

LOCATION MAP

STATE OF OHIO, DEPARTMENT OF TRANSPORTATION

ERI/LOR-2-30.46/0.00

**TOWNSHIPS OF VERMILION, BROWNHELM
CITY OF VERMILION
ERIE AND LORAIN COUNTIES**

PROJECT DESCRIPTION

RESURFACING WITH SAFETY UPGRADING,
REPLACEMENT OF GUARDRAIL, AND SOME
STRUCTURE WORK.

SWPPP INFORMATION

PROJECT EARTH DISTURBED AREA - 9.00
ESTIMATED CONTRACTOR EARTH DISTURBED AREA-0.25
NOTICE OF INTENT EARTH DISTURBED AREA-9.25 *use 10.0*

LIMITED ACCESS

THIS IMPROVEMENT IS ESPECIALLY DESIGNED
FOR THROUGH TRAFFIC AND HAS BEEN DECLARED
A LIMITED ACCESS HIGHWAY OR FREEWAY BY
ACTION OF THE DIRECTOR IN ACCORDANCE WITH
THE PROVISIONS OF SECTION 5511.02 OF THE
REVISED CODE OF OHIO.

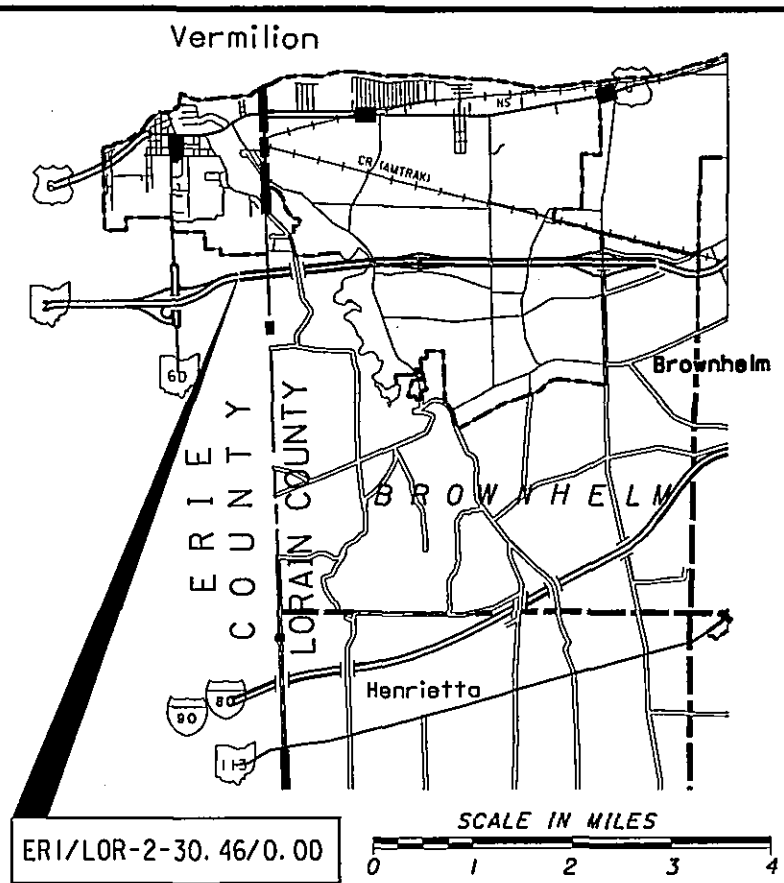
2002 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE
OF OHIO, DEPARTMENT OF TRANSPORTATION,
INCLUDING CHANGES AND SUPPLEMENTAL SPECI-
FICATIONS LISTED IN THE PROPOSAL SHALL
GOVERN THIS IMPROVEMENT.

I HEREBY APPROVE THESE PLANS AND DECLARE
THAT THE MAKING OF THIS IMPROVEMENT WILL
NOT REQUIRE THE CLOSING TO TRAFFIC OF THE
HIGHWAY AND THAT PROVISIONS FOR THE MAINTENANCE
AND SAFETY OF TRAFFIC WILL BE AS SET FORTH
ON THE PLANS AND ESTIMATES.

INDEX OF SHEETS:

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Dist 3 10/6/2004
040517 PID - 23805
ERI - SR 2 - 30.46/0.00 (City of Vermilion)

82° 20' 55" W. LONGITUDE 41° 24' 06" N. LATITUDE

PORTION TO BE IMPROVED
STATE & FEDERAL ROUTES
OTHER ROADS

DESIGN DESIGNATION

CURRENT ADT (2004)	29050
DESIGN YEAR ADT (2016)	38850
DESIGN HOURLY VOLUME (2014)	3691
DIRECTIONAL DISTRIBUTION	59%
TRUCKS (24 HOUR B&C)	20%
LEGAL SPEED	65 MPH
DESIGN SPEED	65 MPH

DESIGN FUNCTIONAL CLASSIFICATION - RURAL PRINCIPAL ARTERIAL
DESIGN EXCEPTIONS: NONE



TWO WORKING DAYS BEFORE YOU DIG
Call - 800-362-2764
TOLL FREE
OHIO UTILITIES PROTECTION SERVICE
NON-MEMBERS MUST BE CALLED DIRECTLY

APPROVED DATE: 2-19-04
DISTRICT DEPUTY DIRECTOR OF TRANSPORTATION
APPROVED DATE: 6-29-04
DIRECTOR, DEPARTMENT OF TRANSPORTATION

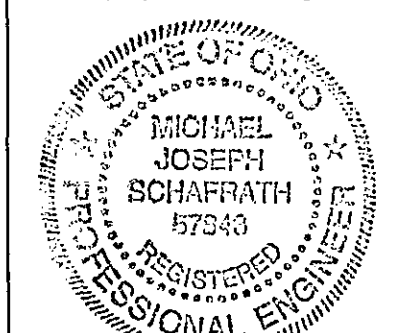
STANDARD DRAWINGS		STANDARD DRAWINGS		STANDARD DRAWINGS		STANDARD DRAWINGS		SUPPLEMENTAL SPECIFICATIONS		SUPPLEMENTAL SPECIFICATIONS	
BP-3.1	07-28-00			MT-35.10	04-20-01	TC-41.20	01-19-01	832	02-12-03	908	04-18-03
BP-9.1	10-17-03	RM-4.5	04-18-03	MT-95.40	07-18-03			833	02-12-03	954	09-09-97
		RM-4.6	01-16-04	MT-95.30	04-19-02	TC-65.10	10-19-01	846	04-19-02		
				MT-95.31	04-19-02	TC-65.11	10-19-01	864	07-11-00		
GR-1.1	04-18-03	DM-4.3	07-19-02	MT-95.32	04-19-02						
GR-2.1	01-16-04	DM-4.4	07-19-02	MT-97.10	04-19-02	TC-71.10	04-19-02				
GR-3.1	04-18-03			MT-98.12	04-19-02	TC-72.20	01-19-01				
GR-3.2	04-18-03			MT-98.13	04-19-02	TC-73.10	01-19-01				
				MT-98.14	04-19-02						
GR-4.2	10-17-03			MT-98.15	04-19-02						
				MT-98.16	04-19-02						
GR-5.3	01-16-04			MT-98.17	10-18-02						
GR-6.1	04-18-03			MT-98.18	10-18-02						
				MT-99.20m	01-30-95						
				MT-101.70	10-18-02						
				MT-105.10	10-18-02						
				MT-105.11	10-18-02						

ENGINEER'S SEAL FOR STRUCTURES OVER 20 FT.



David C. Mollenshott
DATE: 2/19/04

ENGINEER'S SEAL: FOR ENTIRE PLAN EXCEPT STRUCTURES OVER 20 FT.

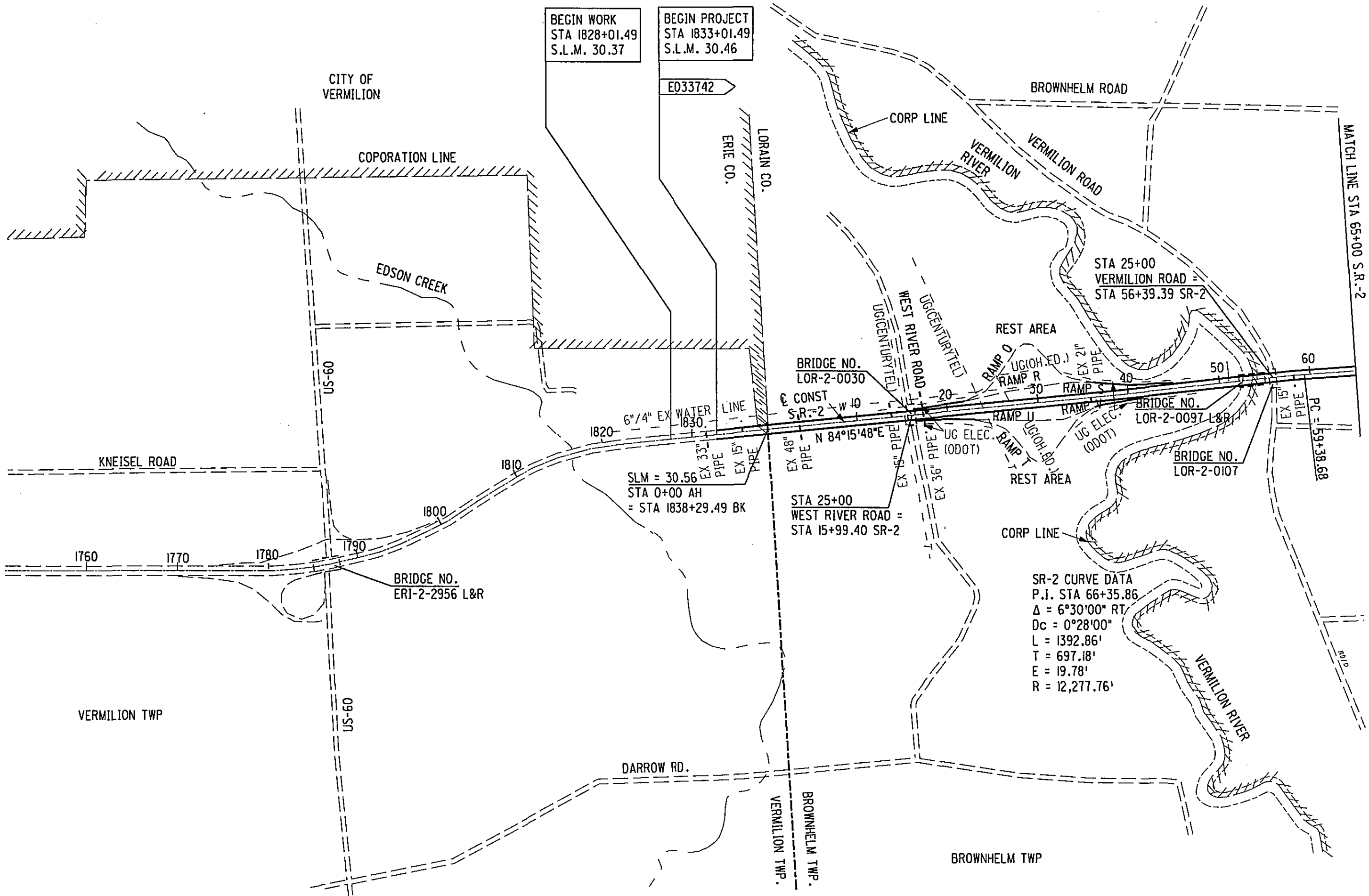


Michael J. Schaffrath
DATE: 2/19/04

DESIGNATION: 1100146\5085
DATE: 02/19/04

FEDERAL PROJECT NO. E033(742)
PID NO. 23805
CONSTRUCTION PROJECT NO.
RAILROAD INVOLVEMENT NONE
ERI/LOR-2-30.46/0.00
1/61

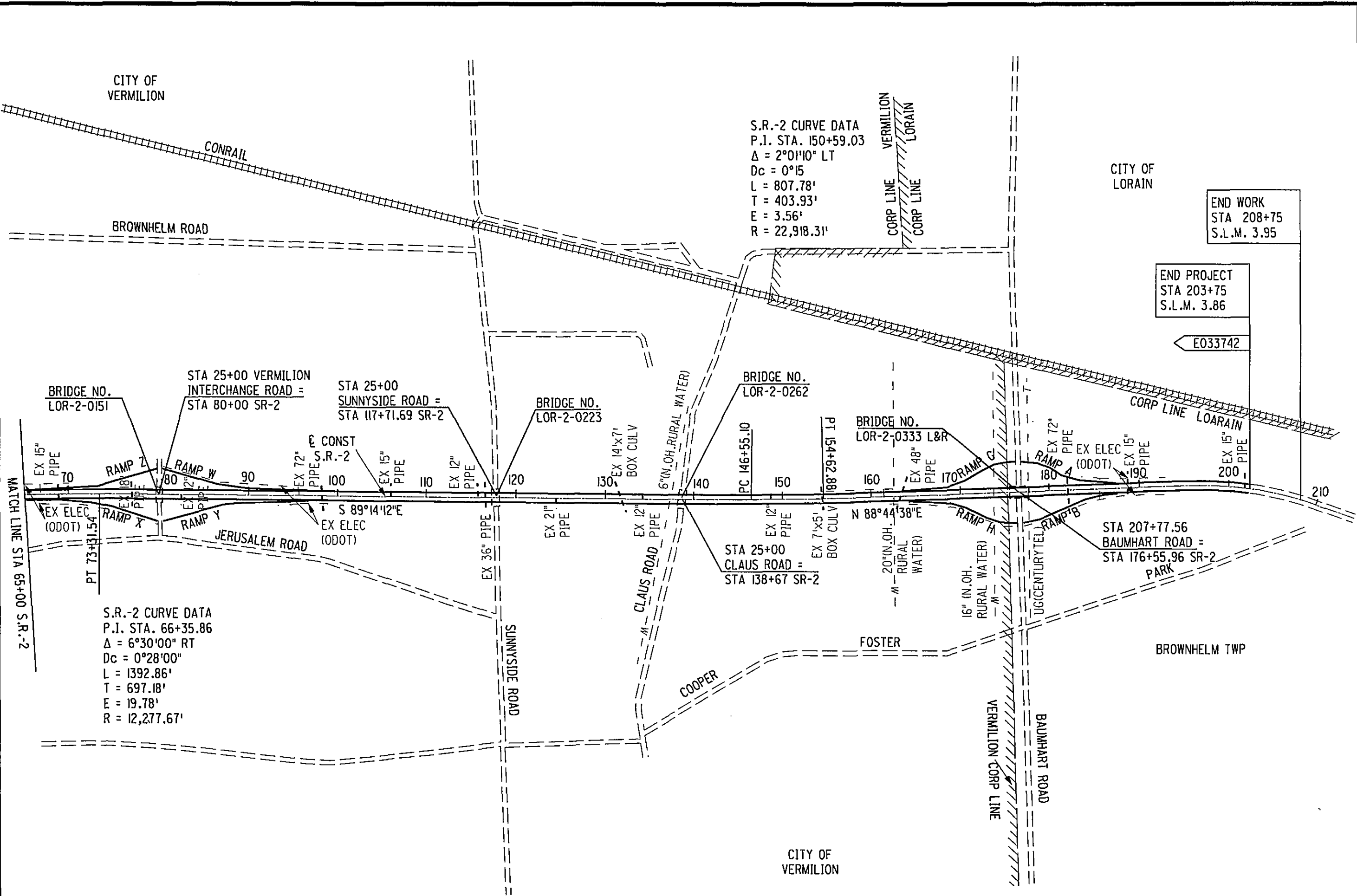
DESIGN FILE: i:\projects\23805\gb100Sch.dgn
WORKSTATION: sjuzwik DATE: 02/26/04



DATE: 02/26/04
DRAWN BY: SCJ
CHECKED BY: MJS

SCHEMATIC PLAN

ERI / LOR - 2 - 30.46 / 0.00



S.R.-2 CURVE DATA
 P.I. STA. 150+59.03
 $\Delta = 2^{\circ}01'10''$ LT
 $D_c = 0^{\circ}15'$
 $L = 807.78'$
 $T = 403.93'$
 $E = 3.56'$
 $R = 22,918.31'$

S.R.-2 CURVE DATA
 P.I. STA. 66+35.86
 $\Delta = 6^{\circ}30'00''$ RT
 $D_c = 0^{\circ}28'00''$
 $L = 1392.86'$
 $T = 697.18'$
 $E = 19.78'$
 $R = 12,277.67'$

END WORK
 STA 208+75
 S.L.M. 3.95

END PROJECT
 STA 203+75
 S.L.M. 3.86

E033742



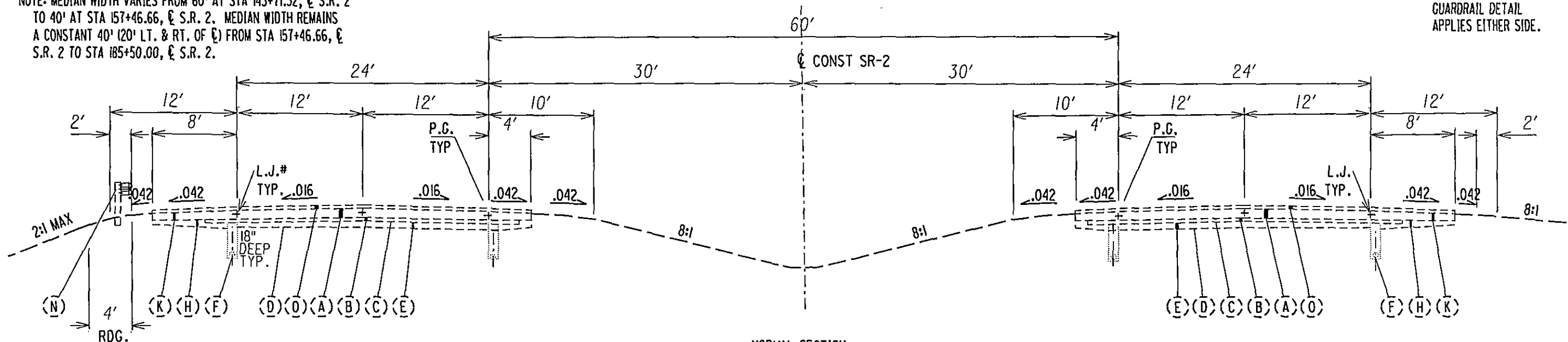
CALCULATED
 SCJ
 CHECKED
 MJS

SCHEMATIC PLAN

ERI/LOR-2-30.46/0.00

NOTE: MEDIAN WIDTH VARIES FROM 60' AT STA 143+71.32, & S.R. 2 TO 40' AT STA 157+46.66, & S.R. 2. MEDIAN WIDTH REMAINS A CONSTANT 40' (20' LT. & RT. OF C) FROM STA 157+46.66, & S.R. 2 TO STA 185+50.00, & S.R. 2.

NOTE: GUARDRAIL DETAIL APPLIES EITHER SIDE.



EXISTING TYPICAL SECTIONS

ERI/LOR-2-30.46/0.00

LEGEND (EXISTING)

- (A) CONCRETE PAVEMENT (SEE CHART ON SHEET 10)
- (B) 4" BASE (SEE CHART BELOW)
- (C) BITUMINOUS PRIME COAT, APPLIED AT A RATE OF 0.40 GAL/S.Y. WHERE INDICATED BELOW
- (D) SUBGRADE COMPACTION, TYP.
- (E) 6" AGGREGATE BASE, AS PER PLAN
- (F) 4" SHALLOW PIPE UNDERDRAIN 707.15, AS PER PLAN, TYP.
- (G) SEEDING AND MULCHING, TYP.
- (H) AGGREGATE BASE, AS PER PLAN (VARIABLE DEPTH AS SHOWN), TYP.
- (I) 9" REINFORCED CONCRETE PAVEMENT, AS PER PLAN
- (J) 10" AGGREGATE BASE, AS PER PLAN
- (K) PLAIN CONCRETE PAVEMENT (VARIABLE DEPTH AS SHOWN), AS PER PLAN, TYP.
- (L) 9" PLAIN CONCRETE PAVEMENT, AS PER PLAN
- (M) 4" SHALLOW PIPE UNDERDRAIN
- (N) GUARDRAIL, TYPE 5
- (O) SPOT PAVING (SEE LIST ON THIS SHEET)

NORMAL SECTION SECTION APPLIES WESTBOUND LANES:

- * STA 1835+10.00 TO STA 14+60 = 1779.49 L.F. (STA EQ 1838+29.49 BK = STA 0+00 AHD)
- * STA 56+06.25 TO STA 90+23.00 = 316.75 L.F.
- ** STA 98+00.00 TO STA 99+82.00 = 182 L.F.
- ** STA 114+82.00 TO STA 123+26.00 = 844 L.F.
- ** STA 138+92.00 TO STA 141+13.00 = 221 L.F.
- ** STA 174+73.00 TO STA 175+51.71 = 78.71 L.F.

EASTBOUND LANES

- ** STA 119+21.00 TO STA 126+16.00 = 695 L.F.
- * STA 153+12.00 TO STA 167+20.00 = 1408 L.F.
- ** STA 180+00 TO STA 181+46.00 = 146 L.F.
- TOTAL = 8770.95 L.F.

* FOR OUTSIDE BERM, SEE DETAIL A; FOR INSIDE BERM, SEE DETAIL B.
 ** FOR OUTSIDE BERM, SEE DETAIL A; FOR INSIDE BERM, SEE DETAIL C.

LIST OF EX. SPOT PAVING STATIONS (WESTBOUND)

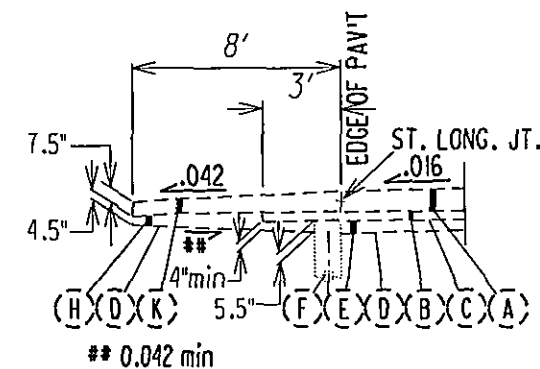
- STA 1835+10 TO STA 14+60
- STA 50+72 TO 89+66
- STA 99+78 TO STA 115+01
- STA 123+41 TO STA 155+75
- STA 182+35.21 TO STA 201+28

LIST OF EX. SPOT PAVING STATIONS (EASTBOUND)

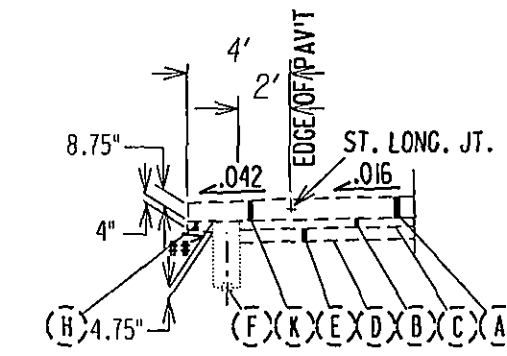
- STA 1835+10 TO STA 116+86
- STA 126+13 TO STA 153+28
- STA 182+35.21 TO STA 201+28

STATION		SIDE	LENGTH	⑧ 4" BASE	BITUMINOUS PRIME COAT APPLIED
FROM	TO				
1835+10.00	5+00.00	WB	819.49	SUBBASE, AS PER PLAN	
5+00.00	14+60.00	WB	960.00	NON-STABILIZED DRAINAGE BASE TYPE 'IA'	X
56+06.25	64+60.00	WB	853.75	AGGREGATE BASE, AS PER PLAN	
64+60.00	73+14.00	WB	854.00	NON-STABILIZED DRAINAGE BASE TYPE 'NJ'	X
73+14.00	81+68.00	WB	854.00	ASPHALT TREATED FREE DRAINING BASE	X
81+68.00	90+23.00	WB	855.00	CEMENT TREATED FREE DRAINING BASE	X
98+00.00	99+82.00	WB	182.00	AGGREGATE BASE, AS PER PLAN	
114+82.00	123+26.00	WB	844.00	AGGREGATE BASE, AS PER PLAN	
138+92.00	141+13.00	WB	221.00	AGGREGATE BASE, AS PER PLAN	
174+73.00	175+51.71	WB	78.71	AGGREGATE BASE, AS PER PLAN	
119+21.00	126+16.00	EB	695.00	AGGREGATE BASE, AS PER PLAN	
153+12.00	167+20.00	EB	1408.00	AGGREGATE BASE, AS PER PLAN	
180+00.00	181+46.00	EB	146.00	AGGREGATE BASE, AS PER PLAN	

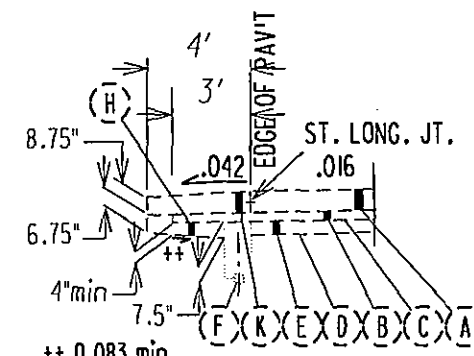
STA EQUATION - 1838+29.49 BK = 0+00 AH



DETAIL A



DETAIL B

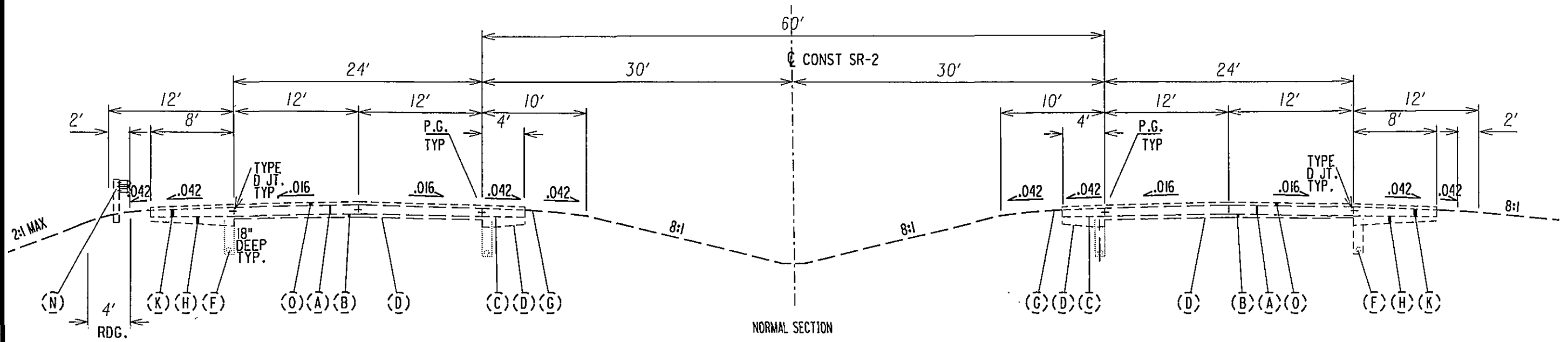


DETAIL C

NOTE: MEDIAN WIDTH VARIES FROM 60' AT STA 143+71.32, C S.R. 2 TO 40' AT STA 157+46.66, C S.R. 2. MEDIAN WIDTH REMAINS A CONSTANT 40' (20' LT. & RT. OF C) FROM STA 157+46.66, C S.R. 2 TO STA 185+50.00, C S.R. 2.

NOTE: GUARDRAIL DETAIL APPLIES EITHER SIDE.

CALCULATED
SCJ
CHECKED
MJS
HORIZONTAL SCALE: 1" = 20'
SCALE: IN FEET



NORMAL SECTION
SECTION APPLIES

WESTBOUND LANES:
 STA 1827+50.00 TO STA 1835+10.00 = 760.00 L.F.
 (DEDUCT FOR CONC. SHOULDER LEFT IN PLACE
 STA 1827+96 TO STA 1835+10) = -714.00 L.F.
 STA 14+60.00 TO STA 51+03.25 = 3643.25 L.F.
 STA 90+23.00 TO STA 98+00.00 = 777.00 L.F.
 STA 99+82.00 TO STA 114+82.00 = 1500 L.F.
 STA 123+26.00 TO STA 138+92.00 = 1566.00 L.F.
 STA 141+13.00 TO STA 174+73.00 = 3360.00 L.F.
 STA 177+60.21 TO STA 185+50.00 = 795.75 L.F.
 (STA EQ 185+05.96 BK = STA 185+00.00 AHD)

EASTBOUND LANES:
 STA 1827+50.00 TO STA 51+03.25 = 6182.74 L.F.
 (STA EQ 1838+29.49 BK = STA 0+00.00 AHD)
 STA 56+06.25 TO STA 119+21.00 = 6314.75 L.F.
 STA 126+16.00 TO STA 153+12.00 = 2696.00 L.F.
 STA 167+20.00 TO STA 175+51.71 = 831.71 L.F.
 STA 177+60.21 TO STA 180+00 = 239.79 L.F.
 STA 181+46.00 TO STA 185+50 = 409.96 L.F.
 (STA EQ 185+05.96 BK = STA 185+00.00 AHD)

TOTAL = 28,362.95 L.F.

NOTE:

(STA 51+28.25 TO STA 55+81.25 = LOR-2-0097 L & R)
 (STA 175+76.71 TO STA 177+35.21 = LOR-2-0333 L & R)

LEGEND (EXISTING)

- (A) CONCRETE PAVEMENT (SEE CHART ON SHEET 10)
- (B) 4" BASE (SEE CHART BELOW)
- (C) BITUMINOUS PRIME COAT, APPLIED AT A RATE OF 0.40 GAL/S.Y. (TYP)
- (D) SUBGRADE COMPACTION, TYP.
- (E) 6" AGGREGATE BASE, AS PER PLAN
- (F) 4" SHALLOW PIPE UNDERDRAIN 707.15, AS PER PLAN, TYP.
- (G) SEEDING AND MULCHING, TYP.
- (H) AGGREGATE BASE, AS PER PLAN (VARIABLE DEPTH AS SHOWN), TYP.
- (I) 9" REINFORCED CONCRETE PAVEMENT, AS PER PLAN
- (J) 10" AGGREGATE BASE, AS PER PLAN
- (K) PLAIN CONCRETE PAVEMENT (VARIABLE DEPTH AS SHOWN), AS PER PLAN, TYP.
- (L) 9" PLAIN CONCRETE PAVEMENT, AS PER PLAN
- (M) 4" SHALLOW PIPE UNDERDRAIN
- (N) GUARDRAIL, TYPE 5
- (O) SPOT PAVING (SEE LIST ON SHEET 4)

LIST OF SPOT PAVING STATIONS (WESTBOUND)

- STA 1835+10 TO STA 14+60
- STA 50+72 TO 89+66
- STA 99+78 TO STA 115+01
- STA 123+41 TO STA 155+75
- STA 182+35.21 TO STA 201+28

LIST OF SPOT PAVING STATIONS (EASTBOUND)

- STA 1835+10 TO STA 116+86
- STA 126+13 TO STA 153+28
- STA 182+35.21 TO STA 201+28

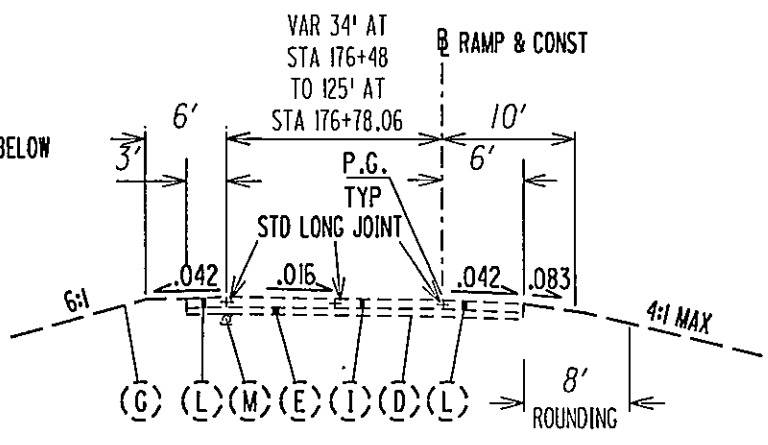
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 WORKSTATION: sjuzwzk DATE: 02/26/04

EXISTING TYPICAL SECTIONS

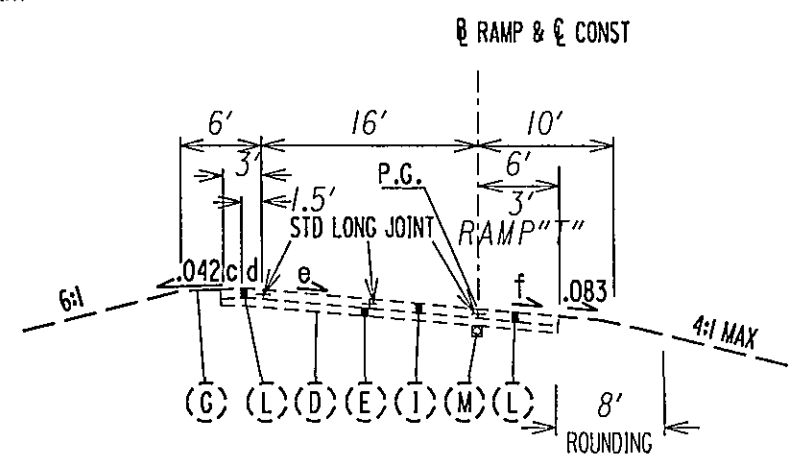
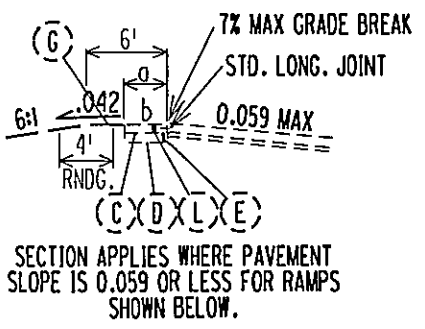
ERI/LOR-2-30.46/0.00

LEGEND (EXISTING)

- (A) CONCRETE PAVEMENT (SEE CHART ON SHEET 10)
- (B) 4" BASE (SEE CHART BELOW)
- (C) BITUMINOUS PRIME COAT, APPLIED AT A RATE OF 0.40 GAL/S.Y. WHERE INDICATED BELOW
- (D) SUBGRADE COMPACTION, TYP.
- (E) 6" AGGREGATE BASE, AS PER PLAN
- (F) 4" SHALLOW PIPE UNDERDRAIN 707.15, AS PER PLAN, TYP.
- (G) SEEDING AND MULCHING, TYP.
- (H) AGGREGATE BASE, AS PER PLAN (VARIABLE DEPTH AS SHOWN), TYP.
- (I) 9" REINFORCED CONCRETE PAVEMENT, AS PER PLAN
- (J) 10" AGGREGATE BASE, AS PER PLAN
- (K) PLAIN CONCRETE PAVEMENT (VARIABLE DEPTH AS SHOWN), AS PER PLAN, TYP.
- (L) 9" PLAIN CONCRETE PAVEMENT, AS PER PLAN
- (M) 4" SHALLOW PIPE UNDERDRAIN, TYP.
- (N) GUARDRAIL, TYPE 5
- (O) SPOT PAVING (SEE LIST ON SHEET 4)



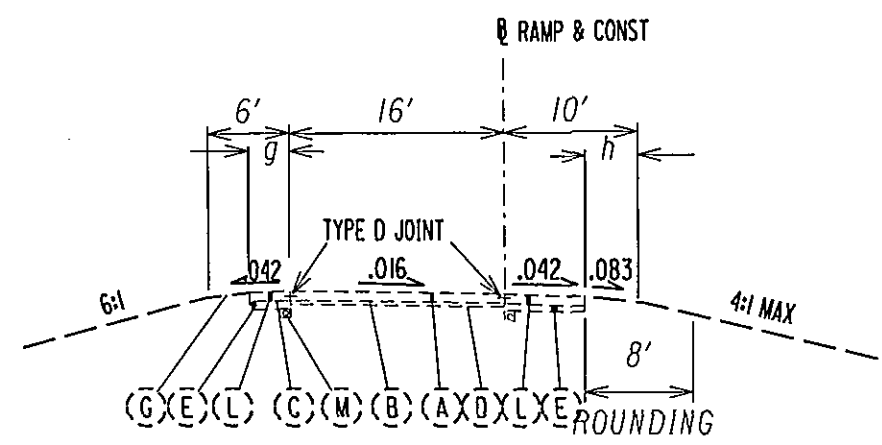
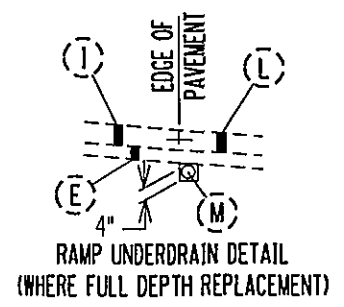
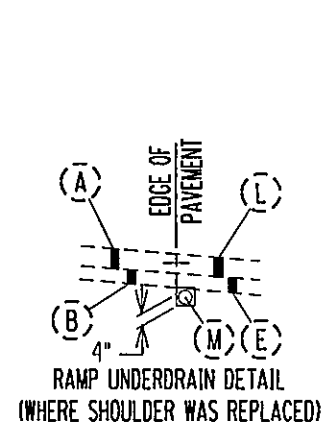
NORMAL SECTION
STA 176+48.00 TO STA 176+78.06 RAMP "G" = 30.06 L.F.



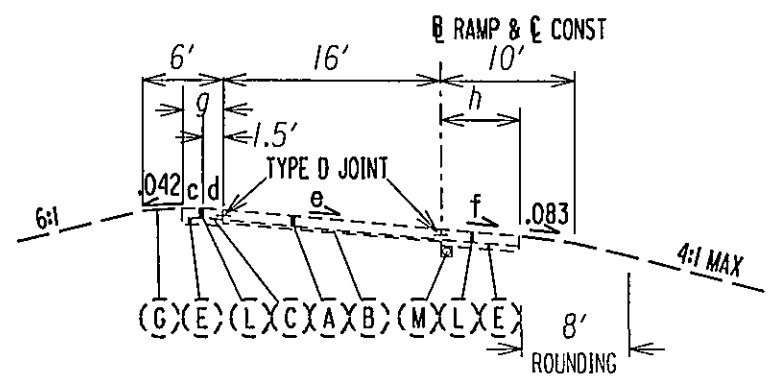
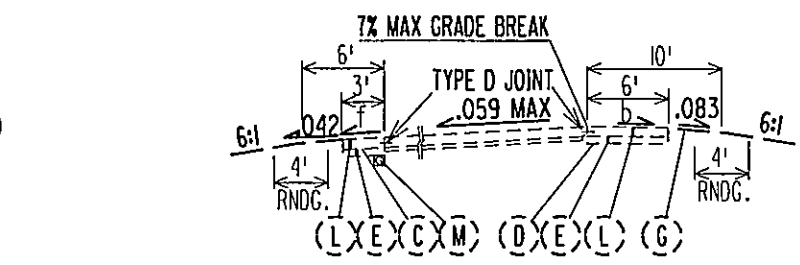
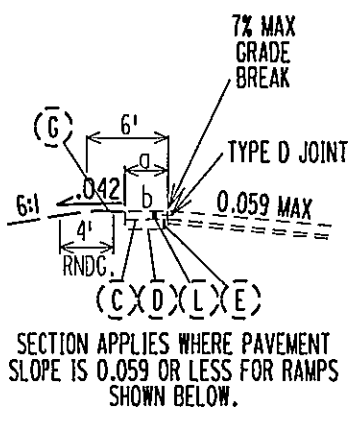
SUPERELEVATED SECTION

STA 27+08.00 TO STA 27+59.00 RAMP "T" = 51.00 L.F.
STA 168+04.00 TO STA 171+84.00 RAMP "H" = 380.00 L.F.
TOTAL = 431.00 L.F.

- a - VARIES 0' TO 3'
- b - VARIES 0.042 TO 0.010
- c - 0.010 SLOPE
- d - PAVEMENT SLOPE
- e - VARIES 0.016 TO 0.083
- f - 0.042 OR PAVEMENT SLOPE IF GREATER
- g - VARIES 0' TO 3'
- h - VARIES 0' TO 8'



NORMAL STATION



SUPERELEVATED SECTION
IN THE DIRECTION OF TRAFFIC

- STA 17+35.96 TO STA 19+87.50 RAMP "R" = 251.54 L.F.
- STA 23+72.50 TO STA 26+20.00 RAMP "R" = 247.50 L.F.
- STA 20+53.48 TO STA 25+70.00 RAMP "U" = 516.52 L.F.
- STA 22+25.00 TO STA 23+02.62 RAMP "Q" = 77.62 L.F.
- STA 33+69.00 TO STA 39+00.00 RAMP "S" = 531.00 L.F.
- STA 33+85.00 TO STA 34+86.75 RAMP "V" = 101.75 L.F.
- STA 39+17.00 TO STA 41+53.22 RAMP "V" = 236.22 L.F.
- STA 36+01.65 TO STA 36+50.00 RAMP "T" = 48.35 L.F.
- STA 69+00.00 TO STA 70+87.50 RAMP "Z" = 187.50 L.F.

- STA 75+75.00 TO STA 80+21.38 RAMP "Z" = 446.38 L.F.
- STA 76+00.00 TO STA 80+12.56 RAMP "X" = 412.56 L.F.
- STA 79+81.00 TO STA 84+25.00 RAMP "W" = 443.97 L.F.
- STA 79+82.11 TO STA 86+25.00 RAMP "Y" = 642.89 L.F.
- STA 90+25.00 TO STA 92+00.00 RAMP "Y" = 175.00 L.F.
- STA 164+50.00 TO STA 166+50 RAMP "G" = 200.00 L.F.
- STA 171+92.30 TO STA 172+57.70 RAMP "G" = 65.40 L.F.
- STA 176+25.00 TO STA 176+48.00 RAMP "G" = 23.00 L.F.
- STA 171+92.30 TO STA 172+57.70 RAMP "H" = 65.40 L.F.

- STA 18+66.46 TO STA 22+25.00 RAMP "O" = 358.54 L.F.
- STA 31+64.11 TO STA 34+52.78 RAMP "O" = 288.67 L.F.
- STA 19+87.50 TO STA 23+72.50 RAMP "R" = 385.00 L.F.
- STA 24+55.14 TO STA 27+08.00 RAMP "T" = 252.86 L.F.
- STA 36+50.00 TO STA 40+03.56 RAMP "T" = 353.56 L.F.
- STA 34+86.75 TO STA 39+17.00 RAMP "V" = 430.25 L.F.
- STA 39+00.00 TO STA 40+46.51 RAMP "S" = 146.51 L.F.
- STA 70+87.50 TO STA 75+75.00 RAMP "Z" = 487.50 L.F.

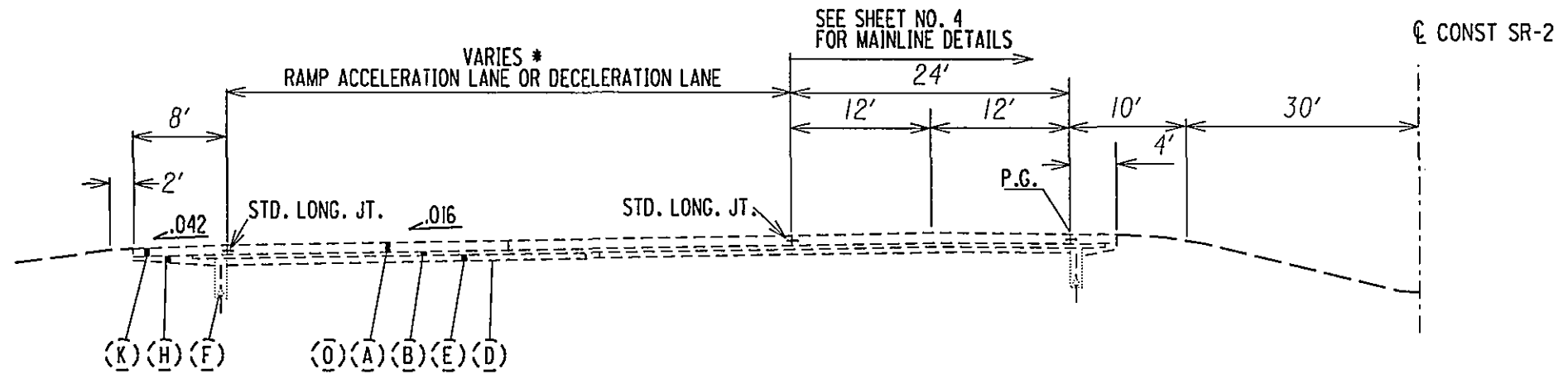
- STA 71+98.83 TO STA 76+00.00 RAMP "X" = 401.17 L.F.
- STA 84+25.00 TO STA 88+21.52 RAMP "W" = 396.52 L.F.
- STA 86+25.00 TO STA 90+25.00 RAMP "Y" = 400.00 L.F.
- STA 166+50.00 TO STA 171+92.30 RAMP "G" = 542.30 L.F.
- STA 172+57.70 TO STA 176+25.00 RAMP "G" = 367.30 L.F.
- STA 167+65.48 TO STA 168+04.00 RAMP "H" = 38.52 L.F.
- STA 171+84.00 TO STA 171+92.30 RAMP "H" = 8.30 L.F.
- STA 172+57.70 TO STA 176+74.89 RAMP "H" = 417.19 L.F.

