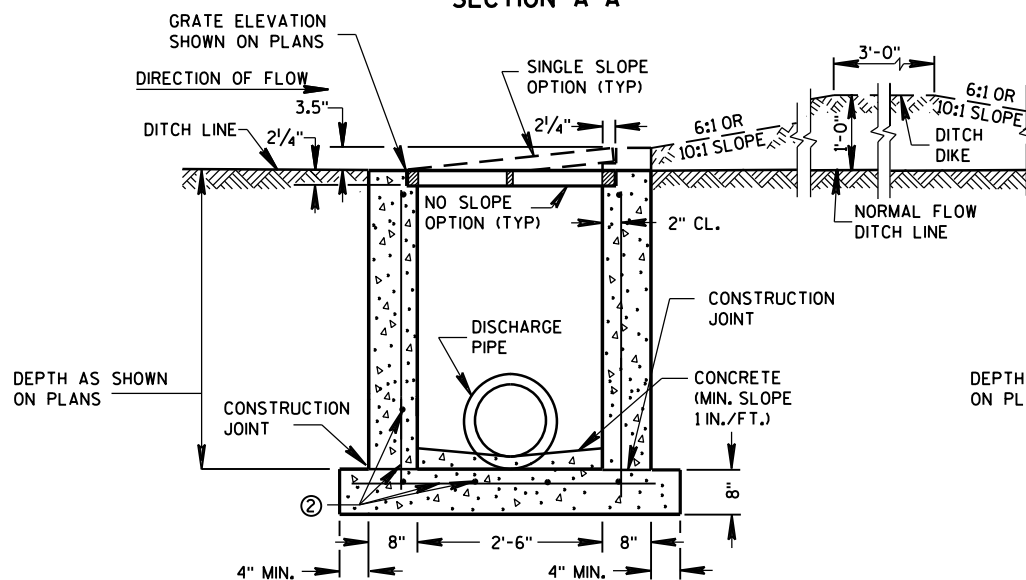
PLAN VIEW



PRECAST REINFORCED CONCRETE
SECTION A-A

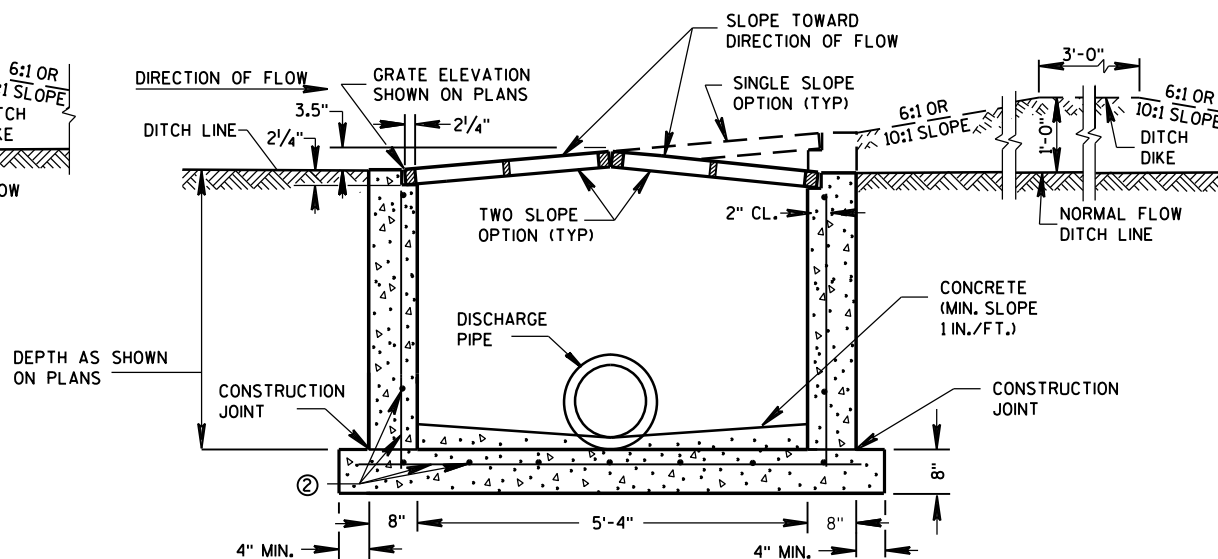


PRECAST REINFORCED CONCRETE
SECTION B-B



REINFORCED CAST-IN-PLACE CONCRETE
SECTION A-A

INLETS MEDIAN 1 GRATE



REINFORCED CAST-IN-PLACE CONCRETE
SECTION B-B

INLETS MEDIAN 2 GRATE

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.

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST INLET UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR INLETS WHICH MAY INCLUDE PRECAST REINFORCED CONCRETE INLETS, SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL MEDIAN INLETS ARE DESIGNATED ON THE PLANS AS "INLETS, IG-MS", ETC. THE FIRST NUMBER AND LETTER DESIGNATE THE TYPE OF STRUCTURE, AND THE FOLLOWING LETTERS DESIGNATE THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT. BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF FOUNDATION BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

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

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

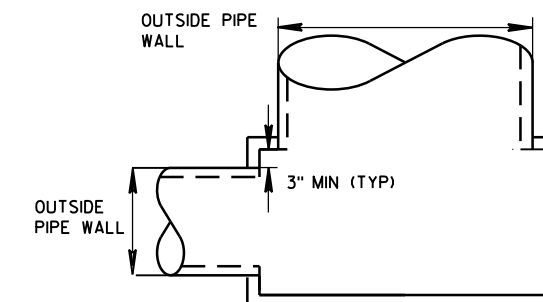
ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3" CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

- ① FOR PRECAST INLETS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.
- ② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

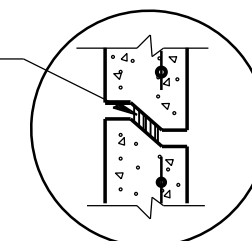
PIPE MATRIX

INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER	
	WIDTH (IN)	LENGTH (IN)
1 GRATE	18	18
2 GRATE	18	42



DETAIL "A"

JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 (TYP)



DETAIL "B"

INLETS MEDIAN 1 AND 2 GRATE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept., 2016
DATE
FHWA

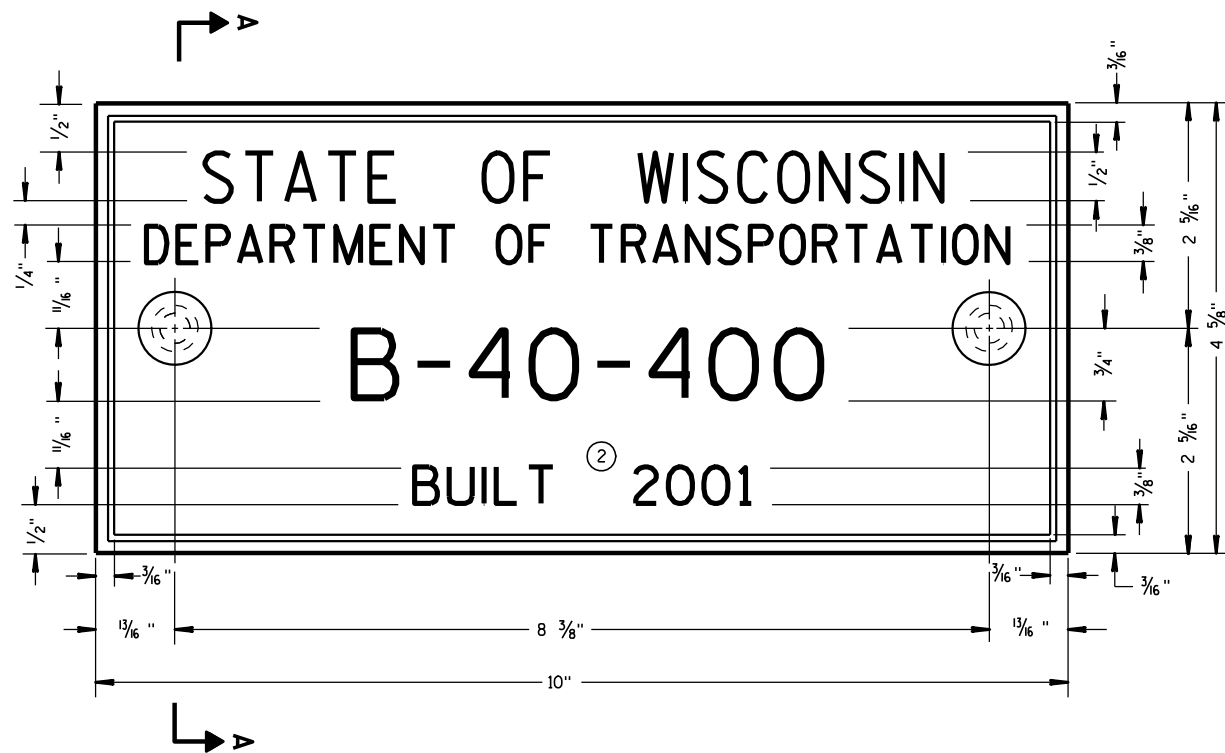
/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT
UNIT SUPERVISOR



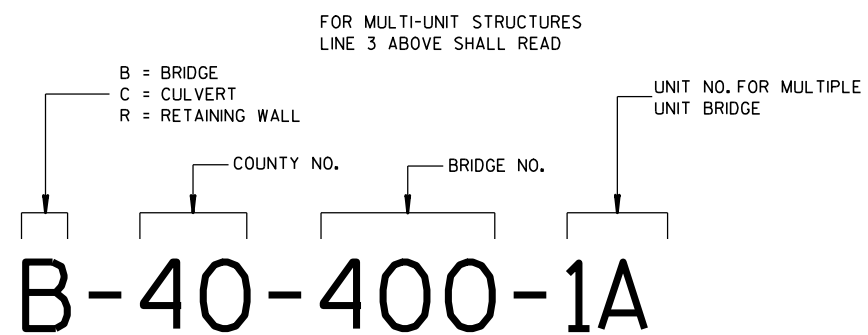
- ① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
- ② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
- ③ WOOD POSTS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



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



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



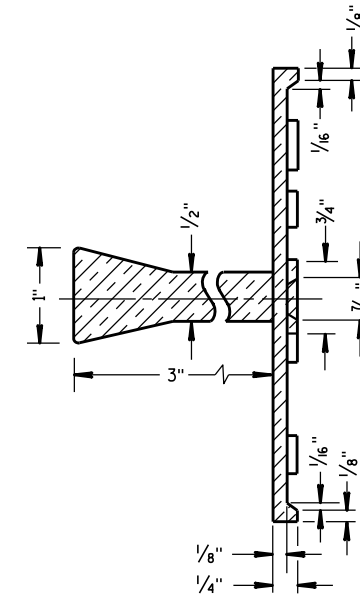
**NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES**

GENERAL NOTES

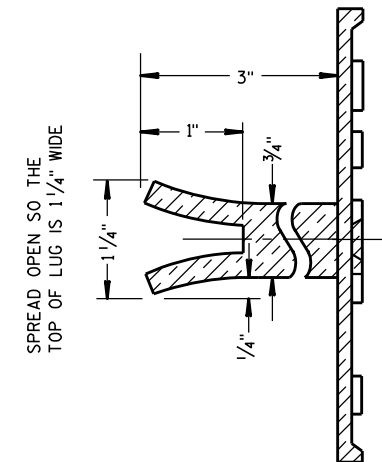
NAME PLATES TO BE INSTALLED ON BRIDGES, CULVERTS, AND RETAINING WALLS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS.

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.

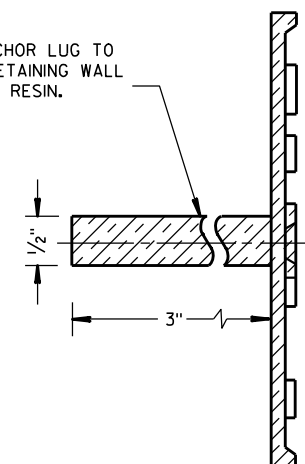


SECTION A-A



ALTERNATE LUG

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



ALTERNATE LUG
(FOR ATTACHMENT TO PRECAST STRUCTURES)

**NAME PLATE
(STRUCTURES)**

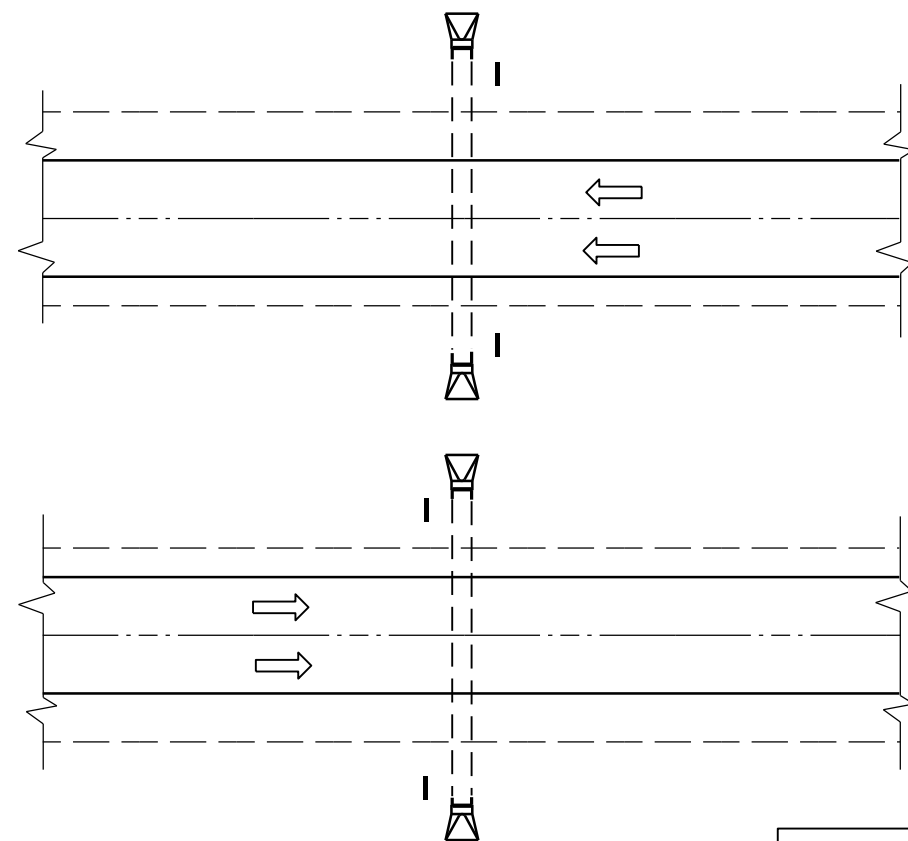
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

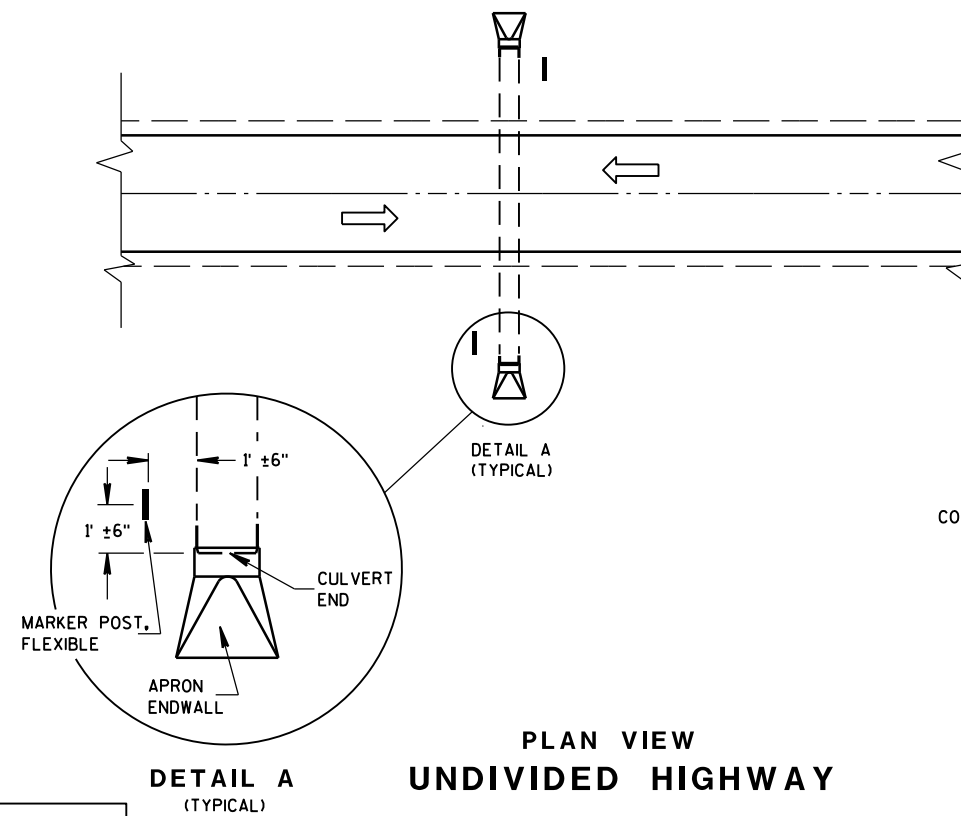
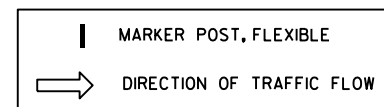
3/26/10
DATE

