LAX

PROJECT ID: 1018-00-72

COUNTY: JUNEAU

DEC 07
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 Plans)
Section No.	6	Standard Detail Drawings
Section No.	7	Sign Plates
Section No.	8	Structure Plans
~~Section No.~~	~~9~~	~~Computer Earthwork Data~~
Section No.	9	Cross Sections

TOTAL SHEETS = 54

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

MAUSTON - NEW LISBON

(STH 58 OVERHEAD AND APPROACHES)

IH 90/94

JUNEAU COUNTY

STATE PROJECT NUMBER
1018-00-72

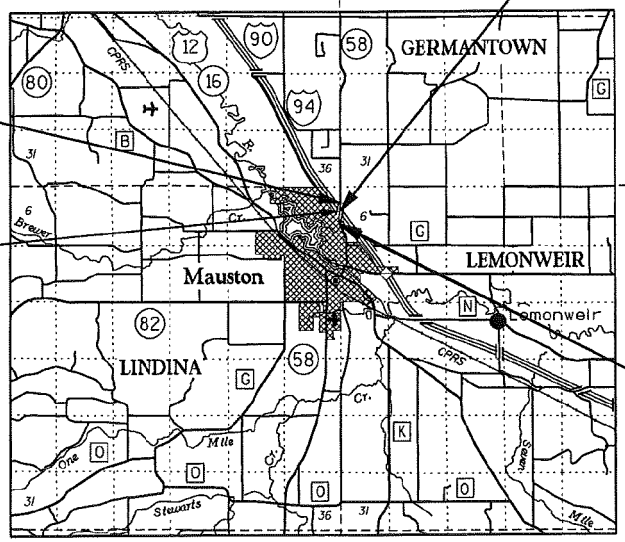
STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1018-00-72	IM 2007621	1

N

STRUCTURE
B-29-38 (REHAB)

END CONSTRUCTION
STA. 40+90

BEGIN PROJECT
END PROJECT
STA. 500+00



BEGIN CONSTRUCTION
STA. 26+50
Y= 161,730.50
X= 463,824.34

DESIGN DESIGNATION

A.A.D.T. 2008	=	5400
A.A.D.T. 2028	=	7000
D.H.V. 2028	=	826
D.	=	62/38
T.	=	6.8%
DESIGN SPEED	=	50 mph
ESALS	=	1,029,300

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 (955.36)
- 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 = 0.000 MI.

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

ORIGINAL PLANS PREPARED BY:

MSA PROFESSIONAL SERVICES
TRANSPORTATION • MUNICIPAL DEVELOPMENT • ENVIRONMENTAL
1230 South Boulevard Baraboo, WI 53913
608-356-2771 1-800-362-1332 Fax: 608-356-2770
© MSA PROFESSIONAL SERVICES

WISCONSIN
QUIRIN R. KLINK
E-30535
BARABOO
WI
PROFESSIONAL ENGINEER

9-10-07
Date

Signature

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	MSA Professional Services, Inc.
Designer	MSA Professional Services, Inc.
Project Manager	Reiny Yehnke
District Examiner	RRY
District Supervisor	JAV
C.O. Examiner	Carol Wojciechowski

APPROVED FOR REGIONAL OFFICE

DATE: 09/10/07 (Signature)

E

FILE NAME : K:\planshts\930532TS.dgn PLOT DATE : 9/10/2007 PLOT BY : $$...plotuser...$$ PLOT NAME : 930532ts.dgn ORG DATE : 12-27-05 Originator : MSA PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 10

K:\planshts\930532TS.dgn Sep 10, 2007 BMaxwell

UTILITIES

BURIED TELEPHONE:
VERIZON
ATTN: DENNIS BATES
100 COMMUNICATIONS DRIVE
SUN PRAIRIE, WI 53590
PHONE: 608-857-1405

BURIED FIBER OPTIC:
AT&T
ATTN: CARL DONAHUE
866 ROCKCREEK ROAD
PLANO, IL 60545
PHONE: 847-420-9115

OVERHEAD ELECTRIC:
ALLIANT ENERGY
ATTN: GARY QUADE
1000 MAIN STREET
P.O. BOX 769
DUBUQUE, IA 52004-0769
PHONE: 563-584-7395

* - NOT A MEMBER
OF DIGGERS HOTLINE.

DIGGERS HOTLINE
Toll Free (800) 242-8511
Milwaukee Area (414) 259-1181
Hearing Impaired TDD (800) 542-2289
www.DiggersHotline.com

DESIGN CONTACT

MSA PROFESSIONAL SERVICES, INC.
ATTN.: QUIRIN R. KLINK P.E.
1230 SOUTH BOULEVARD
BARABOO, WI 53913
PHONE: 608-355-8965

DNR LIAISON

DEPARTMENT OF NATURAL RESOURCES
ATTN.: ANTHONY FISCHER
473 GRIFFITH DRIVE
WISCONSIN RAPIDS, WI 54494
PHONE: 715-421-7867

CITY OF MAUSTON CONTACT

ROB NELSON, DPW
303 MANSION STREET
MAUSTON, WI 53948
PHONE: 608-847-6676

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 1.5 LBS. PER 1000 SQUARE FEET.

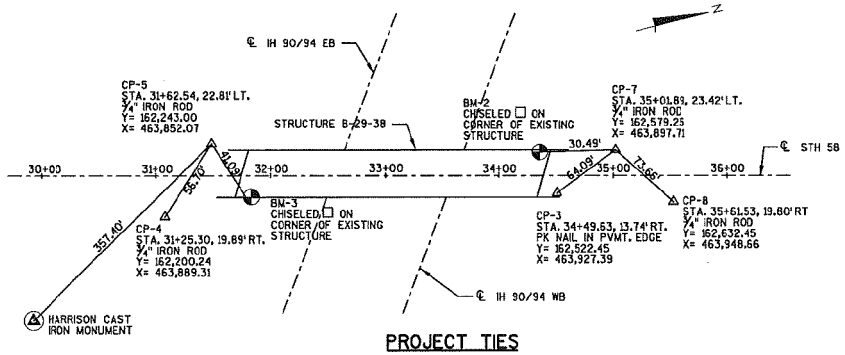
THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE AREA THAT ARE NOT SHOWN.

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

ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO A U.S.G.S. ELEVATION ON A WISDOT BRASS DISK ON STRUCTURE B-29-36 (IH 90/94 EB OVER CTH G), ELEV. 904.42.

THE 5" HMA PAVEMENT TYPE E-3 SHALL CONSIST OF A 2½" UPPER LAYER AND A 2½" LOWER LAYER. THE 3¾" HMA PAVEMENT TYPE E-3 OVERLAY SHALL CONSIST OF A SINGLE LAYER.

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

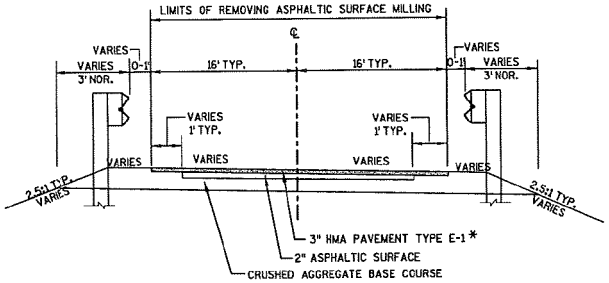


PROJECT TIES

ALL MEASUREMENTS ARE SLOPE DISTANCES.

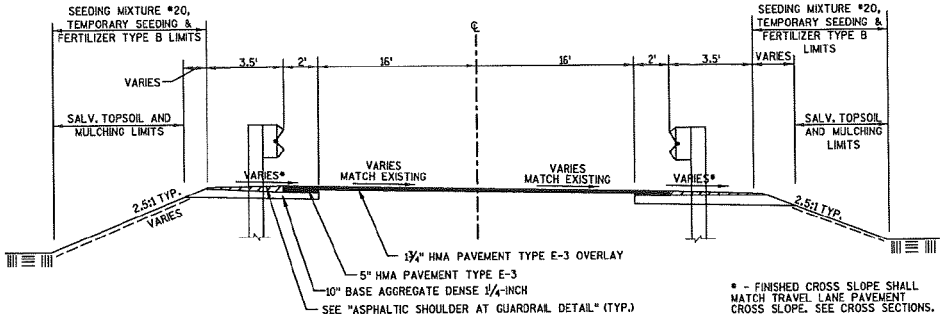
RUNOFF COEFFICIENT TABLE				
	HYDROLOGIC SOIL TABLE			
	A	B	C	D
	SLOPE RANGE %	SLOPE RANGE %	SLOPE RANGE %	SLOPE RANGE %
LAND USE:	6 & OVER	6 & OVER	6 & OVER	6 & OVER
SIDE SLOPE-TURF	.25 .32	.27 .34	.28 .36	.30 .38
PAVEMENT:				
ASPHALT	.70 - .95			
CONCRETE	.80 - .95			
GRAVEL ROADS, SHOULDERS	.40 - .60			

THE RUNOFF COEFFICIENTS OF SURFACE DRAINAGE AT THE PROJECT SITES WILL NOT BE CHANGED FROM BEFORE TO AFTER CONSTRUCTION. THE TOTAL AREA OF THE PROJECT IS 8.71 ACRES. THE TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES IS 2.63 ACRES.



* - 1¾" MIN. OF EXISTING HMA PAVEMENT TYPE E-1 TO BE MILLED.

TYPICAL EXISTING SECTION

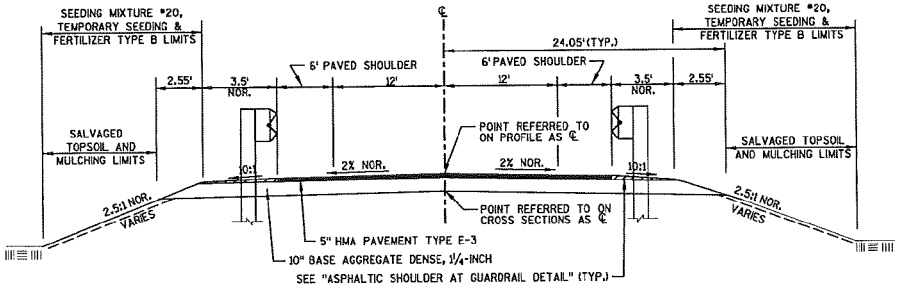


* - FINISHED CROSS SLOPE SHALL MATCH TRAVEL LANE PAVEMENT CROSS SLOPE. SEE CROSS SECTIONS.

TYPICAL FINISHED SECTION

STA. 27+12 - STA. 30+50
STA. 35+75- STA. 38+76.43

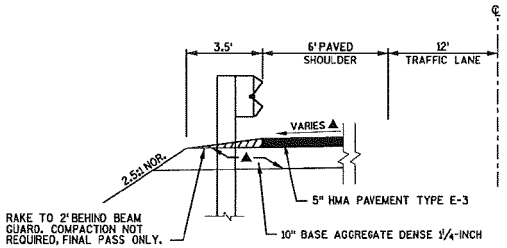
NOTE: STA. 26+50 - STA. 27+12 AND STA. 38+76.43 - STA. 40+90 (OUTSIDE OF NORMAL BEAM GUARD AREA). UTILIZE 1¾" HMA PAVEMENT TYPE E-3 OVERLAY. SEE CROSS SECTIONS.



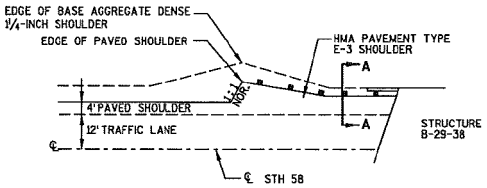
TYPICAL FINISHED SECTION

STA. 30+50 - STA. 31+62.25
STA. 34+60.02 - STA. 35+75

PROJECT NUMBER: 1018-00-72	HWY: STH 58	COUNTY: JUNEAU	TYPICAL SECTIONS	SHEET NO: 3	E



SECTION A-A THRU BEAM GUARD

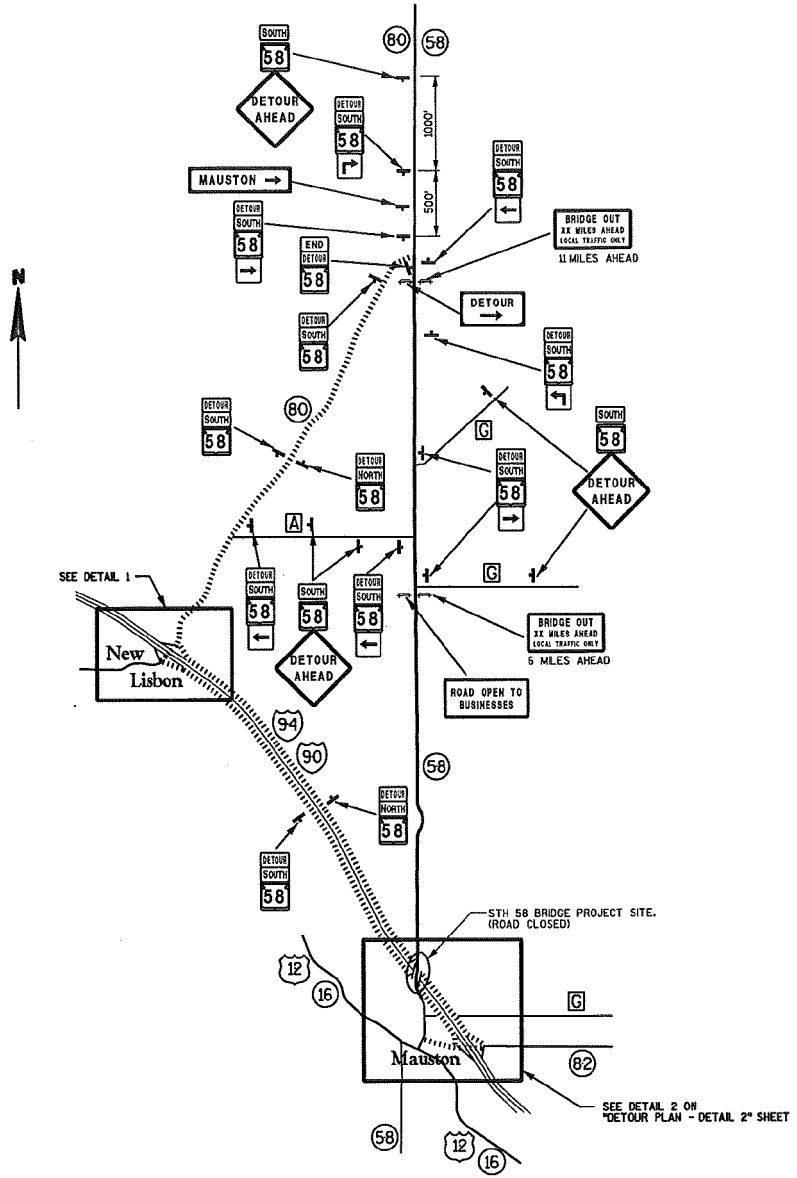


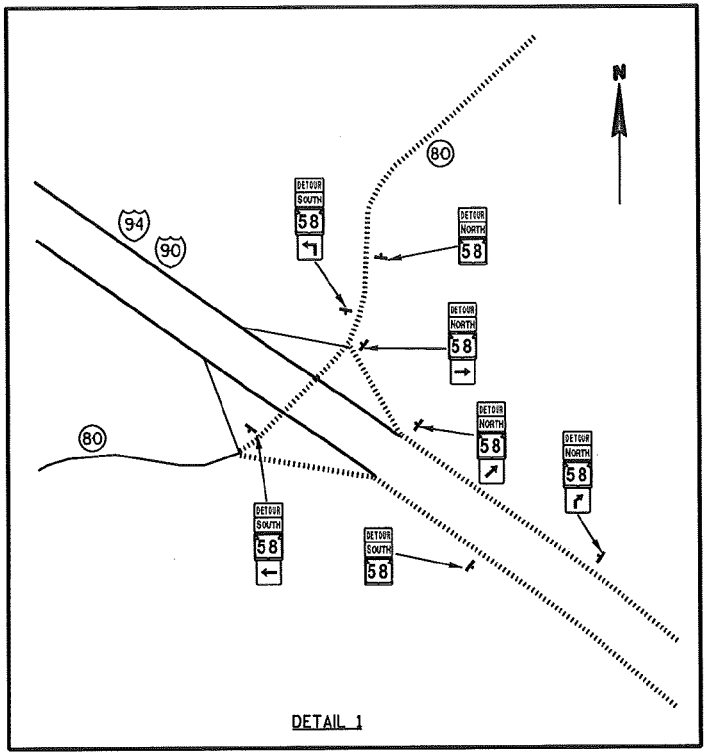
PLAN VIEW

▲ - FINISHED CROSS SLOPE SHALL MATCH TRAVEL LANE PAVEMENT CROSS SLOPE, SEE CROSS SECTIONS.

ASPHALTIC SHOULDER AT GUARDRAIL DETAIL

PROJECT NUMBER: 1018-00-72	HWY: STH 58	COUNTY: JUNEAU	DETAILS	SHEET NO: 4	E





DETAIL 1

LEGEND

- SIGN ON PERMANENT SUPPORT
- BARRICADE AND 2 TYPE A LIGHTS WITH/WITHOUT SIGN
- DETOUR ROUTE

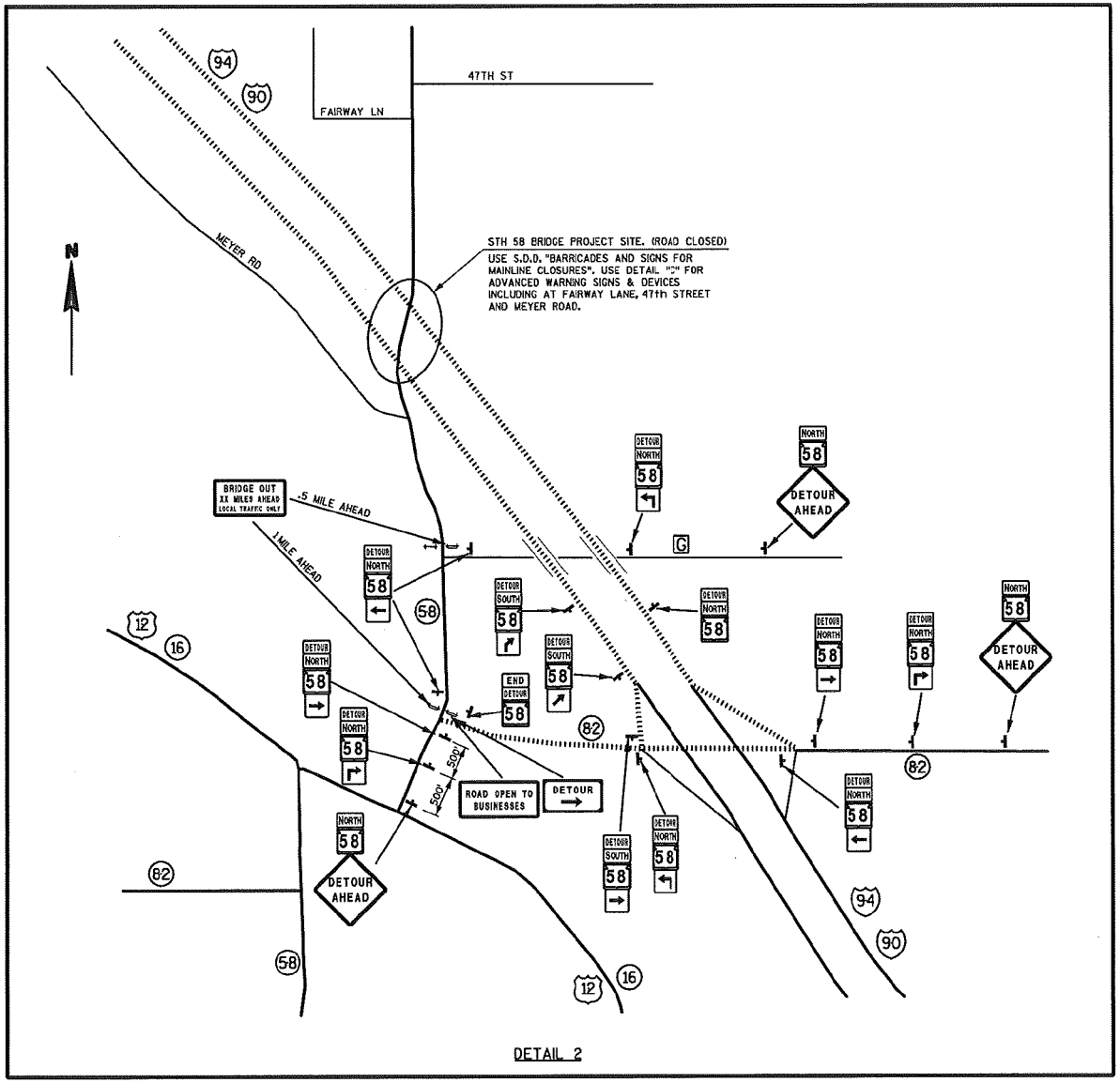
TRAFFIC CONTROL NOTES

1. ALL TYPE III BARRICADES SHALL HAVE AN EQUIVALENT WIDTH OF 8 FEET.
2. THE EXACT LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.
3. ALL SIGNS INAPPROPRIATE TO THE STATUS OF THE CONTROL ZONE INCLUDING PRE-EXISTING SIGNING IN THE VICINITY, SHALL BE COVERED OR REMOVED AS DIRECTED BY THE ENGINEER.
4. "MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS REFLECTIVE ORANGE.
5. SIZE 3 SIGNS ARE TO BE USED ON THE INTERSTATE ONLY.

SIGN PLATE DETAILS

SEE "DETOUR PLAN - DETAIL 2" SHEET FOR SIGN PLATE DETAILS.

PROJECT NO: 1018-00-72	HWY: STH 58	COUNTY: JUNEAU	DETOUR PLAN	SHEET 5	E



DETAIL 2

SIGN PLATE DETAILS

		SIZE 2	SIZE 3
58	M1-6	24" x 24"	36" x 36"
NORTH	M3-1	24" x 12"	30" x 15"
SOUTH	M3-3	24" x 12"	30" x 15"
END	M4-6	24" x 12"	30" x 15"
DETOUR	M4-8	24" x 12"	30" x 15"
	M05-1L	21" x 21"	30" x 30"

		SIZE 2	SIZE 3
	M05-1R	21" x 21"	30" x 30"
	M05-2R	21" x 21"	30" x 30"
	M06-1	21" x 21"	30" x 30"
	M06-1A	21" x 21"	30" x 30"
	M06-2	21" x 21"	30" x 30"

DETOUR AHEAD	W20-2	48" x 48"	BRIDGE OUT XX MILES AHEAD LOCAL TRAFFIC ONLY	R11-3b	60" x 30"
ROAD CLOSED AHEAD	W20-2	48" x 48"	ROAD OPEN TO BUSINESSES	R10-61 (MOD)	36" x 24"
			DETOUR →	M4-9R	30" x 24"
ROAD CLOSED 500 FT	W20-3	48" x 48"	ROAD CLOSED	R11-2	48" x 30"
			BRIDGE OUT	R11-2 (MOD)	48" x 30"
ROAD CLOSED 1000 FT	W20-2	48" x 48"	MAUSTON →	D1-1R	72" x 18"

LEGEND

- SIGN ON PERMANENT SUPPORT
- BARRICADE AND 2 TYPE A LIGHTS WITH/WITHOUT SIGN
- DETOUR ROUTE

TRAFFIC CONTROL NOTES

1. ALL TYPE III BARRICADES SHALL HAVE AN EQUIVALENT WIDTH OF 8 FEET.
2. THE EXACT LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.
3. ALL SIGNS INAPPROPRIATE TO THE STATUS OF THE CONTROL ZONE INCLUDING PRE-EXISTING SIGNING IN THE VICINITY, SHALL BE COVERED OR REMOVED AS DIRECTED BY THE ENGINEER.
4. "MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS REFLECTIVE ORANGE.
5. SIZE 3 SIGNS ARE TO BE USED ON THE INTERSTATE ONLY.

2

PROJECT NO: 1018-00-72	HWY: STH 58	COUNTY: JUNEAU	DETOUR PLAN - DETAIL 2	SHEET 6 E

DATE 17SEP07

ESTIMATE OF QUANTITIES

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1018-00-72 QUANTITY
0010	108.3100.S	INCENTIVE/DISINCENTIVE FOR INTERIM COMPLETION OF WORK	CD	7.000	7.000
0020	201.0105	CLEARING	STA	1.000	1.000
0030	201.0205	GRUBBING	STA	1.000	1.000
0060	203.0200	REMOVING OLD STRUCTURE (STATION) 03. STA. 33+11	LS	1.000	1.000
0090	203.0210.S	ABATEMENT OF ASBESTOS CONTAINING MATERIAL (STRUCTURE) 03. B-29-38	LS	1.000	1.000
0120	203.0225.S	DEBRIS CONTAINMENT (STRUCTURE) 03. B-29-38	LS	1.000	1.000
0140	204.0165	REMOVING GUARDRAIL **P**	LF	1,920.000	1,920.000
0150	204.0170	REMOVING FENCE	LF	155.000	155.000
0160	205.0100	EXCAVATION COMMON **P**	CY	750.000	750.000
0200	206.1000	EXCAVATION FOR STRUCTURES BRIDGES (STRUCTURE) 04. B-29-38	LS	1.000	1.000
0210	208.0100	BORROW	CY	2,283.000	2,283.000
0220	210.0100	BACKFILL STRUCTURE	CY	80.000	80.000
0270	213.0100	FINISHING ROADWAY (PROJECT) 04. 1018-00-72	EACH	1.000	1.000
0280	305.0120	BASE AGGREGATE DENSE 1 1/4-INCH	TON	1,400.000	1,400.000
0290	415.2000.S	INCENTIVE STRENGTH CONCRETE PAVEMENT	DOL	500.000	500.000
0300	416.0050	CONCRETE PAVEMENT APPROACH SLAB **P**	SY	144.000	144.000
0310	416.1010	CONCRETE SURFACE DRAINS **P**	CY	12.000	12.000
0320	455.0105	ASPHALTIC MATERIAL PG58-28	TON	46.000	46.000
0330	455.0605	TACK COAT	GAL	110.000	110.000
0350	460.1103	HMA PAVEMENT TYPE E-3	TON	775.000	775.000 − 801.37 T
0360	502.0100	CONCRETE MASONRY BRIDGES **P**	CY	386.000	386.000
0370	502.0400.S	INCENTIVE STRENGTH CONCRETE STRUCTURES	DOL	3,088.000	3,088.000
0410	502.3100	EXPANSION DEVICE (STRUCTURE) 04. B-29-38	LS	1.000	1.000
0420	502.3210.S	PIGMENTED PROTECTIVE SURFACE TREATMENT **P**	SY	260.000	260.000
0430	502.5010	MASONRY ANCHORS TYPE L NO. 6 BARS **P**	EACH	176.000	176.000
0450	505.0605	BAR STEEL REINFORCEMENT HS COATED BRIDGES **P**	LB	87,500.000	87,500.000
0460	506.3015	WELDED STUD SHEAR CONNECTORS 7/8X6-INCH **P**	EACH	1,284.000	1,284.000
0470	506.3020	WELDED STUD SHEAR CONNECTORS 7/8X7-INCH **P**	EACH	321.000	321.000
0530	509.1500	CONCRETE SURFACE REPAIR	SF	70.000	70.000
0560	514.0445	FLOOR DRAINS TYPE GC **P**	EACH	6.000	6.000
0570	514.2625	DOWNSPOUT 6-INCH **P**	LF	95.000	95.000
0580	516.0500	RUBBERIZED MEMBRANE WATERPROOFING **P**	SY	20.000	20.000
0610	517.0900.S	PREPARATION AND COATING OF TOP FLANGES 03. B-29-38	LS	1.000	1.000
0650	517.3000.S	STRUCTURE OVERCOATING CLEANING AND PRIMING (STRUCTURE) 04. B-29-38	LS	1.000	1.000
0660	606.0100	RIPRAP LIGHT	CY	54.000	54.000
0670	614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	4.000	4.000
0680	614.0200	STEEL THRIE BEAM STRUCTURE APPROACH **P**	LF	82.600	82.600
0690	614.0305	STEEL PLATE BEAM GUARD CLASS A **P**	LF	1,625.000	1,625.000
0700	614.0370	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL	EACH	4.000	4.000
0710	616.0100	FENCE WOVEN WIRE (HEIGHT) 01. 4-FOOT	LF	155.000	155.000
0720	619.1000	MOBILIZATION	EACH	0.390	0.390

DATE 17SEP07 — 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	1018-00-72 QUANTITY
0730	625.0500	SALVAGED TOPSOIL **P**	SY	8,500.000	8,500.000
0740	627.0200	MULCHING **P**	SY	10,000.000	10,000.000
0750	628.1504	SILT FENCE	LF	2,100.000	2,100.000
0760	628.1520	SILT FENCE MAINTENANCE	LF	2,100.000	2,100.000
0770	628.1905	MOBILIZATIONS EROSION CONTROL	EACH	2.000	2.000
0780	628.1910	MOBILIZATIONS EMERGENCY EROSION CONTROL	EACH	2.000	2.000
0790	628.2004	EROSION MAT CLASS I TYPE B	SY	100.000	100.000
0800	628.7504	TEMPORARY DITCH CHECKS	LF	50.000	50.000
0810	629.0210	FERTILIZER TYPE B **P**	CWT	6.700	6.700
0820	630.0120	SEEDING MIXTURE NO. 20 **P**	LB	250.000	250.000
0830	630.0200	SEEDING TEMPORARY **P**	LB	150.000	150.000
0840	630.0300	SEEDING BORROW PIT	LB	20.000	20.000
0870	638.2102	MOVING SIGNS TYPE II	EACH	4.000	4.000
0880	638.2602	REMOVING SIGNS TYPE II	EACH	4.000	4.000
0890	638.3000	REMOVING SMALL SIGN SUPPORTS	EACH	4.000	4.000
0900	638.4000	MOVING SMALL SIGN SUPPORTS	EACH	4.000	4.000
0910	642.5001	FIELD OFFICE TYPE B	EACH	0.410	0.410
0950	643.0100	TRAFFIC CONTROL (PROJECT) 04. 1018-00-72	EACH	1.000	1.000
0960	643.0300	TRAFFIC CONTROL DRUMS	DAYS	3,360.000	3,360.000
0970	643.0420	TRAFFIC CONTROL BARRICADES TYPE III	DAYS	2,240.000	2,240.000
0980	643.0705	TRAFFIC CONTROL WARNING LIGHTS TYPE A	DAYS	3,520.000	3,520.000
0990	643.0715	TRAFFIC CONTROL WARNING LIGHTS TYPE C	DAYS	1,280.000	1,280.000
1000	643.0800	TRAFFIC CONTROL ARROW BOARDS	DAYS	160.000	160.000
1010	643.0900	TRAFFIC CONTROL SIGNS	DAYS	2,240.000	2,240.000
1020	643.1000	TRAFFIC CONTROL SIGNS FIXED MESSAGE	SF	21.000	21.000
1030	643.1050.S	TRAFFIC CONTROL SIGNS PORTABLE CHANGEABLE MESSAGE	DAY	80.000	80.000
1040	643.2000	TRAFFIC CONTROL DETOUR (PROJECT) .01 1018-00-72	EACH	1.000	1.000
1050	643.3000	TRAFFIC CONTROL DETOUR SIGNS	DAYS	12,480.000	12,480.000
1060	645.0130	GEOTEXTILE FABRIC TYPE R	SY	215.000	215.000
1070	646.0106	PAVEMENT MARKING EPOXY 4-INCH	LF	5,760.000	5,760.000
1080	650.4500	CONSTRUCTION STAKING SUBGRADE **P**	LF	227.000	227.000
1090	650.5000	CONSTRUCTION STAKING BASE **P**	LF	227.000	227.000
1130	650.6500	CONSTRUCTION STAKING STRUCTURE LAYOUT (STRUCTURE) 04. B-29-38	LS	1.000	1.000
1140	650.8000	CONSTRUCTION STAKING RESURFACING REFERENCE **P**	LF	915.000	915.000
1180	650.9910	CONSTRUCTION STAKING SUPPLEMENTAL CONTROL 04. 1018-00-72	LS	1.000	1.000
1190	650.9920	CONSTRUCTION STAKING SLOPE STAKES	LF	525.000	525.000
1200	690.0100	SAWING EXISTING PAVEMENT	LF	64.000	64.000
1210	ASP.1T0A	ON-THE-JOB TRAINING APPRENTICE AT $5. 00/HR	HRS	82.000	82.000
1220	ASP.1T0G	ON-THE-JOB TRAINING GRADUATE AT $5.00/HR	HRS	492.000	492.000
1230	SPV.0060	SPECIAL 01. BEAM GUARD CURB	EACH	4.000	4.000

ALL ITEMS LISTED ARE CATEGORY 0010, UNLESS OTHERWISE NOTED.

201.0105 CLEARING
201.0205 GRUBBING

STATION	-	STATION	CLEARING STA	GRUBBING STA
28+00	-	29+00	1	1
		TOTALS:	1	1

204.0165 REMOVING GUARDRAIL

STATION	-	STATION	LOCATION	LF
27+00	-	31+72	LT	466
27+05	-	31+42	RT	505
34+50	-	39+50	RT	530
34+80	-	38+83	LT	430
			TOTAL:	1920

204.0170 REMOVING FENCE

STATION	-	STATION	LOCATION	LF
30+50	-	31+50	RT	115
31+70	-	31+75	LT	5
34+40	-	34+45	RT	5
34+70	-	34+95	LT	30
			TOTAL:	155

205.0100 EXCAVATION COMMON
208.0100 BORROW

STATION	-	STATION	EX. COMMON C.Y.	FILL C.Y. (1)	EXP. FILL C.Y. (1,2)	BORROW C.Y. (2)
26+50	-	30+50	146	1234	1604	1458
30+50	-	31+62	193	462	601	408
34+60	-	35+75	217	46	60	-157
35+75	-	40+90	194	591	768	574
		TOTALS:	750	2333	3033	2283

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

305.0120 BASE AGGREGATE DENSE 1 1/4-INCH

STATION	-	STATION	1 1/4-INCH TON
26+50	-	30+50	360
30+50	-	31+62	330
34+60	-	35+75	340
35+75	-	40+90	370
		TOTALS:	1400

416.0050 CONCRETE PAVEMENT APPROACH SLAB

STATION	-	STATION	APPR. SLAB SY
31+35.25	-	31+62.25	72
34+60.02	-	34+87.02	72
		TOTALS:	144

416.1010 CONCRETE SURFACE DRAINS

STATION	LOCATION	CY
31+40	RT	3
31+70	LT	3
34+60	RT	3
34+80	LT	3
	TOTAL:	12

NOTE: ALL SURFACE DRAINS ARE FLUME TYPE 3.