TOTAL = 5274.19 L.F.

TOTAL = 4672.60 L.F.

LEGEND (EXISTING)

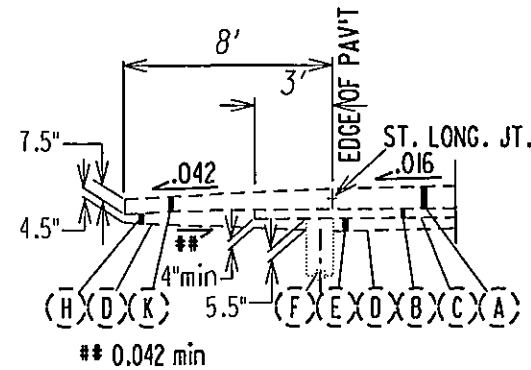
- (A) CONCRETE PAVEMENT (SEE CHART ON SHEET 10)
- (B) 4" BASE (SEE CHART BELOW)
- (C) BITUMINOUS PRIME COAT, APPLIED AT A RATE OF 0.40 GAL/S.Y. WHERE INDICATED BELOW
- (D) SUBGRADE COMPACTION, TYP.
- (E) 6" AGGREGATE BASE, AS PER PLAN
- (F) 4" SHALLOW PIPE UNDERDRAIN 707.15, AS PER PLAN, TYP.
- (G) SEEDING AND MULCHING, TYP.
- (H) AGGREGATE BASE, AS PER PLAN (VARIABLE DEPTH AS SHOWN), TYP.
- (I) 9" REINFORCED CONCRETE PAVEMENT, AS PER PLAN
- (J) 10" AGGREGATE BASE, AS PER PLAN
- (K) PLAIN CONCRETE PAVEMENT (VARIABLE DEPTH AS SHOWN), AS PER PLAN, TYP.
- (L) 9" PLAIN CONCRETE PAVEMENT, AS PER PLAN
- (M) 4" SHALLOW PIPE UNDERDRAIN, TYP
- (N) GUARDRAIL, TYPE 5
- (O) SPOT PAVING (SEE LIST ON SHEET 4)



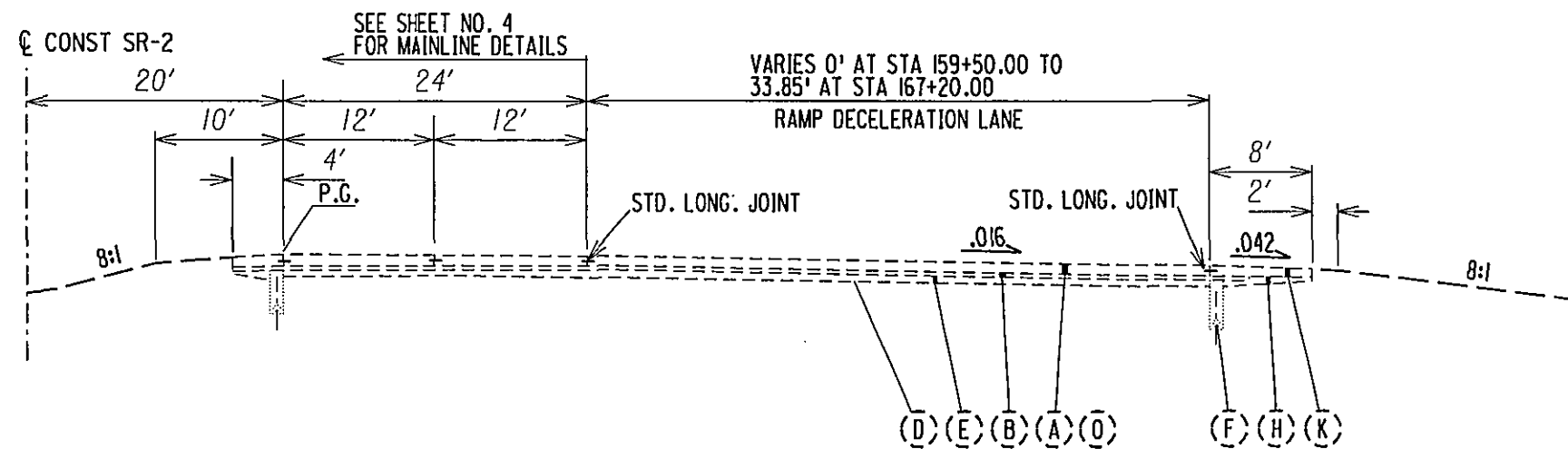
SECTION APPLIES:
WESTBOUND:

STA 5+50.00 C SR-2 TO STA 14+60.00 C SR-2 = 910.00 L.F. * VARIES FROM 0' AT STA 5+50.00 TO 18.96' AT STA 14+60.00
 STA 57+00.00 C SR-2 TO STA 69+00.00 C SR-2 = 1200.00 L.F. * VARIES FROM 0' AT STA 57+00.00 TO 25.00' AT STA 69+00.00
 STA 88+20.69 C SR-2 TO STA 90+23.00 C SR-2 = 202.31 L.F. * VARIES FROM 39' AT STA 88+20.69 TO 20.32' AT STA 90+23.00

STATION		SIDE	LENGTH	② 4" BASE	BITUMINOUS PRIME COAT APPLIED
FROM	TO				
5+50.00	14+60.00	WB	910.00	NON-STABILIZED DRAINAGE BASE TYPE 'IA'	X
57+00.00	64+60.00	WB	760.00	AGGREGATE BASE, AS PER PLAN	
64+60.00	69+00.00	WB	440.00	NON-STABILIZED DRAINAGE BASE TYPE 'NJ'	X
88+20.69	90+23.00	WB	202.31	CEMENT TREATED FREE DRAINAGE BASE	X
159+50.00	167+20.00	EB	770.00	AGGREGATE BASE, AS PER PLAN	

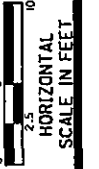


DETAIL A



SECTION APPLIES:
EASTBOUND:

STA 159+50.00 C SR-2 TO STA 167+20.00 C SR-2 = 770.00 L.F.
FOR OUTSIDE BERM, SEE DETAIL A



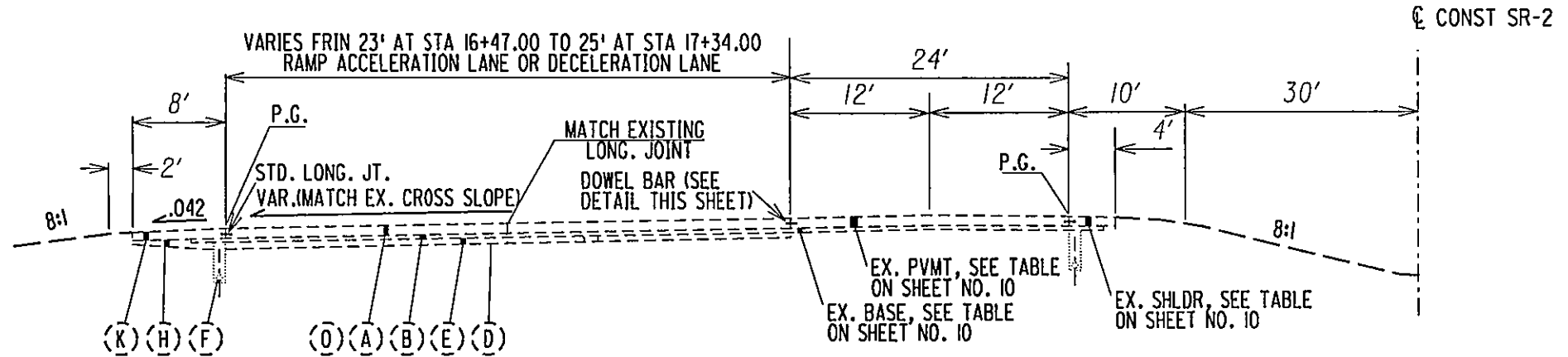
CALCULATED BY: SCJ
CHECKED BY: MJS

EXISTING TYPICAL SECTIONS

ERI/LOR-2-30.46/0.00

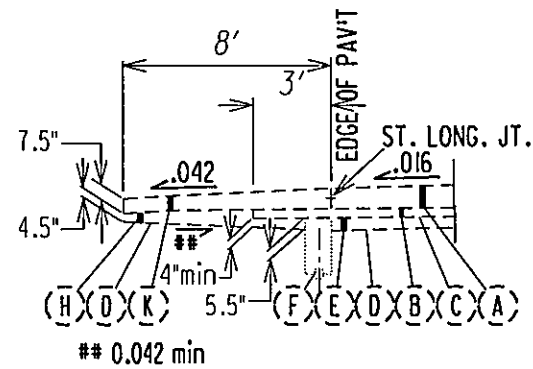
LEGEND (EXISTING)

- (A) CONCRETE PAVEMENT (SEE CHART ON SHEET 10)
- (B) 4" BASE (SEE CHART BELOW)
- (C) BITUMINOUS PRIME COAT, APPLIED AT A RATE OF 0.40 GAL/S.Y. WHERE INDICATED BELOW
- (D) SUBGRADE COMPACTION, TYP.
- (E) 6" AGGREGATE BASE, AS PER PLAN
- (F) 4" SHALLOW PIPE UNDERDRAIN 707.15, AS PER PLAN, TYP.
- (G) SEEDING AND MULCHING, TYP.
- (H) AGGREGATE BASE, AS PER PLAN (VARIABLE DEPTH AS SHOWN), TYP.
- (I) 9" REINFORCED CONCRETE PAVEMENT, AS PER PLAN
- (J) 10" AGGREGATE BASE, AS PER PLAN
- (K) PLAIN CONCRETE PAVEMENT (VARIABLE DEPTH AS SHOWN), AS PER PLAN, TYP.
- (L) 9" PLAIN CONCRETE PAVEMENT, AS PER PLAN
- (M) 4" SHALLOW PIPE UNDERDRAIN, TYP
- (N) GUARDRAIL, TYPE 5
- (O) SPOT PAVING (SEE LIST ON SHEET 4)



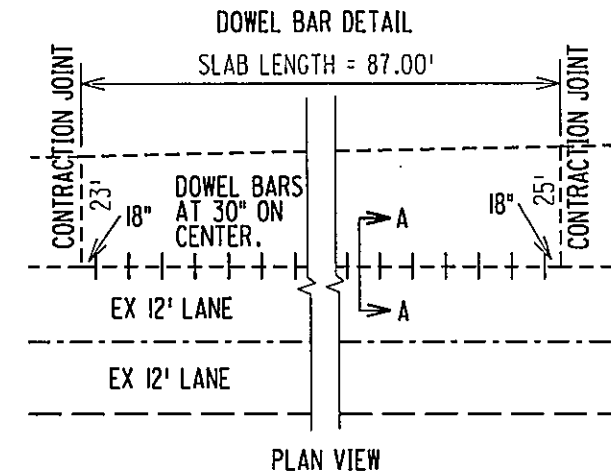
SECTION APPLIES:

STA 16+47.00 TO STA 17+34.00 RAMP "R" = 87.00 L.F.
FOR OUTSIDE BERM, SEE DETAIL A

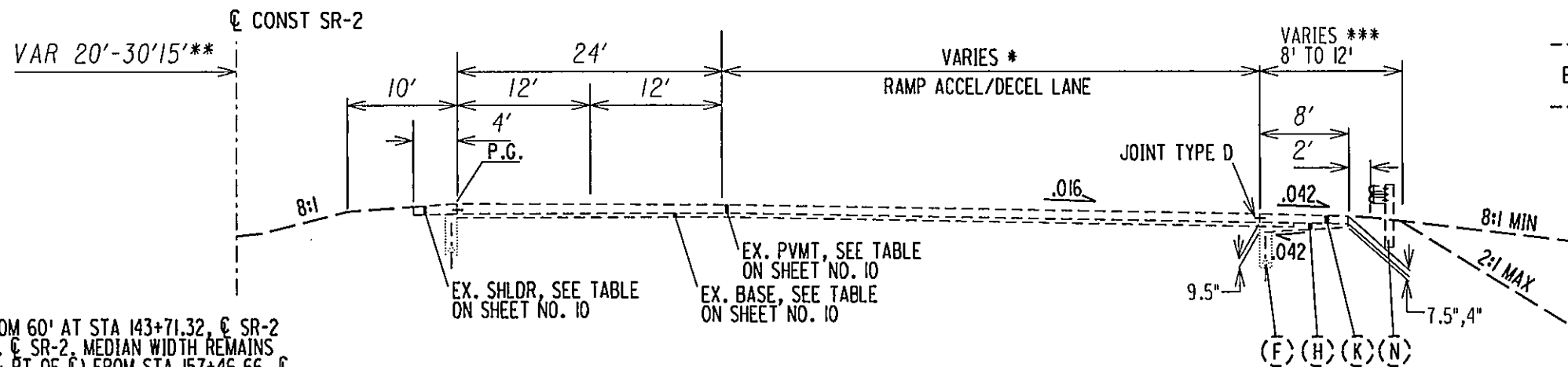


DETAIL A

STATION		SIDE	(B) 4" BASE
FROM	TO		
16+47.00	17+34.00	WB	AGGREGATE BASE, AS PER PLAN



PLAN VIEW



SECTION A-A

SECTION APPLIES:

***12' GRADED SHOULDER APPLIES ONLY WHERE GUARDRAIL IS LOCATED.

** MEDIAN WIDTH VARIES FROM 60' AT STA 143+71.32, C SR-2 TO 40' AT STA 157+46.66, C SR-2. MEDIAN WIDTH REMAINS A CONSTANT 40' (20' LT & RT OF C) FROM STA 157+46.66, C SR-2 TO STA 185+50.00, C SR-2.

STA 5+50.00 C SR-2 TO STA 16+47.00 C SR-2	= 1097.00 LF
STA 17+34.00 C SR-2 TO STA 17+50.00 C SR-2	= 16.00 LF
STA 40+45.69 C SR-2 TO STA 45+00.00 C SR-2	= 454.31 LF
STA 47+50.00 C SR-2 TO STA 48+50.00 C SR-2	= 100.00 LF
STA 57+00.00 C SR-2 TO STA 69+00.00 C SR-2	= 1200.00 LF
STA 88+20.69 C SR-2 TO STA 92+75.00 C SR-2	= 454.31 LF
STA 95+25.00 C SR-2 TO STA 96+25.00 C SR-2	= 100.00 LF
STA 152+50.00 C SR-2 TO STA 164+50.00 C SR-2	= 1200.00 LF

* VARIES FROM 0' AT STA 5+50.00 TO 23' AT STA 16+47.00	
* VARIES FROM 25' AT STA 77+34.00 TO 25' AT STA 17+50.00	
* VARIES FROM 39' AT STA 40+45.69 TO 12' AT STA 45+00.00	
* VARIES FROM 12' AT STA 47+50.00 TO 0' AT STA 48+50.00	
* VARIES FROM 0' AT STA 57+00.00 TO 25' AT STA 69+00.00	
* VARIES FROM 39' AT STA 88+20.69 TO 12' AT STA 92+75.00	
* VARIES FROM 12' AT STA 95+25.00 TO 0' AT STA 96+25.00	
* VARIES FROM 0' AT STA 152+50.00 TO 25' AT STA 164+50.00	

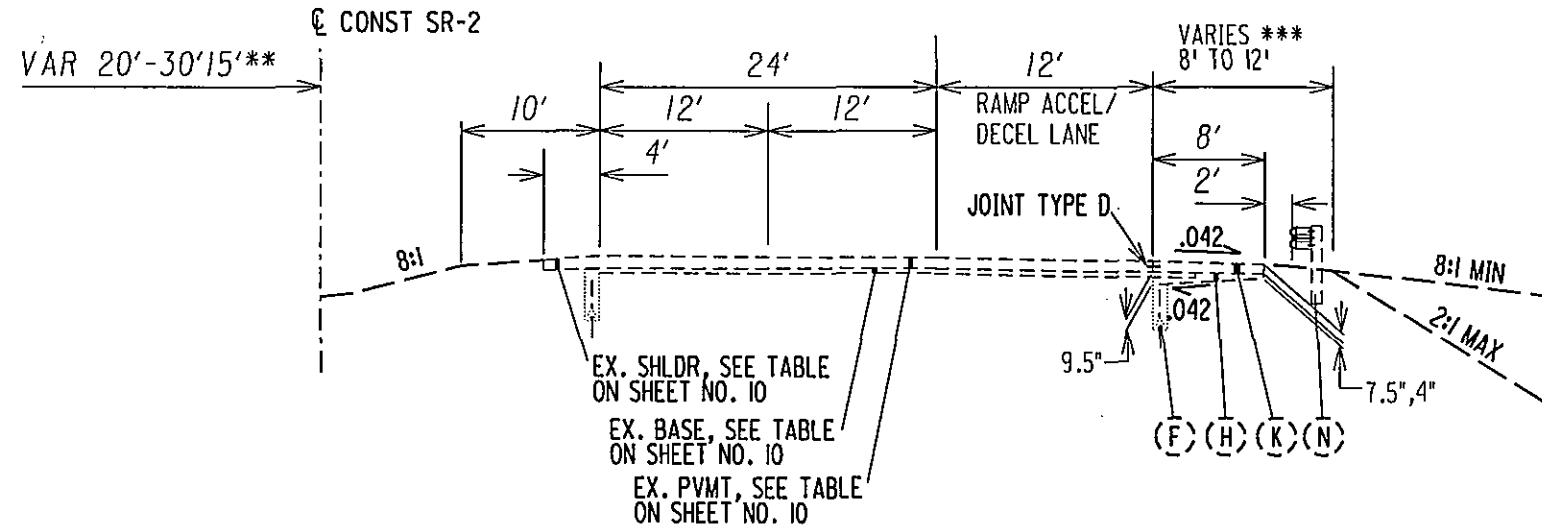
STA 12+50.00 C SR-2 TO STA 13+50.00 C SR-2	= 100.00 L.F.
STA 16+00.00 C SR-2 TO STA 20+54.81 C SR-2	= 454.81 L.F.
STA 41+25.00 C SR-2 TO STA 51+27.75 C SR-2	= 1002.75 L.F.
STA 64+00.00 C SR-2 TO STA 65+00.00 C SR-2	= 100.00 L.F.
STA 67+50.00 C SR-2 TO STA 72+02.43 C SR-2	= 452.43 L.F.
STA 92+00.00 C SR-2 TO STA 104+00.00 C SR-2	= 1200.00 L.F.
STA 159+50.00 C SR-2 TO STA 160+50.00 C SR-2	= 100.00 L.F.
STA 163+12.00 C SR-2 TO STA 167+66.31 C SR-2	= 454.31 L.F.

* VARIES FROM 0' AT STA 12+50.00 TO 12' AT STA 13+50.00	
* VARIES FROM 12' AT STA 16+00.00 TO 39' AT STA 20+54.81	
* VARIES FROM 49' AT STA 41+25.00 TO 4.1' AT STA 51+27.75	
* VARIES FROM 0' AT STA 64+00.00 TO 12' AT STA 65+00.00	
* VARIES FROM 0' AT STA 67+50.00 TO 39' AT STA 72+02.43	
* VARIES FROM 25' AT STA 92+00.00 TO 0' AT STA 104+00.00	
* VARIES FROM 0' AT STA 159+50.00 TO 12' AT STA 160+50.00	
* VARIES FROM 12' AT STA 163+12.00 TO 39' AT STA 167+66.31	

TOTAL = 8485.92 LF

LEGEND (EXISTING)

- (A) CONCRETE PAVEMENT (SEE CHART ON SHEET 10)
- (B) 4" BASE (SEE CHART BELOW)
- (C) BITUMINOUS PRIME COAT, APPLIED AT A RATE OF 0.40 GAL/S.Y. WHERE INDICATED BELOW
- (D) SUBGRADE COMPACTION, TYP.
- (E) 6" AGGREGATE BASE, AS PER PLAN
- (F) 4" SHALLOW PIPE UNDERDRAIN 707.15, AS PER PLAN, TYP.
- (G) SEEDING AND MULCHING, TYP.
- (H) AGGREGATE BASE, AS PER PLAN (VARIABLE DEPTH AS SHOWN), TYP.
- (I) 9" REINFORCED CONCRETE PAVEMENT, AS PER PLAN
- (J) 10" AGGREGATE BASE, AS PER PLAN
- (K) PLAIN CONCRETE PAVEMENT (VARIABLE DEPTH AS SHOWN), AS PER PLAN, TYP.
- (L) 9" PLAIN CONCRETE PAVEMENT, AS PER PLAN
- (M) 4" SHALLOW PIPE UNDERDRAIN, TYP.
- (N) GUARDRAIL, TYPE 5
- (O) SPOT PAVING (SEE LIST ON SHEET 4)



SECTION APPLIES:
WESTBOUND (IN DIRECTION OF TRAFFIC):

STA 45+00.00 $\text{\textcircled{C}}$ SR-2 TO STA 47+50.00 $\text{\textcircled{C}}$ SR-2 = 250.00 L.F.
STA 92+75.00 $\text{\textcircled{C}}$ SR-2 TO STA 95+25.00 $\text{\textcircled{C}}$ SR-2 = 250.00 L.F.

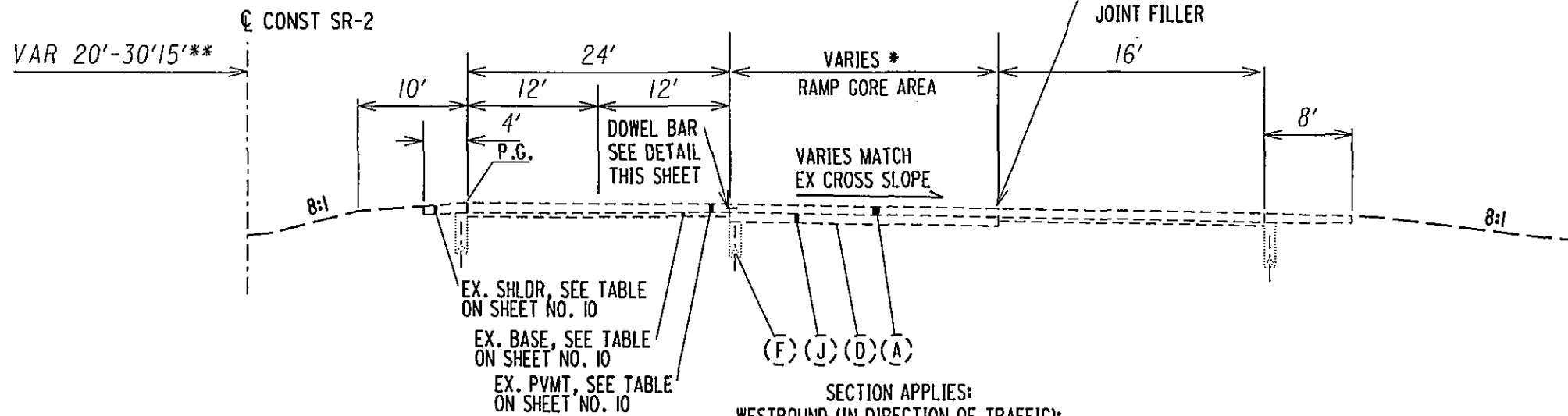
EASTBOUND

STA 13+50.00 $\text{\textcircled{C}}$ SR-2 TO STA 16+00.00 $\text{\textcircled{C}}$ SR-2 = 250.00 L.F.
STA 65+00.00 $\text{\textcircled{C}}$ SR-2 TO STA 67+50.00 $\text{\textcircled{C}}$ SR-2 = 250.00 L.F.
STA 160+50.00 $\text{\textcircled{C}}$ SR-2 TO STA 163+12.00 $\text{\textcircled{C}}$ SR-2 = 262.00 L.F.

TOTAL = 1262 LF

***12' GRADED SHOULDER APPLIES ONLY WHERE GUARDRAIL IS LOCATED.

NOTE: MEDIAN WIDTH VARIES FROM 60' AT STA 143+71.32, $\text{\textcircled{C}}$ SR-2 TO 40' AT STA 157+46.66, $\text{\textcircled{C}}$ SR-2. MEDIAN WIDTH REMAINS A CONSTANT 40' (20' LT & RT OF $\text{\textcircled{C}}$) FROM STA 157+46.66, $\text{\textcircled{C}}$ SR-2 TO STA 185+50.00, $\text{\textcircled{C}}$ SR-2.



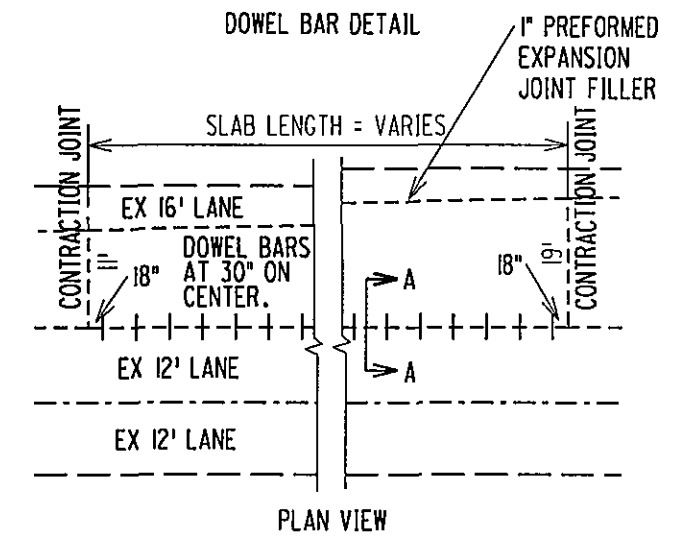
SECTION APPLIES:
WESTBOUND (IN DIRECTION OF TRAFFIC):

STA 17+50.00 $\text{\textcircled{C}}$ SR-2 TO STA 21+82.00 $\text{\textcircled{C}}$ SR-2 = 432.00 L.F. * VARIES FROM 11' AT STA 17+50.00 TO 19' AT STA 21+82.00
STA 69+00.00 $\text{\textcircled{C}}$ SR-2 TO STA 72+81.00 $\text{\textcircled{C}}$ SR-2 = 381.00 L.F. * VARIES FROM 11' AT STA 69+00.00 TO 19' AT STA 72+81.00
STA 164+50.00 $\text{\textcircled{C}}$ SR-2 TO STA 168+16.00 $\text{\textcircled{C}}$ SR-2 = 366.00 L.F. * VARIES FROM 11' AT STA 164+50.00 TO 19' AT STA 168+16.00

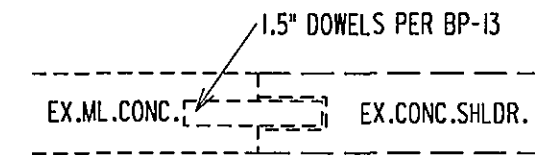
EASTBOUND

STA 37+33.00 $\text{\textcircled{C}}$ SR-2 TO STA 41+25.00 $\text{\textcircled{C}}$ SR-2 = 392.00 L.F. * VARIES FROM 19' AT STA 37+33.00 TO 11' AT STA 41+25.00
STA 88+18.00 $\text{\textcircled{C}}$ SR-2 TO STA 92+00.00 $\text{\textcircled{C}}$ SR-2 = 382.00 L.F. * VARIES FROM 19' AT STA 88+18.00 TO 11' AT STA 92+00.00

TOTAL = 1953.00 LF

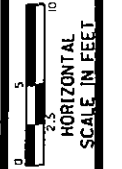


PLAN VIEW



SECTION A-A

LIMITING STATIONS	PAVEMENT				BASE												
	8" CRCP	9" CRCP	9" RCP	15" PLAIN CONC. PVMT.	BITUMINOUS AGGREGATE BASE	SUBBASE	4" CEMENT STABILIZED BASE	NONE									
WESTBOUND - MAINLINE																	
1827+50 TO 1827+96	X				X												
1827+96 TO 1835+10				X						X							
1835+10 TO 4+00				X						X							
4+00 TO 13+60			X							X							
13+60 TO 51+03.25	X				X												
56+03.25 TO 97+60			X			X											
97+60 TO 150+40			X			X											
150+40 TO 162+40			X		X												
162+40 TO 167+20		X			X												
167+20 TO 169+60		X			X												
169+60 TO 175+51.71			X		X												
177+60.21 TO 185+05.96			X		X												
EASTBOUND - MAINLINE																	
1827+50 TO 1827+96	X				X												
1827+96 TO 1838+29.49			X			X											
0+00 TO 11+20			X			X											
11+20 TO 51+03.25	X				X												
56+06.25 TO 88+60			X			X											
88+60 TO 150+40			X			X											
150+40 TO 162+40			X					X									
162+40 TO 167+20		X						X									
167+20 TO 169+60		X						X									
169+60 TO 175+51.71			X					X									
177+60.21 TO 185+05.96			X					X									
ALL RAMPS AND GORE AREAS																	
			X		X												
NOTE: THESE ITEMS ARE ONLY INDICATING THE AS-BUILT SPECIFICATION UNDER WHICH THEY WERE PLACED. AS A RECORD OF TEST SECTIONS, THIS TABLE IS FOR HISTORICAL INFORMATION ONLY.																	



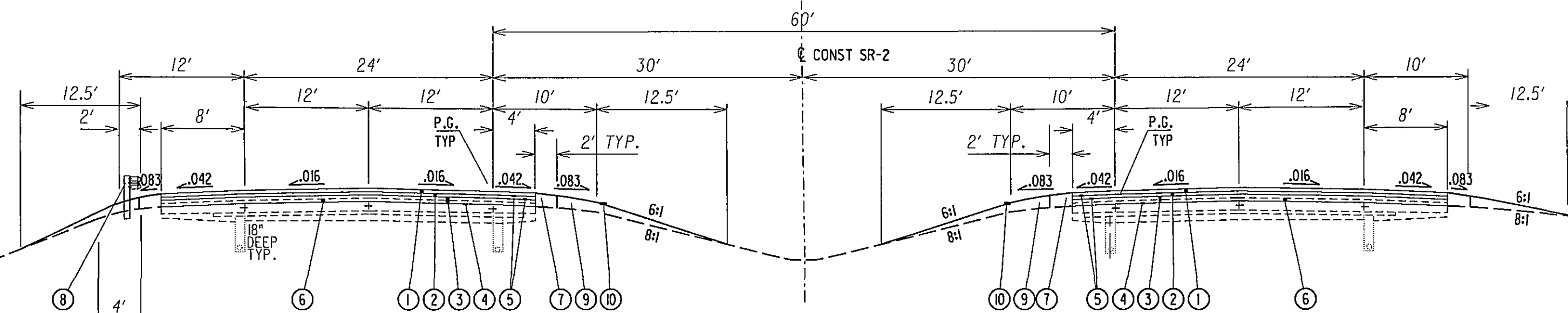
SCJ
 CHECKED
 MJS

EXISTING PAVEMENT BUILDUP

ERI/LOR-2-30.46/0.00

TYPICAL SECTIONS SR-2

ERI/LOR-2-30.46/0.00

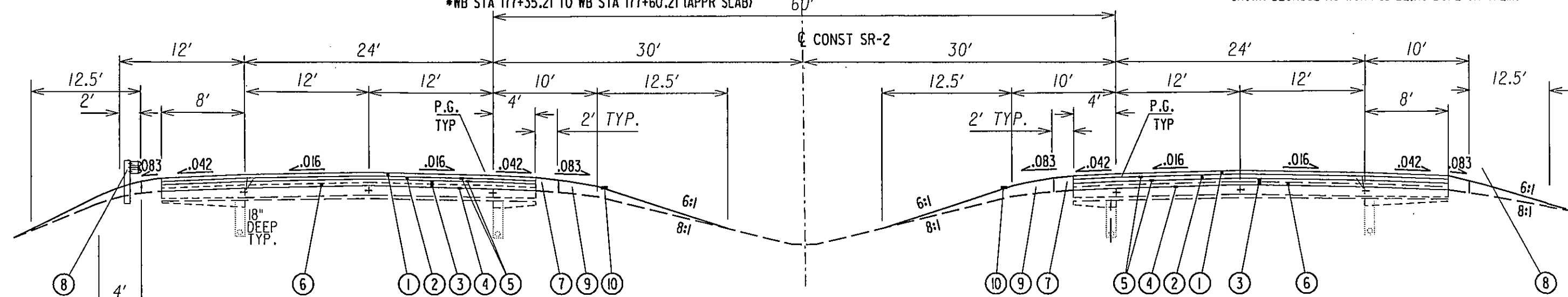


WB STA 57+00 TO WB STA 90+23 = 3283.61 L.F.
 WB STA 98+00 TO WB STA 99+82 = 182 L.F.
 WB STA 114+82 TO WB STA 123+26 = 844 L.F.
 WB STA 138+92 TO WB STA 141+13 = 221 L.F.
 WB STA 174+73 TO WB STA 175+51.71 = 78.71 L.F.
 *WB STA 175+51.71 TO WB STA 175+76.71 (APPR. SLAB)
 *WB STA 175+76.71 TO WB STA 177+35.21 (STRUCT LOR-2-0333)
 *WB STA 177+35.21 TO WB STA 177+60.21 (APPR SLAB)

EB STA 119+21 TO EB STA 126+16 = 695 L.F.
 EB STA 153+12 TO EB STA 167+20 = 1408 L.F.
 EB STA 180+00 TO EB STA 181+46 = 146 L.F.
 *EB STA 175+51.71 TO EB STA 175+76.71 (APPR. SLAB)
 *EB STA 175+76.71 TO EB STA 177+35.21 (STRUCT LOR-2-0333)
 *EB STA 177+35.21 TO EB STA 177+60.21 (APPR SLAB)

FOR EXISTING SPOT PAVING FOR PLANING LOCATIONS SEE LIST ON SHEET 4

*APPROACH SLABS ARE 25 FT LONG AND ARE NOT SHOWN BECAUSE NO WORK IS BEING DONE ON THEM.



WB STA 90+23 TO WB STA 98+00 = 777.00 L.F.
 WB STA 99+82 TO WB STA 114+82 = 1500.00 L.F.
 WB STA 123+26 TO WB STA 138+92 = 1566.00 L.F.
 WB STA 141+13 TO WB STA 174+73 = 3360.00 L.F.
 WB STA 177+60.21 TO WB STA 203+75 = 2614.79 L.F.

EB STA 57+00 TO EB STA 119+21 = 6181.61 L.F.
 EB STA 126+16 TO EB STA 153+12 = 2696.00 L.F.
 EB STA 167+20 TO EB STA 175+51.71 = 831.71 L.F.
 EB STA 177+60.21 TO EB STA 180+00 = 239.79 L.F.
 EB STA 181+46 TO EB STA 203+75 = 2229.00 L.F.

FACTORS FOR TOPSOIL AND SEEDING AND MULCHING CALCULATION

	GRADED SHOULDER CROSS SECTIONAL AREA = 3.125 SF	TOTAL AREA TOPSOIL PER FOOT OF ROAD = 12.766 SF
	SEEDING & MULCHING WIDTH = 91 LF	
	GRADED SHOULDER CROSS SECTIONAL AREA = 1.625 SF	TOTAL AREA TOPSOIL PER FOOT OF ROAD = 5.030 SF
	SEEDING & MULCHING WIDTH = 67 LF	

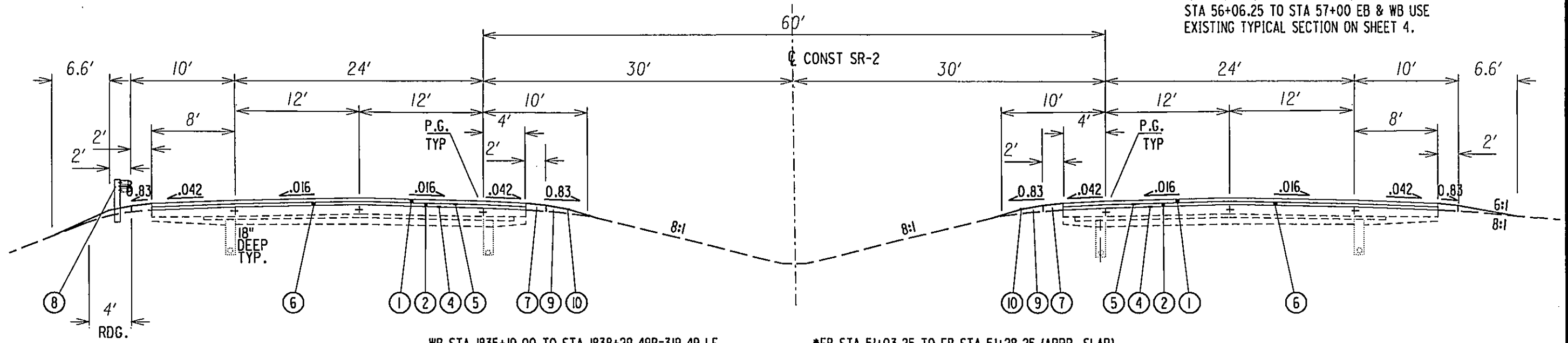
LEGEND (PROPOSED)

- ① 1.5" ITEM 442 ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446) WITH SUPPLEMENT 1059 WARRANTY
- ② 1.75" ITEM 442 ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE A (446)
- ③ 3" ITEM 301 ASPHALT CONCRETE BASE, PG64-28
- ④ ITEM 407 TACK COAT, 702.13 AT 0.10 GAL/SY
- ⑤ ITEM 407 TACK COAT FOR INTERMEDIATE COURSE AT 0.05 GAL/SY
- ⑥ ITEM 254 PAVEMENT PLANING, ASPHALT CONCRETE
- ⑦ ITEM 617 COMPACTED AGGREGATE, TYPE A, AS PER PLAN (TYP), 6" THICK
- ⑧ ITEM 606 GUARDRAIL, TYPE 5
- ⑨ ITEM 659 TOPSOIL, TYP.
- ⑩ ITEM 659 SEEDING AND MULCHING, TYP.

FOR PROPOSED TYPICAL SECTION FOR STA 56+06.25 TO STA 57+00 EB & WB EXISTING TYPICAL SECTION ON SHEET 4.

FOR PAVEMENT PROFILE TRANSITION REPLACEMENT SECTIONS SEE SHEETS 32 TO 35
 STA 48+00 TO STA 51+03.25 EB & WB
 STA 57+00 TO STA 59+00 EB & WB
 STA 173+51.71 TO STA 175+51.71 EB & WB
 STA 177+60.21 TO 179+60.21 EB & WB

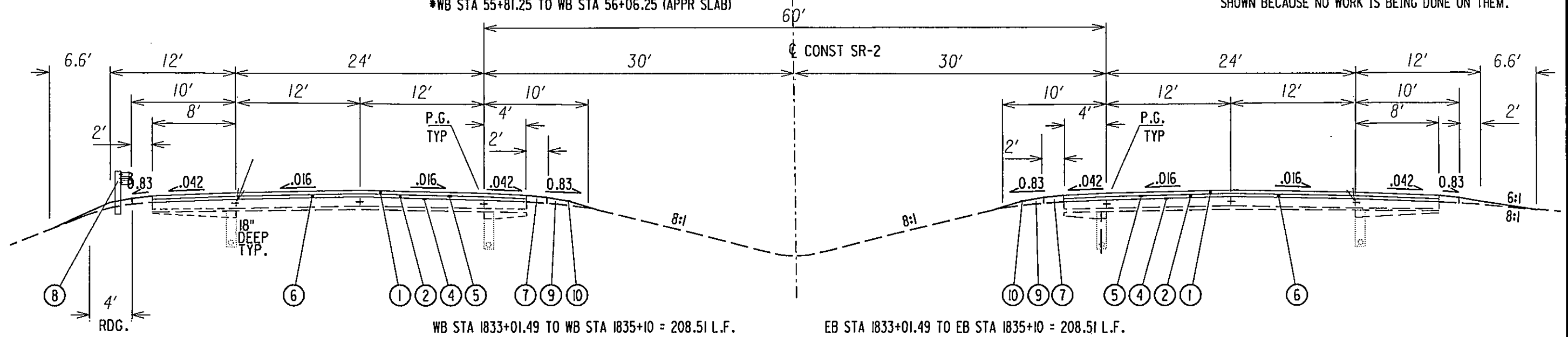
* FOR PROPOSED TYPICAL SECTION FOR STA 56+06.25 TO STA 57+00 EB & WB USE EXISTING TYPICAL SECTION ON SHEET 4.



WB STA 1835+10.00 TO STA 1838+29.49B=319.49 LF
 WB STA 0+00 AH TO STA 14+60=1460 LF
 *WB STA 51+03.25 TO WB STA 51+28.25 (APPR. SLAB)
 *WB STA 51+28.25 TO WB STA 55+81.25 (STRUCT LOR-2-0097)
 *WB STA 55+81.25 TO WB STA 56+06.25 (APPR SLAB)

*EB STA 51+03.25 TO EB STA 51+28.25 (APPR. SLAB)
 *EB STA 51+28.25 TO EB STA 55+81.25 (STRUCT LOR-2-0097)
 *EB STA 55+81.25 TO EB STA 56+06.25 (APPR SLAB)

*APPROACH SLABS ARE 25 FT LONG AND ARE NOT SHOWN BECAUSE NO WORK IS BEING DONE ON THEM.



WB STA 1833+01.49 TO WB STA 1835+10 = 208.51 L.F.
 WB STA 14+60.00 TO WB STA 51+03.25 = 3643.25 L.F.

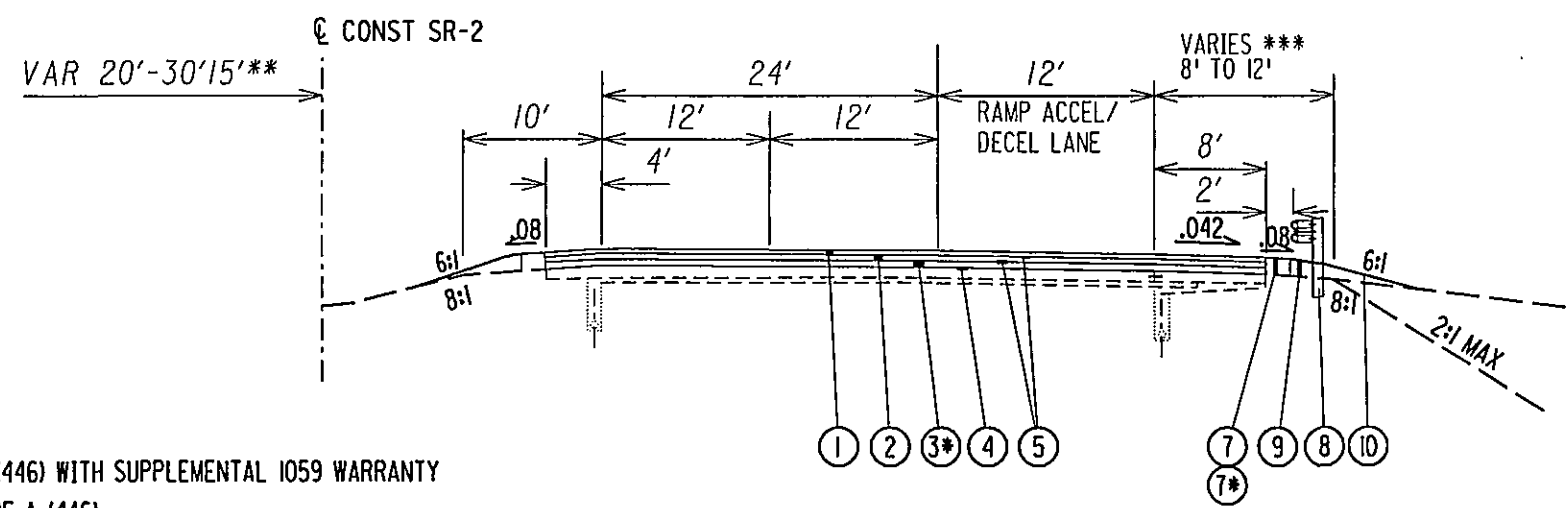
EB STA 1833+01.49 TO EB STA 1835+10 = 208.51 L.F.
 EB STA 1835+10 TO EB STA 1838+29.49B=319.49 LF
 EB STA 0+00AH TO 14+60.00=1460 LF
 EB STA 14+60.00 TO EB STA 51+03.25=3643.25 LF

LEGEND (PROPOSED)

- ① 1.5" ITEM 442 ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446) WITH SUPPLEMENTAL 1059 WARRANTY
- ② 1.75" ITEM 442 ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE A (446)
- ③ 3" ITEM 301 ASPHALT CONCRETE BASE, PG64-28
- ④ ITEM 407 TACK COAT, 702.13 AT 0.10 GAL/SY
- ⑤ ITEM 407 TACK COAT FOR INTERMEDIATE COURSE
- ⑥ ITEM 254 PAVEMENT PLANING, ASPHALT CONCRETE
- ⑦ ITEM 617 COMPACTED AGGREGATE, TYPE A, AS PER PLAN (TYP), 3.25" THICK
- ⑧ ITEM 606 GUARDRAIL, TYPE 5

- ⑨ ITEM 659 TOPSOIL, TYP.
- ⑩ ITEM 659 SEEDING AND MULCHING, TYP.

