PEN TABLE = V80.tbl
DATE OF PLOT: 03/04/99
DESIGN FILE = n:±bridge±450155±dgn±0155tl.dgn
DGN LEVELS ON = 1-63
CREATED BY = kdk
PLOT FILE = P:±MDOLAA3±0155TL.PRF

INDEX OF SHEETS

Sheet No.	1	Title
Sheet No.		Typical Sections and Details
Sheet No.		Estimate of Quantities
Sheet No.		Miscellaneous Quantities
Sheet No.		Right of Way Plat
Sheet No.		Plan and Profile (Includes Erosion Control Plan)
Sheet No.		Standard Detail Drawings
Sheet No.		Sign Plates
Sheet No.		Structure Plans
Sheet No.		Computer Earthwork Data
Sheet No.		Cross Sections

TOTAL SHEETS =

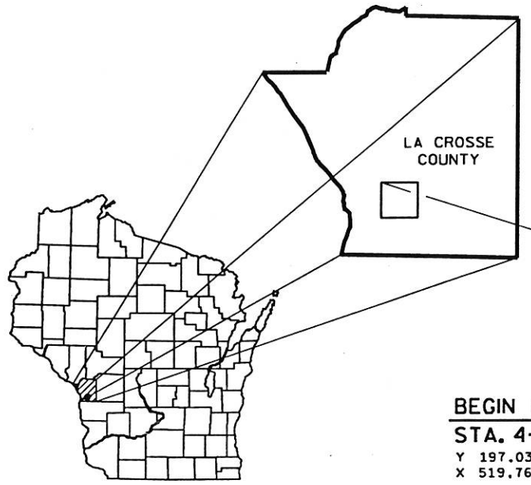
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

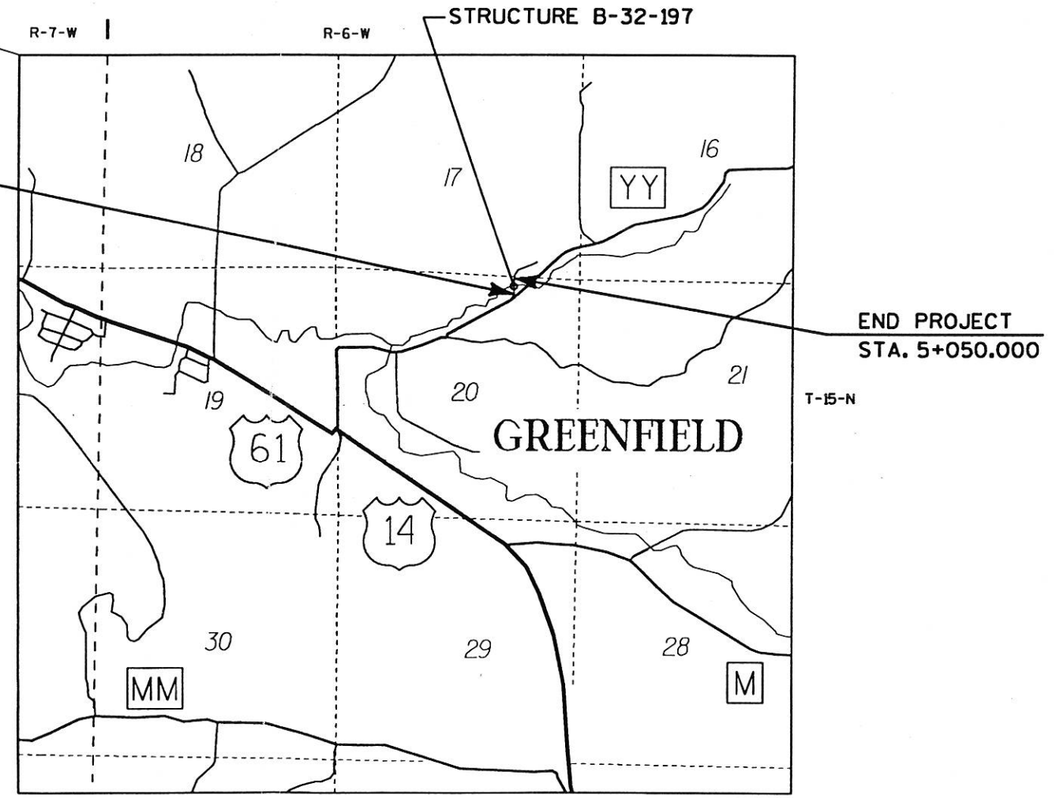
JOHNS ROAD, TOWN OF GREENFIELD

(JOHNS COULEE CREEK BRIDGE & APPROACHES)

TOWN ROAD
LA CROSSE COUNTY

STATE PROJECT NUMBER
5348-04-71





5348-04-71		

APPROVED
FOR
TOWN OF GREENFIELD

DATE: 3-8-99 Everett Servais
TOWN CHAIRMAN

APPROVED
FOR
LA CROSSE COUNTY

DATE: 3-8-99 Dennis Osgood
COUNTY HIGHWAY COMMISSIONER

ORIGINAL PLANS PREPARED BY

AYRES ASSOCIATES Engineers/Photogrammetrists Scientists/Surveyors
2445 Darwin Road
Madison, Wisconsin, 53704-3186

WISCONSIN
JAN F. ZANDER
E-29249
BARNEVELD, WIS.
PROFESSIONAL ENGINEER

DATE: 3/5/99

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	AYRES ASSOCIATES
Designer	AYRES ASSOCIATES
District Examiner	Dan Kleinertz
District Supervisor	Ron Puestow
C.O. Examiner	

APPROVED FOR DISTRICT OFFICE

DATE: 3/12/99 Ronald Puestow
Signature

5348-04-71, LA CROSSE COUNTY

DESIGN DESIGNATION

A.D.T.	(1999)	=	50
A.D.T.	(2019)	=	70
D.H.V.		=	5
D.		=	50-50
T.		=	10%
DESIGN SPEED		=	30 km/hr
ESALS		=	36,500

CONVENTIONAL SYMBOLS

COUNTY LINE
CORPORATE LIMITS
PROPERTY LINE
LOT LINE
LIMITED EASEMENT
EXISTING RIGHT OF WAY
PROPOSED OR NEW R/W LINE
SURVEY LINE
SLOPE INTERCEPT
ORIGINAL GROUND
MARSH OR ROCK PROFILE
EXISTING CULVERT
PROPOSED CULVERT (Box or Pipe)
CULVERT (Profile View)

COMBUSTIBLE FLUIDS (CAUTION)
UNDERGROUND UTILITIES (Size)
GAS G
ELECTRIC E
TELEPHONE OR TELEGRAPH T
SERVICE PEDESTAL
CABLE MARKER
POWER POLE
TELEPHONE POLE
RAILROAD
MARSH AREA
WOODED OR SHRUB AREA
TEMPORARY LIMITED EASEMENT

LAYOUT

SCALE 0 1 km

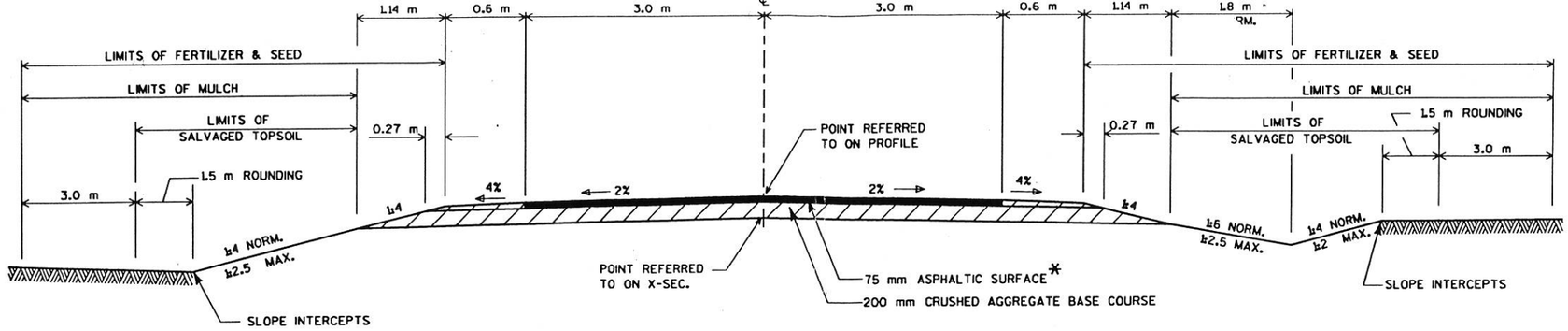
TOTAL NET LENGTH OF CENTERLINE = 0.100 (RURAL) km

THE COORDINATES SHOWN ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COORDINATE SYSTEM, SOUTH ZONE. SCALED FROM U.S.G.S TOPOGRAPHIC MAP, ST. JOSEPH QUAD. FOR IDENTIFICATION ONLY.

M

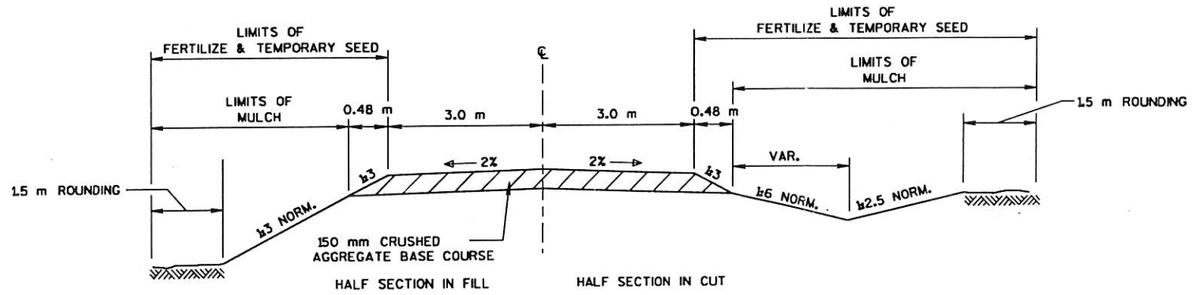
PEN TABLE = V80.tbl
DATE OF PLOT: 03/02/99
DESIGN FILE = n:±bridge±450155±dgn±0155TY
DGN LEVELS ON = 1-63
●CREATED BY
PLOT FILE = P:±MDOLAA3±0155TYOL.PRF

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
450131ty.dgn ON = 1-63

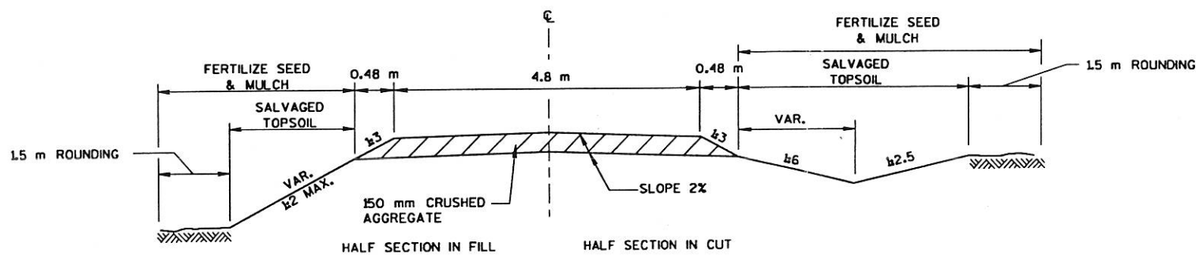


* ASPHALT SHALL TAPER FROM THE BRIDGE WIDTH AT THE BRIDGE TO 6.0 METERS AT 15 METERS FROM THE BRIDGE

TYPICAL SECTION



TYPICAL SECTION FOR TEMPORARY BY-PASS ROADWAY



TYPICAL SECTION FOR PRIVATE ENTRANCES

GENERAL NOTES

SEED MIXTURE NO. 20 SHALL BE USED THROUGHOUT THE PROJECT. EXCEPT ON LAWN AREAS WHICH SHALL BE SEEDED WITH MIX NO. 40

EROSION CONTROL ITEMS TO BE PLACED AS SHOWN ON THE PLAN OR AS DIRECTED BY THE ENGINEER.

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

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.

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

THE DEPARTMENT OF TRANSPORTATION WILL FURNISH THE CONTRACTOR WITH A MONUMENT TO BE PLACED ON THE STRUCTURE UNDER DIRECTION OF THE ENGINEER IN THE FIELD.

THE EXACT LOCATION AND LIMITS OF PRIVATE ENTRANCES AND FIELD ENTRANCES SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

METRIC STANDARD DETAIL DRAWINGS

8E8-2	TYPICAL INSTALLATION OF EROSION BALES
8E9-5	SILT FENCE
12A3-5	NAME PLATE - STRUCTURES
15C6-4	SIGNING & MARKING FOR TWO LANE BRIDGES

WISCONSIN DEPARTMENT OF NATURAL RESOURCES CONTACT:

MR. JAMES P. DOPERALSKI JR.
STATE OFFICE BLDG. ROOM 104
3550 MORMON COULEE ROAD
LA CROSSE, WI 54601
(608) 789-5511

DESIGNER

AYRES ASSOCIATES
2445 DARWIN ROAD
MADISON. WI. 53704
(608) 249-0471
JAN F. ZANDER

MEMBER ONE CALL SYSTEMS INTERNATIONAL

TO OBTAIN LOCATION OF PARTICIPANTS' UNDERGROUND FACILITIES BEFORE YOU DIG IN WISCONSIN

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

FAX A LOCATE 1-800-338-3860
TDD (FOR HEARING IMPAIRED)
1-800-542-2289

WIS. STATUTE 182.0175 (1974) REQUIRES MIN. OF 3 WORK DAYS NOTICE BEFORE YOU EXCAVATE.

