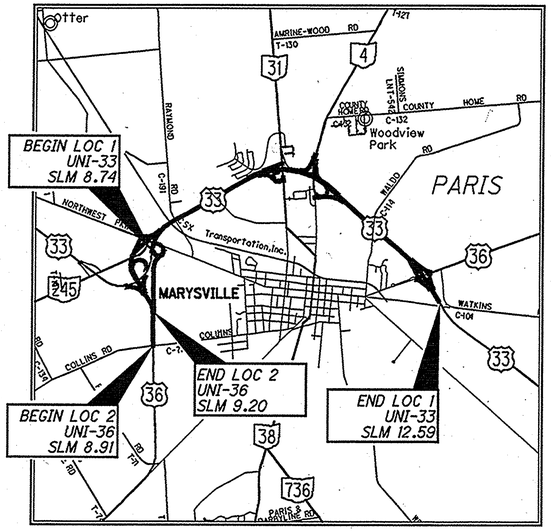


LOCATION MAP

LAT: N 40° 25' 42" / LONG: W 83° 32' 21"

SCALE IN MILES

0 1 2 3 4

PORTION TO BE IMPROVED

INTERSTATE & DIVIDED HIGHWAYS

UNDIVIDED STATE & FEDERAL ROUTES

OTHER ROADS

DESIGN DESIGNATION	UNI-33	UNI-36
CURRENT ADT (2013)	35,225	8,683
DESIGN YEAR ADT (2025)	47,906	11,809
DESIGN HOURLY VOLUME (2025)	1,996	492
DIRECTIONAL DISTRIBUTION	50%	50%
TRUCKS (24 HOUR B & C)	16%	13%
DESIGN SPEED	70	60
LEGAL SPEED	65	55
LANE ADTT	11,977	5,905

DESIGN FUNCTIONAL CLASSIFICATION

UNI-33-8.74 - 12.59	NHS	URBAN ARTERIAL
UNI-36-8.91 - 9.20	STP	URBAN ARTERIAL

DESIGN EXCEPTIONS

NONE REQUIRED

UNDERGROUND UTILITIES

CONTACT BOTH SERVICES
CALL TWO WORKING DAYS
BEFORE YOU DIG

CALL
1-800-362-2764
(TOLL FREE)

OHIO UTILITIES PROTECTION SERVICE
NON-MEMBERS
MUST BE CALLED DIRECTLY

OIL & GAS PRODUCERS PROTECTIVE SERVICE CALL: 1-800-925-0988

PLAN PREPARED BY:

Ohio Department of Transportation
odot district 6

ENGINEERS SEAL:

STATE OF OHIO
KEVIN R FIANT
E-64877
REGISTERED PROFESSIONAL ENGINEER

SIGNED: Kevin R. Fiant

DATE: 10/11/12

STATE OF OHIO

DEPARTMENT OF TRANSPORTATION

UNI-33-8.74
UNI-36-8.91

CITY OF MARYSVILLE

PARIS TOWNSHIP

UNION COUNTY

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PROJECT DESCRIPTION

THIS PROJECT CONSISTS OF PAVEMENT REPAIRS, PLANING AND RESURFACING, AND VARIOUS BRIDGE WORK FOR A TOTAL OF 3.85 MILES ON US-33 IN UNION COUNTY.

THIS PROJECT CONSISTS OF PAVEMENT REPAIRS, PLANING AND RESURFACING, AND VARIOUS BRIDGE WORK FOR A TOTAL OF 6.03 MILES ON VARIOUS RAMPS ON US-33 IN UNION COUNTY.

THIS PROJECT CONSISTS OF PAVEMENT REPAIRS, PLANING AND RESURFACING, FOR A TOTAL OF 0.29 MILES ON US-36 IN UNION COUNTY.

THIS PROJECT ALSO INCLUDES WORK ASSOCIATED WITH UPGRADING GUARDRAIL SYSTEMS AT SPECIFIC LOCATIONS AS DETAILED IN THE PLAN.

EARTH DISTURBED AREA:

PROJECT EARTH DISTURBED AREA	N/A *
EST. CONTRACTOR EARTH DISTURBED AREA	N/A *
NOTICE OF INTENT EARTH DISTURBED AREA	N/A *

* MAINTENANCE PROJECT

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 OHIO REVISED CODE.

2010 SPECIFICATIONS

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

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THESE IMPROVEMENTS WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY EXCEPT AS NOTED ON SHEET 23. PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

PLANS CERTIFIED BY:

NAME: David A. Rankin DATE: 10/11/12

DISTRICT 6
OHIO DEPT. OF TRANSPORTATION

STANDARD CONSTRUCTION DRAWINGS								SUPPLEMENTAL SPECIFICATIONS	
BP-3.1	01/20/12	RM-4.2	10/15/10	TC-52.10	01/19/07	MT-98.20	07/20/12	800	10/19/12
BP-4.1	07/16/04	RM-4.3	10/21/11	TC-52.20	01/19/07	MT-98.22	07/20/12	823	07/15/11
		RM-4.4	10/16/09	TC-61.10	04/20/12	MT-98.28	07/20/12	832	05/05/09
GR-1.1	07/20/12	RM-4.5	10/16/09	TC-65.10	04/20/12	MT-98.29	07/20/12		
GR-2.1	07/20/12	RM-4.6	04/16/10	TC-65.11	04/20/12	MT-99.20	07/20/12	848	10/21/2011
GR-3.1	07/20/12			TC-73.10	04/20/12	MT-101.90	10/21/11		
GR-3.2	07/20/12	TC-7.65	01/21/11	TC-82.10	10/21/11	MT-101.60	07/20/12		
GR-4.2	07/20/12	TC-21.40	01/19/07			MT-101.70	04/15/11		
GR-5.1	04/16/10	TC-22.10	01/19/01	MT-95.30	07/20/12	MT-105.10	07/20/12	SPECIAL PROVISIONS	
GR-5.2	04/16/10	TC-41.20	01/19/01	MT-95.50	07/20/12				
GR-5.3	04/16/10	TC-41.30	01/19/07	MT-98.10	07/20/12				
GR-6.1	04/16/10	TC-42.20	01/21/11	MT-98.11	07/20/12				

APPROVED _____ DISTRICT DEPUTY DIRECTOR

DATE 10-12-12

APPROVED _____ DIRECTOR, DEPARTMENT OF TRANSPORTATION

DATE 11-14-12

FEDERAL PROJECT NO. E 036(460)

PID NO. 76466

CONSTRUCTION PROJECT NO.

RAILROAD INVOLVEMENT NONE

UNI-33-8.74

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UNI - US-33-8.74,UNI-36-8.91
130017 PID - 76466
Dist 6 1/10/2013

I:\Projects\uni\033\0874.013\76466\production\roadway\sheets\TITLE

Contract Proposal Available @www.contracts.dot.state.oh.us/home

BEARINGS

22	US 36	N 1° 31′ 51″ W
23	US 36	N 1° 08′ 32″ E
24	US 36 RAMP U	N 1° 58′ 34″ W
25	US 36 RAMP U	N 31° 18′ 27″ W
26	US 36 RAMP V	N 1° 08′ 32″ E
27	US 36 RAMP V	N 31° 18′ 27″ W
28	US 36 RAMP P	N 5° 26′ 57″ E
29	US 36 RAMP P	N 1° 35′ 37″ W
30	US 36 RAMP P	N 0° 25′ 11″ E
31	US 36 RAMP P	N 4° 54′ 05″ E
32	US 36 RAMP Z	N 30° 13′ 50″ E
33	US 36 RAMP W	N 24° 28′ 38″ E

RAMP U CURVE DATA

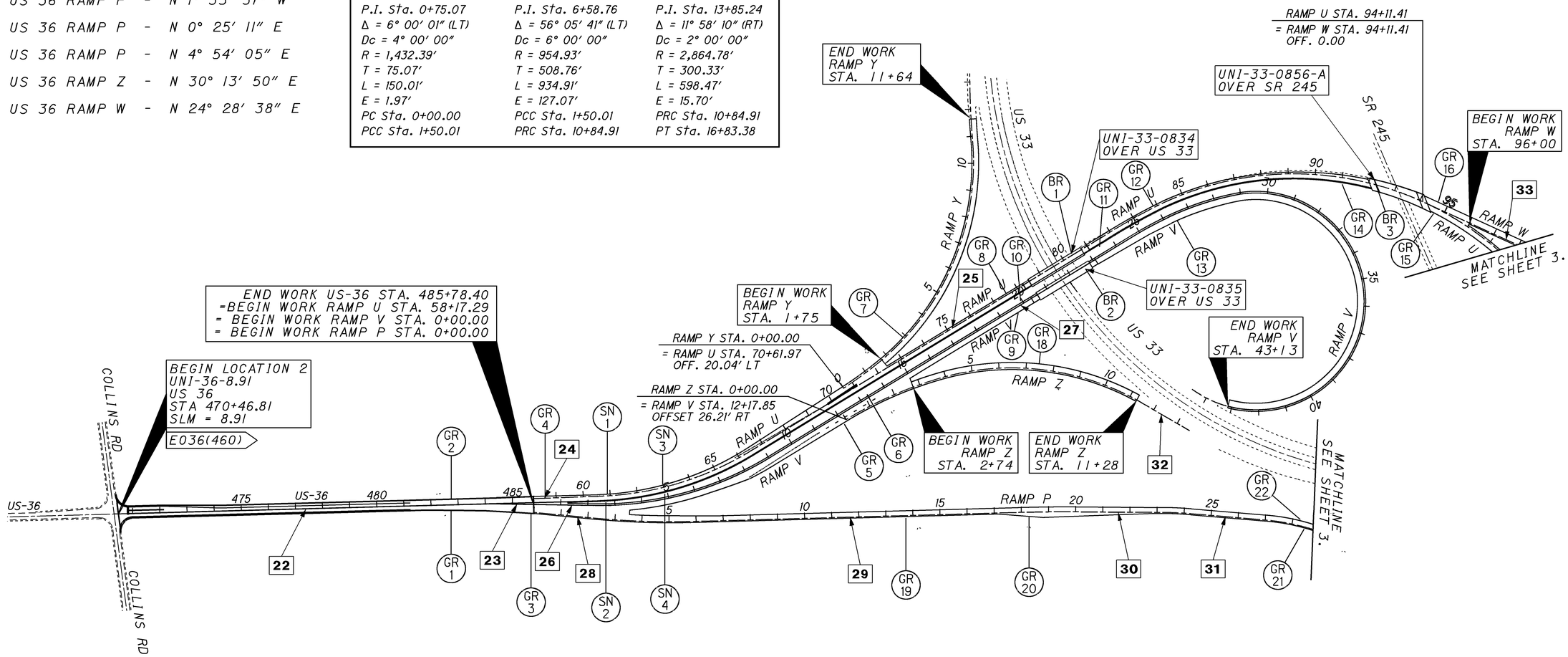
P.I. Sta. 63+56.39	P.I. Sta. 82+95.70	P.I. Sta. 91+85.10
Δ = 29° 41′ 46″ (LT)	Δ = 6° 19′ 58″ (RT)	Δ = 67° 25′ 13″ (RT)
Dc = 5° 00′ 00″	Dc = 2° 31′ 59″	Dc = 5° 00′ 00″
R = 1,145.93′	R = 2,261.84′	R = 1,145.92′
T = 303.80′	T = 125.12′	T = 764.52′
L = 593.93′	L = 250.00′	L = 1,348.41′
E = 39.59′	E = 3.46′	E = 231.63′
PC Sta. 60+52.60	PC Sta. 81+70.58	PCC Sta. 84+20.57
PT Sta. 66+46.52	PCC Sta. 84+20.57	PCC Sta. 97+68.98

RAMP V CURVE DATA

P.I. Sta. 5+69.46	P.I. Sta. 25+66.32	P.I. Sta. 27+61.87	P.I. Sta. 34+94.57	P.I. Sta. 42+75.92
Δ = 32° 26′ 59″ (LT)	Δ = 2° 57′ 35″ (RT)	Δ = 14° 36′ 08″ (RT)	Δ = 112° 14′ 58″ (RT)	Δ = 112° 14′ 58″ (RT)
Dc = 4° 46′ 29″	Dc = 2° 35′ 53″	Dc = 5° 17′ 46″	Dc = 14° 19′ 46″	Dc = 14° 22′ 40″
R = 1,200.00′	R = 2,205.44′	R = 1,081.83′	R = 399.85′	R = 398.50′
T = 349.20′	T = 56.97′	T = 138.61′	T = 595.59′	T = 593.59′
L = 679.63′	L = 113.92′	L = 275.71′	L = 783.35′	L = 780.72′
E = 49.78′	E = 0.74′	E = 8.84′	E = 317.51′	E = 316.45′
PC Sta. 2+20.27	PC Sta. 25+09.34	PCC Sta. 26+23.27	PCC Sta. 28+98.98	PCC Sta. 36+82.33
PT Sta. 8+99.89	PCC Sta. 26+23.27	PCC Sta. 28+98.98	PCC Sta. 36+82.33	PT Sta. 44+63.04

RAMP Y CURVE DATA

P.I. Sta. 0+75.07	P.I. Sta. 6+58.76	P.I. Sta. 13+85.24
Δ = 6° 00′ 01″ (LT)	Δ = 56° 05′ 41″ (LT)	Δ = 11° 58′ 10″ (RT)
Dc = 4° 00′ 00″	Dc = 6° 00′ 00″	Dc = 2° 00′ 00″
R = 1,432.39′	R = 954.93′	R = 2,864.78′
T = 75.07′	T = 508.76′	T = 300.33′
L = 150.01′	L = 934.91′	L = 598.47′
E = 1.97′	E = 127.07′	E = 15.70′
PC Sta. 0+00.00	PCC Sta. 1+50.01	PRC Sta. 10+84.91
PCC Sta. 1+50.01	PRC Sta. 10+84.91	PT Sta. 16+83.38



GR # — GUARDRAIL WORK LOCATIONS. SEE GUARDRAIL PLAN SHEETS 69 - 79 .

BR # — STRUCTURE WORK LOCATIONS. SEE STRUCTURE PLAN SHEETS 99 - 108.

SN # — SIGN WORK LOCATIONS. SEE STRUCTURE PLAN SHEETS 83 - 95 .

RAMP P CURVE DATA

P.I. Sta. 4+07.03	P.I. Sta. 18+93.28	P.I. Sta. 23+80.26	P.I. Sta. 30+19.85
Δ = 7° 02′ 34″ (LT)	Δ = 2° 00′ 48″ (RT)	Δ = 4° 28′ 54″ (RT)	Δ = 43° 12′ 51″ (RT)
Dc = 1° 54′ 35″	Dc = 0° 57′ 18″	Dc = 4° 46′ 29″	Dc = 7° 09′ 43″
R = 3,000.00′	R = 6,000.00′	R = 1,200.00′	R = 800.00′
T = 184.61′	T = 105.43′	T = 46.96′	T = 316.86′
L = 368.76′	L = 210.84′	L = 93.86′	L = 603.38′
E = 5.68′	E = 0.93′	E = 0.92′	E = 60.46′
PC Sta. 2+22.41	PC Sta. 17+87.84	PC Sta. 23+33.30	PC Sta. 27+02.99
PT Sta. 5+91.17	PT Sta. 19+98.69	PT Sta. 24+27.17	PT Sta. 33+06.37

RAMP Z CURVE DATA

P.I. Sta. 1+89.60	P.I. Sta. 7+86.93
Δ = 15° 04′ 49″ (RT)	Δ = 46° 27′ 53″ (RT)
Dc = 4° 00′ 00″	Dc = 6° 00′ 00″
R = 1,432.40′	R = 954.93′
T = 189.60′	T = 409.92′
L = 377.01′	L = 774.41′
E = 12.49′	E = 84.27′
PC Sta. 0+00.00	PCC Sta. 3+77.01
PCC Sta. 3+77.01	PT Sta. 11+51.42

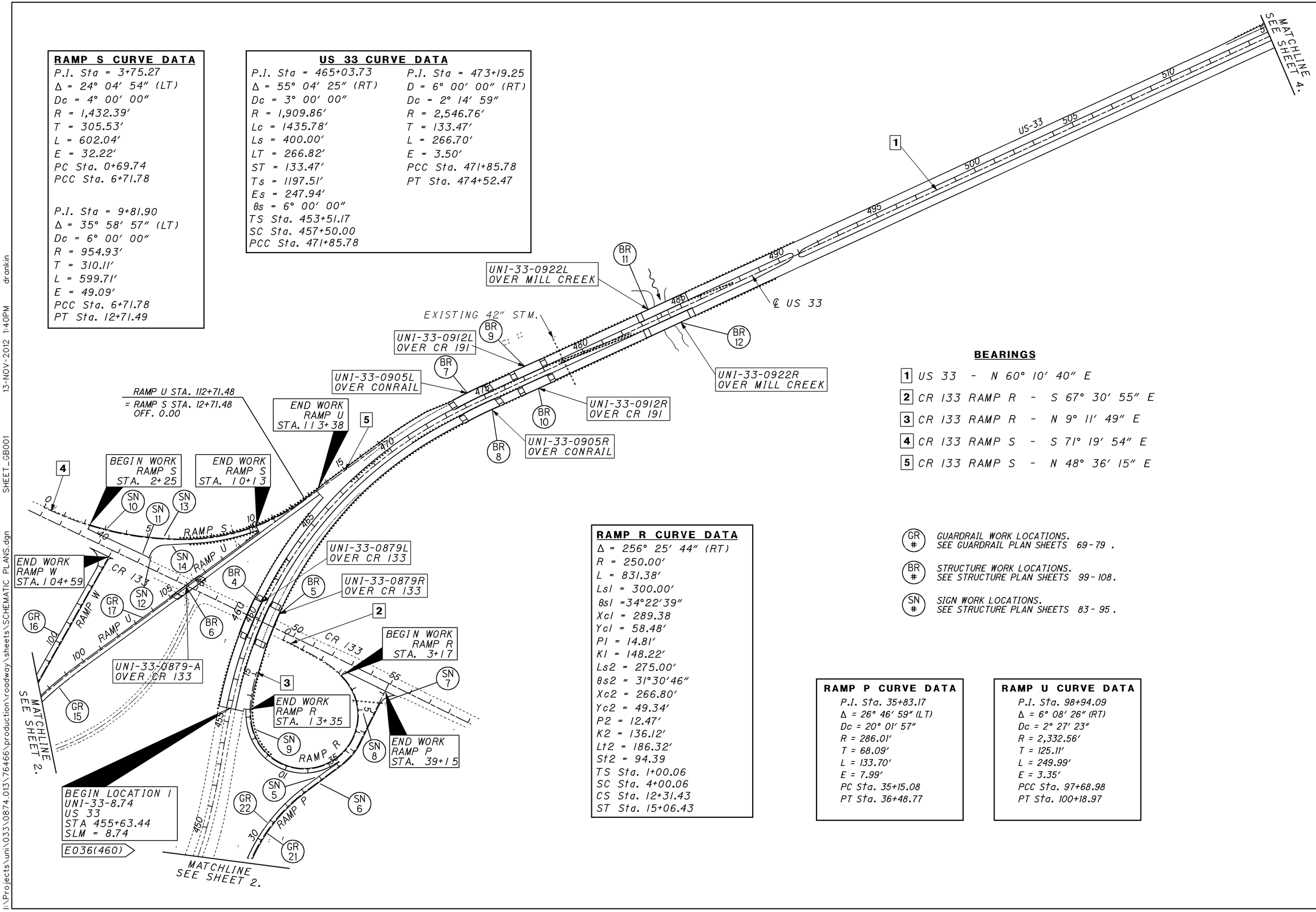
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SCHEMATIC PLAN

UNI-33-8.74

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108

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RAMP S CURVE DATA

P.I. Sta = 3+75.27
Δ = 24° 04′ 54″ (LT)
Dc = 4° 00′ 00″
R = 1,432.39′
T = 305.53′
L = 602.04′
E = 32.22′
PC Sta. 0+69.74
PCC Sta. 6+71.78

P.I. Sta = 9+81.90
Δ = 35° 58′ 57″ (LT)
Dc = 6° 00′ 00″
R = 954.93′
T = 310.11′
L = 599.71′
E = 49.09′
PCC Sta. 6+71.78
PT Sta. 12+71.49

US 33 CURVE DATA

P.I. Sta = 465+03.73
Δ = 55° 04′ 25″ (RT)
Dc = 3° 00′ 00″
R = 1,909.86′
Lc = 1435.78′
Ls = 400.00′
LT = 266.82′
ST = 133.47′
Ts = 1197.51′
Es = 247.94′
θs = 6° 00′ 00″
TS Sta. 453+51.17
SC Sta. 457+50.00
PCC Sta. 471+85.78

P.I. Sta = 473+19.25
D = 6° 00′ 00″ (RT)
Dc = 2° 14′ 59″
R = 2,546.76′
T = 133.47′
L = 266.70′
E = 3.50′
PCC Sta. 471+85.78
PT Sta. 474+52.47

BEARINGS

1 US 33 - N 60° 10′ 40″ E
2 CR 133 RAMP R - S 67° 30′ 55″ E
3 CR 133 RAMP R - N 9° 11′ 49″ E
4 CR 133 RAMP S - S 71° 19′ 54″ E
5 CR 133 RAMP S - N 48° 36′ 15″ E

RAMP R CURVE DATA

Δ = 256° 25′ 44″ (RT)
R = 250.00′
L = 831.38′
Lsl = 300.00′
θsl =34°22′39″
Xcl = 289.38
Ycl = 58.48′
Pl = 14.81′
Kl = 148.22′
Ls2 = 275.00′
θs2 = 31°30′46″
Xc2 = 266.80′
Yc2 = 49.34′
P2 = 12.47′
K2 = 136.12′
Lt2 = 186.32′
St2 = 94.39
TS Sta. 1+00.06
SC Sta. 4+00.06
CS Sta. 12+31.43
ST Sta. 15+06.43

GR # GUARDRAIL WORK LOCATIONS. SEE GUARDRAIL PLAN SHEETS 69-79 .

BR # STRUCTURE WORK LOCATIONS. SEE STRUCTURE PLAN SHEETS 99-108.

SN # SIGN WORK LOCATIONS. SEE STRUCTURE PLAN SHEETS 83-95 .

RAMP P CURVE DATA

P.I. Sta. 35+83.17
Δ = 26° 46′ 59″ (LT)
Dc = 20° 01′ 57″
R = 286.01′
T = 68.09′
L = 133.70′
E = 7.99′
PC Sta. 35+15.08
PT Sta. 36+48.77

RAMP U CURVE DATA

P.I. Sta. 98+94.09
Δ = 6° 08′ 26″ (RT)
Dc = 2° 27′ 23″
R = 2,332.56′
T = 125.11′
L = 249.99′
E = 3.35′
PCC Sta. 97+68.98
PT Sta. 100+18.97

SCHEMATIC PLAN

UNI-33-8.74

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RAMP E CURVE DATA
P.I. Sta = 3+30.00
Δ = 14° 00′ 00″ (LT)
Dc = 3° 00′ 00″
R = 1,909.86′
T = 234.50′
L = 466.67′
E = 14.34′
PC Sta. 0+95.50
PT Sta. 5+62.17

P.I. Sta = 11+16.49
Δ = 57° 27′ 40″ (LT)
Dc = 10° 00′ 00″
R = 572.96′
T = 314.08′
L = 574.61′
E = 80.44′
PC Sta. 8+02.41
PT Sta. 13+77.02

RAMP F CURVE DATA
P.I. Sta = 2+61.03
Δ = 9° 25′ 23″ (RT)
Dc = 2° 00′ 00″
R = 2,864.80′
T = 236.11′
L = 471.16′
E = 9.71′
PC Sta. 0+24.92
PT Sta. 4+96.08

RAMP H CURVE DATA

Δ = 271° 45′ 40″ (RT)	Ls2 = 275.00′
R = 230.00′	θs2 = 34°15′10″
Lc = 803.42′	Xc2 = 265.33′
Ls1 = 300.00′	Yc2 = 53.42′
θs1 =37°22′01″	P2 = 13.52′
Xc1 = 287.49	K2 = 135.88′
Yc1 = 63.26′	Lt2 = 186.89′
PI = 16.06′	St2 = 94.91
K1 = 147.90′	
TS Sta. 0+00.00	
SC Sta. 3+00.01	
CS Sta. 11+03.43	
ST Sta. 13+78.44	

US 33 CURVE DATA
P.I. Sta = 549+86.70
Δ = 71° 10′ 01″ (RT)
Dc = 1° 28′ 00″
R = 3,906.22′
T = 2,794.87′
L = 4,851.91′
E = 896.89′
PC Sta. 521+91.83
PT Sta. 570+43.73

*** RAMP E
SIGN WORK ONLY

RAMP M CURVE DATA
P.I. Sta = 16+13.73
Δ = 10° 00′ 00″ (LT)
Dc = 3° 00′ 00″
R = 1,909.86′
T = 167.09′
L = 333.33′
E = 7.30′
PC Sta. 14+46.64
PT Sta. 17+79.97

P.I. Sta = 4+62.24
Δ = 77° 47′ 27″ (LT)
Dc = 10° 00′ 00″
R = 572.96′
T = 462.24′
L = 777.91′
E = 163.21′
PC Sta. 0+00.00
PT Sta. 7+77.91

RAMP L CURVE DATA
P.I. Sta = 2+20.04
Δ = 17° 28′ 00″ (LT)
Dc = 4° 00′ 00″
R = 1,432.39′
T = 220.04′
L = 436.67′
E = 16.80′
PC Sta. 0+00.00
PT Sta. 4+36.67

P.I. Sta = 10+83.21
Δ = 52° 40′ 00″ (LT)
Dc = 8° 00′ 00″
R = 716.20′
T = 354.49′
L = 658.34′
E = 82.93′
PC Sta. 7+28.72
PT Sta. 13+87.06

BEARINGS

6	US 33 - N 60° 10′ 40″ E
7	US 33 - S 48° 39′ 30″ E
8	SR 31 RAMP F - N 58° 41′ 35″ E
9	SR 31 RAMP F - N 68° 06′ 58″ E
10	SR 31 RAMP E - S 7° 10′ 34″ E
11	SR 31 RAMP E - S 21° 10′ 34″ E
12	SR 31 RAMP E - S 78° 38′ 14″ E
13	SR 31 RAMP G - S 53° 06′ 17″ E
14	SR 31 RAMP G - S 53° 06′ 17″ E
15	SR 31 RAMP G - N 85° 18′ 24″ E
16	SR 31 RAMP H - N 87° 04′ 04″ E
17	SR 4 RAMP M - N 25° 02′ 20″ E
18	SR 4 RAMP L - S 4° 20′ 13″ E
19	SR 4 RAMP K - N 85° 30′ 29″ E
20	SR 4 RAMP K - N 85° 30′ 29″ E
21	SR 4 RAMP K - S 50° 05′ 16″ E

HORIZONTAL SCALE IN FEET
0 100 200 400

BEGIN WORK RAMP E *** STA. 0+00
END WORK RAMP E *** STA. 12+25
END WORK RAMP F STA. 20+56
BEGIN WORK RAMP F STA. 10+19
BEGIN WORK RAMP G STA. 5+21
END WORK RAMP G STA. 18+35
BEGIN WORK RAMP H STA. 1+48
END WORK RAMP H STA. 12+15
BEGIN WORK RAMP M STA. 1+55
END WORK RAMP M STA. 15+86
BEGIN WORK RAMP L STA. 0+00
END WORK RAMP L STA. 11+54
BEGIN WORK RAMP J STA. 5+12
END WORK RAMP J STA. 16+83
BEGIN WORK RAMP K STA. 0+35
END WORK RAMP K STA. 15+23

SR 4, SR 31, US-33
RAMP E, RAMP F, RAMP G, RAMP H, RAMP M, RAMP L, RAMP J, RAMP K
℄ US 33
UNI-31-0135 UNDER SR 31
UNI-4-1320 UNDER SR 4
EXISTING 54″ STM.
EXISTING 96″ STM.
EXISTING 106″x68″ ELLIPTICAL PIPES
EXISTING 24″ PIPE
SN 15 SN 16 SN 17 SN 18 SN 19 SN 20 SN 21 SN 22 SN 23 SN 24 SN 25 SN 26 SN 27 SN 28 SN 29 SN 30 SN 31 SN 32 SN 33 SN 34 SN 35 SN 36

MATCHLINE SEE SHEET 3.
MATCHLINE SEE SHEET 5.

RAMP K CURVE DATA
P.I. Sta = 11+47.15
Δ = 44° 24′ 15″ (RT)
Dc = 4° 00′ 00″
R = 1,432.39′
T = 584.61′
L = 1,110.10′
E = 114.71′
PC Sta. 5+62.54
PT Sta. 16+72.64

(SN #) SIGN WORK LOCATIONS. SEE STRUCTURE PLAN SHEETS 83 - 95.

RAMP G CURVE DATA

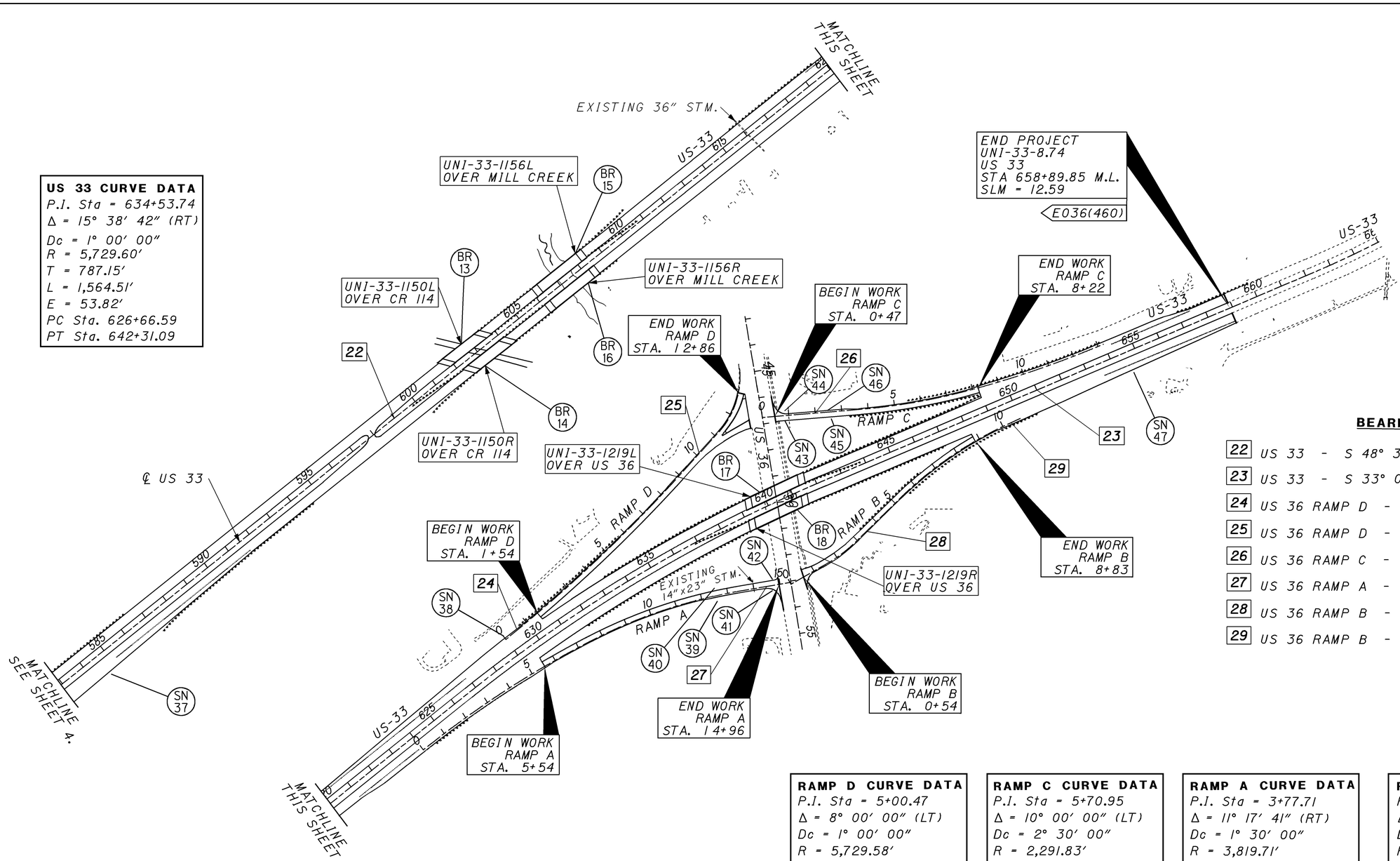
P.I. Sta = 2+85.43	P.I. Sta = 6+82.14	P.I. Sta = 9+93.65	P.I. Sta = 15+11.44
Δ = 17° 00′ 00″ (RT)	Δ = 11° 00′ 00″ (RT)	Δ = 35° 09′ 09″ (RT)	Δ = 41° 35′ 19″ (LT)
Dc = 3° 00′ 00″	Ls = 200.00′	Dc = 8° 00′ 00″	Dc = 23° 03′ 24″
R = 1,909.86′	T2 = 115.47′	R = 716.20′	R = 248.50′
T = 285.43′	T2 = 85.14′	T = 226.87′	T = 94.37′
L = 566.67′	θs = 5°00′00″	L = 439.41′	L = 180.38′
E = 21.21′	P = 1.45′	E = 35.07′	E = 17.31′
PC Sta. 0+00.00	CS Sta. 5+66.67	PC Sta. 7+66.67	PC Sta. 14+17.07
CS Sta. 5+66.67	SC Sta. 7+66.67	PT Sta. 12+06.08	PT Sta. 15+97.45

RAMP J CURVE DATA

P.I. Sta = 2+34.50	Δ = 211° 27′ 01″ (RT)	P.I. Sta = 18+39.07
Δ = 14° 00′ 00″ (RT)	R = 310.00′	Δ = 9° 06′ 53″ (RT)
Dc = 3° 00′ 00″	L = 1144.06′	Dc = 2° 00′ 00″
R = 1,909.85′	PCC Sta. 4+66.66	R = 2,864.79′
T = 234.50′	PCC Sta. 16+10.72	T = 228.35′
L = 466.66′		L = 455.74′
E = 14.34′		E = 9.09′
PC Sta. 0+00.00		PCC Sta. 16+10.72
PCC Sta. 4+66.66		PT Sta. 20+66.46

SCHEMATIC PLAN
UNI-33-8.74
4
108

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US 33 CURVE DATA
P.I. Sta = 634+53.74
Δ = 15° 38′ 42″ (RT)
Dc = 1° 00′ 00″
R = 5,729.60′
T = 787.15′
L = 1,564.51′
E = 53.82′
PC Sta. 626+66.59
PT Sta. 642+31.09

BEARINGS

22 US 33 - S 48° 39′ 30″ E
23 US 33 - S 33° 00′ 48″ E
24 US 36 RAMP D - S 49° 48′ 31″ E
25 US 36 RAMP D - S 57° 48′ 31″ E
26 US 36 RAMP C - S 14° 42′ 52″ E
27 US 36 RAMP A - S 19° 48′ 00″ E
28 US 36 RAMP B - S 54° 29′ 43″ E
29 US 36 RAMP B - S 34° 29′ 43″ E

BR # STRUCTURE WORK LOCATIONS. SEE STRUCTURE PLAN SHEETS 99 - 108.

SN # SIGN WORK LOCATIONS. SEE STRUCTURE PLAN SHEETS 83 - 95.

RAMP D CURVE DATA
P.I. Sta = 5+00.47
Δ = 8° 00′ 00″ (LT)
Dc = 1° 00′ 00″
R = 5,729.58′
T = 400.65′
L = 800.00′
E = 13.99′
PC Sta. 0+99.82
PT Sta. 8+99.82

P.I. Sta = 12+63.43
Δ = 50° 04′ 56″ (LT)
Dc = 18° 28′ 57″
R = 310.00′
T = 144.83′
L = 270.97′
E = 32.16′
PC Sta. 11+18.60
PT Sta. 13+89.57

RAMP C CURVE DATA
P.I. Sta = 5+70.95
Δ = 10° 00′ 00″ (LT)
Dc = 2° 30′ 00″
R = 2,291.83′
T = 200.51′
L = 400.00′
E = 8.75′
PC Sta. 3+70.44
PCC Sta. 7+70.44

P.I. Sta = 10+47.46
Δ= 8° 17′ 46″ (LT)
Dc = 1° 30′ 00″
R = 3,819.72′
T = 277.02′
L = 553.07′
E = 10.03′
PCC Sta. 7+70.44
PT Sta. 13+23.52

RAMP A CURVE DATA
P.I. Sta = 3+77.71
Δ = 11° 17′ 41″ (RT)
Dc = 1° 30′ 00″
R = 3,819.71′
T = 377.71′
L = 752.98′
E = 18.63′
PC Sta. 0+00.00
PCC Sta. 7+52.98

P.I. Sta = 10+47.98
Δ = 17° 33′ 39″ (RT)
Dc = 3° 00′ 00″
R = 1,909.86′
T = 294.99′
L = 585.36′
E = 22.65′
PCC Sta. 7+52.98
PT Sta. 13+38.34

RAMP B CURVE DATA
P.I. Sta = 2+25.42
Δ = 14° 41′ 43″ (LT)
Dc = 10°
R = 572.96′
T = 73.88′
L = 146.95′
E = 4.74′
PC Sta. 1+51.54
PT Sta. 2+98.49

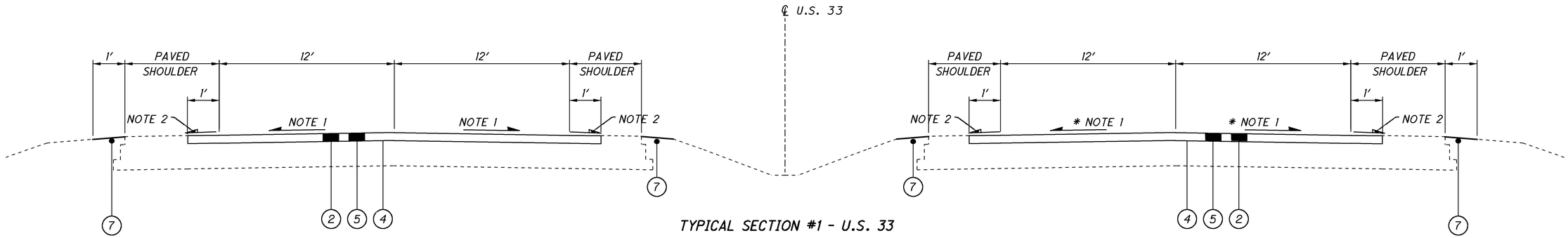
P.I. Sta = 7+76.29
Δ = 20° 00′ 00″ (RT)
Dc = 4° 00′ 00″
R = 1,432.39′
T = 252.57′
L = 500.00′
E = 22.10′
PC Sta. 5+23.72
PT Sta. 10.23.72

HORIZONTAL SCALE IN FEET
0 100 200 400

SCHEMATIC PLAN

UNI-33-8.74

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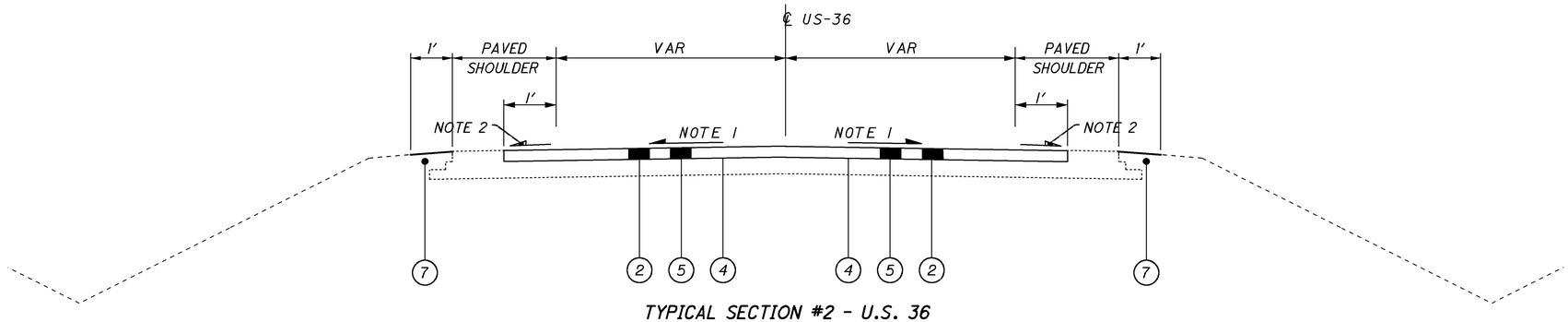


TYPICAL SECTION #1 - U.S. 33

SECTION APPLIES TO THE FOLLOWING STATIONS:

UNI 33 STA. 455+63.44 TO STA. 658+89.85 = 20,326.41 FT

TOTAL = 20,326.41 FT



TYPICAL SECTION #2 - U.S. 36

SECTION APPLIES TO THE FOLLOWING STATIONS:

UNI 36 STA. 470+46.81 TO STA. 485+78.40 = 1,531.59 FT

TOTAL = 1,531.59 FT

LEGEND:

- ITEM 202 - (13 1/4") PAVEMENT REMOVED, ASPHALT, AS PER PLAN
- ITEM 209 - (13 1/4") PREPARING SUBGRADE FOR SHOULDER PAVING
- (A) EXISTING (4 1/4") ASPHALT
- (B) EXISTING (9") CONCRETE
- (1) ITEM 204 - SUBGRADE COMPACTION
- (2) ITEM 254 - (1 1/2") PAVEMENT PLANING, ASPHALT CONCRETE
- (3) ITEM 301 - (11.75") ASPHALT CONCRETE BASE, PG64-22
- (4) ITEM 407 - TACK COAT @ 0.075 GAL/SQ YD
- (5) ITEM 442 - (1 1/2") ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446)
- (6) ITEM 442 - (1 1/2") ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446), AS PER PLAN
- (7) ITEM 617 - (1 1/2" AVG) COMPACTED AGGREGATE

NOTE 1:
PROPOSED PAVEMENT CROSS SLOPES TO REMAIN AS EXISTING.

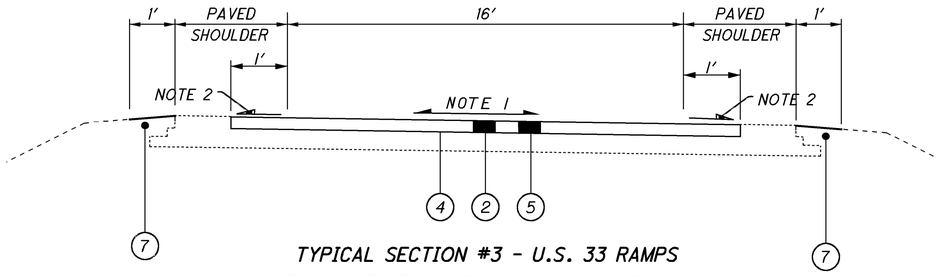
NOTE 2:
PLANING AND PAVING OF 1' SHOULDER ONLY. PROPOSED PAVED SHOULDER CROSS SLOPES TO REMAIN AS EXISTING.

CALCULATED DKR/RDK
CHECKED

TYPICAL SECTIONS

UNI-33-8.74

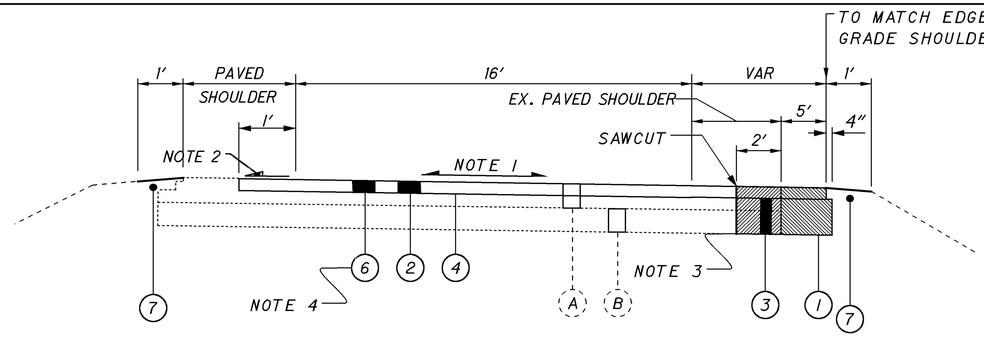
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TYPICAL SECTION #3 - U.S. 33 RAMPS

SECTION APPLIES TO THE FOLLOWING STATIONS:

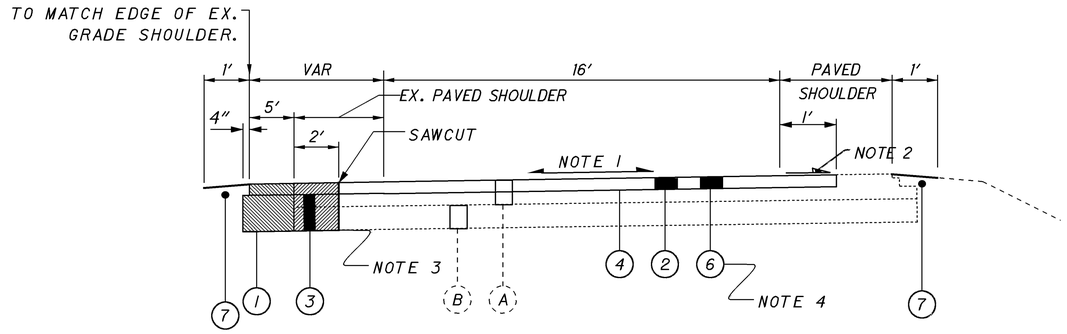
RAMP A	STA.	5+54	TO	STA.	11+85	= 631	FT
RAMP B	STA.	0+54	TO	STA.	8+83	= 829	FT
RAMP C	STA.	3+65	TO	STA.	8+22	= 457	FT
RAMP D	STA.	1+54	TO	STA.	12+86	= 1,132	FT
RAMP F	STA.	10+19	TO	STA.	20+56	= 1,037	FT
RAMP G	STA.	5+21	TO	STA.	18+35	= 1,314	FT
RAMP H	STA.	1+48	TO	STA.	12+15	= 1,067	FT
RAMP J	STA.	5+12	TO	STA.	16+83	= 1,171	FT
RAMP K	STA.	0+35	TO	STA.	15+23	= 1,488	FT
RAMP L	STA.	0+00	TO	STA.	11+54	= 1,154	FT
RAMP M	STA.	1+55	TO	STA.	15+86	= 1,431	FT
RAMP P	STA.	0+00	TO	STA.	39+15	= 3,915	FT
RAMP R	STA.	3+17	TO	STA.	13+35	= 1,018	FT
RAMP S	STA.	2+25	TO	STA.	10+13	= 788	FT
RAMP U	STA.	58+17	TO	STA.	113+38	= 5,521	FT
RAMP V	STA.	0+00	TO	STA.	43+13	= 4,313	FT
RAMP W	STA.	96+00	TO	STA.	104+59	= 859	FT
RAMP Y	STA.	1+75	TO	STA.	11+64	= 989	FT
RAMP Z	STA.	2+74	TO	STA.	11+28	= 854	FT
					TOTAL	= 29,968	FT



TYPICAL SECTION #4 - U.S. 33 RAMP (A)

SECTION APPLIES TO THE FOLLOWING STATIONS:

RAMP A	STA.	11+85	TO	STA.	14+96	= 311	FT
					TOTAL	= 311	FT



TYPICAL SECTION #5 - U.S. 33 RAMP (C)

SECTION APPLIES TO THE FOLLOWING STATIONS:

RAMP C	STA.	0+47	TO	STA.	3+65	= 318	FT
					TOTAL	= 318	FT

LEGEND:

- ITEM 202 - (13 1/4") PAVEMENT REMOVED, ASPHALT, AS PER PLAN
- ITEM 209 - (13 1/4") PREPARING SUBGRADE FOR SHOULDER PAVING
- (A) EXISTING (4 1/4") ASPHALT
- (B) EXISTING (9") CONCRETE
- (1) ITEM 204 - SUBGRADE COMPACTION
- (2) ITEM 254 - (1 1/2") PAVEMENT PLANING, ASPHALT CONCRETE
- (3) ITEM 301 - (11.75") ASPHALT CONCRETE BASE, PG64-22
- (4) ITEM 407 - TACK COAT @ 0.075 GAL/SQ YD
- (5) ITEM 442 - (1 1/2") ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446)
- (6) ITEM 442 - (1 1/2") ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446), AS PER PLAN
- (7) ITEM 617 - (1 1/2" AVG) COMPACTED AGGREGATE

NOTE 1:
PROPOSED PAVEMENT CROSS SLOPES TO REMAIN AS EXISTING.

NOTE 2:
PLANING AND PAVING OF 1' SHOULDER ONLY. PROPOSED PAVED SHOULDER CROSS SLOPES TO REMAIN AS EXISTING.

NOTE 3:
ITEM 301 - ASPHALT CONCRETE BASE TO EXTEND TO A DEPTH EQUAL TO THE EXISTING ROAD SUB-GRADE. SAWCUT DEPTH DEPTH AT A MINIMUM OF 13 1/4".

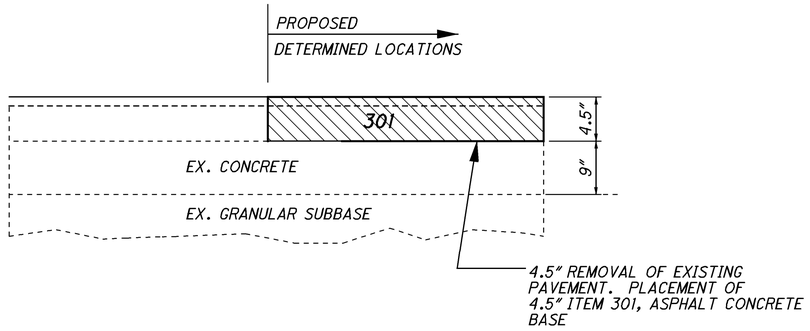
NOTE 4:
ITEM 442 - (1 1/2") ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446), AS PER PLAN TO BE USED PRIOR TO THE SIGNALIZED INTERSECTION. SEE GENERAL NOTES FOR MORE INFORMATION.

CALCULATED DKR/RDK
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TYPICAL SECTIONS

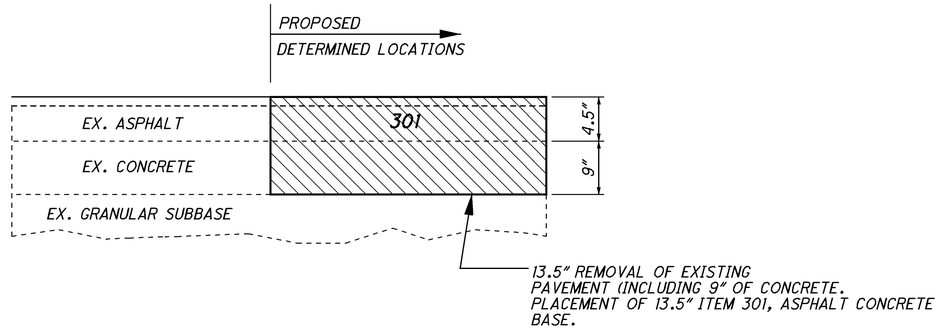
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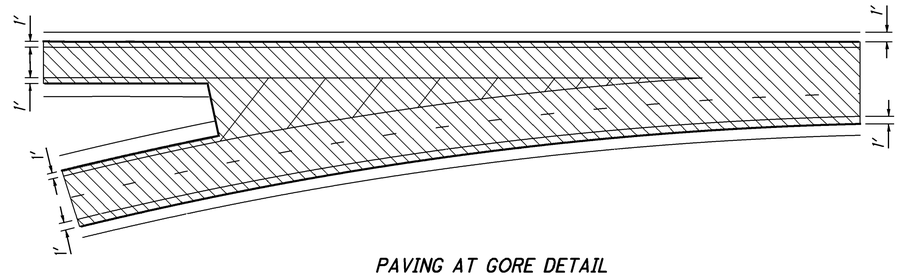
PARTIAL DEPTH PAVEMENT REPAIR DETAIL

SEE GENERAL NOTES FOR MORE INFORMATION REGARDING ITEM 251-PARTIAL DEPTH PAVEMENT REPAIR, AS PER PLAN.



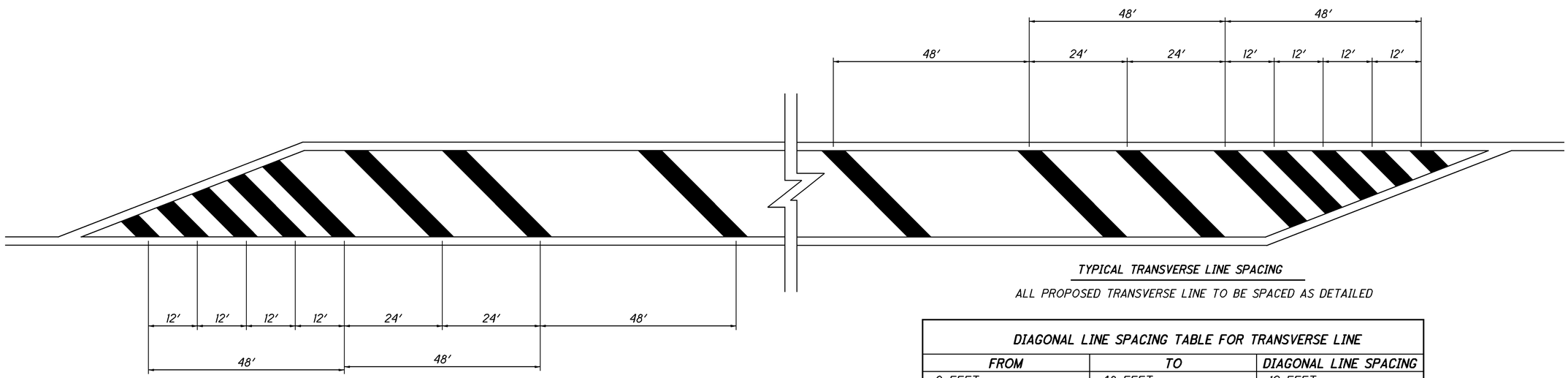
PAVEMENT REPAIR DETAIL

SEE GENERAL NOTES FOR MORE INFORMATION REGARDING ITEM 254- PAVEMENT REPAIR, AS PER PLAN.



PAVING AT GORE DETAIL

PLANE AND RESURFACE ENTIRE GORE



TYPICAL TRANSVERSE LINE SPACING

ALL PROPOSED TRANSVERSE LINE TO BE SPACED AS DETAILED

DIAGONAL LINE SPACING TABLE FOR TRANSVERSE LINE		
FROM	TO	DIAGONAL LINE SPACING
0 FEET	48 FEET	12 FEET
49 FEET	96 FEET	24 FEET
97 FEET	>97 FEET	48 FEET

CALCULATED DKR/RDK | CHECKED

TYPICAL DETAILS

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GENERAL NOTES

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NOTIFICATION OF CONSTRUCTION INITIATION:
AT LEAST FOURTEEN DAYS PRIOR TO ANY CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL ADVISE THE DISTRICT OFFICE OF COMMUNICATIONS VIA EMAIL AT d06.pio@dot.state.oh.us AND THE DISTRICT WORK ZONE TRAFFIC MANAGER VIA EMAIL AT d06.mot@dot.state.oh.us OF THE ANTICIPATED START DATE OF ANY CONSTRUCTION ACTIVITIES, INCLUDING BUT NOT LIMITED TO THE PLACING OF WORK ZONE SIGNS. THE NOTIFICATION SHALL ALSO INCLUDE THE PROJECT NUMBER, PID, NAME AND PHONE NUMBER OF THE CONTRACTOR, A POINT OF CONTACT AND THE ANTICIPATED IMPACT ON TRAFFIC. THE CONTRACTOR WILL IMMEDIATELY INFORM THE DISTRICT OFFICE OF COMMUNICATIONS AND THE DISTRICT WORK ZONE TRAFFIC MANAGER OF ANY AND ALL DELAYS AND/OR CHANGES REGARDING THE CONSTRUCTION INITIATION DATE.

GENERAL:
THE CONTRACTOR SHALL SUBMIT IN WRITING A SCHEDULE OF OPERATIONS TO THE ENGINEER (SEE 108.02) AND RECEIVE APPROVAL IN WRITING BEFORE WORK IS STARTED ON THIS PROJECT. ALL TRAFFIC CONTROL DEVICES SHALL BE FURNISHED, ERECTED, MAINTAINED, AND REMOVED BY THE CONTRACTOR IN ACCORDANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

ALIGNMENT AND PROFILE:
THE MAJORITY OF WORK INVOLVED IN THIS PROJECT IS TO PLANE PAVEMENT AT AN EQUAL DEPTH TO THE PROPOSED PAVEMENT WHILE MAINTAINING THE EXISTING CROSS-SLOPE (CROWN).

CONTRACTORS EQUIPMENT - OPERATION AND STORAGE:
THE CONTRACTOR'S EQUIPMENT SHALL BE OPERATED IN THE DIRECTION OF TRAFFIC WHERE PRACTICAL. EQUIPMENT SHALL HAVE AT LEAST ONE AMBER FLASHING LIGHT. WHEN PARKED ALONG THE HIGHWAY, THE EQUIPMENT SHALL BE LOCATED EITHER A MINIMUM OF THIRTY FEET FROM THE EDGE OF PAVEMENT OR SIX FEET BEHIND GUARDRAIL WITH A MINIMUM OF 125 FEET OF GUARDRAIL PRECEDING THE EQUIPMENT. ALL OTHER EQUIPMENT, INCLUDING PRIVATE VEHICLES, SHALL BE STORED AT AN APPROVED CONTRACTOR'S STORAGE AREA.

CONTINGENCY QUANTITIES:
THE CONTRACTOR SHALL NOT ORDER MATERIALS OR PERFORM WORK FOR ITEMS DESIGNATED BY PLAN NOTE TO BE USED "AS DIRECTED BY THE ENGINEER" UNLESS AUTHORIZED BY THE ENGINEER. THE ACTUAL WORK LOCATIONS AND QUANTITIES USED FOR SUCH ITEMS SHALL BE INCORPORATED INTO THE FINAL CHANGE ORDER GOVERNING COMPLETION OF THIS PROJECT.

REMOVAL ITEMS:
UNLESS OTHERWISE INSTRUCTED, GUARDRAIL, POSTS, ASPHALT AND MISCELLANEOUS HARDWARE DESIGNATED FOR REMOVAL BECOME PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF. PAYMENT FOR THE ABOVE SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE REMOVED ITEM.

WORK LIMITS:
THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. THE INSTALLATION AND OPERATION OF ALL TEMPORARY TRAFFIC CONTROL AND TEMPORARY TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS SHALL BE PROVIDED BY THE CONTRACTOR WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS.

UNDERGROUND UTILITIES:
THE IDENTITY AND THE LOCATION OF SOME OF THE EXISTING UNDERGROUND FACILITIES KNOWN TO BE LOCATED IN THE CONSTRUCTION AREA HAVE BEEN IDENTIFIED. THE CONTRACTOR SHALL GIVE NOTICE OF INTENT TO CONSTRUCT TO THE OHIO UTILITIES PROTECTION SERVICE, PRODUCERS UNDERGROUND PROTECTION SERVICE, AND OWNERS OF UNDERGROUND FACILITIES THAT ARE NOT MEMBERS OF A REGISTERED PROTECTION SERVICE IN ACCORDANCE WITH SECTION 153.64 OF THE OHIO REVISED CODE. THE ABOVE, MENTIONED NOTICE SHALL BE GIVEN AT LEAST TWO WORKING DAYS PRIOR TO THE START OF CONSTRUCTION.

OHIO UTILITY PROTECTION SERVICE 1-800-362-2764
PRODUCERS UNDERGROUND PROTECTION SERVICE 1-614-587-0486
NON-MEMBERS MUST BE CALLED DIRECTLY.

UTILITIES OWNERSHIP:
*LISTED ON SHEET **24/108** ARE THE KNOWN UTILITIES LOCATED WITHIN THE PROJECT CONSTRUCTION LIMITS TOGETHER WITH THEIR RESPECTIVE OWNERS.*

DRAIN PIPES:
AT ALL DRAIN PIPES LOCATED IN EXISTING CURB AND THAT DRAIN INTO THE GUTTER, SPECIAL CARE SHALL BE TAKEN BY THE CONTRACTOR SO THAT THESE DRAINS WILL NOT BE CLOSED OR OTHERWISE RENDERED INOPERATIVE. ANY DAMAGE DONE TO THE DRAIN PIPE WILL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

CONNECTION BETWEEN EXISTING AND PROPOSED GUARDRAIL:
WHEN IT IS NECESSARY TO SPLICE PROPOSED GUARDRAIL TO EXISTING GUARDRAIL, ONLY THE EXISTING GUARDRAIL SHALL BE CUT, DRILLED, OR PUNCHED. THE CONNECTION SHALL BE MADE USING A "W-BEAM RAIL SPLICE" AS SHOWN IN AASHTO M 180. PAYMENT SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE RESPECTIVE GUARDRAIL ITEMS.

GUARDRAIL POST HOLES:
ALL HOLES REMAINING AFTER REMOVAL OF GUARDRAIL POSTS SHALL BE FILLED WITH GRANULAR MATERIAL, EXCESS MATERIAL RESULTING FROM GUARDRAIL RECONSTRUCTION, OR EXCESS MATERIAL FROM BERM RESHAPING. FILL MATERIAL CONTAINING SOD SHALL NOT BE USED. ALL FILL MATERIAL SHALL BE APPROVED BY THE ENGINEER. MATERIAL PLACED IN HOLES SHALL BE THOROUGHLY COMPACTED AND LEVELED OFF AS DIRECTED BY THE ENGINEER. PAYMENT FOR THE ABOVE SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE APPLICABLE GUARDRAIL ITEM.

ITEM 202 - PAVEMENT REMOVED, AS PER PLAN:
THIS ITEM IS BEING PROVIDED IN THE PLAN IN CONJUNCTION WITH THE SHOULDER WIDENING ON RAMP A AND RAMP C. SAWCUTTING TO A COMPLETE DEPTH EQUAL TO THE REMOVAL (TO THE SUBBASE) IS INCLUDED WITH THIS ITEM. PAVEMENT REMOVED, AS PER PLAN WILL INCLUDE THE REMOVAL OF EXISTING ASPHALT AND CONCRETE (APPROX. 9") DOWN TO THE EXISTING SUBBASE (13.25" AVG. DEPTH). LOCATIONS OF THIS WORK CAN BE FOUND IN THE PAVEMENT PLAN SHEETS.

ITEM 202 - GUARDRAIL REMOVED, AS PER PLAN:
IN ADDITION TO THE REQUIREMENTS OF ITEM 202 - GUARDRAIL REMOVED, THE CONTRACTOR SHALL REMOVE THE FOLLOWING GUARDRAIL ITEMS AT LOCATIONS SPECIFIED IN THIS PLAN. REMOVAL OF SPECIFIED GUARDRAIL SHALL INCLUDE BUT NOT BE LIMITED TO TERMINAL ASSEMBLIES, ANY ATTACHED POSTS, SIGNS AND DELINEATORS. THIS REMOVAL WILL INCLUDE ALL POSTS, ANCHORS AND HARDWARE UNDER GROUND WITH THE EXCEPTION OF ANY CONCRETE FOUNDATIONS. CONCRETE FOUNDATIONS SHALL BE REMOVED TO A MINIMUM OF 1 FOOT BELOW THE GRADE OF THE SURROUNDING AREA.

ALL HOLES AND VOIDS REMAINING AFTER REMOVAL OF GUARDRAIL ITEMS SHALL BE FILLED WITH GRANULAR MATERIAL. FILL MATERIAL CONTAINING SOD SHALL NOT BE USED. ALL FILL MATERIAL SHALL BE APPROVED BY THE ENGINEER. MATERIAL PLACED IN HOLES SHALL BE THOROUGHLY COMPACTED AND LEVELED OFF AS DIRECTED BY THE ENGINEER.

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.

GUARDRAIL REMOVED SHALL BECOME PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF. PAVEMENT FOR THE ABOVE SHALL BE INCLUDED IN THE UNIT PRICE PER FEET OF ITEM 202, GUARDRAIL REMOVED, AS PER PLAN.

ITEM 203 - EMBANKMENT, AS PER PLAN:
THIS ITEM IS TO BE USED IN CONJUNCTION WITH THE PROPOSED GUARDRAIL TO ENSURE PROPER PLACEMENT OF THE PROPOSED ANCHOR ASSEMBLIES.

ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR, AS PER PLAN:
*ALL REPAIR AREAS WILL BE IDENTIFIED AND MARKED OUT BY THE PROJECT ENGINEER. THE REPAIR AREAS SHALL BE OF VARYING LENGTH AND THE AVERAGE WIDTH SHALL NOT BE LESS THAN 4 FEET. THE AVERAGE DEPTH OF EACH REPAIR SHALL BE 4 INCHES. ALL AREAS SHALL BE REFILLED WITH AN EQUAL AMOUNT OF ITEM 301 - ASPHALT CONCRETE BASE. FOR MORE INFORMATION SEE DETAIL ON SHEET **8/109**. NO MORE PARTIAL PAVEMENT REPAIR, AS PER PLAN SHALL BE STARTED AND PERFORMED THAN CAN BE COMPLETED IN THE SAME WORKING DAY.*

LOCATION	BEGIN SLM	END SLM	TOTAL	UNIT
UNI-33WB (VARIOUS)	9.70	10.00	141	SQ YD
UNI-33EB (VARIOUS)	9.70	11.60	892	SQ YD
RAMP H (VARIOUS)	-	-	356	SQ YD
UNI-33 & VARIOUS RAMPS CONTINGENCY			200	SQ YD
*UNI-36 @ WATKINS RD			200	SQ YD
UNI-36			50	SQ YD
			1839	SQ YD

**THE 36/WATKINS ROAD LOCATION IS TO CORRECT A PAVEMENT DRAINAGE PROBLEM. THE LIMITS OF THE WORK WILL BE DETERMINED IN THE FIELD BY ELEVATIONS PROVIDED BY THE CONTRACTOR AND APPROVED BY THE PROJECT ENGINEER. BECAUSE THIS SURFACE IS NOT PART OF THE PROPOSED MILLING AND PAVING, THE SURFACE REPAIR SHALL BE AN APPROVED TYPE 448 ASPHALT CONCRETE AS PER CMS 251.03 AND SHALL INCLUDE SEALING THE PEREMETER SURFACE OF THE REPAIRED AREA. THE CONTRACTOR IS TO COORDINATE THIS WORK WITH THE CITY OF MARYSVILLE:*

ROB PRIESTAS
CITY OF MARYSVILLE PROJECT ENGINEER
(937) 642-6015

THE FOLLOWING QUANTITY HAS BEEN PROVIDED AND THE TOTAL HAS BEEN CARRIED TO THE GENERAL SUMMARY.
ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR, AS PER PLAN = 1,839 SQ YD

ITEM 254 - PAVEMENT REPAIR, AS PER PLAN:
*ALL REPAIR AREAS WILL BE IDENTIFIED AND MARKED OUT BY THE PROJECT ENGINEER. THE REPAIR AREAS SHALL BE OF VARYING LENGTH AND WIDTH. REPAIRS SHALL CONSIST OF REMOVING 13.25" OF PAVEMENT (9" OF CONCRETE AND 4.25" OF ASPHALT) AND PLACING 13.25" OF ITEM 301 - ASPHALT CONCRETE BASE, PG64-22. AS DETAILED ON SHEET **8/108**. WORK SHALL BE PERFORMED PRIOR TO RESURFACING. NO MORE PARTIAL PAVEMENT REPAIR, AS PER PLAN SHALL BE STARTED AND PERFORMED THAN CAN BE COMPLETED IN THE SAME WORKING DAY.*

LOCATION	QUANTITY	UNIT
UNI-33 (AND RAMPS)	200	CU YD
TOTAL	200	CU YD

THE FOLLOWING QUANTITY HAS BEEN PROVIDED AND THE TOTAL HAS BEEN CARRIED TO THE GENERAL SUMMARY.
ITEM 254 - PAVEMENT REPAIR, AS PER PLAN = 200 CU YD

UNI-33-8.74

ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE:
THIS ITEM IS TO BE PERFORMED ON US-33 AND US-36 MAINLINE PLUS 1-FOOT OF SHOULDER BOTH DIRECTIONS AND ALL RAMPS EDGE TO EDGE LINE PLUS 1-FOOT OF SHOULDER.

THE CONTRACTOR SHALL BE TOTALLY RESPONSIBLE FOR ANY AND ALL DAMAGE TO THE CONTRACTORS EQUIPMENT THAT MAY RESULT FROM THE PLANING OPERATION, INCLUDING DAMAGE CAUSED BY CASTINGS AND LOOP DETECTORS. THE DEPTH OF PLANING CLOSE TO THE CASTINGS SHALL BE AS DIRECTED; TO ACHIEVE A SMOOTH RIDING FINISHED PAVEMENT. GREAT CARE SHALL BE TAKEN TO PREVENT THE REMOVAL OF THE EXISTING PAVEMENT CROSS-SLOPE (CROWN) DURING THE PLANING OPERATIONS.

ALL PLANED PAVEMENT SHALL BE PLANED TO A DEPTH OF 1.5 INCHES AND RESURFACED WITH 1.5 INCHES OF THE ASPHALT CONCRETE SURFACE COURSE WITHIN THE SAME WORK PERIOD.

ITEM 407 - TACK COAT:
THE RATE OF APPLICATION OF ITEM 407 - TACK COAT SHALL BE SUBJECT TO ADJUSTMENT AS DIRECTED BY THE ENGINEER. FOR ESTIMATING PURPOSES ONLY, THE PLAN INDICATES AN AVERAGE APPLICATION RATE OF TACK COAT AT 0.075 GALLON PER SQUARE YARD. A COVER AGGREGATE SHALL BE USED IF HEAVY TRACKING OF THE TACK COAT ON TO THE EXISTING PAVEMENT SHOULD OCCUR DURING THE PAVING OPERATIONS. THE COST OF THE COVER AGGREGATE SHALL BE INCLUDED IN THE COST OF THIS ITEM.

ITEM 442 - ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446):
THIS ITEM IS TO BE PERFORMED ON US-33 AND US-36 MAINLINE PLUS 1-FOOT OF SHOULDER BOTH DIRECTIONS AND ALL RAMPS EDGE TO EDGE LINE PLUS 1-FOOT OF SHOULDER. GREAT CARE SHALL BE TAKEN TO MAINTAIN THE EXISTING PAVEMENT CROSS-SLOPE (CROWN), INTERSECTION CROSS-SLOPES (CROWN) AS WELL AS ALL LONGITUDINAL SLOPES WITHIN THE EXISTING CROSSWALKS DURING THE PAVING OPERATIONS.