FOR PAVEMENT PROFILE TRANSITION
 REPLACEMENT SECTIONS SEE SHEETS 32 TO 35
 STA 48+00 TO STA 51+03.25 EB & WB
 STA 57+00 TO STA 59+00 EB & WB
 STA 173+51.71 TO STA 175+51.71 EB & WB
 STA 177+60.21 TO 179+60.21 EB & WB



LEGEND (PROPOSED)

- ① 1.5" ITEM 442 ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446) WITH SUPPLEMENTAL 1059 WARRANTY
- ② 1.75" ITEM 442 ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE A (446)
- ③ 3" ITEM 301 ASPHALT CONCRETE BASE, PG64-28
- ④ ITEM 407 TACK COAT, 702.13 AT 0.10 GAL/SY
- ⑤ ITEM 407 TACK COAT FOR INTERMEDIATE COURSE
- ⑥ ITEM 254 PAVEMENT PLANING, ASPHALT CONCRETE
- ⑦ ITEM 617 COMPACTED AGGREGATE, TYPE A, AS PER PLAN (TYP), 3.25" THICK (6.25"*)
- ⑧ ITEM 606 GUARDRAIL, TYPE 5
- ⑨ ITEM 659 TOPSOIL (TYP)
- ⑩ ITEM 659 SEEDING AND MULCHING, TYP.

SECTION APPLIES:
WESTBOUND (IN DIRECTION OF TRAFFIC):

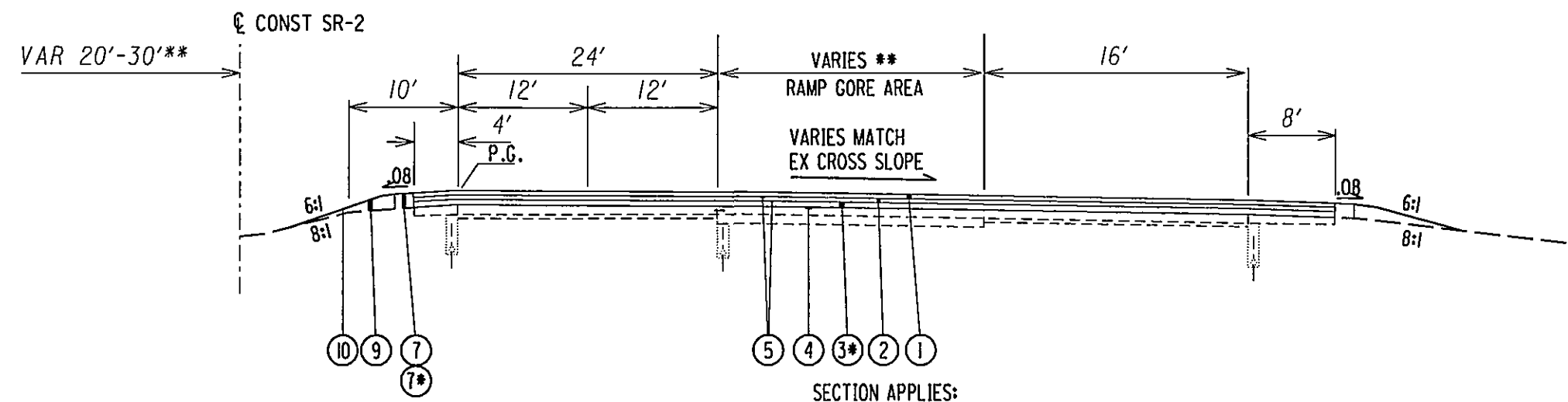
- STA 45+00.00 CL SR-2 TO STA 47+50.00 CL SR-2 = 250.00 L.F.
- * STA 92+75.00 CL SR-2 TO STA 95+25.00 CL SR-2 = 250.00 L.F.

EASTBOUND

- STA 13+50.00 CL SR-2 TO STA 16+00.00 CL SR-2 = 250.00 L.F.
- * STA 65+00.00 CL SR-2 TO STA 67+50.00 CL SR-2 = 250.00 L.F.
- * STA 160+50.00 CL SR-2 TO STA 163+12.00 CL SR-2 = 262.00 L.F.

TOTAL = 1262 LF

***12' GRADED SHOULDER APPLIES ONLY WHERE GUARDRAIL IS LOCATED.



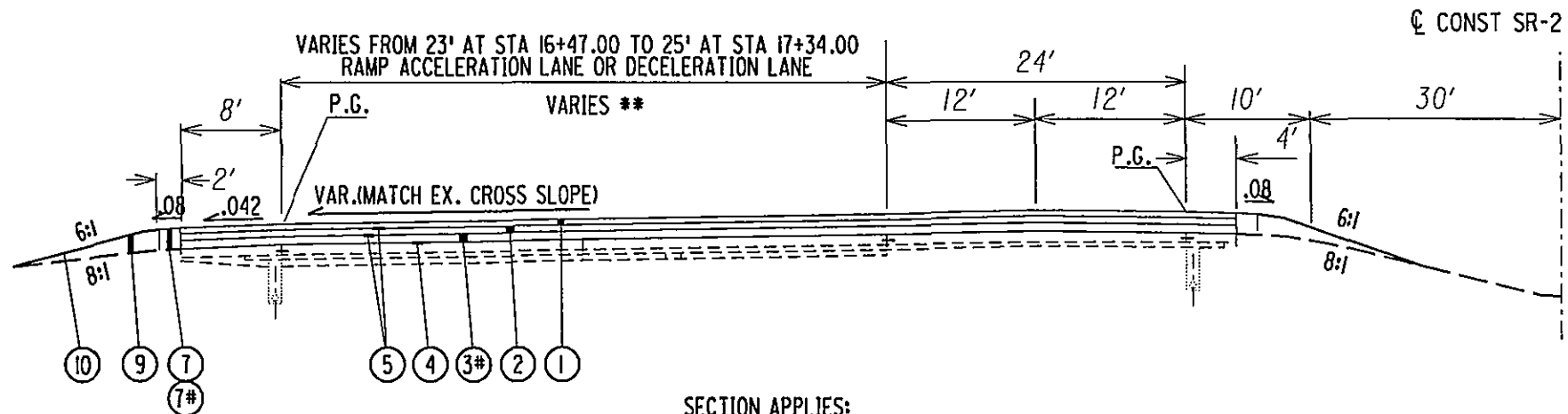
SECTION APPLIES:
WESTBOUND (IN DIRECTION OF TRAFFIC):

- STA 17+50.00 CL SR-2 TO STA 21+82.00 CL SR-2 = 432.00 L.F. ** VARIES FROM 11' AT STA 17+50.00 TO 19' AT STA 21+82.00
- * STA 69+00.00 CL SR-2 TO STA 72+81.00 CL SR-2 = 381.00 L.F. ** VARIES FROM 11' AT STA 69+00.00 TO 19' AT STA 72+81.00
- * STA 164+50.00 CL SR-2 TO STA 168+16.00 CL SR-2 = 366.00 L.F. ** VARIES FROM 11' AT STA 164+50.00 TO 19' AT STA 168+16.00

EASTBOUND

- STA 37+33.00 CL SR-2 TO STA 41+25.00 CL SR-2 = 392.00 L.F. ** VARIES FROM 19' AT STA 37+33.00 TO 11' AT STA 41+25.00
- * STA 88+18.00 CL SR-2 TO STA 92+00.00 CL SR-2 = 382.00 L.F. ** VARIES FROM 19' AT STA 88+18.00 TO 11' AT STA 92+00.00

TOTAL = 1953.00 LF



CALCULATED
SCJ
CHECKED
MJS
HORIZONTAL
SCALE IN FEET
1" = 20'

LEGEND (PROPOSED)

- ① 1.5" ITEM 442 ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446) WITH SUPPLEMENTAL 1059 WARRANTY
- ② 1.75" ITEM 442 ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE A (446)
- ③ 3" ITEM 301 ASPHALT CONCRETE BASE, PG64-28
- ④ ITEM 407 TACK COAT, 702.13 AT 0.10 GAL/SY
- ⑤ ITEM 407 TACK COAT FOR INTERMEDIATE COURSE
- ⑥ ITEM 254 PAVEMENT PLANING, ASPHALT CONCRETE
- ⑦ ITEM 617 COMPACTED AGGREGATE, TYPE A, AS PER PLAN (TYP), 3.25" THICK (6.25"*)
- ⑧ ITEM 606 GUARDRAIL, TYPE 5
- ⑨ ITEM 659 TOPSOIL (TYP)
- ⑩ ITEM 659 SEEDING AND MULCHING, TYP.

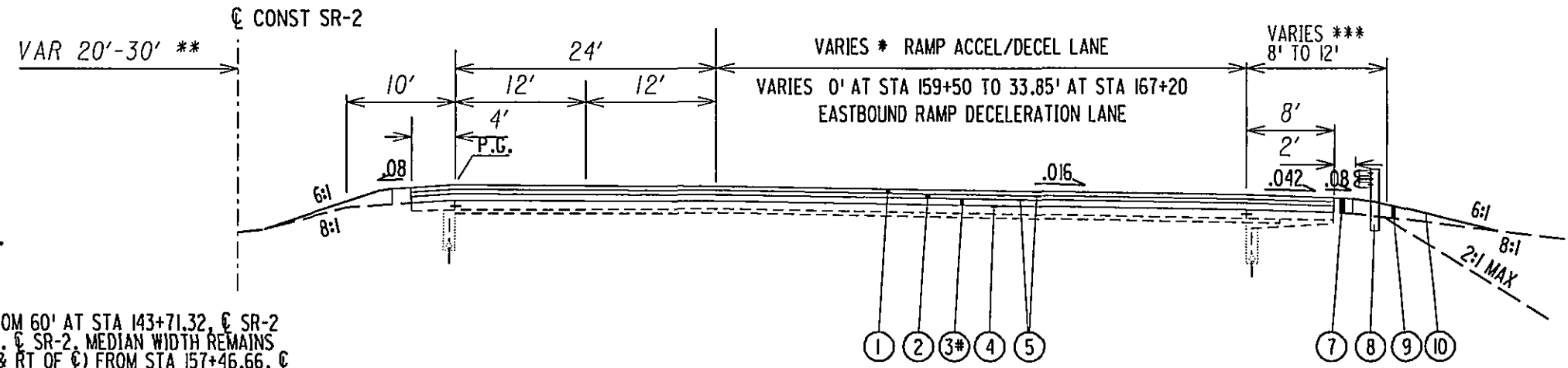
SECTION APPLIES:

STA 16+47.00 TO STA 17+34.00 RAMP "R" = 87.00 L.F.
FOR OUTSIDE BERM, SEE DETAIL A

SECTION APPLIES:

WESTBOUND:

STA 5+50.00 @ SR-2 TO STA 14+60.00 @ SR-2 = 910.00 L.F. ** VARIES FROM 0' AT STA 5+50.00 TO 18.96' AT STA 14+60.00
 * STA 57+00.00 @ SR-2 TO STA 69+00.00 @ SR-2 = 1200.00 L.F. ** VARIES FROM 0' AT STA 57+00.00 TO 25.00' AT STA 69+00.00
 * STA 88+20.69 @ SR-2 TO STA 90+23.00 @ SR-2 = 202.31 L.F. ** VARIES FROM 39' AT STA 88+20.69 TO 20.32' AT STA 90+23.00



***12' GRADED SHOULDER APPLIES ONLY WHERE GUARDRAIL IS LOCATED.

** MEDIAN WIDTH VARIES FROM 60' AT STA 143+71.32, @ SR-2 TO 40' AT STA 157+46.66, @ SR-2, MEDIAN WIDTH REMAINS A CONSTANT 40' (20' LT & RT OF @) FROM STA 157+46.66, @ SR-2 TO STA 185+50.00, @ SR-2.

WESTBOUND IN DIRECTION OF TRAFFIC

SECTION APPLIES:

EASTBOUND

STA 5+50.00 @ SR-2 TO STA 16+47.00 @ SR-2 = 1097.00 LF	* VARIES FROM 0' AT STA 5+50.00 TO 23' AT STA 16+47.00	STA 12+50.00 @ SR-2 TO STA 13+50.00 @ SR-2 = 100.00 L.F.	* VARIES FROM 0' AT STA 12+50.00 TO 12' AT STA 13+50.00
STA 17+34.00 @ SR-2 TO STA 17+50.00 @ SR-2 = 16.00 LF	* VARIES FROM 25' AT STA 17+34.00 TO 25' AT STA 17+50.00	STA 16+00.00 @ SR-2 TO STA 20+54.81 @ SR-2 = 454.81 L.F.	* VARIES FROM 12' AT STA 16+00.00 TO 39' AT STA 20+54.81
STA 40+45.69 @ SR-2 TO STA 45+00.00 @ SR-2 = 454.31 LF	* VARIES FROM 39' AT STA 40+45.69 TO 12' AT STA 45+00.00	STA 41+25.00 @ SR-2 TO STA 51+27.75 @ SR-2 = 1002.75 L.F.	* VARIES FROM 49' AT STA 41+25.00 TO 4.1' AT STA 51+27.75
* STA 47+50.00 @ SR-2 TO STA 48+50.00 @ SR-2 = 100.00 LF	* VARIES FROM 12' AT STA 47+50.00 TO 0' AT STA 48+50.00	* STA 64+00.00 @ SR-2 TO STA 65+00.00 @ SR-2 = 100.00 L.F.	* VARIES FROM 0' AT STA 64+00.00 TO 12' AT STA 65+00.00
* STA 57+00.00 @ SR-2 TO STA 69+00.00 @ SR-2 = 1200.00 LF	* VARIES FROM 0' AT STA 57+00.00 TO 25' AT STA 69+00.00	* STA 67+50.00 @ SR-2 TO STA 72+02.43 @ SR-2 = 452.43 L.F.	* VARIES FROM 0' AT STA 67+50.00 TO 39' AT STA 72+02.43
* STA 88+20.69 @ SR-2 TO STA 92+75.00 @ SR-2 = 454.31 LF	* VARIES FROM 39' AT STA 88+20.69 TO 12' AT STA 92+75.00	* STA 92+00.00 @ SR-2 TO STA 104+00.00 @ SR-2 = 1200.00 L.F.	* VARIES FROM 25' AT STA 92+00.00 TO 0' AT STA 104+00.00
* STA 95+25.00 @ SR-2 TO STA 96+25.00 @ SR-2 = 100.00 LF	* VARIES FROM 12' AT STA 95+25.00 TO 0' AT STA 96+25.00	* STA 159+50.00 @ SR-2 TO STA 160+50.00 @ SR-2 = 100.00 L.F.	* VARIES FROM 0' AT STA 159+50.00 TO 12' AT STA 160+50.00
* STA 152+50.00 @ SR-2 TO STA 164+50.00 @ SR-2 = 1200.00 LF	* VARIES FROM 0' AT STA 152+50.00 TO 25' AT STA 164+50.00	* STA 163+12.00 @ SR-2 TO STA 167+66.31 @ SR-2 = 454.31 L.F.	* VARIES FROM 12' AT STA 163+12.00 TO 39' AT STA 167+66.31

TOTAL = 8485.92 LF

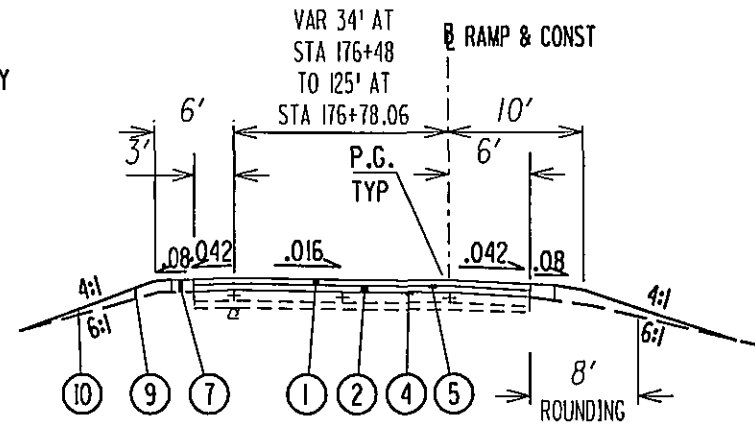
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 WORKSTATION: sjuzwzk DATE: 02/26/04

TYPICAL SECTIONS

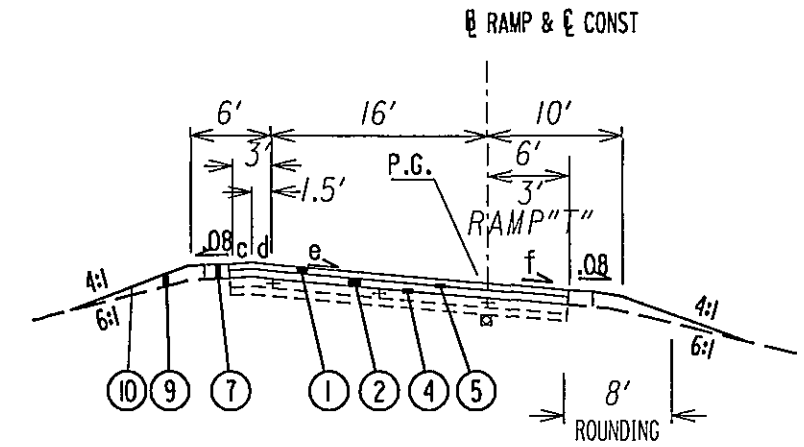
ERI/LOR-2-30.46/0.00
 12B
 61

LEGEND (PROPOSED)

- ① 1.5" ITEM 442 ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446) WITH SUPPLEMENTAL 1059 WARRANTY
- ② 1.75" ITEM 442 ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE A (446)
- ③ 3" ITEM 301 ASPHALT CONCRETE BASE, PG64-28
- ④ ITEM 407 TACK COAT, 702.13 AT 0.10 GAL/SY
- ⑤ ITEM 407 TACK COAT FOR INTERMEDIATE COURSE
- ⑥ ITEM 254 PAVEMENT PLANING, ASPHALT CONCRETE
- ⑦ ITEM 617 COMPACTED AGGREGATE, TYPE A, AS PER PLAN (TYP), 3.25" THICK
- ⑧ ITEM 606 GUARDRAIL, TYPE 5
- ⑨ ITEM 659 TOPSOIL (TYP)
- ⑩ ITEM 659 SEEDING AND MULCHING, TYP.

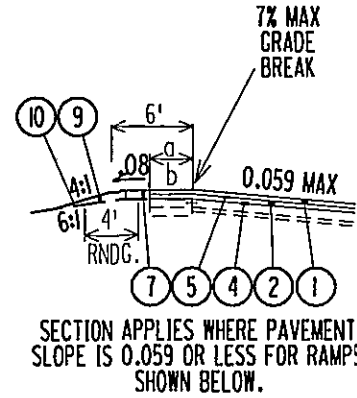


NORMAL SECTION
STA 176+48.00 TO STA 176+78.06 RAMP "C" = 30.06 L.F.

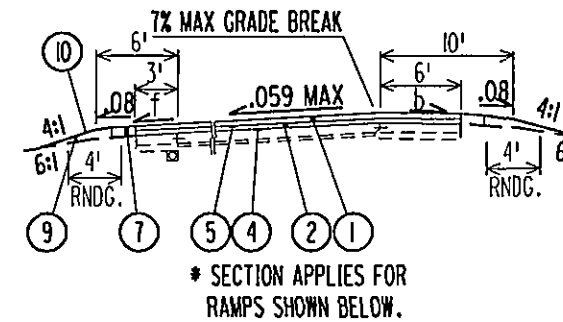


SUPERELEVATED SECTION
STA 27+08.00 TO STA 27+59.00 RAMP "T" = 51.00 L.F.
STA 168+04.00 TO STA 171+84.00 RAMP "H" = 380.00 L.F.
TOTAL = 431.00 L.F.

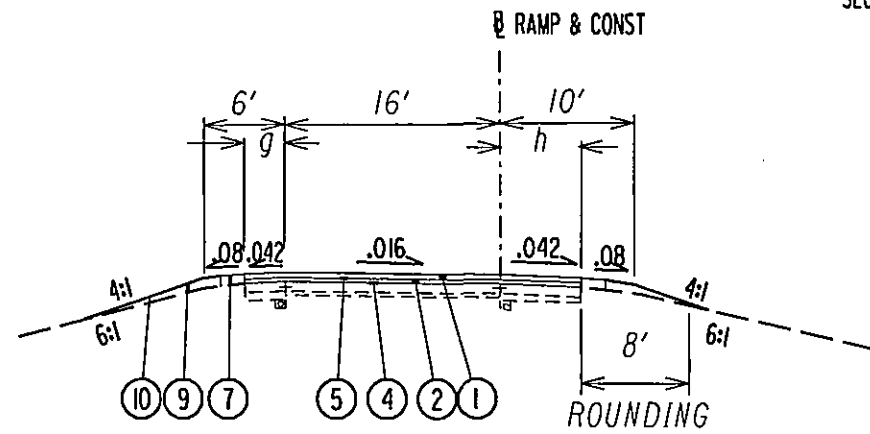
a - VARIES 0' TO 3'
b - VARIES 0.042 TO 0.010
c - 0.010 SLOPE
d - PAVEMENT SLOPE
e - VARIES 0.016 TO 0.083
f - 0.042 OR PAVEMENT SLOPE IF GREATER
g - VARIES 0' TO 3'
h - VARIES 0' TO 8'



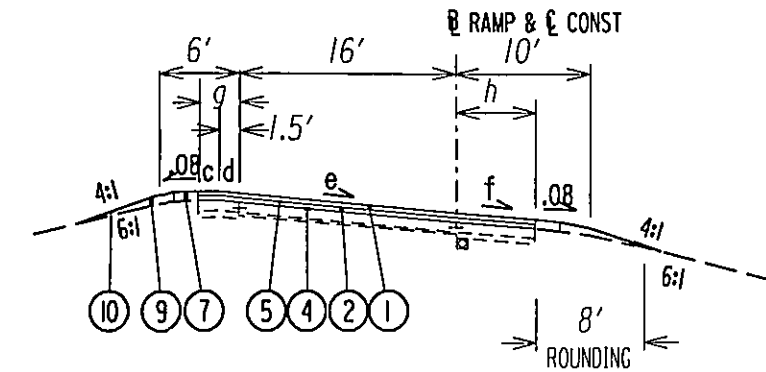
SECTION APPLIES WHERE PAVEMENT SLOPE IS 0.059 OR LESS FOR RAMPS SHOWN BELOW.



* SECTION APPLIES FOR RAMPS SHOWN BELOW.



NORMAL STATION



SUPERELEVATED SECTION
IN THE DIRECTION OF TRAFFIC

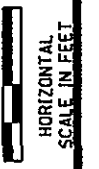
STA 17+35.96 TO STA 19+87.50 RAMP "R" = 251.54 L.F.	STA 75+75.00 TO STA 80+21.38 RAMP "Z" = 446.38 L.F.
STA 23+72.50 TO STA 26+20.00 RAMP "R" = 247.50 L.F.	STA 76+00.00 TO STA 80+12.56 RAMP "X" = 412.56 L.F.
STA 20+53.48 TO STA 25+70.00 RAMP "U" = 516.52 L.F.	STA 79+81.00 TO STA 84+25.00 RAMP "W" = 443.97 L.F.
STA 22+25.00 TO STA 23+02.62 RAMP "Q" = 77.62 L.F.	STA 79+82.11 TO STA 86+25.00 RAMP "Y" = 642.89 L.F.
STA 33+69.00 TO STA 39+00.00 RAMP "S" = 531.00 L.F.	STA 90+25.00 TO STA 92+00.00 RAMP "Y" = 175.00 L.F.
STA 33+85.00 TO STA 34+86.75 RAMP "V" = 101.75 L.F.	STA 164+50.00 TO STA 166+50 RAMP "G" = 200.00 L.F.
STA 39+17.00 TO STA 41+53.22 RAMP "V" = 236.22 L.F.	STA 171+92.30 TO STA 172+57.70 RAMP "G" = 65.40 L.F.
STA 36+01.65 TO STA 36+50.00 RAMP "T" = 48.35 L.F.	STA 176+25.00 TO STA 176+48.00 RAMP "G" = 23.00 L.F.
STA 69+00.00 TO STA 70+87.50 RAMP "Z" = 187.50 L.F.	STA 171+92.30 TO STA 172+57.70 RAMP "H" = 65.40 L.F.

TOTAL = 4672.60 L.F.

STA 18+66.46 TO STA 22+25.00 RAMP "Q" = 358.54 L.F.	STA 71+98.83 TO STA 76+00.00 RAMP "X" = 401.17 L.F.
STA 31+64.11 TO STA 34+52.78 RAMP "Q" = 288.67 L.F.	STA 84+25.00 TO STA 88+21.52 RAMP "W" = 396.52 L.F.
STA 19+87.50 TO STA 23+72.50 RAMP "R" = 385.00 L.F.	STA 86+25.00 TO STA 90+25.00 RAMP "Y" = 400.00 L.F.
STA 24+55.14 TO STA 27+08.00 RAMP "T" = 252.86 L.F.	STA 166+50.00 TO STA 171+92.30 RAMP "G" = 542.30 L.F.
STA 36+50.00 TO STA 40+03.56 RAMP "T" = 353.56 L.F.	STA 172+57.70 TO STA 176+25.00 RAMP "G" = 367.30 L.F.
STA 34+86.75 TO STA 39+17.00 RAMP "V" = 430.25 L.F.	STA 167+65.48 TO STA 168+04.00 RAMP "H" = 38.52 L.F.
STA 39+00.00 TO STA 40+46.51 RAMP "S" = 146.51 L.F.	STA 171+84.00 TO STA 171+92.30 RAMP "H" = 8.30 L.F.
STA 70+87.50 TO STA 75+75.00 RAMP "Z" = 487.50 L.F.	STA 172+57.70 TO STA 176+74.89 RAMP "H" = 417.19 L.F.

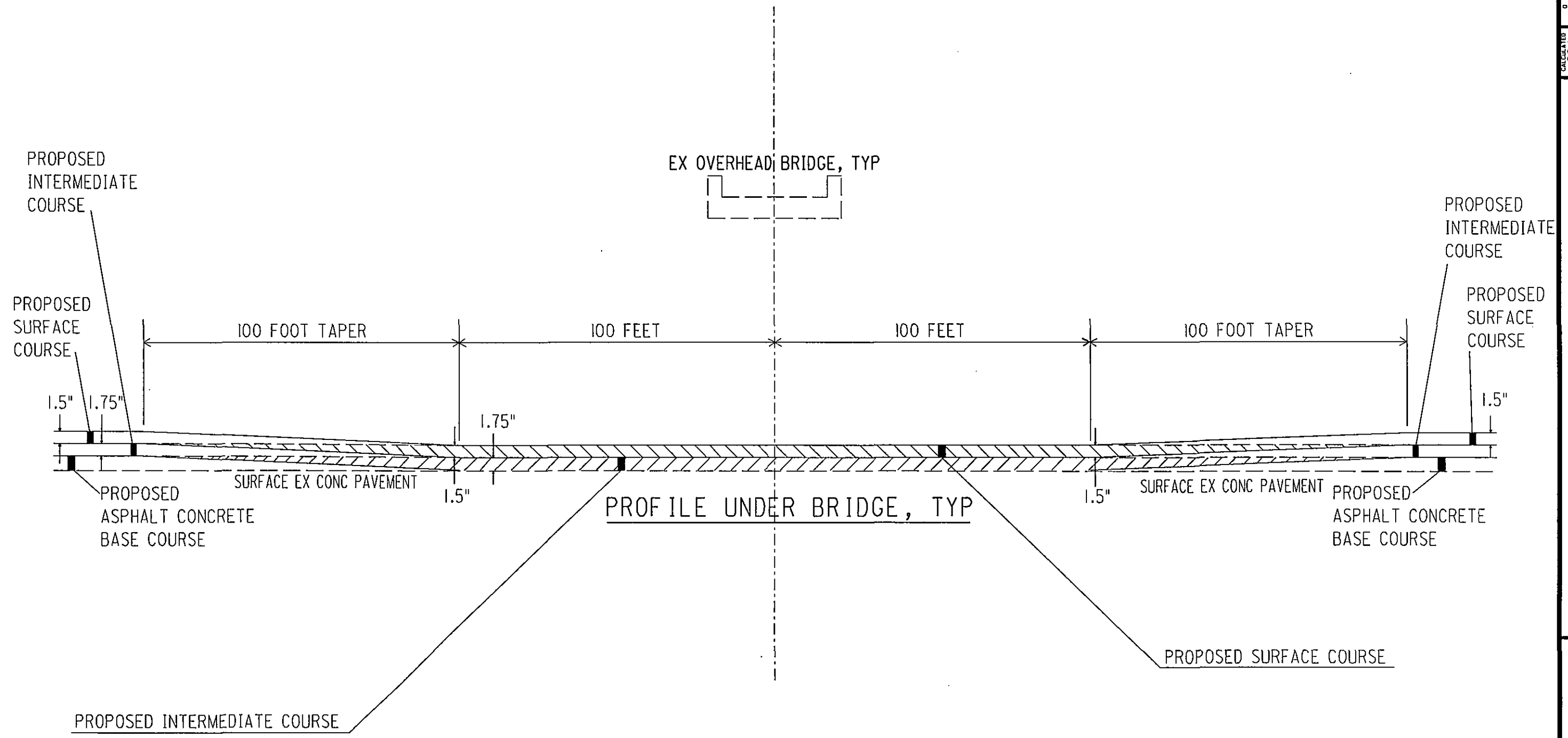
TOTAL = 5274.19 L.F.

NOTE: TRANSITION PAVEMENT DEPTH UNDER OVERHEAD BRIDGES TO PRESERVE MAXIMAL EXISTING VERTICAL CLEARANCE AT:
 LOR-2-0223
 LOR-2-0262



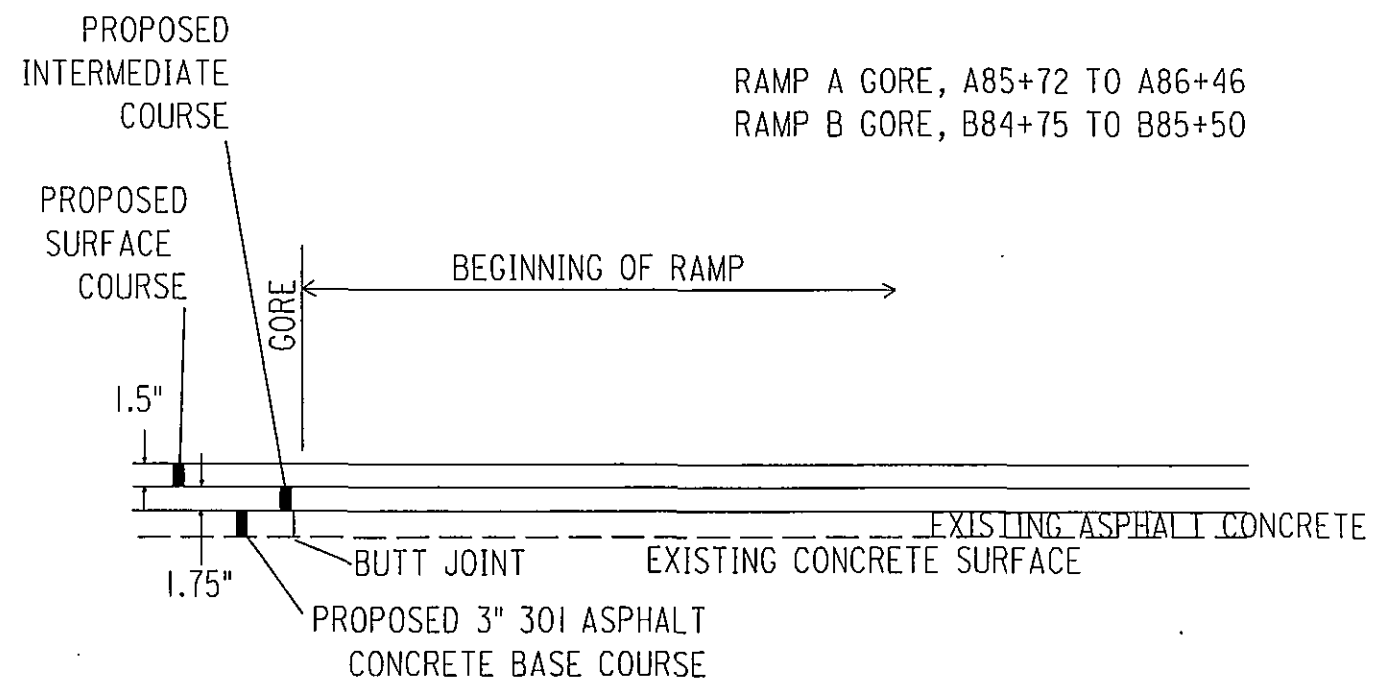
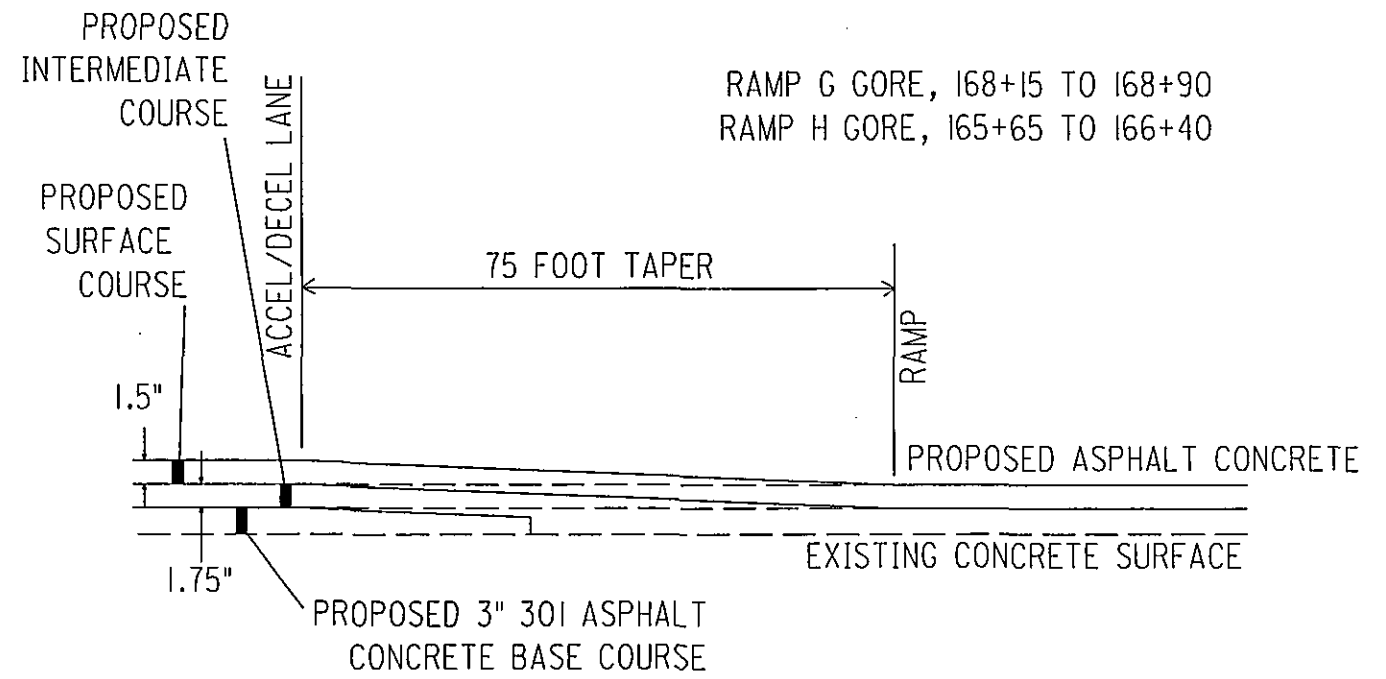
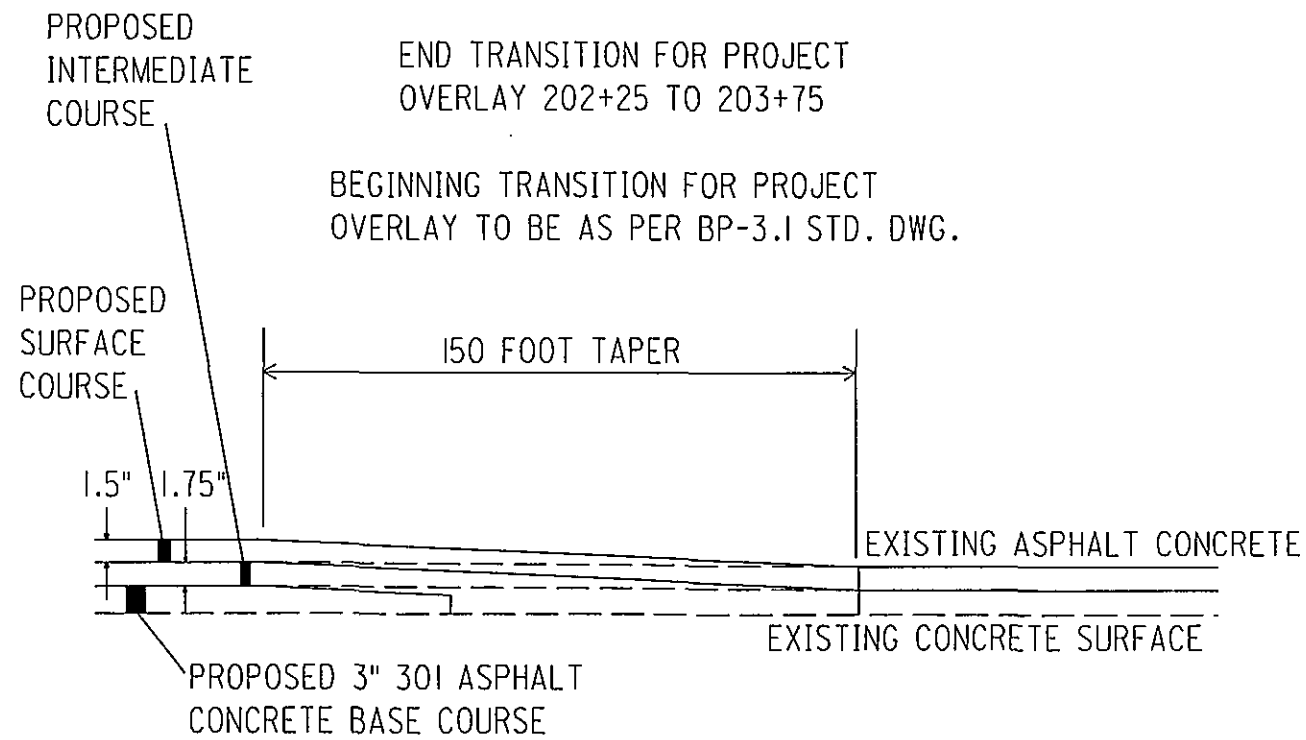
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 MJS

PROFILE DETAIL UNDER OVERHEAD BRIDGE



DESIGN FILE: i:\projects\23805\gy100typ.dgn
 WORKSTATION: s102w7k DATE: 02/19/04

ERI/LOR-2-30.46/0.00



CHECKED
 SCJ
 DESIGNED
 MJS

PROFILE AT PAVEMENT DEPTH TRANSITIONS

ERI/LOR-2-30.46/0.00

ITEM 614--MAINTAINING TRAFFIC: GENERAL

ONE LANE OF TRAFFIC IN EACH DIRECTION ON SR-2 SHALL BE MAINTAINED AT ALL TIMES, EXCEPT AS INDICATED IN THE PLANS. TWO LANES OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED FRIDAY FROM 3:00 PM THRU SUNDAY 12 MIDNIGHT. SEE ALSO HOLIDAY WORK RESTRICTIONS NOTE BELOW. BETWEEN OCTOBER 15 AND APRIL 1 ALL LANES MUST BE OPEN TO TRAFFIC. SIDE ROAD TRAFFIC SHALL NOT BE BE DETOURED.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH ITEM 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, PLAN DETAILS, STANDARD DRAWINGS, AND AS OUTLINED IN THE CONSTRUCTION AND MAINTENANCE SECTION OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES CURRENT EDITION WITH THE LATEST REVISIONS.

ALL ADVANCE WARNING SIGNS FOR ANY CONDITION WHICH RESTRICTS TRAFFIC SHALL BE ERECTED BEFORE ANY SUCH RESTRICTION IS PUT INTO EFFECT. ALL SUCH SIGNS SHALL BE COVERED OR REMOVED FROM THE VIEW OF TRAFFIC WHEN THEY ARE NOT APPLICABLE, WITH THE APPROVAL OF THE ENGINEER.

IF THE CONTRACTOR FAILS TO COMPLY WITH THE PROVISIONS FOR TRAFFIC CONTROL AS SET FORTH IN THESE PLANS OR WITH PROVISIONS OF THE OMUTCD, AND SUCH FAILURE RESULTS IN A CONDITION AT THE WORK SITE WHICH IS UNSAFE FOR TRAFFIC, THE ENGINEER SHALL SUSPEND WORK UNTIL THE CONTRACTOR COMPLIES WITH THE NECESSARY REQUIREMENTS.

THE CONTRACTOR SHALL SUBMIT, IN WRITING, A SCHEDULE OF OPERATIONS TO THE ENGINEER AND RECEIVE APPROVAL BEFORE WORK IS STARTED ON THE PROJECT. PRIOR TO BEGINNING WORK, THE CONTRACTOR SHALL COORDINATE THE MAINTENANCE OF TRAFFIC OPERATIONS WITH THE LOCAL STATE HIGHWAY PATROL, AS LISTED ON SHEET 17.

THE CONTRACTOR IS REQUIRED TO MAINTAIN ALL PAVEMENT THROUGHOUT THE PROJECT UNDER ITEM 614 ASPHALT CONCRETE FOR MAINTAINING TRAFFIC DURING THE PERIOD FROM THE START OF WORK TO THE COMPLETION OF ALL WORK.

PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614 - MAINTAINING TRAFFIC UNLESS SEPARATELY ITEMIZED ON THIS PLAN.

HOLIDAY WORK RESTRICTIONS

THERE WILL BE HOLIDAY RESTRICTIONS FOR ALL WORK. ALL WORK ON OR AROUND SR-2 SHALL NOT BE UNDER CONSTRUCTION DURING THE FOLLOWING HOLIDAYS OR SPECIAL WEEKENDS: (LANE CLOSURES MAY BE MAINTAINED, BUT NO WORK IS PERMITTED ON THESE DAYS)

MOTHERS DAY FOURTH OF JULY
MEMORIAL DAY EASTER
LABOR DAY

THE PERIOD OF TIME THAT THE "NO WORK" APPLIES DEPENDS ON THE DAY OF THE WEEK ON WHICH THE HOLIDAY FALLS. THE FOLLOWING SCHEDULE SHALL BE USED TO DETERMINE THE PERIOD OF TIME THAT "NO WORK" SHALL APPLY: (LANE CLOSURE CAN BE MAINTAINED, BUT NO WORK IS PERMITTED ON THESE DAYS)

DAY OF THE WEEK ON WHICH THE HOLIDAY FALLS:

WEEKENDS 12:00N FRIDAY THRU 6:00AM MONDAY
MONDAY 12:00N FRIDAY THRU 6:00AM TUESDAY
TUESDAY 12:00N MONDAY THRU 6:00AM WEDNESDAY
WEDNESDAY 12:00N TUESDAY THRU 6:00AM THURSDAY
THURSDAY 12:00N WEDNESDAY THRU 6:00AM MONDAY
FRIDAY 12:00N THURSDAY THRU 6:00AM MONDAY

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THESE REQUIREMENTS, THE CONTRACTOR SHALL BE ASSESSED LIQUIDATED DAMAGES IN ACCORDANCE WITH CMS 108.07.