UTILITIES

VERNON ELECTRIC COOPERATIVE
MR. STEVEN NELSON
110 N. MAIN STREET
WESTBY, WI 54667
(608)-634-3121

CENTURY TELEPHONE OF WISCONSIN
MR. ED FEYEN
2615 EAST AVENUE SOUTH
P.O. BOX 4800
LA CROSSE, WI 54602-4800
(608) 796-5158

STANDARD ABBREVIATIONS

A.D.T.	AVERAGE DAILY TRAFFIC	P.C.	POINT OF CURVATURE
AC.	ACRES	P.I.	POINT OF INTERSECTION
BIT.	BITUMINOUS	P.K.	PARKER-KALON
B.M.	BENCH MARK	P.L.	PROPERTY LINE
℄	CENTERLINE	P.P.	POWER POLE
C.T.H.	COUNTY TRUNK HIGHWAY	P.T.	POINT OF TANGENCY
CONC.	CONCRETE	R	RADIUS
COR.	CORNER	℞	REFERENCE LINE
CULV.	CULVERT	RT.	RIGHT
D.H.V.	DESIGN HOURLY VOLUME	SEC.	SECTION
EL.	ELEVATION	STA.	STATION
H.	HOUSE	T	TANGENT LENGTH OF CURVE
I.P.	IRON PIPE	TYP.	TYPICAL
LT.	LEFT	X	EAST COORDINATE
MON.	MONUMENT	Y	NORTH COORDINATE

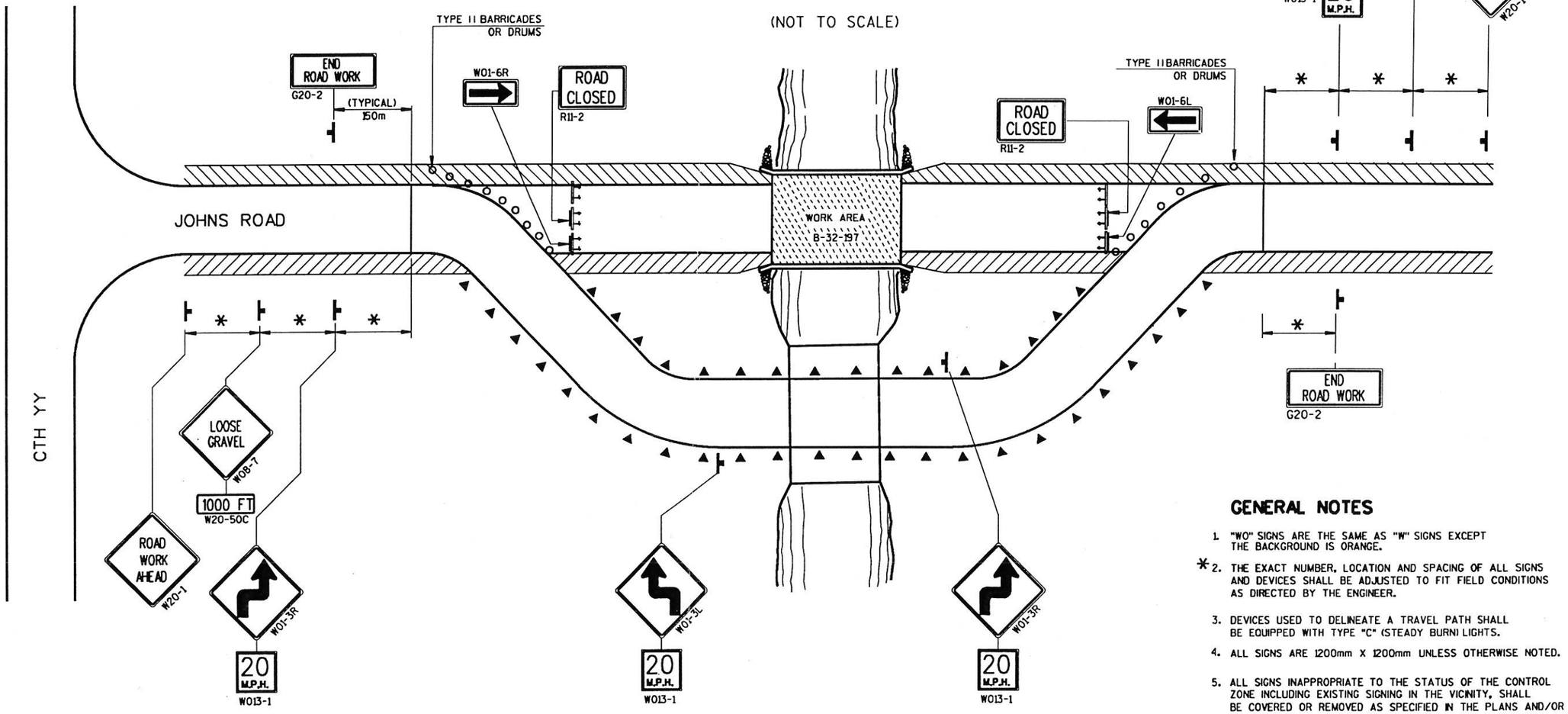
PEN TABLE = V80SHD.tbl
DATE OF PLOT: 03/02/99
DESIGN FILE = n:\bridge\450155\dgn\0155TC.dgn
DGN LEVELS ON = 1-63
CREATED BY = NJF
PLOT FILE = P:\MDOLAA3\0155TC.PRF

pltrfc14.dgn ON = 51,52,59

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

3020trcf.dgn ON = 1-63
TYP.REF ON = 1-63

TYP.REF ON = 1-63



GENERAL NOTES

1. "WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.
2. * THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.
3. DEVICES USED TO DELINEATE A TRAVEL PATH SHALL BE EQUIPPED WITH TYPE "C" (STEADY BURN) LIGHTS.
4. ALL SIGNS ARE 1200mm X 1200mm UNLESS OTHERWISE NOTED.
5. ALL SIGNS INAPPROPRIATE TO THE STATUS OF THE CONTROL ZONE INCLUDING EXISTING SIGNING IN THE VICINITY, SHALL BE COVERED OR REMOVED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS, OR AS DIRECTED BY THE ENGINEER.

SIGN SIZES

R11-2	= 1200mm X 750mm
W01-6L&R	= 1200mm X 600mm
G20-2	= 1500mm X 600mm
W013-1	= 600mm X 600mm
W20-50C	= 750mm X 200mm

LEGEND

- WORK AREA
- CHANNELIZING DEVICES, WITH TYPE "C" STEADY-BURN LIGHTS AT 7.5 SPACING
- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE WITH TWO (2) TYPE "A" FLASHING LIGHTS
- TEMPORARY DELINEATORS AT 7.5m SPACING (UNIDIRECTIONAL)

TRAFFIC CONTROL DEVICES TWO-LANE HIGHWAY ON-SITE BYPASS	HWY: JOHNS ROAD	COUNTY: LA CROSSE	STATE PROJECT NO: 5348-04-71	SHEET NO: . M

PEN TABLE = V8OSHD2L.tbl
DATE OF PLOT: 02/12/99
DESIGN FILE = n:\bridge\s45055\dgn\s0155qn.dgn
DGN LEVELS ON = 1-63
CREATED BY = njf
PLOT FILE = P:\MDOLAA3\S0155QN.PRF
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

SAWING EXISTING PAVEMENT

STATION	LENGTH
4+950	6 m
5+050	6 m

WOOD POST AND SIGNS FOR OBJECT MARKERS

STATION	LOCATION	WOOD POSTS 100x00mmx3m (EACH)	SIGNS TYPE II. REFLECTIVE (m2)	
4+996	LT.	1	0.3	(W5-52R)
4+996	RT.	1	0.3	(W5-52L)
5+009	LT.	1	0.3	(W5-52L)
5+009	RT.	1	0.3	(W5-52R)
TOTAL		4	1.2	

CRUSHED AGGREGATE BASE COURSE

STATION	TO	STATION	ROADWAY	LOCATION	(m3)
4+950	TO	5+050	JOHNS ROAD	MAINLINE	200
4+950	TO	5+050	JOHNS ROAD	SHOULDER	20
5+040				P.E. RT.	5
4+950	TO	5+050	TEMPORARY BYPASS		140
TOTAL					365

ASPHALTIC SURFACE

ROADWAY	STATION	TO	STATION	(Mg)
JOHNS ROAD	4+950	TO	5+050	100
TOTAL				100

EROSION BALES

LOCATION	EROSION BALES DELIVERED (EACH)	EROSION BALES INSTALLED (EACH)
UNDISTRIBUTED	20	20
TOTAL	20	20

SILT FENCE

STATION	TO	STATION	LOCATION	DELIVERED (M)	INSTALLED (M)	MAINTENANCE (M)
4+950	TO	4+996	RT	35	35	70
4+950	TO	4+996	LT	60	60	120
5+007	TO	5+050	RT	35	35	70
5+007	TO	5+050	LT	50	50	100
UNDISTRIBUTED				45	45	90
TOTAL				225	225	450

SALVAGED TOPSOIL. MULCHING. FERTILIZER. & SEEDING

STATION	TO	STATION	ROADWAY	LOCATION	SALVAGED TOPSOIL (M2)	MULCHING (M2)	FERTILIZER TYPE B (Kg)	SEEDING NO. 20 (Kg)	TEMPORARY SEEDING (Kg)	SEEDING NO. 40 (Kg)
4+950	TO	5+050	JOHNS ROAD	MAINLINE	1575	2100	90	40	20	--
			TEMPORARY BYPASS	UNDISTRIBUTED	--	650	25		10	--
			JOHNS ROAD	UNDISTRIBUTED	--	--	--	--	--	10
TOTAL					1575	2750	115	40	30	10

Ave. End Area Summary - Johns Road
Construction of Temporary By-Pass

station	Length (m)	Cut End Area (m2)	Fill End Area (m2)	Cut Ave End Area (m2)	Fill Ave End Area (m2)	Cut Volume (m3)	Fill Volume (m3)
4950		0.2	0.6				
	10			0.2	0.6	2	6
4960		0.2	0.6				
	20			0.1	0.65	2	13
4980		0	0.7				
	16			0	0.7	0	11.2
4996		0	0.7				
Structure B-32-197							
5007		0.6	0.7				
	13			0.6	0.7	7.8	9.1
5020		0.6	0.7				
	20			1.15	0.35	23	7
5040		1.7	0				
	10			1.7	0	17	0
5050		1.7	0				
Total						50	45

Ave. End Area Summary - Johns Road
Mainline and restoration of by-pass

station	Length (m)	Cut End Area (m2)	Fill End Area (m2)	Cut Ave End Area (m2)	Fill Ave End Area (m2)	Cut Volume (m3)	Fill Volume (m3)
4950		3.5	0				
	10			3.5	0	35	0
4960		3.5	0				
	20			3.75	0	75	0
4980		4	0				
	16			4	0	64	0
4996		4	0				
Structure B-32-197							
5007		3.8	0.8				
	13			3.8	0.8	49.4	10.4
5020		3.8	0.8				
	20			3.3	0.4	66	8
5040		2.8	0				
	10			2.8	0	28	0
5050		2.8	0				
Total						320	20

TEMPORARY DELINEATORS

LOCATION	EACH
TEMPORARY BYPASS	30
TOTAL	30

PARCEL NUMBER	OWNER	INTERESTS REQUIRED	HECTARES (ACRES) REQ'D
1	JEWEL ROOT	TEMPORARY EASEMENT	0.105 (0.26)
2	RANDAL L. SWENSON	TEMPORARY EASEMENT	0.012 (0.03)

V427 P389
Doc No 403H

TEMPORARY BYPASS ALIGNMENT

CURVE 1	PC STA. 20+000.000	N = 4900.108	E = 5000.000
	PI STA. 20+007.295	N = 4907.403	E = 5000.000
	PT STA. 20+014.312	N = 4913.883	E = 5003.350
CURVE 2	PC STA. 20+030.212	N = 4928.008	E = 5010.650
	PI STA. 20+037.507	N = 4934.488	E = 5014.000
	PT STA. 20+044.524	N = 4941.783	E = 5014.000
CURVE 3	PC STA. 20+061.174	N = 4958.433	E = 5014.000
	PI STA. 20+068.469	N = 4965.728	E = 5014.000
	PT STA. 20+075.486	N = 4972.208	E = 5010.650
CURVE 4	PC STA. 20+091.385	N = 4986.333	E = 5003.350
	PI STA. 20+098.680	N = 4992.813	E = 5000.000
	PT STA. 20+105.697	N = 5000.108	E = 5000.000

PK NAIL IN FENCE — 29.578 m — BERNTSEN SURVEY NAIL — 20.763 m — PK NAIL IN FENCE; 16.863 m to PK NAIL IN FENCE

STA. 4+950.000

PK NAIL IN 300 mm MAPLE — 13.014 m — BERNTSEN SURVEY NAIL — 11.748 m — PK NAIL IN 450 mm CEDAR — 15.089 m — PK NAIL IN 280 mm CEDAR

STA. 5+049.892

NW-NE 20-15-6

SW-SE 17-15-6

NE-NE 20-15-6

SE-SE 17-15-6

RANDAL L. SWENSON (2)

JEWEL ROOT (1)

TLE FOR BY-PASS 0.012 HECTARES (0.03 ACRES)

TLE FOR BY-PASS 0.105 HECTARES (0.26 ACRES)

STA. 4+950 JOHNS ROAD= STA. 20+000 TEMPORARY BYPASS

SLOPE INTERCEPTS

JOHNS ROAD (ASPHALTIC)

FENCE TO BE REMOVED BY OTHERS

CENTURY TELEPHONE OF WISCONSIN

CTH YY

JOHNS COULEE CREEK

EXISTING FENCE TO REMAIN

EXISTING DRAINAGE CHANNEL TO REMAIN

EXISTING TIMBER DECK

TEMPORARY BY-PASS

SILT FENCE REQ'D

CRUSHED AGGREGATE

VERNON ELECTRIC COOPERATIVE

SEC. LINE

HSE

BM #1 — BM #2

ORIGIN OF LEVELS

SPOT ELEVATION ON CENTER OF EXISTING BRIDGE. ASSUMED ELEVATION 229.209

BENCH MARKS			
NO.	STA.	DESCRIPTION	ELEV.
1	5+003.5	PAINTED SQUARE NW COR ABUT, 3.1m LT	229.297
2	5+023.0	60d SPK IN FENCE CORNER, 8.8 m LT	228.773

STA.	OFFSET TO ℄ OF BY-PASS	ELEVATION ⊕ ℄ OF BY-PASS
4+950	0 m	MATCH EXISTING
4+952	0.067 m	229.297
4+960	1.716 m	229.207
4+968	5.533 m	229.073
4+976	9.668 m	228.886
4+984	13.002 m	228.715
4+992	14.000 m	228.638
5+000	14.000 m	228.630
5+008	14.000 m	228.630
5+016	13.002 m	228.630
5+024	9.668 m	228.748
5+032	5.533 m	229.092
5+040	1.716 m	229.595
5+048	0.067 m	230.075
5+050	0 m	MATCH EXISTING

NET LENGTH OF CENTERLINE STA. 4+950 TO STA. 5+050 = 100 m

BEGIN PROJECT
STA. 4+950.000
SAWCUT REQ'D

END PROJECT
STA. 5+050.000
SAWCUT REQ'D

STA. 5+000
REMOVE EXISTING STRUCTURE B-32-106
SINGLE SPAN STEEL DECK GIRDER BRIDGE
9.9 m LONG X 4.9 m WIDTH

STA. 5+001.500
STRUCTURE B-32-197 REQ'D
SINGLE SPAN CONCRETE FLAT SLAB
10.352 m LONG X 7.2 m CLEAR WIDTH
20° SKEW RHF

VPC STA = 4+950
VPC EL = 229.300
VPT STA = 4+976
VPT EL = 229.139
VPC STA = 5+012
VPC EL = 229.355
VPT STA = 5+050
VPT EL = 230.075

-1.777%
0.434%
6.053%

VPI STA = 4+963
VPI EL = 229.079
CURVE LEN = 26.000
K = 1.761
E = 0.072

VPI STA = 5+037
VPI EL = 229.400
CURVE LEN = 30.000
K = 5.339
E = 0.211

HIGH WATER EL. 228.38 100

WATER EL. 225.86 (1/28/98)

STREAM BED EL. 225.6

EARTHWORK SUMMARY
CONSTRUCTION OF BY-PASS

UNCL. EXCAVATION	50 m3
FILL (30% SHRINKAGE)	45 m3
BORROW	9 m3

EARTHWORK SUMMARY
MAINLINE AND RESTORATION OF BY-PASS

UNCL. EXCAVATION*	320 m3
FILL (30% SHRINKAGE)	20 m3
WASTE	294 m3

*INCLUDES 140 m3 CABC FROM TEMPORARY ROAD

TEMPORARY BYPASS PROFILE

VPC STA = 20+000
VPC EL = 229.310
VPI STA = 20+020
VPI EL = 229.218
VPC STA = 20+040
VPC EL = 228.630
VPI STA = 20+060
VPI EL = 228.630
VPC STA = 20+080
VPC EL = 229.231
VPT STA = 20+105.697
VPT EL = 230.191

