B-44-0465 00

Ir

Soo Line

Soo Line Overhead 00

Sheet No.
Sheet No.
Sheet No.
Sheet No.
Sheet No.
Sheet No.
Sheet No.
Sheet No.
Sheet No.
Sheet No. 8 - 8.19 Cross Sections

TOTAL SHEETS = 51

C-31

STATE OF WISCONSIN

DEPARTMENT OF TRANSPORTATION

DIVISION OF HIGHWAYS

PLAN AND PROFILE OF PROPOSED

BLUEMOUND DRIVE – MASON STREET

(SOO LINE OVERHEAD & APPROACHES)

C.T.H. "00"

OUTAGAMIE COUNTY

STATE PROJECT NUMBER
4984-0- 34.

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
4984-0-33	M 1201(002)	1
4984-0-34	"	2
4984-0-35	"	3

RECEIVED

MAY 25 1976

OUTAGAMIE COUNTY
HIGHWAY COMMISSION

Scales { Plan 1 in. = 50 ft.
Profile Hor. 1 in. = 50 ft. Vert. 1 in. = 5 ft.
Cross Sections Hor. 1 in. = 10 ft. Vert. 1 in. = 10 ft.

APPROVED FOR
OUTAGAMIE COUNTY
2/27/76 Clarence J. Brennan
DATE COUNTY HWY. COMM'R

THESE PLANS PREPARED
BY
BARRIENTOS & ASSOCIATES, INC
CONSULTING ENGINEERS
MADISON, WISCONSIN

ROBERT A. SINDELAR E-14339 MADISON, WIS. PROFESSIONAL ENGINEER

HIGHWAY Robert A. Sindelar 2-26-76

STRUCTURE James L. Parkinson 2-26-76

WIS. REG.

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

Surveyor _____ District Checker H.A.T.
Designer _____ C.O. Checker R.A.H.

Correct:
Date 3/23/76 C. R. Ryan
District Engineer
Recommended for Approval:
Date 4/15/76 D. D. Schmidt
Chief of Facilities Development
Approved:
Date 4/16/76 H. L. Gardner
State Highway Engineer

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

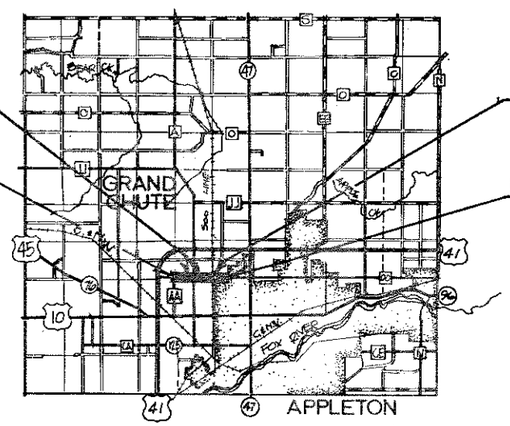
Approved:
Date _____
Division Engineer

Design Designation

A. D. T. (1976)	= 10,600
A. D. T. (1996)	= 14,750
D. H. V. (1996)	= 1,625
D.	= 55-45%
T.	= 3.5 %
V.	= 50 M.P.H.

EXCEPTION NET ℄ LENGTH
STA. 23+54.7 TO STA. 30+54.7
= STA. 6+50 TO STA. 14+35 of PROJ. M1201(001)

BEGIN PROJECT 4984-0-33,35
STA. 0+00
N = 169,400 (±200')
E = 2,404,400 (±200')
T. 21N. – R. 17 E.
38.5' NORTH & 41.25' WEST OF THE SOUTHEAST CORNER OF SECTION 17.
= STA. 428+45 OF PROJ. F.A.P. 582G(2)



STRUCTURE B-44-465
STA. 53+67.83-54+97.67,
PROJECT 4984-0-34

END PROJECT 4984-0-33,35
STA. 80+64
N = 169,200 (±200')
E = 2,412,450 (±200')
T. 21N. – R17 E.
48.9' SOUTH & 50' WEST OF THE N. 1/4 CORNER OF SECTION 22.
= STA. 509+09 OF PROJ. F.A.P. 582G(2)

N

Conventional Signs

State Line
County Line
Township or Range Line
Section Line
New Right of Way Line
Present Right of Way Line
Wire Fence { Woven, Barbed
Lot Line
Corporate or City Limits
Property Line — P.L.+32.6
Traveled Way or P.E.
Railroads
Base or Survey Line

Culverts in Place
Culverts Required
Drop Inlet
Power Pole
Telephone or Telegraph Pole
Right of Way Markers
Reference Stake for Hubs Only
Marsh
Hedge
Trees
Ground Elevation — Datum Line 73.9
Grade Elevation — Datum Line 76.16

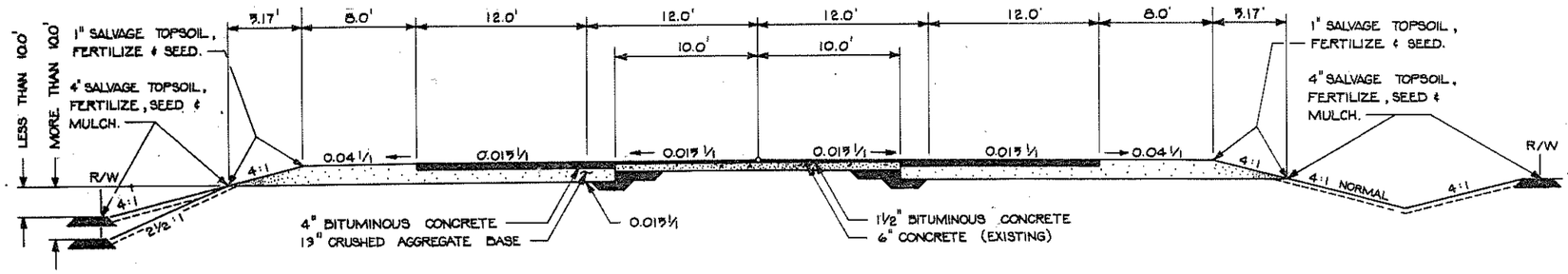
Layout

Scale: 1" = 2 Mi.

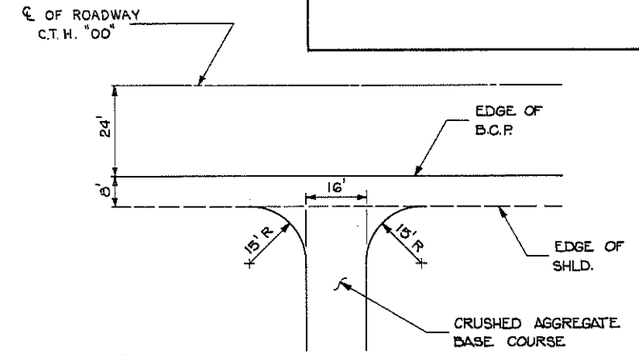
NET LENGTH OF CENTERLINE PROJECT 4984-0-33,35 = 1.370 MI.
NET LENGTH OF CENTERLINE PROJECT 4984-0-34 = 0.025 MI.
TOTAL NET LENGTH OF CENTERLINE = 1.395 MI.

ALL COORDINATES SHOWN ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COORDINATE SYSTEM, CENTRAL ZONE & SCALED FROM APPLETON QUADRANGLE FOR IDENTIFICATION ONLY.

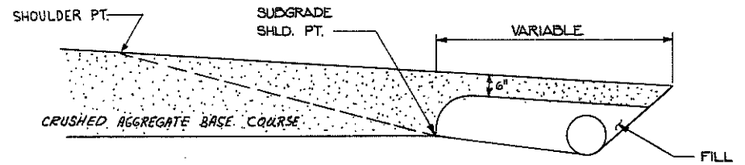
C-31



TYPICAL ROADWAY SECTION



PRIVATE ENTRANCE PLAN



PRIVATE ENTRANCE PROFILE

DETAIL SUMMARY OF MISCELLANEOUS QUANTITIES

CLEARING AND GRUBBING

STATION TO STATION	CLEARING IN DIA.	GRUBBING IN DIA.
4+00 - 10+00	80	80
35+50 - 41+00	102	102
55+00 - 72+00	1114	1114

REMOVING SURFACE DRAINS

STATION TO STATION	LOC.	EACH
4+30 TO 5+20	RT.	1
53+55.7 (CONTRACT 2)	LT.	1
55+09.7 (CONTRACT 2)	LT.	1

CORRUGATED METAL PIPE ARCH

STATION	LOC.	LIN. FT.	SIZE	ENDWALLS
70+41.5	53' LT.	28	57"x38"	2

REMOVING INLETS

STATION	LOC.	EACH
53+55.7	12.4' LT	1
53+55.7	22.7' RT	1
55+09.7	12.4' LT.	1
55+09.7	22.7' RT.	1

EARTH WORK SUMMARY

STATION TO STATION	UNCL. (C.Y.)	FILL(C.Y.)
0+00 TO 23+54.7	6,223	1,715
30+54.7 TO 54+00	5,562	20,477
54+00 TO 80+64	4,743	17,114

CRUSHED AGGREGATE BASE COURSE

STATION TO STATION	QUANTITY (TON)
0+00 TO 23+54.7	
MAIN LINE	9,830
5 ENTRANCES	40
C.T.H. "A"	10
BLUEMOUND ROAD	10
30+54.7 TO 54+00	
MAIN LINE	9,830
1 ENTRANCE	7
54+00 TO 80+64	
MAIN LINE	11,060
2 ENTRANCES	13

BITUMINOUS CONCRETE PAVEMENT

STATION TO STATION	BIT. CONC. PAV'T. (TON)	BIT. MAT'L. FOR SURF. COURSE (6%) (TON)
0+00 TO 23+54.7		
MAIN LINE (1½" & 4")	2,068	121
C.T.H. "A" INTERSECTION (2½")	16	1
BLUEMOUND ROAD (2½")	15	1
EDWARDS STREET (2½")	48	3
30+00 TO 53+67.25		
MAIN LINE (1½" & 4")	2,068	121
		1
WEDGING CENTER 20' MAIN LINE - 150' WEST OF THE WEST APPROACH SLAB	75	4
54+98.5 TO 80+64		
MAIN LINE (1½" & 4")	2,340	137
		1
WEDGING CENTER 20' MAIN LINE - 330' EAST OF THE EAST APPROACH SLAB	300	18

CULVERT PIPES, CLASS III

STATION	LOC.	18 INCH	30 INCH	36 INCH	THICKNESS STEEL INCHES	THICKNESS ALUMINUM INCHES	ENDWALLS 18-INCH	ENDWALLS 30-INCH	ENDWALLS 36-INCH
0+43	43' LT.	—	40	—	0.079	0.075	—	2	—
9+64	54' LT.	38	—	—	0.064	0.060	2	—	—
12+40	51' LT.	34	—	—	0.064	0.060	2	—	—
13+61	50' LT.	32	—	—	0.064	0.060	2	—	—
14+20.5	50' LT.	30	—	—	0.064	0.060	2	—	—
38+01	51' LT.	36	—	—	0.064	0.060	2	—	—
70+40	50' RT	38	—	—	0.064	0.060	2	—	—
80+75	35' LT.	—	—	10	0.079	0.105	—	—	1

PIPE UNDER DRAIN, UNPERFORATED - 12"

STATION	LOC.	L.F.	ENDWALLS, 12-INCH
53+56.92	LT.	78	1
53+56.92	RT.	78	1
55+08.58	LT.	78	1
55+08.58	RT.	78	1

CONCRETE CURB, TYPE D

STATION	LOC	L.F.
53+56	32' LT.	5
53+56	32' RT.	5
55+08	32' LT.	5
55+08	32' RT.	5

RIPRAP

STATION	LOC.	C.Y.
53+56	110' LT.	1
53+56	110' RT.	1
55+08	110' LT.	1
55+08	110' RT.	1

INLETS AND COVERS

STATION	LOC.	TYPE	COVER TYPE
53+56.92	32' LT.	1	A
53+56.92	32' RT.	1	A
55+08.58	32' LT.	1	A
55+08.58	32' RT.	1	A

ADJUSTING MANHOLE COVERS

STATION	LOC.	TYPE	EACH
0+18	27' RT.	SAN.	1
5+56	47' LT.	SAN.	1
9+30	47' LT.	SAN.	1
12+15	47' LT.	SAN.	1
15+46	47' LT.	SAN.	1
18+05	47' LT.	SAN.	1
68+90	55' RT.	SAN.	1
76+89	54' RT.	SAN.	1

ANCHORAGE FOR STEEL PLATE BEAM GUARD

STATION	LOC.	EACH
44+00	LT.	1
44+00	RT.	1
64+00	LT.	1
64+00	RT.	1

STEEL PLATE BEAM GUARD, CL. A

STATION TO STATION	LOC.	L.F.
44+00 TO 53+62	LT.	962
44+00 TO 53+62	RT.	962
55+03 TO 64+00	LT.	898
55+03 TO 64+00	RT.	898

EROSION MAT

STATION TO STATION	LOC	S.Y.
4+00 TO 5+26	LT.	140
3+00 TO 5+26	RT.	250
30+54.7 TO 32+00	LT.	160
30+54.7 TO 32+00	RT.	160
76+00 TO 80+64	LT.	450
76+00 TO 80+64	RT.	450

SODDING

STATION TO STATION	LOC.	S.Y.
53+67 TO 54+15	LT. (N.W. FILL CONE)	300
53+67 TO 54+15	RT. (S.W. FILL CONE)	300
54+45 TO 54+98	LT. (N.W. FILL CONE)	300
54+45 TO 54+98	RT. (S.E. FILL CONE)	300

STANDARD ABBREVIATIONS

ADT	AVERAGE DAILY TRAFFIC	P.T.	POINT OF TANGENCY
APPROX.	APPROXIMATE	℄	REFERENCE LINE
BFW	BACK FACE WEST	R/W	RIGHT OF WAY
BFE	BACK FACE EAST		
℄	CENTERLINE	SQ. FT.	SQUARE FEET
CWT.	HUNDRED WEIGHT	SQ. YD.	SQUARE YARDS
		STA.	STATION
D.G.	DITCH GRADE		
DHV	DESIGN HOURLY VOLUME	T.L.	TRANSIT LINE
		T.P.	TELEPHONE POLE
EL.	ELEVATION		
EXIST.	EXISTING	UNCL.	UNCLASSIFIED
F.E.	FIELD ENTRANCE	V	VELOCITY
LB.	POUND	V.C.	VERTICAL CURVE
L.F.	LINEAL FEET		
L.S.	LUMP SUM		
MI.	MILE		
N	NORTH		
P.C.	POINT OF CURVATURE		
P.E.	PRIVATE ENTRANCE		
P.I.	POINT OF INTERSECTION		
P.L.	PROPERTY LINE		
P.P.	POWER POLE		

MISCELLANEOUS DETAILS AND QUANTITIES

ESTIMATE OF QUANTITIES

CONTRACT NO. 3 (4984-0-36)
PRODUCING & HAULING (BASE)
PRODUCING & HAULING SURFACE
(BITUMINOUS CONCRETE PAVEMENT)

CONTRACT NO. 1
(4984-0-33)
GRADING, SHAPING, & COMPACTING (BASE)
PLACING (BITUMINOUS CONCRETE PAVEMENT)
CONTRACT NO. 2
(4984-0-34)
STRUCTURE B-44-465

STATE PROJECT NUMBER	SHEET NO.
4984-0-33,34,35	3

CONTRACT NO.	STATION TO STATION	NET LENGTH OF CENTER LINE	CLEARING	GRUBBING	REMOVING SURFACE DRAINS	REMOVING INLETS	UNCLASSIFIED EXCAVATION	BORROW EXCAVATION	FINISHING ROADWAY PROJECT 4984-0-33	CRUSHED AGGREGATE BASE COURSE	PRODUCING & HAULING, CRUSHED AGGREGATE BASE COURSE	SHAPING & COMPACTING CRUSHED AGGREGATE BASE COURSE	PRODUCING & HAULING BITUMINOUS CONCRETE PAVEMENT	PLACING BITUMINOUS CONCRETE PAVEMENT	BITUMINOUS MATERIAL FOR SURFACE COURSE	CULVERT PIPE, CLASS III			APRON ENDWALLS FOR CULVERT PIPE			RIPRAP	INLETS, TYPE I	INLET COVERS, TYPE A	ADJUSTING MANHOLE COVERS
	ITEM NO.		20102	20105	20409	20416	20503	20801	21302	30404	90001	90001	90002	90002	40702	52003	52007	52009	52061	52065	52067	60601	61121	61161	61182
	UNIT	LIN. FT.	IN. DIAM.	IN. DIAM.	EACH	EACH	CU. YD.	CU. YD.	L.S.	TON	TON	TON	TON	TON	TON	LIN. FT.	LIN. FT.	LIN. FT.	EACH	EACH	EACH	C.Y.	EACH	EACH	EACH
1	0+00-25+54.1; 30+54.1-53+67.83 54+97.67 +80+64.0	7,234.16	1296	1296	1		16,528	35,881	1			30,800		6930		208	40	10	12	2	1				8
3	0+00-25+54.1; 30+54.1-53+67.83 54+97.67 -80+64.0	7,234.16									30,800		6930		408										
2	STRUCTURE B-44-465 STA. 53+67.83 -54+97.67	129.84			2	4				80															
	TOTALS	7364.0	1296	1296	3	4	16,528	35,881	1	80	30,800	30,800	6930	6930	408	208	40	10	12	2	1	4	4	4	8

BRIDGES (STRUCTURES OVER 20 FT. SPAN)

CONTRACT NO.	PIPE UNDERDRAIN, UNPERFORATED 12-INCH	ANCHORAGES FOR STEEL PLATE BEAM GUARD	STEEL PLATE BEAM GUARD CLASS A	CONCRETE SURFACE DRAINS	MOBILIZATION PROJECT 4984-0-34	SALVAGED TOPSOIL	MULCHING	EROSION MAT	FERTILIZER	SEEDING	SODDING	FIELD OFFICE TYPE A	FIELD LABORATORY	METAL APRON ENDWALLS FOR CULVERT PIPE 12-INCH	REMOVING OLD BRIDGE, STA. 54+33±	EXCAVATION FOR STRUCTURES B-465	CONCRETE BASE COURSE, 9 INCH	CONCRETE MASONRY	PRESTRESSED GIRDERS, SLAB TYPE, 21-INCH	HIGH STRENGTH BAR STEEL REINFORCEMENT	STRUCTURAL CARBON STEEL	BEARING PADS, ELASTOMERIC	TREATED TIMBER PILING, DELIVERED	TREATED TIMBER PILING, DRIVEN	TREATED TIMBER TEST PILING, STRUCTURE B-465	CAST-IN-PLACE CONCRETE PILING DELIVERED & DRIVEN, 12-INCH
	61214	61406	61408	40934	61911	62505	62702	62802	62901	63002	63101	64201	64210	52145	20351	20610	30709	50201	50326	50504	50601	50625	50816	50820	50830	51031
	LIN. FT.	EACH	LIN. FT.	CU. YD.	L.S.	SQ. YD.	SQ. YD.	SQ. YD.	CWT.	POUND	SQ. YDS.	L.S.	L.S.	EACH	L.S.	L.S.	SQ. YD.	CU. YD.	LIN. FT.	POUND	POUND	SQ. FT.	LIN. FT.	LIN. FT.	L.S.	LIN. FT.
1		4	3720			72,000	70,800	1,610	45	960	1,200															
2	312			4.5	1							1	1	4	1	1	270	404	2925	69,520	900	503	900	900	1	1000
	312	4	3720	4.5	1	72,000	70,800	1,610	45	960	1,200	1	1	4	1	1	270	404	2925	69,520	900	503	900	900	1	1000

GENERAL NOTES

CERTAIN UNDERGROUND UTILITY STRUCTURES HAVE BEEN LOCATED ON THESE PLANS BUT THESE LOCATIONS SHALL NOT BE CONCLUSIVE. VERIFICATION AS TO THE LOCATION TO THE SATISFACTION OF THE CONTRACTOR OF ALL UNDERGROUND UTILITY STRUCTURES WHETHER SHOWN ON THE PLANS OR NOT, SHALL BE ASSUMED AS A CONDITION OF THE CONTRACT.

