#14

As built

Structure B-4-52

INDEX OF SHEETS

TOTAL SHEETS = 27

STATE OF WISCONSIN

DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

BIBON CREEK BRIDGE AND APPROACHES

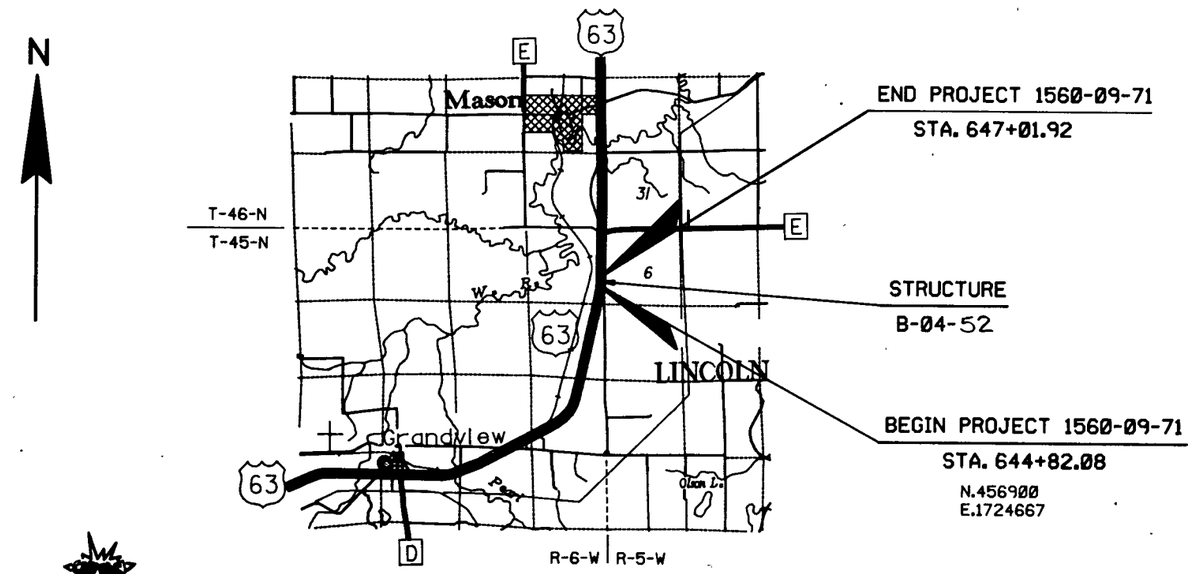
U.S.H. 63

BAYFIELD COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1560-09-71	———	—

STATE PROJECT NUMBER

1560-09-71



DESIGN DESIGNATION

A.D.T.	1990	=	1750
A.D.T.	2000	=	2200
D.H.V.		=	403
D.		=	60-40
T.		=	8.0
V.		=	55 M.P.H.

CONVENTIONAL SIGNS

COUNTY LINE		COMBUSTIBLE FLUIDS (UNDER PRESSURE)	
CORPORATE LIMITS		UNDERGROUND UTILITIES	
PROPERTY LINE		GAS	G
LOT LINE		ELECTRIC	E
LIMITED HIGHWAY EASEMENT		TELEPHONE	T
EXISTING RIGHT OF WAY		SERVICE PEDESTAL	
NEW RIGHT OF WAY		CABLE MARKER	P
REFERENCE LINE		POWER POLE	
SLOPE INTERCEPT		TELEPHONE POLE	
ORIGINAL GROUND		RAILROADS	
MARSH OR ROCK PROFILE		MARSH	
CULVERT IN PLACE		WOODED AREA	
CULVERT REQUIRED			
CULVERT REQUIRED (Profile)			

LAYOUT

SCALE 0 1 MI.

TOTAL NET LENGTH OF CENTERLINE = 0.042 MI.

ALL COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COORDINATE SYSTEM, NORTH ZONE.

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

Surveyor W.D.D. District Checker J.A.R.
Designer T.E.M. C.O. Plan Examiner JJG
District Supervisor W.J.G. C.O. Coordinator LAS

APPROVED:

DATE: 4-28-89 Greg Pietta.
DISTRICT DIRECTOR

APPROVED:

DATE: 5/8/89 Robert W. Berg
REGIONAL CHIEF ROAD DESIGN ENGINEER

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
REGION 5 WISCONSIN DIVISION

APPROVED:

DATE: _____
DIVISION ADMINISTRATOR

FILE NAME: HDGN:210 TITLE.DGN

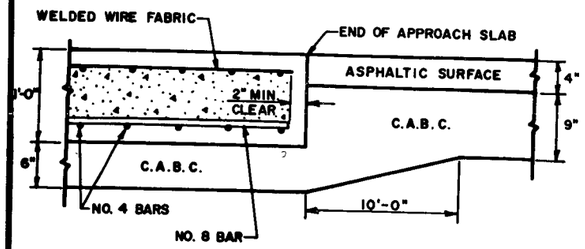
Bayfield

1560-09-71

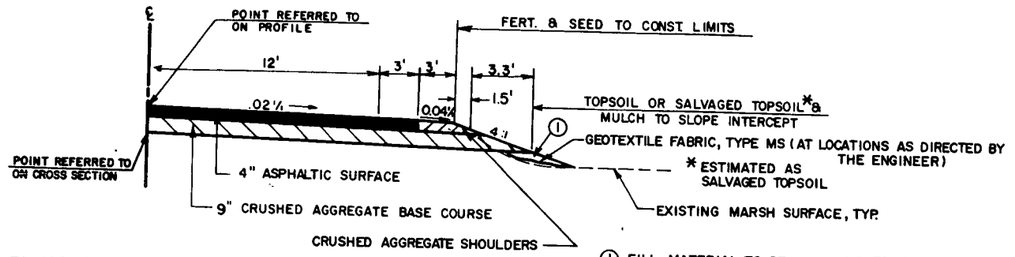
NET

STATE PROJECT NUMBER	SHEET NO.
1560-09-71	2

TYPICAL SECTIONS AND CONSTRUCTION DETAILS

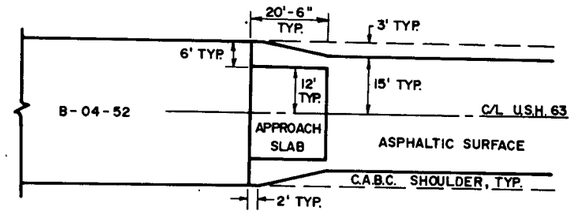


DETAIL AT PAVEMENT END OF APPROACH SLAB

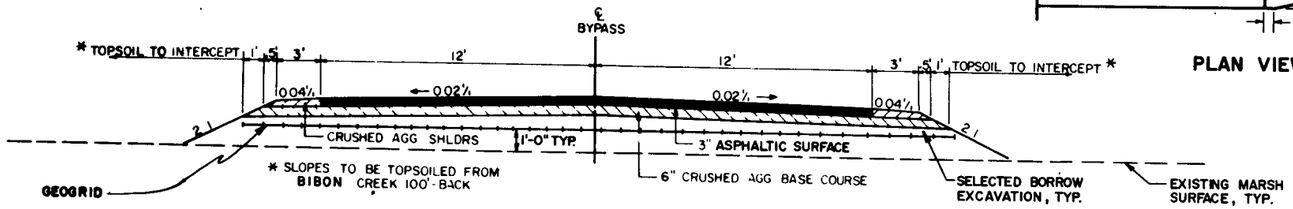


TYPICAL FINISHED HALF SECTION

STA. 644+82.08 TO STA. 645+68.50
STA. 646+15.50 TO STA. 647+01.92



PLAN VIEW AT APPROACH SLAB



TYPICAL FINISHED SECTION FOR BYPASS

(SUPERS ON X-SECTIONS)
STA. 641+30.08 – 650+53.92

GENERAL NOTES

SHRINKAGE IS ESTIMATED AT 25%

NO TREES ARE TO BE REMOVED UNLESS INDICATED FOR REMOVAL BY THE ENGINEER IN THE FIELD. PRIVATE OWNERS HOLDING UNDERLYING TITLE TO LANDS AQUIRED OR RESERVED SHALL HAVE PRIOR RIGHT TO ALL TIMBER FROM TREES THEREON.

DISTURBED AREAS WITHIN THE RIGHT-OF-WAY, EXCEPT THE AREA WITHIN THE FINISHED SHOULDER POINTS, ARE TO BE FERTILIZED, SEEDED, AND MULCHED AS DIRECTED BY THE ENGINEER.

SEED QUANTITIES ARE BASED ON SEED MIXTURE NO. 2.

ALL UTILITIES SHALL BE MOVED BY THEIR OWNERS AS REQUIRED.

WHEN THE ITEMS OF BASE OR SURFACE ARE MEASURED FOR PAYMENT BY THE TON, THE DEPTH OR THICKNESS SHOWN IS APPROXIMATE AND THE ACTUAL THICKNESS WILL DEPEND ON THE DISTRIBUTION AS DIRECTED BY THE ENGINEER.

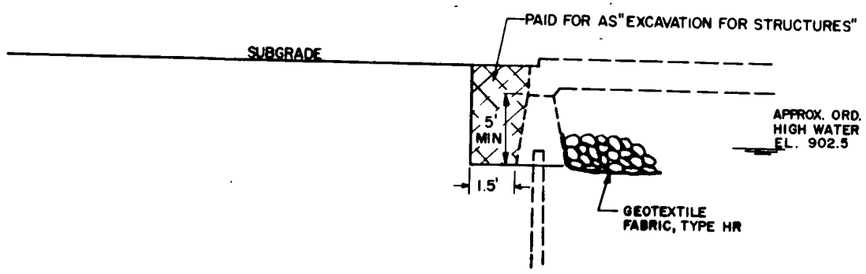
THE LOCATION OF EXISTING AND PROPOSED UTILITIES AS SHOWN ON PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.

SILT FENCE SHALL BE OF THE TYPE FOR SILTY SOILS.

* EROSION CONTROL DETAILS ARE SHOWN ON THE PLAN SHEETS.

CUT AND FILL SLOPE ROUNDING LIMITS SHALL BE A MAXIMUM OF 5' BEYOND THE SLOPE INTERCEPT, AS DIRECTED BY THE ENGINEER.

* FOR DNR REVIEW



EXCAVATION DETAIL FOR STRUCTURE

STANDARD DETAIL DRAWINGS

NAME PLATE STRUCTURES	12A3-4
CONSTRUCTION BARRICADES & STANDARD SIGNS	15C1-7
CLASS "A" STEEL PLATE BEAM GUARD	1482-8a,b
SILT FENCE	8E9-3
LONGITUDINAL JOINTS	13C1-7
PAVEMENT MARKING	15C8-3
TYPICAL INSTALLATIONS OF EROSION BALES	8E8-1
CONCRETE PAVEMENT APPROACH SLAB	13B2-3

UTILITIES

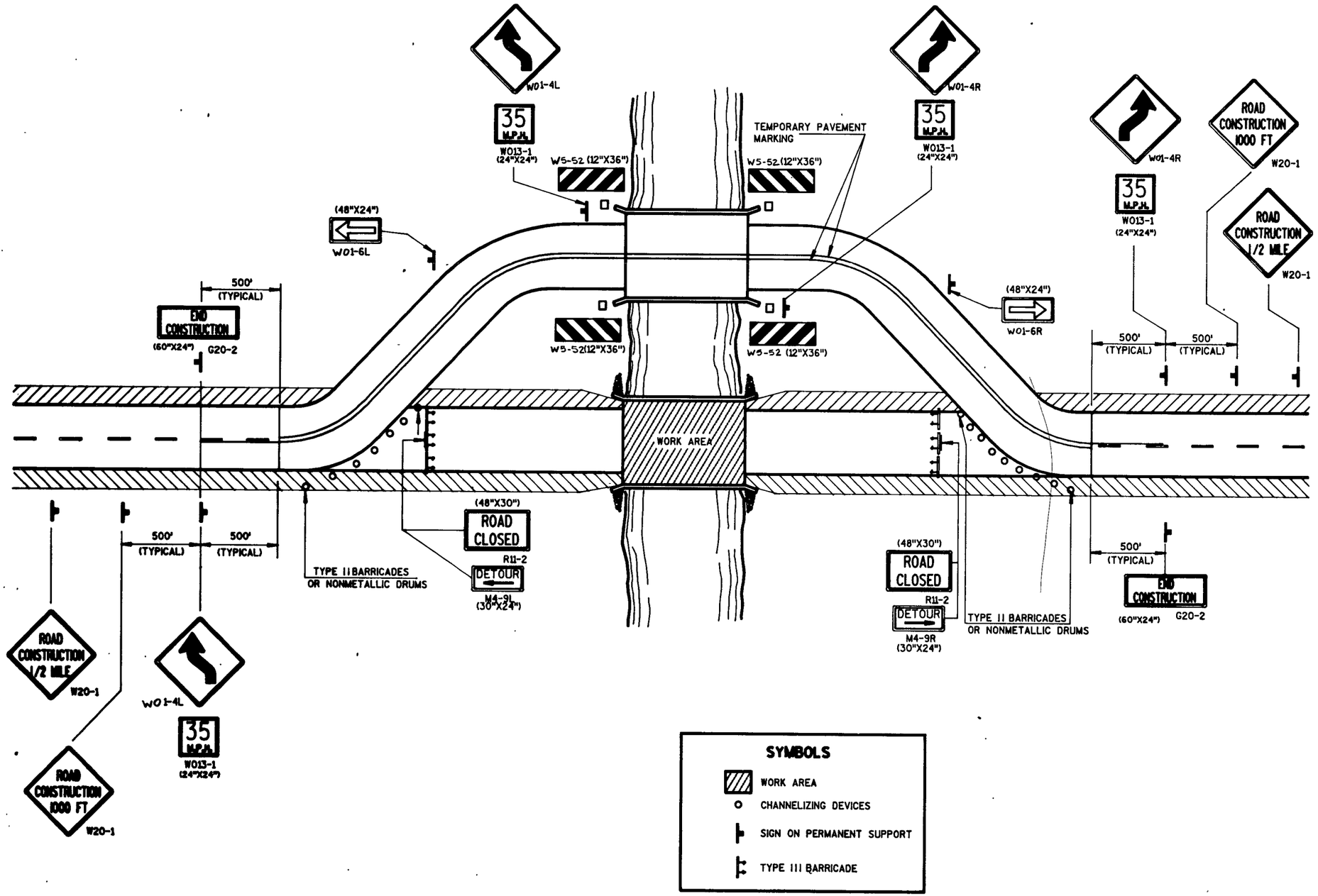
NORTHERN STATES POWER COMPANY
301 E. FRONT ST.
ASHLAND, WISC. 54806
ATTN: HAROLD J. PETERSON
715-839-2577

CHEQUAMEGON TELEPHONE COOPERATIVE, INC.
BOX 67
CABLE, WISC. 54821
ATTN: JOE LA BAREE
715-798-3303

BAYFIELD ELECTRIC COOPERATIVE, INC.
BOX 68
IRON RIVER, WISC. 54847
ATTN: CARL MELCHIORS
715-372-4287

STATE PROJECT NUMBER	SHEET NO.
1560-09-71	2.1

BIBON CREEK BRIDGE
TRAFFIC CONTROL
U.S.H. "63" BAYFIELD COUNTY



SYMBOLS

- WORK AREA
- CHANNELIZING DEVICES
- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE

GENERAL NOTES

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

DURING HOURS OF DARKNESS, ALL BARRICADES USED TO SHIELD A HAZARD SHALL BE EQUIPPED WITH TYPE "A" (LOW-INTENSITY FLASHING) LIGHTS AND DEVICES USED TO DELINEATE A TRAVEL PATH SHALL BE EQUIPPED WITH TYPE "C" (STEADY BURN) LIGHTS.

PAVEMENT MARKINGS NOT APPROPRIATE TO THE TRAVEL PATH SHALL BE REMOVED.

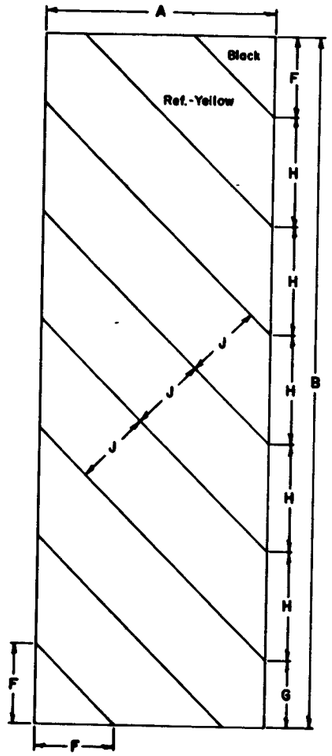
ALL SIGNS INAPPROPRIATE TO THE STATUS OF THE CONTROL ZONE INCLUDING PRE-EXISTING SIGNING IN THE VICINITY, SHALL BE COVERED OR REMOVED AS DIRECTED BY THE ENGINEER.

ALL SIGNS 48"X48" UNLESS OTHERWISE SHOWN.

