

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
7268-06-71		

**STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION**

PLAN OF PROPOSED IMPROVEMENT

BAKER ROAD, TOWN OF FARMINGTON

FLEMING CREEK BRIDGE AND APPROACHES

TOWN ROAD

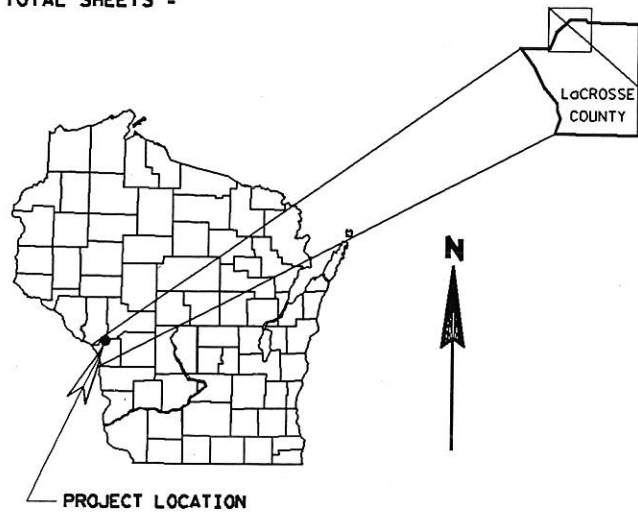
LACROSSE COUNTY

STATE PROJECT NUMBER
7268-06-71

ORDER OF SHEETS

Section No.	Title
Section No.	Typical Sections and Details
Section No.	Estimate of Quantities
Section No.	Miscellaneous Quantities
Section No.	Right of Way Plat
Section No.	Plan and Profile
Section No.	Standard Detail Drawings
Section No.	Sign Plates
Section No.	Structure Plans
Section No.	Computer Earthwork Data
Section No.	Cross Sections

TOTAL SHEETS =



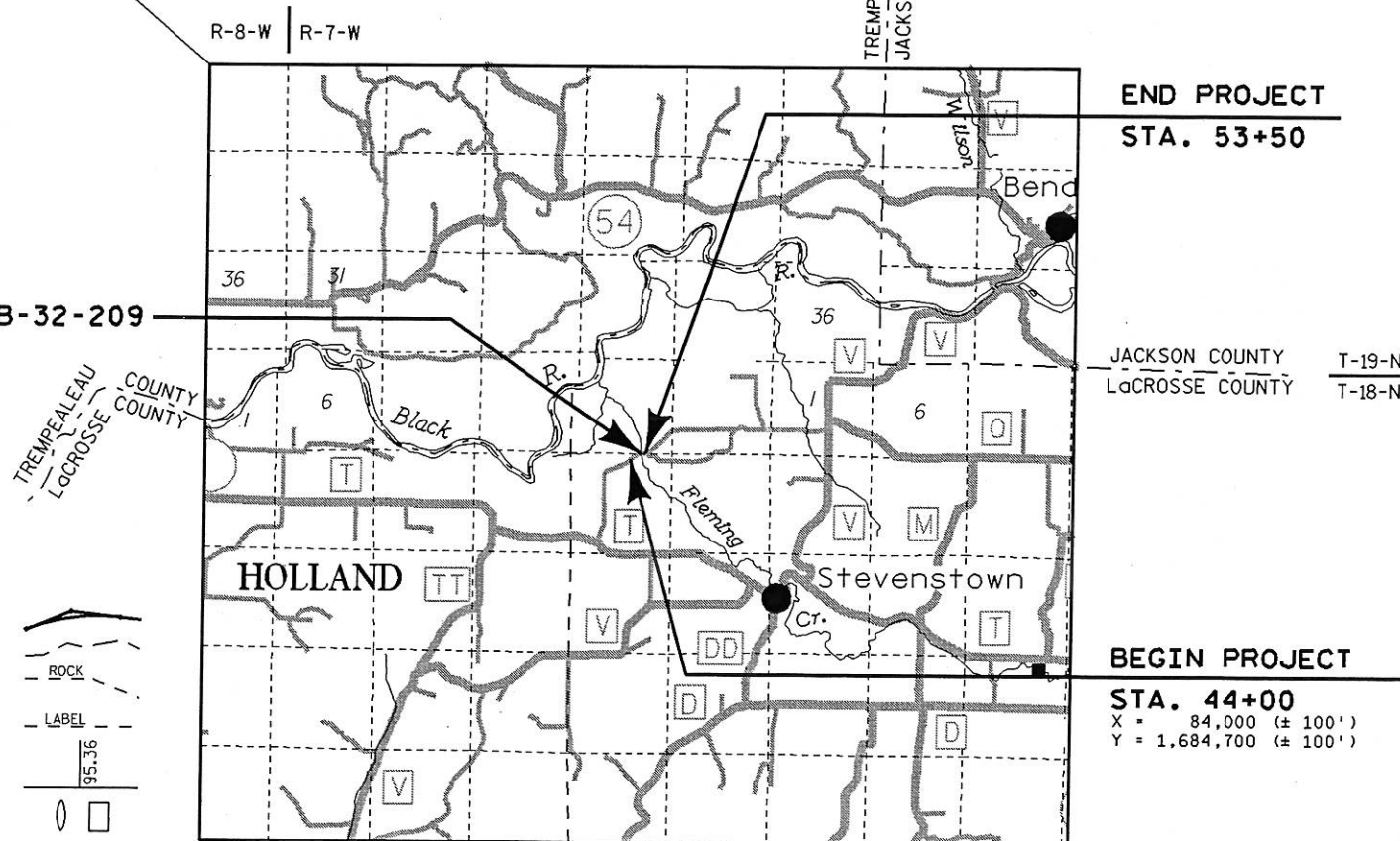
DESIGN DESIGNATION

A.D.T. (2003)	=	340
A.D.T. (2023)	=	460
D.H.V.	=	35
D.D.	=	50/50
T.	=	5%
DESIGN SPEED	=	40 M.P.H.
ESALS	=	N/A

CONVENTIONAL SYMBOLS

PLAN	PROFILE
CORPORATE LIMITS	GRADE LINE
PROPERTY LINE	ORIGINAL GROUND
LOT LINE	MARSH OR ROCK PROFILE (To be noted as such)
LIMITED HIGHWAY EASEMENT	SPECIAL DITCH
EXISTING RIGHT OF WAY	GRADE ELEVATION
PROPOSED OR NEW R/W LINE	CULVERT (Profile View)
SLOPE INTERCEPT	UTILITIES
REFERENCE LINE	ELECTRIC
EXISTING CULVERT	FIBER OPTIC
PROPOSED CULVERT (Box or Pipe)	GAS
COMBUSTIBLE FLUIDS	SANITARY SEWER
	STORM SEWER
	TELEPHONE
	WATER
MARSH AREA	UTILITY PEDESTAL
	POWER POLE
WOODED OR SHRUB AREA	TELEPHONE POLE

STRUCTURE B-32-209



END PROJECT
STA. 53+50

JACKSON COUNTY T-19-N
LACROSSE COUNTY T-18-N

BEGIN PROJECT
STA. 44+00
X = 84,000 (± 100')
Y = 1,684,700 (± 100')

LAYOUT
SCALE 0 1 MI.

TOTAL NET LENGTH OF CENTERLINE = 0.18 MI.

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN STATE PLANE COORDINATE SYSTEM, NORTH ZONE. SCALED FROM U.S.G.S. TOPOGRAPHIC MAP, STEVENSTOWN QUAD. FOR IDENTIFICATION ONLY.

ACCEPTED FOR
LACROSSE COUNTY

12-4-03 *Dennis Ingold*
DATE COUNTY HIGHWAY COMMISSIONER

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

WISCONSIN PROFESSIONAL ENGINEER
CHRISTOPHER B. McMAHON
E-26424
EAU CLAIRE, WI

DATE 12/2/03

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

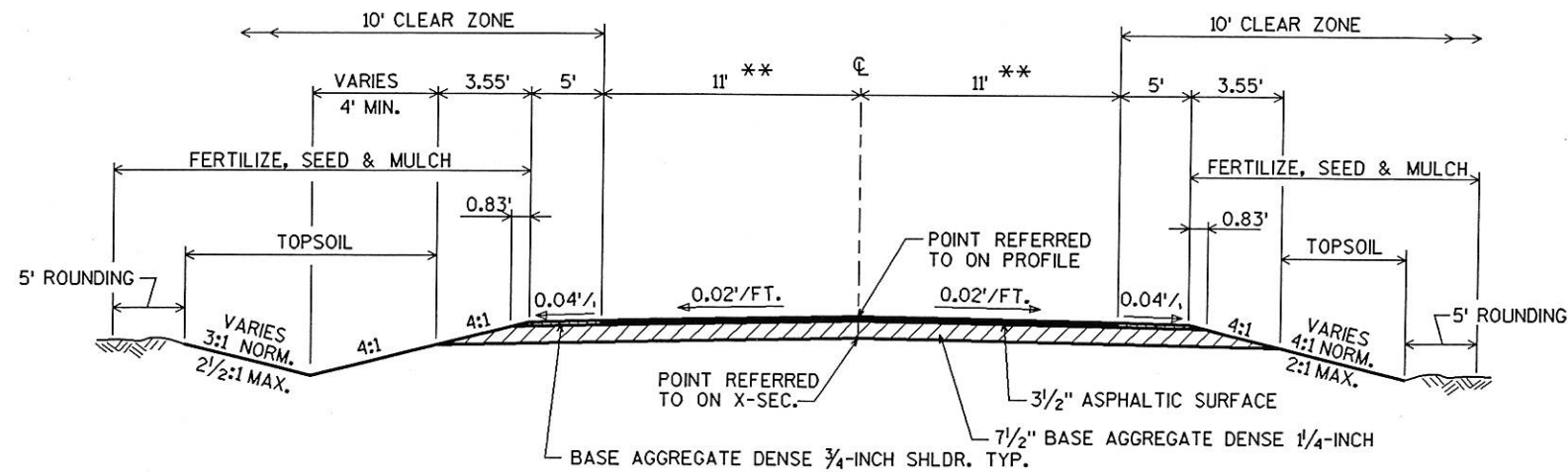
Surveyor O. A. & A.
Designer O. A. & A.
District Examiner NATHAN BYOM
District Supervisor
Proj. Dev. Engineer
C.O. Examiner

APPROVED FOR DISTRICT OFFICE
DATE: 12-9-03 *Jim J. [Signature]*
(Signature)

E

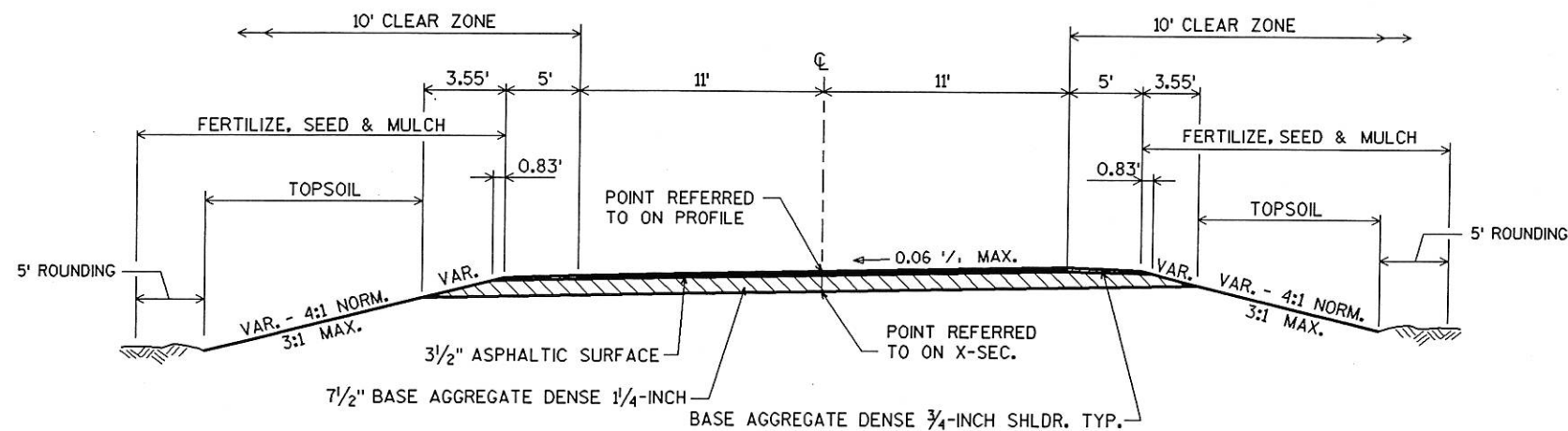
PROJECT ID: 7268-06-71

COUNTY: LACROSSE

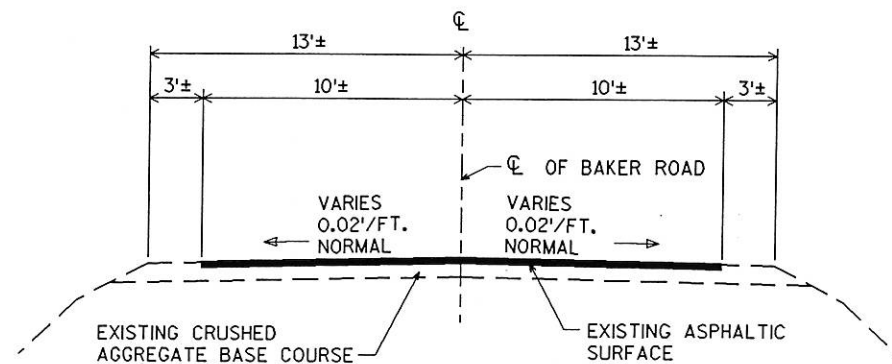


TYPICAL FINISHED SECTION - BAKER ROAD
(STA. 47+75 TO STA. 49+30)

** THE ASPHALTIC SURFACE SHALL TAPER FROM 28 FT. WIDE AT THE ENDS OF THE BRIDGE TO 22 FT. WIDE AT 50 FT. FROM THE ENDS OF THE BRIDGE.



TYPICAL SUPERELEVATED SECTION - BAKER ROAD
(STA. 44+00 TO STA. 47+75, STA. 49+30 TO STA. 53+50)



EXISTING TYPICAL SECTION - BAKER ROAD

GENERAL NOTES

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 LOCATIONS 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.

THE DEPARTMENT OF TRANSPORTATION WILL FURNISH THE CONTRACTOR WITH A MONUMENT TO BE INSTALLED BY THE CONTRACTOR AS DIRECTED BY THE ENGINEER.

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

SEED MIXTURE NO. 20 SHALL BE USED IN THE PROJECT AND SHALL BE PLACED AS SHOWN IN THE PLANS AND/OR AS DIRECTED BY THE ENGINEER.

ORIGIN OF LEVELS IS BASED ON THE TOP OF BOLT AT THE NORTHWEST CORNER OF THE EXISTING BRIDGE (EL. 696.06)

STANDARD DETAIL DRAWINGS

- 8E8-3 TYPICAL INSTALLATIONS OF EROSION BALES/TEMP. DITCH CHECKS
- 8E9-5 SILT FENCE
- 8F1-11 APRON ENDWALLS FOR CULVERT PIPE
- 9A1-12a AT-GRADE SIDE ROAD INTERSECTION, TYPES "B1", "B2", "C" AND "D" AND TEE INTERSECTION BYPASS LANE
- 12A3-7 NAME PLATE - STRUCTURES
- 14B15-4a&b STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
- 14B18-4a STEEL PLATE BEAM GUARD, CLASS "A" (AT BRIDGES, OBSTACLES AND SIDEROADS/DRIVEWAYS)
- 14B20-5a STEEL THRIE BEAM STRUCTURE APPROACH
- 14B20-5d STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO BRIDGE RAILING TYPES 'F' & 'W'
- 14B24-3a,b,c STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
- 15C2-4a&b BARRICADES AND SIGNS FOR MAINLINE CLOSURES
- 15C6-4 SIGNING AND MARKING FOR TWO LANE BRIDGES
- 15C8-9a PAVEMENT MARKING (MAINLINE)

UTILITIES

* CENTURY TELEPHONE
P.O. BOX 524
GALESVILLE, WI 54630
ATTN: DON CROGAN
608-582-4311

* DIGGERS HOTLINE
1-800-242-8511

ABBREVIATIONS

- AC. ACRES
- CHIS. CHISELED
- COR. CORNER
- H. HOUSE
- I.P. IRON PIPE
- MON. MONUMENT
- P.K. PARKER-KALON
- PD PEDESTAL
- P.L.E. PERMANENT LIMITED EASEMENT
- P.L. PROPERTY LINE
- P.P. POWER POLE
- T.L.E. TEMPORARY LIMITED EASEMENT
- WL WELL

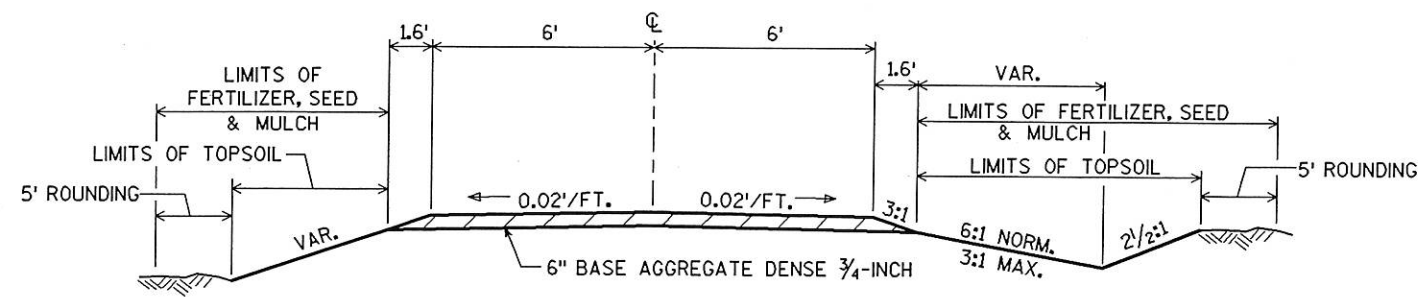
WISCONSIN DEPARTMENT OF NATURAL RESOURCES CONTACT:

JAMES P. DOPERALSKI JR.
3550 MORMON COULEE ROAD
LACROSSE, WI. 54601
608-789-5511

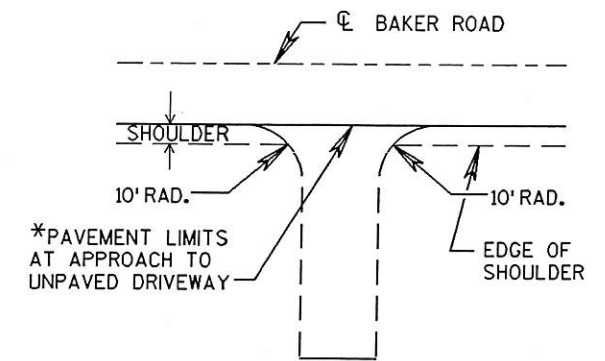
DESIGNER

AYRES ASSOCIATES
3433 OAKWOOD HILLS PARKWAY
EAU CLAIRE, WI 54701
ATTN: CHRISTOPHER B. McMAHON
715-834-3161

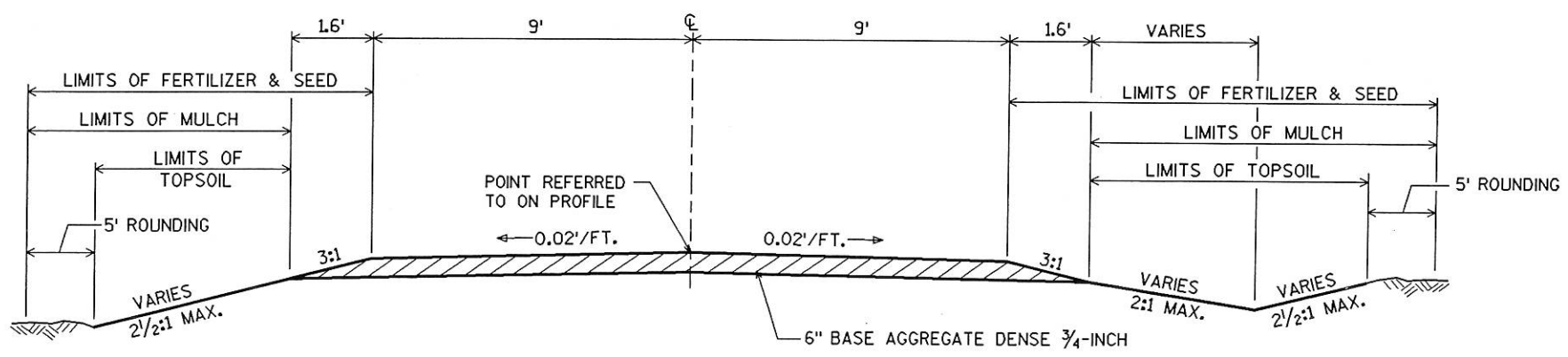
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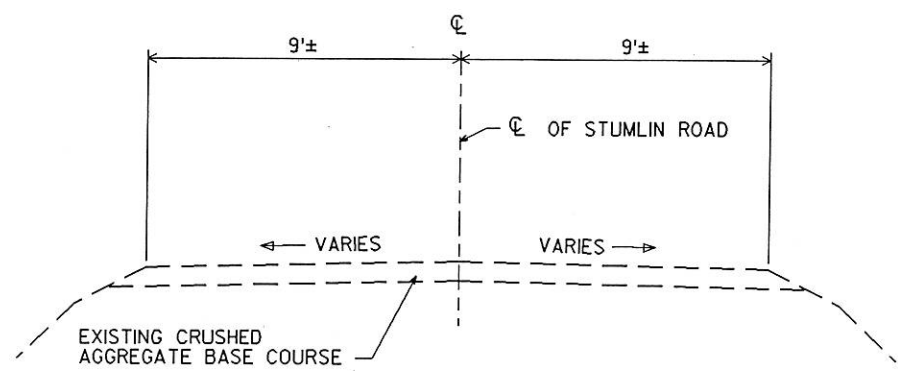
TYPICAL SECTION FOR PRIVATE ENTRANCE
(STA. 45+50 RT. AND STA. 46+90 LT.)



