NWL

NOVEMBER 2017

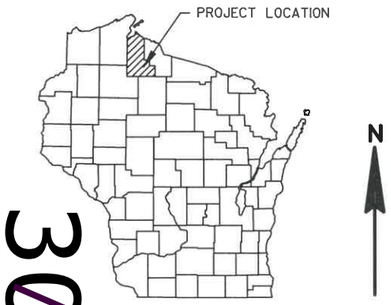
PROJECT ID: 9956-00-70

WITH: N/A

COUNTY: ASHLAND

ORDER OF SHEETS

TOTAL SHEETS = 36



30

DESIGN DESIGNATION

A.A.D.T.	2018	=	50
A.A.D.T.	2038	=	70
D.H.V.		=	7
D.D.		=	50/50
T.		=	10
DESIGN SPEED		=	30
ESALS		=	36,500

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 (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

- SECTION LINE
- SIXTEENTH LINE
- TEMPORARY LIMITED EASEMENT AREA
- UTILITY NUMBER (40)
- PARCEL NUMBER (25)
- SECTION CORNER SYMBOL
- SECTION CORNER MONUMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

T PEEKSVILLE, SINKHOLE ROAD

E FORK CHIPPEWA RIV BRIDGE B-02-0066

LOC STR

ASHLAND COUNTY

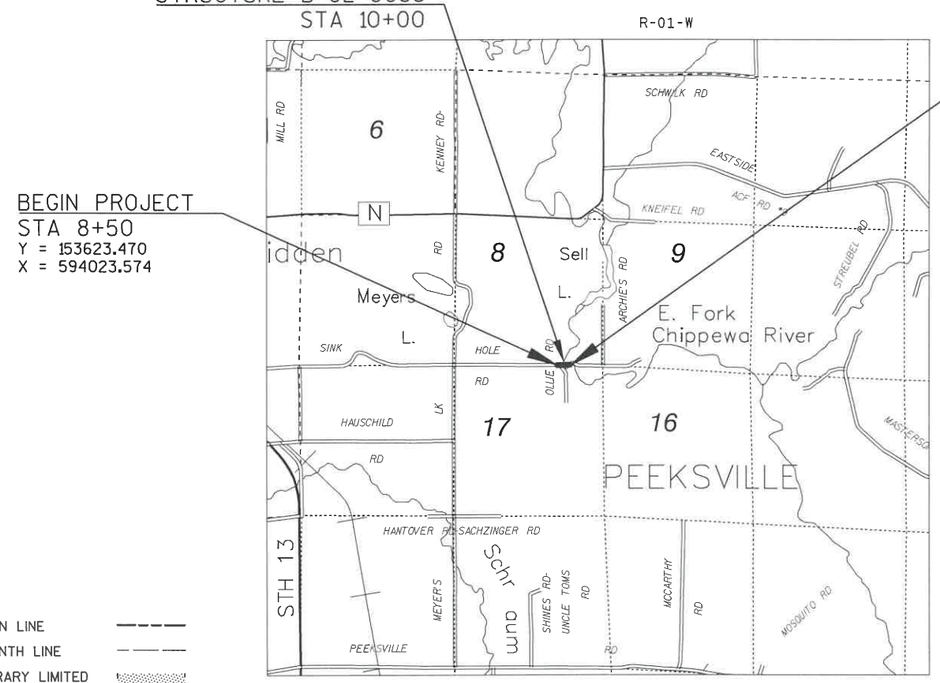
STATE PROJECT NUMBER
9956-00-70

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
9956-00-70	WISC 2017529	1

STRUCTURE B-02-0066
STA 10+00

BEGIN PROJECT
STA 8+50
Y = 153623.470
X = 594023.574

END PROJECT
STA 12+00
Y = 153635.620
X = 594372.474



LAYOUT
SCALE 0 1 MILE

TOTAL NET LENGTH OF CENTERLINE = 0.066 MI

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, ASHLAND COUNTY

ACCEPTED FOR
COUNTY of ASHLAND
4/17/2017 (Date) Highway Commissioner

ACCEPTED FOR
TOWN of PEEKSVILLE
4/17/17 (Date) Town Chairman

ORIGINAL PLANS PREPARED BY

SEH

WISCONSIN
TARA L. KRISTA
37975
CHIPPEWA FALLS, WI
PROFESSIONAL ENGINEER

4-18-17 (Date) (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	SEH
Designer	SEH
Managment Consultant	KNIGHT E/A INC.
C.O. Examiner	

APPROVED FOR THE DEPARTMENT
DATE: 4/20/17 (Signature)

E

FILE NAME : P:\AE\A\ASHLH\135193\CIVIL 3D\SHEETSPLAN\010101-TI.DWG
LAYOUT NAME - 010101-TI - 010101-TI

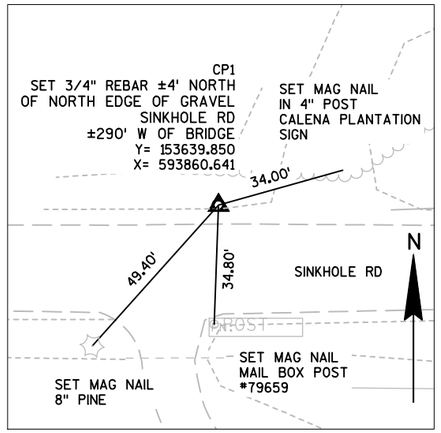
PLOT DATE : 3/9/2017 9:17 AM

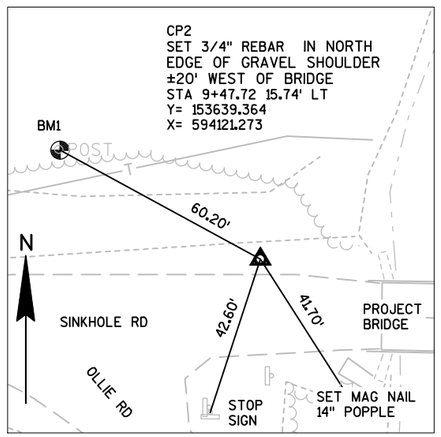
PLOT BY : SEH

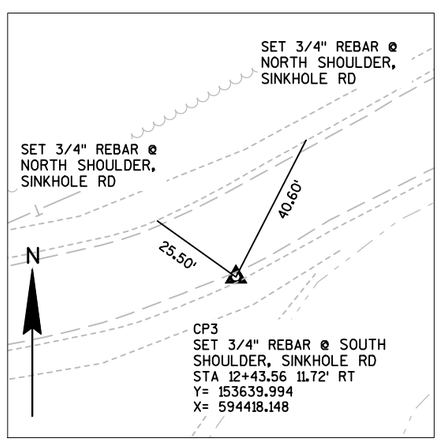
PLOT NAME :

WISDOT/CADDS SHEET 10

ALIGNMENT TIES







GENERAL NOTES:

ELEVATIONS SHOWN ON THE PLAN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).

WHEN THE QUANTITY OF BASE AGGREGATE IS MEASURED FOR PAYMENT BY THE TON OR CUBIC YARD, 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.

THE LOCATION 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.

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

THE EXACT LOCATION OF THE EROSION CONTROL DEVICES SHALL BE DETERMINED IN THE FIELD.

DISTURBED AREAS WITHIN THE RIGHT-OF-WAY, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS, ARE TO BE 4-INCH TOPSOILED, FERTILIZED, AND SEEDED AND MULCHED.

THE LOCATION OF ALL DRIVEWAYS WILL BE DETERMINED BY THE ENGINEER.

ALL GRAVEL DIMENSIONS AND STATIONS ARE SHOWN TO THE EDGE OF GRAVEL UNLESS NOTED OTHERWISE.

SILT FENCE IS TO BE PLACED AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER, AND IN PLACE PRIOR TO BRIDGE REMOVAL.

WISDOT MONUMENTS WILL BE SUPPLIED BY THE STATE AND INSTALLED BY THE CONTRACTOR 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 .22	.16 .30	.22 .38	.12 .26	.20 .34	.27 .44	.15 .30	.24 .37	.33 .50	.19 .34	.28 .41	.38 .56
MEDIAN STRIP-TURF	.19 .24	.20 .26	.24 .30	.19 .25	.22 .28	.26 .33	.20 .26	.23 .30	.30 .37	.20 .27	.25 .32	.30 .40
SIDE SLOPE-TURF			.25 .32			.27 .34			.28 .36			.30 .38
PAVEMENT:												
ASPHALT	.70 - .95											
CONCRETE	.80 - .95											
BRICK	.70 - .80											
DRIVES, WALKS	.75 - .85											
ROOFS	.75 - .95											
GRAVEL ROADS, SHOULDERS	.40 - .60											

TOTAL PROJECT AREA = 0.47 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.42 ACRES

UTILITY CONTACTS:

CENTURYLINK
425 ELLINGSON AVENUE
PO BOX 78
HAWKINS, WI 54530
TELEPHONE: 715.563.8295
ATTENTION: BEN BAKER
EMAIL: BEN.BAKER@CENTURYLINK.COM

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

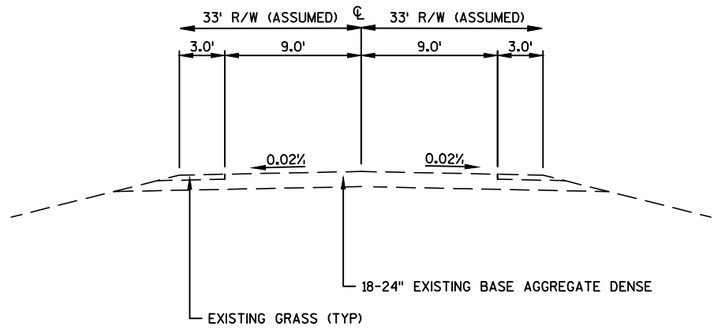
DESIGN CONTACT
SEH
10 NORTH BRIDGE STREET
CHIPPEWA FALLS, WI 54729
TELEPHONE: 715.720.6291
ATTENTION: TARA KRISTA
EMAIL: TKRISTA@SEHINC.COM

WDNR CONTACT
DNR NORTHERN REGION HQ
810 WEST MAPLE STREET
SPOONER, WI 54701
TELEPHONE: 715.635.4228
ATTENTION: SHAWN HASELEU
EMAIL: SHAWN.HASELEU@WISCONSIN.GOV

COUNTY CONTACT
ASHLAND COUNTY HIGHWAY DEPARTMENT
PO BOX 25
HIGHBRIDGE, WI 54846
TELEPHONE: 715.274.3662
ATTENTION: EMMER SHIELDS
EMAIL: ASHCOHWY@YAHOO.COM

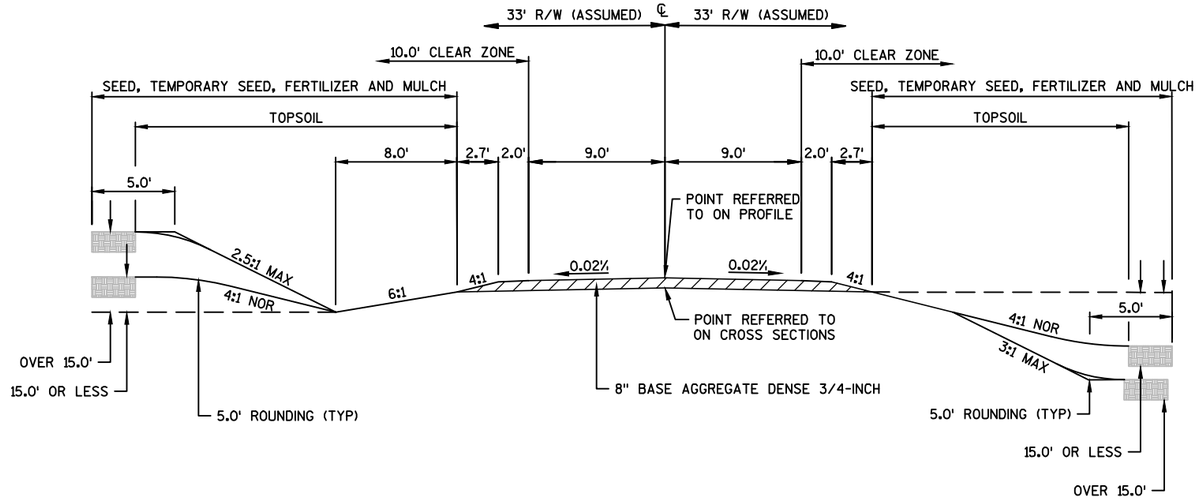
TOWN CONTACT
TOWN OF PEEKSVILLE
78746 PEEKSVILLE ROAD
BUTTERNUT, WI 54514
TELEPHONE: 715.663.0081
ATTENTION: VANCE POLLITT

2



TYPICAL EXISTING SECTION

STA 8+50 TO STA 9+79.60
STA 10+20.54 TO STA 12+00

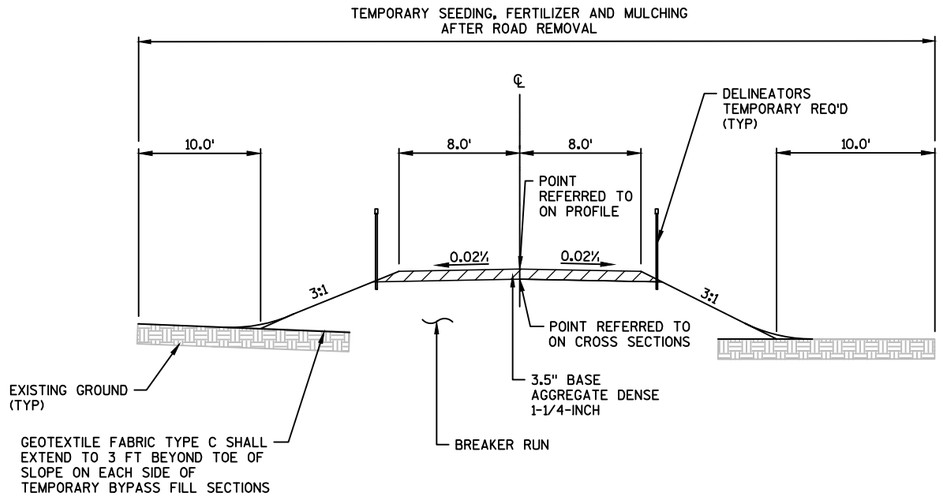


TYPICAL FINISHED SECTION

STA 8+50 TO STA 9+73.75
STA 10+26.25 TO STA 12+00

PROJECT NO: 9956-00-70	HWY: SINKHOLE ROAD	COUNTY: ASHLAND	TYPICAL SECTIONS	SHEET 3	E

2



TYPICAL FINISHED SECTION
SINGLE LANE TEMPORARY BYPASS

STA 999+35 TO STA 1001+85

PROJECT NO: 9956-00-70	HWY: SINKHOLE ROAD	COUNTY: ASHLAND	TYPICAL SECTIONS	SHEET 4	E

FILE NAME : P:\AE\A\ASHLH\135193\CIVIL 3D\SHEETSPLAN\020301-TS.DWG
LAYOUT NAME - 020301-TS - 020302-TS
PLOT DATE : 4/12/2017 1:23 PM PLOT BY : JUSTIN SHAVLIK PLOT NAME : PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

9956-00-70

Line	Item	Item Description	Unit	Total	Qty
0002	201.0105	Clearing	STA	3.000	3.000
0004	201.0205	Grubbing	STA	3.000	3.000
0006	203.0600.S	Removing Old Structure Over Waterway With Minimal Debris (station) 01. 10+00	LS	1.000	1.000
0008	205.0100	Excavation Common	CY	444.000	444.000
0010	206.1000	Excavation for Structures Bridges (structure) 01. B-02-0066	LS	1.000	1.000
0012	208.0100	Borrow	CY	466.000	466.000
0014	210.1500	Backfill Structure Type A	TON	290.000	290.000
0016	213.0100	Finishing Roadway (project) 01. 9956-00-70	EACH	1.000	1.000
0018	305.0110	Base Aggregate Dense 3/4-Inch	TON	450.000	450.000
0020	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	40.000	40.000
0022	311.0110	Breaker Run	TON	720.000	720.000
0024	502.0100	Concrete Masonry Bridges	CY	176.000	176.000
0026	502.3200	Protective Surface Treatment	SY	215.000	215.000
0028	505.0400	Bar Steel Reinforcement HS Structures	LB	3,350.000	3,350.000
0030	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	26,060.000	26,060.000
0032	506.0105	Structural Steel Carbon	LB	475.000	475.000
0034	513.4061	Railing Tubular Type M (structure) 01. B-02-0066	LF	150.000	150.000
0036	516.0500	Rubberized Membrane Waterproofing	SY	18.000	18.000
0038	526.0100	Temporary Structure (station) 01. 1000+00	LS	1.000	1.000
0040	550.2104	Piling CIP Concrete 10 3/4 X 0.25-Inch	LF	540.000	540.000
0042	606.0300	Riprap Heavy	CY	150.000	150.000
0044	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	200.000	200.000
0046	619.1000	Mobilization	EACH	1.000	1.000
0048	624.0100	Water	MGAL	12.000	12.000
0050	625.0100	Topsoil	SY	775.000	775.000
0052	627.0200	Mulching	SY	1,305.000	1,305.000
0054	628.1504	Silt Fence	LF	700.000	700.000
0056	628.1520	Silt Fence Maintenance	LF	700.000	700.000
0058	628.1905	Mobilizations Erosion Control	EACH	3.000	3.000
0060	628.1910	Mobilizations Emergency Erosion Control	EACH	3.000	3.000
0062	628.2008	Erosion Mat Urban Class I Type B	SY	500.000	500.000
0064	628.6005	Turbidity Barriers	SY	170.000	170.000
0066	629.0205	Fertilizer Type A	CWT	1.000	1.000
0068	630.0120	Seeding Mixture No. 20	LB	30.000	30.000
0070	630.0200	Seeding Temporary	LB	40.000	40.000
0072	633.1100	Delineators Temporary	EACH	12.000	12.000
0074	634.0612	Posts Wood 4x6-Inch X 12-FT	EACH	4.000	4.000
0076	637.2230	Signs Type II Reflective F	SF	12.000	12.000

9956-00-70

Line	Item	Item Description	Unit	Total	Qty
0078	638.2602	Removing Signs Type II	EACH	5.000	5.000
0080	638.3000	Removing Small Sign Supports	EACH	5.000	5.000
0082	642.5001	Field Office Type B	EACH	1.000	1.000
0084	643.0100	Traffic Control (project) 01. 9956-00-70	EACH	1.000	1.000
0086	643.0300	Traffic Control Drums	DAY	1,020.000	1,020.000
0088	643.0420	Traffic Control Barricades Type III	DAY	1,020.000	1,020.000
0090	643.0705	Traffic Control Warning Lights Type A	DAY	2,040.000	2,040.000
0092	643.0715	Traffic Control Warning Lights Type C	DAY	1,020.000	1,020.000
0094	643.0900	Traffic Control Signs	DAY	2,448.000	2,448.000
0096	645.0105	Geotextile Type C	SY	510.000	510.000
0098	645.0111	Geotextile Type DF Schedule A	SY	70.000	70.000
0100	645.0120	Geotextile Type HR	SY	285.000	285.000
0102	650.4500	Construction Staking Subgrade	LF	548.000	548.000
0104	650.6500	Construction Staking Structure Layout (structure) 01. B-02-0066	LS	1.000	1.000
0106	650.9910	Construction Staking Supplemental Control (project) 01. 9956-00-70	LS	1.000	1.000
0108	650.9920	Construction Staking Slope Stakes	LF	548.000	548.000
0110	715.0502	Incentive Strength Concrete Structures	DOL	1,056.000	1,056.000
0112	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	1,200.000	1,200.000
0114	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	300.000	300.000

3

CLEARING & GRUBBING

STATION - STATION	LOCATION	201.0105 CLEARING STA	201.0205 GRUBBING STA
SINKHOLE ROAD			
9+00 - 12+00	LT & RT	3	3
ITEM TOTALS		3	3

TEMPORARY STRUCTURE (STA 1000+00)

STATION - STATION	526.0100 LS
TEMPORARY BYPASS	1
ITEM TOTAL	1

3

EXCAVATION

STATION - STATION	LOCATION	205.0100 COMMON CY	AIR FILL CY	EXPAND. FILL CY	208.0100 BORROW CY	REMARKS
SINKHOLE ROAD						
8+50 - 9+73.75	LT & RT	26	11	15	-11	
10+26.25 - 12+00	LT & RT	18	381	495	477	
TEMPORARY BYPASS	LT & RT	400	-	-	-	TEMPORARY BYPASS REMOVAL
ITEM TOTALS		444	392	510	466	

NOTES:
1) SALVAGED/UNUSABLE PAVEMENT MATERIAL IS INCLUDED IN COMMON EXCAVATION.
2) FILL DOES NOT INCLUDE UNUSABLE PAVEMENT EXCAVATION VOLUME.
3) FILL WILL BE BACKFILLED WITH CUT OR BORROW.
4) POSITIVE BORROW INDICATES A SHORTAGE OF MATERIAL.
5) EXPANSION FACTOR = 1.3

RIPRAP ITEMS

STATION - STATION	LOCATION	606.0300* RIPRAP HEAVY CY	645.0120 GEOTEXTILE TYPE HR SY
SINKHOLE ROAD			
10+26.25 - 10+50	RT	35	45
ITEM TOTALS		35	45

*ITEM LOCATED ELSEWHERE IN PLAN

FINISHING ROADWAY (9956-00-70)

STATION - STATION	213.0100 EACH
SINKHOLE ROAD	1
ITEM TOTAL	1

MOBILIZATION

STATION - STATION	619.1000 EACH
SINKHOLE ROAD	
CATEGORY 0010	0.25
CATEGORY 0020	0.75
ITEM TOTAL	1

BASE AGGREGATE DENSE

STATION - STATION	LOCATION	305.0110 3/4-INCH TON	305.0120 1 1/4-INCH TON	311.0110 BREAKER RUN TON	624.0100 WATER MGAL
SINKHOLE ROAD					
8+50 - 9+73.75	LT & RT	210	-	-	2
10+26.25 - 12+00	LT & RT	240	-	-	2
TEMPORARY BYPASS	LT & RT	-	40	720	8
ITEM TOTALS		450	40	720	12

TOPSOIL, MULCHING, FERTILIZER AND SEEDING

STATION - STATION	LOCATION	625.0100 TOPSOIL SY	627.0200 MULCHING SY	629.0205 FERTILIZER TYPE A CWT	630.0120 SEEDING MIXTURE NO. 20 LB	630.0200 SEEDING TEMPORARY LB	REMARKS
SINKHOLE ROAD							
8+50 - 9+73.75	LT & RT	195	265	0.3	10	10	
10+26.25 - 12+00	LT & RT	580	665	0.4	20	20	
TEMPORARY BYPASS	LT & RT	-	375	0.3	-	10	AFTER TEMPORARY BYPASS REMOVAL
ITEM TOTALS		775	1305	1	30	40	

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

3

EROSION CONTROL ITEMS

STATION - STATION	LOCATION	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.2008 EROSION MAT URBAN CLASS I TYPE B SY	628.6005 TURBIDITY BARRIER SY	645.0105 GEOTEXTILE TYPE C SY
SINKHOLE ROAD						
8+50 - 9+73.75	LT & RT	280	280	-	45	-
10+26.25 - 12+00	LT & RT	190	190	500	70	-
TEMPORARY BYPASS	LT & RT	230	230	-	55	510
ITEM TOTALS		700	700	500	170	510

FIELD OFFICE TYPE B

STATION - STATION	642.5001 EACH
SINKHOLE ROAD	1
ITEM TOTAL	1

3

MOBILIZATIONS EROSION CONTROL

STATION - STATION	628.1905 EROSION CONTROL EACH	628.1910 EMERGENCY EROSION CONTROL EACH
SINKHOLE ROAD	3	3
ITEM TOTALS	3	3

TRAFFIC CONTROL

STATION - STATION	643.0100 PROJECT (9956-00-70) EACH	643.0300 DRUMS DAY	643.0420 BARRICADES TYPE III DAY	643.0705 WARNING LIGHTS TYPE A DAY	643.0715 WARNING LIGHTS TYPE C DAY	643.0900 SIGNS DAY
SINKHOLE ROAD						
8+50 - 12+00	1	1020	1020	2040	1020	2448
ITEM TOTAL	1	1020	1020	2040	1020	2448