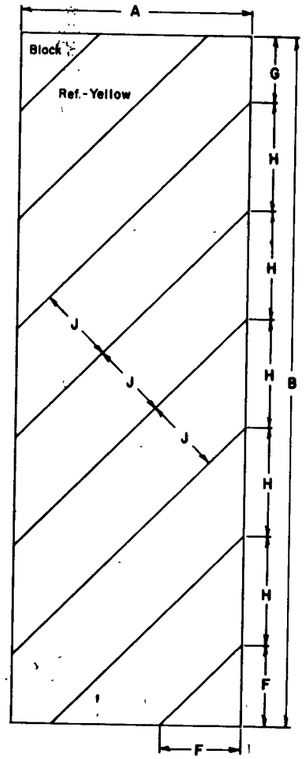
"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SHELF T-43

STATE PROJECT NUMBER	SHEET NO.
1560-9-71	2.2



W5-52L



W5-52R

NOTES

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

SIZE	CODE 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	Std Area Sq. Ft.
Minimum	1																											
Standard	2	12	36				$4\frac{3}{8}$	$3\frac{1}{2}$	$5\frac{5}{8}$	45°	4																	3.0
Oversize	3	18	54				$6\frac{3}{16}$	$5\frac{1}{4}$	$8\frac{7}{16}$	45°	6																	6.75
Exp-way	4																											
Interstate	5																											

		AA	BB	CC	DD	EE	FF	GG	HH	II	JJ	KK	LL	MM	NN	OO	PP	QQ	RR	SS	TT	UU	VV	WW	XX	YY	ZZ	
Minimum	1																											
Standard	2																											
Oversize	3																											
Exp-way	4																											
Interstate	5																											

Date Drawn -10-19-78 Date Redrawn -
Date Revised - 9-5-84

STANDARD SIGNS
W5-52L & W5-52R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
CHIEF TRAFFIC ENGINEER
DATE 9-24-84 PLATE NO. W5-52.6

DATE 09/27/89

ESTIMATE OF QUANTITIES

ESTQUAN

ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1560-09-71 QUANTITY
20101	CLEARING	STA.	7.00	7.00
20104	GRUBBING	STA.	7.00	7.00
20351	REMOVING OLD BRIDGE, STATION 645+92	L.S.	1.00	1.00
20411	REMOVING GUARDRAIL	L.F.	316.00	316.00
20503	UNCLASSIFIED EXCAVATION	C.Y.	2,210.00	2,210.00
20610	EXCAVATION FOR STRUCTURES, BRIDGES B-04-52	L.S.	1.00	1.00
20811	SELECTED BORROW EXCAVATION	C.Y.	1,700.00	1,700.00
21301	FINISHING ROADWAY	L.S.	1.00	1.00
30404	CRUSHED AGGREGATE BASE COURSE	TON	1,150.00	1,150.00
40204	ASPHALTIC MATERIAL FOR TACK COAT	GAL.	30.00	30.00
41101	ASPHALTIC SURFACE	TON	400.00	400.00
41535	CONCRETE PAVEMENT APPROACH SLAB	S.Y.	110.00	110.00
50201	CONCRETE MASONRY, BRIDGES	C.Y.	198.00	198.00
50230	PROTECTIVE SURFACE TREATMENT	GAL.	12.00	12.00
50504	HIGH-STRENGTH BAR STEEL REINFORCEMENT, BRIDGES	LB.	5,150.00	5,150.00
50511	COATED HIGH-STRENGTH BAR STEEL REINFORCEMENT, BRIDGES	LB.	23,130.00	23,130.00
50816	TREATED TIMBER PILING, DELIVERED	L.F.	1,015.00	1,015.00
50820	TREATED TIMBER PILING, DRIVEN	L.F.	1,015.00	1,015.00
50830	TREATED TIMBER TEST PILING, STRUCTURE B-04-52	L.S.	1.00	1.00
51370	STEEL RAILING, TYPE W, STRUCTURE B-04-52	L.S.	1.00	1.00
52601	TEMPORARY STRUCTURE, STATION 645+90 LEFT	L.S.	1.00	1.00
60602	HEAVY RIPRAP	C.Y.	60.00	60.00
61406	ANCHORAGES FOR STEEL PLATE BEAM GUARD	EACH	8.00	8.00
61408	STEEL PLATE BEAM GUARD, CLASS A	L.F.	316.00	316.00
61416	SALVAGED GUARD FENCE, STEEL BEAM TYPE	L.F.	316.00	316.00
61801	MAINTENANCE AND REPAIR OF HAUL ROADS	L.S.	1.00	1.00

Sheet 3

ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1560-09-71 QUANTITY
61910	MOBILIZATION	L.S.	1.00	1.00
62501	TOPSOIL	S.Y.	250.00	250.00
62505	SALVAGED TOPSOIL	S.Y.	2,600.00	2,600.00
62702	MULCHING	S.Y.	2,600.00	2,600.00
62811	EROSION BALES, DELIVERED	EACH	10.00	10.00
62812	EROSION BALES, INSTALLED	EACH	10.00	10.00
62815	SILT FENCE, DELIVERED	L.F.	800.00	800.00
62816	SILT FENCE, INSTALLED	L.F.	800.00	800.00
62817	SILT FENCE MAINTENANCE	L.F.	800.00	800.00
62819	MOBILIZATIONS, EROSION CONTROL	EACH	2.00	2.00
62905	FERTILIZER, TYPE B	CWT.	2.00	2.00
63002	SEEDING	LB.	60.00	60.00
64201	FIELD OFFICE, TYPE A	L.S.	1.00	1.00
64210	FIELD LABORATORY	L.S.	1.00	1.00
64301	TRAFFIC CONTROL	L.S.	1.00	1.00
64406	PAVEMENT MARKING, EPOXY, 4-INCH	L.F.	2,070.00	2,070.00
64481	TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE	L.F.	520.00	520.00
64484	TEMPORARY PAVEMENT MARKING	L.F.	1,180.00	1,180.00
64487	REMOVING PAVEMENT MARKINGS	L.F.	465.00	465.00
64502	GEOTEXTILE FABRIC, TYPE MS	S.Y.	250.00	250.00
64506	GEOTEXTILE FABRIC, TYPE HR	S.Y.	140.00	140.00
64601	SAWING EXISTING PAVEMENT	L.F.	48.00	48.00
90001	GEOGRID	S.Y.	2,150.00	2,150.00

Sheet 3.1

STATE PROJECT NUMBER	SHEET NO.
1560-09-71	3A

DETAIL SUMMARY OF MISCELLANEOUS QUANTITIES

CLEARING AND GRUBBING

STATION TO STATION	
643+00 - 650+00	7

CONCRETE PAVEMENT APPROACH SLAB

STATION TO STATION	S.Y.
645+46.00 - 645+68.50	55
646+15.50 - 646+36.00	55

SAWING EXISTING PAVEMENT

STATION	L.F.
644+82.08	24
647+01.92	24

CRUSHED AGGREGATE BASE COURSE

STATION TO STATION	TON
644+82.08 - 645+60.50	225
646+15.50 - 647+01.92	225
642+90 - 648+90 (BYPASS)	700

ASPHALTIC SURFACE

STATION TO STATION	TON
644+82.08 - 645+68.50	70
646+15.50 - 647+01.92	70
642+90 - 648+90 (BYPASS)	260

TEMPORARY BRIDGE STRUCTURE, STA. 645+90

STA. 645+90 LEFT	1 L.S.

GEOGRID

STATION TO STATION	S.Y.
642+50 - 645+52	857
646+28 - 649+00	1293

ANCHORAGES FOR STEEL PLATE BEAM GUARD

STATION	EACH
644+89 LT.	1
644+89 RT.	1
646+96 LT.	1
646+96 RT.	1
4+76 LT. (BYPASS)	1
4+76 RT. (BYPASS)	1
7+10 LT. (BYPASS)	1
7+10 RT. (BYPASS)	1

STEEL PLATE BEAM GUARD, CLASS A

STATION TO STATION	L.F.
644+89 - 645+68 LT.	79
644+89 - 645+68 RT.	79
646+16 - 646+95 LT.	79
646+16 - 646+95 RT.	79

SALVAGED GUARD FENCE, STEEL BEAM TYPE AND REMOVING GUARDRAIL

STATION TO STATION	L.F.
4+76 - 5+55 LT.	79
4+76 - 5+55 RT.	79
6+31 - 7+10 LT.	79
6+31 - 7+10 RT.	79

EROSION BALES

STATION	EACH
645+40 LT.	5
646+50 LT.	5

SILT FENCE & SILT FENCE MAINTENANCE

STATION TO STATION	L.F.
3+20 - 5+60 LT.	230
5+00 - 5+60 RT.	60
644+80 - 645+60 RT.	80
6+30 - 9+00 LT.	270
6+30 - 7+00 RT.	70
646+20 - 647+10 RT.	90

GEOTEXTILE FABRIC, TYPE MS, TYPE HR

STATION TO STATION	S.Y.	S.Y.
644+82.08 - 645+66	60	
646+18 - 647+01.92	190	
645+70 - 645+76		70
646+08 - 646+14		70

EARTHWORK SUMMARY

STATION TO STATION	LOCATION	FILL C.Y.(1)	UNC. EXC. C.Y.	WASTE C.Y.	SELECT BORROW EXC. C.Y. (1)
641+50 - 645+66	MAINLINE	20	211	191	
646+18 - 649+50	MAINLINE	80	189	109	
641+50 - 645+52	BYPASS		796 (2)	796	720
646+28 - 649+50	BYPASS		1014 (2)	1014	980

(1) 25% SHRINKAGE FACTOR APPLIED

(2) INCLUDES REMOVAL OF TEMP. BYPASS AS UNC. EXC. QUANTITY INCLUDES 450 C.Y. UNCL. EXC. TO REMOVE THE BASE COURSE AND SURFACE OF TEMP. BYPASS

TOPSOIL, SALVAGED TOPSOIL, MULCH, FERTILIZER & SEED

STATION TO STATION	TOPSOIL S.Y.	SALV. TOPSOIL S.Y.	MULCH S.Y.	FERT. TYPE B CWT.	SEED MIX #2 LB.
4+55 - 5+55	120	-	-	-	-
6+30 - 7+30	130	-	-	-	-
642+00 - 645+68.50		1300	1300	1	30
646+15.50 - 650+00		1300	1300	1	30

REMOVING PAVEMENT MARKINGS

STATION TO STATION	LOCATION	L.F.
641+60 - 643+60	LT. EDGELINE	200
648+20 - 650+20	LT. EDGELINE	200
641+60 - 643+00	C/L DASH	35
648+80 - 650+00	C/L DASH	30

TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE

641+60 - 642+90	TEMP. C/L	260
648+80 - 650+10	TEMP. C/L	260

PAVEMENT MARKING, EPOXY

STATION TO STATION	LOCATION	L.F.
641+30 - 650+50	WHITE EDGELINE	1840
641+30 - 650+50	YELLOW C/L DASH	230

TEMPORARY PAVEMENT MARKINGS

STATION TO STATION	LOCATION	L.F.
642+90 - 648+80	DOUBLE YELLOW C/L	1,180

CURVE NOTES (1)	CURVE NOTES (2)
P.I. = STA. 2+27.00	P.I. = STA. 5+00.43
Δ = 9°40'07"	Δ = 9°40'07"
D = 5°00'00"	D = 12°00'00"
T = 96.92'	T = 40.38'
L = 193.37'	L = 80.57'
R = 1145.92'	R = 477.47'
S.E. = 0.02½ MAX.	S.E. = 0.02½ MAX.

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
1		SOUTH END OF EAST CURB BIBON CREEK BRIDGE	910.30
2		6" BIRCH 70' NORTH OF BRIDGE 30' WEST OF ℄	906.77

STATE PROJECT NUMBER 1560-09-71 — SHEET NO. 5

BIBON CREEK BRIDGE AND APPROACHES
PLAN AND PROFILE
U.S.H. '63' BAYFIELD COUNTY

N

HEAVY BRUSH & SCATTERED TREES

BIBON CREEK

CHANNEL

BRUSH

ASPEN WOODS

P.C. 1+30.08 = 641+30.08 M.L.

P.T. 3+23.46

EXIST. SLOPE INTERCEPT, (TYP.)

SLOPE INTERCEPT & SILT FENCE LOC. (TYP.)

TEMP. STRUCTURE

SALVAGED BEAM GUARD

P.C. 8+67.02

P.T. 10+60.39 = 650+53.92 M.L.

100'

639 640 ℄ U.S.H. 63 641 642 643 644 645 646 647 648 649 650 651 652 N.01°25'E. 653

TOWN RD.

STEEL PLATE BEAM GUARD REQ'D.

CONCRETE PAVEMENT APPROACH SLAB

P.C. 4+60.05

P.T. 5+40.62

P.C. 6+49.86

P.T. 7+30.43

EXISTING R/W GREATER THAN 100' (VAR.)

MARSH GRASS & BRUSH

BRUSH

ASPEN WOODS

CHANNEL

CHANNEL

OLD USH 63 (APPR. 20' WIDE)

EXISTING R/W GREATER THAN 100' (VAR.)

CURVE NOTES (3)	CURVE NOTES (4)
P.I. = STA. 6+90.24	P.I. = STA. 9+63.94
Δ = 9°40'07"	Δ = 9°40'07"
D = 12°00'00"	D = 5°00'00"
T = 40.38'	T = 96.92'
L = 80.57'	L = 193.37'
R = 477.47'	R = 1145.92'
S.E. = 0.02½ MAX.	S.E. = 0.02½ MAX.

℄ OFFSETS TEMP. BYPASS

BYPASS STA.	USH 63 STA.	DIST. LT.
1+30.08	641+30.08	0.00'
2+27.12	642+27.00	4.11'
3+23.46	643+22.54	16.28'
4+60.05	644+57.19	39.22'
5+00.43	644+97.00	44.29'
5+40.62	645+37.38	46.00'

℄ OFFSETS TEMP. BYPASS

BYPASS STA.	USH 63 STA.	DIST. LT.
6+49.86	646+46.62	46.00'
6+90.24	646+87.00	44.29'
7+30.43	647+26.81	39.22'
8+67.02	648+61.46	16.28'
9+63.36	649+57.00	4.11'
10+60.39	650+53.92	0.00'

BEGIN PROJECT 1560-09-71
STA. 644+82.08

END PROJECT 1560-09-71
STA. 647+01.92

℄ FINISHED GRADE

℄ SOUTH ABUT. STA. 645+68.5

℄ NORTH ABUT. STA. 646+15.5

+0.3±

℄ PROFILE EXISTING U.S.H. 63

℄ EXISTING PROFILE

HW/100-EL. 907.6

ORDINARY HIGH WATER- EL. 902.6

℄ PROFILE TEMP. BYPASS (FINISHED GRADE)

TEMP. BYPASS
STA. 645+90, 46' LEFT
TEMP. STRUCTURE REQ'D.
SPAN = 75' MIN.
WIDTH = 24' CLEAR ROADWAY

STA. 645+68.5
STRUCTURE B-04-052 REQ'D.
1 SPAN, FLAT CONC. SLAB
36' CLEAR ROADWAY
SEE DRAWINGS X02443, SHEETS 1-6

STA. 645+92.00
2-24'-6 1/2" SPANS, 26' ROWY. (EXISTING) NO. B-09-084
COMBINATION TRESTLE BRIDGE
CONSTRUCTION DATE 1918
STRUCTURE TO BE REMOVED

915 910 905 900

08.8 08.8 08.9 09.1 09.0 09.0 09.0 09.31 09.46 09.76 09.90 10.2 10.6 11.0 11.3 11.5 11.7

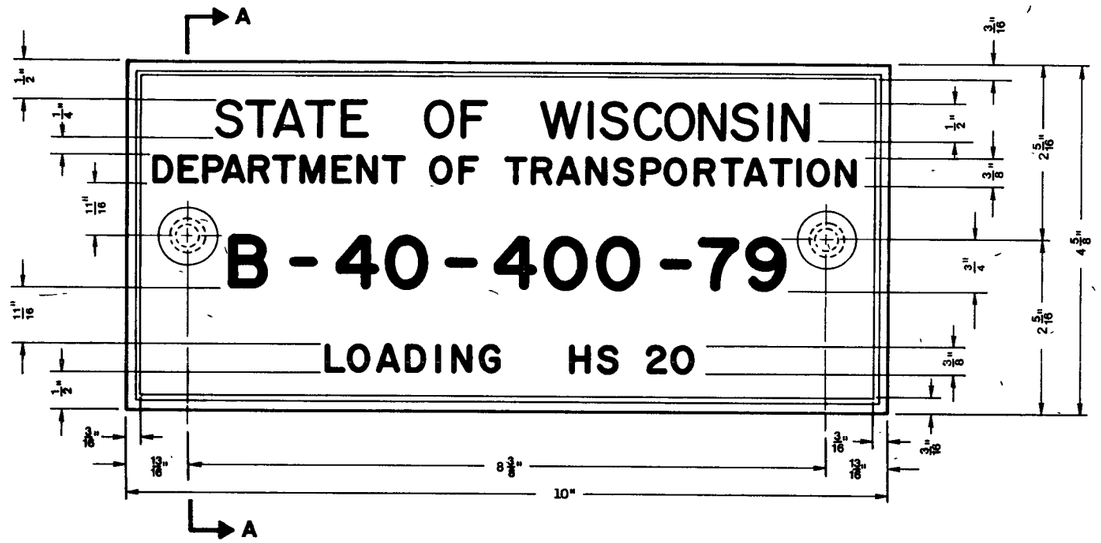
639 640 641 642 643 644 645 646 647 648 649 650 651 652 653

PLAN PROFILE

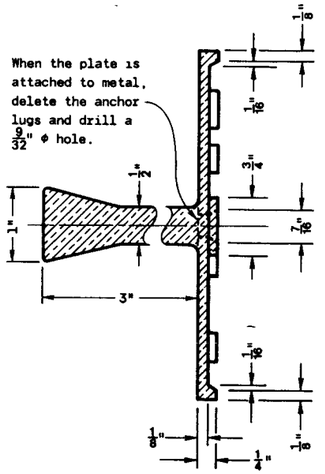
LEVELS ON • 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63

FILE NAME: HDGN:210 15600950.DGN

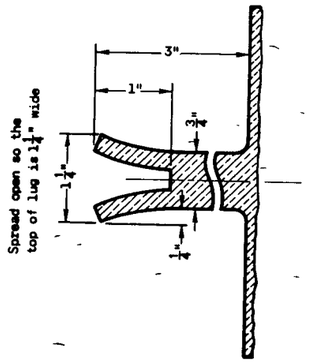
WISDOT/CADDS SHEET 49



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



SECTION A-A



ALTERNATE LUG

FOR MULTI-UNIT STRUCTURES LINES 4 AND 5 ABOVE SHALL READ:

B = Bridge
C = Culvert
RW = Retaining Wall

County No. — Bridge No. — Year of Substantial Completion

B-40-400-79

UNIT 1A HS 20M

Unit No. for Multiple Unit — Design Loading of Structure Indicated on the Plan

NUMBERING AND LOADING DESIGNATION
MULTI-UNIT STRUCTURES

GENERAL NOTES

Name Plates to be installed on Bridges, Culverts, and Retaining Walls shall conform to the requirements of Section 506.2.4 of the Standard Specifications.

The Bridge Number and Design Loading shown on this drawing are examples only. See Construction Plans for individual numbering and design loading.

NAME PLATE (STRUCTURES)

State of Wisconsin
Department of Transportation
Division of Transportation Facilities

APPROVED 9-27-79 DATE
CHIEF DESIGN ENGINEER
FHWA

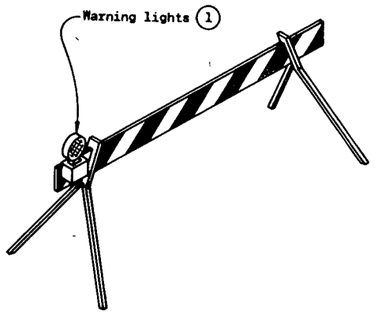
S.D.D. 12 A 3-4

S.D.D. 12 A 3-4

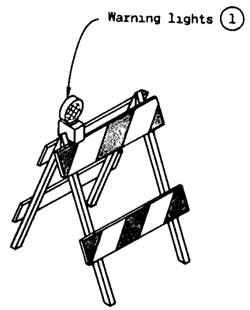
TABLE OF BARRICADE CHARACTERISTICS

BARRICADE TYPE	I	II	III
Height	3' Minimum		5' Minimum
*Rail Width	8" Minimum to 12" Maximum		
Rail Length	2' Minimum		4' Minimum
**Stripe Width	6" at 45° Angle		
Stripe Colors	Reflectorized Orange & White		

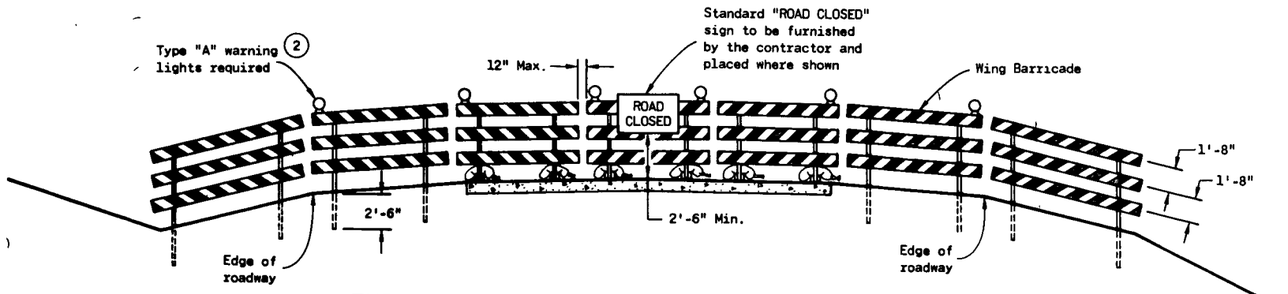
*Nominal dimensions when barricade is constructed of lumber.
**Shall be 4" for rail lengths less than 3'.