-0.940%
-2.460%
0.000%
6.075%

VPI STA = 20+020
VPI EL = 229.122
CURVE LEN = 20.000

VPI STA = 20+040
VPI EL = 228.630
CURVE LEN = 20.000

VPI STA = 20+080
VPI EL = 228.630
CURVE LEN = 20.000

229.175 229.153 229.240 229.326 229.716

229.310 229.084 228.691 228.630 228.782 229.845

4+860 4+880 4+900 4+920 4+940 4+960 4+980 5+000 5+020 5+040

20+000 20+020 20+040 20+060 20+080 20+100

232 230 228 226 224

0 10 20

PLAN & PROFILE | HWY: JOHNS ROAD | COUNTY: LA CROSSE | STATE PROJECT NO: 5348-04-71 | SHEET NO: . | M

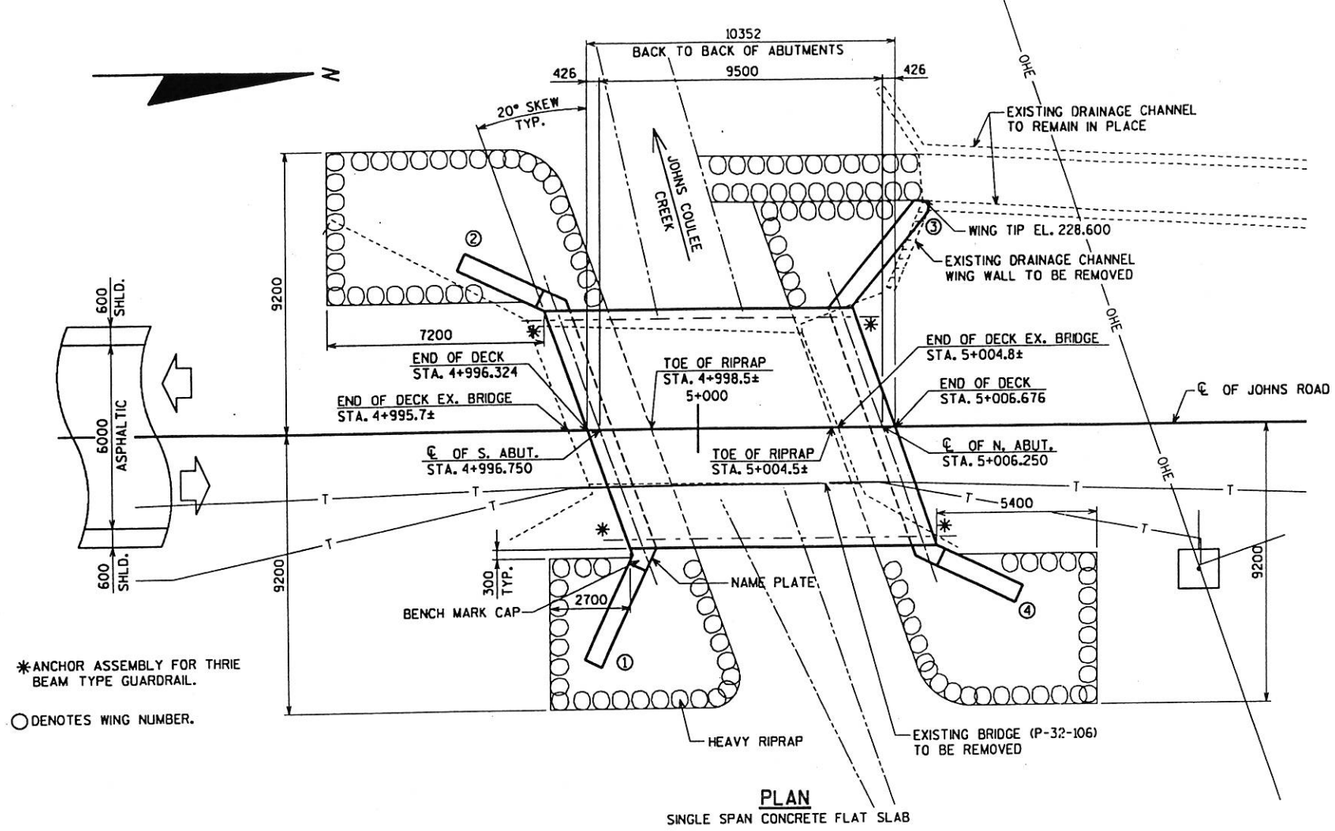
232

PEN TABLE = V80SHD.tbl
DATE OF PLOT: 03/04/99
DESIGN FILE = n:\bridge\e450155\dgn\0155pp01.dgn
DGN LEVELS ON = 1-63
CREATED BY = kdk
PLOT FILE = P:\MDOLAA3\e0155PP01.PRF

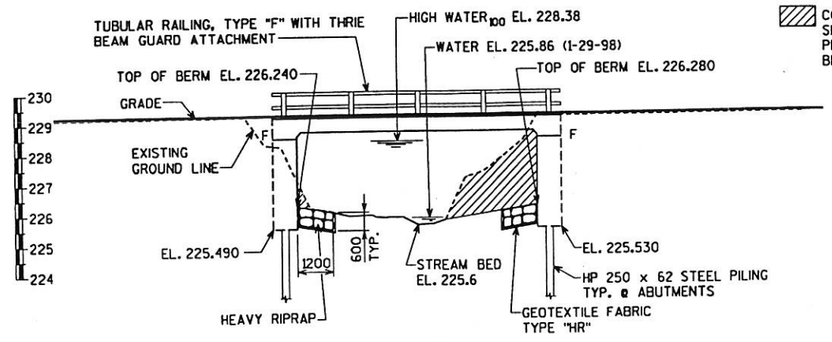
0155dt.dgn ON = 25
0155en01.dgn ON = 1-59
0155et.dgn ON = 1-63

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

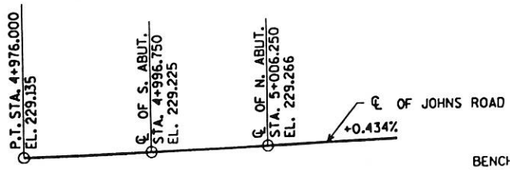
PLOT NAME = P:±2LASA3±450155GP.PRF
PEN TABLE = ±PLOT72±LASER±smbr.tbl
DATE OF PLOT = 01/20/99
DESIGN FILE IS u:±mebridge±450155gp.dgn
DGN LEVELS ON = 1-63



PLAN
SINGLE SPAN CONCRETE FLAT SLAB



ELEVATION
(NORMAL TO ℄ OF CREEK)



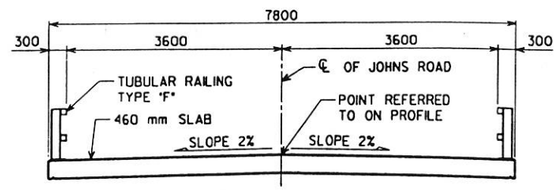
PROFILE GRADE LINE

BENCH MARK:
PAINTED SQUARE NW CORNER OF ABUTMENT
STA. 5+003.5, 3.1 m LT. OF ℄
EL. 229.297

COST OF EXCAVATION IN THE HATCHED AREAS SHALL BE INCLUDED IN THE CONTRACT LUMP SUM PRICE FOR "EXCAVATION FOR STRUCTURES, BRIDGES B-32-197".

LIST OF BID ITEMS

1. GENERAL PLAN
2. QUANTITIES AND NOTES
3. SUBSURFACE EXPLORATION
4. SOUTH ABUTMENT
5. SOUTH ABUTMENT WING DETAILS
6. NORTH ABUTMENT
7. NORTH ABUTMENT WING DETAILS
8. ABUTMENT BILL OF BARS
9. SUPERSTRUCTURE
10. TUBULAR RAILING TYPE "F"



CROSS SECTION THRU ROADWAY

DESIGN DATA

LIVE LOAD: MS18 (STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 1.0 kN/m²)

RATINGS: INVENTORY = MS20 OPERATING = MS34

MAXIMUM STANDARD PERMIT VEHICLE LOAD = 920 kN

ULTIMATE DESIGN STRESSES:

CONCRETE MASONRY	SLAB	f'_c = 28 MPa
	ALL OTHER	f'_c = 24 MPa
BAR STEEL REINFORCEMENT. GRADE 420		f_y = 420 MPa

HYDRAULIC DATA:
DRAINAGE AREA = 7.9 km²
WATERWAY AREA = 16.8 m²
V = 2.86 m/s
Q_{100} = 48.1 m³/s
HIGH WATER$_{100}$ EL. 228.38
RDWY. OVERFLOW = N/A
SCOUR CRITICAL CODE = 8

TEMPORARY STRUCTURE
Q_5 = 14.2 m3/sec
AREA = 5.6 m2
WATER SURFACE EL. 227.90

FOUNDATION DATA:
PLACE S. ABUTMENT ON HP 250 x 62 STEEL PILING DRIVEN TO 250 kN/PILE MINIMUM BEARING VALUE. ESTIMATED LENGTH 12 m.
PLACE N. ABUTMENT ON HP 250 x 62 STEEL PILING DRIVEN TO 250 kN/PILE MINIMUM BEARING VALUE. ESTIMATED LENGTH 11 m.

TRAFFIC DATA:
A.D.T. = 50 (1999)
A.D.T. = 70 (2019)
R.D.S. = 30 km/H

WISCONSIN
CHRISTOPHER B. MCMAHON
E-29454
EAU CLAIRE
WI
PROFESSIONAL ENGINEER
1/20/99

ALL DIMENSIONS ARE IN MILLIMETERS.
ALL ELEVATIONS ARE IN METERS.

No.	Date	Revision	By

PLANS PREPARED BY
AYRES ASSOCIATES
Engineers/Architects Scientists/Surveyors
3433 Oakwood Hills Parkway
Eau Claire, WI 54701

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-197

JOHNS ROAD OVER JOHNS COULEE CREEK

County LaCROSSE		Town/City/Village GREENFIELD	
Design Spec. A.A.S.H.T.O. '96		Load MS18	Const. Spec. 1996
Designed By PWD	Design Checked	Drawn By GLD	Plans Checked CBM

Approved _____ Chief Bridge Design Engineer Date

GENERAL PLAN

SHEET 1 OF 10

DATE: FEB. 1999

BRIDGE OFFICE CONTACT:
GERRY ANDERSON
(608)-266-8488

CONSULTANT CONTACT:
CHRIS MCMAHON
(715)-834-3161

CHECKED BY: DATE:
BACK CHECKED BY: DATE:
CORRECTED BY: DATE:

MKETCHUM 04 • 1•13 REFERENCE FILES

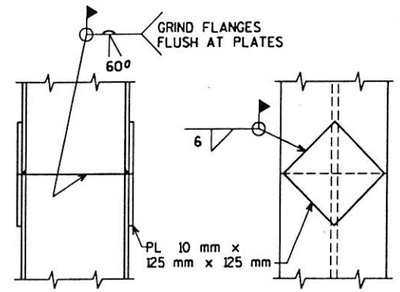
PLOT NAME = P:±2LASA3±450550N.PRF
PEN TABLE = ±PLOT72±LASER±smbr.tbl
DATE OF PLOT = 01/20/99
DESIGN FILE IS u:±mebridge±450550gp.dgn
DGN LEVELS ON = 1-63

CHECKED BY: DATE:
BACK CHECKED BY: DATE:
CORRECTED BY: DATE:

MICROFILM DN = 143 REFERENCE FILES DN = 143

TOTAL ESTIMATED QUANTITIES

BID ITEMS	UNIT	S. ABUT.	N. ABUT.	SUPER.	TOTAL
REMOVING OLD BRIDGE, STA. 5+001	L.S.	-----	-----	-----	1
EXCAVATION FOR STRUCTURES, BRIDGES B-32-197	L.S.	-----	-----	-----	1
CONCRETE MASONRY, BRIDGES	m3	38.1	40.5	40.4	119
PROTECTIVE SURFACE TREATMENT	m2	-----	-----	81	81
HIGH-STRENGTH BAR STEEL REINFORCEMENT, BRIDGES	kg	1770	1870	2905	6545
COATED HIGH-STRENGTH BAR STEEL REINFORCEMENT, BRIDGES	kg	-----	-----	685	685
STEEL PILING, DELIVERED AND DRIVEN, HP 250 mm x 62 kg/m	m	108	99	-----	207
TUBULAR RAILING, TYPE F, STRUCTURE B-32-197	L.S.	-----	-----	-----	1
HEAVY RIPRAP	m3	55	45	-----	100
GEOTEXTILE FABRIC, TYPE HR	m2	130	100	-----	230
RUBBERIZED MEMBRANE WATERPROOFING	m2	5	5	-----	10
STRUCTURE BACKFILL	m3	190	210	-----	400
NON-BID ITEMS					
FILLER	SIZE	-----	-----	-----	13 & 19



HP 250 x 62 SPLICE DETAIL

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 50 mm CLEAR UNLESS SHOWN OR NOTED OTHERWISE.

ALL REINFORCING BARS ARE METRIC AND THE FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

JOINT FILLER SHALL CONFORM TO THE REQUIREMENTS OF A.A.S.H.T.O. DESIGNATION M 153, TYPE I, II OR III OR A.A.S.H.T.O DESIGNATION M 213.

THE SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH HEAVY RIPRAP AND GEOTEXTILE FABRIC TO THE EXTENT SHOWN ON THE GENERAL PLAN SHEET AND IN THE ABUTMENT DETAILS.

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

PROTECTIVE SURFACE TREATMENT IS TO BE APPLIED TO THE TOP OF DECK.

THE EXISTING BRIDGE P-32-106 IS A 9.3 m LONG BY 4.9 m WIDE, SINGLE SPAN STEEL DECK GIRDER BRIDGE.

ALL DIMENSIONS ARE IN MILLIMETERS.