DELINEATORS TEMPORARY

STATION - STATION	633.1100 EACH
TEMPORARY BYPASS	12
ITEM TOTAL	12

CONSTRUCTION STAKING

STATION - STATION	LOCATION	650.4500 SUBGRADE LF	*650.6500 STRUCTURE LAYOUT B-02-0066 LS	650.9910 SUPPLEMENTAL CONTROL (9956-00-70) LS	650.9920 SLOPE STAKES LF
SINKHOLE ROAD					
8+50 - 9+73.75	LT & RT	124	-	-	124
10+00	LT & RT	-	1	1	-
10+26.25 - 12+00	LT & RT	174	-	-	174
TEMPORARY BYPASS	LT & RT	250	-	-	250
ITEM TOTALS		548	1	1	548

*CATEGORY 0020

PERMANENT SIGNING

SIGN GROUP CODE	SIGN CODE	SIGN MESSAGE	TYPE II SIZE	637.2230 SIGNS TYPE II REFLECTIVE F SF	634.0612 POSTS WOOD 4X6-INCH 12-FT EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	REMARKS
SINKHOLE ROAD								
1-1	W5-52L	CLEARANCE STRIPER	12" X 36"	3	1	1	1	REPLACE
1-2	W5-52R	CLEARANCE STRIPER	12" X 36"	3	1	1	1	REPLACE
1-3		WEIGHT LIMIT 12 TONS				1	1	REMOVE
1-4	W5-52R	CLEARANCE STRIPER	12" X 36"	3	1	1	1	REPLACE
1-5	W5-52L	CLEARANCE STRIPER	12" X 36"	3	1	1	1	REPLACE
ITEM TOTALS				12	4	5	5	

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

BENCHMARK TABLE

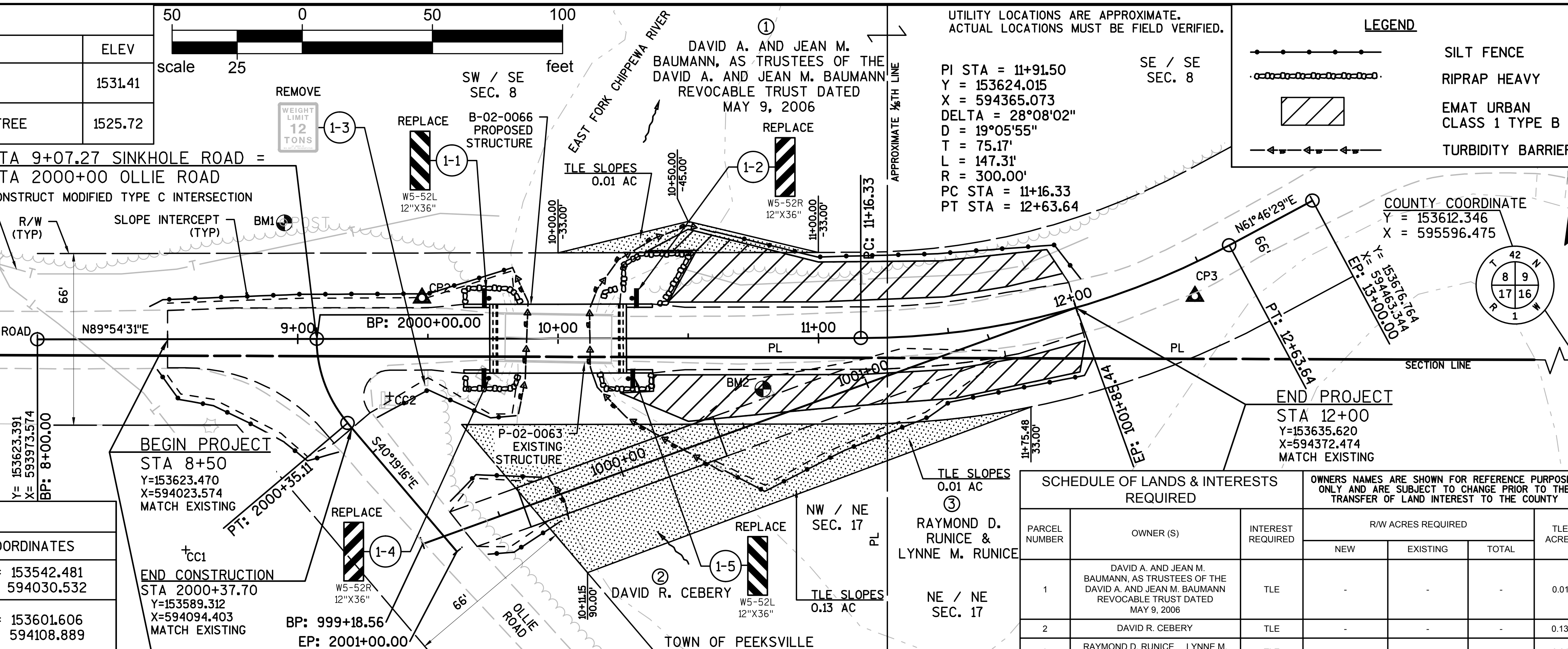
NO.	STATION	DESCRIPTION	ELEV
BM1	8+94.95 44.6' LT	TOP OF 4" STEEL POST	1531.41
BM2	10+78.71 19.47' RT	SET ⅜" SPK IN 36" MAPLE TREE	1525.72

BASIS FOR EXISTING OF R/W	
SINKHOLE ROAD	STATE STATUTE 82.31(2)

UTILITY LOCATIONS ARE APPROXIMATE. ACTUAL LOCATIONS MUST BE FIELD VERIFIED.

LEGEND

(symbol)	SILT FENCE
(symbol)	RIPRAP HEAVY
(symbol)	EMAT URBAN CLASS 1 TYPE B
(symbol)	TURBIDITY BARRIER



scale 50 0 50 100 feet 25
SW / SE SEC. 8
SE / SE SEC. 8
NW / NE SEC. 17
NE / NE SEC. 17
REMOVE
WEIGHT LIMIT 12 TONS
1-3
REPLACE
1-1
W5-52L 12"X36"
B-02-0066 PROPOSED STRUCTURE
EAST FORK CHIPPEWA RIVER
① DAVID A. AND JEAN M. BAUMANN, AS TRUSTEES OF THE DAVID A. AND JEAN M. BAUMANN REVOCABLE TRUST DATED MAY 9, 2006
REPLACE
1-2
W5-52R 12"X36"
TLE SLOPES 0.01 AC
APPROXIMATE ¼TH LINE
PI STA = 11+91.50
Y = 153624.015
X = 594365.073
DELTA = 28°08'02"
D = 19°05'55"
T = 75.17'
L = 147.31'
R = 300.00'
PC STA = 11+16.33
PT STA = 12+63.64
STA 9+07.27 SINKHOLE ROAD =
STA 2000+00 OLLIE ROAD
CONSTRUCT MODIFIED TYPE C INTERSECTION
CENTURYLINK
R/W (TYP)
SLOPE INTERCEPT (TYP)
BM1
COUNTY COORDINATE
Y = 153613.893
X = 593006.449
CP1
CP2
CP3
66'
SINKHOLE ROAD
N89°54'31"E
9+00
BP: 2000+00.00
10+00
11+00
PL
SECTION LINE
PI STA = 2000+18.31
Y = 153605.250
X = 594080.877
DELTA = 40°13'47"
D = 114°35'30"
T = 18.31'
L = 35.11'
R = 50.00'
PC STA = 2000+00.00
PT STA = 2000+35.11
SEE SDD "TRAFFIC CONTROL, TEMPORARY BYPASS ROADWAY" FOR TRAFFIC CONTROL SETUP
Y= 153623.391
X= 593973.574
BP: 8+00.00
BEGIN PROJECT
STA 8+50
Y=153623.470
X=594023.574
MATCH EXISTING
PT: 2000+35.11
S40°19'16"E
CC1
CC2
END CONSTRUCTION
STA 2000+37.70
Y=153589.312
X=594094.403
MATCH EXISTING
BP: 999+18.56
EP: 2001+00.00
OLLIE ROAD
REPLACE
1-4
W5-52R 12"X36"
P-02-0063 EXISTING STRUCTURE
1000+00
② DAVID R. CEBERY
REPLACE
1-5
W5-52L 12"X36"
TLE SLOPES 0.13 AC
TOWN OF PEEKSVILLE
BM2
100+00
12+00
N61°46'29"E
66'
PT: 12+63.64
EP: 1001+83.44
Y= 153676.764
X= 594463.344
EP: 13+00.00
11+75.48 33.00'
10+11.15 90.00'
10+00.00 -33.00'
10+50.00 -45.00'
11+00.00 -33.00'
PC: 11+16.33
TLE SLOPES 0.01 AC
③ RAYMOND D. RUNICE & LYNNE M. RUNICE
END PROJECT
STA 12+00
Y=153635.620
X=594372.474
MATCH EXISTING
COUNTY COORDINATE
Y = 153612.346
X = 595596.475
N

RADIUS POINT TABLE

POINT	STATION	OFFSET	RADIUS	COORDINATES
CC1	8+56.83 SINKHOLE ROAD 2000+33.93 OLLIE ROAD	81' RT	70'	Y = 153542.481 X = 594030.532
CC2	9+35.28 SINKHOLE ROAD 2000+37.70 OLLIE ROAD	22' RT	10'	Y = 153601.606 X = 594108.889

SCHEDULE OF LANDS & INTERESTS REQUIRED

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

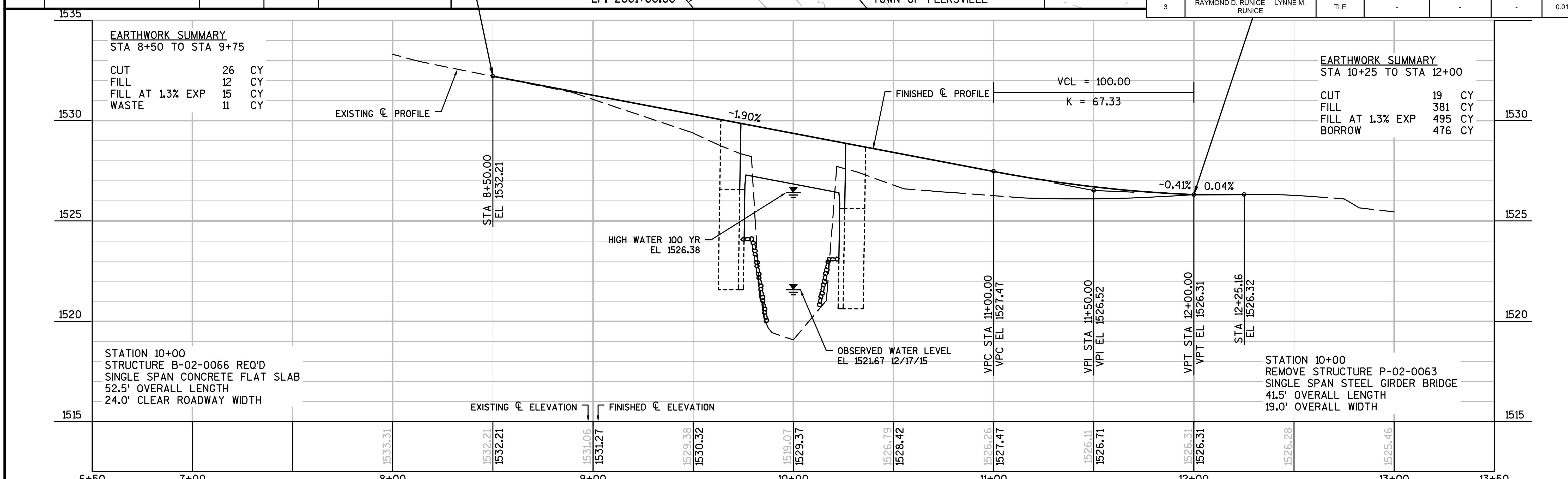
PARCEL NUMBER	OWNER (S)	INTEREST REQUIRED	R/W ACRES REQUIRED			TLE ACRES
			NEW	EXISTING	TOTAL	
1	DAVID A. AND JEAN M. BAUMANN, AS TRUSTEES OF THE DAVID A. AND JEAN M. BAUMANN REVOCABLE TRUST DATED MAY 9, 2006	TLE	-	-	-	0.01
2	DAVID R. CEBERY	TLE	-	-	-	0.13
3	RAYMOND D. RUNICE LYNNE M. RUNICE	TLE	-	-	-	0.01

EARTHWORK SUMMARY
STA 8+50 TO STA 9+75

CUT	26	CY
FILL	12	CY
FILL AT 1.3% EXP	15	CY
WASTE	11	CY

EARTHWORK SUMMARY
STA 10+25 TO STA 12+00

CUT	19	CY
FILL	381	CY
FILL AT 1.3% EXP	495	CY
BORROW	476	CY



1535
1530
1525
1520
1515
EXISTING ℄ PROFILE
FINISHED ℄ PROFILE
-1.90%
VCL = 100.00
K = 67.33
-0.41%
0.04%
STA 8+50.00 EL 1532.21
HIGH WATER 100 YR EL 1526.38
OBSERVED WATER LEVEL EL 1521.67 12/17/15
VPC STA 11+00.00 VPC EL 1527.47
VPI STA 11+50.00 VPI EL 1526.52
VPT STA 12+00.00 VPT EL 1526.31
STA 12+25.16 EL 1526.32
EXISTING ℄ ELEVATION
FINISHED ℄ ELEVATION
1533.31
1532.21 1532.21
1531.06 1531.27
1529.38 1530.32
1519.07 1529.37
1526.79 1528.42
1526.26 1527.47
1526.11 1526.71
1526.31 1526.31
1526.28
1525.46
6+50
7+00
8+00
9+00
10+00
11+00
12+00
13+00
13+50

STATION 10+00
STRUCTURE B-02-0066 REQ'D
SINGLE SPAN CONCRETE FLAT SLAB
52.5' OVERALL LENGTH
24.0' CLEAR ROADWAY WIDTH

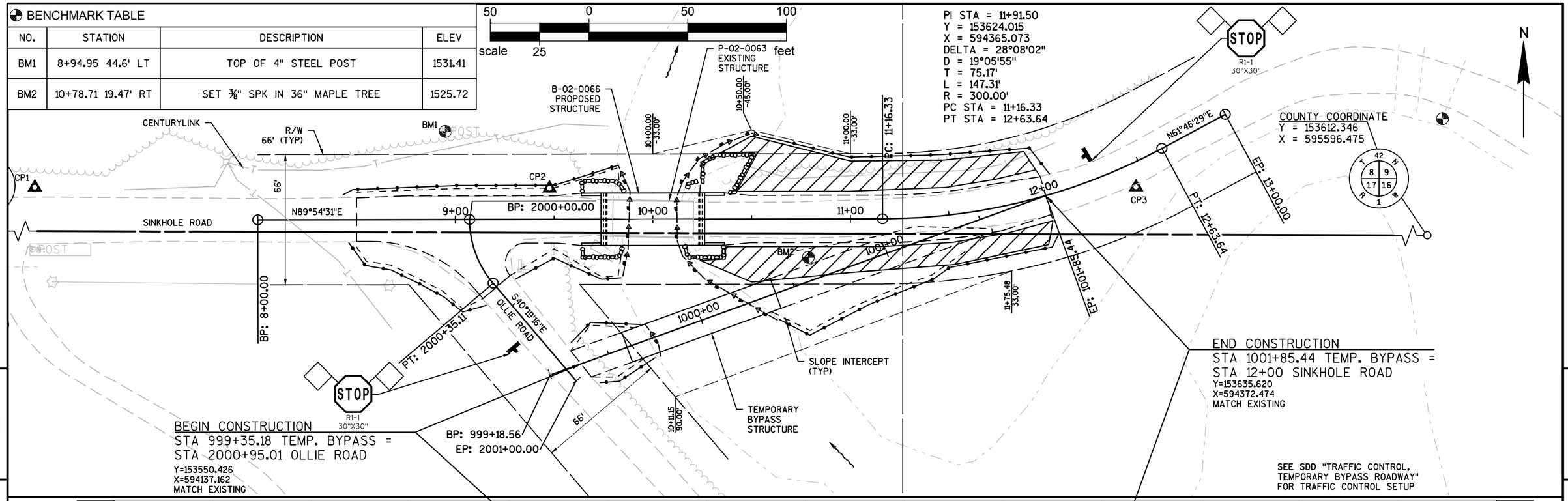
STATION 10+00
REMOVE STRUCTURE P-02-0063
SINGLE SPAN STEEL GIRDER BRIDGE
41.5' OVERALL LENGTH
19.0' OVERALL WIDTH

5 5

PROJECT NO: 9956-00-70	HWY: SINKHOLE ROAD	COUNTY: ASHLAND	PLAN AND PROFILE: SINKHOLE ROAD	SHEET 9	E

BENCHMARK TABLE

NO.	STATION	DESCRIPTION	ELEV
BM1	8+94.95 44.6' LT	TOP OF 4" STEEL POST	1531.41
BM2	10+78.71 19.47' RT	SET ⅜" SPK IN 36" MAPLE TREE	1525.72



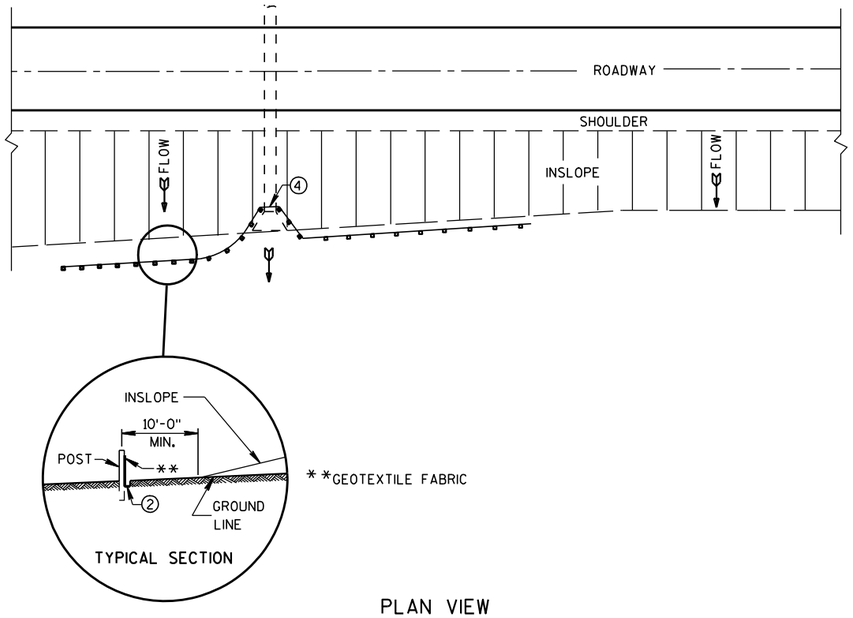
PROJECT NO: 9956-00-70	HWY: SINKHOLE ROAD	COUNTY: ASHLAND	PLAN AND PROFILE: TEMPORARY BYPASS	SHEET 10	E

Standard Detail Drawing List

08E09-06	SILT FENCE
08E11-02	TURBIDITY BARRIER
09A01-13A	AT-GRADE SIDE ROAD INTERSECTION, TYPES "B1", "B2", "C" AND D AND TEE INTERSECTION BYPASS LANE
12A03-10	NAME PLATE (STRUCTURES)
15A02-09	DELINEATOR POST, DELINEATOR REFLECTOR AND DELINEATOR BRACKET WITH REFLECTIVE SHEETING
15C06-08	SIGNING & MARKING FOR TWO LANE BRIDGES
15D31-03	TRAFFIC CONTROL, TEMPORARY BYPASS ROADWAY

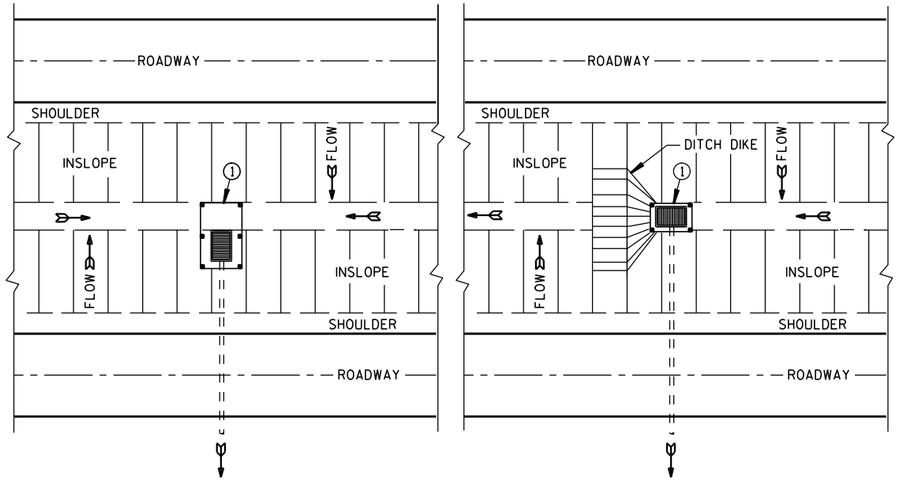
6

6



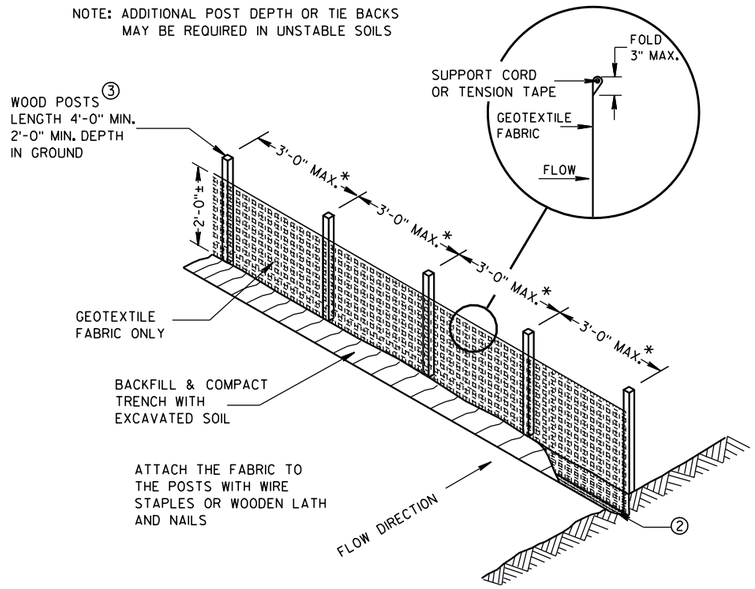
PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



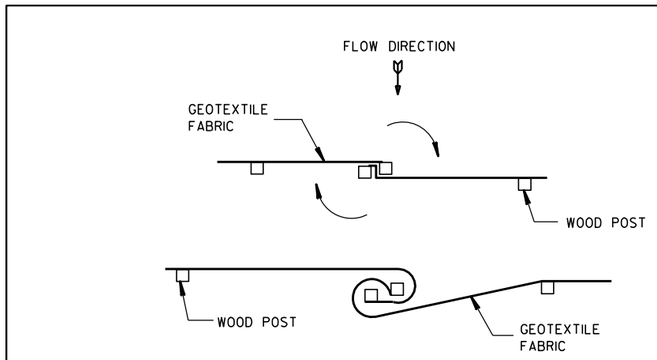
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS



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

SILT FENCE

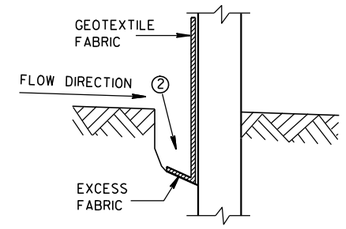


JOINING TWO LENGTHS OF SILT FENCE 5

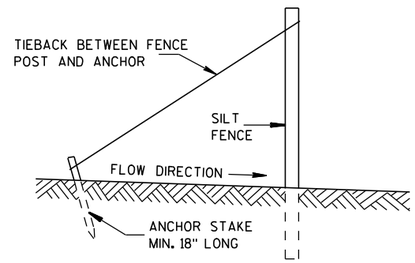
GENERAL NOTES

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 TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

