SWL

PROJECT ID: 5005-00-70
WITH: N/A

COUNTY: MONROE

MAY 2014
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 (includes erosion control plan)
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 = 34

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

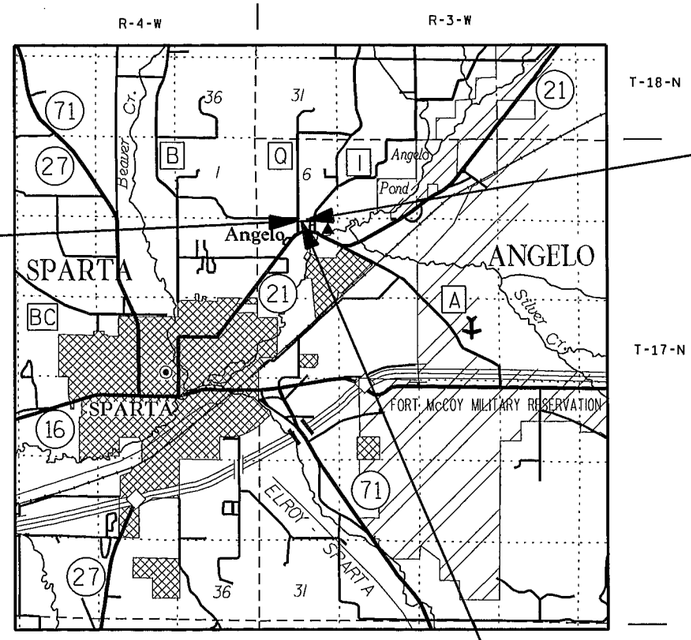
TOWN OF ANGELO, GATEWAY AVENUE

(HANSEN CREEK BRIDGE B-41-0298)

TOWN ROAD
MONROE COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
5005-00-70	WISC 2014179	1

STATE PROJECT NUMBER
5005-00-70



BEGIN PROJECT
STA. 9+20
Y = 389,379.72
X = 634,336.19

END PROJECT
STA. 10+80

STRUCTURE
B-41-0298

DESIGN DESIGNATION

A.A.D.T. 2014	=	120
A.A.D.T. 2034	=	140
D.H.V. 2034	=	50
D.	=	59/41
T.	=	6.8%
DESIGN SPEED	=	40 mph
ESALS	=	14,600

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
- EDGE OF STREAM
- RAILROAD
- FENCE

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

LAYOUT

Scale 0 1 2 MI.

TOTAL NET LENGTH OF CENTERLINE = 0.030 MI.

Coordinates on this plan are referenced to the Wisconsin County Coordinate System (WCCS), Monroe County.

ACCEPTED FOR
TOWN OF ANGELO

1/24/14 DATE — SIGNATURE

ACCEPTED FOR
MONROE COUNTY

01/21/14 DATE — Jack Dittmar HIGHWAY COMMISSIONER

ORIGINAL PLANS PREPARED BY:

MSA PROFESSIONAL SERVICES
TRANSPORTATION • MUNICIPAL DEVELOPMENT • ENVIRONMENTAL
1230 South Boulevard Baraboo, WI 53913
608-356-2771 1-800-362-4335 Fax: 608-356-2770
MSA's PROFESSIONAL SERVICES

WISCONSIN
LEAH J. RHODES
E-41726
BARABOO WI
PROFESSIONAL ENGINEER

1/17/2014 Date — Leah J Rhodes Signature

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	MSA Professional Services, Inc.
Designer	MSA Professional Services, Inc.
Management Consultant	KJohnson Engineers, Inc.
C.O. Examiner	

APPROVED FOR THE DEPARTMENT

DATE: 1/27/14 Kirby A. Johnson (Management Consultant Signature)

E

FILE NAME : P:\5800s\5840s\5848\05848007\caddWDOT\Planshts\5848007TS.dgn PLOT DATE : 1/17/2014 PLOT BY : lrhodes PLOT NAME : 5848007TS.DGN PLOT SCALE : 1:20000

WISDOT/CADDS SHEET 10

5848007TS.dgn 1/17/2014 12:36:51 PM lrhodes

STANDARD ABBREVIATIONS

AC	ACRE
AGG	AGGREGATE
<	ANGLE
ASPH	ASPHALTIC
AC	ASPHALT CEMENT
ADT	AVERAGE DAILY TRAFFIC
B & B	BALLED AND BURLAPPED
BM	BENCH MARK
CB	CATCH BASIN
℄ OR C/L	CENTER LINE
C-C	CENTER TO CENTER
CONC	CONCRETE
CO	COUNTY
CTH	COUNTY TRUNK HIGHWAY
CY	CUBIC YARD
CULV	CULVERT
CP	CULVERT PIPE
CPRC	CULVERT PIPE REINFORCED CONCRETE
C & G	CURB AND GUTTER
D	DEGREE OF CURVE
DHV	DESIGN HOUR VOLUME
DIA OR ⌀	DIAMETER
DIST	DISTRICT
DWY	DRIVEWAY
E	EAST
X	EAST GRID COORDINATE
EB	EASTBOUND
ELEC	ELECTRIC
EL OR ELEV	ELEVATION
EMB	EMBANKMENT
EW	ENDWALL
ESALS	EQUIVALENT SINGLE AXLE LOADS
EXC	EXCAVATION
EBS	EXCAVATION BELOW SUBGRADE
EXIST	EXISTING
EXP	EXPANSION
F-F	FACE TO FACE
FERT	FERTILIZER
FE	FIELD ENTRANCE
F/L	FLOW LINE
FT	FOOT
GN	GRID NORTH
HR	HANDICAP RAMP
HT	HEIGHT
CWT	HUNDREDWEIGHT
HYD	HYDRANT
IN DIA	INCH DIAMETER
INL	INLET
ID	INSIDE DIAMETER
I	INTERSECTION ANGLE
IE	INVERT ELEVATION
IP	IRON PIPE OR PIN
JCT	JUNCTION
L	LENGTH OF CURVE
LF	LINEAR FOOT
LC	LONG CHORD OF CURVE
LCB	LONG CHORD BEARING
LS	LUMP SUM
MH	MANHOLE
N	NORTH
Y	NORTH GRID COORDINATE
OE	OUTLET ELEVATION
OL	OUT LOT
OD	OUTSIDE DIAMETER
OH	OVERHEAD LINES
PAVT	PAVEMENT
PLE	PERMANENT LIMITED EASEMENT
PC	POINT OF CURVATURE
PI	POINT OF INTERSECTION
PT	POINT OF TANGENCY
PCC	PORTLAND CEMENT CONCRETE
LB	POUND
PE	PRIVATE ENTRANCE
R OR RAD	RADIUS
RR	RAILROAD
R	RANGE
℄ OR R/L	REFERENCE LINE
REQD	REQUIRED
RT	RIGHT
R/W	RIGHT-OF-WAY
RD	ROAD
SALV	SALVAGED
SAN	SANITARY SEWER
SECT	SECTION
SHLDR	SHOULDER
SW	SIDEWALK
S	SOUTH
SB	SOUTHBOUND
SPECS	SPECIFICATIONS
SQ	SQUARE
SF OR SQ FT	SQUARE FEET
SY	SQUARE YARD
SSPRC	STORM SEWER PIPE REINFORCED CONCRETE
STD	STANDARD
SDD	STANDARD DETAIL DRAWINGS
STH	STATE TRUNK HIGHWAYS
STA	STATION
SS	STORM SEWER
T	TANGENT
TEL	TELEPHONE
TEMP	TEMPORARY
TLE	TEMPORARY LIMITED EASEMENT
T	TON
TC	TOP OF CURB
TN	TOWN
TRANS	TRANSITION
T	TRUCKS (percent of)
TYP	TYPICAL
UNCL	UNCLASSIFIED
USH	UNITED STATES HIGHWAY
VAR	VARIABLE
VERT	VERTICAL
VC	VERTICAL CURVE
VOL	VOLUME
WM	WATER MAIN
WV	WATER VALVE
W	WEST
WB	WESTBOUND
YD	YARD

DESIGN CONTACT

MSA PROFESSIONAL SERVICES, INC.
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SPARTA, WI 54656
PHONE 608-269-8740
jack.dittmar@co.monroe.wi.us

DNR LIAISON

DEPARTMENT OF NATURAL RESOURCES
KAREN KALVELAGE
ENVIRONMENTAL ANALYSIS AND REVIEW SPECIALIST
3550 MORMON COULEE ROAD
LA CROSSE, WI 54601
PHONE: 608-785-9115
karen.kalvelage@wisconsin.gov

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SPARTA, WI 54656
PHONE: 608-269-0819
bret.clark@centurytel.com

OVERHEAD ELECTRIC:
XCEL ENERGY
ATTN: KAYE CROOK
1003 SOUTH BLACK RIVER STREET
SPARTA, WI 54656
PHONE: 608-789-3677
kaye.m.crook@xcelenergy.com

BURIED GAS:
WE ENERGIES
ATTN: BILL GARSKI
1921 8TH STREET SOUTH
WISCONSIN RAPIDS, WI 54494
PHONE: 715-421-7259
bill.garski@we-energies.com

OVERHEAD COMMUNICATIONS:
CHARTER COMMUNICATIONS
ATTN: PERRY McCLELLAN
1228 12TH AVENUE SOUTH
ONALASKA, WI 54650
PHONE: 715-370-7140
perry.mcclellan@chartercom.com

* - NOT A MEMBER OF DIGGERS HOTLINE.

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

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 = 0.26 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.17 ACRES

GENERAL NOTES

DISTURBED AREAS WITHIN THE RIGHT-OF-WAY, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS, SHALL BE FERTILIZED, SEEDED AND MULCHED AS DIRECTED BY THE ENGINEER. OVERSOW PERMANENT SEEDING AREAS WITH TEMPORARY SEED AT 3 LBS. PER 1000 SQUARE FEET.

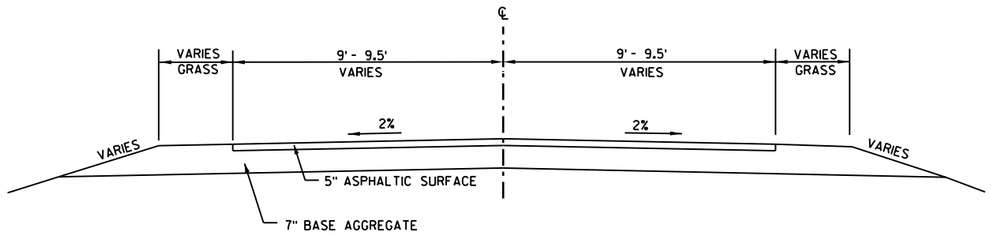
THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE AREA THAT ARE NOT SHOWN.

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

ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO USGS NAVD 88, 96 ADJUSTED. BENCHMARKS WERE LOCATED IN THE FIELD USING GPS TECHNOLOGY.

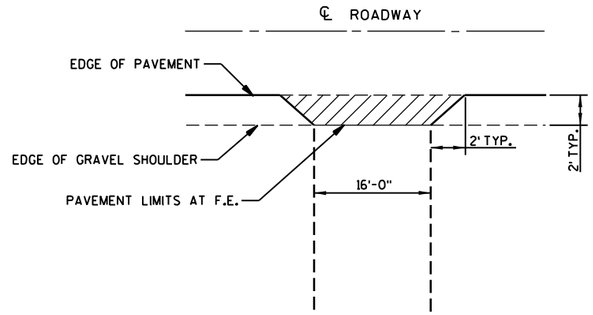
THE 3½" ASPHALTIC SURFACE SHALL CONSIST OF A 1¾" UPPER LAYER AND A 1¾" LOWER LAYER. USE ½" NOMINAL AGGREGATE.

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

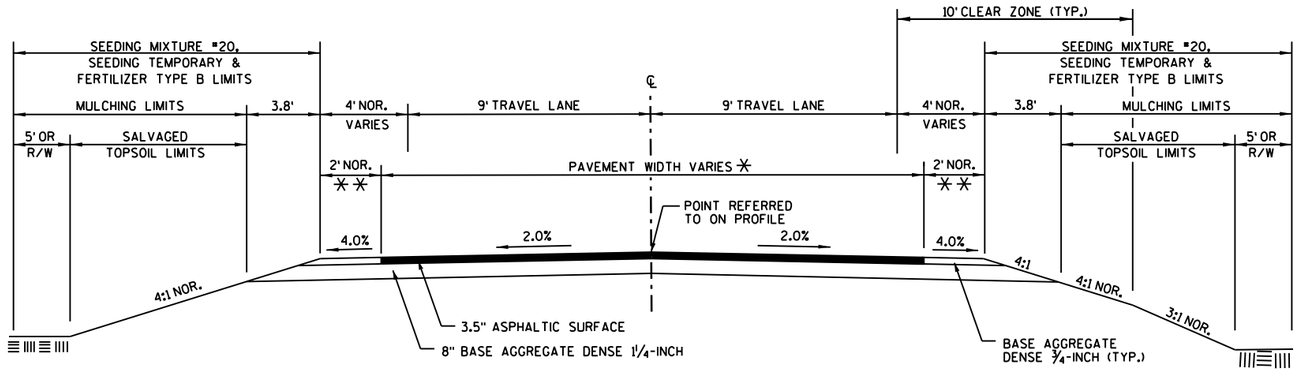


NOTE:
EXISTING PAVEMENT THICKNESSES SHOWN WERE OBSERVED IN BORING #2, STA 10+25, 7'RT.
ACTUAL PAVEMENT THICKNESSES MAY VARY.

TYPICAL EXISTING SECTION



FIELD ENTRANCE DETAIL



TYPICAL FINISHED SECTION

✳ 28.5' AT WEST END OF BRIDGE TAPERS TO ± 24.8' AT STA. 9+20.
28.5' AT EAST END OF BRIDGE TAPERS TO ± 19.2' AT STA. 10+80.

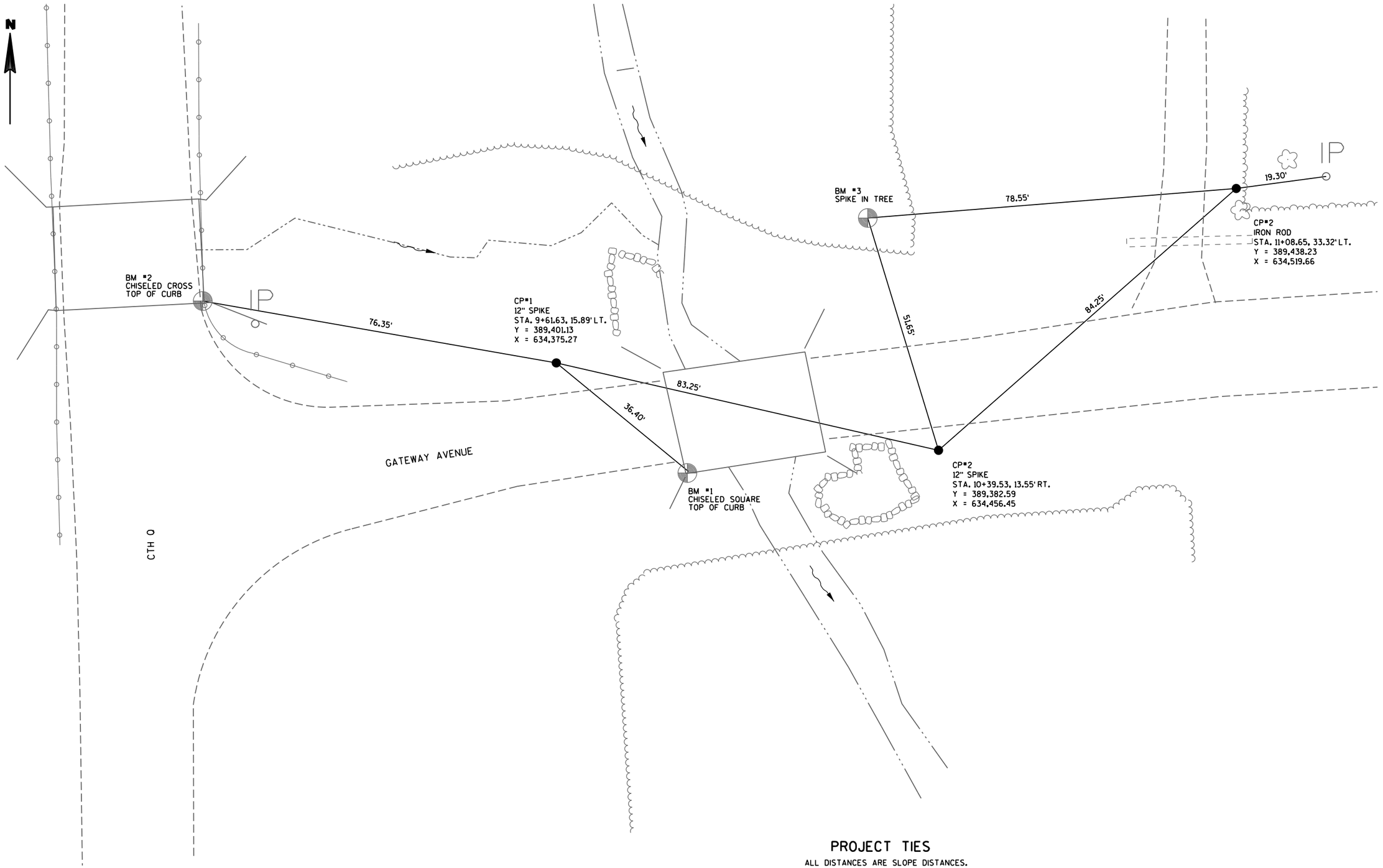
✳✳ VARIES FROM 2' AT STA. 10+50 TO ± 3.5' AT STA. 10+80.

PROJECT NO: 5005-00-70	HWY: TOWN ROAD	COUNTY: MONROE	TYPICAL SECTIONS & DETAILS	SHEET 3	E

FILE NAME : P:\5800s\5840s\5848\05848007\caddWDOT\Plansht\s\5848007XC.dgn PLOT DATE : 11/13/2013 PLOT BY : lrhodes PLOT NAME : PLOT SCALE : 1:8

WISDOT/CADDS SHEET 42

5848007XC.dgn 11/13/2013 9:09:08 AM lrhodes



PROJECT TIES

ALL DISTANCES ARE SLOPE DISTANCES.

PROJECT NO: 5005-00-70	HWY: TOWN ROAD	COUNTY: MONROE	CONTROL POINT TIES & COORDINATES	SHEET 4	E

FILE NAME : P:\5800s\5840s\5848\05848007\caddWDOT\Planshts\5848007CP.dgn PLOT DATE : 1/17/2014 PLOT BY : lrhodes PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 42

5848007CP.dgn 1/17/2014 2:54:28 PM lrhodes

DATE 11MAR14 — E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	5005-00-70 QUANTITY
0010	201.0105	CLEARING	STA	1.000	1.000
0020	201.0205	GRUBBING	STA	1.000	1.000
0030	203.0600.S	REMOVING OLD STRUCTURE OVER WATERWAY WITH MINIMAL DEBRIS (STATION) 01. 10+00	LS	1.000	1.000
0040	205.0100	EXCAVATION COMMON **P**	CY	125.000	125.000
0050	206.1000	EXCAVATION FOR STRUCTURES BRIDGES (STRUCTURE) 01. B-41-0298	LS	1.000	1.000
0060	210.0100	BACKFILL STRUCTURE	CY	260.000	260.000
0070	213.0100	FINISHING ROADWAY (PROJECT) 01. 5005-00-70	EACH	1.000	1.000
0080	305.0110	BASE AGGREGATE DENSE 3/4-INCH	TON	13.000	13.000
0090	305.0120	BASE AGGREGATE DENSE 1 1/4-INCH	TON	200.000	200.000
0100	310.0115	BASE AGGREGATE OPEN GRADED	CY	5.000	5.000
0110	455.0605	TACK COAT	GAL	8.000	8.000
0120	465.0105	ASPHALTIC SURFACE	TON	64.000	64.000
0130	502.0100	CONCRETE MASONRY BRIDGES	CY	58.000	58.000
0140	502.3200	PROTECTIVE SURFACE TREATMENT	SY	58.000	58.000
0150	503.0128	PRESTRESSED GIRDER TYPE I 28-INCH	LF	180.000	180.000
0160	505.0405	BAR STEEL REINFORCEMENT HS BRIDGES	LB	4,120.000	4,120.000
0170	505.0605	BAR STEEL REINFORCEMENT HS COATED BRIDGES	LB	12,570.000	12,570.000
0180	506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EACH	8.000	8.000
0190	506.4000	STEEL DIAPHRAGMS (STRUCTURE) 01. B-41-0298	EACH	3.000	3.000
0200	509.5100.S	POLYMER OVERLAY	SY	148.000	148.000
0210	513.4060	RAILING TUBULAR TYPE M (STRUCTURE) 01. B-41-0298	LS	1.000	1.000
0220	516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	20.000	20.000
0230	550.1100	PILING STEEL HP 10-INCH X 42 LB	LF	770.000	770.000
0240	606.0300	RIPRAP HEAVY	CY	165.000	165.000
0250	612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	180.000	180.000
0260	619.1000	MOBILIZATION	EACH	1.000	1.000
0270	625.0500	SALVAGED TOPSOIL **P**	SY	130.000	130.000
0280	627.0200	MULCHING **P**	SY	180.000	180.000
0290	628.1504	SILT FENCE	LF	500.000	500.000
0300	628.1520	SILT FENCE MAINTENANCE	LF	500.000	500.000
0310	628.1905	MOBILIZATIONS EROSION CONTROL	EACH	2.000	2.000
0320	628.1910	MOBILIZATIONS EMERGENCY EROSION CONTROL	EACH	2.000	2.000
0330	628.2008	EROSION MAT URBAN CLASS I TYPE B	SY	130.000	130.000
0340	629.0210	FERTILIZER TYPE B **P**	CWT	1.000	1.000
0350	630.0120	SEEDING MIXTURE NO. 20 **P**	LB	15.000	15.000
0360	630.0200	SEEDING TEMPORARY **P**	LB	15.000	15.000
0370	633.5100	MARKERS ROW	EACH	5.000	5.000
0380	634.0612	POSTS WOOD 4X6-INCH X 12-FT	EACH	4.000	4.000
0390	637.2230	SIGNS TYPE II REFLECTIVE F	SF	12.000	12.000
0400	638.2602	REMOVING SIGNS TYPE II	EACH	4.000	4.000
0410	638.3000	REMOVING SMALL SIGN SUPPORTS	EACH	4.000	4.000
0420	642.5001	FIELD OFFICE TYPE B	EACH	1.000	1.000
0430	643.0100	TRAFFIC CONTROL (PROJECT) 01. 5005-00-70	EACH	1.000	1.000
0440	645.0120	GEOTEXTILE FABRIC TYPE HR	SY	310.000	310.000
0450	650.4500	CONSTRUCTION STAKING SUBGRADE	LF	114.000	114.000
0460	650.5000	CONSTRUCTION STAKING BASE	LF	114.000	114.000
0470	650.6500	CONSTRUCTION STAKING STRUCTURE LAYOUT (STRUCTURE) 01. B-41-0298	LS	1.000	1.000

3

DATE 11MAR14 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	5005-00-70 QUANTITY
0480	650.9910	CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) 01. 5005-00-70	LS	1.000	1.000
0490	650.9920	CONSTRUCTION STAKING SLOPE STAKES	LF	114.000	114.000
0500	690.0150	SAWING ASPHALT	LF	44.000	44.000
0510	715.0502	INCENTIVE STRENGTH CONCRETE STRUCTURES	DOL	642.000	642.000
0520	SPV.0035	SPECIAL 01. SPECIAL FIBER REINFORCED CONCRETE MASONRY FOR BRIDGES, STRCT B-41-0298	CY	49.000	49.000

201.0105 CLEARING
201.0205 GRUBBING

STATION	-	STATION	LOCATION	CLEARING STA	GRUBBING STA
10+00	-	11+00	LT & RT	1	1
		TOTALS:		1	1

205.0100 EXCAVATION COMMON **P**

STATION	-	STATION	EXC. COMMON CY	FILL CY (1)	EXPANDED FILL CY (2)	WASTE CY
9+20	-	9+76.71	73	0	0	73
10+23.29	-	10+80	52	42	55	-3
		TOTALS:	125	42	55	70