No.	Date	Revision	By

PLANS PREPARED BY
AYRES ASSOCIATES
Engineers/Architects
Scientists/Surveyors
3433 Oakwood Hills Parkway
Eau Claire, WI 54701

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

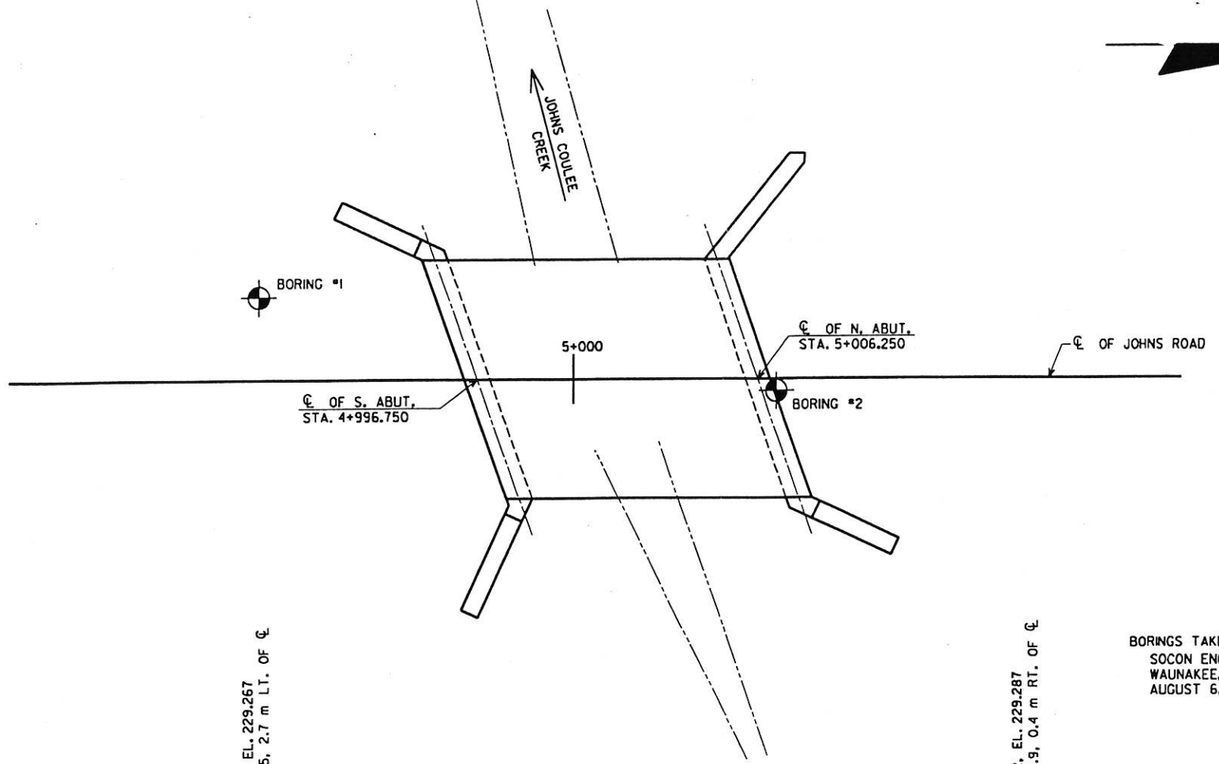
STRUCTURE B-32-197

Const. Spec.	Drawn By	Plans Checked
1996	GLO	PWD

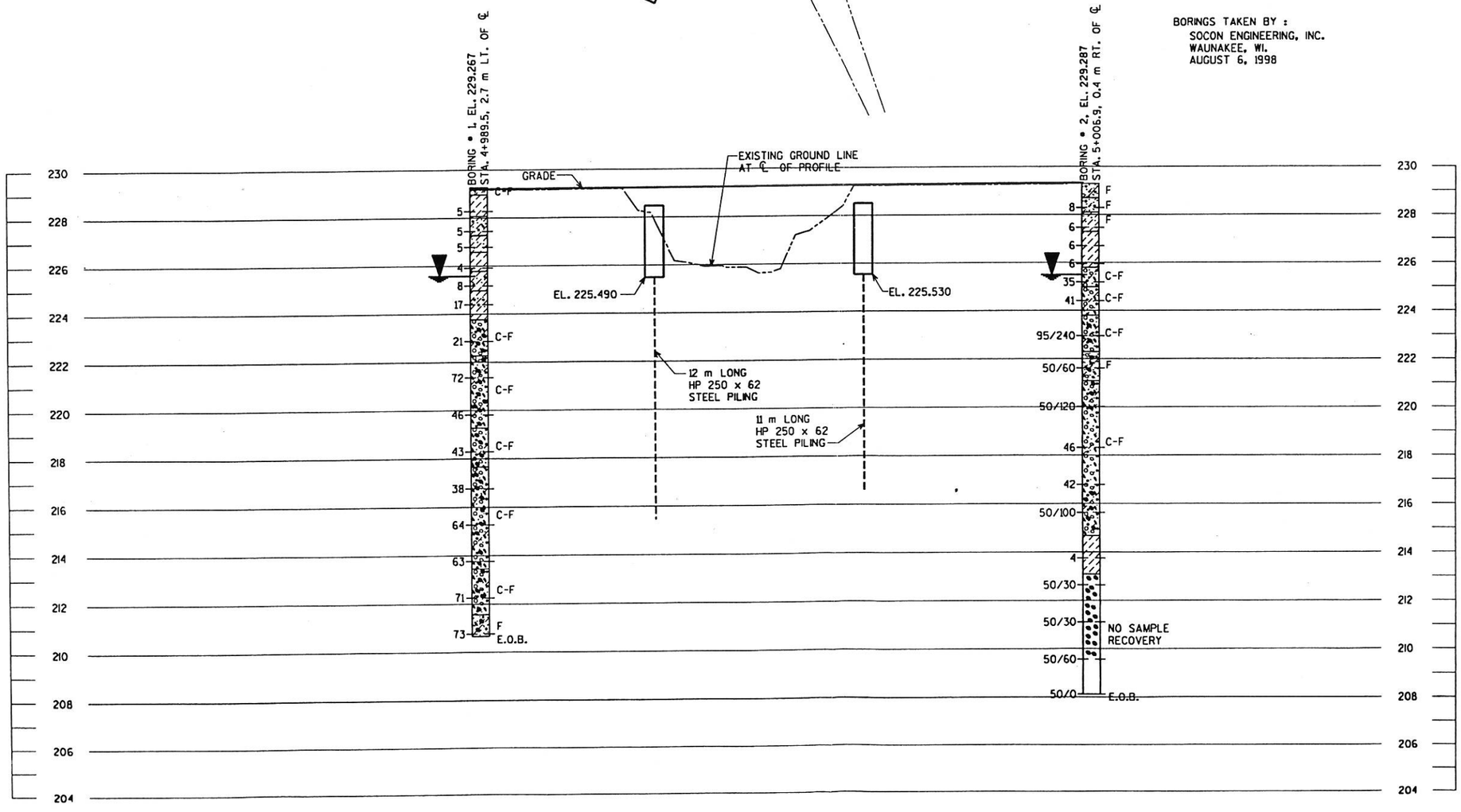
QUANTITIES AND NOTES

SHEET 2 OF 10

PLOT NAME = P:±2LASA3±4501555L.PRF
PEN TABLE = ±PLOT72±LASER±mbr.tbl
DATE OF PLOT = 01/20/99
DESIGN FILE IS u:±mebridge±4501555l.dgn
DGN LEVELS ON = 1-63



BORINGS TAKEN BY :
SOCON ENGINEERING, INC.
WAUNAKEE, WI.
AUGUST 6, 1998



ABBREVIATIONS

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

MATERIAL SYMBOLS

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

LEGEND OF PROBING

95/152 = 95 BLOWS for 152 mm Penetration
Probing taken with a 159.1 Kg Wt.
Falling 457 mm on a 51 mm O.D. Point.

Probing No.
Station
Elevation
7 Average Blows Per 305 mm
Refusal 95/152 mm

LEGEND OF BORING

Boring No., Elev.
Sta. & Offset
Unconfined Strength Kg/cm²
Blows Per 305 mm Using 63.6 Kg Wt. Falling 762 mm
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 305 mm at the locations indicated are based on driving a 51 mm O.D. x 35 mm I.D. split spoon sampler with a 63.6 Kg hammer having a free fall of 762 mm. 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
AYRES ASSOCIATES
Engineers/Architects
Scientists/Surveyors
3433 Oakwood Hills Parkway
Eau Claire, WI 54701

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-197

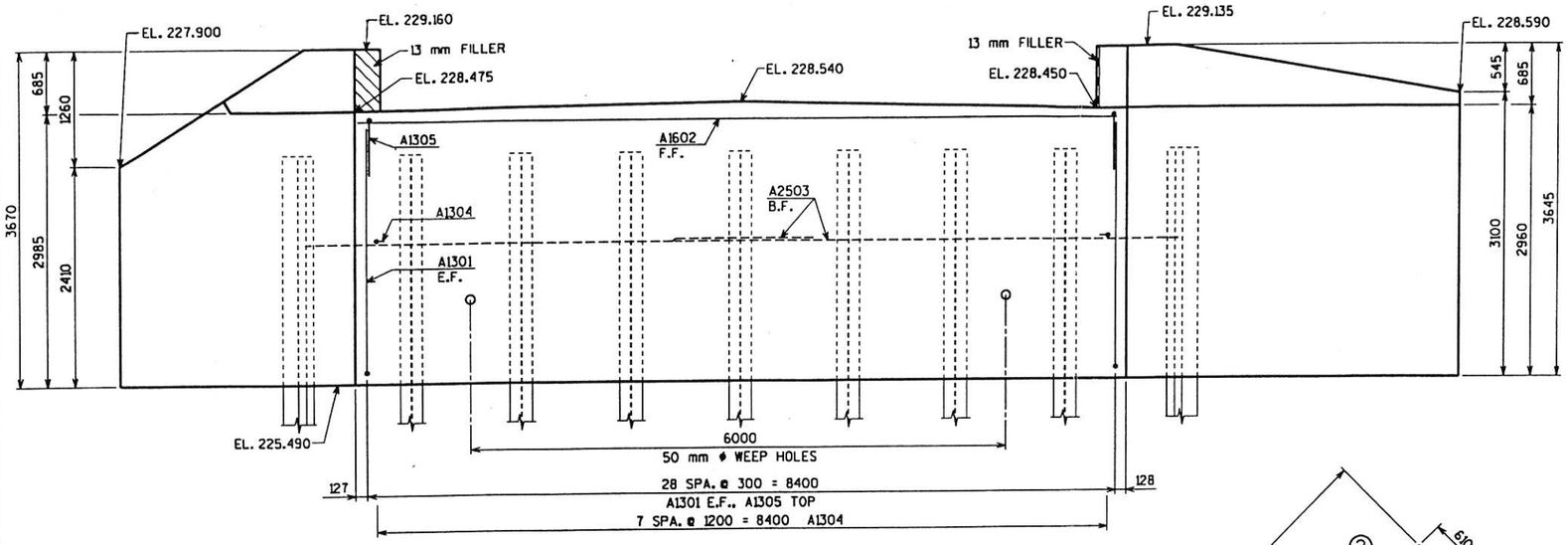
Const. Spec.	Drawn By	Plans Checked
1996	GLO	PWD

SUBSURFACE EXPLORATION

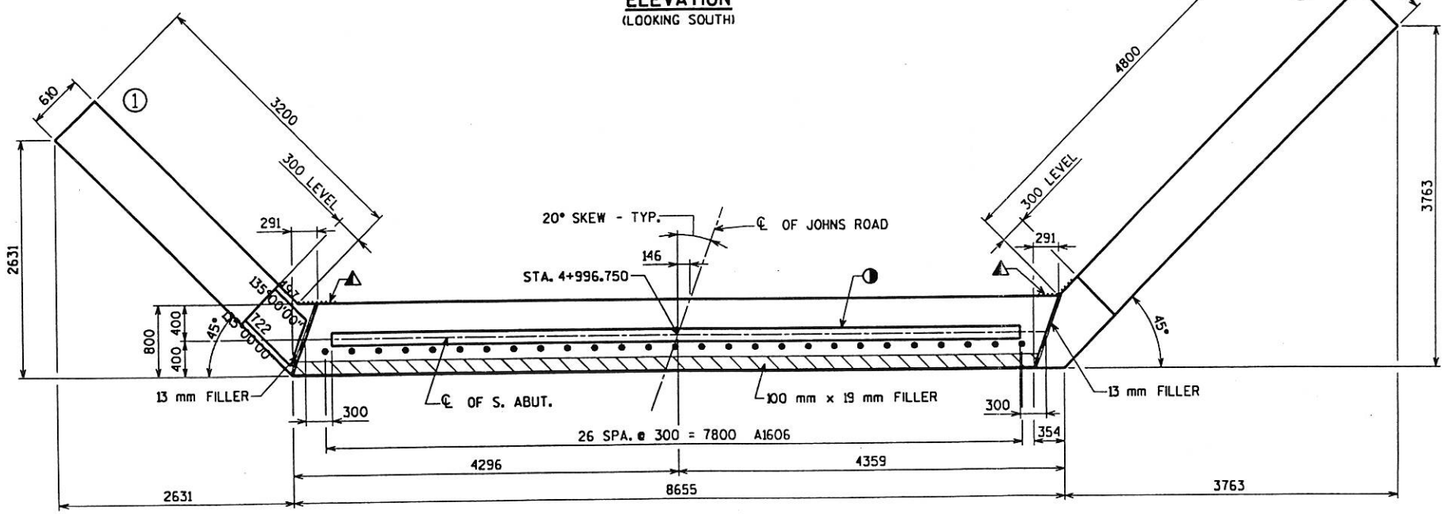
SHEET 3 OF 10

REFERENCE FILES
DN = 345843
DATE:
DATE:
DATE:
CHECKED BY:
BACK CHECKED BY:
CORRECTED BY:

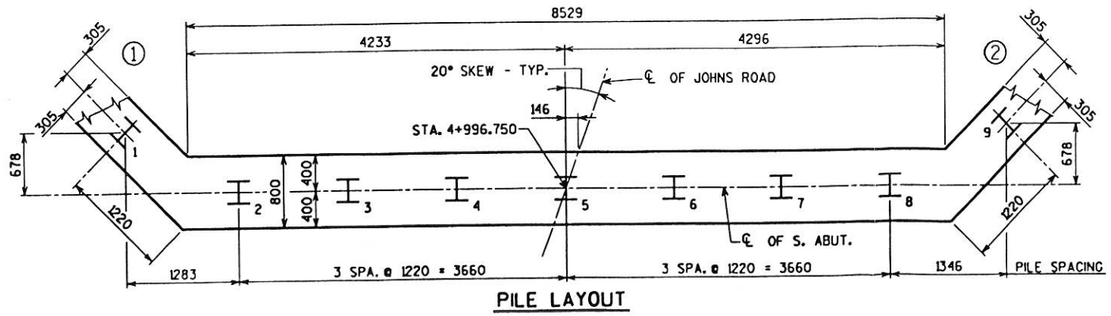
(25 mm DEEP AND HOLD 3 mm BELOW SURFACE OF CONCRETE.)



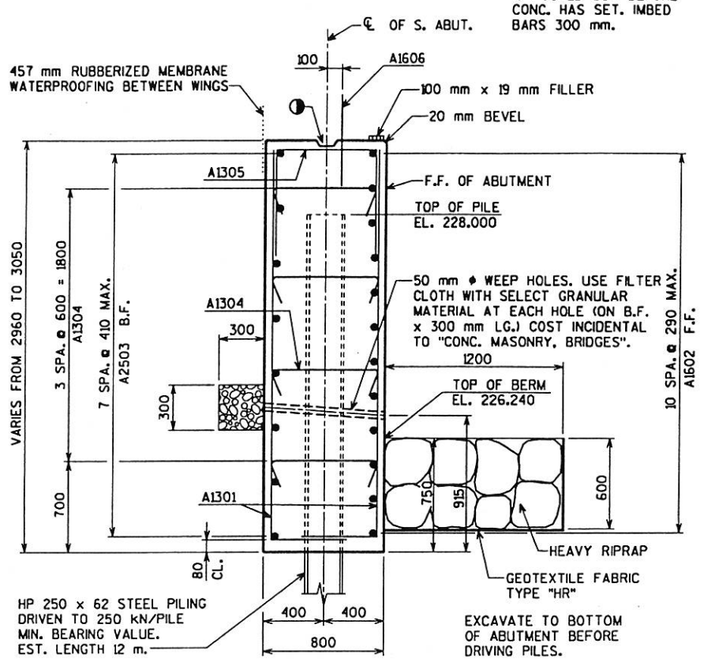
ELEVATION
(LOOKING SOUTH)



PLAN



PILE LAYOUT



TYPICAL SECTION THRU BODY

NOTE: DO NOT PLACE FILL ABOVE 900 mm FROM BOTTOM OF ABUTMENT UNTIL SUPERSTRUCTURE IS IN PLACE.

◑ KEYED CONST. JOINT - FORMED BY A SURFACED BEVELED 38 mm x 140 mm.

▲ 457 mm RUBBERIZED MEMBRANE WATERPROOFING TO EXTEND FROM BRIDGE SEAT TO TOP OF WING.