ALL PLANED PAVEMENT SHALL BE PLANED TO A DEPTH OF 1.5 INCHES AND RESURFACED WITH 1.5 INCHES OF THE ASPHALT CONCRETE SURFACE COURSE WITHIN THE SAME WORK PERIOD.

ITEM 442 - ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446), AS PER PLAN:
ITEM 442 - ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446), AS PER PLAN MIX SHALL REQUIRE A PG76-22M BINDER.

THIS ITEM IS TO BE USED FOR 250 FEET IN LANES APPROACHING THE SIGNALIZED INTERSECTION ON RAMPS A & C. DETAILS OF THE LIMITS OF THIS ITEM CAN BE FOUND IN THE PAVEMENT PLAN.

GREAT CARE SHALL BE TAKEN TO MAINTAIN THE EXISTING PAVEMENT CROSS-SLOPE (CROWN), INTERSECTION CROSS-SLOPES (CROWN) AS WELL AS ALL LONGITUDINAL SLOPES WITHIN THE EXISTING CROSSWALKS DURING THE PAVING OPERATIONS.

ALL PLANED PAVEMENT SHALL BE PLANED TO A DEPTH OF 1.5 INCHES AND RESURFACED WITH 1.5 INCHES OF THE ASPHALT CONCRETE SURFACE COURSE WITHIN THE SAME WORK PERIOD.

ITEM 604 - CATCH BASIN ADJUSTED TO GRADE:
THIS ITEM IS A CONTINGENCY QUANTITY TO BE USED AS DIRECTED BY THE PROJECT ENGINEER AT VARIOUS LOCATIONS AND PROVIDE ALL MATERIAL, LABOR, EQUIPMENT, AND HARDWARE NECESSARY TO ADJUST TO GRADE THE EXISTING CATCH BASIN TO THE PROPOSED ASPHALT ELEVATION. THE FOLLOWING QUANTITY HAS BEEN PROVIDED AND THE TOTAL CARRIED TO THE GENERAL SUMMARY.

LOCATION	QUANTITY	UNIT
UNI-33 (AND RAMPS)	4	EACH
TOTAL	4	EACH

THE FOLLOWING QUANTITY HAS BEEN PROVIDED AND THE TOTAL HAS BEEN CARRIED TO THE GENERAL SUMMARY.
ITEM 604 - CATCH BASIN ADJUSTED TO GRADE = 4 EACH

ITEM 604 - CATCH BASIN RECONSTRUCTED TO GRADE:
THIS ITEM IS A CONTINGENCY QUANTITY TO BE USED AS DIRECTED BY THE PROJECT ENGINEER AT VARIOUS LOCATIONS AND PROVIDE ALL MATERIAL, LABOR, EQUIPMENT, AND HARDWARE NECESSARY TO RECONSTRUCT TO GRADE THE EXISTING CATCH BASIN TO THE PROPOSED ASPHALT ELEVATION. THE FOLLOWING QUANTITY HAS BEEN PROVIDED AND THE TOTAL CARRIED TO THE GENERAL SUMMARY.

LOCATION	QUANTITY	UNIT
UNI-33 (AND RAMPS)	4	EACH
TOTAL	4	EACH

THE FOLLOWING QUANTITY HAS BEEN PROVIDED AND THE TOTAL HAS BEEN CARRIED TO THE GENERAL SUMMARY.
ITEM 604 - CATCH BASIN RECONSTRUCTED TO GRADE = 4 EACH

ITEM 604 - MANHOLE RECONSTRUCTED TO GRADE:
THIS ITEM IS A CONTINGENCY QUANTITY TO BE USED AS DIRECTED BY THE PROJECT ENGINEER AT VARIOUS LOCATIONS AND PROVIDE ALL MATERIAL, LABOR, EQUIPMENT, AND HARDWARE NECESSARY TO RECONSTRUCT TO GRADE THE EXISTING MANHOLE TO THE PROPOSED ASPHALT ELEVATION. THE FOLLOWING QUANTITY HAS BEEN PROVIDED AND THE TOTAL CARRIED TO THE GENERAL SUMMARY.

LOCATION	QUANTITY	UNIT
UNI-33 (AND RAMPS)	2	EACH
TOTAL	2	EACH

THE FOLLOWING QUANTITY HAS BEEN PROVIDED AND THE TOTAL HAS BEEN CARRIED TO THE GENERAL SUMMARY.
ITEM 604 - MANHOLE RECONSTRUCTED TO GRADE = 2 EACH

ITEM 606 - GUARDRAIL, MISC.: ALTERNATIVE GUARDRAIL PLACEMENT:
THIS ITEM SHALL BE USED WHEN THE CONTRACTOR IS REQUIRED TO USE AN ALTERNATE METHOD TO SET POSTS TO PREVENT DAMAGE TO AN UNDERGROUND OBSTACLE, SUCH AS A UTILITY. THE USE OF THIS ITEM WILL BE AS DEEMED NECESSARY BY THE ENGINEER. THIS ITEM SHALL INCLUDE ALL LABOR, EQUIPMENT, AND MATERIAL NEEDED TO SET AND BACKFILL POSTS WHILE MEETING THE REQUIREMENTS OF THE APPLICABLE GUARDRAIL ITEM BEING PERFORMED. APPLICABLE GUARDRAIL ITEMS INCLUDE BUT ARE NOT LIMITED TO SETTING POSTS (AND SLEEVES) FOR TYPE 5, BARRIER DESIGN, ANCHOR ASSEMBLIES, AND BRIDGE TERMINAL ASSEMBLIES. PAYMENT SHALL BE AT THE UNIT BID PRICE OF EACH AND SHALL BE PAID FOR IN ADDITION TO THE APPLICABLE GUARDRAIL PLACEMENT ITEM LISTED ABOVE.

LOCATION	QUANTITY	UNIT
UNI-33 (AND RAMPS)	100	FT
UNI-36	25	FT
TOTAL	125	FT

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN PROVIDED:
ITEM 606 - GUARDRAIL, MISC.: ALTERNATIVE GUARDRAIL PLACEMENT: = 125 FT

ITEM 606 - CURVED RAIL ELEMENTS:
ALL RADII OF CURVED RAIL ARE ESTIMATED AND ACTUAL RADII OF PROPOSED RAIL SHALL BE DETERMINED IN THE FIELD BY THE CONTRACTOR PRIOR TO ORDERING. LENGTH OF CURVED RAIL ELEMENTS, WHERE CALLED FOR IN A RUN, SHALL BE INCLUDED IN THE TOTAL LENGTH OF RUN SHOWN IN THE GUARDRAIL COLUMN AND THE CURVED RAIL ELEMENT TOTAL ARE INCLUDED WITH THE GUARDRAIL TOTALS ON THE GENERAL SUMMARY SHEET.

ITEM 606 - ANCHOR ASSEMBLY, TYPE B:
THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY OF THE GUARDRAIL END TERMINALS AS LISTED ON ROADWAY ENGINEERING'S WEB PAGE UNDER ROADSIDE SAFETY DEVICES FOR APPROVED GUARDRAIL END TREATMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

REFER TO THE MANUFACTURER'S INSTRUCTIONS 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 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 27.75 INCHES 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 PROJECT MORE THAN 4 INCHES ABOVE THE GROUND LINE.

THE FACE OF THE TYPE B IMPACT HEAD SHALL BE COVERED WITH TYPE G REFLECTIVE SHEETING, PER CMS 730.19.

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

ITEM 606 - ANCHOR ASSEMBLY, TYPE E:
THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY OF THE GUARDRAIL END TERMINALS AS LISTED ON ROADWAY ENGINEERING'S WEB PAGE UNDER ROADSIDE SAFETY DEVICES FOR APPROVED GUARDRAIL END TREATMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

THE FACE OF THE TYPE E IMPACT HEAD SHALL BE COVERED WITH A SHEET OF TYPE G REFLECTIVE SHEETING, PER CMS 730.19.

REFER TO THE MANUFACTURER'S INSTRUCTIONS 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 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 27.75 INCHES 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 PROJECT MORE THAN 4 INCHES ABOVE THE GROUND LINE.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, ANCHOR ASSEMBLY, TYPE E, 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.

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GENERAL NOTES

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ITEM 606 - IMPACT ATTENUATOR, TYPE 1 (BIDIRECTIONAL):
THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY ONE OF THE TYPE 1 IMPACT ATTENUATORS AS LISTED ON THE OFFICE OF ROADWAY ENGINEERING'S WEB PAGE. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

THE FACE OF THE TYPE 1 IMPACT HEAD SHALL BE COVERED WITH A SHEET OF TYPE G REFLECTIVE SHEETING, PER CMS 730.19. PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, IMPACT ATTENUATOR, TYPE 1 (BIDIRECTIONAL), EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL IMPACT ATTENUATOR SYSTEM, INCLUDING ALL RELATED TRANSITIONS, HARDWARE, REFLECTIVE SHEETING AND GRADING, NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

ITEM 606 - IMPACT ATTENUATOR, TYPE 3, AS PER PLAN:
THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY OF THE TYPE 3 IMPACT ATTENUATORS AS LISTED ON THE OFFICE OF ROADWAY ENGINEERING'S WEB PAGE. THE CONTRACTOR SHALL SUPPLY APPROPRIATE TRANSITIONS. PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, IMPACT ATTENUATOR, TYPE 3 [(62.1 MPH), HAZARD WIDTH (32 INCHES)), BIDIRECTIONAL, EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL IMPACT ATTENUATOR SYSTEM, INCLUDING ALL RELATED BACKUPS/BACKSTOPS, TRANSITIONS, HARDWARE AND GRADING, NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS TO ATTACHED TO THE PROPOSED CONCRETE BARRIER, END SECTION, TYPE B SHOWN ON SHEET **71/109**.

THIS ITEM ALSO INCLUDES ALL LABOR TOOLS, EQUIPMENT, HARDWARE AND MATERIALS TO CONSTRUCT A CONCRETE FOUNDATION (NOT ASPHALT) THAT MEETS THE MANUFACTURER'S SPECIFICATIONS.

ITEM 617 - WATER:

LOCATION	QUANTITY	UNIT
UNI-33 (AND RAMPS)	3	MGAL
UNI-36	1	MGAL
TOTAL	4	MGAL

THE FOLLOWING QUANTITY HAS BEEN PROVIDED AND THE TOTAL HAS BEEN CARRIED TO THE GENERAL SUMMARY.
ITEM 617 - WATER = 4 MGAL

ITEM 620 - DELINEATOR, POST MOUNTED:
TYPE C DELINEATORS SHALL BE INSTALLED ON A FLEXIBLE POST AT THE HEAD OF ALL ANCHOR ASSEMBLY, TYPE E UNITS LOCATED ON THE RIGHT SIDE OF THE THROUGH ROADWAY. DELINEATORS SHALL COMPLY WITH STANDARD CONSTRUCTION DRAWING TC-61.10 AND CMS 620.

ITEM 622 - CONCRETE BARRIER, SINGLE SLOPE, TYPE B, AS PER PLAN:
ITEM 622 - CONCRETE BARRIER END SECTION, TYPE B, AS PER PLAN:
IN ADDITION TO THE REQUIREMENTS OF CMS 622 AND STANDARD CONSTRUCTION DRAWING RM-4.4, THIS ITEM WILL ALSO INCLUDE ALL LABOR, TOOLS, EQUIPMENT, HARDWARE AND MATERIALS TO CONSTRUCT AN ASPHALT CONCRETE FOUNDATION AS DETAILED ON SHEET **70/108**. THIS ITEM INCLUDES END ANCHORAGE AS PER RM 4.3 AND RESTEEL PLACEMENT AS PER THE APPLICABLE STANDARD DRAWINGS.

ITEM 630 - OVERHEAD SIGN SUPPORT, TYPE TC-7.65, DESIGN 6, AS PER PLAN:
THIS ITEM IS FOR A PROPOSED OUTSIDE (MEDIAN) END FRAME (ONLY) MOUNTED ON THE PROPOSED CONCRETE BARRIER. EVENTHOUGH THE PROPOSED END FRAME HAS BEEN CALCULATED TO BE 22'-0" FROM EXISTING GROUND DATA AND PLACEMENT CRITERIA, INDIVIDUAL LENGTHS OF BEAMS (HEIGHTS) SHALL BE TREATED AS ESTIMATES AND NOT EXACT MEASUREMENTS. THE CONTRACTOR SHALL VERIFY THE ACCURATE LENGTH PRIOR TO ORDERING ANY MATERIALS AND INSTALLATION OF THE PROPOSED END FRAME. THIS ITEM INCLUDES ALL LABOR TOOLS, EQUIPMENT, HARDWARE AND MATERIALS TO CONSTRUCT AND CONNECT THE PROPOSED END FRAME TO THE EXISTING BOX TRUSS.

ITEM 630 - REMOVAL OF OVERHEAD SIGN SUPPORT AND REERECTION, (TYPE TC-7.65), AS PER PLAN:
THIS ITEM IS FOR THE REMOVAL OF THE TYPE TC-7.65 OVERHEAD SIGN SUPPORT AS DETAILED ON SHEET **70/108**. THE REERECTION WILL ONLY INCLUDE THE OVERHEAD BOX TRUSS AND OUTSIDE END FRAME. THE EXISTING MEDIAN END FRAME SHALL BE DISPOSED AND BECOME PROPERTY OF THE CONTRACTOR. ANY PROPOSAL TO DEVIATE FROM THE COMPLETE REMOVAL OF THE EXISTING OVERHEAD SIGN SUPPORT SHALL BE SUBJECT TO APPROVAL FROM THE ENGINEER.

ITEM 630 - TEMPORARY SIGNING DURING CONCRETE BARRIER CONSTRUCTION:
THESE ITEMS ARE TO PROVIDE SIGNS FOR DIRECTING TRAFFIC TO THE PROPER LANES TO EXIT ONTO US-33 EAST AND US-33 WEST WHILE THE EXISTING OVERHEAD SIGN IS REMOVED DURING THE PROPOSED MEDIAN BARRIER CONSTRUCTION AS DETAILED ON SHEET **70/108**. SIGNS SHALL BE IN PLACE PRIOR TO THE REMOVAL OF THE OVERHEAD SIGN (TRUSS). PLACEMENT OF THESE SIGNS SHALL BE DIRECTED AS DETAILED ON PLAN SHEET **70/108**. SIGNS SHALL BE REMOVED AND BECOME PROPERTY OF THE CONTRACTOR WHEN ALL WORK IS COMPLETE AT THIS LOCATION.

QUANT	SIGN DESC.	SIGN SQ FT	#2 POST FEET	#3 POST FEET
3	MI-4-48-2	18.0	21	30
2	M3-2-36	10.0		
1	M3-4-36	5.0		
2	M6-2-30	10.0		
1	M6-3-30	5.0		
	TOTAL	48.0	21	30

THE FOLLOWING QUANTITIES HAS BEEN PROVIDED AND THE TOTAL HAS BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 630 - GROUND MOUNTED SUPPORT, NO. 2 POST, AS PER PLAN = 21 FT

ITEM 630 - GROUND MOUNTED SUPPORT, NO. 3 POST, AS PER PLAN = 30 FT

ITEM 630 - SIGN, FLAT SHEET, AS PER PLAN = 48 SQ FT

WATER QUALITY PROTECTION:
NO TOXIC OR HAZARDOUS MATERIALS SUCH AS SEALANTS, PAINT, SOLVENTS, CLEANING AGENTS, EARTHEN MATERIALS, WASTE-WATER FUELS OR DEBRIS OF ANY KIND SHALL BE DISCHARGED TO ANY STREAMS, DRAINAGE COURSES OR BODIES OF WATER. ALL ASPHALT OR CONCRETE GRINDINGS, EXCESS ASPHALT OR CONCRETE MATERIALS OR ANY OTHER DEBRIS GENERATED DURING RESURFACING OR OTHER SIMILAR ACTIVITIES SHALL NOT BE DISPOSED OF WITHIN A FLOODPLAIN BELOW THE 100-YEAR FLOOD ELEVATION. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PREVENT LIQUIDS USED TO REPAIR, CLEAN, SEAL, OR TREAT ANY BRIDGE STRUCTURE (E.G. PAINT, SEALER, SOLVENT) FROM ENTERING STREAMS, WETLANDS OR OTHER "WATERS OF THE UNITED STATES" AND TAKE THE APPROPRIATE ACTIONS IN THE EVENT OF A RELEASE.

JURISDICTIONAL DITCHES AND WETLANDS PROTECTION:
THERE ARE POSSIBLE JURISDICTIONAL DITCHES AND WETLANDS OUTSIDE OF THE PROJECT LIMITS. EVERY EFFORT SHALL BE MADE BY THE ENGINEER AND THE CONTRACTOR TO PRESERVE AND PROTECT THESE AREAS. AS DETAILED ELSEWHERE IN THE PLANS, FILTER FABRIC FENCE SHALL BE PLACED AT THE CONSTRUCTION LIMITS ALONG THE CONSTRUCTION LIMITS ALONG THE RAMPS. UNDER NO CIRCUMSTANCES IS THE CONTRACTOR TO PERFORM ANY WORK OR HAVE ANY EQUIPMENT BEYOND THE CONSTRUCTION LIMITS ALONG THE RAMPS (SUCH AS: CLEARING TREES AND SHRUBS, FIELD OFFICE LOCATION, STAGING, PARKING, STORAGE, BORROW OR WASTE AREAS).

WATERSHED PROTECTION:
THE PROJECT IS LOCATED WITHIN VARIOUS SOURCE WATER PROTECTION AREAS. IT IS ESSENTIAL THAT ALL ACTIVITIES ASSOCIATED WITH THIS WORK BE PERFORMED IN A MANNER CONSISTENT WITH BEST WATERSHED MANAGEMENT PRACTICES INCLUDING, BUT NOT LIMITED TO: AREAS OF DISTURBED GROUND SHALL HAVE APPROPRIATE EROSION AND SEDIMENT CONTROLS. IF HAZARDOUS/TOXIC MATERIALS INCLUDING BUT NOT LIMITED TO FUELS, OILS, BITUMEN'S PAINTS, SEALANTS, OR OTHER CHEMICALS, ARE STORED ON SITE, THEY SHALL BE STORED IN A DOUBLE-CONTAINMENT MANNER. ALL EQUIPMENT REPAIRS, MAINTENANCE, AND MECHANICAL WORK THAT COULD RESULT IN THE RELEASE OF HAZARDOUS/TOXIC MATERIALS SHALL BE PERFORMED IN AN APPROPRIATELY CONTAINED AREA, PREFERABLY OFF SITE OR AN APPROPRIATE OFF-SITE FACILITY. IN THE EVENT THAT ANY HAZARDOUS/TOXIC MATERIALS INCLUDING, BUT NOT LIMITED TO FUELS, OILS, BITUMEN'S PAINTS, SEALANTS, OR OTHER CHEMICALS ARE SPILLED, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY EMERGENCY SERVICES BY CALLING 911 AND THE OHIO EPA @ (800) 282-9378. THE CONTRACTOR SHOULD BE PREPARED TO PROVIDE DETAILED INFORMATION RELATIVE TO THE TYPE AND QUANTITY OF MATERIAL THAT HAS BEEN SPILLED AS WELL AS THE EXACT LOCATION AND THE EXACT TIME AT WHICH THE SPILL OCCURRED. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR INFORMING ALL SUBCONTRACTORS AND OTHER AGENTS OF THESE RESPONSIBILITIES, PRECAUTIONS, AND PROHIBITIONS.

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ITEM 632 - LOOP DETECTOR TIE IN:
THIS ITEM SHALL BE USED TO CONNECT AND SPLICE THE PROPOSED LOOP DETECTORS TO THE APPROPRIATE EXISTING LEAD IN CABLE INSIDE THE PULL BOX. THIS ITEM IS NOT TO BE USED IN AREAS WITH PROPOSED STOP BAR DETECTION RADAR.

LOCATION	QUANTITY	UNIT
UNI-33 VARIOUS RAMPS	8	EACH
UNI-36	2	EACH
TOTAL	10	EACH

THE FOLLOWING QUANTITY HAS BEEN PROVIDED AND THE TOTAL HAS BEEN CARRIED TO THE GENERAL SUMMARY.
ITEM 632 - LOOP DETECTOR TIE IN = 10 EACH

ITEM 632 - DETECTOR LOOP:
THE LOCATIONS, SIZES AND SHAPES OF PROPOSED LOOP DETECTORS WILL BE THE SAME AS EXISTING AND WILL BE AS SCD TC-82.10. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE LOCATION, SIZE AND SHAPE OF THE EXISTING LOOP DETECTORS LISTED IN THE PLAN BEFORE THE PAVEMENT PLANING DESTROYS THEM. ALL LOOP WIRE SHALL BE IDENTIFIED WITH A PLASTIC TAG (WBLT, EBRT, ETC.) AT THE SPLICE POINT OR AT ENTRANCE TO THE CONTROL CABINET. WHEN A PULLBOX IS NOT USED, THE SOLDERED SPLICE SHALL BE MADE IN AN ANCHOR BASE, STRAIN POLE OR A CONDUIT RISER SPECIFIED BY THE PROJECT ENGINEER, EXCEPT WHERE A CONTROLLER CABINET IS MOUNTED ON THAT POLE IN WHICH CASE THE LOOP WIRE SHALL BE ROUTED DIRECTLY INTO THE CABINET. THE CONTRACTOR SHALL PROVIDE THE PROJECT ENGINEER PRIOR TO THE COMMENCEMENT OF WORK, A COPY OF THE IMSA CERTIFICATION PAPERS FOR ALL SIGNAL TECHNICIANS WORKING ON THIS PROJECT. THE CONTRACTOR SHALL ALSO CONTACT THE TRANSPORTATION DIVISION SIGNALS MANAGEMENT ENGINEER AT LEAST FORTY-EIGHT HOURS (EXCLUDING SAT & SUN) IN ADVANCE OF THIS ITEM OF WORK. ALL DETECTOR LOOPS SHALL BE REPLACED AND FUNCTIONAL WITHIN 48 HOURS OF BEING REMOVED. THE CONTRACTOR SHALL ALSO PROTECT ANY INLET OR CATCH BASIN FROM FOREIGN MATERIAL OR CONSTRUCTION DEBRIS ENTERING THE INLET OR CATCH BASIN WHILE CUTTING DETECTOR LOOPS.

OHIO DEPARTMENT OF TRANSPORTATION TRAFFIC ENGINEER
400 EAST WILLIAM STREET
DELAWARE, OHIO 43015
1-740-833-8198

LOCATION	QUANTITY	UNIT
UNI-33 VARIOUS RAMPS	8	EACH
UNI-36	2	EACH
TOTAL	10	EACH

THE FOLLOWING QUANTITY HAS BEEN PROVIDED AND THE TOTAL HAS BEEN CARRIED TO THE GENERAL SUMMARY.
ITEM 632 - DETECTOR LOOP = 10 EACH

ITEM 638 - VALVE BOX ADJUSTED TO GRADE:
THIS ITEM IS A CONTINGENCY QUANTITY TO BE USED AS DIRECTED BY THE PROJECT ENGINEER AT VARIOUS LOCATIONS AND PROVIDE ALL MATERIAL, LABOR, EQUIPMENT, AND HARDWARE NECESSARY TO ADJUST TO GRADE THE EXISTING CATCH BASIN TO THE PROPOSED ASPHALT ELEVATION. THE FOLLOWING QUANTITY HAS BEEN PROVIDED AND THE TOTAL CARRIED TO THE GENERAL SUMMARY.

THE FOLLOWING QUANTITY HAS BEEN PROVIDED AND THE TOTAL HAS BEEN CARRIED TO THE GENERAL SUMMARY.
ITEM 638 - VALVE BOX ADJUSTED TO GRADE = 4 EACH

ITEM 644 - THERMOPLASTIC PAVEMENT MARKING:
THE LOCATIONS, SIZES AND SHAPES OF PROPOSED AUXILIARY PAVEMENT MARKINGS WILL BE THE SAME AS EXISTING ON THE MAJORITY OF THIS PROJECT. ANY DEVIATION FROM EXISTING WILL BE IDENTIFIED WITHIN THIS PLAN. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE LOCATION, SIZE AND SHAPE OF THESE EXISTING PAVEMENT MARKINGS BEFORE THE PAVEMENT PLANING AND RESURFACING OBLITERATES THEM. ANY PAVEMENT MARKING WHICH IS PLACED AT THE WRONG LOCATION SHALL BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

ITEM 646 - EPOXY PAVEMENT MARKING:
QUANTITIES FOR ITEM 646 - EPOXY PAVEMENT MARKINGS HAVE BEEN PROVIDED IN THIS PLAN FOR USE ON ALL CONCRETE STRUCTURES.

ITEM 653 - TOPSOIL FURNISHED AND PLACED:
ITEM 659 - SEEDING AND MULCHING, CLASS 1:
ITEM 659 - COMMERCIAL FERTILIZER:
ITEM 659 - WATER:
THESE ITEM OF WORK SHALL BE USED TO REPAIR ANY DAMAGED GRASSY AREAS DUE TO THE PLACEMENT THE PROPOSED GUARDRAIL.

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GENERAL:
ALL TRAFFIC CONTROL DEVICES SHALL BE FURNISHED, ERECTED, MAINTAINED, AND REMOVED BY THE CONTRACTOR IN ACCORDANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (CURRENT EDITION). COPIES ARE AVAILABLE FROM:

THE OHIO DEPARTMENT OF TRANSPORTATION
BUREAU OF TRAFFIC,
1980 WEST BROAD STREET
COLUMBUS, OHIO 43223.

MAINTENANCE OF TRAFFIC (HOLIDAYS AND SPECIAL EVENTS):
NO WORK SHALL BE PERFORMED AND ATLEAST 2 THROUGH LANES (EACH DIRECTION) SHALL BE OPEN TO TRAFFIC DURING THE FOLLOWING HOLIDAYS:

CHRISTMAS	FOURTH OF JULY
NEW YEARS	LABOR DAY
MEMORIAL DAY	THANKSGIVING

THE PERIOD OF TIME THAT THE LANES ARE TO BE OPEN DEPENDS ON THE DAY OF THE WEEK ON WHICH THE HOLIDAY FALLS. THE FOLLOWING SCHEDULE SHALL BE USED TO DETERMINE THE PERIOD:

DAY OF HOLIDAY OR EVENT	TIME ALL LANES MUST BE OPEN TO TRAFFIC
SUNDAY	12:00N FRIDAY THROUGH 6:00 AM MONDAY
MONDAY	12:00N FRIDAY THROUGH 6:00 AM TUESDAY
TUESDAY	12:00N MONDAY THROUGH 6:00 AM WEDNESDAY
WEDNESDAY	12:00N TUESDAY THROUGH 6:00 AM THURSDAY
THURSDAY	12:00N WEDNESDAY THROUGH 6:00 AM FRIDAY
THURSDAY (THANKSGIVING ONLY)	12:00N TUESDAY THROUGH 6:00 AM MONDAY
FRIDAY	12:00N THURSDAY THROUGH 6:00 AM MONDAY
SATURDAY	12:00N FRIDAY THROUGH 6:00 AM MONDAY

RAMP R CLOSURE AND DETOUR THRU MARYSVILLE SHALL NOT BE PERMITTED DURING THE FOLLOWING EVENTS:

UNION COUNTY FAIR - JULY 21-27, 2013

FRIDAY NIGHTS UPTOWN:
(CONTACT AMANDA MORRIS, CITY OF MARYSVILLE 937-645-1051 TO VERIFY DATES)
MAY 17, 2013
JUNE 14, 2013
JULY 12, 2013
AUGUST 9, 2013
SEPTEMBER 20, 2013

FARMERS MARKET FESTIVAL - AUGUST 10, 2013

FESTIFAIR - SEPTEMBER 7, 2013

LENGTH AND DURATION OF LANE CLOSURES AND RESTRICTIONS SHALL BE AT THE APPROVAL OF THE ENGINEER. IT IS THE INTENT TO MINIMIZE THE IMPACT TO THE TRAVELING PUBLIC. LANE CLOSURES OR RESTRICTIONS OVER SEGMENTS OF THE PROJECT IN WHICH NO WORK IS ANTICIPATED WITHIN A REASONABLE TIME FRAME, AS DETERMINED BY THE ENGINEER, SHALL NOT BE PERMITTED. THE LEVEL OF UTILIZATION OF MAINTENANCE OF TRAFFIC DEVICES SHALL BE COMMENSURATE WITH THE WORK IN PROGRESS.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH CMS 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

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

NOTIFICATION OF TRAFFIC RESTRICTIONS:
THROUGHOUT THE DURATION OF THE PROJECT, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IN WRITING OF ALL TRAFFIC RESTRICTIONS AND UPCOMING MAINTENANCE OF TRAFFIC CHANGES. THIS WILL INCLUDE NOTIFYING THE CITY OF MARYSVILLE ONE WEEK PRIOR TO ANY IMPACTS TO THE CITY. THE CONTRACTOR SHALL ENSURE THE WRITTEN NOTIFICATION IS SUBMITTED IN A TIMELY MANNER TO ALLOW THE PROJECT ENGINEER TO MEET THE REQUIRED TIME FRAMES SET FORTH IN THE TABLE BELOW. THIS NOTIFICATION SHALL BE RECEIVED BY THE PROJECT ENGINEER PRIOR TO THE PHYSICAL SETUP OF ANY APPLICABLE SIGNS OR MESSAGE BOARDS.

INFORMATION SHOULD INCLUDE BUT IS NOT LIMITED TO ALL CONSTRUCTION ACTIVITIES THAT IMPACT OR INTERFERE WITH TRAFFIC AND SHOULD LIST THE SPECIFIC LOCATION, TYPE OF WORK, ROAD STATUS, DATE AND TIME OF RESTRICTION, DURATION OF RESTRICTION, NUMBER OF LANES MAINTAINED, DETOUR ROUTES IF APPLICABLE, AND ANY OTHER INFORMATION REQUESTED BY THE PROJECT ENGINEER.

ITEM	DURATION OF CLOSURE	NOTIFICATION DUE TO DISTRICT 6 COMMUNICATIONS OFFICE
RAMP AND ROAD CLOSURES	>= 2 WEEKS	14 BUSINESS DAYS PRIOR TO CLOSURE
	> 12 HOURS AND < 2 WEEKS	7 BUSINESS DAYS PRIOR TO CLOSURE
	< 12 HOURS	2 BUSINESS DAYS PRIOR TO CLOSURE
LANE CLOSURES/ RESTRICTIONS	>= 2 WEEKS	7 BUSINESS DAYS PRIOR TO CLOSURE
	< 2 WEEKS	2 BUSINESS DAYS PRIOR TO CLOSURE

ANY UNFORESEEN CONDITIONS NOT SPECIFIED IN THE PLANS REQUIRING TRAFFIC RESTRICTIONS SHALL ALSO BE REPORTED TO THE PROJECT ENGINEER USING THE NOTIFICATION TIME FRAME TABLE.

USE OF STANDARD DRAWINGS
FOR THE PURPOSE OF THIS PROJECT, "MOVING OPERATION" SHALL BE LIMITED TO PAVEMENT MARKING STRIPING.

IT MAY BE NECESSARY TO EXTEND THE ADVANCE WARNING AND BUFFER ZONES BEYOND THE MINIMUM DISTANCES SHOWN ON THE STANDARD DRAWINGS. THIS MAY BE DUE TO HORIZONTAL ALIGNMENT, VERTICAL ALIGNMENT, RAMP LOCATIONS, OR OTHER SIGHT OBSTRUCTIONS. LOCATIONS OF THE TAPER ZONES MAY BE ADJUSTED AS DIRECTED BY THE ENGINEER, BUT TAPER LENGTHS MUST MEET THE MINIMUM STANDARDS. TAPERS SHOULD BE PLACED IN TANGENT SECTIONS WHENEVER POSSIBLE. ADDITIONAL YIELD SIGNS MAY BE REQUIRED FOR RAMPS WITHIN 1,000 FEET OF A WORK ZONE. PAYMENT SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614 - MAINTAINING TRAFFIC.

FOR ANY MULTILANE HIGHWAY, DEVICE SPACING SHALL BE A MAXIMUM OF 40' CENTER ON CENTER IN THE TAPERS AND 80' CENTER ON CENTER IN THE TANGENT SECTIONS.

WORK SITE LIGHTING
FLOODLIGHTING OF THE WORK SITE FOR OPERATIONS CONDUCTED DURING NIGHTTIME PERIODS SHALL BE ACCOMPLISHED SO THAT THE LIGHTS DO NOT CAUSE GLARE TO THE DRIVERS ON THE ROADWAY. TO ENSURE THE ADEQUACY OF THE FLOODLIGHT PLACEMENT, THE CONTRACTOR, AND THE ENGINEER SHALL DRIVE THROUGH THE WORK SITE EACH NIGHT WHEN THE LIGHTING IS IN PLACE AND OPERATIVE PRIOR TO COMMENCING ANY WORK. 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.

USE OF WEIGHTED CHANNELIZERS
WEIGHTED CHANNELIZERS MAY BE USED IN ACCORDANCE WITH THIS SECTION. THE WEIGHTED CHANNELIZERS SHALL BE PREDOMINANTLY ORANGE IN COLOR AND SHALL BE MADE OF LIGHTWEIGHT, FLEXIBLE, AND DEFORMABLE MATERIAL. THEY SHALL BE AT LEAST 42 INCHES IN HEIGHT WITH A WEIGHTED BASE. THEY MAY HAVE A HANDLE OR LIFTING DEVICE, WHICH EXTENDS ABOVE THE 42" MINIMUM HEIGHT.

THE MARKINGS ON THE WEIGHTED CHANNELIZERS SHALL BE HORIZONTAL, CIRCUMFERENTIAL, ALTERNATING ORANGE AND WHITE RETRO REFLECTIVE STRIPES 6 INCHES WIDE. EACH WEIGHTED CHANNELIZERS SHALL HAVE A MINIMUM OF TWO ORANGE AND TWO WHITE STRIPES. ANY NON-RETRO REFLECTIVE SPACES BETWEEN THE HORIZONTAL ORANGE AND WHITE STRIPES SHALL NOT EXCEED 2 INCHES WIDE. THE WEIGHTED CHANNELIZERS SHALL HAVE A 4-INCH MINIMUM WIDTH, REGARDLESS OF ORIENTATION.

USE OF WEIGHTED CHANNELIZERS ON FREEWAYS AND MULTILANE HIGHWAYS SHALL BE LIMITED TO SHORT-TERM OPERATION FOR EITHER DAY OR NIGHT. UPON COMPLETION OF WORK, THE WEIGHTED CHANNELIZERS SHALL BE REMOVED. THE WEIGHTED CHANNELIZERS MAY AGAIN BE PLACED ON THE HIGHWAY WHEN THE WORK IS TO RESUME ON THE FOLLOWING DAY OR NIGHT. ANY LANE CLOSURE USING CHANNELIZATION DEVICES, EXPECTED TO REMAIN FOR MORE THAN TWELVE HOURS, SHALL REQUIRE THE USE OF DRUMS OR BARRIERS. WORK IS TO RESUME ON THE FOLLOWING DAY OR NIGHT.

WHEN USED AT NIGHT, WEIGHTED CHANNELIZERS SHALL ONLY BE PLACED IN THE TANGENT AREA. THE TANGENT AREA IS DEFINED AS THE AREA AFTER THE TRANSITION TAPER WHERE THE WORK TAKES PLACE. DRUMS SHALL BE USED IN THE TRANSITION TAPERS FOR NIGHT OPERATIONS. MAXIMUM SPACING OF THE WEIGHTED CHANNELIZERS SHALL BE 40 FEET.

STEPS SHOULD BE TAKEN TO ENSURE THAT THE WEIGHTED CHANNELIZERS WILL NOT BE BLOWN OVER OR DISPLACED BY WIND OR MOVING TRAFFIC. BALLASTS SHOULD NOT PRESENT A HAZARD IF THE WEIGHTED CHANNELIZERS ARE INADVERTENTLY STRUCK, NOR SHOULD THEY AFFECT THE VISIBILITY OF THE WEIGHTED CHANNELIZERS. ALL BALLASTS USED SHOULD BE IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

PUBLIC NOTIFICATION
THE CONTRACTOR IS TO BE RESPONSIBLE FOR NOTIFYING, BY LETTER WITH HIS COMPANY LETTERHEAD, RESIDENTS, AND BUSINESSES WITHIN PROJECT LIMITS WHERE DRIVEWAYS WILL BE IMPACTED DURING THE RESURFACING. ADVANCED NOTICE SHALL BE TWO WEEKS PRIOR TO THE FIRST DAY OF WORK AT THAT LOCATION. A COPY OF THE LETTER TO BE CIRCULATED SHALL BE PRESENTED AT THE PRE-CONSTRUCTION MEETING. THE CONTRACTOR IS TO NOTIFY THE PROJECT ENGINEER OF THE DATES WHEN THIS NOTIFICATION IS DISTRIBUTED.

PERMITTED LANE CLOSURE TIMES
ALL LANES OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES, EXCEPT FOR THE ALLOWABLE TIMES SHOWN IN THE PERMITTED LANE CLOSURE TABLE. A DISINCENTIVE SHALL BE ASSESSED IN THE AMOUNT SHOWN IN THE UNAUTHORIZED LANE USED TABLE FOR EACH PERIOD OF TIME THAT A LANE REDUCTION, LANE RESTRICTION, RAMP REDUCTION OR RAMP RESTRICTION REMAINS BEYOND THE PERMITTED WORKING HOURS SHOWN IN THE PERMITTED LANE CLOSURE TABLE.

PERMITTED LANE CLOSURE TABLES:
US-33 HOURS OF WORK (UNION COUNTY):

7:00 PM TO 5:00 AM MON - FRI	MAINTAIN 1 LANE EASTBOUND & 1 LANE WESTBOUND
9:00 AM TO 3:00 PM MON - FRI	MAINTAIN 1 LANE EASTBOUND & 1 LANE WESTBOUND
ANYTIME SAT-SUN	MAINTAIN 1 LANE EASTBOUND & 1 LANE WESTBOUND
*9:00 PM FRI TO 5:00 AM MON	MAINTAIN 1 LANE EASTBOUND & 1 LANE WESTBOUND

*WEEKEND CLOSURE PERMITTED ONLY FOR MAINLINE US-33 BRIDGE DECK OVERLAY WORK.

CALCULATED DKR/RDK
CHECKED CJS

MAINTENANCE OF TRAFFIC
GENERAL NOTES

UNI-33-8.74

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DISINCENTIVE

THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE AS DESIGNATED IN THE UNAUTHORIZED LANE USE TABLE LOCATED BELOW FOR EACH UNIT OF TIME A CRITICAL LANE / RAMP IS CLOSED BY THE CONTRACTOR'S ACTION WHILE NOT OTHERWISE PERMITTED BY THE CONTRACT. THE DISINCENTIVE WILL BE FOR ANY LANE CLOSURES CAUSED BY THE CONTRACTOR DURING TIMES AND LOCATIONS NOT SPECIFICALLY PERMITTED BY THIS CONTRACT. THERE SHALL BE NO WORK PERFORMED, NO LANE REDUCTIONS OR NO LANE RESTRICTIONS OUTSIDE OF THE WORKING HOURS GIVEN WITH IN THIS PLAN. THE CONTRACTOR SHALL BE ASSESSED DISINCENTIVE AS SHOWN IN THE UNAUTHORIZED LANE USE TABLE.

UNAUTHORIZED LANE USE

THE PERMITTED LANE CLOSURE TIMES PREVIOUSLY LISTED SHALL BE SUBJECT TO DISINCENTIVES AS PER THE UNAUTHORIZED LANE USED TABLE BELOW FOR ANY TIME PERIOD OR PORTION THEREOF IN WHICH THE MINIMUM OF OPEN LANES PER DIRECTION IS VIOLATED.

UNAUTHORIZED LANE USE TABLE

DESCRIPTION OF WORK	TIME PERIOD	DISINCENTIVE $ PER TIME PERIOD
LANE CLOSURE/ LANE REDUCTION	EACH MINUTE	$75

ITEM 614 - ASPHALT CONCRETE FOR MAINTAINING TRAFFIC:

THIS ITEM IS A CONTINGENCY QUANTITY TO BE USED AS DIRECTED BY THE PROJECT ENGINEER AT VARIOUS LOCATIONS.

LOCATION	QUANTITY	UNIT
UNI-33	20	CU YD
TOTAL	20	CU YD

THE FOLLOWING QUANTITY HAS BEEN PROVIDED AND THE TOTAL HAS BEEN CARRIED TO THE GENERAL SUMMARY.
ITEM 614 - ASPHALT CONCRETE FOR MAINTAINING TRAFFIC
=20 CU YD

ITEM 614 - LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE DURING CONSTRUCTION OPERATIONS:

USE OF LEOS BY CONTRACTORS OTHER THAN THE USES SPECIFIED BELOW WILL NOT BE PERMITTED AT PROJECT COST UNLESS PRIOR APPROVAL HAS BEEN OBTAINED FROM THE PROJECT ENGINEER. LAW ENFORCEMENT OFFICERS (LEOS) SHOULD NOT BE USED WHERE THE OMUTCD INTENDS THAT FLAGGERS BE USED. IN ADDITION TO THE REQUIREMENTS OF CMS 614 AND THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (OMUTCD), A UNIFORMED LAW ENFORCEMENT OFFICER WITH AN OFFICIAL PATROL CAR (CAR WITH TOP-MOUNTED EMERGENCY FLASHING LIGHTS AND COMPLETE MARKINGS OF THE APPROPRIATE LAW ENFORCEMENT AGENCY) SHOULD BE PROVIDED FOR THE FOLLOWING TRAFFIC CONTROL TASKS:

1. FOR RAMP CLOSURE: DURING INITIAL SET-UP PERIODS, TEAR DOWN PERIODS, SUBSTANTIAL SHIFTS OF A CLOSURE POINT OR WHEN NEW RAMP CLOSURE ARRANGEMENTS ARE INITIATED. IN GENERAL, LEOS SHOULD BE POSITIONED AT THE POINT OF LANE RESTRICTION OR RAMP CLOSURE. LEO'S ARE NOT INTENDED TO BE USED FOR EACH LANE CLOSURE REQUIRED TO COMPLETE PLANING/RESURFACING ACTIVITIES.

2. THE USE OF A LAW ENFORCEMENT OFFICER WITH PATROL CAR IS REQUIRED WHERE A COMPLETE BLOCKAGE OF APPROACH TRAFFIC IS REQUIRED

3. THE USE OF A LAW ENFORCEMENT OFFICER WITH PATROL CAR IS REQUIRED IF THE CONTRACTOR TURNS THE INTERSECTION SIGNALS OFF OR PUTS THE INTERSECTION IN FLASHING OPERATION, AND WHEN THE LEO DIRECTS TRAFFIC THROUGH THE INTERSECTION CONTRARY TO THE SIGNAL DISPLAY.

LAW ENFORCEMENT OFFICERS SHOULD NOT FORSAKE THEIR TRAFFIC CONTROL RESPONSIBILITIES TO CHASE MOTORISTS FOR ROUTINE TRAFFIC VIOLATIONS. HOWEVER, IF THE MOTORISTS ACTIONS ARE CONSIDERED TO BE RECKLESS, THEN PURSUIT OF THE MOTORIST MAY BE ACCEPTABLE.

THE LEOS WORK AT THE DIRECTION OF THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR SECURING THE SERVICES OF THE LEO'S AND COMMUNICATING THE INTENTIONS OF THE PLANS WITH RESPECT TO DUTIES OF THE LEO. THE ENGINEER SHALL HAVE FINAL CONTROL OVER THEIR RESPECTIVE DUTIES, PLACEMENT AND WILL RESOLVE ANY ISSUES BETWEEN THE TWO PARTIES THAT MAY ARISE. THE CONTRACTOR SHALL MAKE ARRANGEMENTS FOR THE SERVICES WITH:

THE OHIO HIGHWAY PATROL 1-614-466-2660

THE LEO SHOULD REPORT IN TO THE CONTRACTOR PRIOR TO THE START OF THE SHIFT, IN ORDER TO RECEIVE INSTRUCTIONS REGARDING SPECIFIC WORK ASSIGNMENTS DURING THE SHIFT. THE CONTRACTOR SHALL PROVIDE THE LEO WITH A TWO-WAY COMMUNICATION DEVICE WHICH SHALL BE RETURNED TO THE CONTRACTOR AT THE END OF THE SHIFT.

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.

ANY ADDITIONAL COSTS (ADMINISTRATIVE OR OTHERWISE) INCURRED BY THE CONTRACTOR TO OBTAIN THE SERVICES OF A L.E.O. ARE INCLUDED WITHIN THE BID UNIT PRICE FOR ITEM-614 LAW ENFORCEMENT OFFICER WITH PATROL CAR. THE HOURS PAID SHALL INCLUDE ANY MINIMUM SHOW-UP TIME REQUIRED BY THE LAW ENFORCEMENT AGENCY INVOLVED.
THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN PROVIDED:

ITEM 614 - LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE = 150 HOUR

ITEM 614 - WORK ZONE MARKING SIGN:

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AT LOCATIONS IDENTIFIED BY THE ENGINEER FOR WORK ZONE MARKING SIGNS PER THE REQUIREMENTS OF MT-101.90, 614.04 AND 614.11.

LOCATION	R4-1-18 NO EDGE LINES EACH	R4-2-18 DO NOT PASS EACH
UNI-36	4	2
TOTAL	4	2

THE FOLLOWING QUANTITY HAS BEEN PROVIDED AND THE TOTAL HAS BEEN CARRIED TO THE GENERAL SUMMARY.
ITEM 614 - WORK ZONE MARKING SIGN = 6 EACH

ITEM 614 - WORK ZONE LANE LINE, CLASS III, 642 PAINT:

WORK ZONE LANE LINE SHALL BE PLACED TO REFLECT THE PROPOSED LANE LINE AS DETERMINED FROM THE PROPOSED MARKINGS WITHIN THE PROJECT LIMITS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE LOCATION, SIZE, AND TYPE OF WORK ZONE MARKINGS NEEDED MEETING THE REQUIREMENTS OF ITEM 614 BEFORE THE REMOVAL OR RESURFACING OBLITERATES THE EXISTING.

LOCATION	BEGIN SLM	END SLM	SIDE	APP	TOTAL	UNIT
UNI-33	8.74	12.59	EB	1	4.41	MI
UNI-33	8.74	12.59	WB	1	4.41	MI
UNI-33 VARIOUS RAMPS			-	1	0.04	MI
				TOTAL	8.86	MI

THE FOLLOWING QUANTITY HAS BEEN PROVIDED AND THE TOTAL HAS BEEN CARRIED TO THE GENERAL SUMMARY.
ITEM 614 - WORK ZONE LANE LINE, CLASS III, 642 PAINT
= 8.86 MI

ITEM 614 - WORK ZONE CENTER LINE, CLASS III, 642 PAINT:

WORK ZONE CENTER LINE SHALL BE PLACED TO REFLECT THE PROPOSED CEBTER LINE AS DETERMINED FROM THE PROPOSED MARKINGS WITHIN THE PROJECT LIMITS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE LOCATION, SIZE, AND TYPE OF WORK ZONE MARKINGS NEEDED MEETING THE REQUIREMENTS OF ITEM 614 BEFORE THE REMOVAL OR RESURFACING OBLITERATES THE EXISTING.

LOCATION	BEGIN SLM	END SLM	SIDE	APP	TOTAL	UNIT
UNI-36	8.91	9.20	C	1	0.29	MI
				TOTAL	0.29	MI

THE FOLLOWING QUANTITY HAS BEEN PROVIDED AND THE TOTAL HAS BEEN CARRIED TO THE GENERAL SUMMARY.
ITEM 614 - WORK ZONE CENTER LINE, CLASS III, 642 PAINT
= 0.29 MI

ITEM 614 - WORK ZONE EDGE LINE, CLASS III, 642 PAINT:

WORK ZONE EDGE LINE SHALL BE PLACED ON ALL EDGE LINE OF US-33 AND RAMPS WITHIN THE PROJECT LIMITS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE LOCATION, SIZE, AND TYPE OF WORK ZONE MARKINGS NEEDED MEETING THE REQUIREMENTS OF ITEM 614 BEFORE THE REMOVAL OR RESURFACING OBLITERATES THE EXISTING.

LOCATION	SIDE	APP	TOTAL	UNIT
UNI-33 MAINLINE	LT & RT	1	16.83	MI
UNI-33 VARIOUS RAMPS	LT & RT	1	12.97	MI
		TOTAL	29.80	MI

THE FOLLOWING QUANTITY HAS BEEN PROVIDED AND THE TOTAL HAS BEEN CARRIED TO THE GENERAL SUMMARY.
ITEM 614 - WORK ZONE EDGE LINE, CLASS III, 642 PAINT
= 29.80 MI

ITEM 614 - WORK ZONE CHANNELIZING LINE, CLASS III, 642 PAINT:

WORK ZONE CHANNELIZING LINE SHALL BE PLACED TO REFLECT THE PROPOSED CHANNELIZING LINE AS DETERMINED FROM THE PROPOSED MARKINGS WITHIN THE PROJECT LIMITS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE LOCATION, SIZE, AND TYPE OF WORK ZONE MARKINGS NEEDED MEETING THE REQUIREMENTS OF ITEM 614 BEFORE THE REMOVAL OR RESURFACING OBLITERATES THE EXISTING.

LOCATION	SIDE	APP	TOTAL	UNIT
UNI-33 VARIOUS MAINLINE	-	1	6,095	FT
UNI-33 VARIOUS RAMPS	-	1	1,457	FT
UNI-36	-	1	130	FT
		TOTAL	7,682	FT

THE FOLLOWING QUANTITY HAS BEEN PROVIDED AND THE TOTAL HAS BEEN CARRIED TO THE GENERAL SUMMARY.
ITEM 614 - WORK ZONE CHANNELIZING LINE, CLASS III, 642 PAINT
= 7,682 FT

CALCULATED DKR/RDK CHECKED CS

MAINTENANCE OF TRAFFIC
GENERAL NOTES

UNI-33-8.74

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ITEM 614 - WORK ZONE STOP LINE, CLASS III, 642 PAINT:
WORK ZONE STOP LINE SHALL BE PLACED TO REFLECT THE EXISTING STOP LINE AS DETERMINED FROM THE EXISTING MARKINGS WITHIN THE PROJECT LIMITS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE LOCATION, SIZE, AND TYPE OF WORK ZONE MARKINGS NEEDED MEETING THE REQUIREMENTS OF ITEM 614 BEFORE THE REMOVAL OR RESURFACING OBLITERATES THE EXISTING.

LOCATION	SIDE	APP	TOTAL	UNIT
UNI-33 RAMP P	-	1	24	FT
UNI-33 RAMP S	-	1	24	FT
UNI-33 RAMP G	-	1	34	FT
UNI-33 RAMP L	-	1	24	FT
UNI-33 RAMP J	-	1	20	FT
UNI-33 RAMP A	-	1	38	FT
UNI-33 RAMP C	-	1	44	FT
UNI-36	-	1	24	FT
		TOTAL	232	FT

THE FOLLOWING QUANTITY HAS BEEN PROVIDED AND THE TOTAL HAS BEEN CARRIED TO THE GENERAL SUMMARY.
ITEM 614 - WORK ZONE STOP LINE, CLASS III, 642 PAINT
= 232 FT

ITEM 614 - PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN:
THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN, AND REMOVE WHEN NO LONGER NEEDED, CHANGEABLE MESSAGE SIGNS, ON SITE, TO BE USED AS DIRECTED AT THE INTERSTATE LOCATIONS.

THE SIGN SHALL BE OF A TYPE SHOWN ON A LIST OF APPROVED PCMS UNITS MAINTAINED BY THE DIRECTOR. ONLY CLASS I OR II SIGNS WILL BE PERMITTED. EACH SIGN SHALL BE TRAILER MOUNTED AND EQUIPPED WITH A FUNCTIONAL DIMMING MECHANISM TO DIM THE SIGN DURING DARKNESS AND A TEMPER AND VANDAL PROOF ENCLOSURE. EACH SIGN SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ON-SITE PERSONNEL TO OPERATE AND TROUBLE SHOOT THE UNIT. THE SIGN SHALL ALSO BE CAPABLE OF BEING POWERED BY AN ELECTRICAL SERVICE DROP FROM A LOCAL UTILITY COMPANY. PLACEMENT OF THE PCMS'S SHALL BE AS DIRECTED BY THE ENGINEER.

SIGN ACTIVATION SHALL BE 7 DAYS PRIOR TO CONSTRUCTION INITIATION OR AS DIRECTED BY THE ENGINEER. OPERATION AND MAINTENANCE OF THE SIGNS BY THE CONTRACTOR SHALL BE AS DIRECTED BY THE ENGINEER. THE PCMS SHALL BE LOCATED IN A HIGHLY VISIBLE POSITION YET PROTECTED FROM TRAFFIC. THE CONTRACTOR SHALL, AT THE DIRECTION OF THE ENGINEER, RELOCATE THE PCMS TO IMPROVE VISIBILITY OR ACCOMMODATE CHANGED CONDITIONS. WHEN NOT IN USE, THE PCMS WILL BE OFF, FACING AWAY FROM ALL TRAFFIC, AND SHALL DISPLAY ONE OR MORE HIGH INTENSITY YELLOW REFLECTIVE SHEETING SURFACES OF 9 INCHES BY 15 INCHES MINIMUM, FACING TRAFFIC.

THE ENGINEER SHALL BE PROVIDED ACCESS TO EACH SIGN UNIT AND SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ODOT PERSONNEL TO OPERATE AND TROUBLE SHOOT THE UNIT AND TO REVISE SIGN MESSAGES, IF NEEDED. THE SIGN SHALL HAVE THE CAPABILITY TO STORE UP TO 99 MESSAGES. MESSAGE MEMORY OR PRE-PROGRAMMED DISPLAYS SHALL NOT BE LOST AS A RESULT OF POWER FAILURES TO THE ON BOARD COMPUTER. THE SIGN LEGEND SHALL BE CAPABLE OF BEING CHANGED IN THE FIELD. THREE-LINE PRESENTATION FORMATS WITH UP TO SIX MESSAGE PHASES SHOULD BE SUPPORTED, BUT NORMALLY, NOT MORE THAT TWO MESSAGE PHASES SHOULD BE EMPLOYED, ALTHOUGH THREE PHASES MAY BE USED IN UNUSUAL CONDITIONS. PCMS FORMAT SHALL PERMIT THE COMPLETE MESSAGE FOR EACH PHASE TO BE READ AT LEAST ONCE.

THE PCMS SHALL CONTAIN AN ACCURATE CLOCK AND PROGRAMMING LOGIC WHICH WILL ALLOW THE SIGN TO BE ACTIVATED, DEACTIVATED, OR MESSAGES CHANGED AUTOMATICALLY AT DIFFERENT TIMES FOR DIFFERENT DAYS OF THE WEEK.

THE PCMS UNIT SHALL BE MAINTAINED IN GOOD WORKING ORDER BY THE CONTRACTOR IN ACCORDANCE WITH THE PROVISIONS OF 614.03. THE CONTRACTOR SHALL, PRIOR TO ACTIVATING THE UNIT, MAKE ARRANGEMENTS WITH AN AUTHORIZED SERVICE AGENT FOR THE PCMS TO ASSURE PROMPT SERVICE IN THE EVENT OF A FAILURE. ANY FAILURE SHALL NOT RESULT IN AN ORDER TO STOP WORK AND OPEN ALL TRAFFIC LANES AND/OR IN THE DEPARTMENT TAKING APPROPRIATE ACTION TO SAFELY CONTROL TRAFFIC AND THE ENTIRE COST TO CONTROL TRAFFIC ACCRUED BY THE DEPARTMENT WILL BE DEDUCTED FROM MONEYS DUE, OR TO BECOME DUE THE CONTRACTOR ON THE CONTRACT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR 24 HOURS PER DAY OPERATIONS AND MAINTENANCE OF THESE SIGNS ON THE PROJECT FOR THE DURATION OF THE PHASES WHEN THE PLAN REQUIRES THEIR USE.

THE REQUIREMENT TO FURNISH, INSTALL, MAINTAIN, AND REMOVE A PCMS UNIT ON THIS PROJECT SHALL NOT IN ANY WAY RELIEVE THE CONTRACTOR OF ITS RESPONSIBILITIES AS OUTLINED IN 104.04. PAYMENT FOR THE ABOVE DESCRIBED ITEM SHALL BE AT THE CONTRACT BID PRICE PER MONTH FOR EACH ITEM 614 - PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN AND SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, FUELS, LUBRICATING OILS, SOFTWARE, HARDWARE, AND INCIDENTALS TO PERFORM THE ABOVE DESCRIBED WORK.

THE FOLLOWING QUANTITY HAS BEEN CALCULATED AT 2 FOR 60 DAYS:

LOCATION	# OF PCMS	DAYS	TOTAL	UNIT
UNI-33	2	60	120	DAYS
		TOTAL	120	DAYS

ITEM 614 - PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN
= 120 DAYS

WRITTEN NOTICE OF CLOSURE:
AT LEAST SEVEN DAYS PRIOR TO A CLOSURE, ADVANCED WRITTEN NOTIFICATION SHALL BE MADE TO LOCAL AGENCIES OR OFFICIALS HAVING JURISDICTION OVER EMERGENCY SERVICES IN THE AREA (POLICE, FIRE, MEDICAL), SCHOOL BUS ROUTES, UTILITY SERVICES, ALL RESIDENCES ADJACENT TO THE PROJECT SITE, AND MAINTENANCE OF LOCAL ROADS.

VALERIE KLINGMAN, MARYSVILLE CITY ENGINEER 937-645-1045
CHIEF FLOYD GOLDEN, MARYSVILLE POLICE 937-645-1039
CHIEF JAY RILEY, MARYSVILLE FIRE DEPT. 937-645-1068
STEVE ADER, MARYSVILLE SCHOOLS 937-644-8105

SUCH NOTIFICATION SHALL ALSO BE MADE TO ODOT DISTRICT SIX PUBLIC INFORMATION OFFICER (740-833-8063) AND THE MAINTENANCE OF TRAFFIC ENGINEER (740-833-8323). THE NOTIFICATION SHALL STATE WHEN THE CLOSURE WILL START AND THE ANTICIPATED PERIOD OF CLOSURE.

IF, SUBSEQUENT TO THAT NOTIFICATION, THE START DATE IS CHANGED, THEN A NEW SEVEN-DAY NOTIFICATION WILL BE REQUIRED. THE ROAD CANNOT BE CLOSED UNLESS THIS PRIOR NOTIFICATION PROCESS HAS BEEN ACCOMPLISHED. THE SAME PARTIES SHALL BE NOTIFIED WHEN A CLOSURE HAS CONCLUDED.

ITEM 614 - MAINTENANCE OF TRAFFIC (DETOUR PHASE):
BRIDGE DECK WORK ON UNI-33-0879 L & R
PHASE 1 - THIS WORK WILL REQUIRE THE CLOSURE OF THE OUTSIDE LANES (BOTH DIRECTIONS) OF US-33 IN ACCORDANCE WITH MT-95.30 AND SHOWN ON SHEET 18/108 FOR ONE WEEKEND.

PHASE 2 - THIS WORK WILL REQUIRE THE CLOSURE OF THE INSIDE LANES (BOTH DIRECTIONS) OF US-33 IN ACCORDANCE WITH MT-95.30 AND SHOWN ON SHEET 19/108 FOR ONE WEEKEND.

THE DIRECTIONAL RAMP R FROM CR-133 TO US-33 EASTBOUND WILL BE CLOSED DURING PHASE 1 ONLY. THE DETOUR ROUTE IS SHOWN ON SHEET 23/108.

THE ALLOWABLE HOURS FOR SINGLE LANE CLOSURES DURING PHASES 1 & 2 ARE AS PER PERMITTED LANE CLOSURE TABLE.

PREPARE TO DETOUR TRAFFIC BY ERECTING TRAFFIC CONTROL AS DETAILED ON SHEET 23/108 AND STANDARD CONSTRUCTION DRAWING MT-102.20 AT THE LOCATIONS SHOWN IN THE DETOUR PLANS IN WHICH THE AFFECTED ROADS ARE CLOSED TO TRAFFIC.

BRIDGE DECK WORK ON UNI-33-0879A (RAMP U)
THIS DECK OVERLAY WORK WILL BE DONE IN TWO PHASES WITH RAMP TRAFFIC MAINTAINED AT ALL TIMES. SEE SHEETS 20/108 AND 21/108 FOR DETAILS.

RAMP WORK AT THE US-33 AND US-36 INTERCHANGE
MAINTAIN ONE LANE (MINIMUM) OF TRAFFIC ON RAMPS A AND C, SHOWN ON SHEET 22/108. THE CONTRACTOR IS TO PERFORM THE CONSTRUCTION OF THE ADDITIONAL SHOULDER ON THE RIGHT SIDES OF RAMPS A AND C UP TO THE FINAL SURFACE COURSE.

OVERHEAD SIGN WORK AT RAMPS U & V
TWO LANE TRAFFIC SHALL BE MAINTAINED BY USE OF THE EXISTING PAVEMENT. ONE LANE TRAFFIC MAY BE PERMITTED DURING PLACEMENT OF OVERHEAD SUPPORTS AND CONCRETE BARRIER POURING OPERATIONS. SUBJECT TO THE APPROVAL OF THE ENGINEER. SHORT DURATION CLOSURE OF TEN MINUTES ARE PERMITTED UNDER THE DIRECTION OF LAW ENFORCEMENT OFFICER AS PER THE SHORT DURATION CLOSURE OF MULTILANE DIVIDED HIGHWAY DETAIL ON SHEET 70/108.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR 614, DETOUR SIGNING, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

TRUCK MOUNTED ATTENUATOR (TMA):
THE USE OF A TRUCK MOUNTED ATTENUATOR (TMA), AS SHOWN IN SCD MT-95.30, IS REQUIRED WHEN A LANE IS CLOSED WITH DRUMS ON US-33. THIS ALSO INCLUDES TIMES DURING ALL GUARDRAIL AND CONCRETE BARRIER WORK. THE TMA SHALL BE PLACED IN SUCH A WAY TO ADEQUATELY PROTECT THE WORKERS INSIDE THE WORK ZONE. THE TMA IS NOT INTENDED TO BE USED AS OR SUBSTITUTED FOR THE FLASHING ARROW PANEL AT THE BEGINNING OF THE MERGE TAPER. PAYMENT FOR THIS ITEM IS TO BE INCLUDED WITH THE LUMP SUM CONTRACT PRICE FOR ITEM 614 - MAINTAINING TRAFFIC.

ITEM 622 - PORTABLE CONCRETE BARRIER, 32":
THIS WORK SHALL CONSIST OF FURNISHING, INSTALLING, MAINTAINING, AND SUBSEQUENTLY REMOVING A 32 INCH PORTABLE CONCRETE BARRIER AT THE LOCATIONS SHOWN ON SHEETS 20/108 AND 21/108. FOR DETAILS, SEE SCD RM-4.2.

PAYMENT SHALL INCLUDE ALL LABOR, MATERIAL, AND EQUIPMENT NECESSARY TO PERFORM THE WORK AND SHALL BE PAID FOR AT THE CONTRACT PRICE.

CALCULATED DKR/RDK
CHECKED CJS

MAINTENANCE OF TRAFFIC
GENERAL NOTES

UNI-33-8.74

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108

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ITEM 614 - BARRIER REFLECTORS/OBJECT MARKERS:
BARRIER REFLECTORS AND OBJECT MARKERS SHALL BE INSTALLED ON ALL PORTABLE CONCRETE BARRIER WITHIN THE RIGHT-OF-WAY IN ACCORDANCE WITH THE ALTERNATE) SHOWN ON STANDARD CONSTRUCTION DRAWING MT-101.70. BARRIER REFLECTOR AND OBJECT MARKER MATERIAL AND INSTALLATION SHALL CONFORM TO CMS 626.02 AND 626.04.

ITEM 614 - WORK ZONE IMPACT ATTENUATOR FOR 24" WIDE HAZARDS (BIDIRECTIONAL):
THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ONE OF THE FOLLOWING IMPACT ATTENUATORS:

1. THE QUADGUARD CZ, (24 INCHES WIDE SIX-BAY) WORK ZONE IMPACT ATTENUATOR MANUFACTURED BY ENERGY ABSORPTION SYSTEMS, INC., 35 EAST WACKER DRIVE, CHICAGO, IL 60601 (TELEPHONE: 312-467-6750).

THE LENGTH OF THE SIX-BAY QUADGUARD CZ IS 20'-9". 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:

DRAWING NUMBER	DRAWING NAME	DRAWING/ REVISION DATE	ODOT APPROVAL DATE
QSCZCVR-T4	QUADGUARD CZ SYSTEM FOR CONSTRUCTION ZONES	5/13/99 REV. J	8/27/99
35-40-10	QUADGUARD SYSTEM CONCRETE PAD, CZ, QG	11/19/97 REV. D	8/27/99
35-4-16	QUADGUARD SYSTEM BACKUP ASSEMBLY, CZ, QG	7/30/99 REV. F	8/27/99
3540512	QUADGUARD CZ SYSTEM NOSE ASSEMBLY, CZ, QG, 24, 30, 36	5/17/99	8/27/99
35-40-18	TRANSITION ASSEMBLY, 4 OFFSET, QG	6/25/99 REV. F	8/27/99
35400260	QUADGUARD SYSTEM PCMB ANCHOR ASSEMBLY	11/19/97 REV. C	8/27/99

2. THE TRACC (TRINITY ATTENUATING CRASH CUSHION) MANUFACTURED BY TRINITY INDUSTRY, 1170 N. STATE STREET, GIRARD, OHIO 44420 (TELEPHONE: 330-545-4373).

THE TRACC IS 21'-0" LONG AND 2'-7" WIDE. 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:

DRAWING NUMBER	DRAWING NAME	DRAWING/ REVISION DATE	ODOT APPROVAL DATE
SS450	CRASH-CUSHION ATTENUATING TERMINAL PLAN, ELEVATION & SECTIONS	3/12/99 REV. 1	8/27/99
SS455	TRACC TRANSITION TO W-BEAM MEDIAN BARRIER PLAN, ELEVATION & SECTIONS	2/18/1999	8/27/99
SS461	TRACC TRANSITION TO CONCRETE SAFETY SHAPE BARRIER PLAN, ELEVATION & SECTIONS	6/30/99 REV. 1	8/27/99
SS462	TRACC TRANSITION TO CONCRETE BARRIER SINGLE SLOPE PLAN, ELEVATION & SECTIONS	6/30/1999	8/27/99

3. THE BARRIER SYSTEMS, INC. TAU-II IMPACT ATTENUATOR, DISTRIBUTED BY ROAD SYSTEMS, INC., SALES SUPPORT, 2183 ELM TRACE, AUSTINTOWN, OH 44515, (TELEPHONE 330-799-9291).

THE TAU-II FOR THIS NOTE IS A PARALLEL 8-BAY UNIT 24' LONG AND 35" WIDE). 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:

DRAWING NUMBER	DRAWING NAME	DRAWING/ REVISION DATE	ODOT APPROVAL DATE
A040416	UNIVERSAL TAU-II PARTS LIST	4/22/04	10/16/04
A040420	UNIVERSAL TAU-II FOUNDATION, FLUSH MOUNT BACKSTOP	4/28/04	10/16/04
A040105	UNIVERSAL TAU-II FOUNDATION, PCB BACKSTOP (REFERENCED ON A04020)	1/7/04	10/16/04
B040239	APPLICATION, FLUSH MOUNT BACKSTOP (TYPICAL FOR PARALLEL 60 MPH UNIT)	4/21/04	10/16/04

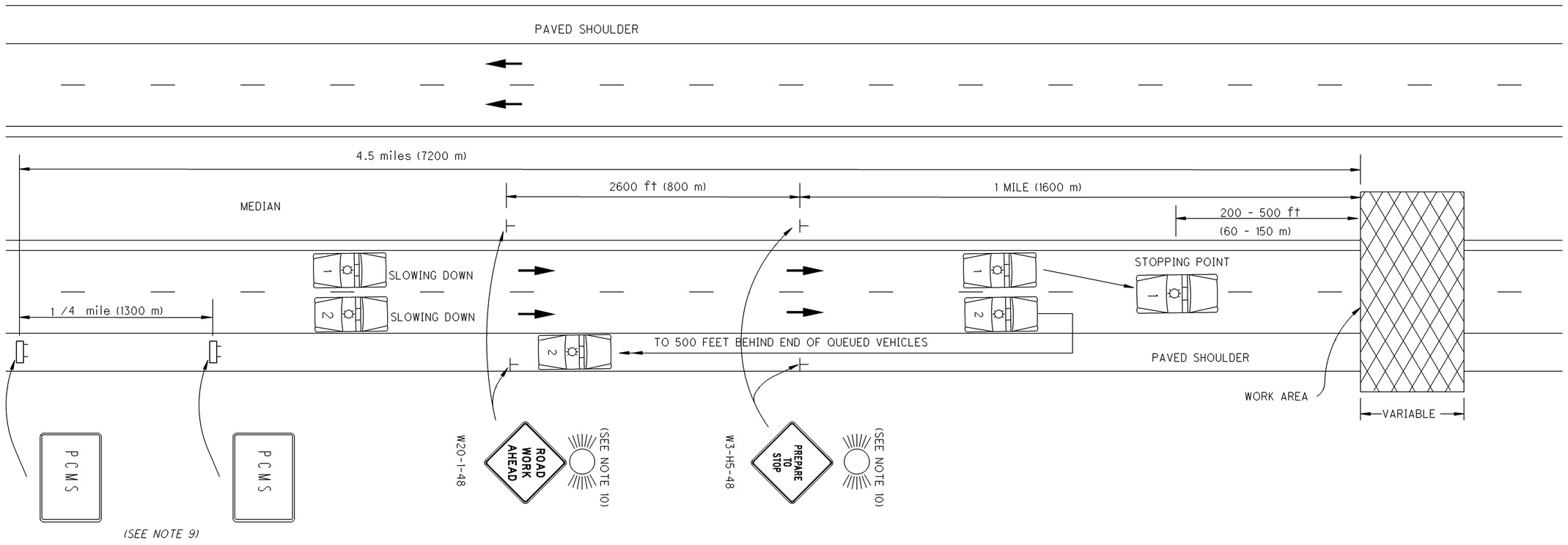
THE CONTRACTOR SHALL REPAIR OR REPLACE A DAMAGED UNIT WITHIN 24 HOURS OF A DAMAGING IMPACT.