THE EXACT LOCATION AND ELEVATION FOR DRIVEWAYS, CULVERT PIPES AND SIDE ROAD CONNECTIONS SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

PRIVATE UTILITY COMPANIES SHALL ADJUST OR MOVE ALL PRIVATELY OWNED FACILITIES WHICH INTERFERE WITH THE NEW CONSTRUCTION.

EMBANKMENTS OF MORE THAN 10 FEET IN HEIGHT AND PLACED ON EXISTING SLOPES STEEPER THAN ONE VERTICAL TO THREE HORIZONTAL, SHALL BE CUT OR STEPPED INTO THE SLOPE.

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

INLET AND DISCHARGE ELEVATIONS FOR DRAINAGE STRUCTURES SHOWN ARE APPROXIMATE AND SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

CUBIC YARDS OF FILL SHOWN ON THE PLAN SHEETS PERTAINS TO EMBANKMENTS CONSTRUCTED FROM UNCLASSIFIED AND BORROWED EXCAVATION. THE SHRINKAGE ALLOWANCE USED TO COMPUTE UNCLASSIFIED AND BORROWED WAS 25% - BASED ON THE VOLUME OF FILL.

WHEN THE QUANTITY OF BASE OR SURFACE COURSE IS MEASURED FOR PAYMENT BY TON THE DEPTH OR THICKNESS OF THE COURSE SHOWN ON PLANS IS APPROXIMATE AND THE ACTUAL THICKNESS WILL DEPEND ON THE DISTRIBUTION OF THE MATERIAL AS DIRECTED BY THE ENGINEER IN THE FIELD.

SALVAGED TOPSOIL SHALL BE PLACED AS SHOWN ON THE PLANS TO AN APPROXIMATE DEPTH OF 4 INCHES AT THE TIME OF PLACEMENT.

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

DISTURBED AREAS WITHIN THE RIGHT-OF-WAY, EXCLUSIVE OF THE ROADBED, ARE TO BE FERTILIZED AND SEEDED AS DIRECTED BY THE ENGINEER.

UTILITIES

WISCONSIN - MICHIGAN POWER COMPANY
800 SOUTH LYNNDALE AVE.
APPLETON, WISCONSIN 54911
MR. JEROME G. HERB, SUPERINTENDENT
GAS LINE CONSTRUCTION, TELE. 414-734-1411

MICHIGAN - WISCONSIN PIPELINE COMPANY
P.O. BOX 398 BONDUEL, WISCONSIN 54107
MR. W.J. WELLER, SECTION SUPERINTENDENT
TELE. 715-758-2131

WISCONSIN TELEPHONE COMPANY
KENNETH ZULEGER 734-0300
221 W. WASHINGTON ST.
APPLETON, WIS.

CITY OF APPLETON WATER DEPT.
RUSS FULLER 733-2311
125 N. WALNUT ST.
APPLETON, WIS.

CITY OF APPLETON DEPT. OF PUBLIC WORKS
BOB MILLER 734-4556
225 N. ONEIDA ST.
APPLETON, WIS.

BUTTE DES MORTS UTILITY DISTRICT
DOUG HONTOON 731-6319
3111 W. PROSPECT AVE.
APPLETON, WIS.

STANDARD DETAIL DRAWINGS

CATCH BASIN, MANHOLE & INLET COVERS	8A5-2
INLETS TYPE 1 & 2	8C1-3
CONCRETE CURB, GUTTER, COMBINATION CURB & GUTTER	8D1-2
SURFACE DRAIN DROP INLET TYPE	8D3-1
RIPRAP AT SIDE ROAD CULVERTS & RIPRAP OR SOD @ PRIVATE ENTRANCE CULVERTS	8E2-1
SOD OR MASONRY AND SOD DITCH CHECKS	8E4-2
EROSION MAT	8E7-1
APRON ENDWALLS FOR CULVERT PIPE & PIPE ARCH	8F1-6
LAYOUT DETAILS FOR AT-GRADE SIDE ROAD INTERSECTIONS	9A1-2
NAME PLATE (STRUCTURES)	12A3-1
CLASS "A" STEEL PLATE BEAM GUARD & STEEL PLATE BEAM MEDIAN GUARD	14B2-3a&b
CONSTRUCTION BARRICADES & STANDARD SIGNS	15C1-4
CONCRETE PAVEMENT REINFORCEMENT	13A1-2

ON THE JOB TRAINING	CONCRETE CURB TYPE-D	CORRUGATED METAL PIPE ARCH 57 x 38-INCH	METAL APRON ENDWALLS FOR PIPE ARCH 57 x 38-INCH
90001	60102	52142	52168
HRS.	LIN. FT.	LIN. FT.	EACH
		28	2
1,000	20		
1,000	20	28	2

STATE PROJECT NUMBER	SHEET NO.
4984-0-33,34,35	5.3

BENCH MARKS			
NO.	STATION	DESCRIPTION	ELEV.
2	53+68	"X" IN SW CORNER OF BRIDGE GUARD RAIL. 31' RT	821.00
3	54+32	CENTER BOLT IN SOUTH END OF WOODEN PLATFORM WITH "X" CHISELED AROUND IT. 92' LT.	795.35

NOTE: FROM STA. 48+50 TO 53+50, SEE CROSS-SECTIONS FOR ACTUAL DITCH LOCATION.

NOTE: BEARINGS SHOWN ARE TRUE BEARINGS TO THE NEAREST MINUTE.

SCALE: 1"=50'

N

℄ C.T.H. "00" CONSTRUCTION ℄

EXTENSION OF BOX CULVERT TO BE DONE BY OTHERS

ED SCHWALBACH

P.I. STA. 53+83 120'

P.I. STA. 54+83 120'

SURFACE DRAIN (REMOVE)

SEE BRIDGE PLANS FOR CONCRETE BASE COURSE

SURFACE DRAIN (REMOVE)

VALLEY AUTO PARTS INC.

STA. 45+00

STA. 60+00

MATCH LINE

℄ C.T.H. "00" S 88°35' E

REMOVE EXISTING UNDERDRAINS

SLOPE INTERCEPT

S. & A. SIGMAN

12" WATER MAIN (APPROXIMATE LOCATION)

SURVEY ℄

EXISTING CABLE GUARDRAIL (REMOVE)

ARTHUR R. & ALICE B. TAYLOR

END CONSTRUCTION
PROJECT 4984-0-33,35
BEGIN PROJECT 4984-0-34
STA. 53+67.83

STA. 53+54.92 - 32' LT. & RT.
2-INLETS TYPE 1-A REQ'D.
FL. EL. - 819.71 TOP OF INLET - 818.79
INVERT EL. - 815.79
2-12" x 78' PIPE UNDERDRAINS, UNPERFORATED REQ'D.
2-APRON ENDWALLS REQ'D.
RIPRAP REQ'D.

STA. 55+08.58 - 32' LT. & RT.
2-INLETS TYPE 1-A REQ'D.
FL. EL. 819.71 TOP OF INLET 818.79
INVERT EL. 815.79
2-12" x 78' PIPE UNDERDRAINS, UNPERFORATED REQ'D.
2-APRON ENDWALLS REQ'D.
RIPRAP REQ'D.

END PROJECT 4984-0-34
STA. 54+97.67
BEGIN CONSTRUCTION
PROJECT 4984-0-33,35

NET LENGTH OF ℄ = 1500'

YARDAGE SUMMARY
STA. 54+98.25 TO 80+64.0
CUT - 4,743 C.Y.
FILL - 17,114 C.Y.
BORROW - 18,076 C.Y.

B.F. W. ABUT. STA. 53+47.83 EL. 820.56
PIER #1 STA. 54+08.79 EL. 820.74
PIER #2 STA. 54+32.79 EL. 821.00
B.F.E. ABUT. STA. 54+97.67 EL. 820.74
B.F.E. ABUT. STA. 55+29.82 EL. 820.58

FINISHED GRADE

+0.64%

-2.15%

-0.64%

P.I. 49+13.23 817.47

P.I. 52+40.23 819.76

P.I. 57+66.82 818.88

P.I. 59+19.82 813.82

P.C. 45+46.23 807.10

P.C. 53+51.75 820.52

P.C. 55+29.82 820.36

P.T. 55+07.75 820.52

654' V.C.

150' V.C.

470' V.C.

EXISTING GRADE

1½" BITUMINOUS CONCRETE SURFACE COURSE OVER EXISTING PAVEMENT (TYP.)

-3.05%

EXISTING SECTION TO REMAIN

STA 54+32.75 ℄ STRUCTURE NO. B-44-465 REQ'D.
3 SPAN (40'-48'-40'); 66'-4" CLEAR RDWY.
21" PRESTRESSED CONC. SLAB GIRDERS
SEE DRAWINGS X55877 - X55884

SCALE: 1"=50' HORIZ.
1"=5' VERT.

EL. TOP OF RAIL = 795.63

DG. LT. + 3%

DG. LT. - 1.9%

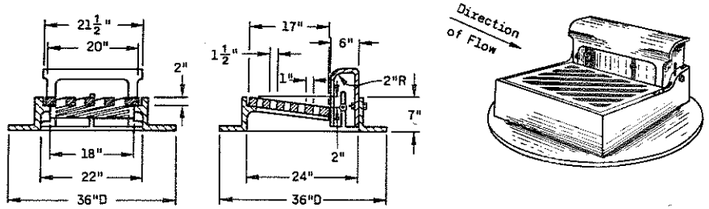
DG. RT. + 3%

DG. LT. + 2.9%

806.02 808.12 810.93 813.38 815.46 817.17 818.52 819.48 820.15 820.07 820.58 819.85 818.82 817.48 815.82 813.82

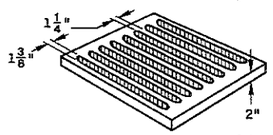
45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60

825 820 815 810 805 800 795 790

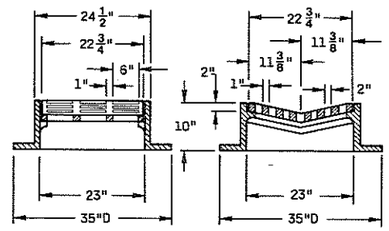


TYPE "A"

(Approximate Weight 405 lbs.)
Frame Weight 250 lbs.
Grate Weight 85 lbs.
Box Weight 70 lbs.

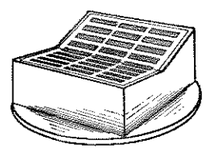


ALTERNATE TYPE GRATE *
(Longitudinal Slots)
Approximate Weight 100 lbs.

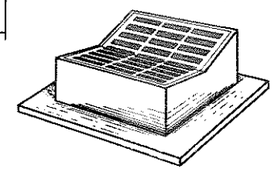


TYPE "B"

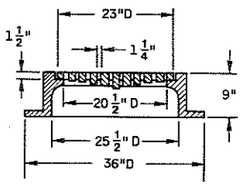
(Approximate Weight 395 lbs.)
Frame Weight 285 lbs.
Grate Weight 110 lbs.



Round Frame

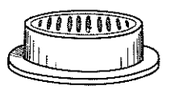


Alternate Frame
(Square type)
35" Square

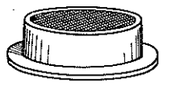


TYPE "C" - TYPE "J"

Frame Weight 250 lbs.
Slotted Grate Weight 125 lbs.
Solid Cover Weight 150 lbs.

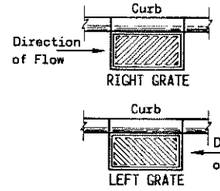


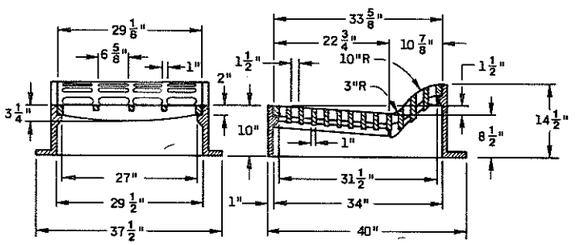
TYPE "C"
Slotted Grate *

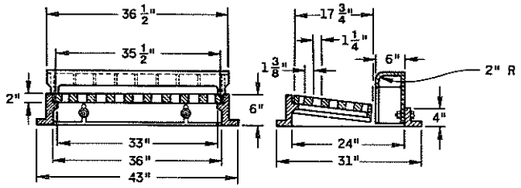


TYPE "J"
Solid Cover

Diagonal Slots shall be oriented to the direction of flow as shown hereon. Hence RIGHT and LEFT Grates shall be furnished depending on direction of flow. (See Sketch Below)

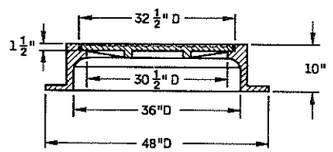


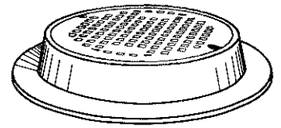




NOTE: Curb Box height adjustable 6" to 9"

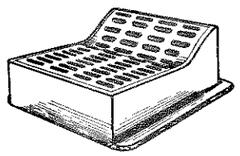
* CAUTION: DO NOT USE GRATES WITH LONGITUDINAL SLOTS WHERE BICYCLE TRAFFIC IS PERMITTED.





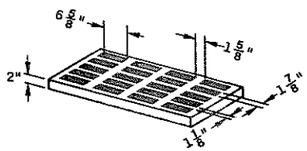
TYPE "K"

(Approximate Weight 785 lbs.)

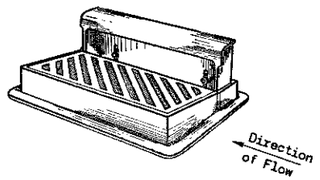


TYPE "F"

(Approximate Weight 850 lbs.)
Frame 515 lbs.
Back grate 160 lbs.
Front grate 175 lbs.

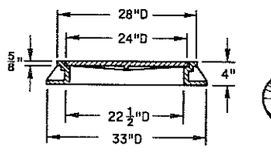


ALTERNATE TYPE GRATE
(Longitudinal Slots)
Approximate Weight 200 lbs.



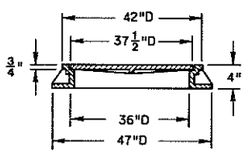
TYPE "H"

(Approximate Weight 510 lbs.)
Frame Weight 220 lbs.
Grate Weight 175 lbs.
Box Weight 115 lbs.



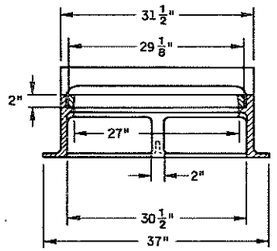
TYPE "L"

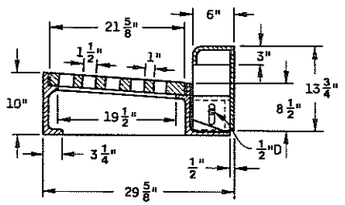
(Approximate Weight 220 lbs.)



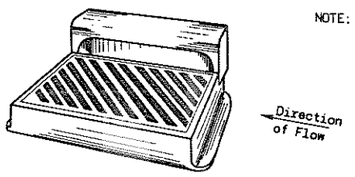
TYPE "M"

(Approximate Weight 535 lbs.)





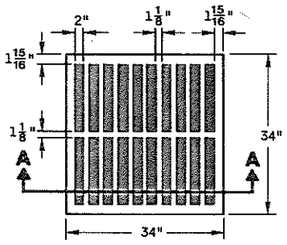
NOTE: Curb Box height adjustable 6" to 9"



TYPE "WM"

(Approximate Weight 670 lbs.)
Frame Weight 350 lbs.
Grate Weight 185 lbs.
Box Weight 135 lbs.

SECTION A-A



TYPE "MS" *

(Approximate Grate Weight 285 lbs.)

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.

Detail drawings for proposed alternate designs for Catch Basin, Manhole and Inlet Covers shall be submitted to the Engineer for approval providing that such alternate designs make provision for equivalent capacity and strength.

All Catch Basin, Manhole and Inlet Covers which are placed in vehicular traffic areas shall be "Non-Rocking" type.

Adjustment of the cover to grade may be accomplished by the use of mortar and brick, or by Precast Concrete Grade Rings (AASHTO Designation M-199). Maximum adjustment shall be 8 inches.

Curb box height to be adjusted 4 to 9 inches, unless otherwise noted, after the form is in place.

The actual weight of covers may vary within 5 percent, plus or minus, of the approximate weight.