FHWA

/S/ Scot Becker
CHIEF STRUCTURAL DEVELOPMENT ENGINEER



PLAN VIEW
DIVIDED HIGHWAY

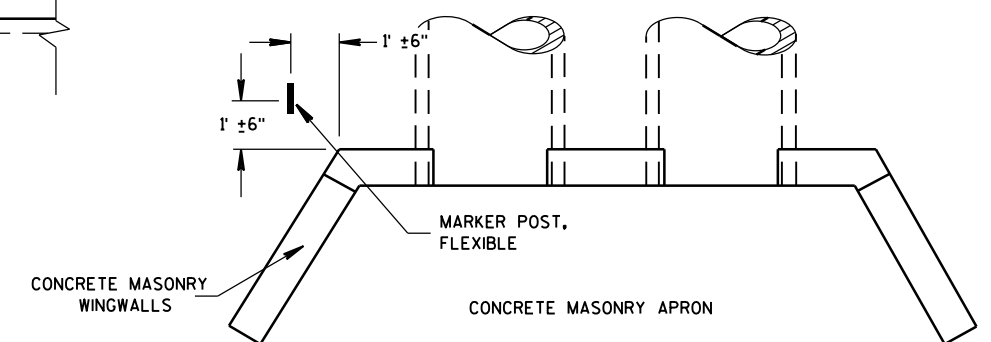


PLAN VIEW
UNDIVIDED HIGHWAY

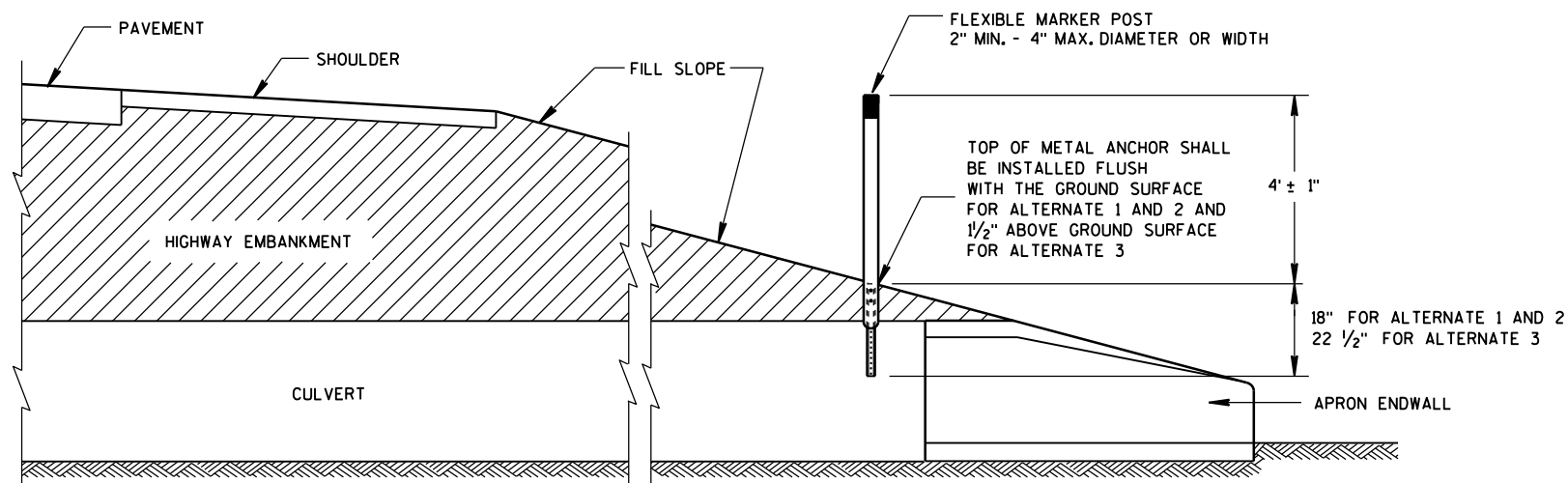
FLEXIBLE MARKER POST LOCATION

GENERAL NOTES

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



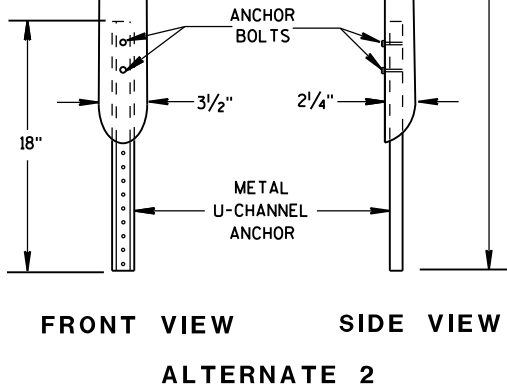
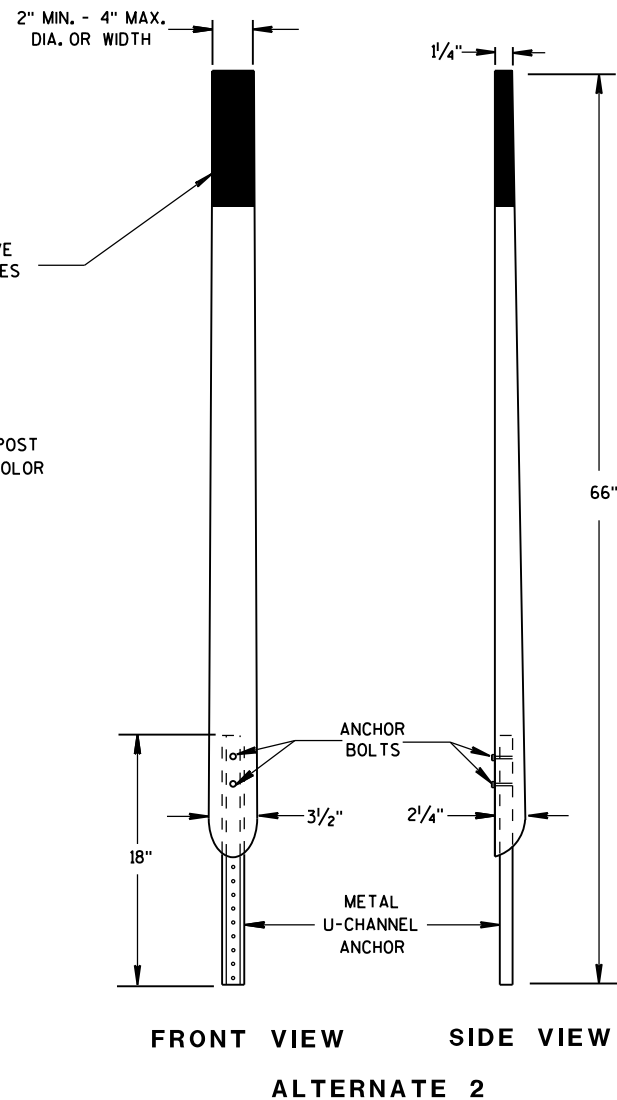
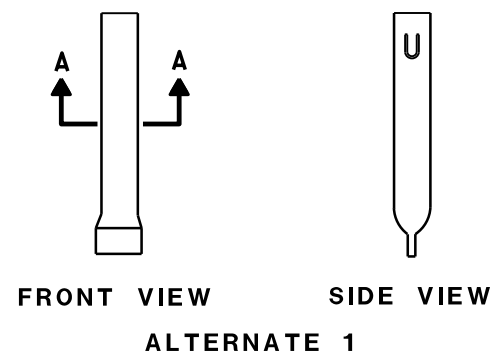
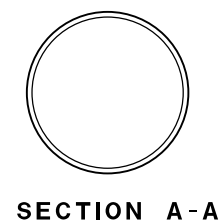
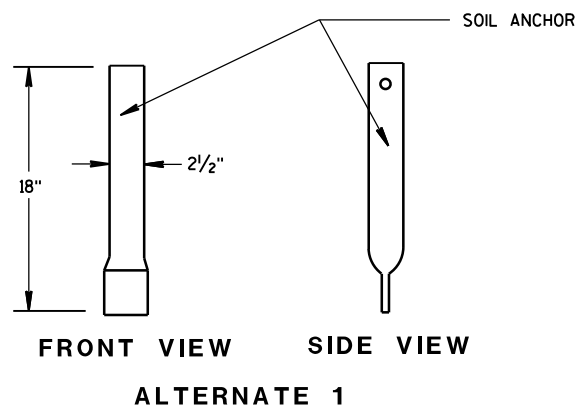
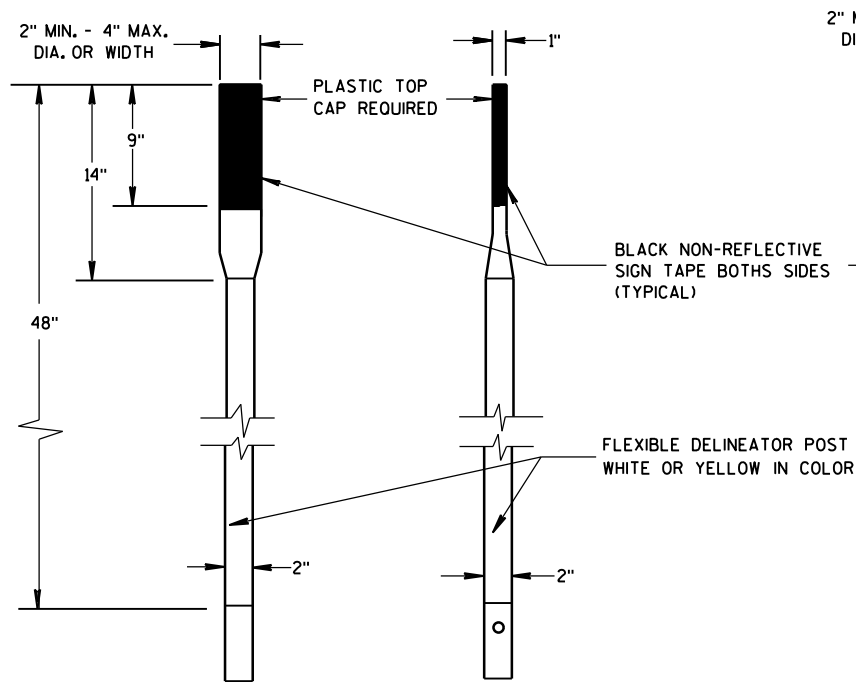
PLAN VIEW
CONCRETE MASONRY ENDWALLS FOR
CULVERT PIPE AND PIPE ARCH



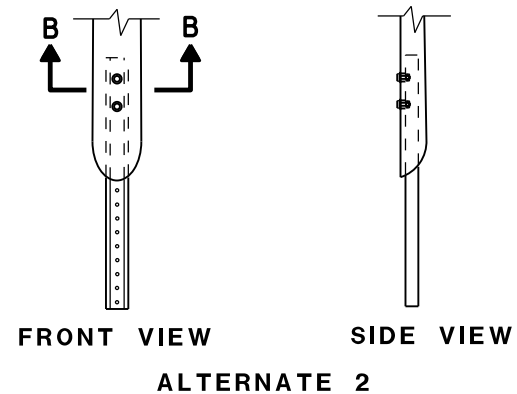
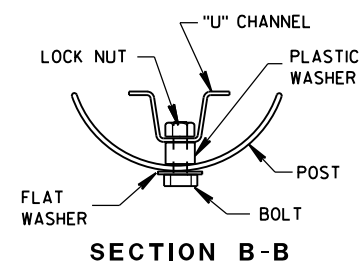
CROSS SECTION
FLEXIBLE MARKER POST

FLEXIBLE MARKER POST
FOR CULVERT END

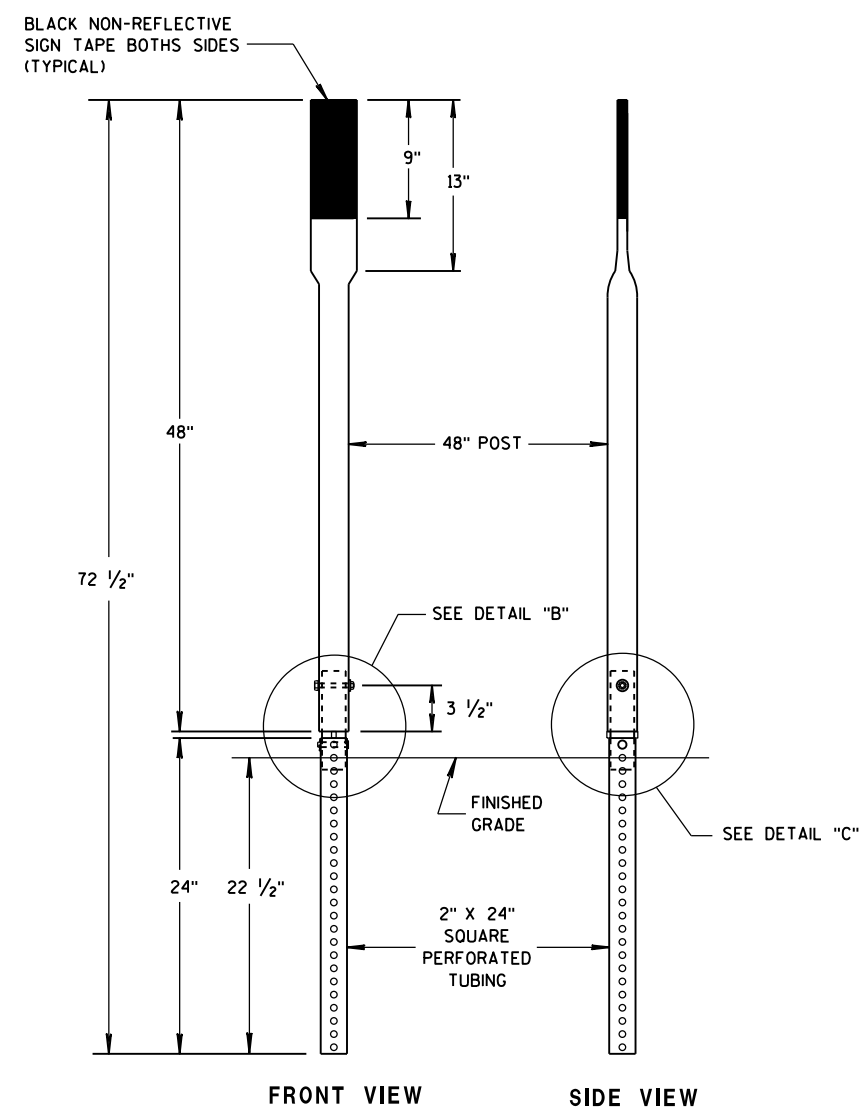
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



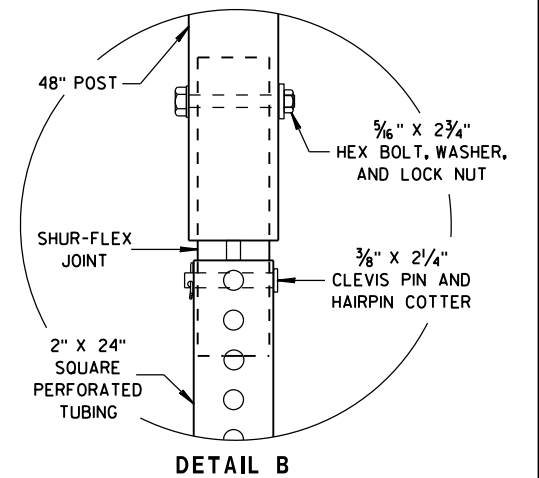
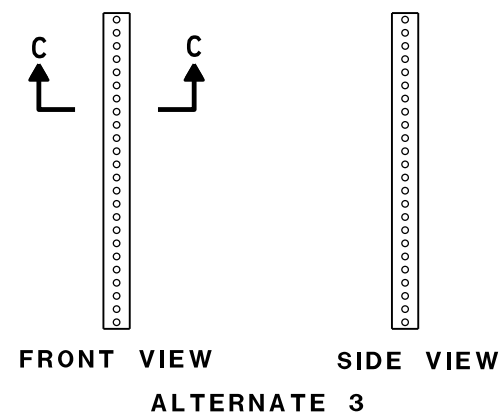
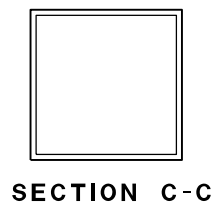
FLEXIBLE MARKER POSTS



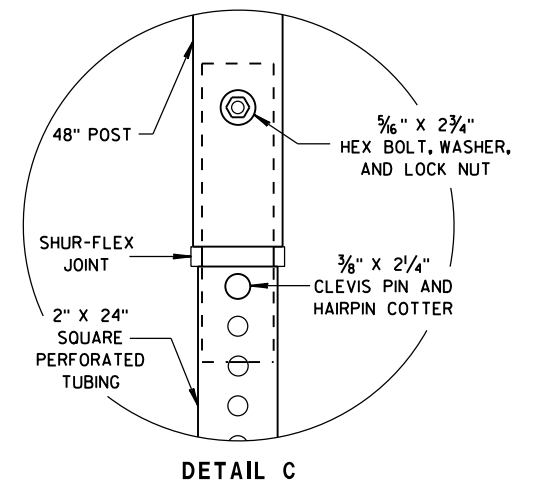
FLEXIBLE MARKER POST ANCHORS



FRONT VIEW SIDE VIEW
ALTERNATE 3



DETAIL B



DETAIL C

FLEXIBLE MARKER POST FOR CULVERT END

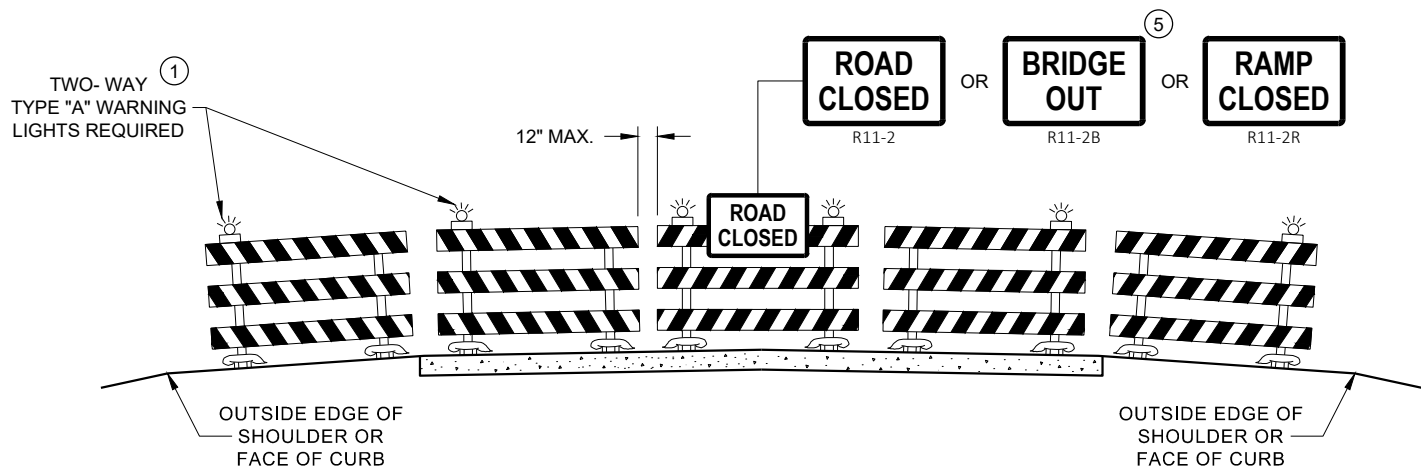
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