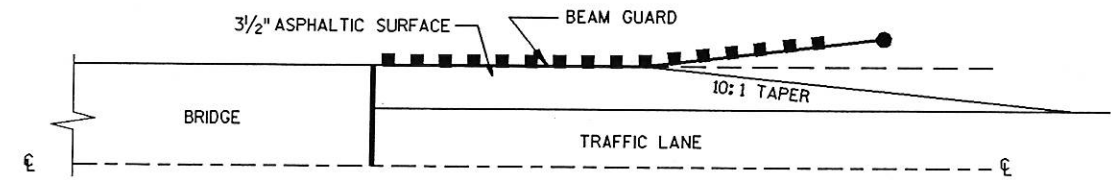
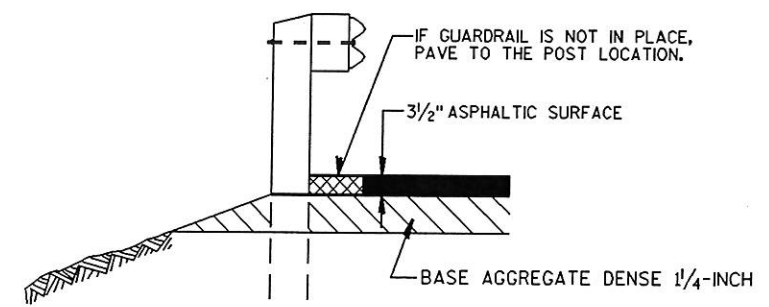
PLAN VIEW FOR ENTRANCES



TYPICAL FINISHED SECTION - STUMLIN ROAD

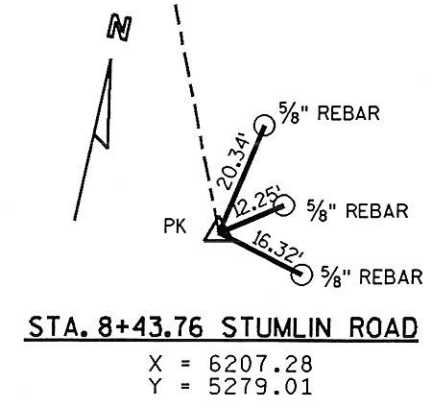
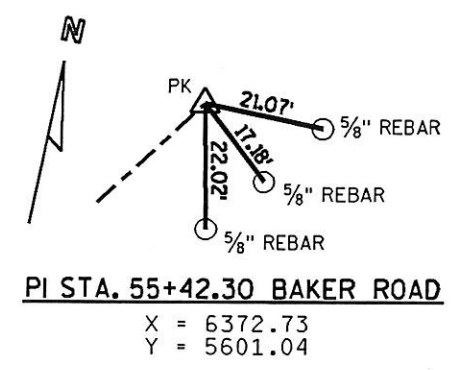
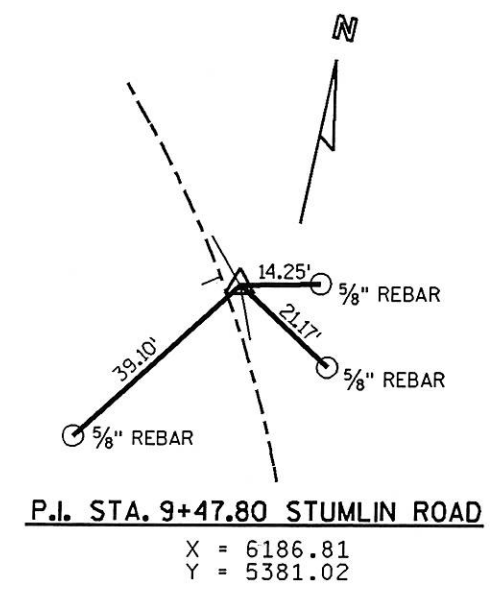
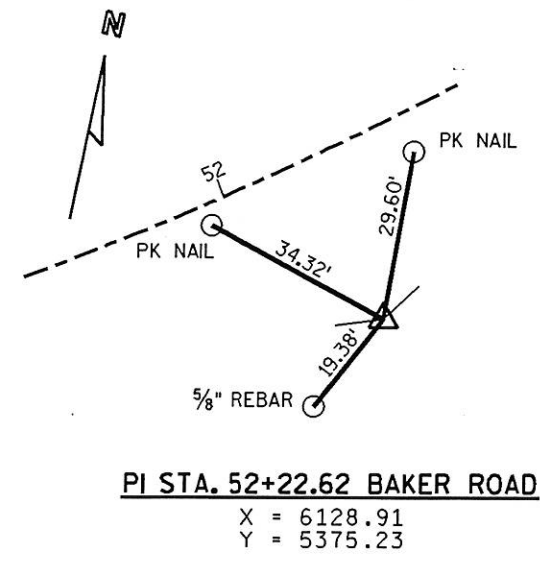
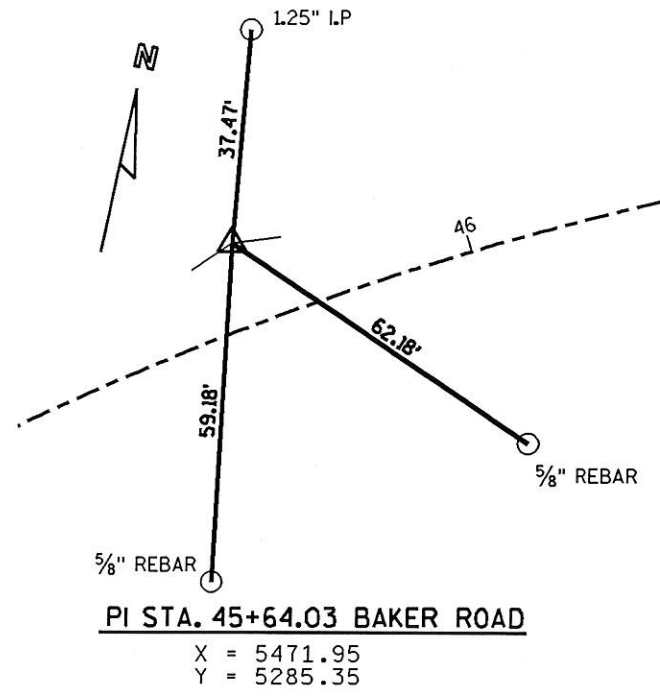
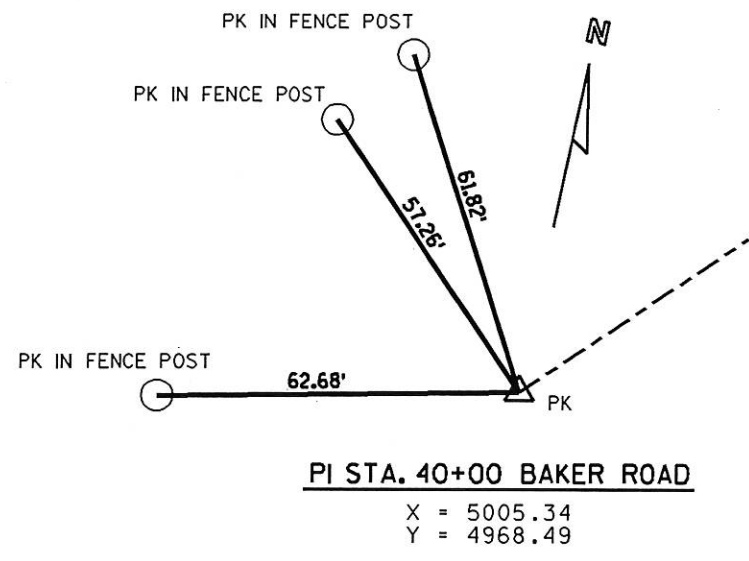


EXISTING TYPICAL SECTION - STUMLIN ROAD



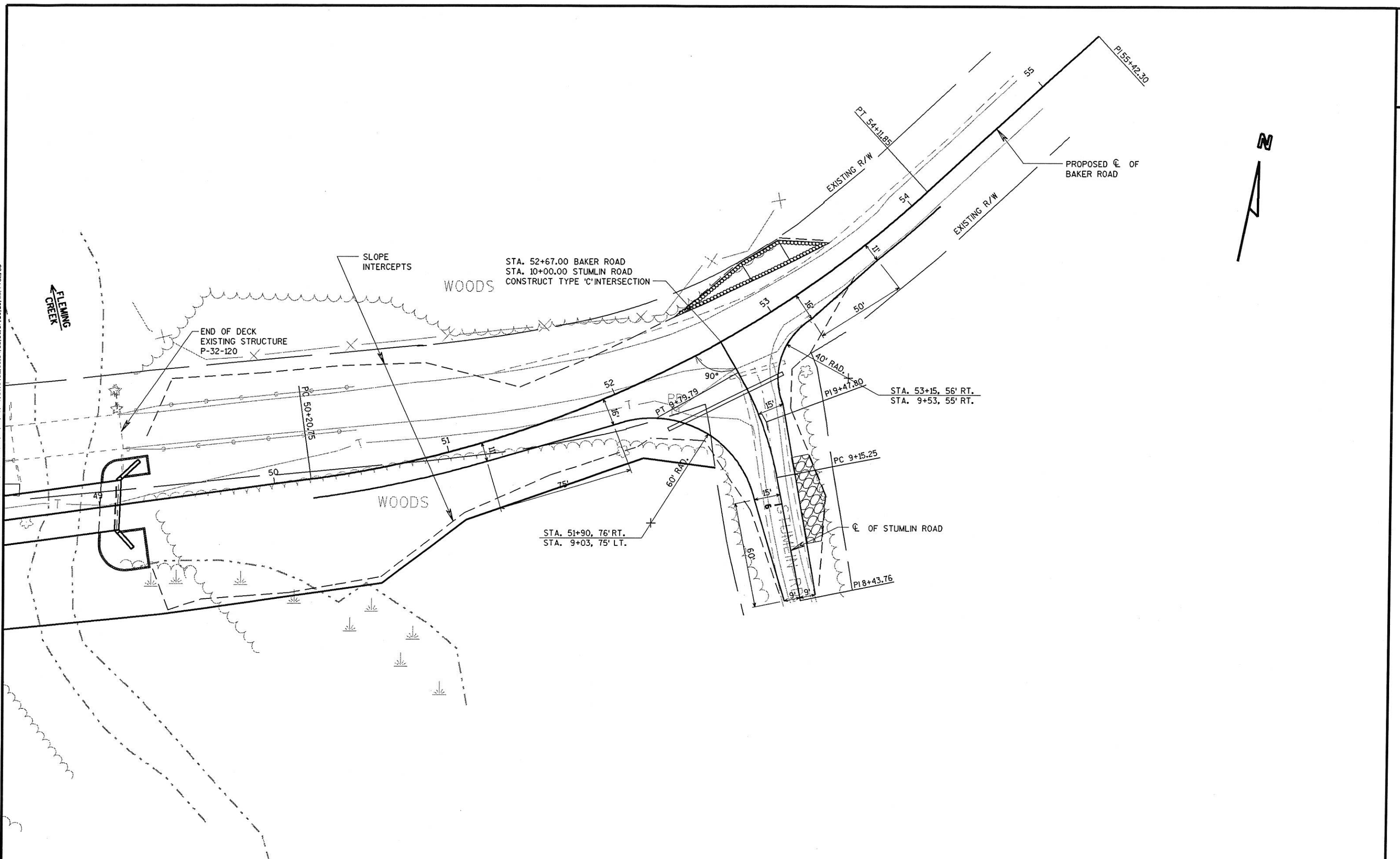
DETAIL FOR ASPHALTIC APPROACH TAPERS & BEAM GUARD

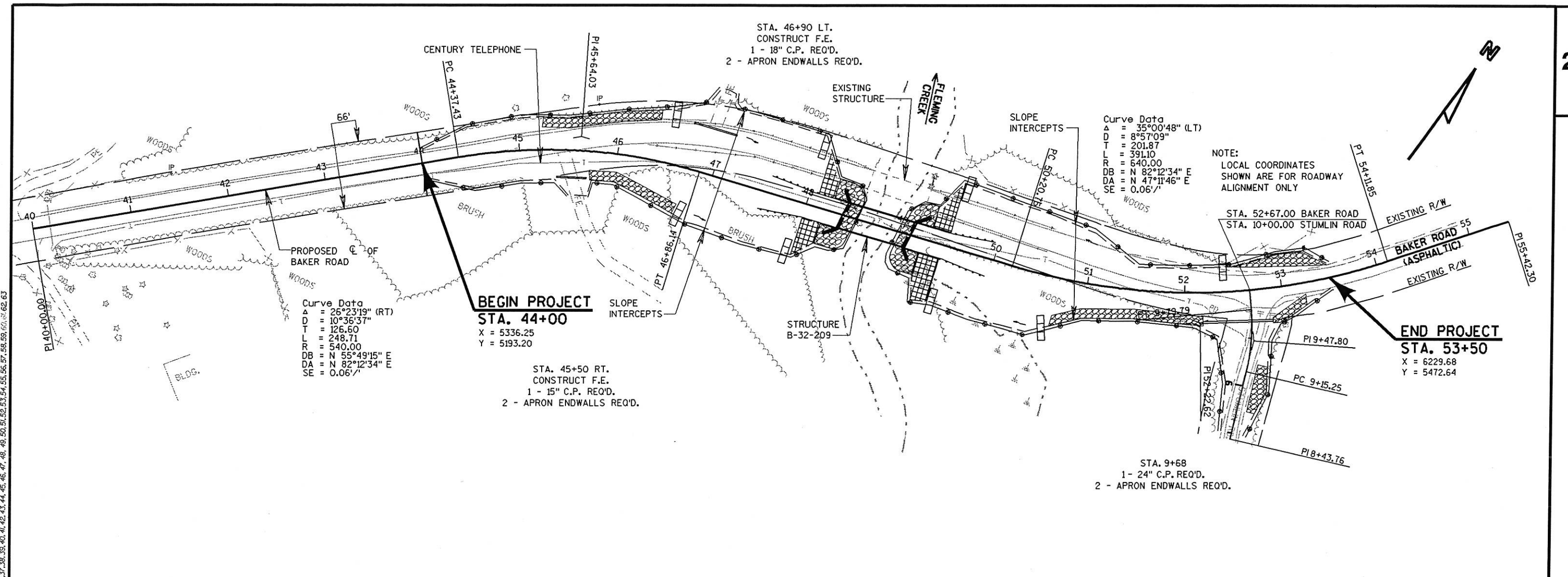
LEVELS ON



LEVELS ON *

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Curve Data
 $\Delta = 26^{\circ}23'19"$ (RT)
 $D = 10^{\circ}36'37"$
 $T = 126.60$
 $L = 248.71$
 $R = 540.00$
 $DB = N 55^{\circ}49'15" E$
 $DA = N 82^{\circ}12'34" E$
 $SE = 0.06'/'$

BEGIN PROJECT
STA. 44+00
 $X = 5336.25$
 $Y = 5193.20$

STA. 45+50 RT.
 CONSTRUCT F.E.
 1 - 15" C.P. REQ'D.
 2 - APRON ENDWALLS REQ'D.

Curve Data
 $\Delta = 35^{\circ}00'48"$ (LT)
 $D = 8^{\circ}57'09"$
 $T = 201.87$
 $L = 391.10$
 $R = 640.00$
 $DB = N 82^{\circ}12'34" E$
 $DA = N 47^{\circ}11'46" E$
 $SE = 0.06'/'$

NOTE:
 LOCAL COORDINATES
 SHOWN ARE FOR ROADWAY
 ALIGNMENT ONLY

STA. 52+67.00 BAKER ROAD
 STA. 10+00.00 STUMLIN ROAD

END PROJECT
STA. 53+50
 $X = 6229.68$
 $Y = 5472.64$

STA. 9+68
 1 - 24" C.P. REQ'D.
 2 - APRON ENDWALLS REQ'D.

	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	.08	.16	.22	.12	.20	.27	.15	.24	.33	.19	.28	.38
	.22	.30	.38	.26	.34	.44	.30	.37	.50	.34	.41	.56
MEDIAN STRIP-TURF	.19	.20	.24	.19	.22	.26	.20	.23	.30	.20	.25	.30
	.24	.26	.30	.25	.28	.33	.26	.30	.37	.27	.32	.40
SIDE SLOPE-TURF			.25			.27			.28			.30
			.32			.34			.36			.38
PAVEMENT:												
ASPHALT	.70 - .95											
CONCRETE	.80 - .95											
BRICK	.70 - .80											
DRIVES, WALKS	.75 - .85											
ROOFS	.75 - .95											
GRAVEL ROADS, SHOULDERS	.40 - .60											

LEGEND

- EROSION MAT CLASS II TYPE B
- TEMPORARY DITCH CHECKS (UNDISTRIBUTED)
- SILT FENCE
- RIPRAP HEAVY

HIGHWATER Q_2 EL. 685.5

TOTAL PROJECT AREA = 2.57 ACRES
 TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 1.88 ACRES

DETAILED SUMMARY OF MISCELLANEOUS QUANTITIES

201.0105 CLEARING

LOCATION	STA
STA. 44+00 TO STA. 53+50	9

201.0205 GRUBBING

LOCATION	STA
STA. 44+00 TO STA. 53+50	9

630.0120 SEEDING MIXTURE NO. 20

LOCATION	LB
STA. 44+00 TO STA. 53+50 (BAKER RD.)	145
STA. 8+45 TO STA. 9+80.45 (STUMLIN RD.)	10
BORROW PIT	45
TOTAL	200

629.0210 FERTILIZER TYPE B

LOCATION	CWT
STA. 44+00 TO STA. 53+50 (BAKER RD.)	3.5
STA. 8+45 TO STA. 9+80.45 (STUMLIN RD.)	0.3
BORROW PIT	3.2
TOTAL	7.0

625.0100 TOPSOIL

LOCATION	SY
STA. 44+00 TO STA. 53+50 (BAKER RD.)	3940
STA. 8+45 TO STA. 9+80.45 (STUMLIN RD.)	170
TOTAL	4110

634.0410 POSTS WOOD 4x4-INCH x 10-FT

LOCATION	EACH
STA. 48+35 RT. (FOR OBJECT MARKER)	1
STA. 48+40 LT. (FOR OBJECT MARKER)	1
STA. 49+10 RT. (FOR OBJECT MARKER)	1
STA. 49+15 LT. (FOR OBJECT MARKER)	1
TOTAL	4

637.0202 SIGNS REFLECTIVE TYPE II

LOCATION	SF
STA. 48+35 RT. (OBJECT MARKER) (W5-52R)	3
STA. 48+40 LT. (OBJECT MARKER) (W5-52L)	3
STA. 49+10 RT. (OBJECT MARKER) (W5-52L)	3
STA. 49+15 LT. (OBJECT MARKER) (W5-52R)	3
TOTAL	12

627.0200 MULCHING

LOCATION	SY
STA. 44+00 TO STA. 53+50 (BAKER RD.)	5385
STA. 8+45 TO STA. 9+80.45 (STUMLIN RD.)	310
BORROW PIT	5040
TOTAL	10735

630.0200 SEEDING TEMPORARY

LOCATION	LB
STA. 44+00 TO STA. 53+50 (BAKER RD.)	150
STA. 8+45 TO STA. 9+80.45 (STUMLIN RD.)	20
BORROW PIT	45
TOTAL	215

SILT FENCE

LOCATION	628.1505	628.1510	628.1520
	DELIVERED LF	INSTALLED LF	MAINTENANCE LF
STA. 44+00 TO STA. 45+50, RT.	150	150	300
STA. 44+00 TO STA. 46+80, LT.	320	320	640
STA. 45+70 TO STA. 48+18, RT.	250	250	500
STA. 47+00 TO STA. 48+25, LT.	145	145	290
STA. 49+25 TO STA. 52+30, RT.	340	340	680
STA. 49+32 TO STA. 53+50, LT.	440	440	880
STA. 52+90 TO STA. 53+50, RT.	80	80	160
WEST ABUTMENT	120	120	240
EAST ABUTMENT	130	130	260
UNDISTRIBUTED	525	525	1050
TOTAL	2700	2700	5400

EROSION MAT CLASS II TYPE B

LOCATION	628.2030	628.3030
	DELIVERED SY	INSTALLED SY
STA. 48+00 TO STA. 48+18, RT.	70	70
STA. 48+10 TO STA. 48+25, LT.	60	60
STA. 49+25 TO STA. 49+45, RT.	120	120
STA. 49+32 TO STA. 49+50, LT.	90	90
UNDISTRIBUTED	80	80
TOTAL	420	420

CULVERT PIPE CLASS III 15-INCH

STATION	LOCATION	(520.0115) LENGTH (LF)	TYPE	THICKNESS (INCHES)		520.1015 APRON ENDWALLS FOR CULVERT PIPE 15-INCH (EACH)
				STEEL	ALUM.	
STA. 45+50	BAKER RD, 28'RT.	30	C.P.	0.064	0.06	2

CULVERT PIPE CLASS III 18-INCH

STATION	LOCATION	(520.0118) LENGTH (LF)	TYPE	THICKNESS (INCHES)		520.1018 APRON ENDWALLS FOR CULVERT PIPE 18-INCH (EACH)
				STEEL	ALUM.	
STA. 46+90	BAKER RD, 47'RT.	45	C.P.	0.064	0.06	2

CULVERT PIPE CLASS III 24-INCH

STATION	LOCATION	(520.0124) LENGTH (LF)	TYPE	THICKNESS (INCHES)		520.1024 APRON ENDWALLS FOR CULVERT PIPE 24-INCH (EACH)
				STEEL	ALUM.	
STA. 9+68	STUMLIN RD	72	C.P.	0.064	0.075	2

TEMPORARY DITCH CHECKS

LOCATION	628.7505	628.7510
	DELIVERED LF	INSTALLED LF
STA. 46+50, LT.	10	10
STA. 46+90, RT.	10	10
STA. 47+90, RT.	10	10
STA. 48+00, LT.	10	10
STA. 49+50, RT.	10	10
STA. 49+60, LT.	10	10
STA. 50+70, RT.	10	10
STA. 52+50, LT.	10	10
UNDISTRIBUTED	60	60
TOTAL	140	140

646.0103 PAVEMENT MARKING PAINT 4-INCH

LOCATION	LF
STA. 44+00 TO 53+50 (DOUBLE YELLOW CENTERLINE)	1900

305.0115 BASE AGGREGATE DENSE 3/4-INCH

LOCATION	CY
SHOULDERS	180
STA. 45+50 P.E. RT.	10
STA. 46+90 P.E. LT.	30
STA. 8+45 TO STA. 9+80.45 (STUMLIN RD.)	120
TOTAL	340

305.0125 BASE AGGREGATE DENSE 1 1/4-INCH

LOCATION	CY
STA. 44+00 TO STA. 53+50 (BAKER RD.)	1080

465.0105 ASPHALTIC SURFACE

LOCATION	TON
STA. 44+00 TO STA. 53+50	440

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

3

DETAILED SUMMARY OF MISCELLANEOUS QUANTITIES

*EARTHWORK SUMMARY

204.0165 REMOVING GUARDRAIL

LOCATION	LF
STA. 45+90 TO STA. 48+50	510
STA. 45+20 TO STA. 50+60	260
TOTAL	770

614.0200 STEEL THRIE BEAM STRUCTURE APPROACH

LOCATION	LF
STA. 48+02 TO STA. 48+35 RT.	33
STA. 48+07 TO STA. 48+40 LT.	33
STA. 49+10 TO STA. 49+93 RT.	33
STA. 49+15 TO STA. 49+48 LT.	33
TOTAL	132

203.0100 REMOVING SMALL PIPE CULVERTS

LOCATION	EACH
STA. 9+78, STUMLIN ROAD INTERSECTION	1

606.0300 RIPRAP HEAVY

LOCATION	CY
STA. 45+25 TO STA. 46+40 LT.	85
STA. 45+65 TO STA. 46+75 RT.	80
STA. 50+75 TO STA. 52+20 RT.	85
STA. 52+50 TO STA. 53+50 LT.	70
STA. 52+90 TO STA. 53+25 RT.	20
STA. 8+75 TO STA. 9+25 RT. (STUMLIN ROAD)	60
TOTAL	400

614.0370 STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL

LOCATION	EACH
STA. 47+52 TO STA. 48+02, RT.	1
STA. 47+57 TO STA. 48+07, LT.	1
STA. 49+43 TO STA. 49+93, RT.	1
STA. 49+48 TO STA. 49+98, LT.	1
TOTAL	4

645.0120 GEOTEXTILE FABRIC TYPE HR

LOCATION	CY
STA. 45+25 TO STA. 46+40 LT.	185
STA. 45+65 TO STA. 46+75 RT.	180
STA. 50+75 TO STA. 52+20 RT.	230
STA. 52+50 TO STA. 53+50 LT.	140
STA. 52+90 TO STA. 53+25 RT.	55
STA. 8+75 TO STA. 9+25 RT. (STUMLIN ROAD)	120
TOTAL	910

690.0100 SAWING EXISTING PAVEMENT

LOCATION	LF
STA. 44+00	20
STA. 53+50	20
TOTAL	40

STATION	205.0100 EXC. COMMON CY	FILL CY	208.0100 BORROW CY	WASTE CY
<u>BAKER ROAD</u>				
44+00	35	26		
44+50	6	71		
45+00	0	100		
45+50	29	92	5360	0
46+00	121	414		
46+50	210	734		
46+90	72	217		
47+00	332	1194		
47+50	293	1247		
48+00	231	906		
48+37.73				
<u>STRUCTURE B-32-209</u>				
49+12.27				
49+50	180	928		
50+00	204	1206		
50+50	168	1043		
51+00	159	563		
51+50	76	217	4757**	0
52+00	0	184		
52+50	0	116		
53+00	20	49		
53+50	49	12		
<u>** STUMLIN ROAD</u>				
8+45				
8+50	2	0		
9+00	31	0	0	35**
9+50	39	3		
9+68	10	16		
9+80.45	5	21		
TOTAL	2272	9503	10117**	35

NOTES:

* FOR BORROW QUANTITY AND SHRINKAGE FACTOR, SEE PLAN SHEET BALANCE POINTS.

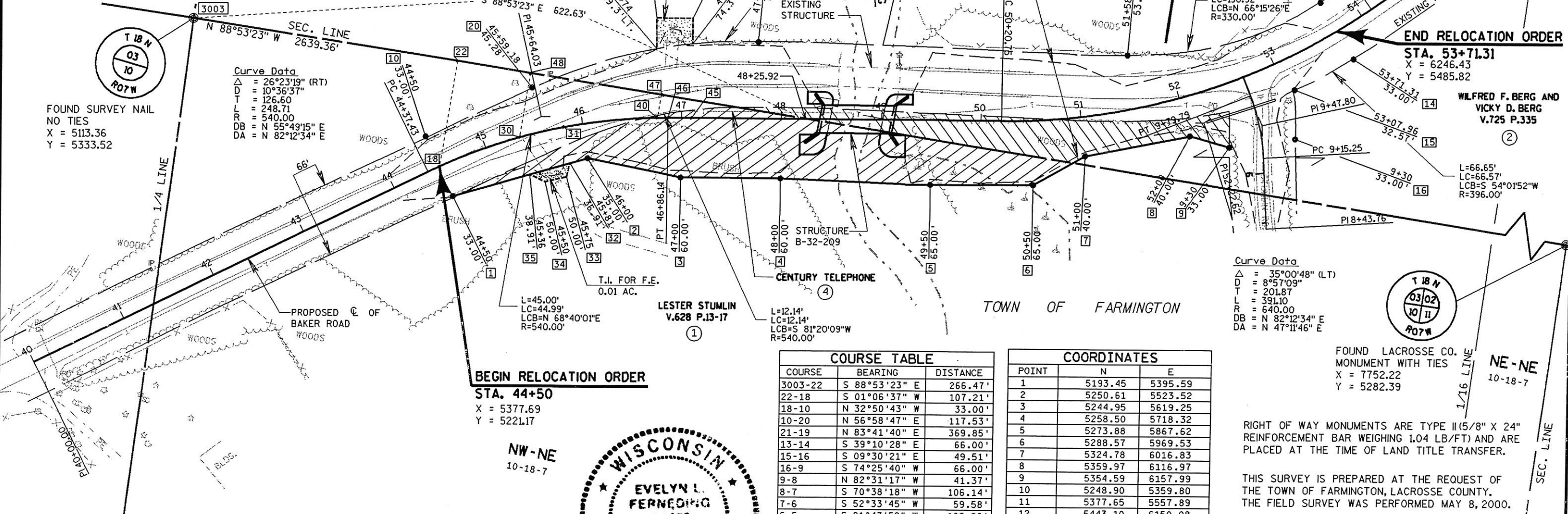
** WASTE FROM STUMLIN ROAD TO BE USED AS BORROW FROM STA. 49+12.27 TO STA. 53+50. THEREFORE THE TOTAL BORROW QUANTITY IS 10,082 CU.YD.