455.0105 ASPHALTIC MATERIAL PG58-28
455.0605 TACK COAT
460.1103 HMA PAVEMENT TYPE E-3

STATION	-	STATION	MATERIAL TON	TACK GAL	HMA TON
26+50	-	27+12	2	5	25
27+12	-	30+50	13	35	210
30+50	-	31+62	7	10	130
34+60	-	35+75	7	10	130
35+75	-	38+76	11	30	180
38+76	-	40+90	6	20	100
		TOTALS:	46	110	775

606.0100 RIPRAP LIGHT
645.0130 GEOTEXTILE FABRIC TYPE R

STATION	LOCATION	RIPRAP CY	FABRIC SY
31+34	RT	14	55
31+62	LT	14	55
34+61	RT	16	65
34+88	LT	10	40
	TOTALS:	54	215

625.0500 SALVAGED TOPSOIL
627.0200 MULCHING
629.0210 FERTILIZER TYPE B
630.0120 SEEDING MIXTURE NO. 20
630.0200 SEEDING TEMPORARY
630.0300 SEEDING BORROW PIT

STATION	-	STATION	SALV. TOPSOIL S.Y.	MULCHING S.Y.	FERTILIZER CWT.	SEEDING #20 LB.	SEEDING TEMPORARY LB.	SEEDING BORROW PIT LB.
26+50	-	31+62	4600	4600	3.1	135	65	--
34+60	-	40+90	3050	3050	2.1	90	45	--
BORROW AREA			--	1350	0.9	--	20	18
UNDISTRIBUTED			850	1000	0.6	25	20	2
		TOTALS:	8500	10000	6.7	250	150	20

614.0200 STEEL THRIE BEAM STRUCTURE APPROACH

STATION	-	STATION	LOCATION	LF
31+21.65	-	31+42.3	RT	20.65
31+51.65	-	31+72.3	LT	20.65
34+49.6	-	34+70.25	RT	20.65
34+79.6	-	35+00.25	LT	20.65
			TOTAL:	82.6

614.0305 STEEL PLATE BEAM GUARD CLASS A

STATION	-	STATION	LOCATION	LF
27+53.30	-	31+51.65	LT	400
27+70.20	-	31+21.65	RT	350
34+70.25	-	40+18.00	RT	550
35+00.25	-	38+26.10	LT	325
			TOTAL:	1625

614.0370 STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL

STATION	-	STATION	LOCATION	EACH
27+04.00	-	27+53.30	LT	1
27+19.60	-	27+70.20	RT	1
38+26.10	-	38+76.40	LT	1
40+18.00	-	40+67.90	RT	1
			TOTAL:	4

616.0100 FENCE WOVEN WIRE 4-FT

STATION	-	STATION	LOCATION	LF
30+50	-	31+50	RT	115
31+70	-	31+75	LT	5
34+40	-	34+45	RT	5
34+70	-	34+95	LT	30
			TOTAL:	155

3

PROJECT NO: 1018-00-72	HWY: IH 90/94	COUNTY: JUNEAU	MISCELLANEOUS QUANTITIES	SHEET 9	E

FILE NAME : K:\plansh1s\930532MQ.DGN PLOT DATE : 9/10/2007 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 43

628.1504 SILT FENCE
628.1520 SILT FENCE MAINTENANCE

STATION	-	STATION	LOCATION	FENCE LF	MAINT. LF
26+60	-	31+40	RT	310	310
27+00	-	29+90	LT	530	530
31+60			LT	60	60
34+60			RT	80	80
34+80			LT	40	40
35+50	-	40+50	RT	530	530
35+75	-	39+15	LT	350	350
UNDISTRIBUTED				200	200
			TOTALS:	2100	2100

ALL ITEMS LISTED ARE CATEGORY 0010, UNLESS OTHERWISE NOTED.

643.1000 TRAFFIC CONTROL FIXED MESSAGE

LOCATION	SIGN CODE	SF	COMMENTS
STH 58/STH 82	R10-61 (MOD)	6	ROAD OPEN TO BUSINESSES
STH 58/STH 80	D1-1R	9	MAUSTON -->
STH 58/CTH G	R10-61 (MOD)	6	ROAD OPEN TO BUSINESSES
	TOTALS:	21	

690.0100 SAWING EXISTING PAVEMENT

STATION	L.F.
26+50	32
40+90	32
TOTAL:	64

628.2004 EROSION MAT CLASS I TYPE B

STATION	-	STATION	LOCATION	SY
38+60	-	38+80	LT	30
40+40	-	40+60	RT	20
UNDISTRIBUTED				100
			TOTAL:	100

646.0106 PAVEMENT MARKING EPOXY 4-INCH

STATION	-	STATION	LF	COMMENTS
26+50	-	40+90	2880	WHITE EDGELINE
26+50	-	40+90	2880	DBL YLW CL
		TOTAL:	5760	

SPV.0060.01 BEAM GUARD CURB

STATION	LOCATION	EACH
31+40	RT	1
31+70	LT	1
34+60	RT	1
34+80	LT	1
	TOTAL:	4

628.7504 TEMPORARY DITCH CHECKS

STATION	LOCATION	LF
38+62	LT	10
38+93	LT	10
40+38	RT	10
UNDISTRIBUTED		20
	TOTAL:	50

650.4500 CONSTRUCTION STAKING SUBGRADE
650.5000 CONSTRUCTION STAKING BASE
650.8000 CONSTRUCTION STAKING RESURFACING REFERENCE
650.9920 CONSTRUCTION STAKING SLOPE STAKES

STATION	-	STATION	SUBGRADE LF	BASE LF	REFERENCE LF	STAKES LF
26+50	-	30+50	--	--	400	--
30+50	-	31+62	112	112	--	112
31+62	-	34+60	--	--	--	298
34+60		35+75	115	115	--	115
35+75	-	40+90	--	--	515	--
		TOTALS:	227	227	915	525

EARTHWORK TABLE

	CUT CY	FILL CY	EXP. FILL (1) CY	MASS HAUL CY
26+50				
	21	162	211	-190
27+12				
	24	163	212	-188
27+62				
	33	133	173	-140
28+50				
	36	334	434	-398
29+50				
	32	442	575	-543
30+50				
END MILL & OVERLAY/BEGIN RECONSTRUCT				
30+50				
	130	305	396	-266
31+25				
	63	157	204	-141
31+62				
STRUCTURE B-29-39				
34+60				
	72	3	4	68
35+00				
	145	43	56	89
35+75				
END RECONSTRUCT/BEGIN MILL & OVERLAY				
35+75				
	32	126	164	-132
36+50				
	42	179	232	-190
37+50				
	33	74	96	-63
38+26				
	26	58	75	-49
38+76				
	26	80	104	-78
39+25				
	22	19	25	-3
40+25				
	10	29	38	-28
40+68				
	3	26	34	-31
40+90				
TOTALS	750	2333	3033	-2283 (BORROW)

(1) - INCLUDES 30% EXPANSION FACTOR

638.2102 MOVING SIGNS TYPE II
638.4000 MOVING SMALL SIGN SUPPORTS

STATION	LOCATION	SIGNS EACH	SUPPORTS EACH
28+30	RT	1	1
31+55	LT	1	1
36+00	RT	1	1
38+00	LT	1	1
	TOTALS:	4	4

650.6500 CONSTRUCTION STAKING STRUCTURE LAYOUT

STRUCTURE	LS
B-29-38	1
TOTAL:	1

NOTE: CATEGORY 0020 ITEM

638.2602 REMOVING SIGNS TYPE II
638.3000 REMOVING SMALL SIGN SUPPORTS

STATION	LOCATION	SIGNS EACH	SUPPORTS EACH	COMMENTS
31+53	LT	1	1	OBJECT MARKER
31+42	RT	1	1	OBJECT MARKER
34+50	RT	1	1	OBJECT MARKER
34+75	LT	1	1	OBJECT MARKER
	TOTALS:	4	4	

643.0300 TRAFFIC CONTROL DRUMS
643.0420 TRAFFIC CONTROL BARRICADES TYPE III
643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A
643.0710 TRAFFIC CONTROL WARNING LIGHTS TYPE C
643.0800 TRAFFIC CONTROL ARROW BOARDS
643.0900 TRAFFIC CONTROL SIGNS
643.3000 TRAFFIC CONTROL DETOUR SIGNS
643.1050.S TRAFFIC CONTROL SIGNS PORTABLE CHANGEABLE MESSAGE

LOCATION	DRUMS DAYS	BARRICADES DAYS	TYPE A LIGHTS DAYS	TYPE C LIGHTS DAYS	ARROW BOARD DAYS	SIGNS DAYS	DETOUR SIGNS DAYS	PORTABLE MESSAGE DAYS
PROJECT LIMITS	--	1440	2240	--	--	1120	--	--
DETOUR ROUTE	--	640	1280	--	--	320	12480	--
IH 90/94 LANE CLOSURE	3360	160	--	1280	160	800	--	80
TOTALS:	3360	2240	3520	1280	160	2240	12480	80

3

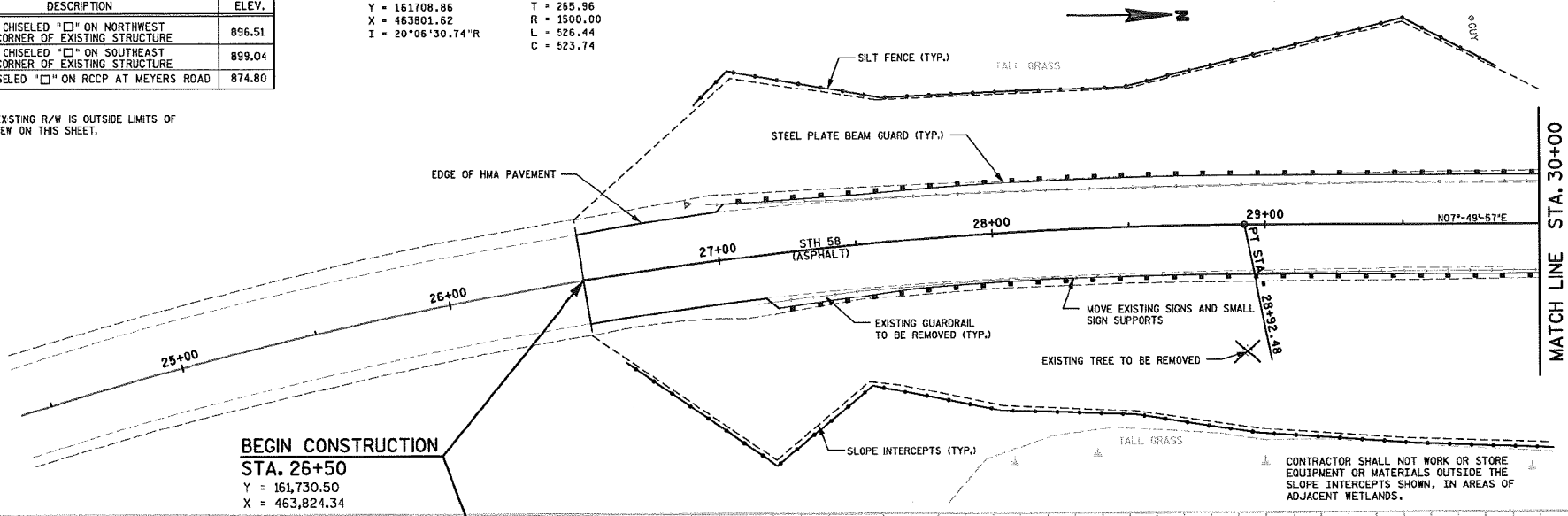
FILE NAME : K:\planshts\930532MQ.DGN PLOT DATE : 9/10/2007 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$....plotscale.....$$ WISDOT/CADDS SHEET 43

BENCHMARKS			
NO.	STA.	DESCRIPTION	ELEV.
2	34+72, 17' LT.	CHISELED "□" ON NORTHWEST CORNER OF EXISTING STRUCTURE	896.51
3	31+50, 17' RT.	CHISELED "□" ON SOUTHEAST CORNER OF EXISTING STRUCTURE	899.04
4	23+35, 61' LT.	CHISELED "□" ON RCCP AT MEYERS ROAD	874.80

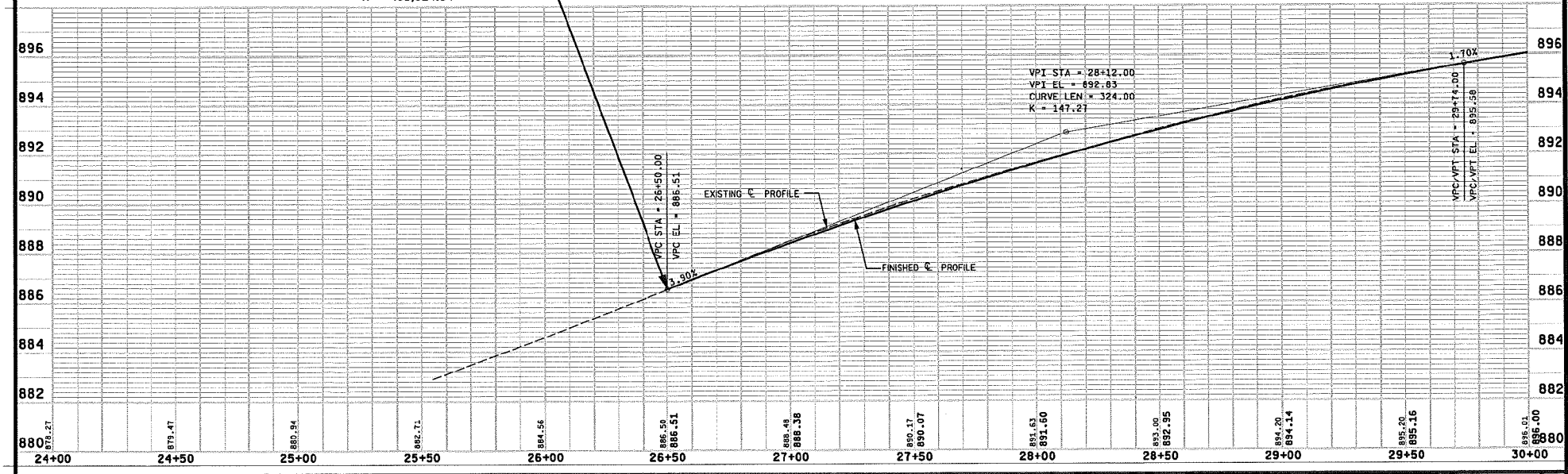
PI Sta = 26+31.99
Y = 161708.86
X = 463801.62
I = 20°06'30.74"R

CD = N 02°13'18.30" W
T = 265.96
R = 1500.00
L = 526.44
C = 523.74

NOTE: EXSTING R/W IS OUTSIDE LIMITS OF PLAN VIEW ON THIS SHEET.



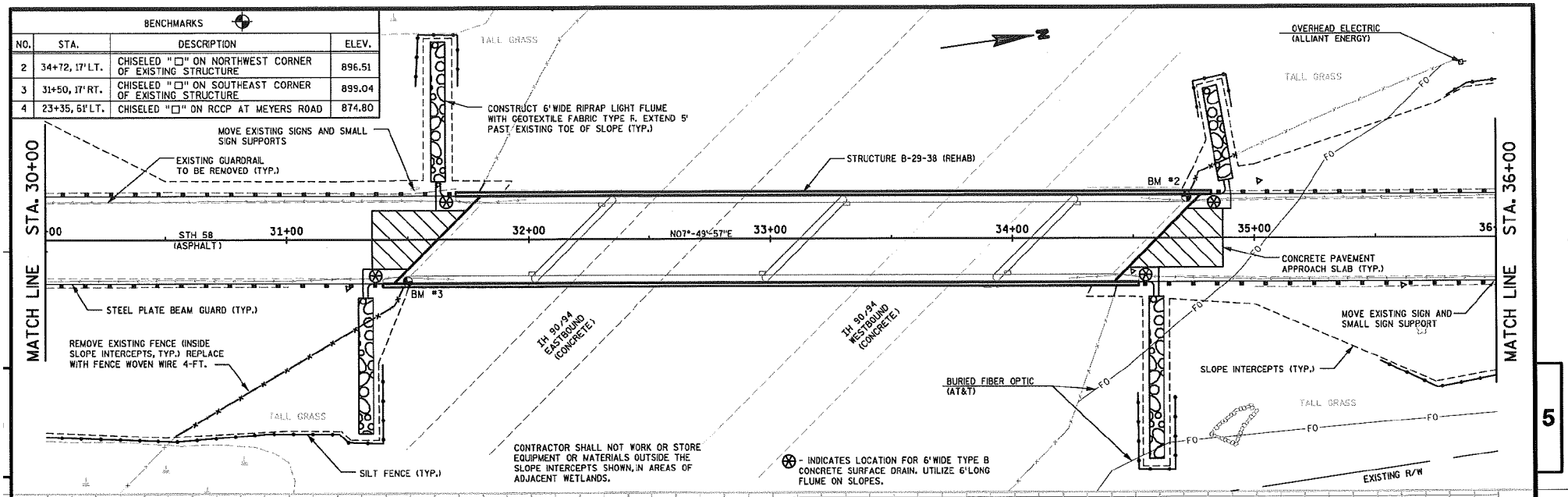
BEGIN CONSTRUCTION
STA. 26+50
Y = 161,730.50
X = 463,824.34

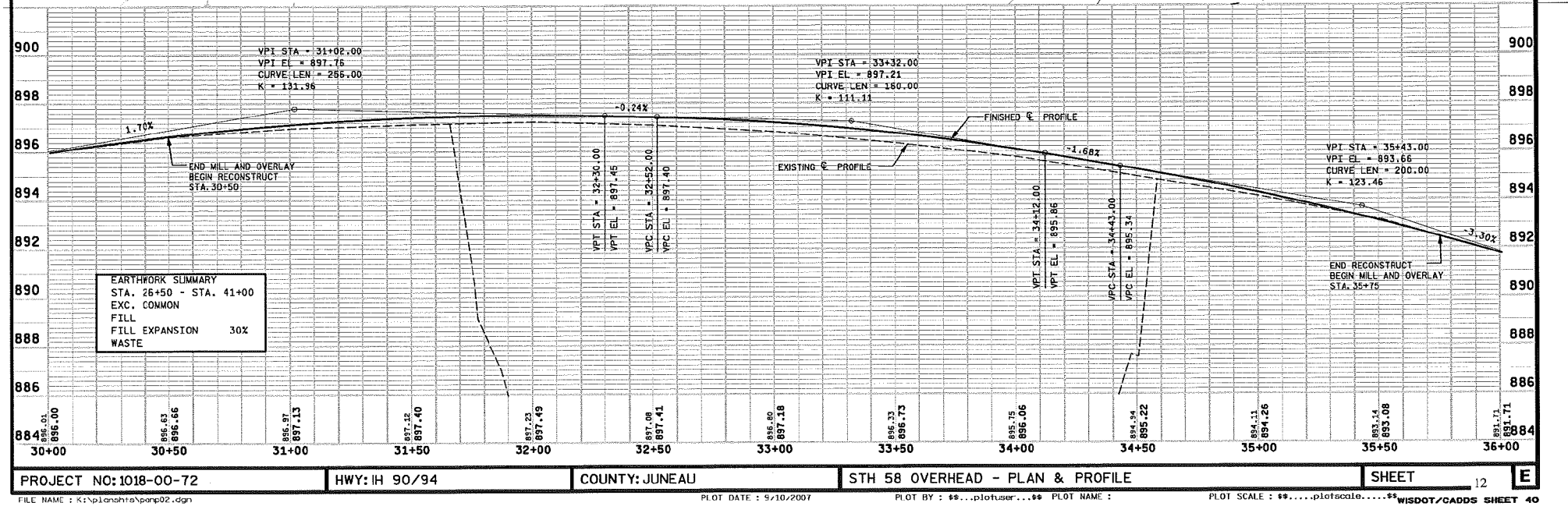


PROJECT NO: 1018-00-72	HWY: IH 90/94	COUNTY: JUNEAU	STH 58 OVERHEAD - PLAN & PROFILE	SHEET 11 E

FILE NAME : K:\plansh1s\ponp01.dgn PLOT DATE : 9/10/2007 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 40

BENCHMARKS			
NO.	STA.	DESCRIPTION	ELEV.
2	34+72, 17' LT.	CHISELED "□" ON NORTHWEST CORNER OF EXISTING STRUCTURE	896.51
3	31+50, 17' RT.	CHISELED "□" ON SOUTHEAST CORNER OF EXISTING STRUCTURE	899.04
4	23+35, 61' LT.	CHISELED "□" ON RCCP AT MEYERS ROAD	874.80

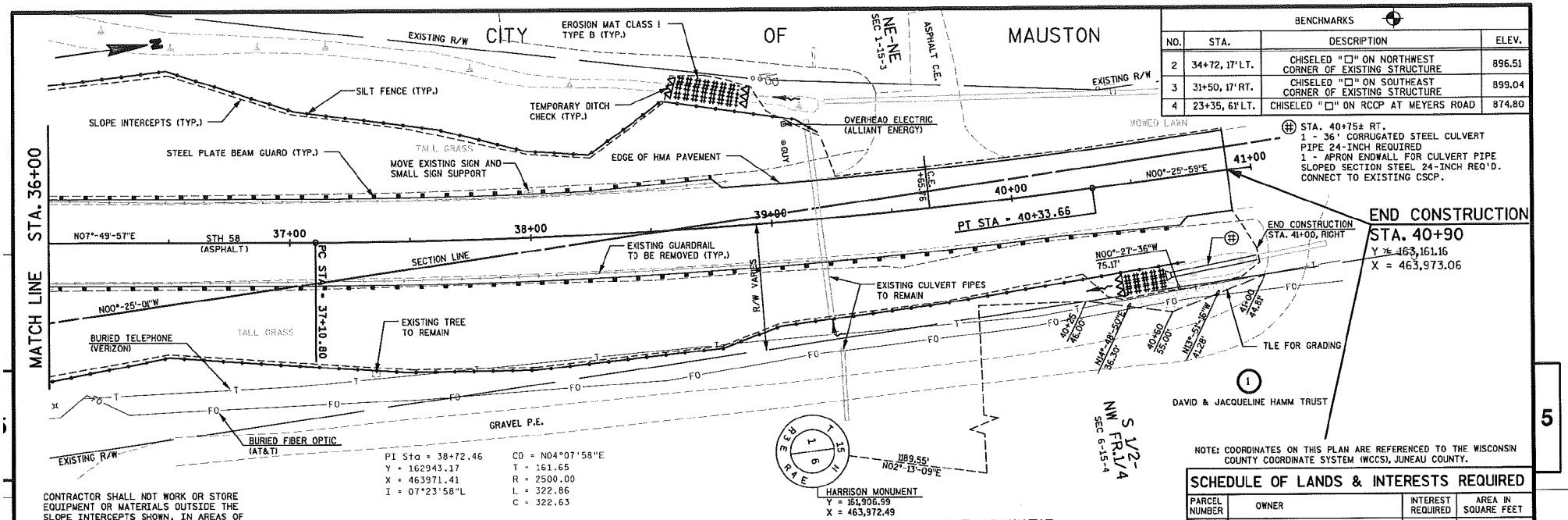




PROJECT NO: 1018-00-72	HWY: IH 90/94	COUNTY: JUNEAU	STH 58 OVERHEAD - PLAN & PROFILE	SHEET 12 E

FILE NAME : K:\plansht\s\panp02.dgn PLOT DATE : 9/10/2007 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 40

5

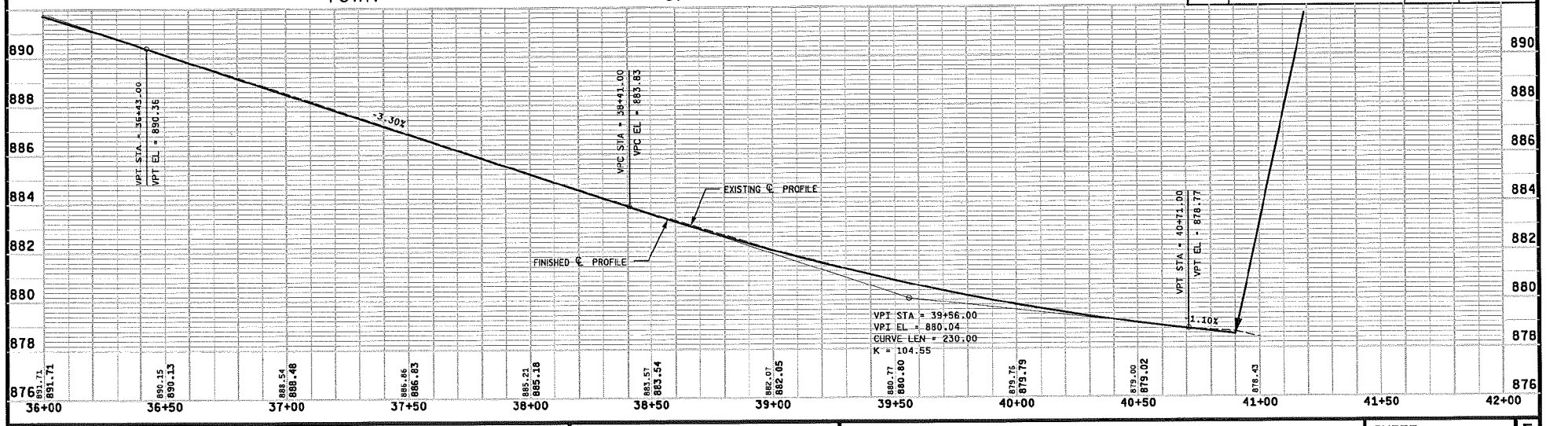


BENCHMARKS			
NO.	STA.	DESCRIPTION	ELEV.
2	34+72, 17'LT.	CHISELED "□" ON NORTHWEST CORNER OF EXISTING STRUCTURE	896.51
3	31+50, 17'RT.	CHISELED "□" ON SOUTHEAST CORNER OF EXISTING STRUCTURE	899.04
4	23+35, 61'LT.	CHISELED "□" ON RCCP AT MEYERS ROAD	874.80

NOTE: COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), JUNEAU COUNTY.

SCHEDULE OF LANDS & INTERESTS REQUIRED

PARCEL NUMBER	OWNER	INTEREST REQUIRED	AREA IN SQUARE FEET
1	DAVID & JACQUELINE HAMM TRUST	TLE	359 SQ. FT.



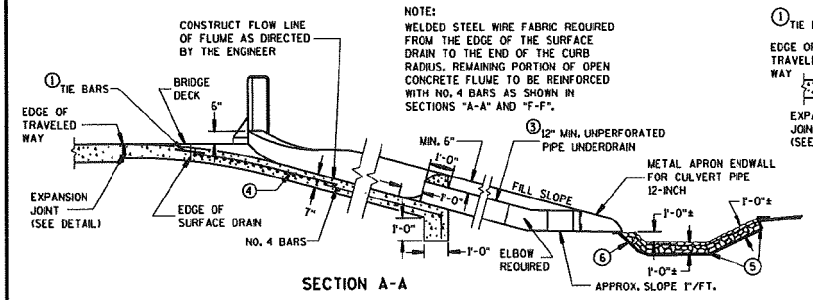
PROJECT NO: 1018-00-72	HWY: IH 90/94	COUNTY: JUNEAU	STH 58 OVERHEAD - PLAN AND PROFILE	SHEET 13	E

FILE NAME : K:\plansht\pan03.dgn PLOT DATE : 9/10/2007 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 40

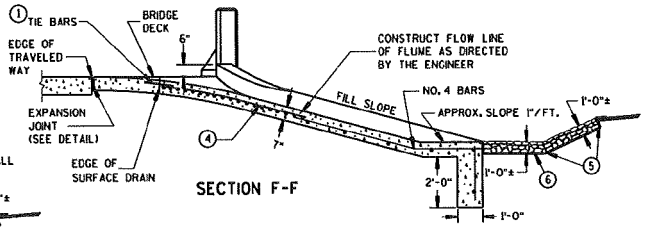
5

Standard Detail Drawing List

08D2-4	CONCRETE SURFACE DRAIN FLUME TYPE AT STRUCTURES
08E8-3	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E9-6	SILT FENCE
12A3-9	NAME PLATE (STRUCTURES)
13B2-5	CONCRETE PAVEMENT APPROACH SLAB
14B15-5A	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B15-5B	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B18-5A	STEEL PLATE BEAM GUARD, CLASS "A" (AT BRIDGES, OBSTACLES AND SIDEROADS/DRIVEWAYS)
14B20-6A	STEEL THRIE BEAM STRUCTURE APPROACH
14B20-6B	STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO SQUARE END AND VERTICAL FACED PARAPETS
14B24-4A	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
14B24-4B	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
14B24-4C	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
15B1-7A	WOVEN WIRE FENCE
15B1-7B	WOVEN WIRE FENCE
15C2-4A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C2-4B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C2-4C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C6-5	SIGNING & MARKING FOR TWO LANE BRIDGES
15C8-10A	PAVEMENT MARKING (MAINLINE)
15D12-2	TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H.
15D27-1	TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH



SECTION A-A



SECTION F-F

GENERAL NOTES

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

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

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

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

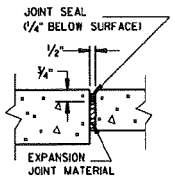
④ MINIMUM REINFORCEMENT SHALL BE 6" X 6" - W4.0 X W4.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE SPACING 12" C-C.

⑤ LIMITS OF ADDITIONAL RIPRAP WHEN SPECIAL DITCH IS REQUIRED.

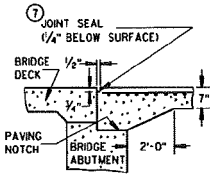
⑥ GEOTEXTILE FABRIC, TYPE "R"

⑦ HOT POURED SEALANT UNLESS OTHERWISE SPECIFIED.

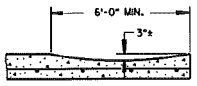
⑧ THIS DIMENSION MAY VARY DEPENDING ON THE SPACING OF POSTS FOR THE STEEL PLATE BEAM GUARD. THE TYPICAL LOCATION FOR THE SURFACE DRAIN IS WHERE THE POST SPACING WIDENS TO 3'-1½".



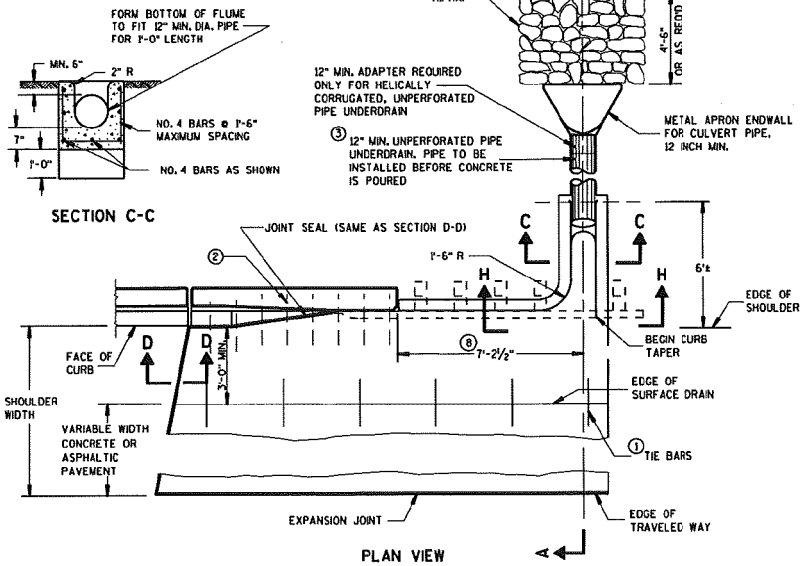
EXPANSION JOINT DETAIL



SECTION D-D

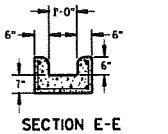


SECTION H-H

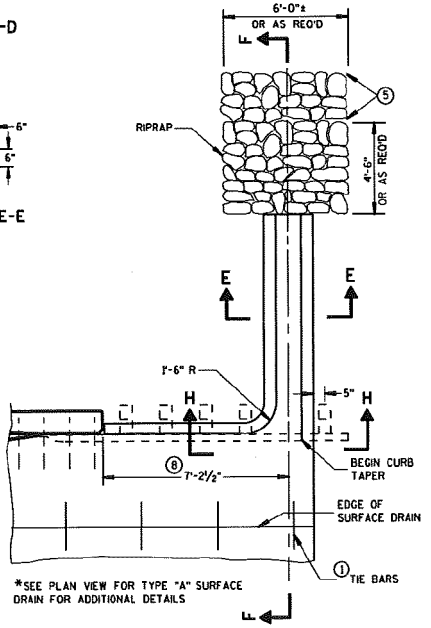


SECTION C-C

PLAN VIEW
SURFACE DRAIN WITH PIPE
TYPE "A"



SECTION E-E

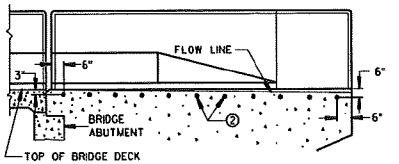


*PARTIAL PLAN VIEW
SURFACE DRAIN WITHOUT PIPE
TYPE "B"

DESIGN NOTE: (WILL NOT APPEAR ON CONTRACT PLANS)

SPECIFY THE TYPE OF SURFACE DRAIN REQUIRED AT EACH STRUCTURE.