(1) - NOT A BID ITEM - FOR INFORMATIONAL PURPOSES ONLY.
(2) - FILL EXPANSION 30%

305.0110 BASE AGGREGATE DENSE 3/4-INCH
305.0120 BASE AGGREGATE DENSE 1 1/4-INCH

STATION	-	STATION	BASE AGGREGATE DENSE 3/4-INCH TON	BASE AGGREGATE DENSE 1 1/4-INCH TON
9+20.00	-	9+76.71	6	100
10+23.29	-	10+80.00	7	100
		TOTALS:	13	200

455.0605 TACK COAT
465.0105 ASPHALTIC SURFACE

STATION	-	STATION	TACK COAT GAL	ASPHALTIC SURFACE TON
9+20.00	-	9+76.71	4	34
10+23.29	-	10+80.00	4	30
9+50, RT	-	F.E.	0	1
		TOTALS:	8	64

625.0500 SALVAGED TOPSOIL **P**
627.0200 MULCHING **P**
629.0210 FERTILIZER TYPE B **P**
630.0120 SEEDING MIXTURE NO. 20 **P**
630.0200 SEEDING TEMPORARY **P**

STATION	-	STATION	LOCATION	SALVAGED TOPSOIL SY	MULCHING SY	FERTILIZER CWT	SEEDING #20 LB	SEEDING TEMPORARY LB
9+20	-	9+80	LT	10	30	0.05	2	2
9+20	-	10+00	RT	10	45	0.05	2	2
9+90	-	10+80	LT	15	40	0.10	3	3
10+20	-	10+80	RT	65	40	0.05	2	2
UNDISTRIBUTED				30	25	0.75	6	6
		TOTALS:		130	180	1	15	15

628.1504 SILT FENCE
628.1520 SILT FENCE MAINTENANCE

STATION	-	STATION	LOCATION	FENCE LF	MAINT. LF
9+20.00	-	10+00.00	LT & RT	220	220
10+00.00	-	10+80.00	LT & RT	235	235
UNDISTRIBUTED			-	45	45
			TOTALS:	500	500

628.2008 EROSION MAT URBAN CLASS I TYPE B

STATION	-	STATION	LOCATION	URBAN CLASS I TYPE B SY
9+20	-	9+60	LT	11
9+56		9+80	RT	8
10+21		10+80	LT	15
10+33		10+80	RT	65
UNDISTRIBUTED				31
			TOTALS:	130

P - PAY PLAN QUANTITY

633.5100 MARKERS ROW

STATION	OFFSET	LOCATION	EACH
8+92.21	27.10	RT	1
8+99.27	32.90	LT	1
9+20.00	27.10	RT	1
10+55.00	44.00	RT	1
10+80.00	27.10	RT	1
		TOTAL:	5

634.0612 POSTS WOOD 4x6-INCH x 12-FT
637.2230 SIGNS TYPE II REFLECTIVE F
638.2602 REMOVING SIGNS TYPE II
638.3000 REMOVING SMALL SIGN SUPPORTS

STATION	LOCATION	SIGN CODE	WOOD POSTS EACH	SIGNS REFECTIVE SF	REMOVING SIGNS TYPE II EACH	REMOVING SMALL SIGN SUPPORTS EACH	COMMENTS
9+72	LT	W5-52L	1	3	-	-	OBJECT MARKER
9+75	RT	-	-	-	-	-	WEIGHT LIMIT POSTING (REMOVED BY TOWN)
9+80	RT	W5-52R	1	3	-	-	OBJECT MARKER
9+82	LT & RT	-	-	-	2	2	OBJECT MARKERS AT EXISTING BRIDGE
10+18	LT & RT	-	-	-	2	2	OBJECT MARKERS AT EXISTING BRIDGE
10+20	LT	W5-52R	1	3	-	-	OBJECT MARKER
10+25	LT	-	-	-	-	-	WEIGHT LIMIT POSTING (REMOVED BY TOWN)
10+28	RT	W5-52L	1	3	-	-	OBJECT MARKER
		TOTALS:	4	12	4	4	

650.4500 CONSTRUCTION STAKING SUBGRADE
650.5000 CONSTRUCTION STAKING BASE
650.9910 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL 5005-00-70
650.9920 CONSTRUCTION STAKING SLOPE STAKES

STATION	-	STATION	SUBGRADE LF	BASE LF	SUPPLEMENTAL CONTROL LS	SLOPE STAKES LF
9+20	-	9+76.71	57	57	-	57
10+23.29	-	10+80	57	57	-	57
		TOTALS:	114	114	1	114

690.0150 SAWING ASPHALT

STATION	LF
9+20	25
10+80	19
TOTAL:	44

R/W PROJECT NUMBER	SHEET NUMBER	TOTAL SHEETS
5005-00-00		
FEDERAL PROJECT NUMBER	4.01	1

PLAT OF RIGHT-OF-WAY REQUIRED FOR

TOWN OF ANGELO, GATEWAY AVENUE

(HANSEN CREEK BRIDGE B-41-0298)

TOWN ROAD — MONROE COUNTY

CONSTRUCTION PROJECT NUMBER
5005-00-70

NORTHWEST CORNER
SECTION 7 (RECORDED) Y = 389,598.88 X = 631,597.72
(OBSERVED) Y = 389,598.97 X = 631,597.55

N 89°12'18" E
2,676.80'
(FROM RECORDED DATA)

SECTION LINE

NORTH 1/4 CORNER
SECTION 7 (RECORDED)
Y = 389,636.02
X = 634,274.26

SCALE, FEET 0 20 40

N

CONVENTIONAL ABBREVIATIONS

ACCESS POINT/ DRIVEWAY CONNECTION	AP	REFERENCE LINE	R/L
ACCESS RIGHTS	AR	RELEASE OF RIGHTS	ROR
ACRES	AC.	REMAINING	REM.
AND OTHERS	ET.AL.	RIGHT-OF-WAY	R/W
CENTERLINE	C/L	SECTION	SEC.
CERTIFIED SURVEY MAP	CSM	STATION	STA.
CORNER	COR.	TEMPORARY LIMITED EASEMENT	TLE
DOCUMENT	DOC.	VOLUME	V.
EASEMENT	EASE.	**CURVE DATA**	
HIGHWAY EASEMENT	H.E.	LONG CHORD	LCH
LAND CONTRACT	LC	LONG CHORD BEARING	LCB
MONUMENT	MON.	RADIUS	R
PAGE	P.	DEGREE OF CURVE	D
PERMANENT LIMITED EASEMENT	PLE	CENTRAL ANGLE OR DELTA	DELTA
PROPERTY LINE	PL	LENGTH OF CURVE	L
RECORDED AS	(100')	TANGENT	TAN

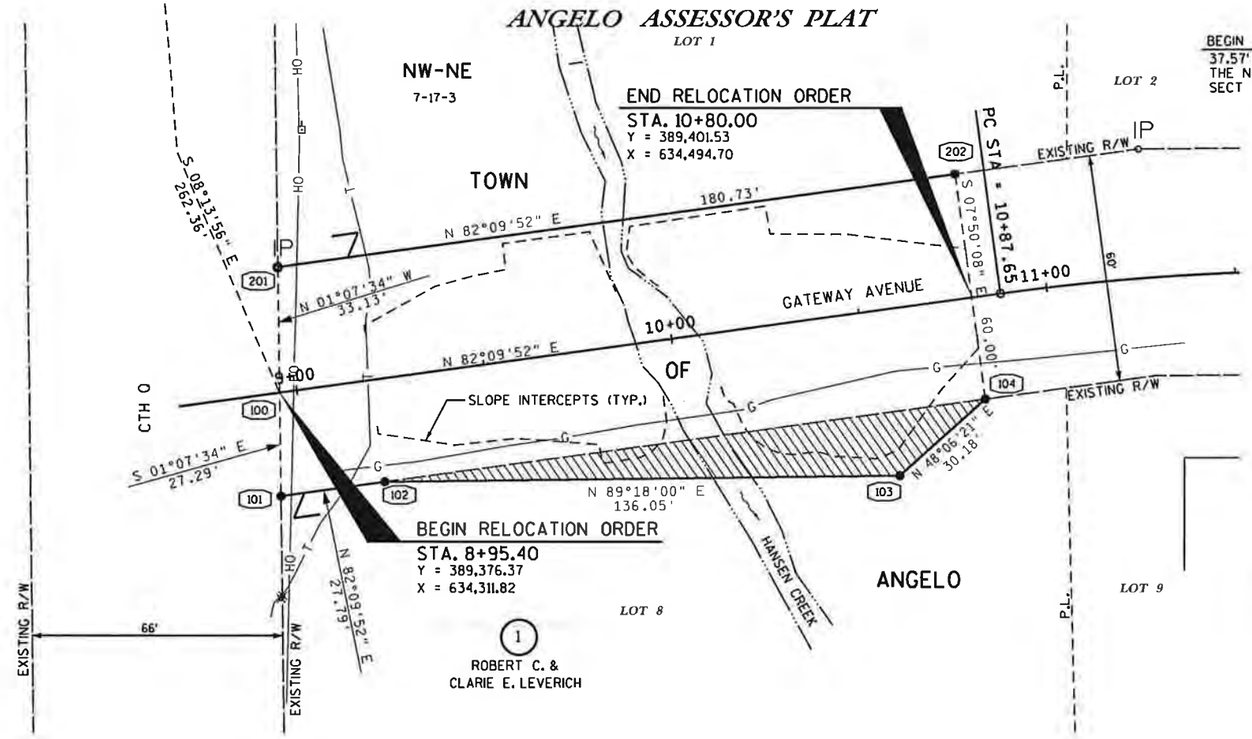
CONVENTIONAL SYMBOLS

FOUND IRON PIPE/PIN — ⌀ (1" UNLESS NOTED)
R/W MONUMENT — ● *(SET)
R/W STANDARD — ▲ *(SET)
SIGN — SIGN
SECTION CORNER MONUMENT — ●
SECTION CORNER SYMBOL
FEE (HATCH VARIES)
TEMPORARY LIMITED EASEMENT
PERMANENT LIMITED EASEMENT
R/W BOUNDARY POINT — HWB20
PARCEL NUMBER — 102
UTILITY PARCEL NUMBER — 92
SIGN NUMBER (OFF PREMISE) — 21
BUILDING

PROPOSED R/W LINE
EXISTING H.E. LINE
PROPERTY LINE
LOT & TIE LINES
SLOPE INTERCEPTS
CORPORATE LIMITS
NO ACCESS (BY PREVIOUS ACQUISITION/CONTROL)
NO ACCESS (BY ACQUISITION)
NO ACCESS (BY STATUTORY AUTHORITY)
SECTION LINE
QUARTER LINE
SIXTEENTH LINE
EXISTING CENTERLINE
PROPOSED REFERENCE LINE
PARALLEL OFFSET

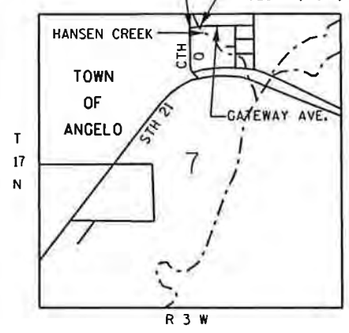
CONVENTIONAL UTILITY SYMBOLS

	NON COMPENSABLE	COMPENSABLE
WATER	—W—	
GAS	—G—	
TELEPHONE	—T—	
OVERHEAD TRANSMISSION LINES	—OH—	
ELECTRIC	—E—	
CABLE TELEVISION	—TV—	
FIBER OPTIC	—FO—	
SANITARY SEWER	—SAN—	
STORM SEWER	—SS—	
POWER POLE		
TELEPHONE POLE		
TELEPHONE PEDESTAL		
ELECTRIC TOWER		



BEGIN RELOCATION ORDER STA. 8+95.40
37.57' EAST OF AND 259.65' SOUTH OF THE NORTH QUARTER CORNER OF SECT 7, T17N, R3W.

END RELOCATION ORDER STA. 10+80
220.44' EAST OF AND 234.49' SOUTH OF THE NORTH QUARTER CORNER OF SECT 7, T17N, R3W.



LAYOUT
SCALE 0 1/4 MI.
TOTAL NET LENGTH OF CENTERLINE = 0.035 MI.

POINT NUMBER	Y	X
*100	389,376.37	634,311.82
101	389,349.08	634,312.36
102	389,352.87	634,339.89
103	389,354.53	634,475.93
104	389,374.69	634,498.39
201	389,409.48	634,311.17
202	389,434.12	634,490.21

POINT NUMBER	STATION	OFFSET
*100	8+95.40	0.00 C/L
101	8+92.21	27.10' RT.
102	9+20.00	27.10' RT.
103	10+55.00	44.00' RT.
104	10+80.00	27.10' RT.
201	8+99.27	32.90' LT.
202	10+80.00	32.90' LT.

NOTE:
EXISTING HIGHWAY R/W ESTABLISHED FROM ASSESSOR'S PLAT FOR THE TOWN OF ANGELO, EXISTING SECTION CORNERS AND IRONS LOCATED IN THE FIELD.

* - NON-MONUMENTED POINT

NOTE: INVERSING BETWEEN COORDINATES, IN CLOSE PROXIMITY WITH EACH OTHER, MAY NOT REPLICATE THE BEARINGS AND DISTANCES SHOWN ON THIS PLAT.

NOTES

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, MONROE COUNTY NAD 83 (2011) IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 MONUMENTS (TYPICALLY 3/4" X 24" REBAR) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

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

SCHEDULE OF LANDS & INTERESTS REQUIRED

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

PARCEL NUMBER	OWNER	INTEREST REQUIRED	R/W SQUARE FEET REQUIRED NEW	EXISTING	TOTAL	TLE S.F.
1	ROBERT C. & CLAIRE E. LEVERICH	FEE	1,352	0	1,352	---
2						

ORIGINAL PLAT PREPARED BY

MSA PROFESSIONAL SERVICES
TRANSPORTATION • MUNICIPAL DEVELOPMENT • ENVIRONMENTAL
© MSA PROFESSIONAL SERVICES

WISCONSIN
GREGORY P. RHINEHART
S-1478
FRIENDSHIP, WI
LAND SURVEYOR

DATE: 11-07-2013 Gregory P. Rhinehart
(Registered Land Surveyor)

REVISION DATE

APPROVED FOR TOWN OF ANGELO

DATE: 12/10/13 (Signature)

FILE NAME : P:\5800s\5840s\5848\05848007\caddWDOT\Planshts\RW01.dgn PLOT DATE : 11/7/2013 PLOT BY : bhalley PLOT NAME : PLOT SCALE : 1:40
WISDOT/CADDS SHEET 50
RW01.dgn 11/7/2013 4:11:07 PM bhalley

N

OVERHEAD CHARTER COMMUNICATIONS

OVERHEAD ELECTRIC XCEL ENERGY

EXISTING R/W

WOODS

LAWN

EXISTING STRUCTURE P-41-0187

STRUCTURE B-41-0298 REQUIRED

BM#3

SILT FENCE (TYP.)

EDGE OF SHOULDER (TYPICAL)

CTH O

BM#2

PC STA = 10+87.65

PI Sta = 11+28.52
Y = 389408.15
X = 634542.76
I = 07°15'39"R

CD = N 85°47'41" E
T = 40.86
R = 644.00
L = 81.61
C = 81.56

IP

EXISTING R/W

VARIES 32.9'

12+00

60'

GATEWAY AVENUE

13+00

N 89°25'31" E

STA = 13+00.01
Y = 389409.87
X = 634714.35

11+00

10+00

9+00

N 82°09'52" E

SAWCUT

BM#1

CAUTION

F.E.

VARIES 27.1'

PT STA = 11+69.27

IP

EXISTING R/W

STA = 13+00.01

LAWN

R/W

BURIED GAS WE ENERGIES

SLOPE INTERCEPT (TYP.)

EROSION MAT URBAN CLASS I TYPE B, (TYP.)

FIELD ENTRANCE LOCATION TO BE DETERMINED IN FIELD

BURIED TELEPHONE CENTURYLINK

ROBERT C. LEVERICH & CLAIRE E. LEVERICH

CULTIVATED FIELD

WOODS

P.L.

REMOVE EXISTING BRIDGE P-41-0187
STA. 10+00, CL
SINGLE SPAN STEEL DECK GIRDER BRIDGE
21 FT. CLEAR ROADWAY WIDTH
30.6 FT. OVERALL LENGTH
0° SKEW

BENCHMARKS			
NO.	STA./OFFSET	DESCRIPTION	ELEV.
1	9+86.0, 11.0' RT.	CHISELED SQUARE TOP OF CURB	802.44
2	8+89.0, 39.2' LT.	CHISELED CROSS TOP OF CURB	803.16
3	10+31.4, 37.4' LT.	SPIKE IN TREE	800.76

BEGIN PROJECT
STA. 9+20
Y = 389,379.72
X = 634,336.19

END PROJECT
STA. 10+80
Y = 389,401.53
X = 634,494.70

5

5

STA. 10+00, STRUCTURE B-41-0298, REQ'D
SINGLE SPAN PRESTRESSED GIRDER BRIDGE
26 FT. CLEAR ROADWAY WIDTH
46.5 FT. OVERALL LENGTH
15° RHF SKEW

808
806
804
802
800
798
796
794
792

STA = 8+80.00
EL = 802.41

VPC STA = 8+98.50
VPC EL = 802.09

VPI STA = 9+18.50
VPI EL = 801.74
CURVE LEN = 40.00
K = 14.60

-1.72%

VPT STA = 9+38.50
VPT EL = 801.95

FINISHED ℄ PROFILE

1.02%

VPC STA = 10+68.50
VPC EL = 803.27

VPI STA = 11+08.50
VPI EL = 803.68
CURVE LEN = 80.00
K = 121.21

VPT STA = 11+48.50
VPT EL = 804.35

1.68%

EXISTING ℄ PROFILE

OBSERVED WATER ELEV. 789.85± (02-04-13)

HIGH WATER 100 ELEV. 795.61±

STREAMBED ELEV. 789.36±

802.07 802.06 802.02 802.07 802.38 802.58 802.95 803.09 803.67 803.64 804.37 805.69 807.59

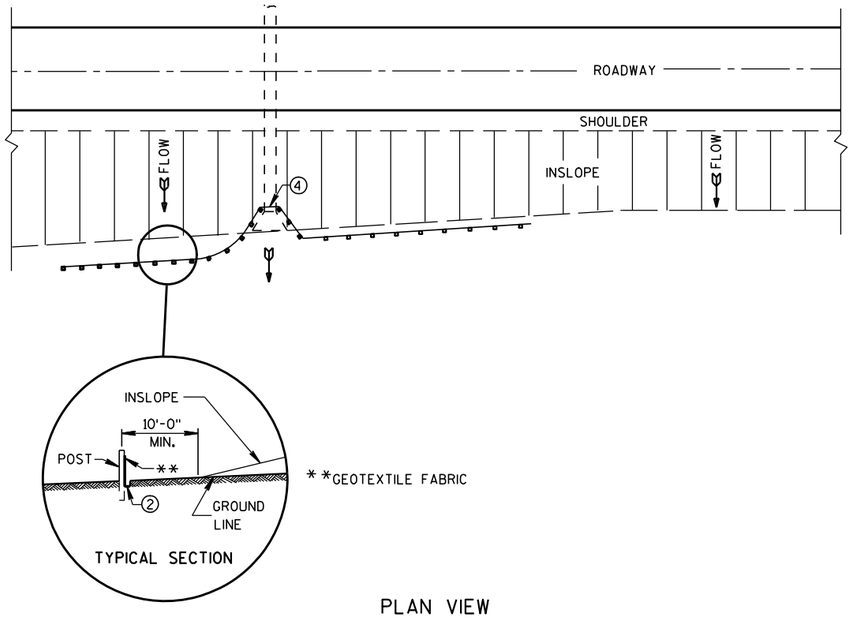
7+50 8+00 8+50 9+00 9+50 10+00 10+50 11+00 11+50 12+00 12+50 13+00 13+50

EARTHWORK SUMMARY
STA. 9+20 - STA. 10+80
EXC. COMMON 125 C.Y.
FILL 42 C.Y.
FILL EXPANSION 30%
WASTE 70 C.Y.

PROJECT NO: 5005-00-70	HWY: TOWN ROAD	COUNTY: MONROE	PLAN & PROFILE - GATEWAY AVENUE	SHEET 10	E

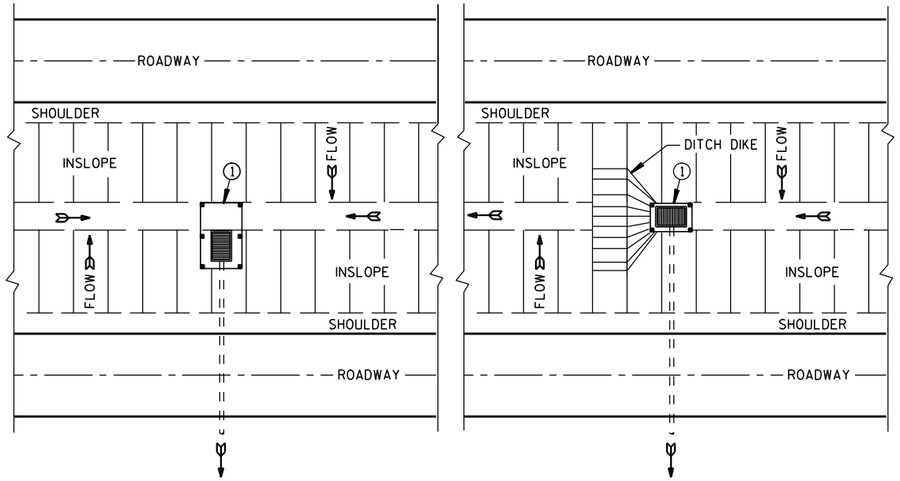
Standard Detail Drawing List

08E09-06	SILT FENCE
12A03-10	NAME PLATE (STRUCTURES)
15A01-11	MARKER POST FOR RIGHT-OF-WAY
15C02-05A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-05B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C06-06	SIGNING & MARKING FOR TWO LANE BRIDGES



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

GENERAL NOTES

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

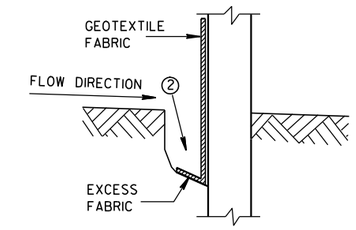
① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.

② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.

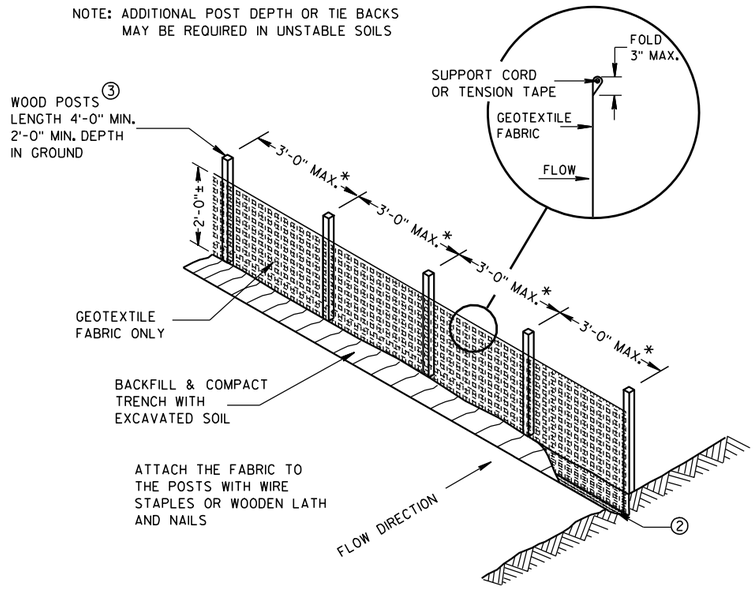
③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.

④ SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.

⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.

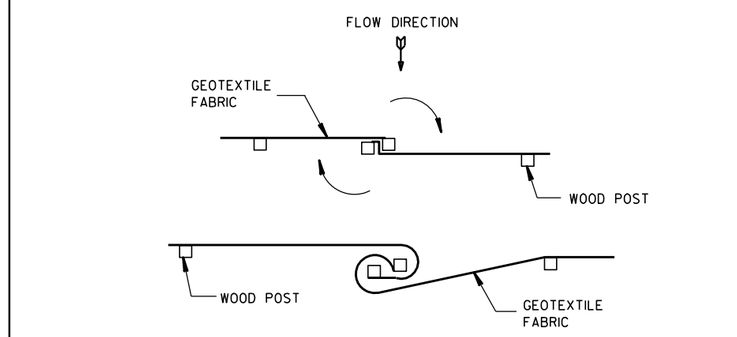


TRENCH DETAIL

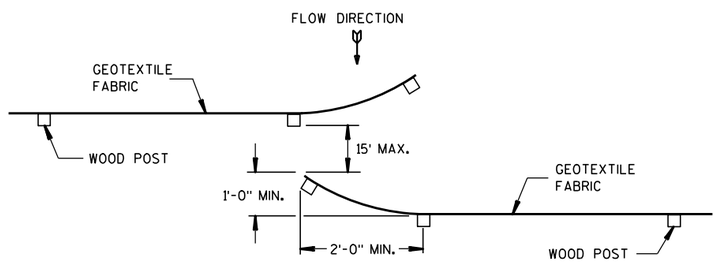


*NOTE: 8'-0" POST SPACING ALLOWED IF A WOVEN GEOTEXTILE FABRIC IS USED.

SILT FENCE

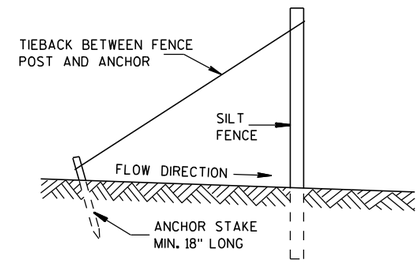


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE ⑤



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

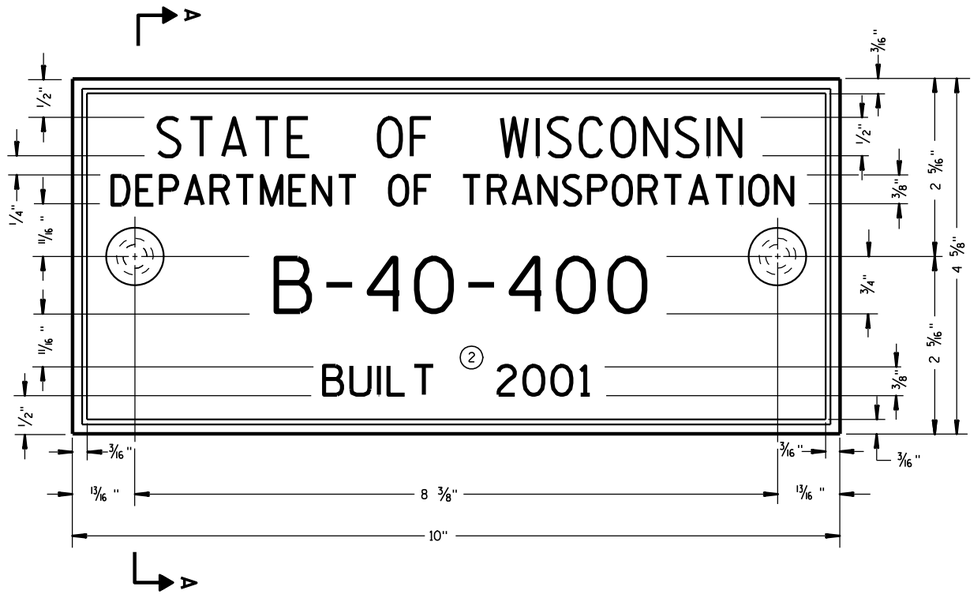
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 8 E 9-6

6

S.D.D. 8 E 9-6



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

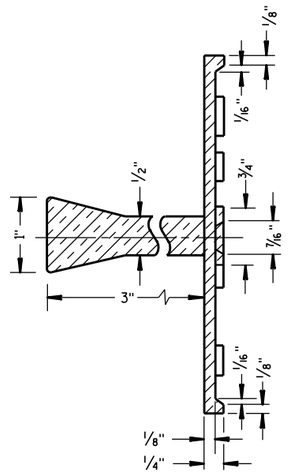
GENERAL NOTES

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.

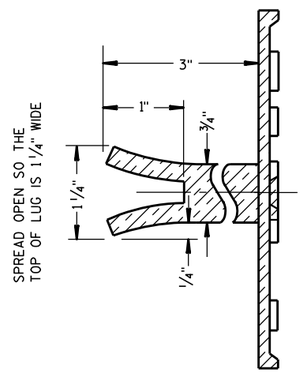
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

(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

FOR MULTI-UNIT STRUCTURES LINE 3 ABOVE SHALL READ

B = BRIDGE
C = CULVERT
R = RETAINING WALL

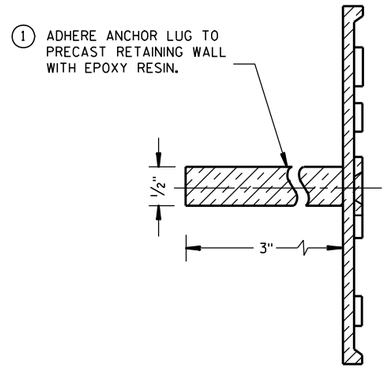
COUNTY NO.

BRIDGE NO.

UNIT NO. FOR MULTIPLE UNIT BRIDGE

B-40-400-1A

NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES



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

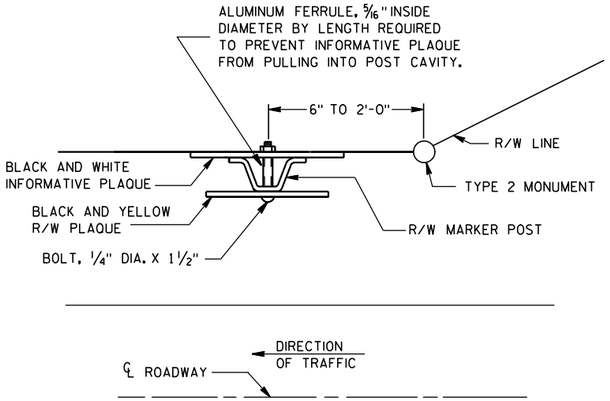
FHWA

6

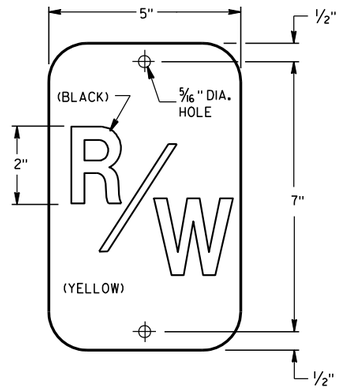
S.D.D. 12 A 3-10

6

S.D.D. 12 A 3-10

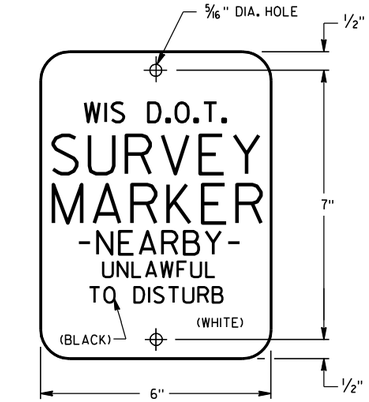


PLAN VIEW



R/W PLAQUE

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



INFORMATIVE PLAQUE

GENERAL NOTES

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

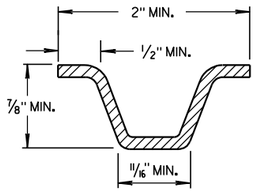
A STEEL MARKER POST FOR RIGHT-OF-WAY SHALL BE PLACED IN THE RIGHT-OF-WAY, WITH THE BACK OF THE POST ON THE LONGER RIGHT-OF-WAY TANGENT, 6 INCHES TO 24 INCHES FROM EACH TYPE 2 MONUMENT TO SERVE AS A GUARD POST, AND AT OTHER LOCATIONS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

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

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

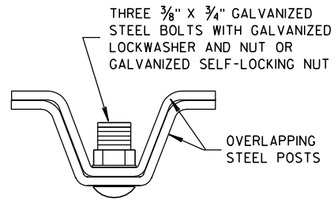
(1) IN AREAS OF SOLID ROCK, DRILL A BORE HOLE 2" GREATER THAN THE WIDEST DIMENSION OF THE POST CROSS SECTION INTO THE ROCK TO A MINIMUM DEPTH OF 12 INCHES. CUT OR SPLICE THE POST SO THAT A MINIMUM LENGTH OF 3' 10" PROTRUDES ABOVE THE GROUND. BLOW OUT THE BORE HOLE IN THE ROCK USING COMPRESSED AIR.

FILL THE BORE HOLE WITH CEMENT GROUT, OR EQUIVALENT, DEPENDING ON THE STABILITY OF THE ROCK.

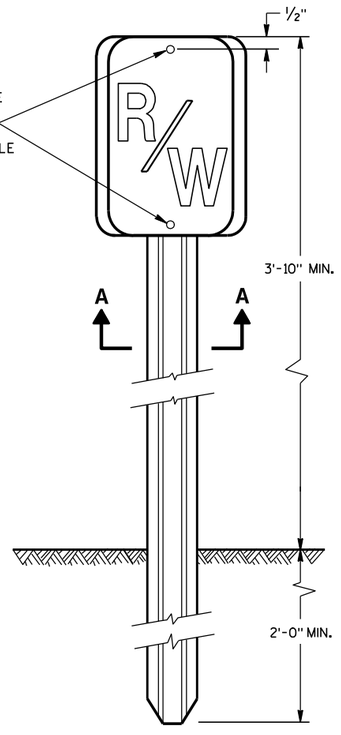


MIN. WEIGHT 1.12 LB./FT.

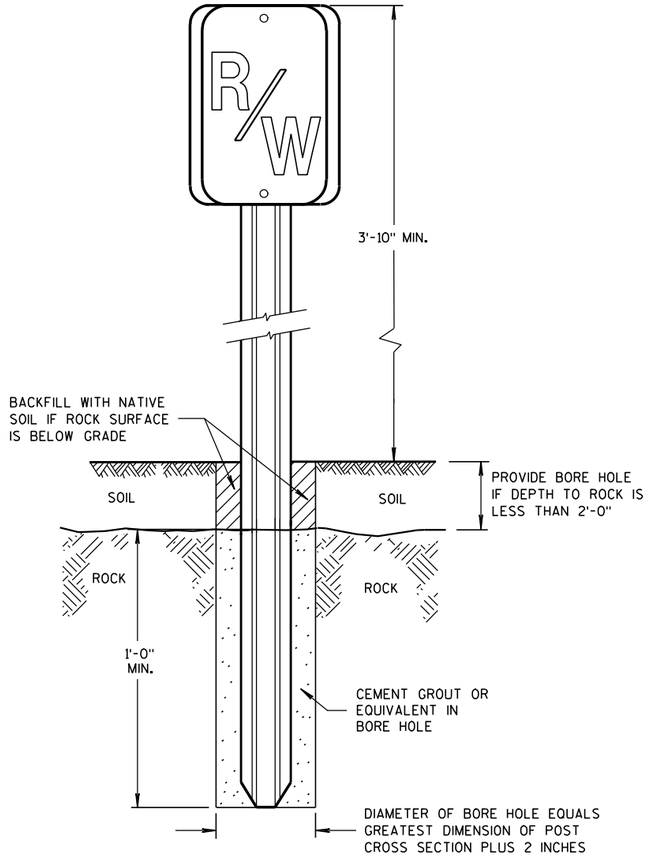
SECTION A-A



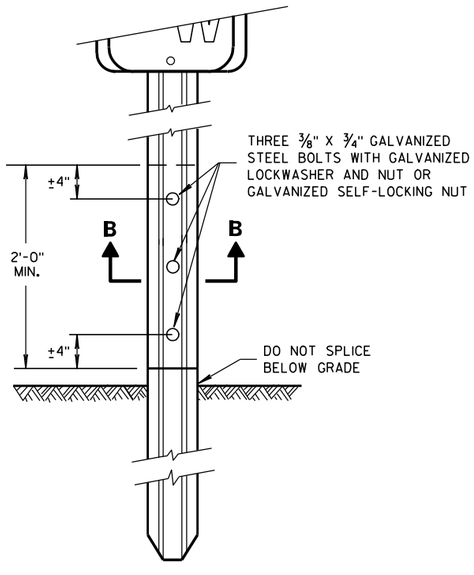
SECTION B-B



FRONT VIEW
STEEL MARKER POST



FRONT VIEW
ROCK INSTALLATION (1)



FRONT VIEW
SPLICE DETAIL

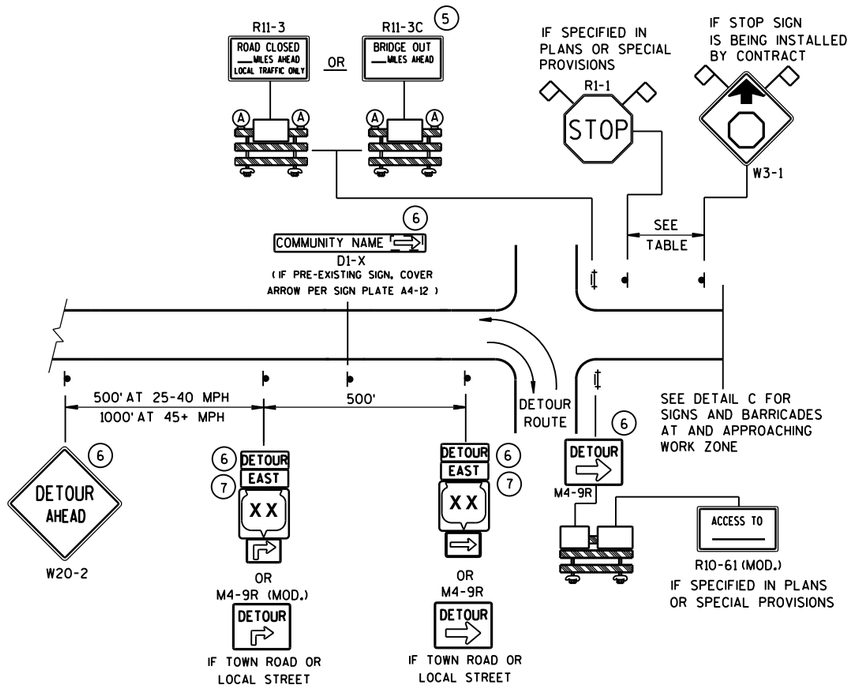
MARKER POST FOR RIGHT-OF-WAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4/27/09 — DATE
/S/ Ray Kumapayi — CHIEF SURVEYING AND MA[illegible]
[illegible]GINEER
FHWA

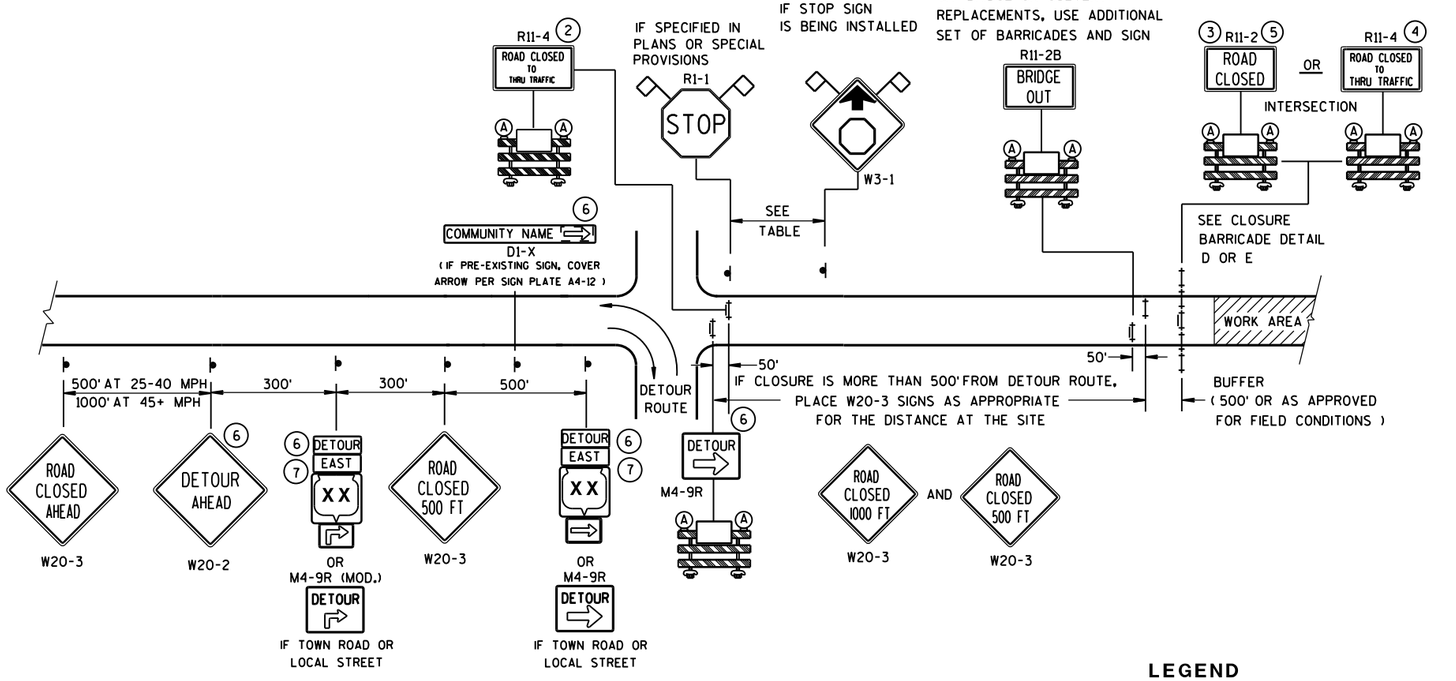
6

S.D.D. 15 A 1-11



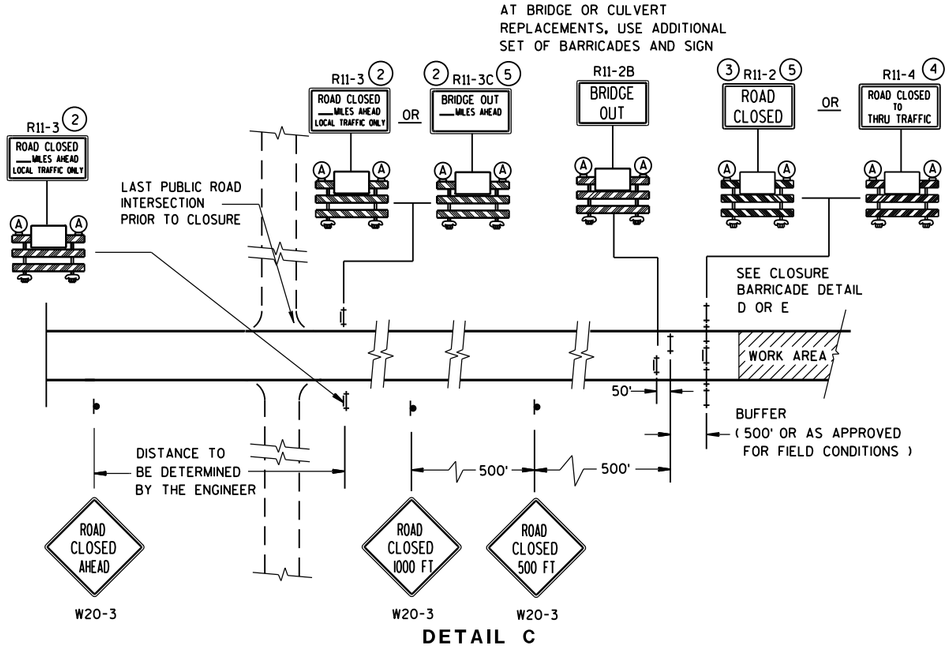
DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

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



DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

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



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

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

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

LEGEND

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

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

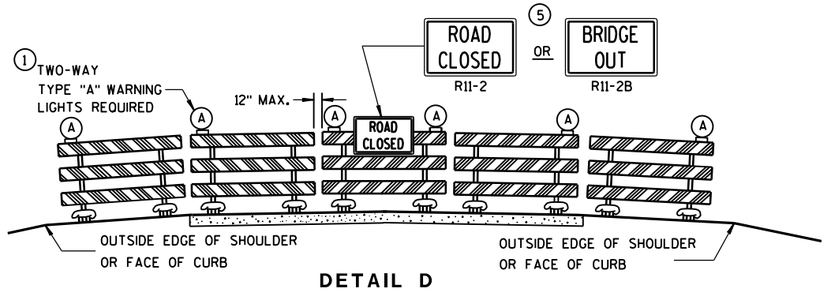
8/2013 DATE

/S/ Travis Feltes
STATE TRAFFIC ENGINEER

FHWA

6

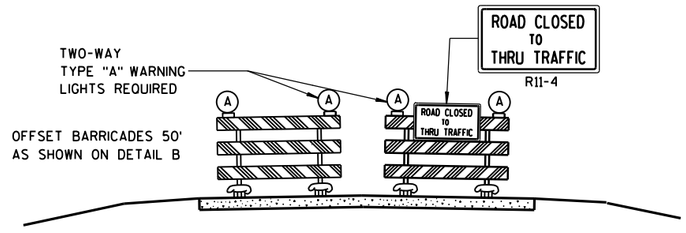
S.D.D. 15 C 2-5a



DETAIL D

ROAD CLOSURE BARRICADE DETAIL

APPROACH VIEW



DETAIL E

LANE CLOSURE BARRICADE DETAIL

APPROACH VIEW

SEE SDD 15C2-SHEET "**a**" FOR LEGEND

GENERAL NOTES

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

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

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

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

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

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

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

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

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

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
- R11-2 SHALL BE 48" X 30".
- R11-3, R11-4 AND R10-61 SHALL BE 60" X 30".
- M4-9 SHALL BE 30" X 24".
- M3-X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS.)
- M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)
- M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)
- M05-1 AND M06-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1-1 SHALL BE 36" X 36".

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

(2) THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT INTERSECTION.

(3) FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL D.

(4) FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE LANE CLOSURE BARRICADE DETAIL E.

(5) FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11-2 AND R11-3 SIGNS.

(6) INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.