WHEN BIDIRECTIONAL DESIGNS ARE SPECIFIED, THE CONTRACTOR SHALL SUPPLY APPROPRIATE TRANSITIONS. PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT AND MAINTAIN A COMPLETE AND FUNCTIONAL IMPACT ATTENUATOR SYSTEM, INCLUDING ALL RELATED BACKUPS, TRANSITIONS, LEVELING PADS, HARDWARE AND GRADING, NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

CONTRACTOR COORDINATION:
THE CONTRACTOR ON THIS PROJECT SHALL COORDINATE WORK WITH ADJOINING PROJECT UNI-33-10.35 (PID#89221) AS TO NOT INTERFERE WITH ONE ANOTHER DURING THE CONSTRUCTION PROCESS. SPECIAL ATTENTION IS TO BE MADE WHILE WORKING NEAR RAMP "E" AT THE SR-31 INTERCHANGE.

MAINTENANCE OF TRAFFIC
GENERAL NOTES

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1. *This type of highway closure shall be used for all construction, maintenance and utility operations when the duration of closure will not exceed 15 minutes.*

2. *A minimum of two Law Enforement Officers (LEO) with patrol cars per direction shall be provided to block traffic and pace motorists to a stop. The number of patrol cars shall equal the number of lanes closed on the highway.*

3. *Patrol cars, with lights flashing, should enter the stream of traffic at approximately three (3) miles before the point of closure. At approximately two (2) miles before the point of closure, they should begin the gradual slow down. Traffic shall be brought to a complete stop a safe distance, between 200 feet and 500 feet (60 and 150 m), from the work area. This slowing operation shall take no more than ten (10) minutes. After traffic has been stopped, one patrol car shall travel along the roadway shoulder 500 feet (150 m) behind the end of the queued vehicles.*

4. *The contractor shall not begin work until traffic has been brought to a complete stop.*

5. *All entrance ramps located between the stopped traffic and the work area shall be closed.*

6. *After the highway has been closed and reopened via this procedure, both of the following requirements shall have been met before implementation of another short duration closure, except with the approval of the engineer:*
   - *A. A minimum period of 15 minutes shall have elapsed*
   - *B. The queued traffic shall have dissipated*

7. *The time frame for stopping traffic shall be specified in the plans or by the District District Deputy Director.*

8. *The public shall be given advance notice of the upcomming closure by providing Portable Changeable Message signs at the site 3 days in advance of the scheduled closing. Appropriate message will be provided by the Engineer.*

9. *Two ODOT approved Portable Changeable Message Signs, Class 1, shall be provided. The first message sign shall be placed at approximately 4.5 miles in advance of the closure or as directed by the engineer. The second message sign shall be placed at approximately one quarter mile beyond the first message sign. The first message sign shall read ROAD CLOSED AHEAD (0.8 sec.), PREPARE TO STOP (0.8 sec.), (Black screen for 0.3 sec.) The second message sign shall read ROAD CLOSED AHEAD (0.8 sec.), "EXPECT 30 MIN. DELAY" (0.8 sec.), (Black screen for 0.3 sec.)*

10. *The contractor shall erect and maintian 48 inch "ROAD WORK AHEAD" and "PREPARE TO STOP" signs on each side of the highway. During night operations, each sign shall be illuminated with one (1) Type A flashing warning light or two (2) flares. The flares shall be replaced if if they burn out.*

CALCULATED DKR/RDK | CHECKED

MAINTENANCE OF TRAFFIC
SHORT DURATION CLOSURE OF MULTI LANE DIVIDED HIGHWAY

UNI-33-8.74

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MAINTENANCE OF TRAFFIC PLAN
PHASE 1 BRIDGE WORK AT RAMP R CLOSURE

UNI-33-8.74

HORIZONTAL SCALE IN FEET (0, 40, 80, 160)

CALCULATED | CHECKED

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MATCHLINE STA. 432+00

MATCHLINE STA. 439+00

MATCHLINE STA. 450+00

MATCHLINE STA. 461+00

MATCHLINE STA. 476+00

MATCHLINE STA. 493+00

104 RAMP W

RAMP S

RAMP R

CR-133

US-33

Buffer

Drums At 55' C-C

Truck Mounted Attenuator (TMA) Approx. Location

Drums At 20' C-C

390' Ramp Opening

330' Ramp Taper

One Lane 55:1 Merge Taper

Ramp Merge Taper 55:1

Ramp Taper

W4-2-48

W13-1P-24 STA. 424+00

55 MPH

RIGHT LANE CLOSED AHEAD

W20-5-48 STA. 409+00

ROAD WORK AHEAD

W20-1-48 STA. 383+00

END ROAD WORK G20-2-48 Sta. 446+00

Flashing Arrow Panel Sta. 434+00

W4-1-48 STA. 442+50

END ROAD WORK G20-2-48 Sta. 473+00

EXIT OPEN E65-2-48 STA. 476+00

AHEAD OPEN E3-H2b-48 Sta. 486+00

Flashing Arrow Panel Sta. 492+60

W20-1-48 STA. 545+40

ROAD WORK AHEAD

W20-5-48 STA. 517+00

RIGHT LANE CLOSED AHEAD

W13-1P-24 STA. 503+00

55 MPH

W4-2-48

CS Sta. 0+00.00

PC Sta. 5+01.15

PT Sta. 5+58.07

SC Sta. 457+50.00

ST Sta. 15+06.37

CS Sta. 12+31.39

SC Sta. 4+00.04

PCC Sta. 6+71.78

PCC Sta. 9+23.63

PT Sta. 36+49.77

PC Sta. 35+15.08

PT Sta. 33+06.37

PCC Sta. 58+42.91

Drum Work Area 10' min. Drum Work Area 1' 1'

Section A-A

(1) Road Closure Barricades
(SEE STD. DWG. MT-101.60)

(5) 33 MI-4-36; EAST M3-2-36; DETOUR M4-9-30

(4) RII-2-60 (60" X 30") ROAD CLOSED — TYPE B YELLOW LIGHTS REQUIRED AT NIGHT

Type III Barricade (72" Portable)
See Section 6F.63 and Figure 6F-7 of the OMUTCD.

(7) DETOUR M4-10L-48; 33 MI-4-36; EAST M3-2-36

Work Area

SEE SHEET 23 FOR RAMP R DETOUR MAP

MAINTENANCE OF TRAFFIC PLAN
PHASE 2 BRIDGE WORK AT RAMP R

UNI-33-8.74

CALCULATED | CHECKED

0 40 80 160 HORIZONTAL SCALE IN FEET

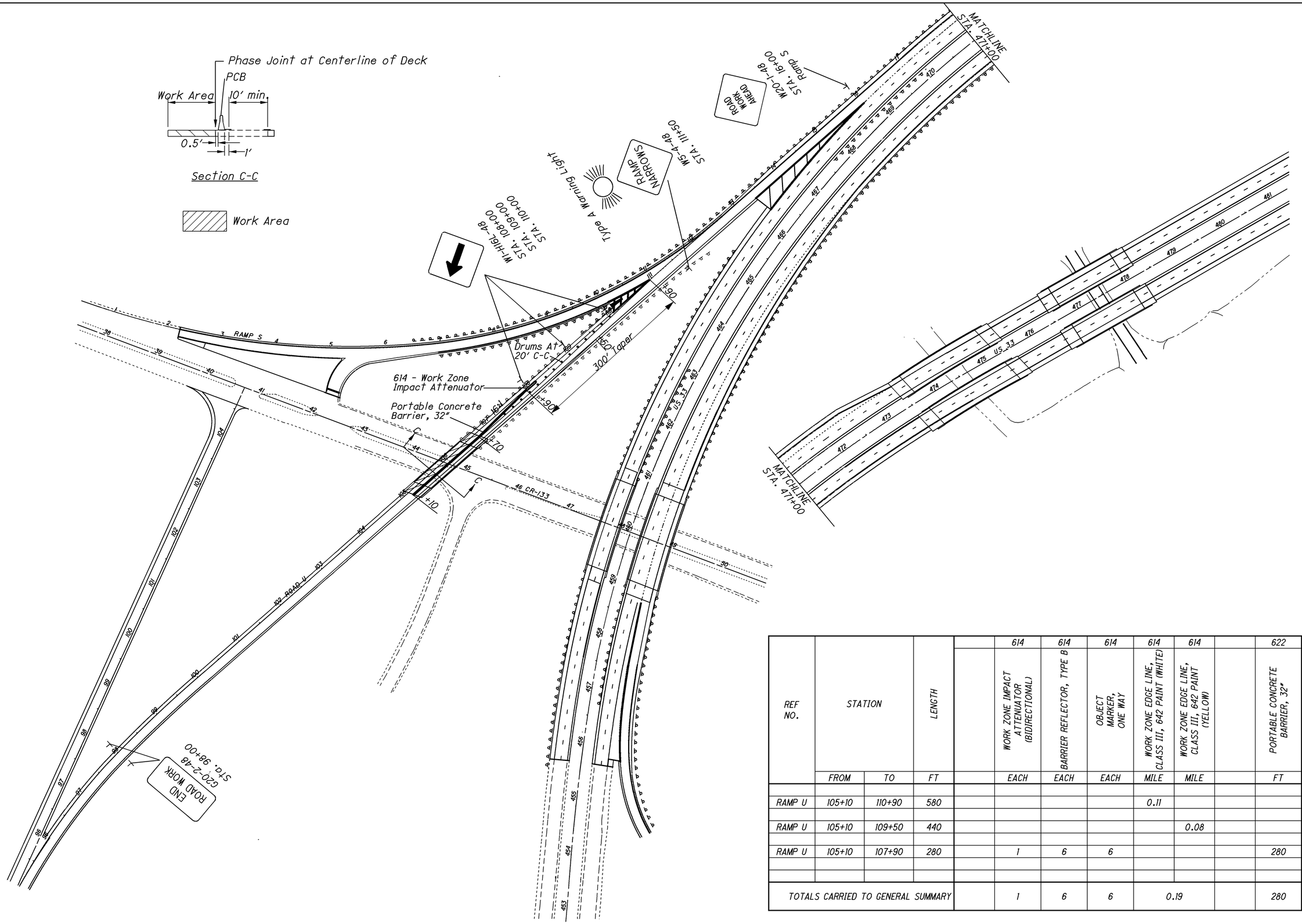
Section B-B

10′ min. Drum Work Area 1′

Drum Work Area 10′ min. 1′

Work Area

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REF NO.	STATION		LENGTH		614	614	614	614	614		622
					WORK ZONE IMPACT ATTENUATOR (BIDIRECTIONAL)	BARRIER REFLECTOR, TYPE B	OBJECT MARKER, ONE WAY	WORK ZONE EDGE LINE, CLASS III, 642 PAINT (WHITE)	WORK ZONE EDGE LINE, CLASS III, 642 PAINT (YELLOW)		PORTABLE CONCRETE BARRIER, 32"
	FROM	TO	FT		EACH	EACH	EACH	MILE	MILE		FT
RAMP U	105+10	110+90	580					0.11			
RAMP U	105+10	109+50	440						0.08		
RAMP U	105+10	107+90	280		1	6	6				280
TOTALS CARRIED TO GENERAL SUMMARY					1	6	6	0.19			280

MAINTENANCE OF TRAFFIC PLAN
PHASE 1 BRIDGE WORK AT RAMP U

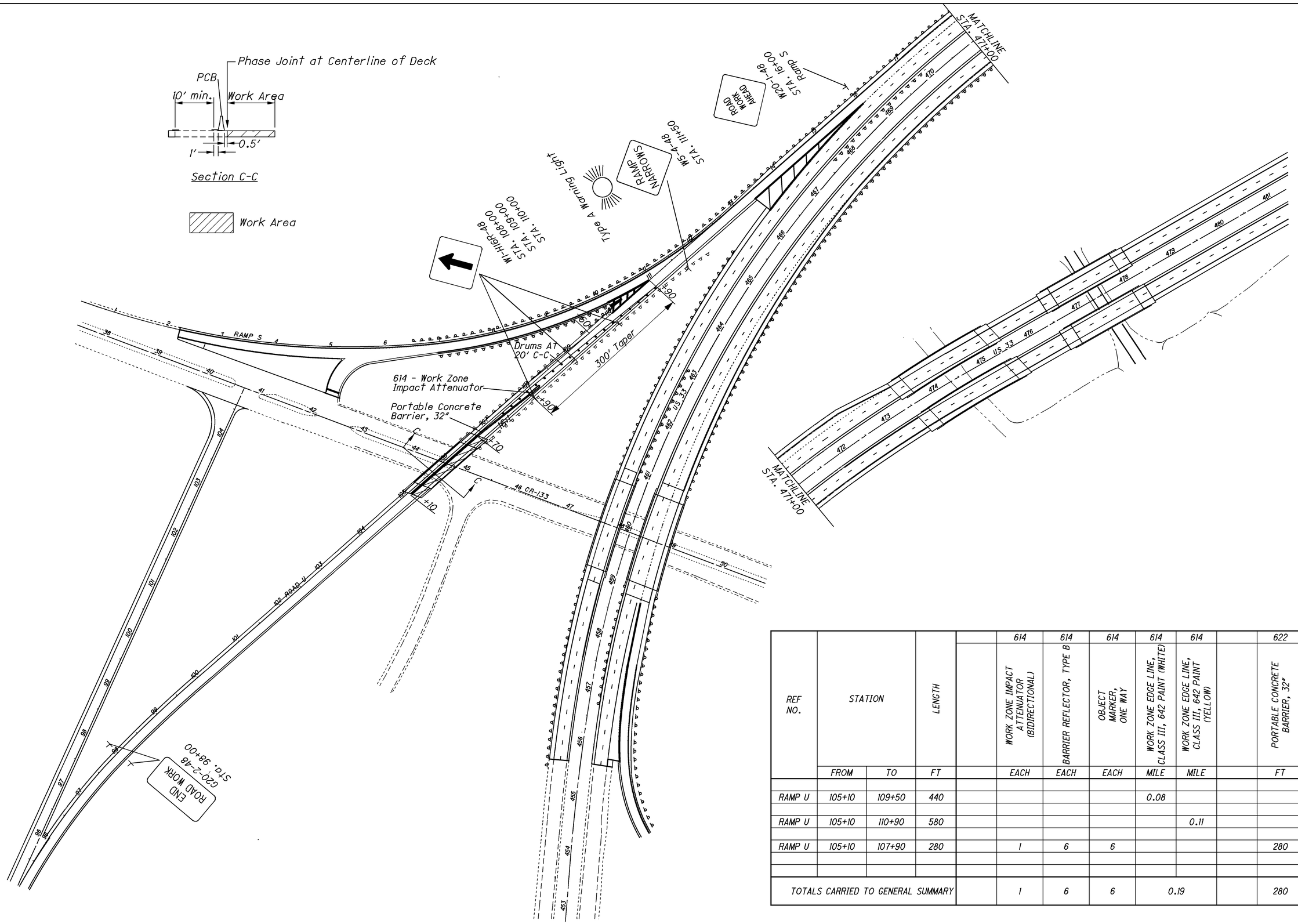
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CALCULATED | CHECKED

HORIZONTAL SCALE IN FEET
0 40 80 160

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REF NO.	STATION FROM	STATION TO	LENGTH FT		614 WORK ZONE IMPACT ATTENUATOR (BIDIRECTIONAL) EACH	614 BARRIER REFLECTOR, TYPE B EACH	614 OBJECT MARKER, ONE WAY EACH	614 WORK ZONE EDGE LINE, CLASS III, 642 PAINT (WHITE) MILE	614 WORK ZONE EDGE LINE, CLASS III, 642 PAINT (YELLOW) MILE		622 PORTABLE CONCRETE BARRIER, 32" FT
RAMP U	105+10	109+50	440					0.08			
RAMP U	105+10	110+90	580						0.11		
RAMP U	105+10	107+90	280		1	6	6				280
TOTALS CARRIED TO GENERAL SUMMARY					1	6	6	0.19			280

HORIZONTAL SCALE IN FEET
0 40 80 160

CALCULATED
CHECKED

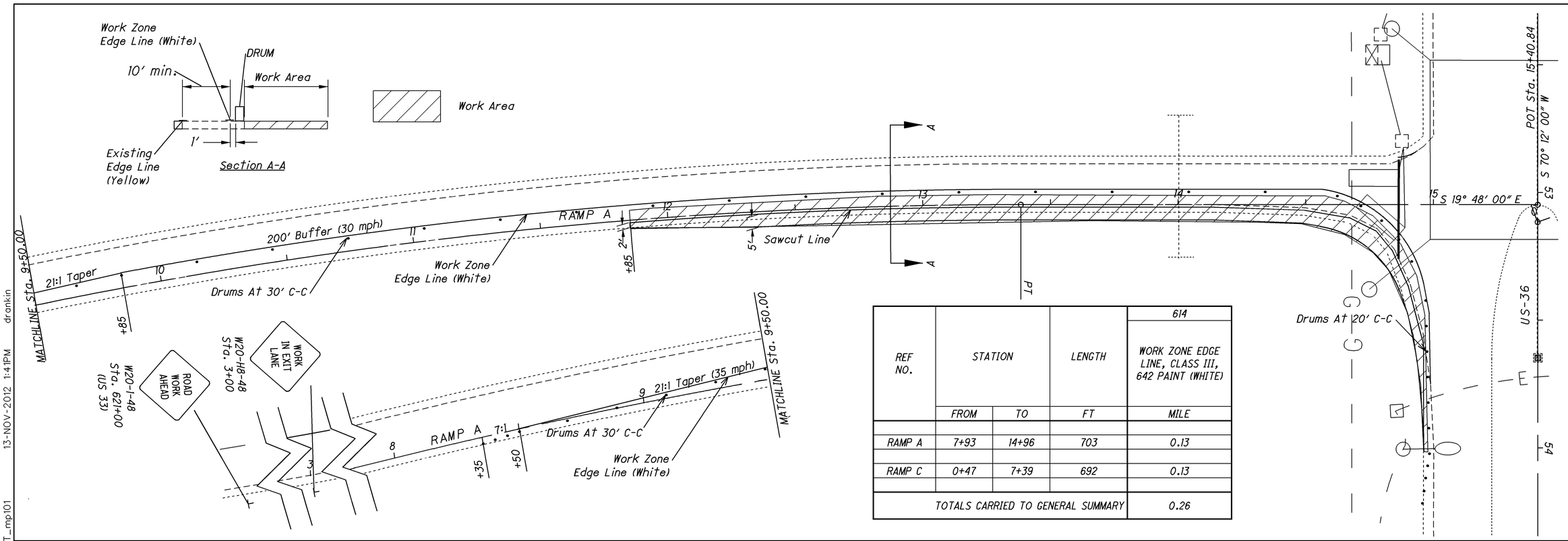
MAINTENANCE OF TRAFFIC PLAN
PHASE 2 BRIDGE WORK AT RAMP U

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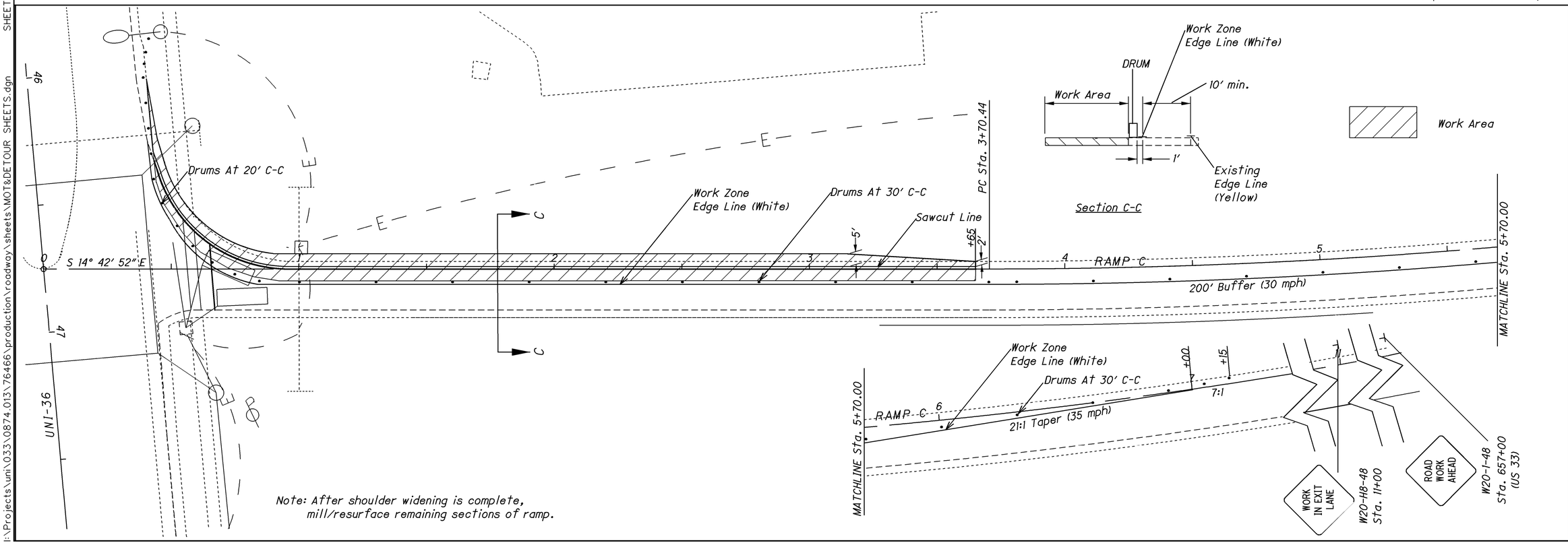
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REF NO.	STATION		LENGTH	614 WORK ZONE EDGE LINE, CLASS III, 642 PAINT (WHITE)
	FROM	TO	FT	MILE
RAMP A	7+93	14+96	703	0.13
RAMP C	0+47	7+39	692	0.13
TOTALS CARRIED TO GENERAL SUMMARY				0.26



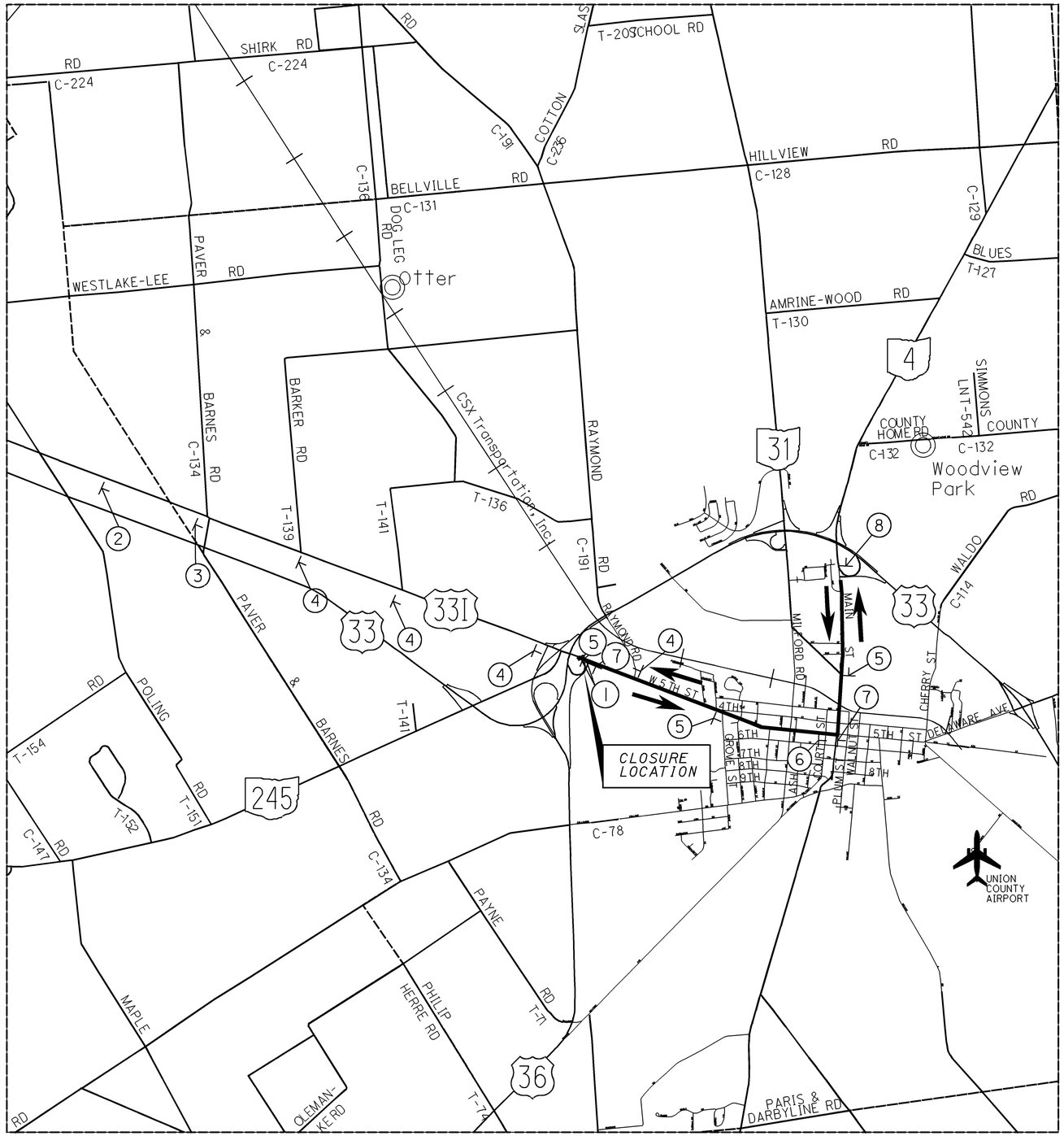
Note: After shoulder widening is complete, mill/resurface remaining sections of ramp.

MAINTENANCE OF TRAFFIC PLAN SHOULDER WIDENING AT RAMPS A & C

UNI-33-8.74

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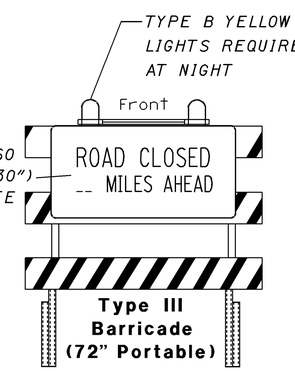
① Road Closure Barricades

(SEE STD. DWG. MT-101.60)

② ROAD CLOSED AHEAD — W20-3-48 — MI-4-36 — EAST — M3-2-36

③ DETOUR AHEAD — W20-2-48 — MI-4-36 — EAST — M3-2-36

④



See Section 6F.63 and Figure 6F-7 of the OMUTCD.

⑤ MI-4-36 — EAST — M3-2-36 — DETOUR — M4-9-30

⑥ MI-4-36 — EAST — M3-2-36 — DETOUR — M4-9-30

⑦ DETOUR — M4-10L-48 — MI-4-36 — EAST — M3-2-36

⑧ END DETOUR — M4-8A-24 (24" X 18")

NOTES:

THE CONTRACTOR SHALL ERECT, MAINTAIN AND REMOVE THE DETOUR AND THE ALTERNATE DETOUR. ALL SIGNS AND BARRICADES ARE TO BE INCLUDED IN ITEM 614 - DETOUR SIGNING FOR PAYMENT. ALL SIGNS, EXCEPT MI-5 AND M3-1 ARE TO BE BLACK ON ORANGE CONSTRUCTION SIGNS, ON TYPE 2 POSTS, ON OR NEXT TO EXISTING ROUTE MARKING SIGNS WHERE PRACTICAL. FLASHING LIGHTS REQUIRED AT NIGHT FOR SIGNS 2 & 3.

RII-2-60

US 331 AND TR 139 INTERSECTION: 1.5 MILES AHEAD
US 331 AND TR 141 INTERSECTION: 1.0 MILES AHEAD
US 331 AND SR 245 SB RAMP INTERSECTION: 0.2 MILES AHEAD
W 5TH AVE AND RAYMOND RD INTERSECTION: 0.3 MILES AHEAD

ALL DETOUR SIGNING PAID FOR UNDER LUMP SUM ITEM 614, DETOUR SIGNING.

LEGEND

DETOUR ROUTE

33 U.S. ROUTE

245 STATE ROUTE

HORIZONTAL SCALE IN FEET: 0, 2000, 4000, 8000

CALCULATED | CHECKED

DETOUR PLAN
DETOUR MAP - US 33 EB RAMP

UNI-33-8.74

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AEP
1 RIVERSIDE PLAZA
COLUMBUS, OH 43215
614.716.2531

AEP
700 MORRISON RD
GAHANNA, OH 43230
614.552.1801

AEP
850 TECH CENTER DR
GAHANNA, OH 43230
614.883.6831

AMERIGAS PROPANE
2353 WESTBROOKE DR
COLUMBUS, OH 43228
800.992.6602

AT&T - OHIO
111 NORTH FOURTH ST
COLUMBUS, OH 43215
614.223.7162

BP OIL
4421 BRADLEY RD
CLEVELAND, OH 44109
216.912.2559

BUCKEYE PIPELINE
P.O. BOX 90
LIMA, OH 45802
419.236.7766

CENTURYLINK
441 WEST BROAD ST
PATASKALA, OH 43062
740.927.8282

COLUMBIA GAS OF OHIO
1600 DUBLIN RD
COLUMBUS, OH 43215
614.481.1057

COLUMBIA GAS TRANS
589 NORTH STATE RD
MEDINA, OH 44256
330.721.4163

COLUMBUS DEPT OF UTILITIES
109 NORTH FRONT ST
COLUMBUS, OH 43215

CONSOLIDATED ELECTRIC COOP
5255 STATE ROUTE 95
MT GILEAD, OH 43338
419.947.3055

DAYTON POWER & LIGHT
1900 DRYDEN RD
DAYTON, OH 45439
937.331.4497

DEL-CO WATER
6773 OLENTANGY RIVER RD
DELAWARE, OH 43015
740.548.7746

DUBLINK DEVELOPMENT/ FISHEL
1366 DUBLIN RD
COLUMBUS, OH 43215
614.274.8100

FRONTIER COMMUNICATIONS
1300 COLUM - SANDUSKY RD
MARION, OH 43302
740.383.0551

HEIBY OIL COMPANY INC
1020 S DETROIT ST
BELLEFONTAINE, OH 43311
937.592.3906

LEVEL 3 COMMUNICATIONS
226 NORTH FIFTH ST
COLUMBUS, OH 43215
614.324.4444

LOGAN CTY ELECTRIC COOP
1587 COUNTY ROAD
BELLEFONTAINE, OH 43311
937.592.4781

LOGAN CTY WATER POLLUTION CNTRL
1015 ORCHARD ISLAND RD
RUSSELLS POINT, OH 43348
937.843.3328

MARYSVILLE - CITY OF
125 EAST SIXTH ST
MARYSVILLE, OH 43040
937.642.6015

MARYSVILLE EXEMPTED SCHOOL
1000 EDGEWOOD DR
MARYSVILLE, OH 43040
937.644.8105

MID OHIO ENERGY
2589 MARION UPPER SANDUSKY
MARION, OH 43302
888.362.6732

MILLCREEK TWP (UNION COUNTY)
15999 THOMPSON RD
OSTRANDER, OH 43061

NATIONWIDE ENERGY PARTNERS
230 WEST ST
COLUMBUS, OH 43215
877.818.2637

ODOT TRAFFIC (DIST 6)
400 EAST WILLIAM ST
DELAWARE, OH 43015
740.833.8332

OHIO EDISON
420 SOUTH YORK ST
SPRINGFIELD, OH 45505
937.327.1283

PIONEER ELECTRIC COOP INC
344 US ROUTE 36
PIQUA, OH 45356
937.773.2523

PIONEER ENERGY MANAGEMENT
481 SCHROCK RD
COLUMBUS, OH 43229
614.442.7100

QWEST COMMUNICATIONS
1801 CALIFORNIA ST
DENVER, COLORADO 80202
303.299.0170

SOUTHEASTERN NATURAL GAS
P.O. BOX 430
FRAZEYSBURG, OH 43822
740.828.2892

TIME WARNER CABLE
3760 INTERCHANGE DR
COLUMBUS, OH 43204
614.255.6349

TW TELECOM
250 OLD WILSON BRIDGE RD
WORTHINGTON, OH 43081
614.255.2127

U S SIGNAL COMPANY
201 IONIA AVENUE SW
GRAND RAPIDS, MI 49503
866.274.4625

UNION COUNTY ENGINEERS
233 W 6TH ST
MARYSVILLE, OH 43040
937.645.3018

UNION RURAL ELECTRIC & GAS
15461 US ROUTE 36
MARYSVILLE, OH 43040
937.642.1826

WIDE OPEN WEST
3765 CORPORATE DR
COLUMBUS, OH 43231
614.948.4653

WINDSTREAM
3701 COMMUNICATIONS WAY
EVANSVILLE, IN 47715
812.759.2831

CALCULATED DKR/RDK
CHECKED CJS

UTILITY NOTES

UNI-33-8.74

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SHEET NUMBER											PARTICIPATION				ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
9 - 12	13 - 17	20	21	22	23	27	68	80	81	82	01/NHS/PV	02/S(2)/PV	03/NHS/BR	04/BRO/BR						
																			ROADWAY	
						138					138				202	23001	138	SQ YD	PAVEMENT REMOVED, AS PER PLAN	9
							9275				9025	250			202	38001	9275	FT	GUARDRAIL REMOVED, AS PER PLAN	9
							16				12	4			202	42000	16	EACH	ANCHOR ASSEMBLY REMOVED, TYPE A	
							3				3				202	42210	3	EACH	ANCHOR ASSEMBLY REMOVED, BARRIER DESIGN	
							230				190	40			203	20001	230	CU YD	EMBANKMENT, AS PER PLAN	9
						415					415				204	10000	415	SQ YD	SUBGRADE COMPACTION	
							102.18				96.50	5.68			209	15000	102.18	STATION	RESHAPING UNDER GUARDRAIL	
						6.22					6.22				209	72000	6.22	STATION	PREPARING SUBGRADE FOR SHOULDER PAVING	
							7175				6850	325			606	13000	7175	FT	GUARDRAIL, TYPE 5	
							1887.5				1887.5				606	13030	1887.5	FT	GUARDRAIL, TYPE 5, USING 9 FOOT POSTS	
							50				50				606	13050	50	FT	GUARDRAIL, TYPE 5A	
							100				100				606	15500	100	FT	GUARDRAIL, BARRIER DESIGN, TYPE 5	
							4				3	1			606	26000	4	EACH	ANCHOR ASSEMBLY, TYPE B	
							12				9	3			606	26100	12	EACH	ANCHOR ASSEMBLY, TYPE E	
							12				12				606	26500	12	EACH	ANCHOR ASSEMBLY, TYPE T	
							6				6				606	35000	6	EACH	BRIDGE TERMINAL ASSEMBLY, TYPE 1	
							6				6				606	35100	6	EACH	BRIDGE TERMINAL ASSEMBLY, TYPE 2	
							1				1				606	60012	1	EACH	IMPACT ATTENUATOR, TYPE 1 (BIDIRECTIONAL)	
							2				2				606	60033	2	EACH	IMPACT ATTENUATOR, TYPE 3, AS PER PLAN	11
125											100	25			606	98000	125	FT	GUARDRAIL, MISC.: ALTERNATIVE GUARDRAIL PLACEMENT	10
							90				90				622	10061	90	FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE B, AS PER PLAN	11
							2				2				622	24841	2	EACH	CONCRETE BARRIER END SECTION, TYPE B, AS PER PLAN	11
																			EROSION CONTROL	
							60				56	4			653	10000	60	CU YD	TOPSOIL FURNISHED AND PLACED	
							1200				1120	80			659	00500	1200	SQ YD	SEEDING AND MULCHING, CLASS 1	
							0.03				0.03				659	20000	0.03	TON	COMMERCIAL FERTILIZER	
							3				3				659	35000	3	M GAL	WATER	
											915	85			832	30000	1000	EACH	EROSION CONTROL	
																			DRAINAGE	
4											4				604	09000	4	EACH	CATCH BASIN ADJUSTED TO GRADE	
4											4				604	09500	4	EACH	CATCH BASIN RECONSTRUCTED TO GRADE	
2											2				604	35500	2	EACH	MANHOLE RECONSTRUCTED TO GRADE	
																			PAVEMENT	
1839											1589	250			251	01001	1839	SQ YD	PARTIAL DEPTH PAVEMENT REPAIR, AS PER PLAN	9
200											200				253	02001	200	CU YD	PAVEMENT REPAIR, AS PER PLAN	9
						212566					206164	6402			254	01000	212566	SQ YD	PAVEMENT PLANING, ASPHALT CONCRETE	
						136					136				301	46000	136	CU YD	ASPHALT CONCRETE BASE, PG64-22	
						15960					15479	481			407	10000	15960	GALLON	TACK COAT	
						8772					8506	266			442	10000	8772	CU YD	ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446)	
						79					79				442	10001	79	CU YD	ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446), AS PER PLAN	10
						815					799	16			617	10100	815	CU YD	COMPACTED AGGREGATE	
4											3	1			617	25000	4	M GAL	WATER	
																			STRUCTURES OVER 20'	
																			SEE STRUCTURES GENERAL SUMMARY	98
																			WATER WORK	
4											4				638	10800	4	EACH	VALVE BOX ADJUSTED TO GRADE	

CALCULATED DKR/RDK
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GENERAL SUMMARY

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SHEET NUMBER											PARTICIPATION				ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
9 - 12	13 - 17	20	21	22	23	27	68	80	81	82	01/NHS/PV	02/SC2/PV	03/NHS/BR	04/BRO/BR						
																			TRAFFIC CONTROL	
							10				8	2			620	00500	10	EACH	DELINEATOR, POST MOUNTED	
								776	635		1367	44			621	00100	1411	EACH	RPM	
								698	572		1231	39			621	54000	1270	EACH	RAISED PAVEMENT MARKER REMOVED	
							115				6	109			626	00100	115	EACH	BARRIER REFLECTOR	
										469	469				630	02100	469	FT	GROUND MOUNTED SUPPORT, NO. 2 POST	
21											21				630	02101	21	FT	GROUND MOUNTED SUPPORT, NO. 2 POST, AS PER PLAN	11
										670	670				630	03100	670	FT	GROUND MOUNTED SUPPORT, NO. 3 POST	
30											30				630	03101	30	FT	GROUND MOUNTED SUPPORT, NO. 3 POST, AS PER PLAN	11
										85	85				630	08600	85	EACH	SIGN POST REFLECTOR	
							1				1				630	35501	1	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-7.65, DESIGN 6, AS PER PLAN	11
										462.02	462.02				630	80100	462.02	SQ FT	SIGN, FLAT SHEET	
48.00											48.00				630	80101	48.00	SQ FT	SIGN, FLAT SHEET, AS PER PLAN	11
							1				1				630	84000	1	EACH	CONCRETE BARRIER MEDIAN OVERHEAD SIGN SUPPORT FOUNDATION, TYPE TC-21.40	
										55	55				630	84900	55	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	
										10	10				630	85100	10	EACH	REMOVAL OF GROUND MOUNTED SIGN AND REERECTION	
										67	67				630	86002	67	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	
							1				1				630	88901	1	EACH	REMOVAL OF OVERHEAD SIGN SUPPORT AND REERECTION, AS PER PLAN	11
								17.44	12.49		29.32	0.61			644	00104	29.93	MILE	EDGE LINE, 6"	
								8.81	0.04		8.85				644	00204	8.85	MILE	LANE LINE, 6"	
								0.36				0.36			644	00300	0.36	MILE	CENTER LINE	
								6225	1457		7552	130			644	00404	7682	FT	CHANNELIZING LINE, 12"	
								24	229		229	24			644	00500	253	FT	STOP LINE	
									230		230				644	00600	230	FT	CROSSWALK LINE	
								1061	213		1198	76			644	00700	1274	FT	TRANSVERSE/DIAGONAL LINE	
								5412	696		6108				644	01510	6108	FT	DOTTED LINE, 6"	
								1.51			1.51				646	10010	1.51	MILE	EDGE LINE, 6"	
								0.94			0.94				646	10110	0.94	MILE	LANE LINE, 6"	
																			TRAFFIC SIGNALS	
10											8	2			632	26500	10	EACH	DETECTOR LOOP	
10											8	2			632	27200	10	EACH	LOOP DETECTOR TIE IN	
																			MAINTENANCE OF TRAFFIC	
	150										134	16			614	11110	150	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	
		1	1								2				614	12338	2	EACH	WORK ZONE IMPACT ATTENUATOR (BIDIRECTIONAL)	
					LUMP						LUMP				614	12420	LUMP		DETOUR SIGNING	
	6											6			614	12460	6	EACH	WORK ZONE MARKING SIGN	
	20										20				614	13000	20	CU YD	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC	
		6	6								12				614	13300	12	EACH	BARRIER REFLECTOR, TYPE B	
		6	6								12				614	13350	12	EACH	OBJECT MARKER, ONE WAY	
	120										120				614	18401	120	DAY	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	15
	8.86										8.86				614	20550	8.86	MILE	WORK ZONE LANE LINE, CLASS III, 642 PAINT	
	0.29											0.29			614	21550	0.29	MILE	WORK ZONE CENTER LINE, CLASS III, 642 PAINT	
	29.80	0.19	0.19	0.26							30.44				614	22350	30.44	MILE	WORK ZONE EDGE LINE, CLASS III, 642 PAINT	
	7682										7552	130			614	23680	7682	FT	WORK ZONE CHANNELIZING LINE, CLASS III, 642 PAINT	
	232										208	24			614	26610	232	FT	WORK ZONE STOP LINE, CLASS III, 642 PAINT	
		280	280								560				622	40020	560	FT	PORTABLE CONCRETE BARRIER, 32"	
											0.9	0.1			614	11000	LUMP		MAINTAINING TRAFFIC	
											5.5	0.5			619	16000	6	MONTH	FIELD OFFICE, TYPE A	
											0.9	0.1			624	10000	LUMP		MOBILIZATION	
											0.9	0.1			823	10000	LUMP		CONSTRUCTION LAYOUT STAKES	

CALCULATED DKR/RDK
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GENERAL SUMMARY

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PAVEMENT PLAN SUBSUMMARY

SHEET #	254 PAVEMENT PLANING ASPHALT CONCRETE 1.5" DEPTH SQ YD	407 TACK COAT 0.075 GAL. PER SQ. YD. GAL.	442 ASPHALT SURFACE COURSE 12.5mm TYPE A (446) CU YD	617 COMPACTED AGGREGATE (2" DEPTH) CU YD	204 SUBGRADE COMPACTION SQ YD	442 ASPHALT SURFACE COURSE 12.5mm TYPE A (446) AS PER PLAN CU YD	202 PAVEMENT REMOVED, AS PER PLAN (13.25") SQ YD	209 PREPARING SUBGRADE FOR SHOULDER PAVING (13.25") STATION	301 ASPHALT CONCRETE BASE, PG64-22 (11.75") CU YD
28/108	2,329	175	97	8					
29/108	8,932	671	374	40					
30/108	3,809	285	158	20					
31/108	6,980	524	290	28					
32/108	7,222	542	300	32					
33/108	8,060	605	335	32					
34/108	9,970	748	415	28					
35/108	12,183	914	506	40					
36/108	10,618	796	443	33					
37/108	11,011	826	459	31					
38/108	9,292	697	386	36					
39/108	7,727	580	321	30					
40/108	4,723	354	198	20					
41/108	7,369	553	307	33					
42/108	9,163	687	382	35					
43/108	5,833	437	243	28					
44/108	7,779	583	324	30					
45/108	2,364	177	99	12					
46/108	1,890	142	79	6					
47/108	2,331	175	97	7					
48/108	2,683	201	112	8					
49/108	2,402	180	100	8					
50/108	3,426	257	143	10					
51/108	2,354	176	98	7					
52/108	2,812	211	118	7					
53/108	3,074	230	128	10					
54/108	2,233	183	53	6	207	40	69	3.11	68
55/108	2,651	199	110	7					
56/108	1,744	131	72	5					
57/108	1,854	140	38	5	207	39	69	3.11	68
58/108	3,542	266	147	9					
59/108	2,860	215	119	7					
60/108	13,252	994	552	39					
61/108	11,458	859	477	63					
62/108	3,083	232	128	14					
63/108	1,978	148	82	12					
64/108	1,708	128	71	11					
65/108	4,400	330	183	27					
66/108	3,539	265	148	20					
67/108	1,928	144	80	11					
	212,566	15,960	8,772	815	415	79	138	6.22	136

TOTALS CARRIED TO GENERAL SUMMARY

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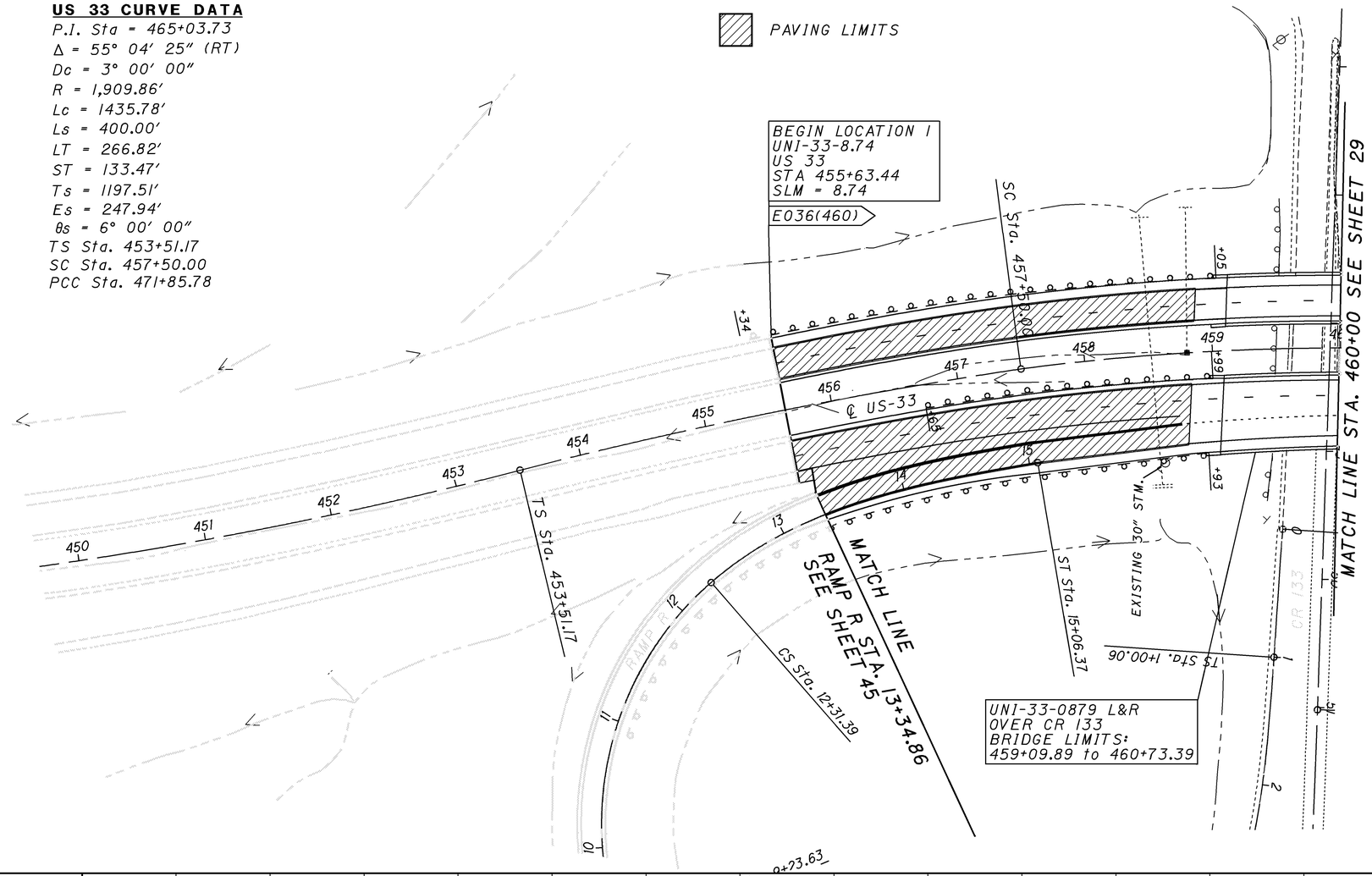
PAVEMENT PLAN SUBSUMMARY

UNI-33-8.74

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108

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Sheet_GS101

US 33 CURVE DATA
P.I. Sta = 465+03.73
Δ = 55° 04′ 25″ (RT)
Dc = 3° 00′ 00″
R = 1,909.86′
Lc = 1435.78′
Ls = 400.00′
LT = 266.82′
ST = 133.47′
Ts = 1197.51′
Es = 247.94′
θs = 6° 00′ 00″
TS Sta. 453+51.17
SC Sta. 457+50.00
PCC Sta. 471+85.78

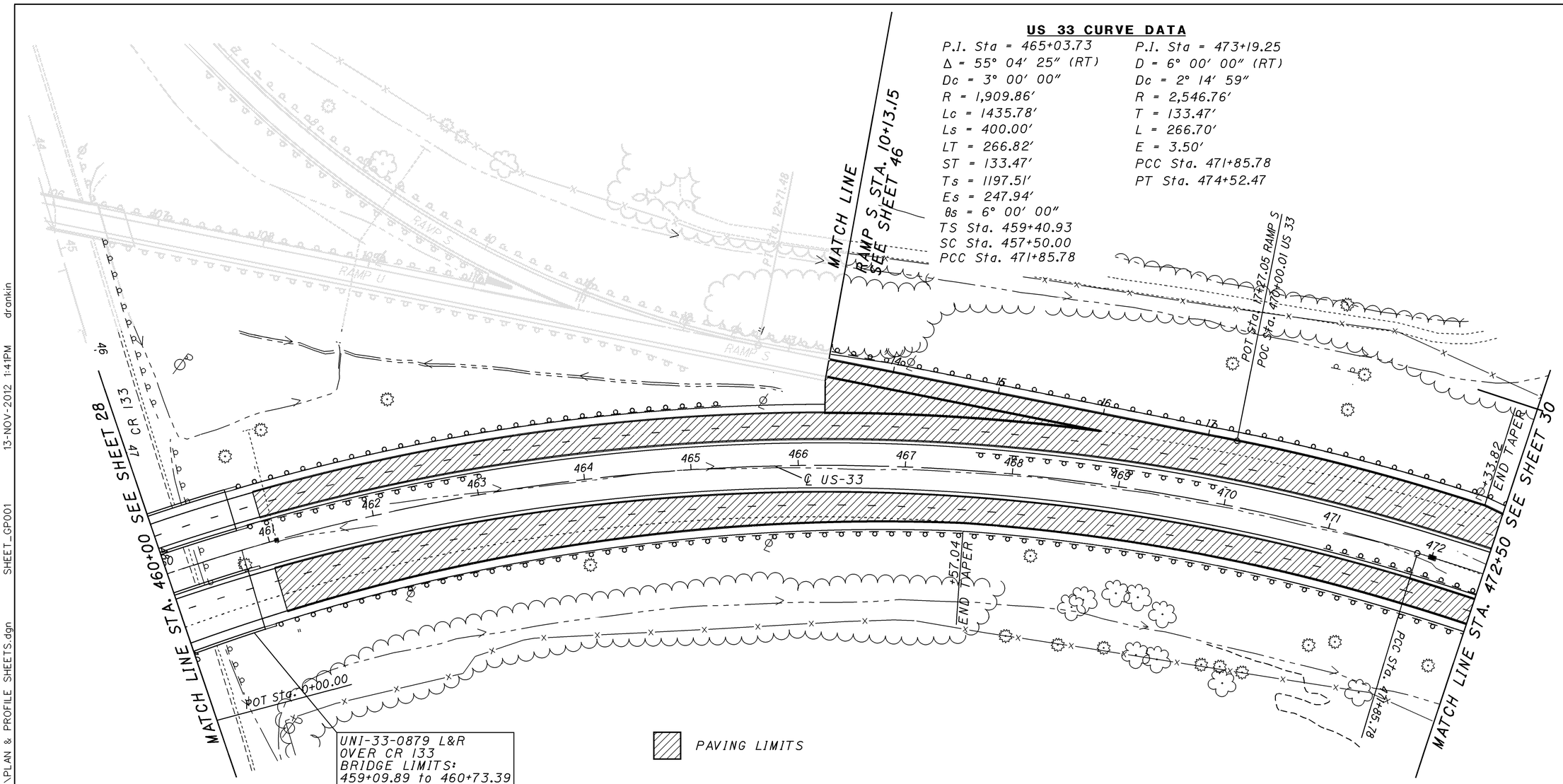


STA	STA	WIDTH	SIDE	254 PAVEMENT PLANING ASPHALT CONCRETE 1.5″ DEPTH (SY)	407 TACK COAT 0.075 GAL. PER SQ. YD. (GAL)	442 ASPHALT SURFACE COURSE 12.5mm TYPE A (446) (CY)	617 COMPACTED AGGREGATE (2″ DEPTH) (CY)										REMARK
455+63	458+80	26′	RT	915	69	38	4										MAINLINE US 33
455+74	458+80	14′	RAMP R	476	36	20											MAINLINE US 33 ENTRANCE RAMP R
455+63	458+88	26′	LT	938	70	39	4										MAINLINE US 33
TOTALS CARRIED TO PAVEMENT SUBSUMMARY SHEET 27/108				2,329	175	97	8										

PLAN VIEW UNI-US33
STA. 455+63.44 TO STA. 460+00
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HORIZONTAL SCALE IN FEET
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STA	STA	WIDTH	SIDE	254 PAVEMENT PLANING ASPHALT CONCRETE 1.5″ DEPTH SQ YD	407 TACK COAT 0.075 GAL. PER SQ. YD. GAL.	442 ASPHALT SURFACE COURSE 12.5mm TYPE A (446) CU YD	617 COMPACTED AGGREGATE (2″ DEPTH) CU YD											REMARK
460+98	472+50	26′	RT	3,328	250	139	14											MAINLINE US 33
466+25	472+34	7′	RAMP R	473	36	20	4											MAINLINE US 33 ENT. RAMP R TAPER
466+25	472+34	13′	RAMP R	879	66	37	4											MAINLINE US 33 ENT. RAMP R AVG. WIDTH
460+98	472+50	26′	LT	3,328	250	139	14											MAINLINE US 33
466+25	468+75	14′	RAMP S	389	29	16	2											MAINLINE US 33 EXIT RAMP S & ROAD U
468+75	472+34	13′	RAMP S	518	39	22	2											MAINLINE US 33 EXIT RAMP S & ROAD U
472+34	472+50	9.5′	RAMP S	17	1	1												MAINLINE US 33 ENT. RAMP S AVG. WIDTH
TOTALS CARRIED TO PAVEMENT SUBSUMMARY SHEET 27/108				8,932	671	374	40											

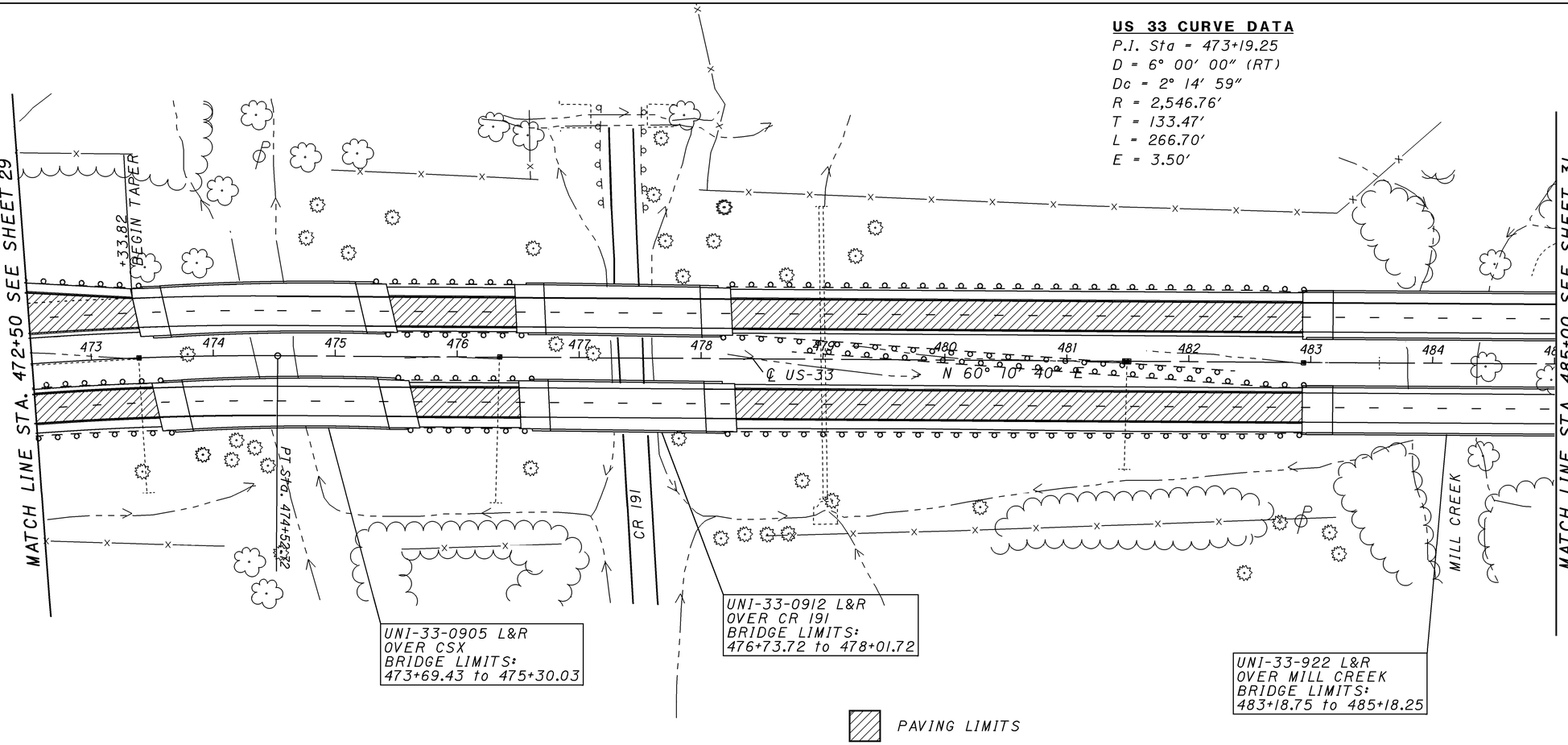
HORIZONTAL SCALE IN FEET
0 25 50 100

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PLAN VIEW UNI-US33 STA. 460+00 TO STA. 472+50

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STA	STA	WIDTH	SIDE	254 PAVEMENT PLANING ASPHALT CONCRETE 1.5″ DEPTH (SQ YD)	407 TACK COAT 0.075 GAL. PER SQ. YD. (GAL.)	442 ASPHALT SURFACE COURSE 12.5mm TYPE A (446) (CU YD)	617 COMPACTED AGGREGATE (2″ DEPTH) (CU YD)											REMARK
472+50	473+52	26′	RT	295	22	12	2											MAINLINE US 33
475+65	476+50	26′	RT	246	18	10	2											MAINLINE US 33
478+28	482+93	26′	RT	1,343	101	56	6											MAINLINE US 33
472+34	473+33	4′	RAMP S	44	3	2												MAINLINE US 33 ENT. RAMP S AVG. WIDTH
472+50	473+33	26′	LT	240	18	10	2											MAINLINE US 33
475+46	476+47	26′	LT	292	22	12	2											MAINLINE US 33
478+25	482+92	26′	LT	1,349	101	56	6											MAINLINE US 33
TOTALS CARRIED TO PAVEMENT SUBSUMMARY SHEET 27/108				3,809	285	158	20											

HORIZONTAL SCALE IN FEET
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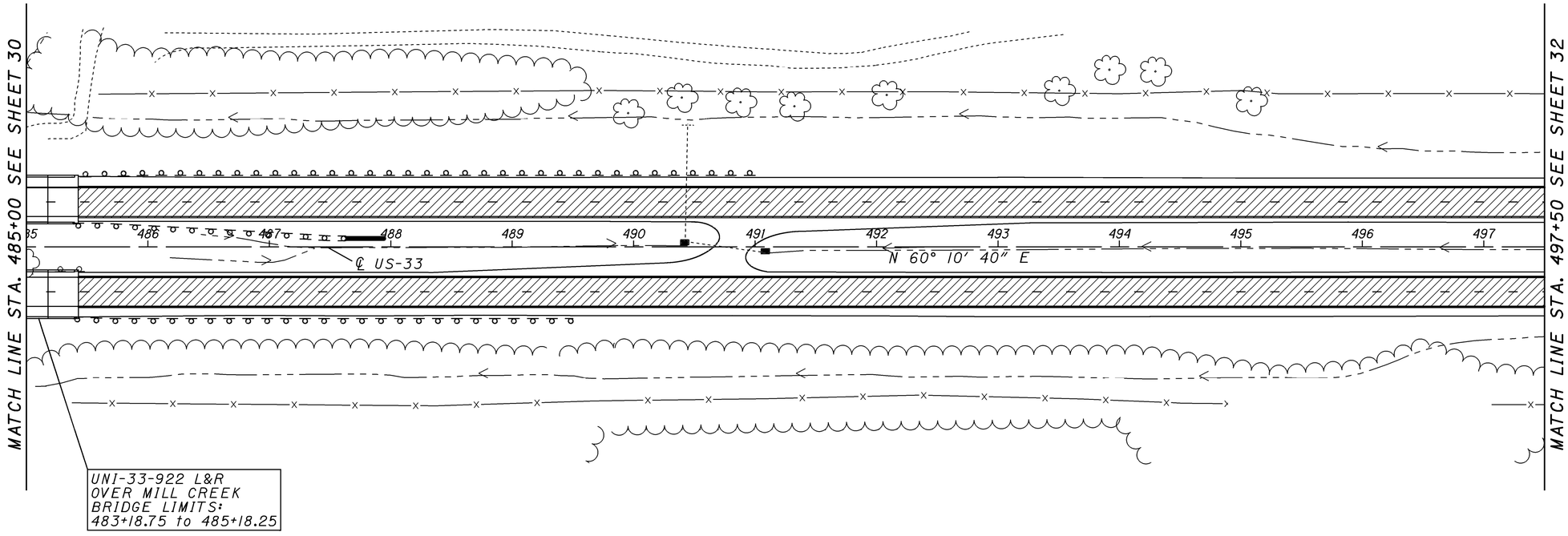
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PLAN VIEW UNI-US33
STA. 472+50 TO STA. 485+00

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PAVING LIMITS

STA	STA	WIDTH	SIDE	254 PAVEMENT PLANING ASPHALT CONCRETE 1.5″ DEPTH	407 TACK COAT 0.075 GAL. PER SQ. YD.	442 ASPHALT SURFACE COURSE 12.5mm TYPE A (446)	617 COMPACTED AGGREGATE (2″ DEPTH)										REMARK
				SQ YD	GAL.	CU YD	CU YD										
485+42	497+50	26′	RT	3,490	262	145	14										MAINLINE US 33
485+42	497+50	26′	LT	3,490	262	145	14										MAINLINE US 33
TOTALS CARRIED TO PAVEMENT SUBSUMMARY SHEET 27/108				6,980	524	290	28										

PLAN VIEW UNI-US33
STA. 485+00 TO STA. 497+50

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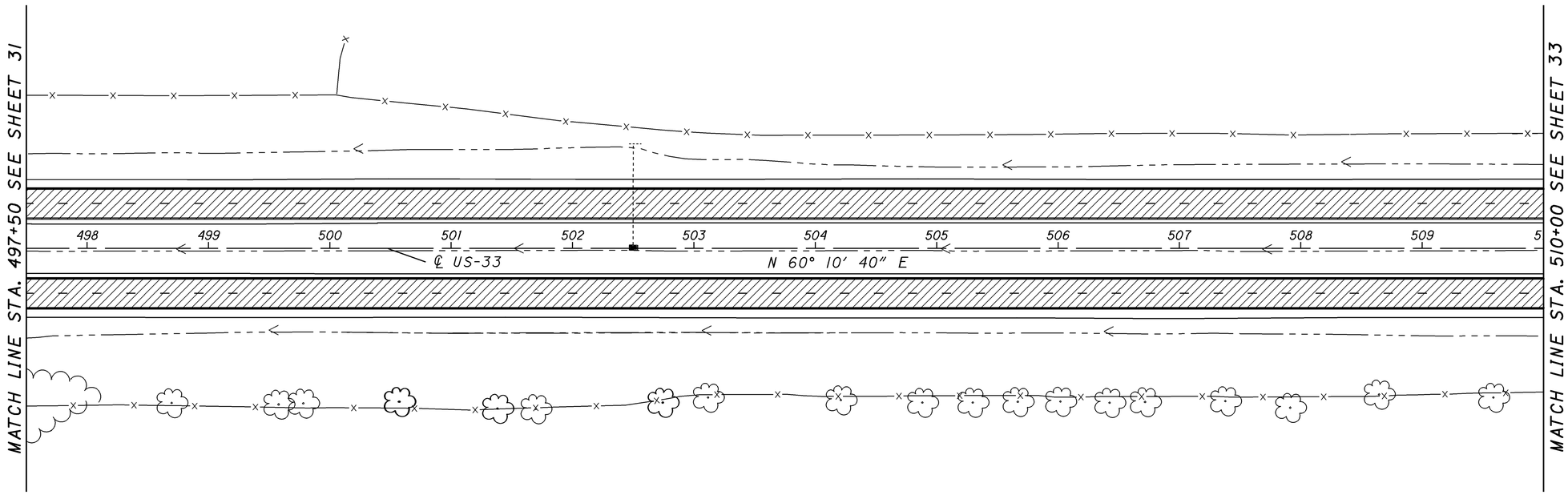
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HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED DKR/RBK
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PAVING LIMITS

STA	STA	WIDTH	SIDE	254 PAVEMENT PLANING ASPHALT CONCRETE 1.5″ DEPTH (SQ YD)	407 TACK COAT 0.075 GAL. PER SQ. YD. (GAL.)	442 ASPHALT SURFACE COURSE 12.5mm TYPE A (446) (CU YD)	617 COMPACTED AGGREGATE (2″ DEPTH) (CU YD)											REMARK
497+50	510+00	26′	RT	3,611	271	150	16											MAINLINE US 33
497+50	510+00	26′	LT	3,611	271	150	16											MAINLINE US 33
TOTALS CARRIED TO PAVEMENT SUBSUMMARY SHEET 27/108				7,222	542	300	32											

PLAN VIEW UNI-US33
STA. 497+50 TO STA. 510+00

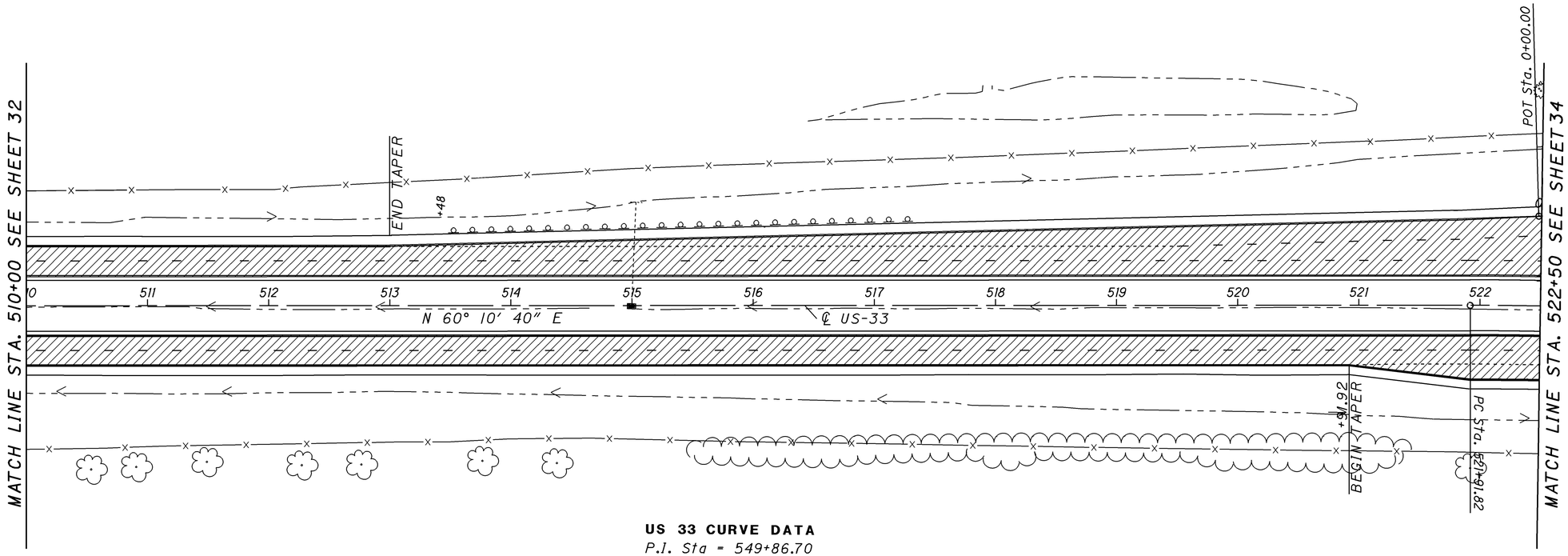
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HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED DKR/RBK
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US 33 CURVE DATA
P.I. Sta = 549+86.70
Δ = 71° 10' 01" (RT)
Dc = 1° 28' 00"
R = 3,906.22'
T = 2,794.87'
L = 4,851.91'
E = 896.89'
PC Sta. 521+91.82
PT Sta. 570+43.73

PAVING LIMITS

STA	STA	WIDTH	SIDE	254 PAVEMENT PLANING ASPHALT CONCRETE 1.5" DEPTH SQ YD	407 TACK COAT 0.075 GAL. PER SQ. YD. GAL.	442 ASPHALT SURFACE COURSE 12.5mm TYPE A (446) CU YD	617 COMPACTED AGGREGATE (2" DEPTH) CU YD											REMARK
510+00	520+91	26'	RT	3,152	236	131	14											MAINLINE US 33
520+91	522+50	25'	RT	442	33	18												MAINLINE US 33
520+91	521+91	7.5'	RT	83	6	3	2											MAINLINE US 33 ENT. RAMP G AVG. WIDTH
521+91	522+50	13'	RT	85	6	4												MAINLINE US 33 EXIT RAMP G
510+00	513+00	26'	LT	867	65	36	4											MAINLINE US 33
513+00	522+50	7.5'	LT	792	59	33	6											MAINLINE US 33 CD ROAD ENT. RAMP TAPER
513+00	522+50	25	LT	2,639	198	110	6											MAINLINE US 33
TOTALS CARRIED TO PAVEMENT SUBSUMMARY SHEET 27/108				8,060	605	335	32											

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED DKR/RDK
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PLAN VIEW UNI-US33 STA. 510+00 TO STA. 522+50