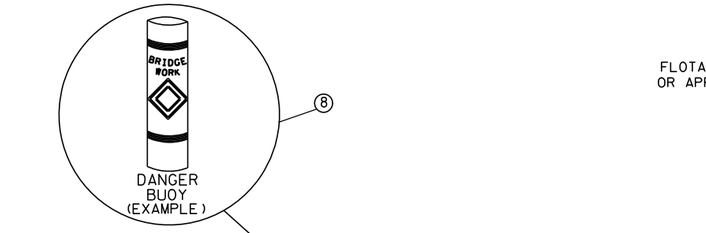
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

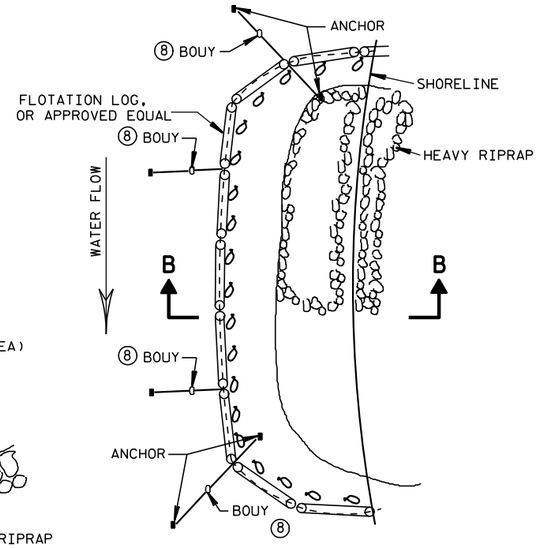
S.D.D. 8 E 9-6

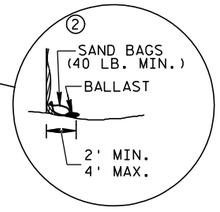
6

S.D.D. 8 E 9-6

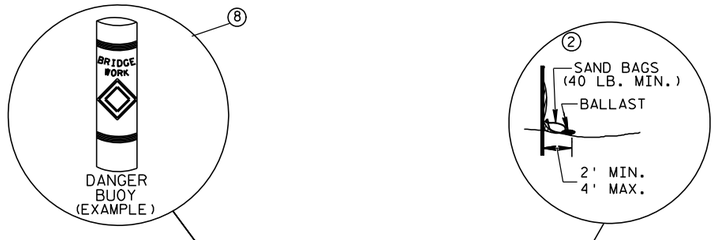


SECTION B-B

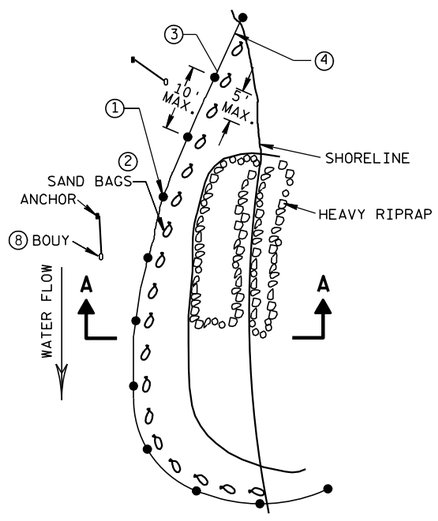




TURBIDITY BARRIER FLOAT ALTERNATIVE
CAUTION - SEE NOTE 6



SECTION A-A



PLAN VIEW

TURBIDITY BARRIER STANDARD POST INSTALLATION

TURBIDITY BARRIER PLACEMENT DETAILS

GENERAL NOTES

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

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

① DRIVEN STEEL POSTS, PIPES, OR CHANNELS. LENGTH SHALL BE SUFFICIENT TO SECURELY SUPPORT BARRIER AT HIGH WATER ELEVATIONS.

② SANDBAGS TO BE USED AS ADDITIONAL BALLAST WHEN ORDERED BY THE ENGINEER TO MEET ADVERSE FIELD CONDITIONS. SPACE AS APPROPRIATE FOR SITE CONDITIONS.

③ WHEN BARRIER HEIGHT, H, EXCEEDS 8 FT., POST SPACING MAY NEED TO BE DECREASED.

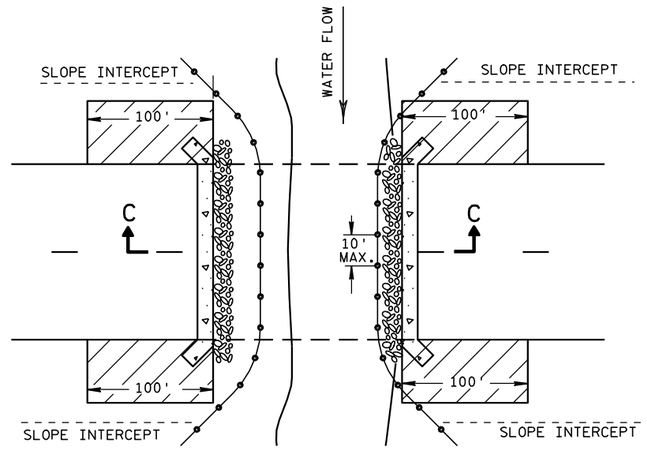
④ IN WATERWAYS SUBJECT TO FLUCTUATING WATER ELEVATIONS, PROVISIONS SHOULD BE MADE TO ALLOW THE WATER TO EQUALIZE ON EACH SIDE OF THE BARRIER. THIS MAY BE ACCOMPLISHED BY LEAVING A PORTION OF THE BARRIER OPEN ON THE UPSTREAM END.

⑤ ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION PERIOD. MIMIMUM BARRIER HEIGHT SHALL BE 2'GREATER THAN EITHER THE O2 ELEVATION OR THE ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION, WICHEVER IS GREATER.

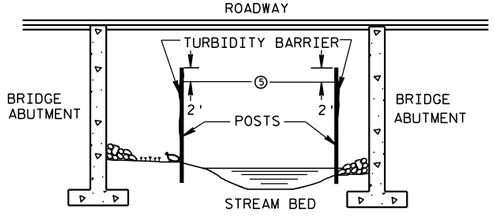
⑥ FLOAT ALTERNATIVE WILL ONLY BE ALLOWED WITH WRITTEN APPROVAL OF THE ENGINEER, AND IS MEANT FOR LOCATIONS WHERE BED ROCK PREVENTS THE INSTALLATION OF POSTS.

⑦ ALLOW SUFFICIENT SLACK VERTICALLY AND HORIZONTALLY SO THAT SEDIMENT BUILD UP WILL NOT SEPARATE OR LOWER THE TURBIDITY BARRIER.

⑧ USE AS DIRECTED BY COAST GUARD OR DNR PERMIT WHEN WORKING IN NAVIGABLE WATERWAYS.



PLAN VIEW



SECTION C-C

TURBIDITY BARRIER DETAIL SHOWING TYPICAL PLACEMENT AT STRUCTURES

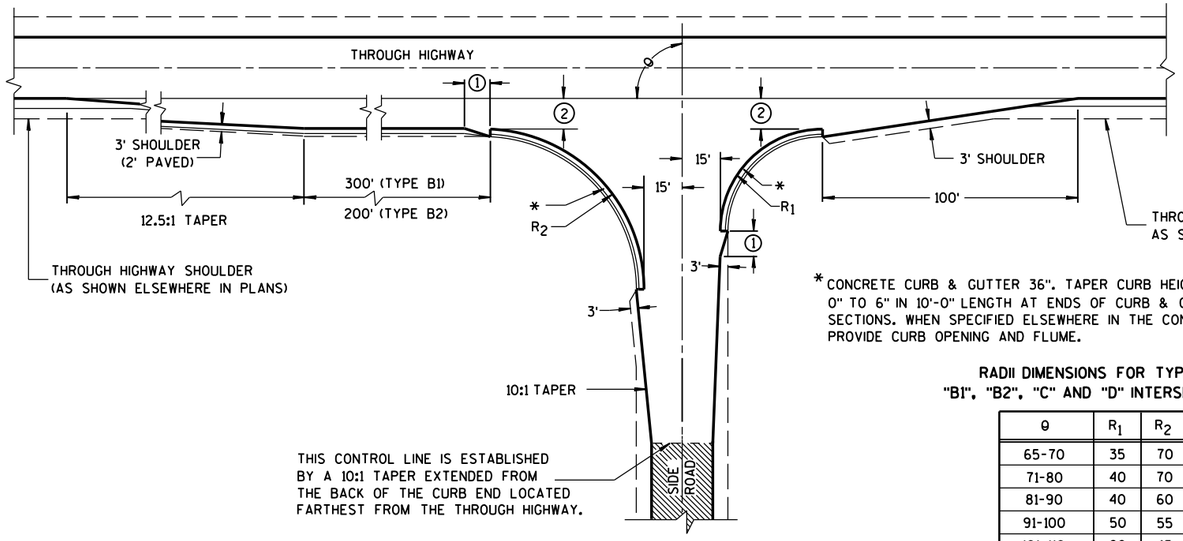
TURBIDITY BARRIER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

S.D.D. 8 E 11-2

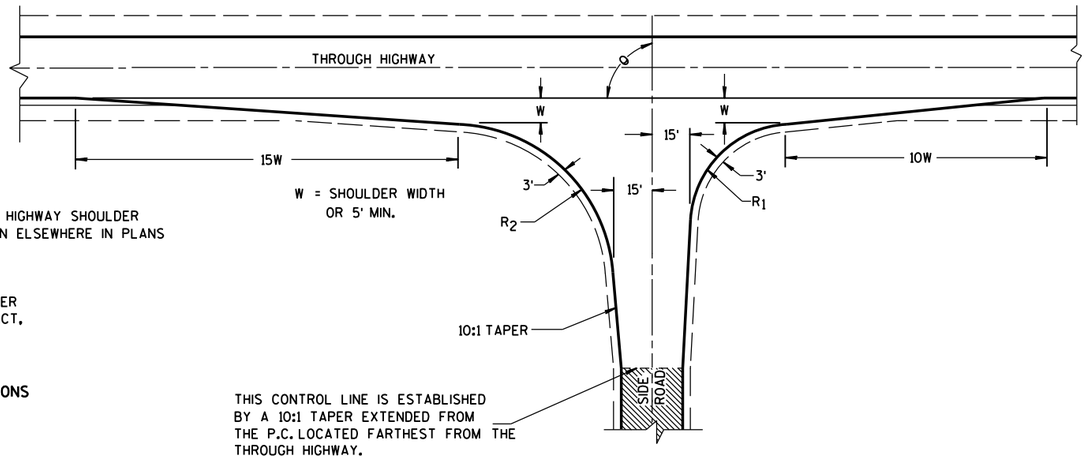


TYPE "B1" AND "B2"

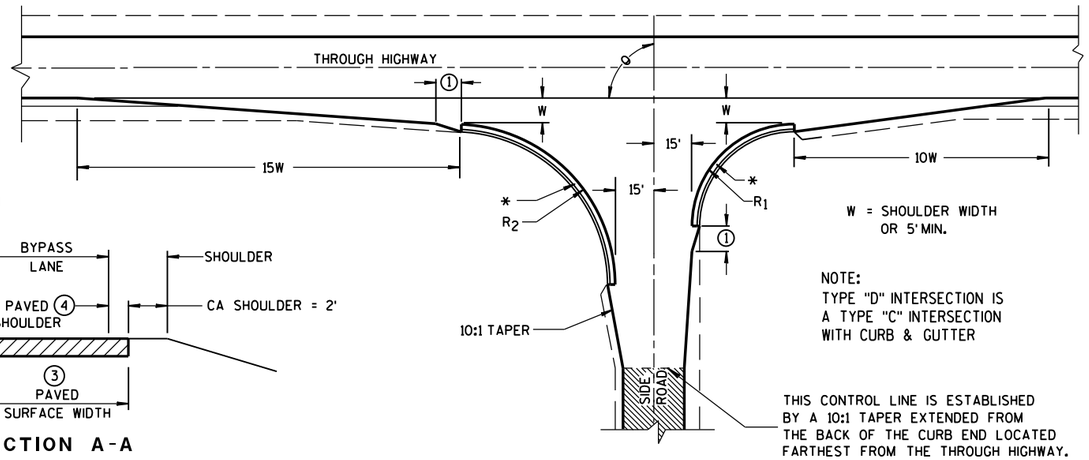
*CONCRETE CURB & GUTTER 36". TAPER CURB HEIGHT 0" TO 6" IN 10'-0" LENGTH AT ENDS OF CURB & GUTTER SECTIONS. WHEN SPECIFIED ELSEWHERE IN THE CONTRACT, PROVIDE CURB OPENING AND FLUME.

RADII DIMENSIONS FOR TYPES "B1", "B2", "C" AND "D" INTERSECTIONS

θ	R_1	R_2
65-70	35	70
71-80	40	70
81-90	40	60
91-100	50	55
101-110	60	45



TYPE "C"



TYPE "D"

GENERAL NOTES

DESIGNS MAY BE USED INTERCHANGEABLY IN COMBINATION OR SEPARATELY FOR ANY ONE COMPLETE INTERSECTION DEPENDING UPON INTERSECTION ANGLE AND SURFACING OF EACH APPROACH ROADWAY.

SIDE ROAD SURFACING NOTE

WHEN THE SIDE ROAD IS NOT PRESENTLY PAVED, PAVEMENT SHALL BE PLACED TO THE LIMITS SHOWN UNLESS OTHERWISE PROVIDED IN THE CONTRACT. WHERE THE CONSTRUCTION LIMITS ARE BEYOND THE PAVING LIMITS, CRUSHED AGGREGATE SURFACING SHALL BE PLACED BETWEEN THE PAVING LIMITS AND CONSTRUCTION LIMITS.

WHEN THE SIDE ROAD IS PRESENTLY PAVED, NEW PAVEMENT SHALL BE PLACED TO THE LIMITS OF DESIGN AS SHOWN AND BEYOND, IF NECESSARY, TO MEET EXISTING PAVEMENT.

WHEN THE SIDE ROAD IS THE CONSTRUCTION PROJECT, THE INTERSECTION SURFACING SHALL BE THE SAME AS FOR THE PROJECT.

EXISTING PAVED SURFACE

BYPASS LANE

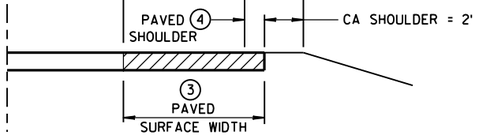
(1) 10-FT TYPICAL.

(2) 12-FT** PLUS ADDITIONAL WIDTH FOR BIKE LANE IF SHOWN ELSEWHERE IN THE PLAN.

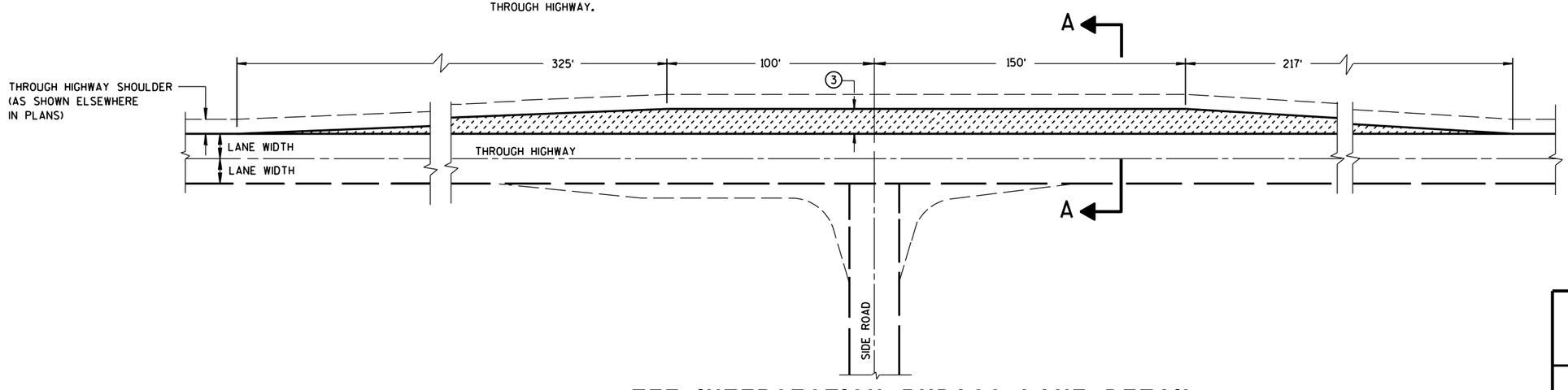
**10-FT MAY BE USED ON TYPE B2 ON RESURFACING PROJECTS IF SPECIFIED IN THE CONTRACT.

(3) BYPASS LANE PAVED SURFACE WIDTH OUTSIDE OF TRAVEL LANE
-ASPHALT = 12-FT PLUS PAVED SHOULDER WIDTH.
-PC CPNCRETE = 13-FT PLUS PAVED SHOULDER WIDTH.

(4) BYPASS LANE PAVED SHOULDER WIDTH = THE GREATER OF 1-FT OR THE PAVED SHOULDER WIDTH OF THE THROUGH HIGHWAY.



SECTION A-A
(SHOWING BYPASS LANE AND SHOULDER)



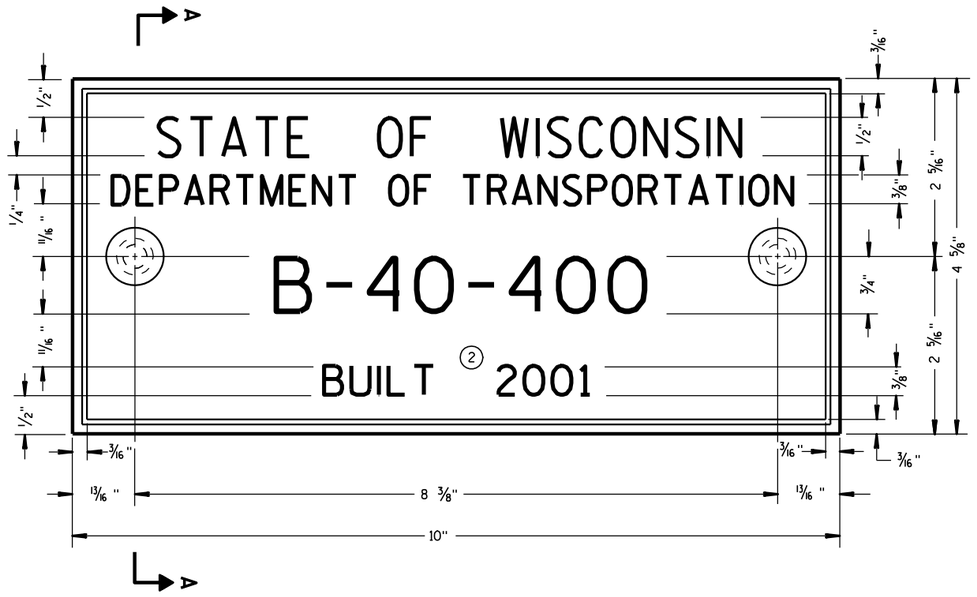
TEE INTERSECTION BYPASS LANE DETAIL

AT-GRADE SIDE ROAD INTERSECTION, TYPES "B1", "B2", "C" AND "D" AND TEE INTERSECTION BYPASS LANE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

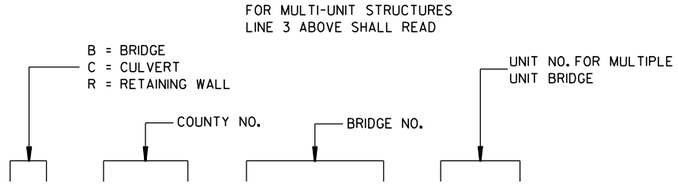
6

S.D.D. 9 A 1-13a



TYPICAL NAME PLATE

(BRIDGES, CULVERTS, AND RETAINING WALLS)



NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES

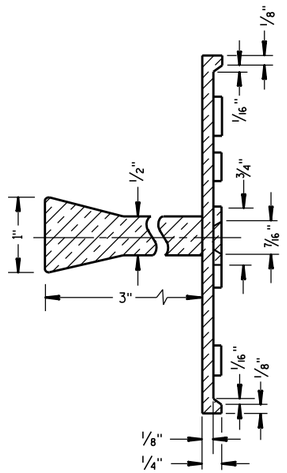
GENERAL NOTES

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.

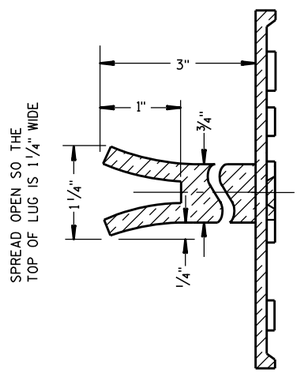
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

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

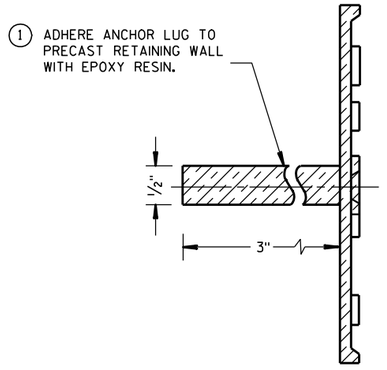
(2) REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



SECTION A-A



ALTERNATE LUG



ALTERNATE LUG

(FOR ATTACHMENT TO PRECAST STRUCTURES)

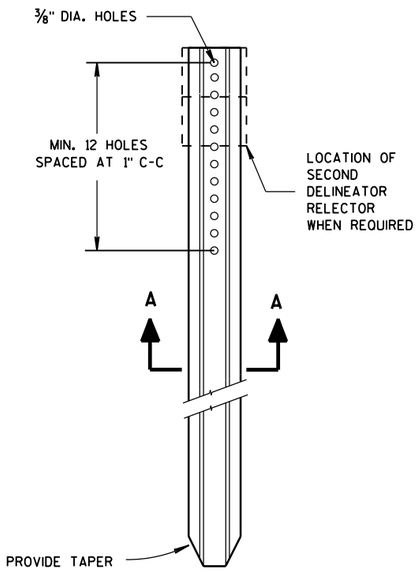
NAME PLATE (STRUCTURES)	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
3/26/10 DATE	/S/ Scot Beck -- CHIEF STRUCTURAL DEVELOP ENGINEER
FHWA	

6

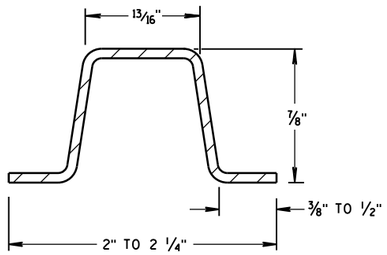
S.D.D. 12 A 3-10

6

S.D.D. 12 A 3-10

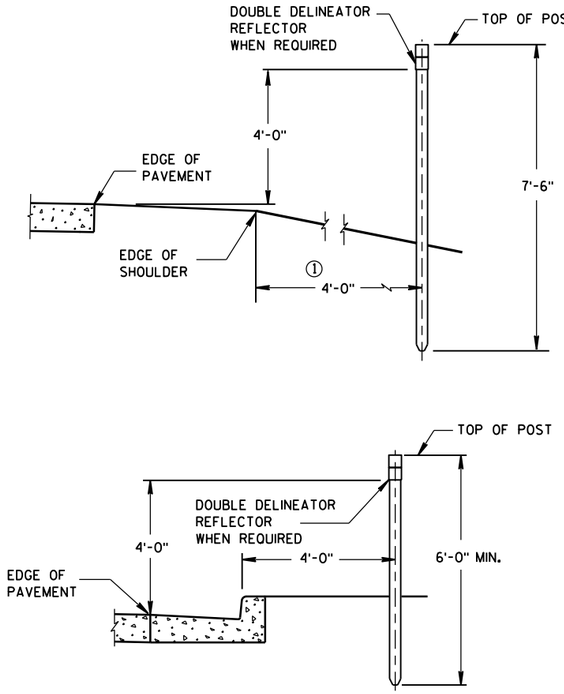


DELINEATOR POST



SECTION A-A

WEIGHT 1.12 LBS PER FT. ± 0.1 LB.