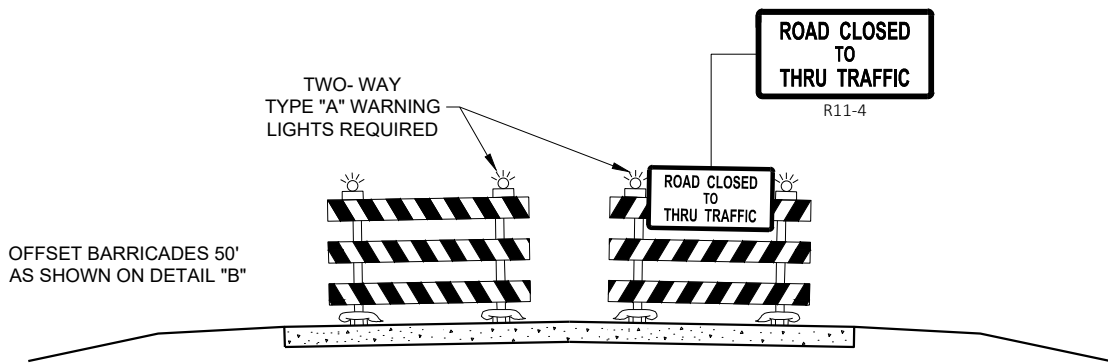
10/1/2012
DATE

FHWA

/S/ Travis Feltes
STATE TRAFFIC ENGINEER OF DESIGN



DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW



DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW

SEE SDD 15C2 - SHEET "a" FOR LEGEND

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

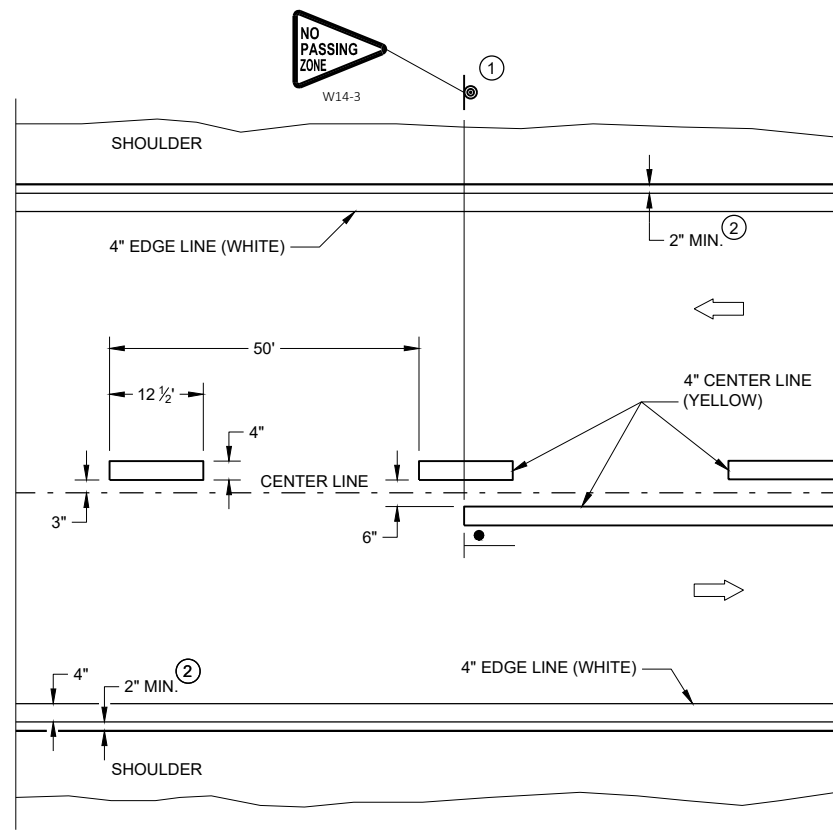
- R11 - 2 SHALL BE 48" X 30"
- R11 - 3 SHALL, R11 - 4 AND R10 - 61 SHALL BE 60 " X 30"
- M4 - 9 SHALL BE 30" X 24"
- M3 - X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4 - 8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1 - 4, M1 - 5A AND M1 - 6 SHALL BE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

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

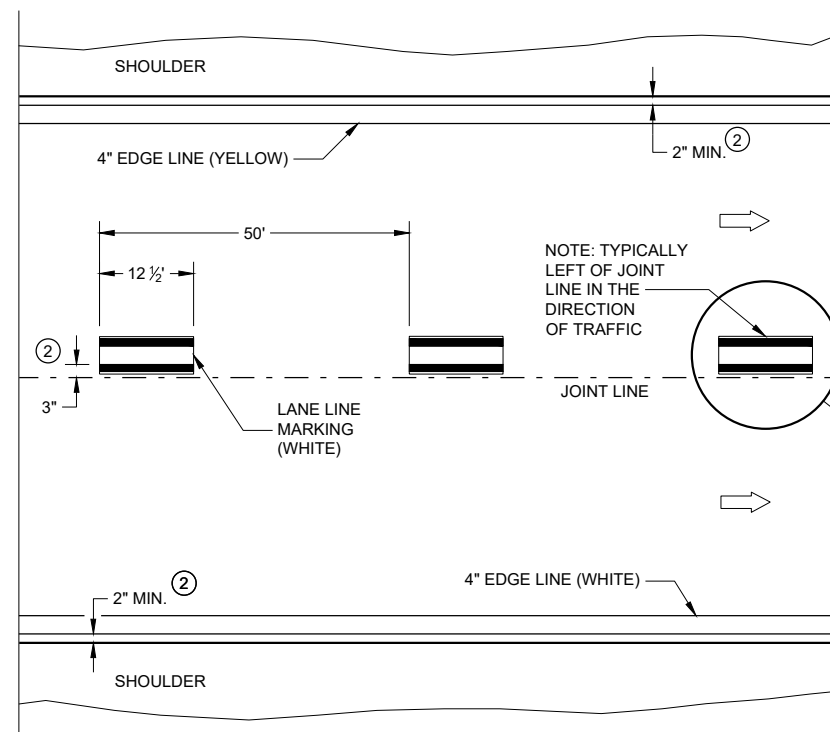
BARRICADES AND SIGNS
FOR
VARIOUS CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

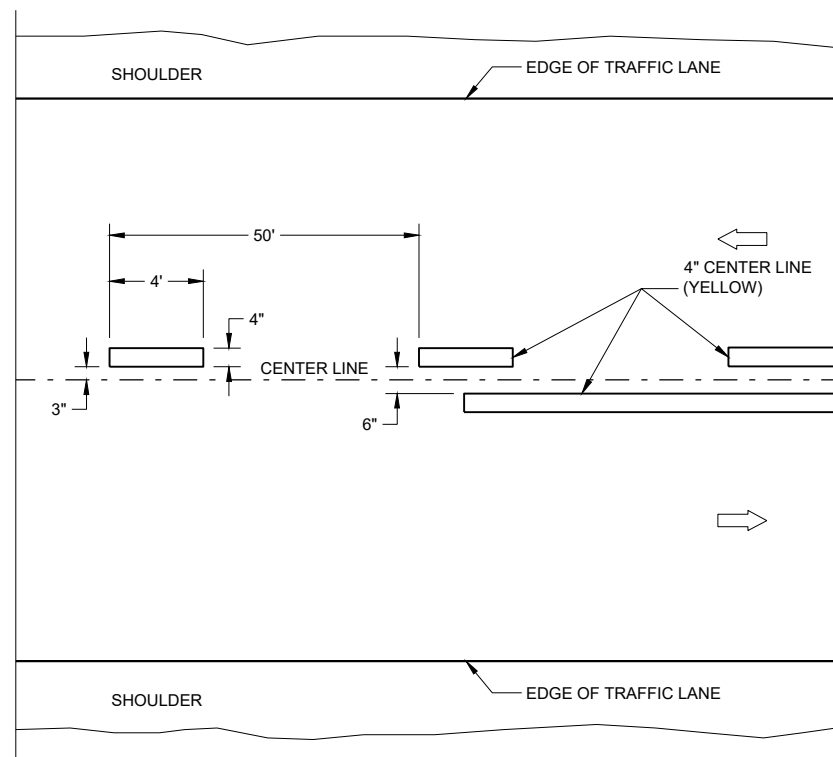


TWO WAY TRAFFIC

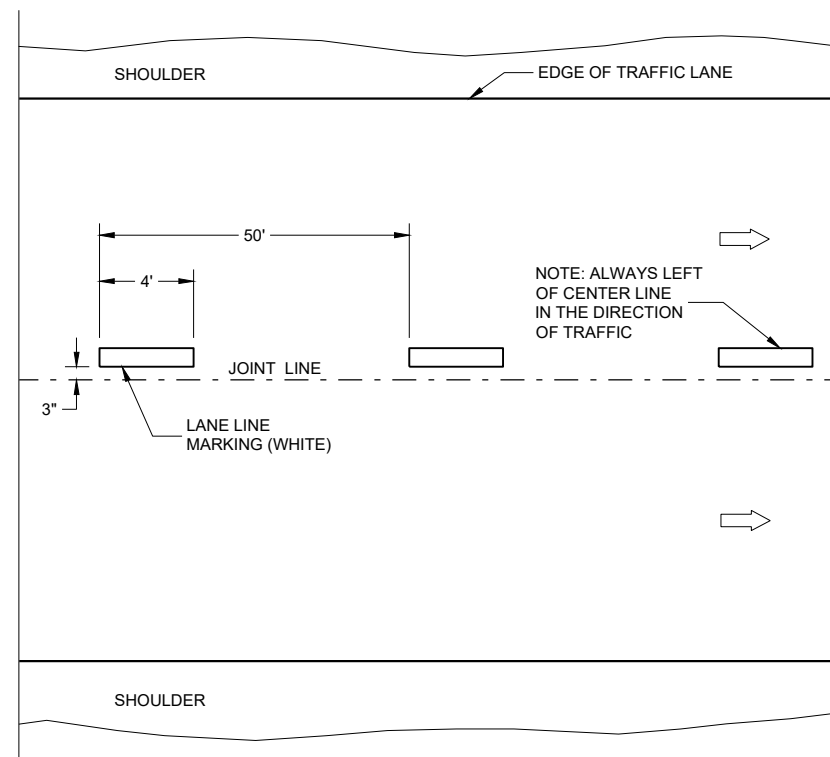


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC




TEMPORARY PAVEMENT MARKING

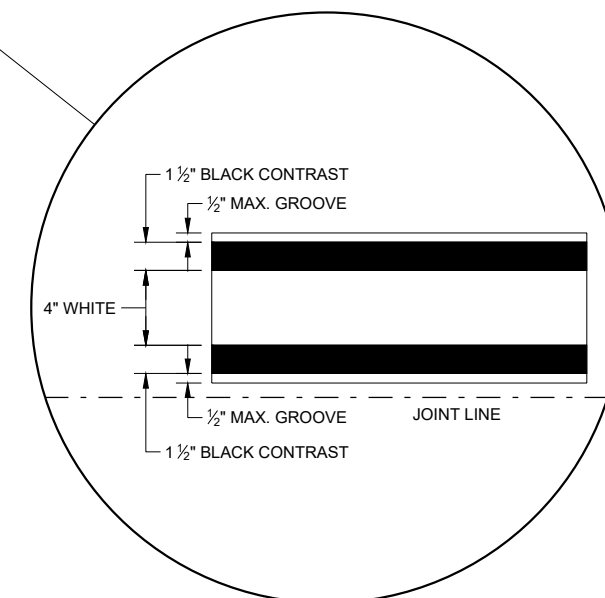
GENERAL NOTES

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

- ① LOCATE THE NO PASSING ZONE W14-3 SIGN WITH 50 FEET OF THE "T" MARKING
- ② MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

LEGEND

-  "T" MARKING
 SIGN ON PERMANENT SUPPORT
 DIRECTION OF TRAFFIC

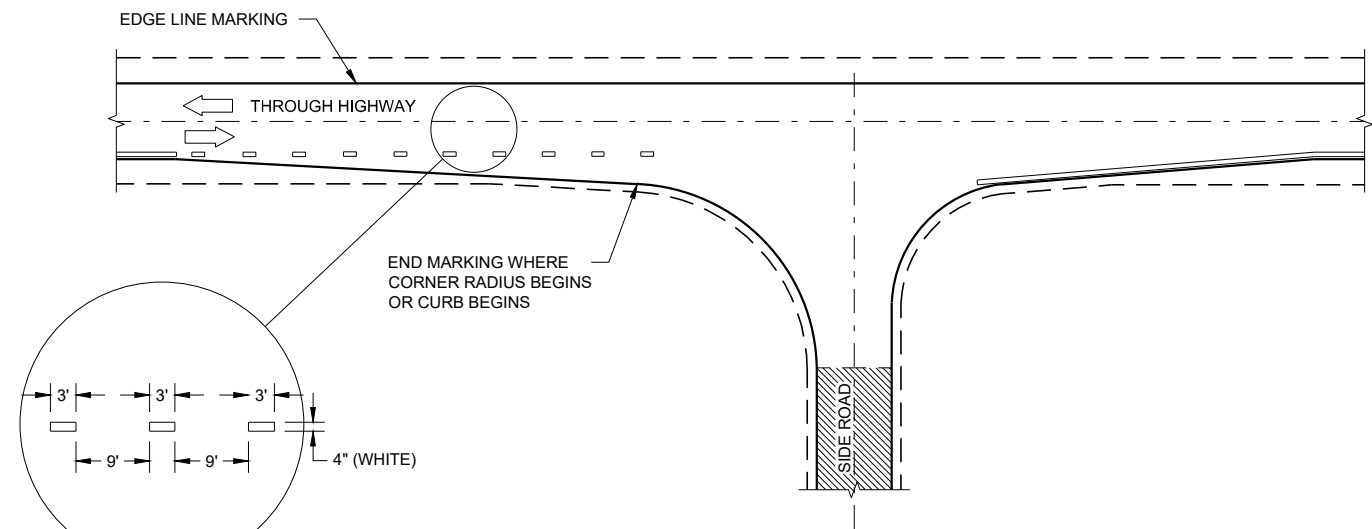


LONGITUDINAL MARKING (MAINLINE)

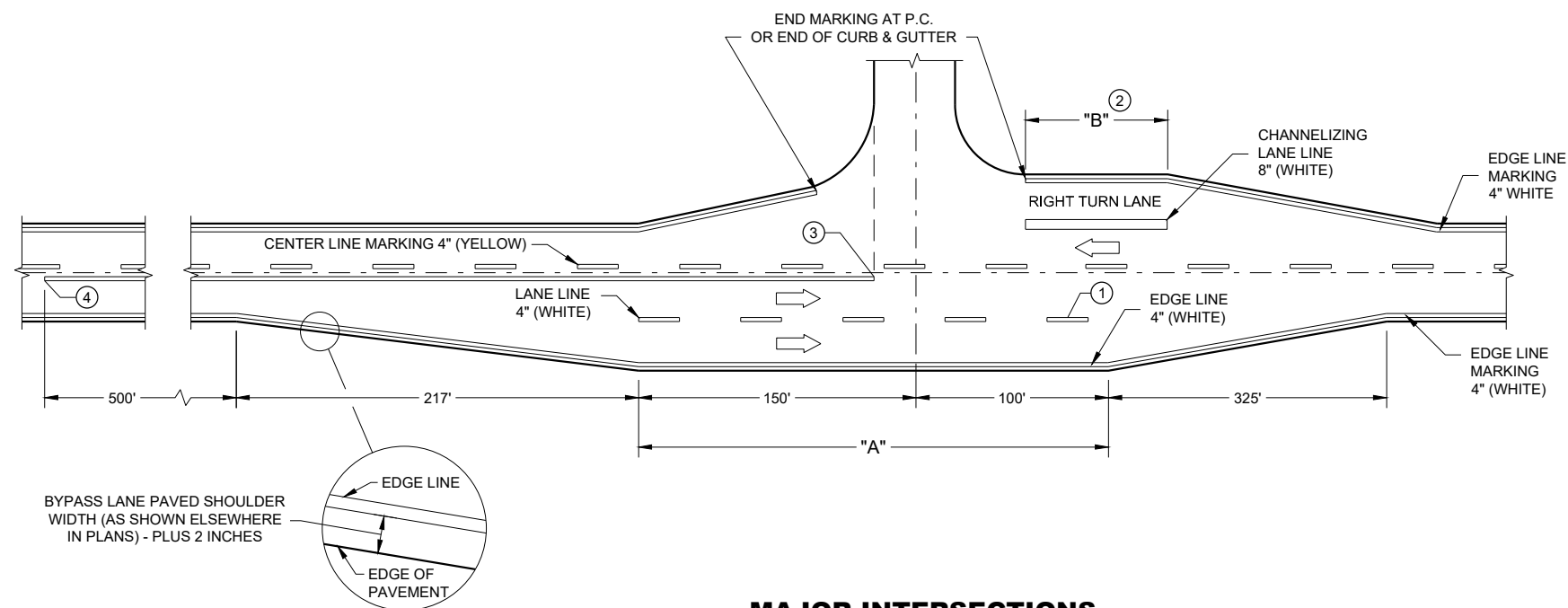
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020
DATE

/S/ Matthew Rauch
STATEWIDE SIGNING AND MARKING
ENGINEER



MINOR INTERSECTION



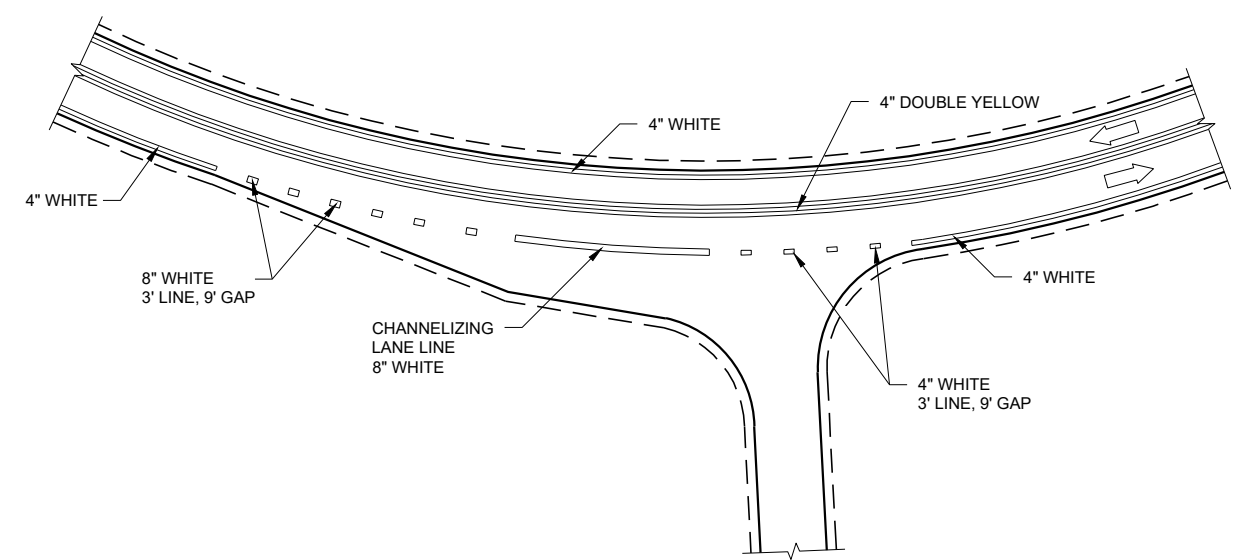
MAJOR INTERSECTIONS
(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANE)

GENERAL NOTES

- OMIT EDGE LINES THROUGH INTERSECTIONS. CONTINUE EDGE LINES THROUGH DRIVEWAYS.
- ① WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.
 - ② WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.
 - ③ BARRIER LINE ENDS AT SIDE ROAD PAVEMENT / SURFACE EDGE EXTENSION.
 - ④ BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.