CATCH BASIN MANHOLE AND INLET COVERS

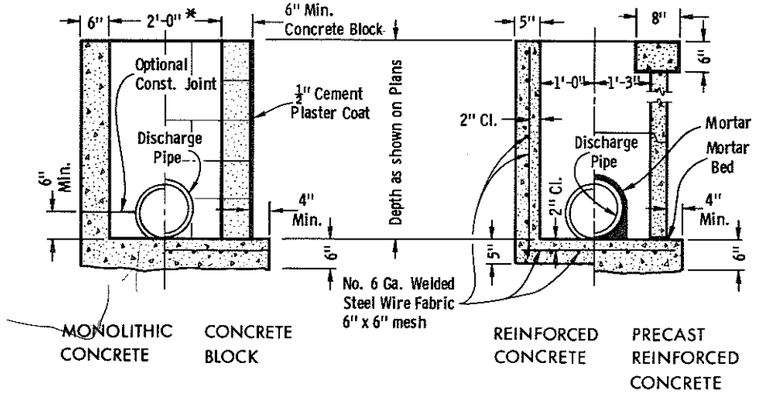
State of Wisconsin
Department of Transportation
Division of Highways

RECOMMENDED FOR APPROVAL:
12-3-75 DATE — CHIEF of FACILITIES DEVELOPMENT

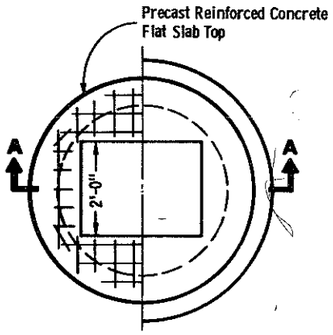
APPROVED
12-9-75 DATE — STATE HIGHWAY ENGINEER

S.D.D. 8A5-2

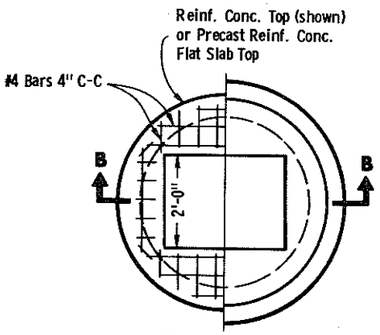
* Selection of Square or Circular Design will be based on the pipe sizes and the Inlet Cover being utilized.



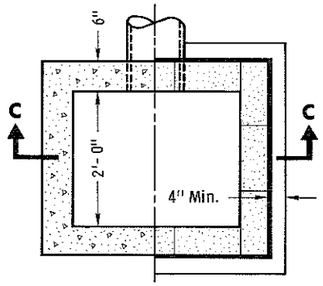
INLETS TYPE 1



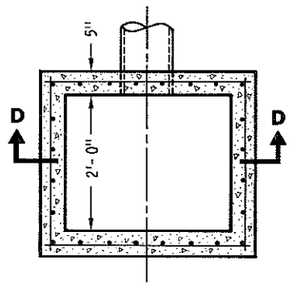
PLAN VIEW



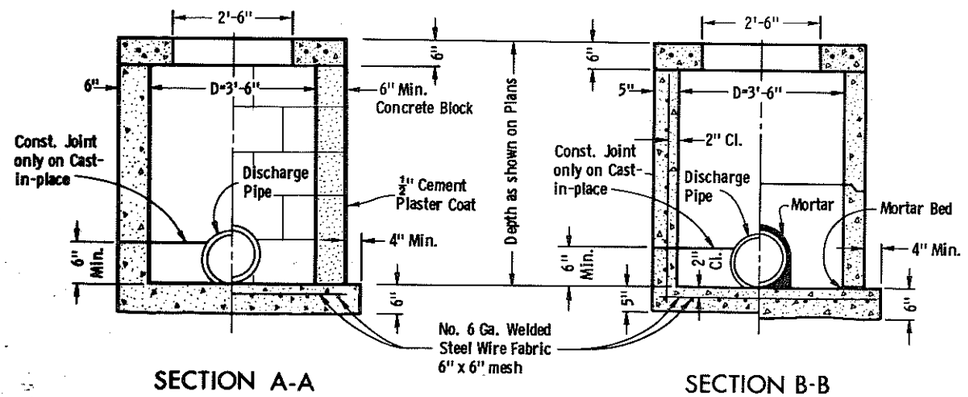
PLAN VIEW



PLAN VIEW



PLAN VIEW

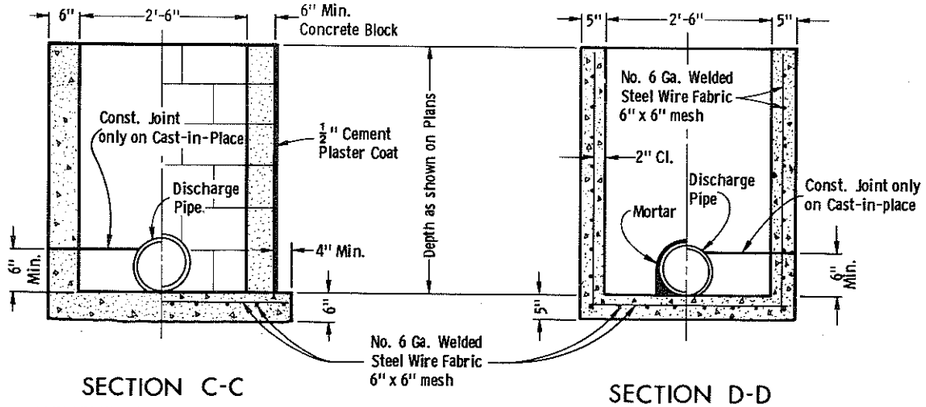


SECTION A-A

MONOLITHIC CONCRETE | CONCRETE BLOCK

SECTION B-B

REINFORCED CONCRETE | PRECAST REINFORCED CONCRETE



SECTION C-C

MONOLITHIC CONCRETE | CONCRETE BLOCK

SECTION D-D

PRECAST REINFORCED CONCRETE | REINFORCED CONCRETE

INLETS TYPE 2

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.

Detailed drawings for proposed alternate designs for underground drainage structures shall be submitted to the Engineer for approval providing that such alternate designs make provision for equivalent capacity and strength.

Square Precast Inlet units shall conform to the pertinent requirements of AASHTO Designation M 199.

All drainage structures are designated on the plans as "Manholes 1 - C", "Catch Basins 1 - B", "Inlets 1 - H", etc. The first digit designates the masonry portion of the structure, and the following letter designates the type of cover to be used to comprise the complete unit.

Precast Reinforced Bases shall be placed on a bed of material at least 6 inches in depth, which meets the requirements for Granular Backfill. This bedding shall be compacted and provide uniform support for the entire area of the base.

Precast Reinforced Concrete Flat Slab Tops may be used on the structures. The Tops shall be installed on a bed of mortar.

All bar steel reinforced reinforcement shall be embedded 2 inches clear unless otherwise shown or noted.

Precast Reinforced Concrete Risers may be placed with tongue up or down.

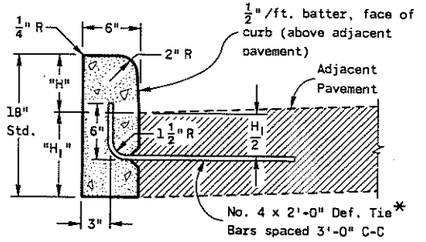
INLETS TYPE 1 & 2

State of Wisconsin
Department of Transportation
Division of Highways

RECOMMENDED FOR APPROVAL:
10-16-75 DATE — CHIEF of FACILITIES DEVELOPMENT

APPROVED
10-16-75 DATE — STATE HIGHWAY ENGINEER

S.D.D. 8C1-3

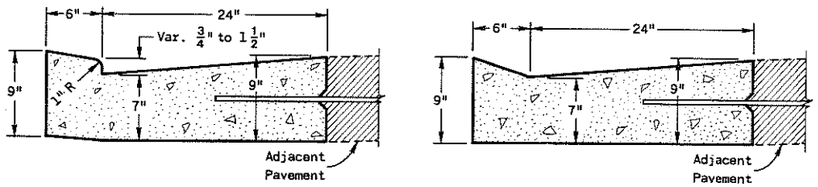


"H" = 9" Max. and $3\frac{1}{2}$" Min. and shall be 6" unless otherwise shown on the plans.

"H_1" = Same as adjacent pavement thickness for rigid pavement and 12" for non-rigid pavement (Tie Bars omitted)

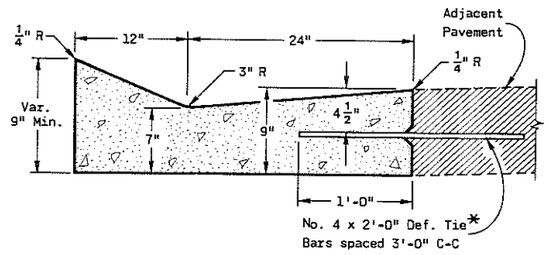
TYPE "A" (INCLUDING TIE BARS) **TYPE "D"** (EXCLUDING TIE BARS)

CONCRETE CURB



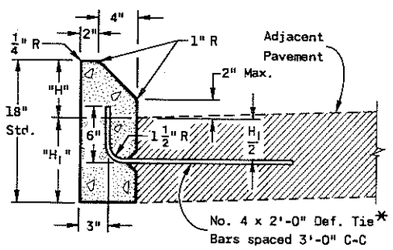
ALTERNATE ENTRANCES

CONCRETE CURB & GUTTER 30"



TYPE "A" (INCLUDING TIE BARS) **TYPE "D"** (EXCLUDING TIE BARS)

CONCRETE GUTTER 36"



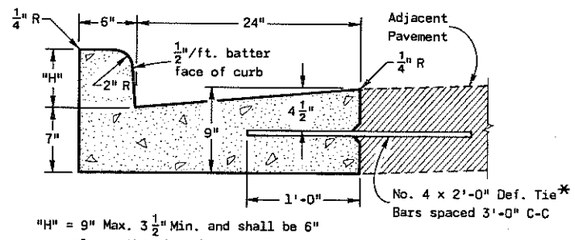
"H" = 6" Max. and 4" Min. and shall be 6" unless otherwise shown on the plans.

"H_1" = Same as adjacent pavement thickness for rigid pavement and 12" for non-rigid pavement (Tie Bars omitted)

TYPE "G" (INCLUDING TIE BARS) **TYPE "J"** (EXCLUDING TIE BARS)

CONCRETE CURB

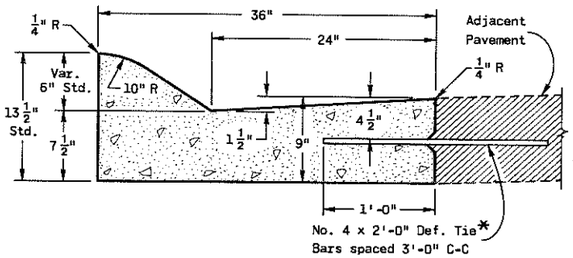
(MOUNTABLE)



"H" = 9" Max. $3\frac{1}{2}$" Min. and shall be 6" unless otherwise shown on the plans.

TYPE "A" (INCLUDING TIE BARS) **TYPE "D"** (EXCLUDING TIE BARS)

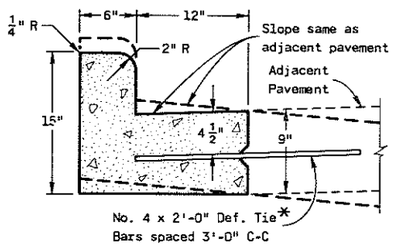
CONCRETE CURB & GUTTER 30"



TYPE "A" (INCLUDING TIE BARS) **TYPE "D"** (EXCLUDING TIE BARS)

CONCRETE CURB & GUTTER 36"

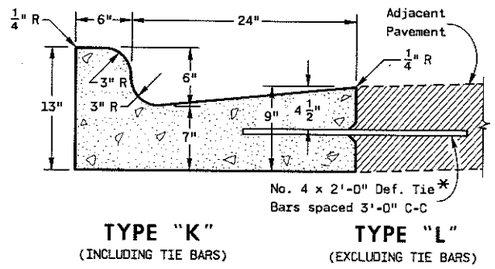
(MOUNTABLE)



TYPE "A" (INCLUDING TIE BARS) **TYPE "D"** (EXCLUDING TIE BARS)

CONCRETE CURB & GUTTER 18"

Reverse slope Curb & Gutter shown thus — — —



TYPE "K" (INCLUDING TIE BARS) **TYPE "L"** (EXCLUDING TIE BARS)

CONCRETE CURB & GUTTER 30"

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.

Detailed drawings for proposed alternate designs for Curb, Gutter and Combination Curb and Gutter shall be submitted to the Engineer for approval providing that such alternate designs make provision for equivalent capacity and strength.

Joints shall not be sealed in Concrete Curb, or Concrete Curb & Gutter.

* Where Curb and Gutter are poured adjacent to existing pavement, the Hook Bolt may be used as for "Longitudinal Joints - Concrete Pavement".

CONCRETE CURB, GUTTER, COMBINATION CURB & GUTTER

State of Wisconsin
Department of Transportation
Division of Highways

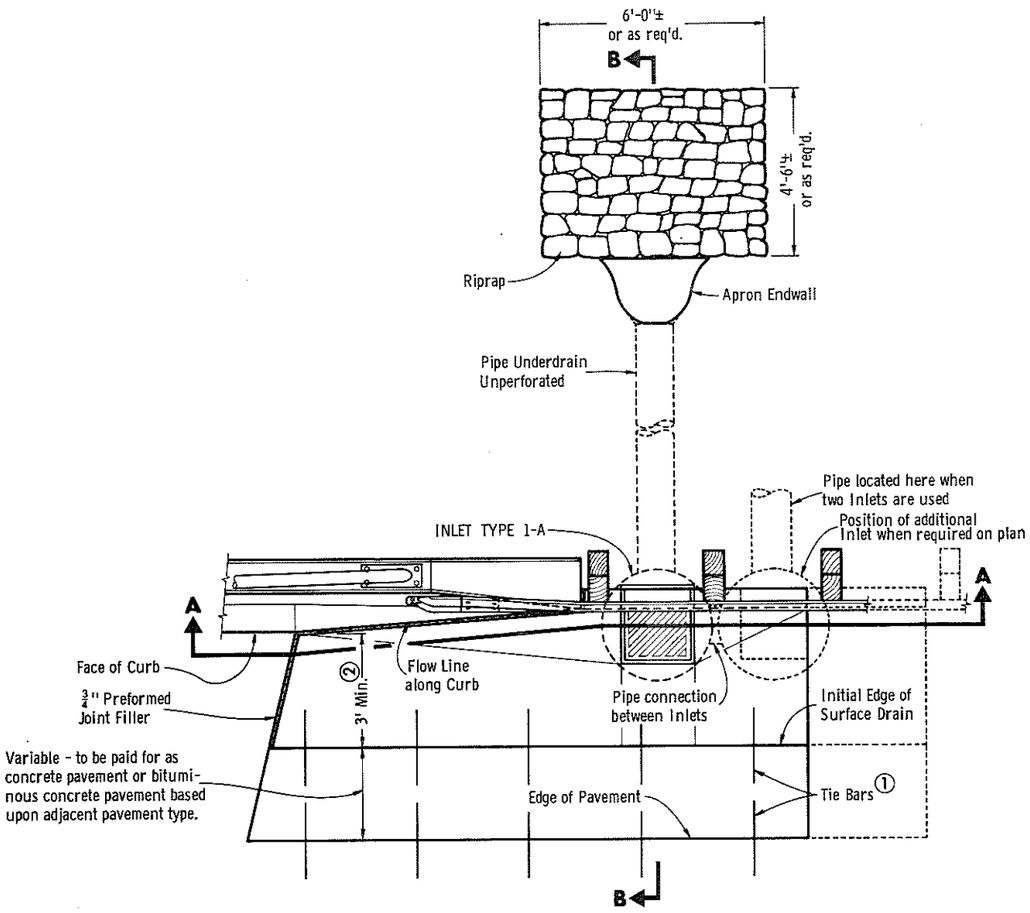
RECOMMENDED FOR APPROVAL:

9-12-73 DATE — CHIEF of FACILITIES DEVELOPMENT

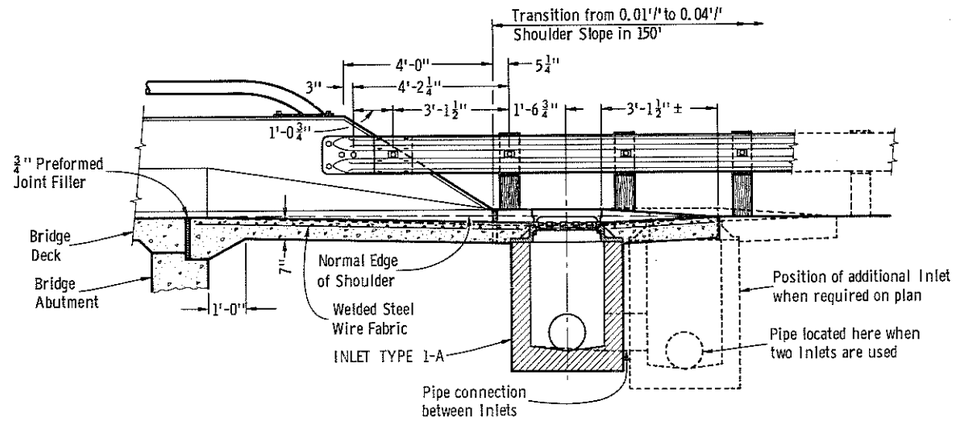
APPROVED

9-19-73 DATE — STATE HIGHWAY ENGINEER

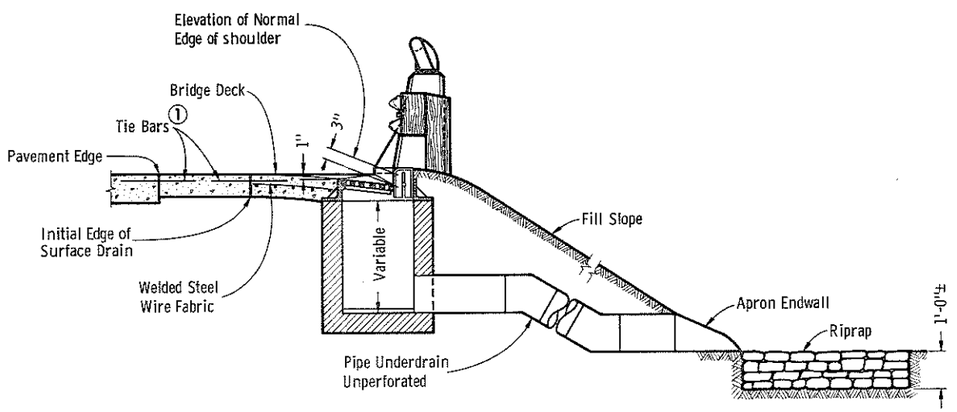
S.D.D. 8D1-2



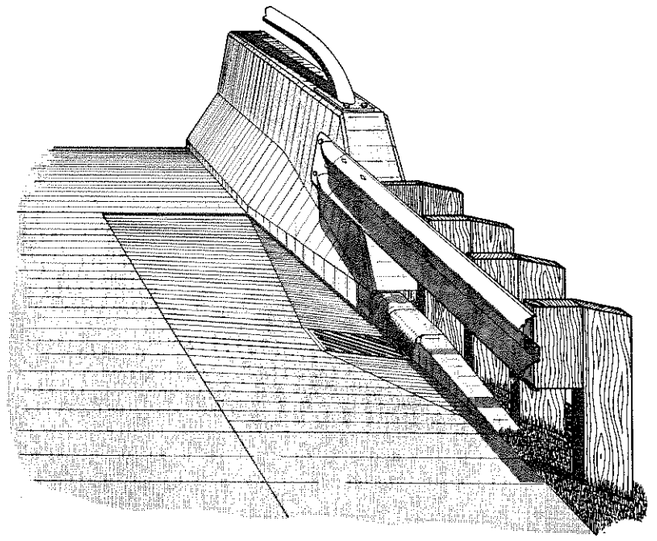
PLAN VIEW



SECTION A-A



SECTION B-B



TYPICAL INSTALLATION

1 Tie Bars

4 x 2'-0" tie bars
spaced at 3'-0" centers
to be used only when
adjacent to P. C. concrete

2 Based on drainage requirements

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.