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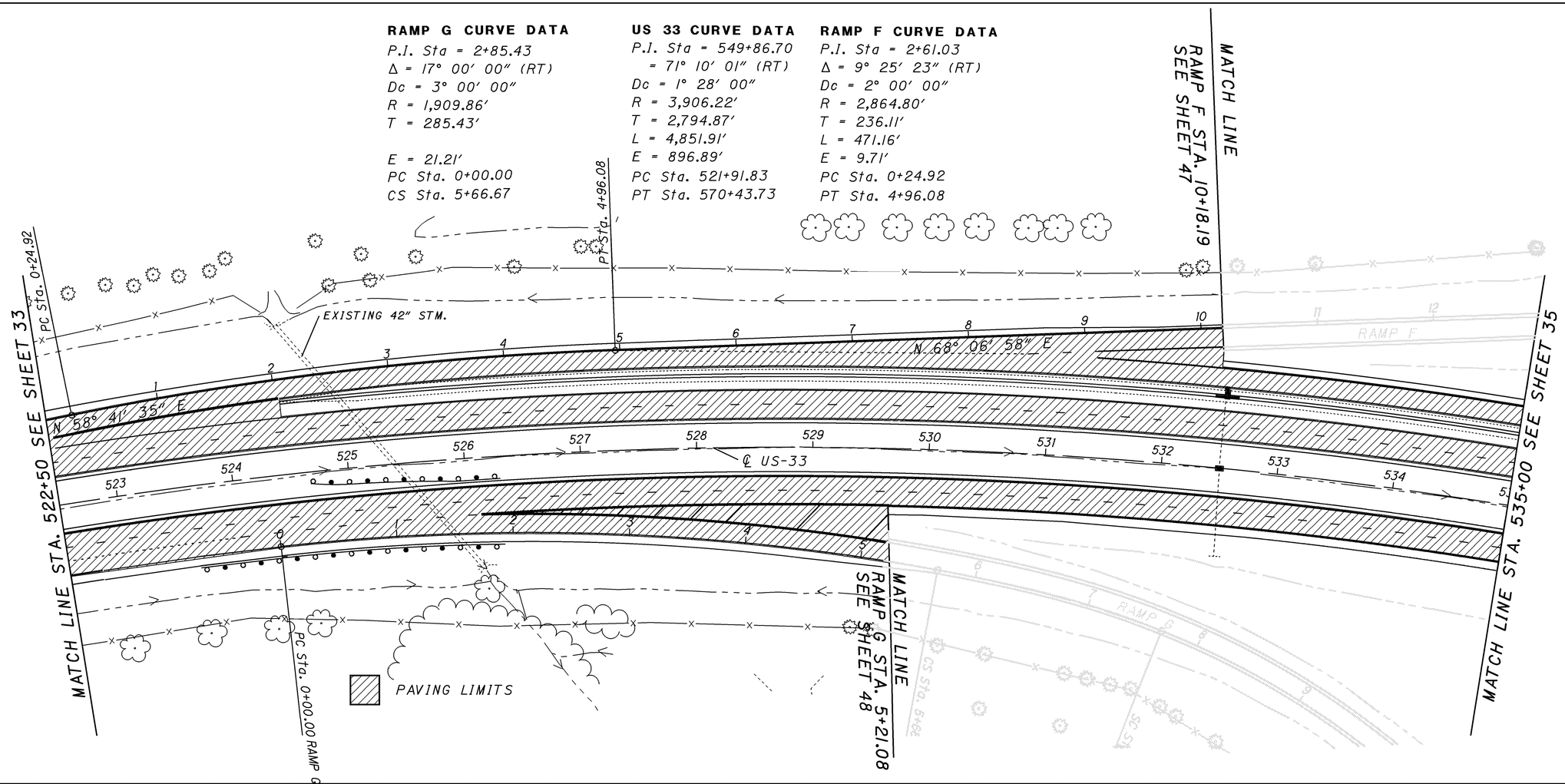
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RAMP G CURVE DATA
P.I. Sta = 2+85.43
Δ = 17° 00′ 00″ (RT)
Dc = 3° 00′ 00″
R = 1,909.86′
T = 285.43′

E = 21.21′
PC Sta. 0+00.00
CS Sta. 5+66.67

US 33 CURVE DATA
P.I. Sta = 549+86.70
= 71° 10′ 01″ (RT)
Dc = 1° 28′ 00″
R = 3,906.22′
T = 2,794.87′
L = 4,851.91′
E = 896.89′
PC Sta. 521+91.83
PT Sta. 570+43.73

RAMP F CURVE DATA
P.I. Sta = 2+61.03
Δ = 9° 25′ 23″ (RT)
Dc = 2° 00′ 00″
R = 2,864.80′
T = 236.11′
L = 471.16′
E = 9.71′
PC Sta. 0+24.92
PT Sta. 4+96.08



STA	STA	WIDTH	SIDE	254 PAVEMENT PLANING ASPHALT CONCRETE 1.5″ DEPTH SQ YD	407 TACK COAT 0.075 GAL. PER SQ. YD. GAL.	442 ASPHALT SURFACE COURSE 12.5mm TYPE A (446) CU YD	617 COMPACTED AGGREGATE (2″ DEPTH) CU YD											REMARK
522+50	526+15	25′	RT	1,014	76	42	4											MAINLINE US 33
522+50	526+15	13′	RT	527	40	22	2											MAINLINE US 33 EXIT RAMP G
526+15	529+65	14′	RT	544	41	23	2											MAINLINE US 33 EXIT RAMP G
526+15	535+00	26′	RT	2,557	192	107	5											MAINLINE US 33
522+50	524+50	26′	LT	578	43	24	1											MAINLINE US 33
522+50	524+50	14′	LT	311	23	13	1											MAINLINE US 33 CD ROAD ENT. RAMP
524+50	527+35	14′	LT	443	33	18	2											MAINLINE US 33 CD ROAD ENT. RAMP
527+35	532+45	8′	LT	453	34	19	3											CD ROAD ENT. RAMP F TAPER
532+45	535+00	18′	LT	510	38	21	2											MAINLINE US 33 CD ROAD
524+50	535+00	26′	LT	3,033	227	126	6											MAINLINE US 33
TOTALS CARRIED TO PAVEMENT SUBSUMMARY SHEET 27/108				9,970	748	415	28											

HORIZONTAL SCALE IN FEET
0 25 50 100
CALCULATED DKR/RBK
CHECKED

PLAN VIEW UNI-US33
STA. 522+50 TO STA. 535+00

UNI-33-8.74

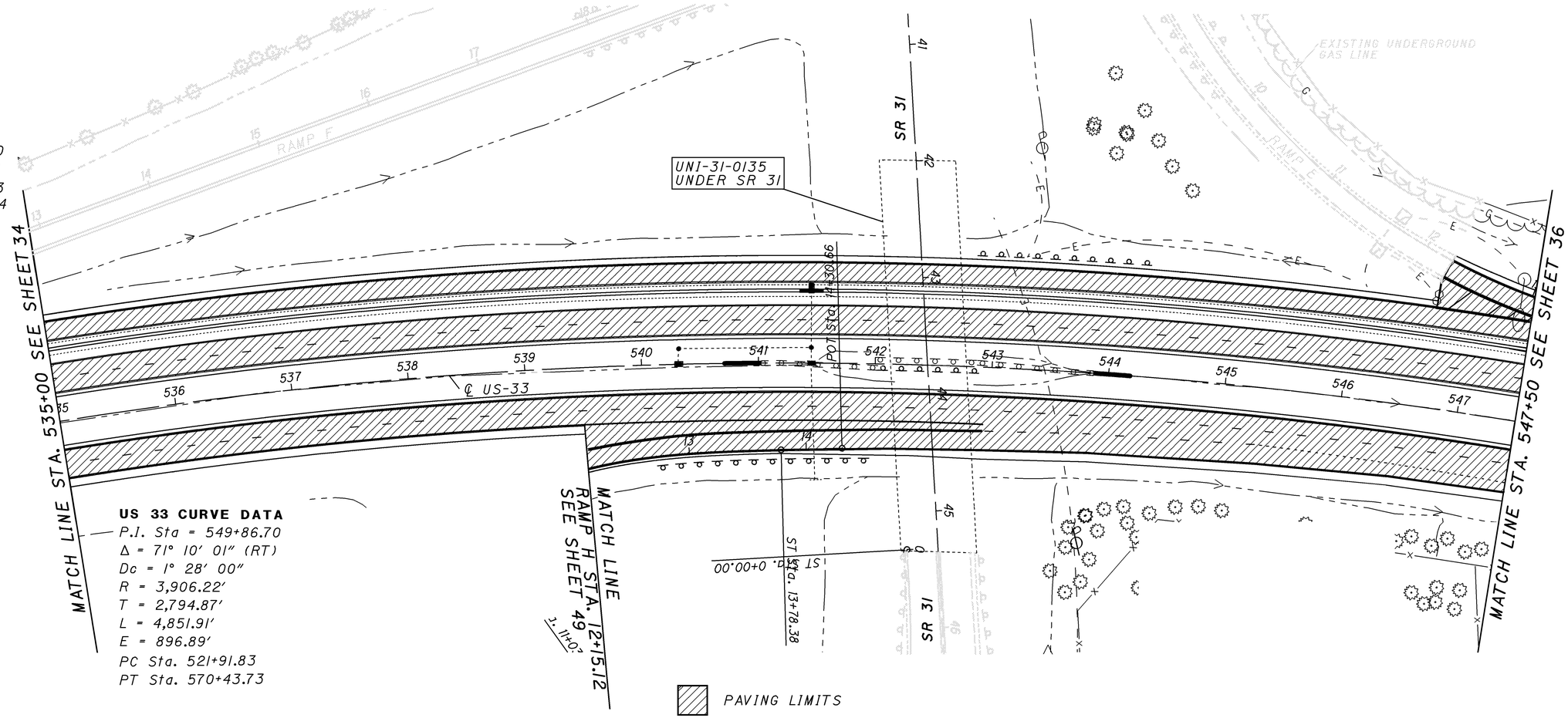
34
108

SHEET_GP006 13-NOV-2012 1:41PM drankin
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RAMP H CURVE DATA
Δ = 271° 45′ 40″ (RT)
R = 230.00′
Lc = 803.42′
Lsl = 300.00′
θsl =37°22′01″
Xcl = 287.49
Ycl = 63.26′
Pl = 16.06′
Kl = 147.90′
TS Sta. 0+00.00
SC Sta. 3+00.01
CS Sta. 11+03.43
ST Sta. 13+78.44
Ls2 = 275.00′

Xc2 = 265.33′
Yc2 = 53.42′

K2 = 135.88′
Lt2 = 186.89′
St2 = 94.91



US 33 CURVE DATA
P.I. Sta = 549+86.70
Δ = 71° 10′ 01″ (RT)
Dc = 1° 28′ 00″
R = 3,906.22′
T = 2,794.87′
L = 4,851.91′
E = 896.89′
PC Sta. 521+91.83
PT Sta. 570+43.73

STA	STA	WIDTH	SIDE	254 PAVEMENT PLANING ASPHALT CONCRETE 1.5″ DEPTH SQ YD	407 TACK COAT 0.075 GAL. PER SQ. YD. GAL.	442 ASPHALT SURFACE COURSE 12.5mm TYPE A (446) CU YD	617 COMPACTED AGGREGATE (2″ DEPTH) CU YD										REMARK
535+00	542+90	26′	RT	2,282	171	95	10										MAINLINE US 33
542+90	547+50	25′	RT	1,278	96	53	3										MAINLINE US 33 ENT. RAMP H
530+50	542+90	14′	RT	1,929	145	80	8										MAINLINE US 33 ENT. RAMP H
542+90	547+50	9′	RT	460	35	19	3										MAINLINE US 33 ENT. RAMP H AVG. WIDTH
535+00	547+50	26′	LT	3,611	271	150	8										MAINLINE US 33
535+00	547+50	18′	LT	2,500	188	104	8										CD ROAD
546+71	547+50	14′	LT	123	9	5											CD ROAD EXIT RAMP E
TOTALS CARRIED TO PAVEMENT SUBSUMMARY SHEET 27/108				12,183	914	506	40										

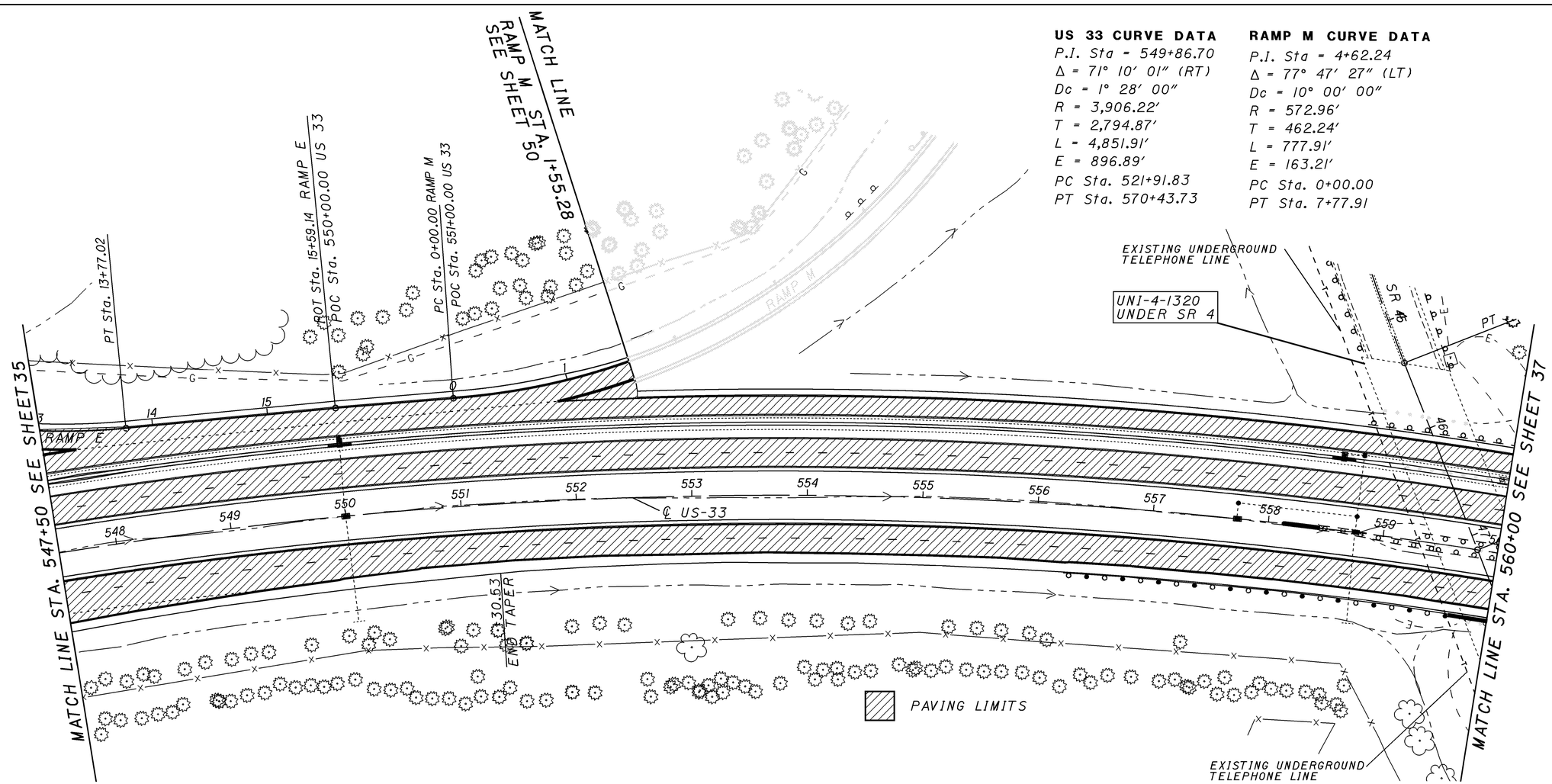
HORIZONTAL SCALE IN FEET
0 25 50 100
CALCULATED DKR/RBK
CHECKED

PLAN VIEW UNI-US33 STA. 535+00 TO STA. 547+50

UNI-33-8.74

35
108

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SHEET_GP007
13-NOV-2012 1:41PM
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US 33 CURVE DATA

P.I. Sta = 549+86.70
Δ = 71° 10′ 01″ (RT)
Dc = 1° 28′ 00″
R = 3,906.22′
T = 2,794.87′
L = 4,851.91′
E = 896.89′
PC Sta. 521+91.83
PT Sta. 570+43.73

RAMP M CURVE DATA

P.I. Sta = 4+62.24
Δ = 77° 47′ 27″ (LT)
Dc = 10° 00′ 00″
R = 572.96′
T = 462.24′
L = 777.91′
E = 163.21′
PC Sta. 0+00.00
PT Sta. 7+77.91

STA	STA	WIDTH	SIDE	254 PAVEMENT PLANING ASPHALT CONCRETE 1.5″ DEPTH SQ YD	407 TACK COAT 0.075 GAL. PER SQ. YD. GAL.	442 ASPHALT SURFACE COURSE 12.5mm TYPE A (446) CU YD	617 COMPACTED AGGREGATE (2″ DEPTH) CU YD											REMARK
547+50	551+30	25′	RT	1,056	79	44	2											MAINLINE US 33
547+50	551+30	6′	RT	253	19	11	2											MAINLINE US 33 ENT. RAMP H AVG. WIDTH
551+30	560+00	26′	RT	2,513	188	105	10											MAINLINE US 33
547+50	560+00	26′	LT	3,611	271	150	8											MAINLINE US 33
547+50	547+80	14′	LT	47	4	2												CD ROAD RAMP E
547+80	552+15	13′	LT	628	47	26	3											CD ROAD RAMP E & RAMP M
552+15	552+55	14′	LT	62	5	3												CD ROAD RAMP M
547+50	552+15	17′	LT	878	66	37	3											CD ROAD RAMP E & RAMP M
552+15	560+00	18′	LT	1,570	118	65	5											CD ROAD
TOTALS CARRIED TO PAVEMENT SUBSUMMARY SHEET 27/108				10,618	796	443	33											

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED DKR/RBK
CHECKED

PLAN VIEW UNI-US33 STA. 547+50 TO STA. 560+00

UNI-33-8.74

36
108

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SHEET_GP008
13-NOV-2012 1:41PM
drankin

RAMP J CURVE DATA

P.I. Sta = 2+34.50
Δ = 14° 00′ 00″ (RT)
Dc = 3° 00′ 00″
R = 1,909.85′
T = 234.50′
L = 466.66′
E = 14.34′

Δ = 211° 27′ 01″ (RT)
R = 310.00′
L = 1144.06′
PC Sta. 0+00.00
PCC Sta. 4+66.66
PCC Sta. 4+66.66
PCC Sta. 16+10.72

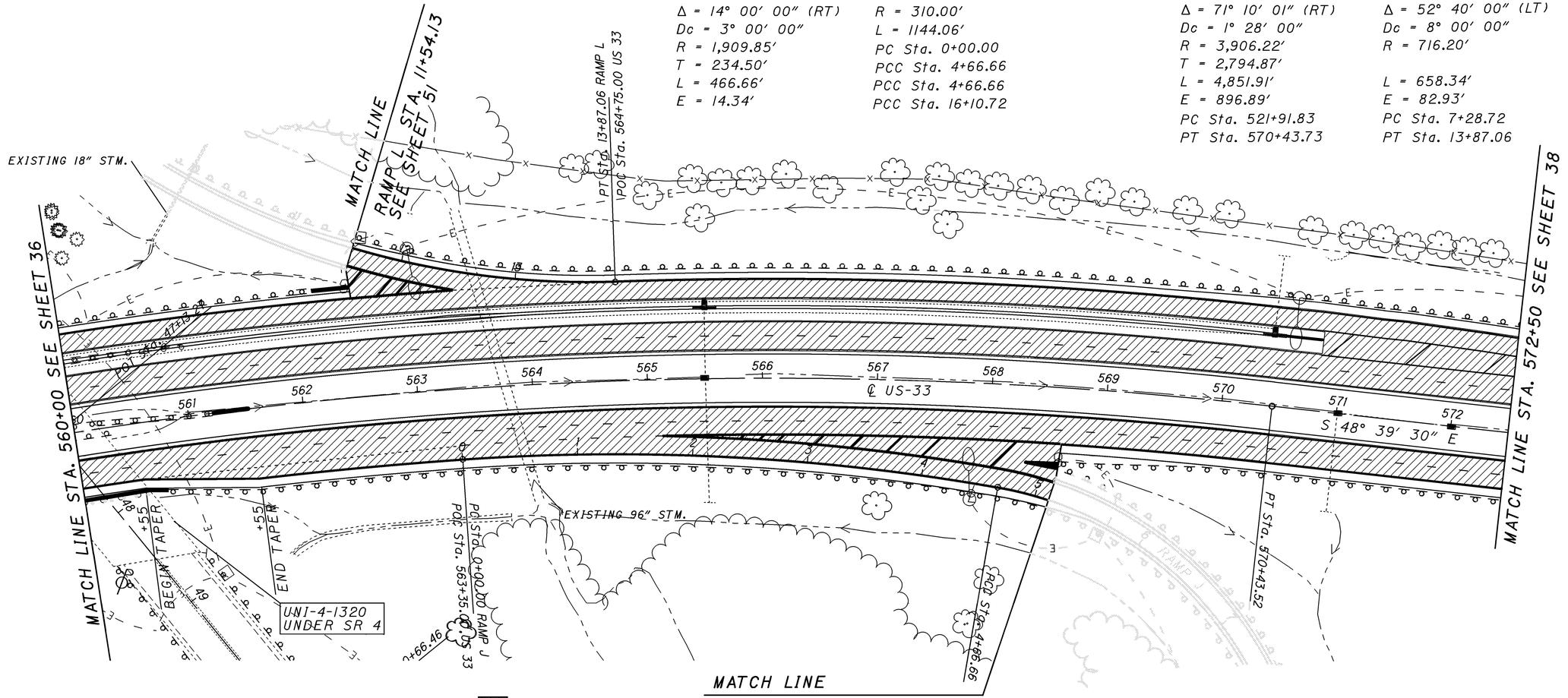
US 33 CURVE DATA

P.I. Sta = 549+86.70
Δ = 71° 10′ 01″ (RT)
Dc = 1° 28′ 00″
R = 3,906.22′
T = 2,794.87′
L = 4,851.91′
E = 896.89′
PC Sta. 521+91.83
PT Sta. 570+43.73

RAMP L CURVE DATA

Δ = 52° 40′ 00″ (LT)
Dc = 8° 00′ 00″
R = 716.20′

L = 658.34′
E = 82.93′
PC Sta. 7+28.72
PT Sta. 13+87.06



PAVING LIMITS

MATCH LINE
RAMP J STA. 5+12.05
SEE SHEET 52

STA	STA	WIDTH	SIDE	254 PAVEMENT PLANING ASPHALT CONCRETE 1.5″ DEPTH SQ YD	407 TACK COAT 0.075 GAL. PER SQ. YD. GAL.	442 ASPHALT SURFACE COURSE 12.5mm TYPE A (446) CU YD	617 COMPACTED AGGREGATE (2″ DEPTH) CU YD											REMARK
560+00	560+55	26′	RT	159	12	7	1											MAINLINE US 33
560+55	561+55	6.5′	RT	72	5	3	1											MAINLINE US 33 EXIST RAMP J AVG. WIDTH
561+55	565+15	13′	RT	520	39	22	2											MAINLINE US 33 EXIST RAMP J
565+15	568+60	14′	RT	537	40	22	2											MAINLINE US 33 EXIST RAMP J
560+55	568+60	25′	RT	2,236	168	93	5											MAINLINE US 33
568+60	572+50	26′	RT	1,127	85	47	2											MAINLINE US 33
560+00	572+50	26′	LT	3,611	271	150	8											MAINLINE US 33
560+00	563+35	18′	LT	670	50	28	2											CD ROAD
562+50	563+35	14′	LT	132	10	6	1											CD ROAD EXIST RAMP L
563+35	564+75	7.5′	LT	117	9	5	1											CD ROAD EXIST RAMP L AVG. WIDTH
563+35	570+80	18′	LT	1,490	112	62	5											CD ROAD
570+80	572+50	18′	LT	340	26	14	1											CD ROAD ENT. TAPER
TOTALS CARRIED TO PAVEMENT SUBSUMMARY SHEET 27/108				11,011	826	459	31											

HORIZONTAL SCALE IN FEET
0 25 50 100

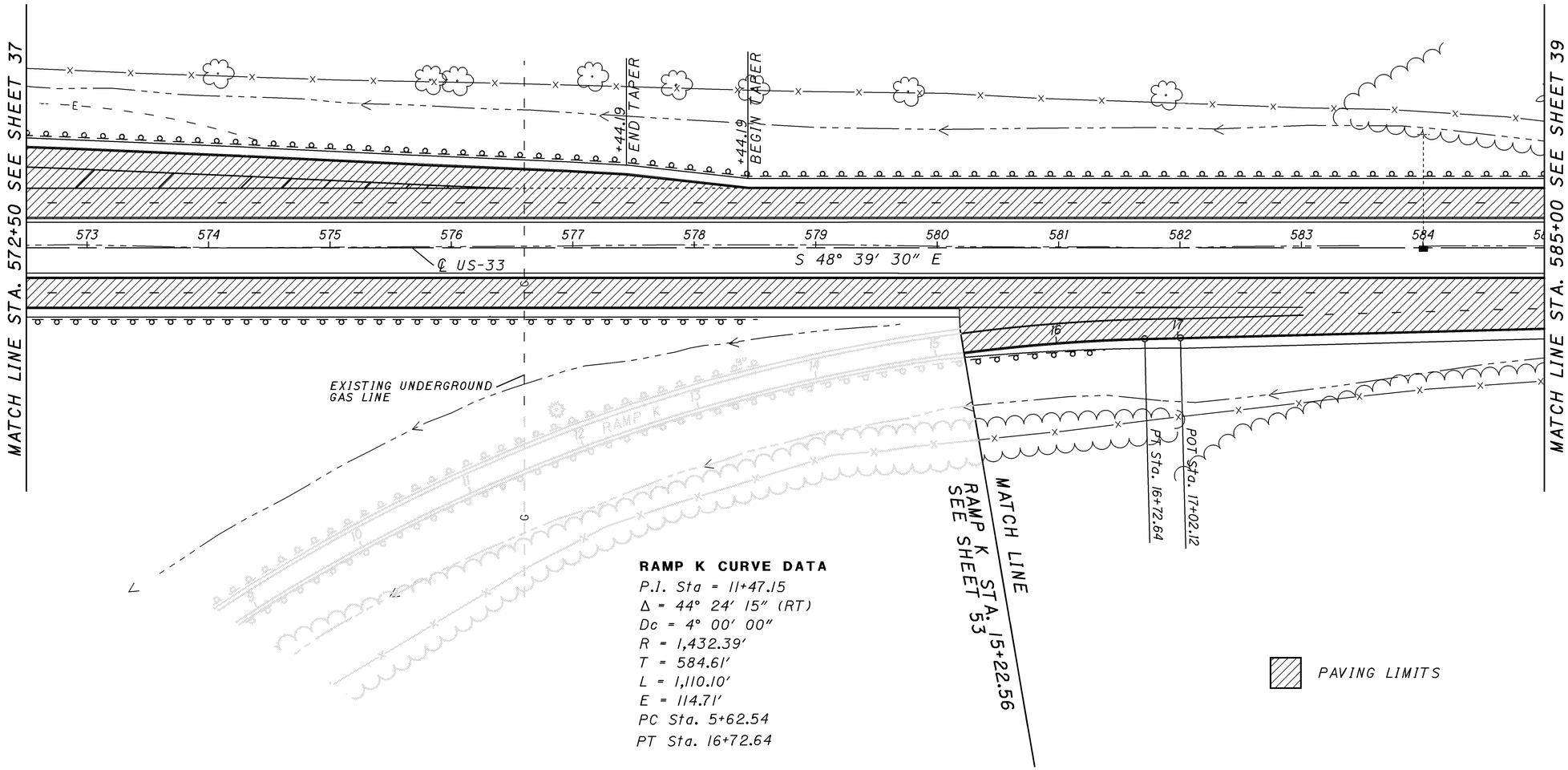
CALCULATED DKR/RBK
CHECKED CH

PLAN VIEW UNI-US33 STA. 560+00 TO STA. 572+50

UNI-33-8.74

37
108

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SHEET_GP009



STA	STA	WIDTH	SIDE	254 PAVEMENT PLANING ASPHALT CONCRETE 1.5″ DEPTH	407 TACK COAT 0.075 GAL. PER SQ. YD.	442 ASPHALT SURFACE COURSE 12.5mm TYPE A (446)	617 COMPACTED AGGREGATE (2″ DEPTH)										REMARK
				SQ YD	GAL.	CU YD	CU YD										
572+50	583+00	26′	RT	3,033	227	126	12										MAINLINE US 33
580+20	583+00	14′	RT	436	33	18	2										MAINLINE US 33 ENT. RAMP K
580+20	583+00	22′	RT	684	51	29	2										MAINLINE US 33 ENT. RAMP K
583+00	585+00	23′	RT	511	38	21	1										MAINLINE US 33 ENT. RAMP K AVG. WIDTH
572+50	585+00	26′	LT	3,611	271	150	16										MAINLINE US 33
572+50	576+50	18′	LT	800	60	33	2										CD ROAD
576+50	578+45	10′	LT	217	16	9	1										CD ROAD ENT. TAPER
TOTALS CARRIED TO PAVEMENT SUBSUMMARY SHEET 27/108				9,292	697	386	36										

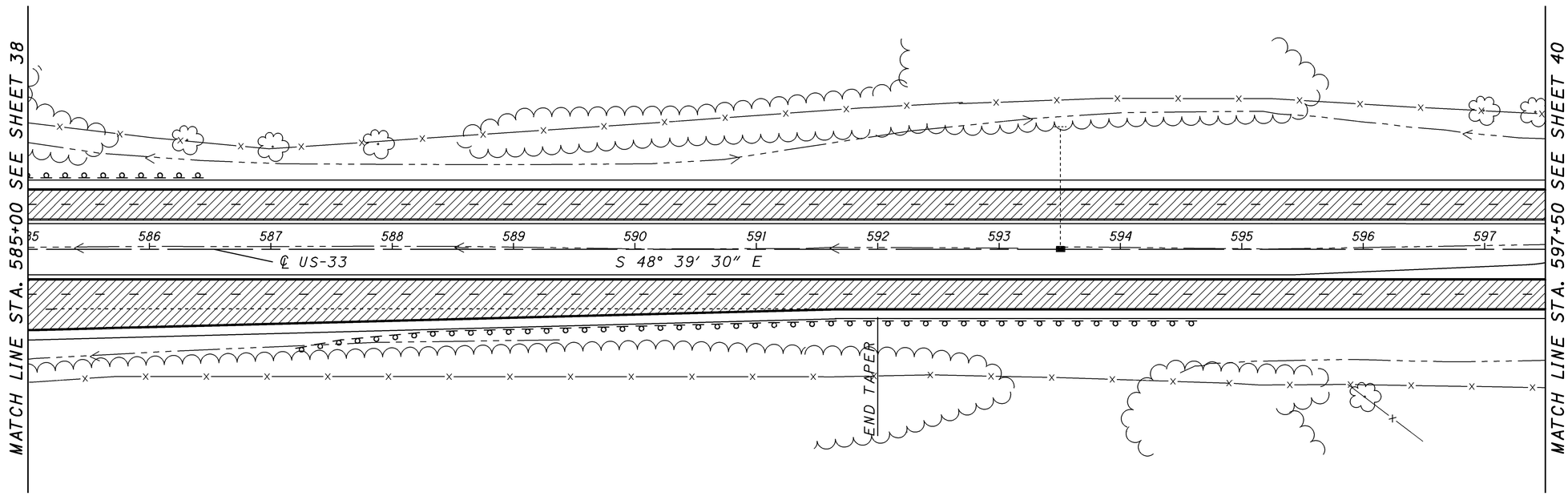
HORIZONTAL SCALE IN FEET
0 25 50 100
CALCULATED DKR/RBK
CHECKED

PLAN VIEW UNI-US33 STA. 572+00 TO STA. 585+00

UNI-33-8.74

38
108

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PAVING LIMITS

STA	STA	WIDTH	SIDE	254 PAVEMENT PLANING ASPHALT CONCRETE 1.5″ DEPTH	407 TACK COAT 0.075 GAL. PER SQ. YD.	442 ASPHALT SURFACE COURSE 12.5mm TYPE A (446)	617 COMPACTED AGGREGATE (2″ DEPTH)										REMARK
				SQ YD	GAL.	CU YD	CU YD										
585+00	592+00	25′	RT	1,944	146	81	4										MAINLINE US 33
585+00	592+00	7.5′	RT	583	44	24	4										MAINLINE US 33 ENT. RAMP K AVG. WIDTH
592+00	597+50	26′	RT	1,589	119	66	6										MAINLINE US 33
585+00	597+50	26′	LT	3,611	271	150	16										MAINLINE US 33
TOTALS CARRIED TO PAVEMENT SUBSUMMARY SHEET 27/108				7,727	580	321	30										

HORIZONTAL SCALE IN FEET
0 25 50 100

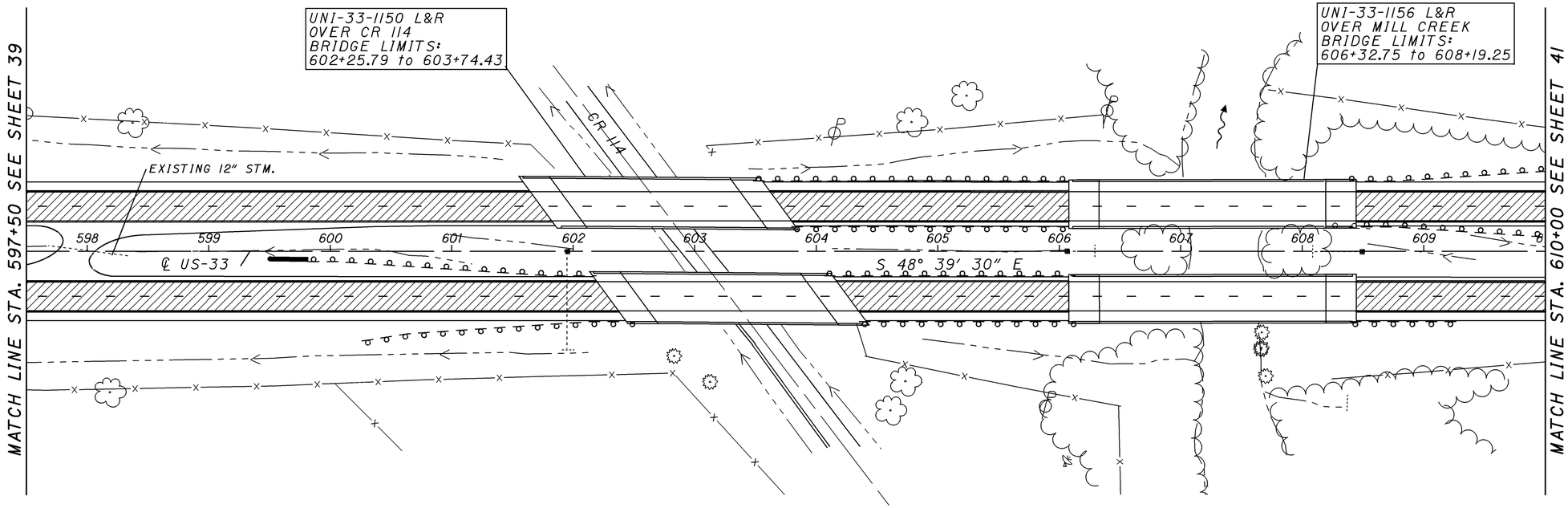
CALCULATED DKR/RBK
CHECKED

PLAN AND PROFILE SUBSUMMARY
US 33 STA. 585+00 TO STA. 597+50

UNI-33-8.74

39
108

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PAVING LIMITS

STA	STA	WIDTH	SIDE	254 PAVEMENT PLANING ASPHALT CONCRETE 1.5" DEPTH	407 TACK COAT 0.075 GAL. PER SQ. YD.	442 ASPHALT SURFACE COURSE 12.5mm TYPE A (446)	617 COMPACTED AGGREGATE (2" DEPTH)										REMARK
				SQ YD	GAL.	CU YD	CU YD										
597+50	602+30	26'	RT	1,387	104	58	6										MAINLINE US 33
604+25	606+10	26'	RT	534	40	22	2										MAINLINE US 33
608+45	610+00	26'	RT	448	34	19	2										MAINLINE US 33
597+50	601+70	26'	LT	1,213	91	51	6										MAINLINE US 33
603+70	606+10	26'	LT	693	52	29	2										MAINLINE US 33
608+45	610+00	26'	LT	448	34	19	2										MAINLINE US 33
TOTALS CARRIED TO PAVEMENT SUBSUMMARY SHEET 27/108				4,723	354	198	20										

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED DKR/RBK
CHECKED

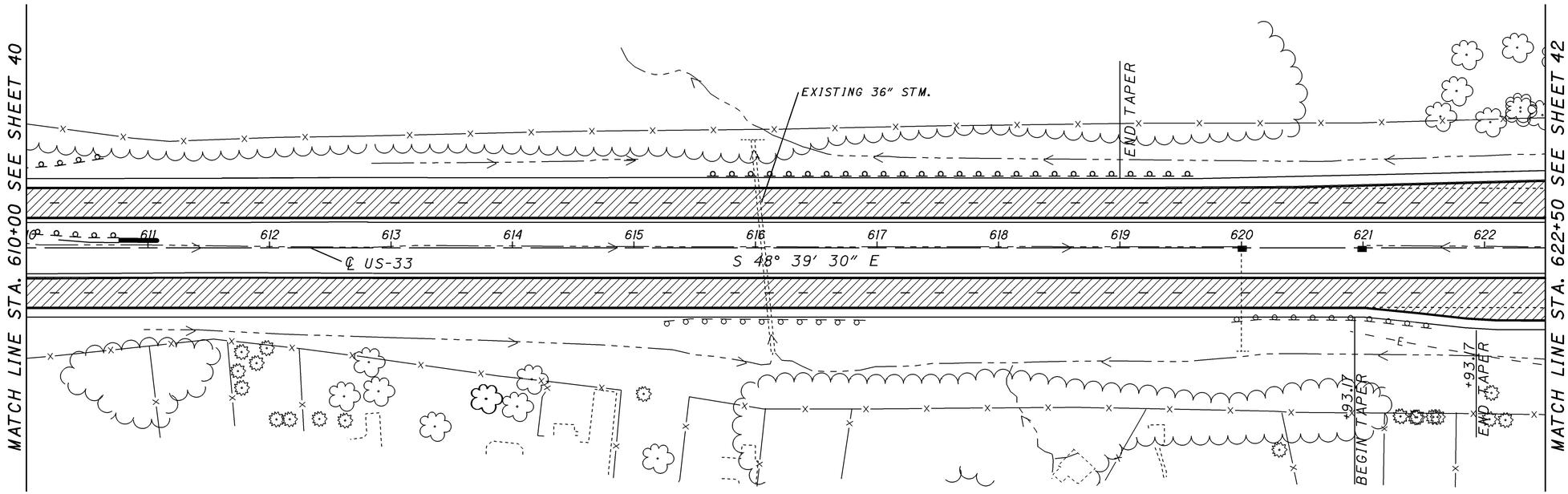
PLAN VIEW UNI-US33
STA. 597+50 TO STA. 610+00

UNI-33-8.74

40
108

SHEET_GP012 13-NOV-2012 1:42PM drankin

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PAVING LIMITS

STA	STA	WIDTH	SIDE	254 PAVEMENT PLANING ASPHALT CONCRETE 1.5" DEPTH SQ YD	407 TACK COAT 0.075 GAL. PER SQ. YD. GAL.	442 ASPHALT SURFACE COURSE 12.5mm TYPE A (446) CU YD	617 COMPACTED AGGREGATE (2" DEPTH) CU YD											REMARK
610+00	620+90	26'	RT	3,149	236	131	14											MAINLINE US 33
620+90	622+50	25'	RT	444	33	19	1											MAINLINE US 33
620+90	621+90	7	RT	78	6	3	1											MAINLINE US 33 EXIT RAMP A AVG. WIDTH
621+90	622+50	13	RT	87	7	4	1											MAINLINE US 33 EXIT RAMP A
610+00	622+50	26'	LT	3,611	271	150	16											MAINLINE US 33
TOTALS CARRIED TO PAVEMENT SUBSUMMARY SHEET 27/108				7,369	553	307	33											

PLAN VIEW UNI-US33
STA. 610+00 TO STA. 622+50

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED DKR/RDK
CHECKED

UNI-33-8.74

41
108

SHEET_GP013 13-NOV-2012 1:42PM drankin

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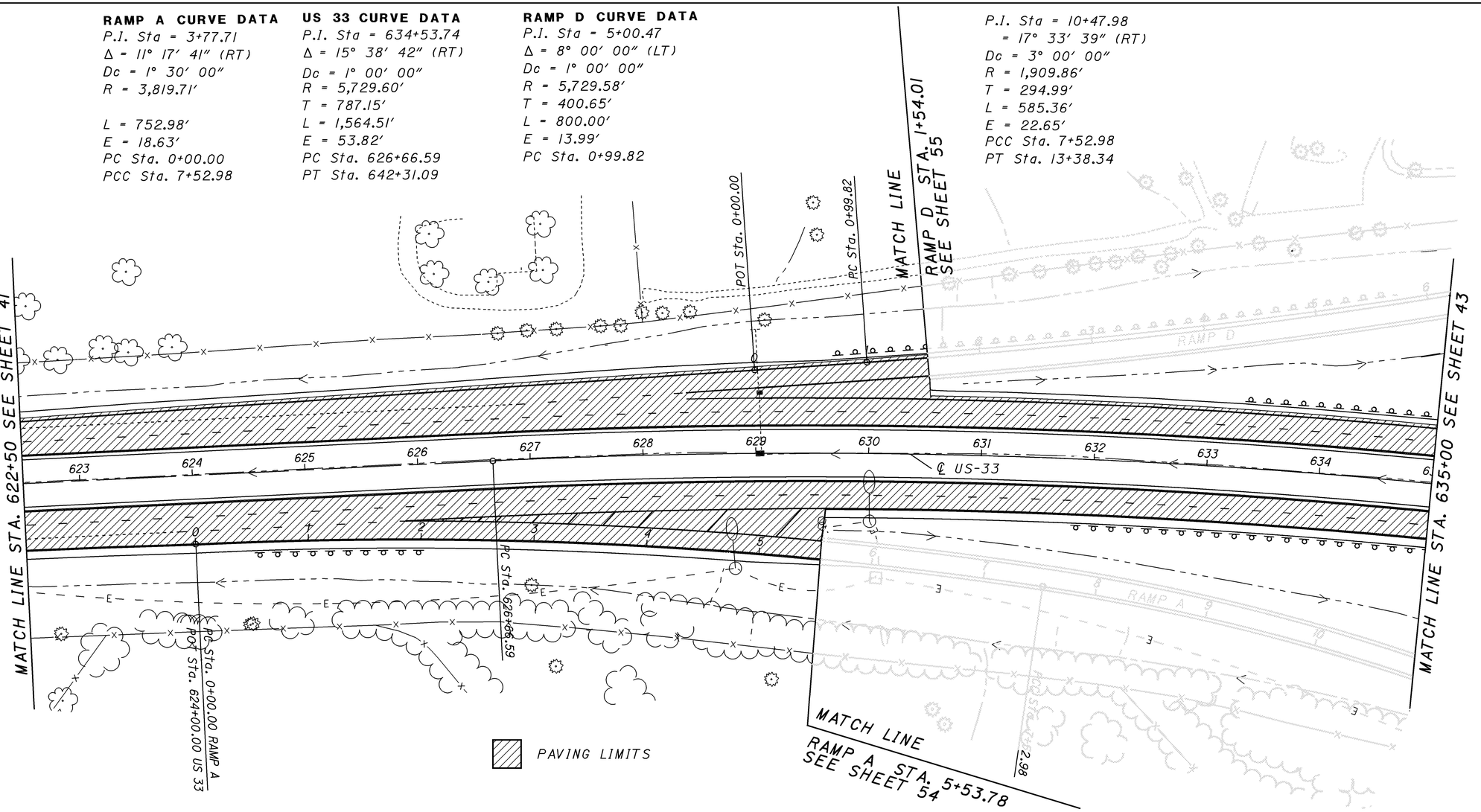
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Dc = 1° 30′ 00″
R = 3,819.71′

L = 752.98′
E = 18.63′
PC Sta. 0+00.00
PCC Sta. 7+52.98

US 33 CURVE DATA
P.I. Sta = 634+53.74
Δ = 15° 38′ 42″ (RT)
Dc = 1° 00′ 00″
R = 5,729.60′
T = 787.15′
L = 1,564.51′
E = 53.82′
PC Sta. 626+66.59
PT Sta. 642+31.09

RAMP D CURVE DATA
P.I. Sta = 5+00.47
Δ = 8° 00′ 00″ (LT)
Dc = 1° 00′ 00″
R = 5,729.58′
T = 400.65′
L = 800.00′
E = 13.99′
PC Sta. 0+99.82

P.I. Sta = 10+47.98
= 17° 33′ 39″ (RT)
Dc = 3° 00′ 00″
R = 1,909.86′
T = 294.99′
L = 585.36′
E = 22.65′
PCC Sta. 7+52.98
PT Sta. 13+38.34



S T A	S T A	W I D T H	S I D E	254 PAVEMENT PLANING ASPHALT CONCRETE 1.5″ DEPTH	407 TACK COAT 0.075 GAL. PER SQ. YD.	442 ASPHALT SURFACE COURSE 12.5mm TYPE A (446)	617 COMPACTED AGGREGATE (2″ DEPTH)											REMARK
				SQ YD	GAL.	CU YD	CU YD											
622+50	625+85	25′	RT	931	70	39	2											MAINLINE US 33
622+50	625+85	13′	RT	484	36	20	2											MAINLINE US 33 EXIT RAMP A
625+85	629+58	14′	RT	580	44	24	2											MAINLINE US 33 EXIT RAMP A
625+85	635+00	24′	RT	2,440	183	102	12											MAINLINE US 33
622+50	628+40	25′	LT	1,639	123	68	4											MAINLINE US 33
622+50	628+40	13′	LT	852	64	36	4											MAINLINE US 33 ENT. RAMP D
628+40	630+52	14′	LT	330	25	14	1											MAINLINE US 33 ENT. RAMP D
628+40	635+00	26′	LT	1,907	143	79	8											MAINLINE US 33
TOTALS CARRIED TO PAVEMENT SUBSUMMARY SHEET 27/108				9,163	687	382	35											

HORIZONTAL SCALE IN FEET
0 25 50 100

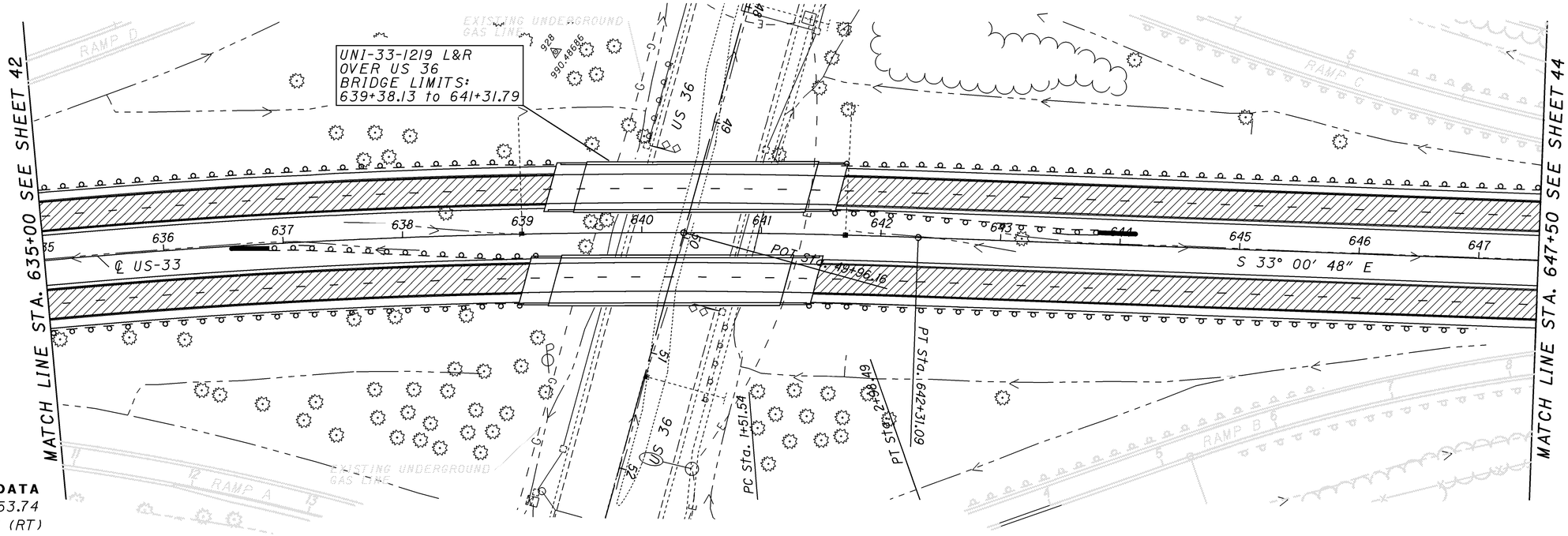
CALCULATED DKR/RBK
CHECKED

PLAN VIEW UNI-US33
STA. 622+50 TO STA. 635+00

UNI-33-8.74

42
108

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US 33 CURVE DATA
P.I. Sta = 634+53.74
Δ = 15° 38′ 42″ (RT)
Dc = 1° 00′ 00″
R = 5,729.60′
T = 787.15′
L = 1,564.51′
E = 53.82′
PC Sta. 626+66.59
PT Sta. 642+31.09

PAVING LIMITS

STA	STA	WIDTH	SIDE	254 PAVEMENT PLANING ASPHALT CONCRETE 1.5″ DEPTH SQ YD	407 TACK COAT 0.075 GAL. PER SQ. YD. GAL.	442 ASPHALT SURFACE COURSE 12.5mm TYPE A (446) CU YD	617 COMPACTED AGGREGATE (2″ DEPTH) CU YD											REMARK
635+00	639+05	26′	RT	1,170	88	49	6											MAINLINE US 33
641+46	647+50	26′	RT	1,745	131	73	8											MAINLINE US 33
635+00	639+25	26′	LT	1,228	92	51	6											
641+65	647+50	26′	LT	1,690	127	70	8											
TOTALS CARRIED TO PAVEMENT SUBSUMMARY SHEET 27/108				5,833	437	243	28											

HORIZONTAL SCALE IN FEET
0 25 50 100
CALCULATED DKR/RBK
CHECKED CH

PLAN VIEW UNI-US33 STA. 635+00 TO STA. 647+50

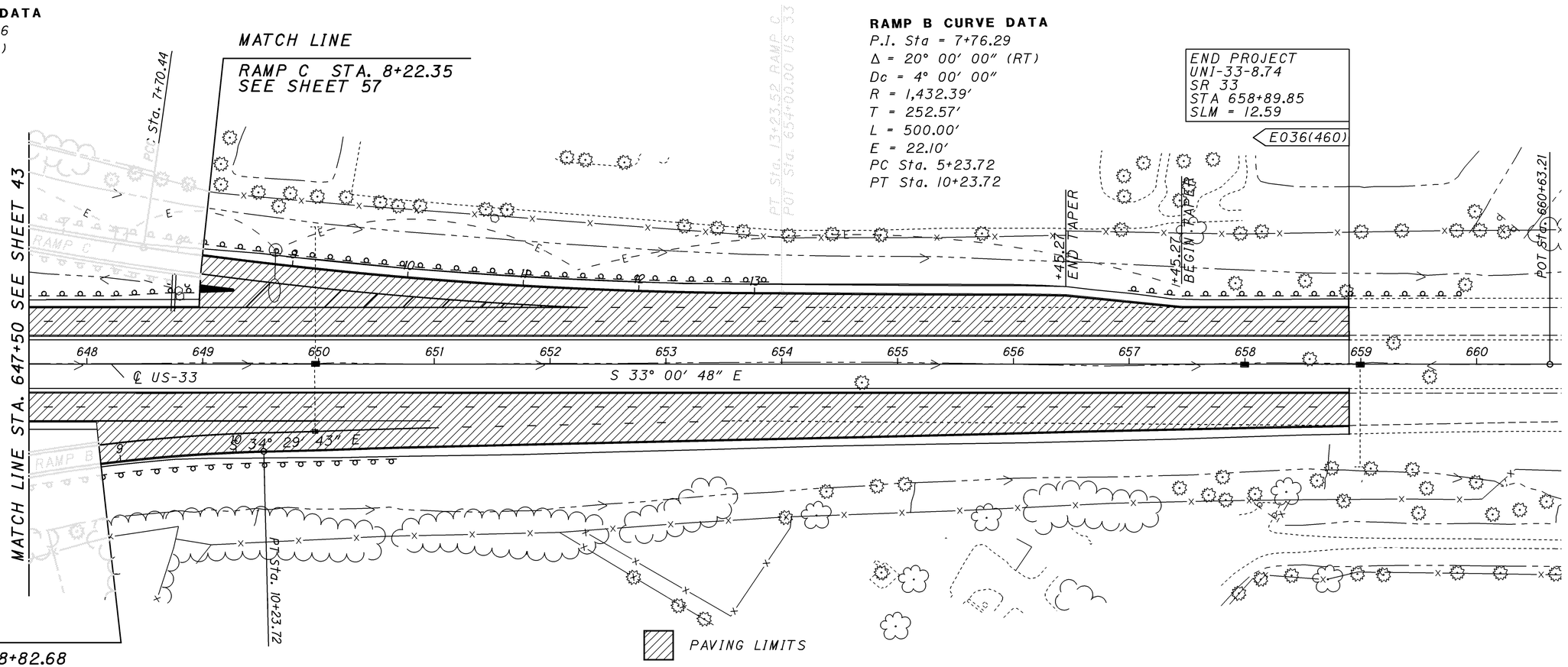
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43
108

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RAMP C CURVE DATA
P.I. Sta = 10+47.46
Δ= 8° 17′ 46″ (LT)
Dc = 1° 30′ 00″
R = 3,819.72′
T = 277.02′
L = 553.07′
E = 10.03′
PCC Sta. 7+70.44
PT Sta. 13+23.52

RAMP B CURVE DATA
P.I. Sta = 7+76.29
Δ = 20° 00′ 00″ (RT)
Dc = 4° 00′ 00″
R = 1,432.39′
T = 252.57′
L = 500.00′
E = 22.10′
PC Sta. 5+23.72
PT Sta. 10+23.72



STA	STA	WIDTH	SIDE	254 PAVEMENT PLANING ASPHALT CONCRETE 1.5″ DEPTH SQ YD	407 TACK COAT 0.075 GAL. PER SQ. YD. GAL.	442 ASPHALT SURFACE COURSE 12.5mm TYPE A (446) CU YD	617 COMPACTED AGGREGATE (2″ DEPTH) CU YD											REMARK
647+50	650+96	26′	RT	1,000	75	42	4											MAINLINE US 33
648+10	650+96	14′	RT	445	33	19	2											MAINLINE US 33 ENT. RAMP B
650+96	658+89	13′	RT	1,145	86	48	5											MAINLINE US 33 ENT. RAMP B AVG. WIDTH
650+96	658+89	25′	RT	2,203	165	92	5											MAINLINE US 33
647+50	652+25	26′	LT	1,372	103	57	6											MAINLINE US 33
648+95	652+25	14′	LT	513	38	21	2											MAINLINE US 33 EXIT RAMP C
652+25	656+45	13′	LT	607	46	25	3											MAINLINE US 33 EXIT RAMP C
656+45	657+45	7′	LT	78	6	3	1											MAINLINE US 33 EXIT RAMP C AVG. WIDTH
657+45	658+89	26′	LT	416	31	17	2											MAINLINE US 33
TOTALS CARRIED TO PAVEMENT SUBSUMMARY SHEET 27/108				7,779	583	324	30											

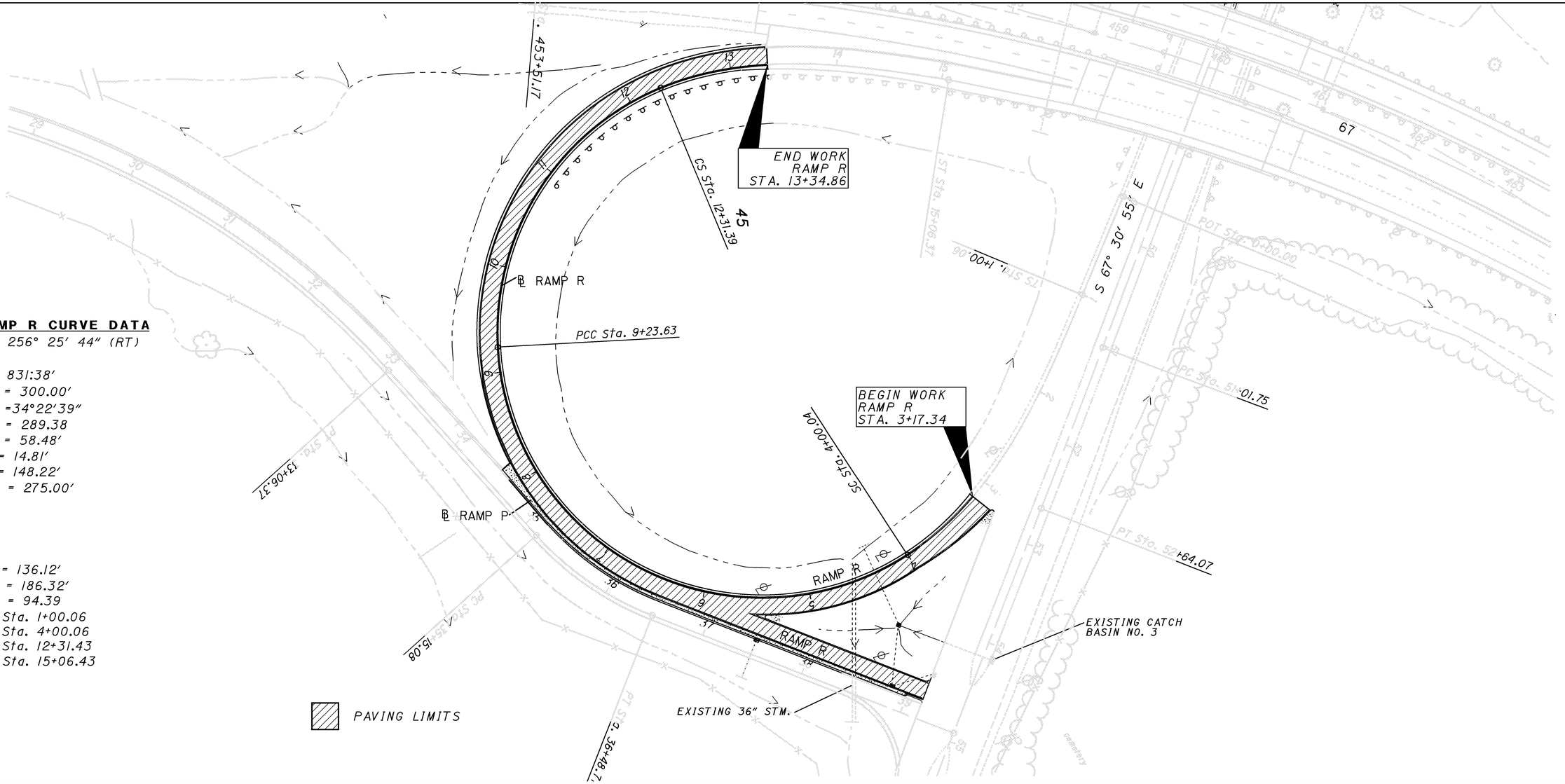
HORIZONTAL SCALE IN FEET
0 25 50 100
CALCULATED DKR/RBK
CHECKED CH

PLAN VIEW UNI-US33
STA. 647+50 TO STA. 658+89.85

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RAMP R CURVE DATA

= 256° 25' 44" (RT)

L = 831:38'
Lsl = 300.00'
θsl =34°22'39"
Xcl = 289.38
Ycl = 58.48'
Pl = 14.81'
Kl = 148.22'
Ls2 = 275.00'
θ

K2 = 136.12'
Lt2 = 186.32'
St2 = 94.39
TS Sta. 1+00.06
SC Sta. 4+00.06
CS Sta. 12+31.43
ST Sta. 15+06.43

STA	STA	WIDTH	SIDE	254 PAVEMENT PLANING ASPHALT CONCRETE 1.5" DEPTH	407 TACK COAT 0.075 GAL. PER SQ. YD.	442 ASPHALT SURFACE COURSE 12.5mm TYPE A (446)	617 COMPACTED AGGREGATE (2" DEPTH)										REMARK
				SQ YD	GAL.	CU YD	CU YD										
3+17	5+42	18'	RT	450	34	19	1										RAMP R RT SLIP RAMP
4+36	5+42	18'	LT	212	16	9	1										RAMP R LT SLIP RAMP
5+42	6+60	27	RT & LT	354	27	15	2										RAMP R TAPER AVG. WIDTH
6+60	13+34	18		1,348	101	56	8										RAMP R
TOTALS CARRIED TO PAVEMENT SUBSUMMARY SHEET 27/108				2,364	177	99	12										

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED DKR/RBK
CHECKED

PLAN VIEW UNI-US33
RAMP R

UNI-33-8.74

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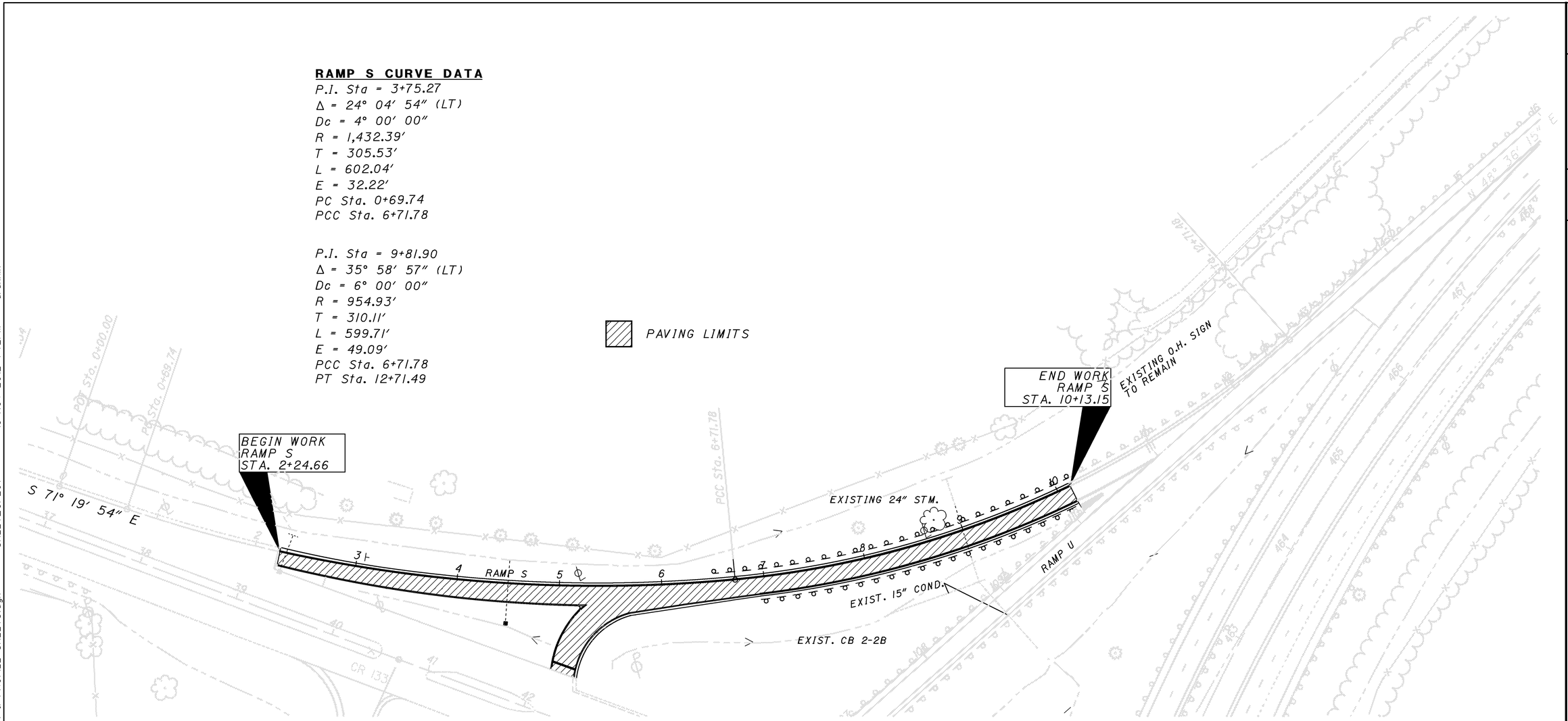
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SHEET_GP200

RAMP S CURVE DATA

P.I. Sta = 3+75.27
Δ = 24° 04′ 54″ (LT)
Dc = 4° 00′ 00″
R = 1,432.39′
T = 305.53′
L = 602.04′
E = 32.22′
PC Sta. 0+69.74
PCC Sta. 6+71.78

P.I. Sta = 9+81.90
Δ = 35° 58′ 57″ (LT)
Dc = 6° 00′ 00″
R = 954.93′
T = 310.11′
L = 599.71′
E = 49.09′
PCC Sta. 6+71.78
PT Sta. 12+71.49

PAVING LIMITS



STA	STA	WIDTH	SIDE	254 PAVEMENT PLANING ASPHALT CONCRETE 1.5″ DEPTH SQ YD	407 TACK COAT 0.075 GAL. PER SQ. YD. GAL.	442 ASPHALT SURFACE COURSE 12.5mm TYPE A (446) CU YD	617 COMPACTED AGGREGATE (2″ DEPTH) CU YD										REMARK
2+24	5+20	18′	LT	592	44	25	2										RAMP S LT SLIP RAMP
5+04	5+20	18′	RT	32	2	1	1										RAMP S RT SLIP RAMP
5+20	7+00	32′	LT & RT	640	48	27	1										RAMP S TAPER AVG. WIDTH
7+00	10+13	18		626	47	26	2										RAMP S
TOTALS CARRIED TO PAVEMENT SUBSUMMARY SHEET 27/108				1,890	142	79	6										

HORIZONTAL SCALE IN FEET
0 25 50 100

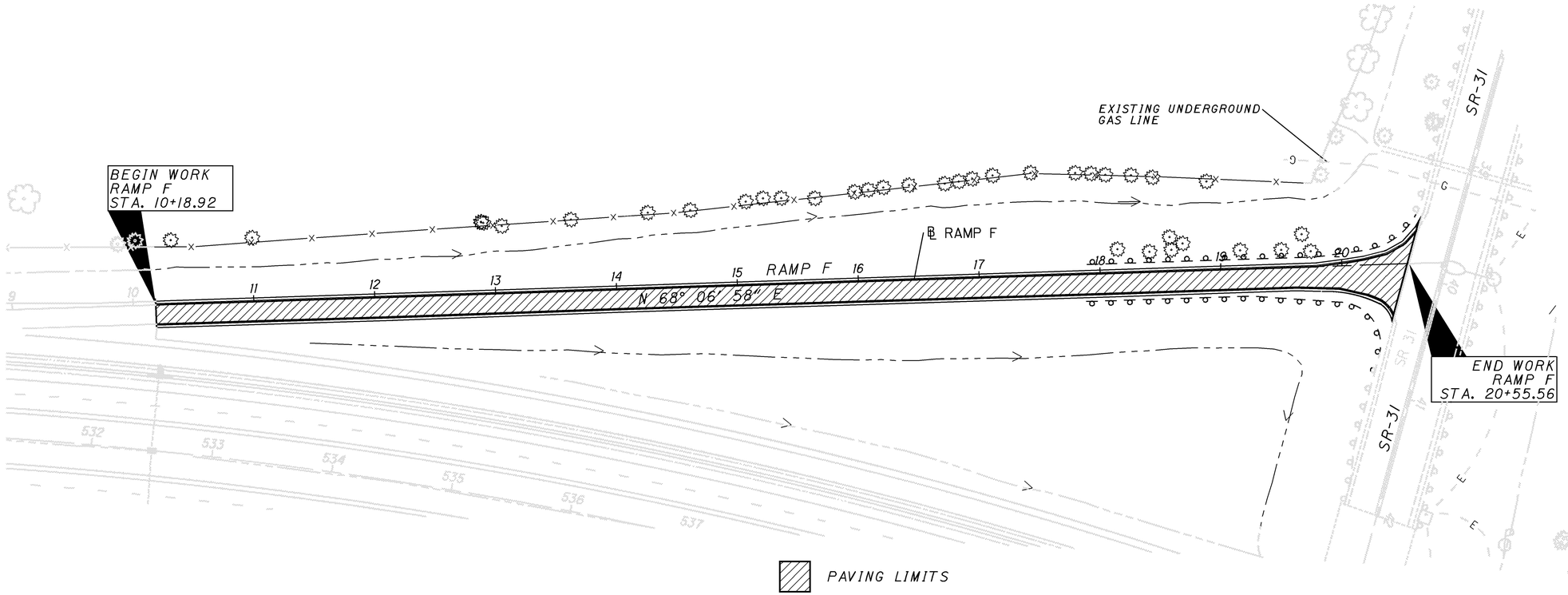
CALCULATED DKR/RDK
CHECKED

PLAN VIEW UNI-US33 RAMP S

UNI-33-8.74

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STA	STA	WIDTH	SIDE	254 PAVEMENT PLANING ASPHALT CONCRETE 1.5" DEPTH SQ YD	407 TACK COAT 0.075 GAL. PER SQ. YD. GAL.	442 ASPHALT SURFACE COURSE 12.5mm TYPE A (446) CU YD	617 COMPACTED AGGREGATE (2" DEPTH) CU YD										REMARK
10+18	19+78	18'		1,920	144	80	6										RAMP F
19+78	20+55	48'		411	31	17	1										RAMP F TAPER AVG. WIDTH
TOTALS CARRIED TO PAVEMENT SUBSUMMARY SHEET 27/108				2,331	175	97	7										