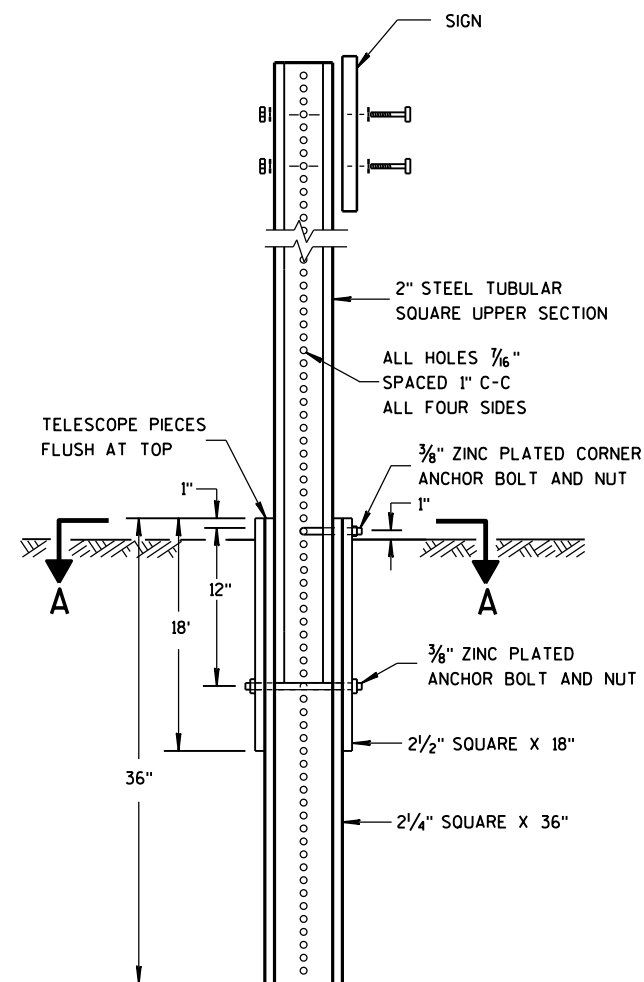
LEGEND

➡ DIRECTION OF TRAVEL



INTERSECTION ON OUTSIDE OF CURVE

PAVEMENT MARKING (INTERSECTIONS)
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION



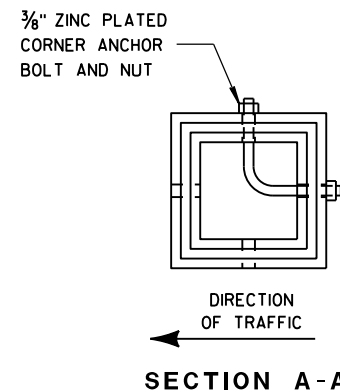
DETAIL OF TUBULAR
STEEL SIGN POST

TUBULAR STEEL POSTS

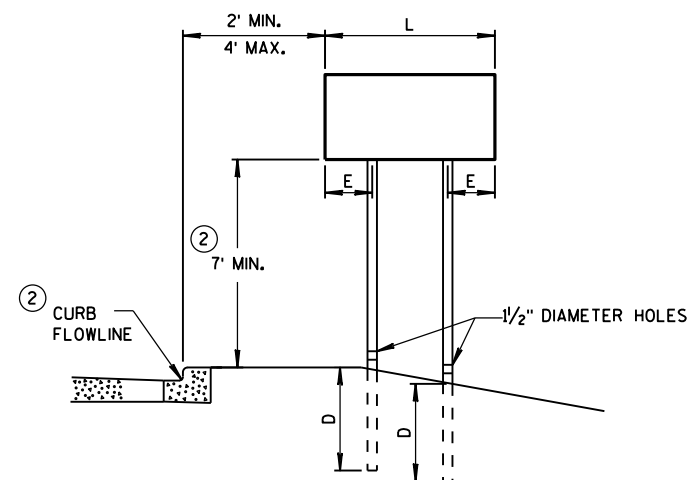
AREA OF SIGN INSTALLATION (SQ. FT.)	NUMBER OF REQUIRED TUBULAR STEEL POSTS
9 OR LESS	1
GREATER THAN 9 LESS THAN OR EQUAL TO 18	2
GREATER THAN 18 LESS THAN OR EQUAL TO 27	3

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.



SECTION A-A

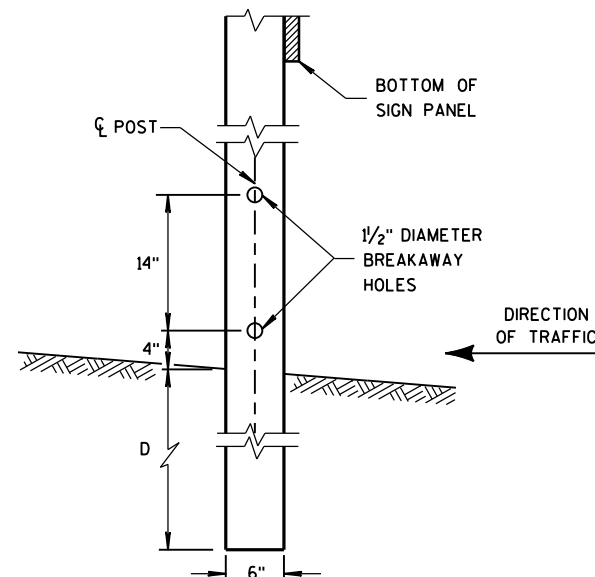


URBAN AREA

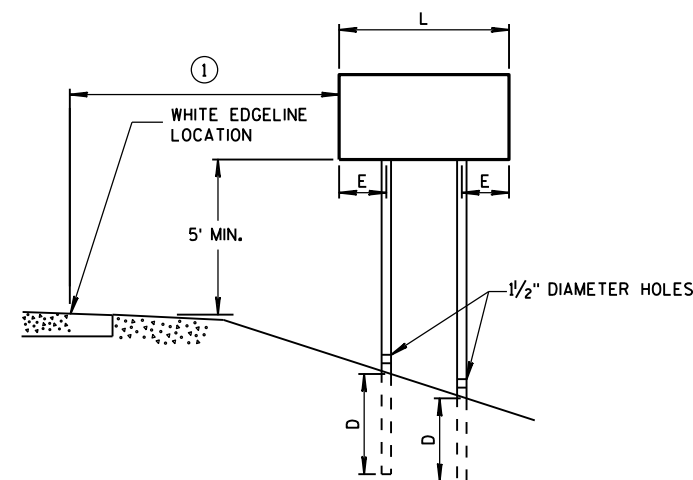
POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

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
MODIFICATION



RURAL AREA

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

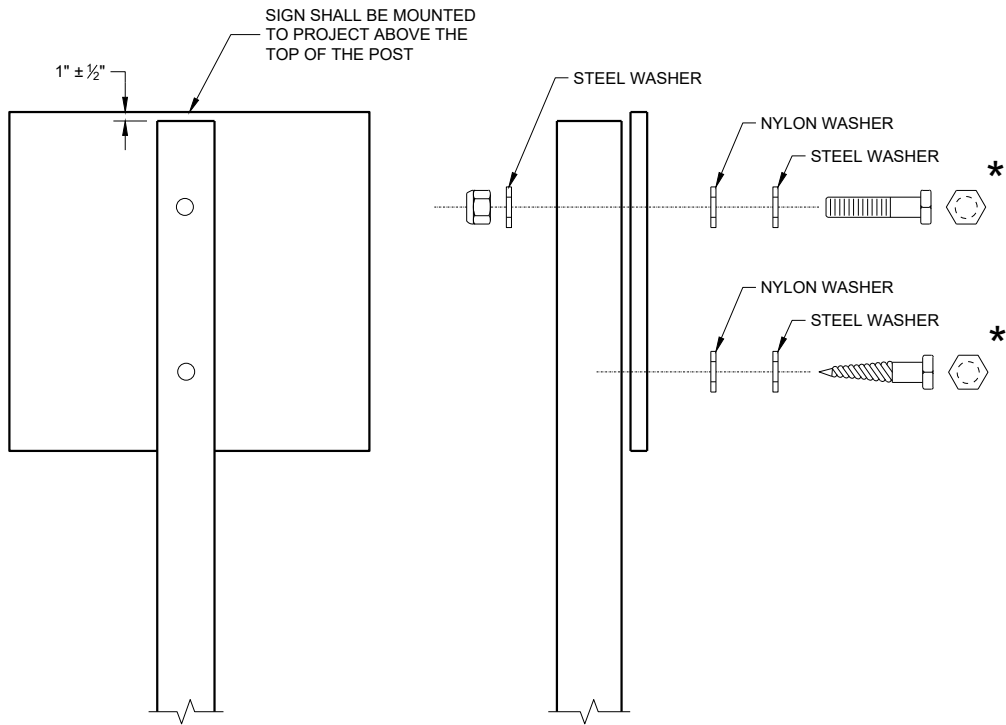
SEE NOTE ③

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.

TEMPORARY TRAFFIC CONTROL
SIGN MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



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 POST (4" x 6")
LAG SCREWS - 3/8" x 3"
MACHINE BOLTS - 5/16" x 6 1/2" OR 7" LENGTH W/NUTS

SQUARE STEEL POST (2" x 2")
MACHINE BOLTS - 3/8" x 3 1/4" LENGTH W/NUTS
RIVETS - 3/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM
BODY/MANDREL O.D. FLANGE 0.720 - 0.765 INCH,
GRIP RANGE 0.042 - 0.375 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 0.080 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. FOR A SINGLE POST INSTALLATION, ALL SIGNS GREATER
THAN 9 SQ. FT. REQUIRE THE USE OF 3 FASTENERS.

ATTACHMENT OF SIGNS
TO POSTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

FHWA

DESIGN DATA

LIVE LOAD:
DESIGN LOADING: HL-93
INVENTORY RATING FACTOR: RF=1.38
OPERATING RATING FACTOR: RF=1.79
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) = 250 KIPS

EARTHLOAD:
DESIGNED FOR FILL HEIGHT RANGE OF 2.0 TO 4.0 FT.

MATERIAL PROPERTIES:
CONCRETE MASONRY BRIDGES SUPERSTRUCTURE.....f'c = 4,000 P.S.I.
CONCRETE MASONRY BRIDGES SUBSTRUCTURE.....f'c = 3,500 P.S.I.
BAR STEEL REINFORCEMENT HIGH STRENGTH, GRADE 60.....f'c = 60,000 P.S.I.

TRAFFIC VOLUME

CTH P
A.A.D.T. = 190 (2019)
A.A.D.T. = 237 (2041)
RDS = 40 MPH

HYDRAULIC DATA

100 YEAR FREQUENCY

Q₁₀₀ = 720 C.F.S.
VEL. = 6.43 F.P.S.
H.W. = ELEV. 1045.21
WATERWAY AREA = 112 SQ. FT.
DRAINAGE AREA = 1.52 SQ. MI.
ROAD OVERTOPPING = N/A
SCOUR CRITICAL CODE = 5

2 YEAR FREQUENCY

Q₂ = 140 C.F.S.
H.W.₂ ELEV. = 1042.46
VEL. = 3.40 FT/S

FOUNDATION DATA

ABUTMENTS TO BE SUPPORTED ON PILING STEEL HP 10-INCH X 42 LB. WITH PILE POINTS DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 180 TONS** PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED 30-FT LONG AT WEST ABUTMENT AND 20-FT LONG AT EAST ABUTMENT.

** THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A RESISTANCE FACTOR OF 0.50 USING MODIFIED GATES TO DETERMINE DRIVEN PILE CAPACITY.

LIST OF DRAWINGS

1. GENERAL PLAN
2. CROSS SECTIONS, NOTES & QUANTITIES
3. SUBSURFACE EXPLORATION
4. WEST ABUTMENT
5. WEST ABUTMENT DETAILS
6. EAST ABUTMENT
7. EAST ABUTMENT DETAILS
8. ALTERNATE CONSTRUCTION JOINT
9. SUPERSTRUCTURE
10. SUPERSTRUCTURE DETAILS 1
11. SUPERSTRUCTURE DETAILS 2



STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED *[Signature]* SDR 08/04/20
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-62-260

CTH P OVER TIMBER COULEE CREEK

COUNTY VERNON TOWN/CITY/VILLAGE CHRISTIANA

DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY CDH DESIGN CK'D. CAH DRAWN BY STD PLANS CK'D. CAH

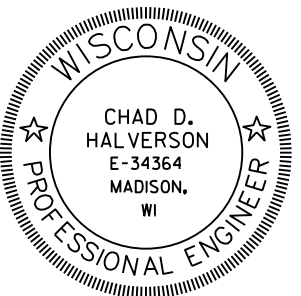
GENERAL PLAN

SHEET 1 OF 11

PI STA = 103+38.94
Y = 196852.221
X = 712363.923
DELTA = 22°27'10"
D = 20°19'25"
T = 55.96'
L = 110.48'
R = 281.92'
PC STA = 102+82.99
Y = 196859.955
X = 712308.503
PT STA = 103+93.46
Y = 196866.239
X = 712418.095
BK = S82°03'18.9"E
AH = N75°29'30.8"E