Detailed drawings for proposed alternate designs for Surface Drains shall be submitted to the Engineer for approval providing that such alternate designs make provision for equivalent capacity and strength.

See Standard Detail Drawing "INLETS TYPE 1" for construction details of Inlet.

See Standard Detail Drawing "Class "A" STEEL PLATE BEAM GUARD & STEEL PLATE BEAM MEDIAN GUARD" for construction and layout details not shown on this sheet.

REINFORCEMENT

Welded Steel Wire Fabric shall conform to the Standard Specifications for Welded Steel Wire Fabric for concrete pavement.

BASIS OF PAYMENT

The curb and initial portion of the Concrete Surface Drain shall be paid for as provided in the Standard Specifications for Concrete Surface Drains. The Unperforated Pipe Underdrain, Metal Apron Endwall, Inlet, Inlet Cover and Riprap shall be paid for under the pertinent Contract items.

SURFACE DRAIN
DROP INLET TYPE

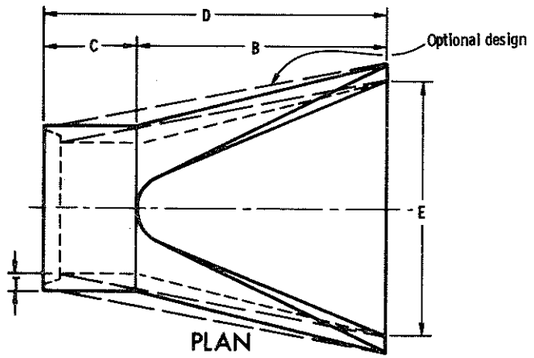
State of Wisconsin
Department of Transportation
Division of Highways

RECOMMENDED FOR APPROVAL:
5/13/71 DATE — L. C. Herried, ACTING CHIEF DESIGN ENGINEER

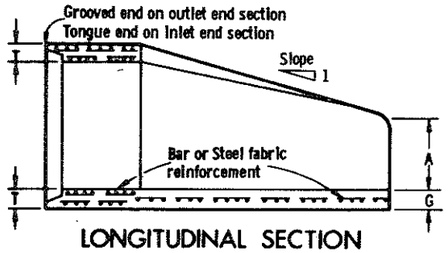
APPROVED:
5/13/71 DATE — STATE HIGHWAY ENGINEER

S.D.D. 8D3-1

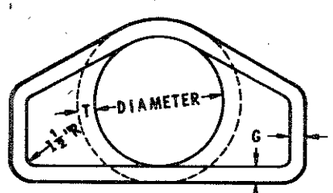
S.D.D. 8D3-1



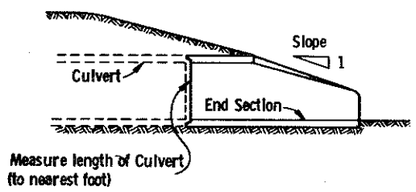
PLAN



LONGITUDINAL SECTION



END VIEW

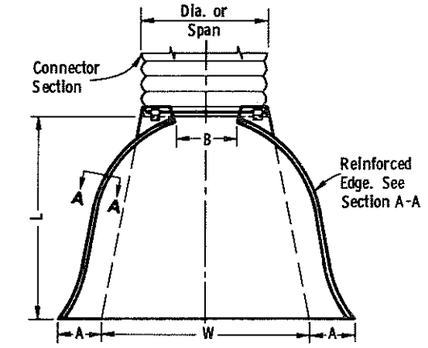


SIDE ELEVATION

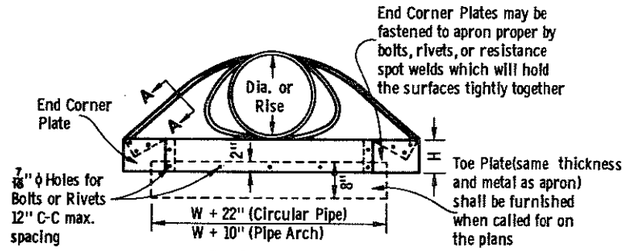
DIA.	APPROX. WEIGHT/ SECTION	T	A	B	C	D	E	G	APPROX. SLOPE
12"	530	2"	4"	24"	48 7/8"	72 7/8"	24"	2"	3 to 1
15"	740	2 1/4"	6"	27"	46"	73"	30"	2 1/4"	
18"	990	2 1/2"	9"	27"	46"	73"	36"	2 1/2"	
21"	1,280	2 3/4"	9"	36"	37 1/2"	73 1/2"	42"	2 3/4"	
24"	1,520	3"	9 1/2"	43 1/2"	30"	73 1/2"	48"	3"	
27"	1,930	3 1/4"	10 1/2"	49 1/2"	24"	73 1/2"	54"	3 1/4"	
30"	2,190	3 1/2"	12"	54"	19 3/4"	73 3/4"	60"	3 1/2"	
36"	4,100	4"	15"	63"	34 3/4"	97 3/4"	72"	4"	
42"	5,380	4 1/2"	21"	63"	35"	98"	78"	4 1/2"	
48"	6,550	5"	24"	72"	26"	98"	84"	5"	3 to 1
54"	8,040	5 1/2"	27"	65"	33 1/4" - 35"	98 1/4" - 100"	90"	5"	2 2/3 to 1
60"	8,730	6"	30" - 35"	60"	39"	99"	96"	5"	2 to 1
66"	10,630	6 1/2"	24" - 30"	72" - 78"	21" - 27"		102"	5 1/2"	
72"	12,520	7"	24" - 36"	78"	21"		108"	6"	
78"	14,430	7 1/2"	24" - 36"	78"	21"	99"	114"	6 1/2"	2 to 1
84"	18,160	8"	36"	90 1/2"	21"	111 1/2"	120"	6 1/2"	1 1/2 to 1

** Minimum
* Maximum

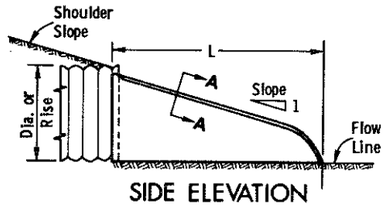
REINFORCED CONCRETE APRON ENDWALLS



PLAN



END VIEW



SIDE ELEVATION

D PIPE DIAM.	MIN. METAL THICKNESS	MIN. ALUM. THICKNESS	DIMENSIONS A ± 1"	B MAX.	H ± 1"	L ± 1 1/2"	W ± 2"	APPROX. SLOPE
12"	0.064	0.060	6"	6"	6"	21"	24"	2 1/2 to 1
15"			7"	8"		26"	30"	
18"			8"	10"		31"	36"	
21"		0.060	9"	12"		36"	42"	
24"	0.064	0.075	10"	13"	6"	41"	48"	
30"	0.079	0.075	12"	16"	8"	51"	60"	
36"	0.079	0.105	14"	19"	9"	60"	72"	
42"	0.109		16"	22"	11"	69"	84"	2 1/2 to 1
48"			18"	27"	12"	78"	90"	2 1/4 to 1
54"		0.105		30"		84"	102"	2 to 1
60"		NA		33"		87"	114"	1 3/4 to 1
66"				36"		87"	120"	1 1/2 to 1
72"				39"		87"	126"	1 1/3 to 1
78"				42"		87"	132"	1 1/4 to 1
84"	0.109	NA	18"	45"	12"	87"	138"	1 1/6 to 1

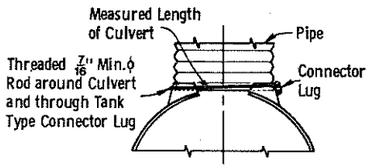
NOTE: All splices to be lap riveted or bolted

METAL OR ALUMINUM APRON ENDWALLS FOR CIRCULAR PIPES

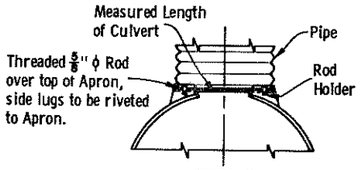
PIPE — ARCH DIMENSIONS SPAN	RISE	MIN. METAL THICK.	DIMENSIONS A ± 1"	B MAX.	H ± 1"	L ± 1 1/2"	W ± 2"	APPROX. SLOPE
17"	13"	0.064	7"	9"	6"	19"	30"	2 1/2 to 1
21"	15"		7"	10"		23"	36"	
24"	18"		8"	12"		28"	42"	
28"	20"	0.064	9"	14"		32"	48"	
35"	24"	0.079	10"	16"	6"	39"	60"	
42"	29"	0.079	12"	18"	8"	46"	75"	
49"	33"	0.109	13"	21"	9"	53"	85"	
57"	38"		18"	26"	12"	63"	90"	2 1/2 to 1
64"	43"		18"	30"	12"	70"	102"	2 1/4 to 1
71"	47"		18"	33"	12"	77"	114"	2 1/4 to 1
77"	52"		18"	36"	12"	77"	126"	2 to 1
83"	57"	0.109	18"	39"	12"	77"	138"	2 to 1

NOTE: All splices to be lap riveted or bolted

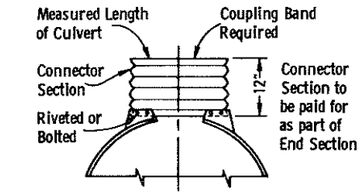
METAL APRON ENDWALLS FOR PIPE ARCHES



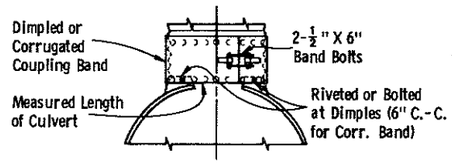
TYPE 1
For 12" thru 24" only (Circular Pipe)



TYPE 2
For 30" and 36" only (Circular Pipe)
For 17" X 13" thru 57" X 38" only (Pipe Arch)



TYPE 3
For 42" thru 84" only (Circular Pipe)
For 64" X 43" & 71" X 47" (Pipe Arch)



TYPE 5
Alternate for
All sizes Corrugated Circular Pipe and Pipe Arch

NOTE: Dimpled Band fits over Outside of Endwall, and Corr. Band fits Inside Endwall. Dimpled Band may be used with Helically Corrugated Pipe

CONNECTION DETAILS

CIRCULAR PIPE

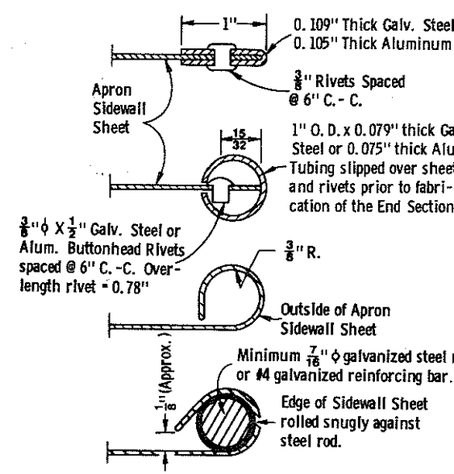
For Circumferentially Corrugated Pipe use Endwall Connection Details 1, 2, 3, or 5 as applicable.

For Helically Corrugated Pipe use Endwall Connection Details 1, 2 or 5.

For Helically Corrugated Pipes with two Circumferential Corrugations at each end use Endwall Connection Details 1, 2, or 3

PIPE ARCH

Use Endwall Connection Details 2, 3, or 5 as applicable.



SECTION A-A

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.

Variations of the dimensions and designs shown hereon will be permitted providing equivilent capacity and structural integrity are attained, and prior approval of the Engineer is obtained.

Concrete culvert endwalls may not be used with galvanized steel or aluminum culvert pipe or vice versa.

Galvanized steel or aluminum endwalls shall normally be installed on culvert pipe of the same metal. The use of galvanized steel endwalls on aluminum pipes is permitted, provided the two metals at the joint interface are kept separated by a suitable insulating material approximately 1/16" thick or greater. Such material would be an asphalt impregnated fabric, a sheet plastic, a rubber gasket or other nondegradable material of substantial strength.

When two or more pipe arches with apron endwalls are to be laid adjacent to each other, they shall be separated by the following amount.

Pipes: Total width of apron endwall less the diameter of pipe plus 6 inches.
Pipe Arches: Total width of apron endwall less the span dimension of the pipe arch plus 6 inches.

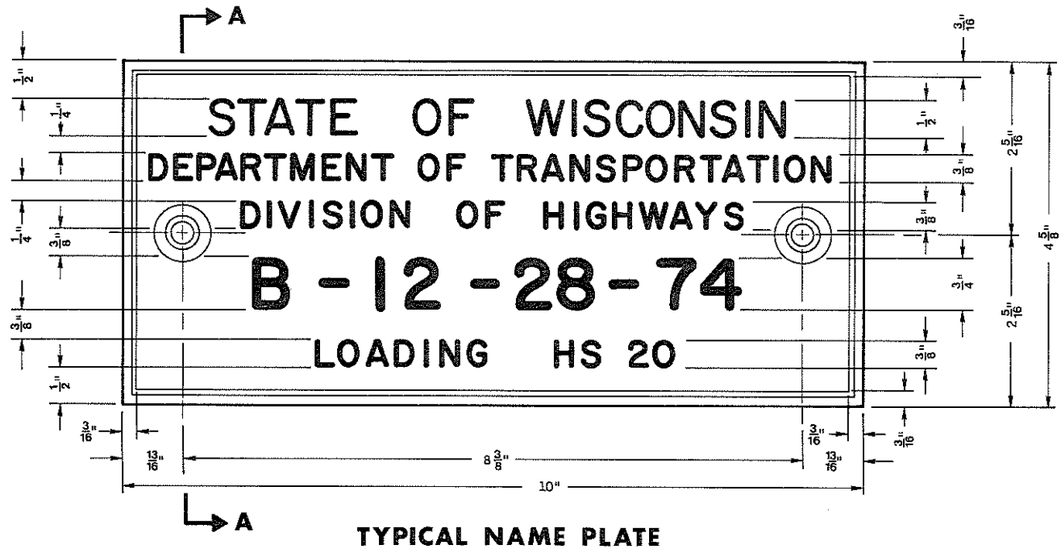
APRON ENDWALLS FOR CULVERT PIPE AND PIPE ARCH

State of Wisconsin
Department of Transportation
Division of Highways

RECOMMENDED FOR APPROVAL:
7-29-75 DATE — CHIEF of FACILITIES DEVELOPMENT

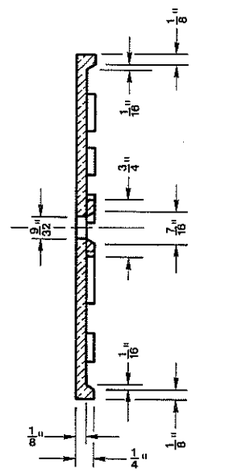
APPROVED
7-29-75 DATE — STATE HIGHWAY ENGINEER

S.D.D. 8F1-6

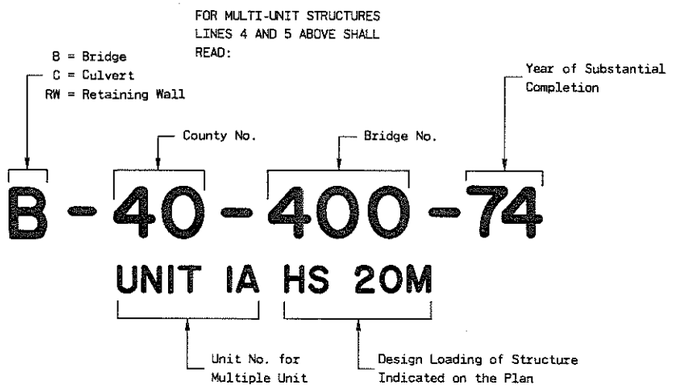


TYPICAL NAME PLATE

(BRIDGES, CULVERTS, AND RETAINING WALLS)



SECTION A-A



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 Highways

RECOMMENDED FOR APPROVAL:
4-16-74 — DATE — CHIEF of FACILITIES DEVELOPMENT

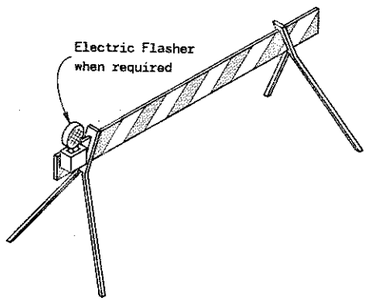
APPROVED
4-16-74 — DATE — STATE HIGHWAY ENGINEER

S.D.D. 12A3-1

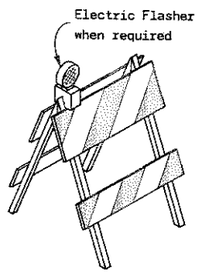
TABLE OF BARRICADE CHARACTERISTICS

BARRICADE TYPE	I	II	III
Height	3'(91.4 cm) Min.		5'(152.4 cm) Min.
* Rail Width	8"(20.3 cm) Min. to 12"(30.5 cm) Max.		
Rail Length	2'(61.0 cm) Min. to Variable Maximum		
** Stripe Width	6" (15.2 cm) at 45° Angle		
Stripe Colors	Reflectorized Orange & White		

* Nominal dimensions when barricade is constructed of lumber.
** May be 4"(10.2 cm) for rail lengths less than 3'(91.4 cm).



