

C-70-52  
 "BOX CULVERT" / CTH-M / WAUKAU CREEK

STATE OF WISCONSIN  
 DEPARTMENT OF TRANSPORTATION

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
6477-01-71	BRF 1524(1)	1

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PLAN OF PROPOSED IMPROVEMENT  
 S.T.H. 44 - S.T.H. 116

(WAUKAU CREEK BRIDGE AND APPROACHES)

C.T.H. "M"

WINNEBAGO COUNTY

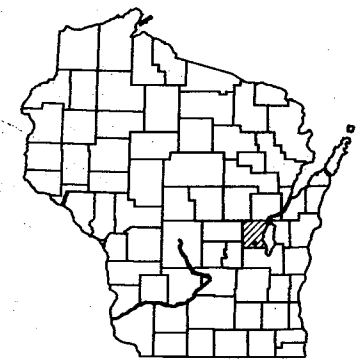
PROJECT ENGINEER: BRIAN STURTEVANT, P.E.  
 INSPECTOR: RON HARDY  
 PROJECT START DATE 10-12-95  
 COMPLETION DATE 6-5-96

TOTAL SHEETS = 20

CONTRACTOR: PHEIFER BROS. CONST. Co.  
 SUB CONTRACTORS:

- HIGHWAY SAFETY CONTRACTING CORP.
- BRICKLINE INC.
- SOMMERS CONSTRUCTION CO.
- MCC INC.
- KLEMS LAWN CARE

STATE PROJECT NUMBER  
 6477-01-71



AS BUILT PLAN  
 NO.

SUPERVISOR RALPH FORSETH  
 RESIDENT BRIAN STURTEVANT (OMNI)  
 CONTRACTOR PHEIFER BROS. CONST. CO.  
 COMPLETED 6-5-96

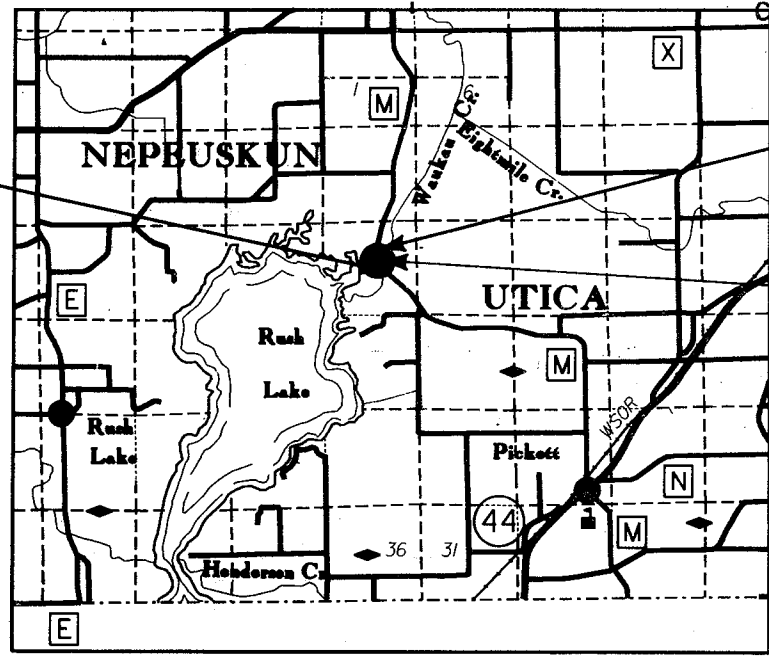
APPROVED FOR  
 WINNEBAGO COUNTY  
 2-8-93  
 DATE Raymond E. Kruger  
 COUNTY HIGHWAY COMMISSIONER

DESIGN DESIGNATION

A.D.T.	(1993)	=	505
A.D.T.	(2013)	=	560
D.H.V.	(2013)	=	84
D.		=	0.50
T.		=	8%
V.		=	55 M.P.H.

BEGIN PROJECT  
 STA. 17+75.00  
 X = 2,323,100 (± 100')  
 Y = 711,900 (± 100')

END PROJECT  
 STA. 22+00.00



NO PLAN CHANGES

LAYOUT  
 SCALE 0 1 MI.

TOTAL NET LENGTH OF CENTERLINE = 0.080 MI. (RURAL)

CONVENTIONAL SIGNS

COUNTY LINE	---	COMBUSTIBLE FLUIDS (UNDER PRESSURE)	☀
CORPORATE LIMITS	////	UNDERGROUND UTILITIES	— G —
PROPERTY LINE	---	GAS	— E —
LOT LINE	---	ELECTRIC	— T —
LIMITED HIGHWAY EASEMENT	---	TELEPHONE	TP □
EXISTING RIGHT OF WAY	---	SERVICE PEDESTAL	▣
NEW RIGHT OF WAY	---	CABLE MARKER	∅
REFERENCE LINE	---	POWER POLE	□
SLOPE INTERCEPT	---	TELEPHONE POLE	□
ORIGINAL GROUND	---	RAILROADS	+++++
MARSH OR ROCK PROFILE	---	MARSH	~ ~ ~
CULVERT IN PLACE	---	WOODED AREA	
CULVERT REQUIRED	---	SILT FENCE	•••••
CULVERT REQUIRED (Profile)	---		



PLAN PREPARED BY  
 AYRES ASSOCIATES  
 CONSULTING ENGINEERS  
 GREEN BAY, WISCONSIN

STATE OF WISCONSIN  
 DEPARTMENT OF TRANSPORTATION

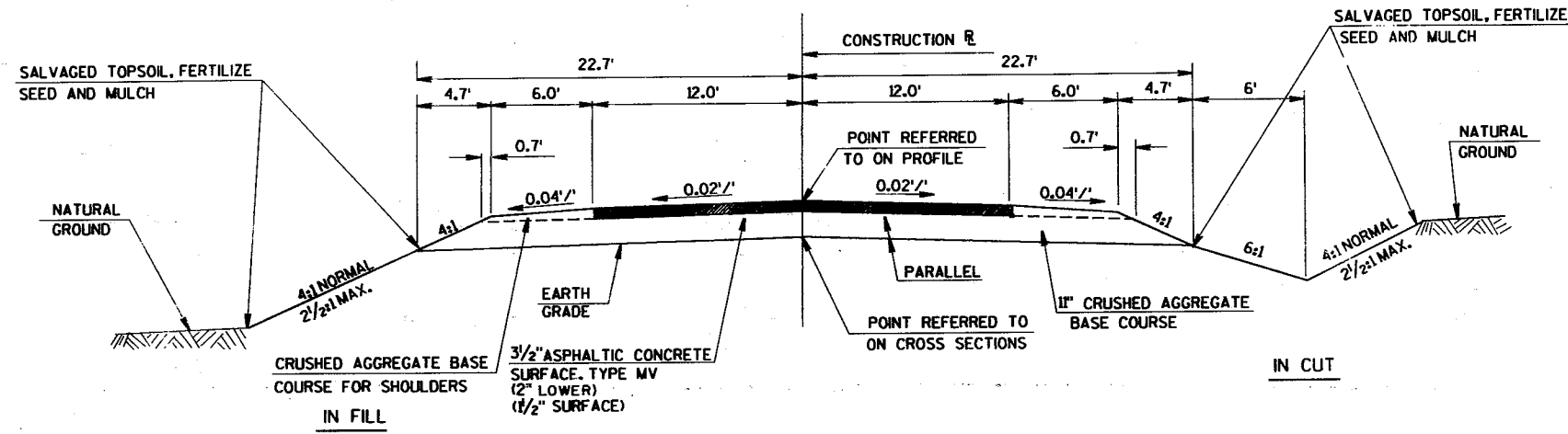
PREPARED BY

Surveyor	AYRES ASSOC.
Designer	AYRES ASSOC.
District Examiner	D.H. CARLSON
District Supervisor	J.C. LAMMERS
Proj. Dev. Engineer	
C.O. Examiner	J.E. GOODMAN

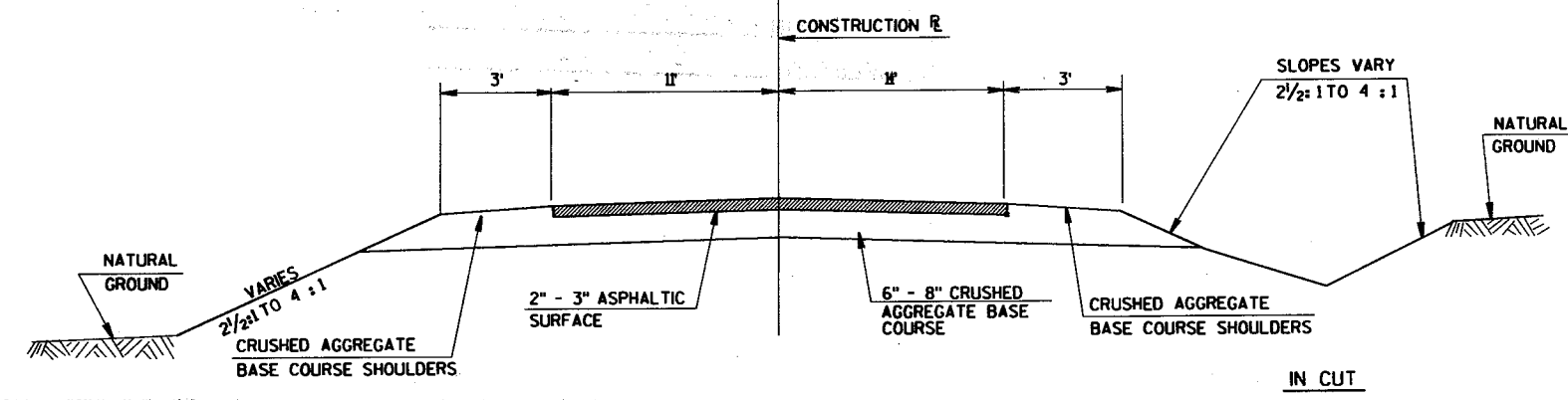
APPROVED FOR DISTRICT OFFICE  
 DATE: 7/21/94 James James  
 (Signature)

ALL COORDINATES SHOWN ON THIS PLAN ARE  
 SCALED FROM U.S.G.S. TOPOGRAPHIC MAP,  
 RUSH LAKE, WI., 7.5 MINUTE QUADRANGLE,  
 SOUTH ZONE, FOR IDENTIFICATION ONLY.

PLOT NAME: 6477-K-11-1b-11-1g  
 REV. DATES: 252, 257, 1297  
 ORIGINATOR: 11/21  
 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



TYPICAL FINISHED SECTION FOR C.T.H. "M"



EXISTING TYPICAL SECTION FOR C.T.H. "M"

GENERAL NOTES

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

MEETING EXISTING PAVEMENT WITH NEW PAVEMENT SHALL BE PERFORMED BY BUTT JOINTS. ALL BUTT JOINTS ARE TO BE SAW CUT.

WHEN THE QUANTITY OF THE ITEM OF BASE COURSE OR SURFACE COURSE IS MEASURED BY THE C.Y. OR TON, THE DEPTH OR THICKNESS AS SHOWN IS APPROXIMATE. THE ACTUAL THICKNESS WILL DEPEND ON THE DISTRIBUTION OF MATERIALS AS DIRECTED BY THE ENGINEER.

CUBIC YARDS OF FILL AS SHOWN ON THE PLAN SHEETS PERTAINS TO EMBANKMENT CONSTRUCTED FROM BORROW EXCAVATION AND UNCLASSIFIED EXCAVATION. THE ALLOWANCE USED FOR EXPANDING THE FILLS TO COMPUTE THE VOLUME OF MATERIAL REQUIRED IS 35% FOR UNCLASSIFIED EXCAVATION.

ALL DISTANCES ARE GROUND DISTANCE.

BEARINGS SHOWN ON THIS PLAN ARE TRUE BEARINGS TO THE NEAREST SECOND.

ALL LINES ON THIS PLAN ARE HORIZONTAL UNLESS DESCRIBED OTHERWISE.

PROPERTY LINES AS SHOWN ARE APPROXIMATE.

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

THE EXACT LOCATION OF SILT FENCE SHALL BE AS DIRECTED BY THE ENGINEER IN THE FIELD.

SILT FENCE SHALL MEET THE SPECIFICATIONS FOR SILTY SOIL.

THE DEPARTMENT OF TRANSPORTATION WILL FURNISH A BENCH MARK MONUMENT TO BE SET BY THE CONTRACTOR AS DIRECTED BY THE ENGINEER.

ELEVATIONS SHOWN ON THE ROADWAY CROSS SECTIONS ARE EARTH GRADE ELEVATIONS AT THE CENTERLINE OF THE ROADWAY.

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

COUNTY SURVEYOR

DAVID SCHMIDT 414-426-2800  
WINNEBAGO COUNTY COURT HOUSE  
415 JACKSON STREET  
OSHKOSH, WI. 54902

UTILITIES

WISCONSIN PUBLIC SERVICE CORPORATION  
P.O. BOX 19002  
GREEN BAY, WISCONSIN 54307-9002  
ATTENTION: MR. JEROME TEWS

GENERAL TELEPHONE COMPANY OF WISCONSIN  
107 PLEASANTVIEW DRIVE  
PLYMOUTH, WISCONSIN 53073  
ATTENTION: MR. R.A. PETERSON

DIGGERS HOTLINE  
TELEPHONE 1-800-242-8511  
TOLL FREE

THE DNR AREA LIAISON

MS KELLEY O'CONNOR 414-492-5809  
WISCONSIN DEPT. OF NATURAL RESOURCES  
P.O. BOX 10448  
1125 N. MILITARY AVE.  
GREEN BAY, WI. 54307-0448

STANDARD DETAIL DRAWINGS

SILT FENCE	8E9-4
NAME-PLATE STRUCTURES	12A3-4
CLASS "A" STEEL PLATE BEAM GUARD INSTALLATION AND ELEMENTS	14B15-1a
CLASS "A" STEEL PLATE BEAM GUARD END TREATMENT WITH ANCHORAGE	14B17-1
FOR STEEL PLATE BEAM GUARD	
CLASS "A" STEEL PLATE BEAM GUARD (AT BRIDGES, OBSTACLES, AND SIDEROADS/DRIVEWAYS)	14818-1a
BARRICADES AND TRAFFIC CONTROL FOR ROAD CLOSURES	15C2-2
PAVEMENT MARKING (MAINLINE & INTERSECTIONS)	15C8-5A

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.