WHEN TIE BARS ② ARE NOT SHOWN IN THE BRIDGE DRAWINGS, INCLUDE IN THE PLANS AS "PAVEMENT TIES".



LOCATION OF TIE BARS IN WINGWALL

CONCRETE SURFACE DRAIN
FLUME TYPE
AT STRUCTURES

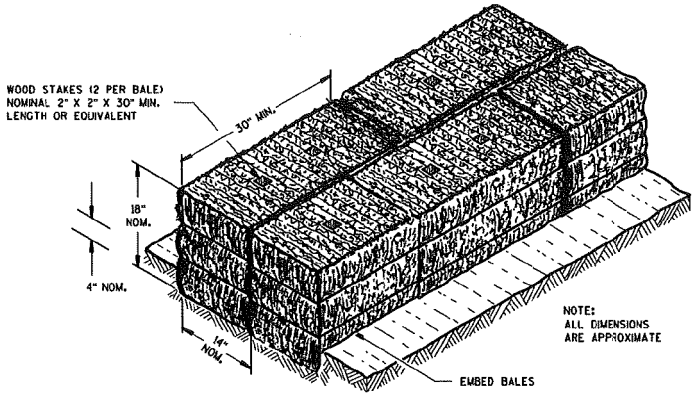
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2/90
DATE
FHWA

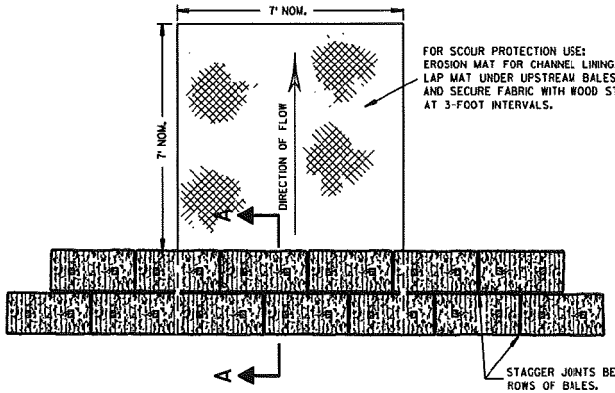
STATE DESIGN ENGINEER FOR FHWA

S.D.D. 8 D 2-4

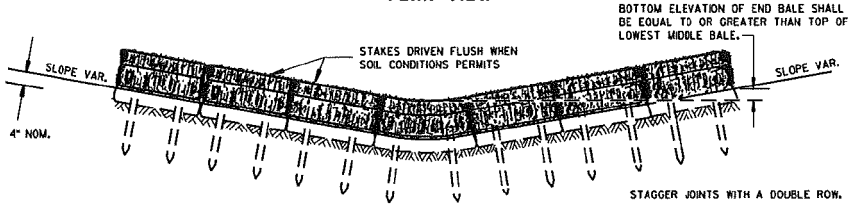
6



SECTION A-A



PLAN VIEW



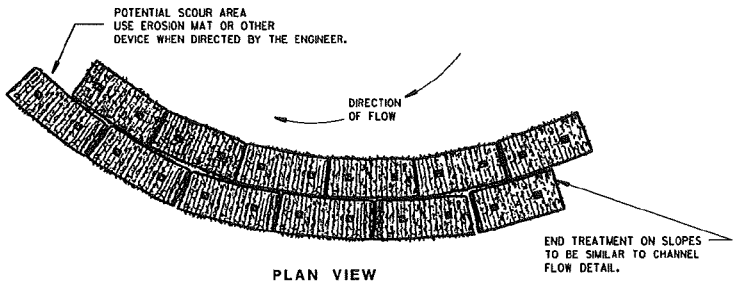
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

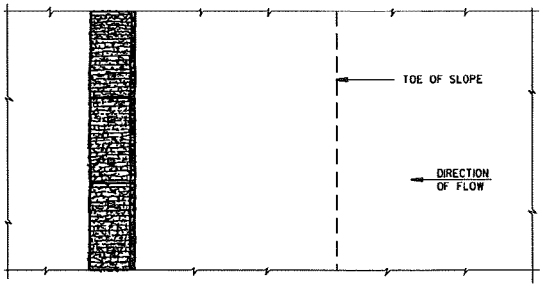
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

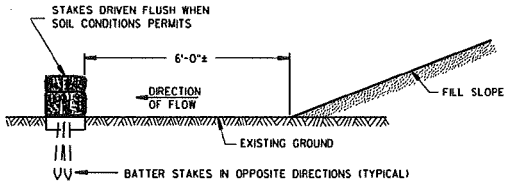


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

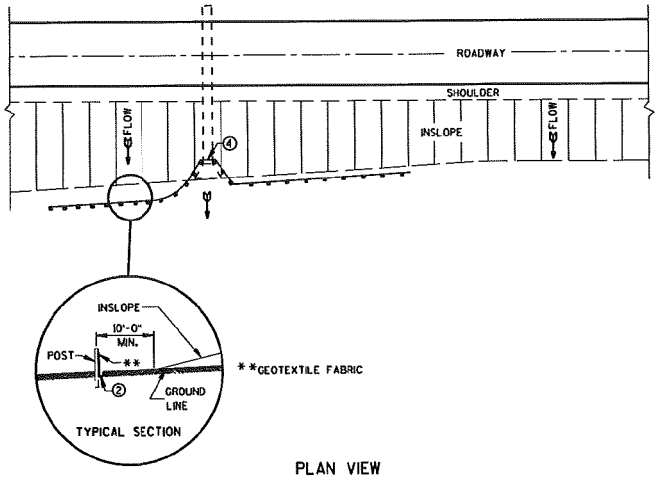
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED 6/04/02 DATE — CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

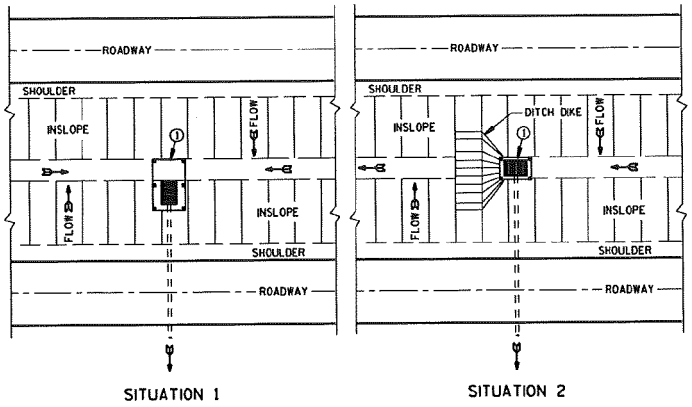
S.D.D. 8 E 8-3

S.D.D. 8 E 8-3



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

GENERAL NOTES

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

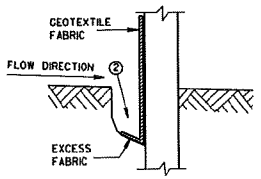
① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.

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

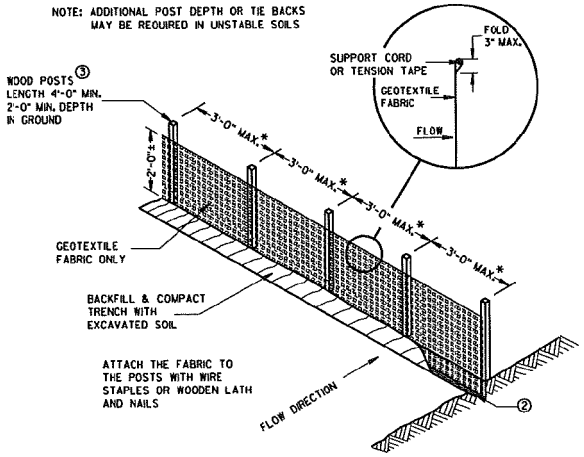
③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.

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

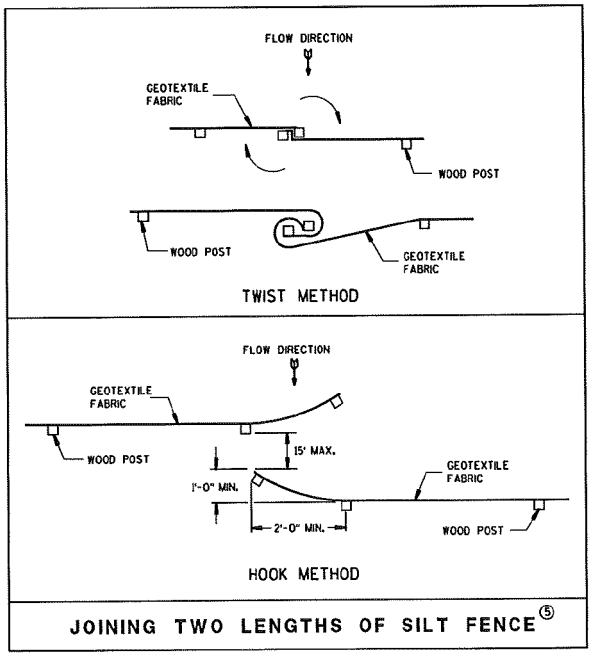
⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



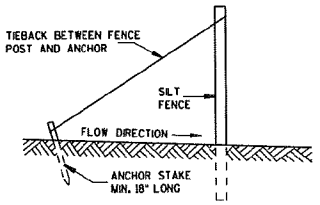
TRENCH DETAIL



SILT FENCE



JOINING TWO LENGTHS OF SILT FENCE ⑤



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

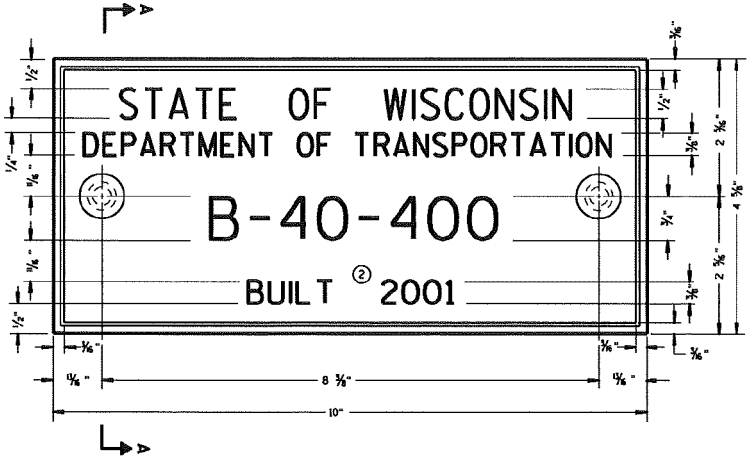
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4-29-05
DATE
FHWA

CHIEF ROADWAY DEVELOPMENT ENGINEER

6

S.D.D. 8 E 9-6



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

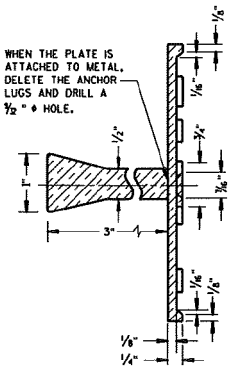
GENERAL NOTES

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.

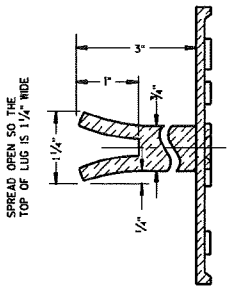
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

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

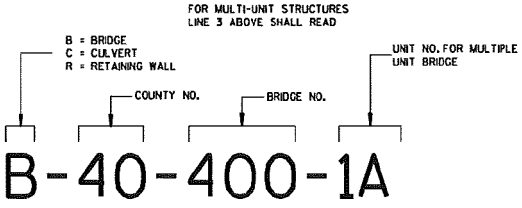
② REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



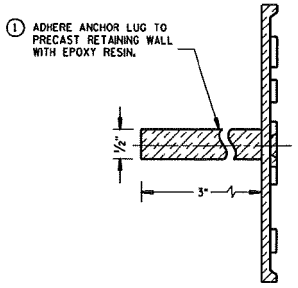
SECTION A-A



ALTERNATE LUG

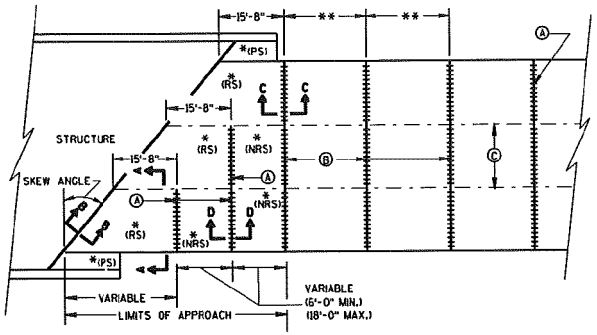


NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES

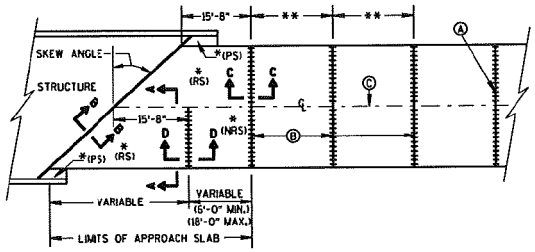


ALTERNATE LUG
(FOR ATTACHMENT TO PRECAST STRUCTURES)

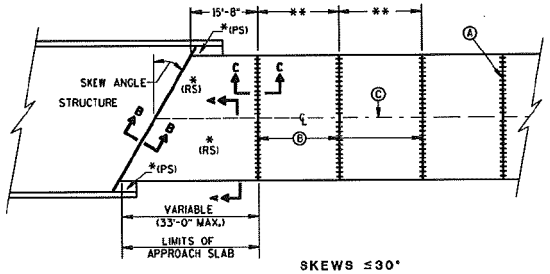
NAME PLATE (STRUCTURES)	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 2/26/07 DATE FHWA	/S/ Scot Becker CHIEF STRUCTURAL DEVELOPMENT ENGINEER



SKEWED APPROACH
(PAVEMENT MORE THAN 2 LANES)



SKEWS >30°
(PAVEMENT WIDTH ≤30')



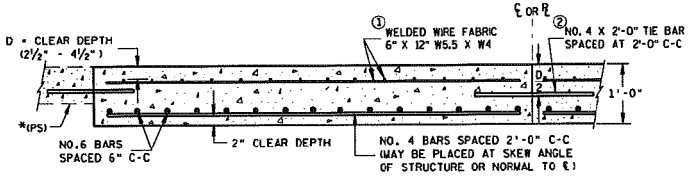
SKEWS ≤30°
(PAVEMENT WIDTH ≤30')

APPROACH SLAB AND ADJACENT PAVEMENT

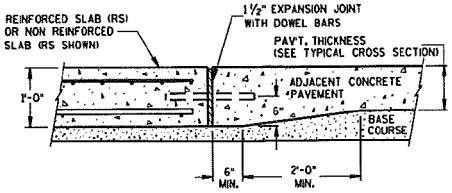
*(RS) = REINFORCED CONCRETE SLAB
*(PS) = PAVED CONCRETE SHOULDER: CONCRETE PAVEMENT, OR CONCRETE SURFACE DRAIN (SEE DETAILS ELSEWHERE IN THE PLAN)
*(NRS) = NON-REINFORCED CONCRETE SLAB

**STANDARD TRANSVERSE JOINT SPACING (SEE SDD 13C4, SDD 13C11, & SDD 13C13)

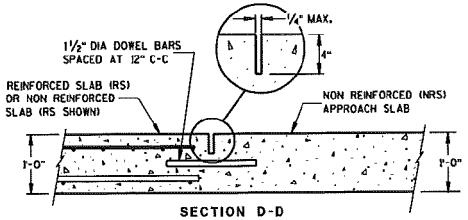
(A) STANDARD CONTRACTION JOINT NORMAL TO ℄ OR ℄
(B) 1½" EXPANSION JOINT WITH DOWEL BARS NORMAL TO ℄ OR ℄
(C) STANDARD LONGITUDINAL JOINT AND TIE BARS.



SECTION A-A
REINFORCEMENT POSITIONING DETAIL



SECTION C-C
TRANSITION DETAIL
APPROACH SLAB TO ADJACENT PAVEMENT



SECTION D-D
CONTRACTION JOINT

GENERAL NOTES

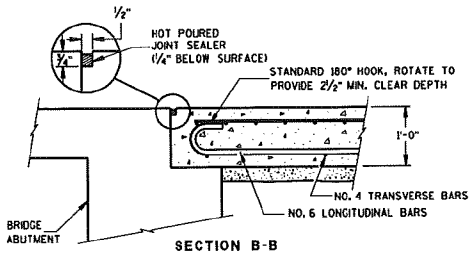
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

DOWEL BARS ARE NOT REQUIRED WHEN THE APPROACH SLAB ABUTS AN ASPHALT PAVEMENT OVER BASE COURSE.

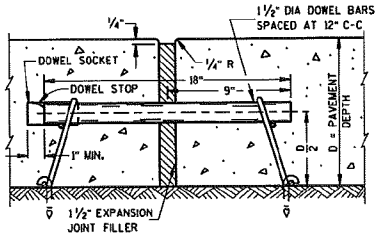
SPLICING OF NO. 6 BARS IN THE APPROACH SLAB IS PERMITTED FOR SKEWED STRUCTURES ONLY. SPLICES SHALL BE STAGGERED, WITH A MAXIMUM OF ONE SPLICE PER BAR. THE LENGTH OF LAP SHALL BE 20 INCHS.

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

② TIE BARS BETWEEN REINFORCED SLABS MAY BE OMITTED WHERE SLAB REINFORCEMENT EXTEND ACCROSS THE CENTERLINE OR REFERENCE LINE.



SECTION B-B
BEND DETAIL
BOTTOM REINFORCEMENT



EXPANSION JOINT

CONCRETE PAVEMENT APPROACH SLAB	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
3/21/07 DATE	/S/ Steven W. Krebs CHIEF MATERIALS MANAGEMENT ENGINEER
FHWA	

6

S.D.D. 13 B 2-5

GENERAL NOTES

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

① W6 X 9 OR W6 X 8.5 STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POSTS WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS. APPROVED PLASTIC BLOCKOUT DESIGNS MAY VARY FROM THIS TYPICAL DETAIL WHEN USED IN CONJUNCTION WITH STEEL POSTS.

DO NOT MIX STEEL POSTS AND WOOD POSTS IN A SINGLE INSTALLATION.

② USE STRUCTURAL STEEL POSTS CONFORMING TO ASTM A 36, GALVANIZED POSTS ACCORDING TO AASHTO M 111. EITHER SET THE POSTS IN DRILLED HOLES OR DRIVE TO GRADE. REMOVE MUSHROOMING CAUSED BY DRIVING AND REPAIR DAMAGED SPELTER COATING ON GALVANIZED POSTS.

③ INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.

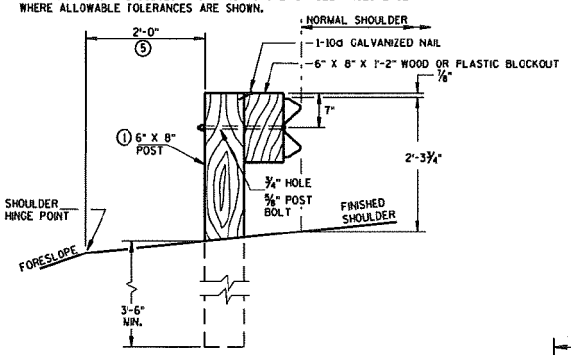
④ USE EITHER WOOD OR APPROVED PLASTIC BLOCKOUTS ON WOOD POSTS.

⑤ WHEN SPECIFIED IN THE PLANS, THE SHOULDER HINGE POINT MAY BE BETWEEN THE FRONT FACE OF THE POST AND 2 FEET BEHIND THE BACK OF THE POST, IF EXISTING CONDITIONS DO NOT PERMIT THE DESIRABLE EARTHWORK. INCREASE POST DEPTH TO PROVIDE A MINIMUM EMBEDMENT OF 4'-6" WHERE THE SHOULDER HINGE POINT IS LOCATED BETWEEN THE FRONT FACE OF THE POST AND 2 FEET BEHIND THE BACK OF THE POST.

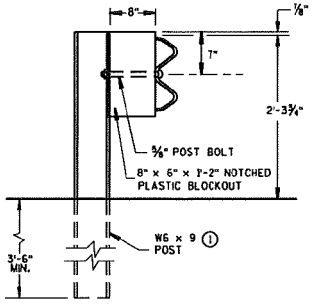
⑥ IF ROCK IS ENCOUNTERED DURING EXCAVATION, THE ENGINEER MAY APPROVE USING A 12 INCH DIAMETER POST HOLE EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE APPROXIMATELY 2½ INCHES DEEP. CUT THE POSTS TO LENGTH AND PLACE IN THE HOLE. BACKFILL WITH MATERIAL EXCAVATED FROM THE HOLE AND COMPACT ADEQUATELY.

INSTALL BEAM GUARD SECTIONS AND ALL NECESSARY HARDWARE ACCORDING TO THE APPLICABLE PLAN AND CURRENT STANDARD AND SUPPLEMENTAL SPECIFICATIONS.

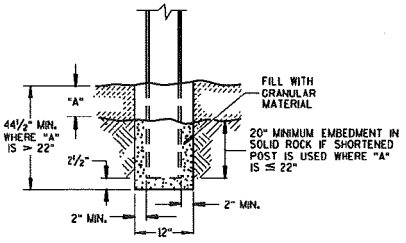
ALL DIMENSIONS ARE SUBJECT TO MANUFACTURER'S TOLERANCES EXCEPT WHERE ALLOWABLE TOLERANCES ARE SHOWN.



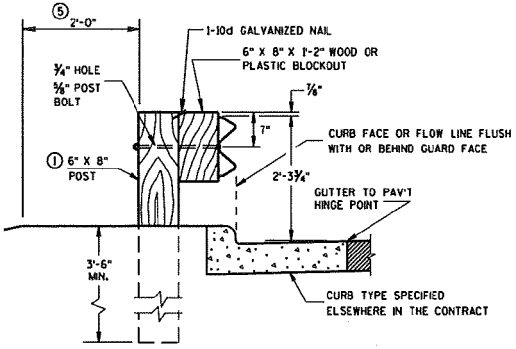
END VIEW
LOCATED ALONG A ROADWAY SHOULDER



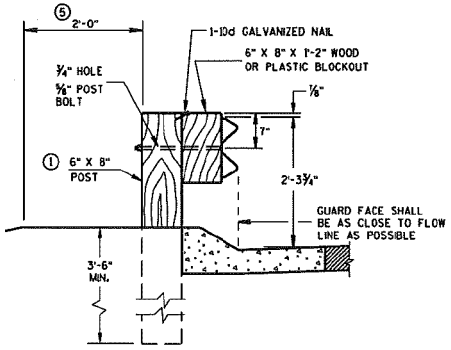
END VIEW
STEEL POST & NOTCHED
PLASTIC BLOCKOUT ALTERNATIVE



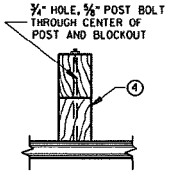
END VIEW
SETTING STEEL OR WOOD POST IN ROCK ⑥



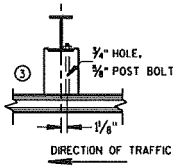
END VIEW
LOCATED ALONG A CURBED ROADWAY



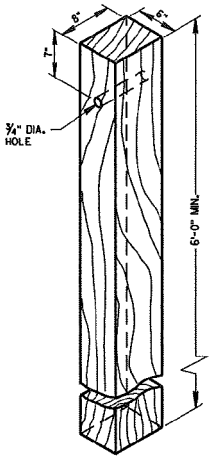
END VIEW
LOCATED ALONG A
MOUNTABLE CURBED ROADWAY



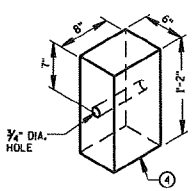
PLAN VIEW
WOOD POST,
BLOCKOUT & BEAM



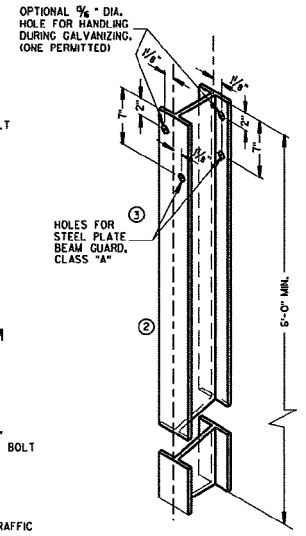
PLAN VIEW
STEEL POST, NOTCHED
PLASTIC BLOCKOUT & BEAM



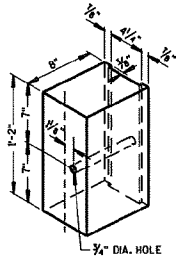
WOOD POST
(6"X8") NOMINAL



WOOD OR PLASTIC
BLOCKOUT FOR WOOD POSTS



STEEL POST &
HOLE PUNCHING DETAIL
(W6 X 9) ①
ALL HOLES 1⅛" DIAMETER EXCEPT AS NOTED



TYPICAL NOTCHED PLASTIC ①
BLOCKOUT FOR STEEL POSTS

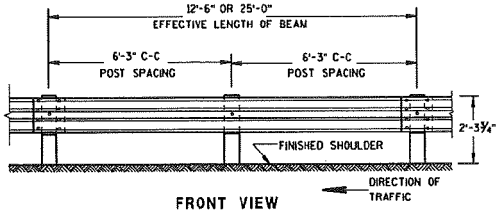
TYPICAL INSTALLATION OF STEEL PLATE BEAM GUARD

STEEL PLATE BEAM GUARD,
CLASS "A"
INSTALLATION & ELEMENTS

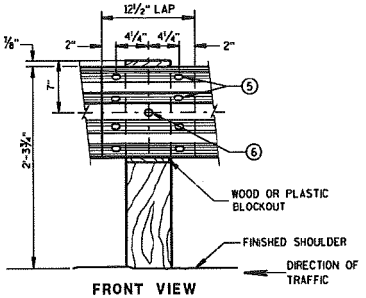
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 14 B 15-5a



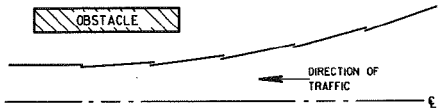
FRONT VIEW



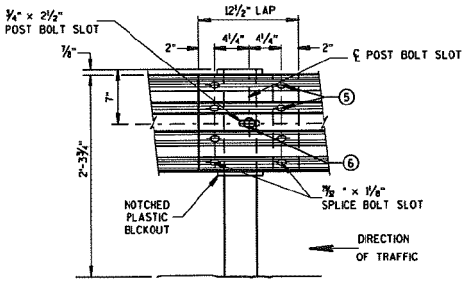
FRONT VIEW
BEAM SPLICE AT WOOD POST
AND POST MOUNTING DETAIL

GENERAL NOTES

1. PROVIDE TYPE "H" SILVER REFLECTIVE SHEETING ON ALL REFLECTORS EXCEPT THOSE LOCATED ALONG THE LEFT EDGE OF ONE-WAY ROADWAYS, WHICH SHALL BE PROVIDED WITH TYPE "H" YELLOW REFLECTIVE SHEETING.
2. DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.
3. REVERSE EVERY OTHER REFLECTOR FOR 2-WAY VISIBILITY. THE CONTRACTOR MAY FURNISH TWO-SIDED REFLECTORS IN LIEU OF ONE-SIDED REFLECTORS.
4. PROVIDE AN ANGLE OF BEND OF 90° ± 1° FOR TWO-SIDED REFLECTORS.
5. 8 - ⅝" ϕ X 1¼" BUTTON HEAD BOLTS WITH OVAL SHOULDERS & RECESS NUTS.
6. ⅝" ϕ X 1'-6" BUTTON HEAD BOLT AND AND RECESS NUT WITH ROUND WASHER UNDER NUT.



PLAN VIEW
BEAM LAPPING DETAIL

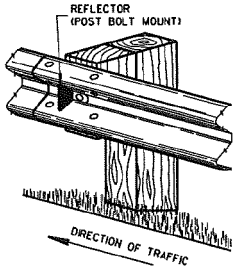


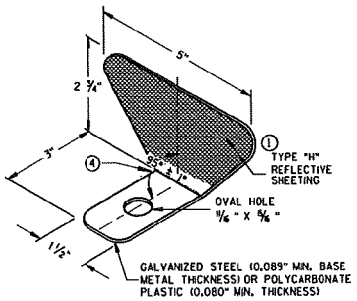
FRONT VIEW
BEAM SPLICE AT STEEL POST

TYPICAL SPLICING DETAILS OF STEEL PLATE BEAM GUARD

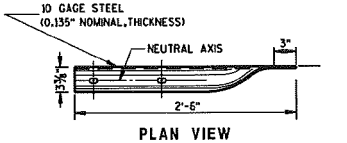
REFLECTOR SPACING ②

	BEAM GUARD LENGTH	REFLECTOR SPACING	NO. SURFACES REFLECTORIZED	MIN. NO. REFLECTORS
ONE WAY TRAFFIC	< 200'	50'C-C	1	3
	> 200'	100'C-C	1	
TWO WAY TRAFFIC	< 200'	25'C-C	1 ③	6
	> 200'	50'C-C	1	
TWO WAY TRAFFIC	< 200'	50'C-C	2	3
	> 200'	100'C-C	2 ④	

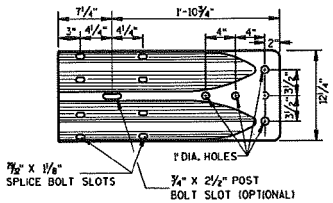




ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION ①



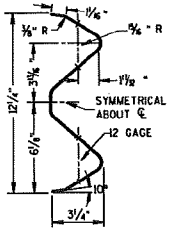
PLAN VIEW



FRONT VIEW

W BEAM TERMINAL CONNECTOR

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)



SECTION THRU W BEAM

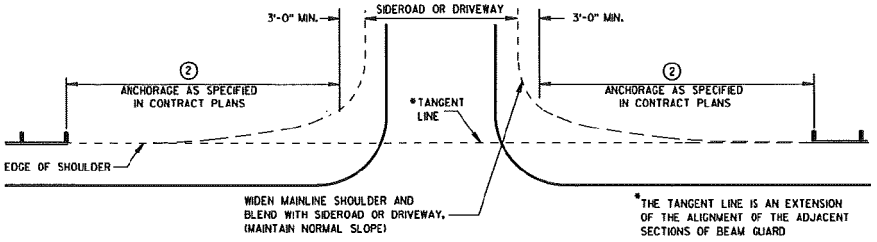
STEEL PLATE BEAM GUARD,
CLASS "A",
INSTALLATION & ELEMENTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/23/06 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 14 B 15-5b



BEAM GUARD AT SIDEROADS OR DRIVEWAYS

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE PERTINENT STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

W6 X 9 OR W6 X 8.5 STEEL POSTS WITH NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POSTS WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS.

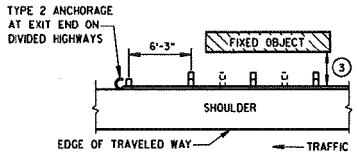
THE LOCATIONS AND LENGTHS OF BEAM GUARD ARE SHOWN ELSEWHERE IN THE PLAN.

① STEEL THRIE BEAM STRUCTURAL APPROACH (STBSA) - SEE SDD 14B20.

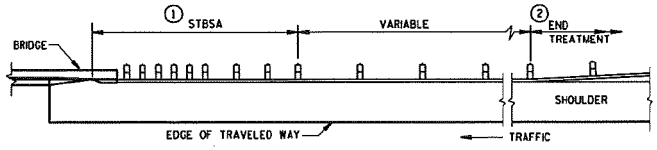
② USE AN APPROVED END TREATMENT FOR THE TRAFFIC APPROACH SIDE OF BRIDGE/OBSTACLES. USE TYPE 2 ANCHORAGE ONLY AT THE DOWNSTREAM ENDS OF BEAM GUARD LOCATED ALONG ROADWAYS WITH ONE WAY TRAFFIC.