TYPICAL TYPE I BARRICADE



TYPICAL TYPE II BARRICADE

W20-3

48"(121.9 cm) x 48"(121.9 cm)

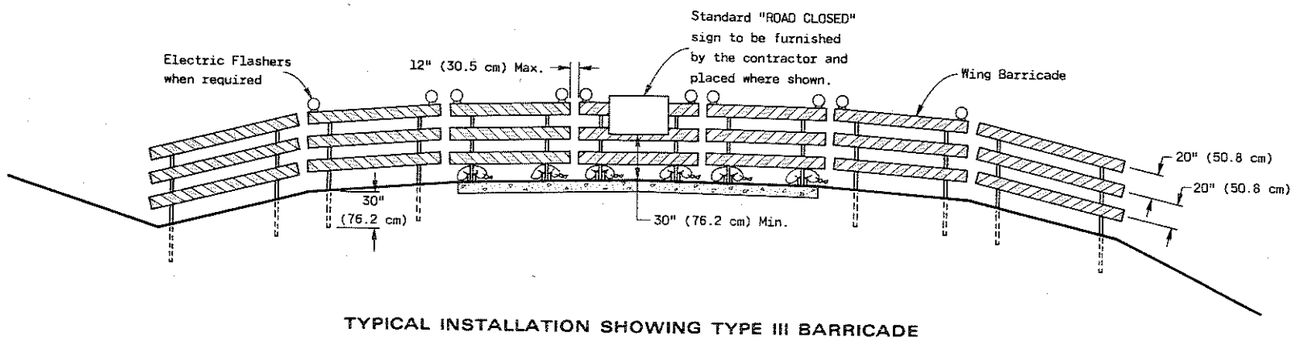
Black Lettering on Reflective
Orange Background
Letter Series "D"
Letter height 7" (17.8 cm)

R11-2

48"(121.9 cm) x 30"(76.2 cm)

Black Lettering on Reflective
White Background
Letter Series "D"
Letter height 8" (20.3 cm)

STANDARD SIGNS-TYPE II



TYPICAL INSTALLATION SHOWING TYPE III BARRICADE

CONSTRUCTION BARRICADES

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 Wisconsin 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 con - struction 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.

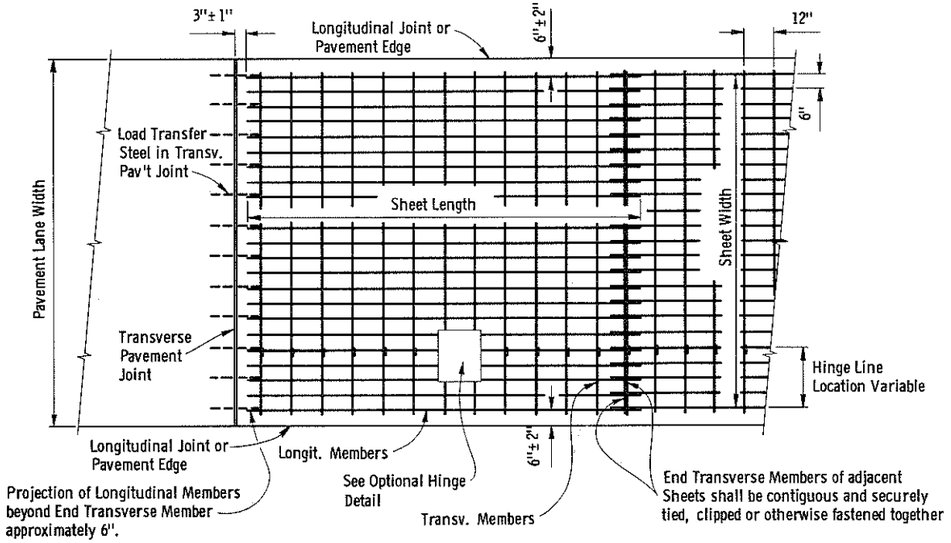
S.D.D. 15C1-4

CONSTRUCTION BARRICADES & STANDARD SIGNS

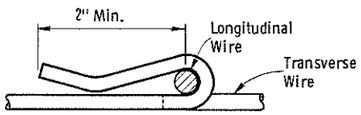
State of Wisconsin
Department of Transportation
Division of Highways

RECOMMENDED FOR APPROVAL:
6-6-75 DATE — CHIEF of FACILITIES DEVELOPMENT

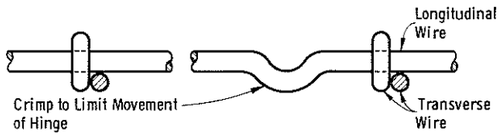
APPROVED
6-6-75 DATE



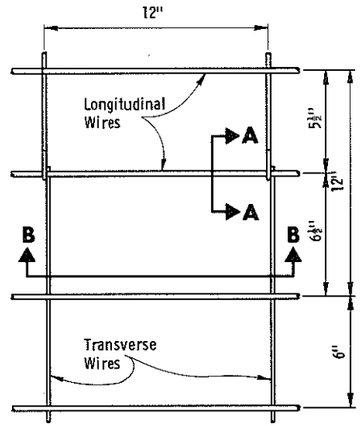
PLAN VIEW



SECTION A-A

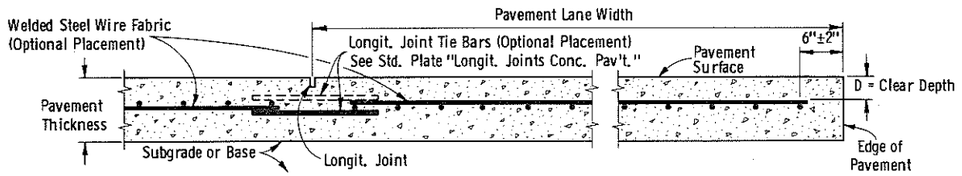


SECTION B-B



PLAN VIEW

OPTIONAL HINGE DETAIL



CROSS SECTION

WELDED STEEL WIRE FABRIC

Pavement Thickness	"D"
8"	2"-4"
9"	2"-4 1/2"
10"	2"-5"

GENERAL NOTES

Details of construction and materials not shown hereon shall conform to the pertinent requirements of the Standard Specifications and the applicable Special Provisions.

Alternate hinge designs may be used upon approval of the Engineer.

WELDED STEEL WIRE FABRIC

Welded Steel Wire Fabric shall conform to the requirements of the Standard Specification for Welded Steel Wire Fabric for Concrete Reinforcement A. A. S. H. O. Designation M 55 except as shown hereon.

Welded Steel Wire Fabric Specifications:
Approximate weight per 100 sq. ft. = 69.0 lbs.
Longitudinal Steel - Gage No. 0 = 0.3065" D at 6" C - C.
Transverse Steel - Gage No. 4 = 0.2253" D at 12" C - C.

Side lap of adjacent sheets shall be approximately 6".

SPECIAL REQUIREMENTS

Welded Steel Wire Fabric shall be shipped to the job site in flat sheets.

One longitudinal hinge line will be permitted in each Welded Steel Wire Fabric sheet for convenience in shipping. This hinge shall encircle the longitudinal wire such that no more than one (1) inch of transverse movement of the hinge exists. The longitudinal wire around which the hinge rotates shall be crimped adjacent to the hinge such that no more than one (1) inch of longitudinal movement of the hinge exists.

CONCRETE PAVEMENT REINFORCEMENT

State of Wisconsin
Department of Transportation
Division of Highways

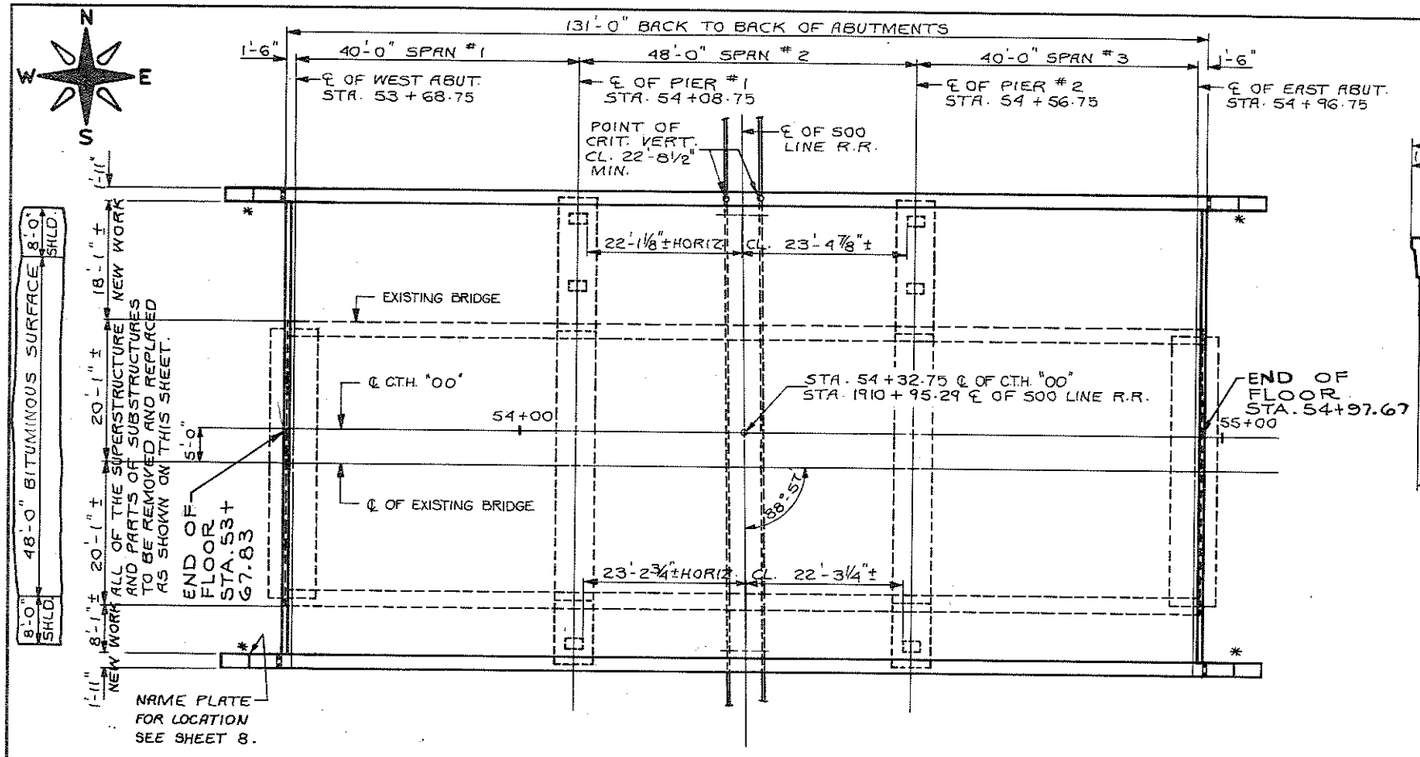
RECOMMENDED FOR APPROVAL:
11-30-72 DATE — CHIEF DESIGN ENGINEER

APPROVED
12-1-72 DATE — STATE HIGHWAY ENGINEER

S.D.D. 13A1-2

Form E-B-11-

PROJECT I.D.	SHEET NUMBER	TOTAL SHEETS
4984-0-34	7	
FEDERAL PROJECT DESIGNATION		



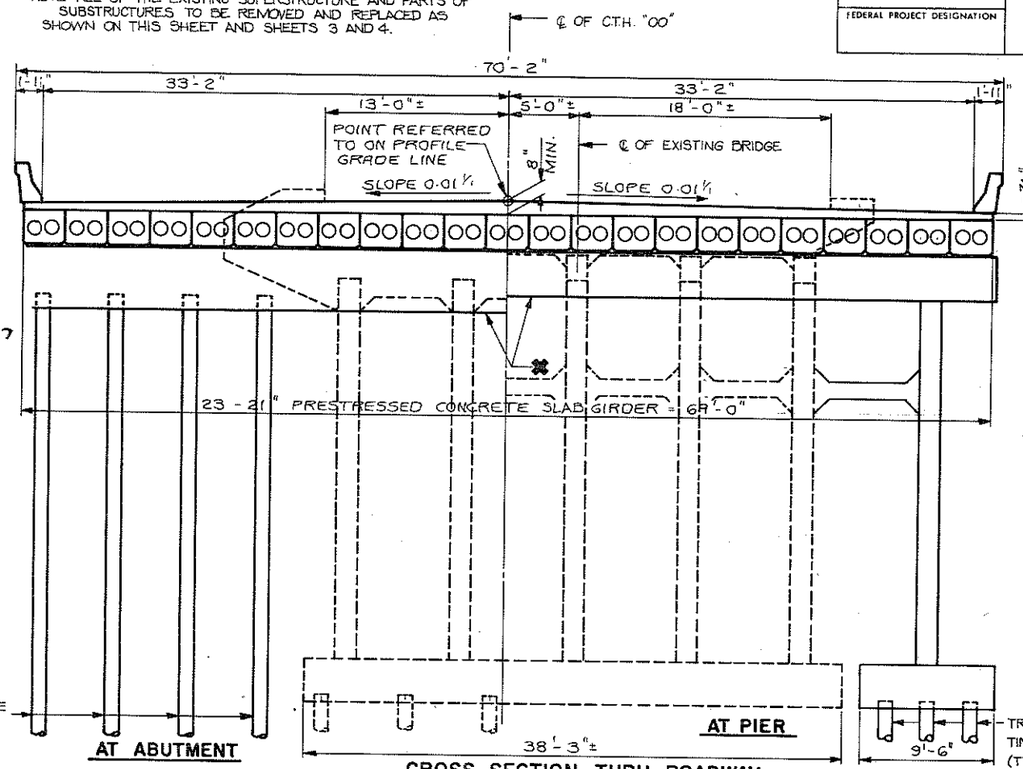
* ATTACH BEAM GUARD RAIL ATTACHMENT

PLAN

THREE SPAN CONTINUOUS PRESTRESSED CONCRETE GIRDER SUPERSTRUCTURE.

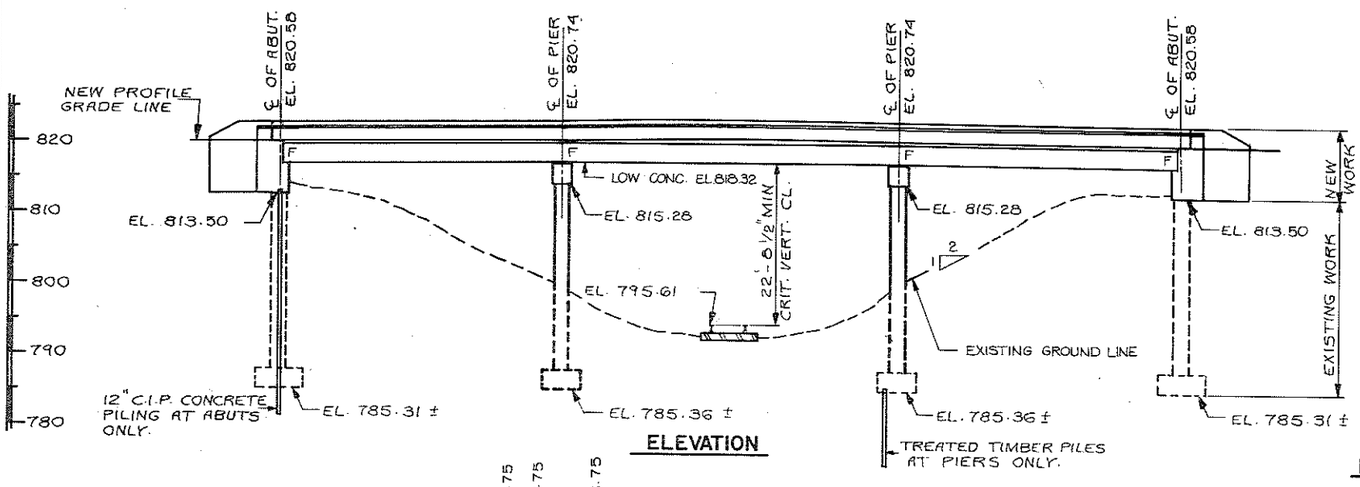
✖ REMOVE STRUCTURE ABOVE THIS LINE AND REPLACE AS SHOWN.

NOTE: ALL OF THE EXISTING SUPERSTRUCTURE AND PARTS OF SUBSTRUCTURES TO BE REMOVED AND REPLACED AS SHOWN ON THIS SHEET AND SHEETS 3 AND 4.

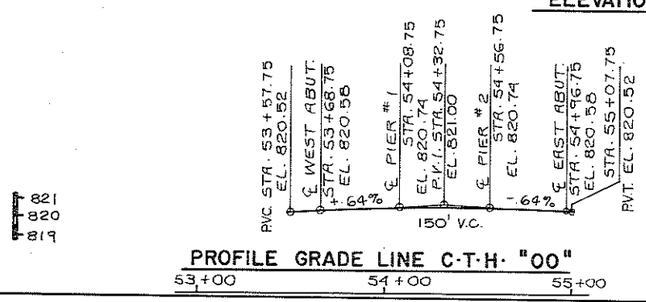


CROSS SECTION THRU ROADWAY

LOOKING EAST



ELEVATION



PROFILE GRADE LINE C-T-H- "00"

BARRIENTOS & ASSOCIATES, INC.
CONSULTING ENGINEERS
MADISON WISCONSIN

DESIGN DATA

LIVE LOAD
DESIGN RATING : HS-20
INVENTORY RATING : HS21
OPERATIONAL RATING : HS34
STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20 POUNDS PER SQUARE FOOT.