**EARTHWORK SUMMARY**

LOCATION	UNCL. EXC. C.Y.	FILL C.Y.	SHRINKAGE FACTOR	BORROW C.Y.
STA. 17+75 - 22+00 DIVERSION CHANNEL	514	711	35%	500
DIVERSION CHANNEL RESTORATION	520	520	35%	180
<b>TOTALS</b>	<b>1554</b>	<b>1231</b>		<b>680</b>

**POLYETHYLENE SHEETING, DELIVERED AND INSTALLED**

LOCATION	QUANTITY S.Y.	REMARKS
STA. 20+25	195	FOR CHANNEL DIVERSION

**PAVEMENT MARKING, COLD PAINT**

LOCATION	4-INCH SOLID YELLOW NO-PASSING CENTERLINE L.F.	4-INCH, SOLID WHITE, EDGELINE L.F.
STA. 17+75 - 22+00	850	850

**SAWING EXISTING PAVEMENT**

LOCATION	QUANTITY L.F.
STA. 17+75	22
STA. 22+00	22
<b>TOTAL</b>	<b>44</b>

**ASPHALTIC CONCRETE PAVEMENT, TYPE MV, AND ASPHALTIC MATERIALS**

LOCATION	ASPHALTIC CONCRETE PAVEMENT, TYPE MV TONS	ASPHALTIC MATERIAL @ 5.5% TONS
STA. 17+75 - 22+00	230	13

**STEEL PLATE BEAM GUARD**

STATION - STATION	LOCATION	STEEL PLATE BEAM GUARD CLASS "A" L.F.	STANDARD ANCHORAGES FOR STEEL PLATE BEAM GUARD EACH
STA. 18+60 - 21+40 RT.	C.T.H. "M"	280	2
STA. 18+00 - 21+40 LT.	C.T.H. "M"	340	2
<b>TOTALS</b>		<b>620</b>	<b>4</b>

**SILT FENCE DELIVERED, INSTALLED, AND MAINTENANCE**

LOCATION	SILT FENCE DELIVERED L.F.	SILT FENCE INSTALLED L.F.	SILT FENCE MAINTAINED L.F.
STA. 17+75 - 19+90 RT.	215	215	110
STA. 20+10 - 22+00 RT.	190	190	85
STA. 19+00 - 19+90 LT.	90	90	45
STA. 20+10 - 21+10 LT.	100	100	50
<b>TOTALS</b>	<b>595</b>	<b>595</b>	<b>290</b>

**RUNOFF COEFFICIENT TABLE**

	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	.08 .22	.16 .30	.22 .38	.12 .26	.20 .34	.27 .44	.15 .30	.24 .37	.33 .50	.19 .34	.28 .41	.38 .56
MEDIAN STRIP-TURF	.19 .24	.20 .26	.24 .30	.19 .25	.22 .28	.26 .33	.20 .26	.23 .30	.30 .37	.20 .27	.25 .32	.30 .40
SIDE SLOPE-TURF			.25 .32			.27 .34						.30 .38
PAVEMENT:												
ASPHALT	.70 - .95											
CONCRETE	.80 - .95											
BRICK	.70 - .80											
DRIVES, WALKS	.75 - .85											
ROOFS	.75 - .95											
GRAVEL ROADS, SHOULDERS	.40 - .60											

TOTAL PROJECT AREA = 0.78 ACRES  
 TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.68 ACRES

**GRANULAR BACKFILL**

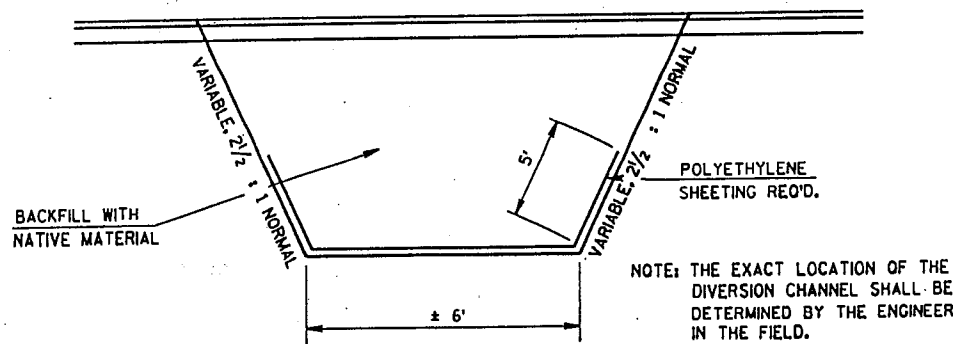
LOCATION	QUANTITY C.Y.
STRUCTURE C-70-52	100

**CRUSHED AGGREGATE BASE COURSE**

LOCATION	C.A.B.C. C.Y.
C.T.H. "M" ROADWAY SHOULDER	600
<b>TOTALS</b>	<b>660</b>

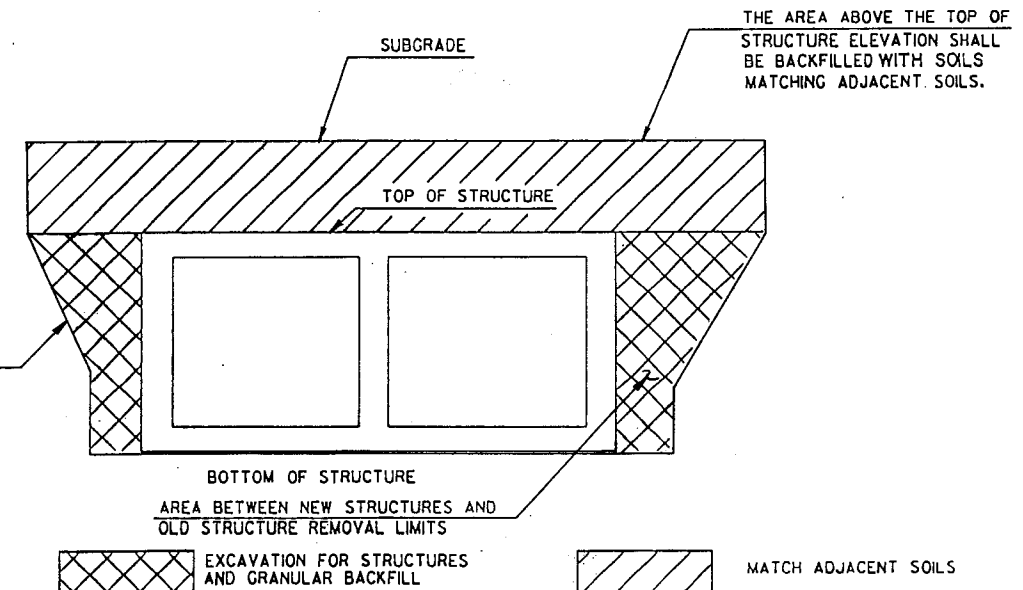
**LANDSCAPING ITEMS**

LOCATION	SALVAGED TOPSOIL S.Y.	MULCHING S.Y.	FERTILIZER TYPE "B" CWT.	SEED MIX NO. 10 LBS.
STA. 17+75 - 22+00	1400	1400	0.90	20



**TEMPORARY DIVERSION CHANNEL DETAIL**

SLOPE SHALL CONFORM TO O.S.H.A. REQUIREMENTS



**BACKFILL DETAIL**

C-70-52

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

PLOT SCALE: PLOT NAME: REV. DATE: ORIGINATOR:

DATE 09/16/94

## ESTIMATE OF QUANTITIES

ITEM	ITEM DESCRIPTION	UNIT	TOTAL	6477-01-71 QUANTITY
20352	REMOVING OLD BRIDGE, STATION 20+00	L.S.	1.00	1.00
20503	UNCLASSIFIED EXCAVATION	C.Y.	1,554.00	1,554.00
20621	EXCAVATION FOR STRUCTURES, CULVERTS C-70 52	L.S.	1.00	1.00
20801	BORROW EXCAVATION	C.Y.	680.00	680.00
20901	GRANULAR BACKFILL	C.Y.	125.00	125.00
21303	FINISHING ROADWAY, PROJECT 6477-01-71	L.S.	1.00	1.00
30403	CRUSHED AGGREGATE BASE COURSE	C.Y.	660.00	660.00
40501	ASPHALTIC MATERIAL FOR PLANT MIXES	TON	13.00	13.00
40713	ASPHALTIC CONCRETE PAVEMENT, TYPE MV	TON	230.00	230.00
50401	CONCRETE MASONRY, CULVERTS	C.Y.	106.00	106.00
50505	HIGH-STRENGTH BAR STEEL REINFORCEMENT, CULVERTS	LB.	7,830.00	7,830.00
60602	HEAVY RIPRAP	C.Y.	20.00	20.00
61406	ANCHORAGES FOR STEEL PLATE BEAM GUARD	EACH	4.00	4.00
61408	STEEL PLATE BEAM GUARD, CLASS A	L.F.	620.00	620.00
61910	MOBILIZATION	L.S.	.50	.50
62505	SALVAGED TOPSOIL	S.Y.	1,400.00	1,400.00
62702	MULCHING	S.Y.	1,400.00	1,400.00
62815	SILT FENCE, DELIVERED	L.F.	595.00	595.00
62816	SILT FENCE, INSTALLED	L.F.	595.00	595.00
62817	SILT FENCE MAINTENANCE	L.F.	290.00	290.00
62819	MOBILIZATIONS, EROSION CONTROL	EACH	1.00	1.00
62821	MOBILIZATIONS, EMERGENCY EROSION CONTROL	EACH	2.00	2.00
62905	FERTILIZER, TYPE B	CWT.	.90	.90
63002	SEEDING	LB.	20.00	20.00
64201	FIELD OFFICE, TYPE A	L.S.	.50	.50
64210	FIELD LABORATORY	L.S.	.50	.50
64303	TRAFFIC CONTROL, PROJECT 6477-01-71	L.S.	1.00	1.00

SHEET 2

ITEM	ITEM DESCRIPTION	UNIT	TOTAL	6477-01-71 QUANTITY
64402	PAVEMENT MARKING, COLD PAINT	L.F.	1,700.00	1,700.00
64506	GEOTEXTILE FABRIC, TYPE HR	S.Y.	60.00	60.00
64507	GEOTEXTILE FABRIC, TYPE C	S.Y.	150.00	150.00
64601	SAWING EXISTING PAVEMENT	L.F.	44.00	44.00
90402	QUALITY MANAGEMENT PROGRAM, ASPHALTIC MIXTURE	TON	230.00	230.00

90651	POLYETHYLENE SHEETING, DELIVERED	S.Y.	195.00	195.00
90652	POLYETHYLENE SHEETING, INSTALLED	S.Y.	195.00	195.00

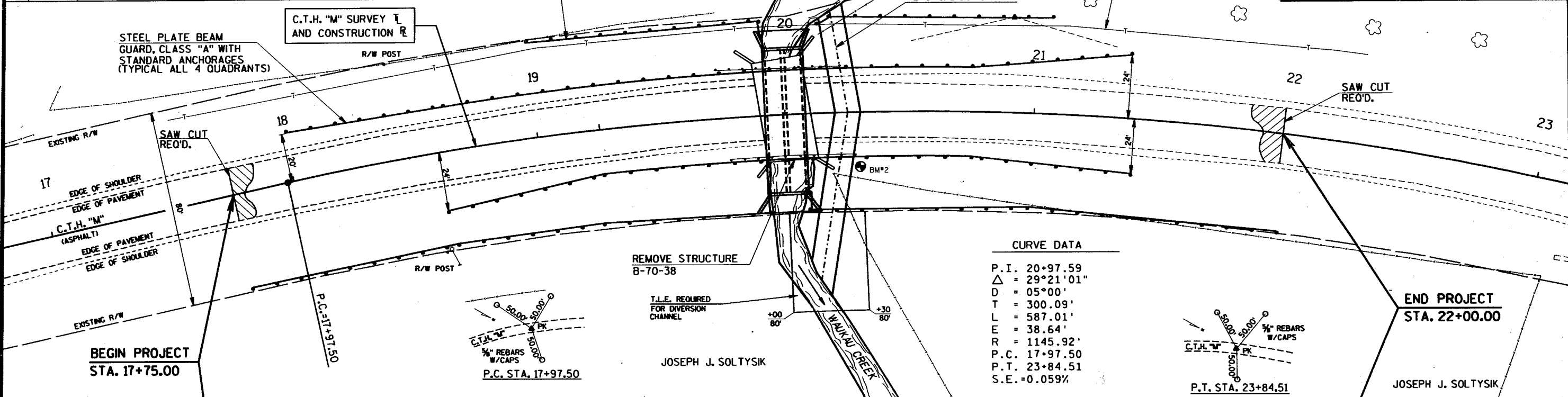
SHEET 3.1

BENCH MARKS			
NO.	STA.	DESCRIPTION	ELEV.
1	16+23	6" NAIL IN PP# 171-14-13E1- 64' RT.	824.61
2	20+13	CHIS. BOX IN NE CORNER- 18' RT.	823.74
3	26+69	6" NAIL IN PP# 171-14-13E6- 21' LT.	828.55