③

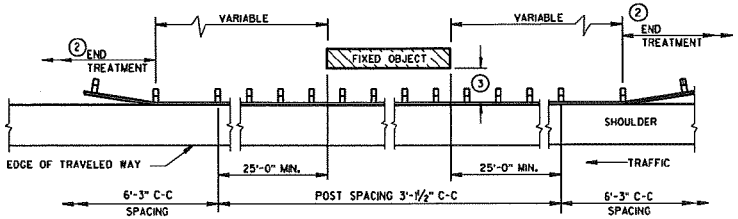
MINIMUM LATERAL DISTANCE FROM FACE OF BEAM GUARD TO FIXED OBJECT	POST SPACING
3'-6"	3' - 1½"
4'-6"	6' - 3"



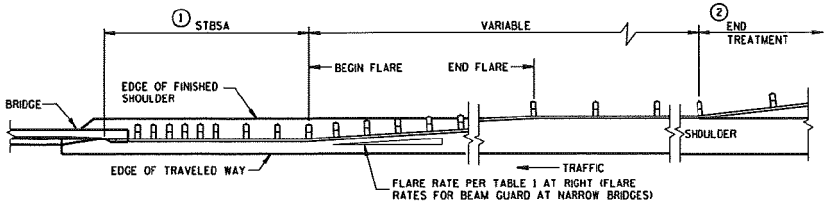
BEAM GUARD AT OBSTACLES
EXIT END - ONE WAY TRAFFIC



BEAM GUARD AT FULL WIDTH BRIDGES



BEAM GUARD AT OSBSTACLES - TWO WAY TRAFFIC
(RAIL TO OBSTACLE CLEARANCE 3'-6" TO 4'-6")



BEAM GUARD AT NARROW BRIDGES
(FLARED TO SHOULDER EDGE, THEN PARALLEL TO ROADWAY)

TABLE 1
FLARE RATES FOR BEAM GUARD AT NARROW BRIDGES

POSTED SPEED (MPH)	FLARE RATE
25	13:1
30	15:1
35	16:1
40	18:1
45	21:1
50	24:1
55	26:1
65	30:1

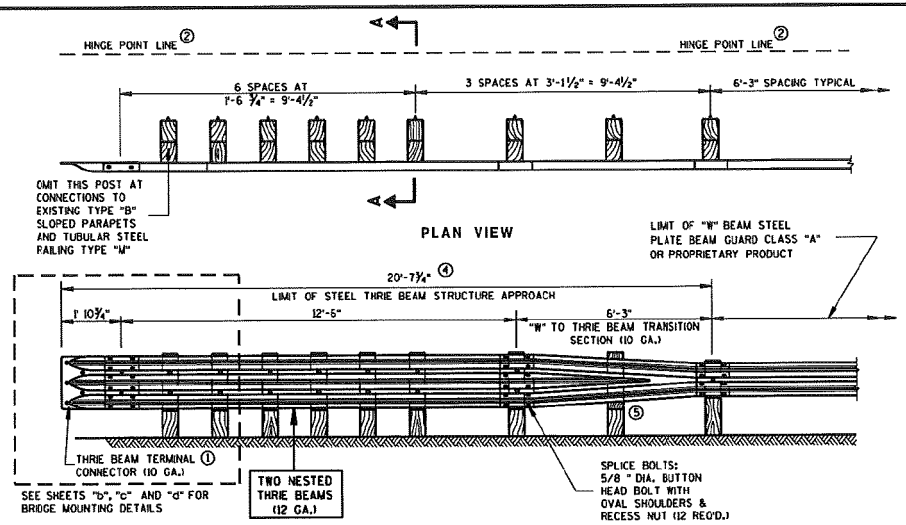
STEEL PLATE BEAM GUARD, CLASS "A" (AT BRIDGES, OBSTACLES AND SIDEROADS/DRIVEWAYS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10-23-06 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 14 B 18-5a



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.

FURNISH AND CONSTRUCT THRIE BEAM STRUCTURAL APPROACH ACCORDING TO THE REQUIREMENTS OF SECTION 614 OF THE STANDARD SPECIFICATIONS. THRIE BEAM SECTIONS SHALL CONFORM TO THE REQUIREMENTS OF AASHTO DESIGNATION M180, CLASS "A", TYPE 2.

BOLT THE THRIE BEAM TO ALL POSTS AND BLOCKOUTS. DRILL OR PUNCH BOLT HOLES IN THE BEAM IF THE POST SPACING IS LESS THAN 6'-3.

DO NOT USE STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS IN THE STEEL THRIE BEAM STRUCTURAL APPROACH AND THE TRANSITION SECTION OF STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATIONS.

IF ROCK IS ENCOUNTERED DURING EXCAVATION, THE ENGINEER MAY APPROVE USING A 12 INCH DIAMETER POST HOLE EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE APPROXIMATELY 2½ INCHES DEEP. CUT THE POSTS TO LENGTH AND PLACE IN THE HOLE. BACKFILL WITH MATERIAL EXCAVATED FROM THE HOLE AND COMPACT ADEQUATELY, (SEE SDD 14 B 15-40).

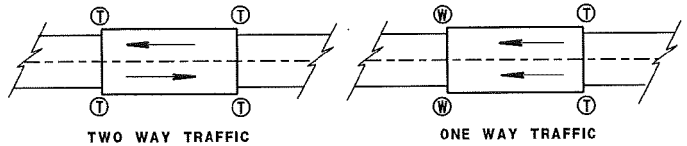
① BRIDGE RAILING TYPE "M" DOES NOT REQUIRE A TERMINAL CONNECTOR.

② MINIMUM EMBEDMENT SHALL BE 4'-0". WHERE EXISTING CONDITIONS DO NOT PERMIT THE APPROPRIATE EARTHWORK SHOWN ON THE PLAN TYPICAL SECTIONS OR DETAILS, THE ENGINEER MAY ALLOW THE REDUCTION OR ELIMINATION OF THE 2 FOOT DISTANCE TO THE HINGE POINT. OTHERWISE BUILD AS THE PLAN SHOWS OR AS THE ENGINEER DIRECTS. IF THE 2 FOOT DISTANCE TO THE HINGE POINT IS REDUCED OR ELIMINATED, INCREASE THE POST EMBEDMENT DEPTH TO 4'-6" OR MORE.

③ BOLTS SHALL CONFORM TO THE REQUIREMENTS OF ASTM F-1554, GRADE 55. NUTS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A-563 DH.

④ ALL WOOD POSTS MUST BE 6" X 8" AND AT LEAST 7'-0" LONG.

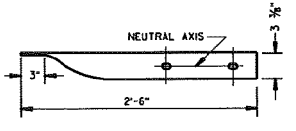
⑤ DO NOT ATTACH POST IN "W" TO THRIE BEAM TRANSITION SECTION.

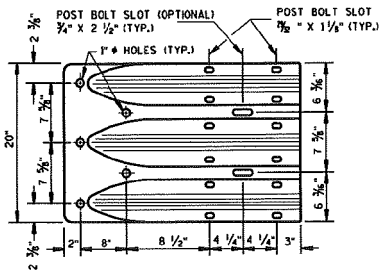


Ⓣ THRIE BEAM CONNECTION

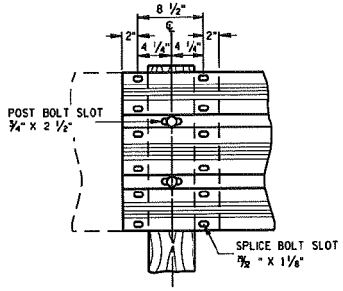
Ⓦ W-BEAM CONNECTION WHEN REQUIRED

TYPICAL LOCATIONS OF THRIE BEAM AND W-BEAM CONNECTIONS TO BRIDGE

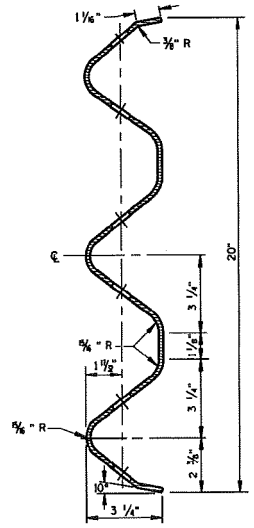




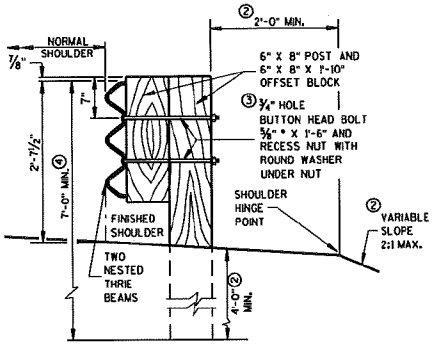
THRIE BEAM TERMINAL CONNECTOR



THRIE BEAM SPLICE



SECTION THRU THRIE BEAM RAIL ELEMENT

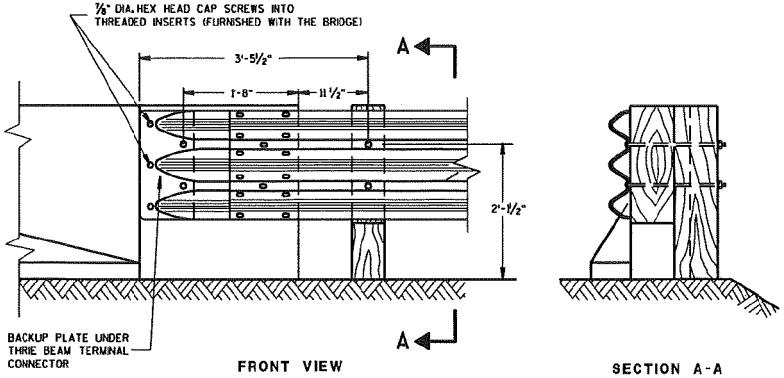


SECTION A-A

STEEL THRIE BEAM STRUCTURE APPROACH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

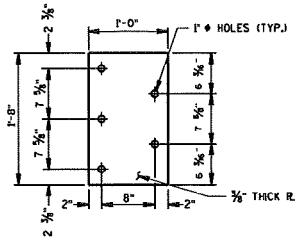
S.D.D. 14 B 20-6a



FRONT VIEW

SECTION A-A

THRIE BEAM CONNECTION TO BRIDGE PARAPET WITH SQUARE ENDS



② BACKUP PLATE DETAIL
(USE ONLY AT BRIDGE PARAPET CONNECTIONS)

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

BOLTS, PLATES, NUTS AND WASHERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM SPECIFICATION A 325, AND BE GALVANIZED IN ACCORDANCE WITH ASTM A 153.

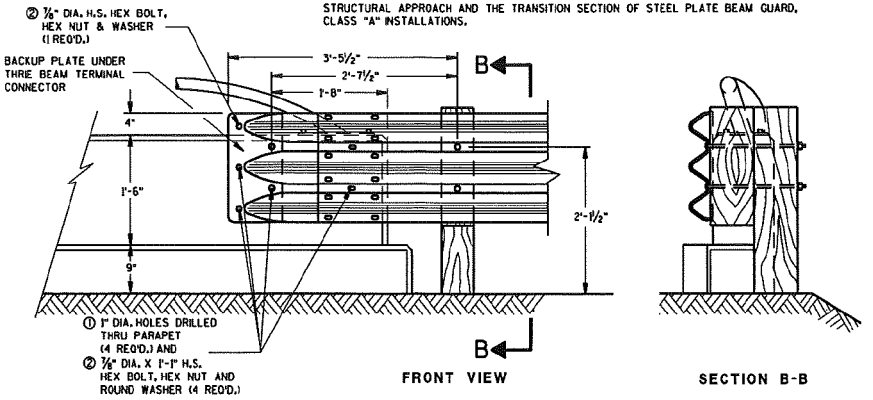
① INCLUDE THE PAYMENT FOR DRILLING BOLT HOLES THROUGH THE PARAPET, AND THE BACKUP PLATE AND ALL BOLTS, NUTS AND WASHERS IN THE ITEM "STEEL THRIE BEAM STRUCTURAL APPROACH".

② EACH BOLT AT THE BACK FACE OF THE PARAPET REQUIRES A HARDENED ROUND STEEL WASHER WITH A 2 ¼" O.D. X ⅛" THICK.

③ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 ½".

④ W6 X 9 OR W6 X 8.5 STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POST WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS.

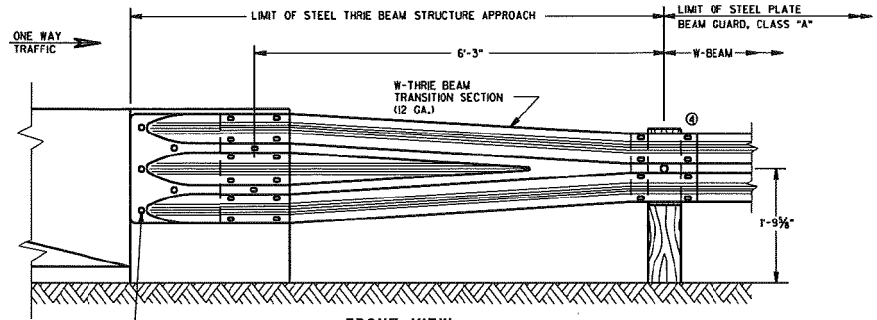
DO NOT USE STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS IN THE STEEL THRIE BEAM STRUCTURAL APPROACH AND THE TRANSITION SECTION OF STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATIONS.



FRONT VIEW

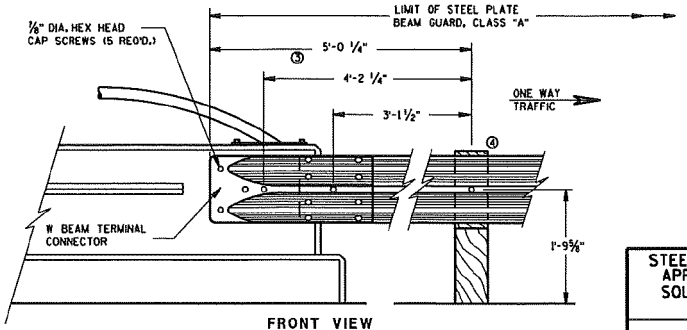
SECTION B-B

THRIE BEAM CONNECTION TO VERTICAL FACED PARAPETS



FRONT VIEW

W BEAM TRANSITION AND CONNECTION TO BRIDGE PARAPETS WITH SQUARE ENDS
(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)



FRONT VIEW

W BEAM CONNECTION TO VERTICAL FACE PARAPET
(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO SQUARE END AND VERTICAL FACED PARAPETS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 2-12-04 DATE FHWA	CHIEF ROADWAY DEVELOPMENT ENGINEER

S.D.D. 14 B 20-6b

BILL OF MATERIALS

NOTE NO.	QTY.	DESCRIPTION
①	4	WOOD BREAKAWAY TERMINAL POST: 5½" X 7½" X 3'-9"
②	4	STEEL TUBE: TS 8" X 6" X 0.188", 4'-6" LONG
③	4	SOIL PLATE: 2'-0" X 1'-6" X ¼"
④	4	WOOD BREAKAWAY CRT POST: 6" X 8" X 6'-0"
⑤	6	WOOD OFFSET BLOCKS: 6"X 8" X 1'-2"
⑥	1	PIPE SLEEVE: 2" X 5 ½" STANDARD PIPE
⑦	1	BEARING PLATE
⑧	1	BCT CABLE ASSEMBLY
⑨	1	CABLE ANCHOR BOX
⑩	1	STRUT & YOKE
⑪	1	STEEL PLATE BEAM, END PANEL 12 GA. 13'-6½" LONG FOR SKT-350, ET-2000 AND ET-2000 PLUS
⑫	3	STEEL PLATE BEAM: 12 GA. 13'-6½"
⑬	1	ET-2000/ET-2000 PLUS GUARDRAIL EXTRUDER OR SKT-350 IMPACT HEAD: AS FURNISHED BY MANUFACTURER
⑭	1	REFLECTIVE SHEETING: 18" X 18"

GENERAL NOTES

Ⓐ USE 3:1 OR FLATTER SLOPE FOR INSTALLATION ON EXISTING HIGHWAYS.

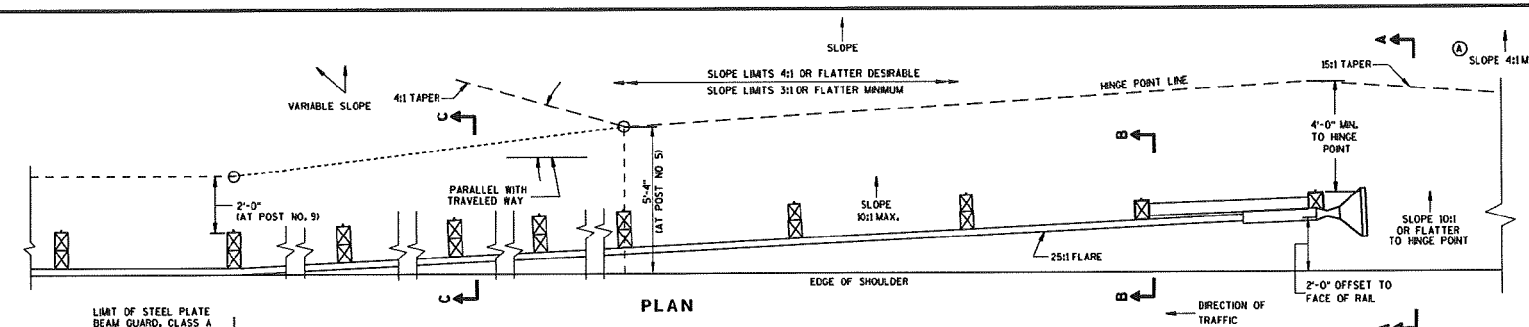
Ⓑ DO NOT ATTACH GUARDRAIL TO POST BLOCKS AT POSTS NO. 3, 5 & 7.

Ⓒ AFTER FINAL ASSEMBLY, RECHECK CABLE TO BE SURE IT IS TAUT AND HAS NOT RELAXED.

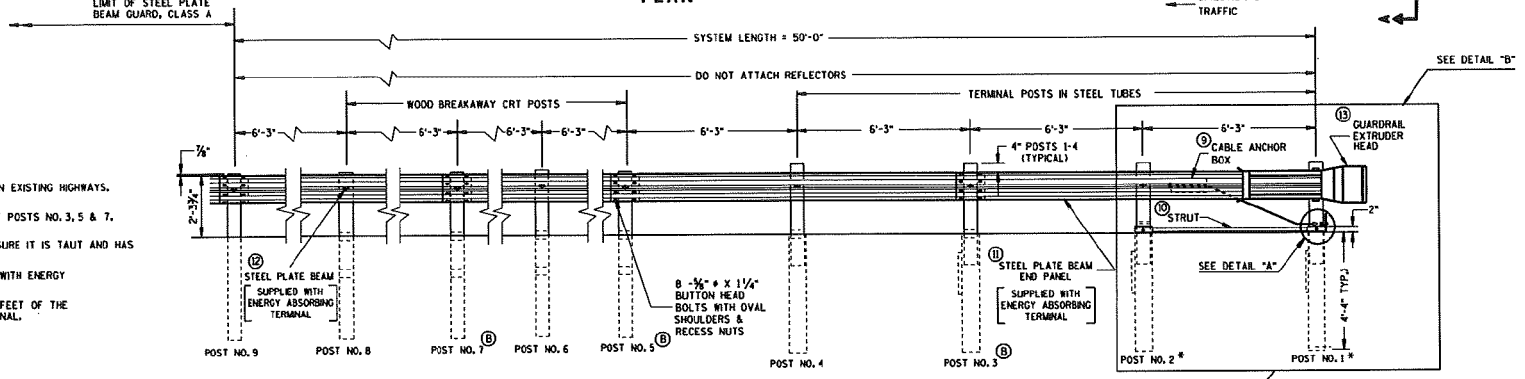
STEEL POSTS SHALL NOT BE ALLOWED FOR USE WITH ENERGY ABSORBING TERMINALS.

DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

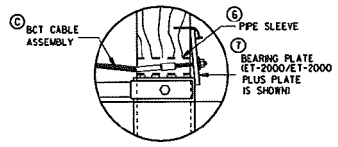
*DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.



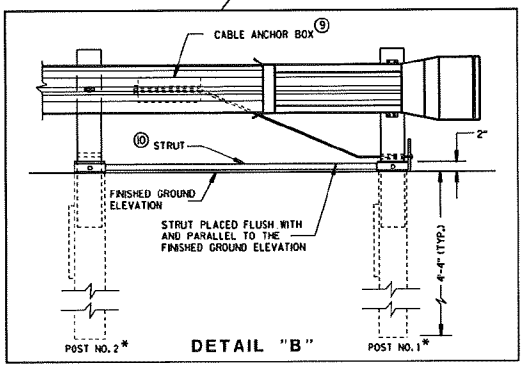
PLAN



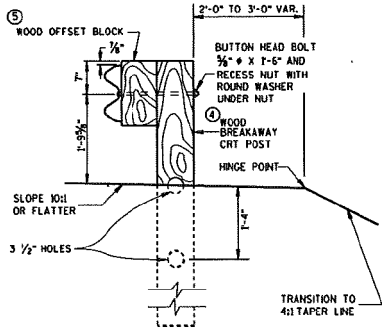
ELEVATION



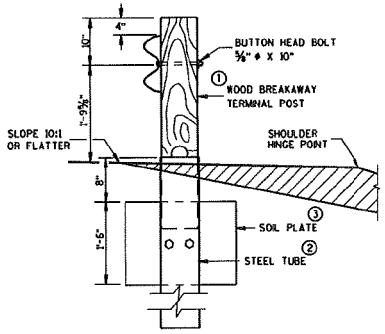
DETAIL "A"



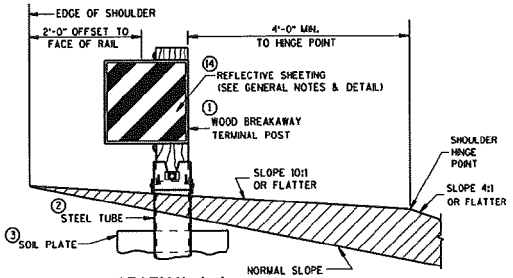
DETAIL "B"



SECTION C-C
TYPICAL AT POST NOS. 4, 6, 8



SECTION B-B
TYPICAL AT POST NO. 2*

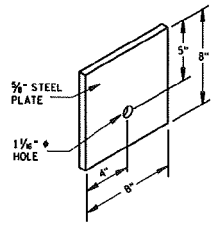


SECTION A-A
TYPICAL AT POST NO. 1*

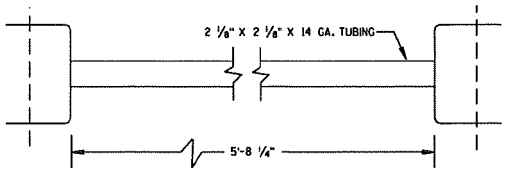
STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

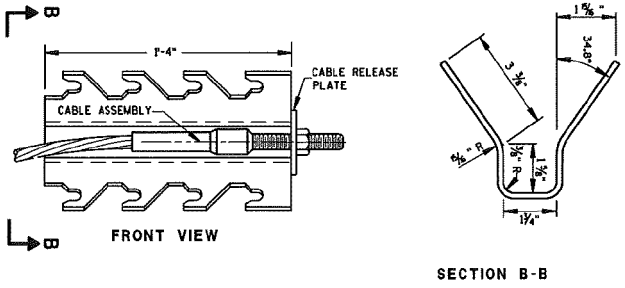
S.D.D. 14 B 24-4a



STEEL BEARING PLATE (SKT-350)

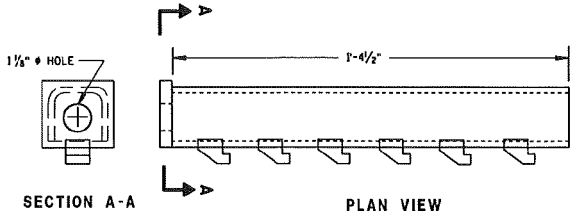


STRUT DETAIL (SKT-350)

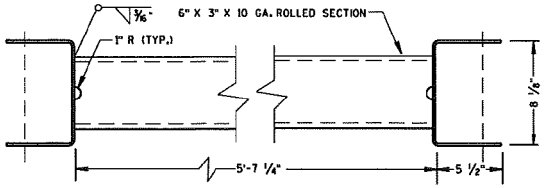


CABLE ANCHOR BOX (SKT-350)

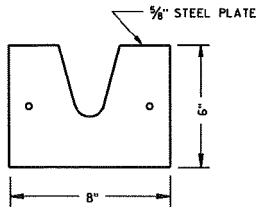
(SKT-350)



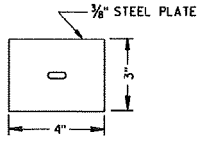
CABLE ANCHOR BOX (ET-2000/ET-2000 PLUS)



STRUT DETAIL (ET-2000/ET-2000 PLUS)

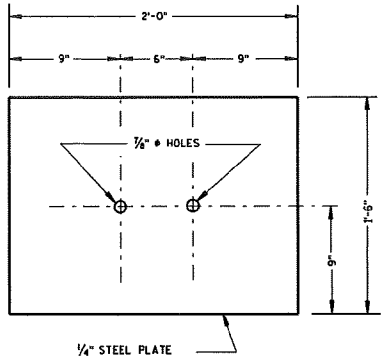


STEEL BEARING PLATE
(ET-2000/ET-2000 PLUS)



BEARING PLATE WASHER
(ET-2000/ET-2000 PLUS)

(ET-2000/ET-2000 PLUS)

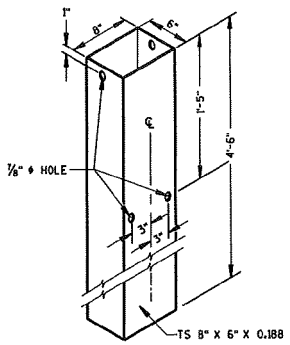


SOIL PLATE
(SKT-350, ET-2000/ET-2000 PLUS)

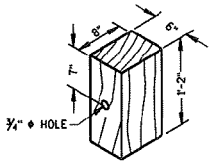
STEEL PLATE BEAM GUARD
ENERGY ABSORBING TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

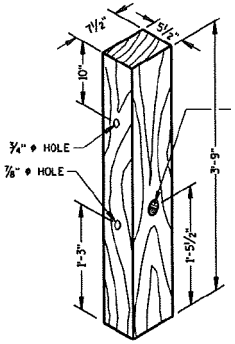
S.D.D. 14 B 24-4b



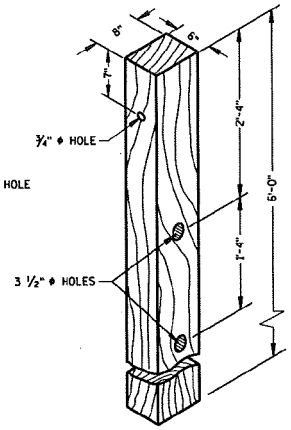
STEEL TUBE
(POSTS NO. 1-4
THE STEEL TUBE SHALL CONFORM
TO REQUIREMENTS OF ASTM A500



WOOD OFFSET BLOCK
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2

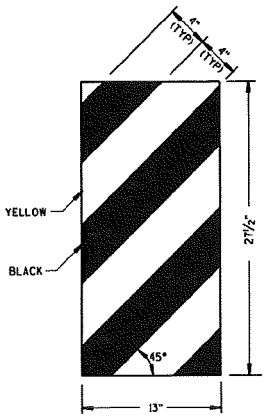


TERMINAL POST
(POSTS NO. 1-4

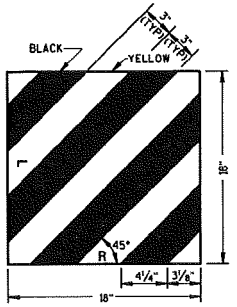


CRT POST
(POSTS NO'S 5-8

WOOD BREAKAWAY POSTS



ET-2000 PLUS ONLY



ET-2000 AND SKT-350

REFLECTIVE SHEETING DETAILS

GENERAL NOTES

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

STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL SHALL BE EITHER THE EXTRUDER TERMINAL (ET-2000), OR THE SEQUENTIAL KINKING TERMINAL (SKT-350). THE CONTRACTOR SHALL NOT INTERMIX PROPRIATERY PRODUCT MATERIALS.

STEEL PLATE BEAM GUARD, ENERGY ABSORBING TERMINAL SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH, WHICH SHALL INCLUDE HARDWARE, STEEL PLATE BEAM GUARD, POSTS, REFLECTIVE SHEETING AND INSTALLATION AS SHOWN.

REFLECTIVE SHEETING - SHALL CONFORM TO ASTM SPECIFICATION D4956-94, REFLECTIVE SHEETING TYPE III, BACKING CLASS 4, PERFORMANCE REQUIREMENT TYPE III. THE MESSAGE AND LINES SHALL BE APPLIED TO THE SIGNS BY THE SILK SCREEN STENCIL PROCESS USING A BLACK OR DARK STENCIL PASTE AS A TYPE APPROVED BY THE MANUFACTURER OF THE FACE MATERIAL TO WHICH IT IS TO BE APPLIED. MESSAGE UNITS CUT FROM NONREFLECTIVE SHEETING AND APPLIED TO THE SIGN FACE ARE NOT ACCEPTABLE. AFTER THE APPROACH END OF THE STEEL PLATE BEAM GUARD INSTALLATION IS COMPLETE, CLEAN THE AREA WHERE THE REFLECTIVE SHEETING WILL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATION. ONCE CLEAN, APPLY REFLECTIVE SHEETING DIRECTLY TO THE STEEL PLATE BEAM GUARD AS SHOWN. THE CONTRACTOR SHALL TURN OVER THE MANUFACTURERS WARRANTY FOR THE REFLECTIVE SHEETING TO THE DEPARTMENT FOR POTENTIAL DEALING WITH THE MANUFACTURER. PAYMENT OF REFLECTIVE SHEETING IS INCIDENTAL TO STEEL PLATE BEAM GUARD, ENERGY ABSORBING TERMINAL.

WHEN ROCK IS ENCOUNTERED DURING EXCAVATION, A 12 INCH DIA. POST HOLE EXTENDING 20 INCHES DEEP INTO THE ROCK MAY BE USED IF APPROVED BY THE ENGINEER. GRANULAR MATERIAL SHALL BE PLACED IN THE BOTTOM OF THE HOLE APPROXIMATELY 2 ½" INCHES DEEP TO PROVIDE DRAINAGE. THE SOIL TUBES SHALL BE FIELD CUT TO LENGTH, PLACED IN THE HOLE AND BACKFILLED WITH ADEQUATELY COMPACTED MATERIAL EXCAVATED FROM THE HOLE.

STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6-25-03
DATE
FHWA

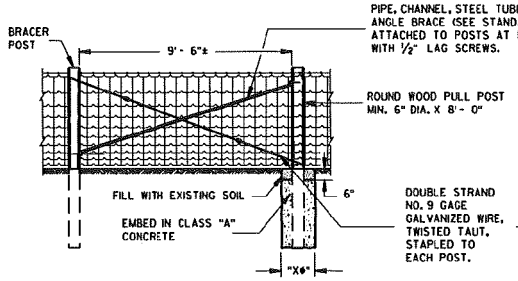
CHIEF ROADWAY DEVELOPMENT ENGINEER

6

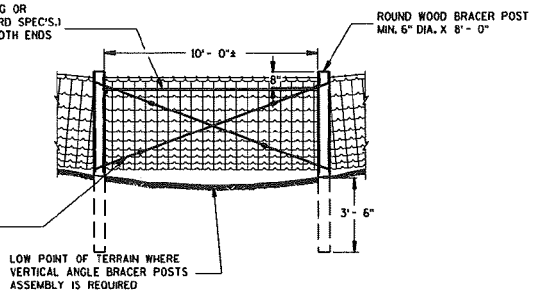
S.D.D. 14 B 24-4c

NOTE: PULL OR STRETCHER POST ASSEMBLIES SHALL BE PLACED MIDWAY BETWEEN END POSTS AND CORNER POSTS WHERE A RUN OF FENCE EXCEEDS 660' BUT IS LESS THAN 1,320'. FOR RUNS OF FENCE IN EXCESS OF 1,320' MAXIMUM SPACING OF PULL OR STRETCHER POST ASSEMBLIES SHALL BE 660'± C-C.

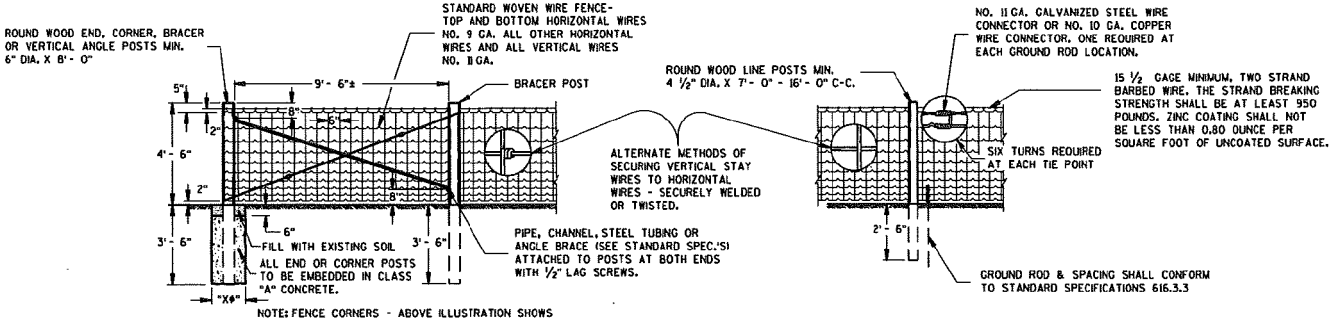
ILLUSTRATION SHOWS POSITION OF STANDARD STEEL BRACE, DOUBLE STRAND GALVANIZED WIRE, AND THE POST TO BE EMBEDDED IN CONCRETE WHEN WIRE FENCE IS INSTALLED FROM LEFT TO RIGHT. THE BRACES SHALL BE POSITIONED ON THE OPPOSITE DIAGONALS AND THE OPPOSITE POST SHALL BE EMBEDDED IN CONCRETE WHEN WIRE FENCE IS INSTALLED FROM RIGHT TO LEFT.



PULL OR STRETCHER POSTS ASSEMBLY



VERTICAL ANGLE BRACER POSTS ASSEMBLY



NOTE: FENCE CORNERS - ABOVE ILLUSTRATION SHOWS ONE LEG OF FENCE CONSTRUCTION AT FENCE CORNER. THE CONTIGUOUS LEG TO BE IDENTICAL CONSTRUCTION.

END OR CORNER POSTS ASSEMBLY

LINE FENCE CONSTRUCTION

GENERAL NOTES

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

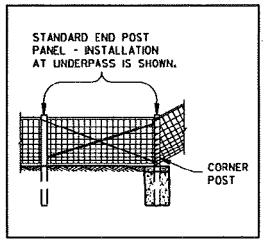
"X∅" = DIAMETER OF THE POST PLUS 12".

FENCE STAPLES SHOULD NEVER BE DRIVEN VERTICALLY INTO WOOD POSTS (WITH BOTH LEGS PARALLEL WITH THE WOOD GRAIN). DOING SO CAN SEPARATE THE GRAIN AND SIGNIFICANTLY REDUCE THE HOLDING POWER. ROTATING THE STAPLES SLIGHTLY OFF VERTICAL STRADDLES THE GRAIN AND PROVIDES MORE RESISTANCE TO PULL-OUT.