TYPICAL TYPE I BARRICADE



TYPICAL TYPE II BARRICADE



TYPICAL INSTALLATION SHOWING TYPE III BARRICADE

CONSTRUCTION BARRICADES

R11-2
48" x 30"
Black Lettering on Reflective White Background
Letter Series "D"
Letter height 8"

W20-3
48" x 48"
Black Lettering on Reflective Orange Background
Letter Series "D"
Letter height 7"

STANDARD SIGNS - TYPE II

GENERAL NOTES

The contractor shall furnish, erect and maintain barricades and signs. Details regarding location, spacing, dimensions, fabrication, material, sign lettering, lighting devices and color of barricades and signs shall conform to this drawing, the Manual On Uniform Traffic Control Devices, the Standard Specifications, Special Provisions and/or plans.

Type III Barricades and Signs shall be erected at the termini of projects and at other road or street locations where it is necessary to control or eliminate public access to the construction area.

Type I and II Barricades shall be used on projects when traffic is to be maintained through the construction area.

The actual field location of barricade installations and advance signs shall be as directed by the Engineer.

Each barricade shall have the name and telephone number of a person responsible for 24 hour emergency service printed in letters at least $\frac{3}{4}$ inch in height on the barricade rails. Prior to May 1, 1983, such information may be shown on either front or back faces of the barricade rails. After May 1, 1983, all printed information or identification markings shall be shown only on the back side of barricade rails.

Type I Barricades may include other unstriped horizontal panels necessary to provide stability.

On high speed expressways or in other situations where barricades may be susceptible to overturning in the wind, sandbags should be used for ballasting. Sandbags may be placed on lower parts of the frame or stays to provide the required ballast but shall not be placed on top of any striped rail.

(1) Unless otherwise provided elsewhere in the contract, warning lights are required on all barricades which will be located near traffic operations during periods of inclement weather or hours of darkness. Barricades used to shield isolated hazards shall be equipped with Type "A" (low intensity - flashing) lights unless Type "B" (high intensity)- flashing) lights are specified elsewhere in the contract documents. Barricades used for channelization or delineation of the travel path shall be equipped with Type "C" (steady burn) lights except for the initial barricade(s) in sequence, which shall be equipped with Type "A" or "B" lights as previously noted.

(2) Two warning lights shall be provided on the center barricade and at least 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.

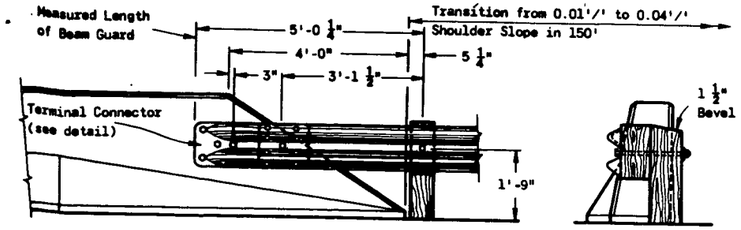
CONSTRUCTION BARRICADES & STANDARD SIGNS

State of Wisconsin
Department of Transportation

APPROVED 9-14-81 DATE
CHIEF DESIGN ENGINEER
FHWA

S.D.D. 15 C 1-7

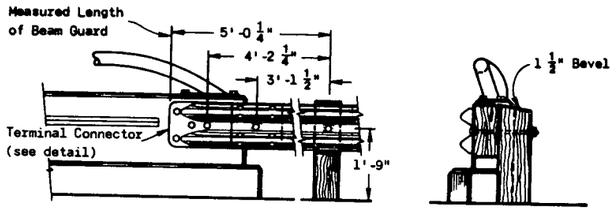
S.D.D. 15 C 1-7



FRONT VIEW

END VIEW

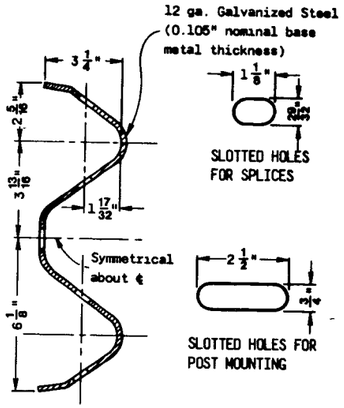
SLOPED FACE PARAPET



FRONT VIEW

END VIEW

VERTICAL FACE PARAPET



SECTION THRU RAIL ELEMENT

GENERAL NOTES

Details of construction, materials and workmanship not shown on this drawing shall conform to the pertinent requirements of the Standard Specifications, the applicable Special Provisions

The type of anchorage and the exact location of the beginning and end of each beam guard installation shall be as shown on the plans or as directed by the Engineer.

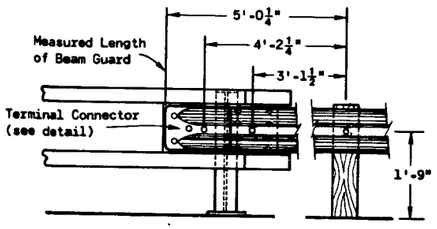
Shoulder widening to accommodate the anchored end of the beam guard shall be accomplished at a rate of widening not to exceed 5 to 1.

Standard Anchorages - Upon approval of the Engineer, the 6 foot offset may be reduced to nothing where existing conditions will not permit the desirable offset. However, when no offset greater than or equal to 3 feet can be provided, the minimum length of guardrail in advance of an obstacle (obstacle to anchor) shall be 150 feet.

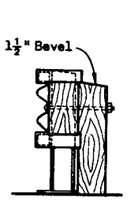
The "Post Footing Details at Piers" shall be used when beam guard posts are over structure footings and less than 3 feet-6 inches of earth is provided over the top of the footing.

(1) The minimum clearance from the front face of beam guard to obstacle shall be 4 feet unless otherwise shown on contract plans. When clearance is less than 4 feet, post spacing shall be reduced to 3 feet-1½ inches C-C.

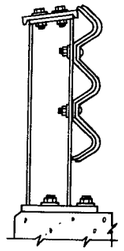
(2) This section shall include at least one 12'-6" Rail Element and a Terminal Connector or W-Thrie Beam Transition Section as required for structure mounting.



FRONT VIEW

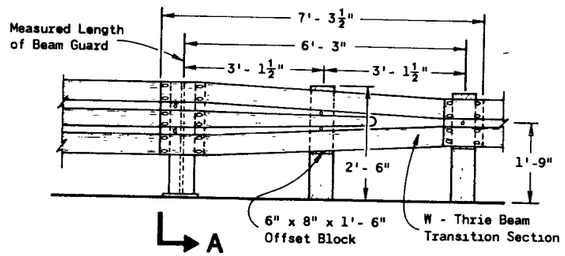


END VIEW



SECTION A-A

RAILING TYPE "F"



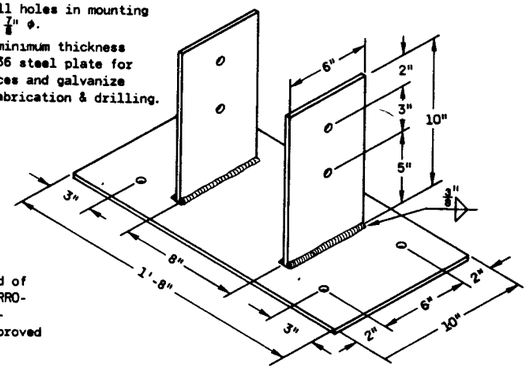
FRONT VIEW

RAILING TYPE "W"

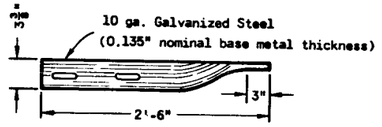
NOTE:

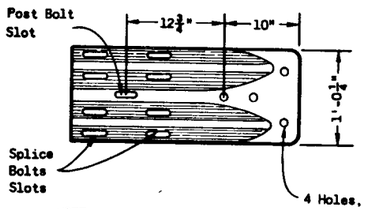
Drill all holes in mounting bracket 7/8" ϕ.

Use 3/8" minimum thickness ASTM A 36 steel plate for all pieces and galvanize after fabrication & drilling.



POST MOUNTING BRACKET



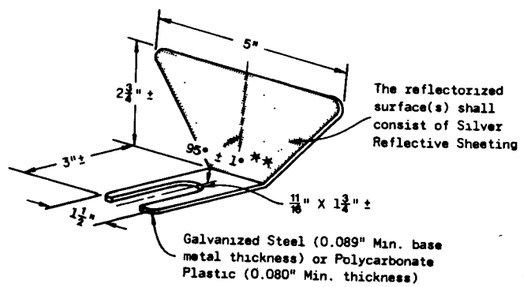


NOTE:

1" I.D., 2" O.D. (0.134" Nominal thickness) galvanized metal washer required under the head of splice bolts used in the Terminal Connector only.

TERMINAL CONNECTOR

STRUCTURE MOUNTING DETAILS



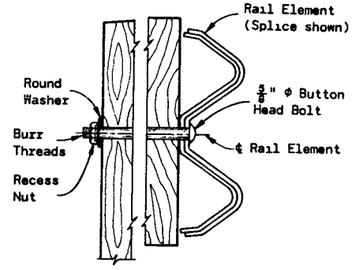
REFLECTOR SPACING

	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 *	6
	> 200' *	50' C-C	1 *	
Two Way Traffic	< 200'	50' C-C	2 **	3
	> 200'	100' C-C	2 **	

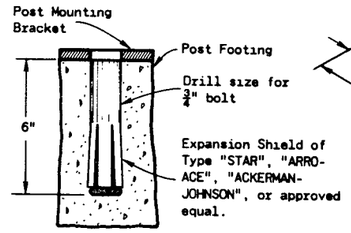
* Every other reflector reversed for 2-way visibility. Contractor may furnish two-sided reflectors in lieu of one-sided reflectors.

** Angle of bend to be 90° ± 1° for two-sided reflectors.

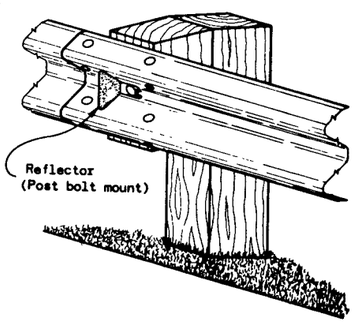
REFLECTOR DETAIL



BUTTON HEAD BOLT DETAIL

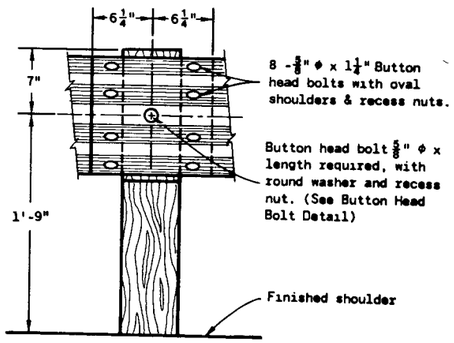


EXPANSION SHIELD DETAIL



TYPICAL INSTALLATION

POST FOOTING DETAIL AT PIERS



RAIL ELEMENT SPLICING AND POST MOUNTING DETAIL

NOTE:

THIS STANDARD DETAIL DRAWING CONSISTS OF TWO SHEETS AND BOTH SHEETS ARE REQUIRED WHEN THIS DRAWING IS CALLED FOR IN CONTRACT PLANS.

CAUTION: WHEN SPECIAL ANCHORAGES ARE SPECIFIED, SHEET 8c IS ALSO REQUIRED

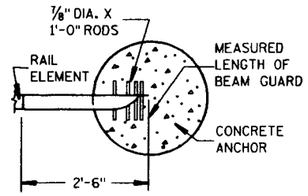
CLASS "A"
STEEL PLATE BEAM GUARD

State of Wisconsin
Department of Transportation

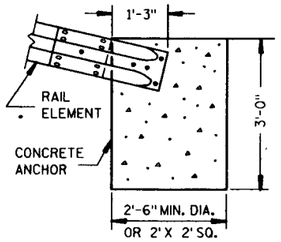
APPROVED 1-31-85 DATE
CHIEF DESIGN ENGINEER
FHWA

S.D.D. 14 B 2-8a

S.D.D. 14 B 2-8a



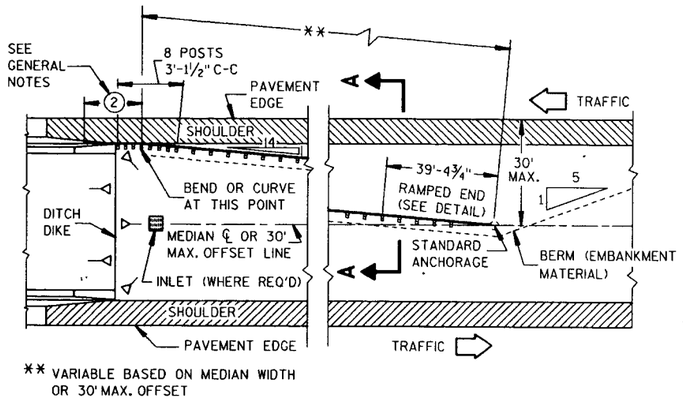
PLAN VIEW IN SECTION



FRONT VIEW IN SECTION

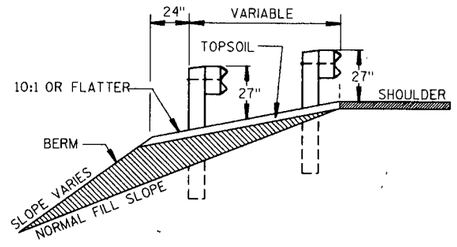
STANDARD ANCHORAGE DETAIL

(STANDARD SPECIFICATION ITEM "ANCHORAGE FOR STEEL PLATE BEAM GUARD")



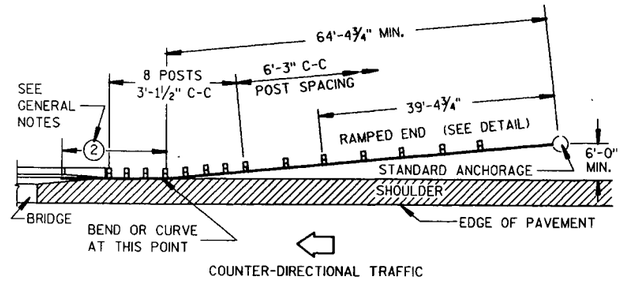
** VARIABLE BASED ON MEDIAN WIDTH OR 30' MAX. OFFSET

PLAN VIEW



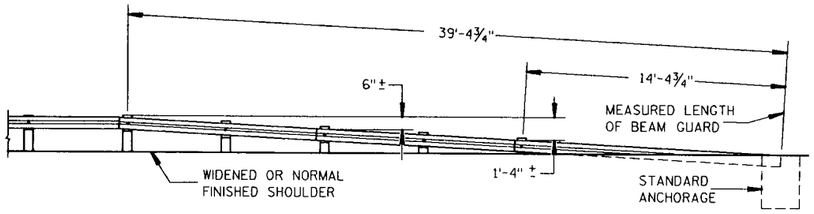
SECTION A-A

TYPICAL MEDIAN INSTALLATION AT STRUCTURES



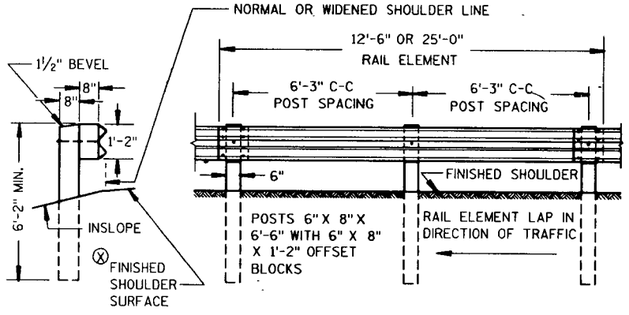
PLAN VIEW

TYPICAL INSTALLATION AT FULL WIDTH STRUCTURES



FRONT VIEW

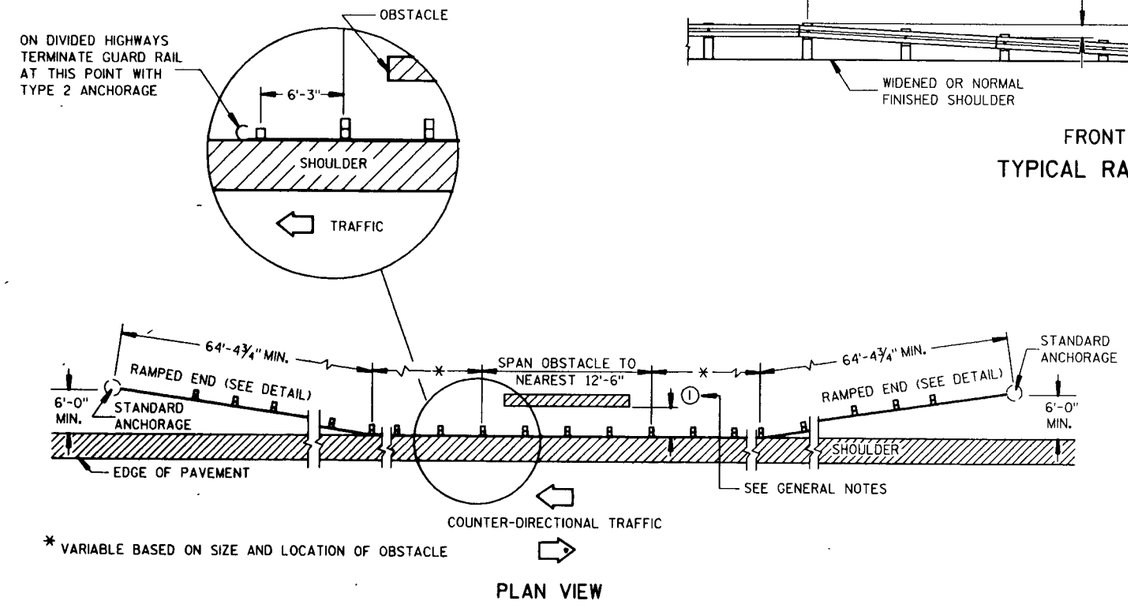
TYPICAL RAMPED END



END VIEW FRONT VIEW

TYPICAL STEEL PLATE BEAM GUARD INSTALLATION

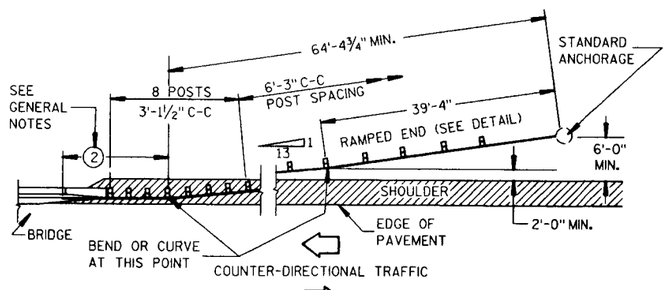
Ⓧ SHOULDER OR EMBANKMENT SLOPE IN FRONT OF BEAM GUARD SHALL BE 10:1 OR FLATTER



* VARIABLE BASED ON SIZE AND LOCATION OF OBSTACLE

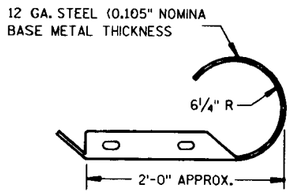
PLAN VIEW

TYPICAL INSTALLATION AT OBSTACLES



PLAN VIEW

TYPICAL INSTALLATION AT NARROW STRUCTURES



PLAN VIEW

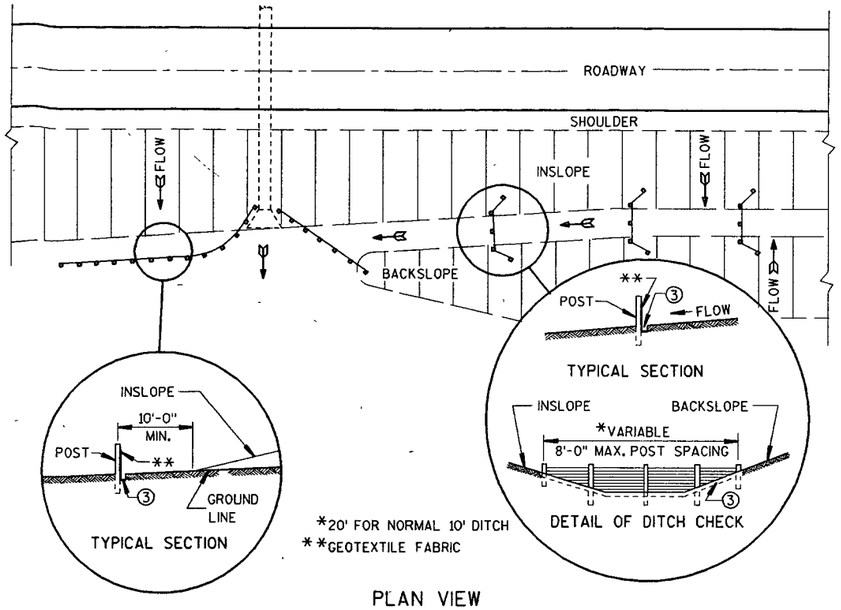
END SECTION (ROUNDED)