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

3

SCHEDULE OF LANDS AND INTERESTS REQUIRED

PARCEL NUMBER	OWNER	INTERESTS REQUIRED	TOTAL AREA	NEW	EXISTING	TOTAL	TOTAL AREA REMAINING	T.J. ACRES REQUIRED
1	LESTER L. STUMLIN	FEE & T.I.	38.38	0.58	---	0.58	37.80	0.01
2	WILFRED F. BERG AND VICKY D. BERG	FEE	21.70	0.27	---	0.27	21.43	---
3	RICHARD L. CASTLE AND GLORIA M. CASTLE	T.I.	---	---	---	---	---	0.02
4	CENTURY TELEPHONE	RELEASE OF RIGHTS	---	---	---	---	---	---



Curve Data
 $\Delta = 26^\circ 23' 19''$ (RT)
 $D = 10^\circ 36' 37''$
 $L = 126.60$
 $T = 248.71$
 $PC = 540.00$
 $DB = N 55^\circ 49' 15'' E$
 $DA = N 82^\circ 12' 34'' E$

Curve Data
 $\Delta = 35^\circ 00' 48''$ (LT)
 $D = 8^\circ 57' 09''$
 $T = 201.87$
 $L = 391.10$
 $R = 640.00$
 $DB = N 82^\circ 12' 34'' E$
 $DA = N 47^\circ 11' 46'' E$

BEGIN RELOCATION ORDER
STA. 44+50
 X = 5377.69
 Y = 5221.17

NW-NE
 10-18-7



END RELOCATION
STA. 53+71.31
 152.30' NORTH & 1133.07 EAST
 CORNER OF THE SOUTH ONE QUARTER
 CORNER OF SEC. 3, T18N, R7W

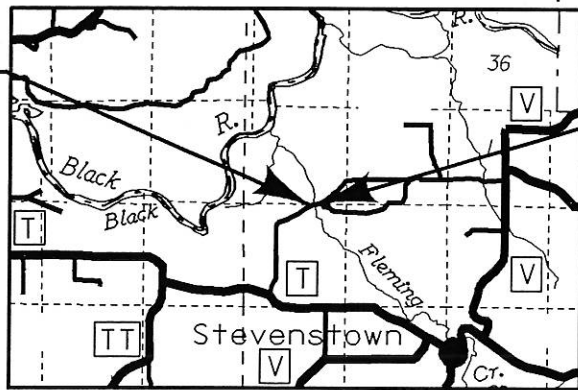
T-18-N

NOTE: COORDINATES AND BEARINGS ON THIS PLAT ARE REFERENCED TO THE NORTH LINE OF THE NORTHEAST ONE QUARTER, SECTION 10, T18N, R7W, ASSUMED TO BEAR N 88°53'23" W

COURSE	BEARING	DISTANCE
3003-22	S 88°53'23" E	266.47'
22-18	S 01°06'37" W	107.21'
18-10	N 32°50'43" W	33.00'
10-20	N 56°58'47" E	117.53'
21-19	N 83°41'40" E	369.85'
13-14	S 39°10'28" E	66.00'
15-16	S 09°30'21" E	49.51'
16-9	S 74°25'40" W	66.00'
9-8	N 82°31'17" W	41.37'
8-7	S 70°38'18" W	106.14'
7-6	S 52°33'45" W	59.58'
6-5	S 81°47'59" W	102.96'
5-4	S 84°07'07" W	150.08'
4-3	S 82°12'34" W	100.00'
3-2	N 86°36'47" W	95.89'
2-1	S 65°55'20" W	140.12'
1-18	N 32°50'43" W	33.00'
3003-47	S 88°53'23" E	472.56'
47-40	S 01°06'37" W	23.64'
40-41	N 09°04'42" W	69.30'
41-42	N 09°04'42" W	30.70'
42-43	N 81°58'02" E	38.25'
43-44	S 07°47'26" E	25.70'
44-45	S 07°47'26" E	74.30'
45-46	S 82°19'34" W	23.86'
3003-48	S 88°53'23" E	341.32'
48-30	S 01°06'37" W	65.05'
31-32	S 18°56'45" E	36.91'
32-33	S 03°35'26" W	14.20'
33-34	S 69°05'28" W	22.68'
34-35	N 72°10'42" W	16.97'
35-30	N 23°43'14" W	38.91'

POINT	COORDINATES	
	N	E
1	5193.45	5395.59
2	5250.61	5523.52
3	5244.95	5619.25
4	5258.50	5718.32
5	5273.88	5867.62
6	5288.57	5969.53
7	5324.78	6016.83
8	5359.97	6116.97
9	5354.59	6157.99
10	5248.90	5359.80
11	5377.65	5557.89
12	5443.10	6150.08
13	5511.40	6225.58
14	5460.24	6267.27
15	5421.14	6213.40
16	5372.30	6221.57
18	5221.17	5377.69
19	5431.31	6043.50
20	5312.94	5458.34
21	5390.69	5675.89
22	5328.36	5379.77
30	5261.88	5453.35
31	5278.24	5495.25
32	5243.33	5507.24
33	5229.15	5506.35
34	5221.06	5485.16
35	5226.25	5469.00
40	5300.73	5585.37
41	5369.16	5574.44
42	5399.48	5569.60
43	5404.82	5607.47
44	5379.36	5610.95
45	5305.75	5621.02
46	5302.56	5597.37
47	5324.37	5585.83
48	5326.91	5454.61

BEGIN RELOCATION
STA. 44+50
 112.35' SOUTH & 264.33' EAST
 CORNER OF THE NORTH ONE QUARTER
 CORNER OF SEC. 10, T18N, R7W



FOUND LACROSSE CO.
 MONUMENT WITH TIES
 X = 7752.22
 Y = 5282.39

RIGHT OF WAY MONUMENTS ARE TYPE II (5/8" X 24" REINFORCEMENT BAR WEIGHING 1.04 LB/FT) AND ARE PLACED AT THE TIME OF LAND TITLE TRANSFER.

THIS SURVEY IS PREPARED AT THE REQUEST OF THE TOWN OF FARMINGTON, LACROSSE COUNTY. THE FIELD SURVEY WAS PERFORMED MAY 8, 2000.

THIS SURVEY IS ACCURATE TO THE BEST OF MY KNOWLEDGE AND BELIEF.

Evelyn L. Ferneding Nov. 17, 2003
 EVELYN L. FERNEDING, RLS S-1669 DATE

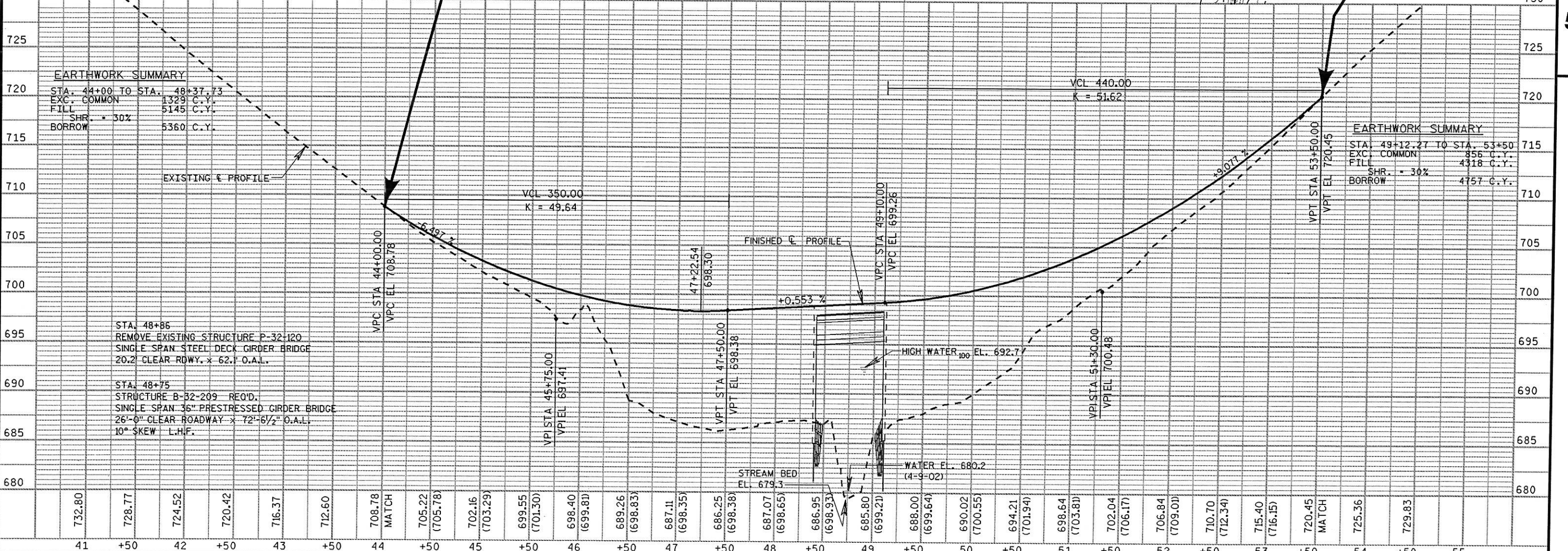
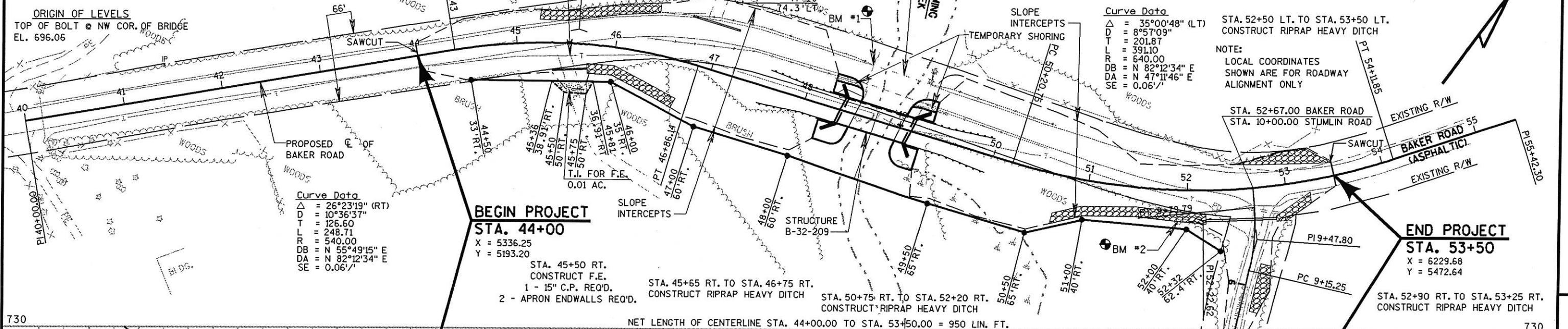
ORIGINAL PLAT PREPARED BY
AYRES ASSOCIATES Engineers/Architects
 Scientists/Surveyors
 3433 Oakwood Hills Parkway
 Eau Claire, WI 54701

ACCEPTED FOR
 LACROSSE COUNTY

11-18-03 *Demi Orsoud*
 DATE COUNTY HIGHWAY COMMISSIONER

REVISION DATE	DATE 11-17-03	SCALE, FEET	HWY: BAKER ROAD	STATE R/W PROJECT NUMBER 7268-06-00	PLAT SHEET NO: 4.
	GRID FACTOR	0 50 100	COUNTY: LACROSSE	CONSTRUCTION PROJECT NUMBER	PS&E SHEET NO: E

BENCH MARKS			
NO.	STA.	DESCRIPTION	ELEV.
1	48+56	TOP OF BOLT @ NW COR. OF BRIDGE, 53' LT.	696.06
2	51+91	60d SPIKE IN 14" POPLAR, 32' RT.	707.64
3	45+76	1" # IRON PROPERTY PIN, 48' LT.	694.13



ON = 1-24-26-63
ON = 1-63

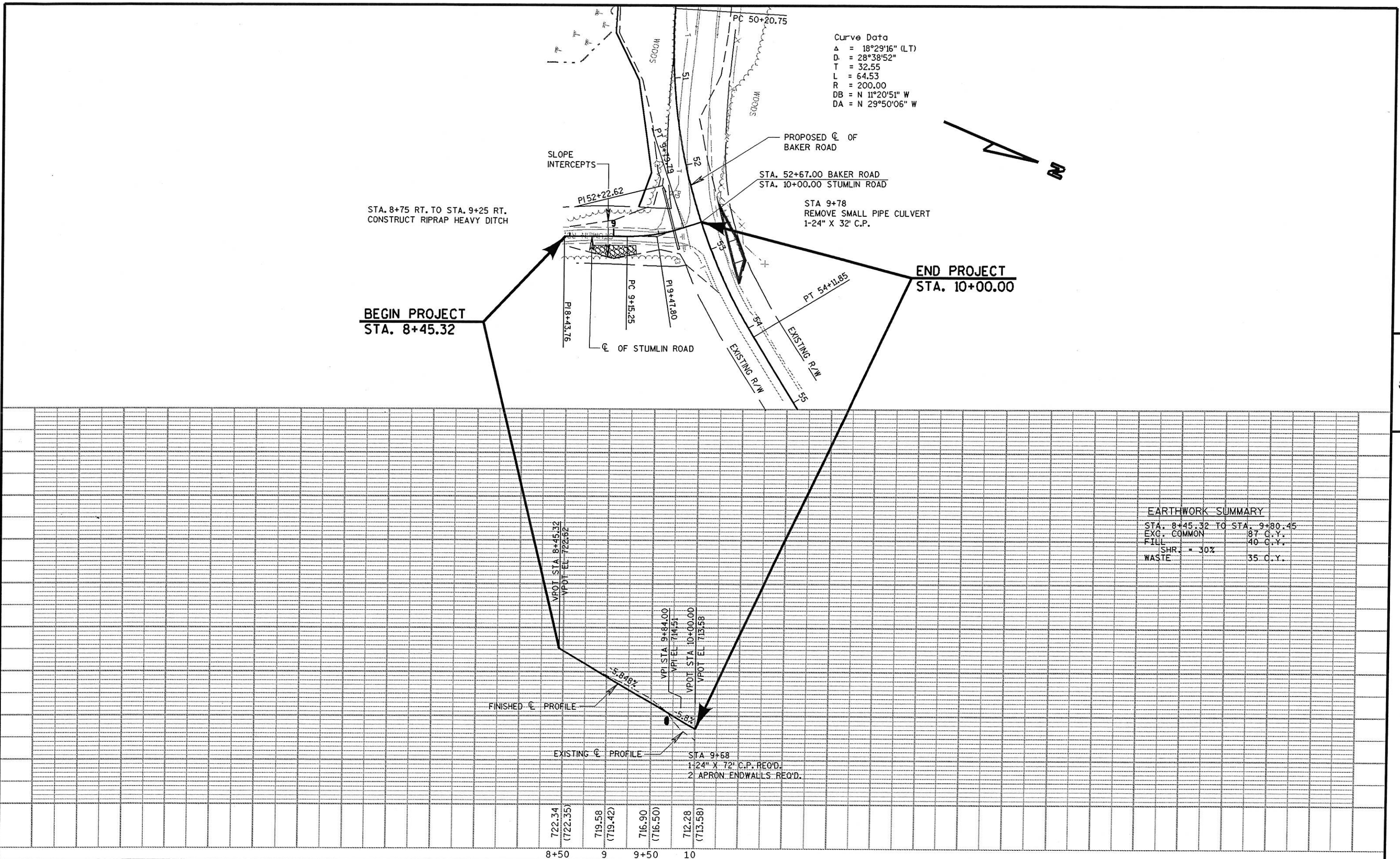
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0431etl.dgn
0431etl.dgn

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ON = 1-40, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63

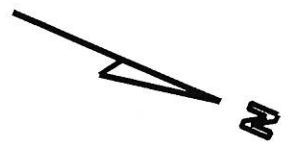
STUMPRO.DGN
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0431alstum.dgn

ON = 1-63
ON = 1-46, 48, 49, 51, 54-63

BAKERST.DGN
0431pp.dgn
0431alab.dgn
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

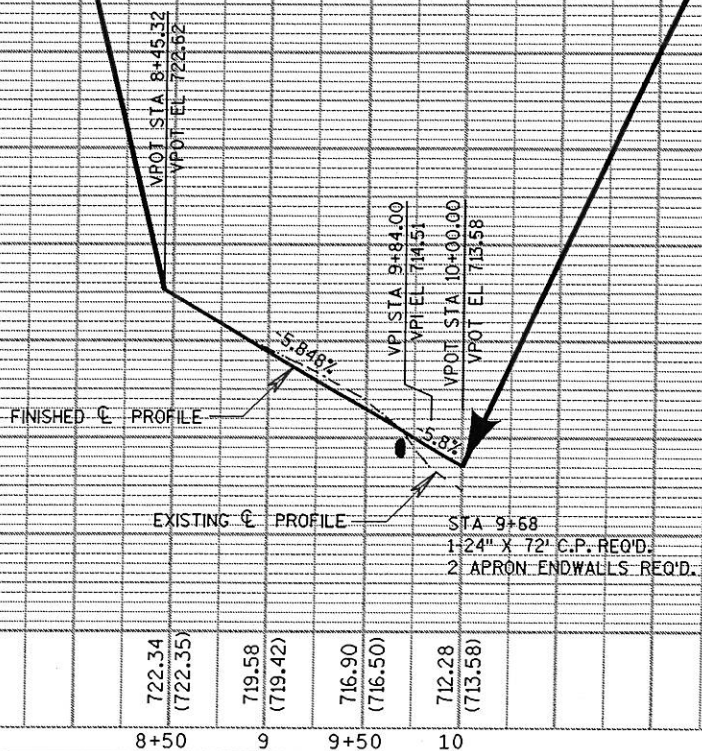


Curve Data
 $\Delta = 18^{\circ}29'16''$ (LT)
 $D = 28^{\circ}38'52''$
 $T = 32.55$
 $L = 64.53$
 $R = 200.00$
 $DB = N 11^{\circ}20'51'' W$
 $DA = N 29^{\circ}50'06'' W$



EARTHWORK SUMMARY

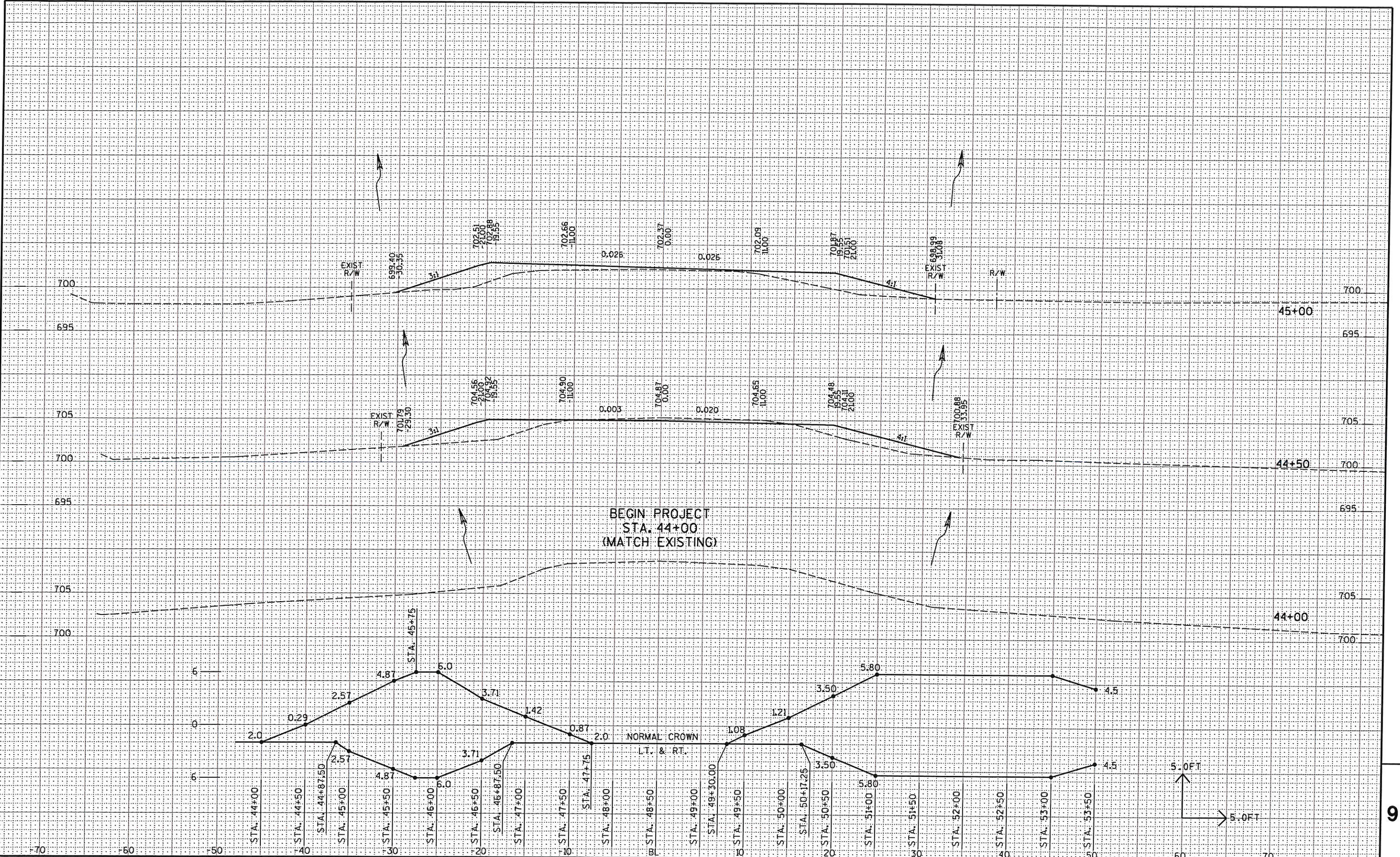
STA. 8+45.32 TO STA. 9+80.45	
EXG. COMMON	87 C.Y.
FILL	40 C.Y.
SHR. = 30%	
WASTE	35 C.Y.



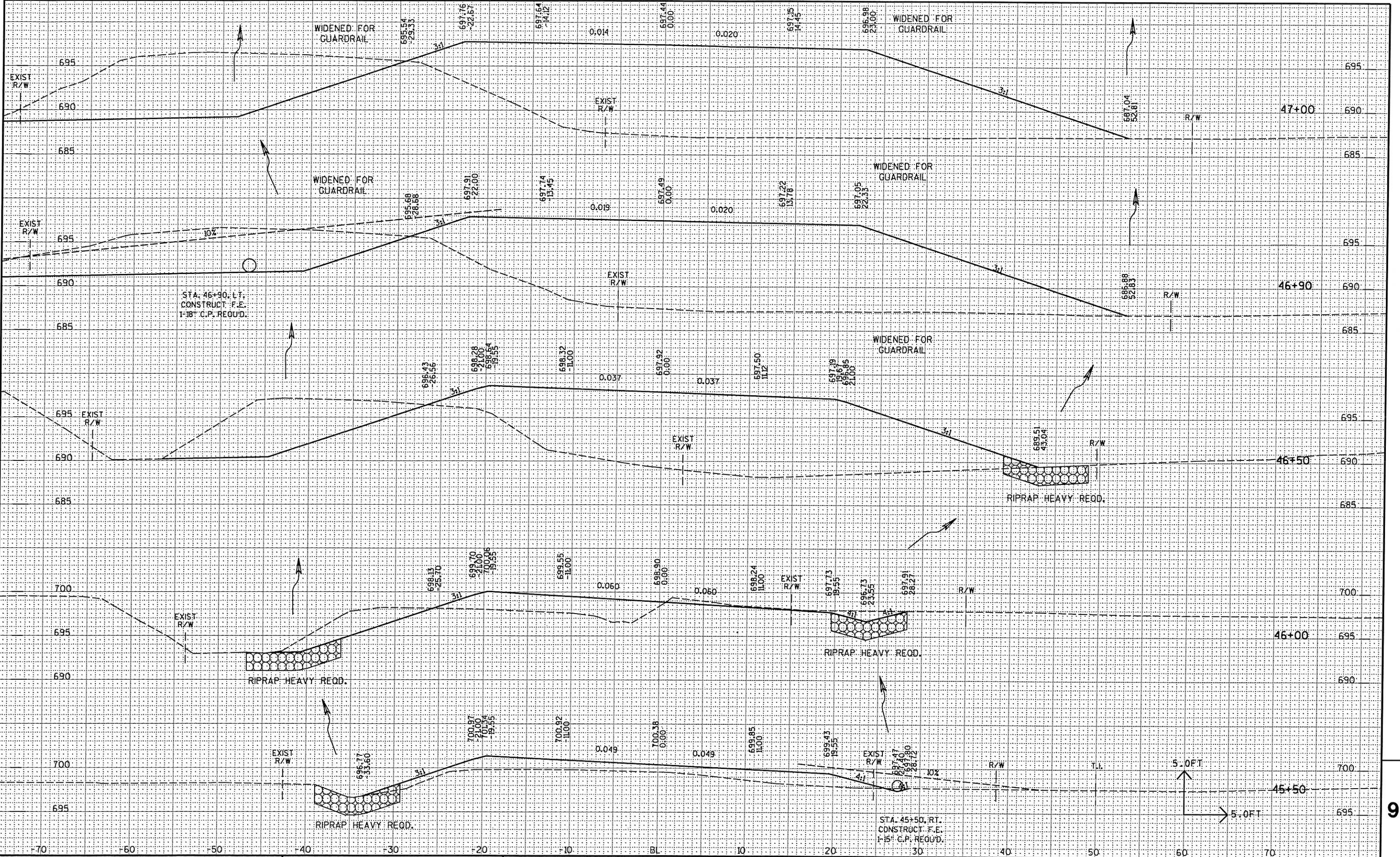
8+50	9	9+50	10
722.34 (722.35)	719.58 (719.42)	716.90 (716.50)	712.28 (713.58)