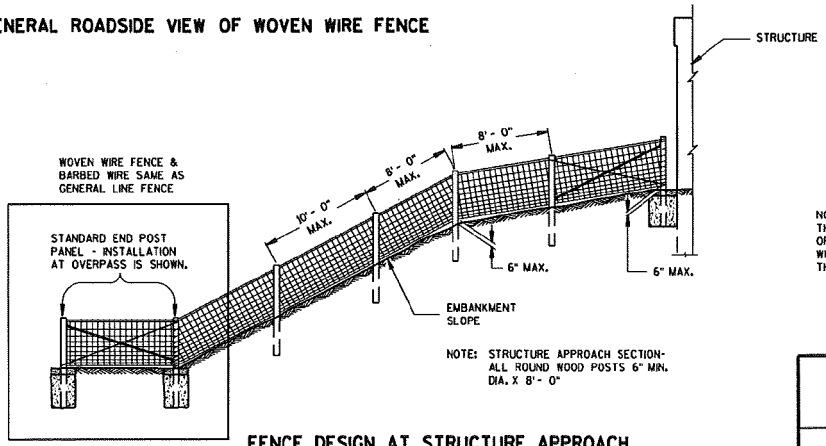
DO NOT STAPLE WIRE TIGHT TO THE LINE POSTS. ALLOW MOVEMENT OF WIRE FOR EXPANSION AND CONTRACTION. STAPLE ARRANGEMENT SHALL BE THE SAME FOR ALL OTHER POSTS EXCEPT THAT THEY SHALL BE DRIVEN TIGHT TO POSTS. ALL STAPLES SHALL BE 2" X 9 GAGE AND SHALL BE MANUFACTURED FROM GALVANIZED WIRE OR HOT DIP GALVANIZED AFTER FORMING. STAPLES SHALL HAVE SLASH-CUT POINTS.

FENCE SHALL BE LOCATED 3'-0" INSIDE THE RIGHT OF WAY LINE UNLESS OTHERWISE INDICATED ON THE PLANS.

GENERAL ROADSIDE VIEW OF WOVEN WIRE FENCE



ALTERNATE FENCE DESIGN AT STRUCTURE



NOTE: STRUCTURE APPROACH SECTION- ALL ROUND WOOD POSTS 6" MIN. DIA. X 8'- 0"

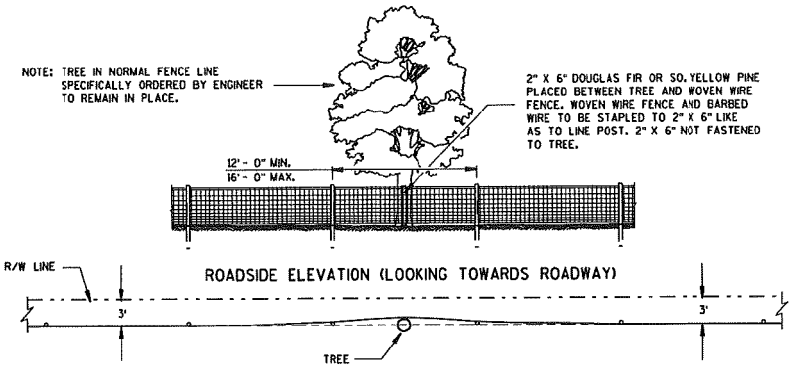
FENCE DESIGN AT STRUCTURE APPROACH

NOTE:
THIS STANDARD DETAIL DRAWING CONSISTS OF TWO PLATES AND BOTH ARE REQUIRED WHEN THIS STANDARD IS CALLED FOR IN THE PLANS.

WOVEN WIRE FENCE

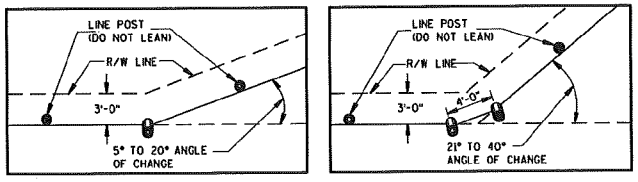
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

S.D.D.15 B 1-7a



PLAN VIEW

FENCE DESIGN AT TREES REMAINING IN NORMAL FENCE LINE



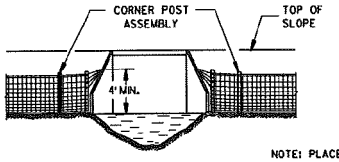
PLAN VIEW
SINGLE POST CORNER

PLAN VIEW
DOUBLE POST CORNER

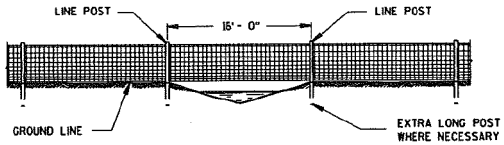
RIGHT OF WAY LINE CHANGE 40° AND LESS

NOTE: SINGLE AND DOUBLE POSTS SHALL BE A MIN. 6" DIA. X 8'-0" WITH A LEAN OF 4" TOWARD THE OUTSIDE OF THE CURVE.

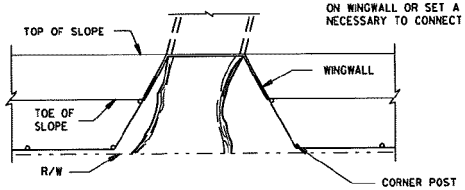
WHEN THE RIGHT OF WAY LINE CHANGE IS MORE THAN 40° USE THE CORNER OR STRETCHER POSTS ASSEMBLY.



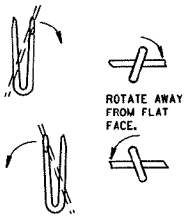
NOTE: PLACE A MINIMUM OF 4 STRANDS OF BARBED WIRE, 6" MAXIMUM CENTERS IN FAN SHAPE CONNECTED TO AN EYE BOLT ON WINGWALL OR SET A LONE POST WHEN NECESSARY TO CONNECT BARBED WIRE.



FENCE CONSTRUCTION OVER STREAM COURSES OF 15 FT. OR LESS IN WIDTH

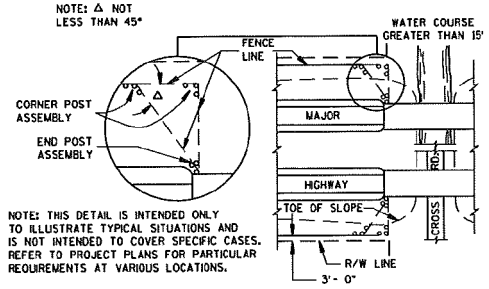


FENCE INSTALLATION TO WINGWALLS

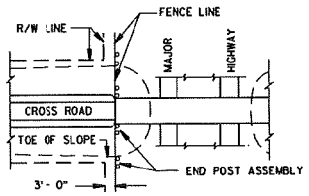


LINE POST

NOTE: WHEN POSTS ARE DRIVEN THE SMALL END SHALL BE DOWN.

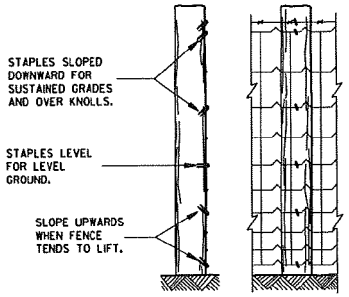


PLAN VIEW
MAJOR HIGHWAY OVERPASS OR STREAM COURSE CROSSING OF GREATER THAN 15 FT. IN WIDTH



PLAN VIEW
MAJOR HIGHWAY UNDERPASS

FENCE LOCATION AT STRUCTURES



END ELEVATION

FARM SIDE ELEVATION

FENCE MOUNTING DETAIL

NOTE:
THIS STANDARD DETAIL DRAWING CONSISTS OF TWO PLATES AND BOTH ARE REQUIRED WHEN THIS STANDARD IS CALLED FOR IN THE PLANS.

WOVEN WIRE FENCE

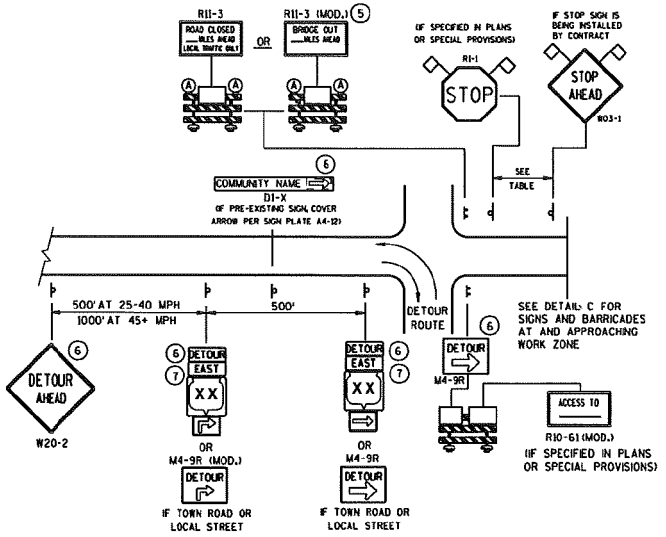
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
12/26/85
DATE
STATE DESIGN ENGINEER FOR HWYS
FHWA

S.D.D.15 B 1-7b

6

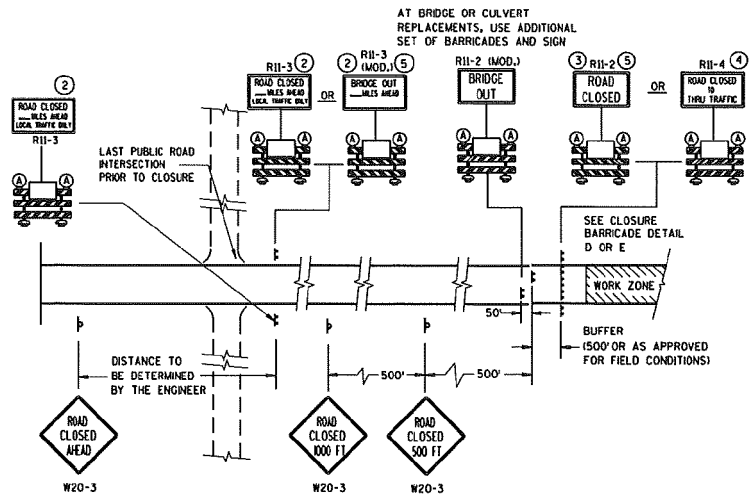
6



DETAIL A

MAINLINE CLOSURE WITH POSTED DETOUR

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

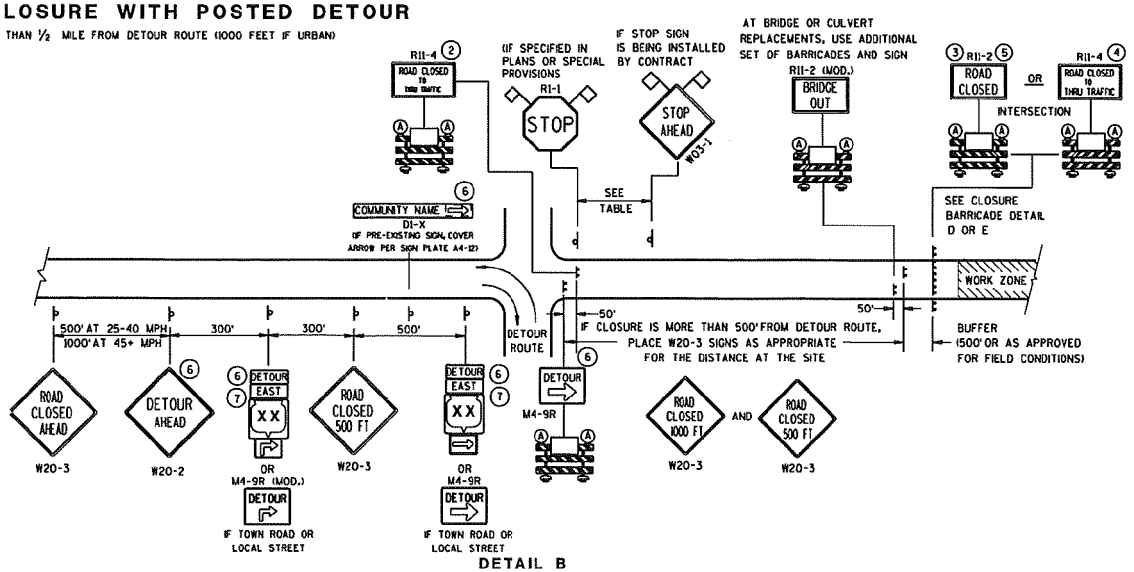


DETAIL C

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 15C2-4b
FOR GENERAL NOTES
AND FOOTNOTES ① THROUGH ⑦



DETAIL B

MAINLINE CLOSURE WITH POSTED DETOUR

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

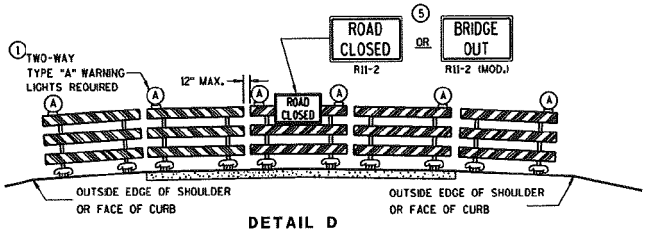
LEGEND

- POST MOUNTED SIGN
- TYPE III BARRICADES
- (A) TYPE "A" LOW INTENSITY FLASHING WARNING LIGHT (FOR NIGHT USE)
- WORK ZONE
- 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

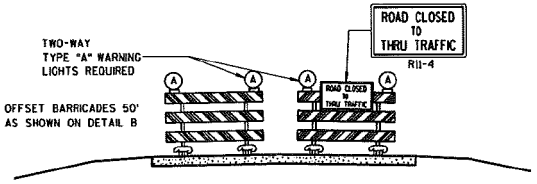
S.D.D. 15 C 2-4a



DETAIL D

ROAD CLOSURE BARRICADE DETAIL

APPROACH VIEW



DETAIL E

LANE CLOSURE BARRICADE DETAIL

APPROACH VIEW

SEE SDD 15C2-4a 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.

THE REFLECTIVE SHEETING USED ON R11-2, R11-3, R11-4, R10-61 AND R1-1 SIGNS SHALL COMPLY WITH SUBSECTION 637.2.2.2 OF THE STANDARD SPECIFICATIONS.

"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 AND 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.

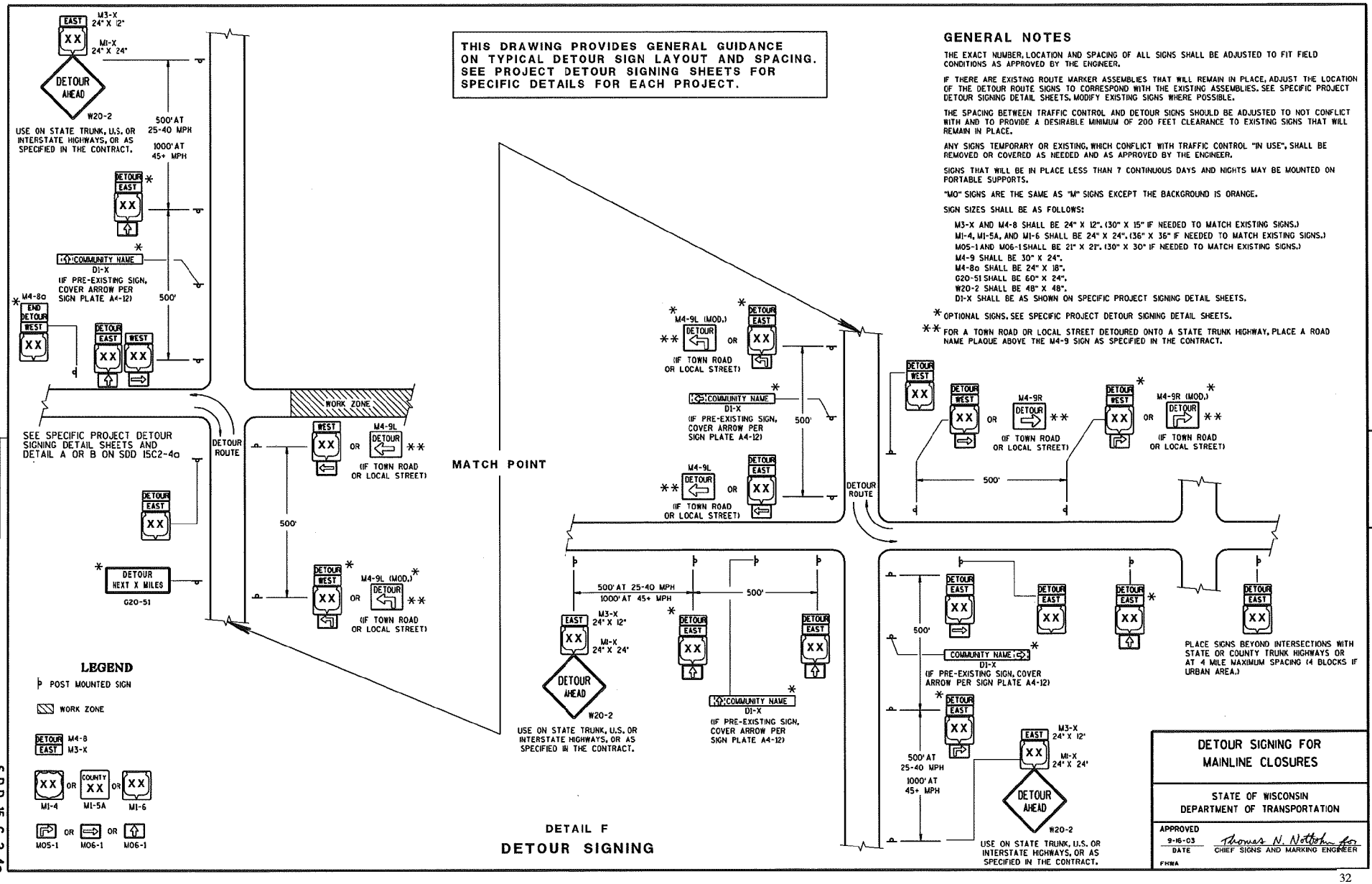
(6) INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC 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.

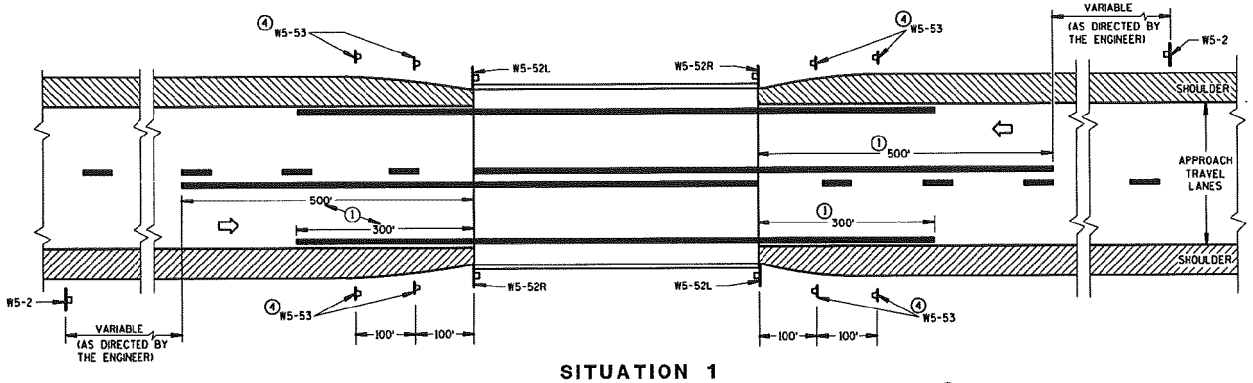
(7) "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

BARRICADES AND SIGNS FOR MAINLINE CLOSURES	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
9/16/03 DATE	Thomas N. Nottestad for CHIEF SIGNS AND MARKING ENGINEER
FHWA	

6

S.D.D. 15 C 2-4b

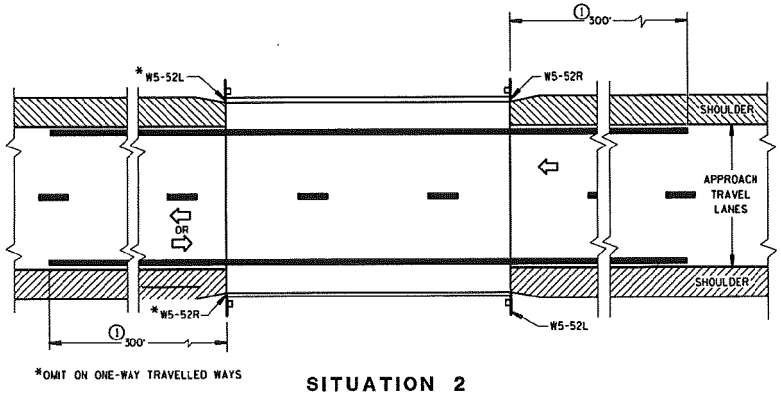




SITUATION 1

WARRANTING CRITERION:

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



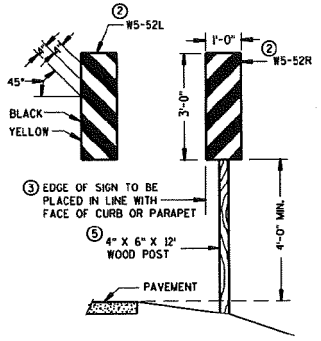
*OMIT ON ONE-WAY TRAVELLED WAYS

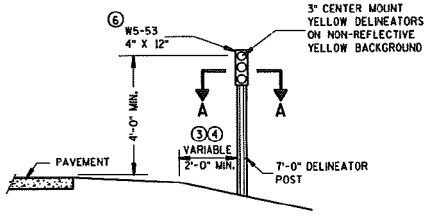
SITUATION 2

WARRANTING CRITERIA:

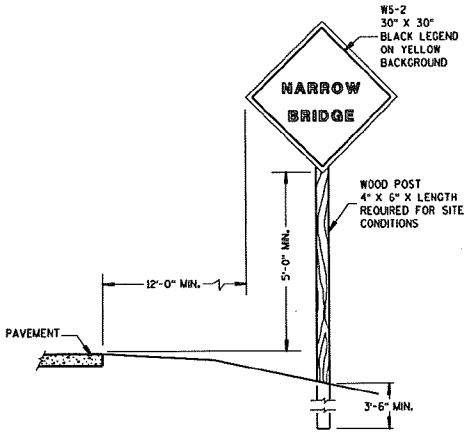
1. BRIDGE WIDTH IS AT LEAST 24 FEET AND

2. BRIDGE IS LESS THAN 6 FEET WIDER (ON EACH SIDE) THAN APPROACH TRAVEL LANES.

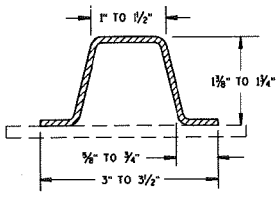




OBJECT MARKER PLACEMENT



SIGN PLACEMENT



SECTION A-A

(MINIMUM WEIGHT 1.9 LBS. PER FT. AFTER GALVANIZING)

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 H REFLECTIVE SHEETING.

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

(4) OBJECT MARKERS (W5-53) SHALL BE LOCATED ALONG A LINE FLARED AWAY FROM THE BRIDGE CORNER TO DELINEATE THE NARROWING OF THE SHOULDER OR BERM.

(5) A 12 FOOT DELINEATOR POST MAY BE USED INSTEAD OF A WOOD POST.

(6) NON-BID ITEM, INCIDENTAL TO OTHER ITEMS.

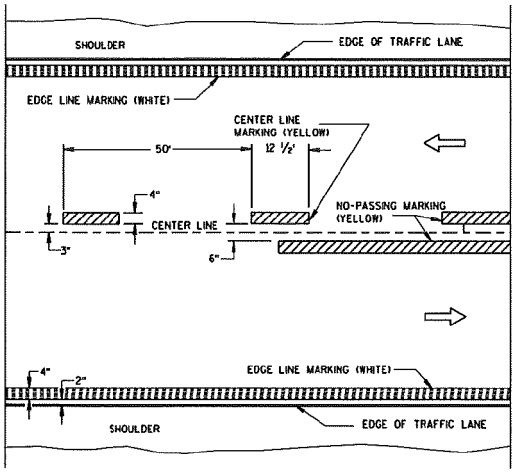
SIGNING & MARKING FOR TWO LANE BRIDGES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

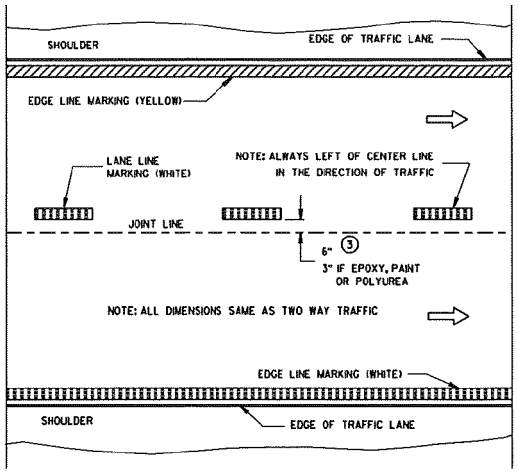
APPROVED
9/5/06 — DATE
/S/ Thomas N. Notbohm — STATE TRAFFIC ENGINEER OF DESIGN
FHWA

6

S.D.D. 15 C 6-5

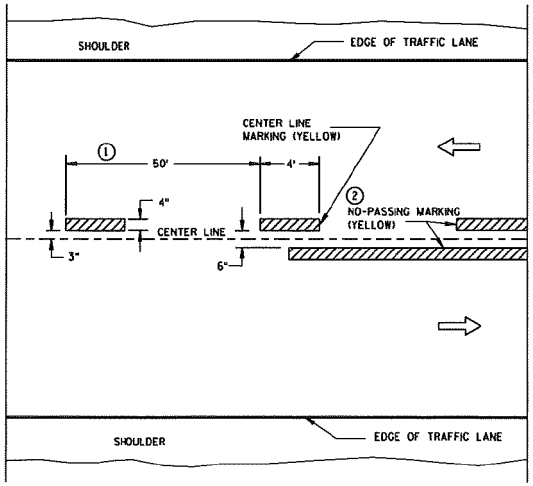


TWO WAY TRAFFIC

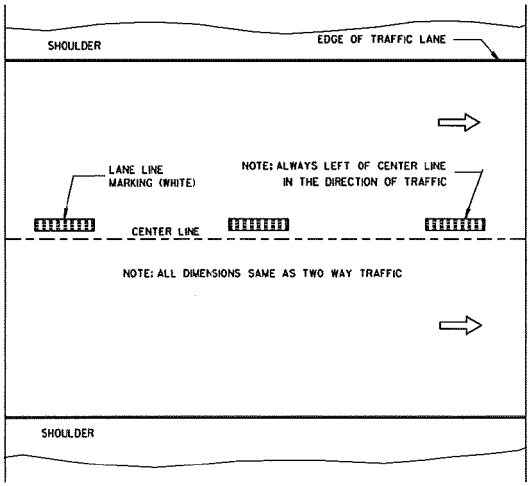


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING

(SHOWS CYCLE FOR TEMPORARY CENTER LINE OR TEMPORARY LANE LINE MARKING)

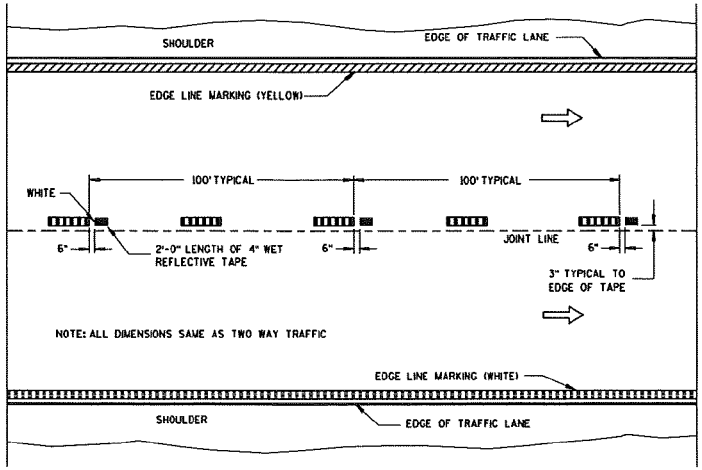
GENERAL NOTES

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

1. HALF CYCLE LENGTHS (25'±) WITH 2' MINIMUM STRIPE LENGTHS SHALL BE PROVIDED ON ROADWAYS (INCLUDING TEMPORARY TRAVELED WAYS) WITH REVERSE CURVATURE, CURVATURE OF OVER 5 DEGREES OR WHEN DIRECTED BY THE ENGINEER TO MARK UNUSUAL ALIGNMENT OF THE TRAVELED WAY.
2. NO PASSING ZONE TEMPORARY PAVEMENT MARKING IS REQUIRED TO BE PLACED, WHERE APPROPRIATE, ALONG WITH CENTERLINE TEMPORARY PAVEMENT MARKING WHEN A SAME DAY PERMANENT PAVEMENT MARKING ITEM IS INCLUDED IN THE CONTRACT.
3. DIMENSION FROM THE WHITE REFLECTIVE EDGE FOR WET REFLECTIVE TAPE PLACEMENT ONLY.

NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL



WET REFLECTIVE TAPE SUPPLEMENT TO SPRAYED OR NON WET REFLECTIVE TAPE LANE LINE

PAVEMENT MARKING (MAINLINE)	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
1-16-07 DATE	/S/ Thomas N. Notbohm STATE TRAFFIC ENGINEER OF DESIGN
FHWA	

6

S.D.D. 15 C 8-10a

LEGEND

- POST WITH ATTACHED SIGN
- ④ POST WITH ATTACHED SIGN IN DRUM
- DRUM WITH WARNING LIGHT (TYPE C)
- DRUM
- ARROW BOARD
- 8' TYPE III BARRICADE
- REMOVING PAVEMENT MARKING
- DIRECTION OF TRAFFIC

GENERAL NOTES :

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

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIREABLE) DISTANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON "COVERED" OR "DOWNED" SIGNS.

① CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

GENERAL NOTES CONTINUED:

REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE FOR LONGER THAN 7 CONTINUOUS DAYS AND NIGHTS.

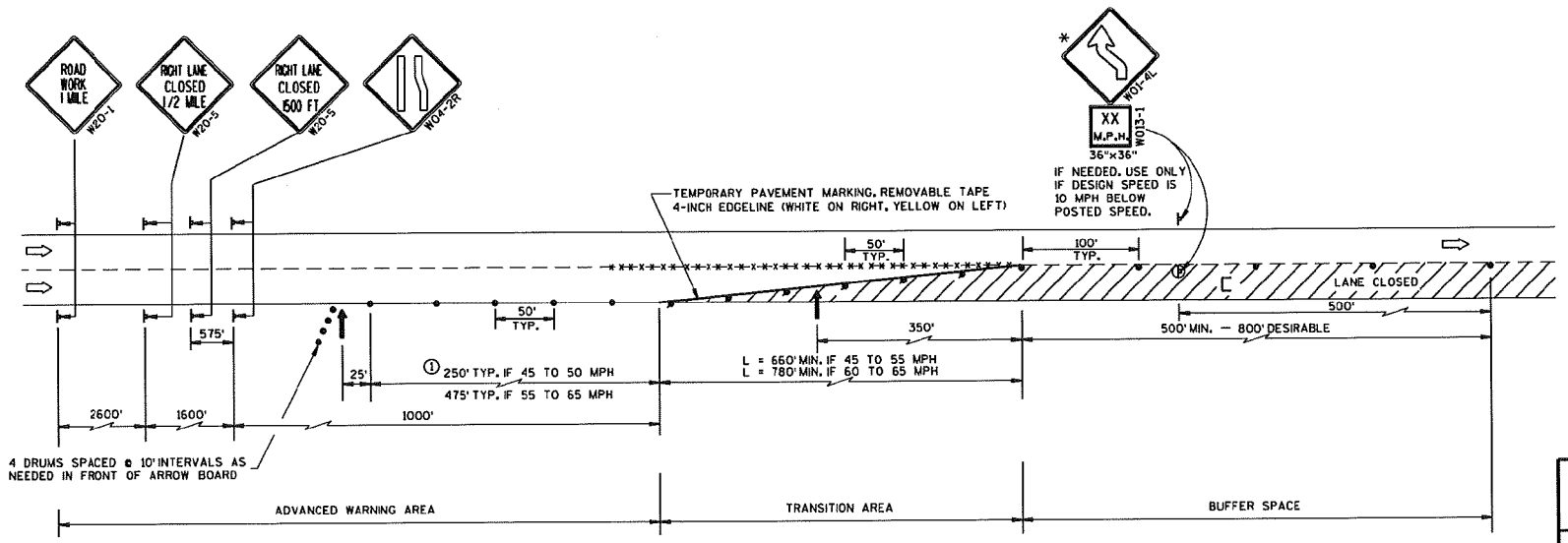
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

IF LANE CLOSURE IS MORE THAN 1 MILE, PLACE A TYPE III BARRICADE APPROXIMATELY EVERY 1/4 MILE ACROSS THE CLOSED LANE TO HELP ENFORCE THE DRUM LINE.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP. THE LANE CLOSURE MUST MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE 1/2 THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

* THE LEFT REVERSE CURVE SIGN (W01-4L) IS ONLY REQUIRED WHEN THIS DETAIL IS USED IN COMBINATION WITH "SINGLE LANE CROSSOVER" DETAIL.



TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H.