CLASS "A"
STEEL PLATE BEAM GUARD

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

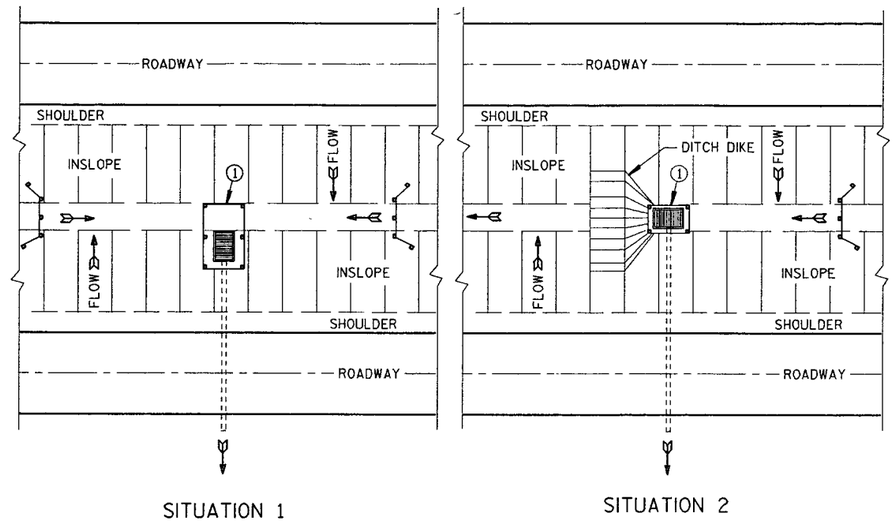
S.D.D. 14B 2-8b

S.D.D. 14B 2-8b



PLAN VIEW

TYPICAL APPLICATIONS OF SILT FENCE



PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

GENERAL NOTES

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

WHEN POSSIBLE THE SILT FENCE SHOULD BE CONSTRUCTED IN AN ARC OR HORSESHOE SHAPE, WITH THE ENDS POINTING UPSLOPE TO MAXIMIZE BOTH STRENGTH AND EFFECTIVENESS.

① CROSS BRACE WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS AS DIRECTED BY THE ENGINEER.

② MINIMUM 14 GAGE WIRE REQUIRED, FOLD FABRIC 3" OVER THE WIRE AND STAPLE OR PLACE WIRE RINGS ON 12" C-C.

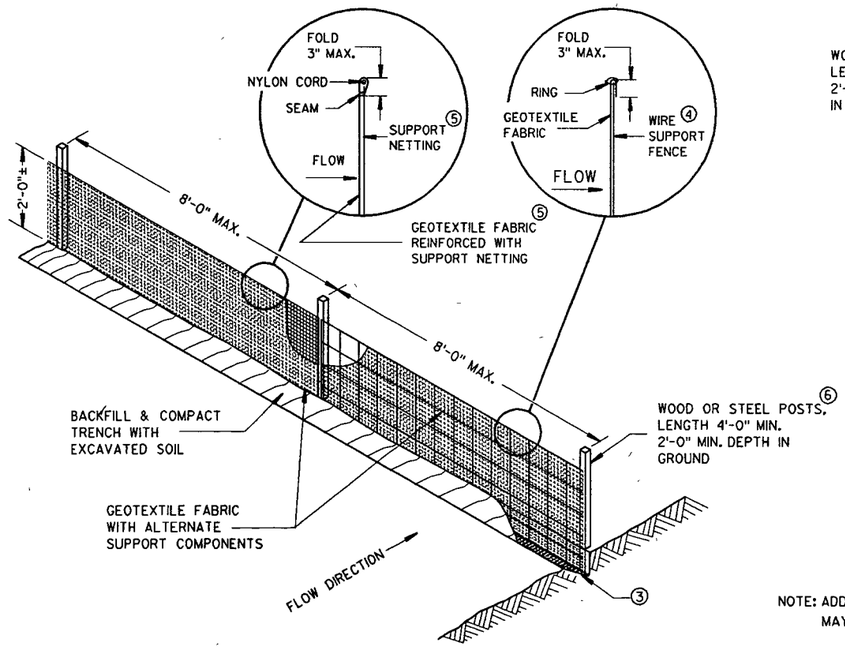
③ EXCAVATE A TRENCH A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.

④ WIRE SUPPORT FENCE SHALL BE 14 GAGE MINIMUM WOVEN WIRE WITH A MAXIMUM MESH SPACING OF 6". SECURE TOP OF GEOTEXTILE FABRIC TO TOP OF FENCE WITH STAPLES OR WIRE RINGS AT 12" C-C.

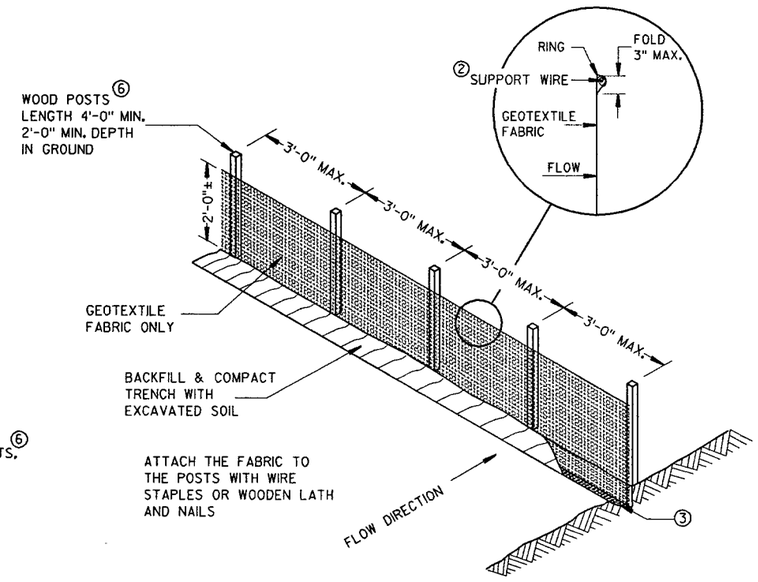
⑤ GEOTEXTILE FABRIC SHALL BE REINFORCED WITH AN INDUSTRIAL POLYPROPYLENE NETTING WITH A MAXIMUM MESH SPACING OF ¾" OR EQUAL. A HEAVY DUTY NYLON TOP SUPPORT CORD OR EQUIVALENT IS REQUIRED.

⑥ STEEL POSTS SHALL BE STUDDED "TEE" OR "U" TYPE WITH A MINIMUM WEIGHT OF 1.28 LBS/LINEAL FOOT (WITHOUT ANCHOR). FIN ANCHORS SUFFICIENT TO RESIST POST MOVEMENT ARE REQUIRED. WOOD POSTS SHALL BE A MINIMUM SIZE OF 4" DIA. OR 1½" X 3½" EXCEPT WOOD POSTS FOR GEOTEXTILE FABRIC REINFORCED WITH NETTING SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OAK OR HICKORY.

ALTERNATES A & B ARE EQUAL AND EITHER MAY BE USED.

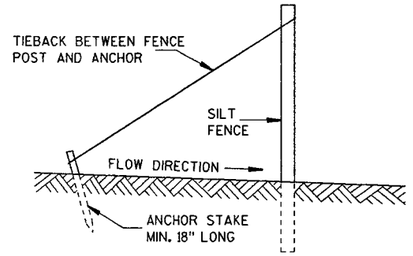


ALTERNATE "A"



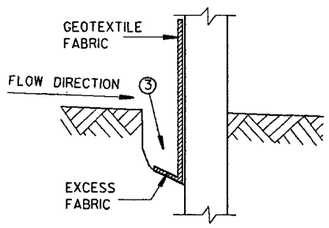
ALTERNATE "B"

NOTE: ADDITIONAL POST DEPTH OR TIE BACKS MAY BE REQUIRED IN UNSTABLE SOILS



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)



TRENCH DETAIL

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

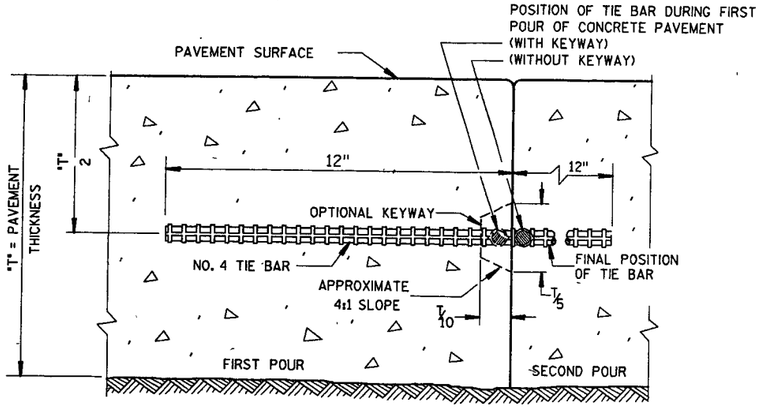
APPROVED 8-31-88 DATE

STATE DESIGN ENGINEER FOR HWYS

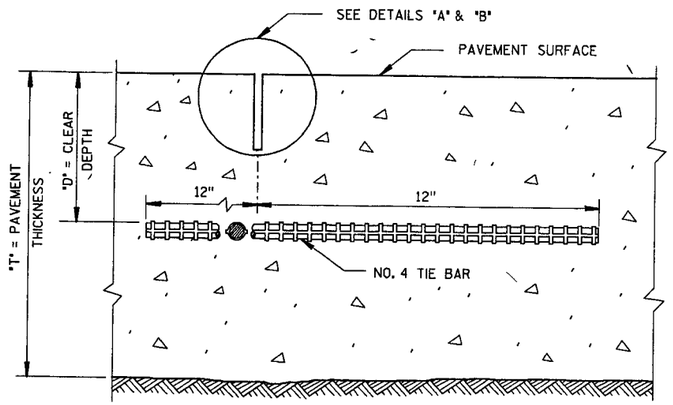
FHWA

S.D.D. 8 E 9-3

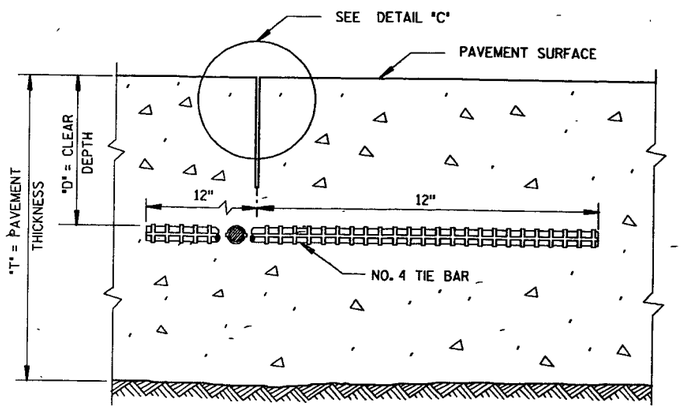
S.D.D. 8 E 9-3



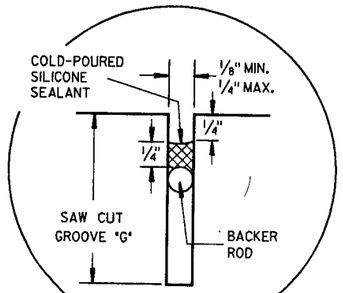
CONSTRUCTION JOINT



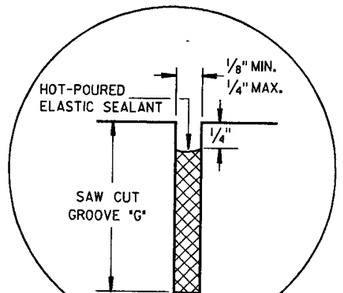
SAWED JOINT



RIBBON JOINT



DETAIL "A"



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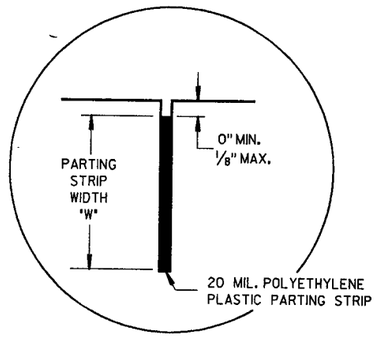


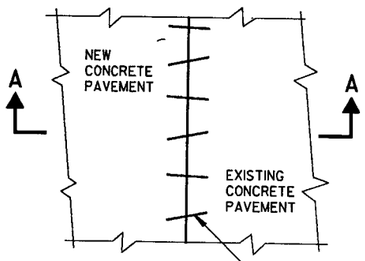
DETAIL "C"

GENERAL NOTES

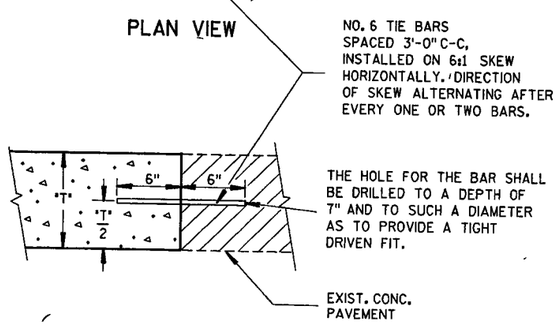
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

DETAILS "A", "B" AND "C" ARE EQUAL ALTERNATES UNLESS OTHERWISE SPECIFIED ELSEWHERE IN THE CONTRACT.

TIE BARS AND PAVEMENT TIES SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.4 OF THE STANDARD SPECIFICATIONS.

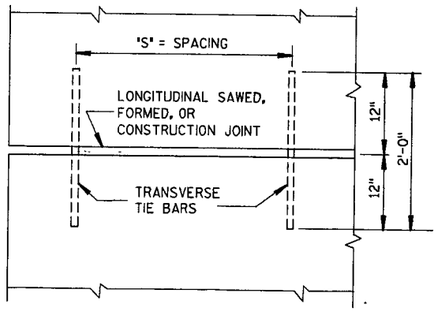


PLAN VIEW



SECTION A-A
PAVEMENT TIES

PAVEMENT THICKNESS "T"	CLEAR DEPTH "D"	SAW CUT GROOVE "G"	MAXIMUM TIE BAR SPACING "S"	PARTING STRIP WIDTH "W"
6"	3"±1/2"	1 1/2"	30"	2"
7"	3 1/4"±1"	1 3/4"	30"	2 1/4"
8"	3 3/4"±1"	2"	30"	2 1/2"
9"	4 1/4"±1"	2 1/4"	30"	3"
10"	4 3/4"±1"	2 1/2"	30"	3 1/4"
11"	5 1/4"±1"	2 3/4"	24"	3 3/4"
12"	5 3/4"±1"	3"	24"	4"



PLAN VIEW
SHOWING LOCATION OF TIE BARS

CONCRETE PAVEMENT
LONGITUDINAL JOINTS
AND PAVEMENT TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

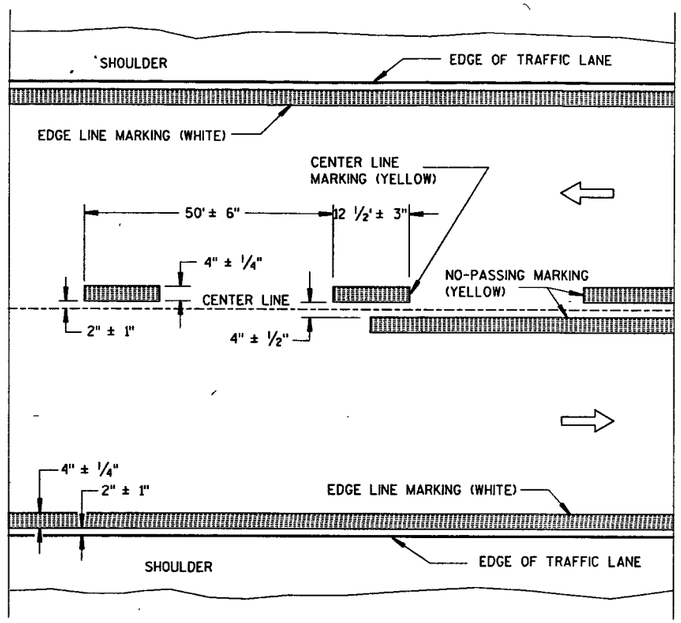
APPROVED
3-7-86
DATE

STATE DESIGN ENGINEER FOR HWYS

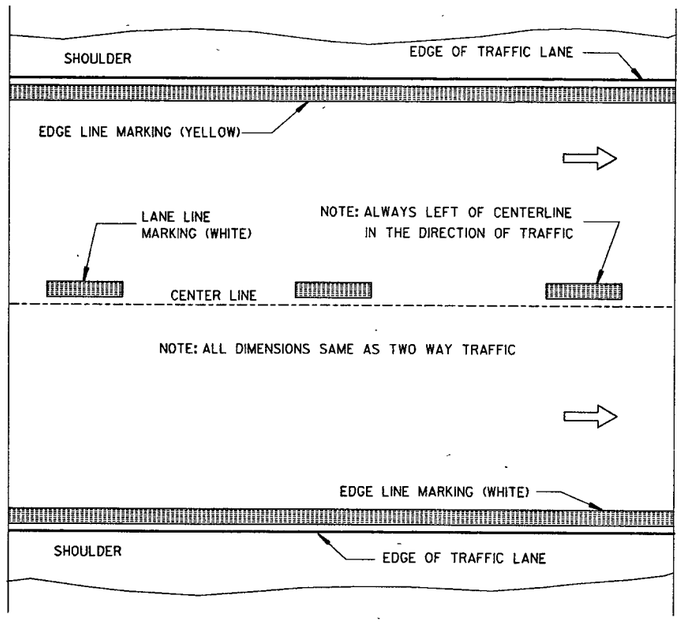
FHWA

S.D.D. 13 C 1-7

S.D.D. 13 C 1-7

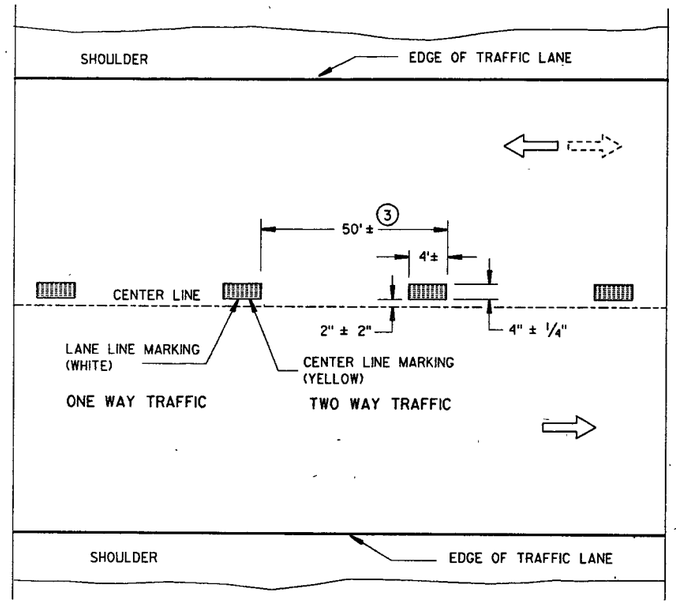


TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TEMPORARY PAVEMENT MARKING

GENERAL NOTES

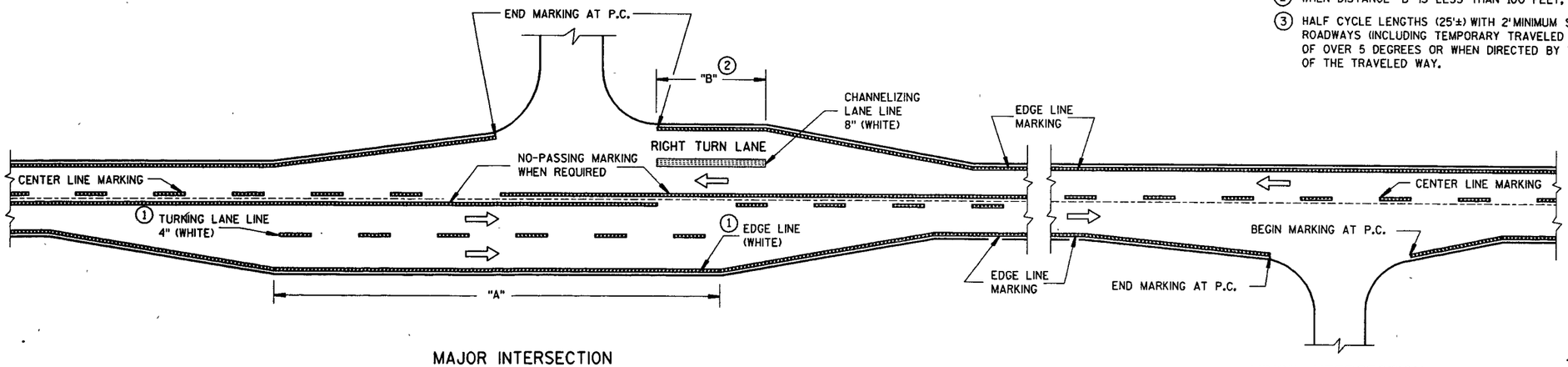
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