FOR PILE SPLICE DETAIL SEE SHEET 2.

B.F. DENOTES BACK FACE.

F.F. DENOTES FRONT FACE.

E.F. DENOTES EACH FACE.

WORK THIS SHEET WITH SHEET 5 & 8.

ALL DIMENSIONS ARE IN MILLIMETERS.
ALL ELEVATIONS ARE IN METERS.

No.	Date	Revision	By

PLANS PREPARED BY
AYRES ASSOCIATES
Engineers/Architects
Scientists/Surveyors
3433 Oakwood Hills Parkway
Eau Claire, WI 54701

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-197

Const. Spec.	Drawn By	Plans Checked
1996	GLO	PWD

SOUTH ABUTMENT

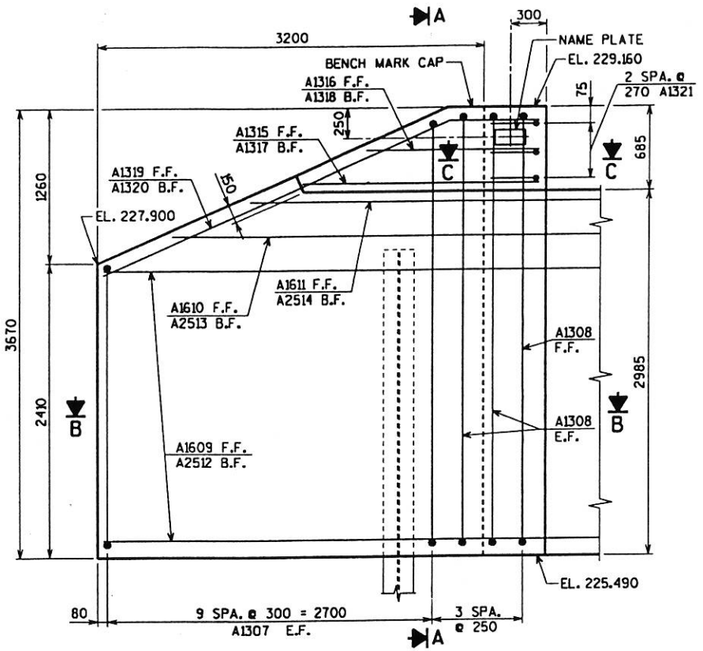
SHEET 4 OF 10

PLOT NAME = P:±2LASA3±4501555A.PRF
PEN TABLE = ±PLOTT2±LASER±smbr.tbl
DATE OF PLOT = 01/20/99
DESIGN FILE IS u:±mebridge±4501555a.dgn
DGN LEVELS ON = 1-63

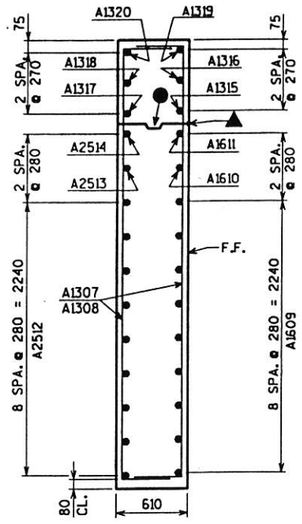
REFERENCE FILES

CHECKED BY: DATE:
BACK CHECKED BY: DATE:
CORRECTED BY: DATE:

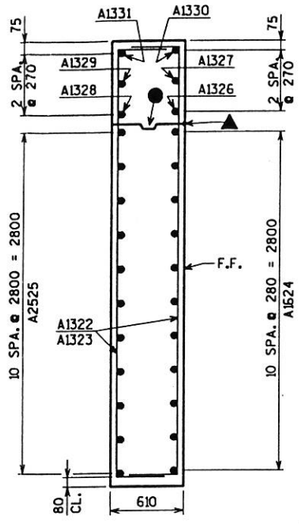
PLOT NAME = P:±2LASA3±4501555W.PRF
PEN TABLE = ±PLOT72±LASER±smbr.tbl
DATE OF PLOT = 01/20/99
DESIGN FILE IS u:±mebridge±4501555sa.dgn
DGN LEVELS ON = 1-63



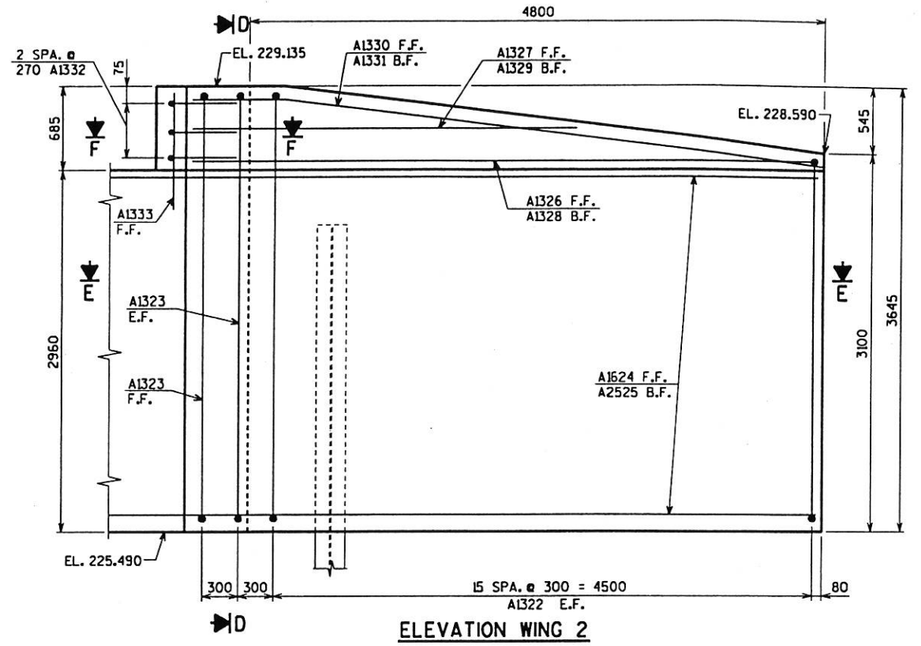
ELEVATION WING 1



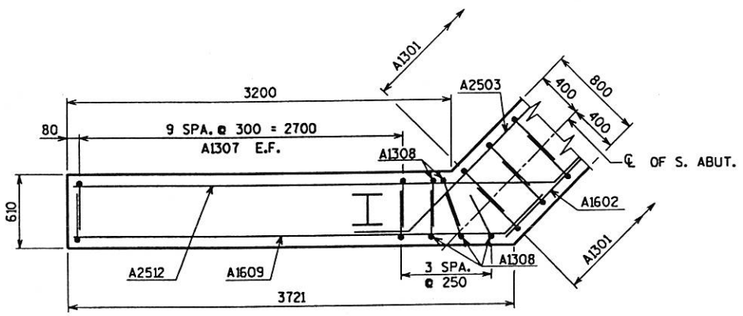
SECTION A



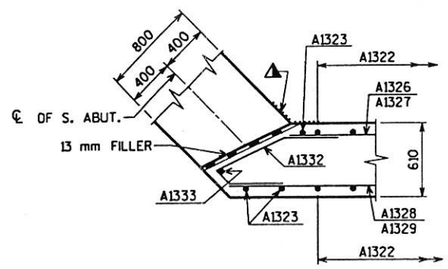
SECTION D



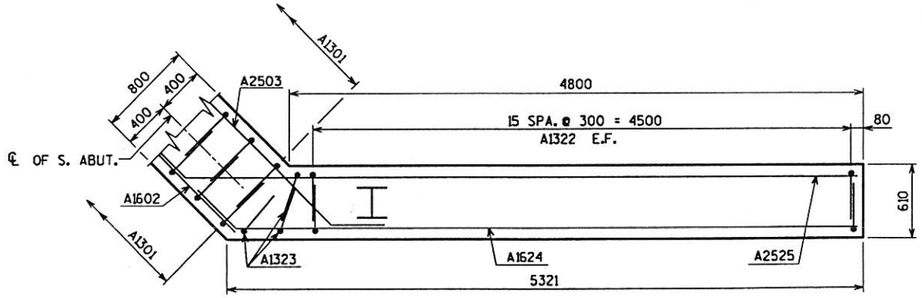
ELEVATION WING 2



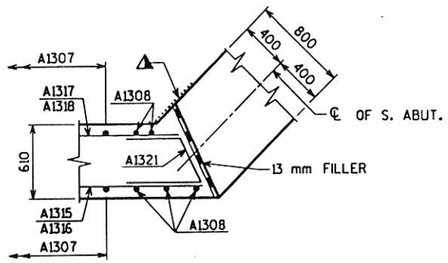
SECTION B



SECTION F



SECTION E



SECTION C

△ 457 mm RUBBERIZED MEMBRANE WATERPROOFING TO EXTEND FROM BRIDGE SEAT TO TOP OF WING.

▲ 20 mm 'V' GROOVE ON F.F. OF WING WALL - NOT REQUIRED IF CONST. JT. IS NOT USED.

● OPT. KEYED CONST. JT. - FORMED BY A SURFACED BEVELED 38 mm x 140 mm WITH RUBBERIZED MEMBRANE WATERPROOFING ON B.F.

B.F. DENOTES BACK FACE.

F.F. DENOTES FRONT FACE.

E.F. DENOTES EACH FACE.

WORK THIS SHEET WITH SHEET 4 & 8.

ALL DIMENSIONS ARE IN MILLIMETERS.
ALL ELEVATIONS ARE IN METERS.

No.	Date	Revision	By

PLANS PREPARED BY
AYRES ASSOCIATES
Engineers/Architects
Scientists/Surveyors
3433 Oakwood Hills Parkway
Eau Claire, WI 54701

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-197

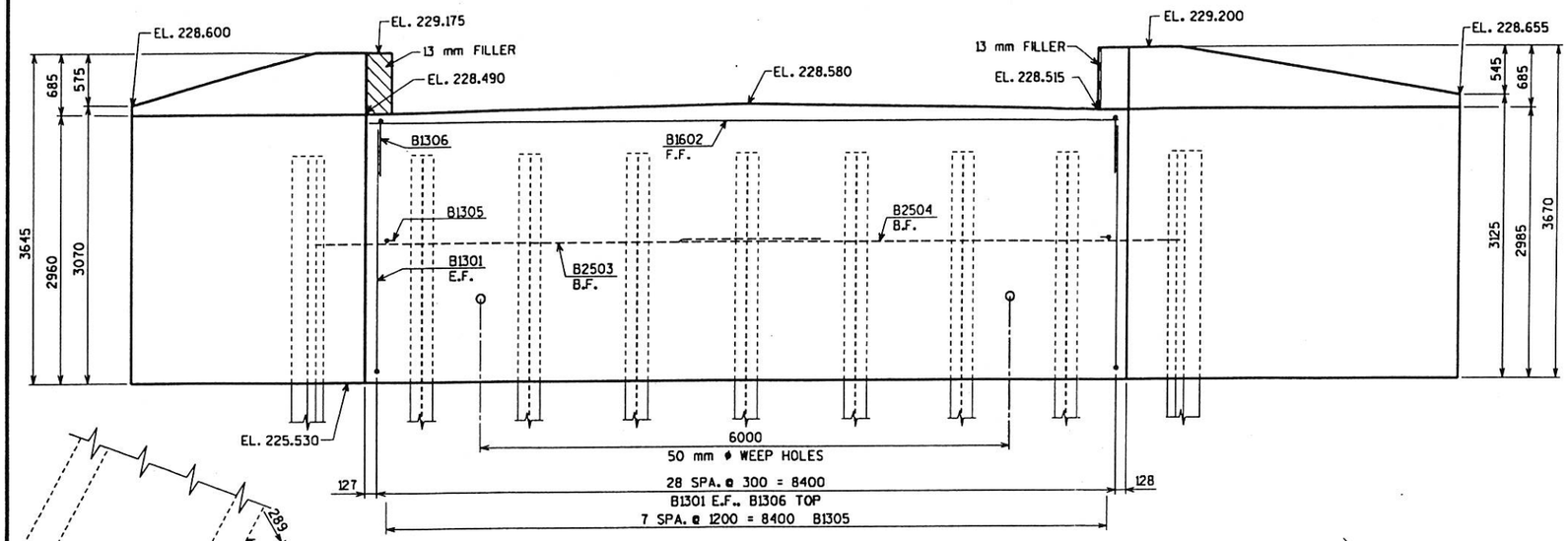
Const. Spec.	Drawn By	Plans Checked
1996	GLO	PWD

SOUTH ABUTMENT WING DETAILS

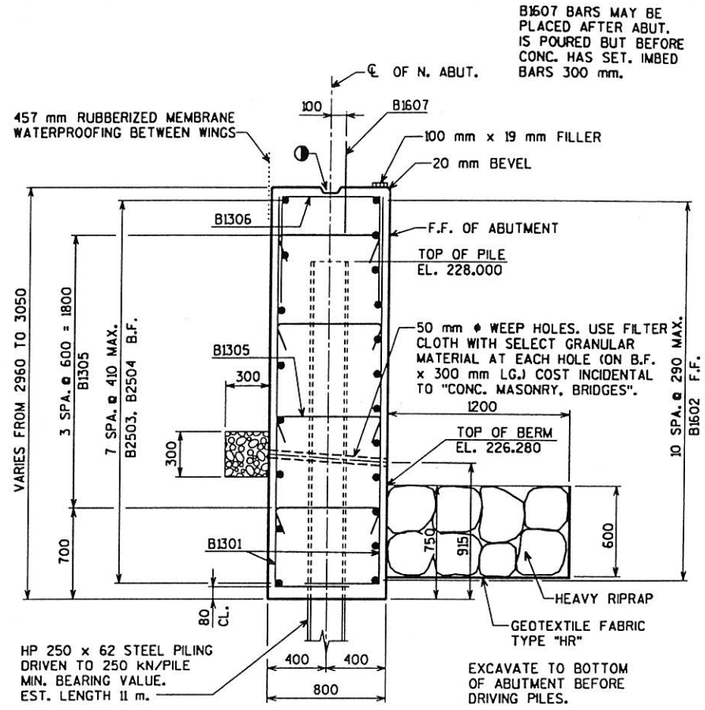
SHEET 5 OF 10

CHECKED BY: DATE:
BACK CHECKED BY: DATE:
CORRECTED BY: DATE:
REFERENCE FILES
04 + 1-63
4501555sa.dgn
04 + 1-63
mstarsht.dgn