STATE PROJECT NUMBER  
6477-01-71

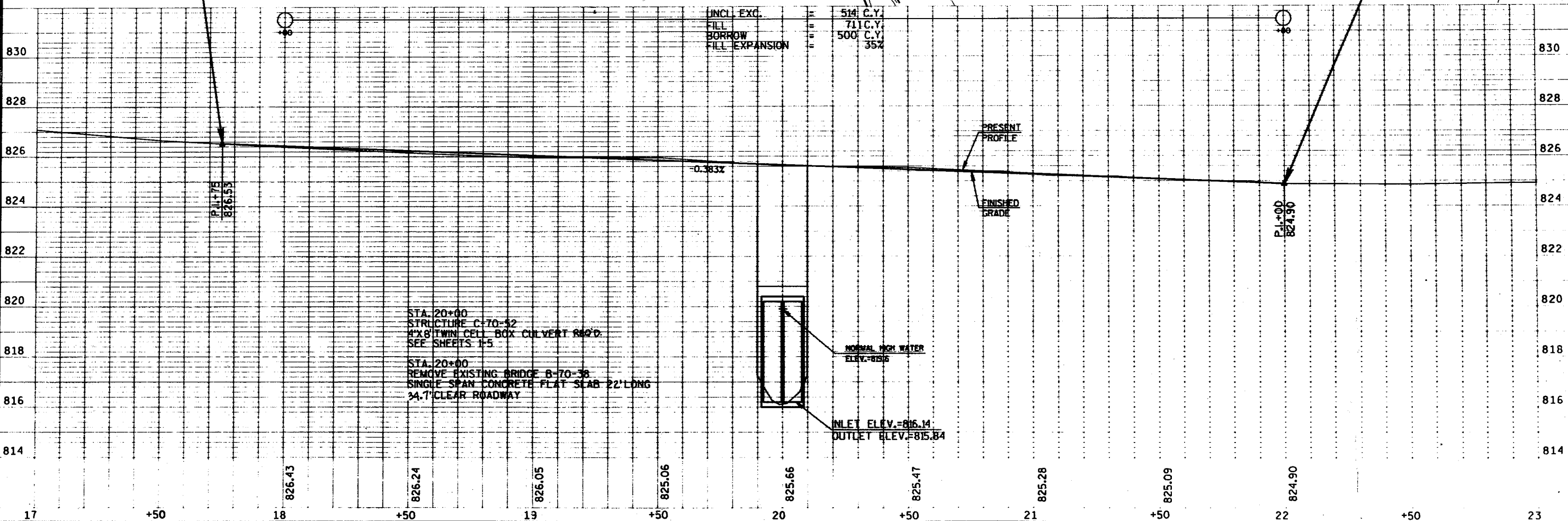
SHEET NO.  
50

PLAN AND PROFILE  
FOR  
C.T.H. "M" WINNEBAGO COUNTY

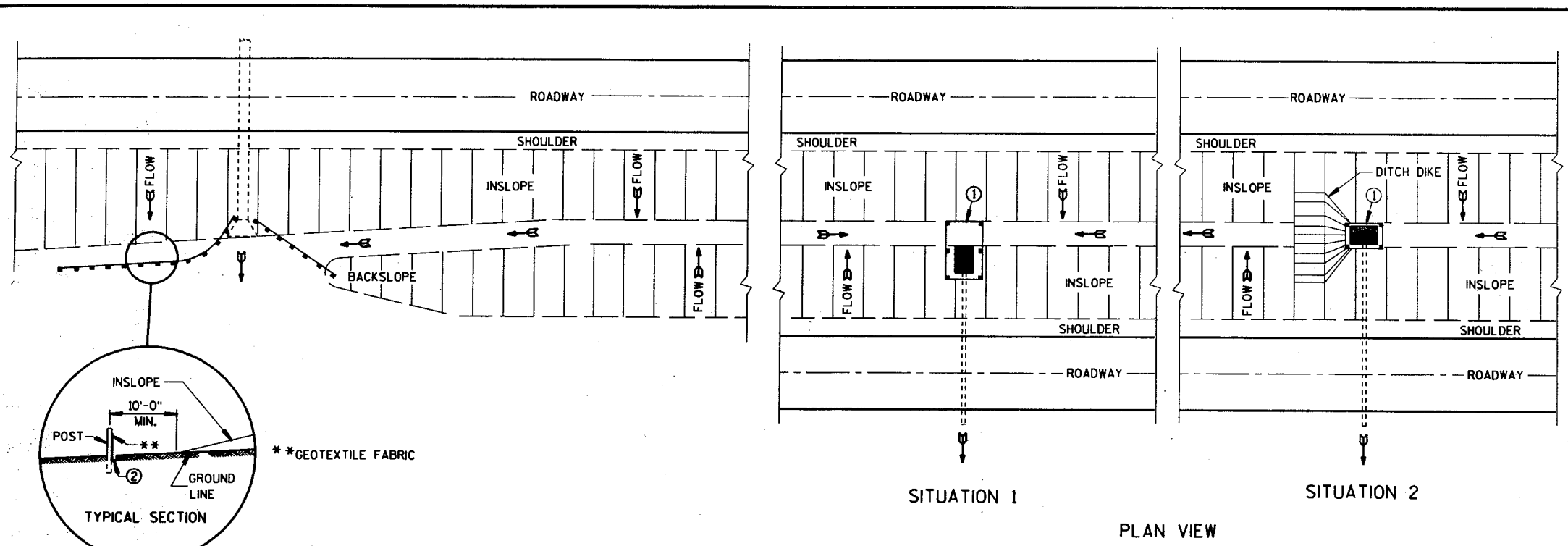


CURVE DATA

P.I.	20+97.59
Δ	29°21'01"
D	05°00'
T	300.09'
L	587.01'
E	38.64'
R	1145.92'
P.C.	17+97.50
P.T.	23+84.51
S.E.	+0.059%



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



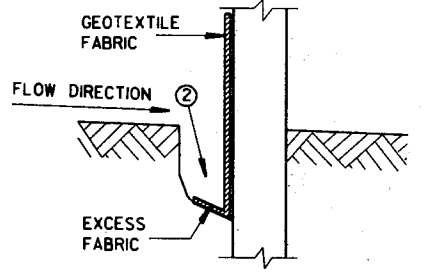
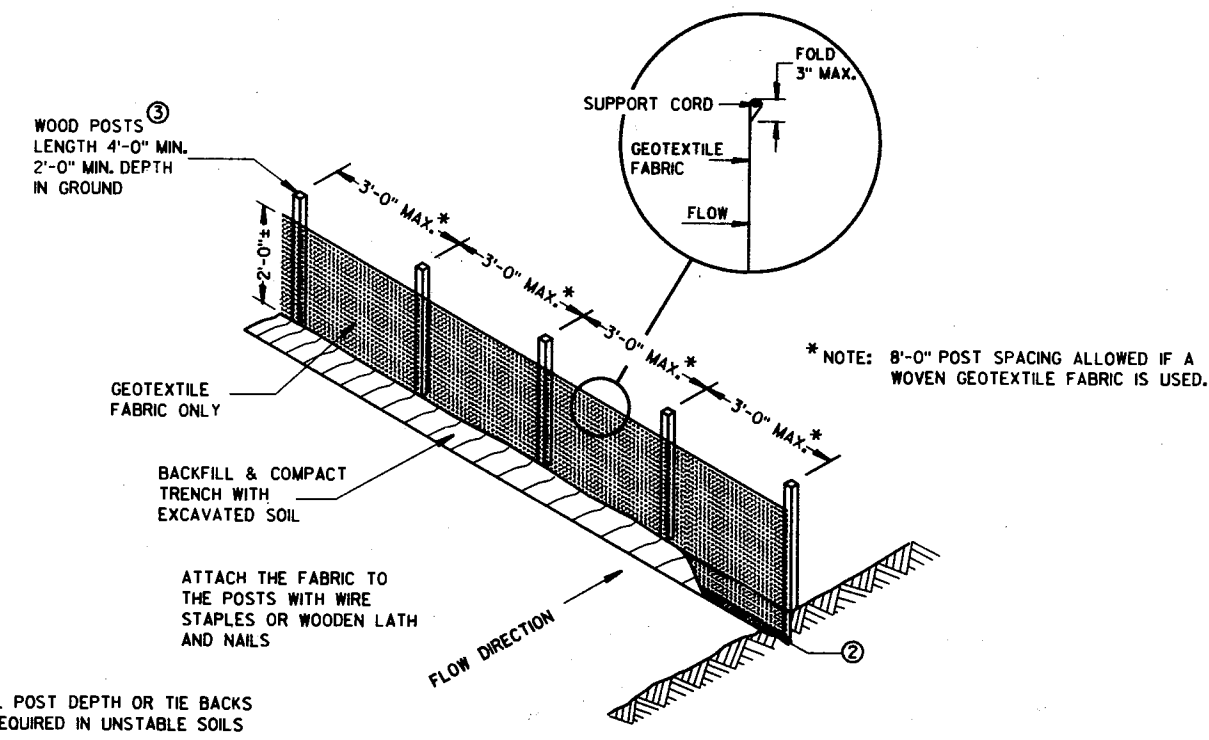
**GENERAL NOTES**

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

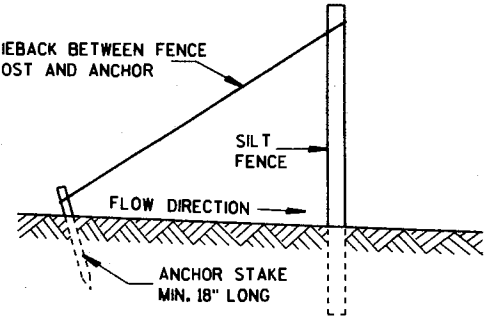
- ① HORIZONTAL BRACE WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS AS DIRECTED BY THE ENGINEER.
- ② TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
- ③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1 1/8" X 1 1/8" OF OAK OR HICKORY.

PLAN VIEW  
TYPICAL APPLICATIONS OF SILT FENCE

SITUATION 1                      SITUATION 2  
PLAN VIEW  
SILT FENCE AT MEDIAN SURFACE DRAINS



TRENCH DETAIL

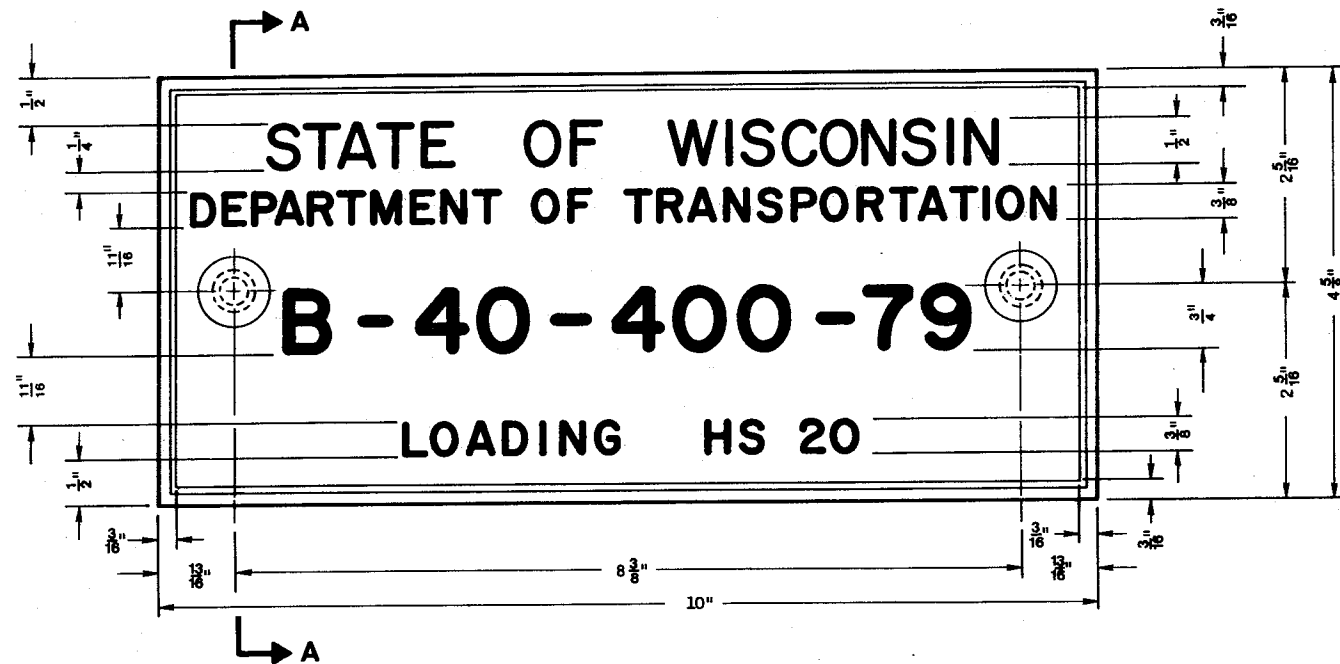


SILT FENCE TIE BACK  
(WHEN REQUIRED BY THE ENGINEER)

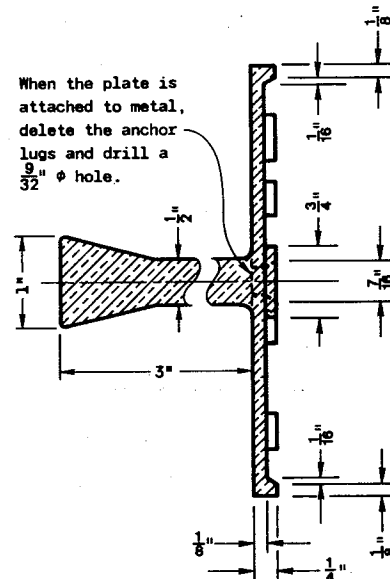
NOTE: ADDITIONAL POST DEPTH OR TIE BACKS MAY BE REQUIRED IN UNSTABLE SOILS

SILT FENCE  
(NON-REINFORCED)

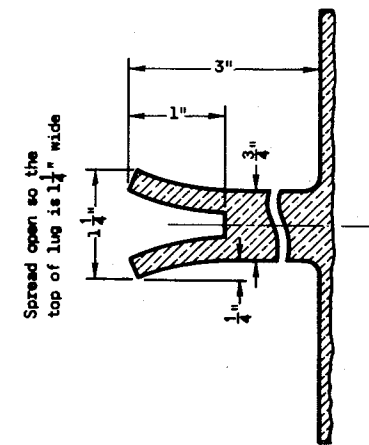
<b>SILT FENCE</b>	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	<i>[Signature]</i>
DATE 6/29/94	CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA	



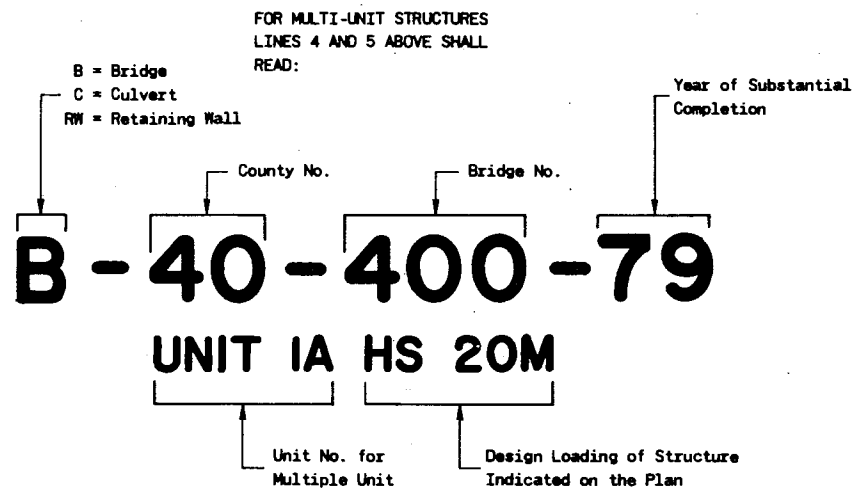
TYPICAL NAME PLATE  
(BRIDGES, CULVERTS, AND RETAINING WALLS)



SECTION A-A



ALTERNATE LUG



NUMBERING AND LOADING DESIGNATION  
MULTI-UNIT STRUCTURES

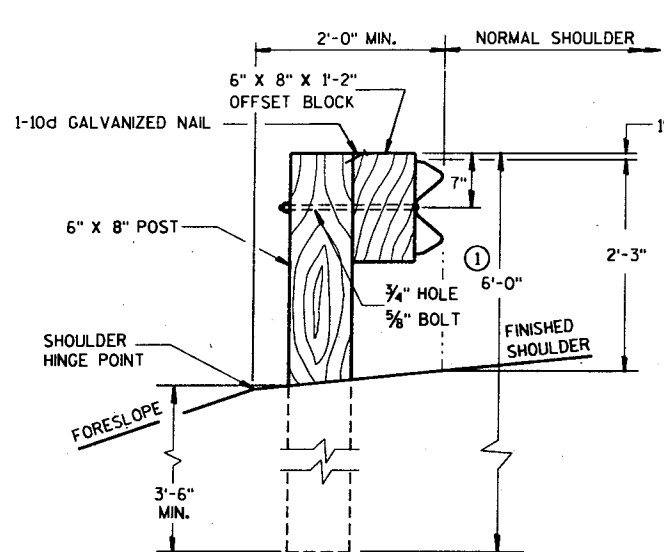
**GENERAL NOTES**

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.

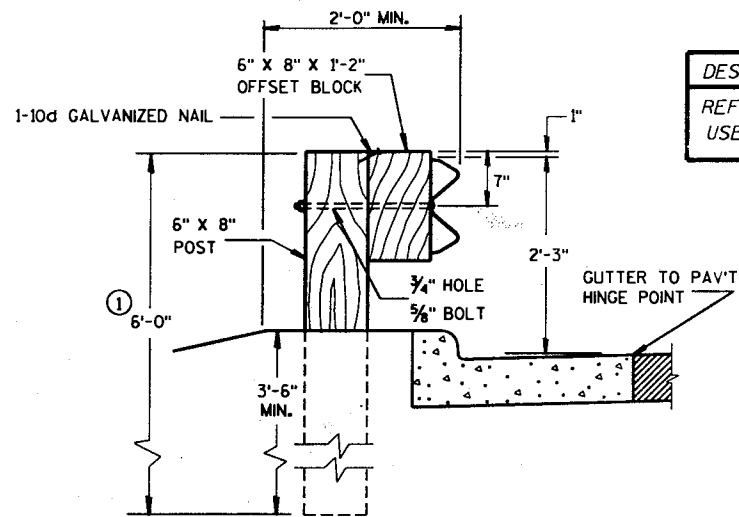
The Bridge Number and Design Loading shown on this drawing are examples only. See Construction Plans for individual numbering and design loading.

<b>NAME PLATE (STRUCTURES)</b>	
State of Wisconsin Department of Transportation Division of Transportation Facilities	
APPROVED 9-27-79 DATE	<i>[Signature]</i> CHIEF DESIGN ENGINEER
FHWA	





END VIEW  
LOCATED ALONG A ROADWAY SHOULDER



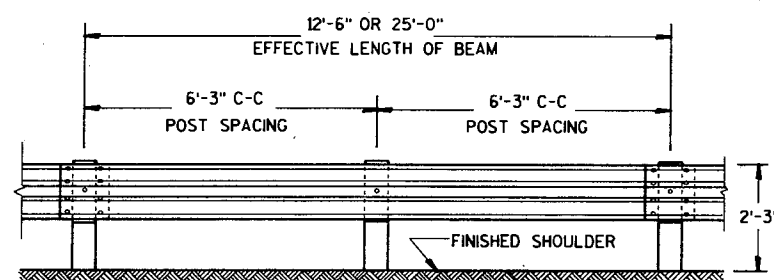
END VIEW  
LOCATED ALONG A CURBED ROADWAY

DESIGN NOTE: (WILL NOT APPEAR ON CONTRACT PLANS)  
REFER TO PROCEDURE 11-45-1 FOR GUIDANCE ON THE  
USE OF BEAM GUARD ON CURBED ROADWAYS.

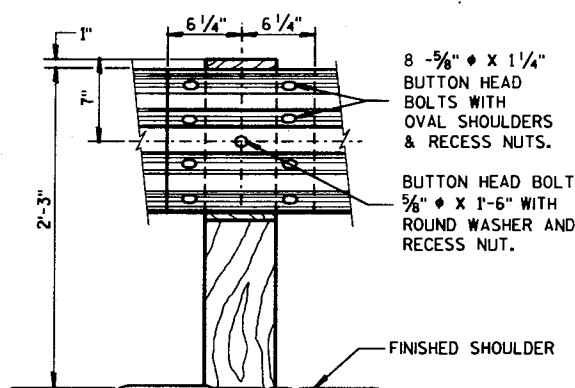
GENERAL NOTES

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.