EDGE LINES SHALL BE OMITTED THROUGH INTERSECTIONS. EDGE LINES SHALL BE CONTINUED THROUGH DRIVEWAYS.

(1) WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT TURNING LANE MARKING.

(2) WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.

(3) 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.



MAJOR INTERSECTION

MINOR INTERSECTION

TYPICAL PAVEMENT MARKING FOR RURAL INTERSECTIONS

PAVEMENT MARKING

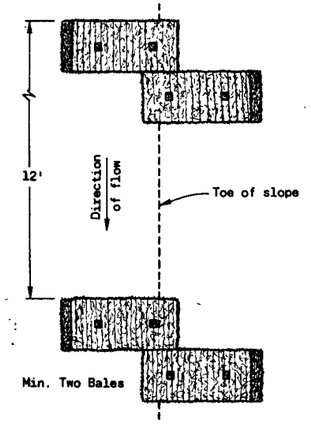
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED 3-10-89 DATE — STATE TRAFFIC ENGINEER FOR HWYS

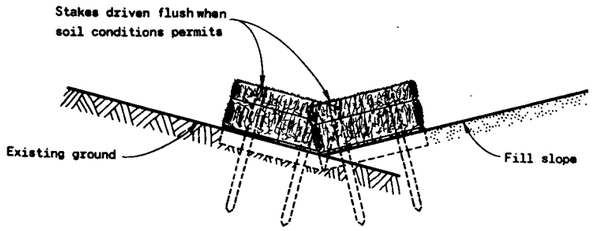
FHWA

S.D.D. 15 C 8-3

S.D.D. 15 C 8-3

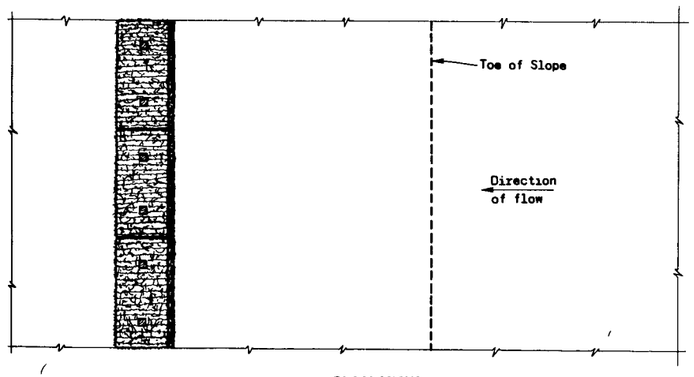


PLAN VIEW

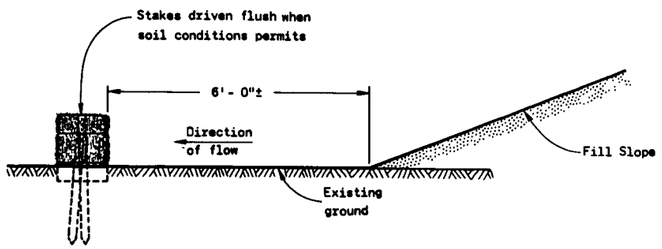


FRONT ELEVATION

WHEN EXISTING GROUND SLOPES TOWARD FILL SLOPE



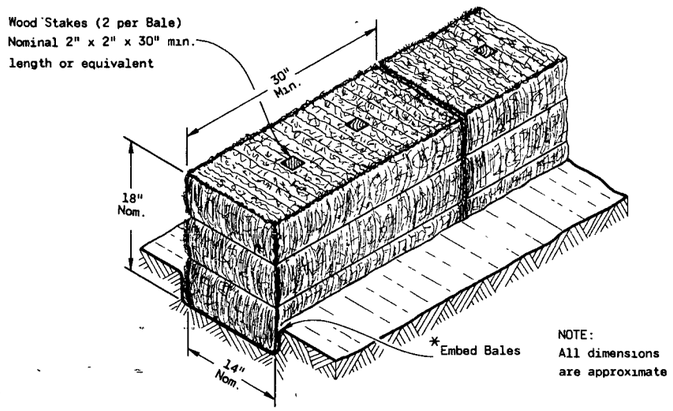
PLAN VIEW



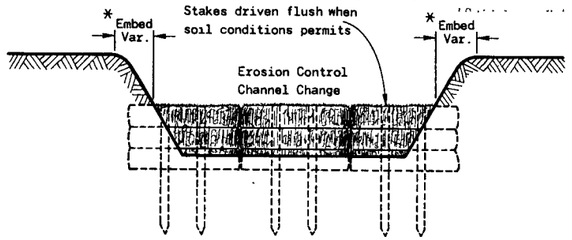
FRONT ELEVATION

EROSION BALES AT TOE OF SLOPE

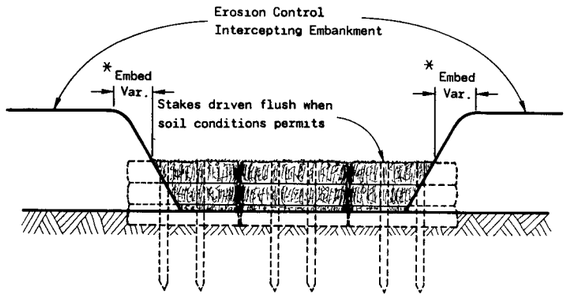
WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE



DETAIL OF EROSION BALE INSTALLATION

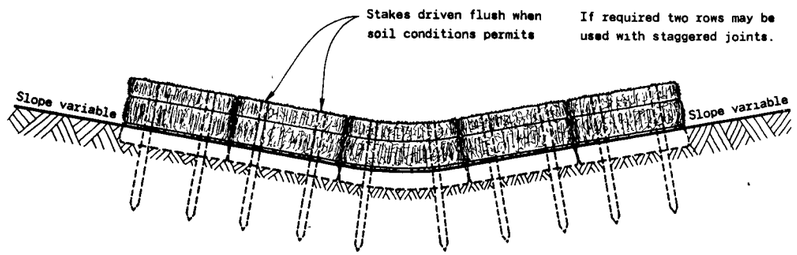


EROSION CONTROL CHANNEL CHANGE



EROSION CONTROL INTERCEPTING EMBANKMENT

PLAN VIEW



FRONT ELEVATION

EROSION BALES ACROSS DITCH BOTTOM

GENERAL NOTES

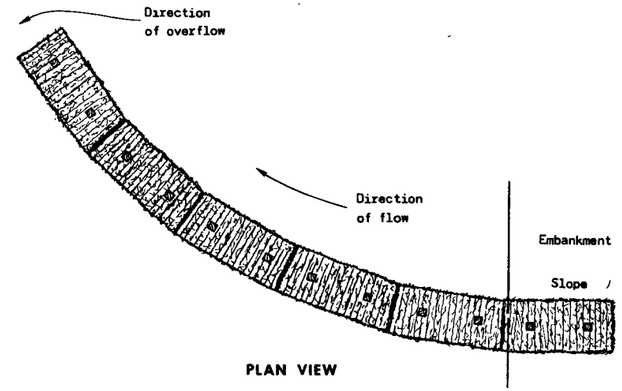
Details of construction, materials and workmanship not shown on this drawing shall conform to the pertinent requirements of the Standard Specifications and the applicable Special Provisions.

Bales shall be placed end to end or overlapping at right angles to the direction of flow and far enough up the sides of the ditch to prevent eroding around ends.

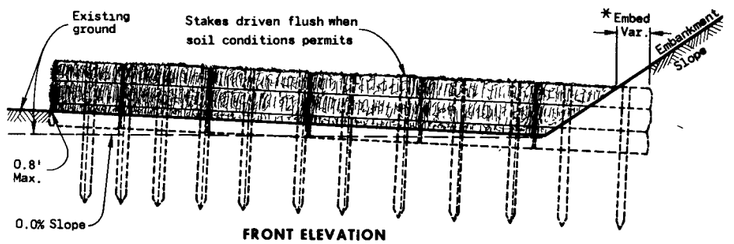
Bales shall be placed with twine or tie wires parallel to the ground.

Stakes to be battered in opposite directions.

* As determined by the Engineer.



PLAN VIEW



FRONT ELEVATION

EROSION BALES AT TOE OF SLOPE

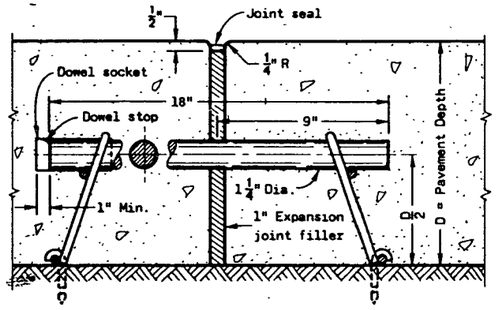
TYPICAL INSTALLATIONS OF EROSION BALES

State of Wisconsin
Department of Transportation
Division of Highways

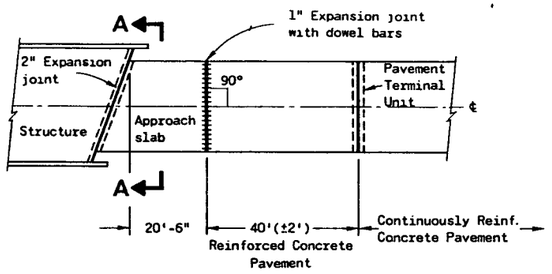
RECOMMENDED FOR APPROVAL:
10/14/75 DATE — CHIEF of FACILITIES DEVELOPMENT

APPROVED
10/16/75 DATE — STATE HIGHWAY ENGINEER

S.D.D. 8E8-1

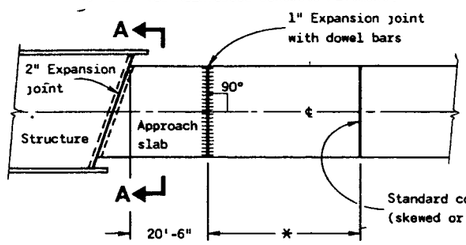


EXPANSION JOINT



APPROACH SLAB AND ADJACENT PAVEMENT

* 12' Min., 20' Max. for Non-reinforced Concrete Pavement.
40' ± 2' for Reinforced Concrete Pavement.

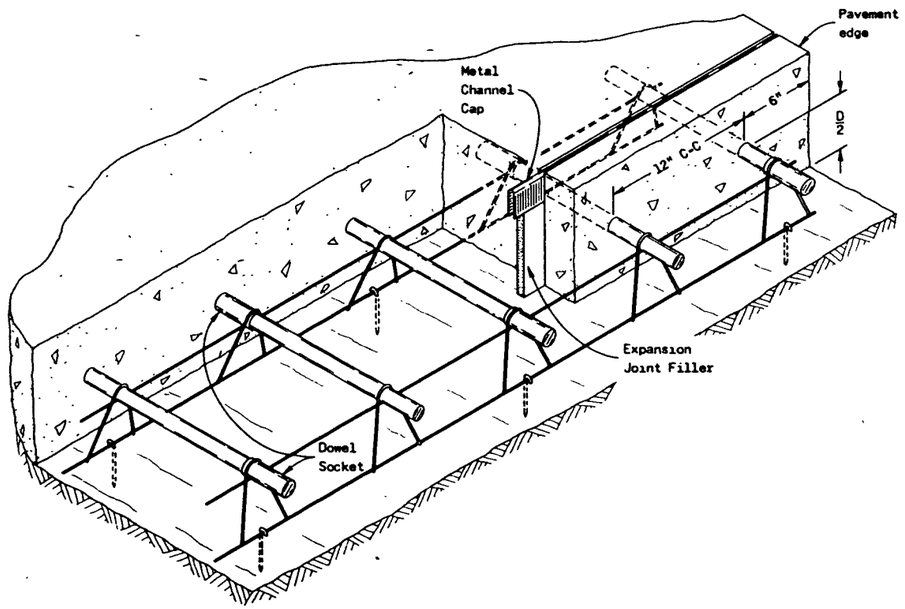


APPROACH SLAB AND ADJACENT PAVEMENT

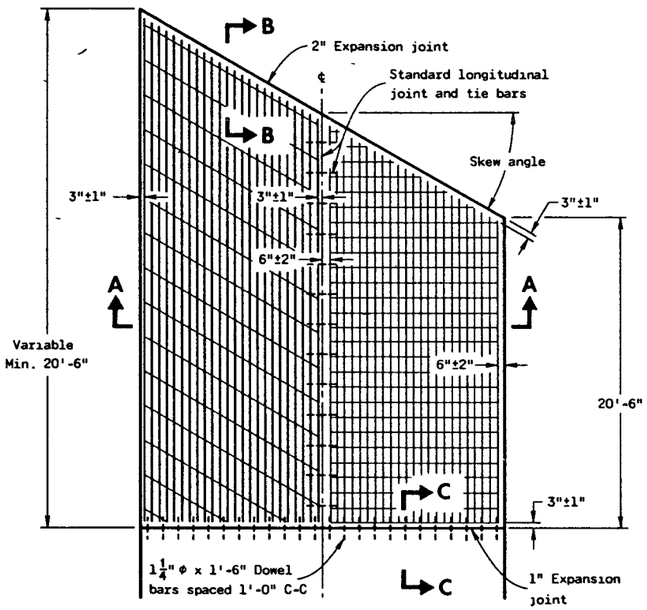
BIDDING INFORMATION

APPROACH SLAB QUANTITIES
(One slab, 24' wide)

Skew Angle	Concrete Pavement		Welded Wire Fabric 6" x 12" - W5.5 x W4 (55 lbs./100 sq. ft.)		Steel Reinforcement (Grade 60)	
					No. 8 Bars	No. 4 Bars
	Sq. Yds.	Cu. Yds.	Sq. Yds.	Pounds	Pounds	Pounds
0°	54.7	18.2	54.7	271	2681	173
15°	63.2	21.1	63.2	313	3091	196
30°	73.2	24.4	73.2	362	3572	228
45°	86.7	28.9	86.7	429	4219	267
60°	110.1	36.7	110.1	545	5347	338



INSTALLING DEVICE FOR DOWEL BARS AND EXPANSION JOINT ASSEMBLY



HALF SECTION BOTTOM REINFORCEMENT

HALF SECTION TOP REINFORCEMENT

APPROACH SLAB

GENERAL NOTES

Details of construction not shown on this drawing shall conform to the Standard Specifications and Special Provisions.

DOWEL BARS

Dowel bars across expansion joints shall be corrosion resistant coated conforming to the requirements of AASHTO Designation M 254.

The coating type shall be, Type B - Thermosetting Epoxy.

JOINT SEALING

Expansion joints shall be sealed as follows:

1. On pavements having transverse contraction joints sealed with a poured type sealer, expansion joints shall be sealed with the same type sealant, ¼" below pavement surface.
2. On pavements with no contraction joints, unsealed contraction or contraction joints sealed with compression type seals, expansion joints shall be sealed with a poured type sealer as specified in the plans or Special Provisions.

JOINT FILLER

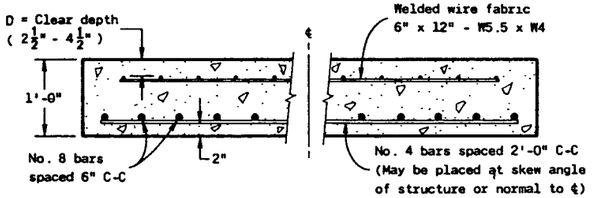
Expansion joint filler between structure and approach slab may consist of two, 1 inch thicknesses of material.

WELDED WIRE FABRIC

Sheet widths of 8 feet are permitted.

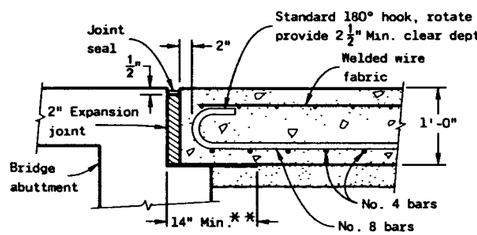
STEEL REINFORCEMENT

Splicing of No. 8 bars in the approach slab is permitted for skewed structures only. Splices shall be staggered, with a maximum of one splice per bar. Laps shall conform to the Standard Specifications.