TIME LIMITS AND LIQUIDATED DAMAGES

- A. RAMP TRAFFIC IS TO BE MAINTAINED AT ALL TIMES. FAILURE OF THE CONTRACTOR TO MEET THIS REQUIREMENT, THEN LIQUIDATED DAMAGES WILL BE ASSESSED AS PER CMS 108.07.
- B. THE CONTRACTOR MUST CLOSE THE ADJACENT LANE WHEN SEALING THE CONCRETE PARAPETS AND PIER COLUMNS. FAILURE OF THE CONTRACTOR TO COMPLY WITH THIS REQUIREMENT, THE CONTRACTOR SHALL BE ASSESSED LIQUIDATED DAMAGES IN ACCORDANCE WITH 108.07 FOR EACH CALENDAR DAY THAT THE LANE IS OPEN TO TRAFFIC.
- C. FOR ADDITIONAL RESTRICTIONS AND LIQUIDATED DAMAGES SEE "SEQUENCING WORK."

RELATIONSHIP BAR CHART SCHEDULE

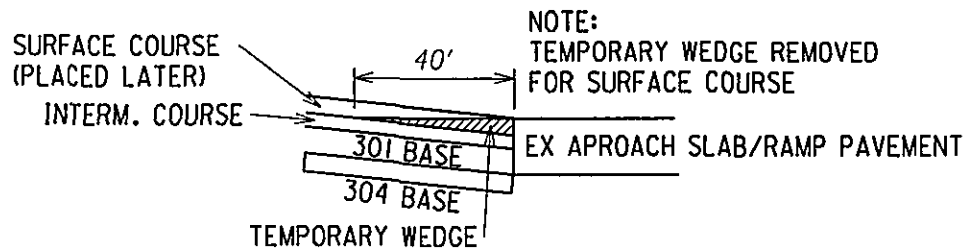
THE RELATIONSHIP BAR CHART SCHEDULE SHALL BE COMPUTER GENERATED ONLY. HAND DRAWN SCHEDULES ARE NOT ACCEPTABLE. SEE THE PROPOSAL NOTE FOR ADDITIONAL REQUIREMENTS.

BUTT JOINT AT APPROACH SLABS AND REST AREA RAMPS

WHEN PLACING THE INTERMEDIATE COURSE (BUTTING) UP TO THE APPROACH SLAB/RAMP PAVEMENT SURFACES, THIS WILL RESULT IN A 1.5 INCH "BUMP" BECAUSE THE SURFACE COURSE, WHEN PLACED, WILL BE FLUSH TO THE APPROACH SLAB/RAMP PAVEMENT SURFACES. A WEDGE OF 442 INTERMEDIATE COURSE SHALL BE PLACED AS A TEMPORARY FEATHER AND WILL SUBSEQUENTLY BE REMOVED (PLANED) IN ORDER TO COMPLETE THE SURFACE COURSE.

THE FOLLOWING QUANTITIES HAVE BEEN PROVIDED:

ITEM 442 ASPHALT CONCRETE INTERMEDIATE COURSE 32 CY
ITEM 254 PAVEMENT PLANING, ASPHALT CONCRETE 1502 SY



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WORKSTATION: stjzwtk DATE: 02/26/04

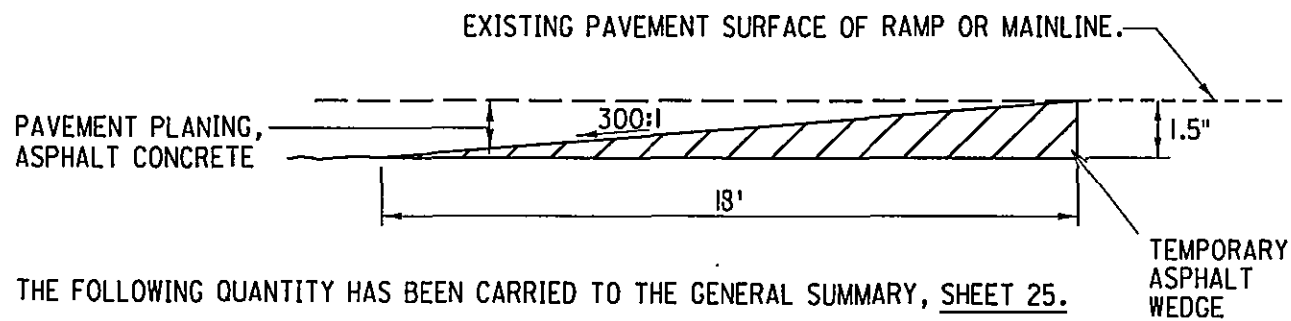
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SCJ
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MAINTENANCE OF TRAFFIC NOTES

ERI/LOR-2/30.46/0.00

BUTT JOINTS

MILLED AREAS FOR BUTT JOINTS SHALL NOT BE LEFT OPEN TO TRAFFIC. BEFORE OPENING TO TRAFFIC, A TEMPORARY ASPHALT CONCRETE WEDGE AS DETAILED BELOW SHALL BE CONSTRUCTED AT THE DROPOFF AS DIRECTED BY THE ENGINEER. AN ESTIMATED QUANTITY OF ITEM 614 ASPHALT CONCRETE FOR MAINTAINING TRAFFIC HAS BEEN PROVIDED FOR THE WEDGE CONSTRUCTION AT RAMPS AND MAINLINE SR-2. WHILE TRAFFIC IS PROHIBITED AND BEFORE THE NEW PAVEMENT IS PLACED, THE WEDGE SHALL BE REMOVED AND THE COSTS SHALL BE CONSIDERED INCIDENTAL TO ITEM 614 ASPHALT CONCRETE FOR MAINTAINING TRAFFIC.



THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY, SHEET 25.

ITEM 614 ASPHALT CONCRETE FOR MAINTAINING TRAFFIC 24 CU YD

"BUMP" (OW-62) AND "ADVISORY SPEED" (OW-143) SIGNS AND SUPPORTS SHALL BE ERECTED AND MAINTAINED AT THE BUTT JOINT UNTIL THE SURFACE COURSE IS COMPLETED. THE COSTS FOR PROVIDING, ERECTING, MAINTAINING AND SUBSEQUENTLY REMOVING THESE SIGNS AND SUPPORTS SHALL BE INCLUDED IN THE LUMP SUM BID OF ITEM 614 MAINTAINING TRAFFIC.

LONGITUDINAL PAVEMENT JOINTS

ALL JOINTS THAT ARE MORE THAN 1.5 INCHES SHALL BE CLOSED, OR REDUCED TO 1.5 INCHES OR LESS BEFORE THE END OF EACH WORK DAY. BEFORE A LONGITUDINAL JOINT IS EXPOSED TO TRAFFIC, THE CONTRACTOR SHALL ONLY REMAIN WHILE THE CONDITION EXISTS.

FULL DEPTH PAVEMENT REPAIRS AND FULL DEPTH TRANSITION WORK

THE FULL DEPTH PAVEMENT REPAIRS AND FULL DEPTH TRANSITION WORK SHALL BE COMPLETED TO A DEPTH OF 5 INCHES OR LESS BELOW THE EXISTING PAVEMENT FOR A PERIOD NOT TO EXCEED 24 CONSECUTIVE HOURS. IN CASE WORK MUST BE SUSPENDED DUE TO WEATHER OR OTHER REASONS, THE OPEN AREA FOR THE UNCOMPLETED REPAIR OR FULL DEPTH PAVEMENT WORK SHALL BE BACKFILLED AT THE DIRECTION OF THE ENGINEER. FAILURE OF THE CONTRACTOR TO MEET THESE REQUIREMENTS, THE CONTRACTOR SHALL BE ASSESSED LIQUIDATED DAMAGES IN THE AMOUNT SPECIFIED IN CMS 108.07.

SEQUENCING WORK FOR MAINLINE SR-2

1. PERFORM PAVEMENT PLANING ON SPOT PAVED AREAS TO EXPOSE THE EXISTING CONCRETE PAVEMENT.
2. PERFORM ITEM 255 WORK. MAINTENANCE OF TRAFFIC SHALL MEET ALL THE REQUIREMENTS SET FORTH ON SHEET 18B (DROPOFF IN WORKZONE PLAN INSERT SHEET).
3. PERFORM FULL DEPTH PAVEMENT REPLACEMENT FOR THE MAINLINE SECTIONS AND 2 REST AREA RAMP SECTIONS. MAINTENANCE OF TRAFFIC SHALL MEET ALL REQUIREMENTS SET FORTH ON SHEET 18B (DROPOFF IN WORKZONE PLAN INSERT SHEET). THE WORK ON EACH SECTION SHALL NOT HAVE A DROPOFF OF GREATER THAN 5 INCHES BEYOND A 24 HOUR PERIOD. FULL DEPTH SAW CUTTING IS INCLUDED IN ITEM 202 PAVEMENT REMOVED PER CMS 202. WORK SEQUENCE ITEMS 2 AND 3 MAY BE DONE CONCURRENTLY.
4. PERFORM ALL WORK FOR THE 301 BASE COURSE AND 442 INTERMEDIATE COURSE. RAMP WEDGES, WORKZONE STRIPING, 617 COMPACTED AGGREGATE, AND WORKZONE MARKING SIGNS. BEFORE SHIFTING TRAFFIC, THIS WORK MUST BE COMPLETE.
5. PERFORM WORK ON THE RAMPS. SEE SEQUENCE OF WORK FOR SR-2 RAMPS .THE RAMP LIMITS ARE DEFINED AS FROM THE INTERSECTION AT THE SIDE ROAD TO THE GORE AREA WHERE THE 16 FOOT WIDTH AND LEFT SHOULDER MEETS THE GORE PAVEMENT. THE SURFACE COURSE MAY BE PLACED ON THE RAMPS WHEN THE SURFACE COURSE IS PLACED ON THE MAINLINE.
6. PERFORM ALL GUARDRAIL AND CONCRETE BARRIER WORK ON BOTH THE MAINLINE AND RAMPS .
7. COMPLETE THE SURFACE COURSE ON THE MAINLINE AND THE SHOULDERS INCLUDING THE ITEM 617 COMPACTED AGGREGATE.
8. COMPLETE THE SHOULDER RUMBLE STRIPS, RAISED PAVEMENT MARKERS AND THE FINAL PAVEMENT MARKINGS.
9. INSTALL THE TOPSOIL AS INDICATED IN THE TYPICAL SECTIONS WITHIN 14 DAYS FROM THE COMPLETION OF THE SURFACE COURSE.

SEQUENCING WORK FOR SR-2 RAMPS

1. PERFORM ITEM 255 WORK. MAINTENANCE OF TRAFFIC SHALL MEET ALL THE REQUIREMENTS SET FORTH ON SHEET 18B (DROPOFFS IN WORKZONES PLAN INSERT SHEET).
2. PERFORM FULL DEPTH PAVEMENT REPLACEMENT FOR THE 2 REST AREA RAMPS. MAINTENANCE OF TRAFFIC SHALL MEET ALL REQUIREMENTS SET FORTH ON SHEET 18B (DROPOFFS IN WORKZONES PLAN INSERT SHEET). THE CONTRACTOR HAS ONE CALENDAR DAY (INTERIM COMPLETION DATES) TO COMPLETE THIS WORK FOR EACH OF THE TWO SECTIONS ACCORDING TO THE REQUIREMENTS OF SHEET 18B. THE WORK ON EACH SECTION SHALL NOT HAVE A DROPOFF OF GREATER THAN 5 INCHES BEYOND A 24 HOUR PERIOD.
3. MOVE TRAFFIC OVER TO THE RIGHT AND PERFORM ALL WORK ON THE LEFT SIDE OF THE RAMP EXCEPT FOR THE SURFACE COURSE. MOVE TRAFFIC OVER TO THE LEFT AND PERFORM ALL WORK ON THE RIGHT SIDE OF THE RAMP EXCEPT FOR THE SURFACE COURSE.
4. PERFORM ALL GUARDRAIL WORK ON THE RAMPS .
5. COMPLETE THE SURFACE COURSE ON THE RAMPS AND THEN INSTALL THE 617 COMPACTED AGGREGATE.
6. COMPLETE THE RAISED PAVEMENT MARKERS AND THE FINAL PAVEMENT MARKINGS.
7. INSTALL THE TOPSOIL AS INDICATED IN THE TYPICAL SECTIONS..

WORK OPERATIONS

IN ADDITION TO THE REQUIREMENTS OF SECTION 614 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS THE FOLLOWING SHALL APPLY:

THE CONTRACTOR'S EQUIPMENT SHALL BE OPERATED IN THE DIRECTION OF TRAVEL WHERE PRACTICAL. A FLAGGER SHALL BE USED WHERE THE CONTRACTOR'S EQUIPMENT MUST MERGE WITH THE TRAFFIC STREAM. THE CONTRACTOR'S VEHICLES AND EQUIPMENT SHALL BE EQUIPPED WITH AT LEAST ONE AMBER FLASHING LIGHT. AMBER LIGHT SHALL BE VISIBLE TO ALL DIRECTIONS OF TRAFFIC A MINIMUM OF 0.25 MILE.

THE CONTRACTOR SHALL ARRANGE CONSTRUCTION OPERATIONS SO AS TO PREVENT ANY INTERFERENCE TO THE CONTINUOUS FLOW OF TRAFFIC. ALL VEHICLES, EQUIPMENT, WORKERS AND THEIR ACTIVITIES ARE RESTRICTED AT ALL TIMES TO THE CLOSED LANES UNLESS OTHERWISE APPROVED BY THE ENGINEER.

THE CONTRACTOR IS ALLOWED TO WORK AT NIGHT. FLOODLIGHTING OF THE WORK SITE FOR OPERATIONS CONDUCTED DURING NIGHT TIME PERIODS SHALL BE ACCOMPLISHED SO THAT THE LIGHTS DO NOT CAUSE GLARE TO THE DRIVERS ON THE HIGHWAY. TO INSURE THE ADEQUACY OF THE FLOODLIGHTING PLACEMENT PRIOR TO COMMENCING ANY WORK, THE CONTRACTOR AND THE ENGINEER SHALL DRIVE THROUGH THE WORK SITE EACH NIGHT WHEN THE LIGHTING IS IN PLACE AND OPERATIVE. IF GLARE IS DETECTED, THE LIGHT PLACEMENT AND SHIELDING SHALL BE ADJUSTED TO THE SATISFACTION OF THE ENGINEER BEFORE WORK PROCEEDS. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614 MAINTAINING TRAFFIC.

EQUIPMENT MAY BE PARKED IN AREAS ALONG THE HIGHWAY A MIN. OF 6 FT BEHIND GUARDRAIL OR 30 FT FROM THE NEAREST EDGE OF PAVEMENT WHEN VARIOUS OPERATIONS ARE SCHEDULED TO CONTINUE THE NEXT WORKDAY. ON WEEKENDS OR AT OTHER TIMES OF SUSPENSION OF WORK, THE EQUIPMENT SHALL BE STORED AT A STORAGE AREA OUTSIDE OF THE ROADWAY RIGHT-OF-WAY. THE LOCATION SHALL HAVE PRIOR APPROVAL OF THE ENGINEER. ADEQUATE BARRICADES AND LIGHTS SHALL BE PLACED ON THE PAVEMENT SIDE OF THE EQUIPMENT TO IDENTIFY THE LIMITS OF THE EQUIPMENT. ALL OTHER EQUIPMENT, INCLUDING PRIVATE VEHICLES, SHALL BE STORED AT THE APPROVED CONTRACTOR'S STORAGE AREA.

TEMPORARY FEATHERS WILL BE REQUIRED AT END OF RESURFACING RUNS, OR AT OTHER POINTS DESIGNATED BY THE ENGINEER. THESE SHALL BE REMOVED WHEN NO LONGER REQUIRED. THESE TEMPORARY FEATHERS ARE INCLUDED IN ITEM 614 ASPHALT CONCRETE FOR MAINTAINING TRAFFIC AS SHOWN ON SHEET NO. 16.

ALTERNATE METHODS

IF THE CONTRACTOR SO ELECTS, HE MAY SUBMIT ALTERNATE METHODS FOR THE MAINTENANCE OF TRAFFIC, PROVIDED THE INTENT OF THE ABOVE PROVISIONS IS FOLLOWED AND NO ADDITIONAL INCONVENIENCE TO THE TRAVELING PUBLIC RESULTS THEREFROM. NO ALTERNATE PLAN WILL BE PUT INTO EFFECT UNTIL THE APPROVAL HAS BEEN GRANTED, IN WRITING, BY THE ENGINEER.

ITEM 614-LAW ENFORCEMENT OFFICER WITH PATROL CAR

IN ADDITION TO THE REQUIREMENTS OF 614 AND THE LATEST EDITION OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (OMUTCD), A UNIFORMED LAW ENFORCEMENT OFFICER (AND OFFICIAL PATROL CAR WITH WORKING TOP MOUNTED EMERGENCY FLASHING LIGHTS) SHOULD BE PROVIDED FOR CONTROLLING TRAFFIC FOR THE FOLLOWING TASKS AS DIRECTED BY THE ENGINEER:

>> FOR LANE CLOSURES: DURING INITIAL SET-UP PERIODS, TEAR DOWN PERIODS, SUBSTANTIAL SHIFTS OF A CLOSURE POINT OR WHEN NEW LANE CLOSURE ARRANGEMENTS ARE INITIATED.

LAW ENFORCEMENT OFFICERS (L.E.O.'S) SHOULD NOT BE USED WHERE THE OMUTCD INTENDS THAT FLAGGERS BE USED. THE LEO'S ARE CONSIDERED TO BE EMPLOYED BY THE CONTRACTOR AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR THEIR ACTIONS. ALTHOUGH THEY ARE EMPLOYED BY THE CONTRACTOR, THE PROJECT ENGINEER SHALL HAVE CONTROL OVER THEIR PLACEMENT. THE OFFICIAL PATROL CAR SHALL BE A PUBLIC SAFETY VEHICLE AS REQUIRED BY THE OHIO REVISED CODE.

THE CONTRACTOR SHALL MAKE ARRANGEMENTS FOR THESE SERVICES AND PROVIDE 72 HOURS ADVANCE NOTICE AS REQUIRED BY THE HIGHWAY PATROL LISTED BELOW:

HIGHWAY PATROL
3800 CLETUS DR.
ELYRIA, OHIO 44035
440 233-6800

LAW ENFORCEMENT OFFICERS WITH PATROL CAR REQUIRED BY THE TRAFFIC MAINTENANCE TASKS ABOVE SHALL BE PAID FOR ON A UNIT PRICE (HOURLY) BASIS UNDER ITEM 614-LAW ENFORCEMENT OFFICER WITH PATROL CAR THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR 80 HOURS

THE HOURS PAID SHALL INCLUDE MINIMUM SHOW-UP TIME REQUIRED BY THE LAW ENFORCEMENT AGENCY INVOLVED.

IF THE CONTRACTOR WISHES TO UTILIZE LEO'S FOR FLAGGING AND TRAFFIC CONTROL OTHER THAN FOR THAT REQUIRED IN THESE PLANS, THEY MAY DO SO AT THEIR OWN EXPENSE.

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WORKSTATION: sjuzwfk DATE: 02/23/04

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MAINTENANCE OF TRAFFIC NOTES

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ITEM 614, REPLACEMENT SIGN

FLAT SHEET SIGNS FURNISHED BY THE CONTRACTOR IN ACCORDANCE WITH THE REQUIREMENTS OF THE PLANS, SPECIFICATIONS AND PROPOSAL WHICH BECOME DAMAGED BY TRAFFIC FOR REASONS BEYOND THE CONTROL OF THE CONTRACTOR SHALL BE REPLACED IN KIND WHEN ORDERED BY THE ENGINEER. REPLACEMENT SIGNS SHALL BE NEW. OTHER MATERIALS MAY BE IN USED BUT GOOD CONDITION SUBJECT TO APPROVAL BY THE ENGINEER.

PAYMENT FOR THE NEW SIGNS SHALL BE MADE AT THE CONTRACT PRICE PER SQUARE FOOT FOR ITEM 614 REPLACEMENT SIGN, AND SHALL INCLUDE THE COST OF REMOVING AND DISPOSING OF DAMAGED SIGNS, HARDWARE AND SUPPORTS, AND PROVIDING THE NECESSARY REPLACEMENT HARDWARE, SUPPORTS, ETC.

AN ESTIMATED QUANTITY OF 32 SQUARE FOOT HAS BEEN PROVIDED IN THE GENERAL SUMMARY.

ITEM 614, REPLACEMENT DRUM

DRUMS FURNISHED BY THE CONTRACTOR IN ACCORDANCE WITH THE REQUIREMENTS OF THE PLANS, SPECIFICATIONS, AND PROPOSAL WHICH BECOME DAMAGED BY TRAFFIC FOR REASONS BEYOND THE CONTROL OF THE CONTRACTOR SHALL BE REPLACED IN KIND WHEN ORDERED BY THE ENGINEER. REPLACEMENT DRUMS SHALL BE NEW.

PAYMENT FOR THE NEW DRUMS SHALL BE MADE AT THE CONTRACT PRICE PER EACH FOR ITEM 614 REPLACEMENT DRUM, AND SHALL INCLUDE THE COST OF REMOVING AND DISPOSING OF THE DAMAGED DRUM, AND PROVIDING AND MAINTAINING THE REPLACEMENT DRUM IN ACCORDANCE WITH THE CONTRACT REQUIREMENTS FOR THE ORIGINAL DRUM.

AN ESTIMATED QUANTITY OF 25 EACH HAS BEEN PROVIDED IN THE GENERAL SUMMARY.

ITEM 614, WORK ZONE MARKING SIGN:

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER FOR TEMPORARY WORK ZONE MARKING SIGNS PER THE REQUIREMENTS OF THE CONSTRUCTION AND MATERIALS SPECIFICATIONS, 614.04.

WORK ZONE MARKING SIGN: (0W-167-36) NO EDGE LINE = 14 each

DUST CONTROL

THE CONTRACTOR SHALL FURNISH AND APPLY WATER FOR DUST CONTROL AS DIRECTED BY THE ENGINEER. THE FOLLOWING CONTINGENCY QUANTITIES HAVE BEEN INCLUDED FOR DUST CONTROL PURPOSES: ITEM 616, WATER 10 M. GAL.

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MAINTENANCE OF TRAFFIC NOTES

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6/18

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WORKSITE TRAFFIC SUPERVISOR

THE CONTRACTOR SHALL EMPLOY (OTHER THAN THE SUPERINTENDENT) AND SUBJECT TO THE APPROVAL OF THE ENGINEER, A CERTIFIED WORKSITE TRAFFIC SUPERVISOR (WTS). THE WTS MAY BE CERTIFIED FROM ONE OF THE FOLLOWING ORGANIZATIONS:

- 1). AMERICAN TRAFFIC SAFETY SERVICE ASSOCIATION
A.T.S.S.A. , PHONE NUMBER 1-800-272-8772, CERTIFIED WORKSITE TRAFFIC SUPERVISOR (WTS)
- 2). THE NATIONAL SAFETY COUNCIL, TRAFFIC CONTROL ZONES SUPERVISORS COURSE, PHONE NUMBER 1-800-441-5103
- 3). NATIONAL HIGHWAY INSTITUTE, DESIGN AND OPERATION OF WORK ZONE TRAFFIC CONTROL, PHONE NUMBER 1-703-235-0528

A CERTIFIED WTS SHALL BE PRESENT WHEN THE CONTRACTOR OR SUBCONTRACTOR INSTALLS A TRAFFIC RESTRICTION, LANE CLOSURE, ETC. THE CONTRACTOR OR SUBCONTRACTOR MUST PRESENT A COPY OF CERTIFICATES FOR ALL WTS TO THE ENGINEER. A WTS MUST BE PRESENT WHEN THE WORK ZONE IS BEING SET UP OR REMOVED.

THE WTS POSITION IS ESTABLISHED FOR THE PURPOSE OF MONITORING THE TRAFFIC CONTROL PLAN (TCP) AND CORRECTING ANY TRAFFIC CONTROL DEFICIENCIES IN THE WORK ZONE. THE WTS MUST ALSO COORDINATE WITH ALL LAW ENFORCING AGENCIES RESPONSIBLE FOR THE ROADWAY UNDER CONSTRUCTION AND RETRIEVE ALL CRASH REPORTS (OH-1) THAT OCCUR WHEN TEMPORARY TRAFFIC CONTROL DEVICES ARE IN PLACE. THE WTS SHALL OVERSEE ALL OPERATIONS THAT AFFECT THE MOVEMENT OF VEHICULAR AND PEDESTRIAN TRAFFIC THROUGH THE WORK ZONE. TRAFFIC CONTROL AND CRASH DATA EVALUATION WILL BE THE WTS MAIN RESPONSIBILITY WHEN A WORK ZONE IS IN PLACE.

DAILY, INCLUDING WEEKENDS AND HOLIDAYS, THE WTS SHALL SPEND A MINIMUM OF ONE HOUR REVIEWING THE WORK ZONE AND/OR CRASH DATA FOR DEFICIENCIES AND MAINTAINING THE WORK ZONE.

WEEKLY, THE WTS MUST RETRIEVE/COLLECT ALL CRASH REPORTS (OH-1) FROM ALL LAW ENFORCING AGENCIES, EVALUATE THE CRASHES, AND RECOMMEND SOLUTIONS TO ADDRESS ANY ISSUES WITH THE TCP THAT ARE POTENTIALLY CREATING CRASHES WITHIN THE WORK ZONE. THE WTS MUST PRESENT THESE SOLUTIONS TO THE ENGINEER FOR APPROVAL WEEKLY. UPON APPROVAL BY THE ENGINEER AND THE DISTRICT WORK ZONE TRAFFIC MANAGER (DWZTM), THE CONTRACTOR MUST IMPLEMENT THE RECOMMENDED SOLUTIONS TO THE WORK ZONE WITHIN ONE WEEK - ADDITIONAL COST TO BE PAID UNDER CONSTRUCTION AND MATERIALS

SPECIFICATIONS - 109. THE WTS MUST INSPECT THE WORK ZONE AT THE BEGINNING AND THE END OF EACH WORK DAY AND ONE TIME PER WEEK DURING THE HOURS OF DARKNESS. THE FOLLOWING ITEMS SHALL BE INCLUDED, BUT NOT RESTRICTED TO, IN EACH REVIEW: TRAFFIC CONTROL DEVICE CONDITION; PLACEMENT; VISIBILITY; TRAFFIC FLOW CONDITIONS; INCIDENTS; CONGESTION POINTS; DELAYS; ADEQUACY OF ADVANCED INFORMATIONAL SIGNS BEYOND PROJECT LIMITS; INTERACTION OF WORK VEHICLES AND TRAFFIC; ACCIDENTS; PROPER STORAGE OF MATERIALS AND EQUIPMENT; CONFORMANCE WITH TCP; ADEQUACY OF TCP; CONFLICTING OR NON-CONFORMING PAVEMENT MARKINGS. THE WTS SHALL HAVE THE NECESSARY AUTHORITY TO IMMEDIATELY PERFORM ANY CORRECTIVE WORK. A RECORD OF EACH DAYS REVIEW SHALL BE GIVEN TO THE ENGINEER THE FOLLOWING WORKDAY IN WRITING AND SHALL INCLUDE ALL DEFICIENCIES AND RESOLUTIONS TO THE DEFICIENCIES. THE INSPECTION WILL BE DOCUMENTED ON THE LONG/SHORT TERM WORK ZONE REVIEW FORM PROVIDED BY ODOT. WEEKLY, THE INSPECTION FORM MUST BE ACCOMPANIED BY ALL OF THE OH-1 CRASH REPORTS AND THE PROPOSED SOLUTIONS TO ANY IDENTIFIED CRASH PROBLEMS.

IF THE RESTRICTIONS ARE SHORT TERM, THE WTS SHALL MONITOR THE ZONE FOR COMPLIANCE, DURING LANE CLOSURES; HE SHALL MAKE SURE ALL TRAFFIC CONTROL ITEMS ARE FUNCTIONING PROPERLY. TRAFFIC CONTROL AND CRASH DATA EVALUATION WILL BE THE WTS MAIN RESPONSIBILITY DURING IMPLEMENTATION OF ZONES OR SHORT TERM ZONES. THE WTS SHALL PROVIDE THE DWZTM A SKETCH OF THE TRAFFIC CONTROL PLAN (TCP) EVERYDAY THERE IS TO BE A SHORT TERM TRAFFIC RESTRICTION, LANE CLOSURE, ETC. THIS TCP SHALL SHOW HOW THE WORK ZONES ARE TO BE IMPLEMENTED.

THE WTS SHALL BE ON STANDBY 24-HOUR BASIS TO REPAIR AND/OR REPLACE DAMAGED OR MISSING TRAFFIC CONTROL DEVICES. A 24-HOUR CONTACT NUMBER(S) SHALL BE MADE AVAILABLE TO THE ENGINEER TO CONTACT THE WTS.

FAILURE OF THE CONTRACTOR TO COMPLY WITH ANY OF THE ABOVE, SHALL CONSTITUTE CAUSE FOR THE PROJECT ENGINEER TO DEDUCT \$500.00 PER DAY FROM MONEY DUE TO THE CONTRACTOR NOT AS A PENALTY, BUT AS A LIQUIDATION DAMAGE.

PAYMENT FOR THE WTS SHALL BE INCLUDED UNDER THE ITEM "614 - WORKSITE TRAFFIC SUPERVISOR" BY MONTH. 5 MONTHS HAS BEEN PROVIDED FOR THIS USE.

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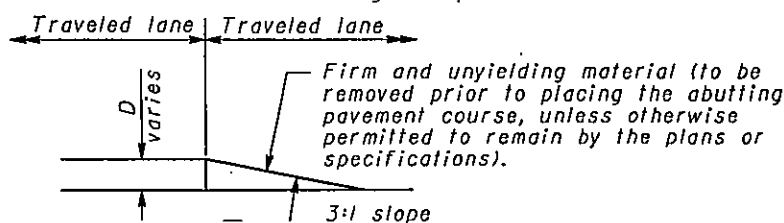
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GENERAL NOTES

- It is intended that this drawing be used for treatment of drop-offs that develop during construction operations, and that are not otherwise provided for in the construction plans. The suggested treatments are intended for high volume projects that will last at least seven days and have an active work zone 1 mile [1.6 km] or less in length. For guidance on the use of this sheet, see L&D Manual Volume One, Section 500. Where the plans do not provide specific items for labor, equipment, or materials to implement the drop-off treatments specified hereon, they shall be included for payment in the lump sum bid for Item 614 - Maintaining Traffic.
- While the need for certain advisory signing is noted hereon, it is not intended that this be indicative of all signing that may be required to advise or warn motorists, and all requirements of the Ohio Manual of Uniform Traffic Control Devices (OMUTCD) must be fulfilled.
- In urban or otherwise heavily developed areas where pedestrians and/or bicyclists may be present in significant numbers, additional signing and protective measures other than those shown hereon may be required.
- The drop-off treatment selected for use at any given location shall be as appropriate for the prevailing conditions at the site.
- Where concrete barrier is specified, it shall be in accordance with SCD RM-4.2 and Item 622.
- When drums are specified for a drop-off condition, a minimum number of four drums shall be used. Spacing shall be as indicated in the plans or as specified in the OMUTCD.
- When OW-151 (Low Shoulder) signs or OW-171 (Uneven Lanes) and OWP-171 signs are required, they shall be placed 750' [230 m] in advance of the condition, on all intersecting entrance ramps within the limits of the condition and immediately beyond all intersecting roadways within the limits of the condition. When the drop-off condition extends more than 0.5 mile [800 m], additional signs should be erected at intervals of 1.0 mile [1600 m] or less.
- For locations, such as at ramps, lane shifts, lane closures, etc., where traffic is required to negotiate a difference in elevation between pavements, a 3:1 slope treatment similar to the Optional Wedge Treatment shall be provided.
- Portable concrete barrier shall be placed on the same level as the traffic surface and shall not encroach on lane width(s) designated as the minimum required for traffic use. Where drums are used, and their presence would reduce traveled lane widths to less than 10' [3.0 m], drums may be placed on the opposite level from that of traffic provided the dropoff depth does not exceed 5" [125] and approval is granted by the Project Engineer.
- Pavement Repairs (or similar work):
 - Lengths greater than 60' [18 m] - utilize appropriate treatment from Condition I.
 - Lengths of 60' [18 m] or less - repairs shall be effected in accordance with CMS 255.08. Drums may be used as a separator adjacent to the traveled lane.

OPTIONAL WEDGE TREATMENT (MILLING OR RESURFACING)

- This treatment may be used when permitted for Condition I only.
- OW-171 and OWP-171 signs required.

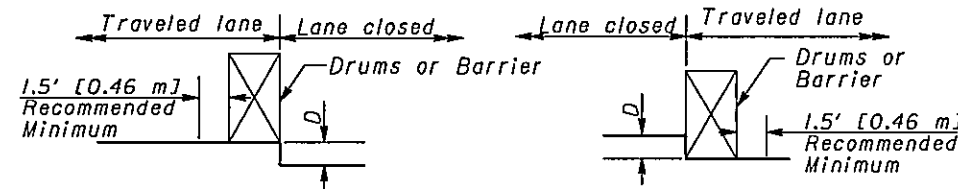


CONDITION I DROP-OFFS BETWEEN TRAVELED LANES

- These treatments are to be used for resurfacing, pavement planing, excavation, etc. between or within traveled lanes.

D	Treatment
$\leq 1\frac{1}{2}"$ [≤ 40]	Erect OW-171 and OWP-171 signs.
$1\frac{1}{2}"-3"$ [40-75]	1) Lane closure utilizing drums* as shown below OR 2) Optional Wedge Treatment
$>3"-5"$ [$>75-125$]	Lane closure utilizing drums as shown below.
$>5"$ [>125]	Lane closure utilizing portable concrete barrier as shown below.

* Cones may be used for daytime only conditions.

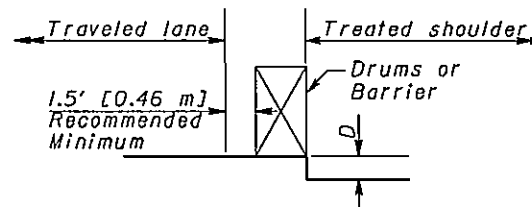


CONDITION II DROP-OFFS WITHIN GRADED SHOULDER AREA

- The treatments indicated below are for use in conjunction with resurfacing, planing, or excavations within the graded shoulder area.
- The graded shoulder area is that flat or gradually sloping area between the edge of a normally traveled lane and the more steeply sloping ditch foreslope or embankment slope. Its surface may be soil or turf, and/or it may be inclusive of a "treated" area (improved with aggregates, asphaltic materials or concrete). For the purpose herein, its maximum width shall be considered to be 12' [3.6 m].

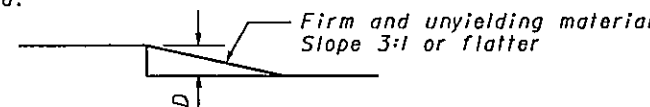
D	Treatment
$\leq 1\frac{1}{2}"$ [≤ 40]	1) If edgelines are present, no treatment is necessary OR 2) Erect OW-171 and OWP-171 signs.
$>1\frac{1}{2}"-5"$ [$>40-125$]	1) If minimum lane width* requirements can be met, maintain lanes utilizing drums as shown below OR 2) If minimum lane width* requirements cannot be met, close adjacent lane utilizing drums OR 3) Optional Shoulder Treatment.
$>5"-12"$ [125-305] Daylight only	If minimum lane width* requirements can be met, maintain lanes utilizing drums as shown below.
$>5"-24"$ [$>125-610$]	1) If minimum lane width* requirements can be met, maintain lanes utilizing portable concrete barrier as shown below. OR 2) If minimum lane width* requirements cannot be met, close adjacent lane utilizing drums.
$>24"$ [>610]	Lane closure utilizing portable concrete barrier as shown below.

* Minimum lane widths shall be 10' [3.0 m] unless otherwise specified in the plans.



OPTIONAL SHOULDER TREATMENT

- This treatment may not be used within a bituminous shoulder where a hot longitudinal joint per CMS 401.15 is required.
- OW-151 signs required.



CONDITION III DROP-OFFS BEYOND GRADED SHOULDER OR BACK OF CURB

1. See Note 2 under Condition II.

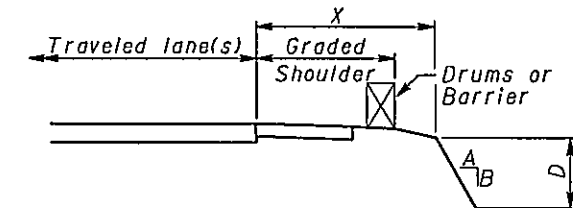
- Use Chart A or B below, as applicable.

CHART A

USE FOR: 1. Uncurbed Facilities.

2. Curbed Facilities, where:

- Curbs are less than 6" [150] in height.
- Curbs are 6" [150] or greater in height and the legal speed is greater than 40 mph [70 km/h].

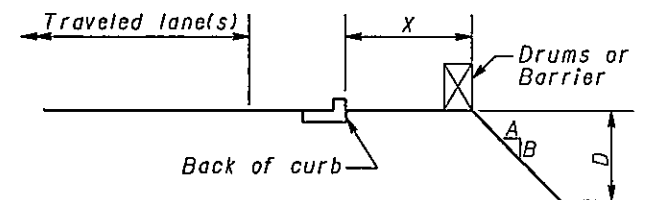


X	D	A/B	Treatment Required	
			Day	Night
0-4' [0-1.2 m]	Any	Any	(a)	(a)
4'-30' [1.2-9.1 m]	Any	3:1 or Flatter	None	None
4'-12' [1.2-3.6 m]	$\leq 3"$ [≤ 75]	Steeper than 3:1	None	None
4'-12' [1.2-3.6 m]	$>3"-12"$ [$>75-305$]	Steeper than 3:1	Drums	Drums
4'-12' [1.2-3.6 m]	$>12"$ [>305]	Steeper than 3:1	Drums	Barrier
$>12'-20'$ [$>3.6-6.1$ m]	$\leq 12"$ [≤ 305]	Steeper than 3:1	None	None
$>12'-20'$ [$>3.6-6.1$ m]	$>12"-24"$ [$>305-610$]	Steeper than 3:1	Drums	Drums
$>12'-20'$ [$>3.6-6.1$ m]	$>24"$ [>610]	Steeper than 3:1	Drums	Barrier
$>20'-30'$ [$>6.1-9.1$ m]	$\leq 24"$ [≤ 610]	Steeper than 3:1	None	None
$>20'-30'$ [$>6.1-9.1$ m]	$>24"$ [>610]	Steeper than 3:1	Drums	Barrier
$>30'$ [>9.1 m]	Any	Any	None	None

(a) Use treatment specified under Condition II.

CHART B

USE FOR: Curbed facilities, where the curb is 6" [150] or greater in height and the legal speed is 40 mph [70 km/h] or less.



X	D	A/B	Treatment Required	
			Day	Night
0-10' [0-3.0 m]	$\leq 12"$ [≤ 305]	Any	None	Drums
0-10' [0-3.0 m]	$>12"$ [>305]	Any	Drums	Drums
$>10'$ [>3.0 m]	Any	Any	None	None

NOTE: All metric dimensions (in brackets []) are in millimeters unless otherwise noted.

ROUNDING

THE ROUNDING AT SLOPE BREAKPOINTS SHOWN ON THE TYPICAL SECTIONS APPLY TO ALL CROSS-SECTIONS EVEN THOUGH OTHERWISE SHOWN

UTILITY OWNERSHIP

LISTED BELOW ARE ALL UTILITIES LOCATED WITHIN THE PROJECT CONSTRUCTION LIMITS TOGETHER WITH THEIR RESPECTIVE OWNERS:

THE LOCATION OF THE UTILITIES SHOWN ON THE PLAN ARE AS OBTAINED FROM THE OWNERS AS REQUIRED BY SECTION 153.64 O.R.C.

OHIO EDISON COMPANY 6326 LAKE AVENUE ELYRIA, OHIO 44035 440-326-3231	ODOT DISTRICT 3 906 NORTH CLARK ST. ASHLAND, OH 44805 419 281-0513
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NORTHERN OHIO RURAL WATER P.O. BOX 96 COLLINS, OHIO 44826 419-668-7213	CENTURY TELEPHONE 1730 WEST 19TH STREET LORAIN, OHIO 44052 440-244-8330
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THE AFOREMENTIONED UTILITY COMPANIES AND AGENCIES HAVE VARIOUS FACILITIES IN THE AREA THAT WILL REMAIN IN PLACE DURING CONSTRUCTION.

THE CONTRACTOR SHALL EXERCISE CAUTION WHEN WORKING IN PROXIMITY TO THE EXISTING UTILITY FACILITIES.

SECTIONS 105.06 AND 107.17 OF THE DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS REQUIRE, AMONG OTHER THINGS, THAT THE CONTRACTOR COOPERATE WITH ALL UTILITIES LOCATED WITHIN THE LIMITS OF THIS CONSTRUCTION PROJECT AND TAKE RESPONSIBILITY FOR THE PROTECTION OF THE UTILITY PROPERTY AND SERVICES.

ELEVATION DATUM

ALL ELEVATIONS ARE BASED ON U.S.G.S. DATUM (NGVD 1927).

CONSTRUCTION EQUIPMENT MEDIAN CROSSINGS

CONSTRUCTION EQUIPMENT SHALL CROSS THE MEDIAN ONLY AT THE EXISTING INTERSECTIONS AND U-TURN Crossovers AND AT OTHER ADDITIONAL LOCATIONS APPROVED BY THE ENGINEER. A MAXIMUM OF TWO (2) ADDITIONAL EQUIPMENT CROSSINGS MAY BE ALLOWED.

THE CONTRACTOR SHALL BE RESPONSIBLE, AT HIS EXPENSE, FOR THE RESTORATION OF THE ADDITIONAL EQUIPMENT CROSSINGS TO A CONDITION AT LEAST EQUAL TO THAT EXISTING PRIOR TO HIS WORK OPERATIONS.

WHEN THE MEDIAN CROSSINGS ARE BEING USED IN THE AREA OF ONE-LANE TRAFFIC OPERATION, THE CONTRACTOR SHALL PROVIDE AT HIS EXPENSE THE SERVICES OF A LAW ENFORCEMENT OFFICER WITH PATROL CAR TO CONTROL TRAFFIC FLOW.

CONVERSION OF STANDARD CONSTRUCTION DRAWINGS

THE METRIC STANDARD DRAWINGS REFERENCED IN THIS PLAN SHALL BE CONVERTED TO ENGLISH UNITS USING THE SI (METRIC) TO ENGLISH CONVERSION FACTORS PROVIDED IN SECTION 109.02 OF THE 2002 CONSTRUCTION AND MATERIAL SPECIFICATIONS. CONVERSIONS SHALL BE APPROPRIATELY PRECISE AND SHALL REFLECT STANDARD INDUSTRY ENGLISH VALUES WHERE SUITABLE.

CLEARING AND GRUBBING AS PER PLAN

THIS ITEM IS INTENDED FOR AREAS TO BE DISTURBED BY THE PLACEMENT OF TOPSOIL AS INDICATED IN THE TYPICAL SECTIONS, AND NOT INTENDED FOR THE ENTIRE R/W.

TOPSOIL

THE INTENT IS TO USE TOPSOIL INSTEAD OF EMBANKMENT BECAUSE THE FILL AREAS ARE RELATIVELY THIN.

ITEM 659 SEEDING AND MULCHING

THE FOLLOWING QUANTITIES ARE PROVIDED TO PROMOTE GROWTH AND CARE OF PERMANENT SEEDED AREAS:

- 659, COMMERCIAL FERTILIZER 87 TON
- 659, LIME 9.00 ACRE
- 659, WATER 1132 M GAL.
- 659, TOPSOIL 15760 CU YD
- 659, SOIL ANALYSIS TEST 2 EACH
- 659, REPAIR SEEDING AND MULCHING 10478 SQ YDS
- 659, INTER SEEDING 10478 SQ YDS

SEEDING AND MULCHING SHALL BE APPLIED TO ALL AREAS OF EXPOSED SOIL BETWEEN THE RIGHT-OF-WAY LINES. QUANTITY CALCULATIONS FOR SEEDING AND MULCHING ARE BASED ON THESE LIMITS. SEEDING AND MULCHING NOT CALCULATED FOR R/W FENCE REPLACEMENT. QUANTITIES ARE CARRIED TO THE GENERAL SUMMARY.