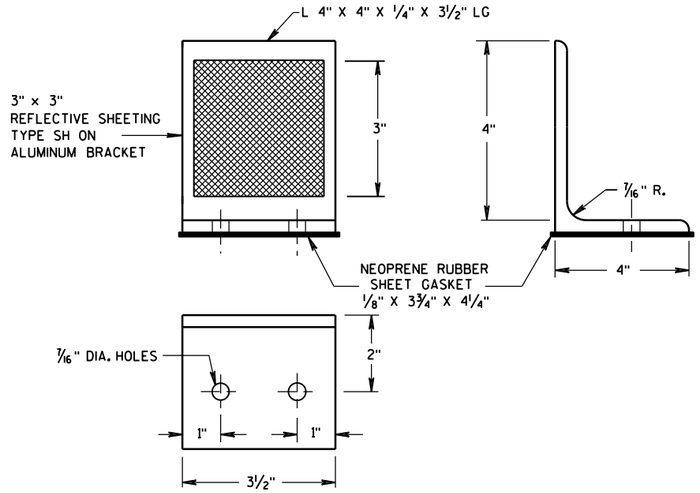


TYPICAL INSTALLATIONS OF DELINEATOR POSTS

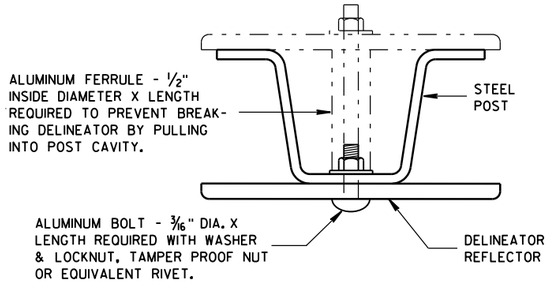
GENERAL NOTES

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

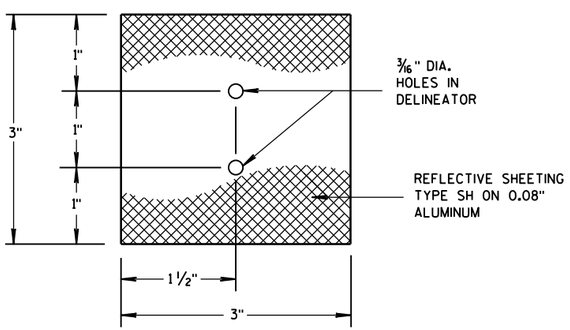
① DELINEATORS SHALL BE PLACED AT A CONSTANT DISTANCE FROM THE EDGE OF THE SHOULDER FOR THE LENGTH OF THE INSTALLATION.



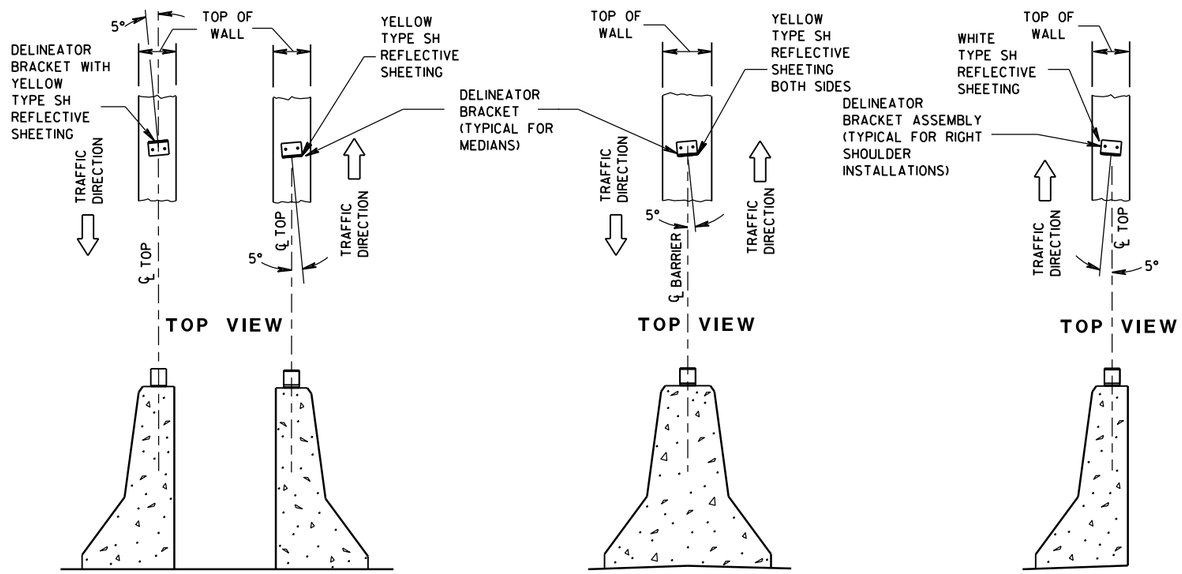
DELINEATOR BRACKET



MOUNTING DETAIL FOR DELINEATOR REFLECTOR

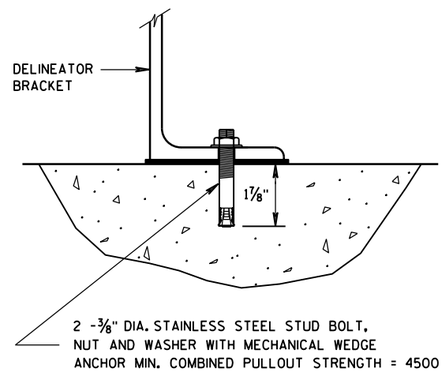


3"x 3" DELINEATOR REFLECTOR



DOUBLE BARRIERS IN MEDIAN | MEDIAN BARRIER | BARRIER LOCATED TO RT. OF TRAFFIC FLOW

LOCATION AND AIMING DETAILS FOR DELINEATOR BRACKETS MOUNTED ON CONCRETE BARRIERS



DELINEATOR BRACKET MOUNTING DETAIL

DELINEATOR POST, DELINEATOR REFLECTOR AND DELINEATOR BRACKET WITH REFLECTIVE SHEETING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

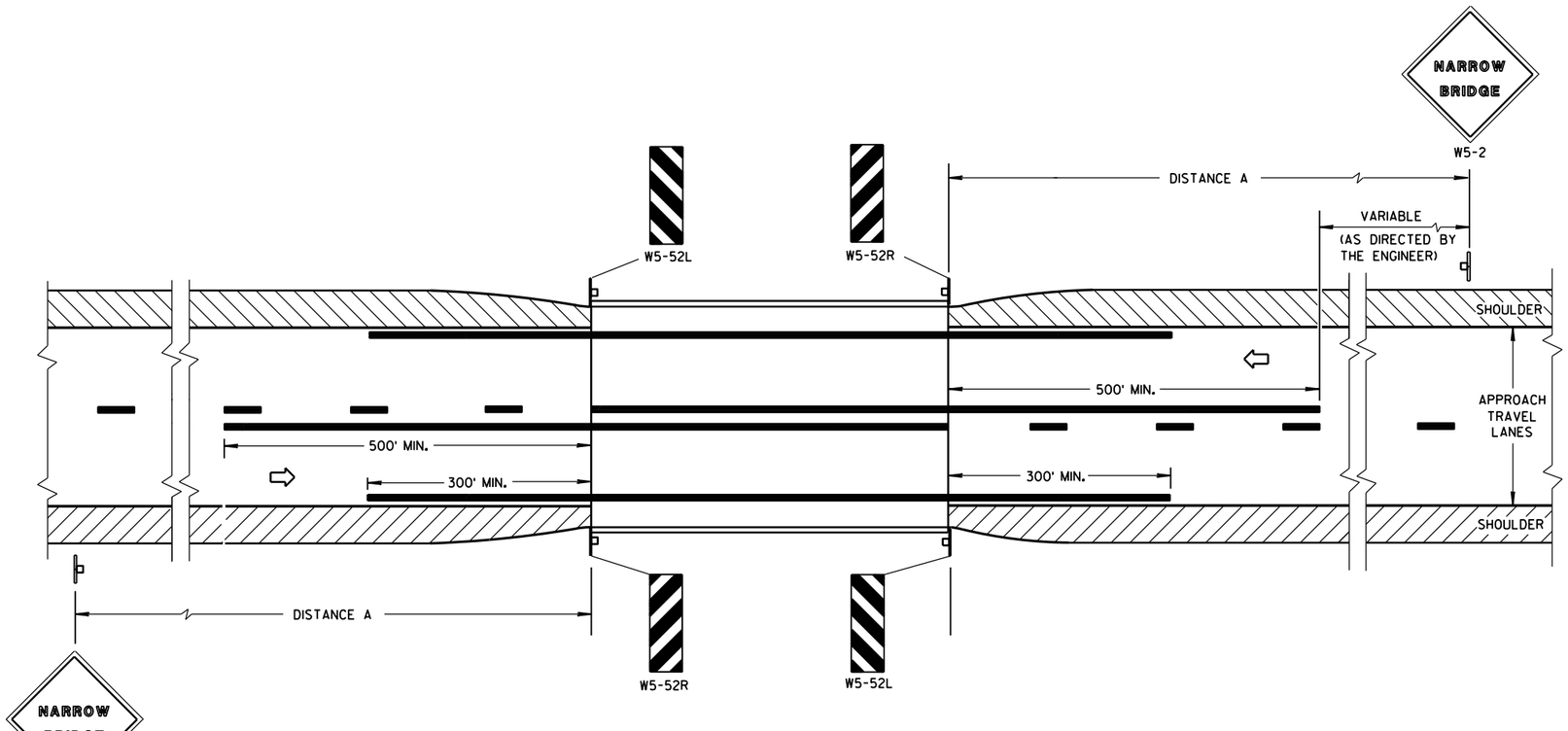
APPROVED
4-18-16 DATE
/S/ Matthew R. Rauch
STATE SIGNING AND MAR[illegible] ENGINEER
FHWA

6

S.D.D. 15 A 2-9

6

S.D.D. 15 A 2-9

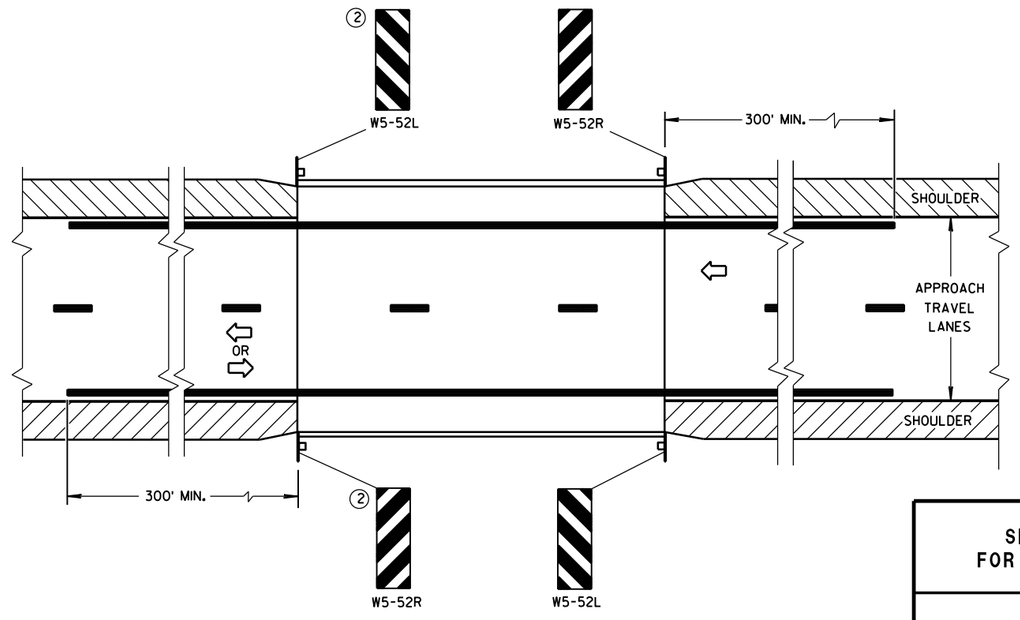


SITUATION 1

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'



SITUATION 2

WARRANTING CRITERIA:

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

GENERAL NOTES

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

① LOCATE W5-52 SIGN POST(S) BEHIND GUARDRAIL WHEN PRESENT.

② OMIT ON ONE-WAY TRAVELLED WAYS.

③ EDGE OF W5-52 SIGN SHALL BE PLACED IN LINE WITH FACE OF CURB OR PARAPET.

SIGNING & MARKING FOR TWO LANE BRIDGES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4-18-16 — DATE
/S/ Matthew R. Rauch — STATE SIGNING AND MAR ...EER
FHWA

6

S.D.D. 15 C 6-8

6

S.D.D. 15 C 6-8

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

S = NON-CONSTRUCTION SPEED LIMIT (MPH)

END ROAD WORK
G20-2A
48"x24"

NO PASSING ZONE
W14-3
48"x36"

BEGIN TEMPORARY PAVEMENT MARKING, 4-INCH SOLID YELLOW CENTERLINE ✳✳

1000' 500' 400' 500' 200' 50' 50' 25' TYP.

W01-6 48"x24" ✳✳✳

R11-2 48"x30" ROAD CLOSED (A)
TYPE III BARRICADE

FOR BRIDGE OR CULVERT REPLACEMENTS SUBSTITUTE
BRIDGE OUT
R11-2B
48"x30"

W01-6 48"x24"
TYPE III BARRICADE

W01-3L OR W01-4L
W013-1
XX M.P.H.
24"x24"

ROAD WORK 1000 FT
W20-1C

ROAD WORK AHEAD
W20-1A

ROAD CLOSURE OR BRIDGE/CULVERT REPLACEMENT

BUFFER SPACE (SEE TABLE)

WORK AREA

BUFFER SPACE (SEE TABLE)

TEMPORARY STEEL PLATE BEAM GUARD AND END TREATMENT WHEN INCLUDED IN THE CONTRACT. FOR LAYOUT, SEE DETAILS ELSEWHERE IN THE PLAN.

W05-52L 12"x36"
W05-52R 12"x36"

25' TYP.

END TEMPORARY PAVEMENT MARKING, 4-INCH SOLID YELLOW CENTERLINE ✳✳

50' 50' 400' 200' 500' 500' 1000'

END TEMPORARY PAVEMENT MARKING, 4-INCH WHITE EDGELINE

TEMPORARY PAVEMENT MARKING, 4-INCH WHITE EDGELINES. (USE REMOVABLE TAPE WHERE TEMPORARY MARKING CROSSES PERMANENT PAVEMENT)

TEMPORARY PAVEMENT MARKING, 4-INCH DOUBLE YELLOW CENTERLINE AND 2-WAY YELLOW RAISED PAVEMENT MARKERS AT 25' SPACING. USE REMOVABLE TAPE WHERE TEMPORARY MARKING CROSSES PERMANENT PAVEMENT.

BEGIN TEMPORARY PAVEMENT MARKING, 4-INCH WHITE EDGELINE

ROAD WORK AHEAD
W20-1A

ROAD WORK 1000 FT
W20-1C

W01-4R OR W01-3R
W013-1
XX M.P.H.
24"x24"

W01-6 48"x24"

W01-4L OR W01-3L
W013-1
XX M.P.H.
24"x24"

NO PASSING ZONE
W14-3
48"x36"

END ROAD WORK
G20-2A
48"x24"

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

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

EQUIPMENT, VEHICLES, OR MATERIAL SHOULD NOT BE STORED IN BUFFER SPACE.

✳ IF ADVISORY SPEED IS GREATER THAN 30 MPH, USE THE W01-4 SIGN. IF ADVISORY SPEED IS 30 MPH OR LESS, USE THE W01-3 SIGN.

✳✳ WHEN THE DISTANCE TO/FROM THE NEXT CLOSEST NO-PASSING ZONE IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES AS INDICATED IN THE SPECIFICATIONS, THE TWO ZONES SHALL BE CONNECTED.

✳✳✳ OMIT THESE W01-6 SIGNS IF THE ADVISORY SPEED OF THE CURVE IS GREATER THAN 30 MPH.

LEGEND

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

TRAFFIC CONTROL, TEMPORARY BYPASS ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

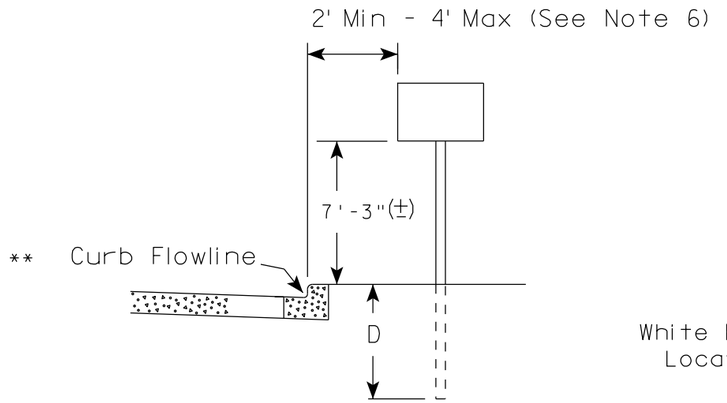
APPROVED

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

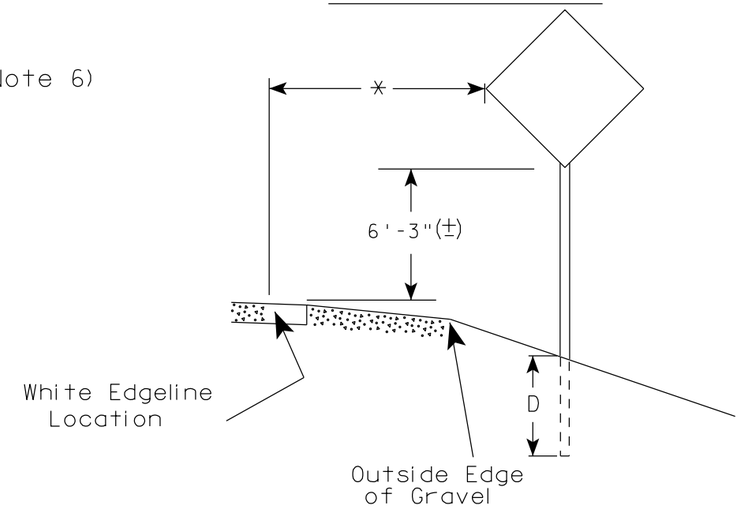
6

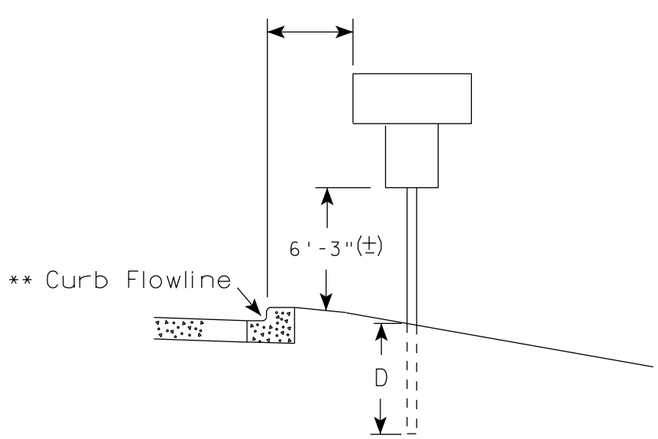
S.D.D. 15 D 31-3

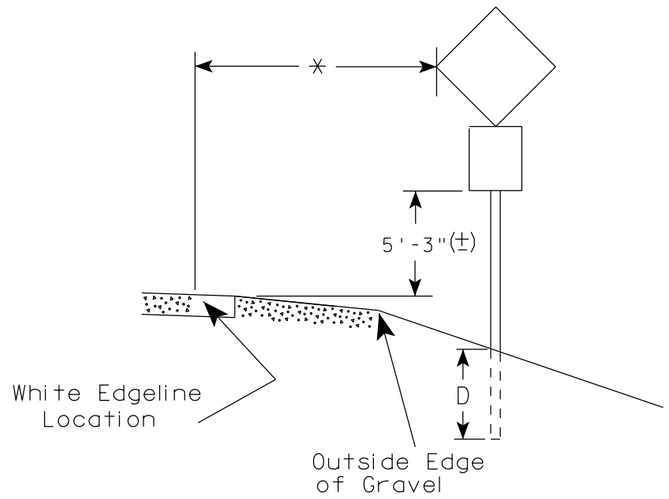
URBAN AREA



RURAL AREA (See Note 2)







GENERAL NOTES

1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on 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" (±).

POST EMBEDMENT DEPTH

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

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

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

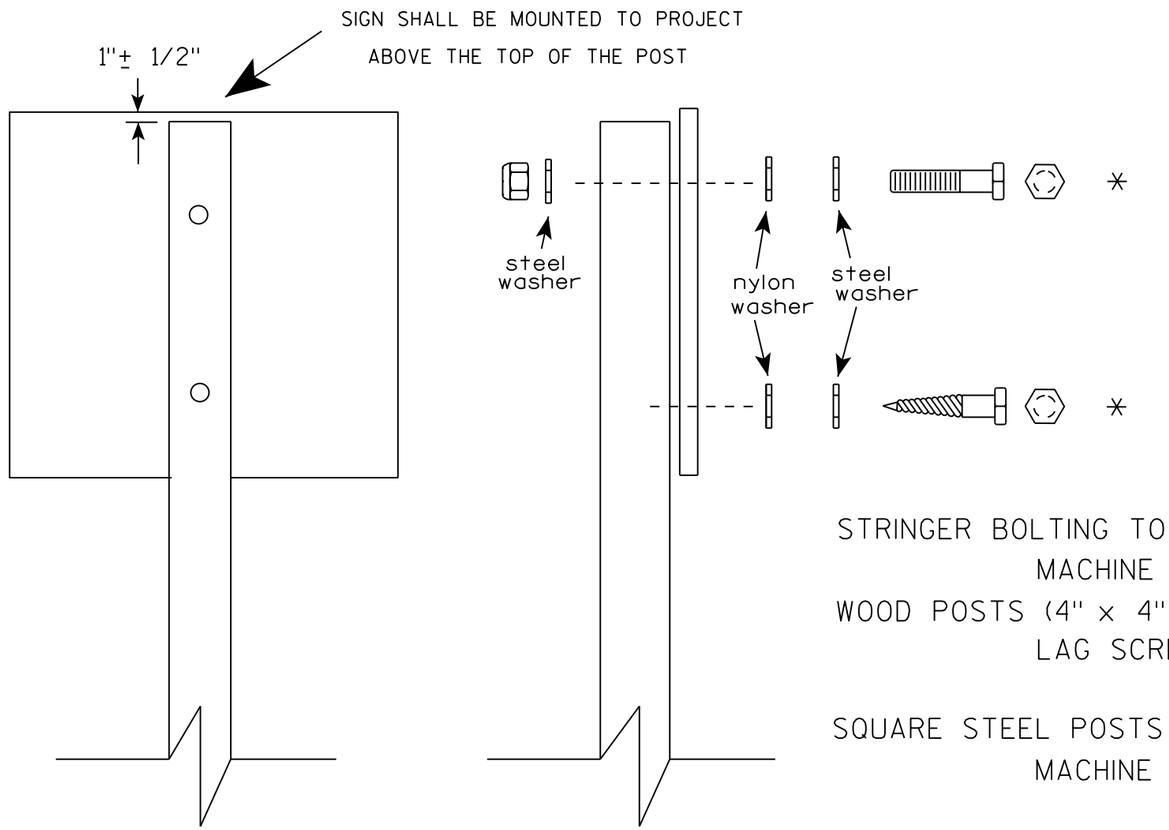
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R 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.