5

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

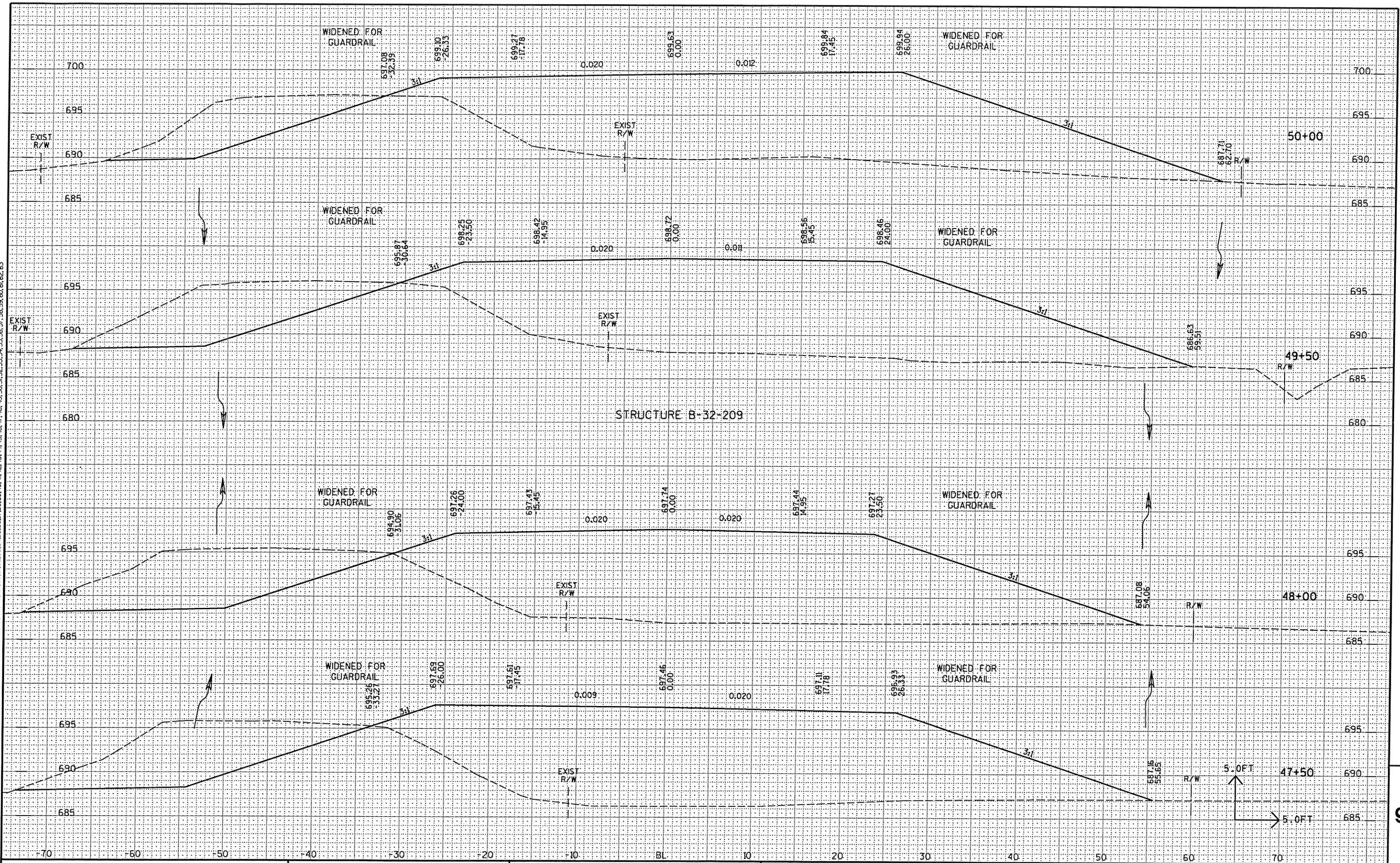


LEVELS ON - 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63



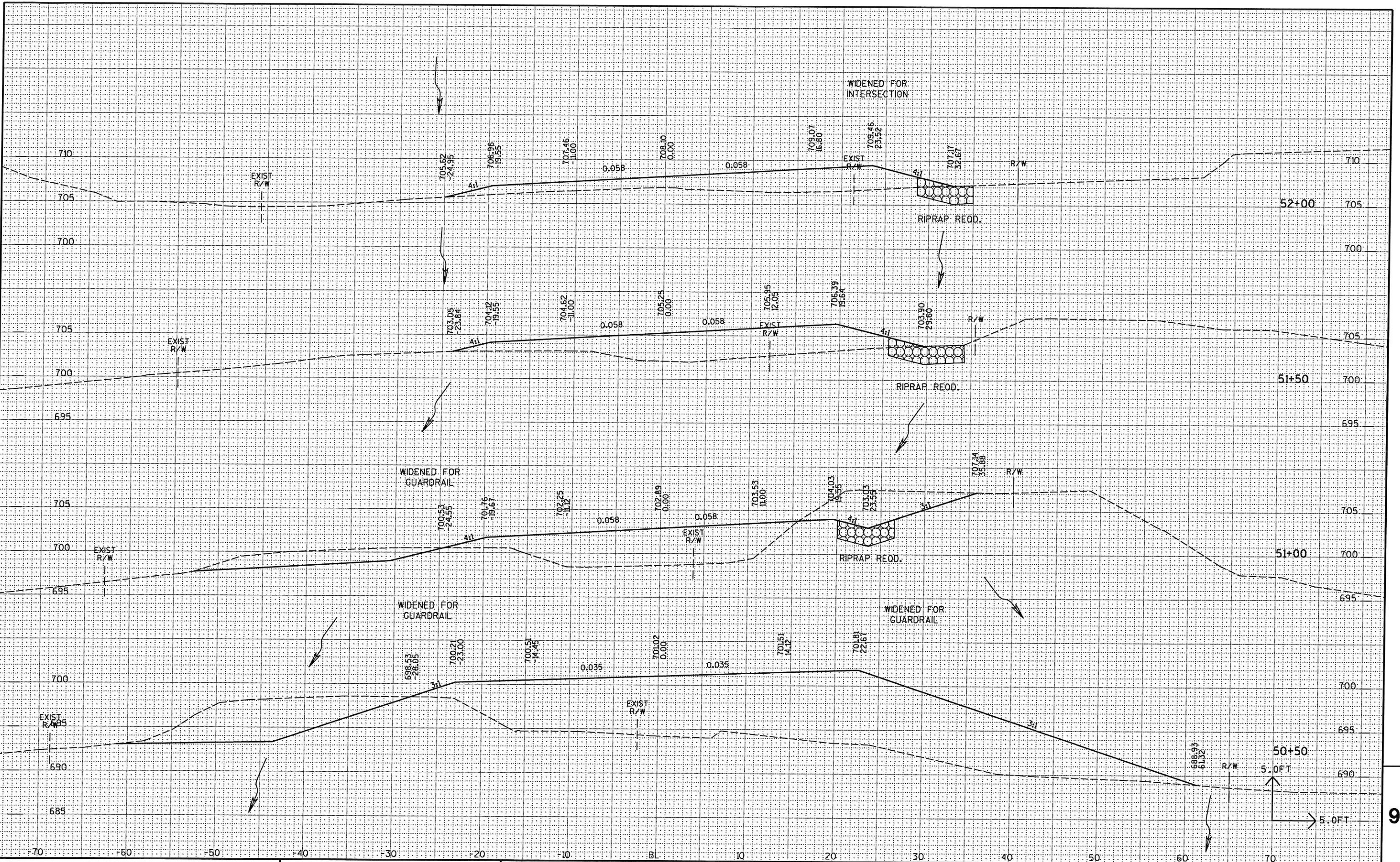
STATE PROJECT NO: 7268-06-71 HWY: BAKER ROAD COUNTY: LACROSSE CROSS SECTIONS SHEET NO: E

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



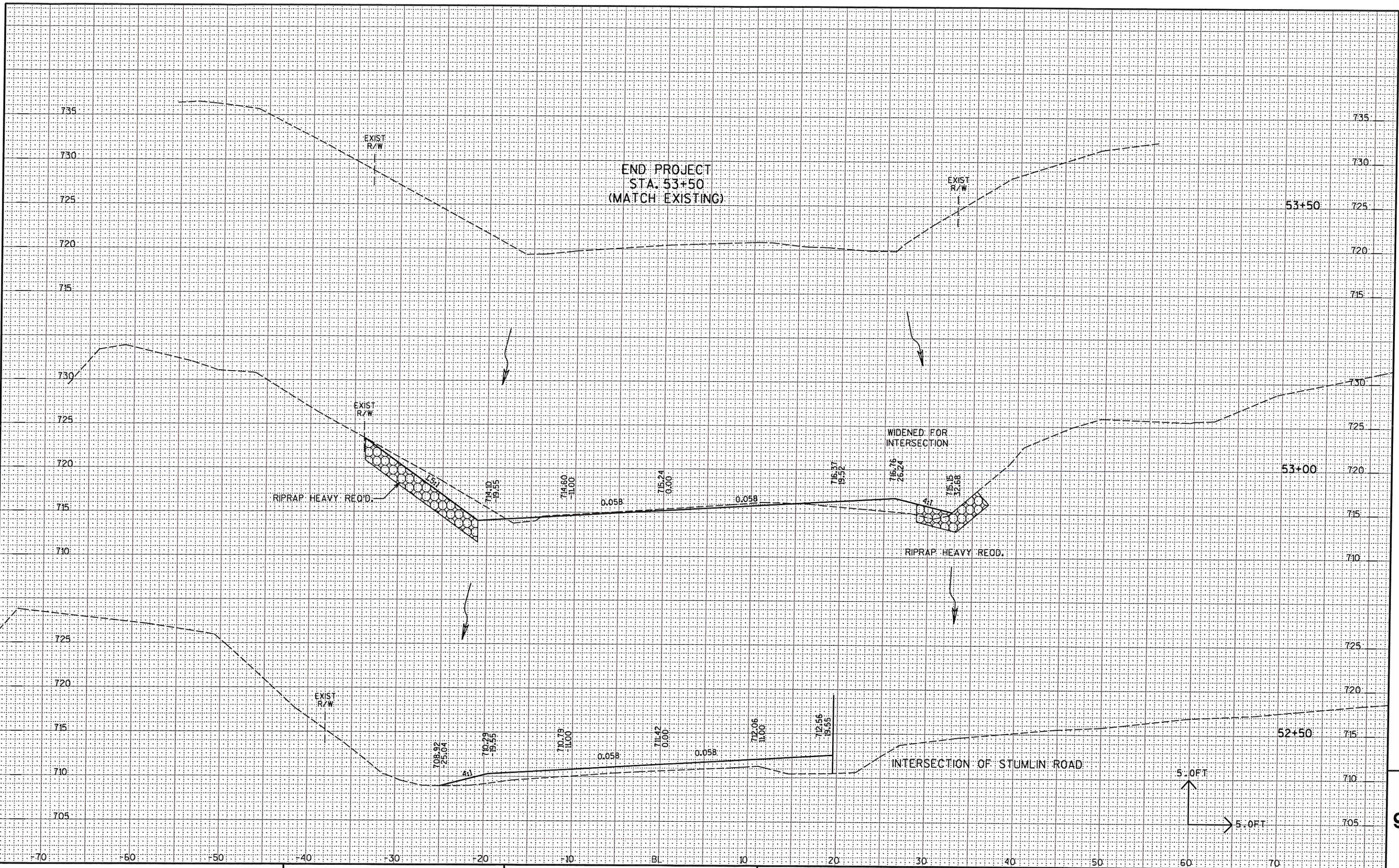
STATE PROJECT NO: 7268-06-71 HWY: BAKER ROAD COUNTY: LACROSSE CROSS SECTIONS SHEET NO: E

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



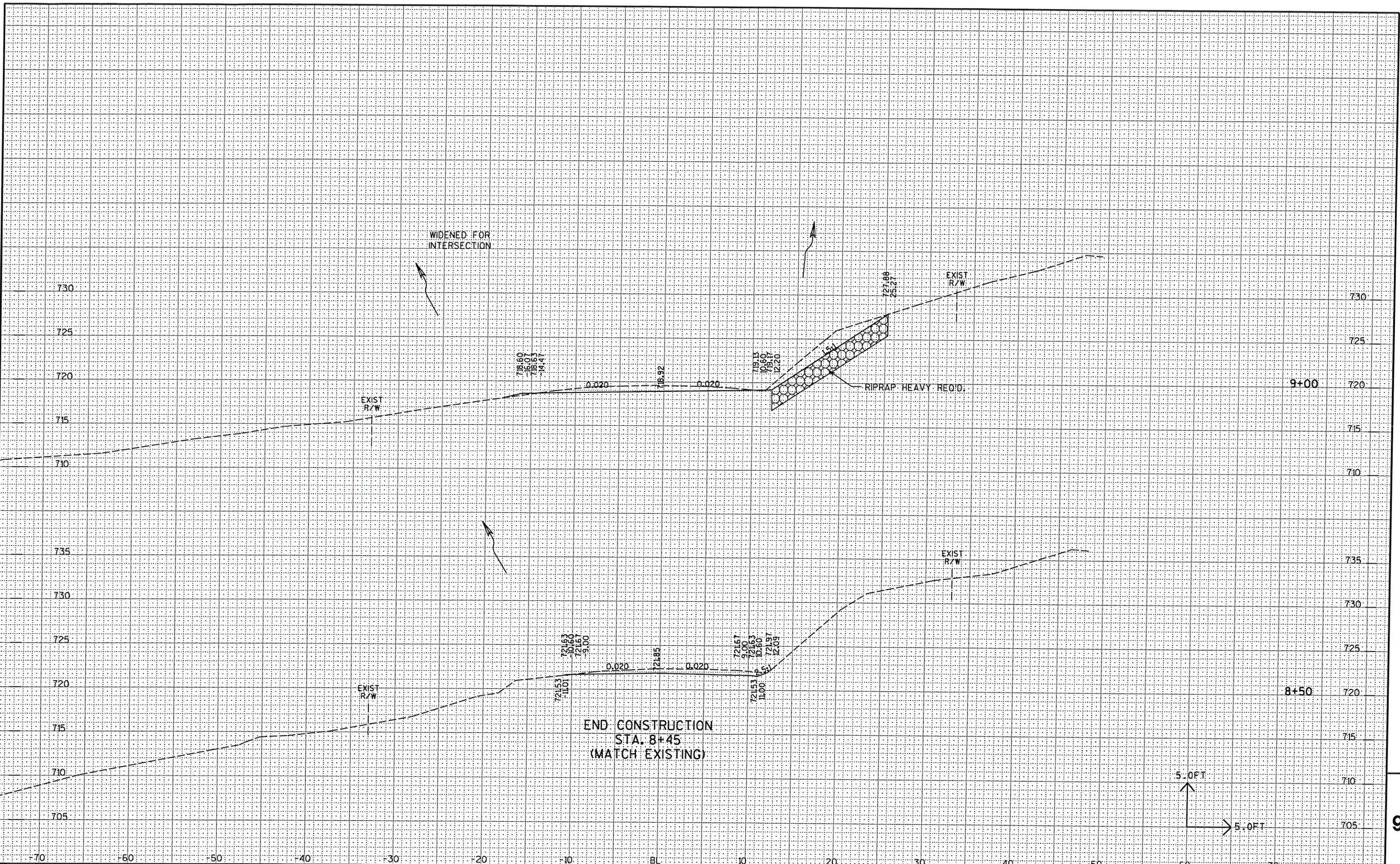
STATE PROJECT NO: 7268-06-71 | HWY: BAKER ROAD | COUNTY: LACROSSE | CROSS SECTIONS | SHEET NO: 9 | E

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



STATE PROJECT NO: 7268-06-71 | HWY: BAKER ROAD | COUNTY: LACROSSE | CROSS SECTIONS | SHEET NO: 9 | E

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

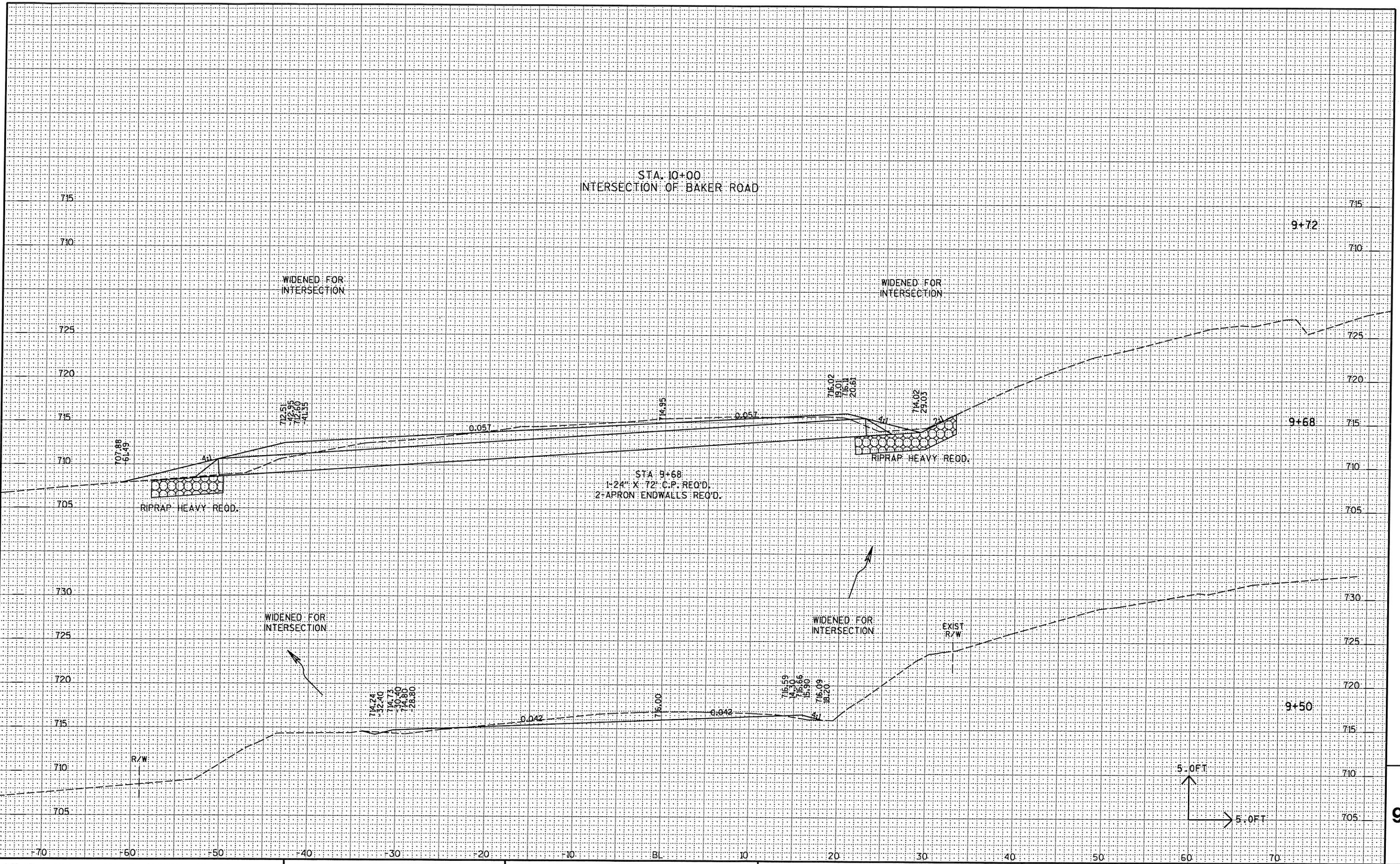


STATE PROJECT NO: 7268-06-71 HWY: STUMLIN ROAD COUNTY: LACROSSE CROSS SECTIONS SHEET NO: E

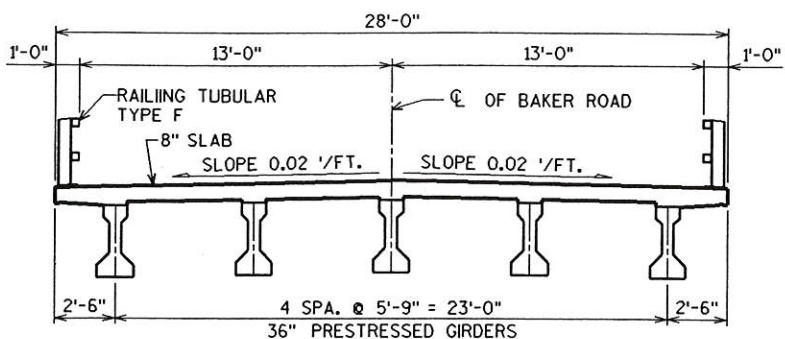
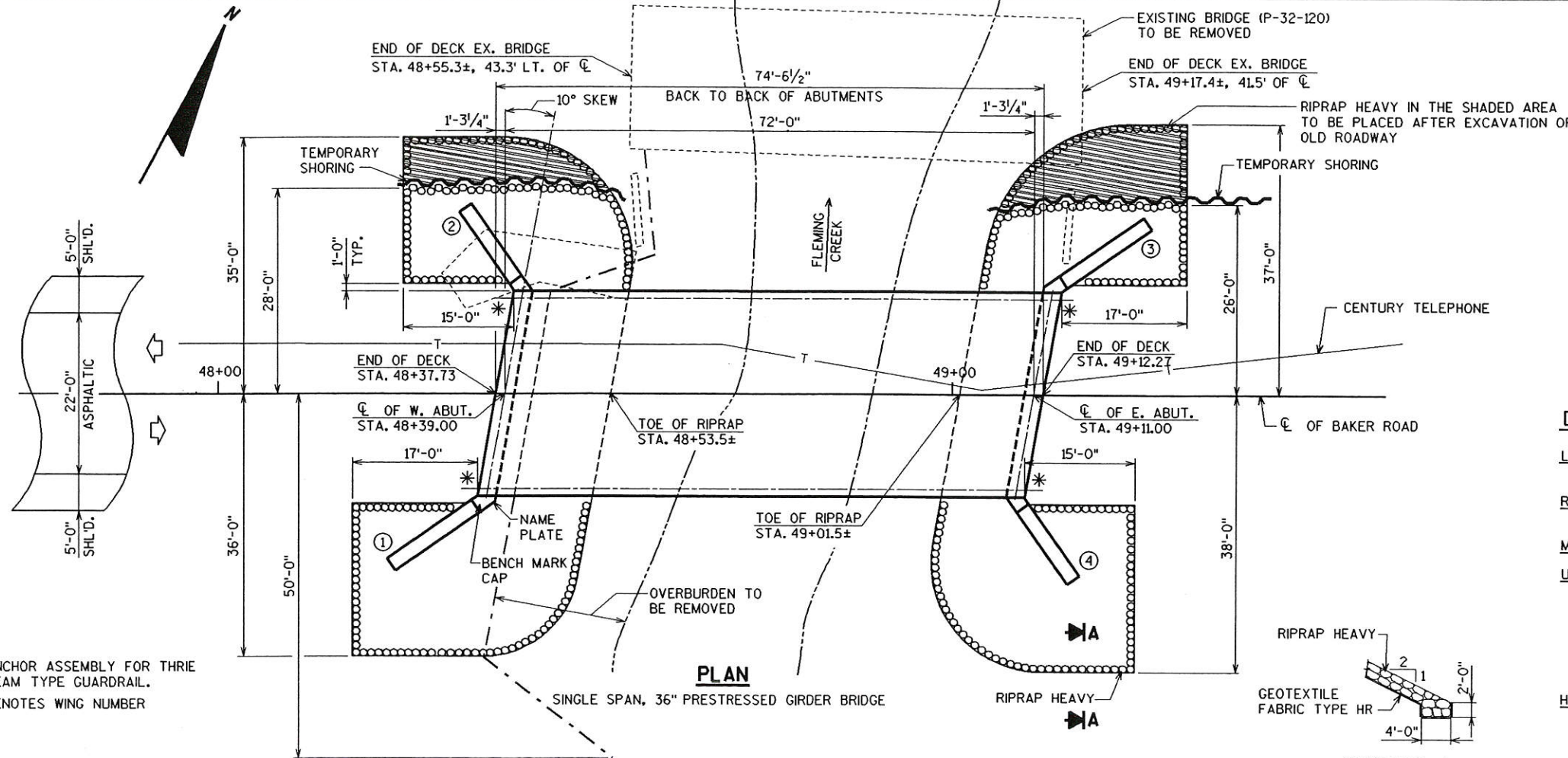
u:\caice6.1\420431\stumxs.dgn 11/26/2003 *PLOT NA I:\cross.tbl *USER *SCALE WISDOT/CADD SHEET 21

9

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



STATE PROJECT NO: 7268-06-71	HWY: STUMLIN ROAD	COUNTY: LACROSSE	CROSS SECTIONS	SHEET NO: 9
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CROSS SECTION THRU ROADWAY

DESIGN DATA

LIVE LOAD: HS-20 (STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20\"/>

RATINGS: INVENTORY = HS-23 OPERATING = HS-47

MAXIMUM STANDARD PERMIT VEHICLE LOAD = 250 KIPS

ULTIMATE DESIGN STRESSES:

CONCRETE MASONRY	SLAB	$f'_c = 4,000$ p.s.i.
	ALL OTHER	$f'_c = 3,500$ p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT (GRADE 60)		$f_y = 60,000$ p.s.i.
PRESTRESSED GIRDER		
CONCRETE MASONRY		$f'_c = 8,000$ p.s.i.
STRANDS - 0.5\"/> <td></td> <td>$f'_s = 270,000$ p.s.i.</td>		$f'_s = 270,000$ p.s.i.