(7) "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

8/2013 — DATE

/S/ Travis Feltes — STATE TRAFFIC ENGINEER

FHWA

6

S.D.D. 15 C 2-5b

GENERAL NOTES

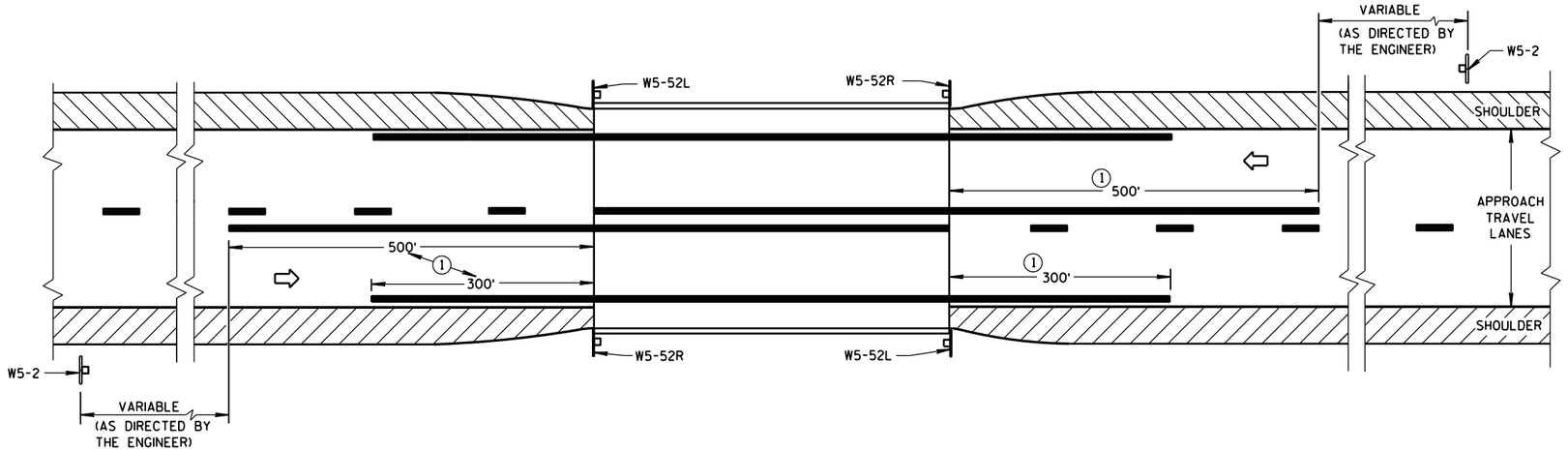
DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

PAVEMENT MARKING SHOWN ON THIS DRAWING IS NOT REQUIRED UNLESS OTHERWISE SPECIFIED IN THE CONTRACT. WHEN SPECIFIED, PAVEMENT MARKING SHALL CONFORM TO THIS DRAWING AND OTHER CONTRACT REQUIREMENTS.

(1) MINIMUM DISTANCE UNLESS OTHERWISE SHOWN ON THE PLAN.

(2) FACE OF OBJECT MARKERS W5-52R, AND W5-52L SHALL BE COVERED WITH TYPE F REFLECTIVE SHEETING.

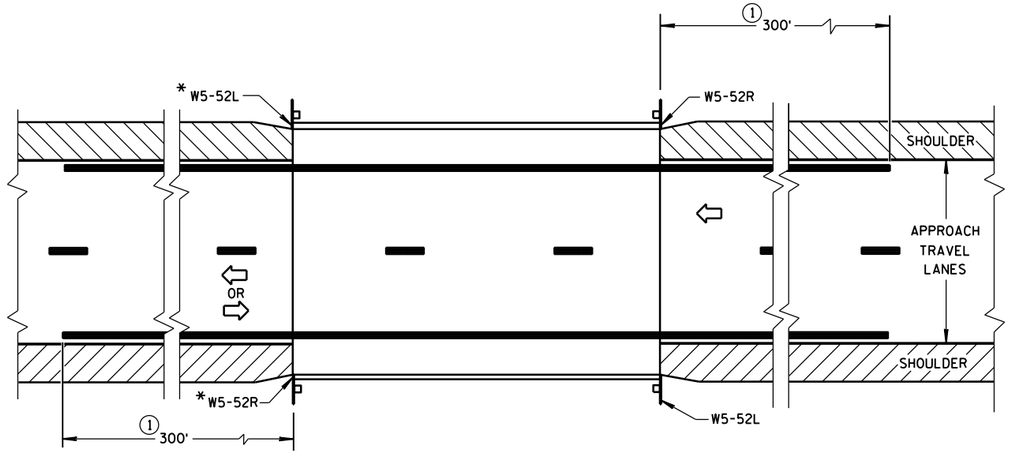
(3) LOCATE OBJECT MARKER POST(S) BEHIND GUARDRAIL WHEN PRESENT.



SITUATION 1

WARRANTING CRITERIA:

BRIDGE WIDTH IS AT LEAST 18 FEET BUT LESS THAN 24 FEET

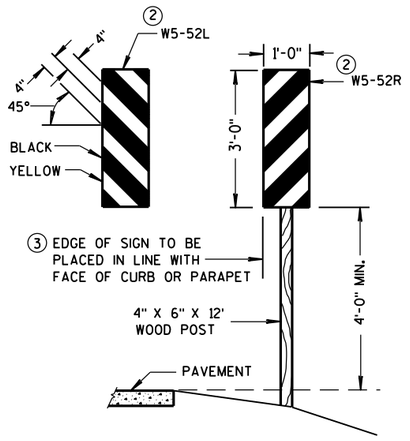


*OMIT ON ONE-WAY TRAVELLED WAYS

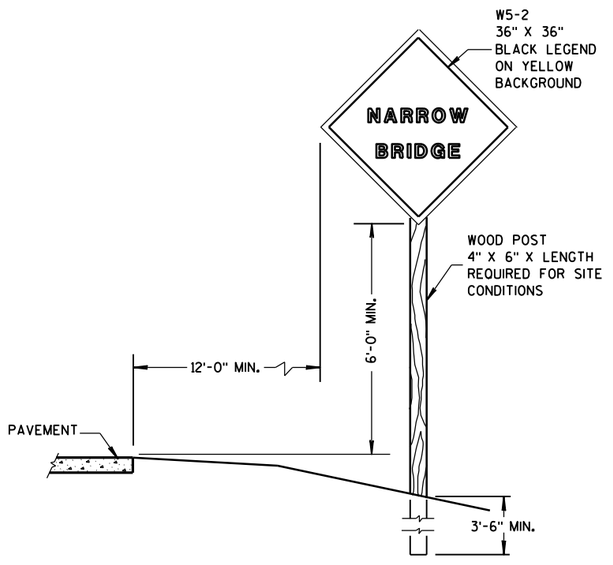
SITUATION 2

WARRANTING CRITERIA:

1. BRIDGE WIDTH IS AT LEAST 24 FEET AND
2. BRIDGE IS LESS THAN 6 FEET WIDER (ON EACH SIDE) THAN APPROACH TRAVEL LANES.



OBJECT MARKER PLACEMENT



SIGN PLACEMENT

SIGNING & MARKING
FOR TWO LANE BRIDGES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

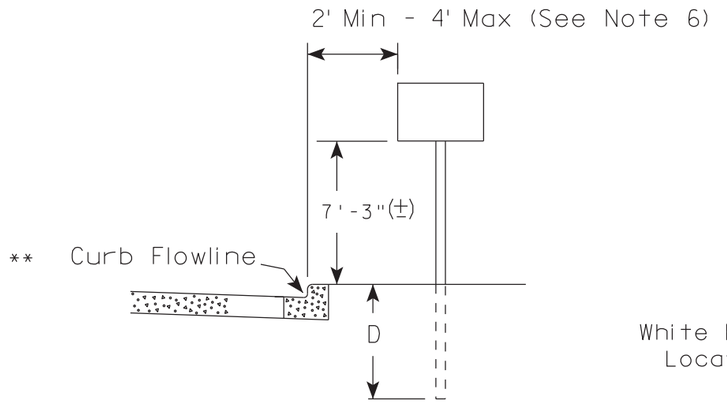
3/4/2013 — DATE

/S/ Travis Feltes — STATE TRAFFIC ENGINEER

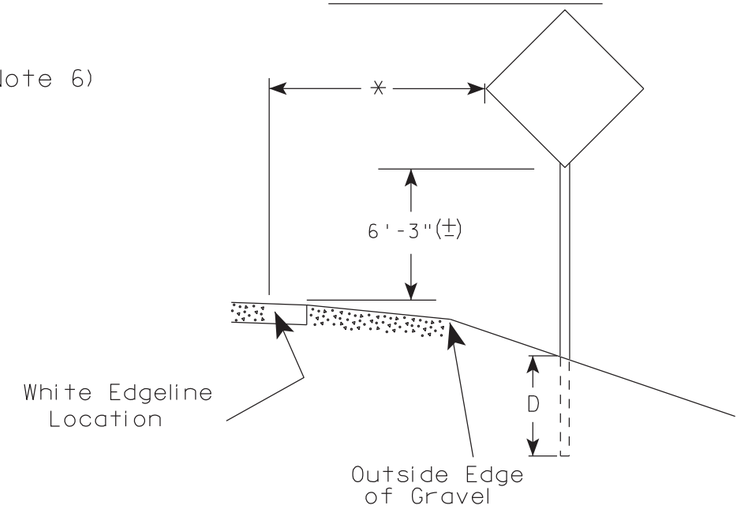
FHWA

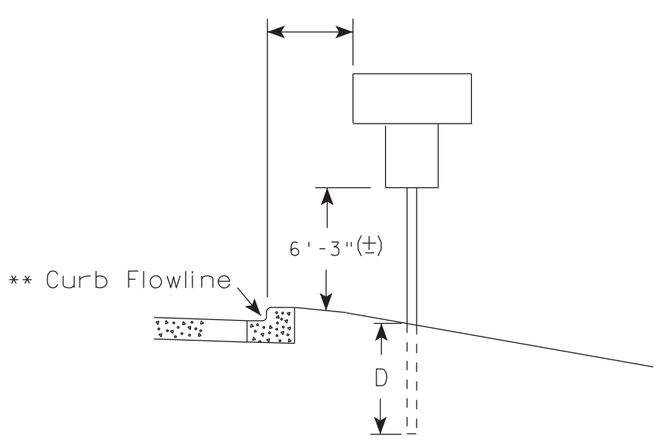
S.D.D. 15 C 6-6
6

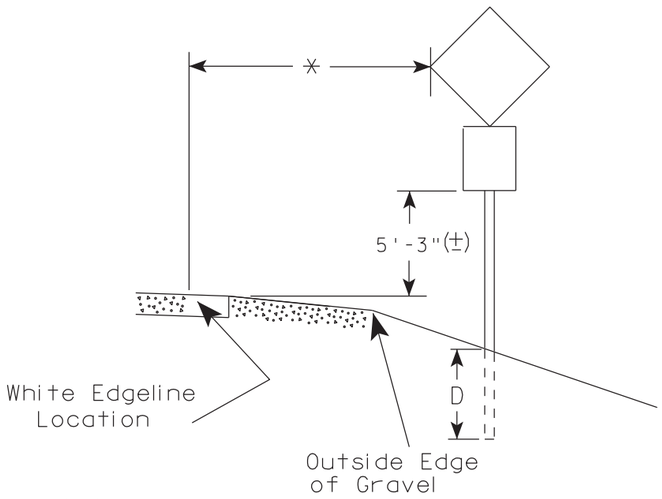
URBAN AREA



RURAL AREA (See Note 2)







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

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

GENERAL NOTES

1. Signs wider than 4 feet, 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 (A4-5) 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 stop signs (R1-1F) shall be mounted at a height of 5'-3" (±) or as directed 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) & End of Rod Markers (W5-56 & W5-56A) 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'

TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

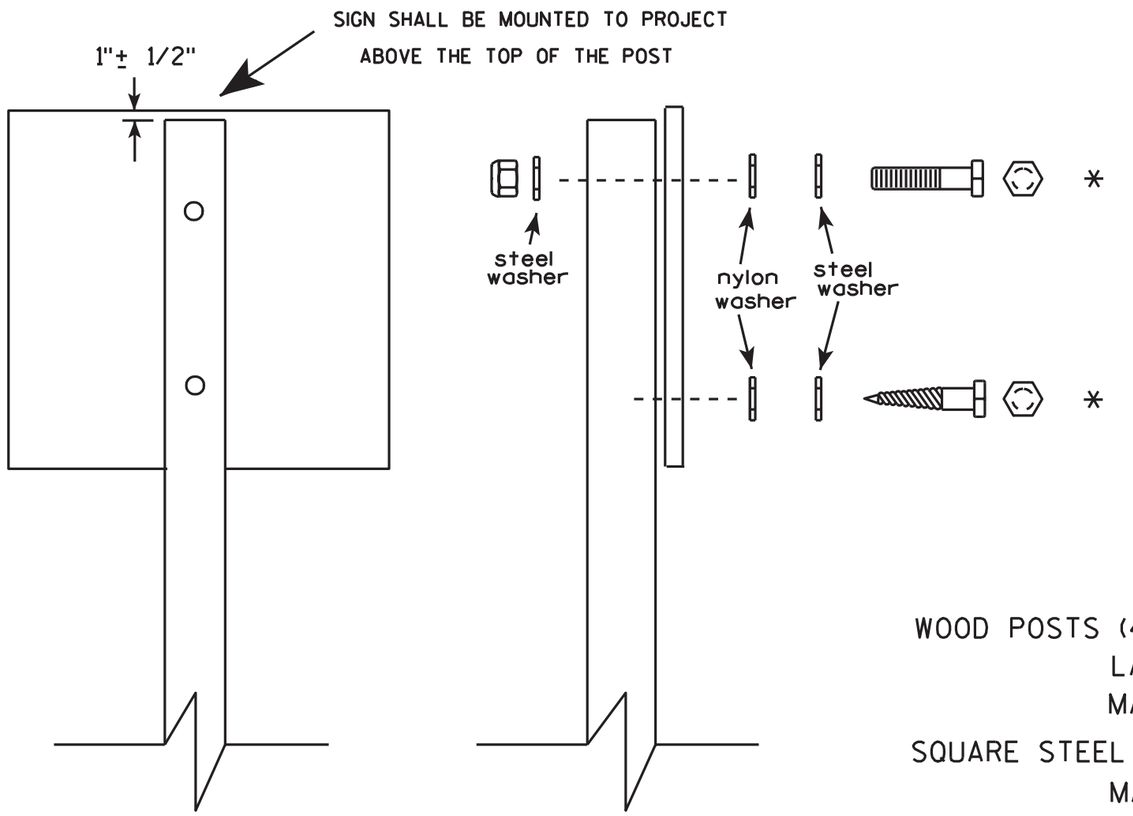
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 9/30/13 PLATE NO. A4-3.18

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A43.DGN PLOT DATE : 30-SEP-2013 13:25 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 99.237937:1.000000 WISDOT/CADDS SHEET 42



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

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

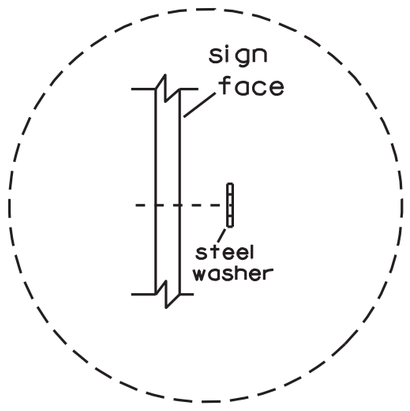
b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

WOOD POSTS (4" x 4" or 4" x 6")
LAG SCREWS - 3/8" X 3"
MACHINE BOLTS - 5/16" X 6-1/2" or 7" Length w/ nuts

SQUARE STEEL POSTS (2" x 2")
MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts
RIVETS - 9/32 " (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON for all Type H signs.



Washer Placement when Sign Has Other Than Type H or Type F Face

* 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

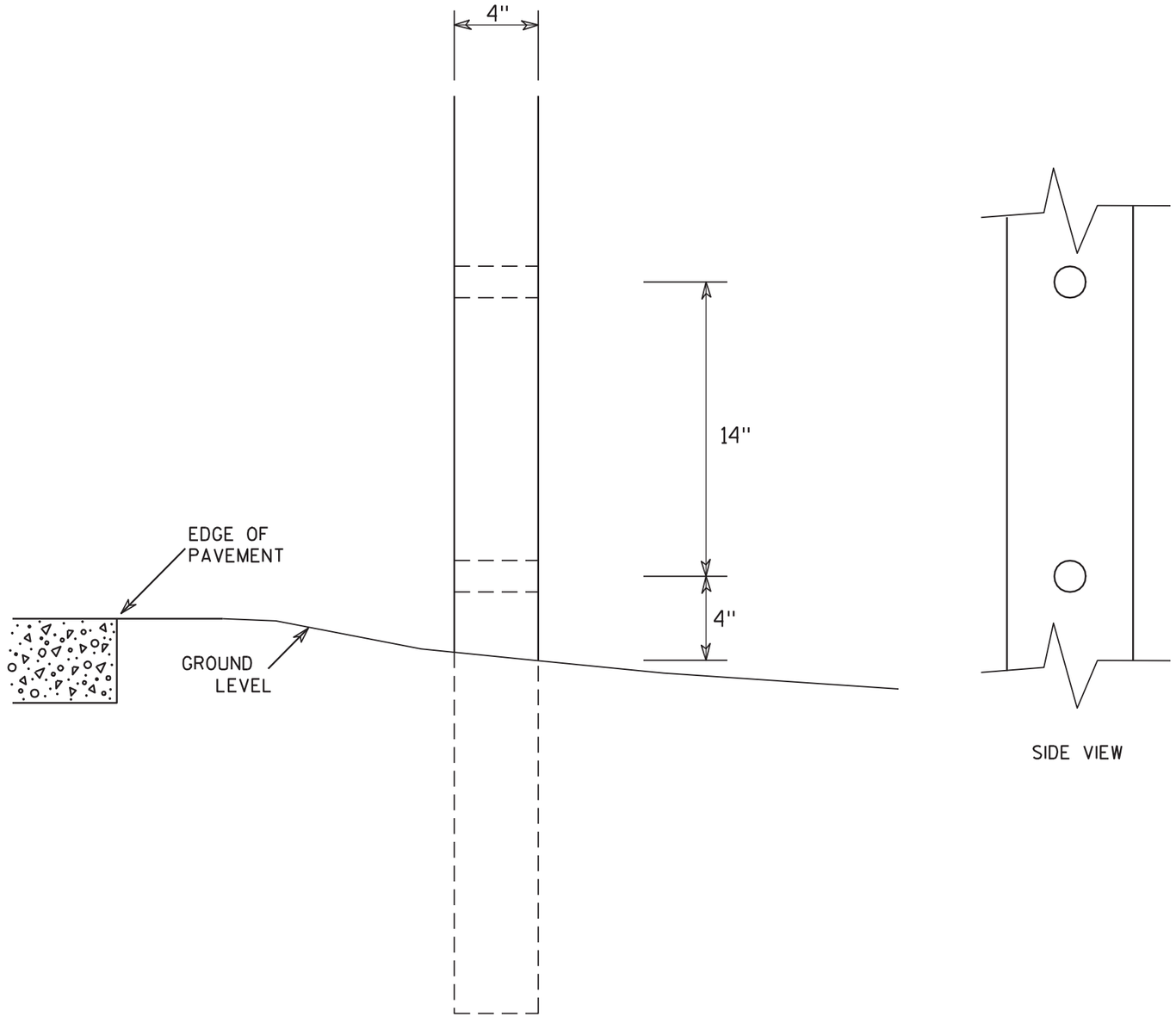
DATE 3/23/10 PLATE NO. A4-8.7

7

7

PROJECT NO:

SHEET NO: 19 E



SIDE VIEW

GENERAL NOTES

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

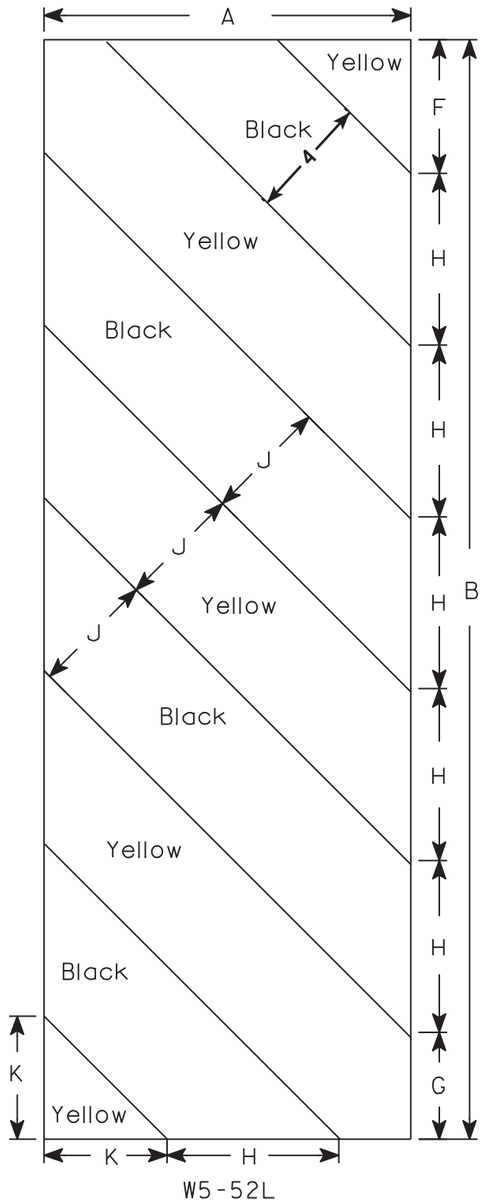
4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

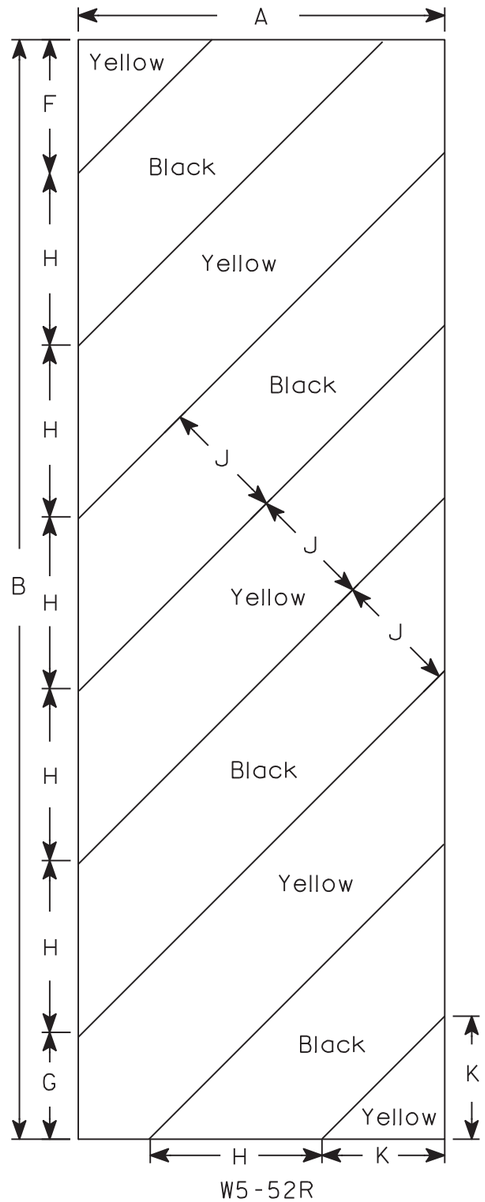
APPROVED Chester J Spang for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 20	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

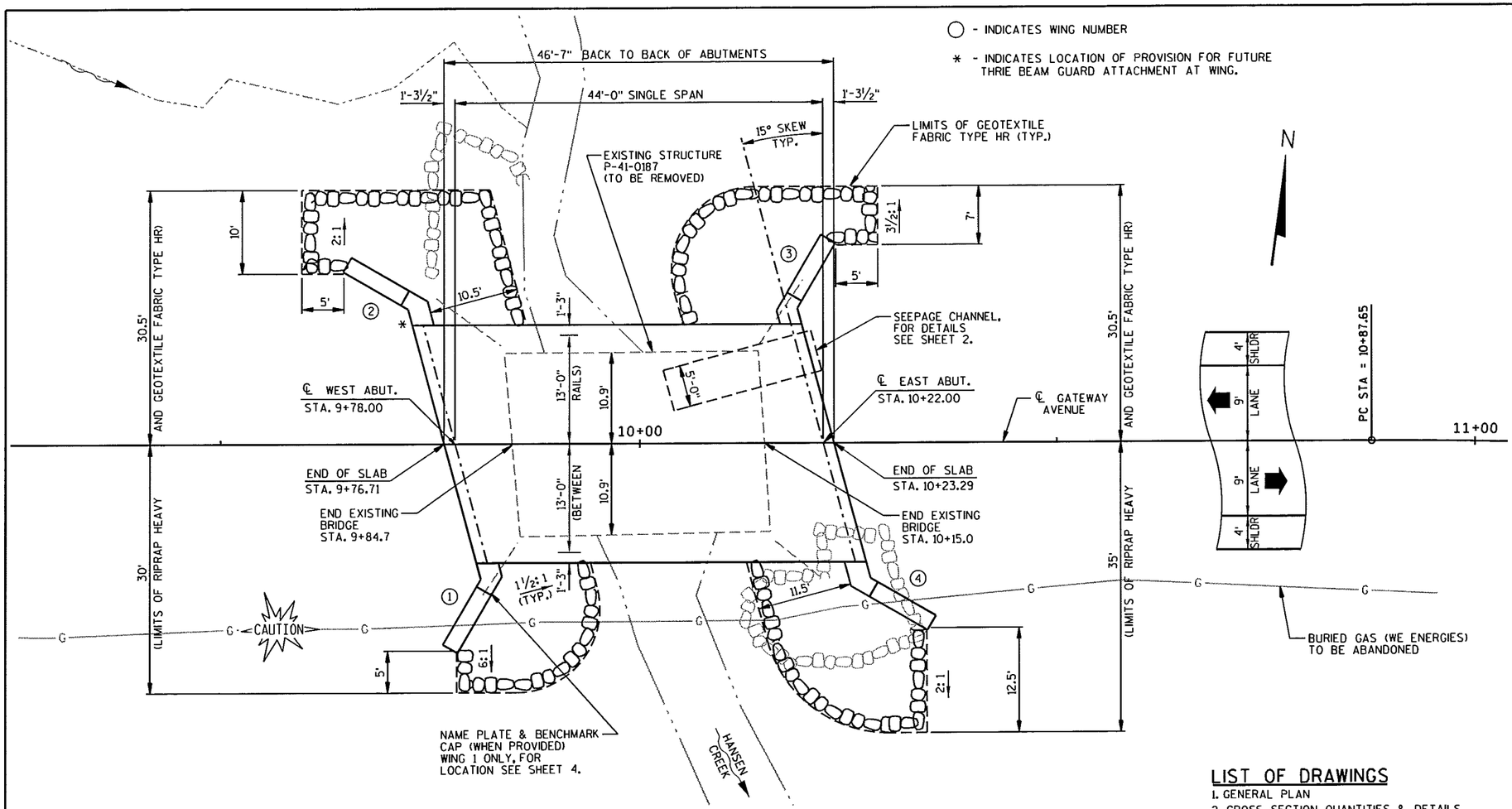
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 21 | E

STATE PROJECT NUMBER
5005-00-70

BENCHMARKS ⊕ NAVD 88			
NO.	STA./OFFSET	DESCRIPTION	ELEV.
1	9+86.0, 11.0' RT.	CHISELED SQUARE TOP OF CURB	802.44
2	8+89.0, 39.2' LT.	CHISELED CROSS TOP OF CURB	803.16
3	10+31.4, 37.4' LT.	SPIKE IN TREE	800.76

○ - INDICATES WING NUMBER

* - INDICATES LOCATION OF PROVISION FOR FUTURE THRIE BEAM GUARD ATTACHMENT AT WING.