SECTION A-A

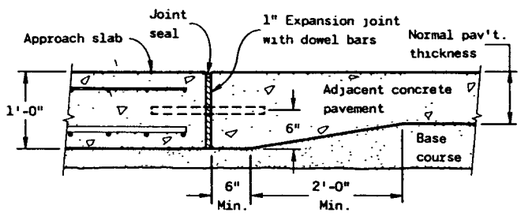
REINFORCEMENT POSITIONING DETAIL



SECTION B-B

BEND DETAIL
BOTTOM REINFORCEMENT

** Galvanized metal flashing (Place full width of pavement and secure by nailing to base).



SECTION C-C

TRANSITION DETAIL
APPROACH SLAB TO ADJACENT PAVEMENT

CONCRETE PAVEMENT APPROACH SLAB

State of Wisconsin
Department of Transportation

APPROVED 2/24/81
DATE

CHIEF DESIGN ENGINEER

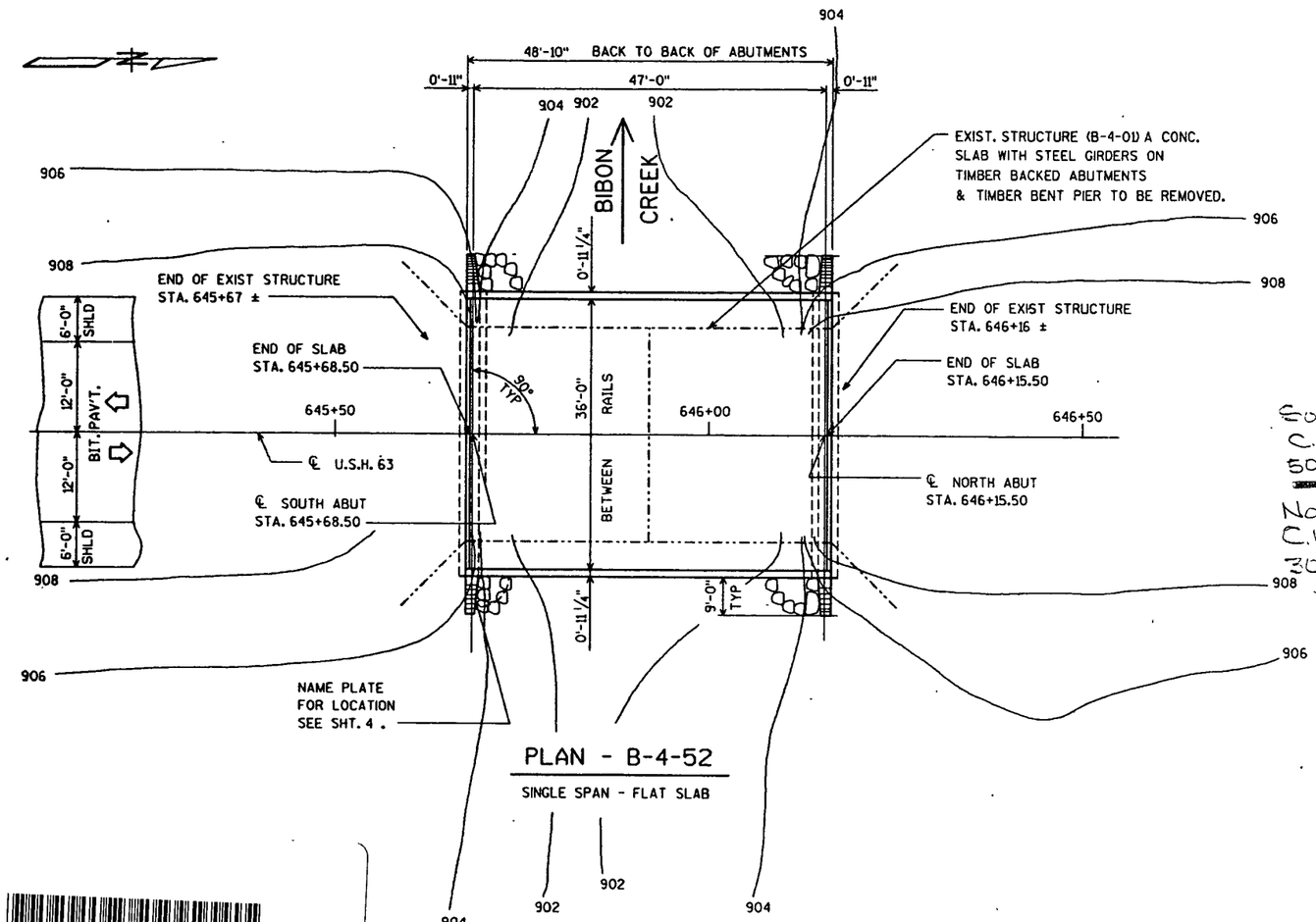
FHWA

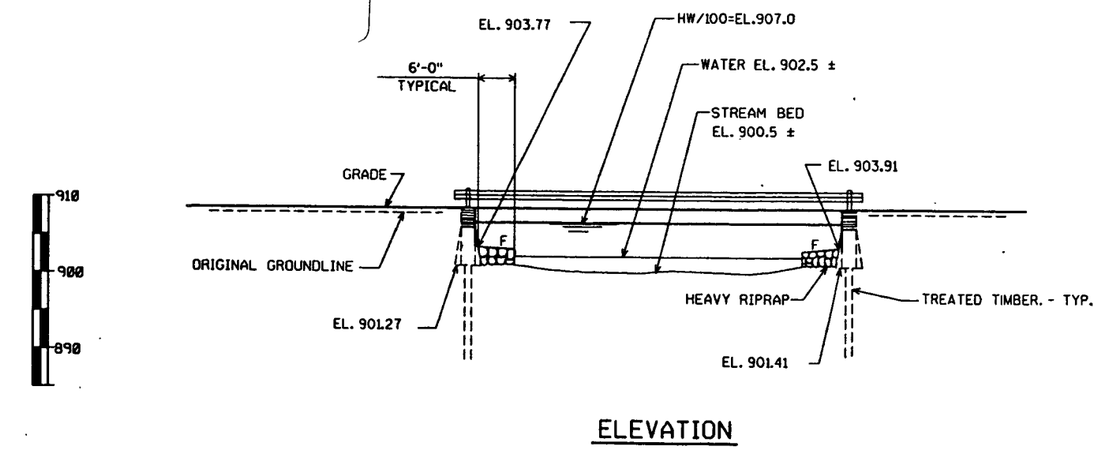
S.D.D. 13 B 2-3

S.D.D. 13 B 2-3

TYPE CODE = X020

STATE PROJECT NUMBER	SHEET NO.
1560-09-71	8





ELEVATION

DESIGN DATA

LIVE LOAD:

DESIGN RATING; HS20
INVENTORY RATING; HS21
OPERATIONAL RATING; HS35

STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20 POUNDS PER SQUARE FOOT.

ALLOWABLE DESIGN STRESSES:

CONCRETE MASONRY SLAB —f'c = 4,000 P.S.I. ALL OTHER —f'c = 3,500 P.S.I.
BAR STEEL REINFORCEMENT, GRADE 60 — fy = 60,000 P.S.I.

FOUNDATION DATA

South Abutment Supported on C.I.P Piles driven to Min. Brg. 50 Tons Length 100'-120'

North Abutment Supported on C.I.P Piles driven to Min. Brg. 30 Tons Length 100'-120'

~~ABUTMENTS TO BE SUPPORTED ON TREATED TIMBER PILING. DRIVEN TO A MIN. BRG. VALUE OF 20 TONS PER PILE. ESTIMATED LENGTH 35'-0 LONG. ONE 50'-0 LONG TEST PILE REQ'D.~~

HYDRAULIC DATA

100 YEAR FREQUENCY
Q / 100=900 c.f.s.
VEL.= 4.2 f.p.s.
HW.= EL. 907.0
WATERWAY AREA= 214 SQ. FT.
DRAINAGE AREA= 9.6 SQ. MI.
OVERTOPPING RD = NA

TRAFFIC VOLUME

U.S.H. 63
A.D.T.=2600 (2010)
R.D.S.=60 M.P.H.

BENCH MARK

NO.	DESCRIPTION	ELEV.
1	SOUTH END OF EAST CURB - BIBON CR BR	910.30

LIST OF DRAWINGS

1. GENERAL PLAN
2. CROSS SECTION & QUANTITIES
3. SUBSURFACE EXPLORATION
4. ABUTMENTS
5. SUPERSTRUCTURE
6. STEEL RAILING TYPE "W"

BRIDGE OFFICE CONTACT - R.L. REESE (608)266-8488

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-4-52

U.S.H. 63 OVER BIBON CREEK

COUNTY BAYFIELD		TOWN/CITY/VILLAGE GRANDVIEW	
DESIGN SPEC. AASHTO 1985		LOAD HS20	CONST. SPEC. 1981
DESIGNED BY N.G.	DESIGN CK'D. D.L.B.	DRAWN BY ZIRK	PLANS CK'D.

APPROVED Stanley W. Woods STATE BRIDGE ENGINEER 5/25/83 DATE

GENERAL PLAN

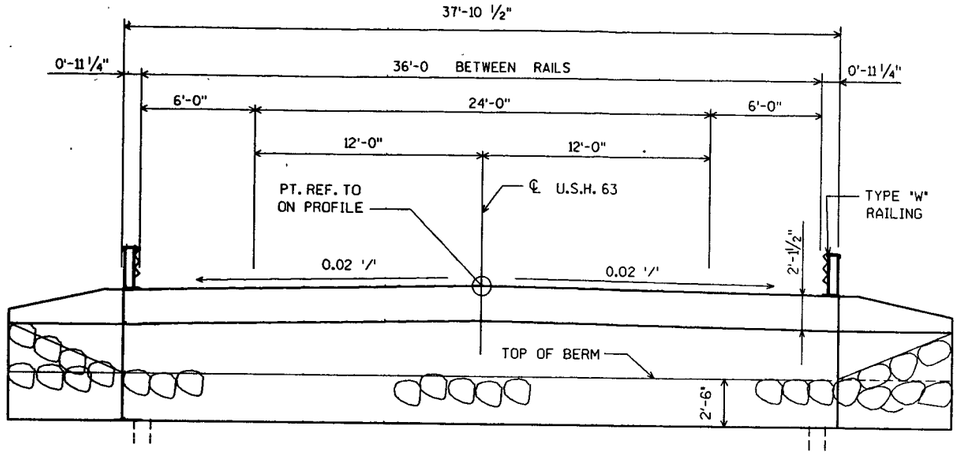
SHEET 1 OF 6

X82443

B0452.DGN

STRUCTPLAN

STATE PROJECT NUMBER	SHEET NO.
1560-09-71	8.1

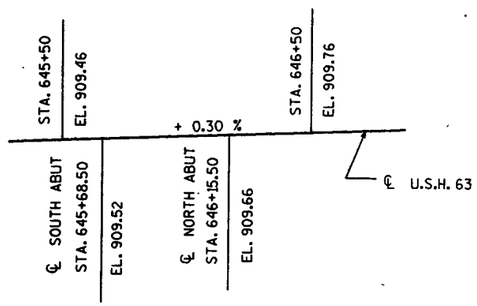


CROSS SECTION THRU ROADWAY LOOKING NORTH

TOTAL ESTIMATED QUANTITIES

BID ITEMS	UNIT	SUPER.	SOUTH ABUT.	NORTH ABUT.	TOTALS
REMOVING OLD BRIDGE, STA. 645+92±	L.S.	——	——	——	1
EXCAVATION FOR STRUCTURES, BRIDGES B-4-52	L.S.	——	——	——	1
CONCRETE MASONRY, BRIDGES	C.Y.	148	25	25	198
PROTECTIVE SURFACE TREATMENT	GAL.	12	——	——	12
HIGH STRENGTH BAR STEEL REINFORCEMENT, BRIDGES	LB.	——	2575	2575	5150
COATED HIGH-STRENGTH BAR STEEL REINFORCEMENT	LB.	23,130	——	——	23,130
TREATED TIMBER PILING, DELIVERED	L.F.	——	490	525	1015
TREATED TIMBER PILING, DRIVEN	L.F.	——	490	525	1015
* TREATED TIMBER TEST PILING, B-4-52	L.S.	——	1	——	1
HEAVY RIPRAP	C.Y.	——	30	30	60
STEEL RAILING, TYPE W, B-4-52	L.S.	——	——	——	1
NON-BID ITEMS					
POLYVINYL CHLORIDE WATERSTOP	L.F.	——	38	38	76
		——	——	——	
FILLER	SIZE	——	——	——	¾"

* DRIVE ONE AT SOUTH ABUTMENT
ESTIMATED LENGTH OF 50'-0



PROFILE GRADE LINE, U.S.H. 63

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

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

THE SLOPE OF FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH HEAVY RIPRAP TO THE EXTENT *SHOW ON SHT. 1*, 2 AND 4 IN THE ABUTMENT DETAILS.

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

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

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-4-52

CONST. SPEC. 1981	DRAWN BY ZIRK	PLANS CK'D. TJM.

CROSS SECTION & QUANTITIES

SHEET 2 OF 6

X82443

B452.DGN

STATE PROJECT NUMBER	SHEET NO.
1560-09-71	82

ABBREVIATIONS

F — Fine M — Medium C — Coarse
Ws — Weathered So — Sound

MATERIAL SYMBOLS

Topsoil, Sand, Gravel, Silt, Peat, Clay, Sandstone, Limestone, Igneous Rock

LEGEND OF PROBING

95/6=95 Blows for 6" Penetration
Probing taken with a 350# wt. Falling 18" on a 2" O. D. Point.

Probing No.
Sta.
Elevation
7 Average Blows Per Foot
Refusal 95/6

LEGEND OF BORING

Boring No.
Sta.
Elev.
Unconfined Strength → 7.7
Blows Per Ft. Using 140# Wt. Falling 30"
Wash Sample
Shelby Tube — S. T.
Ground Water Elevation
No Ground Water Observed Above This Elevation
Sandy Gravel
F.
Boulders or Cobbles
Sand
Silty Clay
So
Limestone

Unless otherwise specified, the blows per foot at the locations indicated are based on driving a 2" O. D. x 1.4" I. D. split spoon sampler with a 140# hammer having a free fall of 30". The blow count is taken in undisturbed soil immediately below a cased or open hole eliminating side friction on the drive pipe.

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

To obtain relative data concerning the character of material in and upon which the foundation might be built, borings and/or soundings were made at points approximately as indicated on this drawing. The data presented herein represents the findings of the subsurface explorations made. However, because the depths investigated are limited and the area of the borings and/or soundings is very small in relation to the entire area, the Division of Highways does not warrant conditions below the depths investigated or that the classification of material encountered in these investigations is necessarily typical of the entire site.

No.	Date.	Revision	By

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-4-88

Const. Spec. 1981 | Drawn By ZIRK | Time Checked 7TM

SUBSURFACE EXPLORATION

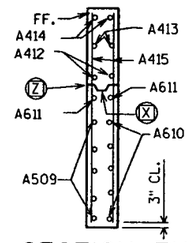
SHEET 3 OF 6

X82443

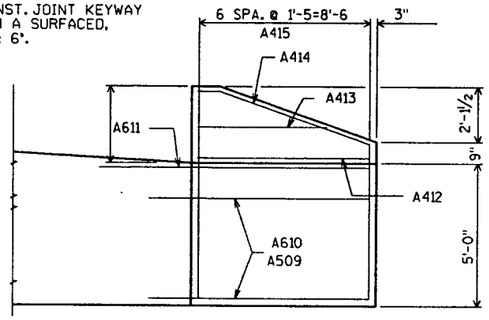
SEAL ALL EXPOSED HORIZ. & VERT. SURFACE OF ¾" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. [HOLD 1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE]. AT B.F. OF WING, EXTEND SEALER 3" BELOW TOP OF WING ELEVATION. TYP.

(Z) ¾" "V"-GROOVE ON FF. ON FF. OF WINGWALL. NOT REQ'D. IF OPT. CONST. JT. IS NOT USED.

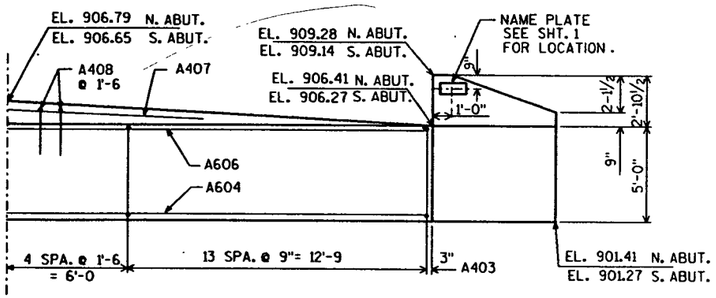
(X) OPTIONAL CONST. JOINT KEYWAY FORMED WITH A SURFACED, BEVELED 2" × 6".



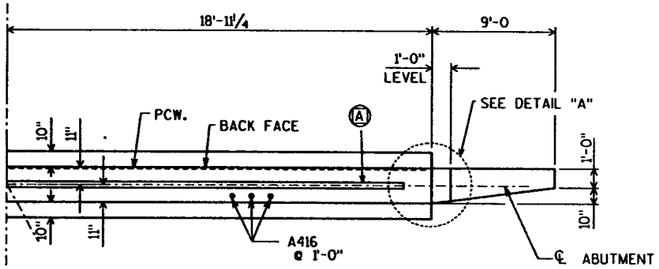
SECTION THRU WING



WING ELEVATION

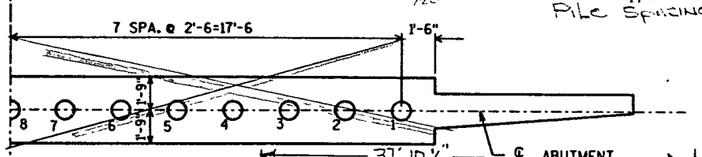


ELEVATION



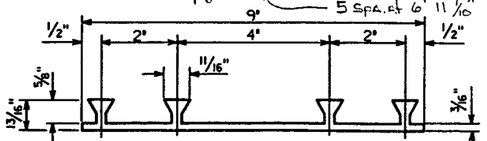
PLAN

Pile Spacing For N' Abut.



PILE PLAN

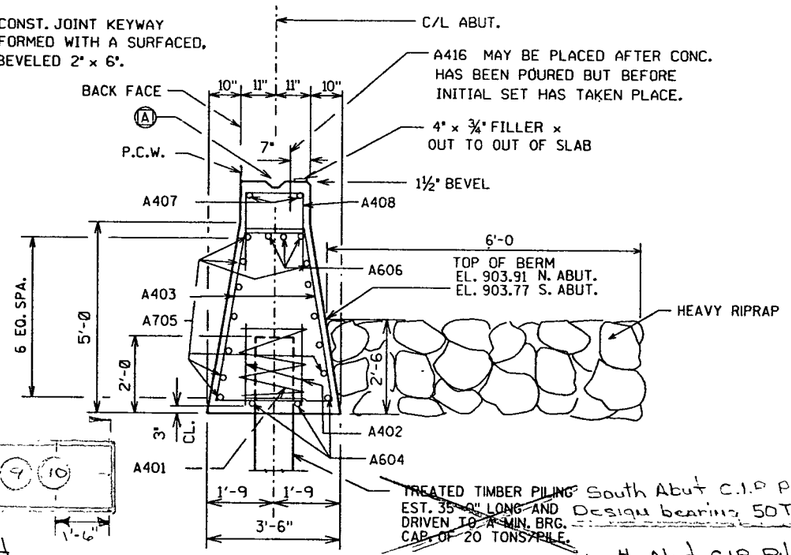
S' Abut.



POLYVINYL CHLORIDE WATERSTOP (P.C.W.)

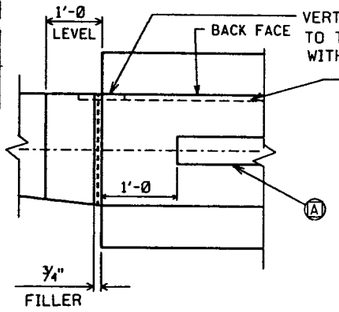
PCW TO BE BUTTED TIGHT AT ALL INTERSECTIONS AND SPLICED USING A HEATED. SPLICING IRON.