ITEM 209 - RESHAPING UNDER GUARDRAIL

BERMS AND SHOULDERS AT LOCATIONS WHERE EXISTING GUARDRAIL IS REMOVED OR WHERE GUARDRAIL IS TO BE BUILT, SHALL BE RESHAPED AS DIRECTED BY THE ENGINEER TO INSURE A SMOOTH SURFACE FREE OF IRREGULARITIES. RESULTING EXCESS MATERIAL SHALL BE USED ELSEWHERE FOR THIS ITEM IF SO DIRECTED OR DISPOSED OF. IF THIS WORK SHALL NOT BE STARTED UNTIL AFTER THE RESURFACING AND BERM WORK HAS BEEN COMPLETED.

THE AREA IN FRONT OF THE GUARDRAIL SHALL BE GRADED AND RESHAPED TO PROVIDE AN AREA THAT HAS A SLOPE OF 10:1 MAX. THE ABOVE WORK SHALL BE PAID FOR WITH ITEM 209, RESHAPING UNDER GUARDRAIL.

ITEM 202 GUARDRAIL REMOVED FOR REUSE

THIS ITEM SHALL INCLUDE THE COST OF REMOVING THE GUARDRAIL, INCLUDING THE POSTS, BLOCKOUTS, ALL HARDWARE AND RAIL ELEMENT, REFLECTORS, AND THE CONCRETE ANCHORS.

THE EXISTING CONCRETE ANCHORS AND POSTS SHALL BE REMOVED ENTIRELY. BACK-FILLING THE RESULTING VOIDS WITH GRANULAR OR OTHER ACCEPTABLE MATERIAL MEETING THE REQUIREMENTS OF ITEM 203 SHALL BE INCLUDED IN THIS PAY ITEM. THE CAVITIES SHALL BE FILLED AND COMPACTED UP TO THE SURROUNDING GROUND.

PAYMENT FOR ALL THE ABOVE WORK SHALL BE AT THE UNIT BID PRICE PER FOOT FOR ITEM 202, GUARDRAIL REMOVED FOR REUSE, WHICH SHALL INCLUDE ALL LABOR, EQUIPMENT, AND MATERIALS NECESSARY TO COMPLETE THE WORK AS STATED ABOVE.

ITEM 606 - ANCHOR ASSEMBLY REBUILT, TYPE E-98

HIS ITEM SHALL CONSIST OF REUSING SALVAGED ELEMENTS FROM AN EXISTING ANCHOR ASSEMBLY, AND CONSTRUCTING A COMPLETE AND FUNCTIONAL ANCHOR ASSEMBLY AT A LOCATION SHOWN IN THE PLANS.

THE ANCHOR ASSEMBLY SHALL BE RECONSTRUCTED AS PER THE FOLLOWING GUARDRAIL END TERMINALS:

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING EITHER OF THE FOLLOWING GUARDRAIL END TERMINALS.

- 1) THE ET-2000 (1997) MANUFACTURED BY TRINITY INDUSTRY, 1170 N. STATE STREET, GIRARD, OHIO 44420 (TELEPHONE: 330-545-4373).

THE LENGTH OF THE ET-2000 (1997) SYSTEM IS CONSIDERED TO BE 50 FEET (15.24 m), INCLUSIVE OF TWO 25 FOOT (7.62 m) LONG RAIL ELEMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWINGS:

DWG. #	DRAWING NAME	DWG./REV. DATE	ODOT APPROVAL DATE
SS265M	SRT-350 (12.5, 8 Post) Slotted Rail Terminal Post Layout and Erection Details	6/20/97	3/6/98
SSI42	Slotted Rail Terminal SRT-350 Post Layout and Erection Details (12.5, 9 Post)	4/12/00	7/31/00
SSI41	ET-2000 PLUS PLAN, ELEVATION & SECTION 25'-0" RAIL, HBA POSTS 1-4	2/29/00	7/31/00
SSI58	ET-2000 PLUS 50'-0" WITH 12'-6" PANELS & HBA POSTS 1-4 PLAN, ELEVATION & SECTION	5/22/00	7/31/00

- 2) THE SKT-350 MANUFACTURED BY ROAD SYSTEMS, INC., 2516 MALLORY LANE, STOW, OHIO 44224 (TELEPHONE: 330-346-0721)

THE LENGTH OF THE SKT-350 SYSTEM IS CONSIDERED TO BE 50'-0" (15.24 m), INCLUSIVE OF FOUR 12'-6" (3.81m) LONG RAIL ELEMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWINGS:

DWG. #	DRAWING NAME	DWG./REV. DATE	ODOT APPROVAL DATE
SKT-4M	FOUNDATION TUBES SEQUENTIAL KINKING TERMINAL (SKT-350) ASSEMBLY WITH 4	12/11/97	3/6/98

THE FACE OF THE TYPE E-98 IMPACT HEAD SHALL BE COVERED WITH A SHEET OF TYPE C REFLECTIVE SHEETING, PER CMS 730.19, APPROXIMATELY 18" x 18" (450mm X 450mm).

THE CONTRACTOR MAY USE A SALVAGED EXTRUDER WHEN ASSEMBLING THE ITEM 606 ANCHOR ASSEMBLY, TYPE E-98. ALL WELDS ON THE EXTERIOR OF THE SALVAGED EXTRUDER SHALL NOT BE DAMAGED AND THE FEEDER SHUTE SHALL NOT BE BENT.

REFER TO THE MANUFACTURER'S INSTRUCTION REGARDING THE INSTALLATION OF, AND THE GRADING AROUND, THE FOUNDATION TUBES AND GROUND STRUT. THE TOP OF ANY FOUNDATION TUBE SHOULD BE LESS THAN 4 INCHES (100mm) ABOVE THE GROUND. THE PLACEMENT OF THE FOUNDATION TUBES SHOULD BE AN APPROPRIATE DEPTH BELOW THE LEVEL LINE IN ORDER TO MAINTAIN THE FINISHED GUARDRAIL HEIGHT OF 27 1/4 INCHES (706mm) FROM THE EDGE OF THE SHOULDER.

ON SITE GRADING IS REQUIRED IF THE TOP OF THE FOUNDATION TUBES OR TOP OF THE GROUND STRUT DOES NOT PROJECT MORE THAN 4 INCHES (100mm) ABOVE THE GROUND LINE.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, ANCHOR ASSEMBLY REBUILT, TYPE E-98, EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL ANCHOR ASSEMBLY SYSTEM, INCLUDING ALL RELATED TRANSITIONS, REFLECTIVE SHEETING, HARDWARE, GRADING, EMBANKMENT AND EXCAVATION NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

GUARDRAIL REPLACEMENT

NO HAZARD SHALL BE LEFT UNPROTECTED EXCEPT FOR THE ACTUAL TIME NECESSARY TO REMOVE THE EXISTING GUARDRAIL, PREPARE THE SITE, AND INSTALL NEW GUARDRAIL IN A CONTINUOUS OPERATION. THE REMOVAL OF ALL GUARDRAIL SHALL AT ALL TIMES BE AS DIRECTED BY THE ENGINEER. NO GUARDRAIL SHALL BE REMOVED UNTIL THE REPLACEMENT MATERIAL IS ON THE SITE, READY FOR INSTALLATION. FAILURE TO COMPLY WITH THIS REQUIREMENT SHALL BE DEEMED SUFFICIENT CAUSE TO ORDER WORK SUSPENDED UNTIL SUCH TIME AS THE ENGINEER IS ASSURED OF COMPLIANCE.

ITEM 254. PAVEMENT PLANING, ASPHALT CONCRETE

THE INTENT OF THE PLANING IS TO MILL APPROXIMATELY 1.00" TO EXPOSE EXISTING CONCRETE.

THE PROGRESSION OF THE PLANING SHALL PROCEED IN SUCH A MANNER THAT NORMAL TRAFFIC WILL NOT BE REQUIRED TO RUN OVER THE PLANED ROADWAY SURFACE MORE THAN TWENTY-ONE (21) CALENDAR DAYS. THE 21 CALENDAR DAYS SHALL BE CONSIDERED AN INTERIM COMPLETION DATE (SECTION 108) AND FOR EACH CALENDAR DAY BEYOND THE 21 DAYS THAT THE ROADWAY REMAINS EXPOSED TO THE PLANED SURFACE, THE CONTRACTOR WILL BE ASSESSED LIQUIDATED DAMAGES AS PER 108.07. PLANED AREAS WHICH CREATE A LONGITUDINAL JOINT BETWEEN TRAVELED LANES SHALL BE COMPLETED IN SUCH A MANNER SO AS TO REMOVE THE JOINT BEFORE THE END OF EACH DAY'S WORK. BEFORE THIS JOINT IS EXPOSED TO TRAFFIC, THE CONTRACTOR SHALL ERECT OW-171 SIGNS (UNEVEN PAVEMENT). THESE SIGNS SHALL REMAIN ONLY WHEN THE CONDITION EXISTS.

ITEM 442 ASPHALT CONCRETE SURFACE COURSE 12.5MM, TYPE A (446) WITH SUPPLEMENT 1059 WARRANTY

IN ADDITION TO SECTION 401.14 AND STANDARD DRAWING BP-3.1, TRANSVERSE, FEATHERED, OR BUTT JOINTS SHALL BE SEALED WITH A 6 INCH WIDE BAND OF ASPHALT CEMENT ACROSS THE TOP SURFACE.

THE COST OF THIS WORK AND THE PLACEMENT OF THE "UNEVEN PAVEMENT" SIGNS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THIS ITEM.

PAVING WITH FEATHERING 442 AT APPROACH SLABS

THE 442 AND 301 COURSES ARE A TOTAL OF 3.25 OR 6.25 INCHES THICK ON THE PAVEMENT ONLY. NO RESURFACING MATERIAL SHALL BE PLACED ON THE BRIDGES AND THE APPROACH SLABS.

PAVEMENT CONTROL:

AN AUTOMATIC SCREED CONTROL, HAVING A 20 FT. MINIMUM SKI-ARM, SHALL BE USED FOR PLACING THE INTERMEDIATE COURSE AND SURFACE COURSE ON EXISTING PAVEMENT WIDTHS OF 20 FT. AND OVER.

SPECIAL ATTENTION SHALL BE GIVEN TO SUPER-ELEVATED CURVES. THE SUPER-ELEVATION SHALL BE MAINTAINED AND/OR RESTORED, IF NECESSARY, AS DIRECTED BY THE ENGINEER.

THE CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE INTO ALL CATCH BASINS AND INLETS.

ITEM 255, FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, CLASS MS, AS PER PLAN

ON THIS PROJECT, THERE ARE TWO DIFFERENT APPLICATIONS WHERE THIS ITEM WILL BE USED. THE FIRST IS WHERE THE EXISTING CONCRETE IS REINFORCED CONCRETE PAVEMENT; THE SECOND IS WHERE THE EXISTING CONCRETE IS CONTINUOUSLY REINFORCED CONCRETE PAVEMENT. THE LOCATIONS FOR EACH TYPE OF PAVEMENT ARE GIVEN ON SHEET 10. WHERE THE PAVEMENT IS REINFORCED CONCRETE, STANDARD DOWEL RODS SHALL BE USED PER CMS 255 AND BP-2.2. WHERE THE PAVEMENT IS CONTINUOUSLY REINFORCED CONCRETE, NO. 5 REBAR 48 INCHES LONG SHALL BE GROUTED 24 INCHES INTO THE EXISTING PAVEMENT AFTER DRILLING 0.75 INCH DIAMETER HOLES 6.25 INCHES ON CENTER, OTHERWISE ACCORDING TO CMS 255 AND BP-2.2.

IT IS ESTIMATED THAT THE AVERAGE REPAIR WILL BE 8 TO 12 FEET LONG AND OCCUR EVERY 120 FEET. THE EXACT LOCATIONS OF REPAIRS WILL BE DETERMINED BY THE ENGINEER. ITEM 304 AGGREGATE BASE SHALL BE USED TO LEVEL OUT ANY UNEVENNESS UNDER THE CONCRETE THAT IS REMOVED. THE FOLLOWING ITEMS HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

- ITEM 255 FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, CLASS MS, AS PER PLAN
- 8918 SQ YD
- ITEM 255 FULL DEPTH PAVEMENT SAWING
- 29427 FT
- ITEM 304 AGGREGATE BASE
- 248 CU YD

703.05 AGGREGATE FOR ASPHALT CONCRETE (INTERMEDIATE AND SURFACE COURSES)

REMOVE THE PHRASE "THAT WILL BE EXPOSED TO TRAFFIC OVER THE WINTER MONTHS" FROM ITEMS b. AND c. OF C. GENERAL REQUIREMENTS FOR COURSE AND FINE AGGREGATE OF 703.05 (PAGE 767 OF THE 2002 CONSTRUCTION AND MATERIAL SPECIFICATIONS).

FULL DEPTH PAVEMENT REPAIRS AND FULL DEPTH TRANSITION WORK

THE FULL DEPTH PAVEMENT REPAIRS AND FULL DEPTH TRANSITION WORK SHALL BE COMPLETED TO A DEPTH OF 5 INCHES OR LESS BELOW THE EXISTING PAVEMENT FOR A PERIOD NOT TO EXCEED 24 CONSECUTIVE HOURS. IN CASE WORK MUST BE SUSPENDED DUE TO WEATHER OR OTHER REASONS, THE OPEN AREA FOR THE UNCOMPLETED REPAIR OR FULL DEPTH PAVEMENT WORK SHALL BE BACKFILLED AT THE DIRECTION OF THE ENGINEER. FAILURE OF THE CONTRACTOR TO MEET THESE REQUIREMENTS, THE CONTRACTOR SHALL BE ASSESSED LIQUIDATED DAMAGES IN THE AMOUNT SPECIFIED IN CMS 108.07

ITEM 407 - TACK COAT, 702.13 AND ITEM 407 - TACK COAT FOR INTERMEDIATE COURSE

THE RATE OF APPLICATION OF THE 407 TACK COAT, 702.13 SHALL BE SUBJECT TO ADJUSTMENT AS DIRECTED BY THE ENGINEER. FOR ESTIMATING PURPOSES ONLY, THE PLAN QUANTITIES INDICATE AN AVERAGE APPLICATION RATE OF 0.10 GAL PER SQ YD FOR ITEM 407 TACK COAT, 702.13 PRIOR TO PLACING THE ASPHALT CONCRETE ON TOP OF THE CONCRETE PAVEMENT. ITEM 407 TACK COAT FOR INTERMEDIATE COURSE SHALL BE APPLIED AT 0.05 GAL/SY FOR ALL OTHER APPLICATIONS OF PAVING.

ITEM SPECIAL - BERM REPAIR, FLEXIBLE

THIS ITEM OF WORK SHALL CONSIST OF PARTIAL DEPTH REPAIR OF THE EXISTING ASPHALT PAVED BERM IN AREAS EXHIBITING SEVERE CRACKING, DETERIORATION, AND SURFACE DISTORTIONS. THE ENGINEER SHALL DESIGNATE THE LOCATIONS AND LIMITS OF THE AREAS TO BE REPAIRED.

THE MATERIAL WITHIN THE DESIGNATED AREAS SHALL BE REMOVED BY METHODS WHICH WILL NOT DAMAGE THE ADJACENT BERM. THE DEPTH OF REMOVAL SHALL BE SUFFICIENT TO REMOVE ALL BROKEN AND LOOSE ASPHALT OR PRIMED AGGREGATE, BUT TO A MINIMUM OF 3 INCHES BELOW THE ADJACENT BERM THROUGHOUT THE REPAIR AREA.

AFTER REMOVAL OF THE DETERIORATED MATERIALS, 407 TACK COAT SHALL BE APPLIED IN SUFFICIENT QUANTITY TO THOROUGHLY COAT ALL ASPHALT SURFACES AND PENETRATE CRACKS. ITEM 301 ASPHALT CONCRETE BASE THEN SHALL BE PLACED AND COMPACTED TO FINISH FLUSH WITH THE ADJACENT BERM SURFACE. THE LENGTH OF EXCAVATION OPEN AT ANY ONE TIME SHALL BE HELD TO A MINIMUM AND SHALL AT ALL TIMES BE SUBJECT TO THE APPROVAL OF THE ENGINEER. NO EXCAVATION SHALL BE LEFT OPEN OVERNIGHT.

THIS WORK SHALL BE COMPLETED BEFORE TRAFFIC IS ALLOWED TO DRIVE ON PAVED BERM AND BEFORE THE SURFACE COURSE IS PLACED.

THE NUMBER OF CUBIC YARDS TO BE PAID SHALL BE FOR ACCEPTED QUANTITIES, COMPLETE IN PLACE. PAYMENT SHALL BE FULL COMPENSATION FOR ALL LABOR, EQUIPMENT AND MATERIALS NECESSARY TO COMPLETE THE WORK, INCLUDING THE TACK COAT AND ASPHALT CONCRETE BASE. THE FOLLOWING ESTIMATED CONTINGENCY QUANTITY IS PROVIDED TO BE USED AS DIRECTED BY THE ENGINEER TO MAKE REPAIRS ON THE PAVED BERM.

ITEM SPECIAL - BERM REPAIR, FLEXIBLE	125	CU YDS
ITEM 407 - TACK COAT	150	GAL

ITEM 632 LOOP DETECTOR UNIT

THE TERMINATION OF PAVING AT THE ENDS OF RAMP A, B, C, AND H AT BAUMHART ROAD SHALL MEET THE REQUIREMENTS OF STD-DWG BP-3.1. IF THERE IS DAMAGE FROM PLANING TO THE EXISTING LOOP DETECTORS, NEW UNITS SHALL BE INSTALLED BEFORE THE INTERMEDIATE COURSE IS INSTALLED. THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR THIS PURPOSE:

ITEM 632	LOOP DETECTOR UNIT	2	EACH
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ITEM 604 CATCH BASIN FRAME

THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY TO BE USED AS REQUIRED AS DIRECTED BY THE ENGINEER:

ITEM 604	CATCH BASIN FRAME	1	EACH
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THE INTENT OF THIS ITEM IS TO BE USED WHEN CONDITIONS DICTATE A NEW FRAME IS REQUIRED.

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GENERAL NOTES

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DATE: 02/26/04

ITEM 617, COMPACTED AGGREGATE, TYPE A,
AS PER PLAN

THIS ITEM OF WORK SHALL CONFORM TO ITEM 617 IN THE CONSTRUCTION AND MATERIALS SPECIFICATIONS BOOK WITH EXCEPTION OF 617.02 (MATERIALS).

THE MATERIAL ON THIS PROJECT SHALL BE THE ASPHALT CONCRETE GRINDINGS RESULTING FROM ITEM 254. THE GRINDINGS USED FOR THIS WORK ARE TO BE PLACED AND COMPACTED AS DESCRIBED IN 617.05 WITH SPECIAL CARE TO CREATE PROPER COMPACTION. 100% OF THIS MATERIAL SHALL PASS A 1.5 INCH SIEVE AS JUDGED BY THE ENGINEER. THE CONTRACTOR SHALL TAKE SPECIAL CARE TO MEET THE TYPICAL SECTIONS SHOWN IN THE PLANS AND AS DIRECTED BY THE ENGINEER.

PAYMENT FOR ALL THE ABOVE SHALL BE INCLUDED IN THE UNIT PRICE BID PER CU. YD. OF ITEM 617 COMPACTED AGGREGATE, TYPE A, AS PER PLAN.

REMOVAL MISC.: WEIGH IN MOTION CELL (12" X 72")

THE WEIGH IN MOTION APPARATUS WITH STEEL TOP PLATES IN THE DRIVING LANE OF SR-2 WESTBOUND SHALL BE REMOVED AND DISPOSED OF PROPERLY, AND FILLED IN WITH ITEM 301 ASPHALT CONCRETE BASE. THE QUANTITIES FOR THIS WORK ARE SHOWN ON THE WESTBOUND MAINLINE PAVEMENT DATA SHEET. INSTALLATION OF THE THE 301 SHALL MEET ALL THE NORMAL REQUIREMENTS IN CMS 301. THE CYLINDRICAL SENSORS IN THE VICINITY OF THE WEIGH IN MOTION SENSOR WILL BE REMOVED AND HOLES FILLED BY OTHERS.

ITEM 202 RPM REMOVED AND DISPOSED

THE CONTRACTOR SHALL DISPOSE OF ALL RPM'S ON THE PROJECT ACCORDING TO CMS 105.17. PAYMENT SHALL INCLUDE ALL LABOR, MATERIAL, AND EQUIPMENT NECESSARY TO PERFORM THE WORK AND SHALL BE PAID FOR AT THE CONTRACT PRICE EACH FOR ITEM 202, RPM REMOVED AND DISPOSED.

GENERAL SUMMARY

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I	QUANTITIES FROM SHEET 26	QUANTITIES FROM SHEET 27	QUANTITIES FROM SHEET 28	QUANTITIES FROM SHEET 29	QUANTITIES FROM SHEET 30	QUANTITIES FROM SHEET 31	QUANTITIES FROM SHEET 36	QUANTITIES FROM SHEET 37	QUANTITIES FROM SHEET 39	I T E M	I T E M T E X T	GRAND TOTAL	UNIT	DESCRIPTION	REF
														<i>ROADWAY ITEMS</i>	
					4.5					201	11001	lump		CLEARING AND GRUBBING, AS PER PLAN	19
							287	287		202	23900	4.5	sq yd	CONCRETE BASE REMOVED	
							2193	2463		202	30700	574	ft	CONCRETE BARRIER REMOVED	
							8	9		202	38200	4656	ft	GUARDRAIL REMOVED FOR REUSE	
										202	42620	17	each	ANCHOR ASSEMBLY REMOVED FOR REUSE, TYPE E-98	
					1					202	75300	1	each	PULL BOX REMOVED	
									984	202	54000	984	each	RPM REMOVED <i>AND DISPOSED</i>	
	2									202	98100	2	each	REMOVAL MISC.: WEIGH IN MOTION CELL (12" X 72")	21
	569	569	431	431	102	101				203	10000	2203	cu yd	EXCAVATION	
							2869	2993		209	15060	5862	ft	RESHAPING UNDER GUARDRAIL	
							2143	2338		606	16500	4481	ft	GUARDRAIL REBUILT, TYPE 5	
							50	75		606	16700	125	ft	GUARDRAIL REBUILT, TYPE 5A	
							1	2		606	26500	3	each	ANCHOR ASSEMBLY, TYPE T	
							8	9		606	28050	17	each	ANCHOR ASSEMBLY REBUILT, TYPE E-98	
							6	7		606	35000	13	each	BRIDGE TERMINAL ASSEMBLY, TYPE 1	
							1	1		606	35100	2	each	BRIDGE TERMINAL ASSEMBLY, TYPE 2	
							217	217		622	10160	434	ft	CONCRETE BARRIER, SINGLE SLOPE, TYPE D	
							5	5		622	25000	10	each	CONCRETE BARRIER END SECTION, TYPE D	
														<i>EROSION CONTROL</i>	
										832	10000	1	each	STORM WATER POLLUTION PREVENTION PLAN	
										832	20000	lump		EROSION CONTROL	

GENERAL SUMMARY

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GENERAL SUMMARY

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QUANTITIES FROM SHEET 19	QUANTITIES FROM SHEET 20	QUANTITIES FROM SHEET 26	QUANTITIES FROM SHEET 27	QUANTITIES FROM SHEET 28	QUANTITIES FROM SHEET 29	QUANTITIES FROM SHEET 30	QUANTITIES FROM SHEET 31			ITEM	TEXT	GRAND TOTAL	UNIT	DESCRIPTION	REF
														<i>EROSION CONTROL</i>	
	2									659	00100	2	each	SOIL ANALYSIS TEST	
				7512	7512	395	341			659	00300	15760	cu yd	TOPSOIL	
				91209	90837	13896	13616			659	10000	209558	sq yd	SEEDING AND MULCHING	
10478										659	14000	10478	sq yd	REPAIR SEEDING AND MULCHING	
10478										659	15000	10478	sq yd	INTER-SEEDING	
87										659	20000	87	ton	COMMERCIAL FERTILIZER	
9.0										659	31000	9.0	acre	LIME	
1132										659	35000	1132	m gal	WATER	
														<i>DRAINAGE</i>	
			2	2						604	09000	4	each	CATCH BASIN ADJUSTED TO GRADE	
	1									604	09800	1	each	CATCH BASIN FRAME	
															13
															13

GENERAL SUMMARY

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15	17	20	26	27	28	29	30	31	36	37	38	39	40						
<i>PAVEMENT ITEMS</i>																			
			2409	2409	1204	1204	398	396						202	23000	8020	sq yd	PAVEMENT REMOVED	
			2409	2409	1505	1505	424	422						204	10000	8674	sq yd	SUBGRADE COMPACTION	
1502			32489	44146	16182	23059	8298	7619						254	01000	133295	sq yd	PAVEMENT PLANING, ASPHALT CONCRETE	
		898												255	10151	8918	sq yd	FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, CLASS MS, AS PER PLAN	21
		29427												255	20000	29427	ft	FULL DEPTH PAVEMENT SAWING	
			3540	3539	1770	1770	816	822						301	46010	12257	cu yd	ASPHALT CONCRETE BASE, PG64-28	
		248	401	401	251	251	71	70						304	20000	1693	cu yd	AGGREGATE BASE	
		150	5119	5119	2559	2559	2310	2301						407	10000	20117	gallon	TACK COAT	
			8253	8200	4100	4100	1281	1660						407	14000	27594	gallon	TACK COAT FOR INTERMEDIATE COURSE	
					3573	3573	350	342						408	10000	7838	gallon	PRIME COAT	
			2233	2233	1117	1117	1015	993						442	10002	8708	cu yd	ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446) WITH SUPPLEMENT 1059 WARRANTY	20
32			2718	2718	1359	1359	1217	1190						442	10100	10593	cu yd	ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE A (446)	
					1254	1254	160	155						617	10101	2823	cu yd	COMPACTED AGGREGATE, TYPE A, AS PER PLAN	21
					40196	40196								618	40100	80392	ft	RUMBLE STRIPS, TYPE 2 (ASPHALT CONCRETE)	
		125												SPECIAL	69060000	125	cu yd	BERM REPAIR, FLEXIBLE	20
<i>TRAFFIC CONTROL</i>																			
												342	335	621	00100	677	each	RPM	
	10									105	91			626	00100	206	each	BARRIER REFLECTOR, TYPE A	
	25									15	15			626	00200	55	each	BARRIER REFLECTOR, TYPE B	
		2												632	26500	2	each	DETECTOR LOOP	
											6.69	13.43		644	00100	20.12	mile	EDGE LINE	
														644	00200	8.58	mile	LANE LINE	
											3.16	5.42		644	00400	5472	ft	CHANNELIZING LINE	
											2481	2991		644	00500	128	ft	STOP LINE	
											1215	1674		644	00700	2889	ft	TRANSVERSE LINE	

GENERAL SUMMARY

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GENERAL SUMMARY

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QUANTITIES FROM SHEET	QUANTITIES FROM SHEET	QUANTITIES FROM SHEET 15	QUANTITIES FROM SHEET 16	QUANTITIES FROM SHEET 17	QUANTITIES FROM SHEET 18	QUANTITIES FROM SHEET 18A	QUANTITIES FROM SHEET 38	QUANTITIES FROM SHEET 39	QUANTITIES FROM SHEET		ITEM	TEXT	GRAND TOTAL	UNIT	DESCRIPTION	REF
<i>MAINTENANCE OF TRAFFIC</i>																
				80							614	11100	80	hour	LAW ENFORCEMENT OFFICER WITH PATROL CAR	
						5					614	11500	5	month	WORKSITE TRAFFIC SUPERVISOR	
					14						614	12460	14	each	WORK ZONE MARKING SIGN	
					32						614	12510	32	sq ft	REPLACEMENT SIGN	
					25						614	12600	25	each	REPLACEMENT DRUM	
			24								614	13000	24	cu yd	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC	
							8.80	24.16			614	20100	32.96	mile	WORK ZONE LANE LINE, CLASS I, 642 PAINT	
							7055	9417			614	23200	16472	ft	WORK ZONE CHANNELIZING LINE, CLASS I, 642 PAINT	
					10						616	10000	10	m gal	WATER	
<i>STRUCTURE QUANTITIES</i>																
															FOR LOR-2-0030 (SFN 4707761), SEE SHT 48	
															FOR LOR-2-0097L (SFN 4707818), SEE SHT 50	
															FOR LOR-2-0097R (SFN 4707796), SEE SHT 50	
															FOR LOR-2-0107 (SFN 4707834), SEE SHT 52	
															FOR LOR-2-0151 (SFN 4707850), SEE SHT 54	
															FOR LOR-2-0223 (SFN 4707877), SEE SHT 56	
															FOR LOR-2-0262 (SFN 4707893), SEE SHT 58	
															FOR LOR-2-0333L (SFN 4707923), SEE SHT 60	
															FOR LOR-2-0333R (SFN 4707915), SEE SHT 60	
											614	11000	lump		MAINTAINING TRAFFIC	
											619	16010	5	month	FIELD OFFICE, TYPE B	
											623	10000	lump		CONSTRUCTION LAYOUT STAKES	
											624	10000	lump		MOBILIZATION	

GENERAL SUMMARY

ERI/LOR-2-30.46/0.00

DESIGN FILE: \Projects\23805\gg001Gsm.dgn
WORKSTATION: sjuzwik DATE: 02/26/04

EASTBOUND MAINLINE PAVEMENT QUANTITIES

407 407 442 442 204 203 304 301 202 254 604

CALC BY: SCJ
CHK'D BY: MJS

BEGIN STATION	END STATION	PAVEMENT WIDTH FT	PAVEMENT LENGTH FT	PAVEMENT AREA SY	TACK COAT, 702.13 AT 0.10 GALLON PER SQ. YD. GAL	TACK COAT AT 0.05 GALLON PER SQ. YD. GAL	THICKNESS IN	ASPHALT CONCRETE SURFACE COURSE 12.5MM TYPE A (446) WITH SUPPLEMENT 1059 WARRANTY CY	THICKNESS IN	ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE A, (446) CY	SUBGRADE COMPACTION SY	EXCAVATION 7"-10" CY	AGGREGATE BASE 6" CY	THICKNESS IN	ASPHALT CONCRETE BASE PG64-28 CY	THICKNESS IN	PAVEMENT REMOVED SY	PAVEMENT PLANING, ASPHALT CONCRETE SY	CATCH BASIN ADJUSTED TO GRADE EACH
1833+01.5	1833+75.	24	74	196	20	10	1.50	8	1.75	5				0	0			196	
1833+75.	1838+29.5BK	24	455	1212	121	61	1.50	51	1.75	59				0	0			1212	
0+00AH	48+00.	24	4800	12800	1280	640	1.50	533	1.75	622				0	0			12800	1
48+00.	51+03.25	24	303	809	0	81	1.50	34	1.75	39	809	190.9	134.8	10	225	9	809	809	
51+03.25	56+06.25	24	Bridge Deck		0	0	0.00	0	0.00	0				0	0			0	
56+06.25	57+00.	24	94	250	0	0	0.00	0	0.00	0				0	0			250	
57+00.	59+00.	24	200	533	0	53	1.50	22	*	46	533	125.9	88.9	10	148	9	533	533	
59+00.	115+75.	24	5675	15133	1513	3027	1.50	631	1.75	736				3	1261			15133	
115+75.	116+75.	24	100	267	27	27	1.50	11	*	23				0	0			267	
116+75.	118+75.	24	200	533	53	53	1.50	22	1.75	26				0	0			0	
118+75.	119+75.	24	100	267	27	27	1.50	11	*	23				0	0			0	
119+75.	126+13.	24	638	1701	170	340	1.50	71	1.75	83				3	142			0	
126+13.	136+60.	24	1047	2792	279	558	1.50	116	1.75	136				3	233			2792	
136+60.	137+60.	24	100	267	27	27	1.50	11	*	23				0	0			267	
137+60.	139+60.	24	200	533	53	53	1.50	22	1.75	26				0	0			533	
139+60.	140+60.	24	100	267	27	27	1.50	11	*	23				0	0			267	
140+60.	153+28.	24	1268	3381	338	676	1.50	141	1.75	164				3	282			3381	
153+28.	173+51.71	24	2024	5397	540	1079	1.50	225	1.75	262				3	450			0	
173+51.71	175+51.71	24	200	533	0	107	1.50	22	*	46	533	125.9	88.9	10	148	9	533	0	
175+51.71	177+60.21	24	Bridge Deck		0	0	0.00	0	0.00	0				0	0			0	
177+60.21	179+60.21	24	200	533	0	107	1.50	22	*	46	533	125.9	88.9	10	148	9	533	0	
179+60.21	182+35.21	24	275	733	73	147	1.50	31	1.75	36				3	61			0	
182+35.21	201+28.	24	1893	5047	505	1009	1.50	210	1.75	245				3	421			5047	1
201+28.	202+25.	24	97	259	26	52	1.50	11	1.75	13				3	22			259	
202+25.	203+75.	24	150	400	40	40	1.50	17	*	35				0	0			400	

* Intermediate Course Transitioned from 4.5" to 1.75" or 1.75" to 4.5" Deep Approaching and Leaving Overhead Bridge Location

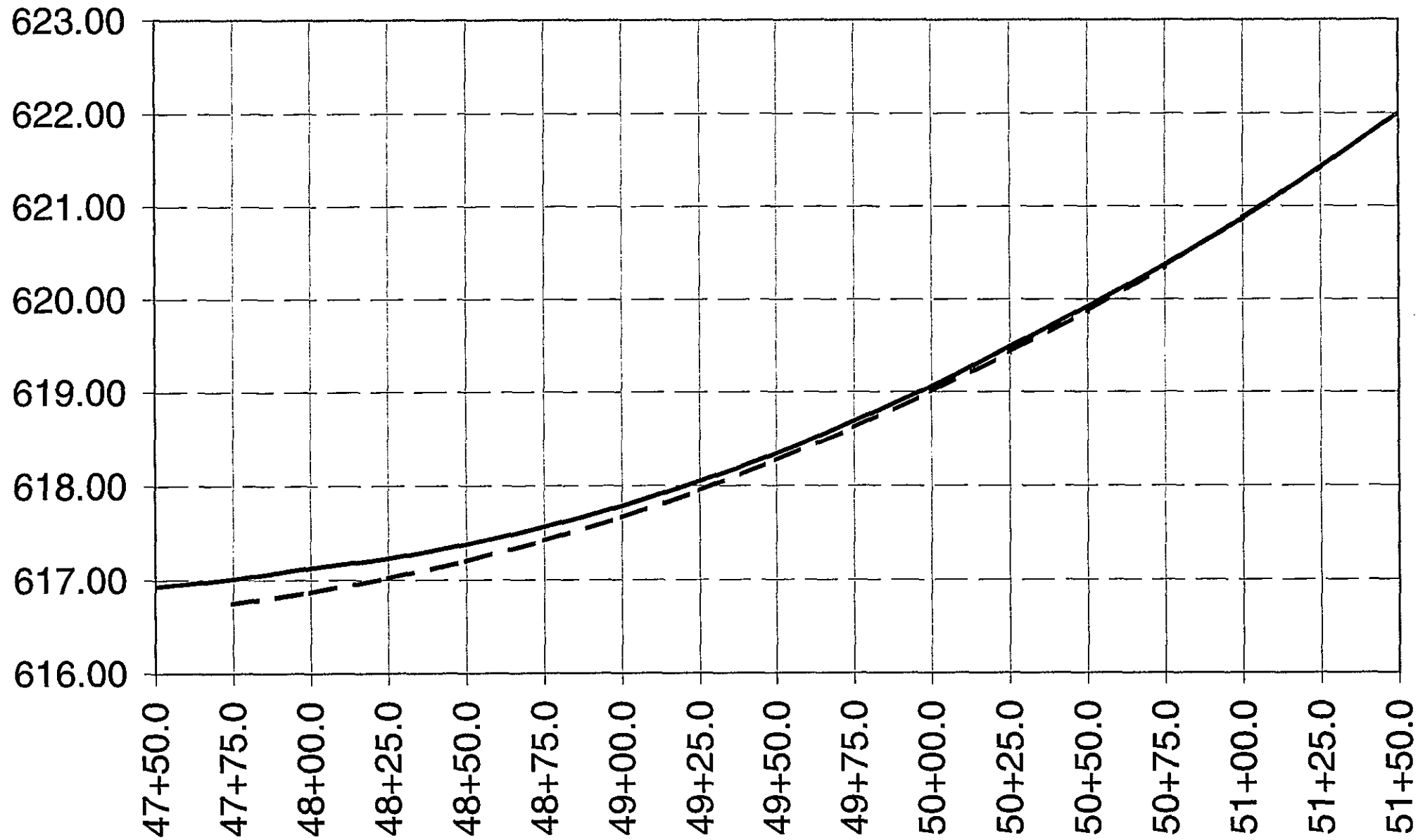
20,192 53,844 5,119 8,200 2,233 2,718 2,409 569 401 3,539 2,409 44,146 2

PAVEMENT DATA

ERI/LOR-2-0.00/30.46

Sta	Prop Elev	Ex Elev
47+50.0	616.93	
47+75.0	617.01	616.75
48+00.0	617.13	616.87
48+25.0	617.23	617.02
48+50.0	617.38	617.20
48+75.0	617.57	617.42
49+00.0	617.79	617.67
49+25.0	618.05	617.95
49+50.0	618.34	618.27
49+75.0	618.69	618.62
50+00.0	619.06	619.00
50+25.0	619.48	619.42
50+50.0	619.92	619.87
50+75.0	620.37	620.35
51+00.0	620.87	620.87
51+25.0	621.42	621.42
51+50.0	622.00	

These are assumed elevations based on existing plans. The intent is to transition smoothly between Sta 48+00 to Sta 51+03.25. The new profile at Sta 48+00 would be the full depth of the new overlay. At Sta 51+03.25, match the existing profile of the approach slab. Elevations of the new profile in between these stations shall be according to relative differences in elevations shown above.



**Graphic Grade 48+00 to 51+03.25
for Pavement Replacement Section at Lor-2-0097 L&R West
of Structure for EB & WB Lanes, including Paved Shoulders**

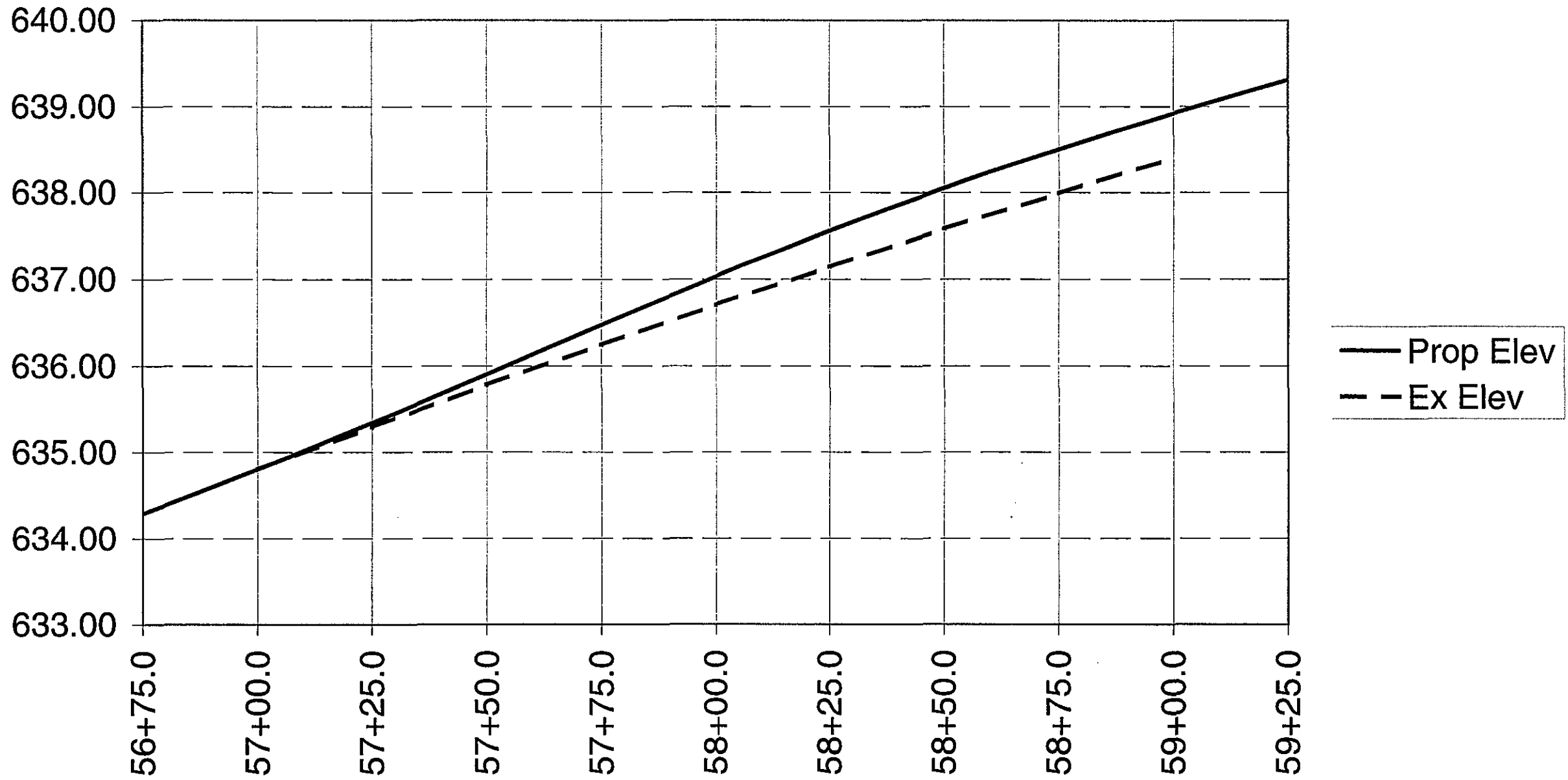
PAVEMENT DATA

ERI/LOR-2-0.00/30.46

32
61

Sta	Prop Elev	Ex Elev
56+75.0	634.29	
57+00.0	634.80	634.80
57+25.0	635.34	635.29
57+50.0	635.90	635.78
57+75.0	636.47	636.24
58+00.0	637.03	636.70
58+25.0	637.56	637.14
58+50.0	638.05	637.58
58+75.0	638.50	637.99
59+00.0	638.92	638.40
59+25.0	639.31	

These are assumed elevations based on existing plans. The intent is to transition smoothly between Sta 57+00 to Sta 59+00. The new profile at Sta 57+00 would be the full depth of the new overlay. At Sta 59+00, match the existing profile of the approach slab. Elevations of the new profile in between these stations shall be according to relative differences in elevations shown above.