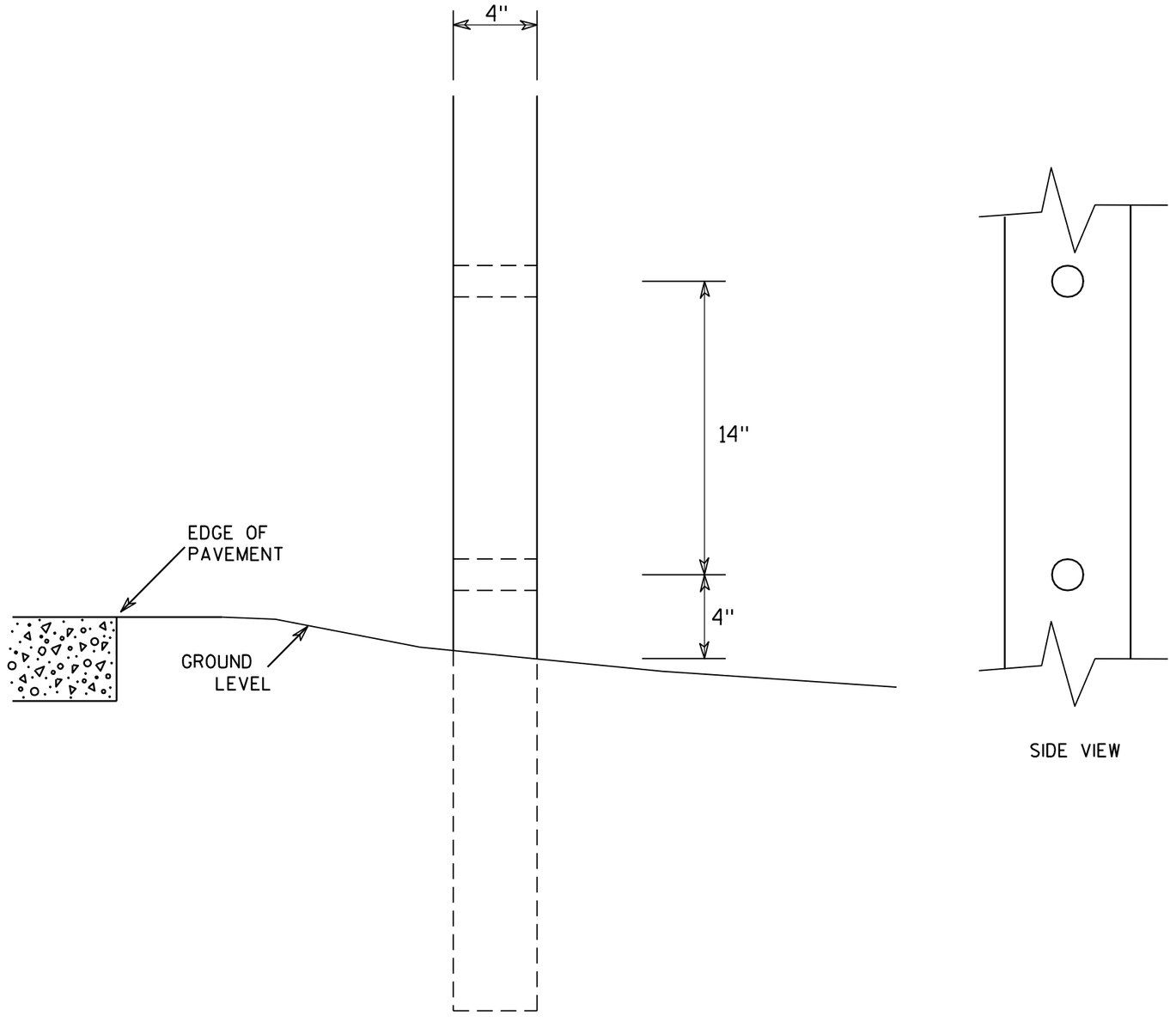
ATTACHMENT OF SIGNS TO POSTS

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.

7

7

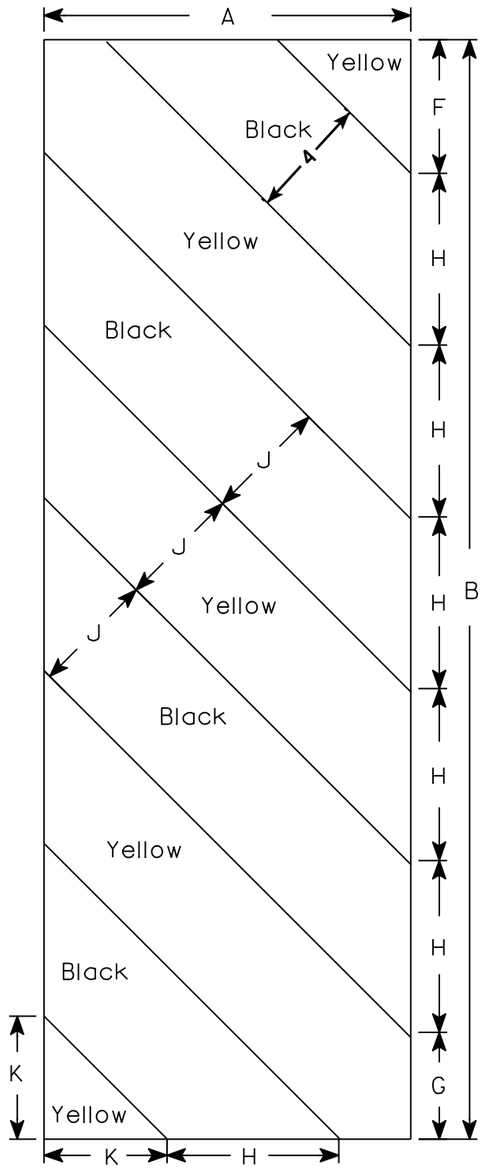
4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

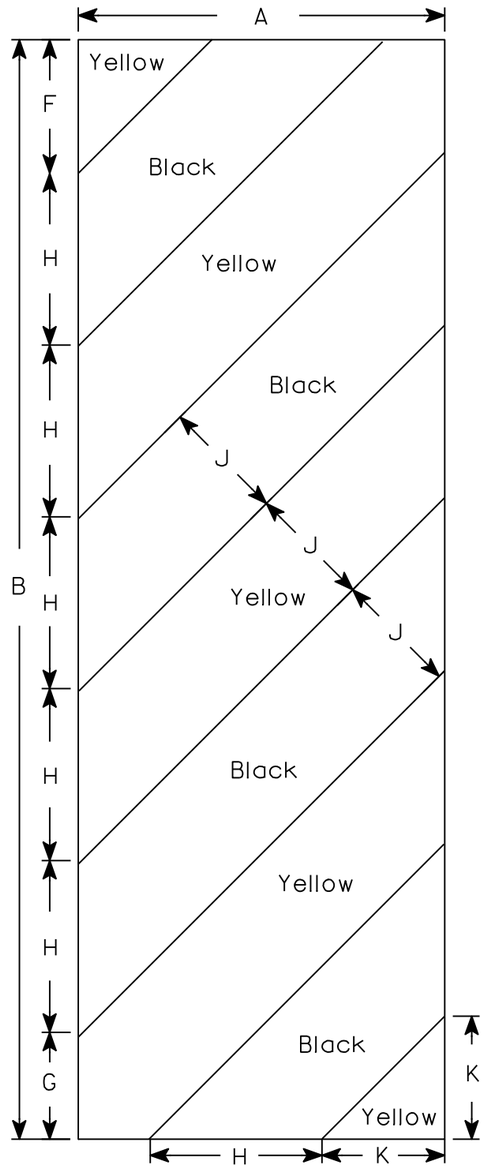
APPROVED Chester J Spang
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 21	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: 22	E

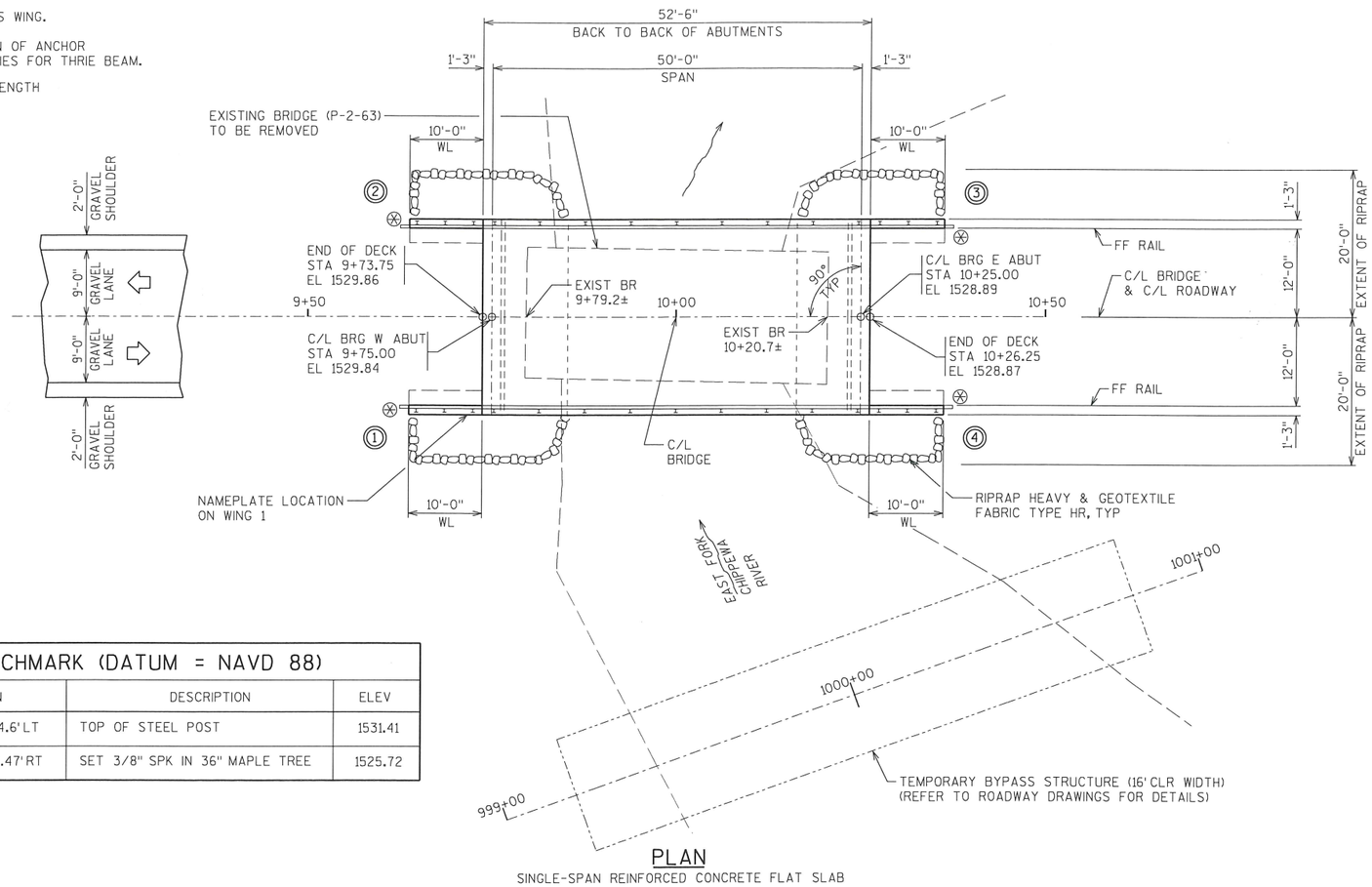
PLOT TIME: 7:03:11 AM
PLOT DATE: 4/20/2017
FILE NAME : S:\AE\A\ASHLH\135193\5-final-dsgn\5i-drawings\20-Struct\bridge\b020666gl.dgn

STATE PROJECT NUMBER
9956-00-70

◎ INDICATES WING.

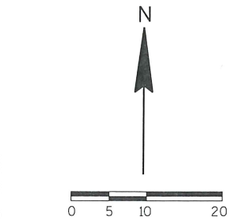
⊛ LOCATION OF ANCHOR ASSEMBLIES FOR THRIE BEAM.

WL = WING LENGTH

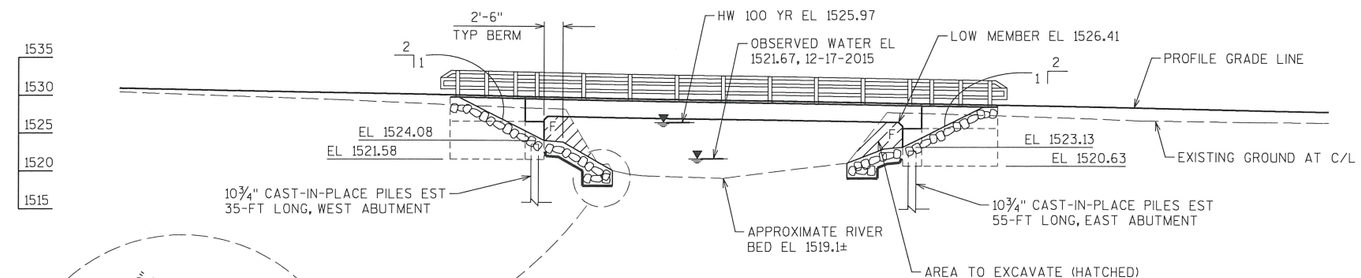


PLAN

SINGLE-SPAN REINFORCED CONCRETE FLAT SLAB

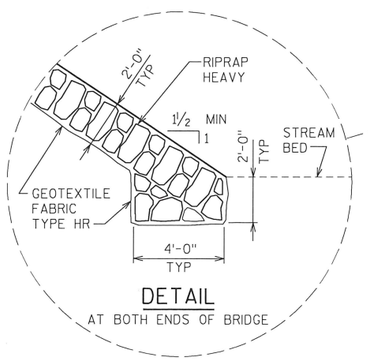


BENCHMARK (DATUM = NAVD 88)			
NO	STATION	DESCRIPTION	ELEV
1	8+94.95 44.6'LT	TOP OF STEEL POST	1531.41
2	10+78.71 19.47'RT	SET 3/8" SPK IN 36" MAPLE TREE	1525.72



ELEVATION

LOOKING NORTH



DETAIL

AT BOTH ENDS OF BRIDGE

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HL-93
INVENTORY RATING FACTOR: RF = 1.07
OPERATING RATING FACTOR: RF = 1.38
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) = 250 KIPS

STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20 PSF

INVENTORY AND OPERATING RATINGS DO NOT INCLUDE FUTURE WEARING SURFACE.

MATERIAL PROPERTIES:

CONCRETE MASONRY - SUPERSTRUCTURE	f'c = 4,000 psi
- ALL OTHER	f'c = 3,500 psi
HIGH STRENGTH BAR STEEL REINFORCEMENT AASHTO GRADE 60	fy = 60,000 psi

FOUNDATION DATA

WEST ABUTMENT TO BE SUPPORTED ON 10¾" CIP PILES, (0.25" SHELL THICKNESS) WITH A REQUIRED DRIVING RESISTANCE OF 120 TONS* PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC EQUATION. ESTIMATED 35-LONG.

EAST ABUTMENT TO BE SUPPORTED ON 10¾" CIP PILES, (0.25" SHELL THICKNESS) WITH A REQUIRED DRIVING RESISTANCE OF 120 TONS* PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC EQUATION. ESTIMATED 55-LONG.

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

HYDRAULIC DATA

100 YEAR FREQUENCY

Q_{100}	1600	CFS
Q_{100} OVER ROAD	731	CFS
Q_{100} THRU STRUCTURE	869	CFS
VELOCITY	3.64	FPS
HIGH WATER EL	1525.97	FT
WATERWAY AREA	239	SQ FT
DRAINAGE AREA	55.1	SQ MI
SCOUR CODE	8	

ROADWAY OVERFLOW DESIGN FREQUENCY

YEARS	13	
Q	1025	CFS
ELEVATION	1525.03	FT

2 YEAR FREQUENCY

Q_2	514	CFS
HIGH WATER EL	1523.30	FT

TEMPORARY STRUCTURE

Q_5	811	CFS
HIGH WATER EL	1524.42	FT

TRAFFIC DATA

ADT (2018)	=	50
ADT (2038)	=	70
DHV	=	7
DD	=	50/50
T	=	10 %
DESIGN SPEED	=	30 MPH

LIST OF DRAWINGS

WISCONSIN
CHRISTOPHER J. BLUM
E-33157
MADISON
WI
PROFESSIONAL ENGINEER

4.20.17

SEH CONTACT: CHRIS BLUM, PE, 608.620.6192
WISDOT BRIDGE OFFICE CONTACT: BILL DREHER, PE, 608.266.8489

NO.	DATE	REVISION	BY

SEH
SHORT ELLIOTT HENDRICKSON INC.

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher SDR 05/12/17
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-2-66

SINKHOLE ROAD OVER E. FORK CHIPPEWA RIVER

COUNTY ASHLAND	TOWN ~~CITY/VILLAGE~~ PEEKSVILLE
DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS	
DESIGNED BY CJB / DESIGN CK'D. NCK	DRAWN BY DLF / PLANS CK'D. CJB

GENERAL PLAN

SHEET 23 OF 7

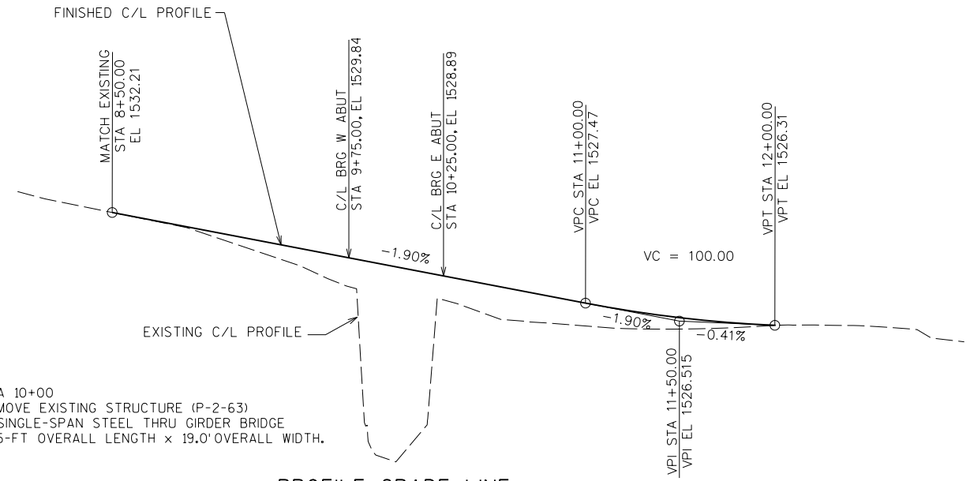
8

8

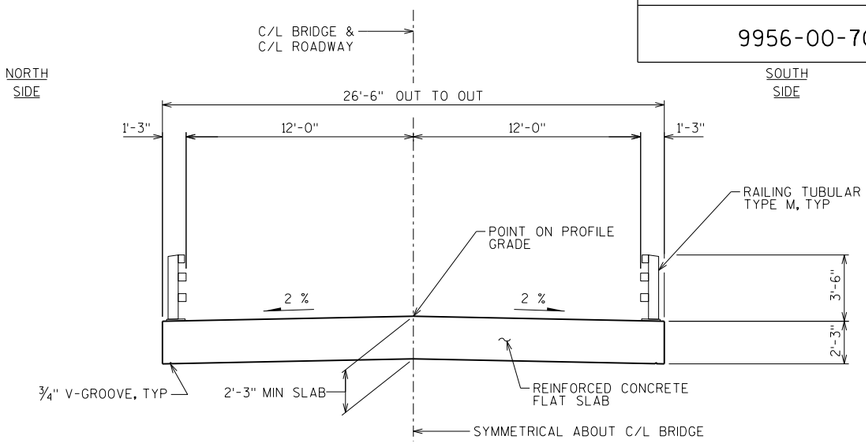
PLOT DATE: 4/20/2017 PLOT TIME: 7:03:12 AM
FILE NAME : S:\AE\A1\ASHLH\135193\5-final-dsgn\5i-drawings\20-Struct\bridge\b02066g2.dgn

STATE PROJECT NUMBER

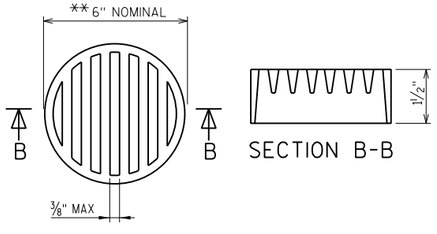
9956-00-70



PROFILE GRADE LINE



CROSS SECTION THRU BRIDGE
(LOOKING EAST)



RODENT SHEILD

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

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 SIMLAR 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.

TOTAL ESTIMATED QUANTITIES - B-2-66

	BID ITEM NUMBER	BID ITEMS	UNIT	WEST ABUT	EAST ABUT	SUPER	TOTALS
	203.0600.S	REMOVING OLD STRUCTURE OVER WATERWAY WITH MINIMAL DEBRIS (STATION) 10+00	LS	-	-	-	1
	206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-2-66	LS	-	-	-	1
(1)	210.1500	BACKFILL STRUCTURE TYPE A	TON	145	145	-	290
	502.0100	CONCRETE MASONRY BRIDGES	CY	28	28	120	176
	502.3200	PROTECTIVE SURFACE TREATMENT	SY	-	-	215	215
	505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	1,675	1,675	-	3,350
	505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	1,400	1,400	23,260	26,060
	506.0105	STRUCTURAL STEEL CARBON	LB	-	-	475	475
	513.4061	RAILING TUBULAR TYPE M B-2-66	LF	-	-	150	150
	516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	9	9	-	18
	550.2104	PILING CIP CONCRETE 10 3/4 X 0.25-INCH	LF	210	330	-	540
	606.0300	RIPRAP HEAVY	CY	60	55	-	115
(2)	612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	100	100	-	200
	645.0111	GEOTEXTILE TYPE DF SCHEDULE A	SY	35	35	-	70
	645.0120	GEOTEXTILE TYPE HR	SY	125	115	-	240
		NON-BID ITEMS					
		FILLER	SIZE	———	———	———	1/2 & 3/4

(1) A FACTOR OF 2.0 WAS USED TO CONVERT CU YDS TO TONS.

(2) INCLUDES RODENT SHIELD FOR PIPE UNDERDRAIN PER SDD 8F6-4.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

FOR EXISTING STRUCTURE SEE PROFILE GRADE LINE THIS SHEET.

REFER TO ROADWAY DRAWINGS FOR EXISTING UTILITY LOCATIONS.

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

THE FIRST DIGIT OF A THREE DIGIT BAR MARK OR THE FIRST TWO DIGITS OF A FOUR DIGIT BAR MARK SIGNIFIES THE BAR SIZE.

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

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

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

SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-ASPHALTIC JOINT SEALER (1" DEEP & HOLD 1/8" BELOW SURFACE OF CONCRETE).

THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES BRIDGES B-2-66 SHALL BE THE EXISTING GROUNDLINE.

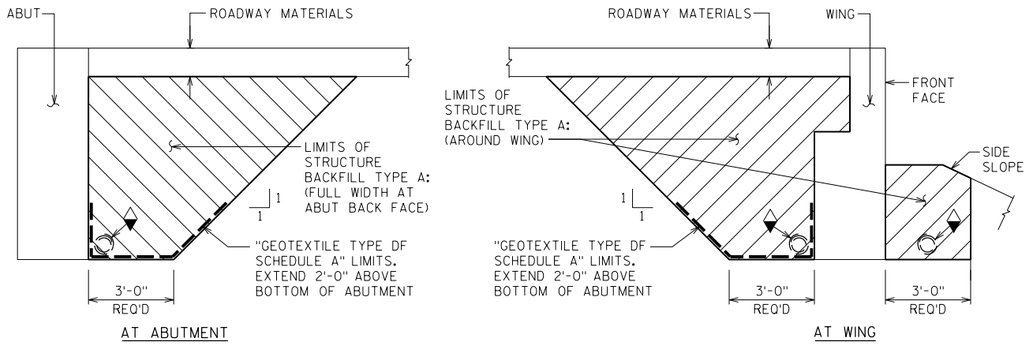
EXCAVATION BELOW THE ABUTMENTS AND ABUTMENTS BEDDING MATERIALS REQUIRES ENGINEER APPROVAL. GEOTEXTILE SHALL BE SET AT THE BOTTOM OF EXCAVATION AND EXTEND 2'-0" ABOVE BOTTOM OF ABUTMENT

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

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

JOINT FILLER SHALL CONFORM TO THE REQUIREMENTS OF AASHTO DESIGNATION M153 TYPE 1, 2, OR 3 OR AASHTO DESIGNATION M213.