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED DKR/RBK
CHECKED

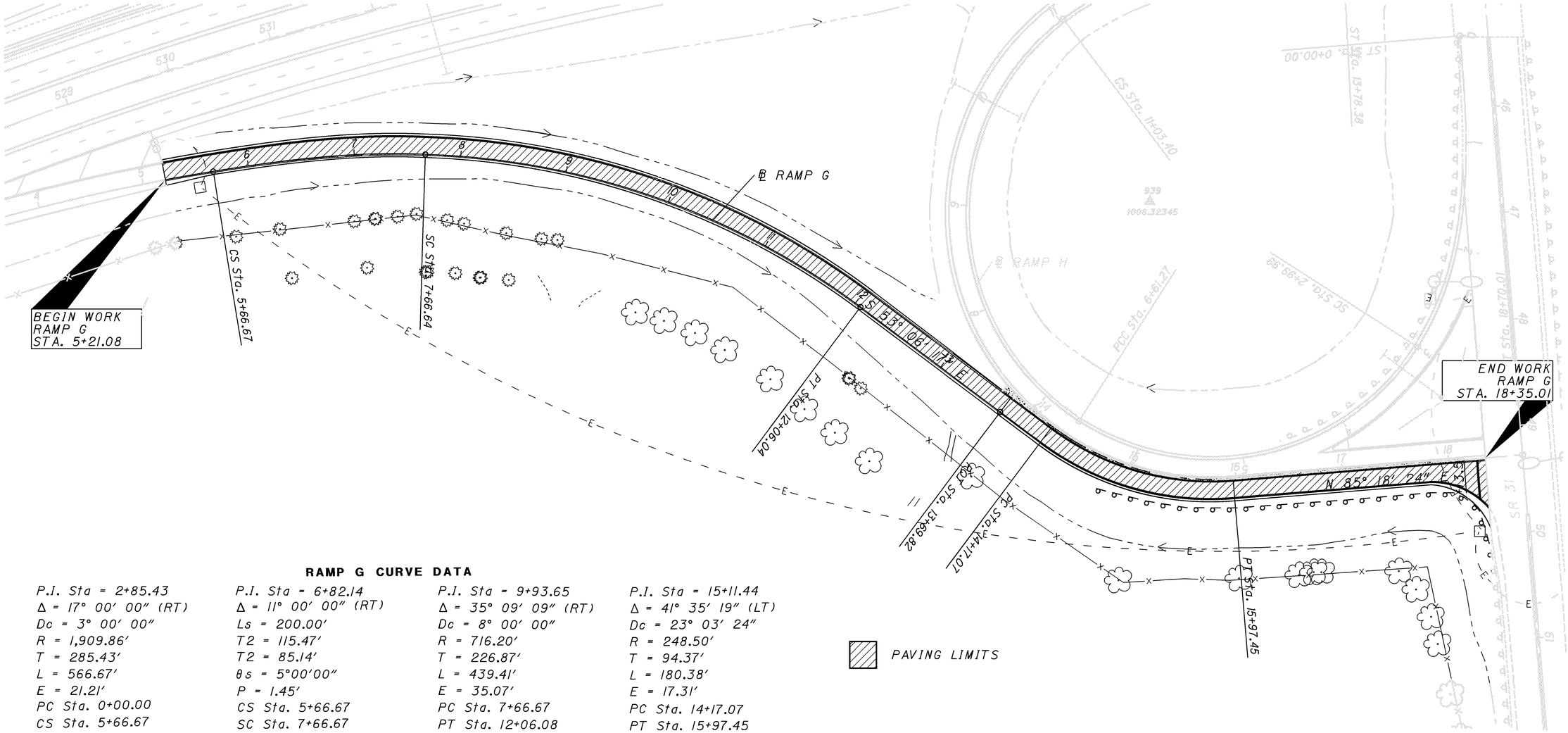
PLAN VIEW UNI-US33 RAMP F

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RAMP G CURVE DATA

P.I. Sta = 2+85.43	P.I. Sta = 6+82.14	P.I. Sta = 9+93.65	P.I. Sta = 15+11.44
Δ = 17° 00′ 00″ (RT)	Δ = 11° 00′ 00″ (RT)	Δ = 35° 09′ 09″ (RT)	Δ = 41° 35′ 19″ (LT)
Dc = 3° 00′ 00″	Ls = 200.00′	Dc = 8° 00′ 00″	Dc = 23° 03′ 24″
R = 1,909.86′	T2 = 115.47′	R = 716.20′	R = 248.50′
T = 285.43′	T2 = 85.14′	T = 226.87′	T = 94.37′
L = 566.67′	θs = 5°00′00″	L = 439.41′	L = 180.38′
E = 21.21′	P = 1.45′	E = 35.07′	E = 17.31′
PC Sta. 0+00.00	CS Sta. 5+66.67	PC Sta. 7+66.67	PC Sta. 14+17.07
CS Sta. 5+66.67	SC Sta. 7+66.67	PT Sta. 12+06.08	PT Sta. 15+97.45

STA	STA	WIDTH	SIDE	254 PAVEMENT PLANING ASPHALT CONCRETE 1.5″ DEPTH (SQ YD)	407 TACK COAT 0.075 GAL. PER SQ. YD. (GAL.)	442 ASPHALT SURFACE COURSE 12.5mm TYPE A (446) (CU YD)	617 COMPACTED AGGREGATE (2″ DEPTH) (CU YD)										REMARK
5+21	17+80	18′	RT	2,518	189	105	8										RAMP G
17+80	18+35	27′	LT	165	12	7											RAMP G TAPER AVG. WIDTH
TOTALS CARRIED TO PAVEMENT SUBSUMMARY SHEET 27/108				2,683	201	112	8										

PLAN VIEW UNI-US33
RAMP G

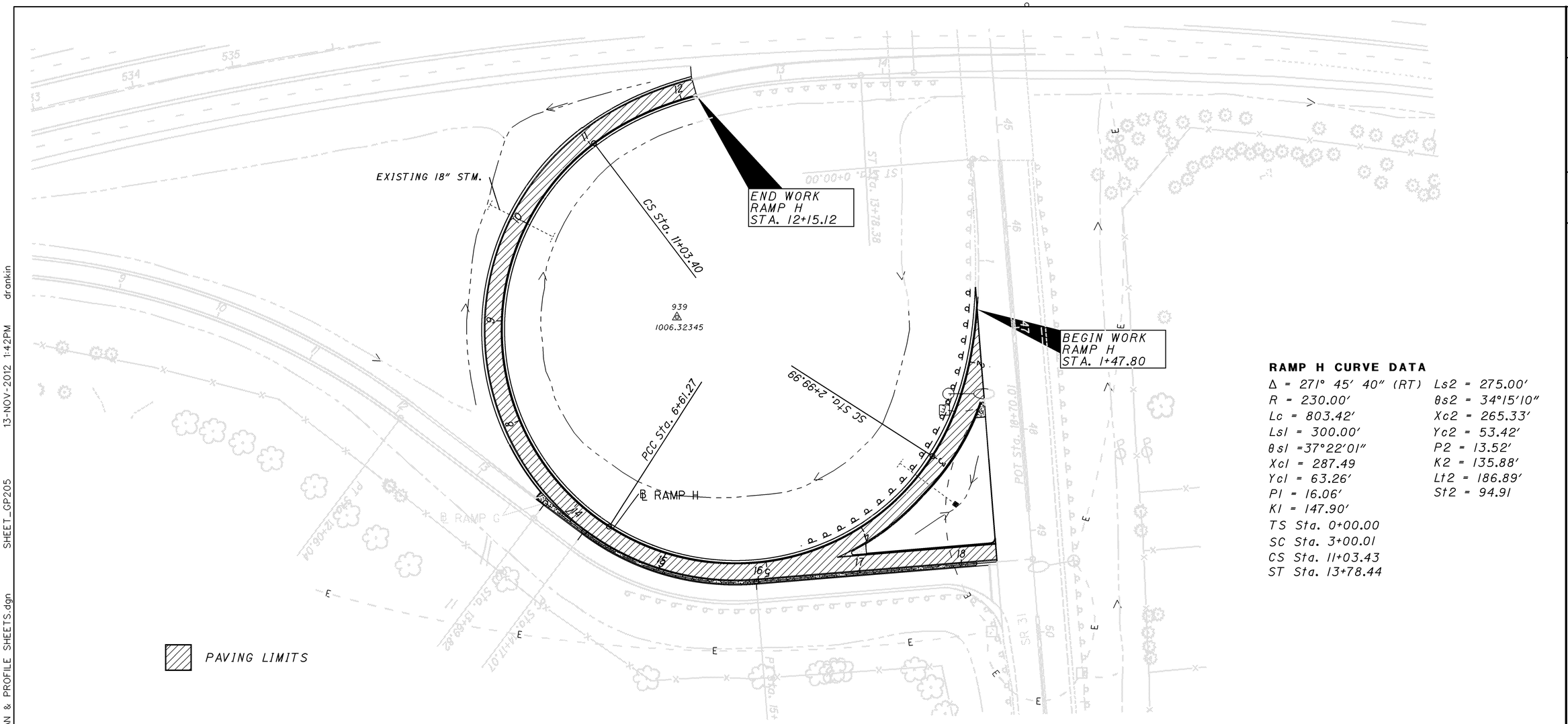
HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED DKR/RBK
CHECKED

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RAMP H CURVE DATA

Δ = 271° 45′ 40″ (RT)	Ls2 = 275.00′
R = 230.00′	θs2 = 34°15′10″
Lc = 803.42′	Xc2 = 265.33′
Ls1 = 300.00′	Yc2 = 53.42′
θs1 =37°22′01″	P2 = 13.52′
Xc1 = 287.49	K2 = 135.88′
Yc1 = 63.26′	Lt2 = 186.89′
P1 = 16.06′	St2 = 94.91
K1 = 147.90′	
TS Sta. 0+00.00	
SC Sta. 3+00.01	
CS Sta. 11+03.43	
ST Sta. 13+78.44	

STA	STA	WIDTH	SIDE	254 PAVEMENT PLANING ASPHALT CONCRETE 1.5″ DEPTH SQ YD	407 TACK COAT 0.075 GAL. PER SQ. YD. GAL.	442 ASPHALT SURFACE COURSE 12.5mm TYPE A (446) CU YD	617 COMPACTED AGGREGATE (2″ DEPTH) CU YD										REMARK
1+47	4+20	18′	RT	546	41	23	2										RAMP H RT SLIP RAMP
3+32	4+20	18′	LT	176	13	7	1										RAMP H LT SLIP RAMP
4+20	5+10	27′	RT & LT	270	20	11	1										RAMP H TAPER AVG. WIDTH
5+10	12+15	18′		1,410	106	59	4										RAMP H
TOTALS CARRIED TO PAVEMENT SUBSUMMARY SHEET 27/108				2,402	180	100	8										

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED DKR/RBK
CHECKED

PLAN VIEW UNI-US33 RAMP H

PLAN

UNI-33-8.74

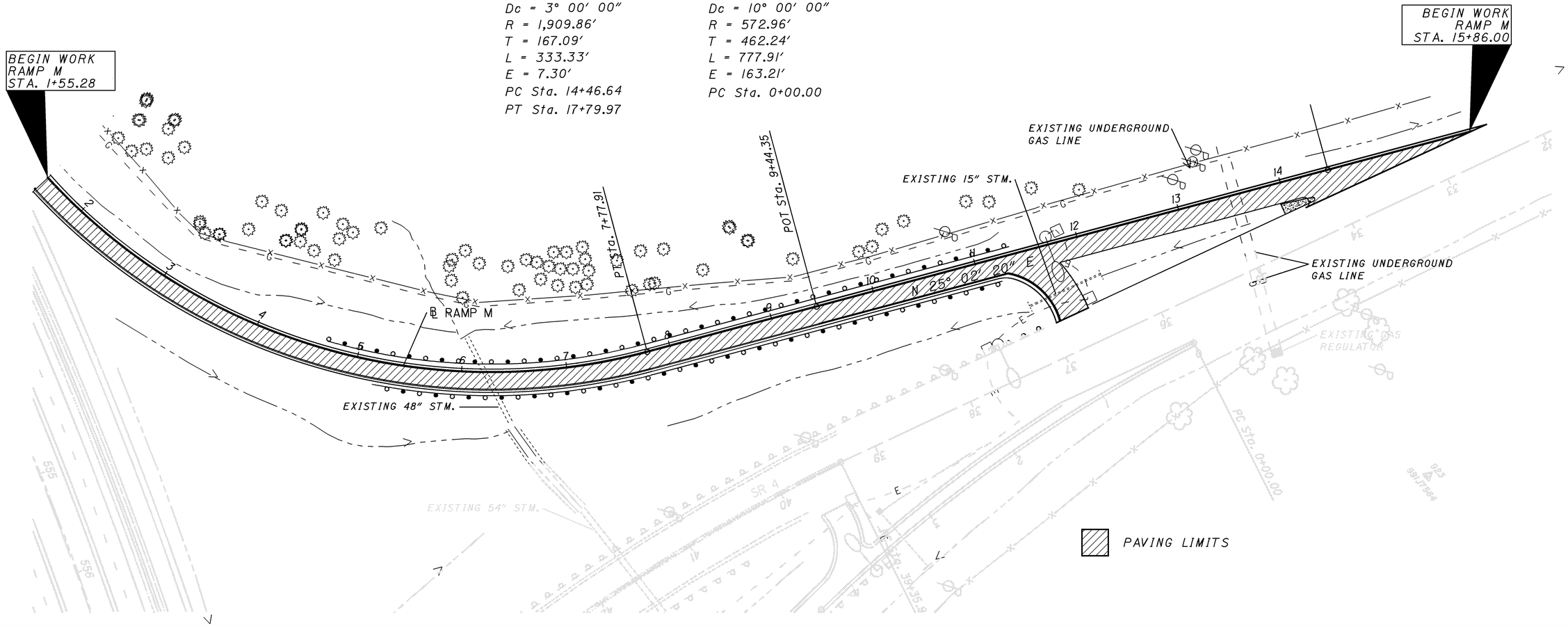
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108

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SHEET_GP205

RAMP M CURVE DATA

P.I. Sta = 16+13.73
Δ = 10° 00′ 00″ (LT)
Dc = 3° 00′ 00″
R = 1,909.86′
T = 167.09′
L = 333.33′
E = 7.30′
PC Sta. 14+46.64
PT Sta. 17+79.97

P.I. Sta = 4+62.24
Δ = 77° 47′ 27″ (LT)
Dc = 10° 00′ 00″
R = 572.96′
T = 462.24′
L = 777.91′
E = 163.21′
PC Sta. 0+00.00



STA	STA	WIDTH	SIDE	254 PAVEMENT PLANING ASPHALT CONCRETE 1.5″ DEPTH (SQ YD)	407 TACK COAT 0.075 GAL. PER SQ. YD. (GAL.)	442 ASPHALT SURFACE COURSE 12.5mm TYPE A (446) (CU YD)	617 COMPACTED AGGREGATE (2″ DEPTH) (CU YD)											REMARK
0+00	14+17	18′	RT & LT	2834	213	118	9											RAMP M
14+17	15+86	20′	RT & LT	376	28	16	1											RAMP M TAPER
11+25		VAR	RT	216	16	9												RAMP M SLIP RAMP
TOTALS CARRIED TO PAVEMENT SUBSUMMARY SHEET 27/108				3,426	257	143	10											

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED DKR/RBK
CHECKED

PLAN VIEW UNI-US33
RAMP M

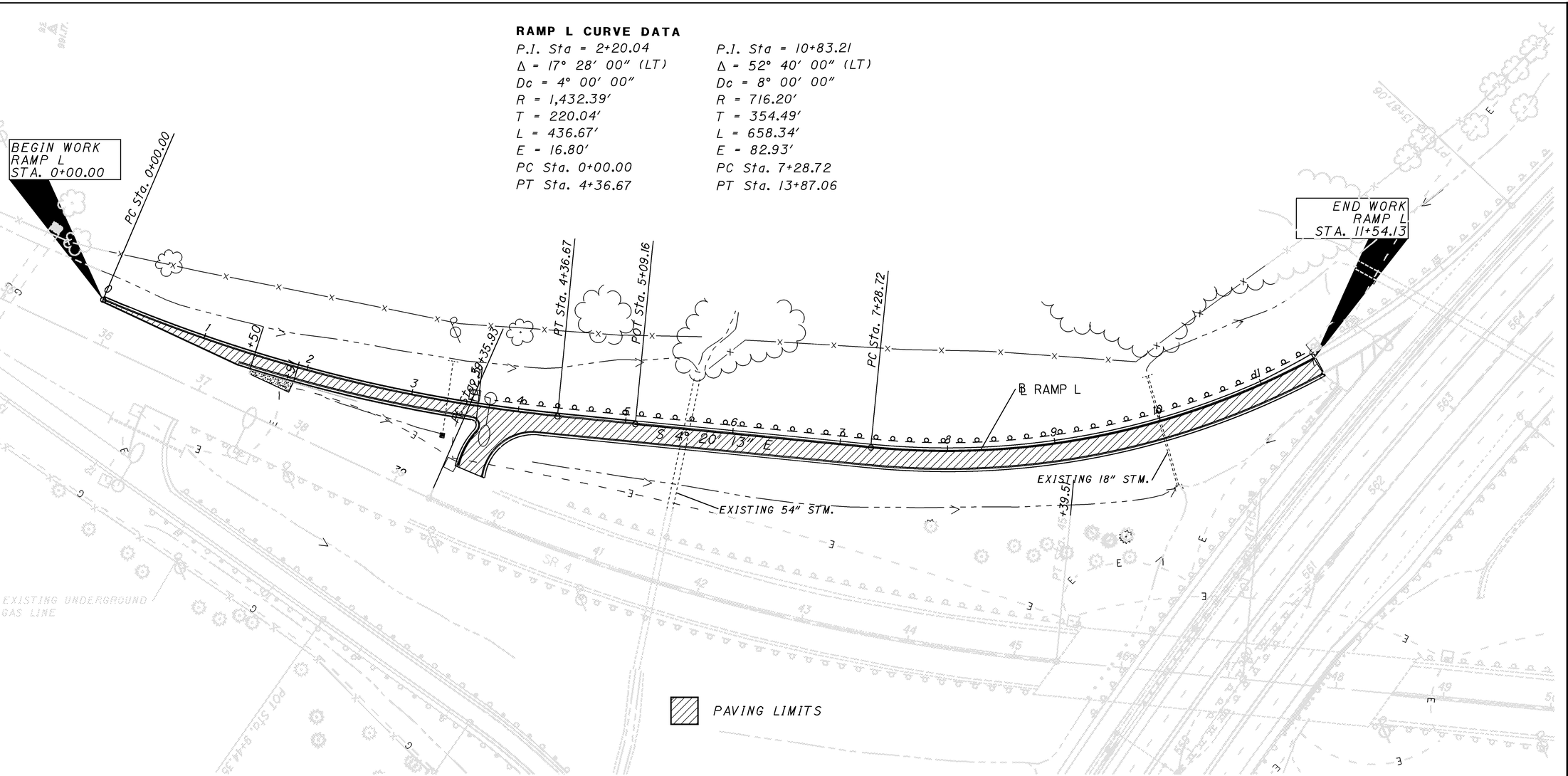
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RAMP L CURVE DATA

P.I. Sta = 2+20.04	P.I. Sta = 10+83.21
Δ = 17° 28′ 00″ (LT)	Δ = 52° 40′ 00″ (LT)
Dc = 4° 00′ 00″	Dc = 8° 00′ 00″
R = 1,432.39′	R = 716.20′
T = 220.04′	T = 354.49′
L = 436.67′	L = 658.34′
E = 16.80′	E = 82.93′
PC Sta. 0+00.00	PC Sta. 7+28.72
PT Sta. 4+36.67	PT Sta. 13+87.06



STA	STA	WIDTH	SIDE	254 PAVEMENT PLANING ASPHALT CONCRETE 1.5″ DEPTH SQ YD	407 TACK COAT 0.075 GAL. PER SQ. YD. GAL.	442 ASPHALT SURFACE COURSE 12.5mm TYPE A (446) CU YD	617 COMPACTED AGGREGATE (2″ DEPTH) CU YD											REMARK
0+00	1+38	VAR	RT & LT	144	11	6	1											RAMP L TAPER
1+38	11+54	18′	RT & LT	2032	152	85	6											RAMP L
3+65		VAR	RT	178	13	7												RAMP L SLIP RAMP
TOTALS CARRIED TO PAVEMENT SUBSUMMARY SHEET 27/108				2,354	176	98	7											

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED DKR/RBK
CHECKED CH

PLAN VIEW UNI-US33
RAMP L

UNI-33-8.74

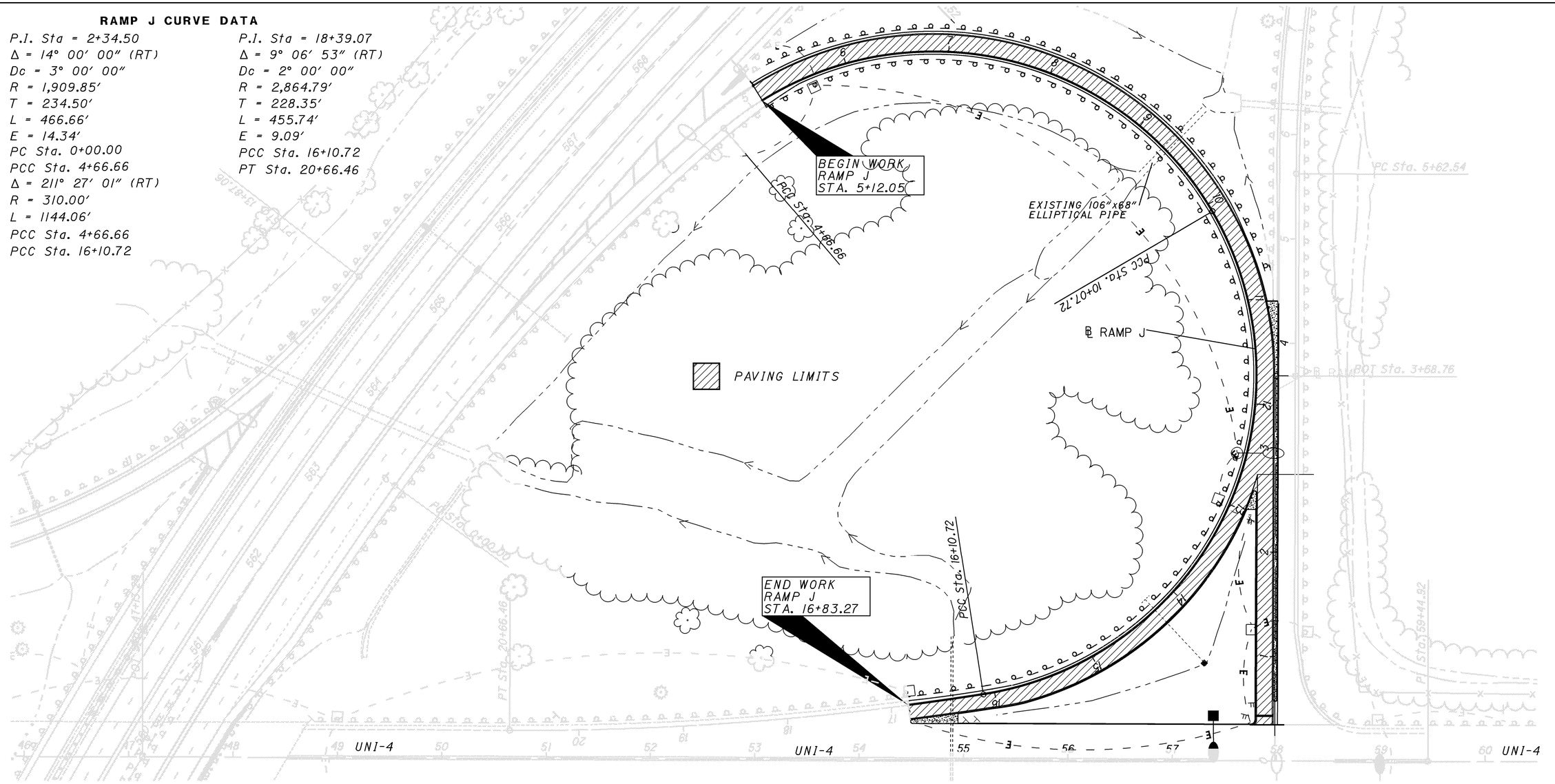
51
108

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RAMP J CURVE DATA

P.I. Sta = 2+34.50
Δ = 14° 00′ 00″ (RT)
Dc = 3° 00′ 00″
R = 1,909.85′
T = 234.50′
L = 466.66′
E = 14.34′
PC Sta. 0+00.00
PCC Sta. 4+66.66
Δ = 211° 27′ 01″ (RT)
R = 310.00′
L = 1144.06′
PCC Sta. 4+66.66
PCC Sta. 16+10.72

P.I. Sta = 18+39.07
Δ = 9° 06′ 53″ (RT)
Dc = 2° 00′ 00″
R = 2,864.79′
T = 228.35′
L = 455.74′
E = 9.09′
PCC Sta. 16+10.72
PT Sta. 20+66.46



STA	STA	WIDTH	SIDE	254 PAVEMENT PLANING ASPHALT CONCRETE 1.5″ DEPTH SQ YD	407 TACK COAT 0.075 GAL. PER SQ. YD. GAL.	442 ASPHALT SURFACE COURSE 12.5mm TYPE A (446) CU YD	617 COMPACTED AGGREGATE (2″ DEPTH) CU YD										REMARK
5+12	16+83	18′	RT & LT	2342	176	98	7										RAMP J
12+65		18′	RT & LT	470	35	20											RAMP J SLIP RAMP
TOTALS CARRIED TO PAVEMENT SUBSUMMARY SHEET 27/108				2,812	211	118	7										

HORIZONTAL SCALE IN FEET
0 25 50 100

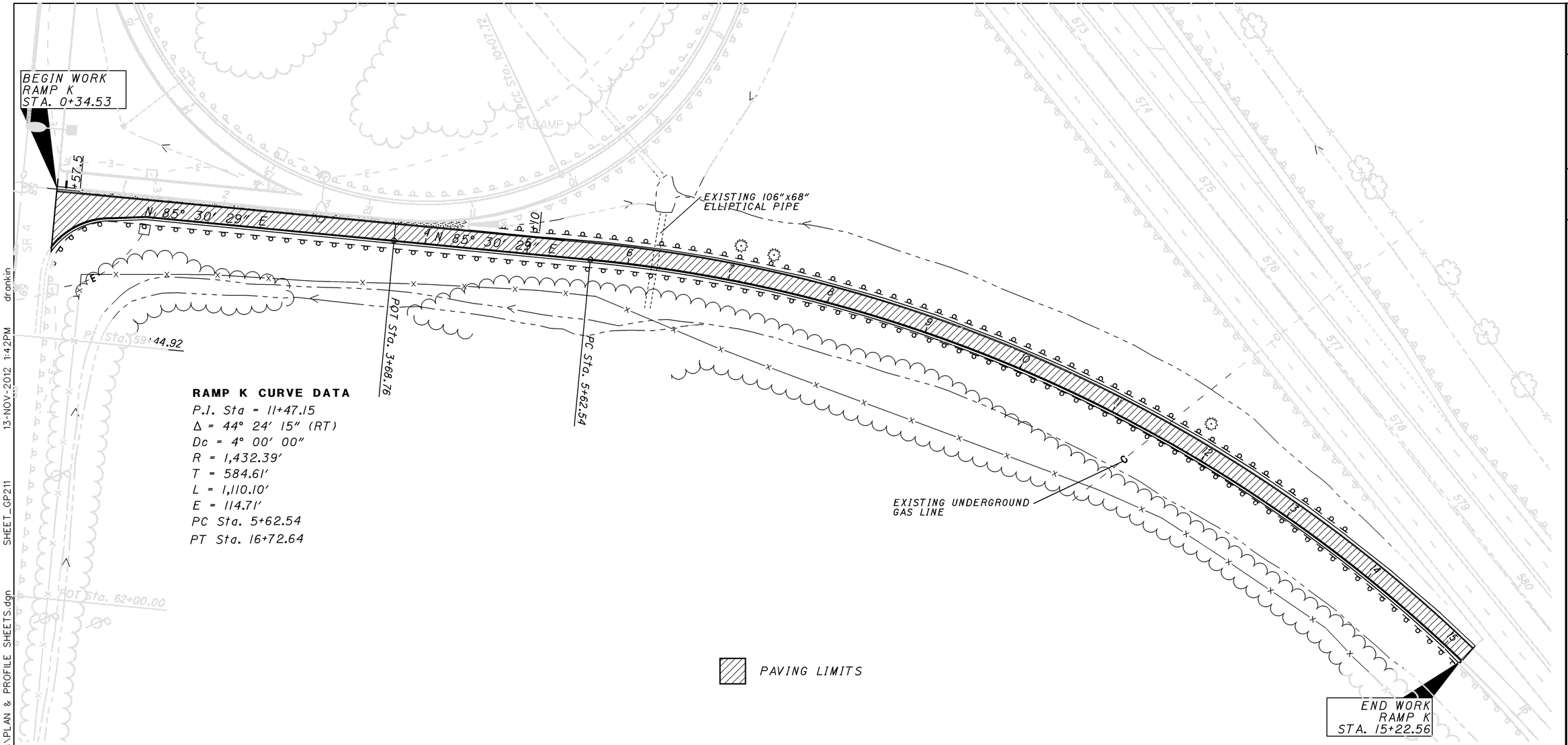
CALCULATED DKR/RBK
CHECKED

PLAN VIEW UNI-US33 RAMP J

UNI-33-8.74

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108

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RAMP K CURVE DATA

P.I. Sta = 11+47.15
Δ = 44° 24' 15" (RT)
Dc = 4° 00' 00"
R = 1,432.39'
T = 584.61'
L = 1,110.10'
E = 114.71'
PC Sta. 5+62.54
PT Sta. 16+72.64

PAVING LIMITS

STA	STA	WIDTH	SIDE	254 PAVEMENT PLANING ASPHALT CONCRETE 1.5" DEPTH SQ YD	407 TACK COAT 0.075 GAL. PER SQ. YD. GAL.	442 ASPHALT SURFACE COURSE 12.5mm TYPE A (446) CU YD	617 COMPACTED AGGREGATE (2" DEPTH) CU YD											REMARK
0+00	1+34	VAR	RT & LT	296	22	12	1											RAMP K TAPER
1+34	15+23	18'	RT & LT	2778	208	116	9											RAMP K
TOTALS CARRIED TO PAVEMENT SUBSUMMARY SHEET 27/108				3,074	230	128	10											

HORIZONTAL SCALE IN FEET
0 25 50 100

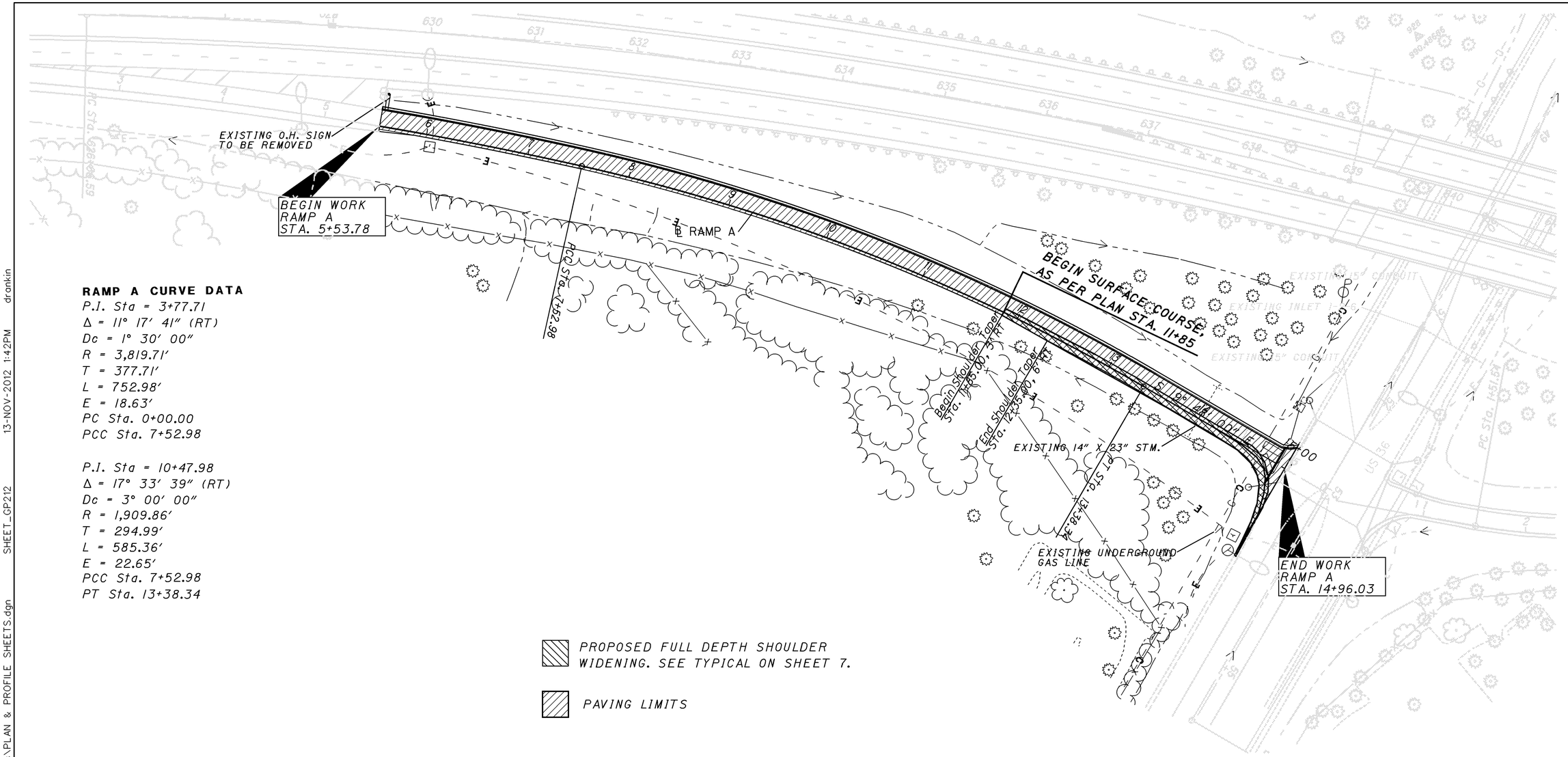
CALCULATED DKR/RBK
CHECKED

PLAN VIEW UNI-US33
RAMP K

UNI-33-8.74

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108

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SHEET_GP211 13-NOV-2012 1:42PM drankin



RAMP A CURVE DATA

P.I. Sta = 3+77.71
Δ = 11° 17′ 41″ (RT)
Dc = 1° 30′ 00″
R = 3,819.71′
T = 377.71′
L = 752.98′
E = 18.63′
PC Sta. 0+00.00
PCC Sta. 7+52.98

P.I. Sta = 10+47.98
Δ = 17° 33′ 39″ (RT)
Dc = 3° 00′ 00″
R = 1,909.86′
T = 294.99′
L = 585.36′
E = 22.65′
PCC Sta. 7+52.98
PT Sta. 13+38.34

STA	STA	WIDTH	SIDE	254 PAVEMENT PLANING ASPHALT CONCRETE 1.5″ DEPTH (SQ YD)	407 TACK COAT 0.075 GAL. PER SQ. YD. (GALLON)	442 ASPHALT SURFACE COURSE 12.5mm TYPE A (446) (CU YD)	442 ASPHALT SURFACE COURSE 12.5mm TYPE A (446) AS PER PLAN (CU YD)	617 COMPACTED AGGREGATE (2″ DEPTH) (CU YD)	204 SUBGRADE COMPACTION (SQ YD)	202 PAVEMENT REMOVED, AS PER PLAN (13.25″) (SQ YD)	209 PREPARING SUBGRADE FOR SHOULDER PAVING (13.25″) (STATION)	301 ASPHALT CONCRETE BASE, PG64-22 (11.75″) (CU YD)						REMARK
5+54	11+85	18′	RT & LT	1262	95	53		4										RAMP A SURFACE COURSE
11+85	14+96	VAR	RT & LT	971	73		40	2										RAMP A SURFACE COURSE (AS PER PLAN)
11+85	14+96	VAR	RT		16				207	69	3.11	68						RAMP A SHOULDER WIDENING
TOTALS CARRIED TO PAVEMENT SUBSUMMARY SHEET 27/108				2,233	183	53	40	6	207	69	3	68						

HORIZONTAL SCALE IN FEET
0 25 50 100
CALCULATED DKR/RBK
CHECKED

PLAN VIEW UNI-US33 RAMP A

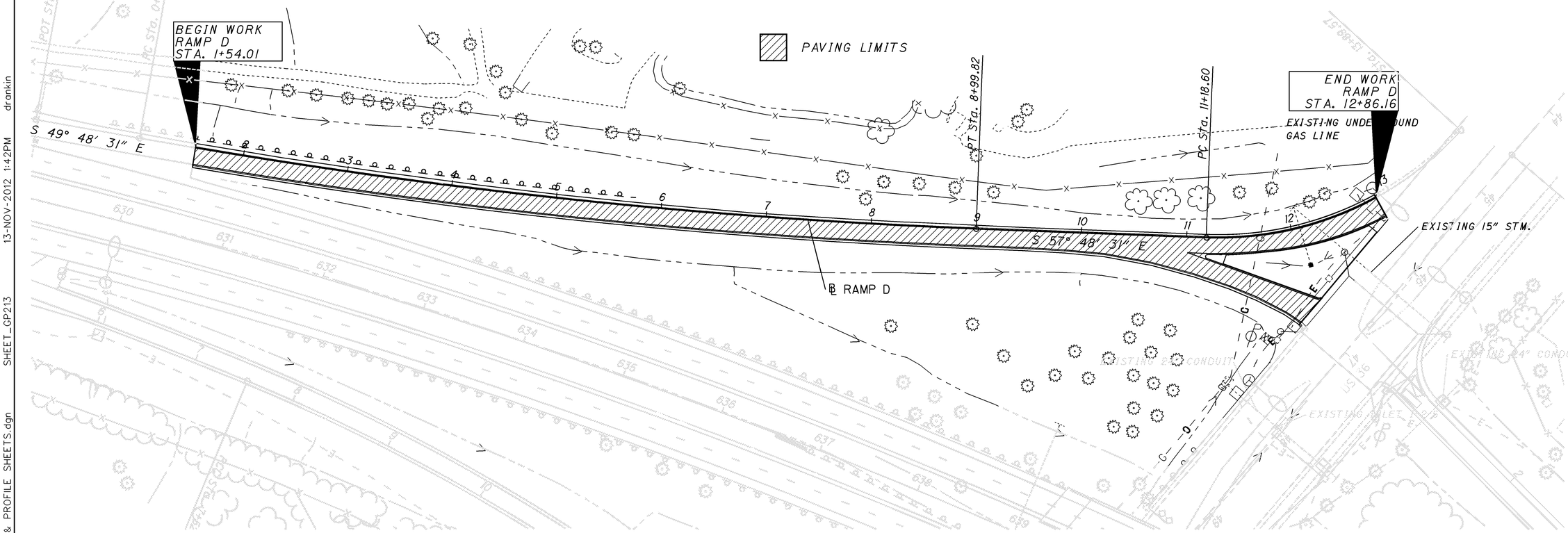
UNI-33-8.74

54
108

SHEET_GP212 13-NOV-2012 1:42PM drankin
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RAMP D CURVE DATA

P.I. Sta = 5+00.47	P.I. Sta = 12+63.43
Δ = 8° 00′ 00″ (LT)	Δ = 50° 04′ 56″ (LT)
Dc = 1° 00′ 00″	Dc = 18° 28′ 57″
R = 5,729.58′	R = 310.00′
T = 400.65′	T = 144.83′
L = 800.00′	L = 270.97′
E = 13.99′	E = 32.16′
PC Sta. 0+99.82	PC Sta. 11+18.60
PT Sta. 8+99.82	PT Sta. 13+89.57



STA	STA	WIDTH	SIDE	254 PAVEMENT PLANING ASPHALT CONCRETE 1.5″ DEPTH SQ YD	407 TACK COAT 0.075 GAL. PER SQ. YD. GAL.	442 ASPHALT SURFACE COURSE 12.5mm TYPE A (446) CU YD	617 COMPACTED AGGREGATE (2″ DEPTH) CU YD										REMARK
1+54	12+86	18′	RT & LT	2264	170	94	7										RAMP D
0+10		VAR	RT	387	29	16											RAMP D SLIP RAMP
TOTALS CARRIED TO PAVEMENT SUBSUMMARY SHEET 27/108				2,651	199	110	7										

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED DKR/RBK
CHECKED

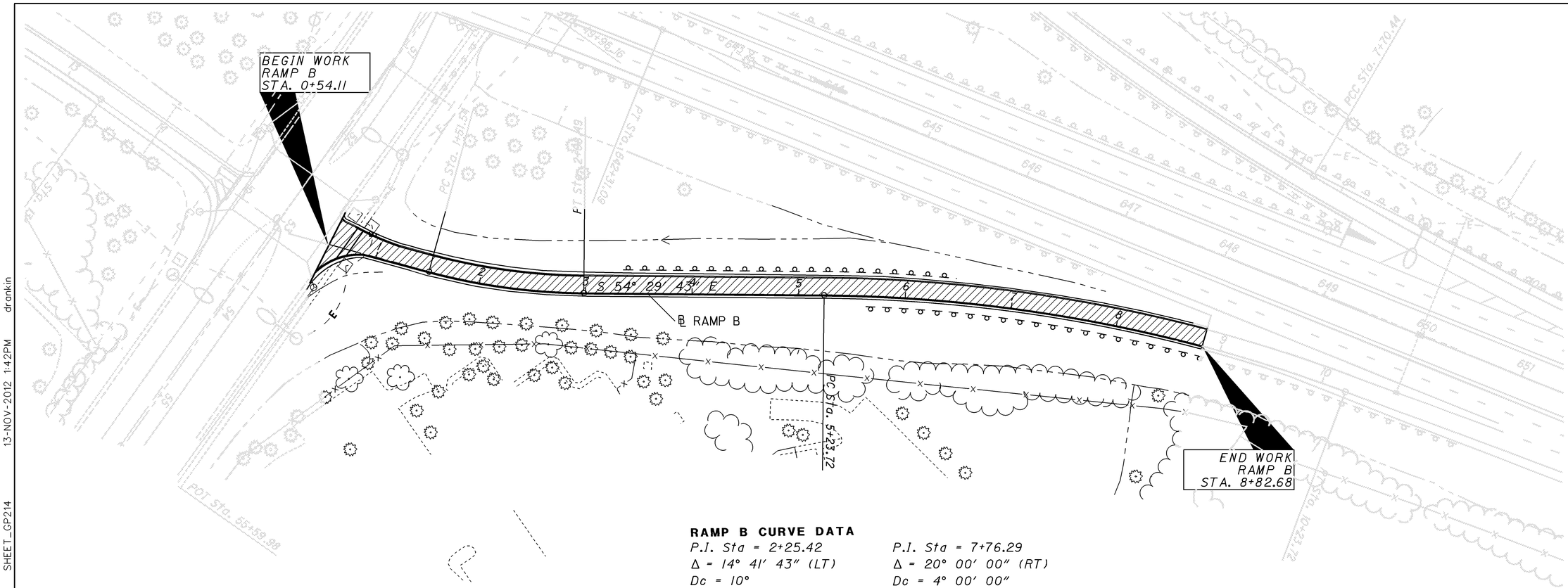
PLAN VIEW UNI-US33 RAMP D

UNI-33-8.74

55
108

SHEET_GP213 13-NOV-2012 1:42PM drankin

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RAMP B CURVE DATA

P.I. Sta = 2+25.42	P.I. Sta = 7+76.29
Δ = 14° 41′ 43″ (LT)	Δ = 20° 00′ 00″ (RT)
Dc = 10°	Dc = 4° 00′ 00″
R = 572.96′	R = 1,432.39′
T = 73.88′	T = 252.57′
L = 146.95′	L = 500.00′
E = 4.74′	E = 22.10′
PC Sta. 1+51.54	PC Sta. 5+23.72
PT Sta. 2+98.49	PT Sta. 10+23.72

PAVING LIMITS

STA	STA	WIDTH	SIDE	254 PAVEMENT PLANING ASPHALT CONCRETE 1.5″ DEPTH	407 TACK COAT 0.075 GAL. PER SQ. YD.	442 ASPHALT SURFACE COURSE 12.5mm TYPE A (446)	617 COMPACTED AGGREGATE (2″ DEPTH)										REMARK
				SQ YD	GAL.	CU YD	CU YD										
0+54	0+88	VAR	RT & LT	154	12	6											RAMP B TAPER
0+88	8+83	18′	RT & LT	1590	119	66	5										RAMP B
TOTALS CARRIED TO PAVEMENT SUBSUMMARY SHEET 27/108				1,744	131	72	5										

PLAN VIEW UNI-US33
RAMP B

CALCULATED DKR/RBK
CHECKED

HORIZONTAL SCALE IN FEET
0 25 50 100

UNI-33-8.74

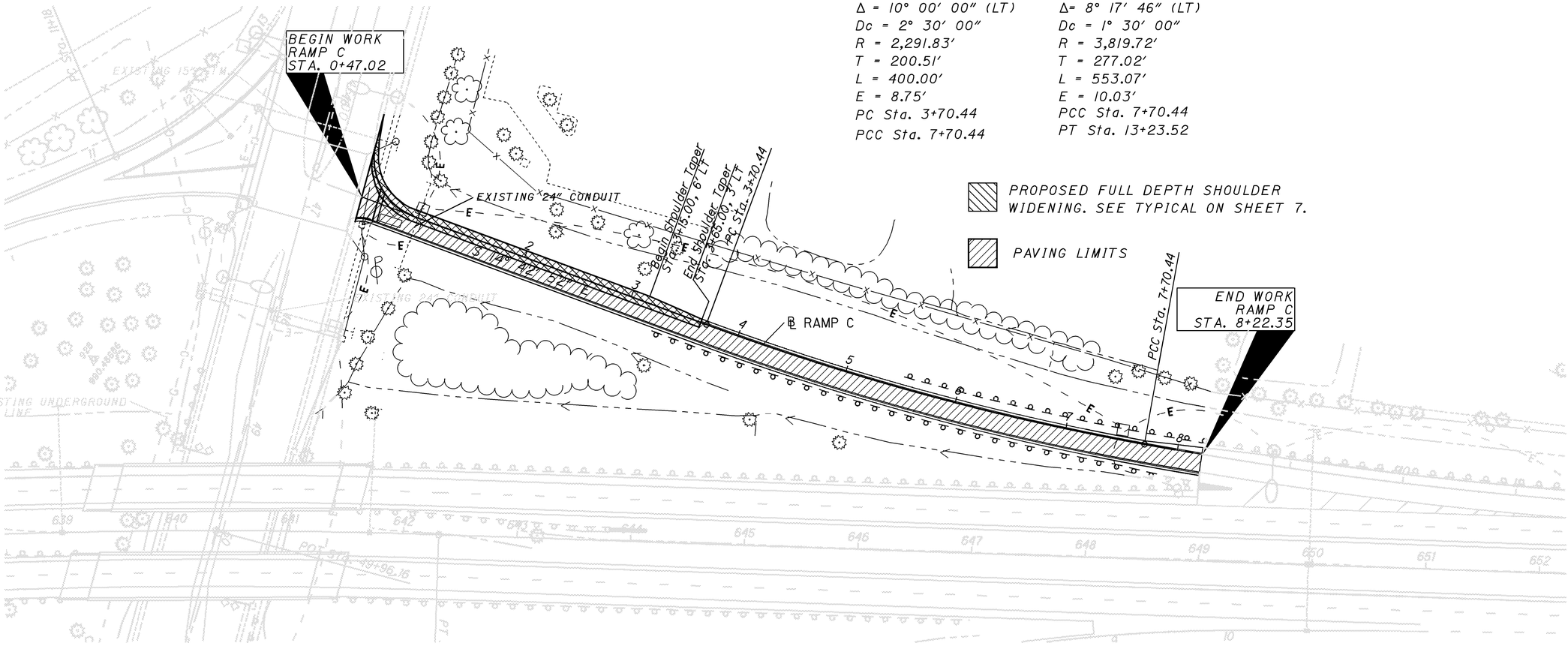
56
108

SHEET_GP214 13-NOV-2012 1:42PM drankin

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RAMP C CURVE DATA

P.I. Sta = 5+70.95	P.I. Sta = 10+47.46
Δ = 10° 00′ 00″ (LT)	Δ= 8° 17′ 46″ (LT)
Dc = 2° 30′ 00″	Dc = 1° 30′ 00″
R = 2,291.83′	R = 3,819.72′
T = 200.51′	T = 277.02′
L = 400.00′	L = 553.07′
E = 8.75′	E = 10.03′
PC Sta. 3+70.44	PCC Sta. 7+70.44
PCC Sta. 7+70.44	PT Sta. 13+23.52



STA	STA	WIDTH	SIDE	254 PAVEMENT PLANING ASPHALT CONCRETE 1.5″ DEPTH (SQ YD)	407 TACK COAT 0.075 GAL. PER SQ. YD. (GAL.)	442 ASPHALT SURFACE COURSE 12.5mm TYPE A (446) (CU YD)	442 ASPHALT SURFACE COURSE 12.5mm TYPE A (446) AS PER PLAN (CU YD)	617 COMPACTED AGGREGATE (2″ DEPTH) (CU YD)	204 SUBGRADE COMPACTION (SQ YD)	202 PAVEMENT REMOVED, AS PER PLAN (13.25″) (SQ YD)	209 PREPARING SUBGRADE FOR SHOULDER PAVING (13.25″) (STATION)	301 ASPHALT CONCRETE BASE, PG64-22 (11.75″) (CU YD)						REMARK
0+47	3+65	VAR	RT & LT	940	71		39	2										RAMP C SURFACE COURSE (AS PER PLAN)
3+65	8+22	18′	RT & LT	914	69	38		3										RAMP C SURFACE COURSE
11+85	14+96	VAR	RT						207	69	3.11	68						RAMP C SHOULDER WIDENING
TOTALS CARRIED TO PAVEMENT SUBSUMMARY SHEET 27/108				1,854	140	38	39	5	207	69	3.11	68						

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED DKR/RBK
CHECKED

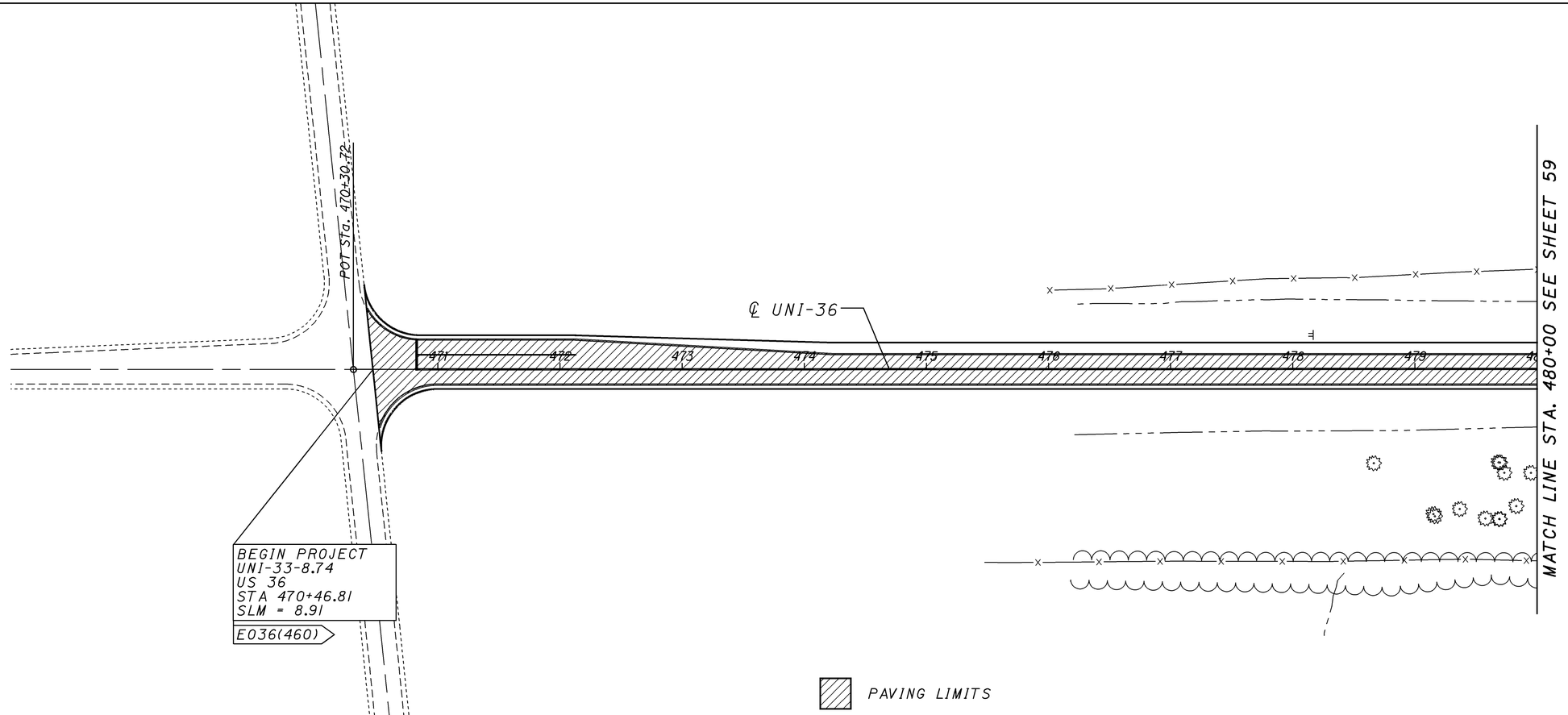
PLAN VIEW UNI-US33 RAMP C

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108

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STA	STA	WIDTH	SIDE	254 PAVEMENT PLANING ASPHALT CONCRETE 1.5" DEPTH (SQ YD)	407 TACK COAT 0.075 GAL. PER SQ. YD. (GAL.)	442 ASPHALT SURFACE COURSE 12.5mm TYPE A (446) (CU YD)	617 COMPACTED AGGREGATE (2" DEPTH) (CU YD)											REMARK
470+47	474+24	VAR	RT & LT	1878	141	78	5											UNI-36INTERSECTION TAPER
474+24	480+00	26'	RT & LT	1664	125	69	4											UNI-36
TOTALS CARRIED TO PAVEMENT SUBSUMMARY SHEET 27/108				3,542	266	147	9											

PLAN VIEW UNI-US36
STA. 470+46.81 TO STA. 480+00

UNI-33-8.74

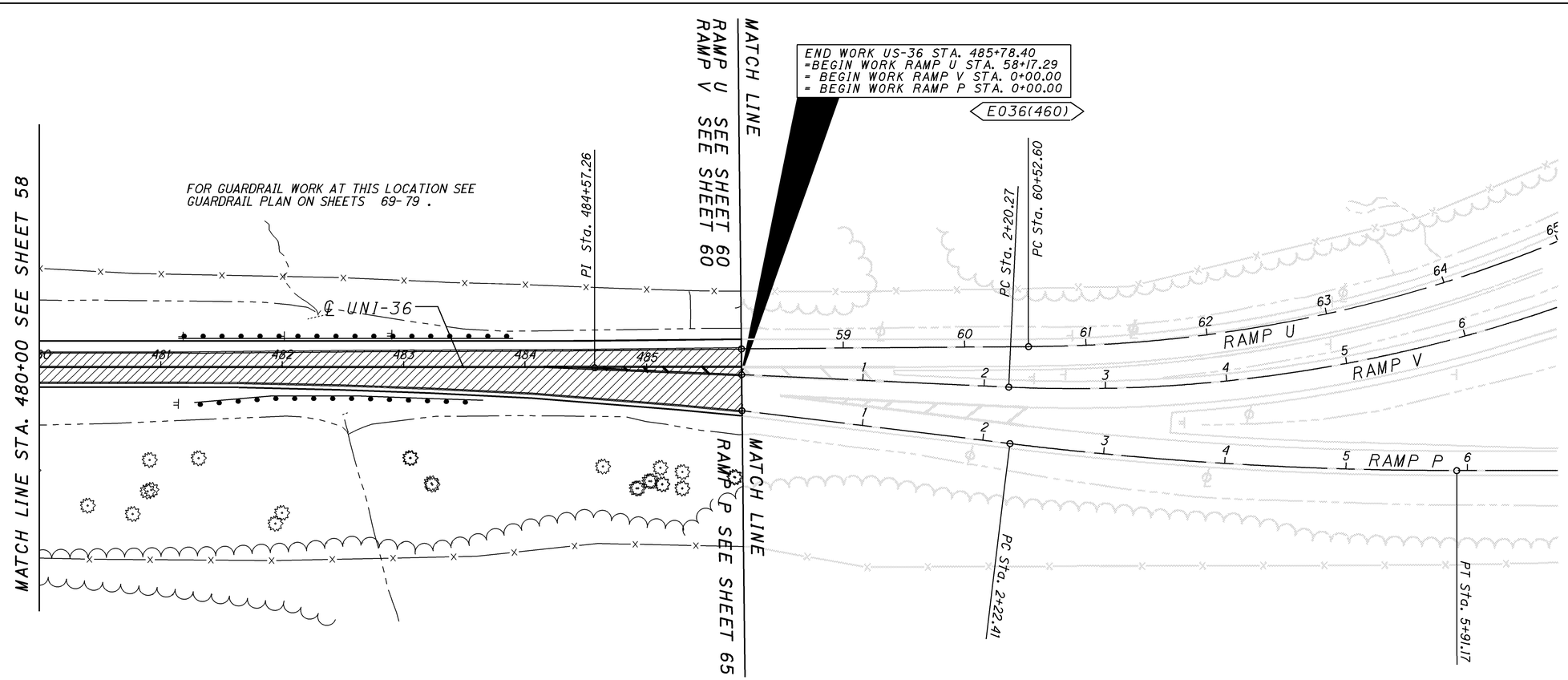
58
108

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED DKR/RBK
CHECKED

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STA	STA	WIDTH	SIDE	254 PAVEMENT PLANING ASPHALT CONCRETE 1.5" DEPTH (SQ YD)	407 TACK COAT 0.075 GAL. PER SQ. YD. (GAL.)	442 ASPHALT SURFACE COURSE 12.5mm TYPE A (446) (CU YD)	617 COMPACTED AGGREGATE (2" DEPTH) (CU YD)											REMARK
480+00	485+78	VAR	RT & LT	2860	215	119	7											UNI-36
TOTALS CARRIED TO PAVEMENT SUBSUMMARY SHEET 27/108				2,860	215	119	7											

PLAN VIEW UNI-US36
STA. 480+00 TO STA. 485+78.40

UNI-33-8.74

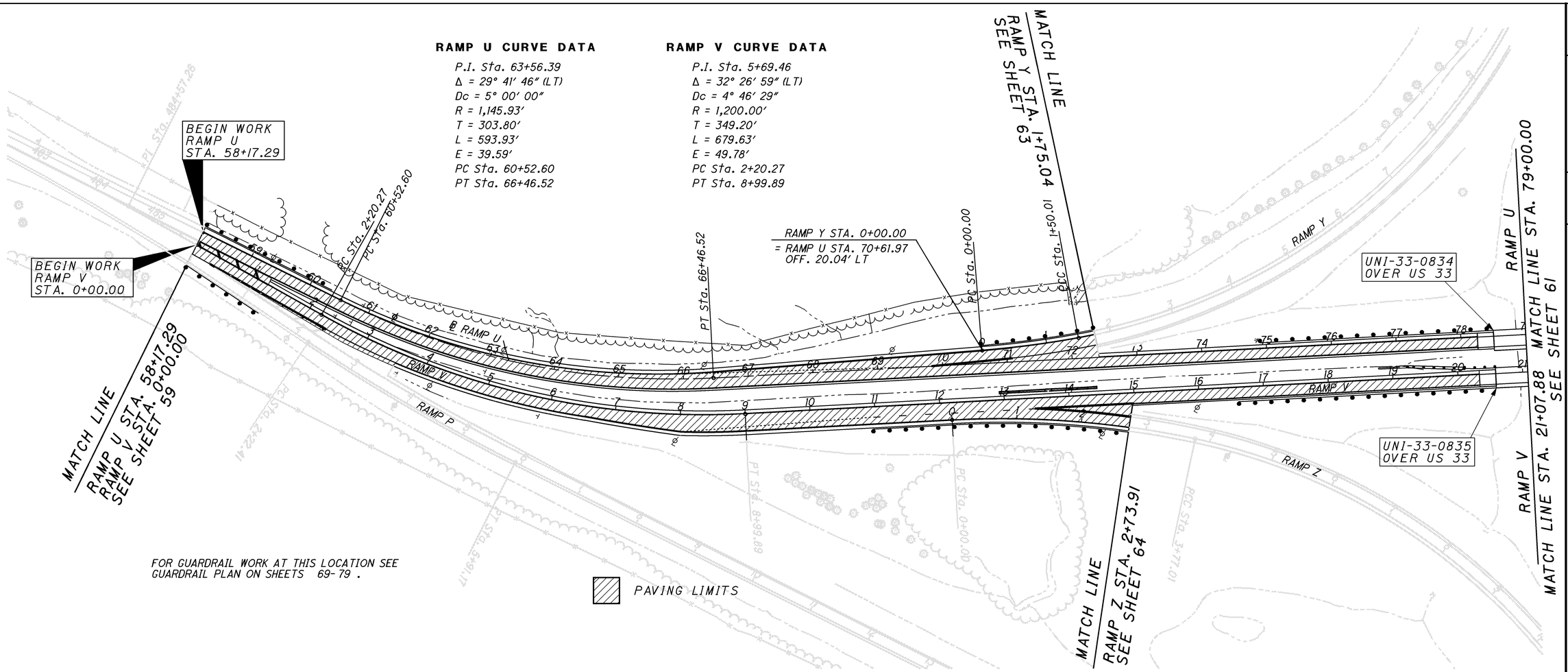
59
108

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED DKR/RBK
CHECKED

SHEET_GP301 13-NOV-2012 1:42PM drankin

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STA	STA	WIDTH	SIDE	254 PAVEMENT PLANING ASPHALT CONCRETE 1.5″ DEPTH SQ YD	407 TACK COAT 0.075 GAL. PER SQ. YD. GAL.	442 ASPHALT SURFACE COURSE 12.5mm TYPE A (446) CU YD	617 COMPACTED AGGREGATE (2″ DEPTH) CU YD										REMARK
58+17	60+53	VAR	RT & LT	657	49	27	1										RAMP U RAMP TAPER AT GORE
60+53	72+41	VAR	RT & LT	4715	354	196	15										RAMP U TAPER TO RAMP Y
72+41	78+25	18′	RT & LT	1168	88	49	7										RAMP U (SUSPEND AT STRUCTURE)
0+00	2+20	VAR	RT & LT	559	42	23	1										RAMP V RAMP TAPER AT GORE
2+20	14+97	VAR	RT & LT	5081	381	212	8										RAMP V TAPER TO RAMP Z
14+97	20+33	18′	RT & LT	1072	80	45	7										RAMP V (SUSPEND AT STRUCTURE)
TOTALS CARRIED TO PAVEMENT SUBSUMMARY SHEET 27/108				13,252	994	552	39										

HORIZONTAL SCALE IN FEET 0 40 80 160

CALCULATED DKR/RBK

CHECKED

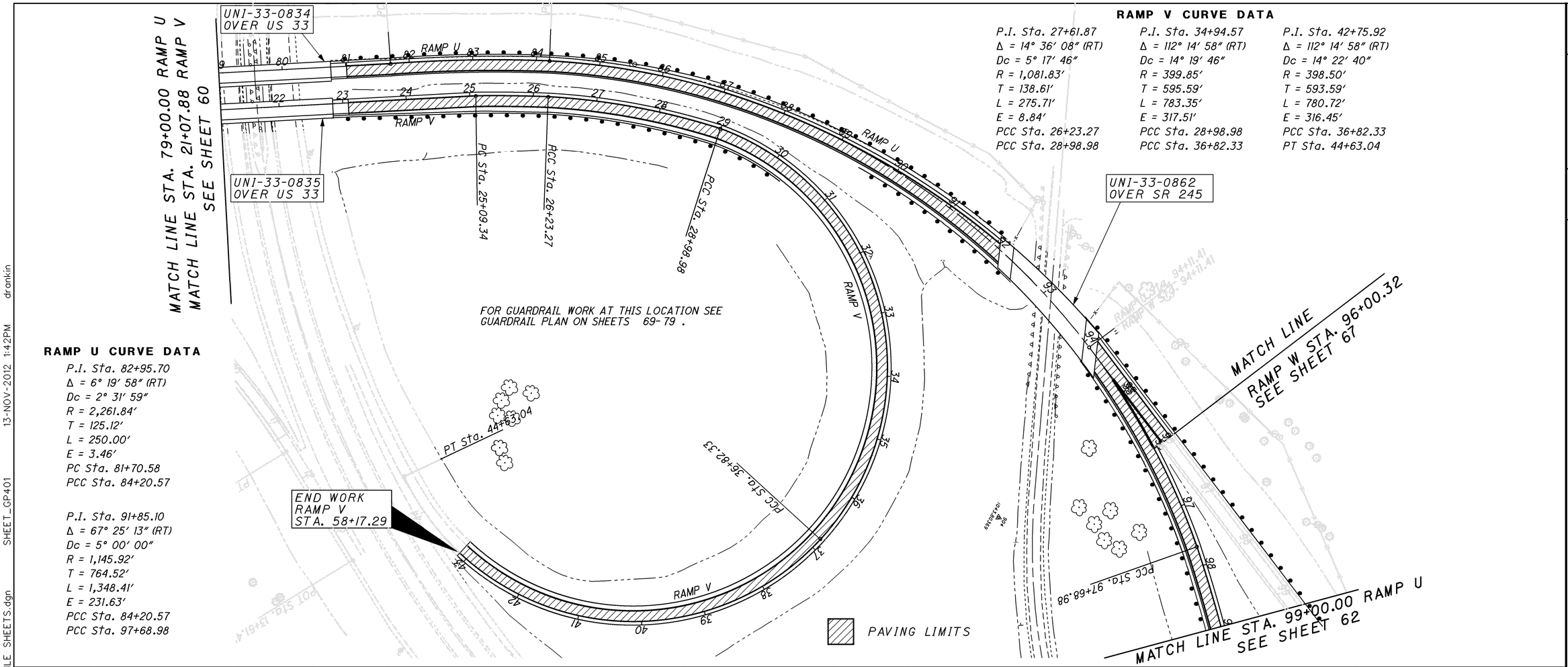
PLAN VIEW UNI-33 RAMP U & V

UNI-33-8.74

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RAMP U CURVE DATA

P.I. Sta. 82+95.70
Δ = 6° 19′ 58″ (RT)
Dc = 2° 31′ 59″
R = 2,261.84′
T = 125.12′
L = 250.00′
E = 3.46′
PC Sta. 81+70.58
PCC Sta. 84+20.57

P.I. Sta. 91+85.10
Δ = 67° 25′ 13″ (RT)
Dc = 5° 00′ 00″
R = 1,145.92′
T = 764.52′
L = 1,348.41′
E = 231.63′
PCC Sta. 84+20.57
PCC Sta. 97+68.98

RAMP V CURVE DATA

P.I. Sta. 27+61.87	P.I. Sta. 34+94.57	P.I. Sta. 42+75.92
Δ = 14° 36′ 08″ (RT)	Δ = 112° 14′ 58″ (RT)	Δ = 112° 14′ 58″ (RT)
Dc = 5° 17′ 46″	Dc = 14° 19′ 46″	Dc = 14° 22′ 40″
R = 1,081.83′	R = 399.85′	R = 398.50′
T = 138.61′	T = 595.59′	T = 593.59′
L = 275.71′	L = 783.35′	L = 780.72′
E = 8.84′	E = 317.51′	E = 316.45′
PCC Sta. 26+23.27	PCC Sta. 28+98.98	PCC Sta. 36+82.33
PCC Sta. 28+98.98	PCC Sta. 36+82.33	PT Sta. 44+63.04

STA	STA	WIDTH	SIDE	254 PAVEMENT PLANING ASPHALT CONCRETE 1.5″ DEPTH SQ YD	407 TACK COAT 0.075 GAL. PER SQ. YD. GAL.	442 ASPHALT SURFACE COURSE 12.5mm TYPE A (446) CU YD	617 COMPACTED AGGREGATE (2″ DEPTH) CU YD										REMARK
81+02	86+70	18′	RT & LT	1136	85	47	7										RAMP U (RESUME AT STRUCTURE)
86+70	92+03	VAR	RT & LT	1586	119	66	7										RAMP U LANE TAPER TO STRUCTURE
92+03	94+29																SKIP STRUCTURE
94+29	99+00	VAR	RT & LT	1720	129	72	6										RAMP U (INCLUDES GORE AT RAMP W)
23+09	58+17	18′	RT & LT	7016	526	292	43										RAMP V (RESUME AT STRUCTURE)
TOTALS CARRIED TO PAVEMENT SUBSUMMARY SHEET 27/108				11,458	859	477	63										

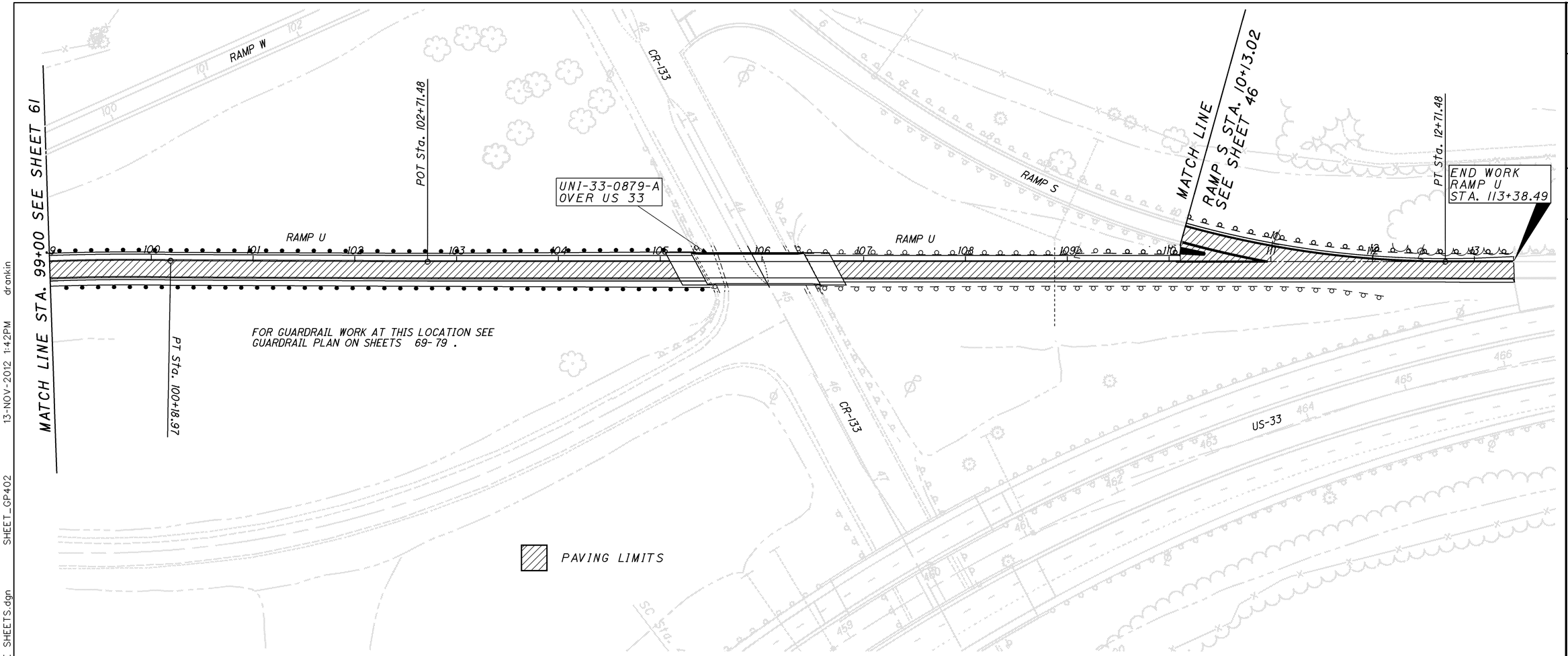
HORIZONTAL SCALE IN FEET
0 40 80 160
CALCULATED DKR/RBK
CHECKED CH

PLAN VIEW UNI-33
RAMP U & V

UNI-33-8.74

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108

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S T A	S T A	W I D T H	S I D E	254 PAVEMENT PLANING ASPHALT CONCRETE 1.5" DEPTH	407 TACK COAT 0.075 GAL. PER SQ. YD.	442 ASPHALT SURFACE COURSE 12.5mm TYPE A (446)	617 COMPACTED AGGREGATE (2" DEPTH)										REMARK
				SQ YD	GAL.	CU YD	CU YD										
99+00	105+10	18'	RT & LT	1220	92	51	8										RAMP U (SUSPEND AT STRUCTURE)
105+10	106+70																SKIP STRUCTURE
106+70	110+10	18'	RT & LT	680	51	28	4										RAMP U (RESUME AT STRUCTURE)
110+10	113+38	VAR	RT & LT	1183	89	49	2										RAMP U (INCLUDES GORE AT RAMP S)
TOTALS CARRIED TO PAVEMENT SUBSUMMARY SHEET 27/108				3,083	232	128	14										

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED DKR/RBK
CHECKED

PLAN VIEW UNI-US33 RAMP U

UNI-33-8.74

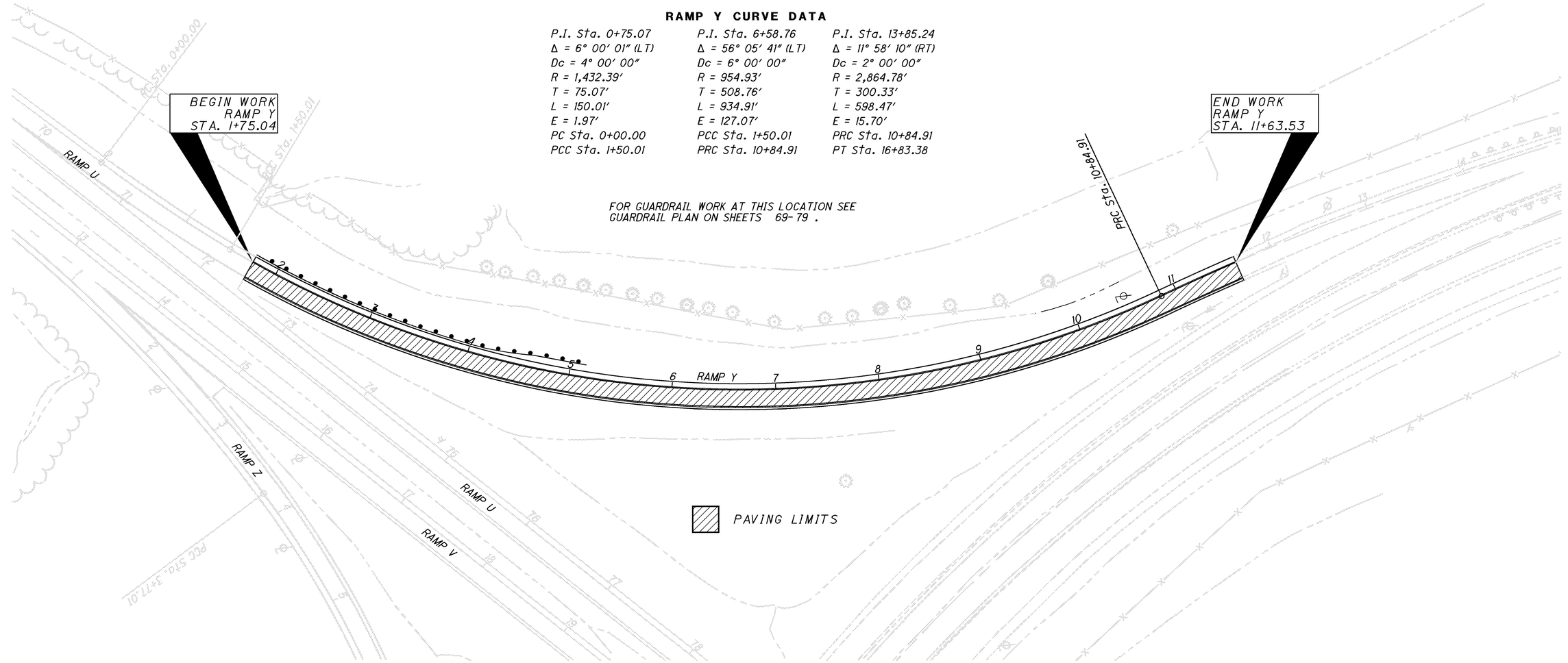
62
108

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RAMP Y CURVE DATA

P.I. Sta. 0+75.07	P.I. Sta. 6+58.76	P.I. Sta. 13+85.24
Δ = 6° 00′ 01″ (LT)	Δ = 56° 05′ 41″ (LT)	Δ = 11° 58′ 10″ (RT)
Dc = 4° 00′ 00″	Dc = 6° 00′ 00″	Dc = 2° 00′ 00″
R = 1,432.39′	R = 954.93′	R = 2,864.78′
T = 75.07′	T = 508.76′	T = 300.33′
L = 150.01′	L = 934.91′	L = 598.47′
E = 1.97′	E = 127.07′	E = 15.70′
PC Sta. 0+00.00	PCC Sta. 1+50.01	PRC Sta. 10+84.91
PCC Sta. 1+50.01	PRC Sta. 10+84.91	PT Sta. 16+83.38



FOR GUARDRAIL WORK AT THIS LOCATION SEE GUARDRAIL PLAN ON SHEETS 69-79 .