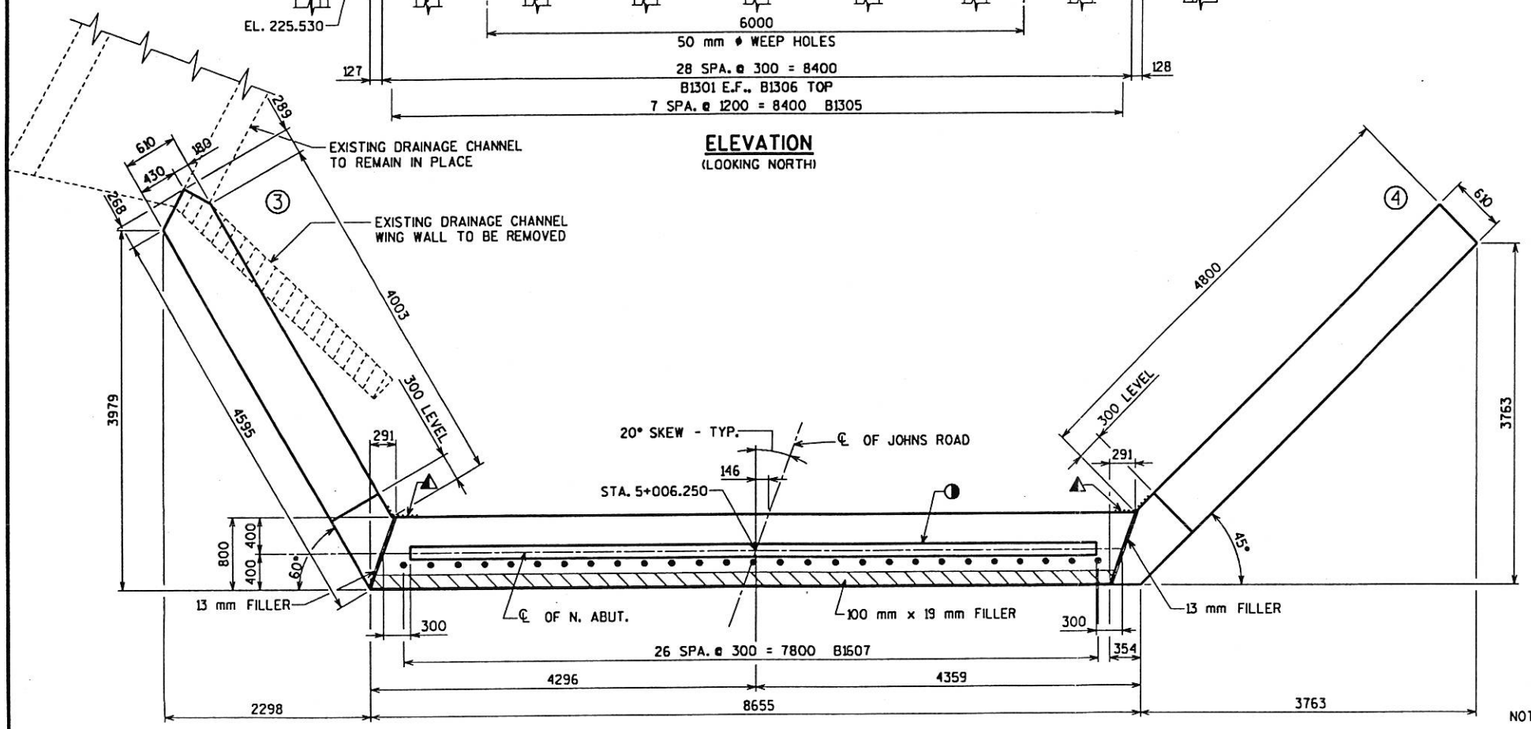
PLOT NAME = P:±2LASA3±450155NA.PRF
PEN TABLE = ±PLOT72±LASER±smbr.tbl
DATE OF PLOT = 01/20/99
DESIGN FILE IS ut±mebridge±450155na.dgn
DGN LEVELS ON = 1-63



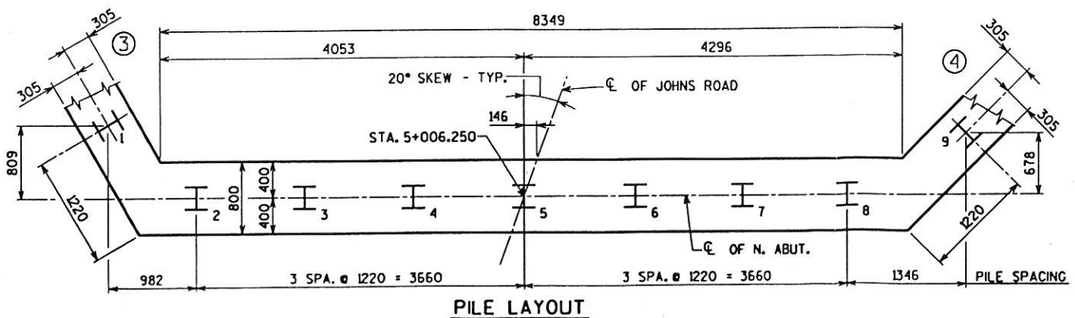
ELEVATION
(LOOKING NORTH)



TYPICAL SECTION THRU BODY



PLAN



PILE LAYOUT

NOTE: DO NOT PLACE FILL ABOVE 900 mm FROM BOTTOM OF ABUTMENT UNTIL SUPERSTRUCTURE IS IN PLACE.

◑ KEYED CONST. JOINT - FORMED BY A SURFACED BEVELED 38 mm x 140 mm.

▲ 457 mm RUBBERIZED MEMBRANE WATERPROOFING TO EXTEND FROM BRIDGE SEAT TO TOP OF WING.

FOR PILE SPLICE DETAIL SEE SHEET 2.

B.F. DENOTES BACK FACE.

F.F. DENOTES FRONT FACE.

E.F. DENOTES EACH FACE.

WORK THIS SHEET WITH SHEET 7 & 8.

ALL DIMENSIONS ARE IN MILLIMETERS.
ALL ELEVATIONS ARE IN METERS.

No.	Date	Revision	By

PLANS PREPARED BY
AYRES ASSOCIATES
Engineers/Architects
Scientists/Surveyors
3433 Oakwood Hills Parkway
Eau Claire, WI 54701

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-197

Const. Spec.	Drawn By	Plans Checked
1996	GLO	PWD

NORTH ABUTMENT

SHEET 6 OF 10

CHECKED BY: DATE:
BACK CHECKED BY: DATE:
CORRECTED BY: DATE:

REFERENCE FILES

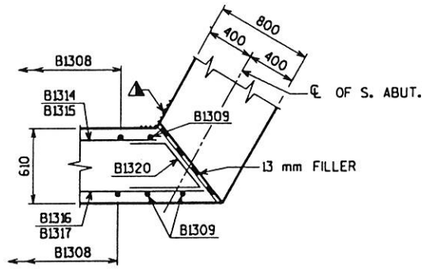
DN = 143
metric.dgn

PLOT NAME = P:±2LASA3±450155NW.PRF
PEN TABLE = ±PLOT72±LASER±smbr.tbl
DATE OF PLOT = 01/20/99
DESIGN FILE IS u:±mebridge±450155na.dgn
DGN LEVELS ON = 1-63

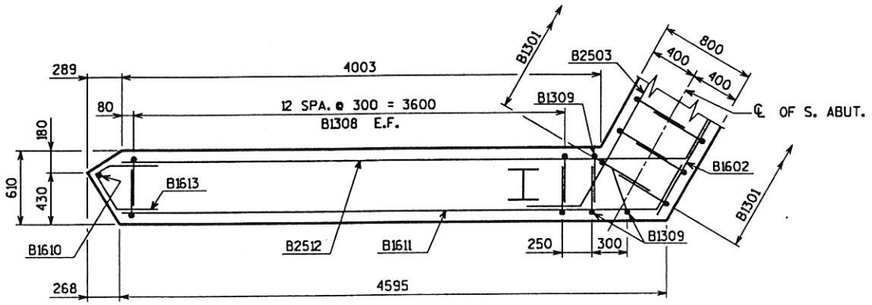
CHECKED BY: DATE:
BACK CHECKED BY: DATE:
CORRECTED BY: DATE:

REFERENCE FILES

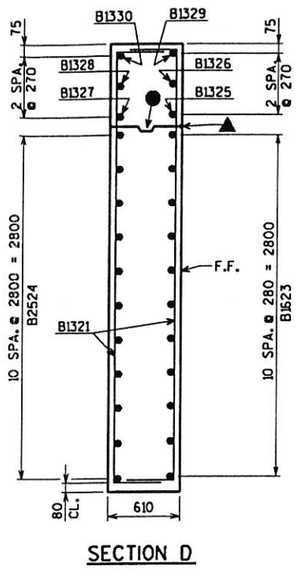
mstrsht.dgn 04 • 1-63



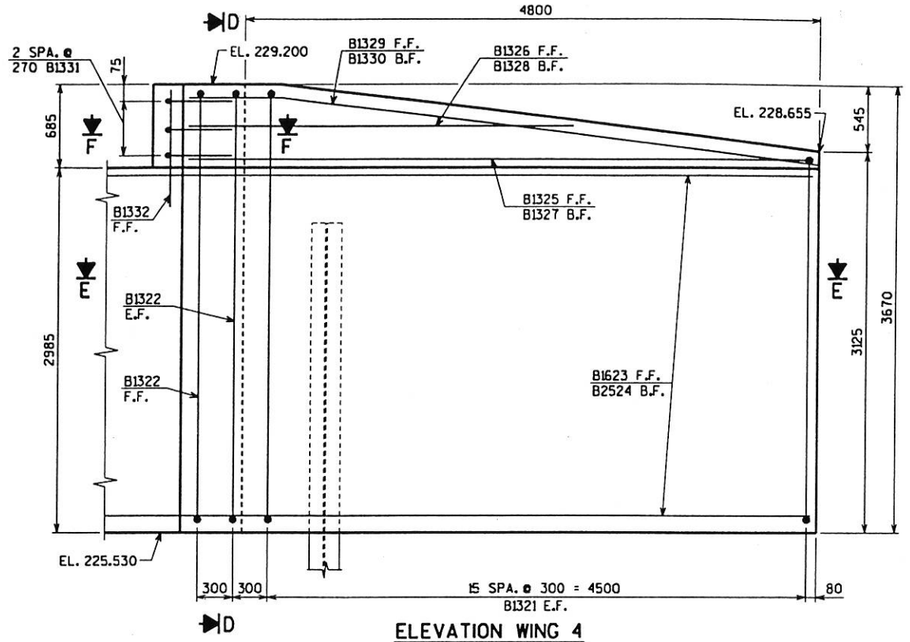
SECTION C



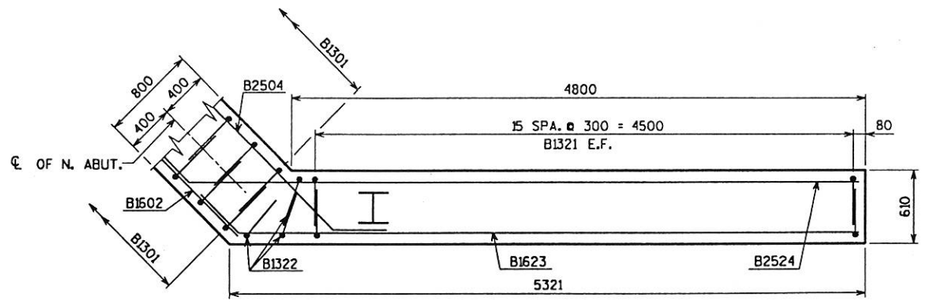
SECTION B



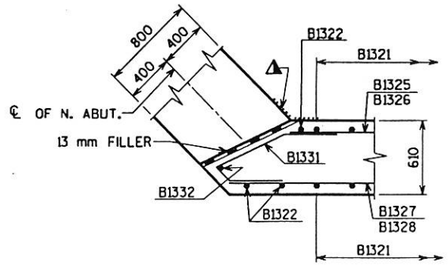
SECTION D



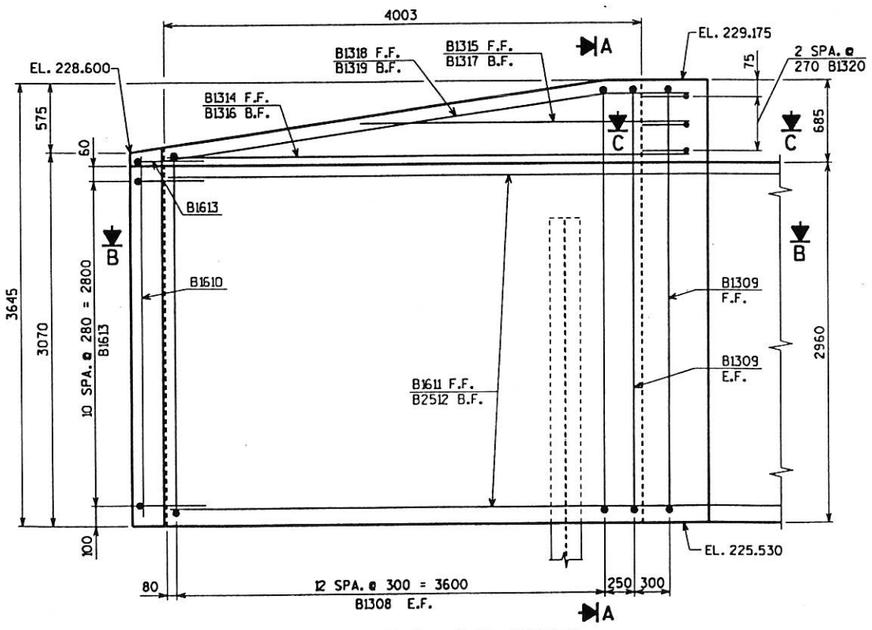
ELEVATION WING 4



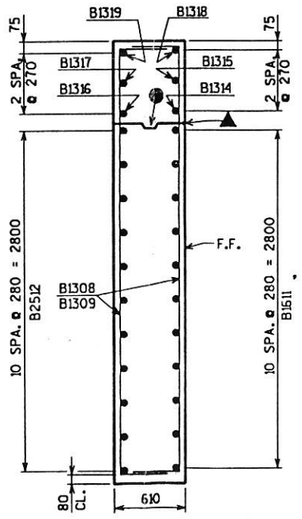
SECTION E



SECTION F



ELEVATION WING 3



SECTION A

WORK THIS SHEET WITH SHEET 6 & 8.

ALL DIMENSIONS ARE IN MILLIMETERS.
ALL ELEVATIONS ARE IN METERS.

△ 457 mm RUBBERIZED MEMBRANE WATERPROOFING TO EXTEND FROM BRIDGE SEAT TO TOP OF WING.

▲ 20 mm 'V' GROOVE ON F.F. OF WING WALL - NOT REQUIRED IF CONST. JT. IS NOT USED.

● OPT. KEYED CONST. JT. - FORMED BY A SURFACED BEVELED 38 mm x 140 mm WITH RUBBERIZED MEMBRANE WATERPROOFING ON B.F.

B.F. DENOTES BACK FACE.

F.F. DENOTES FRONT FACE.

No.	Date	Revision	By

PLANS PREPARED BY
AYRES ASSOCIATES
Engineers/Architects
Scientists/Surveyors
3433 Oakwood Hills Parkway
Eau Claire, WI 54701

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-197

Const. Spec.	Drawn By	Plans Checked
1996	GLO	PWD

NORTH ABUTMENT
WING DETAILS

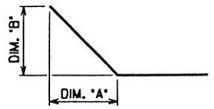
SHEET 7 OF 10

BAR MARK	COATED	NO. REQ'D.	LENGTH	BENT BAR	BUNDLED	BAR SERIES	1770 kg UNCOATED LOCATION
A1301		58	3300	X			BODY VERT. E.F.
A1602		11	8600				BODY HORIZ. F.F.
A2503		16	6200	X			BODY HORIZ. B.F.
A1304		32	860	X			BODY TIES
A1305		29	2260	X			BODY VERT. TOP
A1606		27	600				BODY DOWELS
A1307		20	3675	X		⊗	WING 1 VERT. E.F.
A1308		5	4320	X			WING 1 VERT. E.F.
A1609		9	4090	X			WING 1 HORIZ. F.F.
A1610		1	3520	X			WING 1 HORIZ. F.F.
A1611		1	2880	X			WING 1 HORIZ. F.F.
A2512		9	4570	X			WING 1 HORIZ. B.F.
A2513		1	4000	X			WING 1 HORIZ. B.F.
A2514		1	3360	X			WING 1 HORIZ. B.F.
A1315		1	1930				WING 1 HORIZ. F.F.
A1316		1	1390				WING 1 HORIZ. F.F.
A1317		1	1700				WING 1 HORIZ. B.F.
A1318		1	1160				WING 1 HORIZ. B.F.
A1319		1	3810	X			WING 1 DIAG. F.F.
A1320		1	3580	X			WING 1 DIAG. B.F.
A1321		3	1370	X			WING 1 HORIZ.
A1322		32	4290	X		⊗	WING 2 VERT. E.F.
A1323		3	4290	X			WING 2 VERT. E.F.
A1624		11	5690	X			WING 2 HORIZ. F.F.
A2525		11	6170	X			WING 2 HORIZ. B.F.
A1326		1	5240				WING 2 HORIZ. F.F.
A1327		1	3220				WING 2 HORIZ. F.F.
A1328		1	4730				WING 2 HORIZ. B.F.
A1329		1	2710				WING 2 HORIZ. B.F.
A1330		1	5270	X			WING 2 DIAG. F.F.
A1331		1	4760	X			WING 2 DIAG. B.F.
A1332		3	1820	X			WING 2 HORIZ.
A1333		1	970				WING 2 VERT. F.F.