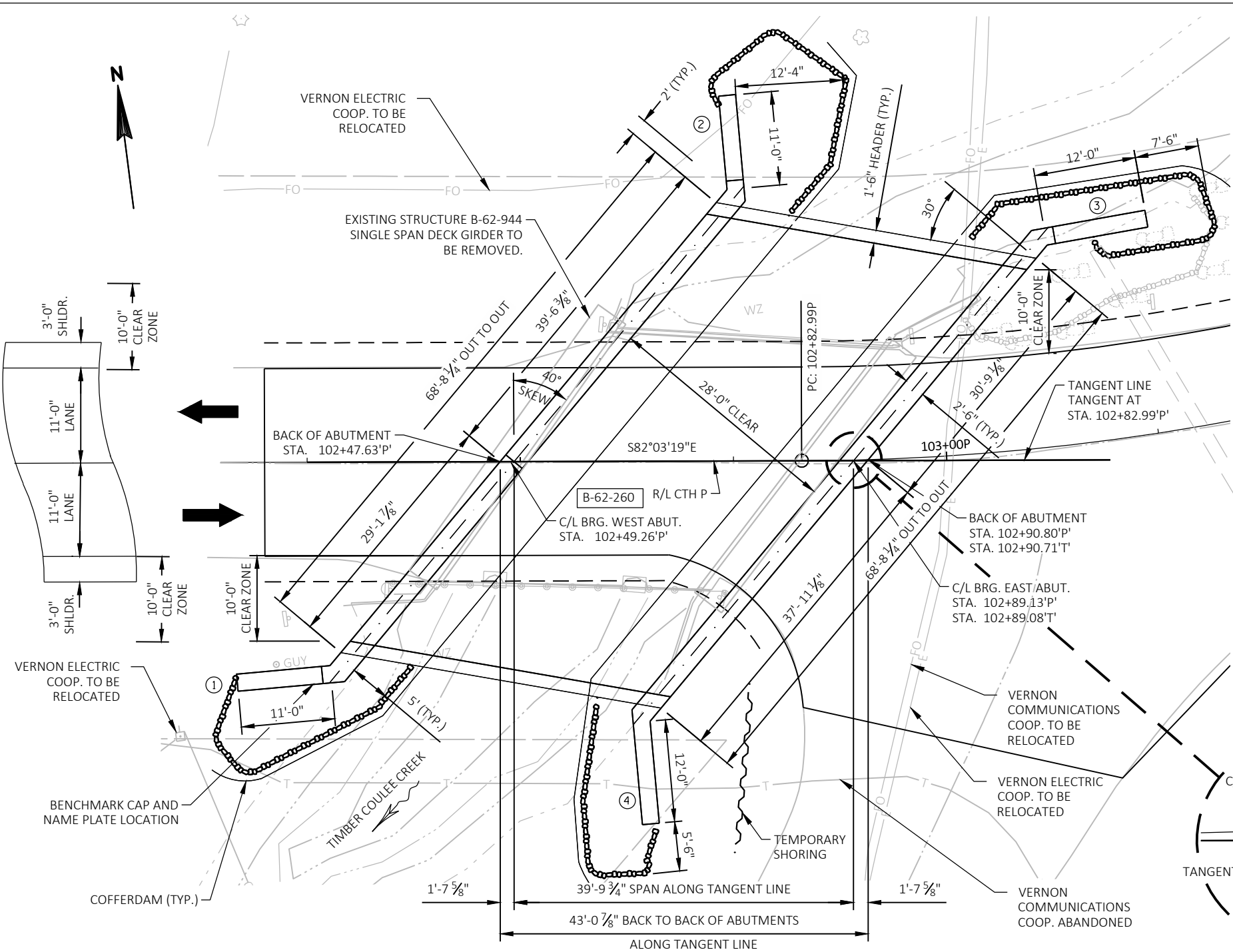
LEGEND

⊕ INDICATES WING NUMBER



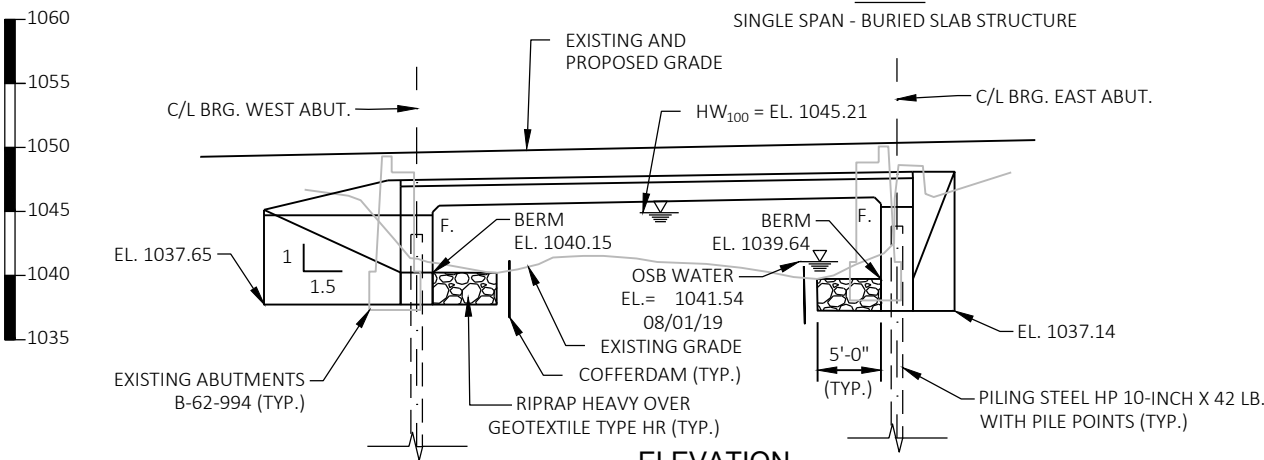
July 7, 2020

STRUCTURE DESIGN CONTACTS
BUREAU OF STRUCTURES:
AARON BONK (608) 261-0261
CONSULTANT:
CHAD HALVERSON (608) 663-1218



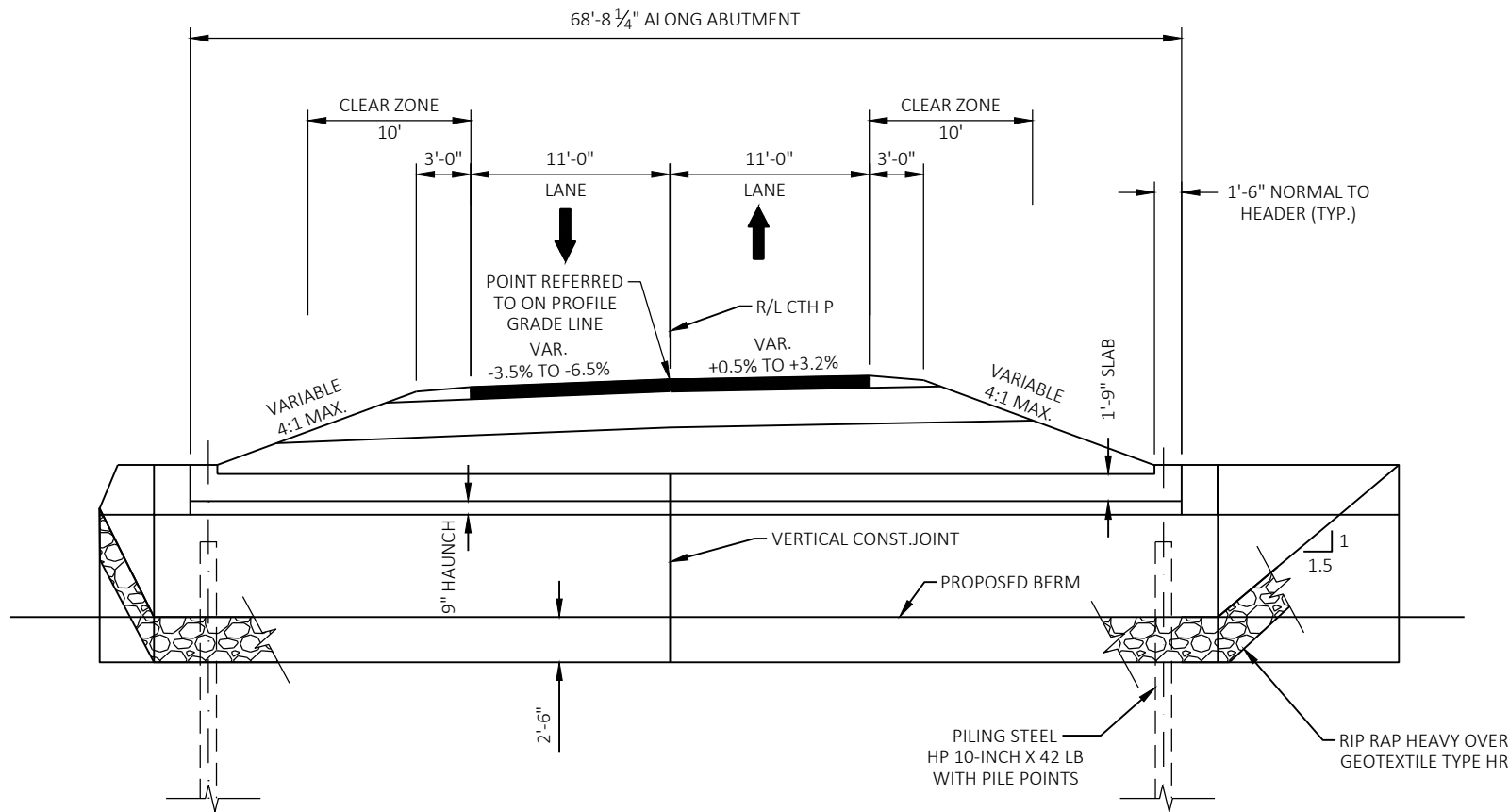
PLAN

SINGLE SPAN - BURIED SLAB STRUCTURE



ELEVATION

NORMAL TO TIMBER COULEE CREEK



PROPOSED CROSS SECTION

(LOOKING EAST)

LEGEND

- BACKFILL PAY LIMITS. BACKFILL BEYOND BACKFILL PAY LIMITS SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.
- PIPE UNDERDRAIN WRAPPED (6-INCH), SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN.

TOTAL ESTIMATED QUANTITIES

ITEM NUMBER	ITEM DESCRIPTION	UNIT	W. ABUT	E. ABUT	SUPER	TOTAL
203.0600.S	REMOVING OLD STRUCTURE OVER WATERWAY WITH MINIMAL DEBRIS 102+75	LS	---	---	---	1
206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-62-260	LS	---	---	---	1
206.5000	COFFERDAM B-62-260	LS	---	---	---	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	470	610	300	1,380
502.0100	CONCRETE MASONRY BRIDGES	CY	64	75	159	298
502.3200	PROTECTIVE SURFACE TREATMENT	SY	18	21	37	76
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	4,780	4,980	---	9,760
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	1,980	2,170	38,600	42,750
511.1200	TEMPORARY SHORING B-62-260	SF	---	184	---	184
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	14	15	---	29
516.0610.S	SHEET MEMBRANE WATERPROOFING FOR TOP SLAB B-62-260	SY	---	---	254	254
550.0500	PILE POINTS	EACH	14	14	---	28
550.1100	PIILING STEEL HP 10-INCH X 42 LB	LF	420	280	---	700
606.0300	RIPRAP HEAVY	CY	73	68	---	141
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	115	110	---	225
645.0111	GEOTEXTILE TYPE DF SCHEDULE A	SY	84	86	---	170
645.0120	GEOTEXTILE TYPE HR	SY	104	102	---	206
	NON-BID ITEMS					
	FILLER		1/2" & 3/4"	1/2" & 3/4"		

BENCHMARK TABLE

NO.	Y	X	ELEV.	DESCRIPTION
1	196,879.86	712,289.92	1,049.83	USGS DISK NW WWAL CTH P BRIDGE
2	196,703.18	712,268.81	1,060.37	RR SPIKE PPOL #4F16R24
3	196,845.34	712,293.62	1,050.02	CUT SQ SE CORNER CTH P BRIDGE

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

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

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

AT THE BACKFACE OF ABUTMENT ALL VOLUME (WITHIN THE PAY LIMITS SHOWN BELOW) WHICH CANNOT BE PLACED BEFORE ABUTMENT CONSTRUCTION AND IS NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURAL BACKFILL.

THE BACKFILL QUANTITIES ARE BASED ON THE PAY LIMITS SHOWN ON THE PLANS AND MAY NOT REFLECT ACTUAL PLACED QUANTITIES. "BACKFILL STRUCTURE TYPE A" REQUIRED DIRECTLY BEHIND ABUTMENTS AND ABUTMENT WINGS FOR 3 FEET. BACKFILL PLACED BEYOND PAY LIMITS OR EXCEEDING PLAN QUANTITIES SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES.

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

THE EXISTING STRUCTURE B-62-994, IS A SINGLE SPAN DECK GIRDER WITH A WIDTH OF 32 FT AND A LENGTH OF 35 FT. EXISTING SUPERSTRUCTURE AND FULL RETAINING ABUTMENTS TO BE REMOVED.

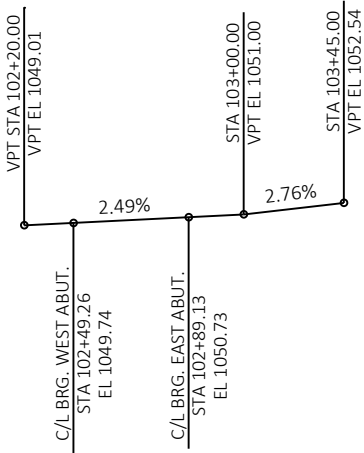
THE EXISTING GROUND LINE SHALL BE THE UPPER LIMITS OF THE EXCAVATION FOR STRUCTURES.

PROTECTIVE SURFACE TREATMENT TO BE APPLIED TO THE TOP AND VERTICAL FACE OF THE HEADERS AND OUTSIDE 1'-0" OF THE UNDERSIDE OF THE SLAB, TOP OF WINGS, TO THE EXPOSED FRONT FACES OF WINGS, AND TO THE EXPOSED ABUTMENT FACES EXTENDING TO 1'-0" IN FROM THE EDGE OF SLAB.

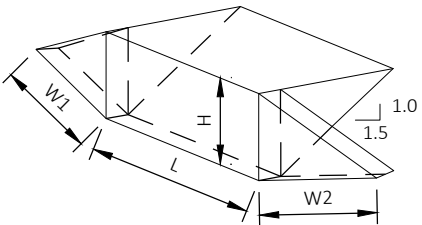
PLACE SHEET MEMBRANE WATERPROOFING ON ENTIRE TOP SLAB, BETWEEN HEADERS, AND EXTEND DOWN 1'-0" AT ABUTMENT ENDS AS SHOWN ON SUPERSTRUCTURE DETAILS 1 SHEET.

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

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

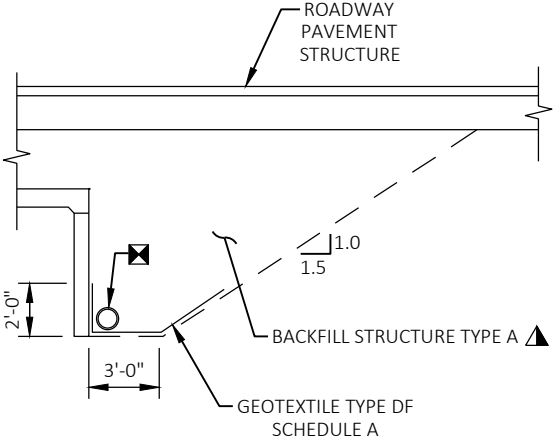


PROFILE GRADE LINE R/L CTH P



ABUTMENT BACKFILL DIAGRAM

- L = OUT TO OUT OF abutment body (FT)
- H = AVERAGE abutment fill height (FT)
- W1 = WING 1 LENGTH (FT)
- W2 = WING 2 LENGTH (FT)
- EF = Expansion Factor (1.20 for CY bid items and 1.00 for TON bid items)
- V_{cf} = (L)(3.0')(H) + (L)(0.5)(1.5H)(H) + (3.0')(0.5)(W1+W2)(H)
- V_{cy} = V_{cf} (EF)/27
- V_{ton} = V_{cy} (2.0)



STRUCTURAL BACKFILL DETAIL

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-62-260			
		DRAWN BY	STD
		PLANS CK'D.	CAH
CROSS SECTIONS, NOTES & QUANTITIES			SHEET 2 OF 11

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
1	9/4/2019	196872.31	712263.39
2	9/4/2019	196854.59	712319.82
BORINGS COMPLETED BY: NUMMELIN TESTING SERVICES, INC.			
REPORT COMPLETED BY: NUMMELIN TESTING SERVICES, INC.			
ALL COORDINATES REFERENCED TO WCCS NAD VERNON COUNTY			

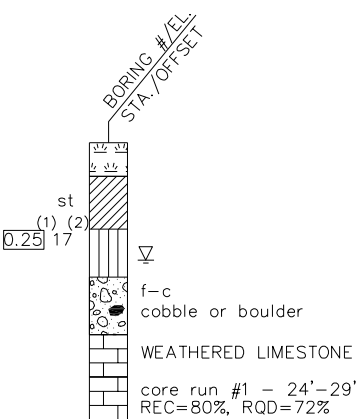
STATE PROJECT NUMBER

5478-00-72

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
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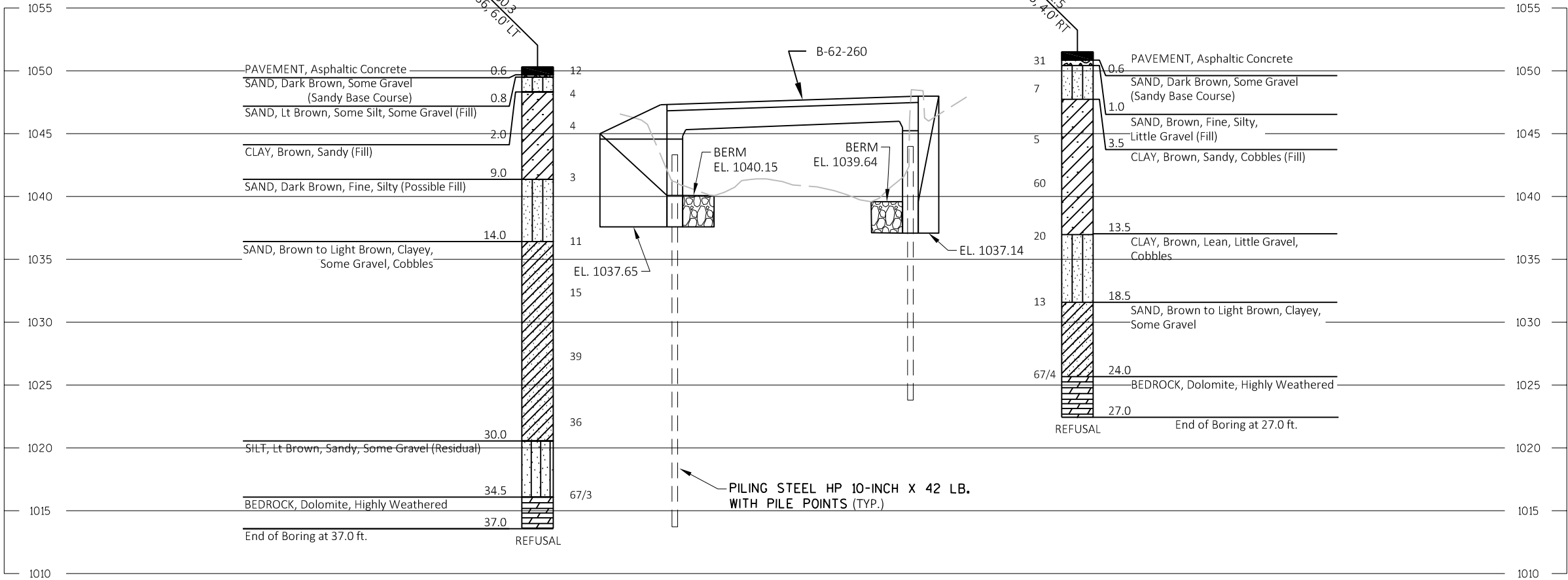
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

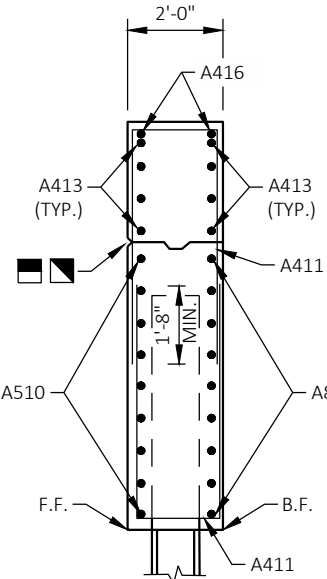
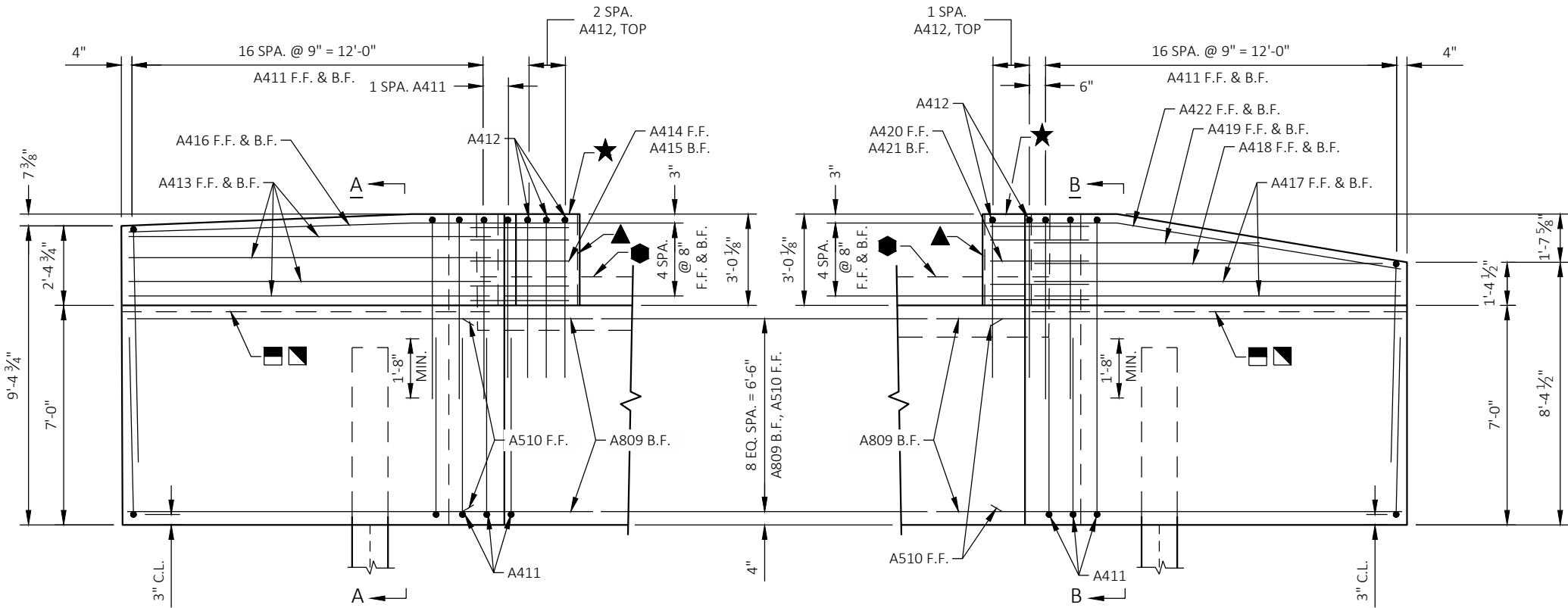
STRUCTURE B-62-260