HYDRAULIC DATA:

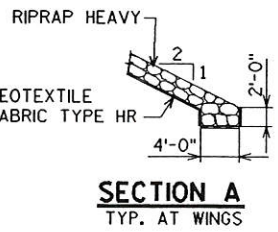
100 YEAR FLOOD

DRAINAGE AREA = 47.8 sq. mi.	TRAFFIC DATA:
WATERWAY AREA = 722.9 sq. ft.	A.D.T. = 460 (2003)
$V = 7.2$ f.p.s.	A.D.T. = 340 (2023)
$Q_{100} = 5200$ c.f.s.	R.D.S. = 40 M.P.H.
HIGH WATER $_{100}$ EL. 692.7	REGULATORY HIGH WATER $_{100}$ EL. 697.2
HIGH WATER $_2$ EL. 685.5	
SCOUR CRITICAL CODE = 8	

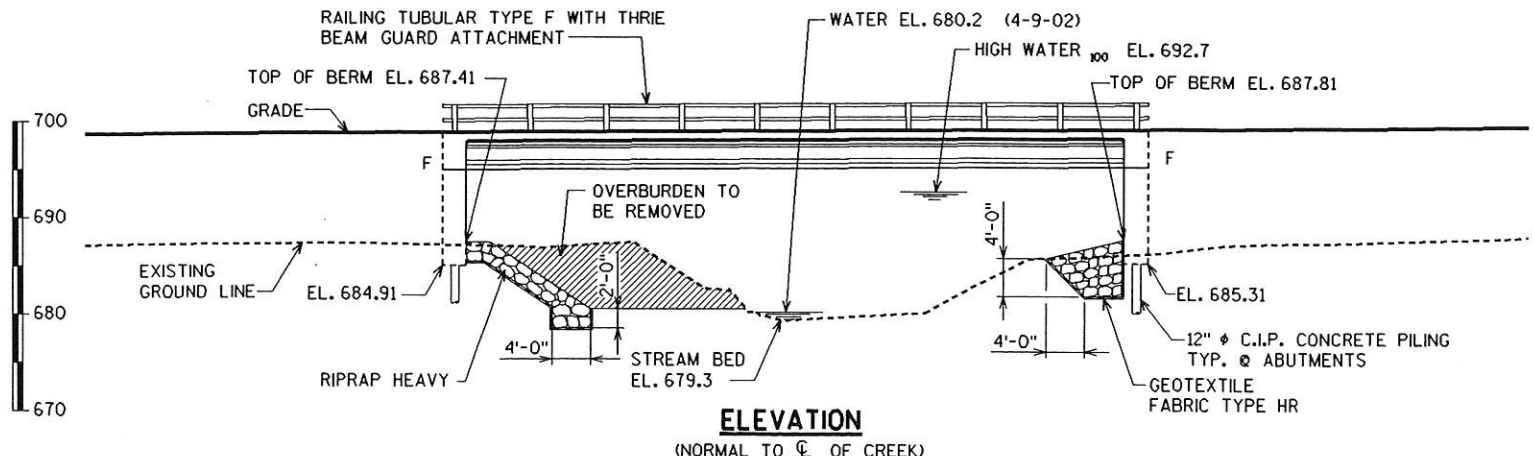
FOUNDATION DATA:

PLACE W. ABUTMENT ON 12\"/>

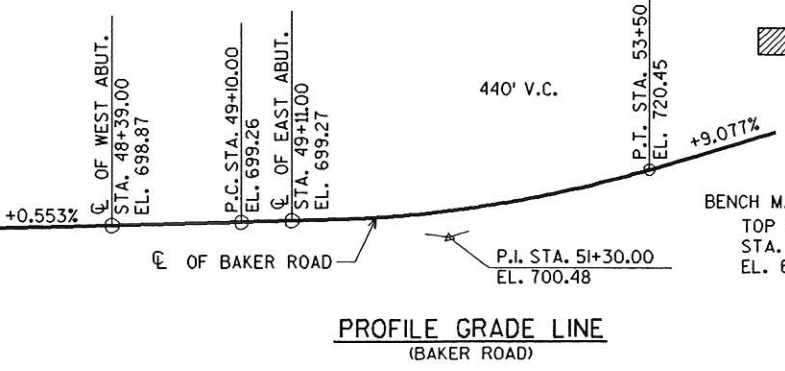
PLACE E. ABUTMENT ON 12\"/>



SECTION A
TYP. AT WINGS



ELEVATION
(NORMAL TO CL OF CREEK)



PROFILE GRADE LINE
(BAKER ROAD)

COST OF EXCAVATION IN THE HATCHED AREAS SHALL BE INCLUDED IN THE CONTRACT LUMP SUM PRICE FOR "EXCAVATION FOR STRUCTURES BRIDGES B-32-209."

LIST OF DRAWINGS

1. GENERAL PLAN
2. QUANTITIES AND NOTES
3. SUBSURFACE EXPLORATION
4. WEST ABUTMENT
5. WEST ABUTMENT WING 1 DETAILS
6. WEST ABUTMENT WING 2 DETAILS & BILL OF BARS
7. EAST ABUTMENT
8. EAST ABUTMENT WING 3 DETAILS
9. EAST ABUTMENT WING 4 DETAILS & BILL OF BARS
10. 36\"/>
- 11. STEEL INTER. DIAPHRAGM DETAILS
- 12. SUPERSTRUCTURE
- 13. SUPERSTRUCTURE PLAN
- 14. RAILING TUBULAR TYPE F



BRIDGE OFFICE CONTACT:
FINN HUBBARD
(608)-266-8489

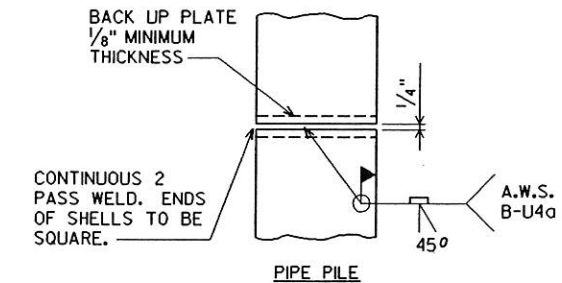
CONSULTANT CONTACT:
CHRIS McMAHON
(715)-834-3161

No.	Date	Revision	By
PLANS PREPARED BY			
AYRES ASSOCIATES Engineers/Architects Scientists/Surveyors 3433 Oakwood Hills Parkway Eau Claire, WI 54701			
WISDOT BUREAU OF STRUCTURES			
STRUCTURE B-32-209			
BAKER ROAD OVER FLEMING CREEK			
County	LaCROSSE	Town	FARMINGTON
Design Spec.	A.A.S.H.T.O. '02	Load	HS-20
Designed By	MPF	Const. Spec.	2003
Design Checked	KLT	Drawn By	CLS/GLD
Plans Checked	CBM		
Approved: Chief Bridge Design Engineer _____ Date _____			
GENERAL PLAN			SHEET 1 OF 14
			DATE:

7268-06-71

TOTAL ESTIMATED QUANTITIES

BID ITEMS	UNIT	W. ABUT.	E. ABUT.	SUPER.	TOTAL
REMOVING OLD STRUCTURE STATION 48+86	LS	-----	-----	-----	1
EXCAVATION FOR STRUCTURES BRIDGES B-32-209	LS	-----	-----	-----	1
CONCRETE MASONRY BRIDGES	CY	51.5	51.5	72.0	175
PROTECTIVE SURFACE TREATMENT	SY	-----	-----	232	232
PRESTRESSED GIRDER TYPE I 36-INCH	LF	-----	-----	365	365
STEEL DIAPHRAGM B-32-209	EACH	-----	-----	4	4
BEARING PADS ELASTOMERIC NON-LAMINATED	EACH	5	5	-----	10
BAR STEEL REINFORCEMENT HS BRIDGES	LB	3,550	3,550	-----	7,100
BAR STEEL REINFORCEMENT HS COATED BRIDGES	LB	-----	-----	11,530	11,530
PILING CIP CONCRETE DELIVERED AND DRIVEN 12-INCH	LF	405	405	-----	810
RAILING TUBULAR TYPE F B-32-209	LS	-----	-----	-----	1
RIPRAP HEAVY	CY	130	140	-----	270
GEOTEXTILE FABRIC TYPE HR	SY	245	250	-----	495
BACKFILL STRUCTURE	CY	310	310	-----	620
RUBBERIZED MEMBRANE WATERPROOFING	SY	11	11	-----	22
TEMPORARY SHORING	LF	35	35	-----	70
NON-BID ITEMS					
FILLER	SIZE	-----	-----	-----	1/2" & 3/4"

**PILE SPLICE DETAIL****GENERAL NOTES**

DRAWINGS SHALL NOT BE SCALED.

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

THE FIRST DIGIT OF A THREE DIGIT BAR NO. AND THE FIRST TWO DIGITS OF A FOUR DIGIT BAR NO. SIGNIFIES THE BAR SIZE.

JOINT FILLER SHALL CONFORM TO THE REQUIREMENTS OF A.A.S.H.T.O. DESIGNATION M 153, TYPE 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 RIPRAP HEAVY TO THE EXTENT SHOWN ON THE GENERAL PLAN SHEET AND IN THE ABUTMENT DETAILS.

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

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

THE EXISTING GROUNDLINE SHALL BE THE UPPER LIMIT FOR EXCAVATION FOR STRUCTURES.

THE EXISTING STRUCTURE, P-32-120, TO BE REMOVED, IS A SINGLE SPAN STEEL DECK GIRDER BRIDGE, 62.1 FEET LONG WITH A 20.2 FT. CLEAR ROADWAY WIDTH.

THE DEPARTMENT OF TRANSPORTATION WILL FURNISH THE CONTRACTOR WITH A BENCH MARK CAP TO BE INSTALLED BY THE CONTRACTOR AS SHOWN ON THE PLANS AND DIRECTED BY THE ENGINEER.

AT BACKFACE OF ABUTMENTS ALL EXCAVATED VOLUME NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH BACKFILL STRUCTURE.

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 STRUCTURES DESIGN SECTION			
STRUCTURE B-32-209			
Const. Spec.	2003	Drawn By CLS	Plans Checked KLT
QUANTITIES AND NOTES			SHEET 2 OF 14

8

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

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

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

LEGEND OF BORING

Boring No., Elev. Sta. & Offset

Unconfined Strength → 7.7
 Blows Per Foot Using 140# Wt. Falling 30".
 Wash Sample
 Shelby Tube — S.T.
 Ground Water Elevation
 No Ground Water Observed Above This Elevation

Sandy Gravel
 F Boulders or Cobbles
 Sand
 Silty Clay
 So Limestone

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

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

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

No.	Date	Revision	By

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

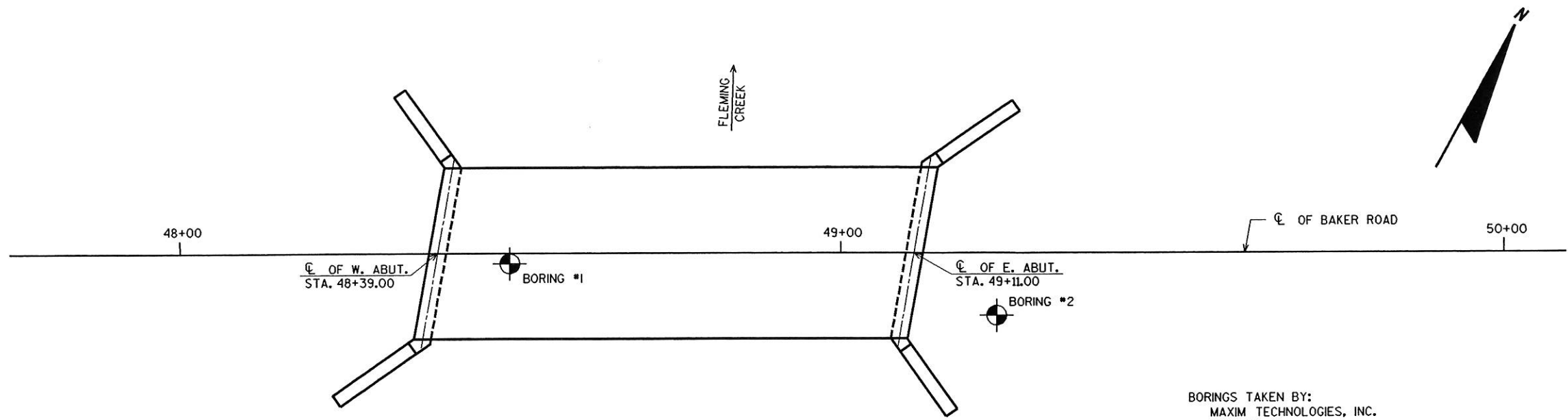
STATE OF WISCONSIN
 DEPARTMENT OF TRANSPORTATION
 STRUCTURES DESIGN SECTION

STRUCTURE B-32-209

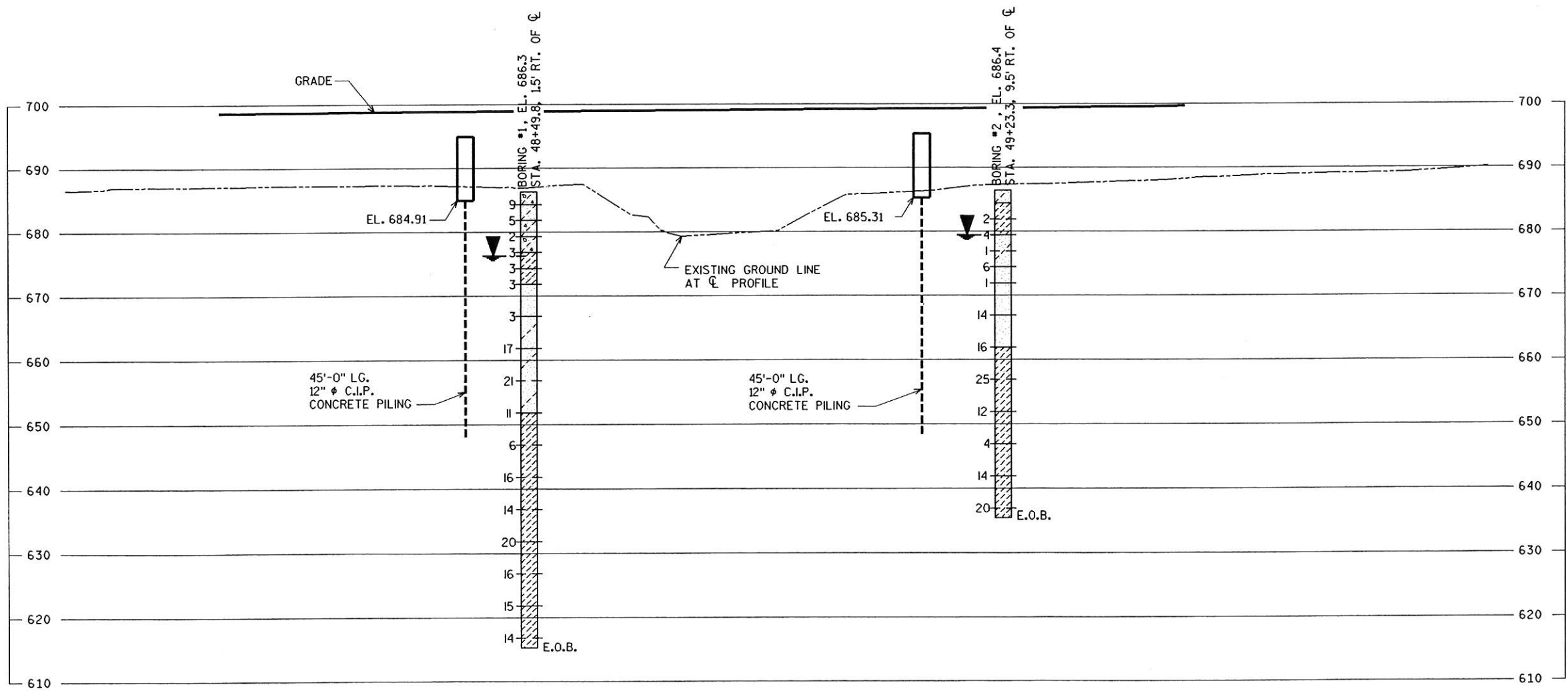
Const. Spec.	2003	Drawn By	CLS	Plans Checked	KL
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SUBSURFACE EXPLORATION

SHEET 3 OF 14



BORINGS TAKEN BY:
 MAXIM TECHNOLOGIES, INC.
 WAUSAU, WI.
 SEPTEMBER 17 & 18, 2002

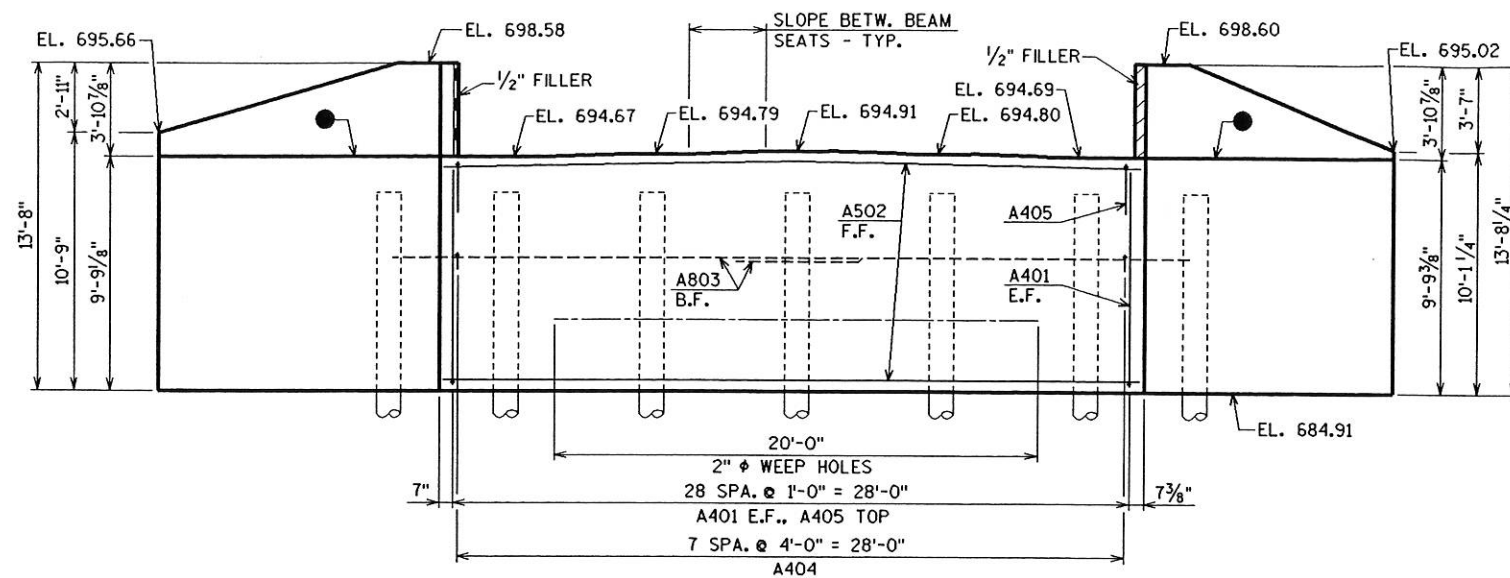


DATE: CORRECTED BY:

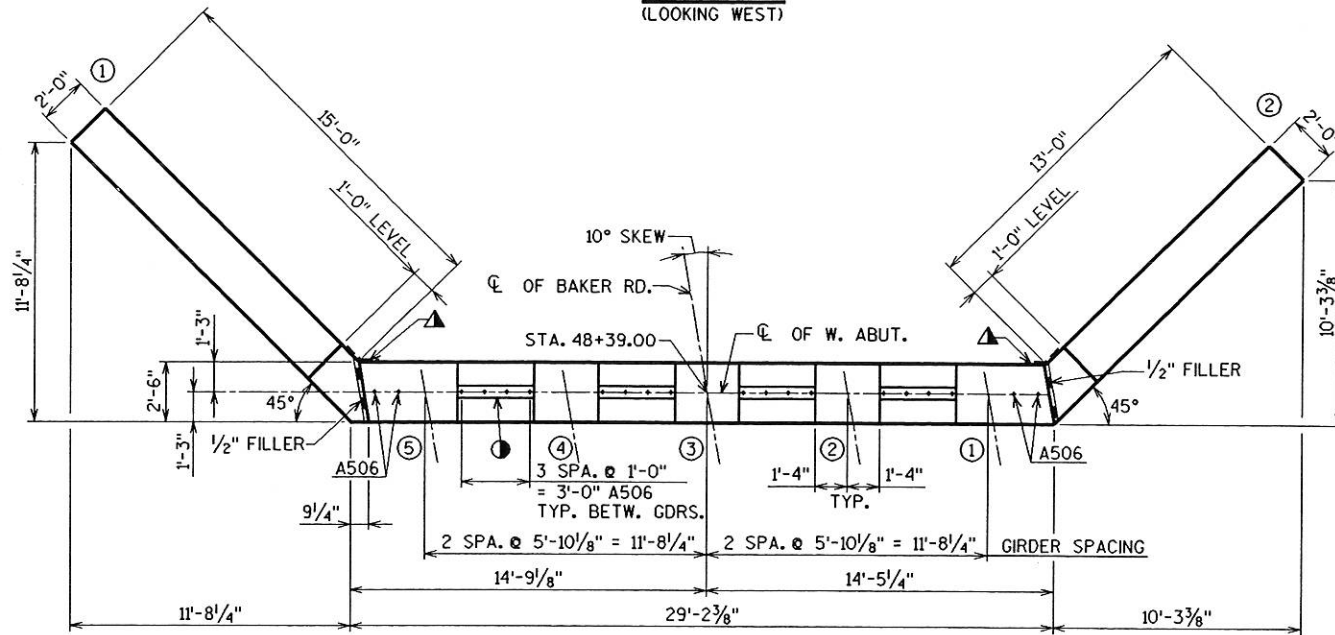
NOTE: SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE.)

STATE PROJECT NUMBER SHEET NO.

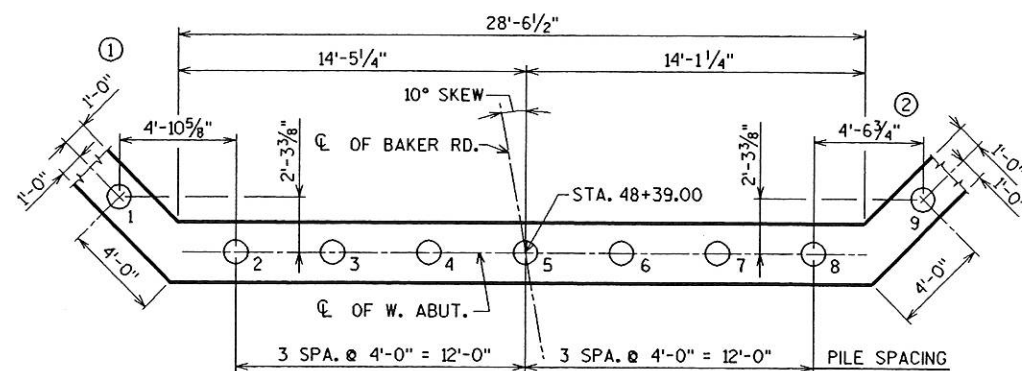
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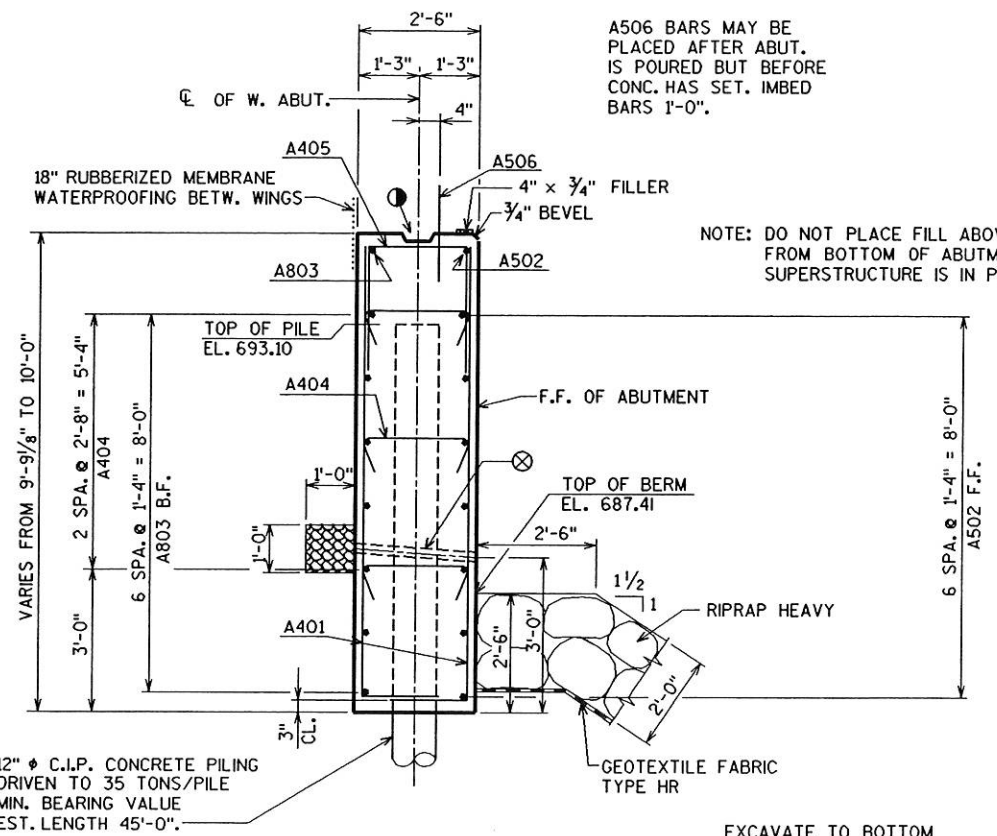
ELEVATION
(LOOKING WEST)



PLAN



PILE LAYOUT



TYPICAL SECTION THRU BODY

12" ϕ C.I.P. CONCRETE PILING DRIVEN TO 35 TONS/PILE MIN. BEARING VALUE EST. LENGTH 45'-0".