Ⓐ CONST. JOINT KEYWAY FORMED WITH A SURFACED, BEVELED 2" × 6".



SECTION THRU BODY

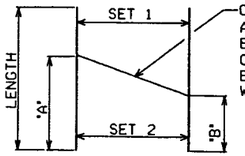
NOTE: ALL EXCAVATION VOLUME NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACK FILLED WITH GRADE 1 GRANULAR MATERIAL.



VERT. P.C.W. TO EXTEND FROM BRIDGE SEAT TO TOP OF WING. SPLICE AT JUNCTION WITH HORIZ. P.C.W.

HORIZ. P.C.W. TO EXTEND 4½" BEYOND ENDS OF BODY. FLUSH WITH FACE OF CONC.

DETAIL "A"

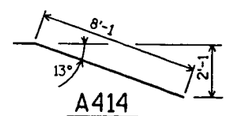


CUT BARS ALONG THIS LINE. MAKE ALL CUTS NORMAL TO BAR AXIS. BARS ON EACH SIDE OF CUT CONSTITUTE ONE SET. BUNDLE EACH SET SEPARATELY AND TAG WITH BAR AND SET NUMBER.

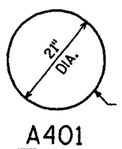
BENT BARS IF USED IN CUTTING DIAGRAM SHALL BE BENT AFTER CUTTING.

CUTTING DIAGRAM

MARK	'A'	'B'	NO. OF BARS/SET	NO. OF EACH SET
A415	7'-6	4'-9	7	2

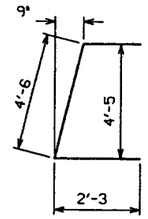


A414

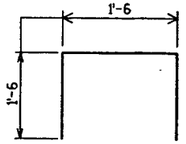


5 WRAP SPIRAL

A401



A403



A408

STATE PROJECT NUMBER	SHEET NO.
1560-09-71	83

BILL OF BARS

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

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	CUT. DIAG.	BUN-DLE	LOCATION
A401		30	28-0	X			BODY PILE SPIRALS
A402		60	2-3				BODY 2/PILE
A403		140	8-0	X			BODY STIRRUPS
A604		6	37-8				BODY LONGIT. BOTT.
A705		24	37-8				BODY LONGIT. F.F. AND B.F.
A606		6	37-8				BODY LONGIT. TOP
A407		4	12-6				BODY TOP LONGIT.
A408		18	4-4	X			BODY TOP
A509		20	10-4				WINGS HORIZ. F.F.
A610		20	10-7				WINGS HORIZ. B.F.
A611		8	12-1				WINGS HORIZ. F.F. AND B.F.
A412		8	8-8				WINGS HORIZ. F.F. AND B.F.
A413		8	6-3				WINGS HORIZ. F.F. AND B.F.
A414		8	8-10	X			WINGS HORIZ. F.F. AND B.F. TOP
A415		28	12-3		X		WINGS VERT. F.F.& B.F.
A416		76	2-0				BODY DOWEL TOP

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-4-52

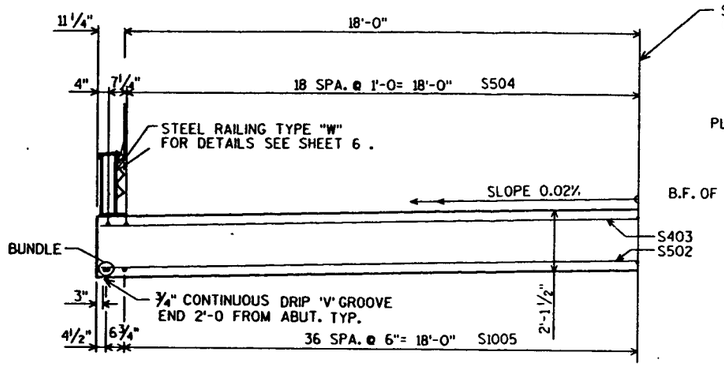
CONST. SPEC.	DRAWN BY	PLANS CK'D.
1981	ZIRK	T.T.M.

ABUTMENTS

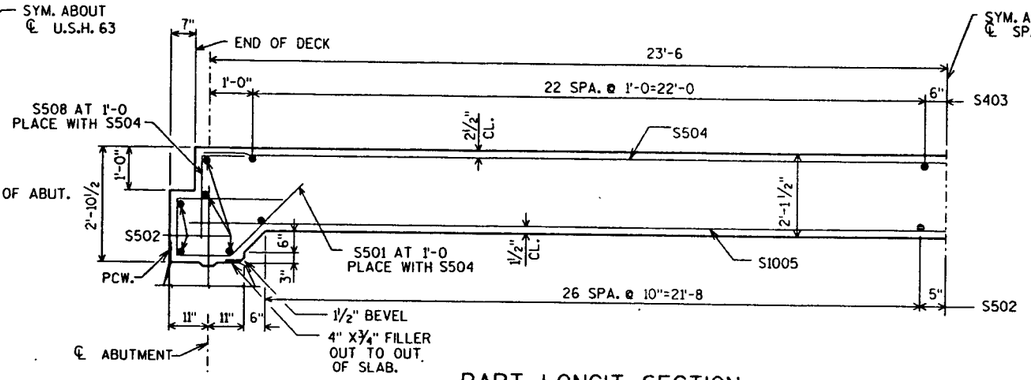
SHEET 4 OF 6

X82443

STATE PROJECT NUMBER	SHEET NO.
1560-09-71	84



CROSS SECTION THRU ROADWAY

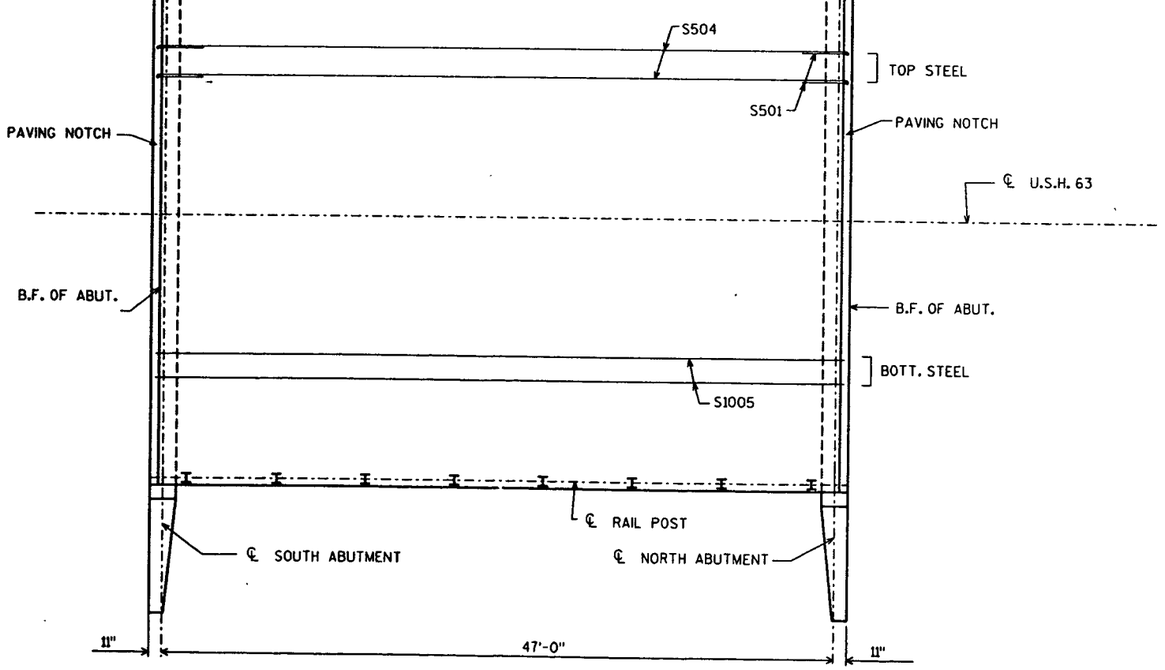


PART LONGIT. SECTION

BILL OF BARS

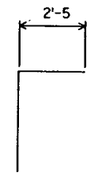
NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	CUT. DIAG.	BUN-DLE	LOCATION
S501	X	78	7-6	X			DIAPH. AT ABUTMENTS STIRRUPS
S502	X	64	37-6				SLAB TRANS. BOT. & ENDS
S403	X	46	37-6				SLAB TRANS. TOP
S504	X	39	48-6				SLAB LONGIT. TOP
S1005	X	77	48-6			X	SLAB LONGIT. BOT.
S606	X	16	10-0				SLAB AT RAIL POSTS
S607	X	32	4-0	X			SLAB AT RAIL POSTS
S508	X	78	4-9	X			SLAB AT ABUTMENTS

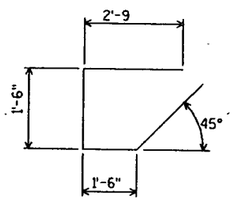


PLAN

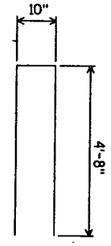
BUNDLING DETAIL
(ONE SET)
2 SETS REQ'D.



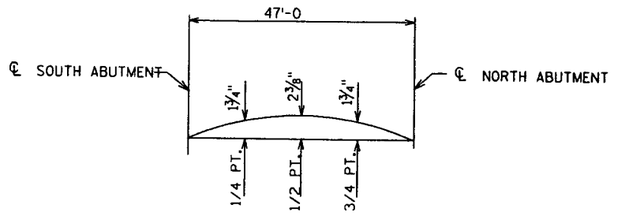
S508



S501



S606



CAMBER DIAGRAM

NOTE: ALTERNATE TOP TRANS BARS IN SLAB SHALL BE SUPPORTED BY INDIVIDUAL BAR CHAIRS AT APPROX. 3'-0 CENTERS. BOTTOM LONGIT. BARS SHALL BE SUPPORTED BY CONTINUOUS BAR CHAIRS AT APPROX. 4'-0 CENTERS.

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

PROVIDE CAMBER AS SHOWN TO PROVIDE FOR DEADLOAD DEFLECTION & FUTURE PLASTIC FLOW. THIS DOES NOT INCLUDE AN ALLOWANCE FOR FORM SETTLEMENT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-4-52

CONST. SPEC. 1981	DRAWN BY ZIRK	PLANS CK'D. T.J.M.

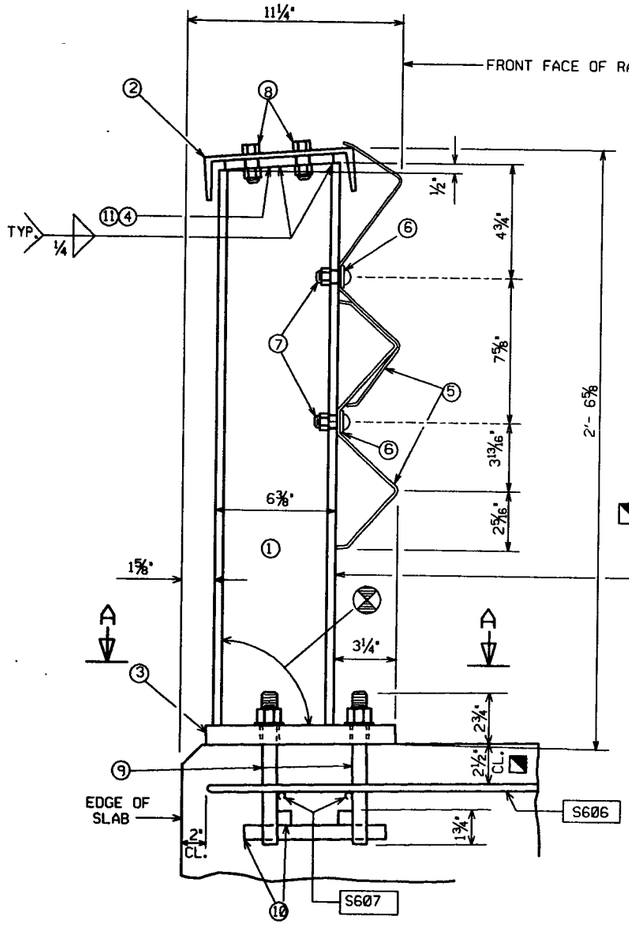
SUPERSTRUCTURE

SHEET 5 OF 6

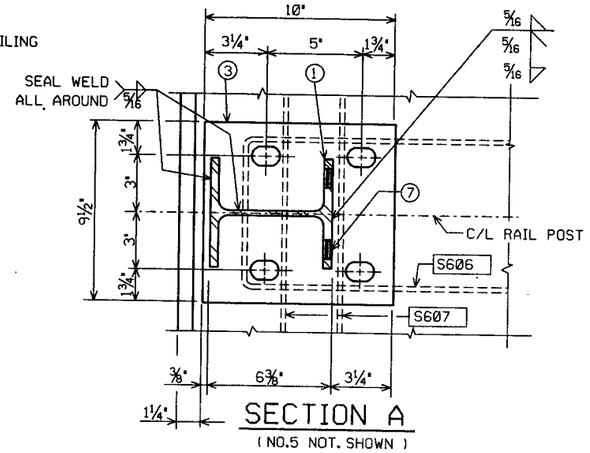
X82443

B0452S.DGN SCALE 2:8

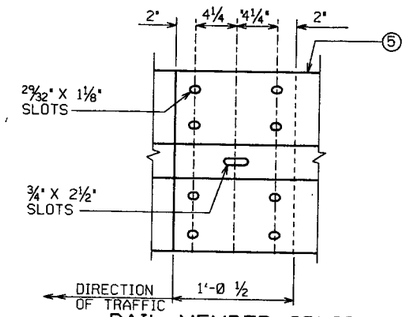
STATE PROJECT NUMBER	SHEET NO.
1560-09-71	8.5



SECTION THRU RAILING



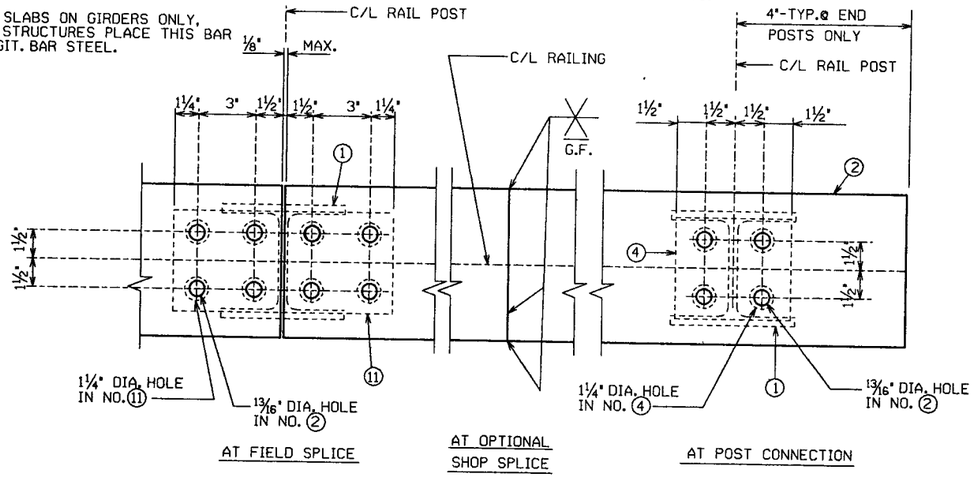
SECTION A
(NO.5 NOT. SHOWN)



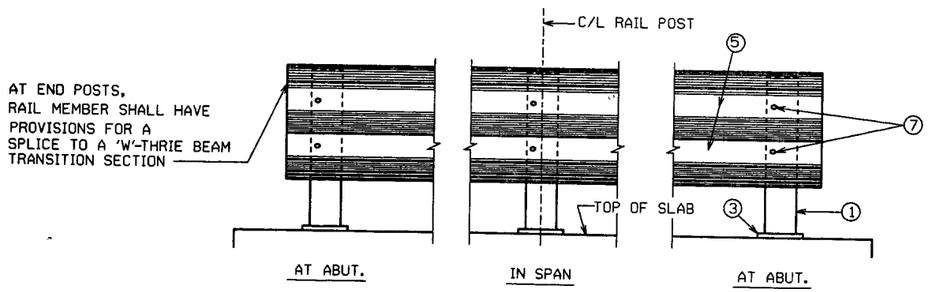
RAIL MEMBER SPLICE
⅝" DIA. BUTTONHEAD OVAL SHOULDER BOLTS WITH HEX. NUTS AT ALL SLOTS.

POST SHIM DETAIL
(4 PER POST)

SHOWN FOR SLABS ON GIRDERS ONLY, FOR OTHER STRUCTURES PLACE THIS BAR BELOW LONGIT. BAR STEEL.



CHANNEL MEMBER DETAILS



ELEVATION

88"-51'-15" TYP.

LEGEND

① W6x25 WITH 2 - ¾" x 2½" VERTICAL SLOTS ON ONE SIDE OF POST FLANGE FOR BOLT NO.7. CUT BOTTOM OF POST TO ANGLE SHOWN. PLACE POST VERTICAL. PLACE POSTS NORMAL TO GRADE LINE.

② C8 x 11.5, WITH ¹³⁄₁₆" DIA. HOLES, ATTACH TO NO. 4 WITH BOLTS NO.8. ATTACH CONTINUOUSLY TO A MIN. OF FOUR POSTS AND A MAX. OF EIGHT POSTS.

③ PLATE 1"x9½"x0'-10", WITH 1⅛"x1½" SLOTTED HOLES FOR ANCHOR BARS NO. 9. WELD TO NO. 1 AS SHOWN.

④ PLATE ½" x 5¾" x 0'-6", WITH 1¼" DIA. HOLE FOR BOLTS NO.8. WELD TO NO.1 AS SHOWN.

⑤ CORRUGATED SHEET BEAM, CONFORMING TO A.A.S.H.T.O. DESIGNATION M 180-CLASS A, TYPE 2. 'THRIE ' GUARD RAIL OR EQUAL MAY BE USED IN LIEU OF THE DOUBLE UNIT PLATE BEAM SHOWN. ATTACH TO NO.1 WITH BOLTS NO.7.

⑥ 1¾" x 3" MOUNTING BOLT WASHER. EIGHT GAGE GALVANIZED,

⑦ ⅝" DIA. BUTTON HEAD RAIL MOUNTING BOLT WITH ROUND WASHER AND NUT. 2 PER POST REQ'D.

⑧ ⅝" DIA. x 2" LG. HEX. BOLTS WITH NUT AND TWO WASHERS EACH. 4 REQ'D. PER POST CONNECTION, 8 REQ'D. PER SPLICE.

⑨ A449 OR MATERIAL OF EQUIVALENT YIELD STRENGTH AND ELONGATION ANCHOR BAR ⅞" DIA. x 10" (USE 1'-3 LG. AT END POSTS) . (MIN. YIELD OF 92 K.S.I. AND ELONGATION OF 14%) WITH A325 NUT AND WASHER. 4 REQ'D. PER POST. THREAD 3" & PLACE NORMAL TO PLATE NO.3. CHAMFER TOP OF BOLTS BEFORE THREADING.

⑩ BAR ¾" SQ.x0'-8" LONG. WELD TO ANCHOR BAR NO. 9.

⑪ PLATE, ½" x 5¾" x 0'-11 ½" WITH 1¼" DIA. HOLES FOR BOLTS NO.8. WELD THE SAME AS NO.4. USE AT CHANNEL FIELD SPLICE ONLY.

GENERAL NOTES

POST BASE PLATES, NO. 3, SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.

ALL MEMBERS INCLUDING UPPER 4" OF NO. 9 SHALL BE GALVANIZED AFTER FABRICATION.