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8-7-95
DATE
FHWA

Charles J. Senger
for DIRECTOR, OFFICE OF TRAFFIC

S.D.D. 15 D 12-2

S.D.D. 15 D 12-2

6

SYMBOLS

- TRAFFIC CONTROL DRUM
- POST MOUNTED SIGN
- DIRECTION OF TRAFFIC FLOW
- ARROW BOARD IN CAUTION MODE

GENERAL NOTES

THIS DETAIL IS TYPICAL FOR CLOSING THE RIGHT SHOULDER. FOR CLOSING THE LEFT SHOULDER, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR DIVIDED ROADWAYS WITH ANY NUMBER OF TRAVEL LANES.

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

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

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

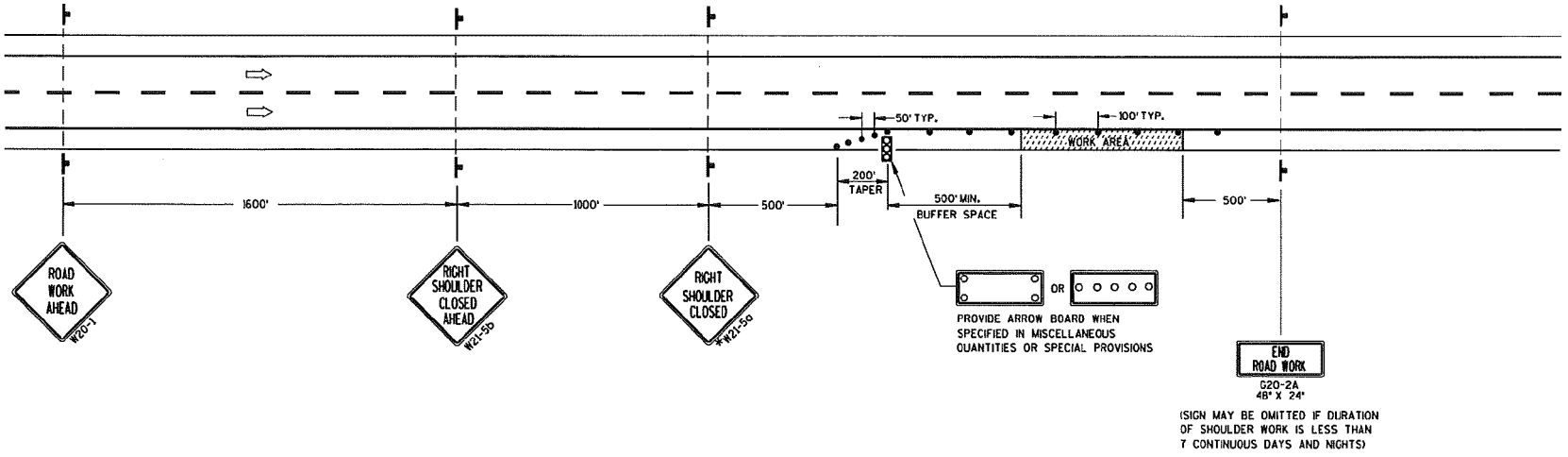
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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.

CHANNELIZING DEVICES PLACED ADJACENT TO THE WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

*FOR SHORT DURATION SHOULDER WORK OF LESS THAN ONE HOUR, THE W21-5a SIGN MAY BE OMITTED.



TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH

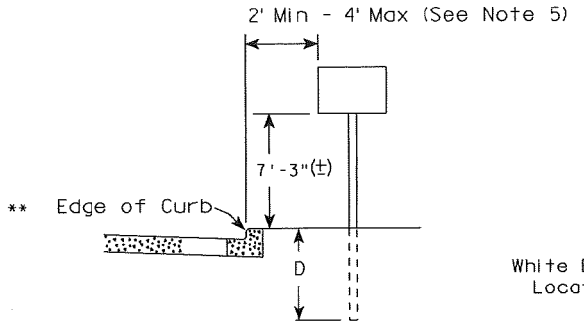
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5/23/00
DATE
FHWA

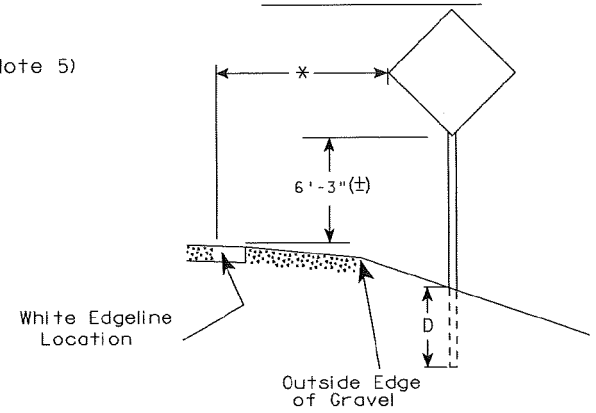
Chester J. Sprey
CHIEF SIGNS AND MARKING ENGINEER

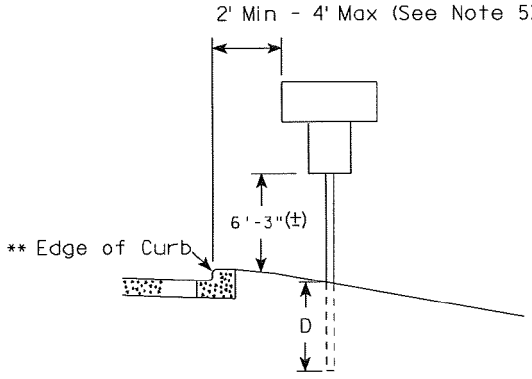
S.D.D. 15 D 27-1

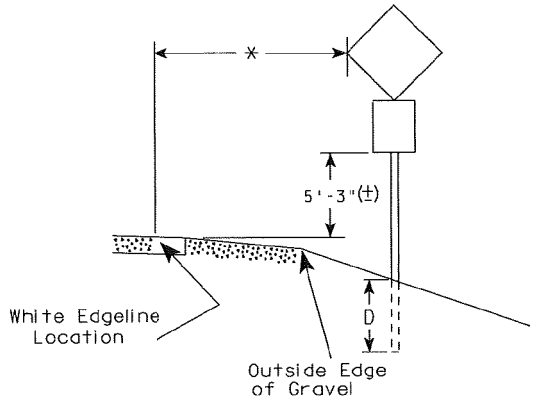
URBAN AREA



RURAL AREA (See Note 2)







GENERAL NOTES

1. Signs wider than 4 feet or larger than 20 sq. ft. shall be mounted on multiple posts. Refer to plate A4-4.
2. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
3. Minimum mounting height for J assemblies (A4-5) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
4. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
5. Offset distance shall be consistent with existing signs or consistent throughout length of project.
6. The (±) tolerance for mounting height is 3 inches.
7. Folding stop signs (R1-1F) shall be mounted at a height of 5'-3" (±) or as directed by the Engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (W1-8A), Clearance Markers (W5-52), Mile Markers (D10 series) & End of Road 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'

** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically where there is sidewalk adjacent to the roadway or parking is permitted. This same criteria applies to mountable curb as well and measurement shall be taken from 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.

7

7

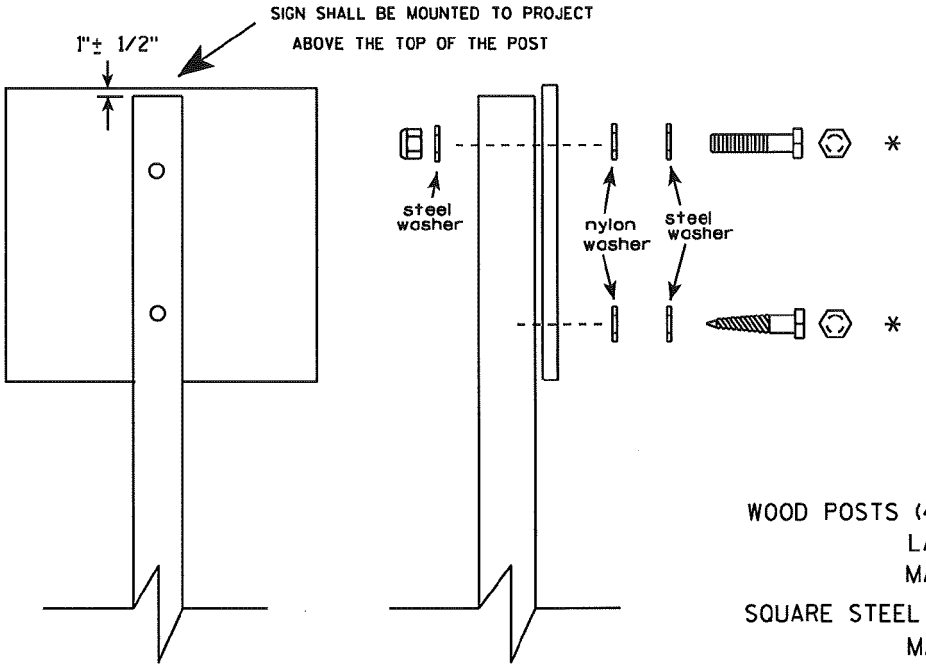
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/25/05 PLATE NO. A4-3.13

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 37	E



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

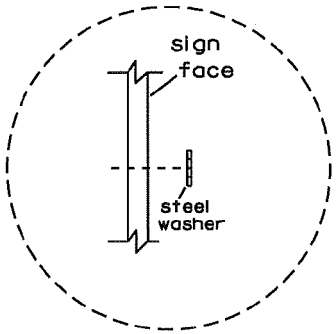
a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D, or
b. Cadmium plated in accordance with ASTM Designation : B 766 TYPE 3, Class 12, or
c. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

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

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

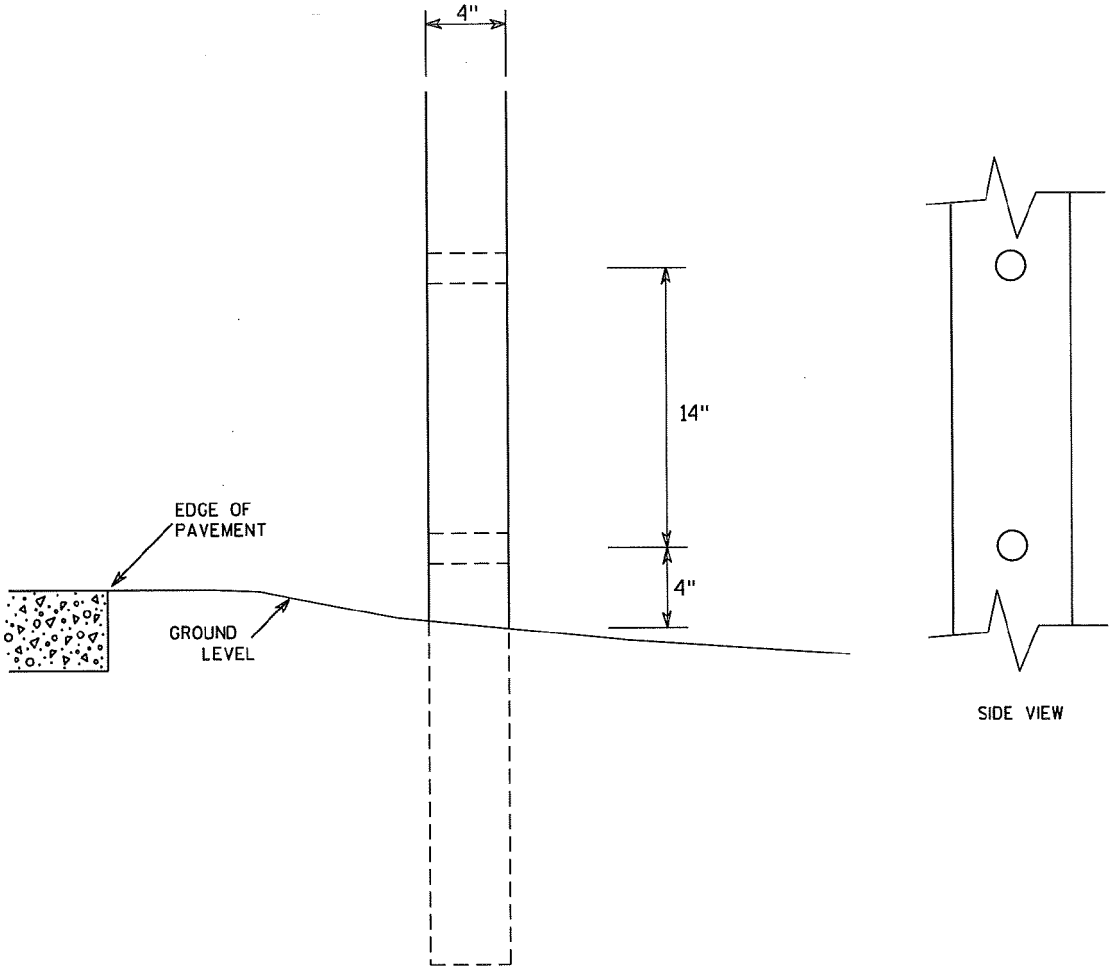
DATE 8/30/06 PLATE NO. A4-8.6

PROJECT NO:

SHEET NO: 38 E

FILE NAME : C:\Users\Projects\tr_stdplate\A48.DGN PLOT DATE : 08-JAN-2007 14:00 PLOT BY : DOTSJA

WISDOT/CADDS SHEET 42



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

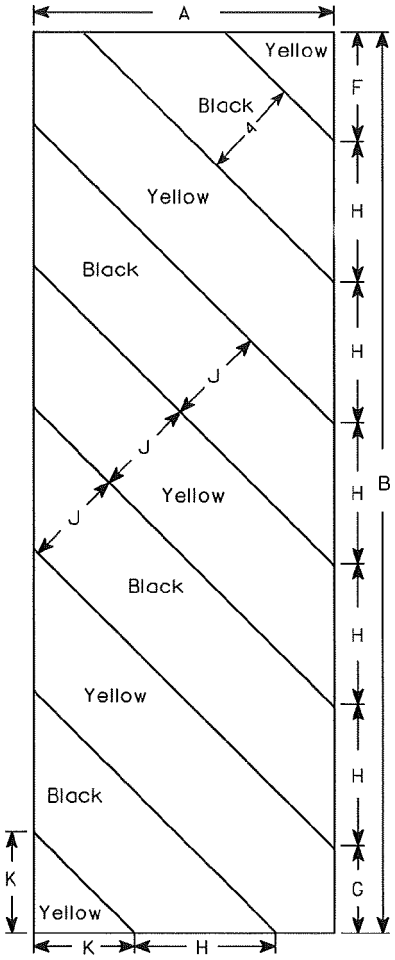
APPROVED Chester J Spagg for State Traffic Engineer

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

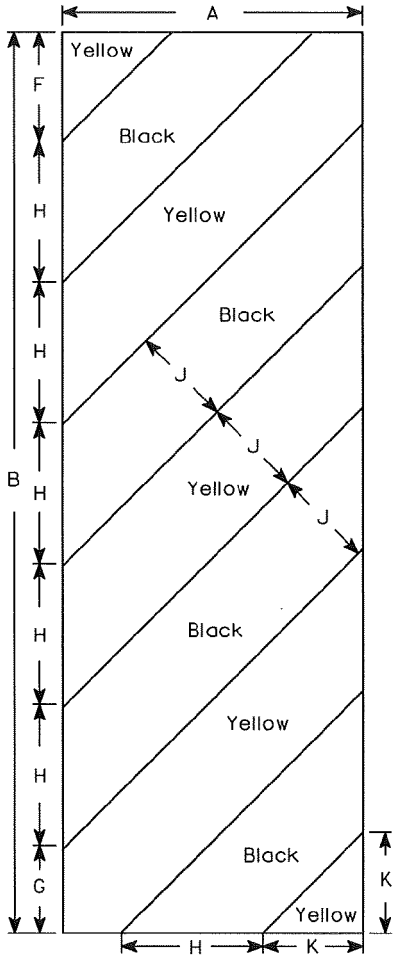
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 39	E

7

7



W5-52L



W5-52R

NOTES

1. Sign is Type II - Type H 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.

Metric equivalent for this sign is:

SIZE	
1	
2	300 mm X 900 mm
3	450 mm X 1350 mm
4	
5	

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.	Area m2
1																												
2	12	36				4 3/8	3 1/2	5 5/8	45°	4	4																3.0	0.27
3	18	54				6	5 1/2	8 1/2	45°	6	6 9/16																6.75	0.61
4																												
5																												

STANDARD SIGN
W5-52L & W5-52R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang for State Traffic Engineer

DATE 8/13/97 PLATE NO. W5-52.7

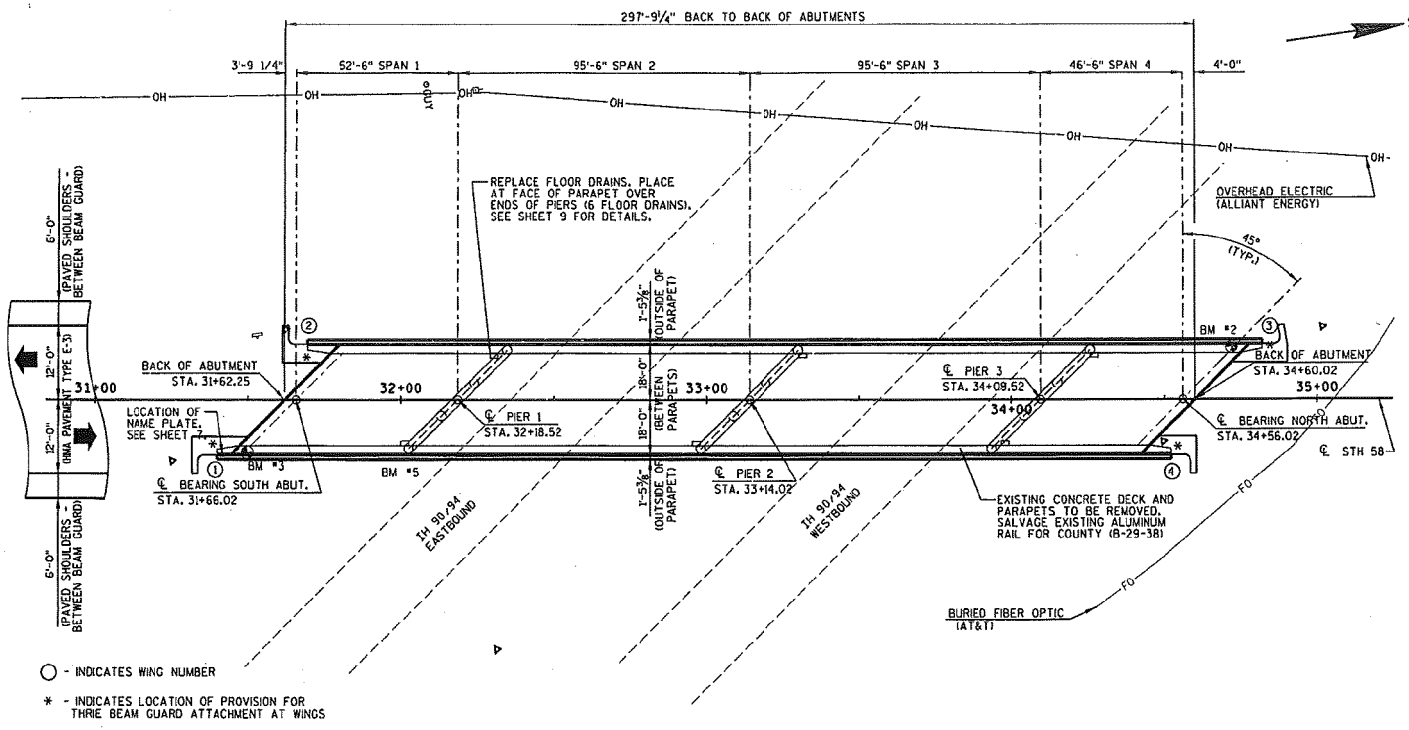
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 40	E

FILE NAME : C:\Users\Projects\tr_stdplate\W552.DGN PLOT DATE : 05-OCT-2005 14:12 PLOT BY : DITJPH PLOT NAME : PLOT SCALE : 4.967363:1.000000

PROJECT NUMBER	SHEET NO.
1018-00-72	

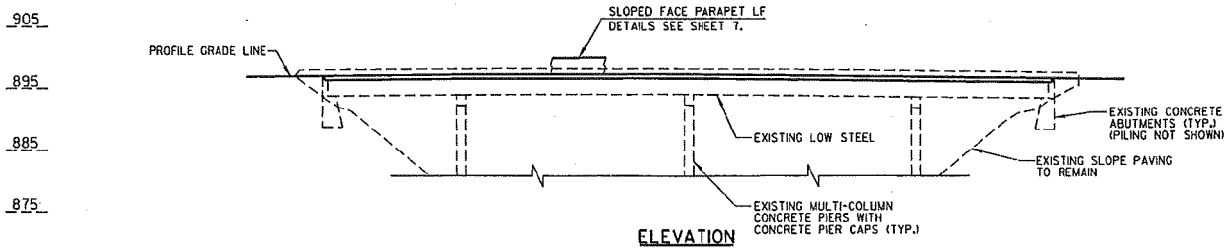
BENCHMARKS

NO.	STA.	DESCRIPTION	ELEV.
2	34+72, 17' LT.	CHISELED "□" ON NORTHWEST CURB OF EXISTING STRUCTURE	896.51
3	31+50, 17' RT.	CHISELED "□" ON SOUTHEAST CURB OF EXISTING STRUCTURE	899.04
5	32+03, 19' RT.	CHISELED "□" ON EAST COLUMN	876.87



PLAN

(REHAB - DECK REPLACEMENT ON EXISTING FOUR SPAN STEEL DECK GIRDER)



ELEVATION

(NORMAL TO STH 58)

DESIGN DATA

LIVE LOAD
INVENTORY RATING : HS-17
OPERATIONAL RATING : HS-28
MAX. STD. PERMIT VEHICLE LOAD = 205 KIPS

TRAFFIC DATA:
A.A.D.T. (2008) = 5400
A.A.D.T. (2028) = 7000

ULTIMATE DESIGN STRESSES:
CONCRETE MASONRY - SUPERSTRUCTURE —— fc' = 4,000 P.S.I.
- ALL OTHER —— fc' = 3,500 P.S.I.
BAR STEEL REINFORCEMENT HS BRIDGES AND BAR STEEL REINFORCEMENT HS COATED BRIDGES —— fy = 60,000 P.S.I.

FOUNDATION DATA:
NEW CONCRETE DECK SUPPORTED ON EXISTING GIRDERS AND FOUNDATIONS.

LIST OF DRAWINGS

WISCONSIN
QUIRIN R. KLINK
E-30535
BARABOO
WI
PROFESSIONAL ENGINEER
6-14-07

BRIDGE OFFICE CONTACT:
WILLIAM DREHER
(608) 261-8205

No.	Date	Revision	By

PLANS PREPARED BY
MSA PROFESSIONAL SERVICES
TRANSPORTATION • MUNICIPAL DEVELOPMENT • ENVIRONMENTAL
1230 South Boulevard Baraboo, WI 53913
608-356-2771 1-800-362-4356 Fax: 608-356-2770

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-29-38 (REHAB)

STH 58 OVER IH 90/94

County JUNEAU		Town/City/Village MAUSTON	
Design Spec. AASHTO 2003		Load -	Const. Spec. WI "03"
Designed By DCS	Design Checked ORK	Drawn By RLR	Plans Checked DCS

Approved: William E. Dreher SDR — Chief Structural Design Engineer — 9-10-07 Date

GENERAL PLAN

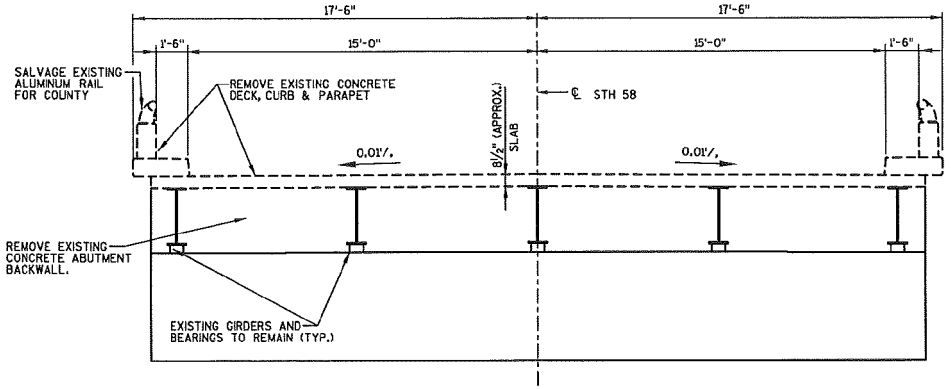
SHEET 1 OF 9

FILE NAME: H:\DGN\K1\plansnts\93053201.dgn
REV. DATE: 06/14/2007

41

K:\plansnts\93053201.dgn Jun 14, 2007 Ronski

STATE PROJECT NUMBER	SHEET NO.
1018-00-72	



CROSS SECTION THRU EXISTING BRIDGE
(LOOKING NORTH)

TOTAL ESTIMATED QUANTITIES

BID ITEMS	UNIT	SOUTH ABUT.	PIER 1	PIER 2	PIER 3	NORTH ABUT.	SUPER	TOTAL
REMOVING OLD STRUCTURE (STA. 33+11)	LS	-	-	-	-	-	-	1
ABATEMENT OF ASBESTOS CONTAINING MATERIAL STRUCTURE B-29-38	LS	-	-	-	-	-	-	1
DEBRIS CONTAINMENT STRUCTURE B-29-38 REHAB	LS	-	-	-	-	-	-	1
EXCAVATION FOR STRUCTURES BRIDGES B-29-38 REHAB	LS	-	-	-	-	-	-	1
BACKFILL STRUCTURE	CY	40	-	-	-	40	-	80
CONCRETE MASONRY BRIDGES	CY	19.5	-	-	-	19.5	347.0	386
EXPANSION DEVICE STRUCTURE B-29-38 REHAB	LS	-	-	-	-	-	1	1
PIGMENTED PROTECTIVE SURFACE TREATMENT	SY	-	-	-	-	-	260	260
MASONRY ANCHORS TYPE L NO. 6 BARS	EACH	88	-	-	-	88	-	176
BAR STEEL REINFORCEMENT HS COATED BRIDGES	LB	2140	-	-	-	2140	83,220	87,500
WELDED STUD SHEAR CONNECTORS ⅞ x 6-INCH	EACH	-	-	-	-	-	1284	1284
WELDED STUD SHEAR CONNECTORS ⅞ x 7-INCH	EACH	-	-	-	-	-	321	321
CONCRETE SURFACE REPAIR	SF	2	6	2	25	35	-	70
DOWNSPOUT 6-INCH	LF	-	-	-	-	-	95	95
FLOOR DRAINS TYPE GC	EACH	-	-	-	-	-	6	6
RUBBERIZED MEMBRANE WATERPROOFING	SY	10	-	-	-	10	-	20
PREPARATION AND COATING OF TOP FLANGES B-29-38 REHAB	LS	-	-	-	-	-	-	1
✳ STRUCTURE OVERCOATING CLEANING AND PRIMING STRUCTURE B-29-38 REHAB	LS	-	-	-	-	-	-	1
ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	-	-	-	-	-	4	4

✳ - OVERCOATING AND PRIMING BACK FACE OF STEEL DIAPHRAGMS AT ABUTMENTS.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

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.

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

APPLY PIGMENTED PROTECTIVE SURFACE TREATMENT TO THE TOP AND ROADWAY FACE OF THE PARAPETS INCLUDING PARAPETS ON ABUTMENT WINGS.

THE EXISTING GROUND LINE SHALL BE USED AS THE UPPER LIMITS OF EXCAVATION AT THE ABUTMENTS.

APPLY BRIDGE SEAT PROTECTION, AS PER SECTION 502.3.12 OF THE STANDARD SPECIFICATIONS, TO THE TOP SURFACES OF ALL ABUTMENTS AND PIERS BELOW EXPANSION DEVICES.

DIMENSIONS OF EXISTING BRIDGE MEMBERS SHOWN ARE BASED ON ORIGINAL PLANS. THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND ELEVATIONS.

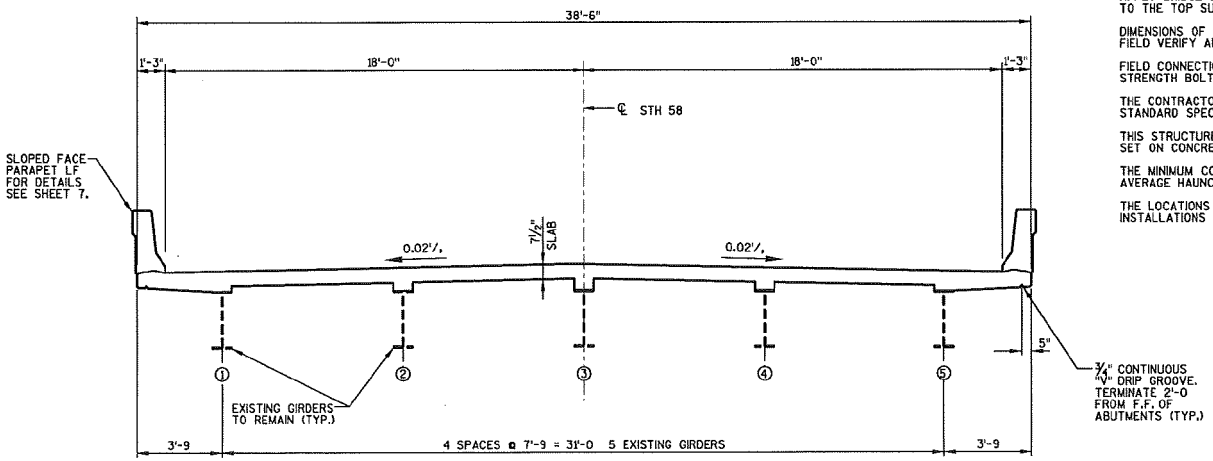
FIELD CONNECTIONS, IF NEEDED, SHALL BE MADE WITH ¾" DIAMETER A325 HIGH-TENSILE STRENGTH BOLTS UNLESS OTHERWISE SHOWN OR NOTED.

THE CONTRACTOR SHALL SUPPLY A NEW NAME PLATE IN ACCORDANCE WITH SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS. NAME PLATE TO SHOW ORIGINAL CONSTRUCTION YEAR 1964.

THIS STRUCTURE WILL REHABILITATE THE EXISTING STRUCTURE, B-29-38 REHAB, A FOUR SPAN, 297.8' LONG, STEEL DECK GIRDER SET ON CONCRETE ABUTMENTS AND MULTI-COLUMN PIERS.

THE MINIMUM CONCRETE HAUNCH OVER THE EXISTING GIRDERS SHALL BE 1¼" AND THE HAUNCH CONCRETE QUANTITY IS BASED ON AN AVERAGE HAUNCH DEPTH OF 3" WHICH IS THE MAXIMUM HAUNCH QUANTITY FOR WHICH THE CONTRACTOR WILL BE PAID.