ALLOWABLE DESIGN STRESSES :

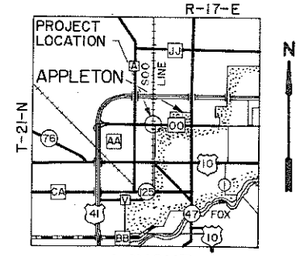
CONCRETE MASONRY - SLAB	f'_c = 4,000 P.S.I.
- ALL OTHER CONCRETE	f'_c = 3,500 P.S.I.
HIGH STRENGTH BAR STEEL REINFORCEMENT	f_y = 60,000 P.S.I.
STRUCTURAL CARBON STEEL	f_y = 36,000 P.S.
PRESTRESSED CONCRETE GIRDERS, 21"	
CONCRETE	f'_c = 5,000 P.S.I.
STRANDS - ½" DIA. WITH ULTIMATE TENSILE STRENGTH OF 270,000 P.S.I.	

FOUNDATION DATA :
ABUTMENTS TO BE SUPPORTED BY 12" DIA. C.I.P. CONCRETE PILING EST. 50'-0" LONG AND DRIVEN TO A MIN. BRG. VALUE OF 30 TONS PER PILE.

PIERS TO BE SUPPORTED BY TREATED TIMBER PILING EST. 30'-0" LONG AND DRIVEN TO A MIN. BRG. VALUE OF 24 TONS PER PILE.

TRAFFIC DATA
ADT (1976) = 10,600
ADT (1996) = 14,750
R.D.S. = 50 M.P.H.

LIST OF DRAWINGS



LAYOUT

No.	Date	Revision	By

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-44-465

C-T-H- "00" OVER 500 LINE RAILROAD

County OUTAGAMIE		City APPLETON	
Design Spec. A-A-S-H-T-O- 1973 & INTERIM 1975	Load HS-20	Const. Spec. 1975	
Designed By R-I-S-	Design Checked L-M-B-	Drawn By L-N-F-	Plans Checked R-I-S-

Approved W.A. Kline, Chief Bridge Engineer — 4-6-76 Date

GENERAL PLAN

SHEET 1 OF 8

X55877

Form E-B-12-69

PROJECT I.D.	SHEET NUMBER	TOTAL SHEETS
4984-0-34	7.1	
FEDERAL PROJECT DESIGNATION		

TOTAL ESTIMATED QUANTITIES

BID ITEMS	UNIT	SUPER	W. ABUT.	PIER 1	PIER 2	E. ABUT.	BRIDGE TOTAL	APPROACHES
REMOVING OLD BRIDGE	L.S.	—	—	—	—	—	1	—
EXCAVATION FOR STRUCTURES	L.S.	—	—	—	—	—	1	—
CRUSHED AGGREGATE BASE COURSE	TON	—	—	—	—	—	—	40/APPR. = 80
CONCRETE BASE COURSE - 9"	S.Y.	—	—	—	—	—	—	135/APPR. = 270
CONCRETE MASONRY	C.Y.	193.8	74.2	70.9	70.9	74.2	404	—
PRESTRESSED GIRDER, SLAB TYPE, 21"	L.F.	2925	—	—	—	—	2925	—
HIGH STRENGTH BAR STEEL REINFORCEMENT	L B S.	32,020	10,420	8,330	8,330	10,420	69,520	—
STRUCTURAL CARBON STEEL	L B S.	730	—	85	85	—	900	—
BEARING PADS, ELASTOMERIC	S.F.	503	—	—	—	—	503	—
TREATED TIMBER PILING - DELIVERED	L.F.	—	—	450	450	—	900	—
TREATED TIMBER PILING - DRIVEN	L.F.	—	—	450	450	—	900	—
TREATED TIMBER TEST PILING	L.S.	—	—	—	—	—	1	—
CAST - IN - PLACE CONCRETE PILING, DELIVERED AND DRIVEN, 12"	L.F.	—	—	500	500	—	1,000	—
CONCRETE SURFACE DRAINS	C.Y.	—	—	—	—	—	—	2.25/APPR. = 4.5

NON - BID ITEMS	UNIT	SUPER	W. ABUT.	PIER 1	PIER 2	E. ABUT.	BRIDGE TOTAL	APPROACHES
ALUMINUM OR ZINC PLATES	S.F.	29	—	—	—	—	29	—
FILLER	SIZE	—	—	—	—	—	3/4"	—
POLYVINYL CHLORIDE WATERSTOP	L.F.	—	66	—	—	66	132	—

● 2 REQUIRED. - DRIVE ONE TREATED TIMBER TEST PILE AT EACH PIER EST. 40'-0" LONG.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

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

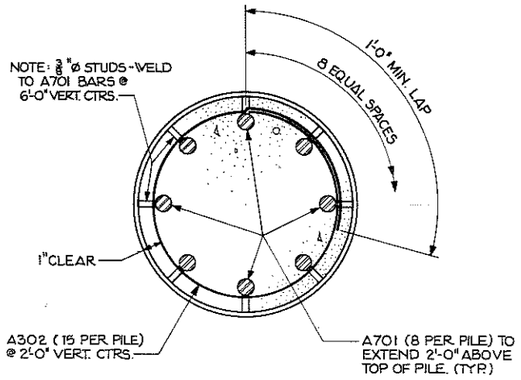
ELASTOMERIC BEARING PADS NEED NOT BE INDIVIDUALLY MOLDED PROVIDED THE CUT EDGES ARE SMOOTH AND TRUE.

JOINT FILLER SHALL CONFORM TO A.A.S.H.T.O. DESIGNATION M153 OR M213.

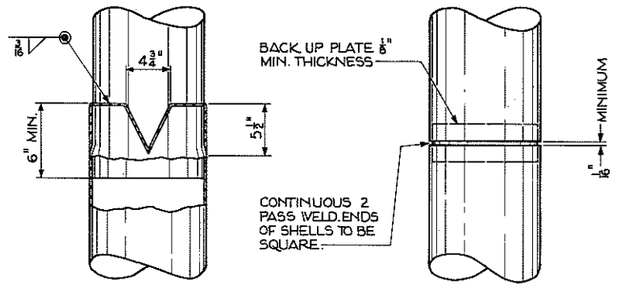
THE CONTRACTOR SHALL TAKE EXTRA PRECAUTION IN PROTECTION OF ALL SUBSTRUCTURES OR PARTS OF SUBSTRUCTURES ENCORPORATED IN THE NEW STRUCTURE WHILE THE EXISTING SUPERSTRUCTURE IS REMOVED.

BENCH MARK

NO.	LOCATION	STA.	ELEV.
	CENTER BOLT IN SOUTH END OF WOOD PLATFORM WITH 'X' CHISELED AROUND IT. 92' LT.	54 + 32	795.35



TYPICAL PILE SECTION



PILE SPLICE DETAIL

BARRIENTOS & ASSOCIATES, INC.
CONSULTING ENGINEERS
2020 UNIVERSITY AVE.
MADISON, WISC. 53705
ph. 608-238-6761

No.	Date	Revision	By

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-44-465

Const. Spec.	Drawn By	Plans Checked
WIS. '75	A.W.G.	L.N.F.

GENERAL PLAN

SHEET 2 OF 8

X55878

Form E-B-12-6

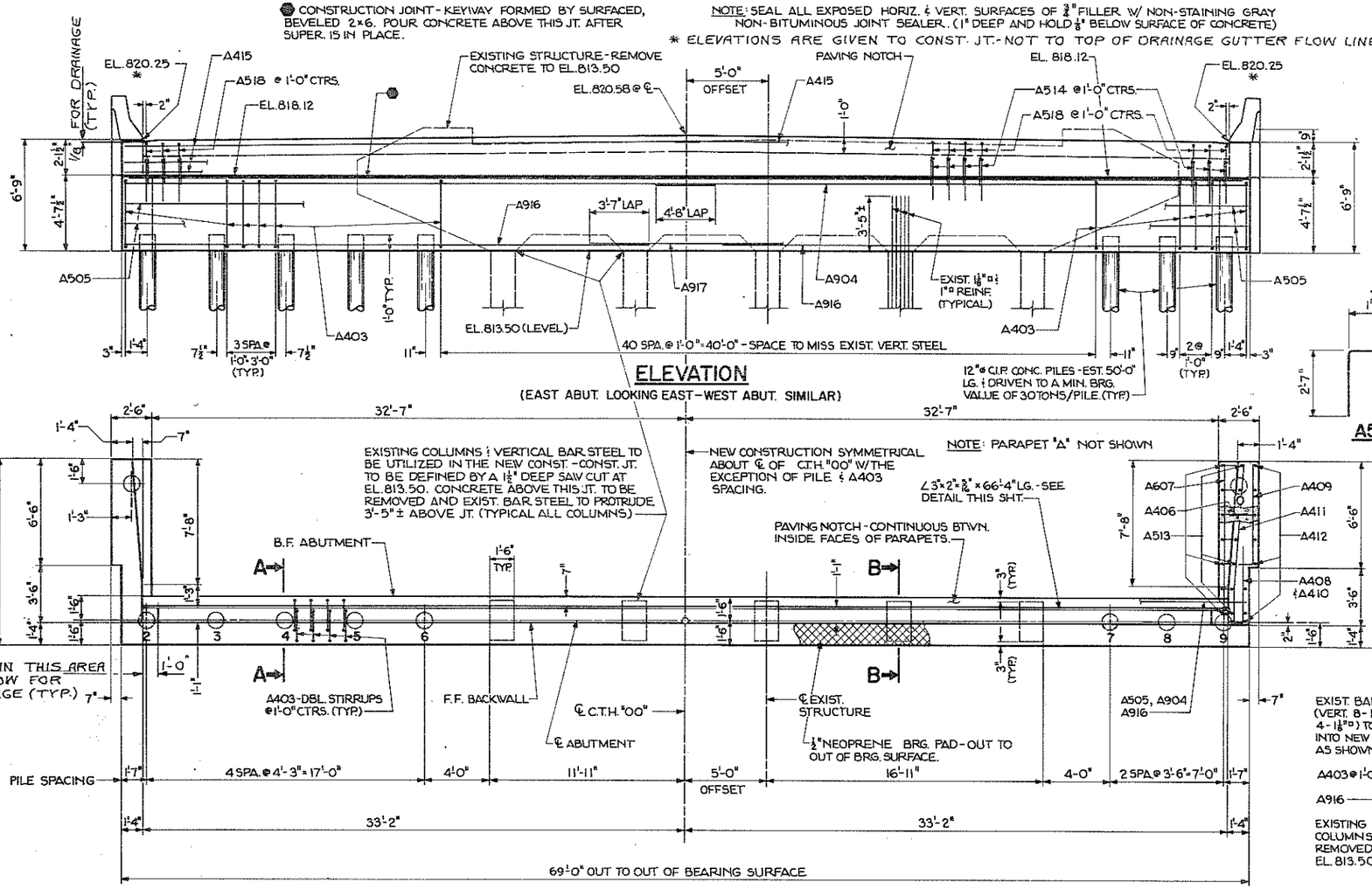
PROJECT I.D.	SHEET NUMBER	TOTAL SHEETS
4984-0-34	7.2	
FEDERAL PROJECT DESIGNATION		

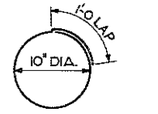
NOTE: THE FIRST DIGIT OF A THREE DIGIT BAR NO. SIGNIFIES THE BAR SIZE.

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT.

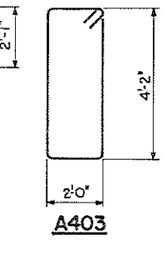
BILL OF BARS - 2 ABUTS.

MARK	NO.	LENGTH	BEND	LOCATION
A701	160	30'-0"		C.I.P. CONC. PILES - VERT. - (8 PER PILE)
A302	300	3'-8"	X	" " " - STIRRUPS - (15 PER PILE)
A403	260	12'-10"	X	BODY - DOUBLE STIRRUPS
A904	16	36'-8"		" - HORIZ. TOP
A505	16	35'-0"		" - "
A406	56	7'-2"	X	LOWER WING - STIRRUPS
A607	20	9'-8"		" " - HORIZ. - B.F.
A408	16	4'-10"		" " - " - F.F.
A409	28	7-1	X	" UPPER WING - HORIZ. - F.F.
A410	12	5'-8"	X	UPPER WING - HORIZ. - F.F.
A411	12	10'-6"	X	" " - " - B.F.
A412	32	3'-1"		" " - VERT. - F.F.
A513	32	3'-4"		" " - " - B.F.
A514	134	6'-3"	X	BODY BACKWALL - VERT
A415	24	34'-9"		" " - HORIZ.
A916	16	32'-0"		" - HORIZ. - BOTTOM
A917	8	11'-10"		" - " - " @ ℄
A518	134	4'-8	X	" - BACKWALL - VERT.





A302

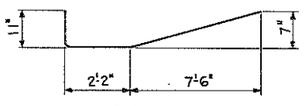


A518

A514

A403

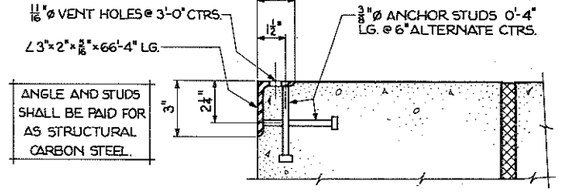
A406

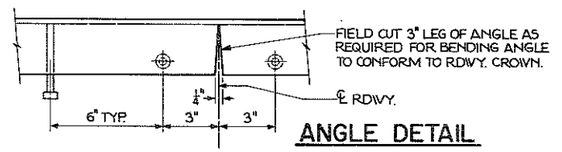


A411

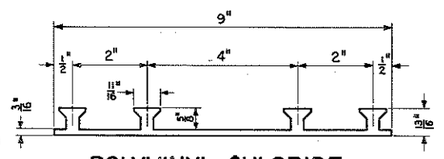
A409 & A410

SECTION B-B

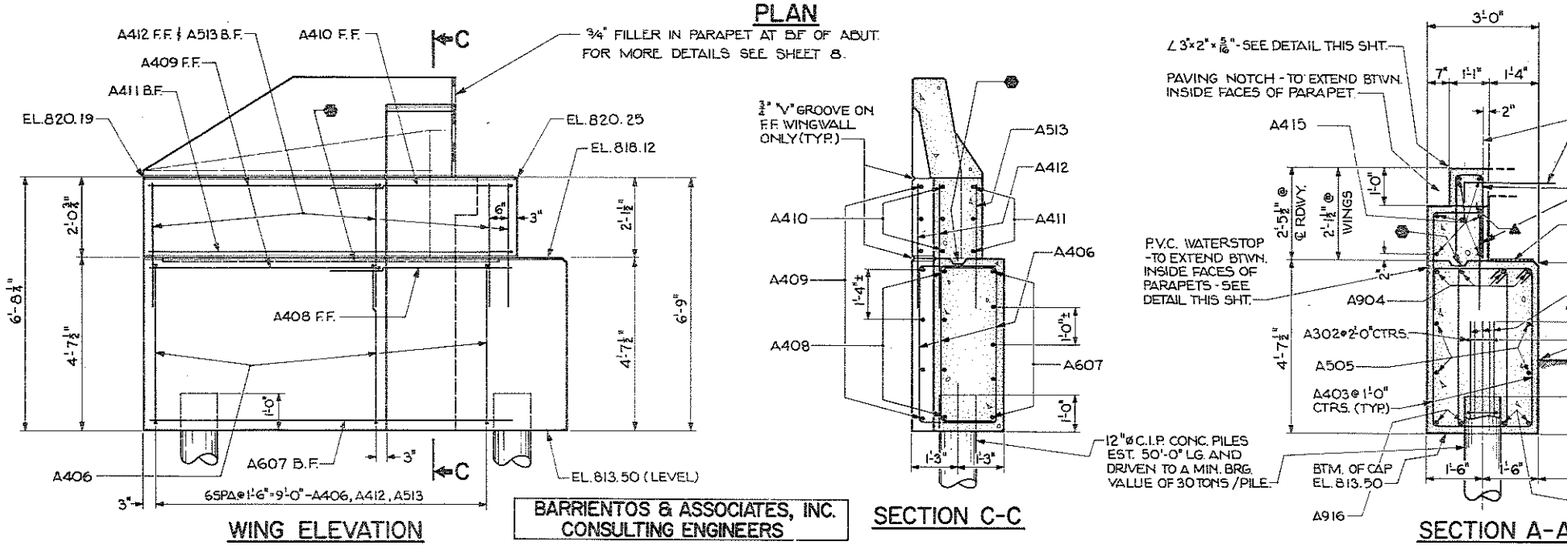




ANGLE DETAIL



POLYVINYL CHLORIDE WATERSTOP DETAIL



BARRIENTOS & ASSOCIATES, INC.
CONSULTING ENGINEERS
2020 UNIVERSITY AVE.

No.	Date	Revision	By

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-44-465

Const. Spec.	Drawn By	Plans Checked
WIS. '75	S.R.L.	R.I.S.

ABUTMENTS

SHEET 3 OF 8

X55879

Form E-B-12-69

PROJECT I.D.	SHEET NUMBER	TOTAL SHEETS
4984-0-34	7.3	
FEDERAL PROJECT DESIGNATION		

▲ UTILIZE EXISTING BAR STEEL REINFORCEMENT AND EXTEND TO A MIN. OF 2'-2" INTO NEW WORK (TYPICAL).