PAVING LIMITS

STA	STA	WIDTH	SIDE	254 PAVEMENT PLANING ASPHALT CONCRETE 1.5″ DEPTH	407 TACK COAT 0.075 GAL. PER SQ. YD.	442 ASPHALT SURFACE COURSE 12.5mm TYPE A (446)	617 COMPACTED AGGREGATE (2″ DEPTH)										REMARK
				SQ YD	GAL.	CU YD	CU YD										
1+75	11+64	18′	RT & LT	1978	148	82	12										RAMP Y
TOTALS CARRIED TO PAVEMENT SUBSUMMARY SHEET 27/108				1,978	148	82	12										

PLAN VIEW UNI-US33
RAMP Y

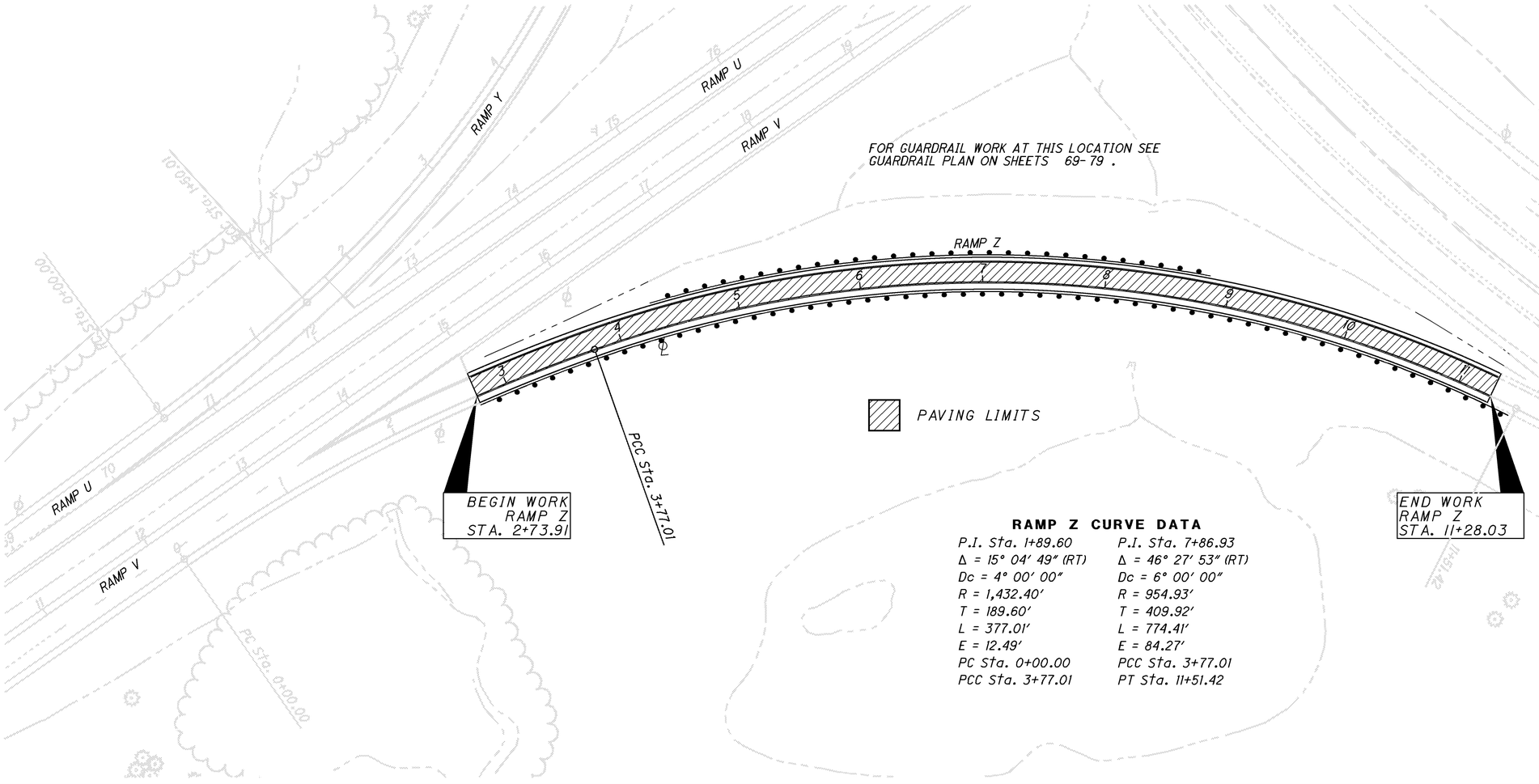
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HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED DKR/RBK
CHECKED

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RAMP Z CURVE DATA

P.I. Sta. 1+89.60	P.I. Sta. 7+86.93
Δ = 15° 04′ 49″ (RT)	Δ = 46° 27′ 53″ (RT)
Dc = 4° 00′ 00″	Dc = 6° 00′ 00″
R = 1,432.40′	R = 954.93′
T = 189.60′	T = 409.92′
L = 377.01′	L = 774.41′
E = 12.49′	E = 84.27′
PC Sta. 0+00.00	PCC Sta. 3+77.01
PCC Sta. 3+77.01	PT Sta. 11+51.42

STA	STA	WIDTH	SIDE	254 PAVEMENT PLANING ASPHALT CONCRETE 1.5″ DEPTH	407 TACK COAT 0.075 GAL. PER SQ. YD.	442 ASPHALT SURFACE COURSE 12.5mm TYPE A (446)	617 COMPACTED AGGREGATE (2″ DEPTH)										REMARK
				SQ YD	GAL.	CU YD	CU YD										
2+74	11+28	18′	RT & LT	1708	128	71	11										RAMP Z
TOTALS CARRIED TO PAVEMENT SUBSUMMARY SHEET 27/108				1,708	128	71	11										

PLAN VIEW UNI-US33 RAMP Z

UNI-33-8.74

64
108

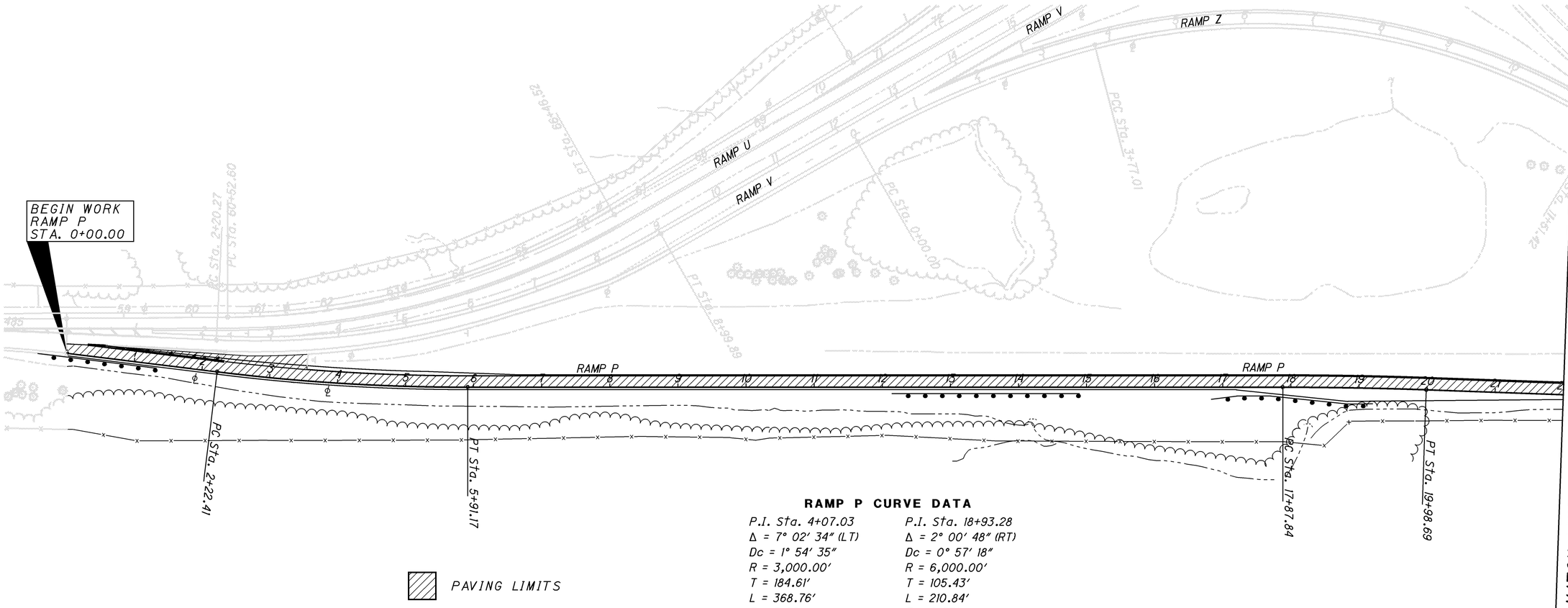
CALCULATED DKR/RDK

CHECKED

HORIZONTAL SCALE IN FEET
0 25 50 100

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PAVING LIMITS

FOR GUARDRAIL WORK AT THIS LOCATION SEE GUARDRAIL PLAN ON SHEETS 69- 79 .

RAMP P CURVE DATA

P.I. Sta. 4+07.03	P.I. Sta. 18+93.28
Δ = 7° 02′ 34″ (LT)	Δ = 2° 00′ 48″ (RT)
Dc = 1° 54′ 35″	Dc = 0° 57′ 18″
R = 3,000.00′	R = 6,000.00′
T = 184.61′	T = 105.43′
L = 368.76′	L = 210.84′
E = 5.68′	E = 0.93′
PC Sta. 2+22.41	PC Sta. 17+87.84
PT Sta. 5+91.17	PT Sta. 19+98.69

STA	STA	WIDTH	SIDE	254 PAVEMENT PLANING ASPHALT CONCRETE 1.5″ DEPTH	407 TACK COAT 0.075 GAL. PER SQ. YD.	442 ASPHALT SURFACE COURSE 12.5mm TYPE A (446)	617 COMPACTED AGGREGATE (2″ DEPTH)										REMARK
				SQ YD	GAL.	CU YD	CU YD										
0+00	22+00	18′	RT & LT	4400	330	183	27										RAMP P
TOTALS CARRIED TO PAVEMENT SUBSUMMARY SHEET 27/108				4,400	330	183	27										

HORIZONTAL SCALE IN FEET
0 40 80 160

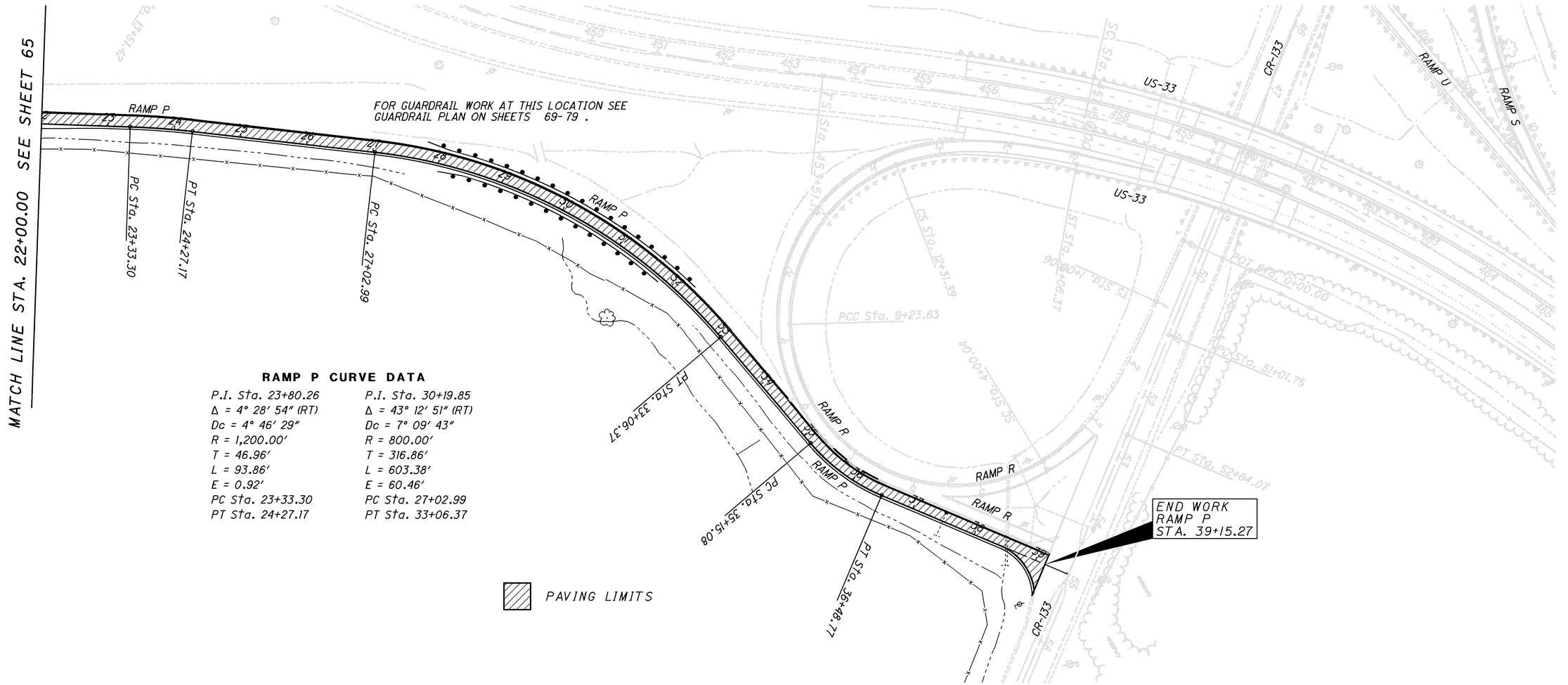
CALCULATED DKR/RBK
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PLAN VIEW UNI-US33
RAMP P

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RAMP P CURVE DATA

P.I. Sta. 23+80.26	P.I. Sta. 30+19.85
Δ = 4° 28′ 54″ (RT)	Δ = 43° 12′ 51″ (RT)
Dc = 4° 46′ 29″	Dc = 7° 09′ 43″
R = 1,200.00′	R = 800.00′
T = 46.96′	T = 316.86′
L = 93.86′	L = 603.38′
E = 0.92′	E = 60.46′
PC Sta. 23+33.30	PC Sta. 27+02.99
PT Sta. 24+27.17	PT Sta. 33+06.37

STA	STA	WIDTH	SIDE	254 PAVEMENT PLANING ASPHALT CONCRETE 1.5″ DEPTH (SQ YD)	407 TACK COAT 0.075 GAL. PER SQ. YD. (GAL.)	442 ASPHALT SURFACE COURSE 12.5mm TYPE A (446) (CU YD)	617 COMPACTED AGGREGATE (2″ DEPTH) (CU YD)										REMARK
22+00	38+43	18′	RT & LT	3286	246	137	20										RAMP P
38+43	39+15	VAR	RT & LT	253	19	11											RAMP P INTERSECTION TAPER
TOTALS CARRIED TO PAVEMENT SUBSUMMARY SHEET 27/108				3,539	265	148	20										

HORIZONTAL SCALE IN FEET
0 40 80 160

CALCULATED DKR/RBK
CHECKED

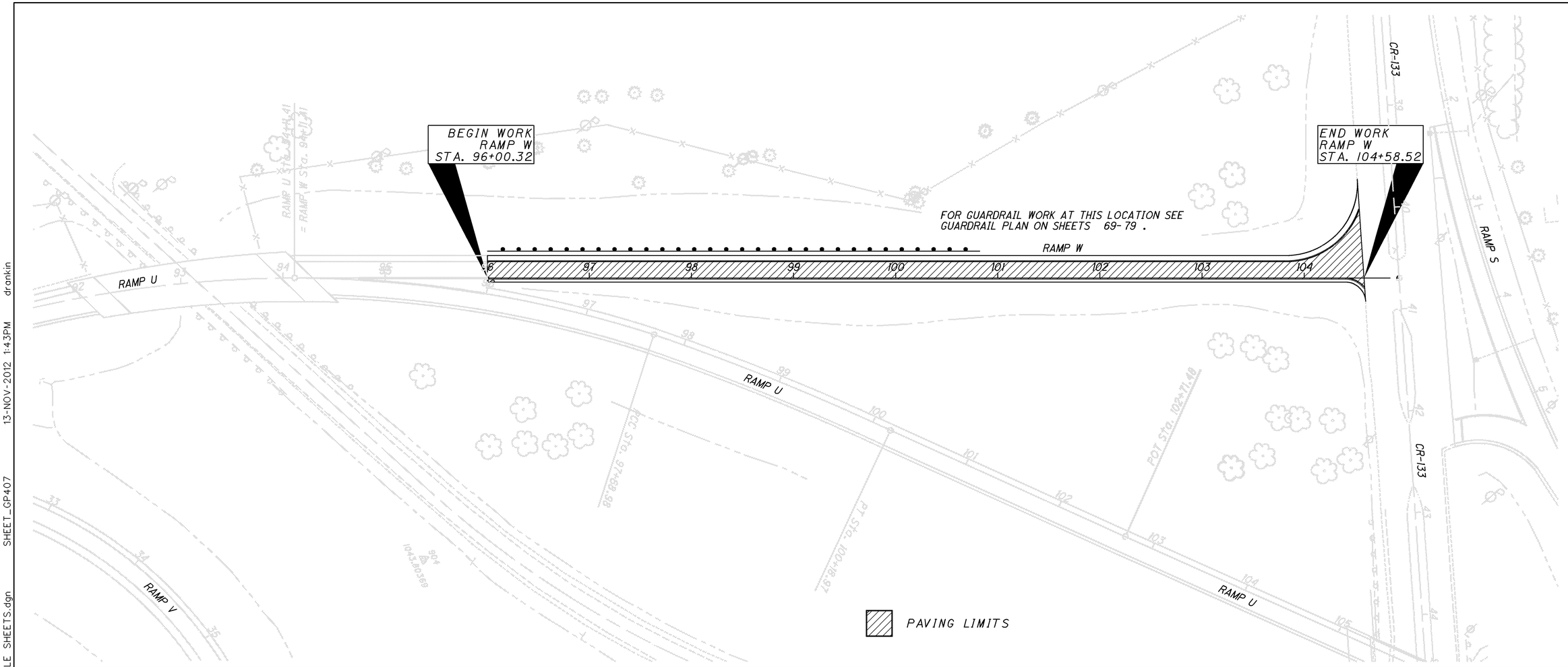
PLAN VIEW UNI-US33 RAMP P

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STA	STA	WIDTH	SIDE	254 PAVEMENT PLANING ASPHALT CONCRETE 1.5" DEPTH (SQ YD)	407 TACK COAT 0.075 GAL. PER SQ. YD. (GAL.)	442 ASPHALT SURFACE COURSE 12.5mm TYPE A (446) (CU YD)	617 COMPACTED AGGREGATE (2" DEPTH) (CU YD)											REMARK
96+00	103+82	18'	RT & LT	1564	117	65	10											RAMP W
103+82	104+59	VAR	RT & LT	364	27	15	1											RAMP W INTERSECTION TAPER
TOTALS CARRIED TO PAVEMENT SUBSUMMARY SHEET 27/108				1,928	144	80	11											

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED DKR/RBK
CHECKED

PLAN VIEW UNI-US33 RAMP W

UNI-33-8.74

67
108

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GUARDRAIL SUB SUMMARY

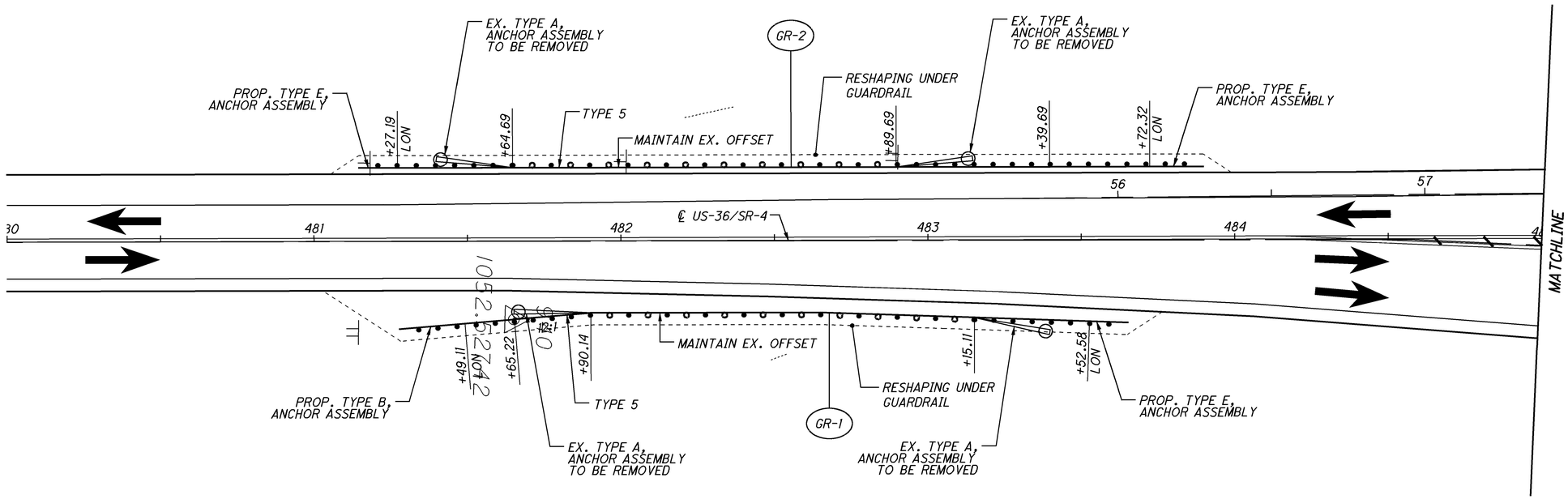
CALCULATED RDK | CHECKED CSH

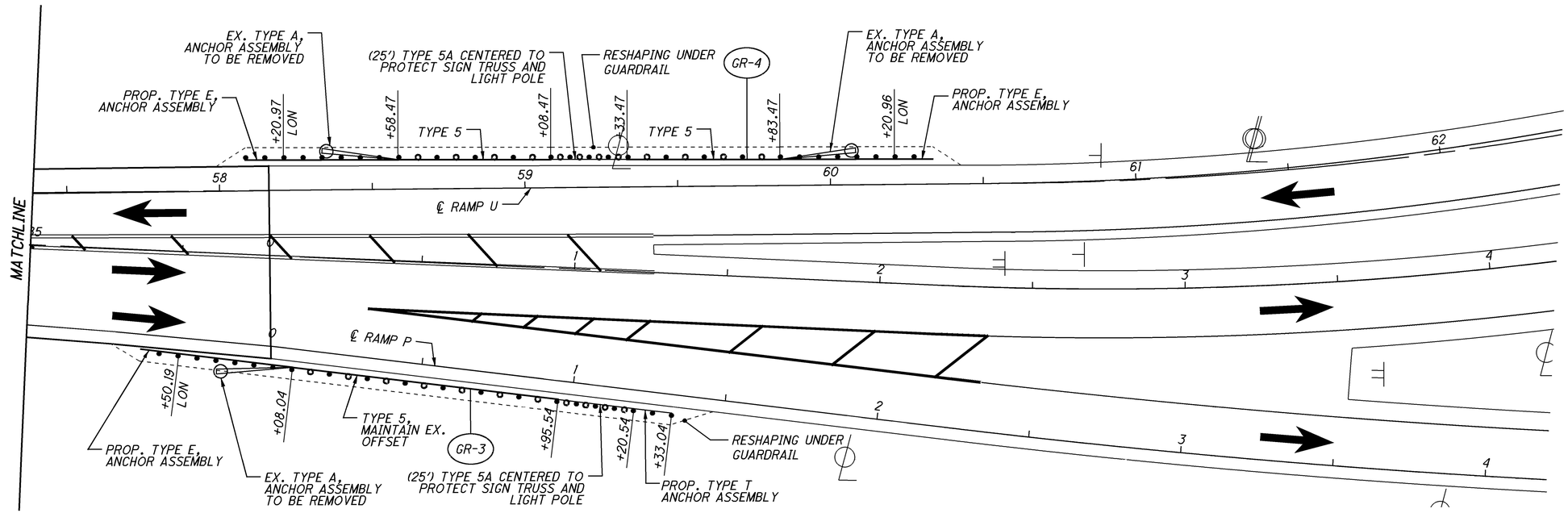
LOCATION							ROADWAY															EROSION CONTROL				TRAFFIC CONTROL							
MARK	SEE SHEET(S)			LOCATION	BEGIN STATION	END STATION	SIDE	202 GUARDRAIL REMOVED, AS PER PLAN	202 ANCHOR ASSEMBLY REMOVED, TYPE A	202 ANCHOR ASSEMBLY REMOVED, BARRIER DESIGN	203 EMBANKMENT, AS PER PLAN	209 RESHAPING UNDER GUARDRAIL	606 GUARDRAIL, TYPE 5	606 GUARDRAIL, TYPE 5A	606 GUARDRAIL, BARRIER DESIGN, TYPE 5	606 GUARDRAIL, TYPE 5, USING 9 FOOT POSTS	606 ANCHOR ASSEMBLY, TYPE B	606 ANCHOR ASSEMBLY, TYPE E	606 ANCHOR ASSEMBLY, TYPE T	606 BRIDGE TERMINAL ASSEMBLY, TYPE 1	606 BRIDGE TERMINAL ASSEMBLY, TYPE 2	606 IMPACT ATTENUATOR, TYPE 1 (BIDIRECTIONAL)	606 IMPACT ATTENUATOR, TYPE 3, AS PER PLAN	622 CONCRETE BARRIER, SINGLE SLOPE, TYPE B, AS PER PLAN	622 CONCRETE BARRIER END SECTION, TYPE B, AS PER PLAN	653 TOPSOIL FURNISHED AND PLACED	659 SEEDING AND MULCHING, CLASS 1	659 COMMERCIAL FERTILIZER	659 WATER	620 DELINEATOR, POST MOUNTED	626 BARRIER REFLECTOR A	626 BARRIER REFLECTOR A2	626 BARRIER REFLECTOR B	626 BARRIER REFLECTOR B2	630 OVERHEAD SIGN SUPPORT, TYPE TC-7.65, DESIGN 6, AS PER PLAN	630 CONCRETE BARRIER MEDIAN OVERHEAD SIGN SUPPORT FOUNDATION, TYPE TC-21.40	630 REMOVAL OF OVERHEAD SIGN SUPPORT AND REERECTION, AS PER PLAN (TYPE TC-7.65)
								FT	EACH	EACH	CU YD	STA	FT	FT	FT	FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	FT	EACH	CU YD	SQ YD	TON	M GAL	EACH	EA	EA	EA	EA	EACH	EACH	EACH
GR-1	69			US-36	481+49.11	283+52.58	RT	125.00	2		20	2.74	150.00				1	1								2	40	0.001	0.1	1		3					
GR-2	69			US-36	481+27.19	56+72.32	LT	125.00	2		20	2.94	175.00					2								2	40	0.001	0.1	1		3					
GR-3	69			RAMP P	0+00.00	1+33.04	RT	112.50	1		10	1.99	87.50	25.00				1	1							2	40	0.001	0.1	1		3					
GR-4	69			RAMP U	58+20.97	60+20.96	LT	125.00	2		20	2.44	100.00	25.00				2								2	40	0.001	0.1	1		3					
GR-5	70	77		RAMP Z	0+00.00	11+48.73	RT	1137.50	1		10	12.81	1200.00					1	1							2	40	0.001	0.1	1	13						
GR-6	70			RAMP V	12+93.06	14+43.06	MED	450.00		2	40												2	90	2	18	360	0.009	0.9				4		1	1	1
GR-7	70	71		RAMP Y	0+00.00	5+02.07	LT	462.50	1		10	5.43	450.00					1	1							2	40	0.001	0.1	1	5						
GR-8	71			RAMP U	74+89.92	78+52.42	LT	362.50				3.39	350.00						1		1					2	40	0.001	0.1		4						
GR-9	71			RAMP V	16+72.90	20+60.40	RT	225.00	1		10	3.83	350.00					1		1						2	40	0.001	0.1	1	4						
GR-10	71			RAMP V	19+10.76	20+60.40	MED	100.00		1	30	1.65	50.00		100.00						1		1			2	40	0.001	0.1		3						
GR-11	72			RAMP U	80+74.06	81+05.31	MED	31.25					31.25								1					2	40	0.001	0.1								
GR-12	72	73	74	RAMP U	80+74.06	92+20.36	LT	1162.50				11.03				1162.50					1	1				2	40	0.001	0.1		12						
GR-13	72	73		RAMP V	22+81.94	30+39.90	RT	737.50				7.15				725.00			1			1				2	40	0.001	0.1		8						
GR-14	73	74		RAMP U	89+43.99	92+50.72	RT	300.00				3.00	287.50						1			1				2	40	0.001	0.1		4						
GR-15	74	75	76	RAMP U	94+20.20	105+48.96	RT	1118.75				10.61	1118.75								1	1				2	40	0.001	0.1		12						
GR-16	74	75		RAMP W	93+70.60	100+69.69	LT	612.50	1		10	6.97	662.50					1			1					2	40	0.001	0.1	1	7						
GR-17	75	76		RAMP U	98+97.38	105+46.57	LT	637.50				6.25	625.00						1		1					2	40	0.001	0.1		7						
GR-18	77			RAMP Z	4+43.20	8+83.06	LT	412.50	1		10	4.76	400.00					1	1							2	40	0.001	0.1	1	5						
GR-19	78			RAMP P	12+34.22	14+89.16	RT	150.00	1		10	3.14	212.50					1	1							2	40	0.001	0.1	1	3						
GR-20	78			RAMP P	16+95.64	19+20.36	RT	150.00	1		10	2.90	187.50				1		1							2	40	0.001	0.1		3						
GR-21	79			RAMP P	28+14.49	31+81.05	RT	312.50	1		10	4.08	325.00				1		1							2	40	0.001	0.1		4						
GR-22	79			RAMP P	28+90.35	32+27.54	LT	425.00	1		10	5.07	412.50				1		1							2	40	0.001	0.1		5						
TOTALS CARRIED TO GENERAL SUMMARY								9275	16	3	230	102.18	7175	50	100	1887.5	4	12	12	6	6	1	2	90	2	60	1200	0.03	3	10	115				1	1	1

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68
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FOR QUANTITIES SEE GUARDRAIL PLAN SUBSUMMARY ON SHEET 68.

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED DKR/RBK
CHECKED CH

GUARDRAIL PLAN
US-36 & RAMP U
RAMP P & RAMP U
UNI-33-8.74

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108

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FOR QUANTITIES SEE GUARDRAIL PLAN SUBSUMMARY ON SHEET 68.

GR-7

PROP. TYPE T ANCHOR ASSEMBLY

+10.78

TYPE 5 MAINTAIN EX. OFFSET

RESHAPING UNDER GUARDRAIL

℄ RAMP Y

MATCHLINE RAMP Y STA. 3+44.04 SEE SHEET 71.

END ANCHORAGE RM-4.3 15′

END ANCHORAGE RM-4.3 15′

℄ RAMP U

MATCHLINE RAMP U STA. 74+00.00 SEE SHEET 71.

IMPACT ATTENUATOR, TYPE 3 UNIDIRECTIONAL, AS PER PLAN

30′ RM-4.6

90′ CONCRETE BARRIER, SINGLE SLOPE, TYPE B, AS PER PLAN RM-4.4

30′ RM-4.6

IMPACT ATTENUATOR, TYPE 3 UNIDIRECTIONAL, AS PER PLAN

+93.06

+23.06

+13.06

+43.06

EX. GUARDRAIL REMOVED, AS PER PLAN

ANCHOR ASSEMBLY REMOVED, BARRIER DESIGN

ANCHOR ASSEMBLY REMOVED, BARRIER DESIGN

℄ RAMP V

CONCRETE BARRIER END SECTION, TYPE B, AS PER PLAN

GR-6

SEE DETAIL A

CONCRETE BARRIER MEDIAN OVERHEAD SIGN SUPPORT FOUNDATION, TYPE TC-21.40

CONCRETE BARRIER END SECTION, TYPE B, AS PER PLAN

℄ RAMP V

MATCHLINE RAMP V STA. 16+07.88 SEE SHEET 71.

FOR QUANTITIES AND INFORMATION REGARDING THESE SIGNS, SEE TEMPORARY SIGNING IN THE GENERAL NOTES.

EX. SIGN TRUSS

℄ RAMP Z

+12.73 LON

+45.51

TYPE 5

PROP. TYPE E ANCHOR ASSEMBLY

EX. TYPE A, ANCHOR ASSEMBLY TO BE REMOVED

+58.01

TYPE 5 MAINTAIN EX. OFFSET

RESHAPING UNDER GUARDRAIL

GR-5

TEMPORARY SIGNING DURING THE CONSTRUCTION OF THE CONCRETE BARRIER MEDIAN

M6-3-30 STA. 14+40 RAMP V

M6-2-30

M3-4-36

M3-2-36

WEST

EAST

M1-4-48-2

M1-4-48-2

M6-2-30 STA. 2+20 RAMP Z

M3-2-36

EAST

M1-4-48-2

MATCHLINE RAMP Z STA. 4+00.00 SEE SHEET 77.

USE ALUMINUM BOLTS TO ATTACH SIGN TO NO. 2 POST. USE 2 STAINLESS STEEL BOLTS TO SPLICE NO. 2 TO NO. 3 POST.

1′ TO 2′ OVERLAP

5′ OR 7′

5′ OR 7′ - NO. 2 POST

10′ - NO. 3 POST

PAINT MARK AS PER CMS 630.06.A.1

GROUND LINE

6″

5′-6″

4′-6″ DEPTH

TYPICAL NO.2 & NO. 3 U CHANNELSPLICE WITH 10′ DRIVEN SECTION INSTALLATION

REMOVAL OF 25′-6″ OVERHEAD SIGN SUPPORT AND DISPOSAL, (TYPE TC-7.65) AS PER PLAN

PROPOSED 22′-0″ OVERHEAD SIGN SUPPORT, TYPE TC-7.65, DESIGN 6, AS PER PLAN

CONCRETE BARRIER MEDIAN OVERHEAD SIGN SUPPORT FOUNDATION, TYPE TC-21.40

CONCRETE BARRIER, SINGLE SLOPE, TYPE B RM-4.4

60′-0″

16′-0″ 11′-0″ 3′ 14′-0″ 16′-0″

3′ 7′

33 WEST Bellefontaine

EAST NORTH 33 36 4 Marysville Columbus

8′ 3′

17′ MIN.

7′-0″ 4′-0″ 16′-0″ RAMP V 4′-0″ 16′-0″ RAMP Z 6′-0″ 7′-0″

℄ RAMP

℄ RAMP

42″

EX. GUARDRAIL REMOVED, AS PER PLAN

DETAIL A

8″ 12″ 8″

RACEWAY NOT REQUIRED

42″

COMPACTED SOIL (TYP.)

3″ MIN.

9″

42″ MIN.

ITEM 301- ASPHALT CONCRETE BASE

BARRIER AS PER PLAN DETAIL

SEE STANDARD DRAWINGS FOR RESTEEL PLACEMENT DETAILS

HORIZONTAL SCALE IN FEET 0 10 20 40

CALCULATED DKR/RBK

CHECKED CH

GUARDRAIL PLAN

RAMP U & RAMP V & RAMP Y & RAMP Z

UNI-33-8.74

70 108

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MATCHLINE RAMP Y STA. 3+44.04 SEE SHEET 70.

MATCHLINE RAMP U STA. 74+00.00 SEE SHEET 70.

MATCHLINE RAMP V STA. 16+07.88 SEE SHEET 70.

MATCHLINE RAMP U STA. 79+77.41 SEE SHEET 72.

MATCHLINE RAMP V STA. 21+85.28 SEE SHEET 72.

EX. TYPE A, ANCHOR ASSEMBLY TO BE REMOVED

PROP. TYPE E, ANCHOR ASSEMBLY

+64.07

+20.07 LON

GR-7

TYPE 5 MAINTAIN EX. OFFSET

RAMP Y

PROP. TYPE T ANCHOR

+89.92

+02.42

GR-8

TYPE 5 MAINTAIN EX. OFFSET

RESHAPING UNDER GUARDRAIL

PROPOSED BRIDGE TERMINAL ASSEMBLY, TYPE 2 (TYPE 5 GUARDRAIL) AS PER GR-3.2

+27.42

+52.42

℄ US-33

4 75 76 77 78 79

℄ RAMP U

PROP. IMPACT ATTENUATOR, TYPE 1 BIDIRECTIONAL

EX. TYPE AA, ANCHOR ASSEMBLY TO BE REMOVED

RESHAPING UNDER GUARDRAIL

+10.76

TYPE 5, BARRIER DESIGN

TYPE 5

+10.46

+29.15

+60.40

PROPOSED BRIDGE TERMINAL ASSEMBLY, TYPE 1 (TYPE 5 GUARDRAIL) AS PER GR-3.1

12:1

+23.35

17 18 19 20 21

℄ RAMP V

GR-10

+72.90 LON

+10.40

PROP. TYPE E, ANCHOR ASSEMBLY

TYPE 5 MAINTAIN EX. OFFSET

GR-9

+35.40

EX. TYPE A, ANCHOR ASSEMBLY TO BE REMOVED

TYPE 5 MAINTAIN EX. OFFSET

+29.15

+60.40

PROPOSED BRIDGE TERMINAL ASSEMBLY, TYPE 1 (TYPE 5 GUARDRAIL) AS PER GR-3.1

℄ US-33

FOR QUANTITIES SEE GUARDRAIL PLAN SUBSUMMARY ON SHEET 68.

DKR

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED DKR/RBK
CHECKED CH

GUARDRAIL PLAN
RAMP U & RAMP V & RAMP Y

UNI-33-8.74

71
108

MATCHLINE RAMP U
STA. 79+71.41
SEE SHEET 71.

MATCHLINE RAMP V
STA. 21+85.28
SEE SHEET 71.

PROPOSED BRIDGE TERMINAL ASSEMBLY, TYPE 1 (TYPE 5 GUARDRAIL) AS PER GR-3.1

+74.06

+05.31

GR-12

TYPE 5 MAINTAIN EX. OFFSET USING 9' POSTS

RESHAPING UNDER GUARDRAIL

80 81 82 83 84 85

℄ RAMP U

PROPOSED BRIDGE TERMINAL ASSEMBLY, TYPE 1 (TYPE 5 GUARDRAIL) AS PER GR-3.1

+74.06

GR-11

+05.31

TIE TYPE 5 INTO EXISTING AT EVEN PANEL.

MATCHLINE RAMP U
STA. 85+30.27
SEE SHEET 73.

22 23 24 25 26 27

℄ RAMP V

MATCHLINE RAMP V
STA. 27+26.58
SEE SHEET 73.

+81.94

+13.19

PROPOSED BRIDGE TERMINAL ASSEMBLY, TYPE 2 (TYPE 5 GUARDRAIL) AS PER GR-3.2

TYPE 5 MAINTAIN EX. OFFSET USING 9' POSTS

GR-13

RESHAPING UNDER GUARDRAIL

TYPE 5 MAINTAIN EX. OFFSET USING 9' POSTS

FOR QUANTITIES SEE GUARDRAIL PLAN SUBSUMMARY ON SHEET 68.

HORIZONTAL SCALE IN FEET
0 10 20 40

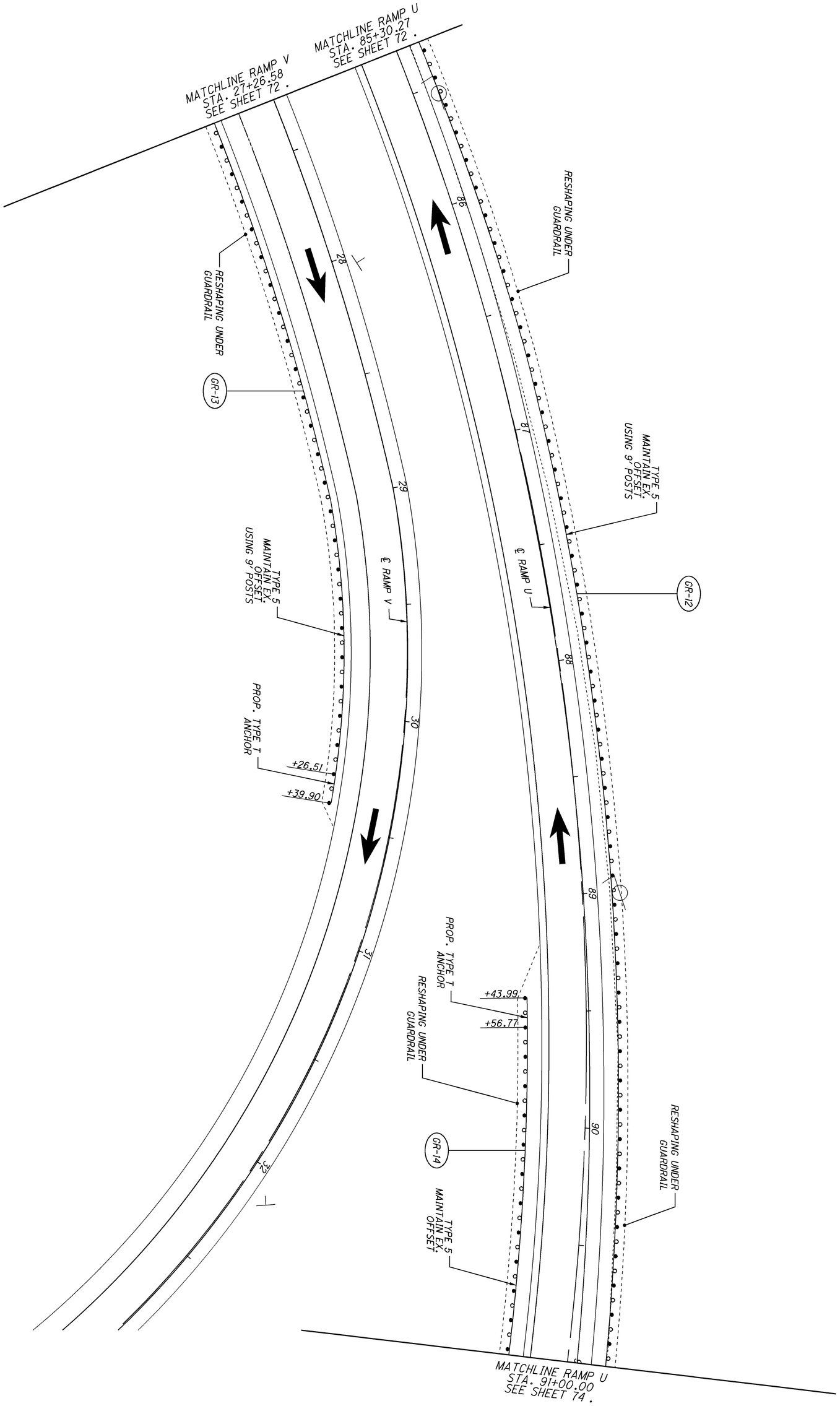
CALCULATED DKR/RBK
CHECKED CJH

GUARDRAIL PLAN
RAMP U & RAMP V

UNI-33-8.74

72
108

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FOR QUANTITIES SEE GUARDRAIL PLAN SUBSUMMARY ON SHEET 68.

73 / 108	UNI-33-8.74	GUARDRAIL PLAN RAMP U & RAMP V	CALCULATED DKR/RDK CHECKED	0 20 10 40 HORIZONTAL SCALE IN FEET

FOR QUANTITIES SEE GUARDRAIL PLAN SUBSUMMARY ON SHEET 68.

HORIZONTAL SCALE IN FEET
0 10 20 40

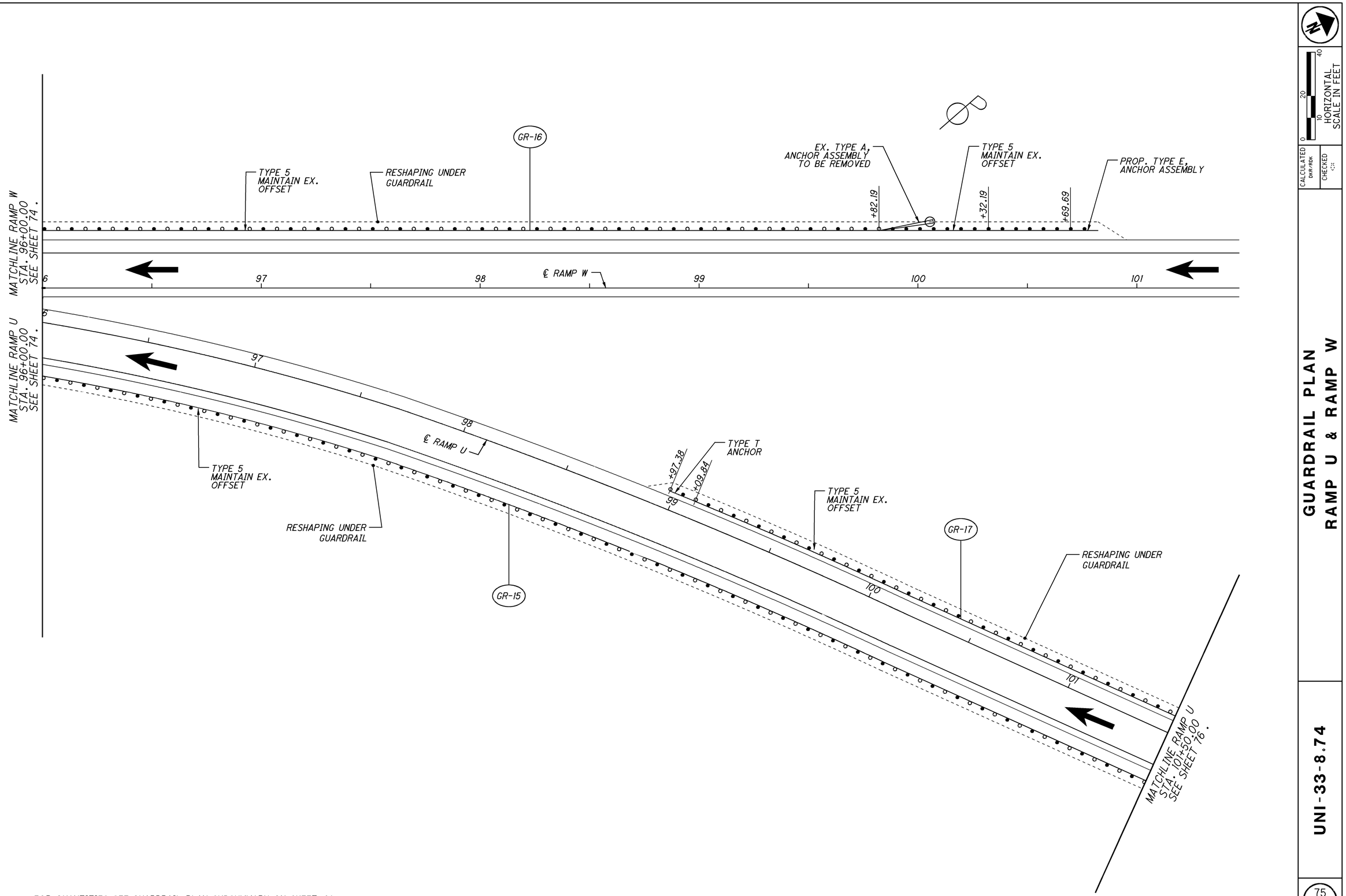
CALCULATED DKR/RDK
CHECKED CH

GUARDRAIL PLAN
RAMP U & RAMP W

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74
108

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FOR QUANTITIES SEE GUARDRAIL PLAN SUBSUMMARY ON SHEET 68.

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED DKR/RBK
CHECKED

GUARDRAIL PLAN
RAMP U & RAMP W

UNI-33-8.74

75
108

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MATCHLINE RAMP U
STA. 101+50.00
SEE SHEET 75 .

RESHAPING UNDER GUARDRAIL

TYPE 5 MAINTAIN EX. OFFSET

GR-17

PROPOSED BRIDGE TERMINAL ASSEMBLY, TYPE 2 (TYPE 5 GUARDRAIL) AS PER GR-3.2

+46.57

102 103 104 105 106

℄ RAMP U

+23.96

+48.96

RESHAPING UNDER GUARDRAIL

TYPE 5 MAINTAIN EX. OFFSET

GR-15

PROPOSED BRIDGE TERMINAL ASSEMBLY, TYPE 2 (TYPE 5 GUARDRAIL) AS PER GR-3.2

44

45

46

FOR QUANTITIES SEE GUARDRAIL PLAN SUBSUMMARY ON SHEET 68.

HORIZONTAL SCALE IN FEET
0 10 20 40

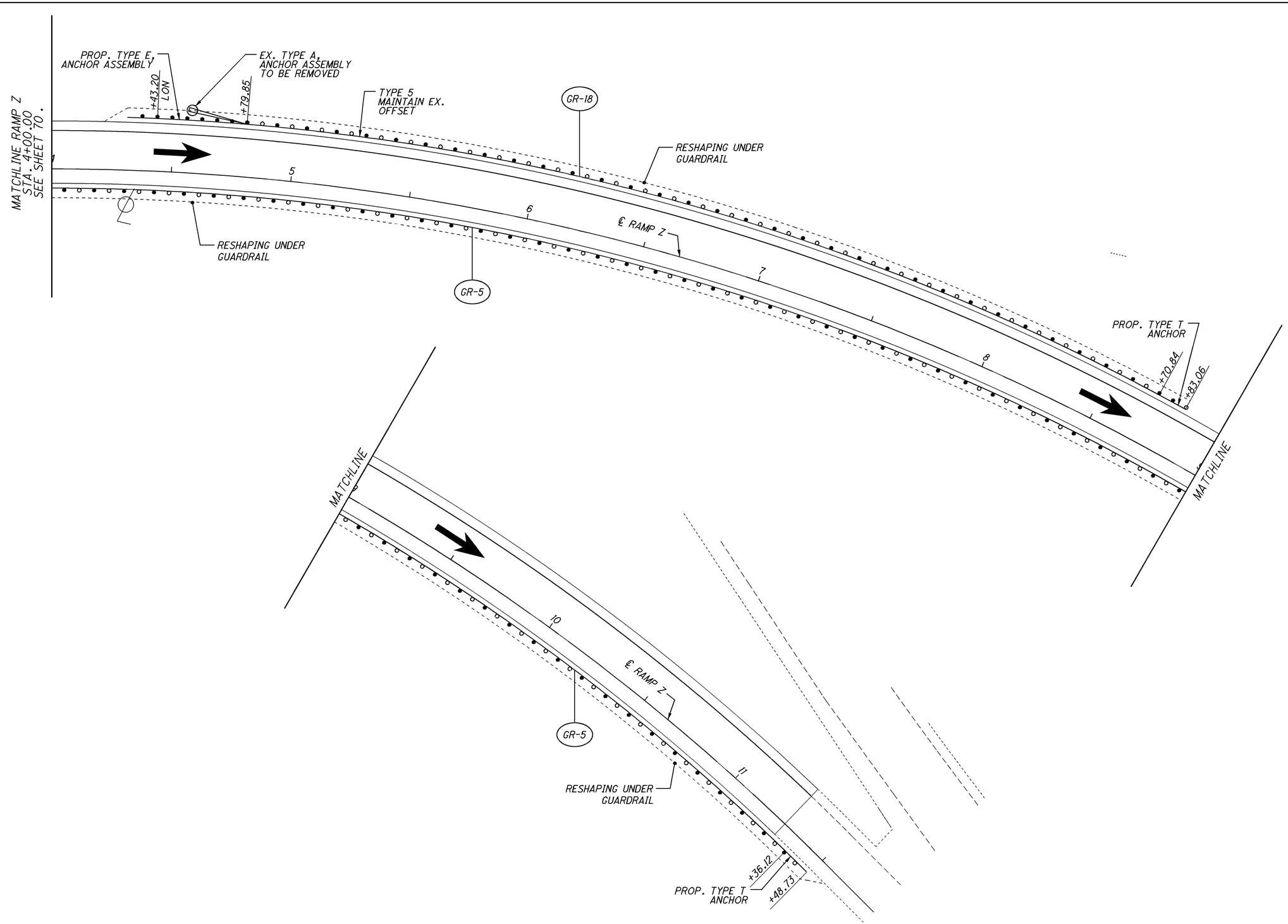
CALCULATED DKR/RBK
CHECKED

GUARDRAIL PLAN
RAMP U

UNI-33-8.74

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108

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FOR QUANTITIES SEE GUARDRAIL PLAN SUBSUMMARY ON SHEET 68.

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED DKR/RBK
CHECKED CH

GUARDRAIL PLAN
RAMP Z

UNI-33-8.74

77
108

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FOR QUANTITIES SEE GUARDRAIL PLAN SUBSUMMARY ON SHEET 68.

N

0 10 20 40
HORIZONTAL
SCALE IN FEET

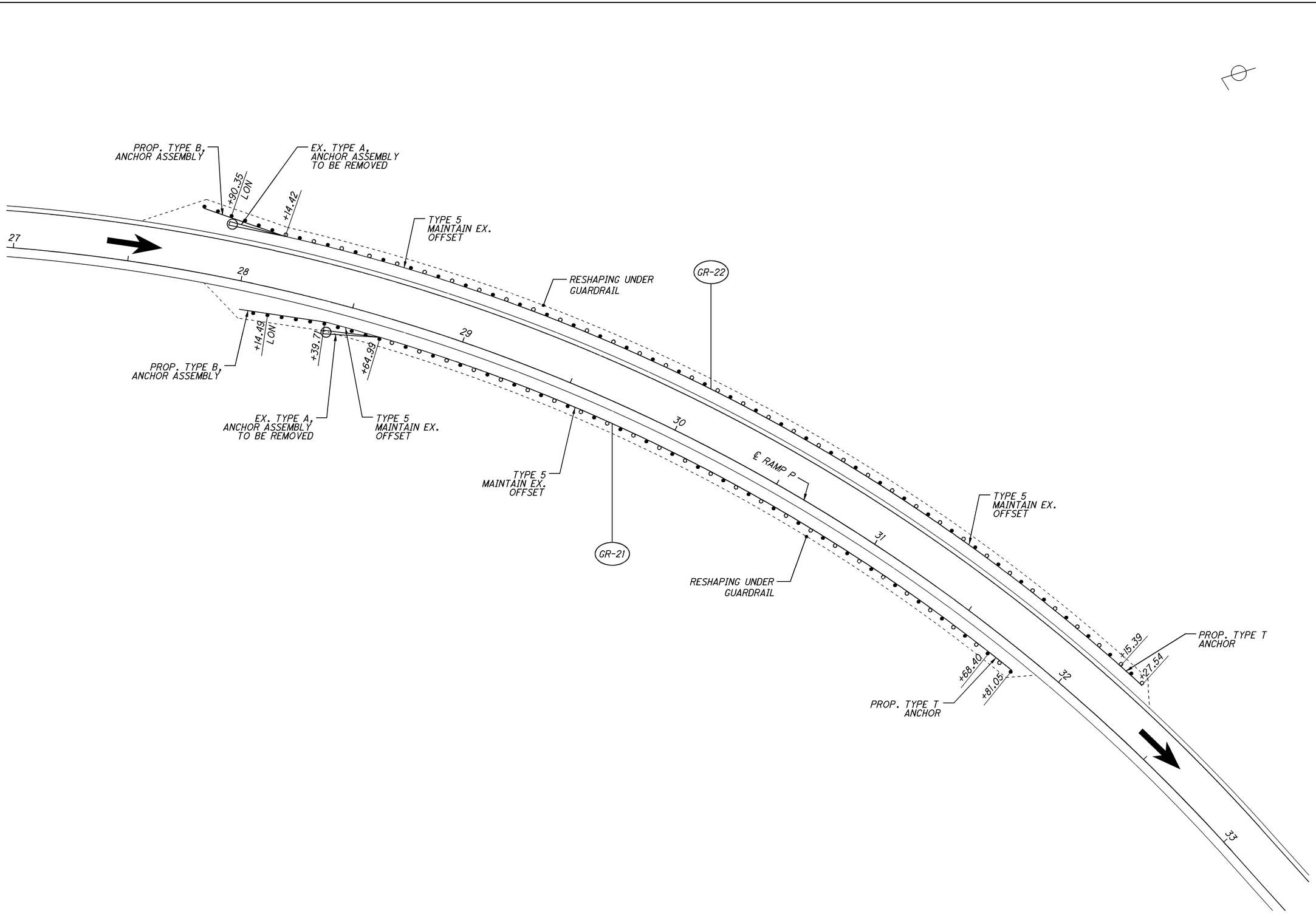
CALCULATED DKR/RDK
CHECKED CH

GUARDRAIL PLAN
RAMP P

UNI-33-8.74

78
108

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FOR QUANTITIES SEE GUARDRAIL PLAN SUBSUMMARY ON SHEET 68.