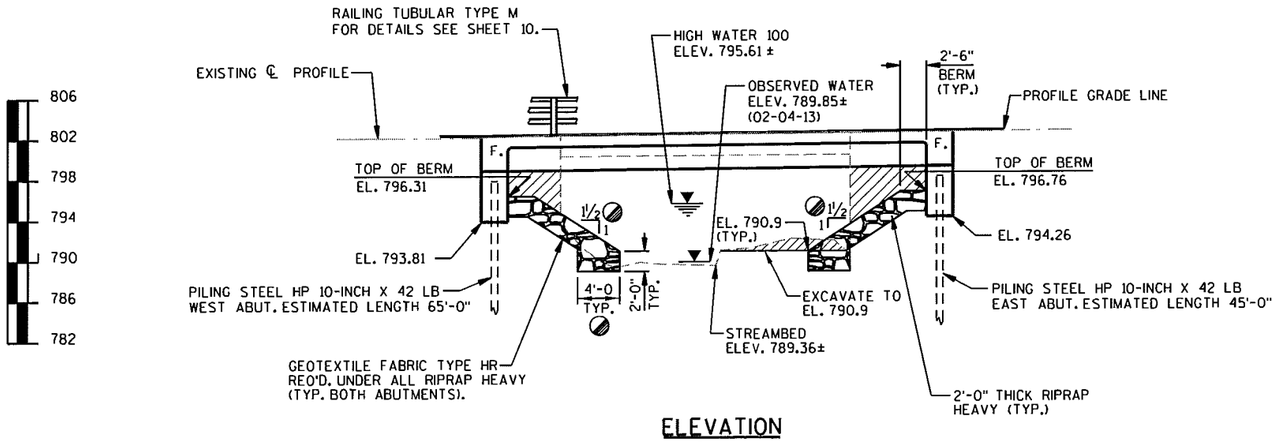


PLAN

(SINGLE SPAN PRESTRESSED CONCRETE GIRDER)

▨ - REMOVAL OF THIS MATERIAL IS INCLUDED IN THE BID ITEM "EXCAVATION FOR STRUCTURES BRIDGES B-41-298".

⊘ - DIMENSION GIVEN NORMAL TO THE ℄ OF ABUTMENTS.



ELEVATION

NORMAL TO ℄ GATEWAY AVENUE

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HL-93
INVENTORY RATING FACTOR: 1.20
OPERATIONAL RATING FACTOR: 1.56

TRAFFIC DATA:

A.A.D.T. (2014) = 120
A.A.D.T. (2034) = 140
R.D.S. = 40 MPH

WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) = 250 KIPS.

STRUCTURE IS DESIGNED FOR A ⅜" POLYMER OVERLAY AND A FUTURE WEARING SURFACE OF 20 POUNDS PER SQUARE FOOT.

ULTIMATE DESIGN STRESSES:

CONCRETE MASONRY, SLAB ——— $f'c$ = 4,000 P.S.I.
ALL OTHER ——— $f'c$ = 3,500 P.S.I.

HIGH-STRENGTH BAR STEEL REINFORCEMENT, GRADE 60 ——— fy = 60,000 P.S.I.

28-INCH PRESTRESSED GIRDERS CONCRETE MASONRY ——— $f'c$ = 8,000 P.S.I.
STRANDS - 0.50" ϕ WITH AN ULTIMATE TENSILE STRENGTH OF ——— fs = 270,000 P.S.I.

PILING STEEL HP ——— fy = 50,000 P.S.I.

FOUNDATION DATA:

ABUTMENTS TO BE SUPPORTED ON PILING STEEL HP 10-INCH x 42 LB. DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 110 TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED PILE LENGTHS ARE 65'-0" AT THE WEST ABUTMENT AND 45'-0" AT THE EAST ABUTMENT.

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

HYDRAULIC DATA:

100 YEAR FREQUENCY

DRAINAGE AREA ——— 2.1 SQ. MI.
Q_{100} ——— 560 C.F.S.
VELOCITY ——— 4.74 F.P.S.
WATERWAY AREA ——— 118 SQ. FT.
HIGH WATER$_{100}$ ELEVATION ——— 795.61 ±
ROADWAY OVERFLOW DESIGN FREQUENCY ——— N/A
SCOUR CRITICAL CODE ——— 8
HIGH WATER$_2$ ELEVATION (110 C.F.S.) ——— 792.26 ±

LIST OF DRAWINGS

1. GENERAL PLAN
2. CROSS SECTION, QUANTITIES & DETAILS
3. SUBSURFACE EXPLORATION
4. ABUTMENTS
5. ABUTMENT DETAILS
6. 28" PRESTRESSED GIRDER DETAILS
7. SUPERSTRUCTURE
8. SUPERSTRUCTURE SECTIONS & DETAILS
9. STEEL DIAPHRAGM & PILE SPLICE
10. RAILING TUBULAR TYPE M

CONSULTANT DESIGN CONTACT:
LEAH RHODES
(608) 355-8945

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

WISCONSIN
LEAH J. RHODES
E-41726
BARABOO
WI
PROFESSIONAL ENGINEER

Leah J. Rhodes
11/21/2013

NO.	DATE	REVISION	BY

MSA PROFESSIONAL SERVICES
TRANSPORTATION • MUNICIPAL DEVELOPMENT • ENVIRONMENTAL
1230 South Boulevard Baraboo, WI 53913
608-356-2771 1-800-362-4505 Fax: 608-356-2770

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
ACCEPTED William C. Dreher KAR — 02/19/14
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-41-0298

GATEWAY AVENUE OVER HANSEN CREEK

COUNTY	TOWN/~~CITY/VILLAGE~~
MONROE	ANGELO

DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
JRS	LJR	RLR	LJR

GENERAL PLAN

SHEET 1 OF 10
22

8

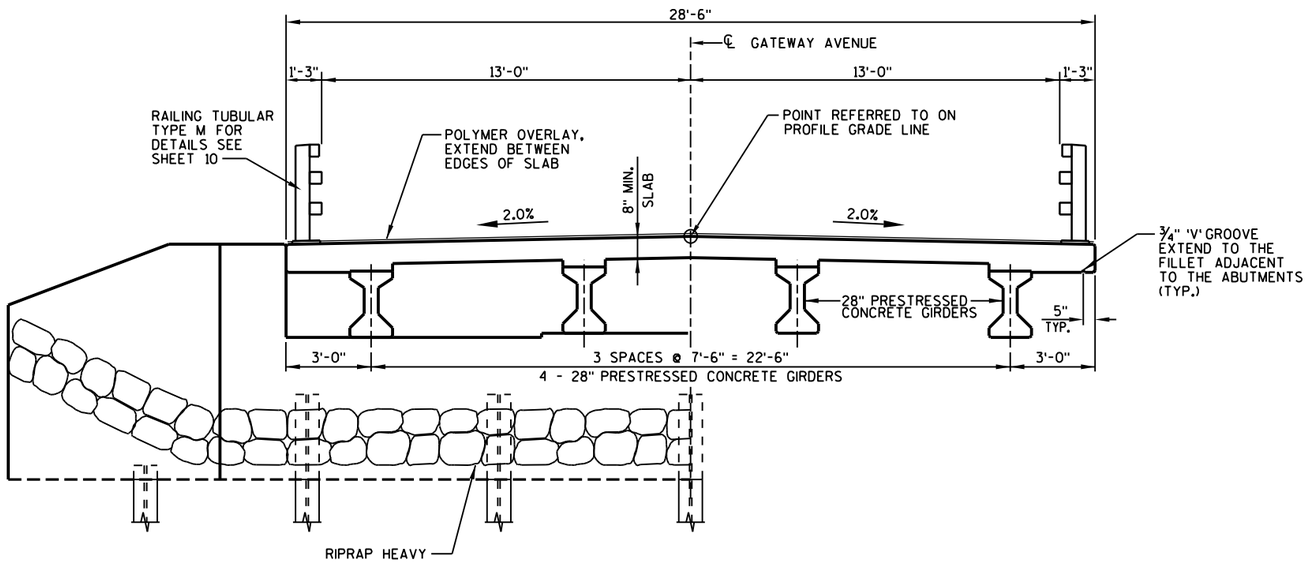
8

FILE= 5848007_GENPLAN_01.DGN
DATE= 11/18/2013

5848007_01_GENPLAN.dgn 11/18/2013 5:06:37 PM RRABSKA

STATE PROJECT NUMBER

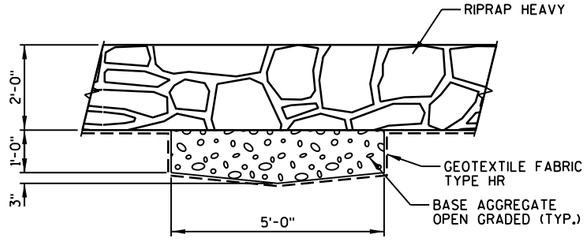
5005-00-70



AT ABUTMENTS IN SPAN

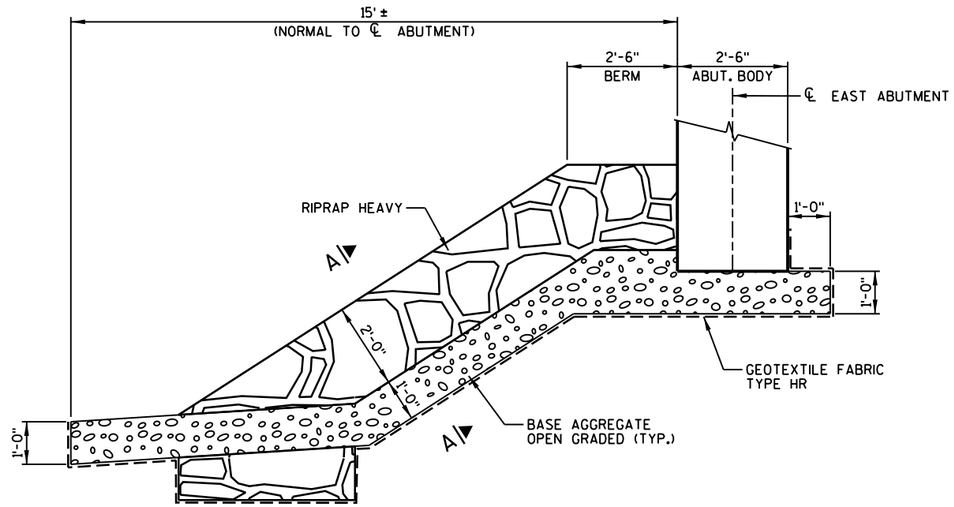
CROSS SECTION THRU BRIDGE

(LOOKING EAST)



SECTION A-A THRU SEEPAGE CHANNEL

DETERMINE THE POSITION OF THE SEEPAGE CHANNEL IN THE FIELD. CENTER THE CHANNEL ON THE NATURAL SPRING THAT RUNS BELOW THE NORTH CORNER OF THE EAST ABUTMENT



SEEPAGE CHANNEL DETAILS

TOTAL ESTIMATED QUANTITIES

ITEM NUMBER	BID ITEM	UNIT	WEST ABUT.	EAST ABUT.	SUPER.	TOTAL
203.0600.S.01	REMOVING OLD STRUCTURE OVER WATERWAY WITH MINIMAL DEBRIS STATION 10+00	LS	-	-	-	1
206.1000.01	EXCAVATION FOR STRUCTURE BRIDGES (B-41-0298)	LS	-	-	-	1
210.0100	BACKFILL STRUCTURE	CY	130	130	-	260
310.0115	BASE AGGREGATE OPEN GRADED	CY	-	5	-	5
502.0100	CONCRETE MASONRY BRIDGES	CY	29	29	-	58
502.3200	PROTECTIVE SURFACE TREATMENT	SY	20	20	18	58
503.0128	PRESTRESSED GIRDER TYPE I 28-INCH	LF	-	-	180	180
505.0405	BAR STEEL REINFORCEMENT HS BRIDGES	LB	2060	2060	-	4120
505.0605	BAR STEEL REINFORCEMENT HS COATED BRIDGES	LB	1505	1505	9560	12570
506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EACH	-	-	8	8
506.4000.01	STEEL DIAPHRAGMS (B-41-0298)	EACH	-	-	3	3
509.5100.5	POLYMER OVERLAY	SY	-	-	148	148
513.4060.01	RAILING TUBULAR TYPE M (B-41-0298)	LS	-	-	-	1
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	10	10	-	20
550.1100	PILING STEEL HP 10-INCH X 42 LB	LF	455	315	-	770
606.0300	RIPRAP HEAVY	CY	79	86	-	165
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	90	90	-	180
645.0120	GEOTEXTILE FABRIC TYPE HR	SY	150	160	-	310
SPV.0035.01	SPECIAL FIBER REINFORCED CONCRETE MASONRY FOR BRIDGES, STRUCTURE B-41-0298	CY	-	-	49	49
	NON-BID ITEMS					
	PREFORMED FILLER	SIZE				½" & ¾"

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

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

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

THE SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH RIPRAP HEAVY AND GEOTEXTILE FABRIC TYPE HR TO THE LIMITS SHOWN ON SHEET 1 AND ON THE ABUTMENT SHEETS OR AS DIRECTED BY THE ENGINEER.

THE EXISTING GROUNDLINE SHALL BE THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES" FOR THE ABUTMENTS.

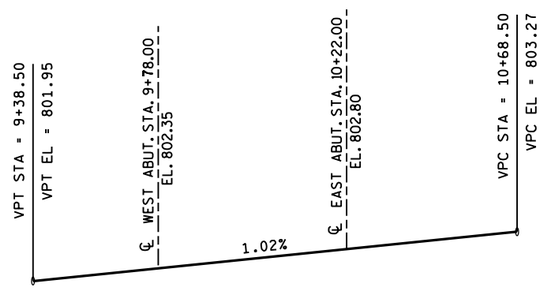
THE MINIMUM CONCRETE HAUNCH AT THE EDGE OF THE GIRDER FLANGES SHALL BE 1¼". THE HAUNCH CONCRETE QUANTITY IS BASED ON AN AVERAGE HAUNCH DEPTH OF 2½" WHICH IS THE MAXIMUM HAUNCH QUANTITY FOR WHICH THE CONTRACTOR WILL BE PAID.

THIS STRUCTURE WILL REPLACE EXISTING BRIDGE, P-41-0187, A 30.6 FOOT LONG, SINGLE SPAN STEEL DECK GIRDER BRIDGE SET ON FULL RETAINING TIMBER ABUTMENTS.

AT THE ABUTMENTS ALL EXCAVATED VOLUME NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH BACKFILL STRUCTURE. THE BACKFILL STRUCTURE ESTIMATED QUANTITIES ASSUMED A 1½:1 EXCAVATION SLOPE AT THE ABUTMENTS.

ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO USGS NAVD 88 DATUM, 1996 ADJUSTED AND WERE ESTABLISHED AT THE SITE USING GPS TECHNOLOGY.

APPLY PROTECTIVE SURFACE TREATMENT TO THE SIDES OF THE DECK, TO THE OUTSIDE 1'-0" OF THE UNDERSIDE OF DECK, TO THE TOPS OF WINGS, AND TO THE EXPOSED FRONT FACES OF WINGS.



PROFILE GRADE LINE - GATEWAY AVENUE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-41-0298

DRAWN BY RLR | PLANS CK'D. LJR

CROSS SECTION, QUANTITIES & DETAILS

SHEET 2 OF 10

23

8

8

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DATE= 2/19/2014

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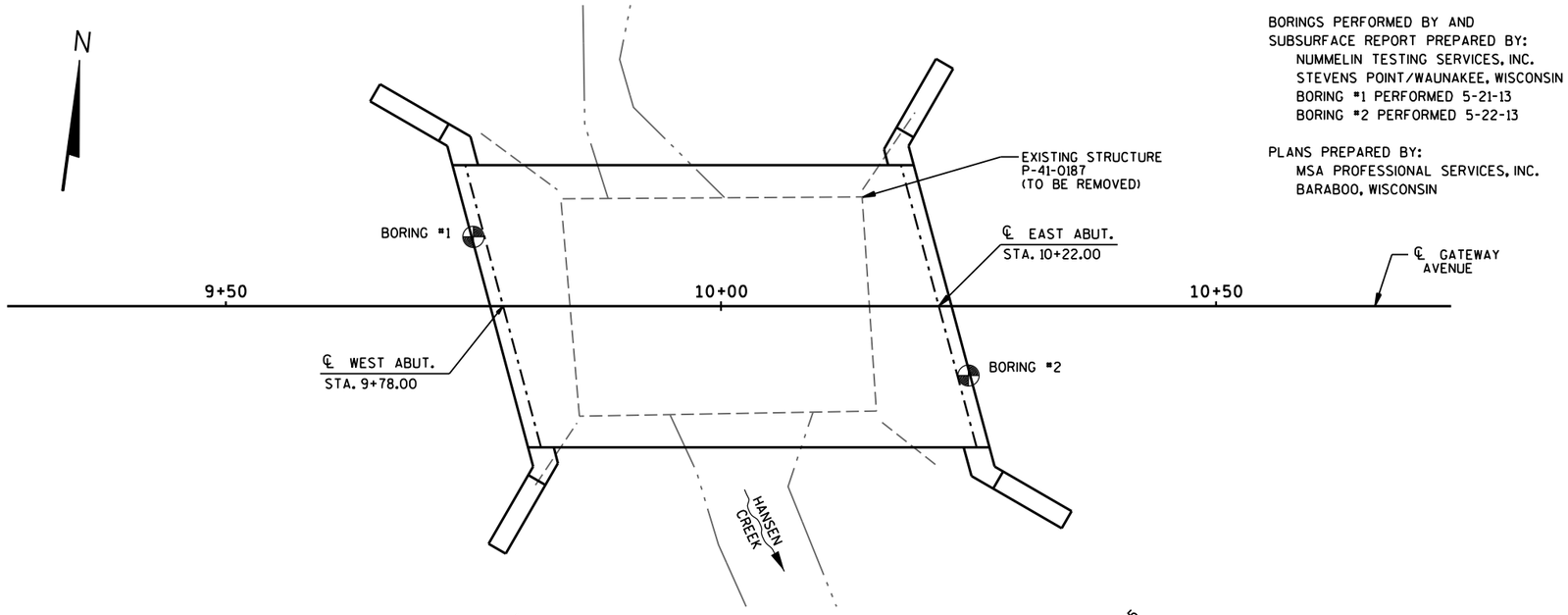
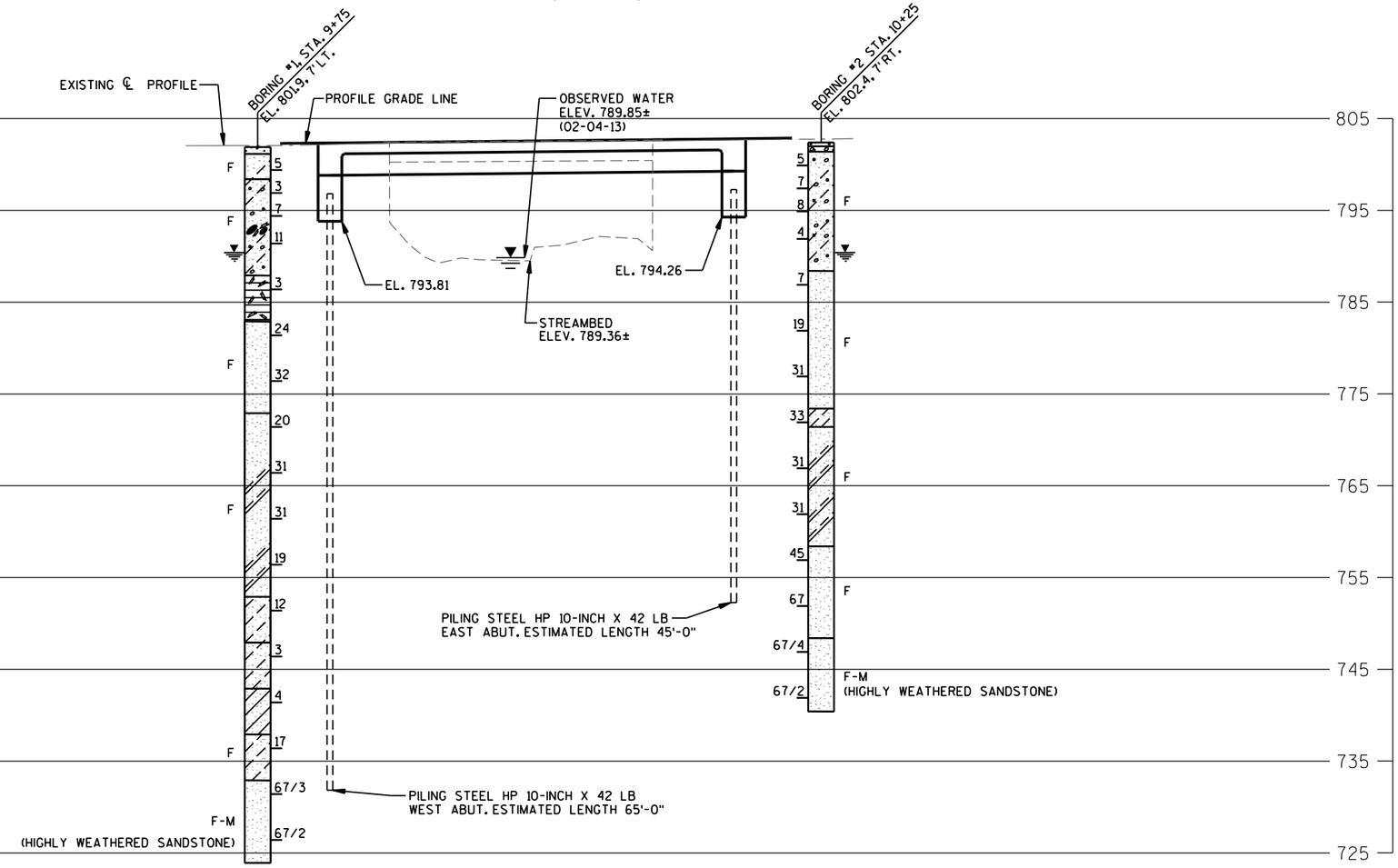


BORINGS PERFORMED BY AND
SUBSURFACE REPORT PREPARED BY:
NUMMELIN TESTING SERVICES, INC.
STEVENS POINT/WAUNAKEE, WISCONSIN
BORING #1 PERFORMED 5-21-13
BORING #2 PERFORMED 5-22-13

PLANS PREPARED BY:
MSA PROFESSIONAL SERVICES, INC.
BARABOO, WISCONSIN



STATE PROJECT NUMBER

5005-00-70

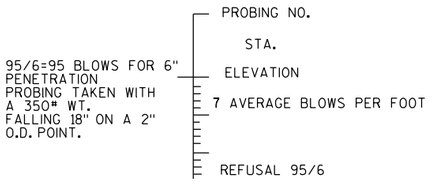
ABBREVIATIONS

F — FINE M — MEDIUM C — COARSE
WS — WEATHERED SO — SOUND

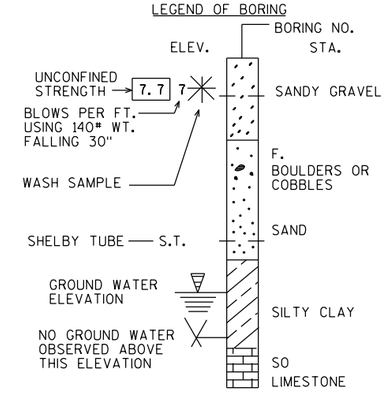
MATERIAL SYMBOLS

TOPSOIL, SILT, SANDSTONE
SAND, PEAT, LIMESTONE
GRAVEL, CLAY, IGNEOUS ROCK

LEGEND OF PROBING



LEGEND OF BORING



UNLESS OTHERWISE SPECIFIED, THE BLOWS PER FOOT AT THE LOCATIONS INDICATED ARE BASED ON DRIVING A 2" O.D. X 1.4" I.D. SPLIT SPOON SAMPLER WITH A 140# HAMMER HAVING A FREE FALL OF 30". THE BLOW COUNT IS TAKEN IN UNDISTURBED SOIL IMMEDIATELY BELOW A CASED OR OPEN HOLE ELIMINATING SIDE FRICTION ON THE DRIVE PIPE.