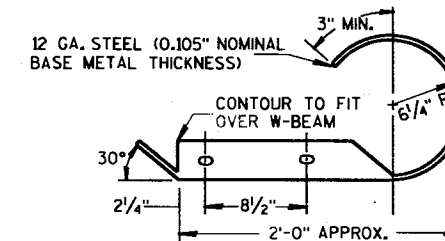
- ① POST LENGTH SHALL BE INCREASED TO PROVIDE A MINIMUM EMBEDMENT OF 3'-6" WHERE THE SHOULDER HINGE POINT IS LOCATED IN FRONT OF THE POST.
- ② PROVIDE TYPE "H" SILVER REFLECTIVE SHEETING ON ALL REFLECTORS EXCEPT THOSE LOCATED ALONG THE LEFT EDGE OF ONE-WAY ROADWAYS, WHICH SHALL BE PROVIDED WITH TYPE "H" YELLOW REFLECTIVE SHEETING.



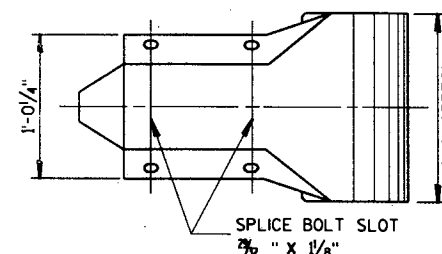
FRONT VIEW



FRONT VIEW  
BEAM SPlicing AND POST MOUNTING DETAIL

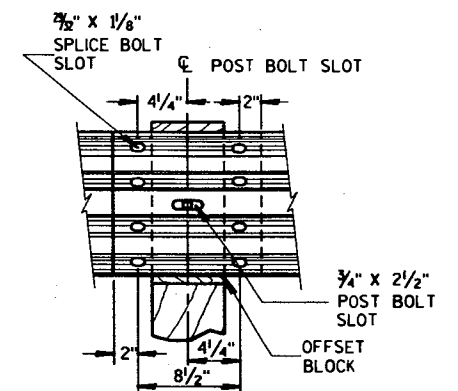


PLAN VIEW

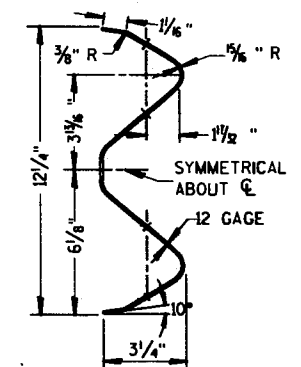


FRONT VIEW

W BEAM END SECTION (ROUNDED)



W BEAM SPLICE



SECTION THRU W BEAM

NOTE:  
SHEETS 1b IS OPTIONAL FOR INCLUSION  
IN PLANS WHEN APPLICABLE.

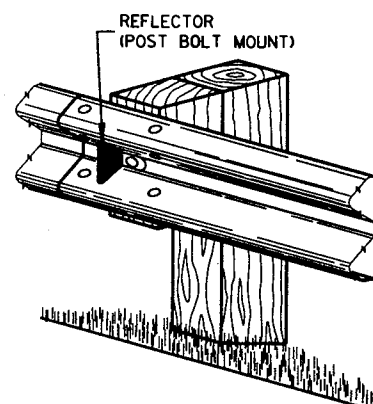
TYPICAL INSTALLATION OF STEEL PLATE BEAM GUARD

REFLECTOR SPACING

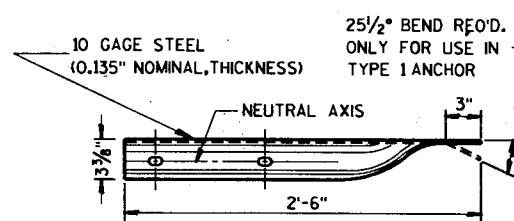
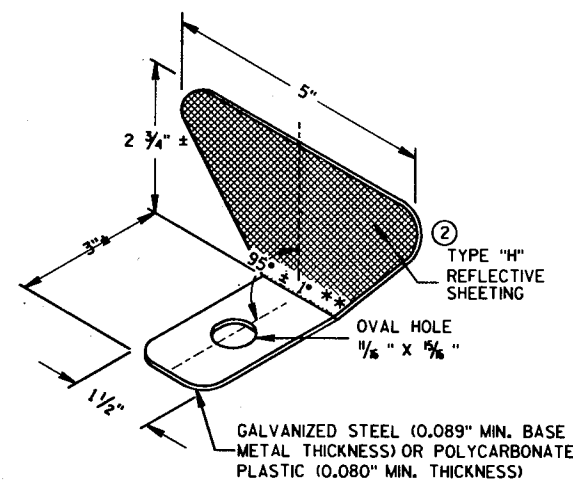
	BEAM GUARD LENGTH	REFLECTOR SPACING	NO. SURFACES REFLECTORIZED	MIN. NO. REFLECTORS
ONE WAY TRAFFIC	< 200'	50' C-C	1	3
	> 200'	100' C-C	1	3
TWO WAY TRAFFIC	< 200'*	25' C-C	1*	6
	> 200'*	50' C-C	1*	6
TWO WAY TRAFFIC	< 200'	50' C-C	2**	3
	> 200'	100' C-C	2**	3

\* EVERY OTHER REFLECTOR REVERSED FOR 2-WAY VISIBILITY. CONTRACTOR MAY FURNISH TWO-SIDED REFLECTORS IN LIEU OF ONE-SIDED REFLECTORS.

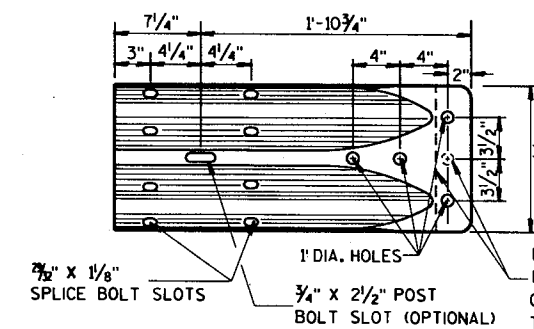
\*\* ANGLE OF BEND TO BE 90° ± 1° FOR TWO-SIDED REFLECTORS.



REFLECTOR DETAIL AND TYPICAL INSTALLATION



PLAN VIEW



FRONT VIEW

W BEAM TERMINAL CONNECTOR

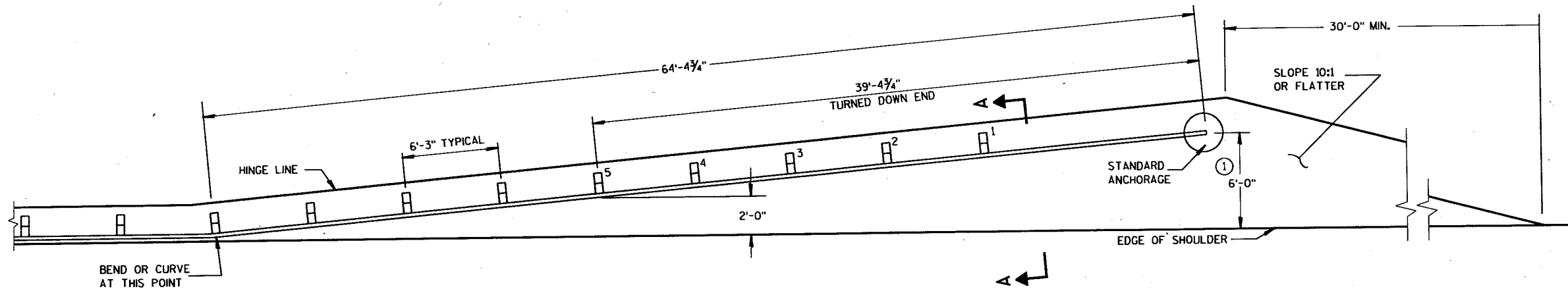
CLASS "A"  
STEEL PLATE BEAM GUARD,  
INSTALLATION & ELEMENTS

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
/DATE/

STATE DESIGN ENGINEER FOR HWYS

FHWA

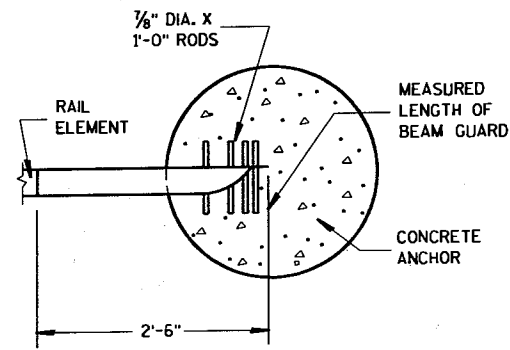


PLAN VIEW

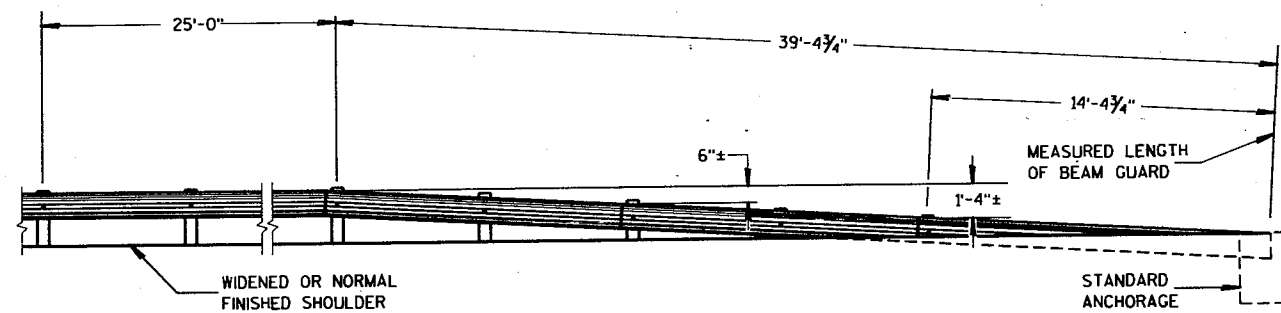
**GENERAL NOTES**

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.

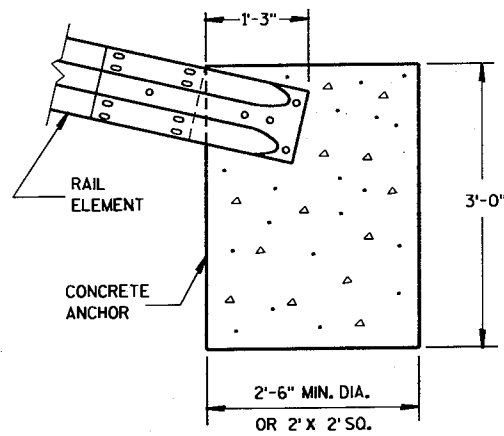
- ① WHEN APPROVED BY THE ENGINEER, THE 6 FOOT OFFSET TO THE ANCHOR MAY BE REDUCED TO 2 FEET WHERE EXISTING CONDITIONS WILL NOT PERMIT THE DESIRABLE OFFSET.



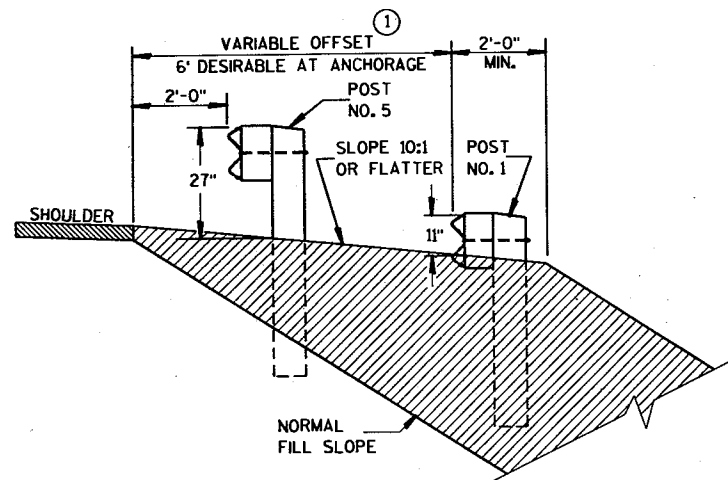
PLAN VIEW IN SECTION



FRONT VIEW



FRONT VIEW IN SECTION  
ANCHORAGE FOR STEEL PLATE BEAM GUARD

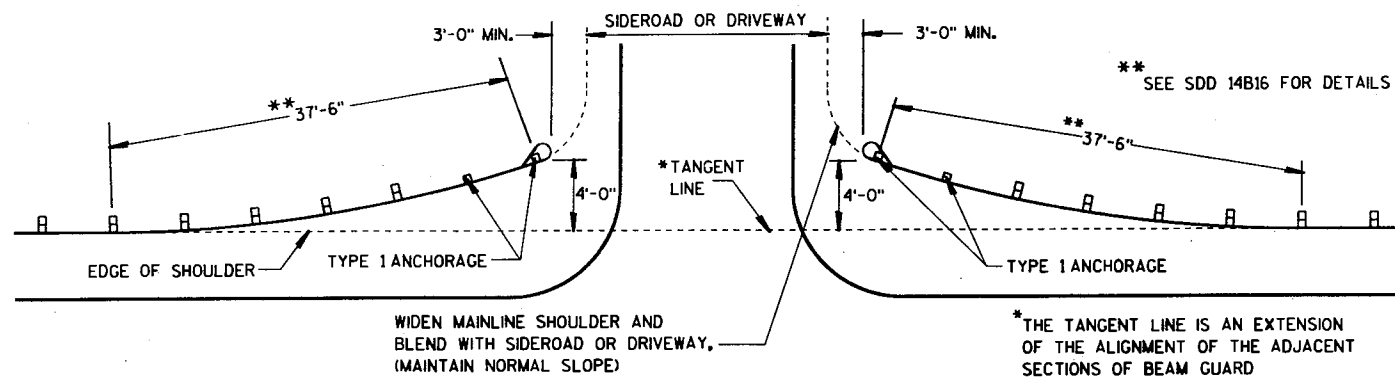


SECTION A-A

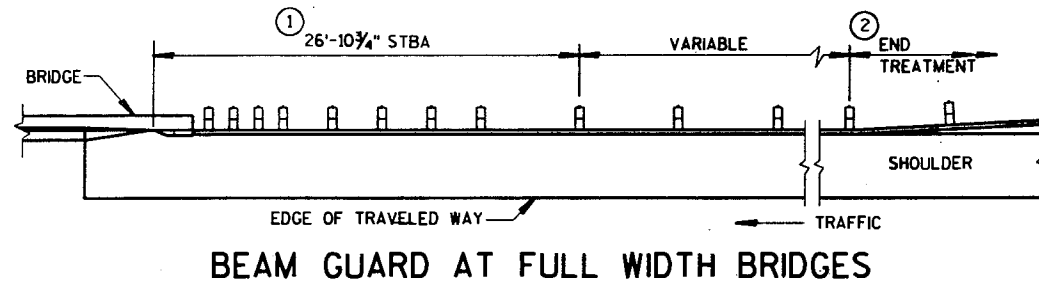
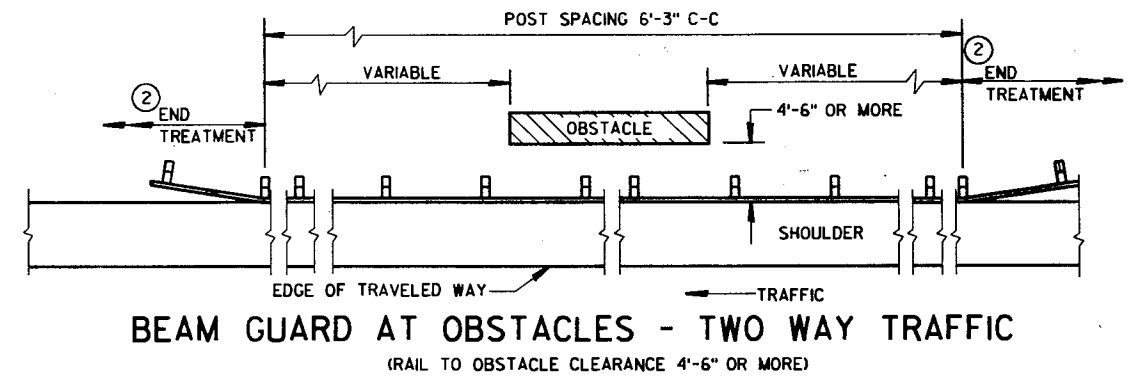
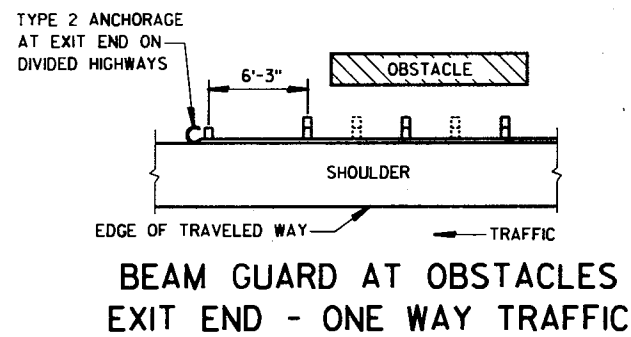
CLASS 'A' STEEL PLATE BEAM GUARD  
END TREATMENT WITH ANCHORAGE  
FOR STEEL PLATE BEAM GUARD