**Graphic Grade 57+00 to 59+00
for Pavement Replacement Section at Lor-2-0097 L&R East
of Structure for EB & WB Lanes, including Paved Shoulders**

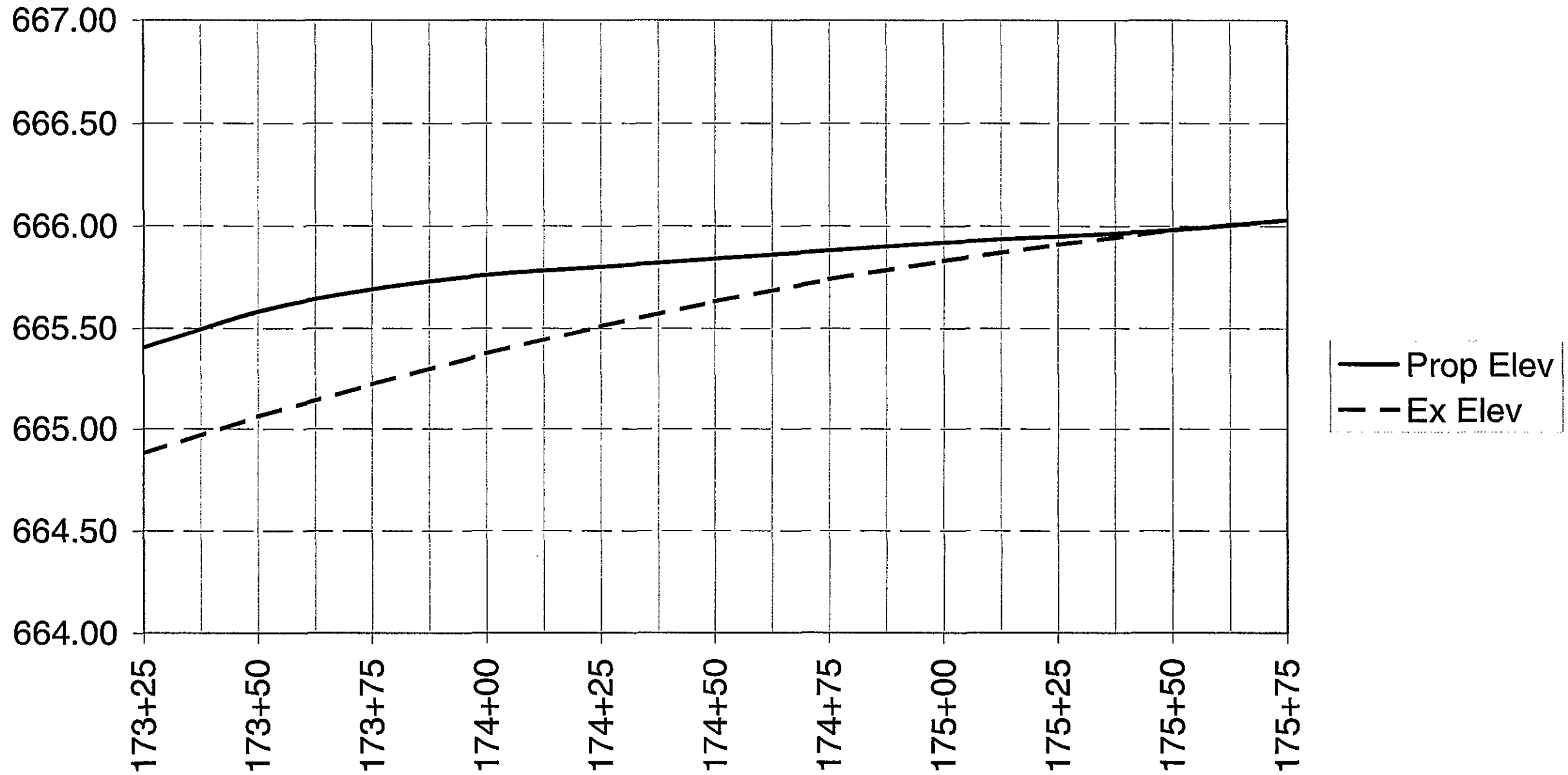
PAVEMENT DATA

ERI/LOR-2-0.00/30.46

33
61

Sta	Prop Elev	Ex Elev
173+25.0	665.40	664.88
173+50.0	665.58	665.06
173+75.0	665.69	665.22
174+00.0	665.76	665.37
174+25.0	665.80	665.51
174+50.0	665.84	665.63
174+75.0	665.88	665.74
175+00.0	665.92	665.83
175+25.0	665.95	665.91
175+50.0	665.98	665.98
175+75.0	666.03	666.03

These are assumed elevations based on existing plans. The intent is to transition smoothly between Sta 173+51.71 to Sta 175+51.71. The new profile at Sta 173+51.71 would be the full depth of the new overlay. At Sta 175+51.71, match the existing profile of the approach slab. Elevations of the new profile in between these stations shall be according to relative differences in elevations shown above.



**Graphic Grade 173+51.71 to 175+51.71
for Pavement Replacement Section at Lor-2-0333 L&R West
of Structure for EB & WB Lanes, including Paved Shoulders**

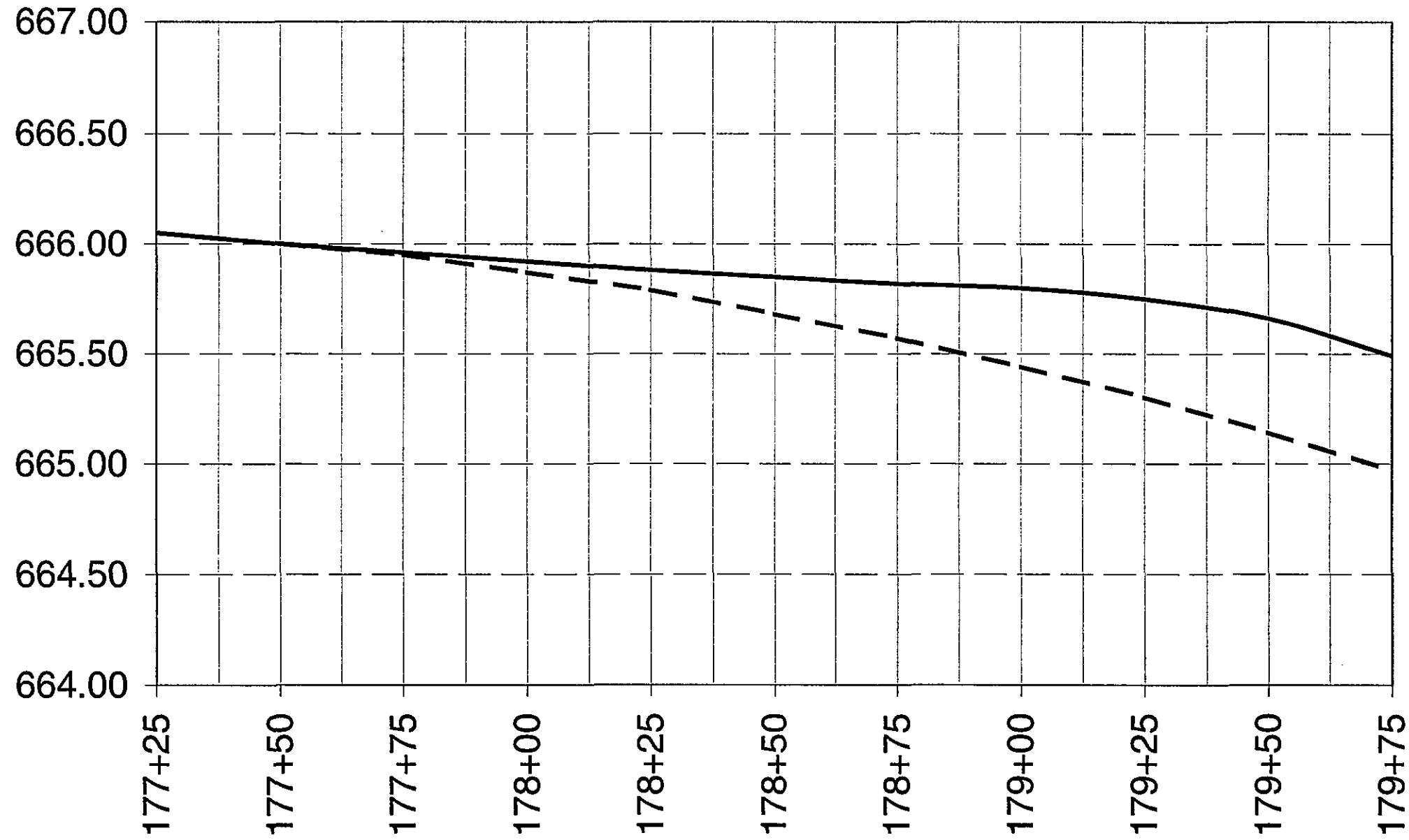
PAVEMENT DATA

ERI/LOR-2-0.00/30.46

34
61

Sta	Prop Elev	Ex Elev
177+25.0	666.05	666.05
177+50.0	666.00	666.00
177+75.0	665.96	665.95
178+00.0	665.92	665.87
178+25.0	665.88	665.79
178+50.0	665.85	665.68
178+75.0	665.82	665.57
179+00.0	665.80	665.44
179+25.0	665.75	665.30
179+50.0	665.66	665.14
179+75.0	665.49	664.97

These are assumed elevations based on existing plans. The intent is to transition smoothly between Sta 177+60.21 to Sta 179+60.21. The new profile at Sta 177+60.21 would be the full depth of the new overlay. At Sta 179+60.21, match the existing profile of the approach slab. Elevations of the new profile in between these stations shall be according to relative differences in elevations shown above.



**Graphic Grade 177+50.21 to 179+50.21
for Pavement Replacement Section at Lor-2-0333 L&R East
of Structure for EB & WB Lanes, including Paved Shoulders**

PAVEMENT DATA

ERI/LOR-2-0.00/30.46

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61

RAISED PAVEMENT MARKERS

LOCATION				D E T A I L	621			PRISMATIC RETRO-REFLECTOR TYPES					REMARKS
DIR.	LANE	STA. SECTION			RPM, INSTALLATION ONLY (EACH)	ONE - WAY		TWO - WAY					
		FROM	TO			WHITE	YELLOW	YELLOW/ YELLOW	WHITE/ RED	YELLOW/ RED			
EB	ML	1833+00	1838+29.5	5	5			5					LANE
EB	ML	0+00	13+50	5	11			11					LANE
EB	ML	13+50	20+55	5	12			6			6		LANE/CHANNELIZING
EB	DECEL	17+82	20+55	3	7						7		CHANNELIZING
EB	RAMP U	20+53	24+55	3	5							5	EDGE
EB	ML	20+55	65+00	5	37			37					LANE
EB	RAMP V	36+10	37+65	2	2							2	EDGE
EB	ACCEL	37+65	41+53	2	5							5	EDGE
EB	ACCEL	41+53	49+73	2	21						21		EDGE
EB	ML	65+00	72+00	5	10			6			4		LANE/CHANNELIZING
EB	DECEL	70+00	72+00	3	5						5		CHANNELIZING
EB	RAMP X	71+98.8	79+50	3	9							9	EDGE
EB	ML	72+00	160+50	5	74			74					LANE
EB	RAMP Y	80+00	88+18	2	10							10	EDGE
EB	ACCEL	88+18	92+00	2	5							5	EDGE
EB	ACCEL	92+00	100+40	2	21						21		EDGE
EB	ML	160+50	167+66	5	12			6			6		LANE/EDGE
EB	RAMP H	167+66	176+50	3	11							11	EDGE
EB	DECEL	164+87	167+66	3	7						7		CHANNELIZING
EB	ML	167+66	185+50	5	15			15					LANE
EB	RAMP B	177+00	185+50	5	10							10	EDGE
EB	ML	185+50	203+75	5	15			15					LANE
EB	ACCEL	185+50	190+00	2	6							6	EDGE
EB	ACCEL	190+00	198+05	2	20						20		EDGE
					TOTAL	335		175			97	63	
TOTAL CARRIED TO GENERAL SUMMARY						335		175			97	63	

DETAIL	
1	MULTILANE UNDIVIDED
1	TYPICAL SPACING
2	TAPERED ACCEL LANE
3	DECELERATION LANE
4	PARALLEL ACCEL LANE
5	MULTILANE DIVIDED/ EXPRESSWAY
6	STOP APPROACH
7	1 LANE APPR. W/LT. TURN LANE
8	THRU APPROACH
9	2 LANE APPR. W/LT TURN LANE
10	4 LANE DIVIDED TO 2 LANE TRANSITION
11	4 LANE UNDIVIDED TO 2 LANE TRANSITION
12	TWO LANE NARROW BRIDGE
13	TWO WAY LEFT TURN LANE
14	ONE LANE BRIDGE
15	HORIZONTAL CURVE
16	HORIZONTAL CURVE ALT.
17	STOP APPROACH ALT.
GAP	CENTERLINE AT 24.4m TYP.

DESIGN FILE: i:\projects\23805\g000pmk.dgn
 WORKSTATION: s\uzwik DATE: 02/19/04

CONSULTOR
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SCJ
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RAISED PAVEMENT MARKER QUANTITIES

ERI/LOR-2-30.46/0.00

41
61

BRIDGE NUMBER LOR-2-0030 SFN 4707761

ITEM	EXTENSION	QUANTITY	UNIT	DESCRIPTION
864	10100	1091	SQ.YD.	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)

BRIDGE NUMBER LOR-2-0097L SFN 4707818

ITEM	EXTENSION	QUANTITY	UNIT	DESCRIPTION
864	10100	1330	SQ.YD.	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)

BRIDGE NUMBER LOR-2-0097R SFN 4707796

ITEM	EXTENSION	QUANTITY	UNIT	DESCRIPTION
864	10100	1332	SQ.YD.	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)

BRIDGE NUMBER LOR-2-0107 SFN 4707834

ITEM	EXTENSION	QUANTITY	UNIT	DESCRIPTION
864	10100	1152	SQ.YD.	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)

BRIDGE NUMBER LOR-2-0151 SFN 4707850

ITEM	EXTENSION	QUANTITY	UNIT	DESCRIPTION
864	10100	1043	SQ.YD.	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)

BRIDGE NUMBER LOR-2-0223 SFN 4707877

ITEM	EXTENSION	QUANTITY	UNIT	DESCRIPTION
864	10100	950	SQ.YD.	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)

BRIDGE NUMBER LOR-2-0262 SFN 4707893

ITEM	EXTENSION	QUANTITY	UNIT	DESCRIPTION
864	10100	961	SQ.YD.	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)

BRIDGE NUMBER LOR-2-0333L SFN 4707923

ITEM	EXTENSION	QUANTITY	UNIT	DESCRIPTION
864	10100	791	SQ.YD.	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)

BRIDGE NUMBER LOR-2-0333R SFN 4707915

ITEM	EXTENSION	QUANTITY	UNIT	DESCRIPTION
SPECIAL	51273500	1	SQ.YD.	TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN
SPECIAL	51912510	6	SQ.YD.	PATCHING CONCRETE BRIDGE DECK
864	10100	791	SQ.YD.	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)

STRUCTURE GENERAL NOTES

REFERENCES SHALL BE MADE TO STANDARD DRAWING:

BP-3.1	DATED	7/28/00
MT-35.10	DATED	4/20/01
MT-95.30	DATED	4/19/02
MT-95.31	DATED	4/19/02
MT-95.32	DATED	4/19/02
MT-97.10	DATED	4/19/02
MT-105.10	DATED	10/18/02
MT-105.11	DATED	10/18/02

AND TO SUPPLEMENTAL SPECIFICATIONS:

846	DATED	4/19/02
864	DATED	7/11/00
954	DATED	9/9/97

EXISTING STRUCTURE VERIFICATION:

DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURE AND FROM FIELD OBSERVATION AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND THE PROPOSED WORK BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO CMS SECTIONS 102.05, 105.02 AND 513.02. THE ORIGINAL CONSTRUCTION PLANS OF THE EXISTING BRIDGE ARE AVAILABLE UPON REQUEST AT THE DISTRICT 3 OFFICE OF THE OHIO DEPARTMENT OF TRANSPORTATION, ASHLAND, OHIO.

CONTRACT BID PRICES SHALL BE BASED UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PRE-BID EXAMINATION OF THE EXISTING STRUCTURE BY THE CONTRACTOR. HOWEVER, ALL PROJECT WORK SHALL BE BASED ON ACTUAL DETAILS AND DIMENSIONS WHICH HAVE BEEN VERIFIED BY THE CONTRACTOR IN THE FIELD.

DESIGN SPECIFICATIONS:

THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2002, AND THE ODOT BRIDGE DESIGN MANUAL.

PLACING ASPHALT CONCRETE FEATHERING ON APPROACHES TO BRIDGES:

SPECIAL CARE SHALL BE TAKEN, WHEN PLACING THE ASPHALT CONCRETE FEATHERING TO EFFECT A SMOOTH TRANSITION FROM THE EXISTING APPROACH

PAVEMENT TO THE BRIDGE DECK OR APPROACH SLAB. THE CONTRACTOR'S ATTENTION IS CALLED TO SECTION 401.19 OF THE CMS AND TO STANDARD DRAWING BP-3.1 FOR REQUIRED TOLERANCES.

STRUCTURE PROTECTION:

THE EXPANSION JOINT SEAL AT THE ENDS OF THE BRIDGES AND THE VANDAL PROTECTIVE FENCE SHALL BE PROTECTED FROM ALL SEALERS. NO SEALERS SHALL BE ALLOWED TO COME INTO CONTACT WITH THE EXPANSION JOINT SEAL. IF ANY SEALER COMES INTO CONTACT WITH THE EXPANSION JOINT SEAL THE CONTRACTOR SHALL REPLACE THE EXPANSION JOINT TO THE SATISFACTION OF THE ENGINEER AT NO COST TO THE STATE.

STRUCTURE GENERAL NOTES

ITEM SPECIAL - PATCHING CONCRETE BRIDGE DECK

A. DESCRIPTION

THIS ITEM SHALL CONSIST OF FURNISHING THE NECESSARY LABOR, MATERIALS AND EQUIPMENT TO REPAIR THE EXISTING CONCRETE ON THE BRIDGE DECK AND APPROACH SLABS INCLUDING THE REMOVAL OF LOOSE AND UNSOUND CONCRETE, BITUMINOUS PATCHES, CONCRETE PATCHES, SURFACE PREPARATION, SAW CUTTING, AND THE STRENGTH TESTING OF ALL THE PATCHES AS DIRECTED BY THE ENGINEER.

B. REMOVAL OF UNSOUND CONCRETE

THE ENGINEER SHALL VISUALLY INSPECT THE EXISTING CONCRETE ON THE BRIDGE DECK AND APPROACH SLABS AND OUTLINE THE AREAS TO BE REMOVED.

THE PERIMETER OF THE REMOVAL AREAS SHALL BE SAWED TO A DEPTH OF 1 INCH TO PRODUCE A VERTICAL OR SLIGHTLY UNDERCUT FACE. AT EACH CORNER OF THE PATCH THE SAW CUTS SHALL COME TOGETHER WITHOUT ANY OVERCUTTING WITH THE SAW. THE CORNERS SHALL BE CHIPPED DOWN TO THE SAW MARKS. ADDITIONAL SAW CUTS MAY BE REQUIRED TO FACILITATE REMOVAL WITHOUT ANY OVERCUTTING. COOLING WATER FROM WET SAWING AND DUST FROM SAWING SHALL BE IMMEDIATELY REMOVED FROM THE EXPOSED PATCH HOLES BEFORE ANY DRYING CAN OCCUR.

UN SOUND CONCRETE INCLUDING ALL PATCHES OTHER THAN SOUND PORTLAND CEMENT CONCRETE, AND ALL OBVIOUSLY LOOSE AND DISINTEGRATED CONCRETE SHALL BE REMOVED. THE UNSOUND CONCRETE MAY BE REMOVED BY CHIPPING OR HAND DRESSING. CHIPPING HAMMERS SHALL NOT BE HEAVIER THAN THE NORMAL 35 POUND CLASS AND SHALL BE OPERATED AT AN ANGLE LESS THAN 45 DEGREES MEASURED FROM THE SURFACE OF THE DECK. CONCRETE SHALL BE REMOVED IN A MANNER THAT PREVENTS CUTTING, ELONGATING OR DAMAGING REINFORCING STEEL. WHERE THE BOND BETWEEN THE CONCRETE AND A REINFORCING BAR HAS BEEN DESTROYED, OR WHERE MORE THAN ONE HALF OF THE PERIPHERY OF SUCH A BAR HAS BEEN EXPOSED, THE ADJACENT CONCRETE SHALL BE REMOVED TO A DEPTH THAT WILL PROVIDE A MINIMUM 3 /4 INCH CLEARANCE AROUND THE BAR EXCEPT WHERE OTHER REINFORCING BARS MAKE THIS IMPRACTICABLE. REINFORCEMENT WHICH HAS BECOME LOOSE SHALL BE ADEQUATELY SUPPORTED AND TIED BACK INTO PLACE. ALL REMOVED ASPHALT AND CONCRETE SHALL BE DISPOSED OF PROPERLY OUTSIDE THE RIGHT OF WAY.

C. SURFACE PREPARATION

CLEANING SHALL CLOSELY PRECEDE APPLICATION OF THE PATCHING MATERIAL. THE EXPOSED REINFORCING STEEL SHALL BE THOROUGHLY CLEANED BY ABRASIVE BLASTING (SILICA SAND SHALL NOT BE USED) FOLLOWED BY AN AIR BLAST. IT MAY BE NECESSARY TO USE HAND TOOLS TO REMOVE SCALE FROM THE REINFORCING STEEL.

CONTAMINATION OF THE AREA TO BE PATCHED BY CONSTRUCTION EQUIPMENT OR FROM ANY OTHER SOURCE SHALL BE PREVENTED BY PLACEMENT OF A CLEAN 4 MIL POLYETHYLENE SHEET (OR ANY OTHER COVERING AS APPROVED BY THE ENGINEER) ON THE SURFACE OF THE DECK FOLLOWING THE AIR BLAST CLEANING.

WHERE REINFORCING STEEL IS EXPOSED, THE CONTRACTOR SHALL PROVIDE ADEQUATE SUPPORTS FOR THE CONCRETE MIXER SO THAT REINFORCING STEEL AND ITS BOND WITH THE CONCRETE WILL NOT BE DAMAGED BY THE WEIGHT AND MOVEMENT OF THE MIXER, OR SHALL PROVIDE MEANS TO CONVEY CONCRETE FROM THE MIXER TO THE PATCH LOCATIONS.

D. MATERIALS, PLACING, AND CURING

THE BRIDGE DECK OR OVERLAY SHALL BE PATCHED WITH CLASS FS CONCRETE WHICH SHALL MEET THE REQUIREMENTS OF CMS 499.05 EXCEPT THAT A NON CALCIUM CHLORIDE ACCELERATING ADMIXTURE AND LIMESTONE FOR COARSE AGGREGATE SHALL BE USED.

E. PLACING

THE PATCHING MATERIAL SHALL BE PLACED, CONSOLIDATED AND FINISHED TO THE EXISTING GRADE AND ELEVATION. PATCHES GREATER THAN 50 SQUARE FEET IN AREA SHALL HAVE TEMPORARY BULKHEADS INSTALLED TO FACILITATE PLACEMENT AND FINISHING. THE TEMPORARY BULKHEADS SHALL GO AS DEEP AS THE PATCH AND BE PULLED PRIOR TO THE CONCRETE SETTING. PATCHES EXCEEDING 50 SQUARE FEET SHALL BE STRUCK OFF WITH A SCREED. SMALLER PATCHES THAT ARE UNDER 10 FEET IN LENGTH SHALL BE SCREED LONGITUDINALLY. FOR PATCHES OVER 10 FEET IN LENGTH, THE SCREED SHALL BE PLACED PERPENDICULAR TO THE BRIDGE CENTERLINE.

(PATCHING CONCRETE BRIDGE DECK CONTINUED ON NEXT PAGE)

STRUCTURE GENERAL NOTES

(PATCHING CONCRETE BRIDGE DECK CONTINUED)

THE CONTRACTOR SHALL TEST THE SURFACE OF THE PLASTIC CONCRETE FOR TRUENESS AND FOR BEING FLUSH WITH THE EDGES OF THE ADJACENT SURFACES BY USE OF A 10 FOOT STRAIGHTEDGE. FOR PATCHES 10 FEET OR LESS IN LENGTH, THE STRAIGHTEDGE SHALL BE DONE BY PLACING THE STRAIGHTEDGE PARALLEL TO THE BRIDGE CENTERLINE WITH ENDS RESTING ON THE EXISTING WEARING SURFACE AND DRAWING THE STRAIGHTEDGE ACROSS THE PATCH. ANY HIGH OR LOW AREAS EXCEEDING 1/8 INCH IN 10 FEET SHALL BE CORRECTED. IF ANY CORRECTIONS ARE MADE, THE SURFACE SHALL BE RECHECKED.

F. FINISHING

AFTER THE PATCHES HAVE BEEN CONSOLIDATED AND FINISHED, THEY SHALL BE TEXTURED IN ACCORDANCE TO SECTION 451.09 OF THE CMS.

G. INSPECTION, SOUNDING, AND REPAIR OF CONCRETE PATCHES

AFTER CURING AND BEFORE FINAL ACCEPTANCE, ALL PATCHED AREAS SHALL BE INSPECTED AND SOUNDED. ALL DELAMINATED AREAS SHALL BE REMOVED AND REPATCHED ACCORDING TO THIS NOTE.

ALL CRACKS IN BONDED PATCHES SHALL BE SEALED WITH AN APPROVED HIGH MOLECULAR WEIGHT METHACRYLATE SEALER ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS AND THE HMWM SUPPLEMENTAL SPECIFICATIONS.

ALL REPLACEMENT OF REJECTED AREAS AND SEALING OF CRACKS IN NEW BONDED PATCHES WILL BE THE RESPONSIBILITY OF THE CONTRACTOR AND INCLUDED IN THE UNIT BID PRICE FOR THIS ITEM.

H. METHOD OF MEASUREMENT

THE QUANTITY SHALL BE THE ACTUAL AREA IN SQUARE YARDS OF THE EXPOSED SURFACE OF ALL PATCHES, IRRESPECTIVE OF THE DEPTH OF THE PATCH, COMPLETE, IN PLACE AND ACCEPTED.

I. BASIS OF PAYMENT

PAYMENT SHALL BE MADE AT THE UNIT PRICE BID FOR:

ITEM	UNIT	DESCRIPTION
SPECIAL	SQUARE YARD	PATCHING CONCRETE BRIDGE DECK

ITEM SPECIAL - TREATING CONCRETE BRIDGE DECKS WITH GRAVITY-FED RESIN:

THIS ITEM SHALL CONSIST OF FURNISHING THE NECESSARY LABOR, MATERIALS AND EQUIPMENT NEEDED FOR SURFACE PREPARATION, MIXING AND PLACING THE SEAL ONTO THE CONSTRUCTION JOINT FORMED ALONG NEW PATCHES. THE JOINT SEAL SHALL BE AS PER PROPOSAL NOTE "TREATING CONCRETE BRIDGE DECKS WITH GRAVITY-FED RESIN".

THE SEAL SHALL BE APPLIED 2 INCHES ON EACH SIDE OF THE JOINT.

PAYMENT FOR ALL OF THE ABOVE SHALL BE AT THE UNIT PRICE BID PER SQUARE YARD FOR ITEM SPECIAL-TREATING CONCRETE BRIDGE DECKS WITH GRAVITY-FED RESIN WHICH SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.

DESIGN AGENCY
DISTRICT THREE

DATE
2-04
REVIEWED
RDN
STRUCTURAL FILE NUMBER

DRAWN
DCH
REVISION
DCM
CHECKED
CAL

STRUCTURE GENERAL NOTES

ERI/LOR-2-30.46/0.00

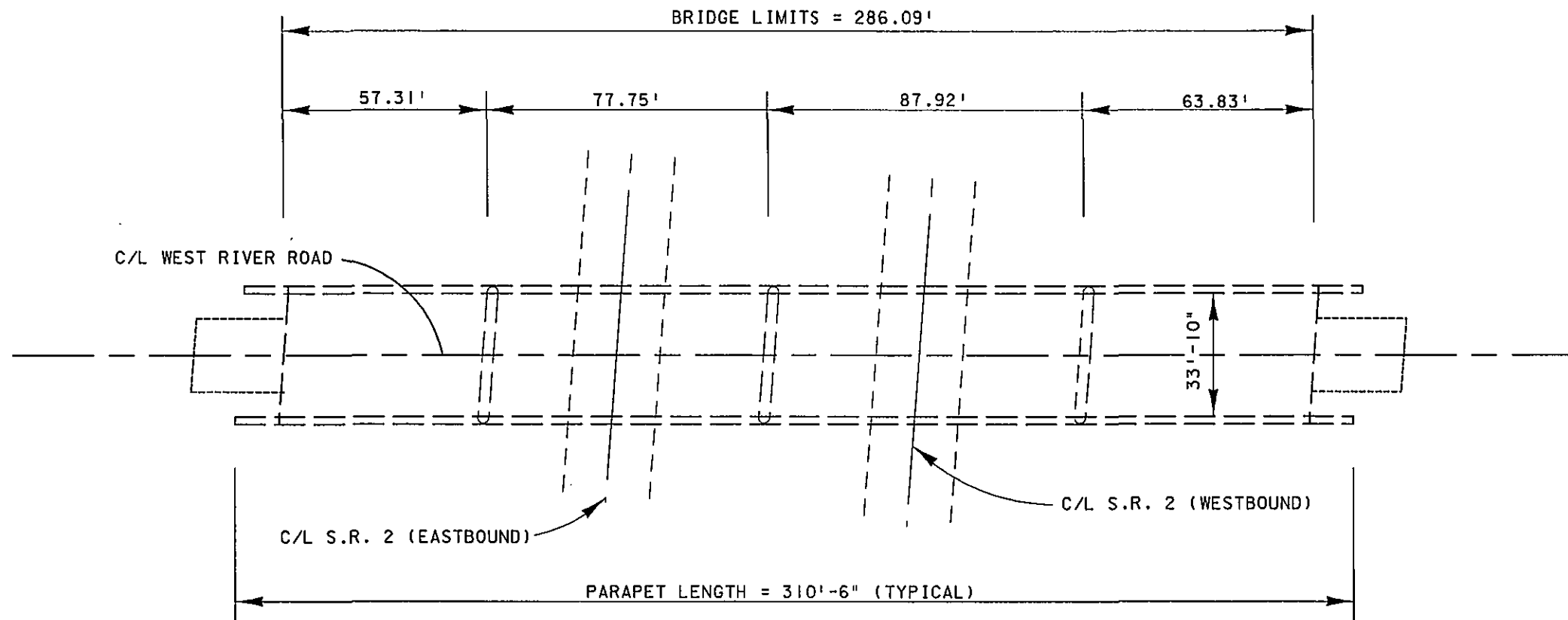
46
01

DESIGN FILE: i:\projects\23805\Structure\strnotes.dgn
WORKSTATION: dmollens DATE: 02/20/04

STRUCTURE FILE NUMBER	BRIDGE NO.	LOCATION	SKEW	BRIDGE LIMITS	DECK WIDTH	SPAN LENGTH	VERTICAL CLEARANCE	PROPOSED WORK
4707761	LOR-2-0030	UNDER WEST RIVER ROAD	4°27'30" LF	286.09'±	33'-10" T/T	4@ 54.5', 77.75', 87.92', 61.5'	14'-9"±	SEAL PARAPETS, ABUTMENTS, WINGWALLS AND PIERS
4707818	LOR-2-0097L	OVER VERMILION RIVER	NONE	453'±	37'-10" T/T	5@ 78', 97.5', 97.5', 97.5', 78'		SEAL PARAPETS, ABUTMENTS, WINGWALLS AND PIER CAP ENDS
4707796	LOR-2-0097R	OVER VERMILION RIVER	NONE	453'±	VARIES	5@ 78', 97.5', 97.5', 97.5', 78'		SEAL PARAPETS, ABUTMENTS, WINGWALLS AND PIER CAP ENDS
4707834	LOR-2-0107	UNDER VERMILION ROAD	3°38'56" LF	247.95'±	41'-10" T/T	4@ 54', 67.6', 67.8', 54'	19'-7"±	SEAL PARAPETS, ABUTMENTS, WINGWALLS AND PIERS
4707850	LOR-2-0151	UNDER VERMILION INTERCH. ROAD	NONE	234'±	41'-10" T/T	4@ 47.2', 67.5', 67.5', 47.2'	15'-5"±	SEAL PARAPETS, ABUTMENTS, WINGWALLS AND PIERS
4707877	LOR-2-0223	UNDER SUNNYSIDE ROAD	NONE	235.16'±	33'-10" T/T	4@ 47.3', 68', 68', 47.3'	14'-11"±	SEAL PARAPETS, ABUTMENTS, WINGWALLS AND PIERS
4700015	LOR-2-0249	OVER BROWNHelm DITCH				14' X 7' BOX		NO STRUCTURE WORK
4707893	LOR-2-0262	UNDER CLAUS ROAD	6°50'50" RF	235.86'±	33'-10" T/T	4@ 47.7', 68', 68', 47.7'	14'-10"±	SEAL PARAPETS, ABUTMENTS, WINGWALLS AND PIERS
4707923	LOR-2-0333L	OVER BAUMHART ROAD	NONE	158.5'±	37'-10" T/T	4@ 33.5', 43.5', 43.5', 33.5'		SEAL PARAPETS, ABUTMENTS AND PIERS
4707915	LOR-2-0333R	OVER BAUMHART ROAD	NONE	158.5'±	37'-10" T/T	4@ 33.5', 43.5', 43.5', 33.5'		PATCH DECK, SEAL PARAPETS, ABUTMENTS AND PIERS

STRUCTURE INFORMATION

DESIGN FILE: I:\proj\23805\Struct\detail.dgn
 WORKSTATION: dmj/lrs DATE: 02/20/04



PLAN VIEW

ITEM	QUANTITY	UNIT	DESCRIPTION
864	1091	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)

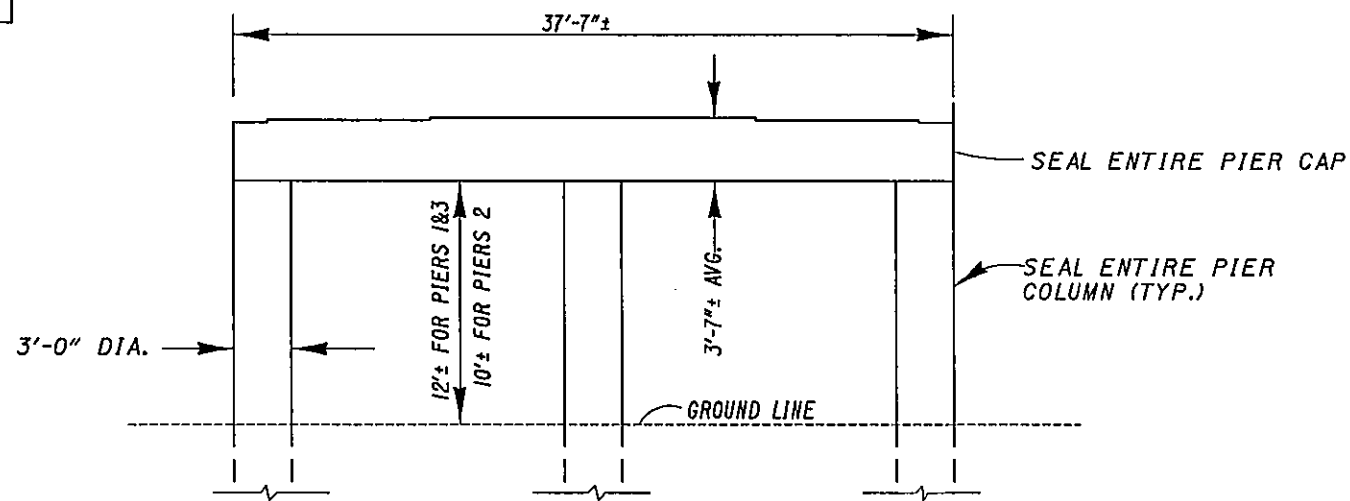
QUANTITIES CARRIED TO SHEET 42

NOTES:

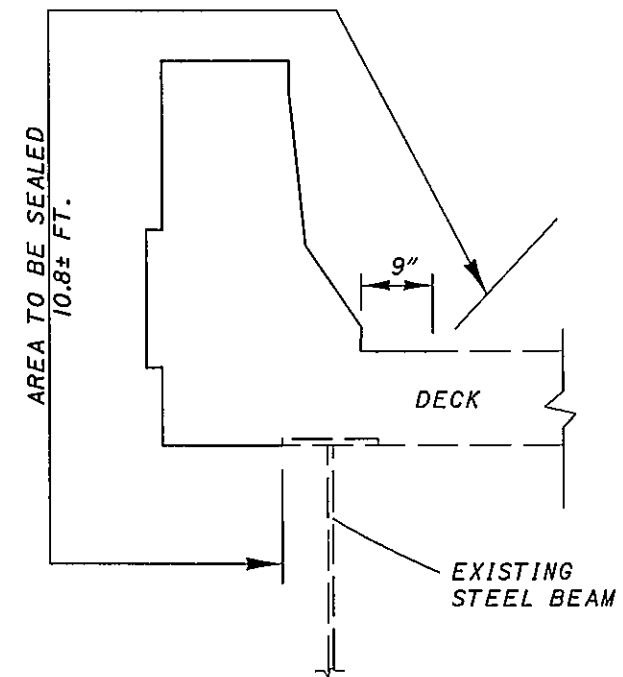
- 1) THE EXISTING GUARDRAIL AND VANDAL PROTECTIVE FENCE ARE NOT SHOWN.
- 2) THE PARAPETS, PIERS, ABUTMENTS AND WINGWALLS SHALL BE SEALED USING ITEM 864-SEALING CONCRETE SURFACES (EPOXY-URETHANE). SEE SHEET 49 FOR DETAILS.

DESIGNED	DCM	CHECKED	CAL
DRAWN	DCM	REVISED	
REVIEWED	RDN	DATE	2-04
STRUCTURAL FILE NUMBER	470761	DESIGN AGENCY	DISTRICT THREE
PLAN VIEW BRIDGE NO. LOR-2-0030 UNDER WEST RIVER ROAD			
ERI/LOR-2-30.46/0.00			
48 61			

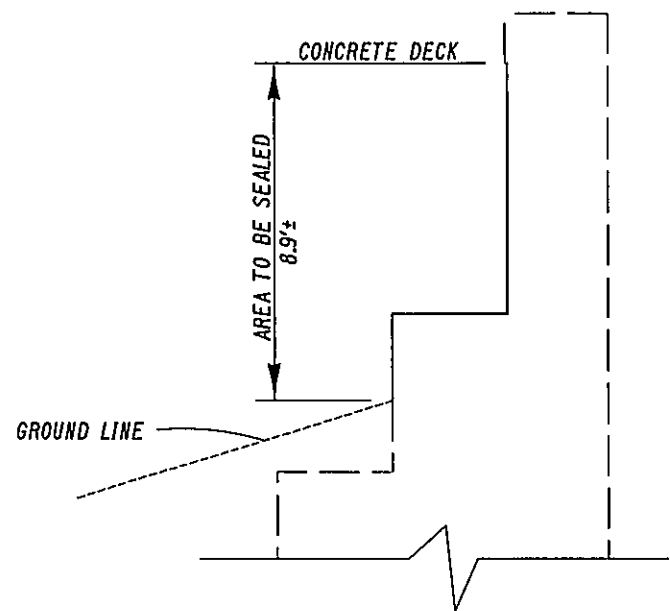
PIER CAPS ARE 3'-0" WIDE



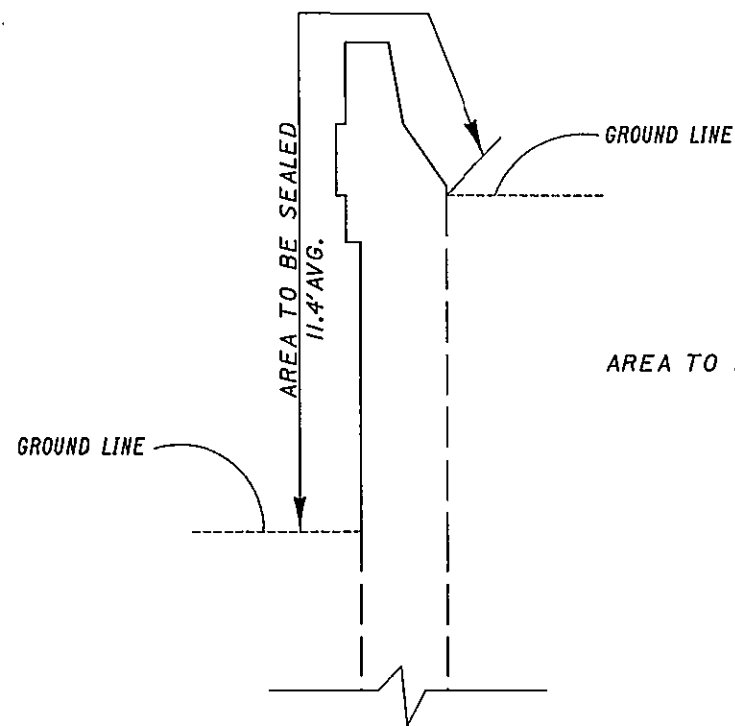
TYPICAL PIER



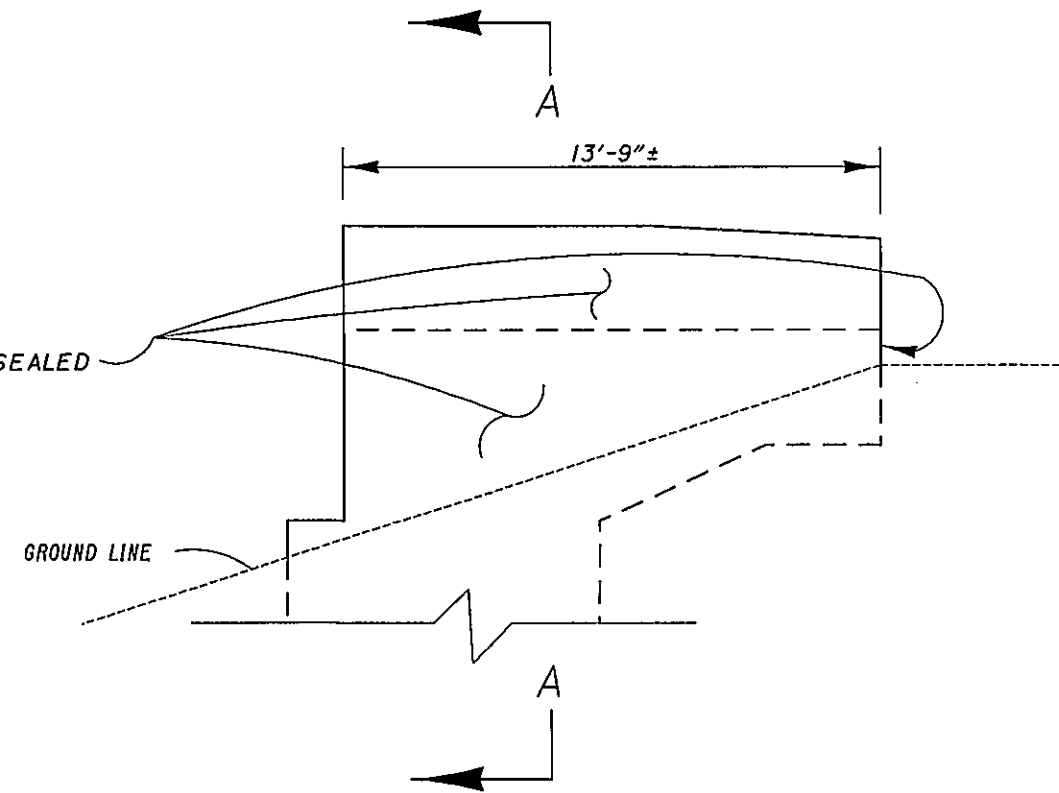
PARAPET LENGTH ON DECK = 283.0'
TYPICAL PARAPET ON DECK



TYPICAL ABUTMENT



SECTION A-A



TYPICAL PARAPET ON WINGWALL

ABUTMENT FACES ARE 37.6'± WIDE

ITEM	QUANTITY	UNIT	DESCRIPTION
864	1091	SQ. YD.	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)

QUANTITIES CARRIED TO SHEET 48

NOTE:

1) SEAL PARAPETS AND ALL EXPOSED CONCRETE ON ABUTMENT, WINGWALLS AND PIERS AS PER DETAILS ABOVE.