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

TO OBTAIN RELATIVE DATA CONCERNING THE CHARACTER OF MATERIAL IN AND UPON WHICH THE FOUNDATION MIGHT BE BUILT, BORINGS AND/OR SOUNDINGS WERE MADE AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING. THE DATA PRESENTED HEREIN REPRESENTS THE FINDINGS OF THE SUBSURFACE EXPLORATIONS MADE. HOWEVER, BECAUSE THE DEPTHS INVESTIGATED ARE LIMITED AND THE AREA OF THE BORINGS AND/OR SOUNDINGS IS VERY SMALL IN RELATION TO THE ENTIRE AREA, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT CONDITIONS BELOW THE DEPTHS INVESTIGATED OR THAT THE CLASSIFICATION OF MATERIAL ENCOUNTERED IN THESE INVESTIGATIONS IS NECESSARILY TYPICAL OF THE ENTIRE SITE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-41-0298

DRAWN BY RLR | PLANS CK'D. JRS

SUBSURFACE EXPLORATION

SHEET 3 OF 10
24

8

8

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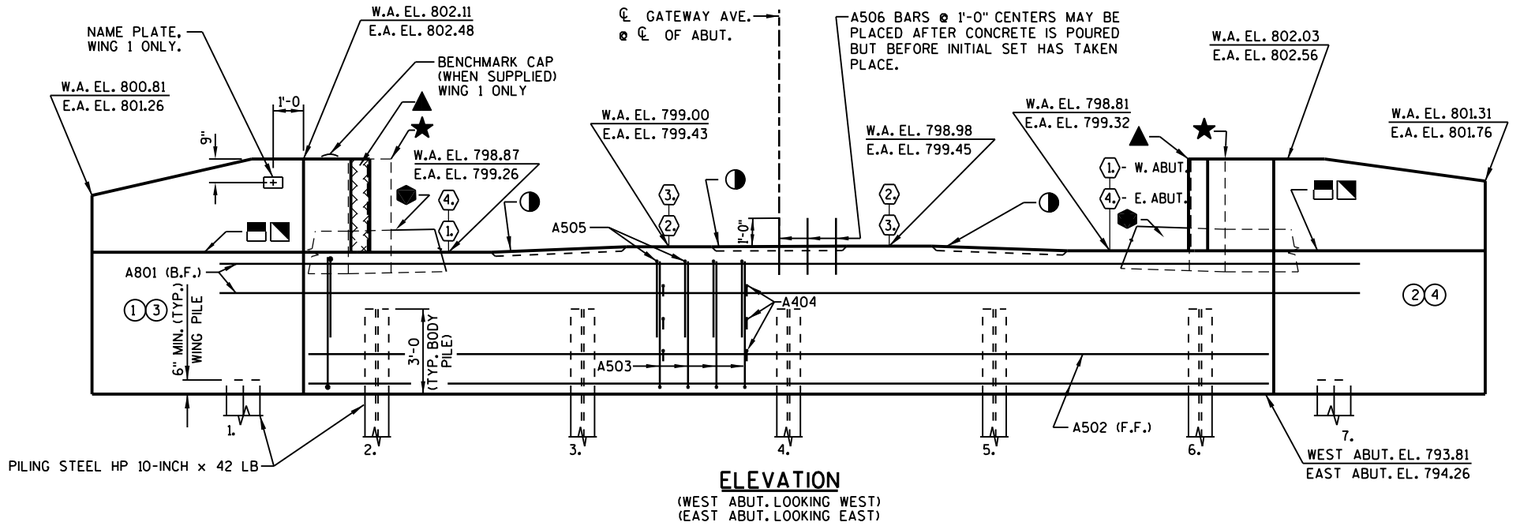
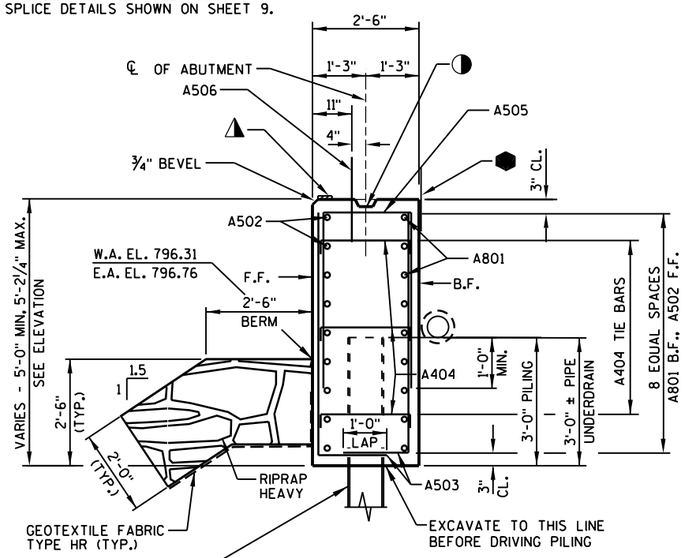


ELEVATION

(WEST ABUT. LOOKING WEST)
(EAST ABUT. LOOKING EAST)

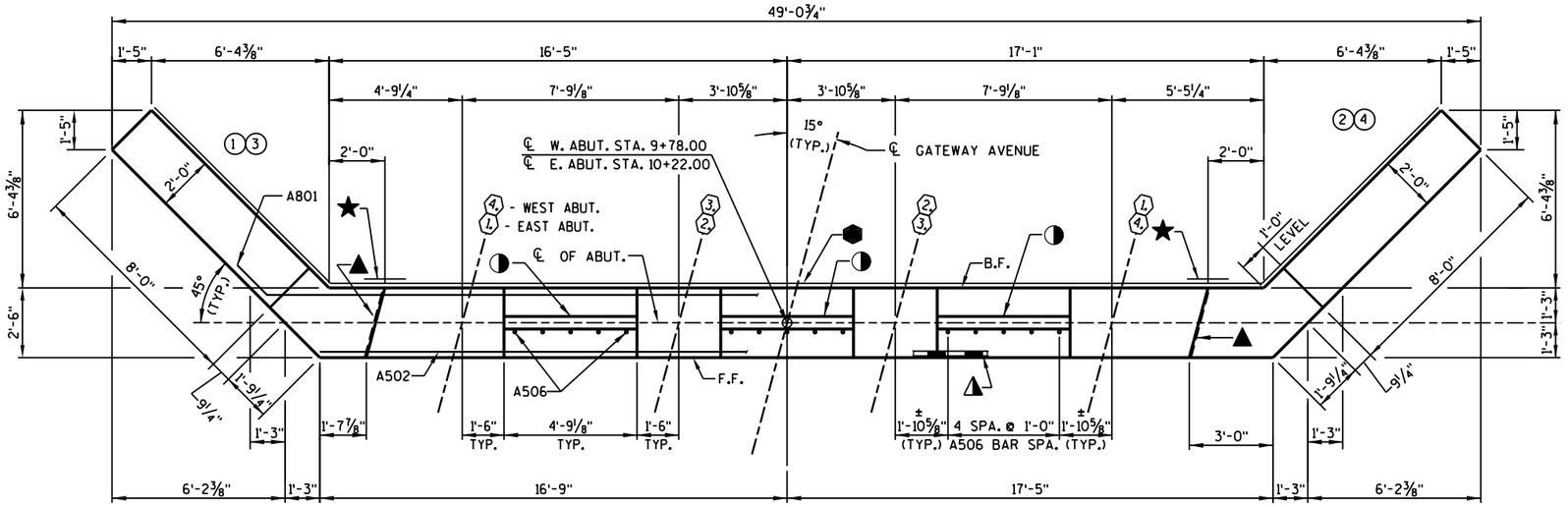
NOTES:

FOR WING DETAILS SEE SHEET 5.
PILE SPLICE DETAILS SHOWN ON SHEET 9.

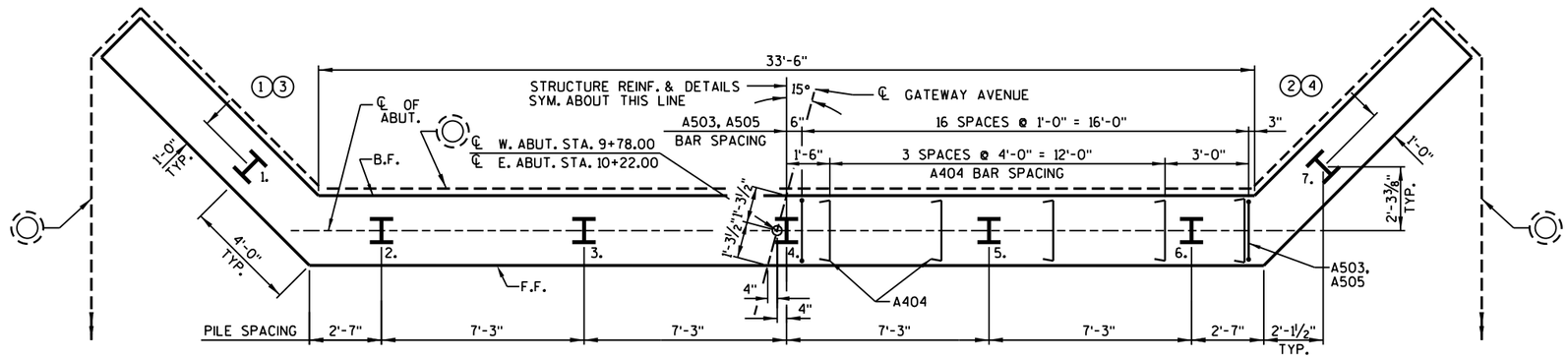


ABUTMENTS TO BE SUPPORTED ON PILING STEEL HP 10-INCH x 42 LB DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 110 TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED PILE LENGTHS ARE 65'-0" AT THE WEST ABUTMENT AND 45'-0" AT THE EAST ABUTMENT.

TYPICAL SECTION THRU ABUTMENT



PLAN



PILE PLAN

LEGEND

- ◑ — KEYED CONSTRUCTION JOINT FORMED BY BEVELED 2x6.
- ▲ — ½" FILLER EXTEND AS SHOWN. SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF FILLER WITH NON-STAINING GRAY, NON-BITUMINOUS JOINT SEALER. (1" DEEP & HOLD ⅛" BELOW SURFACE OF CONCRETE).
- ◭ — 4"x ¾" FILLER, EXTEND FULL LENGTH OF ABUTMENT BETWEEN EDGES OF SLAB.
- ★ — VERTICAL 18" WIDE RUBBERIZED MEMBRANE WATERPROOFING. EXTEND FROM 9" BELOW BRIDGE SEAT TO TOP OF WINGS.
- ⬢ — HORIZONTAL 18" WIDE RUBBERIZED MEMBRANE WATERPROOFING. EXTEND BETWEEN WING TIPS.
- ◨ — KEYED CONSTRUCTION JOINT ON WING FORMED BY BEVELED 2 X 6. POUR CONCRETE ABOVE JOINT AFTER DECK IS IN PLACE AND PLACE ⬢ ON B.F. OF WING.
- ◹ — ¾" "V" GROOVE ON FRONT FACE OF WING WALL.
- ◯ — PIPE UNDERDRAIN WRAPPED 6-INCH. EXTEND THRU GEOTEXTILE FABRIC AT FACE OF RIPRAP HEAVY. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. PROVIDE RODENT PROTECTION AT ENDS OF PIPE.

◯ — INDICATES WING NUMBER ⬡ — INDICATES GIRDER NUMBER

F.F. — FRONT FACE

B.F. — BACK FACE

CL. — CLEAR

NO.	DATE	REVISION	BY

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DEPARTMENT OF TRANSPORTATION

STATE PROJECT NUMBER

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STRUCTURE B-41-0298

DRAWN BY RLR | PLANS CK'D. LJR

ABUTMENTS

SHEET 4 OF 10
25

8

8

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DATE= 2/19/2014

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STATE PROJECT NUMBER

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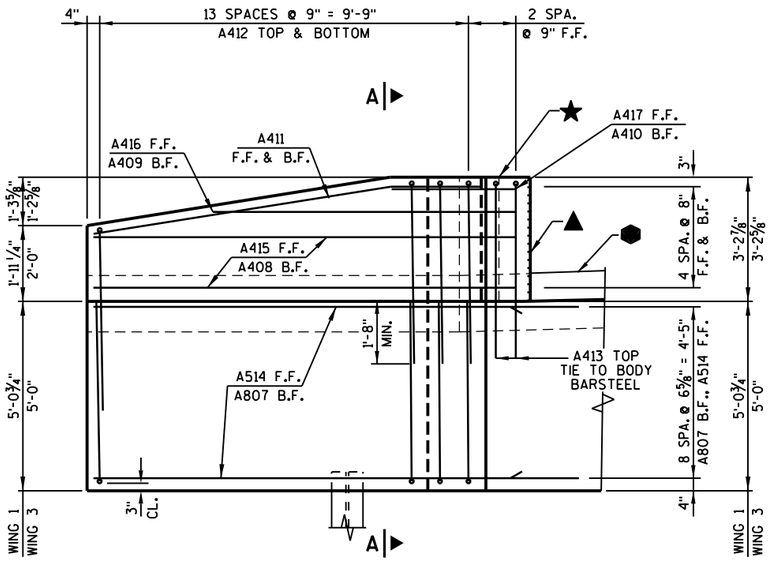
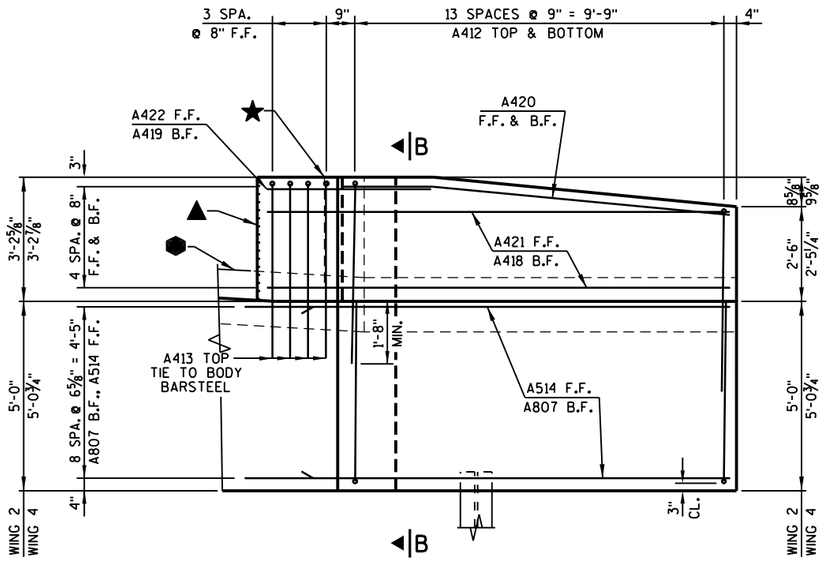


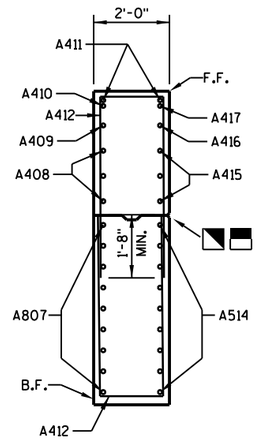
ELEVATION - WINGS 1 & 3

(LOOKING AT F.F. OF WING)

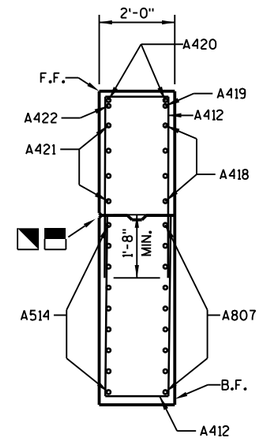


ELEVATION - WINGS 2 & 4

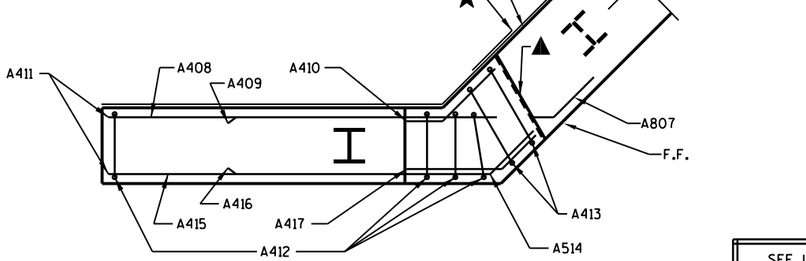
(LOOKING AT F.F. OF WING)



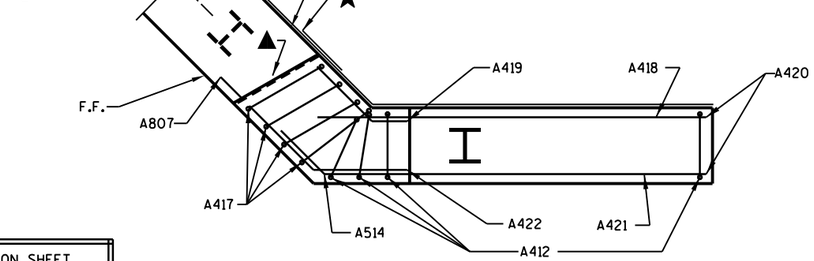
SECTION A-A
THRU WINGS 1 & 3



SECTION B-B
THRU WINGS 2 & 4



PLAN - WINGS 1 & 3



PLAN - WINGS 2 & 4

SEE LEGEND ON SHEET
4 FOR DESCRIPTION OF
★ ⬢ ◹ ⬓ ▲

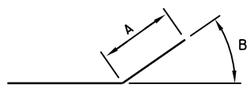
BILL OF BARS (1 ABUTMENT)

UNCOATED 2060 LBS.
COATED 1505 LBS.

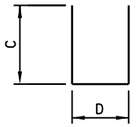
MARK	NUMBER REQUIRED COATED	NUMBER REQUIRED UNCOATED	LENGTH	BENT	LOCATION
A801	-	9	40'-9"	X	ABUTMENT BODY - B.F. - HORIZ.
A502	-	9	34'-1"		ABUTMENT BODY - F.F. - HORIZ.
A503	-	68	6'-0"	X	ABUTMENT BODY - F.F. & B.F. - VERT.
A404	-	30	2'-9"	X	ABUTMENT BODY - TIES - HORIZ.
A505	-	34	7'-11"	X	ABUTMENT BODY - TOP - VERT.
A506	15	-	2'-0"		ABUTMENT BODY - TOP DOWELS - VERT.
A807	18	-	13'-3"	X	WINGS - B.F. - HORIZ.
A408	3	-	10'-8"	X	WINGS 1 & 3 - B.F. - HORIZ.
A409	1	-	7'-6"	X	WINGS 1 & 3 - B.F. - HORIZ.
A410	1	-	2'-10"	X	WINGS 1 & 3 - B.F. - HORIZ.
A411	2	-	10'-3"	X	WINGS 1 & 3 - F.F. & B.F. - TOP - HORIZ.
A412	56	-	11'-2"	X	WINGS - TOP & BOTTOM - VERT.
A413	6	-	11'-2"	X	WINGS - TOP - VERT.
A514	18	-	11'-9"	X	WINGS - F.F. - HORIZ.
A415	3	-	11'-8"	X	WINGS 1 & 3 - F.F. - HORIZ.
A416	1	-	8'-6"	X	WINGS 1 & 3 - F.F. - HORIZ.
A417	1	-	3'-9"	X	WINGS 1 & 3 - F.F. - HORIZ.
A418	4	-	10'-8"	X	WING 2 & 4 - B.F. - HORIZ.
A419	1	-	2'-10"	X	WING 2 & 4 - B.F. - HORIZ.
A420	2	-	10'-3"	X	WING 2 & 4 - F.F. & B.F. - TOP - HORIZ.
A421	4	-	12'-9"	X	WING 2 & 4 - F.F. - HORIZ.
A422	1	-	4'-11"	X	WING 2 & 4 - F.F. - HORIZ.

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.

BAR MARKS FOR WEST ABUTMENT ARE SHOWN.
LABEL AND BUNDLE EAST ABUTMENT BARS WITH B MARK (B801 THRU B422).

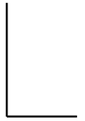


MARK	A	B
A807 A514	1'-6"	45°
A408 A409 A410	1'-9"	45°
A411	2'-5"	9°
A415 A416 A417	1'-5"	45°
A418 A419	1'-10"	45°
A420	2'-5"	6°
A421 A422	2'-7"	45°

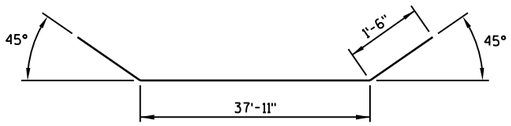


STIRRUPS AND TIES

MARK	C	D
A404	4½"	2'-2"
A505	3'-0"	2'-2"
A412	4'-10"	1'-8"
A413	4'-7"	2'-2"



A503

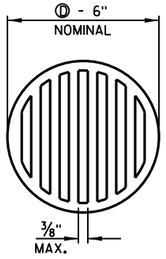


A801

RODENT SHIELD NOTES:

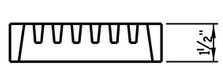
ORIENT SHIELD SO SLOTS ARE VERTICAL.

THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER.
A PIPE COUPLING IS REQUIRED FOR THE ATTACHEMENT OF THIS SHIELD TO 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. THE RODENT SHIELD SHALL BE INCLUDED IN THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".



RODENT SHIELD

Ⓓ - DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING.



SECTION C-C

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-41-0298

DRAWN BY RLR | PLANS CK'D. LJR

ABUTMENT DETAILS

SHEET 5 OF 10
26

FILE= 5848007_05.DGN
DATE= 2/19/2014

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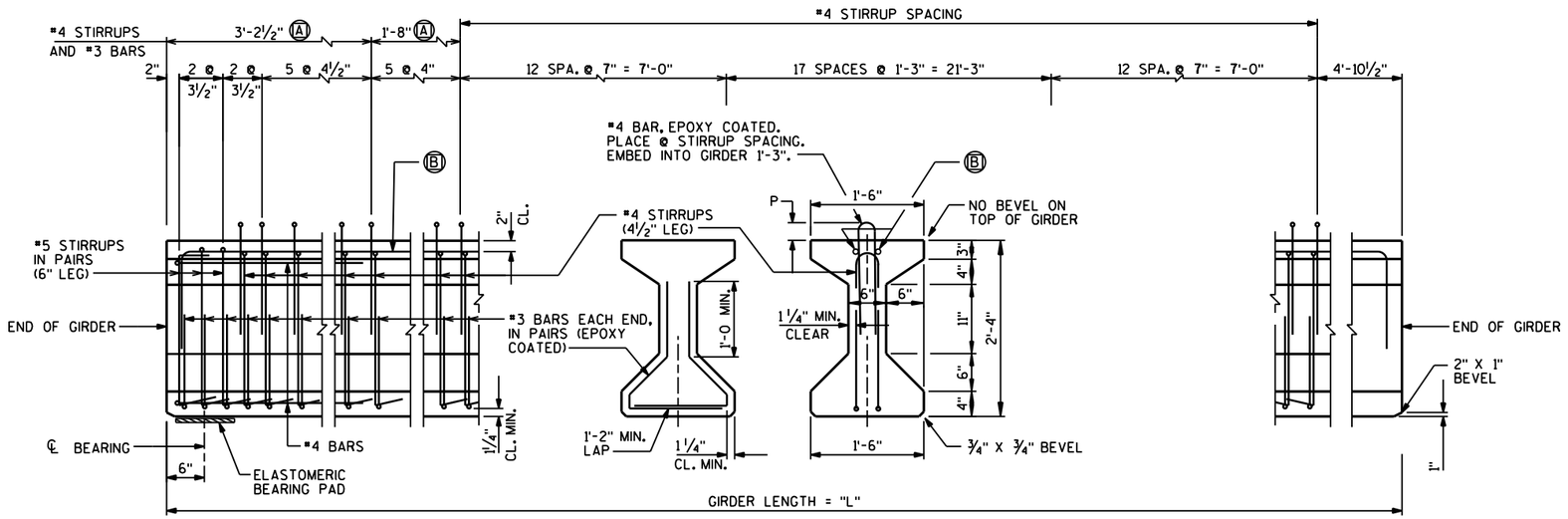
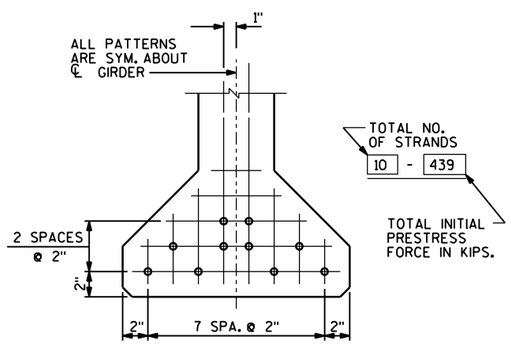


SIDE VIEW & TYP. SECTION

Ⓐ DETAIL TYP. AT EACH END

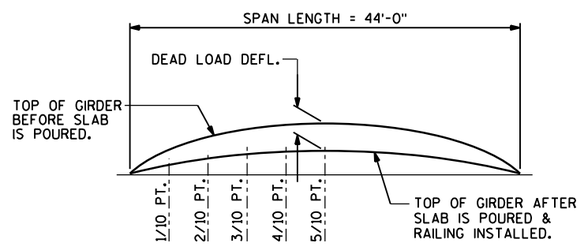
Ⓑ 2-#7 BARS BEND DOWN 16 BAR DIA. AT ENDS

TOP VIEW OF GIRDER ENDS

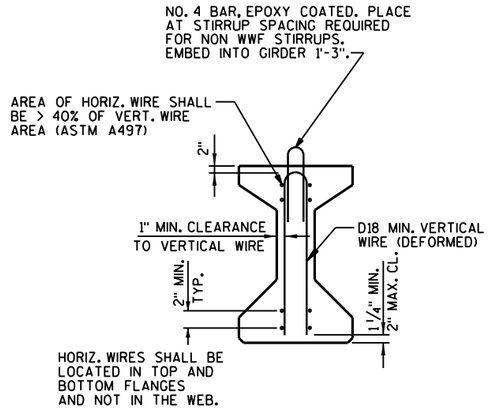


TYP. STRAND PATTERN

THE THEORETICAL INITIAL CAMBER VALUE AT THE TIME OF STRAND RELEASE AT MIDSPAN IS 1⅛" THIS VALUE IS NOT TO BE USED IN DETERMINING 'T'. USE ACTUAL GIRDER SHOTS. THIS VALUE IS FOR INFORMATIONAL PURPOSES ONLY.



DEAD LOAD DEFLECTION DIAGRAM



SECTION THRU GIRDER

SHOWING WELDED WIRE FABRIC (WWF) STIRRUPS ASTM A497 (Fy = 70 Ksi)

* MINIMUM CYLINDER STRENGTH OF CONCRETE @ TIME OF TRANSFER OF PRESTRESS FORCE.

GIRDER DATA

SPAN	GIRDER	GIRDER LENGTH "L"	DEAD LOAD DEFL. (IN.)									CONC. STRGTH. f'c (p.s.i.)	"P" 1ST ⅓ OF GIRDER	"P" MID ⅓ OF GIRDER	"P" END ⅓ OF GIRDER	DIA. OF STRAND (IN.)	DRAPED PATTERN						UNDRAPED PATTERN	
			1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10						TOTAL NO. OF STRANDS	f'ci (P.S.I.) *	(IN.) "A"	"B" MIN.	"B" MAX.	"C"	TOTAL NO. OF STRANDS	f'ci (P.S.I.) *
1	1-4	45'-0"	⅛	¼	⅜	⅜	⅜	⅜	⅜	¼	⅛	8000	6"	6"	6"	0.6	-	-	-	-	-	-	10	6800

NOTES

TOP OF GIRDER TO BE ROUGH FLOATED AND BROOMED TRANSVERSELY, EXCEPT THE OUTSIDE 2" OF GIRDER, WHICH SHALL RECEIVE A SMOOTH FINISH. AN APPROVED CONCRETE SEALER SHALL BE APPLIED TO ALL SMOOTH SURFACES INCLUDING THE OUTSIDE 2" OF THE TOP FLANGE.

THE GIRDERS SHALL BE PROVIDED WITH A SUITABLE LIFTING DEVICE FOR HANDLING AND ERECTING THE GIRDERS.

PRESTRESSING STRANDS SHALL BE 0.6"Φ - 7 WIRE LOW-RELAXATION STRANDS WITH AN ULTIMATE STRENGTH OF 270,000 psi.

STRANDS SHALL BE FLUSH WITH THE END OF GIRDER. ENDS OF STRANDS SHALL BE COATED WITH NON-BITUMINOUS JOINT SEALER.

FOR DIAPHRAGM INSERT & CONNECTION DETAILS SEE "STEEL DIAPHRAGM" SHEET.

ALL GIRDERS SHALL BE CAST FULL LENGTH AS SHOWN.

SPACING SHOWN FOR #4 STIRRUPS IS FOR GRADE 60 REINFORCEMENT.

AN ALTERNATE EQUIVALENT OF WELDED WIRE FABRIC (WWF) ASTM A497 MAY BE SUBSTITUTED FOR THE STIRRUP REINFORCEMENT SHOWN, UPON APPROVAL OF THE STRUCTURES DEVELOPMENT SECTION.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-41-0298

DRAWN BY CAR | PLANS CK'D. LJR

28" PRESTRESSED GIRDER DETAILS

SHEET 6 OF 10
27

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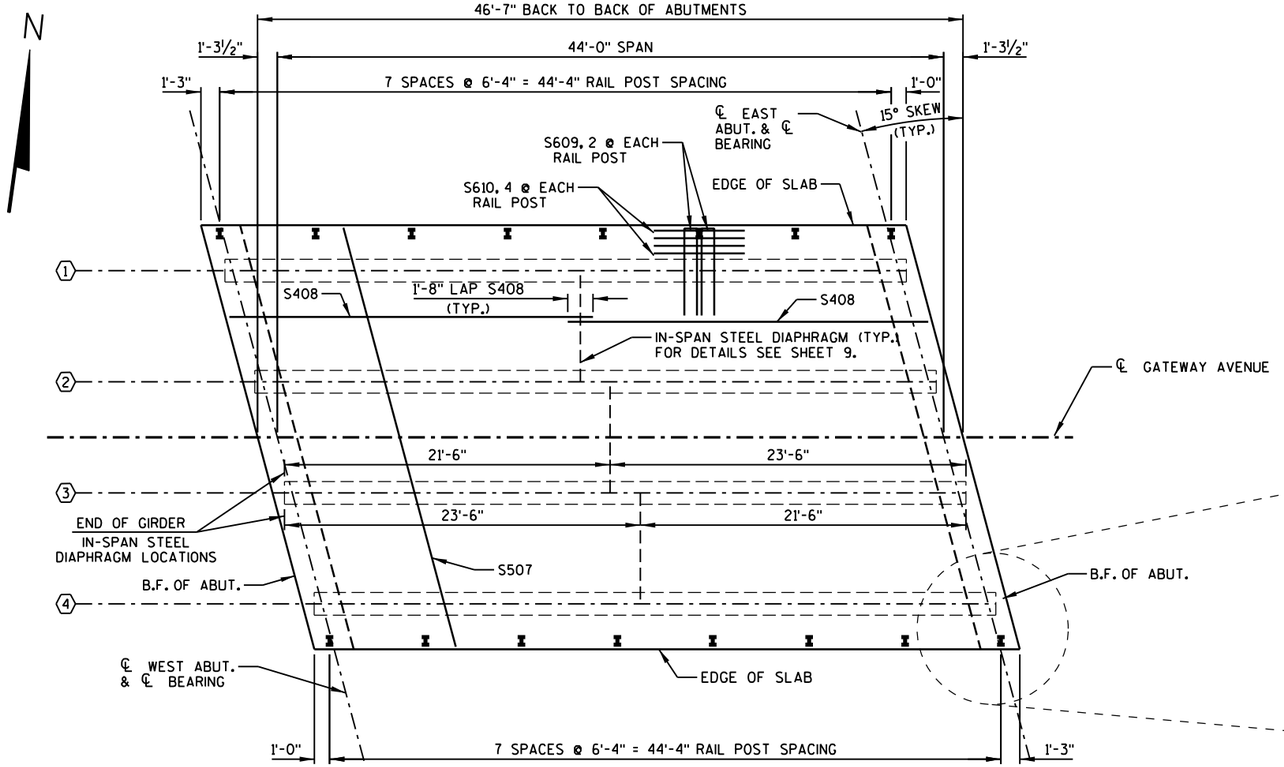
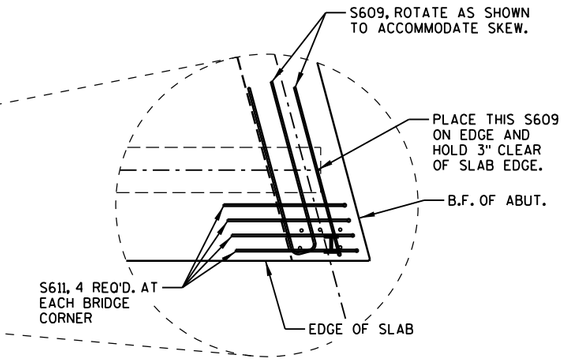


PLAN

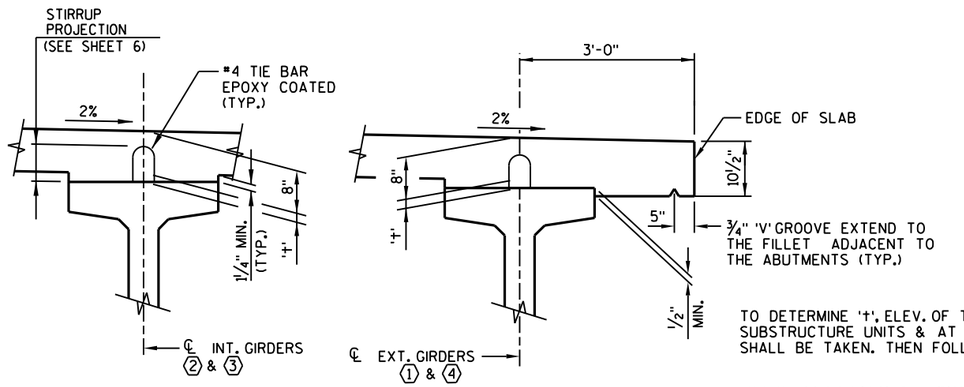
TOP OF SLAB ELEVATIONS

LOCATION	SPAN POINT	SOUTH SLAB EDGE	C/L GIRDER 4	C/L GIRDER 3	C/L GATEWAY AVENUE	C/L GIRDER 2	C/L GIRDER 1	NORTH SLAB EDGE
W. ABUT.	1	802.11	802.16	802.29	802.35	802.27	802.10	802.03
	1.1	802.15	802.20	802.33	802.40	802.31	802.14	802.07
	1.2	802.20	802.25	802.38	802.44	802.36	802.19	802.12
	1.3	802.24	802.29	802.42	802.49	802.40	802.23	802.16
	1.4	802.29	802.34	802.47	802.53	802.45	802.28	802.21
	1.5	802.33	802.38	802.51	802.58	802.49	802.32	802.25
	1.6	802.38	802.43	802.56	802.62	802.54	802.37	802.30
	1.7	802.42	802.47	802.60	802.67	802.58	802.41	802.34
	1.8	802.47	802.52	802.65	802.71	802.63	802.46	802.39
	1.9	802.51	802.56	802.69	802.76	802.67	802.50	802.43
E. ABUT	2	802.56	802.61	802.74	802.80	802.72	802.55	802.48

NOTE: TOP OF SLAB ELEVATIONS SHOWN ARE PRIOR TO THE APPLICATION OF THE POLYMER OVERLAY.



RAIL POST ANCHOR - CORNER DETAIL



SLAB HAUNCH DETAIL

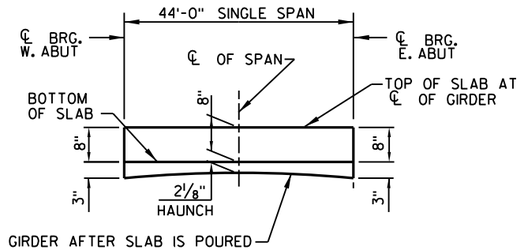
TO DETERMINE 't', ELEV. OF TOP OF GIRDERS AT ℄ OF SUBSTRUCTURE UNITS & AT 1/10 POINTS OF EACH SPAN SHALL BE TAKEN. THEN FOLLOW THIS PROCESS:

TOP OF SLAB ELEV. AT FINAL GRADE
- TOP OF GIRDER ELEVATION
+ DEADLOAD DEFLECTION (SEE SHEET 6)
- SLAB THICKNESS

= HAUNCH HEIGHT 't'

IF 1¼" MINIMUM HAUNCH HEIGHT 't' CANNOT BE MAINTAINED, THE GRADE LINE MAY BE REVISED BY THE ENGINEER AT THE OPTION OF THE CONTRACTOR. THE PLAN SLAB THICKNESS SHALL BE HELD. NOTIFY THE STRUCTURES SECTION IF THE GRADE LINE IS RAISED FROM THE PLAN AND PROFILE BY MORE THAN ½" OR IF 3" MINIMUM DECK EMBEDMENT OF TIE BAR CANNOT BE OBTAINED.

NOTE:
HAUNCH HEIGHTS ARE BASED ON THE TIME DEPENDENT VARIABLE "PRESTRESSED CAMBER" ASSUMING NORMAL CONSTRUCTION SCHEDULING.



HAUNCH HEIGHTS FOR GIRDER STIRRUP PROJECTION

GENERAL NOTES

⬡ - INDICATES GIRDER NUMBER

B.F. - BACK FACE

SEE CROSS SECTION THRU BRIDGE SHEET 8 FOR TYPICAL LONGITUDINAL BAR SPACING

SEE LONGITUDINAL SECTION SHEET 8 FOR TRANSVERSE BAR SPACING

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-41-0298

DRAWN BY CAR | PLANS CK'D. LJR

SUPERSTRUCTURE

SHEET 7 OF 10
28

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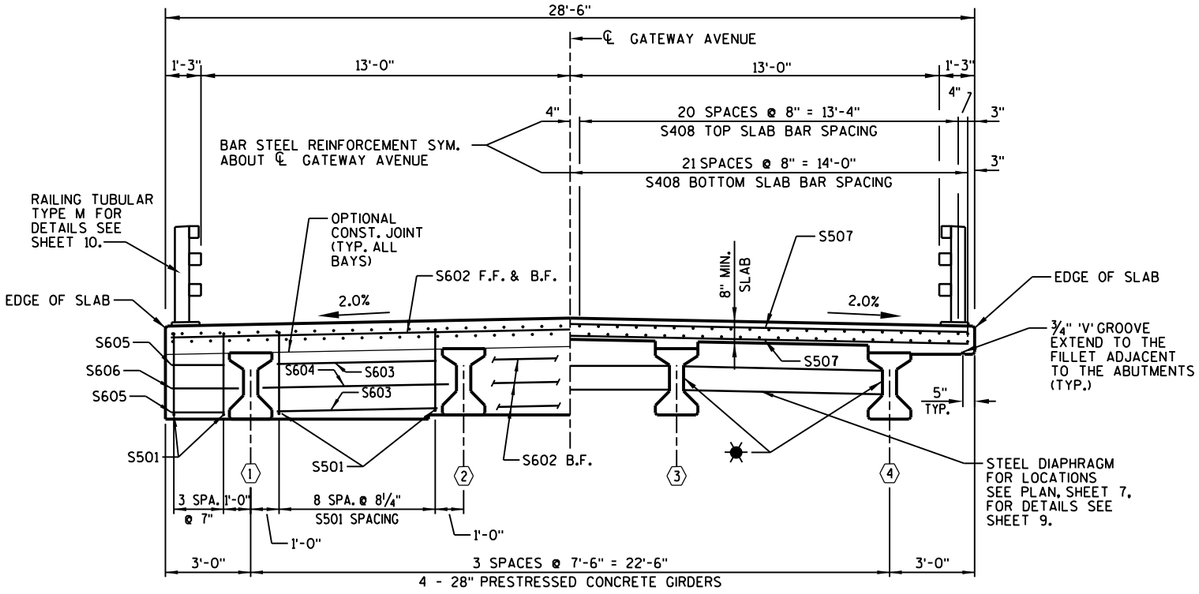


AT ABUTMENTS IN SPAN

CROSS SECTION THRU BRIDGE

(LOOKING EAST)

BILL OF BARS (COATED) 9560 LBS.

MARK	NUMBER REQ'D.	LENGTH	BENT	DESCRIPTION
S501	70	10'-7"	X	DIAPH. @ ABUT. - STIRRUP - VERT.
S602	10	28'-2"		DIAPH. @ ABUT. - B.F. & TOP - HORIZ.
S603	12	5'-8"		DIAPH. @ ABUT. - F.F. BETWEEN GIRDERS - HORIZ.
S604	6	6'-8"		DIAPH. @ ABUT. - F.F. BETWEEN GIRDERS - HORIZ.
S605	8	1'-11"		DIAPH. @ ABUT. - F.F. @ ENDS - HORIZ.
S606	4	2'-5"		DIAPH. @ ABUT. - F.F. @ ENDS - HORIZ.
S507	139	29'-1"		SLAB - TOP & BOTTOM - TRANS.
S408	174	24'-0"		SLAB - TOP & BOTTOM - LONGIT.
S609	32	12'-0"	X	SLAB - TOP @ RAIL POSTS - 2 PER POST
S610	48	6'-0"		SLAB - TOP @ RAIL POSTS - 4 PER POST
S611	16	6'-0"	X	SLAB - TOP @ RAIL END POSTS - 4 PER POST

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.
EPOXY COAT ALL SUPERSTRUCTURE BAR REINFORCEMENT.

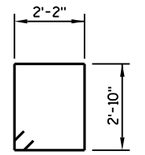
LEGEND

⬡ - INDICATES GIRDER NUMBER

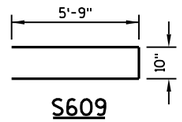
✹ - FOR DETAILS OF DIAPHRAGM CONNECTIONS SEE SHEET 9.