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



CROSS SECTION THRU BRIDGE
(LOOKING NORTH)

No.	Date	Revision	By

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-29-38 REHAB

Const. Spec. WI "03"	Drawn By RLR	Plans Checked DCS

CROSS SECTION, QUANTITIES & DETAILS

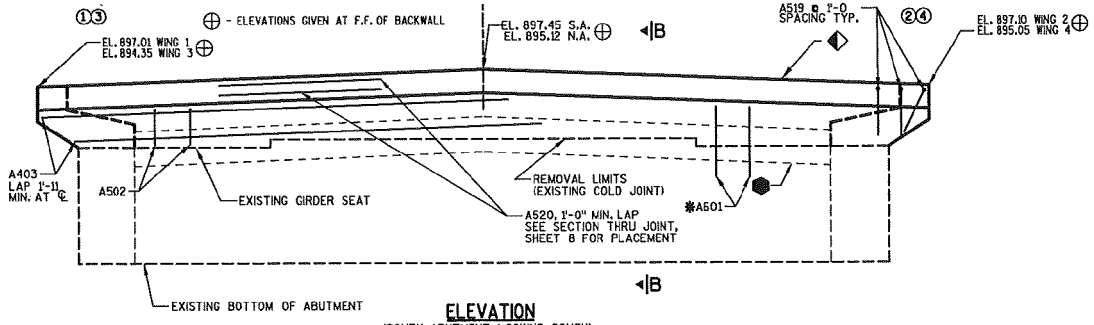
SHEET 2 OF 9

8

FILE NAME: HDGN: K:\plansht\93053202.dgn

REV. DATE: 9/10/2007

STATE PROJECT NUMBER	SHEET NO.
1018-00-72	

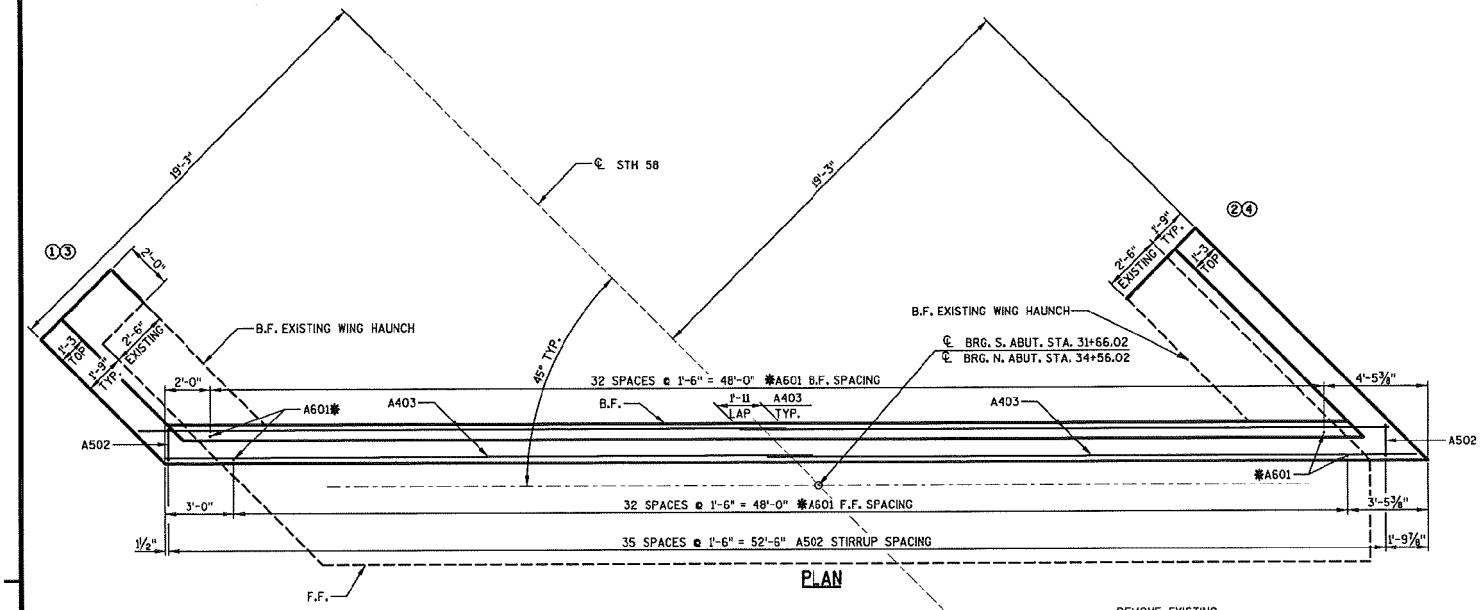


ELEVATION

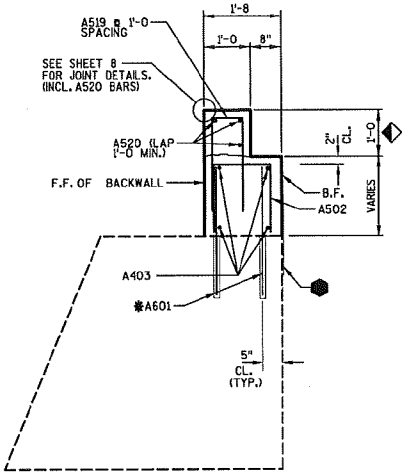
(SOUTH ABUTMENT LOOKING SOUTH)
(NORTH ABUTMENT LOOKING NORTH)

LEGEND

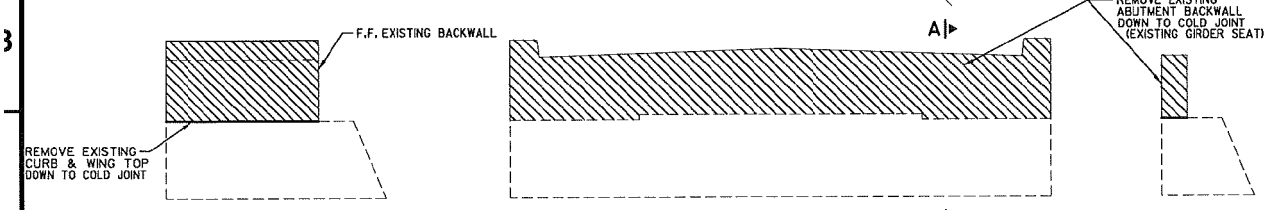
F.F.—FRONT FACE
B.F.—BACK FACE
CL.—CLEAR
◯—INDICATES WING NUMBER.
◈—POUR TOP OF BACKWALL & WINGS AFTER DECK IS IN PLACE.
✱—MASONRY ANCHORS, TYPE L, NO. 6 BARS SHALL DEVELOP THE FULL STRENGTH OF THE BAR. DRILL 1" ϕ HOLE 1'-10" DEEP. EMBED BAR 1'-8" MIN.
⬢—HORIZONTAL 18" WIDE RUBBERIZED MEMBRANE WATERPROOFING. EXTEND ACROSS B.F. OF ABUTMENT AND LENGTH OF WINGS.



PLAN



SECTION B-B



ELEVATION - WINGS

ELEVATION (LOOKING AT F.F.) A▸

SECTION A-A

EXISTING ABUTMENT REMOVAL LIMITS

No.	Date	Revision	By

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-29-38 REHAB

Const. Spec. WI "03"	Drawn By RLR	Plans Checked DCS

ABUTMENTS

SHEET 3 OF 9

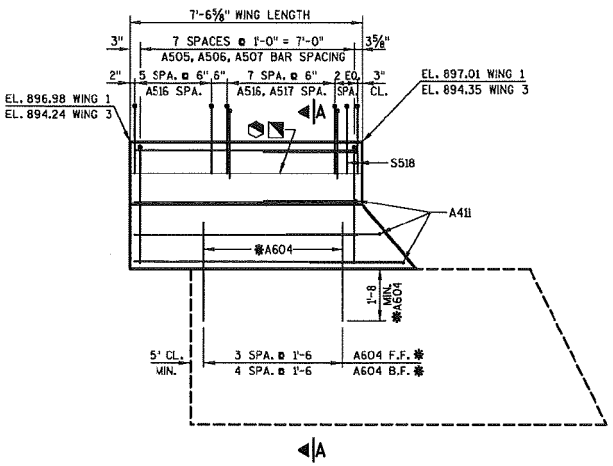
8

43

FILE NAME: K:\planstte\93053203.dgn

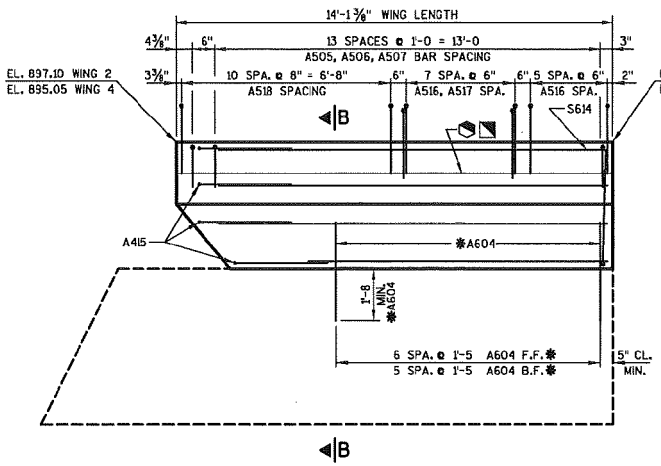
REV. DATE: 9/10/2007

STATE PROJECT NUMBER	SHEET NO.
1018-00-72	



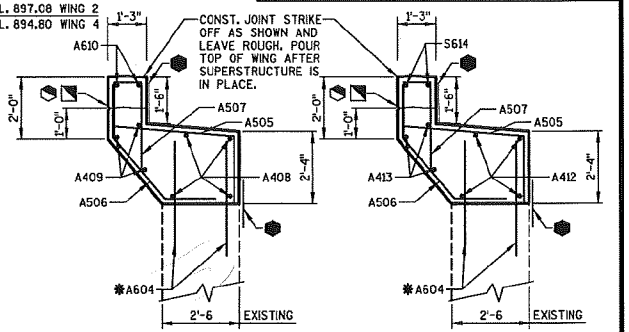
◀A

ELEVATION - WINGS 1 & 3



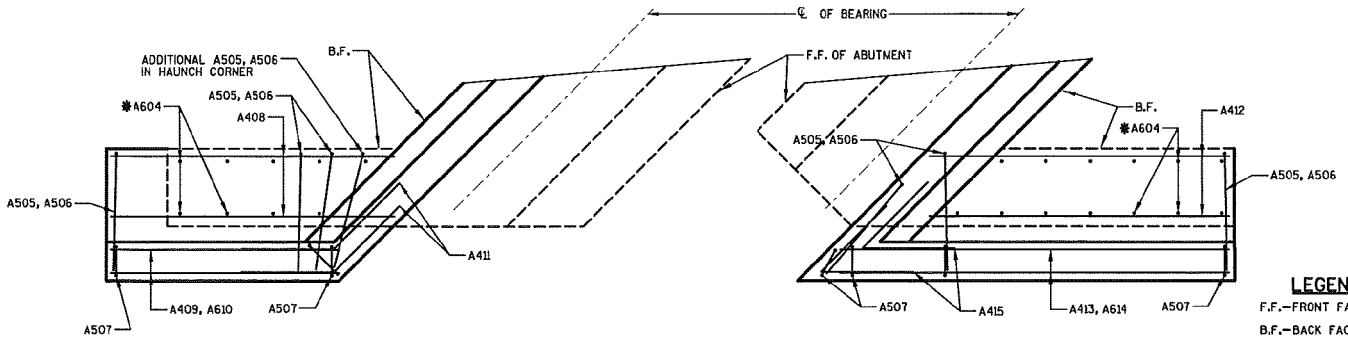
◀B

ELEVATION - WINGS 2 & 4



SECTION A-A
THRU WINGS 1&3

SECTION B-B
THRU WINGS 2&4



PLAN - WINGS 1 & 3

PLAN - WINGS 2 & 4

BILL OF BARS (COATED) 2140 LBS.

	MARK	NO. REQ'D	LENGTH	BENT	LOCATION
*	A601	66	4-9		BACKWALL DOWELS - F.F. & B.F. - VERT.
	A502	36	6-8	X	BACKWALL - STIRRUP - VERT.
	A403	8	28-0		BACKWALL - F.F. & B.F. - HORIZ.
*	A604	22	3-6		WINGS - DOWELS - VERT.
	A505	24	5-7	X	WINGS - B.F. - TRANS.
	A506	24	5-7	X	WINGS - F.F. - TRANS.
	A507	23	4-8	X	WINGS - TOP STIRRUP - VERT.
	A408	4	9-2		WINGS 1 & 3 - BASE - HORIZ.
	A409	3	7-5		WINGS 1 & 3 - TOP - HORIZ.
	A610	2	7-5		WINGS 1 & 3 - TOP - HORIZ.
	A411	5	6-0	X	WINGS 1 & 3 - CORNER - HORIZ.
	A412	4	9-8		WINGS 2 & 4 - BASE - HORIZ.
	A413	3	12-7		WINGS 2 & 4 - TOP - HORIZ.
	A614	2	12-7		WINGS 2 & 4 - TOP - HORIZ.
	A415	5	6-0	X	WINGS 2 & 4 - CORNER - HORIZ.
	A516	28	4-7	X	WINGS - PARAPET STIRRUP - VERT.
	A517	16	2-4	X	WINGS - PARAPET STIRRUP - VERT.
	A518	13	4-7	X	WINGS - PARAPET STIRRUP - VERT.
	A519	34	4-6	X	BACKWALL - PAVING BLOCK STIRRUP - VERT.
	A520	21	8-0		BACKWALL - PAVING BLOCK - HORIZ.

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.

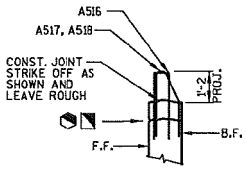
EPOXY COAT ALL BARSTEEL REINFORCEMENT.

BAR MARKS ARE FOR THE SOUTH ABUTMENT AS SHOWN. LABEL AND BUNDLE NORTH ABUTMENT BARS WITH B MARK, B601 THRU B520.

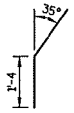
LEGEND

F.F.—FRONT FACE
B.F.—BACK FACE
CL. —CLEAR

◥ —¾" "V" GROOVE ON F.F. OF WING.
◪ —CONST. JOINT. POUR TOP OF BACKWALL & WINGS AFTER DECK IS IN PLACE.
* —MASONRY ANCHORS, TYPE L, NO. 6 BARS SHALL DEVELOP THE FULL STRENGTH OF THE BAR. DRILL 1" ϕ HOLE 1'-10" DEEP. EMBED BAR 1'-8" MIN.
⬢ —HORIZONTAL 18" WIDE RUBBERIZED MEMBRANE WATERPROOFING. EXTEND ACROSS B.F. OF ABUTMENT AND LENGTH OF WINGS.



PARAPET STIRRUP PROJECTION DETAIL



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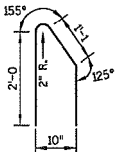

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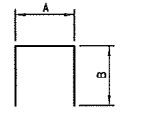
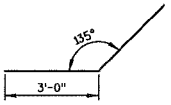
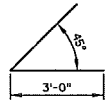


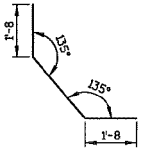
MARK	A	B
A502	1'-4	2'-9
A507	10"	2'-4
A516	6"	2'-2
A519	8"	2'-0



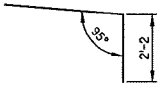
A411



A415



A506



A505

No.	Date	Revision	By

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-29-38 REHAB

Const. Spec. WI '03	Drawn By RLR	Plans Checked DCS

ABUTMENT DETAILS

SHEET 4 OF 9

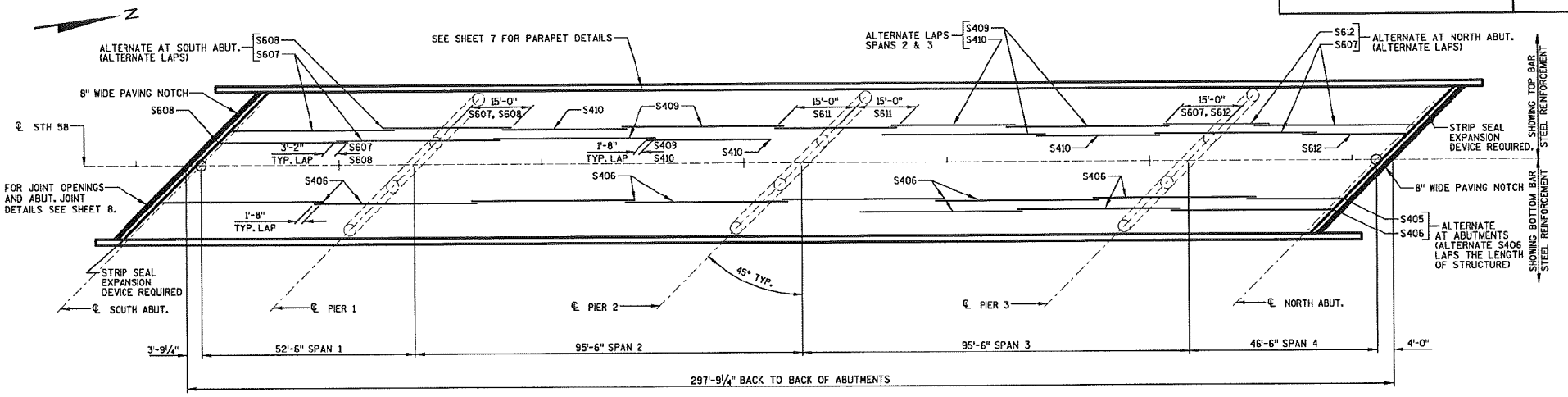
8

44

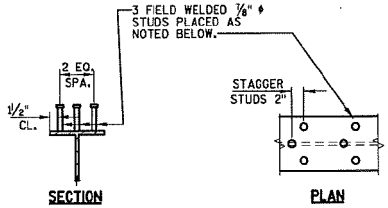
FILE NAME: k:\plans\a93053204.dgn

REV. DATE: 9/10/2007

STATE PROJECT NUMBER	SHEET NO.
1018-00-72	



PLAN



SHEAR CONNECTOR DETAIL & NOTES

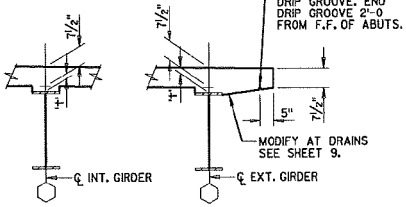
STUDS SHALL BE PLACED ON EXISTING GIRDERS. PLACE 3 STUDS WITHIN 6" OF EACH EXISTING SHEAR LUG, AVOIDING COVER PLATES.

USE 6" LONG STUDS AT GIRDERS 1,2,4 & 5 AND 7" LONG STUDS AT GIRDER 3.

SHEAR CONNECTORS OR EXISTING ANGLES SHALL PROTRUDE A MINIMUM OF 2" BEYOND THE HAUNCH INTO THE SLAB. MODIFY THE 6" OR 7" STUD NUMBER AND LOCATIONS IF NEEDED AFTER DETERMINING THE "t" HAUNCH THICKNESS.

EXISTING SHEAR ANGLES MAY BE UTILIZED IN LIEU OF SHEAR CONNECTORS PROVIDED THAT THE EXISTING ANGLES ARE NOT DAMAGED AND ARE OF SUFFICIENT LENGTH.

WHEN UTILIZING EXISTING SHEAR ANGLES, ONE ANGLE IS EQUIVALENT TO A SET OF 3 CONNECTORS.

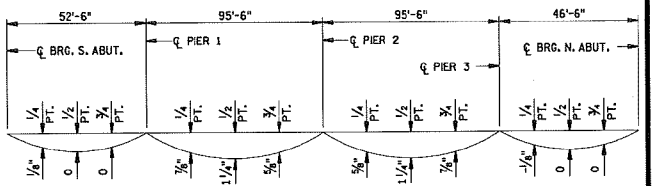


TO DETERMINE 't': ELEVATIONS OF THE TOP FLANGES, TOP OF SPLICE PLATES, OR TOP OF COVER PLATES, WHICHEVER APPLIES, SHALL BE TAKEN AT C/L OF BEARINGS, AND AT QUARTER POINTS OF EACH SPAN. THEN FOLLOW THIS PROCESS.

TOP OF DECK ELEV. AT FINAL GRADE
- TOP OF STEEL ELEV. AFTER DECK IS REMOVED
+ DEFLECTION
- SLAB THICKNESS (7½")

= HAUNCH THICKNESS 't'.

SLAB FORMING DETAILS



NOTE: THE CONTRACTOR SHALL TAKE TOP OF EXISTING STEEL GIRDER ELEVATIONS BEFORE AND AFTER CONCRETE DECK REMOVAL. (SMALL HOLES MAY BE MADE IN EXISTING CONCRETE TO TOP OF STEEL.) NET DIFFERENCES SHOULD BE THE APPROXIMATE DEFLECTION. THE DEAD LOAD DEFLECTION USED IN FORMING THE NEW DECK SHALL BE EITHER THE NET DIFFERENCE UPON REMOVING THE DECK OR THE VALUES SHOWN IN THE DIAGRAM ABOVE, WHICHEVER IS GREATER. THE GENERAL SHAPE & PROPORTION OF THE DIAGRAM ABOVE SHALL BE MAINTAINED.

DEFLECTION DIAGRAM

TOP OF SLAB ELEVATIONS

LOCATION	SPAN 1					SPAN 2					SPAN 3					SPAN 4				
	℄ BEARING SOUTH ABUT.	¼ PT.	½ PT.	¾ PT.	℄ PIER 1	¼ PT.	½ PT.	¾ PT.	℄ PIER 2	¼ PT.	½ PT.	¾ PT.	℄ PIER 3	¼ PT.	½ PT.	¾ PT.	℄ BEARING NORTH ABUT.
W. EDGE SLAB	897.10	897.11	897.10	897.08	897.05	896.99	896.88	896.73	896.52	896.27	895.96	895.60	895.20	895.00	894.81	894.60	894.38
GIRDER 1	897.17	897.18	897.18	897.16	897.13	897.07	896.98	896.83	896.63	896.39	896.09	895.73	895.34	895.14	894.95	894.74	894.52
GIRDER 2	897.31	897.33	897.34	897.33	897.31	897.25	897.17	897.04	896.86	896.63	896.34	896.01	895.62	895.43	895.23	895.03	894.82
℄ ROAD/GIRDER 3	897.45	897.48	897.49	897.49	897.48	897.42	897.36	897.24	897.08	896.86	896.60	896.28	895.91	895.71	895.52	895.32	895.12
GIRDER 4	897.27	897.31	897.33	897.34	897.33	897.29	897.23	897.13	896.98	896.78	896.53	896.23	895.88	895.69	895.49	895.30	895.10
GIRDER 5	897.09	897.14	897.16	897.18	897.18	897.15	897.09	897.01	896.88	896.70	896.47	896.18	895.84	895.66	895.47	895.27	895.08
E. EDGE SLAB	897.01	897.05	897.08	897.10	897.11	897.08	897.03	896.95	896.83	896.66	896.43	896.15	895.82	895.65	895.46	895.26	895.06

No.	Date	Revision	By

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-29-38 REHAB

Const. Spec. WI "03"	Drawn By RLR	Plans Checked DCS

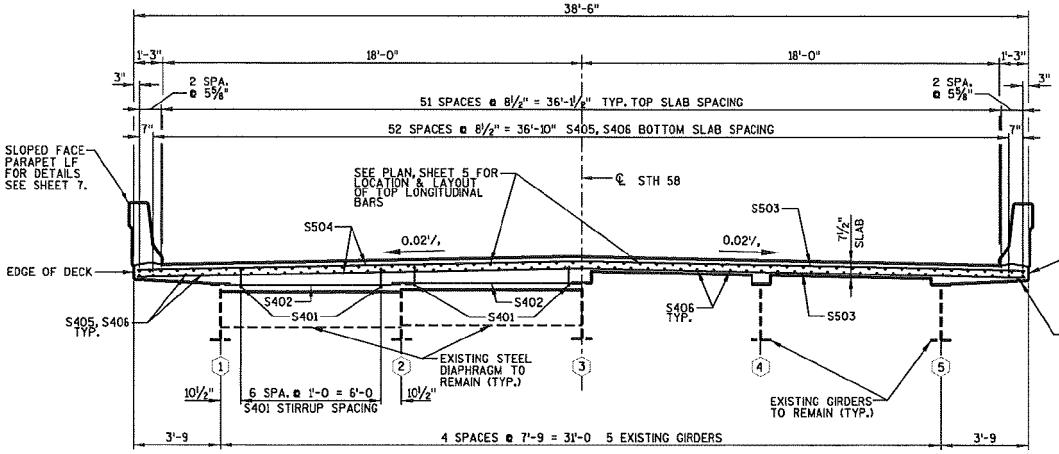
SUPERSTRUCTURE

SHEET 5 OF 9

FILE NAME: K:\planhte\93053205.dgn

REV. DATE: 9/10/2007

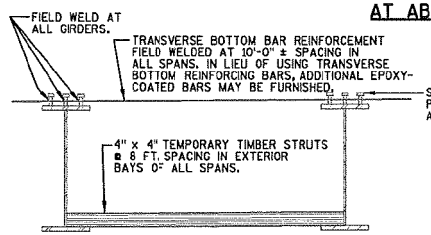
STATE PROJECT NUMBER	SHEET NO.
1018-00-72	



AT ABUTMENTS IN SPAN

CROSS SECTION THRU BRIDGE

(LOOKING NORTH)



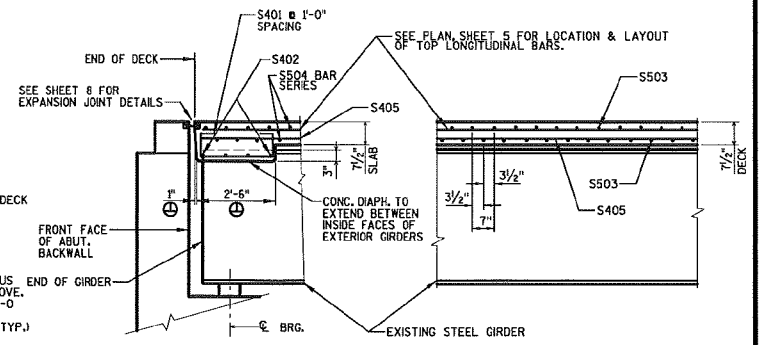
EXTERIOR GIRDER INTERIOR GIRDER

CROSS SECTION - GIRDER BRACING

LEGEND

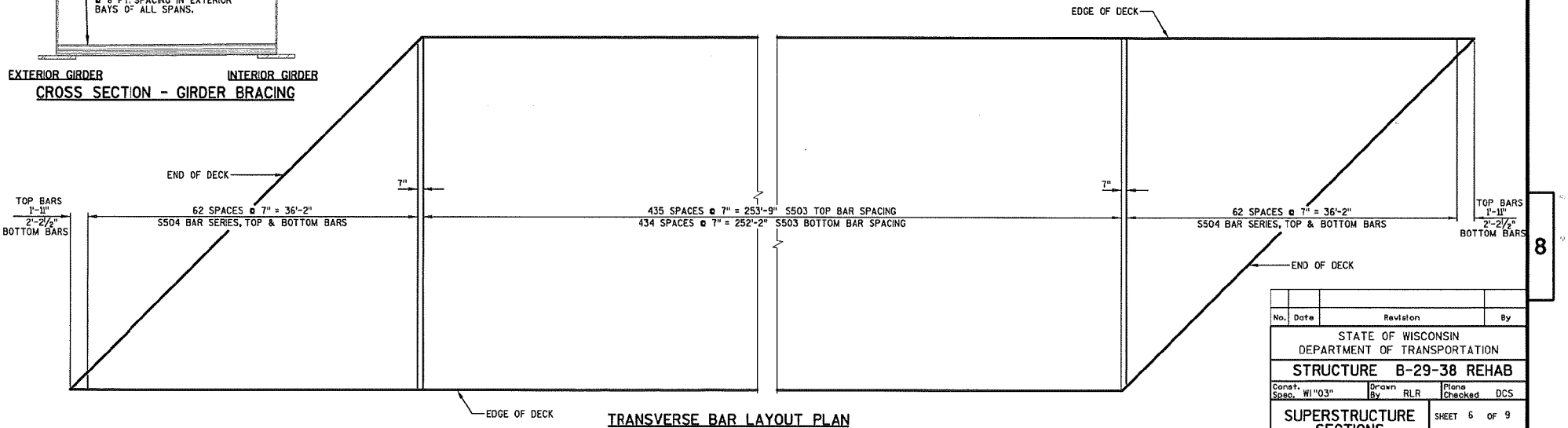
⬡ — DESIGNATES EXISTING GIRDER NUMBER

℄ — MEASURED NORMAL TO ℄ OF ABUTMENTS.



AT ABUTMENTS IN SPAN

PART LONGITUDINAL SECTION



TRANSVERSE BAR LAYOUT PLAN

No.	Date	Revision	By

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-29-38 REHAB

Const. Spec. WI "03"	Drawn By RLR	Plans Checked DCS

SUPERSTRUCTURE SECTIONS & DETAILS

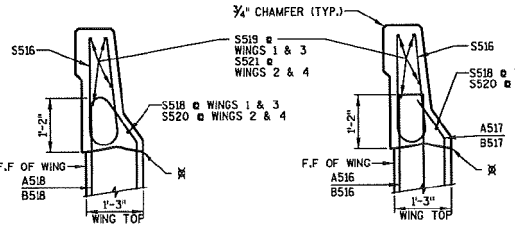
SHEET 6 OF 9

8

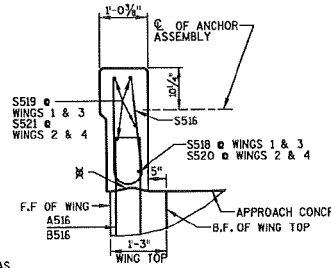
FILE NAME: HOGN: K:\plotsite\93053206.dgn

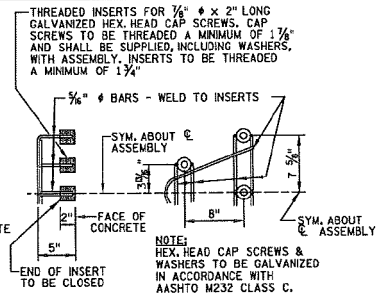
REV. DATE: 9/10/2007

STATE PROJECT NUMBER	SHEET NO.
1018-00-72	

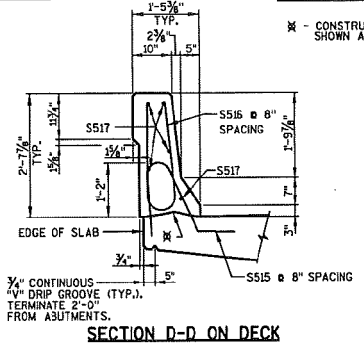


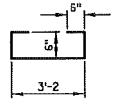
※ - CONSTRUCTION JOINT - STRIKE OFF AS SHOWN AND LEAVE ROUGH.

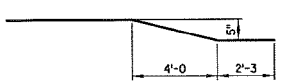


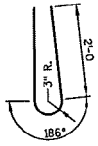


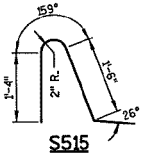
ASSEMBLY BID ITEM SHALL BE "ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD", EACH











SEE SHEET 8 FOR BAR LOCATION

SEE SHEET 9 FOR BAR LOCATION

BILL OF BARS (COATED) 83,220 LBS.

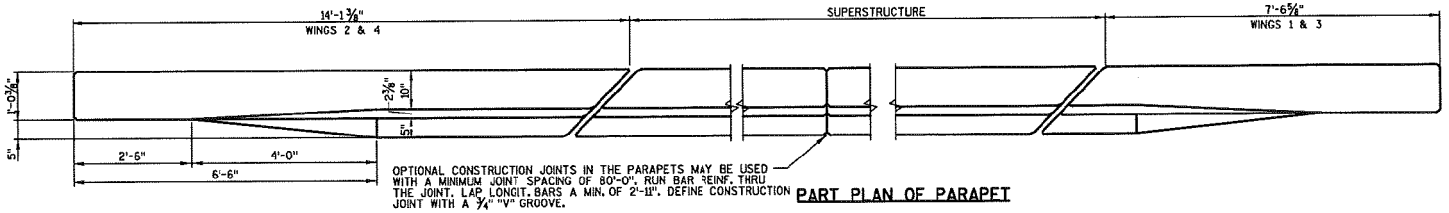
MARK	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
S401	56	4-10	X		SLAB DIAPH. ℄ ABUT. - STIRRUP - VERT.
S402	32	9-8			SLAB DIAPH. ℄ ABUT. BETWEEN GIRDERS - TRANS.
S503	871	38-2			SLAB TOP & BOTTOM - TRANS.
S504	252	19-7		⊗	SLAB TOP & BOTTOM ℄ ENDS - TRANS.
S405	55	24-0			SLAB BOTTOM ℄ ENDS - LONGIT.
S406	385	40-0			SLAB BOTTOM - LONGIT.
S607	112	40-0			SLAB TOP ℄ ENDS - LONGIT.
S608	56	31-8			SLAB TOP ℄ SOUTH END - LONGIT.
S409	112	40-0			SLAB TOP SPANS 2 & 3 - LONGIT.
S410	112	30-6			SLAB TOP SPANS 2 & 3 - LONGIT.
S611	56	30-0			SLAB OVER PIER 2 - LONGIT.
S612	56	26-0			SLAB TOP ℄ NORTH END - LONGIT.
S413	16	9-8			SLAB END THRU STRIP SEAL - TRANS.
S514	24	5-0			SLAB ℄ FLOOR DRAINS - LONGIT.
S515	878	4-3	X		PARAPET STIRRUP - INTO SLAB - VERT.
S516	960	4-10	X		PARAPET STIRRUP - VERT.
S517	80	39-6			PARAPET ON BRIDGE - LONGIT.
S518	2	8-2	X		PARAPET ON WINGS 1 & 3 - LONGIT.
S519	8	7-4			PARAPET ON WINGS 1 & 3 - LONGIT.
S520	2	12-4	X		PARAPET ON WINGS 2 & 4 - LONGIT.
S521	8	13-4			PARAPET ON WINGS 2 & 4 - LONGIT.

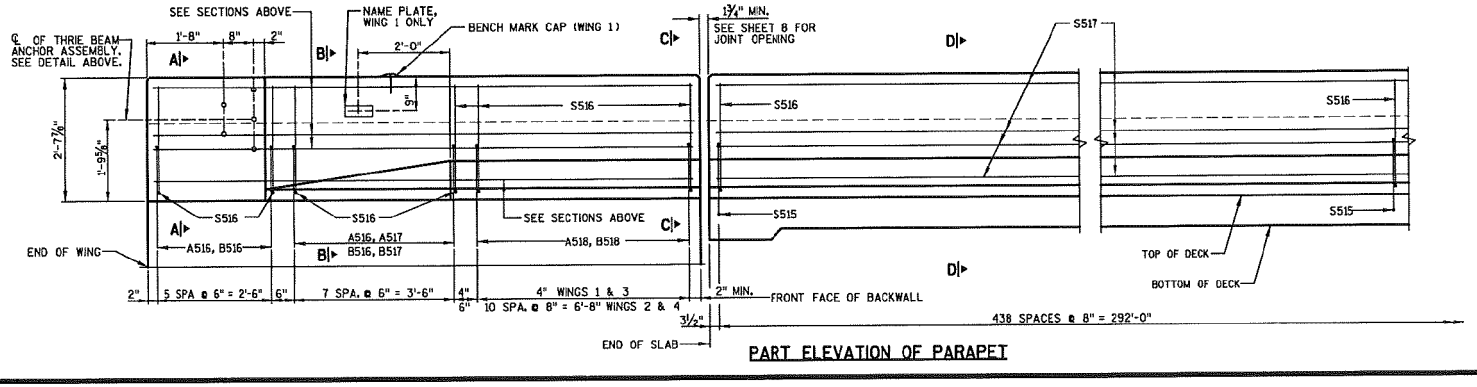
DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.
ALL BAR STEEL SHALL BE EPOXY COATED.