CALCULATED DKR/RBK

CHECKED

GUARDRAIL PLAN
RAMP P

UNI-33-8.74

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108

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TRAFFIC CONTROL SUBSUMMARY - MAINLINE

SHEET #	BEGIN STA.	END STA.	LENGTH MILE	LENGTH FT	SIDE	DESCRIPTION	644 LONG LINE MARKINGS: EDGE LINE, 6" WHITE MILE	EDGE LINE, 6" YELLOW MILE	LANE LINE, 6" WHITE MILE	CENTER LINE (DOUBLE SOLID) MILE	644 AUXILIARY MARKINGS: CHANNELIZING LINE, 12" FT.	STOP LINE FT.	CROSS WALK FT.	TRANSVERSE LINE YELLOW FT.	TRANSVERSE LINE WHITE FT.	DOTTED LINE 6" FT.	621 RAISED PAVEMENT MARKERS: RPM ONE WAY -WHITE RIGHT EDGE LINE 40' EACH	RPM ONE WAY -WHITE RIGHT EDGE LINE 80' EACH	RPM WHITE/RED EDGE LINE 40' EACH	RPM WHITE/RED CHANNELIZING 40' EACH	RPM WHITE/RED LANE LINE 120' EACH	RPM YELLOW/RED EDGE LINE 80' EACH	RPM YELLOW/YELLOW CENTER LINE 80' EACH	RAISED PAVEMENT MARKER REMOVED EACH
85/108	455+63	470+00	0.272	1,437	EB/RT	US-33 MAINLINE	0.272	0.272	0.272		122					705			4	4	12			
85/108	455+63	470+00	0.272	1,437	WB/LT	US-33 MAINLINE	0.272	0.272	0.292		518				160				13	14	12			
86/108	470+00	496+00	0.492	2,600	EB/RT	US-33 MAINLINE	0.492	0.492	0.492												22			
86/108	470+00	496+00	0.492	2,600	WB/LT	US-33 MAINLINE	0.492	0.492	0.492							280					22			
87/108	496+00	522+00	0.492	2,600	EB/RT	US-33 MAINLINE	0.492	0.492	0.492							110					22			
87/108	496+00	522+00	0.492	2,600	WB/LT	US-33 MAINLINE	0.492	0.492	0.542							635					22			
88/108	522+00	535+00	0.246	1,300	EB/RT	US-33 MAINLINE	0.246	0.246	0.273		700				140	202			18	19	11			
88/108	522+00	535+00	0.246	1,300	WB/LT	US-33 MAINLINE	0.246	0.246	0.256		195								5	6	11			
89/108	535+00	550+00	0.284	1,500	EB/RT	US-33 MAINLINE	0.284	0.284	0.329							470					13			
89/108	535+00	550+00	0.284	1,500	WB/LT	US-33 MAINLINE	0.284	0.284	0.294												13			
90/108	550+00	565+00	0.284	1,500	EB/RT	US-33 MAINLINE	0.284	0.284	0.315							310					13			
90/108	550+00	565+00	0.284	1,500	WB/LT	US-33 MAINLINE	0.284	0.284	0.294												13			
91/108	565+00	585+00	0.379	2,000	EB/RT	US-33 MAINLINE	0.379	0.379	0.416		790				125				20	21	17			
91/108	565+00	585+00	0.379	2,000	WB/LT	US-33 MAINLINE	0.379	0.379	0.389		1,130				180	200			29	29	17			
92/108	585+00	611+00	0.492	2,600	EB/RT	US-33 MAINLINE	0.410	0.410	0.410												22			
92/108	585+00	611+00	0.492	2,600	WB/LT	US-33 MAINLINE	0.410	0.410	0.410							680					22			
93/108	611+00	637+00	0.492	2,600	EB/RT	US-33 MAINLINE	0.492	0.492	0.528		740				140	290			19	20	22			
93/108	611+00	637+00	0.492	2,600	WB/LT	US-33 MAINLINE	0.492	0.492	0.520		360					790			10	10	22			
94/108	637+00	655+00	0.341	1,800	EB/RT	US-33 MAINLINE	0.341	0.341	0.390		290								8	8	15			
94/108	637+00	655+00	0.341	1,800	WB/LT	US-33 MAINLINE	0.341	0.341	0.378		655				110				17	17	15			
95/108	655+00	658+90	0.074	390	EB/RT	US-33 MAINLINE	0.074	0.074	0.074							490					4			
95/108	655+00	658+90	0.074	390	WB/LT	US-33 MAINLINE	0.074	0.074	0.074							250					4			
88/108	524+48	535+00	0.199	1,053	WB/LT	US-33 COLLECTOR-DISTRIBUTOR	0.199	0.199	0.199		110								3	4		14		
89/108	535+00	550+00	0.284	1,500	WB/LT	US-33 COLLECTOR-DISTRIBUTOR	0.284	0.284	0.284		225				60				6	7		19		
90/108	550+00	565+00	0.284	1,500	WB/LT	US-33 COLLECTOR-DISTRIBUTOR	0.284	0.284	0.284		260				70				7	8		19		
91/108	565+00	570+82	0.110	582	WB/LT	US-33 COLLECTOR-DISTRIBUTOR	0.110	0.110	0.110													8		
83/108	470+47	486+78	0.309	1,631	EB/WB	US-36 MAINLINE	0.618			0.360	130	24		76			11	5		4			24	
TOTALS CARRIED TO GENERAL SUMMARY							17.44		8.81	0.36	6,225	24		1,061		5,412				776				698

TRAFFIC CONTROL SUBSUMMARY - BRIDGE DECKS

SHEET #	BEGIN STA.	END STA.	LENGTH MILE	LENGTH FT	SIDE	DESCRIPTION	646 LONG LINE MARKINGS: EDGE LINE, 6" WHITE MILE	EDGE LINE, 6" YELLOW MILE	LANE LINE, 6" WHITE MILE	CENTER LINE (DOUBLE SOLID) MILE	646 AUXILIARY MARKINGS: CHANNELIZING LINE, 12" FT.	STOP LINE FT.	CROSS WALK FT.	TRANSVERSE LINE YELLOW FT.	TRANSVERSE LINE WHITE FT.	DOTTED LINE 6" FT.	621 RAISED PAVEMENT MARKERS: RPM ONE WAY -WHITE RIGHT EDGE LINE 40' EACH	RPM ONE WAY -WHITE RIGHT EDGE LINE 80' EACH	RPM WHITE/RED EDGE LINE 40' EACH	RPM WHITE/RED CHANNELIZING 40' EACH	RPM WHITE/RED LANE LINE 120' EACH	RPM YELLOW/RED EDGE LINE 80' EACH	RPM YELLOW/YELLOW CENTER LINE 80' EACH	RAISED PAVEMENT MARKER REMOVED EACH
84/108	78+25	81+01	0.052	276	RAMP U	UNI-33-8.34	0.052	0.052	0.105															
84/108	20+58	23+09	0.048	251	RAMP V	UNI-33-8.35	0.048	0.048	0.095															
84/108	92+03	94+28	0.043	225	RAMP U	UNI-33-8.62	0.043	0.043	0.085															
85/108	458+80	460+98	0.041	219	EB/RT	UNI-US33-8.79	0.041	0.041	0.083															
85/108	458+88	460+98	0.040	209	WB/LT	UNI-US33-8.79	0.040	0.040	0.040															
85/108	105+13	106+75	0.031	162	RAMP U	UNI-US33-8.79 A	0.031	0.031	0.031															
86/108	473+56	475+70	0.041	214	EB/RT	UNI-US33-9.05	0.041	0.041	0.041															
86/108	473+56	475+70	0.041	214	WB/LT	UNI-US33-9.05	0.041	0.041	0.041															
86/108	476+52	478+30	0.034	178	EB/RT	UNI-US33-9.12	0.034	0.034	0.034															
86/108	476+52	478+30	0.034	178	WB/LT	UNI-US33-9.12	0.034	0.034	0.034															
86/108	482+93	485+43	0.047	250	EB/RT	UNI-US33-9.22	0.047	0.047	0.047															
86/108	482+93	485+43	0.047	250	WB/LT	UNI-US33-9.22	0.047	0.047	0.047															
92/108	602+28	604+28	0.038	200	EB/RT	UNI-US33-11.50	0.038	0.038	0.038															
92/108	601+70	603+70	0.038	200	WB/LT	UNI-US33-11.50	0.038	0.038	0.038															
92/108	606+08	608+44	0.045	236	EB/RT	UNI-US33-11.56	0.045	0.045	0.045															
92/108	606+08	608+44	0.045	236	WB/LT	UNI-US33-11.56	0.045	0.045	0.045															
94/108	639+01	641+46	0.046	245	EB/RT	UNI-US33-12.19	0.046	0.046	0.046															
94/108	639+24	641+65	0.046	241	WB/LT	UNI-US33-12.19	0.046	0.046	0.046															
TOTALS CARRIED TO GENERAL SUMMARY							1.51		0.94															

CALCULATED DKRANDK | CHECKED CJS

TRAFFIC CONTROL SUBSUMMARY MAINLINE / BRIDGE DECKS

UNI-33-8.74

80 / 108

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TRAFFIC CONTROL SUBSUMMARY - RAMPS

CALCULATED DKRANDK | CHECKED CJS

SHEET #	BEGIN STA	END STA	LENGTH MILE	LENGTH FT	SIDE	DESCRIPTION	644 LONG LINE MARKINGS: EDGE LINE, 6" WHITE MILE	EDGE LINE, 6" YELLOW MILE	LANE LINE, 6" WHITE MILE	CENTER LINE (DOUBLE SOLID) MILE	644 AUXILIARY MARKINGS: CHANNELIZING LINE, 12" FT.	STOP LINE FT.	CROSS WALK FT.	TRANSVERSE LINE YELLOW FT.	TRANSVERSE LINE WHITE FT.	DOTTED LINE 6" FT.	621 RAISED PAVEMENT MARKERS: RPM ONE WAY -WHITE RIGHT EDGE LINE 40' EACH	RPM ONE WAY -WHITE RIGHT EDGE LINE 80' EACH	RPM WHITE/RED EDGE LINE 40' EACH	RPM WHITE/RED CHANNELIZING 40' EACH	RPM WHITE/RED LANE LINE 120' EACH	RPM YELLOW/RED EDGE LINE 80' EACH	RPM YELLOW/YELLOW CENTER LINE 80' EACH	RAISED PAVEMENT MARKER REMOVED EACH
83/108	58+17	70+92	0.241	1,275	RT/LT	RAMP U	0.241	0.241			160					401				5		17		
84/108	70+92	98+99	0.532	2,807	RT/LT	RAMP U	0.532	0.532			250									7		36		
85/108	98+99	113+38	0.273	1,439	RT/LT	RAMP U	0.273	0.273			175				68					5		19		
83/108	0+00	13+00	0.246	1,300	RT/LT	RAMP V	0.246	0.246	0.039		405				80	295				11		17		
84/108	13+00	58+17	0.855	4,517	RT/LT	RAMP V	0.855	0.855			300									9		57		
83/108	0+00	15+76	0.298	1,576	RT/LT	RAMP P	0.298	0.298														21		
84/108	15+76	33+63	0.338	1,787	RT/LT	RAMP P	0.338	0.338														23		
85/108	33+63	39+15	0.105	552	RT/LT	RAMP P	0.105	0.105				45					11	5				8		
84/108	1+75	11+64	0.187	989	RT/LT	RAMP Y	0.187	0.187														13		
84/108	2+74	11+28	0.162	854	RT/LT	RAMP Z	0.162	0.162														12		
84/108	96+00	98+96	0.056	296	RT/LT	RAMP W	0.056	0.056														5		
85/108	96+00	104+59	0.163	859	RT/LT	RAMP W	0.163	0.163														12		
85/108	3+17	5+56	0.045	239	EB/RT	RAMP R		0.045														4		
85/108	4+36	5+56	0.023	120	EB/RT	RAMP R	0.023															3		
85/108	3+15	13+35	0.193	1,020	EB/RT	RAMP R	0.193															14		
85/108	4+41	13+35	0.169	894	EB/RT	RAMP R		0.169														12		
85/108	2+25	10+13	0.149	788	WB/LT	RAMP S	0.149															11		
85/108	4+96	5+27	0.006	31	WB/LT	RAMP S	0.006					24					11	5				1		
85/108	2+25	5+27	0.057	302	WB/LT	RAMP S		0.057														5		
85/108	5+15	10+13	0.094	498	WB/LT	RAMP S		0.094			167				65					5		7		
88/108	5+21	10+00	0.091	479	EB/RT	RAMP G	0.091	0.091														7		
89/108	10+00	18+35	0.158	835	EB/RT	RAMP G	0.158	0.158				34					11	5				11		
88/108	10+19	13+00	0.053	281	WB/LT	RAMP F	0.053	0.053														5		
89/108	13+00	20+56	0.143	756	WB/LT	RAMP F	0.143	0.143														10		
89/108	1+48	12+15	0.202	1067	EB/RT	RAMP H	0.20	0.20														14		
89/108	2+84	4+28	0.027	144	EB/RT	RAMP H	0.03	0.03														3		
90/108	11+27	11+91	0.012	64	WB/LT	RAMP M	0.01	0.01														2		
90/108	11+27	15+86	0.087	459	WB/LT	RAMP M	0.09	0.09														7		
90/108	1+55	11+27	0.184	972	WB/LT	RAMP M	0.18	0.18														13		
90/108	3+70	11+54	0.148	784	WB/LT	RAMP L	0.15	0.15														11		
90/108	0+00	3+70	0.070	370	WB/LT	RAMP L	0.07	0.07														6		
90/108	3+45	3+70	0.005	25	WB/LT	RAMP L	0.005	0.005				24					11	5				1		
91/108	5+12	12+80	0.145	768	EB/RT	RAMP J	0.15	0.15														11		
91/108	12+80	16+83	0.076	403	EB/RT	RAMP J	0.08	0.08														6		
91/108	12+80	14+25	0.027	145	EB/RT	RAMP J	0.03	0.03				20					11	5				3		
91/108	0+35	15+23	0.282	1488	EB/RT	RAMP K	0.28	0.28														20		
93/108	5+54	13+00	0.141	746	EB/RT	RAMP A	0.14	0.14														10		
94/108	13+00	14+96	0.037	196	EB/RT	RAMP A	0.04	0.04				38					11	5				3		
93/108	1+54	8+00	0.122	646	WB/LT	RAMP D	0.12	0.12														9		
94/108	8+00	11+20	0.061	320	WB/LT	RAMP D	0.06	0.06														5		
94/108	11+20	12+86	0.031	166	WB/LT	RAMP D	0.03	0.03														3		
94/108	11+20	11+91	0.013	71	WB/LT	RAMP D	0.01	0.01														2		
94/108	0+54	8+83	0.157	829	EB/RT	RAMP B	0.16	0.16					120									11		
94/108	0+47	8+22	0.147	775	WB/LT	RAMP C	0.15	0.15				44	110				11	5				11		
						TOTALS CARRIED TO GENERAL SUMMARY	12.49		0.04		1,457	229	230	213		696	635							572

TRAFFIC CONTROL SUBSUMMARY
RAMPS

UNI-33-8.74

81
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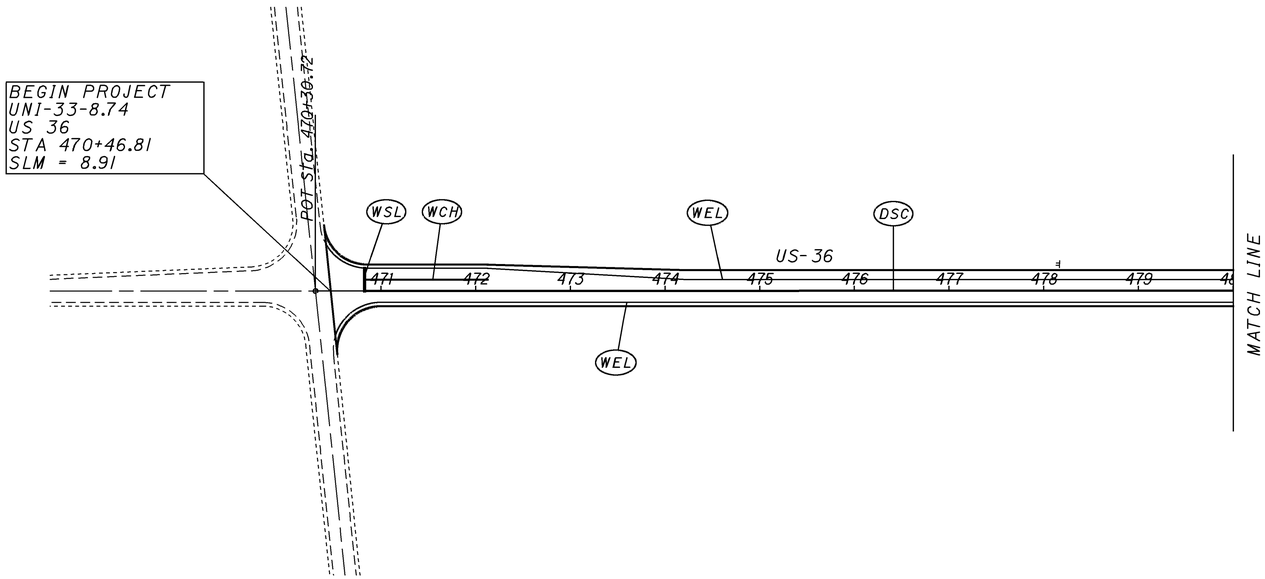
LOCATION					TRAFFIC CONTROL								
					630	630	630	630			630	630	630
MARK	SEE SHEET	LOCATION	STATION	SIDE		GROUND MOUNTED SUPPORT, NO. 2 POST	GROUND MOUNTED SUPPORT, NO. 3 POST	SIGN POST REFLECTOR (RED)	SIGN, FLAT SHEET				REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	REMOVAL OF GROUND MOUNTED SIGN AND REERECTION	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL
									STOP "STOP" R1-1-48	YIELD "YIELD" R1-2-48	DO NOT ENTER "DO NOT ENTER" R5-1-36	WRONG WAY "WRONG WAY" R5-1a-36			
						FT	FT	EACH	SQ FT	SQ FT	SQ FT	SQ FT	EACH	EACH	EACH
SN-1	83	RAMP U	60+90.00	LT		7	10	1			9.00		1		1
SN-2	83	RAMP U	60+90.00	RT		7	10	1			9.00		1		1
SN-3	83	RAMP U	63+00.00	LT		7	10	1				6.00	1		1
SN-4	83	RAMP U	63+00.00	RT		7	10	1				6.00	1		1
SN-5	85	RAMP P	33+80.04	LT		7	10	1				6.00	1		1
SN-6	85	RAMP P	33+80.04	RT		7	10	1				6.00	1		1
SN-7	85	RAMP P	38+77.73	RT		14	20	4	16.00		9.00		2		2
SN-8	85	RAMP R	5+15.85	LT		14	20	2		6.93			1		2
SN-9	85	RAMP R	12+32.78	RT		14	20	2		6.93			1		2
SN-10	85	RAMP S	3+07.96	LT		14	20	2		6.93			1		2
SN-11	85	RAMP S	4+87.85	RT		14	20	4	16.00		9.00		2		2
SN-12	85	RAMP S	5+25.54	RT		7	10	1			9.00		1	2	1
SN-13	85	RAMP S	5+77.58	LT				1				6.00	1		
SN-14	85	RAMP S	6+18.67	RT		7	10	1				6.00	1		1
SN-15	88	RAMP F	0+46.93	LT		14	20	2		6.93			1		2
SN-16	88	RAMP F	9+20.93	LT		14	20	2		6.93			1		2
SN-17	89	RAMP G	13+04.60	RT		7	10	1				6.00	1		1
SN-18	89	RAMP G	13+04.60	LT		7	10	1				6.00	1		1
SN-19	89	RAMP G	16+91.15	RT		7	10	1				6.00	1		1
SN-20	89	RAMP G	17+21.26	LT		14	20	2		6.93			1		2
SN-21	89	RAMP G	18+10.62	RT		14	20	4	16.00		9.00		2	2	2
SN-22	89	US-33	548+01.02	RT		14	20	2		6.93			1		2
SN-23	89	RAMP E	5+67.06	RT		7	10	1				6.00	1		1
SN-24	89	RAMP E	5+67.06	LT				1				6.00	1		
SN-25	89	RAMP E	4+62.32	RT		7	10	1				6.00	1		1
SN-26	89	RAMP E	4+09.12	RT		14	20	4	16.00		9.00		2	2	2
SN-27	89	RAMP E	0+19.58	RT		14	20	2		6.93			1		2
SN-28	90	RAMP M	2+68.77	LT		14	20	2		6.93			1		2
SN-29	90	RAMP L	4+28.26	RT		7	10	1				6.00	1		1
SN-30	90	RAMP L	4+36.26	LT		7	10	1				6.00	1		1
SN-31	90	RAMP L	3+48.22	RT		14	20	4	16.00		9.00		2	2	2
SN-32	90	RAMP L	1+08.08	LT		14	20	2		6.93			1		2
SN-33	91	RAMP J	8+00.92	RT		7	10	1				6.00	1		1
SN-34	91	RAMP J	8+00.92	LT		7	10	1				6.00	1		1
SN-35	91	RAMP J	16+77.74	RT		14	20	2		6.93			1		2
SN-36	91	RAMP K	0+51.05	LT		14	20	4	16.00		9.00		2	2	2
SN-37	91	US-33	584+66.31	RT		14	20	2		6.93			1		2
SN-38	93	RAMP D	0+00.00	LT		14	20	2		6.93			1		2
SN-39	93	RAMP A	12+55.06	RT		7	10	1				6.00	1		1
SN-40	93	RAMP A	12+55.06	LT		7	10	1				6.00	1		1
SN-41	94	RAMP A	14+74.20	RT		14	20	4	16.00		9.00		2		2
SN-42	94	RAMP A	14+74.20	LT		7	10	1			9.00		1		1
SN-43	94	RAMP C	0+84.44	RT		7	10	1			9.00		1		1
SN-44	94	RAMP C	0+84.44	LT		14	20	4	16.00		9.00		2		2
SN-45	94	RAMP C	2+45.86	RT		7	10	1				6.00	1		1
SN-46	94	RAMP C	2+45.86	LT		7	10	1				6.00	1		1
SN-47	94	US-33	654+61.82	RT		14	20	2		6.93			1		2
TOTALS CARRIED TO GENERAL SUMMARY						469	670	85	462.02				55	10	67

CALCULATED DKRANDK CHECKED

TRAFFIC CONTROL SUBSUMMARY GROUND MOUNTED SIGNS

UNI-33-8.74

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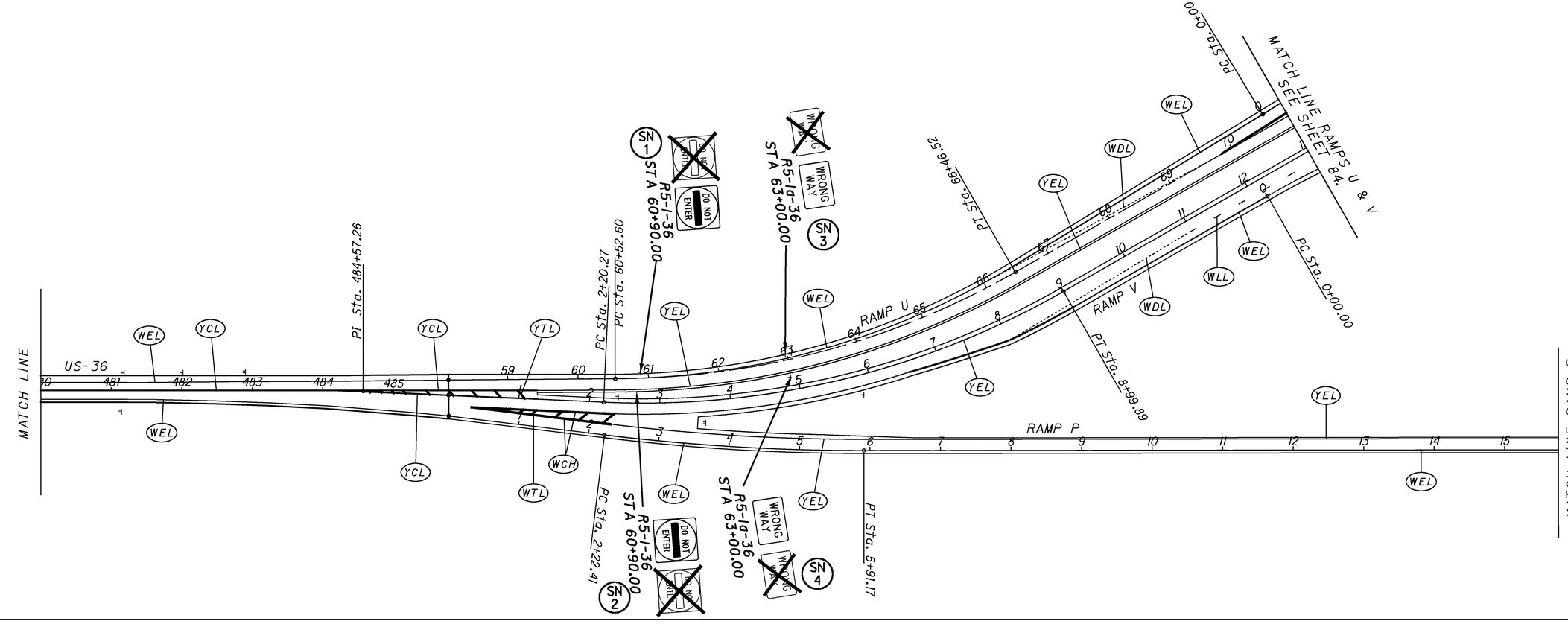
PAVEMENT MARKING LEGEND

- (WLL) 6" WHITE LANE LINE
- (WEL) 6" WHITE EDGE LINE
- (YEL) 6" YELLOW EDGE LINE
- (WCH) 8" WHITE CHANNELIZING LINE
- (WTL) 24" WHITE TRANSVERSE LINE
- (WSL) 24" WHITE STOP LINE
- (CWL) 12" CROSSWALK LINE
- (WDL) 6" DASHED LINE
- (YCL) DOUBLE SOLID CENTER LINE
- (SN #) PROPOSED SIGN LOCATION

NOTE:
STRIPE TO MAINTAIN CURRENT SHOULDER WIDTHS. ALL MAINLINE LANES ARE 12' AND RAMP LANES ARE 16'.

SEE SHEETS 80-81 FOR RPM AND PAVEMENT MARKING SUBSUMMARIES.

SEE SHEET 82 FOR GROUND MOUNTED SIGNS SUBSUMMARY.



HORIZONTAL SCALE IN FEET
0 40 80 160

CALCULATED DKR/RBK
CHECKED CJH

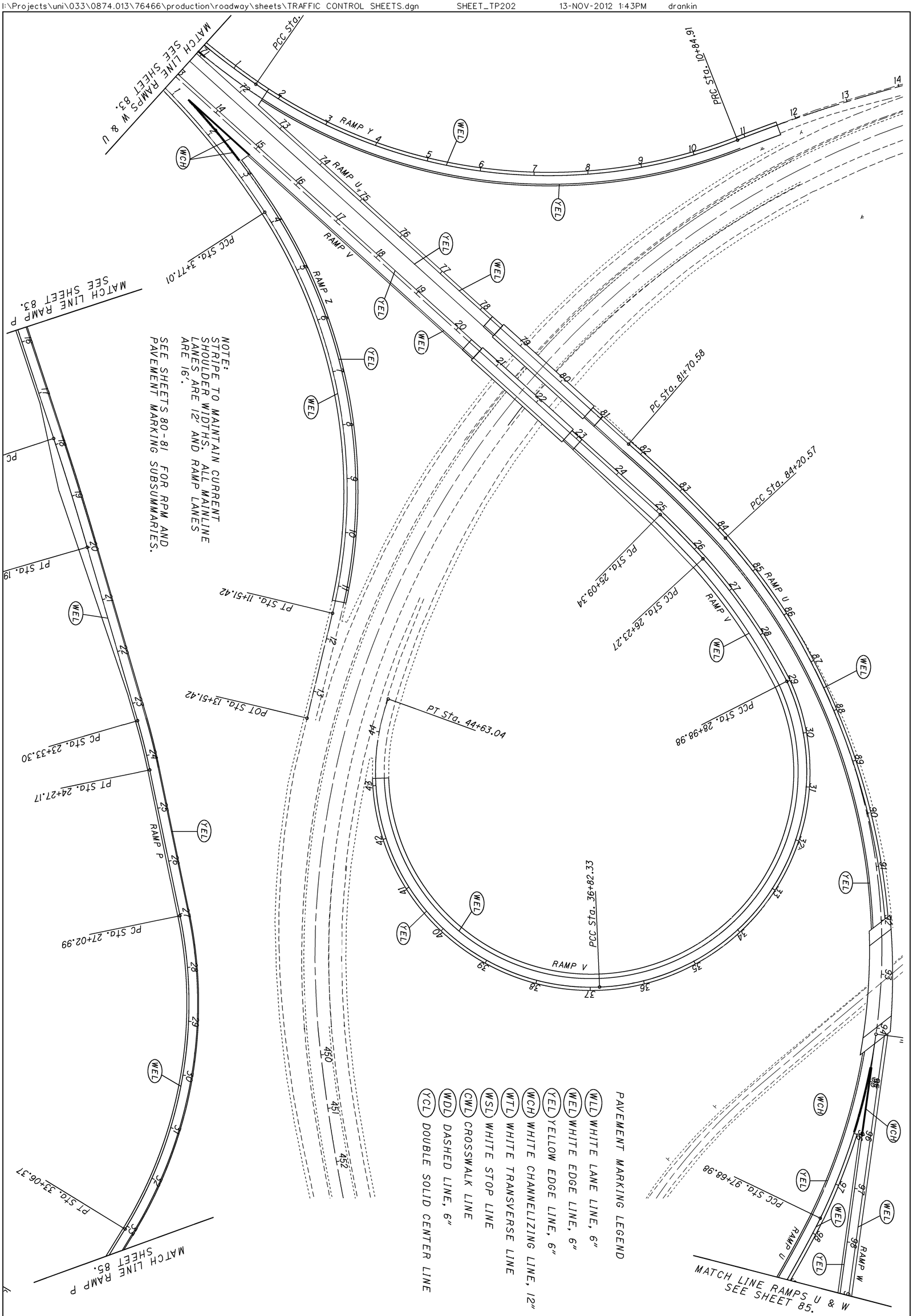
TRAFFIC CONTROL PLAN
US-36, RAMP U, RAMP V & RAMP P

UNI-33-8.74

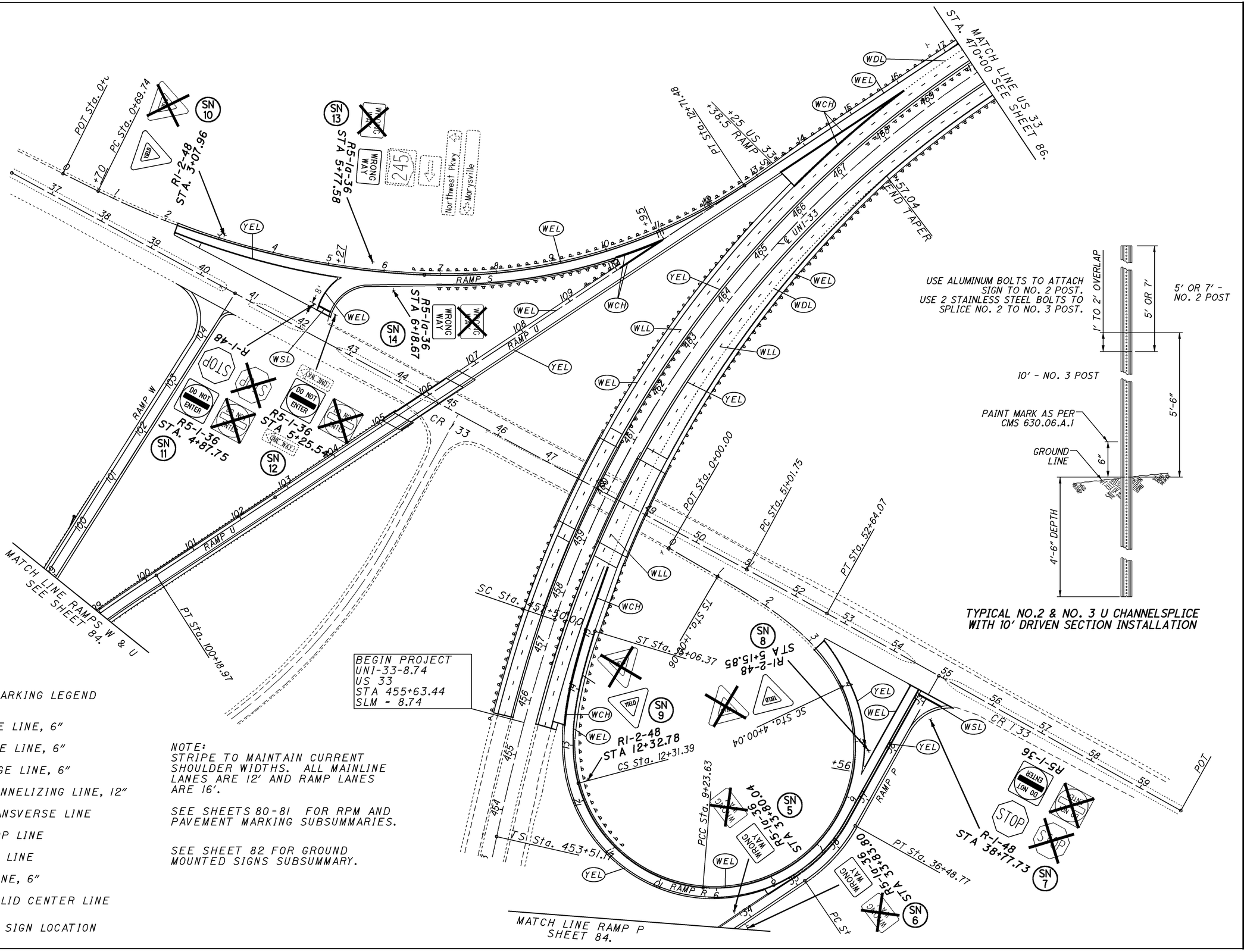
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84 / 108	UNI-33-8.74	TRAFFIC CONTROL PLAN RAMPS U, V, Z, Y, P, & W	CALCULATED DKR/RDK CHECKED	0 80 40 160 HORIZONTAL SCALE IN FEET



PAVEMENT MARKING LEGEND

- (WLL) WHITE LANE LINE, 6"
- (WEL) WHITE EDGE LINE, 6"
- (YEL) YELLOW EDGE LINE, 6"
- (WCH) WHITE CHANNELIZING LINE, 12"
- (WTL) WHITE TRANSVERSE LINE
- (WSL) WHITE STOP LINE
- (CWL) CROSSWALK LINE
- (WDL) DASHED LINE, 6"
- (YCL) DOUBLE SOLID CENTER LINE
- (SN #) PROPOSED SIGN LOCATION

NOTE:
STRIPE TO MAINTAIN CURRENT SHOULDER WIDTHS. ALL MAINLINE LANES ARE 12' AND RAMP LANES ARE 16'.

SEE SHEETS 80-81 FOR RPM AND PAVEMENT MARKING SUBSUMMARIES.

SEE SHEET 82 FOR GROUND MOUNTED SIGNS SUBSUMMARY.

HORIZONTAL SCALE IN FEET
0 40 80 160

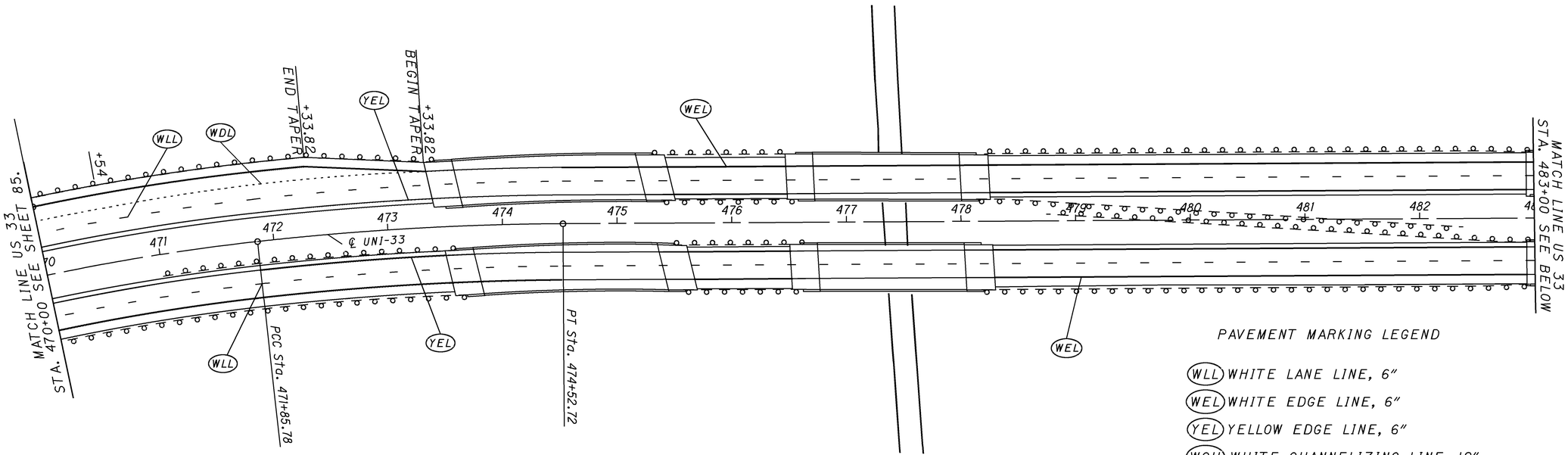
CALCULATED DKR/RDK
CHECKED

TRAFFIC CONTROL PLAN
US-33, RAMPS U, W, R, P, & S

UNI-33-8.74

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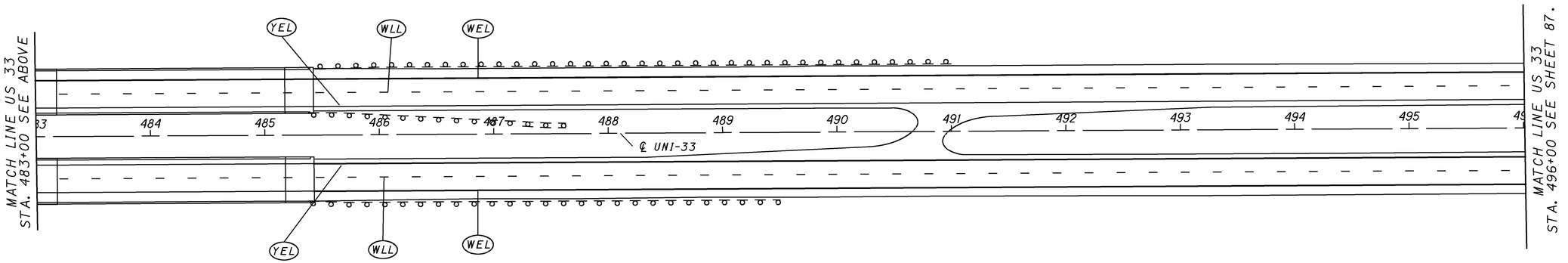


NOTE:
STRIPE TO MAINTAIN CURRENT SHOULDER WIDTHS. ALL MAINLINE LANES ARE 12' AND RAMP LANES ARE 16'.

SEE SHEETS 80-81 FOR RPM AND PAVEMENT MARKING SUBSUMMARIES.

PAVEMENT MARKING LEGEND

- (WLL) WHITE LANE LINE, 6"
- (WEL) WHITE EDGE LINE, 6"
- (YEL) YELLOW EDGE LINE, 6"
- (WCH) WHITE CHANNELIZING LINE, 12"
- (WTL) WHITE TRANSVERSE LINE
- (WSL) WHITE STOP LINE
- (CWL) CROSSWALK LINE
- (WDL) DASHED LINE, 6"
- (YCL) DOUBLE SOLID CENTER LINE



HORIZONTAL SCALE IN FEET
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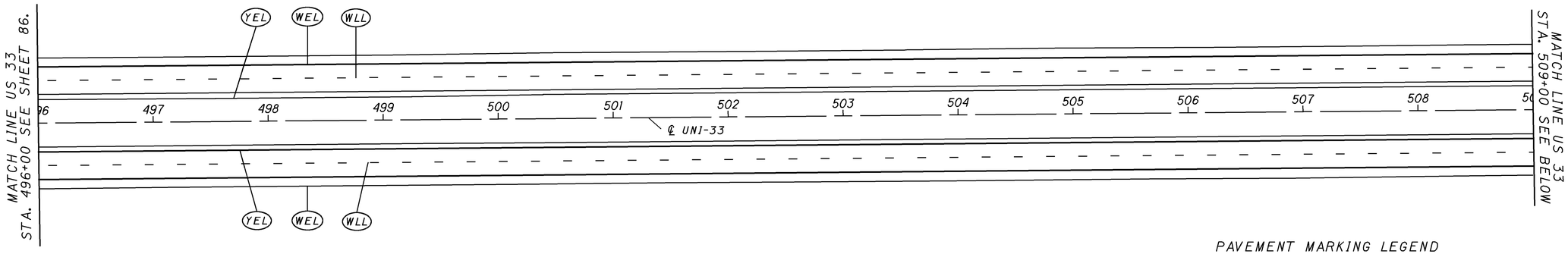
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TRAFFIC CONTROL PLAN
US-33

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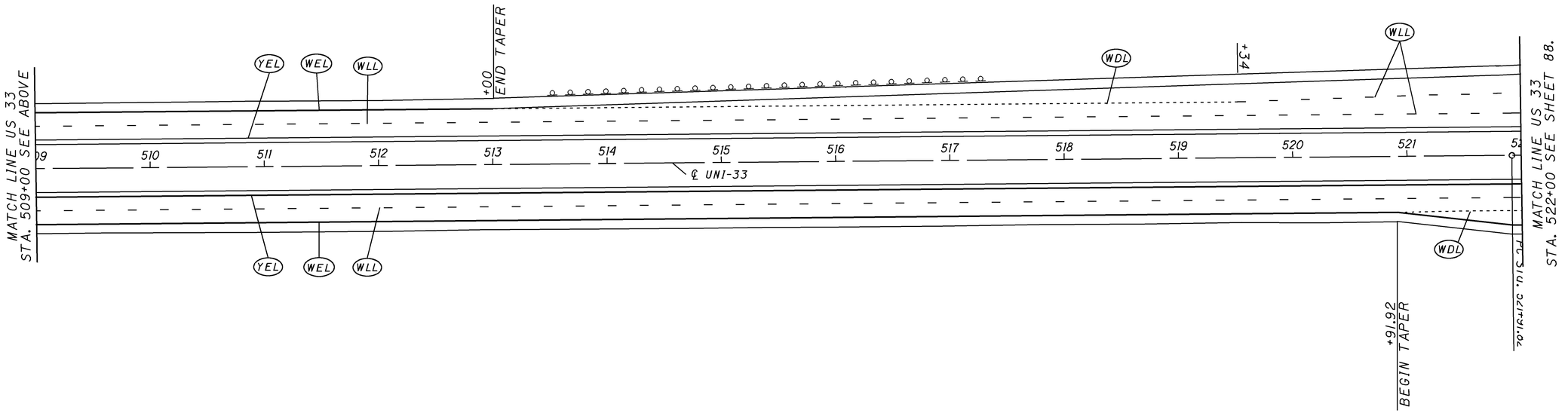


NOTE:
STRIPE TO MAINTAIN CURRENT SHOULDER WIDTHS. ALL MAINLINE LANES ARE 12' AND RAMP LANES ARE 16'.

SEE SHEETS 80-81 FOR RPM AND PAVEMENT MARKING SUBSUMMARIES.

PAVEMENT MARKING LEGEND

- (WLL) WHITE LANE LINE, 6"
- (WEL) WHITE EDGE LINE, 6"
- (YEL) YELLOW EDGE LINE, 6"
- (WCH) WHITE CHANNELIZING LINE, 12"
- (WTL) WHITE TRANSVERSE LINE
- (WSL) WHITE STOP LINE
- (CWL) CROSSWALK LINE
- (WDL) DASHED LINE, 6"
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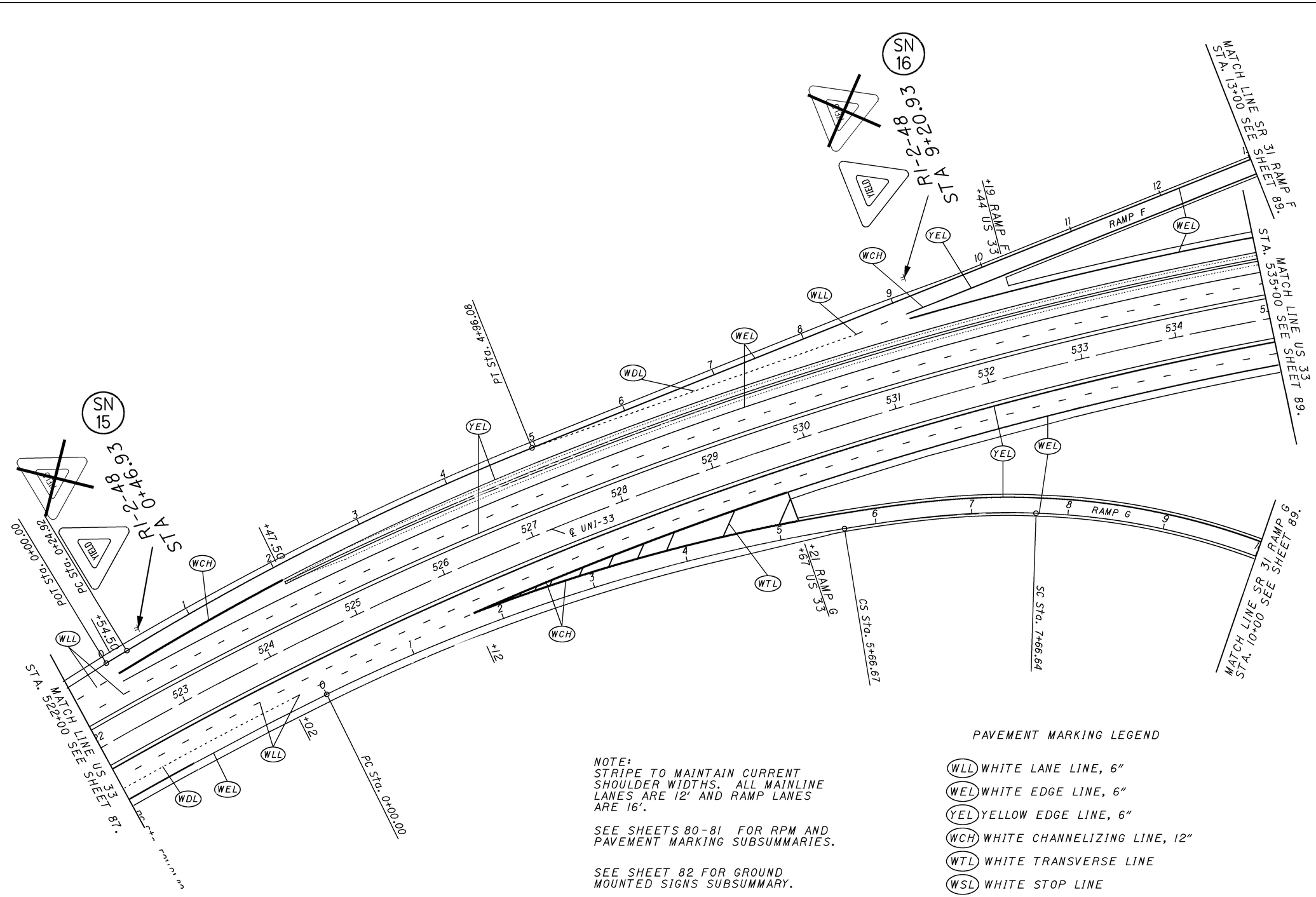
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CALCULATED DKR/RDK
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TRAFFIC CONTROL PLAN
US-33
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NOTE:
STRIPE TO MAINTAIN CURRENT SHOULDER WIDTHS. ALL MAINLINE LANES ARE 12' AND RAMP LANES ARE 16'.

SEE SHEETS 80-81 FOR RPM AND PAVEMENT MARKING SUBSUMMARIES.

SEE SHEET 82 FOR GROUND MOUNTED SIGNS SUBSUMMARY.

PAVEMENT MARKING LEGEND

- (WLL) WHITE LANE LINE, 6"
- (WEL) WHITE EDGE LINE, 6"
- (YEL) YELLOW EDGE LINE, 6"
- (WCH) WHITE CHANNELIZING LINE, 12"
- (WTL) WHITE TRANSVERSE LINE
- (WSL) WHITE STOP LINE
- (CWL) CROSSWALK LINE
- (WDL) DASHED LINE, 6"
- (YCL) DOUBLE SOLID CENTER LINE
- (SN #) PROPOSED SIGN LOCATION

HORIZONTAL SCALE IN FEET
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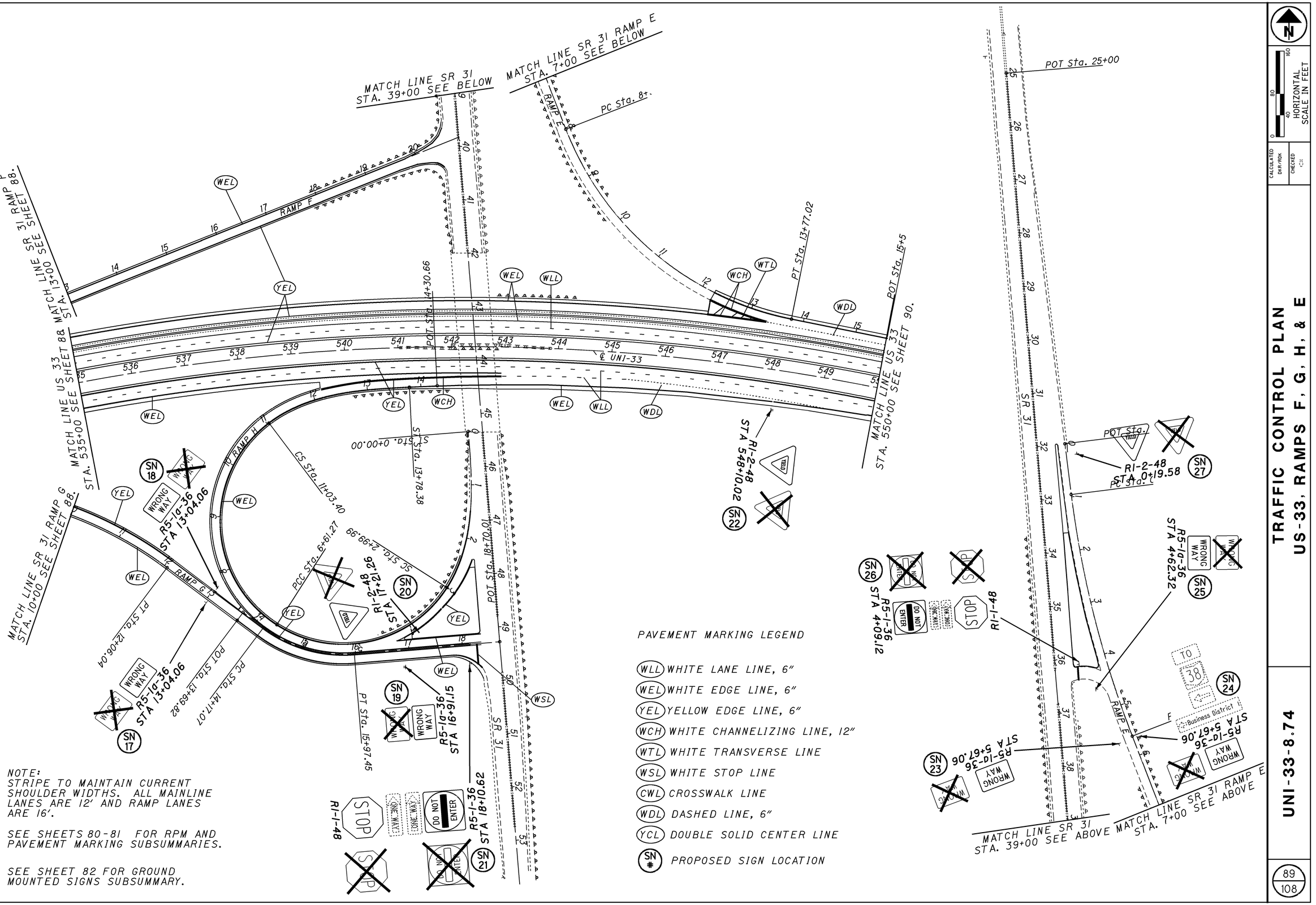
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TRAFFIC CONTROL PLAN
US-36, RAMP F & RAMP G

UNI-33-8.74

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NOTE:
STRIPE TO MAINTAIN CURRENT SHOULDER WIDTHS. ALL MAINLINE LANES ARE 12' AND RAMP LANES ARE 16'.

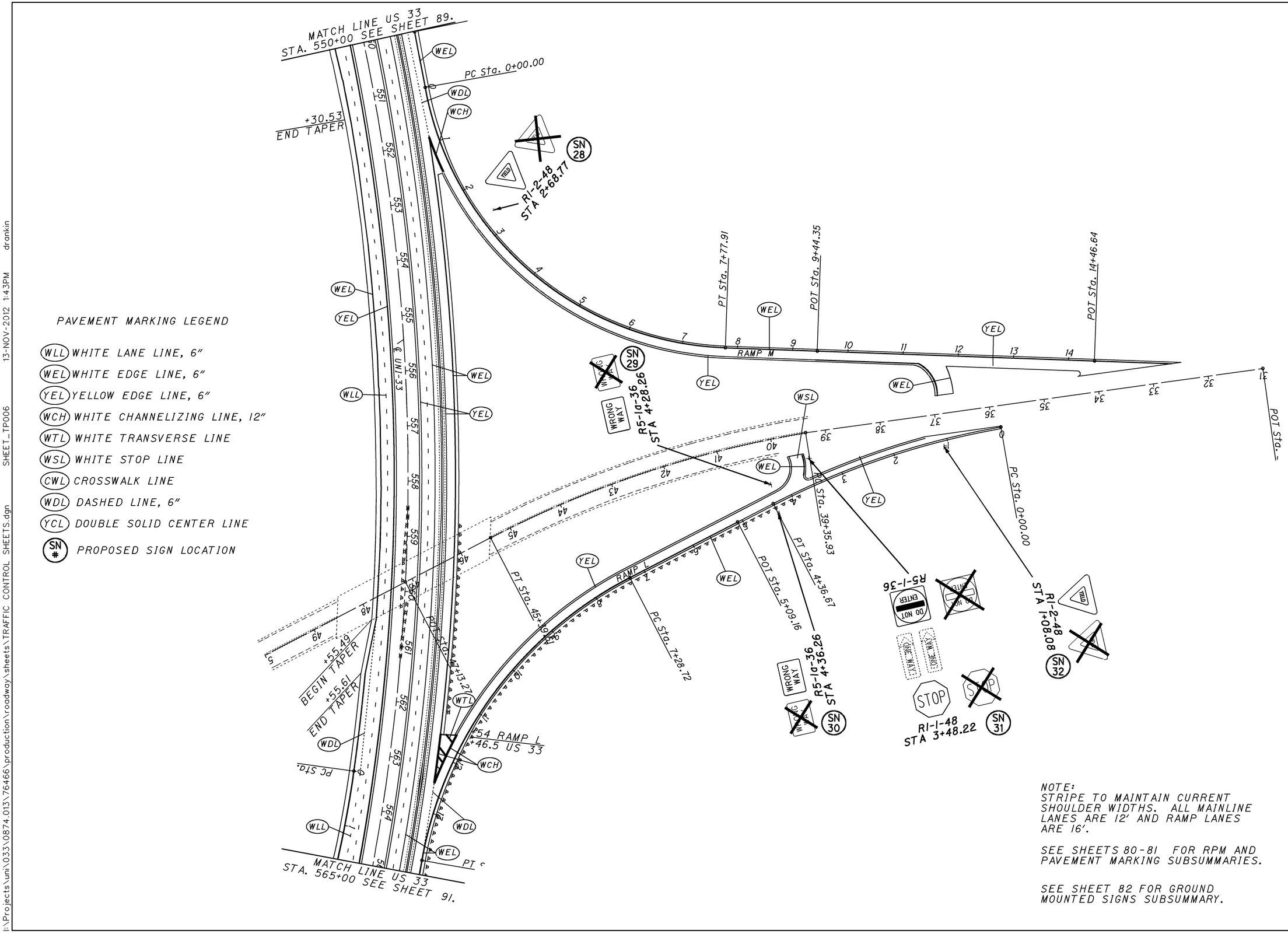
SEE SHEETS 80-81 FOR RPM AND PAVEMENT MARKING SUBSUMMARIES.

SEE SHEET 82 FOR GROUND MOUNTED SIGNS SUBSUMMARY.

PAVEMENT MARKING LEGEND

- (WLL) WHITE LANE LINE, 6"
- (WEL) WHITE EDGE LINE, 6"
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- (WCH) WHITE CHANNELIZING LINE, 12"
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- (CWL) CROSSWALK LINE
- (WDL) DASHED LINE, 6"
- (YCL) DOUBLE SOLID CENTER LINE
- (SN #) PROPOSED SIGN LOCATION

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PAVEMENT MARKING LEGEND

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- (YEL) YELLOW EDGE LINE, 6"
- (WCH) WHITE CHANNELIZING LINE, 12"
- (WTL) WHITE TRANSVERSE LINE
- (WSL) WHITE STOP LINE
- (CWL) CROSSWALK LINE
- (WDL) DASHED LINE, 6"
- (YCL) DOUBLE SOLID CENTER LINE
- (SN #) PROPOSED SIGN LOCATION

NOTE:
STRIPE TO MAINTAIN CURRENT SHOULDER WIDTHS. ALL MAINLINE LANES ARE 12' AND RAMP LANES ARE 16'.

SEE SHEETS 80-81 FOR RPM AND PAVEMENT MARKING SUBSUMMARIES.

SEE SHEET 82 FOR GROUND MOUNTED SIGNS SUBSUMMARY.

HORIZONTAL SCALE IN FEET
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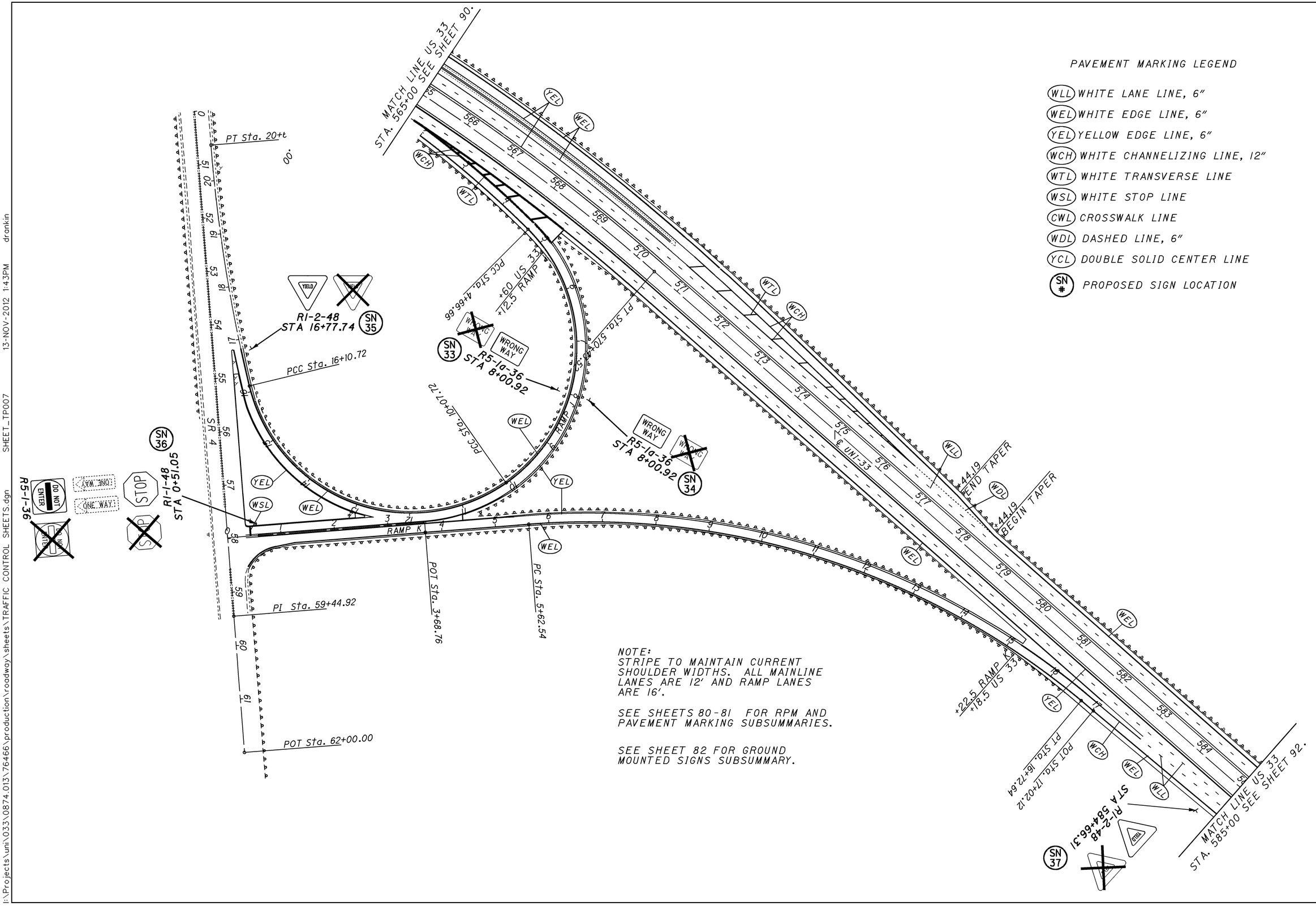
TRAFFIC CONTROL PLAN
US-33, RAMPS L & M

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NOTE:
STRIPE TO MAINTAIN CURRENT SHOULDER WIDTHS. ALL MAINLINE LANES ARE 12' AND RAMP LANES ARE 16'.

SEE SHEETS 80-81 FOR RPM AND PAVEMENT MARKING SUBSUMMARIES.

SEE SHEET 82 FOR GROUND MOUNTED SIGNS SUBSUMMARY.

PAVEMENT MARKING LEGEND

- (WLL) WHITE LANE LINE, 6"
- (WEL) WHITE EDGE LINE, 6"
- (YEL) YELLOW EDGE LINE, 6"
- (WCH) WHITE CHANNELIZING LINE, 12"
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- (WDL) DASHED LINE, 6"
- (YCL) DOUBLE SOLID CENTER LINE
- (SN #) PROPOSED SIGN LOCATION

HORIZONTAL SCALE IN FEET
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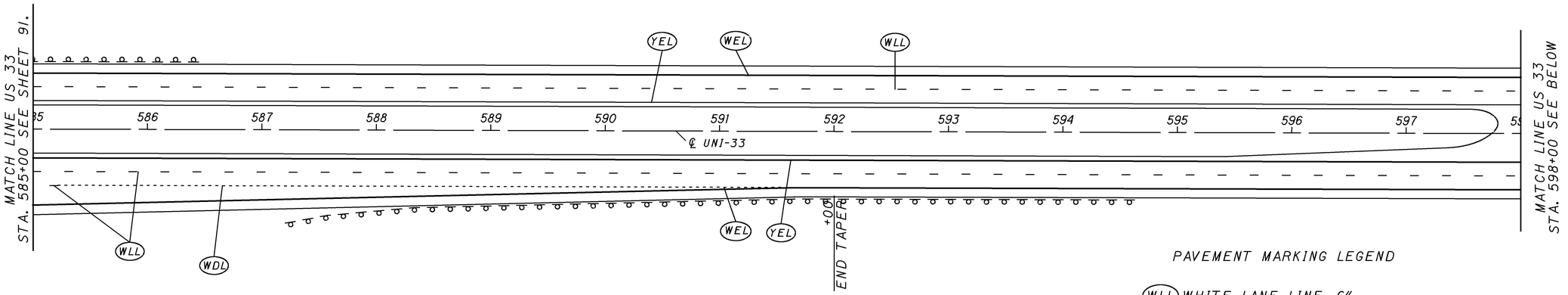
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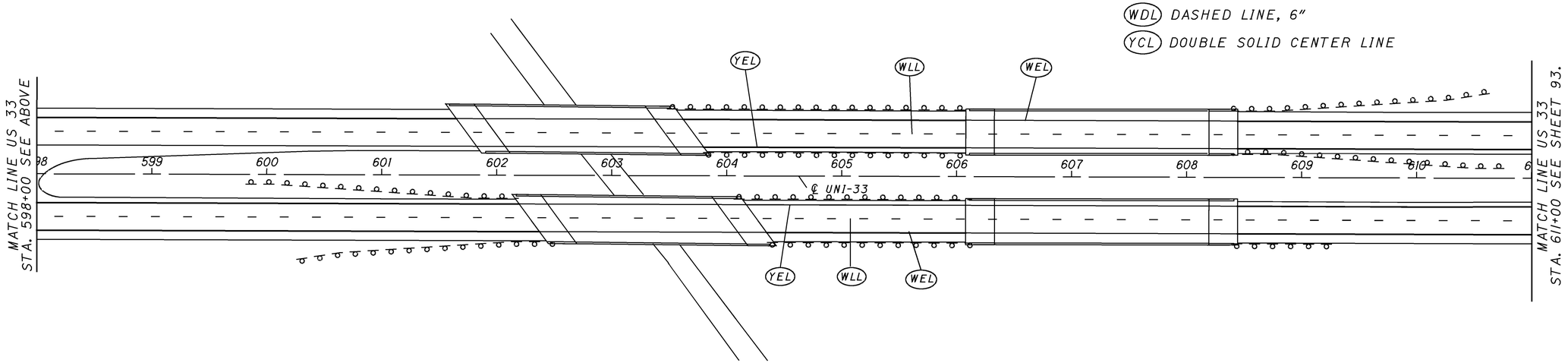
TRAFFIC CONTROL PLAN
US-33, RAMPS J & K

UNI-33-8.74

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PAVEMENT MARKING LEGEND

- (WLL) WHITE LANE LINE, 6"
- (WEL) WHITE EDGE LINE, 6"
- (YEL) YELLOW EDGE LINE, 6"
- (WCH) WHITE CHANNELIZING LINE, 12"
- (WTL) WHITE TRANSVERSE LINE
- (WSL) WHITE STOP LINE
- (CWL) CROSSWALK LINE
- (WDL) DASHED LINE, 6"
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NOTE:
STRIPE TO MAINTAIN CURRENT SHOULDER WIDTHS. ALL MAINLINE LANES ARE 12' AND RAMP LANES ARE 16'.

SEE SHEETS 80-81 FOR RPM AND PAVEMENT MARKING SUBSUMMARIES.

HORIZONTAL SCALE IN FEET
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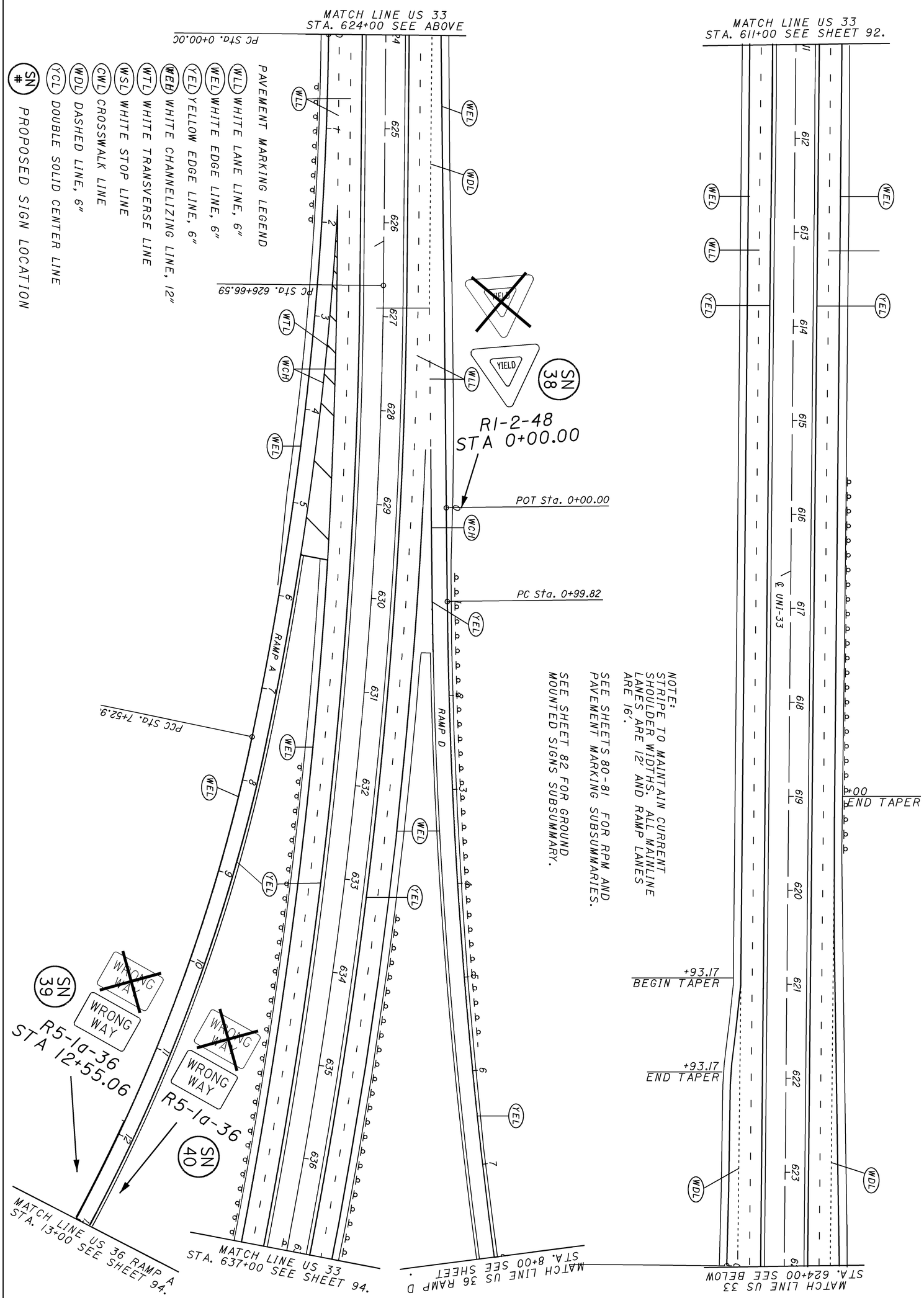
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TRAFFIC CONTROL PLAN US-33

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93 / 108	UNI-33-8.74	TRAFFIC CONTROL PLAN US-33, RAMPS A & D	CALCULATED DKR/RDK CHECKED	0 50 25 100 HORIZONTAL SCALE IN FEET

PAVEMENT MARKING LEGEND

- (WLL) WHITE LANE LINE, 6"
- (WEL) WHITE EDGE LINE, 6"
- (YEL) YELLOW EDGE LINE, 6"
- (WCH) WHITE CHANNELIZING LINE, 12"
- (WTL) WHITE TRANSVERSE LINE
- (WSL) WHITE STOP LINE
- (CWL) CROSSWALK LINE
- (WDL) DASHED LINE, 6"
- (YCL) DOUBLE SOLID CENTER LINE
- (SN #) PROPOSED SIGN LOCATION

NOTE:
STRIPE TO MAINTAIN CURRENT SHOULDER WIDTHS. ALL MAINLINE LANES ARE 12' AND RAMP LANES ARE 16'.

SEE SHEETS 80-81 FOR RPM AND PAVEMENT MARKING SUBSUMMARIES.

SEE SHEET 82 FOR GROUND MOUNTED SIGNS SUBSUMMARY.

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HORIZONTAL SCALE IN FEET

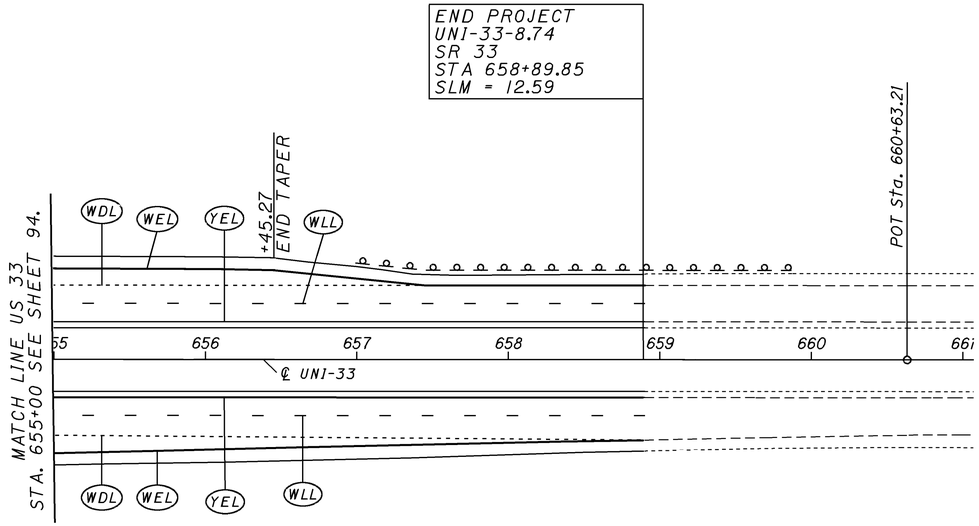
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TRAFFIC CONTROL PLAN
US-33, RAMPS A,B,C, & D

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PAVEMENT MARKING LEGEND

(WLL) WHITE LANE LINE, 6"
(WEL) WHITE EDGE LINE, 6"
(YEL) YELLOW EDGE LINE, 6"
(WCH) WHITE CHANNELIZING LINE, 12"
(WTL) WHITE TRANSVERSE LINE
(WSL) WHITE STOP LINE
(CWL) CROSSWALK LINE
(WDL) DASHED LINE, 6"
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NOTE:
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SEE SHEETS 80-81 FOR RPM AND PAVEMENT MARKING SUBSUMMARIES.

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HORIZONTAL SCALE IN FEET

CALCULATED DKR/RBK
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TRAFFIC CONTROL PLAN US-33

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STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS:

REFER TO THE FOLLOWING SUPPLEMENTAL SPECIFICATION(S):
848 DATED 10/21/2011

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.

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 OBSERVATIONS 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 CONSTRUCTION MATERIAL AND SPECIFICATIONS (CMS) SECTION 102.05. CONTRACT BID PRICES SHALL BE BASED UPON 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 UPON ACTUAL DETAILS AND DIMENTIONS, WHICH HAVE BEEN VERIFIED BY THE CONTRACTOR IN THE FIELD.

ALIGNMENT AND PROFILE:

THE ALIGNMENT OF THE EXISTING OVERLAY WILL NOT BE CHANGED. THE PROPOSED PROFILE GRADE ELEVATIONS ARE TO BE THE SAME AS THE EXISTING.

CONTINGENCY QUANTITIES:

THE CONTRACTOR SHALL NOT ORDER MATERIALS OR PERFORM WORK FOR ITEMS DESIGNATED BY PLAN NOTE TO BE USED AS DIRECTED BY THE ENGINEER, UNLESS AUTHORIZED BY THE ENGINEER. THE ACTUAL WORK LOCATIONS AND QUANTITIES USED FOR SUCH ITEMS SHALL BE INCORPORATED INTO THE FINAL CHANGE ORDER GOVERNING COMPLETION OF THE PROJECT.

PROPOSED STRUCTURE WORK:

BELOW IS A SUMMARY OF ALL THE STRUCTURES WITHIN THE PROJECT LIMITS WITH A DESCRIPTION OF THE WORK TO BE PERFORMED. SEE SCHEMATIC PLAN FOR LOCATIONS OF ALL STRUCTURES.

STRUCTURE NAME	WORK TO BE PERFORMED
UNI-33-0834	TREAT DECK WITH SRS
UNI-33-0835	TREAT DECK WITH SRS
UNI-33-0856A	TREAT DECK WITH SRS
UNI-33-0879 L&R	DECK HYDRODEMOLITION WITH OVERLAY
UNI-33-0879A	DECK HYDRODEMOLITION WITH OVERLAY
UNI-33-0905 L&R	DECK PATCHING & TREAT DECK WITH SRS
UNI-33-0912 L&R	DECK PATCHING & TREAT DECK WITH SRS
UNI-33-0922 L&R	DECK PATCHING & TREAT DECK WITH SRS
UNI-31-0135	NO WORK TO BE PERFORMED
UNI-04-1320	NO WORK TO BE PERFORMED
UNI-33-1150 L&R	DECK PATCHING & TREAT DECK WITH SRS
UNI-33-1156 L&R	DECK PATCHING & TREAT DECK WITH SRS
UNI-33-1219 L&R	DECK PATCHING & TREAT DECK WITH SRS

ITEM 519 - SPECIAL - PATCHING CONCRETE BRIDGE DECK, TYPE B:

DECK PATCHING HAS BEEN SETUP ON SEVERAL STRUCTURES AS IDENTIFIED ABOVE. THE INTENT OF THE DECK PATCHING IS TO REPAIR DELAMINATED AREAS THAT ARE VISUALLY IDENTIFIED ON THE DECK. THE VISUALLY IDENTIFIED AREA IS TO HAVE THE PERIMETER SOUNDED TO IDENTIFY THE LIMITS OF THE REPAIR. THE ENTIRE BRIDGE DECK IS NOT INTENDED TO BE SOUNDED. THE REPAIR AREAS ARE TO BE MARKED AND APPROVED BY THE ENGINEER PRIOR TO PROCEEDING WITH THE PATCHING. IN NO CASE SHALL MORE THAN 10% OF THE DECK AREA BE PATCHED. IF MORE THAN 10% OF THE DECK AREA IS IDENTIFIED FOR PATCHING THE CONTRACTOR SHALL CONTACT THE DISTRICT 6 BRIDGE ENGINEER FOR DIRECTION ON HOW TO PROCEED.