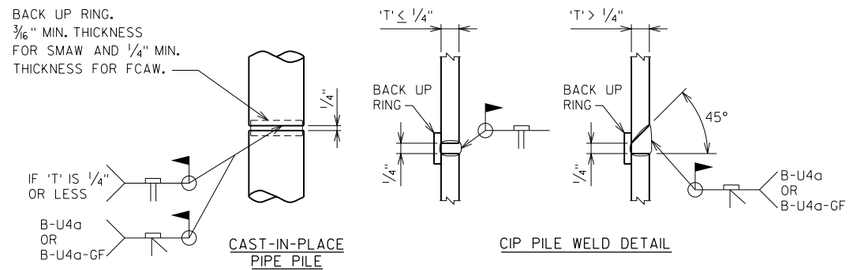
APPLY A "PROTECTIVE SURFACE TREATMENT" PER THE STANDARD SPECIFICATIONS AND THE SUPERSTRUCTURE DETAILS SHEET.



BACKFILL STRUCTURE LIMITS

A FACTOR OF 2.0 WAS USED TO CONVERT CU YDS TO TONS

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



CAST-IN-PLACE PIPE PILE

CIP PILE WELD DETAIL

PILE SPLICE DETAIL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-2-66

DRAWN BY DLF | PLANS CK'D. CJB

CROSS SECTION AND QUANTITIES

SHEET 2 OF 7

24

8

8

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
B-1	5/8/2016	-	-
B-2	5/9/2016	-	-
BORINGS COMPLETED BY:		AMERICAN ENGINEERING TESTING, INC	
REPORT COMPLETED BY:		AMERICAN ENGINEERING TESTING, INC	

SOIL BORINGS PERFORMED BY:

AMERICAN ENGINEERING TESTING, INC.
4203 SCHOFIELD AVENUE
SCHOFIELD, WI 54476
PH: (715) 359-3534 FAX: (715) 359-4032
www.amengtest.com

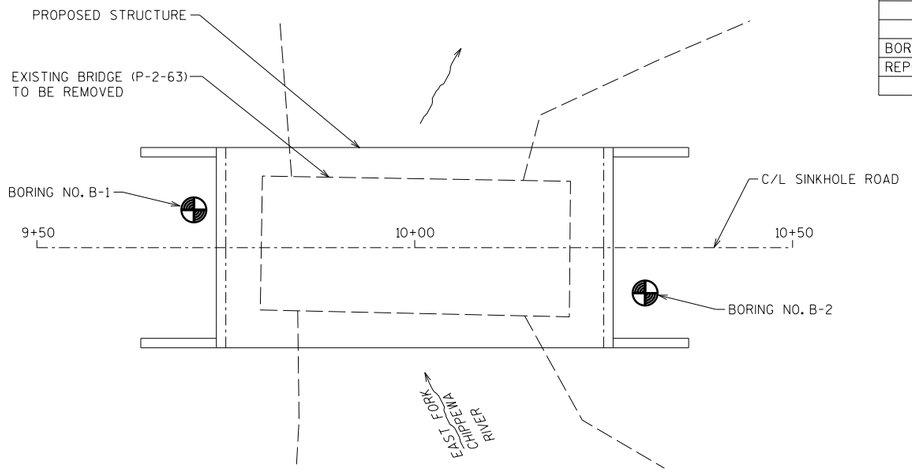
REPORT BY:
BENJAMIN B MATTSON, P.E.
GEOTECHNICAL ENGINEER

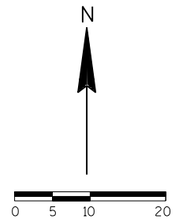
STATE PROJECT NUMBER

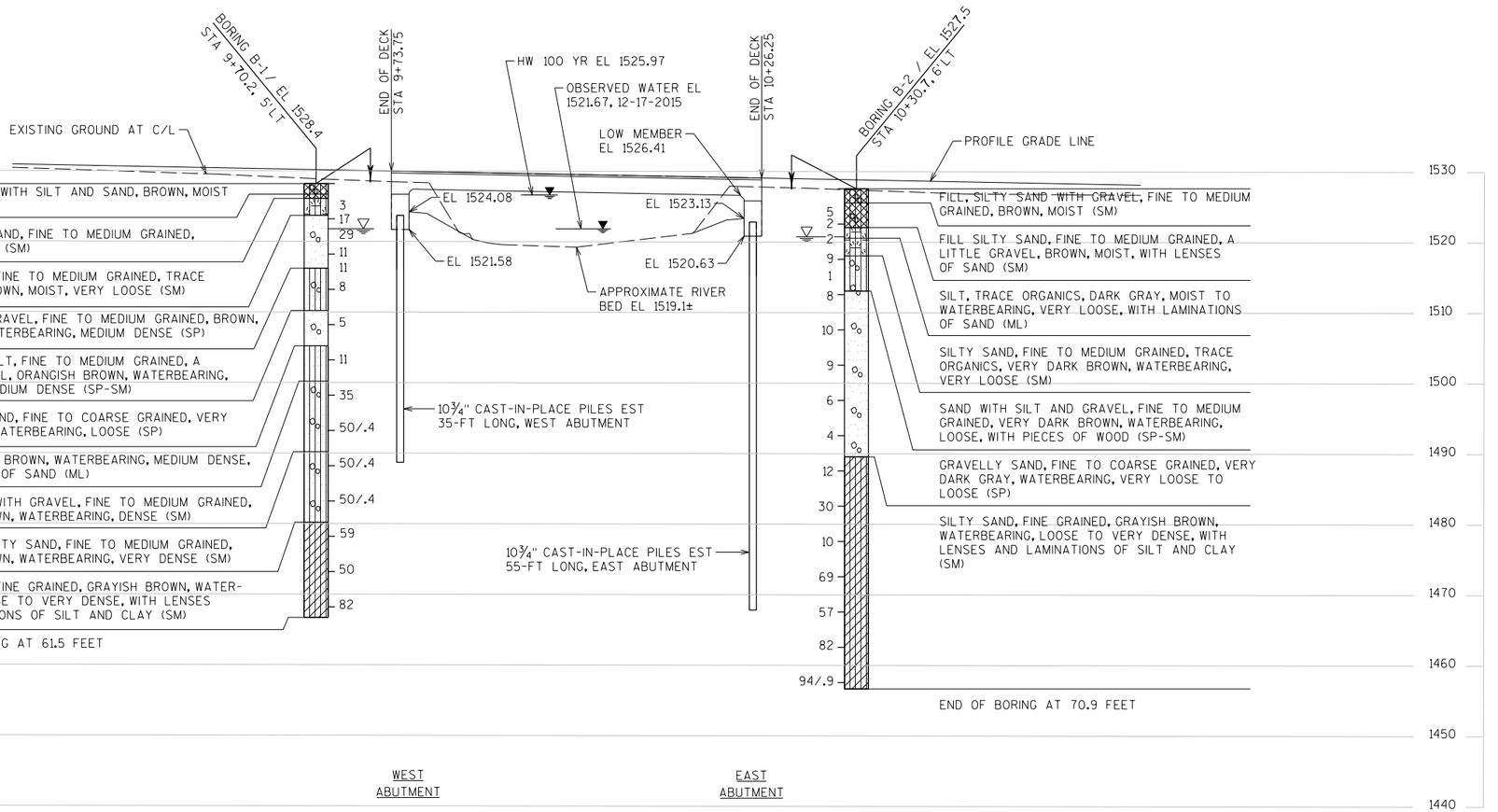
9956-00-70

MATERIAL SYMBOLS

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

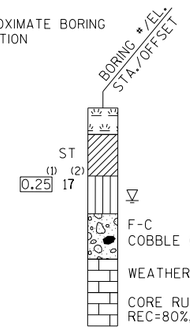






LEGEND OF BORING

= APPROXIMATE BORING LOCATION



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

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

GROUND WATER ELEVATION

- AT TIME OF DRILLING
- END OF DRILLING
- AFTER DRILLING

ABBREVIATIONS

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

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

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

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-2-66

DRAWN BY DLF | PLANS CK'D. CJB

SUBSURFACE EXPLORATION

SHEET 3 OF 7

25

8

8

PLOT DATE: 4/20/2017 PLOT TIME: 7:03:12 AM

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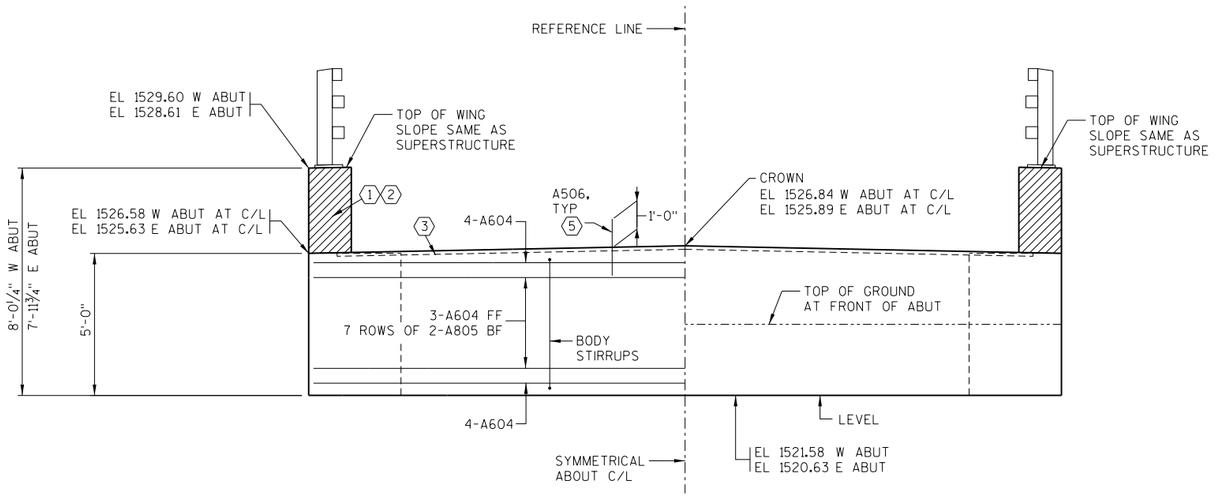
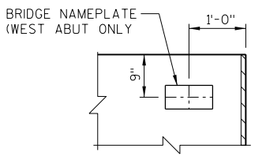
STATE PROJECT NUMBER

9956-00-70



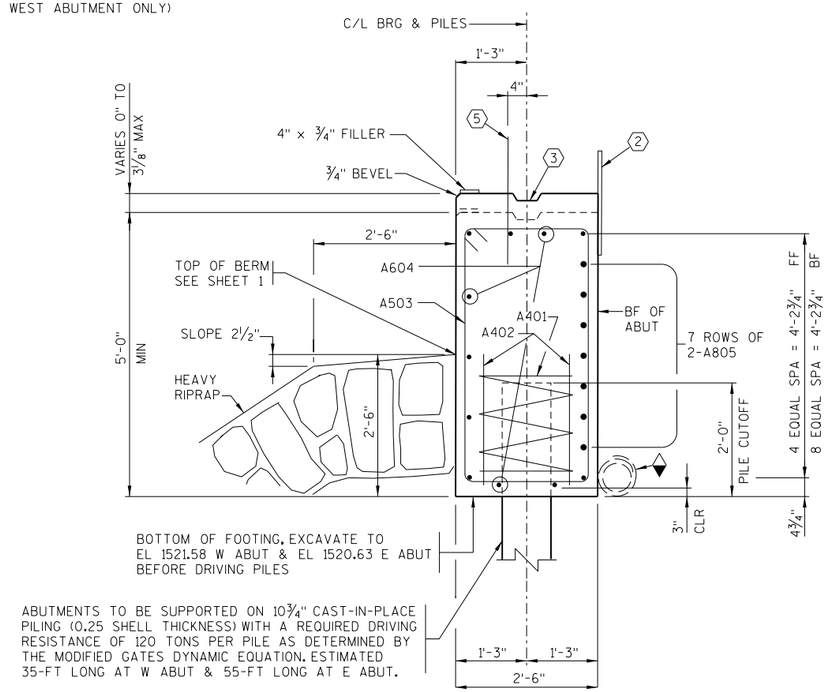
FRONT ELEVATION

(PILES NOT SHOWN FOR CLARITY)



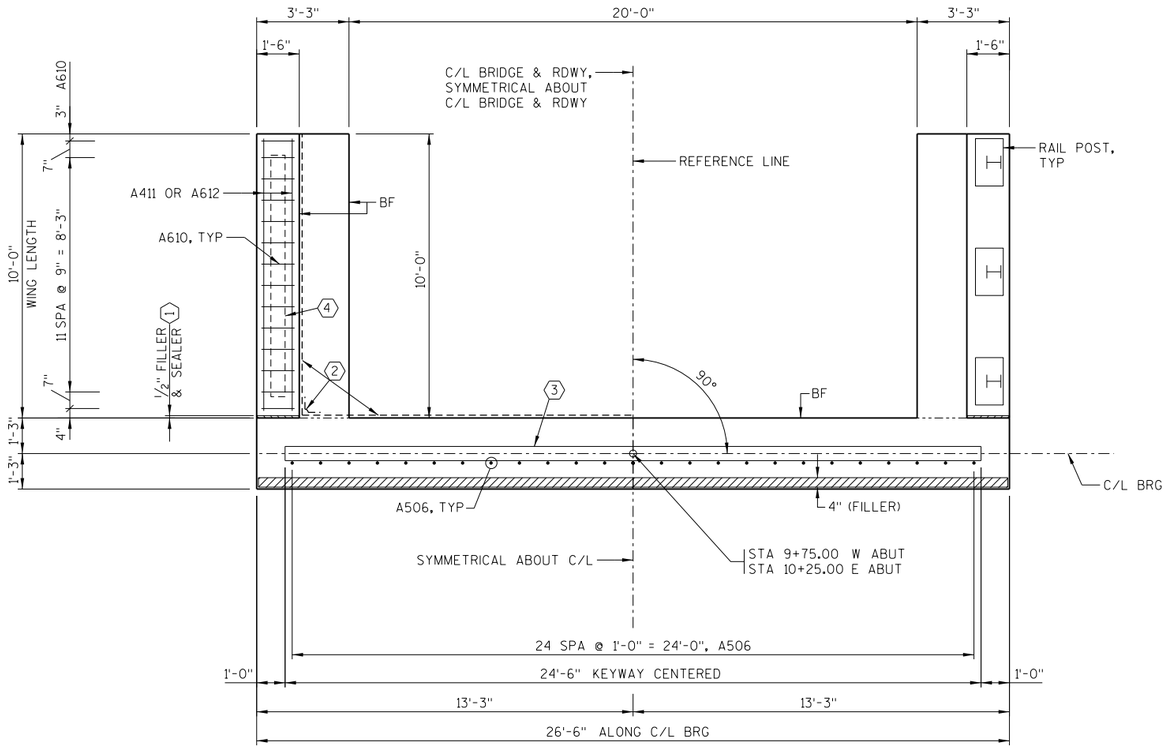
NAMEPLATE LOCATION DETAIL

(ON WING 1 WEST ABUTMENT ONLY)



TYPICAL SECTION THRU BODY

ALL HORIZ BARS TO BE A604 UNLESS OTHERWISE SHOWN OF NOTED



PLAN

ABUTMENT NOTES

1. SEAL ALL EXPOSED HORIZ. AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-ASPHALTIC JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE). FILLER INCLUDED IN WING LENGTH.
2. 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZ & VERT JOINTS ON BACKFACE. VERTICAL WATERPROOFING TO EXTEND FROM BRIDGE SEAT TO TOP OF WING.
3. KEYED CONSTRUCTION JOINT FORMED BY A BEVELED 2" X 6".
4. OPTIONAL KEYED CONSTRUCTION JOINT FORMED BY A BEVELED 2" X 6" WITH MEMBRANE ON BACKFACE.
5. A506 BARS MAY BE PLACED AFTER CONC HAS BEEN POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE.
- PIPE UNDERDRAIN WRAPPED (6-INCH) SLOPE 0.5% MIN TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT END OF PIPE.
- ATTACH RODENT SHIELD AT END OF PIPE UNDERDRAIN, FOR RODENT SHIELD DETAIL SEE SHEET 2.

W ABUT = WEST ABUTMENT
E ABUT = EAST ABUTMENT

FF = FRONT FACE
BF = BACK FACE
EF = EACH FACE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-2-66

DRAWN BY DLF | PLANS CK'D. CJB

WEST AND EAST ABUTMENT DETAILS

SHEET 4 OF 7

26

8

8

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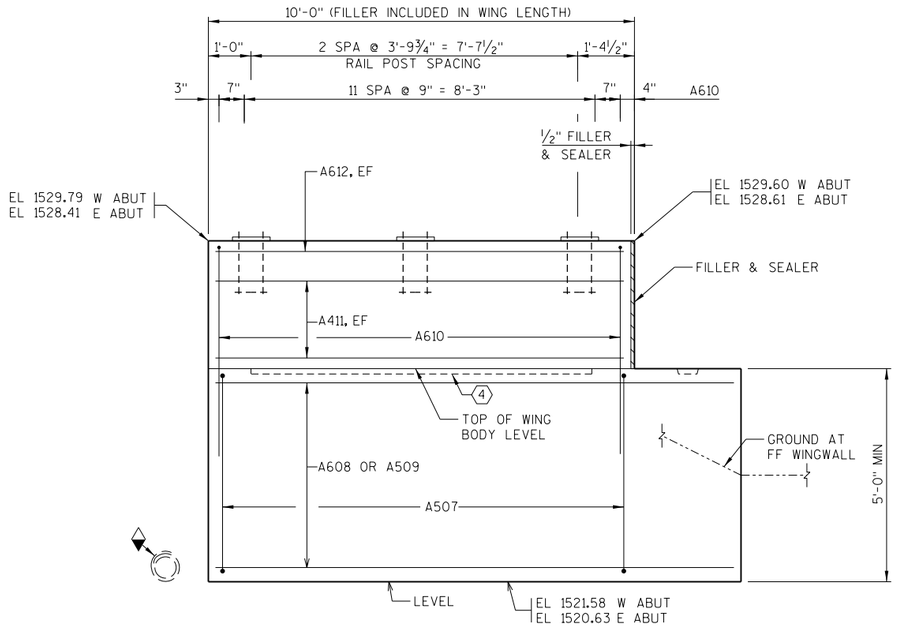
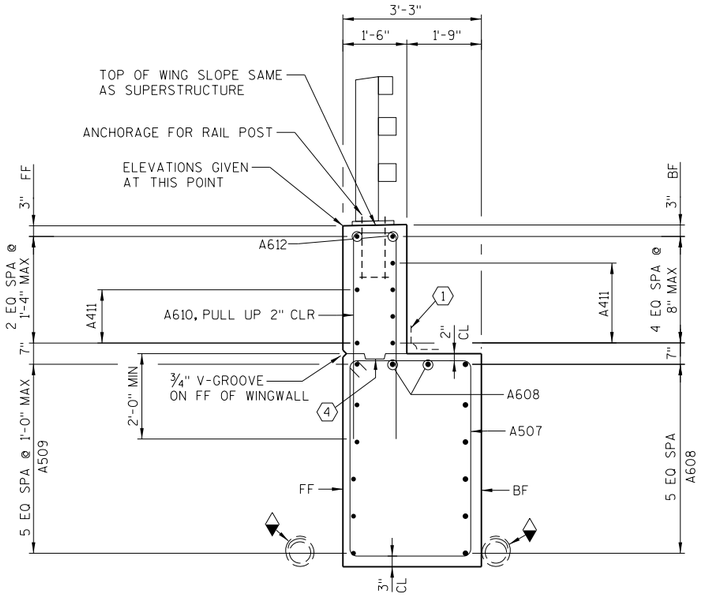
STATE PROJECT NUMBER
9956-00-70



TYP WING ELEVATION



TYP SECTION THRU WINGWALLS

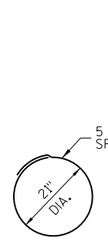
NOTE: THE FIRST DIGIT OF THE BAR MARK SIGNIFIES THE ENGLISH BAR DIAMETER SIZE.

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT.

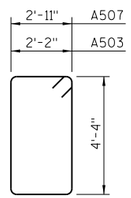
* NO. REQ'D. IS FOR 2 ABUTMENTS. DIVIDE BY 2 FOR EACH ABUTMENT.

BILL OF BARS — BOTH ABUTMENTS

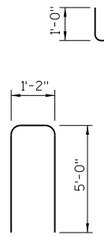
BAR MARK	COAT	NO. * REQ'D.	LENGTH (FT-IN)	BAR SERIES	BENT	LOCATION
A401		12	28 - 0		X	BODY AT PILES
A402		24	2 - 3			BODY AT PILES
A503		70	13 - 7		X	BODY STIRRUPS
A604		22	26 - 2			BODY HORIZ
A805		28	16 - 5		X	BODY HORIZ BF
A506	X	50	2 - 0			BODY DOWELS
A507	X	40	15 - 1		X	WING STIRRUPS
A608	X	32	12 - 2			WING HORIZ BF
A509	X	24	12 - 2			WING HORIZ FF
A610	X	56	10 - 10		X	WING VERT
A411	X	24	9 - 7			WING HORIZ EF
A612	X	8	9 - 7			WING HORIZ EF TOP
			-			



A401

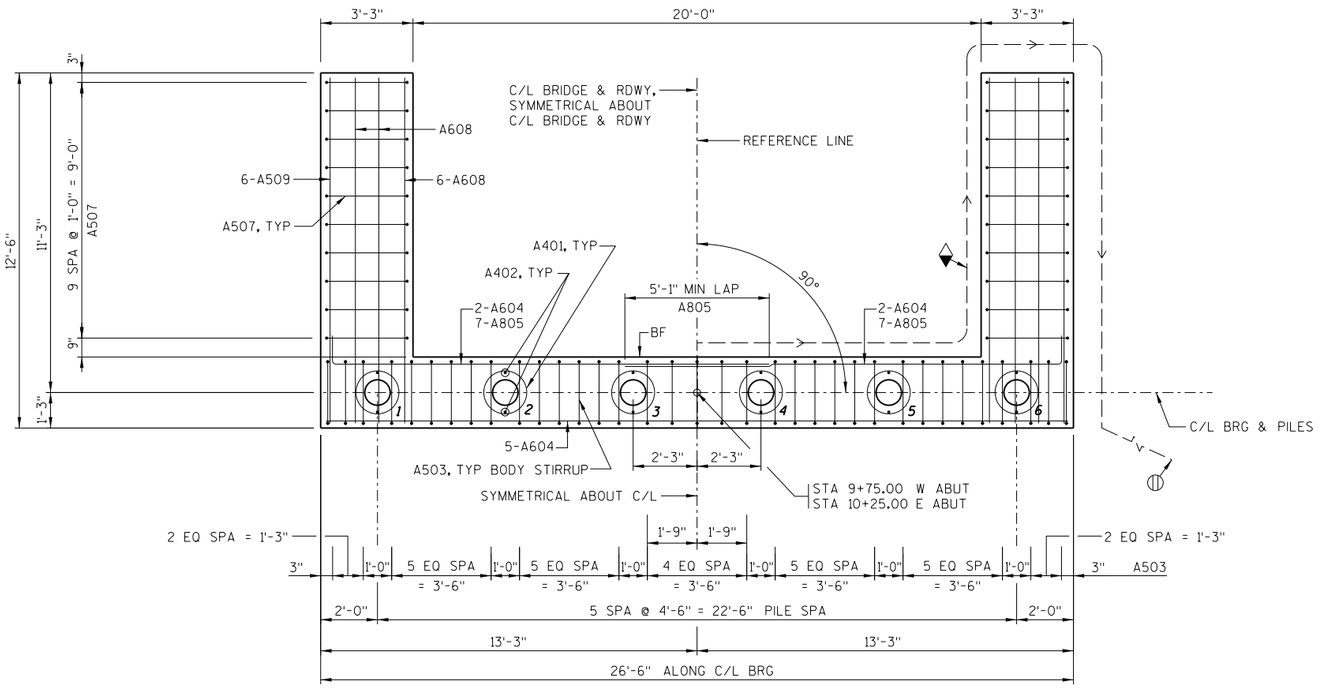


A503, A507



A610

A805



FOOTING LAYOUT

ABUTMENT NOTES

SEE ABUTMENT NOTES ON SHEET 4 (1 4 ◆ ◍).