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

BAR MARK	NO. REQ'D.	LENGTH
S504	4 SERIES OF 63	1'-6 TO 37'-8

BAR SERIES TABLE





No.	Date	Revision	By

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-29-38 REHAB

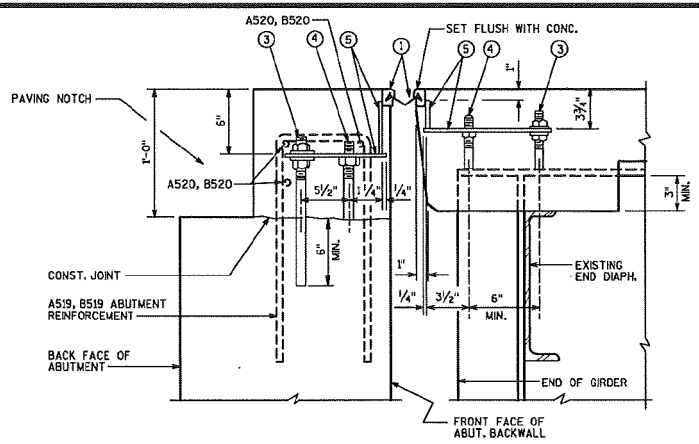
Const. Spec. WI "03"	Drawn By RLR	Plans Checked DCS

SLOPED FACE PARAPET LF & SUPERSTRUCTURE DETAILS

SHEET 7 OF 9

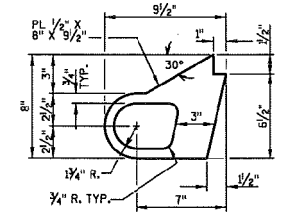
FILE NAME: HDGN: K:\plans\hfs\93053207.dgn

REV. DATE: 9/10/2007

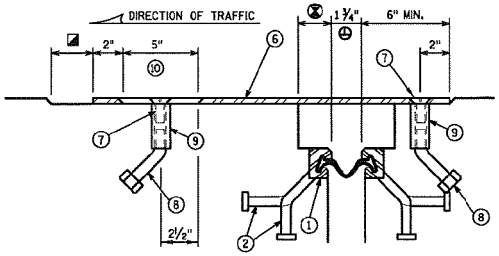


TYPICAL SECTION THRU JOINT AT STEEL GIRDER

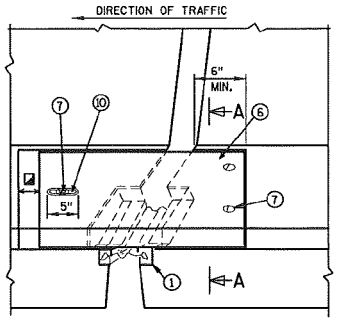
NORMAL TO ℄ SUBSTRUCTURE



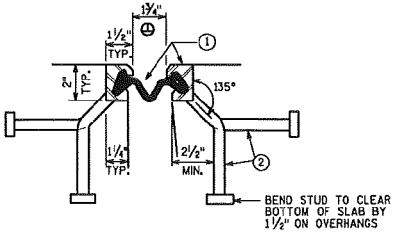
ALTERNATE STRIP SEAL ANCHOR



SECTION B-B

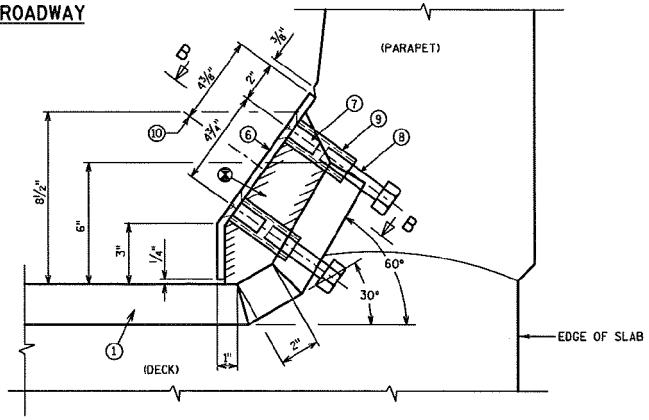


VIEW OF PARAPET PLATES FROM ROADWAY



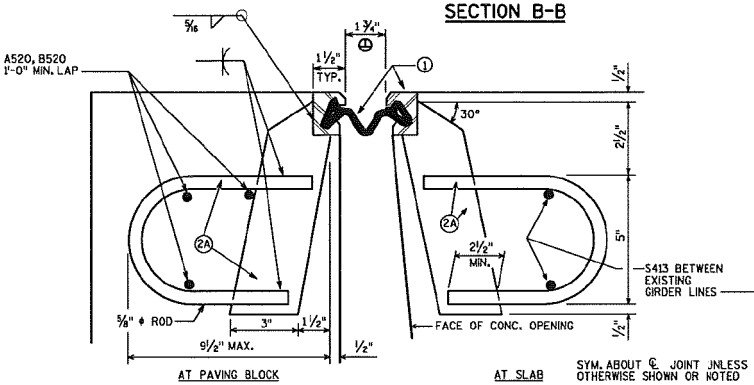
SECTION THRU JOINT

EXTERIOR GIRDER TO EDGE OF SLAB & AT PARAPETS



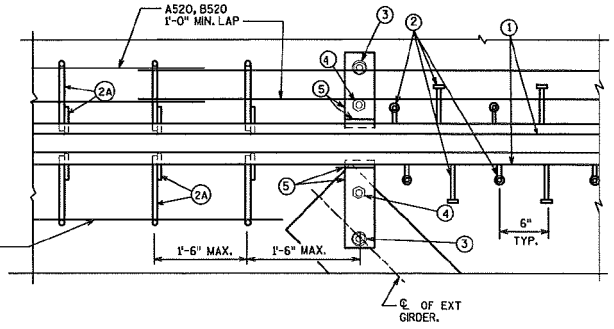
SECTION A-A

(AT PARAPET)



SECTION THRU JOINT

ROADWAY TRAFFIC AREA BETWEEN EXTERIOR GIRDERS.



PART PLAN

STATE PROJECT NUMBER	SHEET NO.
1018-00-72	

NOTES

ONE FIELD SPLICE PERMITTED IN STEEL EXTRUSIONS. DETAILS SHALL BE SUBMITTED FOR APPROVAL. NO SPLICING PERMITTED IN PERMANENT NEOPRENE STRIP SEAL.

AFTER FABRICATION, BUT BEFORE SHIPMENT, STRAIGHTEN STEEL EXTRUSIONS SUCH THAT THEY SHALL BE FREE FROM WARP, TWIST & SWEEP.

FABRICATOR SHALL PROVIDE MEANS OF KEEPING GALVANIZED EXTRUSIONS CLEAN & SMOOTH DURING SHIPMENT AND PRIOR TO APPLYING LUBRICANT ADHESIVE FOR NEOPRENE GLAND INSTALLATION.

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

ANCHOR SYSTEM NO. 8 & NO. 9 SHALL CONFORM TO ASTM A307 & SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C & D.

STRIP SEAL EXPANSION JOINT ASSEMBLY AT EACH END OF DECK, INCLUDING ANCHOR STUDS & HARDWARE, FIELD SPLICING AND TEMPORARY SEAL, WILL BE PAID FOR AT THE LUMP SUM PRICE BID FOR "EXPANSION DEVICE B-29-38 REHAB".

LEGEND

1. NEOPRENE STRIP SEAL (4-INCH) & STEEL EXTRUSIONS. SET JOINT OPENING PERPENDICULAR TO EXTRUSIONS.
2. STUDS ⅝" ø x 6⅜" LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS & BEND AS SHOWN AFTER WELDING.
2A. ½" THICK ANCHOR PLATE WITH ⅝" ø ROD (OR ALTERNATE STRIP SEAL ANCHOR). WELD ROD TO ANCHOR PLATE, WELD ANCHOR PL. TO NO. 1 AT 1'-6" CENTERS BETWEEN GIRDERS.
3. ¾" ø THREADED ROD WITH 2 NUTS AND WASHERS. WELD THREADED ROD TO TOP FLANGE OR ATTACH BY BOLTING THRU FLANGE. ON ABUTMENT SIDE GROUT THREADED ROD INTO FIELD DRILLED HOLES IN ABUTMENT BACKWALL AS SHOWN.
4. ¾" ø THREADED ROD WITH NUT. TACK WELD NUT TO NO. 5.
5. FABRICATE SUPPORT FROM 3" x ½" BAR AS SHOWN OR EQUIVALENT. ONE PER GIRDER PER SIDE. SHOP OR FIELD WELD TO NO. 1. IF FIELD WELDED, COVER WELDED AREAS WITH EPOXY-COATING MATERIAL. PROVIDE 1½" ø HOLE FOR NO. 3 & 1" ø HOLE FOR NO. 4.
6. GALVANIZED PLATE ⅜" x 10½" x 3'-0" LONG WITH HOLES FOR NO. 7. BEND AS SHOWN.
7. ¾" ø x 1½" STAINLESS STEEL FLAT HEAD SCREWS WITH ANTI-SEIZE LUBRICANT. RECESS 1/16" BELOW PLATE SURFACE.
8. ¾" ø x 4" GALVANIZED HEX HEAD BOLT. BEND 45°.
9. ¾" ø x 2¼" GALVANIZED THREADED COUPLING.
10. 1" x 5" SLOTTED CSK. HOLE FOR NO. 7. SLOT PARALLEL TO DIRECTION OF MOVEMENT.

℄ — MEASURED NORMAL TO ℄ OF ABUTMENTS.

⊗ — BLOCK OUT CONCRETE 2" EACH SIDE FOR JOINT OPENING

◪ — JOINT OPENING DIM. ALONG SKEW PLUS ½"

No.	Date	Revision	By

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-29-38 REHAB

Const. Spec. WI "03"	Drawn By RLR	Plans Checked DCS

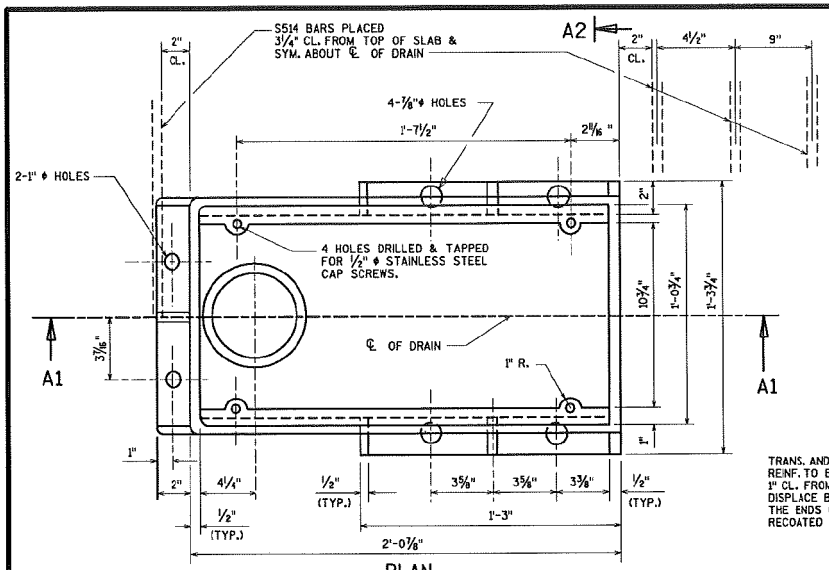
STRIP SEAL EXPANSION JOINT

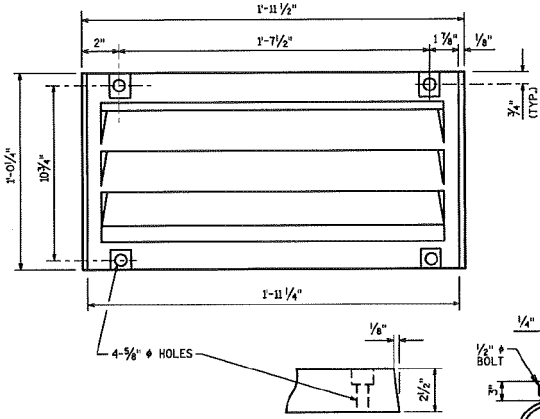
SHEET 8 OF 9

8

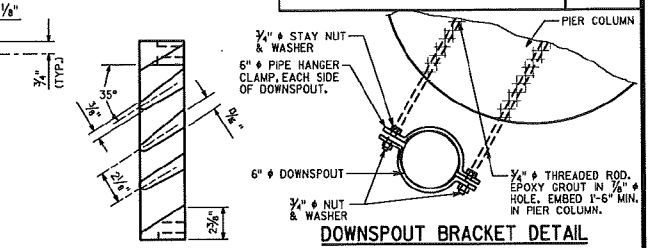
FILE NAME: HDGN:93992916 REV. DATE: 03-18-01

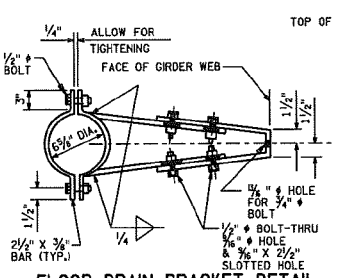
STATE PROJECT NUMBER	SHEET NO.
1018-00-72	

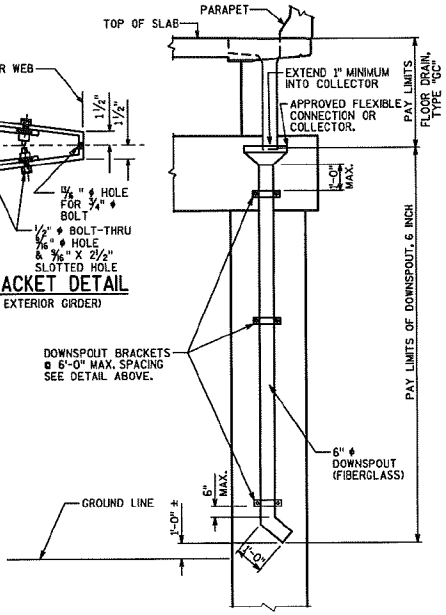


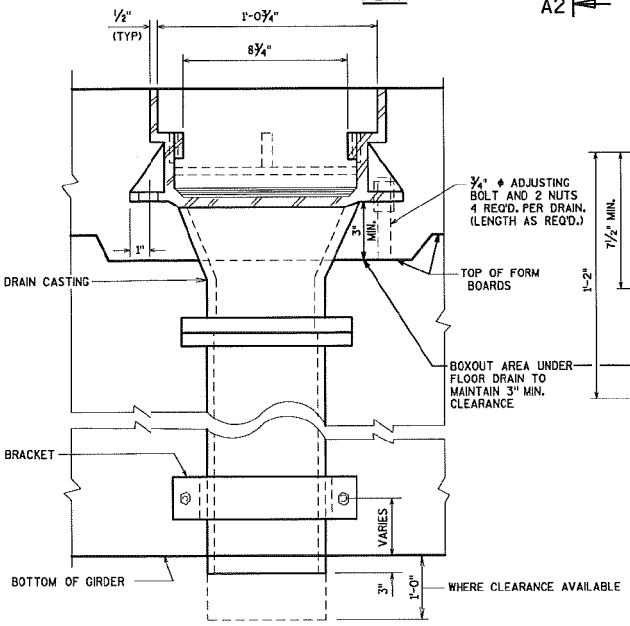


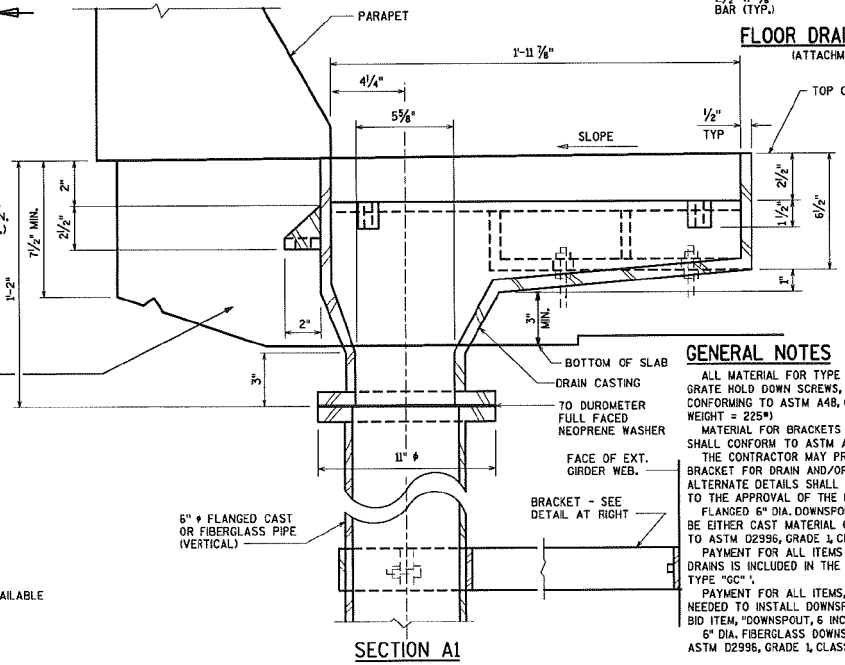
TRANS. AND LONGIT. SLAB BAR REINF. TO BE CUT A MAX. OF 1" CL. FROM DRAIN FRAME. DISPLACE BARS WHERE POSSIBLE. THE ENDS OF CUT BARS SHALL BE RECOATED WITH EPOXY COATING.











GENERAL NOTES

ALL MATERIAL FOR TYPE "GC" CASTING, EXCLUDING GRATE HOLD DOWN SCREWS, SHALL BE GRAY IRON CONFORMING TO ASTM A48, CLASS 30. (APPROXIMATE WEIGHT = 225#)

MATERIAL FOR BRACKETS FOR DRAIN & DOWNSPOUT SHALL CONFORM TO ASTM A36 AND SHALL BE GALVANIZED.

THE CONTRACTOR MAY PROPOSE AN ALTERNATE TYPE OF BRACKET FOR DRAIN AND/OR DOWNSPOUT. THE PROPOSED ALTERNATE DETAILS SHALL BE SUBMITTED AND SUBJECT TO THE APPROVAL OF THE ENGINEER.

FLANGED 6" DIA. DOWNSPOUT ON FLOOR DRAIN SHALL BE EITHER CAST MATERIAL OR FIBERGLASS CONFORMING TO ASTM D2996, GRADE 1, CLASS A.

PAYMENT FOR ALL ITEMS NEEDED TO INSTALL FLOOR DRAINS IS INCLUDED IN THE BID ITEM, "FLOOR DRAIN, TYPE "GC" ".

PAYMENT FOR ALL ITEMS, INCLUDING EPOXY ANCHORS, NEEDED TO INSTALL DOWNSPOUTS IS INCLUDED IN THE BID ITEM, "DOWNSPOUT, 6 INCH".

6" DIA. FIBERGLASS DOWNSPOUT SHALL CONFORM TO ASTM D2996, GRADE 1, CLASS A.

No.	Date	Revision	By

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

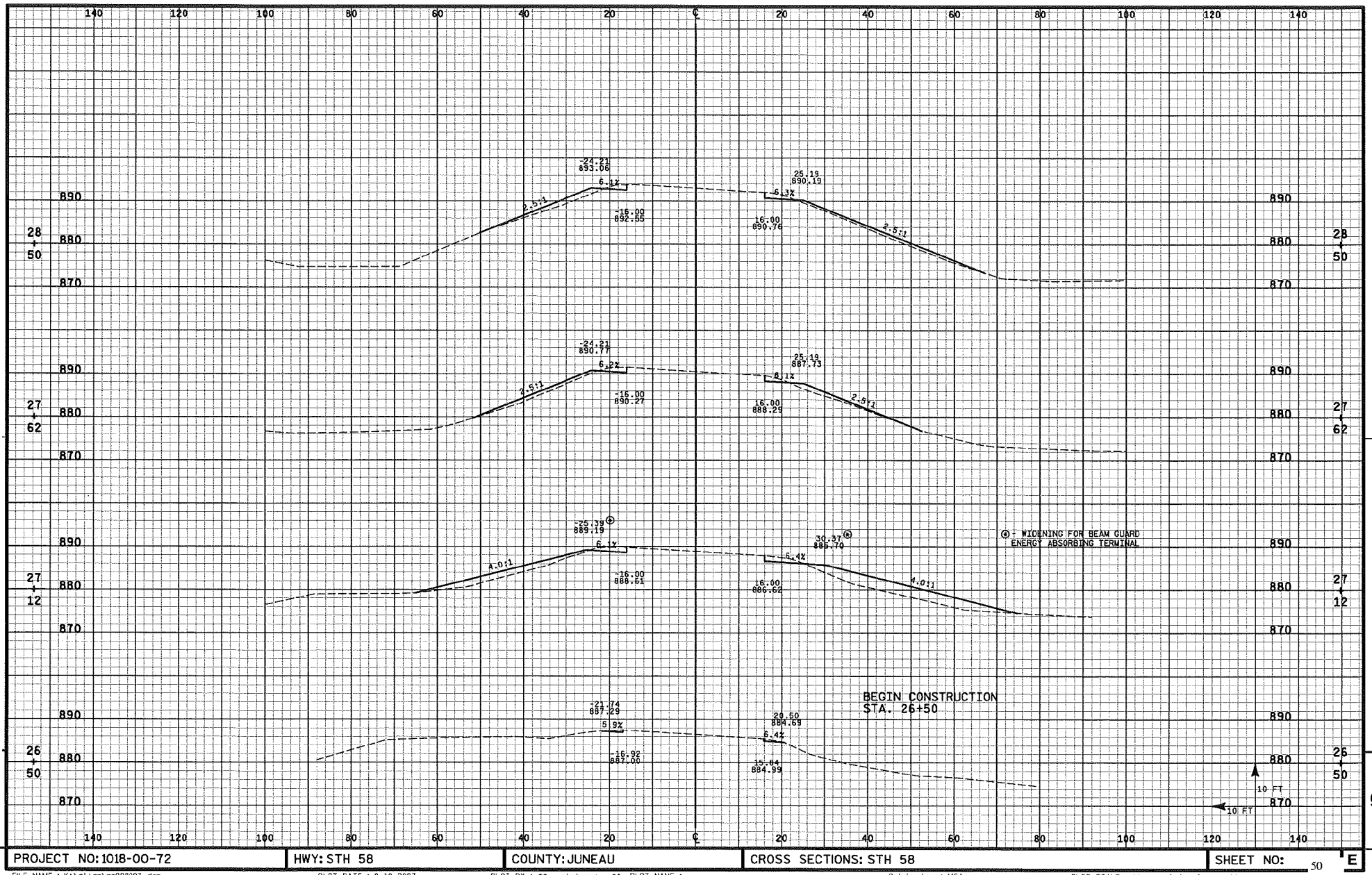
STRUCTURE B-29-38 REHAB

Const. Spec. WI "03"	Drawn By RLR	Plans Checked DCS

FLOOR DRAIN TYPE "GC" & DOWNSPOUT

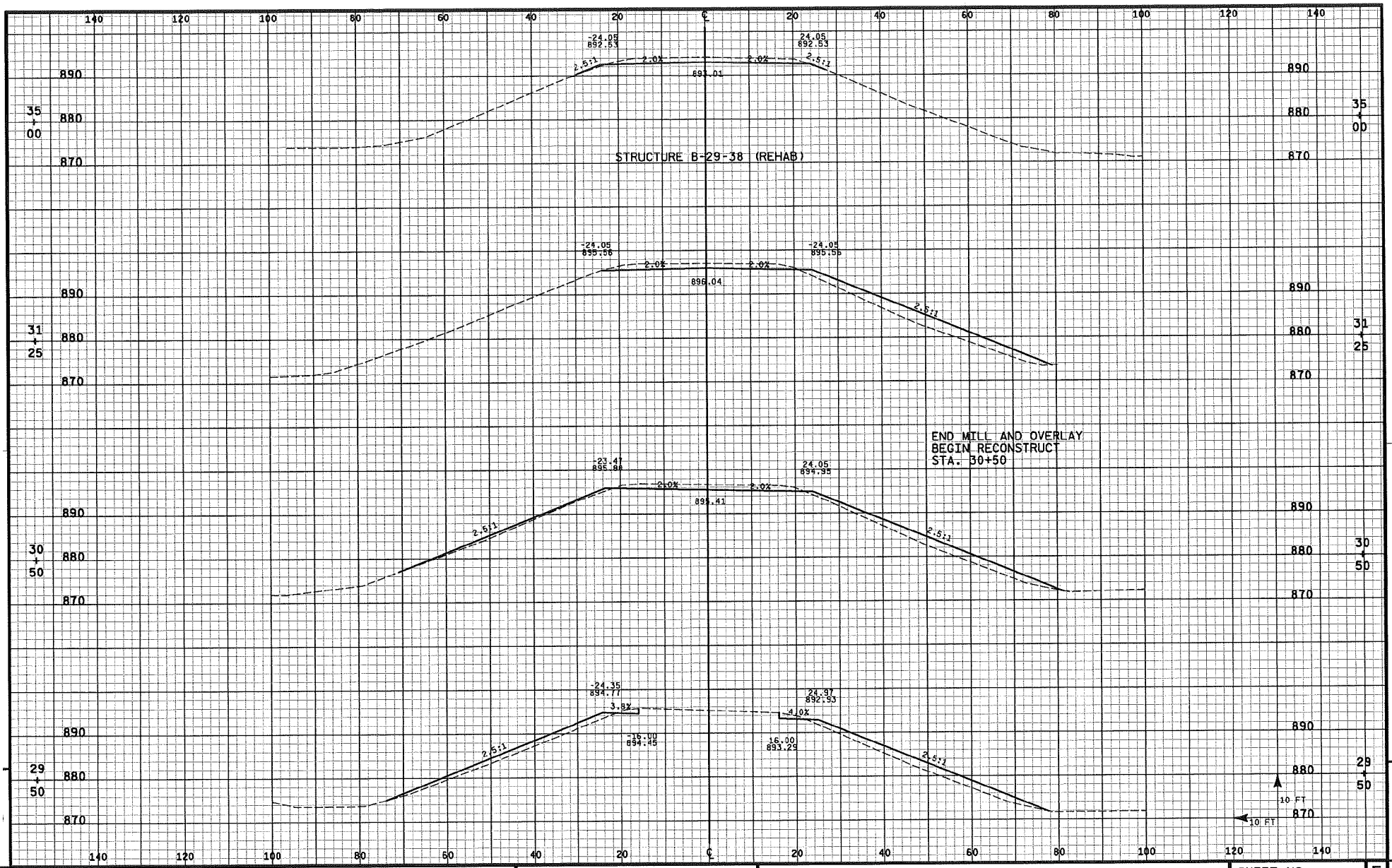
SHEET 9 OF 9

FILE NAME: HDGN:93992916 REV. DATE: 03-28-01



PROJECT NO: 1018-00-72	HWY: STH 58	COUNTY: JUNEAU	CROSS SECTIONS: STH 58	SHEET NO: E

FILE NAME : K:\align\rc008003.dgn PLOT DATE : 9/10/2007 PLOT BY : $$...plotuser...$$ PLOT NAME : Originator : MSA PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 21



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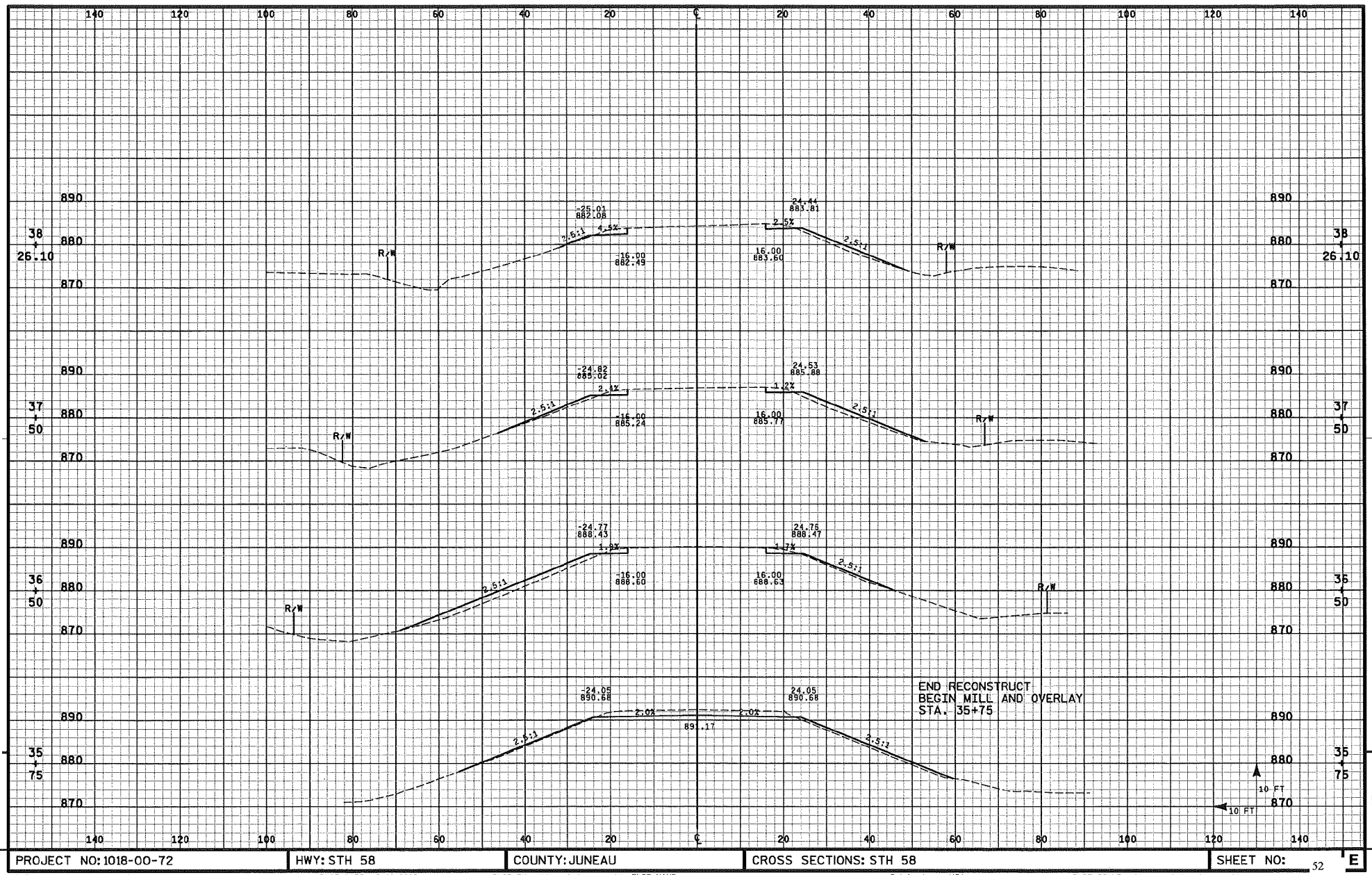
9



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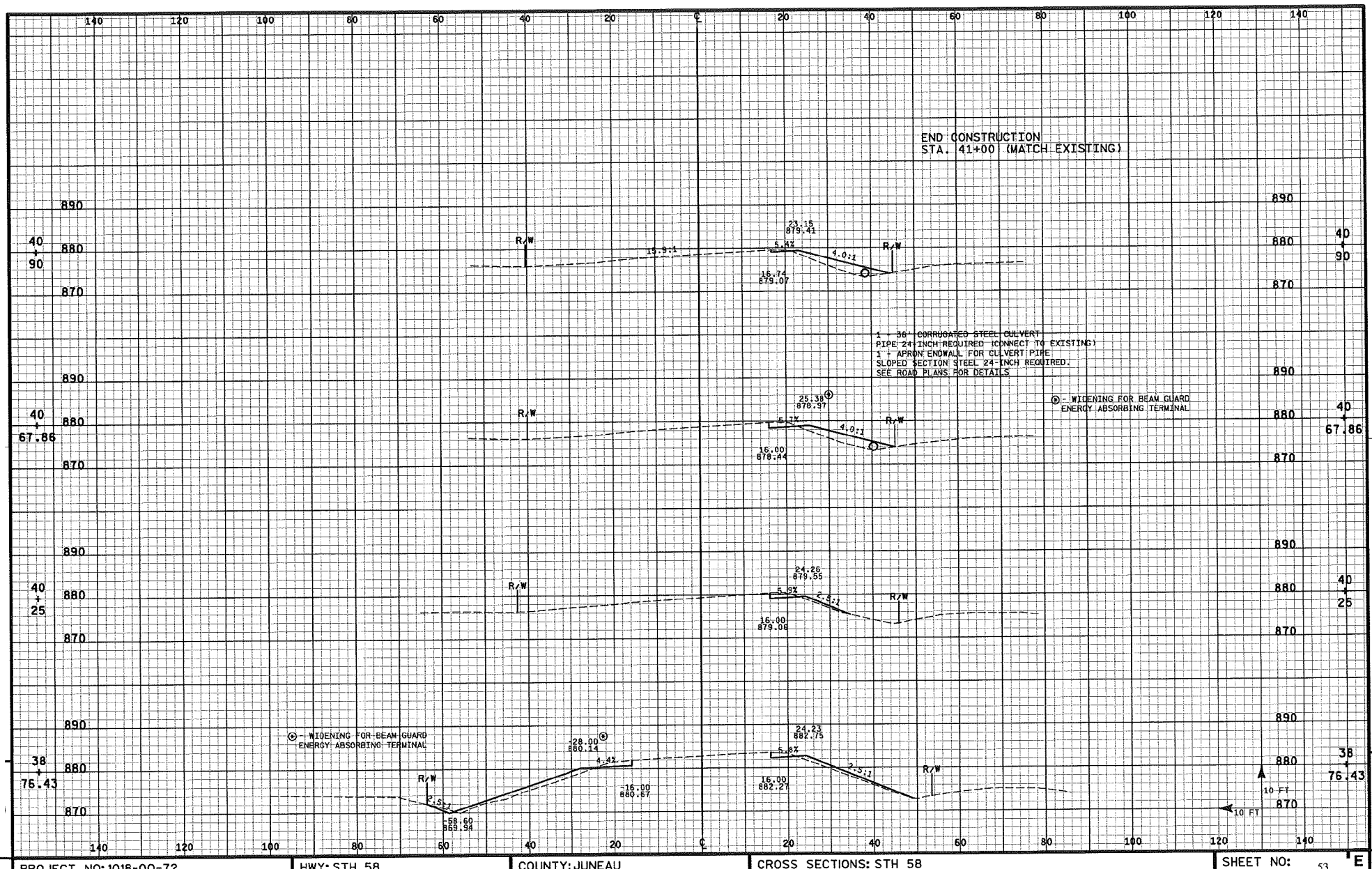

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