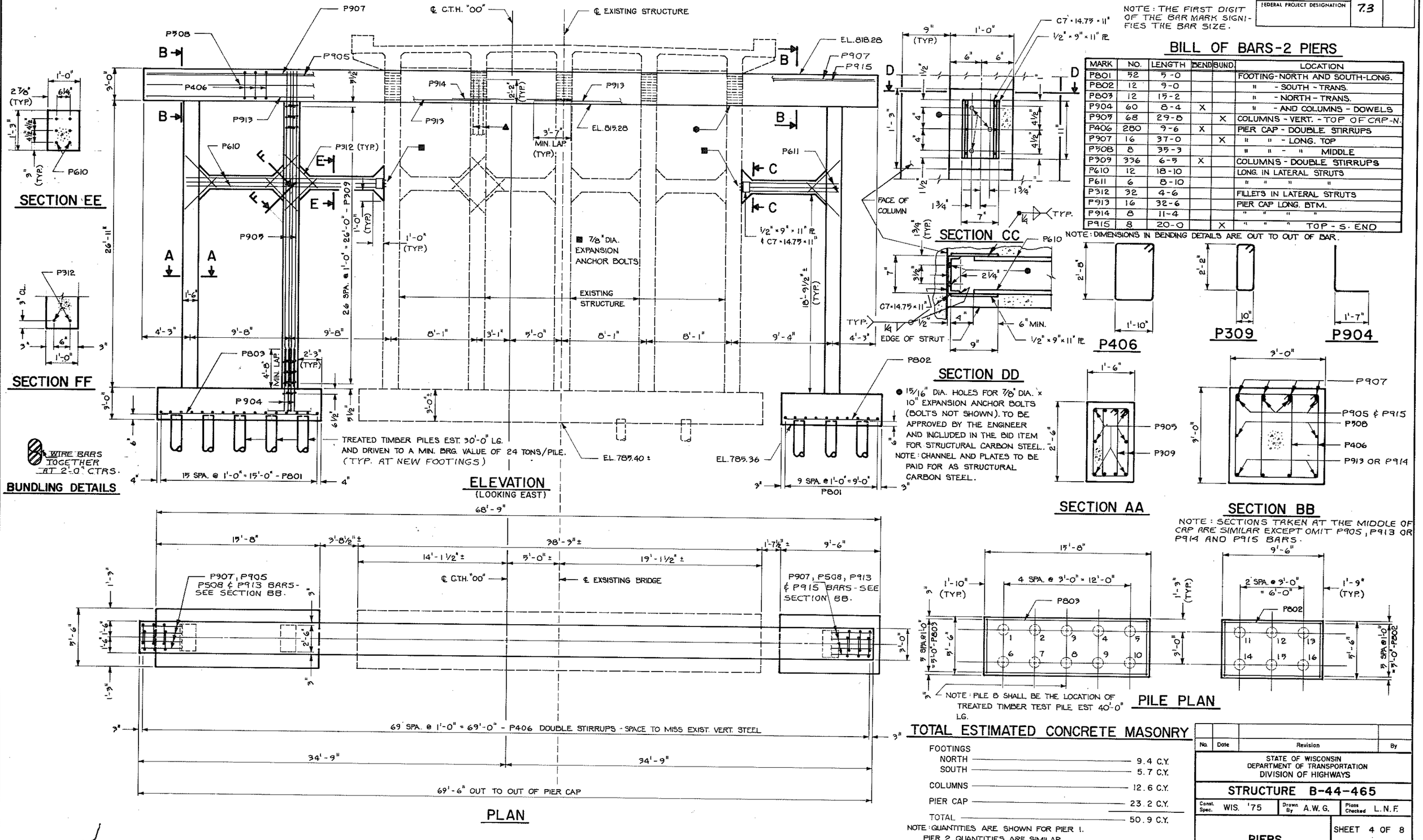
● CONST. JOINT DEFINED BY A 1" DEEP SAW CUT (TYP.) REMOVE EXISTING STRUCTURE ABOVE THIS JOINT AND REPLACE AS SHOWN. AFTER REMOVING STRUCTURE, CHECK COLUMNS FOR PLUMBNESS WITH ALLOWABLE TOLERANCE OF 1/2". IF PLUMBNESS IS OFF BY MORE THAN 1/2" NOTIFY THE ENGINEER.

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

BILL OF BARS-2 PIERS

MARK	NO.	LENGTH	BEND	BUND.	LOCATION
P801	52	5-0			FOOTING-NORTH AND SOUTH-LONG.
P802	12	9-0			" - SOUTH - TRANS.
P803	12	15-2			" - NORTH - TRANS.
P904	60	8-4	X		" - AND COLUMNS - DOWELS
P905	68	29-8		X	COLUMNS - VERT. - TOP OF CAP-N.
P406	280	9-6	X		PIER CAP - DOUBLE STIRRUPS
P907	16	37-0		X	" " - LONG. TOP
P908	8	35-3			" " - " MIDDLE
P909	336	6-5	X		COLUMNS - DOUBLE STIRRUPS
P610	12	18-10			LONG. IN LATERAL STRUTS
P611	6	8-10			" " " "
P312	32	4-6			FILLETS IN LATERAL STRUTS
P913	16	32-6			PIER CAP LONG. BTM.
P914	8	11-4			" " " "
P915	8	20-0		X	" " " TOP - S. END

NOTE: DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.



TOTAL ESTIMATED CONCRETE MASONRY

FOOTINGS	
NORTH	9.4 C.Y.
SOUTH	5.7 C.Y.
COLUMNS	12.6 C.Y.
PIER CAP	23.2 C.Y.
TOTAL	50.9 C.Y.

NOTE: QUANTITIES ARE SHOWN FOR PIER 1. PIER 2 QUANTITIES ARE SIMILAR.

No.	Date	Revision	By

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

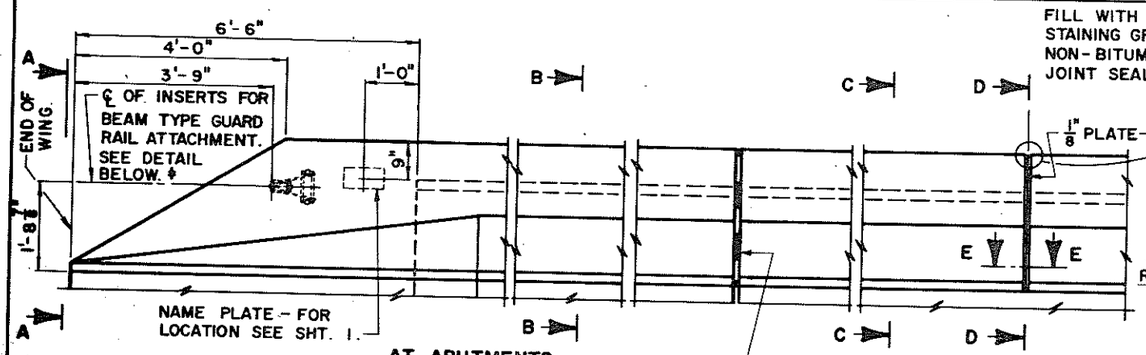
STRUCTURE B-44-465

Const. Spec.	Drawn By	Plans Checked
WIS. '75	A.W.G.	L.N.F.

PIERS

SHEET 4 OF 8

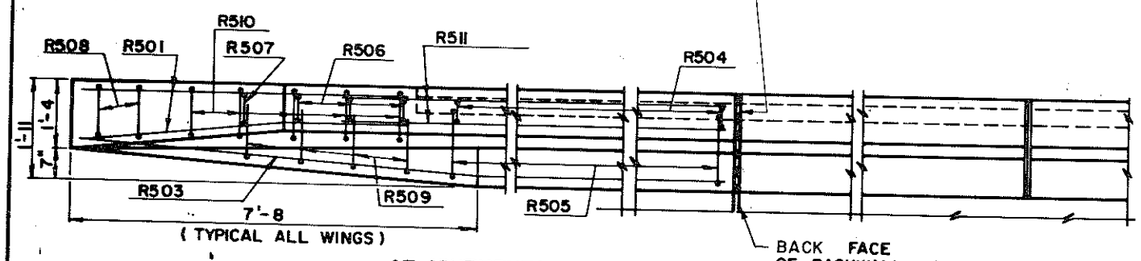
X55880



♦PLACE AT ABUTMENT WINGS WHERE REQUIRED. SEE SHT. 1.

AT ABUTMENTS
ELEVATION

AT DEFLECTION JOINT



AT ABUTMENTS
PART PLAN

SECTION D

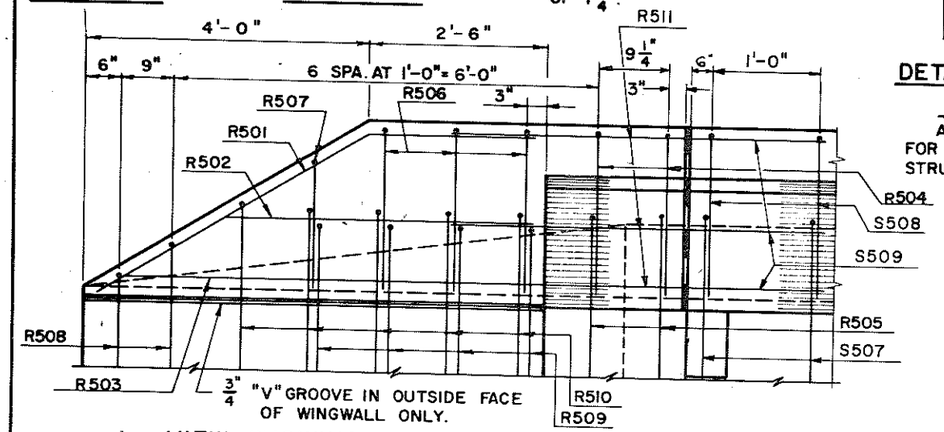
SECTION E

AT DEFLECTION JOINT

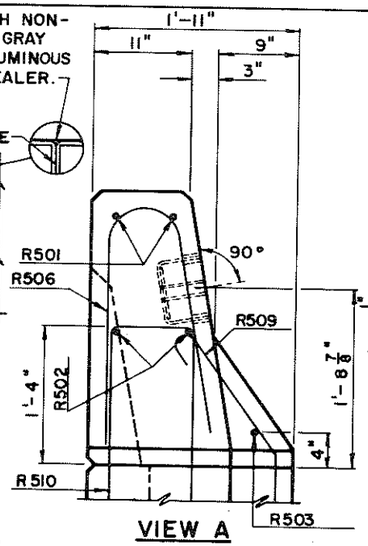
THREADED INSERTS FOR 7/8"ϕ x 0'-2" LONG GALVANIZED HEX. HEAD CAP SCREWS. CAP SCREWS TO BE THREADED A MINIMUM OF 1 7/8". INSERTS TO BE THREADED A MINIMUM OF 1 3/4".

DETAIL OF ANCHOR ASSEMBLY FOR BEAM TYPE GUARD RAIL

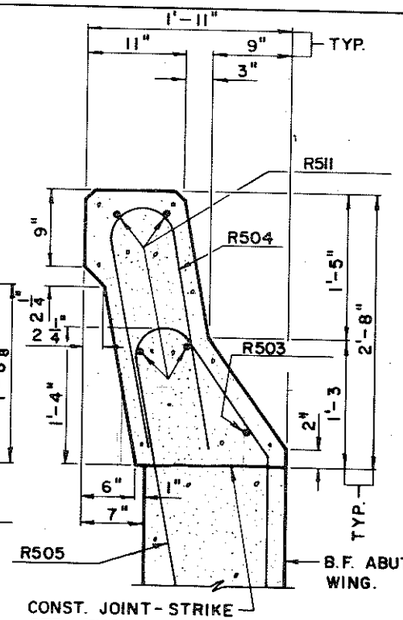
ANCHOR ASSEMBLY SHALL BE PAID FOR AT THE UNIT PRICE BID FOR STRUCTURAL CARBON STEEL.



VIEW SHOWING OUTSIDE FACE OF PARAPET & REINF.

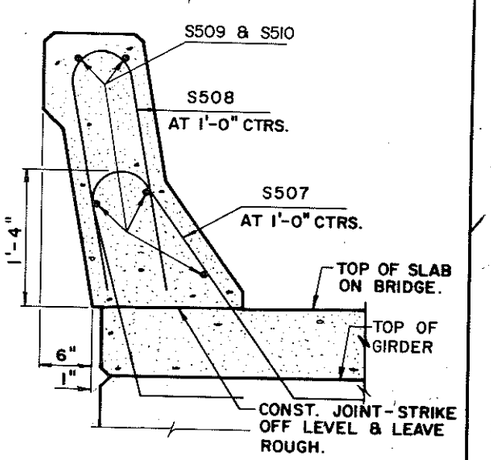


VIEW A



SECTION B

NOTE: BENDING DIMENSIONS ARE OUT TO OUT OF BAR.
THE FIRST DIGIT OF A BAR MARK SIGNIFIES THE BAR SIZE.

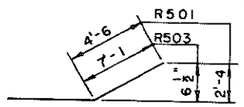


SECTION C

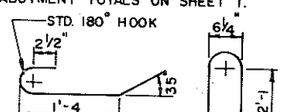
PARAPET
BILL OF BARS @ ABUTS.

MARK	NO. REQ'D.	LENGTH	BENT	LOCATION
R501	8	6-10	X	WINGS 1 THRU 4
R502	8	4-5		" 1 " 4
R503	4	7-5	X	" 1 " 4
R504	8	5-0	X	" 1 " 4
R505	8	5-10	X	" 1 " 4
R506	12	5-2	X	" 1 " 4
R507	4	4-2	X	" 1 " 4
R508	8	4-10	X	" 1 " 4
R509	16	3-3	X	" 1 " 4
R510	20	5-10	X	" 1 " 4
R511	16	3-9		" 1 " 4

♦♦ WEIGHT IS INCLUDED IN ABUTMENT TOTALS ON SHEET 1.

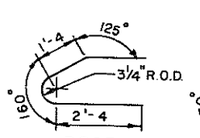


R501, R503

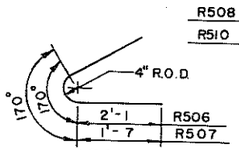


R509

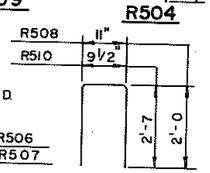
R504



R505



R506, R507



R508, R510

NOTES

WHEN PARAPETS ARE POURED CONTINUOUSLY FROM END TO END, THEY SHALL BE SEPARATED AT THE DEFLECTION JOINTS BY A PIECE OF 1/8" ZINC OR ALUMINUM PLATE CUT AS SHOWN IN SECTION "D" BY SHADED AREA. IF CONSTRUCTION JOINTS IN PARAPETS ARE USED AT THE DEFLECTION JOINTS, ONE SIDE OF JOINT SHALL BE COATED WITH BITUMINOUS PAINT AND PLATE SEPARATORS MAY BE OMITTED.

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

Form C B 12-69

PROJECT ID	SHEET NUMBER	TOTAL SHEETS
4984-0-34	7.7	
FEDERAL PROJECT DESIGNATION		

BARRIENTOS & ASSOCIATES, INC.
CONSULTING ENGINEERS
2020 UNIVERSITY AVE.
MADISON, WISC. 53705
ph. 608-238-6761

No.	Date	Revision	By

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-44-465

Const. Spec.	Drawn By	Plans Checked
WIS. '75	A.W.G.	L.N.F

SLOPED FACE PARAPET "A"

SHEET 8 OF 8

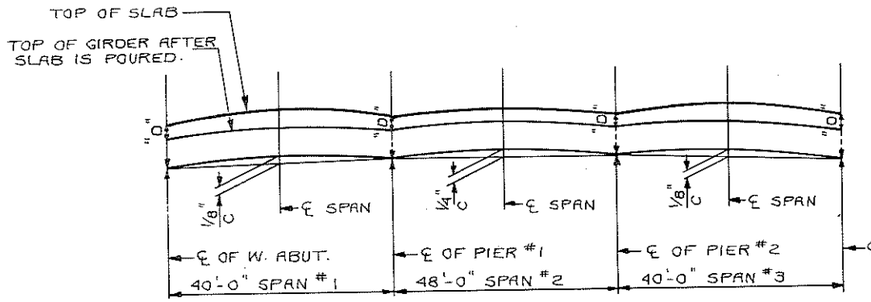
X55884

221BR0775

Form E-B-12-69

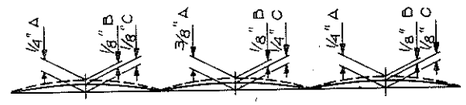
PROJECT I.D.	SHEET NUMBER	TOTAL SHEETS
4984-0-34	7.6	
FEDERAL PROJECT DESIGNATION		

NOTE: "D" IS SLAB THICKNESS. "D" = 4" @ EDGE OF SLAB; "D" = 8" @ NEW ℄ C.T.H. "00".



SLAB FORMING DIAGRAM

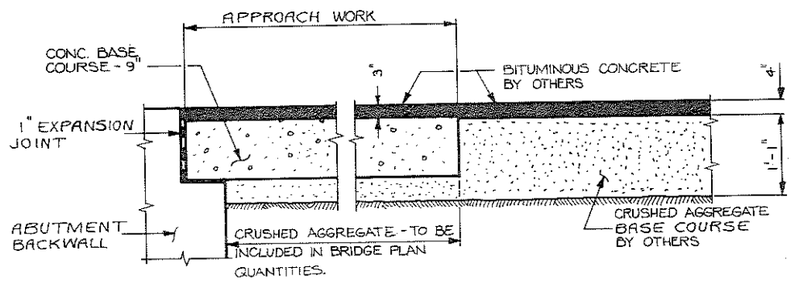
NOTE: ALL SLAB THICKNESSES SHOWN ARE MINIMUM. AFTER THE GIRS. ARE ERECTED, ELEVATIONS OF THE TOP OF THE GIRDERS SHALL BE TAKEN AT THE QUARTER POINTS OF THE SPAN. THESE ELEVATIONS SUBTRACTED FROM THE GRADE LINE, ADJUSTED FOR DEAD LOAD DEFLECTION EQUALS THE SLAB THICKNESS. ANY CHANGES REQUIRED IN SLAB THICKNESS DUE TO VARIATIONS IN PRESTRESS CAMBER AND OTHER MINOR CONSTRUCTION DISCREPANCIES ARE TO BE PLUS (+). IF VARIATIONS IN PRESTRESS CAMBER AND OTHER CONSTRUCTION DISCREPANCIES ARE OF SUCH A MAGNITUDE THAT THE MINIMUM SLAB THICKNESS AS NOTED ABOVE WILL NOT BE MAINTAINED, THE PLAN SLAB THICKNESS SHALL BE HELD WHILE THE GRADE LINE WILL BE REVISED.



NOTE: PRESTRESS CAMBER AND DEADLOAD DEFLECTION DATA SHOWN ARE THEORETICAL AND MAY VARY WITH CONCRETE STRENGTH, VARIABLE PRESTRESSING CONDITIONS AND PRESTRESS LOSSES.