DESIGN FILE: I:\pro...fs\23805\Struct\detail.dgn
WORKSTATION: dmolens DATE: 02/20/04

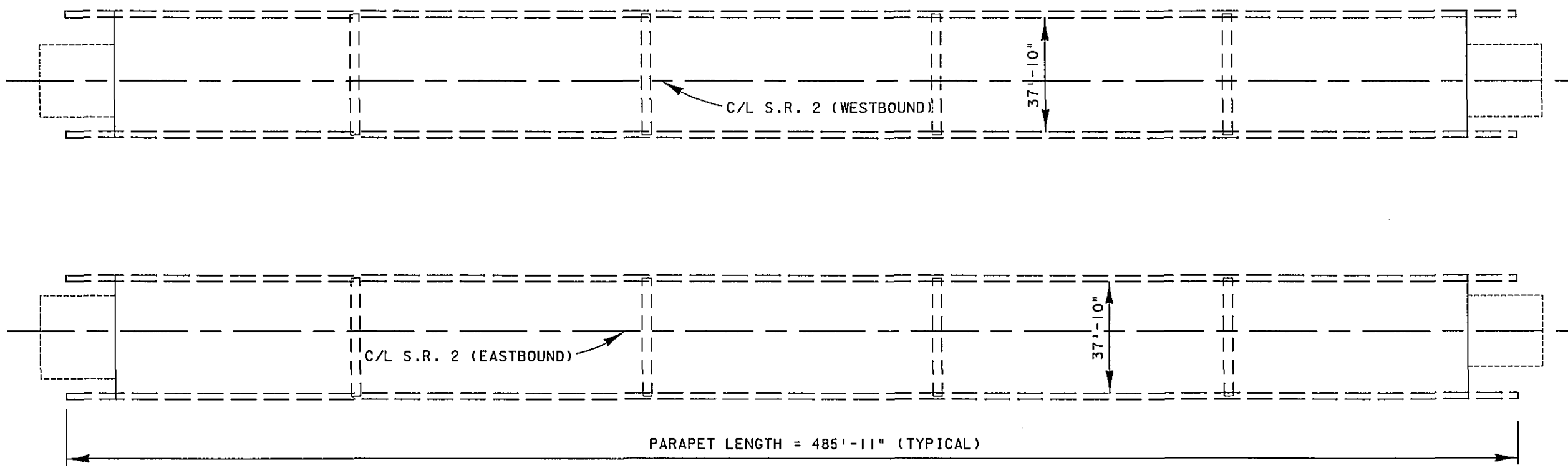
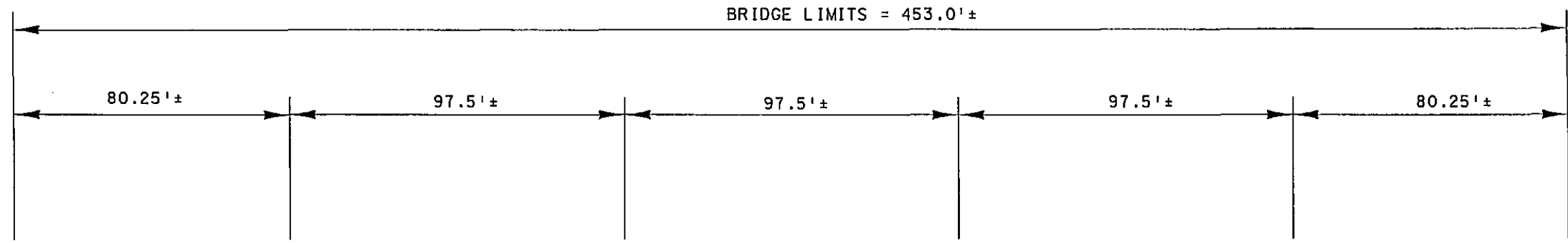
DESIGN AGENCY
DISTRICT THREE

REVISED DATE
RDN 2-04
STRUCTURAL FILE NUMBER
4707761

DESIGNED BY
DCM
CHECKED BY
CAL

SEALING DETAILS
BRIDGE NO. LOR-2-0030
UNDER WEST RIVER ROAD

ERI/LOR-2-30.46/0.00



PLAN VIEW

DESIGN FILE: I:\proj\rs\23805\Struct\detail.dgn
 WORKSTATION: dm/len DATE: 02/20/04

ITEM	QUANTITY		UNIT	DESCRIPTION
	LOR-2-0097L	LOR-2-0097R		
864	1330	1332	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)

QUANTITIES CARRIED TO SHEET 42

NOTES:

- 1) THE EXISTING GUARDRAIL IS NOT SHOWN.
- 2) THE PARAPETS, PIER CAP ENDS, ABUTMENTS AND WINGWALLS SHALL BE SEALED USING ITEM 864-SEALING CONCRETE SURFACES (EPOXY-URETHANE). SEE SHEET 51 FOR DETAILS.

DESIGN AGENT
DISTRICT THREE

DATE: 2-04
 REVISED: RDN
 STRUCTURAL FILE NUMBER: 4707818 & 4707796

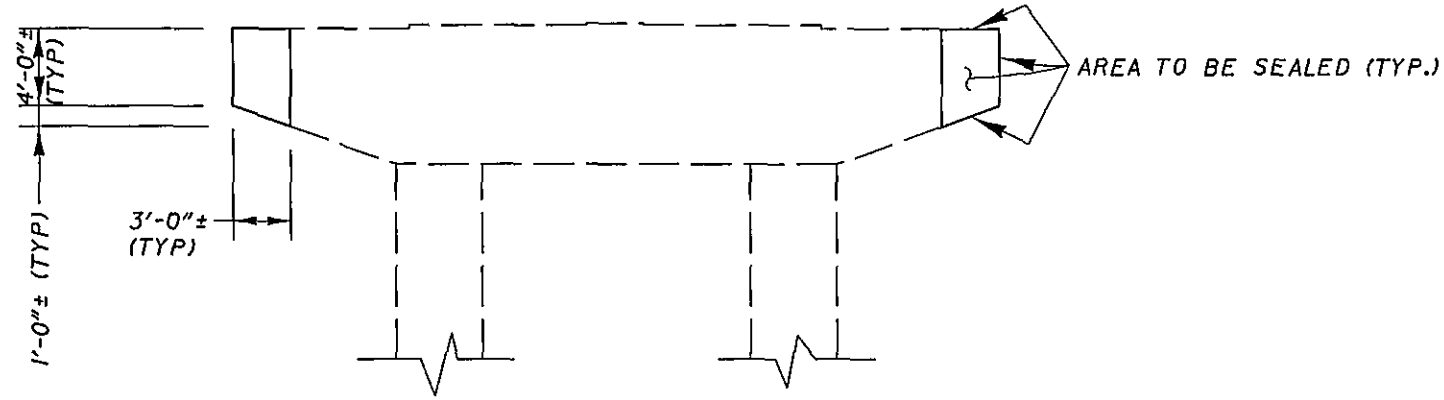
DRAWN: DCM
 CHECKED: CAL

PLAN VIEW
 BRIDGE NO. LOR-2-0097L&R
 OVER VERMILION RIVER

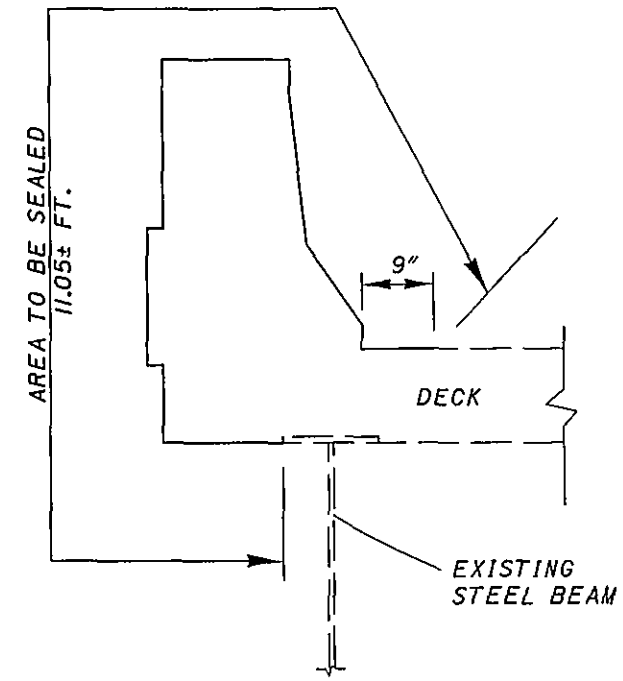
ERI/LOR-2-30.46/0.00

50
 61

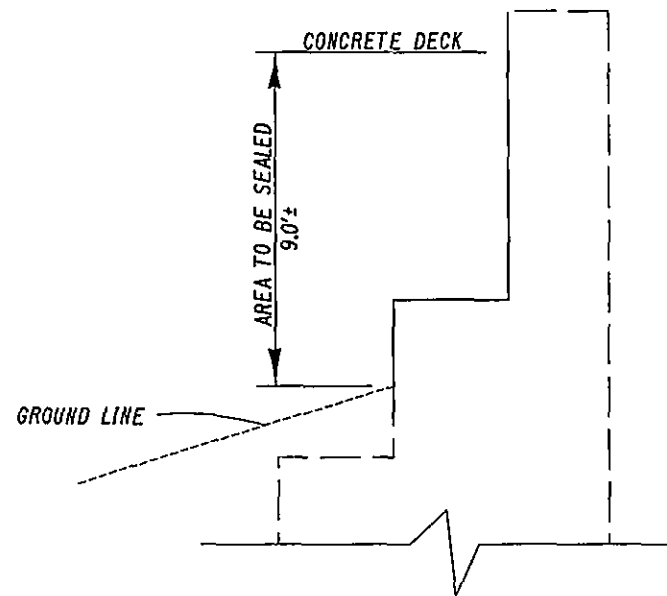
PIER CAPS ARE 3'-0" WIDE



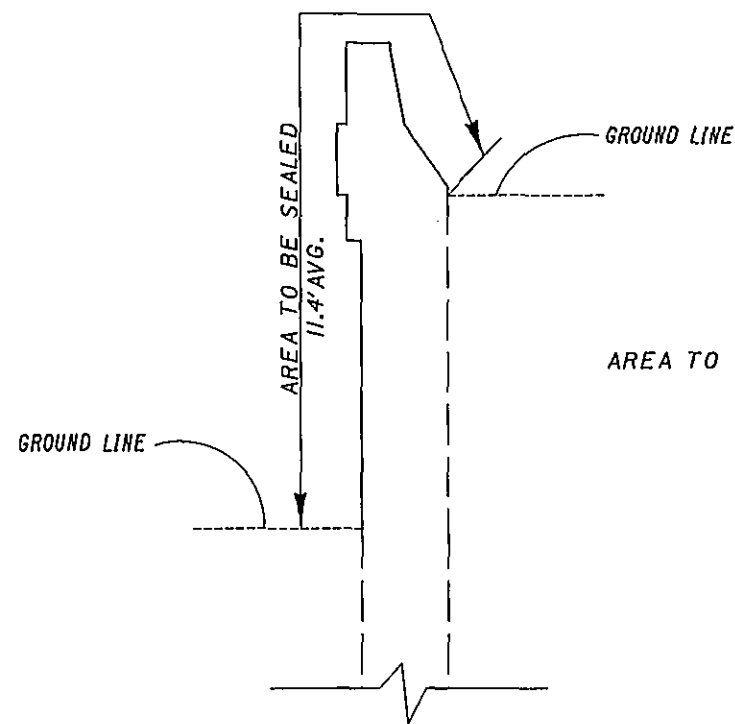
TYPICAL PIER



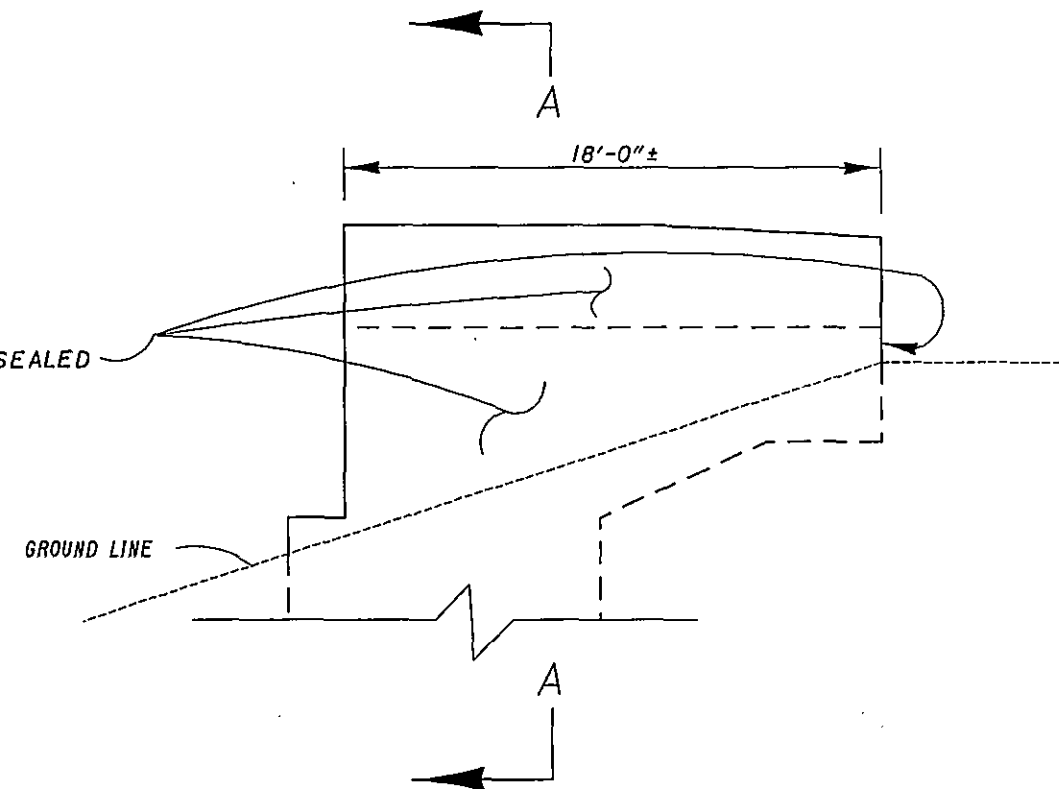
PARAPET LENGTH ON DECK = 449'-11"±
TYPICAL PARAPET ON DECK



TYPICAL ABUTMENT



SECTION A-A



TYPICAL PARAPET ON WINGWALL

ABUTMENT FACES ARE 41.5'± WIDE FOR LEFT STRUCTURE
AND 41.5' AND 43.5' FOR RIGHT STRUCTURE

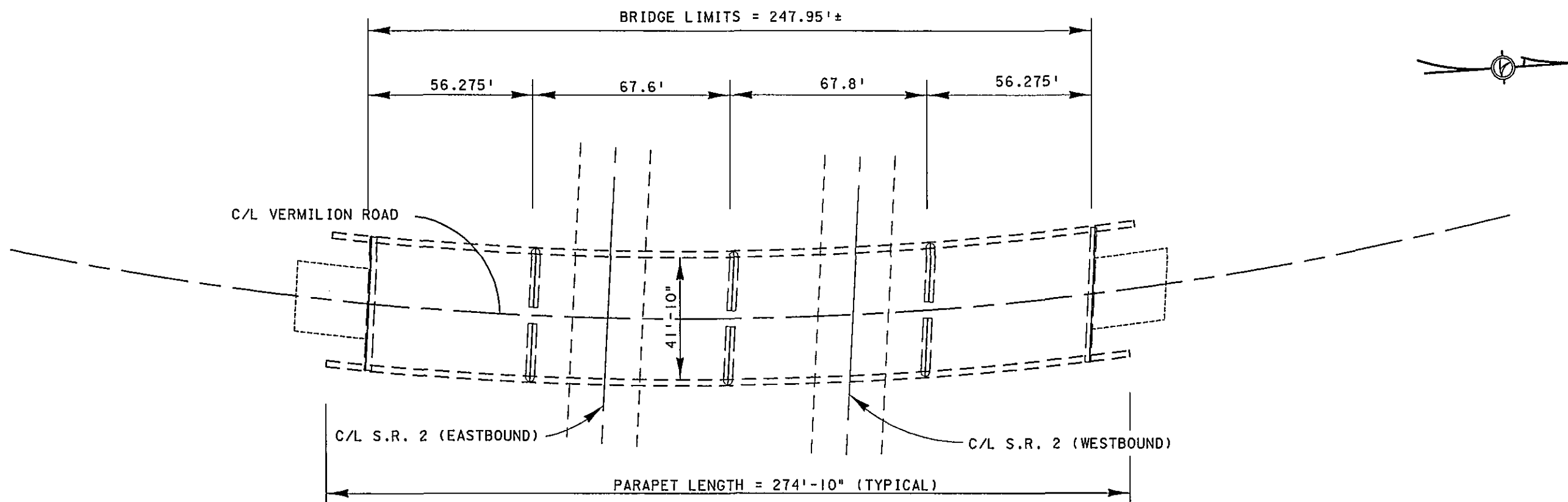
ITEM	QUANTITY		UNIT	DESCRIPTION
	LOR-2-0097L	LOR-2-0097R		
864	1330	1332	SQ. YD.	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)

QUANTITIES CARRIED TO SHEET 50

NOTE:

1) SEAL PIER CAP ENDS AND ALL EXPOSED CONCRETE ON PARAPETS, ABUTMENTS AND WINGWALLS AS PER DETAILS ABOVE.

DESIGN FILE: I:\p\6...s\23805\struct\detail.dgn
 WORKSTATION: dm\lens DATE: 02/20/04



PLAN VIEW

ITEM	QUANTITY	UNIT	DESCRIPTION
864	1152	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)

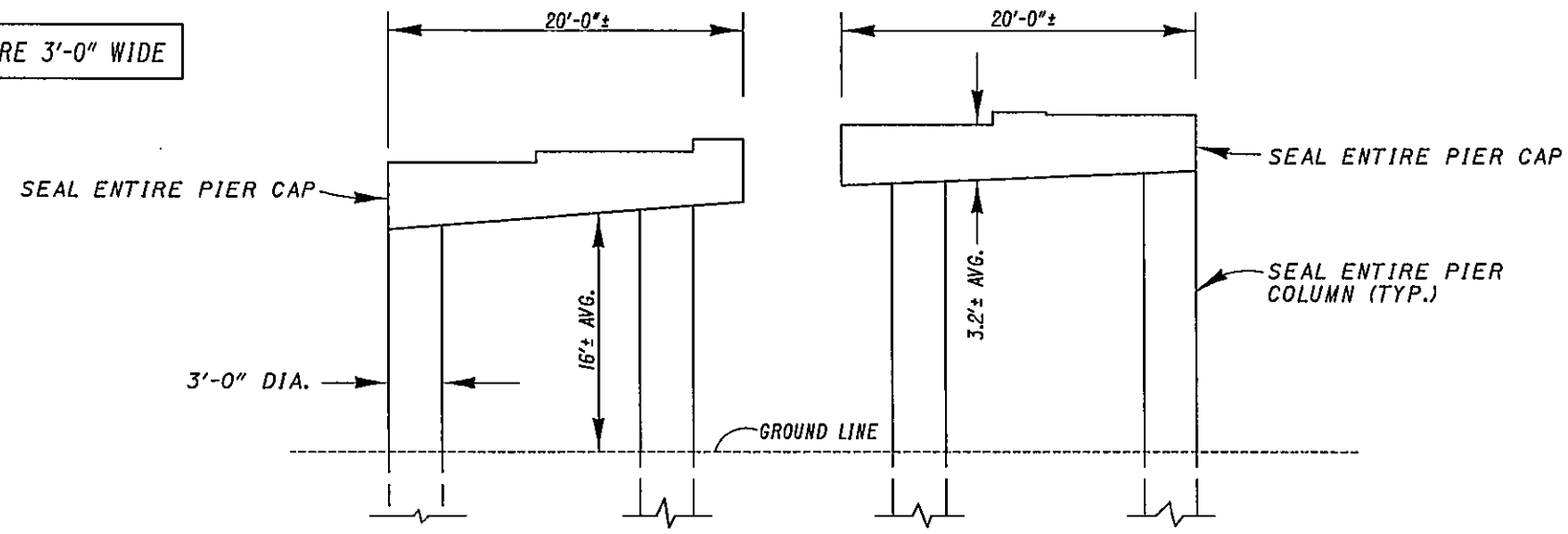
QUANTITIES CARRIED TO SHEET 42

NOTES:

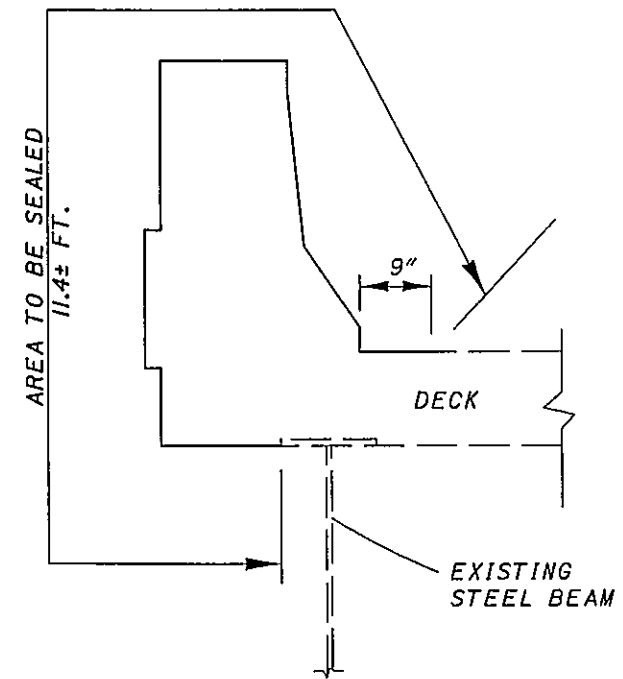
- 1) THE EXISTING GUARDRAIL AND VANDAL PROTECTIVE FENCE ARE NOT SHOWN.
- 2) THE PARAPETS, PIERS, ABUTMENTS AND WINGWALLS SHALL BE SEALED USING ITEM 864-SEALING CONCRETE SURFACES (EPOXY-URETHANE). SEE SHEET 53 FOR DETAILS.

DESIGN AGENCY DISTRICT THREE	DATE 2-04	REVISED RDN 4707834	DRAWN DCM REVISED	DESIGNED DCM CHECKED CAL	PLAN VIEW BRIDGE NO. LOR-2-0107 UNDER VERMILION ROAD
ERI/LOR-2-30.46/0.00					
52 61					

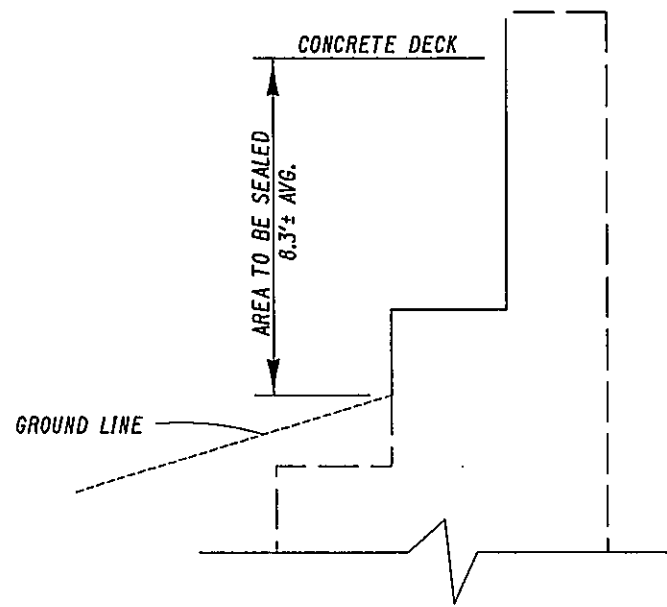
PIER CAPS ARE 3'-0" WIDE



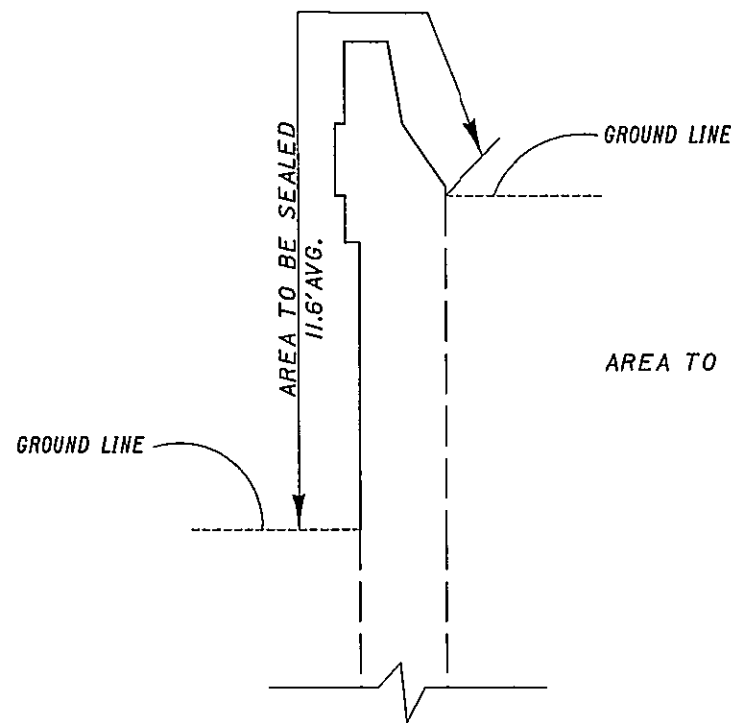
TYPICAL PIER



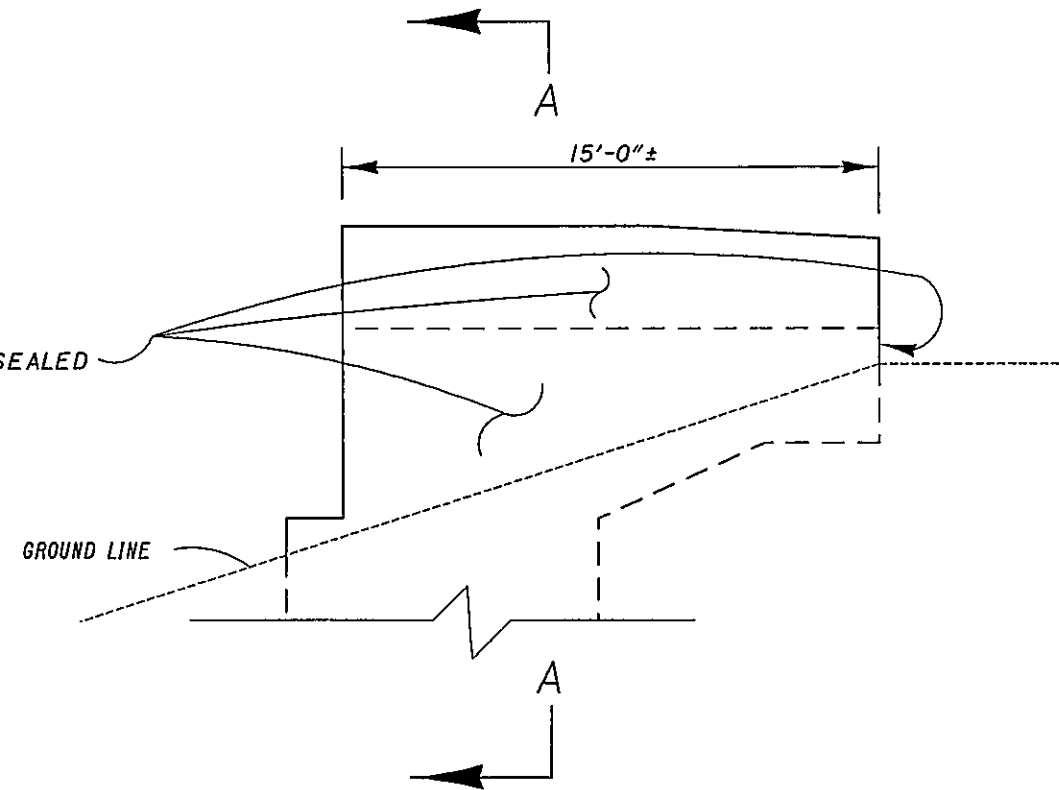
PARAPET LENGTH ON DECK = 244'-10"±
TYPICAL PARAPET ON DECK



TYPICAL ABUTMENT



SECTION A-A



TYPICAL PARAPET ON WINGWALL

ABUTMENT FACES ARE 45.8'± WIDE

ITEM	QUANTITY	UNIT	DESCRIPTION
864	1152	SQ. YD.	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)

QUANTITIES CARRIED TO SHEET 52

NOTE:

1) SEAL PARAPETS AND ALL EXPOSED CONCRETE ON ABUTMENT, WINGWALLS AND PIERS AS PER DETAILS ABOVE.

DESIGN FILE: I:\projects\23805\Struct\detail.dgn
WORKSTATION: dmofrens DATE: 02/20/04

DESIGN AGENCY
DISTRICT THREE

DATE
2-04

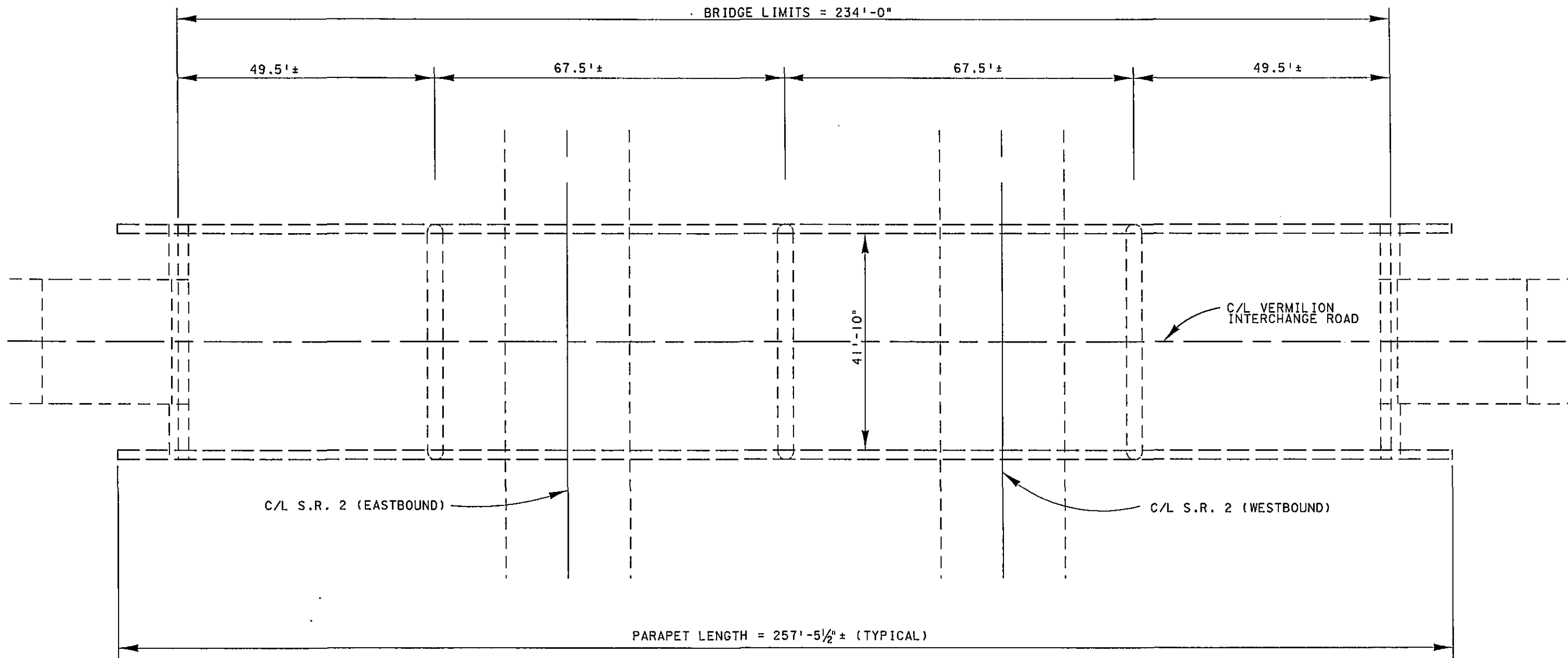
REVISED
RDN
STRUCTURAL FILE NUMBER
4707834

DESIGNED
DCM
CHECKED
CAL

SEALING DETAILS
BRIDGE NO. LOR-2-0107
UNDER VERMILION ROAD

ERI/LOR-2-30.46/0.00

DESIGN FILE: I:\projects\23805\Struct\detail.dgn
 WORKSTATION: dmaliens DATE: 02/20/04



PLAN VIEW

ITEM	QUANTITY	UNIT	DESCRIPTION
864	1043	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)

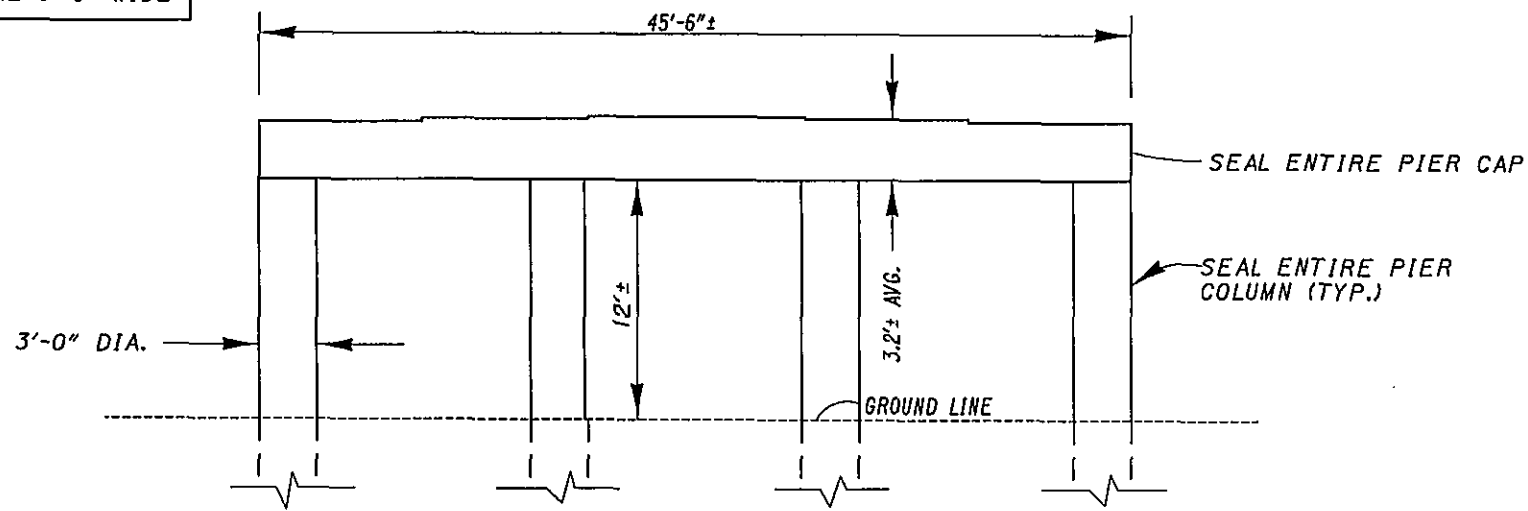
QUANTITIES CARRIED TO SHEET 42

NOTES:

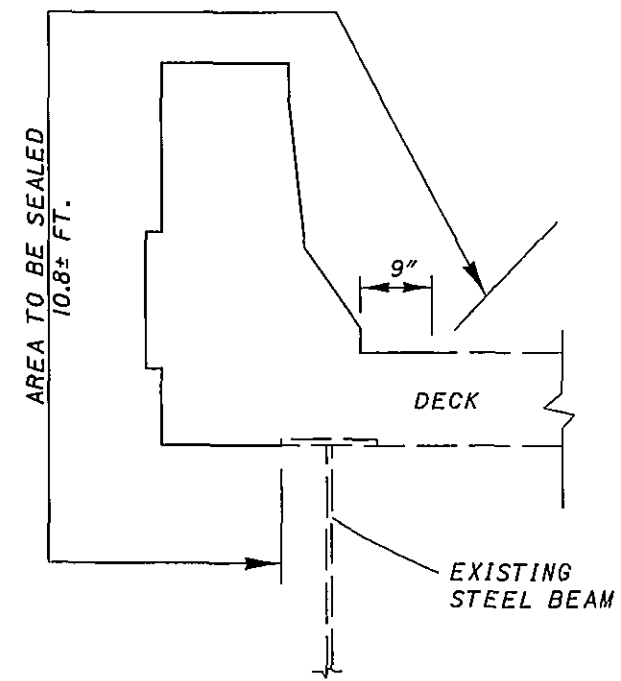
- 1) THE EXISTING GUARDRAIL AND VANDAL PROTECTIVE FENCE ARE NOT SHOWN.
- 2) THE PARAPETS, PIERS, ABUTMENTS AND WINGWALLS SHALL BE SEALED USING ITEM 864-SEALING CONCRETE SURFACES (EPOXY-URETHANE). SEE SHEET 55 FOR DETAILS.

DESIGN AGENCY DISTRICT THREE	
DATE 2-04	REVISED RDN
STRUCTURAL FILE NUMBER 4707850	REVISION
DCM	DCM
CAL	CAL
PLAN VIEW BRIDGE NO. LOR-2-0151 UNDER VERMILION INTERCHANGE ROAD	
ERI/LOR-2-30.46/0.00	
54 61	

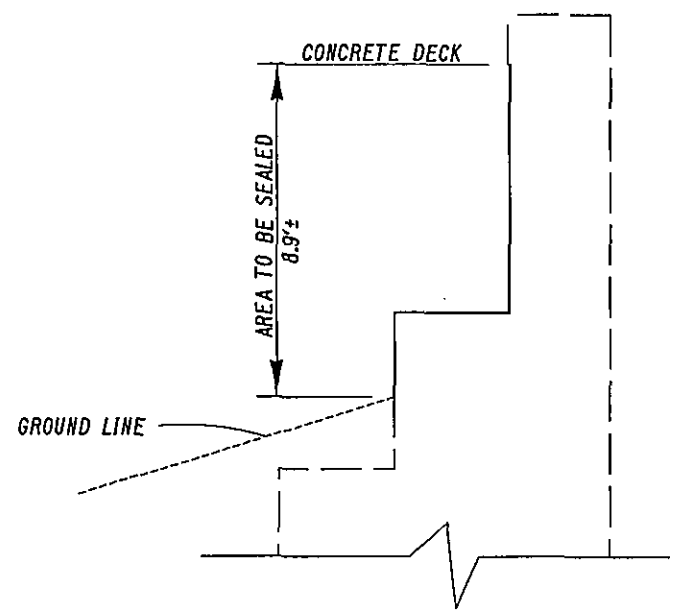
PIER CAPS ARE 3'-0" WIDE



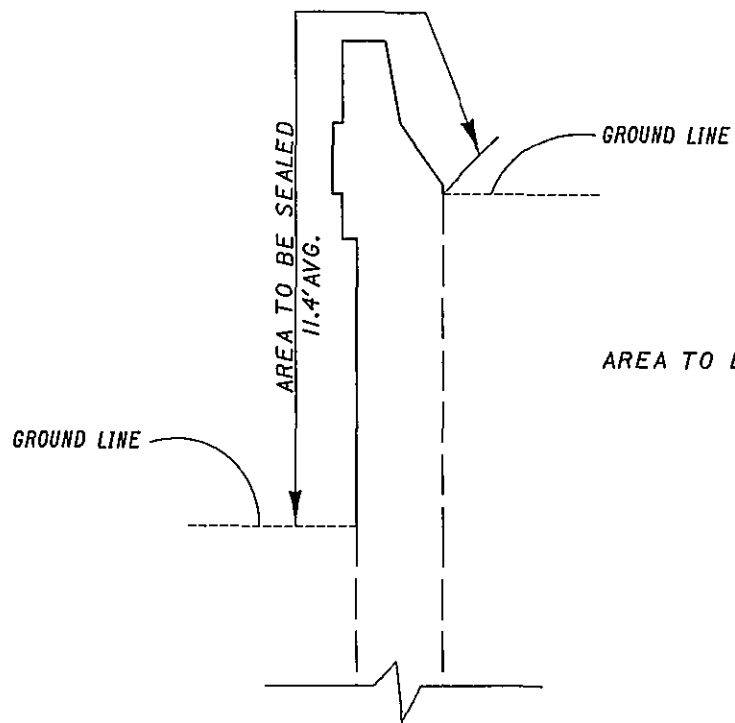
TYPICAL PIER



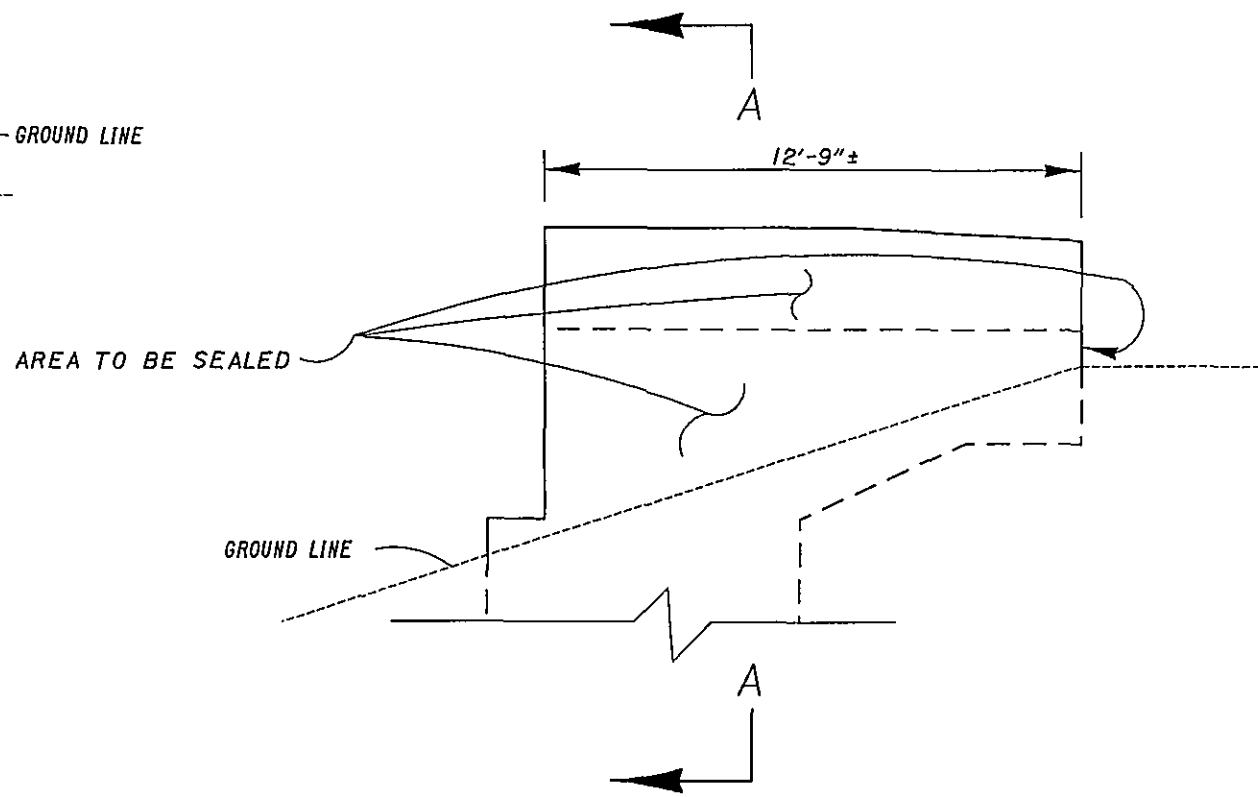
PARAPET LENGTH ON DECK = 231'-11 1/2"±
TYPICAL PARAPET ON DECK



TYPICAL ABUTMENT



SECTION A-A



TYPICAL PARAPET ON WINGWALL

ABUTMENT FACES ARE 45'-6"± WIDE

ITEM	QUANTITY	UNIT	DESCRIPTION
864	1043	SQ. YD.	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)

QUANTITIES CARRIED TO SHEET 54

NOTE:

1) SEAL PARAPETS AND ALL EXPOSED CONCRETE ON ABUTMENT, WINGWALLS AND PIERS AS PER DETAILS ABOVE.