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

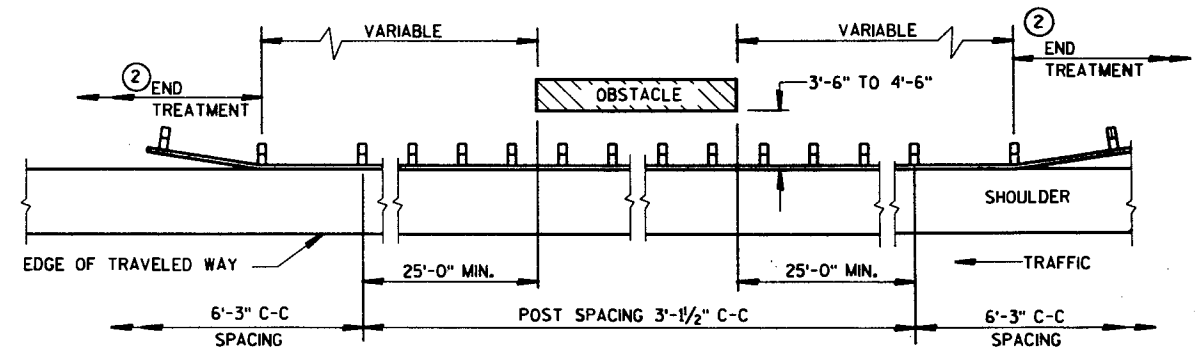
APPROVED  
DATE  
STATE DESIGN ENGINEER FOR HWYS  
FHWA



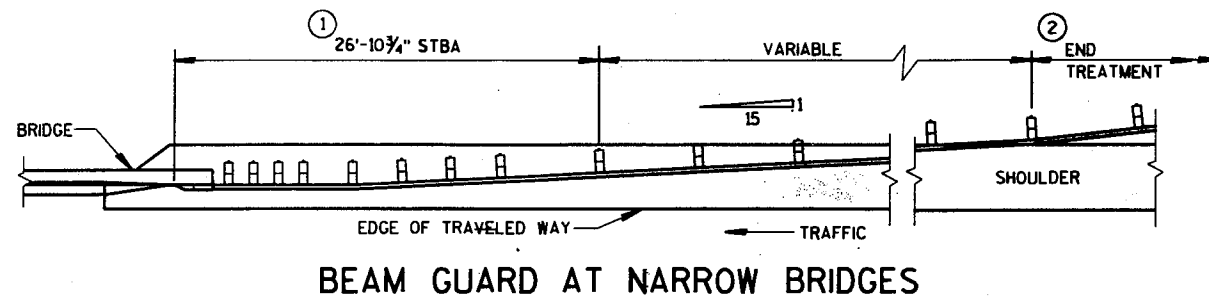
**BEAM GUARD AT MINOR SIDEROADS OR DRIVEWAYS**



**BEAM GUARD AT FULL WIDTH BRIDGES**



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



**BEAM GUARD AT NARROW BRIDGES**

**GENERAL NOTES**

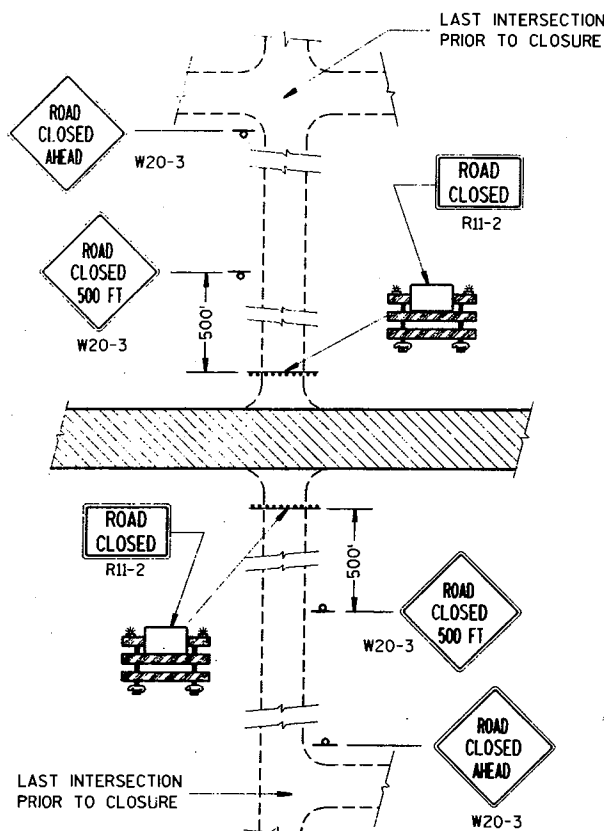
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

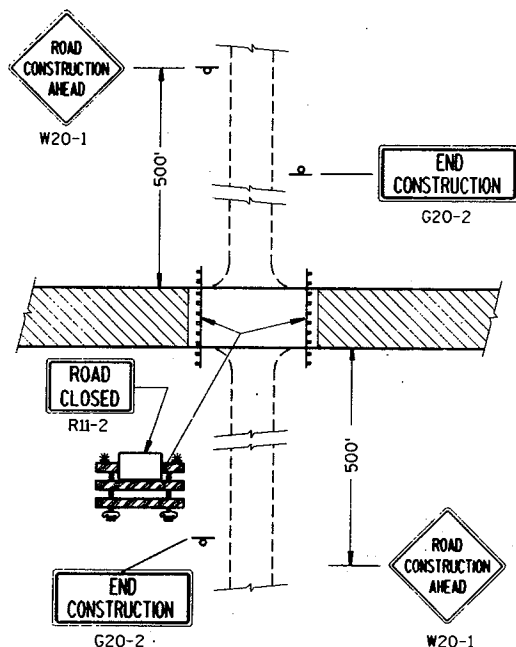
- ① STEEL THRIE BEAM STRUCTURE APPROACH.
- ② UNLESS OTHERWISE INDICATED, THE FLARED END TREATMENT WITH A TYPE 1 ANCHORAGE SHALL BE USED TO TERMINATE BEAM GUARD ON THE TRAFFIC APPROACH SIDE OF BRIDGES/OBSTACLES. TYPE 2 ANCHORAGE SHALL BE USED ONLY AT THE DOWNSTREAM ENDS OF BEAM GUARD LOCATED ALONG ROADWAYS WITH ONE WAY TRAFFIC.

S.D.D. 14 B 18-10

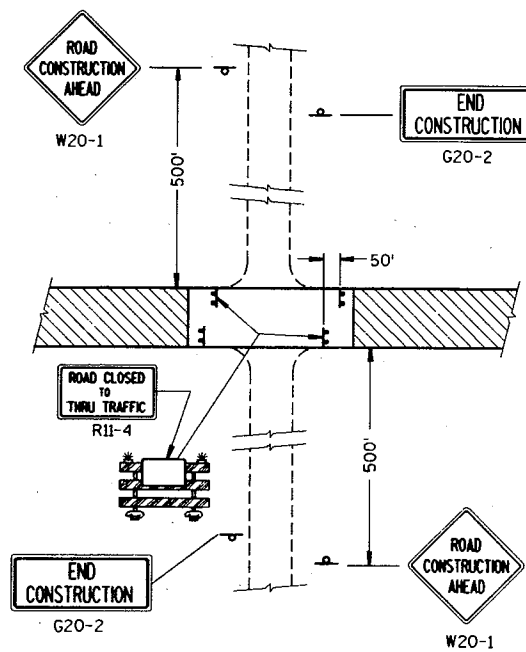
<b>CLASS "A" STEEL PLATE BEAM GUARD (AT BRIDGES, OBSTACLES AND SIDEROADS/DRIVEWAYS)</b>	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 5/13/91 DATE	 STATE DESIGN ENGINEER FOR HWYS
FHWA	



**DETAIL 1**  
(NO ACCESS TO PROJECT)

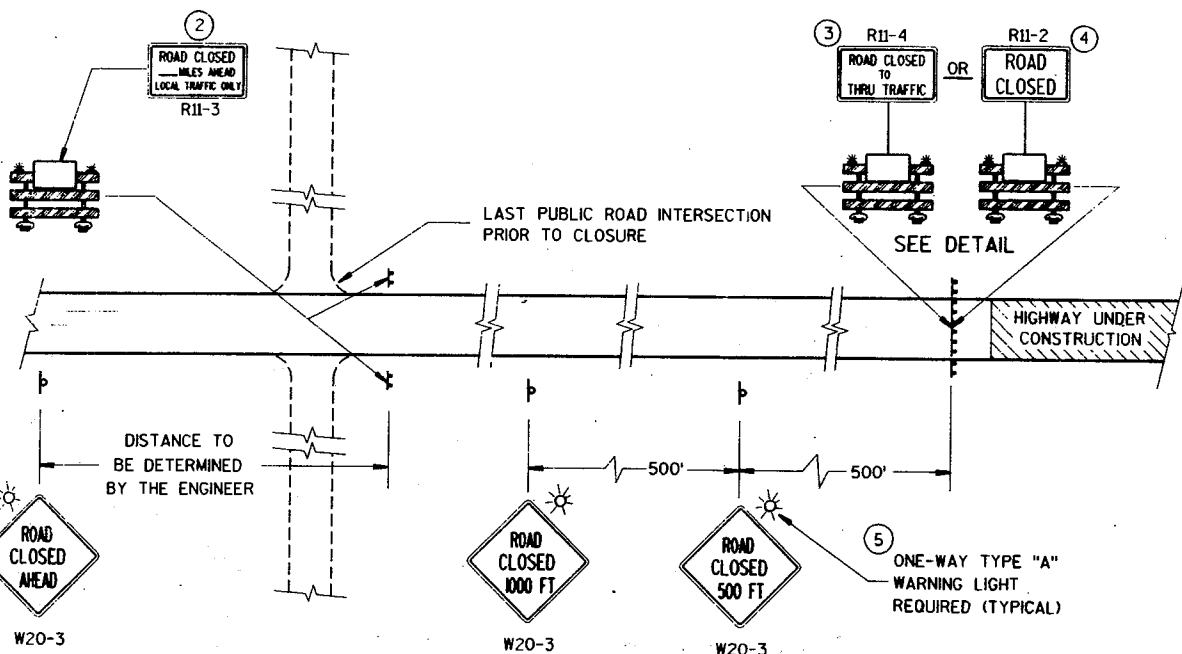


**DETAIL 2**  
(PUBLIC CROSS-TRAFFIC MAINTAINED,  
NO ACCESS TO PROJECT).

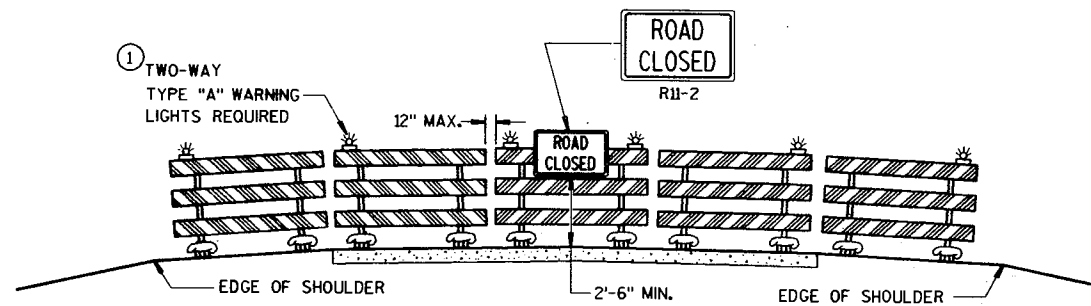


**DETAIL 3**  
(PUBLIC CROSS-TRAFFIC MAINTAINED, CONTRACTOR,  
LOCAL BUSINESS AND RESIDENT ACCESS).

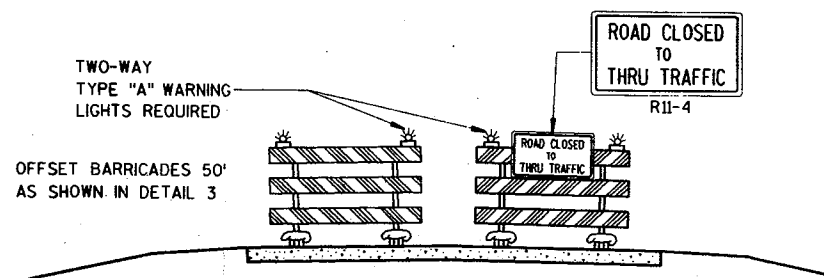
**SIDEROAD CLOSURES**



**MAINLINE CLOSURE**



**ROAD CLOSURE BARRICADE DETAIL**



**LANE CLOSURE BARRICADE DETAIL**

**GENERAL NOTES**

DETAILS OF TRAFFIC CONTROL DEVICES AND THEIR LOCATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE WISCONSIN MANUAL OF TRAFFIC CONTROL DEVICES, THE PLANS, SPECIFICATIONS AND CONTRACT.

SIGN AND BARRICADE LOCATIONS MAY BE ADJUSTED IN THE FIELD AS DIRECTED BY THE ENGINEER. ANY EXISTING TRAFFIC SIGNS THAT CONFLICT WITH THIS WORK SHALL BE COVERED AS DIRECTED BY THE ENGINEER. ALL "STOP" OR OTHER REGULATORY SIGNS ON THE SIDE ROADS SHALL NOT BE DISTURBED, EXCEPT WHEN NECESSARY TO COMPLETE THE WORK. THE SIGNS MUST THEN BE IMMEDIATELY REESTABLISHED.

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 FOR FULL ROAD CLOSURES. TYPE "A" LOW INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE ROAD CLOSED SIGN (R11-2), ROAD CLOSED \_\_\_\_\_ MILES AHEAD SIGN (R11-3) AND THE ROAD CLOSED TO THRU TRAFFIC SIGN (R11-4) SHALL BE ATTACHED ONLY TO THE TOP RAIL OF THE TYPE III BARRICADE. THE SIGNS SHALL NOT COVER MIDDLE RAIL.

TYPE "H" REFLECTIVE SHEETING SHALL BE USED ON ALL BARRICADES, TYPE I, II AND III, AND ON ALL R11-2, R11-3 AND R11-4 SIGNS.

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

R11-2, "ROAD CLOSED" SIGNS SHALL BE 48" X 30".

R11-3, AND R11-4 SIGNS SHALL BE 60" X 30".