NOTE: DO NOT PLACE FILL ABOVE 3'-0" FROM BOTTOM OF ABUTMENT UNTIL SUPERSTRUCTURE IS IN PLACE.

EXCAVATE TO BOTTOM OF ABUTMENT BEFORE DRIVING PILES.

● OPT. KEYED CONST. JOINT - FORMED BY A SURFACED BEVELED 2" x 6".

⊗ 2" ϕ WEEP HOLES. USE GEOTEXTILE FABRIC, TYPE "DF" WITH SIZE 1 COARSE AGGREGATE AT EACH HOLE (ON B.F. x 1'-0" LG.) COST INCIDENTAL TO "CONCRETE MASONRY BRIDGES".

① KEYED CONST. JOINT - FORMED BY A SURFACED BEVELED 2" x 6".

▲ 18" RUBBERIZED MEMBRANE WATERPROOFING TO EXTEND FROM BRIDGE SEAT TO TOP OF WING.

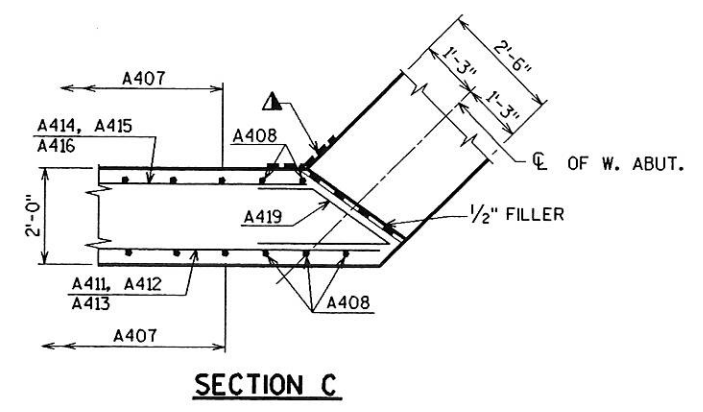
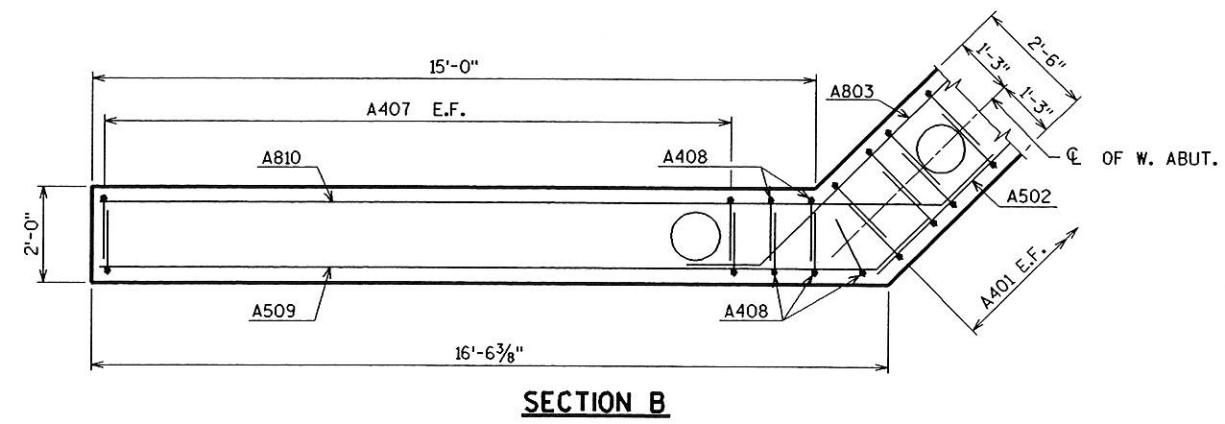
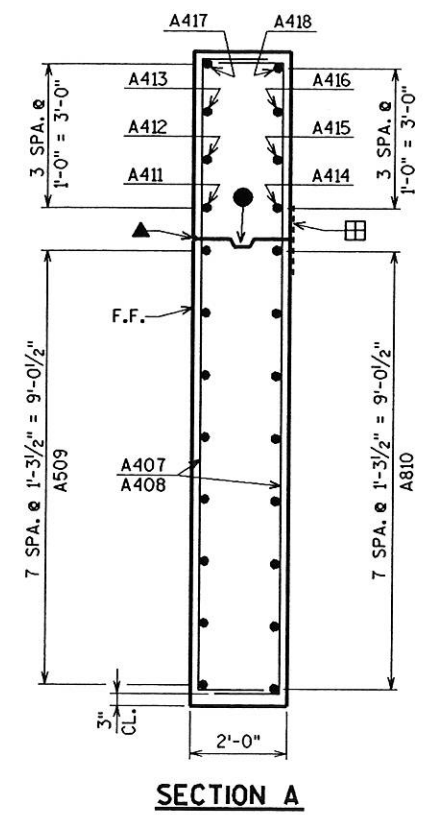
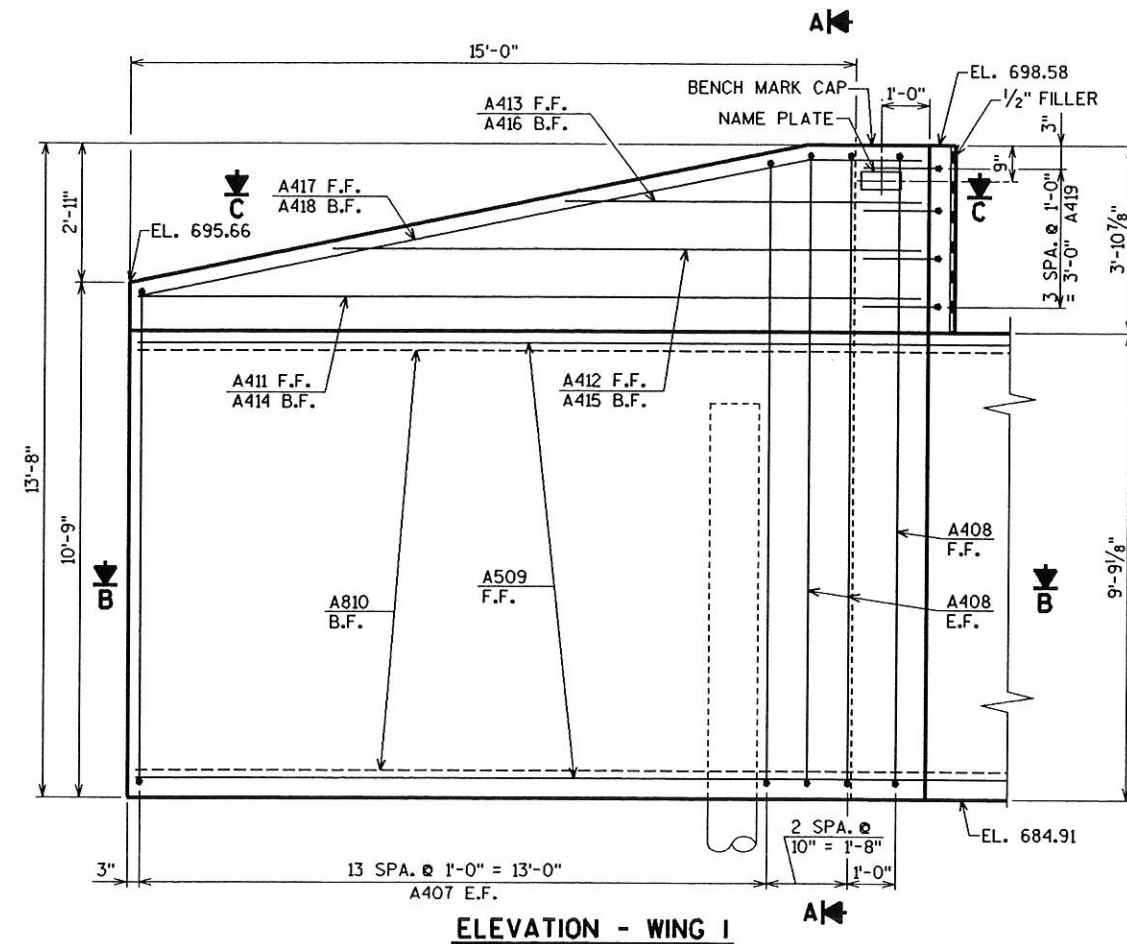
FOR PILE SPLICE DETAIL SEE SHEET 2.

B.F. DENOTES BACK FACE.

F.F. DENOTES FRONT FACE.

E.F. DENOTES EACH FACE.

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 STRUCTURES DESIGN SECTION			
STRUCTURE B-32-209			
Const. Spec.	2003	Drawn By G.L.D.	Plans Checked KLT
WEST ABUTMENT			SHEET 4 OF 14



- ▣ 18" RUBBERIZED MEMBRANE WATERPROOFING ON BACK FACE. NOT REQUIRED IF CONST. JT. IS NOT USED.
 - ▲ 18" RUBBERIZED MEMBRANE WATERPROOFING FROM BEAM SEAT TO TOP OF WINGWALL.
 - ▲ 3/4" 'V' GROOVE ON F.F. OF WING WALL - NOT REQUIRED IF CONST. JT. IS NOT USED.
 - OPT. KEYED CONST. JOINT - FORMED BY A SURFACED BEVELED 2" x 6".
- FOR PILE SPLICE DETAIL SEE SHEET 2.
 B.F. DENOTES BACK FACE.
 F.F. DENOTES FRONT FACE.
 E.F. DENOTES EACH FACE.

No.	Date	Revision	By
PLANS PREPARED BY			
Engineers/Architects Scientists/Surveyors 3433 Oakwood Hills Parkway Eau Claire, WI 54701			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-32-209			
Const. Spec.	2003	Drawn By G.L.D.	Plans Checked KLT
WEST ABUTMENT WING I DETAILS			SHEET 5 OF 14

BILL OF BARS

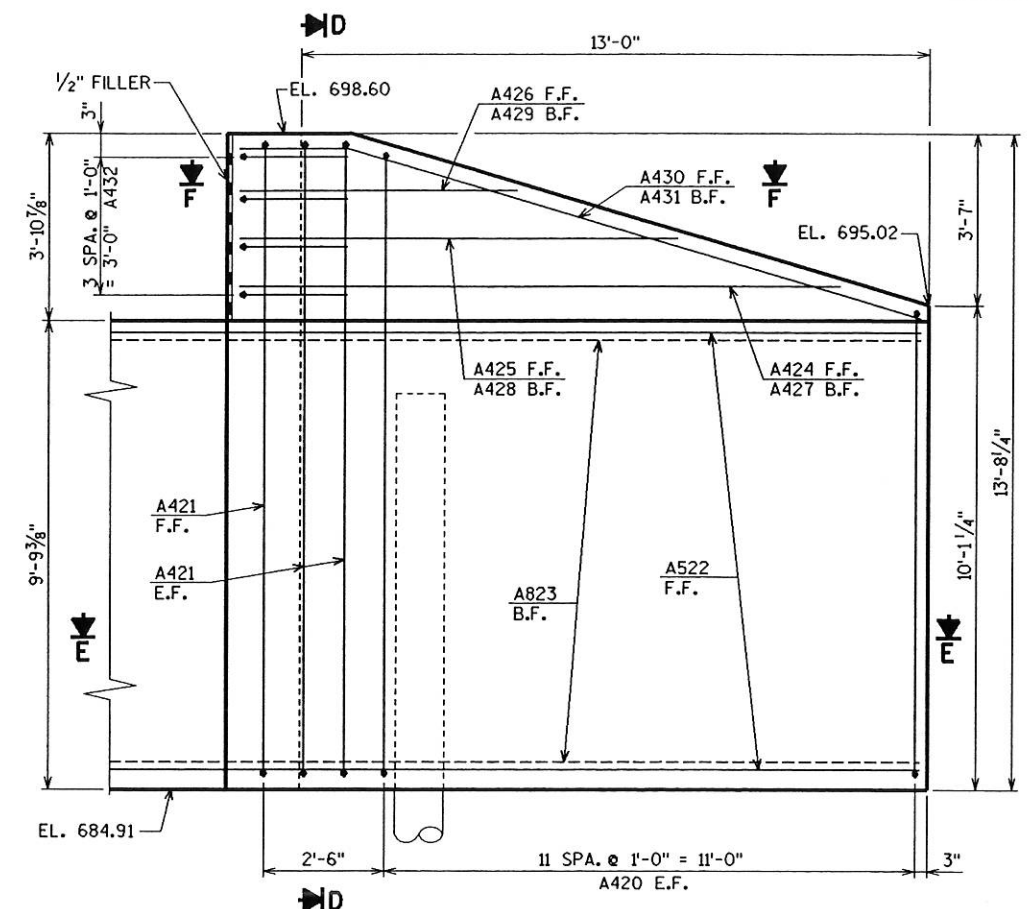
BAR NO.	COATED BAR	NO. REQ'D.	LENGTH	BENT BAR	BUNDLE	BAR SERIES	3,550# UNCOATED
							LOCATION
A401		58	10-10	X			BODY VERT. E.F.
A502		8	29-2				BODY HORIZ. F.F.
A803		16	20-5	X			BODY HORIZ. B.F.
A404		24	2-9	X			BODY TIES
A405		29	7-4	X			BODY VERT. TOP
A506		20	2-0				BODY DOWELS
A407		28	14-2	X	⊗		WING 1 VERT. E.F.
A408		5	15-9	X			WING 1 VERT. E.F.
A509		8	17-8	X			WING 1 HORIZ. F.F.
A810		8	19-3	X			WING 1 HORIZ. B.F.
A411		1	16-3				WING 1 HORIZ. F.F.
A412		1	12-3				WING 1 HORIZ. F.F.
A413		1	7-5				WING 1 HORIZ. F.F.
A414		1	14-8				WING 1 HORIZ. B.F.
A415		1	10-8				WING 1 HORIZ. B.F.
A416		1	5-10				WING 1 HORIZ. B.F.
A417		1	16-6	X			WING 1 DIAG. F.F.
A418		1	15-0	X			WING 1 DIAG. B.F.
A419		4	4-6	X			WING 1 HORIZ.
A420		24	13-10	X	⊗		WING 2 VERT. E.F.
A421		5	15-9	X			WING 2 VERT. E.F.
A522		8	15-8	X			WING 2 HORIZ. F.F.
A823		8	17-3	X			WING 2 HORIZ. B.F.
A424		1	12-3				WING 2 HORIZ. F.F.
A425		1	8-11				WING 2 HORIZ. F.F.
A426		1	5-7				WING 2 HORIZ. F.F.
A427		1	10-11				WING 2 HORIZ. B.F.
A428		1	7-7				WING 2 HORIZ. B.F.
A429		1	4-3				WING 2 HORIZ. B.F.
A430		1	14-6	X			WING 2 DIAG. F.F.
A431		1	13-3	X			WING 2 DIAG. B.F.
A432		4	4-3	X			WING 2 HORIZ.

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.

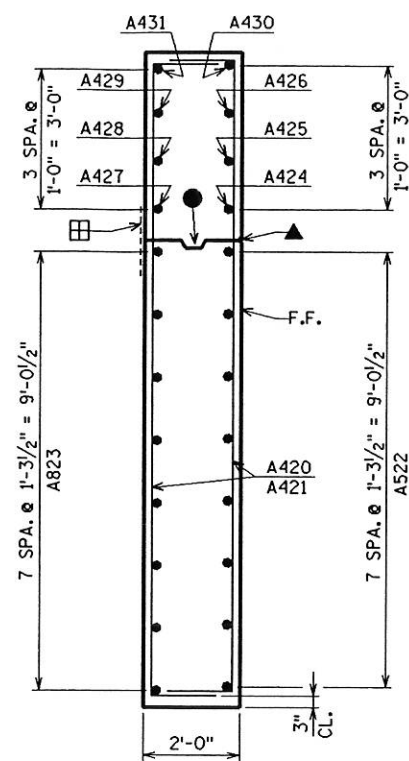
BAR SERIES TABLE

BAR MARK	NO REQ'D.	LENGTH
A407	2 SERIES OF 14	12'-9" TO 15'-7"
A420	2 SERIES OF 12	12'-2" TO 15'-6"

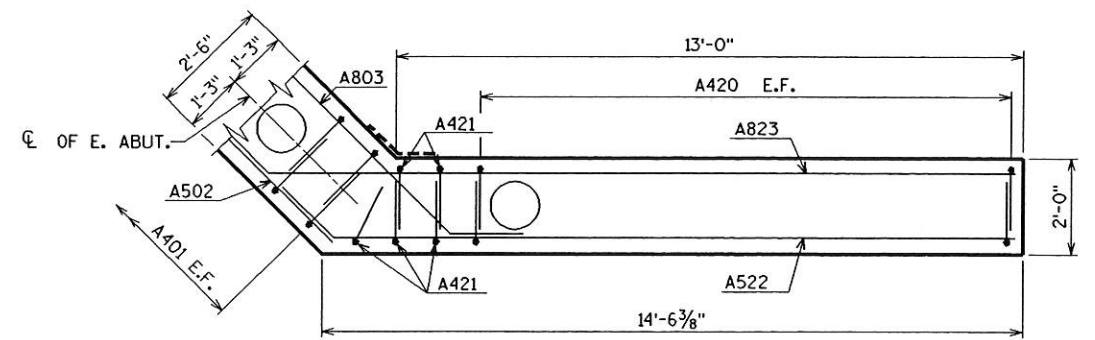
BUNDLE AND TAG EACH SERIES SEPARATELY.



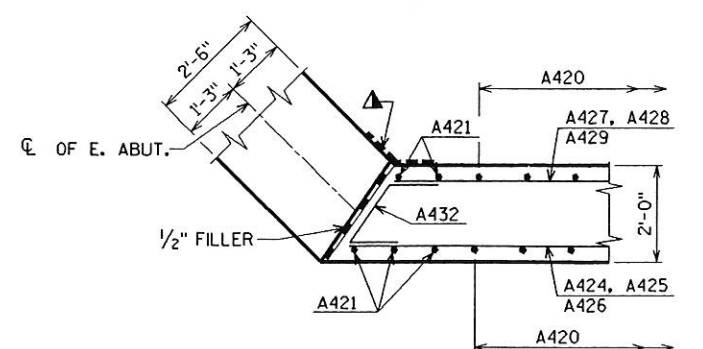
ELEVATION - WING 2



SECTION D

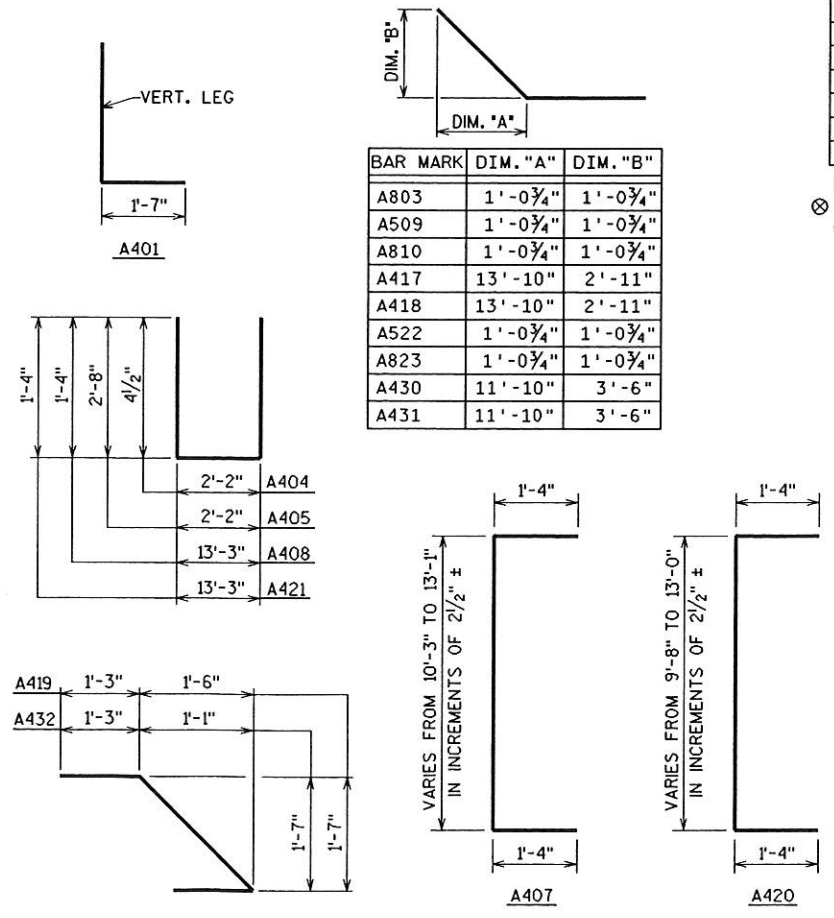


SECTION E



SECTION F

- ⊠ 18" RUBBERIZED MEMBRANE WATERPROOFING ON BACK FACE. NOT REQUIRED IF CONST. JT. IS NOT USED.
 - ▲ 18" RUBBERIZED MEMBRANE WATERPROOFING FROM BEAM SEAT TO TOP OF WINGWALL.
 - ▲ 3/4" V GROOVE ON F.F. OF WING WALL - NOT REQUIRED IF CONST. JT. IS NOT USED.
 - OPT. KEYED CONST. JOINT - FORMED BY A SURFACED BEVELED 2" x 6".
- FOR PILE SPLICE DETAIL SEE SHEET 2.
- B.F. DENOTES BACK FACE.
 F.F. DENOTES FRONT FACE.
 E.F. DENOTES EACH FACE.

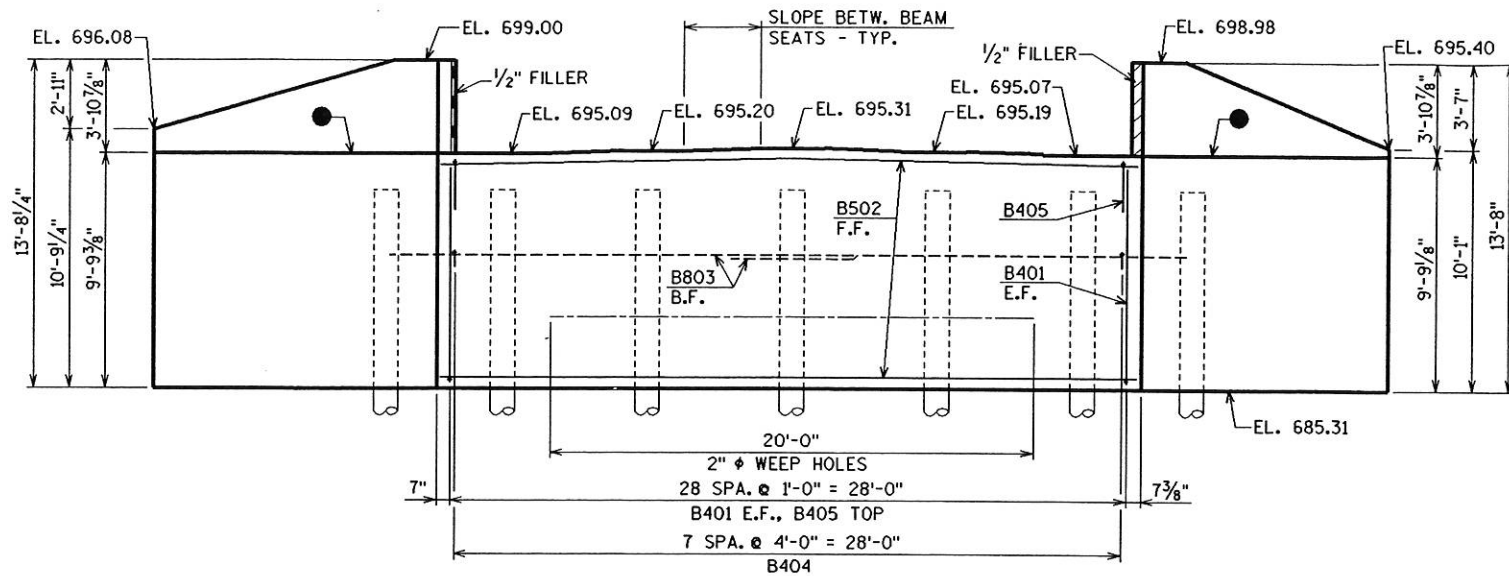


BAR MARK	DIM. "A"	DIM. "B"
A803	1'-0 3/4"	1'-0 3/4"
A509	1'-0 3/4"	1'-0 3/4"
A810	1'-0 3/4"	1'-0 3/4"
A417	13'-10"	2'-11"
A418	13'-10"	2'-11"
A522	1'-0 3/4"	1'-0 3/4"
A823	1'-0 3/4"	1'-0 3/4"
A430	11'-10"	3'-6"
A431	11'-10"	3'-6"

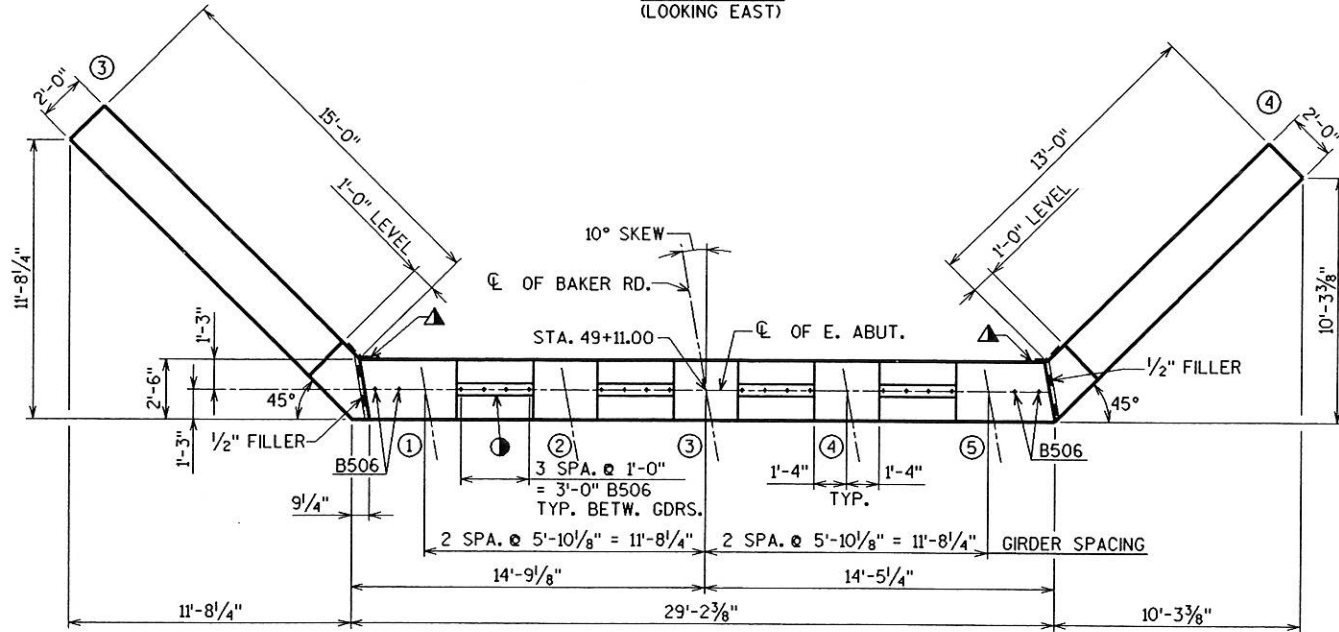
No.	Date	Revision	By
PLANS PREPARED BY			
AYRES ASSOCIATES			
Engineers/Architects Scientists/Surveyors 3433 Oakwood Hills Parkway Eau Claire, WI 54701			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE		B-32-209	
Const. Spec.	2003	Drawn By	G.L.D.
		Plans Checked	KLT
WEST ABUTMENT WING 2 DETAILS & BILL OF BARS			SHEET 6 OF 14

DATE: CORRECTED BY:

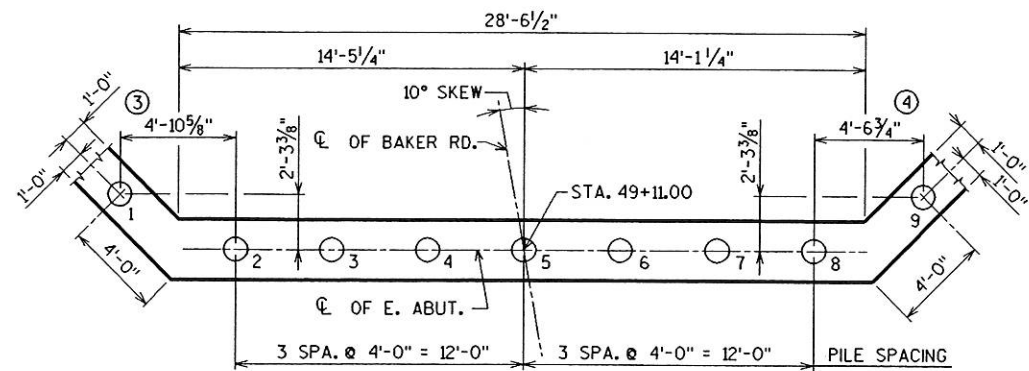
NOTE: SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE.)