DRAWN BY STD PLANS CK'D. CAH

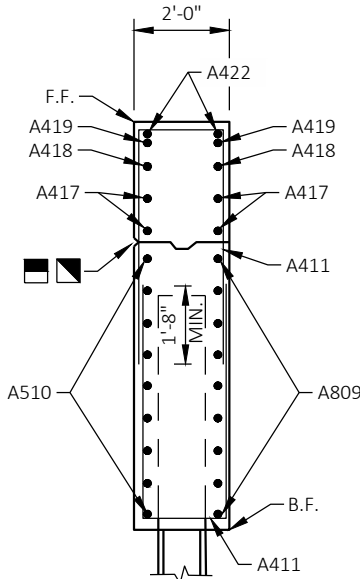
SUBSURFACE
EXPLORATION

SHEET 3 OF 11





SECTION A-A
THRU WING 1



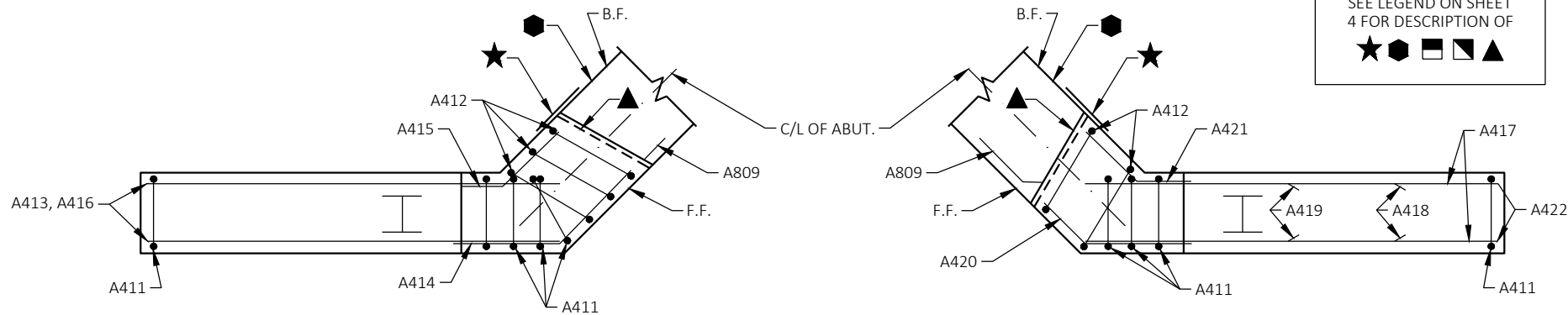
SECTION B-B
THRU WING 2

COATED = 1,980 LBS
UNCOATED = 4,780 LBS

WEST ABUT.
BILL OF BARS

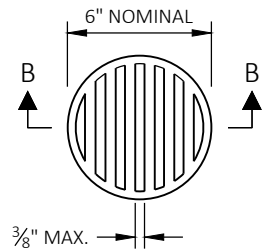
BAR MARK	NO. REQ'D.	LENGTH	COAT	BENT	LOCATION
A801	9	38'-9"		X	ABUT BODY - B.F. - HORIZ.
A802	9	46'-4"		X	ABUT BODY - B.F. - HORIZ.
A503	9	32'-10"			ABUT BODY - F.F. - HORIZ.
A504	9	42'-9"			ABUT BODY - F.F. - HORIZ.
A505	146	8'-1"		X	ABUT BODY - F.F. & B.F. - VERT.
A406	57	3'-0"		X	ABUT BODY - TIES - HORIZ.
A507	73	8'-11"		X	ABUT BODY - TOP - VERT.
A508	69	2'-0"	X		ABUT BODY - DOWELS - VERT.
A809	18	15'-3"	X	X	WINGS - B.F. BOTTOM - HORIZ.
A510	18	13'-8"	X	X	WINGS - F.F. BOTTOM - HORIZ.
A411	70	12'-10"	X	X	WINGS - F.F. & B.F. - TOP & BOTTOM - VERT.
A412	5	12'-0"	X	X	WINGS - F.F. & B.F. - TOP - VERT.
A413	8	12'-2"	X		WING 1 - F.F. & B.F. - HORIZ
A414	5	5'-9"	X	X	WING 1 - F.F. - HORIZ
A415	5	2'-8"	X	X	WING 1 - B.F. - HORIZ
A416	2	11'-2"	X	X	WING 1 - F.F. & B.F. - TOP - HORIZ
A417	4	12'-2"	X		WING 2 - F.F. & B.F. - HORIZ
A418	2	11'-10"	X		WING 2 - F.F. & B.F. - HORIZ
A419	2	7'-9"	X		WING 2 - F.F. & B.F. - HORIZ
A420	5	3'-0"	X	X	WING 2 - F.F. - HORIZ
A421	5	2'-7"	X	X	WING 2 - B.F. - HORIZ
A422	2	11'-5"	X	X	WING 2 - F.F. & B.F. - TOP - HORIZ

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.



PLAN WING 1

PLAN WING 2



RODENT SHIELD DETAIL

*DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SO SLOTS ARE VERTICAL. THE RODENT SHIELD, PIPE COUPLING AND SCREWS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH". THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.

MARK	A	B
A801	1'-6"	45°
A802	1'-6"	45°
A809	1'-6"	45°
A510	1'-6"	45°
A414	2'-5"	45°
A415	10"	45°
A416	1'-6"	3°
A420	9"	45°
A421	10"	45°
A422	1'-6"	10°

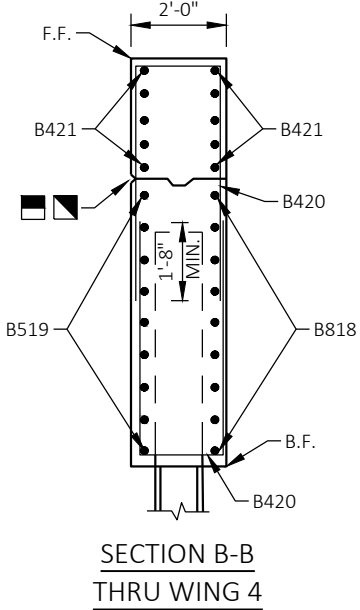
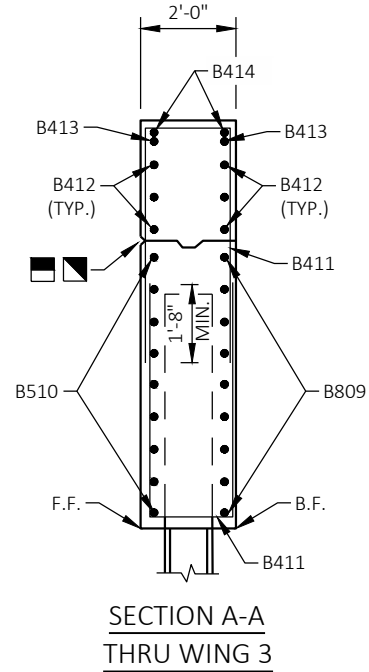
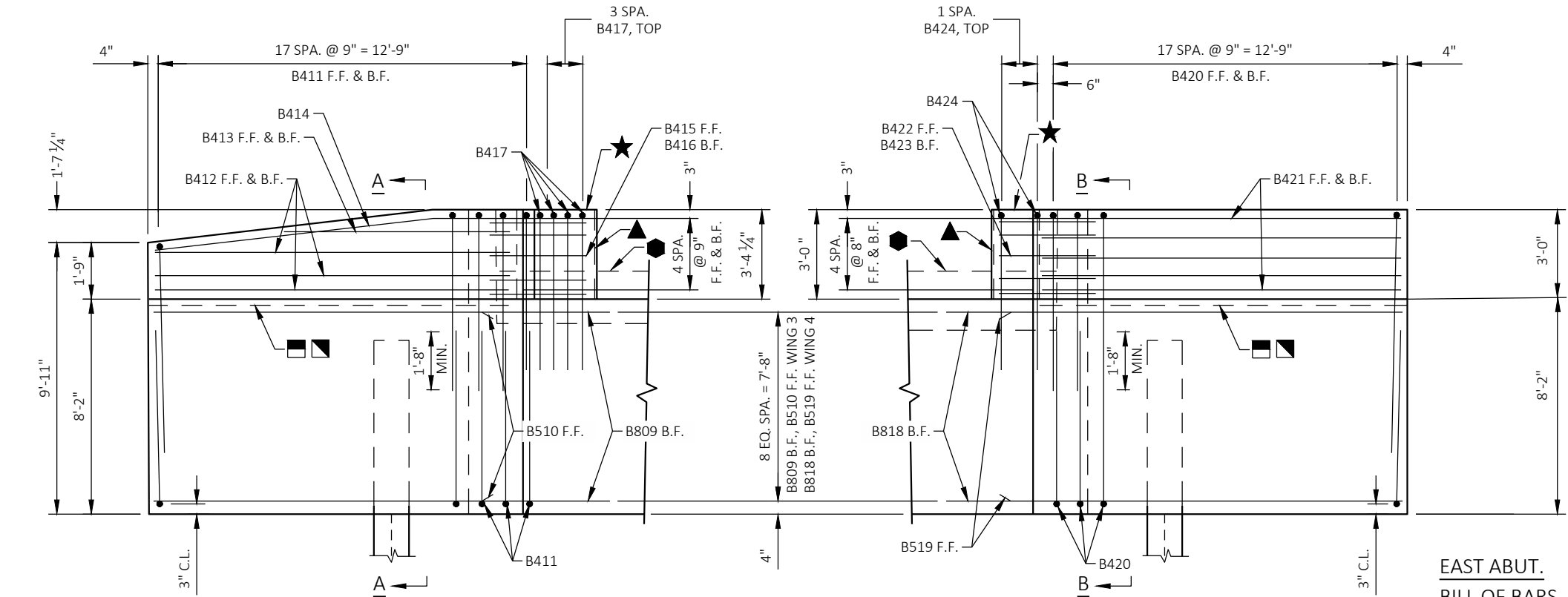
MARK	C	D
A507	3'-6"	2'-2"
A411	5'-8"	1'-8"
A412	4'-10"	2'-6"

A505

A406

STD. HOOK

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-62-260			
DRAWN BY		STD	PLANS CK'D. CAH
WEST ABUTMENT DETAILS		SHEET 5 OF 11	

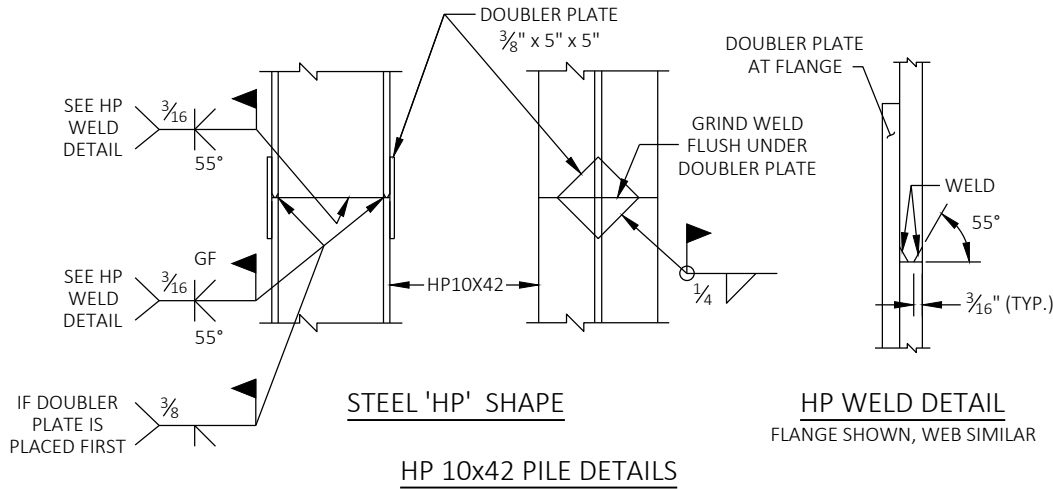
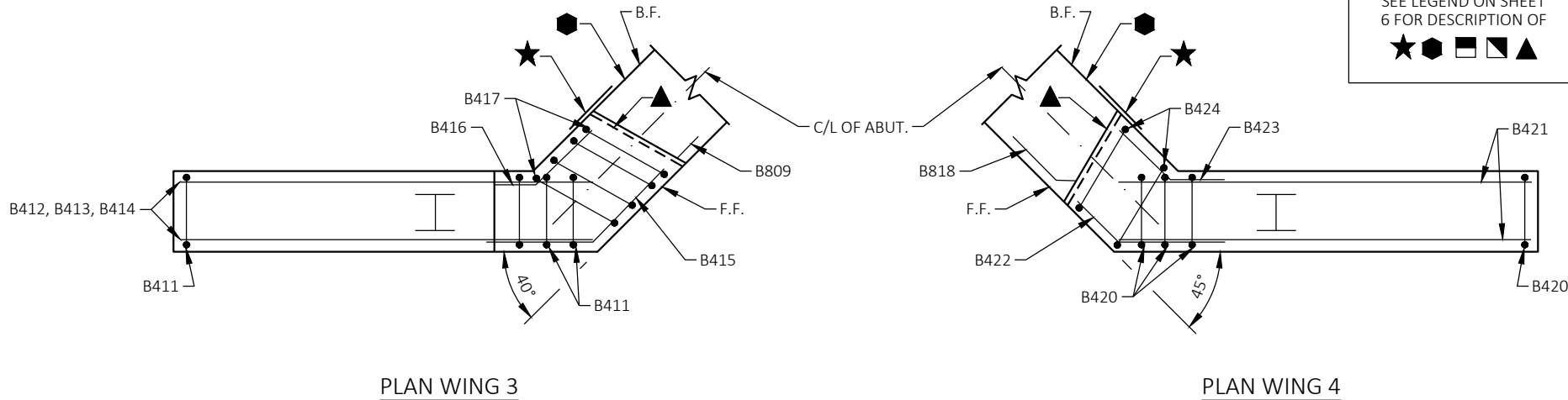


EAST ABUT.
BILL OF BARS

COATED = 2,170 LBS
UNCOATED = 4,980 LBS

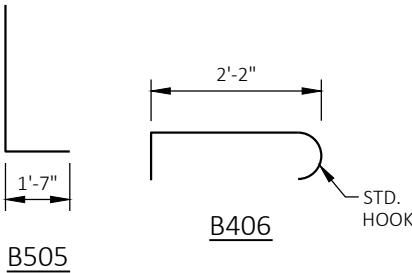
BAR MARK	NO. REQ'D.	LENGTH	COAT	BENT	LOCATION
B801	9	32'-5"		X	ABUT BODY - B.F. - HORIZ.
B802	9	52'-11"		X	ABUT BODY - B.F. - HORIZ.
B503	9	26'-5"			ABUT BODY - F.F. - HORIZ.
B504	9	48'-11"			ABUT BODY - F.F. - HORIZ.
B505	146	9'-2"		X	ABUT BODY - F.F. & B.F. - VERT.
B406	57	3'-0"		X	ABUT BODY - TIES - HORIZ.
B507	73	9'-3"		X	ABUT BODY - TOP - VERT.
B508	69	2'-0"	X		ABUT BODY - DOWELS - VERT.
B809	9	16'-7"	X	X	WING 3 - B.F. BOTTOM - HORIZ.
B510	9	14'-8"	X	X	WING 3 - F.F. BOTTOM - HORIZ.
B411	36	14'-4"	X	X	WING 3 - F.F. & B.F. - TOP & BOTTOM - VERT.
B412	6	13'-3"	X		WING 3 - F.F. & B.F. - HORIZ.
B413	2	8'-8"	X		WING 3 - F.F. & B.F. - HORIZ.
B414	2	12'-5"	X	X	WING 3 - F.F. & B.F. - TOP - HORIZ
B415	5	5'-4"	X	X	WING 3 - F.F. - HORIZ
B416	5	2'-8"	X	X	WING 3 - B.F. - HORIZ
B417	4	12'-0"	X	X	WING 3 - F.F. & B.F. - TOP - VERT.
B818	9	16'-2"	X	X	WING 4 - B.F. BOTTOM - HORIZ.
B519	9	14'-8"	X	X	WING 4 - F.F. BOTTOM - HORIZ.
B420	36	14'-2"	X	X	WING 4 - F.F. & B.F. - TOP & BOTTOM - VERT.
B421	10	13'-3"	X		WING 4 - F.F. & B.F. - HORIZ.
B422	5	3'-8"	X	X	WING 4 - F.F. - HORIZ
B423	5	4'-11"	X	X	WING 4 - B.F. - HORIZ
B424	2	11'-4"	X	X	WING 4 - F.F. & B.F. - TOP - VERT.

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.