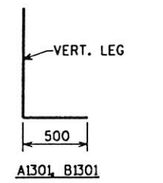
BENDING DIMENSIONS ARE OUT TO OUT OF BARS.

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

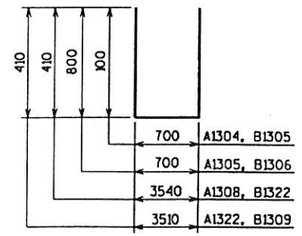
BAR MARK	COATED	NO. REQ'D.	LENGTH	BENT BAR	BUNDLED	BAR SERIES	1870 kg UNCOATED LOCATION
B1301		58	3300	X			BODY VERT. E.F.
B1602		11	8590				BODY HORIZ. F.F.
B2503		8	6050	X			BODY HORIZ. B.F. @ WING 3
B2504		8	6050	X			BODY HORIZ. B.F. @ WING 4
B1305		32	860	X			BODY TIES
B1306		29	2260	X			BODY VERT. TOP
B1607		27	600				BODY DOWELS
B1308		26	4010	X		⊗	WING 3 VERT. E.F.
B1309		3	4290	X			WING 3 VERT. E.F.
B1610		1	2940				WING 3 VERT. @ END
B1611		11	4980	X			WING 3 HORIZ. F.F.
B2512		11	5270	X			WING 3 HORIZ. B.F.
B1613		12	1520	X			WING 3 HORIZ. @ END
B1314		1	4400				WING 3 HORIZ. F.F.
B1315		1	2770				WING 3 HORIZ. F.F.
B1316		1	3980				WING 3 HORIZ. B.F.
B1317		1	2350				WING 3 HORIZ. B.F.
B1318		1	4440	X			WING 3 DIAG. F.F.
B1319		1	4030	X			WING 3 DIAG. B.F.
B1320		3	1460	X			WING 3 HORIZ.
B1321		32	4050	X		⊗	WING 4 VERT. E.F.
B1322		3	4320	X			WING 4 VERT. E.F.
B1623		11	5690	X			WING 4 HORIZ. F.F.
B2524		11	6170	X			WING 4 HORIZ. B.F.
B1325		1	5240				WING 4 HORIZ. F.F.
B1326		1	3220				WING 4 HORIZ. F.F.
B1327		1	4730				WING 4 HORIZ. B.F.
B1328		1	2710				WING 4 HORIZ. B.F.
B1329		1	5270	X			WING 4 DIAG. F.F.
B1330		1	4760	X			WING 4 DIAG. B.F.
B1331		3	1820	X			WING 4 HORIZ.
B1332		1	970				WING 4 VERT. F.F.

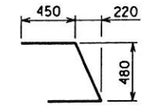


BAR MARK	DIM."A"	DIM."B"
A2503	320	320
A1609	320	320
A1610	320	320
A1611	320	320
A2512	320	320
A2513	320	320
A2514	320	320
A1319	2860	1240
A1320	2860	1240
A1624	320	320
A2525	320	320
A1330	4450	540
A1331	4450	540
B2503	225	390
B2504	320	320
B1611	225	390
B2512	225	390
B1318	3680	530
B1319	3680	530
B1623	320	320
B2524	320	320
B1329	4450	540
B1330	4450	540

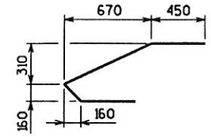


A1301, B1301

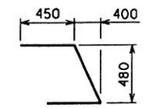




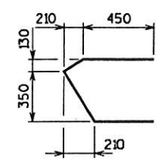
A1321



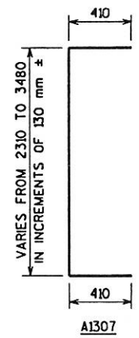
A1332, B1331



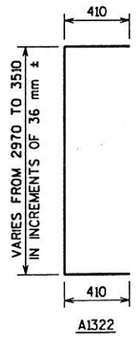
B1320



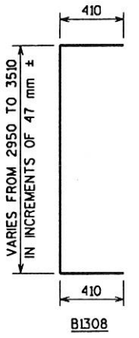
B1610



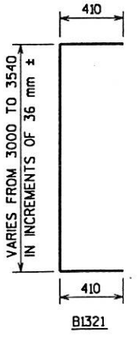
A1307



A1322



B1308



B1321

BAR SERIES TABLE

BAR MARK	NO REQ'D.	LENGTH
A1307	2 SERIES OF 10	3090 TO 4260
A1322	2 SERIES OF 16	3750 TO 4290
B1308	2 SERIES OF 13	3730 TO 4290
B1321	2 SERIES OF 16	3780 TO 4320

BUNDLE AND TAG EACH SERIES SEPARATELY.

ALL DIMENSIONS ARE IN MILLIMETERS.

No.	Date	Revision	By

PLANS PREPARED BY
AYRES ASSOCIATES
Engineers/Architects
Scientists/Surveyors
3433 Oakwood Hills Parkway
Eau Claire, WI 54701

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-197

Const. Spec.	Drawn By	Plans Checked
1996	GLO	PWD

ABUTMENT
BILL OF BARS

SHEET 8 OF 10

PLOT NAME = P:±2LASA3±4501S5SB.PRF
PEN TABLE = ±PLOT72±LASER±smbr.tbl
DATE OF PLOT = 01/20/99
DESIGN FILE IS u±mebridge±4501S5sa.dgn
DGN LEVELS ON = 1-63

REFERENCE FILES

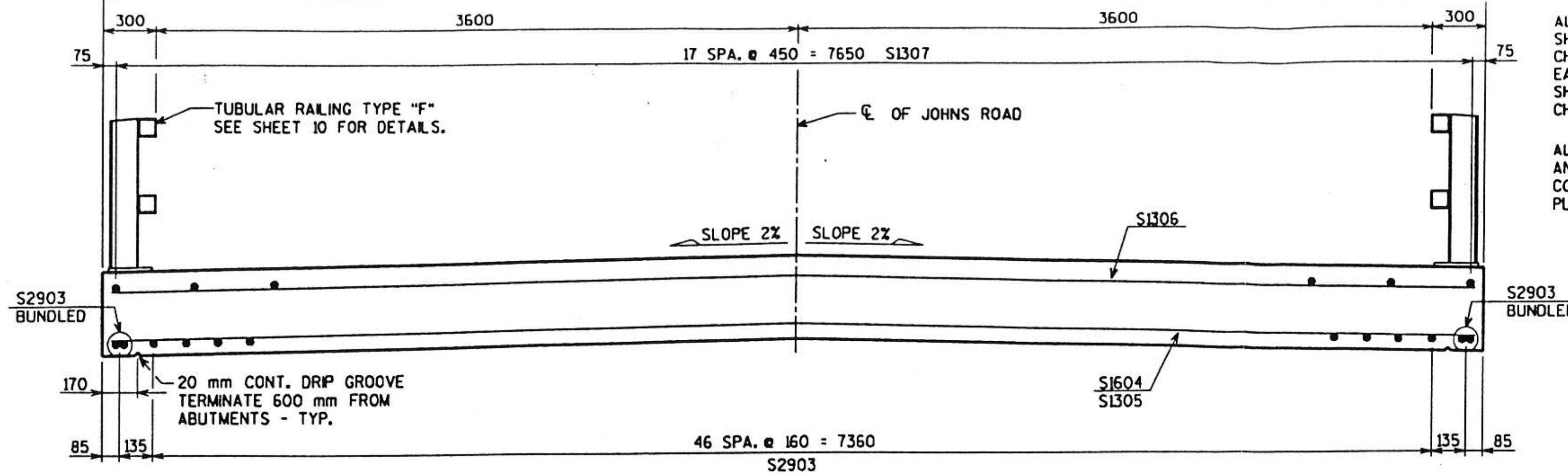
CHECKED BY: DATE:
BACK CHECKED BY: DATE:
CORRECTED BY: DATE:

mstrsht.dgn 04 • 1-93

PLOT NAME = P:±2LASA3±450155SU.PRF
PEN TABLE = ±PLOT72±LASER±smbr.tbl
DATE OF PLOT = 01/20/99
DESIGN FILE IS u:±mebridge±450155su.dgn
DGN LEVELS ON = 1-63

CHECKED BY: DATE:
BACK CHECKED BY: DATE:
CORRECTED BY: DATE:

REFERENCE FILES



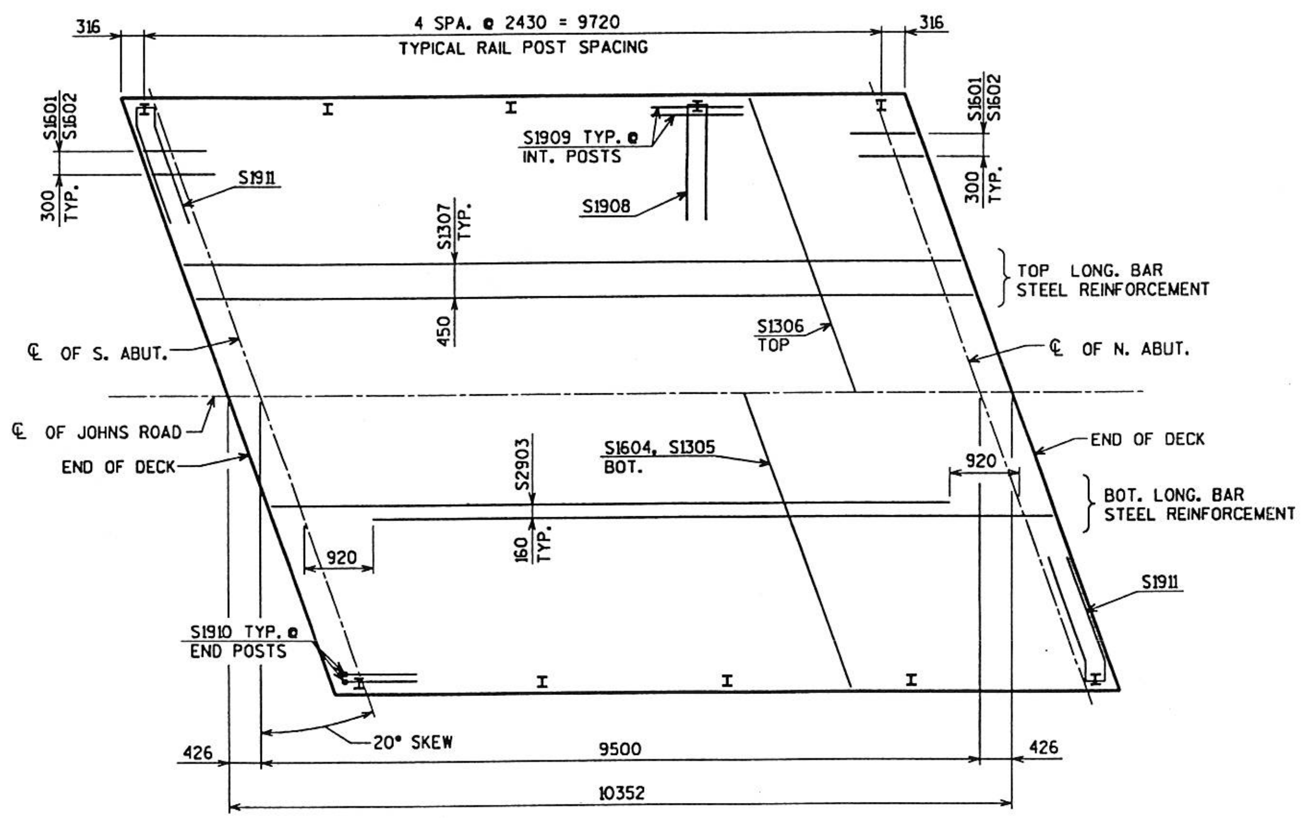
CROSS SECTION THRU ROADWAY

ALTERNATE TOP TRANSVEP BARS IN SLAB SHALL BE SUPPORTED BY IDUAL BAR CHAIRS AT APPROXIMATELY ..0 mm CENTERS EACH WAY. BOTTOM LONGITUDINAL BARS SHALL BE SUPPORTED BY CONTINUOUS BAR CHAIRS AT APPROXIMATELY 1200 mm CENTERS.

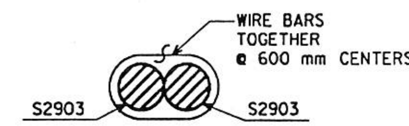
ALL SLAB THICKNESS DIMENSIONS ARE MINIMUM. ANY TOLERANCES NECESSARY TO CORRECT CONSTRUCTION DISCREPANCIES ARE TO BE PLUS (+).

BILL OF BARS

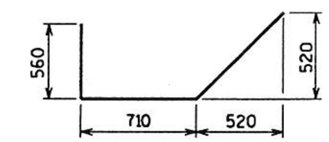
BAR MARK	COATED	NO. REQ'D.	LENGTH	BENT BAR	BUNDLED	BAR SERIES	685 kg COATED 2905 kg UNCOATED LOCATION
S1601		54	1950	X			SLAB @ ABUT.
S1602	X	54	980				SLAB @ ABUT.
S2903		51	8950				SLAB LONG. BOT.
S1604		21	8190				SLAB TRANS. BOT.
S1305		20	8190				SLAB TRANS. BOT.
S1306	X	35	8190				SLAB TRANS. TOP
S1307	X	18	10240				SLAB LONG. TOP
S1908	X	8	3650	X			SLAB @ RAIL POSTS
S1909	X	12	1220				SLAB @ INT. RAIL POSTS
S1910	X	8	1220	X			SLAB @ END RAIL POSTS
S1911	X	2	3650	X			SLAB @ END RAIL POSTS



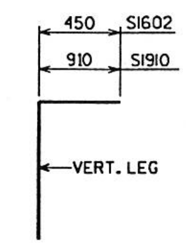
PLAN

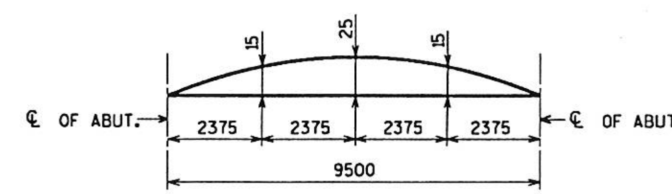


BUNDLING DETAIL



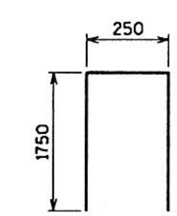
S1601



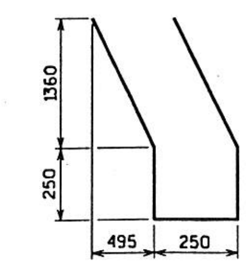


CAMBER DIAGRAM

CAMBER SPANS AS SHOWN TO PROVIDE FOR DEADLOAD DEFLECTION & FUTURE CREEP. CAMBER DOES NOT INCLUDE ALLOWANCE FOR FORM SETTLEMENT.