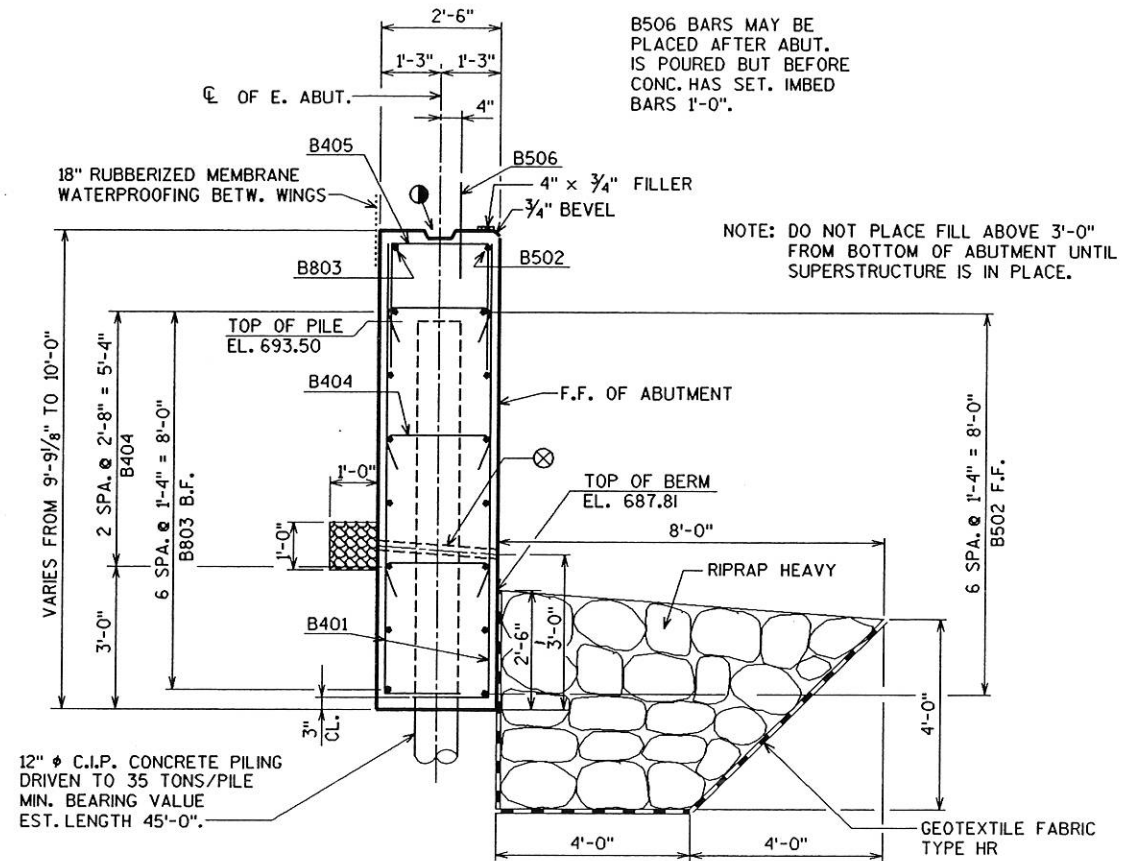
ELEVATION
(LOOKING EAST)



PLAN



PILE LAYOUT



TYPICAL SECTION THRU BODY

B506 BARS MAY BE PLACED AFTER ABUT. IS POURED BUT BEFORE CONC. HAS SET. IMBED BARS 1'-0".

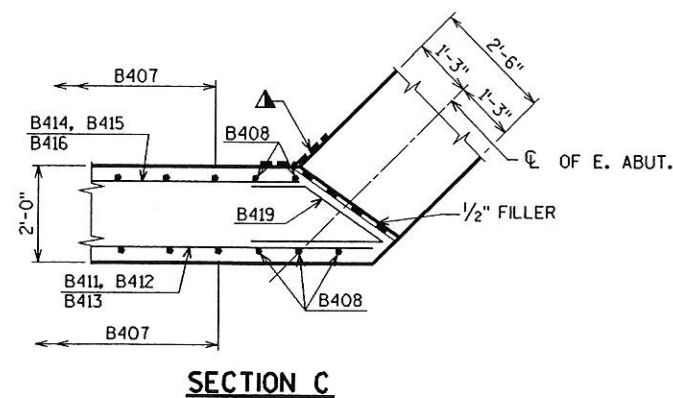
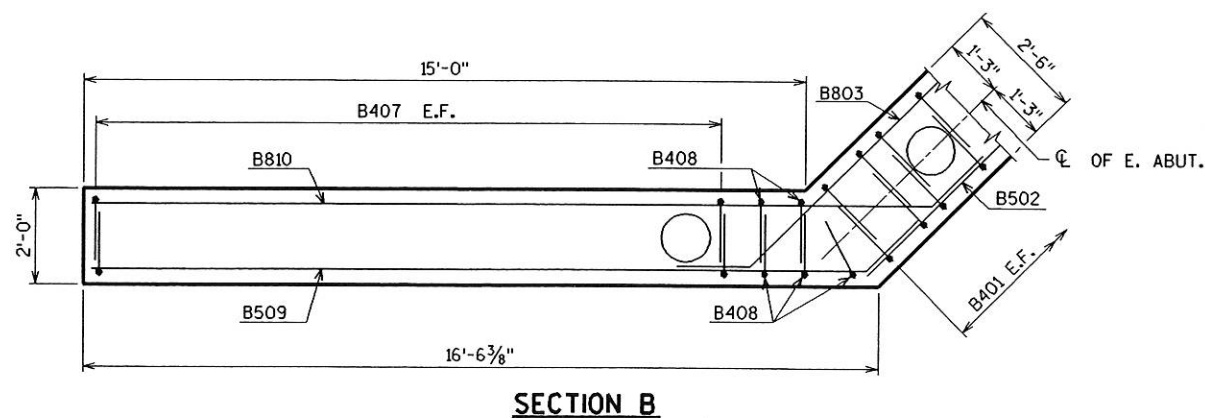
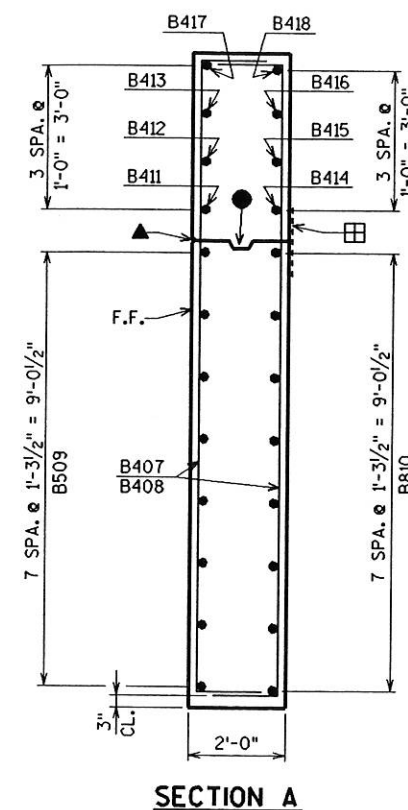
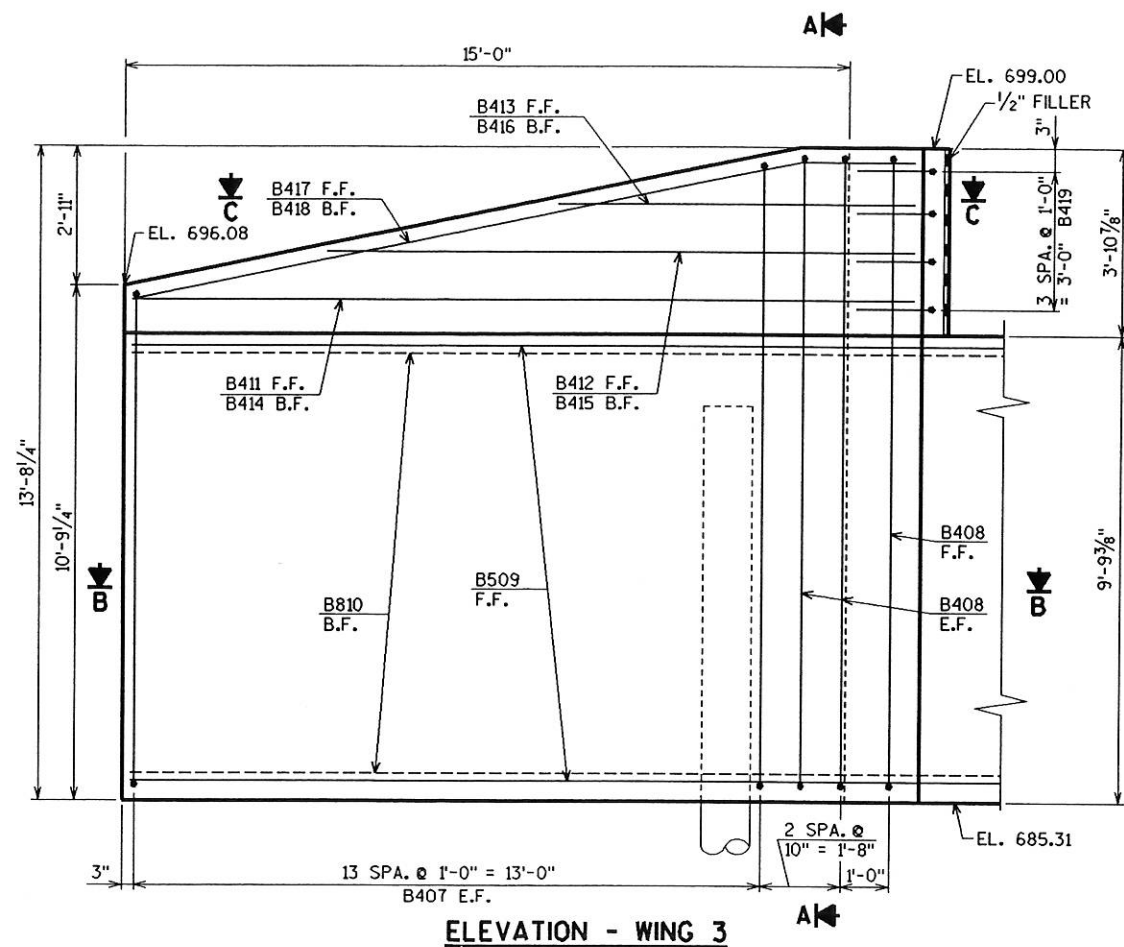
NOTE: DO NOT PLACE FILL ABOVE 3'-0" FROM BOTTOM OF ABUTMENT UNTIL SUPERSTRUCTURE IS IN PLACE.

12" ϕ C.I.P. CONCRETE PILING DRIVEN TO 35 TONS/PILE MIN. BEARING VALUE EST. LENGTH 45'-0".

EXCAVATE TO BOTTOM OF ABUTMENT BEFORE DRIVING PILES.

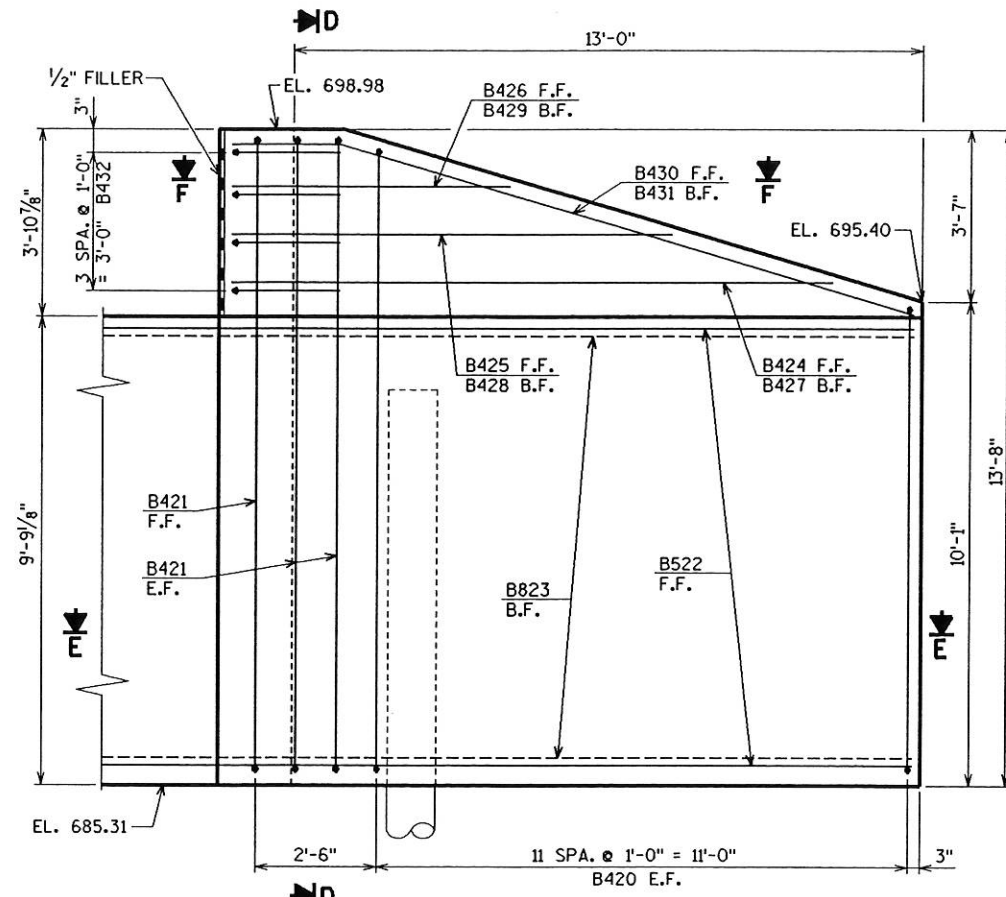
- OPT. KEYED CONST. JOINT - FORMED BY A SURFACED BEVELED 2' x 6'.
 - ⊗ 2" ϕ WEEP HOLES. USE GEOTEXTILE FABRIC, TYPE "DF" WITH SIZE 1 COARSE AGGREGATE AT EACH HOLE (ON B.F. x 1'-0" LG.) COST INCIDENTAL TO "CONCRETE MASONRY BRIDGES".
 - ① KEYED CONST. JOINT - FORMED BY A SURFACED BEVELED 2' x 6'.
 - ▲ 18" 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.

No.	Date	Revision	By
PLANS PREPARED BY			
AVRES ASSOCIATES Engineers/Architects Scientists/Surveyors 3433 Oakwood Hills Parkway Eau Claire, WI 54701			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE		B-32-209	
Const. Spec.	2003	Drawn By	G.L.D.
		Plans Checked	KLT
EAST ABUTMENT			SHEET 7 OF 14

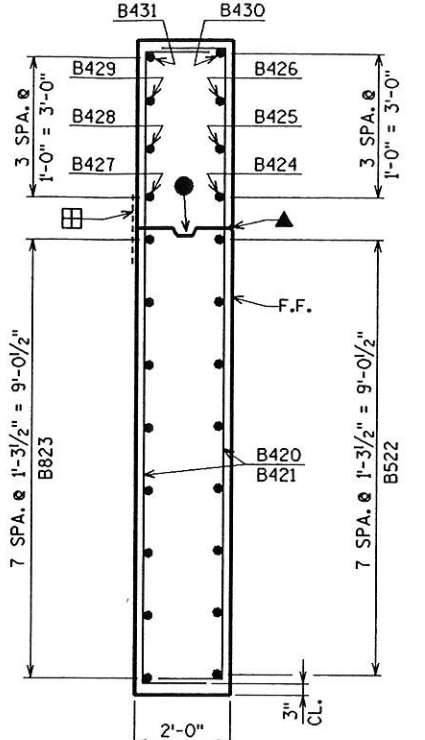


- ▣ 18" RUBBERIZED MEMBRANE WATERPROOFING ON BACK FACE. NOT REQUIRED IF CONST. JT. IS NOT USED.
 - ▲ 18" RUBBERIZED MEMBRANE WATERPROOFING FROM BEAM SEAT TO TOP OF WINGWALL.
 - ▲ 3/4" V GROOVE ON F.F. OF WING WALL - NOT REQUIRED IF CONST. JT. IS NOT USED.
 - OPT. KEYED CONST. JOINT - FORMED BY A SURFACED BEVELED 2" x 6".
- FOR PILE SPLICE DETAIL SEE SHEET 2.
- B.F. DENOTES BACK FACE.
- F.F. DENOTES FRONT FACE.
- E.F. DENOTES EACH FACE.

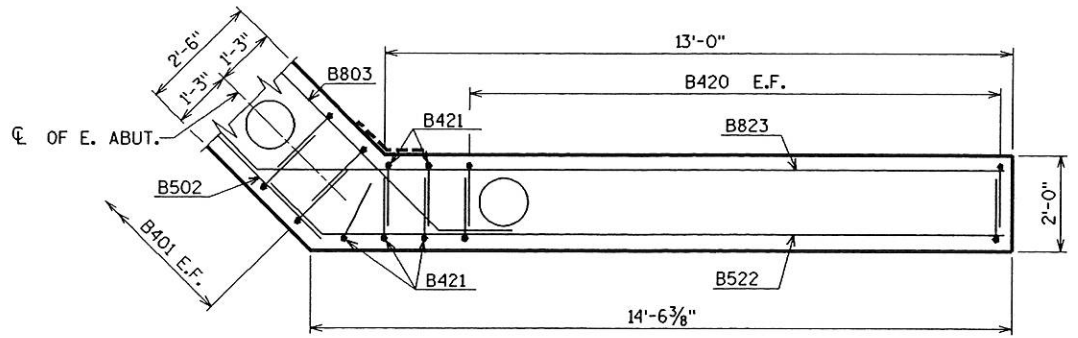
No.	Date	Revision	By
PLANS PREPARED BY			
AYRES ASSOCIATES Engineers/Architects Scientists/Surveyors 3433 Oakwood Hills Parkway Eau Claire, WI 54701			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-32-209			
Const. Spec.	2003	Drawn By	G.L.D.
		Plans Checked	KLT
EAST ABUTMENT WING 3 DETAILS			SHEET 8 OF 14



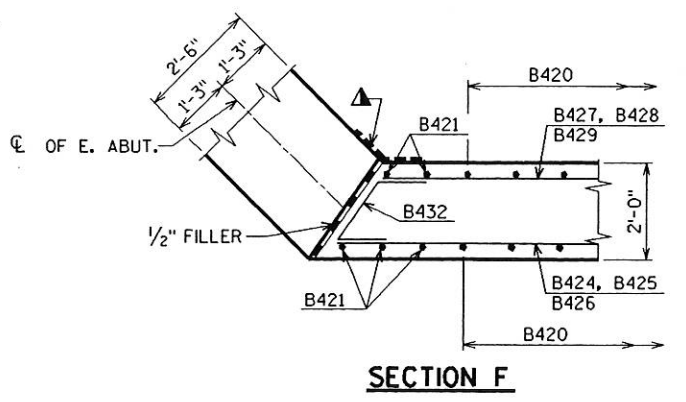
ELEVATION - WING 4



SECTION D

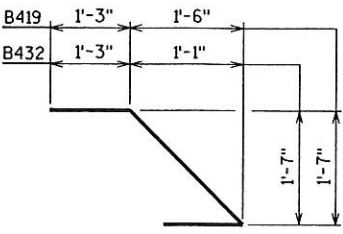
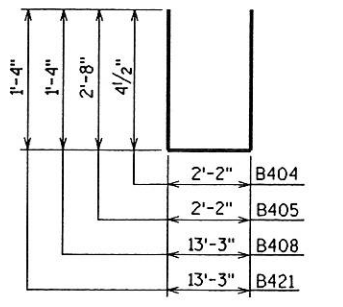
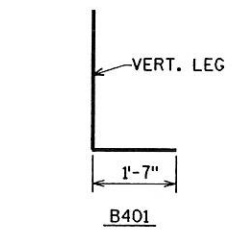


SECTION E

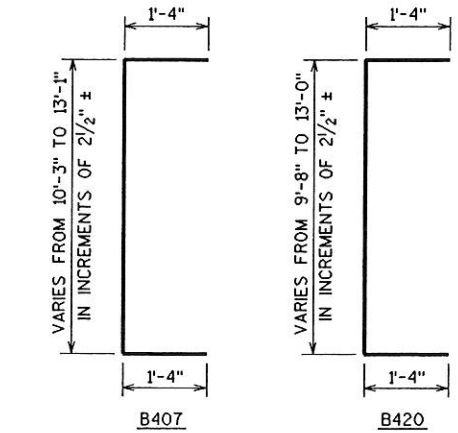


SECTION F

- ▣ 18" RUBBERIZED MEMBRANE WATERPROOFING ON BACK FACE. NOT REQUIRED IF CONST. JT. IS NOT USED.
 - ▲ 18" RUBBERIZED MEMBRANE WATERPROOFING FROM BEAM SEAT TO TOP OF WINGWALL.
 - ▲ 3/4" 'V' GROOVE ON F.F. OF WING WALL - NOT REQUIRED IF CONST. JT. IS NOT USED.
 - OPT. KEYED CONST. JOINT - FORMED BY A SURFACED BEVELED 2" x 6".
- FOR PILE SPLICE DETAIL SEE SHEET 2.
- B.F. DENOTES BACK FACE.
F.F. DENOTES FRONT FACE.
E.F. DENOTES EACH FACE.