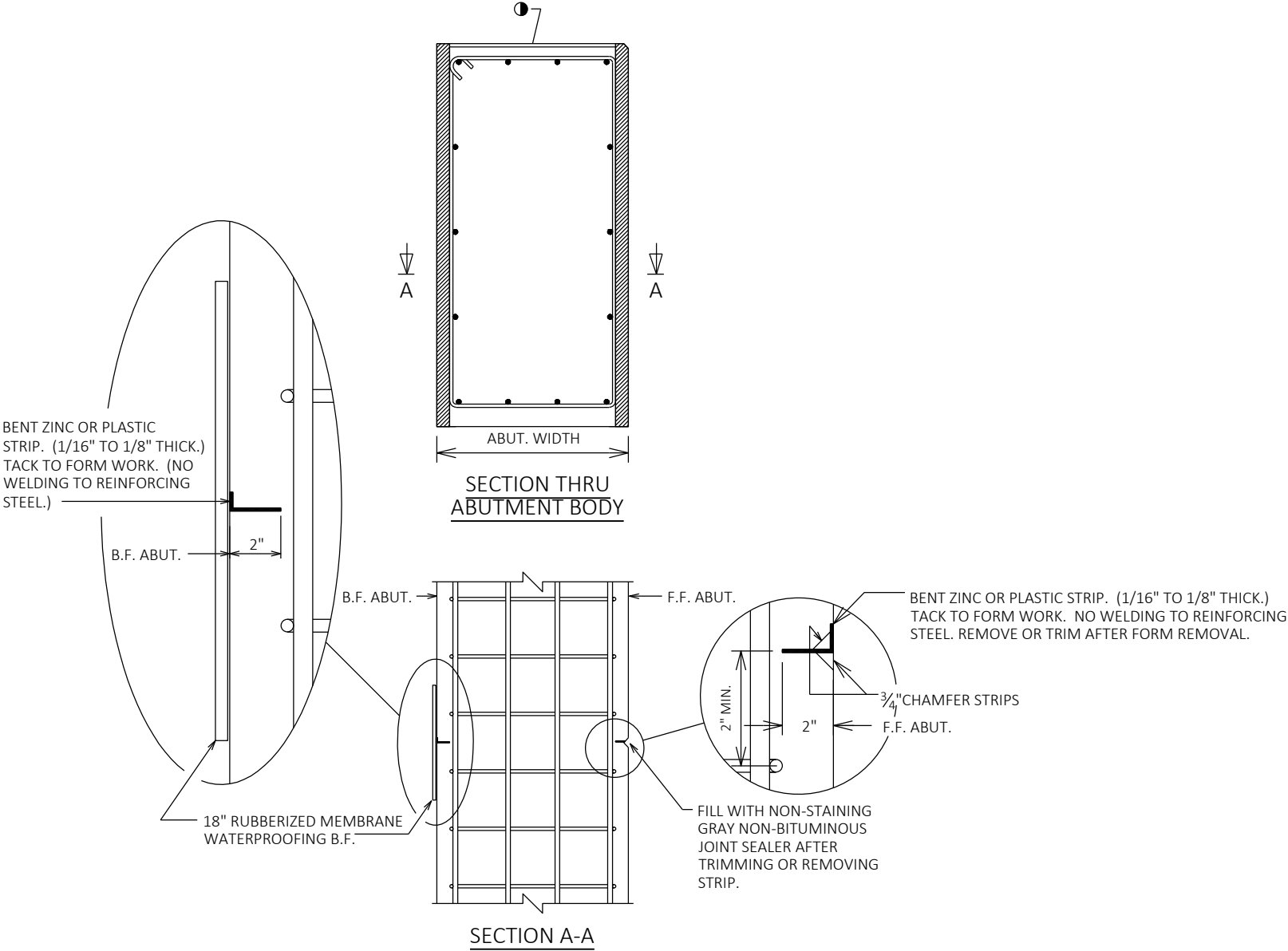


MARK	A	B
B801	1'-6"	45°
B802	1'-6"	40°
B809	1'-6"	40°
B510	1'-6"	40°
B414	1'-6"	8°
B415	2'-3"	40°
B416	10"	40°
B818	1'-6"	45°
B519	1'-6"	45°
B422	1'-6"	45°
B423	1'-6"	45°

MARK	C	D
B507	3'-8"	2'-2"
B411	6'-5"	1'-8"
B417	4'-10"	2'-6"
B420	6'-4"	1'-8"
B424	4'-6"	2'-6"



NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-62-260			
DRAWN BY		STD	PLANS CK'D. CAH
EAST ABUTMENT DETAILS		SHEET 7 OF 11	



ALTERNATE CONSTRUCTION JOINT AT ABUTMENT

NOTES

PARTIAL ZINC OR PLASTIC BULKHEAD MAY BE USED AS ALTERNATE CONSTRUCTION JOINT, WITH THE PERMISSION OF THE ENGINEER, AT THE CONTRACTOR'S EXPENSE.

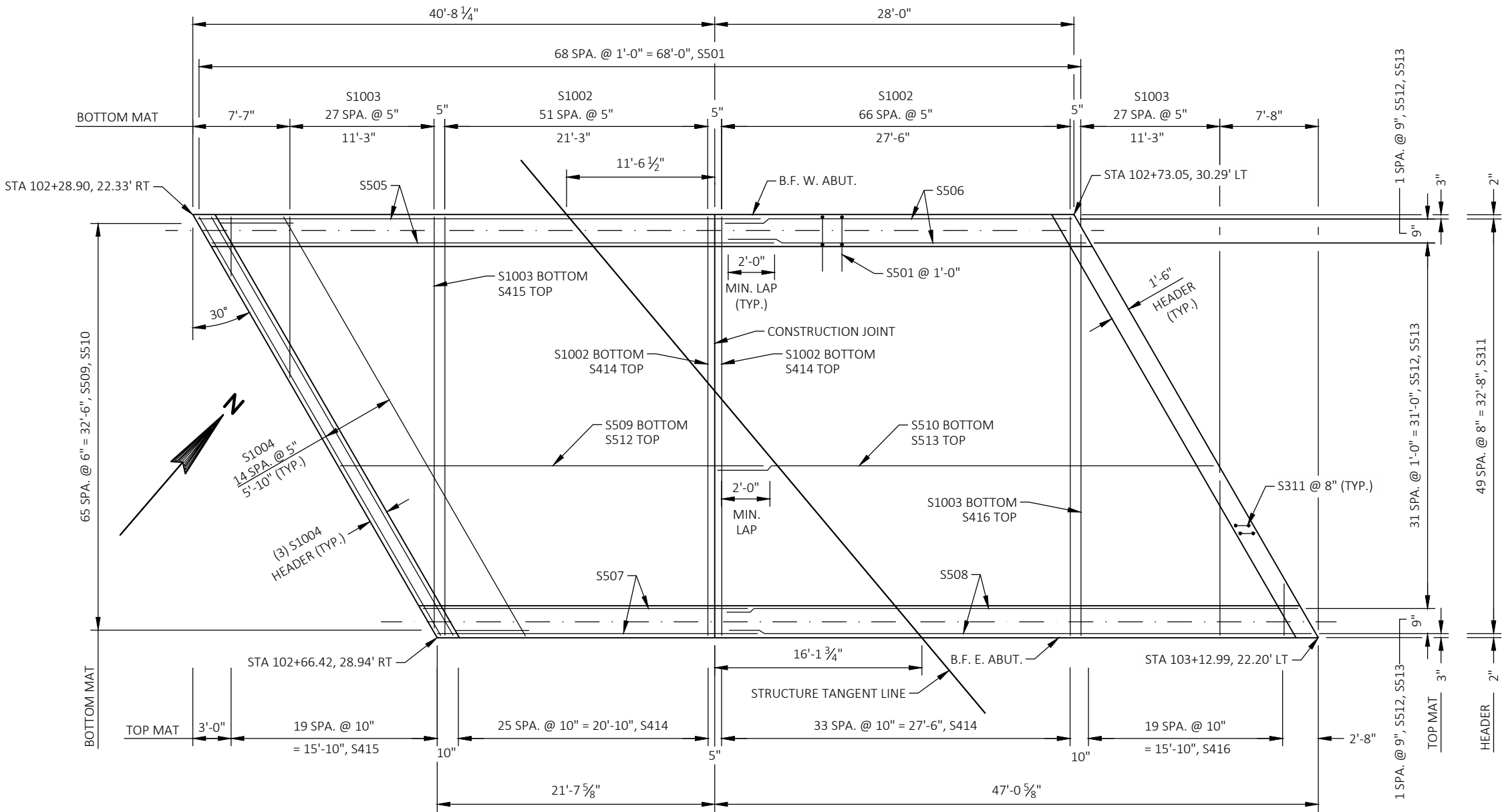
VERTICAL CONSTRUCTION JOINT KEYWAY IS NOT REQUIRED WHEN USING ALTERNATE CONSTRUCTION JOINT.

CARE IS TO BE USED IN CASTING CONCRETE AROUND BULKHEAD TO PREVENT DISLOCATION OR MISALIGNMENT OF THE BULKHEAD.

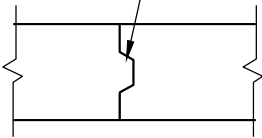
SAW CUTTING JOINT IS NOT ALLOWED.

- USE A JOINT TOOL TO CONSTRUCT A CONTRACTION JOINT APPROXIMATELY 1/2" DEEP.

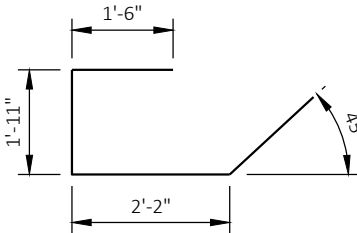
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-62-260			
DRAWN BY		STD	PLANS CK'D. CAH
ALTERNATE CONSTRUCTION JOINT		SHEET 8 OF 11	



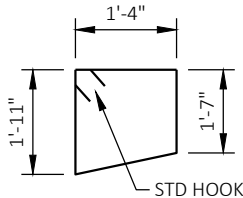
LONG. CONST. JOINT KEYWAY FORMED BY A BEVELED 2" X 8".



LONGITUDINAL CONSTRUCTION JOINT



S501



S311

SLAB PLAN

BILL OF BARS

TOTAL COATED = 38,600 LBS

BAR MARK	NO. REQ'D.	LENGTH	COAT	STAINLESS STEEL	BENT	BAR SERIES	LOCATION
S501	138	7'-0"	X		X		DIAPHRAGM @ ABUTS - LONGIT.
S1002	119	32'-8"	X				DECK - LONGIT. - BTM
S1003	56	22'-3"	X			X	DECK - LONGIT. - BTM
S1004	36	37'-8"	X				DECK - LONGIT. - BTM & HEADERS
S505	2	42'-8"	X				DECK - TRANS. @ ABUTS
S506	2	27'-8"	X				DECK - TRANS. @ ABUTS
S507	2	23'-8"	X				DECK - TRANS. @ ABUTS
S508	2	46'-6"	X				DECK - TRANS. @ ABUTS
S509	66	33'-2"	X			X	DECK - TRANS. - BTM
S510	66	37'-1"	X			X	DECK - TRANS. - BTM
S311	100	6'-7"	X		X		DECK - HEADER - VERT.
S512	34	33'-2"	X			X	DECK - TRANS. - TOP
S513	34	37'-1"	X			X	DECK - TRANS. - TOP
S414	60	32'-8"	X				DECK - LONGIT. - TOP
S415	20	18'-4"	X			X	DECK - LONGIT. - TOP
S416	20	17'-10"	X			X	DECK - LONGIT. - TOP

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.

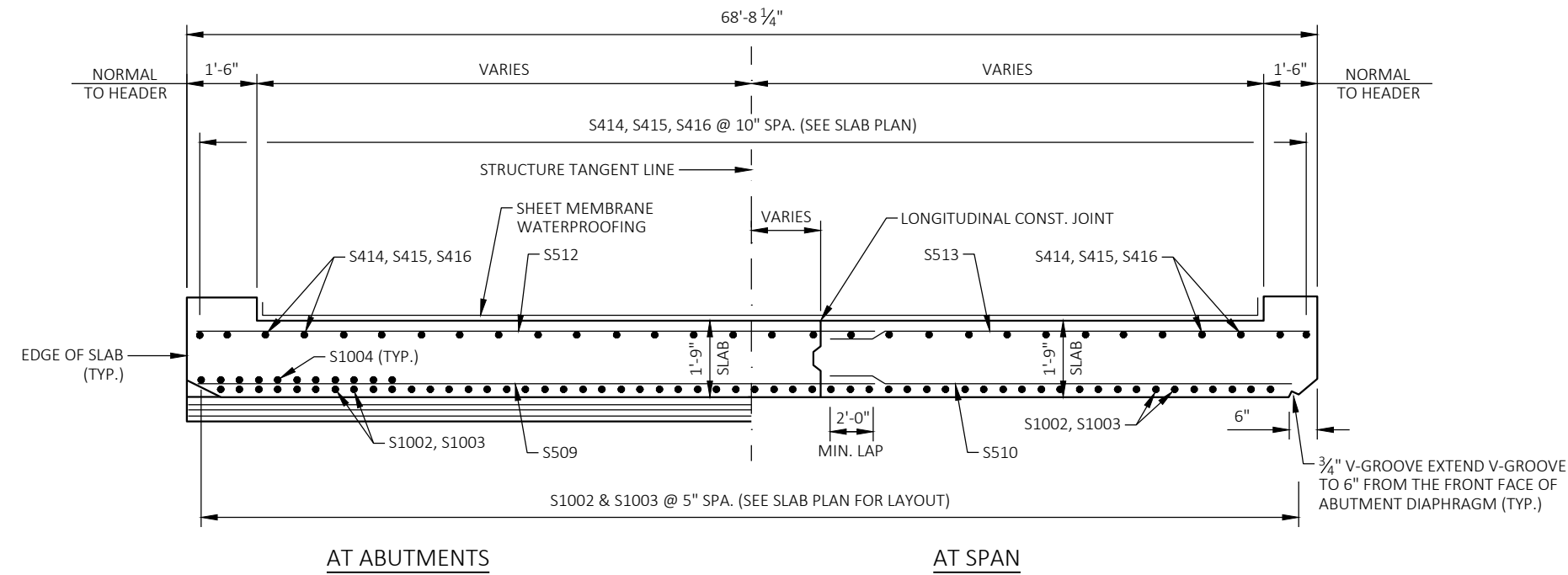
BAR SERIES TABLE

MARK	NO. REQ'D.	LENGTH
S1003	2 SERIES OF 28	12'-6" TO 32'-0"
S509	1 SERIES OF 66	23'-8" TO 42'-8"
S510	1 SERIES OF 66	27'-8" TO 46'-6"
S512	1 SERIES OF 34	23'-8" TO 42'-8"
S513	1 SERIES OF 34	27'-8" TO 46'-6"
S415	1 SERIES OF 20	4'-7" TO 32'-0"
S416	1 SERIES OF 20	4'-1" TO 31'-6"

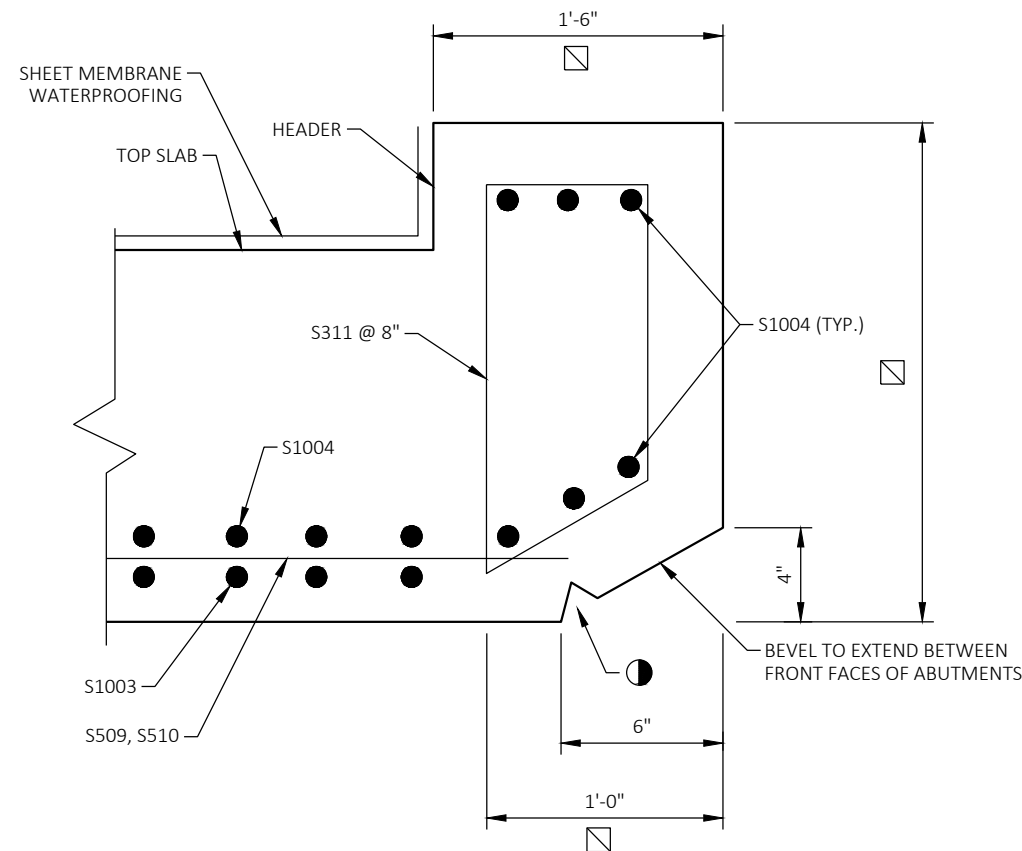
BUNDLE AND TAG EACH SERIES SEPARATELY.