B.F. - BACK FACE

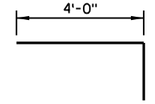
F.F. - FRONT FACE



S501



S609



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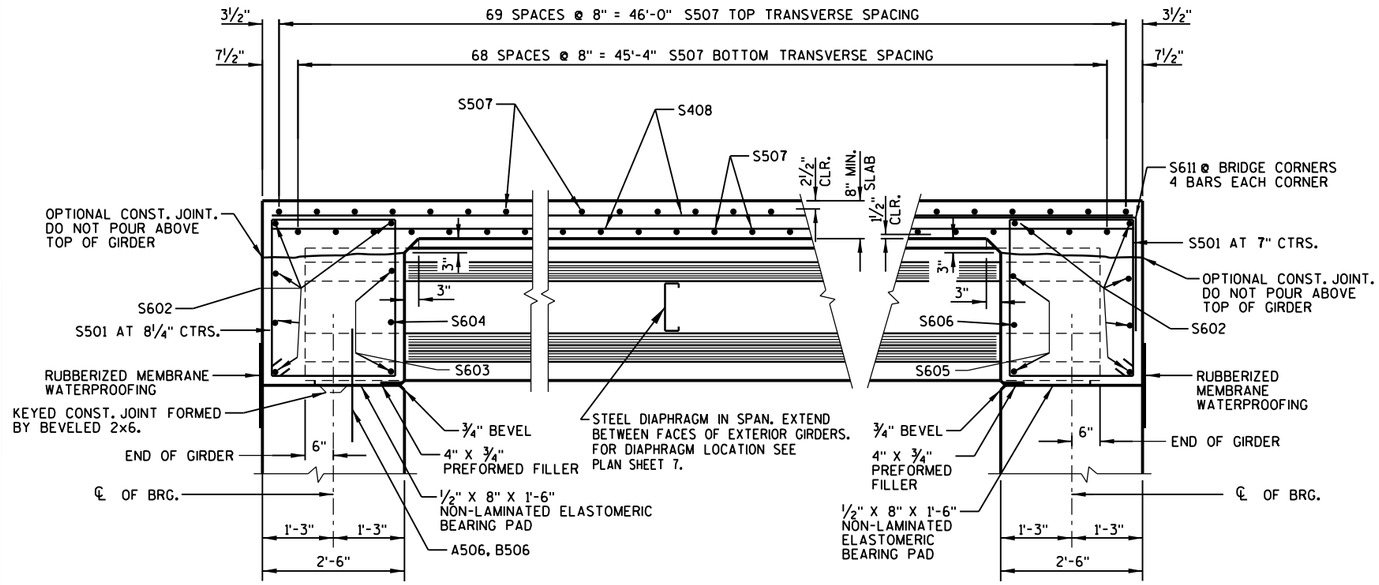
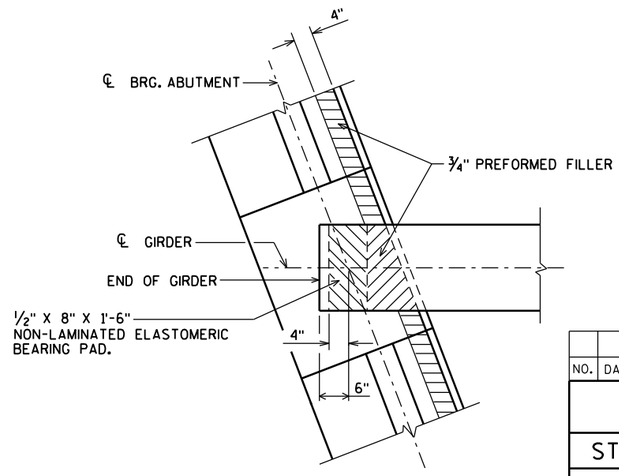


TYPICAL INTERIOR BAY

AT EDGE OF SLAB

LONGITUDINAL SECTION



BEARING PAD DETAIL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-41-0298

DRAWN BY CAR | PLANS CK'D. LJR

SUPERSTRUCTURE SECTIONS & DETAILS

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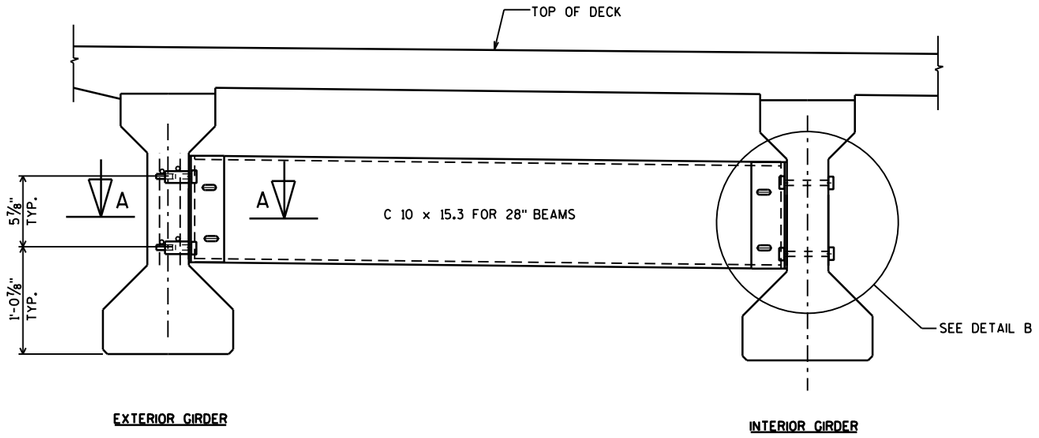
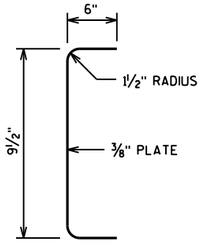
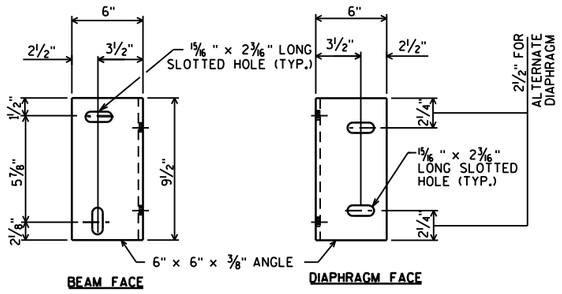


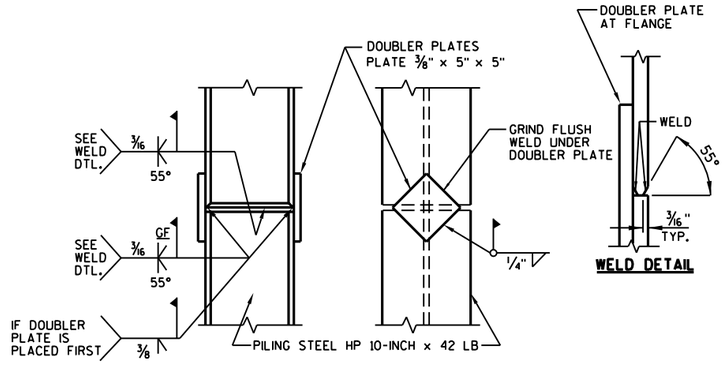
TRANSVERSE SECTION AT DIAPHRAGM



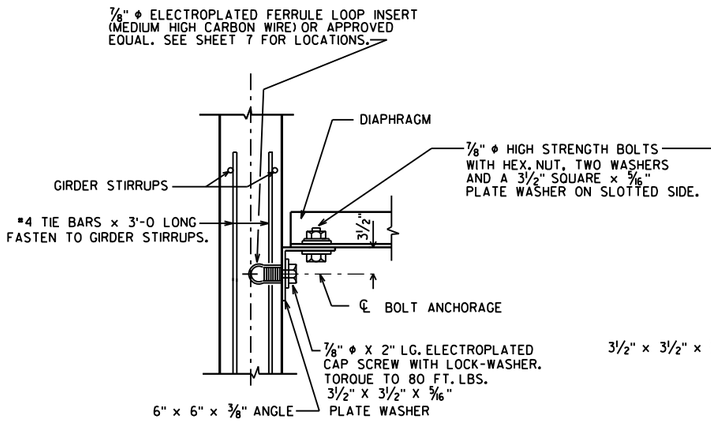
SECTION THRU ALTERNATE DIAPHRAGM



DIAPHRAGM SUPPORT

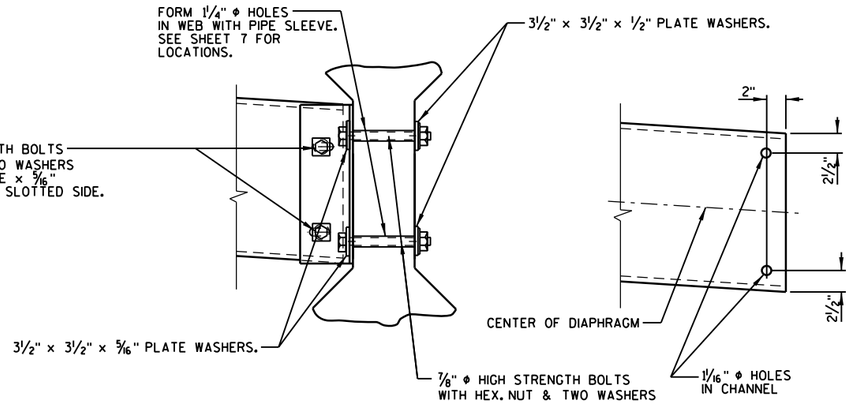


PILE SPLICE DETAILS



SECT. A-A

(FOR EXTERIOR ATTACHMENT)



DETAIL B

NOTES

ALL DIAPHRAGM MATERIAL NOT EMBEDDED IN THE CONCRETE GIRDER SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "STEEL DIAPHRAGMS B-41-0298", EACH.

EACH DIAPHRAGM BETWEEN GIRDERS SHALL CONSTITUTE ONE UNIT.

ALL DIAPHRAGM STRUCTURAL STEEL SHALL BE ASTM A709 GRADE 36.

ALL BOLTS, NUTS AND WASHERS SHALL BE ASTM A325 TYPE 1.

ALL DIAPHRAGM STRUCTURAL STEEL SHOWN SHALL BE HOT-DIPPED GALVANIZED. ALL BOLTS, NUTS AND WASHERS SHALL BE HOT-DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C. GALVANIZED NUTS SHALL BE TAPPED OVERSIZE IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM A563 AND SHALL MEET THE REQUIREMENTS OF SUPPLEMENTARY REQUIREMENT S1 OF ASTM A563, LUBRICANT AND TEST FOR COATED NUTS.

SEE SHEET 7 FOR LOCATION OF DIAPHRAGMS.

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-41-0298

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STEEL DIAPHRAGM & PILE SPLICE

SHEET 9 OF 10
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DATE= 2/19/2014

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STATE PROJECT NUMBER

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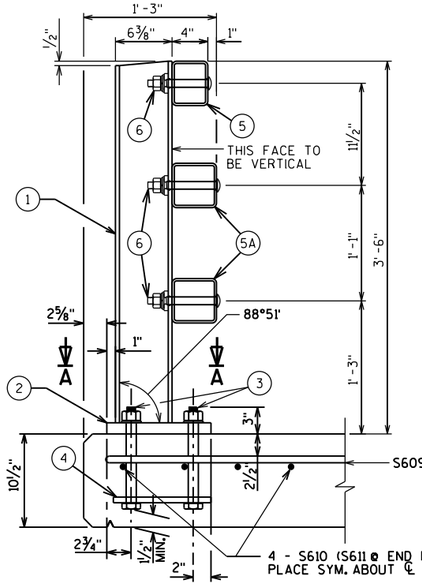
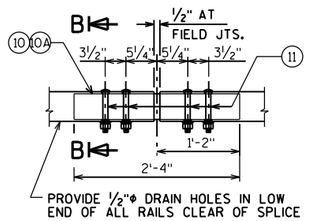
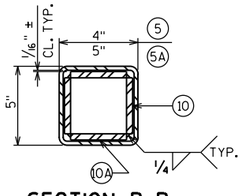


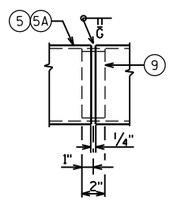
SECTION THRU RAILING ON DECK



FIELD ERECTION JOINT DETAIL

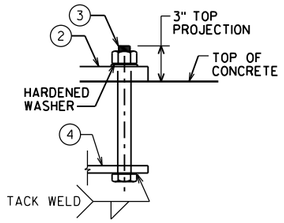


SECTION B-B

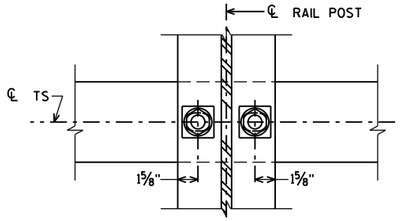


SHOP RAIL SPLICE DETAIL

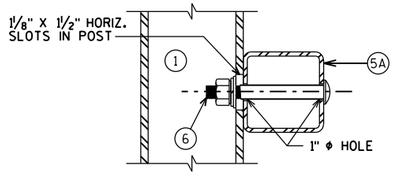
(LOCATION MUST BE SHOWN ON SHOP DRAWINGS)



ANCHOR BOLTS



SECTION THRU POST WEB



SECTION THRU RAIL

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

TYPICAL RAIL TO POST CONNECTIONS

LEGEND

(1) W6 x 25 WITH 1⅛" X 1½" 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 1¼" x 11¾" x 1'-8" WITH 1⅝" X 1⅝" SLOTTED HOLES FOR ANCHOR BOLTS NO. 3. WELD TO NO. 1 AS SHOWN. SLOTS PARALLEL TO SHORT SIDE OF PLATE.

(3) ASTM A449 - 1⅛" 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 10¾" LONG.

(4) ⅝" x 11" x 1'-8" ANCHOR PLATE (GALVANIZED) WITH 1³⁄₁₆" 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) ⅞" DIA. A325 SLOTTED ROUND HEAD BOLT WITH NUT, ³⁄₁₆" X 1⅝" X 1⅝" WASHER, AND LOCK WASHER (2 REQ'D. AT EACH RAIL TO POST LOCATION.)

(7) ½" THK. BACK-UP PLATE WITH 2 - ⅞" X 1½" 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 ⅞" DIA. A325 BOLTS WITH HEX NUTS AND WASHERS. 6 HOLES IN TUBES AND PLATE NO. 7.

(9) SPLICE SLEEVE FABRICATED FROM ¼" PLATE. PROVIDE "SLIDING FIT".

(10) ⅜" X 3⅝" X 2'-4" PLATE. 2 PER RAIL. USED IN NO. 5 & 5A.

(10A) ⅜" X 2⅝" X 2'-4" PLATE USED IN NO. 5, ⅜" X 3⅝" X 2'-4" PLATE USED IN NO. 5A. 2 PER RAIL.

(11) ⅞" Φ A325 ROUND HEAD BOLT WITH NUT, WASHER, AND LOCK WASHER. USE ¹⁵⁄₁₆ " X 1¼" LONGIT. SLOTTED HOLES AT FIELD JOINTS IN PLATE NO. 10A.

(12) ⅞" DIA. X 1½" LONG THREADED SHOP WELDED STUDS (2 REQ'D).

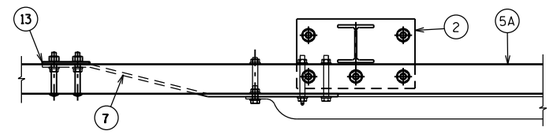
(13) ⅜" X 8" X 1'-6" PLATE. BOLT TO RAIL AS SHOWN IN DETAIL. REQ'D. AT THRIE BEAM GUARD RAIL ATTACHMENTS ONLY. PLACE SYM. ABOUT TUBES NO. 5A.

(14) ⅞" DIA. X 2" LONG A325 HEX BOLT WITH NUT AND WASHER (5 REQ'D).

(15) 1" Φ HOLES IN TUBES NO. 5A FOR ⅞" DIA. A325 ROUND HEAD BOLT WITH NUT, WASHER AND LOCK WASHER (4 REQ'D.). 4 HOLES IN TUBES.

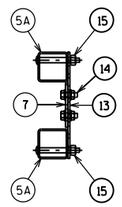
GENERAL NOTES

1. BID ITEM SHALL BE "RAILING TUBULAR TYPE M B-41-0298" 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 ⅛ TURN.
4. RAILS SHALL BE CONTINUOUS OVER A MINIMUM OF THREE (3) POSTS WITHOUT SPLICES WHERE POSSIBLE.
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 S.S.P.C. SPECIFICATIONS.
10. PAINTING IS NOT REQUIRED.
11. THIS RAILING MEETS NCHRP REPORT 350 EVALUATION CRITERIA FOR TEST LEVEL 4 (TL-4).
12. PLACE FIRST BOTTOM LONGITUDINAL BAR CLEAR OF DRIP GROOVE.
13. DO NOT INSTALL BACK-UP PLATE (7) OR ANCHOR PLAT (13) FOR BEAM GUARD ATTACHMENT AT WING 2. FURNISH PLATES AND ATTACHMENT HARDWARE TO MONROE COUNTY FOR FUTURE INSTALLATION. CONTACT JACK DITTMAR AT (608) 269-8740.

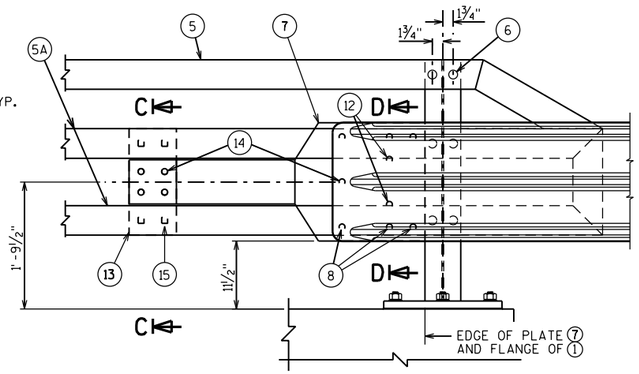


TOP VIEW AT END POST

(THRIE BEAM RAIL ATTACHMENT)

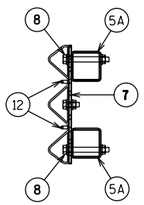


SECTION C-C

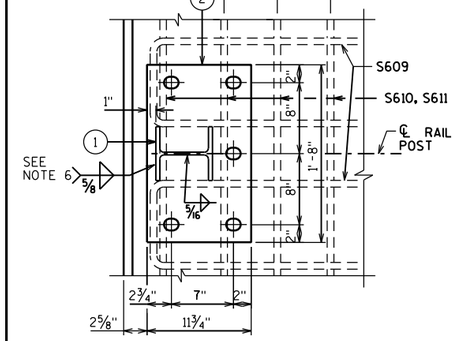


DETAIL AT END POST

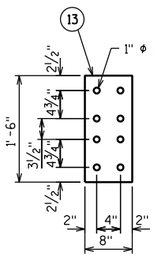
(THRIE BEAM RAIL ATTACHMENT)



SECTION D-D

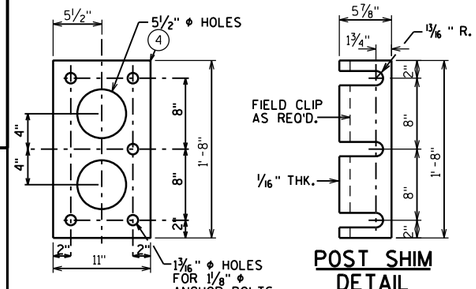


SECTION A-A



ANCHOR PLATE

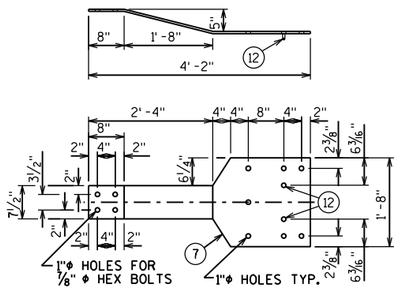
AT BEAM GUARD ATTACHMENT



ANCHOR PLATE

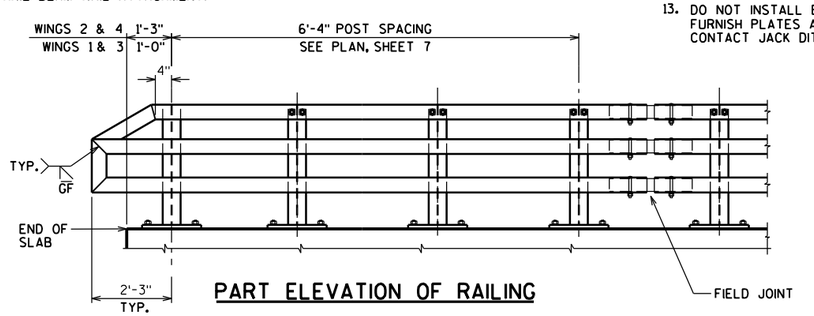
AT RAIL TO DECK CONNECTION

POST SHIM DETAIL



BACK-UP PLATE DETAIL

AT BEAM GUARD ATTACHMENT



PART ELEVATION OF RAILING

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-41-0298

DRAWN BY CAR | PLANS CK'D. LJR

RAILING TUBULAR TYPE M

SHEET 10 OF 10
31

FILE= 5848007_10.DGN
DATE= 2/19/2014

5848007_10.dgn 2/19/2014 10:18:41 AM RRABSKA

PROJECT I.D. 5005-00-70 EARTHWORK SUMMARY

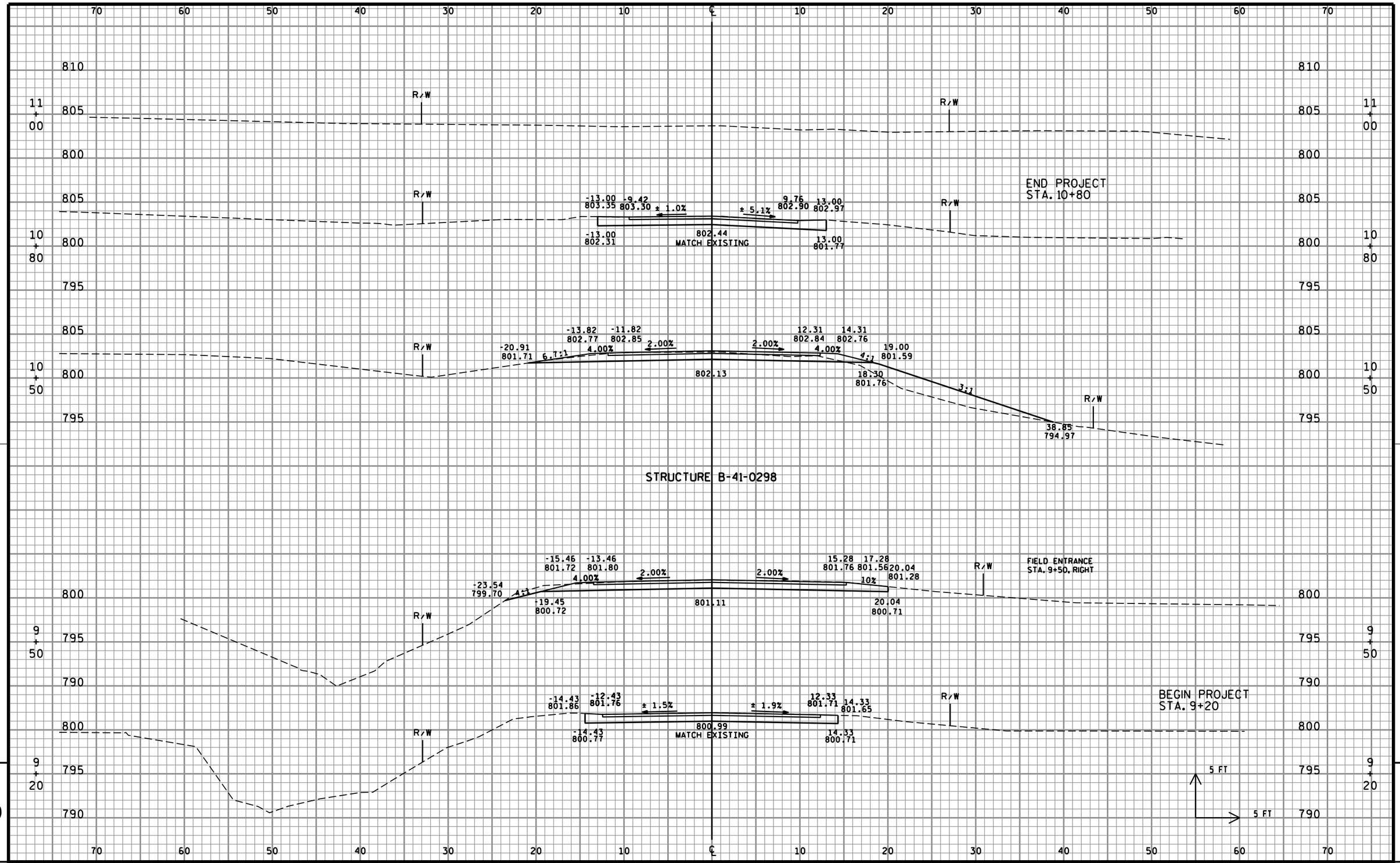
STA	EXCAVATION COMMON CY	EXCAVATION ROCK CY	FILL (1) CY	EXPANDED FILL (2) CY	WASTE CY
9+20.00					
	36	0	0	0	36
9+50.00					
	37	0	0	0	37
9+76.71					
STRUCTURE B-41-0298					
10+23.29					
	24	0	27	35	-11
10+50.00					
	28	0	15	20	8
10+80.00					
SUBTOTALS					
WEST APPROACH	73	0	0	0	73
EAST APPROACH	52	0	42	55	-3
TOTALS	**125**	**0**	**42**	**55**	**70**

(1) - NOT A BID ITEM - FOR INFORMATIONAL PURPOSES ONLY.
(2) - FILL EXPANSION 30%

9

9

PROJECT NO: 5005-00-70 | HWY: TOWN ROAD | COUNTY: MONROE | EARTHWORK | SHEET E



PROJECT NO: 5005-00-70	HWY: TOWN ROAD	COUNTY: MONROE	CROSS SECTIONS: GATEWAY AVENUE	SHEET	E

FILE NAME : P:\5800s\5840s\5848\05848007\caddWDOT\Planshts\Xsect01.DGN PLOT DATE : 11/14/2013 PLOT BY : lrhodes PLOT NAME : PLOT SCALE : 1:2

WISDOT/CADDS SHEET 21

Xsect01.DGN 11/14/2013 10:18:18 AM lrhodes

Wisconsin Department of Transportation

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