BAR MARK	DIM. "A"	DIM. "B"
B803	1' - 0 3/4"	1' - 0 3/4"
B509	1' - 0 3/4"	1' - 0 3/4"
B810	1' - 0 3/4"	1' - 0 3/4"
B417	13' - 10"	2' - 11"
B418	13' - 10"	2' - 11"
B522	1' - 0 3/4"	1' - 0 3/4"
B823	1' - 0 3/4"	1' - 0 3/4"
B430	11' - 10"	3' - 6"
B431	11' - 10"	3' - 6"



BILL OF BARS

BAR NO.	COATED BAR	NO. REQ'D.	LENGTH	BENT BAR	BUNDLED	BAR SERIES	3,550# UNCOATED	LOCATION
B401		58	10-10	X				BODY VERT. E.F.
B502		8	29-2					BODY HORIZ. F.F.
B803		16	20-5	X				BODY HORIZ. B.F.
B404		24	2-9	X				BODY TIES
B405		29	7-4	X				BODY VERT. TOP
B506		20	2-0					BODY DOWELS
B407		28	14-2	X				WING 3 VERT. E.F.
B408		5	15-9	X				WING 3 VERT. E.F.
B509		8	17-8	X				WING 3 HORIZ. F.F.
B810		8	19-3	X				WING 3 HORIZ. B.F.
B411		1	16-3					WING 3 HORIZ. F.F.
B412		1	12-3					WING 3 HORIZ. F.F.
B413		1	7-5					WING 3 HORIZ. F.F.
B414		1	14-8					WING 3 HORIZ. B.F.
B415		1	10-8					WING 3 HORIZ. B.F.
B416		1	5-10					WING 3 HORIZ. B.F.
B417		1	16-6	X				WING 3 DIAG. F.F.
B418		1	15-0	X				WING 3 DIAG. B.F.
B419		4	4-6	X				WING 3 HORIZ.
B420		24	13-10	X				WING 4 VERT. E.F.
B421		5	15-9	X				WING 4 VERT. E.F.
B522		8	15-8	X				WING 4 HORIZ. F.F.
B823		8	17-3	X				WING 4 HORIZ. B.F.
B424		1	12-3					WING 4 HORIZ. F.F.
B425		1	8-11					WING 4 HORIZ. F.F.
B426		1	5-7					WING 4 HORIZ. F.F.
B427		1	10-11					WING 4 HORIZ. B.F.
B428		1	7-7					WING 4 HORIZ. B.F.
B429		1	4-3					WING 4 HORIZ. B.F.
B430		1	14-6	X				WING 4 DIAG. F.F.
B431		1	13-3	X				WING 4 DIAG. B.F.
B432		4	4-3	X				WING 4 HORIZ.

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 SERIES TABLE

BAR MARK	NO REQ'D.	LENGTH
B407	2 SERIES OF 14	12'-9" TO 15'-7"
B420	2 SERIES OF 12	12'-2" TO 15'-6"

BUNDLE AND TAG EACH SERIES SEPARATELY.

No.	Date	Revision	By
PLANS PREPARED BY AVRES ASSOCIATES Engineers/Architects Scientists/Surveyors 3433 Oakwood Hills Parkway Eau Claire, WI 54701			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE		B-32-209	
Const. Spec.	2003	Drawn By	G.L.D.
		Plans Checked	KLT
EAST ABUTMENT WING 4 DETAILS & BILL OF BARS			SHEET 9 OF 14

GIRDER NOTES

TOP OF GIRDER TO BE ROUGH FLOATED AND BROOMED TRANSVERSELY, EXCEPT THE OUTSIDE 2" OF GIRDER, WHICH SHALL BE TROWEL FINISHED.

THE GIRDERS SHALL BE PROVIDED WITH A SUITABLE LIFTING DEVICE FOR HANDLING AND ERECTING THE GIRDERS.

PRESTRESSING STRANDS SHALL BE 1/2"φ - 7 WIRE LOW-RELAXATION STRANDS WITH AN ULTIMATE STRENGTH OF 270,000 psi AND SHALL BE FLUSH WITH THE ENDS OF THE GIRDER.

BEND EACH END OF No. 4 STIRRUPS 4 1/2" AND No. 5 STIRRUPS 6".

FOR DIAPHRAGM INSERT & CONNECTION DETAILS SEE "STEEL DIAPHRAGM" SHEET 1L

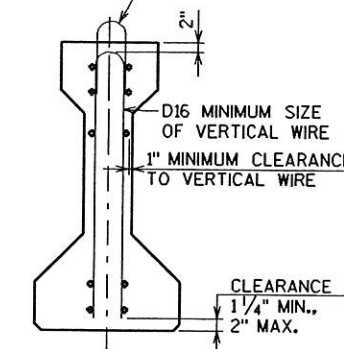
ALL GIRDERS SHALL BE CAST FULL LENGTH AS SHOWN. SPACING SHOWN FOR #4 STIRRUPS IS FOR GRADE 60 REINFORCEMENT. IF THE FABRICATOR WANTS TO BUILD A BAR STEEL CAGE BY WELDING LONGITUDINAL REINFORCEMENT TO THE #4 STIRRUPS, 2 OPTIONS ARE AVAILABLE:

1. USE ASTM A706 GRADE 60 REINFORCEMENT AND THE STIRRUP SPACING AS SHOWN ON THE PLANS.
2. USE ASTM A615 GRADE 40 REINFORCEMENT AND A MODIFIED STIRRUP SPACING SUBMITTED TO AND APPROVED BY THE STRUCTURES DEVELOPMENT SECTION.

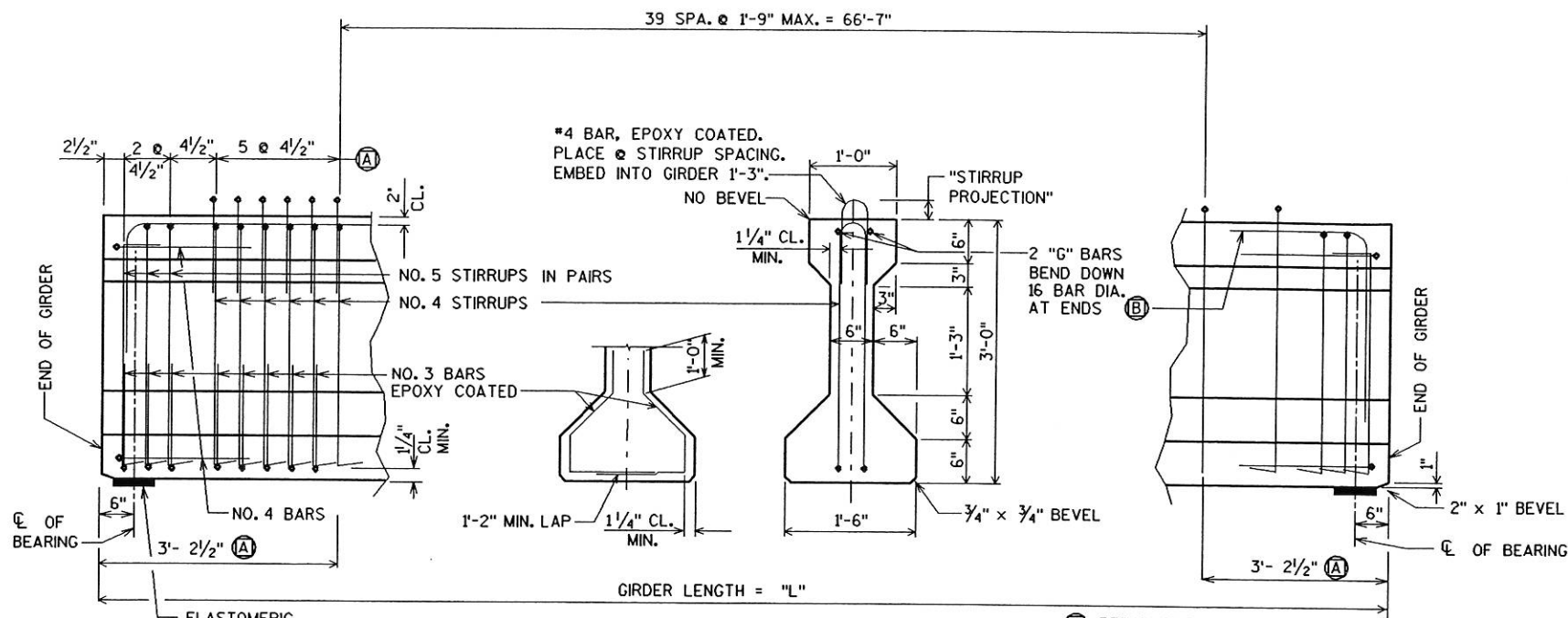
AN ALTERNATE EQUIVALENT OF WELDED WIRE FABRIC (WWF) MAY BE SUBSTITUTED FOR THE STIRRUP REINFORCEMENT SHOWN, UPON APPROVAL OF THE STRUCTURES DEVELOPMENT SECTION.

WELDED WIRE FABRIC (WWF) SHALL CONFORM TO THE REQUIREMENTS OF ASTM A497.

#4 BAR, EPOXY COATED. PLACE # STIRRUP SPACING REQUIRED FOR NON WWF STIRRUPS. EMBED INTO GIRDER 1'-3".

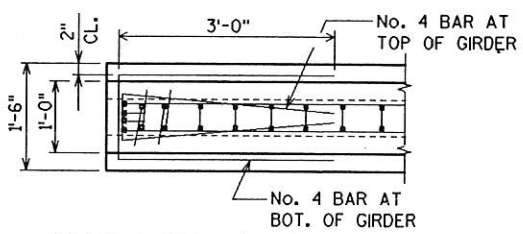


SECTION THRU GIRDER
SHOWING WELDED WIRE FABRIC (WWF) STIRRUPS

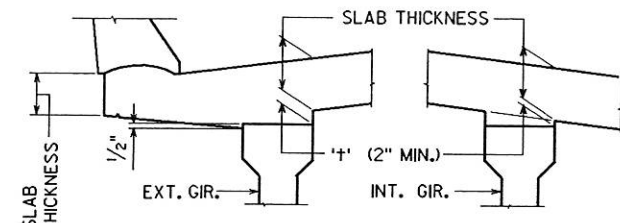


SIDE VIEW & TYP. SECTION IN SPAN

Ⓐ DETAIL TYP. AT EACH END



TOP VIEW OF GIRDER ENDS

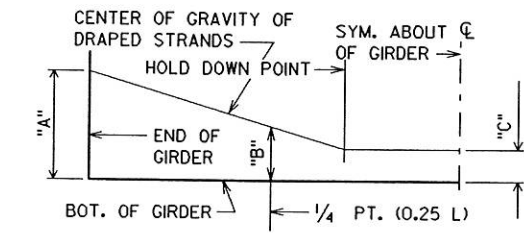


SLAB HAUNCH DETAIL

IF 2" MINIMUM HAUNCH HEIGHT 't' CANNOT BE MAINTAINED, THE GRADE LINE MAY BE REVISED BY THE ENGINEER AT THE OPTION OF THE CONTRACTOR. THE PLAN SLAB THICKNESS SHALL BE HELD. MAXIMUM HAUNCH HEIGHT EQUALS "STIRRUP PROJECTION" MINUS 3 INCHES.

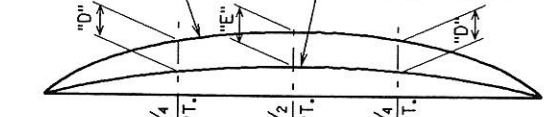
TO DETERMINE 't', ELEV. OF TOP OF GIRS. AT CL OF SUBSTRUCTURE UNITS & AT 1/4 POINTS OF EACH SPAN SHALL BE TAKEN. THEN FOLLOW THIS PROCESS:

$$\begin{aligned} & \text{TOP OF DECK ELEV. AT FINAL GRADE} \\ & - \text{TOP OF GIRDER ELEVATION} \\ & + \text{DEADLOAD DEFLECTION} \\ & - \text{SLAB THICKNESS} \\ & = \text{HAUNCH HEIGHT 't'} \end{aligned}$$

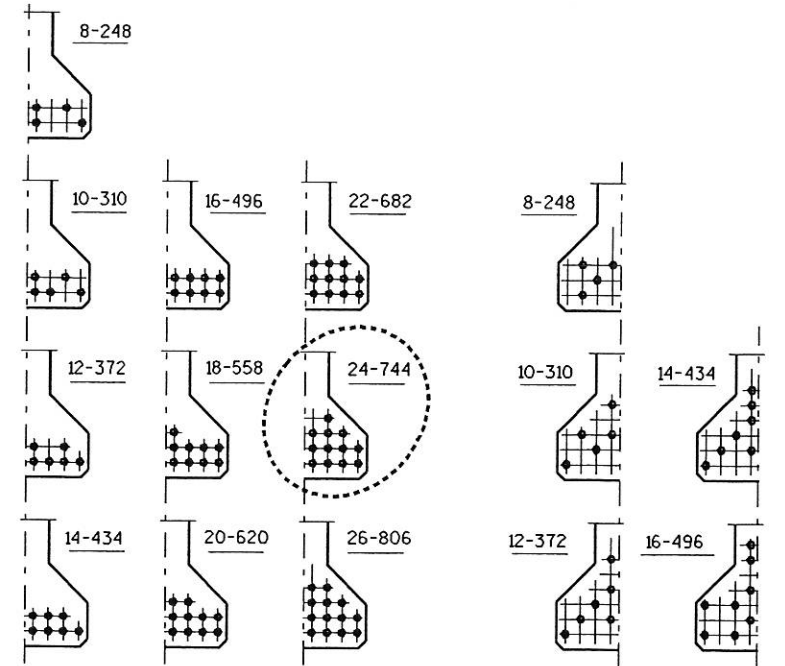


DRAPED STRAND PROFILE

TOP OF GIRDER BEFORE SLAB IS POURED. TOP OF GIRDER AFTER SLAB IS POURED.

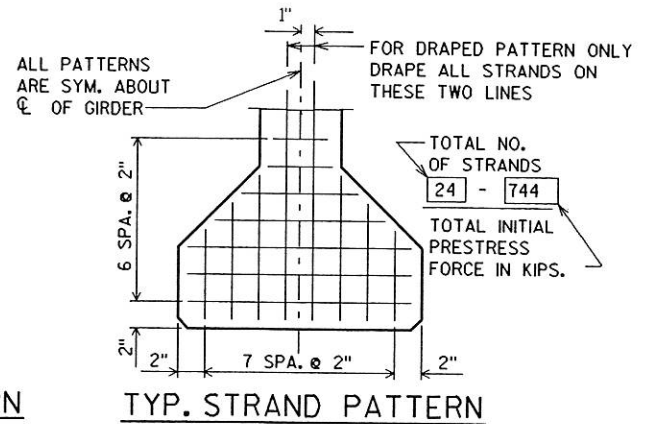


DEAD LOAD DEFLECTION DIAGRAM



DRAPED PATTERN

UNDRAPED PATTERN



TYP. STRAND PATTERN

GIRDER DATA		DEAD LOAD DEF. (IN.)		CONC. STRGTH. f'c (p.s.i.)	STIRRUP "PROJECTION"	DRAPED PATTERN (INCHES)				UNDRAPED PATTERN		
SPAN	GIRDER LENGTH "L"	"D"	"E"			TOTAL NO. OF STRANDS	f'ci (p.s.i.) *	"A"	"B" MIN.	"B" MAX.	"C"	TOTAL NO. OF STRANDS
1	73'-0"	1"	1 3/8"	8,000	6"	24	6,400	32"	11"	14"	4"	

Ⓑ No. 4 "G" BARS, MAY BE SPLICED AT THE 1/3 POINTS. USE 1'-11" MIN. LAP.

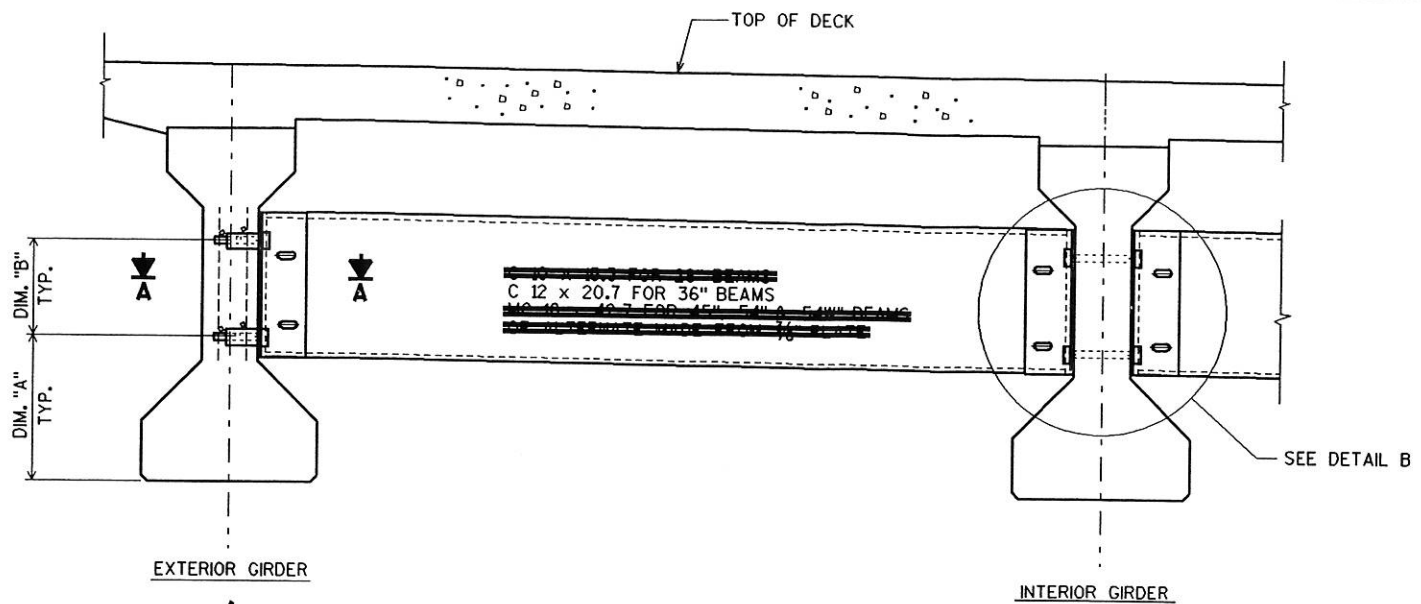
* MINIMUM CYLINDER STRENGTH OF CONCRETE @ TIME OF TRANSFER OF PRESTRESS FORCE.

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 STRUCTURES DESIGN SECTION			
STRUCTURE B-32-209			
Const. Spec.	2003	Drawn By	G.L.D.
		Plane Checked	KLT
36" PRESTRESSED GIRDER DETAILS			SHEET 10 OF 14

TABLE

GIRDER HEIGHT	DIM. "A"	DIM. "B"	DIM. "L"	*DIM. "X"
30"	1-3/8"	7/8"	1-1/2"	3/4"
36"	1-2 7/8"	9/8"	1-1 1/2"	3/4"
42"	1-5 3/8"	1-1 7/8"	1-3 1/2"	1/2"
48"	1-7 3/8"	1-3 7/8"	1-5 1/2"	1/2"
54"	1-9 3/8"	1-5 7/8"	1-7 1/2"	1/2"

*DIM. "X" = 2 1/2" FOR ALTERNATE PLATE DIAPHRAGM



NOTES

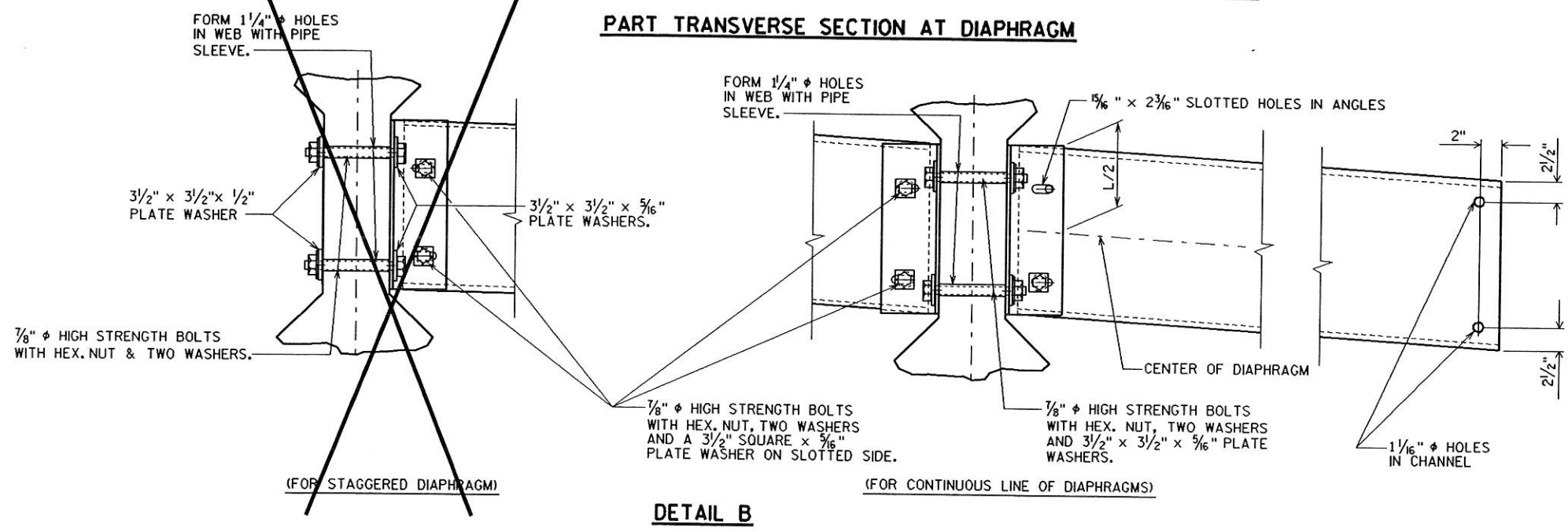
ALL DIAPHRAGM MATERIAL NOT EMBEDDED IN THE CONCRETE GIRDER SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "STEEL DIAPHRAGMS B-32-209".

EACH DIAPHRAGM BETWEEN GIRDERS SHALL CONSTITUTE ONE UNIT.

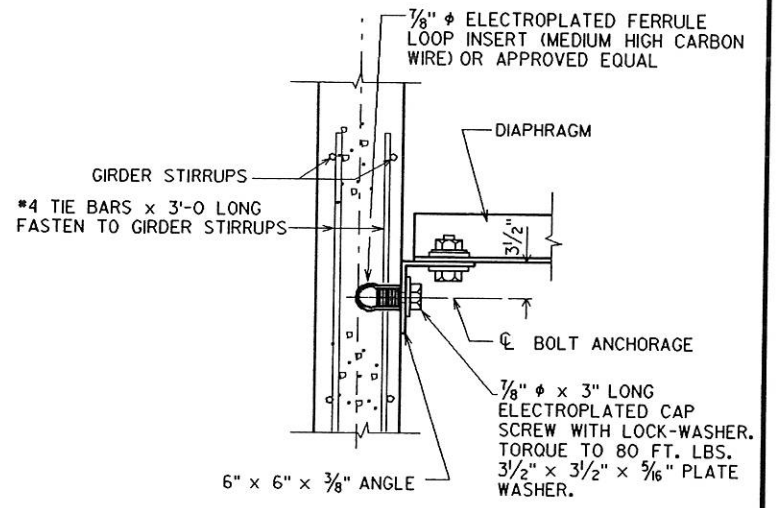
ALL DIAPHRAGM STRUCTURAL STEEL SHALL BE ASTM A709 GRADE 36. ALL BOLTS, NUTS AND WASHERS SHALL BE ASTM A325 TYPE 1.

ALL DIAPHRAGM STRUCTURAL STEEL SHOWN SHALL BE HOT-DIPPED GALVANIZED. ALL BOLTS, NUTS AND WASHERS SHALL BE HOT-DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C. GALVANIZED NUTS SHALL BE TAPPED OVERSIZE IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM A563 AND SHALL MEET THE REQUIREMENTS OF SUPPLEMENTARY REQUIREMENT S1 OF ASTM A563, LUBRICANT AND TEST FOR COATED NUTS.

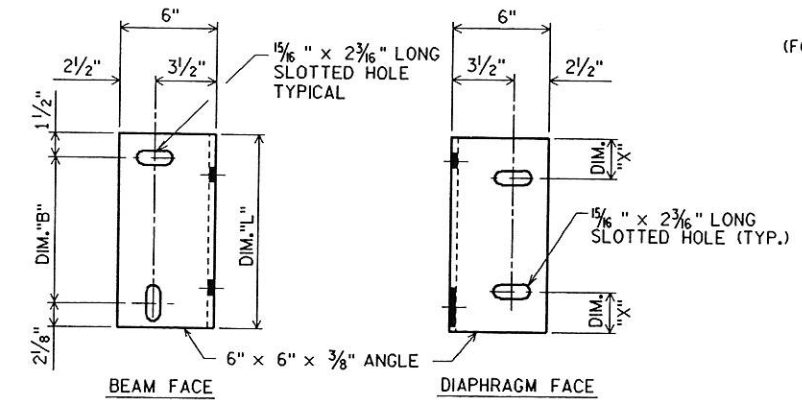
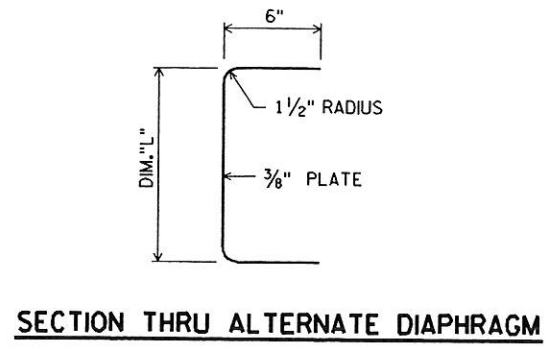
PART TRANSVERSE SECTION AT DIAPHRAGM



DETAIL B



SECT. A-A (FOR EXTERIOR ATTACHMENT)



No.	Date	Revision	By
PLANS PREPARED BY			
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STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-32-209			
Cons. Spec.	2003	Drawn By G.L.D.	Plans Checked KLT
STEEL INTER. DIAPHRAGM DETAILS			SHEET 11 OF 14