W ABUT = WEST ABUTMENT
E ABUT = EAST ABUTMENT

FF = FRONT FACE
BF = BACK FACE
EF = EACH FACE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-2-66

DRAWN BY DLF | PLANS CK'D. CJB

WEST AND EAST ABUTMENT DETAILS

SHEET 5 OF 7
27

8

8

PLOT TIME: 7:03:13 AM
PLOT DATE: 4/20/2017
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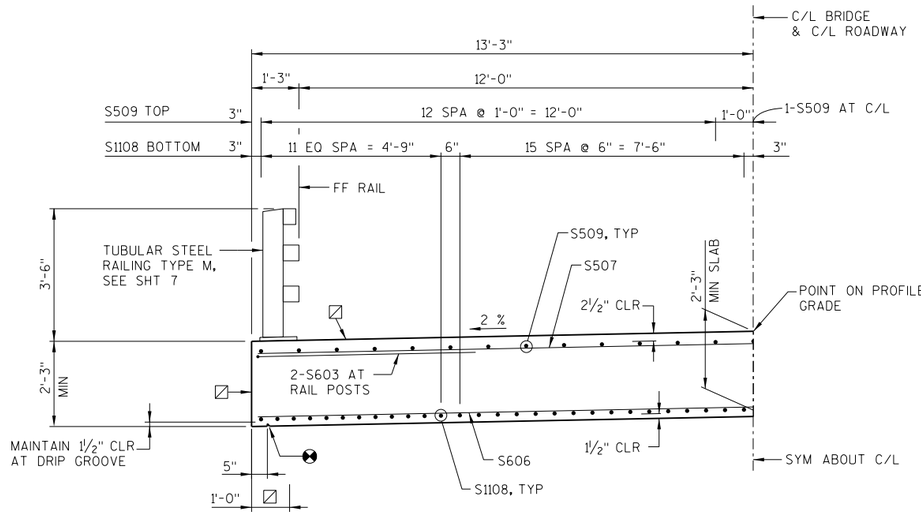
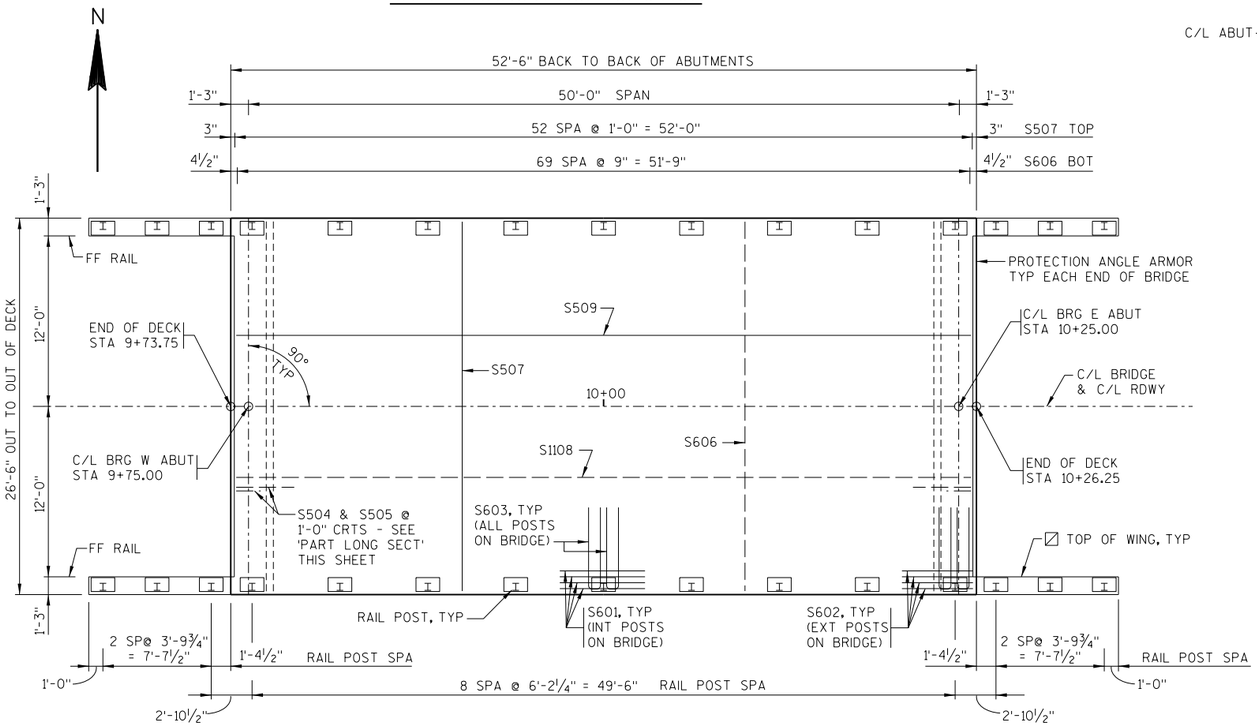


HALF TRANSVERSE SECTION



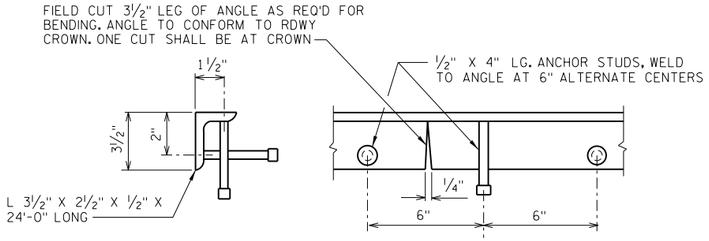
DECK PLAN

——— INDICATES TOP BAR STEEL REINFORCEMENT

— — — — INDICATES BOTTOM BAR STEEL REINFORCEMENT

FINAL TOP OF DECK ELEVATIONS

	WEST ABUT	.1	.2	.3	.4	.5	.6	.7	.8	.9	EAST ABUT
NORTH EDGE OF DECK	1529.58	1529.48	1529.39	1529.29	1529.20	1529.10	1529.01	1528.91	1528.82	1528.72	1528.63
C/L	1529.84	1529.75	1529.65	1529.56	1529.46	1529.37	1529.27	1529.18	1529.08	1528.99	1528.89
SOUTH EDGE OF DECK	1529.58	1529.48	1529.39	1529.29	1529.20	1529.10	1529.01	1528.91	1528.82	1528.72	1528.63



PROTECTION ANGLE ARMOR

(PAYMENT BASED ON 9.9 LBS/FT)

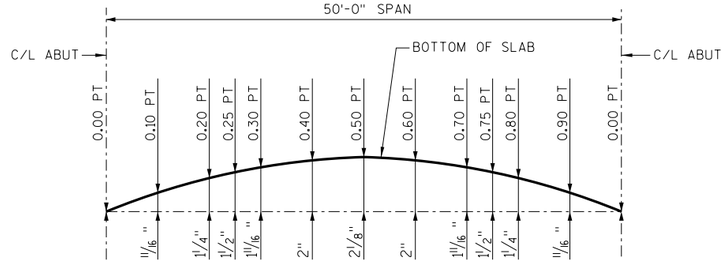
PROTECTION ANGLE ARMOR NOTES:

ONE FIELD SPLICE SHALL BE PERMITTED IN ANGLES OVER 34'-0" IN LENGTH.

ANGLE AND STUDS TO BE PAID FOR AT THE UNIT PRICE BID FOR "STRUCTURAL CARBON STEEL". NO PAINTING REQUIRED.

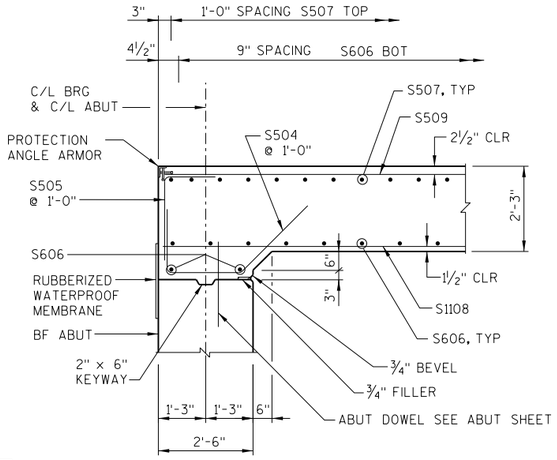
SANDBLAST PROTECTION ANGLE AFTER FABRICATION IN ACCORDANCE WITH SSPC SP. #6 "COMMERCIAL BLAST CLEANING". AFTER BLAST CLEANING, THE PROTECTION ANGLE SHALL BE HOT DIPPED GALVANIZED.

ALL MATERIALS USED IN FABRICATION SHALL BE MADE FROM MATERIALS CONFORMING TO ASTM DESIGNATION A709 GRADE 36.



CAMBER DIAGRAM

CAMBER SPAN AS SHOWN TO PROVIDE FOR DEAD LOAD DEFLECTION & FUTURE CREEP. CAMBER DOES NOT INCLUDE VERTICAL ROADWAY PROFILE OR ALLOWANCE FOR FORM SETTLEMENT. DEAD LOAD DEFLECTION ONLY EQUALS APPROXIMATELY 1/3 OF CAMBER VALUES SHOWN.



AT ABUTMENTS

PARTIAL LONGITUDINAL SECTION

STATE PROJECT NUMBER

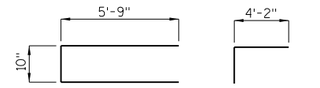
9956-00-70

NOTE: THE FIRST ONE OR TWO DIGITS OF THE BAR MARK SIGNIFIES THE ENGLISH BAR DIAMETER SIZE.

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT.

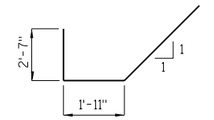
BILL OF BARS — SUPERSTRUCTURE

BAR MARK	COAT	NO. REQ'D.	LENGTH (FT-IN)	BAR SERIES	BENT	LOCATION
S601	X	56	6 - 0			RAIL POST
S602	X	16	6 - 0		X	RAIL POST
S603	X	36	12 - 0		X	RAIL POST
S504	X	54	7 - 0		X	END OF DECK
S505	X	54	3 - 11		X	END OF DECK
S606	X	74	26 - 2			BOT TRANS
S507	X	53	26 - 2			TOP TRANS
S1108	X	56	52 - 2			BOT LONG
S509	X	27	52 - 2			TOP LONG

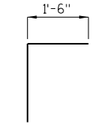


S603

S602



S504



S505

SUPERSTRUCTURE NOTES:

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

PRIOR TO RELEASING SLAB FLASEWORK, TAKE TOP OF SLAB ELEVATIONS AT C/L ABUTMENTS AND 5/10 POINTS TO VERIFY CAMBER. TAKE ELEVATIONS ALONG EDGE LINE AND CROWN OR C/L.

TRANSVERSE BARS SHALL BE PLACED PLACED PARALLEL TO THE C/L OF SUBSTRUCTURE UNITS.

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 ON CONTINUOUS BAR CHAIRS APPROXIMATELY 4'-0" CENTERS.

◐ ¾" V-GROOVE, EXTEND V-GROOVE TO 6" FROM FRONT FACE OF ABUTMENT DIAPHRAGM.

☑ COAT WITH "PROTECTIVE SURFACE TREATMENT" PER THE STANDARD SPECIFICATIONS. PROTECTIVE SURFACE TREATMENT TO BE APPLIED TO THE TOP AND EXTERIOR EXPOSED FACE OF WINGS, AND THE END 1'-0" OF THE FRONT FACE OF ABUTMENT.

FF = FRONT FACE
BF = BACK FACE
EF = EACH FACE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-2-66

DRAWN BY DLF | PLANS CK'D. CJB

SUPERSTRUCTURE DETAILS

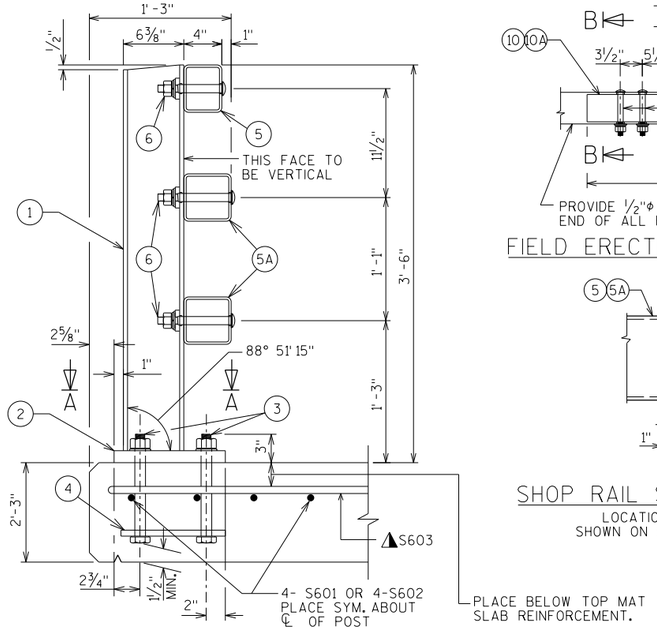
SHEET 6 OF 7

28

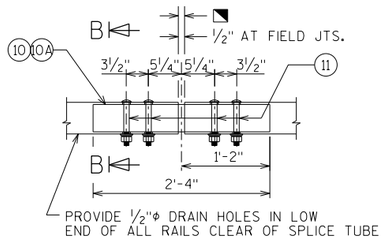
8

PLOT DATE: 4/20/2017 PLOT TIME: 7:03:13 AM
FILE NAME : S:\AE\ASHLH\135931\5-final-dsgn\5i-drawings\20-Struct\bridge\b02066ml.dgn

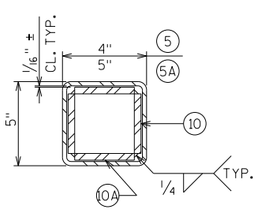
STATE PROJECT NUMBER
9956-00-70



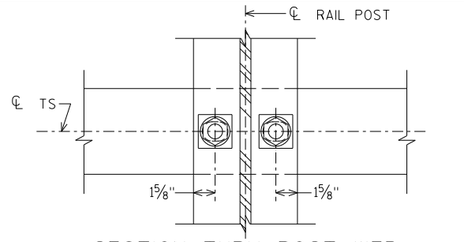
SECTION THRU RAILING ON SLAB



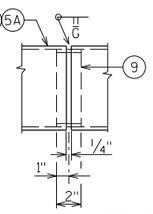
FIELD ERECTION JOINT DETAIL



SECTION B-B

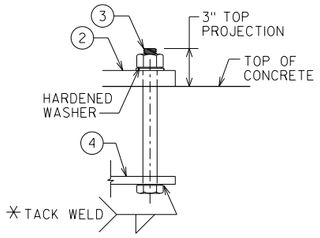


SECTION THRU POST WEB

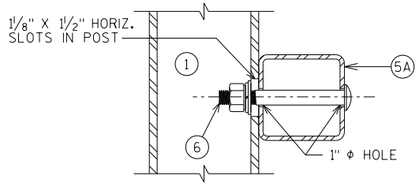


SHOP RAIL SPLICE DETAIL

LOCATION MUST BE SHOWN ON SHOP DRAWINGS



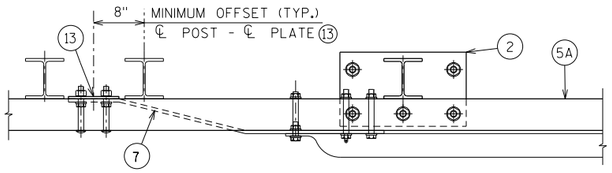
ANCHOR BOLTS



SECTION THRU RAIL

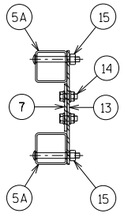
NOTE: CONNECTIONS AT LOWER RAILS SHOWN. CONNECTIONS AT TOP RAIL SIMILAR.

TYPICAL RAIL TO POST CONNECTIONS

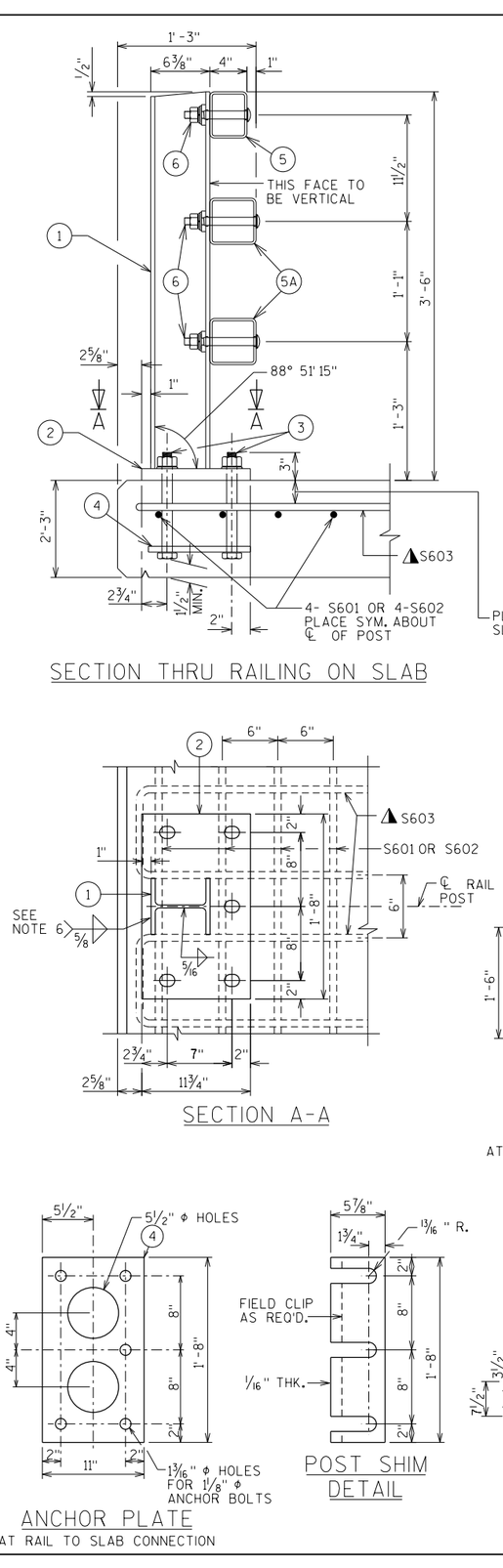


TOP VIEW AT END POST

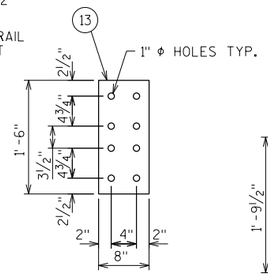
THRIE BEAM RAIL ATTACHMENT



SECTION C-C

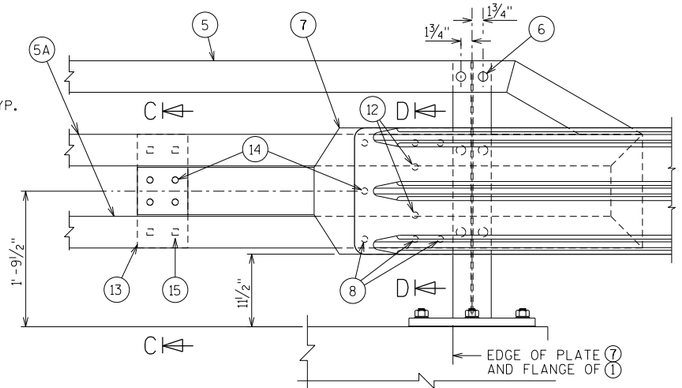


SECTION A-A



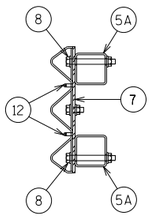
ANCHOR PLATE

AT BEAM GUARD ATTACHMENT



DETAIL AT END POST

THRIE BEAM RAIL ATTACHMENT

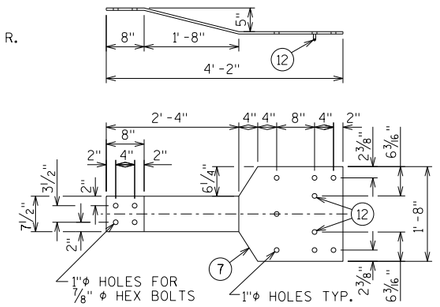


SECTION D-D

ANCHOR PLATE

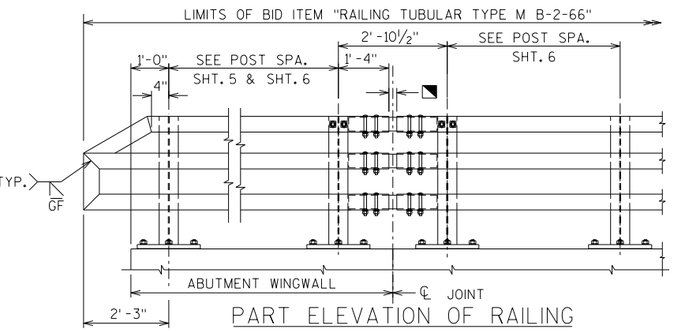
AT RAIL TO SLAB CONNECTION

POST SHIM DETAIL



BACK-UP PLATE DETAIL

AT BEAM GUARD ATTACHMENT



PART ELEVATION OF RAILING

LEGEND

(1) W6 x 25 WITH 1 1/8" X 1 1/2" HORIZ. SLOTS ON EACH SIDE OF POST FOR BOLT NO. 6. CUT BOTTOM OF POST TO MATCH CROSS SLOPE OF ROADWAY. PLACE POST VERTICAL. PLACE POSTS NORMAL TO GRADE LINE.

(2) PLATE 1 1/4" x 11 3/4" x 1'-8" WITH 1 5/16" X 1 5/8" SLOTTED HOLES FOR ANCHOR BOLTS NO. 3. WELD TO NO. 1 AS SHOWN. SLOTS PARALLEL TO SHORT SIDE OF PLATE.

(3) ASTM A449 - 1 1/8" DIA. ANCHOR BOLTS WITH NUT AND HARDENED WASHER (ALL GALVANIZED). 5 REQ'D. PER POST. THREAD 3" AND PLACE NORMAL TO PLATE NO. 2. CHAMFER TOP OF BOLTS BEFORE THREADING. USE 1'-9" LONG IN ABUTMENT WINGS. AT POSTS ON CONCRETE SLAB SUPERSTRUCTURES WHERE THE SLAB THICKNESS IS > 16" USE 1'-3" LONG. USE 10 3/4" LONG AT ALL OTHER LOCATIONS. (AN EQUIVALENT THREADED ROD WITH NUTS AND HARDENED WASHERS MAY BE SUBSTITUTED FOR ANCHOR BOLTS IN WINGS IF REQ'D. FOR CONSTRUCTIBILITY.)

(4) 5/8" x 11" x 1'-8" ANCHOR PLATE (GALVANIZED) WITH 1 3/16" DIA. HOLES FOR ANCHOR BOLTS NO. 3

(5) TS 5 x 4 x 0.25 STRUCTURAL TUBING. ATTACH TO NO. 1 WITH NO. 6.

(5A) TS 5 x 5 x 0.25 STRUCTURAL TUBING. ATTACH TO NO. 1 WITH NO. 6.

(6) 7/8" DIA. A325 SLOTTED ROUND HEAD BOLT WITH NUT, 3/16" X 1 5/8" X 1 5/8" WASHER, AND LOCK WASHER (2 REQ'D. AT EACH RAIL TO POST LOCATION.)

(7) 1/2" THK. BACK-UP PLATE WITH 2 - 7/8" X 1 1/2" THREADED SHOP WELDED STUDS (NO. 12). BOLT TO RAIL AS SHOWN IN DETAIL. REQUIRED AT THRIE BEAM GUARD RAIL ATTACHMENTS ONLY. PLACE SYMMETRICALLY ABOUT TUBES NO. 5A.