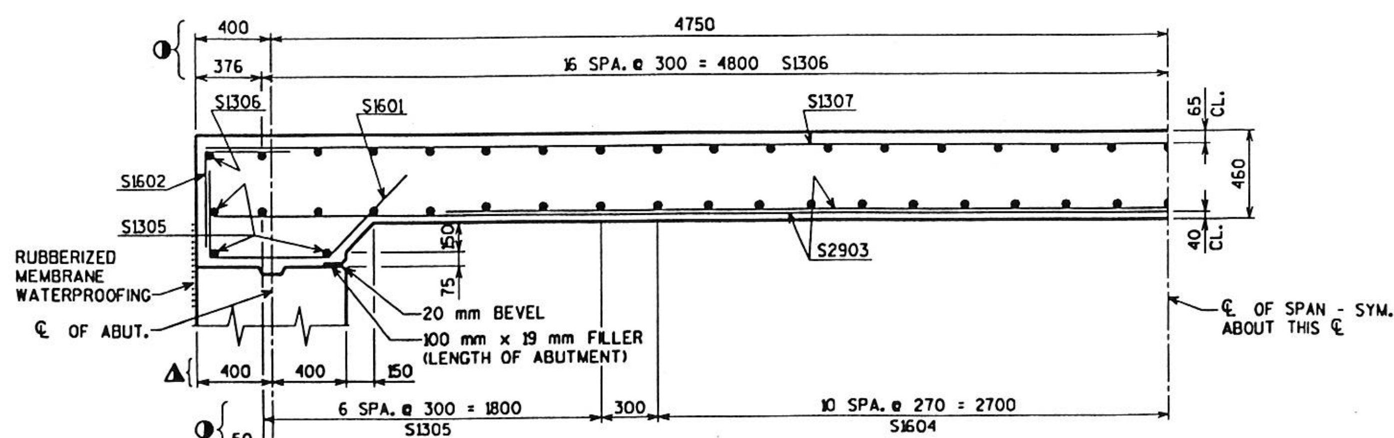


S1908



S1911

ALL DIMENSIONS ARE IN MILLIMETERS.



PART LONGITUDINAL SECTION

◑ DIMENSIONS MEASURED ALONG ℄ OF JOHNS ROAD.

▲ DIMENSIONS MEASURED NORMAL TO ℄ OF SUBSTRUCTURE.

No.	Date	Revision	By

PLANS PREPARED BY

AYRES ASSOCIATES
Engineers/Architects
Scientists/Surveyors
3433 Oakwood Hills Parkway
Eau Claire, WI 54701

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-197

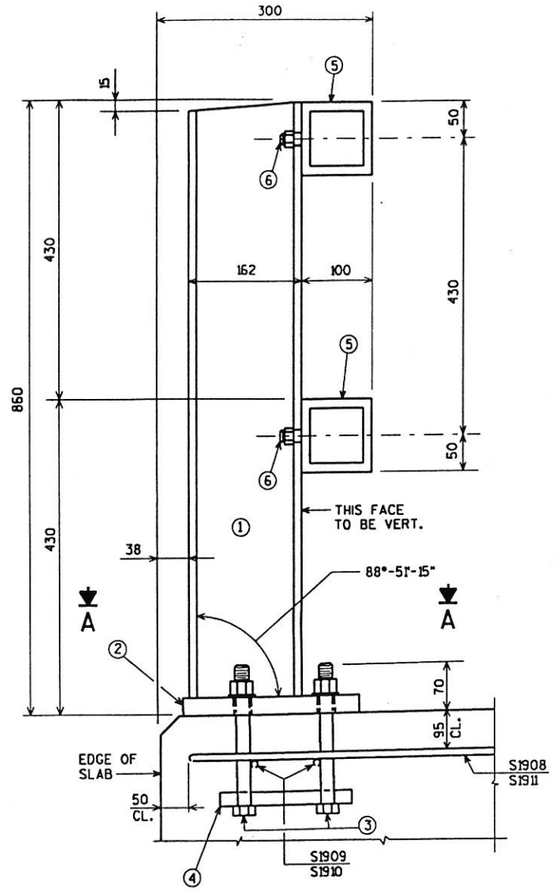
Const. Spec.	1996	Drawn By GLO	Plans Checked PWD

SUPERSTRUCTURE

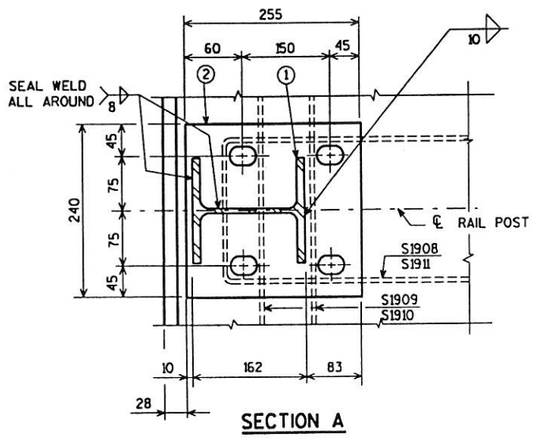
PLOT NAME = P:±2LASA3±450155RL.PRF
PEN TABLE = ±PLOT72±LASER±smbr.tbl
DATE OF PLOT = 01/20/99
DESIGN FILE IS u±mebridge±450155su.dgn
DGN LEVELS ON = 1-63

CHECKED BY: DATE:
BACK CHECKED BY: DATE:
CORRECTED BY: DATE:

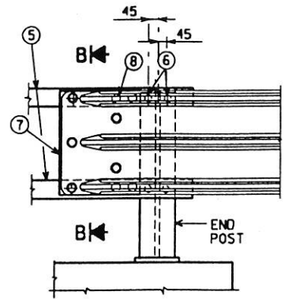
REFERENCE FILES



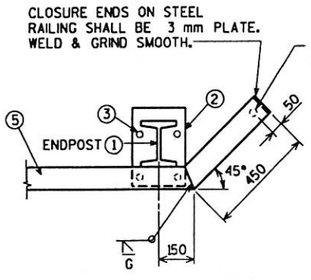
SECTION THRU RAILING



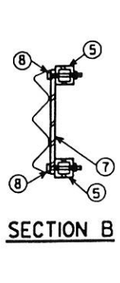
SECTION A



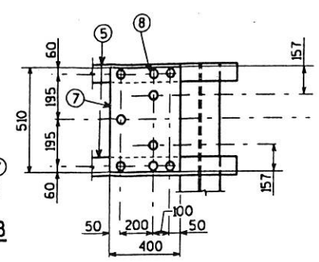
DETAIL AT END POST
(THRIE BEAM RAIL ATTACHMENT)

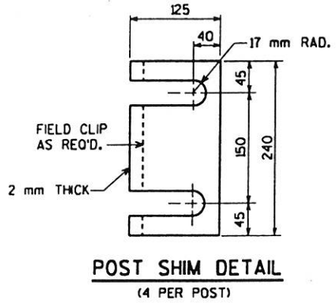


DETAIL FOR END POSTS

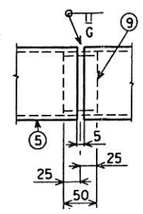


SECTION B

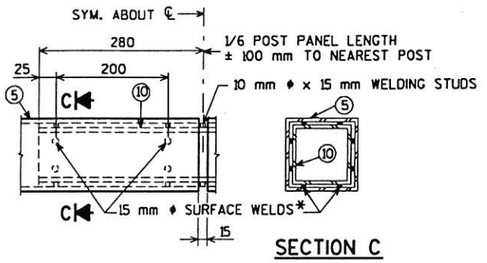




POST SHIM DETAIL
(4 PER POST)



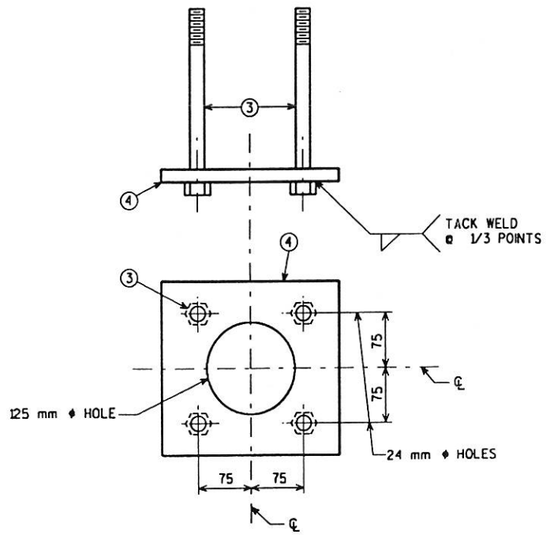
SHOP RAIL SPLICE DETAIL
(LOCATION MUST BE SHOWN ON THE SHOP DRAWINGS)



SECTION C

FIELD ERECTION JOINT DETAIL

*MIN. 15 mm FLAT SURFACE DIA. PUNCHINGS OR STUDS MAY BE USED AS AN ALTERNATE.



ANCHORAGE DETAIL

LEGEND

(1) W150x37 WITH 35 mm ϕ HOLES ON EACH SIDE OF POST FOR STUD NO. 6. CUT BOTTOM OF POST TO MATCH CROSS SLOPE OF ROADWAY. PLACE POST VERTICAL. PLACE POSTS NORMAL TO GRADE LINE.

(2) PLATE 25 mm x 240 mm x 255 mm, WITH 27 mm x 40 mm SLOTTED HOLES FOR ANCHOR BARS NO. 3. WELD TO NO. 1 AS SHOWN.

(3) A325M - M22 x 300 mm LONG HEX BOLTS (GALVANIZED) WITH A325M NUT AND WASHER. FOUR REQ'D. PER POST. THREAD 75 mm AND PLACE NORMAL TO PLATE NO. 2. CHAMFER TOP OF BOLTS BEFORE THREADING. USE 360 mm LONG AT END POSTS.

(4) 6 mm x 200 mm x 200 mm FLAT BAR, WITH 24 mm ϕ HOLES FOR ANCHOR BOLTS NO. 3.

(5) TS 102 x 102 x 6.4 STRUCTURAL TUBING, CONFORMING TO A.S.T.M. DESIGNATION A501 OR A500 GRADE B. ATTACH TO NO. 1 WITH STUDS NO. 6.

(6) 16 mm ϕ x 40 mm LONG SHOP WELDED STUDS, WITH HEX. NUT AND 50 mm WASHERS. FOUR PER POST REQ'D. (TWO REQ'D. AT EACH LOCATION).

(7) PLATE 10 mm x 400 mm x 510 mm. BOLT TO RAIL AS SHOWN IN DETAIL. REQ'D. AT THRIE BEAM GUARD RAIL ATTACHMENTS ONLY. PLACE SYMMETRICALLY ABOUT TUBES NO. 5.

(8) 25 mm ϕ HOLES IN PLATE NO. 7 AND TUBES NO. 5 FOR M22 A325M BOLTS WITH HEX NUTS AND WASHERS.

(9) SQUARE SLEEVE FABRICATED FROM 6 mm PLATE. PROVIDE "SLIDING FIT" WITH A MINIMUM OUT TO OUT DIMENSION OF 87 mm.

(10) TS 76 x 76 x 6.4 x 560 mm LONG. PROVIDE 13 mm ϕ SURFACE WELDS ON ALL SIDES AS SHOWN. GRIND WELDS TO FIT FREE INTO I.D. OF NO. 5. PROVIDE 10 mm ϕ x 15 mm WELDING STUDS ON TOP AND BOTTOM SURFACES AT CENTERLINE.

GENERAL NOTES

BID ITEM SHALL BE "TUBULAR RAILING TYPE F", WHICH INCLUDES ALL ITEMS SHOWN.

RAILING SHALL BE FABRICATED IN LENGTHS THAT INCLUDE 3 OR 4 POSTS.

POSTS BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.

ALL MATERIAL, EXCEPT ANCHORAGE DETAIL (NO. 3 & 4), SHALL BE GALVANIZED AFTER FABRICATION. GALVANIZING OF NO. 4 IS NOT REQ'D.

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

STEEL POST SHIMS MAY BE USED UNDER POSTS WHERE REQ'D. FOR ALIGNMENT.

ALL MATERIALS USED IN FABRICATION SHALL BE MADE FROM MATERIALS CONFORMING TO A.S.T.M. DESIGNATION A709M GRADE 250 UNLESS NOTED OTHERWISE.

FILL EXPOSED OPENING BETWEEN SHIMS AND POST ANCHOR BOLT HOLES WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

ALL DIMENSIONS ARE IN MILLIMETERS.

No.	Date	Revision	By

PLANS PREPARED BY
AYRES ASSOCIATES
Engineers/Architects
Scientists/Surveyors
3433 Oakwood Hills Parkway
Eau Claire, WI 54701

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-32-197

Const. Spec.	Drawn By	Plans Checked
1996	GLD	PWD

TUBULAR RAILING TYPE "F"

SHEET 10 OF 10

PEN TABLE = msxs.tbl
DATE OF PLOT 02/08/99
DGN FILE = n:\bridge\450155\dgn\rc0010
DGN LEVELS ON = 1-63
$CREATED BY
PLOT FILE = P:\MDOLAA3R\RC001006.PRF

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

5+060
END PROJECT
STA. 5+050.000
MATCH EXISTING
℄ FIN. EL. 229.736
℄ SUBGRADE EL. 229.441
℄ TEMPORARY BYPASS
℄ BY-PASS SUBGRADE EL. = 229.421
4.74 m LT SUBGRADE EL. 229.346
4.74 m RT SUBGRADE EL. 229.346
R/W
P.E. RT.
5+040
℄ FIN. EL. 229.326
℄ SUBGRADE EL. 229.051
4.74 m LT SUBGRADE EL. 228.956
4.74 m RT SUBGRADE EL. 228.956
℄ TEMPORARY BYPASS
℄ BY-PASS SUBGRADE EL. = 228.668
T.L.E.
5+020
STRUCTURE B-32-197
℄ FIN. EL. 229.153
℄ SUBGRADE EL. 228.878
4.74 m LT SUBGRADE EL. 228.783
4.74 m RT SUBGRADE EL. 228.783
4+980
℄ TEMPORARY BYPASS
℄ BY-PASS SUBGRADE EL. = 228.668
T.L.E.
℄ FIN. EL. 229.175
℄ SUBGRADE EL. 228.900
4.74 m LT SUBGRADE EL. 228.805
4.74 m RT SUBGRADE EL. 228.805
℄ TEMPORARY BYPASS
℄ BY-PASS SUBGRADE EL. = 229.064
4+960
BEGIN PROJECT
STA. 4+950.000
MATCH EXISTING
4+940
2.5 m
0
2.5 m
SCALE (m)
10.0 7.5 5.0 2.5 0 2.5 5.0 7.5 10.0 12.5 15.0 17.5 20.0 22.5 25.0

CROSS SECTIONS	HWY: JOHNS ROAD	COUNTY: LA CROSSE	STATE PROJECT NO: 5348-04-71	SHEET NO: .	M