DESIGN FILE: I:\projects\23805\struct\detail.dgn
WORKSTATION: dmo/lens DATE: 02/20/04

DESIGN AGENCY
DISTRICT THREE

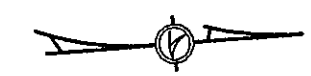
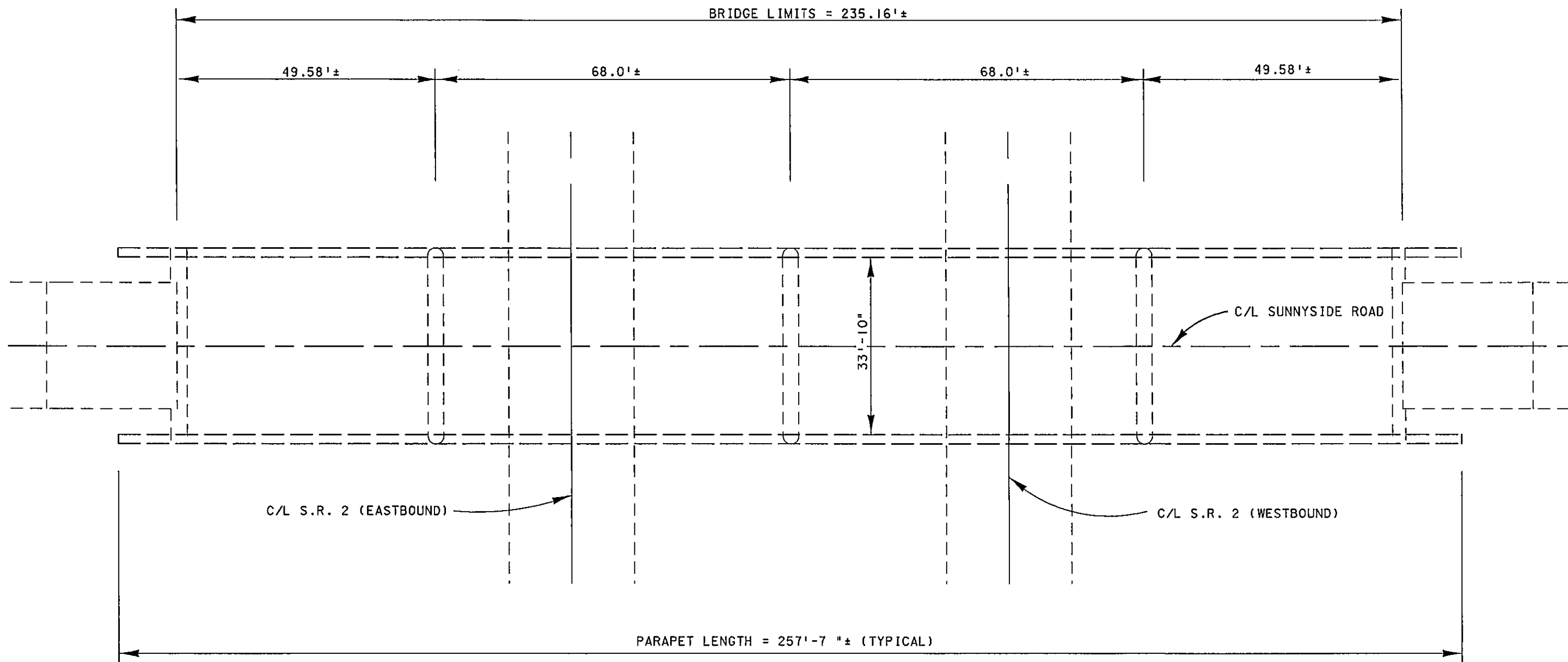
REVIEWED DATE
STRUCTURAL FILE NUMBER
4707850

DRAWN BY
DCM
CHECKED BY
CAL

SEALING DETAILS
BRIDGE NO. LOR-2-0151
UNDER VERMILION INTERCHANGE ROAD

ERI/LOR-2-30.46/0.00

DESIGN FILE: I:\projects\23805\Struct\detail.dgn
 WORKSTATION: dmattens DATE: 02/20/04



PLAN VIEW

ITEM	QUANTITY	UNIT	DESCRIPTION
864	950	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)

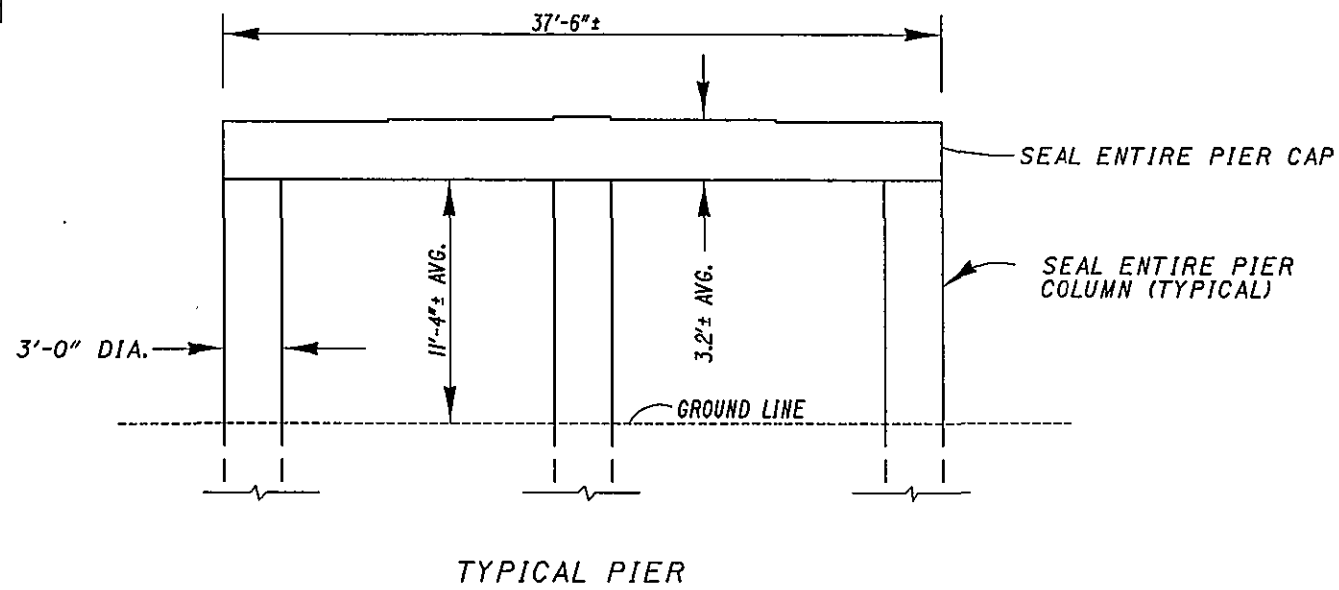
QUANTITIES CARRIED TO SHEET 43

NOTES:

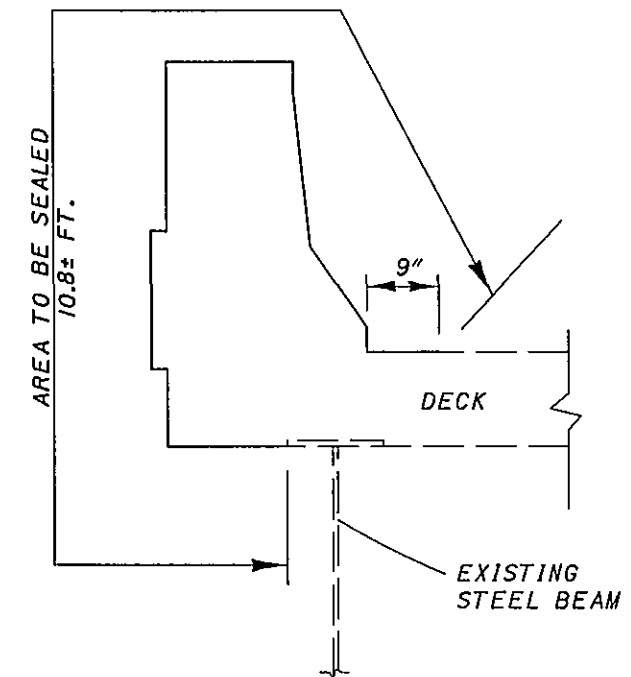
- 1) THE EXISTING GUARDRAIL AND VANDAL PROTECTIVE FENCE ARE NOT SHOWN.
- 2) THE PARAPETS, PIERS, ABUTMENTS AND WINGWALLS SHALL BE SEALED USING ITEM 864-SEALING CONCRETE SURFACES (EPOXY-URETHANE). SEE SHEET 57 FOR DETAILS.

DESIGN AGENCY DISTRICT THREE
DATE 2-04
REVISED RDN STRUCTURAL FILE NUMBER 4707877
DRAWN DCM REVISED
DESIGNED DCM CHECKED CAL
PLAN VIEW BRIDGE NO. LOR-2-0223 UNDER SUNNYSIDE ROAD
ERI/LOR-2-30.46/0.00
56 61

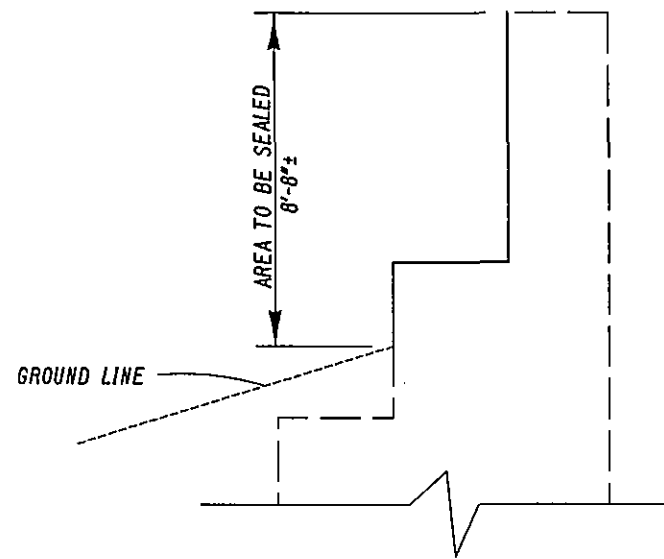
PIER CAPS ARE 3'-0" WIDE



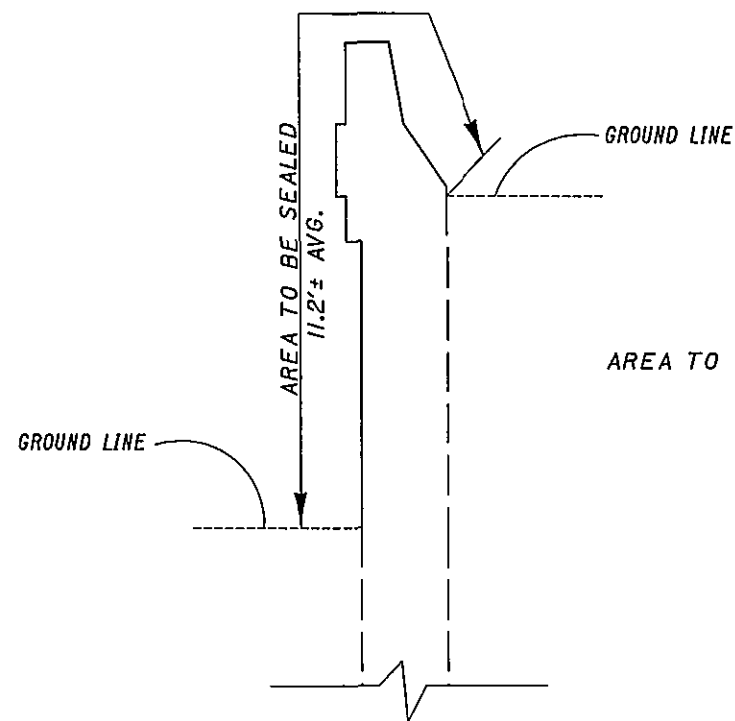
TYPICAL PIER



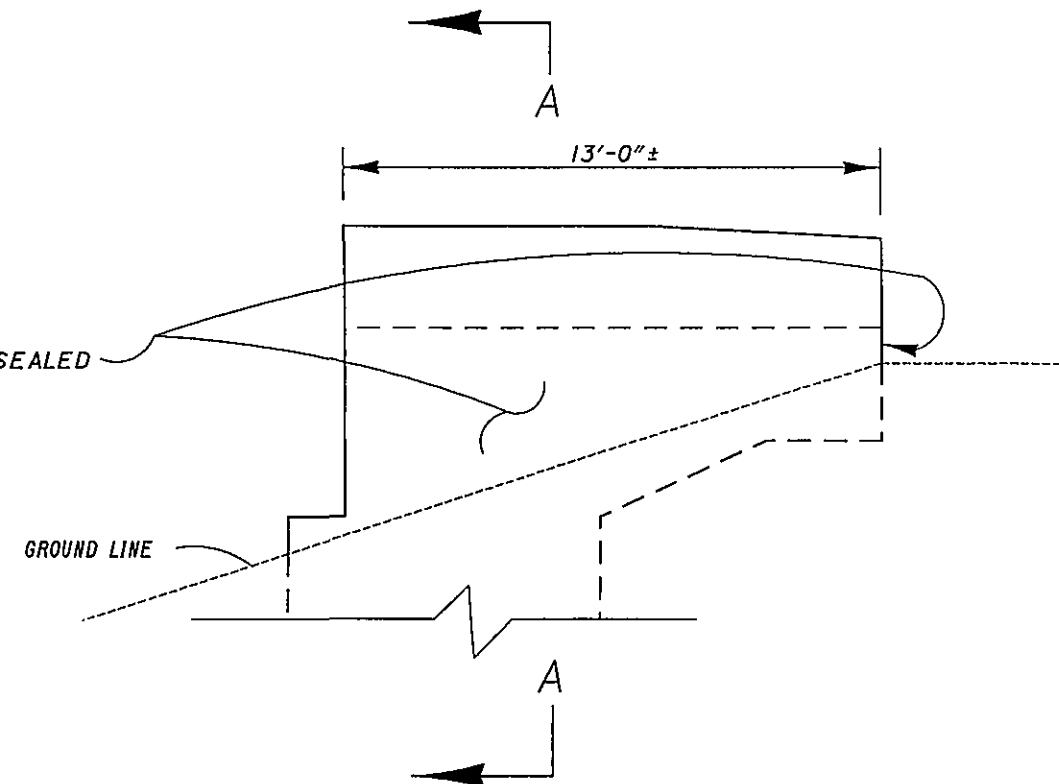
PARAPET LENGTH ON DECK = 231'-7"±
TYPICAL PARAPET ON DECK



TYPICAL ABUTMENT



SECTION A-A



TYPICAL PARAPET ON WINGWALL

ABUTMENT FACES ARE 37'-6"± WIDE

ITEM	QUANTITY	UNIT	DESCRIPTION
864	950	SQ. YD.	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)

QUANTITIES CARRIED TO SHEET 56

NOTE:

1) SEAL PARAPETS AND ALL EXPOSED CONCRETE ON ABUTMENT, WINGWALLS AND PIERS AS PER DETAILS ABOVE.

DESIGN FILE: I:\projects\23805\Struct\detail.dgn
WORKSTATION: dm/len DATE: 02/20/04

DESIGN AGENT
DISTRICT THREE

DATE
2-04

REVIEWED RDN
STRUCTURAL FILE NUMBER
4707877

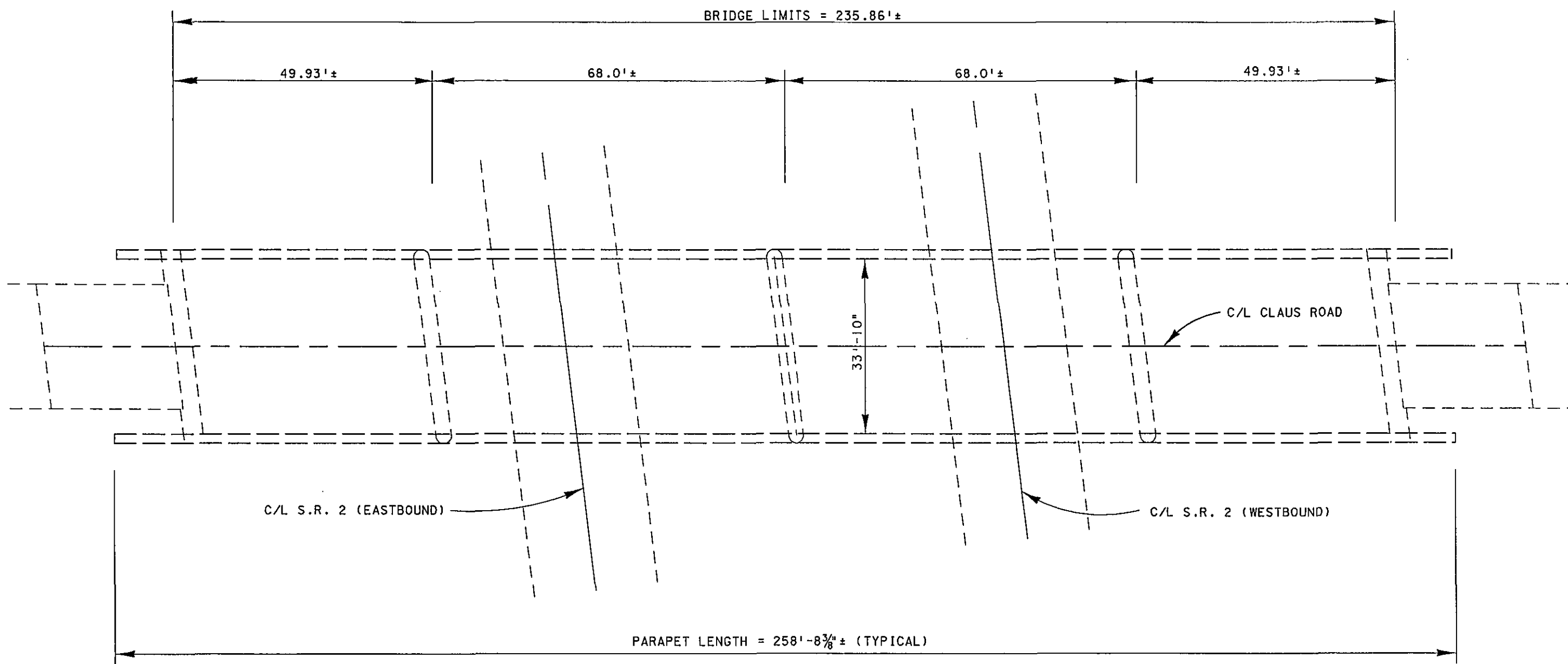
DESIGNED DCM
CHECKED CAL

SEALING DETAILS
BRIDGE NO. LOR-2-0223
UNDER SUNNYSIDE ROAD

ERI/LOR-2-30.46/0.00

57
61

DESIGN FILE: I:\projects\23805\Struct\detail.dgn
 WORKSTATION: dmaliens DATE: 02/20/04



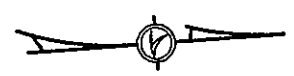
PLAN VIEW

ITEM	QUANTITY	UNIT	DESCRIPTION
864	961	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)

QUANTITIES CARRIED TO SHEET 43

NOTES:

- 1) THE EXISTING GUARDRAIL AND VANDAL PROTECTIVE FENCE ARE NOT SHOWN.
- 2) THE PARAPETS, PIERS, ABUTMENTS AND WINGWALLS SHALL BE SEALED USING ITEM 864-SEALING CONCRETE SURFACES (EPOXY-URETHANE). SEE SHEET 59 FOR DETAILS.



DESIGN AGENCY
DISTRICT THREE

DATE
2-04

REVIEWED
RDN
STRUCTURAL FILE NUMBER
4707893

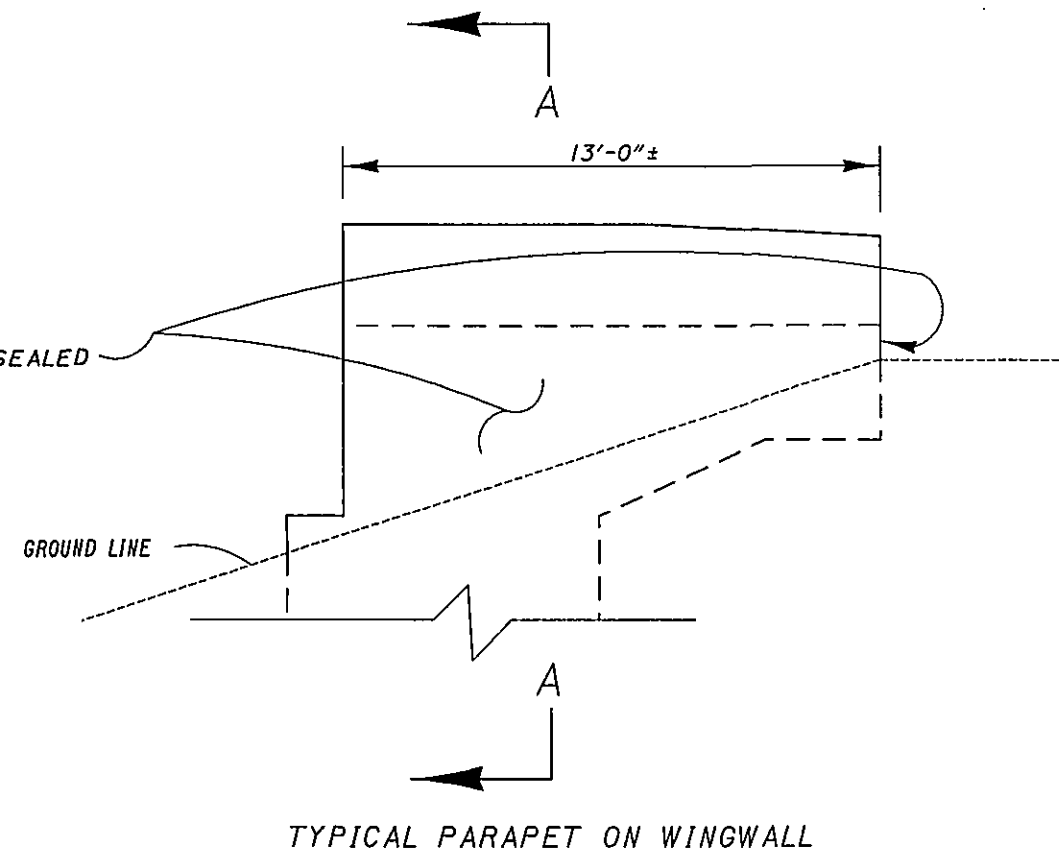
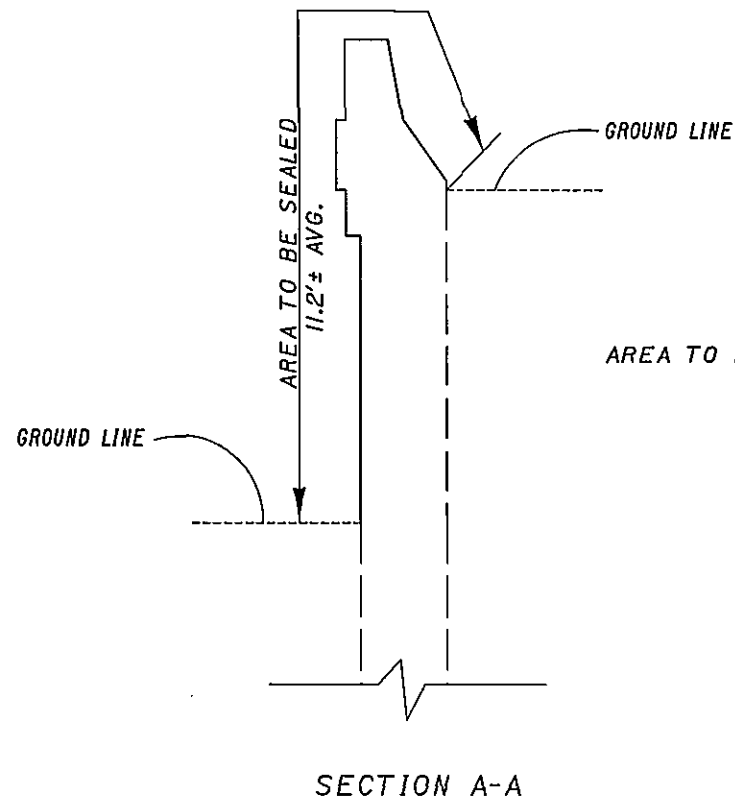
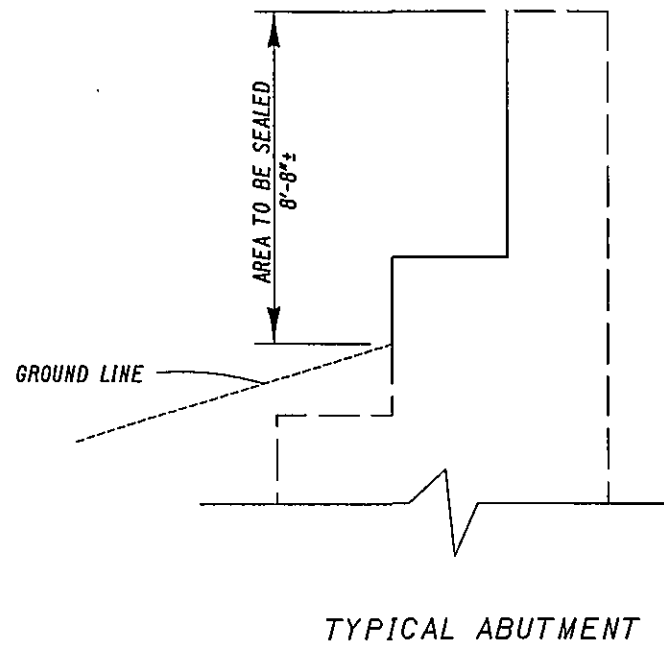
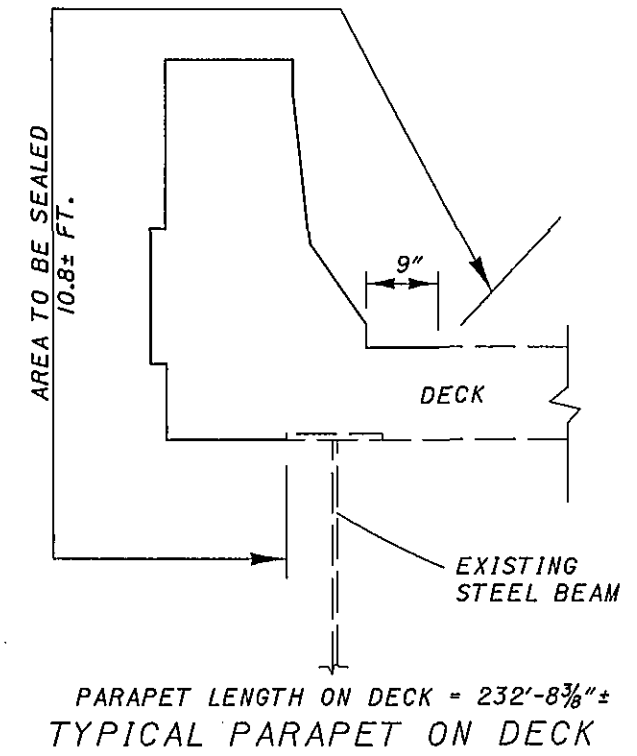
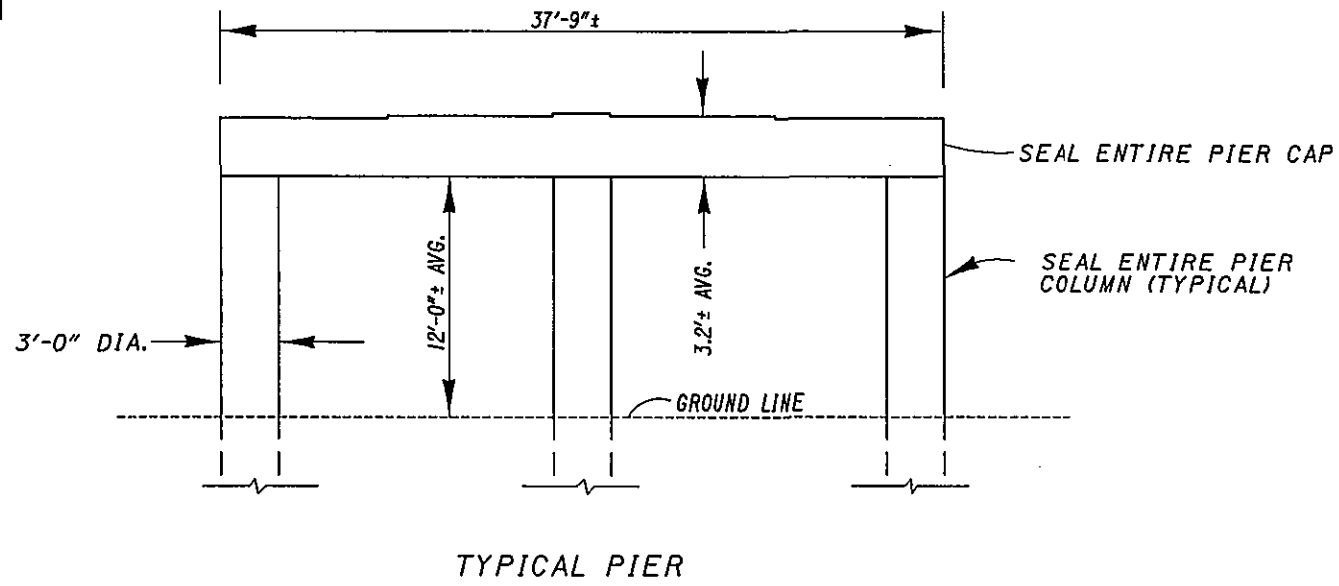
DESIGNED
DCM
CHECKED
CAL

PLAN VIEW
BRIDGE NO. LOR-2-0262
UNDER CLAUS ROAD

ERI/LOR-2-30.46/0.00

58
61

PIER CAPS ARE 3'-0" WIDE



NOTE:

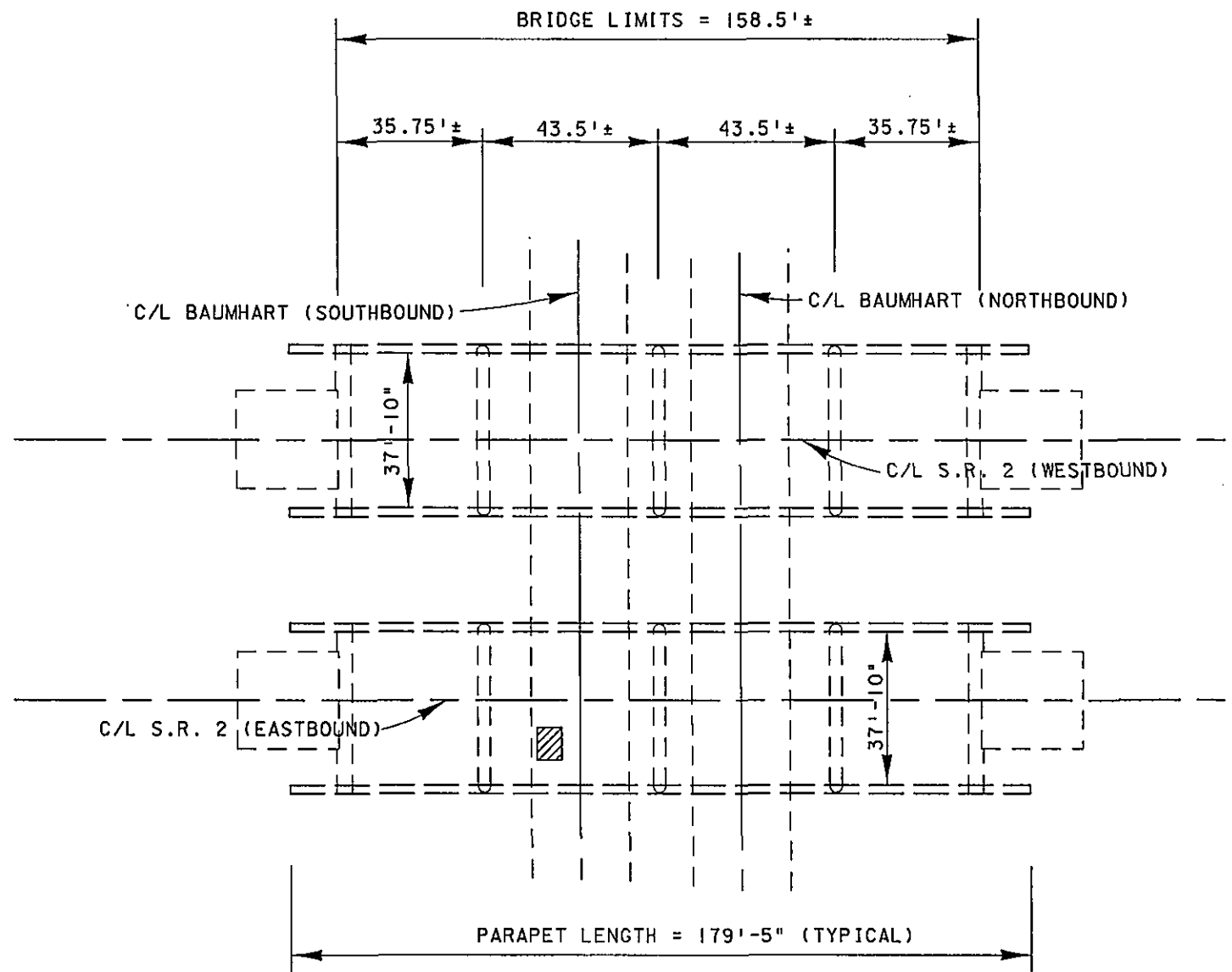
1) SEAL PARAPETS AND ALL EXPOSED CONCRETE ON ABUTMENT, WINGWALLS AND PIERS AS PER DETAILS ABOVE.

ABUTMENT FACES ARE 37'-9"± WIDE

ITEM	QUANTITY	UNIT	DESCRIPTION
864	961	SQ. YD.	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)

QUANTITIES CARRIED TO SHEET 58

DESIGN FILE: I:\projects\23805\Struct\detail.dgn
 WORKSTATION: dm/len DATE: 02/20/04



PLAN VIEW

 AREA TO BE PATCHED WITH ITEM SPECIAL-PATCHING CONCRETE BRIDGE DECK

NOTES:

- 1) THE EXISTING GUARDRAIL IS NOT SHOWN.
- 2) THE PARAPETS, PIERS, ABUTMENTS AND WINGWALLS SHALL BE SEALED USING ITEM 864-SEALING CONCRETE SURFACES (EPOXY-URETHANE). SEE SHEET 61 FOR DETAILS.
- 3) PATCH DECK WITH ITEM SPECIAL-PATCHING CONCRETE BRIDGE DECK
- 4) SEAL EDGES OF NEW PATCH WITH ITEM SPECIAL - TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN.

ITEM	QUANTITY		UNIT	DESCRIPTION
	LOR-2-0333L	LOR-2-0333R		
SPECIAL		1	SQ YD	TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN
SPECIAL		6	SQ YD	PATCHING CONCRETE BRIDGE DECK
864	791	791	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)

QUANTITIES CARRIED TO SHEET 43



DESIGN AGENCY
DISTRICT THREE

DATE
2-04
REVISED
RDN
STRUCTURAL FILE NUMBER
4707818 & 4707796

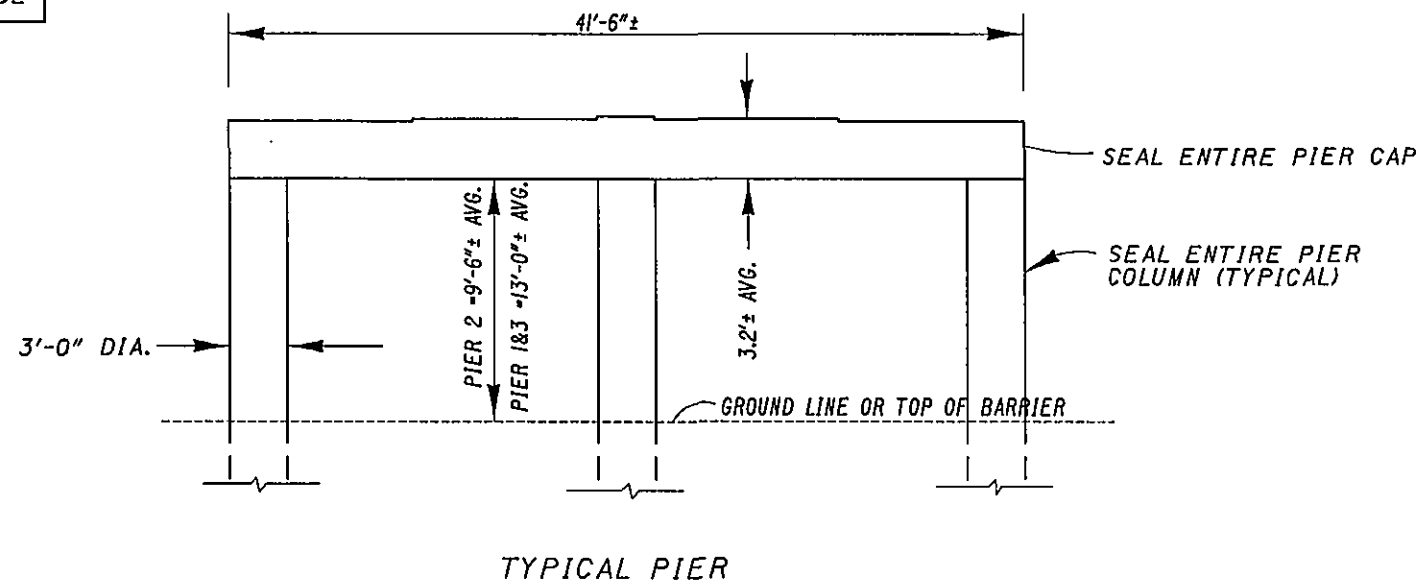
DRAWN
DCM
REVISOR
DCM
CHECKED
CAL

PLAN VIEW
BRIDGE NO. LOR-2-0333L&R
OVER BAUMHART ROAD

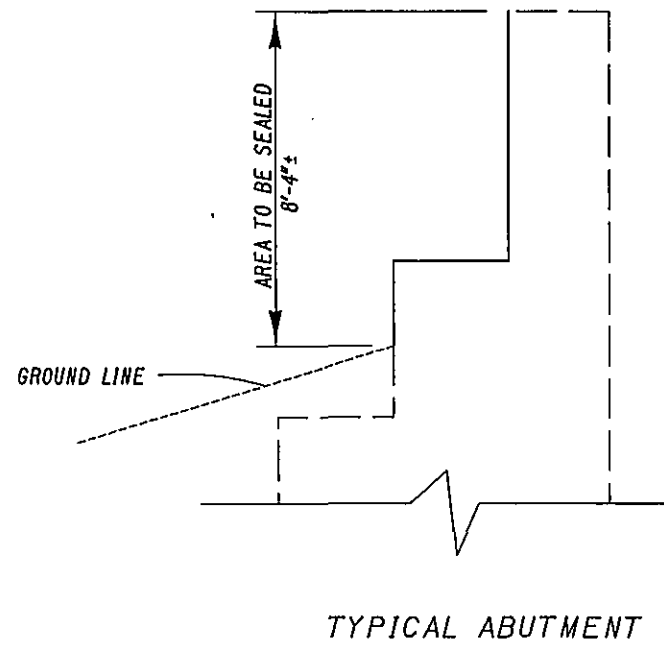
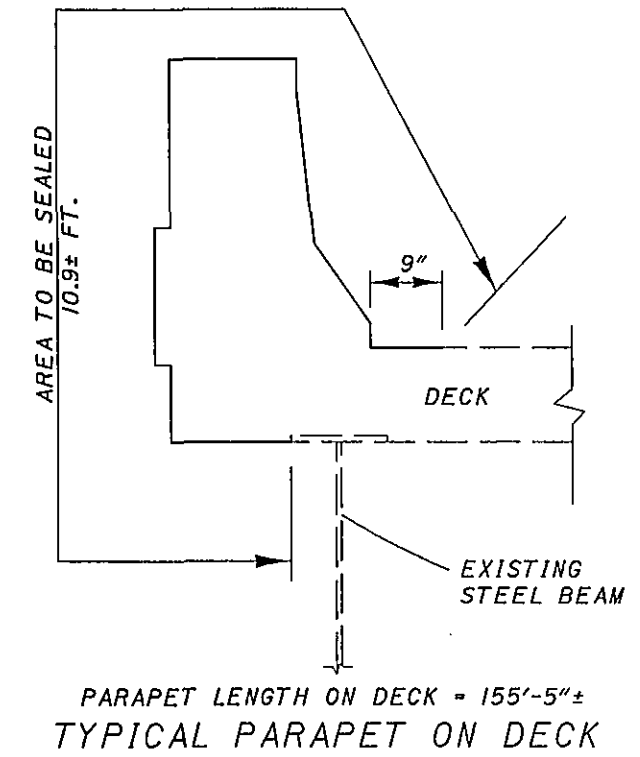
ERI/LOR-2-30.46/0.00

60
61

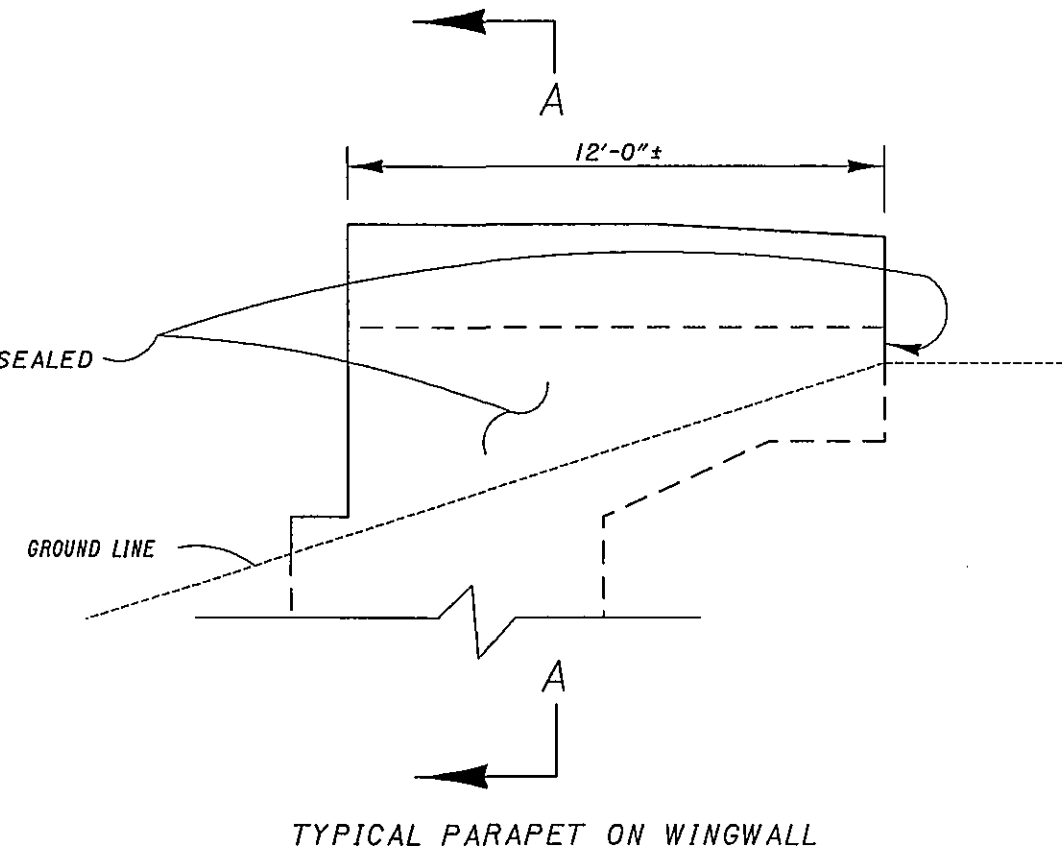
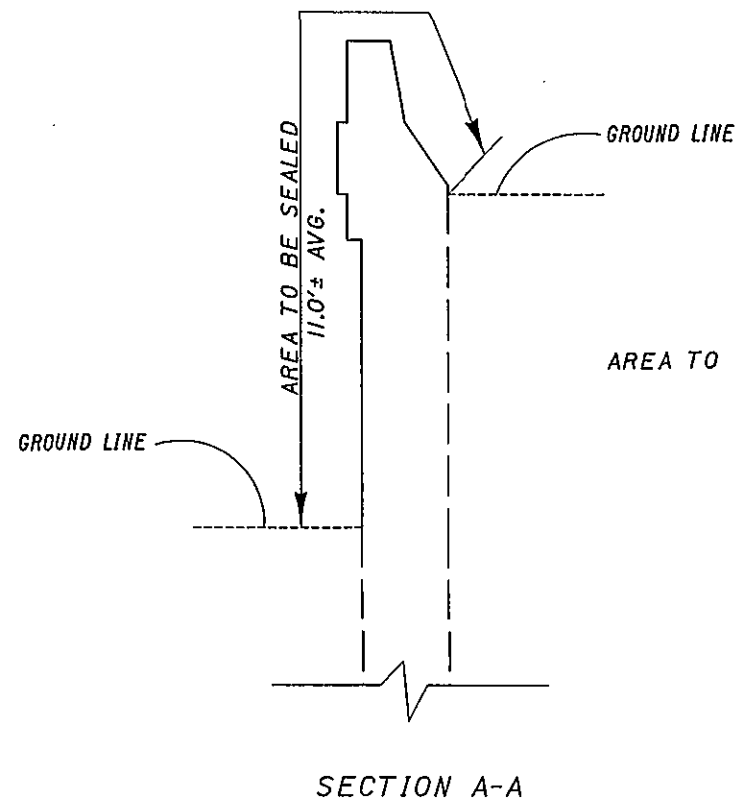
PIER CAPS ARE 3'-0" WIDE



TYPICAL PIER



TYPICAL ABUTMENT



TYPICAL PARAPET ON WINGWALL

ABUTMENT FACES ARE 41'-6"± WIDE

ITEM	QUANTITY		UNIT	DESCRIPTION
	LOR-2-0333L	LOR-2-0333R		
864	791	791	SQ. YD.	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)

QUANTITIES CARRIED TO SHEET 60

NOTE:

- 1) SEAL PARAPETS AND ALL EXPOSED CONCRETE ON ABUTMENT, WINGWALLS AND PIERS AS PER DETAILS ABOVE.
- 2) DO NOT SEAL BARRIER ON BAUMHART ROAD
- 3) CARE SHALL BE TAKEN NOT TO SEAL OR DAMAGE THE LIGHTING BOXES AND CONDUITS ON THE PIER COLUMNS.

DESIGN FILE: I:\proj\23805\struct\detail\dgn WORKSTATION: dmalfens DATE: 02/20/04

DESIGN AGENCY: DISTRICT THREE
 ONE REVIEWED: RDN 2-04
 DRAWN: DCM REVISED: STRUCTURAL FILE NUMBER 4707893
 DESIGNED: DCM CHECKED: CAL
 SEALING DETAILS
 BRIDGE NO. LOR-2-0333L&R
 OVER BAUMHART ROAD
 ERI/LOR-2-30.46/0.00