CAMBER DIAGRAM

A - PRESTRESS CAMBER
B - DEAD LOAD DEFLECTION
C - RESIDUAL CAMBER



CENTERLINE SECTION AT APPROACHES

BARRIENTOS & ASSOCIATES, INC.
CONSULTING ENGINEERS
2020 UNIVERSITY AVE.
MADISON, WISC. 53705
ph. 608-238-6761

No.	Date	Revision	By

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-44-465

Const. Spec.	Drawn By	Plans Checked
1975	L.N.F.	R.A.S.

APPROACH DETAILS

SHEET 7 OF

X55883

Form E-B-12-69

PROJECT I.D.	SHEET NUMBER	TOTAL SHEETS
4984-0-34	7.5	
FEDERAL PROJECT DESIGNATION		

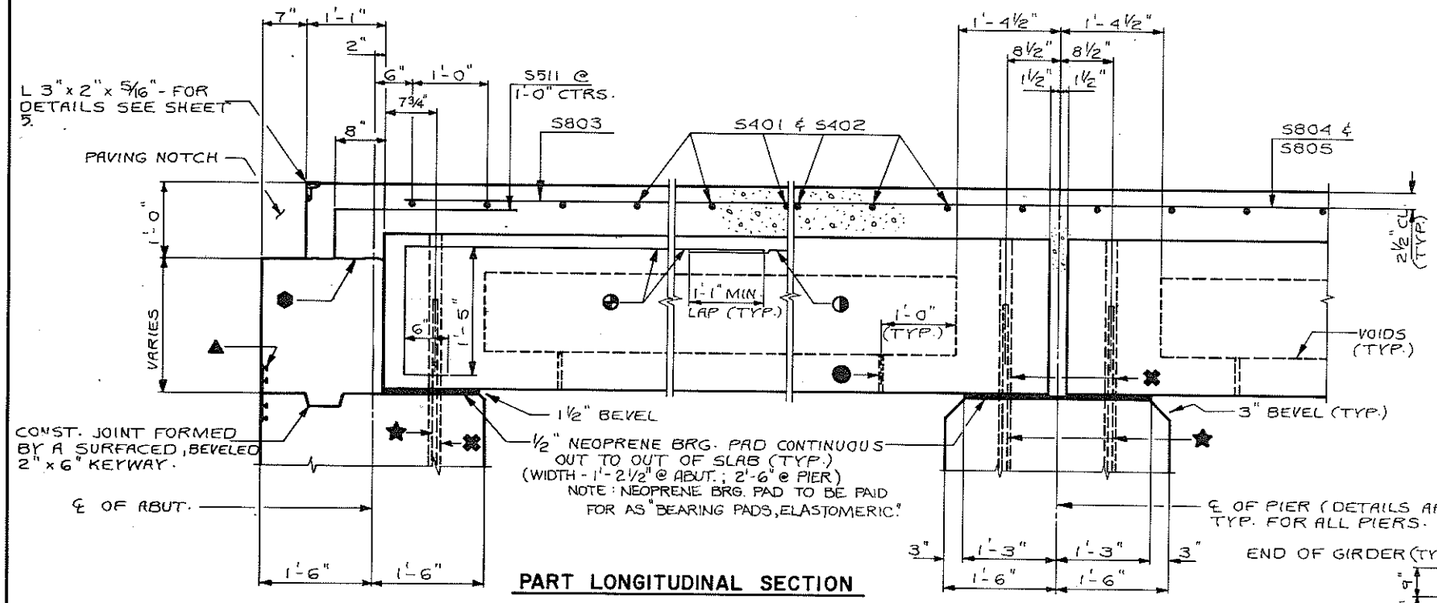
LEGEND OF SYMBOLS

- ✖ 2" DIA. HOLES FOR 7/8" DIA. ANCHOR PINS. FILL HOLES WITH GROUT AT THE PIER AND WITH MASTIC AT THE ABUTMENTS AFTER ANCHOR PINS ARE PLACED.
- ★ 7/8" DIA. ANCHOR PINS (2'-6" LONG) SUPPLIED BY THE GIRDER MANUFACTURER. 4 PINS REQUIRED PER GIRDER. DRILL 7/8" DIA. HOLES FOR ANCHOR PINS IN PIERS AND ABUTMENTS AFTER PLACING THE GIRDERS.
- ● 3/4" DIA. PAPER TUBE AT EACH END OF EACH VOID FOR DRAINING.
- ⊕ 6 - #6 BARS @ 7'-7" LONG FOR SPANS 1 & 3. 6 - #7 BARS @ 8'-10" LONG FOR SPAN 2. BEND AS SHOWN.
- ◑ 6 - #4 BARS @ 29'-6" LONG PER GIRDER FOR SPANS 1 & 3. 6 - #4 BARS @ 35'-1" LONG PER GIRDER FOR SPAN 2. SPLICE #4 BARS TO #6 & #7 BARS AS REQUIRED.
- ▲ POLYVINYL CHLORIDE WATERSTOP - FOR DETAILS SEE SHEET 3.
- ⬢ CONST. JOINT, POUR CONC. ABOVE THIS JOINT MONOLITHICLY WITH THE SUPERSTRUCTURE.
- ■ 5/8" ø THREADED INSERTS @ 4'-0" CTRS. IN EXTERIOR SLABS ONLY.

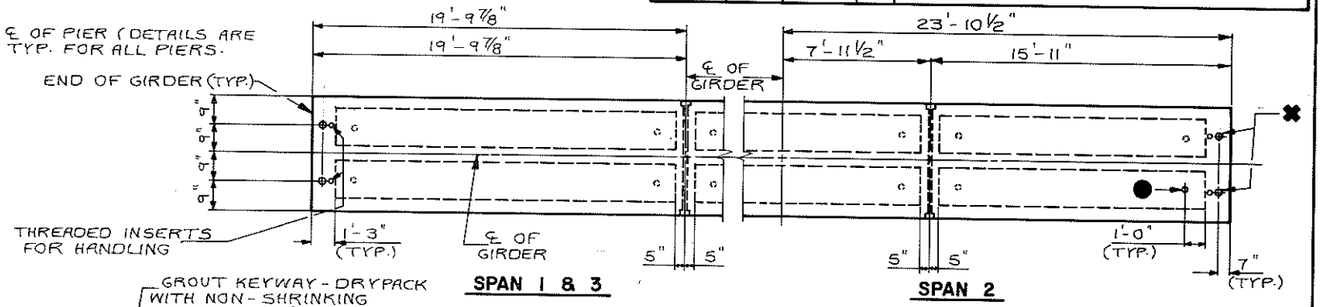
BILL OF BARS

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.
THE FIRST DIGIT OF THE BAR MARK SIGNIFIES THE BAR SIZE.

MARK	NO. REQ'D	LENGTH	BEND	LOCATION
S401	128	36-8		SLAB - TRANSVERSE
S402	128	33-8		" - "
S803	92	19-7		" - LONGITUDINAL
S804	92	30-4		" - " - OVER PIERS
S805	90	36-9		" " - " "
S806	2	37-10		" - " - SPAN #2
S507	262	5-7	X	PARAPET - VERT.
S508	262	5-0	X	" - "
S509	40	20-5		" - LONGITUDINAL
S510	20	23-8		" - "
S511	138	3-3	X	SLAB - LONGITUDINAL @ ABUTMENT



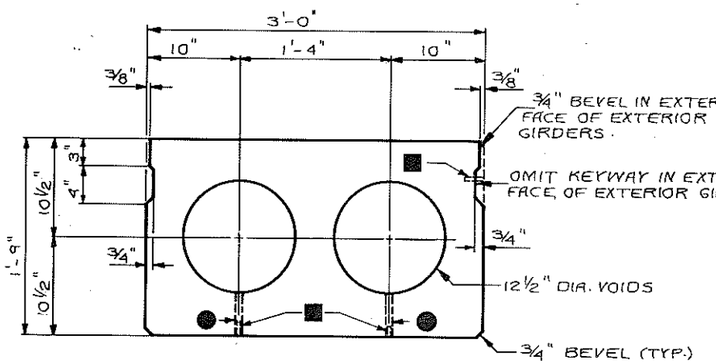
PART LONGITUDINAL SECTION



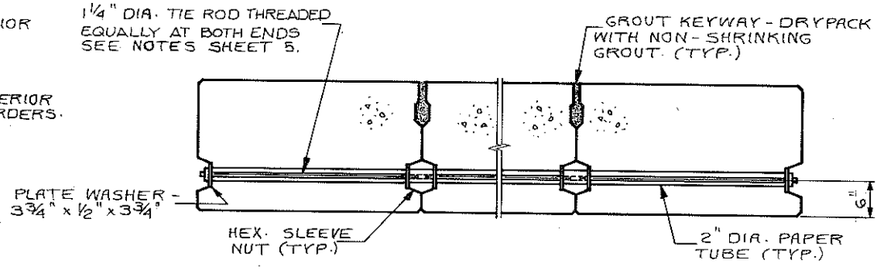
SPAN 1 & 3

SPAN 2

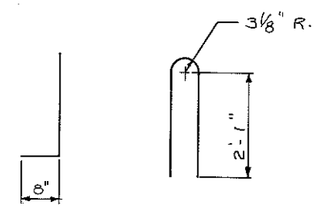
TYPICAL GIRDER PLAN



TYPICAL GIRDER SECTION

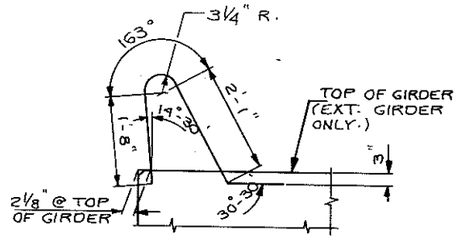


GIRDER CONNECTION DETAIL

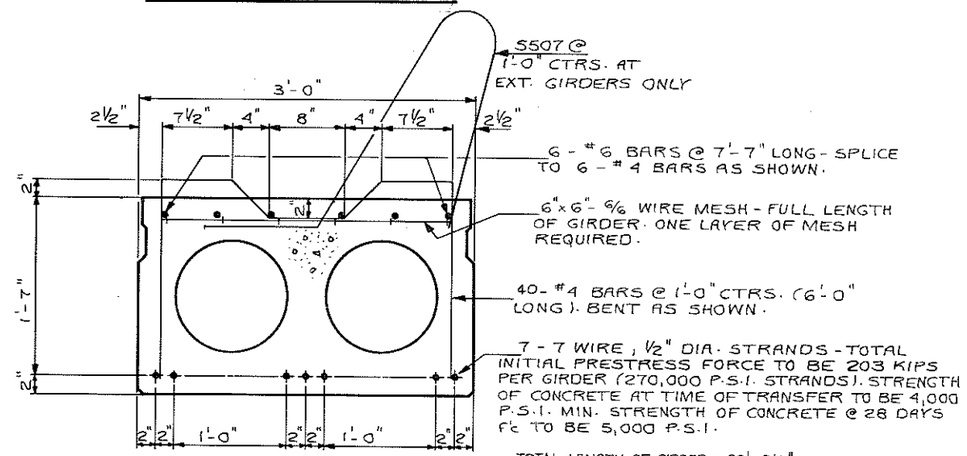


S511

S508



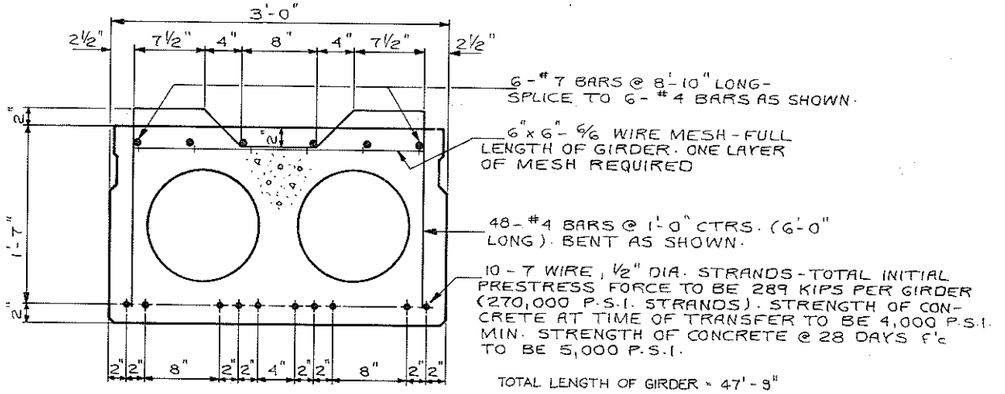
S507



TOTAL LENGTH OF GIRDER = 39'-8½"

TYPICAL GIRDER SECTION

(DETAILS FOR SPANS 1 & 3)



TOTAL LENGTH OF GIRDER = 47'-3"

TYPICAL GIRDER SECTION

(DETAILS FOR SPAN 2)

BARRIENTOS & ASSOCIATES, INC.
CONSULTING ENGINEERS
2020 UNIVERSITY AVE.
MADISON, WISC. 53705
ph. 608-238-6761

No.	Date	Revision	By

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-44-465

Const. Spec.	Drawn By	Plans Checked
1975	L.N.F.	L.M.B.

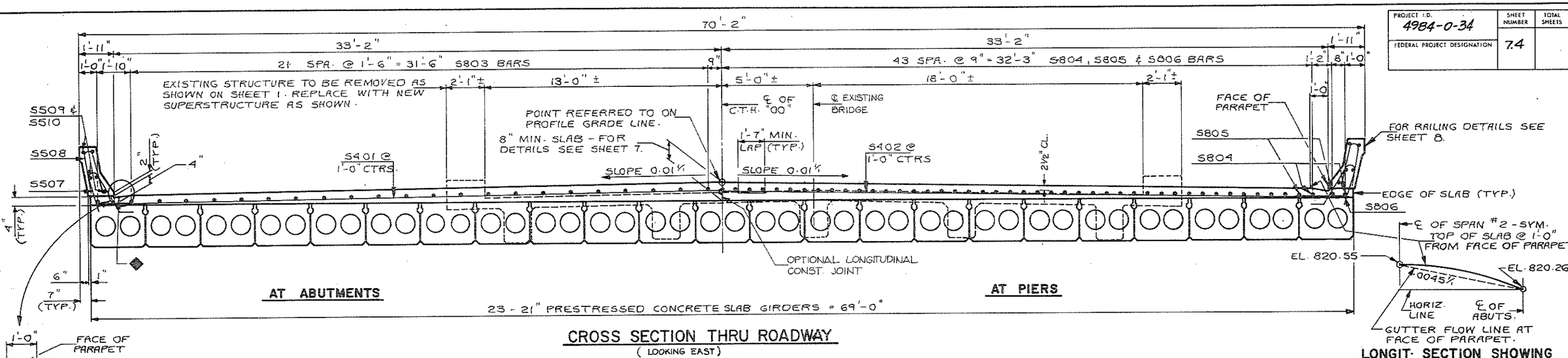
SUPERSTRUCTURE

SHEET 6 OF 8

X55882

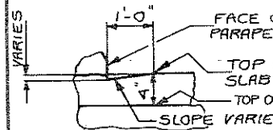
Form E-B-12-69

PROJECT I.D.	SHEET NUMBER	TOTAL SHEETS
4984-0-34	7.4	
FEDERAL PROJECT DESIGNATION		



CROSS SECTION THRU ROADWAY
(LOOKING EAST)

LONGIT. SECTION SHOWING DRAINAGE GRADE ◆



DETAIL AT GUTTER ◆

PLAN

NOTES

TOPS OF SLABS TO BE BROOMED TRANSVERSELY.

4 WAY SLING MUST BE USED TO ENGAGE ALL 4 HANDLING INSERTS ON BOTH ENDS OF SLABS.

WIRES SHALL BE FLUSH WITH END OF SLAB.

LATERAL TIES SHALL BE TIGHTENED TO THE PREVIOUSLY ERECTED SLAB AS EACH SUCCESSIVE SLAB IS PLACED. EACH TIE SHALL BE EQUIVALENT TO A 1¼" DIA. MILD STEEL BAR TENSIONED TO 30,000 POUNDS OR AN EQUAL FORCE APPLIED BY LATERAL TENSIONING OF HIGH STRENGTH TENDONS.

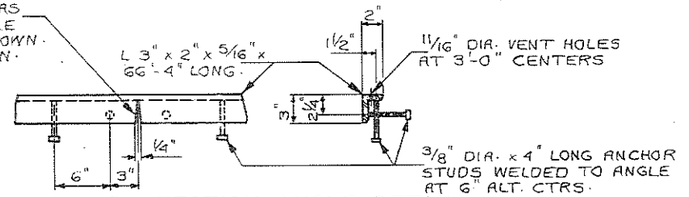
AFTER LATERAL TIES HAVE BEEN PLACED AND TIGHTENED, SHEAR KEYS SHALL BE FILLED WITH NON-SHRINKING GROUT, IN ACCORDANCE WITH SECTION 636.3.4 OF THE "WISCONSIN STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION."

THE SLAB CONCRETE IN EITHER SPAN SHALL BE PLACED WITHIN FOUR HOURS OF THE TIME THAT CONCRETE WAS PLACED OVER THE PIER.

TRANSVERSE BAR STEEL IN SLAB TO BE SUPPORTED BY CONTINUOUS BAR CHAIRS OF VARIABLE HEIGHT AT 3'-0" CENTERS ~~WITH STIRRUPS FROM THE GIRDERS CAN BE USED FOR SUPPORT~~.

BARRIENTOS & ASSOCIATES, INC.
CONSULTING ENGINEERS
2020 UNIVERSITY AVE.
MADISON, WISC. 53705
ph. 608-238-6761

FIELD CUT 3" LEG OF ANGLE AS REQUIRED FOR BENDING ANGLE TO CONFORM TO ROADWAY CROWN. ONE CUT SHALL BE AT CROWN.



PROTECTION ANGLE DETAIL

NOTE: ANGLE AND STUDS SHALL BE PAID FOR AS STRUCTURAL CARBON STEEL.

No.	Date	Revision	By

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-44-465

Const. Spec.	Drawn By	Plans Checked
1975	L.N.F.	L.M.B

SUPERSTRUCTURE

SHEET 5 OF

X55881