G20-2 SIGNS SHALL BE 60" X 24".

- 1 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.
- 2 THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT INTERSECTION.
- 3 FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT. SEE LANE CLOSURE BARRICADE DETAIL.
- 4 FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT. SEE ROAD CLOSURE BARRICADE DETAIL.
- 5 ONE-WAY LIGHTS SHALL BE PROVIDED ON ALL ADVANCE WARNING SIGNS. THE UNIT SHALL BE POSITIONED SUCH THAT THE LIGHT SOURCE IS OUTSIDE THE SIGN FACE AND AT THE TOP OF THE SIGN.

**LEGEND**

- ⊥ POST MOUNTED WARNING SIGN
- ⊥ TYPE III BARRICADES WITH TYPE "H" REFLECTIVE SHEETING
- ☀ TYPE "A" LOW INTENSITY FLASHING WARNING LIGHT (FOR NIGHT USE)
- ▨ WORK AREA

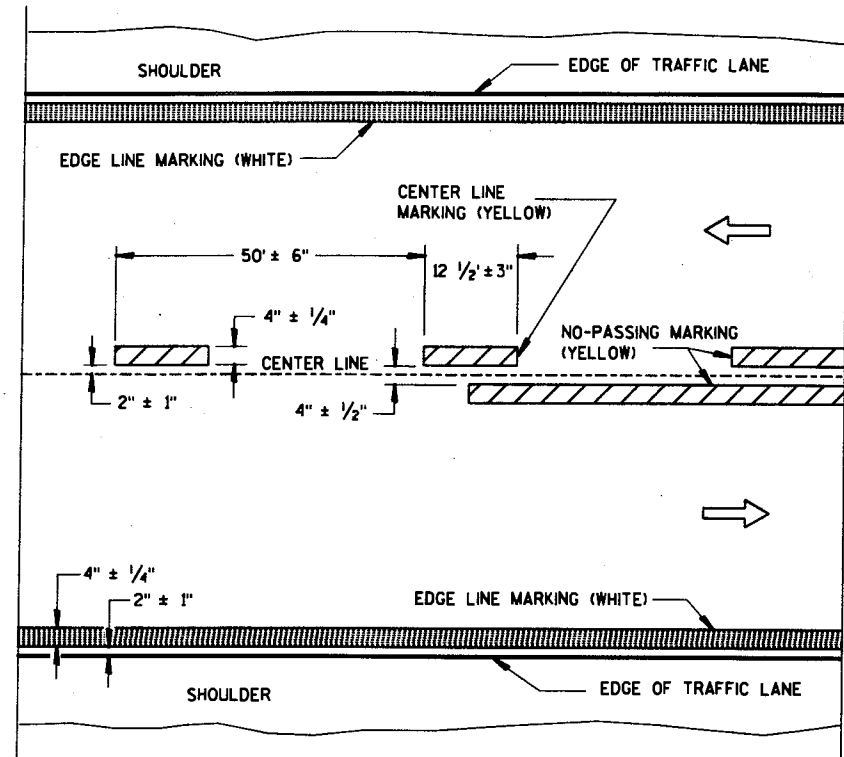
**BARRICADES AND TRAFFIC CONTROL FOR ROAD CLOSURES**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

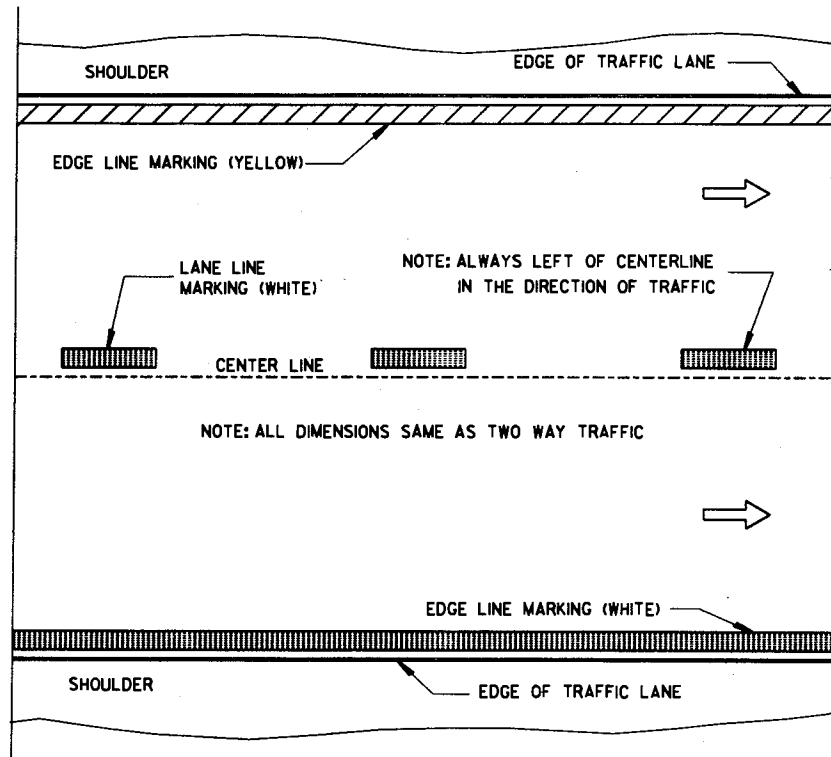
APPROVED  
10-31-87  
DATE

STATE TRAFFIC ENGINEER FOR HWYS

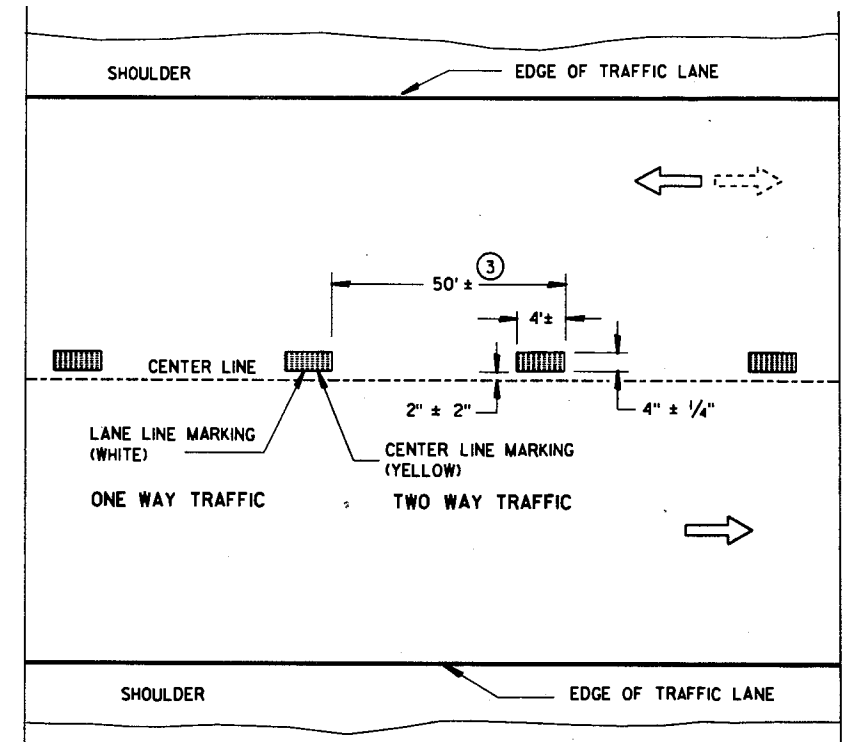
FHWA



TWO WAY TRAFFIC



ONE WAY TRAFFIC



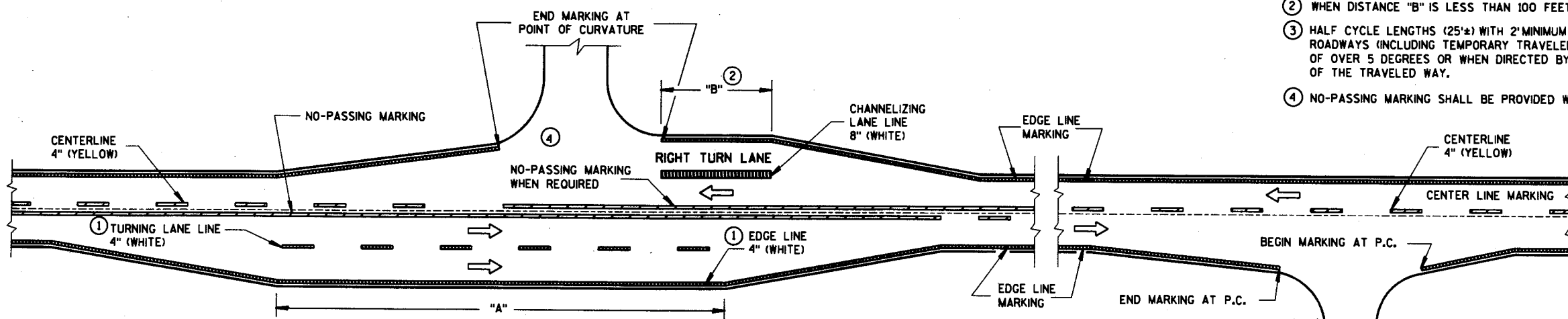
TEMPORARY PAVEMENT MARKING  
(SHOWS CYCLE FOR TEMPORARY CENTER LINE MARKING)

PERMANENT PAVEMENT MARKING  
(SHOWS CYCLE FOR PERMANENT CENTER LINE MARKING)

GENERAL NOTES

- DETAILS OF PAVEMENT MARKING NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE 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.
  - ④ NO-PASSING MARKING SHALL BE PROVIDED WHERE SIGHT DISTANCE IS DEFICIENT.

NOTE:  
ARROW SYMBOL (⇒)  
SHOWS DIRECTION OF TRAVEL



MAJOR INTERSECTION

MINOR INTERSECTION

TYPICAL PAVEMENT MARKING FOR RURAL INTERSECTIONS

NOTE:  
THIS DRAWING CONSISTS OF UP TO FOUR SHEETS. SHEET 5a MAY BE USED ALONE OR SUPPLEMENTED BY SHEET 5b, SHEET 5c AND/OR SHEET 5d AS APPLICABLE

PAVEMENT MARKING  
(MAINLINE & INTERSECTIONS)

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
7/20/93  
DATE  
STATE TRAFFIC ENGINEER FOR HWYS

FHWA

CURVE DATA

P.I. STA. 20+97.59
Δ = 29°21'01"
D = 05°00'
R = 145.92'
T = 300.09'
L = 587.01'
E = 38.64'
S.E. = 0.059%

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.
BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS SHOWN OR NOTED OTHERWISE.
THE FIRST DIGIT OF A THREE DIGIT BAR NO. AND THE FIRST TWO DIGITS OF A FOUR DIGIT BAR NO. SIGNIFIES THE BAR SIZE.
JOINT FILLER SHALL CONFORM TO THE REQUIREMENTS OF A.A.S.H.T.O. DESIGNATION M 153, TYPE 1, II OR III OR A.A.S.H.T.O. DESIGNATION M 213.
THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES" SHALL BE THE EXISTING GROUND LINE.
THE ALTERNATE CUTOFF WALL MAY BE USED IN LIEU OF THE CAST-IN-PLACE CONCRETE CUTOFF WALLS. PAYMENT SHALL BE BASED ON THE CONCRETE CUTOFF WALLS.
THE CONCRETE IN THE CUTOFF WALL MAY BE PLACED UNDERWATER IF THE EXCAVATION CANNOT BE DEWATERED.
ALL SPACES EXCAVATED AND NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH GRANULAR BACKFILL TO THE ELEVATION AND SECTION EXISTING PRIOR TO EXCAVATION WITHIN THE LENGTH OF THE BOX.
THE EXISTING STRUCTURE (B-70-38) IS A 22.0 FOOT LONG SINGLE SPAN CONCRETE FLAT SLAB BRIDGE WITH A 34.7 FT. CLEAR WIDTH.
GEOTEXTILE FABRIC TYPE "C" IS TO BE PLACED UNDER BOX CULVERT AND APRONS.
PROVIDE A 1 3/8" CAMBER AT CENTER OF THE BOX TO ACCOUNT FOR FUTURE ESTIMATED SETTLEMENT.

DESIGN DATA

LIVE LOAD: HS-20

EARTH LOAD: 5'-0"

ALLOWABLE DESIGN STRESSES:

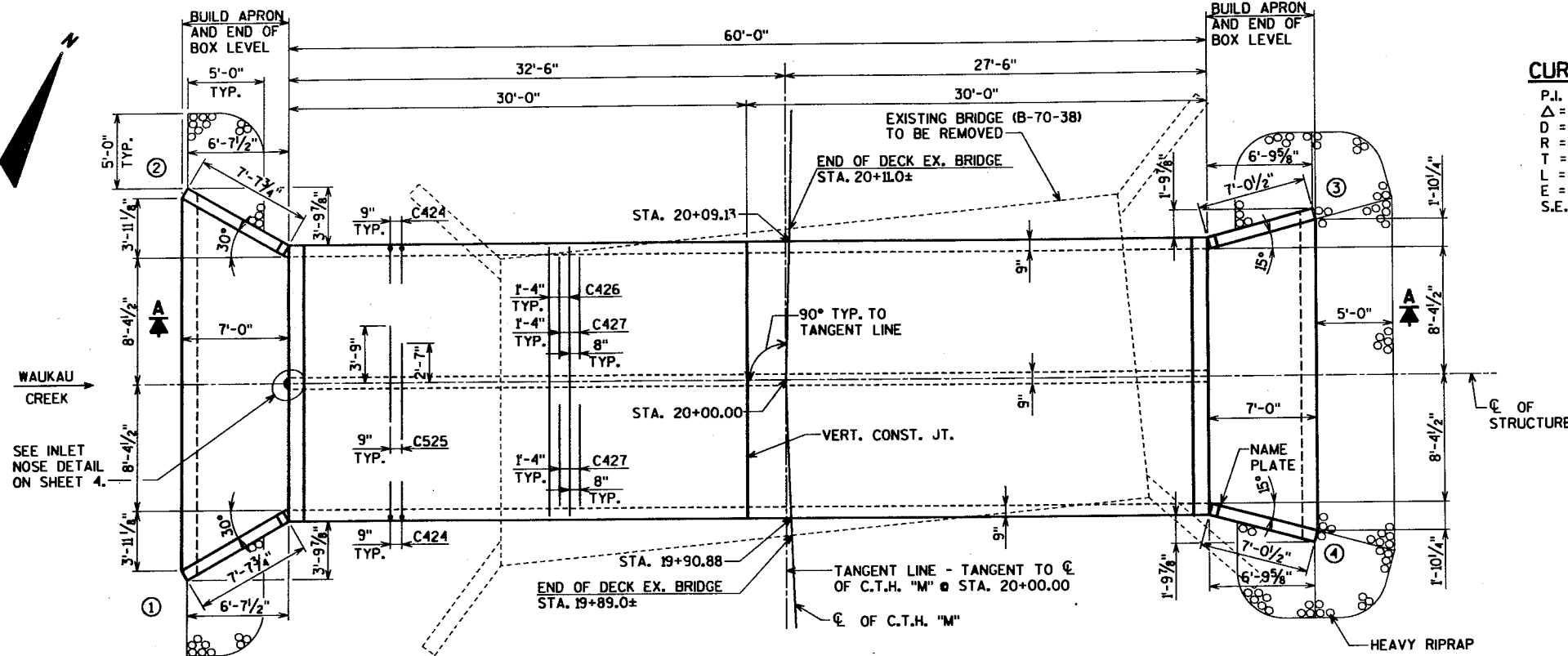
CONCRETE MASONRY f'c = 3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT (GRADE 60) fy = 60,000 p.s.i.