(8) 1" DIA. HOLES IN PLATE NO. 7 & TUBES NO. 5A FOR 7/8" DIA. A325 BOLTS WITH HEX NUTS AND WASHERS. 6 HOLES IN TUBES AND PLATE NO. 7.

(9) SPLICE SLEEVE FABRICATED FROM 1/4" PLATE. PROVIDE "SLIDING FIT".

(10) 3/8" X 3 5/8" X 2'-4" PLATE. 2 PER RAIL. USED IN NO. 5 & 5A.

(10A) 3/8" X 2 5/8" X 2'-4" PLATE USED IN NO. 5, 3/8" X 3 5/8" X 2'-4" PLATE USED IN NO. 5A. 2 PER RAIL.

(11) 7/8" Φ A325 ROUND HEAD BOLT WITH NUT, WASHER, AND LOCK WASHER. USE 15/16" X 1 1/4" LONGIT. SLOTTED HOLES AT FIELD JOINTS AND 15/16" X 2 1/4" MIN. LONGIT. SLOTTED HOLES AT EXP. JOINTS IN PLATE NO. 10A.

(12) 7/8" DIA. X 1 1/2" LONG THREADED SHOP WELDED STUDS (2 REQ'D).

(13) 3/8" X 8" X 1'-6" PLATE. BOLT TO RAIL AS SHOWN IN DETAIL. REQ'D. AT THRIE BEAM GUARD RAIL ATTACHMENTS ONLY. PLACE SYM. ABOUT TUBES NO. 5A.

(14) 7/8" DIA. X 2" LONG A325 HEX BOLT WITH NUT AND WASHER (5 REQ'D.).

(15) 1" Φ HOLES IN TUBES NO. 5A FOR 7/8" DIA. A325, ROUND HEAD BOLT WITH NUT, WASHER AND LOCK WASHER (4 REQ'D.). 4 HOLES IN TUBES.

GENERAL NOTES

1. BID ITEM SHALL BE "RAILING TUBULAR TYPE M B-2-66" WHICH INCLUDES ALL ITEMS SHOWN.
2. RAIL POST AND BASE PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A709 GRADE 50. HOLLOW RAILING STRUCTURAL TUBING SHALL CONFORM TO THE REQUIREMENTS OF ASTM A500 GRADE B OR C WITH A CERTIFIED FY = 50 KSI. ANCHOR PLATES, AND SPLICE TUBE PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A709 GRADE 36.
3. THE NUT SECURING THE POST BASE PLATE TO THE CONCRETE SHALL BE TIGHTENED TO A SNUG FIT AND GIVEN AN ADDITIONAL 1/8 TURN.
4. RAILS SHALL BE CONTINUOUS OVER A MINIMUM OF THREE (3) POSTS WITHOUT SPLICES WHERE POSSIBLE. RAILS SHALL BE SPLICED IN A PANEL OVER EXPANSION JOINTS.
5. ENDS OF TUBE SECTIONS SHALL BE SAWED. GRIND SMOOTH EXPOSED EDGES. ALL CUT ENDS SHALL BE TRUE AND SMOOTH.
6. WELD IS THE SAME ON BOTH FLANGES. FLANGE WELD DOES NOT REQUIRE MAGNETIC PARTICLE TESTING.
7. FILL BOLT SLOT OPENINGS IN POST SHIMS AND PLATE NO. 2 AND CAULK AROUND PERIMETER OF PLATE NO. 2 WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. STEEL POST SHIMS MAY BE USED UNDER POSTS WHERE REQ'D. FOR ALIGNMENT.
8. POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.
9. ALL MATERIAL SHALL BE GALVANIZED AFTER FABRICATION. PRIOR TO GALVANIZING, ALL STEEL RAILING POSTS & STEEL TUBING SHALL BE GIVEN A NO. 6 BLAST CLEANING BY SSPC SPECIFICATIONS.
10. THIS RAILING MEETS NCHRP REPORT 350 EVALUATION CRITERIA FOR TEST LEVEL 4 (TL-4).

▲ TIE TO TOP MAT OF STEEL.

✳ FOR ANCHOR BOLTS IN WINGS, TACK WELD MAY BE USED IN FIELD AFTER ANCHOR PLATE IS IN POSITION IF REQ'D. FOR CONSTRUCTIBILITY.

◥ RDWY. OPENING OR 1/2" OPENING FOR A1 ABUTMENT.

SEE SHEET 5 AND 6 FOR RAIL POST SPACING.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-2-66

DRAWN BY DLF | PLANS CK'D. CJB

TUBULAR STEEL RAILING TYPE M

SHEET 7 OF 7

29

RAILM
7-16

SINKHOLE ROAD								
Station	Distance	AREA (SF)		Incremental Vol (CY) (Unadjusted)		Cumulative Vol (CY)		Mass Ordinate
		Cut Note 1	Fill	Cut Note 2	Fill Note 3	Cut 1.00 Note 2	Expanded Fill 1.30 Note 4	Note 5
8+50	0.00	17.8	0.0	0.0	0.0	0	0	0
9+00	50.00	5.0	1.5	21.1	1.4	21	2	19
9+50	50.00	0.0	6.3	4.6	7.2	26	11	15
9+75	25.00	0.0	0.0	0.0	2.9	26	15	11
10+25	75.00	0.0	0.0	0.0	0.0	26	15	11
10+50	25.00	1.0	106.4	0.4	49.3	26	79	-53
11+00	50.00	0.0	83.5	0.9	175.9	27	308	-281
11+50	50.00	1.8	42.4	1.7	116.6	29	459	-430
12+00	50.00	14.9	0.0	15.5	39.2	44	510	-466

Notes:

1) Salvaged/Unusable Pavement Material is included in Cut.
2) Excavation Common is the sum of the Cut column. Item number 205.0100
3) Does not include Unusable Pavement Excavation volume.
4) Will be backfilled with Excavation Common or Borrow.
5) Plus quantity indicates an excess of material. Minus indicates a shortage of material. Borrow item number 208.0100

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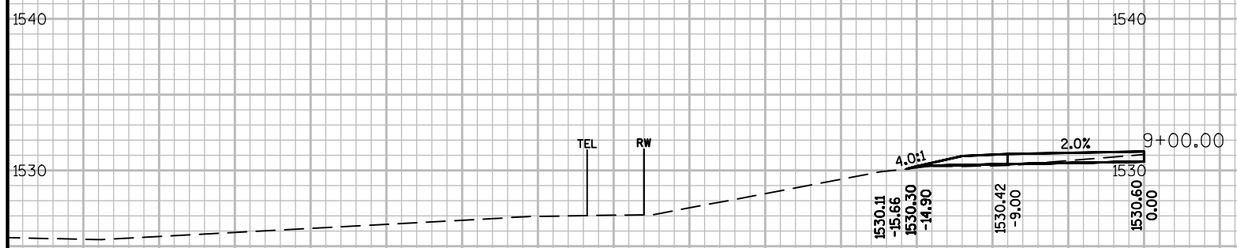
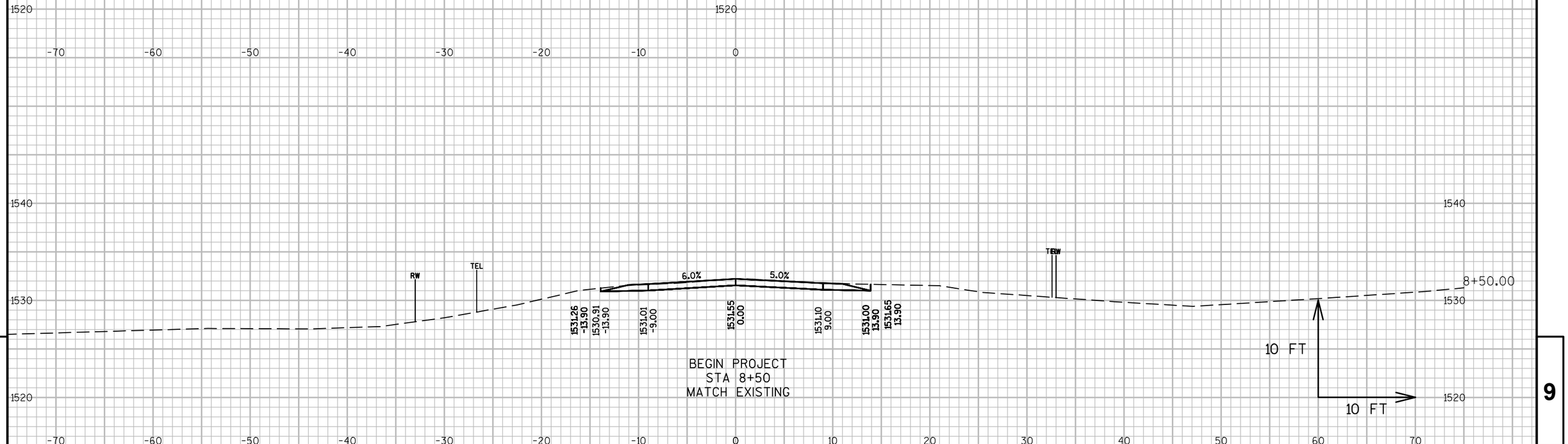
UTILITY LOCATIONS ARE APPROXIMATE.
ACTUAL LOCATIONS MUST BE FIELD VERIFIED.



INTERSECTION WITH OLLIE ROAD



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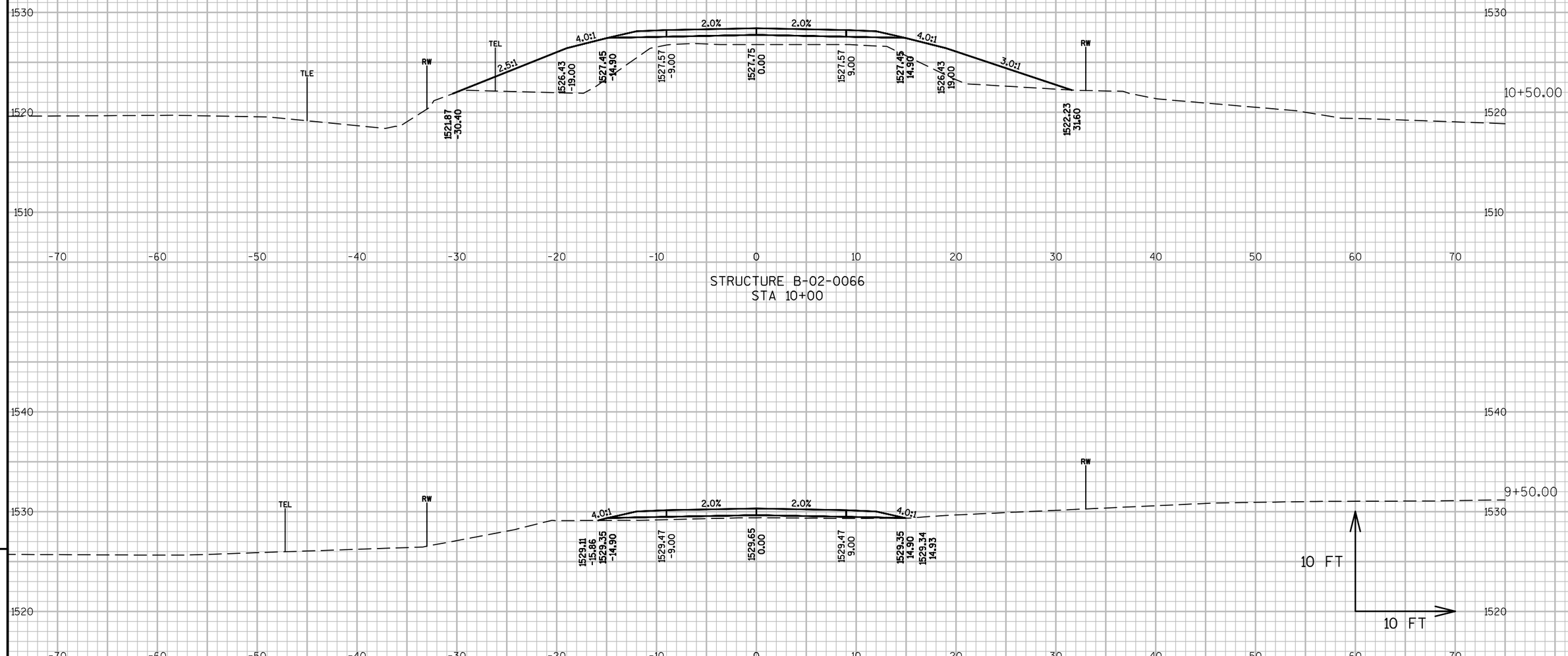
PROJECT NO: 9956-00-70	HWY: SINKHOLE ROAD	COUNTY: ASHLAND	CROSS SECTIONS: SINKHOLE ROAD	SHEET 31	E

FILE NAME : P:\AE\A\ASHLH\135193\CIVIL 3D\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090201-XS - 01

PLOT DATE : 4/12/2017 1:26 PM PLOT BY : JUSTIN SHAVLIK PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

UTILITY LOCATIONS ARE APPROXIMATE.
ACTUAL LOCATIONS MUST BE FIELD VERIFIED.



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PROJECT NO: 9956-00-70	HWY: SINKHOLE ROAD	COUNTY: ASHLAND	CROSS SECTIONS: SINKHOLE ROAD	SHEET 32	E

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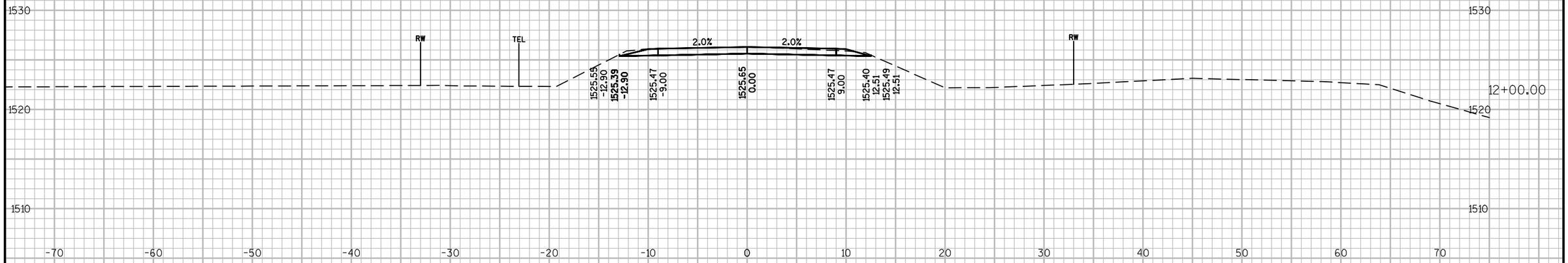
LAYOUT NAME - 090201-XS - 02

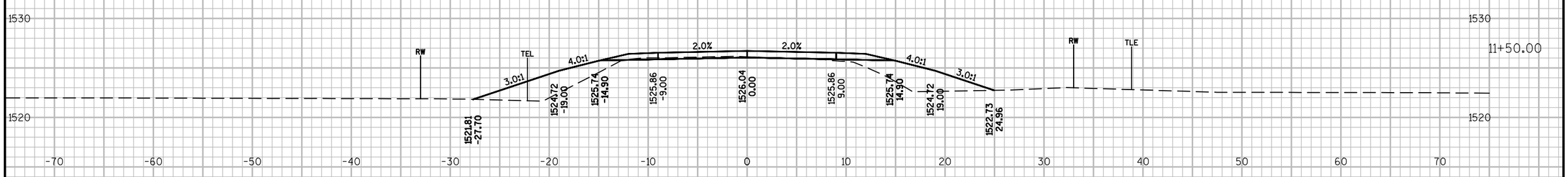
PLOT DATE : 4/12/2017 1:26 PM PLOT BY : JUSTIN SHAVLIK PLOT NAME : PLOT SCALE : 1 IN:10 FT

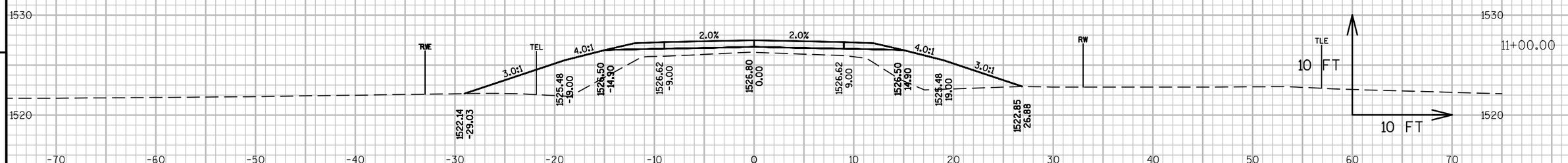
WISDOT/CADDS SHEET 49

UTILITY LOCATIONS ARE APPROXIMATE.
ACTUAL LOCATIONS MUST BE FIELD VERIFIED.

END PROJECT
STA 12+00
MATCH EXISTING







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PROJECT NO: 9956-00-70	HWY: SINKHOLE ROAD	COUNTY: ASHLAND	CROSS SECTIONS: SINKHOLE ROAD	SHEET 33	E

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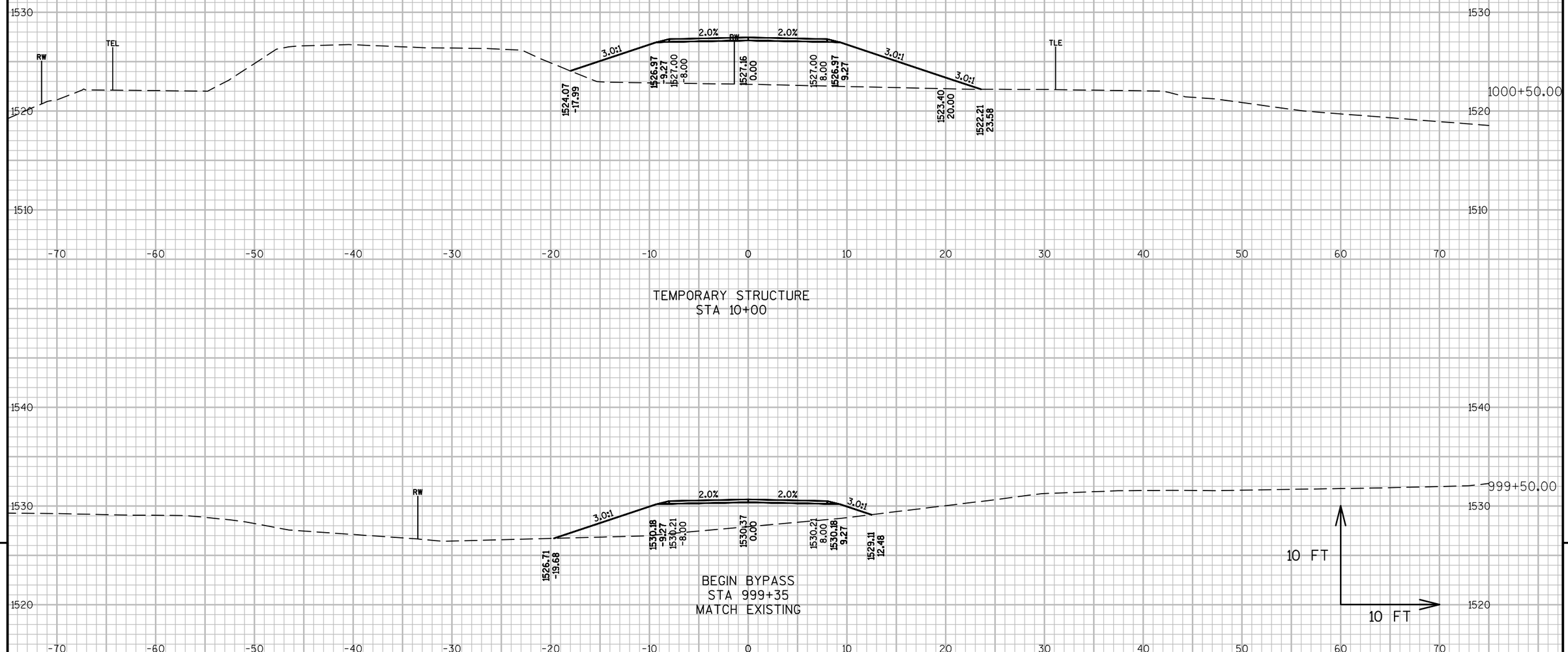
LAYOUT NAME - 090201-XS - 03

PLOT DATE : 4/12/2017 1:26 PM PLOT BY : JUSTIN SHAVLIK PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

UTILITY LOCATIONS ARE APPROXIMATE.
ACTUAL LOCATIONS MUST BE FIELD VERIFIED.



PROJECT NO: 9956-00-70	HWY: SINKHOLE ROAD	COUNTY: ASHLAND	CROSS SECTIONS: TEMPORARY BYPASS	SHEET 34	E

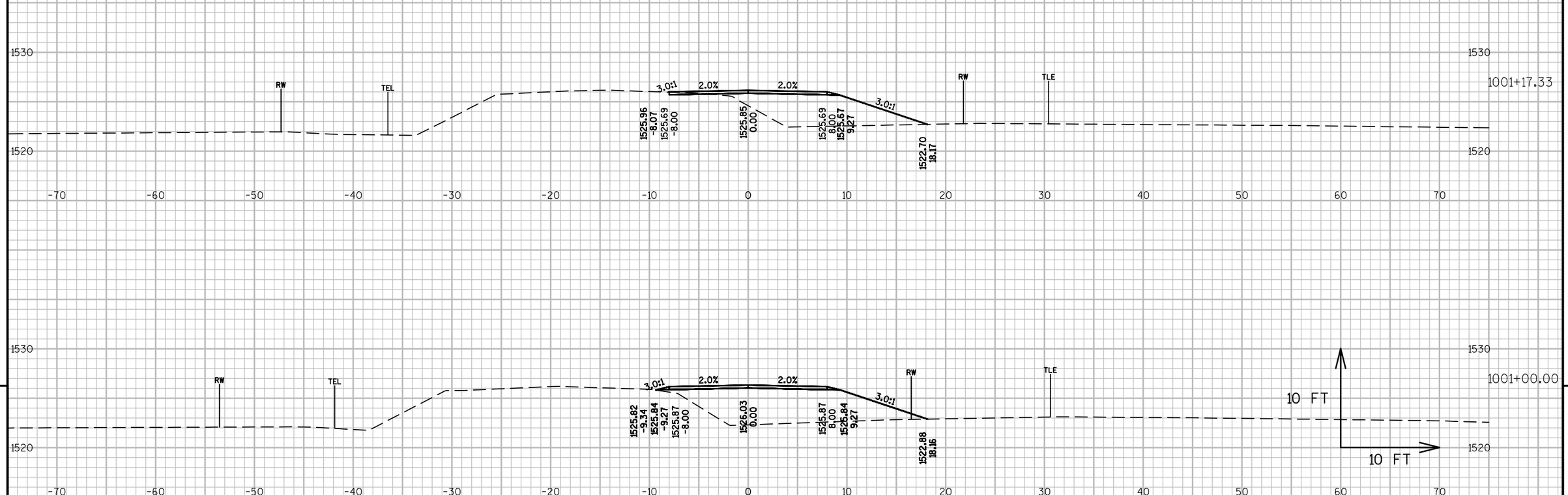
FILE NAME : P:\AE\A\ASHLH\135193\CIVIL 3D\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090201-XS - 1001

PLOT DATE : 4/12/2017 1:26 PM PLOT BY : JUSTIN SHAVLIK PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

UTILITY LOCATIONS ARE APPROXIMATE.
ACTUAL LOCATIONS MUST BE FIELD VERIFIED.

END BYPASS
STA 1001+50
MATCH EXISTING



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PROJECT NO: 9956-00-70	HWY: SINKHOLE ROAD	COUNTY: ASHLAND	CROSS SECTIONS: TEMPORARY BYPASS	SHEET 35	E

FILE NAME : P:\AE\A\ASHLH\135193\CIVIL 3D\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090201-XS - 1002

PLOT DATE : 4/12/2017 1:26 PM PLOT BY : JUSTIN SHAVLIK PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

Wisconsin Department of Transportation

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through innovation and exceptional service.

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