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

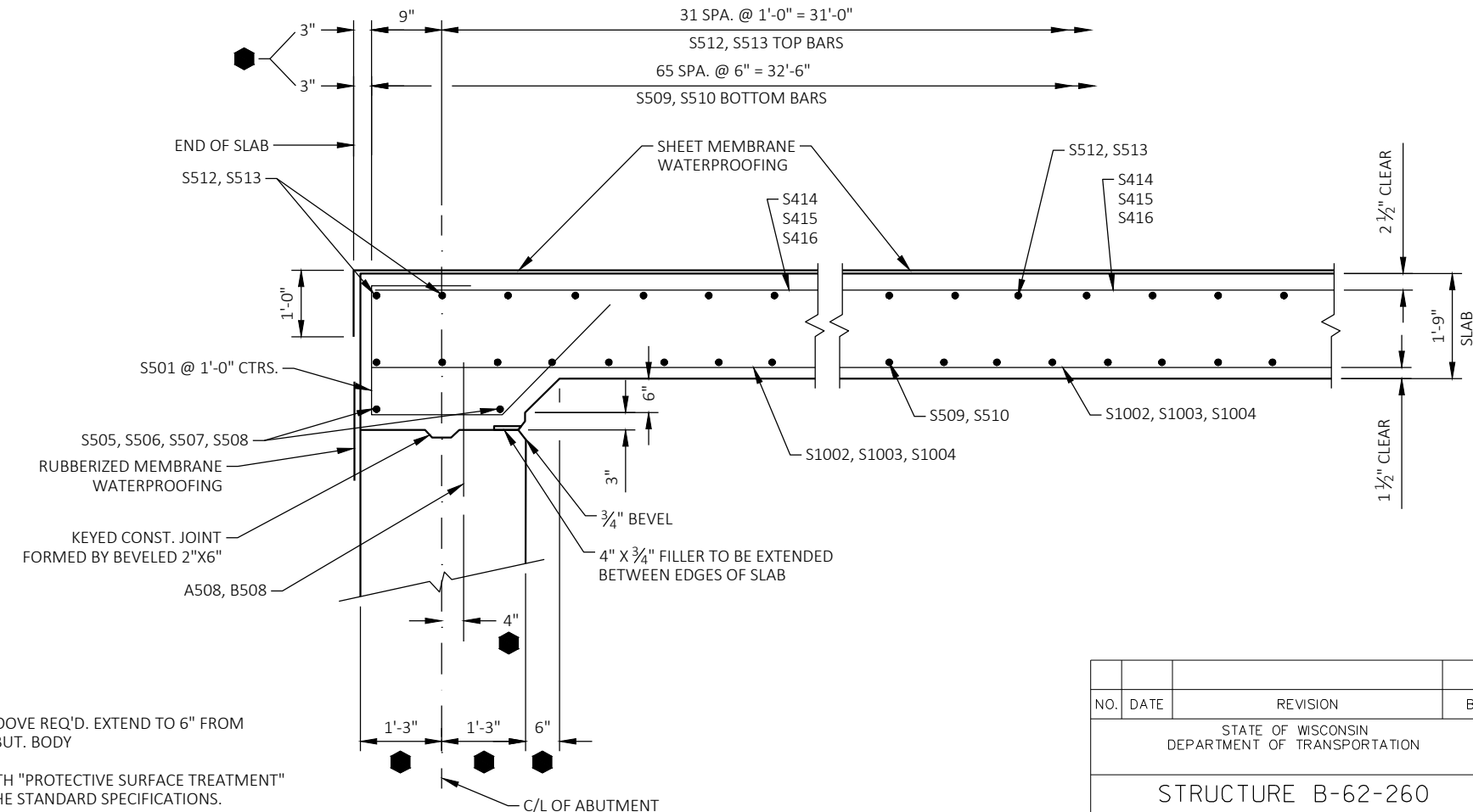
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-62-260			
		DRAWN BY STD	PLANS CK'D. CAH
SUPERSTRUCTURE		SHEET 9 OF 11	



CROSS SECTION THRU BRIDGE
(LOOKING WEST, NORMAL TO ABUTMENTS)



CROSS SECTION THRU HEADER

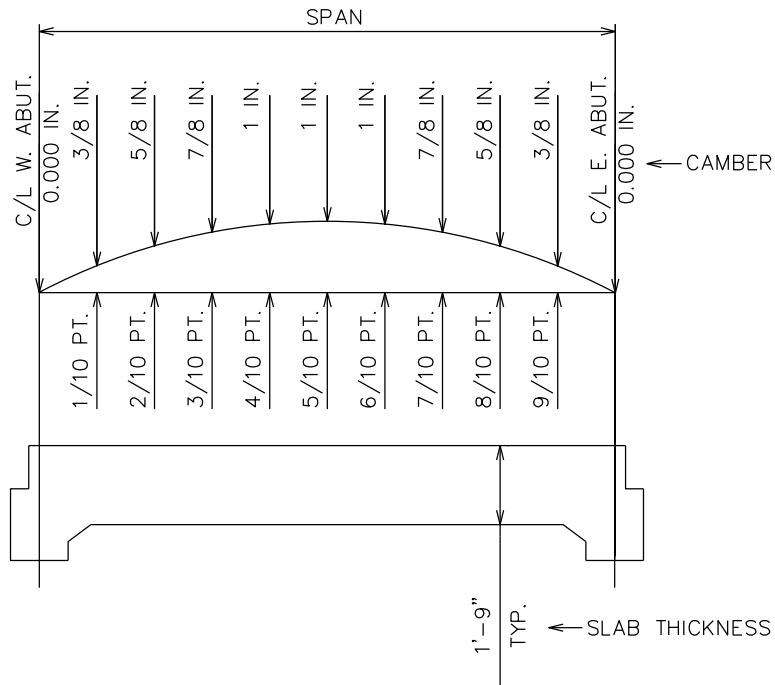


PART LONGITUDINAL SECTION

NOTES

- 3/4" V-GROOVE REQ'D. EXTEND TO 6" FROM F.F. OF ABUT. BODY
- COAT WITH "PROTECTIVE SURFACE TREATMENT" AS PER THE STANDARD SPECIFICATIONS.
- DIMENSIONS ARE GIVEN NORMAL TO THE C/L OF ABUTMENTS.

NO.	DATE	REVISION	BY
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DRAWN BY		STD	PLANS CK'D. CAH
SUPERSTRUCTURE DETAILS 1		SHEET 10 OF 11	



SURVEY TOP OF SLAB ELEVATIONS

	W. ABUTMENT	5/10 PT.	E. ABUTMENT
S. HEADER	-----	-----	-----
STRUCTURE TANGENT LINE	-----	-----	-----
N. HEADER	-----	-----	-----

PRIOR TO RELEASING SLAB FALSEWORK, TAKE TOP OF DECK ELEVATIONS AT THE C/L OF ABUTMENTS, AND AT 5/10 PTS. TO VERIFY CAMBER. TAKE ELEVATIONS ALONG INSIDE FACE OF HEADERS AND STRUCTURE TANGENT LINE. RECORD THE ELEVATIONS IN THE ABOVE TABLE FOR THE "AS BUILT" PLANS.

CAMBER AND SLAB THICKNESS DIAGRAM

CAMBER SHOWN IS BASED ON 3 TIMES DEAD LOAD DEFLECTIONS. CAMBER SPANS AS SHOWN TO PROVIDE FOR DEAD LOAD DEFLECTION AND FUTURE CREEP. CAMBER DOES NOT INCLUDE ALLOWANCE FOR FORM SETTLEMENT. PARAPETS, SIDEWALKS AND MEDIANS PLACED ON TOP OF THE SLAB SHALL BE POURED AFTER FALSEWORK HAS BEEN RELEASED, EXCEPT FOR STAGED CONSTRUCTION.

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

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

TOP OF SLAB ELEVATIONS

(ELEVATIONS SHOWN ARE FOR EDGES AND CENTERLINE OF SLAB)

℄ BRG. W. ABUT.	1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	℄ BRG. E. ABUT.
1047.15	1047.22	1047.28	1047.35	1047.41	1047.48	1047.55	1047.61	1047.68	1047.74	1047.81

NOTES

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

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

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CTH P													
		Area				Incremental Volume (Unadjusted)				Cumulative Vol (CY)			
							Salvaged/Unusable				Expanded	Reduced EBS	Mass
		Cut	Salvaged/Unusable	Fill	EBS	Cut	Pavement Material	Fill	EBS	Cut	Fill	In Fill	Ordinate
STATION	Distance		Pavement Material			Note 1	Note 2	Note 3		1.00	1.25	0.80	
		(SF)	(SF)	(SF)	(SF)	(CY)	(CY)	(CY)	(CY)	Note 1		Note 4	Note 5
102+21		43	0	15	2								
102+25	5	41	0	31	2	7	0	4	0	7	4	0	3
102+50	25	41	0	70	2	38	0	47	2	45	61	2	-17
102+75	25	34	0	72	2	35	0	66	2	79	142	3	-63
103+00	25	48	0	56	2	38	0	59	2	117	214	5	-97
103+25	25	48	0	8	2	45	0	29	2	162	249	6	-87
103+37	12	47	0	1	2	21	0	2	1	183	250	7	-67
103+46	9	47	0	0	2	15	0	0	1	198	249	8	-52
						198	0	208	10				

NOTES:
1-CUT

2-SALVAGED/UNSABLE PAVEMENT MATERIAL

3-FILL

4-REDUCED EBS IN FILL

5-MASS ORDINATE

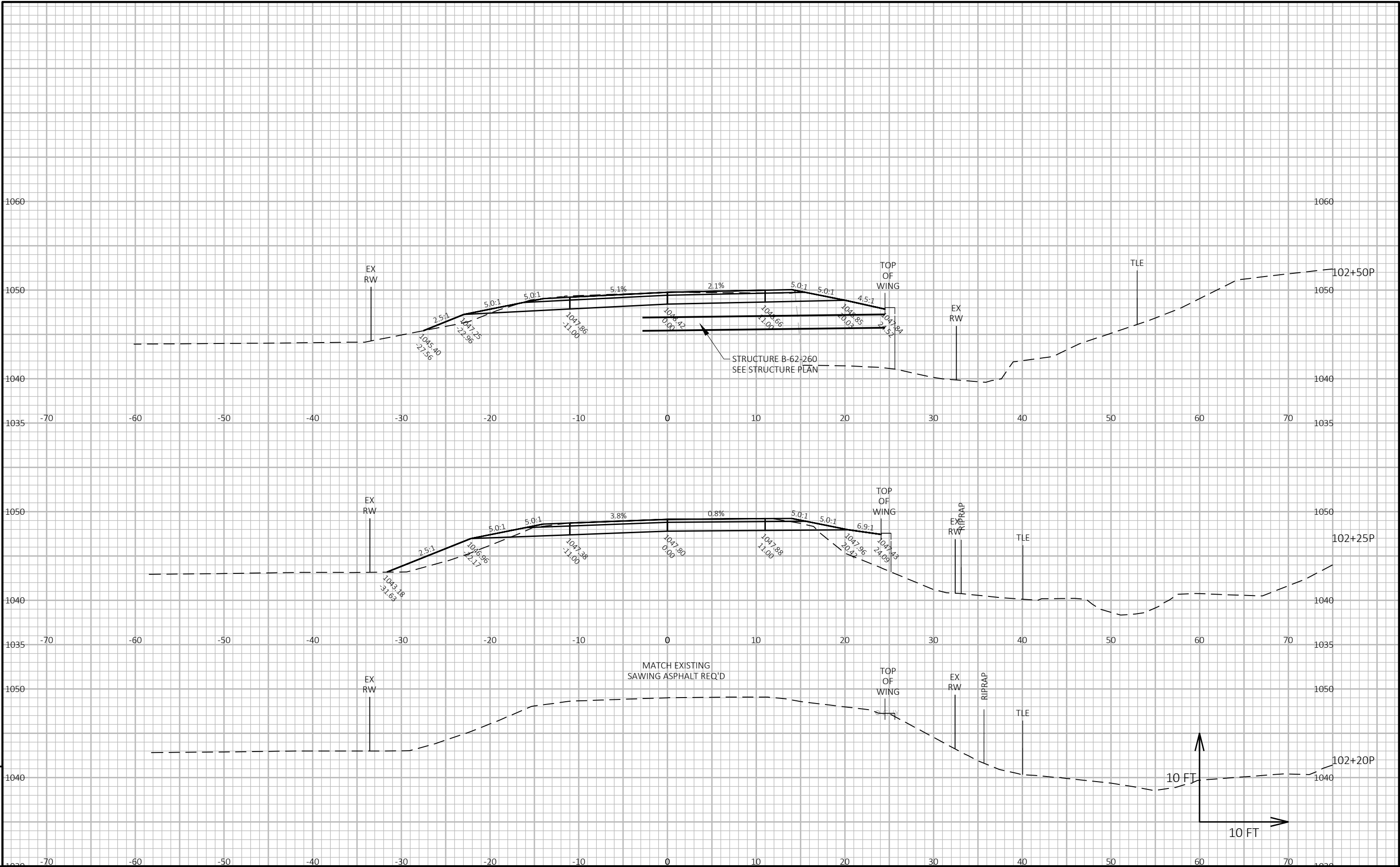
CUT INCLUDES SALVAGED/UNSABLE PAVEMENT MATERIAL

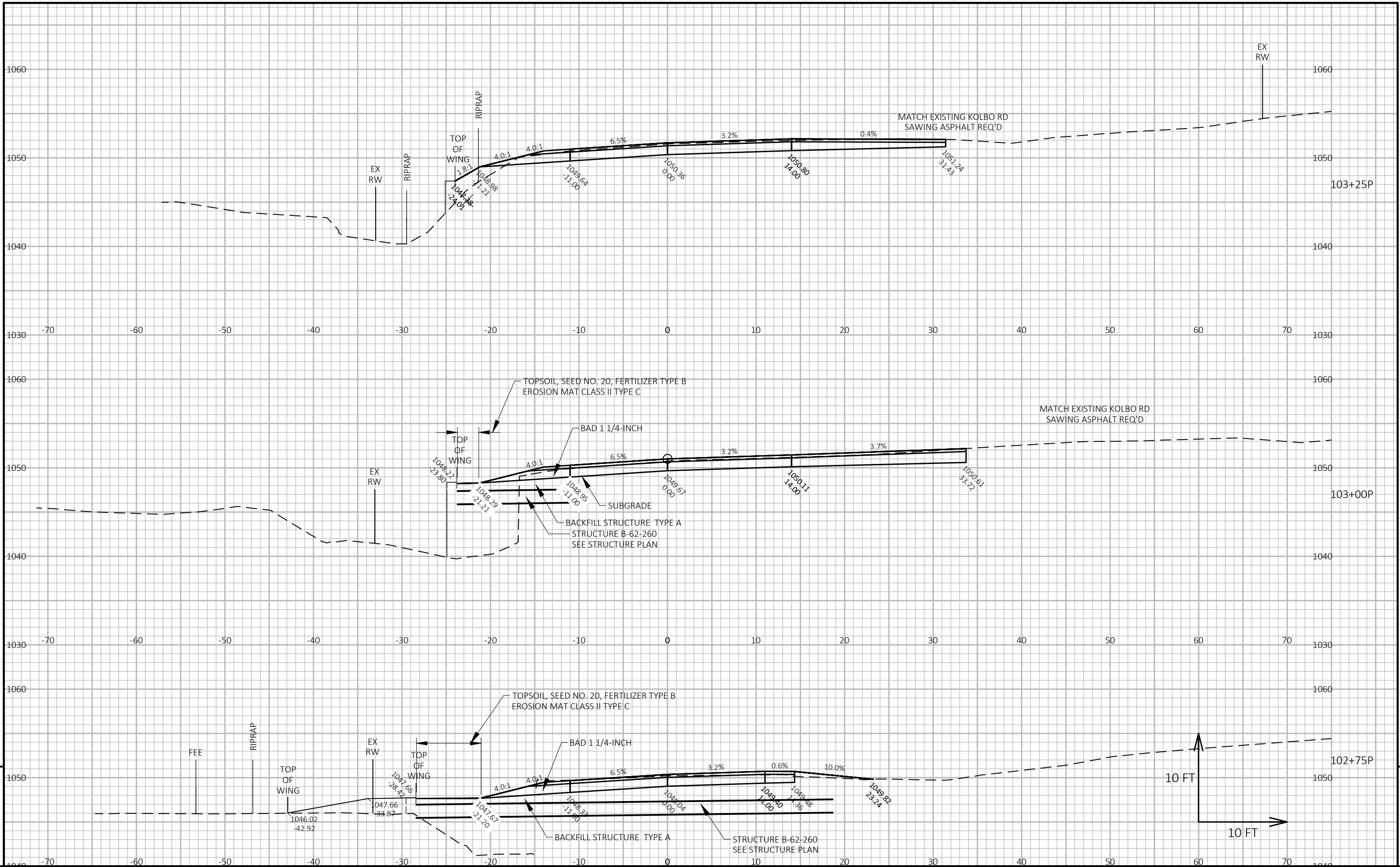
THIS DOES NOT SHOW UP IN THE CROSS SECTIONS

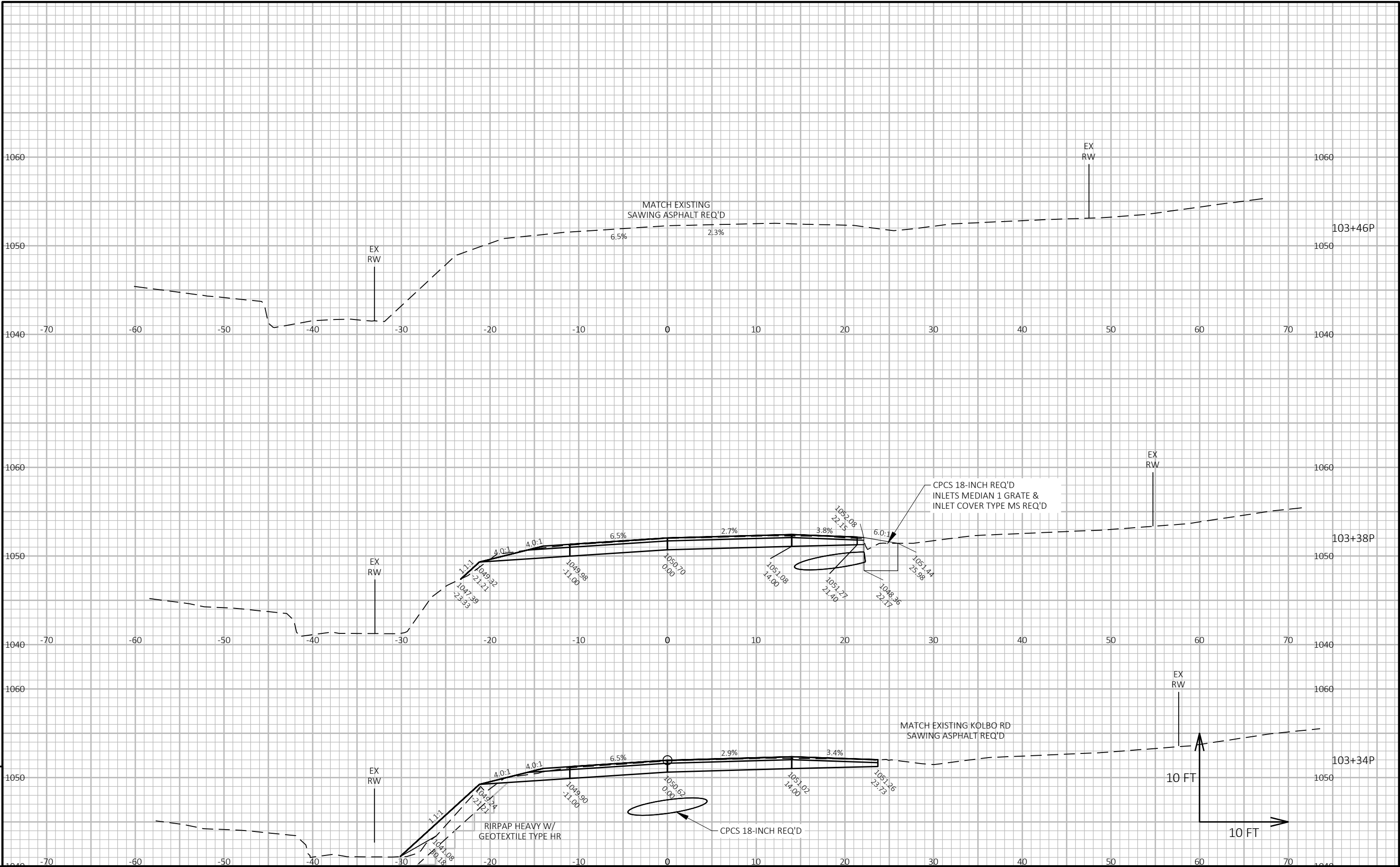
DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME OR SELECT FILL

REDUCED EBS EXCAVATION THAT CAN BE USED IN FILL

IF EBS TO BE BACKFILLED WITH OR BORRROW: CUT-(FILL * FILL FACTOR AREA
UNDER INSIDE 1:1'S EXTENDED DOWN FROM SUBGRADE SHOULDER POINTS
(+) MASS ORDINATE INDICATES WASTE
(-) MASS ORDINATE INDICATES BORROW







Notes



Wisconsin Department of Transportation

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