HYDRAULIC DATA:

DRAINAGE AREA = 42.1 sq. mi.
WATERWAY AREA = 55 sq. ft.
V = 3.5 f.p.s.
Q 100 = 190 c.f.s.
HIGH WATER 100 EL. 819.6
RDWY. OVERFLOW = N/A

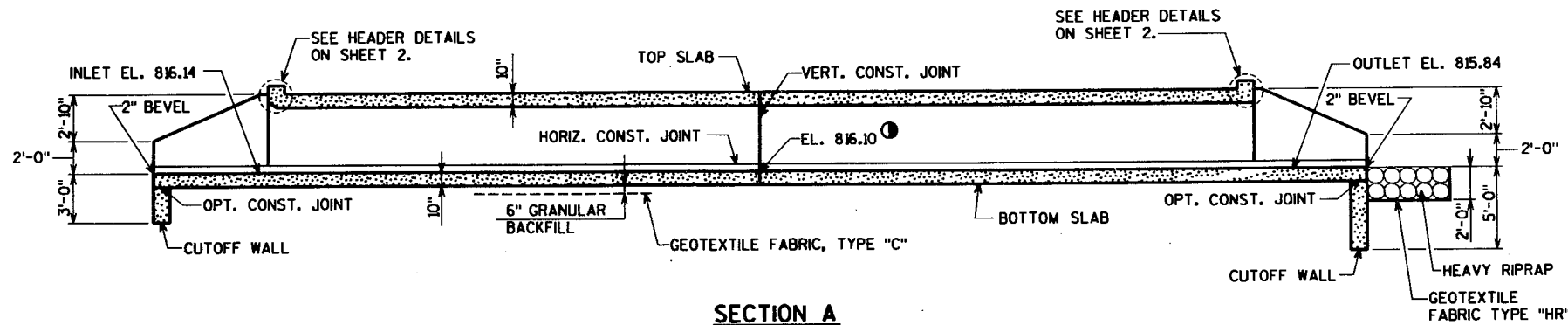
TRAFFIC DATA:

A.D.T. = 505 (1993)
A.D.T. = 560 (2013)
R.D.S. = 55 M.P.H.



PLAN (TWIN CELL BOX CULVERT)

○ DENOTES WING NUMBERS



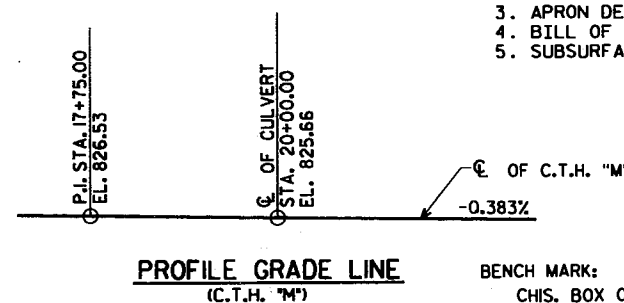
SECTION A

LIST OF DRAWINGS

- 1. GENERAL PLAN
2. BOX AND WING DETAILS
3. APRON DETAILS
4. BILL OF BARS AND DETAILS
5. SUBSURFACE EXPLORATION

TOTAL ESTIMATED QUANTITIES

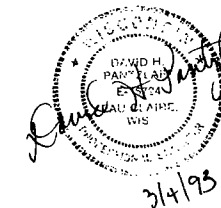
Table with columns for BID ITEMS, AMOUNT, and NON-BID ITEMS. Includes items like removing old bridge, excavation, concrete masonry, reinforcement, riprap, geotextile fabric, granular backfill, and waterstop.



PROFILE GRADE LINE (C.T.H. "M")

BENCH MARK: CHIS. BOX ON NE ABUT. COR. STA. 20+13.00, 18' RT. EL. 823.74

BRIDGE OFFICE CONTACT: C. RAY (608) 266-8486



Project information table including revision history, preparer (AYRES ASSOCIATES), state (WISCONSIN), department (DEPARTMENT OF TRANSPORTATION), structure name (C.T.H. 'M' OVER WAUKAU CREEK), county (WINNEBAGO), town (NEPELUSKUN), design specs (A.A.S.H.T.O. '92), load (HS-20), and approval signatures.

GENERAL PLAN

SHEET 1 OF 5

DATE OF PLOT = 03/04/93
DESIGN FILE IS /usr/work/trbridge/4400ppc.dgn
DGN LEVELS ON = 1-63
REFERENCE FILES
DATE:
CORRECTED BY:

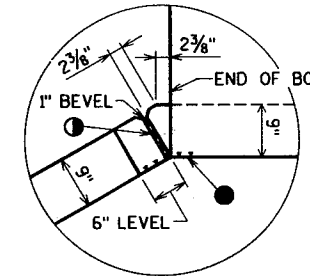


PEN TABLE = igbr.tbl  
 DATE OF PLOT = 02/09/93  
 DESIGN FILE IS /usr/work/trbrlge/4400cul.dgn  
 DGN LEVELS ON = 1-63

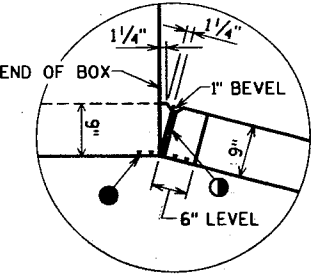
REFERENCE FILES

CORRECTED BY:

NOTE: DO NOT RUN ANY  
 BAR STEEL REINF.  
 THRU JOINT FILLER.



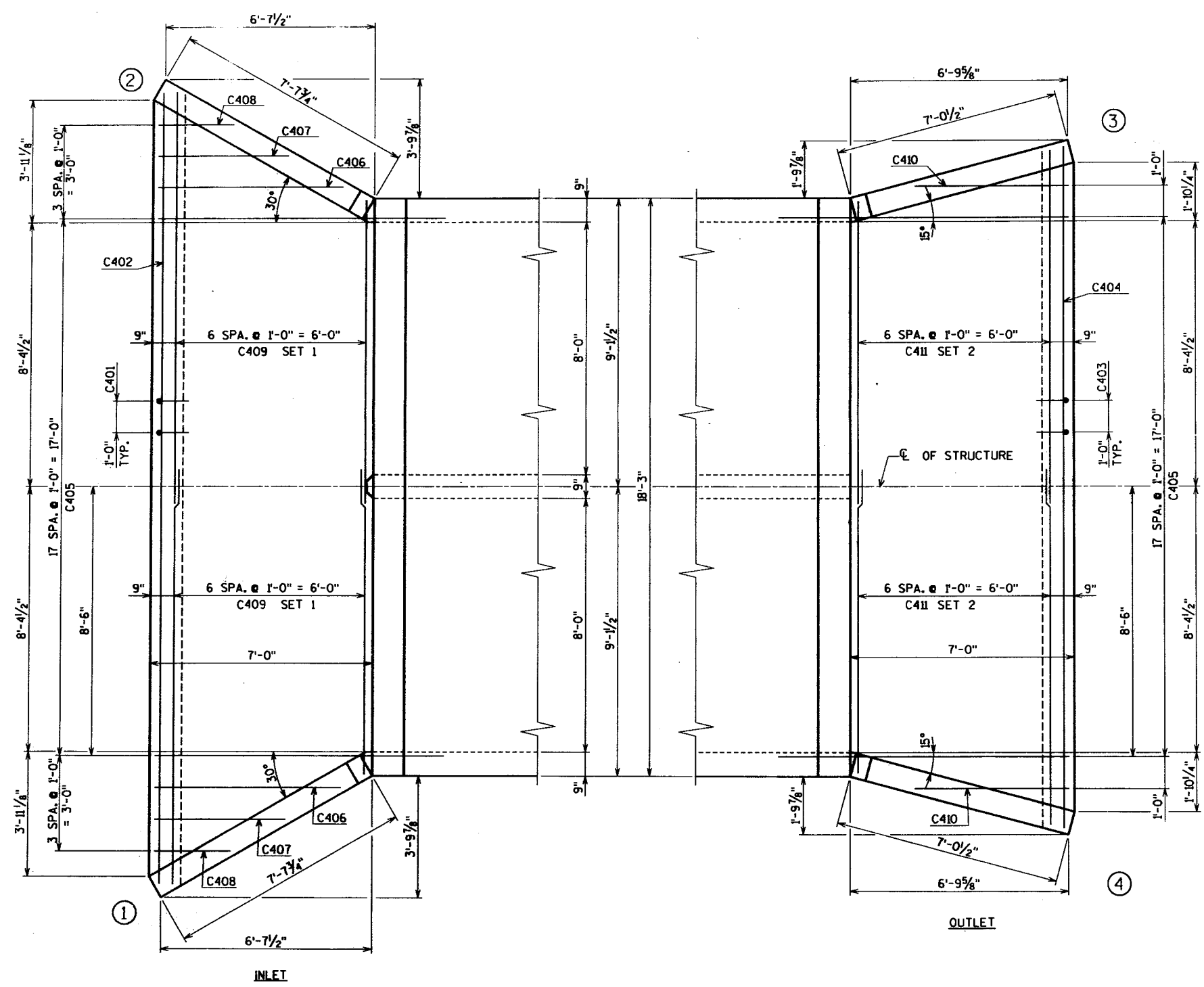
WING 1 SHOWN  
 WING 2 SIMILAR



WING 4 SHOWN  
 WING 3 SIMILAR

CORNER DETAILS

- POLYVINYL CHLORIDE WATERSTOP - EXTEND FROM HORIZ. CONST. JT. TO TOP OF WALL. (FLUSH WITH FACE OF CONCRETE.)
- 3/4" FILLER TO EXTEND FROM HORIZ. CONST. JT. TO TOP OF WING.



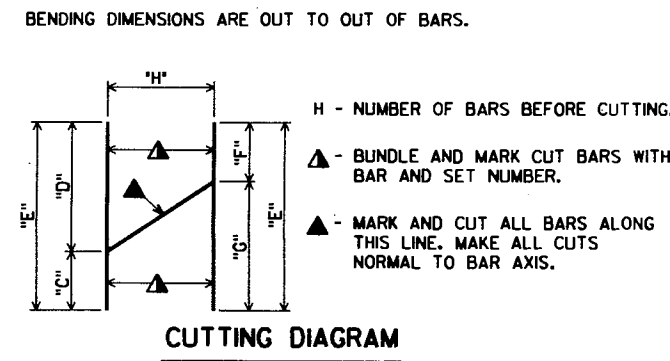
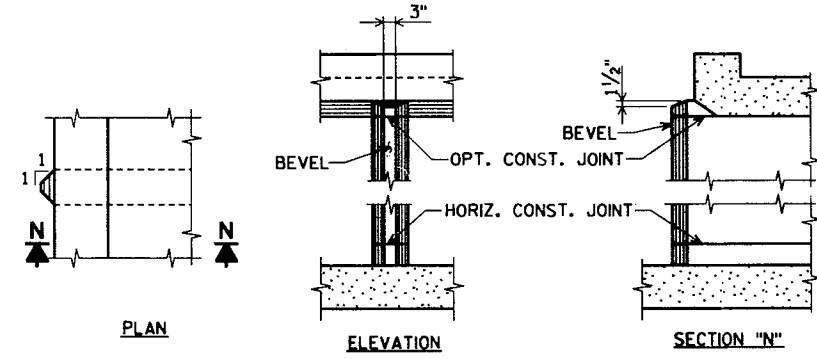
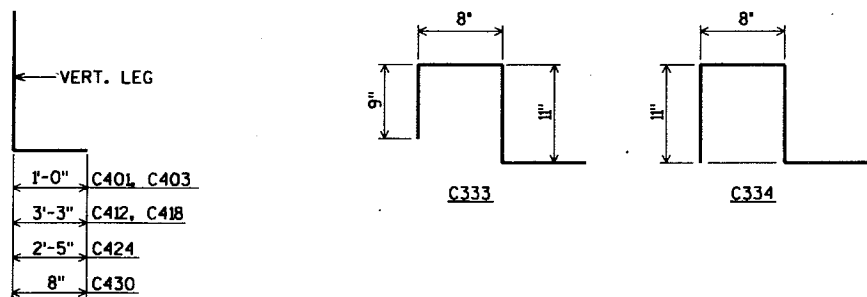
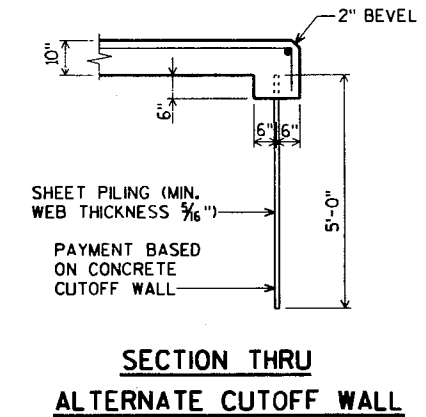
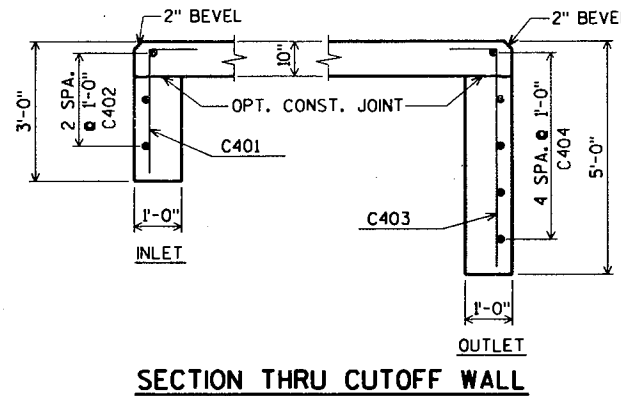
PLAN OF APRONS

No.	Date	Revision	By
PLANS PREPARED BY			
<b>AYRES ASSOCIATES</b>			
Engineers/Architects Planners/Surveyors Owen Ayres & Associates Inc. Eau Claire, Wisconsin			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE C-70-52			
Const. Spec.	1989	Drawn By:	G.L.O.
		Plans Checked:	C.B.M.
APRON DETAILS			SHEET 3 OF 5

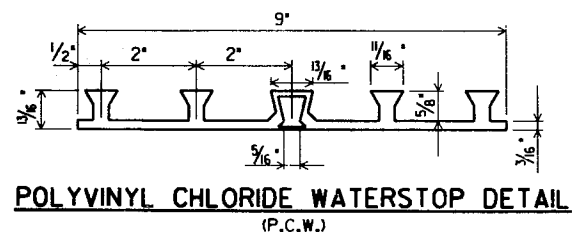
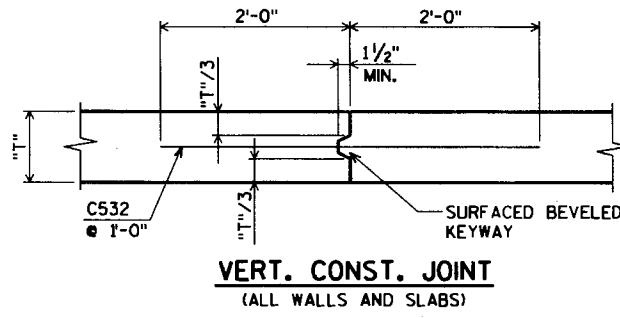