FILL BOLT SLOT OPENINGS IN POST SHIMS AND PLATE NO. 3 WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

ALL MATERIALS USED IN FABRICATION SHALL BE MADE FROM MATERIALS CONFORMING TO A.S.T.M. DESIGNATION A36 UNLESS NOTED OTHERWISE.

SHIM PLATES 6"x ⅛" x 6" MAY BE USED BETWEEN TOP OF POST AND CHANNEL MEMBER TO ACHIEVE VERTICAL ALIGNMENT.

PRIOR TO GALVANIZING, ALL STEEL RAILING SHALL BE GIVEN A NO. 6 COMMERCIAL BLAST CLEANING BY S.S.P.C. SPECIFICATIONS.

RAIL MEMBERS SHALL BE LAPPED IN THE DIRECTION OF TRAFFIC. AND THE UPPER RAIL SHALL LAP THE LOWER RAIL.

BID ITEM SHALL BE 'STEEL RAILING, TYPE 'W' WHICH SHALL INCLUDE ALL ITEMS BETWEEN LONGIT. LIMITS OF NO.5 SHOWN IN ELEVATION.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-4-52

CONST. SPEC. 1981	DRAWN BY ZIRK	PLANS CK'D. F.T.M.

STEEL RAILING TYPE "W"

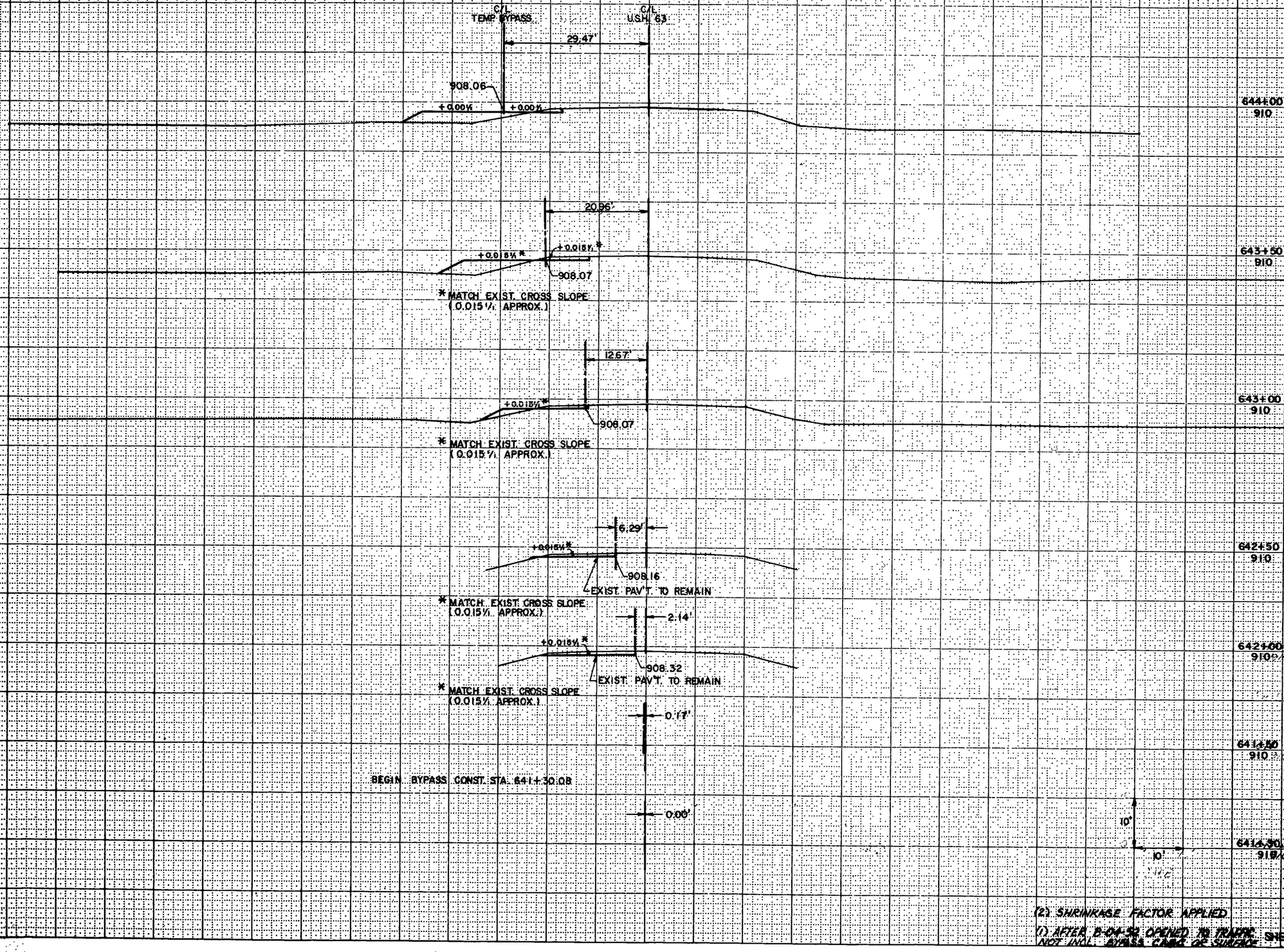
SHEET 6 OF 6

X82443

B8452R.DGN

1-87

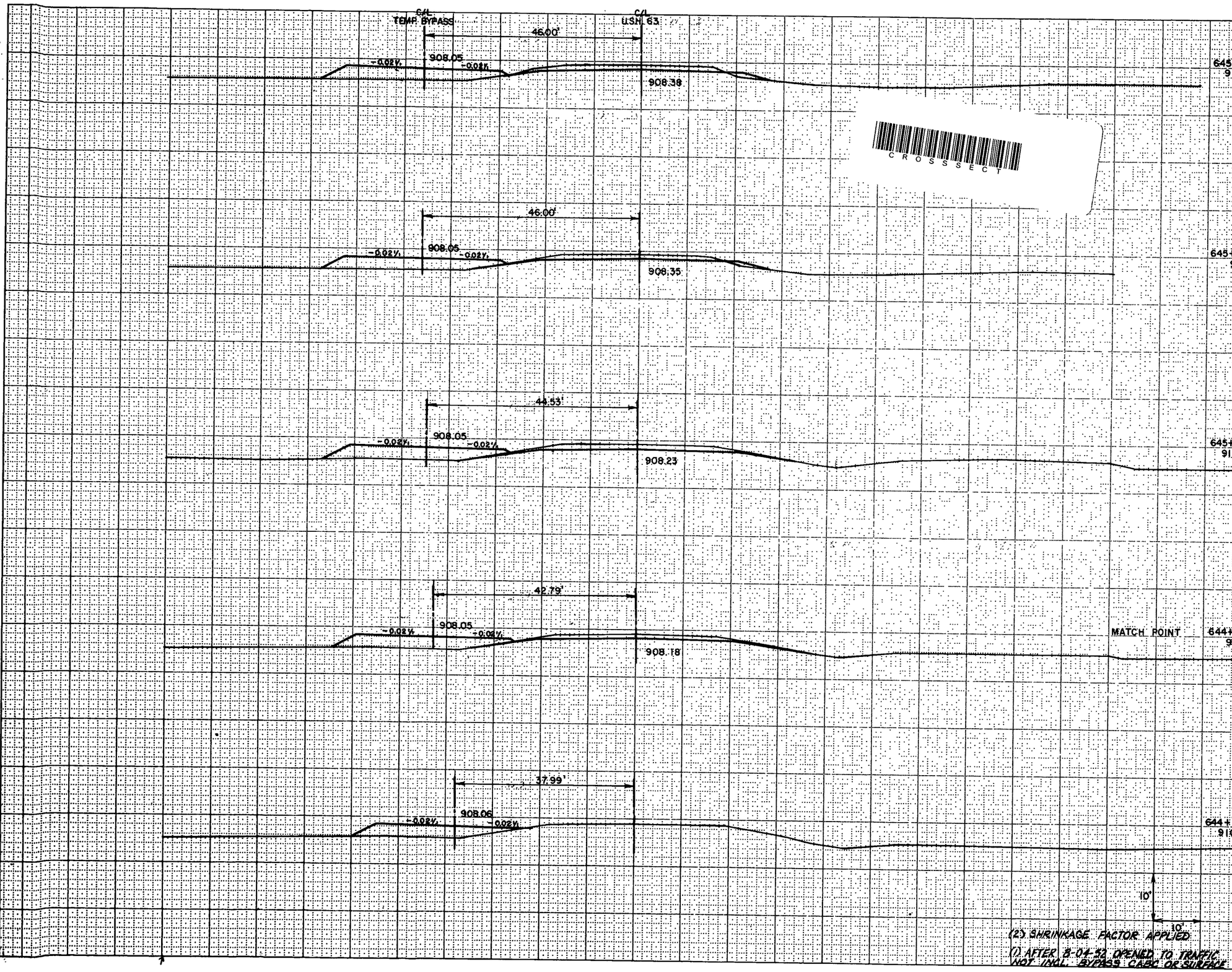
STATE PROJECT NUMBER 1560-05-71 — SHEET NUMBER 9



STATION	DISTANCE	YARDAGE EXCAVATION TOTAL FILL (NO SHRINKAGE)	UNCL.	BYPASS DUCT (1)	BYPASS FILL (2)	EMBK. FILL (2)
642+00						
	50'	0	6	0	0	0
642+50						
	50'	9	9	9	12	0
643+00						
	50'	44	11	44	58	0
643+50						
	50'	72	11	72	90	0
644+00						
SHEET TOTAL		125	36	125	160	0

(2) SHRINKAGE FACTOR APPLIED

(1) AFTER 8-04-92 OPENED TO TRAFFIC NOT INCL. BYPASS CURB OR SURFACE



CROSS SECT

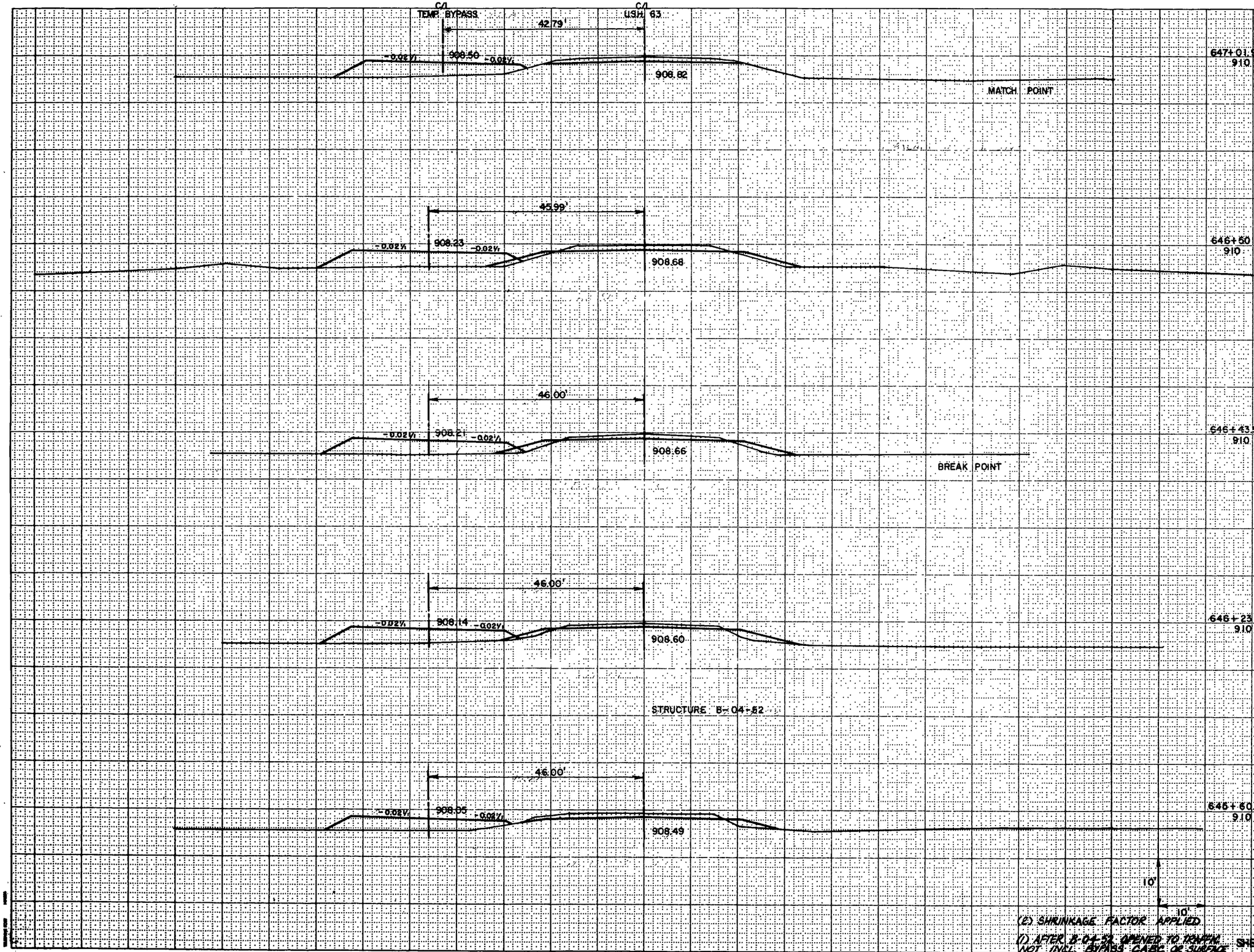
STATE PROJECT NUMBER: 1560-09-71 | SHEET NUMBER: 9.1

STATION	DISTANCE	YARDAGE EXCAVATION TOTAL (2)	UNCL.	BYPASS (PMB) (1)	BYPASS	FILL (2)	FILL (2)
644+00							
	50'	108	4	107	135	0	
644+50							
	32.08	94	24	93	117	0	
644+82.08							
	17.92	59	32	58	74	0	
645+00							
	40.05	138	73	129	162	10	
645+40.08							
	9.92	35	18	31	39	5	
645+50							

(2) SHRINKAGE FACTOR APPLIED.

(1) AFTER 8-04-52 OPENED TO TRAFFIC. NOT INCL. BYPASS CABC OR SURFACE

SHEET TOTAL: 434 151 418 527 15



STATE PROJECT NUMBER: 1550-09-71

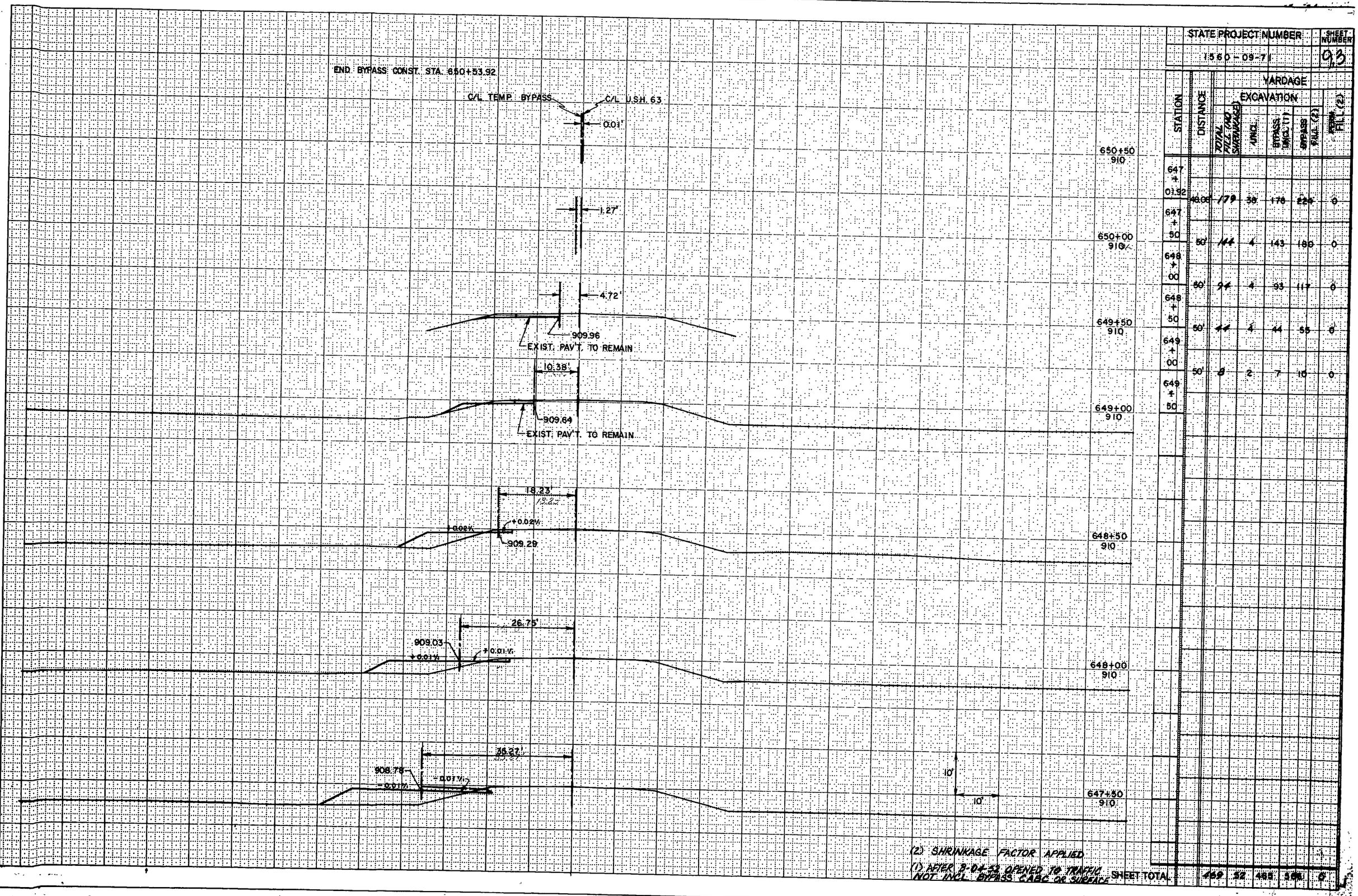
SHEET NUMBER: 92

STATION	DISTANCE	YARDAGE EXCAVATION TOTAL CELL (NO SHRINKAGE)	UNCL.	BYPASS TUNNEL	BYPASS CELL (2)	STRUCT. CELL (2)
645 + 50						
	10.08	35	20	31	39	5
645 + 60.08						
646 + 23.92	20'	110	38	81	102	39
646 + 43.92	6.08	33	12	25	31	10
646 + 50	51.92	236	87	208	281	35
647 + 01.92						
SHEET TOTAL		414	157	345	453	89

(2) SHRINKAGE FACTOR APPLIED.

(1) AFTER B-04-52 OPENED TO TRAFFIC. NOT INCL. BYPASS CASC OR SURFACE

STATE PROJECT NUMBER	SHEET NUMBER
1560-09-71	93



STATION	DISTANCE	YARDAGE EXCAVATION TOTAL FILL (NO SHRINKAGE)	UNCL.	BYPASS EMBKT (1)	BYPASS FILL (2)	TEMP. FILL (2)
647+03.92						
	46.08'	179	39	178	224	0
647+50	50'	144	4	143	180	0
648+00	50'	94	4	93	117	0
648+50	50'	44	4	44	55	0
649+00	50'	8	2	7	10	0
649+50						
SHEET TOTAL		469	52	465	586	0

(2) SHRINKAGE FACTOR APPLIED

(1) AFTER 2-04-32 OPENED TO TRAFFIC NOT INCL. BYPASS CABC OR SURFACE