ITEM 601 - ROCK CHANNEL PROTECTION, TYPE C WITHOUT FILTER, AS PER PLAN:

THE ROCK CHANNEL PROTECTION SHALL BE TYPE C PER ITEM 601.09, AND BE PLACED 6" THICK NORMAL TO THE SLOPE. THE RCP SHALL BE PLACED AS DIRECTED BY THE ENGINEER TO REPLENISH THE EXISTING FLUMES AT THE ENDS OF THE STRUCTURES (UNI-330834 & UNI-33-0835) , WHERE PORTIONS OF THE EXISTING RCP HAVE SLID TO THE BOTTOM OF THE SLOPE. PAYMENT FOR THE ABOVE SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.

ITEM 613 - LOW STRENGTH MORTAR BACKFILL, AS PER PLAN:

PLACE LOW STRENGTH MORTAR BACKFILL CONFORMING TO ITEM 613 BENEATH THE APPROACH SLABS OF THE STRUCTURES (UNI-330834 & UNI-33-0835) , AS DIRECTED BY THE ENGINEER. THE INTENT OF THIS ITEM IS TO FILL VOID BENEATH THE SLABS CAUSED BY SETTLEMENT AND ANIMAL BURROWS. PAYMENT FOR THE ABOVE SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.

DECK PROTECTION METHOD:

SUPER-PLASTICIZED DENSE CONCRETE OVERLAY

ITEM 848 - SUPERPLASTICIZED DENSE CONCRETE OVERLAY USING HYDRODEMOLITION AS PER PLAN,(1.5" THICK), AS PER PLAN:
ITEM 848 - SURFACE PREPARATION USING HYDRODEMOLITION, AS PER PLAN:
ITEM 848 - HAND CHIPPING, AS PER PLAN:
ITEM 848 - SUPERPLASTICIZED DENSE CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY, AS PER PLAN:
ITEM 848 - TEST SLAB, AS PER PLAN:
ITEM 848 - EXISTING CONCRETE OVERLAY REMOVED X" NOMINAL THICKNESS, AS PER PLAN:
ITEM 848 - REMOVAL OF DEBONDED OR DETERIORATED EXISTING VARIABLE THICKNESS CONCRETE OVERLAY, AS PER PLAN:

THESE ITEMS SHALL BE PERFORMED PER SUPPLEMENTAL SPECIFICATION 848, "BRIDGE DECK REPAIR AND OVERLAY WITH CONCRETE USING HYDRO-DEMOLITION," ON STRUCTURES UNI-33-0879 L/R WITH THE FOLLOWING REVISIONS:

A) THE THICKNESS OF THE CONCRETE OVERLAY REMOVED, PROPOSED OVERLAY, AND THE DEPTH OF HYDRO-DEMOLITION SHALL BE AS SPECIFIED IN THE PLANS.

B) CONSTRUCTION JOINTS WILL NOT BE PERMITTED IN THE WHEEL LINE. ALL CONSTRUCTION JOINTS TO BE SEALED BY 2' WIDE BAND OF HMWM RESIN CENTERED ON JOINT(PAID FOR SEPARATELY).

C) TWO TEST SLABS WILL BE REQUIRED IN ACCORDANCE WITH SS848 IF A PERIOD OF 30 DAYS OR MORE HAS ELAPSED SINCE THE POURING OF THE TEST SLABS OR ANY OVERLAY OPERATION AS PART OF THIS PROJECT.

D) THE MAXIMUM AMOUNT OF OVERLAY MATERIAL TO BE CARRIED BY ANY ONE VEHICLE DURING THE OVERLAY OPERATIONS IS 6 CY.

E) THE REMOVAL OPERATIONS SHALL NOT BEGIN IF SUSTAINED RAINS (5 HOURS OR MORE WITH BREAKS BETWEEN SHOWERS LESS THAN 1 1/2 HOURS) ARE PREDICTED WITHIN 48 HOURS OF COMMENCEMENT.

F) THE FINAL SOUNDING MAY TAKE PLACE WITHIN 24 HOURS OF RAIN, AND THE DECK DOES NOT HAVE TO BE COMPLETELY DRY.

G) HAND CHIPPING IS FOR THE PURPOSE OF CHIPPING AREAS WHERE THE HYDRO-DEMOLITION MACHINE DOES NOT HAVE ACCESS. IF THE DESIRED DEPTH IS ACHIEVED BY HYDRO-DEMOLITION, NO FURTHER REMOVAL IS NECESSARY.

H) THE WET CURE TIME IS REDUCED FROM 72 HOURS TO 24 HOURS OR UNTIL A BEAM BREAK OF 600 PSI IS ACHIEVED, WHICHEVER IS GREATER. AFTER THE 24 HOUR WET CURE, THE FINISHED OVERLAY SURFACE SHALL BE CURED BY SPRAYING A UNIFORM APPLICATION OF THE CURING MATERIAL 705.07, TYPE 1 OR 1D, AS PER CMS 511.14 METHOD B MEMBRANE CURING. THE DECK SURFACE MUST BE DRY PRIOR TO PLACEMENT OF THE CURING MATERIAL. IF THE CURING MATERIAL CANNOT BE PLACED WITHIN THE SAME SHORT-TERM CLOSURE PERIOD AS THE OVERLAY, THE CONTRACTOR MAY ALLOW TRAFFIC ONTO THE OVERLAY, AND SHALL HAVE 24 HOURS FROM REMOVAL OF THE WET CURE TO APPLY THE MEMBRANE-CURING COMPOUND.

I) TRAFFIC WILL NOT BE PERMITTED ON THE FINISHED OVERLAY SURFACE UNTIL AFTER THE COMPLETION OF THE 24 HOUR WET CURE, AND AFTER TWO TEST BEAMS HAVE ATTAINED AN AVERAGE MODULUS OF RUPTURE OF 600 PSI.

J) THE OVERLAY SURFACE EVAPORATION RATE REQUIREMENTS ARE IN EFFECT FROM 9:30 AM TO 11:00 PM. THEY ARE NOT IN EFFECT FROM 11:00 PM TO 9:30 AM.

K) FOR EACH POUR, THE CONTRACTOR SHALL PROVIDE ENOUGH MATERIAL FOR TWO BEAM BREAKS EACH AT 12 HOURS, 24 HOURS, 36 HOURS, AND 48 HOURS. THE DEPARTMENT WILL PERFORM THE BEAM BREAK TESTS AND DOCUMENT THE TIME OF POUR, THE TIME OF THE BEAM BREAK TESTS, AND THE MODULUS OF RUPTURE OF EACH BEAM, UNTIL THE MODULUS OF RUPTURE OF TWO TESTS IS NOT LESS THAN 600 PSI. TRAFFIC WILL BE ALLOWED ON THE OVERLAY AT 600 PSI.

ALL OTHER REQUIREMENTS OF THE SUPPLEMENTAL SPECIFICATION SHALL REMAIN IN EFFECT.

PAYMENT FOR THIS WORK SHALL INCLUDE ALL EQUIPMENT, TOOLS, MATERIAL, AND LABOR NECESSARY TO PERFORM THIS TASK. PAYMENT SHALL BE MADE AT THE CONTRACT PRICE BID FOR ITEM 848, SUPERPLASTICIZED DENSE CONCRETE OVERLAY USING HYDRO-DEMOLITION, AS PER PLAN (T = 1.5").

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STRUCTURE NOTES GENERAL

UNI-33-8.74

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ITEM SPECIAL-SAWING AND SEALING BITUMINOUS CONCRETE JOINTS

1) DESCRIPTION:

THIS WORK SHALL CONSIST OF CUTTING AND SEALING TRANSVERSE JOINTS IN THE NEW BITUMINOUS CONCRETE OVERLAY OF BRIDGES. BITUMINOUS CONCRETE JOINTS SHALL BE CONSTRUCTED DIRECTLY OVER, AND IN LINE WITH, THE EXISTING UNDERLYING TRANSVERSE ABUTMENT AND APPROACH SLAB JOINTS.

2) MATERIALS:

THE JOINT SEALANT SHALL MEET THE REQUIREMENTS OF ITEM 705.04, JOINT SEALANTS, HOT-POURED, FOR CONCRETE AND ASPHALT PAVEMENTS. ACCEPTABLE ALTERNATE MATERIALS ARE:

A SILICONE SEALANT MEETING FEDERAL SPECIFICATIONS TT-S-001543A CLASS A (ONE-PART SILICONE SEALANTS) AND TT-S-00230C CLASS A (ONE-COMPONENT SEALANTS), SUCH AS THOSE MANUFACTURED BY GENERAL ELECTRIC, SILICONE PRODUCTS DIVISION, 4015 EXECUTIVE PARK DRIVE, CINCINNATI, OHIO 45242 (513-243-1953)OR DOW CORNING, 400 TECHNE CENTER, SUITE 103, MILFORD, OHIO 45150 (513-831-3586); OR SOF-SEAL, A COLD-APPLIED, LOW-MODULUS, TWO-COMPONENT POLY-MERIC COMPOUND HORIZONTAL SEALANT AS MANUFACTURED BY W.R.MEADOWS, INC., P.O. BOX 543,ELGIN,ILLINOIS 60121 (800-342-5976).

3) CONSTRUCTION DETAILS:

A) GENERAL: THE CONTRACTOR SHALL CONDUCT HIS OPERATION SO THAT THE CUTTING, CLEANING AND SEALING OF TRANSVERSE JOINTS IS A CONTINUOUS OPERATION THAT WILL BE PERFORMED AS SOON AS PRACTICAL AFTER THE PAVING, BUT NO LATER THAN FOUR (4) DAYS AFTER PLACEMENT OF THE ASPHALT CONCRETE SURFACE COURSE. TRAFFIC SHALL NOT BE ALLOWED TO KNEAD TOGETHER OR DAMAGE JOINT CUT PRIOR TO SEALING.

B) CUTTING OF TRANSVERSE JOINTS: THE CONTRACTOR SHALL SAW OR ROUT TRANSVERSE JOINTS TO THE DIMENSIONS SHOWN IN THE DETAILS ON THIS SHEET. THE CUT JOINTS SHALL LIE DIRECTLY ABOVE EACH TRANSVERSE JOINT.

THE BLADE OR BLADES SHALL BE OF SUCH SIZE THAT THE FULL WIDTH AND DEPTH OF THE CUT CAN BE MADE WITH ONE PASS. DRY OR WET CUTTING WILL BE ALLOWED. JOINTS SHALL EXTEND THE FULL WIDTH OF THE BRIDGE.

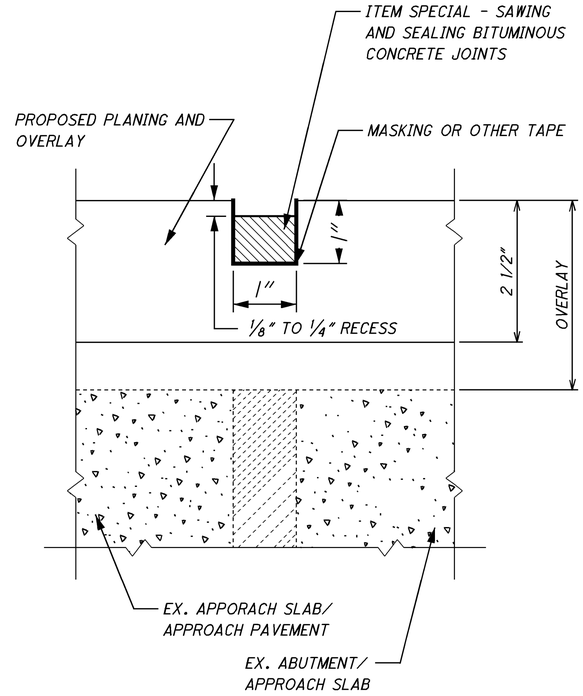
C) CLEANING JOINTS: DRY SAWED JOINTS SHALL BE THOROUGHLY CLEANED WITH A SUFFICIENT AMOUNT OF COMPRESSED AIR TO REMOVE ANY DIRT, DUST, OR DELETERIOUS MATTER. WET SAWED JOINTS SHALL BE WASHED CLEAN OF ALL CUTTINGS BY FLUSHING WITH A JET OF WATER AND WITH OTHER TOOLS AS NECESSARY. AFTER FLUSHING, THE JOINT SHALL BE BLOWN OUT WITH COMPRESSED AIR. WHEN THE SURFACES ARE THOROUGHLY CLEAN AND DRY, AND JUST PRIOR TO PLACING THE JOINT SEALER, COMPRESSED AIR HAVING A PRESSURE OF AT LEAST 90 PSI SHALL BE USED TO BLOW OUT THE JOINT AND REMOVE ALL TRACES OF DUST.

IN THE EVENT FRESHLY CUT JOINTS BECOME CONTAMINATED BEFORE THEY ARE SEALED, THEY SHALL BE RE-CLEANED OF ALL FOREIGN MATERIAL BY HIGH PRESSURE WATER JET.

D) SEALING JOINTS: THE JOINT SHALL BE THOROUGHLY DRY WHEN THE SEALANT IS PLACED. AFTER CLEANING AND DRYING, A BOND-BREAKER MATERIAL SHALL BE APPLIED TO THE BOTTOM OF THE GROOVE.

HOT-POURED JOINT SEALANT MATERIAL SHALL BE HEATED IN A KETTLE OR MELTER CONSTRUCTED AS A DOUBLE BOILER, WITH THE SPACE BETWEEN THE INNER AND OUTER SHELLS FILLED WITH OIL OR OTHER HEAT TRANSFER MEDIUM. POSITIVE TEMPERATURE CONTROL AND MECHANICAL AGITATION SHALL BE PROVIDED. HEATING MUST BE IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATION. JOINT SEALER MATERIAL SHALL NEVER BE KEPT HEATED AT THE POURING TEMPERATURE FOR MORE THAN FOUR (4) HOURS AND SHALL NEVER BE REHEATED. SEALER LEFT IN THE APPLICATOR AT THE END OF A DAY'S WORK SHALL NOT BE USED.

HOT-POURED SEALANT SHALL BE APPLIED IMMEDIATELY THROUGH A NOZZLE, WHICH MUST PROJECT INTO THE SAWED JOINT, FILLING FROM THE BOTTOM UP. THE SEALANT SHALL COMPLETELY FILL THE JOINT IN SUCH A MANNER THAT, AFTER COOLING, THE LEVEL OF THE SEALANT WILL NOT BE HIGHER THAN 1/8" BELOW THE PAVEMENT SURFACE. ANY DEPRESSION IN THE COOLED SEAL GREATER THAN 1/4" SHALL BE BROUGHT UP TO THE SPECIFIED LIMIT BY FURTHER ADDITION OF HOT-POURED SEALANT. CARE SHALL BE TAKEN IN THE SEALING OF THE JOINTS SO THAT THE FINAL APPEARANCE WILL PRESENT A NEAT FINE LINE.



THE COLD APPLIED SEALANT MATERIALS (POLYURETHANE, SILICONE, AND POLYMERIC COMPOUNDS) SHALL BE INSTALLED AS PER MANUFACTURERS' RECOMMENDATIONS, EXCEPT AS MODIFIED BY THIS DRAWING. THE SEALANT SHALL BE INSTALLED WHEN THE AMBIENT TEMPERATURE IS 40 DEGREES F OR HIGHER. TRAFFIC SHALL NOT BE ALLOWED ON THE JOINT FOR ONE HOUR AFTER APPLICATION OF THE SEALANT.

4) METHOD OF MEASUREMENT:

THE QUANTITY TO BE PAID FOR UNDER THIS ITEM WILL BE THE NUMBER OF LINEAR FEET OF JOINTS SAWED AND SEALED AS PER THE ABOVE REQUIREMENTS.

5) BASIS OF PAYMENT:

THE UNIT PRICE PER LINEAR FOOT FOR ITEM SPECIAL - "SAWING AND SEALING BITUMINOUS CONCRETE JOINTS" SHALL INCLUDE THE COST OF ALL LABOR, MATERIALS, AND EQUIPMENT NECESSARY TO COMPLETE THE WORK, INCLUDING THE FURNISHING AND PLACING OF THE JOINT SEALER MATERIAL.

CALCULATED DKR/RDK | CHECKED CJS

STRUCTURE NOTES
SAW AND SEAL

UNI-33-8.74

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STRUCTURES																		ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET
03/NHS/BR	03/NHS/BR	03/NHS/BR	03/NHS/BR	03/NHS/BR	04/BRO/BR	03/NHS/BR	03/NHS/BR	03/NHS/BR	03/NHS/BR	03/NHS/BR	03/NHS/BR	03/NHS/BR	03/NHS/BR	03/NHS/BR	03/NHS/BR	03/NHS/BR	03/NHS/BR						
UNI-33-0834 SFN:8001219	UNI-33-0835 SFN:8001227	UNI-33-0856A SFN:8001243	UNI-33-0879L SFN:8000786	UNI-33-0879R SFN:8000816	UNI-33-0879A SFN:8001251	UNI-33-0905L SFN:8000840	UNI-33-0905R SFN:8000875	UNI-33-0912L SFN:8000905	UNI-33-0912R SFN:8000964	UNI-33-0922L SFN:8000999	UNI-33-0922R SFN:8001022	UNI-33-1150L SFN:8001057	UNI-33-1150R SFN:8001081	UNI-33-1156L SFN:8001111	UNI-33-1156R SFN:8001146	UNI-33-1219L SFN:8001170	UNI-33-1219R SFN:8001200						
99/108	99/108	100/108	101/108	101/108	102/108	103/108	103/108	104/108	104/108	105/108	105/108	106/108	106/108	107/108	107/108	108/108	108/108						
2/11	2/11	3/11	4/11	4/11	5/11	6/11	6/11	7/11	7/11	8/11	8/11	9/11	9/11	10/11	10/11	11/11	11/11						
																						STRUCTURES OVER 20'	
			37	37	25													512	10300	99	SQ YD	SEALING CONCRETE BRIDGE DECKS WITH HMWM RESIN	
882	882	1,078				653	653	517	517	1,028	1,028	834	834	975	975	1,030	1,030	512	10400	12,916	SQ YD	TREATING OF CONCRETE BRIDGE DECK WITH SRS	
			72	112	72	74	74	72	72									SPECIAL	51631200	548	FT	SAWING AND SEALING BITUMINOUS CONCRETE JOINTS	97
						33	33	26	26	41	41	31	31	38	38	40	40	SPECIAL	51912300	418	SQ YD	PATCHING CONCRETE BRIDGE DECK - TYPE B	96
15	15																	601	34201	30	CU YD	ROCK CHANNEL PROTECTION, TYPE C WITHOUT FILTER, AS PER PLAN	96
3	3																	613	41201	6	CU YD	LOW STRENGTH MORTAR BACKFILL, AS PER PLAN	96
					354													848	10200	354	SQ YD	SUPERPLASTICIZED DENSE CONCRETE OVERLAY USING HYDRODEMOLITION (1.25")	
			685	1004														848	10201	1,689	SQ YD	SUPERPLASTICIZED DENSE CONCRETE OVERLAY USING HYDRODEMOLITION, AS PER PLAN (1.5")	96
					354													848	20000	354	SQ YD	SURFACE PREPARATION USING HYDRO DEMOLITION	
			685	1,004														848	20001	1,689	SQ YD	SURFACE PREPARATION USING HYDRO DEMOLITION, AS PER PLAN	96
					2													848	30200	2	CU YD	SUPERPLASTICIZED DENSE CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY	
			4	6														848	30201	10	CU YD	SUPERPLASTICIZED DENSE CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY, AS PER PLAN	96
					18													848	50000	18	SQ YD	HAND CHIPPING	
			34	50														848	50001	84	SQ YD	HAND CHIPPING, AS PER PLAN	96
					LUMP													848	50100	LUMP		TEST SLAB	
			LUMP	LUMP														848	50101	LUMP		TEST SLAB, AS PER PLAN	96
					3													848	50200	3	CU YD	FULL-DEPTH REPAIR	
			685	1,004														848	50321	1,689	SQ YD	EXISTING CONCRETE OVERLAY REMOVED 1.25" NOMINAL THICKNESS, AS PER PLAN	96
			17	25														848	50341	42	SQ YD	REMOVAL OF DEBONDED OR DETERIORATED EXISTING VARIABLE THICKNESS CONCRETE OVERLAY, AS PER PLAN	96

CALCULATED DKR/RDK | CHECKED CS

STRUCTURE GENERAL SUMMARY

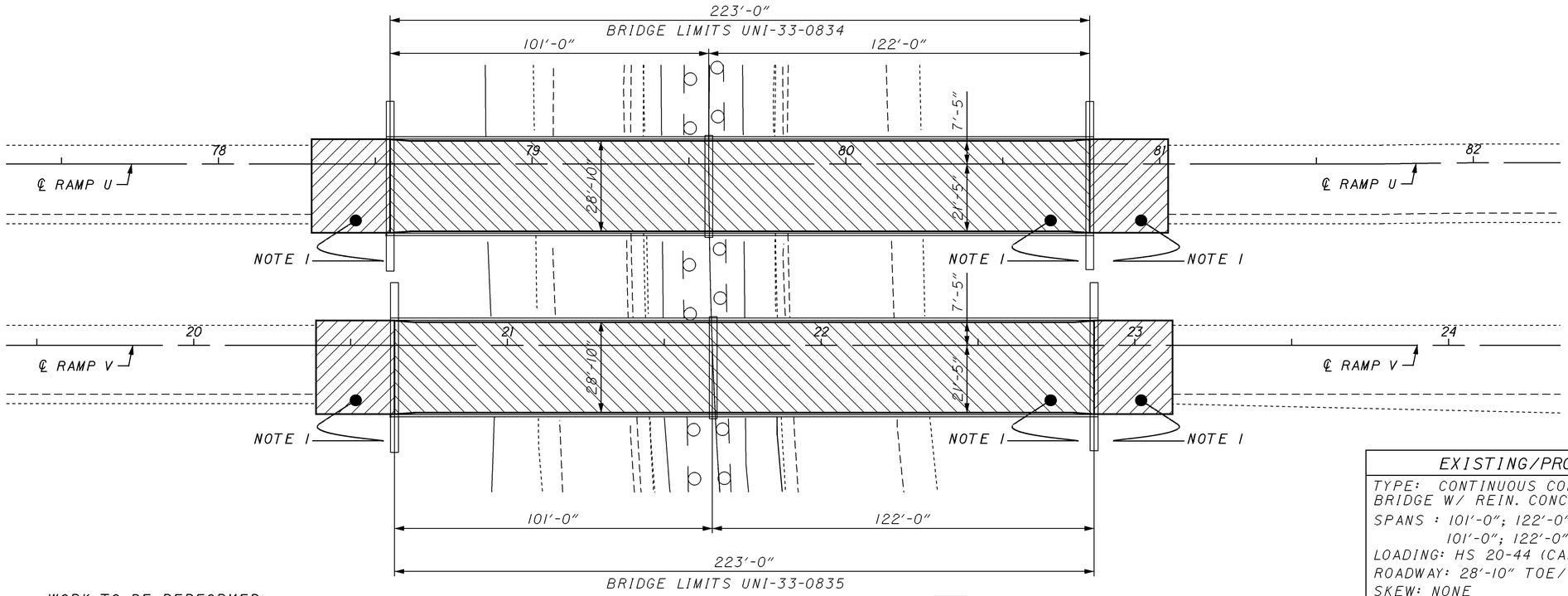
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GENERAL PLAN VIEW - UNI-33-0834
UNI-33-0835



WORK TO BE PERFORMED:

NOTE 1:
-TREATING OF CONCRETE BRIDGE DECKS AND APPROACHES WITH SRS

STRUCTURE WORK

APPROACH WORK

EXISTING/PROPOSED STRUCTURE

TYPE: CONTINUOUS COMPOSITE STEEL GIRDER BRIDGE W/ REIN. CONC. DECK AND SUBSTRUCTURE.
SPANS : 101'-0"; 122'-0"C/C BRG. (RAMP U)
101'-0"; 122'-0"C/C BRG. (RAMP V)
LOADING: HS 20-44 (CASE II) & ALT. MIL.
ROADWAY: 28'-10" TOE/TOE PARAPET
SKEW: NONE
WEARING SURFACE: MONO. CONC.
APPROACH SLABS: AS-1-81 (25'-LONG)
SUPERELEVATION: NONE
ALIGNMENT: TANGENT
RAILING: 42" CONCRETE PARAPET (BR-1)

LOCATION				QUANTITIES						REMARKS
COUNTY	ROUTE	NUMBER	LENGTH	512 TREATING OF CONCRETE BRIDGE DECK WITH SRS SQ YD	601 ROCK CHANNEL PROTECTION, TYPE C WITHOUT FILTER AS PER PLAN CU YD	613 LOW STRENGTH MORTAR BACKFILL, AS PER PLAN CU YD				
UNI	33	0834	223'	716						DECK
UNI	33	0834		166						APPROACHES
UNI	33	0835	223'	716						DECK
UNI	33	0835		166						APPROACHES
UNI	33	0834			15	3				AS DIRECTED
UNI	33	0835			15	3				AS DIRECTED

SEE TOTALS ON STRUCTURE SUBSUMMARY SHEET 98/108

DESIGN AGENCY
DIST. #6
IN-HOUSE DESIGN

REVIEWED DKR
DATE 9/28/2012
SFN: L-8001219
R-8001227

GENERAL PLAN VIEW
UNI-33-0834 (OVER US-33)
UNI-33-0835 (OVER US-33)

UNI-33-8.74
PID# 76466

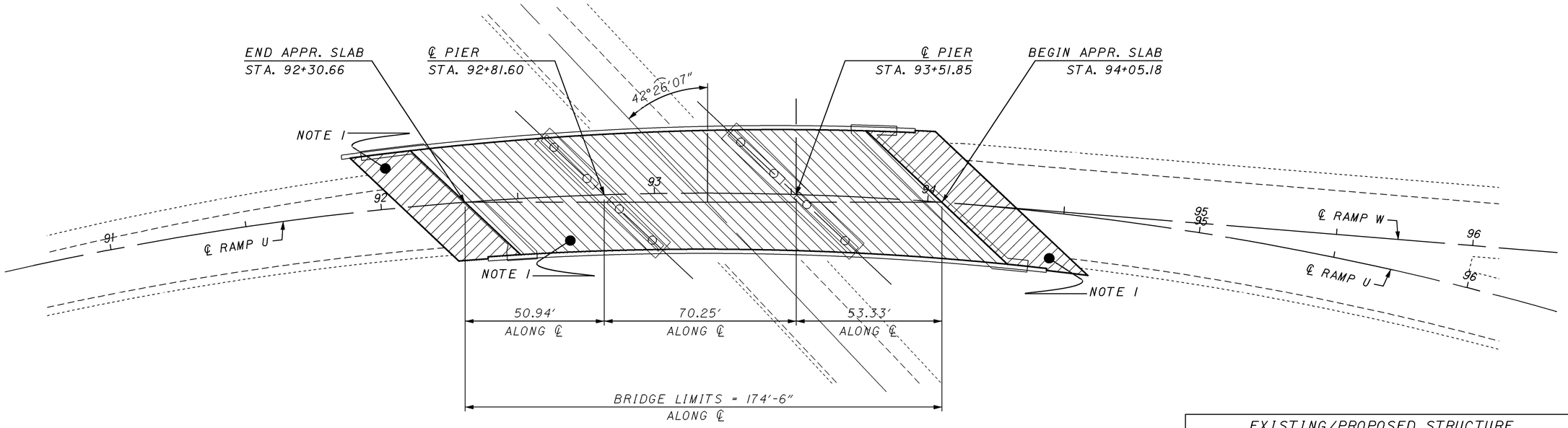
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GENERAL PLAN VIEW - UNI-33-0856A



WORK TO BE PERFORMED:

NOTE 1:
-TREATING OF CONCRETE BRIDGE DECKS AND APPROACHES WITH SRS

STRUCTURE WORK

APPROACH WORK

EXISTING/PROPOSED STRUCTURE

TYPE: CONTINUOUS COMPOSITE STEEL BEAM BRIDGE W/ REIN. CONC. DECK AND SUBSTRUCTURE.
SPANS : 48'-0"; 70'-3"; 50'-0" C/C BRG. (RAMP U)
LOADING: HS 20-44 (CASE II) & ALT. MIL.
ROADWAY: VARIABLE
SKEW: 43°26'07.3" W/ REF. CHORD
WEARING SURFACE: MONO. CONC.
APPROACH SLABS: AS-1-81 (25'-LONG)
SUPERELEVATION: YES (VARIES)
ALIGNMENT: 5°00'00" CURVE
RAILING: 42" CONCRETE PARAPET (BR-1)

LOCATION				QUANTITIES						REMARKS
COUNTY	ROUTE	NUMBER	LETTER	512 TREATING OF CONCRETE BRIDGE DECK WITH SRS SQ. YD.						
UNI	33	0862	175'	832						DECK
UNI	33	0862		246						APPROACHES

SEE TOTALS ON STRUCTURE SUBSUMMARY SHEET 98/108

DESIGN AGENCY
DIST. #6
IN-HOUSE DESIGN

REVIEWED DKR
DATE 9/28/2012
SFN: 800243

GENERAL PLAN VIEW
UNI-33-0856A (OVER SR-245)

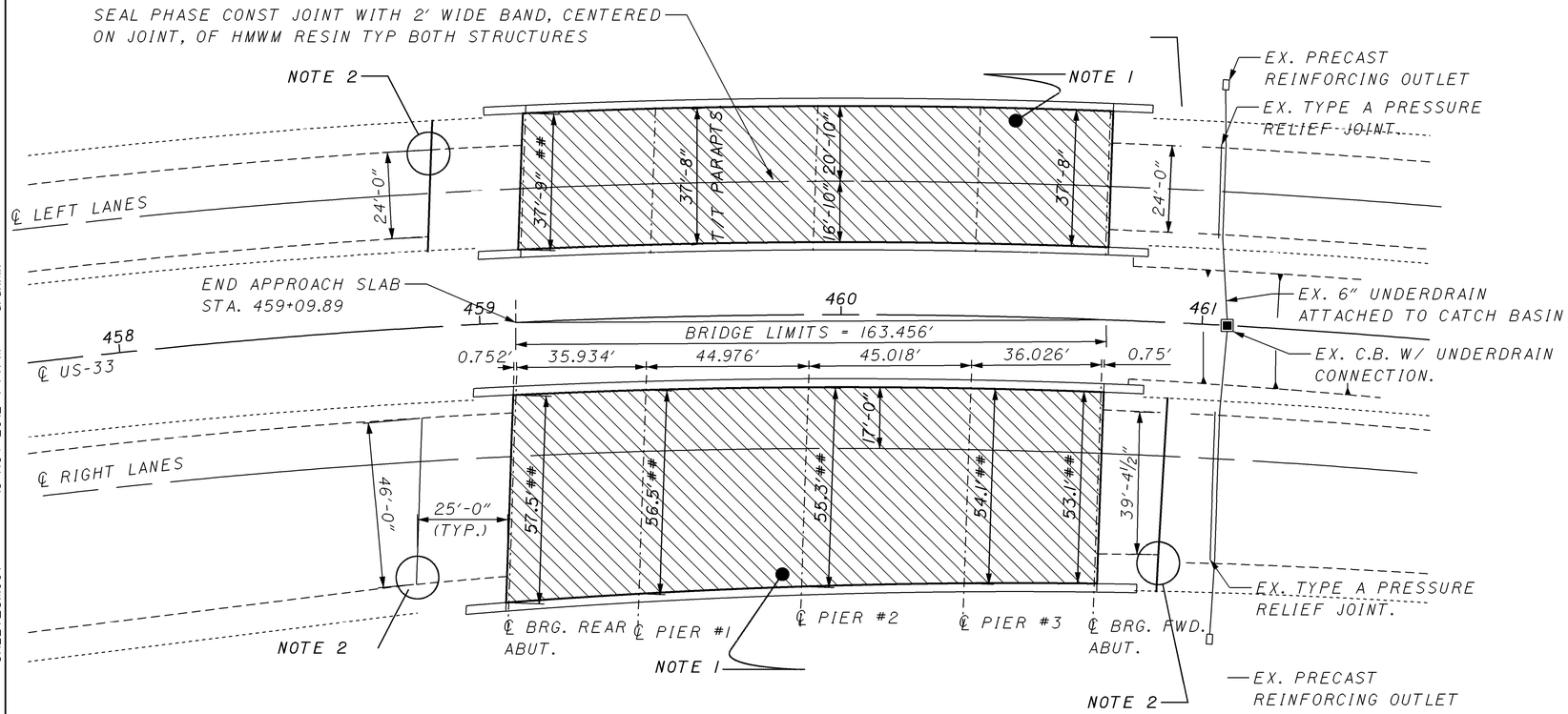
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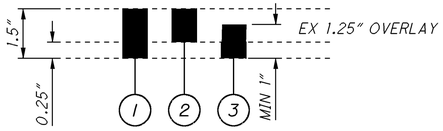
GENERAL PLAN VIEW - UNI-33-0879 L&R (OVER C.R. 133)



LONGITUDINAL MEASUREMENTS
LABELED FOR 8.79 R APPLY FOR 8.79 L.

STRUCTURE WORK

NOTE 1:
-REMOVE EXISTING OVERLAY + ¼" ON BRIDGE DECK. TOP 0.5" MAY BE REMOVED BY SCARIFICATION. REMAINING 1" TO BE REMOVED BY HYDRODEMOLITION.
-OVERLAY BRIDGE DECK WITH 1.5" SUPERPLASTICIZED DENSE CONCRETE.



(1) ITEM 848 - SUPERPLASTICIZED DENSE CONCRETE OVERLAY USING HYDRODEMOLITION (1.5")

(2) ITEM 848 - EXISTING CONCRETE OVERLAY REMOVED (1.25")

(3) ITEM 848 - SURFACE PREPARATION USING HYDRODEMOLITION

NOTE 2:
-SAW AND SEAL JOINTS.

DIMENSIONED ALONG SKEW.

EXISTING/PROPOSED STRUCTURES
TYPE: CONTINUOUS CONCRETE SLAB BRIDGE WITH CONCRETE SUBSTRUCTURE.
SPANS: 36'-0", 45'-0", 45"-0", 36'-0"
LOAD FREQUENCY RATING: CF 2000 (57)
ROADWAY: 37'-8"-(LT.), VARIES-(RT)
SKEW: 02°-13'-26.5" LT. FWD
WEARING SURFACE: EX: 1" LATEX MODIFIED CONC. PR: 1.5" SDC OVERLAY.
APPROACH SLABS: AS-1-54 (25'-LONG)
TYPE OF JOINTS: SAW AND SEAL JOINT
ALIGNMENT: 3°-00' CURVE
SUPERELEVATION: 1' PER FOOT

LOCATION				QUANTITIES									REMARKS
COUNTY	ROUTE	NUMBER	LENGTH	512 SEALING CONCRETE BRIDGE DECK WITH HMWM RESIN	516 SAWING AND SEALING BITUMINOUS CONCRETE JOINTS	848 SUPERPLASICIZED DENSE CONCRETE OVERLAY USING HYDRODEMOLITION, AS PER PLAN (1.5")	848 SURFACE PREPARATION USING HYDRODEMOLITION, AS PER PLAN	848 SUPERPLASICIZED DENSE CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY, AS PER PLAN	848 HAND CHIPPING, AS PER PLAN	848 TEST SLAB, AS PER PLAN	848 REMOVAL OF DEBONDED OR DETERIORATED EXISTING VARIABLE THICKNESS CONCRETE OVERLAY, AS PER PLAN	848 EXISTING CONCRETE OVERLAY REMOVED 1.25" NOMINAL THICKNESS, AS PER PLAN	
				SQ YD	FT	SQ YD	SQ YD	CU YD	SQ YD	LUMP	SQ YD	SQ YD	
UNI	33	0879L	163'	37		685	685	4	34	LUMP	17	685	DECK
UNI	33	0879L			72								APPROACHES
UNI	33	0879R	163'	37		1,004	1004	6	50	LUMP	25	1,004	DECK
UNI	33	0879R			112								APPROACHES

SEE TOTALS ON STRUCTURE SUBSUMMARY SHEET 98/108

DESIGN AGENCY
DIST. #6
IN-HOUSE DESIGN

REVIEWED DKR
DATE 9/28/2012
SFN: L-8000786
R-8000816

GENERAL PLAN VIEW
UNI-33-0879 L&R (OVER C.R. 133)

UNI-33-8.74
PID# 76466

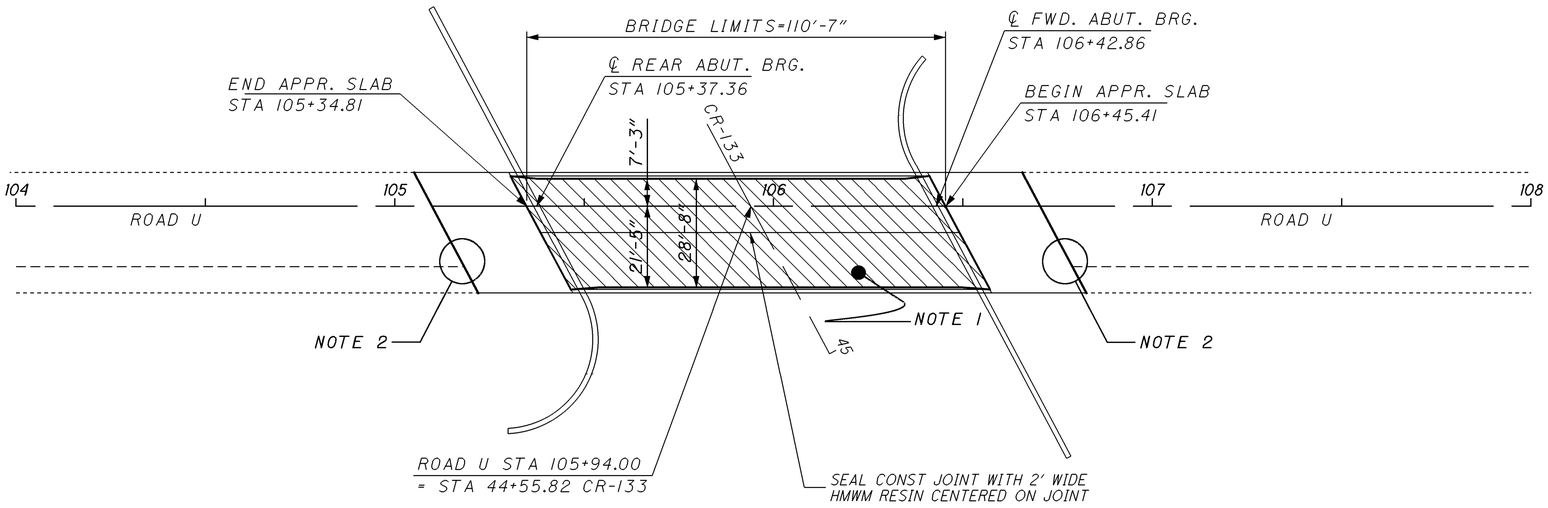
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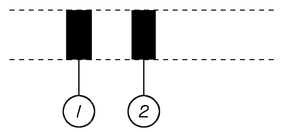
GENERAL PLAN VIEW - UNI-33-0879A (OVER C.R. 133)



STRUCTURE WORK

WORK TO BE PERFORMED:

NOTE 1:
-PREPARE SURFACE USING HYDRODEMOTION (1.25")
-OVERLAY BRIDGE DECK WITH 1.25" SUPERPLASTICIZED DENSE CONCRETE.
-ALL REQUIREMENTS OF SS 848 TO BE FOLLOWED.



(1) ITEM 848 - SUPERPLASTICIZED DENSE CONCRETE OVERLAY USING HYDRODEMOLITION (1.25")

(2) ITEM 848 - SURFACE PREPARATION USING HYDRODEMOTION (1.25")

NOTE 2:
-SAW AND SEAL JOINTS.

EXISTING/PROPOSED STRUCTURE
TYPE: COMPOSITE STEEL GIRDER BRIDGE WITH REINFORCED CONCRETE DECK.
SPAN: 105'-6" C/C BRGS.
LOAD FREQUENCY RATING: HS 20-44 (CASE II) & ALT. MIL. LO.
SKEW: 28°-01'-47" RT. FWD
WEARING SURFACE: EX: MONO CONC PR: SDC OVERLAY
APPROACH SLABS: AS-1-81 (25'-LONG)
ALIGNMENT: TANGENT

LOCATION				QUANTITIES									REMARKS
COUNTY	ROUTE	NUMBER	LENGTH	512 SEALING CONCRETE BRIDGE DECK WITH HMWM RESIN	516 SAWING AND SEALING BITUMINOUS CONCRETE JOINTS	848 SUPERPLASTICIZED DENSE CONCRETE OVERLAY USING HYDRODEMOLITION, (1.25")	848 SURFACE PREPARATION USING HYDRODEMOLITION	848 SUPERPLASTICIZED DENSE CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY	848 HAND CHIPPING	848 TEST SLAB	848 FULL-DEPTH REPAIR		
				SQ YD	FT	SQ YD	SQ YD	CU YD	SQ YD	LUMP	CU YD		
UNI	33	0879A	111'	25		354	354	2	18	LUMP	3		DECK
UNI	33	0879A			72								APPROACHES

SEE TOTALS ON STRUCTURE SUBSUMMARY SHEET 98/108

DESIGN AGENCY
DIST. #6
IN-HOUSE DESIGN

REVIEWED DKR
DATE 9/28/2012
SFN: 8001251

GENERAL PLAN VIEW
UNI-33-0879A (OVER C.R. 133)

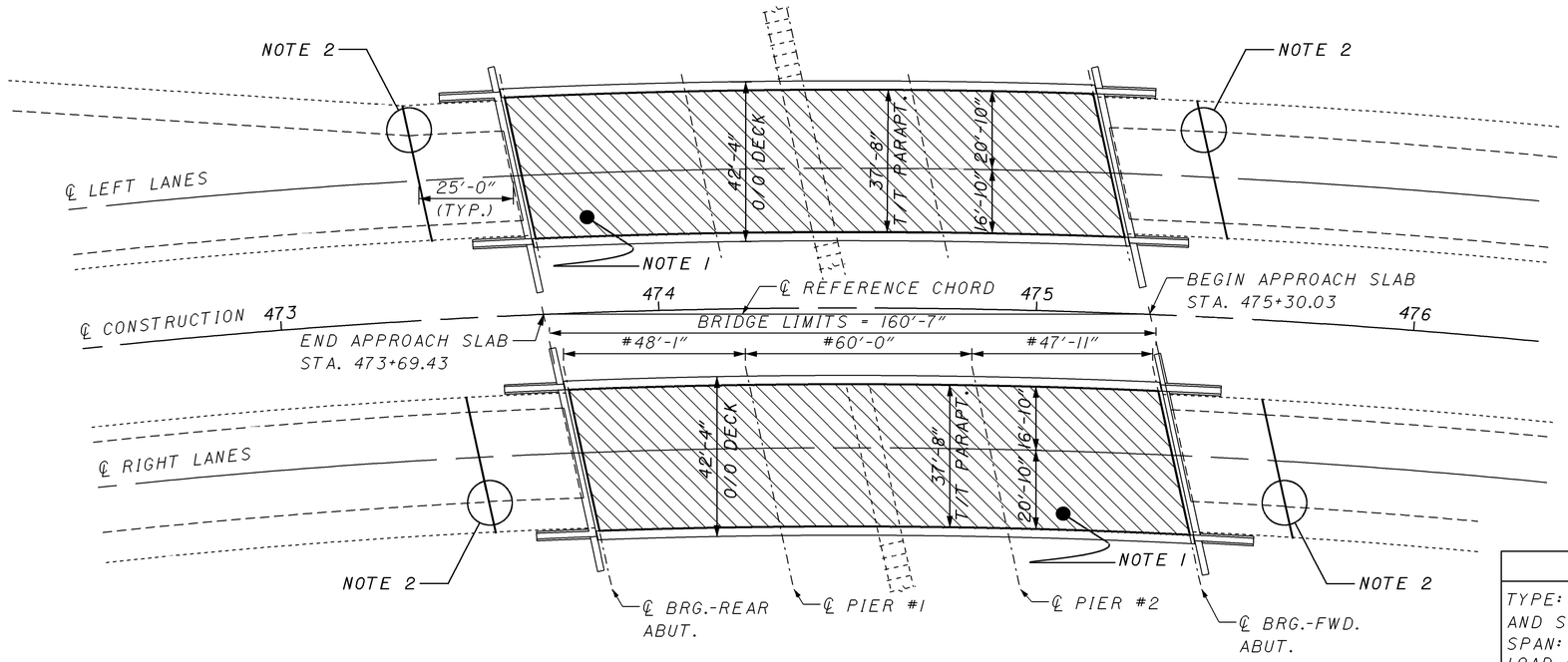
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GEN. PLAN VIEW UNI-33-0905 L&R (OVER CSX RAILROAD)



WORK TO BE PERFORMED:

NOTE 1:
-TREATING OF CONCRETE BRIDGE DECK WITH SRS

NOTE 2:
-SAW AND SEAL JOINTS.

EXISTING/PROPOSED STRUCTURE

TYPE: CONTINUOUS STEEL BEAM BRIDGE WITH CONCRETE DECK AND SUBSTRUCTURE
SPAN: 48'-0", 60'-0", 48'-0" (ALONG ℄ CONSTRUCTION)
LOAD FREQUENCY : C.F. 2000 (57)
ROADWAY: 37"-8" TOE/TOE PARAPETS
SKEW: 12°-18'-54" R.F.
WEARING SURFACE: 1¾" MICRO SILICA MODIFIED CONCRETE OVERLAY
APPROACH SLAB: AS-1-54 (25' LONG)
TYPE OF JOINTS: EXJ-4-87 - STRIP SEAL EXPANSION JOINT SYSTEM
ALIGNMENT: SPIRAL CURVE RIGHT
SUPERELEVATION: VARIES
RAILING: 42" CONCRETE PARAPET

STRUCTURE WORK

LOCATION				QUANTITIES						REMARKS
COUNTY	ROUTE	NUMBER	LENGTH	512 TREATING OF CONCRETE BRIDGE DECK WITH SRS	516 SAWING AND SEALING BITUMINOUS CONCRETE JOINTS	519 PATCHING CONCRETE BRIDGE DECK, TYPE B				
				SQ. YD.	FT	SQ YD				
UNI	33	0905L	161'	653		33				DECK
UNI	33	0905L			74					APPROACHES
UNI	33	0905R	161'	653		33				DECK
UNI	33	0905R			74					APPROACHES

SEE TOTALS ON STRUCTURE SUBSUMMARY SHEET 98/108

DESIGN AGENCY
DIST. #6
IN-HOUSE DESIGN

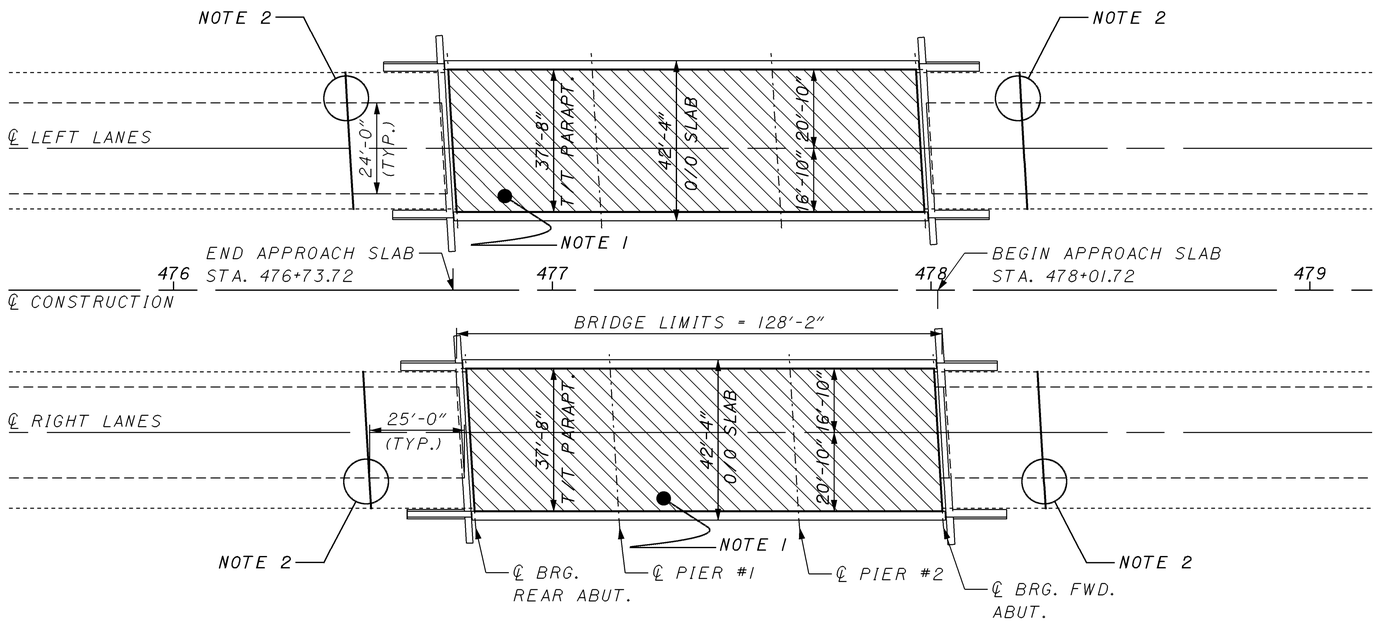
REVIEWED DKR
DATE 9/28/2012
SFN: L-8000840
R-8000875

GENERAL PLAN VIEW
UNI-33-0905 L&R (OVER CXS R.R.)

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PID# 76466

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GENERAL PLAN VIEW - UNI-33-0912 L&R (OVER C.R. 191)



WORK TO BE PERFORMED:

NOTE 1:
-TREATING OF CONCRETE BRIDGE DECK WITH SRS

NOTE 2:
-SAW AND SEAL JOINTS.

EXISTING/PROPOSED STRUCTURE
TYPE: CONTINUOUS STEEL BEAM BRIDGE WITH CONCRETE DECK AND SUBSTRUCTURE.
SPANS : 38'-0", 47'-6", 38'-0" C/C BEARINGS
LOAD FREQUENCY RATING: CF 2000 (57)
ROADWAY: 37'-8" TOE/TOE OF PARAPET.
SKEW: 3°27'12" R.F.
WEARING SURFACE: 1¾" MICRO SILICA CON. OVERLAY
APPROACH SLABS: AS-1-81 (25'-LONG)
TYPE OF JOINTS: STRIP STEEL EXPAN. JNT. (EXJ-4-87).
ALIGNMENT: TANGENT
RAILING: 36" CONCRETE PARAPET

STRUCTURE WORK

LOCATION				QUANTITIES						REMARKS
COUNTY	ROUTE	NUMBER	LENGTH	512 TREATING OF CONCRETE BRIDGE DECK WITH SRS (SQ. YD.)	516 SAWING AND SEALING BITUMINOUS CONCRETE JOINTS (FT)	519 PATCHING CONCRETE BRIDGE DECK, TYPE B (SQ YD)				
UNI	33	0912L	128'	517		26				DECK
UNI	33	0912L			72					APPROACHES
UNI	33	0912R	128'	517		26				DECK
UNI	33	0912R			72					APPROACHES

SEE TOTALS ON STRUCTURE SUBSUMMARY SHEET 98/108

DESIGN AGENCY
DIST. #6
IN-HOUSE DESIGN

REVIEWED DKR
DATE 9/28/2012
SFN: L-8000905
R-8000964

GENERAL PLAN VIEW
UNI-33-0912 L&R (OVER C.R. 191)

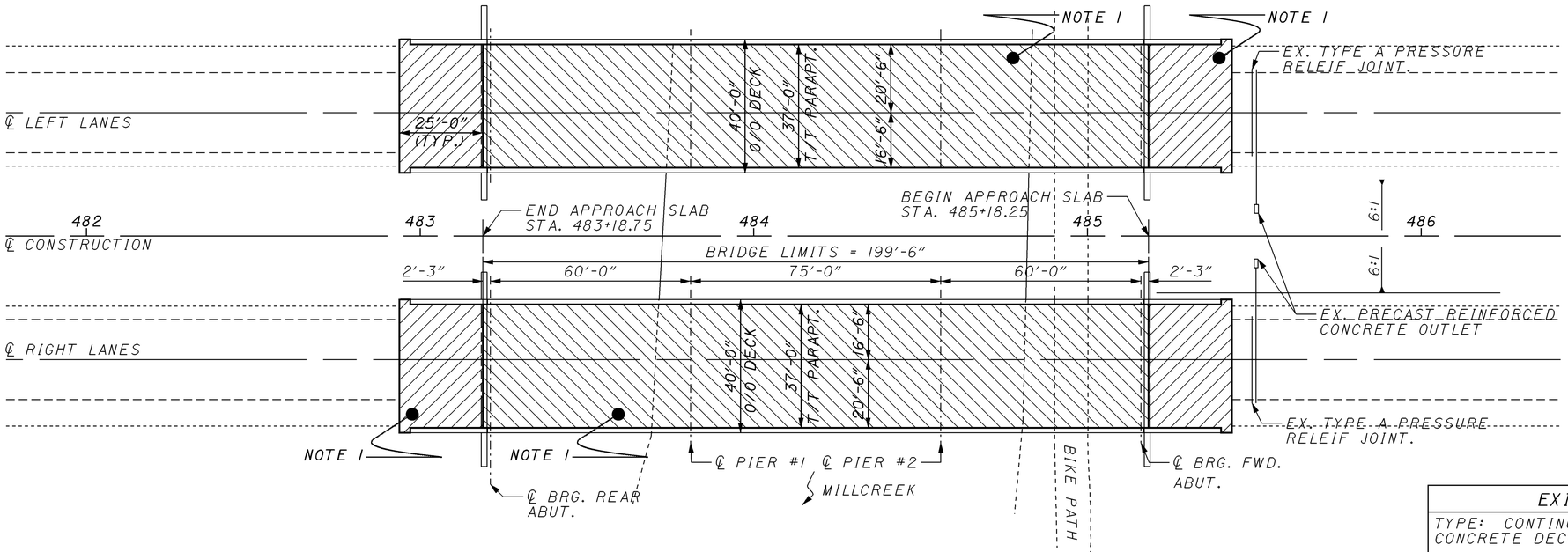
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PID# 76466

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GENERAL PLAN VIEW - UNI-33-0922 L&R



WORK TO BE PERFORMED:

NOTE 1:
-TREATING OF CONCRETE BRIDGE DECKS AND APPROACHES WITH SRS

STRUCTURE WORK

APPROACH WORK

EXISTING/PROPOSED STRUCTURE

TYPE: CONTINUOUS STEEL BEAM BRIDGE WITH CONCRETE DECK AND SUBSTRUCTURE. (WITH DBR)
SPANS : 60'-0", 75"-0", 60'-0" C/C BEARINGS
LOAD FREQUENCY RATING: CF 2000 (57)
ROADWAY: 37'-0" TOE/TOE OF PARAPET
SKEW: NONE
WEARING SURFACE: 1¾" MICRO-SILICA CONCRETE
APPROACH SLABS: AS-1-81 (25'-LONG)
TYPE OF JOINTS: STRIP STEEL EXPAN. JNT. (EXJ-4-87).
ALIGNMENT: TANGENT
RAILING: 42" CONCRETE PARAPET (BR-1)

LOCATION				QUANTITIES						REMARKS
COUNTY	ROUTE	NUMBER	LENGTH	512 TREATING OF CONCRETE BRIDGE DECK WITH SRS		519 PATCHING CONCRETE BRIDGE DECK, TYPE B				
				SQ. YD.		SQ YD				
UNI	33	0922L	200'	820		41				DECK
UNI	33	0922L		208						APPROACHES
UNI	33	0922R	200'	820		41				DECK
UNI	33	0922R		208						APPROACHES

SEE TOTALS ON STRUCTURE SUBSUMMARY SHEET 98/108

DESIGN AGENCY
DIST. #6
IN-HOUSE DESIGN

REVIEWED DKR
DATE 9/28/2012
SFN: L-8000999 R-8001022

GENERAL PLAN VIEW
UNI-33-0922 L&R (OVER MILLCREEK)

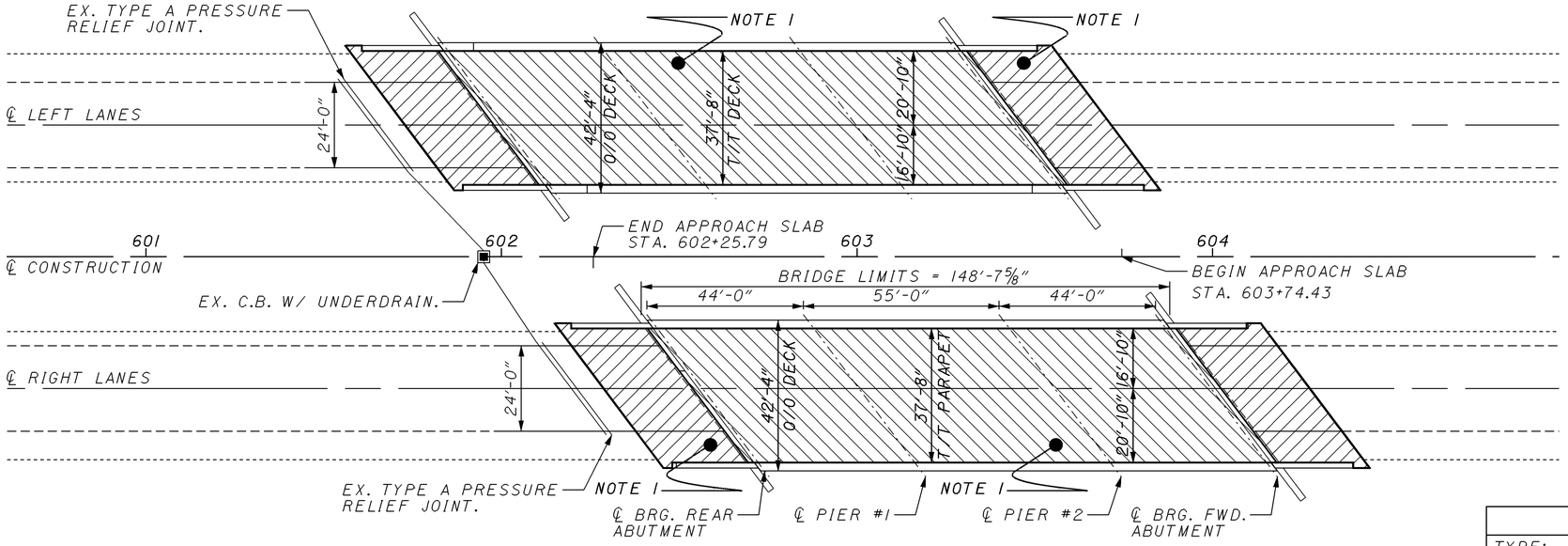
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GENERAL PLAN VIEW - UNI-33-1150 L&R



WORK TO BE PERFORMED:

NOTE 1:
-TREATING OF CONCRETE BRIDGE DECKS AND APPROACHES WITH SRS

STRUCTURE WORK

APPROACH WORK

EXISTING/PROPOSED STRUCTURE

TYPE: CONTINUOUS STEEL BEAM BRIDGE WITH CONCRETE DECK AND SUBSTRUCTURE.
SPANS : 44'-0", 55'-0", 44'-0" C/C BEARINGS
LOAD FREQUENCY RATING: CF 2000 (57)
ROADWAY: 37'-8" F/F of PARAPET.
SKEW: 37°-00'-55"
WEARING SURFACE: MICRO-SILICA CONCRETE OVERLAY
APPROACH SLABS: AS-1-81 (25'-LONG)
TYPE OF JOINTS: STRIP STEEL EXPAN. JNT (EXJ-4-87).
ALIGNMENT: TANGENT
RAILING: 36" CONCRETE PARAPET

LOCATION				QUANTITIES						REMARKS
COUNTY	ROUTE	NUMBER	LENGTH	512 TREATING OF CONCRETE BRIDGE DECK WITH SRS		519 PATCHING CONCRETE BRIDGE DECK, TYPE B				
				SQ. YD.		SQ YD				
UNI	33	1150L	149'	622		31				DECK
UNI	33	1150L		212						APPROACHES
UNI	33	1150R	149'	622		31				DECK
UNI	33	1150R		212						APPROACHES

SEE TOTALS ON STRUCTURE SUBSUMMARY SHEET 98/108

DESIGN AGENCY
DIST. #6
IN-HOUSE DESIGN

REVIEWED DKR
DATE 9/28/2012
SFN: L-8001057
R-8001081

GENERAL PLAN VIEW
UNI-33-1150 L&R (OVER C.R. 114)

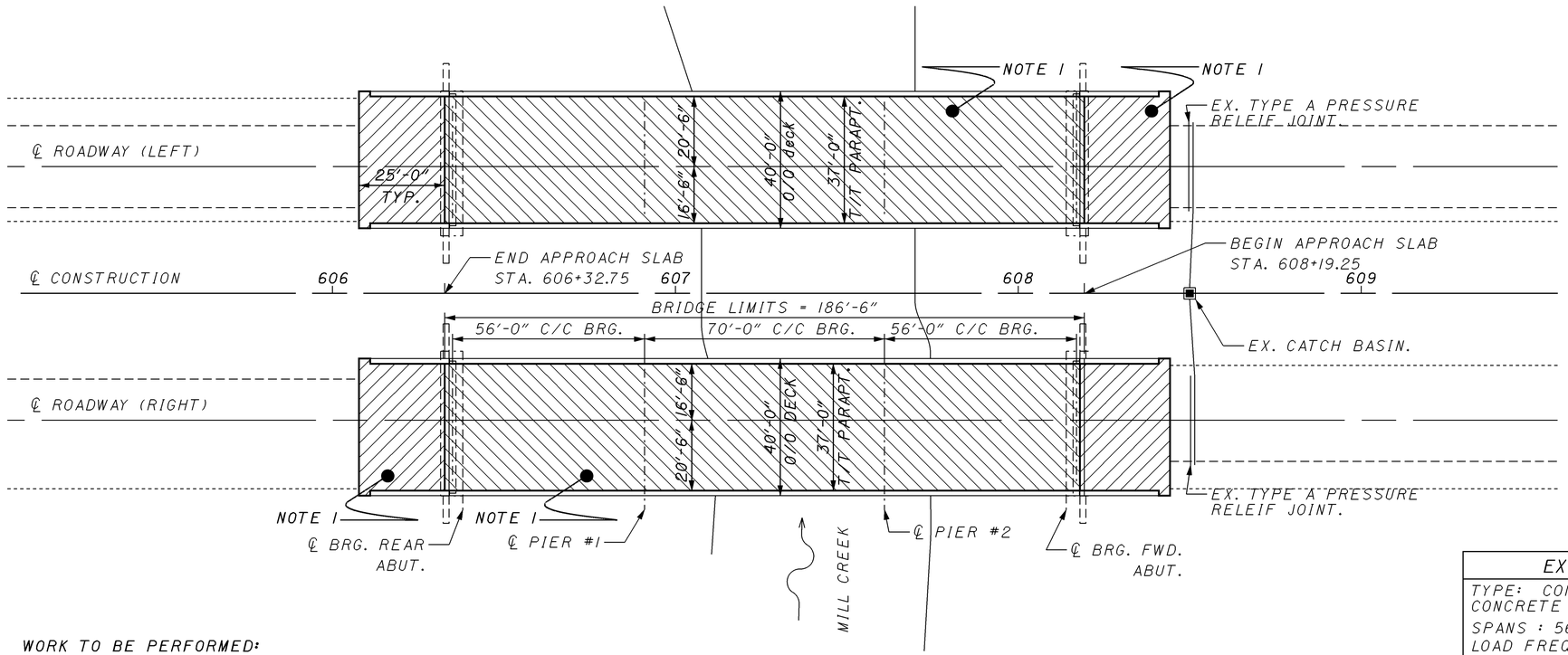
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GENERAL PLAN VIEW - UNI-33-1156 L&R



WORK TO BE PERFORMED:

NOTE 1:
-TREATING OF CONCRETE BRIDGE DECKS AND APPROACHES WITH SRS

STRUCTURE WORK

APPROACH WORK

EXISTING/PROPOSED STRUCTURE

TYPE: CONTINUOUS STEEL BEAM BRIDGE WITH CONCRETE DECK AND SUBSTRUCTURE.
SPANS : 56'-70'-56' C/C BEARINGS
LOAD FREQUENCY RATING: CF 2000 (57)
ROADWAY: 37'-0" TOE/TOE PARAPET
SKEW: NONE
WEARING SURFACE: 1¾" MICRO-SILICA CON. OVERLAY
APPROACH SLABS: AS-1-81 (25'-LONG)
TYPE OF JOINTS: STRIP STEEL EXPAN. JNT (EXJ-4-87)
ALIGNMENT: TANGENT
RAILING: 42" CONCRETE PARAPET (BR-1)

LOCATION				QUANTITIES						REMARKS
COUNTY	ROUTE	NUMBER	LENGTH	512 TREATING OF CONCRETE BRIDGE DECK WITH SRS		519 PATCHING CONCRETE BRIDGE DECK, TYPE B				
				SQ. YD.		SQ YD				
UNI	33	1156L	187'	767		38				DECK
UNI	33	1156L		208						APPROACHES
UNI	33	1156R	187'	767		38				DECK
UNI	33	1156R		208						APPROACHES

SEE TOTALS ON STRUCTURE SUBSUMMARY SHEET 98/108

DESIGN AGENCY
DIST. #6
IN-HOUSE DESIGN

REVIEWED DKR
DATE 9/28/2012
SFN: L-8001111
R-8001146

GENERAL PLAN VIEW
UNI-33-1156 L&R (OVER MILLCREEK)

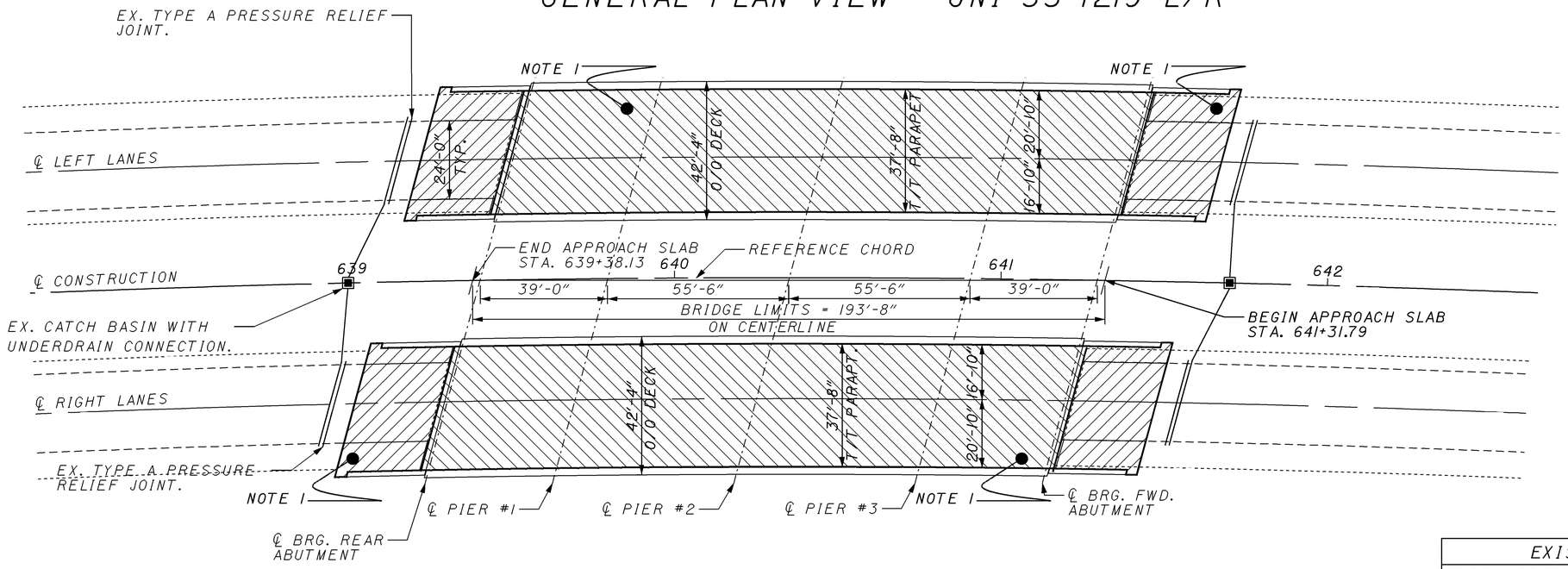
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GENERAL PLAN VIEW - UNI-33-1219 L/R



WORK TO BE PERFORMED:

NOTE 1:
-TREATING OF CONCRETE BRIDGE DECKS AND APPROACHES WITH SRS

STRUCTURE WORK

APPROACH WORK

EXISTING/PROPOSED STRUCTURE

TYPE: CONTINUOUS STEEL BEAM BRIDGE WITH CONCRETE DECK AND SUBSTRUCTURE.
SPANS : 39'-0", 55'-6", 55'-6", 39'-0" C/C BEARINGS
LOAD FREQUENCY RATING: CF 2000 (57)
ROADWAY: 37'-8" TOE/TOE PARAPETS.
SKEW: 15°-10'-19" L.F.
WEARING SURFACE: MICRO-SILICA CONCRETE OVERLAY
APPROACH SLABS: AS-1-81 (25'-LONG)
TYPE OF JOINTS: STRIP STEEL EXPAN. JNT. (EXJ-4-87).
ALIGNMENT: TANGENT
RAILING: 42" CONCRETE PARAPET (BR-1)

LOCATION				QUANTITIES						REMARKS
COUNTY	ROUTE	NUMBER	LENGTH	512 TREATING OF CONCRETE BRIDGE DECK WITH SRS SQ. YD.		519 PATCHING CONCRETE BRIDGE DECK, TYPE B SQ YD				
UNI	33	1219L	194'	808		40				DECK
UNI	33	1219L		222						APPROACHES
UNI	33	1219R	194'	808		40				DECK
UNI	33	1219R		222						APPROACHES

SEE TOTALS ON STRUCTURE SUBSUMMARY SHEET 98/108

DESIGN AGENCY
DIST. #6
IN-HOUSE DESIGN

REVIEWED DKR
DATE 9/28/2012
SFN: L-8001770 R-8001200

GENERAL PLAN VIEW
UNI-33-1219 L&R (OVER U.S. 36)

UNI-33-8.74
PID# 76466

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