**BILL OF BARS**

BAR NO.	NO. REQ'D.	LENGTH	BENT BAR	COATED BAR	CUT. DIAGR.	7,830# UNCOATED	
						LOCATION	
C401	25	3-7	X			CUTOFF WALL INLET	
C402	3	25-0				CUTOFF WALL INLET	
C403	21	5-7	X			CUTOFF WALL OUTLET	
C404	5	21-5				CUTOFF WALL OUTLET	
C405	36	9-1				APRON INLET & OUTLET	
C406	2	5-10				APRON INLET @ WINGS	
C407	2	4-1				APRON INLET @ WINGS	
C408	2	2-4				APRON INLET @ WINGS	
C409	7	23-1	X			APRON INLET SET 1	
C410	2	4-9				APRON OUTLET @ WINGS	
C411	7	21-1	X			APRON OUTLET SET 2	
C412	8	14-1	X	X		WINGS 1 & 2 VERT. SET 3	
C413	4	9-9				WINGS 1 & 2 HORIZ.	
C414	2	7-3				WINGS 1 & 2 HORIZ.	
C415	2	5-9				WINGS 1 & 2 HORIZ.	
C416	2	2-0				WINGS 1 & 2 HORIZ.	
C517	4	7-9				WINGS 1 & 2 DIAG.	
C418	8	14-1	X	X		WINGS 3 & 4 VERT. SET 4	
C419	4	9-1				WINGS 3 & 4 HORIZ.	
C420	2	6-7				WINGS 3 & 4 HORIZ.	
C421	2	5-4				WINGS 3 & 4 HORIZ.	
C422	2	1-10				WINGS 3 & 4 HORIZ.	
C523	4	7-2				WINGS 3 & 4 DIAG.	
C424	320	5-8	X			BOX CORNERS	
C525	160	6-4				BOX BOT. & TOP SLAB TRANS.	
C426	90	17-11				BOX BOT. & TOP SLAB TRANS.	
C427	90	6-9				BOX BOT. & TOP SLAB TRANS.	
C428	124	2-2				BOX WALLS VERT. DOWELS	
C429	62	4-2				BOX EXT. WALLS VERT.	
C430	62	4-9	X			BOX INT. WALLS VERT.	
C431	112	29-8				BOX LONG.	
C532	48	4-0				BOX VERT. CONST. JT.	
C333	25	2-7	X			BOX HEADER INLET	
C334	25	2-9	X			BOX HEADER OUTLET	
C435	4	17-11				BOX HEADER INLET & OUTLET	



BAR NO.	C	D	E	F	G	H	SETS REQ'D.
C409 SET 1	9'-10"	13'-3"	23'-1"	9'-10"	13'-3"	7	2
C411 SET 2	9'-9"	11'-4"	21'-1"	9'-9"	11'-4"	7	2
C412 SET 3	5'-8"	8'-5"	14'-1"	5'-8"	8'-5"	8	2
C418 SET 4	5'-8"	8'-5"	14'-1"	5'-8"	8'-5"	8	2



No.	Date	Revision	By
PLANS PREPARED BY			
<b>AYRES ASSOCIATES</b> Engineers/Architects Planners/Surveyors Owen Ayres & Associates Inc. Eau Claire, Wisconsin			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE C-70-52			
Cons. Spec.	1989	Drawn By	G.L.O.
		Plans Checked	C.B.M.
BILL OF BARS AND DETAILS			SHEET 4 OF 5

PEN TABLE = lgbt.tbl  
 DATE OF PLOT = 02/09/93  
 DESIGN FILE IS /usr/work/trbridge/4400cul.dgn  
 DGN LEVELS ON = 1-63  
 REFERENCE FILES  
 CHECKED BY:  
 BACK CHECKED BY:  
 CORRECTED BY:

PEN TABLE = lqbr.tbl  
 DATE OF PLOT = 02/09/93  
 DESIGN FILE IS /usr/work/trbrldge/4400qpc.dgn  
 DGN LEVELS ON = 1-63

REFERENCE FILES  
 ON = 1-63  
 ON = 1-31, 32, 33  
 BACK CHECKED BY:  
 CORRECTED BY:

STATE PROJECT NUMBER	SHEET NO.
6477-01-71	84

ABBREVIATIONS

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

MATERIAL SYMBOLS

Topssoil	Silt	Sandstone
Sand	Peat	Limestone
Gravel	Clay	Igneous Rock

LEGEND OF PROBING

Probing No.  
 Station  
 Elevation

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

7 Average Blows Per Foot

Refusal 95/6

LEGEND OF BORING

Boring No., Elev. Sta. & Offset

Unconfined Strength → [7.7] 7 \*

Blows Per Foot Using 140# Wt. Falling 30".

Wash Sample

Shelby Tube — S.T.

Ground Water Elevation

No Ground Water Observed Above This Elevation

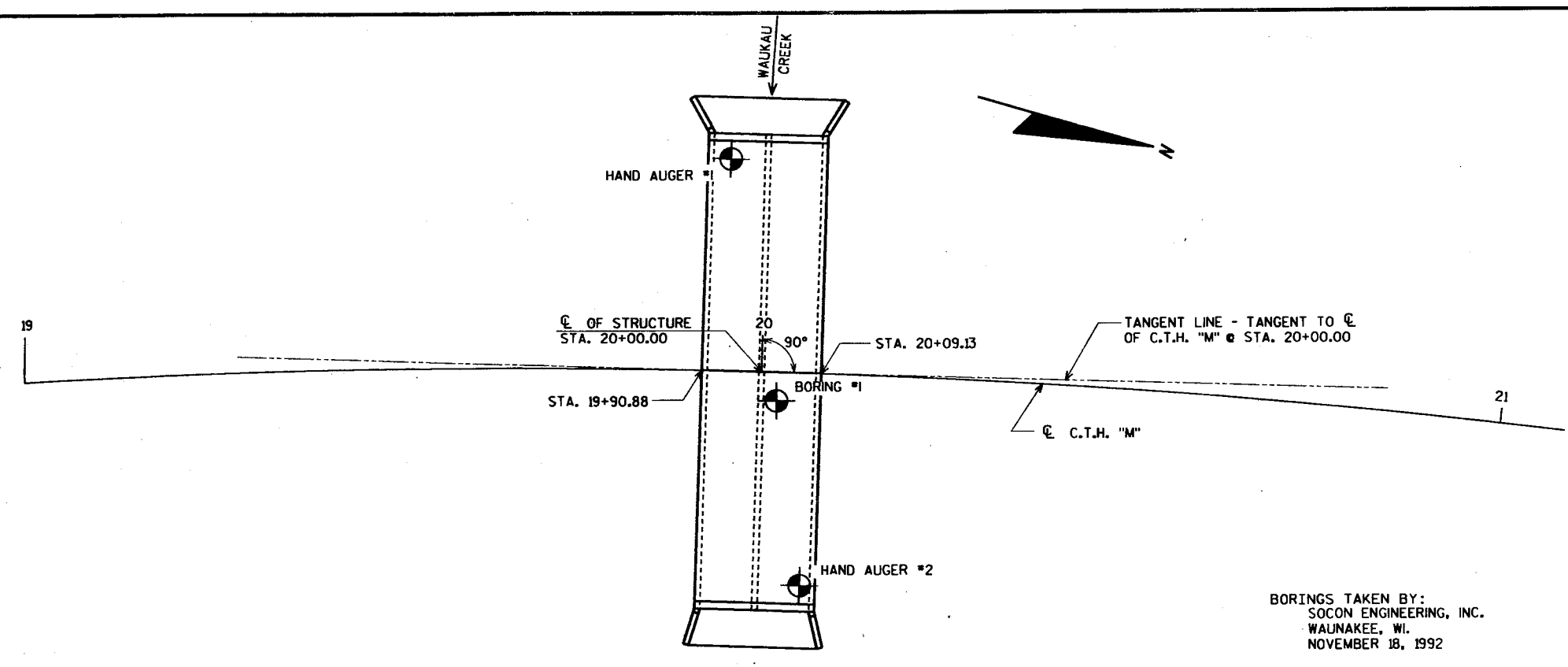
Sandy Gravel  
 F  
 Boulders or Cobbles  
 Sand  
 Silty Clay  
 So  
 Limestone

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.

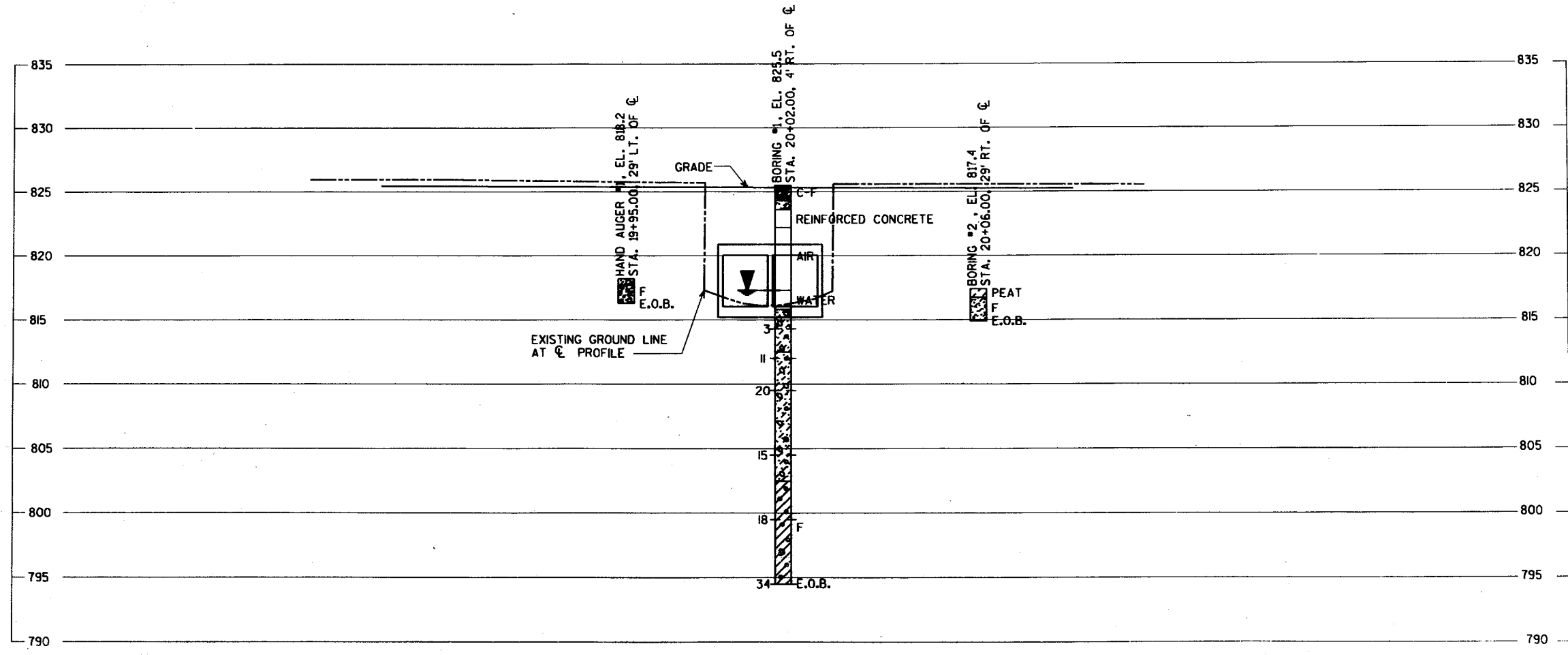
SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

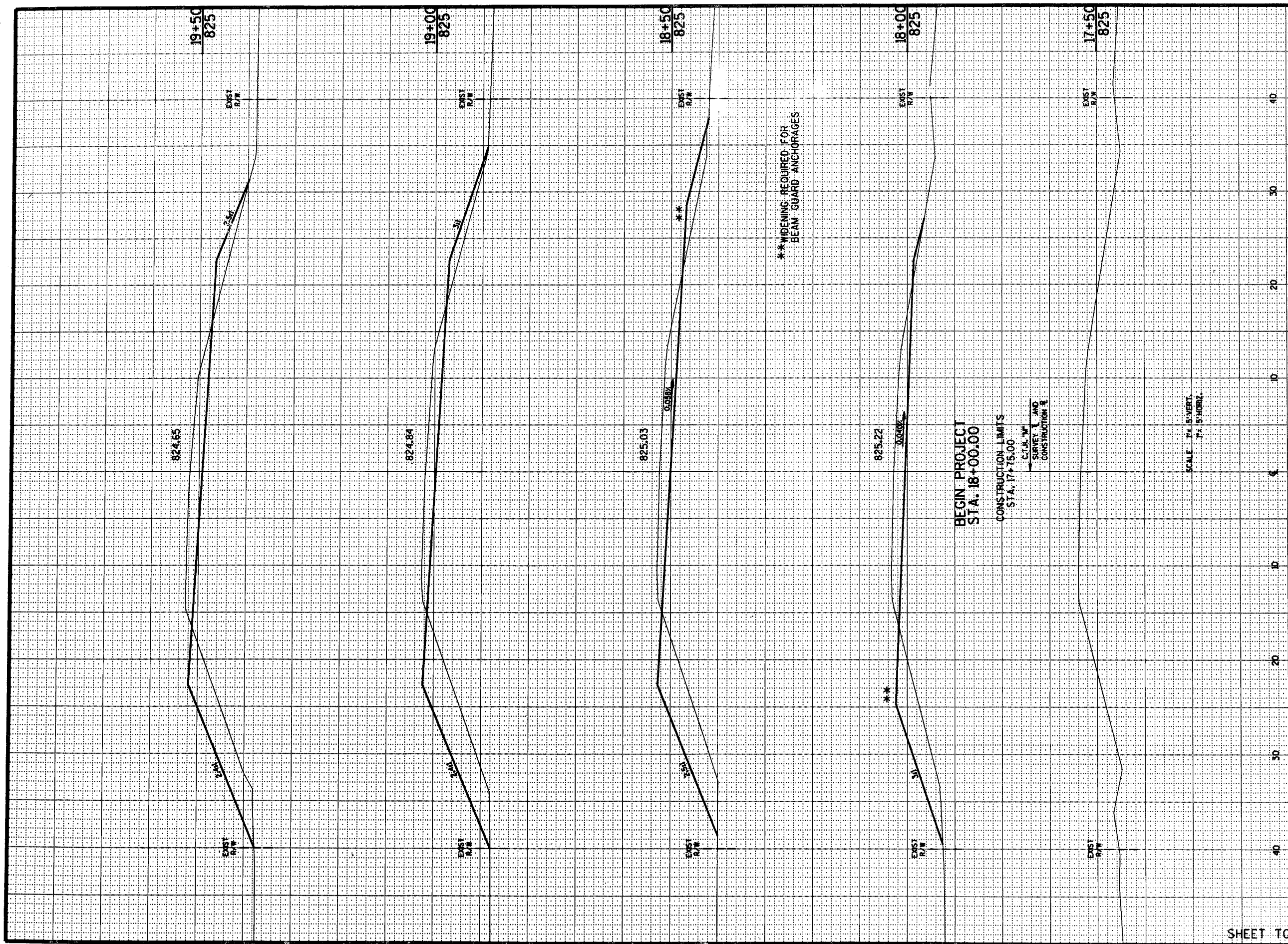
To obtain relative data concerning the character of material in and upon which the foundation might be built, borings and/or soundings were made at points approximately as indicated on this drawing. The data presented herein represents the findings of the subsurface explorations made. However, because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

No.	Date	Revision	By
PLANS PREPARED BY			
<b>AYRES</b> Engineers/Architects Planners/Surveyors			
Owen Ayres & Associates Inc. Eau Claire, Wisconsin			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE C-70-52			
Const. Spec.	1989	Drawn By	C.L.P.
		Plans Checked	C.B.M.
SUBSURFACE EXPLORATION			SHEET 5 OF 5



BORINGS TAKEN BY:  
 SOCON ENGINEERING, INC.  
 WAUNAKEE, WI.  
 NOVEMBER 18, 1992





STATION	DISTANCE	YARDAGE		
		EXCAVATION		FILL
		UNCL.		
17+75	25	0	17	
18+00	50	63	85	
18+50	50	59	107	
19+00	50	59	62	
19+50				
SHEET TOTAL		181	271	

22+50  
825

22+00  
825

21+50  
825

21+00  
825

20+50  
825

END PROJECT  
STA. 22+00.00

MATCH EXISTING  
STA. 22+00.00

823.69

0.05%

823.88

\*\* WIDENING REQUIRED FOR  
BEAM GUARD ANCHORAGES

824.07

2.2%

C.M.H.M.  
SURVEY AND  
CONSTRUCTION

824.26

SCALE: 1" = 50 FEET  
1" = 5 HORIZ.

STATE PROJECT NUMBER  
6477-01-71

SHEET NUMBER

91

STATION	DISTANCE	YARDAGE		
		EXCAVATION		FILL
		UNCL.		
19+50				
20+00	50	65		94
20+50	50	67		83
21+00	50	67		70
21+50	50	67		113
22+00	50	67		80

SHEET TOTAL 333 440